I-80 & State Street

ENVIRONMENTAL IMPACT STATEMENT

I-80 and State Street Interchange
Record of Decision and Final Environmental Impact Statement

Submitted pursuant to 42 U.S.C. 4332(2)(C) and 49 U.S.C. 303
UDOT Project No. F-I80-3(180)123

July 2017

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RECORD OF DECISION

for

I-80 & STATE STREET INTERCHANGE

SALT LAKE COUNTY, UTAH

PROJECT NO. F-I80-3(180)123

1.0 INTRODUCTION

This document is the Utah Department of Transportation's (UDOT) Record of Decision (ROD) for the proposed reconstruction of the State Street Interchange on Interstate I-80 (I-80) in the City of South Salt Lake City, Salt Lake County, Utah. The purpose of the project is to:

- Reduce congestion on I-80 and State Street
- Improve operational characteristics and safety on I-80 and State Street
- Support economic development through mobility improvements

The majority of the environmental analyses conducted for the Environmental Impact Statement (EIS) were completed with oversight from the Federal Highway Administration (FHWA). FHWA and UDOT have since executed an agreement (*Memorandum of Understanding between the Federal Highway Administration and the Utah Department of Transportation Concerning State of Utah's Participation in the Surface Transportation Project Delivery Program Pursuant To 23 U.S.C. 327*, executed January 17, 2017) through which FHWA has formally assigned its legal responsibilities for complying with the National Environmental Policy Act (NEPA) to UDOT. Therefore, this EIS is being processed in accordance with this agreement and UDOT is the agency responsible for approving the Final Environmental Impact Statement (FEIS) and decision document. An opportunity for an additional public hearing was provided from February 1, 2017 to February 15, 2017 to address the change in NEPA approval authority. No requests for a public hearing were received.

This ROD constitutes UDOT's approval of I-80 and State Street Interchange Alternative 3N – Split Diamond at Main Street, North Side Only as described in the I-80 & State Street Interchange FEIS. This decision is based on the information presented in the FEIS and supporting technical documents; the associated project file; and input received from the public and interested local, state, and Federal agencies.

In making this decision, UDOT considered the expected impacts of the project and alternative courses of action under NEPA, Section 4(f) of the Department of Transportation Act of 1966, and other applicable laws, thereby balancing the need for safe and efficient

transportation with national, state, and local environmental protection goals.

Further, UDOT is using the I-80 & State Street Interchange Draft Environmental Impact Statement (DEIS), together with public and agency input and comments received on that document, as the basis for the issuance of a combined FEIS/Record of Decision (ROD), in accordance with Section 1304(j)(2) of the Fixing America's Surface Transportation (FAST) Act (codified at 23 U.S.C. §139(n)(2)).

Section 1319(j)(2) directs the lead agency (in this case, UDOT), to the maximum extent practicable, to expeditiously develop a single document that consists of a FEIS and ROD, unless the following conditions exist:

1. The FEIS makes substantial changes to the proposed action that are relevant to environmental or safety concerns; or
2. There is a significant new circumstance or information relevant to environmental concern that bears on the proposed action or the impacts of the proposed action.

UDOT has determined that neither of the conditions specified in Section 1304(J)(2) that would warrant separate issuance of the FEIS and ROD are present in this case.

The intention to prepare a combined FEIS/ROD was stated on the cover page of the DEIS, which was circulated to both agencies and the public for review and comment.

The FAST Act, which was signed by President Obama on December 4, 2015, updates MAP-21 and any and all references to MAP-21 in this combined FEIS/ROD are hereby amended.

2.0 DECISION

UDOT, pursuant to 23 Code of Federal Regulations (CFR) 771.127, finds that the requirements of NEPA and other applicable laws have been satisfied for the construction and operation of the Selected Alternative.

This ROD is based on UDOT's involvement in, close monitoring of, and independent evaluations of the process followed by the I-80 and State Street Interchange study team in setting forth and considering the effects of the I-80 and State Street Interchange project and the available alternatives. This process included preparing the DEIS (January 2016), the I-80 and State Street Traffic Analysis Memorandums (October 2014 and December 2015) the Preliminary Noise Analysis (December 2015), and the FEIS, including the determinations and evaluations made in the FEIS.

This ROD describes the basis for the decision and the alternatives considered, identifies the environmentally preferred alternative, and documents the mitigation measures that will be implemented. The environmental study conducted and the decision identified in this ROD selects the preferred alternative for the State Street and I-80 Interchange and is not intended to evaluate the I-80 mainline. The summary descriptions included in this ROD do not supersede or negate any of the information, descriptions, or evaluations provided in the environmental review documents, except what is expressly noted below.

UDOT hereby approves the selection of I-80 and State Street Interchange Alternative 3N – Split Diamond at Main Street, North Side Only, as identified in the FEIS. This approval constitutes UDOT's acceptance of I-80 and State Street Interchange Alternative 3N – Split Diamond at Main Street, North Side Only (Selected Alternative) and completes the approval process for the environmental evaluation.

The Selected Alternative consists of the following transportation improvements:

- Construct a Main Street westbound on-ramp with a westbound frontage road between State Street and Main Street (interchange configuration to remain similar to existing configuration on the south side).
- Widen I-80 structure and add additional lanes on State Street under structure.
- Construct free-flow right-turn lane on the eastbound off-ramp.
- Eliminate right-turn on red light for the eastbound on-ramp.
- Realign curb so all traffic uses striped lanes (frontage road access allowed from ramp lanes) for the eastbound on-ramp.

3.0 PURPOSE OF AND NEED FOR ACTION (CHAPTER 1 OF THE FEIS)

The purpose of the project is to:

- Reduce congestion on I-80 and State Street
- Improve operational characteristics and safety on I-80 and State Street
- Support economic development through mobility improvements

The project purpose would address the following project needs:

- *Congestion on I-80 and State Street near the Interchange* – Segments of I-80 and State Street will operate at failing conditions by 2040.
- *Operational and Safety Issues on I-80 and State Street:*
    - Inside through-lane on northbound and southbound State Street trapped at the left-turn lanes under the I-80 bridge
    - Safety conflicts at the frontage roads near the State Street/I-80 Interchange.
- *Changing Land-Use Patterns and Additional Development* – Land use in the study area is changing and becoming more diversified as a result of two major urban renewal areas (Market Station and Central Pointe) located northwest of the I-80/State Street Interchange. These renewal areas will cause an increase of vehicle, pedestrian, and bicycle traffic.

4.0 ALTERNATIVES (CHAPTER 2 OF THE FEIS)

4.1 Alternative Development

The lead agencies developed and evaluated a wide range of alternatives as part of this study. The agencies did not constrain the list of alternatives by mode, ability to meet the purpose and need, potential environmental impacts, or cost. The intent was to begin with a broad listing of specific and independent actions that could be performed.

The lead agencies presented the initial range of alternatives to the public on November 19, 2014. This initial range assumed that all funded projects included in the Wasatch Front Regional Council (WFRC) 2040 Regional Transportation Plan (RTP) would be completed by 2040, except for improvements to the I-80 and State Street interchange.

The project team considered a wide range of alternatives including the No-action Alternative, the Transportation System Management (TSM) Alternative, the Transit Alternative, and several build alternatives. These build alternatives included improvements to the I-80 and State Street interchange.

- **No-action Alternative:** The No-action Alternative would maintain I-80 and State Street in their current roadway configurations. This alternative assumes that short-term minor restoration (safety and maintenance) activities that maintain continued operation of the existing roadway facilities would be ongoing. The No-action Alternative assumes all other improvements included in the 2040 RTP would be implemented.
- **Transportation System Management (TSM) Alternative**: The TSM Alternative includes activities that would improve traffic flow. This alternative would focus on strategies to maximize the efficiency of the existing system through activities that include intersection improvements, turn lanes, signal coordination and optimization, ramp metering, auxiliary lanes, Intelligent Transportation Systems (ITS), and access management to reduce conflicts.
- **Transit Alternative:** The Transit Alternative assumes implementation of public transit improvements included in WFRC's 2040 RTP. There is no difference between the No-action Alternative and the Transit Alternative.
- **I-80 and State Street Interchange Alternatives:** The project team developed several interchange alternatives to address the congestion on State Street and the operational and safety concerns at the I-80/State Street Interchange. All interchange alternatives would include widening the I-80 bridge to accommodate three travel lanes on State Street in each direction.

  Variations of 8 interchange alternatives were examined for the I-80 and State Street interchange. These included a single-point urban interchange (SPUI), a loop ramp, various split diamond configurations, a diverging diamond interchange (DDI), a continuous flow intersection (CFI), conventional diamond interchange, and Thru-turns.

4.2 Alternatives Screening Process

The alternatives screening process evaluated the alternatives described in the previous section.

- **Level 1 – Purpose and Need Screening:** Evaluate the compatibility of the alternatives with the purpose and need.

- **Level 2 – Environmental Screening:** Screen alternatives passing Level 1 Screening. These alternatives will be screened based on critical environmental resources, including impacts to residential relocations, commercial relocations, and Section 4(f) properties.

The National Environmental Policy Act (NEPA) requires that an EIS evaluate all reasonable alternatives and discuss those alternatives that were eliminated from further study. Reasonable alternatives include those that meet the project purpose and need. Alternatives that have substantially greater environmental or other impacts, based on preliminary screening, will be eliminated from further study.

Level 1 – Purpose and Need Screening

Interchange Alternatives

The purpose and need objectives for the Interchange alternatives were:

- Provide LOS C or better for all intersections associated with the State Street and I-80 interchange and provide LOS D or better on State Street near the interchange.
- Reduce crashes on State Street.
- Be consistent with South Salt Lake City's economic development and master transportation plans.

Alternatives that met all three elements of the project purpose moved forward to Level 2 – Environmental Screening. Alternatives that only meet one or two elements of the project purpose were eliminated from further consideration.

Alternative 4 – Split Diamond at West Temple would not allow vehicles traveling from southbound I-15 or eastbound SR-201 to exit at State Street without being constructed in combination with one of the Eastbound Weave Alternatives. Since it was previously determined that none of the Eastbound Weave Alternatives would meet the purpose and need of the project, Alternative 4 was eliminated from further consideration.

All remaining Alternatives would reduce crashes on State Street and would be consistent with South Salt Lake City's economic development and master transportation plans.

Alternatives that did not provide the required level of service at all intersections associated with the State Street and I-80 interchange were eliminated from further study and included the following:

- Alternative 2 - Loop Ramp, and
- Alternative 8 - Thru-Turns.

Alternatives that did not provide the required level of service on State Street were eliminated from further study and included the following:

- Alternative 5 - DDI,
- Alternative 6 - CFI, and
- Alternative 8 - Thru-Turns.

Six interchange alternatives meeting all three elements of the project purpose, plus the no-action alternative, were carried forward for further study and included the following:

- 1 – SPUI
- 1A – Additional Exit at Main Street
- 3 – Split Diamond at Main Street
- 3N – Split Diamond at Main Street, North Side Only

- 3A – Split Diamond at Main Street with Texas Turnarounds
- 7 – Diamond Interchange.

Level 2 – Environmental Screening

The alternatives carried forward for further study were analyzed through Environmental Resources Screening. The environmental screening analysis included an inventory of existing critical environmental resources located near the study area. The inventory included residences, commercial structures, and Section 4(f) resources (historic structures and public parks). It should be noted that the environmental screening process is not a full environmental analysis of the alternatives. A full environmental analysis of alternatives was conducted for alternatives selected for detailed study.

Screening factors included the number of residential and commercial relocations and impacts to Section 4(f) properties (public parks and recreation areas, wildlife and waterfowl refuges, and historic sites). Alternatives that did not have greater than *de minimis* impacts moved forward for detailed study. Alternatives that had greater than *de minimis* impacts were eliminated from further consideration.

A summary of the environmental screening for interchange alternatives is shown in Table 1.

Table 1 Level 2: Environmental Resources Screening (I-80 and State Street Interchange Alternatives)

I-80 and State Street Interchange Alternative	# of Commercial Relocations	# of Residential Relocations	# of Section 4(f) Greater than De Minimis Impact	Carry Forward to Detailed Study
No-action Alternative	0	0	0	**Yes**
1 – Single Point Urban Interchange (SPUI)	4 (KFC, TechnaGlass, House of Blinds, and Emission Time)	0	0	**Yes**
1A – Additional Exit at Main Street	4 (KFC, TechnaGlass, House of Blinds, and Emission Time)	7	3	**No**
3 – Split Diamond at Main Street	2 (House of Blinds and Emissions Time)	8	4	**No**
3N – Split Diamond at Main Street, North Side Only	2 (House of Blinds and Emission Time)	0	0	**Yes**
3A – Split Diamond at Main Street with Texas Turnarounds	2 (House of Blinds and Emission Time)	7	3	**No**
7 – Diamond Interchange	2 (House of Blinds and Emission Time)	0	0	**Yes**

Based on the results of the environmental resources screening, the SPUI; Split Diamond at Main Street, North Side Only; and Diamond interchanges were carried forward for detailed study, along with the No-action alternative. The SPUI with an additional exit at Main Street, Split Diamond at Main Street, and Split Diamond at Main Street with Texas Turnarounds were eliminated due to a greater number of residential relocations and greater than *de minimis* impacts to Section 4(f) resources.

4.3 Alternatives Selected for Detailed Study

The screening process identified alternatives that were carried forward for detailed study:

- **No-action Alternative** – The No-action Alternative would maintain I-80 and State Street in their current roadway configurations. This alternative assumes that short-term minor restoration (safety and maintenance) activities that maintain continued operation of the existing roadway facilities would be ongoing. The No-action Alternative assumes all other improvements included in the 2040 RTP would be implemented.
- **1 Single Point Urban Interchange (SPUI)** – State Street and all the ramps at the interchange to come to a single signalized intersection.
- **3N Split Diamond at Main Street, North Side Only** – Interchange configuration to remain similar to existing configuration on the south side. Construct a Main Street westbound on-ramp with a westbound frontage road between State Street and Main Street.
- **7 Diamond Interchange** – Interchange configuration to remain similar to existing configuration. Construct additional lanes on State Street and move ramp intersections further apart.

4.4 Identification of the Selected Alternative

Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Selected Alternative for the following reasons:

- Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80
- In comparison to Alternatives 1 and 7, Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses
- Construction of Alternative 3N would allow for multiple access points to a westbound frontage road.
- A more detailed traffic analysis of the Selected Alternative was completed for the preparation of the Interstate Access Change Request required by FHWA. The additional analysis showed overall improvements to the LOS for the Selected Alternative.

4.5 Environmentally Preferred Alternative

The environmentally preferable alternative is the alternative that would cause the least damage to the biological and physical environment and that would best protect, preserve, and enhance historic, cultural, and natural resources. Interchange Alternative 3N – Split Diamond at Main Street, North Side Only is both the Environmentally Preferred Alternative and the Selected Alternative.

5.0 MEASURES TO MINIMIZE HARM FROM THE SELECTED ALTERNATIVE (CHAPTER 3 OF THE FEIS)

Many potential impacts were eliminated or reduced by adjusting the alternative and/or avoiding sensitive resources. The few remaining impacts associated with project construction and operation will be minimized by following the current UDOT standard specifications for road and bridge construction and by implementing a variety of project-specific mitigation measures.

The environmental impacts of the Selected Alternative were evaluated in a qualitative as well as quantitative manner in Chapter 3, Affected Environment and Environmental Consequences of the

FEIS. The FEIS evaluates both beneficial and adverse impacts and assigns mitigation measures where necessary.

Implementing the Selected Alternative will result in both construction-period (short-term) impacts and impacts associated with long-term operation of the project. UDOT will ensure that all practical measures to avoid or minimize adverse impacts related to the construction and operation of the Selected Alternative will be implemented. The following table summarizes these measures, which are described in detail in the EIS. UDOT has determined that the measures described below are appropriate to mitigate impacts and will be implemented. UDOT will administer implementation of all the mitigation measures described in the EIS and will ensure that they are properly executed and enforced via the monitoring and enforcement program discussed in Section 6.0, Monitoring and Enforcement Program, of this ROD.

Table 2 Mitigation Summary

Environmental Resource Impacts	Mitigation and Project Commitments
Land Use • Consistent with policies established in the South Salt Lake Future Land Use Plan, with a focus on commercial, mixed-use and office land uses • Full and partial acquisitions would not affect the land use characteristics of the study area	No mitigation required
Farmlands • No Impact	No mitigation required
Social Conditions • Would not change neighborhood or community cohesion through the splitting of neighborhoods, or the isolation of a portion of a neighborhood or an ethnic group • Would not generate new development, nor is there an expectation that property values would change substantially within the study area • No impact to the Granite School District Community Center • Would not separate residents from community facilities	No mitigation required

Environmental Resource Impacts	Mitigation and Project Commitments
Environmental Justice • Would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of E.O. 12898 and FHWA Order 6640.23A. No further environmental justice analysis is required	No mitigation required
Relocations • Relocate two businesses • Require 0.08-acres in right-of-way acquisition UDOT will compensate persons from whom right-of-way acquisition is required. Any right-of-way acquisitions will occur in accordance with federal, state, and local policies. The acquisition and relocation program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42USC §4601 as implemented in 49 CFR §24).	No mitigation required
Economic Conditions • Partial acquisition of property related to four businesses and would relocate two businesses (represents less than 0.1 percent of study area acreage, taxable property value, and market property value) • Long term redevelopment plans would continue to utilize study area as prime location for commercial development	No mitigation required
Pedestrians and Bicyclists • Approximately 500 feet of existing bike lane on Main Street would be temporarily closed during construction	No mitigation required
Air Quality • Would not result in new violations of the NAAQS, increases in the frequency or severity of existing violations of the NAAQS, or delays in attaining the NAAQS	No mitigation required

Environmental Resource Impacts	Mitigation and Project Commitments
Noise • Noise levels would generally be the same as existing conditions • 13 receptors would be considered impacted • Two noise walls were analyzed and a 6-ft to 18-ft high wall would not reduce noise levels by 8 dBA to 75% of first-row receptors; therefore, a noise wall was not considered feasible and reasonable. • A Sensitivity Analysis completed in May 2017 compared the noise analysis conducted for the FEIS using the 2012 UDOT Noise Abatement Policy to a newer version of the policy implemented on March 22, 2017. The Sensitivity Analysis showed that noise abatement measures are not considered reasonable using the new policy and therefore no changes are required to the environmental document.	No mitigation required
Water Resources • Slight increase in impervious surface area • Not expected to impact water quality because the increase in flow would be controlled through a storm drain system • Potential to impact up to 77 underground water wells, however a large number of the wells are located within the I-80 right-of-way and are considered inactive.	• A new storm drain system will be constructed that will comply with current UDEQ and UDWQ standards as well as local discharge rates and regulations. • Impacted water rights will be handled through UDOT's Right-of-Way acquisition process as needed. • Construction-related erosion and sedimentation impacts will be managed through obtaining a Utah Pollution Discharge Elimination System (UPDES) storm water general permit from the Utah Department of Environmental Quality (UDEQ), which will include a Storm Water Pollution Prevention Plan (SWPPP) and an outline of Best Management Practices (BMP) to be followed.

Environmental Resource Impacts	Mitigation and Project Commitments
Wetlands • No impact	No mitigation required
Floodplains • No impact	No mitigation required
Wildlife • No impact	No mitigation required
Threatened & Endangered Species • No impact	No mitigation required
Archaeological and Architectural Resources • No historic properties affected	No mitigation required
Section 4(f) Properties • No use to Section 4(f) properties	No mitigation required
Paleontology • No impact	No mitigation required.
Hazardous Waste • Three sites in impact area would have an overall risk rating of "low"	No mitigation required
Visual Conditions • *Viewers of Roadway:* New westbound on-ramp would shift retaining wall 16 to 26 feet closer to businesses and residences on northwest side of interchange • *Viewers Using Roadway:* Removal of commercial properties at interchange corners would create a noticeable "vacancy"	• During the design phase, a landscaping plan will be developed that is consistent with the existing aesthetics of the I-80 corridor • Impacts to the City of South Salt Lake's entryway signage, lighting, and landscaping will be restored
Invasive Species • Would provide opportunities for the movement of invasive species	No mitigation required

Environmental Resource Impacts	Mitigation and Project Commitments
Wild and Scenic Rivers • No impact	No mitigation required
Energy • Construction energy requirements • Similar operational energy requirements to the No-action Alternative • Lower fuel consumption due to decreased congestion	No mitigation required
Construction • Social Conditions: Area residents, commercial and retail businesses, governmental and institutional properties, and commuters in study area would experience minor, temporary inconveniences from noise, dust, and travel delays and detours during the course of construction; access to all properties in area would be maintained (some temporary construction impacts to accesses for some properties. • Economic Conditions: Businesses in the area would experience temporary construction inconveniences from dust, noise, and traffic delays and detours associated with roadway construction; access to all properties in the area would be maintained (some temporary construction impacts to accesses for some properties); could result in a decrease in patronage and sales because residents would be less willing to negotiate the construction area. • Air Quality: Potential for temporary and minor fugitive dust impacts during construction. A permit for air quality impacts during construction would be obtained from the Utah Department of Air Quality (UDAQ) by the contractor. Fugitive dust during construction would be mitigated and controlled in accordance with a fugitive dust control plan to be developed in coordination with UDAQ. This plan would include measures to minimize the extent of disturbed surface areas and restricting construction activities during high-wind periods.	• No mitigation is required for construction impacts, as such impacts are temporary in nature.

Environmental Resource Impacts	Mitigation and Project Commitments
Construction (continued) • Noise: Temporary inconvenience due to construction noise and vibration; extended disruption of normal activities in the study area not anticipated since no one receptor is expected to be exposed to construction noise of long duration. Construction noise impacts would be minimized through adherence to UDOT Standard Specification 01355, Section 3.6 – Noise Control. The contractor would also be required to abide by any and all local noise ordinances, including Salt Lake County's Community Noise Pollution Control Regulation which requires a permit to conduct construction or demolition activities between the hours of 10 p.m. and 7 a.m. • Water Resources: Potential for construction-related erosion and sedimentation impacts. Construction-related erosion and sedimentation would be managed through obtaining a Utah Pollution Discharge Elimination System (UPDES) permit from the Utah Department of Environmental Quality (UDEQ). This permit requires a Storm Water Pollution Prevention Plan (SWPPP) and for Best Management Practices (BMPs) to be followed during construction. Short-term impacts to water quality would be minimized through implementation of UDOT's BMPs from the Temporary Erosion and Sediment Control Manual. • Cultural Resources: Possibility to impact undiscovered archaeological sites • Hazardous Waste Sites: Possibility to impact undiscovered hazardous waste sites. In the event that any such resources are discovered, the contractor would be required to abide by UDOT Standard Specification 01355 – Environmental Protection, Part 1.13, in relation to the discovery of any historical, archaeological, or paleontological objects, features, sites, and human remains. • Visual Conditions: Temporary visual impacts in the study area due to construction signs and barricades, work lights, exposed earth, and construction equipment.	• No mitigation is required for construction impacts, as such impacts are temporary in nature.

Environmental Resource Impacts	Mitigation and Project Commitments
Construction (continued) • Invasive Species: Would provide opportunities for the movement of invasive species. The contractor will abide by UDOT's Special Provision 02926S – Invasive Weed Control to minimize the spread and introduction of invasive species. • Construction Phasing and Potential Detours: Would result in temporary access closures and detours. The contractor would be required to prepare a detailed traffic-control plan to maintain access to all commercial and residential properties throughout the construction phase and would be required to submit the plan to UDOT for approval prior to the commencement of construction-related activities (per UODT Standard Specification 01554 – Traffic Control). The contractor would also be required to provide an approved public involvement plan designed to notify the traveling public and adjacent property owners of construction-related issues and concerns and to coordinate construction activities with adjacent property owners per UDOT Standard Specification 01315.	• No mitigation is required for construction impacts, as such impacts are temporary in nature.

All practicable measures to minimize environmental harm have been incorporated into the decision, consistent with 40 CFR 1505.2(c).

6.0 MONITORING AND ENFORCEMENT PROGRAM

This Record of Decision represents a commitment to monitor and enforce the measures described in Section 5.0, Measures to Minimize Harm from the Selected Alternative (Chapter 3 of the FEIS), to minimize harm to the surrounding environment. All of the mitigation measures listed in Section 5.0 and identified in the EIS will be incorporated into the contract(s), plan(s), and specifications and will be monitored according to the construction/post-construction monitoring plans. Enforcement of the contract provisions and monitoring of the project is the responsibility of UDOT and of the selected UDOT Project Manager.

7.0 LIMITATION ON CLAIMS NOTICE (23 USC 139(L)(1))

FHWA, on behalf of UDOT, will publish a notice in the Federal Register, pursuant to 23 USC 139(l)(1), indicating that one or more federal agencies has taken final action on permits, licenses, or approvals for this transportation project. After the notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the

notice, or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action is allowed.

8.0 CONCLUSION

The selection of I-80 and State Street Interchange Alternative 3N – Split Diamond at Main Street, North Side Only as the Selected Alternative is hereby approved.

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being or have been carried-out by UDOT pursuant to 23 USC 327 and a Memorandum of Understanding dated January 17, 2017 and executed by FHWA and UDOT.

Date: 7/18/17

Original Signed by:

Shane Marshall
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I-80 & State Street Interchange

Salt Lake County, Utah

Final Environmental Impact Statement

Submitted pursuant to 42 U.S.C. 4332(2)(c) and 49 U.S.C. 303
by
The Utah Department of Transportation (UDOT)

7/11/17
Date of Approval

Bryan Adams
Region Two Director
Utah Department of Transportation

7/18/17
Date of Approval

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Abstract:

UDOT proposes transportation improvements to the I-80 and State Street Interchange in South Salt Lake City, Davis County, Utah. Proposed improvements include upgrading the I-80 and State Street Interchange and widening State Street under the I-80 bridge. Four alternatives were considered in detail: the No-action Alternative and Interchange Alternatives 1, 3N, and 7. Environmental impacts and mitigation measures to reduce the levels of the impacts are discussed.

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being or have beer carried-out by UDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated January 17, 2017, and executed by FHWA and UDOT.

EXECUTIVE SUMMARY

ES.1 PURPOSE AND NEED

ES.1.1 INTRODUCTION

This Environmental Impact Statement (EIS) evaluates proposed courses of action to satisfy transportation and safety goals at and near the State Street Interchange on Interstate 80 (I-80) in the City of South Salt Lake, Utah. The Federal Highway Administration (FHWA) and the Utah Department of Transportation (UDOT) are conducting this EIS in accordance with the:

- National Environmental Policy Act (NEPA)
- Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU)
- Moving Ahead for Progress in the 21st Century (MAP-21)
- Fixing America's Surface Transportation Act (FAST)

In accordance with NEPA, this EIS will identify the Preferred Alternative (which may be a No-action Alternative) that meets the needs of the proposed action while minimizing impacts to the human and natural environment. FHWA and UDOT will consider the need for safe and efficient transportation; the social, economic, and environmental impacts of proposed improvements; and federal and state environmental protection goals.

ES.1.2 STUDY AREA

The study area is located in Salt Lake County and generally falls within the City of South Salt Lake (see Figure ES-1). The study area extends along I-80 from I-15 to 700 East and on State Street from 2100 South to 2700 South. I-80 is a limited-access freeway that runs east-west across the study area and State Street (US-89) is a state highway that runs north-south through the study area. On I-80, the logical termini for alternatives will be I-15 (the principal north-south freeway in the State) on the west and 700 East (a principal arterial) on the east. On State Street, the logical termini for alternatives will be 2100 South and 2700 South. These termini are an adequate distance apart to assess the environmental impacts on a broad scope and are located at rational end points for proposed transportation improvements. The proposed improvements have independent utility since they would be usable and be a reasonable expenditure, even if no additional transportation improvements in the area are made. The identified study area is sufficiently broad and does not restrict the consideration of a reasonable range of alternatives that could meet the identified needs of the project.

ES.1.3 PURPOSE OF THE PROPOSED ACTION

The purpose of the project is to:

- Reduce congestion on I-80 and State Street
- Improve operational characteristics and safety on I-80 and State Street
- Support economic development through mobility improvements

ES.1.4 SUMMARY OF TRANSPORTATION NEEDS

The project would address the following project needs:

- *Congestion on I-80 and State Street near the Interchange* – Segments of I-80 and State Street will operate at failing conditions by 2040.
- *Operational and Safety Issues on I-80 and State Street*:
  - Inside through-lane on northbound and southbound State Street trapped at the left-turn lanes under the I-80 bridge
  - Safety conflicts at the frontage roads near the State Street/I-80 Interchange.
- *Changing Land-Use Patterns and Additional Development* – Land use in the study area is changing and becoming more diversified as a result of two major urban renewal areas (Market Station and Central Pointe) located northwest of the I-80/State Street Interchange. These renewal areas will cause an increase of vehicle, pedestrian, and bicycle traffic.

For additional information, see Chapter 1: Purpose and Need.

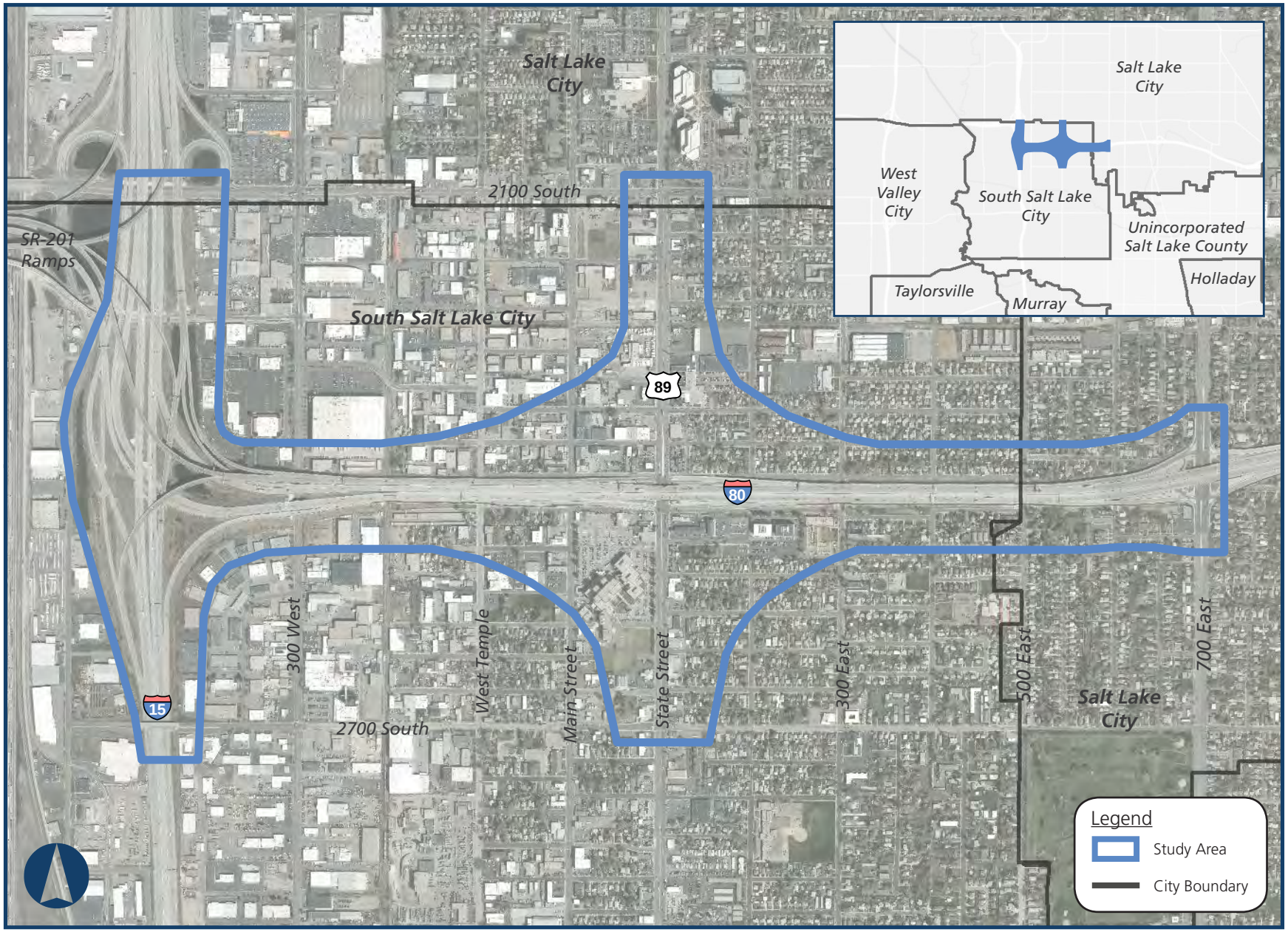


Figure ES-1 Study Area

ES.2 ALTERNATIVES

ES.2.1 ALTERNATIVE DEVELOPMENT

The lead agencies developed and evaluated a wide range of alternatives as part of this study. The agencies did not constrain the list of alternatives by mode, ability to meet the purpose and need, potential environmental impacts, or cost. The intent was to begin with a broad listing of specific and independent actions that could be performed.

The lead agencies presented the initial range of alternatives to the public on November 19, 2014. This initial range assumed that all funded projects included in the Wasatch Front Regional Council (WFRC) 2040 Regional Transportation Plan (RTP) would be completed by 2040, except for improvements to the I-80 and State Street interchange.

The project team considered a wide range of alternatives including the No-action Alternative, the Transportation System Management (TSM) Alternative, the Transit Alternative, and several build alternatives. These build alternatives included improvements to the I-80 and State Street interchange.

No-action Alternative

The No-action Alternative would maintain I-80 and State Street in their current roadway configurations. This alternative assumes that short-term minor restoration (safety and maintenance) activities that maintain continued operation of the existing roadway facilities would be ongoing. The No-action Alternative assumes all other improvements included in the 2040 RTP would be implemented.

Transportation System Management (TSM) Alternative

The TSM Alternative includes activities that would improve traffic flow. This alternative would focus on strategies to maximize the efficiency of the existing system through activities that include intersection improvements, turn lanes, signal coordination and optimization, ramp metering, auxiliary lanes, Intelligent Transportation Systems (ITS), and access management to reduce conflicts.

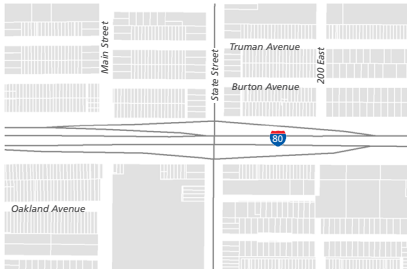
Transit Alternative

The Transit Alternative assumes implementation of public transit improvements included in WFRC's 2040 RTP. There is no difference between the No-action Alternative and the Transit Alternative.

I-80 and State Street Interchange Alternatives

The project team developed several interchange alternatives to address the congestion on State Street and the operational and safety concerns at the I-80/State Street Interchange. All interchange alternatives would include widening the I-80 bridge to accommodate three travel lanes on State Street in each direction.

Variations of 8 interchange alternatives were examined for the I-80 and State Street interchange. These included a single-point urban interchange (SPUI), a loop ramp, various split diamond configurations, a diverging diamond interchange (DDI), a continuous flow intersection (CFI), conventional diamond interchange, and Thru-turns (see pages ES-4 and ES-5).



NO-ACTION ALTERNATIVE

No Action Alternative

The No-action alternative would maintain I-80 and State Street in their current roadway configurations. Minor short-term restorations that do not interfere with the operation of the existing roadways would be ongoing.

LOOP RAMP

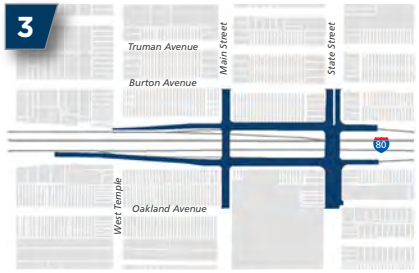
2 Loop Ramp

A loop ramp would add access to westbound I-80 from Main Street, construct an eastbound off-ramp to loop back to State Street to allow for a longer weave, and construct a new road between State Street and Main Street.

SINGLE POINT URBAN INTERCHANGE (SPUI)

1 Single Point Urban Interchange (SPUI)

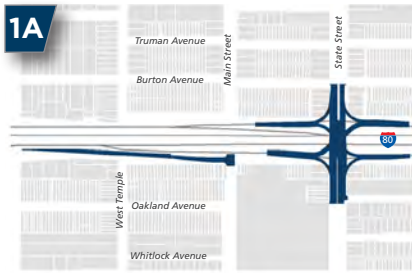
The SPUI would create a single signalized intersection for State Street and all left turn ramps.



SPLIT DIAMOND AT MAIN STREET

3 Split Diamond at Main Street

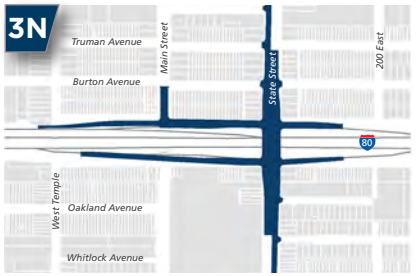
This alternative would construct two frontage roads and two on and off-ramps north and south of I-80 allowing for multiple access points to South Salt Lake City.



ADDITIONAL EXIT AT MAIN STREET

1A Additional Exit at Main Street

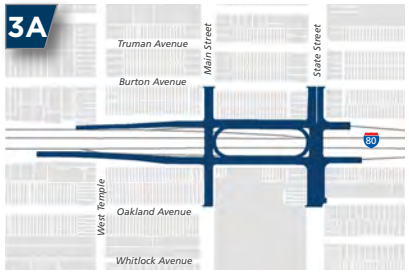
This alternative would construct an additional eastbound off-ramp on Main Street to allow greater access. This alternative would be done in combination with SPUI or other interchange alternatives.



SPLIT DIAMOND AT MAIN STREET, NORTH SIDE ONLY

3N Split Diamond at Main Street, North Side Only

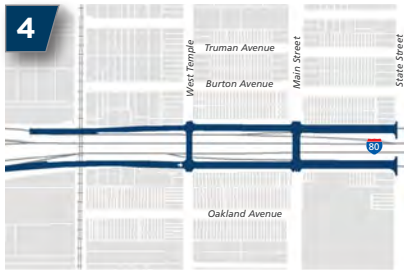
This alternative would construct a west-bound frontage road and off-ramp north of I-80 to create multiple access points to South Salt Lake City. The interchange configuration would remain the same on the south side.



SPLIT DIAMOND AT MAIN STREET WITH TEXAS TURNAROUNDS

3A Split Diamond at Main Street with Texas Turnarounds

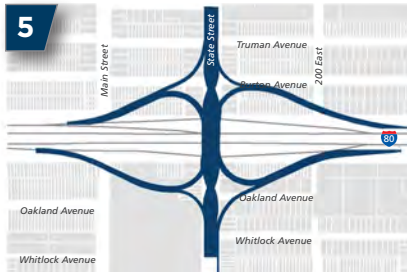
Alternative 3A would act similarly to Alternative 3, but with the additional construction of two free-flow or "Texas Turnarounds" allowing drivers access to the east or westbound frontage roads.



SPLIT DIAMOND AT WEST TEMPLE

4 Split Diamond at West Temple

This alternative would construct east and westbound frontage roads and corresponding on- and off-ramps between State Street and West Temple allowing for multiple access points to South Salt Lake City.



DIVERGING DIAMOND INTERCHANGE (DDI)

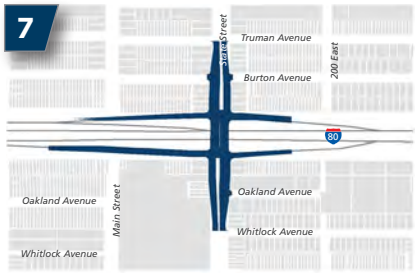
5 Diverging Diamond Interchange (DDI)

The DDI alternative allows for non-signalized right and left turns to and from the interchange ramps. The crossing of northbound and southbound State Street at the signals would allow for non-signalized access to I-80.

CONTINUOUS FLOW INTERSECTION (CFI)

6 Continuous Flow Intersection (CFI)

The CFI Alternative would allow left-turn movement to cross oncoming traffic and allow non-signalized access to I-80.



DIAMOND INTERCHANGE

7 Diamond Interchange

This alternative would move ramp intersections farther apart and place additional lanes on State Street. The interchange and roadway configurations would remain the same.

THRU-TURNS

8 Thru Turns

The creation of a thru-turn alternative would shift left turn movement away from the intersection to alleviate congestion. No left turns would be allowed within the intersection itself.

ES.2.2 ALTERNATIVES SCREENING PROCESS

The alternatives screening process evaluated the alternatives described in the previous section and in Chapter 2. The screening process includes:

- **Level 1 – Purpose and Need Screening:** Evaluate the compatibility of the alternatives with the purpose and need.
- **Level 2 – Environmental Screening:** Screen alternatives passing Level 1 Screening. These alternatives will be screened based on critical environmental resources, including impacts to residential relocations, commercial relocations, and Section 4(f) properties.

The National Environmental Policy Act (NEPA) requires that an EIS evaluate all reasonable alternatives and discuss those alternatives that were eliminated from further study. Reasonable alternatives include those that meet the project purpose and need. Alternatives that have substantially greater environmental or other impacts, based on preliminary screening, will be eliminated from further study.

Level 1 – Purpose and Need Screening

Interchange Alternatives

The purpose and need objectives for the Interchange alternatives were:

- Provide LOS C or better for all intersections associated with the State Street and I-80 interchange and provide LOS D or better on State Street near the interchange.
- Reduce crashes on State Street.
- Be consistent with South Salt Lake City's economic development and master transportation plans.

Alternatives that met all three elements of the project purpose moved forward to Level 2 – Environmental Screening. Alternatives that only meet one or two elements of the project purpose were eliminated from further consideration.

Of the alternatives, three (Loop Ramp, Split Diamond at West Temple, and Thru-Turns) would not provide the required level of service at all intersections. These three alternatives were eliminated.

The Split Diamond at West Temple, DDI, CFI, and Thru-Turns would also not provide the required level of service on State Street. This eliminated the DDI and CFI from further consideration.

Six interchange alternatives, plus the no-action alternative, were carried forward for further study.

Level 2 – Environmental Screening

The alternatives carried forward for further study were analyzed through Environmental Resources Screening. The environmental screening analysis included an inventory of existing critical environmental resources located near the study area. The inventory included residences, commercial structures, and Section 4(f) resources (historic structures and public parks). It should be noted that the environmental screening process is not a full environmental analysis of the alternatives. A full environmental analysis of alternatives was conducted for alternatives selected for detailed study.

Screening factors included the number of residential and commercial relocations and impacts to Section 4(f) properties (public parks and recreation areas, wildlife and waterfowl refuges, and historic sites). Alternatives that did not have greater than *de minimis* impacts moved forward for detailed study. Alternatives that had greater than *de minimis* impacts were eliminated from further consideration.

A summary of the environmental screening for interchange alternatives is shown in Table ES-1.

Table ES-1 Level 2: Environmental Resources Screening (I-80 and State Street Interchange Alternatives)

I-80 and State Street Interchange Alternative	# of Commercial Relocations	# of Residential Relocations	# of Section 4(f) Greater than *De Minimis* Impact	Carry Forward to Detailed Study
No-action Alternative	0	0	0	**Yes**
1 – Single Point Urban Interchange (SPUI)	4 (KFC, TechnaGlass, House of Blinds, and Emission Time)	0	0	**Yes**
1A – Additional Exit at Main Street	4 (KFC, TechnaGlass, House of Blinds, and Emission Time)	7	3	**No**
3 – Split Diamond at Main Street	2 (House of Blinds and Emissions Time)	8	4	**No**
3N – Split Diamond at Main Street, North Side Only	2 (House of Blinds and Emission Time)	0	0	**Yes**
3A – Split Diamond at Main Street with Texas Turnarounds	2 (House of Blinds and Emission Time)	7	3	**No**
7 – Diamond Interchange	2 (House of Blinds and Emission Time)	0	0	**Yes**

Based on the results of the environmental resources screening, the SPUI; Split Diamond at Main Street, North Side Only; and Diamond interchanges were carried forward for detailed study, along with the No-action alternative. The SPUI with an additional exit at Main Street, Split Diamond at Main Street, and Split Diamond at Main Street with Texas Turnarounds were eliminated due to a greater number of residential relocations and greater than *de minimis* impacts to Section 4(f) resources.

ES.2.3 ALTERNATIVES SELECTED FOR DETAILED STUDY

The screening process identified alternatives that were carried forward for detailed study:

- ***No-action Alternative*** – The No-action Alternative would maintain I-80 and State Street in their current roadway configurations. This alternative assumes that short-term minor restoration (safety and maintenance) activities that maintain continued operation of the existing roadway facilities would be ongoing. The No-action Alternative assumes all other improvements included in the 2040 RTP would be implemented.
- ***1 Single Point Urban Interchange (SPUI)*** – State Street and all the ramps at the interchange to come to a single signalized intersection.
- ***3N Split Diamond at Main Street, North Side Only*** – Interchange configuration to remain similar to existing configuration on the south side. Construct a Main Street westbound on-ramp with a westbound frontage road between State Street and Main Street.
- ***7 Diamond Interchange*** – Interchange configuration to remain similar to existing configuration. Construct additional lanes on State Street and move ramp intersections farther apart.

ES.2.4 IDENTIFICATION OF THE PREFERRED ALTERNATIVE

After fully evaluating all agency and public comments on the Draft EIS, FHWA and UDOT have identified I-80 and State Street Interchange Alternative 3N – Split Diamond at Main Street, North Side Only as the alternative which best meets the purpose and need and includes measures to minimize impacts to environmental resources; therefore, FHWA and UDOT have identified Alternative 3N as the Preferred Alternative.

Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons:

- Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80
- Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses
- Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City

For additional information, see Chapter 2: Alternatives.

ES.3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

A summary of the affected environment, environmental consequences, and mitigation commitments for the various environmental resources analyzed in the EIS can be found in Table ES-2. The No-action Alternative is used as the baseline for discussing impacts. For additional information, see Chapter 3: Affected Environment and Environmental Consequences.

Table ES-2 Comparison Summary of Alternatives

Resource	No-action Alternative	Interchange Alternative 1	Interchange Alternative 3N	Interchange Alternative 7	Mitigation
Land Use	• Changes in future land use and redevelopment in study area would continue	• Consistent with policies established in the South Salt Lake Future Land Use Plan, with a focus on commercial, mixed-use and office land uses • Full and partial acquisitions would not affect the land use characteristics of the study area			No mitigation required.
Farmlands	• No impact	• No impact			No mitigation required.
Social Conditions	• No impact	• Would not change neighborhood or community cohesion through the splitting of neighborhoods, or the isolation of a portion of a neighborhood or an ethnic group • Would not generate new development, nor is there an expectation that property values would change substantially within the study area • No impact to the Granite School District Community Center • Would not separate residents from community facilities			No mitigation required.
Environmental Justice	• No impact	• Interchange Alternatives 1, 3N, and 7 would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of E.O. 12898 and FHWA Order 6640.23A. No further environmental justice analysis is required.			No mitigation required.
Right-of-Way and Relocations	• No right-of-way acquisition or relocations	• Relocate four businesses • Require 0.08-acres in right-of-way acquisition	• Relocate two businesses • Require 0.08-acres in right-of-way acquisition	• Relocate two businesses • Require 0.08-acres in right-of-way acquisition	No mitigation required.

Resource	No-action Alternative	Interchange Alternative 1	Interchange Alternative 3N	Interchange Alternative 7	Mitigation
Economic Conditions	• Changes in future land use and redevelopment in study area would continue	• Partial acquisition of property related to three businesses and would relocate four businesses (represents less than 0.1 percent of study area acreage, taxable property value, and market property value) • Closure of all frontage road access would limit access to South Salt Lake Municipal Offices and adjacent office space • Long term redevelopment plans would continue to utilize study area as prime location for commercial development	• Partial acquisition of property related to four businesses and would relocate two businesses (represents less than 0.1 percent of study area acreage, taxable property value, and market property value) • Long term redevelopment plans would continue to utilize study area as prime location for commercial development	• Partial acquisition of property related to four businesses and would relocate two businesses (represents less than 0.1 percent of study area acreage, taxable property value, and market property value) • Long term redevelopment plans would continue to utilize study area as prime location for commercial development	No mitigation required.
Pedestrians and Bicyclists	• No impact	• No impact to pedestrian and bicyclist facilities	• Approximately 500 feet of existing bike lane on Main Street would be temporarily closed during construction	• No impact to pedestrian and bicyclist facilities	No mitigation required.
Air Quality	• Would not result in new violations of the NAAQS, increases in the frequency or severity of existing violations of the NAAQS, or delays in attaining the NAAQS	• Would not result in new violations of the NAAQS, increases in the frequency or severity of existing violations of the NAAQS, or delays in attaining the NAAQS.			No mitigation required.

Resource	No-action Alternative	Interchange Alternative 1	Interchange Alternative 3N	Interchange Alternative 7	Mitigation
Noise	• Noise levels would generally be the same as existing conditions	• Noise levels would generally be the same as existing conditions • 12 receptors would be considered impacted	• Noise levels would generally be the same as existing conditions • 13 receptors would be considered impacted	• Noise levels would generally be the same as existing conditions • 12 receptors would be considered impacted	No mitigation required.
Water Resources	• Drainage conditions would remain the same	• Slight increase in impervious surface area • Not expected to impact water quality because the increase in flow would be controlled through a storm drain system • Could impact up to 77 underground water wells			• A new storm drain system will be constructed that will comply with current UDEQ and UDWQ standards as well as local discharge rates and regulations. • Impacted water rights will be handled through UDOT's Right-of-Way acquisition process. • Construction-related erosion and sedimentation impacts will be managed through obtaining a Utah Pollution Discharge Elimination System (UPDES) storm water general permit from the Utah Department of Environmental Quality (UDEQ), which will include a Storm Water Pollution Prevention Plan (SWPPP) and an outline of Best Management Practices (BMP) to be followed.

Resource	No-action Alternative	Interchange Alternative 1	Interchange Alternative 3N	Interchange Alternative 7	Mitigation
Wetlands and Waters of the U.S.	• No impact	• No impact			No mitigation required.
Floodplains	• No impact	• No impact			No mitigation required.
Wildlife	• No impact	• No impact			No mitigation required.
Threatened & Endangered Species	• No impact	• No impact			No mitigation required.
Archaeological and Architectural Resources	• No Impact	• No historic properties affected			No mitigation required.
Section 4(f) Properties	• No use to Section 4(f) properties	• No use to Section 4(f) properties			No mitigation required.
Paleontology	• No impact	• No impact			No mitigation required.
Hazardous Waste	• No impact	• Four sites in impact area would have an overall risk rating of "low"	• Three sites in impact area would have an overall risk rating of "low"	• Three sites in impact area would have an overall risk rating of "low"	No mitigation required.
Visual Conditions	• No impact	• *Viewers of Roadway:* Appearance of study area would remain the same • *Viewers Using Roadway:* Removal of commercial properties at interchange corners would create a noticeable "vacancy"; more "open" feel under I-80 bridge	• *Viewers of Roadway:* New westbound on-ramp would shift retaining wall 16 to 26 feet closer to businesses and residences on northwest side of interchange • *Viewers Using Roadway:* Removal of commercial properties at interchange corners would create a noticeable "vacancy"	• *Viewers of Roadway:* Appearance of study area would remain the same • *Viewers Using Roadway:* Removal of commercial properties at interchange corners would create a noticeable "vacancy"	During the design phase, a landscaping plan will be developed that is consistent with the existing aesthetics of the I-80 corridor. Impacts to the City of South Salt Lake's entryway signage, lighting, and landscaping will be restored.
Invasive Species	• No impact	• Would provide opportunities for the movement of invasive species.			No mitigation required.
Wild and Scenic Rivers	• No impact	• No impact			No mitigation required.

Resource	No-action Alternative	Interchange Alternative 1	Interchange Alternative 3N	Interchange Alternative 7	Mitigation
Energy	• No construction energy requirements • Similar operation energy requirements to Interchange Alternatives	• Construction energy requirements • Similar operational energy requirements to the No-action Alternative • Lower fuel consumption due to decreased congestion			No mitigation required.
Construction	• No impact	• *Social Conditions:* Area residents, commercial and retail businesses, governmental and institutional properties, and commuters in study area would experience minor, temporary inconveniences from noise, dust, and travel delays and detours during the course of construction; access to all properties in area would be maintained (some temporary construction impacts to accesses for some properties • *Economic Conditions:* Businesses in the area would experience temporary construction inconveniences from dust, noise, and traffic delays and detours associated with roadway construction; access to all properties in the area would be maintained (some temporary construction impacts to accesses for some properties); could result in a decrease in patronage and sales because residents would be less willing to negotiate the construction area • *Air Quality:* Potential for temporary and minor fugitive dust impacts during construction • *Noise:* Temporary inconvenience due to construction noise and vibration; extended disruption of normal activities in the study area not anticipated since no one receptor is expected to be exposed to construction noise of long duration • *Water Resources:* Potential for construction-related erosion and sedimentation impacts • *Cultural Resources:* Possibility to impact undiscovered archaeological sites • *Hazardous Waste Sites:* Possibility to impact undiscovered hazardous waste sites • *Visual Conditions:* Temporary visual impacts in the study area due to construction signs and barricades, work lights, exposed earth, and construction equipment • *Invasive Species:* Would provide opportunities for the movement of invasive species • *Construction Phasing and Potential Detours:* Would result in temporary access closures and detours.			No mitigation is required for construction impacts, as such impacts are temporary in nature.

ES.4 AREAS OF CONTROVERSY

The potential for public controversy over this project was an important factor in the decision to prepare an EIS. Coordination with the public and municipalities has been ongoing and consistent to help identify and anticipate any issues that may be controversial with the project. Public input was taken on the purpose and need for the project and on the range of alternatives to be evaluated, which helped identify the issues that the public had with regards to this project and their ideas as to possible solutions. There are no known areas of controversy.

ES.5 UNRESOLVED ISSUES

There are no unresolved issues in connection with this EIS.

ES.6 OTHER REQUIRED GOVERNMENTAL ACTIONS

- **Storm Water General Permit for Construction Activities:** A permit which grants authorization to discharge under the Utah Pollutant Discharge Elimination System (UPDES) is required for projects that disturb more than one acre of surface area during construction. As part of the requirements for this permit, a Storm Water Pollution Prevention Plan (SWPPP) will be developed and incorporated into the final design of this project. A Notice of Intent (NOI) form will be submitted to the Utah Department of Water Quality (UDWQ) prior to any construction. Upon completion of the proposed project, a Notice of Termination (NOT) will be submitted to the same agency.
- **Air Quality Permit for Construction Activities:** A permit for air quality impacts during construction is required to control fugitive dust and emissions. This permit will be obtained from the Utah Department of Air Quality (UDAQ) by the contractor prior to the start of construction.
- **Temporary Noise Permit:** A permit to conduct construction or demolition activities between the hours of 10 p.m. and 7 a.m. This permit will be obtained from Salt Lake County if night-time construction work is required.

CHAPTER ONE: PURPOSE AND NEED

1.1 INTRODUCTION

This Environmental Impact Statement (EIS) will evaluate proposed courses of action to satisfy transportation and safety goals at and near the State Street Interchange on Interstate 80 (I-80) in the City of South Salt Lake, Utah. The Federal Highway Administration (FHWA) and the Utah Department of Transportation (UDOT) are conducting this EIS in accordance with the:

- National Environmental Policy Act (NEPA)
- Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU)
- Moving Ahead for Progress in the 21st Century (MAP-21)
- Fixing America's Surface Transportation Act (FAST)

In accordance with NEPA, this EIS will identify the Preferred Alternative (which may be a No-action Alternative) that meets the needs of the proposed action while minimizing impacts to the human and natural environment. FHWA and UDOT will consider the need for safe and efficient transportation and the social, economic, and environmental impacts of proposed improvements; and federal and state environmental protection goals. Chapter One: Purpose and Need of this EIS will describe the transportation problems in the study area and explain why the project is necessary.

1.1.1 STUDY AREA

The study area is located in Salt Lake County and generally falls within the City of South Salt Lake. The study area extends along I-80 from I-15 to 700 East and on State Street from 2100 South to 2700 South (see Figure 1-1). I-80 is a limited-access freeway that runs east-west across the study area and State Street (US-89) is a state highway that runs north-south through the study area. On I-80, the logical termini for alternatives will be I-15 (the principal north-south freeway in the State) on the west and 700 East (a principal arterial) on the east (see Section 1.2.1 for definitions of "freeway" and "principal arterial"). On State Street, the logical termini for alternatives will be 2100 South and 2700 South. These termini are an adequate distance apart to assess the environmental impacts on a broad scope and are located at rational end points for proposed transportation improvements. The proposed improvements have independent utility since they would be usable and be a reasonable expenditure, even if no additional transportation improvements in the area are made. The identified study area is sufficiently broad and does not restrict the consideration of a reasonable range of alternatives that could meet the identified needs of the project.

What are logical termini?

Logical termini are the beginning and end points of a project. For roadway projects logical termini are usually interchanges or intersections where travel demand changes.

1.1.2 PURPOSE OF THE PROPOSED ACTION

The purpose of the project is to:

- Reduce congestion on I-80 and State Street
- Improve operational characteristics and safety on I-80 and State Street
- Support local economic development through mobility improvements

1.1.3 SUMMARY OF TRANSPORTATION NEEDS

The project would address the following project needs:

- *Congestion on I-80 and State Street near the Interchange* – Segments of I-80 and State Street will operate at failing conditions by 2040 (see Section 1.2.1 for more detail)
- *Operational and Safety Issues on I-80 and State Street* (see Section 1.2.2 for more detail):
  - Inside through-lane on northbound and southbound State Street trapped at the left-turn lanes under the narrow I-80 bridge

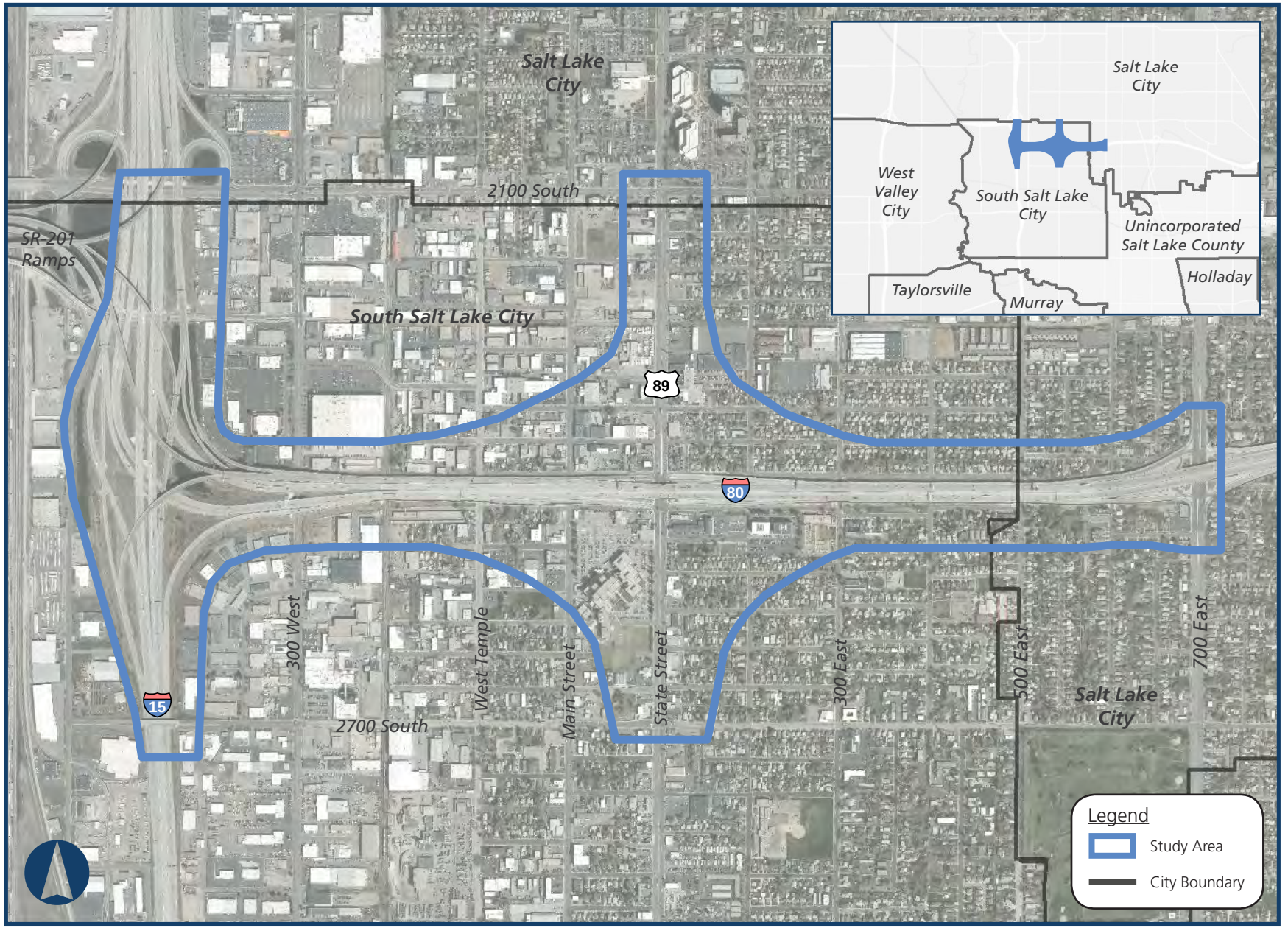


Figure 1-1 Study Area

  - Safety conflicts at the frontage roads near the State Street/I-80 Interchange
- *Changing Land-Use Patterns and Additional Development* – Land use in the study area is changing and becoming more diversified as a result of two major urban renewal areas (Market Station and Central Pointe) located northwest of the I-80/State Street Interchange (see Figure 1-17). These renewal areas will cause an increase of vehicle, pedestrian, and bicycle traffic (see Section 1.2.3 for more detail).

1.1.4 PARTICIPANTS IN PURPOSE AND NEED DEVELOPMENT

In accordance with Section 6002 of SAFETEA-LU, the purpose and need development process has included the input of lead agencies, cooperating agencies, participating agencies, and the general public.

- **Lead Agencies:** FHWA and UDOT are the joint lead agencies for the I-80 and State Street EIS. Lead agencies are responsible for supervising the preparation of the EIS.
- **Cooperating Agencies:** The following agencies have accepted Cooperating Agency status (see Chapter 4):
  - Advisory Council on Historic Preservation
- **Participating Agencies:** In accordance with SAFETEA-LU, UDOT and FHWA extended invitations to agencies and government entities to be participating agencies. The following agencies are participating agencies (see Chapter 4):
  - Environmental Protection Agency (EPA)
  - South Salt Lake City
  - Granite School District
  - Wasatch Front Regional Council (WFRC)

Cooperating Agencies are defined as any Federal agency, other than a lead agency, that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed project or project alternative (40 CFR 1508.5).

Participating Agencies could be Federal, State, tribal, regional, and local government agencies that may have an interest in the study. Participating agencies participate in the NEPA process, provide input, identify issues of concern, and participate in the scoping process.

The lead agencies have used several methods to obtain input for the project purpose and need, including:

- Sending agency scoping letters soliciting specific concerns
- Holding agency and public scoping meetings on September 9, 2014
- Providing an opportunity for public comment on the study hotline and website

See Chapter 4 for a summary of agency and public comments.

1.1.5 TRANSPORTATION PLANNING EFFORTS

Transportation planning is an on-going process to identify needs and projects to maintain an adequate transportation system. WFRC, UDOT, and the City of South Salt Lake are responsible for transportation planning in the study area.

Wasatch Front Regional Council

Metropolitan Planning

Planning for the project began as part of WFRC's regional planning efforts. Consistent with federal law, WFRC is responsible for developing 30-year regional transportation plans that are limited by available and committed funding. These plans are based on a comprehensive, region-wide transportation systems analysis. This analysis addresses all modes of transportation, including highways, transit, trucking, rail, air, pedestrian, and bicycle.

Planned Improvements within Study Area

An interchange upgrade on I-80 at State Street is identified in Phase 1 of WFRC's 2015-2040 Regional Transportation Plan (RTP). This

project is part of WFRC's overall plan to address congestion in the study area and provide for an adequate transportation system. All projects on the 2040 RTP in or near the study area are described in Tables 1-1 and 1-2.

Planned Improvements in Project Vicinity

WFRC's 2040 RTP lists the following planned highway and transit projects in the project vicinity (see Tables 1-1 and 1-2 and Figures 1-2 and 1-3).

Table 1-1 WFRC's 2015-2040 RTP Planned Highway Improvements in Project Vicinity

Map #	Street	Future Functional Classification	Project Limits	Existing No. of Lanes	Future No. of Lanes	Type	Phase Financed[4]
East-West Facilities							
1	SR-201	Freeway	Mountain View Corridor to I-15	6	6+HOV[1]	Widening	2
2	2100 South	Minor Arterial	I-15 to 1300 East	4	4	Operational[2]	2
3	I-80	Freeway	1300 East to I-215 (East)	6	8	Widening	2
4	3300 S/ 3500 S	Principal Arterial	I-215 (West) to Highland Drive	4	4	Operational	2
North-South Facilities							
5	Redwood Rd	Principal Arterial	SR-201 to 6200 South	6	6	Operational	1
6	I-15	Freeway	Davis County Line to Utah County Line	Varies	Varies	Operational	1
7	I-15	Freeway	600 North to Bangerter Highway	8+2 HOT[3]	8+4HOT[3]	Widening	3
8	State Street	Principal Arterial	600 South to I-215	6	6	Operational	2
9	900 East	Collector	3300 South to 4500 South	2	2	Operational	1
10	1300 East	Minor Arterial	1300 South to Van Winkle Expressway	4	4	Operational	1
Spot Facilities							
11	I-80 Interchange	---	@ State Street	---	---	Upgrade	1

What is the WFRC?

WFRC has been the designated metropolitan planning organization (MPO) for the Wasatch Front Urban Area since 1969 and is responsible for developing and maintaining a region-wide, long-range transportation plan for Salt Lake, Davis, and western Weber counties. WFRC works in close cooperation with UDOT, the UTA, the Utah Division of Air Quality (UDAQ), and the cities and counties located within its region to develop regional plans that include new transportation facilities and upgrades to the existing transportation systems and infrastructure.

[1] ***High Occupancy Vehicle Lane*** – A high occupancy vehicle lane is a restricted traffic lane reserved for the exclusive use of vehicles with a driver and one or more passengers.

[2] ***Operational*** – Traffic operation improvements without additional through-lane capacity.

[3] ***High Occupancy/Toll Lane*** – A high occupancy/toll lane is a restricted traffic lane that gives travelers in single-occupant vehicles access to HOV lanes.

[4] ***Phases***

- Phase 1: 2015-2024
- Phase 2: 2025 to 2034
- Phase 3: 2035 to 2040

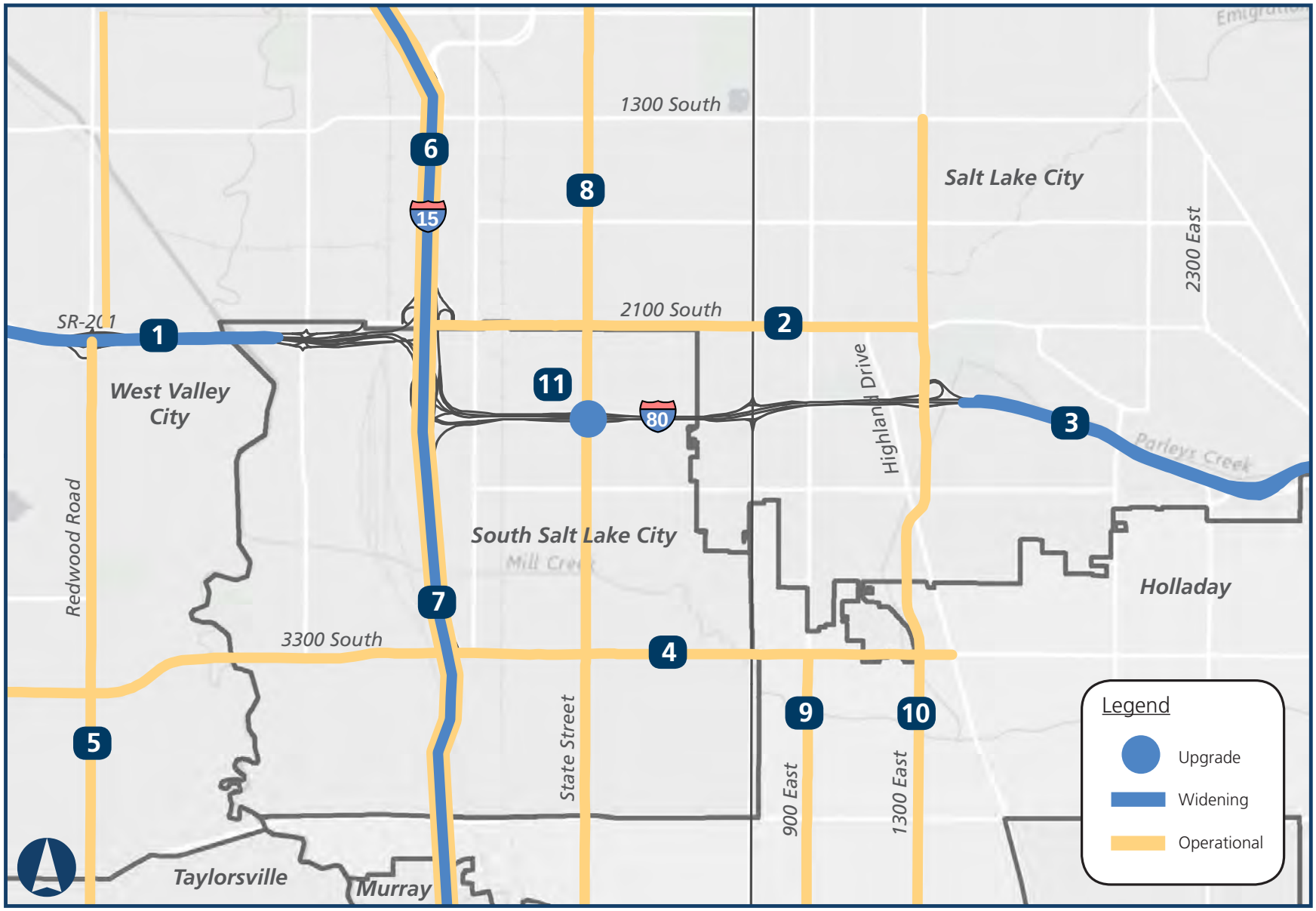


Figure 1-2 WFRC's 2015-2040 RTP Planned Highway Improvements in Project Vicinity

Table 1-2 WFRC's 2015-2040 RTP Planned Transit Improvements in Project Vicinity

Map #	Project	Description	Phase Financed
1	2100 South/1700 South Corridor	Enhanced Bus	2
2	Salt Lake Loop (S Line Upgrade & Extensions – Streetcar)	Line Upgrade and Streetcar	1, 2
3	3300 South/3500 South Corridor	Bus Rapid Transit/Enhanced Bus	2
4	3900 South/4100 South Corridor	Enhanced Bus	2
5	Redwood Road Corridor	Bus Rapid Transit	2
7	State Street Corridor	Bus Rapid Transit	2
8	500 East Corridor	Enhanced Bus	2
9	900 East Corridor	Enhanced Bus	2
10	1300 East Corridor	Enhanced Bus and Bus Rapid Transit	2
11	Highland Drive Corridor	Enhanced Bus	3
12	SLC - Foothill Drive - Wasatch Drive Corridor	Bus Rapid Transit	1

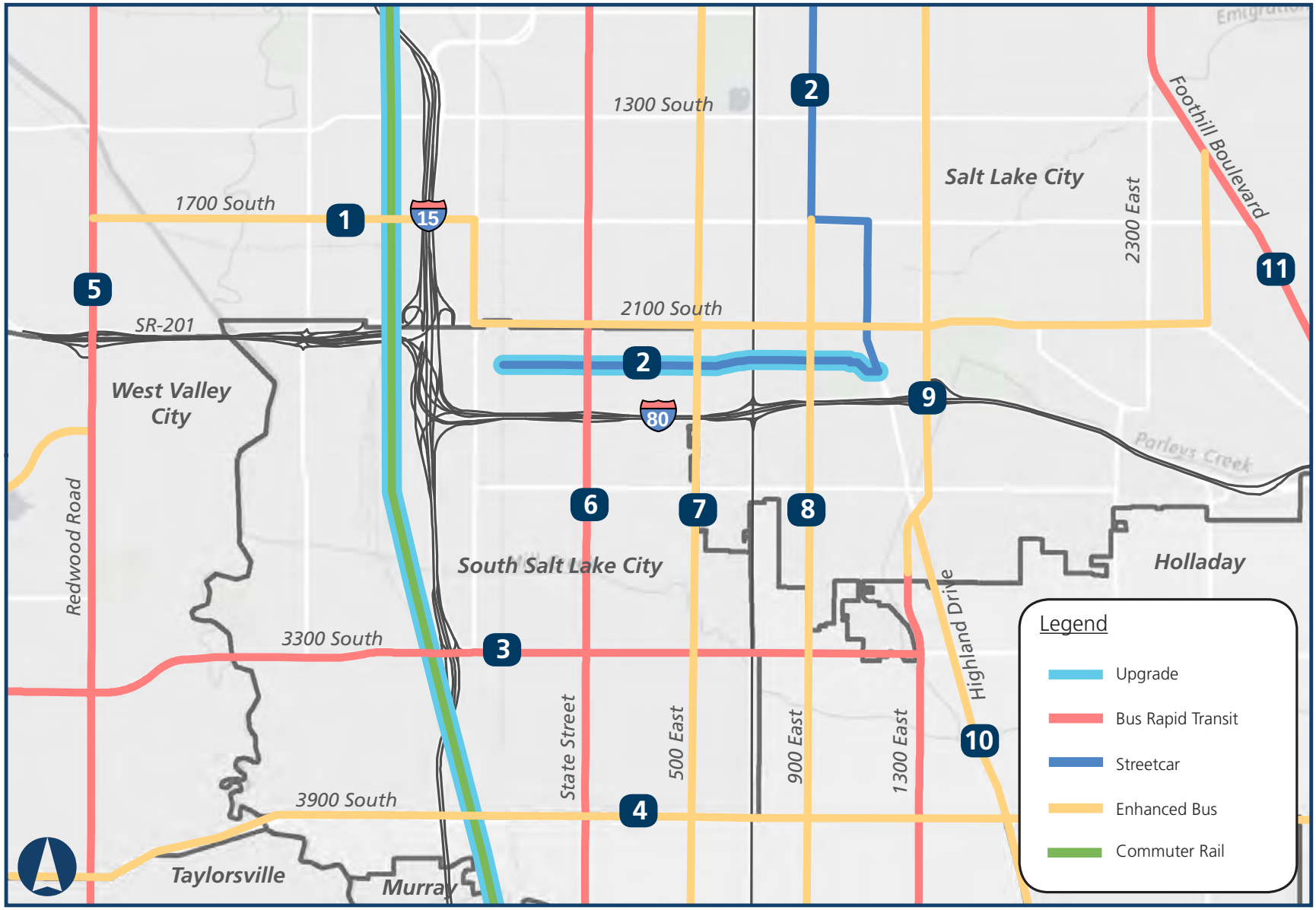


Figure 1-3 WFRC's 2015-2040 RTP Planned Transit Improvements in Project Vicinity

Bicycle System

WFRC's 2040 RTP includes the Regional Bicycle Plan for Salt Lake, Weber, and Davis counties, which was developed cooperatively by city and county planners, engineers, parks and recreation departments, planning commissions, and local bicycle advisory committees. Bicycle facilities are identified as Class 1, 2, or 3, depending on the design of the facility (see Figure 1-4).

The Regional Bicycle Plan incorporates individual community plans and identifies facilities for bicycle travel within street rights-of-way, as well as separate paths or trails that will need to be included when improvements are being considered and constructed. Although bicycle facilities are mostly local in nature, the Regional Bicycle Plan for the Wasatch Front Urban Area identifies an integrated regional network of bicycle routes from Herriman City in southern Salt Lake County to Pleasant View in northern Weber County. The bicycle routes identified on the 2040 RTP in the study area are shown on Figure 1-4. Currently there are only Class 2 facilities within the study area, with no plans to include bicycle facilities along State Street (it should be noted that other UDOT and County bicycle plans do not include any facilities along State Street).

Unified Transportation Plan

UDOT, the WFRC, and other metropolitan planning organizations in Utah have created Utah's Unified Transportation Plan 2011-2040. The Unified Plan is an executive summary of five individual agency plans, including WFRC's RTP, and contains a comprehensive project list including all major capacity projects anticipated through 2040. Therefore, any project that is listed on the WFRC RTP is also listed on the Unified Plan, and is officially recognized as a planned project by UDOT.

1.2 TRANSPORTATION NEEDS

The "needs" for the project are the transportation deficiencies the project is intended to address. The needs for this project are discussed in the following sections.

1.2.1 CONGESTION ON I-80 AND STATE STREET

Level-of-Service

Transportation agencies use a qualitative measurement known as "level-of-service" (LOS) to measure the quality of the traffic flow rate. LOS characterizes the traffic operations of a facility in factors such as speed, average travel delay, travel times, and freedom to maneuver. LOS ranges from A to F, with LOS A representing the best operating conditions (little or no congestion or delay) and LOS F representing the worst-operating conditions (extreme congestion and delay with long traffic queues and stop-and-go traffic). If a roadway exhibits LOS E or LOS F conditions, it is considered failing.

Level of Service (LOS)	
A	FREE FLOW. Low volumes and no delays 
B	STABLE FLOW. Speeds restricted by travel conditions, minor delays 
C	STABLE FLOW. Speeds and maneuver-ability closely controlled because of higher volumes 
D	STABLE FLOW. Speeds considerably affected by change in operation conditions. High density traffic restricts maneuverability, volume near capacity 
E	UNSTABLE FLOW. Low speeds, considerable delay, volume at or slightly over capacity 
F	FORCED FLOW. Very low speeds, volumes exceed capacity, long delays with stop-and-go traffic 

When planning for future improvements, a roadway should have adequate capacity to handle the anticipated traffic flow rate, and should provide for a minimum acceptable LOS. UDOT's Roadway Design Manual of Instruction states that roadway designers should provide LOS C or higher in a rural area and LOS D or higher in an urban area. The proposed project is within an urbanized area and, therefore, streets should operate at LOS D or better during peak hours, if possible.

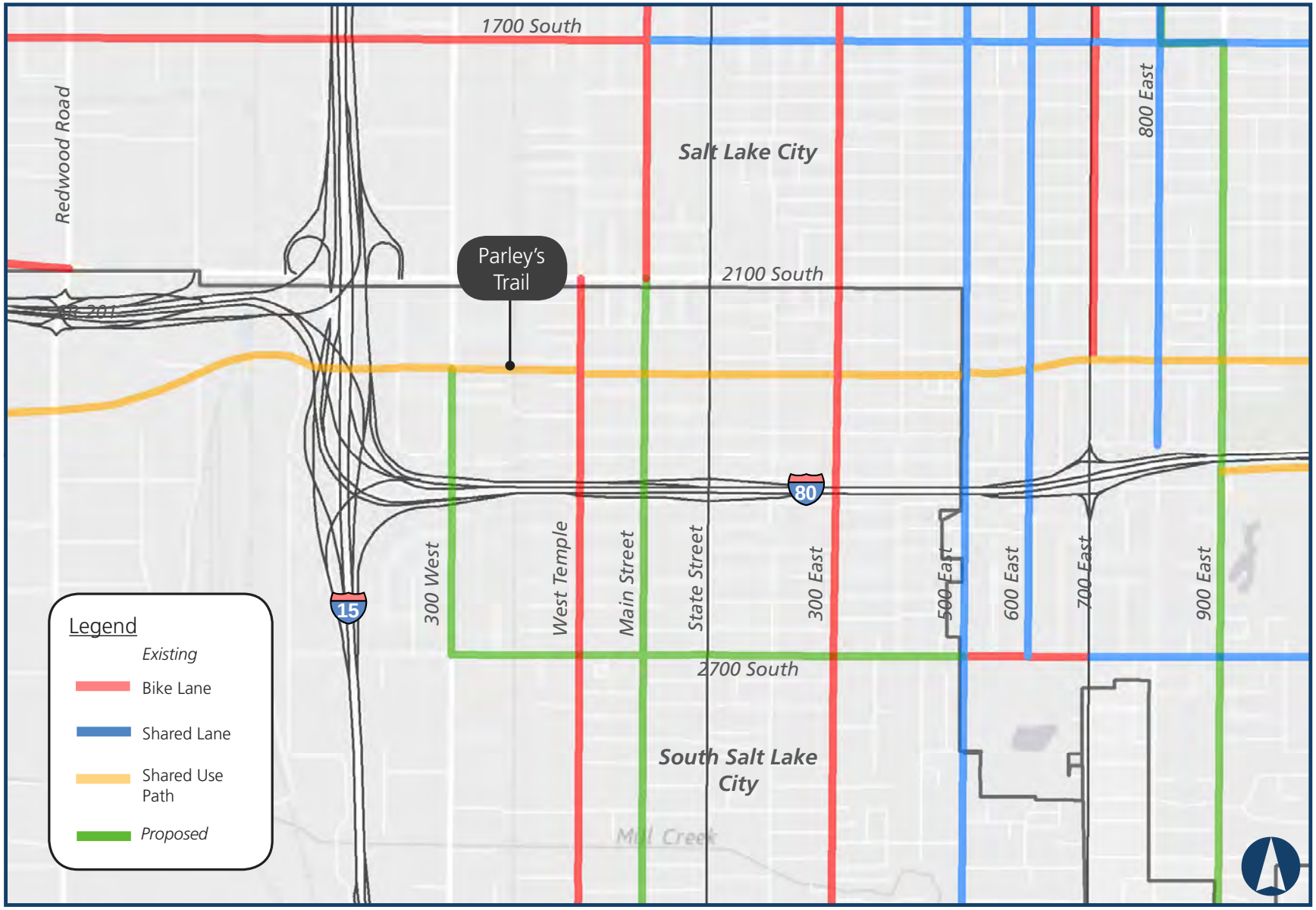


Figure 1-4 WFRC's 2015-2040 RTP Regional Bicycle Plan

Other factors that influence congestion on roadways include spacing between traffic signals, number of street access points (business and residential driveways), design deficiencies, traffic crashes, and amount of queuing storage space at intersections. Congestion and delay measurements are based upon field observations, data collection from traffic counters, and data obtained from the UDOT Traffic Operations Center.

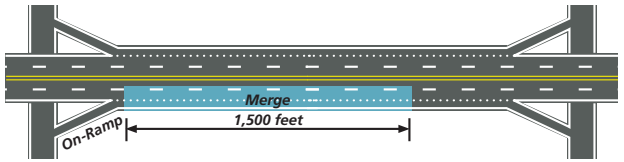
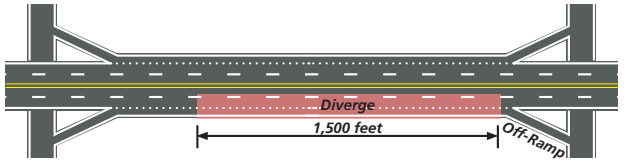
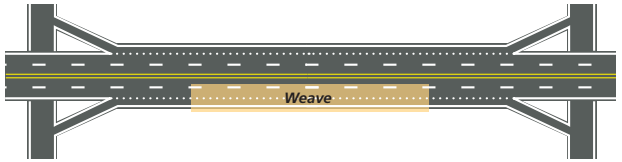
Existing (2014) Conditions

I-80

For freeways, such as I-80, the Highway Capacity Manual calculates LOS based on density. Density is defined as the average number of vehicles that occupy one mile of road space and is expressed in passenger cars per mile per lane (pc/mi/ln).

Figures 1-5 and 1-6 show the LOS for each freeway segment in the study area for both the a.m. and p.m. peak period. As shown in these figures, most of the freeway segments within the study area currently exhibit acceptable LOS (LOS D or better) with the exception of eastbound I-80 to the west of State Street during the p.m. peak period. This area operates at LOS E and LOS F, or failing conditions. This is because of high volumes of traffic and a very short weave area between I-15 and State Street.

Merge, Diverge, and Weave Segments of a Freeway

A ***merge*** segment is the area of entering traffic 1,500 feet after an on-ramp.	
A ***diverge*** segment is the area of exiting traffic 1,500 feet before an off ramp.	
A ***weave*** segment is an area where both merging and diverging occur.	

How are freeways defined?

Freeways have complete control of access and are designed to provide the greatest mobility for regional traffic.

What is the Highway Capacity Manual?

The Highway Capacity Manual is a publication of the Transportation Research Board of the National Academies of Science in the United States. It contains concepts, guidelines, and procedures for computing the capacity and level of service of various highway facilities, including freeways, highways, arterial roads, roundabouts, signalized and unsignalized intersections, rural highways.

LOS and Corresponding Densities

The table below describes the LOS for freeway segments and the corresponding densities for basic freeway segments and ***merge/diverge/weave*** segments.

LOS for Freeway Segments	Density (pc/mi/ln*)	
	Basic	Merge/ Diverge/ Weave
A	≤11	≤10
B	>11-18	>10-20
C	>18-26	>20-28
D	>26-35	>28-35
E	>34-45	>35
F	Demand Exceeds Capacity	

*passenger cars per mile per lane

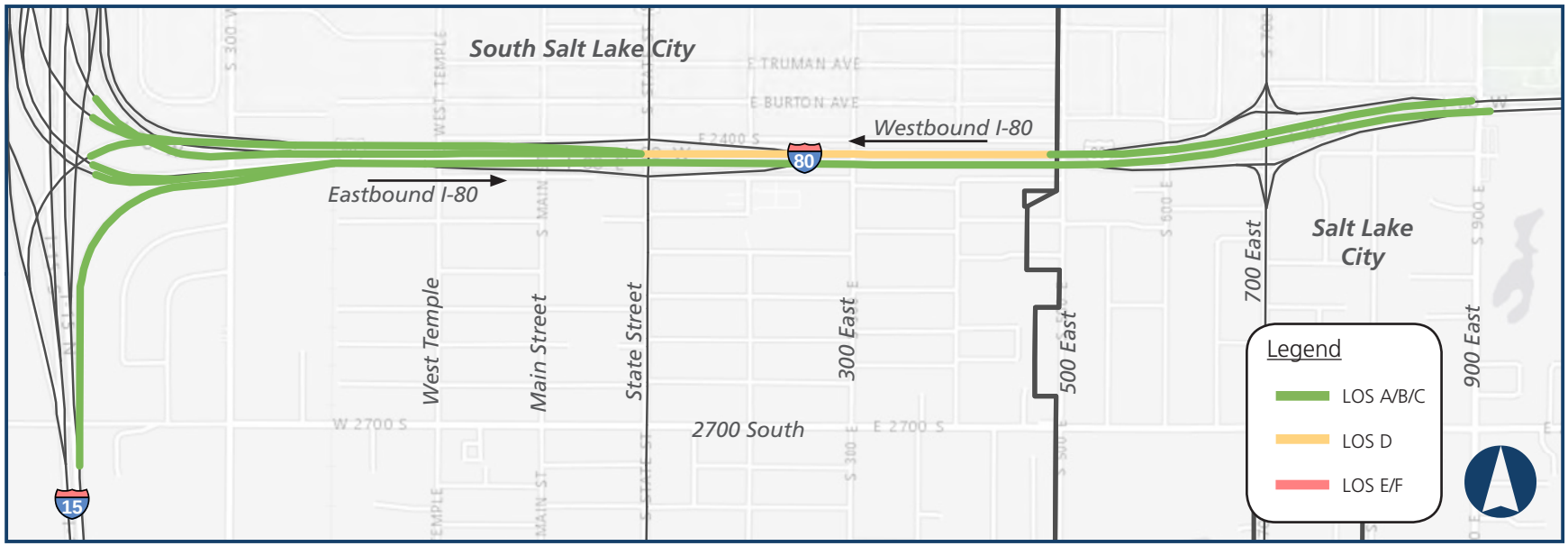


Figure 1-5 Existing 2014 A.M. Peak Period Freeway LOS on I-80

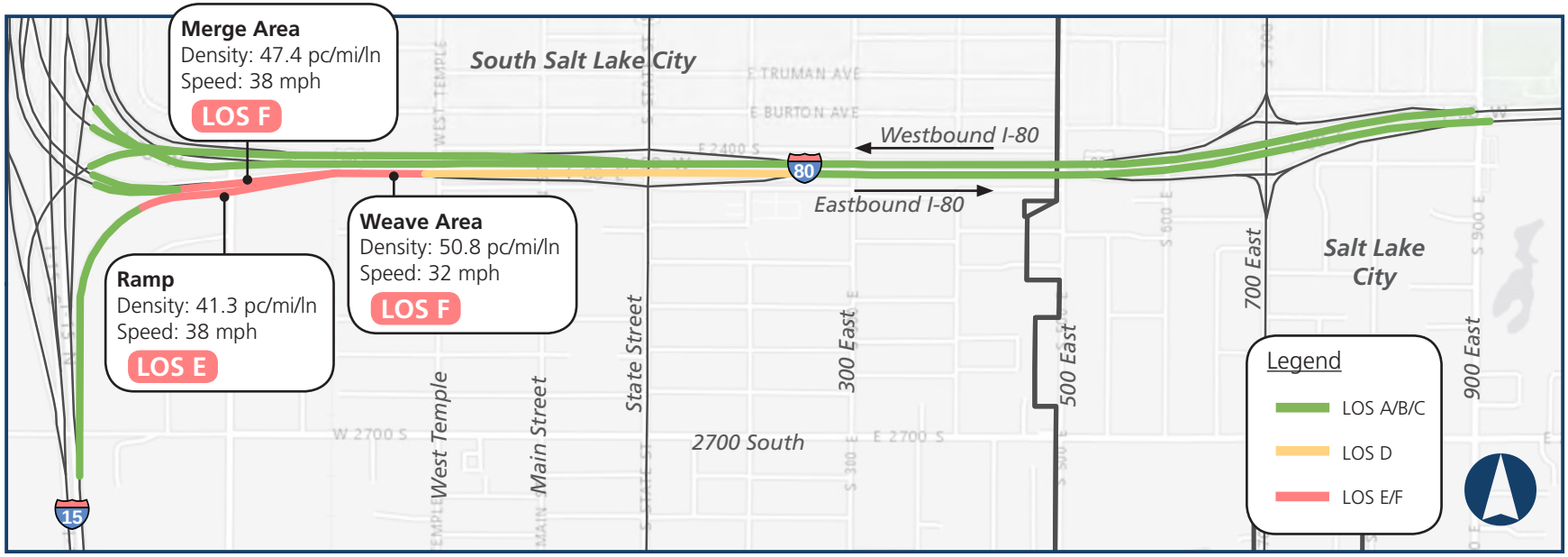
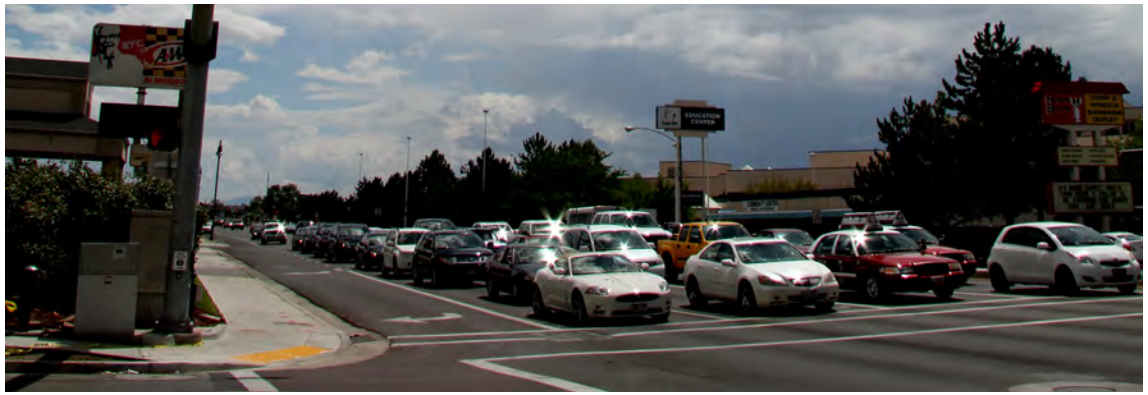


Figure 1-6 Existing 2014 P.M. Peak Period Freeway LOS on I-80

State Street

For arterial streets, such as State Street (a principal arterial), LOS is based on the percentage of vehicles traveling at free flow speed. For example, if more than 85 percent of vehicles are traveling at free flow speeds on a roadway segment, that segment is operating at LOS A conditions. Conversely, if less than 30 percent of vehicles are traveling at free flow speeds, the roadway segment would operate at LOS F, or failing conditions.

Generally, the cross-section on State Street is seven lanes (three travel lanes in each direction with a center turn lane); however, as State Street crosses under I-80, the narrow bridge limits the cross-section to two travel lanes and two left-turn lanes in each direction (see Figure 1-14 for a figure of the lane configurations under the State Street bridge). This bottleneck causes vehicles on State Street to travel below acceptable speeds, and segments of State Street are failing in both the north and southbound directions (see Figures 1-7 and 1-8).



State Street at the I-80 Interchange Looking South

Summary of 2014 Conditions Analyses

The following is a summary of traffic issues in the study area under existing (2014) conditions.

- Eastbound I-80 west of State Street is failing during the p.m. peak period. This is because of high volumes of traffic and a very short weave area between I-15 and State Street.
- Arterial speeds are below acceptable values and segments of State Street are failing in both the north- and southbound directions during peak periods.

How are arterials defined?

Principal arterials serve the major centers of activity of metropolitan areas and provide for long trips.

Minor arterials connect and serve the urban principal arterial system, provide trips of moderate length, placing emphasis on land access, and offer movement within communities without penetrating identifiable neighborhoods.

LOS and Percent of Vehicles Traveling at Free Flow Speed

The table below describes the LOS for arterial segments and the corresponding percentage of average travel speed compared to free flow speed (the average speed a motorist would travel if there were no congestion or other adverse conditions).

LOS for Arterial Segments	Percent of Vehicles Traveling at Free Flow Speed
A	>85%
B	>67-85%
C	>50-67%
D	>40-50%
E	>30-40%
F	≤30%

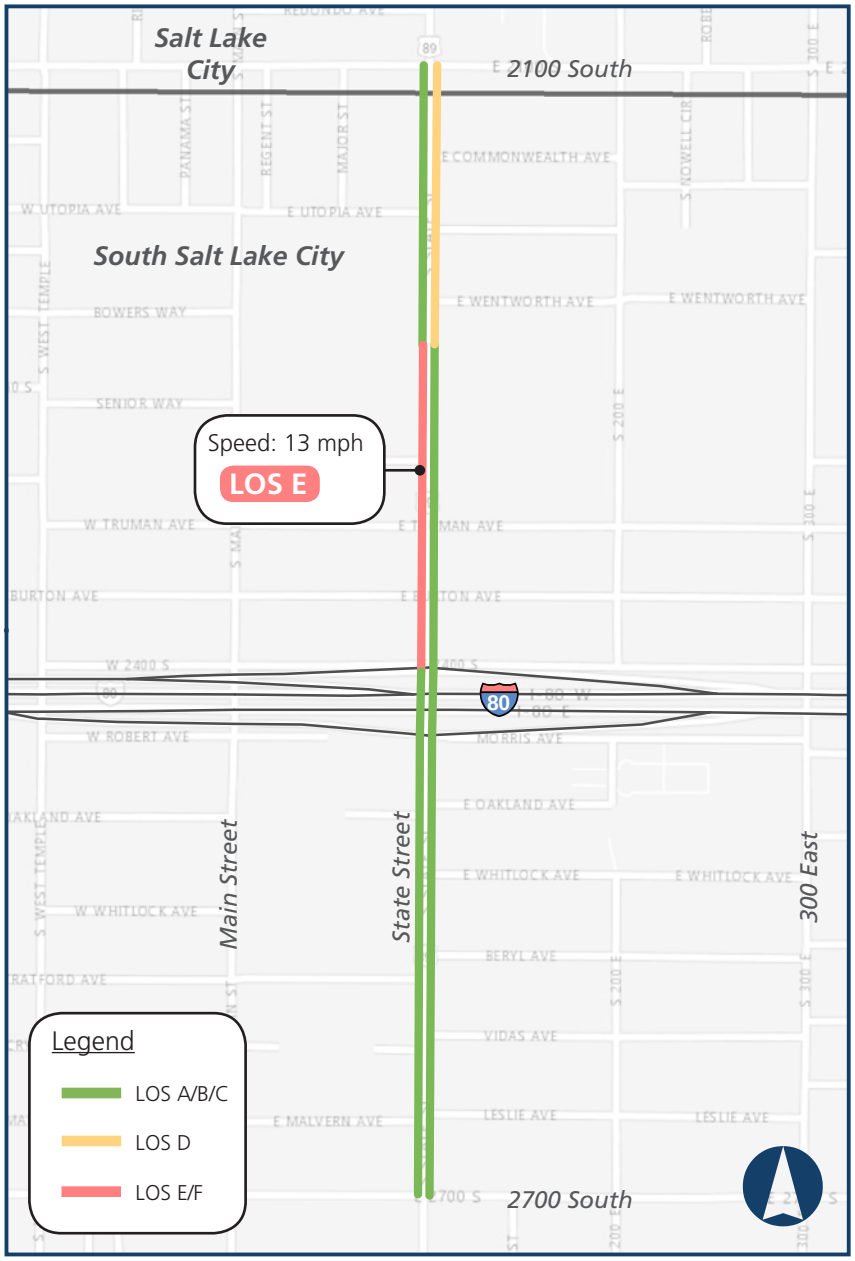


Figure 1-7 Existing 2014 A.M. Peak Period LOS on State Street

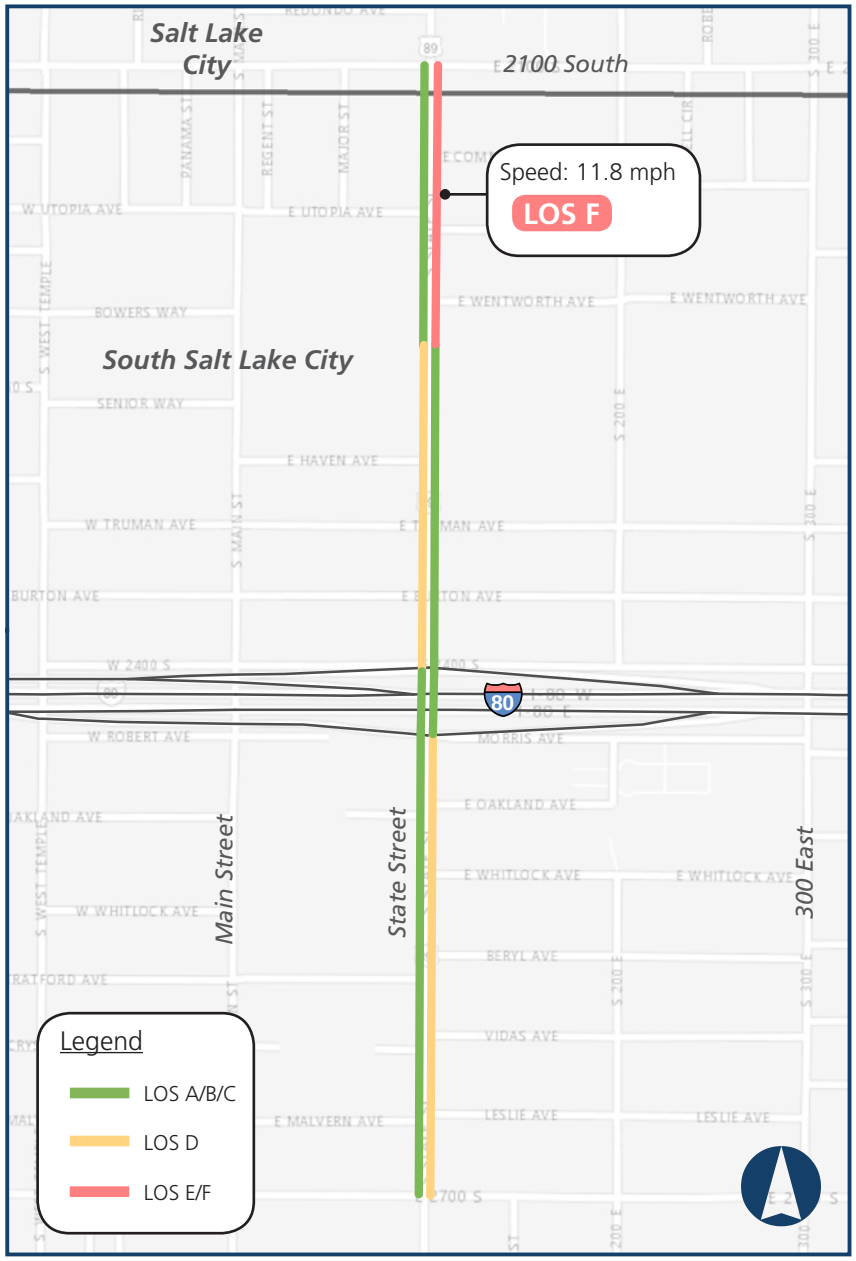


Figure 1-8 Existing 2014 P.M. Peak Period LOS on State Street

Future (2040) No-action Conditions

Future (2040) traffic conditions were analyzed using traffic volumes generated from WFRC's Travel Demand Model (TDM), version 7 (released December 23, 2010), and compared to version 8 of the same model, released on June 17, 2015. The results of the sensitivity analysis showed version 7 had a slightly higher average traffic volume when compared to version 8 (see Appendix B). This slight change in traffic volumes would not alter or otherwise influence the alternatives analysis or change the recommendations contained in this EIS. Therefore, the traffic volumes generated from TDM, version 7 are considered valid.

The No-action condition assumes that all funded projects included in the 2040 RTP would be completed by 2040, except for improvements to the I-80 and State Street Interchange. Additionally, the No-action condition includes short-term minor restoration types of activities (safety and maintenance improvements, etc.) that maintain continuing operations of the existing roadways. These improvements include activities such as adding or lengthening left-turn pockets, signal phasing changes, and adding dual left-turn lanes if receiving lanes already exist.

I-80

Figures 1-9 and 1-10 show the LOS for each freeway segment in the study area for both the a.m. and p.m. peak period in 2040 under the No-action condition. As shown in these figures, I-80 would fail in both the eastbound and westbound directions. Westbound I-80 east of State Street is expected to function at LOS F during the a.m. period, while the existing failing conditions on eastbound I-80 west of State Street would worsen during the p.m. peak period.

What is WFRC's Travel Demand Model?

WFRC maintains a travel demand forecasting model for Salt Lake, Davis, Weber, Tooele, Morgan, and Box Elder Counties. The travel demand model predicts future travel demand based on projections of land use, socioeconomic patterns, and transportation system characteristics. Travel model output is used to evaluate transportation corridors where future travel demand is likely to exceed the capacity of the facilities in the corridor and to identify and assess projects that meet travel demand.

LOS and Corresponding Densities

The table below describes the LOS for freeway segments and the corresponding densities for basic freeway segments and merge/diverge/weave segments.

LOS for Freeway Segments	Density (pc/mi/ln*)	
	Basic	Merge/ Diverge/ Weave
A	≤11	≤10
B	>11-18	>10-20
C	>18-26	>20-28
D	>26-35	>28-35
E	>34-45	>35
F	Demand Exceeds Capacity	

*passenger cars per mile per lane

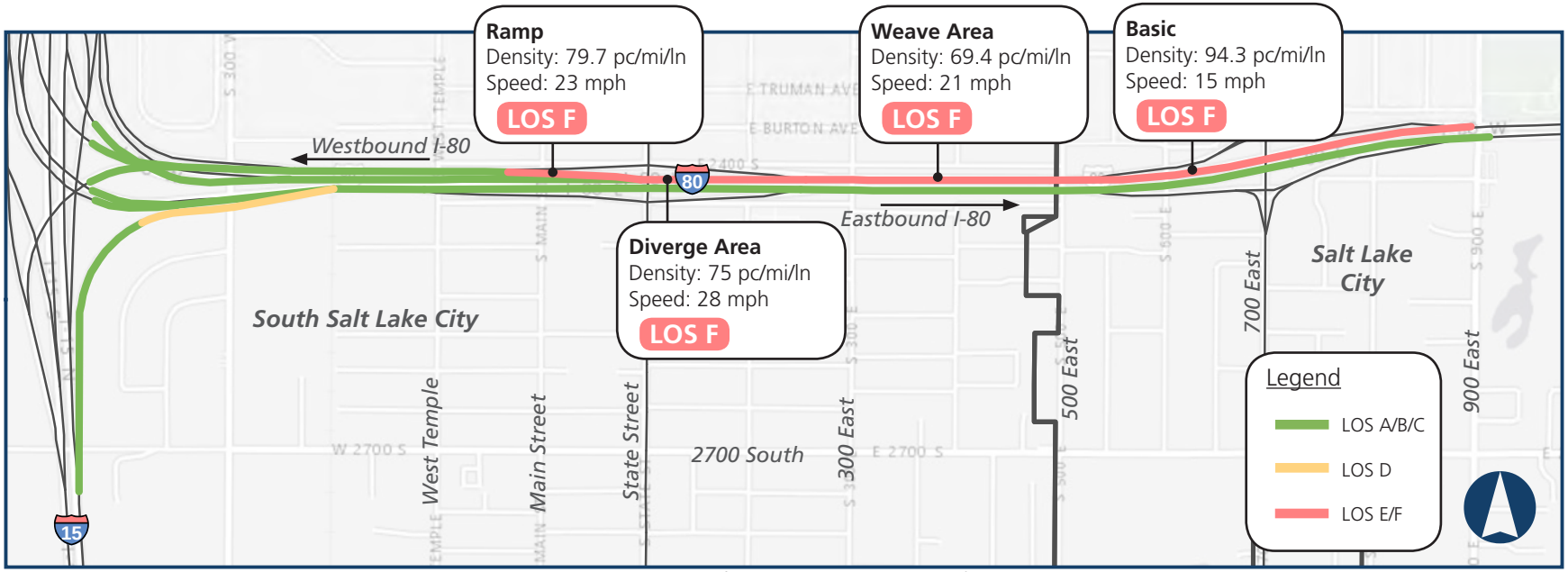


Figure 1-9 Future 2040 A.M. Peak Period Freeway LOS on I-80 (No-action Conditions)

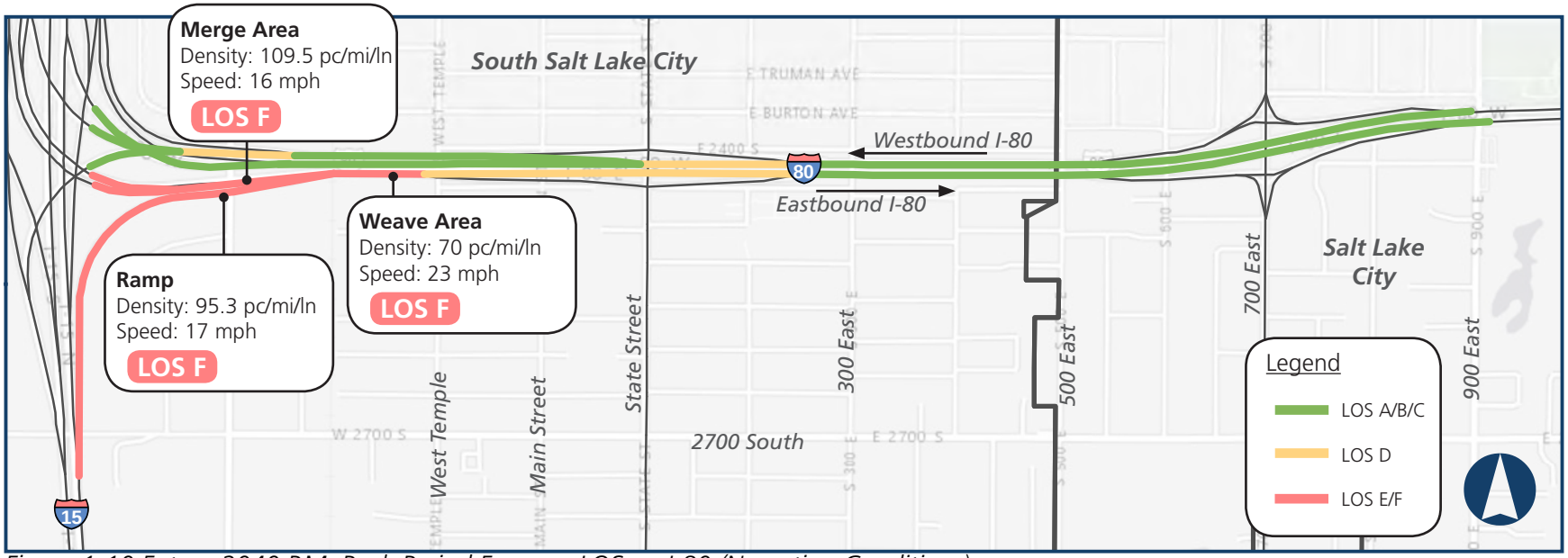


Figure 1-10 Future 2040 P.M. Peak Period Freeway LOS on I-80 (No-action Conditions)

State Street

As shown in Figures 1-11 and 1-12, arterial speeds are below acceptable values and segments of State Street would fail in both the north- and southbound directions under the No-action condition. Poor LOS is anticipated for roadway segments on State Street approaching the I-80 interchange in both the a.m. and p.m. peak periods.

Summary of 2040 No-action Conditions Analyses

The following is a summary of traffic problems in the study area under 2040 No-action conditions.

- I-80 would operate at LOS F, or failing conditions, in both the eastbound and westbound directions.
- Poor LOS is anticipated for roadway segments on State Street approaching the I-80 interchange in both the a.m. and p.m. peak periods.

For more information on the Existing and No-action Conditions analyses, see the *I-80 State Street Interchange EIS Traffic Analysis: Existing 2014 and Future 2040 No-action Memorandum* in Appendix B.

I-80 Eastbound and Westbound Weave Areas

As noted above, I-80 would operate at failing conditions in both the eastbound and westbound directions under the 2040 No-action condition (see Figures 1-9 and 1-10). For the eastbound direction, this is a result of inadequate distances for traffic merging from northbound I-15 to eastbound I-80 and from eastbound SR-201 and southbound I-15 to State Street. In the westbound direction, I-80 has a complex layout with a diverge point located directly after a weave area. In 2040, the increased traffic on I-80 would cause this weave area to operate at failing conditions during the a.m. peak hour.

During the alternatives development and analysis phase of this EIS, the project team considered a wide range of alternatives to address the eastbound and westbound needs. All of the I-80 eastbound and westbound weave alternatives operated at failing conditions in 2040 because of the high volumes of traffic on I-80 and the interaction between I-80, I-15, SR-201, State Street, and 700 East. To address the I-80 eastbound and westbound weaves, corridor wide and system-to-system analyses would need to be conducted for I-80, I-15, and SR-201. These analyses have been determined to be well-beyond the scope of this EIS, but will be further evaluated as part of other projects and studies. Therefore, this EIS will not address the failing conditions on I-80 in the eastbound and westbound weave areas.

LOS and Percent of Vehicles Traveling at Free Flow Speed

The table below describes the LOS for arterial segments and the corresponding percentage of average travel speed compared to free flow speed (the average speed a motorist would travel if there were no congestion or other adverse conditions).

LOS for Arterial Segments	Percent of Vehicles Traveling at Free Flow Speed
A	>85%
B	>67-85%
C	>50-67%
D	>40-50%
E	>30-40%
F	≤30%

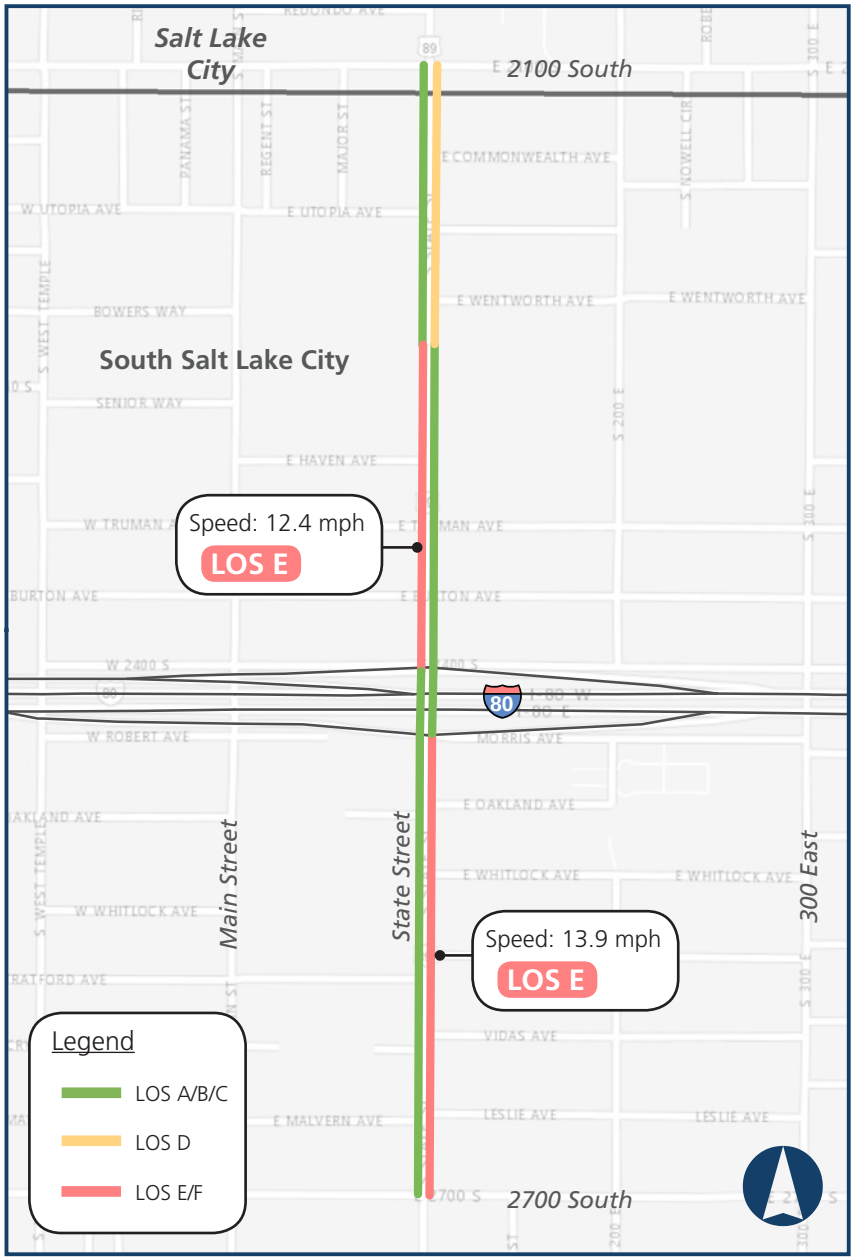


Figure 1-11 Future 2040 A.M. Peak Period LOS on State Street

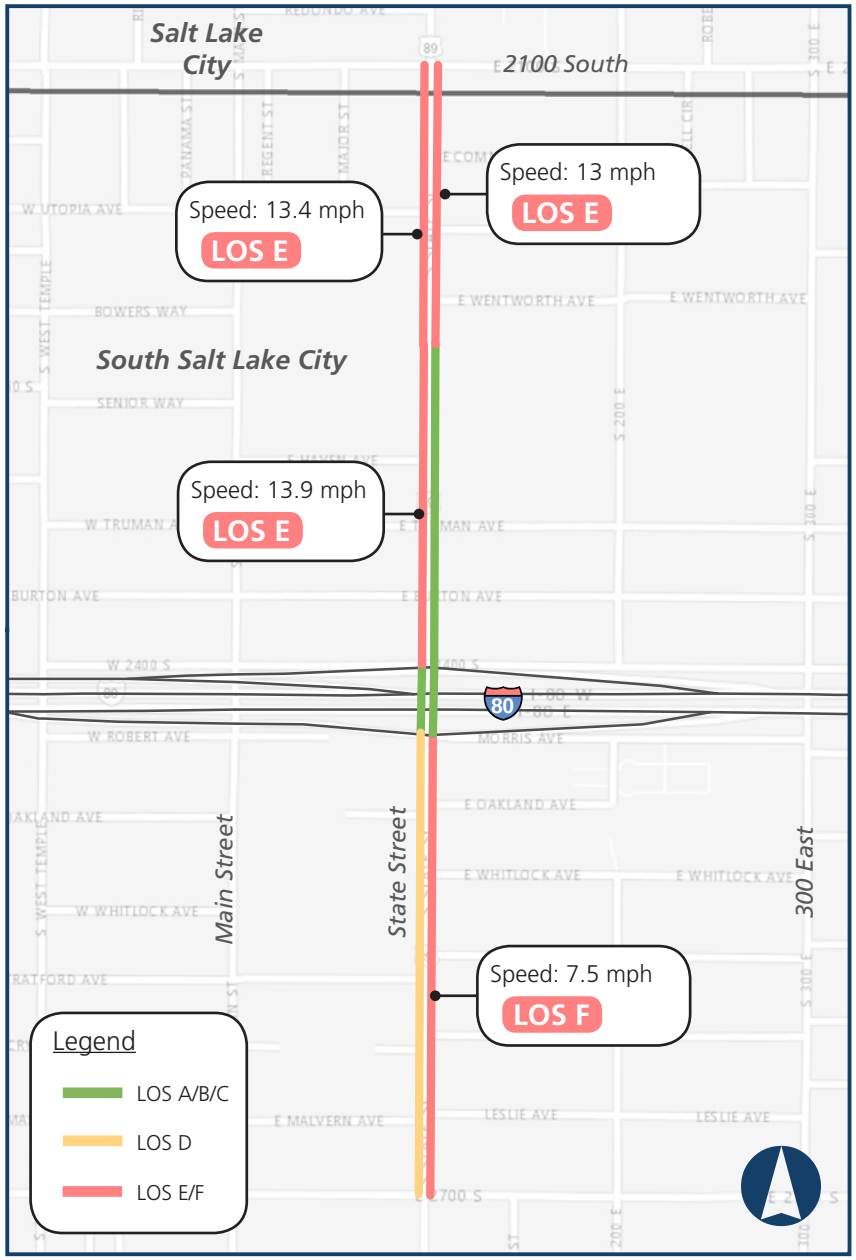


Figure 1-12 Future 2040 P.M. Peak Period LOS on State Street

Minor improvements on I-80 that would increase the speeds through the weave areas (minor ramp modifications at I-15, ramp metering, etc.) could be considered through lower level NEPA clearances. For more information on the eastbound and westbound weave alternatives, see the *Eastbound and Westbound Weave Alternatives Memorandum* in Appendix B.

1.2.2 OPERATIONAL AND SAFETY ISSUES ON I-80 AND STATE STREET

The *I-80 State Street Interchange EIS Traffic Analysis* identified the following specific operational and safety issues within the study area:

- "Trap" left-turn lanes on State Street under the I-80 structure
- Safety conflicts at the frontage roads near the I-80/State Street Interchange

"Trap" Left-Turn Lanes

In the study area the cross-section on State Street is seven lanes (three travel lanes in each direction with a center turn lane); however, as State Street crosses under I-80, the narrow bridge limits the cross-section to two travel lanes and two left-turn lanes in each direction. This bottleneck causes congestion in the 2014 a.m. peak period as vehicles approach I-80 (see Figure 1-7). In 2040, traffic will increase and worsen the existing bottleneck condition, causing State Street to fail at the interchange in both the a.m. and p.m. peak periods (see Figures 1-11 and 1-12).

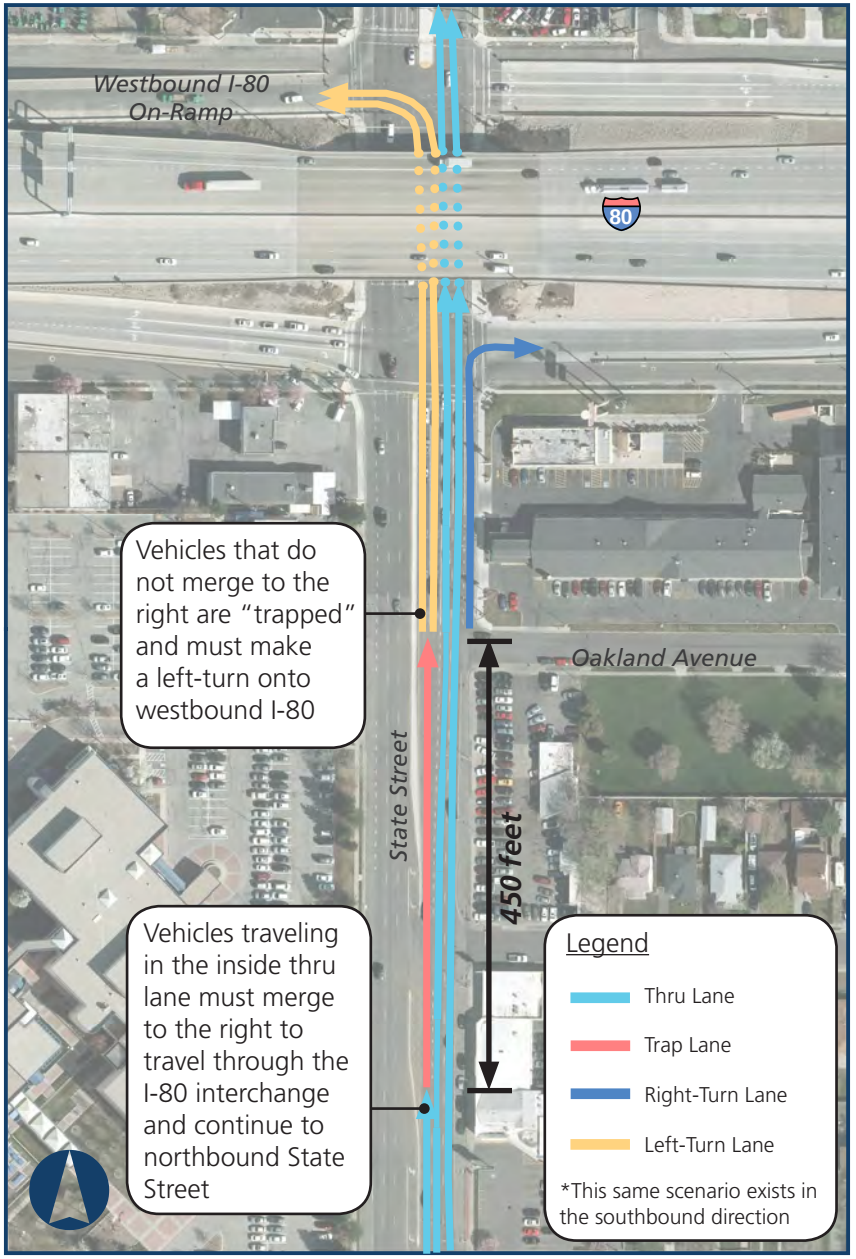


Figure 1-13 "Trap" Left-Turn Lane in Northbound Direction

In addition to causing congestion on State Street at the interchange, the bottleneck requires that vehicles traveling in the inside through lane must merge to the right to travel through the I-80/State Street Interchange to continue on State Street. Vehicles that do not merge to the right are "trapped" and must make a left turn onto I-80 (see Figure 1-13). The merging maneuver that is required for vehicles in the inside through lane on State Street slows traffic and increases the likelihood of crashes, especially when drivers are unfamiliar with the area.

State Street at the I-80 Interchange Looking Northbound

Safety Analysis

Based on information obtained from the UDOT Safety Management System, State Street, between Burton Avenue and Oakland Avenue (the cross-streets immediately north and south of the interchange), had a total of 164 crashes in the years from 2008 to 2012 (46 percent angle, 31 percent front to rear, 2 percent head on, 13 percent sideswipe, and 8 percent single vehicle). Two of the crashes were considered severe (had severity index ratings of 4 or 5).

Severity Index

Severity	Description
1	No Injury
2	Possible Injury
3	Non-Incapacitating Injury
4	Incapacitating Injury
5	Fatal

Frontage Road Conflicts

Frontage road connections exist at the I-80 and State Street Interchange at the northwest and southwest quadrants. These connections substantially increase the number of crossing conflict points (see Figure 1-14). Additionally, right-turns on red lights are permitted for the northbound to eastbound and southbound to westbound right-turn movements, which create legal, uncontrolled crossing movements.

What are Conflict Points?

Conflict points are points at which a roadway user can cross, merge, or diverge with another roadway user.

Crossing conflict points pose more dangers to vehicle occupants because crashes in these areas generally involve side impacts. Side impacts have higher rates of fatalities and serious injuries (Severity index ratings of 4 or 5) because there is comparatively little vehicle protective structure to safeguard occupants in the struck vehicle.

Safety Analysis

As discussed in the previous section, State Street, between Burton Avenue and Oakland Avenue, had a total of 164 crashes in the years from 2008 to 2012. Two of the crashes were considered severe (had severity index ratings of 4 or 5).

I-80 Westbound On-Ramp and Frontage Road Looking West

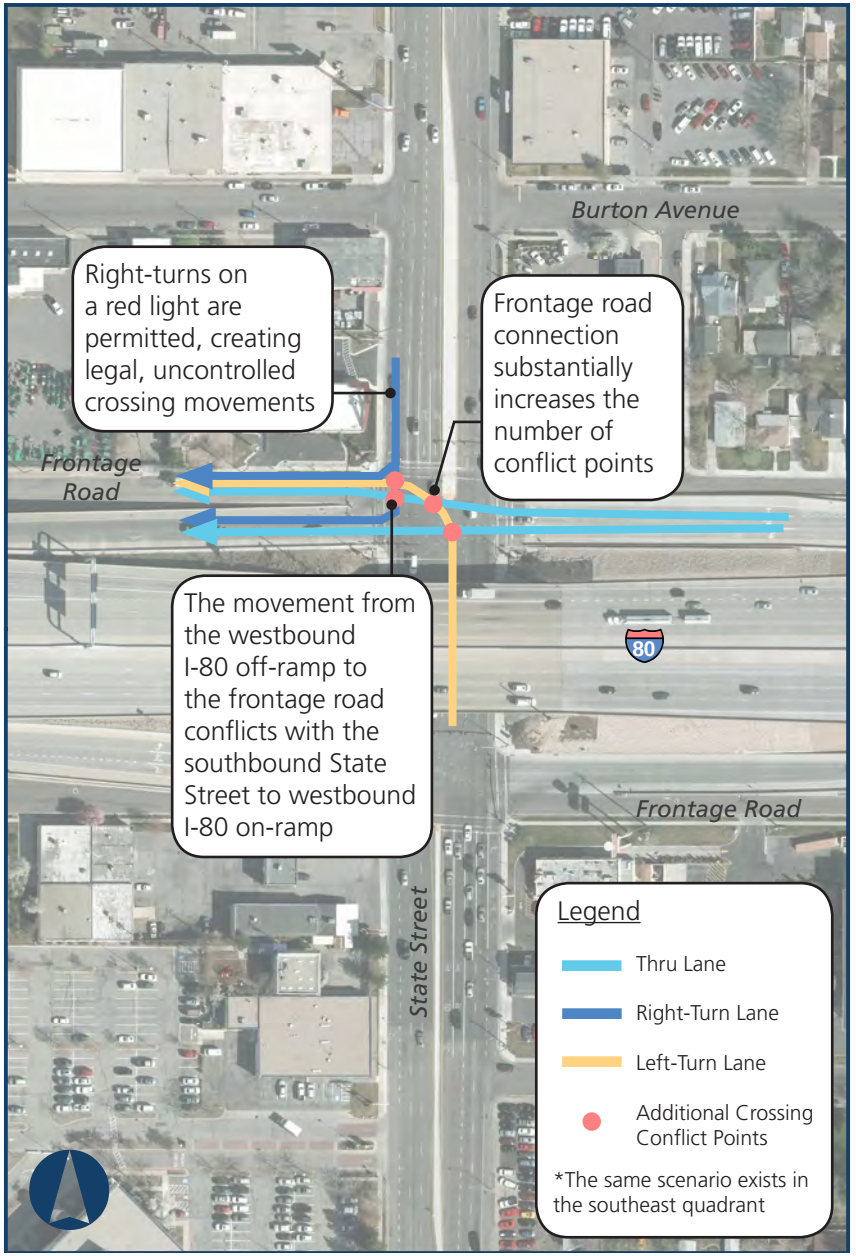


Figure 1-14 Frontage Road Connection (Northwest Quadrant)

1.2.3 CHANGING LAND-USE PATTERNS

UDOT's mission is to innovate transportation solutions that strengthen Utah's economy and enhance quality of life. UDOT recognizes that it plays a role in creating and managing a transportation system that supports economic growth.

The City of South Salt Lake has approved two urban renewal areas (URAs) within or near the study area: Central Pointe and Market Station (see Figure 1-15). These URAs are intended to improve the economic viability of the City of South Salt Lake.

Central Pointe

The current principal land uses in the Central Pointe area include commercial, industrial, manufacturing, and a small number of residences.

Because the Central Pointe TRAX station and the S-Line (see Table 1-2 and Figure 1-3) will be within the Central Pointe URA, the Central Pointe URA will promote Transit Oriented Development and mixed-use development. Over time, retail, office, mixed-use, and high-density residential development will make up a large percentage of the Central Pointe URA's acreage. Table 1-3 describes the projected redevelopment within the Central Pointe URA (*Central Pointe Project Area Plan*, adopted October 2011).

Table 1-3 Central Pointe URA Projected Redevelopment

Type	Projected Redevelopment	
Residential	**Existing** • 40 residential units • 100 persons • Population density of 1.21 persons per acres	**Projected** • 2,000 multi-family residential units • 5,000 persons • Population density of 63 persons per acre
Retail	• Additional 790,000 square feet of retail space	
Office	• Additional 230,000 square feet of office space	

Market Station

The Market Station area is primarily low-density commercial/light industrial area that will be redeveloped into a high density mixed-use retail/office and residential neighborhood. Presently, there are no occupied dwelling units within the Market Station area and the current retail/commercial population is limited as well. Table 1-4 describes the projected redevelopment within the Market Station URA (*Central Pointe Project Area Plan*, adopted October 2011 and *Market Station Official Urban Renewal Project Area Plan*, March 2008).

Table 1-4 Market Station URA Projected Redevelopment

Type	Projected Redevelopment	
Residential	**Existing** • 0 residential units	**Projected** • 140 multi-family units
Retail	• Additional 150,000 square feet of retail space	
Office	• Additional 100,000 square feet of office space	

Growth within the Study Area

As a result of changing land uses and redevelopment, the number of households and total population is expected to increase in the study area through 2040. Total population within the study area is expected to increase by 8,625 persons, with households increasing by 4,326 units.

Table 1-5 Projected Growth within the Study Area*

	Households	Population
2012 Total	2,348	5,344
2040 Total	6,674	13,969
Difference	4,326	8,625
% Growth	184%	161%

*Based on 21 selected Traffic Area Zones within the study area, adjusted for proposed redevelopment information provided by South Salt Lake City

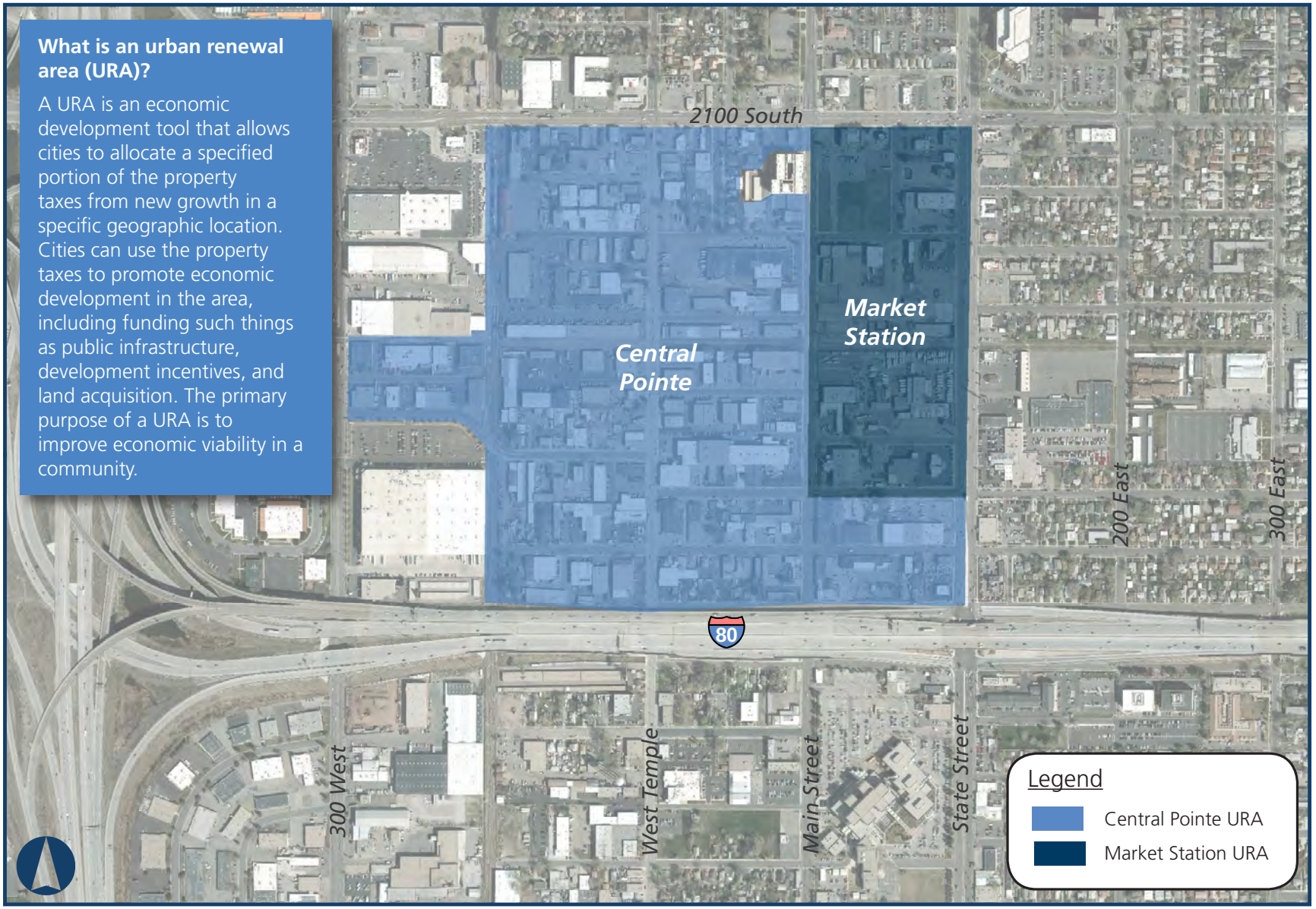


Figure 1-15 Urban Renewal Areas

Travel Demand
WFRC allocates expected growth by 2040 to Traffic Analysis Zones (TAZs) across multiple counties, but growth in any given locale may not match with local expectations for that area. As discussed above, South Salt Lake is aggressively pursuing major redevelopment in the study area. The City's proposed plans for commercial square footage were reviewed and converted into either retail, industrial, or other jobs (usually office jobs), and placed into the relevant TAZs. The City is also planning substantial new dwelling units, which were converted into households and people for use in the model. In that effort, it was assumed that the redevelopment would entirely replace existing uses, and not be additive to existing uses (see I-80 State Street Interchange EIS Traffic Analysis: Existing 2014 and Future 2040 No-Action Memorandum in Appendix B).

Conclusion
Land uses within the study area will include denser patterns of development and will result in slightly increased travel demand within the study area. In order for the URAs to be economically viable, adequate transportation access will be required.

1.3 OBJECTIVES AND GOALS

1.3.1 PURPOSE AND NEED OBJECTIVES

The project team developed specific objectives to measure an alternative's ability to meet the purpose and need.

Table 1-6 Purpose and Need Objectives

Purpose	Objective
Reduce congestion on I-80 and State Street	• Provide LOS C* or better at the State Street and I-80 Interchange • Provide LOS D or better on State Street near the State Street and I-80 Interchange
Improve safety and operational characteristics on I-80 and State Street	Reduce crashes on I-80 and State Street
Support local economic development through mobility improvements	Be consistent with South Salt Lake City's economic development and master transportation plans

*The State Street and I-80 Interchange will operate at LOS C or better under the 2040 No-action conditions; therefore, an interchange alternative needs to operate at LOS C or better to meet the purpose and need for the project.

1.4 SUMMARY OF PROJECT PURPOSE AND NEED

1.4.1 PROJECT PURPOSE

The purpose of the proposed action is to:

- Reduce congestion on I-80 and State Street
- Improve operational characteristics and safety on I-80 and State Street
- Support local economic development through mobility improvements

1.4.2 PROJECT NEEDS

The project would address the following project needs:

- *Congestion on I-80 and State Street near the Interchange* – Segments of I-80 and State Street will operate at failing conditions by 2040
- *Operational and Safety Issues on I-80 and State Street*:
  - Inside through-lane on northbound and southbound State Street trapped at the left-turn lanes under the narrow I-80 bridge
  - Safety conflicts at the frontage roads near the State Street/I-80 Interchange
- *Changing Land-Use Patterns and Additional Development* – Land use in the study area is changing and becoming more diversified as a result of two major URAs (Market Station and Central Pointe) located northwest of the I-80/State Street Interchange (see Figure 1-15). These renewal areas will cause an increase of vehicle, pedestrian, and bicycle traffic.

CHAPTER TWO: ALTERNATIVES

2.1 INTRODUCTION

Chapter 2 describes the range of alternatives, including all "reasonable alternatives" under consideration and those "other alternatives" that were eliminated from detailed study (23 CFR 771.123(c)). In accordance with the Federal Highway Administration's (FHWA) Technical Advisory T6640.8a and the Utah Department of Transportation's (UDOT) Environmental Process Manual of Instruction, this Environmental Impact Statement (EIS) considered the No-action, Transportation System Management (TSM), Transit, and build alternatives.

23 CFR 771.123 (C)

The EIS shall evaluate all reasonable alternatives to the action and discuss the reasons why other alternatives, which may have been considered, were eliminated from detailed study.

2.2 DEVELOPMENT OF ALTERNATIVES

The lead agencies developed and evaluated a wide range of alternatives as part of this study. The agencies did not constrain the list of alternatives by mode, ability to meet the purpose and need, potential environmental impacts, or cost. The intent was to begin with a broad listing of specific and independent actions that could be performed.

2.2.1 AGENCY AND PUBLIC INVOLVEMENT

In accordance with the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and Fixing America's Surface Transportation Act (FAST), cooperating and participating agencies of the I-80 and State Street EIS will have the opportunity to provide input on the initial range of alternatives as well as the screening criteria by reviewing a draft of Chapter Two: Alternatives.

The project team held a public meeting on November 19, 2014 to discuss the initial range of alternatives, the screening process, and conceptual layouts of build alternatives. At this meeting the public had opportunity to review maps of alternatives and provide comment and input. Input consisted of questions and concerns from the public, but the comments did not result in additional alternatives or major modifications to existing alternatives. The project team used all comments regarding alternatives to evaluate and refine the range of alternatives.

2.2.2 ALTERNATIVES CONSIDERED

The alternatives development process included evaluating potential solutions to meeting the project purpose. Each alternative assumes that all funded projects included in the Wasatch Front Regional Council (WFRC) 2040 Regional Transportation Plan (RTP) would be completed by 2040, except for improvements to the I-80 and State Street interchange. The project team considered a wide range of alternatives including the No-action Alternative, the Transportation System Management (TSM) Alternative, the Transit Alternative, and several build alternatives. These build alternatives included improvements to the I-80 and State Street interchange. The following sections describe the alternatives considered.

What is the Project Purpose?

The purpose of the proposed action is to:

- Reduce congestion on I-80 and State Street
- Improve operational characteristics and safety on I-80 and State Street
- Support local economic development through mobility improvements

No-action Alternative

The No-action Alternative would maintain I-80 and State Street in their current roadway configurations. This alternative assumes that short-term minor restoration (safety and maintenance) activities that maintain continued operation of the existing roadway facilities would be ongoing. The No-action Alternative assumes all other improvements included in the 2040 RTP would be implemented.

Transportation System Management (TSM) Alternative

The TSM Alternative includes activities that would improve traffic flow. This alternative would focus on strategies to maximize the efficiency of the existing system through activities that include intersection improvements, turn lanes, signal coordination and optimization, ramp metering, auxiliary lanes, Intelligent Transportation Systems (ITS), and access management to reduce conflicts.

Transit Alternative

The Transit Alternative assumes implementation of public transit improvements included in WFRC's 2040 RTP (see Figure 1-3 in Chapter 1). There is no difference between the No-action Alternative and the Transit Alternative.

I-80 and State Street Interchange Alternatives

The project team developed several interchange alternatives to address the congestion on State Street and the operational and safety concerns at the I-80/State Street Interchange. All interchange alternatives would include widening the I-80 bridge to accommodate three travel lanes on State Street in each direction. The alternatives are described in Table 2-1 and Figures 2-1 through 2-11.

Table 2-1 I-80 and State Street Interchange Alternatives

I-80 AND STATE STREET INTERCHANGE ALTERNATIVES
No-action Alternative
1 – Single Point Urban Interchange (SPUI)
1A – Additional Exit at Main Street
2 – Loop Ramp
3 – Split Diamond at Main Street
3N – Split Diamond at Main Street, North Side Only
3A – Split Diamond at Main Street with Texas Turnarounds
4 – Split Diamond at West Temple
5 – Diverging Diamond Interchange (DDI)
6 – Continuous Flow Intersection (CFI)
7 – Diamond Interchange
8 – Thru-Turns

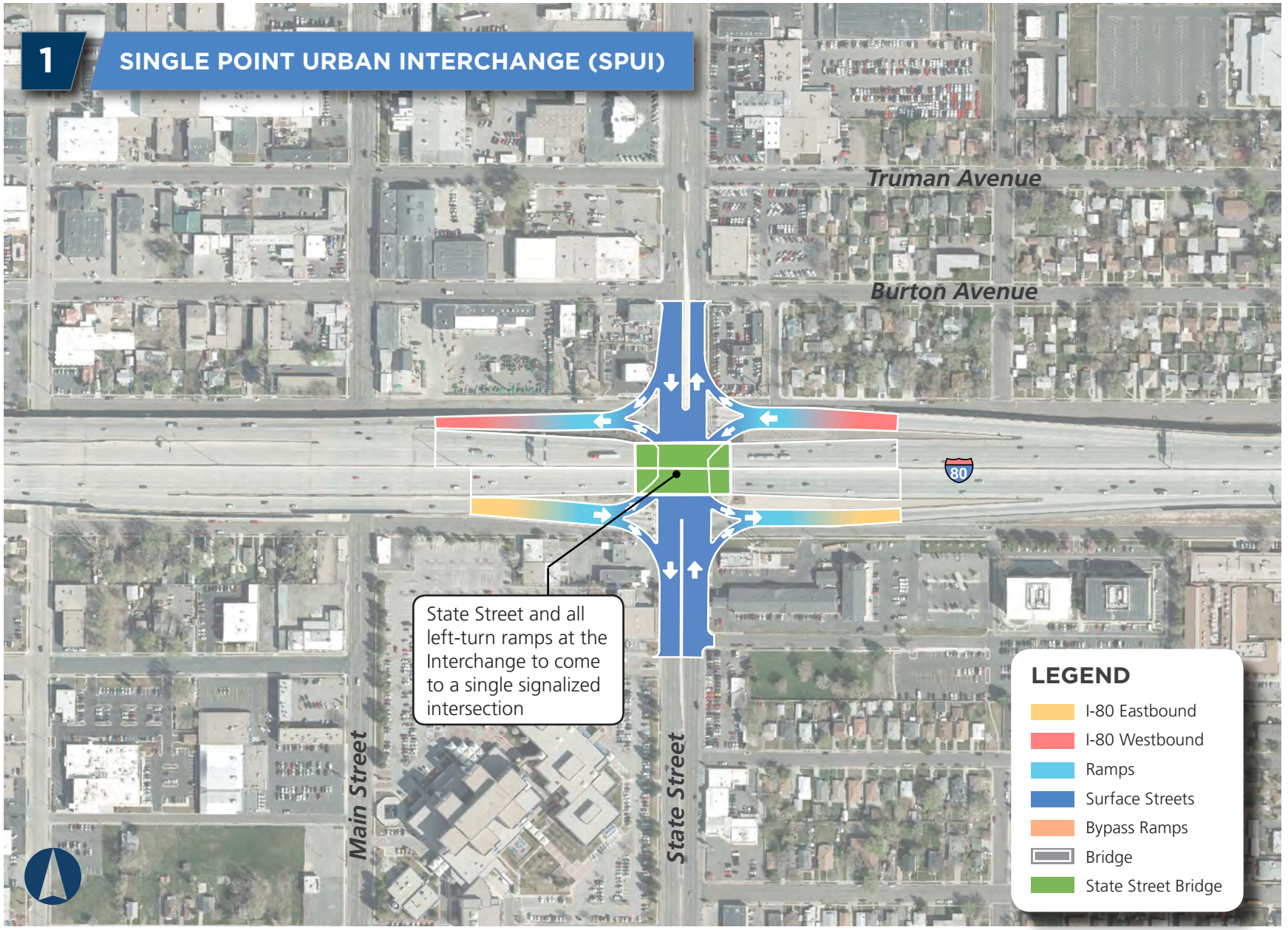


Figure 2-1 Interchange Alternative 1 – Single Point Urban Interchange (SPUI)

Figure 2-2 Interchange Alternative 1A – Additional Exit to Main Street

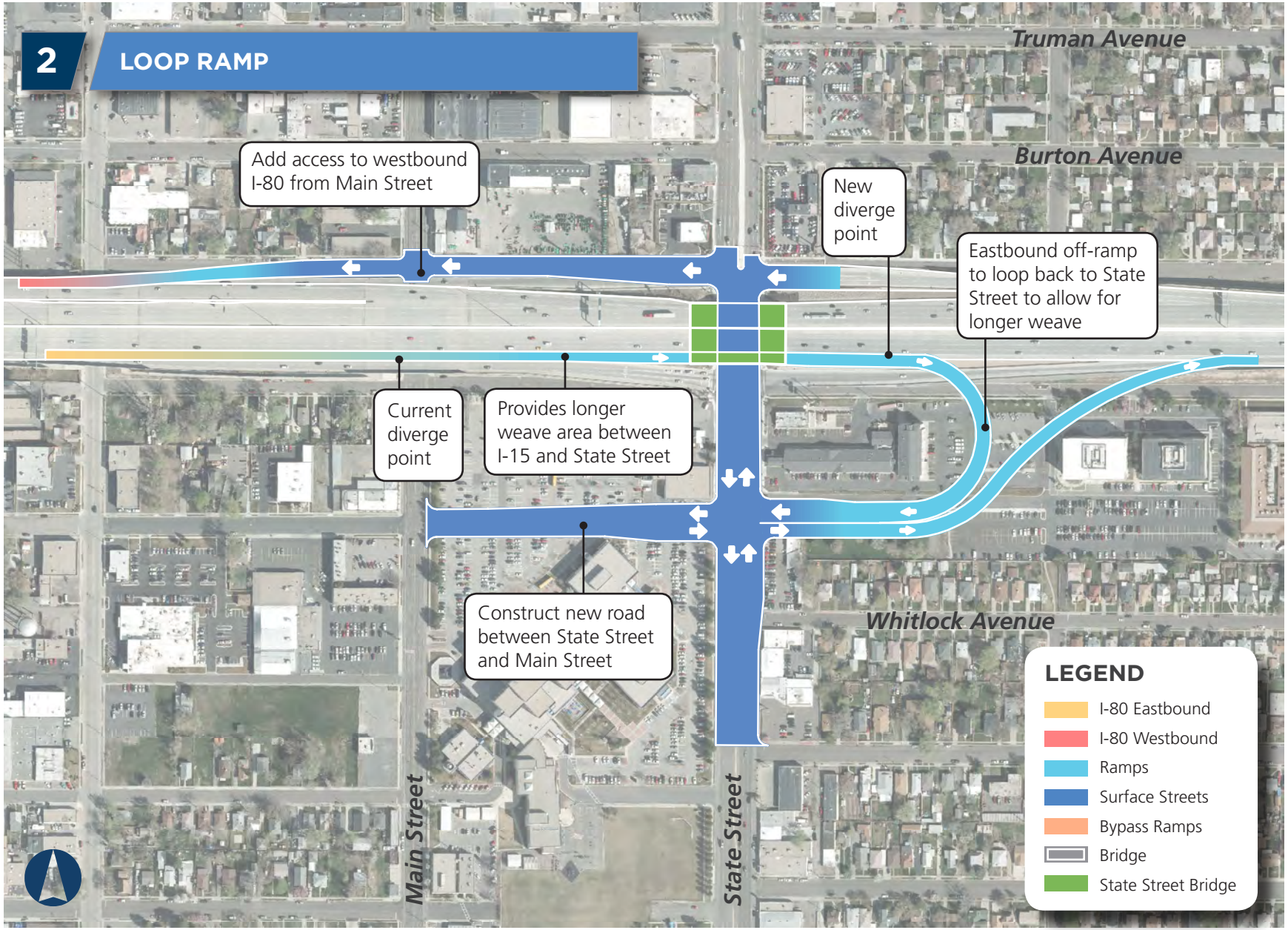


Figure 2-3 Interchange Alternative 2 – Loop Ramp

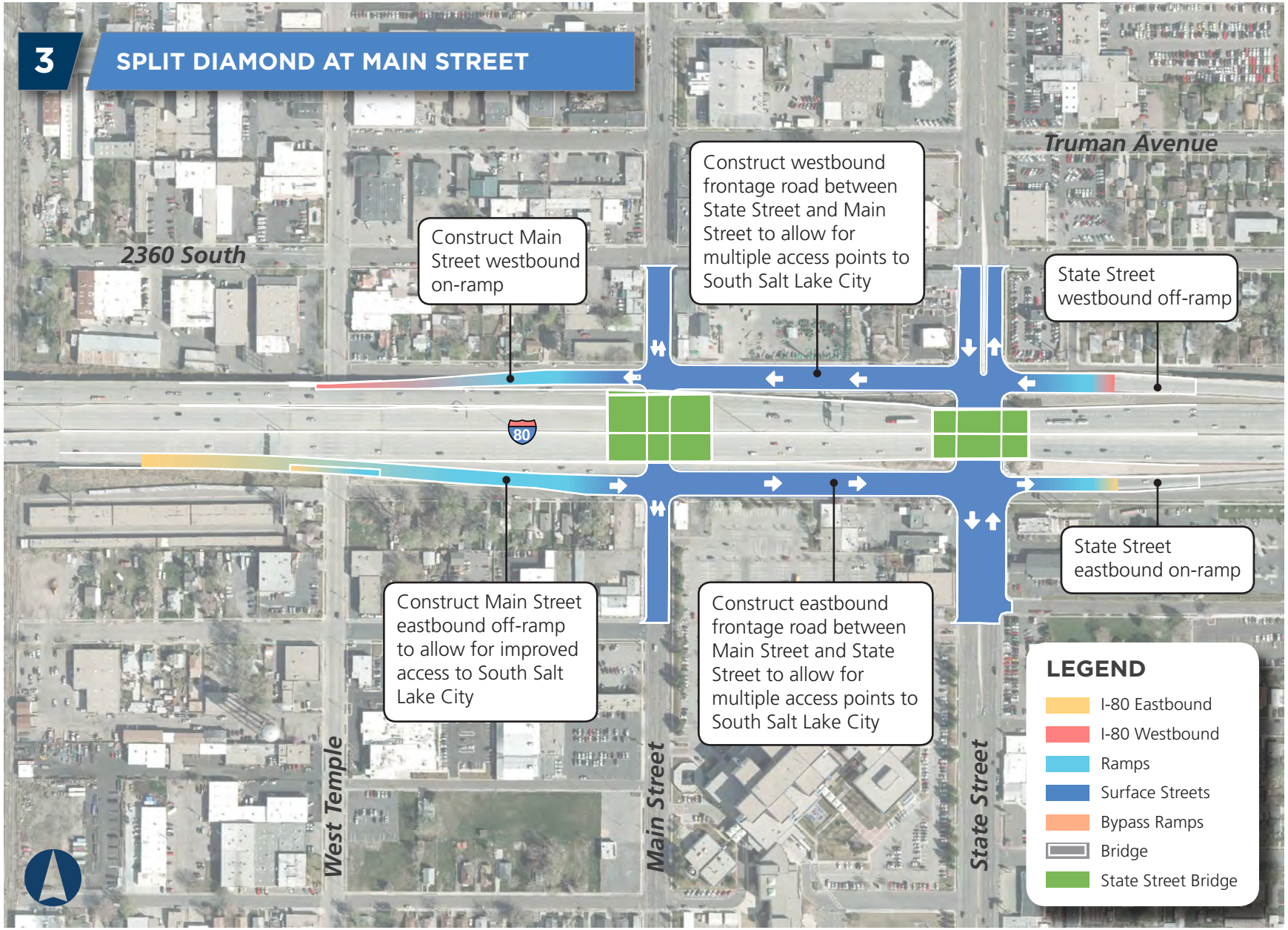


Figure 2-4 Interchange Alternative 3 – Split Diamond

Figure 2-5 Interchange Alternative 3N – Split Diamond, North Side Only

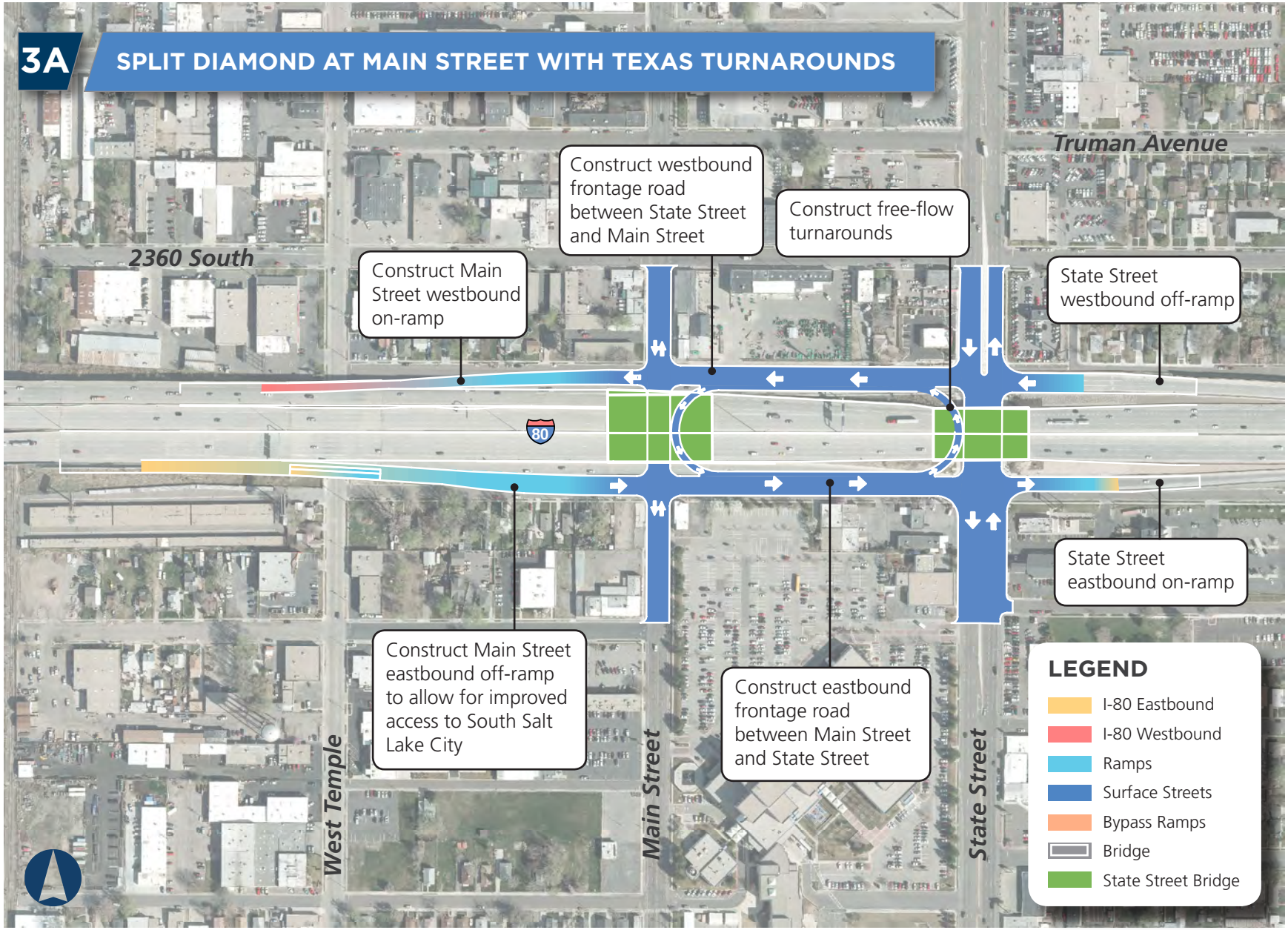


Figure 2-6 Interchange Alternative 3A – Split Diamond at Main Street with Texas Turnarounds

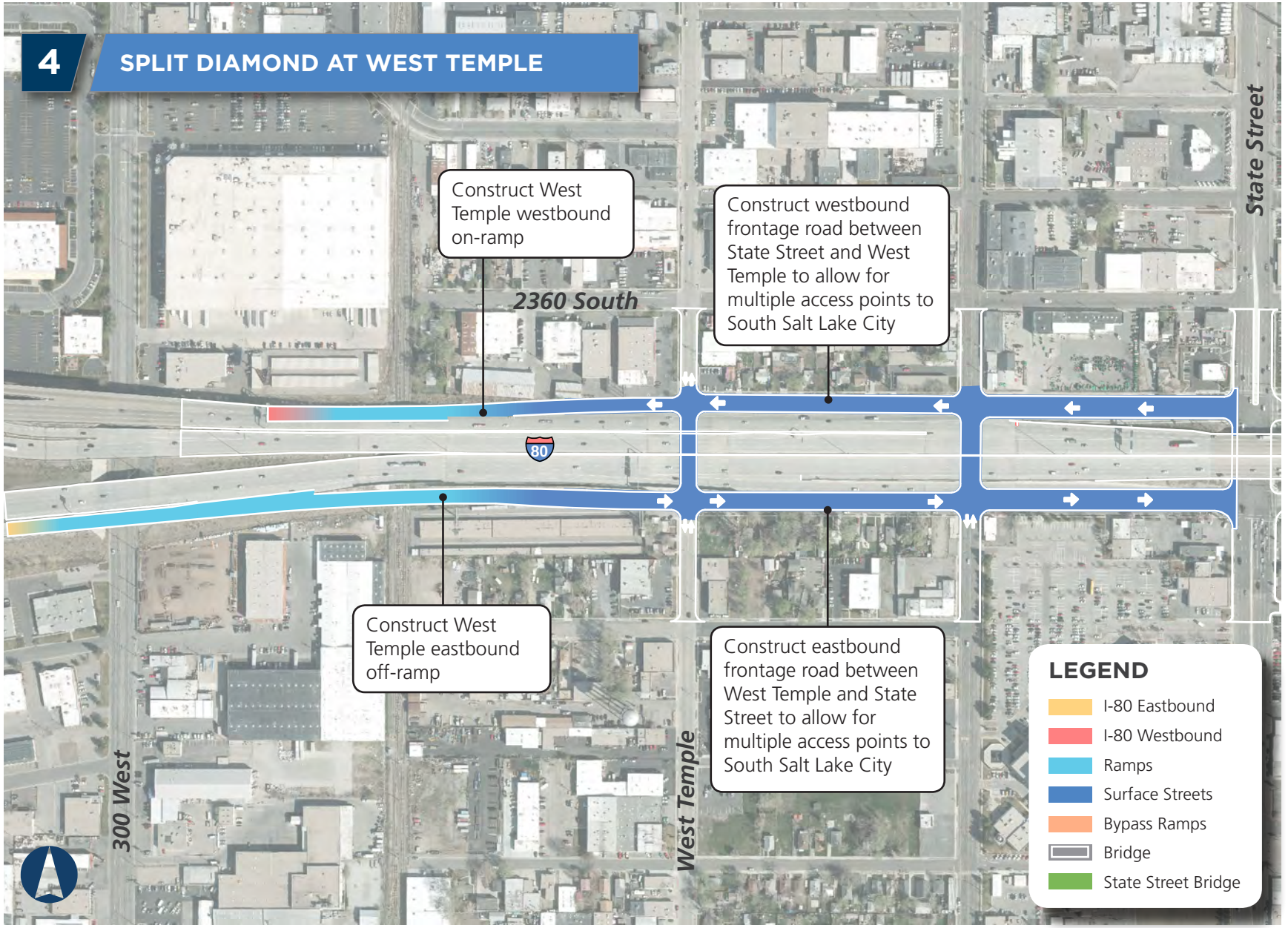


Figure 2-7 Interchange Alternative 4 – Split Diamond at West Temple

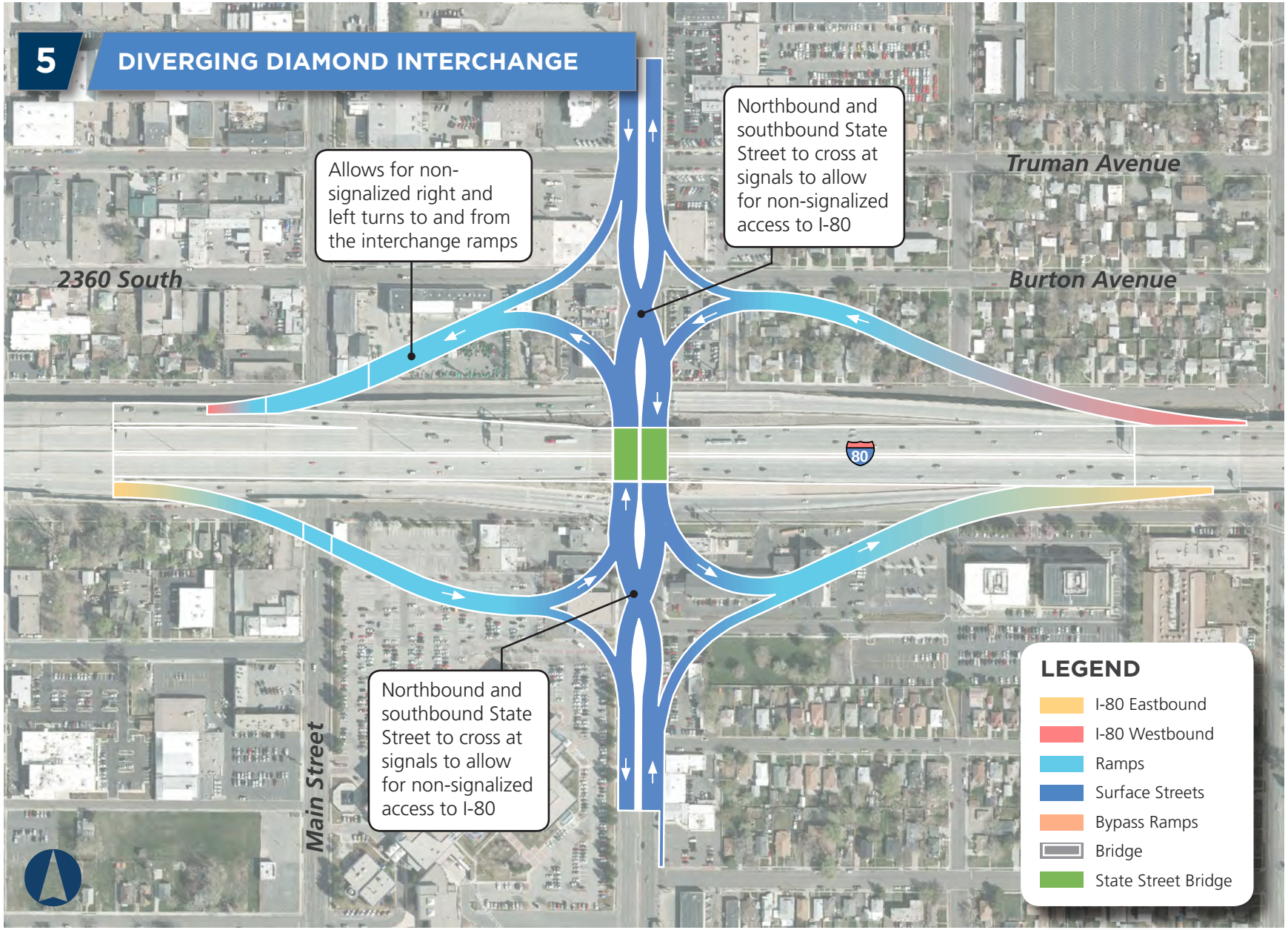


Figure 2-8 Interchange Alternative 5 – Diverging Diamond Interchange (DDI)

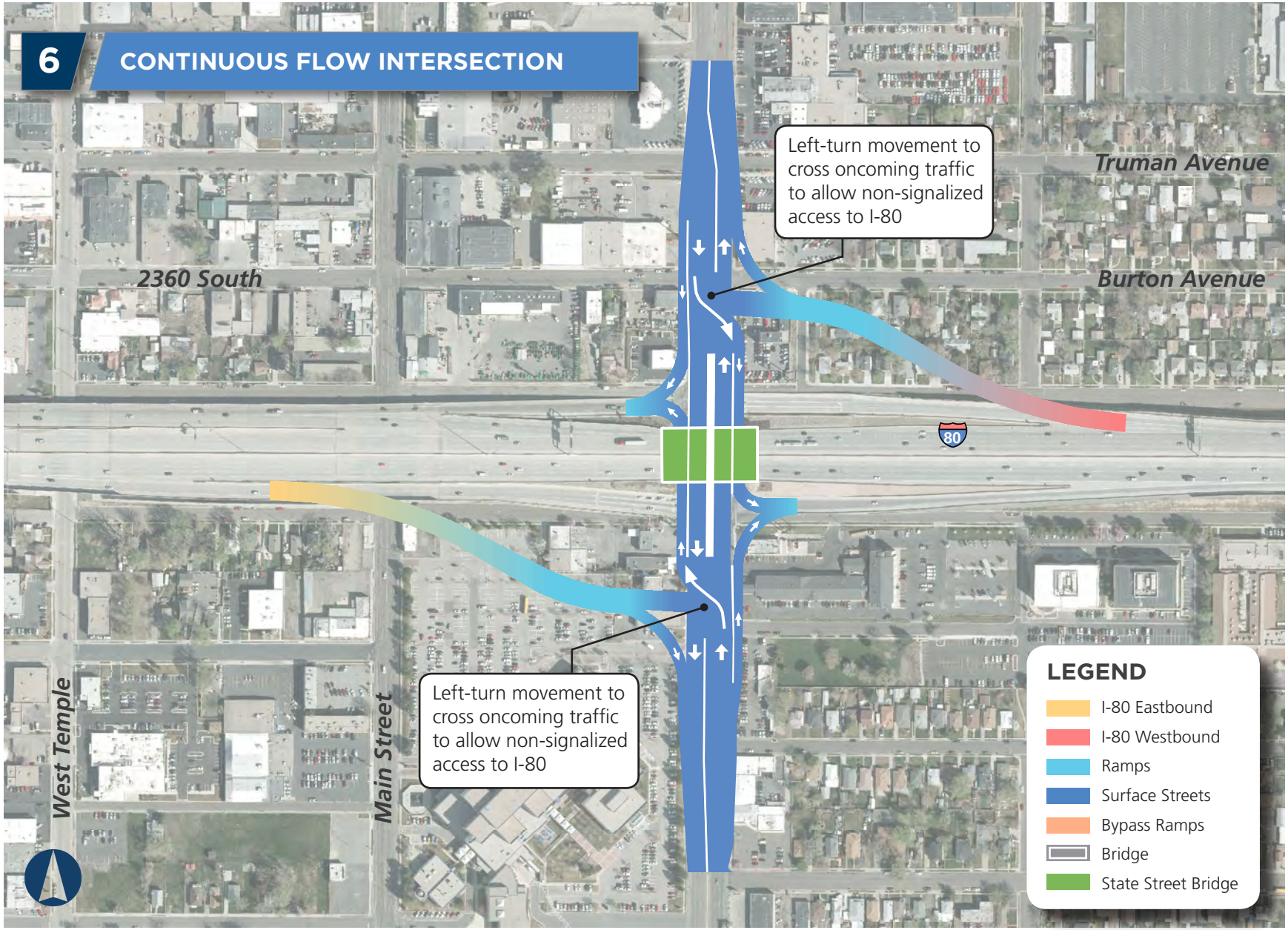


Figure 2-9 Interchange Alternative 6 – Continuous Flow Intersection (CFI)

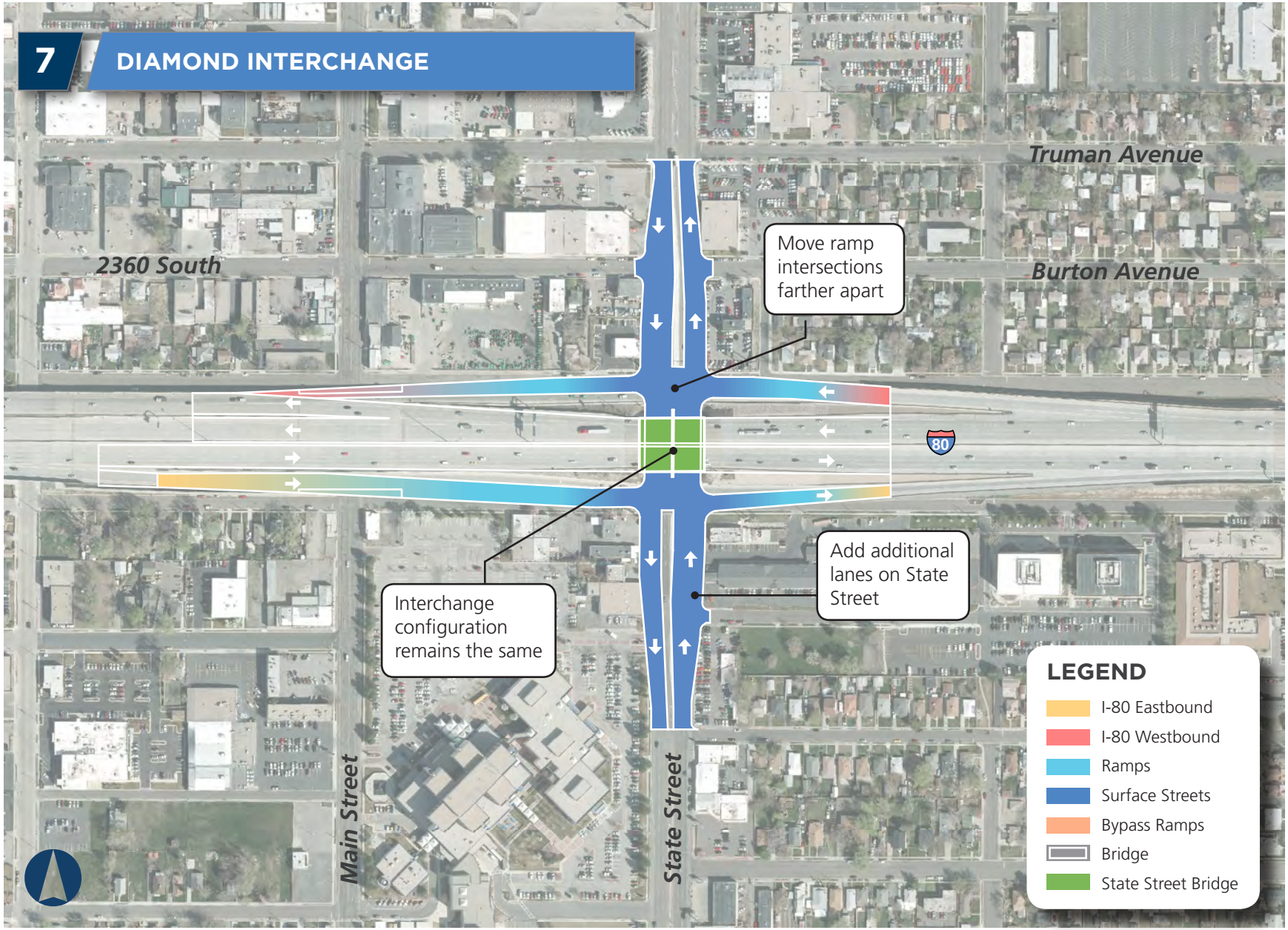


Figure 2-10 Interchange Alternative 7 – Diamond Interchange

Figure 2-11 Interchange Alternative 8 – Thru-Turns

2.3 ALTERNATIVES SCREENING PROCESS

The alternatives screening process will evaluate the alternatives described in the previous sections. The screening process for the I-80 and State Street Interchange EIS includes:

- **Level 1 – Purpose and Need Screening:** Evaluate the compatibility of the alternatives with the purpose and need.
- **Level 2 – Environmental Screening:** Screen alternatives that are found acceptable in Level 1 Screening. These alternatives will be screened based on critical environmental resources, including impacts to residential relocations, commercial relocations, and Section 4(f) properties.

The National Environmental Policy Act (NEPA) requires that an EIS evaluate all reasonable alternatives and discuss those alternatives that were eliminated from further study. Reasonable alternatives include those that meet the project purpose and need. Alternatives that have substantially greater environmental or other impacts, based on preliminary screening, will be eliminated from further study.

2.3.1 LEVEL 1 – PURPOSE AND NEED SCREENING

The first screening process will evaluate the compatibility of the alternatives with the purpose and need. The purpose of the project consists of three elements:

- Reduce congestion on I-80 and State Street
- Improve operational characteristics and safety on I-80 and State Street
- Support local economic development through mobility improvements

The project team developed specific objectives to measure an alternative's ability to meet the three elements of the project purpose (see Section 1.3 in Chapter 1 of this EIS). Alternatives that meet all three elements of the project purpose will move forward to Level 2 – Environmental Screening. Alternatives that only meet one or two elements of the project purpose will be eliminated from further consideration.

TSM Alternative

The elements of this alternative are included in the projects identified in the 2040 RTP. These elements would help reduce congestion on I-80 and State Street, but would not be sufficient in themselves to make noticeable improvements. Additionally, because the TSM alternative focuses on strategies to maximize the efficiency of the existing system, and does not include any new construction, this alternative would not improve safety and operational characteristics on I-80 and State Street, and it would not support local economic development through mobility improvements. Therefore, this alternative was eliminated from further consideration because it would not meet the three elements of the project purpose; however, elements of this alternative will be incorporated into build alternatives.

Transit Alternative

The effectiveness of a transit alternative can be determined by the reduction of peak hour volumes on I-80 and State Street. An effective transit alternative would shift travel from automobiles to transit, reducing the number of vehicles on the road. The Transit Alternative assumes implementation of public transit improvements included in WFRC's 2040 RTP (see Figure 1-3 in Chapter 1). The peak hour volumes for the Transit Alternative would be the same as the No-action Alternative; therefore, the Transit Alternative would not reduce congestion on I-80 and State Street. Additionally, the Transit Alternative would not improve safety and operational characteristics on I-80 and State Street, and it would not support local economic development through mobility improvements. Therefore, this alternative was eliminated from further consideration because it would not meet the three elements of the project purpose; however, the Transit Alternative will be incorporated into all build alternatives.

I-80 and State Street Interchange Alternatives

The project team developed specific objectives to measure an I-80 and State Street Interchange alternative's ability to meet the three elements of the project's purpose (see Table 2-2).

Table 2-2 Purpose and Need Objectives (Interchange)

Purpose	Objective
Reduce congestion on I-80 and State Street	• Provide LOS C* or better for all intersections associated with the State Street and I-80 Interchange • Provide LOS D or better on State Street near the State Street and I-80 Interchange
Improve safety and operational characteristics on I-80 and State Street	Reduce crashes on State Street
Support local economic development through mobility improvements	Be consistent with South Salt Lake City's economic development and master transportation plans

*All intersections associated with the I-80 and State Street Interchange will operate at LOS C or better under the 2040 No-action conditions; therefore, an interchange alternative needs to operate at LOS C or better (for all intersections) to meet the purpose and need for the project.

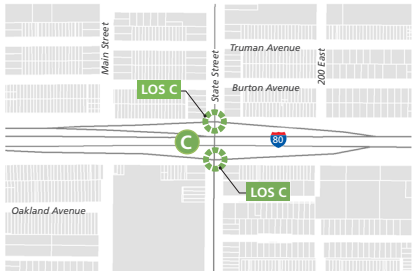
Provide LOS C or Better at I-80 and State Street Interchange

To meet the "Reduce congestion on I-80 and State Street" element of the project purpose, an I-80 and State Street Interchange Alternative needs to provide LOS C or better for all intersections associated with the I-80 and State Street Interchange in 2040. As shown in Table 2-3 and Figure 2-12, the No-action Alternative, and Interchange Alternatives 1, 1A, 3, 3N, 3A, 5, 6, and 7 provide LOS C or better for all intersections associated with the I-80 and State Street Interchange.

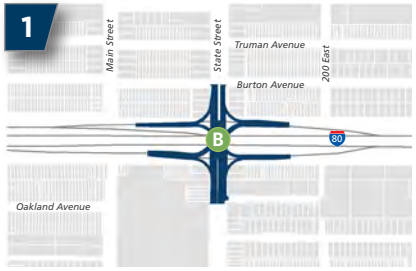
Table 2-3 2040 Intersection LOS

I-80 and State Street Interchange Alternatives	North LOS	South LOS	Overall Interchange LOS	LOS C or better for all intersections
No-action Alternative	C	C	C	Yes
1 – Single Point Urban Interchange (SPUI)	---	---	B	Yes
1A – Additional Exit at Main Street	---	---	B	Yes
2 – Loop Ramp	D	C	C	No
3 – Split Diamond at Main Street	C	C	C	Yes
3N – Split Diamond at Main Street, North Side Only	C	C	C	Yes
3A – Split Diamond at Main Street with Texas Turnarounds	C	B	C	Yes
4 – Split Diamond at West Temple[1]	---	---	---	No
5 – Diverging Diamond Interchange (DDI)	B	B	B	Yes
6 – Continuous Flow Intersection (CFI)	C	C	C	Yes
7 – Diamond Interchange	B	C	C	Yes
8 – Thru-Turns	F	D	F	No

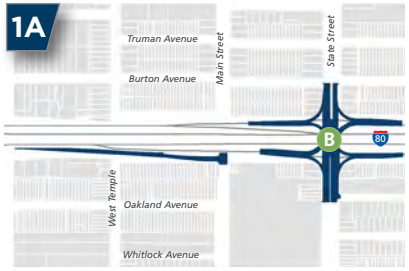
[1] I-80 and State Street Interchange Alternative 4 – Split Diamond at West Temple would not allow vehicles traveling from southbound I-15 or eastbound SR-201 to exit at State Street without being constructed in combination with one of the Eastbound Weave Alternatives. Since it was previously determined that none of the Eastbound Weave Alternatives would meet the purpose and need of the project, Interchange Alternative 4 is not considered a viable alternative; therefore, Interchange Alternative 4 has been eliminated from further consideration.



NO-ACTION ALTERNATIVE

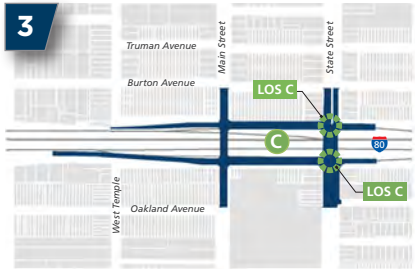


SINGLE POINT URBAN INTERCHANGE (SPUI)



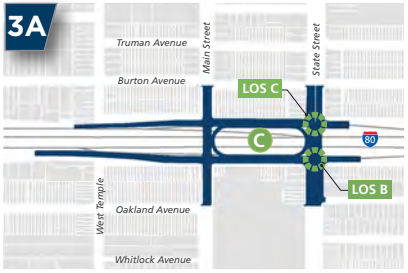
ADDITIONAL EXIT AT MAIN STREET

LOOP RAMP

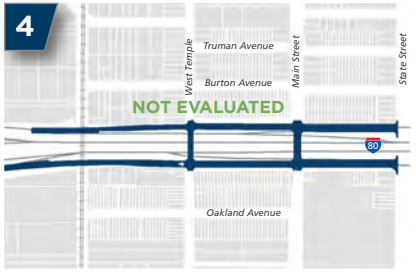


SPLIT DIAMOND AT MAIN STREET

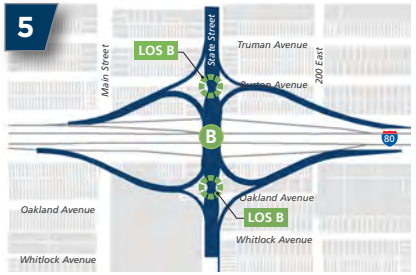
SPLIT DIAMOND AT MAIN STREET, NORTH SIDE ONLY



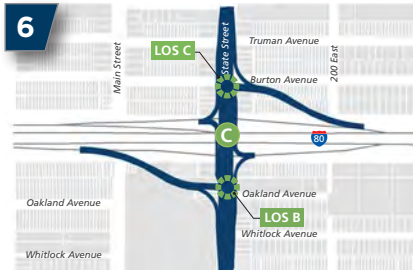
SPLIT DIAMOND AT MAIN STREET WITH TEXAS TURNAROUNDS



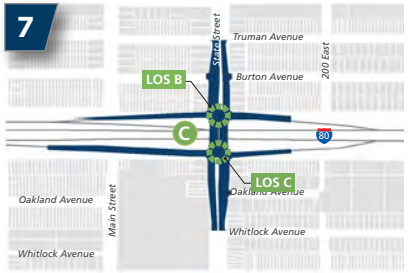
SPLIT DIAMOND AT WEST TEMPLE



DIVERGING DIAMOND INTERCHANGE (DDI)



CONTINUOUS FLOW INTERSECTION (CFI)



DIAMOND INTERCHANGE

THRU-TURNS

Figure 2-12 2040 Intersection LOS by Interchange Alternative

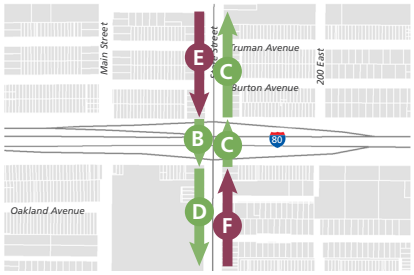
Provide LOS D or Better on State Street

To meet the "Reduce congestion on I-80 and State Street" element of the project purpose, an I-80 and State Street Interchange Alternative also needs to provide LOS D or better on State Street near the I-80 and State Street Interchange. As shown in Table 2-4 and Figure 2-13, Interchange Alternatives 1, 1A, 2, 3, 3N, 3A, and 7 all provide LOS D or better on State Street during the PM peak hour, in 2040.

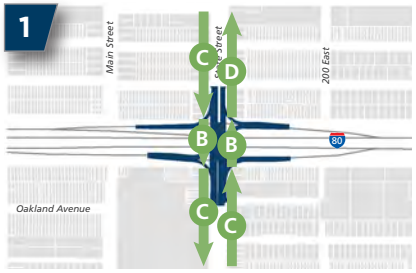
Table 2-4 2040 State Street Arterial PM LOS

I-80 and State Street Interchange Alternatives	State Street Arterial PM LOS						LOS D or better on State Street
	Southbound			Northbound			
	Street Car to WB I-80	WB I-80 to EB I-80	EB I-80 to 2700 South	2700 South to EB I-80	EB I-80 to WB I-80	WB I-80 to Street Car	
No-action Alternative	E	B	D	F	C	C	No
1 – Single Point Urban Interchange (SPUI)	C	B	C	C	B	D	Yes
1A – Additional Exit at Main Street	C	B	C	C	B	D	Yes
2 – Loop Ramp	C	C	C	D	D	C	Yes
3 – Split Diamond at Main Street	D	B	B	D	C	B	Yes
3N – Split Diamond at Main Street, North Side Only	C	B	C	D	C	C	Yes
3A – Split Diamond at Main Street with Texas Turnarounds	D	B	C	C	C	C	Yes
4 – Split Diamond at West Temple[1]	---	---	---	---	---	---	No
5 – Diverging Diamond Interchange (DDI)	F	E	C	D	E	E	No
6 – Continuous Flow Intersection (CFI)	E	F	B	D	F	C	No
7 – Diamond Interchange	D	B	C	D	C	C	Yes
8 – Thru-Turns	F	F	C	D	B	E	No

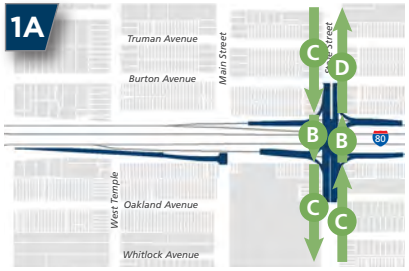
[1] I-80 and State Street Interchange Alternative 4 – Split Diamond at West Temple would not allow vehicles traveling from southbound I-15 or eastbound SR-201 to exit at State Street without being constructed in combination with one of the Eastbound Weave Alternatives. Since it was previously determined that none of the Eastbound Weave Alternatives would meet the purpose and need of the project, Interchange Alternative 4 is not considered a viable alternative; therefore, Interchange Alternative 4 has been eliminated from further consideration.



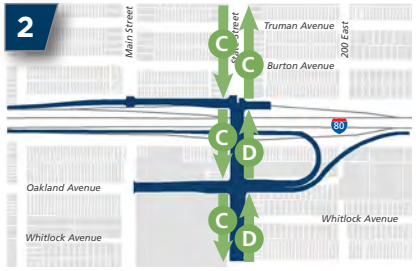
NO-ACTION ALTERNATIVE



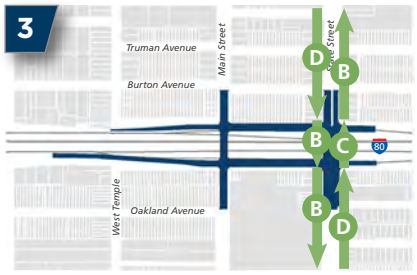
SINGLE POINT URBAN INTERCHANGE (SPUI)



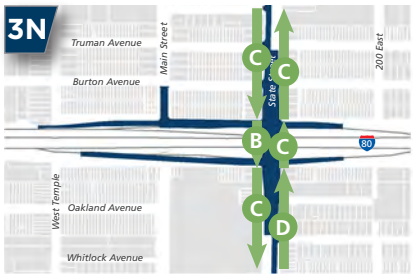
ADDITIONAL EXIT AT MAIN STREET



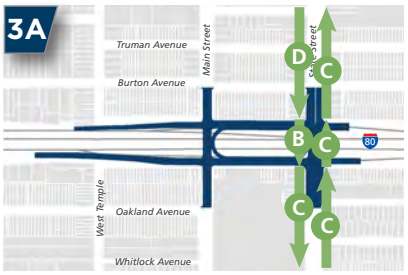
LOOP RAMP



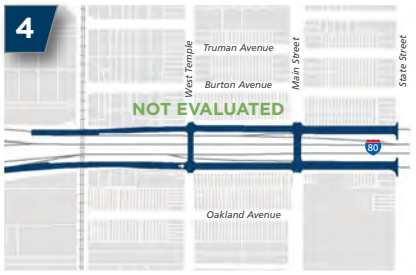
SPLIT DIAMOND AT MAIN STREET



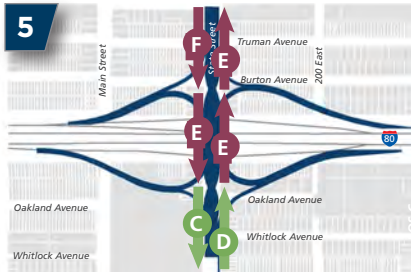
SPLIT DIAMOND AT MAIN STREET, NORTH SIDE ONLY



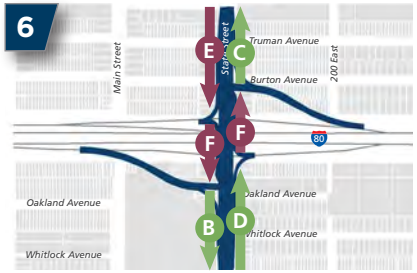
SPLIT DIAMOND AT MAIN STREET WITH TEXAS TURNAROUNDS



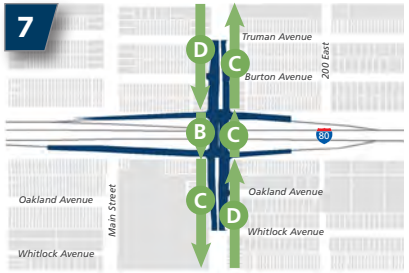
SPLIT DIAMOND AT WEST TEMPLE



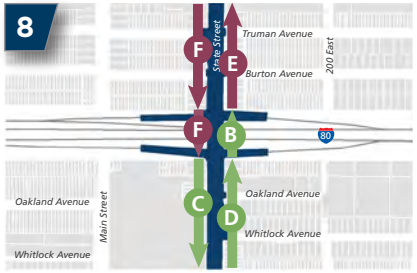
DIVERGING DIAMOND INTERCHANGE (DDI)



CONTINUOUS FLOW INTERSECTION (CFI)



DIAMOND INTERCHANGE



THRU-TURNS

Figure 2-13 2040 Arterial LOS by Interchange Alternative

Level 1 – Purpose and Need Screening Results (Interchange)

A summary of the Level 1 – Purpose and Need Screening for the I-80 and State Street Interchange Alternatives is shown in Table 2-5. Highlighted rows indicate I-80 and State Street Interchange Alternatives that met all three elements of the project purpose.

Based on Level 1 – Purpose and Need Screening, I-80 and State Street Interchange Alternatives 1, 1A, 3, 3N, 3A, and 7 met all three elements of the project purpose and will move forward to Level 2 – Environmental Resources Screening.

Although the No-action Alternative fails to meet the purpose and need for the project, it will move forward for detailed study because it satisfies the NEPA "no-action" requirements and provides a baseline to compare impacts of build alternatives.

Table 2-5 Level 1: Purpose and Need Screening (I-80 and State Street Interchange Alternatives)

I-80 and State Street Interchange Alternatives	Purpose and Need Objectives				Recommended for Further Analysis
	LOS C or better for all intersections	LOS D or better on State Street	Reduce Crashes on State Street[2]	Be Consistent with Economic Development and Master Transportation Plans[3]	
No-action Alternative	Yes	No	No	No	**Yes**
1 – Single Point Urban Interchange (SPUI)	Yes	Yes	Yes	Yes	**Yes**
1A – Additional Exit at Main Street	Yes	Yes	Yes	Yes	**Yes**
2 – Loop Ramp	No	Yes	Yes	Yes	**No**
3 – Split Diamond at Main Street	Yes	Yes	Yes	Yes	**Yes**
3N – Split Diamond at Main Street, North Side Only	Yes	Yes	Yes	Yes	**Yes**
3A – Split Diamond at Main Street with Texas Turnarounds	Yes	Yes	Yes	Yes	**Yes**
4 – Split Diamond at West Temple[1]	---	---	---	---	**No**
5 – Diverging Diamond Interchange (DDI)	Yes	No	Yes	Yes	**No**
6 – Continuous Flow Intersection (CFI)	Yes	No	Yes	Yes	**No**
7 – Diamond Interchange	Yes	Yes	Yes	Yes	**Yes**
8 – Thru-Turns	No	No	Yes	Yes	**No**

[1] I-80 and State Street Interchange Alternative 4 – Split Diamond at West Temple would not allow vehicles traveling from southbound I-15 or eastbound SR-201 to exit at State Street without being constructed in combination with one of the Eastbound Weave Alternatives. Since it was previously determined that none of the Eastbound Weave Alternatives would meet the purpose and need of the project, Interchange Alternative 4 is not considered a viable alternative; therefore, Interchange Alternative 4 has been eliminated from further consideration.

[2] All build alternatives would address the "trap" left-turn lanes and frontage road conflicts (see Section 1.2.2 in Chapter 1) and would therefore likely reduce the number of crashes.

[3] All build alternatives would be consistent with economic development and transportation plans because they provide improved access to the URAs and existing businesses.

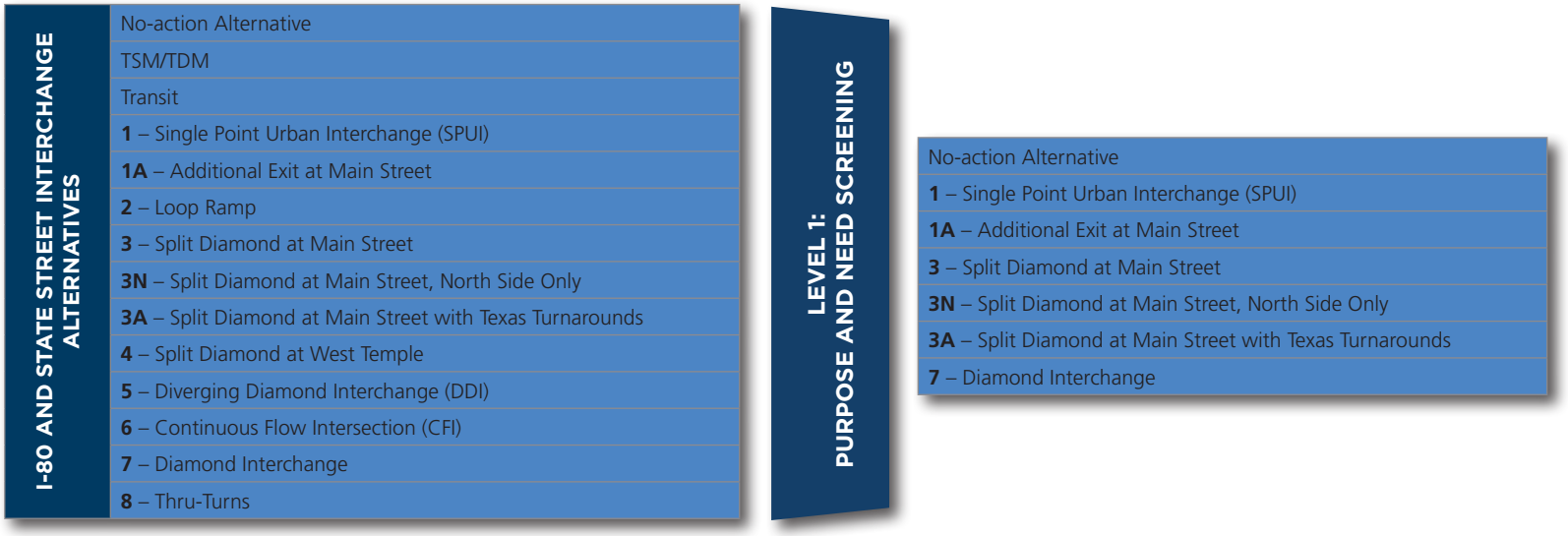


Figure 2-14 Level 1: Purpose and Need Screening Summary

2.3.2 LEVEL 2 – ENVIRONMENTAL RESOURCES SCREENING

The alternatives that passed the Level 1 – Purpose and Need Screening will go through Level 2 – Environmental Resources Screening. The environmental screening analysis included an inventory of existing critical environmental resources located near the study area. The inventory included residences, commercial structures, and Section 4(f) resources (historic structures and public parks). It should be noted that the environmental screening process is not a full environmental analysis of the alternatives. A full environmental analysis of alternatives was conducted for alternatives selected for detailed study (see Chapter 3: Affected Environment and Environmental Consequences).

Screening Factors

Residential and Commercial Relocations

Potential residential relocations are designated when:

- There is a direct impact to the structure (construction of the proposed roadway crosses the existing structure), or
- the roadway is close to the residential structure footprint AND requires the acquisition of right-of-way, or
- the alternative would remove access to the property.

Potential commercial relocations are designated when:

- There is a direct impact to the structure (construction of the proposed roadway crosses the existing structure), or
- the alternative would remove access to the property, or
- the acquisition of right-of-way would prohibit the operation of the business.

The screening process will quantify the number of residential and commercial relocations for each alternative.

Section 4(f)

Section 4(f) of the Department of Transportation Act of 1966 (49 USC §303 and 23 USC §138) requires avoidance of impacts to public parks and recreation areas, wildlife and waterfowl refuges, and historic sites unless: (1) there is no prudent and feasible avoidance alternative and all possible planning has been done to minimize harm to the Section 4(f) properties as a result of the project, or (2) if the project would have a *de minimis* impact on the property.

Historic Structure
(a Section 4(f) property)

As per 23 CFR §774.17, a *de minimis* impact to historic sites, is one where the project would have a "no adverse effect" or "no historic properties affected" determination under Section 106 of the National Historic Preservation Act. This means that either the project would have no impact on the historic property (e.g., no right-of-way is required), or that the impacts to the historic property are minor (e.g., minor right-of-way acquisition).

For historic sites, an alternative would likely have a "greater than *de minimis* impact" if there was the potential for an "adverse effect" determination under Section 106.

Several of the alternatives evaluated in this section would include Section 4(f) *de minimis* impacts. However, since a *de minimis* impact determination does not require an avoidance alternative analysis, discussion of the screening process will only address Section 4(f) properties that would likely have a greater than *de minimis* impact as a result of an alternative.

Alternatives that do not have greater than *de minimis* impacts will move forward for detailed study. Alternatives that have greater than *de minimis* impacts will be eliminated from further consideration.

I-80 and State Street Interchange Alternatives

A summary of the Level 2 – Environmental Resources Screening for the I-80 and State Street Interchange Alternatives is shown in Table 2-6 and Figure 2-15. Highlighted rows indicate I-80 and State Street Interchange Alternatives that will move forward for detailed study.

Level 2 – Environmental Screening Results (Interchange)

Based on Level 2 – Environmental Resources Screening, I-80 and State Street Interchange Alternatives 1, 3N, and 7 will be carried forward for detailed study. I-80 and State Street Interchange Alternatives 1A, 3, 3A, 5, and 6 will not move forward for further study because they would require additional residential and commercial relocations and would have Section 4(f) greater than *de minimis* impacts.

As discussed above, Section 4(f) requires the avoidance of Section 4(f) properties unless there is no prudent and feasible avoidance alternative or if the project would have a *de minimis* impact on the property. Therefore, alternatives that have only Section 4(f) *de minimis* impacts were moved forward for detailed study.

Table 2-6 Level 2: Environmental Resources Screening (I-80 and State Street Interchange Alternatives)

I-80 and State Street Interchange Alternative	# of Commercial Relocations	# of Residential Relocations	# of Section 4(f) Greater than *De Minimis* Impact	Carry Forward to Detailed Study
No-action Alternative	0	0	0	**Yes**
1 – Single Point Urban Interchange (SPUI)	4 (KFC, TechnaGlass, House of Blinds, and Emission Time)	0	0	**Yes**
1A – Additional Exit at Main Street	4 (KFC, TechnaGlass, House of Blinds, and Emission Time)	7	3	**No**
3 – Split Diamond at Main Street	2 (House of Blinds and Emissions Time)	8	4	**No**
3N – Split Diamond at Main Street, North Side Only	2 (House of Blinds and Emission Time)	0	0	**Yes**
3A – Split Diamond at Main Street with Texas Turnarounds	2 (House of Blinds and Emission Time)	7	3	**No**
7 – Diamond Interchange	2 (House of Blinds and Emission Time)	0	0	**Yes**

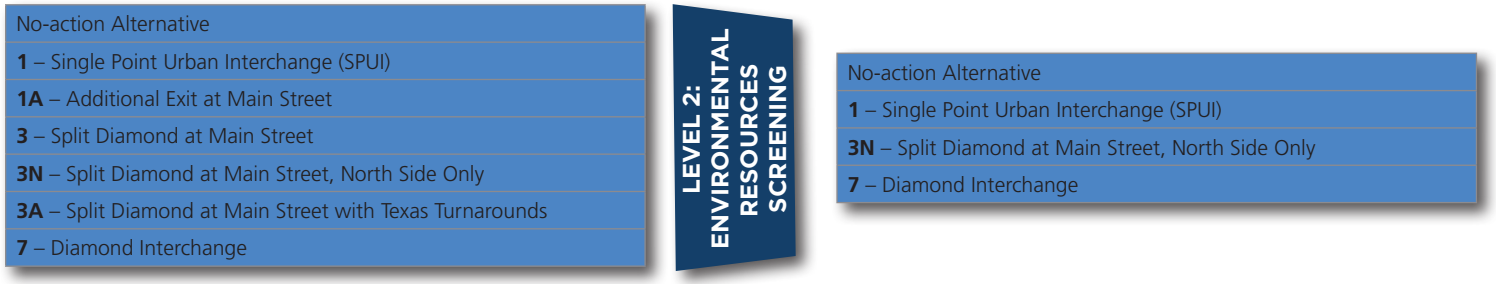
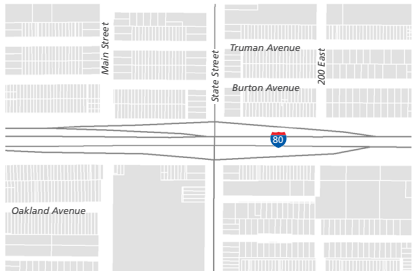
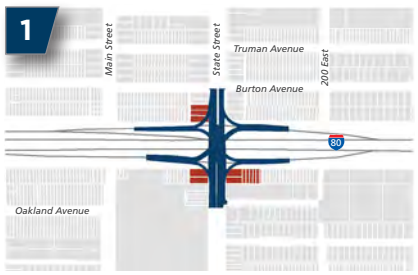


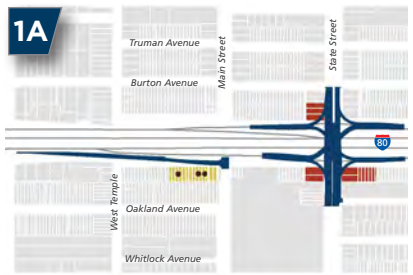
Figure 2-15 Level 2: Environmental Resources Screening Summary



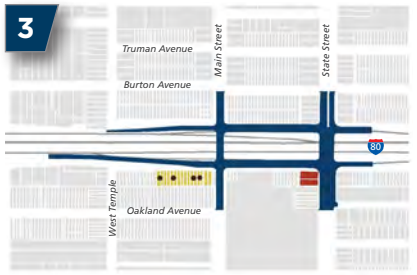
NO-ACTION ALTERNATIVE



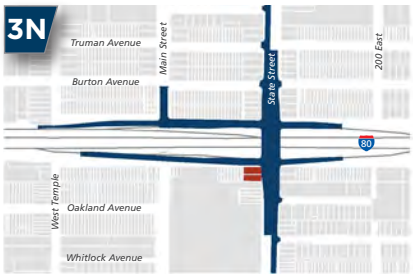
SINGLE POINT URBAN INTERCHANGE (SPUI)



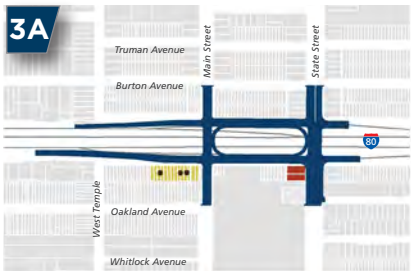
ADDITIONAL EXIT AT MAIN STREET



SPLIT DIAMOND AT MAIN STREET



SPLIT DIAMOND AT MAIN STREET, NORTH SIDE ONLY



SPLIT DIAMOND AT MAIN STREET WITH TEXAS TURNAROUNDS

DIAMOND INTERCHANGE

LEGEND

- Commercial Relocations
- Residential Relocations
- Section 4(f) Greater than *De Minimis* Impact

Figure 2-16 Environmental Impacts by Interchange Alternative

2.4 ALTERNATIVES SELECTED FOR DETAILED STUDY

The screening process identified alternatives that will be carried forward for detailed study.

What is Detailed Study?

The probable beneficial and adverse social, economic, and environmental effects of alternatives selected for "detailed study" will be analyzed in Chapter 3.

2.4.1 NO-ACTION ALTERNATIVE

The No-action Alternative would maintain I-80 and State Street in their current roadway configurations. This alternative assumes that short-term minor restoration (safety and maintenance) activities that maintain continued operation of the existing roadway facilities would be ongoing. The No-action Alternative assumes all other improvements included in the 2040 RTP would be implemented. All of these activities would likely have some environmental impacts. Each project would undergo evaluation as part of the NEPA process to identify detailed effects of these activities. See Chapter 3: Affected Environment and Environmental Consequences for discussion of general effects associated with the No-action Alternative.

Why was the No-action Alternative Selected for Detailed Study?

The No-action Alternative satisfies the NEPA "No-action" requirement and provides a baseline to compare impacts of build alternatives.

2.4.2 BUILD ALTERNATIVES

This EIS will carry the following I-80 and State Street Interchange Alternatives through for detailed study:

- ***1 Single Point Urban Interchange (SPUI)*** – State Street and all the ramps at the interchange to come to a single signalized intersection (see Figure 2-33).
- ***3N Split Diamond at Main Street, North Side Only*** – Interchange configuration to remain similar to existing configuration on the south side. Construct a Main Street westbound on-ramp with a westbound frontage road between State Street and Main Street (see Figure 2-34).
- ***7 Diamond Interchange*** – Interchange configuration to remain similar to existing configuration. Construct additional lanes on State Street and move ramp intersections farther apart (see Figure 2-35).

The screening process identified the above I-80 and State Street Interchange Alternatives as meriting detailed study because the alternatives met the purpose and need for the project and had fewer residential and commercial relocations and no Section 4(f) greater than *de minimis* impacts.

Purpose and Need Compliance

Making improvements only to the State Street and I-80 interchange would meet the project's purpose and need because these improvements would reduce congestion on I-80 and State Street, improve operational characteristics and safety on I-80 and State Street, and would support local economic development through mobility improvements (see Table 2-7).

Table 2-7 Project Purpose and Need Compliance

Purpose	I-80 and State Street Interchange Alternatives 1, 3N, and 7 Purpose and Need Compliance
Reduce congestion on I-80 and State Street	• Provides an interchange where all intersections operate at LOS C or better (prevents back-ups, and associated congestion, on I-80 mainline) • Provides a State Street facility that operates at LOS D or better near the State Street and I-80 Interchange by widening the I-80 structure over State Street and eliminating the bottleneck
Improve safety and operational characteristics on I-80 and State Street	• Eliminates "trap" left-turn lane on State Street by widening the I-80 structure over State Street • Addresses the frontage road conflicts by either eliminating the frontage road connection or by not allowing for a right-turn on red light for the northbound to eastbound and southbound to westbound right-turn movements
Support local economic development through mobility improvements	• Provides improved access to the URAs and existing businesses, and are consistent with economic development and transportation plans

Independent Utility

The I-80 and State Street Interchange Alternatives would have independent utility since they would be usable and be a reasonable expenditure, even if no additional transportation improvements in the area are made.

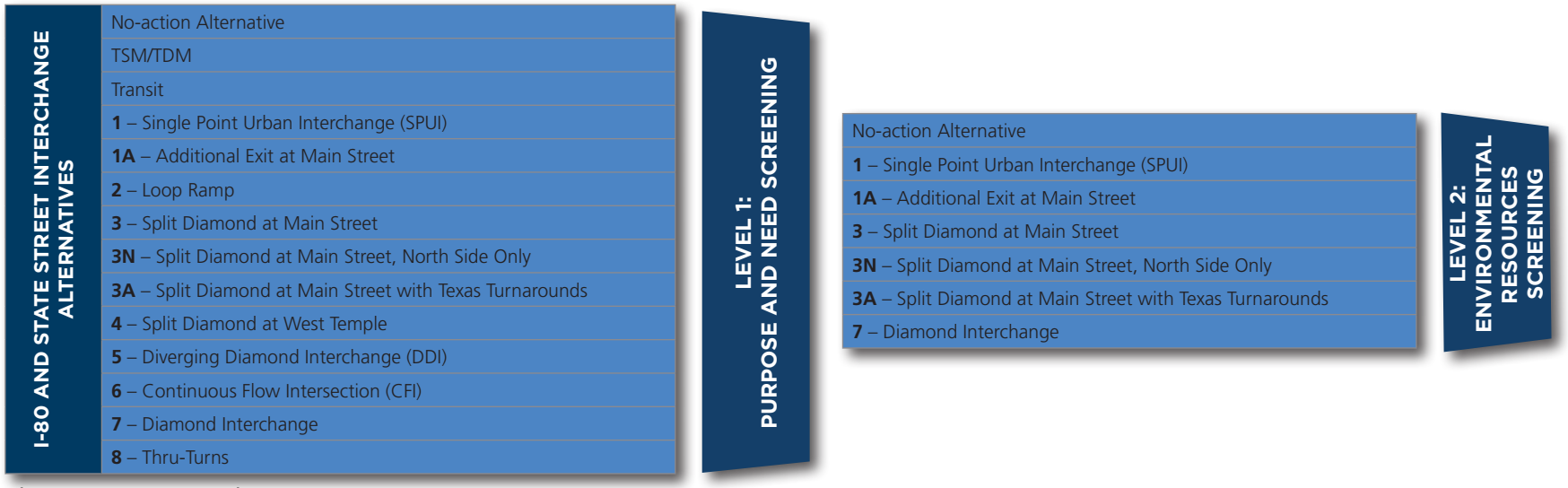


Figure 2-17A Screening Summary

2.5 IDENTIFICATION OF THE PREFERRED ALTERNATIVE

After fully evaluating all agency and public comments on the Draft EIS, FHWA and UDOT have identified I-80 and State Street Interchange Alternative 3N – Split Diamond at Main Street, North Side Only as the alternative which best meets the purpose and need and includes measures to minimize impacts to environmental resources; therefore, FHWA and UDOT have identified Alternative 3N as the Preferred Alternative.

Alternative 3N provides LOS C or better for all intersections at the I-80 and State Street Interchange and provides LOS D or better near the State Street and I-80 Interchanges. It eliminates the "trap" left-turn lane on State Street and addresses the frontage road conflicts by not allowing for a right-turn on red light for the northbound to eastbound and southbound to westbound right-turn movements. Additionally, in comparison to Alternatives 1 and 7, Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the URAs and existing businesses. Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City.

Alternative 3N minimizes impacts to environmental resources because it would only relocate two commercial properties (House of Blinds and Emissions Time) and it would have no residential relocations and no Section 4(f) greater than *de minimis* impacts.

Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons:

- Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80
- Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses
- Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City

Figure 2-17B Screening Summary

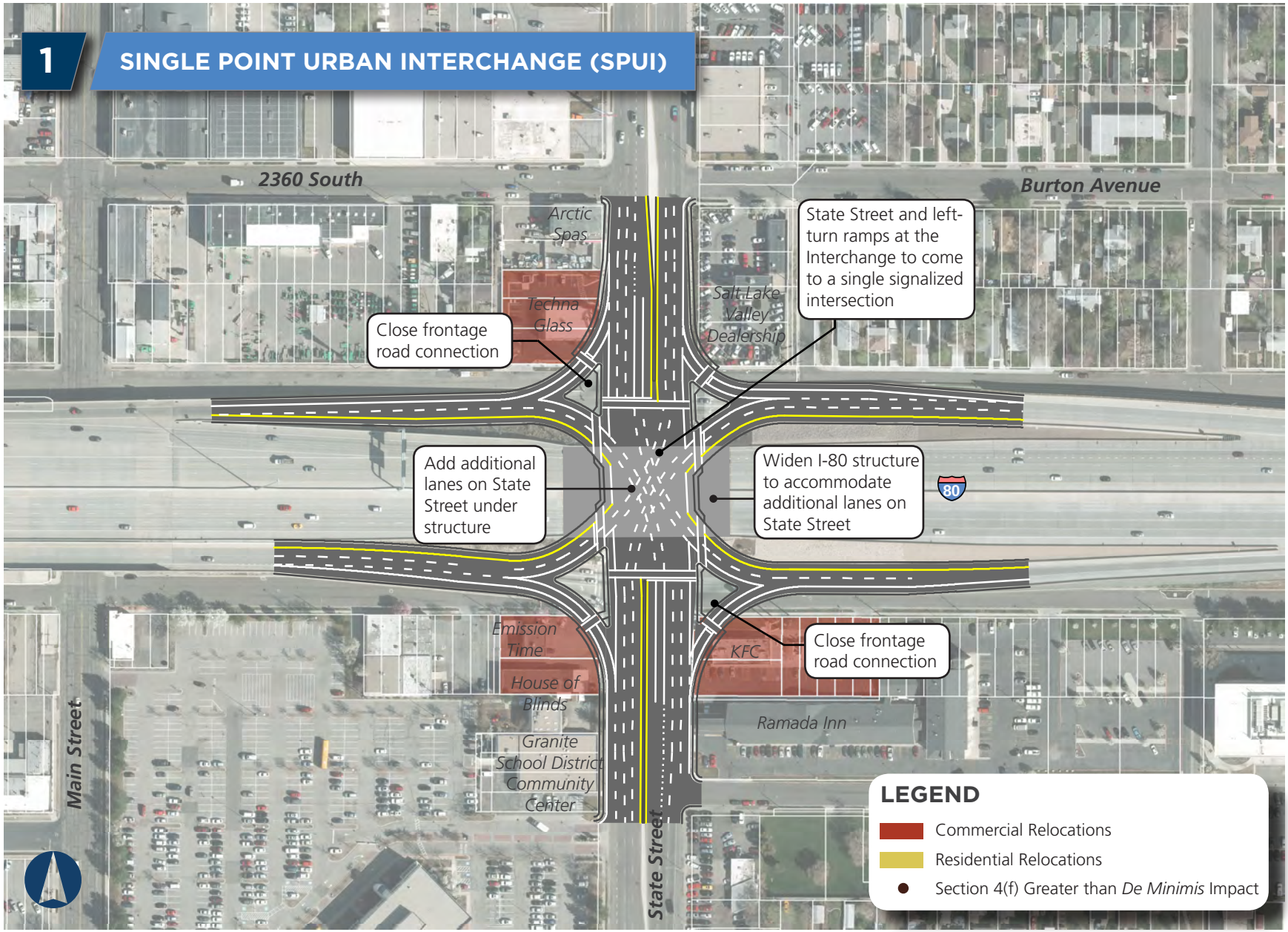


Figure 2-18 Alternative 1 – Single Point Urban Interchange (SPUI)

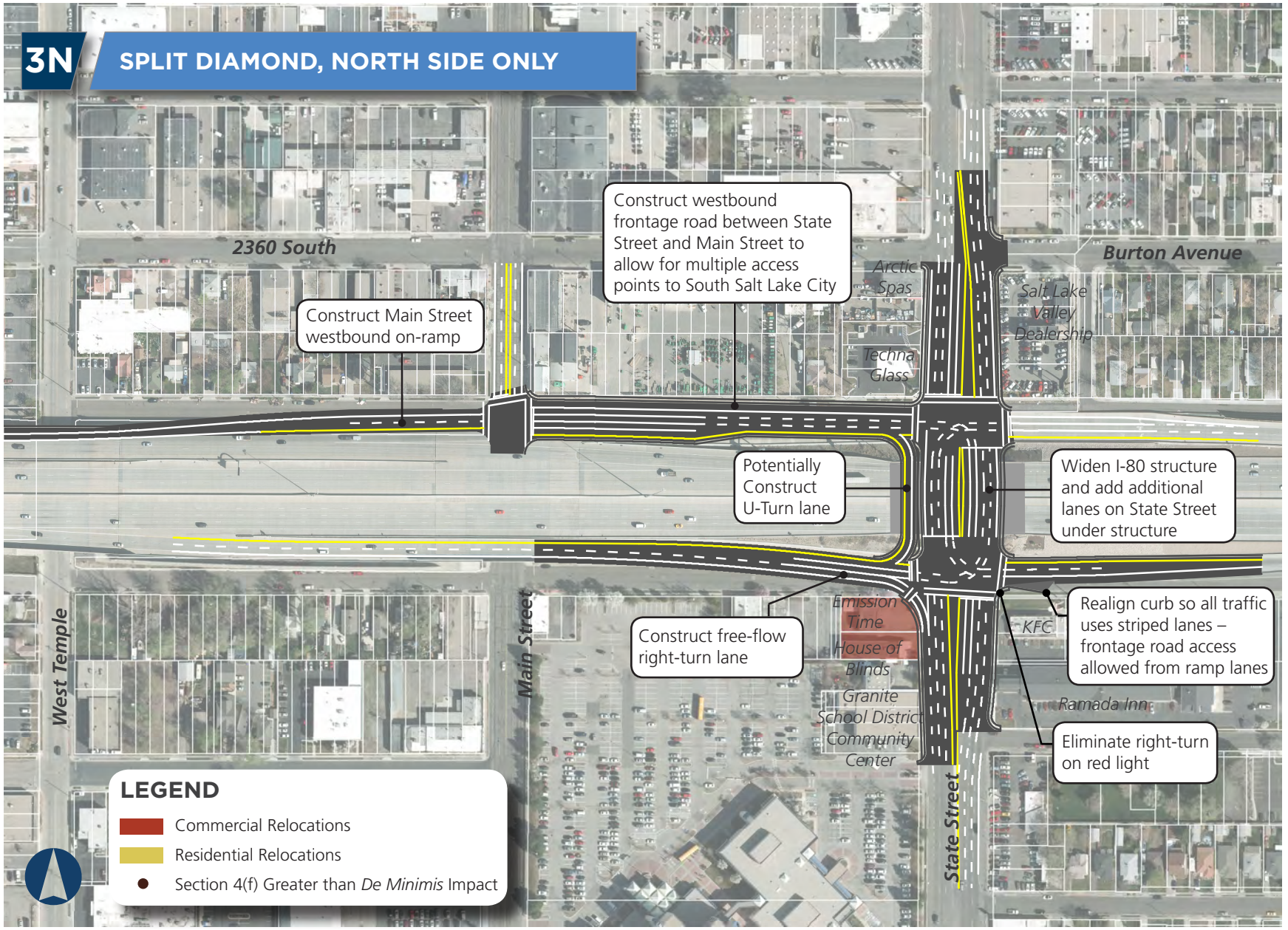


Figure 2-19 Alternative 3N – Split Diamond, North Side Only

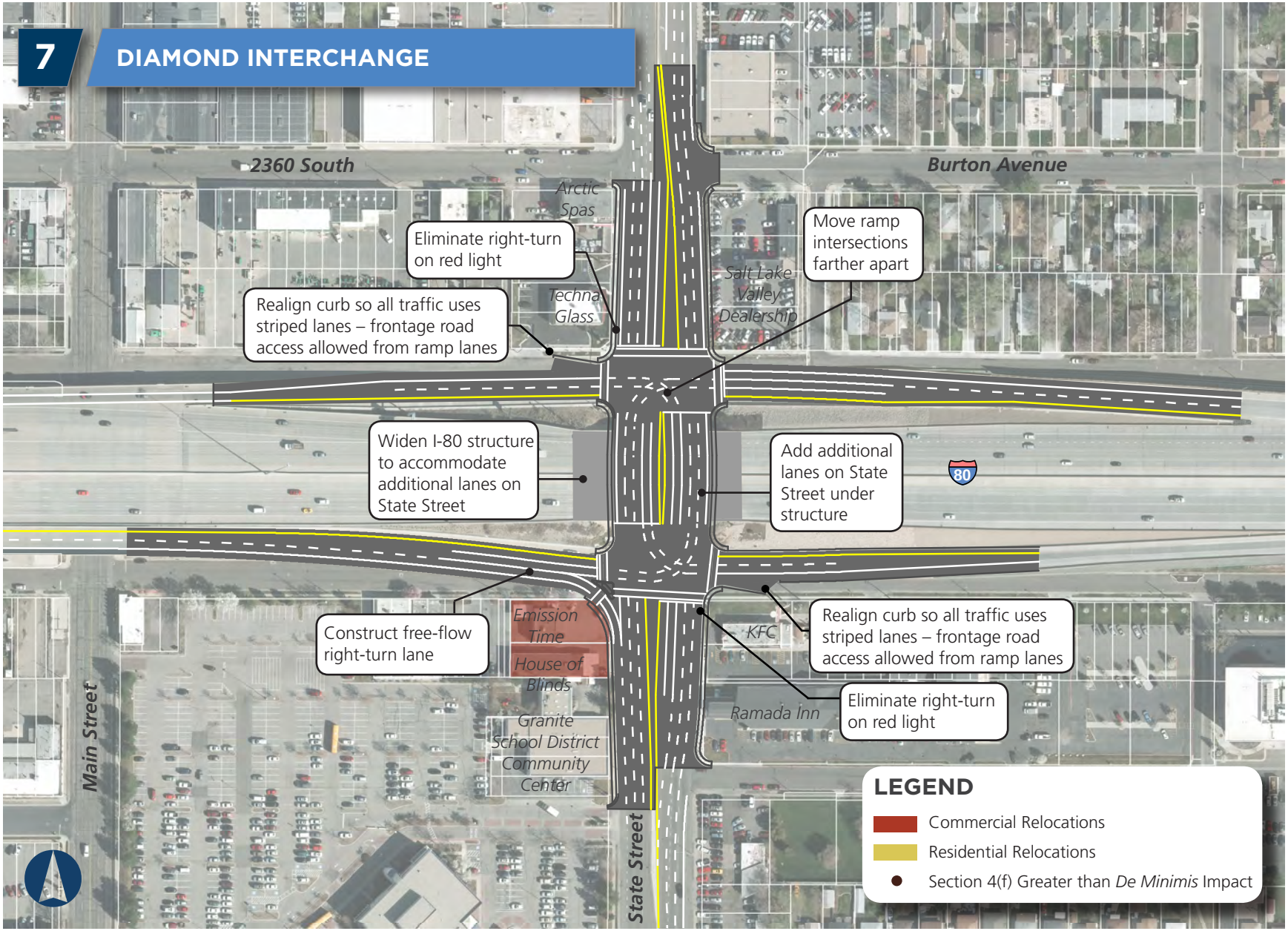


Figure 2-20 Alternative 7 – Diamond Interchange

CHAPTER THREE: AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

3.1 INTRODUCTION

3.1.1 AFFECTED ENVIRONMENT

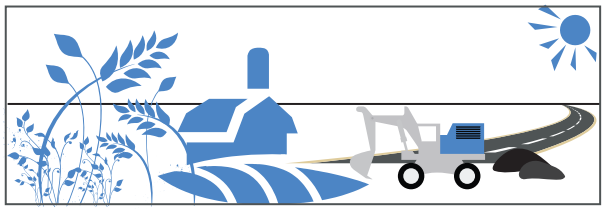
Existing conditions were identified based on literature and data file searches; coordination with local, state, and federal agency personnel; and field investigations. Additional details relating to the technical research performed in the preparation of this Environmental Impact Statement (EIS), which are not fully discussed in this document, are included in the Technical Report (see Appendix A) and other project records.

3.1.2 ENVIRONMENTAL CONSEQUENCES

The National Environmental Policy Act (NEPA) of 1969 (42 USC §4321 et seq.) requires consideration of direct, indirect, and cumulative impacts plus measures to mitigate the impacts. These impacts are described and generally illustrated as follows:

- **Direct impacts** are caused by the action and occur at the same time and place (40 CFR §1508.8). These are discussed in each resource area subsection.

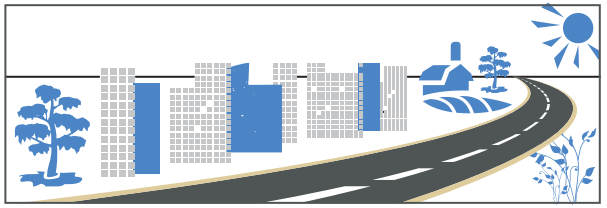
DIRECT IMPACTS



Several acres of farmland are removed to make room for construction of a new road.

- **Indirect impacts** are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable (40 CFR §1508.8). Indirect effects are generally not quantifiable but can be reasonably predicted to occur. These impacts are described in each resource area subsection.

INDIRECT IMPACTS



As a result of improved access, a commercial development replaces much of the farmland along the corridor a few years after the construction of the new road.

- **Cumulative impacts** are the impacts to the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions (40 CFR §1508.7). These are addressed in Section 3.28 of this chapter.

CUMULATIVE IMPACTS

The combined impacts of construction of the new road, construction and planned construction of other roadway projects, and private development transforms this rural, agricultural town into an urban, commercial center.

3.1.3 STUDY AREA

The study area, for the purposes of this chapter, is defined as the limits shown in Figure 1-1 Study Area in Chapter 1 of this EIS. For individual resources the study area varies, depending upon individual resource characteristics. Unless otherwise noted, the study area for each resource is the study area defined in Figure 1-1 Study Area.

3.2 LAND USE

The Federal Highway Administration's (FHWA) Technical Advisory T 6640.8A, Guidance for Preparing and Processing Environmental and Section 4(f) Documents, recommends that the land use analysis should identify the current development trends and the State and/or local government plans and policies on land use and growth in the area which would be impacted by the proposed project. These plans and policies are normally reflected in the area's comprehensive development plan, and include land use, transportation, public facilities, housing, community services, and other areas.

Zoning maps, general plans, and master plans are used to show current and planned land uses within the study area. Zoning maps are used to show how the land within each municipality is currently zoned, while general plans and master plans are used to show proposed future land uses. Local governments develop these maps and plans and use them to identify community goals and priorities, and to assist in decision-making procedures.

This section includes a review of existing and future land uses within the study area, and describes potential land use impacts resulting from the proposed action. The study area, for the purposes of assessing social and economic impacts, includes the area from 1-15 to 500 East, and from 2100 South to 2700 South. This study area helps to address indirect impacts and provides further understanding of impacts on surrounding land uses.

3.2.1 AFFECTED ENVIRONMENT

The study area is located within the municipal boundaries of South Salt Lake City. Therefore, the City was contacted regarding land use, zoning regulations and transportation planning. In addition, Wasatch Front Regional Council (WFRC) is responsible for preparing the Regional Transportation Plan (RTP) and the Wasatch Choice for 2040 Vision Plan. This Vision serves as the foundation for a variety of plans and implementation activities including the RTP. Finally, the City's redevelopment plans for the area were reviewed for future land use goals and objectives relative to the study area.

Wasatch Front Regional Council (WFRC) Regional Transportation Plan

The WFRC RTP is the Salt Lake-West Valley and the Ogden-Layton Urbanized Areas' fiscally constrained plan for highway, transit, and other facility improvements. The most recent adopted plan is the 2015-2040 RTP. The 2015-2040 RTP identifies the I-80/State Street interchange for upgrade.

South Salt Lake Existing and Future Land Use Plans

Existing Property Type Classifications

Parcels within the project area are primarily commercial and residential in nature. There are currently 2,015 parcels, totaling 581.14 parcel acres, within the study area. Roadways and other easements are generally not classified with a specific property type and will increase the overall acreage included in the study area, as shown in the following zoning analysis.

Table 3-1 Existing Parcel Classification

	Total Acreage	Total Parcels
Residential	181.90	1,295.00
Industrial	54.67	109.00
Commercial	231.55	419.00
Vacant	16.17	82.00
Agricultural/Forest/Mining	-	-
Other	96.85	110.00
Total	581.14	2,015.00

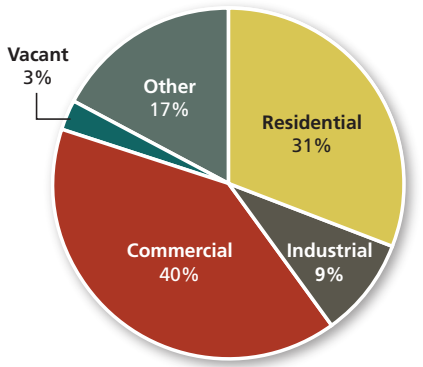


Figure 3-1 Existing Parcel Classification

Existing Zoning

Utah Code authorizes municipalities to plan for future growth and development as outlined in the Municipal Land Use, Development, and Management Act (UCA 10-9a-102). South Salt Lake City's General Plan (2009), specifically the Land Use Elements outlines the goals and objectives of the City regarding existing and future land use. Current zoning data illustrates the distribution of property types, with residential and commercial zoning comprising 68 percent of the total and industrial zoning comprises a larger percentage than what is shown in the parcel classification, at 26 percent of the total. Existing zoning classifications are shown in Figure 3-3 and described in Table 3-2.

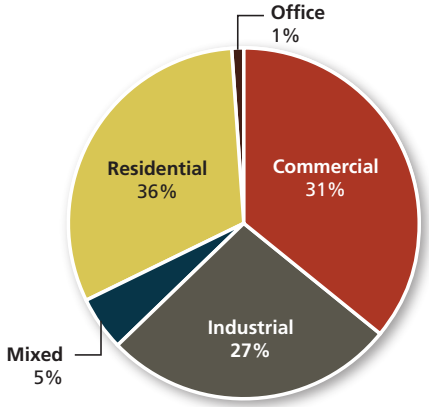


Figure 3-2 Existing Zoning Classification

Future Land Use

The South Salt Lake City Future Land Use Plan, last updated in 2010, indicates that the future land uses within the study area will continue to promote redevelopment toward commercial, mixed-use and office land uses. The future land uses are shown in Figure 3-4 and described in Table 3-3.

Table 3-2 Existing Zoning Descriptions

Code	Title	Description	Category	Acres
CC	Corridor Commercial	The purpose of the corridor commercial district is to promote high quality, well designed business, office and retail establishments.	Commercial	107.12
CG	General Commercial	The purpose of the commercial general (CG) district is to allow more intense business activity in order to improve the economic base of the city without detriment to the environmental character and quality of the district. Provide space for the many highly diverse types of commercial activity needed to serve people and industry and to maintain and strengthen the economic base of the city.	Commercial	104.01
CN	Neighborhood Commercial	The purpose of the commercial neighborhood (CN) district is to provide an area for neighborhood-oriented businesses which support residential areas surrounding the district. The district may serve as a buffer between residential and business/commercial districts. The CN district designation is intended for commercial developments that will not generate high vehicle traffic. It is intended that businesses in this district will enhance and be compatible with surrounding residential neighborhoods through architecture, development, and site design.	Commercial	13.36
ESN	East Streetcar Neighborhood	The East Streetcar Neighborhood District is established to facilitate the redevelopment of the East Streetcar Neighborhood in a manner compatible with the South Salt Lake City General Plan and the East Streetcar Master Plan. Redevelopment in this corridor will be transit-oriented and will preserve the land values and integrity of surrounding single-family neighborhoods.	Mixed	Overlay
Light Industrial	Industrial	The purpose of the light industrial district is to designate appropriate locations where warehousing and industrial uses with minimal objectionable characteristics may be established, maintained and protected. The regulations of this district are designed to promote a high level of environmental quality by uses which do not contribute to the deterioration of environmental quality.	Industrial	201.77
Mixed	Mixed Use	The purpose of the mixed use (Mixed) district is to provide and encourage a mixture of compatible uses that will enhance the vitality and diversity of the area. Development should accommodate and respect surrounding land uses by providing a gradual transition from more intensive uses to lower density residential uses that are adjacent to a potential mixed use site.	Mixed	35.60
North District	North District	North District. Established to facilitate the redevelopment of commercial properties between 2100 S. and I-80 and between States Street and Main Street. This mixed use district will provide for high density housing with supporting commercial and retail uses. The intent of the district is also to aid in the creation of a healthy pedestrian environment.	Commercial	Overlay
PO	Professional Office	The purpose of the professional office (PO) district is to provide a zone for uses which are conducted in an office environment. The zone is not intended to contain uses engaged solely in merchandising, retailing, warehousing, or manufacturing. Uses within the PO district shall serve to enhance the vitality of the city and be compatible with surrounding neighborhoods. The district may act as a buffer between residential neighborhoods and transit corridors or commercial uses. Developments adjacent to residential uses should be architecturally compatible while mitigating impacts regarding height, hours of operation, lighting and traffic on surrounding residential neighborhoods.	Office	7.90
R-1	Single Family Residential	The purpose of this zone is to provide for low density single family, residential housing neighborhoods.	Residential	265.82
Total				735.59

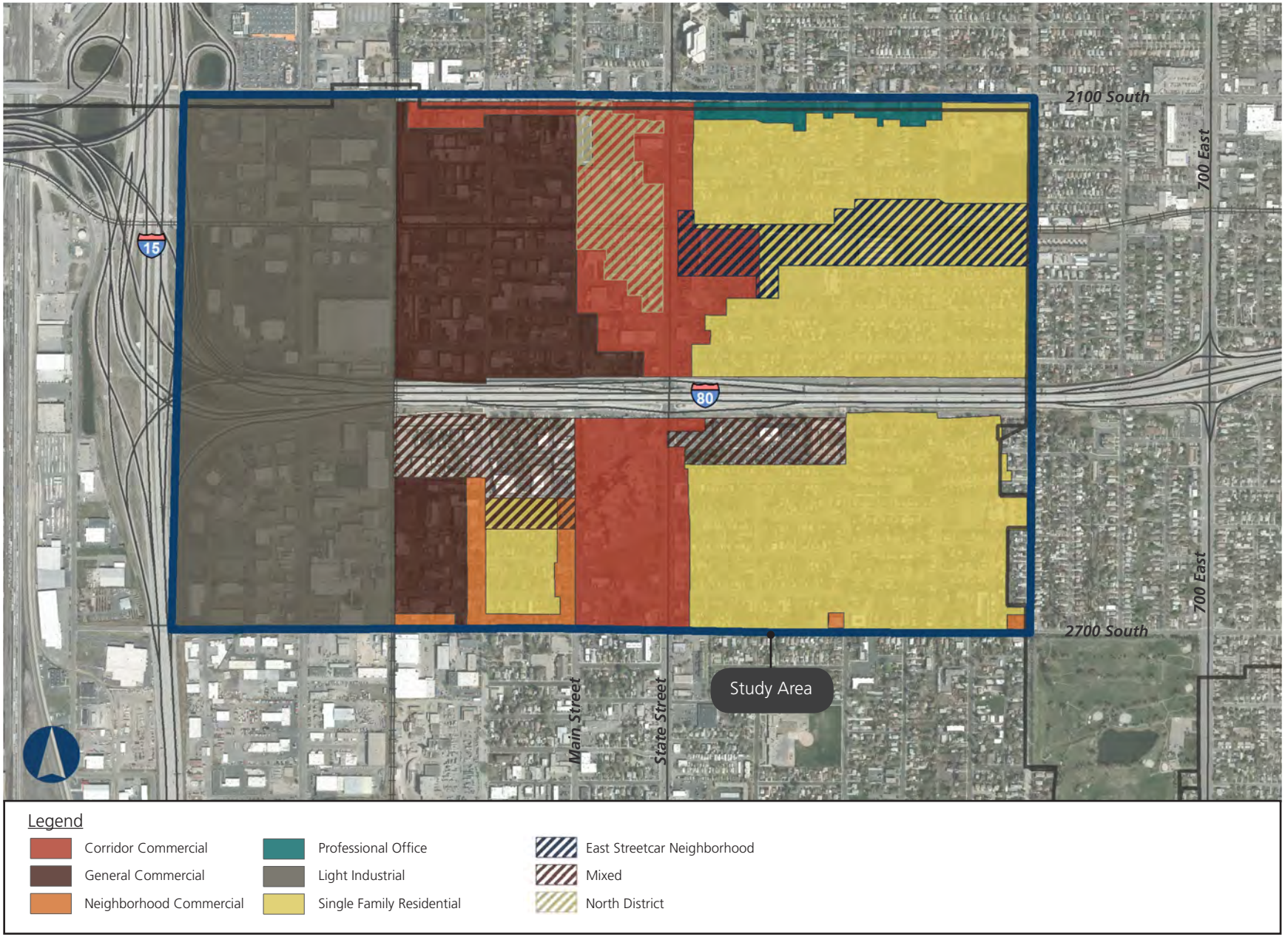


Figure 3-3 Existing Zoning within and adjacent to the Study Area

Table 3-3 Future Land Use Plan Descriptions

Code	Title	Description	Category
CC	Corridor Commercial	The purpose of the corridor commercial district is to promote high quality, well designed business, office and retail establishments.	Commercial
CG	General Commercial	The purpose of the commercial general (CG) district is to allow more intense business activity in order to improve the economic base of the city without detriment to the environmental character and quality of the district. Provide space for the many highly diverse types of commercial activity needed to serve people and industry and to maintain and strengthen the economic base of the city.	Commercial
New CG	New General Commercial	Area may convert from existing land uses to General Commercial	Conversion to Commercial
CN	Neighborhood Commercial	The purpose of the commercial neighborhood (CN) district is to provide an area for neighborhood-oriented businesses which support the residential areas surrounding the district. The district may serve as a buffer between residential and business/commercial districts. The CN district designation is intended for commercial developments that will not generate high vehicle traffic. It is intended that businesses in this district will enhance and be compatible with surrounding residential neighborhoods through architecture, development, and site design.	Commercial
New CN	New Neighborhood Commercial	Area may convert from existing land uses to Neighborhood Commercial	Conversion to Neighborhood Commercial
ESN	East Streetcar Neighborhood	The East Streetcar Neighborhood District is established to facilitate the redevelopment of the East Streetcar Neighborhood in a manner compatible with the South Salt Lake City General Plan and the East Streetcar Master Plan. Redevelopment in this corridor will be transit-oriented and will preserve the land values and integrity of surrounding single-family neighborhoods. Land uses and regulations for buildings and site development in the East Streetcar Corridor District are established in the East Streetcar Form Based Code.	Mixed
Light Industrial	Industrial	The purpose of the light industrial district is to designate appropriate locations where warehousing and industrial uses with minimal objectionable characteristics may be established, maintained and protected. The regulations of this district are designed to promote a high level of environmental quality by uses which do not contribute to the deterioration of environmental quality.	Industrial
Mixed	Mixed Use	The purpose of the mixed use (Mixed) district is to provide and encourage a mixture of compatible uses that will enhance the vitality and diversity of the area. Development should accommodate and respect surrounding land uses by providing a gradual transition from more intensive uses to lower density residential uses that are adjacent to a potential mixed use site.	Mixed
New Mixed	New Mixed Use	Area may convert from existing land uses to Mixed Use	Conversion to Mixed Use
North District	North District	North District. Established to facilitate the redevelopment of commercial properties between 2100 S. and I-80 and between States Street and Main Street. This mixed use district will provide for high density housing with supporting commercial and retail uses. The intent of the district is also to aid in the creation of a healthy pedestrian environment.	Commercial
PO	Professional Office	The purpose of the professional office (PO) district is to provide a zone for uses which are conducted in an office environment. The zone is not intended to contain uses engaged solely in merchandising, retailing, warehousing, or manufacturing. Uses within the professional office (PO) district shall serve to enhance the vitality of the city and be compatible with surrounding neighborhoods. The district may act as a buffer between residential neighborhoods and transit corridors or commercial uses. Developments adjacent to residential uses should be architecturally compatible while mitigating impacts regarding height, hours of operation, lighting and traffic on surrounding residential neighborhoods.	Office
New PO	New Professional Office	Area may convert from existing land uses to Professional Office	Conversion to Office
R-1	Single Family Residential	The purpose of this zone is to provide for low density single family, residential housing neighborhoods.	Residential

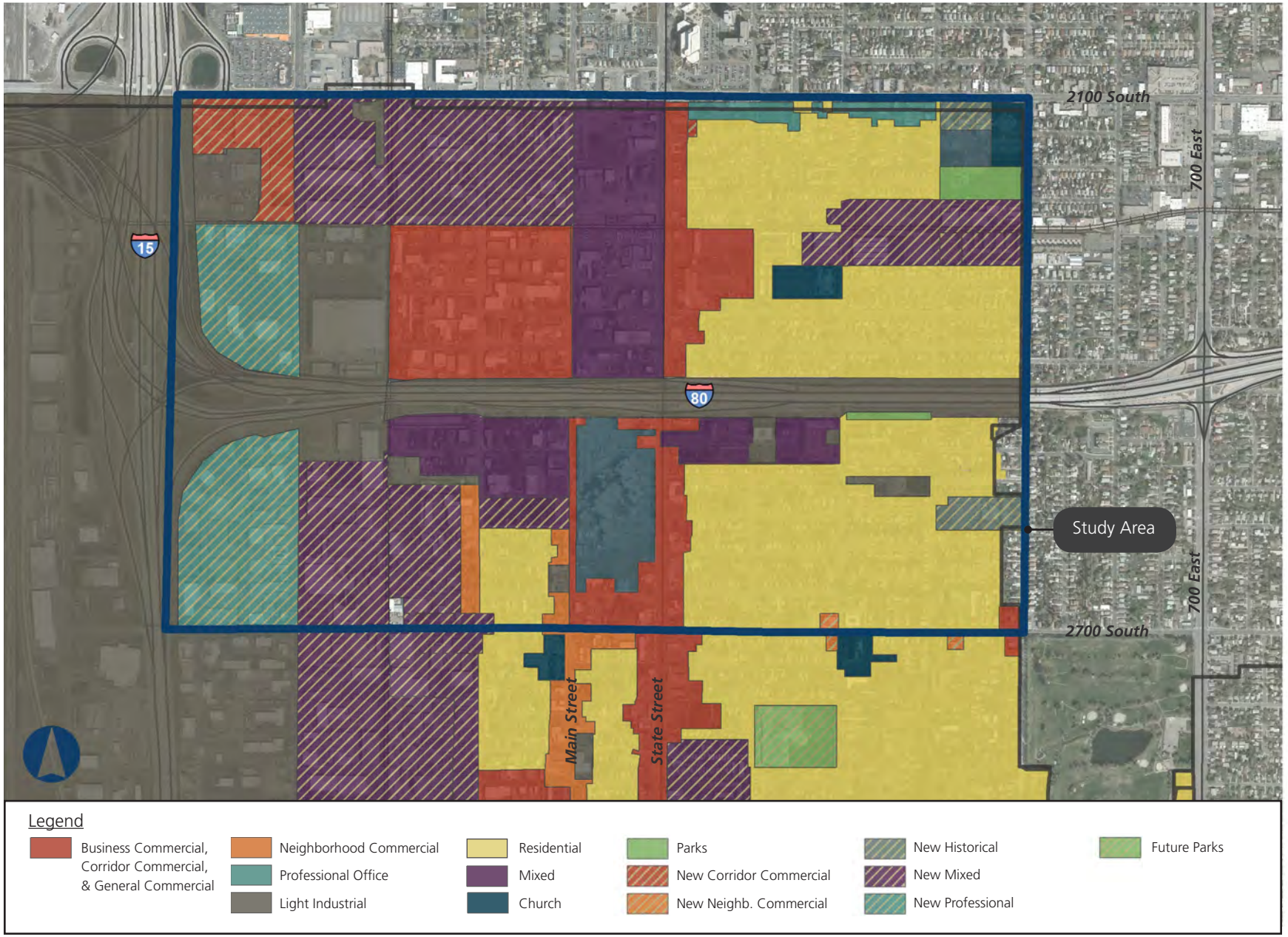


Figure 3-4 Future Land Uses within and adjacent to the Study Area

South Salt Lake City Redevelopment Plans

There are two major existing redevelopment areas in the study area: Central Pointe Urban Renewal Area (URA) and Market Station URA (see Figure 1-17 in Chapter 1). The objective of these areas is to encourage the redevelopment of nearly 120 acres of underutilized property into mixed use retail, office and residential neighborhoods. In addition to these established URAs, the City and the South Salt Lake Redevelopment Agency (RDA) is in the process of analyzing the creation of new Streetcar Community Development Area (CDA) located on the northwest side of the City - beginning at the intersection of State Street and Utopia Avenue, and ending at 500 East. The proposed Streetcar CDA runs along both sides of the Sugar House Streetcar line.

General changes to future land uses, as well as the redevelopment proposed within the specific redevelopment project areas will generate more trips on roadways and increase pedestrian activity. In addition to the existing and proposed redevelopment areas, the Central Pointe TRAX station and Parley's Trail also surround the study area, generating more trips and pedestrians. The following describes the land use changes anticipated within the redevelopment areas.

Central Pointe URA

The current principal land uses in this area include commercial, industrial, manufacturing and a small number of residences. Buildings in the area are generally commercial and industrial structures, with some detached single-family structures, duplexes and small apartment complexes throughout the area. There are approximately 40 residential units located within the 81 acres that comprise this URA. With an average household size of 2.46, this results in an estimated population density of 1.21 persons per acre. The property within the Central Pointe URA is underutilized and not generating full beneficial tax base to the Community. As mixed-use and Transit Oriented Development (TOD) communities are developed, a variety of higher density housing options will become available, thus increasing population densities. With an average household size of 2.46 it is estimated that population for this area will increase by 5,000 residents, increasing the population density to 63 persons per acre. Because of the centralized location and the proximity to the Central Pointe TRAX station and the Sugar House Streetcar, the Central Pointe area will promote TOD and mixed-use development. Generally, future land uses will include retail, mixed-use, office, high density residential, and transit oriented development. In order to redevelop this area, the RDA and the City have identified the need to construct infrastructure improvements that enhance transportation and create better utilization of land. The Central Pointe URA is projected to add 230,000 square feet of office space, 790,000 square feet of retail space and 2,000 multi-family units.

Market Station URA

Current uses and previous uses of recently vacated buildings within the Market Station URA include the following: lumberyard, a bar, fast food restaurant, office space, and automobile sales. Over 50 percent of the Market Station URA project area consists of a vacated lumberyard, automobile sales facilities, including the associated surface parking and service areas, and other surface parking lots. The remainder of the URA project area consists of one- to two-story office buildings, a bar, fast food restaurant, small-scale retail businesses and the related surface parking areas. The entire area is bordered by paved roads. It is anticipated that many of the buildings and other structures presently existing within the URA project area will be removed by the RDA or one or more developers and replaced with new construction as part of the proposed urban renewal of the project area. The entire project area is currently zoned as Corridor Commercial overlaid with the North District zoning designation. The City's Land Use and Development Code explains that the purpose of the Corridor Commercial Zone is "to promote high quality, well designed business, office and retail establishments." Redevelopment within the Market Station URA is expected to add 140 multi-family units, with 100,000 square feet of office and 150,000 square feet

of retail space. Upon completion of the proposed urban renewal, population densities will increase for all uses resulting in a dramatic shift from the present low-density commercial/light industry use to an urban mixed-use neighborhood of retail/office space and much needed owner-occupied residential units.

The Central Pointe and Market Station URAs have been created to encourage mixed-use developments including office, residential and retail spaces. The types of land uses within the Central Point and Market Station URAs will include denser patterns of development and will result in increased travel demand within the study area. In order for the URAs to be economically viable, adequate transportation access will be required. The RDA and the City desire to maintain a high-quality transit oriented development as a focal point to the City.

Streetcar CDA

This area currently consists primarily of commercial and industrial land with some vacant or underutilized property not generating full beneficial tax base to the City or other taxing entities. This area is designated as a transit oriented development. Currently, there is very limited residential development within the area which mostly consists of older homes on quarter-acre lots and a multi-family housing complex. The Streetcar CDA is being reviewed by the RDA and the City as an area within South Salt Lake City that presents an opportunity to strengthen the economic base of the City and capture the future economic value that will come with the Sugarhouse Streetcar line through the investment of private capital. The area suffers from a lack of social connectivity and vitality. There are very few residential units. There are currently no parks, libraries, or other social gathering places in the Streetcar CDA project area. The proposed Streetcar CDA will add nearly 160,000 square feet of miscellaneous commercial and 1,400 multi-family residential units. This area in particular will serve as a focal point to the City and will receive a substantial increase in foot traffic on a daily basis after the completion of the Streetcar line, which will create both opportunity and increased service demand. The property encompasses approximately 23.98 acres of land.

Projections

As a result of changing land uses and redevelopment, the number of households and total population is expected to increase in the study area through 2040. Total population within the study area is expected to increase by 8,625 persons, with households increasing by 4,326 units. Based on the traffic area zone (TAZ) data, the study area is projected to experience a slight reduction in overall jobs through 2040. However, the development of new retail opportunities will likely result in increased sales tax revenues for the community, as well as other induced economic effects. As shown above, the types of land uses within the Central Point and Market Station URAs, as well as the proposed Streetcar CDA, will include denser patterns of development and will result in increased travel demand within the study area. In order for the URAs to be economically viable, adequate transportation access will be required.

Table 3-4 Projected Growth within Study Area

	2012 Total	2040 Total	Difference
Households	2,348	6,674	4,326
Population	5,344	13,969	8,625
Total Employment	13,188	12,840	(348)
Retail Employment	3,428	4,151	723
Industrial Employment	2,186	959	(1,227)
Other Employment	7,575	7,730	155

Based on 21 Selected Traffic Area Zones within the study area, adjusted for proposed redevelopment information provided by the City.

Open Space, Parks, and Recreation Facilities

There are currently four parks and recreation related facilities within the study area. A park, known as Lion's Pride Park, currently serves as a 1-acre dog park at 350 East Robert Avenue. The park was converted to its current use in 2011 at a cost of approximately $25,000. The city put up a fence and added some canine playground equipment such as a hoop to jump through and concrete tubes. In addition, the park has two pavilions and restrooms. The Columbus Community Center also has 0.5 acres of turf and event lawn, as well as a courtyard. This space is leased to South Salt Lake City. The City also maintains 0.11 acres of open space at approximately 200 East Whitlock Avenue. This site includes a paved trail that connects Whitlock Avenue to the parking to the north, turf area, as well as benches. In addition, there is a 0.2 acre recreation site located at approximately 2200 South 500 East that the City will utilize for a community garden or plaza area. Improvements to this site have not been completed at this time.

Within the surrounding community South Salt Lake City owns and maintains several parks including South Gate Village Park, Fitts Community Park, Paul Workman Ball Park, Harmony Park and General Holm Park.

Parley's Trail is a paved bicycle and pedestrian trail, currently under construction, which follows the I-80 corridor from the mouth of Parley's Canyon to the Sugar House Business District. Two parallel alignments are proposed for the connections between Fairmont Park in Sugar House and the Provo-Jordan River Parkway. Overall, the trail will be approximately 8 miles long. Parley's Trail will be the major east-west connector trail through Salt Lake City and South Salt Lake City at the mouth of Parley's Canyon.

Planned Parks

South Salt Lake City's Parks Master Plan identifies several new parks, including a new park facility within the study area. The location of this facility has not been determined at this time.

Frontage Roads

Frontage roads exist within the study area and provide access to adjacent residences and businesses. Frontage roads are accessible from State Street on the north side of I-80 west of State Street and on the south side of I-80 east of State Street. Frontage roads are inaccessible and closed from State Street on the north side of I-80 east of State Street, and on the south side of I-80 west of State Street. Access to these frontage roads is maintained via 200 East and 300 East on the north, and via Main Street and West Temple on the South.

100-Foot Buffer Parcel Analysis

A comparison of parcels within a 100-foot buffer of the affected roadways illustrates that a large percentage of the land that could be affected by proposed improvements is commercial property.

Table 3-5 Distribution of Property Values within 100-Foot Buffer of Affected Roadways

Lot Use	Market Value	% of Total	Taxable Value	% of Total
Residential	$15,606,700	9%	$8,525,925	11%
Commercial	$139,552,440	84%	$64,390,075	83%
Industrial	$4,916,100	3%	$4,769,500	6%
Other	$6,451,500	4%	--	0%
Total	$166,526,740	100%	$77,685,500	100%

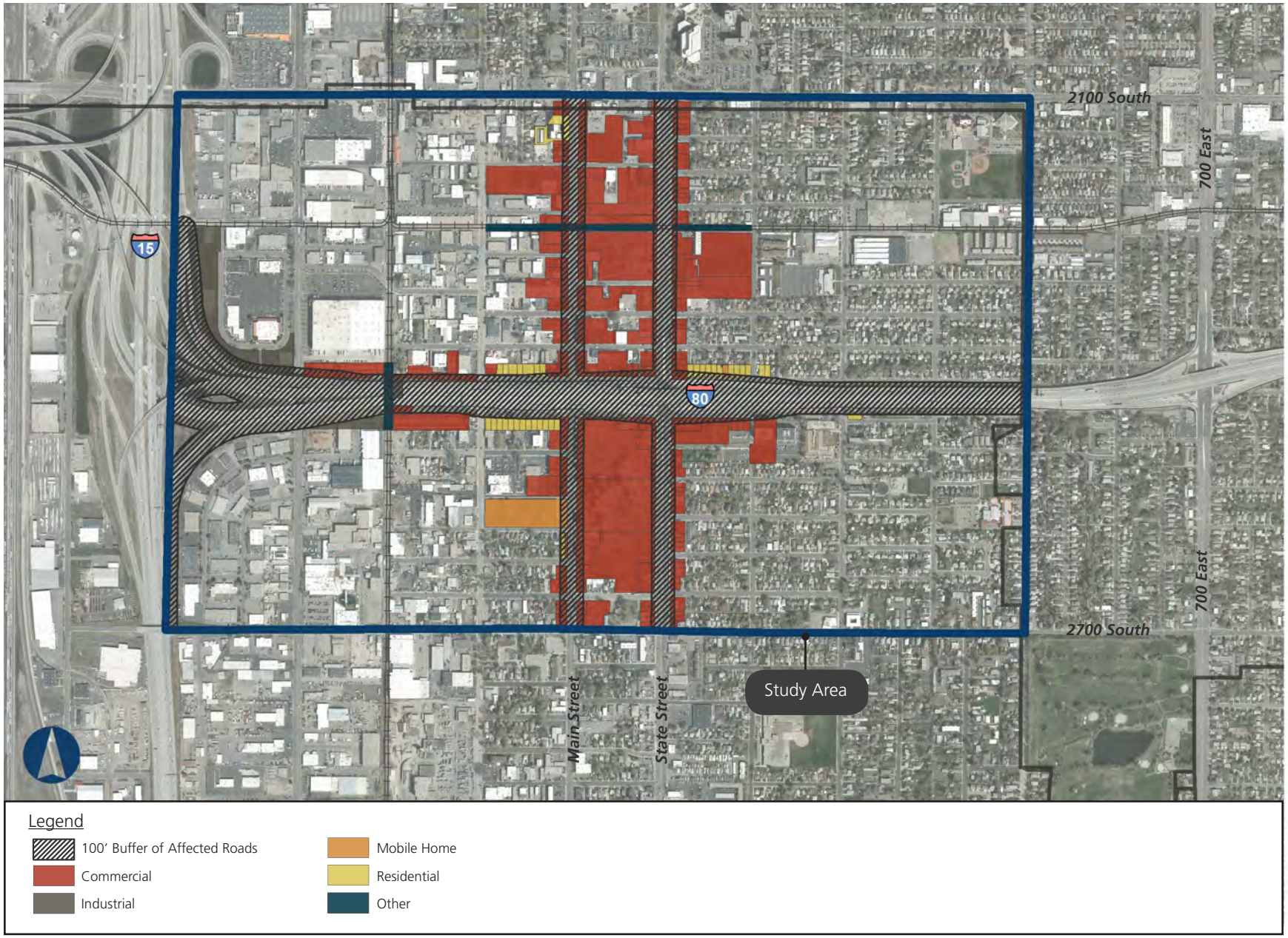


Figure 3-5 Distribution of Property within 100-foot Buffer of Affected Roadways

3.2.2 ENVIRONMENTAL CONSEQUENCES

Environmental consequences related to land uses should assess the consistency of the alternatives with the comprehensive development plans adopted for the area.

No-action Alternative

There would be no direct or indirect impacts to existing and projected land uses from the No-action Alternative. It is anticipated that the changes in future land use and redevelopment to the area would occur regardless of the build or no-action scenarios. The mechanisms to stimulate proposed redevelopment within the area have already been established and adopted to facilitate the redevelopment of these areas. Additionally, the area is already supported by an existing interchange.

Interchange Alternatives

Direct Impacts

Interchange Alternatives 1, 3N, and 7 would be consistent with policies established in the South Salt Lake Future Land Use Plan, with a focus on commercial, mixed-use and office land uses. Thus, no direct impacts on land uses are anticipated from Interchange Alternatives 1, 3N, and 7. There are a limited number of parcels in the study area that would require full acquisitions or relocations to construct Interchange Alternative 1, 3N, and 7. There are also several parcels that would be impacted by partial acquisition (see Section 3.6 Right-of-Way and Relocations). However, these acquisitions and relocations would not affect the land use characteristics of the study area.

Interchange Alternative 1 would require the closure of frontage road access from State Street on the north side of I-80 west of State Street and on the south side of I-80 east of State Street (see Figure 2-33). Interchange Alternatives 3N and 7 would allow for all existing frontage road access to remain open (see Figure 2-34 and Figure 2-35). The closure of the frontage roads under Interchange Alternative 1 would not affect the land use characteristics of the study area.

Indirect Impacts

Commercial and residential development would likely occur in this area without roadway improvements; however, Interchange Alternatives 1, 3N, and 7 may induce a more rapid rate of growth due to a slight improvement in overall access to the area.

Mitigation

No mitigation is necessary.

3.3 FARMLANDS

Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA)(7 USC §4201-4202 as implemented in 7 CFR §658.2a) requires federal agencies to identify and account for adverse effects of their programs and policies on the preservation of farmlands, including identifying potential alternatives to lessen potential adverse impacts. Under the FPPA, the definition of prime, unique or statewide important farmland excludes land already in or committed to urban development. Federal programs are also required to comply with State, local and private programs aimed at preserving farmland.

In Utah Code Annotated, Title 17, Chapter 41, the State of Utah allows for the formation of Agricultural Protection Areas (APAs). Areas so designated are protected for the production of commercial crops, livestock, and livestock products.

3.3.1 AFFECTED ENVIRONMENT

Prime, Unique, or Farmland of Statewide Importance

According to the 2010 Census, the study area is within the limits of the Salt Lake City – West Valley City Urbanized Area and within the municipal boundaries of South Salt Lake City, which qualifies as being committed to urban development under the FFPA; therefore, there are no identified prime, unique, or statewide important farmlands within the study area.

Agricultural Protection Areas (APAs)

There are no designated APAs within the study area.

3.3.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

The No-action Alternative would not result in any impacts to farmlands.

Interchange Alternatives

Interchange Alternatives 1, 3N, and 7 would not result in any impacts to farmlands.

Mitigation

No mitigation required.

3.4 SOCIAL CONDITIONS

This section discusses considerations related to potential social impacts, including community character and cohesion; public facilities, services, and utilities; and recreation. The community social characteristics were analyzed for the Salt Lake County region and the study area.

3.4.1 AFFECTED ENVIRONMENT

Community and Neighborhood Social Conditions: 2010 Census Data

The U.S. Census Bureau establishes geographies for conducting census studies. At the local level, these geographies are defined by state, county, city, census tract, block group, and block. For this analysis, the demographic study area includes: Census Tract 1114 (GEO Id. 1400000US49035111400) and Census Tract 1115 (GEO Id. 1400000US49035111500) (see Figure 3-6). Census data provides the most detailed information regarding household characteristics, such as age, income, race, household size, etc.

Gender

According to the 2010 Census, Census Tract 1114, has a larger percentage of the population identified as female, at nearly 50 percent (see Tables 3-6 and 3-7). This is slightly higher than the City's distribution of female population, but proportionate to the County.

Table 3-6 Gender Characteristics

Location	Tract	Total Population	Male	Female
Study Area	1114	7,051	3,578	3,473
	1115	1,575	1,045	530
South Salt Lake		23,732	13,085	10,647
Salt Lake County		1,032,226	519,200	513,026

Source: US Census 2008-2012 American Community Survey

Table 3-7 Gender Characteristics as Percent of Total

Location	Tract	Total Population	Male	Female
Study Area	1114	100%	50.7%	49.3%
	1115	100%	66.3%	33.7%
South Salt Lake		100%	55.1%	44.9%
Salt Lake County		100%	50.3%	49.7%

Source: US Census 2008-2012 American Community Survey

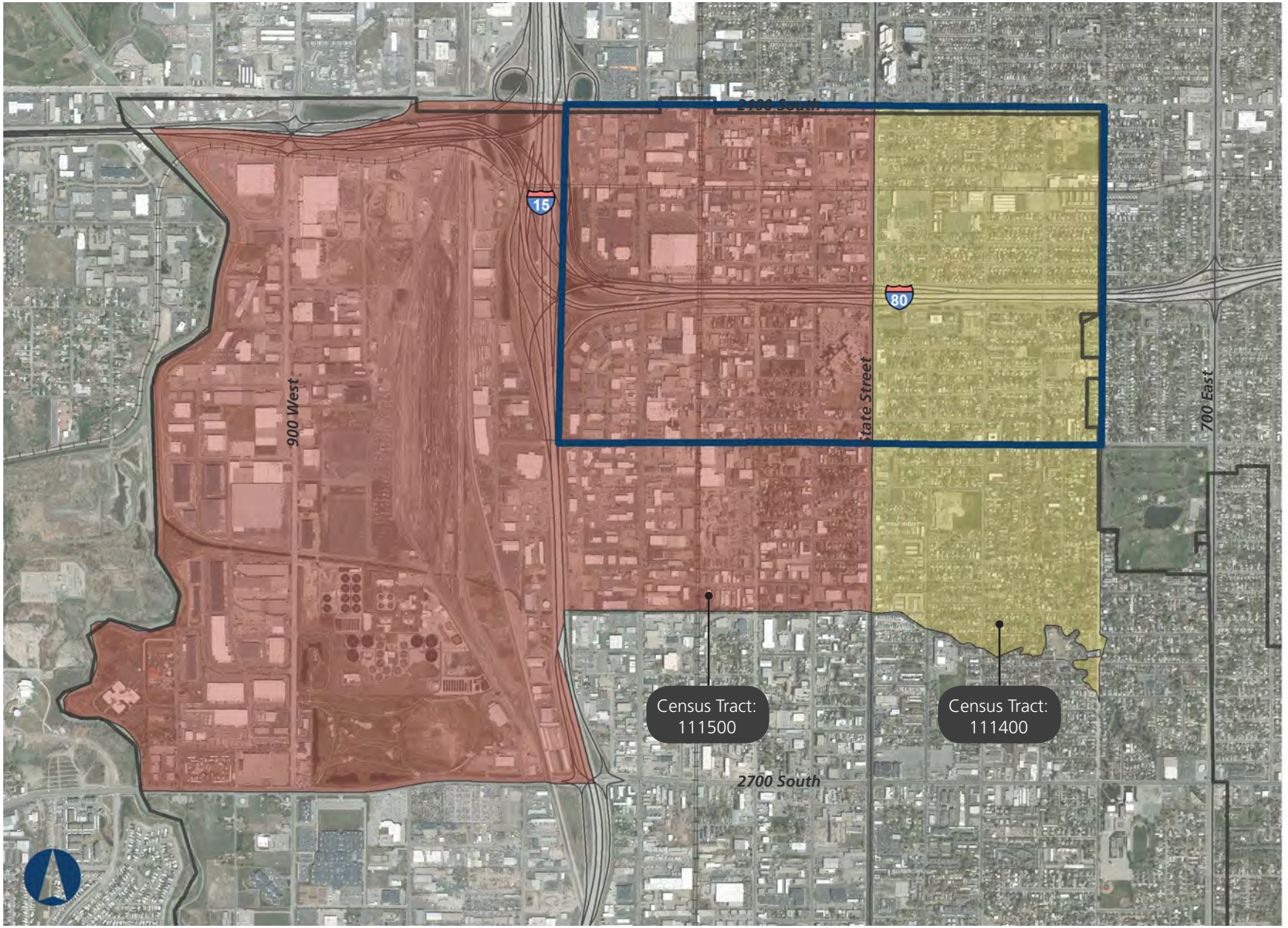


Figure 3-6 Census Study Area

Race

According to the 2010 Census, Census Tract 1114, has a larger percentage of the population identified as Asian. Overall, the area is predominantly White Alone, with over 70 percent of the population, similar to the City. However, there is less in this category than compared to the County at 86 percent (see Tables 3-8 and 3-9).

Table 3-8 Illustration of Race Characteristics

Location	Tract	Total Population	White Alone	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino
Study Area	1114	7,051	5,129	85	0	854	0	689	294	2,218
	1115	1,575	1,221	50	24	25	7	207	41	510
South Salt Lake		23,732	17,557	624	329	1,332	58	2,811	1,021	7,847
Salt Lake County		1,032,226	887,588	16,684	7,887	34,277	16,106	43,143	26,541	176,023

Source: US Census 2008-2012 American Community Survey

Table 3-9 Illustration of Race Characteristics as Percent of Total

Location	Tract	Total Population	White Alone	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino
Study Area	1114	100%	72.7%	1.2%	0.0%	12.1%	0.0%	9.8%	4.2%	31.5%
	1115	100%	77.5%	3.2%	1.5%	1.6%	0.4%	13.1%	2.6%	32.4%
South Salt Lake		100%	74.0%	2.6%	1.4%	5.6%	0.2%	11.8%	4.3%	33.1%
Salt Lake County		100%	86.0%	1.6%	0.8%	3.3%	1.6%	4.2%	2.6%	17.1%

Source: US Census 2008-2012 American Community Survey

Age

Census data regarding age illustrates a population of predominately 15-34 years of age, with 35-59 years of age comprising the second largest category. The study area shows a larger percentage of population from 15-59 years of age when compared to Salt Lake County, but a smaller percentage of the population 60-84 years of age (see Tables 3-10 and 3-11).

Table 3-10 Age Characteristics

Location	Tract	Total Population	0-14 Years	15-34 Years	35-59 Years	60-84 years	85+
Study Area	1114	7,051	1,746	2,917	1,748	501	139
	1115	1,575	194	741	529	111	-
South Salt Lake		23,732	5,181	9,889	6,472	1,923	267
Salt Lake County		1,032,226	254,103	332,229	312,918	121,539	11,437

Source: US Census 2008-2012 American Community Survey

Table 3-11 Age Characteristics as Percent of Total

Location	Tract	Total Population	0-14 Years	15-34 Years	35-59 Years	60-84 years	85+
Study Area	1114	100%	24.8%	41.3%	24.8%	7.1%	2.0%
	1115	100%	12.3%	47.0%	33.6%	7.0%	0.0%
South Salt Lake		100%	21.9%	41.7%	27.2%	8.1%	1.1%
Salt Lake County		100%	24.6%	32.2%	30.3%	11.8%	1.1%

Source: US Census 2008-2012 American Community Survey

Disability

Disability is defined by the Census as "a physical, mental, or emotional condition lasting 6 months or more that made it difficult to perform certain activities such as walking, climbing stairs, dressing, bathing, learning, or remembering." Data regarding disability in the study area illustrates a larger percentage of disabled persons within the ages of 18-64 (see Tables 3-12 and 3-13). This is not surprising given that the age demographics of the study area reflect a smaller percentage of population over 60 years. However, there is not a disproportionate number of persons within the overall disabled population when compared to the City or the County as a whole.

Table 3-12 Disability Characteristics

Location	Tract	Total Population	Total Disabled Population	Under 5 years	5-17 Years	18-64 Years	65+
Study Area	1114	6,947	641	26	39	377	199
	1115	1,242	183	-	26	129	28
South Salt Lake		21,529	2,424	26	175	1,687	536
Salt Lake County		1,022,540	87,795	696	8,141	48,622	30,336

Source: US Census 2008-2012 American Community Survey

Table 3-13 Disability Characteristics as Percent of Total

Location	Tract	Total Population	Total Disabled Population	Under 5 years	5-17 Years	18-64 Years	65+
Study Area	1114	100%	9.2%	0.4%	0.6%	5.4%	2.9%
	1115	100%	14.7%	0.0%	2.1%	10.4%	2.3%
South Salt Lake		100%	11.3%	0.1%	0.8%	7.8%	2.5%
Salt Lake County		100%	8.6%	0.1%	0.8%	4.8%	3.0%

Source: US Census 2008-2012 American Community Survey

Household Size

Household size varies for each Census tract. South Salt Lake City's average household size is 2.55 persons, whereas the County is at 2.98 persons. The study area shows a higher household size in Tract 1114 when compared to the City, whereas Tract 115 is lower relative to the City (see Table 3-14).

Table 3-14 Household Size

Location	Tract	Household Size
Study Area	1114	2.65
	1115	2.03
South Salt Lake		2.55
Salt Lake County		2.98

Source: US Census 2008-2012 American Community Survey

Income

Income demographics show the study area is on par with, or slightly better than the City, but below the County in median household income and per capita income. Median Family income is lower relative to the City for Tract 1114 (see Tables 3-15 and 3-16).

Table 3-15 Income

Location	Tract	Median Household Income	Per Capita Income	Median Family Income
Study Area	1114	$33,181	$16,080	$31,190
	1115	$41,611	$21,221	$41,458
South Salt Lake		$36,345	$16,836	$36,084
Salt Lake County		$59,626	$25,905	$69,591

Source: US Census 2008-2012 American Community Survey

Table 3-16 Income as a Percent of Total

Location	Tract	Median Household Income	Per Capita Income	Median Family Income
Study Area	1114	91%	96%	86%
	1115	114%	126%	115%
South Salt Lake		100%	100%	100%
Salt Lake County		164%	154%	193%

Source: US Census 2008-2012 American Community Survey

Community and Neighborhood Social Conditions:

Community Social Survey

Several neighborhoods have developed primarily east of State Street. Commercial or industrial parcels abut State Street, serving as a buffer between residential properties and the transportation network. There are no neighborhood developments that directly access State Street or I-80 and there are no primary residential dwellings adjacent to State Street. There are several public education facilities that have direct access to State Street by way of the existing alignment: Granite School District Administrative Offices, Woodrow Wilson Elementary School, Granite Community Center and the Granite Technical Institute. In addition to these facilities, there are several neighborhood, community and public facilities within the study area (see Figure 3-7).

Education Facilities

Granite School District Administrative Offices provide administrative services and support to the large network of public education facilities and students within the Granite School District Boundaries.

Woodrow Wilson Elementary School was rebuilt as part of the Granite Education Center in 2005. The original Woodrow Wilson Elementary School was opened in 1925 in South Salt Lake. Wilson is a culturally diverse Title I school serving refugees and students from over 25 countries. The school enrolls approximately 730 students (Kindergarten through 6th grade). The school offers two full day and four half-day sessions of kindergarten and four sessions of preschool for three and four year old children. Woodrow Wilson has several bus stops in the study area as shown in Figure 3-8. In addition, Cottonwood Senior High School has several bus stops in the study area, although the facility itself is not located within the study area.

The Granite Technical Institute offers courses that are targeted at high-demand industries, including Health Science & Technology, Engineering, Information Technology, Biotechnology/ Biomanufacturing, Culinary Arts, Aviation, Agriculture, Cosmetology/ Barbering, and Home Building/Construction.

The District is currently looking at the possibility of expanding its campus with an additional building for the Granite Technical Institute. This new building would be located in the north end of the existing parking lot and be approximately 4-6 stories with a parking deck to replace parking stalls and to accommodate additional growth.

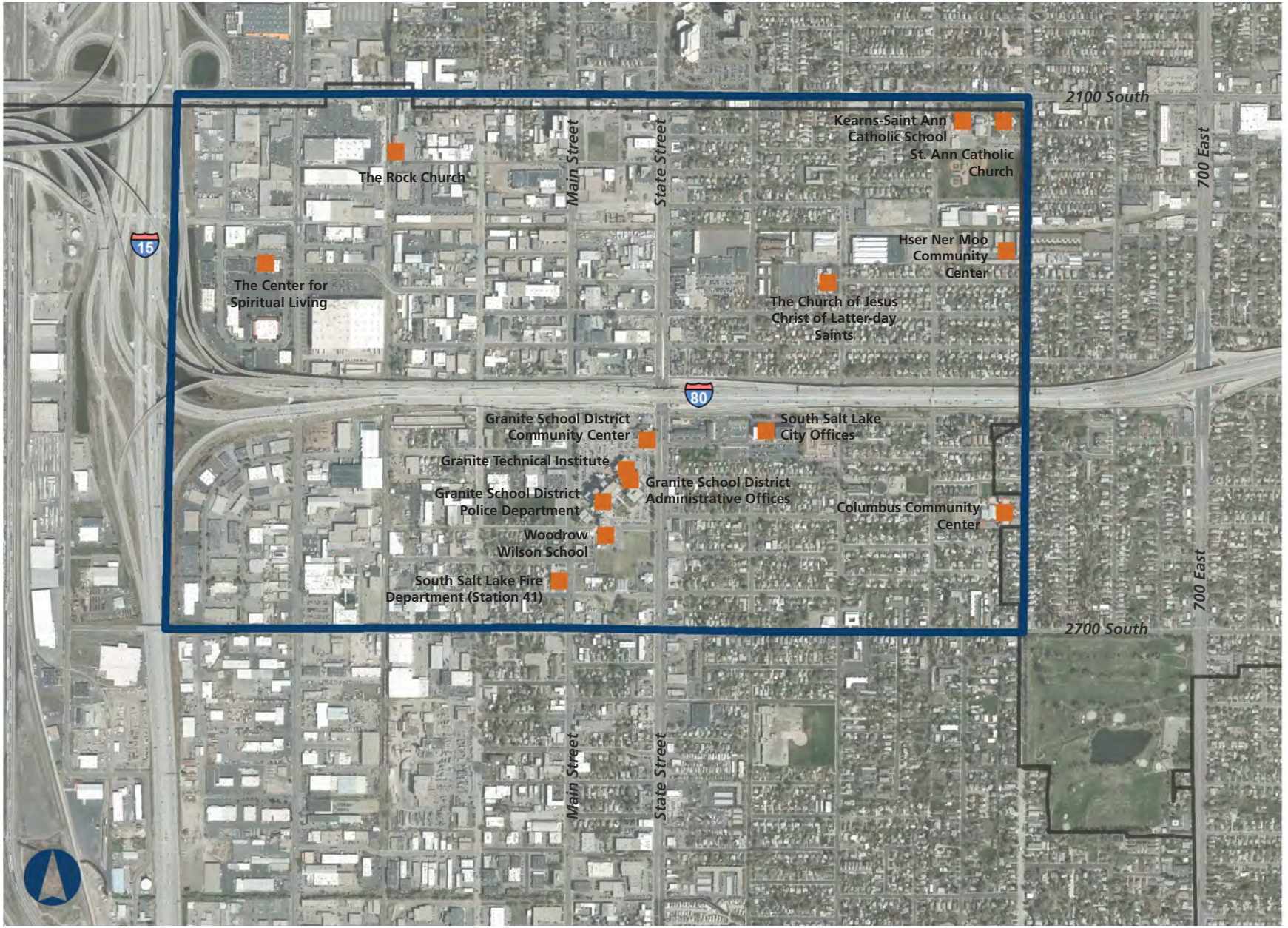


Figure 3-7 Neighborhood, Community and Emergency Service Locations

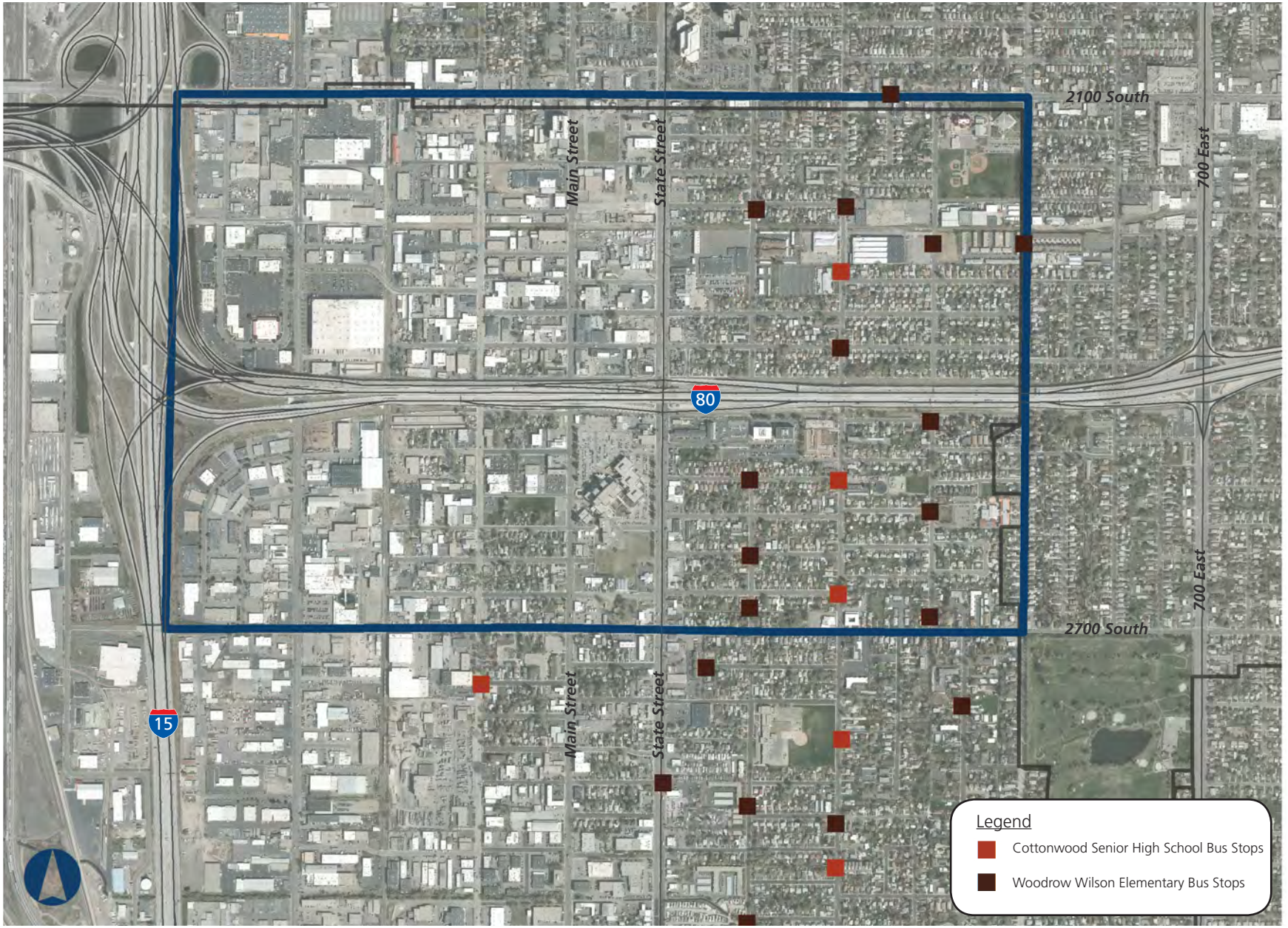


Figure 3-8 School Bus Stops in Study Area

Granite School District Community Center provides numerous and varied services, activities, classes and workshops for the parents and families in the community. This facility is located at approximately 2460 South State Street.

Neighborhood and Activity Centers

Other community or neighborhood facilities within the study area include:

- The Rock Church located at 195 West 2100 South
- The Church of Jesus Christ of Latter Day Saints located at 2300 South 300 East
- The Center For Spiritual Living at 332 Bugatti Drive
- Hser Ner Moo Community Center at 479 East 2250 South
- The Columbus Community Center (operated by South Salt Lake City): 2531 South 400 East
- Granite Community Center (Family Center): About 2466 South US-89
- St. Ann Catholic Church and Kearns-Saint Ann Catholic School: 450 East 2100 South

These facilities do not have direct access to State Street or I-80 and are not adjacent to these roadways.

The Columbus Community Center, operated by South Salt Lake City, is located within the study area. Located at 2531 South 400 East, the Center is a community landmark and a vital gathering place. Salt Lake County also operates the Columbus Library at the Community Center. The Library plans and sponsors numerous events and activities throughout the year such as art exhibits, book sales, story-time readings for kids, book clubs for seniors and adults, and more.

Public Services

South Salt Lake Fire Station 41 is located within the study are at 2600 South Main Street. This station serves as the headquarters station. The Fire Chief, Deputy Fire Chief, Platoon Battalion Chief, and the Fire Training Chief all have offices at Station 41. Responses from Station 41 are handled by a fire engine staffed with three firefighters and an ambulance staffed with two firefighter/paramedics.

Salt Lake City Offices are located at 220 East Morris Avenue. This location currently houses the City's administrative services including business licensing, planning, economic development, justice court, human resources, legal, and legislative divisions.

Granite School District Police Department, is located at 2500 South State Street, within the School District Administrative facilities. The Department has 16 full-time, sworn officers, 22 part-time sworn officers and nine civilian employees, staffed 24 hours a day, 7 days a week.

Recreation Resources

As discussed in Section 3.2 Land Use, there are currently four parks and recreation facilities within the study area, including Lion's Pride Park, 0.5 acres of turf and event lawn at the Columbus Community Center, open space at approximately 200 East Whitlock Avenue, and a recreation site located at approximately 2200 South 500 East, that the City will utilize for a community garden or plaza area.

Additionally, Parley's Trail, a paved bicycle and pedestrian trail which is currently under construction, is within the study area.

3.4.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

There are no direct or indirect impacts to social conditions from the No-action Alternative.

Interchange Alternatives

Direct Impacts

Interchange Alternatives 1, 3N, and 7 would not change neighborhood or community cohesion through the splitting of

neighborhoods, or the isolation of a portion of a neighborhood or an ethnic group. The Interchange Alternatives would not generate new development, nor is there an expectation that property values would change substantially within the study area.

Interchange Alternative 1, 3N, and 7 may result in partial acquisition of the Granite School District Community Center property. The partial acquisition would be a narrow strip from the east side of the property (approximately 0.01 acres). This facility provides services, activities, classes and workshops for the parents and families in the community and is located at approximately 2460 South State Street (see Figure 3-7). One of the District's primary concerns for their campus is parking availability. Due to existing demand, the District's existing parking infrastructure is at capacity. None of the Interchange Alternatives would reduce the total parking of the District's facilities or impact the operation or function of the Community Center.

The other community facilities are geographically removed from the intersection improvement area and would not be directly impacted by Interchange Alternatives 1, 3N, and 7 (see Figure 3-7). Thus there is no foreseeable risk of separating residents from other community facilities.

Indirect Impacts

Commercial and residential development would likely occur in this area without roadway improvements; however, Interchange Alternatives 1, 3N, and 7 may speed up growth due to a slight improvement in overall access to this area.

Mitigation

No mitigation required.

3.5 ENVIRONMENTAL JUSTICE

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and low-Income Populations, signed by the President on February 11, 1994, directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent possible and permitted by law.

Fundamental Environmental Justice principles include[1]:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process
- To prevent the denial of, reduction in, or substantial delay in the receipt of benefits by minority and low-income populations

On June 14, 2012, the Federal Highway Administration issued Order 664023A, FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which reaffirm the principles of Title VI and related statutes, NEPA, 23 U.S.C. 109(h), and other Federal environmental laws, emphasizing the incorporation of those provisions with the environmental and transportation decision-making processes. This Order includes the following definitions:

Low-Income means a person whose median household income is at or below the Health and Human Services (HHS) poverty guidelines. The 2015 Poverty Guidelines for the 48 contiguous states and the District of Columbia are shown in Table 3-17.

Table 3-17 Illustration of Poverty Guidelines

Persons in Family	Poverty Guideline
1	$11,770
2	15,930
3	20,090
4	24,250
5	28,410
6	32,570
7	36,730
8	40,890

Source: Department of Health and Human Services.

For families with more than 8 persons, add $4,160 for each additional person.

Minority means a person who is:

- **Black:** a person having origins in any of the black racial groups of Africa
- **Asian American:** a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent
- **American Indian and Alaskan Native:** a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or
- **Native Hawaiian or Other Pacific Islander:** people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands
- **Hispanic/Latino:** a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race

Low income and minority populations are defined in FHWA Order 6640.23A as follows:

1 www.fhwa.dot.gov/environment/ej2000.htm

- **Low-Income Population** means readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed DOT program, policy, or activity.
- **Minority Population** means any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.

This section of the report discloses any detrimental, as well as beneficial, impacts to low-income and minority populations based on the No-Build Alternative and the Build Alternative. This analysis has been completed in compliance with Title VI of the 1964 Civil Rights Act and Executive Order 12898.

Other regulations related to environmental justice include:

- **DOT Order 5610.2(a):** reaffirms the principles of Title VI and related statutes, NEPA, 23 U.S.C. 109(h), and other Federal environmental laws, emphasizing the incorporation of those provisions with the environmental and transportation decision-making processes.
- **23 CFR 771, FHWA Environmental Impact And Related Procedures:** provides the policies and procedures for implementing the National Environmental Policy Act of 1969, as amended, and the regulation of the Council on Environmental Quality, 40 CFR 1500 – 1508.
- **49 CFR 24 Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970**, as amended, has the following objectives:

  (a) To ensure that owners of real property to be acquired for Federal and federally-assisted projects are treated fairly and consistently, to encourage and expedite acquisition by agreements with such owners, to minimize litigation and relieve congestion in the courts, and to promote public confidence in Federal and federally-assisted land acquisition programs;

  (b) To ensure that persons displaced as a direct result of Federal or federally-assisted projects are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole; and

  (c) To ensure that Agencies implement these regulations in a manner that is efficient and cost effective
- **Title VI of the Civil Rights Act**, enacted as part of the Civil Rights Act of 1964, prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance.

3.5.1 AFFECTED ENVIRONMENT

Population

According to 2010 Census Tract Data, South Salt Lake City's population was 23,732. Within the study area the population was 8,626 (see Table 3-18).

Table 3-18 Population Characteristics

Location	Tract	Total Population
Study Area	1114	7,051
	1115	1,575
South Salt Lake		23,732
Salt Lake County		1,032,226

Source: US Census 2008-2012 American Community Survey

Low-Income Populations

Income demographics show the study area is on par with, or slightly higher than the City, but below the County in median household income and per capita income. Median Family income is lower relative to the City for Tract 1114 (see Tables 3-19 and 3-20).

Table 3-19 Income

Location	Tract	Median Household Income	Per Capita Income	Median Family Income
Study Area	1114	$33,181	$16,080	$31,190
	1115	$41,611	$21,221	$41,458
South Salt Lake		$36,345	$16,836	$36,084
Salt Lake County		$59,626	$25,905	$69,591

Source: US Census 2008-2012 American Community Survey

Table 3-20 Income as Percent of Total

Location	Tract	Median Household Income	Per Capita Income	Median Family Income
Study Area	1114	91%	96%	86%
	1115	114%	126%	115%
South Salt Lake		100%	100%	100%
Salt Lake County		164%	154%	193%

Source: US Census 2008-2012 American Community Survey

According to the FHWA, "low-income" is defined as "a person whose household income is at or below the Department of Health and Human Services poverty guidelines." Average household sizes in the area range from 2.03 persons to 2.65 persons, with the average for the City at 2.55 persons per household. Low income would be defined in the study area as households with an income range of $15,930 to $20,090, based on average household sizes and the 2015 Poverty Guidelines for the 48 contiguous states and the District of Columbia. The Census Tracts within the study area have median family incomes that are higher than the poverty threshold.

A comparison of free and reduced lunch populations within the Study Area shows that Wilson Elementary has a higher percentage of students in this program, at 85 percent, when compared to other schools in the school district. This ranks Wilson Elementary as the 10th highest school out of 90 schools within Granite School District based on students participating in the free and reduced lunch program, suggesting lower income levels in the study area.

Minority Populations

There are roughly 25 percent non-white populations in South Salt Lake City. According to the 2010 Census, Census Tract 1115 has a slightly higher percentage of population classified as "white". Tract 1114, has a larger percentage of the population identified as Asian.

Overall, the area is predominantly White Alone, with over 70 percent of the population, similar to the City. However, there is less in this category than compared to the County at 86 percent. A comparison of race as percent of total shows these areas have a slightly lower percentage of Hispanic or Latino within the population when compared to the City, but not when compared with the County as a whole (see Tables 3-21 and 3-22).

Table 3-21 Minorities/Non-White

Location	Tract	Total Population	White Alone	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino
Study Area	1114	7,051	5,129	85	0	854	0	689	294	2,218
	1115	1,575	1,221	50	24	25	7	207	41	510
South Salt Lake		23,732	17,557	624	329	1,332	58	2,811	1,021	7,847
Salt Lake County		1,032,226	887,588	16,684	7,887	34,277	16,106	43,143	26,541	176,023

Source: US Census 2008-2012 American Community Survey

Table 3-22 Race Characteristics as Percent of Total

Location	Tract	Total Population	White Alone	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino
Study Area	1114	100%	72.7%	1.2%	0.0%	12.1%	0.0%	9.8%	4.2%	31.5%
	1115	100%	77.5%	3.2%	1.5%	1.6%	0.4%	13.1%	2.6%	32.4%
South Salt Lake		100%	74.0%	2.6%	1.4%	5.6%	0.2%	11.8%	4.3%	33.1%
Salt Lake County		100%	86.0%	1.6%	0.8%	3.3%	1.6%	4.2%	2.6%	17.1%

Source: US Census 2008-2012 American Community Survey

3.5.2 ENVIRONMENTAL CONSEQUENCES

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, mandates that all Federal actions be reviewed to determine if there are disproportionate effects on minority or low-income populations. FHWA Order 6640.23A, FHWA Actions to Address Environmental Justice in Minority and Low-Income Populations defines disproportionately high and adverse effect on minority and low-income populations as an adverse effect that:

> (1) is predominately borne by a minority population and/or a low-income population; or
>
> (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low-income population.

No-action Alternative

Under this alternative, there would be no capacity, safety, or operational improvements. This alternative has both positive and negative effects to the minority and low-income populations in the study area. No minority or low-income populations would have direct adverse impacts as a result of the No-action Alternative. Conversely, the benefits of reduced congestion and improved access to I-80, would not be available to the minority and low-income populations. Effects would be experienced by all residences in the community regardless of race or income; therefore, there would not be a disproportionately high and adverse effect on minority and low-income populations. In accordance with the provision of EO 12898 and FHWA Order 6640.23A, no further Environmental Justice analysis is required.

Interchange Alternatives

In general, Interchange Alternative 1, 3N, and 7 would have positive impacts on all populations in the study area, including minority and low-income populations. Reduced congestion, safety improvements, and improved access to I-80 would benefit the entire community.

Impacts as a result of Interchange Alternatives 1, 3N, and 7, as described in other sections of this document, would be felt by all populations along the corridor.

Relocations

The principal difference in the impacts between the three Interchange Alternatives is relocations. There would be no residential relocations required for Interchange Alternatives 1, 3N, and 7; however, the Interchange Alternatives would impact the following businesses:

- **Interchange Alternative 1** would relocate KFC, TechnaGlass, House of Blinds, and Emissions Time.
- **Interchange Alternative 3N** would relocate House of Blinds and Emissions Time.
- **Interchange Alternative 7** would relocate House of Blinds and Emissions Time.

None of the above businesses are minority-owned; neither do they primarily serve minority or low-income populations. Therefore, relocating the above businesses would not impact minority or low-income populations.

Air Quality

As noted in Section 3.9, Interchange Alternatives 1, 3N, and 7 would not result in new violations of the National Ambient Air Quality Standards (NAAQS), increases in the frequency or severity of existing violations of the NAAQS, or delays in attaining the NAAQS. Further, the alteration of the interchange configuration and improvements on State Street would reduce traffic congestion which would improve

the air quality, resulting in a positive impact on all populations in the study area, including the children who attend Wilson Elementary School.

Noise

Traffic noise impacts have been identified under Interchange Alternatives 1, 3N, and 7. No populations in the study area would experience increased noise; therefore there would not be a disproportionate impact to minority and low-income populations.

Conclusion

Based on the above discussion and analysis, Interchange Alternatives 1, 3N, and 7 would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of E.O. 12898 and FHWA Order 6640.23A. No further environmental justice analysis is required.

Mitigation

No mitigation required.

3.6 RIGHT OF WAY AND RELOCATIONS

Where property acquisition is necessary, land owners are compensated under the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 USC §4601 as implemented in 49 CFR §24). If any persons are displaced as a result of a federal or federally assisted program, assistance will be provided.

UDOT will compensate persons from whom right-of-way acquisition is required. Any right-of-way acquisitions will occur in accordance with federal, state, and local policies. The acquisition and relocation program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42USC §4601 as implemented in 49 CFR §24).

This relocations section will use the following definitions to analyze the impacts of relocations:

- **Relocation:** Occurs when an existing structure would be within the right-of-way of an alternative and the residents or business would need to relocate.
- **Potential Relocation:** A situation in which a property would be directly affected by the project and an existing structure (excluding porches and garages) would be close to the proposed right-of-way, but it is not clear whether the entire property needs to be acquired. By the end of the right-of-way acquisition phase, UDOT will determine whether each potential relocation is a full relocation or a strip take. This determination depends on an independent valuation of the property that includes any project-related damage to buildings.
- **Partial Acquisition:** Generally occurs when a property is located within the proposed right-of-way, but the right-of-way does not encroach upon the existing structure. For this type of impact, only a strip of land would need to be acquired. As with potential relocations, UDOT could refine partial acquisitions during the right-of-way acquisition phase.

3.6.1 AFFECTED ENVIRONMENT

The study area is located within the City of South Salt Lake. This city is extensively developed and urbanized and within the study area there are approximately 200 residences and 50 businesses. Many of these properties were developed based on narrower right-of-way widths. Subsequently, a widened and improved roadway would require additional right-of-way from several properties.

3.6.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

The No-action Alternative would not require any additional right-of-way acquisition or the relocation of any residences or businesses.

Interchange Alternatives

Direct Impacts

Relocations

The construction of Interchange Alternatives 1, 3N, and 7 could require the relocation of businesses (see Table 3-23). None of the alternatives would require the relocation of any residences.

Right-of-Way Acquisition

Construction of Interchange Alternatives 1, 3N, and 7 would require right-of-way acquisition from adjacent parcels (see Table 3-24). None of the Interchange Alternatives would require right-of-way from any residences.

Table 3-23 Businesses Which May Require Relocation by Alternative

Address	Business	Type of Impact	Type of Relocation	Interchange Alternatives		
				1	3N	7
2390 S. State Street, South Salt Lake City	Techna Glass	Direct	Relocation	X		
2432 S. State Street, South Salt Lake City	Emission Time	Proximity	Potential Relocation	X	X	X
2432 S. State Street, South Salt Lake City	House of Blinds	Proximity	Potential Relocation	X	X	X
2435 S. State Street, South Salt Lake City	KFC/A&W	Direct	Relocation	X		

Table 3-24 Right-of-Way Acquisition

Interchange Alternatives	# of Parcels Affected by Partial Acquisitions	Total Partial Acquisitions (Acres)
1 – SPUI	5	0.08
3N – Split Diamond North	7	0.08
7 - Diamond	7	0.08

Indirect Impacts

Commercial and residential development would likely occur in this area without roadway improvements; however, Interchange Alternatives 1, 3N, and 7 may induce a more rapid rate of growth due to a slight improvement in overall access to the area. Other relocations and right-of-way acquisitions may occur as a result of this development.

Mitigation

No mitigation required.

Figure 3-9 Relocations

3.7 ECONOMIC CONDITIONS

This section addresses the current economic climate and the direct and indirect impacts of Interchange Alternatives 1, 3N, and 7 that could occur in the study area.

3.7.1 AFFECTED ENVIRONMENT

Regional Setting

Salt Lake County labor market conditions are continuing to follow State and National trends, with year-to-year increases over the last three years. Job growth occurred across all but the mining industry group, which witnessed a 6.9 percent decline. The largest growth occurred in professional/business services, leisure/hospitality, trade and healthcare, which experienced a 6.3 percent increase. Average nonfarm employment growth in 2013 was 3.3 percent (see Figure 3-10). The 20,011 new jobs increased total employment to 623,940. In addition, seasonally adjusted unemployment rates for Salt Lake County are lower when compared to the State and Nation (see Table 3-25 and Figure 3-11).

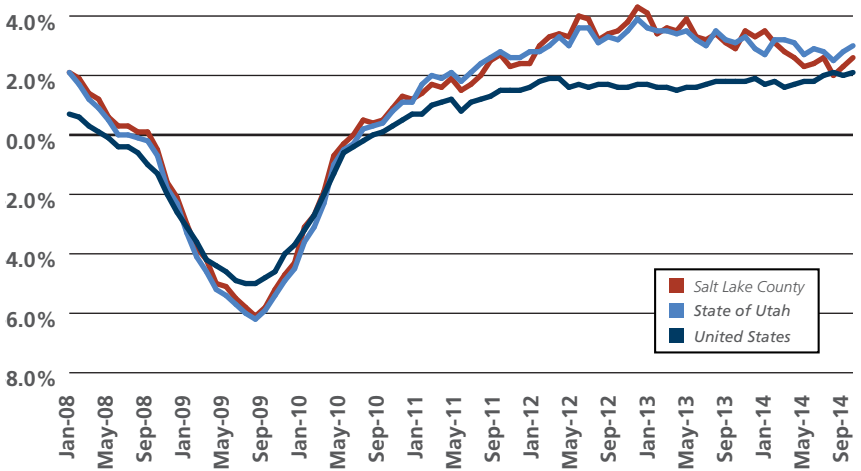


Figure 3-10 Year to Date Change in Nonfarm Jobs (Department of Workforce Services)

Table 3-25 2015 Seasonally Adjusted Unemployment Rate

State of Utah	3.4%
Salt Lake County	3.3%
United States	5.5%

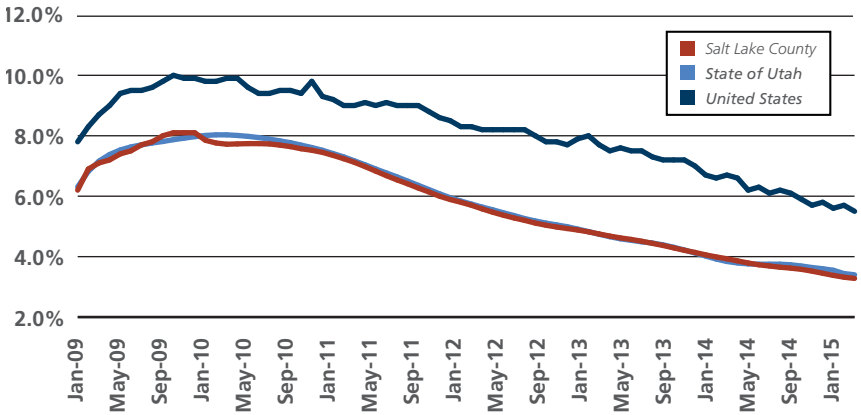


Figure 3-11 2015 Seasonally Adjusted Unemployment Rate

Construction in Salt Lake County continues to mend following the recession. Residential building activity experience positive gains for the past three years (see Figure 3-12). However, changes in total construction value show much more stagnant growth.

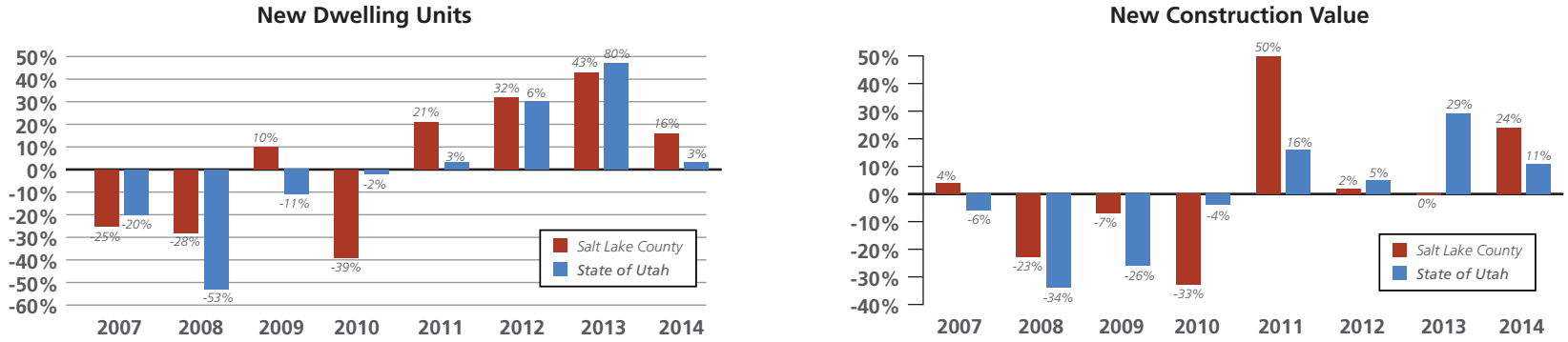


Figure 3-12 Change in Dwelling Units and Construction Values

The stabilization, improvement and expansion in the Salt Lake County labor market since mid-year 2010 have been reflected in gross taxable sales (see Figure 3-13). For 15 consecutive quarters, second quarter 2010 through fourth quarter 2013, Salt Lake County year-over sales tax collections have been positive. Total year over change for Salt Lake County in total taxable sales was 2.8 percent for 2013.

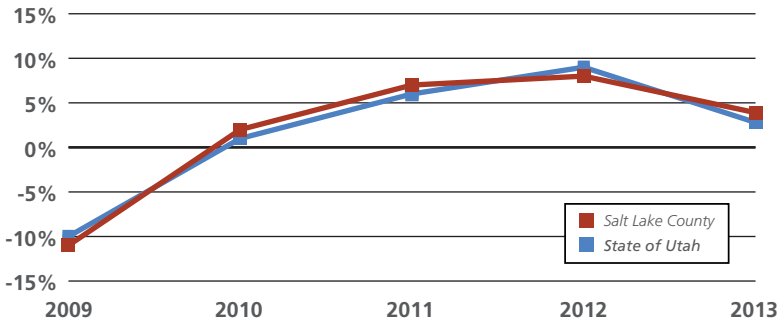


Figure 3-13 Year-toYear Change in Gross Taxable Sales

Population

2013 population estimates for South Salt Lake show the City with approximately three percent of the total County population (see Figure 3-14). The Governor's Office of Management and Budget shows the City will decrease slightly as a percent of total through 2030 (see Figure 3-15).

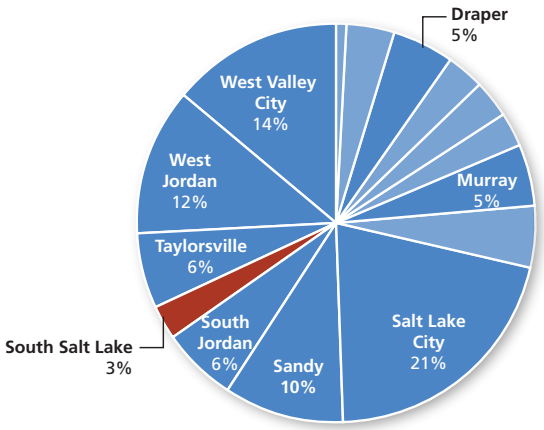


Figure 3-14 Population Estimates (Utah Department of Workforce Services)

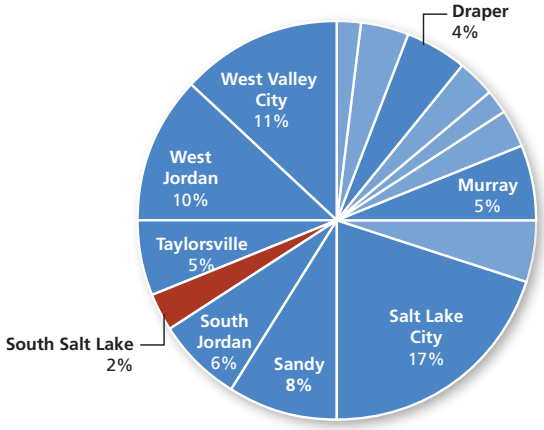


Figure 3-15 2030 Population Projections

Employment

Using adjusted Traffic Area Zone (TAZ) data, the study area is projected to experience a slight reduction in overall jobs through 2040 (see Table 3-26). However, the development of new retail opportunities will likely result in increased sales tax revenues for the community, as well as other induced economic effects.

Table 3-26 Traffic Area Zone (TAZ) Demographic Data

	Households	Population	Total Employment	Retail Employment	Industrial Employment	Other Employment
2012 Total	2,348	5,344	13,188	3,428	2,186	7,575
2040 Total	6,674	13,969	12,840	4,151	959	7,730
Difference	4,326	8,625	(348)	723	(1,227)	155
Salt Lake County		242,705	146,040	60%	96,665	40%

Based on 21 Selected Traffic Area Zones within the study area, adjusted for proposed redevelopment information provided by the City.

Table 3-27 South Salt Lake Largest Employment Centers

Employer	Type of Business	Employee Range
Marriott Guest Services	Property Lessors	500-999
Utah Transit Authority	Public Transportation	500-999
Salt Lake County – Sheriff's Office	Public Safety Office	500-999
Select Portfolio Servicing	Mortgage Services	500-999
Granite School District	Public Education Office	400-499
Seaboard Foods	Food Manufacturing	250-399
RC Willey	Retail home Furnishings	250-399
Westech Engineering Inc.	Machinery Manufacturing	250-399
Bimbo Bakeries USA, Inc.	Wholesale Bakery	250-399
Exelis	Technical Research	150 -249

Source: Department of Workforces Services, South Salt Lake City 2014 Comprehensive Financial Report

Income Statistics

Income demographics show the study area is on par with, or slightly better than the City, but below the County in median household income and per capita income. Median Family income is lower relative to the City for Tract 1114 (see Table 3-28).

Table 3-28 Income

Location	Tract	Median Household Income	Per Capita Income	Median Family Income
Study Area	1114	$33,181	$16,080	$31,190
	1115	$41,611	$21,221	$41,458
South Salt Lake		$36,345	$16,836	$36,084
Salt Lake County		$59,626	$25,905	$69,591

Source: US Census 2008-2012 American Community Survey

Retail Sales

Total retail sales conditions have improved over the last three years, with positive gains since 2010. Total retail sales in South Salt Lake City equaled 1.29 billion dollars in 2013 (see Table 3-29).

Table 3-29 Historic Retail Sales

Year	South Salt Lake	% Change	Salt Lake County	% Change
2008	1,478,772,117		20,518,879,927	
2009	1,161,187,572	-21%	18,286,629,369	-11%
2010	1,127,865,679	-3%	18,498,826,082	1%
2011	1,183,346,824	5%	19,672,227,812	6%
2012	1,246,932,888	5%	21,387,821,486	9%
2013	1,290,468,867	3.5%	21,986,132,639	2.8%

Business Activity

According to 2010 business license data, the study area supports a large portion of the City's commercial activity, with approximately 574 business within the study area, or 24 percent of the 2,378 total businesses. The percentage is slightly higher when comparing retail related business activity only, with approximately 28 percent of the City's retail related business located within the study area.

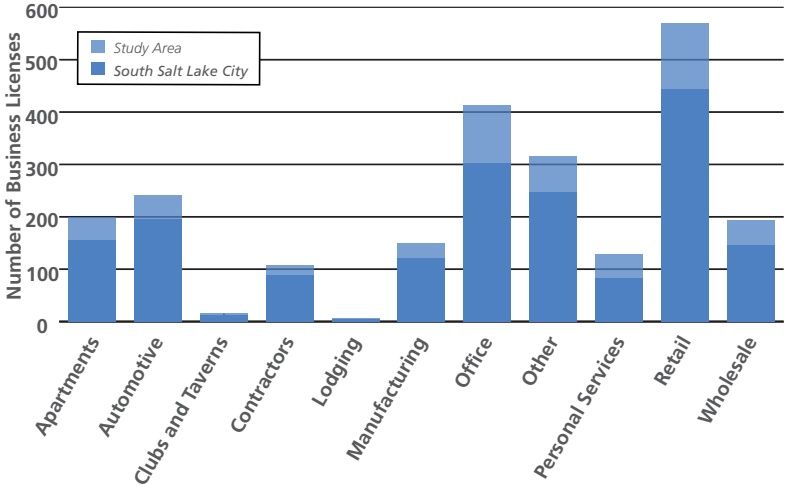


Figure 3-16 Business License Data

Total businesses include retail, office, industrial, and other business activity. The largest business categories include retail and office related businesses. Some businesses, due to address inaccuracies or other limiting factors, were not analyzed.

A comparison of parcel data illustrates the commercial concentration within the study area. Commercial and industrial related property accounts for 49 percent of the total study area parcels (see Table 3-30 and Figure 3-17).

Table 3-30 Property Acreage by Property Type

Property Type	Tract	Percent
Residential	181.90	31%
Industrial	54.67	9%
Commercial	231.55	40%
Vacant	16.17	3%
Agricultural/Forest/Mining	-	0%
Other	96.85	17%
Total	581.14	

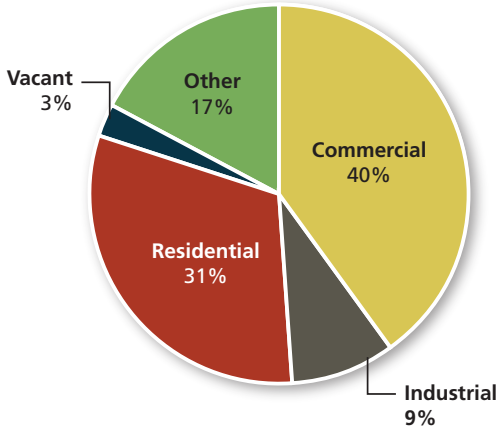


Figure 3-17 Property Acreage by Property Type

There are two major redevelopment areas in the study area: Market Station URA and Central Pointe URA. The objective of these areas is to encourage the redevelopment of nearly 120 acres of underutilized property into mixed use retail, office and residential neighborhoods. This will generate more trips on roadways and increase pedestrian activity. In addition, the Central Pointe TRAX station, the S-Line (Sugar House Streetcar) and Parley's Trail also surround the study area, generating more trips and pedestrians.

The Central Pointe and Market Station URAs have been created to encourage mixed-use developments including office, residential and retail spaces. The types of land uses within the Central Point and Market Station URAs will include denser patterns of development and will result in increased travel demand within the study area. The Central Pointe URA is projected to add 230,000 square feet of office space, 790,000 square feet of retail space and 2,000 multi-family units. The increase in residential population is expected to be approximately 5,000 residents. The Market Station URA is expected to add 140 multi-family units, with 100,000 square feet of office space and 150,000 square feet of retail space. Additionally, the proposed Streetcar CDA will add nearly 160,000 square feet of miscellaneous commercial and 1,400 multi-family residential units. For the URAs to be economically viable, adequate transportation access will be required.

Property Values

A comparison of property values shows approximately 45 percent of the market value within the study area is commercial/industrial based property, with 37 percent residential related property. 17 percent of the value is associated with other property types including exempt property, government land and buildings, schools and churches (see Table 3-31 and Figure 3-18).

Table 3-31 Distribution of Property Values by Property Type

Property Type	Market Value	% of Total	Taxable Value	% of Total
Residential	$221,274,510	37%	$120,464,327	31%
Industrial	$37,720,000	6%	$37,577,943	10%
Commercial	$232,121,740	39%	$225,469,489	58%
Vacant	$4,938,680	1%	$4,596,726	1%
Agricultural/Forest/ Mining	-	0%	-	0%
Other	$99,862,100	17%	$3,185,820	1%
Total	$595,917,030	100%	$391,294,305	100%

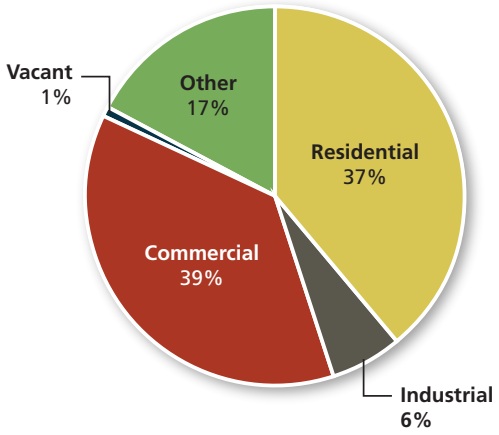


Figure 3-18 Distribution of Market Values by Property Type

100-Foot Buffer Parcel Analysis

A comparison of parcels within a 100-foot buffer of the affected roadways illustrates that a large percentage of the land that could be affected by proposed improvements is commercial property (see Table 3-32 and Figure 3-19).

Table 3-32 Distribution of Property Values within 100-Foot Buffer of Affected Roadways

Lot Use	Market Value	% of Total	Taxable Value	% of Total
Residential	$15,606,700	9%	$8,525,925	11%
Commercial	$139,552,440	84%	$64,390,075	83%
Industrial	$4,916,100	3%	$4,769,500	6%
Other	$6,451,500	4%	--	0%
Total	$166,526,740	100%	$77,685,500	100%

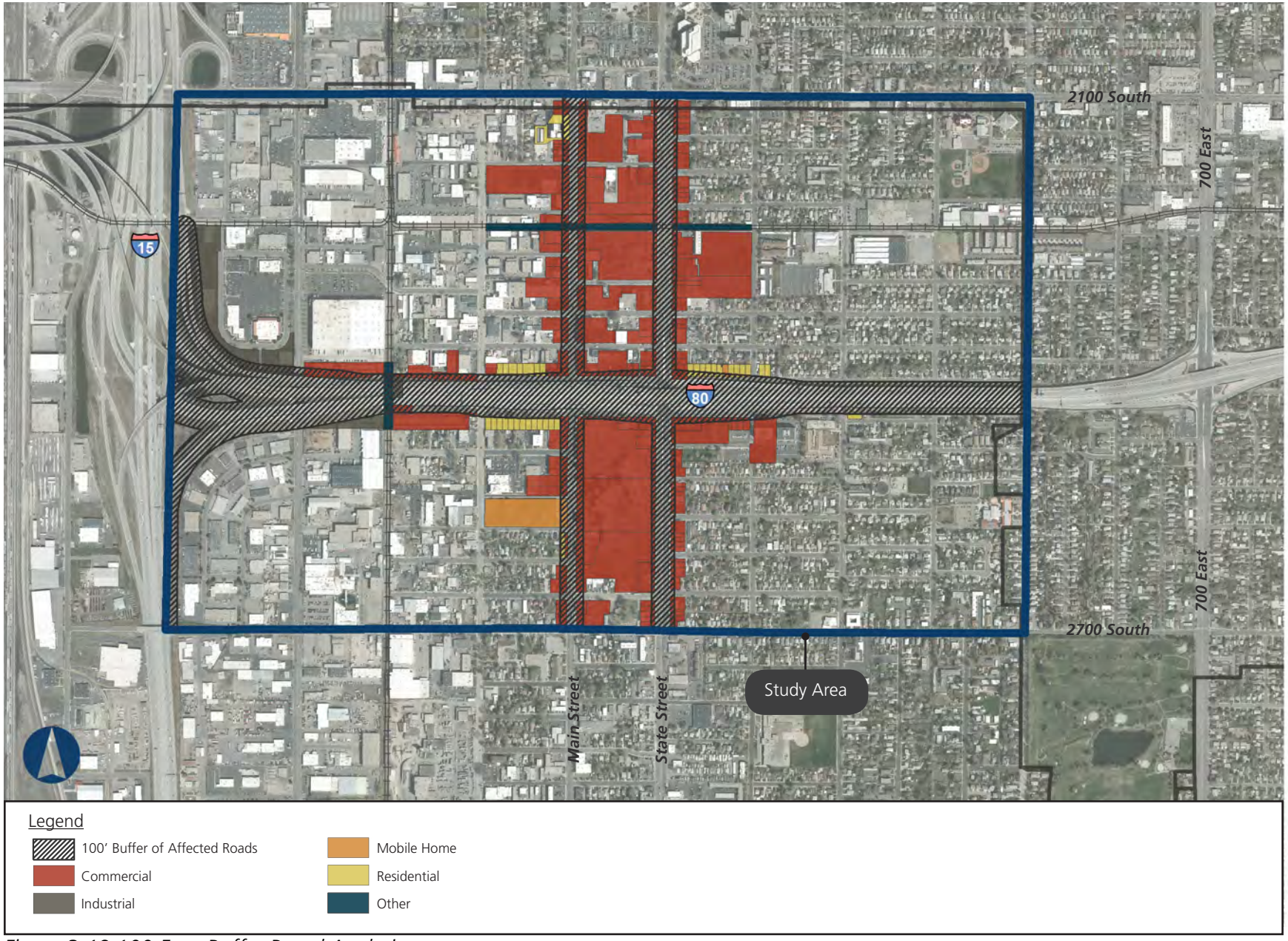


Figure 3-19 100-Foot Buffer Parcel Analysis

3.7.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

There are no direct or indirect impacts to economic conditions from the No-action Alternative. It is anticipated that the changes in future land use and redevelopment to the area would occur regardless of the build or no-action scenarios. The mechanisms to stimulate proposed redevelopment within the area have already been established and adopted to facilitate the redevelopment of these areas. Additionally, the area is already supported by an existing interchange.

Interchange Alternatives

Direct Impacts

Interchange Alternatives 1, 3N, and 7 would not adversely affect the economic viability of South Salt Lake City or the County. The Interchange Alternatives would not generate new development, nor is there an expectation that property values would change substantially as a result of the Interchange Alternatives. However, there may be several partial property acquisitions or full relocations, which would affect individual businesses within the study area.

Interchange Alternative 1

Interchange Alternative 1 would result in a partial acquisition of property related to three businesses or entities: Salt Lake Valley Chrysler, Dodge, Jeep & Ram, Ramada Inn and Granite School District's community center. Techna Glass, KFC/A&W, and House of Blinds/Emission Time would require full relocation. Relocations and partial acquisitions represent less than a tenth of a percent (0.1 percent) of the study area acreage, taxable property value (or the value of the property used to determine annual property taxes) and market property value (or the estimated market value of the property before adjustments). See Table 3-33.

Table 3-33 Interchange Alternative 1 Acquisitions and Relocations

ID	Owner	Property Location	Acres	Taxable Value	County Assessed Value	Business	Business Type	Note	Acreage Impacted
16191570300000	Rim Enterprises Llc	2371 S State St	0.18	$141,800	$141,800	Salt Lake Valley Chrysler, Dodge, Jeep & Ram	Car Dealership	No Impact	0.05
16191570310000		2375 S State St	0.15	$160,800	$160,800			No Impact	
16191570320000		2375 S State St	0.41	$320,700	$320,700			Partial Acquisition	
16193040260000	Crossroads Hospitality Llc	2455 S State St	1.95	$4,650,700	$4,650,700	Ramada Inn	Hotel & Lodging	Partial Acquisition	0.02
16193030214002	Municipal Building Authority Of Granite School District	2500 S State St	7.43	-	$19,921,400	Granite School District	Public Education	Partial Acquisition	0.01
16191540170000	Parts Lc	2390 S State St	0.12	$124,500	$124,500	Techna Glass	Auto Repair	**Relocation**	**0.05**
16191540180000		2390 S State St	0.28	$582,300	$582,300				
16193040250000	Cook, Dawn H; Tr	2435 S State St	0.69	$658,600	$658,600	KFC/A&W	Fast Food Restaurant	**Relocation**	**0.08**
16191540130000	Gord, Bill	2432 S State St	0.38	$318,900	$318,900	House of Blinds & Emission Time	Retail & Auto Repair	**Relocation**	**0.05**
		Total	11.59	$6,958,300	$26,879,700				
		Percent of Study Area	1.99%	1.78%	4.51%				
		Relocations & Partial Acquisitions Total	**0.26**	**$296,484**	**$323,296**				
		Percent of Study Area	**0.04%**	**0.08%**	**0.05%**				

Interchange Alternative 3N

Interchange Alternative 3N would result in a partial acquisition of property related to four businesses or entities: Salt Lake Valley Chrysler, Dodge, Jeep & Ram, Ramada Inn, Granite School District's community center, and KFC/A&W. House of Blinds/Emission Time would require full relocation. Relocations under this alternative represent less than 0.1 percent of the study area acreage, taxable property value and market property value (see Table 3-34).

Table 3-34 Interchange Alternative 3N Acquisitions and Relocations

ID	Owner	Property Location	Acres	Taxable Value	County Assessed Value	Business	Business Type	Note	Acreage Impacted
16191570300000	Rim Enterprises Llc	2371 S State St	0.18	$141,800	$141,800	Salt Lake Valley Chrysler, Dodge, Jeep & Ram	Car Dealership	No Impact	0.04
16191570310000		2375 S State St	0.15	$160,800	$160,800			No Impact	
16191570320000		2375 S State St	0.41	$320,700	$320,700			Partial Acquisition	
16193040260000	Crossroads Hospitality Llc	2455 S State St	1.95	$4,650,700	$4,650,700	Ramada Inn	Hotel & Lodging	Partial Acquisition	0.01
16193030214002	Municipal Building Authority Of Granite School District	2500 S State St	7.43	-	$19,921,400	Granite School District	Public Education	Partial Acquisition	0.01
16193040250000	Cook, Dawn H; Tr	2435 S State St	0.69	$658,600	$658,600	KFC/A&W	Fast Food Restaurant	Partial Acquisition	0.02
16193020170000	Gord, Bill	2432 S State St	0.38	$318,900	$318,900	House of Blinds & Emission Time	Retail & Auto Repair	Relocation	0.05
		Total	11.19	$6,251,500	$26,172,900				
		Percent of Study Area	1.93%	1.60%	4.39%				
		Relocations & Partial Acquisitions Total	**0.13**	**$118,592**	**$145,404**				
		Percent of Study Area	**0.02%**	**0.03%**	**0.02%**				

Interchange Alternative 7

Interchange Alternative 7 would result in a partial acquisition of property related to four businesses or entities: Salt Lake Valley Chrysler, Dodge, Jeep & Ram, Ramada Inn, Granite School District's community center, and KFC/A&W. House of Blinds/Emission Time would require full relocation. Relocations under this alternative represent less than 0.1 percent of the study area acreage, taxable property value and market property value (see Table 3-35).

Table 3-35 Interchange Alternative 7 Acquisitions and Relocations

ID	Owner	Property Location	Acres	Taxable Value	County Assessed Value	Business	Business Type	Note	Acreage Impacted
16191570300000	Rim Enterprises Llc	2371 S State St	0.18	$141,800	$141,800	Salt Lake Valley Chrysler, Dodge, Jeep & Ram	Car Dealership	No Impact	0.04
16191570310000		2375 S State St	0.15	$160,800	$160,800			No Impact	
16191570320000		2375 S State St	0.41	$320,700	$320,700			Partial Acquisition	
16193040260000	Crossroads Hospitality Llc	2455 S State St	1.95	$4,650,700	$4,650,700	Ramada Inn	Hotel & Lodging	Partial Acquisition	0.01
16193030214002	Municipal Building Authority Of Granite School District	2500 S State St	7.43	-	$19,921,400	Granite School District	Public Education	Partial Acquisition	0.01
16193040250000	Cook, Dawn H; Tr	2435 S State St	0.69	$658,600	$658,600	KFC/A&W	Fast Food Restaurant	Partial Acquisition	0.02
16193020170000	Gord, Bill	2432 S State St	0.38	$318,900	$318,900	House of Blinds & Emission Time	Retail & Auto Repair	Relocation	0.05
		Total	11.19	$6,251,500	$26,172,900				
		Percent of Study Area	1.93%	1.60%	4.39%				
		Relocations & Partial Acquisitions Total	**0.13**	**$118,592**	**$145,404**				
		Percent of Study Area	**0.02%**	**0.03%**	**0.02%**				

Conclusion

The Interchange Alternatives may result in the total relocation of one to four businesses, with partial acquisition of several other properties. Partial acquisition of the Salt Lake Valley Used Car Dealership may lead to a loss of stalls to display cars, thus impacting their business. The study area supports a large portion of the City's commercial activity, with approximately 574 business within the study area, or 24 percent of the 2,378 total businesses within South Salt Lake City. Total businesses include retail, office, industrial, and other business activity. The percentage is slightly higher when comparing retail related business activity only, with approximately 28 percent of the City's retail related business located within the study area. However, relocations will not have a substantial impact on taxable sales within the community or the City's property tax base. Long term redevelopment plans will continue to utilize this area as a prime location for commercial development.

Indirect Impacts

Commercial and residential development would likely occur in this area without roadway improvements; however, the Interchange Alternatives may induce a more rapid rate of growth due to a slight improvement in overall access to this area.

Closure of all frontage road access under Interchange Alternative 1 would limit access to South Salt Lake Municipal Offices and the adjacent office space. Property owners have indicated that this inconvenience may result in challenges when attracting future tenants. In addition,

KFC/A&W has indicated that any closure to the frontage road on the south-east corner of the interchange would substantially limit the ability of the business to remain feasible. The Ramada Inn has indicated that the relocation of KFC/A&W would have a negative impact on the hotel, as this restaurant is a primary destination for hotel guests. Similarly, the closure to the frontage road on the south-west corner of the interchange would reduce access to the businesses on this corner of State Street (Emission Time and House of Blinds) as well as to other businesses west of House of Blinds. The Interchange Alternatives would result in the relocation of these businesses.

Other access limitations under Interchange Alternative 1 include the closure of frontage road access (2400 South) west of State Street on the north side of I-80 and east of State Street on the south side of I-80. This would eliminate the access to frontage roads from State Street. However, this option does not eliminate access to the developments in this area. Adjacent businesses would continue to maintain access to Main Street, 2360 South, and West Temple on the north, and Morris Avenue, Oak Land Avenue, and 300 East on the south. Overall, the closure of frontage road access from State Street would not have a measurable impact on adjacent businesses.

Interchange Alternatives 3N and 7 would allow for all existing frontage road accesses to remain open.

Mitigation
No mitigation required.

3.8 PEDESTRIANS AND BICYCLISTS

3.8.1 AFFECTED ENVIRONMENT

Pedestrian and Bicyclist Facilities

Sidewalks

Sidewalks are located on the east and west sides of all north-south streets that intersect the study area. Pedestrian crossing facilities are located at every major intersection within the study area, including the intersections of Morris Avenue and State Street, and 2400 South and State Street. The intersection of 700 East and I-80 contains crossing facilities that permit pedestrian access on the east and west sides of the intersection in a north-south direction; however, crossing is not permitted in an east-west direction. All major intersections within or surrounding the study area (i.e. 700 East and I-80, 300 East and Morris Avenue, and State Street and Morris Avenue) contain crossings that comply with the Americans with Disabilities Act (ADA) of 1990 (see Figure 3-20).

Paved, Shared Trails

As of 2015, the closest paved, shared path is the Jordan River Parkway Trail, located along the Jordan River west of 900 West in South Salt Lake, Utah. The Jordan River Parkway Trail is located approximately 1.5 miles west of the I-80 and State Street Interchange, and is outside the study area.

Parley's Trail is a paved bicycle and pedestrian trail which follows the I-80 corridor from the mouth of Parley's Canyon to the Sugar House Business District (see Figure 3-20). Two parallel alignments are proposed for the connections between Fairmont Park in Sugar House and the Provo-Jordan River Parkway. Overall, the trail will be approximately 8 miles long. Parley's Trail will be the major east-west connector trail through Salt Lake City and South Salt Lake City at the mouth of Parley's Canyon.

Bicyclist Facilities

Existing bike lanes are located on Main Street and 300 East (see Figure 3-20).

According to the Wasatch Front Regional Council 2040 Regional Transportation Bicycle Priority Plan, several proposed bike lanes will be constructed in the study area (see Figure 3-20). One of the bike lanes will be constructed on West Temple, and another will be constructed on Main Street at 2100 South (connecting to the existing bike lane) and will connect to another existing bike lane at the intersection of Main Street and 3900 South in the City of South Salt Lake.

The bicycle compatibility index (BCI) as published by the Wasatch Front Regional Council is used to evaluate the compatibility of specific roadways to accommodate both motorists and bicyclists. A model analyzes variables such as the number of lanes and direction of traffic, traffic volume, speed limit, presence of sidewalks, bicycle lanes, curb lanes, and type of roadside development (to name a few).

According to the Draft Bicycle Compatibility Index, a Level A is considered the highest rating, or has an extremely high compatibility level. The BCI rated 300 West a Level D, West Temple a Level C, Main Street a Level B, and State Street a Level D.

Bicycle Compatibility Index (BCI)

Level	Compatibility Level[1]
A	Extremely High
B	Very High
C	Moderately High
D	Moderately Low
E	Very Low
F	Extremely Low

[1]Qualifiers for compatibility level pertain to the average adult bicyclist

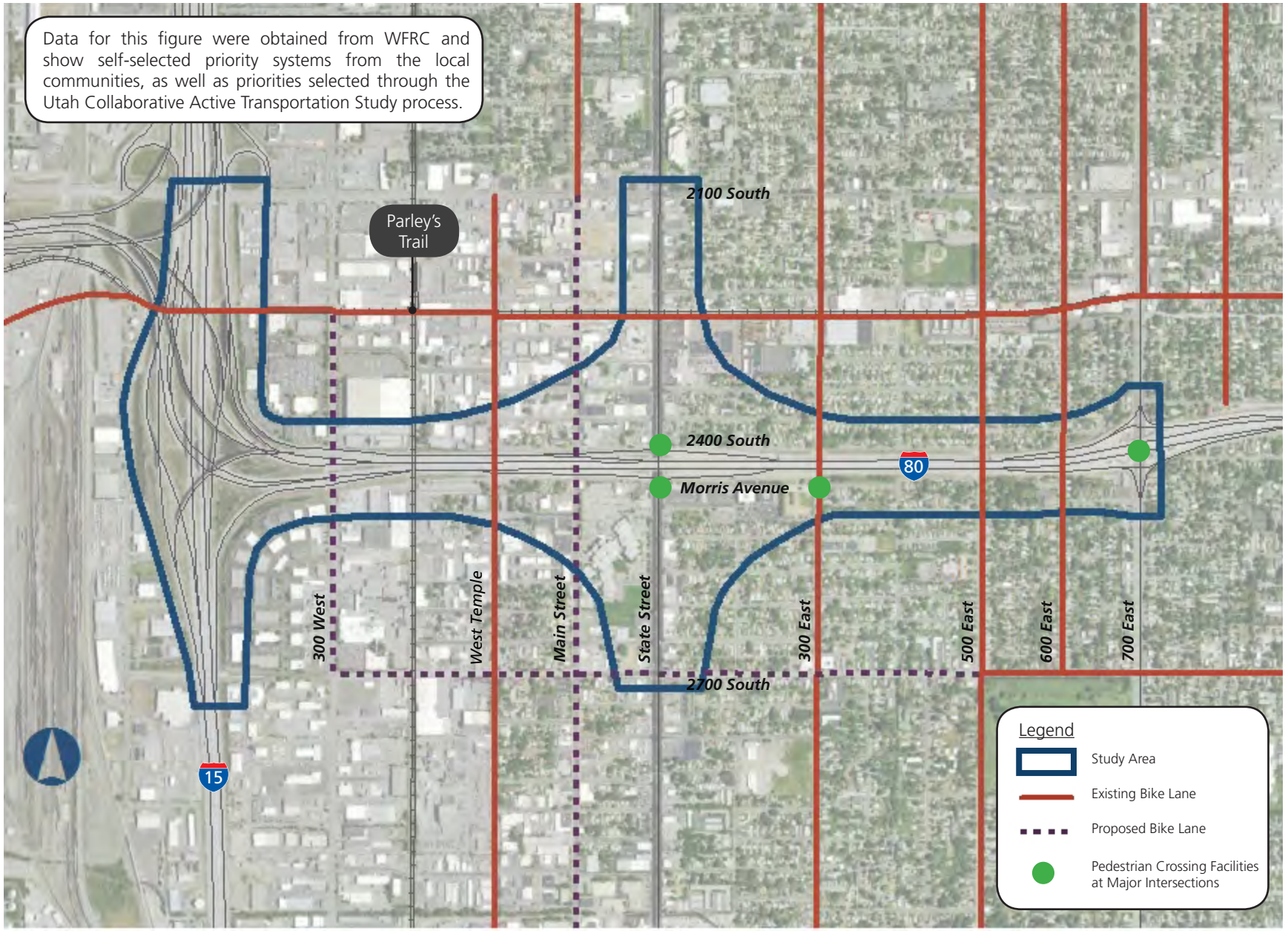


Figure 3-20 Existing and Proposed Bike Facilities

3.8.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

Direct Impacts

The No-action Alternative would not involve any immediate construction of new pedestrian or bicycle facilities; however, it would include all of the planned bicycle facilities identified in the WFRC 2040 Regional Transportation Plan (RTP). Bicycle routes and any pedestrian facilities that are proposed in connection with future roadways would be constructed as part of those projects. Paved, shared trails, that are proposed as separate from roadway projects, would be dependent upon project sponsorship and funding.

Interchange Alternatives

Direct Impacts

Interchange Alternative 1

Interchange Alternative 1 includes modifying the existing I-80 and State Street Interchange to a Single Point Urban Interchange (SPUI). There are no existing or planned bicycle facilities along State Street; therefore, Interchange Alternative 1 would have no impact to bicyclist facilities. Pedestrian crossing facilities that comply with the ADA would be provided at the interchange to connect to the existing sidewalks on State Street; therefore, Interchange Alternative 1 would have no impact to pedestrian facilities.

Interchange Alternative 3N

Interchange Alternative 3N includes constructing a westbound frontage road between State Street and Main Street, as well as constructing a westbound I-80 on-ramp at Main Street. Approximately 500 feet of the existing bike lane on Main Street would be temporarily closed during construction (see Figure 3-21). During construction, bicyclists could use West Temple and other roadways to access the study area. Following completion of the interchange, the bike lane would re-open. Pedestrian crossing facilities that comply with the ADA would be provided at the interchange to connect to the existing sidewalks on State Street and sidewalk would be constructed along the frontage road; therefore, Interchange Alternative 3N would have no impact to pedestrian facilities.

Figure 3-21 Interchange Alternative 3N Bike Lane Impacts

Interchange Alternative 7

Interchange Alternative 7 includes widening the existing I-80 structure to accommodate additional lanes on State Street and moving the ramp intersections further apart. There are no existing or planned bicycle facilities along State Street; therefore, Interchange Alternative 7 would have no impact to bicyclist facilities. Pedestrian crossing facilities that comply with the ADA would be provided at the interchange to connect to the existing sidewalks on State Street; therefore, Interchange Alternative 7 would have no impact to pedestrian facilities.

Indirect Impacts

There would be no indirect impacts to existing or planned pedestrian and bicycle facilities as a result of the Interchange Alternatives.

Mitigation

No mitigation required.

3.9 AIR QUALITY

Air quality is assessed on both the regional and project levels. The regional level analysis for this EIS includes Salt Lake County, Utah. The project level analysis encompasses the project study area.

3.9.1 REGULATORY BACKGROUND

National Ambient Air Quality Standards

The Clean Air Act Amendments (CAAA) of 1990 (42 USC §7401 et seq.) established the National Ambient Air Quality Standards (NAAQS) for airborne pollutants. The six criteria pollutants addressed in the NAAQS are carbon monoxide (CO), particulate matter (PM), ozone (O_3), nitrogen dioxide (NO_2), lead (Pb), and sulfur dioxide (SO_2). Particulate matter is broken into two categories: particulate matter with a diameter of 10 micrometers or less (PM_{10}) and particulate matter with a diameter of 2.5 micrometers or less ($PM_{2.5}$). The current NAAQS are shown in Table 3-36.

Table 3-36 National Ambient Air Quality Standards

Pollutant	Primary/ Secondary	Level	Averaging Time	Violation Determination
Carbon Monoxide (CO)	Primary	9 ppm	8-hour	Not to be exceeded more than once per year
		35 ppm	1-hour	
Lead (Pb)	Primary/ Secondary	0.15 µg/m3	Rolling 3-Month Average	Not to be exceeded
Nitrogen Dioxide (NO_2)	Primary/ Secondary	53 ppb	Annual	Annual mean
	Primary	100 ppb	1-hour	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
Particulate Matter (PM_{10})	Primary/ Secondary	150 µg/m3	24-hour	Not to be exceeded more than once per year on average over 3 years
Particulate Matter ($PM_{2.5}$)	Primary	12.0 µg/m3	Annual	Annual mean, averaged over 3 years
	Secondary	15.0 µg/m3	Annual	Annual mean, averaged over 3 years
	Primary/ Secondary	35 µg/m3	24-hour	98th percentile, averaged over 3 years
Ozone (O_3)	Primary/ Secondary	0.075 ppm (2008)	8-hour	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
		0.070 ppm (2015)		
	Revoked in 1997	0.12 ppm	1-hour	Not to be exceeded more than once per year
Sulfur Dioxide (SO_2)	Primary	75 ppb	1-hour	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Secondary	0.5 ppm	3-hour	Not to be exceeded more than once per year

Source: EPA (as of March 29, 2016 (https://www.epa.gov/criteria-air-pollutants/naaqs-table)

Note: Units of measure for the standards are parts per million (ppm) by volume, parts per billion (ppb), and micrograms per cubic meter of air (µg/m3). Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

If the levels of the criteria air pollutants exceed the NAAQS, then the area is designated a non-attainment area and the State is required to develop a State Implementation Plan (SIP). The SIP sets allowable emissions levels to be met and identifies control strategies to meet the NAAQS for those specific criteria pollutants that experienced exceedances. All proposed transportation projects must conform to

the SIP. The Transportation Conformity Rule (40 CFR. parts 51 and 93) sets forth the standards and guidelines for determining conformity of a proposed transportation project with the SIP.

Air Toxics

In addition to the criteria air pollutants for which there are NAAQS, the U.S. Environmental Protection Agency (EPA) also regulates air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners) and stationary source (e.g., factories or refineries). Mobile Source Air Toxics (MSATs) are a subset of the 188 air toxics defined by the Clean Air Act. MSATs are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

In 2001, EPA issued its first MSAT Rule, which identified 21 MSAT compounds as being hazardous (40 CFR §80 and §86). According to the EPA Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA (2012), the seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment (NATA) are:

- Acrolein
- Benzene
- 1,3-butadiene
- Diesel exhaust particulate matter plus diesel exhaust organic gases (diesel PM)
- Formaldehyde
- Naphthalene
- Polycyclic organic matter (POM)

Greenhouse Gases

The issue of global climate change is an important national and global concern that is being addressed in several ways by the federal government. The transportation sector is the second-largest source of total greenhouse gases (GHGs) in the United States and the largest source of carbon dioxide (CO_2) emissions, the predominant greenhouse gas. In 2013, the transportation sector was responsible for 33.4% of all CO_2 emissions produced in the United States, according to the U.S. Greenhouse Gas Inventory Report: 1990-2013. The principal anthropogenic (human-made) source of carbon emissions is the combustion of fossil fuels, which accounts for about 82.5% of anthropogenic emissions of carbon worldwide and 93.7% in the US in 2013.

3.9.2 AFFECTED ENVIRONMENT

Climate

The study area is located in South Salt Lake City in Salt Lake County and is at an elevation of approximately 4300 feet above mean sea level. The climate is characterized as subhumid, with dry summers and wet winters. The Rocky Mountain range to the east and northeast help block cold waves from polar highs and the Great Salt Lake, located to the west of South Salt Lake City, contributes to precipitation and lake-effect snow. Salt Lake County experiences large variations in temperatures between the seasons. Summers are hot, frequently reaching above 100 degrees Farenheit (38 degrees Celsius) while winters are cold and snowy, but rarely frigid. Salt Lake County frequently experiences severe inversion events during the winter months. The surrounding mountain ranges trap cold air and pollution from inversion conditions within the Salt Lake Valley and decrease air quality.

Attainment Status

For this project, the study area for air quality analysis was limited to the immediate vicinity of the State Street/I-80 Interchange, as the area where transportation improvements would be implemented.

According to the WFRC Air Quality Memorandum #34 dated May 7, 2016 (see Appendix B for Air Quality Memorandum and FHWA concurrence), the study area for air quality concerns is located in a nonattainment area for particulate matter (PM_{10} and $PM_{2.5}$). It is not in a nonattainment or maintenance area for carbon monoxide, as the State Street-I-80 interchange is located just outside of the Salt Lake City CO maintenance area.

Existing Air Quality Data

The Utah Division of Air Quality (UDAQ) maintains a network of air quality monitoring stations throughout the area. In general, these monitoring stations are located where there are known air quality problems, usually in or near urban areas or close to specific emission sources. Other stations are located in remote areas to provide an indication of regional air pollution levels. Data from Salt Lake City Monitoring Station # 49-035-3006 (located at 1675 South 600 East, Salt Lake City) was used to compile air quality data for the years between 2010-2014, as the closest station to the project area. See also the *Utah Air Quality Monitoring Network Five-year Network Assessment*, issued by UDAQ in June 2015.

Table 3-37 NAAQS Pollutant Concentrations at Salt Lake Monitoring Station #49-035-3006

Pollutants		2010	2011	2012	2013	2014
CO	8-hour (ppm)	2.2	1.7	2.7	1.9	1.9
	1-hr (ppm)	4.5	3.1	12.46	3.13	3.14
NO_2	1-hr (ppb)	57.0	57.0	54.0	62.0	48.0
O_3	8-hr (ppm)	.065	.075	.078	.077	.072
PM_{10}	24-hr (µg/m3)	278	86	78	110	110
$PM_{2.5}$	24-hr (µg/m3)	49.9	38.5	26.0	58.8	43.3

Source: UDAQ website at http://www.airmonitoring.utah.gov/dataarchive/index.htm. Accessed on December 21, 2015.

Note: Units of measure for the standards are parts per million (ppm), parts per billion (ppb), and micrograms per cubic meter of air (µg/m3).

3.9.3 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

Vehicle emission rates would continue to improve due to increasingly tougher EPA regulations regarding vehicle emissions, which would help to improve air quality in the study area. There would be no construction activities so there would be no temporary increase in particulate matter related to such activities. The No-action Alternative would have a slight increase in per vehicle emissions due to continuing congestion and delay in the project area; however, the increase from the congestion would be more than offset by the improved vehicle emission rates.

Interchange Alternatives

Transportation Conformity

A regional level analysis looks at the Long-Range Transportation Plan (LRTP) to see that all of the projects included in the LRTP, including the proposed project, conform to the control strategies and emissions levels set in the SIP. An individual project is said to conform to the SIP if, both by itself and in combination with the other planned transportation projects in the plan, it would not result in any of the following conditions (see 40 CFR 93.116):

- New violations of the NAAQS
- Increases in the frequency or severity of existing violations of the NAAQS
- Delays in attaining the NAAQS

Utah does not currently have an approved SIP for $PM_{2.5}$. Because Utah does not currently have an approved SIP for $PM_{2.5}$, interim conformity requirements apply, which require that future NOx emissions (a precursor to $PM_{2.5}$) and primary particulate emissions not exceed 2008 levels. NOx is a generic term for the mono-nitrogen oxides NO and NO_2 (nitric oxide and nitrogen dioxide) and are produced from the reaction among nitrogen, oxygen and even hydrocarbons (during combustion), especially at high temperatures.

An interchange upgrade on I-80 at State Street is identified in Phase 1 of WFRC's 2015-2040 Regional Transportation Plan (RTP) (a financially-constrained long-range plan). This project is part of WFRC's overall plan to address congestion in the study area and provide for an adequate transportation system.

Based on the air quality conformity analysis conducted by the WFRC for the 2040 Regional Transportation Plan and the Air Quality Memorandum #34 dated May 7, 2016 (see Appendix B), all the transportation projects in the 2015-2040 RTP conform to the SIP or the EPA interim conformity guidelines.

For PM_{10}, the Air Quality Memorandum #34 demonstrates that projected mobile source emissions are within the emissions budget defined in the SIP for Salt Lake County. For $PM_{2.5}$, the Air Quality Memorandum #34 demonstrates that projected mobile source emissions of NOx in the five-county $PM_{2.5}$ non-attainment area are less than 2008 NOx and that direct particle emissions of $PM_{2.5}$ are also less than 2008 $PM_{2.5}$ emissions, which is what is required under the interim conformity requirements that are currently applicable to this area. Further, with support from WFRC, the Utah Division of Air Quality has been developing a new plan (or a new section of the SIP) to reduce $PM_{2.5}$ related emissions to the point that the Wasatch Front Region will once again be in compliance with national $PM_{2.5}$ standards. The improved vehicle emission technology and national standards enacted in 2004 and 2007 respectively will be instrumental in the DAQ plan to achieve the new $PM_{2.5}$ standard.

Project Level Analysis

Project level analysis is performed when a project is located in a non-attainment or maintenance area for CO or PM_{10} /$PM_{2.5}$. Project level analysis may consist of either a qualitative or quantitative analysis.

Carbon Monoxide

A hot-spot analysis is required for CO if:

- A location is currently in a non-attainment or maintenance area and the project is experiencing LOS D or worse, or
- A location is currently in a non-attainment or maintenance area and the project is expected to result in LOS D or worse in the design year

The study area is not located in a non-attainment area for CO; therefore, no project level ("hot spot") analysis is required under transportation conformity rules. Further, the intersections in the study area currently operate at LOS C and are expected to operate at LOS C after construction of the project.

Particulate Matter

A quantitative analysis for PM_{10} and $PM_{2.5}$ is only required for a "project of air quality concern" (see 40 CFR Section 93.123(b)(1)). No hot-spot analysis is required for projects that qualify as exempt (which are those projects consistent with 40 CFR 93.126 or 40 CFR 93.128) or for non-exempt projects that are not determined to be projects of air quality concern since the EPA has determined that these remaining projects would not have an adverse impact on air quality and meet the requirements of the CAA without further local analysis.

Projects of air quality concern are certain highway and transit projects that involve a significant level of diesel vehicle traffic or any other project that is identified in the $PM_{2.5}$ or PM_{10} SIP as a localized air quality concern, such as:

i) new or expanded highway projects that have a significant number of or significant increase in diesel vehicles;
ii) projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
iii) new bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;

iv) expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
v) projects in or affecting locations, areas, or categories of sites which are identified in the $PM_{2.5}$ or PM_{10} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

The FHWA provided examples of projects that would not be considered projects of air quality concern. See the Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM_{10} and $PM_{2.5}$ Nonattainment and Maintenance Areas, issued March 2006. These examples included:

- Any new or expanded highway project that primarily services gasoline vehicle traffic (i.e., does not involve a significant number or increase in the number of diesel vehicles), including such projects involving congested intersections operating at Level-of-Service D, E, or F;
- An intersection channelization project or interchange configuration project that involves either turn lanes or slots, or lanes or movements that are physically separated. These kinds of projects improve freeway operations by smoothing traffic flow and vehicle speeds by improving weave and merge operations, which would not be expected to create or worsen $PM_{2.5}$ or PM_{10} violations; and,
- Intersection channelization projects, traffic circles or roundabouts, intersection signalization projects at individual intersections, and interchange reconfiguration projects that are designed to improve traffic flow and vehicle speeds, and do not involve any increases in idling. Thus, they would be expected to have a neutral or positive influence on $PM_{2.5}$ or PM_{10} emissions.

This project is not exempt under either 40 CFR 93.126 or 40 CFR 93.128. Further, this project does not qualify as a project of air quality concern since it would not result in a significant increase in diesel traffic in the study area. The project is not expected to influence the vehicle mix in the study area nor attract a significant number of new diesel vehicles to the area. The project involves improvements to the I-80 and State Street Interchange (which primarily services gasoline vehicle traffic) to address specific traffic congestion issues due to "trap" turning lanes and other roadway configuration concerns. The project is intended to improve traffic flow and vehicle speeds while reducing idling. Additionally, the I-80 and State Street Interchange does not connect to a major freight, bus, or intermodal terminal. Therefore, this project is not a project of air quality concern. Since the project has been determined to not be a project of air quality concern, no hot-spot analysis is required for conformity purposes.

Construction-Related Fugitive Dust

Construction-related dust is not identified in the Utah SIP as a Contributor to the PM_{10} non-attainment area. Therefore, there is no conformity requirement for construction dust. Section 93.122(e) of 40 CFR reads as follows:

> "For areas in which the implementation plan does not identify construction-related fugitive PM_{10} as a contributor to the non-attainment problem, the fugitive PM_{10} emissions associated with highway and transit project construction are not required to be considered in the regional emissions analysis." In the Utah PM_{10} SIP, construction-related PM_{10} is not included in the inventory, nor is it included in the attainment demonstration or control strategies.

Control of construction-related PM_{10} emissions are mentioned in qualitative terms in Section IX.A.7 of the SIP as a maintenance measure to preserve attainment of the PM_{10} standard achieved by application of the control strategies identified in the SIP. Section IX.A.7.d of the SIP requires UDOT and local planning agencies to cooperate and review all proposed construction projects for impacts on the PM_{10} standard. This SIP requirement is satisfied through the Utah State Air Quality Rules. R307-309-4 requires that sponsors of any construction activity file a dust control plan with the State Division of Air Quality.

Mobile Source Air Toxics (MSAT)

MSAT analysis is based upon the Interim Guidance Update on MSAT in NEPA (December 6, 2012). FHWA developed a three-tiered approach for analyzing MSAT in NEPA documents, depending on specific project circumstances.

Tier 1 – No potential for meaningful MSAT effects or exempt projects.
- Projects that qualify as a CE under 23 CFR 771.117(c)
- Projects exempt under the CAA conformity rule (40 CFR 93.126)
- Project with no meaningful impacts on traffic volumes or vehicle mix
- No analysis is required, only documentation that the project qualifies as a categorical exclusion or an exempt project

Tier 2 – Low potential for meaningful MSAT effects:
- Defined as any project not meeting Tier 1 or Tier 3 standards types of projects and are those that serve to improve operations of highway, transit or freight without adding substantial new capacity or without creating a facility that is likely to meaningfully increase MSAT emissions
- Examples include:
  - Minor widening
  - New interchanges
  - Projects where design-year traffic projected to be less than 140,000 to 150,000 AADT
- A qualitative analysis is required

Tier 3 – Higher potential for meaningful MSAT effects
- Potential for meaningful differences in MSAT emissions among project alternatives
- Examples include:
  - New or additional roadway capacity with traffic volumes of 140,000 to 150,000 AADT or greater in the design year, and
  - Located in proximity to populated areas or, in rural areas, in proximity to vulnerable populations (near schools, nursing homes, hospitals, etc.)
- For Tier 3 projects, a quantitative analysis is required, analyzing all seven priority MSATs

The improvements included in the project are intended to address congestion concerns in the study area and to improve the operation of State Street and I-80 without adding substantial new capacity or otherwise having a meaningful impact on MSAT emissions. Interchange Alternatives 1, 3N, and 7 involve varying interchange configurations, which are not likely to have the potential for meaningful differences in MSAT emissions among the project alternatives. Therefore, a qualitative MSAT analysis under Tier 2 was performed.

A qualitative analysis provides a basis for identifying and comparing the potential differences among MSAT emissions, if any, from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by the FHWA entitled "A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives," found at: www.fhwa.dot.gov/environment/airtoxic/msatcompare/msatemissions.htm.

For the proposed project under all of the build alternatives, including the No Action Alternative, the amount of MSATs emitted would be proportional to the vehicle miles traveled (VMT), assuming that other variables such as fleet mix are the same for each alternative. Due to the nature of the project as involving interchange configuration improvements, no appreciable difference was identified in VMT between the No Action and the Build Alternatives under consideration; however, it is likely that the interchange improvements would increase the efficiency of the roadway and therefore attract rerouted trips from elsewhere in the transportation network. Because the estimated VMT under each of the Alternatives are approximately the same, it is expected there would be no appreciable difference in overall MSAT emissions among the alternatives. In addition, traffic data regarding vehicles hours traveled (VHT) for the 2040 design year shows that there would be only approximately 2% greater VHT in the project area under the Preferred Alternative, as opposed to the No-action Alternative. See Table 3-38.

Table 3-38. Difference in VMT and VHT

Scenario	VMT (Daily)	VHT (Daily)	Percent Difference Between 2040 No Action and 2040 Build
Existing (2014)	326,900	6,500	NA
2040 No Action	459,300	9,300	
2040 Build	461,000	9,500	2.15%

Note: Limits include I-80 mainline, ramps and cross-street from west of 300 West to west of 900 East

Also, regardless of the build alternative chosen, emissions would likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 80 percent between 2010 and 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great that MSAT emissions in the study area are likely to be lower in the future in virtually all locations.

The transportation improvements contemplated as part of the Interchange Alternatives would have the effect of moving some traffic closer to nearby homes, schools, and businesses; therefore, under each alternative there may be localized areas where ambient concentrations of MSAT could be higher under certain Build Alternatives than the No-action Alternative. The localized increases in MSAT concentrations would likely be most pronounced along the expanded roadway sections that would be built under the I-80 overpass on State Street under all of the build alternatives. However, the magnitude and the duration of these potential increases compared to the No Action Alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts. In sum, when a highway is widened, the localized level of MSAT emissions for the Build Alternative could be higher relative to the No Action Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSAT would be lower in other locations when traffic shifts away from them. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, would over time cause substantial reductions that, in almost all cases, would cause region-wide MSAT levels to be substantially lower than today.

Incomplete or Unavailable Information for Project-Specific MSAT Health Impacts Analysis

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The EPA is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the Clean Air Act and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain the Integrated Risk Information System (IRIS), which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (EPA, http://www.epa.gov/iris/). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). Two HEI studies are summarized in Appendix D of FHWA's Interim Guidance Update on Mobile source Air Toxic Analysis in NEPA Documents. Among the adverse health effects linked to MSAT compounds at high exposures are; cancer in humans in occupational

settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI, http://pubs.healtheffects.org/view.php?id=282) or in the future as vehicle emissions substantially decrease (HEI, http://pubs.healtheffects.org/view.php?id=306).

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts - each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable.

It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposure near roadways; to determine the portion of time that people are actually exposed at a specific location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

There are many uncertainties in existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, as expressed by HEI (http://pubs.healtheffects.org/view.php?id=282). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The EPA (http://www.epa.gov/risk/basicinformation.htm#g) and the HEI (http://pubs.healtheffects.org/getfile.php?u=395) have not established a basis for quantitative risk assessment of diesel PM in ambient settings.

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine an "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA's approach to addressing risk in its two step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable.

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

Climate Change

Climate change is a critical national and global concern. Human activity is changing the earth's climate by causing the buildup of

heat-trapping greenhouse gas emissions through the burning of fossil fuels and other human activities. Carbon dioxide (CO_2) is the largest component of human produced emissions; other prominent emissions include methane (CH_4), nitrous oxide (N_2O) and hydrofluorocarbons (HFCs). These emissions are different from criteria air pollutants since their effects in the atmosphere are global rather than localized, and also since they remain in the atmosphere for decades to centuries, depending on the species.

The National Climate Assessment (NCA), released by the U.S. Global Change Resource Program, contains scenarios for regions and sectors, including energy and transportation. These scenarios discuss potential impacts that may result from climate change, broken down into nationwide sectors or by region of the county. The NCA includes Utah in the Southwest region. The scenario for this region states that this is the hottest and driest region with limited water resources. Climate change is anticipated to increase the heat in this region, affecting precipitation and snowpack and therefore the availability of water for agriculture, energy producers, and other consumers. The NCA scenario states that the decade of 2001-2010 was the warmest in the 110-year instrumental record, with temperatures almost 2 degrees F higher than historic averages and fewer cold air outbreaks. Regional annual average temperatures are projected to rise by 2.5 degrees F to 5.5 degrees F by 2041-2070 (so long as there is continued growth in global emissions) and 2.5 degrees F to 4.5 degrees F in the same period if global emissions are substantially reduced.

For the sector-based scenarios, the nationwide focus means that some of the identified potential impacts are not applicable to the project area (i.e., coastal impacts). Others are somewhat speculative at this point, as there are variations in the scenarios put forward. However, as stated in Chapter 5 – Transportation of the NCA, "[c]limate change will affect transportation systems directly, through infrastructure damage [such as accelerated asphalt deterioration, increased stress on expansion joints on bridges and highways, etc.], and indirectly, through changes in trade flows, agriculture, energy use, and settlement patterns." There may also be changes to snow removal needs and construction schedules.

Due to the location of the project in an urbanized area with minimal chances of flooding, hurricanes, or other major weather disruptions and because this is a new configuration of an existing interchange, there would be no appreciable climate-change related effects to this project versus the No-action Alternative. There would also be no appreciable difference in the potential effects of climate change between the build alternatives, which are concerned only with the future interchange configuration. As for the resiliency of the infrastructure, the bridge structure will be designed to withstand adverse conditions for the next 30-50 years.

Greenhouse Gases

Greenhouse gas emissions have accumulated rapidly as the world has industrialized, with concentration of atmospheric CO_2 increasing form roughly 300 parts per million in 1900 to over 400 parts per million today. Over this timeframe, global average temperatures have increased by roughly 1.5 degrees Fahrenheit (1 degree Celsius), and the most rapid increases have occurred over the past 50 years. Scientists have warned that significant and potentially dangerous shifts in climate and weather are possible without substantial reductions in greenhouse gas emissions. They commonly have cited 2 degrees Celsius (1 degree Celsius beyond warming that has already occurred) as the total amount of warming the earth can tolerate without serious and potentially irreversible climate effects. For warming to be limited to this level, atmospheric concentrations of CO_2 would need to stabilize at a maximum of 450 ppm, requiring annual global emissions to be reduced 40-70% below 2010 levels by 2050 (see IPCC, 2014: *Climate Change 2014: Synthesis Report Summary for Policymakers.* Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change). State and national governments in many developed countries have set GHG emissions reduction targets of 80 percent below current levels by 2050, recognizing that post-industrial economies are primarily responsible for GHGs already in

the atmosphere. As part of a 2014 bilateral agreement with China, the U.S. pledged to reduce GHG emissions 26-28 percent below 2005 levels by 2025; this emissions reduction pathway is intended to support economy-wide reductions of 80 percent or more by 2050 (see "U.S.-China Joint Announcement on Climate Change," White House, Office of the Press Secretary, November 11, 2014, on the White House website, https://www.whitehouse.gov/the-press-office/2014/11/11/us-china-joint-announcement-climate-change, accessed December 22, 2015). Further, as reported in the New York Times (http://mobile.nytimes.com/2015/12/13/world/europe/climate-change-accord-paris.html?_r), the representatives of 195 nations reached a landmark accord on December 12, 2015 that commits nearly every country to lowering GHG emissions in order to stave off an increase in atmospheric temperatures of 2 degrees Celsius or 3.6 degrees Fahrenheit.

GHG emissions from vehicles using roadways are a function of distance travelled (expressed as vehicle miles travelled, or VMT), vehicle speed, and road grade. GHG emissions are also generated during roadway construction and maintenance activities. An estimate of GHG emissions in the project area is contained in Table 3-39, which shows that GHG emissions are expected to decrease from existing (2014) conditions to the design year of 2040 by approximately 16.8%.

Table 3-39 Comparison of 2014 and 2040 GHG Emission Estimates

Scenario	Daily VMT	Change in Daily VMT	Percent Change in Daily VMT	GHG Emissions (lbs/day)*	Percent Change
2014 Travel Demand	326,900	NA	NA	301,524	NA
2040 Travel Demand: No-action	459,300	132,400	40.5%	250,753	-16.8%
2040 Travel Demand: - Interchange Alt. 3N	461,000	134,100	41.0%	251,681	-16.5%

**GHG Emissions Factor of 20.2 lbs/gallon*

For a comparison between the No-action and the Build Alternatives, this project involves only interchange reconfiguration for the I-80 and State Street Interchange intended to improve traffic flow in the project area and would not result in any meaningful changes to VMT, traffic speeds or to the road grade between alternatives. Further, EPA's GHG emissions standards, implemented in concert with national fuel economy standards, would also help minimize GHG emissions. The Energy Information Administration (EIA) projects that vehicle energy efficiency (and thus, GHG emissions) on a per-mile basis will improve by 28% between 2012 and 2040. Thus, the project area will see a net reduction in GHG emissions under any of the alternatives.

Construction and subsequent maintenance of the project will generate GHG emissions. Preparation of the roadway corridor (e.g., earth-moving activities) involves a considerable amount of energy consumption and resulting GHG emissions; manufacture of the materials used in construction and fuel used by construction equipment also contribute GHG emissions. Typically, construction emissions associated with a new roadway account for approximately 5% of the total 20-year lifetime emissions from the roadway, although this can vary widely with the extent of construction activity and the number of vehicles that use the roadway.

Conclusion

Interchange Alternatives 1, 3N, and 7 would not result in new violations of the NAAQS, increases in the frequency or severity of existing violations of the NAAQS, or delays in attaining the NAAQS. There would be no appreciable climate-change related effects to this project versus the No-action Alternative or between the build alternatives, which are concerned only with the future interchange configuration. As for the resiliency of the infrastructure, the bridge structure will be designed to withstand adverse conditions for the next 30-50 years. Further, the project area will see a net reduction in GHG emissions under any of the alternatives.

Mitigation

No mitigation is required.

3.10 NOISE

A preliminary noise analysis was completed in accordance with 23 USC §109(h)(1) as implemented by 23 CFR §772 and the UDOT Noise Abatement Policy, last revised January 10, 2012 (see Appendix A). The preliminary noise analysis is summarized below.

3.10.1 AFFECTED ENVIRONMENT

Traffic noise is measured in A-weighted sound levels in decibels (dBA) which most closely approximates the way the human ear hears sounds at different frequencies (see Figure 3-22). Since traffic noise varies over time, the sound levels for this noise analysis are expressed as "equivalent levels" or Leq, representing the average sound level over a one hour period of time. Unless noted otherwise, all sound levels in this noise analysis are expressed in the hourly equivalent noise level.

FHWA has established Noise Abatement Criteria for several categories of land use activities (see Table 3-40). FHWA's noise criteria is based on sound levels that are considered to be an impact to nearby property owners, also known as receptors. Primary consideration is to be given for exterior areas where frequent human use occurs.

UDOT has developed a Noise Abatement Policy for transportation projects, which conforms to FHWA noise abatement requirements outlined in 23 CFR §772. UDOT's Noise Abatement Policy states that a traffic noise impact occurs when either 1) the future worst case noise level is equal to or greater than the UDOT Noise Abatement Criteria for specified land use categories or, 2) the future worst case noise level is greater than or equal to an increase of 10 dBA over the existing noise level.

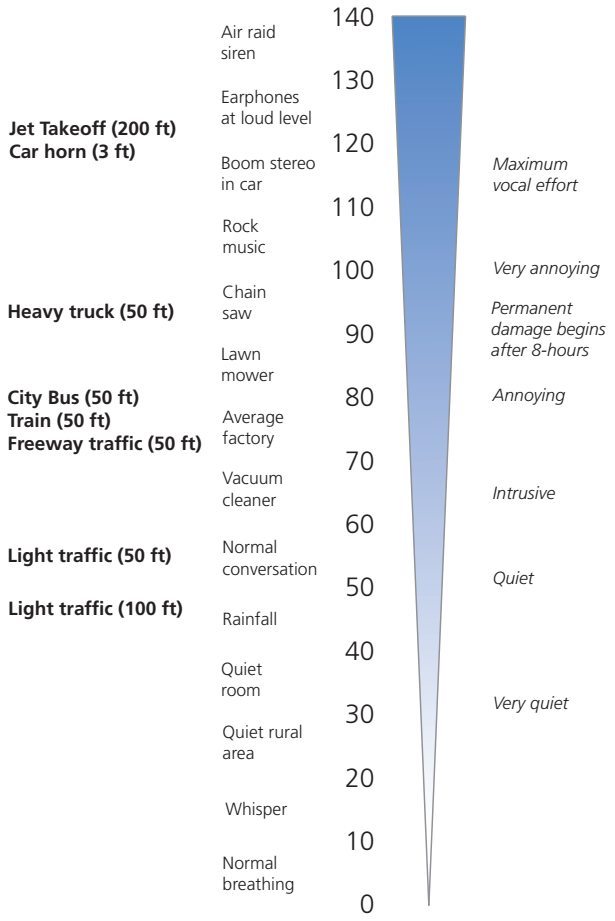


Figure 3-22 Sound Levels (in dBA) of Common Sounds
(Compiled from Federal Transit Administration and Environmental Protection Agency Data)

Table 3-40 Noise Abatement Criteria

Activity Category	Leq (h)	Activity Description
A	56 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	66 (Exterior)	Residential.
C	66 (Exterior)	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings.
D	51 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	71 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	- -	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	- -	Undeveloped lands that are not permitted.

Source: UDOT Noise Abatement Policy

Noise impact and abatement analyses are required within Land Use Activity Categories A, B, C, D, and E (see Table 3-40) only when development exists or has been permitted (formal building permit issued prior to the date the final environmental decision document is approved). Activity Categories F and G include lands that are not sensitive to traffic noise.

There are no Activity Category A land uses within the study area. Activity Category B land uses include all residences. Activity Category C land uses within the study area include Woodrow Wilson Elementary School, Granite School District Education Center, Granite Community and Family Center, City of South Salt Lake City Hall, Broadview Entertainment Arts University, Avalon Valley Rehabilitation Center, South Salt Lake Lion's Park, and a meetinghouse for the Church of Jesus Christ of Latter-day Saints. The interior of each of the schools, the Granite Community and Family Center, the City of South Salt Lake City Hall, the Avalon Valley Rehabilitation Center, and the Church of Jesus Christ of Latter-day Saints meetinghouse would be considered Activity Category D. Activity Category E land uses include all other businesses, offices, restaurants, and hotels/motels located within the study area (i.e., KFC, Steamhead Cafe, Ramada, etc). The UDOT Noise Policy states that a noise impact analysis will not be required for Activity Category F. There are no Activity Category G lands within the study area.

Existing Noise Levels

The primary source of noise in the study area is automobile and truck traffic from I-80, State Street, and other roadways in the area. Existing traffic sound levels for each receptor in the study area were calculated using the Traffic Noise Model (TNM) 2.5 software using existing conditions (travel lane configurations and the posted speed limit). Existing noise levels were determined using the greatest hourly traffic noise conditions likely to occur on a regular basis, or Level-of-Service (LOS) C traffic volumes.

On-site measurements were made to verify the accuracy of the model and are shown in Table 3-41. For existing noise levels and figures see the Noise Report in Appendix A.

Table 3-41 Field Noise Measurements

Site #	Location	Field Noise Level (dBA)	TNM Output (dBA)	Difference
1	North side of I-80 near the intersection of 2400 South and West Temple	63.5	61.1	2.4
2	South side of I-80 near the intersection of Robert Avenue and West Temple	68.0	66.3	1.7
3	North side of I-80 near the intersection of 2400 South and 200 East	65.3	61.1	4.2*
4	South Salt Lake Lions Park on the South Side of I-80 near the intersection of Robert Avenue and 300 East	61.3	59.5	1.8

*The difference in dBA at this location is due to environmental factors (i.e., wind)

3.10.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

Direct Impacts

Noise levels for the No-action Alternative would generally be the same as existing conditions.

Interchange Alternatives

Direct Impacts

Projected traffic noise levels for each Interchange Alternative were calculated with TNM 2.5 software using build conditions (travel lane configurations and traffic volumes). Noise levels were determined using the greatest hourly traffic noise conditions likely to occur on a regular basis, or LOS C traffic volumes.

Interchange Alternative 1

Noise levels resulting from Interchange Alternative 1 would generally remain the same throughout the study area, with the greatest increase being 0.4 dBA at Receptors 12B and 13B (see Noise Report in Appendix A). The number of receptors that would be considered impacted by traffic noise is twelve. Most of these impacted receptors are located on the north side of I-80 between West Temple and Main Street. There is no existing noise wall at this location.

Interchange Alternative 3N

Noise levels resulting from Interchange Alternative 3N would generally remain the same throughout the study area, with the greatest increase being 6.4 dBA at Receptor 97B (see Noise Report in Appendix A). The number of receptors that would be considered impacted by traffic noise is 13. Most of these impacted receptors are located on the north side of I-80 between West Temple and Main Street. There is no existing noise wall at this location.

Interchange Alternative 7

Noise levels resulting from Interchange Alternative 7 would generally remain the same throughout the study area, with the greatest increase being 1.4 dBA at Receptor 24B (see Noise Report in Appendix A). The number of receptors that would be considered impacted by traffic noise is twelve. Most of these impacted receptors are located on the north side of I-80 between West Temple and Main Street. There is no existing noise wall at this location.

Indirect Impacts

There would be no indirect impacts to noise levels in the study area as a result of Interchange Alternatives 1, 3N, and 7.

Noise Abatement

According to the UDOT Noise Abatement Policy, specific conditions must be met before traffic noise abatement is implemented. Noise mitigation must be considered feasible and reasonable. Some of the

factors considered when determining if mitigation is feasible and reasonable include, but are not limited to, the following:

- **Engineering Considerations:** Engineering considerations such as safety, presence of cross streets, sight distance, access to adjacent properties, barrier height, topography, drainage, utilities, maintenance access and maintenance of the abatement measure must be taken into account as part of establishing feasibility.
- **Safety on Urban Non-Access Controlled Roadways:** To avoid a damaged wall from becoming a safety hazard, in the event of a failure, wall height shall be no greater than the distance from the back of curb to the face of proposed wall.
- **Noise Abatement Design Goal:** Every reasonable effort should be made to obtain substantial noise reductions. UDOT defines the minimum noise reduction (design goal) from proposed abatement measures to be 8 dBA or greater for at least 75% of front-row receptors.
- **Cost Effectiveness:** The cost used to determine reasonable mitigation for Activity Category B is $30,000 per benefited receptor. (A benefited receptor is a noise-sensitive receptor that is predicted to receive a minimum of 8 dBA of noise reduction as a result of noise abatement.) The cost used to determine reasonable mitigation for Activity Categories A, C, D, or E is $360 per linear foot.
- **Viewpoints of Property Owners and Residents:** As part of the final design phase, public balloting would take place if noise abatement measures appear to meet the criteria outlined in UDOT's Noise Abatement Policy.

Under UDOT's Noise Abatement Policy, only Type I projects are eligible for noise abatement measures. Type I projects are projects that include any of the following: the construction of a highway at a new location, the physical alteration of an existing highway that substantially alters its alignment, the addition of a through traffic lane, the addition of an auxiliary lane, or the addition or relocation of interchange lanes or ramps. Interchange Alternatives 1, 3N, and 7 are Type I projects so noise abatement was considered.

Interchange Alternative 1

A noise wall was analyzed on the north side of I-80 between West Temple and Main Street. A 6-ft to 18-ft high wall would not reduce noise levels by 8 dBA to 75% of first-row receptors; therefore, a noise wall for Interchange Alternative 1 was not considered feasible and reasonable according to the UDOT Noise Abatement Policy (see Noise Report in Appendix A).

Interchange Alternative 3N

A noise wall was analyzed on the north side of the new westbound on-ramp between West Temple and Main Street. An additional noise wall was analyzed on the north side of I-80 between West Temple and Main Street. Both walls would be required to block traffic noise due to the grade variations between the new westbound on-ramp and I-80. A 6-ft to 18-ft high wall would not reduce noise levels by 8 dBA to 75% of first-row receptors; therefore, a noise wall for Interchange Alternative 3N was not considered feasible and reasonable according to the UDOT Noise Abatement Policy (see Noise Report in Appendix A).

Interchange Alternative 7

A noise wall was analyzed on the north side of I-80 between West Temple and Main Street. A 6-ft to 18-ft high wall would not reduce noise levels by 8 dBA to 75% of first-row receptors; therefore, a noise wall for Interchange Alternative 7 was not considered feasible and reasonable according to the UDOT Noise Abatement Policy (see Noise Report in Appendix A).

Mitigation

No mitigation required.

3.11 WATER RESOURCES

Water quality in Utah is regulated by the U.S. Environmental Protection Agency (EPA) through the Federal Clean Water Act (33 USC §1251 et seq.) and by the regulations of the Utah Department of Environmental Quality (UDEQ) Division of Water Quality (UDWQ) and the Division of Drinking Water as described in the Utah Administrative Code, Rules 317 and 309 (UAC R317 and R309). This section describes water resources and current water quality conditions within the study area.

3.11.1 AFFECTED ENVIRONMENT

Storm Water

In general, areas with storm drain systems capture storm water runoff from roads and convey it to a discharge point through catch basins and/or detention ponds. These systems can be effective at reducing total suspended solids (TSS) if storm water is conveyed to a detention pond with discharge control devices prior to storm water entering surface waters. Discharge control devices regulate the flow exiting a detention pond, thus slowing storm water and allowing sufficient time for suspended solids to fall from the flow. Paved areas without storm drain systems allow storm water to sheet flow into nearby surface waters or to nearby pervious surfaces. Pervious areas allow for storm water to infiltrate into the ground.

If not managed properly, roadway runoff can negatively impact water quality by increasing total dissolved solids (TDS) and TSS entering nearby streams and lakes. Highway surfaces collect automobile related pollutants (mainly lead, copper, zinc, oil, grease, and rust) and de-icing chemicals (salt and salt solutions), which are then washed off highway surfaces from rain or snow melt. Unmanaged runoff can become concentrated, gather sediment through erosion, and enter streams and lakes unless measures are taken to reduce pollutants.

Most of the study area is dominated by impervious surfaces (roadways, sidewalks, parking lots, etc.).

Groundwater/Aquifers

The study area is located within a discharge zone of an aquifer (see Figure 3-23). The outflow of groundwater discharge may occur naturally or as the result of human activity, notably well pumping. Springs or seeps may be found in areas where ground water discharge from the table surface intersects with the land surface. Runoff may flow into fresh water bodies such as lakes or streams or they may flow into saltwater bodies.

Primary and secondary aquifers are located to the east and west of the study area (see Figure 3-23). Secondary aquifers are located within a mile of the study area and primary aquifers are located within four miles of the study area. A primary aquifer provides a high level of water storage and may support water supplies and/or river base flows. In most cases, principal aquifers are aquifers previously designated as major aquifers. Aquifers supplying minor amounts of water are considered secondary aquifers.

Wells

According to the Utah Division of Water Rights (UDWR), 398 underground water wells are located within the study area (see Figure 3-24) and are owned by both municipal and private land owners. Several of these wells are documented in the I-80 right-of-way, and are considered inactive.

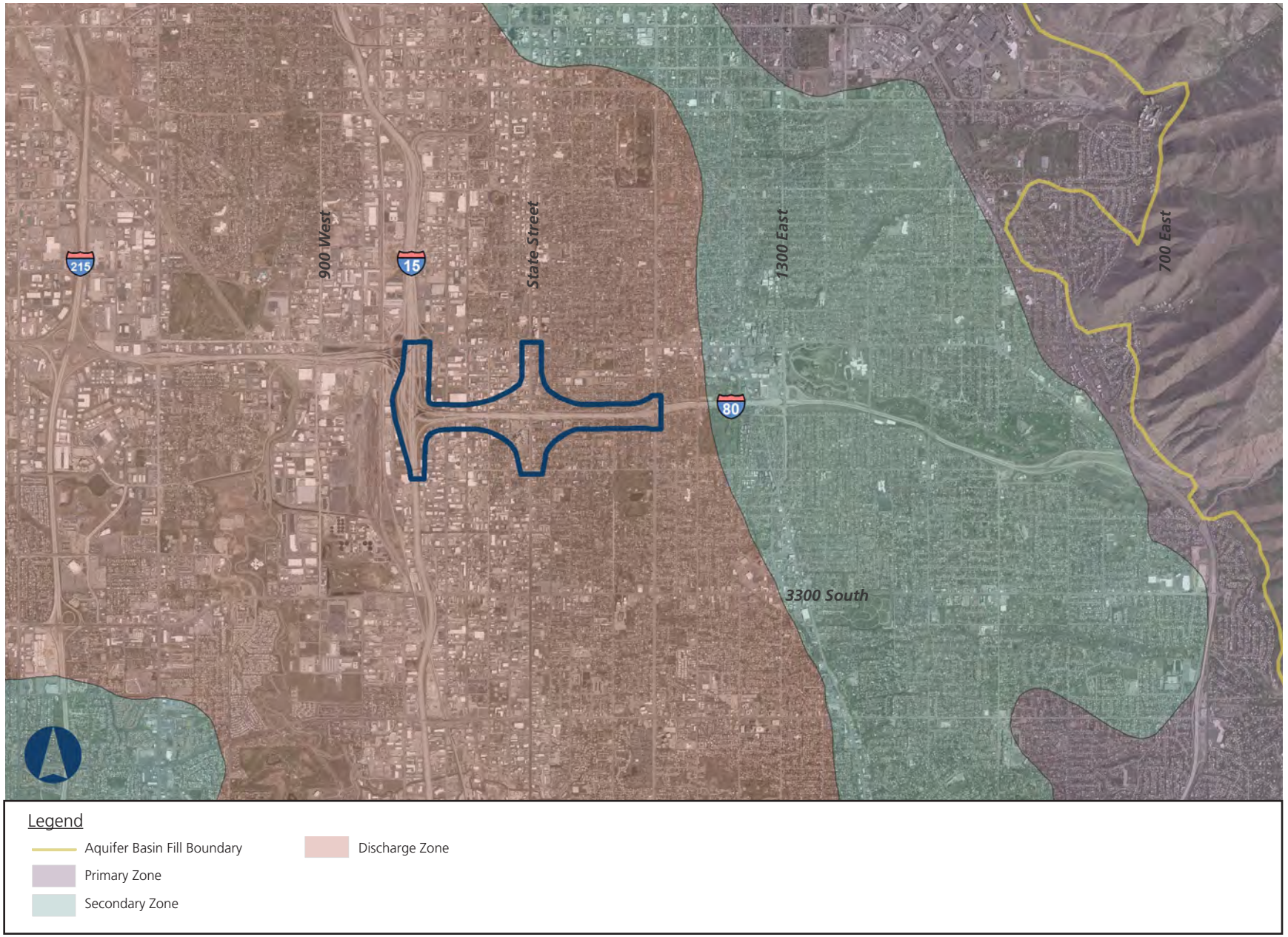


Figure 3-23 Aquifer Zones

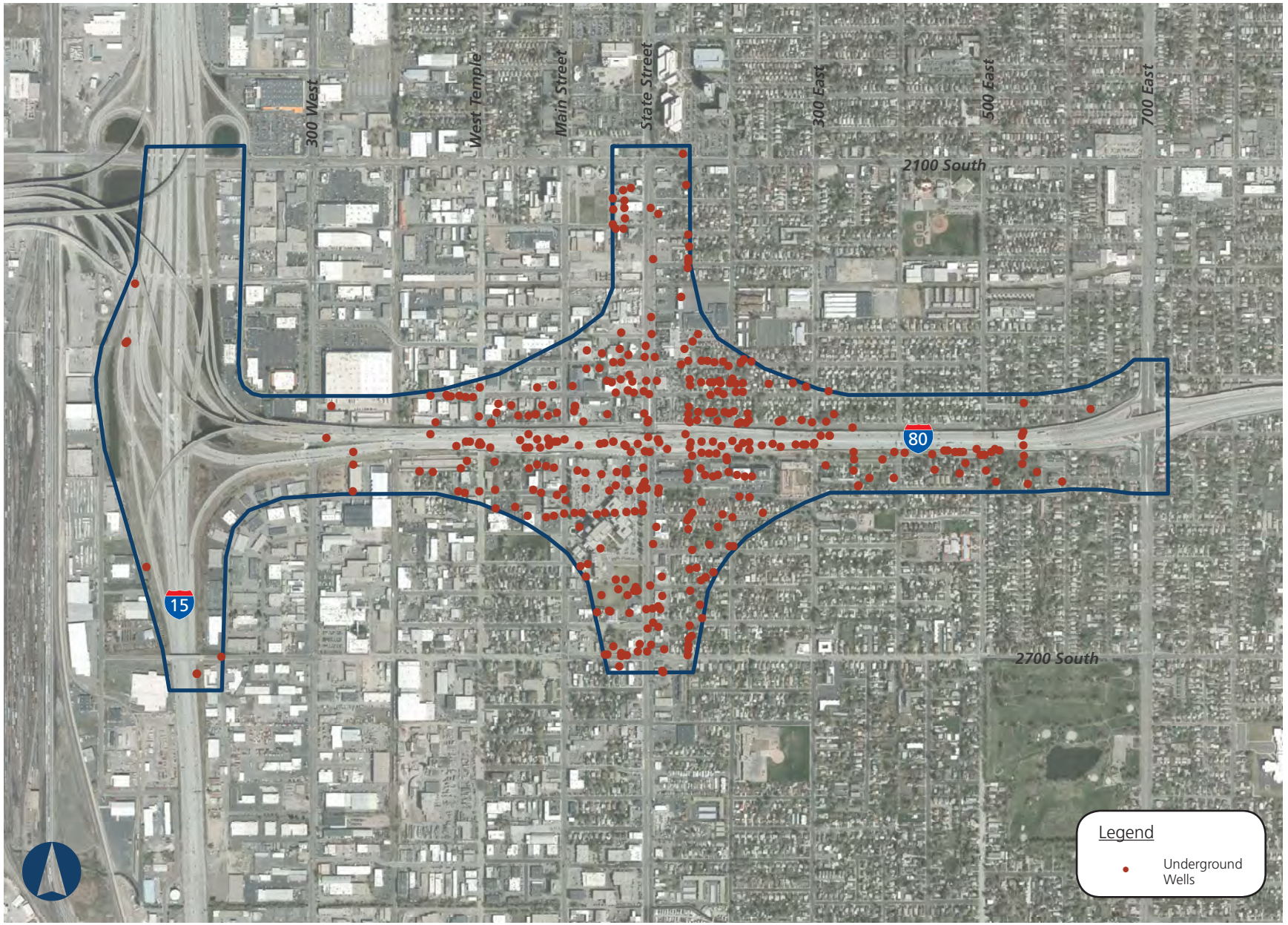


Figure 3-24 Underground Wells within the Study Area

3.11.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

Direct Impacts

Under the No-action Alternative, drainage conditions in the study area would remain the same. Storm water would continue to flow through the existing storm drain systems. There would be no impacts to groundwater or underground wells.

Alternative

Direct Impacts

Storm Water

Interchange Alternatives 1, 3N, and 7 would slightly increase the impervious surface area in the study area, and would result in a slight increase of storm water runoff volumes. Storm water would be collected in curbs and gutters and enter improved or new storm drain systems via catch basins. A system of inlets and pipes would convey the storm water to discharge points and detention facilities that would aid in lowering peak flows to near existing conditions.

The storm drain system would be designed and managed according to the requirements of UDWQ, including flow management controls, oil skimmers, grease traps, etc. as required in order to minimize negative impacts to water quality. Storm drain systems minimize negative impacts associated with storm water through capturing and conveying its flow. By capturing and conveying storm water flow, flooding and erosion to adjacent properties can be minimized. Storm drain systems also have the capability of incorporating features that help to minimize trash and debris (under low or regular flow conditions) from being carried further down the storm drain system through the use of hoods or snouts in the catch basins. However, trash and debris held in the catch basins would need to be removed periodically for the benefit to be maintained.

Groundwater

The study area is located in a discharge zone (see Figure 3-23); therefore, no impacts to groundwater are expected as a result of Interchange Alternatives 1, 3N, and 7.

Wells

Interchange Alternatives 1, 3N, and 7 could impact up to 77 underground water wells.

Indirect Impacts

There would be no indirect impacts to water quality as a result of Interchange Alternatives 1, 3N, and 7.

Mitigation

- A new storm drain system will be constructed that will comply with current UDEQ and UDWQ standards as well as local discharge rates and regulations.
- Impacted water rights will be handled through UDOT's Right-of-Way acquisition process.
- Construction-related erosion and sedimentation impacts will be managed through obtaining a Utah Pollution Discharge Elimination System (UPDES) storm water general permit from the UDEQ, which will include a Storm Water Pollution Prevention Plan (SWPPP) and an outline of Best Management Practices (BMP) to be followed.

3.12 WETLANDS AND WATERS OF THE U.S.

Clean Water Act

The U.S. Army Corps of Engineers (USACE) developed a definition of waters of the United States under the 1972 Clean Water Act (33 U.S.C. §1251). Waters of the U.S. are defined as waters currently or previously used for interstate or foreign commerce; all interstate waters; any waters, the destruction of which could affect interstate or foreign commerce; all impoundments; tributaries of the previously mentioned waters; the territorial seas; and wetlands adjacent to other waters of the U.S. Wetlands are defined as a subset of waters of the U.S. and, for the purposes of regulatory guidance, are considered special aquatic sites. USACE has jurisdiction over waters of the U.S. USACE further defines wetlands in Section 404 of the Clean Water Act as:

> "...those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

USACE presently has jurisdiction over any waters that are adjacent to, bordering, or contiguous with navigable waterways. Under Section 404 of the Clean Water Act, no discharge of dredged or fill material is permitted in waters of the U.S. if there is a less environmentally damaging practicable alternative to that part of the activity that would result in a discharge of fill material to waters of the U.S. An alternative is practicable if it is available and capable of being implemented after taking into consideration cost, existing technology, and logistics in light of the overall project purposes.

Executive Order 11990 (May 24, 1977) requires federal agencies to not undertake or provide assistance to activities that impact wetlands. If a project does impact wetlands, it must be determined by the head of the agency (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands, which may result from such use. In making this finding, the head of the agency may take into account economic, environmental, and other pertinent factors.

3.12.1 AFFECTED ENVIRONMENT

Along I-15 and the western portion of the study area there are several large storm water detention basins which contain standing water and wetland vegetation (see Figure 3-25). The detention basins were excavated as part of the I-15 Corridor Reconstruction project in the late 1990s. As-built drawings of that project detail a system of pipes which were installed to carry storm water run-off from the adjacent roadways to the detention basins. Standing water within the basins is a direct result of storm water run-off from adjacent roadways that is conveyed through the pipe system. This is supported by historic aerial imagery which shows that the basins were excavated within upland areas. Furthermore, the detention basins are isolated from, and lack any surface water connection to, jurisdictional wetlands or waters of the U.S. Given these conditions, the detention basins within the study area do not meet the USACE's definition of a wetland or a waters of the U.S. and are not considered jurisdictional. No other wetlands or waters of the U.S. were identified within the study area.

3.12.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

The No-action Alternative would not result in any impacts to wetlands or waters of the U.S.

Interchange Alternatives

Interchange Alternatives 1, 3N, and 7 would not result in any impacts to wetlands or waters of the U.S.

Mitigation

No mitigation required.

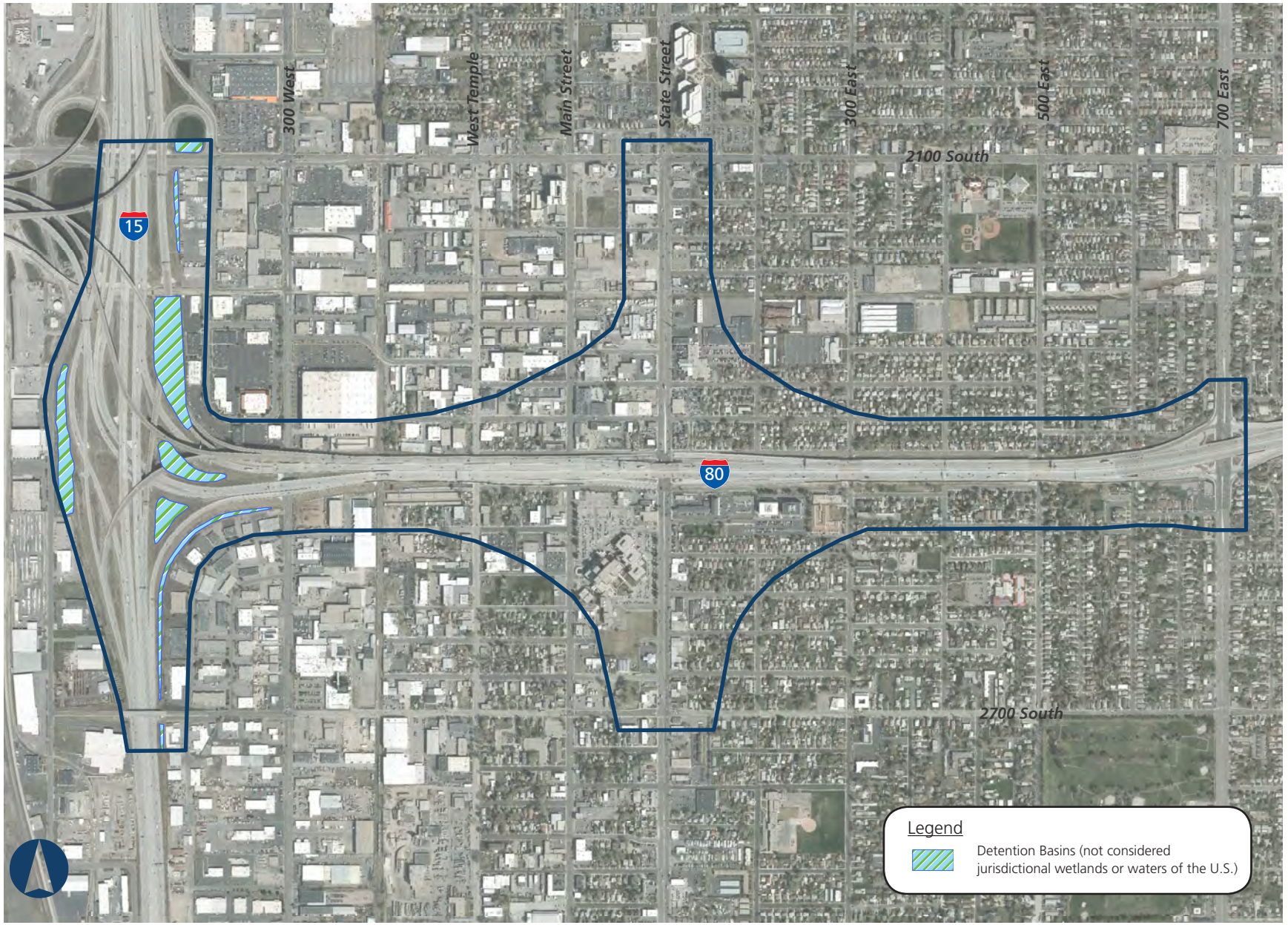


Figure 3-25 Detention Basins within the Study Area

3.13 FLOODPLAINS

The Federal Emergency Management Agency (FEMA) designates flood zones according to varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map or Flood Hazard Boundary. Each zone reflects the severity or type of flooding in the area. Generally, FEMA delineates the 100-year floodplains (or those floodplains that may have a one in 100 chance of being flooded in any given year).

Executive Order 11988 and 23 CFR §650, Subpart A, provide guidance to federal agencies on projects within floodplains. Executive Order 11988 requires the avoidance, to the extent possible, of long and short term adverse impacts associated with the occupancy and modification of floodplains.

23 CFR §650, Subpart A, outlines FHWA policies and procedures for floodplain encroachment. FHWA must avoid longitudinal and significant encroachments, where practicable, and avoid support of incompatible floodplain development.

3.13.1 AFFECTED ENVIRONMENT

No 100-year floodplains were identified within the study area.

3.13.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

The No-action Alternative would not result in impacts to floodplains.

Interchange Alternatives

Interchange Alternatives 1, 3N, and 7 would not result in impacts to floodplains.

Mitigation

No mitigation required.

3.14 WILDLIFE

3.14.1 AFFECTED ENVIRONMENT

Pursuant to Utah Division of Wildlife Resources Administrative Rule R657-48, species and candidate species, which are listed under the Endangered Species Act (ESA) of 1973 (7 USC §136, 16 USC §1531 et seq.), as amended, or for which a conservation agreement is in place, automatically qualify for the Utah Sensitive Species List. The additional species on the Utah Sensitive Species List, are those species for which there is credible scientific evidence to substantiate a threat to continued population viability. Table 3-42 identifies the Utah Sensitive Species that are known to occur in Salt Lake County, Utah.

Table 3-42 Utah Sensitive Species in Salt Lake County

Common Name	Scientific Name	State Status
American White Pelican	*Pelecanus erythrorhynchos*	Species of Concern
Bald Eagle	*Haliaeetus leuocephalus*	Species of Concern
Black Swift	*Cypseloides niger*	Species of Concern
Bobolink	*Dolichonyx oryzivorus*	Species of Concern
Bonneville Cutthroat Trout	*Oncorhynchus clarkii utah*	Conservation Agreement
Burrowing Owl	*Athene cunicularia*	Species of Concern
California Floater	*Anodonta californiensis*	Species of Concern
Canada Lynx	*Lynx canadensis*	ESA - Threatened
Columbia Spotted Frog	*Rana luteiventris*	Species of Concern
Ferruginous Hawk	*Buteo regalis*	Species of Concern

Common Name	Scientific Name	State Status
Grasshopper Sparrow	*Ammodramus savannarum*	Species of Concern
June Sucker	*Chasmistes liorus*	ESA - Endangered
Kit Fox	*Vulpes microtis*	Species of Concern
Least Chub	*Iotichthys phlegethontis*	Conservation Agreement
Lewis's Woodpecker	*Melanerpes lewis*	Species of Concern
Long-Billed Curlew	*Numenius americanus*	Species of Concern
Lyrate Mountainsnail	*Oreohelix haydeni*	Species of Concern
Northern Goshawk	*Accipiter gentilis*	Conservation Agreement
Short-Eared Owl	*Asio flammeus*	Species of Concern
Smooth Greensnake	*Opheodrys vernalis*	Species of Concern
Spotted Bat	*Euderma maculatum*	Species of Concern
Three-Toed Woodpecker	*Picoides tridactylus*	Species of Concern
Townsend's Big-Eared Bat	*Corynorhinus townsendii*	Species of Concern
Western Pearlshell	*Margaritifera falcata*	Species of Concern
Western Toad	*Bufo boreas*	Species of Concern
Yellow-Billed Cuckoo	*Coccyzus americanus*	ESA - Threatened

Source: Utah Division of Wildlife Resources, Conservation Data Center

3.14.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

The No-action Alternative would not impact state wildlife resources.

Interchange Alternatives

Direct Impacts

UDOT's wildlife biologist evaluated the study area with regard to potential wildlife issues. Based on a review of the Utah Division of Wildlife Resources, Natural Heritage Program (UDWR/UNHP) database, UDOT's Wildlife/Vehicle Collision Reporter 2015 data, and UDOT's 2007 Wildlife Connectivity database, Interchange Alternatives 1, 3N, and 7 would not negatively affect state-sensitive species, important wildlife habitats, big game migration routes, habitat connectivity, migratory birds, fish spawning habitat, or fish passage because there is no suitable habitat within or near the study area (see correspondence in Chapter 4).

Indirect Impacts

Interchange Alternative 1, 3N, and 7 would not indirectly impact state wildlife resources because there is no suitable habitat for the species listed above within or near the study area.

Mitigation

No mitigation required.

3.15 THREATENED AND ENDANGERED SPECIES

Impacts of the proposed project on threatened and endangered species were assessed in accordance with the ESA. The ESA provides protection to federally-listed threatened and endangered species and their designated critical habitats. It requires that all federal agencies considering a project or action to consult with the U.S. Fish and Wildlife Service or National Marine Fisheries Service to ensure that the proposed activity is "not likely to jeopardize the continued existence" of any listed species or will not "result in adverse modification" of its critical habitat.

3.15.1 AFFECTED ENVIRONMENT

USFWS's Information Planning and Conservation System (IPaC) website provides information regarding the occurrence of ESA species in an area based on a specific area of interest (AOI). Table 3-43 identifies the federally-listed species from an IPaC Official Species List which are known to occur in Salt Lake County, and could occur within the study area. Suitable habitat for these species does not exist within the study area.

Table 3-43 Federally-listed Threatened and Endangered Species in Salt Lake County

Common Name	Scientific Name	State Status
Canada Lynx	*Lynx canadensis*	Threatened
June Sucker	*Chasmistes liorus*	Endangered
Ute Ladies'-Tresses	*Spiranthes diluvialis*	Threatened
Yellow-Billed Cuckoo	*Coccyzus americanus*	Threatened

Source: USFWS IPaC Official Species List

3.15.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

The No-action Alternative would not impact federally-listed species or designated critical habitat protected under the ESA.

Interchange Alternatives

Direct Impacts

UDOT's wildlife biologist evaluated the study area with regard to potential issues related to federally-listed species. A review of the Utah Division of Wildlife Resources, Natural Heritage Program (UDWR/UNHP) 2015 database indicated that no federally listed, threatened, endangered, or candidate species, or any critical habitat would be affected by the proposed project. Interchange Alternatives 1, 3N, and 7 would have no effect on federally-listed threatened and endangered species or designated critical habitat protected under the ESA because there is no suitable habitat for these species within or near the study area (see correspondence in Chapter 4). In accordance with the U.S. Fish and Wildlife Service (USFWS) memo dated January 27, 2006, USFWS no longer concurs on "no-effect" determinations.

Indirect Impacts

Interchange Alternatives 1, 3N, and 7 would not indirectly impact federally-listed species protected under the ESA because there is no suitable habitat for these species within or near the study area.

Mitigation

No mitigation required.

3.16 ARCHAEOLOGICAL AND ARCHITECTURAL RESOURCES

Historic properties include archaeological resources (both prehistoric and historic), historic architectural resources (buildings and structures), and traditional cultural properties. As per 36 CFR §800, the Advisory Council on Historic Preservation (ACHP) defines a historic property as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP (National Register of Historic Places)" (i.e., generally historic properties that meet the National Register criteria, which are described below). A property is considered historic if it is 50 years and older; however, UDOT evaluates properties that are 45 years or older to allow for the time needed to complete construction of complex roadway projects.

The National Historic Preservation Act (NHPA) of 1966, as amended (54 USC §3001), and it's implementing regulations (36 CFR §800) establish the national policy and procedures regarding historic properties. Section 106 of the NHPA requires consideration of the effects of federal projects and policies on historic properties. The Utah Historic Preservation Act (UCA §9-8-401 et seq.) also provides protection to "all antiquities, historic and prehistoric ruins, and historic sites, buildings, and objects which, when neglected, desecrated, destroyed or diminished in aesthetic value, result in an irreplaceable loss to the people of this state."

For federal-aid projects, UDOT is authorized to conduct the cultural resource investigations in compliance with Section 106 on behalf of FHWA. FHWA, the State Historic Preservation Officer (SHPO), ACHP, USACE, and UDOT executed a Programmatic Agreement (PA) that streamlined the Section 106 process in April 2007 (amended June 2013). In the Section 106 PA, FHWA authorizes UDOT to initiate and, in most cases, conclude consultation with the SHPO and other consulting parties. FHWA retains the responsibility to consult with Native American tribes and is still responsible for Section 106 compliance.

The Section 106 review process requires historic properties to be evaluated for eligibility and listing on the NRHP, based upon whether "the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association" and meet one or more of the criteria in Table 3-44.

Table 3-44 NRHP Criteria for Evaluation

NRHP Criterion	Characteristics
A	Associated with events that have made a significant contribution to the broad patterns of our history.
B	Associated with the lives of persons significant in our past.
C	Embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction.
D	Yielded, or may likely to yield, information important in prehistory or history.

3.16.1 AFFECTED ENVIRONMENT

Area of Potential Effects (APE)

The APE includes parcels adjacent to I-80 the between I-15 and 700 East and parcels adjacent to State Street between 2100 South and 2700 South (see Figure 3-26).

Archaeological Resources

Two eligible archaeological sites were identified within the study area (see Figure 3-26). Both sites represent historic railroad alignments. The Union Pacific Railroad has been converted into a TRAX light-rail line, while the Park City Branch of the Denver & Rio Grande Western Railroad has been converted into the Sugarhouse Streetcar. The

SHPO concurred with these determinations of eligibility in a letter dated September 2, 2015 (see Chapter 4).

Architectural Resources

A survey of historic architectural resources identified 168 properties, of which 85 were determined eligible for the NRHP (see Figure 3-26). These properties include residences, commercial, and public buildings. A complete list of properties surveyed for this project can be found in Appendix A. The SHPO concurred with these determinations of eligibility in a letter dated September 2, 2015 (see Chapter 4).

Historic boundaries include the elements of each property that contribute to the property's setting, feeling, and association. These elements include outbuildings, landscape features, natural features, or other elements that contribute to conveying the property's importance.

In general, the boundaries of historic structures along the corridor are defined as the legal tax description for each property. This definition is based on information contained in two National Register bulletins:

- National Register Bulletin 16A (page 56) suggests that for urban and suburban properties, the legally recorded parcel number or lot lines are appropriate when those parcels retain their historic boundaries and integrity.
- National Register Bulletin 21 (page 3) states, "Boundaries should include surrounding land that contributes to the significance of the resources by functioning as the setting... For example, do not limit the property to the footprint of the building, but include its yards or grounds."

Consultation

As part of Section 106 regulations, coordination included correspondence between FHWA and Native American tribes that may have cultural and historical interest within the study area. FHWA sent agency scoping letters dated August 13, 2014 to:

- Eastern Shoshone of the Wind River Reservation
- Shoshone-Bannock Tribes of Fort Hall
- Paiute Indian Tribe of Utah
- Northwestern Band of Shoshone Nation
- Ute Indian Tribe of the Uintah and Ouray Ute Indian Reservation
- Skull Valley Band of Goshute Indians
- Confederated Tribes of the Goshute Reservation
- Cedar Band of Paiutes
- Shivwits Band of Paiute Indian Tribe of Utah

These letters informed the tribes that archaeologists would complete a cultural resources investigation during the development of the EIS, and requested any information on historic properties of traditional religious and/or cultural importance that may be affected by the undertaking. The Paiute Indian Tribe of Utah responded and indicated that they would defer to tribes located in closer geographic proximity to the project (see Chapter 4). No other verbal or written responses to the letters were received. Consultation will continue throughout the project. Tribes will be notified of survey results, Draft EIS availability, and invited to attend the public hearing

The Advisory Council on Historic Preservation (ACHP) and Bureau of Indian Affairs were invited to be Cooperating Agencies for the EIS. The ACHP accepted the invitation and the Bureau of Indian Affairs declined the invitation (see Chapter 4).

3.16.2 ENVIRONMENTAL CONSEQUENCES

Effects are defined as "alteration[s] to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register" (36 CFR §800.16(i)). Impacts to historic properties are categorized as No Historic Properties Affected, No Adverse Effect, and Adverse Effect.

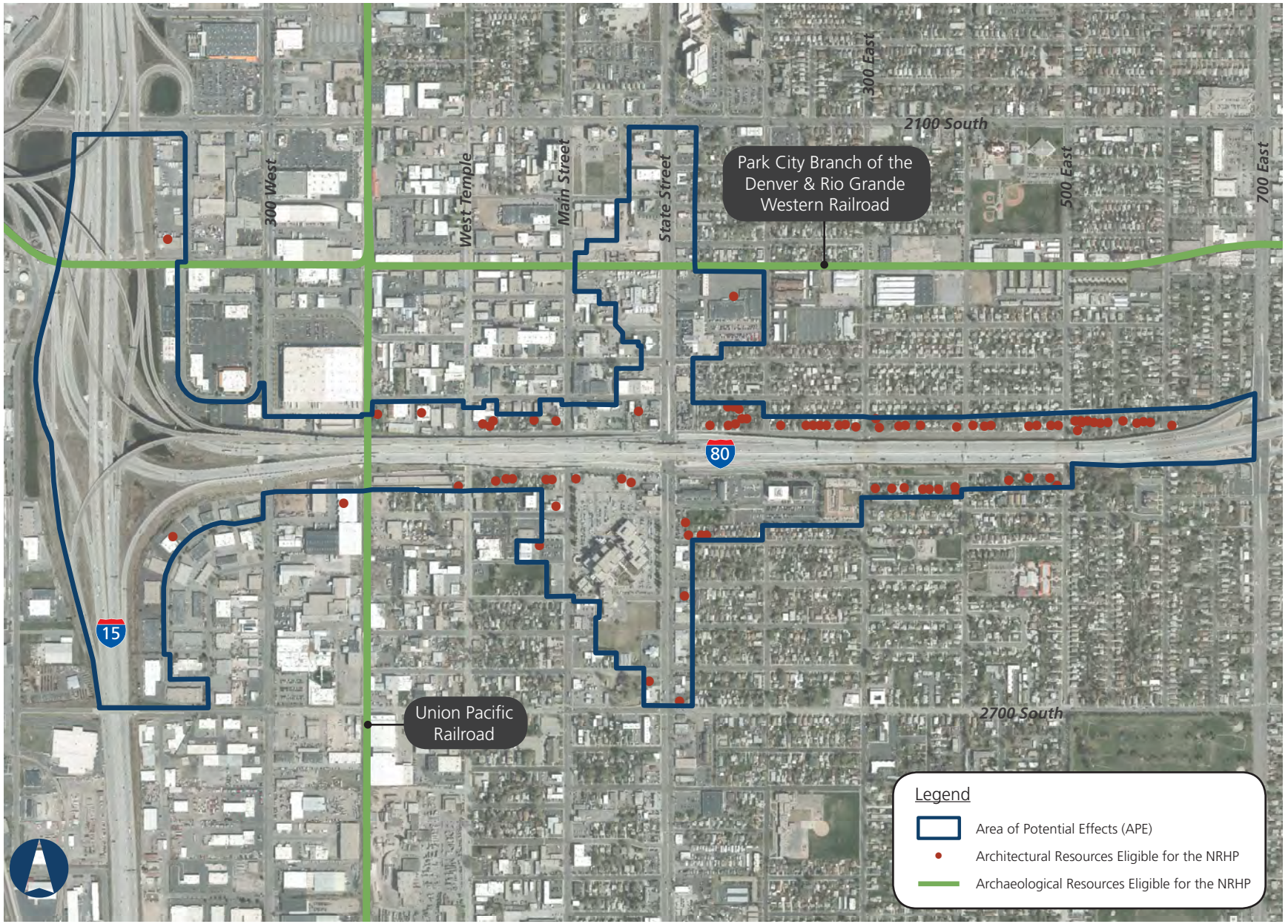


Figure 3-26 Historic Architectural and Archaeological Resources Eligible for the NRHP

A finding of **No Historic Properties Affected** is made when "[e]ither there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them as defined in §800.16(i)" (See 36 CFR §800.4(d)(1)). A finding of "no historic properties affected" is used in three instances: (1) No cultural resources are present in the APE, eligible or ineligible; (2) cultural resources are present in the APE, but no eligible properties are present; and (3) eligible properties are present in the APE, but the undertaking will have no effect on them.

A finding of **No Adverse Effect** is made "[w]hen the undertaking's effects do not meet the criteria of [adverse effect] or the undertaking is modified or conditions are imposed... to ensure consistency with the Secretary's standards for the treatment of historic properties (36 CFR §68) to avoid adverse effects" (See 36 CFR §800.5(b)). In other words, a finding of "no adverse effect" is used when an undertaking affects a property that is eligible for or listed on the National Register but does not impair the integrity of the property.

A finding of **Adverse Effect** is made "[w]hen an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, and association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative" (See 36 CFR §800.5(a)(1)).

No-action Alternative

The No-action Alternative would not affect historic properties.

Interchange Alternatives

Direct Impacts

Interchange Alternative 1

Interchange Alternative 1 would result in a finding of ***No Historic Properties Affected***. No eligible archaeological sites or historic buildings are located within the footprint of Interchange Alternative 1 (see Figure 3-27). The SHPO concurred with this finding in a letter dated September 2, 2015 (see Chapter 4).

Interchange Alternative 3N

Interchange Alternative 3N would result in a finding of ***No Historic Properties Affected*** (see Figure 3-27). No eligible archaeological sites or historic buildings are located within Interchange Alternative 3N (see Figure 3-27). The SHPO concurred with this finding in a letter dated September 2, 2015 (see Chapter 4).

Interchange Alternative 7

Interchange Alternative 7 would result in a finding of ***No Historic Properties Affected*** (see Figure 3-27). No eligible archaeological sites or historic buildings are located within Interchange Alternative 7 (see Figure 3-27). The SHPO concurred with this finding in a letter dated September 2, 2015 (see Chapter 4).

Indirect Impacts

Commercial and residential development would likely occur in this area without roadway improvements; however, Interchange Alternatives 1, 3N, and 7 may induce a more rapid rate of growth due to a slight improvement in overall access to the area. Historic properties may be removed, with no additional documentation, as a result of this development.

The SHPO concurred with these findings of effect in a letter dated September 2, 2015.

Mitigation

No mitigation required.

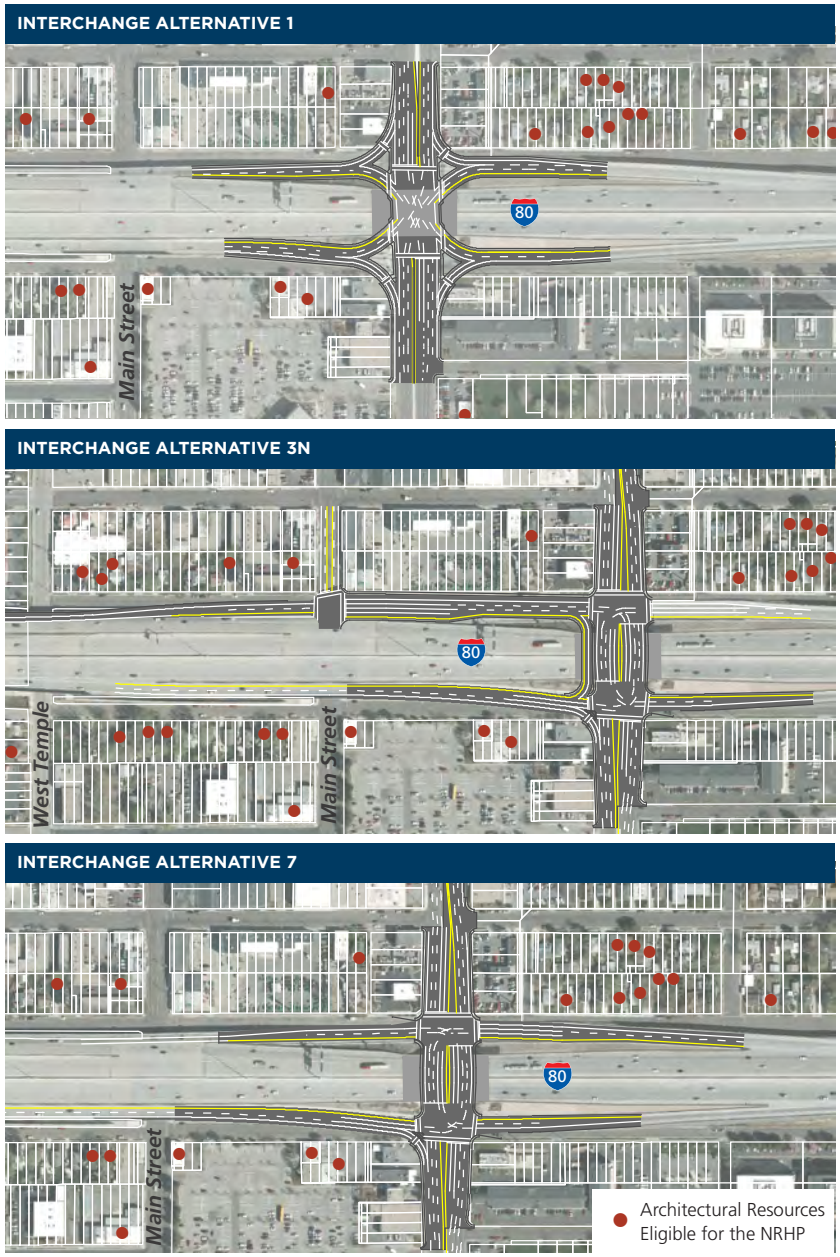


Figure 3-27 Historic Resources and Interchange Alternatives

3.17 SECTION 4(F) PROPERTIES

3.17.1 AFFECTED ENVIRONMENT

Section 4(f) of the Department of Transportation Act (49 USC §303 and 23 USC §138) protects certain types of properties from the effects of transportation projects. These protected properties are historic properties, public parks and recreational facilities, and wildlife and waterfowl refuges. Use of these properties in a transportation facility is not permitted unless the effect has been determined to be *de minimis* or there is no feasible and prudent avoidance alternative to the use and the action includes all possible planning to minimize harm. Guidelines for evaluation of Section 4(f) properties and potential uses is found in the FHWA implementing regulations (23 CFR §774) and the FHWA Technical Advisory T6640.8A.

Historic Properties

The 87 eligible, historic properties recorded in the APE are also Section 4(f) properties (see Figure 3-28).

Public Parks and Recreational Facilities

There are currently two parks and recreation related facilities within the study area that are Section 4(f) properties (see Figure 3-28).

Lion's Pride Park

Lion's Pride Park currently serves as a 1-acre dog park at 350 East Robert Avenue. The dog park includes a fence and canine playground equipment such as a hoop to jump through and concrete tubes. In addition, the park has 2 pavilions and restrooms.

200 East Whitlock Avenue Open Space

The City also maintains 0.11 acres of open space at approximately 200 East Whitlock Avenue. This site includes a paved trail that connects Whitlock Avenue to the parking to the north, turf area, as well as benches.

Figure 3-28 Section 4(f) Properties

3.17.2 ENVIRONMENTAL CONSEQUENCES

A Section 4(f) use is defined in 23 CFR §774.17 as an impact that occurs:

- When land is permanently incorporated into a transportation facility;
- When there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose as determined by the criteria in §774.13(d); or
- When there is a constructive use of a Section 4(f) property as determined by the criteria in §774.15.

According to 23 CFR §774.5(a), a constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.

In August of 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was enacted as Public Law 109-59. Section 6009(a) of SAFETEA-LU amended the existing Section 4(f) legislation to simplify the processing and approval of projects that have only minor (*de minimis*) impacts on resources protected by Section 4(f). According to Section 6009 of SAFETEA-LU, the requirements of Section 4(f) will be considered satisfied with respect to a Section 4(f) resource if it is determined that a transportation project will have only a *de minimis* impact on the Section 4(f) resource.

According to 23 CFR §774.17:

- For historic sites, *de minimis* impact means that FHWA has determined, in accordance with 36 CFR part 800 that no historic property is affected by the project or that the project will have "no adverse effect" on the historic property in question.
- For parks, recreation area, and wildlife and waterfowl refuges, a *de minimis* impact is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).

According to 23 CFR §774.5, prior to making *de minimis* impact determinations under §774.3(b), the following coordination shall be undertaken:

For historic properties:

- The consulting parties identified in accordance with 36 CFR part 800 must be consulted; and
- FHWA must receive written concurrence from the pertinent State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO), and from the Advisory Council on Historic Preservation (ACHP) if participating in the consultation process, in a finding of "no adverse effect" or "no historic properties affected" in accordance with 36 CFR part 800. The Administration shall inform these officials of its intent to make a *de minimis* impact determination based on their concurrence in the finding of "no adverse effect" or "no historic properties affected (see June 12, 2007 letter in Chapter 4)."
- Public notice and comment beyond that required by 36 CFR part 800 is not required.

For parks, recreation areas, and wildlife and waterfowl refuges:

- Public notice and an opportunity for public review and comment concerning the effects on the protected activities, features, or attributes of the property must be provided. This requirement

can be satisfied in conjunction with other public involvement procedures, such as a comment period provided on a NEPA document.

- The Administration shall inform the official(s) with jurisdiction of its intent to make a *de minimis* impact finding. Following an opportunity for public review and comment as described in paragraph (b)(2)(i) of this section, the official(s) with jurisdiction over the Section 4(f) resource must concur in writing that the project will not adversely affect the activities, features, or attributes that make the property eligible for Section 4(f) protection. This concurrence may be combined with other comments on the project provided by the official(s).

No-action Alternative

The No-action alternative would not result in the use of any Section 4(f) properties.

Interchange Alternatives

Direct Impacts

Interchange Alternatives 1, 3N, and 7 would not result in the use of any Section 4(f) properties. No property will be acquired from Section 4(f) properties, meaning there is no actual or de minimis impact.

Indirect Impacts

There would be no indirect impacts to Section 4(f) properties. The Section 4(f) properties in close proximity to the proposed alternatives are residential properties that could continue to be used as residential properties without effects to their activities, features, or attributes. Therefore, there would be no constructive use of these properties.

Mitigation

No mitigation required.

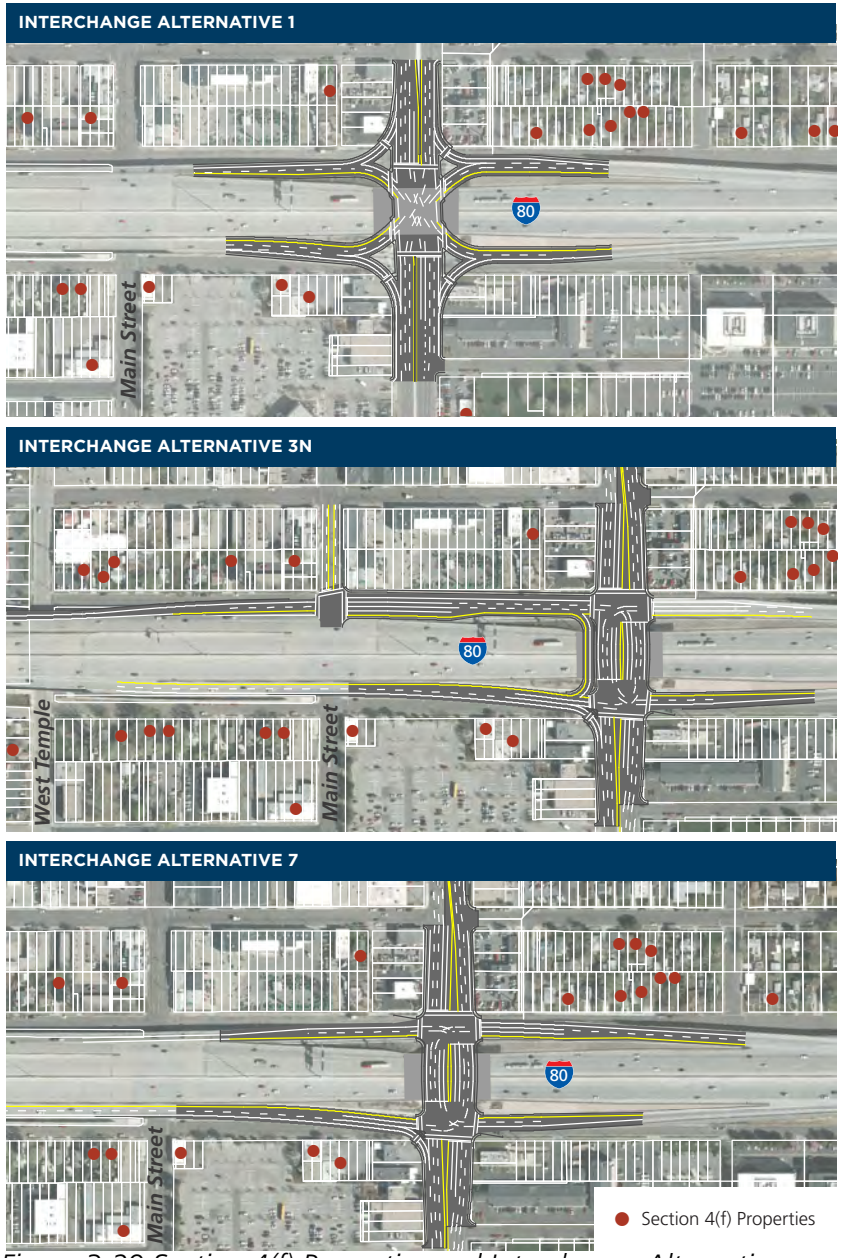


Figure 3-29 Section 4(f) Properties and Interchange Alternatives

3.18 PALEONTOLOGY

3.18.1 AFFECTED ENVIRONMENT

Paleontology is the scientific study of life in the geologic past, especially through the study of animal and plant fossils. Before expending state funds or approving an undertaking, a state agency is required to take into account the effect of the undertaking on a specimen that is included in or eligible for inclusion in the State Paleontological Register (U.C.A. §63-73-19). The Memorandum of Understanding (MOU) between the Utah Geological Survey (UGS) and UDOT outlines the process for implementing Utah Code Annotated §63-73-19.

The UGS conducted a paleontological file search of the study area and has indicated that there are no known paleontological localities and that deposits in the area "have a low potential for yielding significant fossil localities" (see January 22, 2015 letter in Chapter 4 – Comments and Coordination).

3.18.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

The No-action Alternative would not impact paleontological resources.

Interchange Alternatives

Unless fossils are discovered as a result of construction activities, Interchange Alternatives 1, 3N, and 7 would not have an impact on paleontological resources.

Mitigation

No mitigation required.

3.19 HAZARDOUS WASTE

Hazardous materials or waste are substances that are dangerous or potentially harmful to health or the environment. Hazardous materials may be liquids, solids, gases, or sludges and can include discarded commercial products, such as cleaning fluids, pesticides, or the byproducts of manufacturing processes.

The Resource Conservation and Recovery Act (RCRA) (42 USC §6901 et seq.), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, also known as Superfund) (42 USC §9601 et seq.), and United States Code (USC) Title 19—Environmental Quality regulate hazardous material and waste sites. These regulations include cleanup requirements and make liable those involved in hazardous materials releases. These regulations also authorize the Environmental Protection Agency (EPA) to act to ensure public health and safety. Presently the Utah Department of Environmental Quality (DEQ) regulates underground storage tanks (USTs) and leaking underground storage tanks (LUSTs).

3.19.1 AFFECTED ENVIRONMENT

Database Search

A review of the DEQ and EPA databases was undertaken to identify known hazardous material and waste sites within the study area. This review yielded 71 categorized sites including 46 LUST sites, 11 UST sites, six CERCLA sites, one voluntary cleanup (VCP) site, one large quantity generator (LQG) site, one toxic release inventory (TRI) site, and five Tier 2 sites (see Figure 3-30 and Table 3-45). Seven of the sites received more than one hazardous category (i.e., Bennett Paint-Karpowitz Coal, Whirlpool Kitchens Facility/Granite Mill Site, 7-Eleven 1851-23099, Safety-Kleen, EDO Corporation-Western Division, Russell's Ice Cream/Farr Russell Group).

3.19.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

The No-action Alternative would have no impact to hazardous material and waste sites within the study area.

Interchange Alternatives

Direct Impacts

Hazard waste sites were evaluated according to their risk of contamination to soil or water, presence within the impact area, and overall risk based on the risk of contamination and proximity to the proposed alternatives. If sites had information that was available detailing known soil and water contamination, the risk of contamination was increased. The overall risk was evaluated according to the potential for contamination and whether sites were within the impact area of the alternatives.

If sites were considered a "medium" risk of contamination to soil or water, were not closed prior to 2014, and were with the study area, they were given an overall risk rating of "medium" or higher. Sites considered a "low" risk are those that were documented in compliance with EPA regulations or had been remediated prior to 2014. No "high" risk sites were located within or near the study area.

Of the 64 total sites identified within or surrounding the study area, 63 sites were given a rating of "low" overall risk to the project (see Table 3-45). The closest site receiving a "medium" risk of contamination rating (Howe Rents Inc., site number 22) is located approximately 50 feet north of all three Interchange Alternatives (see Table 3-45 and Figures 3-30). The DEQ reviewed this LUST site in 1996 and recommended that no further corrective action be taken. Petroleum contamination at the site currently complies with state underground storage tank rules and based upon current land use, no pathway for exposure leading to contamination exists. If construction of an alternative were to impact this site, contamination from the facility

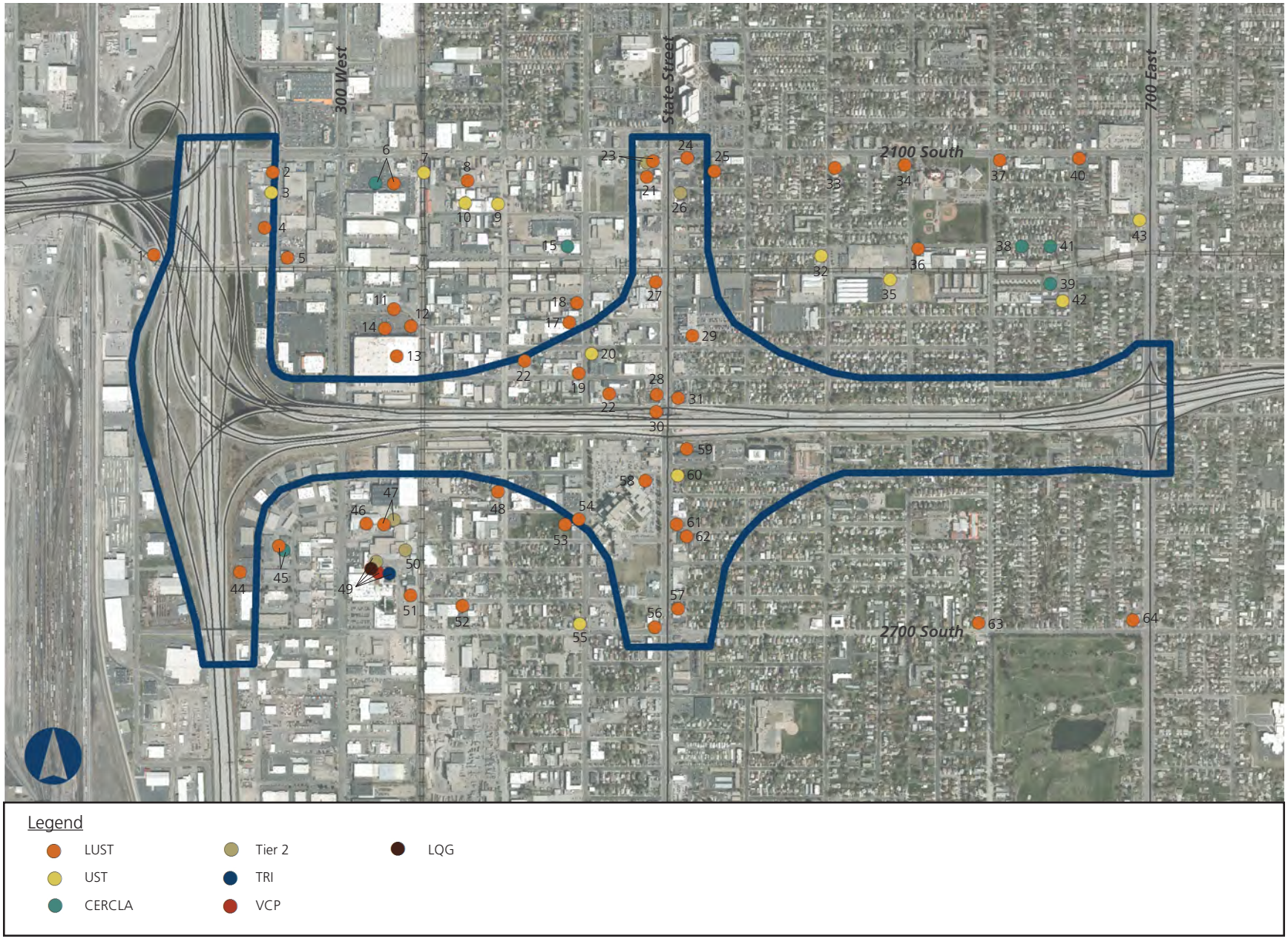


Figure 3-30 Hazardous Material and Waste Sites within the Study Area

may cause a threat to human health or the environment, causing need for corrective action; therefore, the project team rates the sites as a "medium" overall risk for the purposes of this analysis. However, if the site is avoided during construction, the project team recommends that the site would have a low overall risk to the project.

Table 3-45 Hazardous Materials Sites and Overall Risk Assessment

#	Site Name and Address	Site Type	Site Description	Risk of Contamination	Within Project Area?	Overall Risk
1	D.R.G.W.R.R. Roper Yards (650 Davis Road)	LUST	Railroad	Low	No	Low
2	U-Haul 72050 (415 W. 2100 S.)	LUST	Truck/ Transporter	Low	Yes	Low
3	Pacific Coast Building Products (2114 S. 400 W.)	UST	Truck/ Transporter	Low	Yes	Low
4	Semi Service Shop No. 1 (2200 S. 400 W.)	LUST	Truck/ Transporter	Low	Yes	Low
5	Royce Industries (2225 S. 400 West)	LUST	Commercial	Low	No	Low
6	Bennett Paint-Karpowitz Coal (2131 S. 300 W.)	CERCLA, LUST	Paint & Glue Manufacturer	Medium	No	Low
7	UTA Transfer Station (2100 S. 200 W.)	UST	Not Listed	Low	No	Low
8	Fernwood Candy & Ice Cream Co. (150 W. Commonwealth Avenue)	LUST	Truck/ Transporter	Medium	No	Low
9	Higrade Meats (2160 S. West Temple)	UST	Truck/ Transporter	Low	No	Low
10	Vacant Building (156 W. Utopia)	UST	Commercial	Low	No	Low
11	Crus Oil Inc. (2260 S. West Temple)	LUST	Truck/ Transporter	Low	No	Low
12	R.C. Willey Home Furnishing (210 W. Haven Drive)	LUST	Truck/ Transporter	Low	No	Low
13	Osterloh Inc. (231 W. Haven Avenue)	LUST	Auto Dealership	Low	No	Low
14	The Khemo-Klean Co. (190 W. Haven Avenue)	LUST	Contractor	Low	No	Low
15	Whirlpool Kitchens Facility/ Granite Mill Site (2200 S. Main)	CERCLA, VCP	Cabinet Production	Low	No	Low
16	Previously Rent-It Center (2270 S. Main Street)	LUST	Industrial	Medium	No	Low
17	Western Road Machinery Co. (2300 S. Main Street)	LUST	Industrial	Low	No	Low
18	Lund Machinery (2350 S. West Temple)	LUST	Industrial	Low	No	Low

#	Site Name and Address	Site Type	Site Description	Risk of Contamination	Within Project Area?	Overall Risk
19	Applied Electronics Inc. (10 W. Burton Avenue)	LUST	Contractor	Low	No	Low
20	Familian (20 E. Truman Avenue)	UST	Industrial	Low	No	Low
21	Colonial Mortuary (2128 S. State Street)	LUST	Not Listed	Low	Yes	Low
22	Howe Rents Inc. (55 E. 2400 S.)	LUST	Truck/ Transporter	Medium	Yes	Medium
23	7-Eleven 1851-23099 (2102 S. State Street)	LUST, Tier 2	Gas Station	Low	Yes	Low
24	21st Street Sinclair (2101 S. State Street)	LUST	Gas Station	Low	Yes	Low
25	TV Specialists Inc. (170 E. 2100 S.)	LUST	Contractor	Low	No	Low
26	Cinglar Wireless (2121 S. State Street)	Tier 2	Commercial	Low	Yes	Low
27	Hayes Bros. Buick Jeep (2280 S. State Street)	LUST	Auto Dealership	Low	Yes	Low
28	State Street Texaco (2390 S. State Street)	LUST	Commercial	Low	Yes	Low
29	Hinckley Dodge Inc. (2309 S. State Street)	LUST	Auto Dealership	Low	Yes	Low
30	Old Conoco (2402 S. State Street)	LUST	Former Gas Station	Low	Yes	Low
31	Interstate Texaco (2375 S. State Street)	LUST	Gas Station	Low	Yes	Low
32	Bob's Transmission Service (2220 S. 300 E.)	UST	Auto Dealership	Low	No	Low
33	Property Management (304 E. 2100 S.)	LUST	Gas Station	Medium	No	Low
34	D Howard Investment Corp (376 E. 2100 S.)	LUST	Gas Station	Low	No	Low
35	Zellerbach Paper Company (2255 S. 300 E.)	UST	Truck/ Transporter	Low	No	Low
36	Sugar House Van Lines (450 E. 2200 S.)	LUST	Truck/ Transporter	Low	No	Low
37	Tesoro No. 62104 (502 E. 2100 S.)	LUST	Gas Station	Low	No	Low
38	Wasatch Plaza-5th East (2240 S. 500 E.)	CERCLA	Pest/Herbicide Formulation	Low	No	Low
39	Wasatch Storage (560 E. 2275 S.)	CERCLA	Chemical Corporation	Low	No	Low

#	Site Name and Address	Site Type	Site Description	Risk of Contamination	Within Project Area?	Overall Risk
40	Sinclair No. 43023 (602 E. 2100 S.)	LUST	Gas Station	Low	No	Low
41	Wasatch Ponds (630 E. 2250 S.)	CERCLA	Dump Site of Chemical Company	Low	No	Low
42	2266 Partnership (2266 S. 600 E.)	UST	Commercial	Low	No	Low
43	Triangle No. 69 (2180 S. 700 E.)	UST	Commercial	Low	No	Low
44	West One Bank of Utah (440 Lawndale Drive)	LUST	Commercial	Low	Yes	Low
45	Safety-Kleen (394 W. Ironwood Drive)	CERCLA, LUST	Service Center for Mineral Spirits and Cleaning Solvents	Low	No	Low
46	Ferguson (2565 S. 300 W.)	LUST	Not Listed	Low	No	Low
47	Russell's Ice Cream/Farr Russell Group (2575 S. 300 W.)	LUST	Truck/ Transporter	Low	No	Low
48	Esco Mechanical (2496 S. West Temple)	LUST	Contractor	Low	No	Low
49	EDO Corporation - Western Division (2645 S. 300 W.)	TRI, LQG, VCP, Tier 2	Aeronautical Manufacturing	Low	No	Low
50	EDO Corp, Acoustic Sensors (220 W. 2700 S.)		Industrial	Low	No	Low
51	Standard Builders Supply Inc. (220 W. 2700 S.)	LUST	Truck/ Transporter	Low	No	Low
52	Stewart In-Fra-Red Commissary (155 W. Malvern Avenue)	LUST	Commercial	Low	No	Low
53	Granite Education Center - Central Plant (2500 S. State Street)	LUST	Local Government	Medium	No	Low
54	Sorenson Development (2522 S. Main Street)	LUST	Industrial	Low	Yes	Low
55	Maverik No. 227 (2650 S. Main Street)	UST	Gas Station	Low	No	Low
56	7-Eleven 1890-26348 (2700 S. State Street)	LUST	Commercial	Low	Yes	Low
57	B&W Auto Repair (2635 S. State Street)	LUST	Auto Dealership	Low	Yes	Low

#	Site Name and Address	Site Type	Site Description	Risk of Contami-nation	Within Project Area?	Overall Risk
58	City of South Salt Lake (195 W. Oakland Avenue)	LUST	Local Government	Low	Yes	Low
59	Dunn Oil No. 57 (2435 S. State Street)	LUST	Commercial	Low	Yes	Low
60	Duffys (2473 S. State Street)	UST	Commercial	Low	Yes	Low
61	Cox Corporation (2533 S. State Street)	LUST	Truck/ Transporter	Low	Yes	Low
62	Transmission Exchange (2547 S. State Street)	LUST	Auto Dealership	Low	Yes	Low
63	Business Complex Steven's Lock & Key (2694 S. 500 E.)	LUST	Gas Station	Medium	No	Low
64	Fast Track A/ Tesoro (2690 S. 700 E.)	LUST	Gas Station	Low	Yes	Low

Interchange Alternative 1

Four hazardous sites (site numbers 28, 30, 31, and 59) are located within the impact area of Interchange Alternative 1 (see Table 3-45 and Figure 3-31). These sites are all classified as LUSTs and were given an overall risk rating of "low" to the project. Sites 28, 30, and 59 have had their tanks removed and have been closed by the Utah DEQ. Site 31 may have unused tanks remaining in the ground. Any contaminated soil or tanks encountered during construction will be dealt with according to standard UDOT procedure (see description of procedure in Mitigation below). Because appropriate measures would be taken if construction disturbs this site, no impacts to workers or the environment would be expected.

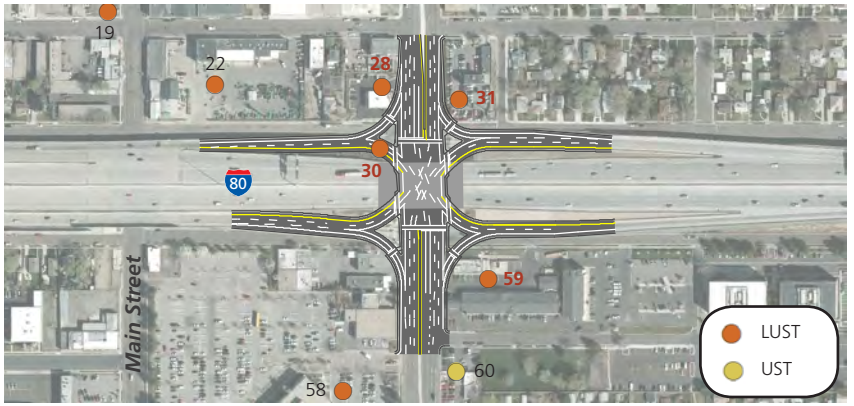


Figure 3-31 Hazardous Sites within Alternative 1 Impact Area

Interchange Alternative 3N

Three hazardous sites (site numbers 30, 31, and 59) are located within the impact area of Interchange Alternative 3N (see Table 3-45 and Figure 3-32). These sites are classified as LUSTs and were given an overall risk rating of "low" to the project. Sites 30 and 59 have had their tanks removed and have been closed by the Utah DEQ. Site 31 may have unused fuel tanks remaining in the ground. Any contaminated soil or tanks encountered during construction will be dealt with according to standard UDOT procedure (see description of procedure in Mitigation below). Because appropriate measures

would be taken if construction disturbs this site, no impacts to workers or the environment would be expected.

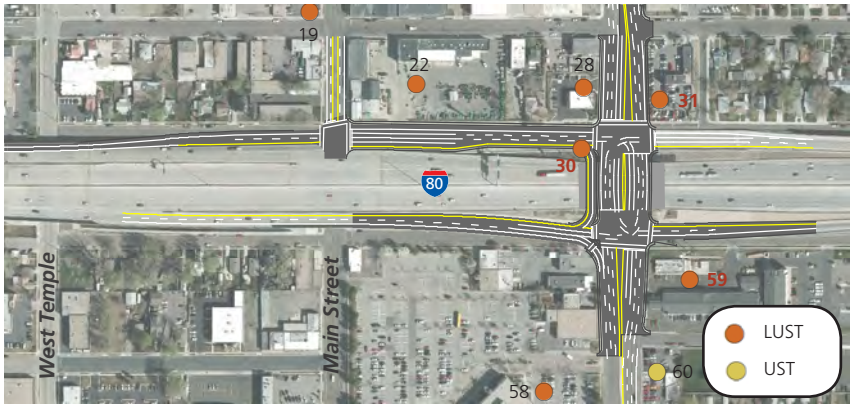


Figure 3-32 Hazardous Sites within Alternative 3N Impact Area

Interchange Alternative 7

Three hazardous sites (site numbers 30, 31, and 59) are located within the impact area of Interchange Alternative 7 (see Table 3-45 and Figure 3-33). These sites are classified as LUSTs and were given an overall risk rating of "low" to the project. Sites 30 and 59 have had their tanks removed and have been closed by the Utah DEQ. Site 31 may have unused tanks remaining in the ground. Any contaminated soil or tanks encountered during construction will be dealt with according to standard UDOT procedure (see description of procedure in Mitigation below). Because appropriate measures would be taken if construction disturbs this site, no impacts to workers or the environment would be expected.

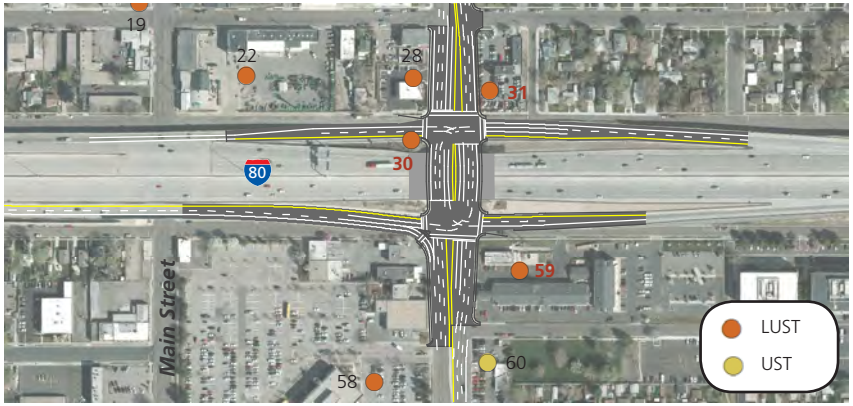


Figure 3-33 Hazardous Sites within Alternative 7 Impact Area

Indirect Impacts

No indirect impacts are expected.

Mitigation

No mitigation required.

If hazardous materials are encountered, UDOT Standard Specification 01355, Part 3.1, "Hazardous Materials Discovered During Construction." This specification includes requirements to immediately suspend work in the area of the discovery, notify the Engineer and DEQ of the discovery, develop a remediation plan, and dispose of the hazardous materials in accordance to DEQ and EPA requirements and regulations.

3.20 VISUAL CONDITIONS

The visual resources of a community or area include the physical features that make up the landscape and include both natural (landforms, waterways, etc.) and other elements (buildings, roads, structures, etc.). The following visual analysis discusses the visual qualities and resources within and nearby the study area and how the No-action and Interchange Alternatives impact those visual resources.

3.20.1 AFFECTED ENVIRONMENT

Existing Visual Environment

The I-80 corridor is an elevated freeway that is visually separated from the neighborhoods by the difference in grade as well as the addition of jersey barriers and/or noise walls along the majority of the corridor. In general, drivers along I-80 are visually disconnected with the neighborhoods to the north and south of I-80.

Within the study area, two interchanges – at State Street and 700 East – connect drivers to major roadways, neighborhoods and business areas to the north and south of the corridor. At the western end of the study area, there is a highly complex interweaving of ramps and junctions that look like (and are affectionately called) a 'spaghetti bowl,' if viewed from above. The ramps and roadways that constitute the spaghetti bowl connect I-80 to I-15 and SR-201. To roadway users traveling west on I-80, the spaghetti bowl looks like a se3-ries of stacked/tiered ramps with the highest ramp being several feet above the elevation of I-80. As drivers use the ramps to connect to other interstates and state roads, they experience going under or over these various ramps.

The visual character of the study area is fairly consistent with the overall look and feel of this part of Salt Lake County. In this area, State Street marks the end of residential neighborhoods (to the east) and the beginning of an industrial area (to the west). While the majority of the cohesive, residential neighborhoods are east of State Street, small pockets of residential uses do exist on the west side of State Street. That said, the area west of State Street is substantially more industrial in nature and, in general, is fairly utilitarian in its look and feel (i.e. devoid of large areas of softscape/landscape that typify residential areas). South Salt Lake's two urban renewal areas (URAs) – Central Pointe and Market Station – are located in this industrial area west of State Street.

Typical View from I-80

Residential Uses within Study Area

Industrial Uses within Study Area

Within the study area, there are several key areas surrounding the I-80 and the State Street interchange that are more directly impacted by the visual quality of the Interstate. They include:

- **Residences/Businesses Facing and Backing I-80:** Residences that face I-80 are primarily accessed by a frontage road that also serves as a visual separation from I-80. Frontage roads run primarily from 700 East to West Temple and vary in width (from approximately 18 to 46 feet in width) with the frontage roads to the southwest and northeast of the State Street intersection being inaccessible from State Street. These frontage roads provide a barrier between the residences and the retaining walls or slopes that run along I-80. As I-80 curves to the north (between 500 and 700 East), there is no longer room for two rows of houses and a frontage road. Residences in this area back I-80 rather than face it.
- **Businesses at the I-80/State Street Interchange:** State Street is a predominately commercial corridor and all four corners of the I-80/State Street Intersection support commercial uses. These uses include a car dealership, a hotel, auto repair shops, and a fast food restaurant.

Residential Uses Facing I-80

Businesses at the I-80/State Street Interchange

Existing I-80 Corridor Aesthetics and Landscape Themes

In 2009, landscape and aesthetics improvements were implemented along the I-80 corridor and its interchanges as part of the I-80 State Street to 1300 East project. Specific paint colors, textures and patterns were used to establish a theme for the corridor. Landscape improvements were made at each of the interchanges using specific plant palettes. At the I-80/State Street Interchange, additional improvements have been made more recently to the southeast abutment slope by the City of South Salt Lake and includes signage, lighting, and landscaping to mark the entry to the City.

Corridor Aesthetics

Viewers

In the study area there are primarily two viewer groups:

- **Viewers of the Roadway:** For this analysis, viewers of the road include neighboring residences and businesses who face and back I-80 and State Street.
- **Viewers using the Roadway:** For this analysis, viewers include motorists on both I-80 and State Street.

3.20.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

The No-action Alternative would have no impact on the visual quality of I-80 and State Street.

Interchange Alternatives

Direct Impacts

Interchange Alternative 1

Viewers of the Roadway

For the residences and businesses facing and backing I-80 and State Street the visual appearance of the study area would remain the same. Because access to the frontage roads would be eliminated from State Street, the functionality of the frontage roads would change; however, the visual appearance of the frontage roads would remain the same.

Viewers using the Roadway

Interchange Alternative 1, has the greatest visual change to the existing interchange. With three commercial relocations, the potential removal of these structures would create a "vacancy" on the northwest, southwest, and southeast corners of the interchange. Because State Street is a predominately "built-out" commercial corridor, with very few vacant parcels, and these structures are on the corners of the interchange, these changes would be noticeable. That said, these properties could potentially be redeveloped in the future.

All three Interchange Alternatives would include one additional thru lane in each direction on State Street under the I-80 bridge. The I-80 bridge over State Street would be widened to accommodate this wider roadway section. Of the three alternatives, Interchange Alternative 1 would require more pavement under the bridge – to accommodate cross movements under the structure – and, therefore, would feel more "open" under the bridge.

Interchange Alternative 3N

Viewers of the Roadway

Of the three alternatives, Interchange Alternative 3N changes the view from residences and businesses facing I-80 the most. On the northwest side of the interchange, the views from residences and businesses along the frontage road (2400 South) would change. Between State Street and Main Street, what is currently a one-way frontage road and westbound ramp would be converted into a one-way, multi-lane frontage road. The frontage road would be at grade in this section and the on-ramp would be located west of the Main Street Intersection. From Main Street to West Temple, nearly half of the existing 44-ft wide roadway would be used to accommodate the multi-lane frontage road. This new road would shift a retaining wall 16 to 26 feet closer to the residents that face 2400 South. The retaining wall along the road would vary in height from 0 to 25 feet in height. See Figure 3-34.

Viewers using the Roadway

This alternative requires only two commercial relocations – House of Blinds and Emission Time, located on the southwest corner of the interchange. Like Interchange Alternative 1, this relocation would create a "vacancy" and would be noticeable. However, the change would be less noticeable than under Interchange Alternative 1 because only the southwest corner would be vacant and could potentially be redeveloped in the future.

As with Interchange Alternative 1, the roadway section would be widened, to accommodate an additional thru lane in each direction. The I-80 Bridge over State Street would also be widened. However, unlike Interchange Alternative 1, the look and feel under the bridge would feel more enclosed and be similar to existing conditions.

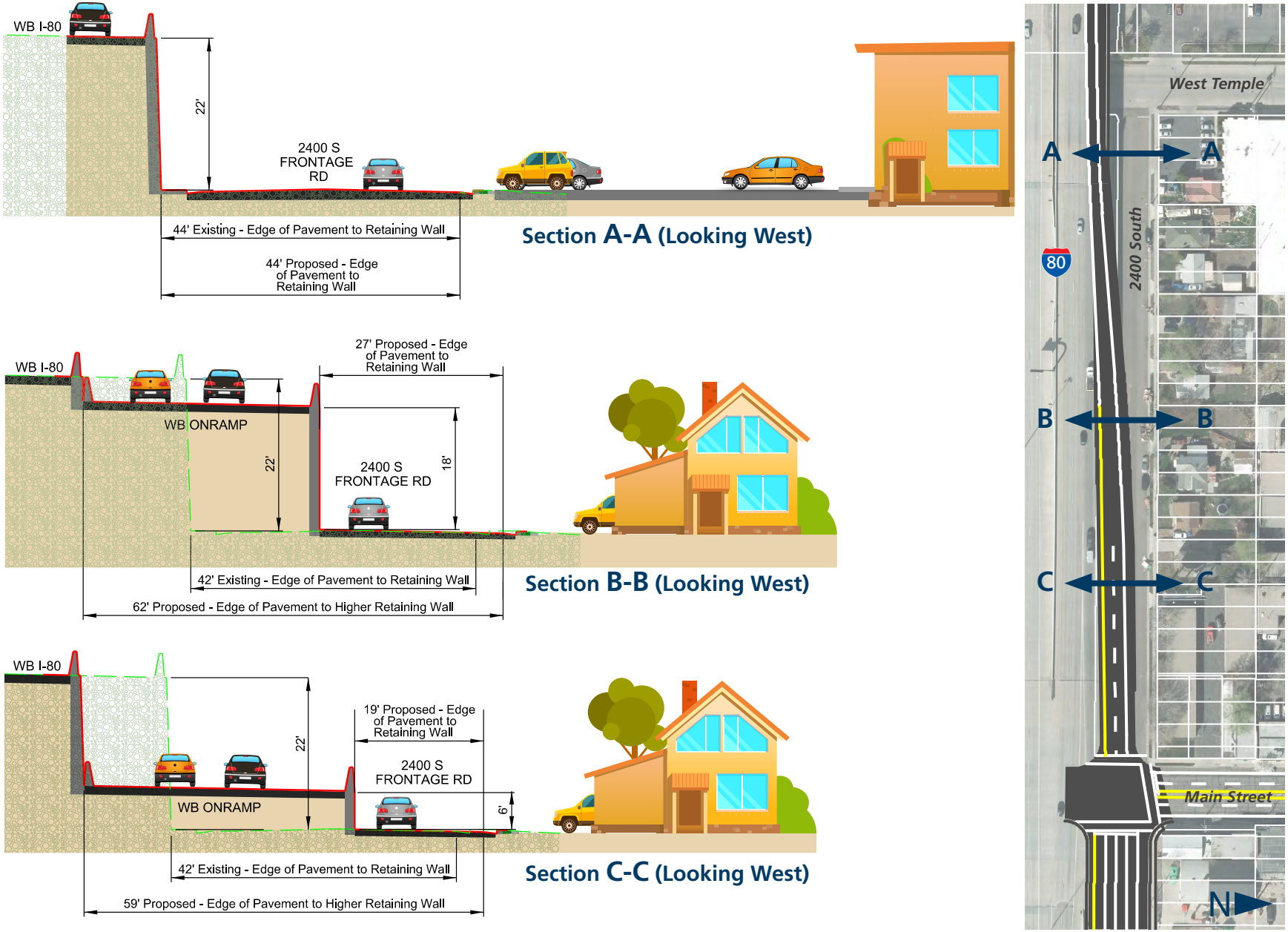


Figure 3-34 Change in Wall Location at Frontage Road (2400 South) for Interchange Alternative 3N

Interchange Alternative 7

Viewers of the Roadway

Interchange Alternative 7 would move the on-ramps and off-ramps a few feet closer to businesses adjacent to the interchange; however, the impact to viewers would be negligible.

Viewers using the Roadway

This alternative requires only two commercial relocations – House of Blinds and Emission Time, located on the southwest corner of the interchange. Like Interchange Alternative 3N, this relocation would create a "vacancy" and would be noticeable. However, the change would be less noticeable than under Interchange Alternative 1 because only the southwest corner would be vacant and could potentially be redeveloped in the future.

As with Interchange Alternative 3N, the roadway section would be widened, to accommodate an additional thru lane in each direction. The I-80 Bridge over State Street would also be widened. However, unlike Interchange Alternative 1, the look and feel under the bridge would feel more enclosed and be similar to existing conditions.

Indirect Impacts

Indirect impacts to visual conditions are not expected as a result of Interchange Alternatives 1, 3N, and 7.

Mitigation

During the design phase, a landscaping plan will be developed that is consistent with the existing aesthetics of the I-80 corridor.

Impacts to the City of South Salt Lake's entryway signage, lighting, and landscaping will be restored.

3.21 INVASIVE SPECIES

Executive Order 13112 directs federal agencies to expand and coordinate their efforts to combat the introduction and spread of plants and animals not native to the United States. Non-native flora and fauna can cause substantial changes to ecosystems, upset the ecological balance, and cause economic harm to our nation's agricultural and recreational sectors. Since roadway corridors provide opportunities for the movement of invasive species through the landscape, it is important that roadway projects include measures to combat the introduction and spread of invasive species. The State of Utah Department of Agriculture and Food maintains a Utah Noxious Weeds List with which designates three classes of noxious weeds: Class A, Class B, and Class C.

- **Class A** – Early Detection Rapid Response: Declared noxious weeds not native to the sate of Utah that pose a serious threat to the state and should be considered as a very high priority.

Blackhenbane	*Hyseyamus niger*
Diffuse Knapweed	*Centaurea diffusa*
Leafy Spurge	*Euphorbia esula*
Medusahead	*Taeniatherum caput-medusae*
Oxeye daisy	*Chrysanthemum leucanthemum*
Perennial Sorgum	including but not limited to Johnson Grass (*Sorghum zhalepense*) and Sorghum Almum (*Sorghum almum, parodi*)
Purple Loosestrife	*Lythrum salicaria*
Spotted Knapweed	*Centaurea maculosa*
Squarrose Knapweed	*Centaurea Squarrosa*
St. Johnsworts	*Hypericum perforatum*
Sulfur cinquefoil	*Potentilla recta*
Yellow Starthistle	*Centaurea solstitialis*
Yellow Toadflax	*Linaria vulgaris*

- **Class B –** Control: Declared noxious weeds not native to the state of Utah that pose a threat to the state and should be considered a high priority for control.

Bermudagrass	*Cynodon dactylon*
Broad-leaved Peppergrass	*Lepidium latifolium*
Dalmation Toadflax	*Linaria dalmatica*
Dyers Woad	*Isatis tinctoria*
Hoary cress	*Cardaria spp.*
Musk Thistle	*Carduus nutans*
Poison Hemlock	*Conium maculatum*
Russian Knapweed	*Centaurea repens*
Scotch Thistle	*Onopordium acanthium*
Squarrose Knapweed	*Centaurea virgata ssp*

- **Class C –** Containment: Declared noxious weeds not native to the state of Utah that are widely spread but pose a threat to the agricultural industry and agricultural products with a focus on stopping expansion.

Field Bindweed	Convolvulus spp.
Canada Thistle	*Cirsium arvense*
Houndstounge	*Cynoglossum officianale*
Saltcedar	*Tamarix ramosissima*
Quackgrass	*Agropyron repens*

3.21.1 AFFECTED ENVIRONMENT

Land uses and degrees of development are relatively consistent throughout the study area. The majority of the study area east of State Street is residential, while the study area west of State Street is predominantly commercially developed. Vacant fields and other lands that are not well maintained are not found within the study area.

3.21.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

The No-action Alternative would not provide opportunities for movement of invasive species.

Interchange Alternatives

Direct Impacts

Interchange Alternatives 1, 3N, and 7 include roadway construction and would provide opportunities for the movement of invasive species.

Indirect Impacts

No indirect impacts are anticipated.

Mitigation

Project Commitment

To minimize the movement of invasive species, the Contractor will be required to comply with UDOT's Special Provision 02924S - Invasive Weed Control.

3.22 WILD AND SCENIC RIVERS

3.22.1 AFFECTED ENVIRONMENT

A wild and scenic river is defined by the Wild and Scenic River Act (16 USC §1271-1287) as one that qualifies for inclusion on the Nationwide Inventory maintained by the Heritage Conservation and Recreation Service, which requires that it must be free-flowing (i.e., "existing or flowing in a natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway") and possess "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or similar values."

There are no wild and scenic rivers within or near the study area.

3.22.2 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

The No-action Alternative would not have any impact on wild and scenic rivers.

Interchange Alternatives

Interchange Alternatives 1, 3N, and 7 would not have any impact on wild and scenic rivers.

Mitigation

No mitigation required.

3.23 PERMITS

3.23.1 NO-ACTION ALTERNATIVE

Under the No-action Alternative, no permits would be required.

3.23.2 INTERCHANGE ALTERNATIVES

Implementation of Alternatives 1, 3N, or 7 would require application for and approval of the regulatory permits listed in Table 3-46.

Table 3-46 Required Permits and Clearances

Permit	Granting Agency(ies)	Applicant	Application Time	Granting Time	Applicable Portion of Project
Section 402 Permit (UPDES)	UDWQ	Contractor	Construction Phase	Before Construction	Storm water quality during construction phase
Air Quality Approval Order	UDWQ	Contractor	Construction Phase	Before Construction	Air quality during construction phase (emissions from equipment)
Water Rights (Change deed record or apply for change in point of diversion)	Utah Division of Water Rights	UDOT	Right-of-way acquisition phase	Right-of-way acquisition phase	Changes in point of diversion or changes of use associated with wells
Construction-related permits for all of the above (potentially)	Various Agencies	Contractor	Contractor	Before Construction	Impacts associated with offsite activities such as construction staging, borrow areas, batch plant sites, and so on

3.24 ENERGY

In the context of transportation projects, energy is consumed during both the construction and the operational phases of the project. For construction, it is used to manufacture and transport materials and to operate construction machinery. During operation of the facility, energy is primarily related to vehicle fuel consumption, which is dependent upon vehicle miles traveled and travel conditions, i.e. vehicle type, speed, weather conditions, and roadway conditions such as vertical grade, roadway geometry, and the type and condition of the pavement.

Construction energy requirements were analyzed on a qualitative basis as to what types of construction activities (if any) would be required. Operational energy requirements were analyzed on a quantitative basis, as well as a qualitative basis.

This analysis consisted of dividing the average daily vehicle miles traveled (VMT) in the study area under each proposed alternative (including the No Action Alternative) by an average vehicle fuel efficiency estimate obtained from the Annual Energy Outlook 2015 with projections to 2040, (U.S. Energy Information Administration, April 2015). The report includes average fuel economy for light duty vehicles (LDV), which includes passenger cars, light-duty trucks and commercial light-duty trucks. For existing conditions, an average vehicle fuel efficiency of 21.9 miles per gallon (mpg) (as of 2013) was used. For 2040 conditions, an average vehicle fuel efficiency of 37.0 mpg was used.

Table 3-47 Comparison of 2014 and 2040 Operational Energy Consumption

Scenario	Daily VMT	Change in Daily VMT	Percent Change in Daily VMT	Fuel Consumption (gallons)	Percent Change in Fuel Consumption
2014 Travel Demand	326,900	NA	NA	14,927	NA
2040 Travel Demand: No-action	459,300	132,400	40.5%	12,414	-16.8%
2040 Travel Demand: Interchange Alt. 3N	461,000	134,100	41.0%	12,459	-16.5%

3.24.1 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

Under the No-action Alternative, there would be no construction activities and therefore, the No-action Alternative would not have energy requirements for construction. In terms of operational energy requirements, the 2040 travel demand did not substantially vary between the No-action and the Interchange Alternatives; therefore, the VMT would be similar. The No-action Alternative would result in continuing congestion on I-80 and State Street in the study area due to the bottleneck on State Street at the I-80 overpass. This congestion would in turn result in a lower LOS, which would reduce vehicle efficiency and increase fuel consumption slightly more than under the Interchange Alternatives.

Interchange Alternatives

The Interchange Alternatives would all involve construction activities to various degrees depending on the nature and scope of the interchange improvements included and therefore would require the consumption of energy for construction activities. In terms of operational energy requirements, the 2040 travel demand did

not substantially vary between the No-action and the Interchange Alternatives; therefore, the VMT would be similar. However, the Interchange Alternatives would address the issue of the bottleneck at State Street by improving the interchange at I-80, which would in turn reduce congestion and allow traffic to flow more smoothly. The reduction in traffic congestion would enable vehicles to maintain a more optimum speed, thereby improving vehicle efficiency and reducing fuel consumption in comparison with the No-action Alternative.

Mitigation

No mitigation is required.

3.25 CONSTRUCTION

This section sets forth the specific construction impacts for each of the alternatives.

3.25.1 ENVIRONMENTAL CONSEQUENCES

No-action Alternative

Since there would be no construction activities in connection with the No-action Alternative, there would be no construction impacts.

Interchange Alternatives

Social Conditions

Area residents, commercial and retail businesses, governmental and institutional properties, and commuters in the study area would experience minor inconveniences from noise, dust, and travel delays and detours during the course of construction. Access to all properties in the area would be maintained; however, there would be some temporary construction impacts to accesses for some properties.

Economic Conditions

The commercial and retail businesses in the area would experience temporary construction inconveniences from dust, noise, and traffic delays and detours associated with roadway construction. Access to all properties in the area would be maintained; however, there would be some temporary construction impacts to accesses for some properties. These conditions, although temporary, could result in a decrease in patronage and sales because residents would be less willing to negotiate the construction area.

Air Quality

The Interchange Alternatives would include roadway construction activities, which entails the potential for fugitive dust impacts during construction. Such impacts would be temporary and minor. A permit for air quality impacts during construction would be obtained from the Utah Department of Air Quality (UDAQ) by the contractor. Fugitive dust during construction would be mitigated and controlled in accordance with a fugitive dust control plan to be developed in coordination with UDAQ. This plan would include measures to minimize the extent of disturbed surface areas and restricting construction activities during high-wind periods.

Noise

Construction noise impacts are considered temporary and extended disruption of normal activities in the study area is not anticipated. No receptors are expected to be exposed to construction noise for an extended period of time. Construction noise impacts would be minimized through adherence to UDOT Standard Specification 01355, Section 3.6 – Noise Control. The contractor would also be required to abide by any and all local noise ordinances, including Salt Lake County's Community Noise Pollution Control Regulation which requires a permit to conduct construction or demolition activities between the hours of 10 p.m. and 7 a.m.

Water Resources

The Interchange Alternatives involve roadway construction (including soil disruption) and therefore entail the potential for construction-related erosion and sedimentation impacts. Construction-related erosion and sedimentation would be managed through obtaining a Utah Pollution Discharge Elimination System (UPDES) permit from the Utah Department of Environmental Quality (UDEQ). This permit requires a Storm Water Pollution Prevention Plan (SWPPP) and for Best Management Practices (BMPs) to be followed during construction. Short-term impacts to water quality would be minimized through implementation of UDOT's BMPs from the Temporary Erosion and Sediment Control Manual.

Cultural Resources

It is not expected than any previously unidentified cultural resources would be encountered during construction. However, in the event that any such resources are discovered, the contractor would be required to abide by UDOT Standard Specification 01355 – Environmental Protection, Part 1.13, in relation to the discovery of any historical, archaeological, or paleontological objects, features, sites, and human remains.

Hazardous Waste Sites

It is not expected that any hazardous materials would be encountered during construction activities. However, if hazardous waste material is encountered during construction, mitigation would be coordinated in accordance with UDOT Standard Specification 03155, which directs the contractor to stop work and notify the project engineer of any discovery of hazardous material. Disposition of any hazardous material would take place under the guidelines set by the UDEQ.

Visual Conditions

During construction, there would be temporary visual impacts in the study area due to construction signs and barricades, work lights, exposed earth, and construction equipment.

Invasive Species

The Interchange Alternatives involve construction activities, including soil disruption, and therefore would provide opportunities for the movement of invasive species. The contractor will abide by UDOT's Special Provision 02926S – Invasive Weed Control to minimize the spread and introduction of invasive species. Some of the measures in the Special Provision include:

- Cleaning all earth-moving equipment before entering the project
- Treating existing noxious weeds at least ten days before starting earthwork operations
- Controlling invasive weeds using pre-emergent, selective and non-selective herbicides, as appropriate.

Construction Phasing and Potential Detours

The construction of the Interchange Alternatives would result in temporary access closures and detours. The contractor would be required to prepare a detailed traffic-control plan to maintain access to all commercial and residential properties throughout the construction phase and would be required to submit the plan to UDOT for approval prior to the commencement of construction-related activities (per UODT Standard Specification 01554 – Traffic Control). The contractor would also be required to provide an approved public involvement plan designed to notify the traveling public and adjacent property owners of construction-related issues and concerns and to coordinate construction activities with adjacent property owners per UDOT Standard Specification 01315.

Mitigation

No mitigation is required for construction impacts, as such impacts are temporary in nature.

3.26 THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Interchange Alternatives 1, 3N, and 7 are based on comprehensive transportation planning for land use and transportation facilities at the state, MPO, county, and local level. These planning activities have considered the present and future need for transportation services within the context of both present and future land use development in the study area. All roadway projects require the investment or commitment of some resources found in the existing environment. Short-term refers to the immediate consequences of the project; long-term relates to its direct or secondary effects on future generations.

3.26.1 NO-ACTION ALTERNATIVE

In the short-term, no construction activities would occur and there would be no need for the conversion of raw materials, funding sources, and labor for any improvements in the study area. The short-term consequences of the No-action Alternative would be continued traffic congestion on State Street at the I-80 bridge, where the lanes narrow to create a bottleneck effect. South Salt Lake has plans to encourage redevelopment of the area located to the northwest of the State Street/I-80 interchange, which would act to increase the traffic congestion in the area as more demand for access to the redevelopment area is created. The existing and future increase in traffic congestion could act to discourage and delay the redevelopment plans for the area, as well as increase fuel consumption and decrease localized air quality in the area due to longer idling times at the interchange.

3.26.2 INTERCHANGE ALTERNATIVES

Under all of the interchange alternatives, finite resources would be required, such as land and materials for the construction of the interchange, as well as the expenditure of funds and labor. Short-term impacts would occur primarily during and immediately after the construction of the project and would be similar for all of the proposed Interchange Alternatives.

With any of the Interchange Alternatives, however, comes greater traffic mobility in the study area due to the removal of the bottleneck conditions associated with the State Street bridge at I-80, reduced energy usage and vehicle emissions from less traffic delay and idling at the intersections, and improved safety. The increased mobility of traffic in the area would also support current redevelopment plans for the area, which in turn would provide an economic boost from the influx of new businesses and commercial enterprises for both the City of South Salt Lake and for Utah in general. Thus, the short-term impacts of and the use of resources under any of the Interchange Alternatives (e.g., lane closures, traffic delays, consumption of raw materials and funding resources) are consistent with the maintenance of and enhancement of long-term productivity at both a local and state level.

3.27 ANY IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES WHICH WOULD BE INVOLVED IN THE PROPOSED ALTERNATIVE

3.27.1 NO-ACTION ALTERNATIVE

For the No-action Alternative, there would be no construction activities and no commitment of either natural, physical, human, or fiscal resources. There would therefore be no irreversible or irretrievable commitments of resources.

3.27.2 INTERCHANGE ALTERNATIVES

Implementation of any of the Interchange Alternatives would involve construction activities and therefore would require a commitment of natural, physical, human and fiscal resources. Land used in the construction of the facilities included in the Interchange Alternatives is considered an irreversible commitment during the time period that the land is used for a roadway facility. However, if a greater need arises for the use of the land or if the roadway facility is no longer needed, the land could be converted to another use. At present, there is no reason to believe that such a conversion would be necessary or desirable.

Considerable amounts of fossil fuels, labor and roadway construction materials (such as cement, aggregate, and bituminous material) would be expended in the construction of the new and/or improved roadway facilities. Additionally, large amounts of labor and natural resources would be used in the fabrication of construction materials. These materials are generally not retrievable. However, they are currently not in short supply and their use would not have an adverse effect on continued availability of these resources for other projects. Any construction would also require a substantial one-time expenditure of both state and federal funds for construction, which are not retrievable.

The commitment of these resources is based on the concept that residents in the immediate area, commuters through the area, and the state and the region would benefit by the improved quality of the transportation system. These benefits include improved accessibility and safety, time savings, and greater availability of quality services, which are anticipated to outweigh the commitment of these resources.

3.28 CUMULATIVE IMPACTS

3.28.1 INTRODUCTION

Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (see 40 CFR §1508.7). Cumulative impacts include the direct and indirect impacts of a project, together with the reasonably foreseeable future actions of other projects.

Cumulative impact analysis is focused on the sustainability of the environmental resource in light of all the forces acting upon it and can result from individually minor but collectively significant actions taking place over time. For a project to have a cumulative effect, however, it must first have a direct or indirect effect on the resource in question. In accordance with the CEQ cumulative effects guidelines, cumulative effects analysis should be limited to those issues of a regional, national, or global concern.

3.28.2 METHODOLOGY AND TIME FRAME FOR DETERMINING CUMULATIVE IMPACTS

The methodology for determining cumulative impacts is based on *Considering Cumulative Effects under NEPA (CEQ 1997)*. The geographic scope of the cumulative impacts analysis was determined to be the boundaries of the City of South Salt Lake. The timeframe for the cumulative impacts analysis includes past action and extends to the 2040 design year. The cumulative impact issues to be analyzed, based on the concerns expressed during scoping and the project impact analysis, are:

- Land Use
- Environmental Justice
- Air Quality

3.28.3 PAST, PRESENT AND REASONABLY FORESEEABLE FUTURE ACTIONS

Past Actions

The City of South Salt Lake was incorporated in 1938. The City is bordered by the Jordan River on the west, 500 East and 700 East on the east, 2100 South on the north and 3900 South on the south.

Development in South Salt Lake in the early years was spurred by the completion of the culinary and sanitation water resources. Over the ten year period from 1940 to 1950, South Salt Lake experienced a 32% growth rate. South Salt Lake built their city center on the west side of State Street, which was a major artery of the city. However, growth was stunted in the late 1950s due to the build out of available land within the city limits.

Past transportation projects in the area include the construction of several major roadways and transit facilities. In the northwestern portion of the city, three major freeways (I-15, I-80 and SR-201) intersect, which is known locally as the "Spaghetti Bowl". I-15 runs north-south just west of the study area and I-80 and SR-201 run east-west. SR-201 is located west of I-15, outside of the study area. I-80 is elevated in the study area and consists of an earthen fill. Constructed in the 1960s, I-80 divided South Salt Lake nearly in half.

Other major roadways in the area include the following city streets: West Temple; Main Street; State Street (US-89), which runs north and south through the center of the city and is the primary commercial corridor; 300 East; 500 East; and 700 East (SR-71). Both State Street and 700 East have interchanges with I-80, while the other streets pass under I-80. UTA's TRAX light rail runs north and south at about 200 West (just outside of the study area to the west), with the S Line (formerly known as the Sugar House Streetcar, built in 2012-2013) running through the study area just north of I-80 from the Central Pointe TRAX station to the Sugar House neighborhood in southeastern Salt Lake City.

Present and Reasonably Foreseeable Future Actions

Transportation

Present and reasonably foreseeable future plans for transportation in the study area include the following roadway and transit projects:

Table 3-48 Roadway Projects

Street	Project Limits	Existing No. of Lanes	Future No. of Lanes	Type
East-West Facilities				
SR-201	Mountain View Corridor to I-15	6	6+HOV	Widening
2100 South	I-15 to 1300 East	4	4	Operational
I-80	1300 East to I-215 (East)	6	8	Widening
3300 S / 3500 S	I-215 (West) to Highland Drive	4	4	Operational
North-South Facilities				
Redwood Road	SR-201 to 6200 South	6	6	Operational
I-15	Davis County Line to Utah County Line	Varies	Varies	Operational
I-15	600 North to Bangerter Highway	8+2 HOT	8+4HOT	Widening
State Street	600 South to I-215	6	6	Operational
900 East	3300 South to 4500 South	2	2	Operational
1300 East	1300 South to Van Winkle Expressway	4	4	Operational
Spot Facilities				
I-80 Interchange*	@ State Street	- -	- -	Upgrade

*I-80 Interchange project is the subject of this EIS

Table 3-49 Transit Projects

Project	Description
2100 South/1700 South Corridor	Enhanced Bus
Salt Lake Loop (S Line Upgrade & Extensions – Streetcar)	Line Upgrade and Streetcar
3300 South/3500 South Corridor	Bus Rapid Transit
3900 South/4100 South Corridor	Enhanced Bus
Redwood Road Corridor	Bus Rapid Transit
FrontRunner	Commuter Rail Line Upgrades
State Street Corridor	Bus Rapid Transit
500 East Corridor	Enhanced Bus
900 East Corridor	Enhanced Bus
1300 East Corridor	Enhanced Bus and Bus Rapid Transit
Highland Drive Corridor	Enhanced Bus
SLC - Foothill Drive - Wasatch Drive Corridor	Bus Rapid Transit

Residential and Commercial Development

As discussed in Section 3.2 Land Use, there are two major existing redevelopment areas in the study area: Market Station URA and Central Pointe URA. The objective of these areas is to encourage the redevelopment of nearly 120 acres of underutilized property into mixed use retail, office and residential neighborhoods. In addition to these established URAs, the City is in the process of analyzing the creation of new Streetcar CDA located on the northwest side of the City - beginning at the intersection of State Street and Utopia Avenue, and ending at 500 East. The proposed Streetcar CDA runs along both sides of the Sugar House Streetcar line.

- The Central Pointe URA is projected to add 230,000 square feet of office space, 790,000 square feet of retail space and 2,000 multi-family units.

- The Market Station URA is expected to add 140 multi-family units, with 100,000 square feet of office and 150,000 square feet of retail space.
- The proposed Streetcar CDA will add nearly 160,000 square feet of miscellaneous commercial and 1,400 multi-family residential units.

3.28.4 CUMULATIVE IMPACT ANALYSIS

Land Use

Changes in land use can be expected as a cumulative impact. Interchange Alternatives 1, 3N, and 7 could combine with other transportation projects such as improvements to SR-201 and I-15, etc. to provide improved access to proposed retail, office, and residential land uses within the study area.

As discussed above, Market Station URA, Central Pointe URA, and the proposed Streetcar CDA will redevelop into mixed use retail, office, and residential neighborhoods. These changes in development are expected to occur regardless if Interchange Alternatives 1, 3N, and 7 are constructed, but it is expected that the conversion of land use may happen sooner if the I-80/State Street Interchange is improved.

The cumulative impact of land use changes that are anticipated by the reasonably foreseeable actions, both public and private, are in agreement with the land use plans of South Salt Lake City.

Environmental Justice

Executive Order 12898 directs Federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of Federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. An environmental justice population (EJ population) is where there is any readily identifiable group or cluster of minority or low-income persons in the study area. As discussed in Section 3.5, Environmental Justice, the percent of EJ populations in the study area is generally greater than the Salt Lake County Average.

Redevelopment as part of the Market Station URA, Central Pointe URA, and the proposed Streetcar CDA could affect individual residents when existing residential properties are acquired and developed for mixed use retail, office, and residential neighborhood purposes. Although there are low numbers of residences in these URA/CDA areas, there would be changes. These changes would affect all residents in these areas, which have somewhat higher minority populations than Salt Lake County as a whole. The policies and procedures used by South Salt Lake City as redevelopment of these areas commences will influence whether there are disproportionately high and adverse effects to the minority and low-income persons residing in the area. As discussed in the previous section on Land Use, this redevelopment is expected to occur regardless of whether one of the Interchange Alternatives is constructed, but may occur sooner if the Interchange is improved.

Air Quality

Air Quality Standard Status

In the 1990s, Davis, Salt Lake, and Utah Counties failed to attain the NAAQS for ozone, particles, carbon monoxide, and sulfur dioxide. However, Salt Lake and Davis Counties were officially re-designated to attainment status for ozone by the EPA in 1997; Salt Lake, Ogden, and Provo Cities were re-designated to attainment for carbon monoxide in 1999, 2001, and 2006 respectively. Requests to re-designate Salt Lake County and part of Tooele County to attainment for sulfur dioxide, and to re-designate Salt Lake and Utah Counties and Ogden City to attainment for PM_{10} were submitted to the EPA in 2005.

On September 21, 2006, the EPA issued revisions to the NAAQS for particle pollution. The EPA strengthened the 24-hour $PM_{2.5}$ standard

from the 1997 level of 65 µg/m^3 to 35 µg/m^3, and retained the current annual fine particle standard at 15 µg/m^3.

In October 2008, the EPA strengthened the NAAQS for lead to increase protection of public health and the environment. The ambient air lead standards—both the primary (health-based) and secondary (environment-based) standards—have been revised to 0.15µg/m^3 (micrograms per cubic meter of air). The previous NAAQS issued by the EPA in 1978 were ten times higher (1.5µg/m^3).

In October 2015 (effective December 28, 2015), the EPA issued its Final Rule on ozone, which lowered the primary and secondary 8-hour ozone standards to 0.070 ppm. Areas of non-attainment for the new ozone standards have not yet been designated by EPA.

$PM_{2.5}$

In September 2006, the EPA implemented a more stringent national standard for $PM_{2.5}$ of 35 µg/m^3, replacing the former 65 µg/m^3 standard. The range of $PM_{2.5}$ measurements for urbanized counties, including Weber, Davis and Salt Lake, is 32-53 µg/m^3. EPA designated these and other counties in Utah as $PM_{2.5}$ nonattainment areas effective April 2009. With support from WFRC, the Utah Division of Air Quality (UDAQ) has been developing a new plan to reduce $PM_{2.5}$ related emissions to the point that the Wasatch Front region will once again be in compliance with national $PM_{2.5}$ standards, which includes improved vehicle emission technology and national standards enacted in 2004 and 2007, respectively.

According to the WFRC, $PM_{2.5}$ emissions from transportation sources are projected to decline by 52% from 2008 to 2019, due to improvements in auto technology, transit utilization, and other travel choices. Due to the nature of this project as an interchange reconfiguration, it would not have a meaningful difference in VMT and would therefore would have a negligible impact on $PM_{2.5}$ trends along the Wasatch Front.

Ozone

Salt Lake County is in attainment for the 8-hour standard so the original SIP for Salt Lake County has been replaced by a plan to maintain ozone related emissions at or below current levels to maintain compliance with the new standard. Due to the nature of this project as an interchange reconfiguration, it would not have a meaningful difference in VMT and would therefore have a negligible impact on ozone trends along the Wasatch Front.

MSAT

Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (such as airplanes), area sources (such as dry cleaners), and stationary sources (such as factories or refineries). MSAT's are a subset of the 188 air toxics defined by the Clean Air Act. MSATs are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

The EPA is the lead federal agency for administering the Clean Air Act and has specific responsibilities for determining the health effects of MSATs. On April 29, 2014, the EPA published a final rule adopting new emission standards and fuel requirements for motor vehicles and for motor vehicle fuels (79 FR 23414). The final rule included Tier 3 emission standards to reduce exhaust and evaporative emissions from light-duty vehicles, light-duty trucks, and heavy duty vehicles up to 14,000 pounds GVWR.

The Tier 3 program is part of a comprehensive approach to reducing the impacts of motor vehicles on air quality and public health. The program considers the vehicle and its fuel as an integrated system, setting new vehicle emissions standards and lowering the sulfur content of gasoline beginning in 2017. The new vehicle standards

will reduce both tailpipe and evaporative emissions from passenger cars, light-duty trucks, medium-duty passenger vehicles and some heavy-duty vehicles. The gasoline sulfur standard will enable more stringent vehicle emissions standards and will make emissions control systems more effective. According to the EPA, the new Tier 3 vehicle emissions standards, combined with the reduction of gasoline sulfur content will significantly reduce motor vehicle emissions, including nitrogen oxides (NOX) volatile organic compounds (VOC), direct particulate matter ($PM_{2.5}$), carbon monoxide (CO) and air toxics (see Table 3-50).

Table 3-50 Estimated Emission Reductions from the Final Tier 3 Standards (Annual U.S. short tons)

Pollutant	2018		2030	
	Tons	Percent of On-road Inventory	Tons	Percent of On-road Inventory
NOx	264,369	10%	328,509	25%
VOC	47,504	3%	167,591	16%
CO	278,879	2%	3,458,041	24%
Direct PM2.5	130	0.1%	7,892	10%
Benzene	1,916	6%	4,762	26%
SO2	14,813	56%	12,399	56%
1, 3-Butadiene	257	5%	677	29%
Formaldehyde	513	2%	1,277	10%
Acetaldehyde	600	3%	2,067	21%
Acrolein	40	3%	127	15%
Ethanol	2,704	2%	19,950	16%

Source: EPA Sets Tier 3 Motor Vehicle Emission and Fuel Standards, EPA Office of Transportation and Air Quality, EPA 420-F-14-009, March 2014

Due to the nature of this project as an interchange reconfiguration, in conjunction with the new Tier 3 standards, it would not have a meaningful difference in VMT and would therefore would have a negligible impact on MSAT trends along the Wasatch Front.

GHG Emissions

As discussed in the Air Quality Section, greenhouse gas emissions have accumulated rapidly as the world has industrialized, with concentration of atmospheric CO_2 increasing form roughly 300 parts per million in 1900 to over 400 parts per million today. State and national governments in many developed countries have set GHG emissions reduction targets of 80 percent below current levels by 2050, recognizing that post-industrial economies are primarily responsible for GHGs already in the atmosphere. As part of a 2014 bilateral agreement with China, the U.S. pledged to reduce GHG emissions 26-28 percent below 2005 levels by 2025; this emissions reduction pathway is intended to support economy-wide reductions of 80 percent or more by 2050. Further, the representatives of 195 nations reached a landmark accord on December 12, 2015 that commits nearly every country to lowering GHG emissions in order to stave off an increase in atmospheric temperatures of 2 degrees Celsius or 3.6 degrees Fahrenheit.

An estimate of GHG emissions in the project area is contained in Table 3-39 in the Air Quality Section, which shows that GHG emissions are expected to decrease from existing (2014) conditions to the design year of 2040 by approximately 20.2%. This project involves an interchange reconfiguration intended to improve traffic flow in the project area and would not result in any meaningful changes to VMT, traffic speeds or to the road grade. Further, EPA's GHG emissions standards, implemented in concert with national fuel economy standards, would also help minimize GHG emissions.

Climate Change

The National Climate Assessment (NCA), released by the U.S. Global Change Resource Program, contains scenarios for regions and

sectors, including energy and transportation. These scenarios discuss potential impacts that may result from climate change, broken down into nationwide sectors or by region of the county. The NCA includes Utah in the Southwest region. The scenario for this region states that this is the hottest and driest region with limited water resources. Climate change is anticipated to increase the heat in this region, affecting precipitation and snowpack and therefore the availability of water for agriculture, energy producers, and other consumers. The NCA scenario states that the decade of 2001-2010 was the warmest in the 110-year instrumental record, with temperatures almost 2 degrees F higher than historic averages and fewer cold air outbreaks. Regional annual average temperatures are projected to rise by 2.5 degrees F to 5.5 degrees F by 2041-2070 (so long as there is continued growth in global emissions) and 2.5 degrees F to 4.5 degrees F in the same period if global emissions are substantially reduced.

For the sector-based scenarios, the nationwide focus means that some of the identified potential impacts are not applicable to the project area (i.e., coastal impacts). Others are somewhat speculative at this point, as there are variations in the scenarios put forward. However, as stated in Chapter 5 – Transportation, "[c]limate change will affect transportation systems directly, through infrastructure damage [such as accelerated asphalt deterioration, increased stress on expansion joints on bridges and highways, etc.], and indirectly, through changes in trade flows, agriculture, energy use, and settlement patterns." There may also be changes to snow removal needs and construction schedules.

Due to the location of the project in an urbanized area with minimal chances of flooding, hurricanes, or other major weather disruptions and because this is a new configuration of an existing interchange, there would be no appreciable climate-change related effects to this project versus the No Action Alternative. There would also be no appreciable difference in the potential effects of climate change between the build alternatives, which are concerned only with the future interchange configuration.

Conclusion

With ongoing improvements to vehicle emissions, including Tier 3 standards, and more stringent air quality controls, it is expected that air quality will continue to improve along the Wasatch Front through the 2040 planning period, even with anticipated increases in vehicle miles traveled. Due to the nature of this project as an interchange reconfiguration, it would not have a meaningful difference in VMT and would therefore have a limited impact on air quality trends along the Wasatch Front.

Vehicle emissions have continued to decrease substantially over time as the EPA has imposed a series of tighter emission-control requirements on engine emissions. As the region's vehicle fleet becomes newer and the older, higher-emitting vehicles are gradually replaced, it is expected that the tighter emission standards will more than offset the regional growth and the anticipated increase in vehicle miles traveled.

Based on the air quality conformity analysis conducted by the WFRC for the 2040 Regional Transportation Plan and the Air Quality Memorandum dated January 28, 2016, all the transportation projects in the 2015-2040 RTP conform to the SIP or the EPA interim conformity guidelines. With support from WFRC, the Utah Division of Air Quality has been developing a new plan (or a new section of the SIP) to reduce $PM_{2.5}$ related emissions to the point that the Wasatch Front Region will once again be in compliance with national $PM_{2.5}$ standards. The improved vehicle emission technology and national standards enacted in 2004 and 2007 respectively will be instrumental in the DAQ plan to achieve the new $PM_{2.5}$ standard. The WFRC Regional Transportation Plan will also aid in the emission reduction effort by reducing pollution that comes from traffic congestion and by improving transit service (bus, light rail, and commuter rail) to reduce dependence on private automobiles. According to the WFRC, $PM_{2.5}$ emissions from transportation sources are projected to decline by 52% from 2008 – 2019, due to improvements in auto technology, transit utilization, and other travel choices.

3.29 COMPARISON SUMMARY OF THE PREDICTED ENVIRONMENTAL EFFECTS OF ALTERNATIVES

A comparison summary of the predicted environmental effects of the No-action Alternative and Interchange Alternatives 1, 3N, and 7 is presented in Table 3-51.

Table 3-51 Comparison Summary of Alternatives

Resource	No-action Alternative	Interchange Alternative 1	Interchange Alternative 3N	Interchange Alternative 7
Land Use	• Changes in future land use and redevelopment in study area would continue	• Consistent with policies established in the South Salt Lake Future Land Use Plan, with a focus on commercial, mixed-use and office land uses • Full and partial acquisitions would not affect the land use characteristics of the study area		
Farmlands	• No impact	• No impact		
Social Conditions	• No impact	• Would not change neighborhood or community cohesion through the splitting of neighborhoods, or the isolation of a portion of a neighborhood or an ethnic group • Would not generate new development, nor is there an expectation that property values would change substantially within the study area • No impact to the Granite School District Community Center • Would not separate residents from community facilities		
Environmental Justice	• No impact	• Interchange Alternatives 1, 3N, and 7 would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of E.O. 12808 and FHWA Order 6640.23A. No further environmental justice analysis is required.		
Right-of-Way and Relocations	• No right-of-way acquisition or relocations	• Relocate four businesses • Require 0.08-acres in right-of-way acquisition	• Relocate two businesses • Require 0.08-acres in right-of-way acquisition	• Relocate two businesses • Require 0.08-acres in right-of-way acquisition
Economic Conditions	• Changes in future land use and redevelopment in study area would continue	• Partial acquisition of property related to three businesses and would relocate four businesses (represents less than 0.1 percent of study area acreage, taxable property value, and market property value) • Closure of all frontage road access would limit access to South Salt Lake Municipal Offices and adjacent office space • Long term redevelopment plans would continue to utilize study area as prime location for commercial development	• Partial acquisition of property related to four businesses and would relocate two businesses (represents less than 0.1 percent of study area acreage, taxable property value, and market property value) • Long term redevelopment plans would continue to utilize study area as prime location for commercial development	• Partial acquisition of property related to four businesses and would relocate two businesses (represents less than 0.1 percent of study area acreage, taxable property value, and market property value) • Long term redevelopment plans would continue to utilize study area as prime location for commercial development

Resource	No-action Alternative	Interchange Alternative 1	Interchange Alternative 3N	Interchange Alternative 7
Pedestrians and Bicyclists	• No impact	• No impact to pedestrian and bicyclist facilities	• Approximately 500 feet of existing bike lane on Main Street would be temporarily closed during construction	• No impact to pedestrian and bicyclist facilities
Air Quality	• Would not result in new violations of the NAAQS, increases in the frequency or severity of existing violations of the NAAQS, or delays in attaining the NAAQS	• Would not result in new violations of the NAAQS, increases in the frequency or severity of existing violations of the NAAQS, or delays in attaining the NAAQS.		
Noise	• Noise levels would generally be the same as existing conditions	• Noise levels would generally be the same as existing conditions • 12 receptors would be considered impacted	• Noise levels would generally be the same as existing conditions • 13 receptors would be considered impacted	• Noise levels would generally be the same as existing conditions • 12 receptors would be considered impacted
Water Resources	• Drainage conditions would remain the same	• Slight increase in impervious surface area • Not expected to impact water quality because the increase in flow would be controlled through a storm drain system • Could impact up to 77 underground water wells		
Wetlands and Waters of the U.S.	• No impact	• No impact		
Floodplains	• No impact	• No impact		
Wildlife	• No impact	• No impact		
Threatened & Endangered Species	• No impact	• No impact		
Archaeological and Architectural Resources	• No Impact	• No historic properties affected		
Section 4(f) Properties	• No use to Section 4(f) properties	• No use to Section 4(f) properties		
Paleontology	• No impact	• No impact		

Resource	No-action Alternative	Interchange Alternative 1	Interchange Alternative 3N	Interchange Alternative 7
Hazardous Waste	• No impact	• Four sites in impact area would have an overall risk rating of "low"	• Three sites in impact area would have an overall risk rating of "low"	• Three sites in impact area would have an overall risk rating of "low"
Visual Conditions	• No impact	• *Viewers of Roadway:* Appearance of study area would remain the same • *Viewers Using Roadway:* Removal of commercial properties at interchange corners would create a noticeable "vacancy"; more "open" feel under I-80 bridge	• *Viewers of Roadway:* New westbound on-ramp would shift retaining wall 16 to 26 feet closer to businesses and residences on northwest side of interchange • *Viewers Using Roadway:* Removal of commercial properties at interchange corners would create a noticeable "vacancy"	• *Viewers of Roadway:* Appearance of study area would remain the same • *Viewers Using Roadway:* Removal of commercial properties at interchange corners would create a noticeable "vacancy"
Invasive Species	• No impact	• Would provide opportunities for the movement of invasive species.		
Wild and Scenic Rivers	• No impact	• No impact		
Energy	• No construction energy requirements • Similar operation energy requirements to Interchange Alternatives	• Construction energy requirements • Similar operational energy requirements to the No-action Alternative • Lower fuel consumption due to decreased congestion		

Resource	No-action Alternative	Interchange Alternative 1	Interchange Alternative 3N	Interchange Alternative 7
Construction	• No impact	• *Social Conditions:* Area residents, commercial and retail businesses, governmental and institutional properties, and commuters in study area would experience minor, temporary inconveniences from noise, dust, and travel delays and detours during the course of construction; access to all properties in area would be maintained (some temporary construction impacts to accesses for some properties • *Economic Conditions:* Businesses in the area would experience temporary construction inconveniences from dust, noise, and traffic delays and detours associated with roadway construction; access to all properties in the area would be maintained (some temporary construction impacts to accesses for some properties); could result in a decrease in patronage and sales because residents would be less willing to negotiate the construction area • *Air Quality:* Potential for temporary and minor fugitive dust impacts during construction • *Noise:* Temporary inconvenience due to construction noise and vibration; extended disruption of normal activities in the study area not anticipated since no one receptor is expected to be exposed to construction noise of long duration • *Water Resources:* Potential for construction-related erosion and sedimentation impacts • *Cultural Resources:* Possibility to impact undiscovered archaeological sites • *Hazardous Waste Sites:* Possibility to impact undiscovered hazardous waste sites • *Visual Conditions:* Temporary visual impacts in the study area due to construction signs and barricades, work lights, exposed earth, and construction equipment • *Invasive Species:* Would provide opportunities for the movement of invasive species • *Construction Phasing and Potential Detours:* Would result in temporary access closures and detours.		

3.30 MITIGATION AND PROJECT COMMITMENTS SUMMARY

All UDOT Standard Specifications and BMPs will be followed.

3.30.1 LAND USE

No mitigation required.

3.30.2 FARMLANDS

No mitigation required.

3.30.3 SOCIAL CONDITIONS

No mitigation required.

3.30.4 ENVIRONMENTAL JUSTICE

No mitigation required.

3.30.5 RIGHT-OF-WAY AND RELOCATIONS

No mitigation required.

3.30.6 ECONOMIC CONDITIONS

No mitigation required.

3.30.7 PEDESTRIANS AND BICYCLISTS

No mitigation required.

3.30.8 AIR QUALITY

No mitigation required.

3.30.9 NOISE

No mitigation required.

3.30.10 WATER RESOURCES

- A new storm drain system will be constructed that will comply with current UDEQ and UDWQ standards as well as local discharge rates and regulations.
- Impacted water rights will be handled through UDOT's Right-of-Way acquisition process.
- Construction-related erosion and sedimentation impacts will be managed through obtaining a Utah Pollution Discharge Elimination System (UPDES) storm water general permit from the Utah Department of Environmental Quality (UDEQ), which will include a Storm Water Pollution Prevention Plan (SWPPP) and an outline of Best Management Practices (BMP) to be followed.

3.30.11 WETLANDS AND WATERS OF THE U.S.

No mitigation required.

3.30.12 FLOODPLAINS

No mitigation required.

3.30.13 WILDLIFE

No mitigation required.

3.30.14 THREATENED AND ENDANGERED SPECIES

No mitigation required.

3.30.15 ARCHAEOLOGICAL AND ARCHITECTURAL RESOURCES

No mitigation required.

3.30.15 SECTION 4(F) PROPERTIES

No mitigation required.

3.30.16 PALEONTOLOGY
No mitigation required.

3.30.17 HAZARDOUS WASTE
No mitigation required.

3.30.18 VISUAL CONDITIONS
During the design phase, a landscaping plan will be developed that is consistent with the existing aesthetics of the I-80 corridor.

Impacts to the City of South Salt Lake's entryway signage, lighting, and landscaping will be restored.

3.30.19 INVASIVE SPECIES
No mitigation required.

3.30.20 WILD AND SCENIC RIVERS
No mitigation required.

3.30.21 ENERGY
No mitigation required.

3.30.22 CONSTRUCTION
No mitigation is required for construction impacts, as such impacts are temporary in nature.

CHAPTER FOUR: COMMENTS AND COORDINATION

4.1 INTRODUCTION

Chapter 4 summarizes the coordination efforts with agencies and the public throughout the environmental documentation process, with special emphasis on compliance with the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), and is organized as follows:

- **SAFETEA-LU**: This section provides a brief overview of the SAFETEA-LU legislation and its application to the environmental documentation process.
- **Public and Agency Coordination**: This section includes descriptions of key meetings with participating agencies, the Stakeholder Working Group (SWG), and with the public in general.
- **Written Comments and/or Responses Received from Interested Agencies**: This section details the correspondence letters and emails.

4.1.1 SAFETEA-LU

SAFETEA-LU was enacted into law in 2005 to streamline the environmental documentation process and facilitate cooperation between federal, state, and local agencies and the public. As early as practicable, the lead agency (or joint lead agencies) for a project is required to identify federal and non-federal agencies that may have an interest in the project and invite them to be a participating agency, as defined by SAFETEA-LU.

According to Section 6002 of SAFETEA-LU, participating agencies and the public must be involved in developing the Purpose and Need for Environmental Impact Statements (EIS) and the range of potential alternatives. Participating agencies are also involved in determining the methodologies to be used in the environmental analysis and the level of detail to which each alternative should be developed. The lead agency is required to prepare a plan for coordinating the public and agency participation in the project. The Coordination Plan was made available for review by participating agencies and the public and updated as needed.

- **Lead Agencies:** The Federal Highway Administration (FHWA) and the Utah Department of Transportation (UDOT) are the joint lead agencies for the project and were responsible for developing potential alternatives.
- **Cooperating Agencies:** Cooperating agencies are federal agencies with jurisdiction by law or that have special expertise regarding the evaluation of the project. Agencies that accepted cooperating agency status are listed below:
    - Advisory Council on Historic Preservation (ACHP)
- **Participating Agencies:** In accordance with SAFETEA-LU, 23 USC § 139 and other applicable laws, UDOT and FHWA extended invitations to several agencies and government entities. Participating agencies are federal and non-federal agencies that may have an interest in the project. Agencies that accepted participating agency status are listed below.
    - South Salt Lake City
    - Granite School District
    - Wasatch Front Regional Council (WFRC)
    - Environmental Protection Agency (EPA)
- **Section 106 Consulting Party:** Section 106 consulting parties are Native American tribes, local historic preservation groups, and other interested stakeholders with an interest in cultural resources that could be affected by the project. Agencies that accepted cooperating agency status are listed below:
    - Advisory Council on Historic Preservation (ACHP)
    - State Historic Preservation Office (SHPO)

Scoping and Purpose and Need

In accordance with Section 6002 paragraph 139(f)1 of SAFETEA-LU, the development of the Purpose and Need included the involvement of lead agencies, cooperating and participating agencies, and the general public.

The lead agencies used several methods to obtain input for the project Purpose and Need. They initiated Purpose and Need development by sending agency scoping letters soliciting specific concerns within the study area, and gathered input regarding the project purpose and transportation needs in the area during an agency/public scoping meeting held on September 9, 2014. The study hotline and the website also provided members of the public the opportunity to ask about or review the scoping meting information and provide comments.

At the same time, requests were sent to Native American tribes inviting them to act as consulting parties under Section 106 of the National Historic Preservation Act. Requests were sent to:

- Eastern Shoshone Tribe of the Wind River Reservation
- Shoshone-Bannock Tribes of Fort Hall
- Paiute Indian Tribe of Utah
- Northwestern Band of Shoshone Nation
- Ute Indian Tribe of the Uintah and Ouray Ute Indian Reservation
- Skull Valley Band of Goshute Indians
- Confederated Tribes of the Goshute Reservation
- Cedar Band of Paiutes
- Shivwits Band of Paiute Indian Tribe of Utah

Only the Paiute Indian Tribe of Utah responded to the invitation, declining to be a consulting party.

Development of Range of Alternatives

The project team held a public meeting on December 3, 2014 to discuss the initial range of alternatives, the screening process, and conceptual layouts of build alternatives. At this meeting and online, the public had the opportunity to review maps of alternatives and provide comment and input. The project team used all comments regarding alternatives to evaluate and refine the range of alternatives.

4.2 PUBLIC AND AGENCY COORDINATION

4.2.1 COORDINATION PLAN

A Coordination Plan was prepared in connection with this EIS. The Coordination Plan set forth the method and frequency of communications with the public and the participating agencies. The Coordination Plan was updated as needed during the EIS process. Public involvement activities included:

- A project website maintained through UDOT at http://www.udot.utah.gov/i80statestreet that contained project information, all public meeting materials and explanations, updates on upcoming meetings, and methods to contact the project team
- Newsletters, flyers, press releases, postcards, and other public notices
- A mailing list assembled containing the contact information (i.e., regular and/or e-mail addresses) for residents and businesses within the study area; federal, state, and local officials; and those who had expressed an interest in participating in the EIS
- Public meetings and meetings with participating agencies
- Stakeholder Working Group meetings
- Meetings with individual stakeholders

4.2.2 STAKEHOLDER WORKING GROUP

A Stakeholder Working Group (SWG) was developed as part of the I-80 & State Street EIS to conduct research, provide information, and disseminate information to key stakeholders. The project team conducted outreach to community centers, churches, and local schools in an effort to include a wide variety of people in the SWG. The SWG consisted of interested community members that represented various stakeholder groups including residents, businesses, property owners, emergency staff, neighborhoods, and local government. The SWG met quarterly.

4.2.3 COORDINATION MEETINGS

The following is a list of meetings held as part of the coordination process for the I-80 & State Street EIS:

- September 9, 2014: Agency Scoping Meeting
- **September 9, 2014: First Public Meeting (Scoping/Purpose and Need)**
- November 21, 2014: Stakeholder Working Group
- **December 3, 2014: Second Public Meeting (Alternatives)**
- February 20, 2015: Stakeholder Working Group
- February 27, 2015: South Salt Lake Chamber of Commerce
- June 19, 2015: Stakeholder Working Group
- January 29, 2016: Stakeholder Working Group
- **February 16, 2016: Public Hearing**

September 9, 2014: Agency Scoping Meeting

The agency scoping meeting was held at Woodrow Wilson Elementary and was attended by representatives from FHWA, UDOT, South Salt Lake City, WFRC, EPA, and Horrocks Engineers. The purpose of this meeting was to present an overview of the project, including project history, scope, and schedule, and to allow agencies to identify any potential resources, concerns, requirements, or recommendations they had relating to the I-80 and State Street EIS.

September 9, 2014: Public Scoping Meeting

The public scoping meeting was held at Woodrow Wilson Elementary. Twenty-three members of the public signed in and 11 left comments. The meeting presented information on the study process, draft purpose and need, transportation considerations, and environmental resource considerations. The project team invited attendees to leave comments and place stickers on transportation and environmental considerations of greatest concern to them. Meeting materials and information were provided on the project website.

November 21, 2014: Stakeholder Working Group

This meeting included members of the study team as well as six members of the SWG, representing FHWA; South Salt Lake City Police, Public Works, and Fire; Granite School District; and local residents. SWG members discussed alternatives for the I-80 eastbound weave and State Street interchange, economic implications of the alternatives, and public outreach for the alternatives analysis phase of the EIS.

December 3, 2014: Alternatives Analysis Meeting

The Alternatives Analysis Meeting was held at the Columbus Center in the City of South Salt Lake. Twenty-six members of the public signed in and three provided comments either at the meeting or through email. The meeting presented information on various alternatives for the interchange and weave areas using maps and preliminary designs. Common remarks from members of the public included concern about impacts to historic homes and complaints regarding existing noise walls. Meeting materials and information were provided on the project website. There were 191 visits to the website the first week the meeting information was available online.

February 20, 2015: Stakeholder Working Group

This meeting included members of the study team as well as 14 members of the SWG, representing FHWA; South Salt Lake City Police, Community Centers, Public Works, Fire, and City Council; Granite School District; the PRATT Coalition; local businesses; and local residents. SWG members discussed progress made on the EIS, the results of the alternatives screening process and traffic study, and other comments from the SWG.

February 27, 2015: South Salt Lake Chamber of Commerce

Approximately 20 members of the Chamber of Commerce attended this meeting at Mi Rancherito Grill, along with representatives of the study team and South Salt Lake City. The meeting included a discussion of the study process, the issues being evaluated, and alternatives. Team members provided contact cards for businesses interested in individual stakeholder meetings.

June 19, 2015: Stakeholder Working Group

This meeting included members of the study team as well as 14 members of the SWG, representing South Salt Lake City Police, Economic Development, Public Works, and Fire; the South Salt Lake Chamber of Commerce; local businesses; and local residents. SWG members discussed the elimination of

weave options from further consideration, progress made on the EIS, and potential impacts to area businesses.

January 29, 2016: Stakeholder Working Group
This meeting included members of the study team as well as three members of the SWG, representing South Salt Lake City Fire; the Granite School District; and Kentucky Fried Chicken. SWG members discussed the upcoming Public Hearing, preferred alternative, funding, construction timing, and high-level economic impacts of alternatives.

February 16, 2016: Public Hearing
The Public Hearing was held at the Columbus Center in South Salt Lake City from 5:30 to 7:30 p.m. and was attended by approximately 39 individuals. The meeting presented information on the EIS process, the Purpose and Need, alternatives considered, the alternatives screening process, alternatives selected for detailed study, the Preferred Alternative, environmental impacts, and information gathered during the environmental study. Information was presented in an open-house style, with opportunities for public comment via a microphone at 6:00 and 7:00 p.m. Comments were received through comment forms at the Public Hearing, verbal comments recorded by the Court Recorder, written correspondence, e-mail, and the website. The public comment period began on February 5, 2016 and concluded on March 21, 2016. Comments received and responses to each are shown in Table 4-2. See Appendix A for Public Hearing documentation.

Individual Stakeholder Meetings
Meetings were held with individual stakeholders upon request. In general, these meetings were requested by representatives of local businesses to discuss potential impacts to their property and business operations and to resolve concerns. A list of individual meetings can be found in Table 4-1.

Table 4-1 Individual Stakeholder Meetings

Date	Stakeholders	Representing
January 20, 2015	Brad Thompson, Troy Thompson	Ramada Inn
January 26, 2015	Bill and Lynette Gord	House of Blinds Emission Time
January 28, 2015	Donald Adams, Jim Day, Steve Hogan	Granite School District
March 6, 2015	Troy Wardle, Erick Crisholm	Harman Management Corporation (Kentucky Fried Chicken)
March 6, 2015	Chris Lewis	TechnaGlass
April 16, 2015	Brad Mellor, Spencer Summerhays	Boyer Company
June 4, 2015	Bill and Lynette Gord	House of Blinds Emission Time
June 10, 2015	Christian Staples	Arctic Spas
July 10, 2015	Bill and Lynette Gord	House of Blinds Emission Time
July 21, 2015	Adam and Allison Swillinger	Laser Exhibitor Service
July 27, 2015	Dennis Pay, Public Works Director	South Salt Lake City
July 31, 2015	Keyvan Keyvani, Bruce Baird	Salt Lake Valley Chrysler Dodge Jeep Ram
August 18, 2015	Christian Staples	Arctic Spas
September 15, 2015	Brad Thompson, Troy Thompson	Ramada Inn
September 16, 2015	Bill and Lynette Gord	House of Blinds Emission Time
September 18, 2015	Keyvan Keyvani, Shane Keyvani, Bruce Baird	Salt Lake Valley Chrysler Dodge Jeep Ram
September 18, 2015	Troy Wardle	Harman Management Corporation (Kentucky Fried Chicken)
October 7, 2015	Bill and Lynette Gord	House of Blinds Emission Time
February 4, 2016	Christian Staples	Arctic Spas

Table 4-2 Public and Agency Comments and Responses on Draft Environmental Impact Statement

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
Public Comments		
1	**Online Comment (2/4/2016)** (1) No action necessary, stop destroying neighborhoods and street access. (2) Push mass transit and vastly improve and limit car use to help the air quality	(1) If transportation improvements at the I-80 and State Street Interchange are not constructed (the No-action Alternative), State Street near the interchange will continue to operate at failing conditions and the safety and operational issues at the interchange will continue to exist ("trap" left-turn lanes and safety conflicts at the frontage roads). The No-action Alternative does not meet the Purpose and Need for the project. See Chapter 1 (Purpose and Need) for more detail. The Preferred Alternative would not require the relocation of any residences and would provide adequate access to residences and businesses within the study area. (2) One of the alternatives considered as part of the alternatives development and screening process was the Transit Alternative. The effectiveness of a transit alternative can be determined by the reduction of peak hour volumes on I-80 and State Street. An effective transit alternative would shift travel from automobiles to transit, reducing the number of vehicles on the road. The Transit Alternative assumes implementation of public transit improvements included in Wasatch Front Regional Council's 2040 Regional Transportation Plan. The peak hour volumes for the Transit Alternative would be the same as the No-action Alternative; therefore, the Transit Alternative would not reduce congestion on I-80 and State Street. Additionally, the Transit Alternative would not improve safety and operational characteristics on I-80 and State Street, and the lack of mobility improvements does not support local economic development. Therefore, this alternative was eliminated from further consideration because it would not meet the purpose and need of the project; however, the Transit Alternative will be incorporated into all build alternatives. See Chapter 2 (Alternatives) for more detail.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
2	**Phone Call (2/10/2016) – Steve Dixon with Fixin Systems** (1) I own Fixin Systems and also live on [redacted]. I am worried about people being able to get to my business. (2) I am also concerned with the wall being closer to my house. There are already issues with shading. (3) I am concerned about it being a one-way street as well.	(1) Under the Preferred Alternative, the access on the south side of your business would become a right-in, right-out only; however, the access to your business from West Temple would remain the same (access from both the north and the south). (2) The Preferred Alternative would construct a wall along the one-way frontage road that could be up to 23 feet closer to homes and businesses. This wall could increase shading, depending on the location of the home/business, the time of day, and the season. Section 3.20 Visual Conditions in Chapter 3 of this EIS has been updated to include graphics that better illustrate the change in wall location along the frontage road. (3) The Preferred Alternative would convert the two-way frontage road between Main Street and West Temple to a one-way frontage road. This means that travelers west of West Temple wishing to access homes and businesses in this area would need to access southbound Main Street, and then make a right on the one-way frontage road.
3	**Phone Call (2/11/2016) – Martin Van Nood** I live on [redacted] and want to know if the project will affect me.	The Preferred Alternative will not directly impact your property; however, the Preferred Alternative will increase mobility and safety at the I-80 and State Street Interchange.
4	**E-mail (2/16/2016) – Conor Trivers with Sunbelt Rentals** I am writing this letter to discuss some issues with the plan to change the frontage road into a 3-4 lane road to change the on ramp to Main Street. This frontage road is the back of our property and is used constantly for equipment deliveries and for an exit to our business for our semis. We have trucks that stage on that road and wait for their turn to unload equipment. That frontage road is a huge part to our branch running smoothly. If the road is changed it will have an adverse effect on our daily business. Please consider an alternate plan that will not affect the business's on this frontage road. We have been in this location for many years and our outside haulers and delivery drivers need this frontage road to stay the same.	The Preferred Alternative would have no direct impact to your property and a similar access (right-in, right-out) would be provided at the back (south side) of your property. The Preferred Alternative would change the current configuration of the frontage road between State Street and Main Street by widening the roadway to three lanes in the westbound direction and constructing a westbound on-ramp at Main Street. This will allow trucks exiting your property at this location to directly access westbound I-80, or make a right-turn at Main Street to access other areas of South Salt Lake City (similar to the current configuration). As a public roadway, the frontage road was never intended to facilitate loading and unloading operations. In order to maximize frontage road safety for pedestrian and vehicular traffic, we encourage you to look for solutions to conduct staging, loading/unloading, and other activities on your business property.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
5	**Public Hearing Comment Form (2/16/2016) – Amanda Parker** (1) I think that the preferred alternative presented is quite suitable for the goals. It seems like it will accomplish the needs of the commuters/drivers with minimal impact (not too many changes or disruptions in how traffic already flows) (2) I am concerned about the impact to the two businesses having to move.	(1) No response required. (2) UDOT is currently and will continue to work directly with affected property owners throughout design and construction of the Preferred Alternative. By law, UDOT must follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 that provides uniform and equitable treatment for people whose property is acquired for public use. For more information on the right-of-way acquisition process, see the Utah Department of Transportation's Acquiring Property for Utah's Transportation Projects (An Information Brochure for Property Owners) at www.udot.utah.gov.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
6	**Public Hearing Comment Form (2/16/2016) – Matt Gray** A massive intersection redesign is not the solution. Consider installing hi-tech sensors along the rights of way that provide insight not only where cars are, but where they come from and where they are going. Utilizing real-time traffic data analysis would lead to better decision making in the future and save tax dollars. In short, use technology that is available to better understand the problem before trying to fix it.	The I-80 and State Street interchange currently implements technology that allows traffic engineers to interpret and analyze real-time traffic data (e.g., signal timing of intersections can be remotely manipulated at the UDOT Traffic Operations Center). Even with this technology, there are still congestion and operational problems at the interchange due to growing vehicle numbers, including: • Inside through-lane on northbound and southbound State Street trapped at the left-turn lanes under the narrow I-80 bridge • Safety conflicts at the frontage roads near the State Street/I-80 Interchange These congestion and operational problems are discussed further in Chapter 1 of this EIS. Additionally, one of the alternatives considered as part of the alternatives development and screening process was the Transportation System Management (TSM) Alternative, which included activities to improve traffic flow. This alternative focused on strategies to maximize the efficiency of the existing system through activities that included intersection improvements, turn lanes, signal coordination and optimization, ramp metering, auxiliary lanes, Intelligent Transportation Systems (ITS), and access management to reduce conflicts. The elements of this alternative would help reduce congestion on I-80 and State Street, but would not be sufficient in themselves to make noticeable improvements. The TSM Alternative was eliminated from further consideration because it would not meet the purpose and need for the project; however, elements of the TSM Alternative will be incorporated into the Preferred Alternative. See Chapter 2 of this EIS for more information.

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7	**Public Hearing Comment Form (2/16/2016) – Camie Snowden** (1) At the future discussions, please include all 3 options respectfully. The tables all display one option and a few on the outside of the alternate options are there conveniently placed. It's called marketing. (2) People buy houses and establish the businesses based upon their needs and wants. Currently we all live how we chose and if we don't like it, it's our problem. By going in and changing things you are not being fair to those who chose their environment and you are inflicting inconvenience and we, not you, the committee has to live with your choices.	(1) The project team held a total of three public meetings over the last year and a half (public scoping, alternatives, and Public Hearing) to receive input on issues and potential solutions. The Alternatives Public Meeting on December 3, 2014 displayed all alternatives under consideration and solicited comments on the alternatives. Three build alternatives were selected for detailed study, based on their ability to meet the purpose and need, environmental impacts, and public and agency input. These build alternatives, as well as the No-action Alternative, were studied in detail in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS. Based on this detailed analysis, Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative. The Public Hearing displayed all three build alternatives selected for detailed study; however, the focus of the Public Hearing was to present and receive comments on the Preferred Alternative. Consistent with federal regulations, a Preferred Alternative must be identified in the Draft Environmental Impact Statement (DEIS) to issue a combined Record of Decision (ROD) and Final Environmental Impact Statement (FEIS). (2) The purpose of UDOT and FHWA is to provide and maintain roadway facilities to accommodate current and future travel demand. If transportation improvements at the I-80 and State Street Interchange are not constructed (the No-action Alternative), State Street near the interchange will continue to operate at failing conditions and the safety and operational issues at the interchange will continue to exist ("trap" left-turn lanes and safety conflicts at the frontage roads). The No-action Alternative does not meet the purpose and need for the project. See Chapter 1 (Purpose and Need) for more detail.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
7	**Public Hearing Comment Form (2/16/2016) – Camie Snowden– continued** (3) #7 works. Just expand and that's it. It's cheaper. I will sell my house if I have to deal with your proposed changes. That's not fair to me. (4) Frontage road should not be made into a busy street. I don't want to have to go through several traffic lights just to get to the highway. (5) It would also be cheaper!	(3) Alternative 7 meets the purpose and need for the project and minimizes impacts to environmental resources. However, Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons: • Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80 • Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses • Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City See Section 2.5 Identification of the Preferred Alternative in Chapter 2 of this EIS for more information. (4) Traffic modeling indicates that the delay to access westbound I-80 using a frontage road (Preferred Alternative) would be less than current conditions, without a frontage road. See Chapter 2 of this EIS for more information. (5) Alternative 7 may be cheaper when compared to Alternative 3N; however, in EISs, while cost is important, it is not a primary factor in identifying the Preferred Alternative.
8	**Summarized Verbal Comment (Court Reporter) from Public Hearing (2/16/2016) – Elizabeth Hill/Judy Thatcher** I received notification regarding a proposal for the apartments across the street, but a lot of units in our building park across the street because there's not enough parking for our building. My concern is that my building gets some parking across the street. At night, there are about 35 to 40 cars parked across the street. Also, is there any information online regarding when Winco is going up? "I think ours is pretty well a done deal, because they've already started construction, they've already got the funding, they've already started. I just wonder about parking." What do they call that low income housing? Southgate Townhomes -- South Park Town Homes. It's the low-income housing. I wondered if that's going anywhere.	These comments refer to the urban renewal area north of the interchange. Zoning and land use decisions are made by municipalities. We encourage you to coordinate with South Salt Lake City on this issue and will forward your concerns to the City.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
9	**Summarized Verbal Comment (Court Reporter) from Public Hearing (2/16/2016) – Bill and Lynette Gord** This parcel is located on the southwest corner of I-80 and State Street intersection, known as 2432 South State Street and 54 East Robert Avenue. We have owned or acquired pieces of the property over the past 40 years. The property contains three buildings, one building has continuously been occupied by House of Blinds, a company owned by Bill and Lynette Gord. The remaining buildings are currently under lease and have been historically leased providing rental income. This property has been impacted by two other major redevelopments: 1) the expansion of I-80 off-ramp and southbound State Street where access to State Street is cut off via Robert Avenue – it used to be a through street on Robert Avenue, and 2) the widening of State Street to four lanes where some property loss occurred. (1) Loss of Access: The way people access these buildings is from State Street. The proposed improvements will completely cut off traffic access to our properties from State Street and the I-80 off-ramp leaving the only access via Main Street on now dead end and previously reduced Robert Avenue. (2) Sign Removal: The removal of the flashing, rotating pole sign located at the northeast corner of our property will be impacted. The pole sign has been granted as special grandfather permit. Once removed, the sign is irreplaceable. It has been an icon of the businesses located on this property and is the only flashing, rotating sign that is visible from the freeway in the Salt Lake County. The sign gives advertising exposure to the high-traffic volume across I-80 and State Street and is a revenue source to the property owners. If the sign were able to be moved, it would have a much lower value because the property is no longer conducive to retail businesses.	(1) The Preferred Alternative would require the full acquisition of the parcel located on the southwest corner of the interchange (including buildings, signs, and other property improvements) because of the loss of access from State Street (see Section 3.6 Right of Way and Relocations in Chapter 3 of this EIS). The parcels further to the west would still have access via Robert Avenue; however, access from State Street would be eliminated. This existing State Street access would need to be closed as part of the Preferred Alternative for the following reasons: • The location of the existing access is on a proposed free-flow right-turn lane from the I-80 eastbound off-ramp. Vehicles pulling out of the existing access would create an unexpected condition for vehicles in the free-flow right-turn, creating an unsafe condition. • An access in such close proximity to an interchange increases congestion (vehicles have to slow down to access a property, which causes vehicles exiting I-80 or passing through the interchange to slow down as well, increasing congestion). UDOT is currently and will continue to work directly with affected property owners throughout design and construction of the Preferred Alternative. By law, UDOT must follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 that provides uniform and equitable treatment for people whose property is acquired for public use. For more information on the right-of-way acquisition process, see the Utah Department of Transportation's Acquiring Property for Utah's Transportation Projects (An Information Brochure for Property Owners) at www.udot.utah.gov. (2) The Preferred Alternative would require the full acquisition of the parcel located on the southwest corner of the interchange (including the flashing, rotating pole sign on the northeast corner property). The sign is currently advertising House of Blinds and Emissions Time, both of which have been identified as relocations because of the loss of access (see response in (1) above).

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
9	**Summarized Verbal Comment (Court Reporter) from Public Hearing (2/16/2016) – Bill and Lynette Gord – continued** (3) Without the traffic access from State Street and I-80, the location is unsuitable for a retail business located in the two buildings along the State Street frontage. This will require the relocation of House of Blinds and any tenant under lease in the northwest building. The lease of these buildings will be more difficult, resulting in a higher vacancy rate and lower lease rates. (4) The loss of access to the buildings at 54 East Robert Avenue via State Street makes this location less desirable and may result in the loss of the two tenants or justifiable cause to reduce their rent. The lease of these buildings will be more difficult, resulting in the higher vacancy rates and lower lease rates. (5) The impact to House of Blinds is immeasurable. The business has been in the same location for 40 years and worked by three generations. A tremendous amount of consumer equity exists due to the amount of advertising to re-enforce the location of this business, and easy on and off the freeway access. The location is central to the Valley and there are few, if any, locations that the business can be relocated that will provide the traffic and exposure and currently not for the same lease rate. The company will need to embark on a very large marketing and advertising campaign to broadcast that the company has moved and not gone out of business. We are fearful that even with such an effort, company sales revenues will suffer for a considerable time. (6) We cannot think of a single positive effect that the intersection improvements will have on our property, our business or the other businesses located on our property. We appreciate the opportunity to provide a brief outline of some of the ways the intersection improvements will impact our property and businesses.	(3) The project team agrees that the loss of access from State Street would require the full acquisition of the parcel where House of Blinds and Emissions Time is located (see response in (1) above). UDOT is currently and will continue to work directly with affected property owners throughout design and construction of the Preferred Alternative. By law, UDOT must follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 that provides uniform and equitable treatment for people whose property is acquired for public use. For more information on the right-of-way acquisition process, see the Utah Department of Transportation's Acquiring Property for Utah's Transportation Projects (An Information Brochure for Property Owners) at www.udot.utah.gov. (4) Although the buildings at 54 East Robert Avenue would lose their access from State Street, they would still have adequate access from Robert Avenue. (5) UDOT is currently and will continue to work directly with affected property owners throughout design and construction of the Preferred Alternative. By law, UDOT must follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 that provides uniform and equitable treatment for people whose property is acquired for public use. For more information on the right-of-way acquisition process, see the Utah Department of Transportation's Acquiring Property for Utah's Transportation Projects (An Information Brochure for Property Owners) at www.udot.utah.gov. (6) We understand your concerns; however, the Preferred Alternative is needed to reduce congestion on I-80 and State Street and improve operational characteristics and safety on I-80 and State Street. If transportation improvements at the I-80 and State Street Interchange are not constructed (the No-action Alternative), State Street near the interchange will continue to operate at failing conditions and the safety and operational issues at the interchange will continue to exist ("trap" left-turn lanes and safety conflicts at the frontage roads). The No-action Alternative does not meet the purpose and need for the project. See Chapter 1 (Purpose and Need) for more detail.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
10	**Summarized Microphone Comment from Public Hearing (2/16/2016) – Adam Swillinger (representing Sunbelt Rentals)** (1) I'm writing to discuss some issues with the plan to change the frontage road into a three-, four-lane road to change the ramp on Main Street. This frontage road is the back of our property and is used constantly for equipment deliveries and for an exit to our business for our semis. We have trucks that stage on the road and wait for their turn to unload equipment. That frontage road is a huge part of our branch running smoothly. If the road is changed, it will have an adverse effect on our daily businesses. Please consider an alternative plan that will not affect the businesses on this frontage road. We have been on the location for many years and our outside haulers, delivery drivers, need this frontage road to stay the same. After reviewing the plans, I believe the Diamond Interchange (Number seven) is the best. If the other plans were chosen to include closing the frontage road or making it a main traffic road, this would hinder the ability of the company to stage trucks, deliver heavy equipment, and especially could have an effect on our customers causing them to go to another rental company for ease of access. With any increased traffic on this frontage road, this could increase the likelihood of an accident with one of our semi-trucks.	(1) The Preferred Alternative would have no direct impact to your property and a similar access (right-in, right-out) would be provided at the back (south side) of your property. The Preferred Alternative would change the current configuration of the frontage road between State Street and Main Street by widening the roadway to three lanes in the westbound direction and constructing a westbound on-ramp at Main Street. This will allow trucks exiting your property at this location to directly access westbound I-80, or make a right-turn at Main Street to access other areas of South Salt Lake City (similar to the current configuration). As a public roadway, the frontage road was never intended to facilitate loading and unloading operations. In order to maximize frontage road safety for pedestrian and vehicular traffic, we encourage you to look for solutions to conduct staging, loading/unloading, and other activities on your business property. Alternative 7 meets the purpose and need for the project and minimizes impacts to environmental resources. However, Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons: • Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80 • Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses • Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City See Section 2.5 Identification of the Preferred Alternative in Chapter 2 of this EIS for more information.

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10	**Summarized Microphone Comment from Public Hearing (2/16/2016) – Adam Swillinger (representing Sunbelt Rentals) – continued** (2) So we're also concerned about snow removal issues on that frontage road. The swathe from the trucks when they go through will eliminate the shoulder. (3) We're also concerned about the noise pollution because of the frontage road, and traffic dangers. Adam's business and Sunbelt Rentals have been here for 20 years. As the state grows, we want to be part of the plan. As we've been paying our taxes and moving forward, we don't want to get penalized for moving forward with what's best for everybody. So we hope that we can find a plan -- we both agreed we wanted everybody to find a plan that could work for all of us.	(2) Snow plowing on the frontage road would be very similar to existing conditions. The snow plow would push snow into the shoulder, similar to the existing procedure. It should be noted that the street adjacent to your property would likely be plowed earlier and more frequently because it would be a higher priority (adjacent to an interchange). (3) Projected traffic noise levels for the Preferred Alternative were calculated using FHWA's Traffic Noise Model 2.5 software. Noise levels resulting from the Preferred Alternative would generally remain the same throughout the study area when compared to existing conditions. Generally, businesses of your type (industrial) are not considered sensitive to traffic noise. See Section 3.10 Noise in Chapter 3 of this EIS.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
11	**Summarized Microphone Comment from Public Hearing (2/16/2016) – Adam Swillinger with Laser Exhibitor Service** (1) I personally advocate for number seven on the EIS. (2) The reason I choose that [number seven] is it's going to have the least amount of impact for traffic that will allow me ingress and egress out of my property. Currently, we back trucks up and it's kind of a slow, quiet road, without problems. If we have commuters that are in a rush to get somewhere, it will be impossible for me, and Sunbelt Rentals, to back our trucks up. (3) We talked about the urban renewal of the area, and I am on the backside of that Central Point Area. Our company, which has been there for 20 years, will see little, if anything, from the bike paths, the bus stops, the increased traffic, or foot traffic. There's only three businesses on the back of that road and I've been there for 20 years paying the property taxes.	(1) Alternative 7 meets the purpose and need for the project and minimizes impacts to environmental resources. However, Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons: • Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80 • Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses • Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City See Section 2.5 Identification of the Preferred Alternative in Chapter 2 of this EIS for more information. (2) The Preferred Alternative would have no direct impact to your property and a similar access (right-in, right-out) would be provided at the back (south side) of your property. The Preferred Alternative would change the current configuration of the frontage road between State Street and Main Street by widening the roadway to three lanes in the westbound direction and constructing a westbound on-ramp at Main Street. This will allow trucks exiting your property at this location to directly access westbound I-80, or make a right-turn at Main Street to access other areas of South Salt Lake City (similar to the current configuration). As a public roadway, the frontage road was never intended to facilitate loading and unloading operations. In order to maximize frontage road safety for pedestrian and vehicular traffic, we encourage you to look for solutions to conduct staging, loading/unloading, and other activities on your business property. (3) These comments refer to the urban renewal area north of the interchange. Zoning and land use decisions are made by municipalities. We encourage you to coordinate with South Salt Lake City on this issue and will forward your concerns to the City.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
11	**Summarized Microphone Comment from Public Hearing (2/16/2016) – Adam Swillinger with Laser Exhibitor Service – continued** (4) I'd like to co-exist with the traffic issue and not sacrifice my ability to sell the building – let's say in 15 years I decide to sell the building, it's going to be real hard to sell that and have people wanting to buy it on a frontage road that now has three lanes. (5) I also want to talk about the noise pollution. It's noisy from the freeway, but it's actually pretty quiet. (6) I'd like to bring up a fact that the snow removal will be dangerous because they're talking about on number seven having two lanes there. However, when the snowplows go through, they're going to have a berm on each side of snow. Of the seven choices, we're down to three. And of those three choices, the additional exit at Main Street and the split diamond at Main Street, they will not alleviate all the traffic that runs down Burton and turns onto State Street. It will only take up the ability to head traffic west. So we'll still have people on Burton Street, and they'll be racing around the corner to, you know, go onto -- take the split diamond or the 3A Split Diamond at Main Street with the Texas turnarounds. I ask you to carefully look at these plans and think about the number seven diamond interchange which also closely resembles what State Street is today. It's the closest representation, the least amount of impact, and my guess would be it wouldn't be a financial obligation as well for the money that we have to get from Feds and the State.	(4) Estimating the future value of properties as a result of roadway improvements is difficult to quantify and dependent on too many dynamic factors, such as land use plans. (5) Projected traffic noise levels for the Preferred Alternative were calculated using FHWA's Traffic Noise Model 2.5 software. Noise levels resulting from the Preferred Alternative would generally remain the same throughout the study area when compared to existing conditions. Generally, businesses of your type (industrial) are not considered sensitive to traffic noise. See Section 3.10 Noise in Chapter 3 of this EIS. (6) Snow plowing on the frontage road would be very similar to existing conditions. The snow plow would push snow into the shoulder, similar to the existing procedure. It should be noted that the street adjacent to your property would likely be plowed earlier and more frequently because it would be a higher priority (adjacent to an interchange).

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
12	**Summarized Verbal Comment (Court Reporter) from Public Hearing (2/16/2016) – Steve Dixon** (1) I own a property on the corner of [redacted]. I prefer the same alternative of the last fellow, which was number seven. And the reasons for it is because: (a) It shortens the time to merge to go southbound on the interstate, so you lose distance to get up to speed and get over for that left turn to go to Provo or to go southbound. (b) There's going to be increased noise because the cars are gunning up their engines to get up to speed and we are right there down below them and that's going to be increased noise.	(1) Alternative 7 meets the purpose and need for the project and minimizes impacts to environmental resources. However, Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons: • Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80 • Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses • Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City See Section 2.5 Identification of the Preferred Alternative in Chapter 2 of this EIS for more information. (a) The American Association of State Highway and Transportation Officials (AASHTO) recommends a minimum of 1,600 feet between an on-ramp and an off-ramp on a freeway facility. The Preferred Alternative would provide approximately 2,000 feet between the I-80 westbound on-ramp and the I-15 southbound diverge point. Traffic modeling has indicated that the merge and weave distances proposed as part of the Preferred Alternative would perform acceptably for both traffic on I-80 to travel to northbound I-15 and traffic on the on-ramp to travel to southbound I-15. (b) Projected traffic noise levels for the Preferred Alternative were calculated using FHWA's Traffic Noise Model 2.5 software. Noise levels resulting from the Preferred Alternative would generally remain the same throughout the study area when compared to existing conditions. At your property on the corner of West Temple and 2400 South, noise levels are currently approximately 67.2 dBA. Under the Preferred Alternative, noise levels would increase to approximately 68 dBA. This 0.8 dBA increase would be imperceptible to the human ear. See Section 3.10 Noise in Chapter 3 of this EIS.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
12	**Summarized Verbal Comment (Court Reporter) from Public Hearing (2/16/2016) – Steve Dixon – continued** (c) There is a problem with ice on both -- almost all those streets are in a shadow. And so they are now proposing to move it down to Main Street and now you have a street that is in the shadow. The last fellow talked about snow removal. Well, there's an additional thing. We now have ice because it's not in the sun in the wintertime, you have ice. (d) Another problem that is apparent is that you are increasing traffic on Main Street past a grade school with children crossing the street. You'll now have children crossing the street and cars going to Main Street to get to it. So there's increased risk to the children. (e) I feel that having the ramp between West Temple and Main Street is going to decrease our property values. (2) I think that option seven would be the less expensive. There's less walls to be moved, there's less-- that's clearly going to be a less expensive option for the option for the State and for the government. I think that covered most of the issues. I'm not happy with this preferred alternative. I just don't think it's a good idea. The option seven seems to be the least amount of work to change it and the most efficient. It's going to impact the least. Also safest and cheapest.	(c) The Preferred Alternative would construct an additional wall along the one-way frontage road that could be up to 23 feet closer to homes and businesses than the current wall. However, at your property location there would be a minimal change in wall height and location. The wall adjacent to the frontage road could increase shading, depending on the location of the home/business, the time of day, and the season. Section 3.20 Visual Conditions in Chapter 3 of this EIS has been updated to include graphics that better illustrate the change in wall location along the frontage road. (d) Constructing the Preferred Alternative would not increase traffic south of I-80, past the grade school. There are currently sidewalks and school crossings on Main Street that will continue to remain in place. (e) Estimating the future value of properties as a result of roadway improvements is difficult to quantify and dependent on too many dynamic factors, such as land use plans. (2) Alternative 7 may be cheaper when compared to Alternative 3N; however, in EISs, while cost is important, it is not a primary factor in identifying the Preferred Alternative. See also response in (1).

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13	**Summarized Verbal Comment (Court Reporter) from Public Hearing (2/16/2016) – Adam Swillinger/Alison Swillinger with Laser Exhibitor Service** (1) I'm representing the property at 60 East Burton Avenue that runs through to the frontage road that's in question. I advocate the diamond interchange [Alternative 7]. It will have the least amount of impact to the area, cost the least amount of money for development, and it's closest to what State Street is today (2/16/16) (2) This maintains my ingress and egress. Furthermore, it provides me the alternative to use my property that I purchased as I intended it to. I don't advocate the 3N Split Diamond on Main Street because it doesn't take into consideration the businesses that use that frontage road. For instance, we back our trucks in and out of this commercial area and I'm afraid that impatient drivers or people who are in a hurry to get to their destination will eliminate that ability. There's no other way for me to load my trucks in and out, other than that frontage road.	(1) Alternative 7 meets the purpose and need for the project and minimizes impacts to environmental resources. However, Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons: • Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80 • Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses • Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City See Section 2.5 Identification of the Preferred Alternative in Chapter 2 of this EIS for more information. Alternative 7 (Diamond Interchange) may be cheaper when compared to Alternative 3N; however, in Environmental Impact Statements, while cost is important, it is not a primary factor in identifying the Preferred Alternative. (2) The Preferred Alternative would have no direct impact to your property and a similar access (right-in, right-out) would be provided at the back (south side) of your property. The Preferred Alternative would change the current configuration of the frontage road between State Street and Main Street by widening the roadway to three lanes in the westbound direction and constructing a westbound on-ramp at Main Street. This will allow trucks exiting your property at this location to directly access westbound I-80, or make a right-turn at Main Street to access other areas of South Salt Lake City (similar to the current configuration). As a public roadway, the frontage road was never intended to facilitate loading and unloading operations. In order to maximize frontage road safety for pedestrian and vehicular traffic, we encourage you to look for solutions to conduct staging, loading/unloading, and other activities on your business property.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
13	**Summarized Verbal Comment from Public Hearing (2/16/2016) – Adam Swillinger/ Alison Swillinger with Laser Exhibitor Service – continued** (3) The second thing I'm worried about is snow removal. If the snowplows remove the snow down the frontage road, then the spindrift that will be piled up on each shoulder of the road will further inhibit me from tactics I need to bring my vehicle in and out of our property. (4) I'm also concerned about the noise pollution. Currently, that frontage road gets very minimal traffic. Simply traffic going from State to Main Street. If we add the frontage road, there will be the constant hum of buzz of traffic going on and up and down the freeway and going by my business, not to mention the existing traffic that's on the north side of our property on Burton Street. (5) We're concerned about safety because when we're trying to back large trucks and load them on that road at the same time, other cars will be going up there trying to get on the freeway. It will cause safety issues and traffic problems. (6) I am on the very, very south side of the Central Point Urban Renewal Area. When I read the impact statement, I see things about bike lanes, bus stops, increased businesses and a variety of other qualitative things that could possibly help this neighborhood. Since I'm on the furthest south part of that boundary, I'll never see any of those advantageous things, and I've been there for 20 years building up my company and paying the taxes, and I find it to be a little unconscionable to sacrifice existing business owners who have contributed to the growth of the area to make it easier for people to get on and off the freeway.	(3) Snow plowing on the frontage road would be very similar to existing conditions. The snow plow would push snow into the shoulder, similar to the existing procedure. It should be noted that the street adjacent to your property would likely be plowed earlier and more frequently because it would be a higher priority (adjacent to an interchange). (4) Projected traffic noise levels for the Preferred Alternative were calculated using FHWA's Traffic Noise Model 2.5 software. Noise levels resulting from the Preferred Alternative would generally remain the same throughout the study area when compared to existing conditions. Generally, businesses of your type (industrial) are not considered sensitive to traffic noise. See Section 3.10 Noise in Chapter 3 of this EIS. (5) As a public roadway, the frontage road was never intended to facilitate loading and unloading operations. In order to maximize frontage road safety for pedestrian and vehicular traffic, we encourage you to look for solutions to conduct staging, loading/unloading, and other activities on your business property. (6) We understand your concerns; however, the Preferred Alternative is needed to reduce congestion on I-80 and State Street and improve operational characteristics and safety on I-80 and State Street. If transportation improvements at the I-80 and State Street Interchange are not constructed (the No-action Alternative), State Street near the interchange will continue to operate at failing conditions and the safety and operational issues at the interchange will continue to exist ("trap" left-turn lanes and safety conflicts at the frontage roads). The No-action Alternative does not meet the purpose and need for the project. See Chapter 1 (Purpose and Need) for more detail. Part of your comment refers to the urban renewal area north of the interchange. Zoning and land use decisions are made by municipalities. We encourage you to coordinate with South Salt Lake City on this issue and will forward your concerns to the City.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
13	**Summarized Verbal Comment from Public Hearing (2/16/2016) – Adam Swillinger/ Alison Swillinger with Laser Exhibitor Service – continued** (7) I met with the engineers at Horrocks, and Dennis Pay of the Department of Public Works early summer of last year. That would be 2015. I gave them a tour of my facility, explained to them these concerns, and let them see for themselves the impact of that frontage road. I also advocated the number seven diamond interchange and told them in no way would the other alternatives be acceptable. Tonight, when I showed up, the only thing that is on display on the tables is the 3N Split Diamond and I was told that this is what's going to be moving forward and what was being presented to the public. So I had to remind the organizers of tonight's meeting that indeed there are still three alternatives – actually four. No action, a Single Point Urban Interchange called SPUI, the 3N Split Diamond on Main Street, and the 7 Diamond Interchange. I think in all fairness to the attendees tonight, that these alternatives should have given equal time and equal emphasis on the picnic tables that were for public display and discussed by the engineers and the city. However, all I heard was that 3N is the preferred alternative and that's what they'll be moving forward with. (8) When I met with the team of evaluators. I was assured I would be kept in the loop, that they would get back to me in the Fall with more information in regards to the direction of this project, and that I would be able to have more feedback. I never heard from those folks. I called the public works and reminded them that I was waiting for a follow-up to our conversation, approximately September, October, and was told that that meeting had been put on hold and that it will be reviewed in spring. Approximately two weeks ago, I received an e-mail about tonight's meeting. Two days ago, there was an individual canvassing the neighborhood, handing out invitations to tonight's meeting. I found it to be short notice. And so at that point, I went to the internet and saw that there were still four alternatives for choices. I wished that I'd been included, as promised, more in the information gathering procedure and decision-making process since I met with them nine months ago. I hope that the project managers will clearly communicate with me in a timely manner regarding this I-80 State Street project since it will affect me tactically, strategically, financially, and within regards to safety. I had hoped to talk to Peter Tang about this, but he was unavailable.	(7) The project team held a total of three public meetings (public scoping, alternatives, and Public Hearing) to receive input on issues and potential solutions. The Alternatives Public Meeting on December 3, 2014 displayed all alternatives under consideration and solicited comments on the alternatives. Three build alternatives were selected for detailed study, based on their ability to meet the purpose and need, environmental impacts, and public and agency input. These build alternatives, as well as the No-action Alternative, were studied in detail in Chapter 3 (Affected Environment and Environmental Consequences) of the EIS. Based on this detailed analysis, Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative. The Public Hearing displayed all three build alternatives selected for detailed study; however, the focus of the Public Hearing was to present and receive comments on the Preferred Alternative. Consistent with federal regulations, a Preferred Alternative must be identified at the Public Hearing to issue a combined Record of Decision (ROD) and Final Environmental Impact Statement (FEIS). (8) Stakeholders and the public were kept up-to-date on the project through three public meetings (public scoping, alternatives, and Public Hearing), website, e-mail notifications, hotline, and individual stakeholder meetings. The project team published a notice of availability in the Federal Register and in statewide newspapers after the project team completed the DEIS and identified a Preferred Alternative. This publication started a 45 day public review period. UDOT will continue to keep stakeholders informed throughout the completion of the FEIS, design, right-of-way acquisition, and construction.

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14	**Summarized Verbal Comment (Court Reporter) from Public Hearing (2/16/2016) – John Johnson** (1) I like diagram seven, the Diamond Interchange 7, combined with N3 Split Diamond North Side Only. The reason why is Diamond Interchange gives you more room to merge to I-80 southbound, where Split Diamond North Side Only makes traffic compete for the same real estate too close to I-15, which I feel is going to cause unsafe merging. If you combined Split Diamond North Side Only with Diamond Interchange to have entrances to I-80, both from State Street and Main Street. (2) Also, if you're going to take the financial responsibility and the inconvenience to rebuild the bridge, let's go big and spend the extra money for future growth and build the bridge for Single Point Urban Interchange, SPUI. Keep up the good work.	(1) Alternative 7 meets the purpose and need for the project and minimizes impacts to environmental resources. However, Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons: • Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80 • Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses • Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City See Section 2.5 Identification of the Preferred Alternative in Chapter 2 of this EIS for more information. AASHTO recommends a minimum of 1,600 feet between an on-ramp and an off-ramp on a freeway facility. The Preferred Alternative would provide approximately 2,000 feet between the I-80 westbound on-ramp and the I-15 southbound diverge point. Traffic modeling has indicated that the merge and weave distances proposed as part of the Preferred Alternative would perform acceptably for both traffic on I-80 to travel to northbound I-15 and traffic on the on-ramp to travel to southbound I-15. (2) UDOT constructs roadway improvements to meet traffic needs for the design year (2040). The Preferred Alternative more than meets the 2040 traffic needs; therefore, a larger structure associated with the SPUI is not required.

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15	**2/17/2016 E-mail – Davis Iltis with Cycling Utah** I have looked through the I-80-State Street interchange website, and I don't see any information on how bicycles and pedestrians will be accommodated on State Street at I-80. Will there be full and complete bike lanes and sidewalks on both sides of State Street? There does not seem to be any mention of this in the EIS or on the website. Anything less than full and complete bike lanes on State Street is completely unacceptable and unsafe for bicyclists and pedestrians. Every street should be safe for bicycles and pedestrians. State Street is a well used route for bicycles and pedestrians since there are many businesses and services on State Street that non-motorized users go to, just like motorized users. Asking pedestrians and bicyclists to go several blocks out of their way to cross I-80 is a prescription for more crashes involving bikes and peds. Note that there have been a number of accidents involving automobiles and pedestrians in the 600 S to 3300 S section of State Street reported in the media over the last few years. While anecdotal, they are an indicator that State Street isn't safe. Please read the attached document for reasons as to why State Street needs bike lanes and sidewalks (see next comment for text of attached document). Please also see UDOT's study 'Life on State' which, puzzlingly and dismayingly is not referenced in the EIS. (See the attached document for the reference) I would ask that you reevaluate the entire process, and look to a larger vision of making State Street a Grand Boulevard, instead of a traffic conduit. Lastly, while State Street is not on the regional bike plan, it should be. Isn't it time for a new way to approach our roads and streets?	The EIS addresses pedestrians and bicyclists in Section 3.8 Pedestrians and Bicyclists in Chapter 3 of this EIS. **Sidewalks** The Preferred Alternative would provide pedestrian crossing facilities that comply with the ADA at the I-80 and State Street Interchange to connect to the existing sidewalks on State Street. Additionally, sidewalk would be constructed along the frontage road. **Bike Lanes** State Street is not included on the regional bike plan; therefore, striped bike lanes are not proposed on State Street through the interchange. It should be noted that this EIS is only evaluating the area directly adjacent to the I-80 and State Street Interchange, a very small section of State Street. Improvements to bicycle facilities on State Street would need to be considered as part of a State Street corridor-wide study. However, the Preferred Alternative does include an 8-ft shoulder that bicyclists can use. Additionally, if this route were ever to be designated as a bike route, the widened I-80 structure over State Street could accommodate the extra width for a striped bike lane. **Safety** The Preferred Alternative would provide for safe pedestrian access, including crossing facilities that comply with the ADA at the I-80 and State Street Interchange, and sidewalk along the frontage road. As discussed above, State Street is not included on the regional bike plan, and striped bike lanes are not proposed as part of the Preferred Alternative. Additionally, because this EIS is only evaluating State Street directly adjacent to the I-80 and State Street Interchange, and not the whole corridor, bicycle facility improvements were not considered. These type of improvements would need to be considered as part of a State Street corridor-wide study. However, bicyclists will be able to use an 8-ft shoulder through the I-80 and State Street Interchange.

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15	**2/17/2016 E-mail Attachment – Davis Iltis with Cycling Utah** I'm writing in regards to the current repaving of State Street in Salt Lake City and S. Salt Lake and bicycle infrastructure. While I'm glad to hear that SLC and South Salt Lake communicated with UDOT early in the process, and I understand that there may be space issues in putting full bike lanes on State Street, there is the strong counterpoint that cyclists do ride on State Street in this area quite a bit, and that every city street should be a complete street, even if it is a UDOT street. And that every city street should be safe for cyclists and pedestrians. As such, I am quite saddened to see that another UDOT arterial in Salt Lake City will apparently not have any bicycle infrastructure added to it, other than wide parking lanes, to improve safety and accommodation for cyclists. Cyclists ride on arterials for the same reasons that cars drive on them - they are convenient and direct routes, businesses that they want to go to are located there, and cyclists (who don't have the benefit of a gasoline engine) don't need to go one to several blocks out of their way to get to their destination.	See above response.
15	**2/17/2016 E-mail Attachment (continued) – Davis Iltis with Cycling Utah** Cyclists do and will continue to ride on State Street (even with Main having a bike lane close by). While I don't believe a bike count was done on State in the area of 2100 S to 600 S, I have observed many cyclists riding on State Street. I would ask the questions - could nothing have been done? Are we as cyclists going to have a less than ideal street to ride on for the next 7 years? And, given the situation as it stands, what can be done now to improve safety? (sharrows, signage, reduced speed etc.). Does traffic volume on State Street really justify 3 lanes? Could the travel lanes or center lanes been narrowed further? <u>Alternatives for Arterials</u> Are there alternative treatments that could be tried on arterials and in particular on State Street? Could we implement any of these given the current situation? • Narrower lanes – the NACTO standard is 10 feet. This should be implemented throughout SLC. • Bicycle Priority Lane – Could these be done today? A Super Sharrow with dashed markings around the sharrows or a Green Lane. See Bicycle Priority Lane or Super Sharrow: http://www.boston.com/news/local/blogs/starts-and-stops/2013/11/20/boston-bikes-debuts-sharrows-steroids/PXrtrx9c1YO6T0JOCn3vFJ/blog.html and the study: http://www.coe.neu.edu/transportation/pdfs/facilities/BicyclePriorityLanes.pdf • Removal of Parking • Share the Road Signs • Lower Speed Limits – 25 mph is recommended in the "Life on State Street" study. With 25 mph speed limits, could bike lanes have been installed? • Cycle Track • Combined Bus/Bike • Combined Bike suggested/Parking lane	See above response.

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15	**2/17/2016 E-mail Attachment (continued) – Davis Iltis with Cycling Utah** As an advocate, I am disheartened and saddened to see many UDOT streets in SLC (Redwood between 10th N and 17th N., 300 W between S. Temple and 600 N, 400 S, Foothill, and now State Street) being repaved or reconfigured with nothing to improve safety and accommodations for cyclists. There needs to be a better way. As a cyclist who has been hit and severely injured on an arterial (700 E, prior to the bike lanes being installed), I want all of our streets to be safe to ride on, not just some of them. Had bike lanes been on 700 E so many years ago, I am almost certain that I would not have been hit. Sadly, earlier this week when I first noticed the repaving project, a pedestrian was hit in a crosswalk around 33rd S (near where the construction is happening). I can't help but wonder if with narrower lanes and bike lanes, which would lead to lower traffic speeds, might have prevented this crash.	See above response.
15	**2/17/2016 E-mail Attachment (continued) – Davis Iltis with Cycling Utah** Cyclists will continue to ride on arterials and, as such, they, and all of our streets need to be made safer. We cannot continue on the bike friendly path, where cyclists are accommodated sometimes. We need to be fully on the cycling city path, where cyclists are accommodated always. State Street Beautification or Grand Boulevard Bike lanes would greatly help businesses on State Street. State Street should be a Grand Boulevard, similar to N. Temple. State Street is arguably not the most inviting street in Salt Lake City. Bike lanes would help change that by bringing more people to the street. And more dollars spent at local business (see the Economic Benefits of Sustainable Streets study below). Do we really want the same conditions on State Street for the next 10 years? The status quo is not a good option. In 2009, WFRC, SLC, S. SL, UDOT and others put forth the "Life on State Street" study. In it, it says, "Downtown Salt Lake City is the cosmopolitan center of Utah and the Intermountain West. At its core is State Street, which bustles with automobiles, buses, bikes and pedestrians. People and goods must be able to move through this vital urban street safely, conveniently and with a sense of style befitting of Utah's capital city. High intensity use, unique destinations, a sense of history and urban flair set the tone for this distinctive section of State Street." Additionally, one of the main goals for State Street is, "Improve community health by creating a walkable and bikeable environment." With the resurfacing of State Street this year, shouldn't some steps towards this vision have been implemented? While this is a UDOT street, SLC has a Complete Streets Ordinance for a reason - to make our city more liveable, bikeable, and sustainable. This should be the case on each and every street, whether it is SLC's, UDOT's, or the USDOT's. Why settle for anything less? State Street needs a better solution today. So does 300 W.	See above response.

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16	**Online Comment (2/20/2016) – Peter Saunders** (1) The Main Street westbound on-ramp makes for a dangerous situation that is guaranteed to cause many accidents. Many cars come from the north on State Street and want to go south on I-15. This path is often used in the mornings by people working in the southern technical businesses. By extending the on-ramp to Main Street it is impossible to move over to the left lane on I-80 and take the south on-ramp to i15. This configuration is dangerous for cars going south especially with cars west-bound on i80 moving to the right lane to go north. (2) Option 7 (the Diamond Interchange) has all the advantages of your preferred split diamond option WITHOUT the Main str onramp and should be the preferred option. I am STRONGLY opposed to your preferred alternative (split diamond).	(1) AASHTO recommends a minimum of 1,600 feet between an on-ramp and an off-ramp on a freeway facility. The Preferred Alternative would provide approximately 2,000 feet between the I-80 westbound on-ramp and the I-15 southbound diverge point. Traffic modeling has indicated that the merge and weave distances proposed as part of the Preferred Alternative would perform acceptably for both traffic on I-80 to travel to northbound I-15 and traffic on the on-ramp to travel to southbound I-15. (2) Alternative 7 meets the purpose and need for the project and minimizes impacts to environmental resources. However, Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons: • Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80 • Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses • Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City See Section 2.5 Identification of the Preferred Alternative in Chapter 2 of this EIS for more information.
17	**Online Comment (2/20/2016) – Marissa Saunders** I use this on-ramp every day to commute to work and it is already a difficult transition to access I-15 Southbound. Pushing this on-ramp to Main street would make this an incredibly dangerous part of freeway as west-bound commuters try to merge right while South bound commuters have to go left in a very short distance. This is not a viable option given the morning traffic flow.	AASHTO recommends a minimum of 1,600 feet between an on-ramp and an off-ramp on a freeway facility. The Preferred Alternative would provide approximately 2,000 feet between the I-80 westbound on-ramp and the I-15 southbound diverge point. Traffic modeling has indicated that the merge and weave distances proposed as part of the Preferred Alternative would perform acceptably for both traffic on I-80 to travel to northbound I-15 and traffic on the on-ramp to travel to southbound I-15.

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18	**3/11/2016 Email – Steve Jelen** I would strongly prefer state street on ramp fortified as not to displace or impact local Businesses. Please don't rip up a neighborhood that has taken years to build.	The Preferred Alternative would only require the relocation of two businesses on the southwest corner of the I-80 and State Street Interchange (Emission Time and House of Blinds). UDOT is currently and will continue to work directly with affected property owners throughout design and construction of the Preferred Alternative. By law, UDOT must follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 that provides uniform and equitable treatment for people whose property is acquired for public use. For more information on the right-of-way acquisition process, see the Utah Department of Transportation's Acquiring Property for Utah's Transportation Projects (An Information Brochure for Property Owners) at www.udot.utah.gov.
19	**Online Comment (3/15/2016) – Jeanette Potter** It was already mentioned, but how are commuters supposed to access southbound I-15 safely from the new proposed on ramp?	AASHTO recommends a minimum of 1,600 feet between an on-ramp and an off-ramp on a freeway facility. The Preferred Alternative would provide approximately 2,000 feet between the I-80 westbound on-ramp and the I-15 southbound diverge point. Traffic modeling has indicated that the merge and weave distances proposed as part of the Preferred Alternative would perform acceptably for both traffic on I-80 to travel to northbound I-15 and traffic on the on-ramp to travel to southbound I-15.
20	**3/16/2016 Email – Sam Swillinger with Laser Exhibitor Service** I am a current resident of Salt Lake City, Utah. As an employee of a business near this proposed project I ask that you please don't go through with it. If this project takes place it will directly affect the financial status of my employer. I am very concerned of my future career, and the future of the company I am working for. This will have serious financial implications for me in the future if it takes place.	We understand your concerns; however, the Preferred Alternative is needed to reduce congestion on I-80 and State Street and improve operational characteristics and safety on I-80 and State Street. If transportation improvements at the I-80 and State Street Interchange are not constructed (the No-action Alternative), State Street near the interchange will continue to operate at failing conditions and the safety and operational issues at the interchange will continue to exist ("trap" left-turn lanes and safety conflicts at the frontage roads). The No-action Alternative does not meet the purpose and need for the project. See Chapter 1 (Purpose and Need) for more detail.

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21	**3/15/2016 Email – Jack Swillinger with Laser Exhibitor Service** I am a student at California Polytechnic State University in San Luis Obispo. I am originally from Salt Lake City, Utah. I grew up in Sugarhouse but moved away to pursue education. I have heard of the recent proposition to construct a new on-ramp at Main Street. (1) I wanted to contact the Utah government to let them know that I am opposed to this idea. (2) I would prefer the re-construction of the current State Street intersection and on-ramp. (3) I am opposed because a new Main Street ramp would be more expensive then simply re-constructing what we already have on State Street. (4) There will be a definite loss of business for pre-established companies that are currently located on the State Street corridor.	(1) We understand your concerns; however, the Preferred Alternative is needed to reduce congestion on I-80 and State Street and improve operational characteristics and safety on I-80 and State Street. If transportation improvements at the I-80 and State Street Interchange are not constructed (the No-action Alternative), State Street near the interchange will continue to operate at failing conditions and the safety and operational issues at the interchange will continue to exist ("trap" left-turn lanes and safety conflicts at the frontage roads). The No-action Alternative does not meet the purpose and need for the project. See Chapter 1 (Purpose and Need) for more detail. (2) Alternative 7 meets the purpose and need for the project and minimizes impacts to environmental resources. However, Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons: • Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80 • Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses • Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City See Section 2.5 Identification of the Preferred Alternative in Chapter 2 of this EIS for more information. (3) Alternative 7 (Diamond Interchange) may be cheaper when compared to Alternative 3N; however, in EISs, while cost is important, it is not a primary factor in identifying the Preferred Alternative. (4) Estimating future business sales as a result of roadway improvements is difficult to quantify and dependent on too many dynamic factors.

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21	**3/15/2016 Email – Jack Swillinger with Laser Exhibitor Service– continued** (5) New dangers will need to be addressed for vehicles merging onto the freeway interchange from Main Street. (6) It will also add more noise pollution to a beautiful city. (7) It would also add more traffic congestion and dangerous snow removal problems on icy days. These are only a few reasons the Main Street proposition is a bad idea. A lot of your citizens would be un-happy with the decision.	(5) AASHTO recommends a minimum of 1,600 feet between an on-ramp and an off-ramp on a freeway facility. The Preferred Alternative would provide approximately 2,000 feet between the I-80 westbound on-ramp and the I-15 southbound diverge point. Traffic modeling has indicated that the merge and weave distances proposed as part of the Preferred Alternative would perform acceptably for both traffic on I-80 to travel to northbound I-15 and traffic on the on-ramp to travel to southbound I-15. (6) Projected traffic noise levels for the Preferred Alternative were calculated using FHWA's Traffic Noise Model 2.5 software. Noise levels resulting from the Preferred Alternative would generally remain the same throughout the study area when compared to existing conditions. See Section 3.10 Noise in Chapter 3 of this EIS. (7) Snow plowing in the study area would be very similar to existing conditions. The snow plow would push snow into the shoulder, similar to the existing procedure.
22	**3/15/2016 Email – Mary Spencer with Laser Exhibitor Service** Please put me on the list of **I am opposed to the new on ramp at Main Street vs State Street!!** [Alternative 3N (Split Diamond at Main Street, North Side Only)]	Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons: • Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80 • Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses • Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City See Section 2.5 Identification of the Preferred Alternative in Chapter 2 of this EIS for more information.

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23	**3/15/2016 Email – Les Bunge with Laser Exhibitor Service** I am opposed to this!! [Alternative 3N (Split Diamond at Main Street, North Side Only)]	Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons: • Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80 • Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses • Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City See Section 2.5 Identification of the Preferred Alternative in Chapter 2 of this EIS for more information.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
24	**3/15/2016 Email – Adam Swillinger with Laser Exhibitor Service** I wanted to take this last opportunity to express my viewpoint on the I-80 & State Street project. Since our company is located at such a critical point on the proposed new on-ramp for the I-80 & State Street Project, I was hoping that you could really, earnestly, consider my opinion. The front of our business is on East Burton Avenue and the back of our property is on 2400 South. (1) We have been here approximately 20 years, and one of the primary reasons we choose this venue for our company was so that our trucks, trailers, and vehicles could easily enter our facility and warehouse on both roads. Furthermore, this job site included easy accessibility to the freeway entrance. If you suggest, recommend, and move forward with the construction of the Spilt Diamond, North Side only (option 3N) for the new interchange, it will severely affect how we access our property. (2) Sending the traffic down the frontage road from State to Main Street will make it difficult for the following reasons: (a) If the option Spilt Diamond, North Side Only is selected; this option would highly impact our ingress and egress access to our property to pull in to load our vehicles, and move out our trailers. Multi-lanes of traffic will extremely difficult to contend with on the frontage road. (b) The high traffic volume would impede our ability to get in and out of our back driveway safely. Especially with our trailers. We currently are not be able to move our trailers through our North entrance. We use the South drive way to currently do that task. (c) Snow removal will push snow drifts into our driveway and ice accidents will impede our rear drive way for hours on snowy days. (d) The increase in noise pollution will be incredible. Not only will we have the freeway, but we will also have a highly trafficked frontage road we will be forced to listen to. Currently, there is relatively no traffic down the frontage road so the quiet factor is huge. Our employees eat lunch and take breaks in our back lot.	(1) The Preferred Alternative would have no direct impact to your property and a similar access (right-in, right-out) would be provided at the back (south side) of your property. The Preferred Alternative would change the current configuration of the frontage road between State Street and Main Street by widening the roadway to three lanes in the westbound direction and constructing a westbound on-ramp at Main Street. This will allow trucks exiting your property at this location to directly access westbound I-80, or make a right-turn at Main Street to access other areas of South Salt Lake City (similar to the current configuration). As a public roadway, the frontage road was never intended to facilitate loading and unloading operations. In order to maximize frontage road safety for pedestrian and vehicular traffic, we encourage you to look for solutions to conduct staging, loading/unloading, and other activities on your business property. (2)(a) See Response in (1) above. (2)(b) See Response in (1) above. (2)(c) Snow plowing on the frontage road would be very similar to existing conditions. The snow plow would push snow into the shoulder, similar to the existing procedure. It should be noted that the street adjacent to your property would likely be plowed earlier and more frequently because it would be a higher priority (adjacent to an interchange). (2)(d) Projected traffic noise levels for the Preferred Alternative were calculated using FHWA's Traffic Noise Model 2.5 software. Noise levels resulting from the Preferred Alternative would generally remain the same throughout the study area when compared to existing conditions. Generally, businesses of your type (industrial) are not considered sensitive to traffic noise. See Section 3.10 Noise in Chapter 3 of this EIS.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
24	**3/15/2016 Email – Adam Swillinger with Laser Exhibitor Service – continued** (e) The cost of the new on ramp off Main Street [Alternative 3N (Split Diamond at Main Street, North Side Only)] is more extensive and expensive opposed to improving the existing State Street ramp [Alternative 7 (Diamond Interchange)]. Both Federal and State Budgets could save money on improving the existing on ramp at the 2400 south intersection. (f) I also believe that with the Spilt Diamond, North Side only (option 3N); the existing Freeway traffic on I-80 and I-15 headed West, South, and North will become dangerous. The merging traffic ramp from the new Main Street corridor, on to the existing freeway, will shorten the travel distance motorists need to enter the current freeway at I-15 and State 201 interchange. This will be hazardous, and cause more slowdowns and accidents on the Freeway with the co-exsting traffic that is already en route on the expressway…. Existing drivers will be forced to merge and enter the freeway with less distance available to head South and West. (g) In the future, if I am lucky enough to retire, and have the property sold, the frontage road traffic will severely reduce the resale value of the property and our investment. (3) Another area that I hope you will seriously consider is the morale and qualitative impact of the proposed Main Street Ramp [Alternative 3N (Split Diamond at Main Street, North Side Only)] on the existing businesses and residents. Our companies Laser, Sunbelt Rentals, and Arctic Spa have been located at the very south side of end of the Central Pointe URA for close to 20 years. We have helped build and grow South Salt Lake to what it is today on that frontage road. Basically, we are the very most back side of Central Pointe. The urban growth and land development coming to future South Salt Lake will not increase our revenues, nor make our jobs easier based on the new proposal. The Main Street Ramp will actually make our jobs and workplaces harder to manage, less peaceful, and reduce our property value. For the past two decades, we have been the companies and business that have been fortifying and building South Salt Lake City on that frontage road. We have been here the longest on 2400 South and have built our corporate lifestyles around this venue yet will have the most to lose! The ramp will not benefit the three land owners that have been good partners and tax payers.	(2)(e) Alternative 7 (Diamond Interchange) may be cheaper when compared to Alternative 3N; however, in EISs, while cost is important, it is not a primary factor in identifying the Preferred Alternative. (2)(f) AASHTO recommends a minimum of 1,600 feet between an on-ramp and an off-ramp on a freeway facility. The Preferred Alternative would provide approximately 2,000 feet between the I-80 westbound on-ramp and the I-15 southbound diverge point. Traffic modeling has indicated that the merge and weave distances proposed as part of the Preferred Alternative would perform acceptably for both traffic on I-80 to travel to northbound I-15 and traffic on the on-ramp to travel to southbound I-15. (2)(g) Estimating the future value of properties as a result of roadway improvements is difficult to quantify and dependent on too many dynamic factors, such as land use plans. (3) Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the following reasons: • Alternative 3N would better distribute traffic and reduce the travel demand on State Street by providing another alternative (Main Street) to access westbound I-80 • Alternative 3N better satisfies the economic component of the purpose and need by providing better access to the Urban Renewal Areas and existing businesses • Alternative 3N would construct a westbound frontage road that would allow for multiple access points to South Salt Lake City See Section 2.5 Identification of the Preferred Alternative in Chapter 2 of this EIS for more information.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response

24	**3/15/2016 Email – Adam Swillinger with Laser Exhibitor Service – continued**
	I went back and took a look at the purpose of this project. Below are the targeted points and needs of the project that I cut and paste them into this e-mail.
	
	The purpose of the project is to:
	• Reduce congestion on I-80 and State Street
	• Improve operational characteristics and safety on I-80 and State Street
	• Support local economic development through mobility improvements
	
	The project purpose would address the following needs:
	• Congestion on I-80 and State Street near the Interchange
	  • Segments of I-80 and State Street will operate at failing conditions by 2040
	• Operational and safety issues on I-80 and State Street
	• Changing land-use patterns and additional development
	  • Land use in the study area is changing and becoming more diversified as a result of two major Urban Renewal Areas (Market Station and Central Pointe). These renewal areas will cause an increase of vehicle, pedestrian and bicycle traffic.
	
	(4) I believe these goals could and would easily be met by selecting the Diamond Interchange option at State Street [Alternative 7] and not the Main Street Ramp [Alternative 3N].
	
	The project purpose identified our needs and with the selection of the Diamond interchange would still result and maintain market Station and Central Pointe growth and not affect existing businesses.
	
	Basically, The City and State could maintain it's growth needs, while building a safe on ramp at State Street, and reducing congestion and increasing growth, while making South Salt Lake into a bigger and better city of the future.
	
	Please remember all three of us pre-existing companies and taxpayers are good, hardworking companies want you to recommend, select, and build the Diamond Interchange (option 7).
		(4) While Interchange Alternative 7 (Diamond Interchange) would meet the purpose and need of the project, Alternative 3N (Split Diamond at Main Street, North Side Only) was identified as the Preferred Alternative for the reasons described in (3) above.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
Agency Comments		
United States Department of the Interior		
1	The Department of the Interior has reviewed the Draft Environmental Impact Statement (EIS) for the I-80 and State Street Interchange, Salt Lake County, UT, and has no comments.	No response required.
Environmental Protection Agency		
1	Air Quality The EPA notes that Salt Lake County is designated nonattainment for the 24-hour particulate matter (PM)10 and the 2006 24-hour PM2.s National Ambient Air Quality Standards (NAAQS). Further, the Salt Lake County area was unable to demonstrate attainment of the 2006 24-hour PM2.s NAAQS by its attainment date of December, 2015. For these reasons, we recommend that additional specific air quality information, as described below, be provided for the No Action Alternative and the Preferred Alternative in Section 3.9 "Air Quality" in the Final EIS. The purpose of this additional information is to both inform the public and provide the basis for the Record of Decision (ROD). As discussed in Section 3.9 "Air Quality," it appears the overall emphasis to address air quality for this project rests with traffic data and level of service (LOS). Additional specific data, such as calculated mobile sources emissions that would provide the basis for determining that the project will not interfere with the Salt Lake County area's ability to attain the PM2.s NAAQS, are not provided. As noted in our September 25, 2014 scoping comments, preparation of criteria pollutant emissions inventory data would be beneficial for supporting the evaluation of both the No Action and Preferred Alternative aspects of the project. Emission inventory data would provide the emissions burden of several criteria pollutants along with Mobile Sources Air Toxics (MSATs). PM10 (tailpipe/brake wear/tire wear and re-entrained road dust) would be useful, especially for road dust PM10 since it will increase with increasing vehicle miles traveled (VMT) in 2040. In addition, presenting emission inventory data for PM2.s, and its precursor emissions of nitrogen oxides (NOx) and volatile organic compounds (VOCs) is important. We note that the State's PM2.s nonattainment area state implementation plan (SIP) revision, submitted to the EPA on December 16, 2014, identifies and includes VOCs as a PM2.s precursor. Also, since this is a transportation project, emissions of carbon monoxide (CO) need to be included. The above criteria pollutants and precursor emissions can all be calculated with the EPA's MOVES2014a model. PM10 re-entrained road dust emissions can be calculated from EPA's AP-42, Chapter 13.	Since the initiation of this EIS, the scope of the proposed project has narrowed to focus on replacement of the I-80/State Street interchange, with minor improvements to the I-80/Main Street interchange, and improvements along State Street. Because the proposed interchange configuration alternatives are similar to the existing interchange, the use of traffic data and level of service as a basis for determining air quality impacts is an acceptable means of analysis, especially considering the lack of other significant air quality emission sources in the area. Five years of background information regarding particulate matter and carbon monoxide in the area from the nearest monitoring station (located at 1675 South 600 East, Salt Lake City) has been provided. In addition, traffic data regarding vehicle hours traveled (VHT) for the 2040 design year has been included, which shows that there would be approximately 2% greater VHT in the project area under the Preferred Alternative, as opposed to the No-action Alternative, which shows no significant change in activity in the project area. Given the minor changes to VHT, emission inventory data was not necessary for the analysis. See updated Section 3.9 Air Quality in Chapter 3.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
2	Section 3.9 "Air Quality" discusses MSATs, their derivation from vehicles, and their potential health effects, but does not provide any specific data derived from and relevant to the project. The MSAT section continues with information regarding studies, unavailability of health impact information, and speaks in terms such that the reader is advised that MSAT emissions will not have meaningful differences due to the size of the interchange project and between alternatives. For example, from p. 3-51, 2nd column, 2nd paragraph: "Also, regardless of the build alternative chosen, emissions would likely be lower than present levels in the design year as a result of EPA' s national control programs that are projected to reduce annual MSAT emissions by over 80 percent between 2010 and 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great that MSAT emissions in the study area are likely to be lower in the future in virtually all locations." While this may be true, for the purposes of public disclosure of relevant information in the EIS process, we recommend including the estimated amount of the MSAT emissions burden for both the No Action and Preferred Alternative. The calculation of the MSAT emissions can be performed with MOVES2014a and at the same time that the criteria emissions, noted above, are being prepared using MOVES2014a.	The analysis in the DEIS demonstrates that MSAT emissions will not have meaningful differences due to the size of the interchange project and between the different interchange configurations considered. Because the VMT is approximately the same for all of the interchange configurations, it is expected that there would be no appreciable differences in overall MSAT emissions. In addition, traffic data regarding vehicles hours traveled (VHT) for the 2040 design year has been included, which shows that there would be approximately 2% greater VHT in the project area under the Preferred Alternative, as opposed to the No-action Alternative, which shows no significant change in activity in the project area. Therefore, generating project-specific data for MSAT emissions was not warranted. Further, the safety improvements along State Street would reduce congestion, improve traffic flow, and reduce accident-related delays, all of which would help to reduce emissions.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
3	Section 3.28 "Cumulative Impacts," p. 3-103, third paragraph: The EPA does not agree with statements presented: "Regional modeling conducted by the WFRC for the 2040 Regional Transportation Plan air quality conformity analysis demonstrated that all transportation projects in the 2015-2040 RTP would be in compliance with the NAAQS. Because conformity to the SIP will be required for all transportation projects, there would be no cumulative impacts to air quality. Population growth has had little effect on overall air quality as demonstrated by the continuing improvement in air quality throughout the region." The regional mobile sources modeling performed by the Wasatch Front Regional Council (WFRC) was for determining transportation conformity for its 2040 Regional Transportation Plan (RTP). The WFRC was only addressing the transportation conformity requirements of 40 CFR 93.119 for an interim emissions test as on December 16, 2014. The State submitted a Clean Air Act section 189 impracticability demonstration SIP revision for the Salt Lake PM2.s nonattainment area. This SIP submittal did not contain identified motor vehicle emissions budgets (MVEB). Therefore, the WFRC was required to only show that direct PM2.s, with its precursor emissions, were less than the nonattainment area's base year emissions. This does not show "compliance with the NAAQS" as the Salt Lake area continues to show violations of the 2006 24-hour PM2.s NAAQS. Further, and in view of the above, with the Salt Lake area's inability to attain the 24-hour PM2.s NAAQS it is unclear how the above statement "Because conformity to the SIP will be required for all transportation projects, there would be no cumulative impacts to air quality" is correct. The EPA could only agree with such a statement if the State had been able to submit a SIP revision for the Salt Lake area that demonstrated attainment of the 24-hour PM2.s NAAQS and identified applicable MVEBs. Finally, the statement "Population growth has had little effect on overall air quality as demonstrated by the continuing improvement in air quality throughout the region." needs clarification in view of the PM2.s data presented in Table 3-37 and because the Salt Lake area continues to violate the 24-hour PM2.s NAAQS.	Revised text in Section 3.28 Cumulative impacts to read: "Based on the air quality conformity analysis conducted by the WFRC for the 2040 Regional Transportation Plan and the Air Quality Memorandum dated January 28, 2016, all the transportation projects in the 2015-2040 RTP conform to the SIP or the EPA interim conformity guidelines. With support from WFRC, the Utah Division of Air Quality has been developing a new plan (or a new section of the SIP) to reduce $PM_{2.5}$ related emissions to the point that the Wasatch Front Region will once again be in compliance with national $PM_{2.5}$ standards. The improved vehicle emission technology and national standards enacted in 2004 and 2007 respectively will be instrumental in the DAQ plan to achieve the new $PM_{2.5}$ standard. The WFRC Regional Transportation Plan will also aid in the emission reduction effort by reducing pollution that comes from traffic congestion and by improving transit service (bus, light rail, and commuter rail) to reduce dependence on private automobiles. According to the WFRC, $PM_{2.5}$ emissions from transportation sources are projected to decline by 52% from 2008 – 2019, due to improvements in auto technology, transit utilization, and other travel choices."

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
4	Climate Change In addition to the comments above regarding the quantification of emissions, we recommend the Final EIS include an estimate of the GHG emissions associated with the project, qualitatively describe relevant climate change impacts, and analyze reasonable alternatives and/or practicable mitigation measures to reduce project-related GHG emissions. More specifics on those elements are provided below. In addition, we recommend that the NEPA analysis address the appropriateness of considering changes to the design of the proposal to incorporate GHG reduction measures and resilience to foreseeable climate change. We recommend that the Final EIS make clear whether commitments have been made to ensure implementation of design or other measures to reduce GHG emissions or to adapt to climate change impacts. More specifically, we suggest the following: *Environmental Consequences Section* • Estimate the GHG emissions associated with the proposal and its alternatives. Example tools for estimating and quantifying GHG emissions can be found on CEQ's NEPA.gov website. These emissions levels can serve as a basis for comparison of the alternatives with respect to GHG impacts. • Describe measures to reduce GHG emissions associated with the project, including reasonable alternatives, BMPs or other practicable mitigation opportunities and disclose the estimated GHG reductions associated with such measures. For example, the Draft EIS discusses construction emissions as being potentially 5% to the total 20-year lifetime emissions of a roadway. The Draft then notes that the percentage can vary widely based on the extent of construction and vehicle use of the roadway. The document does not describe analysis of what the GHG emissions would be for this project, as advised above, nor does it provide measures or BMPs for reduction of GHG emissions for construction activities. The EPA further recommends that the Record of Decision commits to implementation of reasonable mitigation measures that would reduce or eliminate project-related GHG emissions, where possible.	An estimate of GHG emissions has been provided. See Table 3-39 in Chapter 3. Due to the nature of the project, there would be no meaningful changes to the VMT or the road grade in the project area and a slight improvement in traffic speed due to a reduction of congestion (albeit most likely not enough to have a meaningful impact on GHG emissions). The new EPA emissions standards and the fuel economy standards would be the most significant factor in the reduction of GHG emissions from the operation of the roadway. For construction and maintenance activities, there would be temporary increases to GHG emissions in the project area during such activities, but these impacts are limited in time.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
5	*Effects of Climate Change on Project Impacts* We recommend that the Final EIS describe potential changes to the Affected Environment that may result from climate change. Including future climate scenarios in the Final EIS would help decision makers and the public consider whether the environmental impacts of the alternatives would be exacerbated by climate change. If impacts may be exacerbated by climate change, additional mitigation measures may be warranted.	The following text was included in Section 3.9 Air Quality of Chapter 3: "The National Climate Assessment (NCA), released by the U.S. Global Change Resource Program, contains scenarios for regions and sectors, including energy and transportation. These scenarios discuss potential impacts that may result from climate change, broken down into nation-wide sectors or by region of the county. The NCA includes Utah in the Southwest region. The scenario for this region states that this is the hottest and driest region with limited water resources. Climate change is anticipated to increase the heat in this region, affecting precipitation and snowpack and therefore the availability of water for agriculture, energy producers, and other consumers. The NCA scenario states that the decade of 2001-2010 was the warmest in the 110-year instrumental record, with temperatures almost 2 degrees F higher than historic averages and fewer cold air outbreaks. Regional annual average temperatures are projected to rise by 2.5 degrees F to 5.5 degrees F by 2041-2070 (so long as there is continued growth in global emissions) and 2.5 degrees F to 4.5 degrees F in the same period if global emissions are substantially reduced. For the sector-based scenarios, the nationwide focus means that some of the identified potential impacts are not applicable to the project area (i.e., coastal impacts). Others are somewhat speculative at this point, as there are variations in the scenarios put forward. However, as stated in Chapter 5 – Transportation, "climate change will affect transportation systems directly, through infrastructure damage [such as accelerated asphalt deterioration, increased stress on expansion joints on bridges and highways, etc.], and indirectly, through changes in trade flows, agriculture, energy use, and settlement patterns." There may also be changes to snow removal needs and construction schedules.

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
5	*Effects of Climate Change on Project Impacts (continued)*	*Response continued:* Due to the location of the project in an urbanized area with minimal chances of flooding, hurricanes, or other major weather disruptions and because this is a new configuration of an existing interchange, there would be no appreciable climate-change related effects to this project versus the No Action Alternative. There would also be no appreciable difference in the potential effects of climate change between the build alternatives, which are concerned only with the future interchange configuration."
6	*Climate Change Adaptation* We recommend considering climate adaptation measures based on how future climate scenarios may impact the project in the Final EIS. The National Climate Assessment (NCA), released by the U.S. Global Change Resource Program, contains scenarios for regions and sectors, including energy and transportation. Using NCA or other peer reviewed climate scenarios to inform alternatives analysis and possible changes to the proposal can improve resilience and preparedness for climate change. Changing climate conditions can affect a proposed project, as well as the project's ability to meet the purpose and need presented in the Draft EIS. The Draft EIS should evaluate the resilience and preparedness of highway infrastructure in relation to climate change. For instance, the Draft EIS could analyze whether projected extreme weather events or extreme temperatures may increase the need for highway maintenance in the future which could result in increased GHG emissions.	The following text was included in Section 3.9 Air Quality of Chapter 3: "Due to the location of the project in an urbanized area with minimal chances of flooding, hurricanes, or other major weather disruptions and because this is a new configuration of an existing interchange, there would be no appreciable climate-change related effects to this project. There would also be no appreciable difference in the potential effects of climate change between the build alternatives, which are concerned only with the future interchange configuration. As for the resiliency of the infrastructure, the bridge structure will be designed to withstand adverse conditions for the next 30-50 years."

No.	Comment (in some instances, comments were summarized and numbers were added for organizational purposes)	Response
7	Environmental Justice Due to the proximity of this project to environmental justice (EJ) communities, the air quality and public health factors identified above should be fully quantified and evaluated in the Final EIS. Because individuals in such communities often do not have the means to relocate, they are more susceptible to the cumulative effects of an action. Though the Draft EIS states that impacts to such communities would be negligible, without the information requested above, it is difficult to evaluate the accuracy of the conclusions that the communities in the vicinity of the project will not face any impacts. Additionally, Wilson elementary school is located just south of I-80 on State Street and serves EJ populations on both sides of I-80. Children are also a sensitive population; therefore, it is important that the issues above be evaluated in the Final EIS to ensure the protection of human health.	This project would not have a disproportionately high and adverse impact on EJ populations. UDOT is not aware of any property acquisition impacts that would affect any minority-owned business nor do these businesses primarily serve minority or low-income populations. The air quality in the area is the same for all populations. The alteration of the interchange configuration and improvements on State Street would reduce traffic congestion which would improve the air quality, resulting in a positive impact on all populations in the study area, including the children who attend Wilson Elementary School. The interchange configurations analyzed in the Draft EIS would not result in new violations of the NAAQS standards, increase the frequency or severity of existing violations, or cause delay in attaining the NAAQS standards. The project team conducted considerable outreach to community centers, schools, businesses, and residents potentially affected by the project. No concerns were expressed regarding impacts to air quality or public health issues, nor were any specific comments submitted on the DEIS. Added the following to Section 3.5 Environmental Justice: "Further, the alteration of the interchange configuration and improvements on State Street would reduce traffic congestion which would improve the air quality, resulting in a positive impact on all populations in the study area, including the children who attend Wilson Elementary School. "

4.3 CORRESPONDENCE

Correspondence letters (both sent and received) are shown in Table 4-3 and are included in the following pages, in order by date.

Table 4-3 Correspondence Sent and Received

Date	Addressed To	From	Subject	Correspondence Page #
July 10, 2014	Ivan Marrero, FHWA	Brandon Weston, UDOT	Initiation of Environmental Review Process	4-44
August 13, 2014	Linda Gehrke, FTA	Bryan Dillon, FHWA	Scoping Participation Request	4-44
Identical letters sent to: • Juan Arce-Larreta, Parley's Rails, Trails, and Tunnels (PRATT) Coalition • Brad Woods, Bike Utah				4-45
August 13, 2014	Kathleen Clark, Utah Resource Development Coordinating Committee	Bryan Dillon, FHWA	Request to become a Participating Agency Request to attend the agency scoping meeting Request for information concerning the project	4-46
Identical letters sent to: • Martin Bates, Granite School District • Dennis Pay, South Salt Lake City • Ed Buchanan, Utah Transit Authority • Wayne Bennion, Wasatch Front Regional Council • Russ Wall, Salt Lake County				4-48 to 4-53
August 13, 2014	Jason Gipson, US Army Corps of Engineers	Bryan Dillon, FHWA	Request to become a Cooperating Agency Request to attend the agency scoping meeting Request for information concerning the project	4-47 to 4-48
Identical letters sent to: • Larry Svoboda, Environmental Protection Agency • Larry Crist, U.S. Fish and Wildlife Service • Najah Duvall-Gabriel, Advisory Council on Historic Preservation • Bryan Bowker, Bureau of Indian Affairs				4-53 to 4-58

Date	Addressed To	From	Subject	Correspondence Page #
August 19, 2014	Nicole Tolley, Horrocks Engineers	Dennis Pay, South Salt Lake City	Accept request to become a Participating Agency	4-58
August 21, 2014	Lori Bear Skiby, Skull Valley Band of Goshute Indians	Bryan Dillon, FHWA	Request to be a consulting party	4-59 to 4-61
Identical letters sent to the following: • Darwin St. Clair, Jr., Eastern Shoshone Tribe of the Wind River Reservation • Nathan Small, Shoshone-Bannock Tribes of Fort Hall • Gari Lafferty, Paiute Indian Tribe of Utah • Jason Walker, Northwestern Band of Shoshone Nation • Gordon Howell, Ute Indian Tribe of the Uintah and Ouray Indian Reservation • Ed Naranjo, Confederated Tribes of the Goshute Reservation • Lora Tom, Cedar Band of Paiutes • Georgetta Wood, Shivwits Band of Paiute Indian Tribe of Utah				
August 22, 2014	Nicole Tolley, Horrocks	Donald Adams, Granite School District	Accept request to become a Participating Agency	4-61
September 5, 2014	Nicole Tolley, Horrocks	Andrew Gruber, Wasatch Front Regional Council	Accept request to become a Participating Agency	4-62
September 8, 2014	Bryan Dillon, FHWA	Charlene Dwin Vaughn, Advisory Council on Historic Preservation	Accept request to become a Cooperating Agency	4-62 to 4-63
September 8, 2014	Bryan Dillon, FHWA	Lisa Lloyd, EPA	Decline request to become a Cooperating Agency	4-63
September 9, 2014	Bryan Dillon, FHWA	Dorena Martineau, Paiute Indian Tribe of Utah	Response to request to be a consulting party	4-64
September 25, 2014	Bryan Dillon, FHWA	Phillip Strobel, EPA	Scoping Comments	4-65 to 4-68
October 16, 2014	Liz Robinson, UDOT	Chris Merritt, State Historic Preservation Office	Concur with defined area of potential effects for cultural resources	4-68
December 11, 2014	Bryan Dillon, FHWA	Hollis Jencks, USACE	Decline request to become a Cooperating Agency	4-69
February 17, 2015	Bryan Dillon, FHWA	Betsy Herrmann, U.S. Fish and Wildlife Service	Decline request to become a Cooperating Agency	4-70

Date	Addressed To	From	Subject	Correspondence Page #
February 18, 2015	Bryan Dillon, FHWA	Chip Lewis, Bureau of Indian Affairs	Decline request to become a Cooperating Agency	4-71
February 18, 2015	Bryan Dillon, FHWA	Lisa Lloyd, EPA	Accept request to become a Participating Agency	4-72
March 27, 2015	Bryan Dillon, FHWA	Hollis Jencks, USACE	Decline request to become a Participating Agency	4-73
April 22, 2015	Marley Haupt, Horrocks	Paul W. West, UDOT	Threatened & Endangered Species/Wildlife memo	4-74 to 4-75
September 2, 2015	Cory Jensen, Utah Division of State History	Liz Robinson, UDOT Elizabeth Giraud, UDOT	Determination of Eligibility and Finding of No Historic Properties Affected	4-75 to 4-88
March 15, 2016	Brigitte Mandel, FHWA	Robert F. Stewart, Department of the Interior	DEIS Review and Comments	4-89
March 21, 2016	Brigitte Mandel, FHWA Bryan Adams, UDOT	Philip S. Strobel, EPA	DEIS Review and Comments	4-89 to 4-92

State of Utah
GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

DEPARTMENT OF TRANSPORTATION
CARLOS M. BRACERAS, P.E.
Executive Director
SHANE M. MARSHALL, P.E.
Deputy Director

July 10, 2014

Ivan Marrero, Division Administrator
Federal Highway Administration – Utah Division
2520 West 4700 South, Suite 9A
Salt Lake City UT 84117-1847

Subject: UDOT Project No. F-I80-3(180)123; I-80, State Street Interchange EIS
Initiation of Environmental Review Process

Dear Mr. Marrero:

The Utah Department of Transportation (UDOT), in cooperation with the Federal Highway Administration (FHWA), intends to prepare an environmental impact statement (EIS) and conduct necessary environmental studies to evaluate potential transportation solutions for the I-80 and State Street interchange in South Salt Lake City, Salt Lake County.

Although no federal funds are currently allocated for this project, it is anticipated that funds will be applied to this project from the Wasatch Front Regional Council. It is also likely that alternatives that will be developed may require an interchange/access modification approval from FHWA.

This notification is given to initiate the environmental review process as provided in the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU). The environmental review process for the project is anticipated to begin in August 2014.

If you have any questions or concerns, or need additional information, please contact me at (801) 965-4603 or brandonweston@utah.gov.

Sincerely,

Brandon D. Weston
Director of Environmental Services
Utah Department of Transportation

cc: Bryan Dillon, FHWA Area Engineer
Edward Woolford, Environmental Program Manager
Peter Tang, UDOT Region 2 Project Manager
Mason Palmer, UDOT Region 2 Environmental Manager

Environmental Services Division • Telephone (801) 965-4173 • Facsimile (801) 965-4796 • www.udot.utah.gov
Calvin Rampton Complex • 4501 South 2700 West • Mailing Address P.O. Box 148450 • Salt Lake City, Utah 84114-8450

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION

August 13, 2014

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

In Reply Refer To:
HDA-UT

Ms. Linda Gehrke
Regional Administrator for Region 8
Federal Transit Administration
12300 West Dakota Ave., Ste. 310
Lakewood, CO 80228-2583

SUBJECT: I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Ms. Gehrke:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400; Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014. Please respond to Nicole Tolley with scoping comments no later than September 23, 2014 at the above address/email.

We appreciate your participation on this project. If you have any questions or comments regarding this letter please contact Nicole Tolley at 801-763-5154 or nicolet@horrocks.com.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

August 13, 2014

In Reply Refer To:
HDA-UT

Mr. Juan Arce-Larreta
Chair
Parley's Rails, Trails, and Tunnels (PRATT) Coalition
P.O. Box 520308
Salt Lake City, UT 84152-0308

SUBJECT: I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Mr. Arce-Larreta:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400; Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014. Please respond to Nicole Tolley with scoping comments no later than September 23, 2014 at the above address/email.

We appreciate your participation on this project. If you have any questions or comments regarding this letter please contact Nicole Tolley at 801-763-5154 or nicolet@horrocks.com.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

August 13, 2014

In Reply Refer To:
HDA-UT

Mr. Brad Woods
President
Bike Utah
P.O. Box 4523
Salt Lake City, UT 84110

SUBJECT: I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Mr. Woods:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400; Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014. Please respond to Nicole Tolley with scoping comments no later than September 23, 2014 at the above address/email.

We appreciate your participation on this project. If you have any questions or comments regarding this letter please contact Nicole Tolley at 801-763-5154 or nicolet@horrocks.com.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

August 13, 2014

In Reply Refer To:
HDA-UT

Ms. Kathleen Clarke
Utah Resource Development Coordinating Committee
Governor's Office of Public Lands
E-210 State Capitol Complex
Salt Lake City, Utah 84114

SUBJECT: Request to Become a Cooperating Agency/Scoping
I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Ms. Clarke:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

Participating Agency Invitation

This letter is an invitation for any Utah state agency that may have an interest in the I-80; State Street Interchange EIS to become a participating agency for this project. Agencies that are not participating agencies will still be provided the opportunity to comment on the I-80; State Street Interchange project through the public scoping and hearing process. Participating agency designation does not imply that participating agencies either support the proposal or have any special expertise with respect to evaluation of the project.

In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, and pursuant to Section 6002 of SAFETEA-LU, participating agencies have the responsibility to identify as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. Other typical roles of a participating agency include the following:

1. Providing input on the purpose and need, reviewing and providing input to the range of alternatives considered, and the methodologies and level of detail required in the alternatives analysis.
2. Participating in coordination meetings and joint field reviews as appropriate.
3. Timely review and comment on the pre-draft or pre-final environmental documents to reflect the views and concerns of your agency on the adequacy of the document, alternatives considered, and the anticipated impacts and mitigation.

Any state agency that wishes to become a participating agency for the I-80; State Street Interchange EIS must send a letter to UDOT specifically requesting to be a participating agency by September 9, 2014; otherwise, they will not be designated as such. This letter should be sent to:

Nicole Tolley
Horrocks Engineers
2162 West Grove Pkwy
Pleasant Grove, UT 84062
nicolet@horrocks.com

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact Nicole Tolley at 801-763-5154 or nicolet@horrocks.com.

Scoping

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400, Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014. Please respond to Nicole Tolley with scoping comments no later than September 23, 2014 at the above address/email.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

August 13, 2014

In Reply Refer To:
HDA-UT

Mr. Jason Gipson
Intermountain Representative
US Army Corps of Engineers
533 West 2600 South, Ste. 150
Bountiful, UT 84010

SUBJECT: Request to Become a Cooperating Agency/Scoping
I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Mr. Gipson:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

Cooperating Agency Invitation

The I-80; State Street Interchange EIS may consider alternatives that could impact Waters of the US, and may require a Section 404 permit. Pursuant to 33 CFR 325.8(c), "If another agency is the lead agency as set forth by the CEQ regulations (40 CFR 1501.5 and 1501.6(a) and 1508.16), the district engineer will coordinate with that agency as a cooperating agency under 40 CFR 1501.6(b) and 1508.5 to insure that agency's resulting EIS may be adopted by the Corps for purposes of exercising its regulatory authority." With this letter, we extend the US Army Corps of Engineers an invitation to become a cooperating agency with UDOT and FHWA in the development of the I-80; State Street Interchange EIS, so that all Section 106 and Section 7 consultation initiated as part of the I-80; State Street Interchange EIS can be adopted by the Corps.

Cooperating agencies are, by definition, also participating agencies. In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, and pursuant to Section 6002 of SAFETEA-LU, participating agencies have the responsibility to identify as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts

that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. Other typical roles of a participating agency include the following:

1. Providing input on the purpose and need, reviewing and providing input to the range of alternatives considered, and the methodologies and level of detail required in the alternatives analysis.
2. Participating in coordination meetings and joint field reviews as appropriate.
3. Timely review and comment on the pre-draft or pre-final environmental documents to reflect the views and concerns of your agency on the adequacy of the document, alternatives considered, and the anticipated impacts and mitigation.

Please respond to FHWA in writing with an acceptance or denial of the invitation to become a cooperating agency prior to September 9, 2014. If your agency declines the invitation to become a cooperating agency, your agency will become a participating agency unless your agency informs FHWA that you have no jurisdiction or authority with respect to the project, have no expertise or information relevant to the project, and do not intend to submit comments on the project.

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact me directly at (801) 955-3517 or at Bryan.Dillon@dot.gov.

Scoping

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m. If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400; Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014.

Please respond to Nicole Tolley with scoping comments no later than September 23, 2014 at the above address/email.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

Pursuant to 40 CFR 1501.5 and 1501.6(a), 33 CFR 325.8(c), and Section 6002 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), the USACE accepts the invitation to be a cooperating agency under NEPA for the I-80; State Street Interchange EIS, and designates FHWA as the lead Federal agency for purposes of satisfying the requirements under Section 106 of NHPA and Section 7 of the ESA.

By: _____ Date: _____

Jason Gipson, USACE Branch Chief
Nevada-Utah Regulatory Branch

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION

August 13, 2014

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

In Reply Refer To:
HDA-UT

Dr. Martin W. Bates
Superintendent
Granite School District
2500 South State Street
Salt Lake City, UT 84115

SUBJECT: Request to Become a Cooperating Agency/Scoping
I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Dr. Bates:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

Participating Agency Invitation

Your agency has been identified as an agency that may have an interest in the project. With this letter, we extend your agency an invitation to become a participating agency with UDOT and FHWA in the development of the I-80; State Street Interchange EIS. Agencies that are not participating agencies will still be provided the opportunity to comment on the I-80; State Street Interchange project through the public scoping and hearing process. Participating agency designation does not imply that participating agencies either support the proposal or have any special expertise with respect to evaluation of the project.

In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, and pursuant to Section 6002 of SAFETEA-LU, participating agencies have the responsibility to identify as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. Other typical roles of a participating agency include the following:

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2. Participating in coordination meetings and joint field reviews as appropriate.
3. Timely review and comment on the pre-draft or pre-final environmental documents to reflect the views and concerns of your agency on the adequacy of the document, alternatives considered, and the anticipated impacts and mitigation.

Any agency that wishes to become a participating agency for the I-80; State Street Interchange EIS must send a letter to UDOT specifically requesting to be a participating agency by September 9, 2014; otherwise, they will not be designated as such. This letter should be sent to:

Ms. Nicole Tolley
Horrocks Engineers
2162 West Grove Pkwy
Pleasant Grove, UT 84062
nicolet@horrocks.com

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact Nicole Tolley at 801-763-5154 or nicolet@horrocks.com.

Scoping

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400, Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014. Please respond to Nicole Tolley with scoping comments no later than September 23, 2014 at the above address/email.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

August 13, 2014

In Reply Refer To:
HDA-UT

Mr. Dennis Pay
Public Works Director
South Salt Lake City
195 West Oakland Avenue
South Salt Lake City, UT 84115

SUBJECT: Request to Become a Cooperating Agency/Scoping
I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Mr. Pay:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

Participating Agency Invitation

Your agency has been identified as an agency that may have an interest in the project. With this letter, we extend your agency an invitation to become a participating agency with UDOT and FHWA in the development of the I-80; State Street Interchange EIS. Agencies that are not participating agencies will still be provided the opportunity to comment on the I-80; State Street Interchange project through the public scoping and hearing process. Participating agency designation does not imply that participating agencies either support the proposal or have any special expertise with respect to evaluation of the project.

In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, and pursuant to Section 6002 of SAFETEA-LU, participating agencies have the responsibility to identify as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. Other typical roles of a participating agency include the following:

1. Providing input on the purpose and need, reviewing and providing input to the range of alternatives considered, and the methodologies and level of detail required in the alternatives analysis.
2. Participating in coordination meetings and joint field reviews as appropriate.
3. Timely review and comment on the pre-draft or pre-final environmental documents to reflect the views and concerns of your agency on the adequacy of the document, alternatives considered, and the anticipated impacts and mitigation.

Any agency that wishes to become a participating agency for the I-80; State Street Interchange EIS must send a letter to UDOT specifically requesting to be a participating agency by September 9, 2014; otherwise, they will not be designated as such. This letter should be sent to:

Ms. Nicole Tolley
Horrocks Engineers
2162 West Grove Pkwy
Pleasant Grove, UT 84062
nicolet@horrocks.com

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact Nicole Tolley at 801-763-5154 or nicolet@horrocks.com.

Scoping

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400, Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014. Please respond to Nicole Tolley with scoping comments no later than September 23, 2014 at the above address/email.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

August 13, 2014

In Reply Refer To:
HDA-UT

Mr. Ed Buchanan
Safety and Environmental Protection Manager
Utah Transit Authority
P.O. Box 30810
Salt Lake City, UT 84130

SUBJECT: Request to Become a Cooperating Agency/Scoping
I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Mr. Buchanan:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

Participating Agency Invitation

Your agency has been identified as an agency that may have an interest in the project. With this letter, we extend your agency an invitation to become a participating agency with UDOT and FHWA in the development of the I-80; State Street Interchange EIS. Agencies that are not participating agencies will still be provided the opportunity to comment on the I-80; State Street Interchange project through the public scoping and hearing process. Participating agency designation does not imply that participating agencies either support the proposal or have any special expertise with respect to evaluation of the project.

In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, and pursuant to Section 6002 of SAFETEA-LU, participating agencies have the responsibility to identify as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. Other typical roles of a participating agency include the following:

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2. Participating in coordination meetings and joint field reviews as appropriate.
3. Timely review and comment on the pre-draft or pre-final environmental documents to reflect the views and concerns of your agency on the adequacy of the document, alternatives considered, and the anticipated impacts and mitigation.

Any agency that wishes to become a participating agency for the I-80; State Street Interchange EIS must send a letter to UDOT specifically requesting to be a participating agency by September 9, 2014; otherwise, they will not be designated as such. This letter should be sent to:

Ms. Nicole Tolley
Horrocks Engineers
2162 West Grove Pkwy
Pleasant Grove, UT 84062
nicolet@horrocks.com

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact Nicole Tolley at 801-763-5154 or nicolet@horrocks.com.

Scoping

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400, Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014. Please respond to Nicole Tolley with scoping comments no later than September 23, 2014 at the above address/email.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

August 13, 2014

In Reply Refer To:
HDA-UT

Mr. Wayne Bennion
Engineer
Wasatch Front Regional Council
295 N. Jimmy Doolittle Road
Salt Lake City, UT 84116

SUBJECT: Request to Become a Cooperating Agency/Scoping
I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Mr. Bennion:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

Participating Agency Invitation

Your agency has been identified as an agency that may have an interest in the project. With this letter, we extend your agency an invitation to become a participating agency with UDOT and FHWA in the development of the I-80; State Street Interchange EIS. Agencies that are not participating agencies will still be provided the opportunity to comment on the I-80; State Street Interchange project through the public scoping and hearing process. Participating agency designation does not imply that participating agencies either support the proposal or have any special expertise with respect to evaluation of the project.

In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, and pursuant to Section 6002 of SAFETEA-LU, participating agencies have the responsibility to identify as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. Other typical roles of a participating agency include the following:

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3. Timely review and comment on the pre-draft or pre-final environmental documents to reflect the views and concerns of your agency on the adequacy of the document, alternatives considered, and the anticipated impacts and mitigation.

Any agency that wishes to become a participating agency for the I-80; State Street Interchange EIS must send a letter to UDOT specifically requesting to be a participating agency by September 9, 2014; otherwise, they will not be designated as such. This letter should be sent to:

Ms. Nicole Tolley
Horrocks Engineers
2162 West Grove Pkwy
Pleasant Grove, UT 84062
nicolet@horrocks.com

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact Nicole Tolley at 801-763-5154 or nicolet@horrocks.com.

Scoping

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400, Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014. Please respond to Nicole Tolley with scoping comments no later than September 23, 2014 at the above address/email.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

August 13, 2014

In Reply Refer To:
HDA-UT

Mr. Russ Wall
Public Works Department Director
Salt Lake County
2001 South State, Room N3200
Salt Lake City, UT 84190

SUBJECT: Request to Become a Cooperating Agency/Scoping
I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Mr. Wall:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

Participating Agency Invitation

Your agency has been identified as an agency that may have an interest in the project. With this letter, we extend your agency an invitation to become a participating agency with UDOT and FHWA in the development of the I-80; State Street Interchange EIS. Agencies that are not participating agencies will still be provided the opportunity to comment on the I-80; State Street Interchange project through the public scoping and hearing process. Participating agency designation does not imply that participating agencies either support the proposal or have any special expertise with respect to evaluation of the project.

In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, and pursuant to Section 6002 of SAFETEA-LU, participating agencies have the responsibility to identify as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. Other typical roles of a participating agency include the following:

1. Providing input on the purpose and need, reviewing and providing input to the range of alternatives considered, and the methodologies and level of detail required in the alternatives analysis.
2. Participating in coordination meetings and joint field reviews as appropriate.
3. Timely review and comment on the pre-draft or pre-final environmental documents to reflect the views and concerns of your agency on the adequacy of the document, alternatives considered, and the anticipated impacts and mitigation.

Any agency that wishes to become a participating agency for the I-80; State Street Interchange EIS must send a letter to UDOT specifically requesting to be a participating agency by September 9, 2014; otherwise, they will not be designated as such. This letter should be sent to:

Ms. Nicole Tolley
Horrocks Engineers
2162 West Grove Pkwy
Pleasant Grove, UT 84062
nicolet@horrocks.com

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact Nicole Tolley at 801-763-5154 or nicolet@horrocks.com.

Scoping

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400, Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014. Please respond to Nicole Tolley with scoping comments no later than September 23, 2014 at the above address/email.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION
2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

August 13, 2014

In Reply Refer To:
HDA-UT

Mr. Larry Svoboda
Region 8, NEPA Program Director
Environmental Protection Agency
1595 Wynkoop Street
Denver, CO 80202-1129

SUBJECT: Request to Become a Cooperating Agency/Scoping
I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Mr. Svoboda:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

Cooperating Agency Invitation

Your agency has been identified as an agency that may have an interest in the project. With this letter, we extend your agency an invitation to become a cooperating agency with UDOT and FHWA in the development of the I-80; State Street Interchange EIS.

Cooperating agencies are, by definition, also participating agencies. In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, and pursuant to Section 6002 of SAFETEA-LU, participating agencies have the responsibility to identify as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. Other typical roles of a participating agency include the following:

1. Providing input on the purpose and need, reviewing and providing input to the range of alternatives considered, and the methodologies and level of detail required in the alternatives analysis.
2. Participating in coordination meetings and joint field reviews as appropriate.

3. Timely review and comment on the pre-draft or pre-final environmental documents to reflect the views and concerns of your agency on the adequacy of the document, alternatives considered, and the anticipated impacts and mitigation.

Please respond to FHWA in writing with an acceptance or denial of the invitation to become a cooperating agency prior to September 9, 2014. If your agency declines the invitation to become a cooperating agency, your agency will become a participating agency unless your agency informs FHWA that you have no jurisdiction or authority with respect to the project, have no expertise or information relevant to the project, and do not intend to submit comments on the project.

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact me directly at (801) 955-3517 or at Bryan.Dillon@dot.gov.

Scoping

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400; Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014. Please respond to Nicole Tolley with scoping comments no later than September 23, 2014 at the above address/email.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

U.S.Department of Transportation
Federal Highway Administration

UTAH DIVISION

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

August 13, 2014

In Reply Refer To:
HDA-UT

Mr. Larry Crist
Utah Field Office Supervisor
US Fish & Wildlife Service
2369 West Orton Circle, Ste. 50
West Valley City, UT 84119-7603

SUBJECT: Request to Become a Cooperating Agency/Scoping
I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Mr. Crist:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

Cooperating Agency Invitation

Your agency has been identified as an agency that may have an interest in the project. With this letter, we extend your agency an invitation to become a cooperating agency with UDOT and FHWA in the development of the I-80; State Street Interchange EIS.

Cooperating agencies are, by definition, also participating agencies. In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, and pursuant to Section 6002 of SAFETEA-LU, participating agencies have the responsibility to identify as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. Other typical roles of a participating agency include the following:

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3. Timely review and comment on the pre-draft or pre-final environmental documents to reflect the views and concerns of your agency on the adequacy of the document, alternatives considered, and the anticipated impacts and mitigation.

Please respond to FHWA in writing with an acceptance or denial of the invitation to become a cooperating agency prior to September 9, 2014. If your agency declines the invitation to become a cooperating agency, your agency will become a participating agency unless your agency informs FHWA that you have no jurisdiction or authority with respect to the project, have no expertise or information relevant to the project, and do not intend to submit comments on the project.

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact me directly at (801) 955-3517 or at Bryan.Dillon@dot.gov.

Scoping

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400; Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014. Please respond to Nicole Tolley with scoping comments no later than **September 23, 2014** at the above address/email.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION

August 13, 2014

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

In Reply Refer To:
HDA-UT

Ms. Najah Duvall-Gabriel
Historic Preservation Specialist
Advisory Council on Historic Preservation
401 F Street NW, Suite 308
Washington, DC 20001-2637

SUBJECT: Request to Become a Cooperating Agency/Scoping
I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Ms. Duvall-Gabriel:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

Cooperating Agency Invitation

Your agency has been identified as an agency that may have an interest in the project. With this letter, we extend your agency an invitation to become a cooperating agency with UDOT and FHWA in the development of the I-80; State Street Interchange EIS.

Cooperating agencies are, by definition, also participating agencies. In accordance with 40 CFR 1501.6 of the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, and pursuant to Section 6002 of SAFETEA-LU, participating agencies have the responsibility to identify as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. Other typical roles of a participating agency include the following:

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Please respond to FHWA in writing with an acceptance or denial of the invitation to become a cooperating agency prior to September 9, 2014. If your agency declines the invitation to become a cooperating agency, your agency will become a participating agency unless your agency informs FHWA that you have no jurisdiction or authority with respect to the project, have no expertise or information relevant to the project, and do not intend to submit comments on the project.

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact me directly at (801) 955-3517 or at Bryan.Dillon@dot.gov.

Scoping

At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

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Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)

U.S. Department of Transportation
Federal Highway Administration

UTAH DIVISION

2520 West 4700 South, STE 9A
Salt Lake City, UT 84129
(801) 955-3500
FAX (801) 955-3539

August 13, 2014

In Reply Refer To:
HDA-UT

Mr. Bryan Bowker
Regional Director
Bureau of Indian Affairs, Western Region
2600 N. Central Avenue
Phoenix, AZ 85004

SUBJECT: Request to Become a Cooperating Agency/Scoping
I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123

Dear Mr. Bowker:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT) is initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

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Your agency has been identified as an agency that may have an interest in the project. With this letter, we extend your agency an invitation to become a cooperating agency with UDOT and FHWA in the development of the I-80; State Street Interchange EIS.

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Please respond to FHWA in writing with an acceptance or denial of the invitation to become a cooperating agency prior to September 9, 2014. If your agency declines the invitation to become a cooperating agency, your agency will become a participating agency unless your agency informs FHWA that you have no jurisdiction or authority with respect to the project, have no expertise or information relevant to the project, and do not intend to submit comments on the project.

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact me directly at (801) 955-3517 or at Bryan.Dillon@dot.gov.

Scoping

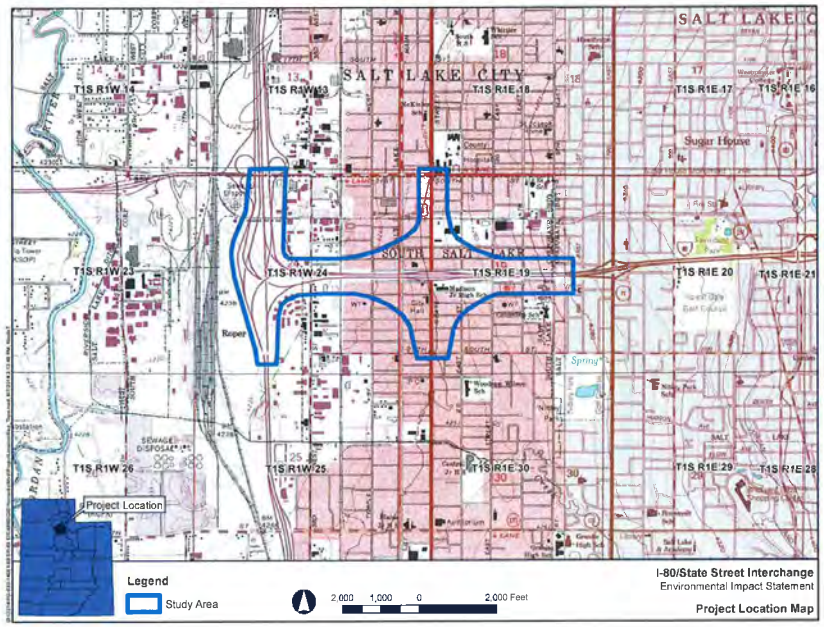
At this time we request your assistance in identifying potential resources, concerns, requirements, or recommendations you may have relating to the proposed project. Also, you are invited to an agency scoping meeting that will be held at Woodrow Wilson Elementary School (2567 South Main Street, Salt Lake City, UT 84115), on September 9, 2014 at 4:30 p.m. prior to a public scoping open house from 5:30 p.m. to 7:30 p.m.

If you plan to attend the agency scoping meeting, please RSVP to Nicole Tolley at Horrocks Engineers, 2162 West Grove Parkway, Suite 400; Pleasant Grove, Utah 84062 or email her at nicolet@horrocks.com by September 8, 2014. Please respond to Nicole Tolley with scoping comments no later than September 23, 2014 at the above address/email.

Sincerely,

Bryan Dillon
Urban Engineer

Enclosures (2)



SOUTH SALT LAKE PUBLIC WORKS
DENNIS PAY, P.E.
DIRECTOR & CITY ENGINEER
195 W OAKLAND AVE
SOUTH SALT LAKE CITY
UTAH
84115
O 801.483.6045
F 801.483.6030
SOUTHSALTLAKECITY.COM

August 19, 2014

Ms. Nicole Tolley
Horrocks Engineers
2162 West Grove Pkwy, STE 400
Pleasant Grove, UT 84062

Re: South Salt Lake City - Cooperating Agency
I-80; State Street Interchange Environmental Impact Statement
Salt Lake County, Utah
UDOT Project No. F-180-3 (180) 123

Dear Ms. Tolley,

The City of South Salt Lake is pleased to accept the invitation to become a participating agency with UDOT and FHWA in development of the I-80; State Street Interchange Environmental Impact Statement (EIS). We are able to assist in distinguishing resources and discerning matters within the project scope and can offer recommendations as the project progresses.

I will be in attendance at the agency scoping meeting on September 9th as well. I look forward to working with you in the future and anticipate a successful EIS document. I can be reached at (801) 483-6038 if needed.

Sincerely,

Dennis Pay, P.E.
Public Works Director
City of South Salt Lake

CHERIE WOOD
MAYOR
220 E MORRIS AVE
SUITE 200
SOUTH SALT LAKE CITY
UTAH
84115
O 801.483.6000
F 801.483.6001

U.S.Department of Transportation
Federal Highway Administration

Utah Division

August 21, 2014

2520 West 4700 South
Salt Lake City, UT 84129
(801)955-3500
(801) 955-3539

In Reply Refer To:
HDA-UT

Ms. Lori Bear Skiby, Chairperson
Skull Valley Band of Goshute Indians
P.O. Box 448
Grantsville, UT 84029

Subject: Notification of Project and Invitation to become a Consulting Party for the I-80; State Street Interchange Environmental Impact Statement, Salt Lake County, Utah
UDOT Project No. F-I80-3(180)123 PIN 6995

Dear Ms. Skiby:

The Federal Highway Administration (FHWA), in cooperation with the Utah Department of Transportation (UDOT), are initiating an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the State Street Interchange on I-80 in South Salt Lake City, Salt Lake County, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South (see enclosed Project Location Map).

In accordance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA), the FHWA and the UDOT would like to initiate consultation with your Tribe regarding this project. At this time, we request your assistance in identifying any historic properties of traditional religious and/or cultural importance that may be affected by the proposed undertaking, as well as any concerns that you may have regarding the proposed project. We consider your input into the project to be important and would appreciate your participation as a consulting party during the development of the environmental document.

Please be assured that, in accordance with confidentiality and disclosure stipulations in Section 304 of the NHPA, the FHWA and the UDOT will maintain strict confidentiality about certain types of information regarding traditional religious and/or cultural places that may be affected by this proposed undertaking. At your request, the FHWA and the UDOT staff will be available to meet with you to discuss any concerns you might have about the project. We would also appreciate any suggestions you might have about other groups or individuals that we should contact regarding this project or ways that we may more effectively consult with you. Should you have any questions or concerns about this project, information regarding sensitive resources, and/or wish to be a consulting party, please contact me at 801-955-3517 or at

Bryan.Dillon@dot.gov, or contact Liz Robinson at 801-910-2035 or lizrobinson@utah.gov. To facilitate our consultation with your Tribe, we would greatly appreciate a response to this letter within 30 days of receipt.

Thank you for your attention to this project notification and any comments you may have.

Sincerely yours,

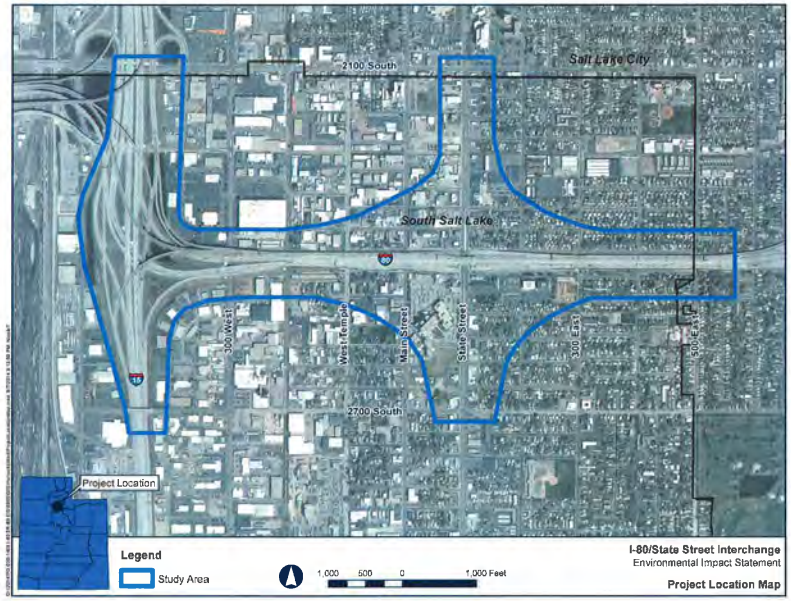
Bryan Dillon
Urban Area Engineer

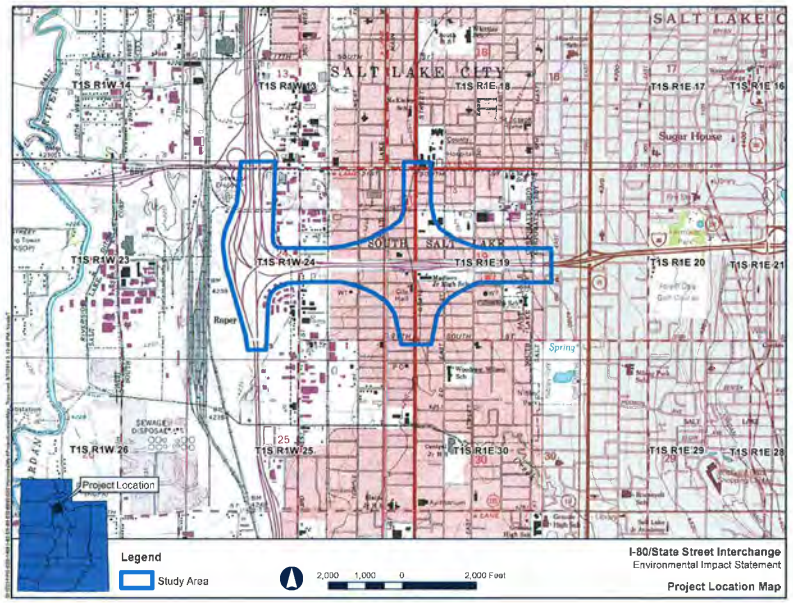
Enclosure(s):
- Project Maps

cc:

Ms. Liz Robinson, Cultural Resources Program Manager, UDOT Region 2

Original to:	CC to:
Mr. Darwin St. Clair, Jr., Chairman Eastern Shoshone Tribe of the Wind River Reservation P.O. Box 538/15 North Fork Rd Fort Washakie, WY 82514	Ms. Glenda Trosper, Director, Cultural Center Eastern Shoshone Tribe of the Wind River Reservation P.O. Box 538/15 North Fork Rd Fort Washakie, WY 82514
	Mr. Wilfred Ferris, THPO Eastern Shoshone Tribe of the Wind River Reservation P.O. Box 538/15 North Fork Rd Fort Washakie, WY 82514
Mr. Nathan Small, Chair Shoshone-Bannock Tribes of Fort Hall P.O. Box 306 Pima Drive Fort Hall, ID 83203	Ms. Carolyn Smith, Cultural Resource Director Shoshone-Bannock Tribes of Fort Hall P.O. Box 306 Pima Drive Fort Hall, ID 83203
Ms.Gari Lafferty, Tribal Chairperson Paiute Indian Tribe of Utah 440 North Paiute Drive Cedar City, UT 84720	Ms. Dorena Martineau, Cultural Resources Manager Paiute Indian Tribe of Utah 440 North Paiute Drive Cedar City, UT 84720
Mr. Jason Walker, Chairman Northwestern Band of Shoshone Nation 707 North Main Street Brigham City, UT 84302	Ms. Patty Timbimboo-Madsen, Cultural Specialist Northwestern Band of Shoshone Nation 707 North Main Street Brigham City, UT 84302
Mr. Gordon Howell, Chairperson Ute Indian Tribe of the Uintah and Ouray Ute Indian Reservation P.O. Box 190 Fort Duchesne, UT 84026	Ms. Betsy Chapoose, Director, Cultural Rights and Protection Ute Indian Tribe of the Uintah and Ouray Ute Indian Reservation P.O. Box 190 Fort Duchesne, UT 84026
Ms. Lori Bear Skiby, Chairperson Skull Valley Band of Goshute Indians P.O. Box 448 Grantsville, UT 84029	None
Mr. Ed Naranjo, Administrator Confederated Tribes of the Goshute Reservation P.O. BOX 6104 195 Tribal Center Rd. Ibapah, UT 84034	Ms. Mary Pete-Freeman, Cultural Resources Coordinator Confederated Tribes of the Goshute Reservation P.O. BOX 6104 195 Tribal Center Rd. Ibapah, UT 84034
Ms. Lora Tom, Band Chairwoman Cedar Band of Paiutes 4655 North Utah Trail Enoch, UT 84720	Ms. Vala Parashonts Cultural Resource Representative 533 South 640 West Cedar City, UT 84721
Ms. Georgetta Wood, Band Chairwoman Shivwits Band of Paiute Indian Tribe of Utah 6060 West 3650 North Ivins, UT 84738	Ms. Shanan Anderson, Cultural Resource Director Shivwits Band of Paiute Indian Tribe of Utah 6060 West 3650 North Ivins, UT 84738





Granite
SCHOOL DISTRICT

Support Services
385-646-4597
FAX 385-646-4351

www.graniteschools.org

August 22, 2014

Ms. Nicole Tolley
Horrocks Engineers
2162 West Grove Parkway
Pleasant Grove, Utah 84062

Dear Ms. Tolley:

This letter is to inform you of Granite School District's desire to be a participating agency for the I-80; State Street Interchange EIS. You can reach me by phone at 385-646-4597, or email at dladams@graniteschools.org.

Cordially,

Donald Adams
Assistant Superintendent, Support Services

2500 South State Street • Salt Lake City, Utah 84115-4111

295 North Jimmy Doolittle Rd
Salt Lake City, UT 84116

Salt Lake (801) 363-4250
Ogden (801) 393-1868
Fax (801) 363-4250

www.wfrc.org

WASATCH FRONT REGIONAL COUNCIL

September 5, 2014

Ms. Nicole Tolley
Horrocks Engineers
2162 West Grove Pkwy
Pleasant Grove, UT 84062

RE: Request to become a Cooperating Agency
for I-80; State Street Interchange EIS
Salt Lake County, Utah
UDOT Project No. F-180-3(180)123

Dear Ms. Tolley:

In response to your letter dated August 13, 2014, the Wasatch Front Regional Council (WFRC) considers the proper functioning of the I-80 State Street Interchange to be vital to freight and vehicular movement in the Salt Lake Valley, and hence in the region. We also recognize the need to carefully consider the environmental and community impacts of any proposed modifications to this interchange. We would be pleased to be a cooperating/ participating agency in the I-80 State Street Interchange Environmental Impact study.

Kip Billings will serve as the WFRC staff representative for this study. He will provide requested review and input and participate in coordination meetings.

Sincerely,

Andrew Gruber
Executive Director

Cc: Nathan Lee
Kip Billings

AG/wb

ADVISORY COUNCIL ON HISTORIC PRESERVATION
ACHP
Preserving America's Heritage

RECEIVED
SEP 10 2014
FHWA Utah Division

September 8, 2014

Mr. Bryan Dillon
Urban Engineer
Federal Highway Administration
Utah Division
2520 West 4700 South, STE 9A
Salt Lake City, UT 84129

Ref: *Invitation to become a Cooperating Agency on Proposed State Street Interchange on I-80 EIS*
Salt Lake County, Utah
UDOT Project No. F-180-3 (180)123

Dear Mr. Dillon:

On August 19, 2014, the Advisory Council on Historic Preservation (ACHP) received your invitation to become a cooperating agency with the Utah Department of Transportation and the Federal Highway Administration (FHWA) in the development of the I-80; State Street Interchange EIS pursuant to Section 6002 of the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU codified at 23 U.S.C. 327(a)(2)(A). The ACHP accepts your invitation to become a cooperating agency. However, we do not at this time anticipate attending meetings or providing formal comments at environmental review milestones. We would appreciate your keeping us informed of progress, as we may decide to become more actively involved in the future, as warranted. We would also be pleased to provide FHWA with technical assistance related to historic preservation and Section 106 of the National Historic Preservation Act as you fulfill your compliance responsibilities. .

In addition, the ACHP encourages FHWA to coordinate the Section 106 process with the National Environmental Policy Act (NEPA) compliance by notifying, at your earliest convenience, the appropriate State Historic Preservation Officer (SHPO) and/or Tribal Historic Preservation Officer (THPO), Indian tribes, and other consulting parties pursuant to our regulations, "Protection of Historic Properties" (36 CFR Part 800). Through early consultation, your agency will be able to determine the appropriate strategy to ensure Section 106 compliance is completed in a timely manner for this undertaking.

Likewise, FHWA should continue consultation with the appropriate SHPO/THPO, Indian tribes, and other consulting parties to identify and evaluate historic properties and to assess any potential adverse effects on those historic properties. If your agency determines through consultation with the consulting parties that the undertaking will adversely affect historic properties or that the development of a programmatic agreement is necessary, the agency must notify the ACHP and provide the documentation detailed at 36 CFR §800.11(e).

ADVISORY COUNCIL ON HISTORIC PRESERVATION
401 F Street NW, Suite 308 • Washington, DC 20001-2637
Phone: 202-517-0200 • Fax: 202-517-6381 • achp@achp.gov • www.achp.gov

Thank you for inviting our participation in the development of this project. Should you have any questions as to how your agency should comply with the requirements of Section 106, please contact Najah Duvall-Gabriel at (202) 517-0210 or via e-mail at ngabriel@achp.gov

Sincerely,

Charlene Dwin Vaughn

Charlene Dwin Vaughn, AICP
Assistant Director
Office of Federal Agency Programs
Federal Permitting, Licensing and Assistance Section

Nicole Tolley

From: Lloyd, Lisa <Lloyd.Lisa@epa.gov>
Sent: Monday, September 08, 2014 3:15 PM
To: bryan.dillon@dot.gov; Nicole Tolley
Subject: I-80 State Street Interchange Cooperating Agency and Scoping

Bryan,
After our phone conversation last week, I had further discussion with both my management and the person who assist in NEPA transportation air quality resource reviews. We have decided that we do not need to be a cooperating agency for subject line project. We are willing to provide preliminary review on specific items to help facilitate the development of the Draft Environmental Impact Statement (DEIS). I can provide this information when I provide scoping comments later this month.

I will be attending the agency scoping meeting scheduled for tomorrow. If you need to reach me before then, I can be contacted at the number below or 303-809-8381.

Lisa Lloyd
NEPA Program/Superfund Program
U.S. EPA Region 8 (EPR-N)
1595 Wynkoop St.
Denver, Colorado 80202-1129
(303) 312-6537

A book tightly shut is a but a block of paper. - Chinese Proverb

September 9, 2014

Bryan Dillon/Urban Area Engineer
U. S. Department of Transportation
Federal Highway Administration
2520 West 4700 South, Suite 9-A
Salt Lake City, Utah 84118

Dear Dillon,

Subject: ***I-8-; State Street Interchange Environmental Impact Statement, Salt Lake County, Utah***
UDOT Project No. F-180-3(180)123 PIN 6995

The Paiute Indian Tribe of Utah is in receipt of your letter dated August 21, 2014 and as this project is in Salt Lake County we would defer to the tribes in the area. We would also support any decisions that they made. As you are aware the tribe supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties.

The Paiute Indian Tribe of Utah sincerely appreciates the consideration and efforts you and your staff have made to consult with the tribes.

Sincerely,

Dorena Martineau/Cultural Resources
Paiute Indian Tribe of Utah

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

SEP 2 5 2014

Ref: 8EPR-N

Bryan Dillon
Federal Highway Administration
2520 West 4700 South, Suite 9A
Salt Lake City, UT 84129

Re: Scoping Comments I-80/State Street Interchange
Environmental Impact Statement (EIS)
UDOT project number F-I80-3(180)123

Dear Mr. Dillon:

The U.S. Environmental Protection Agency Region 8 has reviewed your August 13, 2014, letter announcing the subject line project and information presented in the September 9, 2014, agencies cooperating meeting in Salt Lake City. We are offering the following comments for your consideration in scoping of this project. This project is in an urban area where there appears to be no surface water resources. Thus, the main focus of our scoping comments is on air quality resources and environmental justice (EJ).

Background

The project is proposed to address current and projected traffic demand at the State Street interchange on I-80 in South Salt Lake City, Utah. The proposed study area extends from approximately I-15 to 500 East and from approximately 2100 South to 2700 South. We also understand that a portion of the study area is within the boundaries of an urban renewal project that is being led by South Salt Lake City.

Scoping Comments

Since this project will be located within the Salt Lake County air quality non-attainment area, the air quality analysis will be very important. This letter provides recommendations for how to assess the air quality impacts of the project. It will be important that the EIS include analysis of current conditions and trends, and an estimate of future conditions without this project and future conditions under the possible alternatives. It will also be important to evaluate the potential for construction-related air quality impacts. Detailed air quality comments are enclosed covering: relevant NAAQS and current designations, baseline and projected analyses of Clean Air Act criteria pollutants, Hazardous Air Pollutants (HAPs), conformity analysis, possible mitigation of impacts, air qualtiy monitoring, and Green House Gas (GHG) emissions and climate change.

The EPA has identified EJ communities within or adjacent to much of the project area. We suggest that the *EPA Guidance for Consideration of Environmental Justice in Clean Air Act Section 309 Review*, July 1999, may be useful in assessing potential EJ effects. We recognize that the urban renewal project will also effect EJ communities in the project area. Since the urban renewal project is scheduled to start prior to the completion of the EIS process, changes resulting from the urban renewal project should be considered when evaluating the project's potential positive or negative effects to EJ communities.

Closing

Thank you for the opportunity to participate in the scoping process for the I-80/State Street Interchange EIS. The EPA hopes our comments will assist the FHWA in the development of an analysis that will adequately address potential environmental impacts and identify appropriate mitigation measures. If you have any questions or comments, please contact Lisa Lloyd at 303-312-6537 or lloyd.lisa@epa.gov.

Sincerely,

Philip S. Strobel
Acting Director, NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation

Cc: Nicole Tolley, Horrocks Engineers

2

I-80/State Street EIS Scoping Letter Attachment
Air Quality Detailed Comments

The following are the EPA's detailed air quality scoping comments for the I-80/State St. Interchange EIS.

A. Describe Relevant NAAQS and Current Designations

Currently, the National Ambient Air Quality Standards (NAAQS) of concern for this project include:

Salt Lake County:

- Carbon Monoxide (CO): Area status is "Attainment."
  If the project is located within the Salt Lake City limits; Area status is "Attainment/Maintenance" for CO.
- Ozone: 1997 8-hour NAAQS (80 ppb): Area status is "Attainment with Maintenance Plan" (see 78 FR 37, January 2, 2013) .
- Ozone: 2008 8-hour NAAQS (75 ppb): Area status is "Attainment."
- $PM_{2.5}$: Area status is "Nonattainment" for the 2006 24-hour 35$\mu g/m^3$ NAAQS (see 74 FR 58688, 11/13/09).
- PM_{10}: 24-hour NAAQS; Area status is "Nonattainment."

B. Include Baseline and Projected Analyses of Clean Air Act Criteria Pollutants

Below are our suggestions for a complete air quality discussion. This EIS should describe the baseline air quality conditions and project the construction-related and post-project air emissions and concentrations of criteria pollutants. The EIS should also describe whether the project could cause any changes in air quality status. We recommend the following items be included in the document:

- The pollutants to be evaluated include carbon monoxide (CO), ozone precursor emissions of nitrogen oxides (NOx) and volatile organic compounds (VOC), and direct emissions of particulate matter (both $PM_{2.5}$ and PM_{10}) and its precursor emissions (NOx). We also suggest conferring with the State as the Utah Division of Air Quality which has identified volatile organic compounds (VOC) as precursors to the formation of $PM_{2.5}$ in Utah.

- Include a summary of available local and regional air monitoring data. Local hot spot monitoring and ambient monitoring projects implemented by state or local air agencies might also be sources of short or long-term data. The EPA notes that NAAQS monitoring data is available from the State and it will be important for the DEIS to provide trend data from at least five years to current status. We also note that Utah has State-certified NAAQS monitoring data available up through 2013.

- It will be important to provide an analysis for the baseline conditions of each of the NAAQS detailed in Section A above. The recent attainment or nonattainment status, monitored exceedances, and NAAQS violations should be discussed.

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- Provide any information regarding relevant air modeling that has already been completed including regional dispersion modeling and hot spot assessments. Include relevant meteorology, with windrose data, that may impact pollutant transport and dust. Describe the model that was used and include a summary of the values used for the model input parameters.

  Although there was PM_{10} dispersion modeling effort associated with the State's *Redesignation to Attainment* requests for Salt Lake County, Utah County, and Ogden City, we do not recommend that modelling effort be used to support this project. The *Redesignation to Attainment* documents were subsequently withdrawn by the State based in part on EPA-identified concerns with the modeling.

- An inventory of mobile source emissions in the area of the project plus consideration of cumulative impacts. A reference point for mobile source estimates may be found in local and regional transportation plans or in a conformity determination. One potential resource for mobile sources data is the Wasatch Front Regional Council (WFRC) as they are the Metropolitan Planning Organization (MPO) for this area.

- A project-specific analysis of all applicable Criteria pollutant impacts for the project and alternatives using EPA's 2014 **M**otor **V**ehicle **E**mission **S**imulator (MOVES) model.

  For calculating emissions from mobile sources, EPA's Office of Transportation and Air Quality (OTAQ) has developed the MOVES model. This emission modeling system estimates emissions for mobile sources covering a broad range of pollutants and allows multiple scale analysis.

  MOVES2014. MOVES2014 is the latest version of the MOVES model (supersedes the prior MOVES2010b version) and includes the benefits of the EPA's recent Tier 3 rule as well as impacts from other EPA rulemakings promulgated since the last MOVES release, new emissions data, and new features that users have requested. MOVES2014 is capable of calculating emissions for criteria pollutants and over 60 mobile source air toxics (MSAT).

  MOVES2014 can also be used for calculating emissions to be used in CO and PM hot spot modeling analyses.

  The EPA recommends that OTAQ's MOVES2014 website be consulted for a full description of the MOVES2014 model and its application; please see: http://www.epa.gov/otaq/models/moves/index.htm.

  With respect to the use of MOVES2014 in conjunction with SIP and transportation conformity (also, as applicable to NEPA), we recommend consulting the OTAQ MOVES2014 website noted above and review the material that is described regarding "Using MOVES2014 for SIP and Conformity Purposes" (also see MOVES2010b Questions & Answers).

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We also recommend reviewing the Policy Guidance on the Use of MOVES2014 and Subsequent Minor Revisions for State Implementation Plan Development, Transportation Conformity, and Other Purposes (EPA-420-B-14-008, July 2014). This document describes how and when to use the MOVES2014 for SIP development, transportation conformity, general conformity, and other purposes."

In addition to using the EPA's MOVES2014 mobile sources emissions model, we recommend the use of the EPA's Compilation of Air Pollutant Emission Factors, also known as AP-42. We note that while MOVES2014 will calculate direct tailpipe PM, brake wear PM, and tire wear PM, AP-42, Chapter 13 needs to be used for calculations of re-entrained road dust.

- For construction related non-road vehicle and engine estimated emissions, we recommend using EPA's NONROAD2008a model.

- Include emissions estimates and the air quality impacts associated with each action alternative as well as the no build scenario. Please include:

    1. The vehicle miles traveled (VMT) from the best available travel models for the traffic and travel patterns estimated for the base year and future transportation system under all build and no-build scenarios;
    2. All pollutants mentioned above including mobile sources air toxics or MSATs (see the MSAT discussion below) and road dust; and
    3. Analysis, where appropriate, of CO, $PM_{2.5}$, and PM_{10} using hot spot and ambient modeling methods. As noted at OTAQ's MOVES2014 website, EPA will be releasing specific guidance with respect to this requirement and the use of the MOVES2014 model. In the interim, the MOVES2010b guidance is still applicable.

- Construction impacts for each alternative. Because particulate matter can be generated through demolition and construction activity, we recommend construction impacts be included and provide the equipment exhaust emissions and dust created by construction equipment.

C. Hazardous Air Pollutants

Recent studies are showing a variety of health-related effects near high traffic areas. Hazardous Air Pollutants (HAPS) are those pollutants known or suspected to cause cancer or other serious health or environmental effects. Section 112(b)(1) of the Clean Air Act established the list of HAPs. There are currently 188 HAPs. In a rulemaking published on March 29, 2001, the EPA identified 21 mobile source air toxics (MSATs), a subset of HAPs associated primarily with diesel exhaust particulate matter and organic gases.

The EPA recognizes that the methods and procedures for assessing the environmental impact of MSATs may be new to many parties working on transportation projects through the NEPA process. Policies, procedures, and methods for assessing MSATs in NEPA documents are still being developed. Although regulatory standards for MSATs have not been set there is substantial

information on impacts that can be ascertained from emissions and concentrations data and inventory estimates. There are also scientifically accepted and sound methods for assessing the potential for health impacts from exposure to MSATs.

The level of MSAT analysis is most appropriately determined on a case-by-case basis, recognizing that each project has unique scope and characteristics. We recommend this EIS include an emissions inventory and estimate the emissions of the MSATs of concern be provided for the no-build and action alternatives. Evaluating each alternative for MSATs is encouraged. These analyses can be performed with the MOVES2014 model. For purposes of comparison, it will be useful to determine how post-project conditions will compare to baseline conditions, and whether one alternative produces higher MSAT concentrations than another, and whether there would be human health concerns with those concentrations. In addition, we recommend the MSATs analysis in the EIS include:

- A description of the proximity of the highway to homes, schools, and businesses and considering the urban renewal project;

- A summary of available, relevant MSAT monitoring data and MSAT studies; and

- An analysis of baseline and post-project diesel truck traffic and emissions.

D. Conformity Analysis

The eventual project must be part of a conforming Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) before an EIS can be finalized. The RTP and TIP are addressed by the WFRC for this area. The EIS will need to assess and discuss whether the project meets these requirements. In addition, the project concept and scope in an EIS must not be significantly different from the project analyzed in the plan and TIP. This should be discussed in an EIS. If a conformity analysis was completed in another document (WFRC), ensure that the latest planning assumptions and models were used.

E. Mitigation of Impacts

We recommend the mitigation proposals include detail to allow the reader to determine how the mitigation will be implemented, where it will be implemented, and whether it will be effective. Mitigation not within the jurisdiction of the lead agency can also be included in the document with the discussion of implementation (i.e., how, who, when). We suggest the EIS consider the possible methods and techniques that might be employed to mitigate the negative impacts of the project on air quality. In addition, air quality impacts during construction have the potential to affect residents adjacent to the project and mitigation of construction impacts should be fully considered.

F. Air Quality Monitoring

We recommend consideration of whether this project's construction-related activities could create air quality impacts to local residents. If that risk appears possible given the specifics of this project, real-time air quality monitoring during construction activities may be appropriate.

Factors to consider would include:

- the proximity of a construction activity to homes, schools, businesses, and other sensitive populations including children;
- The amount of soil disturbance and the soil type; and
- The emissions from construction equipment.

Although best management practices (BMP) will be utilized during construction, potential localized impacts from $PM_{2.5}$ and PM_{10} emissions have occurred with some construction projects. Local air monitoring could demonstrate the effectiveness of the mitigation measures in controlling or minimizing adverse effects and allow for BMP modifications if air quality problems are detected.

G. Green House Gas (GHG) Emissions and Climate Change

The issue of global climate change is an important national and global concern that is being addressed in several ways by the federal government. The Transportation sector is the second largest source of total greenhouse gases (GHG) in the U.S., and the greatest source of carbon dioxide (CO_2) emissions – the predominant GHG. Recognizing this concern, EPA notes that FHWA is working with other modal administrations through the DOT Center for Climate Change and Environmental Forecasting to develop strategies to reduce transportation's contribution to greenhouse gases, particularly CO_2 emissions, and to assess the risks to transportation systems and services from climate change.

In Utah, we note the Blue Ribbon Advisory Council on Climate Change (BRAC) identified measures that the State could take to minimize the impacts of transportation related GHG. The recommended measures include reducing vehicle mile travelled (VMT) through developing and encouraging the use of mass transit, ridesharing, telecommuting. Other strategies outlined in the BRAC report to reduce CO_2 at the source include promoting the use of low carbon fuels such as alternative fuels, bio-fuels and hybrid vehicles, vehicle technologies resulting in greater fuel efficiency and implementing an idle reduction program for school busses and heavy duty trucks. The relationship of current and projected Utah highway CO_2 emissions to total global CO_2 emissions is presented in the example table below and this type of table and information has been used in several other EIS documents in Utah and Colorado. This example table also illustrates the size of the project corridor relative to total Utah travel activity. We also note that the EPA's MOVES2014 model can be used to calculate GHGs.

Example Table: Current and Projected Utah Highway CO_2 Emissions ((MMT = million metric tons)

Current Utah highway CO_2 emissions, MMT	**Projected Utah 2030 highway CO_2 emissions, MMT**	**Project study area VMT, % of statewide VMT (2009)**

5

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Julie Fisher
Executive Director
Department of Heritage & Arts

Utah Division of State History

Brad Westwood
Director

October 16, 2014

Liz Robinson
NEPA/NHPA Specialist
UDOT Region 2
2010 South 2760 West
Salt Lake City, Utah 84104-4592

RE: I-80 State Street EA, South Salt Lake City, Salt Lake County

For future correspondence, please reference Case No. 14-1415

Dear Ms. Robinson:

The Utah State Historic Preservation Office received your request for our comment on the above-referenced undertaking on October 15, 2014. UTSHPO concurs with the defined APE for this project, and the proposed identification efforts.

If you have questions, please contact me at 801-245-7263 or Lori Hunsaker at 801-245-7241 *lhunsaker@utah.gov*.

Sincerely,

Chris Merritt, Ph.D.
Senior Preservation Specialist
cmerritt@utah.gov

Utah Department of Heritage & Arts
300 S. Rio Grande Street • Salt Lake City, Utah 84101 • (801) 245-7225 • facsimile (801) 533-3503 • history.utah.gov

Nicole Tolley

From: bryan.dillon@dot.gov
Sent: Thursday, December 11, 2014 11:04 AM
To: jelsken@utah.gov; Nicole Tolley
Subject: FW: I-80 State Street I/C - Request to become a cooperating agency

Here is the response from the Corps declining to be a Cooperating Agency.

Bryan Dillon
Urban Area Engineer
Local Public Agency Program Manager
FHWA - Utah Division
2520 West 4700 South, Ste 9A
Salt Lake City, UT 84129
801.955.3517

-----Original Message-----
From: Jencks, Hollis G SPK [mailto:Hollis.G.Jencks@usace.army.mil]
Sent: Thursday, December 11, 2014 10:56 AM
To: Dillon, Bryan (FHWA)
Subject: RE: I-80 State Street I/C - Request to become a cooperating agency

Bryan-

The Corps will not be a cooperating agency, since there are minimal waters of the U.S. impacts, if any.

Thanks,

Hollis Jencks
Project Manager, Utah Regulatory Office
533 West 2600 South, Suite 150
Bountiful, Utah 84010

Ph: 801-295-8380 x 18
Fax: 801-295-8842

Our Customer Service Hours are 9am - 3pm.
I will be available to answer/return phone calls and respond to emails during these hours.

-----Original Message-----
From: bryan.dillon@dot.gov [mailto:bryan.dillon@dot.gov]
Sent: Thursday, December 11, 2014 10:48 AM
To: Jencks, Hollis G SPK
Subject: [EXTERNAL] I-80 State Street I/C - Request to become a cooperating agency

Hollis,

As a follow-up to our phone conversation, FHWA sent an invitation to the USACE to become a Cooperating Agency on the I-80; State Street Interchange project in Salt Lake County on 13 Aug 2014.

Would you please respond to this invitation? Thank you.

Bryan Dillon

Urban Area Engineer

Local Public Agency Program Manager

FHWA - Utah Division

2520 West 4700 South, Ste 9A

Salt Lake City, UT 84129

801.955.3517

Dillon, Bryan (FHWA)

From: Herrmann, Betsy <betsy_herrmann@fws.gov>
Sent: Tuesday, February 17, 2015 12:58 PM
To: Dillon, Bryan (FHWA)
Subject: Re: PIN 6995 I-80 State Street Interchange

Bryan -

We appreciate your invitation for the Fish and Wildlife Service to be either a cooperating or a participating agency in the I-80 / State Street Interchange EIS. We decline the invitation, given our anticipated limited resource concerns in the project area. We may decide to provide comment at the appropriate opportunities for public comment.

Betsy

Betsy Herrmann

U.S. Fish and Wildlife Service
Utah Ecological Services Field Office
2369 W. Orton Circle, Suite 50
West Valley City, UT 84119
801-975-3330 x139
betsy_herrmann@fws.gov

On Tue, Feb 17, 2015 at 12:36 PM, <bryan.dillon@dot.gov> wrote:

Betsy,

Attached is the letter we spoke about over the phone.

Would you please send a response whether the USFWS would like to be a Cooperating or Participating Agency on this project?

Bryan Dillon

Urban Area Engineer

Local Public Agency Program Manager

FHWA - Utah Division

2520 West 4700 South, Ste 9A

Salt Lake City, UT 84129

801.955.3517

1

From: bryan.dillon@dot.gov
To: Nicole Tolley
Cc: Stan Jorgensen; Tracy Conti
Subject: FW: I-80 - State Street Interchange EIS: Request to Become a Cooperating Agency/Scoping
Date: Wednesday, February 18, 2015 8:46:23 AM

Nicole,

See the note below from the BIA declining to be a cooperating or participating agency.

Bryan Dillon
Urban Area Engineer
Local Public Agency Program Manager
FHWA - Utah Division
2520 West 4700 South, Ste 9A
Salt Lake City, UT 84129
801.955.3517

From: Lewis, Charles [mailto:chip.lewis@bia.gov]
Sent: Wednesday, February 18, 2015 8:30 AM
To: Dillon, Bryan (FHWA)
Cc: Rodney McVey; David Smith; Garry Cantley
Subject: I-80 - State Street Interchange EIS: Request to Become a Cooperating Agency/Scoping

Mr. Dillon,

The Bureau of Indian Affairs (BIA), Western Region, Division of Transportation and the Branch of Environmental Quality Services is in receipt of your letter dated August 13, 2014 requesting acceptance or denial by BIA to become a Cooperating Agency for the subject Environmental Impact Statement (EIS).

The location and scope of the project does not directly impact tribal trust lands and does not appear to indirectly impact native populations to any greater degree than local non-native Utah residents. It is our determination that the BIA Western Region has no jurisdiction by law and no special expertise as it relates to the I-80/State Street Interchange EIS and we do not intend to submit comments on the project. Therefore, we respectfully decline your invitation to become a cooperating agency or a participating agency in the EIS process.

Scoping comments are limited to a suggestion that you include any tribe that may attach religious and cultural significance to any historic properties in the project area during your scoping and/or consultation efforts as part of the National Historic Preservation Act Section 106 consultation process.

The BIA appreciates the offer extended to participate in the EIS process and to provide comment during the scoping period. Should the need for specific comment be identified, we will do so after the issuance of the Draft EIS during the public comment period. If you have any questions or we can be of assistance in any way, please feel free to contact me.

Chip Lewis
Acting Regional Environmental Compliance Officer

--
Chip Lewis
Environmental Protection Specialist
DOI-BIA/WRO/DOT
(602) 379-6782

From: bryan.dillon@dot.gov
To: Nicole Tolley
Cc: Stan Jorgensen; Tracy Conti
Subject: FW: EPA comments for I-80 State Street Interchange EIS project
Date: Wednesday, February 18, 2015 11:21:28 AM

Nicole,

EPA would like to be a participating agency.

Bryan Dillon
Urban Area Engineer
Local Public Agency Program Manager
FHWA - Utah Division
2520 West 4700 South, Ste 9A
Salt Lake City, UT 84129
801.955.3517

From: Lloyd, Lisa [mailto:Lloyd.Lisa@epa.gov]
Sent: Wednesday, February 18, 2015 11:19 AM
To: Dillon, Bryan (FHWA)
Cc: Strobel, Philip; Matsumoto, Kimi
Subject: RE: EPA comments for I-80 State Street Interchange EIS project

Bryan,

We are fine being a participating agency for this project to the extent that our resources allow. If you have any information about the planned schedule for document reviews and the overall project, that would be very useful for workload planning purposes.

Thanks.

Lisa Lloyd
NEPA Program/Superfund Program
U.S. EPA Region 8 (EPR-N)
1595 Wynkoop St.
Denver, Colorado 80202-1129
(303) 312-6537

Habit is the intersection of knowledge (what to do), skill (how to do), and desire (want to do)."
— Stephen R. Covey, The 7 Habits of Highly Effective People: Powerful Lessons in Personal Change

From: bryan.dillon@dot.gov [mailto:bryan.dillon@dot.gov]
Sent: Tuesday, February 17, 2015 12:19 PM
To: Lloyd, Lisa
Subject: RE: EPA comments for I-80 State Street Interchange EIS project

Does the EPA wish to be a participating agency?

Bryan Dillon
Urban Area Engineer
Local Public Agency Program Manager
FHWA - Utah Division
2520 West 4700 South, Ste 9A
Salt Lake City, UT 84129
801.955.3517

Nicole Tolley

From: bryan.dillon@dot.gov
Sent: Monday, March 30, 2015 8:18 AM
To: Nicole Tolley; Stan Jorgensen
Subject: FW: I-80 State Street I/C - Request to become a cooperating agency

Nicole,

Here is the response from Hollis declining to be a participating agency.

Bryan Dillon
Urban Area Engineer
Local Public Agency Program Manager
FHWA - Utah Division
2520 West 4700 South, Ste 9A
Salt Lake City, UT 84129
801.955.3517

-----Original Message-----
From: Jencks, Hollis G SPK [mailto:Hollis.G.Jencks@usace.army.mil]
Sent: Friday, March 27, 2015 7:16 AM
To: Dillon, Bryan (FHWA)
Subject: RE: I-80 State Street I/C - Request to become a cooperating agency

Bryan-

The Corps of Engineers will not be a participating agency on the I-80 State Street Interchange.

Hollis Jencks
Project Manager, Utah Regulatory Office
533 West 2600 South, Suite 150
Bountiful, Utah 84010

Ph: 801-295-8380 x 18
Fax: 801-295-8842

Our Customer Service Hours are 9am - 3pm.
I will be available to answer/return phone calls and respond to emails during these hours.

-----Original Message-----
From: bryan.dillon@dot.gov [mailto:bryan.dillon@dot.gov]
Sent: Thursday, March 26, 2015 2:37 PM
To: Jencks, Hollis G SPK
Subject: [EXTERNAL] RE: I-80 State Street I/C - Request to become a cooperating agency

Hollis,

Would you please respond whether the USACE accepts or declines the invitation to be a participating agency on the I-80 State Street Interchange project?

1

Bryan Dillon
Urban Area Engineer
Local Public Agency Program Manager
FHWA - Utah Division
2520 West 4700 South, Ste 9A
Salt Lake City, UT 84129
801.955.3517

-----Original Message-----
From: Jencks, Hollis G SPK [mailto:Hollis.G.Jencks@usace.army.mil]
Sent: Thursday, December 11, 2014 10:56 AM
To: Dillon, Bryan (FHWA)
Subject: RE: I-80 State Street I/C - Request to become a cooperating agency

Bryan-

The Corps will not be a cooperating agency, since there are minimal waters of the U.S. impacts, if any.

Thanks,

Hollis Jencks
Project Manager, Utah Regulatory Office
533 West 2600 South, Suite 150
Bountiful, Utah 84010

Ph: 801-295-8380 x 18
Fax: 801-295-8842

Our Customer Service Hours are 9am - 3pm.
I will be available to answer/return phone calls and respond to emails during these hours.

-----Original Message-----
From: bryan.dillon@dot.gov [mailto:bryan.dillon@dot.gov]
Sent: Thursday, December 11, 2014 10:48 AM
To: Jencks, Hollis G SPK
Subject: [EXTERNAL] I-80 State Street I/C - Request to become a cooperating agency

Hollis,

As a follow-up to our phone conversation, FHWA sent an invitation to the USACE to become a Cooperating Agency on the I-80; State Street Interchange project in Salt Lake County on 13 Aug 2014.

Would you please respond to this invitation? Thank you.

Bryan Dillon

Urban Area Engineer

Local Public Agency Program Manager

FHWA - Utah Division

2520 West 4700 South, Ste 9A

Salt Lake City, UT 84129

801.955.3517

Memorandum

To: Marley Haupt, Field Biologist
Horrocks Engineers

From: Paul W. West, Wildlife Program Manager
UDOT, Environmental Services

Date: April 22, 2015

Re: F-I80-3(180)123 – I-80 and State Street (SR-89) Environmental Study, Salt Lake County (PIN 6995)

CC: Brandon Weston – UDOT, Environmental Services
Mason Palmer – UDOT, Region 2
Ashley Green – UDWR, Headquarters
Mark Farmer – UDWR, Central Region
Matt Howard – UDWR, Central Region
Lloyd Neeley – UDOT Maintenance
File

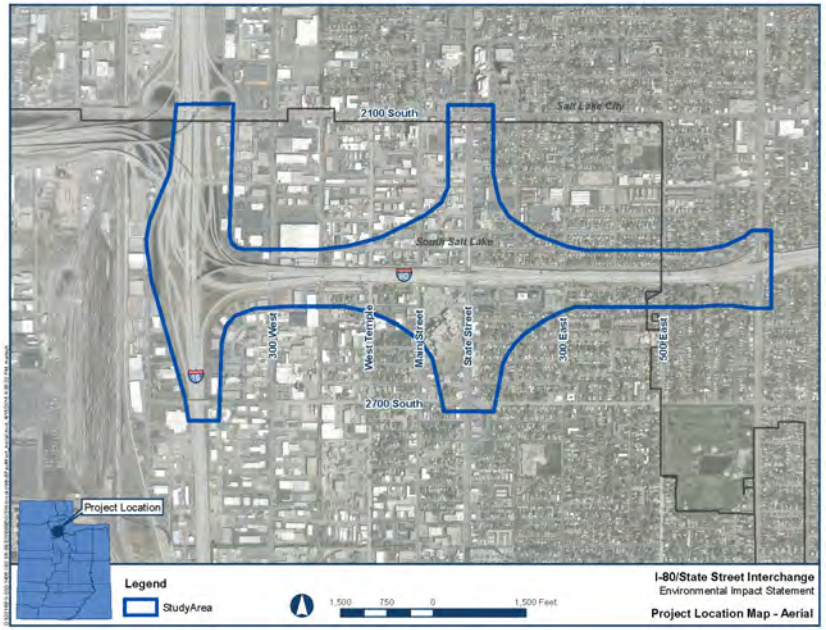
I underst and the Utah Department of Transportation (UDOT) in cooperation with the Federal Highway Administration (FHWA), has initiated an Environmental Impact Statement (EIS) on a proposal to address current and projected traffic demand at the intersection of I-80 and State Street (SR-89) in Salt Lake County, Utah. The project is located in the cities of South Salt Lake and Salt Lake City and extends along I-80 from I-15 to 700 East and on State Street from 2100 South to 2700 South (see attached Project Location Maps).

A review of the Utah Division of Wildlife Resources, Natural Heritage Program (UDWR/UNHP) 2015 database indicates that no federally listed, threatened, endangered or candidate species, or any critical habitat would be affected by this project.

In accordance with the U.S. Fish and Wildlife Service memo dated January 27, 2006, they do not issue concurrence letters for “no-effect” determinations. Therefore, this memo is being issued in-lieu of their concurrence for your environmental documentation.

In addition, I have assessed this project with regard to other wildlife issues as required in the UDOT Environmental Study Form.

Based on the UDWR/UNHP 2015 database, UDOT’s Wildlife/Vehicle Collision Reporter 2015 data, and UDOT’s 2007 Wildlife Connectivity database, it is my opinion that this project would not negatively affect state-sensitive species, important wildlife habitat, big game migration routes, habitat connectivity, migratory birds, fish spawning habitat, or fish passage.



14-1415

State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E.
Executive Director

SHANE M. MARSHALL, P.E.
Deputy Director

September 2, 2015

Mr. Cory Jensen
Senior Historic Preservation Specialist
Utah Division of State History
300 Rio Grande
Salt Lake City, UT 84101-1182

RE: UDOT Project No. F-180-3(180)123, I-80 and State Street Interchange, South Salt Lake, Salt Lake County, Utah (PIN 6995). SHPO Case No. 14-1415.
Determination of Eligibility and Finding of No Historic Properties Affected.

Dear Mr. Jensen:

The Federal Highway Administration (FHWA) and the Utah Department of Transportation (UDOT) are preparing to undertake the subject federal-aid project. In accordance with the *Second Amended Programmatic Agreement among the FHWA, the Utah State Historic Preservation Officer, the Advisory Council on Historic Preservation, the USACE Sacramento District,* (executed June 3, 2013), Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. § 470 et seq.), and U.C.A.9-8-404, the UDOT has taken into account the effects of this undertaking on historic properties, and is affording the Utah State Historic Preservation Officer (SHPO) an opportunity to comment on the undertaking. Additionally, this submission is in compliance with Section 4(f) of the Department of Transportation Act of 1966, 23 U.S.C. § 138 (as amended) and 49 U.S.C. § 303 (as amended).

PROJECT DESCRIPTION

FHWA and the Utah Department of Transportation are proposing improvements to the interchange located at Interstate 80 and State Street in the city of South Salt Lake, Salt Lake County. The purpose of the project is to reduce congestion on I-80 and State Street; improve operational characteristics and safety on I-80 and State Street; and support local economic development through mobility improvements. In accordance with the National Environmental Policy Act (NEPA), an Environmental Impact Statement is being prepared for this project. The EIS study area includes the alignment of Interstate 80 from Interstate 15 to 700 East and on State Street from 2100 South to 2700 South. The project team has evaluated numerous alternatives, and at this writing has narrowed the alternatives to three: a single-point urban interchange (SPUI); a diamond interchange, split on the north side only; and a diamond interchange. The proposed alternatives are illustrated on the attached maps.

The area of potential effects (APE) extends from I-15 as the western edge to 700 East as the eastern boundary, with an irregular outline corresponding to the properties immediately adjacent to I-80. The APE also includes a north-south section of those properties adjacent to State Street from the

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south side of 2100 South on the north to the north side of 2700 South on the south. The Utah SHPO concurred with UDOT's defined APE in a letter dated October 16, 2014.

The APE has been surveyed for archaeology by Peter Steele of PEC, under State Antiquities Project Number U-14-ZP-1303sp, and the results are reported in *A Class II Archaeological Resources Inventory for the I-80; State Street Interchange Environmental Impact Statement, South Salt Lake, Salt Lake County, Utah; Letter Report* (see enclosed). Nancy Calkins of Horrocks Engineers, Inc. conducted a Standard Reconnaissance Level survey in areas which consisted primarily of buildings 45 years or older, and a Selective Reconnaissance Level survey in areas consisting predominantly of non-historic structures. The results are reported in *Reconnaissance Level Survey Environmental Impact Statement for I-80; State Street, South Salt Lake, Salt Lake County* (see enclosed report).

The surveys have resulted in the identification of 2 archaeological sites and 168 architectural properties. Of these, both the archaeological sites and 85 architectural properties are eligible to the National Register of Historic Places (NRHP). No known traditional cultural properties or paleontological resources are located in the APE. The Determinations of Eligibility and Findings of Effects (for both Section 106 and Section 4(f)) are provided in Table 1 for archaeological resources and in Table 2 for architectural properties.

ARCHAEOLOGICAL RESOURCES AND DESCRIPTION OF EFFECT

Table 1. Determinations of Eligibility and Findings of Effect for Archaeological Resources.

Site	Name or Description	NRHP Eligibility	Finding of Effect	Warrants preservation in place	Section 4(f) Use
42SL344	Union Pacific Railroad	Eligible (Criterion A)	No Historic Properties Affected	NA	NA
42SL416	Park City Branch of the Denver & Rio Grande Western Railway	Eligible (Criterion A)	No Historic Properties Affected	NA	NA

Description of Effect to Site 42SL344: The project alternatives selected for detailed study will avoid Sites 42SL344 and 42SL416 as improvements do not cross these sites. Thus, the proposed project will result in a finding of No Historic Properties Affected and Section 4(f) does not apply.

ARCHITECTURAL RESOURCES AND DESCRIPTION OF EFFECT

The architectural resources evaluated in the study area are addressed in Table 2. The historic boundaries correspond to the legal parcel boundaries. Because UDOT does not anticipate that any of the three interchange designs will affect the historic properties, the finding of effect is *No Historic Properties Affected* for all architectural resources, and the Section 4(f) use is *NA*.

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Table 2. Determinations of Eligibility for Architectural Resources.

Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2400 South	415 W.	Not Eligible/NC	Service Station	1	Service Bay/Business	0	0	1968	Concrete Block	20th C. Commercial	Alterations In 1980. Modifications to façade and roofline.
2400 South	5 E.	Not Eligible/NC	Commercial (Gen.)	1	Other Early 21st C. Type	0	0	1965	Concrete Block	20th C. Commercial	Large Op Addition To Rear Of Building.
2400 South	121 E.	Not Eligible/OP	Residential (Gen.)	1	Manufactured Home	0	0	2006	Vinyl Siding	Manufactured Home (Gen.)	
2400 South	133 E.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	2	0	1942	Vinyl Siding	Minimal Traditional	
2400 South	145 E.	Not Eligible/OP	Residential (Gen.)	1.5	Other Late 20th C. Type	0	0	1998	Vinyl Siding	Late 20th C.: Other	
2400 South	155 E.	Not Eligible/OP	Residential (Gen.)	1.5	Other Late 20th C. Type	0	0	1998	Vinyl Siding	Late 20th C.: Other	
2400 South	165 E.	Eligible/EC	Residential (Gen.)	1	Bungalow	1	0	1922	Shingle Siding	Arts & Crafts	
2400 South	167 E.	Eligible/EC	Multiple Dwelling	2	Other Apt./Hotel Plan	1	0	1955	Regular Brick	Ranch/Rambler (Gen.)	

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Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2400 South	169 E.	Eligible/EC	Residential (Gen.)	1.5	Bungalow	0	0	1911	Stucco/Plaster	Victorian Eclectic	
2400 South	173 E.	Eligible/EC	Residential (Gen.)	1.5	Bungalow	0	0	1911	Stucco/Plaster	Bungalow	Alterations To Facade From 1944
2400 South	175 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	1	0	1918	Regular Brick	Minimal Traditional	Dormer Removed, Altered Railing, Windows Replaced
2400 South	177 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	0	0	1909	Vinyl Siding	Bungalow	Original Windows
2400 South	207 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch / Rambler	2	0	1950	Vinyl Siding	Early Ranch (Gen.)	Vinyl Windows, Altered Siding
2400 South	211 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1950	Aluminum Siding	Early Ranch (Gen.)	Wide Siding Similar To Original
2400 South	215 E.	Not Eligible/NC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1950	Asbestos Siding	Minimal Traditional	West Window Altered On Primary Facade, Garage Attached With Rear Addition.

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Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2400 South	225 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	0	0	1924	Regular Brick	Bungalow	Enclosed Porch, Rear Addition, Windows Replaced
2400 South	235 E.	Not Eligible/NC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1948	Stucco/Plaster	Minimal Traditional	Altered Materials/ Style
2400 South	241 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	1	0	1950	Striated Brick	Early Ranch (Gen.)	
2400 South	247 E.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	1	1	1951	Striated Brick	Minimal Traditional	
2400 South	251 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch / Rambler	0	1	1948	Striated Brick	Early Ranch (Gen.)	Windows Replaced
2400 South	255 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1941	Striated Brick	Early Ranch (Gen.)	
2400 South	265 E.	Not Eligible/NC	Residential (Gen.)	1	WWII-Era Cottage	0	1	1940	Asbestos Siding	Minimal Traditional	Front Windows Altered, East Side Window Covered, Garage Attached With Rear Addition.
2400 South	275 E.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	0	1	1949	Striated Brick	Minimal Traditional	Windows Replaced

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Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2400 South	285 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1952	Roman Brick	Early Ranch (Gen.)	
2400 South	325 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Vinyl Siding	Early Ranch (Gen.)	
2400 South	333 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Aluminum Siding	Early Ranch (Gen.)	
2400 South	341 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Aluminum Siding	Early Ranch (Gen.)	
2400 South	349 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Vinyl Siding	Early Ranch (Gen.)	Windows Replaced And Narrow Vinyl Siding.
2400 South	357 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Shingle Siding	Early Ranch (Gen.)	Porch Addition In-Period
2400 South	365 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch / Rambler	0	0	1950	Shingle Siding	Early Ranch (Gen.)	Garage Filled In, Carport Added.
2400 South	373 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Vinyl Siding	Early Ranch (Gen.)	Siding And Windows Replaced. Garage Enclosed.

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Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2400 South	381 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Aluminum Siding	Early Ranch (Gen.)	Siding Has Been Replaced. East Front Window Covered.
2400 South	389 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1950	Vinyl Siding	Early Ranch (Gen.)	Siding Replaced. Windows Replaced/Altered. Garage Enclosed.
2400 South	397 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1950	Aluminum Siding	Early Ranch (Gen.)	Windows And Siding Have Been Replaced.
2400 South	405 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch / Rambler	0	0	1952	Asbestos Siding	Early Ranch (Gen.)	Original Siding And Windows Intact
2400 South	413 E.	Not Eligible/NC	Residential (Gen.)	1.5	WWII-Era Cottage	0	1	1952	Vinyl Siding	Minimal Traditional	Chimney Is In Historic Tax Photo C.1960. Original Windows.
2400 South	421 E.	Eligible/EC	Residential (Gen.)	2	Early Ranch with Garage	0	1	1952	Aluminum Siding	Minimal Traditional	WWII Cottage? Windows Replaced.
2400 South	429 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1952	Aluminum Siding	Early Ranch (Gen.)	Windows Replaced. Wide Siding Imitates Original

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Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2400 South	435 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1952	Aluminum Siding	Early Ranch (Gen.)	Windows And Siding Have Been Replaced.
2400 South	443 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1952	Aluminum Siding	Early Ranch (Gen.)	Windows And Siding Have Been Replaced.
2400 South	451 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1952	Vinyl Siding	Early Ranch (Gen.)	Windows Replaced But Retain Style
2400 South	459 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1952	Aluminum Siding	Early Ranch (Gen.)	Carport Addition, Windows And Siding Replaced
2400 South	465 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1952	Aluminum Siding	Early Ranch (Gen.)	Siding And Windows Replaced.
2400 South	473 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1959	Aluminum Siding	Early Ranch (Gen.)	Was Siding Replaced In Period?
2400 South	481 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1952	Aluminum Siding	Early Ranch (Gen.)	Massive Chimney An Addition.
2400 South	487 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1952	Aluminum Siding	Early Ranch (Gen.)	

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Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2400 South	495 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	1	0	1952	Shingle Siding	Early Ranch (Gen.)	
2400 South	34 W.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	0	0	1955	Masonite Siding	Minimal Traditional	
2400 South	42 W.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1950	Vinyl Siding	Early 21st C.: Other	Windows Replaced, Altered Materials, Porch Additions
2400 South	44 W.	Not Eligible/NC	Residential (Gen.)	1	Central Blk w/ Proj Bays	1	0	1909	Aluminum Siding	20th C.: Other	Porch Enclosed, Altered Materials
2400 South	48 W.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1949	Stamped Brick Veneer	Early Ranch (Gen.)	
2400 South	54 W.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	0	1	1921	Synth. Stucco/EIFS	20th C.: Other	
2400 South	66 W.	Eligible/EC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1940	Asbestos Siding	Early Ranch (Gen.)	Original Siding And Windows
2400 South	70 W.	Eligible/EC	Residential (Gen.)	1	Bungalow	0	0	1915	Narrow Clapboard (Waterfall)	Bungalow	Original Siding

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Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2700 South	78 W.	Eligible/EC	Residential (Gen.)	1	Ranch	0	0	1950	Concrete Block	Ranch/Rambler (Gen.)	Porch Canopy Is Visible On 1965 Aerial
300 East	111 E.	Not Eligible/NC	Restaurant	1	Other Late 20th C. Type	0	0	1963	Concrete Block	Late 20th C.: Other	Windows Altered And Added Stone On Primary Facade.
300 East	2375 S.	Eligible/EC	Residential (Gen.)	1	Early Ranch / Rambler	0	1	1956	Roman Brick	Early Ranch (Gen.)	
300 East	2384 S.	Not Eligible/NC	Residential (Gen.)	1	Central Blk w/ Proj Bays	1	0	1908	Aluminum Siding	Late 20th C.: Other	Siding Over Original Brick, Windows Altered
300 East	2389 S.	Eligible/EC	Residential (Gen.)	1.5	Central Blk w/ Proj Bays	0	1	1888	Regular Brick	Victorian Eclectic	Rear Addition In 1928 (From Sosl History) Op Dormers
300 East	2396 S.	Eligible/EC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1947	Striated Brick	Early Ranch (Gen.)	Windows Replaced, Basement Entry Added On South
300 West	2445 S.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1948	Regular Brick	Early Ranch (Gen.)	
400 East	2415 S.	Eligible/EC	Industrial (Gen.)	1	Warehouse	0	0	1960	Concrete Block	20th C. Commercial	Has Multiple Buildings, Most Of Which Are Historic.

Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
400 West	2450 S.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1951	Regular Brick	Minimal Traditional	
400 West	2130 S.	Not Eligible/NC	Commercial (Gen.)	1	Service Bay/Business	0	1	1955	Concrete Block	20th C. Commercial	Enclosed Bays, Recent Stucco, Se Add'N
500 East	2200 S.	Eligible/EC	Commercial (Gen.)	2	Comm./Industrial Block	2	0	1961	Concrete Block	20th C. Commercial	
500 East	2393 S.	Eligible/EC	Residential (Gen.)	1	Central Blk w/ Proj Bays	2	0	1880	Regular Brick	Victorian Eclectic	House Number Is 2393. Brick Barn
Burton Avenue	2446 S.	Eligible/EC	Single Dwelling	1	Other Residential Type	0	0	1940	Regular Brick	Period Revival (Gen.)	
Burton Avenue	64 E.	Eligible/EC	Residential (Gen.)	1	Box Bungalow	0	0	1919	Clapboard Siding	Bungalow	
Burton Avenue	132 E.	Not Eligible/NC	Residential (Gen.)	1	WWII-Era Cottage	0	1	1940	Aluminum Siding	Minimal Traditional	Siding, Windows And Roof Have All Been Altered.
Burton Avenue	136 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	1	0	1922	Stamped Brick Veneer	Bungalow	Porch And Siding Altered. Was Originally Wood Siding

Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Burton Avenue	140 E.	Out of Period/OP	Residential (Gen.)	1	Other Early 21st C. Type	0	0	2013	Synth. Stucco/EIFS	Early 21st C.: Other	
Burton Avenue	142 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	1	0	1915	Clapboard Siding	Bungalow	Porch Has Been Enclosed.
Burton Avenue	150 E.	Eligible/EC	Residential (Gen.)	1	Bungalow	0	1	1938	Concrete Block	Bungalow	Porch Has Been Altered, Front Entry To Side, Posts Removed. Widows Replaced
Burton Avenue	154 E.	Eligible/EC	Residential (Gen.)	1	Bungalow	0	1	1932	Regular Brick	Bungalow	
Burton Avenue	158 E.	Eligible/EC	Residential (Gen.)	1	Box Bungalow	1	0	1930	Asbestos Siding	Bungalow	
Burton Avenue	174 E.	Out of Period/OP	Residential (Gen.)	1	Other Early 21st C. Type	0	0	2007	Vinyl Siding	Early 21st C.: Other	
Burton Avenue	176 E.	Not Eligible/NC	Residential (Gen.)	1.5	Bungalow	0	0	1916	Wood Sheet	Victorian Eclectic and Arts and Crafts	Altered Materials, Gable End Windows Altered
Burton Avenue	149 W.	Eligible/EC	Residential (Gen.)	1	Comm./Industrial Block	0	1	1969	Concrete Block	20th C. Commercial	

Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Burton Avenue	157 W.	Not Eligible/NC	Commercial (Gen.)	1	Comm./Industrial Block	1	0	1968	Concrete Block	20th C. Commercial	East (Front) Altered Post-1971 Aerial Photo
Burton Avenue	171 W.	Not Eligible/NC	Residential (Gen.)	1	Other Late 20th C. Type	1	0	1924	Aluminum Siding	20th C.: Other	Addition To Front/Poor Condition
Burton Avenue	175 W.	Eligible/EC	Residential (Gen.)	1	Early Ranch / Rambler	2	0	1947	Wood: Other/Undef.	Early Ranch (Gen.)	His House Is Not Visible From The Street.
Driggs Avenue	177 W.	Not Eligible/NC	Residential (Gen.)	1	Other Residential Type	0	0	1965	Concrete Block	Other/Unclear Style	Poor Condition, Could Be Part Of Property In Front.
Driggs Avenue	504 E.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1942	Striated Brick	Minimal Traditional	Vinyl Siding, Vinyl Windows, Carport Add'N
Driggs Avenue	518 E.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1944	Vinyl Siding	Minimal Traditional	Original Windows Under Storm Windows.
Driggs Avenue	524 E.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1941	Aluminum Siding	Minimal Traditional	
Driggs Avenue	532 E.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1940	Asbestos Siding	Minimal Traditional	

Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Driggs Avenue	536 E.	Eligible/EC	Residential (Gen.)	1	Bungalow	1	0	1905	Regular Brick	Victorian: Other	Rear Addition.
Driggs Avenue	538 E.	Eligible/EC	Residential (Gen.)	1.5	Period Cottage	0	0	1933	Clapboard Siding	English Cottage	
Driggs Avenue	550 E.	Not Eligible/NC	Residential (Gen.)	1.5	Crosswing - Double	0	1	1890	Synth. Stucco/EIFS	Victorian Eclectic	Recent Stucco Over Brick. Windows Altered
Driggs Avenue	552 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch / Rambler	0	0	1951	Striated Brick	Early Ranch (Gen.)	
Driggs Avenue	560 E.	Not Eligible/NC	Residential (Gen.)	1	Other Early 21st C. Type	1	0	1950	Vinyl Siding	Early 21st C.: Other	Large Addition On Primary Facade.
Driggs Avenue	562 E.	Eligible/EC	Residential (Gen.)	1	Central Blk w/ Proj Bays	0	1	1895	Regular Brick	Victorian Eclectic	
Driggs Avenue	572 E.	Eligible/EC	Residential (Gen.)	1	Bungalow	1	0	1915	Regular Brick	Bungalow	Rear Addition, Original Windows.
Driggs Avenue	574 E.	Eligible/EC	Residential (Gen.)	1	Bungalow	1	0	1925	Regular Brick	Bungalow	
Driggs Avenue	584 E.	Not Eligible/NC	Residential (Gen.)	2	Central Passage	0	0	1873	Synth. Stucco/EIFS	Classical: Other	Recent Stucco And Porch Addition

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Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Lawndale Drive	604 E.	Eligible/EC	Residential (Gen.)	1.5	Central Blk w/ Proj Bays	0	1	1895	Regular Brick	Victorian Eclectic	
Lawndale Drive	380 W.	Not Eligible/NC	Commercial (Gen.)	1	Comm./Industrial Block	0	0	1970	Regular Brick	20th C. Commercial	Center Front Canopy Addition
Leslie Avenue	400 W.	Eligible/EC	Commercial (Gen.)	1	Comm./Industrial Block	0	0	1969	Regular Brick	20th C. Commercial	
Main	109 E.	Not Eligible/NC	Residential (Gen.)	1.5	Central Passage	1	0	1913	Regular Brick	Victorian: Other	Commercial Front (Recently Altered) Added C. 1970 Totally Obscures House
Main	2356 S.	Not Eligible/NC	Commercial (Gen.)	1	1-Part Block	2	0	1948	Synth. Stucco/EIFS	20th C. Commercial	Recent Stucco Over Brick
Main	2364 S.	Not Eligible/NC	Commercial (Gen.)	1	1-Part Block	0	1	1914	Synth. Stucco/EIFS	20th C. Commercial	Stucco Over Brick
Main	2365 S.	Not Eligible/NC	Commercial (Gen.)	1	Comm./Industrial Block	0	0	1961	Decorative Concrete Block	20th C. Commercial	Windows Altered
Main	2386 S.	Eligible/EC	Residential (Gen.)	1	Boxcar Apt.	0	0	1930	Stucco/Plaster	Modern: Other	

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Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Main	2391 S.	Not Eligible/NC	Residential (Gen.)	2	Other Late 20th C. Type	0	0	1962	Wood: Other/Undef.	Other/Unclear Style	Multiple Additions And Alterations.
Main	2445 S.	Eligible/EC	Commercial (Gen.)	1	Service Bay/Business	0	0	1930	Regular Brick	20th C. Commercial	1950S Alteration To Roof And Windows
Main	2470 S.	Eligible/EC	Commercial (Gen.)	1	Comm./Industrial Block	0	0	1950	Regular Brick	20th C. Commercial	
Robert Avenue	2500 S.	Eligible/EC	Commercial (Gen.)	1	Comm./Industrial Block	0	0	1950	Concrete Block	20th C. Commercial	
Robert Avenue	48 E.	Eligible/EC	Commercial (Gen.)	1	Comm./Industrial Block	0	0	1960	Regular Brick	20th C. Commercial	
Robert Avenue	54 E.	Eligible/EC	Commercial (Gen.)	1	Comm./Industrial Block	0	0	1960	Regular Brick	20th C. Commercial	
Robert Avenue	320 E.	Not Eligible/NC	Residential (Gen.)	2	Other Late 20th C. Type	0	0	1961	Regular Brick	Late 20th C.: Other	Space Between Dormers Enclosed, Roof Altered
Robert Avenue	322 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch / Rambler	0	0	1955	Regular Brick	Ranch/Rambler (Gen.)	Basement Corner Window Original

Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Robert Avenue	330 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch / Rambler	0	1	1955	Regular Brick	Ranch/Rambler (Gen.)	Addition Of Enclosed Porch On Primary Facade.
Robert Avenue	344 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch / Rambler	0	0	1952	Regular Brick	Ranch/Rambler (Gen.)	
Robert Avenue	350 E.	Not Eligible/NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1947	Vinyl Siding	Ranch/Rambler (Gen.)	Siding And Windows Have Been Altered.
Robert Avenue	354 E.	Out of Period/OP	Residential (Gen.)	1	Other Late 20th C. Type	0	0	1951	Aluminum Siding	Late 20th C.: Other	1951 House Was At The Back Of Lot-Demolished
Robert Avenue	360 E.	Eligible/EC	Residential (Gen.)	2	WWII-Era Cottage	0	0	1947	Stucco/Plaster	Minimal Traditional	
Robert Avenue	366 E.	Eligible/EC	Residential (Gen.)	1	Other Apt./Hotel Plan	1	0	1951	Concrete Block	Postwar: Other	
Robert Avenue	384 E.	Eligible/EC	Residential (Gen.)	1	Duplex (Apt.)	1	0	1951	Concrete Block	Early Ranch (Gen.)	
Robert Avenue	390 E.	Eligible/EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1951	Concrete Block	Early Ranch (Gen.)	

Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Robert Avenue	402 E.	Not Eligible/NC	Residential (Gen.)	1	WWII-Era Cottage	0	1	1938	Aluminum Siding	Minimal Traditional	Porch, Siding And Windows Altered.
Robert Avenue	406 E.	Not Eligible/NC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1938	Vinyl Siding	Minimal Traditional	
Robert Avenue	420 E.	Not Eligible/NC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1938	Aluminum Siding	Minimal Traditional	Porch Alt, Front Windows Were Originally Paired
Robert Avenue	436 E.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	0	0	1939	Stucco/Plaster	Minimal Traditional	
Robert Avenue	450 E.	Not Eligible/NC	Residential (Gen.)	1	WWII-Era Cottage	0	2	1936	Aluminum Siding	Minimal Traditional	Siding And Windows Have Been Altered.
Robert Avenue	460 E.	Eligible/EC	Residential (Gen.)	1	Period Cottage	1	0	1933	Stucco/Plaster	English Cottage	
Robert Avenue	470 E.	Not Eligible/NC	Single Dwelling	1	Period Cottage	1	0	1930	Aluminum Siding	English Cottage	Altered Materials, Altered Facade-
Robert Avenue	486 E.	Eligible/EC	Multiple Dwelling	1	Other Apt./Hotel Plan	0	1	1955	Regular Brick	Ranch/Rambler (Gen.)	4 Units

Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Robert Avenue	11 W.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	0	0	1947	Asbestos Siding	Minimal Traditional	
Robert Avenue	15 W.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	0	0	1947	Regular Brick	Ranch/Rambler (Gen.)	
Robert Avenue	23 W.	Out of Period/OP	Residential (Gen.)	1	Manufactured Home	0	0	2002	Vinyl Siding	Manufactured Home (Gen.)	
Robert Avenue	25 W.	Out of Period/OP	Residential (Gen.)	1	Manufactured Home	0	0	2002	Vinyl Siding	Manufactured Home (Gen.)	
Robert Avenue	37 W.	Not Eligible/NC	Residential (Gen.)	1	Other Residential Type	0	0	1951	Stucco/Plaster	Other/Unclear Style	
Robert Avenue	41 W.	Not Eligible/NC	Residential (Gen.)	1	Other Early 21st C. Type	0	0	1915	Vinyl Siding	Early 21st C.: Other	Porch Enclosed, Roof, Windows And Siding Altered. Originally A Crosswing
Robert Avenue	43 W.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	2	0	1946	Aluminum Siding	Minimal Traditional	
Robert Avenue	49 W.	Eligible/EC	Residential (Gen.)	1	Bungalow	0	2	1910	Asbestos Siding	Bungalow	

Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Robert Avenue	51 W.	Not Eligible/NC	Residential (Gen.)	1	Clipped-Gable Cottage	0	0	1919	Vinyl Siding	Bungalow	East Front Window Moved
Robert Avenue	79 W.	Eligible/EC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1947	Concrete Block	Minimal Traditional	
Robert Avenue	91 W.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	0	0	1920	Vinyl Siding	Bungalow	Siding Replaced, Porch Altered
Robert Avenue	93 W.	Out of Period/OP	Residential (Gen.)	1.5	Other Early 21st C. Type	0	0	2014	Synth. Stucco/EIFS	Early 21st C.: Other	
State	95 W.	Out of Period/OP	Residential (Gen.)	1.5	Other Early 21st C. Type	0	0	2014	Synth. Stucco/EIFS	Early 21st C.: Other	
State	2115 S.	Not Eligible/NC	Restaurant	1	Other Late 20th C. Type	0	0	1939	Wood Sheet	20th C.: Other	Altered Materials/Facade
State	2121 S.	Not Eligible/NC	Business/Office	2	Other Early 21st C. Type	0	0	1955	Regular Brick	Early 21st C.: Other	Large Add'N/Alteration
State	2225 S.	Not Eligible/NC	Animal Facility	1	Other Early 21st C. Type	0	0	1953	Regular Brick	Early 21st C.: Other	Recent Add'N/Alt With Plywood

Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
State	2265 S.	Eligible/EC	Recreation/Culture	1	Comm./Industrial Block	0	0	1960	Regular Brick	20th C. Commercial	Vacant Bowling Facility- Signage On State Contributing
State	2280 S.	Not Eligible/NC	Commercial (Gen.)	1	Enframed Window Wall	3	1	1959	Stucco/Plaster	20th C. Commercial	Altered Facade And Large Add'Ns
State	2309 S.	Not Eligible/NC	Commercial (Gen.)	1	Other Late 20th C. Type	0	2	1950	Synth. Stucco/EIFS	20th C. Commercial	Historic Building Subsumed In Modern Additions. Bowed Roof Visible From Some Angles.
State	2368 S.	Not Eligible/NC	Commercial (Gen.)	2	Enframed Block	0	1	1940	Stucco/Plaster	20th C.: Other	Altered Facade And Materials, South Addition,
State	2432 A	Not Eligible/NC	Commercial (Gen.)	1	Service Bay/Business	1	0	1953	Stucco/Plaster	20th C. Commercial	Altered Materials And Style. Originally Separate From Property To The South.
State	2432 B	Not Eligible/NC	Commercial (Gen.)	1	Enframed Window Wall	0	0	1967	Concrete Block	20th C. Commercial	Originally Separate Parcel From Gas Station. Building has lost original context.

Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
State	2468 S.	Not Eligible/NC	Commercial (Gen.)	1	Comm./Industrial Block	0	0	1966	Stucco/Plaster	20th C. Commercial	Altered Facade And Materials, Removal Of Decorative Elements, Entrance Moved From East To South
State	2473 S.	Eligible/EC	Service Station	1	Service Station	0	0	1961	Concrete Block	20th C. Commercial	Canopy And Pumps Removed
State	2497 S.	Eligible/EC	Restaurant	1	Other Late 20th C. Type	0	0	1968	Concrete Block	20th C. Commercial	Early Fast Food Franchise
State	2505 S.	Not Eligible/NC	Commercial (Gen.)	1	2-Part Block	0	0	1954	Synth. Stucco/EIFS	20th C. Commercial	Recent Stucco Alt
State	2507 S.	Not Eligible/NC	Restaurant	1	Other Early 21st C. Type	0	0	1950	Synth. Stucco/EIFS	Early 21st C.: Other	Recent Stucco/Alt
State	2511 S.	Not Eligible/NC	Service Station	1	1-Part Block	0	0	1922	Synth. Stucco/EIFS	20th C. Commercial	Recent Alterations
State	2547 S.	Eligible/EC	Commercial (Gen.)	1	Service Bay/Business	0	0	1968	Concrete Block	20th C. Commercial	
State	2561 S.	Not Eligible/NC	Commercial (Gen.)	1	2-Part Block	0	0	1930	Striated Brick	20th C. Commercial	Altered Facade

I-80 State St. EIS, 22

Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
State	2567 S.	Not Eligible/NC	Commercial (Gen.)	1	2-Part Block	0	0	1948	Regular Brick	20th C. Commercial	Alteration To South Windows
State	2583 S.	Not Eligible/NC	Business/Office	1	1-Part Block	0	0	1949	Imitation Stone	20th C. Commercial	Recent Alterations
State	2585 S.	Not Eligible/NC	Residential (Gen.)	1	Other Early 21st C. Type	0	0	1955	Synth. Stucco/EIFS	20th C. Commercial	Altered Facade
State	2607 S.	Not Eligible/NC	Commercial (Gen.)	1	Other Early 21st C. Type	0	1	1946	Stucco/Plaster	20th C. Commercial	Altered Facade
State	2611 S.	Not Eligible/NC	Residential (Gen.)	1.5	Crosswing	2	0	1910	Concrete Block	Victorian Eclectic	Commercial Front Added 1950S Recently Altered With Stucco
State	2634 S.	Eligible/EC	Commercial (Gen.)	1	Other Late 20th C. Type	0	0	1963	Oversized Brick	Late 20th C.: Other	
State	2635 S.	Not Eligible/NC	Service Station	1	Service Bay/Business	0	0	1953	Concrete Block	20th C. Commercial	Bay Enclosed/Add'N On South
State	2641 S.	Not Eligible/NC	Commercial (Gen.)	1	Other Commercial/Public	0	0	1941	Synth. Stucco/EIFS	20th C. Commercial	Altered Facade

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Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
State	2643 S.	Not Eligible/NC	Restaurant	1	1-Part Block	0	0	1936	Wood: Other/Undef.	20th C. Commercial	Currently Altering Facade Original Signage Visible
West Temple	2699 S.	Eligible/EC	Restaurant	1	Drive-In Restaurant	0	0	1955	Concrete Block	20th C. Commercial	
West Temple	2375 S.	Not Eligible/NC	Commercial (Gen.)	1	Comm./Industrial Block	0	0	1949	Regular Brick	20th C. Commercial	Addition On North Side, Entrance Enclosed On Primary Facade
West Temple	2444 S.	Not Eligible/NC	Residential (Gen.)	1	Ranch with Garage	0	0	1952	Aluminum Siding	Early Ranch (Gen.)	Altered Windows And Siding, Garage Enclosed
Whitlock Avenue	2450 S.	Eligible/EC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1952	Asbestos Siding	Early Ranch (Gen.)	In-Period Addition Of Barber Shop On Front
Whitlock Avenue	121 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	0	0	1922	Vinyl Siding	Clipped-Gable Cottage	Porch Entry Altered, Siding Altered
Whitlock Avenue	125 E.	Eligible/EC	Residential (Gen.)	1	Bungalow	0	1	1920	Shingle Siding	Prairie School	
Whitlock Avenue	129 E.	Eligible/EC	Residential (Gen.)	1	Bungalow	0	1	1921	Shingle Siding	Arts & Crafts	

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Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Whitlock Avenue	141 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	0	0	1924	Aluminum Siding	Bungalow	Altered Porch And Siding, Windows Replaced
Whitlock Avenue	145 E.	Not Eligible/NC	Residential (Gen.)	2	Period Cottage	0	1	1926	Aluminum Siding	Late 20th C.: Other	Large Out-Of-Scale Addition, Altered Windows And Materials
Whitlock Avenue	149 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	0	1	1921	Aluminum Siding	Bungalow	Windows Replaced, Porch, Siding, And Roof Alterations
Whitlock Avenue	161 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	1	0	1921	Vinyl Siding	Bungalow	Siding And Porch Have Been Altered, Windows Replaced But Retains Original Character
Whitlock Avenue	163 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	1	0	1921	Vinyl Siding	Bungalow	Siding And Porch Have Been Altered, Windows Replaced But Retains Original Character.

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Street Name	House #	SHPO Rating	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Whitlock Avenue	169 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	1	0	1921	Vinyl Siding	Bungalow	Siding And Porch Have Been Altered, Windows Replaced But Retains Original Character.
Whitlock Avenue	171 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	1	0	1923	Vinyl Siding	Bungalow	In-Period Porch Alteration, Windows Repaced, Siding Imitates Original
Whitlock Avenue	173 E.	Not Eligible/NC	Residential (Gen.)	1	Foursquare (Box)	0	1	1922	Aluminum Siding	Bungalow	Siding Obscures Original Character, Porch Hood Addition, Windows Replaced
Whitlock Avenue	181 E.	Not Eligible/NC	Residential (Gen.)	1	Bungalow	1	0	1923	Aluminum Siding	Bungalow	Enclosed Porch, Altered Materials, Could Be In-Period Alterations

CONSULTATION EFFORTS

FHWA contacted the Advisory Council on Historic Preservation on August 13, 2014, informing the ACHP of the project and extending a cooperating agency invitation, which the ACHP accepted. Native American consultation was initiated through letters sent to the Paiute Indian Tribe of Utah as well as the Cedar and Shivwits Bands of Paiutes, Uintah and Ouray Ute Tribes, Confederated Tribes of the Goshute Reservation, Shoshone-Bannock Tribes, Eastern Shoshone Tribe of the Wind River Reservation, and Northwestern Band of Shoshone Nation (sent August 21, 2014). The Paiute Indian Tribe of Utah was the only respondents to this consultation, and they deferred to other tribes in the area. South Salt Lake is not a Certified Local Government, but city officials have been very involved throughout the EIS process. An open house was held on September 9, 2014. The project team has established a public newsletter and website to notify interested parties and citizens about the progress of the EIS and to generate comments.

SUMMARY

To summarize, the project will result in a finding of *No Historic Properties Affected* for 2 archaeological sites and no Section 4(f) use, and *No Historic Properties Affected* finding for 168 architectural properties and no Section 4(f) use . Therefore, the Finding of Effect for the proposed UDOT Project No. F-180-3(180)123, I-80 and State Street Interchange, South Salt Lake, Salt Lake County, Utah, is *No Historic Properties Affected.*

Please review this document and, providing you agree with the findings contained herein, sign and date the signature line at the end of this letter. Should you have any questions or need additional information, please feel free to contact Liz Robinson at 801-910-2035 or lizrobinson@utah.gov; or Elizabeth Giraud at 801-965-4917 or egiraud@utah.gov.

Sincerely,

Liz Robinson, M.A., RPA
Cultural Resources Program Manager
UDOT Environmental Services

Elizabeth Giraud, AICP
Architectural Historian
UDOT Environmental Services

Enclosures

cc: Peter Tang, UDOT Project Manager

Regarding UDOT Project No. F-180-3(180)123, I-80 and State Street Interchange, South Salt Lake, Salt Lake County, Utah, I concur with the Determination of Eligibility and Finding of Effect, submitted to the Utah State Historic Preservation Office in accordance with the *Second Amended Programmatic Agreement*, Section 106 of the NHPA, and U.C.A. 9-8-404, which states that the UDOT has determined that the finding is **No Historic Properties Affected.**

Cory Jensen
Senior Historic Preservation Specialist

9/21/2015
Date

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Denver Federal Center, Building 67, Room 118
Post Office Box 25007 (D-108)
Denver, Colorado 80225-0007

March 15, 2016

9043.1
ER 16/0063

Brigitte Mandel, Acting Division Administrator
Federal Highway Administration
2520 West 4700 South, Suite 9A
P.O. Box 148450
Salt Lake City, Utah 84129

Dear Ms. Mandel:

The Department of the Interior has reviewed the Draft Environmental Impact Statement (EIS) for the I-80 and State Street Interchange, Salt Lake County, UT, and has no comments.

Sincerely,

Robert F. Stewart
Regional Environmental Officer

cc: Bryan Adams
Bryan Dillon

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
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Ref: 8EPR-N

MAR 2 1 2016

Brigitte Mandel
Acting Division Administrator
Federal Highway Administration
2520 West 4700 South, Suite 9A
Salt Lake City, Utah 84118

Bryan Adams
Region Two Director
Utah Department of Transportation
2010 South 2760 West
Salt Lake City, Utah 84104

Re: I-80 and State Street Interchange Draft Environmental Impact Statement; CEQ # 20160023

Dear Ms. Mandel and Mr. Adams:

The U.S. Environmental Protection Agency Region 8 has reviewed the I-80 and State Street Interchange Draft Environmental Impact Statement (EIS) developed by the Federal Highway Administration (FHWA). In accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the EPA has reviewed and rated this Draft EIS.

Project Background

The project area is located primarily in the City of South Salt Lake, Utah. The project area extends along a section of Interstate 80 between Interstate 15 and 700 East. The study area also includes a section of State Street from 2100 South to 2700 South. The EIS defines the purpose and need for action as the reduction of congestion on I-80 and State Street, improvement of operational characteristics on I-80 and State Street as well as support of economic development.

Conclusion and Rating

Pursuant to the EPA policy and guidance, the EPA rates the environmental impact of an action and the adequacy of the NEPA analysis. The EPA has rated the preferred alternative "EC-2" (Environmental Concerns-Insufficient information). This "EC" rating means that the review has identified environmental impacts that should be avoided in order to fully protect the environment. The "2" rating indicates there was insufficient information for the EPA to fully assess the environmental impacts that should be avoided in order to fully protect the environment. These concerns appear to be resolvable between the Draft and Final EIS. An explanation of the rating criteria is at http://www.epa.gov/nepa/environmental-impact-statement-rating-system-criteria.

The EPA has rated the environmental impact and adequacy of the document based on the following:

- Lack of air quality emissions inventory data with respect to the 24-hour particulate matter $(PM)_{2.5}$ and 24-hour PM_{10} National Ambient Air Quality Standards (NAAQS) non-attainment designations for the project area.
- Lack of project level emissions inventory for carbon monoxide, nitrogen oxides, $PM_{2.5}$ and PM_{10} for complete public disclosure. Modeling can be completed using EPA's MOVES 2014a analytical tool.
- Lack of current road dust emissions information for paved roads per EPA's Compilation of Air Pollutant Emission Factors, also known as AP-42, Chapter 13.
- Lack of analysis for expected concentrations of mobile sources air toxics (MSATs) across alternatives using the MOVES 2014a model.
- Lack of analysis of the effects of climate change on the project and greenhouse gas emission related to the project.
- Potential effects of the project on nearby communities, including environmental justice (EJ) communities, regarding analysis of air quality factors identified above.

We have enclosed more detailed comments. We appreciate the opportunity to review this project. If you have any questions or would like to discuss our comments, please contact me at (303) 312-6704, or Matt Hubner of my staff at (303) 312-6500.

Sincerely,

Philip S. Strobel, Director
Director, NEPA Program
Office of Ecosystems Protection and Remediation

Enclosure

cc: Bryan Dillon, Area Engineer, Federal Highway Administration
Peter Tang, Project Manager, Utah Department of Transportation
Nicole Tolley, Horrocks Engineers

Enclosure

I-80 and State Street Interchange Draft Environmental Impact Statement
EPA Detailed NEPA Comments

Air Quality

The EPA notes that Salt Lake County is designated nonattainment for the 24-hour particulate matter $(PM)_{10}$ and the 2006 24-hour $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS). Further, the Salt Lake County area was unable to demonstrate attainment of the 2006 24-hour $PM_{2.5}$ NAAQS by its attainment date of December, 2015. For these reasons, we recommend that additional specific air quality information, as described below, be provided for the No Action Alternative and the Preferred Alternative in Section 3.9 "Air Quality" in the Final EIS. The purpose of this additional information is to both inform the public and provide the basis for the Record of Decision (ROD).

As discussed in Section 3.9 "Air Quality," it appears the overall emphasis to address air quality for this project rests with traffic data and level of service (LOS). Additional specific data, such as calculated mobile sources emissions that would provide the basis for determining that the project will not interfere with the Salt Lake County area's ability to attain the $PM_{2.5}$ NAAQS, are not provided.

As noted in our September 25, 2014 scoping comments, preparation of criteria pollutant emissions inventory data would be beneficial for supporting the evaluation of both the No Action and Preferred Alternative aspects of the project. Emission inventory data would provide the emissions burden of several criteria pollutants along with Mobile Sources Air Toxics (MSATs). PM_{10} (tailpipe/brake wear/tire wear and re-entrained road dust) would be useful, especially for road dust PM_{10} since it will increase with increasing vehicle miles traveled (VMT) in 2040. In addition, presenting emission inventory data for $PM_{2.5}$, and its precursor emissions of nitrogen oxides (NOx) and volatile organic compounds (VOCs) is important. We note that the State's $PM_{2.5}$ nonattainment area state implementation plan (SIP) revision, submitted to the EPA on December 16, 2014, identifies and includes VOCs as a $PM_{2.5}$ precursor. Also, since this is a transportation project, emissions of carbon monoxide (CO) need to be included. The above criteria pollutants and precursor emissions can all be calculated with the EPA's MOVES2014a model. PM_{10} re-entrained road dust emissions can be calculated from EPA's AP-42, Chapter 13.

Section 3.9 "Air Quality" discusses MSATs, their derivation from vehicles, and their potential health effects, but does not provide any specific data derived from and relevant to the project. The MSAT section continues with information regarding studies, unavailability of health impact information, and speaks in terms such that the reader is advised that MSAT emissions will not have meaningful differences due to the size of the interchange project and between alternatives. For example, from p. 3-51, 2nd column, 2nd paragraph:

> "Also, regardless of the build alternative chosen, emissions would likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 80 percent between 2010 and 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the

> EPA-projected reductions is so great that MSAT emissions in the study area are likely to be lower in the future in virtually all locations."

While this may be true, for the purposes of public disclosure of relevant information in the EIS process, we recommend including the estimated amount of the MSAT emissions burden for both the No Action and Preferred Alternative. The calculation of the MSAT emissions can be performed with MOVES2014a and at the same time that the criteria emissions, noted above, are being prepared using MOVES2014a.

Section 3.28 "Cumulative Impacts," p. 3-103, third paragraph: The EPA does not agree with statements presented:

> "Regional modeling conducted by the WFRC for the 2040 Regional Transportation Plan air quality conformity analysis demonstrated that all transportation projects in the 2015-2040 RTP would be in compliance with the NAAQS. Because conformity to the SIP will be required for all transportation projects, there would be no cumulative impacts to air quality. Population growth has had little effect on overall air quality as demonstrated by the continuing improvement in air quality throughout the region."

The regional mobile sources modeling performed by the Wasatch Front Regional Council (WFRC) was for determining transportation conformity for its 2040 Regional Transportation Plan (RTP). The WFRC was only addressing the transportation conformity requirements of 40 CFR 93.119 for an interim emissions test as on December 16, 2014. The State submitted a Clean Air Act section 189 impracticability demonstration SIP revision for the Salt Lake $PM_{2.5}$ nonattainment area. This SIP submittal did not contain identified motor vehicle emissions budgets (MVEB). Therefore, the WFRC was required to only show that direct $PM_{2.5}$, with its precursor emissions, were less than the nonattainment area's base year emissions. This does not show "compliance with the NAAQS" as the Salt Lake area continues to show violations of the 2006 24-hour $PM_{2.5}$ NAAQS.

Further, and in view of the above, with the Salt Lake area's inability to attain the 24-hour $PM_{2.5}$ NAAQS it is unclear how the above statement "Because conformity to the SIP will be required for all transportation projects, there would be no cumulative impacts to air quality" is correct. The EPA could only agree with such a statement if the State had been able to submit a SIP revision for the Salt Lake area that demonstrated attainment of the 24-hour $PM_{2.5}$ NAAQS and identified applicable MVEBs.

Finally, the statement "Population growth has had little effect on overall air quality as demonstrated by the continuing improvement in air quality throughout the region." needs clarification in view of the $PM_{2.5}$ data presented in Table 3-37 and because the Salt Lake area continues to violate the 24-hour $PM_{2.5}$ NAAQS.

Climate Change

In addition to the comments above regarding the quantification of emissions, we recommend the Final EIS include an estimate of the GHG emissions associated with the project, qualitatively

describe relevant climate change impacts, and analyze reasonable alternatives and/or practicable mitigation measures to reduce project-related GHG emissions. More specifics on those elements are provided below. In addition, we recommend that the NEPA analysis address the appropriateness of considering changes to the design of the proposal to incorporate GHG reduction measures and resilience to foreseeable climate change. We recommend that the Final EIS make clear whether commitments have been made to ensure implementation of design or other measures to reduce GHG emissions or to adapt to climate change impacts. More specifically, we suggest the following:

Environmental Consequences Section:

- Estimate the GHG emissions associated with the proposal and its alternatives. Example tools for estimating and quantifying GHG emissions can be found on CEQ's NEPA.gov website[1]. These emissions levels can serve as a basis for comparison of the alternatives with respect to GHG impacts.

- Describe measures to reduce GHG emissions associated with the project, including reasonable alternatives, BMPs or other practicable mitigation opportunities and disclose the estimated GHG reductions associated with such measures. For example, the Draft EIS discusses construction emissions as being potentially 5% to the total 20–year lifetime emissions of a roadway. The Draft then notes that the percentage can vary widely based on the extent of construction and vehicle use of the roadway. The document does not describe analysis of what the GHG emissions would be for this project, as advised above, nor does it provide measures or BMPs for reduction of GHG emissions for construction activities. The EPA further recommends that the Record of Decision commits to implementation of reasonable mitigation measures that would reduce or eliminate project-related GHG emissions, where possible.

Effects of Climate Change on Project Impacts:

We recommend that the Final EIS describe potential changes to the Affected Environment that may result from climate change. Including future climate scenarios in the Final EIS would help decision makers and the public consider whether the environmental impacts of the alternatives would be exacerbated by climate change. If impacts may be exacerbated by climate change, additional mitigation measures may be warranted.

Climate Change Adaptation:

We recommend considering climate adaptation measures based on how future climate scenarios may impact the project in the Final EIS. The National Climate Assessment (NCA), released by the U.S. Global Change Resource Program[1], contains scenarios for regions and sectors, including energy and transportation. Using NCA or other peer reviewed climate scenarios to inform alternatives analysis and possible changes to the proposal can improve resilience and

[1] https://ceq.doe.gov/current_developments/GHG_accounting_methods_7Jan2015.html
[1] http://nca2014.globalchange.gov/

preparedness for climate change.

Changing climate conditions can affect a proposed project, as well as the project's ability to meet the purpose and need presented in the Draft EIS. The Draft EIS should evaluate the resilience and preparedness of highway infrastructure in relation to climate change. For instance, the Draft EIS could analyze whether projected extreme weather events or extreme temperatures may increase the need for highway maintenance in the future which could result in increased GHG emissions.

Environmental Justice

Due to the proximity of this project to environmental justice (EJ) communities, the air quality and public health factors identified above should be fully quantified and evaluated in the Final EIS. Because individuals in such communities often do not have the means to relocate, they are more susceptible to the cumulative effects of an action. Though the Draft EIS states that impacts to such communities would be negligible, without the information requested above, it is difficult to evaluate the accuracy of the conclusions that the communities in the vicinity of the project will not face any impacts.

Additionally, Wilson elementary school is located just south of I-80 on State Street and serves EJ populations on both sides of I-80. Children are also a sensitive population; therefore, it is important that the issues above be evaluated in the Final EIS to ensure the protection of human health.

CHAPTER FIVE: LIST OF PREPARERS

5.1 LIST OF PREPARERS

The following individuals and organizations have contributed to the creation of this Environmental Impact Statement (EIS):

Name	Project Role	Educational Background	Years of Experience
United States Department of Transportation, Federal Highway Administration			
Bryan Dillon	Lead Agency	M.S., Civil and Environmental Engineering	13
Utah Department of Transportation			
Peter Tang	Project Manager	B.S., Civil Engineering	20
Jennifer Elsken	Environmental Oversight	M.A., Anthropology M.A.S., Environmental Policy and Management	15
Craig Bown	Environmental Coordinator	B.S., Environmental Studies	8
Rebecca Stromness	Alternative Development/Design Oversight	B.S. Civil Engineering	16
Elizabeth Giraud	Architectural Historian	B.A., Business Administration M.A., Historic Preservation Planning	28
Elizabeth Robinson	Cultural Resources Program Manager	B.A., Anthropology M.A., Archaeology	18
Paul West	Wildlife and Threatened & Endangered Species	B.S., Range Science and Wildlife Biology	35
Horrocks Engineers			
Tracy Conti	Consultant Project Manger	B.S., Civil Engineering	32
Stan Jorgensen	Environmental Lead	B.S., Civil Engineering M.S., Civil Engineering	22
Brian Atkinson	Roadway Design	B.S., Civil Engineering	21
David Clawson	Roadway Design	B.S., Civil Engineering	9
Nicole Tolley	Environmental Analysis	B.S., Civil Engineering	12
Ryan Pitts	Environmental Analysis	B.S., Horticulture M.L.A., Landscape Architecture	10

Name	Project Role	Educational Background	Years of Experience
Judy Imlay	Environmental Analysis	B.A., Political Science J.D., Law	11
Derrick Sharp	GIS Analysis	B.A., History/Geotechnology M.A. Historical Resource Management	10
Stephanee Eastman	Environmental Analysis	B.S., Civil Engineering M.S., Civil Engineering	11
April Gordon	Public Involvement	B.S., Anthropology	8
Nancy Calkins	Architectural Historian	B.S., Botany	20
Marley Haupt	Environmental Analysis	B.S., Biology/Botany	2
Peter Steele	Cultural Resources, Environmental Analysis	B.A., Anthropology (Archaeology) M.A., Anthropology (Archaeology)	7
Project Engineering Consultants			
Gary Horton	Roadway Design	B.S., Civil Engineering	20
Chuck Easton	Environmental Analysis, Quality Assurance	B.S., Anthropology M.A., History	17
Ryan Nuesmeyer	Roadway Design	B.S., Civil Engineering M.S. Civil Engineering	5
Heather Boekweg	Environmental Analysis	B.S., Environmental Science M.S., Environmental Science	4
LYRB			
Fred Philpot	Environmental Analysis	Masters of Public Administration	10
Hales Engineering			
Ryan Hales	Traffic Analysis	B.S., Civil Engineering M.S., Civil Engineering	20
Jeremy Searle	Traffic Analysis	B.S., Civil Engineering M.S., Civil Engineering	5
Penna Powers			
Justin Smart	Public Involvement	B.S., Journalism and Communications	13

CHAPTER SIX: LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS

6.1 LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS

Below is a list of agencies, organizations, and persons to whom copies of the Statement were sent:

Dawn Roberts
U.S. Environmental Protection Agency
Office of Federal Activities
EIS Filing Section
(filed through e-NEPA)

Lisa Lloyd
U.S. Environmental Protection Agency
1595 Wynkoop Street
Denver, Colorado 80202-1129

Willie R. Taylor, Director
U.S. Department of Interior
Office of Environmental Policy and Compliance
Main Interior Building, MS 2342
1849 C Street, NW
Washington, DC 20240

Reid Nelson, Director Federal programs
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue, NW
Washington, DC 20004

Owen Lindauer
Federal Highway Administration
HEPE-1, Room 3232-M
400 7th Street, SW
Washington, DC 20590

Lance Hanf
FHWA Western Resource Center
201 Mission Street, Suite 1700
San Francisco, California 94105-1838

Bryan Dillon
Federal Highway Administration, Utah Division
2520 West 4700 South
Salt Lake City, Utah 84118-1847

Larry Crist
U.S. Fish and Wildlife Service
Utah Field Office
2369 West Orton Circle, Suite 50
West Valley City, Utah 84119-7603

Jason Gipson
U.S. Army Corps of Engineers
533 West 2600 South Suite 150
Bountiful, Utah 84010

Dr. Martin Bates, Superintendent
Granite School District
2500 South State Street
Salt Lake City, Utah 84115

Dennis Pay
South Salt Lake City
195 West Oakland Avenue
South Salt Lake City, Utah 84115

Kathleen Clarke
Resource Development Coordinating Committee
E-210 State Capitol Complex
Salt Lake City, Utah 84114
(will distribute copies of the Final EIS to all appropriate state agencies)

Kip Billings
Wasatch Front Regional Council
295 North Jimmy Doolittle Road
Salt Lake City, Utah 84116

APPENDIX A: PUBLIC HEARING SUMMARY

Meeting Type	The Utah Department of Transportation (UDOT) held a Public Hearing (open house format) to inform the public about the I-80 and State Street Draft Environmental Impact Statement (DEIS) and to present the Preferred Alternative.
When/Where	The Public Hearing was held on February 16, 2016 at the Columbus Community Center (2531 South 400 East, South Salt Lake City, Utah) from 5:30 p.m. to 7:30 p.m. A microphone was available for public comment at 6:00 and 7:00 p.m. Presentation boards and several project maps were presented and project team members were available to answer questions.
Advertisement	Advertisement for the Public Hearing included: • Two legal notices: Both ran in the Salt Lake Tribune and Desert News on February 1, 2016 and again on February 8, 2016 • Postcards mailed to approximately 4,364 stakeholders (between 2100 South and 2700 South and I-15 and 700 East) • Project website notification • Hand delivery of 125 fliers to businesses and homes • Email notification to stakeholders who signed up for email updates • UDOT Region Two tweet on February 10, 2016 and February 16, 2016
Attendance	39 attendees signed in at the front desk
Information Presented at the Public Hearing	The meeting presented information on the EIS process, the Purpose and Need, alternatives considered, the alternatives screening process, alternatives selected for detailed study, the Preferred Alternative, environmental impacts, and information gathered during the environmental study.
Comments	A total of 24 comments were received: • Microphone: 2 • Court Recorder: 5 • Comment Form at Public Hearing: 3 • Online: 4 • Email: 8 • Phone Call: 2

Legal Notice

4770 S. 5600 W.
WEST VALLEY CITY, UTAH 84118
FED.TAX I.D.# 87-0217663
801-204-5910

Deseret News | Utah Media Group | The Salt Lake Tribune

PROOF OF PUBLICATION **CUSTOMER'S COPY**

CUSTOMER NAME AND ADDRESS	ACCOUNT NUMBER
HORROCKS ENGINEERS INC, Laurie Syme 2162 W GROVE PARKWAY STE 400 PLEASANT GROVE UT 84062	
ACCOUNT NAME	
HORROCKS ENGINEERS INC,	
TELEPHONE	C
8017635100	0(
PUBLICATION SCHEDULE	
START 02/01/2016 END 02/08/2016	
CUSTOMER REFERENCE NUMBER	
Project . F-I80-3(180)12	
CAPTION	
NOTICE TO THE PUBLIC OF PUBLIC HEARING /	
SIZE	
57 LINES 4 COLUMN(S)	
TIMES	TOTAL COST
6	771.08

NOTICE TO THE PUBLIC OF PUBLIC HEARING AND AVAILABILITY OF DRAFT ENVIRONMENTAL IMPACT STATEMENT
On the proposed improvements for I-80 at State Street, Salt Lake County, Utah
UDOT Project No. F-180-3(180)123

The Federal Highway Administration and the Utah Department of Transportation, herewith, advises all interested persons or groups that an official Public Hearing (open house format) will be held for this project. The purpose of the proposed project is to:

- Reduce congestion on I-80 and State Street
- Improve operational characteristics and safety on I-80 and State Street
- Support local economic development through mobility improvements

The proposed project involves the following:

- Widening the I-80 structure and adding additional lanes on State Street under the structure
- Constructing a free-flow right turn lane from eastbound I-80 to southbound State Street
- Eliminating right turns on red light from northbound State Street to eastbound I-80
- Constructing a westbound frontage road between State Street and Main Street
- Constructing an on-ramp from Main Street to westbound I-80.

An official Public Hearing will be held for this project on February 16, 2016, at the Columbus Community Center, 2531 South 400 East, South Salt Lake City, Utah from 5:30 p.m. to 7:30 p.m. Members of the public are invited to visit the open house at anytime during this period and are encouraged to provide comments on the project. An open microphone will be available for public comment at 6:00 and 7:00 p.m.

Information to be presented at the hearing will include a discussion of the project location, purpose and need, design alternatives considered, proposed improvements, and information gathered during the environmental study. Appropriate illustrative materials will be available for review. During the hearing, verbal and/or written comments will be received from all interested persons or groups regarding the features of the proposed project and its social, economic, and environmental effects. Comments may also be submitted via the project web site at www.udot.utah.gov/i80statestreet, the project hotline at 1-801-889-2766, or via email to I80statestreet@utah.gov.

A Draft Environmental Impact Statement has been prepared for this project which defines the scope of the project, alternatives, any potential for environmental impact, and mitigation measures which might reduce adverse environmental impacts. Copies of this document are available for review at:

1. UDOT Region Two Office (2010 South 2760 West, Salt Lake City, Utah 84104)
2. UDOT Central Office (Calvin L. Rampton Complex, 4501 South 2700 West, Salt Lake City, UT 84119)
3. Federal Highway Administration (2520 West 4700 South, Suite 9A, Salt Lake City, UT 84118)
4. South Salt Lake Public Works (195 West Oakland Avenue, South Salt Lake, UT 84115)
5. South Salt Lake City Recorder's Office (220 East Morris Avenue, Second Floor, South Salt Lake, UT 84115)
6. Project Web site: www.udot.utah.gov/I80statestreet

The Draft Environmental Impact Statement will be available for public comment for forty-five (45) days from the first date of publication of the Notice of Availability in the Federal Register. Written comments should be sent to: Horrocks Engineers, 2162 West Grove Parkway Suite 400, Pleasant Grove, UT 84062 postmarked by midnight, March 21, 2016 in order to be included in the official transcript of the public hearing proceedings.

In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify the project team at 1-801-889-2766, Horrocks Engineers, 2162 West Grove Parkway Suite 400, Pleasant Grove, UT 84062, or I80statestreet@utah.gov at least three days in advance of the meeting. Any individuals having questions relating to the environmental document or the Public Hearing should contact April Gordon at the before mentioned number/address/email.

1073765 UPAXLP

AFFIDAVIT OF PUBLICATION

AS NEWSPAPER AGENCY COMPANY, LLC dba UTAH MEDIA GROUP LEGAL BOOKER. I CERTIFY THAT THE ATTACHED ADVERTISEMENT OF **NOTICE TO THE PUBLIC OF PUBLIC HEARING AND AVAILABILITY OF DRAFT ENVIRONMENTAL IMPACT STATEMENT On the proposed improvements for I-80 at State Street, Salt La** FOR **HORROCKS ENGINEERS INC,** WAS PUBLISHED BY THE NEWSPAPER AGENCY COMPANY, LLC dba UTAH MEDIA GROUP. AGENT FOR DESERET NEWS AND THE SALT LAKE TRIBUNE. DAILY NEWSPAPERS PRINTED IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH. AND PUBLISHED IN SALT LAKE CITY. SALT LAKE COUNTY IN THE STATE OF UTAH. NOTICE IS ALSO POSTED ON UTAHLEGALS.COM ON THE SAME DAY AS THE FIRST NEWSPAPER PUBLICATION DATE AND REMAINS ON UTAHLEGALS.COM INDEFINATELY. COMPLIES WITH UTAH DIGITAL SIGNATURE ACT UTAH CODE 46-2-101; 46-3-104.

PUBLISHED ON Start 02/01/2016 End 02/08/2016

DATE 2/8/2016 SIGNATURE A Dartnell

STATE OF UTAH)

COUNTY OF SALT LAKE)

SUBSCRIBED AND SWORN TO BEFORE ME ON THIS 8TH DAY OF FEBRUARY IN THE YEAR 2016

BY ANN DARTNELL .

VIRGINIA CRAFT
NOTARY PUBLIC - STATE OF UTAH
My Comm. Exp. 01/12/2018
Commission # 672963

Virginia Craft
NOTARY PUBLIC SIGNATURE

Postcard Mailer

I-80 & STATE STREET PUBLIC HEARING
(Open House Format)

WHEN
Tuesday, Feb. 16, 2016
5:30 – 7:30 p.m.

An open microphone will be available for public comment at 6 p.m. and 7 p.m.

WHERE
Columbus Center Auditorium
2531 South 400 East
South Salt Lake City
(Enter from the parking lot on the west side of the building.)

If you need special accommodations (e.g., translation assistance), please contact us at least three days before the meeting.

OTHER OPTIONS
The Draft Environmental Impact Statement (DEIS) is available for public review and comment through March 21, 2016 at udot.utah.gov/i80statestreet.

Public hearing materials will also be available on the study website beginning Feb. 16, 2016.

Printed copies of the DEIS document are available at the following locations:

- South Salt Lake Public Works (195 West Oakland Ave.)
- South Salt Lake City Recorder's Office (220 East Morris Ave., Second Floor)
- UDOT Region 2 (2010 South 2760 West, Salt Lake City)
- UDOT Central Office (4501 South 2700 West, Salt Lake City)
- Federal Highway Administration Utah Division Office (2520 West 4700 South, Ste. 9A, Salt Lake City)

I-80 & State Street
ENVIRONMENTAL IMPACT STATEMENT

2010 South 2760 West
Salt Lake City, UT 84104

Display Boards

WELCOME

I-80 & STATE STREET INTERCHANGE ENVIRONMENTAL IMPACT STATEMENT

PUBLIC HEARING

I-80 & State Street
ENVIRONMENTAL IMPACT STATEMENT
South Salt Lake City
A UDOT STUDY

UDOT Keeping Utah Moving

U.S. Department of Transportation
Federal Highway Administration

Display Boards

YOUR INPUT IS IMPORTANT

Thank you for participating in the I-80 & State Street Environmental Impact Statement (EIS) process.

Your input will help us:

- Refine the analysis of the effects of the project.
- Identify issues or concerns we may not have fully addressed.

What's next:

- Comments received by March 21, 2016 will be considered in the Final EIS.
- The Final EIS will be prepared and provided to the public in mid-2016. If there are no major changes, a Record of Decision will be issued at the same time.

Display Boards

STUDY PROCESS

2014	2015	2016
SCOPING * Mid 2014	**ALTERNATIVES ANALYSIS *** Late 2014 to Early 2015	**DRAFT EIS *** February 2016
PURPOSE & NEED Mid to Late 2014	**ENVIRONMENTAL ANALYSIS** Late 2014 to Mid 2015	**FINAL EIS/RECORD OF DECISION** Spring/Summer 2016

- Current Phase
- * Public Meeting and Review Period

Display Boards

PURPOSE AND NEED

Congestion on I-80 and State Street Near the Interchange:

- Segments of I-80 and State Street will operate at failing conditions by 2040

Operational and Safety Issues on I-80 and State Street:

- Inside through-lane on northbound and southbound State Street trapped at the left-turn lanes under the narrow I-80 bridge
- Safety conflicts at the frontage roads near the State Street/I-80 Interchange

Changing Land-Use Patterns and Additional Development

- Land use in the study area becoming more diversified
- Two Urban Renewal Areas (Market Station and Central Pointe)
- Increase of vehicle, pedestrian, and bicycle traffic

Project Purpose:

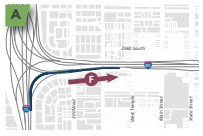
- Reduce congestion on I-80 and State Street
- Improve operational characteristics and safety on I-80 and State Street
- Support local economic development through mobility improvements

Display Boards

I-80 WEAVE ALTERNATIVES

EASTBOUND WEAVE ALTERNATIVES


NO-ACTION ALTERNATIVE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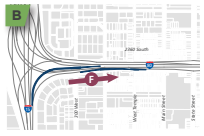
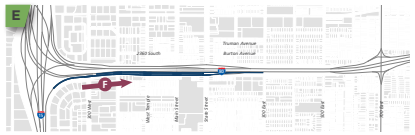
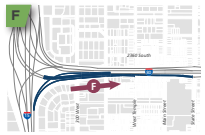
TIGHTER CURVE


B
FLYOVER FROM I-15 NB TO I-80 EB


C
SLIP RAMP TO COLLECTOR-DISTRIBUTOR ROAD


C1
SLIP RAMP TO COLLECTOR-DISTRIBUTOR ROAD WITH FLYOVER


E
I-15 NB SEPARATED RAMP WITH LEFT EXIT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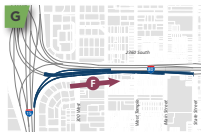
I-15 NB TO WEST TEMPLE WITH FLYOVER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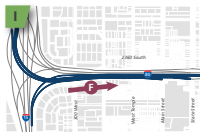
I-15 NB TO MAIN STREET WITH FLYOVER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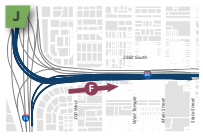
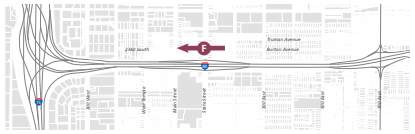
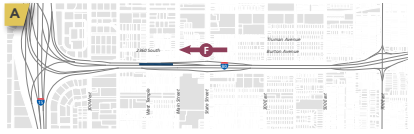
COLLECTOR-DISTRIBUTOR SYSTEM TO MAIN STREET


J
SR-201 AND I-15 SB BRAIDED RAMPS WITH I-15 NB FLYOVER

WESTBOUND WEAVE ALTERNATIVES


NO-ACTION ALTERNATIVE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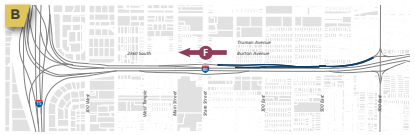
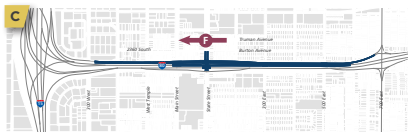
I-80 WESTBOUND DIVERGE POINT


B
I-80 WESTBOUND 700 EAST SEPARATED RAMP WITH LEFT EXIT


C
I-80 WESTBOUND BRAIDED RAMPS


D
RAMP METERING AT 700 EAST WESTBOUND ON RAMP

F FAILING CONDITIONS

All of the I-80 eastbound and westbound weave alternatives operate at failing conditions because of:

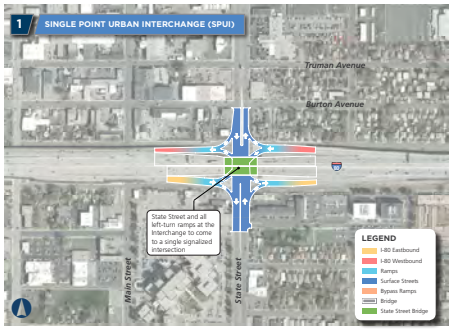
- **High volumes of traffic on I-80**
- **Interaction between I-80, I-15, SR-201, State Street, and 700 East**

WHAT'S NEXT?

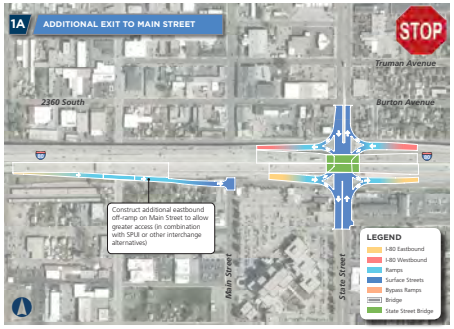
To address the needs of the weave areas on I-80, corridor wide and system-to-system analyses will need to be conducted. This analysis is beyond the scope of this Environmental Impact Statement, but will be further evaluated as part of other projects and studies.

Display Boards

INTERCHANGE ALTERNATIVES



Move forward for detailed study



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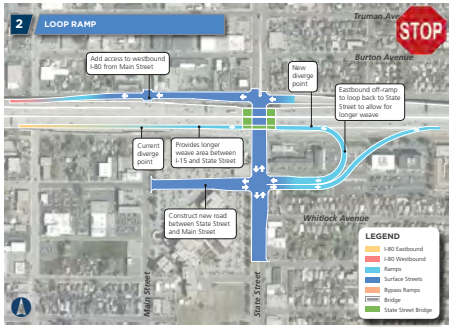
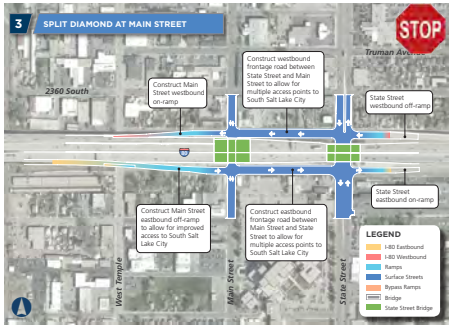


Eliminated as part of Purpose and Need Screening



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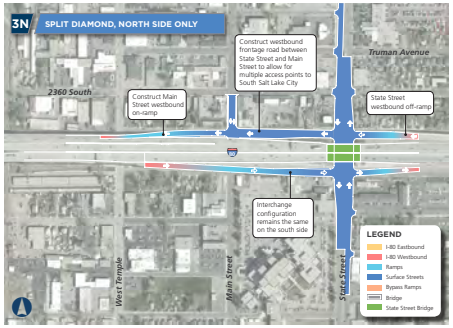
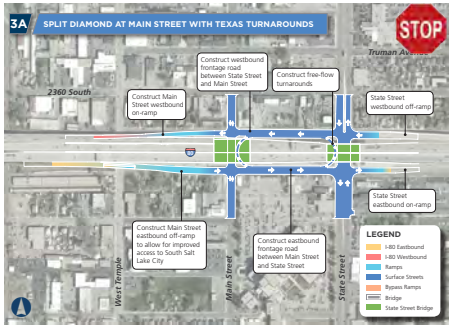


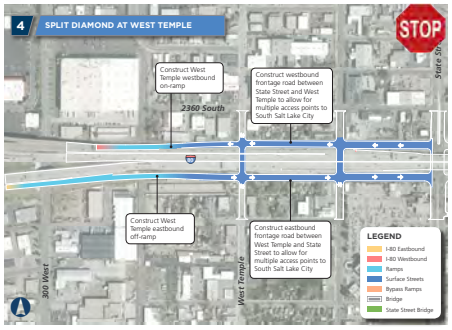
Move forward for detailed study



Eliminated as part of Environmental Screening

Display Boards

INTERCHANGE ALTERNATIVES



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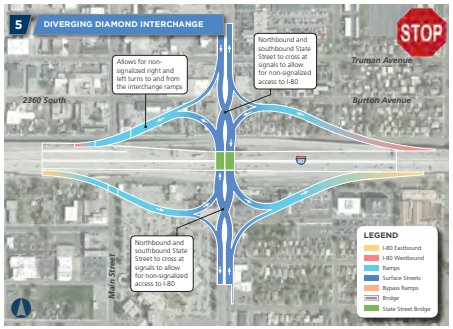

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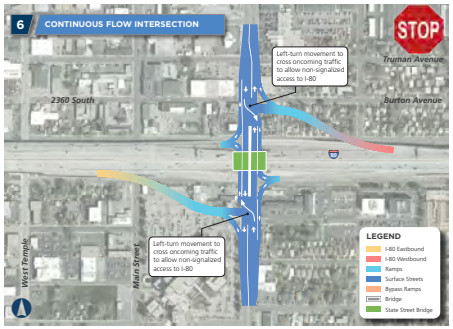


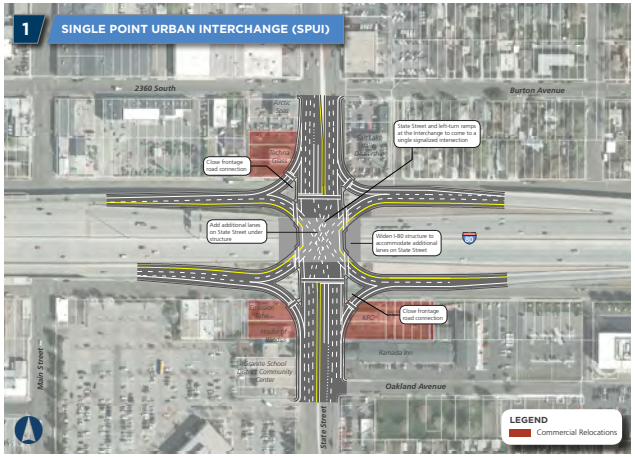
Eliminated as part of Purpose and Need Screening

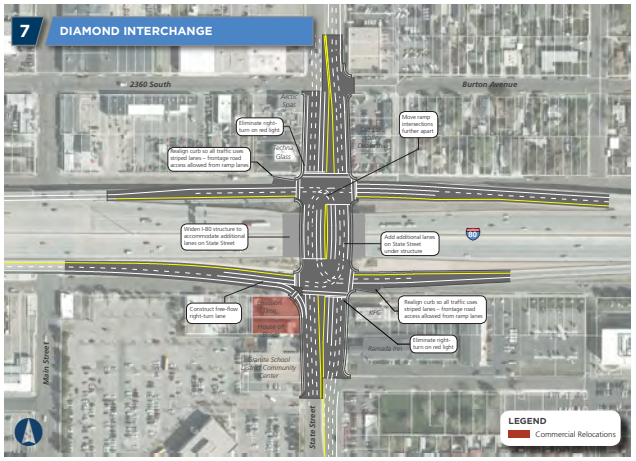
Move forward for detailed study

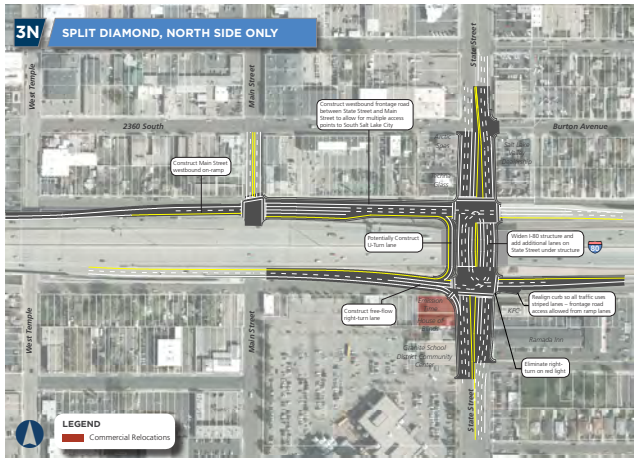
Eliminated as part of Purpose and Need Screening

Display Boards

SELECTED FOR DETAILED STUDY







NO-ACTION ALTERNATIVE

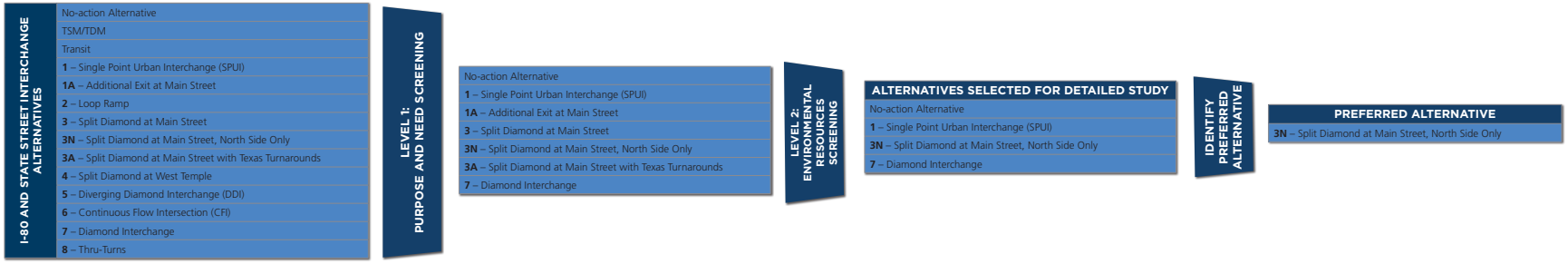
The No-action Alternative satisfies the National Environmental Policy Act (NEPA) "No-action" requirement and provides a baseline to compare impacts of build alternatives.

WHAT IS DETAILED STUDY?

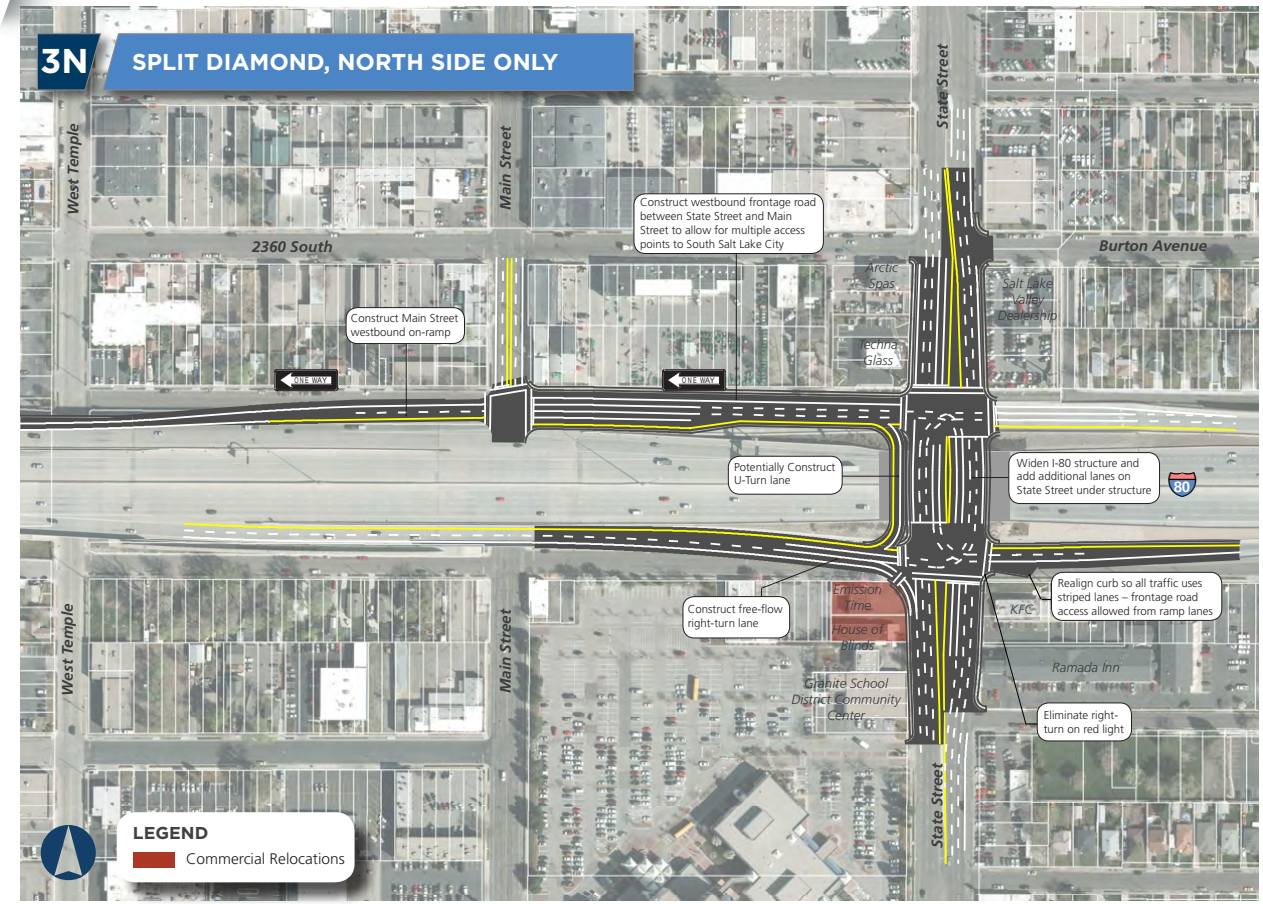
The probable beneficial and adverse social, economic, and environmental effects of alternatives selected for "detailed study" are analyzed in Chapter 3: Affected Environment and Environmental Resources.

Display Boards

ALTERNATIVES SCREENING PROCESS



PREFERRED ALTERNATIVE

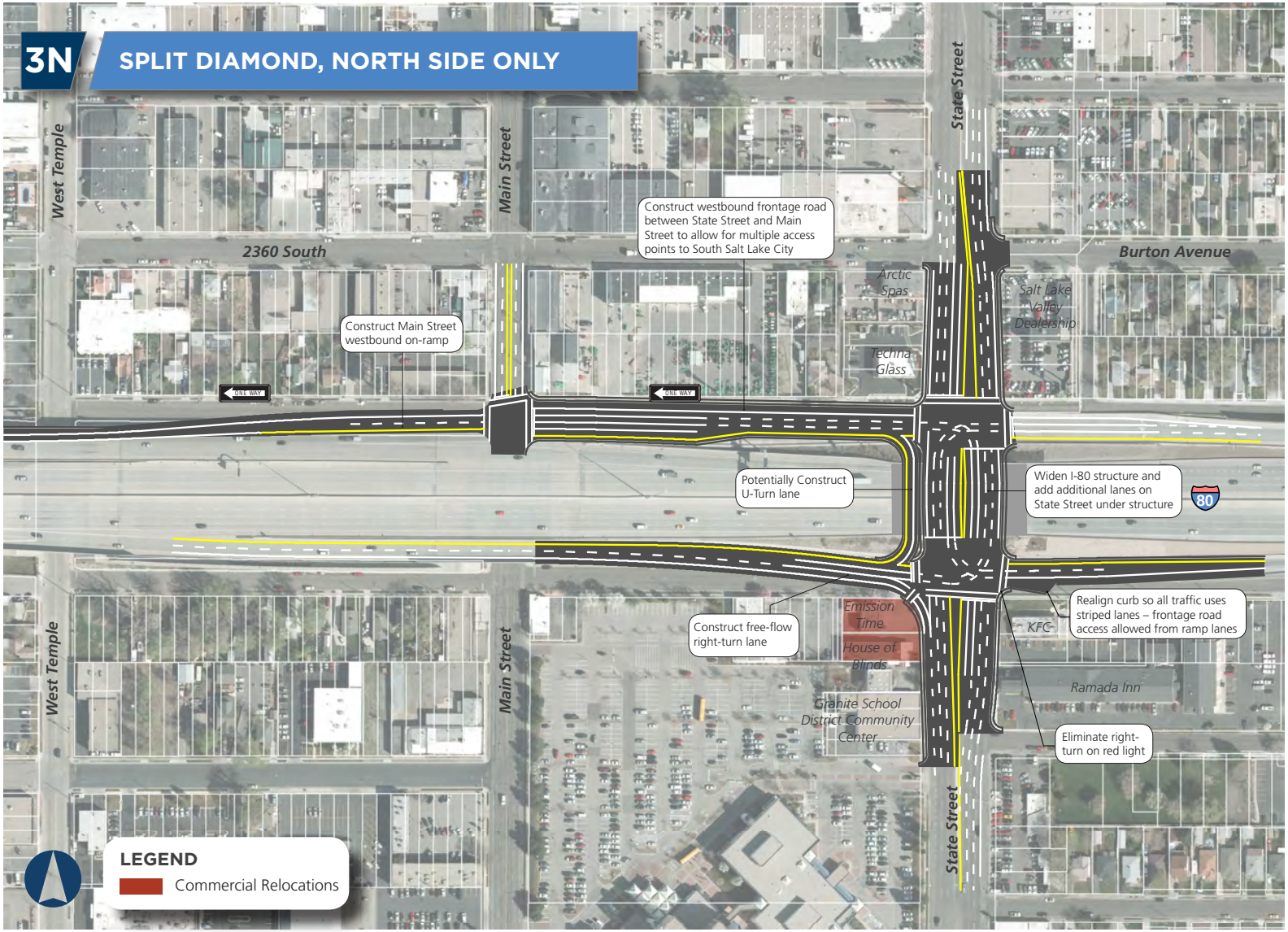


The Federal Highway Administration and the Utah Department of Transportation have identified Alternative 3N as the Preferred Alternative:

- **Reduces congestion for all intersections at the I-80 and State Street Interchange**
- **Reduces congestion on roads near the I-80 and State Street interchange**
- **Eliminates "trap" left-turn lane on State Street**
- **Improves safety at frontage roads**
- **Improves access to Urban Renewal Areas and existing businesses and is consistent with economic development and transportation plans**

Display Boards

PREFERRED ALTERNATIVE



Display Boards

ENVIRONMENTAL RESOURCES

Resource	No-action Alternative	Preferred Alternative
Land Use	• Changes in future land use and redevelopment in study area would continue	• Consistent with policies established in the South Salt Lake Future Land Use Plan, with a focus on commercial, mixed-use and office land uses • Full and partial acquisitions would not affect the land use characteristics of the study area
Social Conditions	• No impact	• Would not change neighborhood or community cohesion through the splitting of neighborhoods, or the isolation of a portion of a neighborhood or an ethnic group • Would not generate new development, nor is there an expectation that property values would change substantially within the study area • No impact to the Granite School District Community Center • Would not separate residents from community facilities
Right-of-Way and Relocations	• No right-of-way acquisition or relocations	• Relocate two businesses • Require 0.08-acres in right-of-way acquisition
Economic Conditions	• Changes in future land use and redevelopment in study area would continue	• Partial acquisition of property related to four businesses and would relocate two businesses (represents less than 0.1 percent of study area acreage, taxable property value, and market property value) • Long term redevelopment plans would continue to utilize study area as prime location for commercial development
Pedestrians and Bicyclists	• No impact	• Approximately 500 feet of existing bike lane on Main Street would be temporarily closed during construction
Cultural Resources	• No impact	• No historic properties affected
Noise	• Noise levels would generally be the same as existing conditions	• Noise levels would generally be the same as existing conditions • 13 residences would be considered impacted by noise

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ENVIRONMENTAL RESOURCES

Resource	No-action Alternative	Preferred Alternative
Hazardous Waste	• No impact	• Three sites in impact area would have an overall risk rating of "low"
Visual Conditions	• No impact	• Viewers of Roadway: New westbound on-ramp would shift retaining wall 16 to 26 feet closer to properties on northwest side of interchange • Viewers Using Roadway: Removal of commercial properties at interchange corner would create a noticeable "vacancy"
Construction	• No impact	• Social Conditions: Area residents, commercial and retail businesses, governmental and institutional properties, and commuters in study area would experience minor, temporary inconveniences from noise, dust, and travel delays and detours during the course of construction; access to all properties in area would be maintained with some temporary construction impacts to accesses for some properties • Economic Conditions: Businesses in the area would experience temporary construction inconveniences from dust, noise, and traffic delays and detours associated with roadway construction; access to all properties in the area would be maintained (some temporary construction impacts to accesses for some properties); could result in a decrease in patronage and sales because residents would be less willing to negotiate the construction area • Air Quality: Potential for temporary and minor fugitive dust impacts during construction • Noise: Temporary inconvenience due to construction noise and vibration; extended disruption of normal activities in the study area not anticipated since no one receptor is expected to be exposed to construction noise of long duration Water Resources: Potential for construction-related erosion and sedimentation impacts • Cultural Resources: Potential to impact undiscovered archaeological sites • Hazardous Waste Sites: Potential to impact undiscovered hazardous waste sites • Visual Conditions: Temporary visual impacts in the study area due to construction signs and barricades, work lights, exposed earth, and equipment • Invasive Species: Would provide opportunities for the movement of invasive species • Construction Phasing and Potential Detours: Would result in temporary access closures and detours

Display Boards

HOW TO COMMENT

Questions, comments or want to stay updated?

Visit udot.utah.gov/i80statestreet and click on the Public Input tab

Call 801-889-2766

Email i80statestreet@utah.gov

- Write your comment on a comment card
- Provide an oral comment to the court reporter
- Sign up to give an oral comment (open microphone available at 6 p.m. and 7 p.m.)
- Mail a comment to:

I-80 and State Street EIS
Horrocks Engineers
2162 W. Grove Parkway, Suite 400,
Pleasant Grove, Utah 84062

All comments must be received (or postmarked) by midnight, March 21, 2016.

I"80 & STATE STREET
ENVIRONMENTAL IMPACT STATEMENT
Public Meeting

February 16, 2016
5:30 p.m. to 7:30 p.m.

COLUMBUS CENTER
2531 South 400 East
Salt Lake City, Utah

Reported By:
Rossann J. Morgan
- Certified Shorthand Reporter -
- Registered Professional Reporter -

I N D E X

2

February 16, 2016 5:30 p.m.

PROCEEDINGS

MS. HILL: Elizabeth Hill, H-I-L-L, [redacted]. Well, I'm concerned because they sent us that proposal for the apartments across the street, but there was no -- in fact, we -- a lot of units in our building park across the street because there's not enough parking for our building. So that is my concern, is that my building gets some parking over there because they built our building with not enough parking. You can count over there at nighttime, there's about 35 to 40 at night. So just wondering if there's anything online, anything we can find out more about when Winco is going up. I'm on [redacted]

MS. THATCHER: Judy Thatcher. I think ours is pretty well a done deal, because they've already started construction, they've already got the funding, they've already started. I just wonder about parking.

MS. HILL: Another point I'd like is -- what do they call that low income housing? Southgate Townhomes -- South Park Town Homes. It's the low-income housing. I wondered if that's going anywhere.

MS. GORDON: Hello. Can I get your attention, please? We're going to start our open mike in about ten minutes. So if any of you have a desire to

give comment during the open mike period, go see Charlotte, my lovely friend, who would love to sign you up. So again, ten-minute warning. Thank you.

MS. GORDON: Hello. It's 6:00 p.m. We haven't had anyone sign up for our open mike yet. If anybody wants to sign up, you want to go sign up over there. If not, we have another one at 7:00 p.m., but...

MR. GORD: Bill and Lynette Gord, 2432 South State Street, and 54 Robert Avenue. This is the parcel that we're talking about, House of Blinds. Well, it goes from there clear back to here. They're separate buildings. So there's different people in different buildings.

MRS. GORD: So State Street and Robert Avenue.

MR. GORD: That whole section and the way that these people get into these buildings is from State Street. (Reading document) It's Gord Family Limited Partnership and the back half is Bill Gord's Irrevocable Trust. Bill and Lynette Gord own this property located on southwest corner of I-80 and State Street intersection, known as 2432 South State Street and 54 East Robert Avenue.

They have owned or acquired pieces of the property over the past 40 years. The property contains

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three buildings, one building has continuously been occupied by House of Blinds, a company owned by Bill and Lynette Gord. The remaining buildings are currently under lease and have historical -- have been historically leased providing rental income.

During more recent times, the property has been impacted by two other major redevelopments, the expansion of I-80 off-ramp and southbound State Street where access to State Street is cut off via Robert Avenue. It used to be a through street on Robert Avenue. The second one was widening of State Street to four lanes were some property loss occurred.

The need for improving the intersection is apparent due to the anticipated increase in traffic to one of the already busiest intersections in Salt Lake City County. This is going to be number one. Significantly resulting from the improvements: Number one, the proposed improvements will completely cut off traffic access to our properties from State Street and the I-80 off-ramp leaving the only access via Main Street on now dead end and previously reduced Robert Avenue.

MRS. GORD: It's a dead end, Robert Avenue.

MR. GORD: The removal of the flashing, rotating pole sign located at the northeast corner of our property will be impacted. I'll go into it further on

that. Impact of the improvements, because there is no access by the extremely high volume of traffic from this intersection, the value of our properties will be significantly reduced and the design of some of or all of the buildings may no longer be viable for the purpose for which they were built.

Number two, without the traffic access from State Street and I-80, the location is unsuitable for a retail business located in the two buildings along the State Street frontage. This will require the relocation of House of Blinds and any tenant under lease in the northwest building. The lease of these buildings will be more difficult, resulting in a higher vacancy rate and lower lease rates.

Number three, the loss of access to the buildings at 54 East Robert Avenue via State Street makes this location less desirable and may result in the loss of the two tenants or justifiable cause to reduce their rent. The lease of these buildings will be more difficult, resulting in the higher vacancy rates and lower lease rates.

Number four, the pole sign has been granted as special grandfather permit. Once removed, the sign is irreplaceable. It has been an icon of the businesses located on this property and is the only flashing,

rotating sign that is visible from the freeway in the Salt Lake County. The sign gives advertising exposure to the high-traffic volume across I-80 and State Street and is a revenue source to the property owners. If the sign were able to be moved, it would have a much lower value because the property is no longer conducive to retail businesses.

Number five, the impact to House of Blinds is immeasurable. The business has been in the same location for 40 years and worked by three generations. A tremendous amount of consumer equity exists due to the amount of advertising to reenforce the location of this business, and easy on and off the freeway access. The location is central to the Valley and there are few, if any, locations that the business can be relocated that will provide the traffic and exposure and currently not for the same lease rate.

The company will need to embark on a very large marketing and advertising campaign to broadcast that the company has moved and not gone out of business. We are fearful that even with such an effort, company sales revenues will suffer for a considerable time.

Number six, we cannot think of a single positive effect that the intersection improvements will have on our property, our business or the other

businesses located on our property. We appreciate the opportunity to provide a brief outline of some of the ways the intersection improvements will impact our property and businesses. I'll leave this will you too.

MS. GORDON: All right. We have a couple people that are going to comment here.

MR. SWILLINGER: (Adam Swillinger) Hi everybody. If we could get your attention. We're going start talking a little bit about the issue at hand. I'm here tonight on part of two land owners behind Burton Street. It's 2450. What's that address? I'm not quite sure.

MS. GORDON: You don't ask questions. Just comment.

MR. SWILLINGER: Okay. Anyway, I'll read something from the Sunbelt. That gentleman, tonight, couldn't be here. This will be verbatim exactly what he asked me to read and I'll turn in a couple of pictures and his business card to the recorder. So this is on behalf of Sunbelt Rentals.

(Reading document.) To whom it may concern, I'm writing this letter to discuss some issues with the plan to change the frontage road into a three-, four-lane road to change the ramp on Main Street. This frontage road is the back of our property and is used constantly

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for equipment deliveries and for an exit to our business for our semis. We have trucks that stage on the road and wait for their turn to unload equipment.

That frontage road is a huge part of our branch running smoothly. If the road is changed, it will have an adverse affect on our daily businesses. Please consider an alternative plan that will not affect the businesses on this frontage road. We have been on the location for many years and our outside haulers, delivery drivers, need this frontage road to stay the same.

After reviewing the plans, I believe the Diamond Interchange is the best. That would be -- for those of you who are looking at the Environmental Impact Statement, that would be number seven, the Diamond Interchange.

If the other plans were chosen to include closing the frontage road or making it a main traffic road, this would hinder the ability of the company to stage trucks, deliver heavy equipment, and especially could have an affect on our customers causing them to go to another rental company for ease of access.

With any increased traffic on this frontage road, this could increase the likelihood of an accident with one of our semi trucks. Thank you, Conor.

So that's verbatim. If anybody wants to look

at the pictures he brought, he can. And this was a conversation that I did have with him while and before he handed me this. So we're also concerned about snow removal issues on that frontage road. The swathe from the trucks when they go through will eliminate the shoulder. We're also concerned about the noise pollution because of the frontage road.

MS. GORDON: Is the Conor portion over?

MR. SWILLINGER: This is his. This is the conversation that I recently had with him.

MS. GORDON: Okay. Because you've got about 30 seconds.

MR. SWILLINGER: Thirty seconds. Anyway -- so we talked about the snow, we talked about traffic dangers. We also talked about the fact that we've been here for 20 years. And now as the state grows, we want to be part of the plan, but as we've been paying our taxes and moving forward, we don't want to get penalized for moving forward with what's best for everybody. So we hope that we can find a plan -- we both agreed we wanted everybody to find a plan that could work for all of us.

So now, I am going to hand this to the court reporter and I'm going to put on my Dr. Jekyll and Mr. Hyde. I'm switching to the next door neighbor. So here you go. This is his pictures that accommodate this.

And here is his card and a letter that I read verbatim.

MR. SWILLINGER: Okay. So anyway, my name is Adam. Adam Swillinger. I own the piece of property right next to Sunbelt Rentals and we're here tonight to discuss something which would be three options that are left over. And I know that Environmental Impact Statement has come up with a preferred alternative, but I want to put that on the forefront that this is preferred.

So I personally advocate number seven on the Environmental Impact Statement, which is on page Echo Sierra-4, it's Diagram 7, number seven. And the reason I choose that is it's going to have the least amount of impact for traffic that will allow me ingress and egress out of my property.

Currently, we try to back trucks up and it's kind of a slow, quiet road and, you know, we back up and there's not a problem. But if we have commuters that are in a rush to get home to their families or where they need to be, it will be impossible for me, as my neighbor, to back our trucks up.

Second of all, I wanted to bring up something a little more qualitative. You know, we talked about the urban renewal of the area and I am on the backside of that Central Point Area. And our company, which has been there for 20 years, will see little, if anything, from

the bike paths, the bus stops, the increased traffic, foot traffic. There's only three businesses on the back of that road and I've been there for 20 years paying the property taxes.

So I'd like to co-exist with the traffic issue and not sacrifice my ability, "A," to sell the building. So let's say in 15 years I decide to sell the building. It's going to be real hard to sell that and have people wanting to buy it on a frontage road that now has three lanes.

So I also want to talk about the noise pollution. It's noisy from the freeway, but it's actually pretty quiet. I'd like to bring up a fact that the snow removal will be dangerous because they're talking about on number seven having two lanes there. However, when the snowplows go through, they're going to have a berm on each side of snow.

So based on that, I want to remind everybody that of the seven choices, we're down to three. And of those three choices, the additional exit at Main Street and the split diamond at Main Street, they will not alleviate all the traffic that runs down Burton and turns onto State Street. It with only take up the ability to head traffic west. So we'll still have people on Burton Street and they'll be racing around the corner to, you

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know, go onto -- take the split diamond or the 3A Split Diamond at Main Street with the Texas turnarounds.

So I think I'm slowing running out of time here. I can see I have everybody's attention and I ask you to carefully look at these plans and think about the number seven diamond interchange which also closely resembles what State Street is today. It's the closest representation, the least amount of impact, and my guess would be it wouldn't be a financial obligation as well for the money that we have to get the from Feds and the State. So thanks for your time. Hope everybody has a great night and be safe out of there.

MS. GORDON: Thank you very much. That was great. We'll have another sign-up at 7:00 p.m. If you'd like to make comments, please just sign up on our sheet. Thanks.

MR. DIXON: Steve Dixon. I own a property on the corner of West Temple and 2400 South. I prefer the same alternative of the last fellow, which was number seven. And the reasons for it is because, first off, it shortens the time to merge to go southbound on the interstate. So you lose distance to get up to speed and get over for that left turn to go to Provo or to go southbound.

There's going to be increased noise because

the cars are gunning up their engines to get up to speed and we are right there down below them and that's going to be increased noise. There is a problem with ice on both -- almost all those streets are in a shadow. And so they are now proposing to move it down to Main Street and now you have a street that is in the shadow. The last fellow talked about snow removal. Well, there's an additional thing. We now have ice because it's not in the sun in the wintertime, you have ice.

Another problem that is apparent is that you are increasing traffic on Main Street past a grade school with children crossing the street. You'll now have children crossing the street and cars going to Main Street to get to it. So there's increased risk to the children.

I feel that having the ramp between West Temple and Main Street is going to decrease our property values. I think that option seven would be the less expensive. There's less walls to be moved, there's less -- that's clearly going to be a less expensive option for the option for the State and for the government.

I think that covered most of the issues. I'm not happy with this preferred alternative. I just don't think it's a good idea. The option seven seems to be the least amount of work to change it and the most efficient.

It's going to impact the least. Also safest and cheapest.

MR. SWILLINGER: My name is Adam Swillinger and I'm representing the property at 60 East Burton Avenue that runs through to the frontage road that's in question. So there will be two topics I want to discuss tonight. One is the plan that I advocate and why, and two is the circumstances that led up to this.

So the first that I want to talk about is I advocate the diamond interchange. It will have the least amount of impact to the area, cost the least amount of money for development, and it's closest to what State Street is today. Meaning, whatever today's date is.

So the reason that works best for me, it maintains my ingress and egress. Furthermore, it provides me the alternative to use my property that I purchased as I intended it to.

I don't advocate the 3N Split Diamond on Main Street because it doesn't take into consideration the businesses that use that frontage road. For instance, we back our trucks in and out of this commercial area and I'm afraid that impatient drivers or people who are in a hurry to get to their destination will eliminate that ability. There's no other way for me to load my trucks in and out, other than that frontage road.

The second thing I'm worried about is snow removal. If the snowplows remove the snow down the frontage road, then the spindrift that will be piled up on each shoulder of the road will further inhibit me from tactics I need to bring my vehicle in and out of our property.

I'm also concerned about the noise pollution. Currently, that frontage road gets very minimal traffic. Simply traffic going from State to Main Street. If we add the frontage road, there will be the constant hum of buzz of traffic going on and up and down the freeway and going by my business, not to mention the existing traffic that's on the north side of our property on Burton Street.

MRS. SWILLINGER: We're concerned about safety because when we're trying to back large trucks and load them on that road at the same time, other cars will be going up there trying to get on the freeway. It will cause safety issues and traffic problems. Alison Swillinger.

MR. SWILLINGER: So I'd like to talk about another topic that concerns me, not just the tactics, but the overall plan of the Environmental Impact Statement. So currently, I am on the very, very south side of the Central Point Urban Renewal Area. When I read the impact

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statement, I see things about bike lanes, bus stops, increased businesses and a variety of other qualitative things that could possibly help this neighborhood.

But since I'm on the furthest south part of that boundary, I'll never see any of those advantageous things and I've been there for 20 years building up my company and paying the taxes, and I find it to be a little unconscionable to sacrifice existing business owners who have contributed to the growth of the area to make it easier for people to get on and off the freeway.

The third point is I met with the engineers at Horrocks, and Dennis Pay of the Department of Public Works early summer of last year. That would be 2015. I gave them a tour of my facility, explained to them these concerns, and let them see for themselves the impact of that frontage road. I also advocated the number seven diamond interchange and told them in no way would the other alternatives be acceptable.

Tonight, when I showed up, the only thing that is on display on the tables is the 3N Split Diamond and I was told that this is what's going to be moving forward and what was being presented to the public. So I had to remind the organizers of tonight's meeting that indeed there are still three alternatives -- actually four. No action, a Single Point Urban Interchange called

SPUI, the 3N Split Diamond on Main Street, and the 7 Diamond Interchange.

I think in all fairness to the attendees tonight, that these alternatives should have given equal time and equal emphasis on the picnic tables that were for public display and discussed by the engineers and the city. However, all I heard was that 3N is the preferred alternative and that's what they'll be moving forward with.

The reason I bring this up, is that when I met with the team of evaluators, I was assured I would be kept in the loop and that they would get back to me in the fall with more information in regards to the direction of this project and that I would be able to have more feedback. I never heard from those folks.

I called the public works and reminded them that I was waiting for a follow-up to our conversation, approximately September, October. I don't know. Approximately. And was told that that meeting had been put on hold and that it will be reviewed in spring.

Approximately two weeks ago, I received an e-mail about tonight's meeting. Two days ago, there was an individual canvassing the neighborhood, handing out cards to tonight's meeting, invitations to tonight's meeting. I found it to be short notice. So basically I

got an e-mail, right, and then two days ago somebody is handing out this card.

And so at that point, I went to the internet and saw that there is still four topics and alternatives for choices. I wished that I'd been included, as promised, more in the information gathering procedure and decision-making process since I met with them nine months ago.

I hope that the project managers will clearly communicate with me in a timely manner regarding this I-80 State Street project since it will affect me tactically, strategically, financially, and within regards to safety. I had hoped to talk to Peter Tang about this, but he was unavailable.

MS. GORDON: All right. It's ten minutes until 7:00. If you would like to make a public comment for the public hearing, please sign up at the sign-in sheet here. Thank you.

MS. GORDON: Hi. It's now 7:00 p.m. If anybody wants to sign up for comment, please do so now. Thank you very much.

MR. JOHNSON: John Johnson, [redacted]. I like diagram seven, the Diamond Interchange 7, combined with N3 Split Diamond North Side Only. The reason why is Diamond Interchange gives you

more room to merge to I-80 southbound, where Split Diamond North Side Only makes traffic compete for the same real estate too close to I-15, which I feel is going to cause unsafe merging.

If you combined Split Diamond North Side Only with Diamond Interchange to have entrances to I-80, both from State Street and Main Street.

Also, if you're going to take the financial responsibility and the inconvenience to rebuild the bridge, let's go big and spend the extra money for future growth and build the bridge for Single Point Urban Interchange, SPUI. Keep up the good work. [redacted]

(The oral public comments ended at 7:30 p.m.)

Public Hearing Transcription

C E R T I F I C A T E.

STATE OF UTAH)
: ss.
COUNTY OF SALT LAKE)

THIS IS TO CERTIFY that the foregoing transcript was taken down stenographically by me, ROSSANN J. MORGAN, Registered Professional Reporter, Certified Shorthand Reporter in and for the State of Utah.

That the proceedings, or requested portions, were reported by me in Stenotype and thereafter caused by me to be transcribed into typewriting, and that a full, true and correct transcription of said testimony so taken and transcribed to the best of my ability from the recordings given me is set forth in the foregoing pages.

I further certify that I am not of kin or otherwise associated with any of the parties to said cause of action, and that I am not interested in the event thereof.

WITNESS MY HAND at Salt Lake City, Utah.

_____
ROSSANN J. MORGAN, CSR, RPR

License No.:
4948384-7801

Public Hearing Transcription – Attachments

Bill & Lynette Gord
Gord Family Limited Partnership
Bill Gord Irrevocable Trust
[redacted]

Utah Department of Transportation
Columbus Center Auditorium
2531 South 400 East
South Salt Lake City, UT

February 16th, 2016

RE: I-80 and State Street Public Hearing, Draft Environmental Impact Statement

The following letter outlines our comments and concerns with the proposed improvements to the I-80 & State Street interchange.

Narrative
Bill and Lynette Gord own the property located on the South West corner of the I-80 & State Street interchange, known as 2432 S. State Street and 54 E. Robert Avenue. They have owned or acquired pieces of the property over the last 40 years. The property contains 3 buildings. One building has continually been occupied by House of Blinds, a company owned by Bill & Lynette Gord. The remaining buildings are currently under lease and have historically been leased providing rental income. During more recent times, the property has been impacted by two other major redevelopments; (1) the expansion of the I-80 off ramp at South bound State Street where access to State Street was cut off via Robert Avenue and (2) the widening of State Street to four lanes where some property loss occurred. The need for improving the intersection is apparent due to the anticipated increase in traffic to one of the already busiest intersections in the Salt Lake County.

Significant effects resulting from the improvements
1. The proposed improvements will completely cut off traffic access to our properties from State Street and the I-80 off ramp leaving the only access route via Main Street and the now dead end and previously reduced Robert Avenue.

2. The removal of the flashing, rotating pole sign located at the North East corner of the property.

Impact of the improvements
1. Because there is no access by the extremely high volume of traffic from this intersection, the value of our properties will be significantly reduced and the design of some or all of the buildings may no longer be viable for the purpose for which they were built.

2. Without the traffic access from State Street and I-80, the location is unsuitable for the retail businesses located in the two buildings along the State Street frontage. This will require the relocation of House of Blinds and any tenant under lease in the North West building. The lease of these buildings will be more difficult resulting in a higher vacancy rate and lower lease rates.

DEPOSITION EXHIBIT 1 UDOT 7/19/16

3. The loss of access to the buildings at 54 E. Robert Ave via State Street makes this location less desirable and may result in the loss of the two tenants or justifiable cause to reduce their rent. The lease of these buildings will be more difficult resulting in a higher vacancy rate and lower lease rates.

4. The pole sign has been granted a special grandfather permit. Once removed, the sign is irreplaceable. It is has become an icon of the businesses located on the property and is the only flashing, rotating sign that is visible from the freeway in the Salt Lake County. The sign gives advertising exposure to the high traffic volumes across I-80 and State Street and is a revenue source to the property owners. If the sign were able to be moved, it would have a much lower value because the property is no longer conducive to retail business.

5. The impact to House of Blinds is immeasurable. The business has been in the same location for 40 years and worked by three generations. A tremendous amount of consumer equity exists due to the amount of advertising to reinforce the location of the business and easy on and off the freeway access. The location is central to the valley and there are few, if any, locations that the business can be relocated to that will provide the traffic and exposure and certainly not for the same lease rates. The company will need to embark on a very large marketing and advertising campaign to broadcast that the company has moved and not gone out of business. We are fearful that even with such an effort, company sales revenues will suffer for a considerable time.

6. We cannot think of a single positive effect that the intersection improvements will have on our property, our business, or the other businesses located on our property.

We appreciate the opportunity to provide a brief outline of some of the ways the intersection improvements will impact our property and business.

Sincerely,

Bill Gord

Public Hearing Transcription – Attachments

Sunbelt Rentals

55 E 2400 S

Salt Lake City, Utah 84115

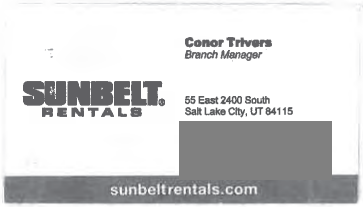
To whom it may concern,

I am writing this letter to discuss some issues with the plan to change the frontage road into a 3-4 lane road to change the on ramp to Main Street. This frontage road is the back of our property and is used constantly for equipment deliveries and for an exit to our business for our semis. We have trucks that stage on that road and wait for their turn to unload equipment. That frontage road is a huge part to our branch running smoothly. If the road is changed it will have an adverse effect on our daily business. Please consider an alternate plan that will not affect the business's on this frontage road. We have been in this location for many years and our outside haulers and delivery drivers need this frontage road to stay the same. After reviewing the plans I believe the 7 Diamond Interchange is the best. If the other plans were chosen to include closing the frontage road or making it a main traffic road this would hinder the ability of the company to stage trucks, deliver heavy equipment and especially could have an effect on our customers causing them to go to another rental company for ease of access. With any increased traffic on this frontage road this could increase the likely hood of an accident with one of our semi trucks.

Thank You

Conor Trivers

Sunbelt Rentals



Public Hearing Comment Form

I-80 & State Street
ENVIRONMENTAL IMPACT STATEMENT
South Salt Lake City

PUBLIC HEARING COMMENT FORM

Name: Amanda Parker

Address: [redacted]

City:

Phone #

Email:

Please list any comments, concerns, and/or suggestions related to the Preferred Alternative.

Please submit all comments by March 21, 2016.

I think that the preferred alternative presented is quite suitable for the goals. It seems like it will accomplish the needs of the commuters/drivers with minimal impact (not too many changes or disruptions in how traffic already flows)

Do you have any other comments related to the Environmental Impact Statement?

I am concerned about the impact to the two businesses having to move

Please feel free to make any additional comments on the map provided.

Please submit all comments by March 21, 2016.

Public Hearing Comment Form

I-80 & State Street
ENVIRONMENTAL IMPACT STATEMENT
South Salt Lake City

PUBLIC HEARING COMMENT FORM

Name: Matt Gray
Address: [redacted]
City:
Phone
Email:

Please list any comments, concerns, and/or suggestions related to the Preferred Alternative.
Please submit all comments by March 21, 2016.

A massive intersection redesign is not the solution. Consider installing Hi-tech sensors along the rights of way that provide insight not only where cars are, but where they come from and where they are going. Utilizing real-time traffic data analysis would lead to better decision making in the future, and save tax dollars.

In short, use technology that is available to better understand the problem before trying to fix it.

Do you have any other comments related to the Environmental Impact Statement?

Please feel free to make any additional comments on the map provided.

Please submit all comments by March 21, 2016.

Public Hearing Comment Form

I-80 & State Street
ENVIRONMENTAL IMPACT STATEMENT
South Salt Lake City

PUBLIC HEARING COMMENT FORM

Name: Carrie Snowden
Address: [redacted]
City:
Phone
Email:

Please list any comments, concerns, and/or suggestions related to the Preferred Alternative.
Please submit all comments by March 21, 2016.

1 at the future discussions, please include ALL 3 options respectfully. The tables all display one option and a few on the outside of the alternate options are there. Conveniently placed. Its called marketing.

2 We People buy houses and establish the businesses based upon their needs and wants. Currently we all live how we chose and if we don't like it, its our problem. By going in and changing things you are not being fair to those who made chose their environment and you are inflicting inconvenience and we not you, the community has to to live with the your choices

Do you have any other comments related to the Environmental Impact Statement?
#7 works. Just expand and thats it. Its cheaper
I will sell my house if I have to deal with your proposed changes thats not fair to me
Frontage Road should not be made into a busy street
I dont want to have to go through several traffic lights just to get to the Highway
Please feel free to make any additional comments on the map provided.
It would also be cheaper!

Please submit all comments by March 21, 2016.

APPENDIX B: LIST OF TECHNICAL REPORTS

Technical Report Title	Prepared By:	Contact
A Class II Archaeological Resources Inventory for the I-80; State Street Interchange Environmental Impact Statement, South Salt Lake, Salt Lake County, Utah; Letter Report	Project Engineering Consultants Peter Steele, RPA 986 9000 S West Jordan, Utah 84088	Peter Steele Horrocks Engineers 2162 W. Grove Parkway, Suite 400 Pleasant Grove, Utah 84062
Air Quality Memorandum, Report No. 34, May 7, 2016 Conformity Analysis for the Amended WFRC 2015-2040 Regional Transportation Plan (including FHWA concurrence dated September 19, 2016)	Wasatch Front Regional Council	Kip Billings Wasatch Front Regional Council 295 North Jimmy Doolittle Road Salt Lake City, Utah 84116
Eastbound and Westbound Weave Alternatives	Horrocks Engineers Nicole Tolley, P.E.	Nicole Tolley Horrocks Engineers 2162 W. Grove Parkway, Suite 400 Pleasant Grove, Utah 84062
I-80 & State Street EIS Socioeconomic Data Inputs	Lewis Young Robertson & Burningham Fred Philpot 41 North Rio Grande, Suite 101 Salt Lake City, Utah 84101	Fred Philpot Lewis Young Robertson & Burningham 41 North Rio Grande, Suite 101 Salt Lake City, Utah 84101
I-80 State Street Interchange EIS Traffic Analysis; Existing 2014 and Future 2040 No-Action	Hales Engineering Ryan Hales, P.E., PTOE, AICP 2975 Executive Pkwy, Suite 151 Lehi, Utah 84043	Ryan Hales Hales Engineering 2975 Executive Pkwy, Suite 151 Lehi, Utah 84043
I-80/State Street Interchange EIS Traffic Analysis; Future 2040 Alternatives	Hales Engineering Ryan Hales, P.E., PTOE, AICP 2975 Executive Pkwy, Suite 151 Lehi, Utah 84043	Ryan Hales Hales Engineering 2975 Executive Pkwy, Suite 151 Lehi, Utah 84043
I-80/State Street Interchange EIS Travel Demand Model Sensitivity Analysis	Hales Engineering Ryan Hales, P.E., PTOE, AICP 2975 Executive Pkwy, Suite 151 Lehi, Utah 84043	Ryan Hales Hales Engineering 2975 Executive Pkwy, Suite 151 Lehi, Utah 84043
Noise Report	Horrocks Engineers Nicole Tolley, P.E.	Nicole Tolley Horrocks Engineers 2162 W. Grove Parkway, Suite 400 Pleasant Grove, Utah 84062
Reconnaissance Level Survey; Environmental Impact Statement for I-80; State Street, South Salt Lake, Salt Lake County	Horrocks Engineers Nancy Calkins Historic Preservation Specialist	Nicole Tolley Horrocks Engineers 2162 W. Grove Parkway, Suite 400 Pleasant Grove, Utah 84062

Appendix B Technical Reports can be found on the attached CD.

PEC
PROJECT ENGINEERING CONSULTANTS

4 May, 2015

Liz Robinson
UDOT Region 2 NEPA/NHPA Specialist
2010 South 2760 West
Salt Lake City, Utah 84104

Subject: A Class II Archaeological Resources Inventory for the I-80; State Street Interchange Environmental Impact Statement, South Salt Lake, Salt Lake County, Utah; Letter Report
UDOT Project: F-I80-3(180)123; PIN No. 6995
Utah Division of State History Project: U-14-ZP-1303sp

Dear Liz:

The Utah Department of Transportation (UDOT) is studying alternatives that would improve safety and alleviate congestion at the interchange of Interstate 80 (I-80) and State Street in Salt Lake County.

The area of potential effects (APE) extends from I-15 in the west to 700 East in the east, and irregularly from 2100 South in the north to 2700 South in the south (see Figures 1 and 2).

Project Engineering Consultants, Ltd. (PEC) has been contracted by UDOT to prepare the archaeological resource survey for this project. This letter serves as an archaeological file search and Class II survey results report for this project. A Class II windshield survey consists of driving public streets in the APE to identify potential cultural resources. Any identified resources or undeveloped areas are examined more closely using a pedestrian survey. A Class II survey was chosen for this project due to the highly developed nature of the APE and the limited potential for archaeological resources to exist within the APE. The Class II survey encompassed an area of 290 acres. The architectural survey is being undertaken separately by Horrocks Engineers.

Project Area Setting

The APE is located in the Salt Lake Valley in South Salt Lake, Township 1 South Range 1 West, Section 24 and Township 1 South Range 1 East, Section 19. Elevations in this location are approximately 4,240 to 4,280 feet (1,292 to 1,305 meters) above sea level. The APE slopes gradually to the west towards the Jordan River. Soils at this location have been heavily disturbed through historic settlement and community expansion. What little vegetation exists in the APE is primarily commercial landscaping with turf, ornamental shrubs, flowers, and trees (see Figures 3–5). Although a few vacant parcels exist in the APE, they show evidence of past development and should not be considered undisturbed ground.

Previous Research

A Class I literature review was completed for this project on December 8, 2014. Five previous projects have been completed within the APE (see Table 1). Three sites are located within 0.5 miles of the APE, including one (42SL416) within the APE. In addition, the Union Pacific Railroad (42SL344) is also present within the APE, although this segment has not been recorded. Site 42SL293 is located outside of the APE (see Table 2). An 1856 General Land Office (GLO) map shows the Jordan River but no manmade features. The 1951 United States Geological Survey (USGS) 7.5' Salt Lake City South topographic map shows State Street,

300 West, 500 East, 2100 South, 2700 South and various smaller roadways. It also shows the Union Pacific Railroad (42SL344) and the Park City Branch of the Denver & Rio Grande Western Railway (42SL416). The 1963 USGS 7.5' Salt Lake City South topographic map shows the same features, but adds I-15 and I-80 as under construction.

Table 1. Previously filed cultural resource reports.

Project Name	Project Number	Organization
AT&T Fiber Optics Cable	U-87-CN-0615	Centennial Archaeology
UTA West Valley City	U-04-BC-0295	BYU - Office of Public Archaeology
I-80; State Street to 1300 East	U-06-LI-0757	Logan Simpson Design
Parley's Creek Trail	U-08-ST-0062	SWCA
UTA Sugarhouse Streetcar	U-08-ST-0754	SWCA

Table 2. Previously Recorded Sites within 0.5 miles of the APE.

Site Number	Description	Eligibility
42SL293	Denver and Rio Grande Western Railroad	Eligible
42SL344	Union Pacific Railroad	Eligible
42SL416	D&RGW - Park City Branch	Eligible

Results

On May 27, 2014, PEC cultural resources director Peter Steele conducted a windshield survey of the APE. An additional windshield survey of the area between 500 East and 700 East was conducted on April 24, 2015. The survey relocated two previously recorded sites and found no new sites.

42SL344

Site 42SL344 is the Union Pacific Railroad. This railroad is a spur of the original transcontinental railroad route. The spur stretched from Ogden, south through Salt Lake City, and beyond. It was originally constructed as the Utah Southern Railroad, later a subsidiary of the Union Pacific (Strack, 2013). In the APE, the railroad runs north to south at approximately 200 West and extends through the entire width of the APE. It consists of two sets of parallel tracks with occasional spur lines serving local businesses. One of these spurs was observed serving the RC Willey warehouse at Haven Avenue. Other spurs were observed on aerial photographs but were not visited due to access limitations. The line was reconstructed between 1997 and 1999 as part of the TRAX light rail system operated by the Utah Transit Authority (UTA). It consists of steel rails on concrete ties, with an overhead electrical system. The roadway crossings within the APE include automated crossing gates. The line is currently used only for light rail service. Segments of the site have been previously recorded between approximately 5800 South and the Point of the Mountain. A review of aerial photographs shows the site continuing north to 600 South.

Site 42SL344 has been previously determined eligible for the National Register of Historic Places (NRHP). Although the railroad was reconstructed outside of the historic period, it retains overall integrity of location, setting, association, and feeling, and is recommended to remain **eligible** for the NRHP.

Site 42SL416

Site 42SL416 is the Park City Branch of the Denver and Rio Grande Western Railway. This section of the railroad was constructed in 1900 to connect the original Park City Branch railroad to the Roper Yard at 700 West. The Park City Branch was known as the Salt Lake & Eastern Railway from 1888–1890 and the Utah Central Railway from 1890–1897. It originally ran from near the intersection of 900 South 1000 East in Sugarhouse to Park City. The railroad was abandoned in sections beginning in 1948 with those sections east of 1300 East. The portion between the Roper Yard and 1300 East was abandoned later, possibly in the mid-1990s (Strack, 2014, "Park City Branch"). A portion of the line between 300 West and 1100 East was reopened in 2013 as UTA's Sugarhouse Streetcar. In addition, that portion of the line west of 300 West was incorporated into UTA's light rail Green Line to West Valley City. The Sugarhouse Streetcar portion of the site consists of a single set of steel rails set in concrete in the middle of a broader right-of-way. The portion of the site incorporated into the Green Line TRAX consists of a set of double tracks on concrete ties connecting to the former Union Pacific Railroad line. This line also has an electrical line for the trains between the two sets of tracks. No remaining features from the historic time period were observed along the site.

Site 42SL416 has been previously determined eligible for the NRHP. Although the integrity of the site has suffered through the removal of the tracks and its later conversion to a streetcar line, it retains overall integrity of location, setting, association, and feeling due to its continued use for passenger rail. The site is recommended to remain **eligible** for the NRHP.

Conclusion and Recommendation

The literature search conducted for this project identified two previously recorded archaeological sites within the project APE. The windshield survey did not identify any new archaeological sites within the APE.

Should you have any questions or concerns regarding this letter report, please do not hesitate to contact me. I can be reached via e-mail at psteele@pec.us.com or by phone at (801) 858-3270.

Sincerely,

Peter Steele, MA, RPA
Cultural Resources Director

Works Cited

Strack, Donald. (2013). "Utah Southern Railroad" on Utahrails.net. Accessed January 13, 2015 at http://utahrails.net/utahrails/us-rr-1870-1881.php

Strack, Donald. (2014). "D&RGW Utah Branch Lines" on Utahrails.net. Accessed January 13, 2015 at http://utahrails.net/drgw/rg-utah-branches.php#heading_toc_j_22

986 West 9000 South West Jordan, UT 84088 ■ Phone: (801) 495-4240 ■ Fax: (801) 495-4244

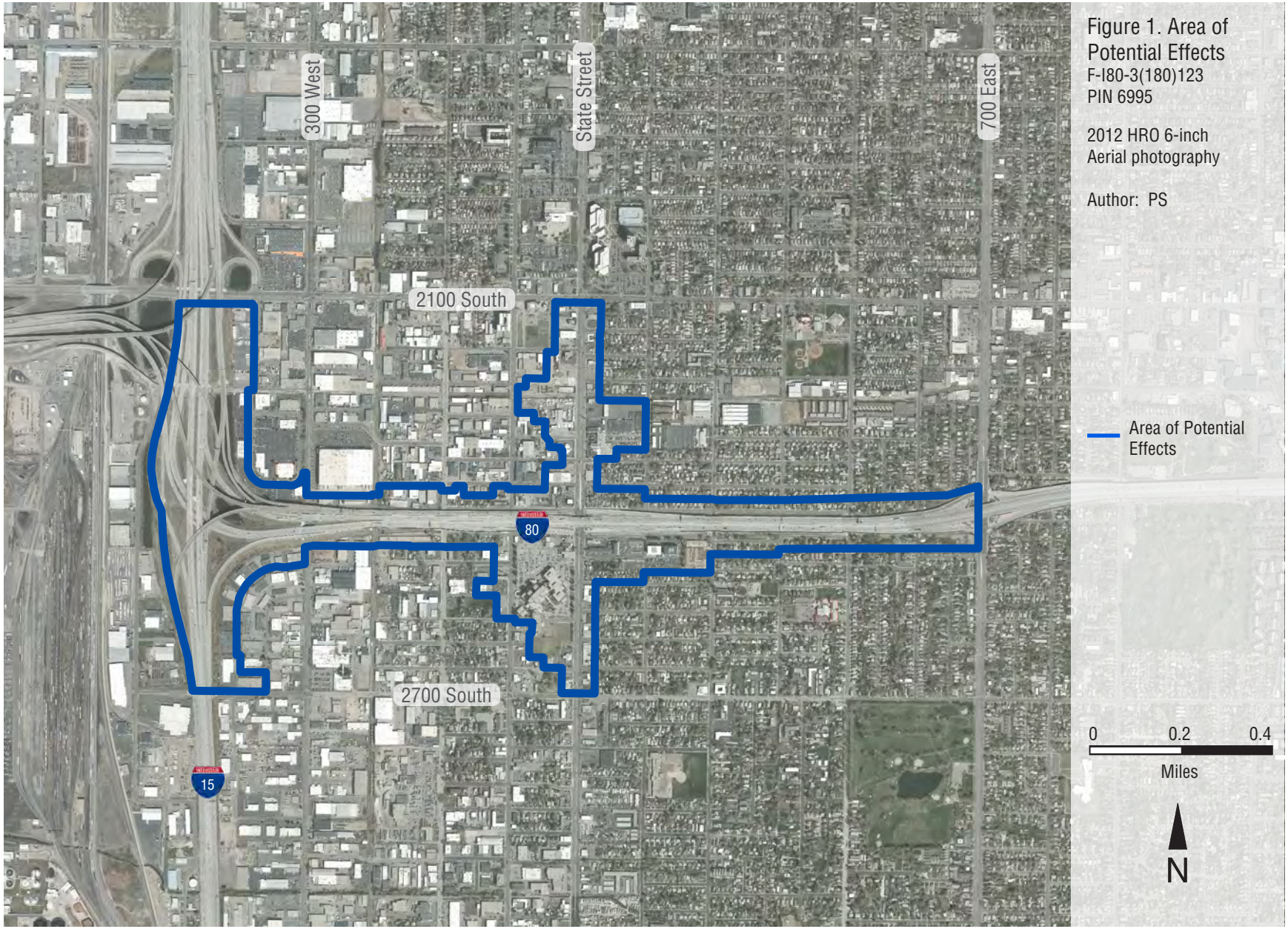


Figure 1. Area of Potential Effects
F-I80-3(180)123
PIN 6995

2012 HRO 6-inch
Aerial photography

Author: PS

986 West 9000 South West Jordan, UT 84088 ■ Phone: (801) 495-4240 ■ Fax: (801) 495-4244

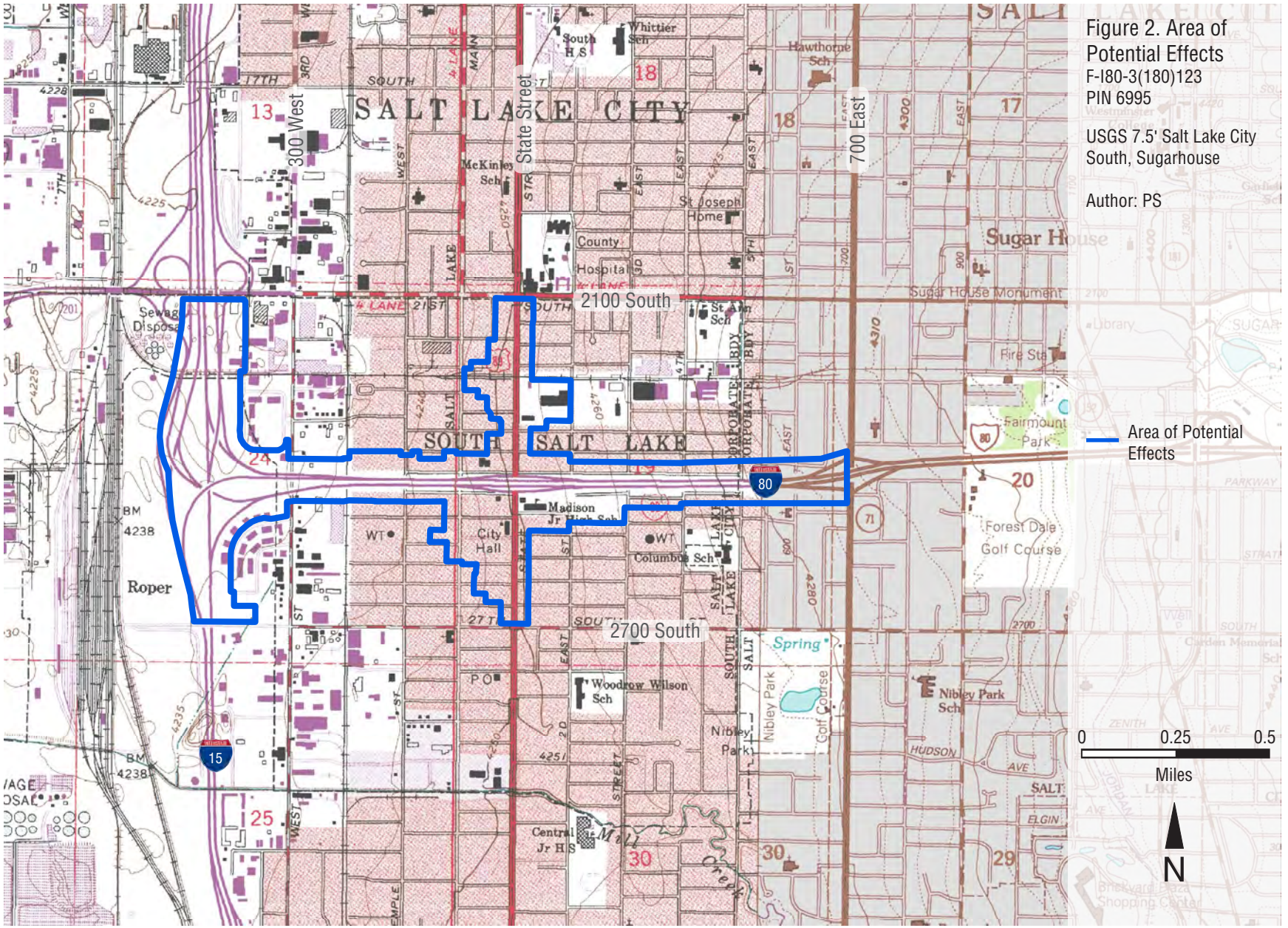


Figure 2. Area of Potential Effects
F-I80-3(180)123
PIN 6995

USGS 7.5' Salt Lake City South, Sugarhouse

Author: PS

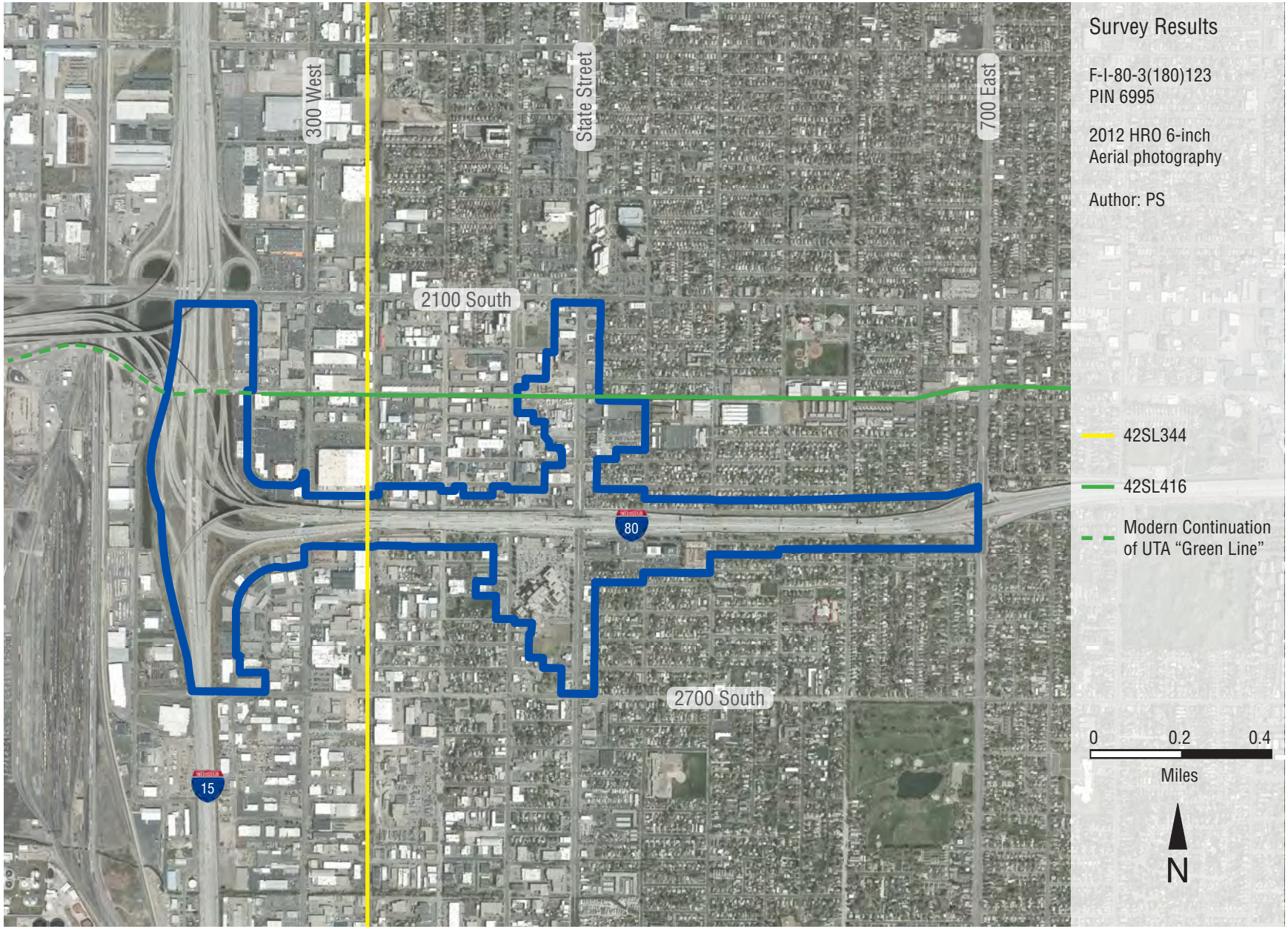
Figure 3. Typical view of the project area. Interchange of I-80 and State Street. View to the west.

Figure 4. Site 42SL344, TRAX line. View to the north.

Figure 5. Site 42SL416, Sugarhouse Streetcar. View to the east.

Appendix A

Survey Results Map


Survey Results
F-I-80-3(180)123
PIN 6995
2012 HRO 6-inch
Aerial photography
Author: PS
300 West
State Street
700 East
2100 South
2700 South
80
15
42SL344
42SL416
Modern Continuation
of UTA "Green Line"
0
0.2
0.4
Miles
N

Air Quality Memorandum

REPORT NO. 34

DATE May 7, 2016

SUBJECT ***DRAFT*** CONFORMITY ANALYSIS FOR THE AMENDED WFRC 2015-2040 REGIONAL TRANSPORTATION PLAN.

ABSTRACT The Moving Ahead for Progress in the 21st Century (MAP-21) and the Clean Air Act Amendments (CAAA) require that all regionally significant highway and transit projects in air quality non-attainment and maintenance areas be derived from a "conforming" Regional Transportation Plan and Transportation Improvement Program. A conforming Plan or Program is one that has been analyzed for emissions of controlled air pollutants and found to be within emission limits established in the State Implementation Plan (SIP) or within guidelines established by the Environmental Protection Agency (EPA) until such time that a SIP is approved. This conformity analysis is made by the Wasatch Front Regional Council (WFRC), as the Metropolitan Planning Organization for the Salt Lake-West Valley and Ogden-Layton urbanized areas, and submitted to the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) for their concurrence. This conformity analysis is being prepared according to the transportation conformity rulemakings promulgated by the EPA as of March 2010 and according to FHWA final rulemakings found in the MAP-21 legislation. The EPA approved MOVES model for estimating vehicle emissions was used for this conformity analysis.

This conformity analysis addresses the emissions impact of the May 2016 amendments to 2015-2040 RTP which are described in detail in Appendix 4. The projected vehicle activity is based on Version 8.0 of the WFRC travel demand model and the 2012 Household Travel Survey of trip making activity. For a detailed description of projects included in the new 2040 RTP, see *http://www.wfrc.org/new_wfrc/index.php/projects/project-lists* and select the link for "Highway Projects List" or "Transit Projects List". Refer to Appendices 2 and 3 of this document for projects in Box Elder and Tooele Counties.

Wasatch Front Regional Council
295 North Jimmy Doolittle Road
Salt Lake City, Utah 84116

Based on the analysis presented in this document, the amended WFRC 2015-2040 RTP conforms to the State Implementation Plan or the Environmental Protection Agency interim conformity guidelines for all pollutants in applicable non-attainment or maintenance areas. Therefore, all transportation projects in Box Elder, Weber, Davis, Salt Lake, and Tooele Counties included in the amended 2015-2040 RTP are found to conform.

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A. Conformity Requirements

Conformity Process

Since the commencement of the federal planning requirements in the late 1960s, further requirements (most recently the 2012 Moving Ahead for Progress in the 21st Century (MAP-21) and the 1990 Clean Air Act Amendments) have added to the responsibilities and the decision making powers of local governments through the Metropolitan Planning Organization. The Wasatch Front Regional Council (WFRC) is the Metropolitan Planning Organization for the Salt Lake/West Valley and Ogden / Layton Urbanized Areas. This report summarizes WFRC's conformity analysis of the 2015-2040 RTP with the Division of Air Quality's State Implementation Plan (SIP) and the Environmental Protection Agency's interim conformity guidelines. This conformity analysis is subject to public and agency review, and requires the concurrence of the Federal Highway Administration and Federal Transit Administration.

In November, 1993, the Environmental Protection Agency and the U.S. Department of Transportation issued rules establishing the procedures to be used to show that transportation plans and programs conform to the SIP. The conformity rules establish that federal funds may not be used for transportation projects that add capacity in areas designated as "non-attainment (or maintenance) with respect to the National Ambient Air Quality Standards", until and unless a regional emissions analysis of the Plan and TIP demonstrates that the projects conform to the SIP. This restriction also applies to "regionally significant" transportation projects sponsored by recipients of federal funds even if the regionally significant transportation project uses local funds exclusively.

Davis, and Salt Lake Counties, Salt Lake City, Ogden City and portions of Weber, Box Elder and Tooele Counties are designated as non-attainment (or maintenance) for one or more air pollutants. Specifically, there are four areas in the Wasatch Front region for which the conformity rules apply. These areas are listed in Table 1 below.

Table 1
Wasatch Front Region Non-attainment Designations

Area	Designation	Pollutant
Salt Lake City	Maintenance Area	Carbon Monoxide (CO)
Ogden City	Maintenance Area	Carbon Monoxide (CO)
	Moderate Non-Attainment Area	Particulate Matter (PM_{10})
Salt Lake County	Moderate Non-Attainment Area	Particulate Matter (PM_{10})
Salt Lake (including Davis, Salt Lake, and portions of Weber, Box Elder, and Tooele Counties)	Moderate Non-Attainment Area	Particulate Matter ($PM_{2.5}$)

The CAAA established requirements for conformity. These requirements are outlined in 40 CFR 93.109 and include the following:

- Latest planning assumptions
- Transportation Control Measures (TCM)
- Emissions budget
- Project from a conforming plan and TIP
- PM_{10} control measures
- Latest emissions model
- Consultation
- Currently conforming plan and TIP
- CO and PM_{10} "hot spots"

Each of these requirements will be discussed in the following paragraphs.

Latest Planning Assumptions

Current travel models are based on socioeconomic data and forecasts from local building permits, the Utah Division of Workforce Services, and the Governor's Office of Management and Budget (GOMB). Base year socioeconomic data are for calendar year 2011. Forecasts of population and employment by traffic analysis zone were developed by WFRC in 2013 and are controlled to county-level forecasts published by GOMB in October, 2012.

Latest Emissions Model

The conformity analysis presented in this document is based on EPA mobile source emissions models: MOVES2014 for tailpipe emissions and AP-42 section 13.2.1 for paved road dust emissions. The application of these models will be discussed in greater detail in the Emissions Model section of this document.

Consultation Process

Section 105 of 40 CFR Part 93 (Conformity Rule) requires, among other things, interagency consultation in the development of conformity determinations. To satisfy this requirement, the State Division of Air Quality (DAQ) prepared a Conformity SIP to outline the consultation procedures to be used in air quality and transportation planning. The Conformity SIP also defines the membership of the Interagency Consultation Team (ICT) as representatives from DAQ, WFRC, Mountainland Association of Governments, Utah Department of Transportation, Utah Transit Authority, EPA, FHWA, and the FTA. The Conformity SIP has been approved by EPA. WFRC followed the consultation procedures as outlined in the Conformity SIP in the preparation of this conformity analysis. As part of the consultation procedures defined in the Conformity SIP, WFRC presented this report to the Transportation Committee (or TransCom) for review and comment. This committee includes a member of the Utah Air Quality Board as well as representatives of UDOT, UTA, and FHWA. In addition, management level staff members from the Utah Division of Air Quality are notified of meetings and agendas of the above committees. The Utah Division of Air Quality and other members of the ICT were also provided with a copy of this report during the public comment period for the 2015-2040 RTP.

This Conformity Analysis for the 2015-2040 RTP was made available for public inspection and comment for a 30-day period in accordance with EPA conformity regulations. This analysis was also posted on the WFRC website during the comment period. Notification of the comment period was sent by electronic mail to interested stakeholders. In addition, public comment was taken during various committee meetings of the Wasatch Front Regional Council.

TCM Implementation
A conformity analysis for the 2015-2040 RTP must certify that the RTP does not interfere with the implementation of any Transportation Control Measure (TCM) identified in the applicable State Implementation Plan (SIP). There is one TCM from the original SIP section for the 1-hour ozone standard which has been carried forward to the current ozone maintenance plan, even though the 1-hour ozone standard has been revoked. This TCM, the employer-based trip reduction program, applies to local, state, and federal government employers. The program emphasizes measures to reduce the drive-alone rate such as subsidized bus passes, carpooling, telecommuting, and flexible work schedules. UTA has in place the ECO pass discount for a number of large employers including the University of Utah and Weber State University. Ridesharing, telecommuting, and flexible work schedules are programs currently managed, promoted, or operated by UTA Rideshare and the UDOT Travelwise program. Congestion Mitigation and Air Quality (CMAQ) funds and other transportation funds are used to support these ongoing programs.

Emissions Budget
A comparison of mobile source emission estimates to emission budgets defined in the SIP is outlined in this document in Section D - Conformity Determination.

Currently Conforming Plan and TIP
The existing 2040 RTP for the Wasatch Front Area conforms to State air quality goals and objectives as noted in a letter from FHWA and FTA dated September 8, 2014. The existing 2015-2020 TIP for the Wasatch Front Area was also found to conform and this was noted in a letter from FHWA and FTA dated September 29, 2014.

Projects from a Conforming Plan and TIP
TIP Time Frame - All projects which must be started no later than 2020 in order to achieve the transportation system envisioned by the 2015-2040 RTP are included in the 2015-2020 TIP. The TIP is fiscally constrained, meaning that only those projects with an identified source of funds are included in the TIP. Estimated funding availability is based on current funding levels and reasonable assumptions that these funds will continue to be available. Conformity for the 2015-2020 TIP is addressed separately in Air Quality Memorandum 31a.

Regionally Significant
All regionally significant projects, regardless of funding source (federal, state, or local) are included in the RTP. All regionally significant projects are also included in the regional emissions analysis of the RTP. Regionally significant projects are identified as those projects functionally classified as a principal arterial or higher order facility, and certain minor arterials as identified through the interagency consultation process (see Appendix 1 for a complete definition of regionally significant projects). The latest Utah Department of Transportation Functional Classification map is used to identify functional classification. Interstate highways, freeways, expressways, principal arterials, certain minor arterials, light rail, and commuter rail are treated as regionally significant projects.

Because of their relative impact on air quality, all regionally significant projects regardless of funding source must be included in the regional emissions analysis, and any significant change in the

design or scope of a regionally significant project must also be reflected in the analysis. All regionally significant projects have been included in the regional emissions analysis, and the modeling parameters used for these projects are consistent with the design and scope of these projects as defined in the RTP. In order to improve the quality of the travel model, minor arterials and collectors, as well as transit service, are also included in the regional travel model (and thus the regional emissions analysis) but these facilities are not considered regionally significant since they do not serve regional transportation needs as defined by EPA. For a list of projects included in this conformity analysis, see *http://www.wfrc.org/new_wfrc/index.php/projects/project-lists* and select the link for "Highway Projects List" or "Transit Projects List". Refer to Appendices 2 and 3 of this document for projects in Box Elder and Tooele Counties.

CO, PM_{10} and $PM_{2.5}$ "Hot Spot" Analysis

In addition to the regional emissions conformity analysis presented in this document, specific projects within carbon monoxide (CO) and particulate matter (PM_{10} and $PM_{2.5}$) non-attainment areas are required to prepare a "hot spot" analysis of emissions. The "hot spot" analysis serves to verify whether localized emissions from a specific project will meet air quality standards. This requirement is addressed during the NEPA phase of project development before FHWA or FTA can issue final project approval.

FHWA has issued guidance on quantitative PM_{10} and $PM_{2.5}$ "hot spot" analysis to be used for the NEPA process. This guidance can be found at:
http://www.epa.gov/otaq/stateresources/transconf/projectlevel-hotspot.htm.

PM_{10} Control Measures

Construction-related Fugitive Dust - Construction-related dust is not identified in the Utah SIP as a contributor to the PM_{10} non-attainment area. Therefore, there is no conformity requirement for construction dust. Section 93.122(d) (1) of 40 CFR reads as follows:

> "For areas in which the implementation plan does not identify construction-related fugitive PM10 as a contributor to the non-attainment problem, the fugitive PM10 emissions associated with highway and transit project construction are not required to be considered in the regional emissions analysis."

In the Utah PM_{10} SIP, construction-related PM_{10} is not included in the inventory, nor is it included in the attainment demonstration or control strategies. Control of construction-related PM_{10} emissions are mentioned in qualitative terms in Section IX.A.7 of the SIP as a maintenance measure to preserve attainment of the PM_{10} standard achieved by application of the control strategies identified in the SIP. Section IX.A.7.d of the SIP requires UDOT and local planning agencies to cooperate and review all proposed construction projects for impacts on the PM_{10} standard. This SIP requirement is satisfied through the Utah State Air Quality Rules. R307-309-4 requires that sponsors of any construction activity file a dust control plan with the State Division of Air Quality.

Other Conformity Requirements

Transit Fares - Transit fares have increased periodically and will continue to increase in response to rising operating costs. The RTP assumes that transit fare box revenues will cover a constant percentage of all transit operating cost, so future fare increases are consistent with the Plan. With any price increase some market reaction is expected. While there have been some short term fluctuations in transit patronage in response to fare increases, the implementation of light rail service and other transit improvements has retained and increased transit patronage consistent with the levels anticipated by the RTP.

Plans to expand light rail service, to increase and enhance bus service, and to extend commuter rail operations are moving forward. These transit projects are envisioned in the Plan and the steps necessary to implement these projects are moving forward including various voter approved sales tax increases for transit funding.

B. Transportation Modeling

Improvement to the WFRC travel demand model practice and procedure is an ongoing process. This conformity analysis is based on the latest version (8.0) of the travel demand model. Version 8.0 of the travel demand model updates the former 2007 base year with socio-economic data and transportation networks for the new 2011 base year. The new model also incorporates the results of the 2012 Household Travel Survey conducted by WFRC. Version 8.0 of the model adds more traffic analysis zones, and the transit mode choice portion of the model has been enhanced. Details of Version 8.0 of the travel model are documented in a report titled "WFRC/MAG Version 8.0 Travel Demand Model Documentation" which is available upon request.

Planning Process

Federal funding for transportation improvements in urban areas requires that these improvements be developed through a comprehensive, coordinated, and continuous planning process involving all affected local governments and transportation planning agencies. The planning process is certified annually by the Regional Council and reported to the Federal Highway Administration and Federal Transit Administration. Every four years FHWA and FTA conduct a comprehensive certification review. The certification review of August 2013 found that the WFRC planning process meets federal requirements. Recommendations were made to improve WFRC's planning process and these are being addressed.

The documentation of the planning process includes at a minimum, a twenty-year Regional Transportation Plan updated at least every four years; and a four-year Transportation Improvement Program (capital improvement program) updated and adopted at least every four years. The planning process includes the involvement of local elected officials, state agencies, and the general public.

Travel Characteristics

The WFRC travel model is used to estimate and forecast highway Vehicle Miles Traveled (VMT) and vehicle speeds for Weber, Davis, and Salt Lake Counties. A separate travel model is used to estimate VMT and speed in Tooele County. For VMT and speed estimates in Box Elder County, WFRC relied on forecasts provided by the Utah Department of Transportation. The WFRC travel demand model is based on the latest available planning assumptions and a computerized representation of the transportation network of highways and transit service. The base data for the travel demand model is reviewed regularly for accuracy and updates. The travel model files used for this conformity analysis are available upon request on compact disc.

Shown below in Table 2 is a summary of weekday VMT for the cities and counties in designated non-attainment areas. Totals for VMT are given for various air quality analysis years from 2015 to 2040. Note that the VMT values for Box Elder, and Tooele Counties are not for the entire county but only that portion of the county designated as non-attainment for a criteria pollutant.

Table 2
Vehicle Miles Traveled
(Average Winter Weekday, Corrected to HPMS Data)
Vehicle Miles Traveled (HPMS Adjusted Average Winter Weekday)

	2015	2024	2034	2040
Salt Lake City	6,583,384	7,470,524	8,415,712	8,904,106
Ogden City	1,465,638	1,635,011	1,915,336	2,049,808
Salt Lake County	28,495,411	34,265,855	39,346,894	42,466,875
Davis County	7,565,570	8,873,843	10,018,067	10,595,221
Weber County*	4,985,904	6,022,480	7,142,020	7,661,831
Box Elder County*	2,370,372	2,846,983	3,378,619	3,738,885
Tooele County*	2,107,733	2,621,722	3,379,647	4,158,310

**non-attainment portion of the county*

Peak and Off-Peak Trip Distribution

The modeled VMT and the modeled vehicle speed depend on the number of vehicle trips assigned for each time period (AM, midday, PM, and evening) defined in the travel demand model. The percentage of trips by purpose varies for each time period. The percentages in Table 3 and Table 4 below are based on data from the 2012 Household Travel Survey.

Table 3
Percent of Trips by Time of Day

Trip Purpose	AM	Mid Day	PM	Evening	Grand Total
Home Based - Other	11%	27%	24%	37%	100%
Home Based - Personal Business	9%	50%	25%	16%	100%
Home Based - School	40%	29%	26%	5%	100%
Home Based - Shopping	2%	43%	26%	29%	100%
Home Based - Work	35%	18%	28%	19%	100%
Non-home Based - Non-work	6%	46%	25%	23%	100%
Non-home Based - Work	13%	49%	29%	9%	100%
Grand Total	**15%**	**34%**	**26%**	**25%**	**100%**

Table 4
Percent of Trips by Purpose

Trip Purpose	AM	Mid Day	PM	Evening	Grand Total
Home Based - Other	25%	26%	31%	50%	33%
Home Based - Personal Business	3%	8%	5%	4%	5%
Home Based - School	19%	6%	7%	1%	7%
Home Based - Shopping	1%	13%	10%	12%	10%
Home Based - Work	37%	8%	17%	12%	16%
Non-home Based - Non-work	7%	25%	18%	18%	19%
Non-home Based - Work	8%	13%	11%	3%	9%
Grand Total	**100%**	**100%**	**100%**	**100%**	**100%**

Comparison of Modeled Speeds with Observed Data

WFRC continues to adjust modeled speeds to improve consistency with samples of observed speeds. Observed speed data were collected in 2013 through a FHWA program known as "Here Data" that uses cell phone signals to track vehicle movements. The observed speeds for freeways and arterials during AM and PM periods of congestion were compared to speeds estimated using the WFRC travel demand model for the 2011 base year. A review of median speeds for the three-county WFRC planning area is shown in Table 5. WFRC area modeled speeds are within -3.2% to 3.1% of observed Here Data speeds.

Table 5
WFRC Planning Area Modeled Speeds Compared to Observed Speeds

	Arterial		Freeway	
	AM Peak	PM Peak	AM Peak	PM Peak
2011 Modeled Speeds (mph)	33	30	66	63
2013 Observed Speeds (mph)	32	31	64	64
Percent Difference	**3.1%**	**-3.2%**	**3.1%**	**-1.6%**

C. Emission Modeling

I/M Programs
Assumptions for the input files for EPA's MOVES vehicle emissions model include I/M programs in Salt Lake, Davis, and Weber Counties. Box Elder and Tooele Counties do not presently have I/M programs.

VMT Mix
The VMT mix describes how much a particular vehicle type is used in the transportation network. While no longer a required input for the MOVES model as it was for MOBILE6.2, VMT mix is used in several instances to generate the input files required to run the MOVES model. The national default VMT mix found in the MOVES database was used to disaggregate local vehicle type data collected in 2008. The local vehicle type data is collected by UDOT as part of the federal HPMS data collection system and is based on automated counters which classify vehicles based on axle spacing. The UDOT classification is used to calculate control percentages for light duty (LD) vehicles and heavy duty (HD) vehicles for each facility type. The EPA default VMT mix is then applied to disaggregate the two UDOT control percentages into detailed percentages for the thirteen vehicle classes used in MOVES.

Vehicle Weights
Facility specific VMT mix data described above was also used to estimate the average vehicle weight on each facility type. Since vehicle weight affects the rate of re-entrained road dust emissions estimated using the AP-42 method, vehicle weight variations on different facilities will affect the amount of fugitive dust created. The VMT mix for each facility type was used to estimate an average vehicle weight for each facility type with the following results:

Facility	**Average Vehicle Weight**
Urban - Freeway	6,500 lbs, or 3.25 tons
Urban - Arterial	6,100 lbs, or 3.05 tons
Urban - Local	3,900 lbs, or 1.95 tons

Post Model Adjustments

For conformity analyses prior to 2000, the WFRC applied post model adjustments to vehicle emission estimates. Emission credits for work trips were modeled for reductions in single occupant vehicle rates based primarily on increased investments in transit service and rideshare programs, and the projected increase in telecommuting. Other less significant post model adjustments were also estimated for incident management, pavement re-striping, and signal coordination. Additional emission reducing programs and projects supported by CMAQ funds such as park and ride lots, bicycle facilities, transit vehicles, intelligent transportation systems (ITS), and intersection improvements have also been implemented.

WFRC believes that these programs have a positive effect in reducing vehicle emissions. In practice, however, WFRC has found that documenting the air quality benefits of these programs can be challenging. WFRC will continue to support these emission reduction programs, but credits from these programs have not been included in this conformity analysis.

MOVES Inputs

The MOVES model is a very data intensive computer program based on the MySQL database software. Through the interagency consultation process the required MOVES inputs reflecting local conditions have been established.

Data files defining local conditions by county and year are required inputs to the MOVES model including vehicle population, emission testing programs, fuel supply, fuel formulation, meteorological conditions, and vehicle age. Vehicle population estimates are based on the latest registration data by county and the estimated VMT for the same year. This vehicle population to VMT ratio is then applied to model projections of VMT to estimate future year vehicle population. By estimating vehicle population in this way the calculation considers the effects of human population and employment projections, as well as mode choice options that are included in the travel demand model.

Vehicle activity input files for the MOVES model are generated by the WFRC travel demand model using a customized in-house program for this purpose. The MOVES input files required include data for ramp fractions, road distribution, speed distribution, and VMT by vehicle type for each county (Box Elder, Davis, Salt Lake, Tooele, and Weber) and analysis year (base year 2011, 2019, 2024, 2034, and 2040) as required for operating the MOVES model.

The input files listed above are read into the MOVES program as database files. The input database folders in Table 6 below contain the database files used for each county and year modeled using MOVES2014 for this conformity analysis. The results of the MOVES model are stored in the output database “Conf15a_out” for Box Elder, Tooele, and all other areas for analysis year 2019; and “Conf15b_out” for all other areas for analysis years 2024, 2034, and 2040.

Table 6
MOVES Data – Input Database Folders

Box Elder	Weber	Davis	Salt Lake	Tooele	Salt Lake City	Ogden
conf15a_beW2019_in	conf15a_weW2019_in	conf15a_daW2019_in	conf15a_slW2019_in	conf15a_toW2019_in	conf15a_scW2019_in	conf15a_ogW2019_in
Conf16_beW2024_in	Conf16_weW2024_in	Conf16_daW2024_in	Conf16_slW2024_in	Conf16_toW2024_in	Conf16_scW2024_in	Conf16_ogW2024_in
Conf16_beW2034_in	Conf16_weW2034_in	Conf16_daW2034_in	Conf16_slW2034_in	Conf16_toW2034_in	Conf16_scW2034_in	Conf16_ogW2034_in
Conf16_beW2040_in	Conf16_weW2040_in	Conf16_daW2040_in	Conf16_slW2040_in	Conf16_toW2040_in	Conf16_scW2040_in	Conf16_ogW2040_in

Road Dust Estimates

In January 2011, the EPA released new guidance for estimating dust emissions from paved roads. These guidelines are published in Chapter 13.2.1 of the AP-42 document. The new formula is

$$E = k\,(sL)^{0.91} \times (W)^{1.02}$$

where: E = particulate emission factor (grams/mile),
k = particle size multiplier for particle size range and units of interest (for PM_{10}, k=1.0 and for $PM_{2.5}$ k=0.25),
sL = road surface silt loading (grams per square meter - g/m^2), and
W = average weight (tons) of the vehicles traveling the road.

Based on vehicle type counts on roads in the WFRC region, average vehicle weights for local roads, arterials, and freeways are 1.95, 3.05, and 3.25 tons respectively. The silt load (sL) factor varies by highway functional class and by traffic volume. The default silt load factors found in Table 13.2.1-2 of the AP-42 document are summarized below.

Traffic Volume	Functional Class	Silt Load (grams/meter^2)
500-5,000	local roads	0.200
5,000-10,000	arterial roads	0.060
limited access	freeways	0.015

A precipitation reduction factor is also applied to the above equation using the following expression:

$$(1 - P/4N)$$

Where: P = number of "wet" days with at least 0.254 mm (0.01 in) of precipitation during the averaging period, and
N = number of days in the averaging period (e.g., 365 for annual, 91 for seasonal, 30 for monthly).

The AP-42 guidance recommends a value of 90 precipitation days per year for the Wasatch Front region. Using these values, the precipitation reduction factor yields a value of 0.9384. Combined with the basic road dust emission rate, the net $PM_{2.5}$ and PM_{10} road dust factors by highway functional class are as follows:

Functional Class	PM_{10} Road Dust Rate (grams/mile)	$PM_{2.5}$ Road Dust Rate (grams/mile)
local roads	0.429	0.107
arterials	0.226	0.057
freeways	0.068	0.017

D. Conformity Determination

The following conformity findings for the 2015-2040 Regional Transportation Plan for the Wasatch Front are based on the transportation systems and planning assumptions described in this report and the EPA approved vehicle emissions model (MOVES2014).

Salt Lake City CO Conformity
The carbon monoxide maintenance plan for Salt Lake City was approved by EPA effective September 30, 2005 as recorded in the Federal Register (Vol. 70, No. 146, August 1, 2005). The maintenance plan defines a motor vehicle emission budget for the years 2005 and 2019 of 278.62 tons/day. Table 7 below demonstrates that projected mobile source emissions are within the emission budget defined in the maintenance plan for the 2019 budget year. The other years listed in Table 7 are in accordance with requirements of the Conformity Rule (40 CFR Part 93) as noted in the table.

From this demonstration it is concluded that the Amended RTP conforms to the applicable controls and goals of the State Implementation Plan (Maintenance Plan) for Carbon Monoxide in Salt Lake City.

Table 7
Salt Lake City - CO
Conformity Determination

	b	*b*	*c*	*c*
Year	**2019**	**2024**	**2034**	**2040**
Budget[#] (tons/day)	278.62	278.62	278.62	278.62
emission rate (grams/mile)	*5.29*	*4.15*	*2.25*	*1.80*
seasonal VMT	*6,958,685*	*7,414,052*	*8,324,786*	*8,739,057*
Projection* (tons/day)	40.59	33.93	20.61	17.36
Conformity (Projection < Budget?)	**Pass**	**Pass**	**Pass**	**Pass**

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

[#] Federal Register Vol. 70 No. 146, August 1, 2005, Table V-2.

** Projection = Emission Rate x seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.*

Ogden CO Conformity
The carbon monoxide maintenance plan for Ogden City was approved by EPA effective November 14, 2005 as recorded in the Federal Register (Vol. 70, No. 177, September 14, 2005). The maintenance plan defines a motor vehicle emission budget for the years 2005 and 2021 of 75.36 and 73.02 tons/day respectively. Table 8 below demonstrates that projected mobile source emissions are within the emission budget defined in the maintenance plan for the 2021 budget year. The other years listed in Table 8 are in accordance with requirements of the Conformity Rule (40 CFR Part 93) as noted in the table.

From this demonstration it is concluded that the 2015-2040 RTP conforms to the applicable controls and goals of the State Implementation Plan (Maintenance Plan) for Carbon Monoxide in Ogden City.

Table 8
Ogden City - CO
Conformity Determination

	c	*b*	*c*	*c*	*e*
Year	**2019**	**2021**	**2024**	**2034**	**2040**
Budget[#] (tons/day)	75.36	73.02	73.02	73.02	73.02
emission rate (grams/mile)	*6.58*	*5.82*	*4.76*	*2.53*	*1.95*
seasonal VMT	*1,524,886*	*1,571,147*	*1,640,539*	*1,832,423*	*1,951,102*
Projection* (tons/day)	11.06	10.08	8.60	5.11	4.20
Conformity (Projection < Budget?)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

[#] Federal Register Vol. 70 No. 177, September 14, 2005, Table V-2.

** Projection = Emission Rate x seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.*

Ogden PM10 Conformity
Ogden City was designated as a PM_{10} non-attainment area in August of 1995 based on PM_{10} violations in 1993 or earlier. Since a PM_{10} SIP for Ogden has not yet been approved by EPA, it must be demonstrated that Ogden PM_{10} emissions are either less than 1990 emissions or less than "no-build" emissions. The analysis years 2019, 2024, 2034, and 2040 were selected in accordance with the requirements of 40 CFR Section 93.119(e).

PM_{10} emissions are present in two varieties referred to as primary and secondary PM_{10}. Primary PM_{10} consists mostly of fugitive road dust but also includes particles from brake wear and tire wear and some "soot" particles emitted directly from the vehicle tailpipe. The methods defined in the January 2011 version of the EPA publication known as "AP-42" were used to estimate dust from paved roads. Secondary PM_{10} consists of gaseous tailpipe emissions that take on a particulate form

through subsequent chemical reactions in the atmosphere. Nitrogen oxides are the main component of secondary PM_{10} emissions with sulfur oxides a distant second.

As summarized in Tables 9a and 9b, emission estimates for the 2015-2040 RTP satisfy the "Build < 1990" test for secondary PM_{10} (NOx precursors) and primary PM_{10} (direct tailpipe particulates, brake wear, tire wear, and road dust) in Ogden City. The 1990 emission estimates based on the Mobile6.2 vehicle emissions model for the 2003 conformity analysis have been updated for this conformity analysis using the MOVES model and the January 2011 AP-42 road dust methodology for consistency with current emission modeling requirements. Specifically, the NOx precursor budget (1990 emission estimate) changes from 4.57 tons/day to 6.92 tons/day, and the direct PM10 budget (1990 estimate) changes from 2.28 tons/day to 1.28 tons/day. The 1990 primary PM_{10} estimate for Ogden City includes emissions from the unpaved access road to the Ogden landfill which was closed in 1998.

For projections of primary PM_{10} emissions, no credit was taken for a number of programs adopted since Ogden City last violated the PM_{10} standard. These particulate reducing programs include covered load ordinances, increased frequency of street sweeping, and reduced application of deicing and skid resistant materials (salt and sand). Documentation of these programs has been provided by Ogden City but the actual benefits of these programs are not included in the emission projections below. Other areas that have estimated the benefit of these programs have found a silt load reduction of over 30% for effective street sweeping programs and a 5% silt load reduction when limiting the amount of sand and salt applied to the roads. Ogden City has also implemented a number of specific projects that have a positive effect in reducing particulate emissions including park and ride lots, storm water improvements, shoulder widening and edge striping, and addition of curb and gutter on several projects.

From this demonstration it is concluded that the 2015-2040 RTP conforms under the Emission Reductions Criteria for areas without motor vehicle emissions budgets for PM_{10} in Ogden City.

Table 9a

Ogden City - PM10 (NOx Precursor) Conformity Determination

	d	*c*	*c*	*e*
Year	**2019**	**2024**	**2034**	**2040**
1990 Emissions (tons/day)	6.92	6.92	6.92	6.92
emission rate (grams/mile)	*0.81*	*0.49*	*0.23*	*0.19*
seasonal VMT	*1,524,886*	*1,640,539*	*1,832,423*	*1,951,102*
Projection* (tons/day)	1.36	0.89	0.47	0.41
Conformity (Projection < 1990 Emissions?)	**Pass**	**Pass**	**Pass**	**Pass**

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

** Projection = Emission Rate x seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.*

Table 9b

Ogden City - PM10 (Primary Particulates**)
Conformity Determination

	d	*c*	*c*	*e*
Year	**2019**	**2024**	**2034**	**2040**
1990 Emissions (tons/day)	1.28	1.28	1.28	1.28
emission rates (grams/mile)				
total exhaust particulates	*0.0332*	*0.0171*	*0.0085*	*0.0075*
brake particulates	*0.0665*	*0.0614*	*0.0620*	*0.0628*
tire particulates	*0.0129*	*0.0125*	*0.0126*	*0.0127*
road dust particulates	*0.2618*	*0.2620*	*0.2578*	*0.2570*
seasonal VMT	*1,524,886*	*1,640,539*	*1,832,423*	*1,951,102*
Projection* (tons/day)	0.63	0.64	0.69	0.73
Conformity (Projection < 1990 Emissions?)	**Pass**	**Pass**	**Pass**	**Pass**

*** Includes total PM10 exhaust particulates, road dust, tire wear, and brake wear.*

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

** Projection = Emission Rate x seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.*

Salt Lake County PM10 Conformity

The PM_{10} SIP for Salt Lake County does not define a budget beyond the year 2003. Therefore, conformity tests are required only for analysis years which are identified in accordance with 40 CFR 93.118. All analysis years after 2003 must meet the 2003 budgets for primary particulates and secondary particulates (see the discussion above under Ogden PM_{10} Conformity for an explanation of primary and secondary PM_{10} emissions). The State air quality rule R307-310 allows a portion of the surplus primary PM_{10} budget to be applied to the secondary PM_{10} budget for conformity purposes. For the analysis years 2019, 2024, 2034, and 2040, no budget adjustments were necessary.

Table 10

Salt Lake County - PM10 Budgets

Direct (Dust) and Precursor (NOx) PM10 Emission Budgets

(tons/day)

Year	2019	2024	2034	2040
Total PM10 Budget#	72.60	72.60	72.60	72.60
Direct PM10 Budget to be Traded	*0.00*	*0.00*	*0.00*	*0.00*
Direct PM10 Budget	40.30	40.30	40.30	40.30
NOx Precursor PM10 Budget	32.30	32.30	32.30	32.30

Table 11a and Table 11b below demonstrate that projected mobile source emissions are within the emission budget defined in the SIP. The years listed in Table 10a and Table 10b are in accordance with requirements of the Conformity Rule (40 CFR Part 93) as noted in the tables.

From this demonstration it is concluded that the 2015-2040 RTP conforms to the applicable controls and goals of the State Implementation Plan for PM_{10} in Salt Lake County.

Table 11a

Salt Lake County - PM10 (NOx Precursor)

Conformity Determination

	c	*c*	*c*	*e*
Year	**2019**	**2024**	**2034**	**2040**
Budget# (tons/day)	32.30	32.30	32.30	32.30
emission rate (grams/mile)	*0.52*	*0.45*	*0.23*	*0.19*
seasonal VMT	*31,323,413*	*33,387,650*	*38,740,032*	*41,724,884*
Projection* (tons/day)	18.07	16.46	9.82	8.95
Conformity (Projection < Budget?)	**Pass**	**Pass**	**Pass**	**Pass**

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

 # WFRC Memo to Jeff Houk of EPA, April 15, 1994.

** Projection = Emission Rate x seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.*

Table 11b
Salt Lake County - PM10 (Primary Particulates)**
Conformity Determination

	c	c	c	e
Year	**2019**	**2024**	**2034**	**2040**
Budget[#] (tons/day)	40.30	40.30	40.30	40.30
emission rates (grams/mile)				
total exhaust particulates	*0.0300*	*0.0200*	*0.0098*	*0.0086*
brake particulates	*0.0485*	*0.0495*	*0.0514*	*0.0507*
tire particulates	*0.0111*	*0.0115*	*0.0116*	*0.0115*
road dust particulates	*0.2101*	*0.2055*	*0.2006*	*0.1968*
seasonal VMT	*31,323,413*	*33,387,650*	*38,740,032*	*41,724,884*
Projection* (tons/day)	10.35	10.54	11.68	12.31
Conformity (Projection < Budget?)	**Pass**	**Pass**	**Pass**	**Pass**

*** Includes total PM10 exhaust particulates, road dust, tire wear, and brake wear.*

[#] WFRC Memo to Jeff Houk of EPA, April 15, 1994.

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

** Projection = Emission Rate x seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.*

Salt Lake $PM_{2.5}$ Conformity

Davis, Salt Lake, and portions of Weber, Tooele, and Box Elder Counties have been designated as a non-attainment area under the new $PM_{2.5}$ standard (35 $\mu g/m^3$) that was established in 2006. Work has begun on a $PM_{2.5}$ section of the State Implementation Plan which will establish a motor vehicle emission budget for emissions associated with $PM_{2.5}$. Until the $PM_{2.5}$ SIP is completed and approved by EPA, $PM_{2.5}$ interim conformity requirements apply. EPA interim conformity for $PM_{2.5}$ emissions requires that future NOx emissions (a precursor to $PM_{2.5}$) and primary particulate emissions not exceed 2008 levels.

Table 12a below demonstrates that projected mobile source emissions of NOx (a precursor to $PM_{2.5}$ emissions) in the five-county $PM_{2.5}$ non-attainment area are less than 2008 NOx emissions. Table 12b below demonstrates that direct particle emissions of $PM_{2.5}$ in the five-county $PM_{2.5}$ non-attainment area are also less than 2008 direct particle emissions. Direct particle emissions include exhaust emissions of elemental carbon, organic carbon, and sulfates (SO4); and mechanical emissions from brake wear and tire wear.

From this demonstration it is concluded that the RTP conforms under the interim conformity guidelines for $PM_{2.5}$ areas without an approved motor vehicle emissions budget for the Salt Lake $PM_{2.5}$ non-attainment area.

Table 12a

Salt Lake Area# - PM2.5 (NOx Precursor)

Conformity Determination

		c	c	c	e
Year		**2019**	**2024**	**2034**	**2040**
2008 Emissions (tons/day)		89.35	89.35	89.35	89.35
emission rate (grams/mile)		*0.61*	*0.48*	*0.24*	*0.21*
seasonal VMT		*49,810,959*	*53,435,613*	*62,137,800*	*67,267,369*
Projection* (tons/day)		33.54	28.05	16.76	15.58
Conformity (Projection < Budget?)		**Pass**	**Pass**	**Pass**	**Pass**

 # Salt Lake PM2.5 Non-Attainment Area includes: Davis, Salt Lake, and portions of Weber, Box Elder and Tooele Counties.

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

** Projection = Emission Rate x seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.*

Table 12b

Salt Lake Area# - PM2.5 (VOC Precursor)

Conformity Determination

		c	c	c	e
Year		**2019**	**2024**	**2034**	**2040**
2008 Emissions (tons/day)		53.55	53.55	53.55	53.55
emission rate (grams/mile)		*0.52*	*0.41*	*0.28*	*0.25*
seasonal VMT		*49,810,959*	*53,435,613*	*62,137,800*	*67,267,369*
Projection* (tons/day)		28.73	24.15	18.95	18.53
Conformity (Projection < Budget?)		**Pass**	**Pass**	**Pass**	**Pass**

 # Salt Lake PM2.5 Non-Attainment Area includes: Davis, Salt Lake, and portions of Weber, Box Elder and Tooele Counties.

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

** Projection = Emission Rate x seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.*

Table 12c

Salt Lake Area# - PM2.5 (Direct PM Emissions**)

Conformity Determination

		c	c	c	e
Year		**2019**	**2024**	**2034**	**2040**
2008 Emissions (tons/day)		7.06	7.06	7.06	7.06
emission rate (grams/mile)		*0.09*	*0.08*	*0.07*	*0.07*
seasonal VMT		*49,810,959*	*53,435,613*	*62,137,800*	*67,267,369*
Projection* (tons/day)		4.94	4.60	4.63	4.84
Conformity (Projection < Budget?)		**Pass**	**Pass**	**Pass**	**Pass**

 # Salt Lake PM2.5 Non-Attainment Area includes: Weber, Davis, Salt Lake, and portions of Box Elder and Tooele Counties.

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

** Projection = Emission Rate x seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.*

Salt Lake and Davis County Ozone Conformity

The 1-hour ozone standard was revoked on June 19, 2005. Therefore, a conformity analysis under the 1-hour ozone standard in Salt Lake and Davis Counties is no longer required.

The old 8-hour ozone standard was 75 ppb. All counties within the Wasatch Front area are in attainment of the old 8-hour ozone standard.

A new ozone standard of 70 ppb was approved October 2015. Areas of non-attainment for the new ozone standard will be designated by EPA in October 2017. Any designated non-attainment areas will be required to demonstrate conformity for ozone precursor emissions beginning October 2018.

Appendix – 1
Definition of Regionally Significant Projects

Process for Determining Regionally Significant Facilities
for Purposes of Regional Emissions Analysis (see CFR 93.105.2.c.1.ii)

Background: 40 FR 93.101 defines "regionally significant project" and associated facilities for the purpose of transportation conformity. The federal definition does not specifically include minor arterials. The following definitions and processes will be used by the Wasatch Front Regional Council (WFRC) and Mountainlands Association of Governments (MAG) in consultation with DAQ, UDOT, UTA, FHWA, FTA, and EPA to determine which facilities shall be considered regionally significant for purposes of regional emissions analysis. It is the practice of the MPO to include minor arterials and collectors in the travel model for the purpose of accurately modeling regional VMT and associated vehicle emissions. The inclusion of minor arterials and collectors in the travel model, however, does not identify these facilities as regionally significant.

1. Any new or existing facility with a functional classification of principal arterial or higher on the latest UDOT Functional Classification Map shall be considered regionally significant (see http://www.dot.utah.gov/index.php/m=c/tid=1228).

2. Any fixed guide-way transit service including light rail, commuter rail, or portions of bus rapid transit that involve exclusive right-of-way shall be considered regionally significant.

3. As traffic conditions change in the future, the MPO's - in consultation with DAQ, UDOT, FHWA, and EPA (and UTA and FTA in cases involving transit facilities) - will consider 1) the relative importance of minor arterials serving major activity centers, and 2) the absence of principal arterials in the vicinity to determine if any minor arterials in addition to those listed in Exhibit A should be considered as regionally significant for purposes of regional emissions analysis.

Exhibit A
Minor Arterials Determined to be Regionally Significant
for Purposes of Regional Emissions Analysis

40 FR 93.105(c)(ii), "Consultation – Interagency consultation procedures: Specific processes" specifies that Interagency Consultation shall include a process to identify which minor arterials should be considered as "regionally significant" for the purpose of regional emissions analysis. In consultation with DAQ, UDOT, FHWA, and EPA; and based on inspection and engineering judgment of current traffic conditions; and based on application of the "Process for Determining Regionally Significant Facilities for Purposes of Regional Emissions Analysis" agreed upon by the aforementioned agencies; the WFRC designated eight minor arterials as regionally significant.

Since 2015, all but one of the minor arterials referenced above have been reclassified with the functional type of principal arterial and are therefore by definition regionally significant. The remaining minor arterial to be considered as regionally significant for emissions analysis is listed below. It should also be noted that all collectors, minor arterials, and principal arterials are included in the highway network used in the WFRC travel demand model.

Davis County
none

Salt Lake County
none

Weber County
SR-79 (Hinckley Drive): SR-108 to I-15

Process for Determining Significant Change in Design Concept and Scope for Purposes of Regional Emissions Analysis (see CFR 93.105.2.c.1.ii)

Changes to regionally significant projects may or may not necessitate a new regional emissions analysis. The following definitions and processes will be used to determine what changes to project concept and scope are to be considered significant or not for purposes of regional emissions analysis.

1. Adding or extending freeway auxiliary lanes or weaving lanes between interchanges is not considered a significant change in concept and scope since these lanes are not normally included in the travel model.

2. Adding or extending freeway auxiliary/weaving lanes from one interchange to a point beyond the next interchange is considered a significant change in concept and scope.

3. A change to a regionally significant project defined in the Regional Transportation Plan that does not change how the project is defined in the travel model is not considered a significant change in concept and scope. These changes include but are not limited to lane or shoulder widening, cross section (other than the number of through lanes), alignment, interchange configuration, intersection traffic control, turn lanes, continuous or center turn lanes, and storage lanes.

4. A change to a regionally significant project defined in the Regional Transportation Plan that does alter the number of through lanes, lane capacity, or speed classification as defined in the travel model is considered a significant change in concept and scope.

5. Advancing or delaying the planned implementation of a regionally significant project that does not result in a change in the transportation network described in the travel model for any horizon year (as defined in CFR 93.101) is not considered a significant change in concept and scope.

6. Advancing or delaying the planned implementation of a regionally significant project that does result in a change in the transportation network described in the travel model for any horizon year (as defined in CFR 93.101) is considered a significant change in concept and scope.

7. Project changes not addressed in the above statements will be decided on a case by case basis through consultation by representatives from DAQ, WFRC, MAG, UDOT, UTA, FHWA, FTA, and EPA.

Appendix-2

Box Elder County
Highway and Transit Projects
2040 RTP

Box Elder County

Box Elder County
Regionally Significant Project List – January 2015

Line	Source	County	Need Phase	Constrained Phase	Capacity Need	Priority Score	Improvement Type	Project Name	Project Description	Cost 2014	Route	Begin	End
1	LRP	Box Elder/ Cache	STIP 2016	1	Before 2012	44	Passing Lane	SR-30 MP 97 to MP 101	Add one travel lane in each direction	$5,000,000	0030	97.00	101.34
9	LRP	Box Elder/ Cache	3	2	begin by Phase 1	27	Widening	SR- 30 MP 95.1 to MP 102.3, SR- 38 to SR- 23	Add one travel lane in each direction	$32,040,000	0030	95.10	102.30
10	LRP	Box Elder	4	2		36	Passing Lane	I- 84 Widen WB from MP 17.3 to MP 19.9	Add one travel lane in WB direction	$7,150,000	0084	17.30	19.90
11	LRP	Box Elder	4	2		43	Passing Lane	I- 84 Widen EB from MP 6.8 to MP 17.7	Add one travel lane in EB direction	$29,975,000	0084	6.80	17.70
13	LRP	Box Elder	2	2	before 2012	28	Widening	SR- 30 MP 90.7 to MP 95.1, I-15 to SR- 38 (Collinston)	Add one travel lane in each direction	$19,580,000	0030	90.70	95.10
14	Model	Box Elder	3	3		25	Widening	I- 15 Widen from MP 365.7 to MP 372.6, SR- 13 to Honeyville (WFRC boundary from MP 365.7 to 368.3)	Add one travel lane in each direction	$22,145,000	0015	368.30	372.60
15	LRP	Box Elder	4	3		43	Passing Lane	I- 84 Widen WB from MP 29.3 to MP 32.3	Add one travel lane in WB direction	$8,250,000	0084	29.30	32.30
16	LRP	Box Elder	4	3		37	Passing Lane	I- 84 Widen EB from MP 25.3 to MP 29.7	Add one travel lane in EB direction	$12,100,000	0084	25.30	29.70
17	LRP	Box Elder	4	3		46	Passing Lane	I- 84 Widen WB from MP 33.5 to MP 35.6	Add one travel lane in WB direction	$5,775,000	0084	33.50	35.60
22	Model	Box Elder	4	4		37	Widening	I- 15 Widen from MP 372.6 to MP 379.5, Honeyville to Tremonton	Add one travel lane in each direction	$35,535,000	0015	372.60	379.50

Appendix-3

Highway and Transit Projects
2040 RTP

Tooele County

Tooele Valley RPO Long Range Plan Highway Projects
February 9, 2015

Phase 1 (To be built by 2025)

Main Street (SR-138) in Grantsville (West St – Center St, and Bowery St – SR-112)
Widen from 1 lane to 2 lanes per direction

SR-36 (Stockton Town – Skyline Drive)
Widen from 1 lane to 2 lanes per direction

Tooele Parkway (SR-112 – Droubay Road)
New collector, 1 lane per direction

Midvalley Highway (SR-138 – I-80)
New freeway, 2 lanes per direction

Midvalley Highway (SR-36 – Utah Avenue)
New principal arterial, 2 lanes per direction

SR-112 (Sheep Lane - Utah Ave)
Widen from 1 lane to 2 lanes per direction

Sheep Lane (SR-112 – SR-138)
Widen from 1 lane to 2 lanes per direction

SR-138 (SR-112 – Midvalley Highway)
Widen from 1 lane to 2 lanes per direction

I-80 (SR-36 – SR-201)
Widen from 2 lanes to 3 lanes per direction

SR-112 (SR-138 – Sheep Lane)
Widen from 1 lane to 2 lanes per direction

400 West (2000 North – Village Blvd)
New collector, 1 lane per direction

1000 North (SR-36 – Droubay Road)
Widen from 1 lane to 2 lanes per direction

Tooele Boulevard (SR-36 – Vine St)
New collector, 1 lane per direction

Bates Canyon Road (1200 West – 400 West)
New collector, 1 lane per direction

Village Boulevard (SR-138 – current western terminus)
New collector, 1 lane per direction

Appendix-4

RTP Amendments

October 2015

2015 – 2040 Regional Transportation Plan
Amendment Number 2 – May 2016

UTAH DEPARTMENT OF TRANSPORTATION

1. SR-209, 9000 South; From I-15 to 700 East - This project is currently in Phase 1 and is listed an an "operational" project. The proposed change is to make it a "widening" project.

2. SR-68, Redwood Road – There are two proposed changes:
    - From 9000 South to 11400 South - This project is an operational project and is currently in Phase 2. The proposed change would be to move the project forward to Phase 1
    - From 9000 South to Bangerter Highway - This project is a widening of the road and is currently in Phase 3. The proposed change would move the project forward to Phase 1

OGDEN CITY

3. Valley Drive; From 20th Street to SR-39 - Since funding is being sought through the local option sales tax, this proposed change would be to include this new project in the current RTP.

4. 2nd Street; From Washington Blvd. to Monroe Street - Since funding is being sought through the local option sales tax, this proposed change would be to include this new project in the current RTP.

5. 17th Street; From Wall Avenue to Washington Blvd. - Since funding is being sought through the local option sales tax, this proposed change would be to include this new project in the current RTP.

6. 26th Street; From Wall Avenue to Washington Blvd. - Since funding is being sought through the local option sales tax, this proposed change would be to include this new project in the current RTP.

NORTH ODGEN CITY

7. 2600 North; From Washington Blvd. to approximately Fruitland Drive - This is a new widening project, and since funding is being sought, this proposed change would be to include this project in the current RTP.

HARRISVILLE CITY

8. Wall Avenue Extension; North from Larsen Lane. This request is for this project to be removed from the current RTP.

BLUFFDALE CITY

9. 14000 South Road; From 2700 West to 3600 West - Since funding is being sought, this proposed change would be to include this new project in the current RTP.

2015-2040 Regional Transportation Plan
Amendment Number 1 - October 2015

BACKGROUND:
Every four years the Wasatch Front Regional Council (WFRC) prepares and adopts a regional transportation plan (RTP) to identify and implement needed transportation improvements. The WFRC adopted the current RTP in May 2015. While the RTP receives considerable review before being formally adopted, the identification of new funding sources, the determination of the final environmental impact statements, or the rapid development of certain projects, may warrant a change to the RTP. A process has been formally adopted by WFRC to consider periodic revisions.

Recently, the WFRC received requests from the Utah Department of Transportation (UDOT), the Utah Transit Authority (UTA), and Layton City to amend the 2015-2040 RTP to consider the changes listed below.

WFRC staff has analyzed the potential financial implications of including these projects in Phase 1 and determined that there are adequate resources available and potential cost savings from a reprioritization of projects. The plan is able to maintain its fiscal constraint while accommodating construction of these projects in phase I. WFRC is reviewing the air quality impacts to ensure that all applicable air quality conformity requirements are met; results will be provided at the meeting.

The formal public comment period will take place from November 2 to December 1. The WFRC staff, UDOT, UTA, and Layton City representatives will present these amendments to the Regional Growth Committee's Ogden-Layton Technical Advisory Committee and the Salt Lake County PlanTac on December 16, 2015. The Regional Growth Committee and the Regional Council will review all comments and make a final recommendation in January 2016.

UDOT PROPOSED MODIFICATIONS TO THE 2015-2040 RTP

US-89 Improvements **Total Cost: $275 million**

The Utah Department of Transportation is making a request to amend the current 2015-2040 RTP for (1) construction of new interchanges at Antelope Drive, Gordon Avenue, Oak Hills Drive and 400 North, (2) construction of frontage roads from Oak Hills Drive to Eagle Way, (3) construction of two overpasses at Crestwood Road and Nicholls Road, (4) potential widening of US-89 from 4 to 6 lanes from just north of the US-89/I-15 interchange in Farmington to Antelope Drive. The 2015-2040 RTP includes the Interchange at 400 North, the overpass at Nicholls Road, and frontage roads from Oak Hills Drive to Nicholls Road in Phase 1. The proposed amendment includes the following modifications to the RTP.

1. **New Construction of US-89 Interchange @ Antelope Drive**
   This project will be moved from Phase 2 to Phase 1.

2. **New Construction of US-89 Interchange @ Gordon Avenue**
   This project will be moved from Phase 2 to Phase 1.
3. **New Construction of US-89 Interchange @ Oak Hills Drive**
   This project will be moved from Phase 2 to Phase 1.

4. **Widening of US-89 from Antelope Drive to I-15 (Farmington)**
   This project will be moved from Phase 3 to Phase 1.

5. **New Construction of US-89 Frontage from Eagle Way to Oak Hills Drive**
   The frontage road project limits will be extended to Eagle Way in the south. This project is currently in Phase 1.

6. **New Construction of Crestwood Road Overpass @ US-89**
   This new project provides connectivity for pedestrians, bicycles, and vehicular traffic across US-89 and is requested to be included in Phase 1.

While these elements are presented as separate projects in the current RTP and proposed amendment, they are part of the preferred alternative developed for the US-89 Environmental Impact Statement (EIS) completed in 1996. Since the completion of the EIS, UDOT has worked to construct elements of the preferred alternative. With this project, there is an opportunity to complete most of the remaining elements of the preferred alternative. The priority components include the construction of the interchanges, the overpasses, and the frontage roads. The widening project is included in the amendment because UDOT believes a favorable bidding climate could result in enough project savings to complete the widening from Antelope Drive to I-15 in Farmington. The widening from 4 to 6 lanes from I-84 to Antelope Drive is not part of this project. The current cost estimate for the US-89 project is $275 million and is funded from UDOT's Transportation Improvement Fund (TIF).

Project benefits include costs savings due to project efficiencies and future inflation costs, improved traffic flow, delay reductions from the elimination of at-grade intersections, and improved access and connectivity with the development of the frontage road system and overpasses.

UTA PROPOSED MODIFICATIONS TO THE 2015-2040 RTP

7. **Ogden-Weber State University Corridor - Transit Project 11** **Cost: $ 41.0 million**
   The Utah Transit Authority is making a request to amend the current 2015-2040 RTP to include 25th Street as the approved alignment in Ogden City with the project mode as a modern Bus Rapid Transit (BRT) system in mixed flow traffic and with exclusive lanes. Currently, the RTP indicates that 30th Street would be the preferred alignment, with the mode undetermined. On July 28, 2015, the Ogden City Council and Mayor adopted Resolution #2015-24 approving a locally preferred alternative (LPA) for the Ogden/WSU Transit Project Study. This project is in Phase 1 of the RTP and the Environmental Assessment is expecting to be completed in 2016/2017.

Layton City PROPOSED MODIFICATIONS TO THE 2015-2040 RTP

8. **Gordon Avenue from 1600 East to US-89** **Cost: $ 28.7 million**
   Layton City is coordinating with UDOT on the US-89 improvements from Antelope Drive to I-15 in Farmington. As part of the US-89 project, an interchange at Gordon Avenue will be constructed. This project is a new facility and will connect US-89 with the existing Gordon Avenue at 1600 East in Layton. The construction of Gordon Avenue is a vital component of the US-89 improvement project and will improve safety, connectivity and accessibility for state and local emergency services, citizens and pedestrians and bicyclist. The project is currently in Phase 2, and Layton City is requesting this project be moved to Phase 1 due to the change in the US-89 project. Layton City does not have full funds for this project but is planning on utilizing impact fees and pursuing alternative sources.

PROPOSED ADDITIONS TO THE 2015-2040 RTP

9. I-15 Improvements **Total Cost: $250 million**

The entire I-15 project includes the (1) construction of southbound auxiliary lanes from SR-201 to SR-71 (12300 South), (2) construction of an additional southbound general purpose lane from SR-201 to 12300 South (SR-71), (3) upgrade of the I-215/I-15 Interchange, and (4) construction of Managed Motorways along the corridor. The 2015-2040 RTP includes an operational project on I-15 throughout Salt Lake County and an Interchange upgrade at I-215/I-15 in Phase 1. The proposed amendment calls for an additional southbound general purpose lane in Phase 1 from SR-201 to 12300 South (SR-71).

This project was originally programmed for construction in FY 2015-2016. UDOT put the project on hold to evaluate additional alternatives, including advanced ramp metering (Managed Motorways), freeway to freeway ramp meeting, whether to include a GP lane and whether to extend the project to 12300 South (SR-71) from its original terminus of 9000 South (SR-209). The evaluation concluded that the project should move forward with the components outlined above. The current cost estimate for the Salt Lake County I-15 project as outlined above is $250 million and is funded from UDOT's Transportation Improvement Fund (TIF).

Project benefits include congestion/delay reduction, safety improvements, the elimination of physical choke points, and improved main-line capacity to handle traffic inflow from adjacent facilities including I-80, SR-201, and I-215.

10. I-15 Operational Projects in Weber County **Total Cost: $80 million**

11. I-15 Operational Projects in Davis County

Operational improvements can include a variety of different project types including axillary lanes, ramp extensions and technology enhancements. One technology enhancement UDOT is evaluating is the concept of Managed Motorways. Managed Motorways are smart freeways that prevent congestion by continuously monitoring traffic flows and controlling access to the freeway with state-of-the-art ramp metering signal technologies that are more precise and sophisticated than other applications currently in use. Current project estimates for managed motorways in Davis and Weber Counties in $80 million. Project benefits include improved facility capacity, travel reliability and safety performance during heavy traffic demand periods by effectively preventing congestion. Preliminary analysis indicates that freeway facilities with these improvements could see a 20% increase vehicle carrying capacity and a 30% reduction in crashes. UDOT requests that this project be included in Phase 1.

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Of Transportation

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2520 West 4700 South, Ste 9A
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801-955-3500
801-955-3539 (fax)

September 19, 2016

Mr. Carlos Braceras, Executive Director
Utah Department of Transportation (Box 1245)
4501 South 2700 West
Salt Lake City, Utah 84119

Subject: Conformity Finding for the Wasatch Front Regional Council (WFRC) 2040 Long Range Plan Amendment – Air Quality Report No. 34

Dear Mr. Braceras:

We have received your concurrence review of the subject conformity analysis for the WFRC 2040 Long Range Plan Amendment. This amendment was approved by the WFRC Policy Board at their August 25, 2016 meeting. In accordance with the Clean Air Act of 1990, as amended, conformity findings of the transportation plans and programs in non-attainment and maintenance areas are required of the U.S. Department of Transportation. Based on our evaluation of the Wasatch Front Regional Council's (WFRC) conformity determination, made in its capacity as the Metropolitan Planning Organization for the Salt Lake City and Ogden/Layton Urbanized areas, and in coordination with the U. S. Environmental Protection Agency (EPA), the Utah Department of Transportation (UDOT), and the Utah Division of Air Quality (DAQ), we have concluded that the conformity determination of the WFRC transportation plan amendment has met the conformity regulation for the Salt Lake County and Salt Lake City and Ogden City non-attainment areas. Accordingly, the Federal Highway Administration finds that this amendment to the WFRC 2040 Long Range Plan conforms to Utah's adopted State Implementation Plan (SIP).

This conformity finding remains in effect until such time as a new finding is required, either by new regulatory requirements, major revision of the transportation plan, or a revision to the State Implementation Plan. If you have any questions regarding this approval action, please contact Steve Call at (801) 955-3513.

Sincerely,

Steven A. Call, P.E.
Program Development Team Leader
Federal Highway Administration – Utah Division

cc:
Jerry Benson, UTA
Andrew Gruber, WFRC
Jeff Harris, UDOT
Elden Bingham, UDOT
Tim Russ, EPA, Region 8, Denver
Steve Call, FHWA-Utah
Kristin Kenyon, FTA Region-8
Bryce Bird, UDAQ
File: K:\Program File\PLANNING\METRO\WFRC\Transportation Plan\Amendment

To: Project Team

Memorandum

From: Horrocks Engineers

Subject: Eastbound and Westbound Weave Alternatives

1.0 INTRODUCTION

The purpose of this memo is to document the analysis for the I-80 eastbound and westbound weave alternatives.

2.0 PURPOSE AND NEED

The project team evaluated alternatives to address the following needs relating to the eastbound and westbound weave areas:

- *Operational and Safety Issues on I-80 and State Street*
  - Inadequate eastbound weaving distance on I-80 between I-15 and State Street
  - Inadequate westbound weaving distance on I-80 between 700 East and State Street

Eastbound Weave Area on I-80

Eastbound Weave Area on I-80 between I-15 and State Street

There are inadequate distances for traffic merging from northbound I-15 to eastbound I-80 and from eastbound SR-201 and southbound I-15 to State Street. Vehicles traveling from northbound I-15 to eastbound I-80 must merge left one lane to continue on eastbound I-80. In this same area, vehicles traveling from SR-201 and southbound I-15 must merge right one lane to exit on State Street (see Figure 1). There are only approximately 500 feet in this weave area to make these maneuvers, which corresponds to about six seconds if vehicles are traveling 60 mph (the traffic analysis concluded that the weave length in this area would need to be approximately 3,800 feet to operate at an acceptable LOS in 2040). Generally, vehicles have to slow down to make the merging maneuver, causing congestion on I-80 and the I-80 eastbound on-ramp from I-15, as well as making rear-end and side-swipe crashes more likely.

Safety Analysis for the Eastbound Weave Area on I-80

Based on information obtained from the UDOT Safety Management System, the I-80 eastbound weave area west of State Street, including the ramps leading up to the weave area, had a total of 84 crashes in the years from 2008 to 2012. None of the crashes were considered severe or had severity index ratings of 4 or 5 (it is possible that the severity of crashes in this area is lower because vehicles are traveling at reduced speeds).

Approximately 52 percent of the crashes were single vehicle crashes. Of the crashes that were not single vehicle crashes, 90 percent were either angle, rear-end, or side-swipe crashes. These types of crashes generally relate to congestion.

Severity Index

Severity	Description
1	No Injury
2	Possible Injury
3	Non-Incapacitating Injury
4	Incapacitating Injury
5	Fatal

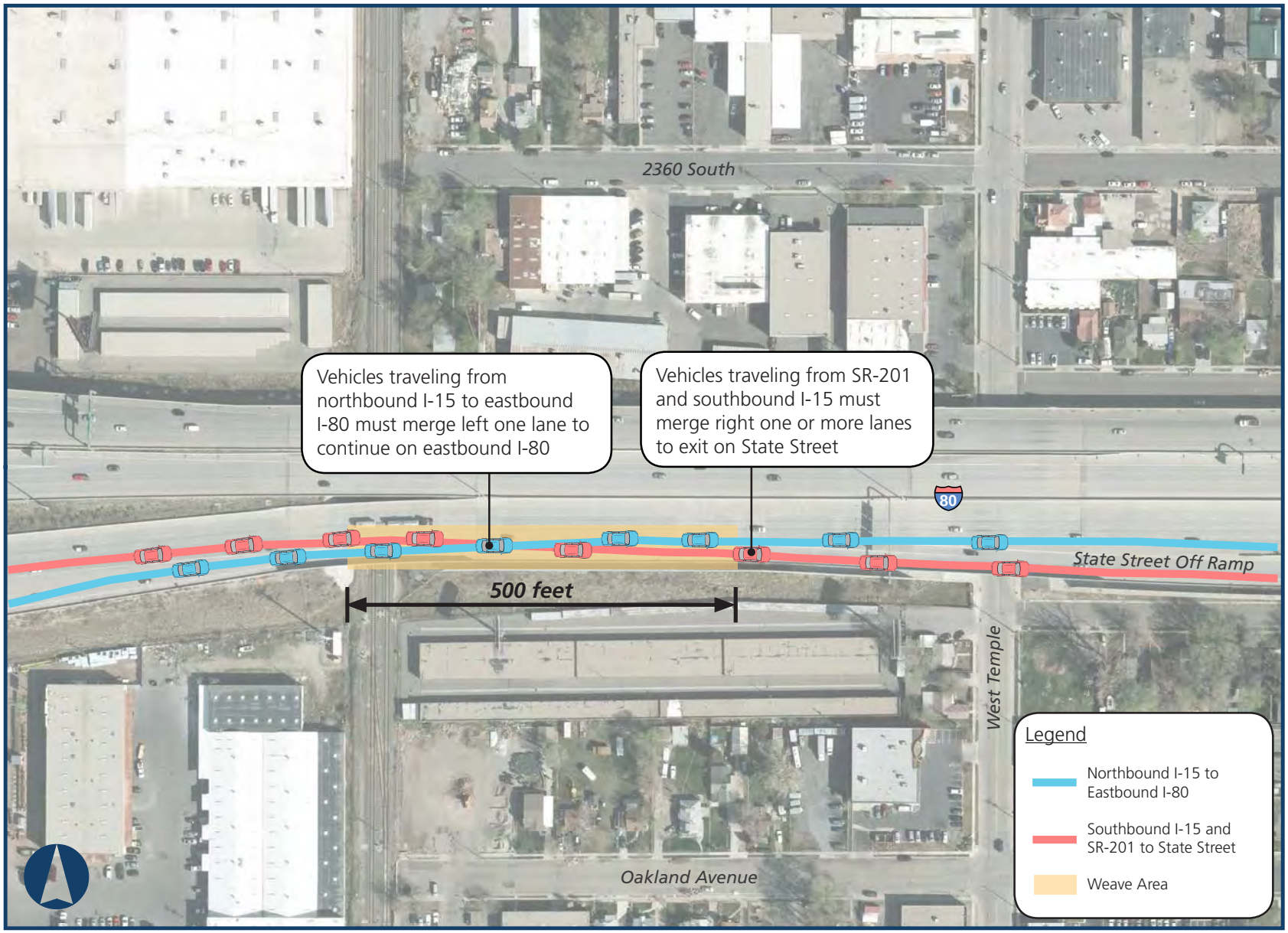

Figure 1 I-80 Eastbound Weave

Westbound Weave Area

Westbound I-80 has a complex layout with a diverge point located directly after a weave area. Vehicles traveling from 700 East must merge left one lane to continue on I-80 westbound and then left once again to access northbound I-15 or westbound I-80 to avoid traveling to southbound I-15 and SR-201. In this same area, vehicles traveling on westbound I-80 must merge right to exit at State Street (Weave Area #1 on Figure 2). Additionally, just west of State Street, vehicles on westbound I-80 must merge right to access southbound I-15 and SR-201 (Weave Area #2 on Figure 2). At the diverge point, drivers headed to southbound I-15 must stay right, while drivers headed to northbound I-15 must stay left. This is opposite of the expected directions and can create confusion for drivers in the area.

Currently, there is not enough traffic on this section of I-80 to make the above described conditions an issue; however, in 2040, traffic will increase and worsen the existing conditions, making this area more congested. Westbound I-80 will operate at failing conditions in 2040 during the a.m. peak hour (see Chapter 1 in I-80 and State Street EIS). This additional congestion will likely increase the number of rear-end and side-swipe crashes.

What is the diverge point?

The diverge point on I-80 is where traffic divides to travel to westbound I-80 and northbound I-15 or to southbound I-15 and SR-201 (see Figure 1-16).

I-80 Looking Westbound at the State Street Interchange

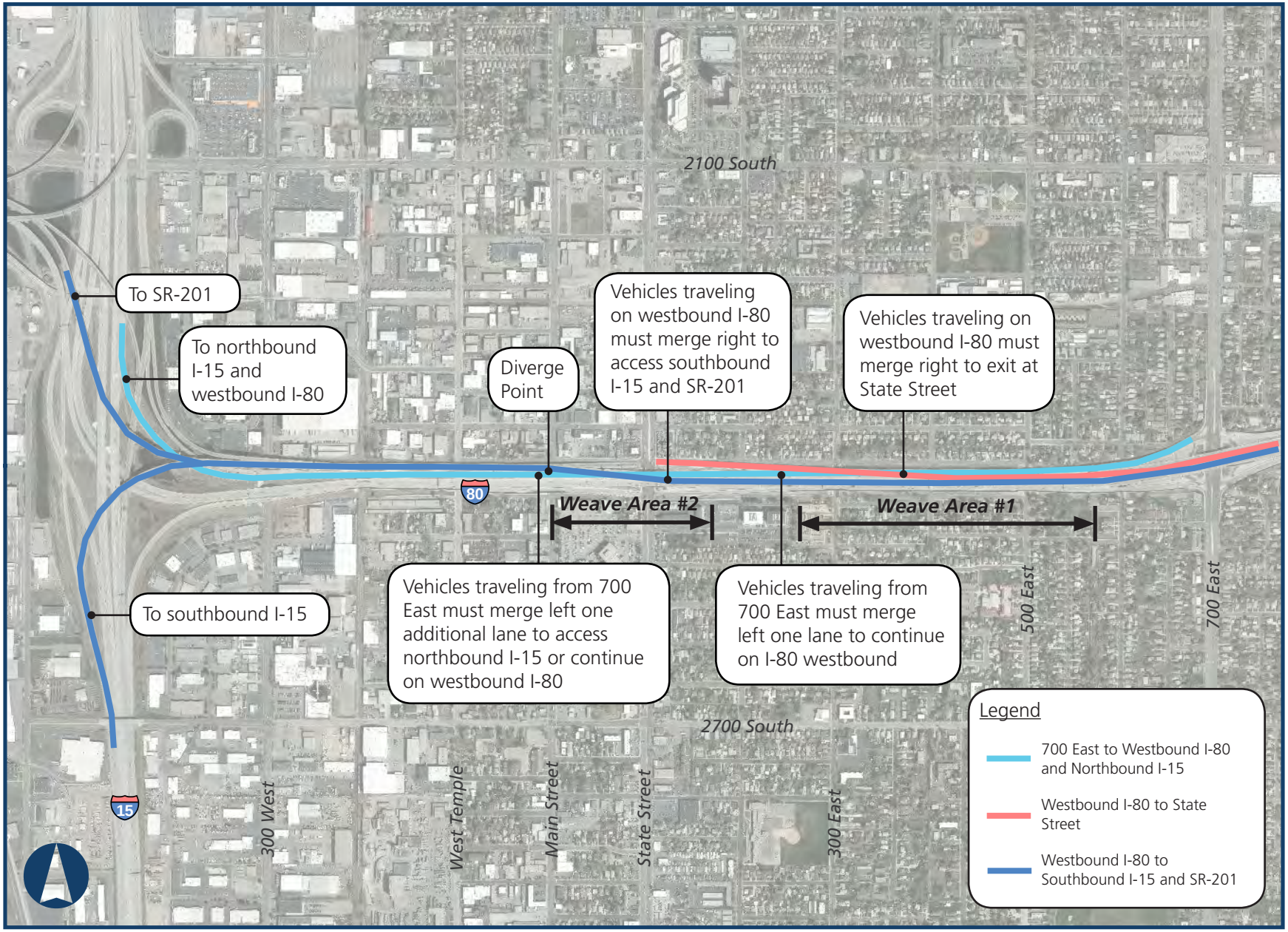

Figure 2 Westbound Weave

3.0 ALTERNATIVES

The lead agencies developed and evaluated a wide range of eastbound and westbound alternatives to address the needs described above.

3.1 EASTBOUND WEAVE ALTERNATIVES

The project team developed several eastbound weave alternatives to address the congestion resulting from the inadequate distances for traffic merging from northbound I-15 to eastbound I-80 and from eastbound SR-201 and southbound I-15 to State Street. The alternatives are described in Table 1 and Figures 3 through 11.

Table 1 Eastbound Weave Alternatives

EASTBOUND WEAVE ALTERNATIVES
No-action Alternative
TSM/TDM
Transit
A – Tighter Curve
B – Flyover from I-15 NB to I-80 EB
C – Slip Ramp to Collector-Distributor Road
C1 – Slip Ramp to Collector-Distributor Road with Flyover
E – I-15 NB Separated Ramp with Left Exit
F – I-15 NB to West Temple with Flyover
G – I-15 NB to Main Street with Flyover
I – Collector-Distributor System to Main Street
J – SR-201 and I-15 SB Braided Ramps with I-15 NB Flyover

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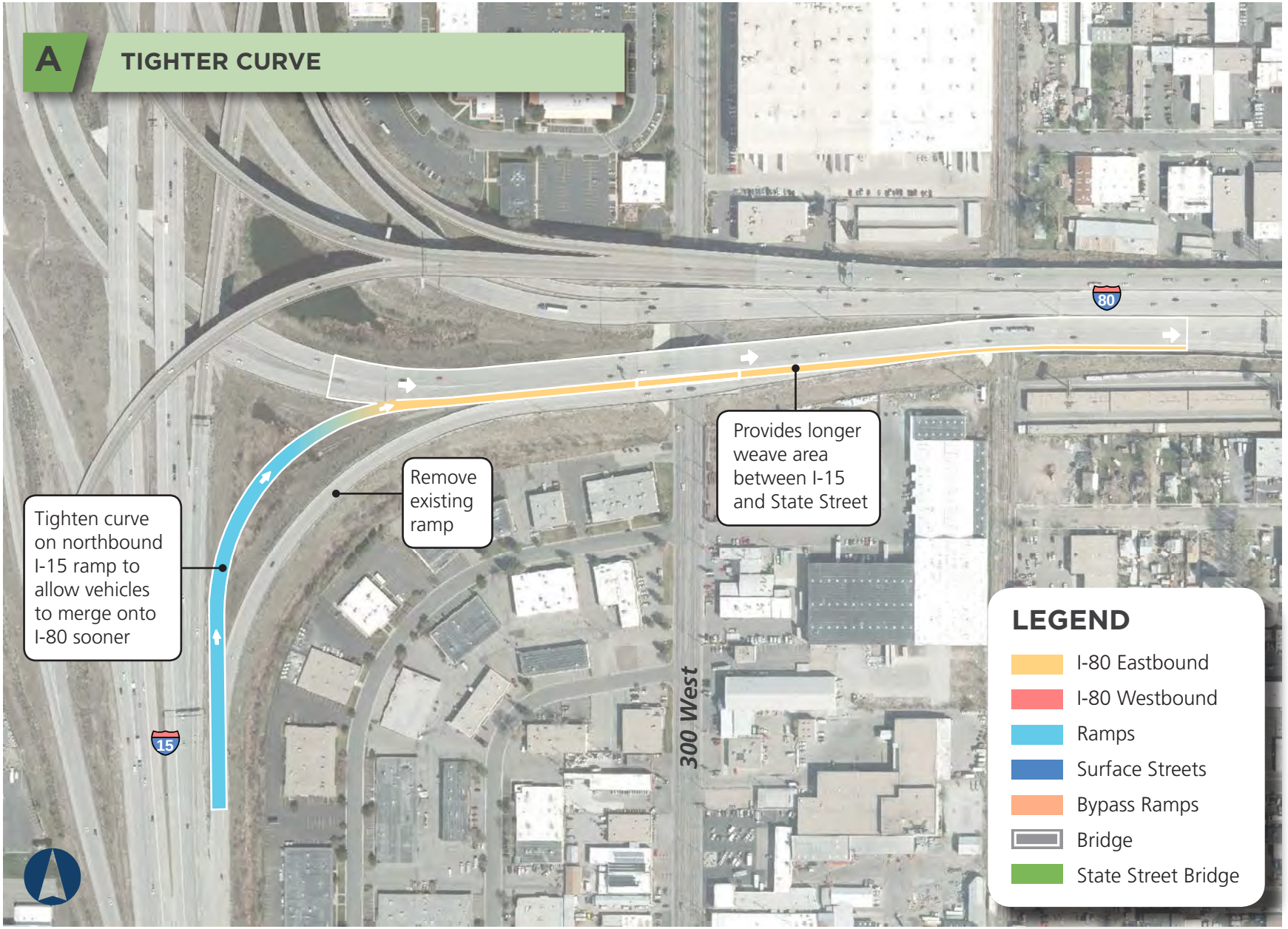


Figure 3 Eastbound Weave Alternative A – Tighter Curve

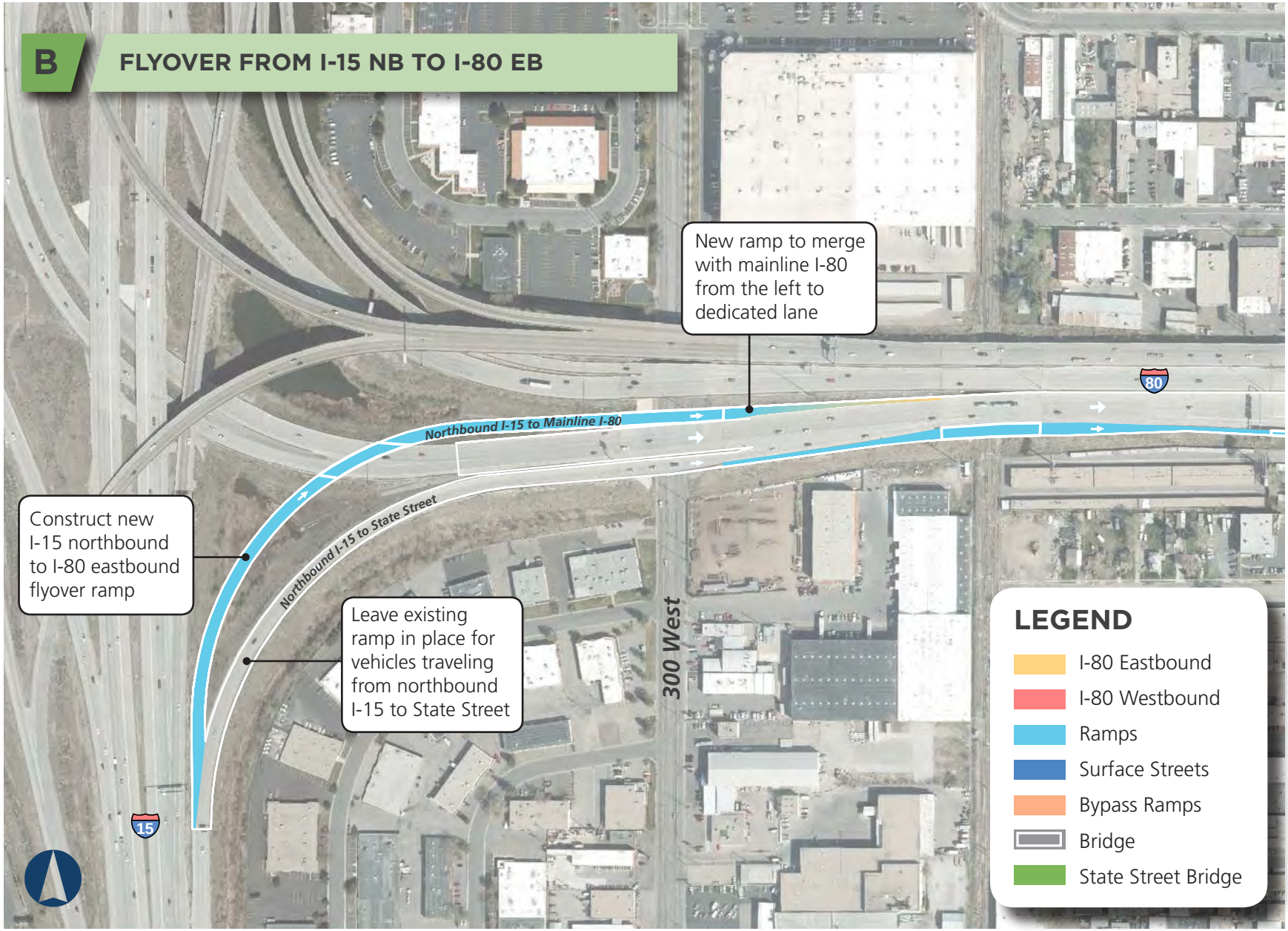


Figure 4 Eastbound Weave Alternative B – Flyover from I-15 NB to I-80 EB

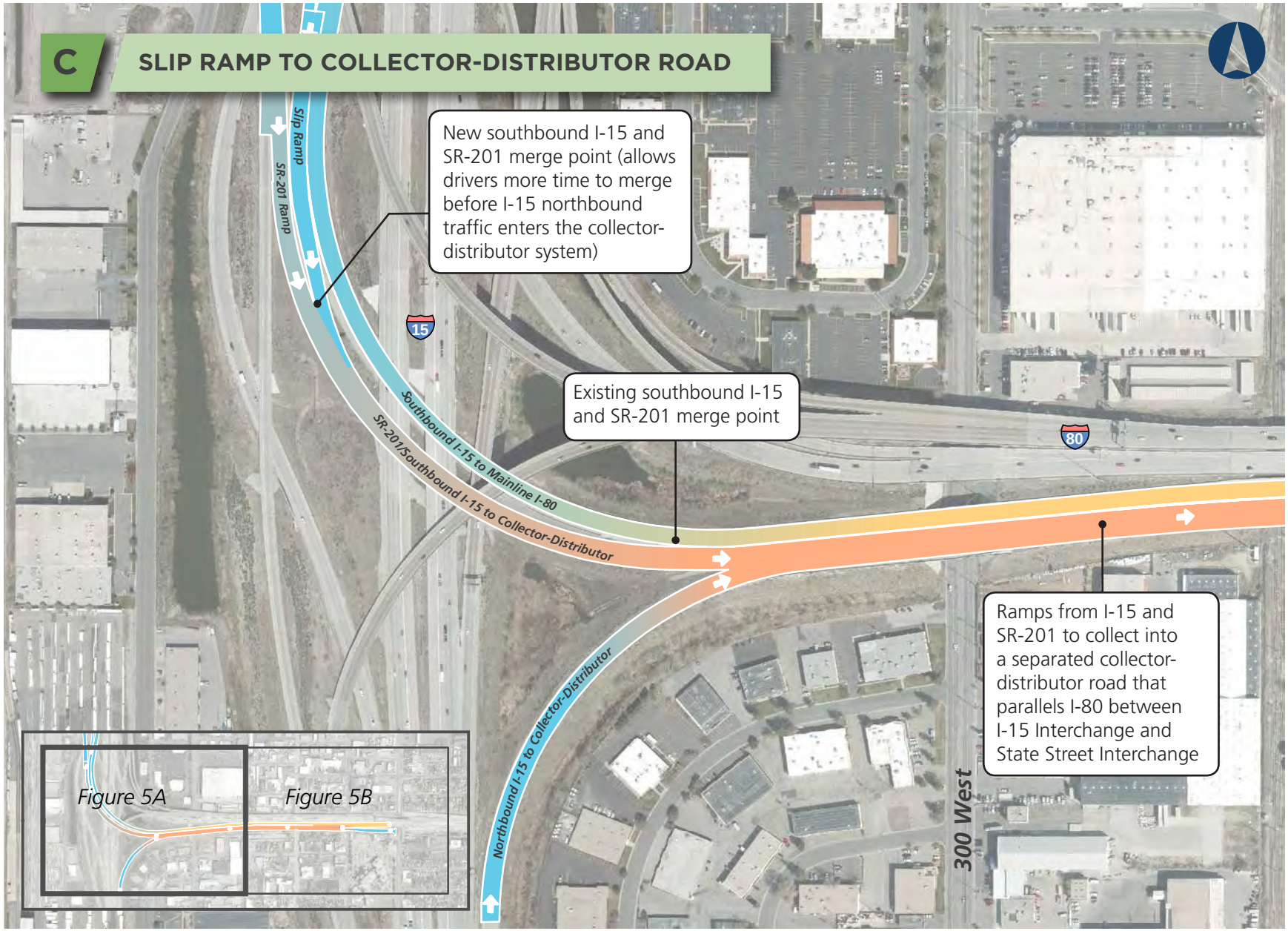


Figure 5A Eastbound Weave Alternative C – Slip Ramp to Collector-Distributor Road

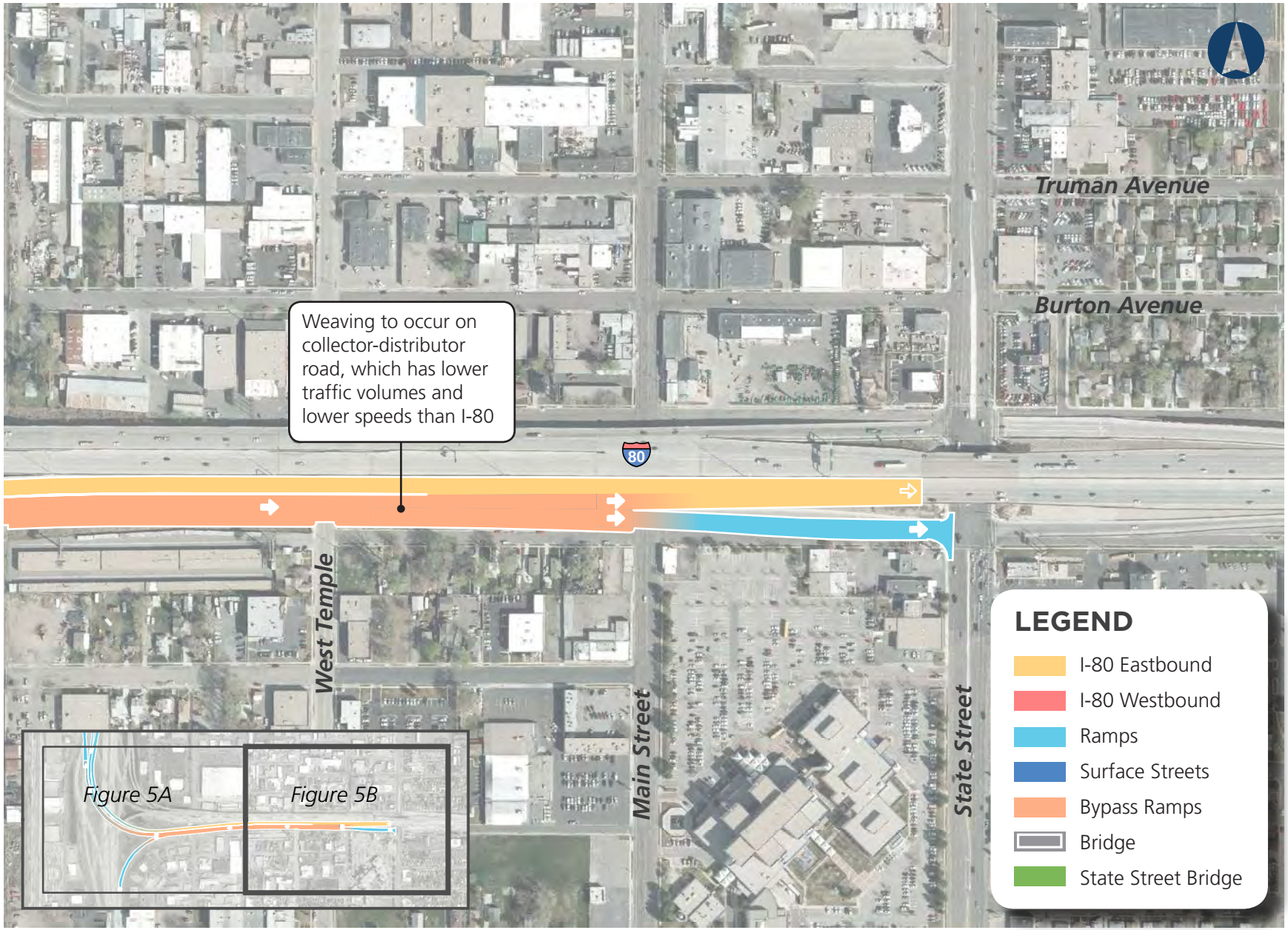


Figure 5B Eastbound Weave Alternative C – Slip Ramp to Collector-Distributor Road

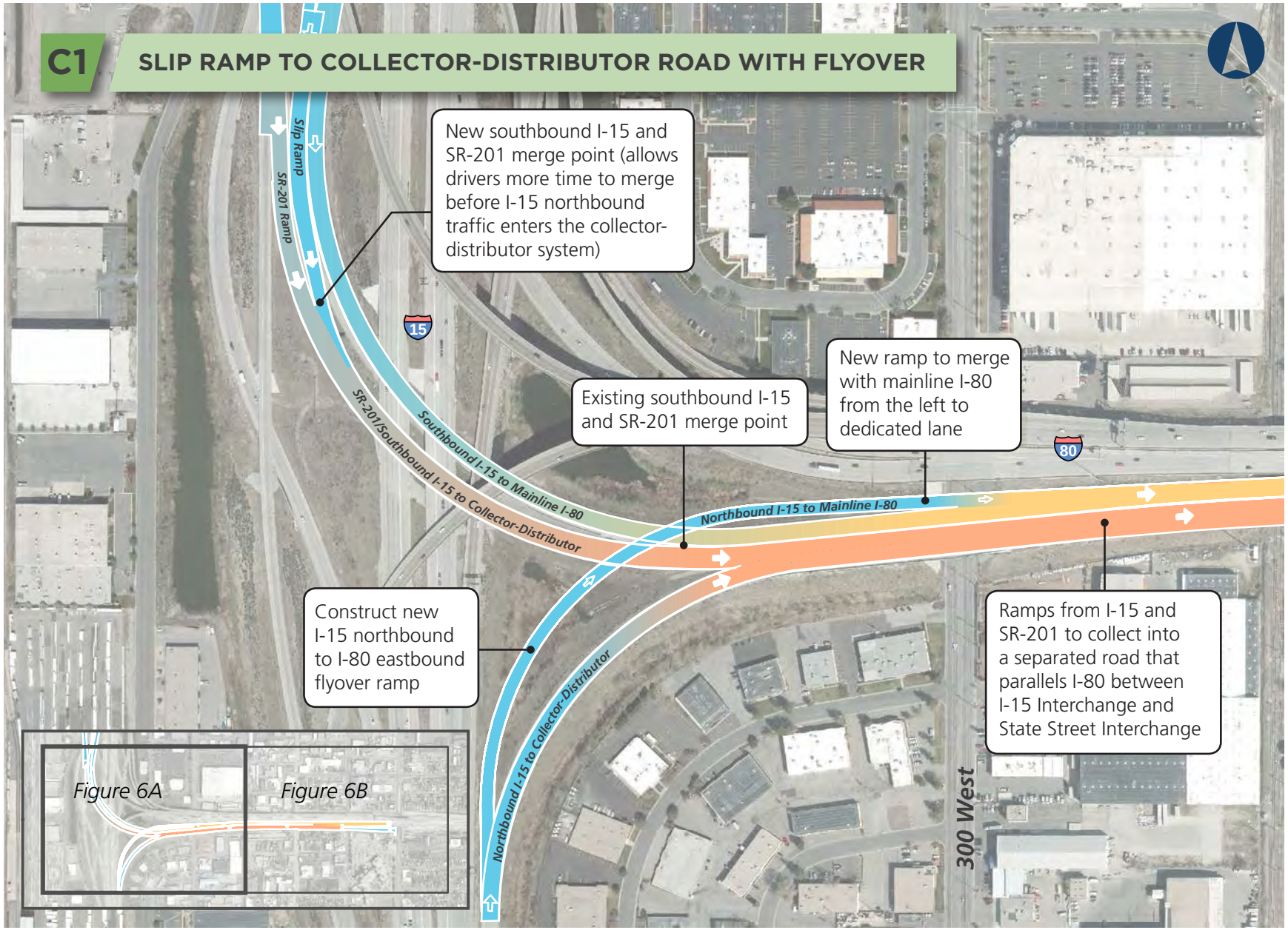


Figure 6A Eastbound Weave Alternative C1 – Slip Ramp to Collector-Distributor Road with Flyover

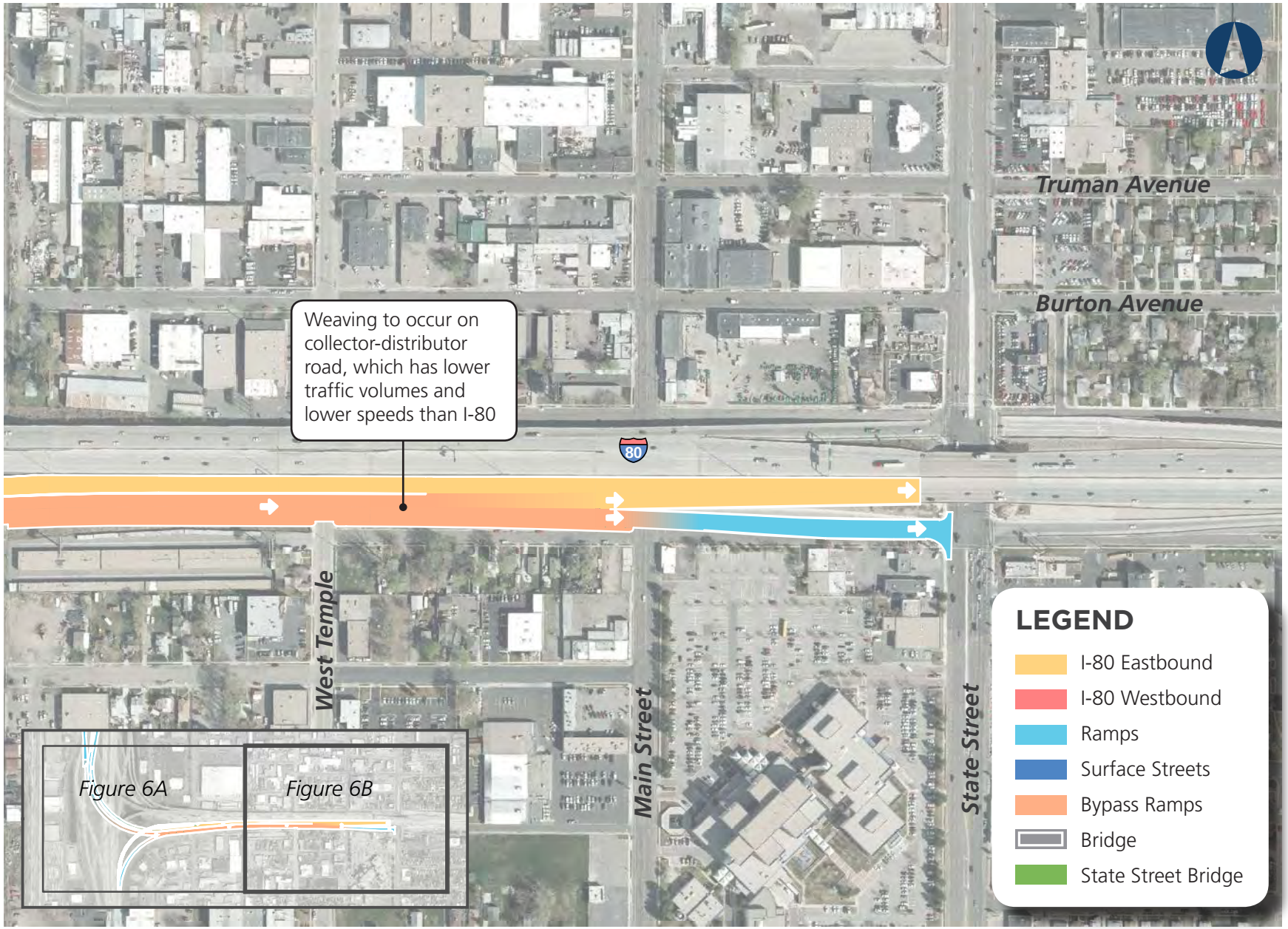


Figure 6B Eastbound Weave Alternative C1 – Slip Ramp to Collector-Distributor Road with Flyover

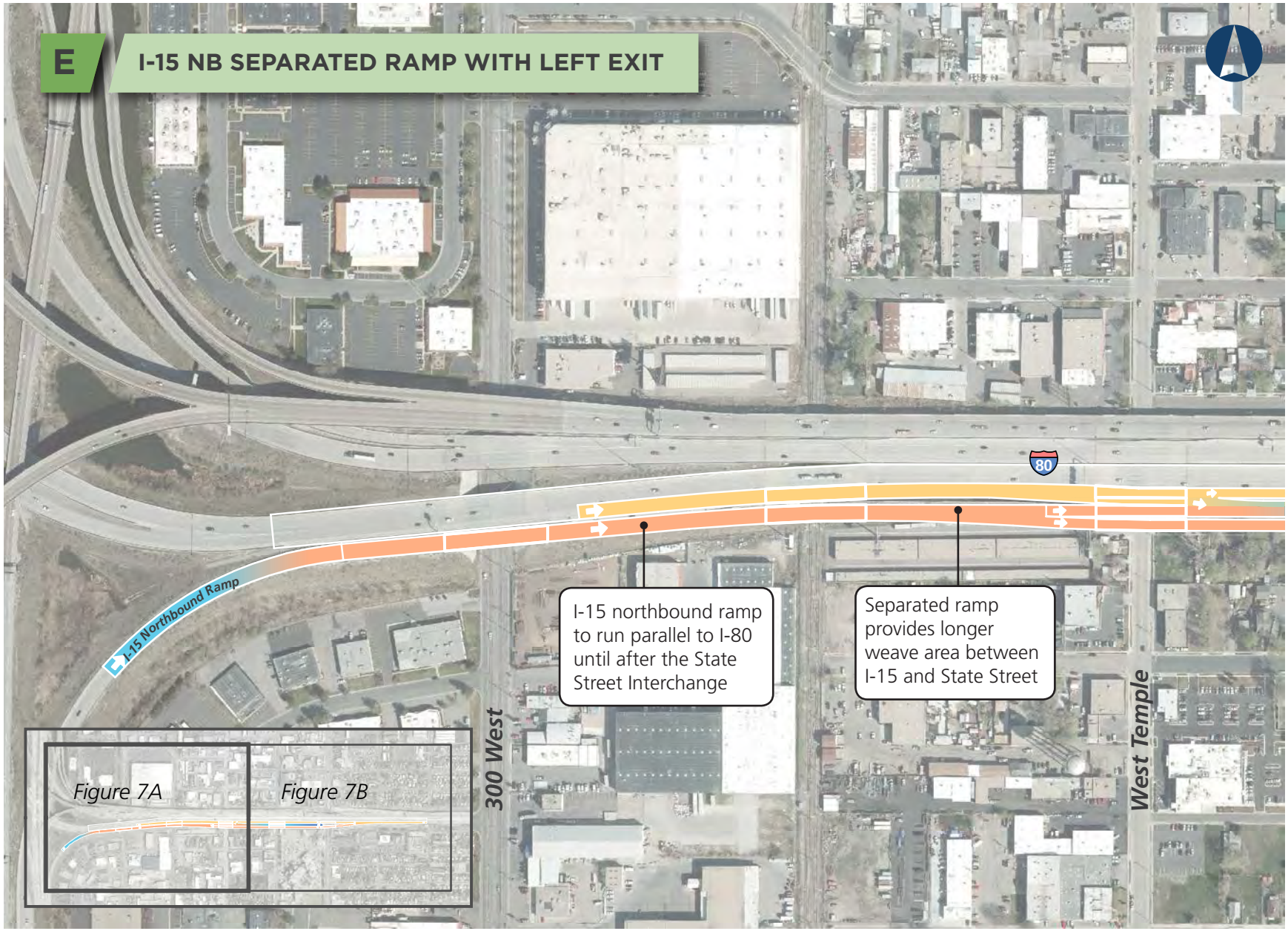


Figure 7A Eastbound Weave Alternative E – I-15 NB Separated Ramp with Left Exit

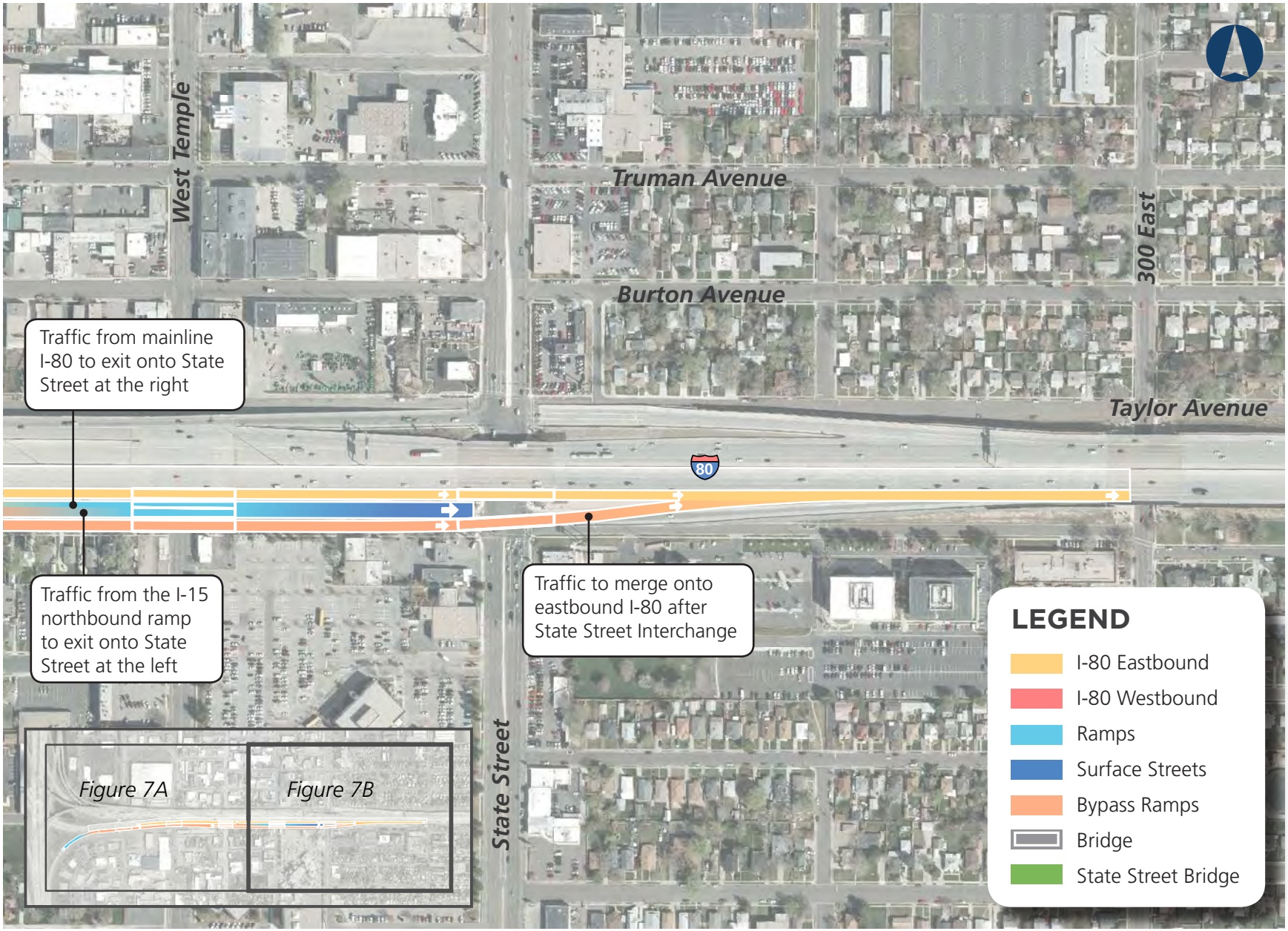


Figure 7B Eastbound Weave Alternative E – I-15 NB Separated Ramp with Left Exit

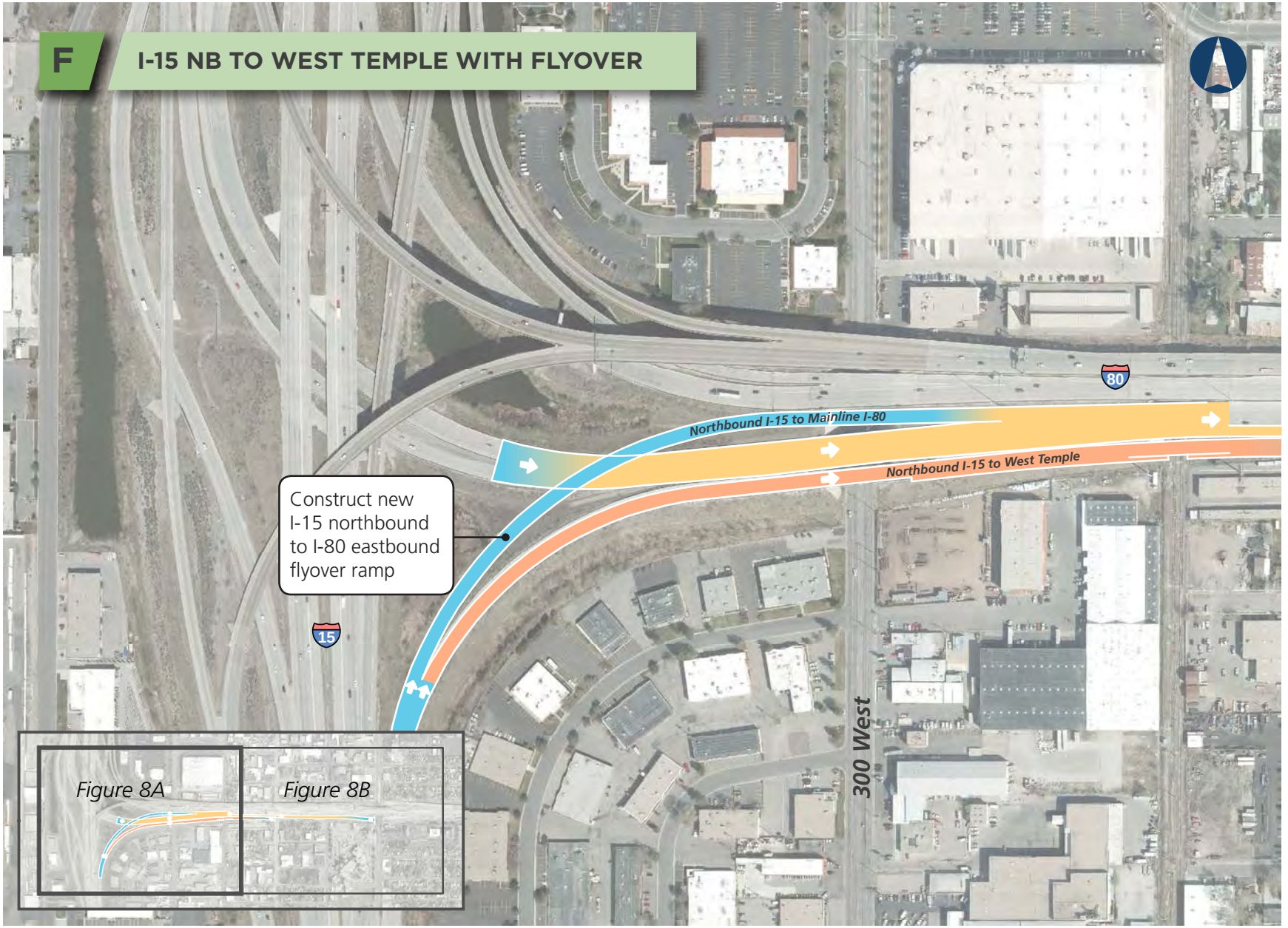


Figure 8A Eastbound Weave Alternative F – I-15 NB to West Temple with Flyover

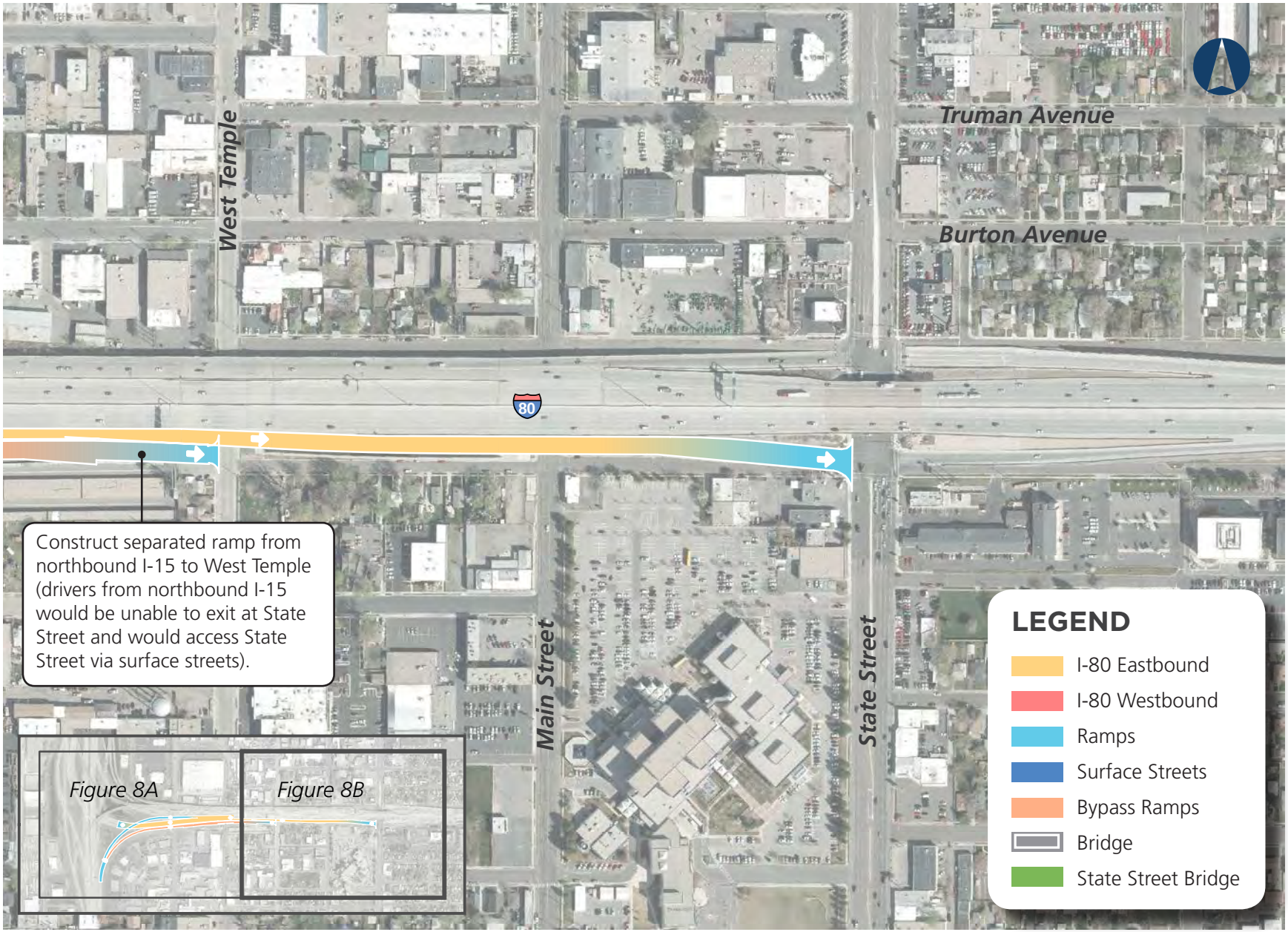


Figure 8B Eastbound Weave Alternative F – I-15 NB to West Temple with Flyover

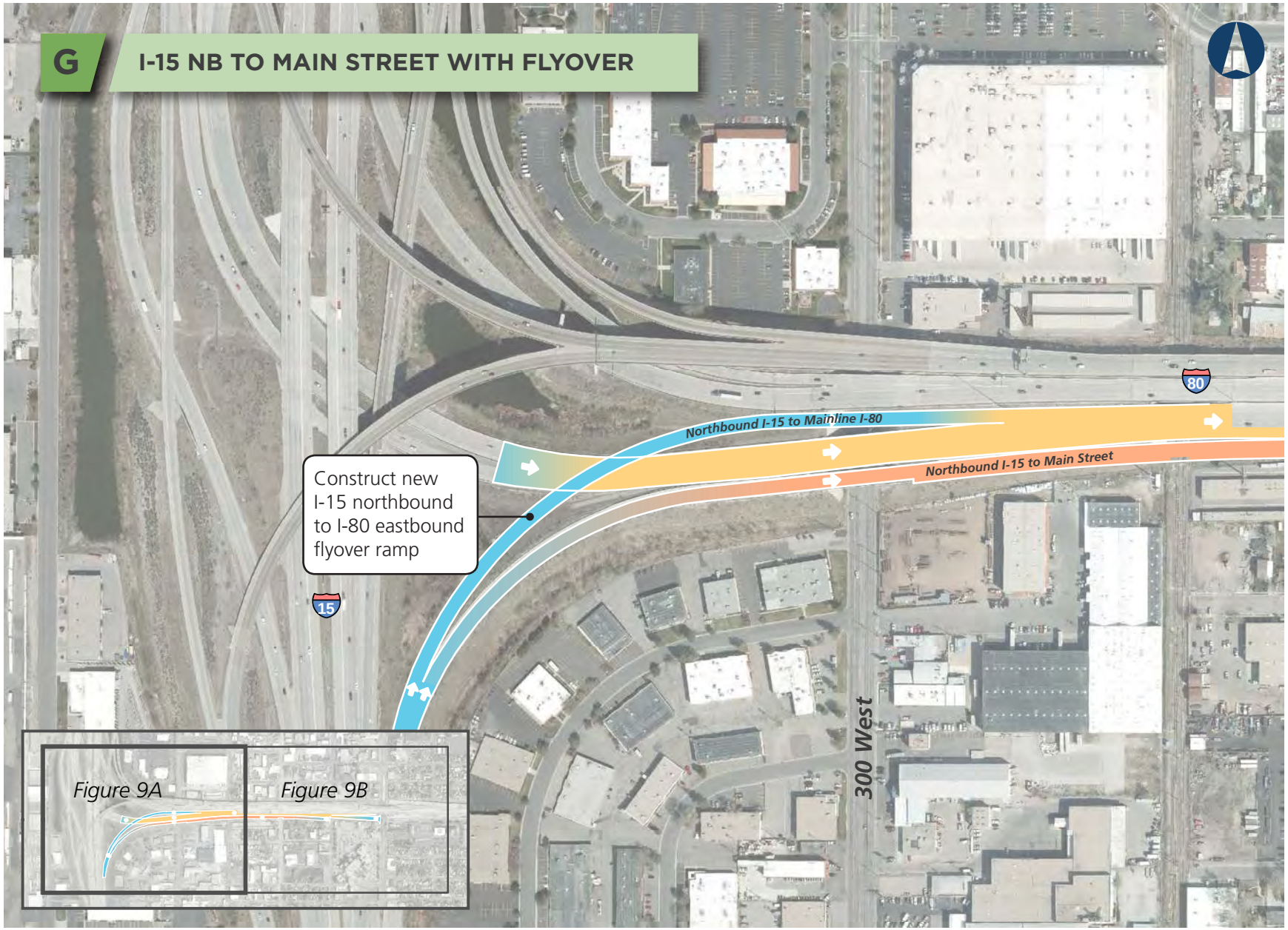


Figure 9A Eastbound Weave Alternative G – I-15 NB to Main Street with Flyover

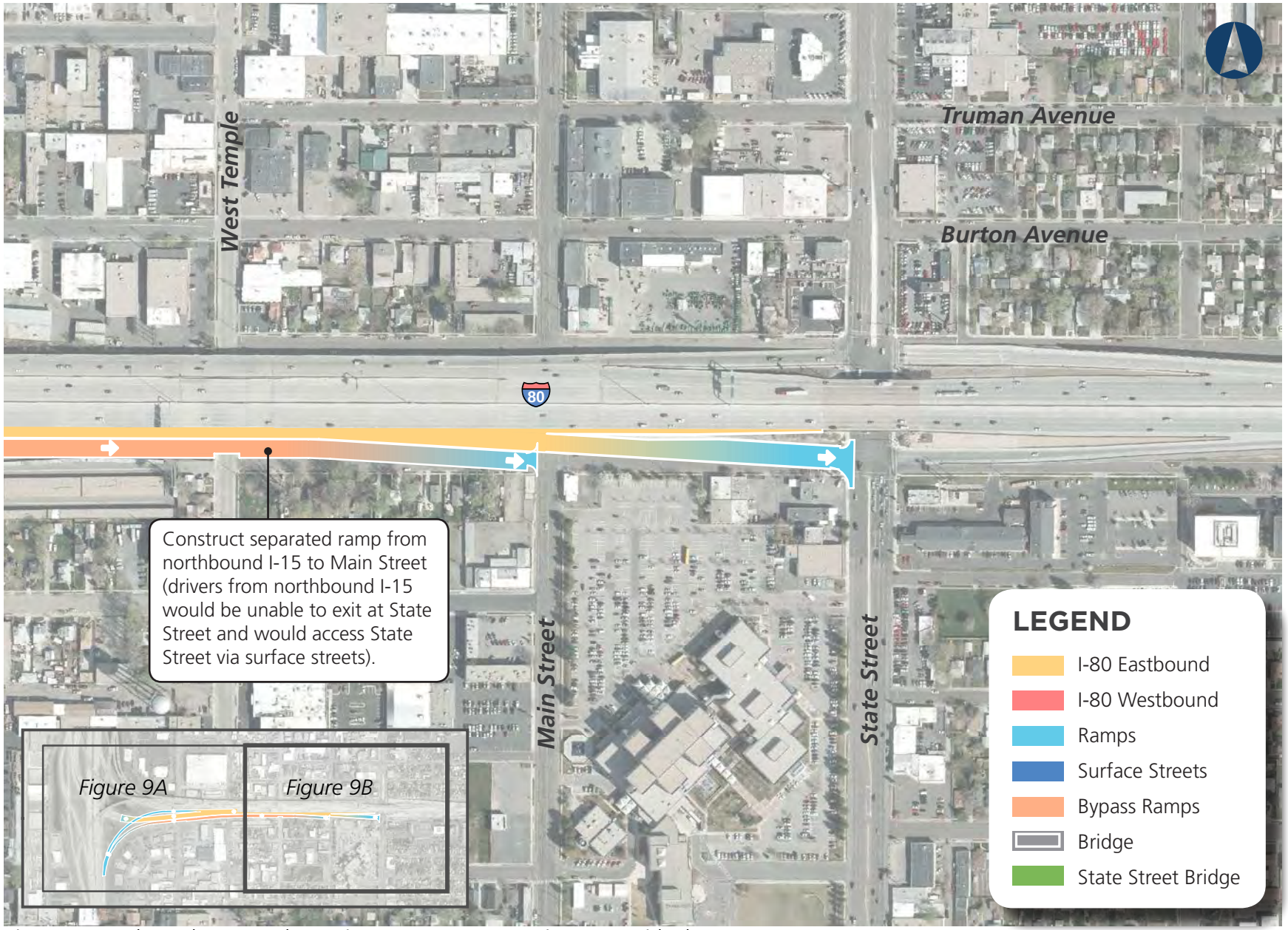


Figure 9B Eastbound Weave Alternative G – I-15 NB to Main Street with Flyover

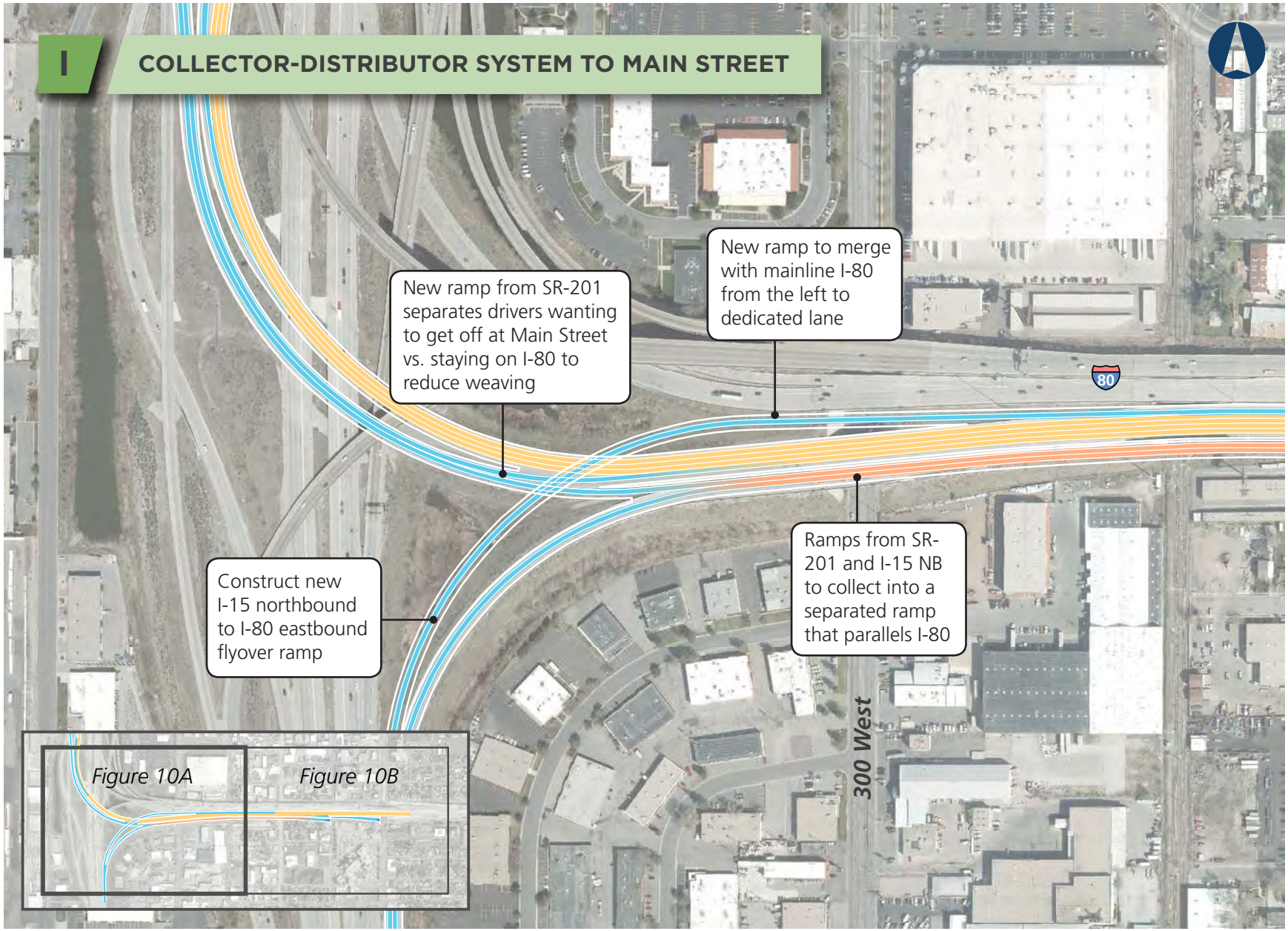


Figure 10A Eastbound Weave Alternative I – Collector-Distributor System to Main Street

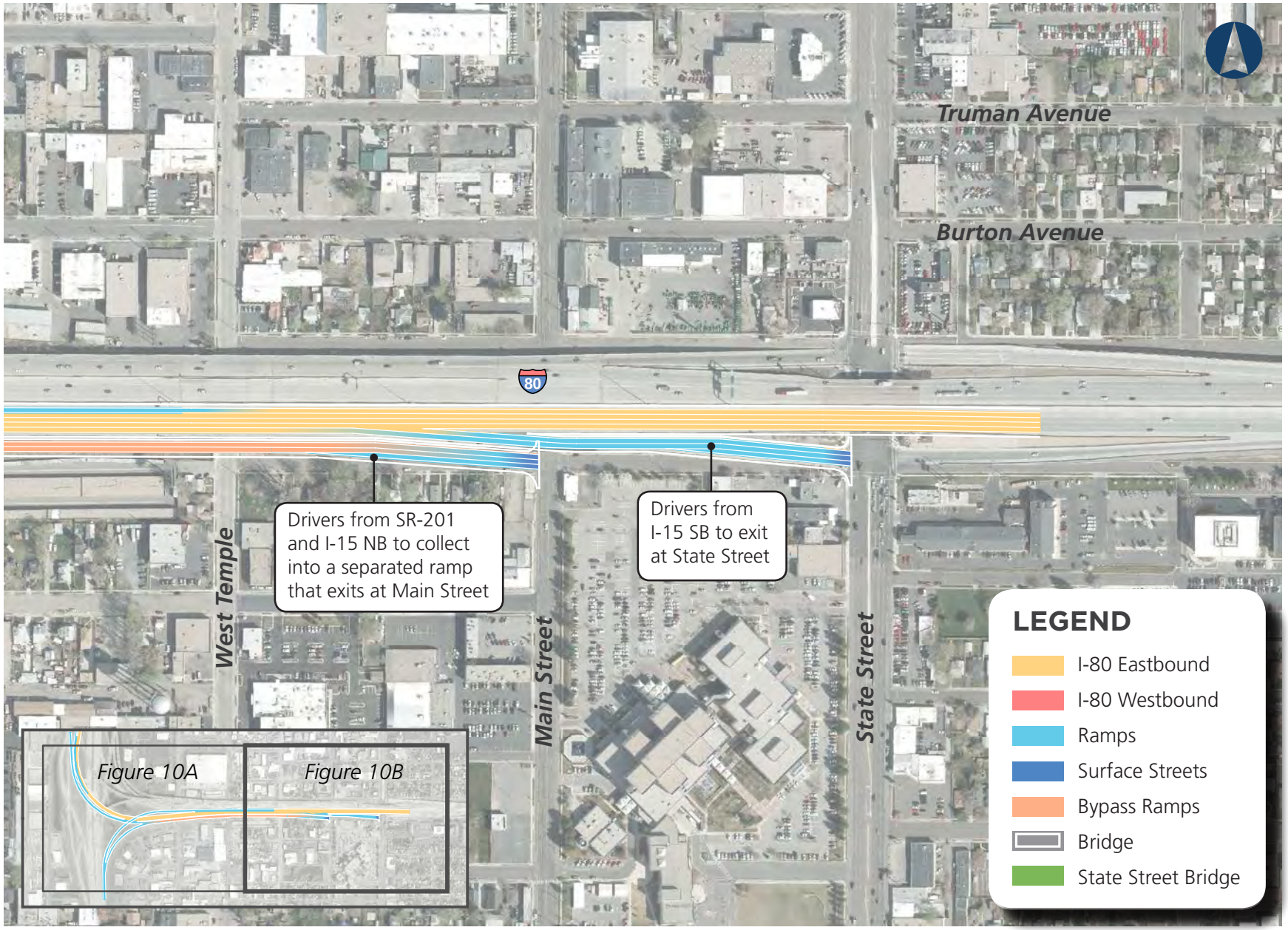


Figure 10B Eastbound Weave Alternative I – Collector-Distributor System to Main Street

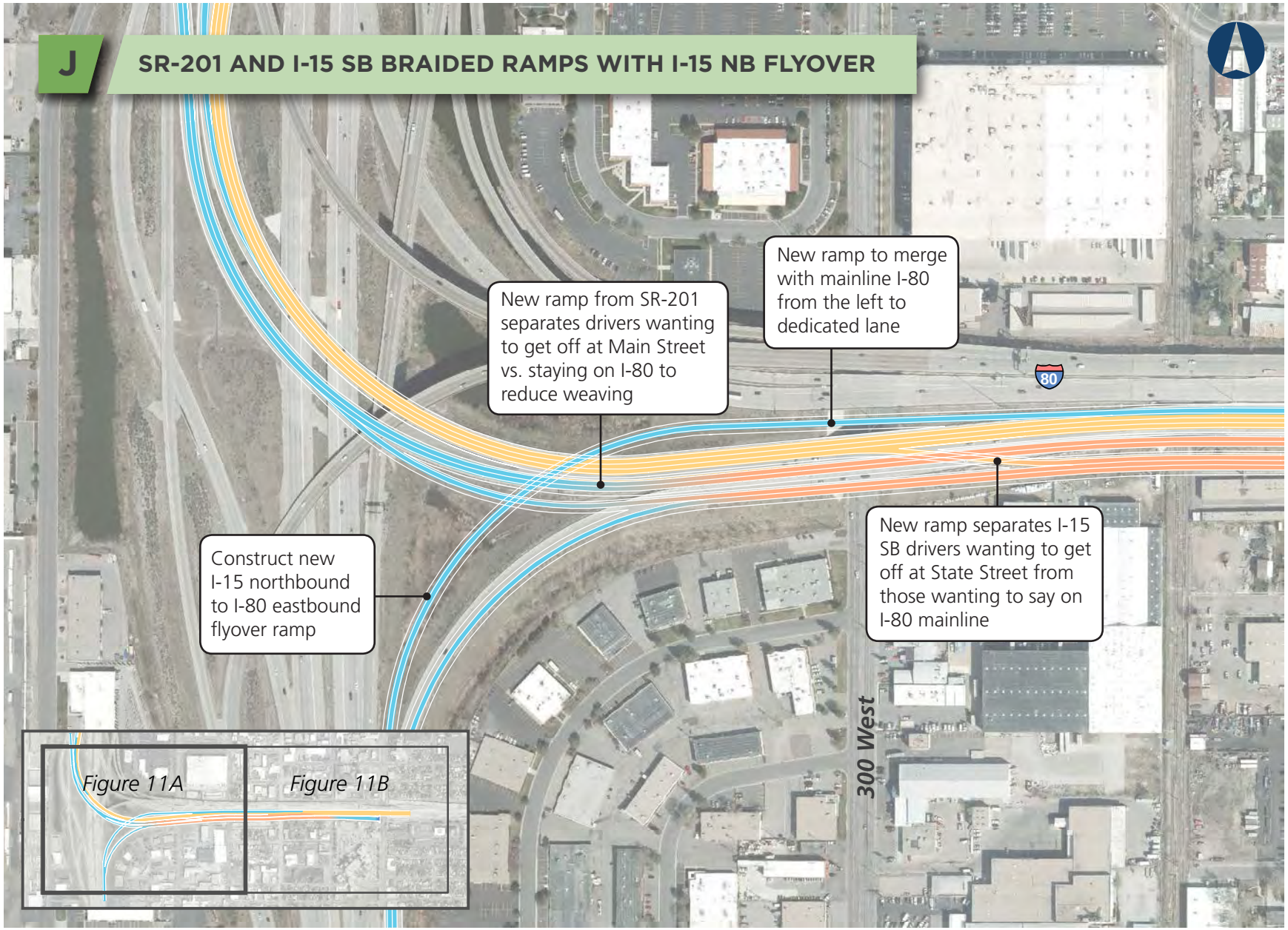


Figure 11A Eastbound Weave Alternative J – SR-201 and I-15 SB Braided Ramps with I-15 NB Flyover

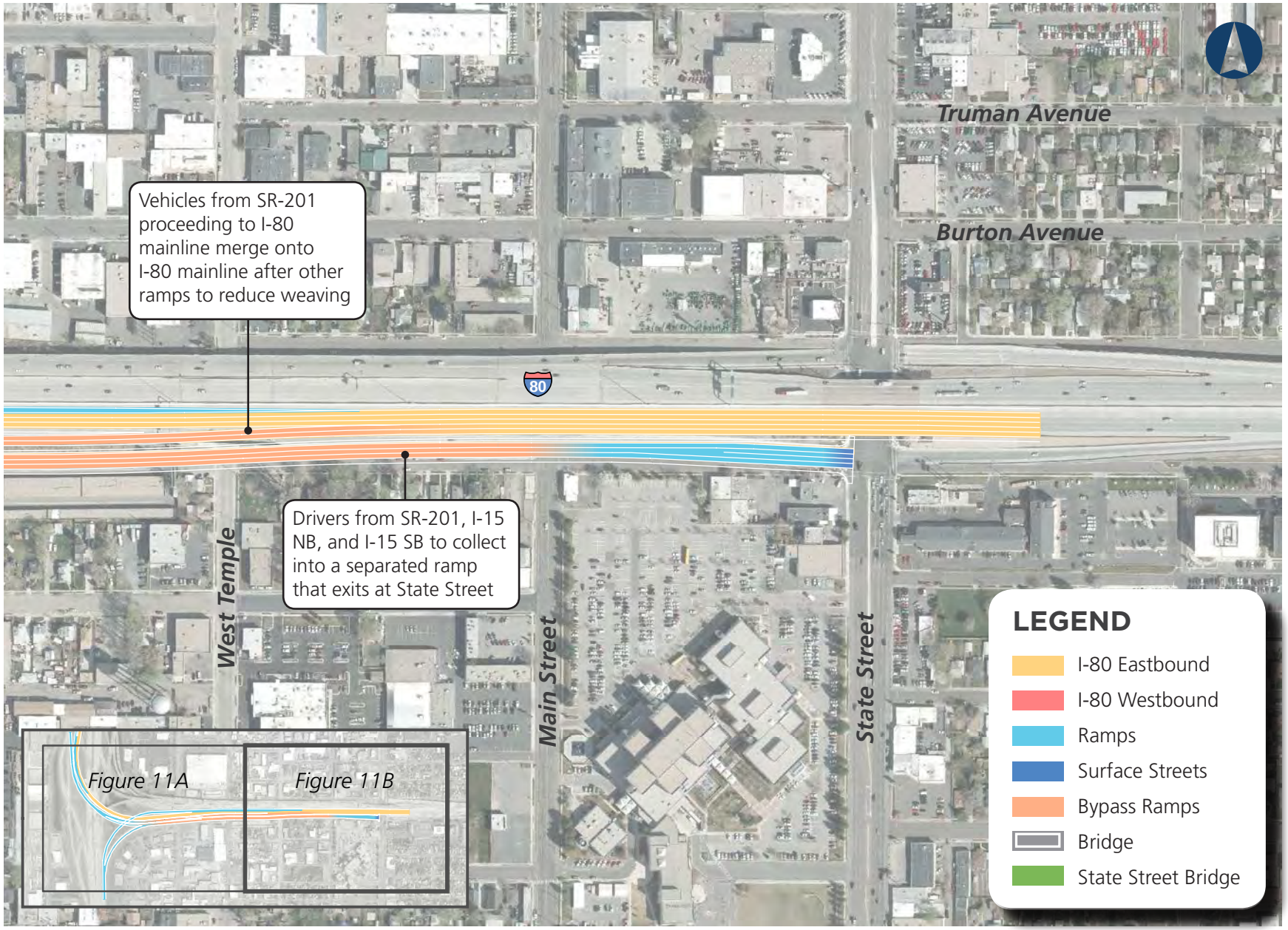


Figure 11B Eastbound Weave Alternative J – SR-201 and I-15 SB Braided Ramps with I-15 NB Flyover

3.2 WESTBOUND WEAVE ALTERNATIVES

Westbound I-80 has a complex layout with a diverge point located directly after a weave area. Vehicles traveling from 700 East must merge left one lane to continue on I-80 westbound and then left once again to access northbound I-15 or westbound I-80 to avoid traveling to southbound I-15 and SR-201. In this same area, vehicles traveling on westbound I-80 must merge right to exit at State Street. Additionally, just west of State Street, vehicles on westbound I-80 must merge right to access southbound I-15 and SR-201. In 2040, the increased traffic on I-80 will cause this weave area to operate at failing conditions in 2040 during the a.m. peak hour (see Chapter 1 in I-80 and State Street EIS). The project team developed several westbound weave alternatives to address the need described above. The alternatives are described in Table 2 and Figures 12 through 15.

Table 2 Westbound Weave Alternatives

WESTBOUND WEAVE ALTERNATIVES
No-action Alternative
TSM/TDM
Transit
A – I-80 Westbound Diverge Point
B – I-80 Westbound 700 East Separated Ramp with Left Exit
C – I-80 Westbound Braided Ramps
D – Ramp Metering at 700 East Westbound Ramp

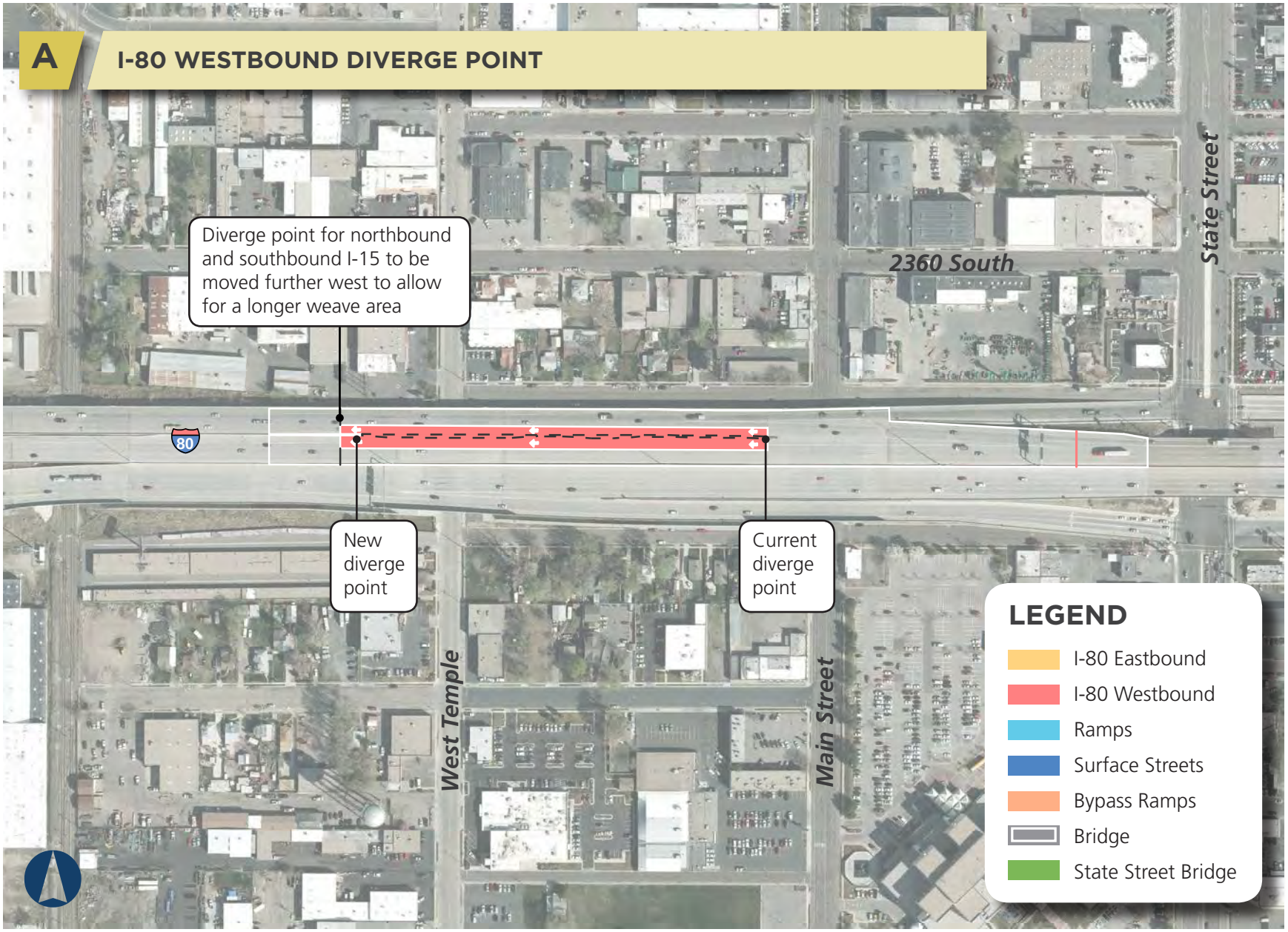


Figure 12 Westbound Weave Alternative A – I-80 Westbound Diverge Point

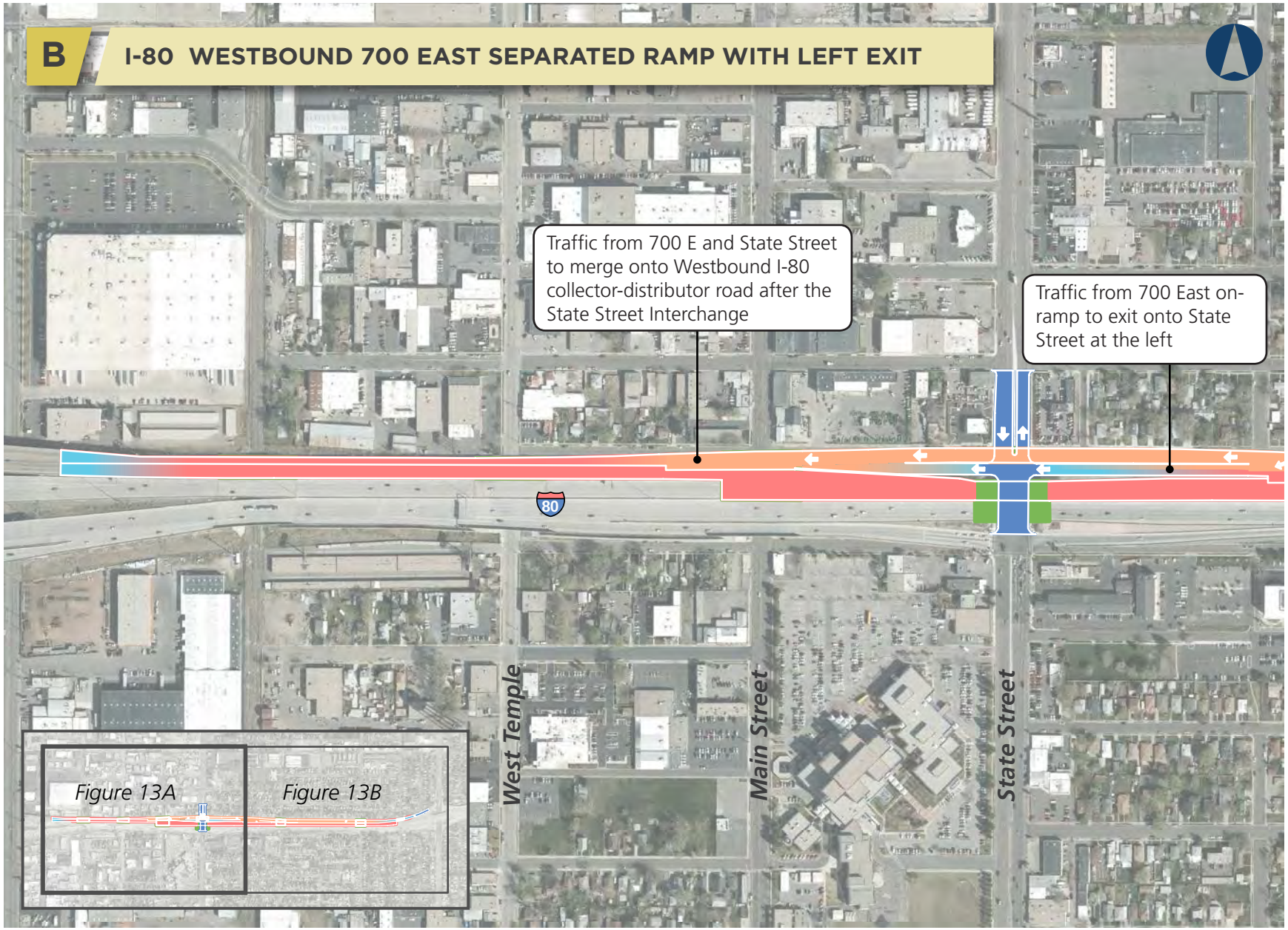


Figure 13A Westbound Weave Alternative B – I-80 Westbound 700 East Separated Ramp with Left Exit

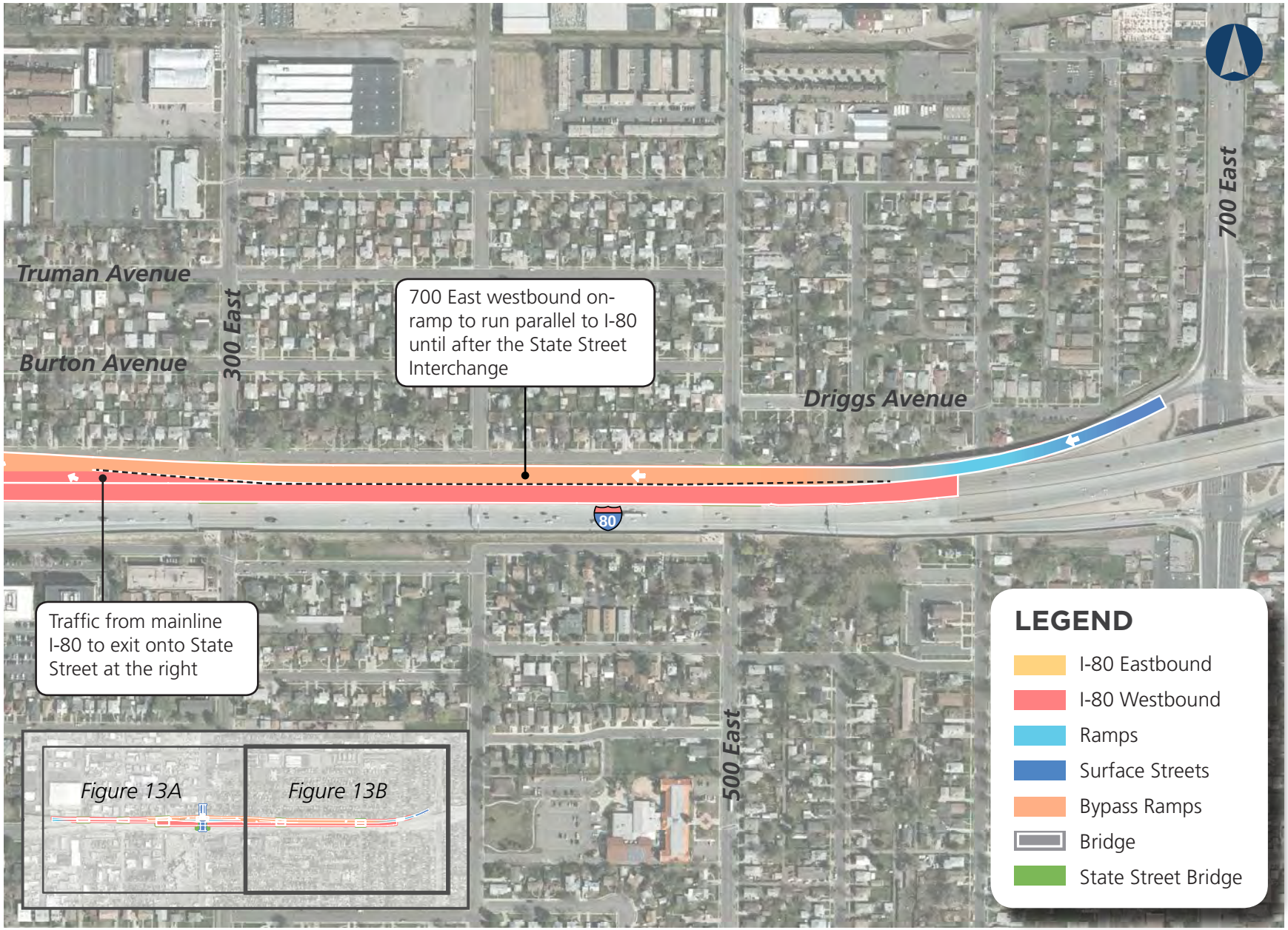


Figure 13B Westbound Weave Alternative B – I-80 Westbound 700 East Separated Ramp with Left Exit

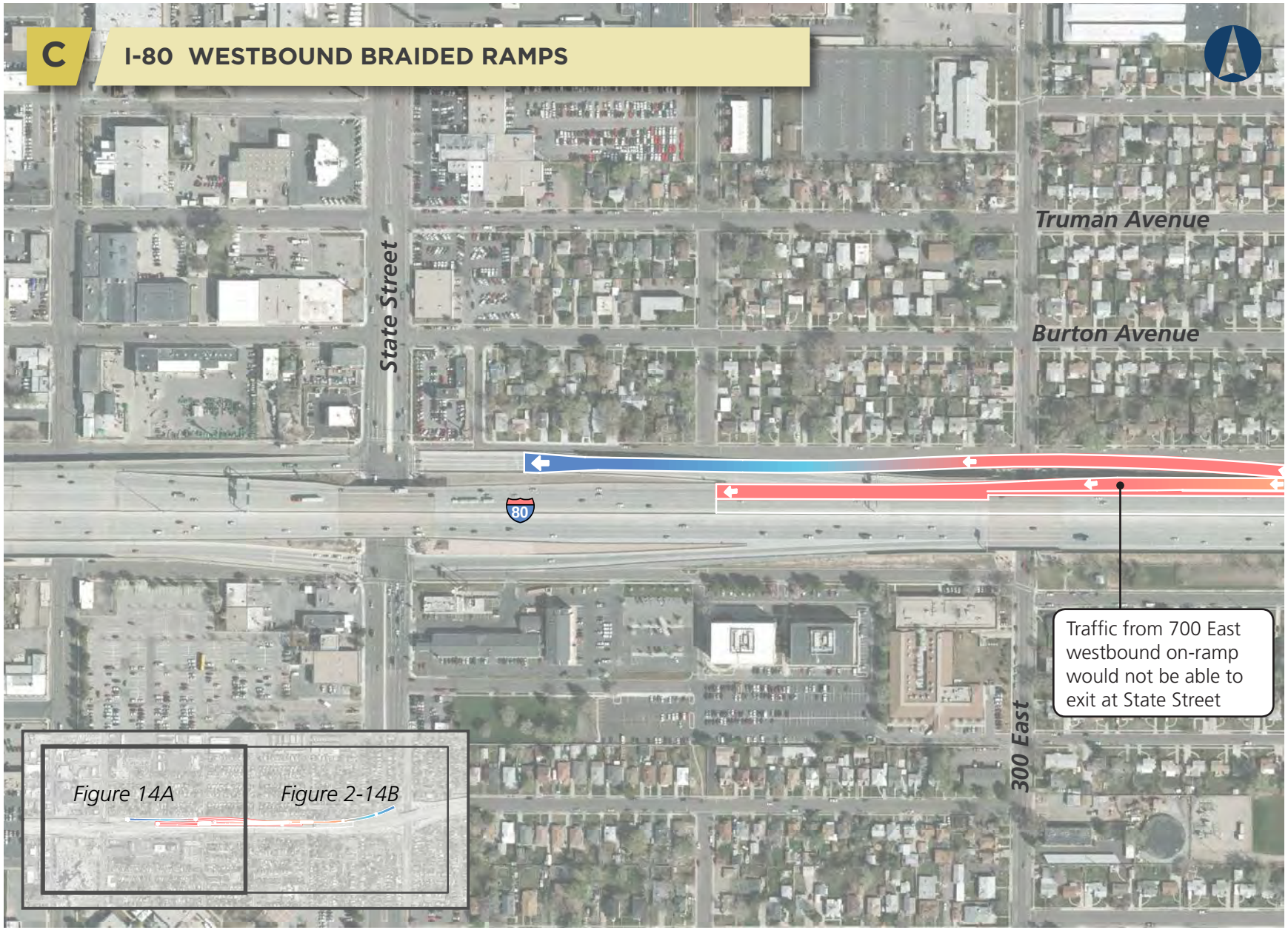


Figure 14A Westbound Weave Alternative C – I-80 Westbound Braided Ramps

Figure 14B Westbound Weave Alternative C – I-80 Westbound Braided Ramps

Figure 15 Westbound Weave Alternative D – Ramp Metering at 700 East WB Ramp

3.3 EASTBOUND AND WESTBOUND WEAVE ALTERNATIVES SCREENING

The alternatives screening process will evaluate the eastbound and westbound weave alternatives described in the previous sections and includes:

Level 1 – Purpose and Need Screening

The first screening process will evaluate the compatibility of the alternatives with the purpose and need. The purpose of the project consists of three elements:

- Reduce congestion on I-80 and State Street
- Improve operational characteristics and safety on I-80 and State Street
- Support local economic development through mobility improvements

The project team developed specific objectives to measure an alternative's ability to meet the three elements of the project purpose (see Chapter 1 of the I-80 and State Stret EIS). Alternatives that meet all three elements of the project purpose will move forward to Level 2 – Environmental Screening. Alternatives that only meet one or two elements of the project purpose will be eliminated from further consideration.

EASTBOUND WEAVE ALTERNATIVES

The project team developed specific objectives to measure an eastbound weave alternative's ability to meet the three elements of the project's purpose (see Table 3).

Table 3 Purpose and Need Objectives (Eastbound Weave)

Purpose	Objective
Reduce congestion on I-80 and State Street	Provide LOS D or better through the I-80 eastbound weave area
Improve safety and operational characteristics on I-80 and State Street	Reduce crashes in the I-80 eastbound weave area
Support local economic development through mobility improvements	Be consistent with South Salt Lake City's economic development and master transportation plans

A summary of the Level 1 – Purpose and Need Screening for the Eastbound Weave Alternatives is shown in Table 4 and Figure 16.

Level 1 – Purpose and Need Screening Results (Eastbound Weave)

Based on Level 1 – Purpose and Need Screening, none of the Eastbound Weave Alternatives were able to provide LOS D or better through the I-80 eastbound weave area in 2040 and were therefore unable to meet the "Reduce congestion on I-80 and State Street" element of the project purpose. All Eastbound Weave Alternatives were eliminated from further consideration because they would not meet all three elements of the project purpose.

Table 4 Level 1: Purpose and Need Screening (Eastbound Weave Alternatives)

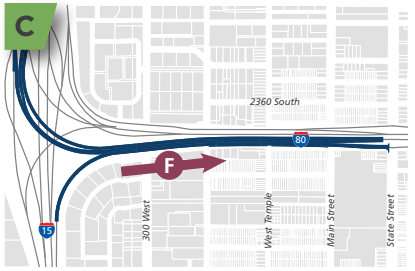
Eastbound Weave Alternative	I-80 Eastbound Weave Section			Purpose and Need Objectives			Recommended for Further Analysis
	Density (pc/mi/ln)	Average Speed (mph)	LOS	LOS D or better	Reduce Crashes in the Eastbound Weave Area[1]	Be Consistent with Economic Development and Master Transportation Plans[2]	
No-action Alternative	110	18	F	No	No	No	**Yes**
A – Tighter Curve	59	29	F	No	Yes	Yes	**No**
B – Flyover from I-15 NB to I-80 EB	57	27	F	No	Yes	Yes	**No**
C – Slip Ramp to Collector-Distributor Road	44	37	F	No	Yes	Yes	**No**
C1 – Slip Ramp to Collector-Distributor Road with Flyover	38	41	E	No	Yes	Yes	**No**
E – I-15 NB Separated Ramp with Left Exit	49	38	F	No	Yes	Yes	**No**
F – I-15 NB to West Temple with Flyover	49	36	F	No	Yes	Yes	**No**
G – I-15 NB to Main Street with Flyover	46	36	F	No	Yes	Yes	**No**
I – Collector-Distributor System to Main Street	52	34	F	No	Yes	Yes	**No**
J – SR-201 and I-15 SB Braided Ramps with I-15 NB Flyover	60	28	F	No	Yes	Yes	**No**

[1] All build alternatives would improve the safety and operational characteristics on I-80 by lengthening the eastbound weave area, likely reducing the number of crashes.
[2] All build alternatives would be consistent with economic development and transportation plans because they provide improved access to the Urban Renewal Areas (URAs) and existing businesses.

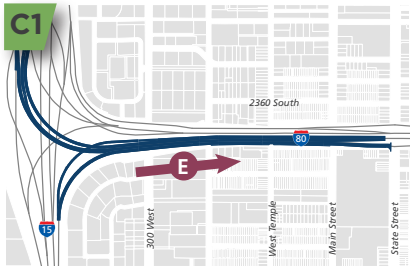
NO-ACTION ALTERNATIVE

TIGHTER CURVE

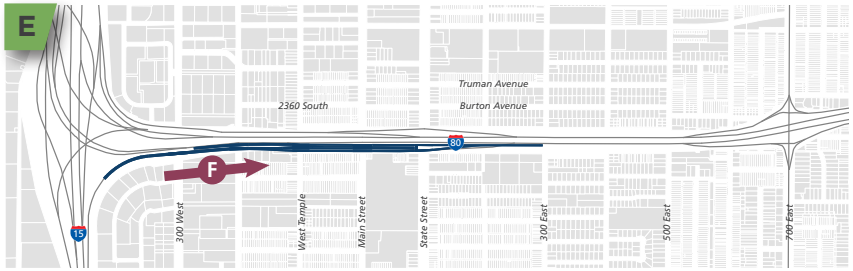
FLYOVER FROM I-15 NB TO I-80 EB



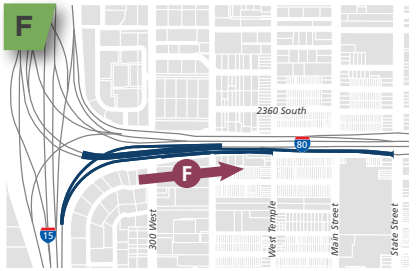
SLIP RAMP TO COLLECTOR-DISTRIBUTOR ROAD



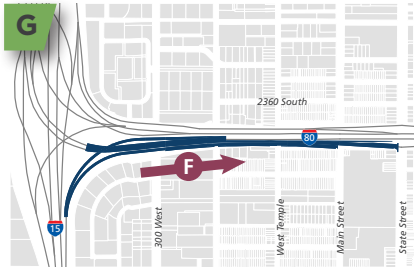
SLIP RAMP TO COLLECTOR-DISTRIBUTOR ROAD WITH FLYOVER



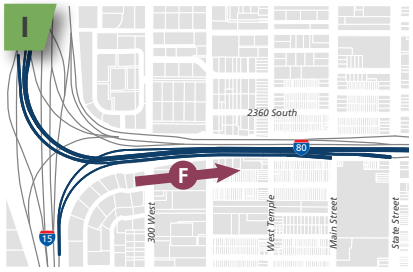
I-15 NB SEPARATED RAMP WITH LEFT EXIT



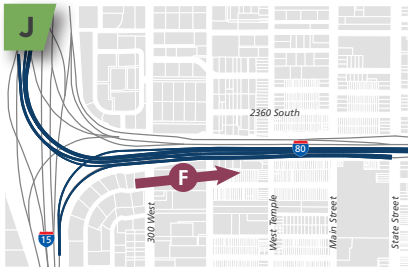
I-15 NB TO WEST TEMPLE WITH FLYOVER



I-15 NB TO MAIN STREET WITH FLYOVER



COLLECTOR-DISTRIBUTOR SYSTEM TO MAIN STREET



SR-201 AND I-15 SB BRAIDED RAMPS WITH I-15 NB FLYOVER

Figure 16 LOS by Eastbound Weave Alternative

WESTBOUND WEAVE ALTERNATIVES

The project team developed specific objectives to measure a westbound weave alternative's ability to meet the three elements of the project's purpose (see Table 5).

Table 5 Purpose and Need Objectives (Westbound Weave)

Purpose	Objective
Reduce congestion on I-80 and State Street	Provide LOS D or better through the I-80 westbound weave area
Improve safety and operational characteristics on I-80 and State Street	Reduce crashes in the I-80 westbound weave area
Support local economic development through mobility improvements	Be consistent with South Salt Lake City's economic development and master transportation plans

A summary of the Level 1 – Purpose and Need Screening for the Westbound Weave Alternatives is shown in Table 6 and Figure 17.

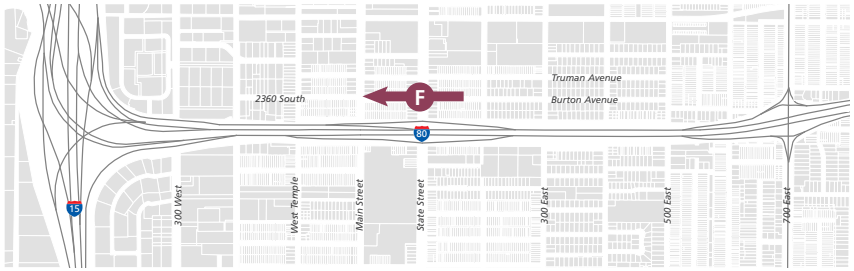
Level 1 – Purpose and Need Screening Results (Westbound Weave)

Based on Level 1 – Purpose and Need Screening, none of the Westbound Weave Alternatives were able to provide LOS D or better through the I-80 westbound weave area in 2040 and were therefore unable to meet the "Reduce congestion on I-80 and State Street" element of the project purpose. All Westbound Weave Alternatives were eliminated from further consideration because they would not meet all three elements of the project purpose.

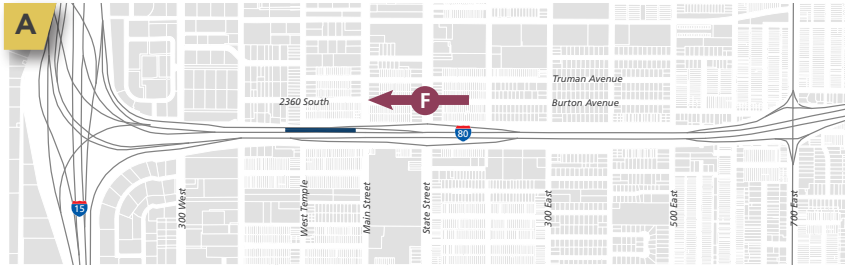
Table 6 Level 1: Purpose and Need Screening (Westbound Weave Alternatives)

Westbound Weave Alternative	I-80 Westbound Weave Section			Purpose and Need Objectives			Recommended for Further Analysis
	Density (pc/mi/ln)	Average Speed (mph)	LOS	LOS D or better	Reduce Crashes in the Eastbound Weave Area[1]	Be Consistent with Economic Development and Master Transportation Plans[2]	
No-action Alternative	67	22	F	No	No	No	**Yes**
A – I-80 Westbound Diverge Point	63	36	F	No	Yes	Yes	**No**
B – I-80 Westbound 700 East Separated Ramp with Left Exit	75	36	F	No	Yes	Yes	**No**
C – I-80 Westbound Braided Ramps	65	20	F	No	Yes	Yes	**No**
D – Ramp Metering at 700 East Westbound Ramp	65	23	F	No	Yes	Yes	**No**

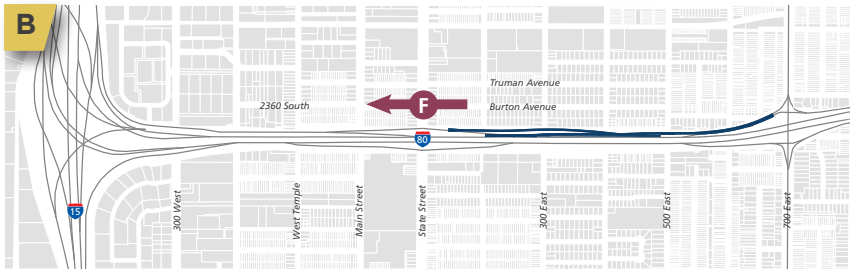
[1] All build alternatives would improve the safety and operational characteristics on I-80 by lengthening the westbound weave area, likely reducing the number of crashes.
[2] All build alternatives would be consistent with economic development and transportation plans because they provide improved access to the URAs and existing businesses.



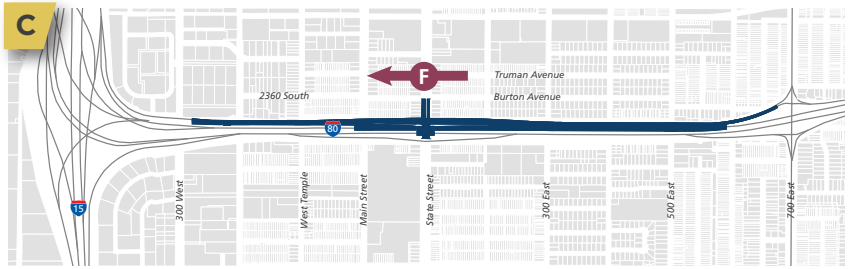
NO-ACTION ALTERNATIVE



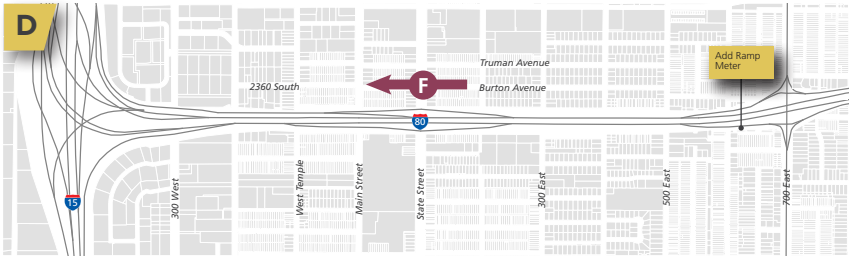
I-80 WESTBOUND DIVERGE POINT



I-80 WESTBOUND 700 EAST SEPARATED RAMP WITH LEFT EXIT



I-80 WESTBOUND BRAIDED RAMPS



RAMP METERING AT 700 EAST WESTBOUND ON RAMP

Figure 17 LOS by Westbound Weave Alternative

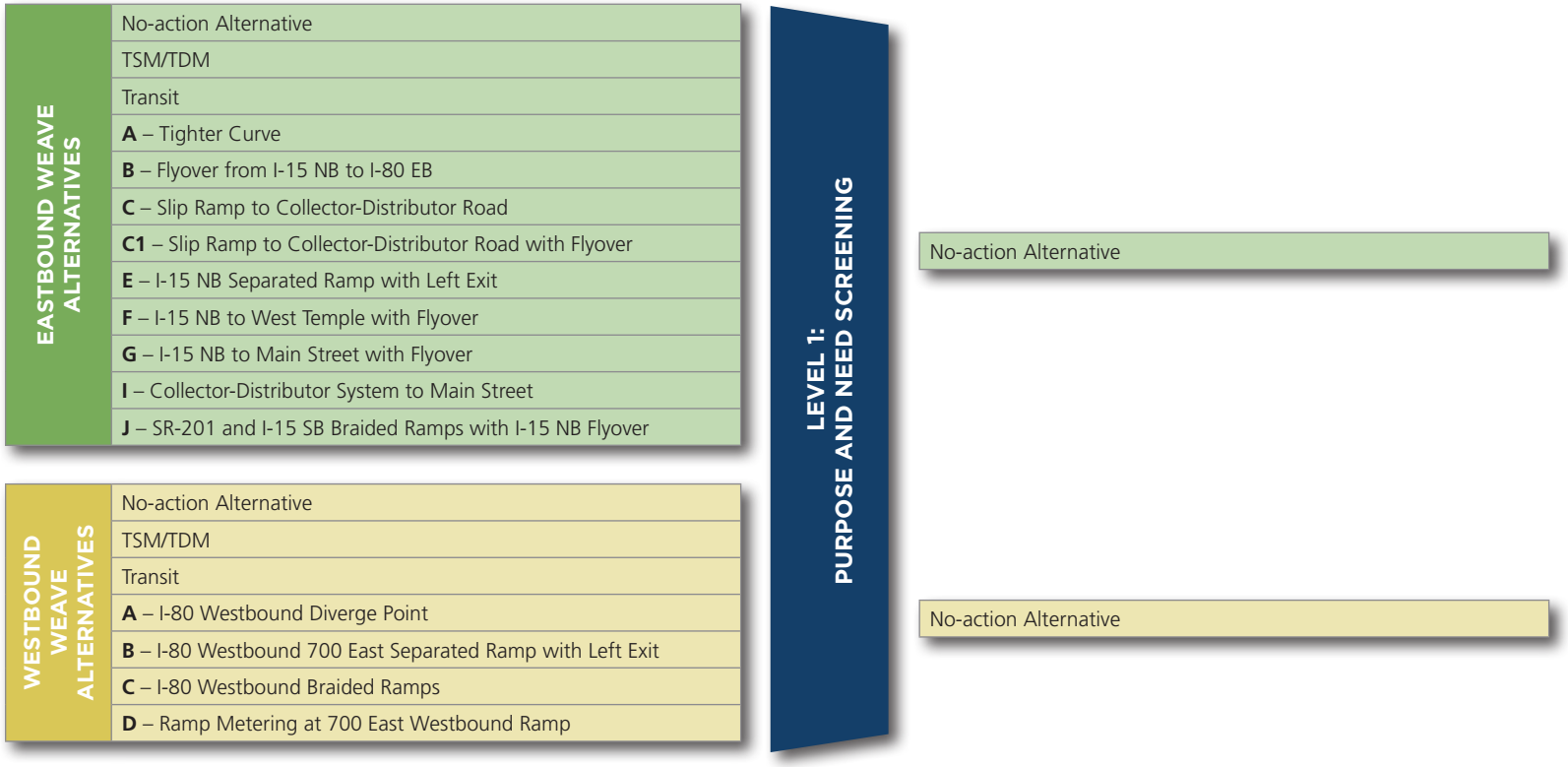


Figure 17 Level 1: Purpose and Need Screening Summary

Were any other Preliminary Concepts Considered?

The project team considered several preliminary concepts that were briefly evaluated and eliminated. A brief discussion of these concepts, as well as the reasons they were eliminated, are discussed below.

Eastbound Weave Concepts H and H1

Both Eastbound Concepts H and H1 included a separated road (collector-distributor road) that parallels I-80 between the I-15 and State Street interchanges. A new ramp would connect the southbound I-15 collector-distributor road to the I-80 collector-distributor road. Drivers on southbound I-15 wanting to exit at State Street on I-80 would need to decide to enter the collector-distributor road at 700 South on I-15, approximately 2.5 miles north of the study area.

These concepts were eliminated from further consideration because they would operate at LOS F, similar to the Eastbound Weave Alternatives, and would impact I-15 operations outside of the study area.

Alternatives Public Meeting Concept

A concept that evaluated the eastbound weave area was received at the Alternatives Public Meeting. This concept would include a collector-distributor road and a flyover for the northbound I-15 to eastbound I-80 movement. The flyover would cross the collector-distributor road and enter I-80 at the right. This concept was eliminated from further consideration because it would operate at LOS F, similar to the Eastbound Weave Alternatives.

Additional Lanes on I-80

Several concepts were evaluated that included adding a lane on I-80 in the eastbound direction. These alternatives were eliminated from further consideration because they would operate at LOS F, similar to the Eastbound Weave Alternatives, and would have greater impacts to residential and commercial properties.

4.0 CONCLUSION

All of the I-80 eastbound and westbound weave alternatives operate at failing conditions in 2040 because of the high volumes of traffic on I-80 and the interaction between I-80, I-15, SR-201, State Street, and 700 East. To address the I-80 eastbound and westbound weaves, corridor wide and system-to-system analyses would need to be conducted for I-80, I-15, and SR-201. These analyses have been determined to be well-beyond the scope of the I-80 and State Street EIS, but will be further evaluated as part of other projects and studies. Therefore, the I-80 and State Street EIS will not address the failing conditions on I-80 in the eastbound and westbound weave areas.

Minor improvements on I-80 that would increase the speeds through the weave areas (minor ramp modifications at I-15, ramp metering, etc.) could be considered through lower level NEPA clearances.

LYRB

MEMORANDUM

TO:
FROM: LEWIS YOUNG ROBERTSON & BURNINGHAM, INC.
DATE: DECEMBER 22, 2015
RE: I-80 & STATE STREET EIS SOCIOECONOMIC DATA INPUTS

The socioeconomic (SE) data inputs for the WFRC travel forecasting model, illustrating Total Households (TOTHH), Total Population (TOTPOP), Total Employment (TOTEMP), Household Size (HHSIZE), and Average Income (AVG INCOME), are illustrated below.

	2012						2040				
TAZID	ACRES	TOTHH	TOTPOP	TOTEMP	HHSIZE	AVG INCOME	TOTHH	TOTPOP	TOTEMP	HHSIZE	AVG INCOME
985	31.68	-	-	545	-	31,541	-	-	718	-	23,393
986	20.53	-	-	431	-	31,541	500	1,000	100	2.00	40,000
987	75.25	302	835	2,090	2.76	32,727	543	1,350	300	2.49	40,000
990	41.53	84	234	785	2.80	31,541	-	-	1,500	2.00	40,000
1009	37.24	1	3	1,699	3.02	31,541	1	3	2,142	2.51	23,393
1010	6.84	-	-	70	-	31,541	500	1,000	-	2.00	40,000
1011	10.56	10	27	171	2.72	31,541	500	1,000	-	2.00	40,000
1012	19.36	-	-	545	-	31,541	500	1,000	-	2.00	40,000
1013	16.32	11	27	374	2.47	31,541	500	1,000	-	2.00	40,000
1014	53.03	1	2	802	2.02	31,541	500	1,000	900	2.00	40,000
1015	41.30	479	739	158	1.54	38,128	555	1,074	606	1.94	29,938
1016	41.99	205	470	458	2.29	38,128	462	1,086	244	2.35	29,048
1017	51.67	278	568	319	2.04	38,128	488	917	707	1.88	40,000
1018	52.24	182	568	78	3.11	38,128	300	714	84	2.38	29,048
1030	64.70	1	3	931	2.99	31,541	8	20	1,249	2.50	23,393
1031	36.74	-	-	604	-	31,541	-	-	978	-	23,393
1032	38.29	29	89	527	3.06	31,541	72	213	300	2.95	23,393
1033	37.66	99	250	665	2.53	31,541	295	801	598	2.71	23,393
1034	37.66	10	16	295	1.61	31,541	11	21	686	1.89	23,393
1039	74.56	322	777	1,205	2.41	38,128	541	1,025	1,292	1.90	34,539
1040	76.08	332	734	435	2.21	38,128	398	746	436	1.87	28,100

In order to accurately project the socioeconomic conditions of this area, the study team used 2015 traffic area zone (TAZ) data provided by Wasatch Front Regional Council (WFRC), as well as data from the City of South Salt Lake. Based on a discussion with City staff, TAZs 986, 987, 990, 1010-1014, and 1017 (highlighted above) were adjusted to reflect the growth conditions as a result of the City's redevelopment plans within Central Pointe and Market Station Project Areas, as well as a potential Streetcar Community Development Area (CDA) located on northwest side of the City. The objective of these areas is to encourage the redevelopment of over 120 acres of underutilized property into mixed use retail, office and residential neighborhoods. Two separate baseline SE data sets were not prepared in modeling the build and no-build traffic projections because it is anticipated that the changes in socioeconomics will occur regardless of the build or no-build scenarios. The URAs have already been established and the Project Area Plans adopted to facilitate the redevelopment of these areas. Additionally, the area is already supported by an existing intersection and the proposed action will be a rebuild and not provide new access to the area. As a result the future (2040) no-action conditions are equivalent to the conditions under the proposed build alternatives.

MEMORANDUM

Date: October 20, 2014

To: Peter Tang, P.E. – UDOT Region 2 Project Manager

From: Ryan Hales, P.E., PTOE, AICP
Kordel Braley, P.E., PTOE
Jeremy Searle, P.E.

Subject: I-80 State Street Interchange EIS Traffic Analysis: Existing 2014 and Future 2040 No-Action

UT13-537

PURPOSE

The purpose of this memorandum is to detail the results of a traffic analysis of current (2014) traffic conditions and future (2040) no-action conditions near the I-80 / State Street (US-89) interchange in South Salt Lake, Utah. The future no-action scenario considers projected 2040 traffic volumes on the roadway system in its current condition. This memo outlines:

- Scope
- Methodology
- Data Collection
- Model Calibration
- Existing (2014) conditions analyses
- Future (2040) travel demand forecasting
- Future (2040) no-action conditions analyses

This analysis was completed in conjunction with the I-80 / State Street Interchange Environmental Impact Study (EIS).

SCOPE

The study area and scope were defined based on discussions with the I-80 / State Street Interchange EIS team. The study area includes the following streets:

- Interstate 80 (I-80) from I-15 to 700 East including all ramps, collector/distributor (C/D) lanes, and connectors.
    - Speed limit: 65 mph (lower advisory speed limits for ramps and connectors)

- State Street (US-89) from 2700 South to 2100 South
  - 7-lane cross section including three travel lanes in each direction and a center two-way left-turn lane (TWLTL)
  - Speed limit: 35 mph
  - The portion of State Street between the eastbound and westbound ramps of I-80 only has two travel lanes in each direction and side-by-side dual left-turn lanes for movements onto I-80.
- Main Street (South Granite School District Access to 2400 South)
  - 4-lane cross section including two travel lanes in each direction (no median) and narrow shoulders.
  - Speed limit: 35 mph
- West Temple (Oakland Avenue to 2400 South)
  - 2-lane cross section including one travel lane in each direction (no median), bike lanes, and shoulders for on-street parking.
  - Speed limit: 30 mph

The following study intersections are included in the analyses and shown in Figure 1:

- 2400 South / West Temple
- Robert Ave / West Temple
- Oakland Ave / West Temple
- 2400 South / Main Street
- Robert Ave / Main Street
- North Granite School District Access / Main Street
- Oakland Ave / West Temple
- South Granite School District Access / Main Street
- 2100 South / State Street
- Street Car Crossing (~2250 South) / State Street
- WB I-80 Ramps & 2400 South / State Street
- EB I-80 Ramps & Morris Ave / State Street
- Oakland Ave (Granite School District Access) RIRO / State Street
- Oakland Ave RIRO / State Street
- 2700 South / State Street
- WB I-80 Ramps / 700 East
- EB I-80 Ramps / 700 East

ANALYSIS METHODOLOGY

The Highway Capacity Manual 2010 (HCM 2010) methodology was used in this study to remain consistent with “state-of-the-practice” professional standards. This methodology has different quantitative evaluations for roadway segments, signalized and unsignalized intersections, and freeway segments. As an evaluation metric, level of service (LOS) describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst.

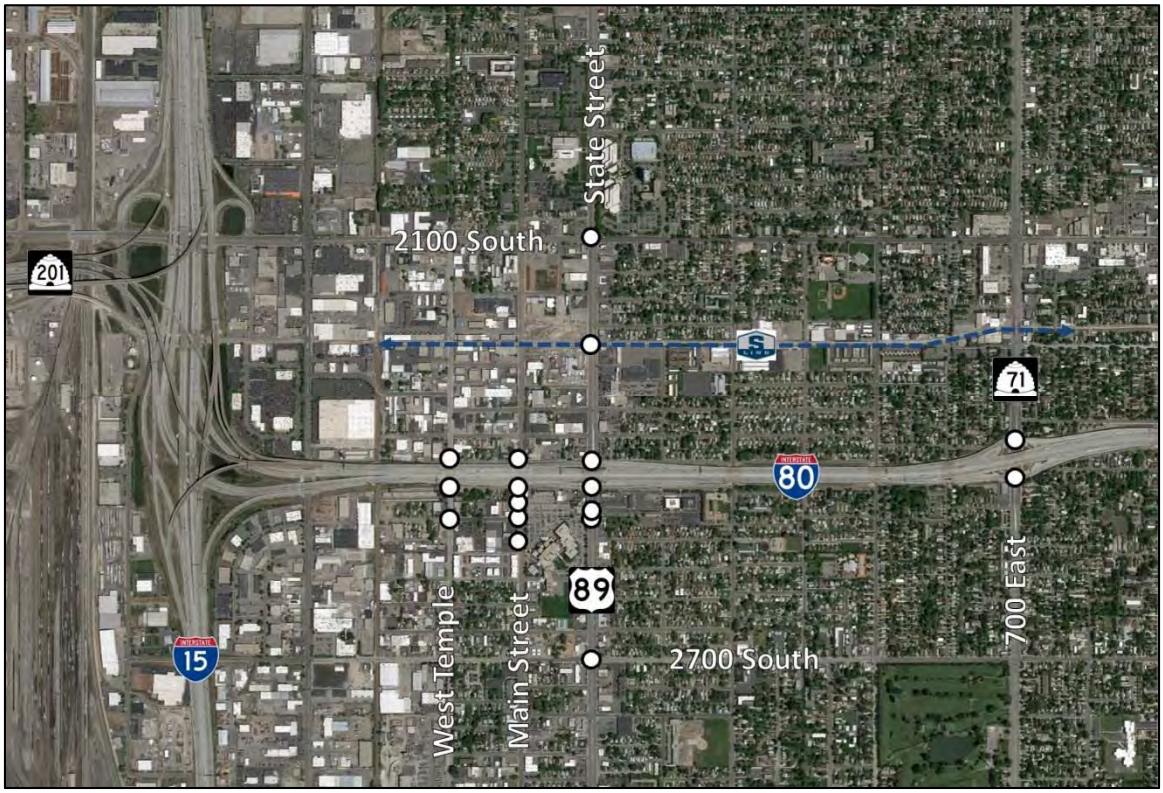


Figure 1 Study intersections located in South Salt Lake, Utah.

Table 1 provides the LOS designations and definitions for freeway segments, evaluated by the density of vehicles in each segment. Table 2 provides the LOS letter designations and definitions for signalized and unsignalized intersections, evaluated by the average delay per vehicle. Table 3 provides the LOS letter designations and definitions for freeway interchanges with signalized intersections. Table 4 provides the LOS letter designations and definitions for arterial streets based on speed.

The HCM 2010 defines four types of freeway segments for evaluation: Basic, merge, diverge, and weave. The area 1,500 feet downstream from an on-ramp or upstream from an off-ramp is considered a merge or diverge segment, respectively. A weave segment is defined by an area in which both merging and diverging occurs. Merge and diverge segments evaluate the outer two lanes only (plus auxiliary lanes). Because micro-simulation was used to determine the density of the analysis segments, and because it is reported in *vehicles per mile per lane* (veh/mi/ln), there is a subtle difference between the calculated density and the density defined by HCM 2010 which is in *passenger cars per mile per lane* (pc/mi/ln). However, since the density reported is a function of speed and volume, it is believed that veh/mi/ln is an acceptable surrogate for pc/mi/ln.

Table 1 Level of Service Descriptions for Freeway Segments

Level of Service	Description of Traffic Conditions	Density (pc/mi/ln)	Density (pc/mi/ln)^2
	Freeway Segments	Basic Segment	Merge / Diverge / Weave Segments
A	Extremely favorable progression with no delay. Users are unaffected by others in the traffic stream.	≤11	≤10
B	Good progression and a low level of delay. The presence of other users in the traffic stream becomes noticeable.	>11-18	>10-20
C	Fair progression and a moderate level of delay. Users become affected by interactions with others in the traffic stream.	>18-26	>20-28
D	Marginal progression with relatively high levels of delay. Operating conditions are noticeably constrained.	>26-35	>28-35
E	Poor progression with unacceptably high levels of delay. Operating conditions are at or near capacity.	>35-45	>35
F	Unacceptable progression with forced or breakdown operating conditions.	Demand Exceeds Capacity	

Source:

1. Hales Engineering Descriptions, based on *Highway Capacity Manual, 2010 Methodology* (Transportation Research Board, 2010).
2. VISSIM model output is reported in vehicles per mile per lane (veh/mi/ln)

For signalized and all-way stop intersections, LOS is determined by the weighted average of all approach delays. For all other unsignalized intersections, LOS is reported based on the worst approach. Freeway interchange LOS is calculated as a weighted average of all ramp terminal intersections.

Table 2 Level of Service Descriptions for Intersections

Level of Service	Description of Traffic Conditions	Average Delay (seconds/vehicle)
	Signalized Intersections	**Overall Intersection**
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	≤10
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	>10-20
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	>20-35
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	>35-55
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	>55-80
F	Unacceptable progression with forced or breakdown operating conditions.	>80
	Unsignalized Intersections	**Worst Approach**
A	Free Flow / Insignificant Delay	≤10
B	Stable Operations / Minimum Delays	>10-15
C	Stable Operations / Acceptable Delays	>15-25
D	Approaching Unstable Flows / Tolerable Delays	>25-35
E	Unstable Operations / Significant Delays Can Occur	>35-50
F	Forced Flows / Unpredictable Flows / Excessive Delays Occur	>50

Source:

1. Hales Engineering Descriptions, based on *Highway Capacity Manual, 2010 Methodology* (Transportation Research Board, 2010).

Table 3 Level of Service Descriptions for Freeway Interchanges

Level of Service	Description of Traffic Conditions	Average Delay (seconds/vehicle)
	Freeway Interchanges with Signalized Intersections	**Overall Interchange**
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	≤15
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	>15-30
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	>30-55
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	>55-85
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	>85-120
F	Unacceptable progression with forced or breakdown operating conditions.	>120

Source:

1. Hales Engineering Descriptions, based on *Highway Capacity Manual, 2010 Methodology* (Transportation Research Board, 2010).

Arterial street level of service is determined as a function of average travel speed compared to free flow speed. Alternatively, the volume-to-capacity (*v/c*) ratio can be calculated for a given segment which provides a quicker way to estimate the operations of a roadway. Roadway capacities are complex and depend on variables such as number of lanes, access spacing, traffic signal timing and coordination, the proportion of left and right turns, pedestrian activity, and several other factors.

Table 4 Level of Service Descriptions for Arterial Segments

Level of Service	Description of Traffic Conditions	Percent of Free Flow Speed
	Arterial Segments	**Overall Interchange**
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	>85%
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	>67-85%
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	>50-67%
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	>40-50%
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	>30-40%
F	Unacceptable progression with forced or breakdown operating conditions.	≤30%

Source:

1. Hales Engineering Descriptions, based on *Highway Capacity Manual, 2010 Methodology* (Transportation Research Board, 2010).

Level of Service Standards

For the purposes of this study, a minimum overall performance for each of the study roadways was set at LOS D. An LOS D threshold is consistent with “state-of-the-practice” traffic engineering principles.

DATA COLLECTION

Freeway Traffic Volume Data

Peak hour (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) counts were conducted using video at several locations on both east- and westbound I-80. These counts were conducted on weekdays (Tuesdays, Wednesdays, or Thursdays) in May 2014. According to historical UDOT data from a nearby automatic traffic recorder (ATR), the month of May represents a "typical" month during the year for traffic flow on I-80 in the South Salt Lake area (ATR 341, I-80 at 400 East; May is 99.2 percent of annual average). Detailed count data can be found in Appendix A.

The video of freeway traffic was also used to estimate weave volumes in both the eastbound and westbound directions between I-15 and State Street.

Real-time traffic data were also collected from UDOT's Performance Measurement System (PeMS). PeMS provides various traffic statistics at frequent intervals along UDOT freeways such as flow rates, speed, and truck data. PeMS data were used to verify freeway volume data collected for this analysis as well as to verify speed data. Figure 2 shows average hourly flow rates for I-80 near State Street by time of day for weekdays in May 2014. As shown in Figure 2, the peak period for eastbound traffic occurs in the afternoon while the peak period for westbound traffic occurs in the morning.

Turning Movement Counts

Peak hour (4:00 to 6:00 p.m.) vehicle and pedestrian turning movement counts were conducted at each of the study intersections on various weekdays (Tuesdays, Wednesdays, and Thursdays) during May 2014. ATR data for State Street and 700 East both showed that May volumes are slightly higher than average (ATR 325, State Street near 1100 South, May is 101.65 percent of annual average; ATR 333, 700 East near 1200 South, May is 100.69 percent of annual average). Detailed count data can be found in Appendix A.

Traffic Signal Timing

Traffic signal timing data was obtained from the UDOT Traffic Operations Center (TOC) for all signalized intersections within the study area. These data were used in the VISSIM model described later in this memo. Signal phasing configurations were verified in the field.

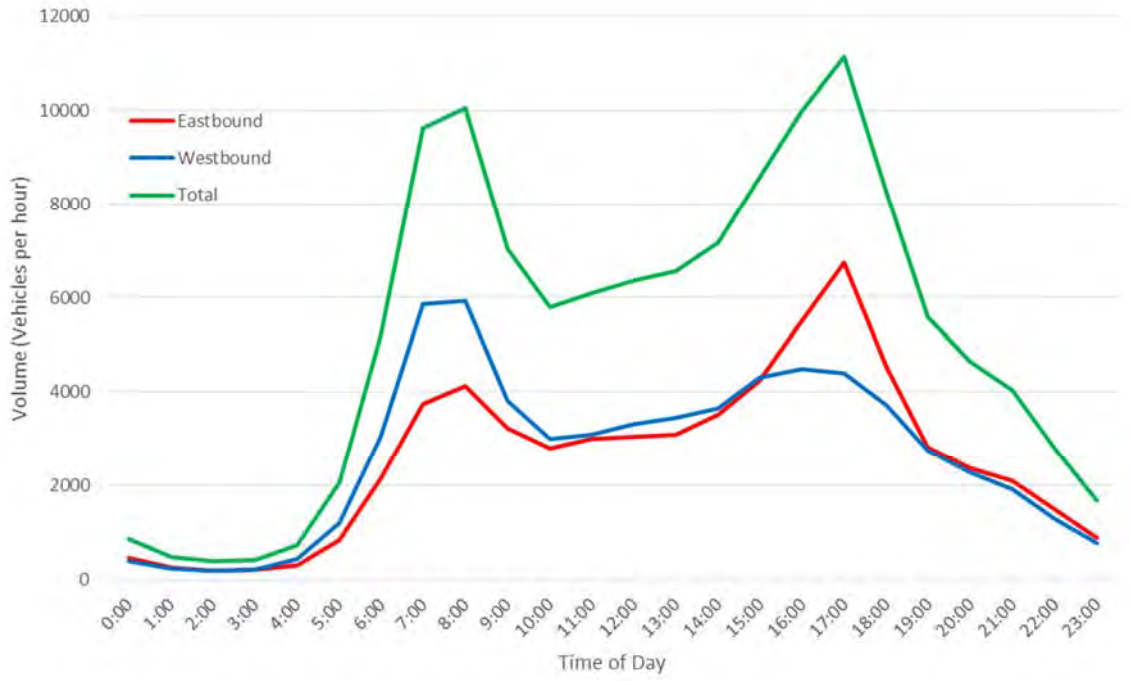


Figure 2 Hourly flow rate of traffic on I-80 near State Street on weekdays in May 2014.

Geometric Data

Geometric data including lane configuration, turn pocket lengths, taper lengths, speed limits, and intersection control were obtained using aerial photographs from Google Earth and subsequently verified in the field.

Bluetooth Data

A Bluetooth data collection effort was conducted to assist in determining origin/destination data as well as supplementing travel time data for calibration purposes. Six Bluetooth data collection units were deployed for one week along I-15, SR-201, and I-80. The travel time data produced by this effort was fairly consistent with travel time runs as well as speed data from PeMS. Origin/destination data was used to supplement video data collection on I-80 for purposes of coding the VISSIM model.

Travel Time Runs

Travel time runs were conducted on I-80 and State Street to supplement Bluetooth and PeMS data for use in the calibration process. These runs were collected by driving the

corridor within the peak hour traffic conditions and recording a time at multiple designated locations throughout the length of the corridor. In addition to travel time runs for State Street from 2700 South to 2100 South, various travel time runs were conducted for I-80. Multiple combination of origins and destinations are possible within the study area, so travel time runs were focused on key movements. Detailed discussion of travel time runs and their use in the VISSIM model is discussed later in this memo.

Queuing

Hales Engineering also visited the study intersections during the a.m. and p.m. peak periods to observe typical queue lengths. These data were used to verify the general accuracy of the VISSIM model's prediction of average and maximum queue lengths. This process is further discussed in the calibration section of this memo.

Speed Data

Freeway segment speed data were collected from PeMS during off peak periods. These data provided valuable insight in estimating the free flow speed on I-15, while average speed during the peak hour was used for calibration purposes.

Truck Data

Heavy vehicles typically have slower speeds and lower acceleration and declaration rates and therefore affect traffic differently than typical passenger cars. Furthermore, trucks add to the queue length which affects capacity of turn lanes and traffic signal operations. UDOT has some truck percentage data for state roads; however, these percentages are on a daily basis and are typically higher than the peak hour truck percentage. Therefore, peak period truck percentages were estimated on each of the study roads based on field observations. Most of the arterial streets had less than two percent combination or single-unit trucks. Truck percentages varied on I-80 between one and four percent for combination trucks and for single-unit trucks. For purposes of VISSIM modelling, all arterial were assumed to have one percent each of combination and single-unit trucks, and I-80 was assumed to have three percent combination and two percent single-unit trucks during the peak hours.

UTA S-Line Street Car Data

According to the Utah Transit Authority (UTA) website (www.rideuta.com), the S-Line street car currently operates with 20-minute headways during peak periods of the day. Accounting for trains travelling in both directions, a frequency of six trains per hour was assumed.

VISSIM MODEL CALIBRATION

The VISSIM micro-simulation model was calibrated using the following model outputs:

1. Travel time
2. Queue lengths
3. Percent Served

Travel time is critical measure because it accounts for delay and will be the primary measure of effectiveness by which alternatives are compared. Queue lengths are not as critical but are measured to ensure reasonable model outcomes. “Percent served” refers to the percent of model input vehicles that traverse through the model (i.e., are served by the roads and intersections). A low percent served in a base model indicates “hidden” bottle necks in the model that are not actually present in the field.

Travel Times

Travel time data was collected manually as well as using the Bluetooth data for several origin/destination pairs on I-80 as well as on State Street. The travel time links were as follows:

- Northbound State Street (2700 South to 2100 South)
- Southbound State Street (2100 South to 2700 South)
- Northbound I-15 to 700 East
- Southbound I-15 to 700 East
- Southbound I-15 to State Street
- Westbound I-80 at 700 East to Northbound I-15
- Westbound I-80 at 700 East to Southbound I-15

The travel time runs were compared with travel time data generated from the VISSIM model and used to adjust the speed and driver behavior characteristics along each corridor. After the final model calibration, most travel times were within +/-2 standard deviations of the modelled travel times for both the a.m. and p.m. peak hours. Most of the remaining travel time runs were within 15 percent, which is believed to be a reasonable threshold for model calibration.

Queue Lengths

Queue lengths were observed at study intersections during the peak hours and compared to the 95th percentile queue lengths as estimated by the VISSIM model. Measuring an exact 95th percentile queue length in the field is not feasible. Therefore, each study intersection was observed for several cycle lengths, where possible, during the peak 15-minute period of the peak hour to ensure that the model is reasonably reflecting conditions in the field.

Most observed queue lengths during the a.m. peak hour were approximately 100 to 200 feet long. During the p.m. peak hour, queue lengths tended to be between 100 and 300 feet long. Some exceptions to this included southbound queuing on State Street during the p.m. peak hour. Longer queuing was also observed for some of the movements at the 700 East interchange.

Average model queue lengths during the a.m. peak hour were as high as 240 feet. Average model queue lengths during the p.m. peak hour were as high as 340 feet. In both time periods, several modelled 95th percentile queue lengths were longer (400 to 500 feet long). Most of the longer 95th percentile queue lengths were at the 700 East interchange where observed queuing was also longer. Considering the short period of time each intersection was observed, the modelled queue lengths appear to match observed queue lengths fairly well. The final calibrated model is believed to produce similar queuing as to what is observed in the field.

Percent Served

The percent of traffic serviced was calculated for each intersection and on each freeway segment. A service rate of 100 percent indicates that all traffic that is able to enter an intersection during the peak hour in the field is also able to enter the modeled intersection during the peak hour. A percent served significantly less than 100 percent indicates that either the model was incorrectly coded, or that a bottle-neck exists in the model that does not actually exist in the study area. Hales Engineering calculated between 96 and 104 percent of traffic is served on the freeway segments, ramps, and study intersections (see Appendix B for additional detail). Typical model calibration can range between 95 and 105 percent as a general rule of thumb. Percent served was found to be within an acceptable range.

EXISTING (2014) CONDITIONS

The existing (2014) conditions were analyzed using version 6.17 of VISSIM simulation software (PTV America). VISSIM has the ability to analyze both uninterrupted and interrupted flow facilities which is required for this analysis as the study area includes both arterial and freeway segments.

Multiple Simulation Runs

Because of the stochastic (randomly determined) nature of the VISSIM model, it is necessary to run the model multiple times using different random seed numbers and then report the average measure of effectiveness (MOE) values of all runs. The simulation is typically run ten times in order to check the confidence interval at the 95 percent significance level using the standard deviations of the MOEs to determine if additional model runs are necessary.

At the 95 percent significance level, the confidence interval for speed on freeway segments is +/- 1.6 mph during the a.m. peak period with most segments +/- 0.7 mph. During the p.m. peak period, most confidence interval for most segments is +/- 1.6 mph, although some locations with heavy congestion have higher confidence intervals (up to +/- 12 mph). Areas of heavy congestion are anticipated to have less stable speeds, so this larger confidence interval is acceptable. Therefore, 10 runs were deemed sufficient for the freeway operations analysis.

The associated confidence intervals at the 95 percent significance level were calculated for each intersection's delay and are shown in the detailed intersection LOS reports in Appendix B. The confidence intervals range between 0.04 and 4.3 seconds (most are less than 2 seconds). These confidence intervals were considered to be acceptable because the range of delay for each LOS is between 10 and 25 seconds. Therefore, 10 runs were deemed sufficient for the intersection operations analysis.

Freeway Level of Service

As previously discussed, the Highway Capacity Manual calculates freeway level of service based on density. The density for each freeway segment was calculated based on the volume and speed output from the VISSIM model. Figure 3 shows the a.m. peak period volume, speed, density, and accompanying LOS for each freeway segment in the study area. Figure 4 shows the same data for the p.m. peak period.

As shown in Figures 3 and 4, most of the freeway segments within the study area currently exhibit acceptable levels of service with the exception of eastbound I-80 to the west of State Street during the p.m. peak period. This is due to high volumes and a very short weave area between I-15 and State Street.

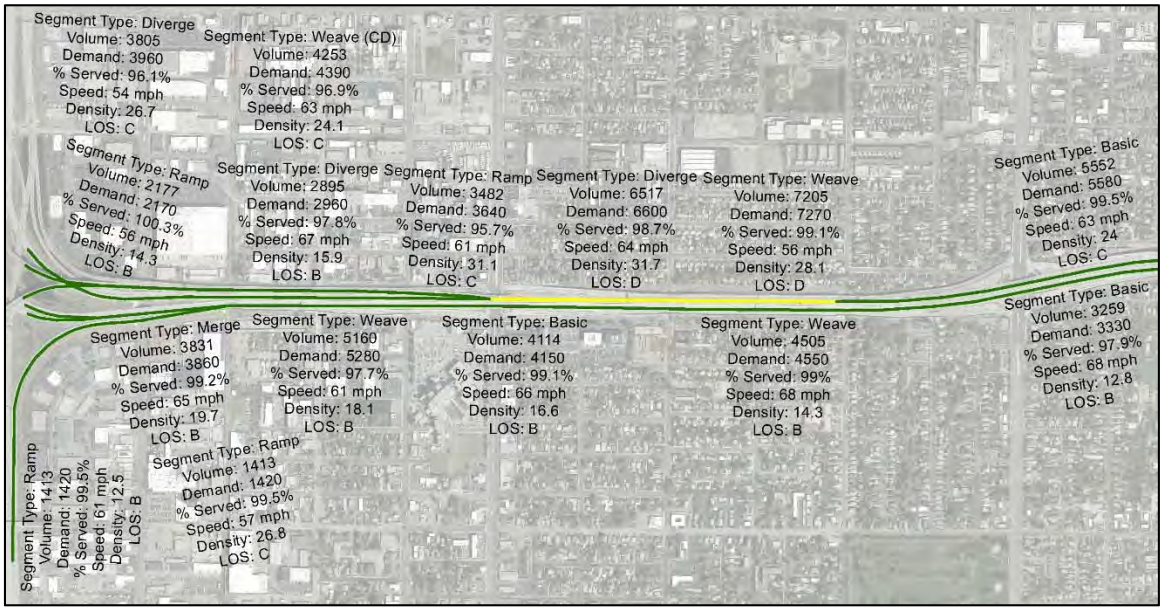


Figure 3 Existing 2014 a.m. peak period freeway LOS on I-80.

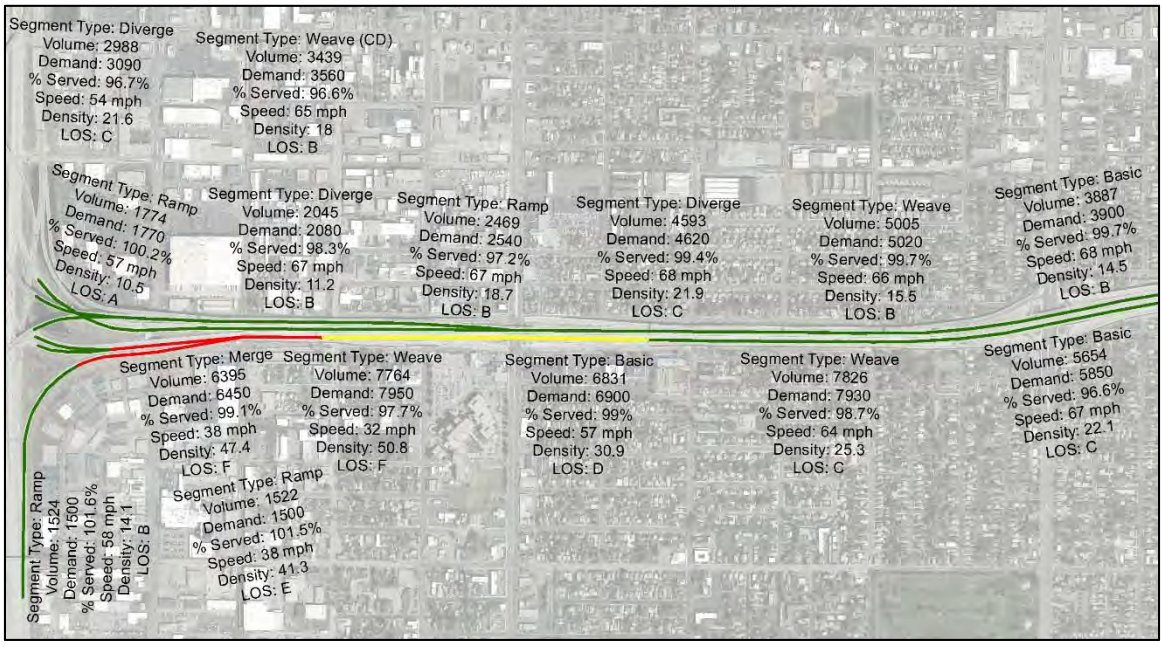


Figure 4 Existing 2014 p.m. peak period freeway LOS on I-80.

Intersection Level of Service

As previously discussed, the Highway Capacity Manual calculates intersection level of service based on average delay per vehicle for the entire intersection if the intersection is signalized, or the average delay per vehicle on the worst approach for two-way stop-controlled intersections. The average delay per vehicle and the associated LOS was calculated based on delay output from the VISSIM model. Table 5 shows the worst approach (unsignalized intersections only), average delay, and LOS at each of the study intersections (see Appendix B for detailed LOS printouts) for the a.m. peak hour. The same data is shown in Table 6 for the p.m. peak hour.

As shown in Tables 5 and 6, all intersections currently operate at acceptable levels of service (LOS D or better) during both the a.m. and p.m. peak periods.

Arterial Level of Service

As previously discussed, arterial LOS is based on the percentage of free flow speed attained by vehicles on the segment. Assuming a 40 MPH free flow speed for State Street (posted speed limit is 35 MPH), arterial LOS is shown in Figures 5 and 6 for the a.m. and p.m. peak periods, respectively.

As shown in Figures 5 and 6, although overall average delay is acceptable at all study intersections, arterial speeds are below acceptable values in both the north- and southbound directions of State Street.

Table 5 Existing (2014) Conditions a.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
2100 South & State Street	Signal	-	-	-	27	C
Street Car & State Street	Signal	-	-	-	5	A
WB I-80 & State Street	Signal	-	-	-	18	B
EB I-80 & State Street	Signal	-	-	-	21	C
I-80 State Street Interchange	Signal	-	-	-	30	B
Oakland Ave & State Street	WB Stop	WB	5	A	-	-
Granite SD Access & State Street	EB Stop	EB	6	A	-	-
2700 South & State Street	Signal	-	-	-	15	B
WB I-80 & 700 East	Signal	-	-	-	10	B
EB I-80 & 700 East	Signal	-	-	-	20	C
I-80 700 East Interchange	Signal	-	-	-	25	B
2400 S & West Temple	EB/WB Stop	WB	7	A	-	-
Robert Ave & West Temple	EB/WB Stop	WB	6	A	-	-
Oakland Ave & West Temple	EB/WB Stop	EB	7	A	-	-
2400 S & Main Street	EB/WB Stop	WB	11	B	-	-
Robert Ave & Main Street	EB/WB Stop	EB	8	A	-	-
North Granite SD Access & Main Street	WB Stop	WB	1	A	-	-
Oakland Ave & Main Street	EB Stop	EB	7	A	-	-
South Granite SD Access & Main Street	WB Stop	WB	1	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way-stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle).
3. SB = Southbound approach, etc.

Source: Hales Engineering, October 2014

Table 6 Existing (2014) Conditions p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
2100 South & State Street	Signal	-	-	-	39	D
Street Car & State Street	Signal	-	-	-	4	A
WB I-80 & State Street	Signal	-	-	-	13	B
EB I-80 & State Street	Signal	-	-	-	19	B
I-80 State Street Interchange	Signal	-	-	-	25	B
Oakland Ave & State Street	WB Stop	WB	6	A	-	-
Granite SD Access & State Street	EB Stop	EB	7	A	-	-
2700 South & State Street	Signal	-	-	-	22	C
WB I-80 & 700 East	Signal	-	-	-	18	B
EB I-80 & 700 East	Signal	-	-	-	20	B
I-80 700 East Interchange	Signal	-	-	-	32	C
2400 S & West Temple	EB/WB Stop	WB	7	A	-	-
Robert Ave & West Temple	EB/WB Stop	WB		A	-	-
Oakland Ave & West Temple	EB/WB Stop	EB	9	A	-	-
2400 S & Main Street	EB/WB Stop	WB	10	B	-	-
Robert Ave & Main Street	EB/WB Stop	WB	8	A	-	-
North Granite SD Access & Main Street	WB Stop	WB	1	A	-	-
Oakland Ave & Main Street	EB Stop	EB	8	A	-	-
South Granite SD Access & Main Street	WB Stop	WB	1	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way-stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle).
3. SB = Southbound approach, etc.

Source: Hales Engineering, October 2014

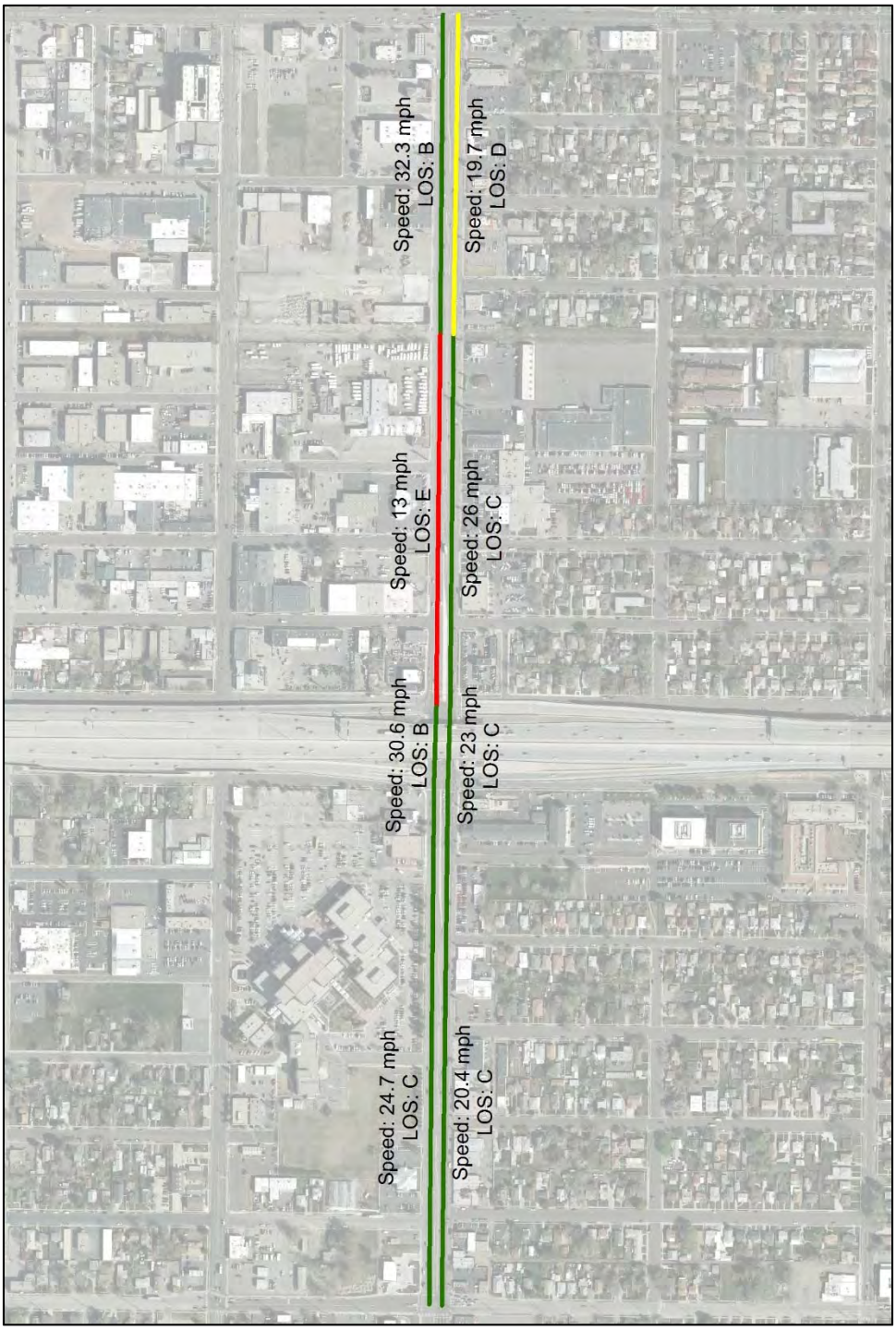


Figure 5 Existing 2014 a.m. peak period arterial LOS on State Street.

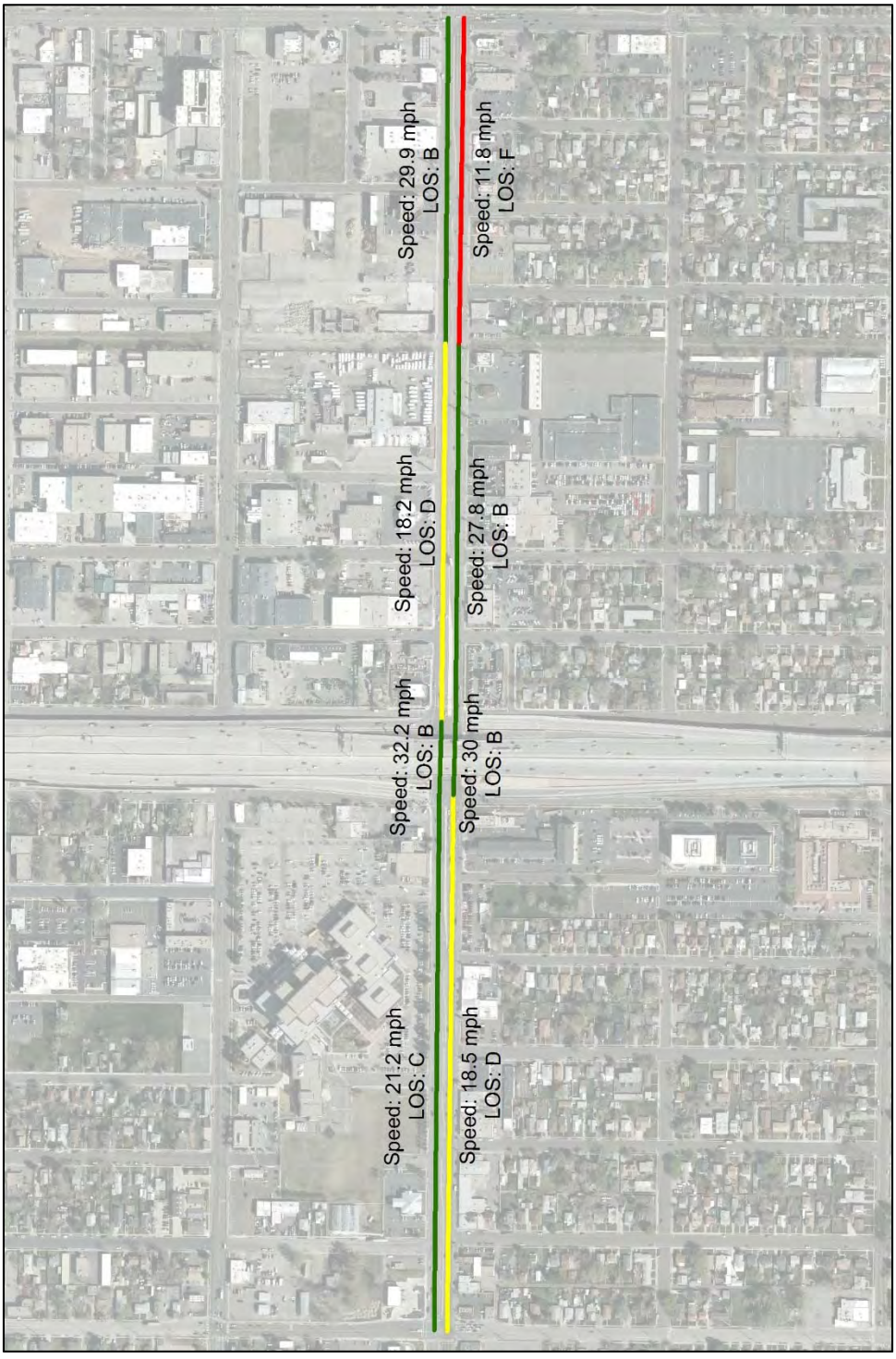


Figure 6 Existing 2014 p.m. peak period arterial LOS on State Street.

Safety

A detailed operational safety report (OSR) was performed by UDOT for the study area. The OSR focused on identify patterns associated with sever crash locations. No severe crash patterns were observed near the I-80 State Street interchange.

Hales Engineering has observed potential safety concerns including the following:

- Short weave in the eastbound direction of I-80 between I-15 and State Street is less than 500 feet long.
- Frontage road connections exist at the I-80 State Street interchange that significantly increase the number of conflict points. Added to this safety concern is that right-turns on red are permitted for the northbound to eastbound and southbound to westbound right-turn movements which effect create legal, uncontrolled crossing movements.
- "Trap" left-turn lanes exist underneath the I-80 structure which violate driver expectancy. Due to lane alignment on the downstream ends of the interchange, some drivers use the left-turn lanes to make through movements through the interchange.
- Westbound I-80 has complex navigational signing and layout as well as a diverge point located directly after a weave area. This creates fairly congested conditions during the a.m. peak hour, although not yet a failing LOS. Driver expectancy is somewhat violated as drivers headed to the south must actually veer right, while drivers headed north must stay left (opposite if the expected directions).

Summary of 2014 Conditions Analyses

The following is a summary of traffic operations analyses conducted for the existing 2014 conditions:

1. Demand exceeds capacity on eastbound I-80 west of State Street during the p.m. peak period. This is due to high volumes and a very short weave area between I-15 and State Street.
2. Although overall average delay is acceptable at all study intersections, arterial speeds are below acceptable values in both the north- and southbound directions of State Street.
3. Several safety and drivers' expectancy issues exist on I-80 and State Street.

FUTURE (2040) TRAFFIC VOLUMES

Future traffic was estimated using Version 7 of the Wasatch Front Regional Council (WFRC) travel demand model. The model covers the four-county urban area and is calibrated to that area, but at any given subarea it usually needs additional sub-area calibration.

Sub-area Calibration

The model was run for a base year of 2012, and its results were compared to UDOT's Traffic on Utah Highways values for all streets that have counts between I-15 and 700 East, and between 2100 South and 2700 South. UDOT counts reflect Average Annual Daily Traffic (AADT), which are averaged across Saturdays and Sundays, whereas the travel model estimates Average Weekday Traffic (AWDT), which is usually about 10 percent higher than AADT. Therefore, UDOT's AADT values were increased by 10 percent to reflect typical weekday conditions.

In general, the model was close to existing counts. For streets where the model was estimating too much traffic, the default assumptions for free flow speed were reviewed and reduced when it seemed justifiable. For streets where the model did not have enough traffic, speeds were reviewed and increased when it seemed justifiable.

Accounting for Base Year Error

Even after sub-area calibration, it is still impossible for any model to exactly replicate existing conditions. Therefore, when estimating 2040 traffic, best practice is to record how far off the base year was from known counts, and then add that much back into the final result. Future (2040) volumes were adjusted by observing the difference between the base model (2012) and existing (and recent) traffic volumes and applying that difference to the travel demand model's future (2040) volumes. The future (2040) peak period turning movement counts were calculated using the NCHRP 255 methodology which creates future turning movement counts as a function of existing peak hour turning movement counts and future daily volumes (adjusted from the 2040 travel demand model).

Land Use

WFRC allocates expected growth by 2040 to Traffic Analysis Zones (TAZs) across multiple counties, but there is a good chance that growth in any given locale may not match well with local expectations for that area. In this case, South Salt Lake is aggressively pursuing major redevelopment of several areas in the study area. Their proposed plans for commercial square footage were reviewed and converted into either retail, industrial, or other jobs (usually office jobs), and placed into the relevant TAZs. They are also planning significant new dwelling units, which were converted into households

and people for use in the model. In that effort, it was assumed that the redevelopment would entirely replace existing uses, and not be additive to existing uses.

Figure 7 shows the existing TAZ structure within the study area where land uses were adjusted. Figure 8 shows a comparison of TAZ data between the baseline (2012) and future (2040) models. Figure 9 shows a comparison of the future (2040) TAZ data assumed by WFRC and the future (2040) data assumed by South Salt Lake City (and included in the EIS model).

As shown in Figure 9, while there is significant residential growth anticipated, there is less employment because existing businesses would be replaced by multi-family. So while development will all be new, it is not necessarily generating significantly more trips than were already generated before.

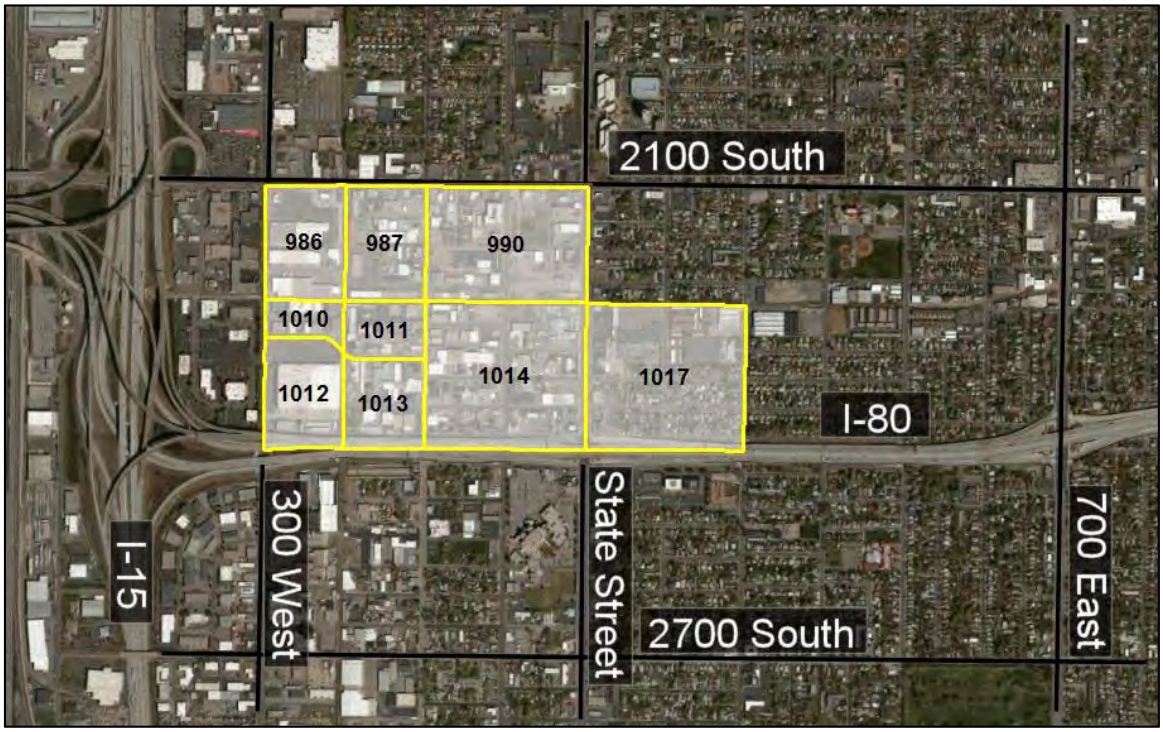


Figure 7 Existing 2014 p.m. peak period arterial LOS on State Street.

Relevant 2012 Demographics in WFRC V7 Travel Model

Z	TOTHH	TOTPOP	TOTEMP	RETEMP	INDEMP	OTHEMP	HHSIZE
986	0	0	431	314	73	44	0.00
987	302	835	2090	169	578	1343	2.76
990	84	234	785	201	122	462	2.80
1010	0	0	70	0	46	24	0.00
1011	10	27	171	62	76	33	2.72
1012	0	0	545	0	38	507	0.00
1013	11	27	374	86	86	203	2.47
1014	1	2	802	423	191	188	2.02
1017	278	568	319	247	31	41	2.04
Tot	**686**	**1695**	**5587**	**1501**	**1241**	**2845**	**2.47**

Relevant 2040 Demographics in WFRC V7 Travel Model

Z	TOTHH	TOTPOP	TOTEMP	RETEMP	INDEMP	OTHEMP	HHSIZE
986	156	390	820	551	135	134	2.50
987	543	1350	1383	73	284	1026	2.49
990	637	1669	1558	263	180	1115	2.62
1010	148	370	92	0	48	44	2.50
1011	58	154	218	66	88	64	2.65
1012	24	60	625	0	28	597	2.50
1013	117	312	326	50	57	219	2.68
1014	335	501	1511	666	325	520	1.50
1017	488	917	707	201	65	141	1.88
Tot	**2505**	**5723**	**7240**	**1870**	**1210**	**3860**	**2.29**

Change from 2012 to 2040, WFRC assumed growth

Z	TOTHH	TOTPOP	TOTEMP	RETEMP	INDEMP	OTHEMP	HHSIZE
986	156	390	389	237	62	90	2.50
987	241	515	-707	-96	-294	-317	-0.28
990	553	1435	773	62	58	653	-0.18
1010	148	370	22	0	2	20	2.50
1011	48	127	47	4	12	31	-0.07
1012	24	60	80	0	-10	90	2.50
1013	105	285	-48	-36	-29	16	0.21
1014	334	499	709	243	134	332	-0.52
1017	210	348	388	-46	34	100	-0.17
Tot	**1819**	**4029**	**1653**	**369**	**-31**	**1015**	
Pct Chg	265%	238%	30%	25%	-3%	36%	

Figure 8 Existing 2014 p.m. peak period arterial LOS on State Street.

2040 Demographics in WFRC V7 Travel Model

Z	TOTHH	TOTPOP	TOTEMP	RETEMP	INDEMP	OTHEMP	HHSIZE
986	156	390	820	551	135	134	2.50
987	543	1350	1383	73	284	1026	2.49
990	637	1669	1558	263	180	1115	2.62
1010	148	370	92	0	48	44	2.50
1011	58	154	218	66	88	64	2.65
1012	24	60	625	0	28	597	2.50
1013	117	312	326	50	57	219	2.68
1014	335	501	1511	666	325	520	1.50
1017	488	917	707	201	65	141	1.88
Tot	**2505**	**5723**	**7240**	**1870**	**1210**	**3860**	**2.29**

2040 Demographics, assuming SSL's Development plans

Z	TOTHH	TOTPOP	TOTEMP	RETEMP	INDEMP	OTHEMP	HHSIZE
986	500	1000	100	50	0	50	2.00
987	543	1350	300	100	0	200	2.49
990	0	0	1500	1400	0	100	2.00
1010	500	1000	0	0	0	0	2.00
1011	500	1000	0	0	0	0	2.00
1012	500	1000	0	0	0	0	2.00
1013	500	1000	0	0	0	0	2.00
1014	500	1000	900	600	0	300	2.00
1017	488	917	707	500	0	507	1.88
Tot	**4031**	**8267**	**3507**	**2650**	**0**	**1157**	**2.05**

Differences between SSL's plans and WFRC initial assumptions

Z	TOTHH	TOTPOP	TOTEMP	RETEMP	INDEMP	OTHEMP	HHSIZE
986	344	610	-720	-501	-135	-84	-0.50
987	0	0	-1083	27	-284	-826	0.00
990	-637	-1669	-58	1137	-180	-1015	-0.62
1010	352	630	-92	0	-48	-44	-0.50
1011	442	846	-218	-66	-88	-64	-0.65
1012	476	940	-625	0	-28	-597	-0.50
1013	383	688	-326	-50	-57	-219	-0.68
1014	165	499	-611	-66	-325	-220	0.50
1017	0	0	0	299	-65	366	0.00
Tot	**1526**	**2544**	**-3733**	**780**	**-1210**	**-2703**	
Pct WFRC	61%	44%	-52%	42%	-100%	-70%	
Pct 2012	488%	388%	-37%	77%	-100%	-59%	

Figure 9 Existing 2014 p.m. peak period arterial LOS on State Street.

FUTURE (2040) NO ACTION CONDITIONS

Future (2040) conditions were analyzed using the micro-simulation software VISSIM (PTV). All roadway and intersection configurations as well as signal phasing remained the same as the existing (2014) conditions VISSIM model with the following exceptions:

- Planned RTP projects outside of the study area were included in the model
- Planned RTP projects inside the study area were excluded from the model
- "Short-term minor restoration types of activities (safety and maintenance improvements, etc.) that maintain continuing operation of the existing roadway." (FHWA Technical Advisory T 6640.80, October 30, 1987). As discussed by the EIS Team, these improvements included adding or lengthening turn pockets, signal phasing changes, signal timing/coordination changes, and adding dual left-turn lanes if receiving lanes already exist.

The following intersection and signal changes were made to the future (2040) no-action VISSIM model:

- Adjusted peak hour factor (PHF) to 0.95
- All signalized intersections:
    - Optimized signal splits and offsets (Future [2040] no-action a.m. and p.m. peak hour turning movement volumes were used to create signal timing data with the signal optimization software, Synchro 8 [Trafficware]).
- 2100 South / State Street:
    - Add dual left-turn lanes on all four approaches
    - Change E/W left-turn phasing to protected-only (N/S Left-turn phasing is already protected only).
- Street Car Crossing / State Street:
    - Add Flashing Yellow Arrow (protected/permissive phasing) for northbound to westbound left-turn movement.
    - Update signal phasing per UDOT guidelines to accommodate anticipated traffic to/from new street to the west.
    - Decreased headway of Street Car Line from 20 minutes to 15 minutes.

Multiple Simulation Runs

Because of the stochastic (randomly determined) nature of the VISSIM model, it is necessary to run the model multiple times using different random seed numbers and then report the average measure of effectiveness (MOE) values of all runs. The simulation is typically run ten times in order to check the confidence interval at the 95 percent significance level using the standard deviations of the MOEs to determine if additional model runs are necessary.

At the 95 percent significance level, the confidence interval for speed on freeway segments is +/- 4.7 mph during the a.m. peak period with most segments +/- 1.9 mph. During the p.m. peak period, most confidence interval for most segments is +/- 3.2 mph,

although some locations with heavier congestion have higher confidence intervals (up to +/- 18 mph). Areas of heavy congestion are anticipated to have less stable speeds, so this larger confidence interval is acceptable. Therefore, 10 runs were deemed sufficient for the freeway operations analysis.

The associated confidence intervals at the 95 percent significance level were calculated for each intersection's delay and are shown in the detailed intersection LOS reports in Appendix C. The confidence intervals range between 0.03 and 11.1 seconds (most are less than 4 seconds). These confidence intervals were considered to be acceptable because the range of delay for each LOS is between 10 and 25 seconds. Therefore, 10 runs were deemed sufficient for the intersection operations analysis.

Freeway Level of Service

As previously discussed, the Highway Capacity Manual calculates freeway level of service based on density. The density for each freeway segment was calculated based on the volume and speed output from the VISSIM model. Figure 10 shows the a.m. peak period volume, speed, density, and accompanying LOS for each freeway segment in the study area. Figure 11 shows the same data for the p.m. peak period.

As shown in Figures 10 and 11, capacity constraints exist in both the eastbound and westbound directions. I-80 west of State Street is anticipated to function at LOS F during the a.m. period, while the existing failing conditions on I-80 west of State Street will also worsen during the p.m. peak in the 2040 conditions. These capacity constraints prevent 100 percent of traffic from being served downstream of the congested points. Therefore, additional "hidden bottlenecks" may also exist.

Intersection Level of Service

As previously discussed, the Highway Capacity Manual calculates intersection level of service based on average delay per vehicle for the entire intersection if the intersection is signalized, or the average delay per vehicle on the worst approach for two-way stop-controlled intersections. The average delay per vehicle and the associated LOS was calculated based on delay output from the VISSIM model. Table 7 shows the worst approach (unsignalized intersections only), average delay, and LOS at each of the study intersections (see Appendix C for detailed LOS printouts) for the a.m. peak hour. The same data is shown in Table 8 for the p.m. peak hour.

As shown in Tables 7 and 8, all intersections appear to operate at acceptable levels of service (LOS D or better) during future (2040) a.m. and p.m. peak periods. However, in the VISSIM model, all of the State Street and 700 East intersections have less than 100 percent served during both the a.m. and p.m. peak hours and several have less than 95 percent of traffic served. This occurs when capacity constraints occur upstream of the

subject intersections. In this case, capacity constraints on I-80 are the likely cause. Therefore, the study intersections may only appear to have acceptable levels of service because the vehicular demand is artificially low and “hidden bottlenecks” may exist that will not be discovered until external constraints are removed.

Arterial Level of Service

As previously discussed, arterial LOS is based on the percentage of free flow speed attained by vehicles on the segment. Assuming a 40 MPH free flow speed for State Street (posted speed limit is 35 MPH), arterial LOS is shown in Figures 12 and 13 for the future (2040) a.m. and p.m. peak periods, respectively.

As shown in Figures 12 and 13, although overall average delay is acceptable at all study intersections, arterial speeds are below acceptable values in both the north- and southbound directions of State Street. Poor levels of service are anticipated in both the a.m. and p.m. peak periods approaching the I-80 interchange.

Summary of 2040 No-Action Analyses

The following is a summary of traffic operations which resulted from the analyses conducted for the 2040 no-action conditions:

1. Demand exceeds capacity on both westbound and eastbound I-80 during the a.m. and p.m. peak periods, respectively. The constrained conditions in the eastbound direction occur west of State Street, while the constrained conditions in the westbound direction occur east of State Street. These constrained conditions cause the VISSIM model to serve less than 100 percent of traffic downstream of the State Street interchange, therefore, additional “hidden bottlenecks” may also exist.
2. Although overall average delay is acceptable at all study intersections, arterial speeds are below acceptable values in both the north- and southbound directions of State Street. Poor levels of service are anticipated in both the a.m. and p.m. peak periods approaching the I-80 interchange.

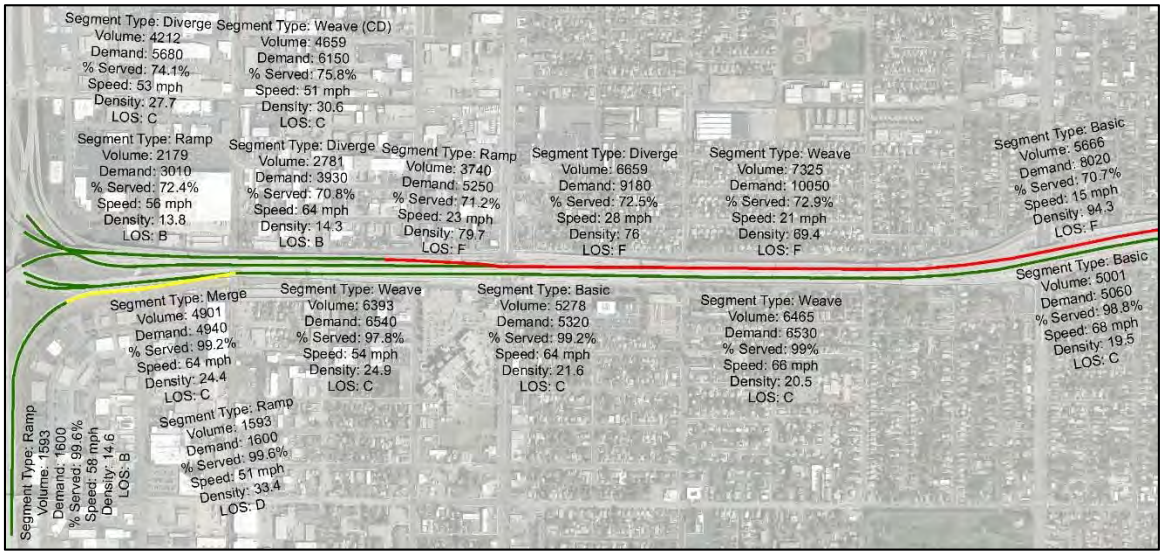


Figure 10 Future 2040 no-action a.m. peak period freeway LOS on I-80.

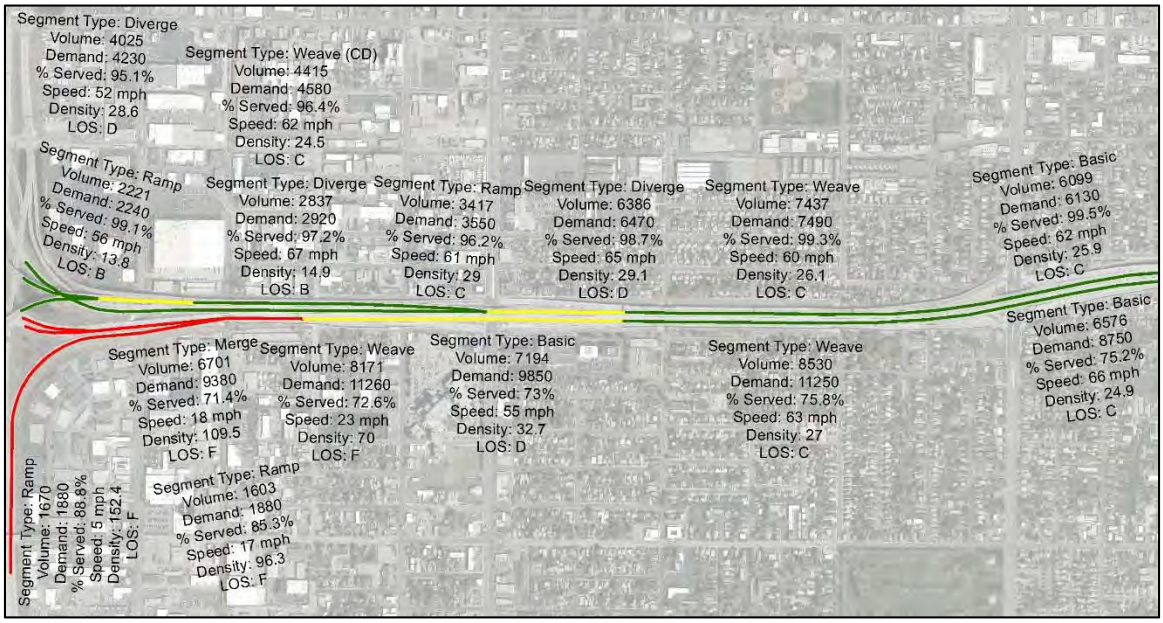


Figure 11 Future 2040 no-action a.m. peak period freeway LOS on I-80.

Table 7 Future (2040) No-Action Conditions a.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
2100 South & State Street	Signal	-	-	-	31	C
Street Car & State Street	Signal	-	-	-	13	B
WB I-80 & State Street	Signal	-	-	-	18	B
EB I-80 & State Street	Signal	-	-	-	24	C
I-80 State Street Interchange	Signal	-	-	-	32	C
Oakland Ave & State Street	WB Stop	WB	9	A	-	-
Granite SD Access & State Street	EB Stop	EB	6	A	-	-
2700 South & State Street	Signal	-	-	-	15	B
WB I-80 & 700 East	Signal	-	-	-	27	C
EB I-80 & 700 East	Signal	-	-	-	36	D
I-80 700 East Interchange	Signal	-	-	-	51	C
2400 S & West Temple	EB/WB Stop	WB	7	A	-	-
Robert Ave & West Temple	EB/WB Stop	EB	7	A	-	-
Oakland Ave & West Temple	EB/WB Stop	WB	7	A	-	-
2400 S & Main Street	EB/WB Stop	WB	13	B	-	-
Robert Ave & Main Street	EB/WB Stop	WB	8	A	-	-
North Granite SD Access & Main Street	WB Stop	WB	1	A	-	-
Oakland Ave & Main Street	EB Stop	EB	6	A	-	-
South Granite SD Access & Main Street	WB Stop	WB	1	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way-stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle).
3. SB = Southbound approach, etc.

Source: Hales Engineering, October 2014

Table 8 Future (2040) No-Action Conditions p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
2100 South & State Street	Signal	-	-	-	47	D
Street Car & State Street	Signal	-	-	-	29	C
WB I-80 & State Street	Signal	-	-	-	27	C
EB I-80 & State Street	Signal	-	-	-	23	C
I-80 State Street Interchange	Signal	-	-	-	39	C
Oakland Ave & State Street	WB Stop	WB	13	B	-	-
Granite SD Access & State Street	EB Stop	EB	7	A	-	-
2700 South & State Street	Signal	-	-	-	25	C
WB I-80 & 700 East	Signal	-	-	-	19	B
EB I-80 & 700 East	Signal	-	-	-	22	C
I-80 700 East Interchange	Signal	-	-	-	34	C
2400 S & West Temple	EB/WB Stop	WB	7	A	-	-
Robert Ave & West Temple	EB/WB Stop	WB	8	A	-	-
Oakland Ave & West Temple	EB/WB Stop	EB	9	A	-	-
2400 S & Main Street	EB/WB Stop	WB	46	E	-	-
Robert Ave & Main Street	EB/WB Stop	EB	7	A	-	-
North Granite SD Access & Main Street	WB Stop	WB	1	A	-	-
Oakland Ave & Main Street	EB Stop	EB	8	A	-	-
South Granite SD Access & Main Street	WB Stop	WB	2	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way-stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle).
3. SB = Southbound approach, etc.

Source: Hales Engineering, October 2014

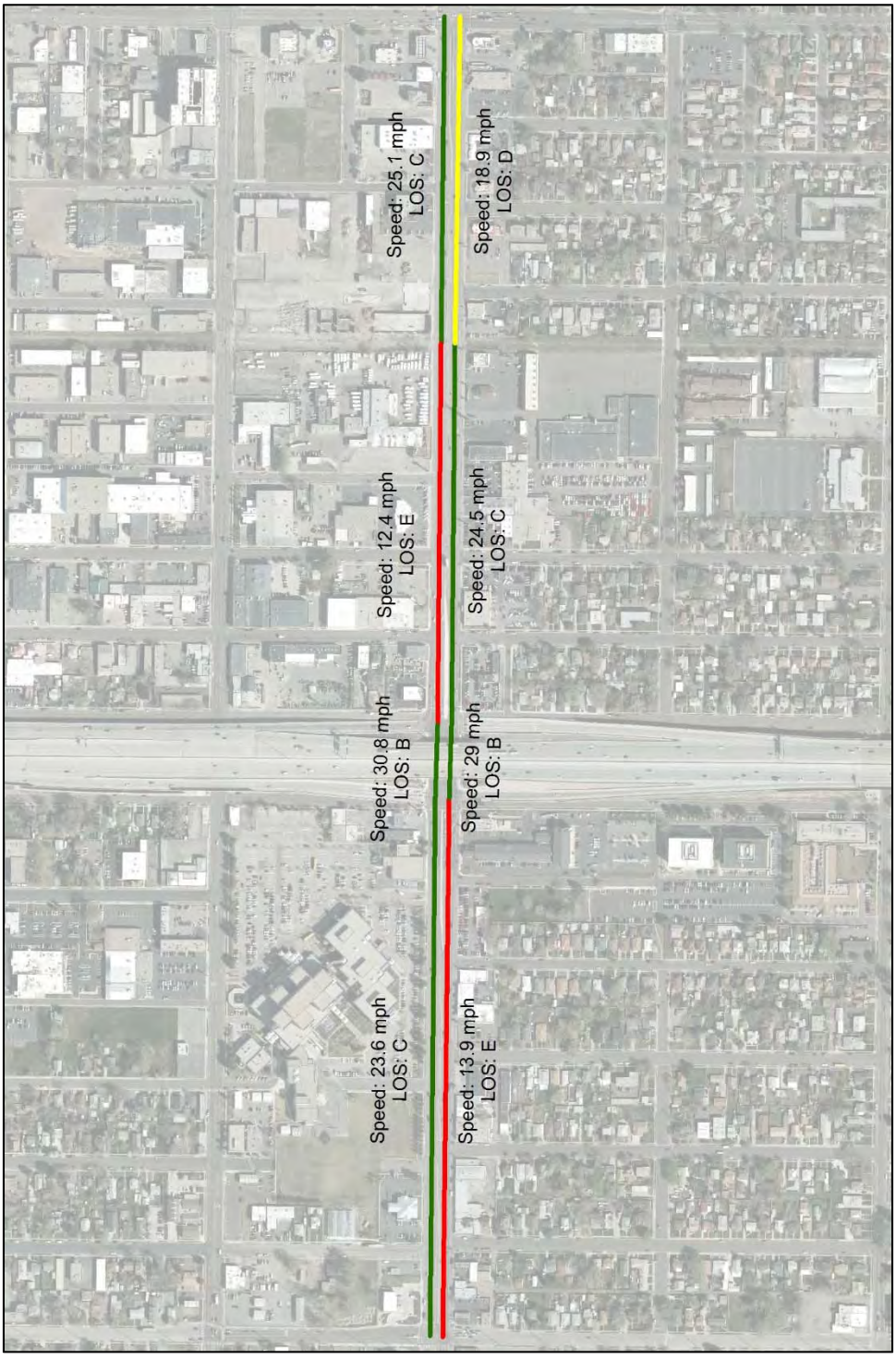


Figure 12 Future (2040) a.m. peak period arterial LOS on State Street.

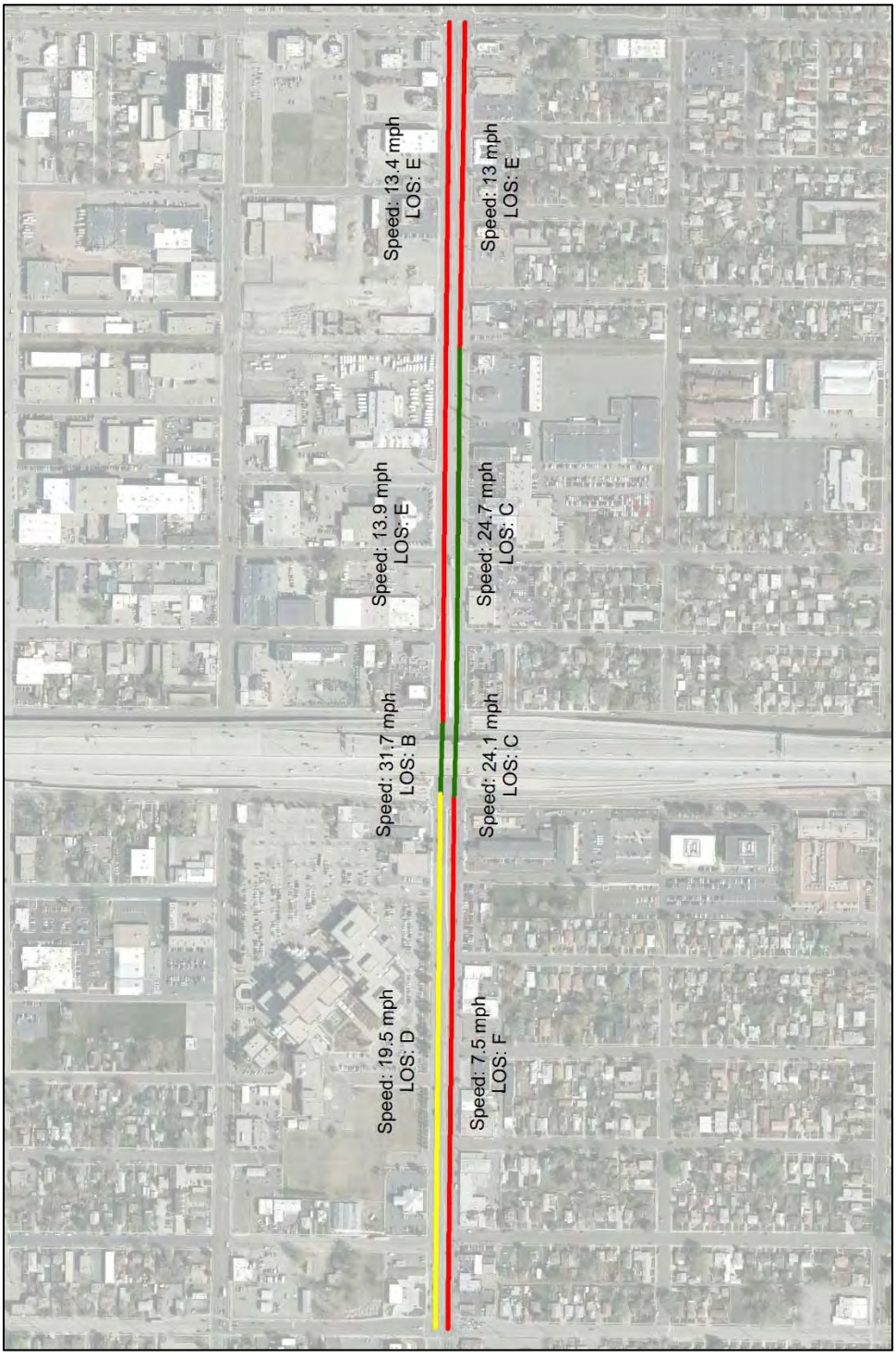


Figure 13 Future (2040) p.m. peak period arterial LOS on State Street.

Appendix A

Data Collection

L2 Data Collection
and GPS Fleet Management Solutions

Study: HALE0040
Location: I-80 Eastbound
City, State: Salt Lake City, Utah
Date: 05/20, 23/2014

	EB I-80				EB I-80			
Site Code	A	B	B	Total	G	G	H	Total
Day	Thurs	Tues	Tues	Vehicles	Thurs	Thurs	Tues	Vehicles
Location	From I-15 NB	From I-15 SB	From SR-201 EB	In	I-15 NB to State St	I-15 SB to State St	I-80 Mainline	Out
7:00	244	324	336	904	133	64	748	945
7:15	355	435	425	1215	216	24	926	1166
7:30	355	499	437	1291	214	41	1057	1312
7:45	406	543	486	1435	242	92	1104	1438
8:00	341	522	445	1308	212	66	1036	1314
8:15	319	492	426	1237	191	76	1054	1321
8:30	381	471	398	1250	216	51	1009	1276
8:45	405	512	407	1324	232	45	1022	1299
	2806	3798	3360	9964	1656	459	7956	10071

	EB I-80				EB I-80			
Site Code	A	B	B	Total	G	G	H	Total
Day	Thurs	Tues	Tues	Vehicles	Thurs	Thurs	Tues	Vehicles
Location	From I-15 NB	From I-15 SB	From SR-201 EB	In	I-15 NB to State St	I-15 SB to State St	I-80 Mainline	Out
4:00	371	614	516	1501	168	29	1276	1473
4:15	375	697	511	1583	203	63	1333	1599
4:30	405	777	555	1737	233	45	1452	1730
4:45	389	857	668	1914	204	82	1625	1911
5:00	345	940	685	1970	148	115	1774	2037
5:15	391	1046	679	2116	194	61	1923	2178
5:30	372	928	651	1951	173	70	1846	2089
5:45	410	818	515	1743	200	66	1641	1907
	3058	6677	4780	14515	1523	531	12870	14924

L2 Data Collection
and GPS Fleet Management Solutions

Study: HALE0040
Location: I-80 Westbound
City, State: Salt Lake City, Utah
Date: 05/20, 21/2014

	WB I-80			WB I-80					
Site Code	S	T	Total	O/D (X)	O/D (X)	U	U		Total
Day	Tues	Wed	Vehicles	Wed	Wed	Tues	Tues	To I-15 SB &	Vehicles
Location	I-80 Mainline	State On Ramp	In	To I-15 NB via Mainline	To I-15 NB via State	To NB I-15 via Mainline	To SR-201 WB via Mainline	SR-201 WB via State St	Out
7:00	1001	122	1123	37	17	339	77	645	1115
7:15	1365	143	1508	49	35	486	95	831	1496
7:30	1666	193	1859	61	37	589	160	1019	1866
7:45	1843	196	2039	70	48	589	214	1113	2034
8:00	1503	178	1681	58	45	450	205	914	1672
8:15	1585	178	1763	73	44	525	207	906	1755
8:30	1471	186	1657	59	52	452	210	882	1655
8:45	1403	138	1541	78	25	479	159	829	1570
	11837	1334	13171	485	303	3909	1327	7139	13163

	WB I-80			WB I-80					
Site Code	S	T	Total	O/D (X)	O/D (X)	U	U		Total
Day	Tues	Wed	Vehicles	Wed	Wed	Tues	Tues		Vehicles
Location	I-80 Mainline	State On Ramp	In	To I-15 NB CD via Mainline	To I-15 NB CD via State	To NB I-15 via Mainline	To NB CD Road via Mainline	To I-15 SB & SR-201 WB	Out
4:00	1049	287	1336	46	67	344	69	804	1330
4:15	1133	226	1359	33	72	377	63	809	1354
4:30	1154	271	1425	46	74	406	67	833	1426
4:45	1104	259	1363	66	60	385	81	740	1332
5:00	1118	302	1420	70	44	442	65	793	1414
5:15	1189	236	1425	60	51	501	83	726	1421
5:30	1076	213	1289	51	44	427	84	671	1277
5:45	981	195	1176	89	38	377	70	618	1192
	8804	1989	10793	461	450	3259	582	5994	10746

L2 Data Collection

www.L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study #: HSALE0040
Count: Volume / Direction
Tech: Judd / Mosdell
Type: Axle Hits / 2

State N of 2700 S. VOL
Date Start: 15-May-14
Date End: 15-May-14
State Street north of 2700 S.
Salt Lake City, Utah

Start Time	15-May-14 Thu	SB	NB							Total
12:00 AM		46	38							84
12:15		45	30							75
12:30		24	28							52
12:45		29	20							49
01:00		24	22							46
01:15		26	16							42
01:30		19	26							45
01:45		17	26							43
02:00		10	22							32
02:15		20	27							47
02:30		16	11							27
02:45		24	20							44
03:00		14	12							26
03:15		10	7							17
03:30		10	18							28
03:45		13	10							23
04:00		13	16							29
04:15		10	15							25
04:30		12	24							36
04:45		18	8							26
05:00		15	16							31
05:15		26	40							66
05:30		22	58							80
05:45		42	80							122
06:00		66	68							134
06:15		79	88							167
06:30		98	158							256
06:45		110	142							252
07:00		134	172							306
07:15		184	228							412
07:30		202	**296**							498
07:45		220	**318**							**538**
08:00		246	**261**							**507**
08:15		261	**260**							**521**
08:30		240	284							**524**
08:45		252	260							512
09:00		216	196							412
09:15		203	222							425
09:30		202	190							392
09:45		244	186							430
10:00		204	201							405
10:15		209	191							400
10:30		253	231							484
10:45		268	234							502
11:00		**224**	228							452
11:15		**245**	210							455
11:30		**272**	225							497
11:45		**276**	236							512
Total		5413	5675							11088
Percent		48.8%	51.2%							
Peak	-	11:00	07:30	-	-	-	-	-	-	07:45
Vol.	-	1017	1135	-	-	-	-	-	-	2090
P.H.F.		0.921	0.892							0.971

L2 Data Collection

www.L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study #: HSALE0040
Count: Volume / Direction
Tech: Judd / Mosdell
Type: Axle Hits / 2

State N of 2700 S. VOL
Date Start: 15-May-14
Date End: 15-May-14
State Street north of 2700 S.
Salt Lake City, Utah

Start Time	15-May-14 Thu	SB	NB	Total
12:00 PM		310	241	551
12:15		296	260	556
12:30		276	276	552
12:45		288	315	603
01:00		276	267	543
01:15		288	298	586
01:30		297	304	601
01:45		322	272	594
02:00		277	262	539
02:15		316	291	607
02:30		319	278	597
02:45		281	268	549
03:00		302	272	574
03:15		308	112	420
03:30		320	240	560
03:45		418	292	710
04:00		355	298	653
04:15		415	290	705
04:30		424	290	714
04:45		**453**	**279**	**732**
05:00		**392**	**332**	**724**
05:15		**464**	**331**	**795**
05:30		**454**	**296**	**750**
05:45		380	273	653
06:00		298	262	560
06:15		254	257	511
06:30		213	250	463
06:45		232	218	450
07:00		183	197	380
07:15		184	201	385
07:30		166	176	342
07:45		158	156	314
08:00		162	163	325
08:15		164	150	314
08:30		142	168	310
08:45		138	141	279
09:00		140	154	294
09:15		128	154	282
09:30		156	107	263
09:45		126	115	241
10:00		110	88	198
10:15		91	92	183
10:30		102	82	184
10:45		83	76	159
11:00		56	54	110
11:15		72	60	132
11:30		48	40	88
11:45		53	34	87
Total		11690	10032	21722
Percent		53.8%	46.2%	
Peak	-	16:45	16:45	16:45
Vol.	-	1763	1238	3001
P.H.F.		0.950	0.932	0.944
Grand Total		17103	15707	32810
Percent		52.1%	47.9%	

L2 Data Collection

www.L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study #: HSALE0040
Count: Volume / Direction
Tech: Judd / Mosdell
Type: Axle Hits / 2

State S of 2100 S. VOL
Date Start: 15-May-14
Date End: 15-May-14
State Street south of 2100 S.
Salt Lake City, Utah

Start Time	15-May-14 Thu	SB	NB	Total
12:00 AM		51	44	95
12:15		44	41	85
12:30		29	24	53
12:45		38	36	74
01:00		41	20	61
01:15		15	24	39
01:30		19	25	44
01:45		18	28	46
02:00		17	20	37
02:15		22	20	42
02:30		12	13	25
02:45		22	16	38
03:00		10	10	20
03:15		8	5	13
03:30		9	22	31
03:45		16	24	40
04:00		18	8	26
04:15		14	10	24
04:30		18	23	41
04:45		16	19	35
05:00		21	18	39
05:15		22	34	56
05:30		30	76	106
05:45		42	166	208
06:00		44	82	126
06:15		64	104	168
06:30		96	163	259
06:45		90	214	304
07:00		99	234	333
07:15		98	318	416
07:30		144	352	496
07:45		180	**465**	**645**
08:00		161	**446**	**607**
08:15		186	**432**	**618**
08:30		223	**424**	**647**
08:45		178	408	586
09:00		194	345	539
09:15		178	284	462
09:30		176	274	450
09:45		174	255	429
10:00		189	239	428
10:15		202	252	454
10:30		196	242	438
10:45		230	270	500
11:00		**222**	273	495
11:15		**230**	206	436
11:30		**310**	288	598
11:45		**286**	258	544
Total		4702	7554	12256
Percent		38.4%	61.6%	
Peak	-	11:00	07:45	07:45
Vol.	-	1048	1767	2517
P.H.F.		0.845	0.950	0.973

L2 Data Collection

www.L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study #: HSALE0040
Count: Volume / Direction
Tech: Judd / Mosdell
Type: Axle Hits / 2

State S of 2100 S. VOL
Date Start: 15-May-14
Date End: 15-May-14
State Street south of 2100 S.
Salt Lake City, Utah

Start Time	15-May-14 Thu	SB	NB							Total
12:00 PM		332	266							598
12:15		294	284							578
12:30		291	**333**							624
12:45		294	**352**							646
01:00		281	**317**							598
01:15		302	**308**							610
01:30		292	276							568
01:45		302	328							630
02:00		290	312							602
02:15		298	289							587
02:30		362	312							674
02:45		340	326							666
03:00		342	274							616
03:15		308	318							626
03:30		370	285							655
03:45		371	284							655
04:00		337	310							647
04:15		387	296							683
04:30		**450**	356							**806**
04:45		**434**	280							**714**
05:00		**478**	328							**806**
05:15		**482**	296							**778**
05:30		437	338							775
05:45		388	283							671
06:00		347	293							640
06:15		296	254							550
06:30		250	251							501
06:45		228	190							418
07:00		198	212							410
07:15		217	198							415
07:30		172	184							356
07:45		160	160							320
08:00		170	158							328
08:15		164	149							313
08:30		164	175							339
08:45		166	155							321
09:00		172	148							320
09:15		171	167							338
09:30		164	109							273
09:45		144	140							284
10:00		112	104							216
10:15		97	96							193
10:30		111	82							193
10:45		96	62							158
11:00		68	61							129
11:15		73	62							135
11:30		49	48							97
11:45		73	40							113
Total		12324	10849							23173
Percent		53.2%	46.8%							
Peak	-	16:30	12:30	-	-	-	-	-	-	16:30
Vol.	-	1844	1310	-	-	-	-	-	-	3104
P.H.F.		0.956	0.930							0.963
Grand Total		17026	18403							35429
Percent		48.1%	51.9%							

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

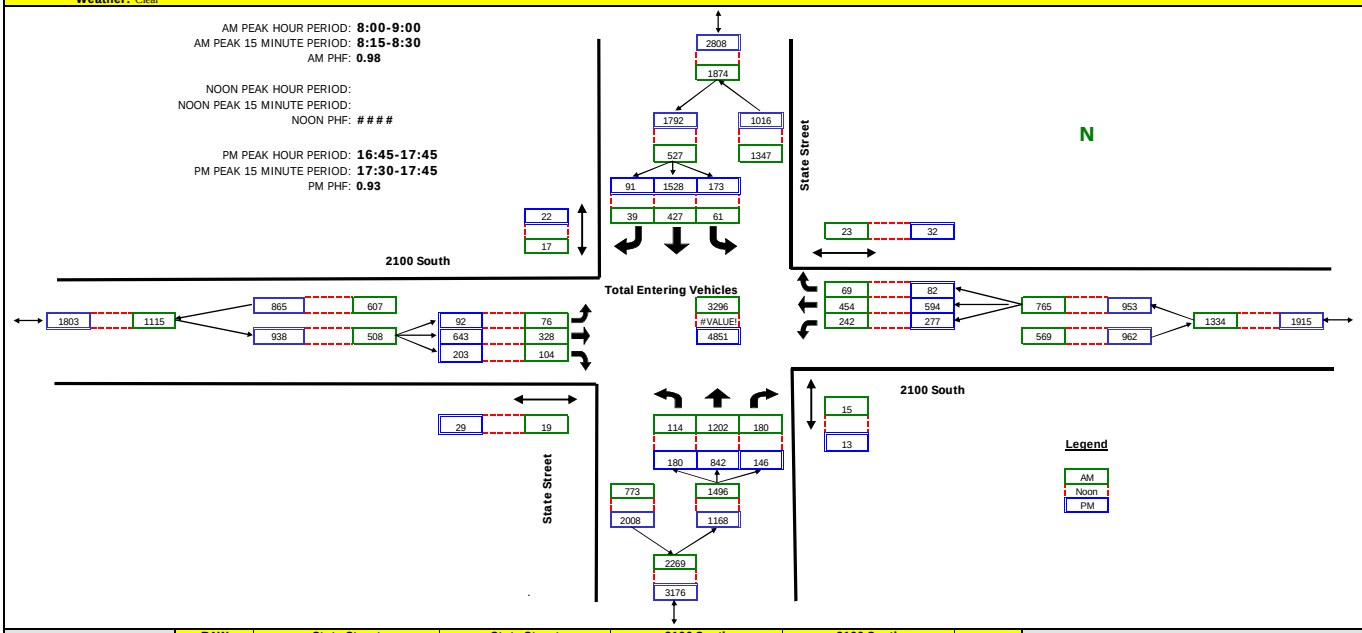
Intersection: State Street / 2100 South
North/South: State Street
East/West: 2100 South
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-21-14, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **8:00-9:00**
AM PEAK 15 MINUTE PERIOD: **8:15-8:30**
AM PHF: **0.98**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: ####

PM PEAK HOUR PERIOD: **16:45-17:45**
PM PEAK 15 MINUTE PERIOD: **17:30-17:45**
PM PHF: **0.93**



RAW COUNT SUMMARIES	State Street Northbound				State Street Southbound				2100 South Eastbound				2100 South Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	24	134	40	2	2	52	10	2	8	38	14	4	21	47	11	2	401
7:15-7:30	36	179	65	4	12	46	8	3	16	59	11	7	40	52	9	2	533
7:30-7:45	29	274	65	0	9	77	13	1	21	54	18	0	40	102	26	3	728
7:45-8:00	29	291	63	4	13	84	16	4	18	62	20	7	55	123	29	7	803
8:00-8:15	26	327	47	5	18	84	8	5	18	68	25	6	57	119	23	6	820
8:15-8:30	29	347	32	2	10	116	10	4	26	66	19	4	52	125	13	6	845
8:30-8:45	27	298	51	1	19	110	9	4	16	90	21	0	67	92	19	3	819
8:45-9:00	32	230	50	7	14	117	12	4	16	104	39	9	66	118	14	8	812

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	55	154	48	10	32	232	32	5	19	108	50	9	82	121	12	15	945
16:15-16:30	50	182	24	5	27	271	23	5	15	136	45	19	59	140	19	8	991
16:30-16:45	49	181	24	5	37	332	28	8	24	119	53	13	65	155	23	5	1090
16:45-17:00	55	214	33	6	39	335	21	8	32	131	51	10	56	137	21	8	1125
17:00-17:15	40	217	32	2	42	371	21	5	21	142	57	8	83	169	23	4	1218
17:15-17:30	51	203	40	4	57	370	17	5	19	175	48	4	78	130	21	11	1209
17:30-17:45	34	208	41	1	35	452	32	4	20	195	47	7	60	158	17	9	1299
17:45-18:00	46	194	42	2	32	241	20	3	36	189	49	5	55	126	19	2	1049

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

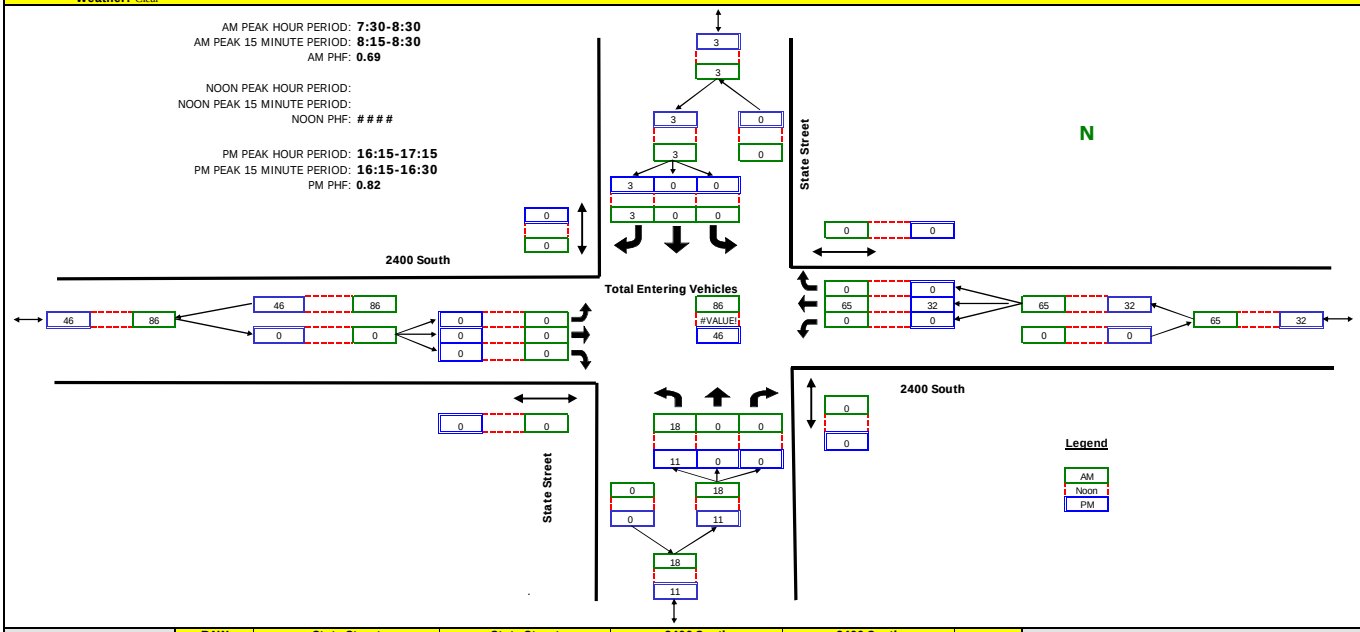
Intersection: State Street / 2400 South
North/South: State Street
East/West: 2400 South
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-20-14, Tue
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30-8:30**
AM PEAK 15 MINUTE PERIOD: **8:15-8:30**
AM PHF: **0.69**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:15-17:15**
PM PEAK 15 MINUTE PERIOD: **16:15-16:30**
PM PHF: **0.82**



RAW COUNT SUMMARIES	State Street Northbound				State Street Southbound				2400 South Eastbound				2400 South Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	5	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	9
7:15-7:30	4	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	22
7:30-7:45	5	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	13
7:45-8:00	4	0	0	0	0	0	1	0	0	0	0	0	0	17	0	0	22
8:00-8:15	4	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	20
8:15-8:30	5	0	0	0	0	0	2	0	0	0	0	0	0	24	0	0	31
8:30-8:45	2	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	10
8:45-9:00	1	0	0	0	0	0	2	0	0	0	0	0	0	8	0	0	11

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9
16:15-16:30	4	0	0	0	0	0	1	0	0	0	0	0	0	9	0	0	14
16:30-16:45	2	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	11
16:45-17:00	2	0	0	0	0	0	1	0	0	0	0	0	0	6	0	0	9
17:00-17:15	3	0	0	0	0	0	1	0	0	0	0	0	0	8	0	0	12
17:15-17:30	5	0	0	0	0	0	1	0	0	0	0	0	0	5	0	0	11
17:30-17:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
17:45-18:00	4	0	0	0	0	0	1	0	0	0	0	0	0	3	0	0	8

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

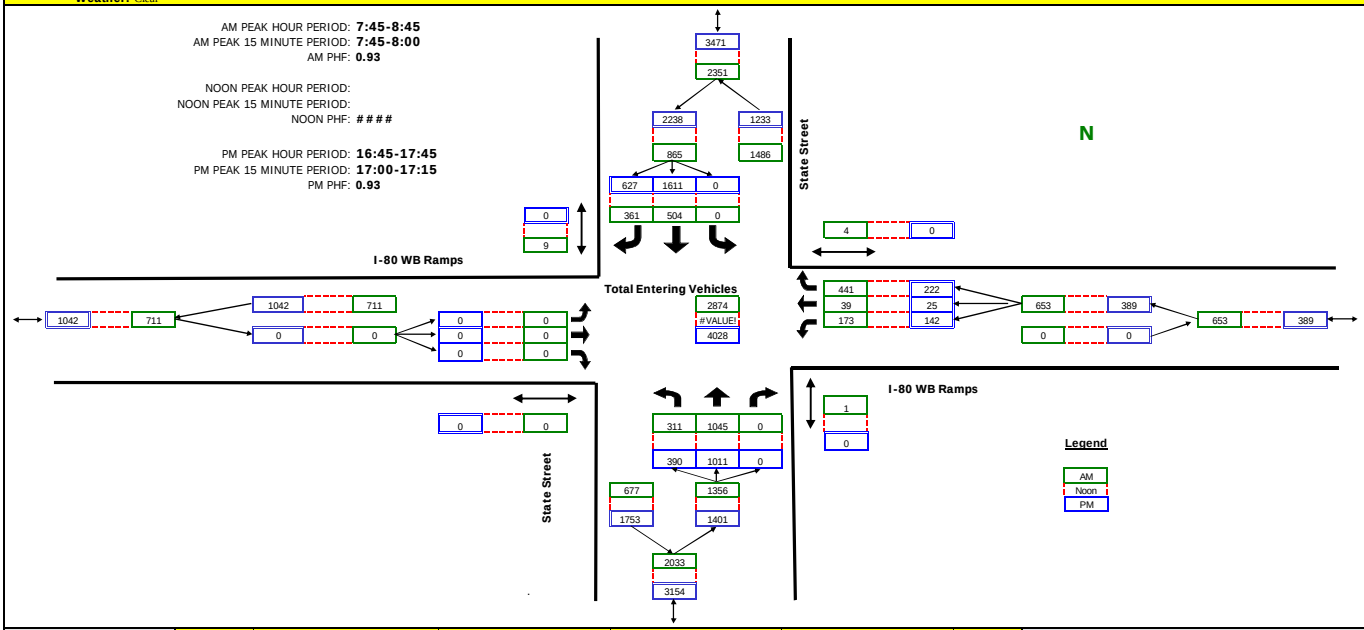
Intersection: State Street / I-80 WB Ramps
North/South: State Street
East/West: I-80 WB Ramps
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-20-14, Tue
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:45-8:45**
AM PEAK 15 MINUTE PERIOD: **7:45-8:00**
AM PHF: **0.93**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:45-17:45**
PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
PM PHF: **0.93**



RAW COUNT SUMMARIES	State Street Northbound				State Street Southbound				I-80 WB Ramps Eastbound				I-80 WB Ramps Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	61	151	0	0	0	70	56	2	0	0	0	0	22	4	46	0	410
7:15-7:30	82	190	0	2	0	75	57	1	0	0	0	0	14	7	46	0	471
7:30-7:45	97	253	0	0	0	108	101	1	0	0	0	0	48	9	78	0	694
7:45-8:00	90	311	0	0	0	118	87	2	0	0	0	0	48	17	100	0	771
8:00-8:15	70	251	0	0	0	132	94	4	0	0	0	0	40	10	93	1	690
8:15-8:30	77	238	0	0	0	115	91	0	0	0	0	0	42	8	136	1	707
8:30-8:45	74	245	0	1	0	139	89	3	0	0	0	0	43	4	112	2	706
8:45-9:00	55	215	0	3	0	137	86	0	0	0	0	0	38	4	94	1	629

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	117	242	0	0	0	338	182	0	0	0	0	0	48	6	62	1	995
16:15-16:30	88	265	0	0	0	313	124	0	0	0	0	0	48	8	40	0	886
16:30-16:45	113	235	0	0	0	305	133	0	0	0	0	0	53	11	56	0	906
16:45-17:00	102	261	0	0	0	364	142	0	0	0	0	0	40	8	68	0	985
17:00-17:15	114	246	0	0	0	411	199	0	0	0	0	0	39	8	62	0	1079
17:15-17:30	84	253	0	0	0	412	147	0	0	0	0	0	33	8	49	0	986
17:30-17:45	90	251	0	0	0	424	139	0	0	0	0	0	30	1	43	0	978
17:45-18:00	100	245	0	0	0	372	98	0	0	0	0	0	46	3	54	0	918

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

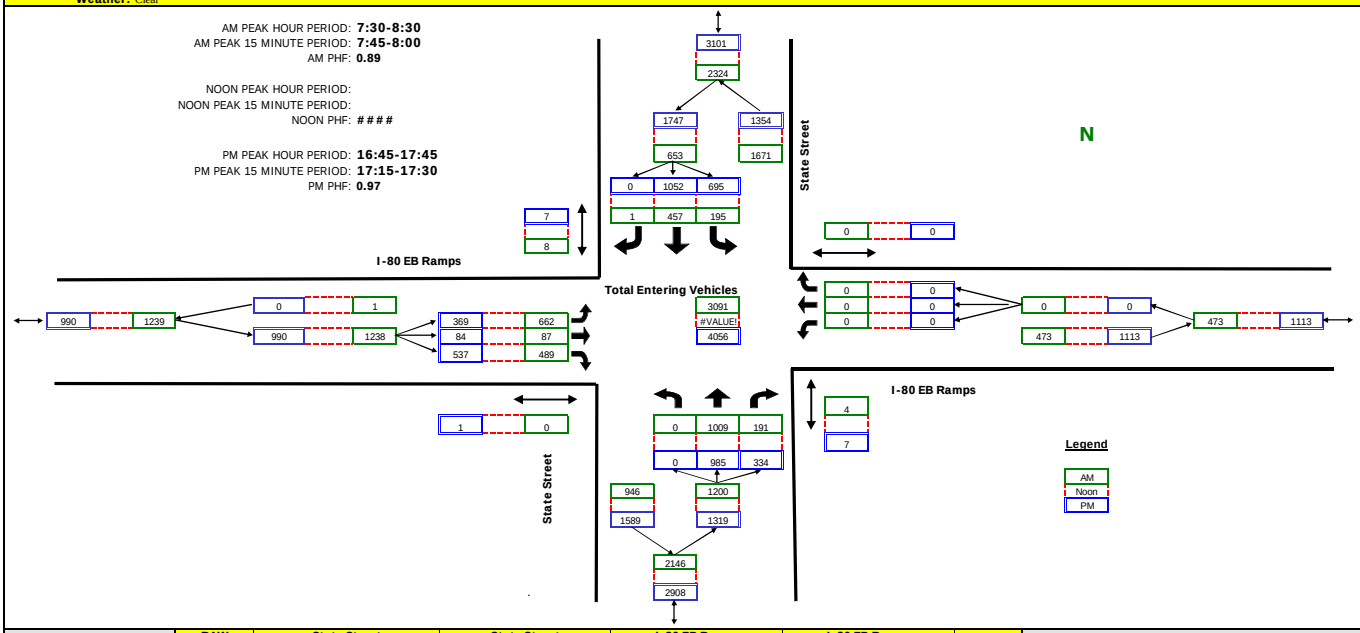
Intersection: State Street / I-80 EB Ramps
North/South: State Street
East/West: I-80 EB Ramps
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-20-14, Tue
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30-8:30**
AM PEAK 15 MINUTE PERIOD: **7:45-8:00**
AM PHF: **0.89**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:45-17:45**
PM PEAK 15 MINUTE PERIOD: **17:15-17:30**
PM PHF: **0.97**



RAW COUNT SUMMARIES	State Street Northbound				State Street Southbound				I-80 EB Ramps Eastbound				I-80 EB Ramps Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	149	25	1	15	62	4	1	101	22	83	0	0	0	0	0	461
7:15-7:30	0	189	33	1	36	84	0	1	133	10	124	0	0	0	0	0	609
7:30-7:45	0	270	55	1	35	101	0	2	145	17	112	0	0	0	0	0	735
7:45-8:00	0	264	48	0	61	129	0	3	197	32	142	0	0	0	0	0	873
8:00-8:15	0	253	46	3	45	101	1	3	181	20	117	0	0	0	0	0	764
8:15-8:30	0	222	42	0	54	126	0	0	139	18	118	0	0	0	0	0	719
8:30-8:45	0	232	44	3	57	111	1	1	127	17	98	1	0	0	0	0	687
8:45-9:00	0	206	35	3	64	167	0	0	137	25	124	0	0	0	0	0	758

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	251	68	1	128	213	0	0	119	18	113	0	0	0	0	0	910
16:15-16:30	0	237	64	2	144	236	0	1	107	22	118	0	0	0	0	0	928
16:30-16:45	0	217	67	1	140	224	0	0	118	18	128	0	0	0	0	0	912
16:45-17:00	0	244	80	0	171	287	0	1	85	17	142	0	0	0	0	0	1026
17:00-17:15	0	256	83	5	186	232	0	2	100	28	131	0	0	0	0	0	1016
17:15-17:30	0	250	84	2	177	273	0	2	90	17	151	0	0	0	0	0	1042
17:30-17:45	0	235	87	0	161	260	0	2	94	22	113	1	0	0	0	0	972
17:45-18:00	0	289	70	3	146	251	0	2	91	19	98	0	0	0	0	0	964

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

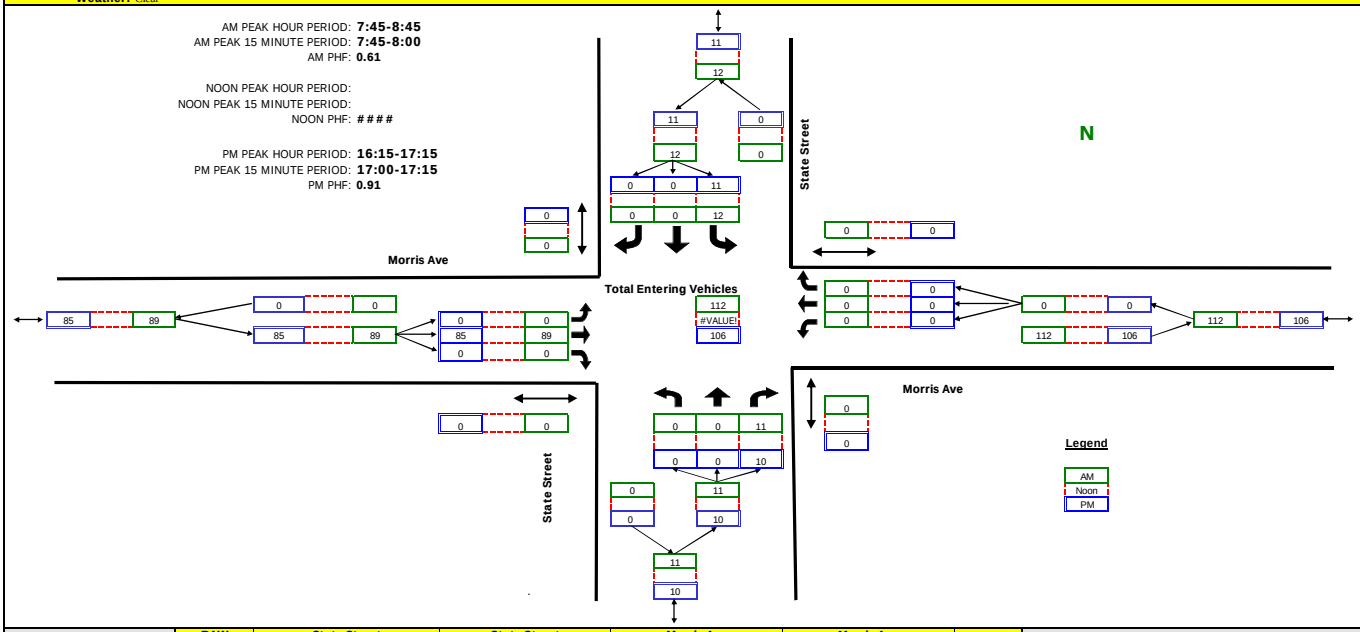
Intersection: State Street / Morris Ave
North/South: State Street
East/West: Morris Ave
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-20-14, Tue
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:45-8:45**
AM PEAK 15 MINUTE PERIOD: **7:45-8:00**
AM PHF: **0.61**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: ####

PM PEAK HOUR PERIOD: **16:15-17:15**
PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
PM PHF: **0.91**



RAW COUNT SUMMARIES	State Street Northbound				State Street Southbound				Morris Ave Eastbound				Morris Ave Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	0	0	0	3	0	0	0	0	10	0	0	0	0	0	0	13
7:15-7:30	0	0	0	0	3	0	0	0	0	11	0	0	0	0	0	0	14
7:30-7:45	0	0	0	0	1	0	0	0	0	18	0	0	0	0	0	0	19
7:45-8:00	0	0	6	0	6	0	0	0	0	34	0	0	0	0	0	0	46
8:00-8:15	0	0	2	0	2	0	0	0	0	22	0	0	0	0	0	0	26
8:15-8:30	0	0	0	0	4	0	0	0	0	16	0	0	0	0	0	0	20
8:30-8:45	0	0	3	0	0	0	0	0	0	17	0	0	0	0	0	0	20
8:45-9:00	0	0	1	0	4	0	0	0	0	24	0	0	0	0	0	0	29

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	0	2	0	2	0	0	0	0	18	0	0	0	0	0	0	22
16:15-16:30	0	0	2	0	0	0	0	0	0	26	0	0	0	0	0	0	28
16:30-16:45	0	0	3	0	2	0	0	0	0	19	0	0	0	0	0	0	24
16:45-17:00	0	0	2	0	7	0	0	0	0	16	0	0	0	0	0	0	25
17:00-17:15	0	0	3	0	2	0	0	0	0	24	0	0	0	0	0	0	29
17:15-17:30	0	0	0	0	2	0	0	0	0	17	0	0	0	0	0	0	19
17:30-17:45	0	0	4	0	2	0	0	0	0	20	0	0	0	0	0	0	26
17:45-18:00	0	0	1	0	6	0	0	0	0	18	0	0	0	0	0	0	25

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

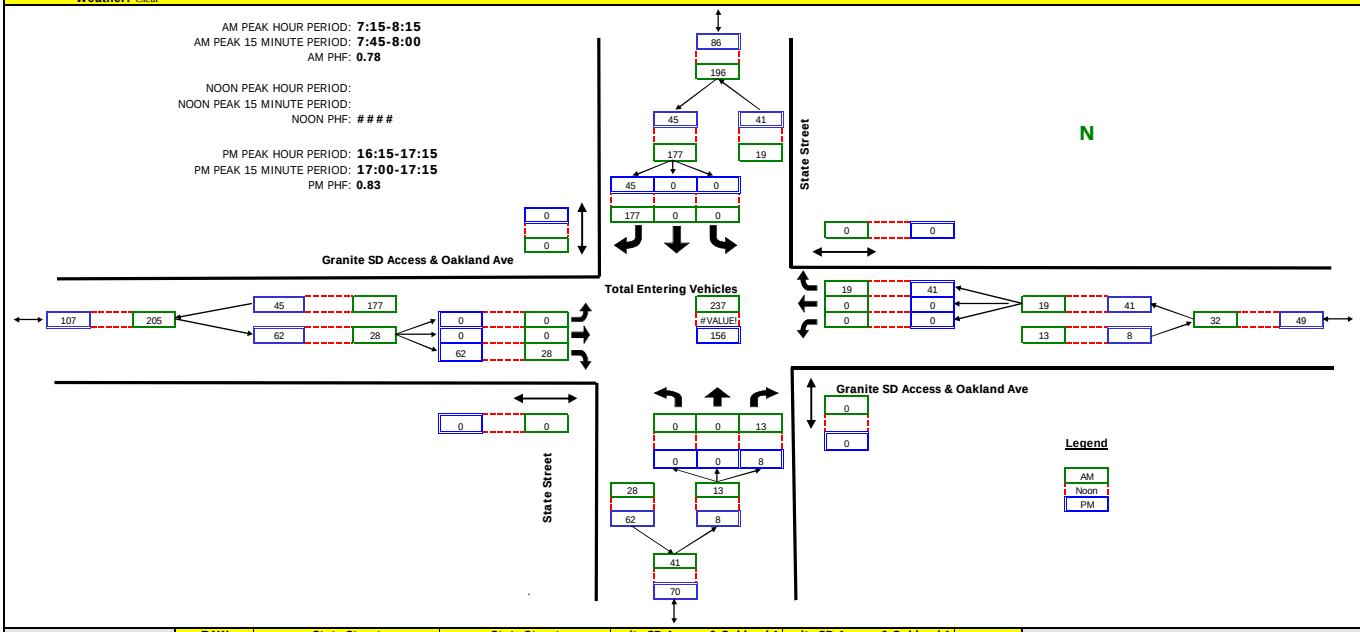
Intersection: State Street / Granite SD Access & Oakland Ave
North/South: State Street
East/West: Granite SD Access & Oakland Ave
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-20-14, Tue
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:15-8:15**
AM PEAK 15 MINUTE PERIOD: **7:45-8:00**
AM PHF: **0.78**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: ####

PM PEAK HOUR PERIOD: **16:15-17:15**
PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
PM PHF: **0.83**



RAW COUNT SUMMARIES	State Street Northbound				State Street Southbound				Granite SD Access & Oakland Ave Eastbound				Granite SD Access & Oakland Ave Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	0	1	0	0	0	26	0	0	0	0	0	0	0	5	0	32
7:15-7:30	0	0	0	0	0	0	46	0	0	0	8	0	0	0	4	0	58
7:30-7:45	0	0	2	0	0	0	44	0	0	0	6	0	0	0	7	0	59
7:45-8:00	0	0	5	0	0	0	56	0	0	0	9	0	0	0	6	0	76
8:00-8:15	0	0	6	0	0	0	31	0	0	0	5	0	0	0	2	0	44
8:15-8:30	0	0	5	0	0	0	24	0	0	0	4	0	0	0	3	0	36
8:30-8:45	0	0	3	0	0	0	23	0	0	0	9	0	0	0	5	0	40
8:45-9:00	0	0	2	0	0	0	31	0	0	0	12	0	0	0	3	0	48

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	0	1	0	0	0	8	0	0	0	25	0	0	0	9	0	43
16:15-16:30	0	0	4	0	0	0	16	0	0	0	11	0	0	0	7	0	38
16:30-16:45	0	0	0	0	0	0	14	0	0	0	17	0	0	0	11	0	42
16:45-17:00	0	0	2	0	0	0	7	0	0	0	15	0	0	0	5	0	29
17:00-17:15	0	0	2	0	0	0	8	0	0	0	19	0	0	0	18	0	47
17:15-17:30	0	0	3	0	0	0	2	0	0	0	5	0	0	0	10	0	20
17:30-17:45	0	0	2	0	0	0	1	0	0	0	14	0	0	0	9	0	26
17:45-18:00	0	0	4	0	0	0	2	0	0	0	5	0	0	0	8	0	19

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

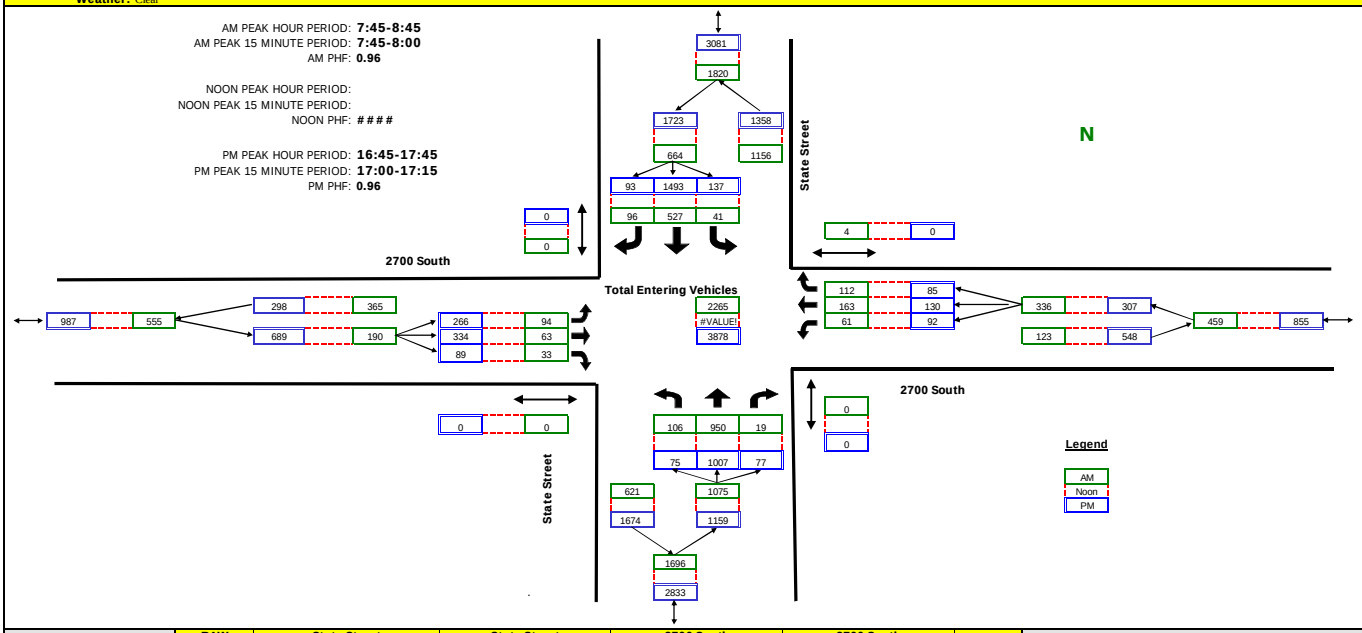
Intersection: State Street / 2700 South
North/South: State Street
East/West: 2700 South
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-21-14, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:45-8:45**
AM PEAK 15 MINUTE PERIOD: **7:45-8:00**
AM PHF: **0.96**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: ####

PM PEAK HOUR PERIOD: **16:45-17:45**
PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
PM PHF: **0.96**



RAW COUNT SUMMARIES	State Street Northbound				State Street Southbound				2700 South Eastbound				2700 South Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	4	126	3	1	13	85	11	0	11	11	4	0	12	18	17	1	315
7:15-7:30	8	167	6	1	7	90	16	0	20	14	8	0	12	41	21	1	410
7:30-7:45	17	243	5	0	9	99	11	0	17	10	9	0	22	38	33	4	513
7:45-8:00	28	255	4	0	13	112	17	0	31	21	6	0	24	52	27	1	590
8:00-8:15	26	269	8	0	11	133	23	0	18	11	7	0	9	33	35	2	583
8:15-8:30	23	207	3	0	10	148	25	0	24	17	7	0	8	38	28	1	538
8:30-8:45	29	219	4	0	7	134	31	0	21	14	13	0	20	40	22	0	554
8:45-9:00	33	196	3	0	3	157	31	0	30	10	19	0	22	53	27	0	584

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	17	213	8	0	28	256	27	0	44	83	21	0	16	34	14	0	761
16:15-16:30	20	240	14	0	33	285	21	0	33	50	8	0	32	24	22	0	782
16:30-16:45	18	236	14	0	37	324	18	0	56	66	14	0	17	30	16	0	846
16:45-17:00	17	244	14	0	28	352	26	0	60	70	25	0	21	25	19	0	901
17:00-17:15	25	247	25	0	40	328	24	0	93	97	25	0	28	54	29	0	1015
17:15-17:30	13	244	21	0	36	428	23	0	63	91	15	0	14	26	12	0	986
17:30-17:45	20	272	17	0	33	385	20	0	50	76	24	0	29	25	25	0	976
17:45-18:00	22	254	10	0	30	331	12	0	33	56	22	0	23	29	25	0	847

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

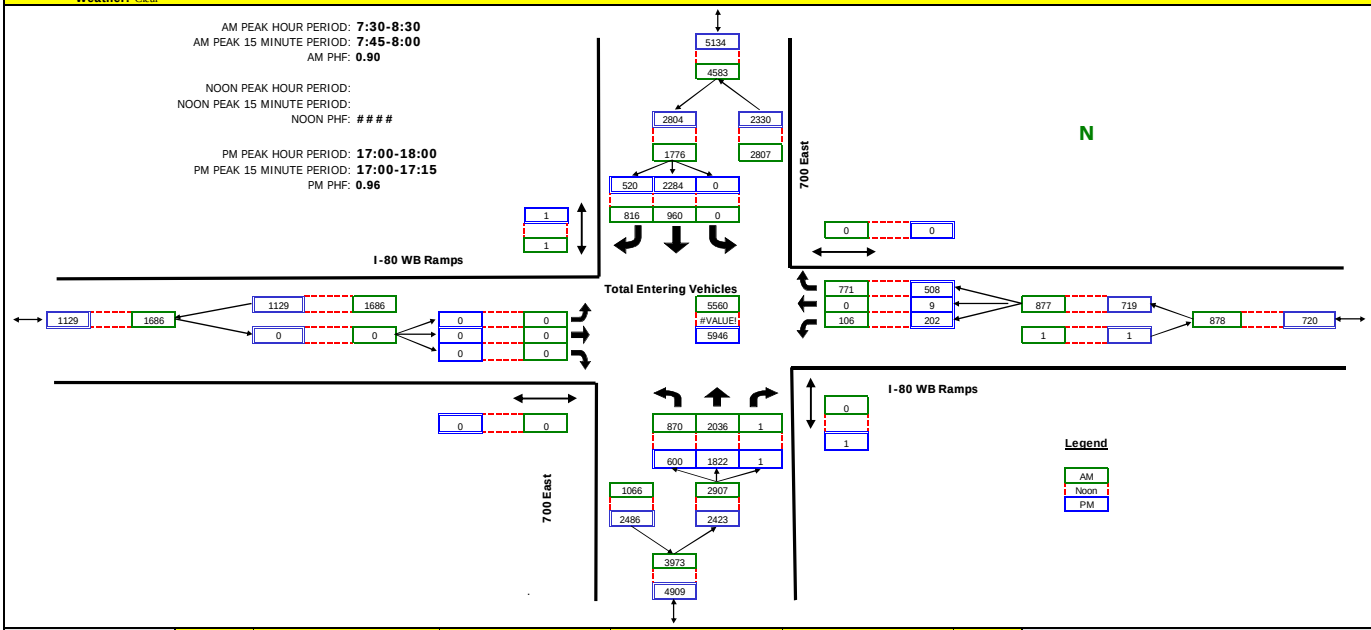
Intersection: 700 East / I-80 WB Ramps
North/South: 700 East
East/West: I-80 WB Ramps
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-22-14, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30-8:30**
AM PEAK 15 MINUTE PERIOD: **7:45-8:00**
AM PHF: **0.90**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **17:00-18:00**
PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
PM PHF: **0.96**



RAW COUNT SUMMARIES	700 East Northbound				700 East Southbound				I-80 WB Ramps Eastbound				I-80 WB Ramps Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00-7:15	149	305	0	1	0	111	144	0	0	0	0	0	10	1	60	0	780
7:15-7:30	203	390	0	0	0	141	156	0	0	0	0	0	13	0	107	0	1010
7:30-7:45	254	578	0	0	0	207	221	0	0	0	0	0	18	0	198	0	1476
7:45-8:00	251	523	1	0	0	271	216	0	0	0	0	0	35	0	246	0	1543
8:00-8:15	185	464	0	0	0	232	196	1	0	0	0	0	22	0	177	0	1276
8:15-8:30	180	471	0	0	0	250	183	0	0	0	0	0	31	0	150	0	1265
8:30-8:45	184	454	0	0	0	284	204	0	0	0	0	0	24	0	177	0	1327
8:45-9:00	174	473	0	1	0	277	164	1	0	0	0	0	26	0	159	0	1273
NOON PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00-16:15	134	380	0	1	0	474	177	0	0	0	0	0	26	0	89	0	1280
16:15-16:30	130	374	0	1	0	484	168	0	0	0	0	0	31	0	83	0	1270
16:30-16:45	111	410	0	0	0	555	194	1	0	0	0	0	39	0	83	0	1392
16:45-17:00	139	396	0	0	0	558	138	1	0	0	0	0	47	0	101	0	1379
17:00-17:15	140	479	1	1	0	627	162	1	0	0	0	0	45	2	94	0	1550
17:15-17:30	165	446	0	0	0	568	132	0	0	0	0	0	62	4	141	0	1518
17:30-17:45	140	461	0	0	0	572	125	0	0	0	0	0	43	3	137	0	1481
17:45-18:00	155	436	0	0	0	517	101	0	0	0	0	0	52	0	136	0	1397

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

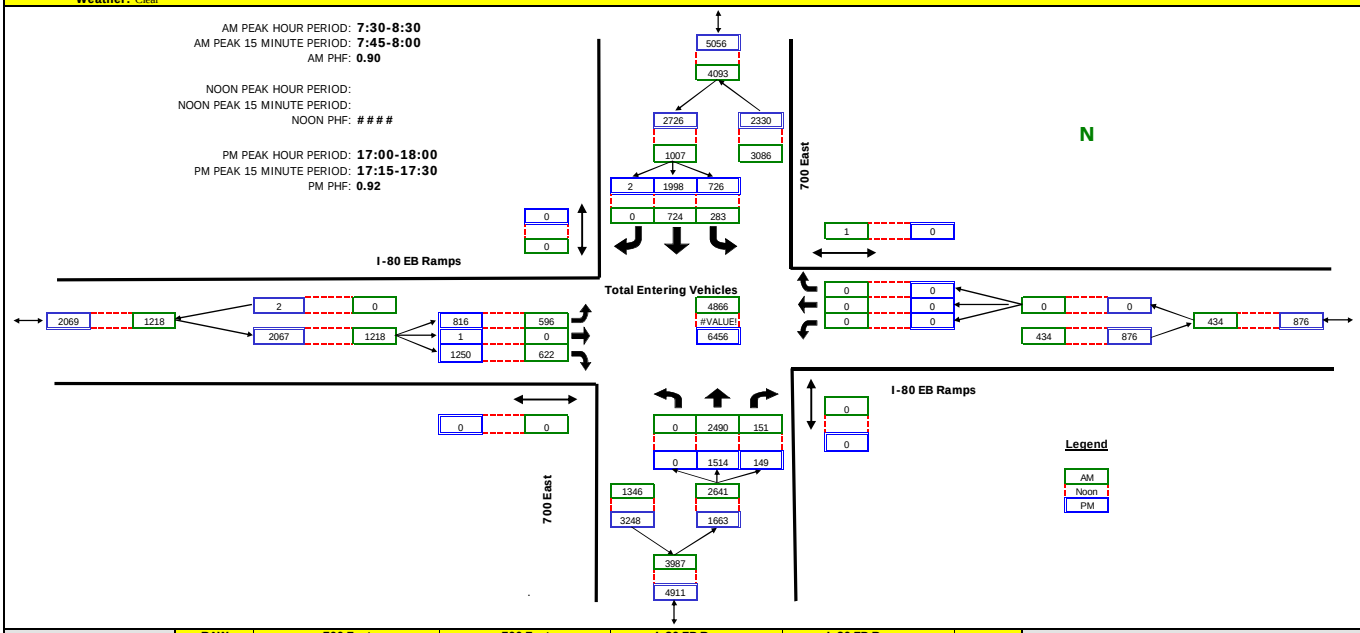
Intersection: 700 East / I-80 EB Ramps
North/South: 700 East
East/West: I-80 EB Ramps
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-22-14, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30-8:30**
AM PEAK 15 MINUTE PERIOD: **7:45-8:00**
AM PHF: **0.90**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **17:00-18:00**
PM PEAK 15 MINUTE PERIOD: **17:15-17:30**
PM PHF: **0.92**



RAW COUNT SUMMARIES	700 East Northbound				700 East Southbound				I-80 EB Ramps Eastbound				I-80 EB Ramps Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	335	34	0	32	98	0	0	100	1	98	0	0	0	0	0	698
7:15-7:30	0	522	47	0	35	100	0	0	113	0	79	0	0	0	0	0	896
7:30-7:45	0	632	34	0	57	145	0	0	166	0	139	0	0	0	0	0	1173
7:45-8:00	0	721	41	0	71	224	0	0	152	0	147	0	0	0	0	0	1356
8:00-8:15	0	512	40	0	68	178	0	0	145	0	169	0	0	0	0	0	1112
8:15-8:30	0	625	36	0	87	177	0	0	133	0	167	0	0	0	0	1	1225
8:30-8:45	0	517	40	0	93	181	0	0	139	0	145	0	0	0	0	0	1115
8:45-9:00	0	597	41	0	83	206	0	0	159	1	136	0	0	0	0	0	1223

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	324	24	0	126	332	0	0	150	3	182	0	0	0	0	0	1141
16:15-16:30	0	352	15	0	130	380	0	0	169	0	249	0	0	0	0	0	1295
16:30-16:45	0	304	40	0	154	406	0	0	187	0	249	0	0	0	0	0	1340
16:45-17:00	0	360	32	0	164	441	0	0	179	32	275	0	0	0	0	0	1483
17:00-17:15	0	364	29	0	205	493	0	0	199	1	312	0	0	0	0	0	1603
17:15-17:30	0	450	31	0	178	521	0	0	206	0	367	0	0	0	0	0	1753
17:30-17:45	0	321	36	0	198	518	0	0	204	0	304	0	0	0	0	0	1581
17:45-18:00	0	379	53	0	145	466	2	0	207	0	267	0	0	0	0	0	1519

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

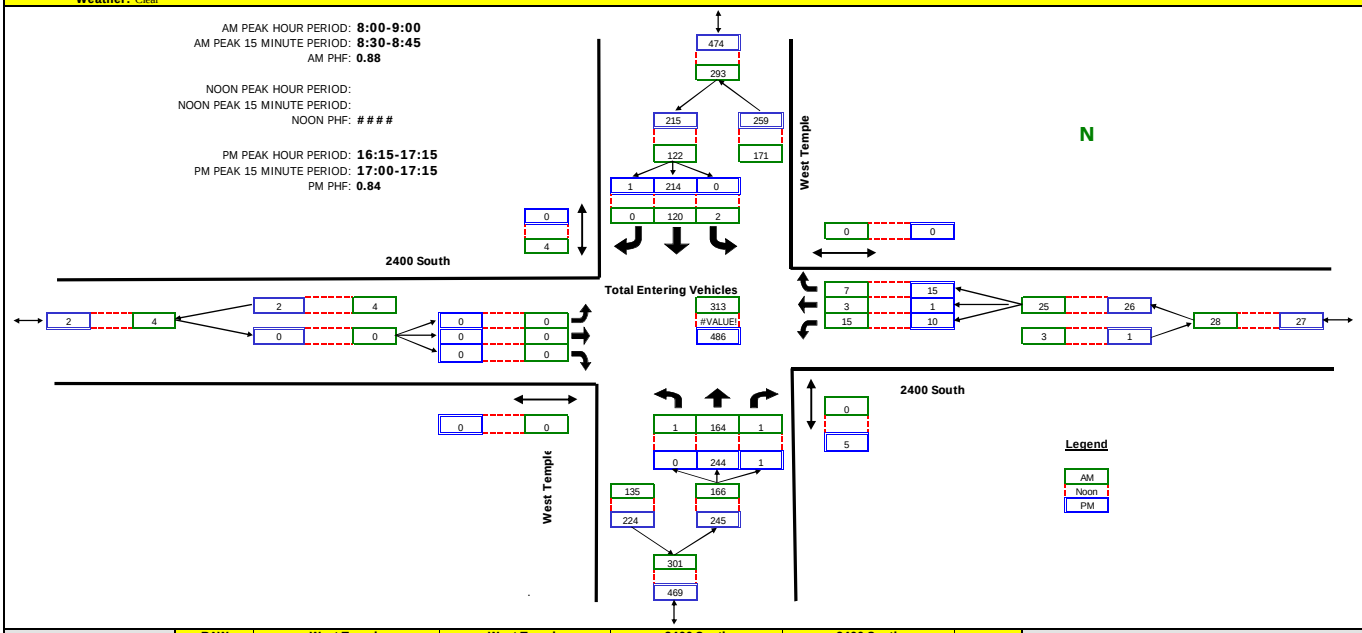
Intersection: West Temple / 2400 South
North/South: West Temple
East/West: 2400 South
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-15-14, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **8:00-9:00**
AM PEAK 15 MINUTE PERIOD: **8:30-8:45**
AM PHF: **0.88**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:15-17:15**
PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
PM PHF: **0.84**



RAW COUNT SUMMARIES	West Temple Northbound				West Temple Southbound				2400 South Eastbound				2400 South Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	27	0	0	0	13	0	0	0	0	0	0	8	0	3	0	51
7:15-7:30	1	31	0	1	0	21	0	0	0	0	0	0	5	1	1	0	60
7:30-7:45	0	26	0	0	0	20	0	1	0	0	0	0	5	1	0	0	52
7:45-8:00	0	38	0	3	0	20	0	0	0	0	0	0	1	0	4	0	63
8:00-8:15	1	41	0	0	1	24	0	1	0	0	0	0	4	1	2	0	74
8:15-8:30	0	33	1	0	0	26	0	3	0	0	0	0	3	1	2	0	66
8:30-8:45	0	46	0	0	1	35	0	0	0	0	0	0	4	1	2	0	89
8:45-9:00	0	44	0	0	0	35	0	0	0	0	0	0	4	0	1	0	84

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	64	0	1	1	51	0	0	0	0	0	0	1	0	2	0	119
16:15-16:30	0	69	0	0	0	52	1	0	0	0	0	0	1	0	6	0	129
16:30-16:45	0	55	0	5	0	50	0	0	0	0	0	0	1	1	2	0	109
16:45-17:00	0	49	1	0	0	44	0	0	0	0	0	0	7	0	3	0	104
17:00-17:15	0	71	0	0	0	68	0	0	0	0	0	0	1	0	4	0	144
17:15-17:30	0	55	0	0	1	55	0	0	0	0	0	0	2	0	1	0	114
17:30-17:45	0	47	1	0	0	54	0	3	0	0	0	0	4	0	3	0	109
17:45-18:00	0	28	0	0	1	45	0	0	0	0	0	0	1	0	2	0	77

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

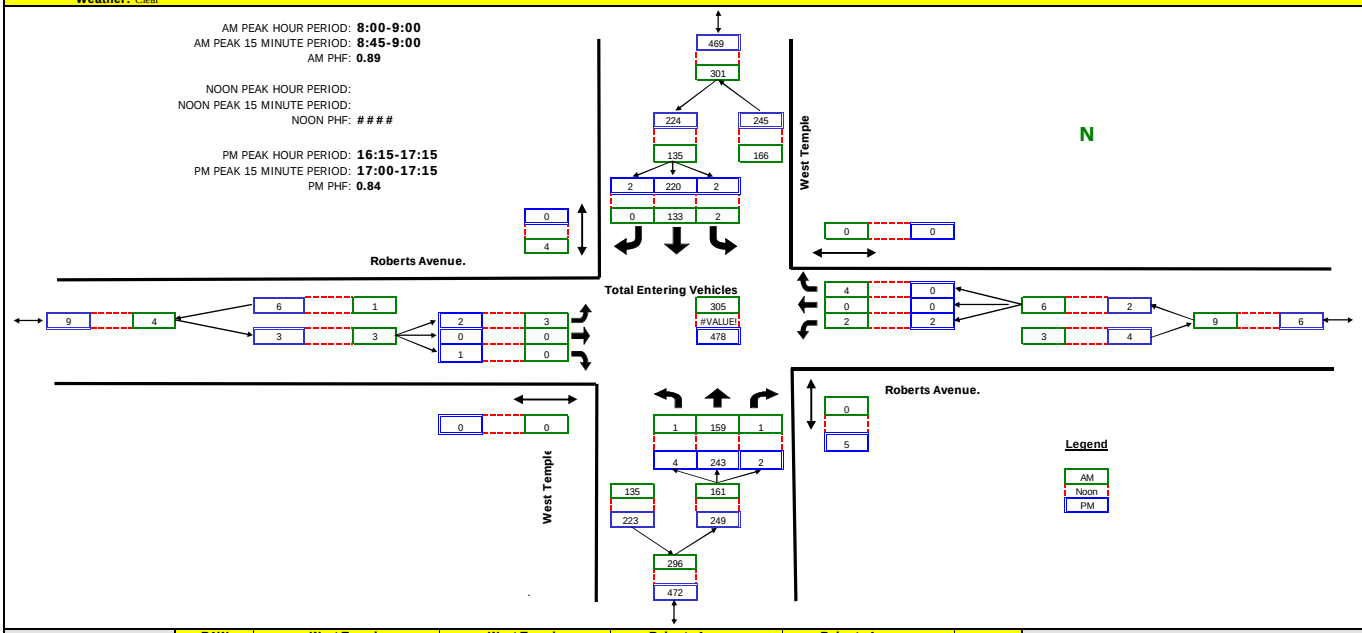
Intersection: West Temple / Roberts Avenue.
North/South: West Temple
East/West: Roberts Avenue.
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-15-14, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **8:00-9:00**
AM PEAK 15 MINUTE PERIOD: **8:45-9:00**
AM PHF: **0.89**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:15-17:15**
PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
PM PHF: **0.84**



RAW COUNT SUMMARIES	West Temple Northbound				West Temple Southbound				Roberts Avenue. Eastbound				Roberts Avenue. Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	25	1	0	0	21	0	0	1	0	0	0	0	0	1	0	49
7:15-7:30	1	32	0	1	0	23	3	0	0	0	0	0	4	0	0	0	63
7:30-7:45	0	26	0	0	0	25	0	1	0	0	1	0	0	0	0	0	52
7:45-8:00	0	37	0	3	0	21	0	0	0	0	0	0	0	0	1	0	59
8:00-8:15	0	39	1	0	0	28	0	1	1	0	0	0	0	0	2	0	71
8:15-8:30	0	32	0	0	2	27	0	3	1	0	0	0	0	0	1	0	63
8:30-8:45	0	45	0	0	0	39	0	0	0	0	0	0	0	0	1	0	85
8:45-9:00	1	43	0	0	0	39	0	0	1	0	0	0	2	0	0	0	86

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	64	0	1	0	51	1	0	0	0	0	0	0	0	0	0	116
16:15-16:30	1	68	0	0	2	51	0	0	1	0	0	0	1	0	0	0	124
16:30-16:45	2	55	0	5	0	51	0	0	0	0	1	0	0	0	0	0	109
16:45-17:00	0	50	1	0	0	49	2	0	0	0	0	0	0	0	0	0	102
17:00-17:15	1	70	1	0	0	69	0	0	1	0	0	0	1	0	0	0	143
17:15-17:30	0	53	0	0	0	56	1	0	1	0	1	0	0	0	1	0	113
17:30-17:45	0	48	1	0	1	57	0	3	0	0	0	0	0	0	0	0	107
17:45-18:00	0	28	0	0	1	45	0	0	1	0	0	0	0	0	1	0	76

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

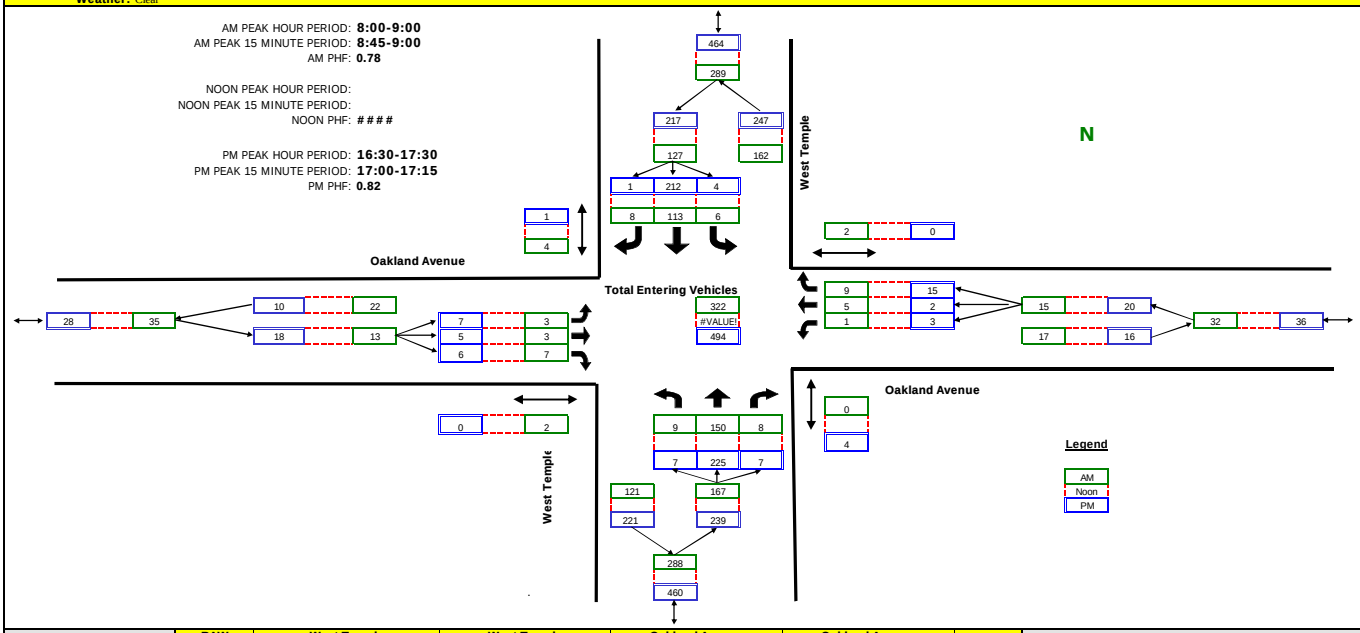
Intersection: West Temple / Oakland Avenue
North/South: West Temple
East/West: Oakland Avenue
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-15-14, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **8:00-9:00**
AM PEAK 15 MINUTE PERIOD: **8:45-9:00**
AM PHF: **0.78**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:30-17:30**
PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
PM PHF: **0.82**



RAW COUNT SUMMARIES	West Temple Northbound				West Temple Southbound				Oakland Avenue Eastbound				Oakland Avenue Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	3	24	1	0	1	17	2	0	0	1	0	0	2	1	1	0	53
7:15-7:30	5	29	1	2	2	23	2	0	2	0	2	0	0	3	2	0	71
7:30-7:45	3	27	0	0	2	21	0	0	0	0	2	0	0	1	1	0	57
7:45-8:00	0	41	1	1	1	15	1	1	0	0	1	1	1	1	0	0	62
8:00-8:15	1	35	2	0	1	24	3	1	2	0	3	0	0	1	3	0	75
8:15-8:30	2	28	1	0	4	19	1	3	0	1	0	2	0	0	4	2	60
8:30-8:45	1	41	2	0	0	33	2	0	1	1	2	0	0	1	0	0	84
8:45-9:00	5	46	3	0	1	37	2	0	0	1	2	0	1	3	2	0	103

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	1	65	3	1	0	36	1	0	2	0	0	0	3	0	0	0	111
16:15-16:30	0	61	3	0	0	53	2	0	1	0	0	1	1	0	4	0	125
16:30-16:45	2	51	1	4	3	46	0	1	1	2	0	0	1	0	6	0	113
16:45-17:00	0	51	3	0	0	41	0	0	1	1	1	0	1	1	4	0	104
17:00-17:15	3	67	2	0	0	68	1	0	3	0	4	0	0	0	2	0	150
17:15-17:30	2	56	1	0	1	57	0	0	2	2	1	0	1	1	3	0	127
17:30-17:45	0	47	1	0	0	57	1	2	0	1	0	0	1	0	0	0	108
17:45-18:00	0	27	0	0	1	49	0	1	0	0	0	0	0	0	0	0	77

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

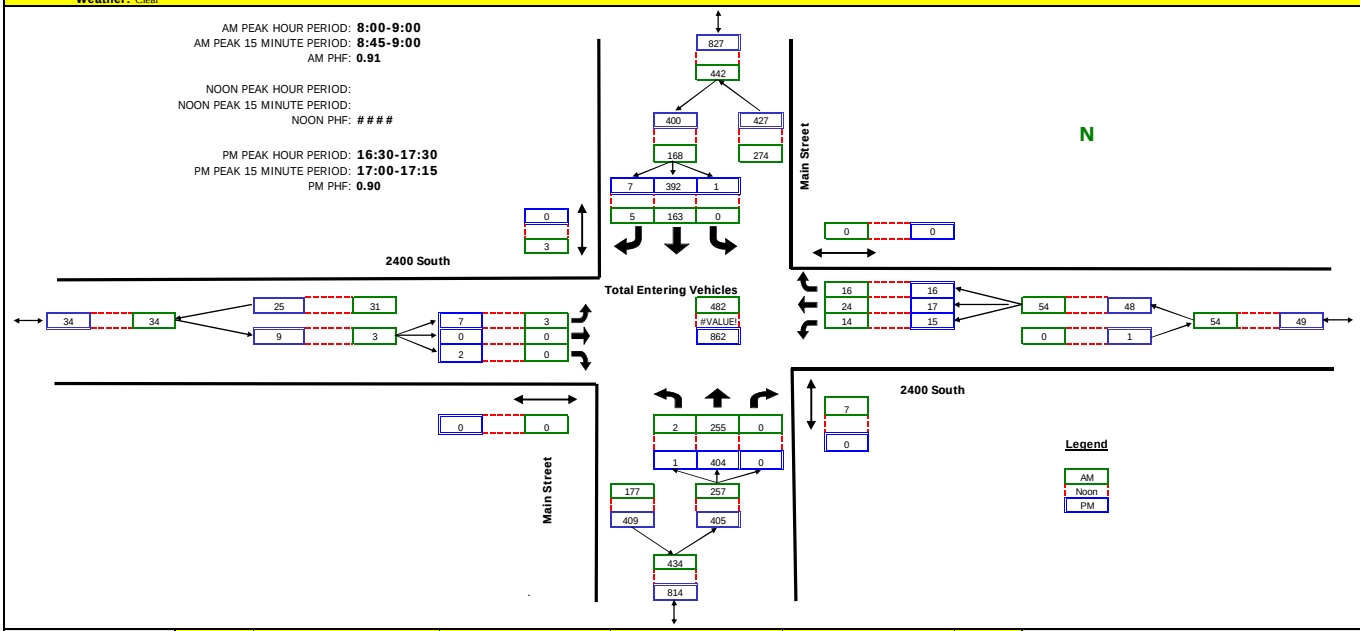
Intersection: Main Street / 2400 South
North/South: Main Street
East/West: 2400 South
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-15-14, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **8:00-9:00**
AM PEAK 15 MINUTE PERIOD: **8:45-9:00**
AM PHF: **0.91**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:30-17:30**
PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
PM PHF: **0.90**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				2400 South Eastbound				2400 South Westbound			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	1	24	0	2	0	13	0	0	0	0	0	0	2	12	4	0	56
7:15-7:30	0	54	0	0	0	22	1	2	1	0	2	0	3	7	1	0	91
7:30-7:45	0	56	0	2	0	29	0	3	0	0	1	0	7	5	3	0	101
7:45-8:00	0	68	0	2	0	31	0	3	0	0	0	0	4	6	4	1	113
8:00-8:15	1	60	0	2	0	26	1	0	1	0	0	0	2	7	2	0	100
8:15-8:30	1	68	0	0	0	38	2	1	1	0	0	0	3	5	6	0	124
8:30-8:45	0	70	0	2	0	35	0	2	1	0	0	0	3	8	8	0	125
8:45-9:00	0	57	0	3	0	64	2	0	0	0	0	0	6	4	0	0	133

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	1	106	0	0	1	77	2	0	4	0	1	0	3	2	3	0	200
16:15-16:30	2	102	0	0	0	79	1	0	0	0	0	0	3	6	3	0	196
16:30-16:45	0	104	0	0	0	93	2	0	2	0	1	0	9	1	5	0	217
16:45-17:00	1	99	0	0	0	85	1	0	2	0	0	0	2	11	2	0	203
17:00-17:15	0	127	0	0	1	100	2	0	1	0	1	0	2	1	5	0	240
17:15-17:30	0	74	0	0	0	114	2	0	2	0	0	0	2	4	4	0	202
17:30-17:45	1	92	0	0	0	95	0	0	0	0	0	0	2	5	3	0	198
17:45-18:00	0	86	0	0	0	74	2	0	0	0	0	0	2	1	0	0	165

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

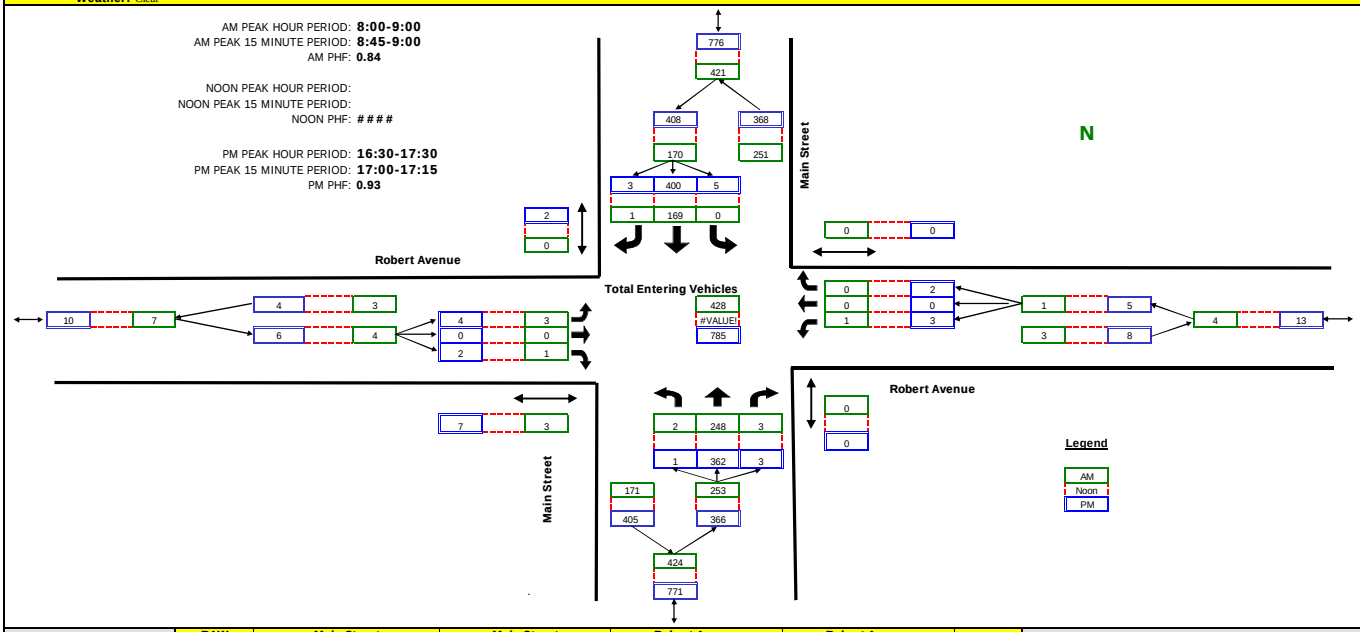
Intersection: Main Street / Robert Avenue
North/South: Main Street
East/West: Robert Avenue
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-15-14, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **8:00-9:00**
AM PEAK 15 MINUTE PERIOD: **8:45-9:00**
AM PHF: **0.84**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:30-17:30**
PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
PM PHF: **0.93**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				Robert Avenue Eastbound				Robert Avenue Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	30	1	0	0	17	0	0	0	0	0	2	1	0	0	0	49
7:15-7:30	1	52	0	0	0	25	1	0	0	0	0	2	2	0	0	0	81
7:30-7:45	0	49	0	0	0	34	0	0	0	0	0	3	0	0	0	0	83
7:45-8:00	3	70	0	0	0	33	0	0	1	0	1	4	0	0	0	0	108
8:00-8:15	1	55	0	0	0	28	0	0	1	0	0	0	0	0	0	0	85
8:15-8:30	0	68	2	0	0	38	0	0	0	0	1	1	0	0	0	0	109
8:30-8:45	1	65	0	0	0	38	0	0	2	0	0	2	1	0	0	0	107
8:45-9:00	0	60	1	0	0	65	1	0	0	0	0	0	0	0	0	0	127

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	102	2	0	0	77	1	0	0	0	0	1	0	0	0	0	182
16:15-16:30	2	94	0	0	1	78	2	1	1	0	2	0	3	0	1	0	184
16:30-16:45	0	88	1	0	0	109	1	0	2	0	1	0	0	0	0	0	202
16:45-17:00	0	95	1	0	0	86	1	0	0	0	0	2	1	0	1	0	185
17:00-17:15	0	110	0	0	4	94	0	2	1	0	0	4	1	0	1	0	211
17:15-17:30	1	69	1	0	1	111	1	0	1	0	1	1	1	0	0	0	187
17:30-17:45	0	86	1	0	3	98	0	0	1	0	2	1	0	0	0	0	191
17:45-18:00	1	82	1	0	0	71	0	0	0	0	0	2	1	0	3	0	159

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

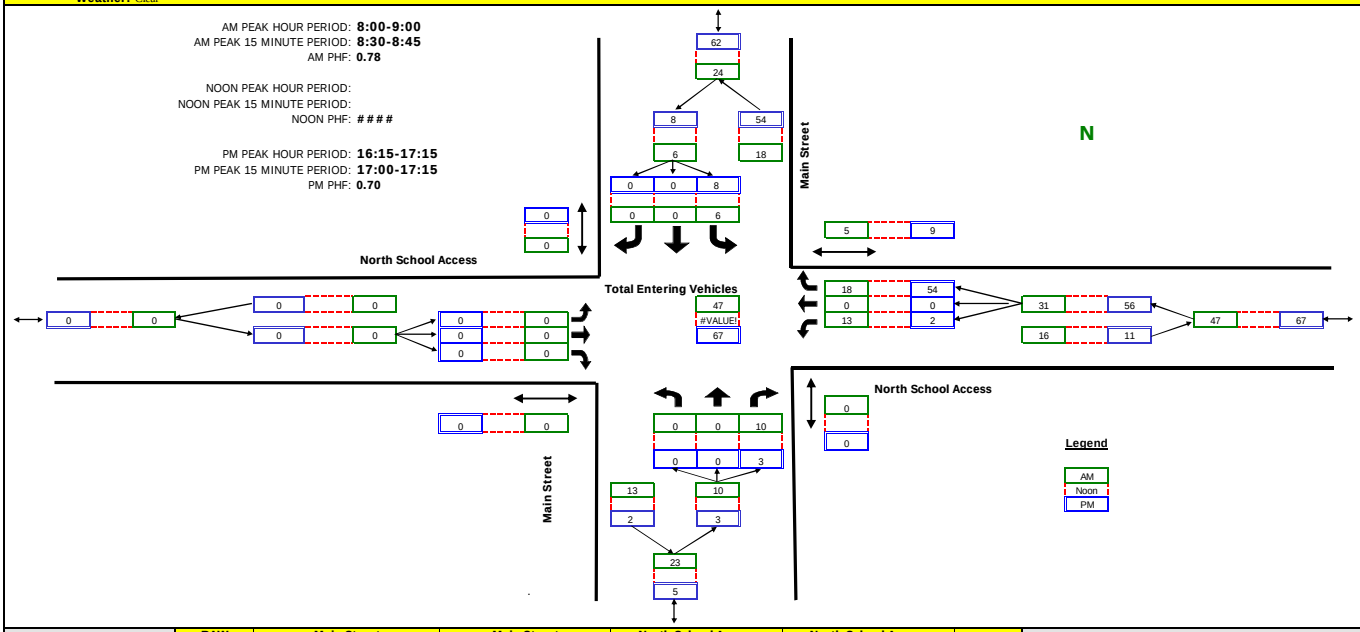
Intersection: Main Street / North School Access
North/South: Main Street
East/West: North School Access
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-15-14, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **8:00-9:00**
AM PEAK 15 MINUTE PERIOD: **8:30-8:45**
AM PHF: **0.78**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:15-17:15**
PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
PM PHF: **0.70**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				North School Access Eastbound				North School Access Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	0	1	0	1	0	0	0	0	0	0	0	2	0	3	3	7
7:15-7:30	0	0	3	0	2	0	0	0	0	0	0	0	2	0	2	0	9
7:30-7:45	0	0	2	0	4	0	0	0	0	0	0	0	1	0	5	2	12
7:45-8:00	0	0	2	0	2	0	0	0	0	0	0	0	2	0	4	1	10
8:00-8:15	0	0	1	0	0	0	0	0	0	0	0	0	2	0	6	1	9
8:15-8:30	0	0	1	0	2	0	0	0	0	0	0	0	2	0	6	0	11
8:30-8:45	0	0	7	0	1	0	0	0	0	0	0	0	4	0	3	1	15
8:45-9:00	0	0	1	0	3	0	0	0	0	0	0	0	5	0	3	3	12

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	12	4	13
16:15-16:30	0	0	0	0	4	0	0	0	0	0	0	0	1	0	9	0	14
16:30-16:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	18	0	19
16:45-17:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	3	10
17:00-17:15	0	0	3	0	2	0	0	0	0	0	0	0	1	0	18	6	24
17:15-17:30	0	0	1	0	0	0	0	0	0	0	0	0	3	0	10	3	14
17:30-17:45	0	0	1	0	1	0	0	0	0	0	0	0	1	0	11	1	14
17:45-18:00	0	0	1	0	0	0	0	0	0	0	0	0	2	0	9	0	12

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

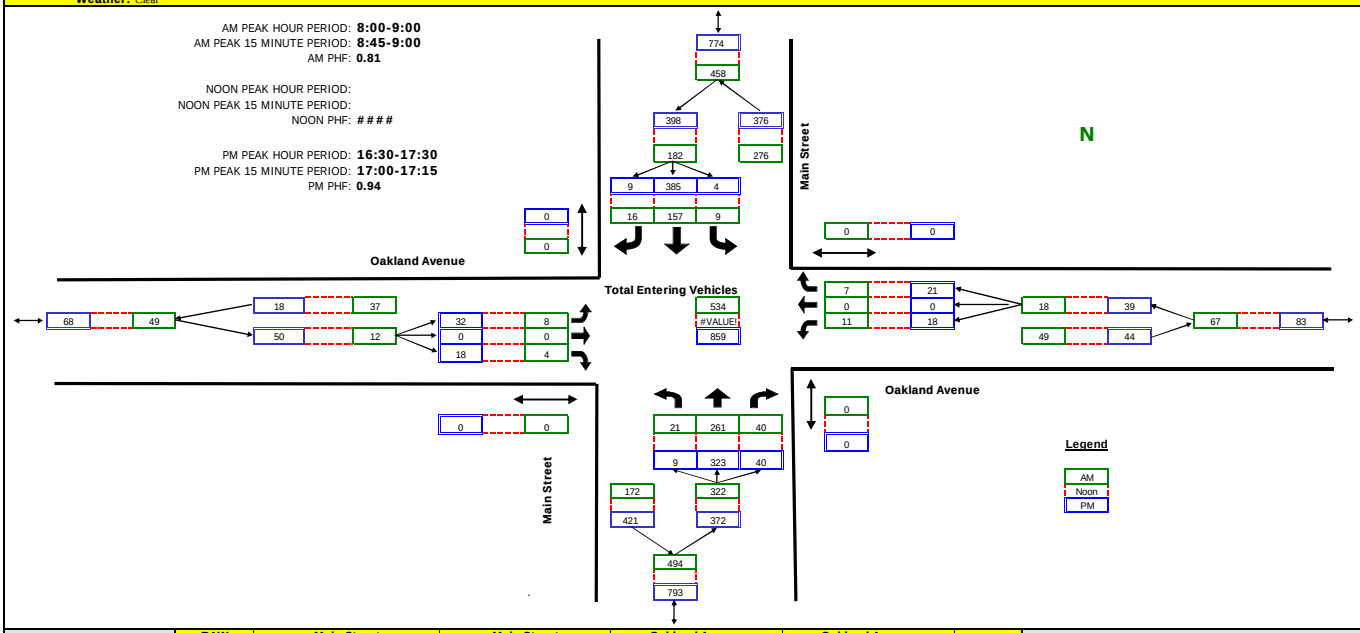
Intersection: Main Street / Oakland Avenue
North/South: Main Street
East/West: Oakland Avenue
Jurisdiction: South Salt Lake
Project Title: I-80 / State Street EIS
Project No: P576
Weather: Clear

Date: 5-15-14, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **8:00-9:00**
AM PEAK 15 MINUTE PERIOD: **8:45-9:00**
AM PHF: **0.81**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:30-17:30**
PM PEAK 15 MINUTE PERIOD: **17:00-17:15**
PM PHF: **0.94**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				Oakland Avenue Eastbound				Oakland Avenue Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	4	18	6	0	1	14	4	3	3	0	0	0	0	0	1	0	51
7:15-7:30	8	49	10	0	0	19	3	2	3	0	0	0	2	0	0	0	94
7:30-7:45	7	50	9	0	1	28	4	0	0	0	0	0	9	0	2	0	110
7:45-8:00	4	64	6	0	1	26	2	0	0	0	0	0	3	0	3	0	109
8:00-8:15	6	66	7	0	2	31	4	0	2	0	1	0	1	0	3	0	123
8:15-8:30	6	56	8	0	3	24	3	0	3	0	0	0	3	0	0	0	106
8:30-8:45	3	73	8	0	2	43	3	0	1	0	2	0	4	0	2	0	141
8:45-9:00	6	66	17	0	2	59	6	0	2	0	1	0	3	0	2	0	164

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	3	82	5	0	0	72	1	0	12	0	3	0	6	0	7	0	191
16:15-16:30	1	82	7	0	0	84	1	0	6	0	3	0	2	0	4	0	190
16:30-16:45	2	79	4	0	0	100	3	0	14	0	5	0	2	0	6	0	215
16:45-17:00	4	75	13	0	2	82	3	0	5	0	7	0	7	0	6	0	204
17:00-17:15	0	103	15	0	1	89	1	0	8	0	3	0	3	0	6	0	229
17:15-17:30	3	66	8	0	1	114	2	0	5	0	3	0	6	0	3	0	211
17:30-17:45	0	71	8	0	1	100	1	0	9	0	2	0	6	0	3	0	201
17:45-18:00	1	83	4	0	0	64	3	0	4	0	1	0	2	0	1	0	163

Appendix B

2014 Conditions
VISSIM Analysis Results

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	AM Vol Int	AM Demand	AM% Served	AM CI
1: 2100 South & State Street - 1@1466.4 - 5@66.	W-S	EBR	EB							143				
1: 2100 South & State Street - 1@1466.4 - 7@52.	W-E	EBT	EB							385				
1: 2100 South & State Street - 2@1436.2 - 6@43.	E-W	WBT	WB							449				
1: 2100 South & State Street - 3@1101.7 - 5@66.	N-S	SBT	SB							491				
1: 2100 South & State Street - 4@1030.9 - 8@54.	S-N	NBT	NB							1186				
1: 2100 South & State Street - 159@247.6 - 7@5	S-E	NBR	NB							182				
1: 2100 South & State Street - 160@288.7 - 6@4	S-W	NBL	NB							124				
1: 2100 South & State Street - 161@166.4 - 5@6	E-S	WBL	WB							248				
1: 2100 South & State Street - 162@103.9 - 8@5	W-N	EBL	EB							2				
1: 2100 South & State Street - 163@132.4 - 6@4	N-W	SBR	SB							43				
1: 2100 South & State Street - 164@371.3 - 7@5	N-E	SBL	SB							63				
1: 2100 South & State Street - 165@166.9 - 8@5	E-N	WBR	WB	27.30039662	C					68	3384	3400	99.5%	3.369533068
2: Street Car Crossing & State Street - 5@1044.2	N-S	SBT	SB							880				
2: Street Car Crossing & State Street - 5@1044.2	N-W	SBR	SB							0				
2: Street Car Crossing & State Street - 10@1228.3	S-N	NBT	NB							1495				
2: Street Car Crossing & State Street - 174@664.9	W-S	EBR	EB							0				
2: Street Car Crossing & State Street - 175@210.6	W-N	EBL	EB							0				
2: Street Car Crossing & State Street - 177@146.2	S-W	NBL	NB	4.657352279	A					0	2375	2370	100.2%	1.654763089
3: WB I-80 & State Street - 90@8.1 - 10@47.0	S-N	NBT	NB							1057				
3: WB I-80 & State Street - 96@9.7 - 37@36.9	S-W	NBL	NB							20				
3: WB I-80 & State Street - 96@9.7 - 118@45.7	S-W	NBL	NB							392				
3: WB I-80 & State Street - 124@1240.6 - 37@36.	E-W	WBT	WB							68				
3: WB I-80 & State Street - 124@1240.6 - 91@34.	E-S	WBL	WB							155				
3: WB I-80 & State Street - 124@1240.6 - 118@4	E-W	WBT	WB							0				
3: WB I-80 & State Street - 125@249.7 - 10@47.0	E-N	WBR	WB							436				
3: WB I-80 & State Street - 155@285.8 - 97@42.0	N-S	SBT	SB							211				
3: WB I-80 & State Street - 156@284.4 - 37@36.9	N-W	SBR	SB							5				
3: WB I-80 & State Street - 156@284.4 - 118@45.	N-W	SBR	SB							361				
3: WB I-80 & State Street - 157@282.8 - 91@34.5	N-S	SBT	SB	17.76276362	B					301	3006	3010	99.9%	2.614399557
4: EB I-80 & State Street - 92@5.5 - 12@38.2	N-S	SBT	SB							0				
4: EB I-80 & State Street - 98@6.3 - 25@59.6	N-E	SBL	SB							13				
4: EB I-80 & State Street - 98@6.3 - 122@62.0	N-E	SBL	SB							199				
4: EB I-80 & State Street - 120@1810.3 - 25@59.6	W-E	EBT	EB							89				
4: EB I-80 & State Street - 120@1810.3 - 89@28.3	W-N	EBL	EB							550				
4: EB I-80 & State Street - 120@1810.3 - 122@62	W-E	EBT	EB							0				
4: EB I-80 & State Street - 121@193.1 - 12@38.2	W-S	EBR	EB							499				
4: EB I-80 & State Street - 144@76.3 - 89@28.3	S-N	NBT	NB							505				
4: EB I-80 & State Street - 145@75.0 - 25@59.6	S-E	NBR	NB							12				
4: EB I-80 & State Street - 145@75.0 - 10032@97	S-E	NBR	NB							194				
4: EB I-80 & State Street - 146@331.6 - 95@47.4	S-N	NBT	NB							411				
4: EB I-80 & State Street - 10063@12.6 - 12@38.2	N-S	SBT	SB	21.28120841	C	29.66634065	B			454	2926	2925	100.0%	1.979516717
5: Oakland & State Street - 12@191.7 - 12@266.5	N-S	SBT	SB							954				
5: Oakland & State Street - 22@609.6 - 11@42.3	E-N	WBR	WB					5.428928	A	18				
5: Oakland & State Street - 146@91.4 - 146@181	S-N	NBT	NB							409				
5: Oakland & State Street - 147@71.3 - 11@42.3	S-N	NBT	NB							694				
5: Oakland & State Street - 147@71.3 - 21@32.7	S-E	NBR	NB	0.692438861	A					9	2084	2080	100.2%	0.1794628
6: East Grantie SD RIRO & State Street - 12@274.	N-W	SBR	SB							176				
6: East Grantie SD RIRO & State Street - 12@274.	N-S	SBT	SB							775				
6: East Grantie SD RIRO & State Street - 23@259.	W-S	EBR	EB					6.078792	A	28				
6: East Grantie SD RIRO & State Street - 10004@1	S-N	NBT	NB							704				
6: East Grantie SD RIRO & State Street - 10008@1	S-N	NBT	NB	0.678458901	A					410	2093	2090	100.1%	0.284528856
7: 2700 South & State Street - 14@1205.4 - 16@1	N-S	SBT	SB							608				
7: 2700 South & State Street - 15@1184.3 - 13@5	S-N	NBT	NB							928				
7: 2700 South & State Street - 17@647.5 - 16@1	W-S	EBR	EB							30				
7: 2700 South & State Street - 17@647.5 - 19@11	W-E	EBT	EB							61				
7: 2700 South & State Street - 20@820.0 - 18@7	E-W	WBT	WB							155				
7: 2700 South & State Street - 148@291.2 - 18@7	S-W	NBL	NB							109				
7: 2700 South & State Street - 149@150.8 - 19@1	S-E	NBR	NB							22				
7: 2700 South & State Street - 150@28.0 - 13@57	W-N	EBL	EB							89				
7: 2700 South & State Street - 153@329.4 - 19@1	N-E	SBL	SB							61				
7: 2700 South & State Street - 154@188.7 - 18@7	N-W	SBR	SB							133				
7: 2700 South & State Street - 10014@53.9 - 13@	E-N	WBR	WB							101				
7: 2700 South & State Street - 10015@17.9 - 16@	E-S	WBL	WB	14.82220617	B					64	2361	2350	100.5%	1.810971433
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	SBT	SB							619				
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB							2214				
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	NBL	NB							860				

8: WB I-80 & 700 East - 135@1579.2 - 73@63.1	E-S	WBL	WB						113				
8: WB I-80 & 700 East - 135@1579.2 - 137@28.7	E-SW	WBL	WB						0				
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	WBR	WB						768				
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	SBT	SB						281				
8: WB I-80 & 700 East - 169@299.3 - 137@28.7	N-SW	SBR	SB	10.37258063 B					818	5673	5690	99.7%	1.350482262
9: EB I-80 & 700 East - 74@24.8 - 10189@12.0	N-S	SBT	SB						730				
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB						1618				
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB						281				
9: EB I-80 & 700 East - 133@1231.9 - 79@56.2	W-N	EBL	EB						601				
9: EB I-80 & 700 East - 133@1231.9 - 140@66.9	W-NE	EBL	EB						0				
9: EB I-80 & 700 East - 134@318.9 - 10188@13.8	W-S	EBR	EB						640				
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	NBT	NB						865				
9: EB I-80 & 700 East - 167@274.8 - 140@66.9	S-NE	NBR	NB						153				
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	SBT	SB	20.2191339 C	24.53169794 B				65	4953	4870	101.7%	1.927430583
10: 2400 S & West Temple - 33@704.1 - 35@43.9	E-W	WBT	WB						4				
10: 2400 S & West Temple - 33@704.1 - 56@30.3	E-N	WBR	WB						9				
10: 2400 S & West Temple - 33@704.1 - 10106@	E-S	WBL	WB			7.02836075 A			15				
10: 2400 S & West Temple - 34@51.1 - 32@34.2	W-E	EBT	EB						0				
10: 2400 S & West Temple - 34@51.1 - 56@30.3	W-N	EBL	EB						0				
10: 2400 S & West Temple - 34@51.1 - 10106@1	W-S	EBR	EB			#DIV/0!	#DIV/0!		0				
10: 2400 S & West Temple - 57@353.0 - 32@34.2	N-E	SBL	SB						2				
10: 2400 S & West Temple - 57@353.0 - 35@43.9	N-W	SBR	SB						0				
10: 2400 S & West Temple - 57@353.0 - 10106@	N-S	SBT	SB						117				
10: 2400 S & West Temple - 10107@1.9 - 32@34	S-E	NBR	NB						1				
10: 2400 S & West Temple - 10107@1.9 - 35@43	S-W	NBL	NB						0				
10: 2400 S & West Temple - 10107@1.9 - 56@30	S-N	NBT	NB	0.805831522 A					155	303	316	95.9%	0.388318827
11: Robert Ave. & West Temple - 28@710.2 - 30@	E-W	WBT	WB						0				
11: Robert Ave. & West Temple - 28@710.2 - 45@	E-S	WBL	WB						2				
11: Robert Ave. & West Temple - 28@710.2 - 48@	E-N	WBR	WB			5.6007575 A			5				
11: Robert Ave. & West Temple - 31@117.4 - 29@	W-E	EBT	EB						0				
11: Robert Ave. & West Temple - 31@117.4 - 45@	W-S	EBR	EB						0				
11: Robert Ave. & West Temple - 31@117.4 - 48@	W-N	EBL	EB			#DIV/0!	#DIV/0!		1				
11: Robert Ave. & West Temple - 44@282.3 - 29@	S-E	NBR	NB						3				
11: Robert Ave. & West Temple - 44@282.3 - 30@	S-W	NBL	NB						0				
11: Robert Ave. & West Temple - 44@282.3 - 48@	S-N	NBT	NB						153				
11: Robert Ave. & West Temple - 49@19.8 - 29@	N-E	SBL	SB						2				
11: Robert Ave. & West Temple - 49@19.8 - 30@	N-W	SBR	SB						0				
11: Robert Ave. & West Temple - 49@19.8 - 45@	N-S	SBT	SB	0.298313489 A					131	297	306	97.1%	0.198034687
12: Oakland Ave & West Temple - 40@711.0 - 42	E-W	WBT	WB						5				
12: Oakland Ave & West Temple - 40@711.0 - 44	E-N	WBR	WB						9				
12: Oakland Ave & West Temple - 40@711.0 - 47	E-S	WBL	WB			6.8997468 A			4				
12: Oakland Ave & West Temple - 43@473.0 - 41	W-E	EBT	EB						3				
12: Oakland Ave & West Temple - 43@473.0 - 44	W-N	EBL	EB						3				
12: Oakland Ave & West Temple - 43@473.0 - 47	W-S	EBR	EB			6.905527 A			8				
12: Oakland Ave & West Temple - 45@261.8 - 41	N-E	SBL	SB						9				
12: Oakland Ave & West Temple - 45@261.8 - 42	N-W	SBR	SB						9				
12: Oakland Ave & West Temple - 45@261.8 - 47	N-S	SBT	SB						116				
12: Oakland Ave & West Temple - 46@527.0 - 41	S-E	NBR	NB						11				
12: Oakland Ave & West Temple - 46@527.0 - 42	S-W	NBL	NB						8				
12: Oakland Ave & West Temple - 46@527.0 - 44	S-N	NBT	NB	0.894360068 A					147	332	332	100.0%	0.319416405
13: 2400 S & Main Street - 32@716.9 - 36@24.3	W-E	EBT	EB						0				
13: 2400 S & Main Street - 32@716.9 - 55@6.1	W-S	EBR	EB						0				
13: 2400 S & Main Street - 32@716.9 - 58@21.9	W-N	EBL	EB			7.633997 A			5				
13: 2400 S & Main Street - 37@672.9 - 33@22.5	E-W	WBT	WB						21				
13: 2400 S & Main Street - 37@672.9 - 55@6.1	E-S	WBL	WB						13				
13: 2400 S & Main Street - 37@672.9 - 58@21.9	E-N	WBR	WB			10.54120629 B			20				
13: 2400 S & Main Street - 54@239.9 - 33@22.5	S-W	NBL	NB						2				
13: 2400 S & Main Street - 54@239.9 - 36@24.3	S-E	NBR	NB						0				
13: 2400 S & Main Street - 54@239.9 - 58@21.9	S-N	NBT	NB						278				
13: 2400 S & Main Street - 59@503.7 - 33@22.5	N-W	SBR	SB						4				
13: 2400 S & Main Street - 59@503.7 - 36@24.3	N-E	SBL	SB						0				
13: 2400 S & Main Street - 59@503.7 - 55@6.1	N-S	SBT	SB	1.183385946 A					162	505	508	99.4%	0.504255491
14: Robert Ave. & Main Street - 26@405.6 - 28@	E-W	WBT	WB						0				
14: Robert Ave. & Main Street - 26@405.6 - 54@	E-N	WBR	WB						0				
14: Robert Ave. & Main Street - 26@405.6 - 61@	E-S	WBL	WB			#DIV/0!	#DIV/0!		0				
14: Robert Ave. & Main Street - 29@709.2 - 27@	W-E	EBT	EB						0				
14: Robert Ave. & Main Street - 29@709.2 - 54@	W-N	EBL	EB						4				

14: Robert Ave. & Main Street - 29@709.2 - 61@ W-S	EBR	EB		8.186767 A	0				
14: Robert Ave. & Main Street - 55@232.4 - 27@. N-E	SBL	SB			0				
14: Robert Ave. & Main Street - 55@232.4 - 28@. N-W	SBR	SB			4				
14: Robert Ave. & Main Street - 55@232.4 - 61@ N-S	SBT	SB			170				
14: Robert Ave. & Main Street - 60@63.7 - 27@2. S-E	NBR	NB			3				
14: Robert Ave. & Main Street - 60@63.7 - 28@2 S-W	NBL	NB			1				
14: Robert Ave. & Main Street - 60@63.7 - 54@1. S-N	NBT	NB	0.099555461 A		277	459	466	98.5%	0.102382205
15: N Granite SD Access & Main Street - 39@121. E-N	WBR	WB			15				
15: N Granite SD Access & Main Street - 39@121. E-S	WBL	WB		1.004186667 A	14				
15: N Granite SD Access & Main Street - 61@36.1 N-E	SBL	SB			6				
15: N Granite SD Access & Main Street - 61@36.1 N-S	SBT	SB			167				
15: N Granite SD Access & Main Street - 62@135. S-E	NBR	NB			9				
15: N Granite SD Access & Main Street - 62@135. S-N	NBT	NB	0.10772361 A		265	476	482	98.8%	0.09784913
16: Oakland Ave. & Main Street - 41@707.2 - 62@ W-N	EBL	EB			9				
16: Oakland Ave. & Main Street - 41@707.2 - 67@ W-S	EBR	EB		6.703488 A	13				
16: Oakland Ave. & Main Street - 63@154.7 - 40@ N-W	SBR	SB			14				
16: Oakland Ave. & Main Street - 63@154.7 - 67@ N-S	SBT	SB			166				
16: Oakland Ave. & Main Street - 66@184.7 - 40@ S-W	NBL	NB			20				
16: Oakland Ave. & Main Street - 66@184.7 - 62@ S-N	NBT	NB	0.452094642 A		265	487	490	99.4%	0.357161298
17: S Granite SD Access & Main Street - 65@232.! E-N	WBR	WB			7				
17: S Granite SD Access & Main Street - 65@232.! E-S	WBL	WB		1.1570916 A	10				
17: S Granite SD Access & Main Street - 67@180.! N-E	SBL	SB			13				
17: S Granite SD Access & Main Street - 67@180.! N-S	SBT	SB			166				
17: S Granite SD Access & Main Street - 69@505.! S-E	NBR	NB			39				
17: S Granite SD Access & Main Street - 69@505.! S-N	NBT	NB	0.167190013 A		281	516	517	99.8%	0.109794875

Movement	Movement	Movement	Approach	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol	PM Vol Int	PM Demand	PM% Ser	PM CI
1: 2100 South & State Street - 1@1466.4 - 5@66.	W-S	EBR	EB							215				
1: 2100 South & State Street - 1@1466.4 - 7@52.	W-E	EBT	EB							636				
1: 2100 South & State Street - 2@1436.2 - 6@43.	E-W	WBT	WB							578				
1: 2100 South & State Street - 3@1101.7 - 5@66.	N-S	SBT	SB							1539				
1: 2100 South & State Street - 4@1030.9 - 8@54.	S-N	NBT	NB							852				
1: 2100 South & State Street - 159@247.6 - 7@52	S-E	NBR	NB							157				
1: 2100 South & State Street - 160@288.7 - 6@43	S-W	NBL	NB							191				
1: 2100 South & State Street - 161@166.4 - 5@66	E-S	WBL	WB							285				
1: 2100 South & State Street - 162@103.9 - 8@54	W-N	EBL	EB							92				
1: 2100 South & State Street - 163@132.4 - 6@43	N-W	SBR	SB							91				
1: 2100 South & State Street - 164@371.3 - 7@52	N-E	SBL	SB							168				
1: 2100 South & State Street - 165@166.9 - 8@54	E-N	WBR	WB	39.0767959	D					82	4886	4910	99.5%	4.251422
2: Street Car Crossing & State Street - 5@1044.2	N-S	SBT	SB							2039				
2: Street Car Crossing & State Street - 5@1044.2	N-W	SBR	SB							0				
2: Street Car Crossing & State Street - 10@1228.3	S-N	NBT	NB							1205				
2: Street Car Crossing & State Street - 174@664.9	W-S	EBR	EB							0				
2: Street Car Crossing & State Street - 175@210.6	W-N	EBL	EB							0				
2: Street Car Crossing & State Street - 177@146.2	S-W	NBL	NB	4.083889684	A					0	3244	3250	99.8%	1.491227
3: WB I-80 & State Street - 90@8.1 - 10@47.0	S-N	NBT	NB							995				
3: WB I-80 & State Street - 96@9.7 - 37@36.9	S-W	NBL	NB							12				
3: WB I-80 & State Street - 96@9.7 - 118@45.7	S-W	NBL	NB							373				
3: WB I-80 & State Street - 124@1240.6 - 37@36.	E-W	WBT	WB							29				
3: WB I-80 & State Street - 124@1240.6 - 91@34.	E-S	WBL	WB							149				
3: WB I-80 & State Street - 124@1240.6 - 118@4	E-W	WBT	WB							0				
3: WB I-80 & State Street - 125@249.7 - 10@47.0	E-N	WBR	WB							220				
3: WB I-80 & State Street - 155@285.8 - 97@42.0	N-S	SBT	SB							695				
3: WB I-80 & State Street - 156@284.4 - 37@36.9	N-W	SBR	SB							4				
3: WB I-80 & State Street - 156@284.4 - 118@45.	N-W	SBR	SB							633				
3: WB I-80 & State Street - 157@282.8 - 91@34.5	N-S	SBT	SB	13.19440862	B					903	4013	4030	99.6%	2.616254
4: EB I-80 & State Street - 92@5.5 - 12@38.2	N-S	SBT	SB							0				
4: EB I-80 & State Street - 98@6.3 - 25@59.6	N-E	SBL	SB							16				
4: EB I-80 & State Street - 98@6.3 - 122@62.0	N-E	SBL	SB							681				
4: EB I-80 & State Street - 120@1810.3 - 25@59.6	W-E	EBT	EB							90				
4: EB I-80 & State Street - 120@1810.3 - 89@28.3	W-N	EBL	EB							377				
4: EB I-80 & State Street - 120@1810.3 - 122@62	W-E	EBT	EB							0				
4: EB I-80 & State Street - 121@193.1 - 12@38.2	W-S	EBR	EB							586				
4: EB I-80 & State Street - 144@76.3 - 89@28.3	S-N	NBT	NB							617				
4: EB I-80 & State Street - 145@75.0 - 25@59.6	S-E	NBR	NB							11				
4: EB I-80 & State Street - 145@75.0 - 10032@97	S-E	NBR	NB							331				
4: EB I-80 & State Street - 146@331.6 - 95@47.4	S-N	NBT	NB							383				
4: EB I-80 & State Street - 10063@12.6 - 12@38.2	N-S	SBT	SB	19.28172236	B	24.86789443	B			1047	4139	4165	99.4%	3.535142
5: Oakland & State Street - 12@191.7 - 12@266.5	N-S	SBT	SB							1635				
5: Oakland & State Street - 22@609.6 - 11@42.3	E-N	WBR	WB					5.889359	A	39				
5: Oakland & State Street - 146@91.4 - 146@181	S-N	NBT	NB							386				
5: Oakland & State Street - 147@71.3 - 11@42.3	S-N	NBT	NB							924				
5: Oakland & State Street - 147@71.3 - 21@32.7	S-E	NBR	NB	1.212425544	A					10	2994	3000	99.8%	0.402196
6: East Grantie SD RIRO & State Street - 12@274.	N-W	SBR	SB							48				
6: East Grantie SD RIRO & State Street - 12@274.	N-S	SBT	SB							1587				
6: East Grantie SD RIRO & State Street - 23@259.	W-S	EBR	EB					6.809451	A	59				
6: East Grantie SD RIRO & State Street - 10004@1	S-N	NBT	NB							934				
6: East Grantie SD RIRO & State Street - 10008@1	S-N	NBT	NB	1.318025866	A					386	3014	3020	99.8%	0.572292
7: 2700 South & State Street - 14@1205.4 - 16@1	N-S	SBT	SB							1408				
7: 2700 South & State Street - 15@1184.3 - 13@5	S-N	NBT	NB							976				
7: 2700 South & State Street - 17@647.5 - 16@1	W-S	EBR	EB							90				
7: 2700 South & State Street - 17@647.5 - 19@11	W-E	EBT	EB							330				
7: 2700 South & State Street - 20@820.0 - 18@72	E-W	WBT	WB							127				
7: 2700 South & State Street - 148@291.2 - 18@7	S-W	NBL	NB							83				
7: 2700 South & State Street - 149@150.8 - 19@1	S-E	NBR	NB							79				
7: 2700 South & State Street - 150@28.0 - 13@57	W-N	EBL	EB							261				
7: 2700 South & State Street - 153@329.4 - 19@1	N-E	SBL	SB							141				

7: 2700 South & State Street - 154@188.7 - 18@7	N-W	SBR	SB					90				
7: 2700 South & State Street - 10014@53.9 - 13@	E-N	WBR	WB					83				
7: 2700 South & State Street - 10015@17.9 - 16@	E-S	WBL	WB	21.70403745 C				88	3756	3770	99.6%	2.110562
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	SBT	SB					1619				
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB					1800				
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	NBL	NB					613				
8: WB I-80 & 700 East - 135@1579.2 - 73@63.1	E-S	WBL	WB					231				
8: WB I-80 & 700 East - 135@1579.2 - 137@28.7	E-SW	WBL	WB					0				
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	WBR	WB					519				
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	SBT	SB					712				
8: WB I-80 & 700 East - 169@299.3 - 137@28.7	N-SW	SBR	SB	18.23978941 B				515	6009	6100	98.5%	1.641127
9: EB I-80 & 700 East - 74@24.8 - 10189@12.0	N-S	SBT	SB					1848				
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB					984				
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB					712				
9: EB I-80 & 700 East - 133@1231.9 - 79@56.2	W-N	EBL	EB					818				
9: EB I-80 & 700 East - 133@1231.9 - 140@66.9	W-NE	EBL	EB					0				
9: EB I-80 & 700 East - 134@318.9 - 10188@13.8	W-S	EBR	EB					1331				
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	NBT	NB					611				
9: EB I-80 & 700 East - 167@274.8 - 140@66.9	S-NE	NBR	NB					149				
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	SBT	SB	19.99309887 B	31.59252402 C			147	6600	6370	103.6%	2.932932
10: 2400 S & West Temple - 33@704.1 - 35@43.9	E-W	WBT	WB					0				
10: 2400 S & West Temple - 33@704.1 - 56@30.3	E-N	WBR	WB					16				
10: 2400 S & West Temple - 33@704.1 - 10106@	E-S	WBL	WB			7.14422 A		10				
10: 2400 S & West Temple - 34@51.1 - 32@34.2	W-E	EBT	EB					0				
10: 2400 S & West Temple - 34@51.1 - 56@30.3	W-N	EBL	EB					0				
10: 2400 S & West Temple - 34@51.1 - 10106@1	W-S	EBR	EB			#DIV/0!	#DIV/0!	0				
10: 2400 S & West Temple - 57@353.0 - 32@34.2	N-E	SBL	SB					4				
10: 2400 S & West Temple - 57@353.0 - 35@43.9	N-W	SBR	SB					0				
10: 2400 S & West Temple - 57@353.0 - 10106@	N-S	SBT	SB					213				
10: 2400 S & West Temple - 10107@1.9 - 32@34	S-E	NBR	NB					4				
10: 2400 S & West Temple - 10107@1.9 - 35@43	S-W	NBL	NB					0				
10: 2400 S & West Temple - 10107@1.9 - 56@30	S-N	NBT	NB	0.552454407 A				239	486	494	98.4%	0.299965
11: Robert Ave. & West Temple - 28@710.2 - 30@	E-W	WBT	WB					0				
11: Robert Ave. & West Temple - 28@710.2 - 45@	E-S	WBL	WB					2				
11: Robert Ave. & West Temple - 28@710.2 - 48@	E-N	WBR	WB			#DIV/0!	#DIV/0!	2				
11: Robert Ave. & West Temple - 31@117.4 - 29@	W-E	EBT	EB					2				
11: Robert Ave. & West Temple - 31@117.4 - 45@	W-S	EBR	EB					1				
11: Robert Ave. & West Temple - 31@117.4 - 48@	W-N	EBL	EB			#DIV/0!	#DIV/0!	1				
11: Robert Ave. & West Temple - 44@282.3 - 29@	S-E	NBR	NB					0				
11: Robert Ave. & West Temple - 44@282.3 - 30@	S-W	NBL	NB					6				
11: Robert Ave. & West Temple - 44@282.3 - 48@	S-N	NBT	NB					237				
11: Robert Ave. & West Temple - 49@19.8 - 29@	N-E	SBL	SB					2				
11: Robert Ave. & West Temple - 49@19.8 - 30@	N-W	SBR	SB					2				
11: Robert Ave. & West Temple - 49@19.8 - 45@	N-S	SBT	SB	0.233930777 A				220	475	482	98.5%	0.143842
12: Oakland Ave & West Temple - 40@711.0 - 42	E-W	WBT	WB					2				
12: Oakland Ave & West Temple - 40@711.0 - 44	E-N	WBR	WB					15				
12: Oakland Ave & West Temple - 40@711.0 - 47	E-S	WBL	WB			7.0649162 A		4				
12: Oakland Ave & West Temple - 43@473.0 - 41	W-E	EBT	EB					6				
12: Oakland Ave & West Temple - 43@473.0 - 44	W-N	EBL	EB					5				
12: Oakland Ave & West Temple - 43@473.0 - 47	W-S	EBR	EB			8.7304832 A		7				
12: Oakland Ave & West Temple - 45@261.8 - 41	N-E	SBL	SB					9				
12: Oakland Ave & West Temple - 45@261.8 - 42	N-W	SBR	SB					0				
12: Oakland Ave & West Temple - 45@261.8 - 47	N-S	SBT	SB					213				
12: Oakland Ave & West Temple - 46@527.0 - 41	S-E	NBR	NB					9				
12: Oakland Ave & West Temple - 46@527.0 - 42	S-W	NBL	NB					8				
12: Oakland Ave & West Temple - 46@527.0 - 44	S-N	NBT	NB	0.847567535 A				225	503	501	100.4%	0.429801
13: 2400 S & Main Street - 32@716.9 - 36@24.3	W-E	EBT	EB					0				
13: 2400 S & Main Street - 32@716.9 - 55@6.1	W-S	EBR	EB					1				
13: 2400 S & Main Street - 32@716.9 - 58@21.9	W-N	EBL	EB			8.4147 A		5				
13: 2400 S & Main Street - 37@672.9 - 33@22.5	E-W	WBT	WB					16				
13: 2400 S & Main Street - 37@672.9 - 55@6.1	E-S	WBL	WB					16				

13: 2400 S & Main Street - 37@672.9 - 58@21.9	E-N	WBR	WB		10.19430033	B	14				
13: 2400 S & Main Street - 54@239.9 - 33@22.5	S-W	NBL	NB				4				
13: 2400 S & Main Street - 54@239.9 - 36@24.3	S-E	NBR	NB				0				
13: 2400 S & Main Street - 54@239.9 - 58@21.9	S-N	NBT	NB				394				
13: 2400 S & Main Street - 59@503.7 - 33@22.5	N-W	SBR	SB				7				
13: 2400 S & Main Street - 59@503.7 - 36@24.3	N-E	SBL	SB				0				
13: 2400 S & Main Street - 59@503.7 - 55@6.1	N-S	SBT	SB	0.68427407 A			391	848	872	97.2%	0.30512
14: Robert Ave. & Main Street - 26@405.6 - 28@	E-W	WBT	WB				0				
14: Robert Ave. & Main Street - 26@405.6 - 54@	E-N	WBR	WB				1				
14: Robert Ave. & Main Street - 26@405.6 - 61@	E-S	WBL	WB		7.663398	A	3				
14: Robert Ave. & Main Street - 29@709.2 - 27@	W-E	EBT	EB				0				
14: Robert Ave. & Main Street - 29@709.2 - 54@	W-N	EBL	EB				3				
14: Robert Ave. & Main Street - 29@709.2 - 61@	W-S	EBR	EB		#DIV/0!	#DIV/0!	1				
14: Robert Ave. & Main Street - 55@232.4 - 27@	N-E	SBL	SB				7				
14: Robert Ave. & Main Street - 55@232.4 - 28@	N-W	SBR	SB				3				
14: Robert Ave. & Main Street - 55@232.4 - 61@	N-S	SBT	SB				395				
14: Robert Ave. & Main Street - 60@63.7 - 27@2	S-E	NBR	NB				3				
14: Robert Ave. & Main Street - 60@63.7 - 28@2	S-W	NBL	NB				0				
14: Robert Ave. & Main Street - 60@63.7 - 54@1	S-N	NBT	NB	0.13148674 A			394	810	837	96.8%	0.096882
15: N Granite SD Access & Main Street - 39@121.	E-N	WBR	WB				54				
15: N Granite SD Access & Main Street - 39@121.	E-S	WBL	WB		0.95311	A	2				
15: N Granite SD Access & Main Street - 61@36.1	N-E	SBL	SB				9				
15: N Granite SD Access & Main Street - 61@36.1	N-S	SBT	SB				391				
15: N Granite SD Access & Main Street - 62@135.	S-E	NBR	NB				3				
15: N Granite SD Access & Main Street - 62@135.	S-N	NBT	NB	0.109846735 A			344	803	827	97.1%	0.067829
16: Oakland Ave. & Main Street - 41@707.2 - 62@	W-N	EBL	EB				13				
16: Oakland Ave. & Main Street - 41@707.2 - 67@	W-S	EBR	EB		7.8350145	A	9				
16: Oakland Ave. & Main Street - 63@154.7 - 40@	N-W	SBR	SB				10				
16: Oakland Ave. & Main Street - 63@154.7 - 67@	N-S	SBT	SB				384				
16: Oakland Ave. & Main Street - 66@184.7 - 40@	S-W	NBL	NB				12				
16: Oakland Ave. & Main Street - 66@184.7 - 62@	S-N	NBT	NB	0.302683937 A			334	762	793	96.1%	0.153654
17: S Granite SD Access & Main Street - 65@232.!	E-N	WBR	WB				22				
17: S Granite SD Access & Main Street - 65@232.!	E-S	WBL	WB		1.359379727	A	16				
17: S Granite SD Access & Main Street - 67@180.(	N-E	SBL	SB				6				
17: S Granite SD Access & Main Street - 67@180.(	N-S	SBT	SB				388				
17: S Granite SD Access & Main Street - 69@505.(	S-E	NBR	NB				39				
17: S Granite SD Access & Main Street - 69@505.(	S-N	NBT	NB	0.123915763 A			321	792	809	97.9%	0.078301

						AM			PM		
Movement	From	To	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@14	1	66.56048	W-S	209.83	EBR	189	48	268	335	95	492
1: 2100 South & State Street - 1@14	1	52.26021	W-E	204.7988	EBT	184	48	263	330	95	487
1: 2100 South & State Street - 2@14	2	43.46665	E-W	129.0884	WBT	139	38	201	164	68	276
1: 2100 South & State Street - 3@11	3	66.56048	N-S	78.02194	SBT	91	29	139	312	86	453
1: 2100 South & State Street - 4@10	4	54.66955	S-N	172.2552	NBT	144	66	252	188	56	280
1: 2100 South & State Street - 159@	159	52.26021	S-E	45.45287	NBR	42	35	100	56	34	113
1: 2100 South & State Street - 160@	160	43.46665	S-W	64.60329	NBL	81	49	162	162	78	291
1: 2100 South & State Street - 161@	161	66.56048	E-S	184.1994	WBL	173	66	283	217	113	404
1: 2100 South & State Street - 162@	162	54.66955	W-N	0	EBL	2	6	13	42	57	136
1: 2100 South & State Street - 163@	163	43.46665	N-W	14.50804	SBR	13	12	34	19	16	45
1: 2100 South & State Street - 164@	164	52.26021	N-E	41.31358	SBL	48	30	97	132	58	226
1: 2100 South & State Street - 165@	165	54.66955	E-N	3.439828	WBR	7	16	33	8	16	35
2: Street Car Crossing & State Street	5	52.56356	N-S	2.437135	SBT	13	19	44	52	59	150
2: Street Car Crossing & State Street	5	37.36341	N-W	2.437135	SBR	13	19	44	52	59	150
2: Street Car Crossing & State Street	10	51.23452	S-N	13.23621	NBT	92	99	256	60	68	172
2: Street Car Crossing & State Street	174	52.56356	W-S	0	EBR	0	0	0	0	0	0
2: Street Car Crossing & State Street	175	51.23452	W-N	0	EBL	0	0	0	0	0	0
2: Street Car Crossing & State Street	177	37.36341	S-W	0	NBL	0	0	0	0	0	0
3: WB I-80 & State Street - 90@8.1 -	90	46.97573	S-N	0	NBT	19	32	71	0	0	0
3: WB I-80 & State Street - 96@9.7 -	96	36.9233	S-W	0	NBL	18	31	70	0	1	2
3: WB I-80 & State Street - 96@9.7 -	96	45.74558	S-W	0	NBL	18	31	70	0	1	2
3: WB I-80 & State Street - 124@12	124	36.9233	E-W	79.9921	WBT	103	38	165	78	30	128
3: WB I-80 & State Street - 124@12	124	34.48795	E-S	79.9921	WBL	103	38	165	78	30	128
3: WB I-80 & State Street - 124@12	124	45.74558	E-W	79.9921	WBT	103	38	165	78	30	128
3: WB I-80 & State Street - 125@24	125	46.97573	E-N	150.0778	WBR	205	137	431	55	30	104
3: WB I-80 & State Street - 155@28	155	41.9944	N-S	71.61761	SBT	85	31	135	143	56	235
3: WB I-80 & State Street - 156@28	156	36.9233	N-W	96.54392	SBR	85	52	172	154	90	301
3: WB I-80 & State Street - 156@28	156	45.74558	N-W	97.1945	SBR	87	51	171	155	88	301
3: WB I-80 & State Street - 157@28	157	34.48795	N-S	90.2555	SBT	125	37	186	164	77	292
4: EB I-80 & State Street - 92@5.5 -	92	38.21229	N-S	0	SBT	0	0	0	0	0	0
4: EB I-80 & State Street - 98@6.3 -	98	59.60189	N-E	0	SBL	0	0	0	0	0	0
4: EB I-80 & State Street - 98@6.3 -	98	61.98003	N-E	0	SBL	0	0	0	0	0	0
4: EB I-80 & State Street - 120@181	120	59.60189	W-E	198.2191	EBT	239	76	365	175	54	264
4: EB I-80 & State Street - 120@181	120	28.26098	W-N	198.2191	EBL	239	76	365	175	54	264

4: EB I-80 & State Street - 120@181(	120	61.98003	W-E	198.2191	EBT	239	76	365	175	54	264
4: EB I-80 & State Street - 121@193.	121	38.21229	W-S	90.99261	EBR	124	71	242	225	152	476
4: EB I-80 & State Street - 144@76.3	144	28.26098	S-N	105.3864	NBT	128	46	204	206	56	299
4: EB I-80 & State Street - 145@75.0	145	59.60189	S-E	16.6243	NBR	17	24	57	71	75	194
4: EB I-80 & State Street - 145@75.0	145	97.63376	S-E	31.22124	NBR	32	19	63	78	71	194
4: EB I-80 & State Street - 146@331.	146	47.37422	S-N	88.98819	NBT	110	37	171	119	36	177
4: EB I-80 & State Street - 10063@1:	10063	38.21229	N-S	0	SBT	0	0	0	0	0	0
5: Oakland & State Street - 12@191.	12	266.5093	N-S	0	SBT	0	0	0	0	0	0
5: Oakland & State Street - 22@609.	22	42.29989	E-N	8.982892	WBR	12	13	33	18	12	38
5: Oakland & State Street - 146@91.	146	181.0392	S-N	0	NBT	0	0	0	0	0	0
5: Oakland & State Street - 147@71.	147	42.29989	S-N	0	NBT	0	5	9	7	21	41
5: Oakland & State Street - 147@71.	147	32.72145	S-E	0	NBR	1	9	15	10	31	61
6: East Grantie SD RIRO & State Stre	12	20.89242	N-W	6.576926	SBR	5	16	31	1	7	12
6: East Grantie SD RIRO & State Stre	12	30.9288	N-S	2.834884	SBT	3	12	24	0	5	9
6: East Grantie SD RIRO & State Stre	23	30.9288	W-S	31.02423	EBR	17	15	42	27	13	49
6: East Grantie SD RIRO & State Stre	10004	64.84691	S-N	0	NBT	12	28	58	21	42	90
6: East Grantie SD RIRO & State Stre	10008	84.36706	S-N	0	NBT	11	28	57	19	40	86
7: 2700 South & State Street - 14@1	14	106.4194	N-S	83.17295	SBT	88	32	141	201	59	298
7: 2700 South & State Street - 15@1	15	57.07498	S-N	83.39506	NBT	101	32	154	131	44	203
7: 2700 South & State Street - 17@6	17	106.4194	W-S	34.59127	EBR	41	22	78	185	78	314
7: 2700 South & State Street - 17@6	17	119.4976	W-E	30.49209	EBT	35	23	72	179	78	308
7: 2700 South & State Street - 20@8	20	72.53063	E-W	63.05735	WBT	58	31	109	47	26	90
7: 2700 South & State Street - 148@	148	72.53063	S-W	49.01259	NBL	39	32	92	30	28	75
7: 2700 South & State Street - 149@	149	119.4976	S-E	7.076993	NBR	5	10	22	18	15	43
7: 2700 South & State Street - 150@	150	57.07498	W-N	47.54207	EBL	52	32	106	162	84	300
7: 2700 South & State Street - 153@	153	119.4976	N-E	3.933624	SBL	16	19	47	48	38	110
7: 2700 South & State Street - 154@	154	72.53063	N-W	16.57562	SBR	22	19	54	14	14	37
7: 2700 South & State Street - 10014	10014	57.07498	E-N	26.10557	WBR	31	13	52	26	14	49
7: 2700 South & State Street - 10015	10015	106.4194	E-S	29.19579	WBL	40	36	100	50	32	103
8: WB I-80 & 700 East - 72@299.7 -	72	63.1317	N-S	110.7684	SBT	116	27	161	233	53	321
8: WB I-80 & 700 East - 80@28.1 - 7(	80	87.40592	S-N	87.366	NBT	109	57	202	0	0	0
8: WB I-80 & 700 East - 87@30.0 - 1:	87	28.65021	S-SW	89.16458	NBL	156	89	303	304	54	394
8: WB I-80 & 700 East - 135@1579.2	135	63.1317	E-S	42.00483	WBL	54	26	97	94	36	154
8: WB I-80 & 700 East - 135@1579.2	135	28.65021	E-SW	42.00483	WBL	54	26	97	94	36	154
8: WB I-80 & 700 East - 136@72.0 -	136	87.40592	E-N	8.464915	WBR	5	16	32	3	10	20
8: WB I-80 & 700 East - 168@218.7 -	168	57.38904	N-S	81.5859	SBT	84	27	129	157	43	228

8: WB I-80 & 700 East - 169@299.3 ·	169	28.65021	N-SW	2.422853	SBR	3	9	19	2	7	13
9: EB I-80 & 700 East - 74@24.8 - 10	74	11.9868	N-S	44.11589	SBT	60	27	105	90	33	144
9: EB I-80 & 700 East - 78@281.6 - 7	78	56.19881	S-N	218.2203	NBT	243	84	381	189	38	252
9: EB I-80 & 700 East - 85@22.3 - 14	85	66.8774	N-NE	85.81052	SBL	102	37	163	255	63	359
9: EB I-80 & 700 East - 133@1231.9	133	56.19881	W-N	206.1428	EBL	216	62	318	276	105	450
9: EB I-80 & 700 East - 133@1231.9	133	66.8774	W-NE	206.1428	EBL	216	62	318	276	105	450
9: EB I-80 & 700 East - 134@318.9 -	134	13.7976	W-S	0	EBR	5	14	29	12	30	62
9: EB I-80 & 700 East - 166@226.1 -	166	53.7557	S-N	147.8117	NBT	204	110	385	182	57	276
9: EB I-80 & 700 East - 167@274.8 -	167	66.8774	S-NE	2.080872	NBR	1	5	9	0	2	4
9: EB I-80 & 700 East - 10188@14.1	10188	3.845872	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 33@70	33	43.8872	E-W	12.15532	WBT	17	15	41	15	14	39
10: 2400 S & West Temple - 33@70	33	30.27899	E-N	12.15532	WBR	17	15	41	15	14	39
10: 2400 S & West Temple - 33@70	33	10.23244	E-S	12.15532	WBL	17	15	41	15	14	39
10: 2400 S & West Temple - 34@51.	34	34.19865	W-E	0	EBT	0	0	0	0	0	0
10: 2400 S & West Temple - 34@51.	34	30.27899	W-N	0	EBL	0	0	0	0	0	0
10: 2400 S & West Temple - 34@51.	34	10.23244	W-S	0	EBR	0	0	0	0	0	0
10: 2400 S & West Temple - 57@353	57	34.19865	N-E	0	SBL	0	4	6	0	4	6
10: 2400 S & West Temple - 57@353	57	43.8872	N-W	0	SBR	0	0	0	0	3	5
10: 2400 S & West Temple - 57@353	57	10.23244	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@	10107	34.19865	S-E	0	NBR	0	2	3	0	3	5
10: 2400 S & West Temple - 10107@	10107	43.8872	S-W	0	NBL	0	3	6	0	3	5
10: 2400 S & West Temple - 10107@	10107	30.27899	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28	28	17.20132	E-W	5.378126	WBT	4	10	21	3	9	18
11: Robert Ave. & West Temple - 28	28	9.39164	E-S	5.34485	WBL	4	10	20	3	9	18
11: Robert Ave. & West Temple - 28	28	20.05381	E-N	5.290703	WBR	4	10	20	3	9	17
11: Robert Ave. & West Temple - 31	31	20.06685	W-E	0	EBT	0	0	0	3	8	17
11: Robert Ave. & West Temple - 31	31	9.39164	W-S	0	EBR	0	0	0	3	8	17
11: Robert Ave. & West Temple - 31	31	20.05381	W-N	0	EBL	0	0	0	3	8	17
11: Robert Ave. & West Temple - 44	44	20.06685	S-E	0	NBR	0	0	0	0	0	0
11: Robert Ave. & West Temple - 44	44	17.20132	S-W	0	NBL	0	2	4	0	3	5
11: Robert Ave. & West Temple - 44	44	20.05381	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 49	49	20.06685	N-E	0	SBL	0	4	7	0	0	0
11: Robert Ave. & West Temple - 49	49	17.20132	N-W	16.42465	SBR	13	30	63	10	26	53
11: Robert Ave. & West Temple - 49	49	9.39164	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West Temple - 4(	40	19.75301	E-W	10.41493	WBT	12	14	35	12	14	36
12: Oakland Ave & West Temple - 4(	40	31.19215	E-N	10.41493	WBR	12	14	35	12	14	36

12: Oakland Ave & West Temple - 4(	40	24.86987	E-S	10.41493	WBL	12	14	35	12	14	36
12: Oakland Ave & West Temple - 4:	43	28.16496	W-E	9.486079	EBT	8	12	28	13	14	36
12: Oakland Ave & West Temple - 4:	43	31.19215	W-N	9.332413	EBL	7	12	27	12	14	35
12: Oakland Ave & West Temple - 4:	43	24.86987	W-S	9.343577	EBR	7	12	27	12	14	35
12: Oakland Ave & West Temple - 4!	45	28.16496	N-E	0	SBL	1	6	11	1	7	12
12: Oakland Ave & West Temple - 4!	45	19.75301	N-W	0	SBR	0	2	3	0	3	5
12: Oakland Ave & West Temple - 4!	45	24.86987	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West Temple - 4(	46	28.16496	S-E	0	NBR	0	4	6	0	6	10
12: Oakland Ave & West Temple - 4(	46	19.75301	S-W	2.561586	NBL	1	5	10	1	6	11
12: Oakland Ave & West Temple - 4(	46	31.19215	S-N	0	NBT	0	0	0	0	3	5
13: 2400 S & Main Street - 32@716.	32	24.29857	W-E	2.177076	EBT	3	8	15	4	10	20
13: 2400 S & Main Street - 32@716.	32	6.0948	W-S	2.177076	EBR	3	8	15	4	10	20
13: 2400 S & Main Street - 32@716.	32	21.90455	W-N	2.177076	EBL	3	8	15	4	10	20
13: 2400 S & Main Street - 37@672.	37	22.47081	E-W	20.23764	WBT	28	21	62	24	18	54
13: 2400 S & Main Street - 37@672.	37	6.0948	E-S	20.23764	WBL	28	21	62	24	18	54
13: 2400 S & Main Street - 37@672.	37	21.90455	E-N	20.23764	WBR	28	21	62	24	18	54
13: 2400 S & Main Street - 54@239.	54	22.47081	S-W	0	NBL	0	2	3	0	3	5
13: 2400 S & Main Street - 54@239.	54	24.29857	S-E	0	NBR	0	0	0	0	0	0
13: 2400 S & Main Street - 54@239.	54	21.90455	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.	59	22.47081	N-W	0	SBR	0	0	0	0	1	2
13: 2400 S & Main Street - 59@503.	59	24.29857	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.	59	6.0948	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 26@	26	21.3202	E-W	0	WBT	0	0	0	3	8	16
14: Robert Ave. & Main Street - 26@	26	12.40422	E-N	0	WBR	0	0	0	3	8	16
14: Robert Ave. & Main Street - 26@	26	11.80651	E-S	0	WBL	0	0	0	3	8	16
14: Robert Ave. & Main Street - 29@	29	24.61183	W-E	0	EBT	3	9	18	3	9	18
14: Robert Ave. & Main Street - 29@	29	12.40422	W-N	0	EBL	3	9	18	3	9	18
14: Robert Ave. & Main Street - 29@	29	11.80651	W-S	0	EBR	3	9	18	3	9	18
14: Robert Ave. & Main Street - 55@	55	24.61183	N-E	0	SBL	0	0	0	1	4	7
14: Robert Ave. & Main Street - 55@	55	21.3202	N-W	0	SBR	0	3	5	0	0	0
14: Robert Ave. & Main Street - 55@	55	11.80651	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 60@	60	24.61183	S-E	0	NBR	0	2	3	2	13	24
14: Robert Ave. & Main Street - 60@	60	21.3202	S-W	0	NBL	0	0	0	0	1	2
14: Robert Ave. & Main Street - 60@	60	12.40422	S-N	0	NBT	0	0	0	0	0	0
15: N Granite SD Access & Main Stre	39	39.67684	E-N	1.88868	WBR	2	6	11	4	9	19
15: N Granite SD Access & Main Stre	39	56.18199	E-S	2.092511	WBL	2	6	12	4	10	21

15: N Granite SD Access & Main Stre	61	23.11683	N-E	0	SBL	0	2	4	0	2	4
15: N Granite SD Access & Main Stre	61	56.18199	N-S	0	SBT	3	14	26	3	15	28
15: N Granite SD Access & Main Stre	62	23.11683	S-E	0	NBR	0	1	2	0	0	0
15: N Granite SD Access & Main Stre	62	39.67684	S-N	0	NBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 41	41	37.82112	W-N	17.80959	EBL	15	15	40	14	14	37
16: Oakland Ave. & Main Street - 41	41	49.9137	W-S	17.80959	EBR	15	15	40	14	14	37
16: Oakland Ave. & Main Street - 63	63	31.30172	N-W	0	SBR	0	3	5	0	2	3
16: Oakland Ave. & Main Street - 63	63	49.9137	N-S	0	SBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 66	66	31.30172	S-W	0	NBL	1	6	11	1	5	10
16: Oakland Ave. & Main Street - 66	66	37.82112	S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access & Main Stre	65	55.26428	E-N	0	WBR	1	4	8	3	7	15
17: S Granite SD Access & Main Stre	65	30.88745	E-S	0	WBL	1	4	8	3	8	15
17: S Granite SD Access & Main Stre	67	29.49817	N-E	0	SBL	1	4	8	0	3	5
17: S Granite SD Access & Main Stre	67	30.88745	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access & Main Stre	69	29.49817	S-E	0	NBR	0	2	3	0	2	4
17: S Granite SD Access & Main Stre	69	55.26428	S-N	0	NBT	0	0	0	0	0	0

Name	Analysis Type	Lanes	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	AM Demand hr	AM%Served
EB I-80 (Over State)	Basic	4	***16.6***	***B***	***30.9***	***D***	4114	4150	99.1%
EB I-80 (State to 700 E)	Weave	5	***14.3***	***B***	***25.3***	***C***	4505	4550	99.0%
EB I-80 (Over 700 E)	Basic	4	***12.8***	***B***	***22.1***	***C***	3259	3330	97.9%
WB I-80 (Over 700 E)	Basic	4	***24.0***	***C***	***14.5***	***B***	5552	5580	99.5%
WB I-80 (700 E to State)	Weave	5	***28.1***	***D***	***15.5***	***B***	7205	7270	99.1%
WB I-80 (Over State)	Diverge	4	***31.7***	***D***	***21.9***	***C***	6517	6600	98.7%
WB I-80 to WB CD Ramp	Ramp	2	***31.1***	***C***	***26.0***	***C***	3482	3640	95.7%
WB I-80 (West of State)	Diverge	3	***15.9***	***B***	***11.2***	***B***	2895	2960	97.8%
WB I-80 to NB I-15	Ramp	3	***14.3***	***B***	***10.5***	***A***	2177	2170	100.3%
To SB I-15 Ramp	Ramp	2	***17.4***	***B***	***14.5***	***B***	1829	1860	98.3%
To WB 201 Ramp	Ramp	2	***19.6***	***B***	***13.3***	***B***	2044	2100	97.3%
WB I-80 to SB I-15/WB 201	Diverge	3	***26.7***	***C***	***21.6***	***C***	3805	3960	96.1%
WB CD	Weave (CD)	3	***24.1***	***C***	***18.0***	***B***	4253	4390	96.9%
EB I-80 I-15 to State	Weave	5	***18.1***	***B***	***50.8***	***F***	5160	5280	97.7%
NB I-15 Off Ramp 2	Ramp	1	***26.8***	***C***	***41.3***	***E***	1413	1420	99.5%
NB I-15 Off Ramp 1	Ramp	2	***12.5***	***B***	***14.1***	***B***	1413	1420	99.5%
EB 201/SB I-15 2	Merge	4	***19.7***	***B***	***47.4***	***F***	3831	3860	99.2%
EB 201/SB I-15 1	Merge	5	***13.0***		***31.3***		3788	3860	98.1%
EB 201 Ramp	Ramp	2	***15.9***	***B***	***23.0***	***B***	1798	1800	99.9%
SB I-15 Ramp	Ramp	3	***11.9***	***A***	***22.8***	***B***	2058	2060	99.9%

PM Volume hr	PM Demand hr	PM%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
6831	6900	99.0%	66.488805	56.811813	0.402985125	1.845344167
7826	7930	98.7%	67.727723	63.606389	0.371879061	0.941240135
5654	5850	96.7%	68.372555	66.824994	0.557047633	0.986226592
3887	3900	99.7%	63.399034	67.817731	1.801795191	0.376688643
5005	5020	99.7%	55.970247	65.522745	3.041447903	0.624447741
4593	4620	99.4%	63.77713	67.672985	1.585268839	0.624515767
2469	2540	97.2%	60.527328	66.97568	3.102078486	1.359307584
2045	2080	98.3%	66.539382	67.460328	0.915361465	0.672242375
1774	1770	100.2%	56.322332	56.514012	0.893064386	0.836804043
1587	1610	98.6%	55.591845	55.837511	1.350318318	1.32043636
1457	1480	98.4%	55.511614	55.885822	1.060516611	1.475306808
2988	3090	96.7%	53.582062	54.441798	1.419931539	0.982420562
3439	3560	96.6%	62.878175	64.87002	1.203820541	0.843611384
7764	7950	97.7%	61.29267	31.879154	1.019864128	17.25430224
1522	1500	101.5%	56.585235	37.547798	3.187942532	25.95064732
1524	1500	101.6%	60.923015	58.31139	0.543149214	6.324154763
6395	6450	99.1%	65.397964	38.171674	0.377568829	25.75327725
6327	6450	98.1%	62.861331	46.438734	0.317138889	14.5732862
2679	2680	100.0%	61.129363	59.089379	0.214431933	1.076999435
3765	3770	99.9%	62.394655	61.076365	0.126281765	0.255472923

Appendix C

2040 No-Action
VISSIM Analysis Results

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	AM Vol Int	AM Demand	AM% Ser	AM CI
1: 2100 South & State Street - 1	W-E	EBT	EB							495				
1: 2100 South & State Street - 2	E-W	WBT	WB							689				
1: 2100 South & State Street - 3	N-S	SBT	SB							611				
1: 2100 South & State Street - 4	S-N	NBT	NB							1299				
1: 2100 South & State Street - 1	S-E	NBR	NB							181				
1: 2100 South & State Street - 1	S-W	NBL	NB							161				
1: 2100 South & State Street - 1	E-S	WBL	WB							271				
1: 2100 South & State Street - 1	W-N	EBL	EB							143				
1: 2100 South & State Street - 1	N-W	SBR	SB							74				
1: 2100 South & State Street - 1	N-E	SBL	SB							83				
1: 2100 South & State Street - 1	E-N	WBR	WB							87				
1: 2100 South & State Street - 2	W-S	EBR	EB	31.32836512	C					159	4251	4400	96.6%	2.205829
2: Street Car Crossing & State S	N-S	SBT	SB							889				
2: Street Car Crossing & State S	N-W	SBR	SB							150				
2: Street Car Crossing & State S	S-N	NBT	NB							1443				
2: Street Car Crossing & State S	W-S	EBR	EB							299				
2: Street Car Crossing & State S	W-N	EBL	EB							197				
2: Street Car Crossing & State S	S-W	NBL	NB	12.65060337	B					179	3157	3300	95.7%	2.3514
3: WB I-80 & State Street - 90@	S-N	NBT	NB							1252				
3: WB I-80 & State Street - 96@	S-W	NBL	NB							30				
3: WB I-80 & State Street - 96@	S-W	NBL	NB							497				
3: WB I-80 & State Street - 124(	E-W	WBT	WB							63				
3: WB I-80 & State Street - 124(	E-S	WBL	WB							197				
3: WB I-80 & State Street - 124(	E-W	WBT	WB							0				
3: WB I-80 & State Street - 125(	E-N	WBR	WB							370				
3: WB I-80 & State Street - 155(	N-S	SBT	SB							599				
3: WB I-80 & State Street - 156(	N-W	SBR	SB							10				
3: WB I-80 & State Street - 156(	N-W	SBR	SB							396				
3: WB I-80 & State Street - 157(	N-S	SBT	SB	18.20466298	B					175	3588	3860	93.0%	3.180404
4: EB I-80 & State Street - 92@	N-S	SBT	SB							0				
4: EB I-80 & State Street - 98@	N-E	SBL	SB							18				
4: EB I-80 & State Street - 98@	N-E	SBL	SB							580				
4: EB I-80 & State Street - 120@	W-E	EBT	EB							129				
4: EB I-80 & State Street - 120@	W-N	EBL	EB							539				
4: EB I-80 & State Street - 120@	W-E	EBT	EB							0				
4: EB I-80 & State Street - 121@	W-S	EBR	EB							553				
4: EB I-80 & State Street - 144@	S-N	NBT	NB							715				
4: EB I-80 & State Street - 145@	S-E	NBR	NB							17				
4: EB I-80 & State Street - 145@	S-E	NBR	NB							615				
4: EB I-80 & State Street - 146@	S-N	NBT	NB							528				
4: EB I-80 & State Street - 1006	N-S	SBT	SB	24.37799408	C	32.20966979	C			372	4066	4160	97.7%	3.20076
5: Oakland & State Street - 12@	N-S	SBT	SB							925				
5: Oakland & State Street - 22@	E-N	WBR	WB					8.603715	A	29				
5: Oakland & State Street - 146(	S-N	NBT	NB							529				
5: Oakland & State Street - 147(	S-N	NBT	NB							1320				
5: Oakland & State Street - 147(	S-E	NBR	NB	3.714035479	A					12	2814	2890	97.4%	1.766231
6: East Grantie SD RIRO & State	N-W	SBR	SB							232				
6: East Grantie SD RIRO & State	N-S	SBT	SB							693				
6: East Grantie SD RIRO & State	W-S	EBR	EB					6.3210365	A	49				
6: East Grantie SD RIRO & State	S-N	NBT	NB							1331				
6: East Grantie SD RIRO & State	S-N	NBT	NB	7.470554159	A					529	2834	2910	97.4%	4.922272
7: 2700 South & State Street - 1	N-S	SBT	SB							585				
7: 2700 South & State Street - 1	S-N	NBT	NB							1518				
7: 2700 South & State Street - 1	W-S	EBR	EB							40				
7: 2700 South & State Street - 1	W-E	EBT	EB							59				

7: 2700 South & State Street - 2	E-W	WBT	WB					156			
7: 2700 South & State Street - 1	S-W	NBL	NB					120			
7: 2700 South & State Street - 1	S-E	NBR	NB					21			
7: 2700 South & State Street - 1	W-N	EBL	EB					149			
7: 2700 South & State Street - 1	N-E	SBL	SB					52			
7: 2700 South & State Street - 1	N-W	SBR	SB					113			
7: 2700 South & State Street - 1	E-N	WBR	WB					199			
7: 2700 South & State Street - 1	E-S	WBL	WB	15.30437398 B				74	3082	3130	98.5% 1.62719
8: WB I-80 & 700 East - 72@29	N-S	SBT	SB					656			
8: WB I-80 & 700 East - 80@28.	S-N	NBT	NB					2296			
8: WB I-80 & 700 East - 87@30.	S-SW	NBL	NB					817			
8: WB I-80 & 700 East - 135@1	E-S	WBL	WB					81			
8: WB I-80 & 700 East - 135@1	E-SW	WBL	WB					0			
8: WB I-80 & 700 East - 136@7	E-N	WBR	WB					617			
8: WB I-80 & 700 East - 168@21	N-S	SBT	SB					306			
8: WB I-80 & 700 East - 169@2	N-SW	SBR	SB	27.11750695 C				985	5757	6520	88.3% 4.084978
9: EB I-80 & 700 East - 74@24.8	N-S	SBT	SB					738			
9: EB I-80 & 700 East - 78@281.	S-N	NBT	NB					1545			
9: EB I-80 & 700 East - 85@22.3	N-NE	SBL	SB					305			
9: EB I-80 & 700 East - 133@12	W-N	EBL	EB					754			
9: EB I-80 & 700 East - 133@12	W-NE	EBL	EB					0			
9: EB I-80 & 700 East - 134@31	W-S	EBR	EB					697			
9: EB I-80 & 700 East - 166@22	S-N	NBT	NB					830			
9: EB I-80 & 700 East - 167@27	S-NE	NBR	NB					133			
9: EB I-80 & 700 East - 10188@	N-S	SBT	SB	36.24518177 D	51.1223983 C			75	5077	5490	92.5% 3.398653
10: 2400 S & West Temple - 33	E-W	WBT	WB					5			
10: 2400 S & West Temple - 33	E-N	WBR	WB					11			
10: 2400 S & West Temple - 33	E-S	WBL	WB			7.280197429 A		17			
10: 2400 S & West Temple - 34	W-E	EBT	EB					0			
10: 2400 S & West Temple - 34	W-N	EBL	EB					0			
10: 2400 S & West Temple - 34	W-S	EBR	EB			#DIV/0!	#DIV/0!	0			
10: 2400 S & West Temple - 57	N-E	SBL	SB					6			
10: 2400 S & West Temple - 57	N-W	SBR	SB					0			
10: 2400 S & West Temple - 57	N-S	SBT	SB					137			
10: 2400 S & West Temple - 10	S-E	NBR	NB					5			
10: 2400 S & West Temple - 10	S-W	NBL	NB					4			
10: 2400 S & West Temple - 10	S-N	NBT	NB	0.763959878 A				191	376	395	95.1% 0.397061
11: Robert Ave. & West Temple	E-W	WBT	WB					0			
11: Robert Ave. & West Temple	E-S	WBL	WB					4			
11: Robert Ave. & West Temple	E-N	WBR	WB			4.46104697 A		5			
11: Robert Ave. & West Temple	W-E	EBT	EB					0			
11: Robert Ave. & West Temple	W-S	EBR	EB					0			
11: Robert Ave. & West Temple	W-N	EBL	EB			7.2526116 A		4			
11: Robert Ave. & West Temple	S-E	NBR	NB					6			
11: Robert Ave. & West Temple	S-W	NBL	NB					7			
11: Robert Ave. & West Temple	S-N	NBT	NB					191			
11: Robert Ave. & West Temple	N-E	SBL	SB					5			
11: Robert Ave. & West Temple	N-W	SBR	SB					0			
11: Robert Ave. & West Temple	N-S	SBT	SB	0.304971469 A				149	370	385	96.2% 0.246432
12: Oakland Ave & West Templ	E-W	WBT	WB					19			
12: Oakland Ave & West Templ	E-N	WBR	WB					9			
12: Oakland Ave & West Templ	E-S	WBL	WB			7.457029515 A		9			
12: Oakland Ave & West Templ	W-E	EBT	EB					5			
12: Oakland Ave & West Templ	W-N	EBL	EB					5			
12: Oakland Ave & West Templ	W-S	EBR	EB			6.089301404 A		11			
12: Oakland Ave & West Templ	N-E	SBL	SB					11			

12: Oakland Ave & West Templ	N-W	SBR	SB			10			
12: Oakland Ave & West Templ	N-S	SBT	SB			133			
12: Oakland Ave & West Templ	S-E	NBR	NB			13			
12: Oakland Ave & West Templ	S-W	NBL	NB			10			
12: Oakland Ave & West Templ	S-N	NBT	NB	1.1394919 A		190	422	435	97.0% 0.430322
13: 2400 S & Main Street - 32@	W-E	EBT	EB			0			
13: 2400 S & Main Street - 32@	W-S	EBR	EB			5			
13: 2400 S & Main Street - 32@	W-N	EBL	EB		5.29414655 A	5			
13: 2400 S & Main Street - 37@	E-W	WBT	WB			24			
13: 2400 S & Main Street - 37@	E-S	WBL	WB			23			
13: 2400 S & Main Street - 37@	E-N	WBR	WB		12.88841023 B	56			
13: 2400 S & Main Street - 54@	S-W	NBL	NB			5			
13: 2400 S & Main Street - 54@	S-E	NBR	NB			0			
13: 2400 S & Main Street - 54@	S-N	NBT	NB			338			
13: 2400 S & Main Street - 59@	N-W	SBR	SB			5			
13: 2400 S & Main Street - 59@	N-E	SBL	SB			0			
13: 2400 S & Main Street - 59@	N-S	SBT	SB	2.294481542 A		190	651	680	95.7% 0.848728
14: Robert Ave. & Main Street -	E-W	WBT	WB			0			
14: Robert Ave. & Main Street -	E-N	WBR	WB			0			
14: Robert Ave. & Main Street -	E-S	WBL	WB		8.1285203 A	4			
14: Robert Ave. & Main Street -	W-E	EBT	EB			0			
14: Robert Ave. & Main Street -	W-N	EBL	EB			7			
14: Robert Ave. & Main Street -	W-S	EBR	EB		5.225773391 A	4			
14: Robert Ave. & Main Street -	N-E	SBL	SB			0			
14: Robert Ave. & Main Street -	N-W	SBR	SB			5			
14: Robert Ave. & Main Street -	N-S	SBT	SB			214			
14: Robert Ave. & Main Street -	S-E	NBR	NB			4			
14: Robert Ave. & Main Street -	S-W	NBL	NB			4			
14: Robert Ave. & Main Street -	S-N	NBT	NB	0.191421641 A		336	578	590	97.9% 0.126373
15: N Granite SD Access & Main	E-N	WBR	WB			18			
15: N Granite SD Access & Main	E-S	WBL	WB		1.172424354 A	16			
15: N Granite SD Access & Main	N-E	SBL	SB			11			
15: N Granite SD Access & Main	N-S	SBT	SB			211			
15: N Granite SD Access & Main	S-E	NBR	NB			9			
15: N Granite SD Access & Main	S-N	NBT	NB	0.115055298 A		327	590	605	97.6% 0.055188
16: Oakland Ave. & Main Street	W-N	EBL	EB			11			
16: Oakland Ave. & Main Street	W-S	EBR	EB		6.332850878 A	17			
16: Oakland Ave. & Main Street	N-W	SBR	SB			17			
16: Oakland Ave. & Main Street	N-S	SBT	SB			209			
16: Oakland Ave. & Main Street	S-W	NBL	NB			20			
16: Oakland Ave. & Main Street	S-N	NBT	NB	0.458369963 A		325	599	610	98.2% 0.180097
17: S Granite SD Access & Main	E-N	WBR	WB			9			
17: S Granite SD Access & Main	E-S	WBL	WB		1.14643633 A	16			
17: S Granite SD Access & Main	N-E	SBL	SB			13			
17: S Granite SD Access & Main	N-S	SBT	SB			213			
17: S Granite SD Access & Main	S-E	NBR	NB			51			
17: S Granite SD Access & Main	S-N	NBT	NB	0.152174519 A		336	638	645	98.9% 0.108074

Movement	Movement	Movement	Approach	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol	PM Vol Int	PM Demand	PM% Ser	PM CI
1: 2100 South & State Street - 1	W-E	EBT	EB							893				
1: 2100 South & State Street - 2	E-W	WBT	WB							876				
1: 2100 South & State Street - 3	N-S	SBT	SB							1933				
1: 2100 South & State Street - 4	S-N	NBT	NB							1071				
1: 2100 South & State Street - 1	S-E	NBR	NB							174				
1: 2100 South & State Street - 1	S-W	NBL	NB							262				
1: 2100 South & State Street - 1	E-S	WBL	WB							271				
1: 2100 South & State Street - 1	W-N	EBL	EB							173				
1: 2100 South & State Street - 1	N-W	SBR	SB							170				
1: 2100 South & State Street - 1	N-E	SBL	SB							220				
1: 2100 South & State Street - 1	E-N	WBR	WB							100				
1: 2100 South & State Street - 2	W-S	EBR	EB	47.24059522	D					318	6461	6690	96.6%	7.496301
2: Street Car Crossing & State S	N-S	SBT	SB							2268				
2: Street Car Crossing & State S	N-W	SBR	SB							250				
2: Street Car Crossing & State S	S-N	NBT	NB							1314				
2: Street Car Crossing & State S	W-S	EBR	EB							292				
2: Street Car Crossing & State S	W-N	EBL	EB							200				
2: Street Car Crossing & State S	S-W	NBL	NB	29.09217137	C					354	4678	4860	96.3%	9.313782
3: WB I-80 & State Street - 90@	S-N	NBT	NB							1156				
3: WB I-80 & State Street - 96@	S-W	NBL	NB							21				
3: WB I-80 & State Street - 96@	S-W	NBL	NB							388				
3: WB I-80 & State Street - 124	E-W	WBT	WB							140				
3: WB I-80 & State Street - 124	E-S	WBL	WB							355				
3: WB I-80 & State Street - 124	E-W	WBT	WB							0				
3: WB I-80 & State Street - 125	E-N	WBR	WB							510				
3: WB I-80 & State Street - 155	N-S	SBT	SB							816				
3: WB I-80 & State Street - 156	N-W	SBR	SB							11				
3: WB I-80 & State Street - 156	N-W	SBR	SB							583				
3: WB I-80 & State Street - 157	N-S	SBT	SB	26.71340049	C					1141	5122	5370	95.4%	7.144923
4: EB I-80 & State Street - 92@	N-S	SBT	SB							0				
4: EB I-80 & State Street - 98@	N-E	SBL	SB							21				
4: EB I-80 & State Street - 98@	N-E	SBL	SB							796				
4: EB I-80 & State Street - 120@	W-E	EBT	EB							110				
4: EB I-80 & State Street - 120@	W-N	EBL	EB							389				
4: EB I-80 & State Street - 120@	W-E	EBT	EB							0				
4: EB I-80 & State Street - 121@	W-S	EBR	EB							621				
4: EB I-80 & State Street - 144@	S-N	NBT	NB							767				
4: EB I-80 & State Street - 145@	S-E	NBR	NB							18				
4: EB I-80 & State Street - 145@	S-E	NBR	NB							550				
4: EB I-80 & State Street - 146@	S-N	NBT	NB							410				
4: EB I-80 & State Street - 1006	N-S	SBT	SB	22.70895908	C	39.06563297	C			1497	5176	5600	92.4%	4.688607
5: Oakland & State Street - 12@	N-S	SBT	SB							2118				
5: Oakland & State Street - 22@	E-N	WBR	WB					13.0004799	B	48				
5: Oakland & State Street - 146	S-N	NBT	NB							415				
5: Oakland & State Street - 147	S-N	NBT	NB							1287				
5: Oakland & State Street - 147	S-E	NBR	NB	5.099763321	A					20	3888	4130	94.1%	2.137769
6: East Grantie SD RIRO & State	N-W	SBR	SB							63				
6: East Grantie SD RIRO & State	N-S	SBT	SB							2055				
6: East Grantie SD RIRO & State	W-S	EBR	EB					7.1634051	A	98				
6: East Grantie SD RIRO & State	S-N	NBT	NB							1311				
6: East Grantie SD RIRO & State	S-N	NBT	NB	16.87624063	B					415	3941	4180	94.3%	9.901005
7: 2700 South & State Street - 1	N-S	SBT	SB							1912				
7: 2700 South & State Street - 1	S-N	NBT	NB							1372				
7: 2700 South & State Street - 1	W-S	EBR	EB							102				
7: 2700 South & State Street - 1	W-E	EBT	EB							331				

7: 2700 South & State Street - 2	E-W	WBT	WB				151			
7: 2700 South & State Street - 1	S-W	NBL	NB				88			
7: 2700 South & State Street - 1	S-E	NBR	NB				87			
7: 2700 South & State Street - 1	W-N	EBL	EB				301			
7: 2700 South & State Street - 1	N-E	SBL	SB				140			
7: 2700 South & State Street - 1	N-W	SBR	SB				96			
7: 2700 South & State Street - 1	E-N	WBR	WB				70			
7: 2700 South & State Street - 1	E-S	WBL	WB	24.80154142 C			129	4778	4960	96.3% 2.506907
8: WB I-80 & 700 East - 72@29	N-S	SBT	SB				1768			
8: WB I-80 & 700 East - 80@28.	S-N	NBT	NB				1858			
8: WB I-80 & 700 East - 87@30.	S-SW	NBL	NB				692			
8: WB I-80 & 700 East - 135@1	E-S	WBL	WB				224			
8: WB I-80 & 700 East - 135@1	E-SW	WBL	WB				0			
8: WB I-80 & 700 East - 136@7	E-N	WBR	WB				571			
8: WB I-80 & 700 East - 168@21	N-S	SBT	SB				774			
8: WB I-80 & 700 East - 169@2	N-SW	SBR	SB	18.54976441 B			662	6548	6850	95.6% 1.611021
9: EB I-80 & 700 East - 74@24.8	N-S	SBT	SB				1991			
9: EB I-80 & 700 East - 78@281.	S-N	NBT	NB				1069			
9: EB I-80 & 700 East - 85@22.3	N-NE	SBL	SB				776			
9: EB I-80 & 700 East - 133@12	W-N	EBL	EB				789			
9: EB I-80 & 700 East - 133@12	W-NE	EBL	EB				0			
9: EB I-80 & 700 East - 134@31	W-S	EBR	EB				1167			
9: EB I-80 & 700 East - 166@22	S-N	NBT	NB				693			
9: EB I-80 & 700 East - 167@27	S-NE	NBR	NB				150			
9: EB I-80 & 700 East - 10188@	N-S	SBT	SB	21.55249716 C	34.05911993 C		133	6768	7190	94.1% 4.836237
10: 2400 S & West Temple - 33	E-W	WBT	WB				6			
10: 2400 S & West Temple - 33	E-N	WBR	WB				19			
10: 2400 S & West Temple - 33	E-S	WBL	WB			6.638944862 A	9			
10: 2400 S & West Temple - 34	W-E	EBT	EB				4			
10: 2400 S & West Temple - 34	W-N	EBL	EB				0			
10: 2400 S & West Temple - 34	W-S	EBR	EB			2.6703586 A	0			
10: 2400 S & West Temple - 57	N-E	SBL	SB				5			
10: 2400 S & West Temple - 57	N-W	SBR	SB				5			
10: 2400 S & West Temple - 57	N-S	SBT	SB				260			
10: 2400 S & West Temple - 10	S-E	NBR	NB				5			
10: 2400 S & West Temple - 10	S-W	NBL	NB				0			
10: 2400 S & West Temple - 10	S-N	NBT	NB	0.560000822 A			279	592	605	97.9% 0.304102
11: Robert Ave. & West Temple	E-W	WBT	WB				0			
11: Robert Ave. & West Temple	E-S	WBL	WB				6			
11: Robert Ave. & West Temple	E-N	WBR	WB			7.5846102 A	4			
11: Robert Ave. & West Temple	W-E	EBT	EB				5			
11: Robert Ave. & West Temple	W-S	EBR	EB				4			
11: Robert Ave. & West Temple	W-N	EBL	EB			7.488612185 A	4			
11: Robert Ave. & West Temple	S-E	NBR	NB				5			
11: Robert Ave. & West Temple	S-W	NBL	NB				7			
11: Robert Ave. & West Temple	S-N	NBT	NB				277			
11: Robert Ave. & West Temple	N-E	SBL	SB				5			
11: Robert Ave. & West Temple	N-W	SBR	SB				5			
11: Robert Ave. & West Temple	N-S	SBT	SB	0.431334763 A			259	581	590	98.5% 0.288525
12: Oakland Ave & West Templ	E-W	WBT	WB				4			
12: Oakland Ave & West Templ	E-N	WBR	WB				20			
12: Oakland Ave & West Templ	E-S	WBL	WB			7.547098908 A	5			
12: Oakland Ave & West Templ	W-E	EBT	EB				20			
12: Oakland Ave & West Templ	W-N	EBL	EB				8			
12: Oakland Ave & West Templ	W-S	EBR	EB			8.831418567 A	9			
12: Oakland Ave & West Templ	N-E	SBL	SB				12			

12: Oakland Ave & West Templ	N-W	SBR	SB			5			
12: Oakland Ave & West Templ	N-S	SBT	SB			254			
12: Oakland Ave & West Templ	S-E	NBR	NB			22			
12: Oakland Ave & West Templ	S-W	NBL	NB			11			
12: Oakland Ave & West Templ	S-N	NBT	NB	1.169782943 A		260	629	635	99.0% 0.304104
13: 2400 S & Main Street - 32@	W-E	EBT	EB			0			
13: 2400 S & Main Street - 32@	W-S	EBR	EB			5			
13: 2400 S & Main Street - 32@	W-N	EBL	EB		8.349534158 A	9			
13: 2400 S & Main Street - 37@	E-W	WBT	WB			20			
13: 2400 S & Main Street - 37@	E-S	WBL	WB			21			
13: 2400 S & Main Street - 37@	E-N	WBR	WB		46.20447108 E	131			
13: 2400 S & Main Street - 54@	S-W	NBL	NB			5			
13: 2400 S & Main Street - 54@	S-E	NBR	NB			0			
13: 2400 S & Main Street - 54@	S-N	NBT	NB			495			
13: 2400 S & Main Street - 59@	N-W	SBR	SB			10			
13: 2400 S & Main Street - 59@	N-E	SBL	SB			0			
13: 2400 S & Main Street - 59@	N-S	SBT	SB	6.424605732 A		471	1166	1170	99.6% 11.12578
14: Robert Ave. & Main Street -	E-W	WBT	WB			0			
14: Robert Ave. & Main Street -	E-N	WBR	WB			4			
14: Robert Ave. & Main Street -	E-S	WBL	WB		6.99855969 A	4			
14: Robert Ave. & Main Street -	W-E	EBT	EB			4			
14: Robert Ave. & Main Street -	W-N	EBL	EB			5			
14: Robert Ave. & Main Street -	W-S	EBR	EB		7.031520492 A	6			
14: Robert Ave. & Main Street -	N-E	SBL	SB			11			
14: Robert Ave. & Main Street -	N-W	SBR	SB			5			
14: Robert Ave. & Main Street -	N-S	SBT	SB			481			
14: Robert Ave. & Main Street -	S-E	NBR	NB			6			
14: Robert Ave. & Main Street -	S-W	NBL	NB			4			
14: Robert Ave. & Main Street -	S-N	NBT	NB	0.239281173 A		491	1022	1025	99.7% 0.113415
15: N Granite SD Access & Main	E-N	WBR	WB			60			
15: N Granite SD Access & Main	E-S	WBL	WB		1.189088813 A	5			
15: N Granite SD Access & Main	N-E	SBL	SB			12			
15: N Granite SD Access & Main	N-S	SBT	SB			478			
15: N Granite SD Access & Main	S-E	NBR	NB			5			
15: N Granite SD Access & Main	S-N	NBT	NB	0.140894132 A		442	1002	1005	99.7% 0.108516
16: Oakland Ave. & Main Street	W-N	EBL	EB			30			
16: Oakland Ave. & Main Street	W-S	EBR	EB		7.661605999 A	23			
16: Oakland Ave. & Main Street	N-W	SBR	SB			13			
16: Oakland Ave. & Main Street	N-S	SBT	SB			471			
16: Oakland Ave. & Main Street	S-W	NBL	NB			16			
16: Oakland Ave. & Main Street	S-N	NBT	NB	0.508603016 A		418	970	970	100.0% 0.297549
17: S Granite SD Access & Main	E-N	WBR	WB			20			
17: S Granite SD Access & Main	E-S	WBL	WB		1.683652382 A	17			
17: S Granite SD Access & Main	N-E	SBL	SB			5			
17: S Granite SD Access & Main	N-S	SBT	SB			489			
17: S Granite SD Access & Main	S-E	NBR	NB			39			
17: S Granite SD Access & Main	S-N	NBT	NB	0.117749865 A		415	984	985	99.9% 0.066137

2040 NB Queue Report (AM PM)

						AM			PM		
Movement	From	To	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1-1@1466.8-7@51.6	1	7	W-E	178.55	EBT	167	46	243	999	582	1960
1-2@1436.4-6@43.7	2	6	E-W	214.55	WBT	243	79	373	368	189	679
1-3@1101.9-5@67.0	3	5	N-S	93.9	SBT	107	30	156	419	180	716
1-4@1031.1-8@53.2	4	8	S-N	215.23	NBT	184	61	285	167	98	330
1-159@246.4-7@51.6	159	7	S-E	67.47	NBR	79	96	237	96	78	224
1-160@288.7-6@43.7	160	6	S-W	54.44	NBL	76	28	122	125	60	225
1-161@166.4-5@67.0	161	5	E-S	118.54	WBL	121	33	175	190	170	470
1-162@152.6-8@53.2	162	8	W-N	69.8	EBL	75	22	111	357	557	1276
1-163@133.8-6@43.7	163	6	N-W	17.39	SBR	19	16	46	43	35	100
1-164@371.3-7@51.6	164	7	N-E	42.1	SBL	47	18	77	75	44	148
1-165@166.2-8@53.2	165	8	E-N	15.2	WBR	12	20	44	88	156	346
1-255@187.5-5@67.0	255	5	W-S	26.05	EBR	29	16	56	667	585	1632
2-5@1044.9-158@52.6	5	158	N-S	46.38	SBT	88	54	177	436	263	870
2-5@1044.9-176@37.4	5	176	N-W	46.38	SBR	88	54	177	415	268	857
2-10@1228.3-4@51.2	10	4	S-N	103.94	NBT	131	61	231	93	57	186
2-174@664.9-158@52.6	174	158	W-S	33.46	EBR	43	39	107	112	93	266
2-175@210.6-4@51.2	175	4	W-N	177.18	EBL	171	61	271	267	164	538
2-177@146.2-176@37.4	177	176	S-W	31.72	NBL	63	44	135	341	164	611
3-90@8.1-10@47.0	90	10	S-N	0	NBT	0	1	2	0	0	0
3-96@9.7-37@36.9	96	37	S-W	0	NBL	0	0	0	0	0	0
3-96@9.7-118@45.7	96	118	S-W	0	NBL	0	0	0	0	0	0
3-124@1240.6-37@36.9	124	37	E-W	124.63	WBT	116	47	193	335	231	716
3-124@1240.6-91@34.5	124	91	E-S	124.63	WBL	116	47	193	344	236	733
3-124@1240.6-118@45.7	124	118	E-W	124.63	WBT	116	47	193	335	231	716
3-125@249.7-10@47.0	125	10	E-N	182.77	WBR	179	110	360	347	285	817
3-155@285.8-97@42.0	155	97	N-S	167.37	SBT	235	63	340	210	130	425
3-156@284.4-37@36.9	156	37	N-W	54.69	SBR	74	62	176	152	132	370
3-156@284.4-118@45.7	156	118	N-W	57.12	SBR	77	60	176	111	87	255
3-157@282.8-91@34.5	157	91	N-S	74.26	SBT	79	28	126	268	198	594
4-92@5.5-12@38.2	92	12	N-S	0	SBT	0	0	0	0	0	0
4-98@6.3-25@59.6	98	25	N-E	0	SBL	0	2	3	0	0	0
4-98@6.3-122@62.0	98	122	N-E	0	SBL	0	2	3	0	0	0
4-120@1810.3-25@59.6	120	25	W-E	202.21	EBT	242	78	371	199	78	327

4-120@1810.3-89@28.3	120	89	W-N	202.21	EBL	242	78	371	233	156	490
4-120@1810.3-122@62.0	120	122	W-E	202.21	EBT	242	78	371	199	78	327
4-121@193.1-12@38.2	121	12	W-S	128.88	EBR	166	125	372	312	209	657
4-144@76.3-89@28.3	144	89	S-N	200.63	NBT	252	58	348	280	53	368
4-145@75.0-25@59.6	145	25	S-E	109.67	NBR	219	96	378	243	90	391
4-145@75.0-10032@97.6	145	10032	S-E	111.91	NBR	220	95	377	267	78	395
4-146@331.6-95@47.4	146	95	S-N	121.51	NBT	158	49	239	111	72	229
4-10063@12.6-12@38.2	10063	12	N-S	0	SBT	0	0	0	43	91	194
5-12@191.7-12@266.5	12	12	N-S	0	SBT	0	0	0	0	2	4
5-22@609.6-11@42.3	22	11	E-N	11.61	WBR	16	13	38	64	121	263
5-146@91.4-146@181.0	146	146	S-N	0	NBT	1	4	7	16	37	76
5-147@71.3-11@42.3	147	11	S-N	7.68	NBT	49	49	130	93	43	164
5-147@71.3-21@32.7	147	21	S-E	11.51	NBR	68	66	177	102	61	202
6-12@274.6-24@20.9	12	24	N-W	9.33	SBR	5	15	30	8	16	35
6-12@274.6-143@30.9	12	143	N-S	5.72	SBT	3	10	20	0	3	6
6-23@259.7-143@30.9	23	143	W-S	31.19	EBR	25	13	46	32	13	54
6-10004@16.7-147@64.8	10004	147	S-N	39.83	NBT	126	146	367	364	287	836
6-10008@16.6-146@84.4	10008	146	S-N	39.64	NBT	115	149	360	312	313	828
7-14@1205.4-16@106.4	14	16	N-S	116.83	SBT	92	27	136	292	144	529
7-15@1184.3-13@57.1	15	13	S-N	165.29	NBT	176	50	259	209	63	313
7-17@647.5-16@106.4	17	16	W-S	44.83	EBR	42	25	84	201	86	344
7-17@647.5-19@119.5	17	19	W-E	35.83	EBT	34	27	79	169	98	330
7-20@820.0-18@72.5	20	18	E-W	56.1	WBT	60	36	120	65	37	127
7-148@291.2-18@72.5	148	18	S-W	43.98	NBL	38	26	81	36	29	84
7-149@150.8-19@119.5	149	19	S-E	7.07	NBR	6	12	25	61	82	196
7-150@28.0-13@57.1	150	13	W-N	53.7	EBL	86	46	161	169	105	342
7-153@329.4-19@119.5	153	19	N-E	27.31	SBL	20	23	57	44	33	99
7-154@188.7-18@72.5	154	18	N-W	15.36	SBR	17	17	45	52	85	193
7-10014@53.9-13@57.1	10014	13	E-N	36.71	WBR	48	25	89	35	30	85
7-10015@17.9-16@106.4	10015	16	E-S	31.33	WBL	42	34	98	129	117	321
8-72@299.7-73@63.1	72	73	N-S	141.13	SBT	144	36	203	219	112	405
8-80@28.1-70@87.4	80	70	S-N	102.07	NBT	83	63	187	86	120	284
8-87@30.0-137@28.7	87	137	S-SW	67.14	NBL	292	129	504	254	144	491
8-135@1579.2-73@63.1	135	73	E-S	66.14	WBL	45	29	93	74	48	153
8-135@1579.2-137@28.7	135	137	E-SW	66.14	WBL	45	29	93	92	37	152

8-136@72.0-70@87.4	136	70	E-N	12.19	WBR	6	18	36	38	69	151
8-168@218.7-83@57.4	168	83	N-S	87.5	SBT	100	37	161	133	76	260
8-169@299.3-137@28.7	169	137	N-SW	1.92	SBR	424	500	1249	58	109	237
9-74@24.8-10189@12.0	74	10189	N-S	83.32	SBT	65	30	115	119	58	215
9-78@281.6-79@56.2	78	79	S-N	247.14	NBT	592	580	1548	224	64	329
9-85@22.3-140@66.9	85	140	N-NE	45.68	SBL	59	35	116	252	64	357
9-133@1231.9-79@56.2	133	79	W-N	214.71	EBL	271	81	405	211	123	415
9-133@1231.9-140@66.9	133	140	W-NE	214.71	EBL	271	81	405	267	73	388
9-134@318.9-10188@13.	134	10188	W-S	0	EBR	5	13	26	53	91	204
9-166@226.1-86@53.8	166	86	S-N	199.45	NBT	894	641	1951	202	153	454
9-167@274.8-140@66.9	167	140	S-NE	0	NBR	1	4	7	21	43	92
9-10188@14.1-76@3.8	10188	76	N-S	0	SBT	0	0	0	57	117	250
10-33@704.1-35@43.9	33	35	E-W	7.84	WBT	17	15	42	20	15	44
10-33@704.1-56@30.3	33	56	E-N	7.84	WBR	17	15	42	16	15	41
10-33@704.1-10106@10.	33	10106	E-S	7.84	WBL	17	15	42	20	15	44
10-34@51.1-32@34.2	34	32	W-E	0	EBT	0	0	0	0	2	4
10-34@51.1-56@30.3	34	56	W-N	0	EBL	0	0	0	0	2	3
10-34@51.1-10106@10.2	34	10106	W-S	0	EBR	0	0	0	0	2	4
10-57@353.0-32@34.2	57	32	N-E	0	SBL	1	6	12	1	4	8
10-57@353.0-35@43.9	57	35	N-W	0	SBR	0	3	6	1	6	11
10-57@353.0-10106@10.	57	10106	N-S	0	SBT	0	0	0	0	2	3
10-10107@1.9-32@34.2	10107	32	S-E	0	NBR	0	2	4	0	0	0
10-10107@1.9-35@43.9	10107	35	S-W	0	NBL	1	5	9	0	0	0
10-10107@1.9-56@30.3	10107	56	S-N	0	NBT	0	0	0	4	11	22
11-28@710.2-30@17.2	28	30	E-W	2.58	WBT	6	12	26	7	12	27
11-28@710.2-45@9.4	28	45	E-S	2.56	WBL	6	12	26	7	12	27
11-28@710.2-48@20.1	28	48	E-N	2.53	WBR	6	12	25	7	12	27
11-31@117.4-29@20.1	31	29	W-E	0	EBT	3	10	19	9	12	29
11-31@117.4-45@9.4	31	45	W-S	0	EBR	3	10	19	9	12	29
11-31@117.4-48@20.1	31	48	W-N	0	EBL	3	10	19	7	12	26
11-44@282.3-29@20.1	44	29	S-E	0	NBR	0	1	2	0	2	4
11-44@282.3-30@17.2	44	30	S-W	0	NBL	0	0	0	0	2	4
11-44@282.3-48@20.1	44	48	S-N	0	NBT	0	0	0	0	2	3
11-49@19.8-29@20.1	49	29	N-E	2.91	SBL	1	6	11	5	19	36
11-49@19.8-30@17.2	49	30	N-W	8.15	SBR	19	35	76	17	34	73

11-49@19.8-45@9.4	49	45	N-S	0	SBT	0	0	0	3	10	20
12-40@711.0-42@19.8	40	42	E-W	16.71	WBT	20	15	45	16	16	42
12-40@711.0-44@31.2	40	44	E-N	16.71	WBR	20	15	45	16	16	42
12-40@711.0-47@24.9	40	47	E-S	16.71	WBL	20	15	45	18	15	43
12-43@473.0-41@28.2	43	41	W-E	17.04	EBT	15	15	39	22	15	47
12-43@473.0-44@31.2	43	44	W-N	16.66	EBL	14	15	38	22	15	46
12-43@473.0-47@24.9	43	47	W-S	16.68	EBR	14	15	38	18	16	44
12-45@261.8-41@28.2	45	41	N-E	0	SBL	1	6	11	2	10	18
12-45@261.8-42@19.8	45	42	N-W	0	SBR	0	0	0	1	7	13
12-45@261.8-47@24.9	45	47	N-S	0	SBT	0	0	0	0	1	2
12-46@527.0-41@28.2	46	41	S-E	0	NBR	0	5	8	1	5	8
12-46@527.0-42@19.8	46	42	S-W	0	NBL	0	5	8	1	6	11
12-46@527.0-44@31.2	46	44	S-N	0	NBT	0	2	3	2	8	15
13-32@716.9-36@24.3	32	36	W-E	9.75	EBT	8	11	27	10	13	31
13-32@716.9-55@6.1	32	55	W-S	9.75	EBR	8	11	27	10	13	31
13-32@716.9-58@21.9	32	58	W-N	9.75	EBL	8	11	27	24	35	82
13-37@672.9-33@22.5	37	33	E-W	38.51	WBT	46	31	97	91	69	206
13-37@672.9-55@6.1	37	55	E-S	38.51	WBL	46	31	97	91	69	206
13-37@672.9-58@21.9	37	58	E-N	38.51	WBR	46	31	97	75	77	202
13-54@239.9-33@22.5	54	33	S-W	0	NBL	0	4	7	1	4	8
13-54@239.9-36@24.3	54	36	S-E	0	NBR	0	0	0	0	3	6
13-54@239.9-58@21.9	54	58	S-N	0	NBT	0	0	0	0	0	0
13-59@503.7-33@22.5	59	33	N-W	0	SBR	0	0	0	0	0	0
13-59@503.7-36@24.3	59	36	N-E	0	SBL	0	0	0	0	0	0
13-59@503.7-55@6.1	59	55	N-S	0	SBT	0	0	0	1	6	11
14-26@405.6-28@21.3	26	28	E-W	2.67	WBT	3	9	18	6	11	24
14-26@405.6-54@12.4	26	54	E-N	2.67	WBR	3	9	18	6	11	24
14-26@405.6-61@11.8	26	61	E-S	2.67	WBL	3	9	18	6	11	25
14-29@709.2-27@24.6	29	27	W-E	10.32	EBT	9	13	30	10	14	33
14-29@709.2-54@12.4	29	54	W-N	10.32	EBL	9	13	30	10	14	33
14-29@709.2-61@11.8	29	61	W-S	10.32	EBR	9	13	30	9	14	32
14-55@232.4-27@24.6	55	27	N-E	0	SBL	0	0	0	1	7	13
14-55@232.4-28@21.3	55	28	N-W	0	SBR	0	0	0	0	5	8
14-55@232.4-61@11.8	55	61	N-S	0	SBT	0	0	0	2	11	19
14-60@63.7-27@24.6	60	27	S-E	0	NBR	0	3	6	4	17	32

14-60@63.7-28@21.3	60	28	S-W	0	NBL	0	2	3	0	3	5
14-60@63.7-54@12.4	60	54	S-N	0	NBT	0	0	0	1	4	8
15-39@121.3-60@39.7	39	60	E-N	0	WBR	2	8	15	5	10	21
15-39@121.3-63@56.2	39	63	E-S	0	WBL	2	9	16	4	10	21
15-61@36.1-38@23.1	61	38	N-E	2.17	SBL	1	4	7	2	10	20
15-61@36.1-63@56.2	61	63	N-S	0	SBT	2	14	25	6	21	41
15-62@135.9-38@23.1	62	38	S-E	0	NBR	0	1	3	0	0	0
15-62@135.9-60@39.7	62	60	S-N	0	NBT	0	0	0	5	12	25
16-41@707.2-62@37.8	41	62	W-N	23.09	EBL	17	15	41	24	14	47
16-41@707.2-67@49.9	41	67	W-S	23.09	EBR	17	15	41	19	16	45
16-63@154.7-40@31.3	63	40	N-W	0	SBR	1	4	7	0	2	4
16-63@154.7-67@49.9	63	67	N-S	0	SBT	0	0	0	1	4	8
16-66@184.7-40@31.3	66	40	S-W	1.81	NBL	2	5	11	2	8	15
16-66@184.7-62@37.8	66	62	S-N	0	NBT	0	0	0	1	5	9
17-65@232.9-66@55.3	65	66	E-N	0	WBR	2	6	12	4	9	18
17-65@232.9-68@30.9	65	68	E-S	0	WBL	2	6	12	3	8	16
17-67@180.0-64@29.5	67	64	N-E	1.87	SBL	1	5	9	1	4	6
17-67@180.0-68@30.9	67	68	N-S	0	SBT	0	0	0	0	0	0
17-69@505.0-64@29.5	69	64	S-E	4.27	NBR	1	4	7	0	1	2
17-69@505.0-66@55.3	69	66	S-N	0	NBT	0	0	0	20	42	89

Name	Analysis Type	Lanes	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr
EB I-80 (Over State)	Basic	4	***21.6***	***C***	***32.7***	***D***	5278	5320
EB I-80 (State to 700 E)	Weave	5	***20.5***	***C***	***27.0***	***C***	6465	6530
EB I-80 (Over 700 E)	Basic	4	***19.5***	***C***	***24.9***	***C***	5001	5060
WB I-80 (Over 700 E)	Basic	4	***94.3***	***F***	***25.9***	***C***	5666	8020
WB I-80 (700 E to State)	Weave	5	***69.4***	***F***	***26.1***	***C***	7325	10050
WB I-80 (Over State)	Diverge	4	***76.0***	***F***	***29.1***	***B***	6659	9180
WB I-80 to WB CD Ramp	Ramp	2	***79.7***	***F***	***35.7***	***D***	3740	5250
WB I-80 (West of State)	Diverge	3	***14.3***	***B***	***14.9***	***D***	2781	3930
WB I-80 to NB I-15	Ramp	3	***13.8***	***B***	***13.8***	***B***	2179	3010
To SB I-15 Ramp	Ramp	2	***15.3***	***B***	***16.4***	***B***	1658	1990
To WB 201 Ramp	Ramp	2	***24.5***	***C***	***22.5***	***B***	2634	3690
WB I-80 to SB I-15/WB 201	Diverge	3	***26.5***	***C***	***28.6***	***B***	4212	5680
WB CD	Weave (CD)	3	***30.6***	***C***	***24.5***	***C***	4659	6150
EB I-80 I-15 to State	Weave	5	***24.9***	***C***	***70.0***	***F***	6393	6540
NB I-15 Off Ramp 2	Ramp	1	***33.4***	***D***	***96.3***	***F***	1593	1600
NB I-15 Off Ramp 1	Ramp	2	***14.6***	***B***	***152.4***	***F***	1593	1600
EB 201/SB I-15 2	Merge	4	***22.6***	***C***	***109.5***	***F***	4901	4940
EB 201 Ramp	Ramp	2	***20.5***	***B***	***144.7***	***F***	2347	2350
SB I-15 Ramp	Ramp	3	***14.6***	***B***	***60.6***	***F***	2587	2590

%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
0.992197401	7194	9850	0.73031017	64.329126	54.774569	0.845809	1.639128
0.990035834	8530	11250	0.7582025	66.26831	63.101476	0.775827	1.418158
0.988316126	6576	8750	0.751552043	67.50899	66.063255	0.805304	1.175732
0.706510689	6099	6130	0.994943803	14.573788	61.988313	9.441637	2.11013
0.728892748	7437	7490	0.992878565	20.930569	59.66328	5.815198	1.58425
0.72537687	6386	6470	0.986970366	27.593121	65.155337	4.425504	1.371208
0.712338061	3417	3550	0.962438139	22.909225	61.265534	3.427612	4.491603
0.707606663	2837	2920	0.971732774	63.863117	66.789491	1.472658	0.992098
0.723995956	2221	2240	0.991455873	56.018737	56.327936	1.282926	1.099363
0.832936998	1731	1770	0.978148013	55.868993	55.702972	1.179527	1.353938
0.713898343	2365	2460	0.961508715	54.855564	55.078252	1.58148	1.647234
0.741466383	4025	4230	0.9514548	52.774911	51.962929	1.424128	2.194868
0.7575285	4415	4580	0.964063025	51.469936	62.026305	1.826531	1.797846
0.97753283	8171	11260	0.725629481	54.33709	23.231246	2.382154	4.011485
0.995505583	1603	1880	0.852872354	50.566991	16.58075	6.833869	22.02112
0.995866769	1670	1880	0.888356877	57.898655	5.160049	2.494652	22.0985
0.992141347	6701	9380	0.714375124	63.58562	18.019417	0.584445	6.416929
0.998701368	2141	4480	0.477940713	60.354882	6.215612	0.321624	10.87986
0.998678108	4888	4900	0.997593724	62.172501	31.112667	0.164491	35.664

Appendix D

Acronyms

List of Acronyms

ADT – average daily traffic
ATR – automatic traffic recorder
AWDT – average weekday daily traffic
EIS – environmental impact study
EB – eastbound
FHWA – Federal Highway Administration
HCM – Highway Capacity Manual
LOS – level of service
MAG – Mountainland Association of Governments
MOE – measure of effectiveness
mph – miles per hour
MPO – metropolitan planning organization
NB – northbound
NCHRP – National Cooperative Highway Research Program
OSR – Operational safety report
pc/mi/ln – passenger car equivalents per mile per lane
PeMS – Performance Measurement System
RTP – regional transportation plan
SB – southbound
sec/veh – seconds per vehicle
TAZ – traffic analysis zone
TOC – traffic operations center
UDOT – Utah Department of Transportation
v/c – volume to capacity ratio
veh/mi/ln – vehicles per mile per lane
vpd – vehicles per day
vph – vehicles per hour
WB – westbound
WFRC – Wasatch Front Regional Council

MEMORANDUM

Date: December 17, 2015

To: Peter Tang, P.E. – UDOT Region 2 Project Manager

From: Ryan Hales, P.E., PTOE, AICP
Jeremy Searle, P.E., PTOE

Subject: I-80 / State Street Interchange EIS Traffic Analysis: Future 2040 Alternatives

UT13-537

PURPOSE

The purpose of this memorandum is to detail the results of a traffic analysis of several future 2040 alternatives for the eastbound I-80 weave area and the I-80 / State Street (US-89) interchange in South Salt Lake, Utah. This memo outlines:

- Methodology
- Model Calibration
- Future 2040 EB I-80 Weave Area Alternatives
- Future 2040 WB I-80 Weave Area Alternatives
- Future 2040 I-80 / State Street (US-89) Interchange Alternatives

This analysis was completed in conjunction with the I-80 / State Street Interchange Environmental Impact Study (EIS).

ANALYSIS METHODOLOGY

The Highway Capacity Manual 2010 (HCM 2010) methodology was used in this study to remain consistent with "state-of-the-practice" professional standards. This methodology has different quantitative evaluations for roadway segments, signalized and unsignalized intersections, and freeway segments. As an evaluation metric, level of service (LOS) describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst.

Table 1 provides the LOS designations and definitions for freeway segments, evaluated by the density of vehicles in each segment. Table 2 provides the LOS letter designations and definitions for signalized and unsignalized intersections, evaluated by the average

delay per vehicle. Table 3 provides the LOS letter designations and definitions for freeway interchanges with signalized intersections. Table 4 provides the LOS letter designations and definitions for arterial streets based on speed.

The HCM 2010 defines four types of freeway segments for evaluation: Basic, merge, diverge, and weave. The area 1,500 feet downstream from an on-ramp or upstream from an off-ramp is considered a merge or diverge segment, respectively. A weave segment is defined by an area in which both merging and diverging occurs. Merge and diverge segments evaluate the outer two lanes only (plus auxiliary lanes). Because micro-simulation was used to determine the density of the analysis segments, and because it is reported in *vehicles per mile per lane* (veh/mi/ln), there is a subtle difference between the calculated density and the density defined by HCM 2010 which is in *passenger cars per mile per lane* (pc/mi/ln). However, since the density reported is a function of speed and volume, it is believed that veh/mi/ln is an acceptable surrogate for pc/mi/ln.

Table 1 Level of Service Descriptions for Freeway Segments

Level of Service	Description of Traffic Conditions	Density (pc/mi/ln)	Density (pc/mi/ln)^2
	Freeway Segments	Basic Segment	Merge / Diverge / Weave Segments
A	Extremely favorable progression with no delay. Users are unaffected by others in the traffic stream.	≤11	≤10
B	Good progression and a low level of delay. The presence of other users in the traffic stream becomes noticeable.	>11-18	>10-20
C	Fair progression and a moderate level of delay. Users become affected by interactions with others in the traffic stream.	>18-26	>20-28
D	Marginal progression with relatively high levels of delay. Operating conditions are noticeably constrained.	>26-35	>28-35
E	Poor progression with unacceptably high levels of delay. Operating conditions are at or near capacity.	>35-45	>35
F	Unacceptable progression with forced or breakdown operating conditions.	Demand Exceeds Capacity	

Source:

1. Hales Engineering Descriptions, based on *Highway Capacity Manual, 2010 Methodology* (Transportation Research Board, 2010).
2. VISSIM model output is reported in vehicles per mile per lane (veh/mi/ln)

For signalized and all-way stop intersections, LOS is determined by the weighted average of all approach delays. For all other unsignalized intersections, LOS is reported based on the worst approach. Freeway interchange LOS is calculated as a weighted average of all ramp terminal intersections.

Table 2 Level of Service Descriptions for Intersections

Level of Service	Description of Traffic Conditions	Average Delay (seconds/vehicle)
	Signalized Intersections	**Overall Intersection**
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	≤10
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	>10-20
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	>20-35
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	>35-55
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	>55-80
F	Unacceptable progression with forced or breakdown operating conditions.	>80
	Unsignalized Intersections	**Worst Approach**
A	Free Flow / Insignificant Delay	≤10
B	Stable Operations / Minimum Delays	>10-15
C	Stable Operations / Acceptable Delays	>15-25
D	Approaching Unstable Flows / Tolerable Delays	>25-35
E	Unstable Operations / Significant Delays Can Occur	>35-50
F	Forced Flows / Unpredictable Flows / Excessive Delays Occur	>50

Source:

1. Hales Engineering Descriptions, based on *Highway Capacity Manual, 2010 Methodology* (Transportation Research Board, 2010).

Table 3 Level of Service Descriptions for Freeway Interchanges

Level of Service	Description of Traffic Conditions	Average Delay (seconds/vehicle)
	Freeway Interchanges with Signalized Intersections	**Overall Interchange**
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	≤15
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	>15-30
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	>30-55
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	>55-85
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	>85-120
F	Unacceptable progression with forced or breakdown operating conditions.	>120

Source:

1. Hales Engineering Descriptions, based on *Highway Capacity Manual, 2010 Methodology* (Transportation Research Board, 2010).

Arterial street level of service is determined as a function of average travel speed compared to free flow speed. Alternatively, the volume-to-capacity (*v/c*) ratio can be calculated for a given segment which provides a quicker way to estimate the operations of a roadway. Roadway capacities are complex and depend on variables such as number of lanes, access spacing, traffic signal timing and coordination, the proportion of left and right turns, pedestrian activity, and several other factors.

Table 4 Level of Service Descriptions for Arterial Segments

Level of Service	Description of Traffic Conditions	Percent of Free Flow Speed
	Arterial Segments	**Overall Interchange**
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	>85%
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	>67-85%
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	>50-67%
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	>40-50%
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	>30-40%
F	Unacceptable progression with forced or breakdown operating conditions.	≤30%

Source:

1. Hales Engineering Descriptions, based on *Highway Capacity Manual, 2010 Methodology* (Transportation Research Board, 2010).

Level of Service Standards

For the purposes of this study, a minimum overall performance for each of the study roadways was set at LOS D. An LOS D threshold is consistent with “state-of-the-practice” traffic engineering principles.

FUTURE (2040) EB I-80 WEAVE AREA ALTERNATIVES

Several alternatives were developed as part of the EIS process that were intended to improve the traffic operations through the eastbound I-80 weave area near the State Street (US-89) interchange. These alternatives were labeled Eastbound Weave Alternatives A – J. Each alternative only modifies the eastbound weave area approaching the State Street (US-89) interchange. The interchange itself was assumed to remain in its existing configuration. These alternatives were analyzed and are discussed in more detail later in the report.

Future 2040 Volumes

As discussed in a previous Memorandum dated November 6, 2014 the future 2040 volumes were generated using a calibrated version of the WFRC travel demand model. For additional detail on how the future 2040 volumes were generated, please see the previous memorandum. The volumes for the eastbound I-15 to 700 East can be seen in Figure 1. The volumes for the westbound 700 east to I-15 can be seen in Figure 2. The volumes for the I-80 Weave section can be seen in Figure 3. The volumes for the a.m. peak hour for the On/Off ramp and near-by intersections can be found in Figure 4a and 4b. The p.m. peak hour volumes can be found in Figure 5a and 5b.

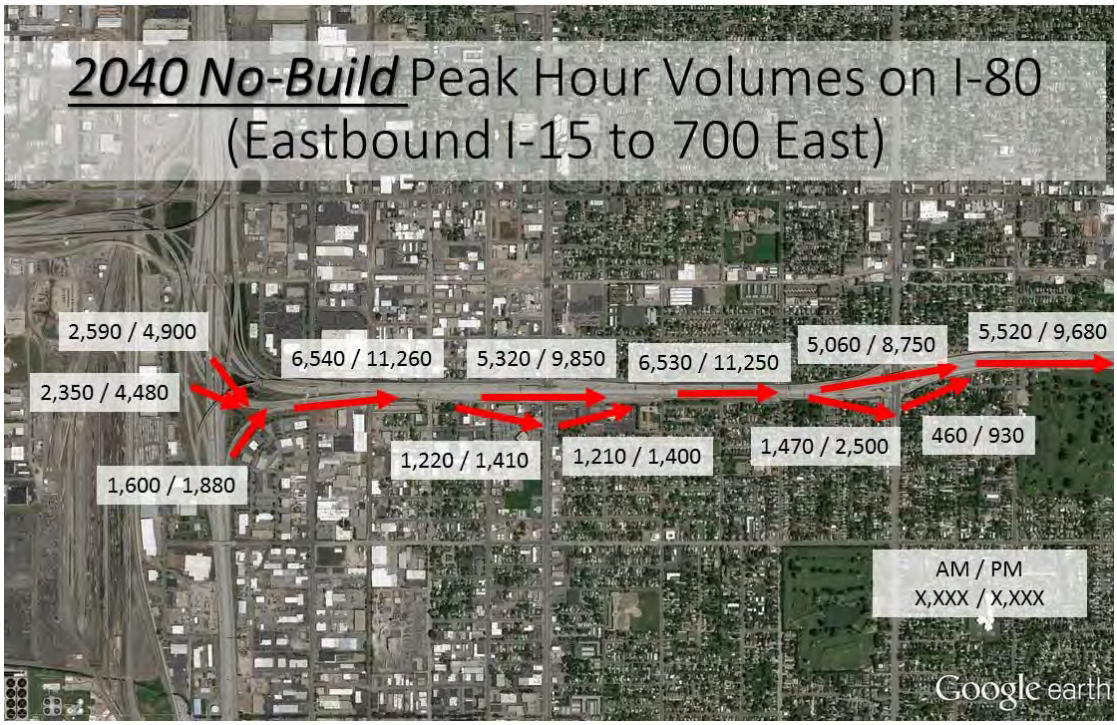


Figure 1 Eastbound I-15 to 700 East

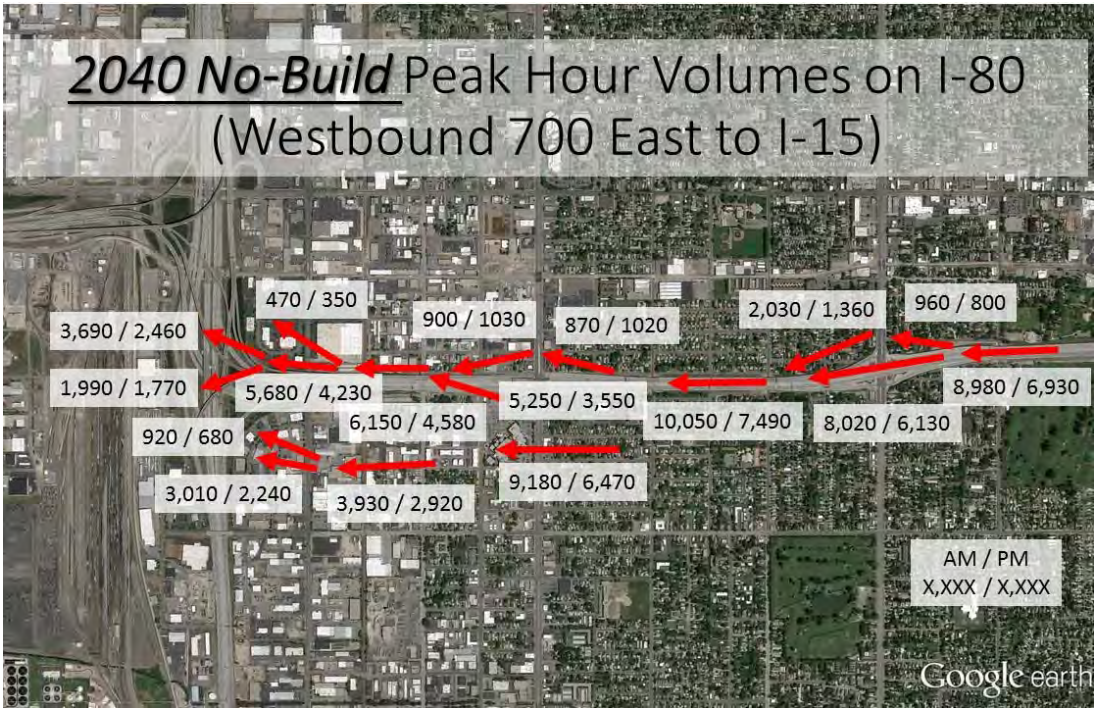


Figure 2 Westbound I-15 to 700 East

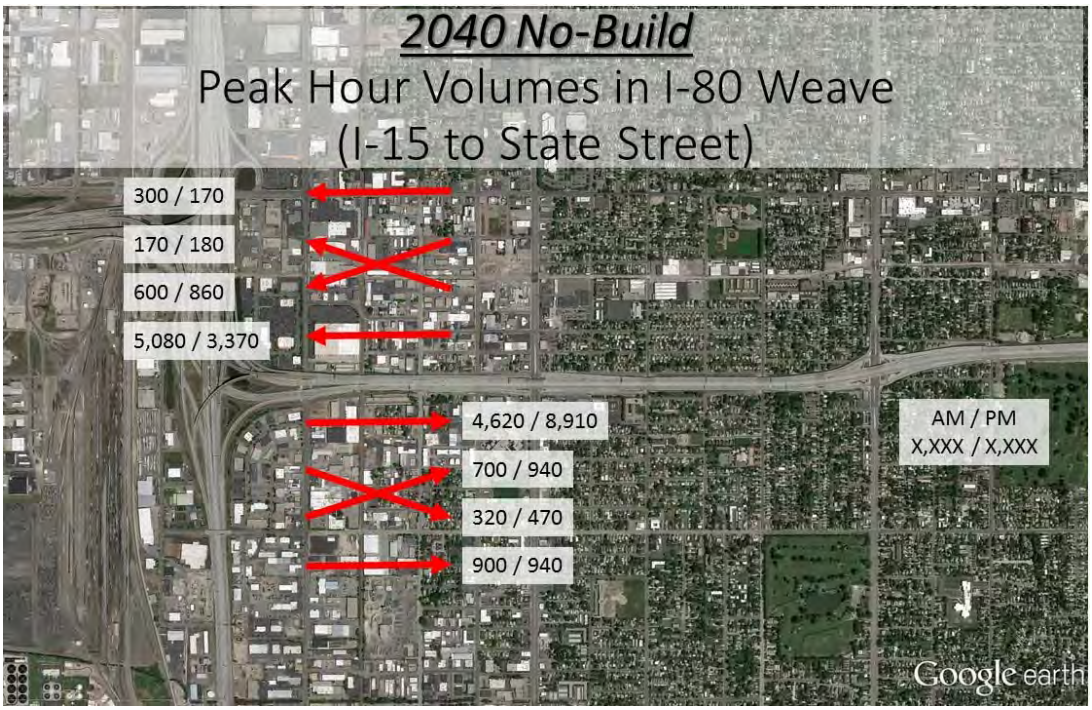
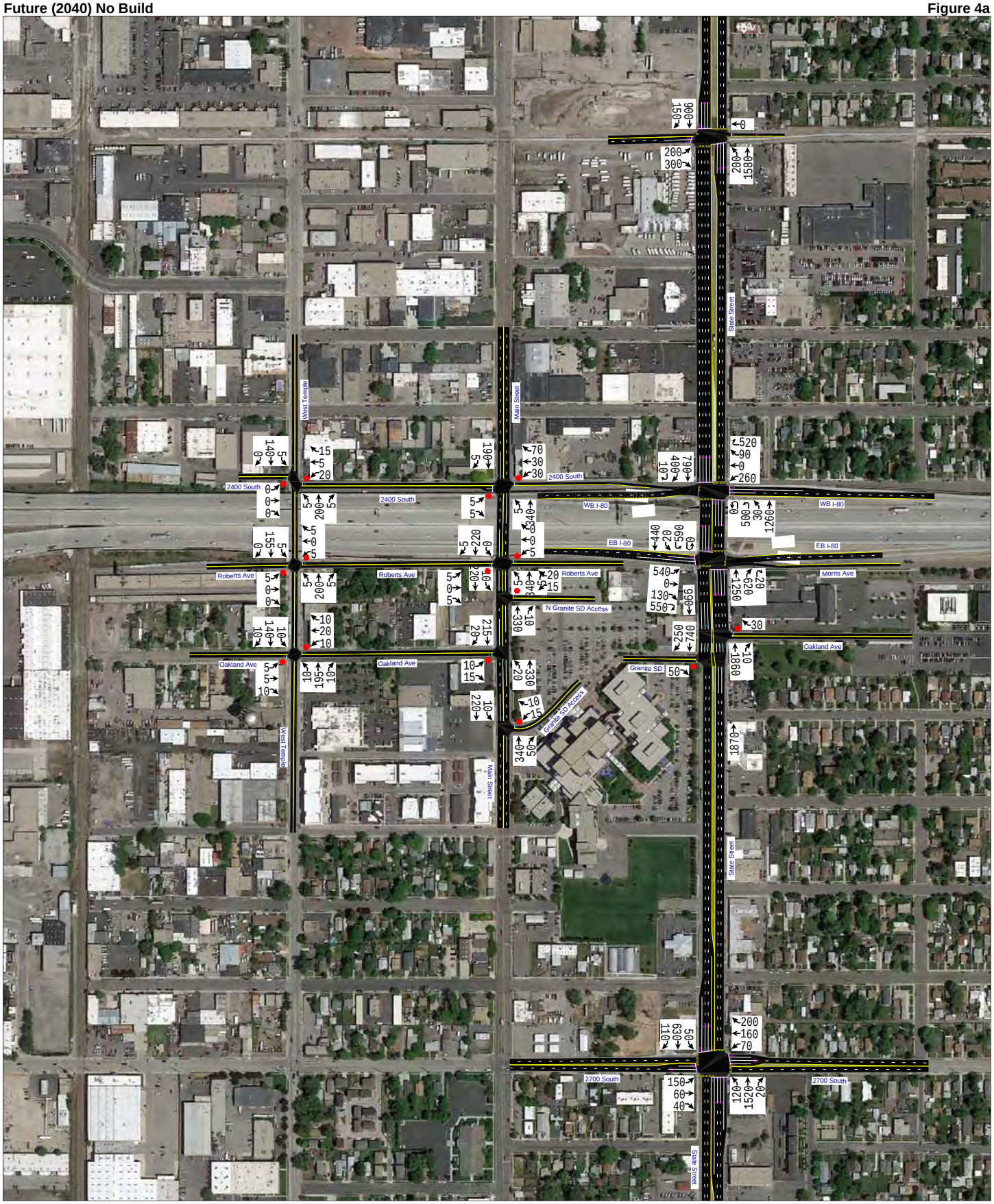
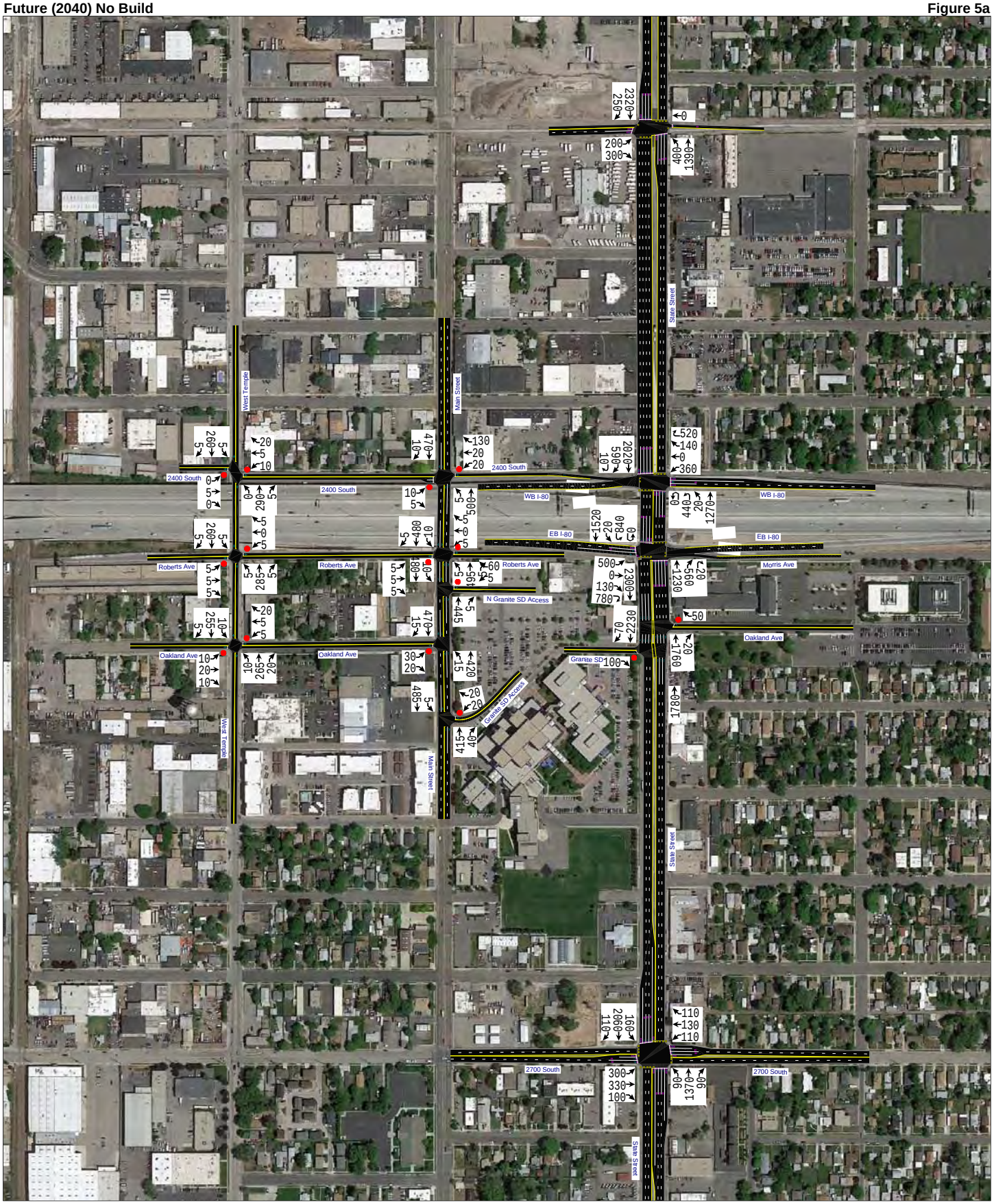
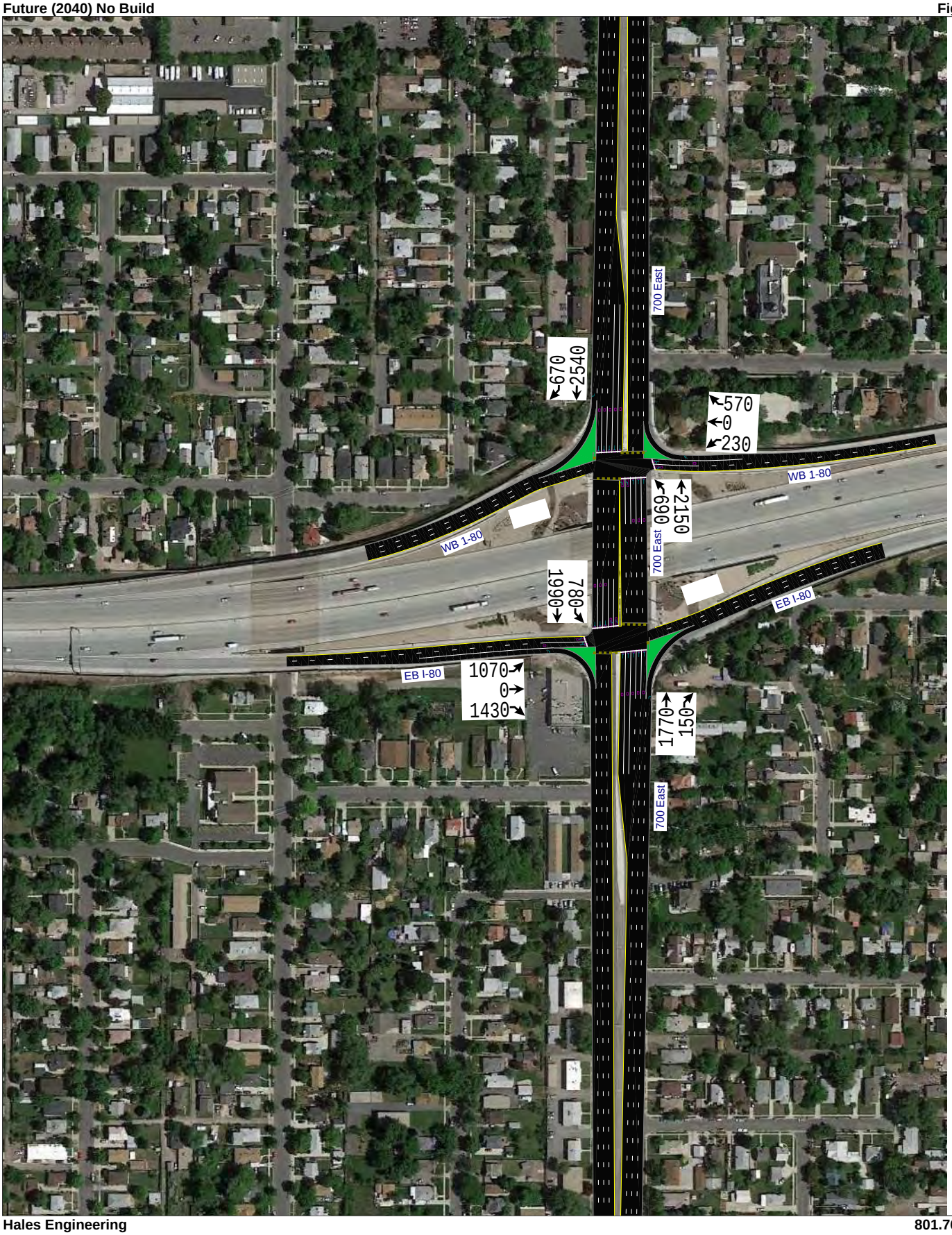


Figure 3 I-80 Weave Sections East- and Westbound


West Temple
Main Street
State Street
2400 South
WB I-80
EB I-80
Roberts Ave
N Granite SD Access
Morris Ave
Oakland Ave
Granite SD
Granite SD Access
2700 South


1040
990
700 East
850
0
110
WB 1-80
990
2540
700 East
WB 1-80
790
310
EB I-80
EB I-80
760
0
710
2770
150
700 East


2400 South
Roberts Ave
Oakland Ave
2700 South
WB I-80
EB I-80
West Temple
Main Street
State Street
N Granite SD Access
Granite SD Access
Morris Ave


700 East
670
2540
570
0
230
WB 1-80
690
2150
700 East
WB 1-80
780
1990
EB I-80
EB I-80
1070
0
1430
1770
150
700 East

Calibrated Model

Each alternative was analyzed using version 6.17 of VISSIM simulation software (PTV America). VISSIM has the ability to analyze both uninterrupted and interrupted flow facilities which is required for this analysis as the study area includes both arterial and freeway segments. As discussed in a previous Memorandum dated November 6, 2014, the existing 2014 conditions model was carefully calibrated to reflect the existing conditions, as well as a future 2040 no-action model. The future 2040 no-action model was used as a base model for each eastbound weave alternative. Only the p.m. peak hour results are reported for these analyses as they represent the worst-case scenario for the eastbound weave section on I-80.

Multiple Simulation Runs

Because of the stochastic (randomly determined) nature of the VISSIM model, it is necessary to run the model multiple times using different random seed numbers and then report the average measure of effectiveness (MOE) values of all runs. The simulation is typically run ten times in order to check the confidence interval at the 95 percent significance level using the standard deviations of the MOEs to determine if additional model runs are necessary.

As determined previously for the existing 2014 conditions model and the future 2040 no-action model, a total of 10 runs were deemed sufficient for the intersection operations analysis.

EB Weave Alternative A: Tighter Curve

Alternative A includes tightening the radius of the northbound I-15 off-ramp to eastbound I-80. This creates a longer weave area by merging with eastbound I-80 sooner. Figure 6 shows Alternative A.

Figure 6 Alternative A: Tighter Curve

EB Weave Alternative B: Flyover from I-15 NB to I-80 EB

Alternative B includes a flyover with an exclusive lane onto I-80 for vehicles on the northbound I-15 off-ramp that want to merge with eastbound I-80 traffic. Vehicles that want to exit at the State Street (US-89) interchange would stay on the existing NB-15 off-ramp. This alternative removes the northbound I-15 merging vehicles from the weave section. Instead, they merge with I-80 from the left. Figure 7 shows Alternative B.

Figure 7 Alternative B: Flyover from I-15 NB to I-80 EB

EB Weave Alternative C: Slip Ramp to Collector-Distributor Road

Alternative C includes a slip ramp from the southbound I-15 ramp to the SR-201 ramp upstream of the weave section for vehicles that want to exit at the State Street (US-89) interchange. A raised barrier would extend past the State Street off-ramp to separate the southbound I-15 to eastbound I-80 traffic from the SR-201 and northbound I-15 traffic. This alternative reduces the amount of weaving that needs to occur prior to the State Street (US-89) interchange. Figure 8 shows Alternative C.

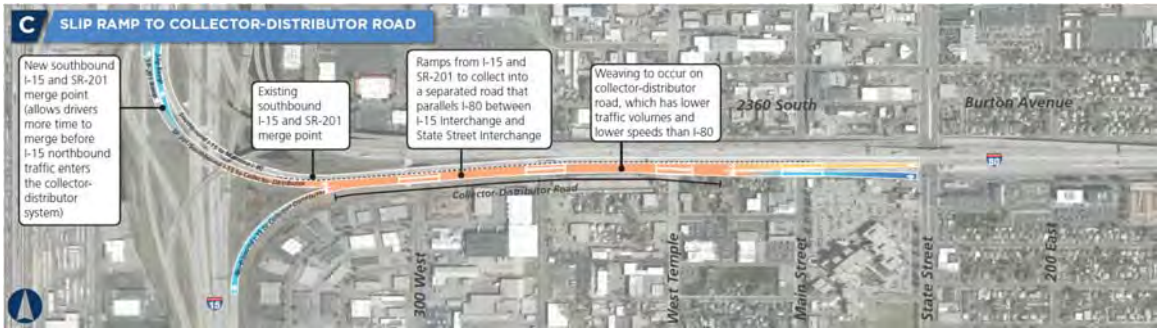


Figure 8 Alternative C: Slip Ramp to CD Road

EB Weave Alternative C1: Slip Ramp to Collector-Distributor Road with Flyover

Alternative C1 was developed as a hybrid between Alternative C and Alternative B. This includes both a slip ramp from the southbound I-15 ramp to the SR-201 ramp upstream of the weave section and a flyover from northbound I-15 to eastbound I-80. This combination of improvements reduces the amount of weaving prior to the State Street (US-89) interchange dramatically. Figure 9 shows Alternative C1.

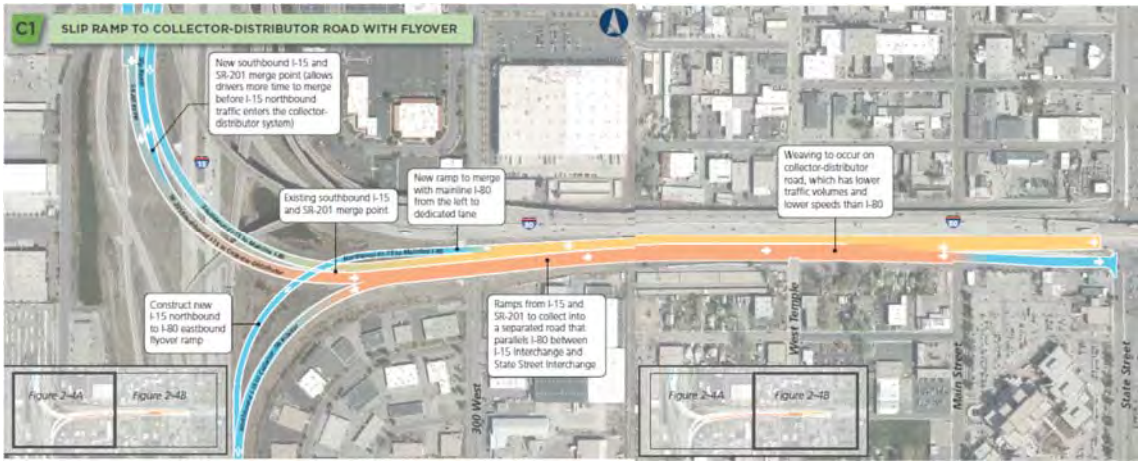


Figure 9 Alternative C1: Slip Ramp to CD Road with Flyover

EB Weave Alternative D: CD Road with I-15 and SR-201 Ramps

Alternative D is very similar to Alternative C, but with the southbound I-15 traffic joining the SR-201 traffic via a new ramp instead of a slip ramp. This would require drivers on southbound I-15 to decide at 700 South to exit at State Street (US-89). It was determined that this alternative did not need to be modeled because the results of the model would be the same as Alternative C. Figure 10 shows Alternative D.

Figure 10 Alternative D: CD Road with I-15 and SR-201 Ramps

EB Weave Alternative E: I-15 NB Separated Ramp with Left Exit

Alternative E includes a barrier to separate the northbound I-15 traffic from the SR-201 and southbound I-15 traffic. The northbound I-15 ramp splits and allows an exit to State Street (US-89) to the left and a ramp to the right that crosses State Street and merges with the State Street eastbound on-ramp. Traffic from SR-201 and southbound I-15 would have an opportunity to exit at the State Street (US-89) interchange as well. This alternative reduces the amount of weaving that needs to occur prior to the State Street (US-89) interchange. Figure 11 shows Alternative E.

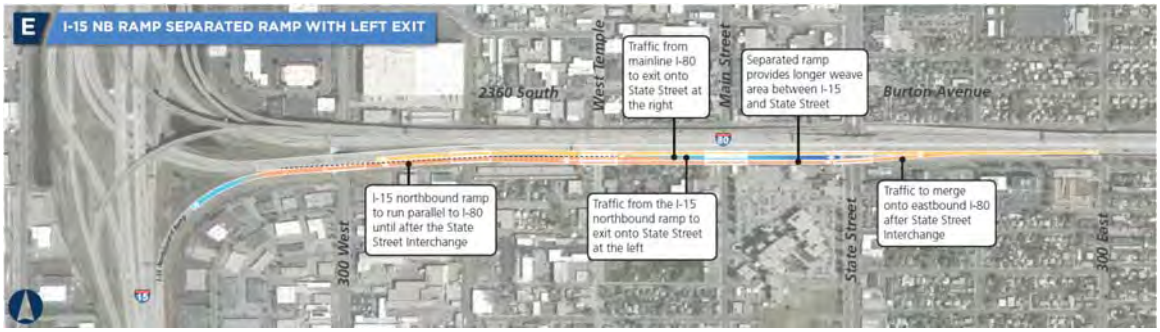


Figure 11 Alternative E: I-15 NB Ramp Separated Ramp with Left Exit

EB Weave Alternative F: I-15 NB to West Temple with Flyover

Alternative F includes a flyover ramp for northbound I-15 traffic, which allows vehicles on the northbound I-15 ramp to use the flyover and join eastbound I-80 traffic from the left without having to merge with any other lanes. Vehicles that want to exit would be able to exit at West Temple, while remaining separated by a barrier from the rest of the I-80 traffic. Mainline I-80 traffic would still exit at State Street (US-89). It was determined that this alternative would operate similar to Alternative G, but would include a shorter weaving area. Figure 12 shows Alternative F.

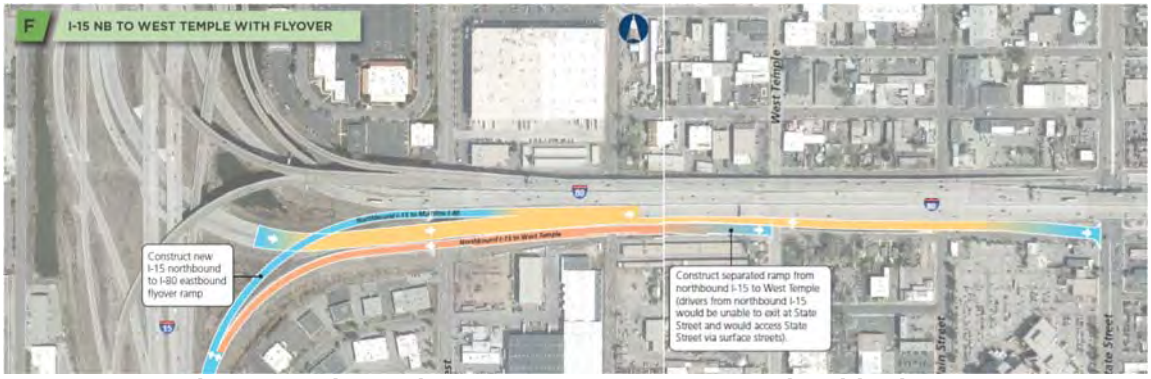


Figure 12 Alternative F: I-15 NB to West Temple with Flyover

EB Weave Alternative G: I-15 NB to Main Street with Flyover

Alternative G includes a flyover ramp for northbound I-15 traffic, which allows vehicles on the northbound I-15 ramp to use the flyover and join eastbound I-80 traffic from the left without having to merge with any other lanes. Vehicles that want to exit would be able to exit at Main Street, while remaining separated by a barrier from the rest of the I-80 traffic. Mainline I-80 traffic would still exit at State Street (US-89). Figure 13 shows Alternative G.

Figure 13 Alternative G: I-15 NB to Main Street with Flyover

EB Weave Alternative H: CD System to State Street, I-15 NB Flyover, Additional EB Lane

Alternative H includes a flyover ramp for northbound I-15 traffic, which allows vehicles on the northbound I-15 ramp to use the flyover and join eastbound I-80 traffic from the left without having to merge with any other lanes. An additional eastbound lane on I-80 is also added. Alternative H also includes a separated collector-distributor road that can be access by northbound I-15 exiting traffic and from the southbound I-15 collector-distributor road via a new ramp. Vehicles could not exit at State Street from mainline I-80. Instead, they would have to exit to the southbound I-15 collector-distributor road several miles earlier. Figure 14 shows Alternative H.

Figure 14 Alternative H: CD System to State Street, I-15 NB Flyover, Additional EB Lane

EB Weave Alternative H1: CD System to State Street, I-15 NB Flyover, Additional EB Lane with Slip Ramp

Alternative H1 is similar to Alternative H but includes a slip ramp from the SR-201 ramp to the collector-distributor road, allowing vehicles from SR-201 to exit at State Street.

EB Weave Alternative I: CD System to Main Street

Alternative I includes a flyover ramp for northbound I-15 traffic, which allows vehicles on the northbound I-15 ramp to use the flyover and join eastbound I-80 traffic from the left without having to merge with any other lanes. Alternative I also includes a separated collector-distributor road that can be access by northbound I-15 exiting traffic and from the SR-201 ramp via a new slip ramp. These vehicles would exit at Main Street. Vehicles wanting to exit from southbound I-15 would be allowed to do so at the existing State Street exit. Figure 15 shows Alternative I.

Figure 15 Alternative I: CD System to Main Street

EB Weave Alternative J: SR-201 and I-15 SB Braided Ramps with I-15 NB Flyover

Alternative J includes a flyover ramp for northbound I-15 traffic, which allows vehicles on the northbound I-15 ramp to use the flyover and join eastbound I-80 traffic from the left without having to merge with any other lanes. Alternative J also includes a separated collector-distributor road that can be access by northbound I-15 exiting traffic and from the SR-201 ramp via a new slip ramp. The SR-201 traffic that is staying on mainline I-80 would remain separated from the southbound I-15 to I-80 traffic until after the State Street Interchange. Southbound I-15 traffic would be allowed to exit to the collector-distributor road via a new braided slip ramp that would go under the SR-201 roadway. The collector-distributor road would exit at State Street (US-89). Figure 16 shows Alternative J.

Figure 16 Alternative J: SR-201 and I-15 SB Braided Ramps with I-15 NB Flyover

Eastbound Ramp Metering Alternative:

The eastbound ramp metering alternative was analyzed using Alternative C1, but included ramp metering for the northbound I-15 ramp.

Alternative Results

As previously discussed, the Highway Capacity Manual calculates freeway level of service based on density. Each alternative was analyzed to identify if the weave section improved from the 2040 no-action scenario. As shown in Table 5, each alternative performs better than the 2040 no-action scenario. However, almost all of the alternatives are anticipated to operate at LOS F in the eastbound weave area approaching the State Street (US-89) interchange. Only Alternative C1 is anticipated to improve the freeway LOS to an E in the weave section. The State Street (US-89) interchange is not anticipated to be greatly affected by the changes to the freeway system.

Table 5 EB I-80 Weave Area Alternative Results

Eastbound I-80 Weave Alternatives				
	I-80 EB Weave Section			State Street (US-89)
Alternative	Density (pc/mi/ln)	LOS	Average Speed (mph)	Interchange LOS
No-Action	110	F	18	C
A - Tighter Curve	59	F	29	C
B - Flyover Ramp with Exclusive Lane	57	F	27	C
C - Slip Ramp to CD Road	44	F	37	C
C1 - Slip Ramp to CD Road & Flyover	38	E	41	C
D - CD Road with I-15 & SR-201 Ramps	Similar to Alt. C			
E - I-15 NB Separated Ramp with Left Exit	49	F	38	C
F - I-15 NB Exit to West Temple with Flyover	49	F	36	C
G - I-15 NB to Main Street with Flyover	49	F	36	C
H - CD to State St, I-15 NB Flyover, Additional EB Lane	46	F	45	C
H1 - CD to State St, I-15 NB Flyover, Add EB Lane with Ramp	45	F	45	C
I - CD System to Main Street	52	F	34	C
J - SR-201 and I-15 SB Braided Ramps with I-15 NB Flyover	48	F	37	C
EB Ramp Metering (using Alt C1)	36	E	41	C
Source: Hales Engineering, December 2015				

Summary of EB I-80 Weave Area Analyses

The following is a summary of traffic operations which resulted from the analyses conducted for the future 2040 eastbound I-80 weave area alternatives:

1. Geometry changes to the I-80 eastbound weave area are not anticipated to significantly change the operations at the State Street (US-89) interchange. No geometric changes to the interchange were assumed for any of the eastbound weave alternatives.
2. Only Alternative C1 is anticipated to improve the eastbound freeway weave section to LOS E during the p.m. peak hour. The average speed is anticipated to improve to 41 mph through this section. All other alternatives are anticipated to operate at LOS F through the eastbound freeway weave section.

FUTURE (2040) WB I-80 WEAVE AREA ALTERNATIVES

Several alternatives were developed as part of the EIS process that were intended to improve the traffic operations through the westbound I-80 weave area near the State Street (US-89) interchange. These alternatives were labeled Westbound Weave Alternatives A – D. Each alternative only modifies the westbound weave area approaching the State Street (US-89) interchange. The interchange itself was assumed to remain in its

existing configuration. These alternatives were analyzed and are discussed in more detail below.

WB Weave Alternative A: I-80 WB Diverge Point

Alternative A includes moving the diverge point for northbound and southbound I-15 further west to allow for a longer weaving area. Figure 17 shows Alternative A.

Figure 27 Alternative A: I-80 WB Diverge Point

WB Weave Alternative B: 700 East Separated Ramp with Left Exit

Alternative B includes changing the 700 East westbound on-ramp such that traffic does not merge with I-80 until after the State Street interchange. Traffic from the westbound 700 East on-ramp would be allowed to exit to the left to get off at State Street, or continue over State Street where it would merge with the westbound State Street on-ramp traffic and finally with westbound I-80. Figure 18 shows Alternative B.

Figure 38 Alternative B: 700 East Separated Ramp with Left Exit

WB Weave Alternative C: Westbound Braided Ramps

Alternative C includes changing the 700 East westbound on-ramp such that traffic does not merge with I-80 until after the State Street off-ramp. A new structure over the State Street off-ramp would remove the weaving area between 700 East traffic entering I-80 and State Street traffic exiting I-80. Figure 19 shows Alternative C.

Figure 49 Alternative C: Westbound Braided Ramps

WB Weave Alternative D: Ramp Metering at 700 East WB Ramp

Alternative D includes ramp metering at the 700 East westbound on-ramp to improve traffic flow on I-80. Figure 20 shows Alternative D.

Figure 20 Alternative D: Ramp Metering at 700 East WB Ramp

Alternative Results

As previously discussed, the Highway Capacity Manual calculates freeway level of service based on density. Each alternative was analyzed to identify if the westbound weave section improved from the 2040 no-action scenario. As shown in Table 6, all of the alternatives are anticipated to operate at LOS F in the westbound weave area.

Table 6 WB I-80 Weave Area Alternative Results

Westbound I-80 Weave Alternatives			
	I-80 WB Weave Section		
Alternative	Density (pc/mi/ln)	LOS	Average Speed (mph)
No-Action	67	F	22
A - I-80 WB Diverge Point	63	F	36
B - I-80 WB 700 East Separated Ramp w/ Left Exit	75	F	21
C - I-80 WB Braided Ramps	65	F	20
D - Ramp Metering at 700 East WB Ramp	65	F	23
Hales Engineering, December 2015			

Summary of WB I-80 Weave Area Analyses

The following is a summary of traffic operations which resulted from the analyses conducted for the future 2040 westbound I-80 weave area alternatives:

1. Geometry changes to the I-80 westbound weave area are not anticipated to significantly change the operations at the State Street (US-89) interchange. No geometric changes to the interchange were assumed for any of the westbound weave alternatives.
2. None of the proposed alternatives are anticipated to significantly improve the operations on westbound I-80.

FUTURE (2040) I-80 / STATE STREET (US-89) INTERCHANGE ALTERNATIVES

Several alternatives were developed as part of the EIS process that were intended to improve the I-80 / State Street (US-89) interchange. These alternatives were labeled Interchange Alternatives 1 - 8. Each alternative only modifies the I-80 / State Street (US-89) interchange. The I-80 freeway was assumed to remain in its existing configuration. These alternatives were analyzed and are discussed in more detail below.

Interchange Alternative 1: Single Point Urban Interchange (SPUI)

Alternative 1 includes reconstructing the I-80 / State Street interchange as a SPUI. Figure 21 shows Alternative 1.

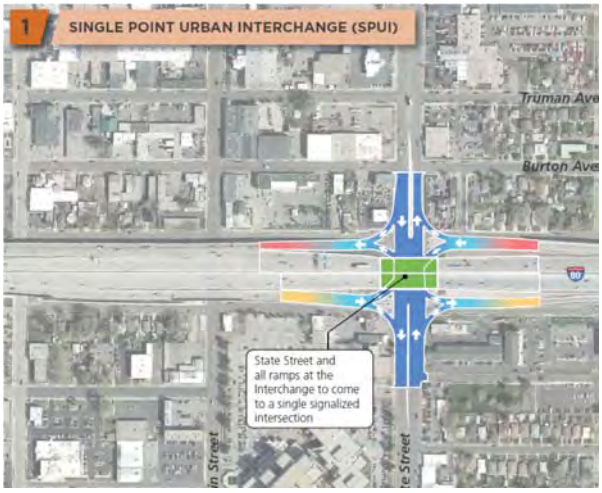


Figure 21 Alternative 1: SPUI

Interchange Alternative 1A: SPUI with Additional Exit to Main Street

Alternative 1A includes reconstructing the I-80 / State Street interchange as a SPUI with an additional eastbound exit to Main Street. Figure 22 shows Alternative 1A.

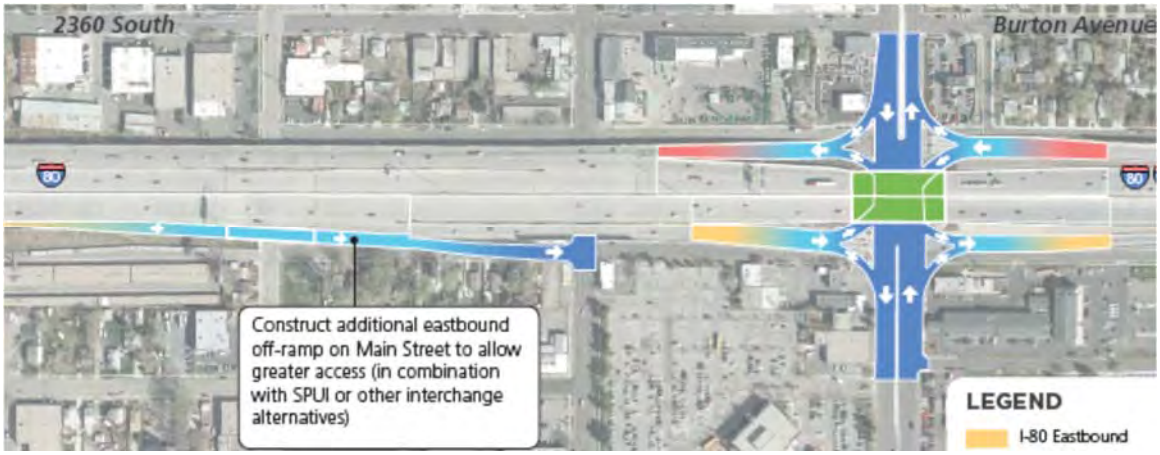


Figure 22 Alternative 1A: SPUI with Additional Exit to Main Street

Interchange Alternative 2: Loop Ramp

Alternative 2 includes reconstructing the I-80 / State Street interchange with a loop ramp for the off-ramp. Figure 23 shows Alternative 2.

Figure 23 Alternative 2: Loop Ramp

Interchange Alternative 3: Split Diamond at Main Street

Alternative 3 includes reconstructing the I-80 / State Street interchange as a split diamond. The eastbound off-ramp and the westbound on-ramp would both be accessed from Main Street, while the eastbound on-ramp and westbound off-ramp would be accessed from State Street. Figure 24 shows Alternative 3.

Figure 24 Alternative 3: Split Diamond at Main Street

Interchange Alternative 3N: Split Diamond, North Side Only

Alternative 3N includes reconstructing the I-80 / State Street interchange as a split diamond in only the westbound direction. The eastbound on- and off-ramp would still be accessed from State Street. However, the westbound on-ramp would be accessed from Main Street. Figure 25 shows Alternative 3N.

Figure 25 Alternative 3N: Split Diamond, North Side Only

Interchange Alternative 3A: Split Diamond at Main Street with Texas Turnarounds

Alternative 3A is similar to Alternative 3 but includes Texas Turnarounds under I-80 at Main and State Streets. Figure 26 shows Alternative 3A.

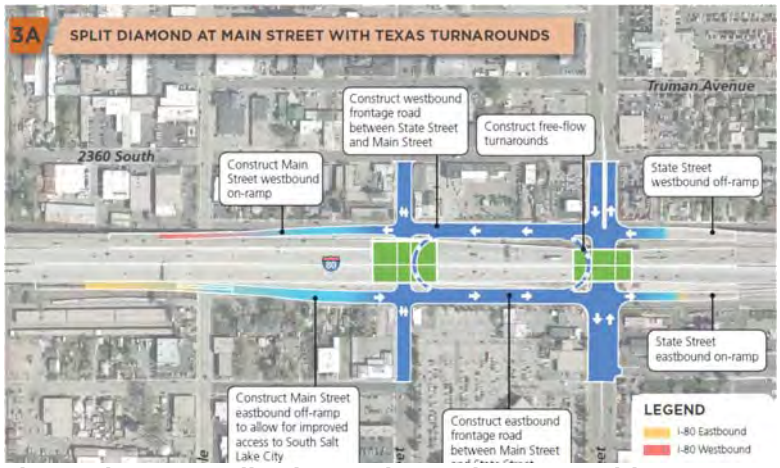


Figure 26 Alternative 3A: Split Diamond at Main Street with Texas Turnarounds

Interchange Alternative 4: Split Diamond at West Temple

Alternative 4 is similar to Alternative 3 but the split diamond extends to West Temple instead of Main Street. Figure 27 shows Alternative 4.

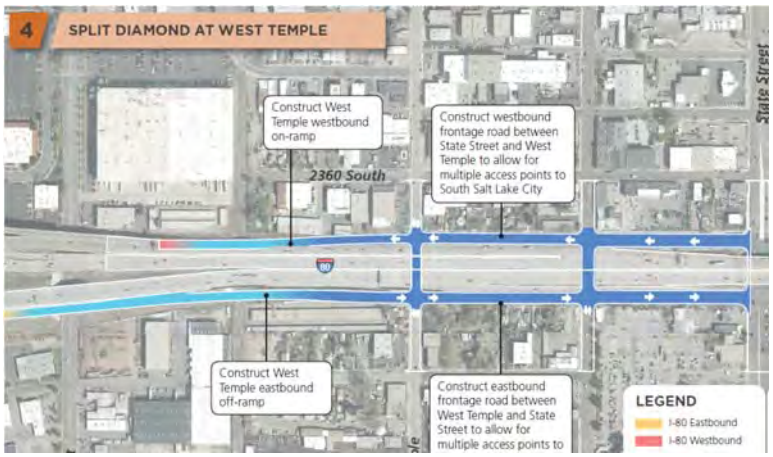


Figure 27 Alternative 4: Split Diamond at West Temple

Interchange Alternative 5: Diverging Diamond

Alternative 5 includes reconstructing the I-80 / State Street interchange as a diverging diamond. Figure 28 shows Alternative 5.

Figure 28 Alternative 5: Diverging Diamond

Interchange Alternative 6: Continuous Flow Intersection

Alternative 6 includes reconstructing the I-80 / State Street interchange with continuous flow intersections for both the north and south ramps. Figure 29 shows Alternative 6.

Figure 29 Alternative 6: Continuous Flow Intersection

Interchange Alternative 7: Diamond Interchange

Alternative 7 includes reconstructing the I-80 / State Street interchange with the same configuration but moving the north and south ramps further apart to create better intersection spacing. Figure 30 shows Alternative 7.

Figure 30 Alternative 7: Diamond Interchange

Interchange Alternative 8: Thru-Turns

Alternative 8 includes reconstructing the I-80 / State Street interchange with thru-turn intersections for both the north and south ramps. Figure 31 shows Alternative 8.

Figure 31 Alternative 8: Thru-Turns

Alternative Results

As previously discussed, the Highway Capacity Manual calculates the intersection and interchange level of service based on delay. Each alternative was analyzed to identify if the interchange improved from the 2040 no-action scenario. The split diamond at West Temple was not evaluated because it would require that the on- and off-ramps to West Temple be pushed even further west, which creates a much shorter weaving area on I-80. This would significantly reduce the functionality of the I-80 freeway through this area. Therefore, it was determined that Alternative 4 was not a viable alternative. Alternative 1A SPUI with Additional Exit to Main Street was also not evaluated because Alternative 3 had already been evaluated and it was determined that an eastbound exit to main street created a shortened weave area on I-80. The shortened weave area caused additional problems to an already congested and potentially dangerous weave section. Therefore, it was determined that Alternative 1A was not a viable alternative.

The interchange level of service for each alternative is shown in Table 7. The arterial level of service on State Street (US-89) for each alternative is shown in Table 8. As shown in Tables 7 and 8, the SPUI, the split diamond alternatives, the diverging diamond (DDI), the continuous flow intersection (CFI), and the bigger diamond interchange all operated at similar or better levels of service as the 2040 no-action scenario.

Table 7 I-80 / State Street Interchange Alternative Results

I-80 / State Street Interchange Alternatives			
P.M. Peak Hour	State Street / I-80 Interchange		
Alternative	North Intersection LOS	South Intersection LOS	Interchange LOS
No-Action	C	C	C
1: SPUI	-	-	B
1A: SPUI with Additional Exit to Main	Not Evaluated		
2: Loop Ramp	D	C	C
3: Split Diamond at Main Street	C	C	C
3N: Split Diamond (WB)	C	C	C
3A: Split Diamond w/ TT	C	B	C
4: Split Diamond at West Temple	Not Evaluated		
5: DDI	B	B	B
6: CFI	C	C	C
7: Bigger Diamond	B	C	C
8: Thru-Turn	F	D	F
Source: Hales Engineering, December 2015			

Table 8 State Street Arterial Level of Service Results

I-80 / State Street EIS: Arterial PM LOS														
		Alternative												
Segment	No-Action	1: SPUI	1A: SPUI with Exit at Main	2: Loop Ramp	3: Split Diamond at Main Street	3N: Split Diamond (WB)	3A: Split Diamond w/ TT	4: Split Diamond at West Temple	5: DDI	6: CFI	7: Bigger Diamond	8: Thru-Turn
SB: 2100 South to Street Car	E	E	-	E	D	E	D	-	F	F	E	F
SB: Street Car to WB I-80	E	C	-	C	D	C	D	-	F	E	D	F
SB: WB I-80 to EB I-80	B	B	-	C	B	B	B	-	E	F	B	F
SB: EB I-80 to 2700 South	D	C	-	C	B	C	C	-	C	B	C	C
NB: 2700 South to EB I-80	F	C	-	D	D	D	C	-	D	D	D	D
NB: EB I-80 to WB I-80	C	B	-	D	C	C	C	-	E	F	C	B
NB: WB I-80 to Street Car	C	D	-	C	B	C	C	-	E	C	C	E
NB: Street Car to 2100 South	E	D	-	D	E	E	E	-	D	D	E	C
Hales Engineering, December 2015												

Summary of I-80 / State Street Interchange Analyses

The following is a summary of traffic operations which resulted from the analyses conducted for the future 2040 I-80 / State Street interchange alternatives:

1. Improving the I-80 State Street interchange, specifically adding a third through lane under I-80, is anticipated to significantly improve the State Street arterial traffic flow.
2. Alternatives 1A: SPUI with Additional Exit to Main Street, 2: Loop Ramp, 4: Split Diamond at West Temple, and 8: Thru-Turns are not recommended. Each of these is anticipated to perform worse than the no-action alternative.

Appendix A

Future 2040 EB Weave Area Conditions VISSIM Analysis Results

Alternative: Tighter Curve

Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7@5	W-E	EBT	EB						638							879
1: 2100 South & State Street - 2@1436.4 - 6@4	E-W	WBT	WB						650							1939
1: 2100 South & State Street - 3@1101.9 - 5@6	N-S	SBT	SB						1194							1071
1: 2100 South & State Street - 4@1031.1 - 8@5	S-N	NBT	NB						461							187
1: 2100 South & State Street - 159@246.4 - 7@	S-E	NBR	NB						181							270
1: 2100 South & State Street - 160@288.7 - 6@	S-W	NBL	NB						241							272
1: 2100 South & State Street - 161@166.4 - 5@	E-S	WBL	WB						177							174
1: 2100 South & State Street - 162@152.6 - 8@	W-N	EBL	EB						93							170
1: 2100 South & State Street - 163@133.8 - 6@	N-W	SBR	SB						82							220
1: 2100 South & State Street - 164@371.3 - 7@	N-E	SBL	SB						84							100
1: 2100 South & State Street - 165@166.2 - 8@	E-N	WBR	WB						141							322
1: 2100 South & State Street - 255@187.5 - 5@	W-S	EBR	EB	31.61	C				154	37.53	D					253
2: Street Car Crossing & State Street - 5@1044.	N-S	SBT	SB						1396							1333
2: Street Car Crossing & State Street - 5@1044.	N-W	SBR	SB						261							293
2: Street Car Crossing & State Street - 10@1228	S-N	NBT	NB						503							202
2: Street Car Crossing & State Street - 174@664	W-S	EBR	EB						237							370
2: Street Car Crossing & State Street - 175@21(	W-N	EBL	EB						75							20
2: Street Car Crossing & State Street - 177@146	S-W	NBL	NB	10.71	B				438	24.78	C					367
3: WB I-80 & State Street - 96@9.7 - 37@36.9	S-W	NBL	NB						63							144
3: WB I-80 & State Street - 96@9.7 - 118@45.7	S-W	NBL	NB						278							366
3: WB I-80 & State Street - 124@1240.6 - 37@3	E-W	WBT	WB						21							0
3: WB I-80 & State Street - 124@1240.6 - 91@3	E-S	WBL	WB						408							516
3: WB I-80 & State Street - 124@1240.6 - 118@E	W-E	WBT	WB						442							822
3: WB I-80 & State Street - 125@249.7 - 10@47	E-N	WBR	WB						118							10
3: WB I-80 & State Street - 155@285.8 - 97@42	N-S	SBT	SB						458							587
3: WB I-80 & State Street - 156@284.4 - 37@36	N-W	SBR	SB	26.18	C				131	25.91	C					1148
3: WB I-80 & State Street - 156@284.4 - 118@4	N-W	SBR	SB						109							20
3: WB I-80 & State Street - 157@282.8 - 91@34	N-S	SBT	SB						475							802
4: EB I-80 & State Street - 98@6.3 - 25@59.6	N-E	SBL	SB						33							25
4: EB I-80 & State Street - 98@6.3 - 122@62.0	N-E	SBL	SB						604							468
4: EB I-80 & State Street - 120@1810.3 - 25@5	W-E	EBT	EB						44							51
4: EB I-80 & State Street - 120@1810.3 - 89@2	W-N	EBL	EB						552							671
4: EB I-80 & State Street - 120@1810.3 - 122@(	W-E	EBT	EB						567							715
4: EB I-80 & State Street - 121@193.1 - 12@38.	W-S	EBR	EB						151							16
4: EB I-80 & State Street - 144@76.3 - 89@28.3	S-N	NBT	NB	23.93	C	31.16	C		634	24.47	C	28.03	B			516
4: EB I-80 & State Street - 145@75.0 - 25@59.6	S-E	NBR	NB						414							388
4: EB I-80 & State Street - 145@75.0 - 10032@	S-E	NBR	NB						436							1511
4: EB I-80 & State Street - 146@331.6 - 95@47.	S-N	NBT	NB						140							48
4: EB I-80 & State Street - 10063@12.6 - 12@3	N-S	SBT	SB						516							391
5: Oakland & State Street - 22@609.6 - 11@42.	E-N	WBR	WB					6.90	A	1020						1199
5: Oakland & State Street - 146@91.4 - 146@1	S-N	NBT	NB						136							18
5: Oakland & State Street - 147@71.3 - 11@42.	S-N	NBT	NB						838							2115
5: Oakland & State Street - 147@71.3 - 21@32.	S-E	NBR	NB						41							97
6: East Grantie SD RIRO & State Street - 12@27	N-S	SBT	SB						1205							1219
6: East Grantie SD RIRO & State Street - 23@25	W-S	EBR	EB					6.18	A	414						391
6: East Grantie SD RIRO & State Street - 10004@	S-N	NBT	NB						1449							1356
6: East Grantie SD RIRO & State Street - 10008@	S-N	NBT	NB						158					10.50	B	97
7: 2700 South & State Street - 15@1184.3 - 13@	S-N	NBT	NB						427							322
7: 2700 South & State Street - 17@647.5 - 16@	W-S	EBR	EB						130							151
7: 2700 South & State Street - 17@647.5 - 19@	W-E	EBT	EB						103							87
7: 2700 South & State Street - 20@820.0 - 18@	E-W	WBT	WB						50							88
7: 2700 South & State Street - 148@291.2 - 18@	S-W	NBL	NB						146					8.23	A	284
7: 2700 South & State Street - 149@150.8 - 19@	S-E	NBR	NB						46							150
7: 2700 South & State Street - 150@28.0 - 13@	W-N	EBL	EB						120							106
7: 2700 South & State Street - 153@329.4 - 19@	N-E	SBL	SB						163							69
7: 2700 South & State Street - 154@188.7 - 18@	N-W	SBR	SB						83							130
7: 2700 South & State Street - 10014@53.9 - 13	E-N	WBR	WB	15.62	B				1956	23.74						1882
7: 2700 South & State Street - 10015@17.9 - 16	E-S	WBL	WB						725							695
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB						674							224
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	NBL	NB						244							0
8: WB I-80 & 700 East - 135@1579.2 - 73@63.1	E-S	WBL	WB						565							571
8: WB I-80 & 700 East - 135@1579.2 - 137@28.	E-SW	WBL	WB						226							775
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	WBR	WB						996							663
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	SBT	SB	16.33					1415	20.20	C					1070
8: WB I-80 & 700 East - 169@299.3 - 137@28.7	N-SW	SBR	SB						477							775
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB						1011							812
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB						87							1
9: EB I-80 & 700 East - 133@1231.9 - 79@56.2	W-N	EBL	EB						702							1189
9: EB I-80 & 700 East - 133@1231.9 - 140@66.9	W-NE	EBL	EB						720							697
9: EB I-80 & 700 East - 134@318.9 - 10188@13	W-S	EBR	EB	23.18	C				279	25.81	C					151
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	NBT	NB						296							137
9: EB I-80 & 700 East - 167@274.8 - 140@66.9	S-NE	NBR	NB						49							19
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	SBT	SB						34							8
10: 2400 S & West Temple - 33@704.1 - 56@3(	E-N	WBR	WB			20.55	B	6.83	A	3		23.47	B	2.08	A	4
10: 2400 S & West Temple - 33@704.1 - 10106(	E-S	WBL	WB						5							0
10: 2400 S & West Temple - 34@51.1 - 32@34.	W-E	EBT	EB						0							0
10: 2400 S & West Temple - 34@51.1 - 56@30.	W-N	EBL	EB						5							5
10: 2400 S & West Temple - 34@51.1 - 10106@	W-S	EBR	EB						0							5
10: 2400 S & West Temple - 57@353.0 - 32@34	N-E	SBL	SB	20.58	C				105							261
10: 2400 S & West Temple - 57@353.0 - 35@43	N-W	SBR	SB						4							6
10: 2400 S & West Temple - 57@353.0 - 10106(	N-S	SBT	SB						37							0
10: 2400 S & West Temple - 10107@1.9 - 32@3	S-E	NBR	NB						146							280
10: 2400 S & West Temple - 10107@1.9 - 35@4	S-W	NBL	NB						4							6
10: 2400 S & West Temple - 10107@1.9 - 56@3	S-N	NBT	NB						48							3
11: Robert Ave. & West Temple - 28@710.2 - 4	E-S	WBL	WB					6.92	A	1				7.15	A	5
11: Robert Ave. & West Temple - 28@710.2 - 4	E-N	WBR	WB						1							4
11: Robert Ave. & West Temple - 31@117.4 - 2	W-E	EBT	EB						3							4

11: Robert Ave. & West Temple - 31@117.4 - 4'W-S	EBR	EB		5			5
11: Robert Ave. & West Temple - 31@117.4 - 4'W-N	EBL	EB		6			6
11: Robert Ave. & West Temple - 44@282.3 - 2'S-E	NBR	NB		147			277
11: Robert Ave. & West Temple - 44@282.3 - 3'S-W	NBL	NB		6			5
11: Robert Ave. & West Temple - 44@282.3 - 4'S-N	NBT	NB		46			5
11: Robert Ave. & West Temple - 49@19.8 - 29'N-E	SBL	SB		115			258
11: Robert Ave. & West Temple - 49@19.8 - 30'N-W	SBR	SB		7			21
11: Robert Ave. & West Temple - 49@19.8 - 45'N-S	SBT	SB		45			5
12: Oakland Ave & West Temple - 40@711.0 - 4E-N	WBR	WB		6			20
12: Oakland Ave & West Temple - 40@711.0 - 4E-S	WBL	WB		6			9
12: Oakland Ave & West Temple - 43@473.0 - 4W-E	EBT	EB	6.49 A	10		3.02 A	9
12: Oakland Ave & West Temple - 43@473.0 - 4W-N	EBL	EB		9			10
12: Oakland Ave & West Temple - 43@473.0 - 4W-S	EBR	EB		9			5
12: Oakland Ave & West Temple - 45@261.8 - 4N-E	SBL	SB		105			254
12: Oakland Ave & West Temple - 45@261.8 - 4N-W	SBR	SB		11			22
12: Oakland Ave & West Temple - 45@261.8 - 4N-S	SBT	SB		40			11
12: Oakland Ave & West Temple - 46@527.0 - 4S-E	NBR	NB		150			261
12: Oakland Ave & West Temple - 46@527.0 - 4S-W	NBL	NB		6			4
12: Oakland Ave & West Temple - 46@527.0 - 4S-N	NBT	NB	12.72 B	49		17.41 C	9
13: 2400 S & Main Street - 32@716.9 - 55@6.1 W-S	EBR	EB		22			21
13: 2400 S & Main Street - 32@716.9 - 58@21.1'W-N	EBL	EB		22			21
13: 2400 S & Main Street - 37@672.9 - 33@22.1'E-W	WBT	WB		53			135
13: 2400 S & Main Street - 37@672.9 - 55@6.1 E-S	WBL	WB		10			4
13: 2400 S & Main Street - 37@672.9 - 58@21.1'E-N	WBR	WB		16			0
13: 2400 S & Main Street - 54@239.9 - 33@22.1'S-W	NBL	NB		257			495
13: 2400 S & Main Street - 54@239.9 - 36@24.1'S-E	NBR	NB		3			9
13: 2400 S & Main Street - 54@239.9 - 58@21.1'S-N	NBT	NB		82			0
13: 2400 S & Main Street - 59@503.7 - 33@22.1'N-W	SBR	SB		144			471
13: 2400 S & Main Street - 59@503.7 - 36@24.1'N-E	SBL	SB		0			4
13: 2400 S & Main Street - 59@503.7 - 55@6.1 N-S	SBT	SB		50			4
14: Robert Ave. & Main Street - 26@405.6 - 54(E-N	WBR	WB		0			5
14: Robert Ave. & Main Street - 26@405.6 - 61(E-S	WBL	WB	7.23 A	6		7.90 A	5
14: Robert Ave. & Main Street - 29@709.2 - 27(W-E	EBT	EB		3			6
14: Robert Ave. & Main Street - 29@709.2 - 54(W-N	EBL	EB		2			10
14: Robert Ave. & Main Street - 29@709.2 - 61(W-S	EBR	EB		5			5
14: Robert Ave. & Main Street - 55@232.4 - 27(N-E	SBL	SB		163			481
14: Robert Ave. & Main Street - 55@232.4 - 28(N-W	SBR	SB		5			5
14: Robert Ave. & Main Street - 55@232.4 - 61(N-S	SBT	SB		57			5
14: Robert Ave. & Main Street - 60@63.7 - 27@S-E	NBR	NB		256			491
14: Robert Ave. & Main Street - 60@63.7 - 28@S-W	NBL	NB		12			5
14: Robert Ave. & Main Street - 60@63.7 - 54@S-N	NBT	NB		91			14
15: N Granite SD Access & Main Street - 39@12E-S	WBL	WB	2.13 A	167		0.04 A	479
15: N Granite SD Access & Main Street - 61@36N-E	SBL	SB		9			4
15: N Granite SD Access & Main Street - 61@36N-S	SBT	SB		300			442
15: N Granite SD Access & Main Street - 62@13S-E	NBR	NB		15			23
15: N Granite SD Access & Main Street - 62@13S-N	NBT	NB		92			13
16: Oakland Ave. & Main Street - 41@707.2 - 6'W-S	EBR	EB	5.73 A	167		0.02 A	471
16: Oakland Ave. & Main Street - 63@154.7 - 4(N-W	SBR	SB		20			16
16: Oakland Ave. & Main Street - 63@154.7 - 6'N-S	SBT	SB		296			418
16: Oakland Ave. & Main Street - 66@184.7 - 4'S-W	NBL	NB		19			17
16: Oakland Ave. & Main Street - 66@184.7 - 6'S-N	NBT	NB		88			5
17: S Granite SD Access & Main Street - 65@23 E-S	WBL	WB	1.17 A	171		0.05 A	489
17: S Granite SD Access & Main Street - 67@18 N-E	SBL	SB		42			37
17: S Granite SD Access & Main Street - 67@18 N-S	SBT	SB		306			415
17: S Granite SD Access & Main Street - 69@50 S-E	NBR	NB		369			676
17: S Granite SD Access & Main Street - 69@50 S-N	NBT	NB		388			1440

2040 Queue Report (AM PM)

Alternative: Tighter Curve

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 - 7(	W-E	174.6265	EBT	12	162	280	390	1140	2270
1: 2100 South & State Street - 2@1436.4 - 6(	E-W	214.1698	WBT	28	243	430	62	391	707
1: 2100 South & State Street - 3@1101.9 - 5(	N-S	91.93159	SBT	11	109	191	59	449	800
1: 2100 South & State Street - 4@1031.1 - 8(	S-N	235.9526	NBT	28	196	351	20	192	336
1: 2100 South & State Street - 159@246.4 - 7	S-E	73.74472	NBR	37	94	192	28	105	202
1: 2100 South & State Street - 160@288.7 - 6	S-W	60.20832	NBL	13	85	154	13	118	207
1: 2100 South & State Street - 161@166.4 - 5	E-S	118.9249	WBL	15	122	216	26	163	294
1: 2100 South & State Street - 162@152.6 - 8	W-N	68.47839	EBL	7	76	132	155	343	721
1: 2100 South & State Street - 163@133.8 - 6	N-W	17.42454	SBR	4	19	35	5	30	54
1: 2100 South & State Street - 164@371.3 - 7	N-E	42.128	SBL	6	46	83	10	91	161
1: 2100 South & State Street - 165@166.2 - 8	E-N	15.36324	WBR	8	18	38	6	17	34
1: 2100 South & State Street - 255@187.5 - 5	W-S	24.32716	EBR	7	29	55	388	682	1514
2: Street Car Crossing & State Street - 5@104	N-S	51.29084	SBT	15	77	143	33	289	510
2: Street Car Crossing & State Street - 5@104	N-W	51.29084	SBR	15	77	143	33	289	510
2: Street Car Crossing & State Street - 10@12	S-N	133.5623	NBT	29	147	272	13	82	149
2: Street Car Crossing & State Street - 174@6	W-S	28.04656	EBR	13	43	84	22	79	152
2: Street Car Crossing & State Street - 175@2	W-N	177.1331	EBL	20	169	299	47	238	440
2: Street Car Crossing & State Street - 177@1	S-W	3.981491	NBL	7	24	46	31	171	313
3: WB I-80 & State Street - 90@8.1 - 10@47.(	S-N	0	NBT	0	0	0	33	94	189
3: WB I-80 & State Street - 96@9.7 - 37@36.9	S-W	0	NBL	1	3	6	22	60	120
3: WB I-80 & State Street - 96@9.7 - 118@45	S-W	0	NBL	1	3	6	22	60	120
3: WB I-80 & State Street - 124@1240.6 - 37(	E-W	134.6936	WBT	11	129	223	19	192	336
3: WB I-80 & State Street - 124@1240.6 - 91(	E-S	134.6936	WBL	11	129	223	19	192	336
3: WB I-80 & State Street - 124@1240.6 - 118	E-W	134.6936	WBT	11	129	223	19	192	336
3: WB I-80 & State Street - 125@249.7 - 10@	E-N	239.9083	WBR	61	243	462	40	247	448
3: WB I-80 & State Street - 155@285.8 - 97@	N-S	141.9402	SBT	29	202	362	53	246	459
3: WB I-80 & State Street - 156@284.4 - 37@	N-W	50.20236	SBR	17	61	117	33	126	240
3: WB I-80 & State Street - 156@284.4 - 118(	N-W	56.56795	SBR	17	65	124	33	127	242
3: WB I-80 & State Street - 157@282.8 - 91@	N-S	71.41679	SBT	9	76	135	56	389	698
4: EB I-80 & State Street - 92@5.5 - 12@38.2	N-S	0	SBT	1	2	4	24	70	140
4: EB I-80 & State Street - 98@6.3 - 25@59.6	N-E	0	SBL	0	0	0	20	62	122
4: EB I-80 & State Street - 98@6.3 - 122@62.(	N-E	0	SBL	0	0	0	20	62	122
4: EB I-80 & State Street - 120@1810.3 - 25@	W-E	194.4859	EBT	22	234	409	24	200	354
4: EB I-80 & State Street - 120@1810.3 - 89@	W-N	194.4859	EBL	22	234	409	24	200	354
4: EB I-80 & State Street - 120@1810.3 - 122(	W-E	194.4859	EBT	22	234	409	24	200	354
4: EB I-80 & State Street - 121@193.1 - 12@3	W-S	104.1738	EBR	31	153	284	106	464	871
4: EB I-80 & State Street - 144@76.3 - 89@28	S-N	199.8654	NBT	28	251	442	14	294	499
4: EB I-80 & State Street - 145@75.0 - 25@59	S-E	137.885	NBR	45	224	414	29	287	503
4: EB I-80 & State Street - 145@75.0 - 10032(	S-E	142.284	NBR	45	224	414	29	288	504
4: EB I-80 & State Street - 146@331.6 - 95@4	S-N	128.7366	NBT	19	156	277	26	145	265
4: EB I-80 & State Street - 10063@12.6 - 12@	N-S	0	SBT	1	2	4	24	70	140
5: Oakland & State Street - 12@191.7 - 12@2	N-S	0	SBT	0	0	0	0	1	3
5: Oakland & State Street - 22@609.6 - 11@4	E-N	11.67503	WBR	4	16	31	5	21	39
5: Oakland & State Street - 146@91.4 - 146@	S-N	0	NBT	1	4	7	2	6	11
5: Oakland & State Street - 147@71.3 - 11@4	S-N	12.86637	NBT	19	49	100	19	97	178
5: Oakland & State Street - 147@71.3 - 21@3	S-E	20.52813	NBR	26	67	137	24	132	242
6: East Grantie SD RIRO & State Street - 12@2	N-W	12.03162	SBR	5	18	35	3	10	19
6: East Grantie SD RIRO & State Street - 12@2	N-S	8.19721	SBT	3	13	24	2	7	14
6: East Grantie SD RIRO & State Street - 23@2	W-S	31.19224	EBR	4	25	46	4	34	60
6: East Grantie SD RIRO & State Street - 1000	S-N	44.10988	NBT	69	141	301	444	812	1784
6: East Grantie SD RIRO & State Street - 1000	S-N	39.86219	NBT	74	140	306	447	806	1778
7: 2700 South & State Street - 14@1205.4 - 1	N-S	122.8401	SBT	8	97	169	26	277	483
7: 2700 South & State Street - 15@1184.3 - 1	S-N	175.7802	NBT	16	177	308	65	268	508
7: 2700 South & State Street - 17@647.5 - 16	W-S	43.74156	EBR	9	42	78	90	285	561
7: 2700 South & State Street - 17@647.5 - 19	W-E	33.05052	EBT	10	34	66	90	280	551
7: 2700 South & State Street - 20@820.0 - 18	E-W	56.13702	WBT	11	59	109	11	57	106
7: 2700 South & State Street - 148@291.2 - 1	S-W	41.95219	NBL	7	37	68	12	44	85

2040 Queue Report (AM PM)

7: 2700 South & State Street - 149@150.8 - 1	S-E	7.068628	NBR	3	11	21	5	22	40
7: 2700 South & State Street - 150@28.0 - 13	W-N	54.5779	EBL	16	84	155	98	284	567
7: 2700 South & State Street - 153@329.4 - 1	N-E	24.58504	SBL	6	19	38	15	66	123
7: 2700 South & State Street - 154@188.7 - 1	N-W	15.48549	SBR	5	19	37	4	14	27
7: 2700 South & State Street - 10014@53.9 -	E-N	39.74203	WBR	8	46	84	6	28	52
7: 2700 South & State Street - 10015@17.9 -	E-S	31.09067	WBL	9	41	77	15	71	132
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	141.1327	SBT	10	146	250	25	275	479
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	126.7475	NBT	30	119	227	7	35	65
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	69.12996	NBL	95	208	439	23	329	565
8: WB I-80 & 700 East - 135@1579.2 - 73@63	E-S	77.16601	WBL	10	49	91	13	90	161
8: WB I-80 & 700 East - 135@1579.2 - 137@2	E-SW	77.16601	WBL	10	49	91	13	90	161
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	11.21833	WBR	6	16	32	7	18	37
8: WB I-80 & 700 East - 168@218.7 - 83@57.	N-S	87.49564	SBT	9	100	174	14	174	302
8: WB I-80 & 700 East - 169@299.3 - 137@28	N-SW	1.921018	SBR	41	93	195	3	10	20
9: EB I-80 & 700 East - 74@24.8 - 10189@12.	N-S	81.9784	SBT	11	68	124	9	100	174
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	247.856	NBT	55	318	579	16	223	384
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	46.34186	SBL	12	59	109	21	254	441
9: EB I-80 & 700 East - 133@1231.9 - 79@56.	W-N	253.2256	EBL	23	265	459	21	269	465
9: EB I-80 & 700 East - 133@1231.9 - 140@6	W-NE	253.2256	EBL	23	265	459	21	269	465
9: EB I-80 & 700 East - 134@318.9 - 10188@1	W-S	0	EBR	3	13	25	6	21	41
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	210.7795	NBT	173	386	810	46	255	467
9: EB I-80 & 700 East - 167@274.8 - 140@66.	S-NE	0	NBR	1	5	9	1	3	6
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 33@704.1 - 35@	E-W	7.598929	WBT	5	19	35	5	20	39
10: 2400 S & West Temple - 33@704.1 - 56@	E-N	7.598929	WBR	5	19	35	5	20	39
10: 2400 S & West Temple - 33@704.1 - 101(	E-S	7.598929	WBL	5	19	35	5	20	39
10: 2400 S & West Temple - 34@51.1 - 32@3	W-E	0	EBT	0	0	0	1	2	4
10: 2400 S & West Temple - 34@51.1 - 56@3	W-N	0	EBL	0	0	0	1	2	4
10: 2400 S & West Temple - 34@51.1 - 1010(	W-S	0	EBR	0	0	0	1	2	4
10: 2400 S & West Temple - 57@353.0 - 32@	N-E	0	SBL	2	7	13	1	5	10
10: 2400 S & West Temple - 57@353.0 - 35@	N-W	0	SBR	1	3	6	0	0	0
10: 2400 S & West Temple - 57@353.0 - 101(	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 32(	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 35(	S-W	0	NBL	1	4	8	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 56(	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@710.2 -	E-W	2.575479	WBT	4	13	25	4	12	25
11: Robert Ave. & West Temple - 28@710.2 -	E-S	2.558841	WBL	4	12	24	4	12	25
11: Robert Ave. & West Temple - 28@710.2 -	E-N	2.531768	WBR	4	12	24	4	12	24
11: Robert Ave. & West Temple - 31@117.4 -	W-E	0	EBT	4	9	18	4	12	24
11: Robert Ave. & West Temple - 31@117.4 -	W-S	0	EBR	4	9	18	4	12	24
11: Robert Ave. & West Temple - 31@117.4 -	W-N	0	EBL	4	9	18	4	12	24
11: Robert Ave. & West Temple - 44@282.3 -	S-E	0	NBR	0	1	2	0	1	3
11: Robert Ave. & West Temple - 44@282.3 -	S-W	0	NBL	1	2	5	1	3	6
11: Robert Ave. & West Temple - 44@282.3 -	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 49@19.8 - 2	N-E	2.913104	SBL	2	5	11	2	5	10
11: Robert Ave. & West Temple - 49@19.8 - 3	N-W	8.146827	SBR	11	36	71	13	36	73
11: Robert Ave. & West Temple - 49@19.8 - 4	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West Temple - 40@711.0	E-W	16.71183	WBT	4	20	37	6	17	33
12: Oakland Ave & West Temple - 40@711.0	E-N	16.71183	WBR	4	20	37	6	17	33
12: Oakland Ave & West Temple - 40@711.0	E-S	16.71183	WBL	4	20	37	6	17	33
12: Oakland Ave & West Temple - 43@473.0	W-E	17.04076	EBT	6	15	30	5	22	41
12: Oakland Ave & West Temple - 43@473.0	W-N	16.65659	EBL	6	14	29	5	21	40
12: Oakland Ave & West Temple - 43@473.0	W-S	16.6845	EBR	6	14	29	5	22	40
12: Oakland Ave & West Temple - 45@261.8	N-E	0	SBL	2	6	11	3	10	20
12: Oakland Ave & West Temple - 45@261.8	N-W	0	SBR	1	3	6	2	8	16
12: Oakland Ave & West Temple - 45@261.8	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West Temple - 46@527.0	S-E	5.925707	NBR	2	5	10	1	4	7
12: Oakland Ave & West Temple - 46@527.0	S-W	5.332815	NBL	2	6	12	2	7	13
12: Oakland Ave & West Temple - 46@527.0	S-N	2.023688	NBT	1	2	4	0	0	0
13: 2400 S & Main Street - 32@716.9 - 36@2	W-E	9.74766	EBT	4	11	22	5	12	25

13: 2400 S & Main Street - 32@716.9 - 55@6	W-S	9.74766	EBR	4	11	22	5	12	25
13: 2400 S & Main Street - 32@716.9 - 58@2	W-N	9.74766	EBL	4	11	22	5	12	25
13: 2400 S & Main Street - 37@672.9 - 33@2	E-W	36.75966	WBT	11	51	96	17	92	169
13: 2400 S & Main Street - 37@672.9 - 55@6	E-S	36.75966	WBL	11	51	96	17	92	169
13: 2400 S & Main Street - 37@672.9 - 58@2	E-N	36.75966	WBR	11	51	96	17	92	169
13: 2400 S & Main Street - 54@239.9 - 33@2	S-W	0	NBL	1	4	7	2	5	10
13: 2400 S & Main Street - 54@239.9 - 36@2	S-E	0	NBR	0	0	0	1	4	7
13: 2400 S & Main Street - 54@239.9 - 58@2	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 33@2	N-W	0	SBR	0	0	0	0	1	3
13: 2400 S & Main Street - 59@503.7 - 36@2	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 55@6	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 26@405.6 - 2	E-W	2.669583	WBT	3	9	18	4	10	21
14: Robert Ave. & Main Street - 26@405.6 - 5	E-N	2.669583	WBR	3	9	18	4	10	21
14: Robert Ave. & Main Street - 26@405.6 - 6	E-S	2.669583	WBL	3	9	18	4	10	21
14: Robert Ave. & Main Street - 29@709.2 - 2	W-E	10.32267	EBT	5	13	25	4	14	27
14: Robert Ave. & Main Street - 29@709.2 - 5	W-N	10.32267	EBL	5	13	25	4	14	27
14: Robert Ave. & Main Street - 29@709.2 - 6	W-S	10.32267	EBR	5	13	25	4	14	27
14: Robert Ave. & Main Street - 55@232.4 - 2	N-E	0	SBL	0	0	0	2	6	12
14: Robert Ave. & Main Street - 55@232.4 - 2	N-W	0	SBR	1	2	4	2	5	10
14: Robert Ave. & Main Street - 55@232.4 - 6	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 60@63.7 - 27	S-E	0	NBR	1	3	6	6	18	35
14: Robert Ave. & Main Street - 60@63.7 - 28	S-W	0	NBL	1	2	4	1	3	6
14: Robert Ave. & Main Street - 60@63.7 - 54	S-N	0	NBT	0	0	0	0	0	0
15: N Granite SD Access & Main Street - 39@	E-N	0	WBR	3	9	17	3	9	18
15: N Granite SD Access & Main Street - 39@	E-S	0	WBL	3	9	18	3	10	19
15: N Granite SD Access & Main Street - 61@	N-E	2.174524	SBL	1	3	6	2	5	11
15: N Granite SD Access & Main Street - 61@	N-S	0	SBT	5	15	30	8	24	48
15: N Granite SD Access & Main Street - 62@	S-E	0	NBR	0	1	2	0	0	0
15: N Granite SD Access & Main Street - 62@	S-N	0	NBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 41@707.2 -	W-N	23.08612	EBL	5	16	32	4	24	44
16: Oakland Ave. & Main Street - 41@707.2 -	W-S	23.08612	EBR	5	16	32	4	24	44
16: Oakland Ave. & Main Street - 63@154.7 -	N-W	0	SBR	1	3	6	1	3	5
16: Oakland Ave. & Main Street - 63@154.7 -	N-S	0	SBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 66@184.7 -	S-W	1.807164	NBL	2	5	10	3	9	18
16: Oakland Ave. & Main Street - 66@184.7 -	S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 65@2	E-N	0	WBR	2	7	13	3	8	16
17: S Granite SD Access & Main Street - 65@2	E-S	0	WBL	2	7	13	3	8	17
17: S Granite SD Access & Main Street - 67@2	N-E	1.872743	SBL	1	5	10	1	4	8
17: S Granite SD Access & Main Street - 67@2	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 69@5	S-E	4.265461	NBR	1	4	7	0	1	2
17: S Granite SD Access & Main Street - 69@5	S-N	0	NBT	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: Tighter Curve

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	4	19.2	C	0.40	***20.8***	***C***	***31.7***	***D***	5278	5320	99.2%	7432	9850	75.5%	66.67	59.04	0.50	1.11
EB I-80 (State to 700 E)	Weave	5	18.9	B	0.65	***20.7***	***C***	***29.2***	***D***	6468	6530	99.0%	8765	11250	77.9%	65.72	60.09	0.65	2.25
EB I-80 (Over 700 E)	Basic	4	17.9	B	0.82	***19.7***	***C***	***27.0***	***D***	5003	5060	98.9%	6755	8630	78.3%	66.92	63.02	0.82	1.68
WB I-80 (Over 700 E)	Basic	4	48.8	F	13.28	***84.3***	***F***	***24.9***	***C***	6914	8020	86.2%	6097	6130	99.5%	19.85	64.49	13.28	1.21
WB I-80 (700 E to State)	Weave	5	53.7	F	13.80	***70.4***	***F***	***25.3***	***C***	8744	10050	87.0%	7437	7490	99.3%	24.48	61.97	13.80	1.10
WB I-80 (Over State)	Diverge	4	50.1	F	4.16	***50.4***	***F***	***30.7***	***D***	7936	9180	86.5%	6388	6470	98.7%	45.59	63.71	4.78	1.42
WB I-80 to WB CD Ramp	Ramp	2	42.6	E	4.18	***42.9***	***E***	***27.5***	***C***	4443	5250	84.6%	3418	3550	96.3%	52.31	64.38	8.02	1.95
WB I-80 (West of State)	Diverge	3	16.7	B	1.59	***16.7***	***B***	***14.9***	***B***	3333	3930	84.8%	2840	2920	97.3%	63.16	66.46	1.59	1.13
WB I-80 to NB I-15	Ramp	3	16.1	B	1.24	***16.1***	***B***	***13.9***	***B***	2606	3010	86.6%	2221	2240	99.1%	55.93	56.30	1.24	1.19
To SB I-15 Ramp	Ramp	2	16.2	B	1.36	***17.4***	***B***	***16.5***	***B***	1824	1990	91.7%	1734	1770	98.0%	54.04	54.69	1.36	1.34
To WB 201 Ramp	Ramp	2	30.4	C	0.67	***30.4***	***C***	***22.8***	***B***	3156	3690	85.5%	2354	2410	97.7%	52.36	53.88	1.73	1.65
WB I-80 to SB I-15/WB 201	Diverge	3	42.8	E	6.36	***46.1***	***F***	***32.5***	***D***	4894	5680	86.2%	4014	4180	96.0%	37.32	46.10	10.98	5.74
WB CD	Weave (CD)	3	31.9	C	8.19	***36.8***	***E***	***23.6***	***B***	5380	6150	87.5%	4399	4560	96.5%	52.84	63.85	20.97	1.56
EB I-80 Ramp	Ramp	2	21.2	B	3.06	***21.2***	***B***	***29.1***	***C***	1088	1210	89.9%	1230	1400	87.8%	25.58	21.82	3.36	7.45
EB I-80 I-15 to State	Weave	5	19.7	B	0.51	***21.7***	***C***	***59.0***	***F***	6421	6540	98.2%	8531	11260	75.8%	62.41	29.00	0.67	3.82
I-80 Off Ramp to State St.	Ramp	2	14.8	B	0.86	***16.7***	***B***	***36.7***	***E***	1578	1600	98.6%	1787	1880	95.1%	49.67	24.19	1.04	8.24
NB I-15 Off Ramp 2	Ramp	1	28.3	C	0.63	***31.7***	***C***	***183.0***	***F***	1599	1600	100.0%	1851	1880	98.5%	53.44	10.59	4.50	70.30
NB I-15 Off Ramp 1	Ramp	2	19.6	B	2.81	***23.9***	***B***	***97.9***	***F***	1491	1600	93.2%	1691	1880	90.0%	34.41	8.51	9.22	34.67
EB 201/SB I-15 2	Merge	4	22.7	C	0.14	***24.6***	***C***	***105.7***	***F***	4780	4940	96.8%	6683	9380	71.2%	63.19	18.20	0.61	3.42
EB 201/SB I-15 1	Merge	5	15.3		0.16	***16.7***		***110.6***		4847	4940	98.1%	6780	9380	72.3%	61.34	12.35	0.44	8.18
EB 201 Ramp	Ramp	2	19.0	B	0.19	***20.5***	***B***	***141.1***	***F***	2347	2350	99.9%	2025	4480	45.2%	60.37	6.70	0.32	6.49
EB 201 Ramp	Ramp	3	13.6	B	0.11	***14.6***	***B***	***44.8***	***E***	2587	2590	99.9%	4890	4900	99.8%	62.20	39.61	0.16	13.28
SB I-15 Ramp	Ramp	2	40.6	E	9.45	***128.8***	***F***	***19.6***	***B***	1931	2030	95.1%	1336	1360	98.3%	7.44	35.47	27.15	3.05

Alternative: Flyover Ramp with Exclusive Lane

Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - W-E	EBT	EB							495							896
1: 2100 South & State Street - 2@1436.4 - E-W	WBT	WB							689							874
1: 2100 South & State Street - 3@1101.9 - N-S	SBT	SB							612							1930
1: 2100 South & State Street - 4@1031.1 - S-N	NBT	NB							1359							1066
1: 2100 South & State Street - 159@246.4 S-E	NBR	NB							180							186
1: 2100 South & State Street - 160@288.7 S-W	NBL	NB							168							273
1: 2100 South & State Street - 161@166.4 E-S	WBL	WB							270							270
1: 2100 South & State Street - 162@152.6 W-N	EBL	EB							143							173
1: 2100 South & State Street - 163@133.8 N-W	SBR	SB							73							170
1: 2100 South & State Street - 164@371.3 N-E	SBL	SB							84							220
1: 2100 South & State Street - 165@166.2 E-N	WBR	WB							86							100
1: 2100 South & State Street - 255@187.5 W-S	EBR	EB	31.49	C					159	49.31	D					320
2: Street Car Crossing & State Street - 5@1 N-S	SBT	SB							889							2262
2: Street Car Crossing & State Street - 5@1 N-W	SBR	SB							150							248
2: Street Car Crossing & State Street - 10@ S-N	NBT	NB							1514							1331
2: Street Car Crossing & State Street - 174@ W-S	EBR	EB							301							294
2: Street Car Crossing & State Street - 175@ W-N	EBL	EB							197							202
2: Street Car Crossing & State Street - 177@ S-W	NBL	NB	13.03	B					194	30.42	C					369
3: WB I-80 & State Street - 90@8.1 - 10@4 S-N	NBT	NB							1250							1190
3: WB I-80 & State Street - 96@9.7 - 37@3 S-W	NBL	NB							31							20
3: WB I-80 & State Street - 96@9.7 - 118@ S-W	NBL	NB							497							367
3: WB I-80 & State Street - 124@1240.6 - 3 E-W	WBT	WB							77							143
3: WB I-80 & State Street - 124@1240.6 - 9 E-S	WBL	WB							233							365
3: WB I-80 & State Street - 124@1240.6 - 1 E-W	WBT	WB							0							0
3: WB I-80 & State Street - 125@249.7 - 10 E-N	WBR	WB							455							516
3: WB I-80 & State Street - 155@285.8 - 97 N-S	SBT	SB	17.98	B					599	23.58	C					816
3: WB I-80 & State Street - 156@284.4 - 37 N-W	SBR	SB							11							10
3: WB I-80 & State Street - 156@284.4 - 11 N-W	SBR	SB							397							582
3: WB I-80 & State Street - 157@282.8 - 91 N-S	SBT	SB							175							1137
4: EB I-80 & State Street - 92@5.5 - 12@38 N-S	SBT	SB							0							0
4: EB I-80 & State Street - 98@6.3 - 25@59 N-E	SBL	SB							18							20
4: EB I-80 & State Street - 98@6.3 - 122@6 N-E	SBL	SB							581							796
4: EB I-80 & State Street - 120@1756.1 - 25 W-E	EBT	EB							132							123
4: EB I-80 & State Street - 120@1756.1 - 85 W-N	EBL	EB							538							474
4: EB I-80 & State Street - 120@1756.1 - 12 W-E	EBT	EB	24.14	C	32.42	C			0	28.14	C	40.78	C			0
4: EB I-80 & State Street - 121@193.1 - 12(W-S	EBR	EB							610							710
4: EB I-80 & State Street - 144@76.3 - 89@ S-N	NBT	NB							714							715
4: EB I-80 & State Street - 145@75.0 - 25@ S-E	NBR	NB							17							17
4: EB I-80 & State Street - 145@75.0 - 100 S-E	NBR	NB							615							514
4: EB I-80 & State Street - 146@331.6 - 95(S-N	NBT	NB							528							388
4: EB I-80 & State Street - 10063@12.6 - 12 N-S	SBT	SB							409							1501
5: Oakland & State Street - 12@191.7 - 12(N-S	SBT	SB							1019							2211
5: Oakland & State Street - 22@609.6 - 11(E-N	WBR	WB					8.54	A	29					14.56	B	49
5: Oakland & State Street - 146@91.4 - 14 S-N	NBT	NB							529							392
5: Oakland & State Street - 147@71.3 - 11(S-N	NBT	NB							1320							1199
5: Oakland & State Street - 147@71.3 - 21(S-E	NBR	NB							13							18
6: East Grantie SD RIRO & State Street - 12 N-W	SBR	SB							242							68
6: East Grantie SD RIRO & State Street - 12 N-S	SBT	SB							776							2143
6: East Grantie SD RIRO & State Street - 23 W-S	EBR	EB					6.60	A	49					7.22	A	97
6: East Grantie SD RIRO & State Street - 10 S-N	NBT	NB							1333							1221
6: East Grantie SD RIRO & State Street - 10 S-N	NBT	NB							529							393
7: 2700 South & State Street - 14@1205.4 N-S	SBT	SB							611							1970
7: 2700 South & State Street - 15@1184.3 S-N	NBT	NB							1519							1362
7: 2700 South & State Street - 17@647.5 - W-S	EBR	EB							40							97
7: 2700 South & State Street - 17@647.5 - W-E	EBT	EB							59							319
7: 2700 South & State Street - 20@820.0 - E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291.2 S-W	NBL	NB	15.88	B					120	36.67	D					87
7: 2700 South & State Street - 149@150.8 S-E	NBR	NB							21							88
7: 2700 South & State Street - 150@28.0 - W-N	EBL	EB							149							284
7: 2700 South & State Street - 153@329.4 N-E	SBL	SB							51							152
7: 2700 South & State Street - 154@188.7 N-W	SBR	SB							168							108
7: 2700 South & State Street - 10014@53.5 E-N	WBR	WB							199							70
7: 2700 South & State Street - 10015@17.5 E-S	WBL	WB							74							129
8: WB I-80 & 700 East - 72@299.7 - 73@63 N-S	SBT	SB							675							1767
8: WB I-80 & 700 East - 80@28.1 - 70@87.5 S-N	NBT	NB							2507							2002
8: WB I-80 & 700 East - 87@30.0 - 137@28 S-SW	NBL	NB							966							695
8: WB I-80 & 700 East - 135@1579.2 - 73@ E-S	WBL	WB							98							223
8: WB I-80 & 700 East - 135@1579.2 - 137(E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87 E-N	WBR	WB							750							571
8: WB I-80 & 700 East - 168@218.7 - 83@5 N-S	SBT	SB	14.41	B					311	18.47	B					775
8: WB I-80 & 700 East - 169@299.3 - 137@ N-SW	SBR	SB							1039							663
9: EB I-80 & 700 East - 74@24.8 - 10189@1 N-S	SBT	SB							773							1991
9: EB I-80 & 700 East - 78@281.6 - 79@56.5 N-S	NBT	NB							1762							1069
9: EB I-80 & 700 East - 85@22.3 - 140@66. N-NE	SBL	SB			30.74	C			313			35.66	C			775
9: EB I-80 & 700 East - 133@1231.9 - 79@5 W-N	EBL	EB							747							934
9: EB I-80 & 700 East - 133@1231.9 - 140@ W-NE	EBL	EB							0							0
9: EB I-80 & 700 East - 134@318.9 - 10188 W-S	EBR	EB							691							1349
9: EB I-80 & 700 East - 166@226.1 - 86@55 S-N	NBT	NB							971							694
9: EB I-80 & 700 East - 167@274.8 - 140@6 S-NE	NBR	NB	23.86	C					152	23.64	C					151
9: EB I-80 & 700 East - 10188@14.1 - 76@1 N-S	SBT	SB							81							148
10: 2400 S & West Temple - 33@704.1 - 35 E-W	WBT	WB					7.40	A	6					7.61	A	6
10: 2400 S & West Temple - 33@704.1 - 5 E-N	WBR	WB							12							20
10: 2400 S & West Temple - 33@704.1 - 10 E-S	WBL	WB							19							11
10: 2400 S & West Temple - 34@51.1 - 32(W-E	EBT	EB							0							4
10: 2400 S & West Temple - 34@51.1 - 56(W-N	EBL	EB							0							0
10: 2400 S & West Temple - 34@51.1 - 101 W-S	EBR	EB							0							0
10: 2400 S & West Temple - 57@353.0 - 32 N-E	SBL	SB							6							5

10: 2400 S & West Temple - 57@353.0 - 35	N-W	SBR	SB		0		5
10: 2400 S & West Temple - 57@353.0 - 1(	N-S	SBT	SB		138		261
10: 2400 S & West Temple - 10107@1.9 - 3	S-E	NBR	NB		5		6
10: 2400 S & West Temple - 10107@1.9 - 3	S-W	NBL	NB		4		0
10: 2400 S & West Temple - 10107@1.9 - 5	S-N	NBT	NB		190		280
11: Robert Ave. & West Temple - 28@710.	E-W	WBT	WB		0		0
11: Robert Ave. & West Temple - 28@710.	E-S	WBL	WB		4		6
11: Robert Ave. & West Temple - 28@710.	E-N	WBR	WB		4		3
11: Robert Ave. & West Temple - 31@117.	W-E	EBT	EB		0		5
11: Robert Ave. & West Temple - 31@117.	W-S	EBR	EB		0		4
11: Robert Ave. & West Temple - 31@117.	W-N	EBL	EB	7.89 A	4	11.44 B	4
11: Robert Ave. & West Temple - 44@282.	S-E	NBR	NB		6		5
11: Robert Ave. & West Temple - 44@282.	S-W	NBL	NB		7		6
11: Robert Ave. & West Temple - 44@282.	S-N	NBT	NB		192		277
11: Robert Ave. & West Temple - 49@19.8	N-E	SBL	SB		5		5
11: Robert Ave. & West Temple - 49@19.8	N-W	SBR	SB		0		5
11: Robert Ave. & West Temple - 49@19.8	N-S	SBT	SB		152		259
12: Oakland Ave & West Temple - 40@711	E-W	WBT	WB	8.31 A	18	12.00 B	4
12: Oakland Ave & West Temple - 40@711	E-N	WBR	WB		10		21
12: Oakland Ave & West Temple - 40@711	E-S	WBL	WB		10		5
12: Oakland Ave & West Temple - 43@473	W-E	EBT	EB		4		20
12: Oakland Ave & West Temple - 43@473	W-N	EBL	EB		4		9
12: Oakland Ave & West Temple - 43@473	W-S	EBR	EB		11		9
12: Oakland Ave & West Temple - 45@261	N-E	SBL	SB		11		10
12: Oakland Ave & West Temple - 45@261	N-W	SBR	SB		10		5
12: Oakland Ave & West Temple - 45@261	N-S	SBT	SB		135		254
12: Oakland Ave & West Temple - 46@527	S-E	NBR	NB		13		22
12: Oakland Ave & West Temple - 46@527	S-W	NBL	NB		9		11
12: Oakland Ave & West Temple - 46@527	S-N	NBT	NB		190		261
13: 2400 S & Main Street - 32@716.9 - 36	W-E	EBT	EB		0		0
13: 2400 S & Main Street - 32@716.9 - 55	W-S	EBR	EB		5		4
13: 2400 S & Main Street - 32@716.9 - 58	W-N	EBL	EB		5		9
13: 2400 S & Main Street - 37@672.9 - 33	E-W	WBT	WB	14.75 B	27	22.28 C	21
13: 2400 S & Main Street - 37@672.9 - 55	E-S	WBL	WB		27		21
13: 2400 S & Main Street - 37@672.9 - 58	E-N	WBR	WB		62		134
13: 2400 S & Main Street - 54@239.9 - 33	S-W	NBL	NB		4		4
13: 2400 S & Main Street - 54@239.9 - 36	S-E	NBR	NB		0		0
13: 2400 S & Main Street - 54@239.9 - 58	S-N	NBT	NB		338		495
13: 2400 S & Main Street - 59@503.7 - 33	N-W	SBR	SB		4		9
13: 2400 S & Main Street - 59@503.7 - 36	N-E	SBL	SB		0		0
13: 2400 S & Main Street - 59@503.7 - 55	N-S	SBT	SB		190		471
14: Robert Ave. & Main Street - 26@405.6	E-W	WBT	WB		0		0
14: Robert Ave. & Main Street - 26@405.6	E-N	WBR	WB		0		4
14: Robert Ave. & Main Street - 26@405.6	E-S	WBL	WB	8.11 A	4	10.16 B	4
14: Robert Ave. & Main Street - 29@709.2	W-E	EBT	EB		0		5
14: Robert Ave. & Main Street - 29@709.2	W-N	EBL	EB		7		5
14: Robert Ave. & Main Street - 29@709.2	W-S	EBR	EB		4		6
14: Robert Ave. & Main Street - 55@232.4	N-E	SBL	SB		0		10
14: Robert Ave. & Main Street - 55@232.4	N-W	SBR	SB		5		5
14: Robert Ave. & Main Street - 55@232.4	N-S	SBT	SB		218		481
14: Robert Ave. & Main Street - 60@63.7 -	S-E	NBR	NB		5		5
14: Robert Ave. & Main Street - 60@63.7 -	S-W	NBL	NB		4		5
14: Robert Ave. & Main Street - 60@63.7 -	S-N	NBT	NB		337		491
15: N Granite SD Access & Main Street - 39	E-N	WBR	WB	0.99 A	18	1.25 A	60
15: N Granite SD Access & Main Street - 39	E-S	WBL	WB		15		5
15: N Granite SD Access & Main Street - 61	N-E	SBL	SB		12		14
15: N Granite SD Access & Main Street - 61	N-S	SBT	SB		214		479
15: N Granite SD Access & Main Street - 62	S-E	NBR	NB		9		4
15: N Granite SD Access & Main Street - 62	S-N	NBT	NB		328		442
16: Oakland Ave. & Main Street - 41@707.	W-N	EBL	EB	6.67 A	10	7.78 A	28
16: Oakland Ave. & Main Street - 41@707.	W-S	EBR	EB		17		23
16: Oakland Ave. & Main Street - 63@154.	N-W	SBR	SB		17		13
16: Oakland Ave. & Main Street - 63@154.	N-S	SBT	SB		214		471
16: Oakland Ave. & Main Street - 66@184.	S-W	NBL	NB		21		16
16: Oakland Ave. & Main Street - 66@184.	S-N	NBT	NB		324		418
17: S Granite SD Access & Main Street - 65	E-N	WBR	WB	1.27 A	8	1.79 A	19
17: S Granite SD Access & Main Street - 65	E-S	WBL	WB		17		17
17: S Granite SD Access & Main Street - 67	N-E	SBL	SB		14		5
17: S Granite SD Access & Main Street - 67	N-S	SBT	SB		216		490
17: S Granite SD Access & Main Street - 69	S-E	NBR	NB		51		37
17: S Granite SD Access & Main Street - 69	S-N	NBT	NB		337		415

2040 Queue Report (AM PM)

Alternative: Flyover Ramp with Exclusive Lane

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Stre	W-E	170.4696	EBT	12	162	280	404	1172	2337
1: 2100 South & State Stre	E-W	214.0716	WBT	27	242	425	59	397	713
1: 2100 South & State Stre	N-S	94.00281	SBT	11	109	191	109	558	1029
1: 2100 South & State Stre	S-N	217.2334	NBT	21	194	341	15	190	328
1: 2100 South & State Stre	S-E	74.8133	NBR	32	80	164	28	101	195
1: 2100 South & State Stre	S-W	59.27111	NBL	12	82	146	14	124	218
1: 2100 South & State Stre	E-S	118.8687	WBL	14	123	217	46	201	378
1: 2100 South & State Stre	W-N	70.28765	EBL	7	76	132	155	206	495
1: 2100 South & State Stre	N-W	17.41647	SBR	4	19	36	6	28	53
1: 2100 South & State Stre	N-E	42.128	SBL	6	47	83	10	91	160
1: 2100 South & State Stre	E-N	15.35076	WBR	7	18	37	5	12	25
1: 2100 South & State Stre	W-S	24.35225	EBR	6	30	55	468	699	1621
2: Street Car Crossing & St	N-S	55.00728	SBT	21	90	170	143	595	1125
2: Street Car Crossing & St	N-W	55.00728	SBR	21	90	170	143	595	1125
2: Street Car Crossing & St	S-N	121.3827	NBT	26	144	264	17	92	168
2: Street Car Crossing & St	W-S	31.76726	EBR	14	44	86	23	83	159
2: Street Car Crossing & St	W-N	177.1304	EBL	20	169	299	41	229	418
2: Street Car Crossing & St	S-W	36.54392	NBL	17	68	129	85	370	697
3: WB I-80 & State Street	S-N	0	NBT	0	0	0	31	74	153
3: WB I-80 & State Street	S-W	0	NBL	0	1	2	20	51	104
3: WB I-80 & State Street	S-W	0	NBL	0	1	2	20	51	104
3: WB I-80 & State Street	E-W	132.4928	WBT	13	128	224	22	196	344
3: WB I-80 & State Street	E-S	132.4928	WBL	13	128	224	22	196	344
3: WB I-80 & State Street	E-W	132.4928	WBT	13	128	224	22	196	344
3: WB I-80 & State Street	E-N	194.7448	WBR	54	255	475	36	242	436
3: WB I-80 & State Street	N-S	145.2806	SBT	28	203	362	47	235	434
3: WB I-80 & State Street	N-W	42.30216	SBR	17	63	121	27	125	234
3: WB I-80 & State Street	N-W	50.34178	SBR	16	68	128	27	127	236
3: WB I-80 & State Street	N-S	73.45891	SBT	8	73	130	58	373	674
4: EB I-80 & State Street -	N-S	0	SBT	1	2	5	30	73	150
4: EB I-80 & State Street -	N-E	0	SBL	0	0	0	30	72	148
4: EB I-80 & State Street -	N-E	0	SBL	0	0	0	30	72	148
4: EB I-80 & State Street -	W-E	202.9021	EBT	27	239	422	136	348	711
4: EB I-80 & State Street -	W-N	202.9021	EBL	27	239	422	136	348	711
4: EB I-80 & State Street -	W-E	202.9021	EBT	27	239	422	136	348	711
4: EB I-80 & State Street -	W-S	172.4921	EBR	40	192	357	335	922	1856
4: EB I-80 & State Street -	S-N	172.7076	NBT	28	246	434	14	295	500
4: EB I-80 & State Street -	S-E	109.4279	NBR	43	205	380	28	288	503
4: EB I-80 & State Street -	S-E	113.9072	NBR	43	206	383	28	288	504
4: EB I-80 & State Street -	S-N	130.5038	NBT	21	158	281	21	143	256
4: EB I-80 & State Street -	N-S	0	SBT	1	2	5	30	73	150
5: Oakland & State Street	N-S	0	SBT	0	0	0	1	1	3
5: Oakland & State Street	E-N	11.65625	WBR	5	16	31	5	21	40
5: Oakland & State Street	S-N	0	NBT	2	6	11	1	0	1
5: Oakland & State Street	S-N	3.708666	NBT	19	46	94	21	96	178
5: Oakland & State Street	S-E	7.539545	NBR	27	62	130	28	130	243
6: East Grantie SD RIRO &	N-W	22.118	SBR	6	19	37	3	9	17

6: East Grantie SD RIRO &	N-S	16.7002	SBT	4	13	26	2	7	14
6: East Grantie SD RIRO &	W-S	31.19561	EBR	4	25	46	4	34	61
6: East Grantie SD RIRO &	S-N	44.89308	NBT	58	125	264	438	826	1801
6: East Grantie SD RIRO &	S-N	44.6753	NBT	55	128	266	442	822	1799
7: 2700 South & State Stre	N-S	103.5764	SBT	10	95	166	25	280	487
7: 2700 South & State Stre	S-N	173.6071	NBT	14	178	307	64	271	511
7: 2700 South & State Stre	W-S	46.15365	EBR	10	42	79	86	283	553
7: 2700 South & State Stre	W-E	35.45971	EBT	10	34	67	86	277	543
7: 2700 South & State Stre	E-W	56.1186	WBT	11	59	108	10	57	105
7: 2700 South & State Stre	S-W	44.25203	NBL	7	36	67	14	43	86
7: 2700 South & State Stre	S-E	7.031721	NBR	3	11	21	5	21	40
7: 2700 South & State Stre	W-N	54.69791	EBL	17	84	155	92	280	554
7: 2700 South & State Stre	N-E	27.90541	SBL	6	19	37	16	65	124
7: 2700 South & State Stre	N-W	26.95504	SBR	6	23	44	4	14	26
7: 2700 South & State Stre	E-N	41.63039	WBR	9	47	86	7	29	54
7: 2700 South & State Stre	E-S	31.09067	WBL	10	41	77	13	70	128
8: WB I-80 & 700 East - 72	N-S	140.9789	SBT	10	146	250	23	276	479
8: WB I-80 & 700 East - 80	S-N	155.2282	NBT	25	113	212	8	34	65
8: WB I-80 & 700 East - 87	S-SW	75.10626	NBL	61	169	339	21	337	577
8: WB I-80 & 700 East - 13	E-S	75.12834	WBL	9	51	93	13	91	163
8: WB I-80 & 700 East - 13	E-SW	75.12834	WBL	9	51	93	13	91	163
8: WB I-80 & 700 East - 13	E-N	6.638965	WBR	7	17	35	5	5	13
8: WB I-80 & 700 East - 16	N-S	87.48818	SBT	10	101	176	12	174	300
8: WB I-80 & 700 East - 16	N-SW	1.921018	SBR	13	46	90	3	5	11
9: EB I-80 & 700 East - 74(	N-S	84.28198	SBT	10	69	125	10	105	184
9: EB I-80 & 700 East - 78(	S-N	266.4457	NBT	85	355	671	17	231	398
9: EB I-80 & 700 East - 85(	N-NE	42.90279	SBL	12	56	104	21	256	443
9: EB I-80 & 700 East - 13	W-N	229.7347	EBL	27	260	456	30	319	556
9: EB I-80 & 700 East - 13	W-NE	229.7347	EBL	27	260	456	30	319	556
9: EB I-80 & 700 East - 134	W-S	0	EBR	7	24	47	9	15	34
9: EB I-80 & 700 East - 16(	S-N	227.8555	NBT	125	361	721	64	301	561
9: EB I-80 & 700 East - 167	S-NE	0	NBR	2	4	9	1	2	4
9: EB I-80 & 700 East - 101	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple	E-W	7.56542	WBT	5	18	35	4	19	36
10: 2400 S & West Temple	E-N	7.56542	WBR	5	18	35	4	19	36
10: 2400 S & West Temple	E-S	7.56542	WBL	5	18	35	4	19	36
10: 2400 S & West Temple	W-E	0	EBT	0	0	0	1	1	3
10: 2400 S & West Temple	W-N	0	EBL	0	0	0	1	1	3
10: 2400 S & West Temple	W-S	0	EBR	0	0	0	1	1	3
10: 2400 S & West Temple	N-E	0	SBL	2	7	14	2	3	7
10: 2400 S & West Temple	N-W	0	SBR	1	3	6	0	0	0
10: 2400 S & West Temple	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple	S-W	0	NBL	1	4	8	0	0	0
10: 2400 S & West Temple	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Te	E-W	2.575479	WBT	4	12	24	4	8	18
11: Robert Ave. & West Te	E-S	2.558841	WBL	4	12	24	4	8	18
11: Robert Ave. & West Te	E-N	2.531768	WBR	4	12	24	4	8	18
11: Robert Ave. & West Te	W-E	0	EBT	4	9	18	4	9	19
11: Robert Ave. & West Te	W-S	0	EBR	4	9	18	4	9	19

2040 Queue Report (AM PM)

11: Robert Ave. & West Te	W-N	0	EBL	4	9	18	4	9	19
11: Robert Ave. & West Te	S-E	0	NBR	0	1	2	0	0	1
11: Robert Ave. & West Te	S-W	0	NBL	1	3	6	1	3	6
11: Robert Ave. & West Te	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Te	N-E	2.913104	SBL	2	5	11	2	3	7
11: Robert Ave. & West Te	N-W	8.146827	SBR	12	36	71	13	24	53
11: Robert Ave. & West Te	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West T	E-W	16.71183	WBT	4	20	37	6	17	33
12: Oakland Ave & West T	E-N	16.71183	WBR	4	20	37	6	17	33
12: Oakland Ave & West T	E-S	16.71183	WBL	4	20	37	6	17	33
12: Oakland Ave & West T	W-E	17.04076	EBT	6	15	30	5	22	42
12: Oakland Ave & West T	W-N	16.65659	EBL	6	14	29	5	22	40
12: Oakland Ave & West T	W-S	16.6845	EBR	6	14	29	5	22	40
12: Oakland Ave & West T	N-E	0	SBL	2	6	11	3	8	16
12: Oakland Ave & West T	N-W	0	SBR	1	3	6	2	7	13
12: Oakland Ave & West T	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West T	S-E	5.925707	NBR	2	5	10	1	1	3
12: Oakland Ave & West T	S-W	5.332815	NBL	2	6	12	2	4	8
12: Oakland Ave & West T	S-N	2.023688	NBT	1	2	4	0	0	0
13: 2400 S & Main Street ·	W-E	9.74766	EBT	4	11	22	5	9	20
13: 2400 S & Main Street ·	W-S	9.74766	EBR	4	11	22	5	9	20
13: 2400 S & Main Street ·	W-N	9.74766	EBL	4	11	22	5	9	20
13: 2400 S & Main Street ·	E-W	45.85318	WBT	10	51	95	20	93	173
13: 2400 S & Main Street ·	E-S	45.85318	WBL	10	51	95	20	93	173
13: 2400 S & Main Street ·	E-N	45.85318	WBR	10	51	95	20	93	173
13: 2400 S & Main Street ·	S-W	0	NBL	1	4	7	2	2	5
13: 2400 S & Main Street ·	S-E	0	NBR	0	0	0	1	2	5
13: 2400 S & Main Street ·	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street ·	N-W	0	SBR	0	0	0	0	1	3
13: 2400 S & Main Street ·	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street ·	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main St	E-W	2.669583	WBT	3	9	18	4	7	16
14: Robert Ave. & Main St	E-N	2.669583	WBR	3	9	18	4	7	16
14: Robert Ave. & Main St	E-S	2.669583	WBL	3	9	18	4	7	16
14: Robert Ave. & Main St	W-E	10.32267	EBT	5	13	25	4	11	22
14: Robert Ave. & Main St	W-N	10.32267	EBL	5	13	25	4	11	22
14: Robert Ave. & Main St	W-S	10.32267	EBR	5	13	25	4	11	22
14: Robert Ave. & Main St	N-E	0	SBL	0	0	0	2	5	10
14: Robert Ave. & Main St	N-W	0	SBR	1	2	4	2	5	10
14: Robert Ave. & Main St	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main St	S-E	0	NBR	1	3	6	6	14	29
14: Robert Ave. & Main St	S-W	0	NBL	1	2	4	1	2	5
14: Robert Ave. & Main St	S-N	0	NBT	0	0	0	0	0	0
15: N Granite SD Access &	E-N	0	WBR	2	9	17	3	6	13
15: N Granite SD Access &	E-S	0	WBL	3	9	18	3	7	14
15: N Granite SD Access &	N-E	2.174524	SBL	1	3	7	2	3	7
15: N Granite SD Access &	N-S	0	SBT	5	17	34	8	16	34
15: N Granite SD Access &	S-E	0	NBR	0	1	2	0	0	0
15: N Granite SD Access &	S-N	0	NBT	0	0	0	0	0	0
16: Oakland Ave. & Main S	W-N	23.08612	EBL	5	16	32	4	25	44

16: Oakland Ave. & Main S	W-S	23.08612	EBR	5	16	32	4	25	44
16: Oakland Ave. & Main S	N-W	0	SBR	1	3	6	1	2	4
16: Oakland Ave. & Main S	N-S	0	SBT	0	0	0	0	0	0
16: Oakland Ave. & Main S	S-W	1.807164	NBL	2	5	10	3	6	12
16: Oakland Ave. & Main S	S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access &	E-N	0	WBR	2	6	13	3	6	12
17: S Granite SD Access &	E-S	0	WBL	2	7	13	3	6	12
17: S Granite SD Access &	N-E	1.872743	SBL	2	5	10	1	2	5
17: S Granite SD Access &	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access &	S-E	4.265461	NBR	1	4	7	0	0	0
17: S Granite SD Access &	S-N	0	NBT	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: Flyover Ramp with Exclusive Lane

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	5	15.0	B	0.32	***16.2***	***B***	***56.0***	***F***	5182	5320	97.4%	8492	9850	86.2%	67.20	46.27	0.44	9.42
EB I-80 (State to 700 E)	Weave	5	18.7	B	0.64	***20.5***	***C***	***32.2***	***D***	6408	6530	98.1%	9856	11250	87.6%	65.60	48.45	0.64	8.60
EB I-80 (Over 700 E)	Basic	4	17.8	B	0.74	***19.4***	***C***	***45.9***	***F***	4961	5060	98.0%	7561	8630	87.6%	66.95	58.10	0.74	3.08
WB I-80 (Over 700 E)	Basic	4	48.1	F	15.36	***74.4***	***F***	***37.3***	***E***	6922	8020	86.3%	6097	6130	99.5%	22.89	63.57	15.36	1.85
WB I-80 (700 E to State)	Weave	5	50.4	F	7.58	***58.4***	***F***	***39.7***	***E***	8810	10050	87.7%	7435	7490	99.3%	29.99	59.91	7.58	2.03
WB I-80 (Over State)	Diverge	4	43.4	E	5.44	***45.1***	***F***	***29.7***	***D***	8008	9180	87.2%	6382	6470	98.6%	51.69	64.84	6.29	1.60
WB I-80 to WB CD Ramp	Ramp	2	38.8	E	4.10	***42.6***	***E***	***41.2***	***E***	4476	5250	85.3%	3418	3550	96.3%	54.13	65.30	12.29	2.65
WB I-80 (West of State)	Diverge	3	16.6	B	1.22	***16.6***	***B***	***15.0***	***B***	3370	3930	85.8%	2836	2920	97.1%	64.36	66.65	1.22	1.08
WB I-80 to NB I-15	Ramp	3	16.1	B	1.16	***16.1***	***B***	***39.7***	***E***	2634	3010	87.5%	2219	2240	99.1%	55.89	56.30	1.16	1.26
To SB I-15 Ramp	Ramp	2	16.4	B	1.18	***17.3***	***B***	***32.3***	***D***	1832	1990	92.1%	1728	1770	97.6%	53.76	54.99	1.23	1.37
To WB 201 Ramp	Ramp	2	30.6	C	1.82	***30.6***	***C***	***25.7***	***C***	3174	3690	86.0%	2353	2410	97.6%	52.02	54.36	1.82	1.63
WB I-80 to SB I-15/WB 201	Diverge	3	43.4	E	8.18	***47.1***	***F***	***31.4***	***D***	4921	5680	86.6%	4011	4180	96.0%	36.58	47.64	8.83	4.38
WB CD	Weave (CD)	3	29.8	C	2.64	***37.9***	***E***	***27.4***	***C***	5408	6150	87.9%	4394	4530	97.0%	52.28	64.16	20.73	1.44
EB I-80 Ramp	Ramp	2	20.0	B	2.31	***20.4***	***B***	***25.1***	***C***	1044	1210	86.3%	1173	1400	83.8%	25.83	21.69	3.29	5.31
EB I-80 I-15 to State	Weave	6	15.9	B	0.26	***17.3***	***B***	***57.0***	***F***	6460	6600	97.9%	9839	11260	87.4%	65.55	27.05	0.33	15.03
NB I-15 Off Ramp 2	Ramp	1	13.7	B	0.84	***15.2***	***B***	***38.2***	***E***	892	900	99.2%	929	940	98.8%	61.65	60.60	1.46	2.34
NB I-15 Off Ramp 1	Ramp	2	11.2	A	0.23	***12.2***	***B***	***29.1***	***C***	1599	1600	99.9%	1876	1880	99.8%	69.08	67.99	0.23	0.61
EB 201/SB I-15 1	Merge	5	22.3	C	0.31	***24.2***	***C***	***58.3***	***F***	5553	5700	97.4%	8896	10320	86.2%	61.74	36.08	0.36	7.42
EB 201 Ramp	Ramp	2	17.4	B	0.18	***18.7***	***B***	***49.1***	***F***	2348	2350	99.9%	3862	4480	86.2%	66.06	26.15	0.28	12.46
EB 201 Ramp	Ramp	2	5.7	A	0.16	***6.2***	***A***	***69.6***	***F***	709	2350	30.2%	1152	4480	25.7%	60.03	26.74	0.23	4.10
SB I-15 Ramp	Ramp	3	13.0	B	0.14	***14.1***	***B***	***48.3***	***F***	2589	2650	97.7%	4324	4900	88.2%	64.68	25.56	0.19	12.03
WB I-80 Ramp (700 E)	Ramp	2	40.1	E	10.91	***107.4***	***F***	***64.6***	***F***	1958	2030	96.5%	1335	1360	98.2%	9.84	35.56	54.17	3.64
EB I-80 (Over 700 E)	Basic	4	18.8	C	0.44	***20.4***	***C***	***45.6***	***F***	5214	5320	98.0%	8542	9850	86.7%	67.19	47.70	0.61	11.78
NB I-15 Ramp to I-80 EB	Ramp	1	15.2	B	1.20	***17.1***	***B***	***63.2***	***F***	893	900	99.2%	930	940	98.9%	54.75	53.77	1.97	2.85
EB I-80 Ramp to I-15 SB	Ramp	1	10.3	A	0.90	***11.5***	***A***	***43.9***	***E***	689	700	98.4%	927	940	98.6%	63.58	61.73	1.24	2.01

Alternative: Slip Ramp to CD Road

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street	W-E	EBT	EB							495							895
1: 2100 South & State Street	E-W	WBT	WB							689							873
1: 2100 South & State Street	N-S	SBT	SB							611							1932
1: 2100 South & State Street	S-N	NBT	NB							1304							1075
1: 2100 South & State Street	S-E	NBR	NB							181							188
1: 2100 South & State Street	S-W	NBL	NB							162							274
1: 2100 South & State Street	E-S	WBL	WB							270							270
1: 2100 South & State Street	W-N	EBL	EB							143							173
1: 2100 South & State Street	N-W	SBR	SB							73							171
1: 2100 South & State Street	N-E	SBL	SB							84							220
1: 2100 South & State Street	E-N	WBR	WB							86							100
1: 2100 South & State Street	W-S	EBR	EB	30.90	C					159	48.79	D					319
2: Street Car Crossing & Stat	N-S	SBT	SB							889							2260
2: Street Car Crossing & Stat	N-W	SBR	SB							150							249
2: Street Car Crossing & Stat	S-N	NBT	NB							1447							1344
2: Street Car Crossing & Stat	W-S	EBR	EB							301							294
2: Street Car Crossing & Stat	W-N	EBL	EB							197							201
2: Street Car Crossing & Stat	S-W	NBL	NB	13.19	B					179	29.44	C					373
3: WB I-80 & State Street - 9	S-N	NBT	NB							1282							1264
3: WB I-80 & State Street - 9	S-W	NBL	NB							497							393
3: WB I-80 & State Street - 1	E-S	WBL	WB							199							325
3: WB I-80 & State Street - 1	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 1	E-N	WBR	WB							438							606
3: WB I-80 & State Street - 1	N-S	SBT	SB							581							798
3: WB I-80 & State Street - 1	N-W	SBR	SB							397							584
3: WB I-80 & State Street - 1	N-S	SBT	SB	18.43	B					194	30.42	C					1163
4: EB I-80 & State Street - 92	N-S	SBT	SB							0							0
4: EB I-80 & State Street - 98	N-E	SBL	SB							581							798
4: EB I-80 & State Street - 12	W-N	EBL	EB							541							462
4: EB I-80 & State Street - 12	W-E	EBT	EB							0							0
4: EB I-80 & State Street - 12	W-S	EBR	EB							684							843
4: EB I-80 & State Street - 14	S-N	NBT	NB							744							801
4: EB I-80 & State Street - 14	S-E	NBR	NB							616							556
4: EB I-80 & State Street - 14	S-N	NBT	NB							497							393
4: EB I-80 & State Street - 10	N-S	SBT	SB	20.81	C	29.15	B			393	16.56	B	37.38	C			1488
5: Oakland & State Street - 1	N-S	SBT	SB							1075							2330
5: Oakland & State Street - 2	E-N	WBR	WB					8.27	A	29					8.48	A	49
5: Oakland & State Street - 1	S-N	NBT	NB							498							396
5: Oakland & State Street - 1	S-N	NBT	NB							1333							1310
5: Oakland & State Street - 1	SW-E	#N/A	#N/A							13							20
6: East Grantie SD RIRO & St	N-W	SBR	SB							232							68
6: East Grantie SD RIRO & St	N-S	SBT	SB							844							2259
6: East Grantie SD RIRO & St	W-S	EBR	EB					6.43	A	49					7.07	A	97
6: East Grantie SD RIRO & St	S-N	NBT	NB							1346							1329
6: East Grantie SD RIRO & St	S-N	NBT	NB							498							396
7: 2700 South & State Street	N-S	SBT	SB							585							1938
7: 2700 South & State Street	S-N	NBT	NB							1518							1372
7: 2700 South & State Street	W-S	EBR	EB							40							99
7: 2700 South & State Street	W-E	EBT	EB							59							331
7: 2700 South & State Street	E-W	WBT	WB							156							151
7: 2700 South & State Street	S-W	NBL	NB	15.92	B					119	25.57	C					88
7: 2700 South & State Street	S-E	NBR	NB							21							87
7: 2700 South & State Street	W-N	EBL	EB							149							302
7: 2700 South & State Street	N-E	SBL	SB							51							156
7: 2700 South & State Street	N-W	SBR	SB							112							112
7: 2700 South & State Street	E-N	WBR	WB							199							70
7: 2700 South & State Street	E-S	WBL	WB							74							129
8: WB I-80 & 700 East - 72@	N-S	SBT	SB							650							1768
8: WB I-80 & 700 East - 80@	S-N	NBT	NB							2338							1936
8: WB I-80 & 700 East - 87@	S-SW	NBL	NB							840							693
8: WB I-80 & 700 East - 135@	E-S	WBL	WB							82							223
8: WB I-80 & 700 East - 135@	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@	E-N	WBR	WB							626							567
8: WB I-80 & 700 East - 168@	N-S	SBT	SB	26.45	C					304	18.78	B					774
8: WB I-80 & 700 East - 169@	N-SW	SBR	SB							980							663
9: EB I-80 & 700 East - 74@2	N-S	SBT	SB							732							1990
9: EB I-80 & 700 East - 78@2	S-N	NBT	NB							1586							1069
9: EB I-80 & 700 East - 85@2	N-NE	SBL	SB			50.32	C			303			35.45	C			776
9: EB I-80 & 700 East - 133@	W-N	EBL	EB							755							866
9: EB I-80 & 700 East - 133@	W-NE	EBL	EB							0							0
9: EB I-80 & 700 East - 134@	W-S	EBR	EB							697							1265
9: EB I-80 & 700 East - 166@	S-N	NBT	NB							852							695
9: EB I-80 & 700 East - 167@	S-NE	NBR	NB	35.61	D					136	23.36	C					151
9: EB I-80 & 700 East - 1018	N-S	SBT	SB							78							139
10: 2400 S & West Temple -	E-W	WBT	WB					6.85	A	1					7.29	A	1

10: 2400 S & West Temple - .	E-N	WBR	WB			4		7
10: 2400 S & West Temple - .	E-S	WBL	WB			4		6
10: 2400 S & West Temple - .	W-E	EBT	EB			0		4
10: 2400 S & West Temple - .	W-N	EBL	EB			0		0
10: 2400 S & West Temple - .	W-S	EBR	EB			0		0
10: 2400 S & West Temple - .	N-E	SBL	SB			6		5
10: 2400 S & West Temple - .	N-W	SBR	SB			0		5
10: 2400 S & West Temple - .	N-S	SBT	SB			138		261
10: 2400 S & West Temple -	S-E	NBR	NB			5		6
10: 2400 S & West Temple -	S-W	NBL	NB			4		0
10: 2400 S & West Temple -	S-N	NBT	NB			190		280
11: Robert Ave. & West Tem	E-W	WBT	WB			0		0
11: Robert Ave. & West Tem	E-S	WBL	WB			4		6
11: Robert Ave. & West Tem	E-N	WBR	WB			4		3
11: Robert Ave. & West Tem	W-E	EBT	EB			0		5
11: Robert Ave. & West Tem	W-S	EBR	EB			0		4
11: Robert Ave. & West Tem	W-N	EBL	EB	7.25	A	4	11.44 B	4
11: Robert Ave. & West Tem	S-E	NBR	NB			6		5
11: Robert Ave. & West Tem	S-W	NBL	NB			7		6
11: Robert Ave. & West Tem	S-N	NBT	NB			192		277
11: Robert Ave. & West Tem	N-E	SBL	SB			5		5
11: Robert Ave. & West Tem	N-W	SBR	SB			0		5
11: Robert Ave. & West Tem	N-S	SBT	SB			137		255
12: Oakland Ave & West Ten	E-W	WBT	WB	8.15	A	18	12.00 B	4
12: Oakland Ave & West Ten	E-N	WBR	WB			10		21
12: Oakland Ave & West Ten	E-S	WBL	WB			10		5
12: Oakland Ave & West Ten	W-E	EBT	EB			4		20
12: Oakland Ave & West Ten	W-N	EBL	EB			4		9
12: Oakland Ave & West Ten	W-S	EBR	EB			11		9
12: Oakland Ave & West Ten	N-E	SBL	SB			11		10
12: Oakland Ave & West Ten	N-W	SBR	SB			10		5
12: Oakland Ave & West Ten	N-S	SBT	SB			120		250
12: Oakland Ave & West Ten	S-E	NBR	NB			13		22
12: Oakland Ave & West Ten	S-W	NBL	NB			9		11
12: Oakland Ave & West Ten	S-N	NBT	NB			190		261
13: 2400 S & Main Street - 3	W-E	EBT	EB			0		0
13: 2400 S & Main Street - 3	W-S	EBR	EB	6.31	A	5	7.09 A	4
13: 2400 S & Main Street - 3	W-N	EBL	EB			5		9
13: 2400 S & Main Street - 3	E-W	WBT	WB			0		0
13: 2400 S & Main Street - 3	E-S	WBL	WB			0		0
13: 2400 S & Main Street - 3	E-N	WBR	WB			0		0
13: 2400 S & Main Street - 5	S-W	NBL	NB			4		4
13: 2400 S & Main Street - 5	S-E	NBR	NB			0		0
13: 2400 S & Main Street - 5	S-N	NBT	NB			338		495
13: 2400 S & Main Street - 5	N-W	SBR	SB			4		9
13: 2400 S & Main Street - 5	N-E	SBL	SB			0		0
13: 2400 S & Main Street - 5	N-S	SBT	SB			190		471
14: Robert Ave. & Main Stre	E-W	WBT	WB			0		0
14: Robert Ave. & Main Stre	E-N	WBR	WB			0		4
14: Robert Ave. & Main Stre	E-S	WBL	WB	8.11	A	4	8.42 A	4
14: Robert Ave. & Main Stre	W-E	EBT	EB			0		5
14: Robert Ave. & Main Stre	W-N	EBL	EB			7		5
14: Robert Ave. & Main Stre	W-S	EBR	EB			4		6
14: Robert Ave. & Main Stre	N-E	SBL	SB			0		10
14: Robert Ave. & Main Stre	N-W	SBR	SB			5		5
14: Robert Ave. & Main Stre	N-S	SBT	SB			190		460
14: Robert Ave. & Main Stre	S-E	NBR	NB			5		5
14: Robert Ave. & Main Stre	S-W	NBL	NB			4		5
14: Robert Ave. & Main Stre	S-N	NBT	NB			337		491
15: N Granite SD Access & M	E-N	WBR	WB	1.00	A	18	1.14 A	60
15: N Granite SD Access & M	E-S	WBL	WB			15		5
15: N Granite SD Access & M	N-E	SBL	SB			12		14
15: N Granite SD Access & M	N-S	SBT	SB			188		458
15: N Granite SD Access & M	S-E	NBR	NB			9		4
15: N Granite SD Access & M	S-N	NBT	NB			328		442
16: Oakland Ave. & Main Str	W-N	EBL	EB	6.60	A	10	7.72 A	28
16: Oakland Ave. & Main Str	W-S	EBR	EB			17		23
16: Oakland Ave. & Main Str	N-W	SBR	SB			17		13
16: Oakland Ave. & Main Str	N-S	SBT	SB			186		450
16: Oakland Ave. & Main Str	S-W	NBL	NB			21		16
16: Oakland Ave. & Main Str	S-N	NBT	NB			324		418
17: S Granite SD Access & M	E-N	WBR	WB	1.20	A	8	1.78 A	19
17: S Granite SD Access & M	E-S	WBL	WB			17		17
17: S Granite SD Access & M	N-E	SBL	SB			14		5
17: S Granite SD Access & M	N-S	SBT	SB			191		468
17: S Granite SD Access & M	S-E	NBR	NB			51		37
17: S Granite SD Access & M	S-N	NBT	NB			337		415

2040 Queue Report (AM PM)

Alternative: Slip Ramp to CD Road

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Stre	W-E	170.4696	EBT	12	163	280	403	1166	2326
1: 2100 South & State Stre	E-W	214.0687	WBT	26	243	427	60	408	733
1: 2100 South & State Stre	N-S	94.00281	SBT	11	110	192	154	610	1161
1: 2100 South & State Stre	S-N	203.6435	NBT	20	190	333	16	187	325
1: 2100 South & State Stre	S-E	62.42577	NBR	30	87	173	30	101	197
1: 2100 South & State Stre	S-W	55.96029	NBL	11	82	147	14	120	211
1: 2100 South & State Stre	E-S	118.8568	WBL	14	123	218	70	229	448
1: 2100 South & State Stre	W-N	70.28765	EBL	7	76	132	134	432	846
1: 2100 South & State Stre	N-W	17.41647	SBR	4	19	36	7	28	53
1: 2100 South & State Stre	N-E	42.128	SBL	6	47	83	11	91	162
1: 2100 South & State Stre	E-N	15.31604	WBR	8	19	38	6	16	32
1: 2100 South & State Stre	W-S	24.35218	EBR	6	29	55	429	697	1579
2: Street Car Crossing & St	N-S	55.05872	SBT	21	89	168	184	638	1236
2: Street Car Crossing & St	N-W	55.05872	SBR	21	89	168	184	638	1236
2: Street Car Crossing & St	S-N	114.5547	NBT	27	143	262	11	86	153
2: Street Car Crossing & St	W-S	29.44994	EBR	15	43	86	21	83	158
2: Street Car Crossing & St	W-N	177.1635	EBL	20	169	299	41	221	406
2: Street Car Crossing & St	S-W	38.36202	NBL	20	71	137	62	322	594
3: WB I-80 & State Street	S-N	0	NBT	0	0	0	31	96	190
3: WB I-80 & State Street	S-W	0	NBL	1	2	4	23	66	132
3: WB I-80 & State Street	S-W	0	NBL	1	2	4	23	66	132
3: WB I-80 & State Street	E-W	145.5748	WBT	14	130	229	20	197	346
3: WB I-80 & State Street	E-S	145.5748	WBL	14	130	229	20	197	346
3: WB I-80 & State Street	E-W	145.5748	WBT	14	130	229	20	197	346
3: WB I-80 & State Street	E-N	247.1288	WBR	57	254	476	37	237	429
3: WB I-80 & State Street	N-S	141.3795	SBT	29	203	364	51	227	425
3: WB I-80 & State Street	N-W	59.8797	SBR	18	64	123	39	126	247
3: WB I-80 & State Street	N-W	62.08821	SBR	18	68	131	38	128	250
3: WB I-80 & State Street	N-S	73.7722	SBT	8	73	130	66	375	684
4: EB I-80 & State Street -	N-S	0	SBT	1	3	6	26	84	165
4: EB I-80 & State Street -	N-E	0	SBL	0	0	0	19	74	141
4: EB I-80 & State Street -	N-E	0	SBL	0	0	0	19	74	141
4: EB I-80 & State Street -	W-E	216.706	EBT	22	234	408	76	258	503
4: EB I-80 & State Street -	W-N	216.706	EBL	22	234	408	76	258	503
4: EB I-80 & State Street -	W-E	216.706	EBT	22	234	408	76	258	503
4: EB I-80 & State Street -	W-S	127.1706	EBR	34	149	280	312	911	1814
4: EB I-80 & State Street -	S-N	170.7549	NBT	30	248	439	15	293	499
4: EB I-80 & State Street -	S-E	97.99945	NBR	52	213	404	30	286	501
4: EB I-80 & State Street -	S-E	102.1991	NBR	52	215	406	30	286	502
4: EB I-80 & State Street -	S-N	134.2175	NBT	19	159	281	25	146	267
4: EB I-80 & State Street -	N-S	0	SBT	1	3	6	26	84	165
5: Oakland & State Street	N-S	0	SBT	0	0	0	1	2	4
5: Oakland & State Street	E-N	11.63937	WBR	5	16	31	5	21	39
5: Oakland & State Street	S-N	0	NBT	1	4	8	1	5	9
5: Oakland & State Street	S-N	0	NBT	23	44	97	21	96	180
5: Oakland & State Street	S-E	0	NBR	32	65	139	26	131	242
6: East Grantie SD RIRO &	N-W	12.56201	SBR	5	18	34	3	11	21

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6: East Grantie SD RIRO &	N-S	7.075186	SBT	3	12	23	2	8	16
6: East Grantie SD RIRO &	W-S	31.21244	EBR	4	25	46	4	34	60
6: East Grantie SD RIRO &	S-N	36.92463	NBT	73	125	279	447	795	1758
6: East Grantie SD RIRO &	S-N	36.74544	NBT	72	129	285	450	790	1754
7: 2700 South & State Stre	N-S	127.2788	SBT	10	96	168	28	277	486
7: 2700 South & State Stre	S-N	170.4313	NBT	16	177	308	39	241	436
7: 2700 South & State Stre	W-S	46.15496	EBR	10	42	79	80	277	537
7: 2700 South & State Stre	W-E	35.46392	EBT	10	34	67	80	271	527
7: 2700 South & State Stre	E-W	56.11973	WBT	11	59	108	10	57	105
7: 2700 South & State Stre	S-W	39.78349	NBL	7	36	66	11	44	84
7: 2700 South & State Stre	S-E	7.027772	NBR	3	11	22	4	21	39
7: 2700 South & State Stre	W-N	54.69755	EBL	17	84	155	87	273	537
7: 2700 South & State Stre	N-E	16.88873	SBL	6	21	40	16	65	122
7: 2700 South & State Stre	N-W	16.05124	SBR	5	18	34	5	15	30
7: 2700 South & State Stre	E-N	43.24867	WBR	8	46	84	5	27	50
7: 2700 South & State Stre	E-S	31.09067	WBL	10	41	77	13	71	130
8: WB I-80 & 700 East - 72	N-S	141.1611	SBT	10	146	250	22	274	473
8: WB I-80 & 700 East - 80	S-N	140.7666	NBT	23	118	218	8	35	66
8: WB I-80 & 700 East - 87	S-SW	66.03362	NBL	63	175	352	22	332	570
8: WB I-80 & 700 East - 13	E-S	67.85493	WBL	6	52	91	13	90	162
8: WB I-80 & 700 East - 13	E-SW	67.85493	WBL	6	52	91	13	90	162
8: WB I-80 & 700 East - 13	E-N	13.14198	WBR	7	18	36	5	12	24
8: WB I-80 & 700 East - 16	N-S	87.48818	SBT	9	101	175	11	175	299
8: WB I-80 & 700 East - 16	N-SW	1.921018	SBR	25	90	173	3	9	18
9: EB I-80 & 700 East - 74(	N-S	86.36207	SBT	9	68	121	10	104	182
9: EB I-80 & 700 East - 78(	S-N	275.0738	NBT	66	332	613	15	231	397
9: EB I-80 & 700 East - 85(	N-NE	42.90279	SBL	12	56	105	21	256	444
9: EB I-80 & 700 East - 133	W-N	236.2689	EBL	26	262	459	30	310	541
9: EB I-80 & 700 East - 133	W-NE	236.2689	EBL	26	262	459	30	310	541
9: EB I-80 & 700 East - 134	W-S	0	EBR	4	11	22	7	24	48
9: EB I-80 & 700 East - 166	S-N	231.6293	NBT	123	330	668	55	295	543
9: EB I-80 & 700 East - 167	S-NE	0	NBR	1	4	8	1	4	8
9: EB I-80 & 700 East - 101	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple	E-W	9.960944	WBT	5	19	37	5	20	38
10: 2400 S & West Temple	E-N	9.960944	WBR	5	19	37	5	20	38
10: 2400 S & West Temple	E-S	9.960944	WBL	5	19	37	5	20	38
10: 2400 S & West Temple	W-E	0	EBT	0	0	0	1	2	4
10: 2400 S & West Temple	W-N	0	EBL	0	0	0	1	2	4
10: 2400 S & West Temple	W-S	0	EBR	0	0	0	1	2	4
10: 2400 S & West Temple	N-E	0	SBL	2	7	13	1	5	10
10: 2400 S & West Temple	N-W	0	SBR	1	3	6	0	0	0
10: 2400 S & West Temple	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple	S-E	0	NBR	0	1	3	0	0	0
10: 2400 S & West Temple	S-W	0	NBL	1	4	8	0	0	0
10: 2400 S & West Temple	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Te	E-W	2.575479	WBT	4	12	24	4	12	25
11: Robert Ave. & West Te	E-S	2.558841	WBL	4	12	24	4	12	25
11: Robert Ave. & West Te	E-N	2.531768	WBR	4	12	24	4	12	24
11: Robert Ave. & West Te	W-E	0	EBT	4	9	18	4	13	24
11: Robert Ave. & West Te	W-S	0	EBR	4	9	18	4	13	24

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11: Robert Ave. & West Te	W-N	0	EBL	4	9	18	4	13	24
11: Robert Ave. & West Te	S-E	0	NBR	0	1	2	0	1	3
11: Robert Ave. & West Te	S-W	0	NBL	1	2	5	1	3	7
11: Robert Ave. & West Te	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Te	N-E	2.913104	SBL	2	5	11	2	5	10
11: Robert Ave. & West Te	N-W	8.146827	SBR	12	36	71	13	36	73
11: Robert Ave. & West Te	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West T	E-W	16.71183	WBT	4	20	37	6	17	33
12: Oakland Ave & West T	E-N	16.71183	WBR	4	20	37	6	17	33
12: Oakland Ave & West T	E-S	16.71183	WBL	4	20	37	6	17	33
12: Oakland Ave & West T	W-E	17.04076	EBT	6	15	30	5	22	42
12: Oakland Ave & West T	W-N	16.65659	EBL	6	14	29	5	22	40
12: Oakland Ave & West T	W-S	16.6845	EBR	6	14	29	5	22	40
12: Oakland Ave & West T	N-E	0	SBL	2	6	11	3	10	20
12: Oakland Ave & West T	N-W	0	SBR	1	3	6	2	8	16
12: Oakland Ave & West T	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West T	S-E	5.925707	NBR	2	5	10	1	4	7
12: Oakland Ave & West T	S-W	5.332815	NBL	2	6	12	2	7	13
12: Oakland Ave & West T	S-N	2.023688	NBT	1	2	4	0	0	0
13: 2400 S & Main Street ·	W-E	9.74766	EBT	4	11	22	5	12	25
13: 2400 S & Main Street ·	W-S	9.74766	EBR	4	11	22	5	12	25
13: 2400 S & Main Street ·	W-N	9.74766	EBL	4	11	22	5	12	25
13: 2400 S & Main Street ·	E-W	31.86411	WBT	11	52	97	19	91	169
13: 2400 S & Main Street ·	E-S	31.86411	WBL	11	52	97	19	91	169
13: 2400 S & Main Street ·	E-N	31.86411	WBR	11	52	97	19	91	169
13: 2400 S & Main Street ·	S-W	0	NBL	1	4	7	2	5	10
13: 2400 S & Main Street ·	S-E	0	NBR	0	0	0	1	4	8
13: 2400 S & Main Street ·	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street ·	N-W	0	SBR	0	0	0	0	1	3
13: 2400 S & Main Street ·	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street ·	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main St	E-W	2.669583	WBT	3	9	18	4	10	21
14: Robert Ave. & Main St	E-N	2.669583	WBR	3	9	18	4	10	21
14: Robert Ave. & Main St	E-S	2.669583	WBL	3	9	18	4	10	21
14: Robert Ave. & Main St	W-E	10.32267	EBT	5	13	25	4	14	27
14: Robert Ave. & Main St	W-N	10.32267	EBL	5	13	25	4	14	27
14: Robert Ave. & Main St	W-S	10.32267	EBR	5	13	25	4	14	27
14: Robert Ave. & Main St	N-E	0	SBL	0	0	0	2	6	12
14: Robert Ave. & Main St	N-W	0	SBR	1	2	4	2	5	10
14: Robert Ave. & Main St	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main St	S-E	0	NBR	1	3	6	5	18	36
14: Robert Ave. & Main St	S-W	0	NBL	1	2	4	1	3	6
14: Robert Ave. & Main St	S-N	0	NBT	0	0	0	0	0	0
15: N Granite SD Access &	E-N	0	WBR	2	8	15	3	10	19
15: N Granite SD Access &	E-S	0	WBL	3	8	16	3	11	21
15: N Granite SD Access &	N-E	2.174524	SBL	1	3	6	2	5	11
15: N Granite SD Access &	N-S	0	SBT	5	16	30	8	23	46
15: N Granite SD Access &	S-E	0	NBR	0	1	2	0	0	0
15: N Granite SD Access &	S-N	0	NBT	0	0	0	0	0	0
16: Oakland Ave. & Main S	W-N	23.08612	EBL	5	16	32	4	25	44

2040 Queue Report (AM PM)

16: Oakland Ave. & Main S	W-S	23.08612	EBR	5	16	32	4	25	44
16: Oakland Ave. & Main S	N-W	0	SBR	1	3	6	1	3	5
16: Oakland Ave. & Main S	N-S	0	SBT	0	0	0	0	0	0
16: Oakland Ave. & Main S	S-W	1.807164	NBL	2	6	11	3	9	18
16: Oakland Ave. & Main S	S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access &	E-N	0	WBR	2	7	13	3	8	17
17: S Granite SD Access &	E-S	0	WBL	2	7	13	3	8	17
17: S Granite SD Access &	N-E	1.872743	SBL	1	5	9	1	4	8
17: S Granite SD Access &	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access &	S-E	4.265461	NBR	1	4	7	0	1	2
17: S Granite SD Access &	S-N	0	NBT	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: Slip Ramp to CD Road

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	5	15.5	B	0.34	***16.8***	***B***	***49.2***	***F***	5242	5320	98.5%	7874	9850	79.9%	65.51	36.68	0.49	27.60
EB I-80 (State to 700 E)	Weave	5	19.2	B	0.66	***21.0***	***C***	***35.0***	***D***	6464	6530	99.0%	9206	11250	81.8%	64.51	54.84	0.76	6.23
EB I-80 (Over 700 E)	Basic	4	18.2	C	0.77	***19.9***	***C***	***30.2***	***D***	5003	5060	98.9%	7092	8630	82.2%	66.03	60.54	0.77	2.97
WB I-80 (Over 700 E)	Basic	4	50.8	F	12.52	***84.2***	***F***	***24.9***	***C***	6896	8020	86.0%	6097	6130	99.5%	20.53	64.52	12.52	1.17
WB I-80 (700 E to State)	Weave	5	57.2	F	12.82	***69.5***	***F***	***25.3***	***C***	8713	10050	86.7%	7435	7490	99.3%	25.49	61.76	12.82	1.48
WB I-80 (Over State)	Diverge	4	48.1	F	5.78	***48.1***	***F***	***31.1***	***D***	7910	9180	86.2%	6384	6470	98.7%	47.95	63.31	5.88	2.00
WB I-80 to WB CD Ramp	Ramp	2	41.2	E	4.18	***41.2***	***E***	***27.4***	***C***	4430	5250	84.4%	3418	3550	96.3%	53.79	64.58	4.18	2.51
WB I-80 (West of State)	Diverge	3	16.9	B	1.31	***16.9***	***B***	***15.2***	***B***	3325	3930	84.6%	2836	2920	97.1%	63.50	66.37	1.36	1.13
WB I-80 to NB I-15	Ramp	3	16.0	B	1.20	***16.0***	***B***	***13.8***	***B***	2600	3010	86.4%	2219	2240	99.1%	55.85	56.26	1.32	1.24
To SB I-15 Ramp	Ramp	2	16.3	B	1.11	***17.4***	***B***	***16.4***	***B***	1821	1990	91.5%	1730	1770	97.7%	54.30	54.96	1.21	1.47
To WB 201 Ramp	Ramp	2	30.3	C	1.36	***30.3***	***C***	***22.5***	***B***	3149	3690	85.3%	2357	2410	97.8%	52.54	54.36	1.72	1.53
WB I-80 to SB I-15/WB 201	Diverge	3	43.3	E	6.87	***43.8***	***E***	***31.2***	***D***	4884	5680	86.0%	4012	4180	96.0%	39.38	47.97	9.66	5.23
WB CD	Weave (CD)	3	29.7	C	1.54	***30.6***	***C***	***23.4***	***B***	5365	6150	87.2%	4395	4530	97.0%	59.50	64.27	2.33	1.63
EB I-80 Ramp	Ramp	2	19.8	B	2.18	***21.2***	***B***	***29.2***	***C***	1044	1210	86.3%	1173	1400	83.8%	25.11	21.29	4.14	6.38
EB I-80 I-15 to State	Weave	6	16.4	B	0.17	***17.7***	***B***	***44.0***	***F***	6482	6540	99.1%	9200	11260	81.7%	63.02	41.05	0.35	19.32
NB I-15 Off Ramp 2	Ramp	1	30.3	C	3.61	***34.2***	***D***	***49.3***	***F***	1548	1600	96.7%	1805	1880	96.0%	48.12	38.03	5.60	18.53
NB I-15 Off Ramp 1	Ramp	2	13.4	B	2.08	***14.6***	***B***	***28.1***	***C***	1593	1600	99.6%	1867	1880	99.3%	56.55	39.62	2.63	24.74
EB 201/SB I-15 2	Merge	6	16.2	B	0.19	***17.7***	***B***	***29.5***	***D***	6290	6540	96.2%	8953	11260	79.5%	63.05	44.20	0.28	13.51
EB 201/SB I-15 1	Merge	5	15.0		0.18	***16.3***		***38.7***		4876	4940	98.7%	7409	9380	79.0%	62.97	41.84	0.40	13.54
EB 201 Ramp	Ramp	2	16.9	B	0.09	***18.2***	***B***	***73.4***	***F***	2349	2350	99.9%	3259	4480	72.7%	67.21	18.57	0.15	18.15
SB I-15 Ramp	Ramp	3	13.2	B	0.20	***14.3***	***B***	***62.9***	***F***	2479	2590	95.7%	4234	4900	86.4%	55.38	22.03	0.36	13.32
WB I-80 Ramp (700 E)	Ramp	2	44.2	E	13.59	***116.1***	***F***	***19.2***	***B***	1939	2030	95.5%	1336	1360	98.2%	8.89	35.99	44.84	3.46
Slip Ramp	Ramp	1	2.1	A	0.52	***2.2***	***A***	***3.9***	***A***	126	170	74.1%	130	140	92.9%	58.18	34.73	0.65	0.99
Slip Ramp	Ramp	1	2.9	A	0.69	***3.0***	***A***	***5.0***	***A***	172	170	101.1%	177	200	88.7%	59.41	36.89	0.85	1.25
Slip Ramp	Ramp	1	2.8	A	0.67	***2.9***	***A***	***4.8***	***A***	171	170	100.6%	177	200	88.3%	60.32	38.56	0.82	1.18
SB I-15 Ramp to EB I-80	Merge	3	19.9	B	0.24	***21.1***	***C***	***36.3***	***E***	2500	2520	99.2%	3389	4680	72.4%	64.25	43.57	0.33	6.87
EB I-15 Over State	Basic	4	19.5	C	0.45	***21.2***	***C***	***41.1***	***E***	5270	5320	99.1%	7881	9850	80.0%	65.49	50.30	0.59	7.40
SB I-15 Ramp to EB I-80	Diverge	3	14.7	B	0.45	***16.1***	***B***	***40.2***	***E***	2492	2520	98.9%	3371	4680	72.0%	58.27	37.02	0.73	16.54

Alternative: Slip Ramp to CD Road & flyover

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7@	W-E	EBT	EB							495							899
1: 2100 South & State Street - 2@1436.4 - 6@	E-W	WBT	WB							689							872
1: 2100 South & State Street - 3@1101.9 - 5@	N-S	SBT	SB							611							1923
1: 2100 South & State Street - 4@1031.1 - 8@	S-N	NBT	NB							1358							1074
1: 2100 South & State Street - 159@246.4 - 7\	S-E	NBR	NB							181							192
1: 2100 South & State Street - 160@288.7 - 6\	S-W	NBL	NB							168							277
1: 2100 South & State Street - 161@166.4 - 5\	E-S	WBL	WB							270							265
1: 2100 South & State Street - 162@152.6 - 8\	W-N	EBL	EB							143							175
1: 2100 South & State Street - 163@133.8 - 6\	N-W	SBR	SB							73							170
1: 2100 South & State Street - 164@371.3 - 7\	N-E	SBL	SB							84							220
1: 2100 South & State Street - 165@166.2 - 8\	E-N	WBR	WB							86							100
1: 2100 South & State Street - 255@187.5 - 5\	W-S	EBR	EB	31.06	C					159	53.36	D					323
2: Street Car Crossing & State Street - 5@104	N-S	SBT	SB							889							2241
2: Street Car Crossing & State Street - 5@104	N-W	SBR	SB							149							248
2: Street Car Crossing & State Street - 10@12	S-N	NBT	NB							1510							1347
2: Street Car Crossing & State Street - 174@6	W-S	EBR	EB							301							293
2: Street Car Crossing & State Street - 175@2	W-N	EBL	EB							197							201
2: Street Car Crossing & State Street - 177@1	S-W	NBL	NB	12.83	B					194	31.43	C					384
3: WB I-80 & State Street - 90@8.1 - 10@47.(	S-N	NBT	NB							1252							1214
3: WB I-80 & State Street - 96@9.7 - 37@36.5	S-W	NBL	NB							31							20
3: WB I-80 & State Street - 96@9.7 - 118@45	S-W	NBL	NB							498							364
3: WB I-80 & State Street - 124@1240.6 - 37@	E-W	WBT	WB							77							143
3: WB I-80 & State Street - 124@1240.6 - 91@	E-S	WBL	WB							233							365
3: WB I-80 & State Street - 124@1240.6 - 118	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 125@249.7 - 10@	E-N	WBR	WB							452							516
3: WB I-80 & State Street - 155@285.8 - 97@	N-S	SBT	SB	17.75	B					597	24.42	C					810
3: WB I-80 & State Street - 156@284.4 - 37@	N-W	SBR	SB							11							10
3: WB I-80 & State Street - 156@284.4 - 118@	N-W	SBR	SB							396							574
3: WB I-80 & State Street - 157@282.8 - 91@	N-S	SBT	SB							176							1130
4: EB I-80 & State Street - 92@5.5 - 12@38.2	N-S	SBT	SB							0							0
4: EB I-80 & State Street - 98@6.3 - 25@59.6	N-E	SBL	SB							18							20
4: EB I-80 & State Street - 98@6.3 - 122@62.(	N-E	SBL	SB							579							791
4: EB I-80 & State Street - 120@1728.6 - 25@	W-E	EBT	EB							140							128
4: EB I-80 & State Street - 120@1728.6 - 89@	W-N	EBL	EB							540							503
4: EB I-80 & State Street - 120@1728.6 - 122@	W-E	EBT	EB	22.56	C	30.54	C			0	21.62	C	35.80	C			0
4: EB I-80 & State Street - 121@193.1 - 12@3	W-S	EBR	EB							599							772
4: EB I-80 & State Street - 144@76.3 - 89@28	S-N	NBT	NB							714							712
4: EB I-80 & State Street - 145@75.0 - 25@59	S-E	NBR	NB							17							16
4: EB I-80 & State Street - 145@75.0 - 10032@	S-E	NBR	NB							614							513
4: EB I-80 & State Street - 146@331.6 - 95@4	S-N	NBT	NB							528							386
4: EB I-80 & State Street - 10063@12.6 - 12@	N-S	SBT	SB							408							1493
5: Oakland & State Street - 12@191.7 - 12@2	N-S	SBT	SB							1005							2265
5: Oakland & State Street - 22@609.6 - 11@4	E-N	WBR	WB					9.23	A	29					15.56	C	49
5: Oakland & State Street - 146@91.4 - 146@	S-N	NBT	NB							529							389
5: Oakland & State Street - 147@71.3 - 11@4	S-N	NBT	NB							1319							1194
5: Oakland & State Street - 147@71.3 - 21@3	S-E	NBR	NB							13							18
6: East Grantie SD RIRO & State Street - 12@2	N-W	SBR	SB							247							69
6: East Grantie SD RIRO & State Street - 12@2	N-S	SBT	SB							759							2194
6: East Grantie SD RIRO & State Street - 23@2	W-S	EBR	EB					6.37	A	49					7.63	A	97
6: East Grantie SD RIRO & State Street - 1000	S-N	NBT	NB							1332							1216
6: East Grantie SD RIRO & State Street - 1000	S-N	NBT	NB							528							388
7: 2700 South & State Street - 14@1205.4 - 1	N-S	SBT	SB							632							2011
7: 2700 South & State Street - 15@1184.3 - 1	S-N	NBT	NB							1518							1352
7: 2700 South & State Street - 17@647.5 - 16	W-S	EBR	EB							40							97
7: 2700 South & State Street - 17@647.5 - 19	W-E	EBT	EB							59							320
7: 2700 South & State Street - 20@820.0 - 18	E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291.2 - 1	S-W	NBL	NB	16.64	B					120	35.77	D					88
7: 2700 South & State Street - 149@150.8 - 1	S-E	NBR	NB							21							87
7: 2700 South & State Street - 150@28.0 - 13	W-N	EBL	EB							149							285
7: 2700 South & State Street - 153@329.4 - 1	N-E	SBL	SB							53							159
7: 2700 South & State Street - 154@188.7 - 1	N-W	SBR	SB							126							113
7: 2700 South & State Street - 10014@53.9 -	E-N	WBR	WB							199							69
7: 2700 South & State Street - 10015@17.9 -	E-S	WBL	WB							74							129
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	SBT	SB							675							1768
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB							2513							2057
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	NBL	NB							948							695
8: WB I-80 & 700 East - 135@1579.2 - 73@63	E-S	WBL	WB							99							224
8: WB I-80 & 700 East - 135@1579.2 - 137@2	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	WBR	WB							750							571
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	SBT	SB	15.65	B					311	18.24	B					774
8: WB I-80 & 700 East - 169@299.3 - 137@28	N-SW	SBR	SB							1038							663
9: EB I-80 & 700 East - 74@21.7 - 10189@12.1	N-S	SBT	SB							774							1991
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB							1739							1070
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB			33.73	C			312			35.61	C			775
9: EB I-80 & 700 East - 133@1172.7 - 79@56.	W-N	EBL	EB							777							989
9: EB I-80 & 700 East - 133@1172.7 - 140@66	W-NE	EBL	EB							0							0
9: EB I-80 & 700 East - 134@318.9 - 10188@1	W-S	EBR	EB							723							1422
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	NBT	NB							954							696
9: EB I-80 & 700 East - 167@274.8 - 140@66.!	S-NE	NBR	NB	26.36	C					149	23.79	C					151
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	SBT	SB							76							160
10: 2400 S & West Temple - 33@704.1 - 35@	E-W	WBT	WB					7.58	A	6					7.41	A	6
10: 2400 S & West Temple - 33@704.1 - 56@	E-N	WBR	WB							12							19
10: 2400 S & West Temple - 33@704.1 - 1010	E-S	WBL	WB							18							10
10: 2400 S & West Temple - 34@51.1 - 32@3	W-E	EBT	EB							0							4
10: 2400 S & West Temple - 34@51.1 - 56@3	W-N	EBL	EB							0							0
10: 2400 S & West Temple - 34@51.1 - 10106	W-S	EBR	EB							0							0
10: 2400 S & West Temple - 57@353.0 - 32@	N-E	SBL	SB							6							5

10: 2400 S & West Temple - 57@353.0 - 35@ N-W	SBR	SB			0		5
10: 2400 S & West Temple - 57@353.0 - 1010 N-S	SBT	SB			138		261
10: 2400 S & West Temple - 10107@1.9 - 32@ S-E	NBR	NB			5		6
10: 2400 S & West Temple - 10107@1.9 - 35@ S-W	NBL	NB			4		0
10: 2400 S & West Temple - 10107@1.9 - 56@ S-N	NBT	NB			190		280
11: Robert Ave. & West Temple - 28@710.2 - E-W	WBT	WB			0		0
11: Robert Ave. & West Temple - 28@710.2 - E-S	WBL	WB			4		6
11: Robert Ave. & West Temple - 28@710.2 - E-N	WBR	WB			4		3
11: Robert Ave. & West Temple - 31@117.4 - W-E	EBT	EB			0		5
11: Robert Ave. & West Temple - 31@117.4 - W-S	EBR	EB			0		4
11: Robert Ave. & West Temple - 31@117.4 - W-N	EBL	EB	8.33	A	4	11.62 B	4
11: Robert Ave. & West Temple - 44@282.3 - S-E	NBR	NB			6		5
11: Robert Ave. & West Temple - 44@282.3 - S-W	NBL	NB			7		6
11: Robert Ave. & West Temple - 44@282.3 - S-N	NBT	NB			192		277
11: Robert Ave. & West Temple - 49@19.8 - 2 N-E	SBL	SB			5		5
11: Robert Ave. & West Temple - 49@19.8 - 3 N-W	SBR	SB			0		5
11: Robert Ave. & West Temple - 49@19.8 - 4 N-S	SBT	SB			152		258
12: Oakland Ave & West Temple - 40@711.0 · E-W	WBT	WB	8.17	A	18	12.00 B	4
12: Oakland Ave & West Temple - 40@711.0 · E-N	WBR	WB			10		21
12: Oakland Ave & West Temple - 40@711.0 · E-S	WBL	WB			10		5
12: Oakland Ave & West Temple - 43@473.0 · W-E	EBT	EB			4		20
12: Oakland Ave & West Temple - 43@473.0 · W-N	EBL	EB			4		9
12: Oakland Ave & West Temple - 43@473.0 · W-S	EBR	EB			11		9
12: Oakland Ave & West Temple - 45@261.8 · N-E	SBL	SB			11		10
12: Oakland Ave & West Temple - 45@261.8 · N-W	SBR	SB			10		5
12: Oakland Ave & West Temple - 45@261.8 · N-S	SBT	SB			135		254
12: Oakland Ave & West Temple - 46@527.0 · S-E	NBR	NB			13		22
12: Oakland Ave & West Temple - 46@527.0 · S-W	NBL	NB			9		11
12: Oakland Ave & West Temple - 46@527.0 · S-N	NBT	NB			190		261
13: 2400 S & Main Street - 32@716.9 - 36@2 W-E	EBT	EB			0		0
13: 2400 S & Main Street - 32@716.9 - 55@6. W-S	EBR	EB			5		4
13: 2400 S & Main Street - 32@716.9 - 58@2 W-N	EBL	EB			5		9
13: 2400 S & Main Street - 37@672.9 - 33@2 E-W	WBT	WB	14.65	B	27	24.52 C	20
13: 2400 S & Main Street - 37@672.9 - 55@6. E-S	WBL	WB			28		21
13: 2400 S & Main Street - 37@672.9 - 58@2 E-N	WBR	WB			63		135
13: 2400 S & Main Street - 54@239.9 - 33@2 S-W	NBL	NB			4		4
13: 2400 S & Main Street - 54@239.9 - 36@2 S-E	NBR	NB			0		0
13: 2400 S & Main Street - 54@239.9 - 58@2 S-N	NBT	NB			338		495
13: 2400 S & Main Street - 59@503.7 - 33@2 N-W	SBR	SB			4		9
13: 2400 S & Main Street - 59@503.7 - 36@2 N-E	SBL	SB			0		0
13: 2400 S & Main Street - 59@503.7 - 55@6. N-S	SBT	SB			190		471
14: Robert Ave. & Main Street - 26@405.6 - 2 E-W	WBT	WB			0		0
14: Robert Ave. & Main Street - 26@405.6 - 5 E-N	WBR	WB			0		4
14: Robert Ave. & Main Street - 26@405.6 - 6 E-S	WBL	WB	8.11	A	4	8.86 A	4
14: Robert Ave. & Main Street - 29@709.2 - 2 W-E	EBT	EB			0		5
14: Robert Ave. & Main Street - 29@709.2 - 5 W-N	EBL	EB			7		5
14: Robert Ave. & Main Street - 29@709.2 - 6 W-S	EBR	EB			4		6
14: Robert Ave. & Main Street - 55@232.4 - 2 N-E	SBL	SB			0		10
14: Robert Ave. & Main Street - 55@232.4 - 2 N-W	SBR	SB			5		5
14: Robert Ave. & Main Street - 55@232.4 - 6 N-S	SBT	SB			217		481
14: Robert Ave. & Main Street - 60@63.7 - 27 S-E	NBR	NB			5		5
14: Robert Ave. & Main Street - 60@63.7 - 28 S-W	NBL	NB			4		5
14: Robert Ave. & Main Street - 60@63.7 - 54 S-N	NBT	NB			337		491
15: N Granite SD Access & Main Street - 39@ E-N	WBR	WB	1.02	A	18	1.16 A	60
15: N Granite SD Access & Main Street - 39@ E-S	WBL	WB			15		5
15: N Granite SD Access & Main Street - 61@ N-E	SBL	SB			12		14
15: N Granite SD Access & Main Street - 61@ N-S	SBT	SB			214		479
15: N Granite SD Access & Main Street - 62@ S-E	NBR	NB			9		4
15: N Granite SD Access & Main Street - 62@ S-N	NBT	NB			328		442
16: Oakland Ave. & Main Street - 41@707.2 - W-N	EBL	EB	6.69	A	10	7.62 A	28
16: Oakland Ave. & Main Street - 41@707.2 - W-S	EBR	EB			17		23
16: Oakland Ave. & Main Street - 63@154.7 - N-W	SBR	SB			17		13
16: Oakland Ave. & Main Street - 63@154.7 - N-S	SBT	SB			213		471
16: Oakland Ave. & Main Street - 66@184.7 - S-W	NBL	NB			21		16
16: Oakland Ave. & Main Street - 66@184.7 - S-N	NBT	NB			324		418
17: S Granite SD Access & Main Street - 65@2 E-N	WBR	WB	1.29	A	8	1.85 A	19
17: S Granite SD Access & Main Street - 65@2 E-S	WBL	WB			17		17
17: S Granite SD Access & Main Street - 67@1 N-E	SBL	SB			14		5
17: S Granite SD Access & Main Street - 67@1 N-S	SBT	SB			218		489
17: S Granite SD Access & Main Street - 69@5 S-E	NBR	NB			51		37
17: S Granite SD Access & Main Street - 69@5 S-N	NBT	NB			337		415

2040 Queue Report (AM PM)

Alternative: Slip Ramp to CD Road & flyover

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 - 1	W-E	170.4696	EBT	12	163	280	403	1166	2326
1: 2100 South & State Street - 2@1436.4 - (	E-W	214.0687	WBT	26	243	427	60	408	733
1: 2100 South & State Street - 3@1101.9 - !	N-S	94.00281	SBT	11	110	192	154	610	1161
1: 2100 South & State Street - 4@1031.1 - (	S-N	203.6435	NBT	20	190	333	16	187	325
1: 2100 South & State Street - 159@246.4 - S	S-E	62.42577	NBR	30	87	173	30	101	197
1: 2100 South & State Street - 160@288.7 - S	S-W	55.96029	NBL	11	82	147	14	120	211
1: 2100 South & State Street - 161@166.4 - E	E-S	118.8568	WBL	14	123	218	70	229	448
1: 2100 South & State Street - 162@152.6 - W	W-N	70.28765	EBL	7	76	132	134	432	846
1: 2100 South & State Street - 163@133.8 - N	N-W	17.41647	SBR	4	19	36	7	28	53
1: 2100 South & State Street - 164@371.3 - N	N-E	42.128	SBL	6	47	83	11	91	162
1: 2100 South & State Street - 165@166.2 - E	E-N	15.31604	WBR	8	19	38	6	16	32
1: 2100 South & State Street - 255@187.5 - W	W-S	24.35218	EBR	6	29	55	429	697	1579
2: Street Car Crossing & State Street - 5@1(	N-S	55.05872	SBT	21	89	168	184	638	1236
2: Street Car Crossing & State Street - 5@1(	N-W	55.05872	SBR	21	89	168	184	638	1236
2: Street Car Crossing & State Street - 10@	S-N	114.5547	NBT	27	143	262	11	86	153
2: Street Car Crossing & State Street - 174@	W-S	29.44994	EBR	15	43	86	21	83	158
2: Street Car Crossing & State Street - 175@	W-N	177.1635	EBL	20	169	299	41	221	406
2: Street Car Crossing & State Street - 177@	S-W	38.36202	NBL	20	71	137	62	322	594
3: WB I-80 & State Street - 90@8.1 - 10@4	S-N	0	NBT	0	0	0	31	96	190
3: WB I-80 & State Street - 96@9.7 - 37@3(	S-W	0	NBL	1	2	4	23	66	132
3: WB I-80 & State Street - 96@9.7 - 118@	S-W	0	NBL	1	2	4	23	66	132
3: WB I-80 & State Street - 124@1240.6 - 3	E-W	145.5748	WBT	14	130	229	20	197	346
3: WB I-80 & State Street - 124@1240.6 - 9	E-S	145.5748	WBL	14	130	229	20	197	346
3: WB I-80 & State Street - 124@1240.6 - 1	E-W	145.5748	WBT	14	130	229	20	197	346
3: WB I-80 & State Street - 125@249.7 - 10	E-N	247.1288	WBR	57	254	476	37	237	429
3: WB I-80 & State Street - 155@285.8 - 97	N-S	141.3795	SBT	29	203	364	51	227	425
3: WB I-80 & State Street - 156@284.4 - 37	N-W	59.8797	SBR	18	64	123	39	126	247
3: WB I-80 & State Street - 156@284.4 - 11	N-W	62.08821	SBR	18	68	131	38	128	250
3: WB I-80 & State Street - 157@282.8 - 91	N-S	73.7722	SBT	8	73	130	66	375	684
4: EB I-80 & State Street - 92@5.5 - 12@38	N-S	0	SBT	1	3	6	26	84	165
4: EB I-80 & State Street - 98@6.3 - 25@59	N-E	0	SBL	0	0	0	19	74	141
4: EB I-80 & State Street - 98@6.3 - 122@6	N-E	0	SBL	0	0	0	19	74	141
4: EB I-80 & State Street - 120@1777.0 - 25	W-E	216.706	EBT	22	234	408	76	258	503
4: EB I-80 & State Street - 120@1777.0 - 89	W-N	216.706	EBL	22	234	408	76	258	503
4: EB I-80 & State Street - 120@1777.0 - 12	W-E	216.706	EBT	22	234	408	76	258	503
4: EB I-80 & State Street - 121@193.1 - 12@	W-S	127.1706	EBR	34	149	280	312	911	1814
4: EB I-80 & State Street - 144@76.3 - 89@	S-N	170.7549	NBT	30	248	439	15	293	499
4: EB I-80 & State Street - 145@75.0 - 25@	S-E	97.99945	NBR	52	213	404	30	286	501
4: EB I-80 & State Street - 145@75.0 - 1003	S-E	102.1991	NBR	52	215	406	30	286	502
4: EB I-80 & State Street - 146@331.6 - 95@	S-N	134.2175	NBT	19	159	281	25	146	267
4: EB I-80 & State Street - 10063@12.6 - 12	N-S	0	SBT	1	3	6	26	84	165
5: Oakland & State Street - 12@191.7 - 12@	N-S	0	SBT	0	0	0	1	2	4
5: Oakland & State Street - 22@609.6 - 11@	E-N	11.63937	WBR	5	16	31	5	21	39
5: Oakland & State Street - 146@91.4 - 146	S-N	0	NBT	1	4	8	1	5	9
5: Oakland & State Street - 147@71.3 - 11@	S-N	0	NBT	23	44	97	21	96	180
5: Oakland & State Street - 147@71.3 - 21@	S-E	0	NBR	32	65	139	26	131	242
6: East Grantie SD RIRO & State Street - 12(	N-W	12.56201	SBR	5	18	34	3	11	21
6: East Grantie SD RIRO & State Street - 12(	N-S	7.075186	SBT	3	12	23	2	8	16
6: East Grantie SD RIRO & State Street - 23(	W-S	31.21244	EBR	4	25	46	4	34	60
6: East Grantie SD RIRO & State Street - 10(	S-N	36.92463	NBT	73	125	279	447	795	1758
6: East Grantie SD RIRO & State Street - 10(	S-N	36.74544	NBT	72	129	285	450	790	1754
7: 2700 South & State Street - 14@1205.4 - N	N-S	127.2788	SBT	10	96	168	28	277	486
7: 2700 South & State Street - 15@1184.3 - S	N-S	170.4313	NBT	16	177	308	39	241	436
7: 2700 South & State Street - 17@647.5 - 1	W-S	46.15496	EBR	10	42	79	80	277	537
7: 2700 South & State Street - 17@647.5 - 1	W-E	35.46392	EBT	10	34	67	80	271	527

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7: 2700 South & State Street - 20@820.0 - 1	E-W	56.11973	WBT	11	59	108	10	57	105
7: 2700 South & State Street - 148@291.2 -	S-W	39.78349	NBL	7	36	66	11	44	84
7: 2700 South & State Street - 149@150.8 -	S-E	7.027772	NBR	3	11	22	4	21	39
7: 2700 South & State Street - 150@28.0 - 1	W-N	54.69755	EBL	17	84	155	87	273	537
7: 2700 South & State Street - 153@329.4 -	N-E	16.88873	SBL	6	21	40	16	65	122
7: 2700 South & State Street - 154@188.7 -	N-W	16.05124	SBR	5	18	34	5	15	30
7: 2700 South & State Street - 10014@53.9	E-N	43.24867	WBR	8	46	84	5	27	50
7: 2700 South & State Street - 10015@17.9	E-S	31.09067	WBL	10	41	77	13	71	130
8: WB I-80 & 700 East - 72@299.7 - 73@63	N-S	141.1611	SBT	10	146	250	22	274	473
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	140.7666	NBT	23	118	218	8	35	66
8: WB I-80 & 700 East - 87@30.0 - 137@28	S-SW	66.03362	NBL	63	175	352	22	332	570
8: WB I-80 & 700 East - 135@1579.2 - 73@	E-S	67.85493	WBL	6	52	91	13	90	162
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	67.85493	WBL	6	52	91	13	90	162
8: WB I-80 & 700 East - 136@72.0 - 70@87	E-N	13.14198	WBR	7	18	36	5	12	24
8: WB I-80 & 700 East - 168@218.7 - 83@5	N-S	87.48818	SBT	9	101	175	11	175	299
8: WB I-80 & 700 East - 169@299.3 - 137@	N-SW	1.921018	SBR	25	90	173	3	9	18
9: EB I-80 & 700 East - 74@24.8 - 10189@1	N-S	86.36207	SBT	9	68	121	10	104	182
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	275.0738	NBT	66	332	613	15	231	397
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	42.90279	SBL	12	56	105	21	256	444
9: EB I-80 & 700 East - 133@1231.9 - 79@5	W-N	236.2689	EBL	26	262	459	30	310	541
9: EB I-80 & 700 East - 133@1231.9 - 140@	W-NE	236.2689	EBL	26	262	459	30	310	541
9: EB I-80 & 700 East - 134@318.9 - 10188@	W-S	0	EBR	4	11	22	7	24	48
9: EB I-80 & 700 East - 166@226.1 - 86@53	S-N	231.6293	NBT	123	330	668	55	295	543
9: EB I-80 & 700 East - 167@274.8 - 140@6	S-NE	0	NBR	1	4	8	1	4	8
9: EB I-80 & 700 East - 10188@14.1 - 76@3	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 33@704.1 - 35	E-W	9.960944	WBT	5	19	37	5	20	38
10: 2400 S & West Temple - 33@704.1 - 56	E-N	9.960944	WBR	5	19	37	5	20	38
10: 2400 S & West Temple - 33@704.1 - 10	E-S	9.960944	WBL	5	19	37	5	20	38
10: 2400 S & West Temple - 34@51.1 - 32@	W-E	0	EBT	0	0	0	1	2	4
10: 2400 S & West Temple - 34@51.1 - 56@	W-N	0	EBL	0	0	0	1	2	4
10: 2400 S & West Temple - 34@51.1 - 101	W-S	0	EBR	0	0	0	1	2	4
10: 2400 S & West Temple - 57@353.0 - 32	N-E	0	SBL	2	7	13	1	5	10
10: 2400 S & West Temple - 57@353.0 - 35	N-W	0	SBR	1	3	6	0	0	0
10: 2400 S & West Temple - 57@353.0 - 10	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 3	S-E	0	NBR	0	1	3	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 3	S-W	0	NBL	1	4	8	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 5	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@710.2	E-W	2.575479	WBT	4	12	24	4	12	25
11: Robert Ave. & West Temple - 28@710.2	E-S	2.558841	WBL	4	12	24	4	12	25
11: Robert Ave. & West Temple - 28@710.2	E-N	2.531768	WBR	4	12	24	4	12	24
11: Robert Ave. & West Temple - 31@117.4	W-E	0	EBT	4	9	18	4	13	24
11: Robert Ave. & West Temple - 31@117.4	W-S	0	EBR	4	9	18	4	13	24
11: Robert Ave. & West Temple - 31@117.4	W-N	0	EBL	4	9	18	4	13	24
11: Robert Ave. & West Temple - 44@282.3	S-E	0	NBR	0	1	2	0	1	3
11: Robert Ave. & West Temple - 44@282.3	S-W	0	NBL	1	2	5	1	3	7
11: Robert Ave. & West Temple - 44@282.3	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 49@19.8	N-E	2.913104	SBL	2	5	11	2	5	10
11: Robert Ave. & West Temple - 49@19.8	N-W	8.146827	SBR	12	36	71	13	36	73
11: Robert Ave. & West Temple - 49@19.8	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West Temple - 40@711.	E-W	16.71183	WBT	4	20	37	6	17	33
12: Oakland Ave & West Temple - 40@711.	E-N	16.71183	WBR	4	20	37	6	17	33
12: Oakland Ave & West Temple - 40@711.	E-S	16.71183	WBL	4	20	37	6	17	33
12: Oakland Ave & West Temple - 43@473.	W-E	17.04076	EBT	6	15	30	5	22	42
12: Oakland Ave & West Temple - 43@473.	W-N	16.65659	EBL	6	14	29	5	22	40
12: Oakland Ave & West Temple - 43@473.	W-S	16.6845	EBR	6	14	29	5	22	40
12: Oakland Ave & West Temple - 45@261.	N-E	0	SBL	2	6	11	3	10	20
12: Oakland Ave & West Temple - 45@261.	N-W	0	SBR	1	3	6	2	8	16
12: Oakland Ave & West Temple - 45@261.	N-S	0	SBT	0	0	0	0	1	2

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12: Oakland Ave & West Temple - 46@527.	S-E	5.925707	NBR	2	5	10	1	4	7
12: Oakland Ave & West Temple - 46@527.	S-W	5.332815	NBL	2	6	12	2	7	13
12: Oakland Ave & West Temple - 46@527.	S-N	2.023688	NBT	1	2	4	0	0	0
13: 2400 S & Main Street - 32@716.9 - 36@	W-E	9.74766	EBT	4	11	22	5	12	25
13: 2400 S & Main Street - 32@716.9 - 55@	W-S	9.74766	EBR	4	11	22	5	12	25
13: 2400 S & Main Street - 32@716.9 - 58@	W-N	9.74766	EBL	4	11	22	5	12	25
13: 2400 S & Main Street - 37@672.9 - 33@	E-W	31.86411	WBT	11	52	97	19	91	169
13: 2400 S & Main Street - 37@672.9 - 55@	E-S	31.86411	WBL	11	52	97	19	91	169
13: 2400 S & Main Street - 37@672.9 - 58@	E-N	31.86411	WBR	11	52	97	19	91	169
13: 2400 S & Main Street - 54@239.9 - 33@	S-W	0	NBL	1	4	7	2	5	10
13: 2400 S & Main Street - 54@239.9 - 36@	S-E	0	NBR	0	0	0	1	4	8
13: 2400 S & Main Street - 54@239.9 - 58@	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 33@	N-W	0	SBR	0	0	0	0	1	3
13: 2400 S & Main Street - 59@503.7 - 36@	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 55@	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 26@405.6	E-W	2.669583	WBT	3	9	18	4	10	21
14: Robert Ave. & Main Street - 26@405.6	E-N	2.669583	WBR	3	9	18	4	10	21
14: Robert Ave. & Main Street - 26@405.6	E-S	2.669583	WBL	3	9	18	4	10	21
14: Robert Ave. & Main Street - 29@709.2	W-E	10.32267	EBT	5	13	25	4	14	27
14: Robert Ave. & Main Street - 29@709.2	W-N	10.32267	EBL	5	13	25	4	14	27
14: Robert Ave. & Main Street - 29@709.2	W-S	10.32267	EBR	5	13	25	4	14	27
14: Robert Ave. & Main Street - 55@232.4	N-E	0	SBL	0	0	0	2	6	12
14: Robert Ave. & Main Street - 55@232.4	N-W	0	SBR	1	2	4	2	5	10
14: Robert Ave. & Main Street - 55@232.4	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 60@63.7 -	S-E	0	NBR	1	3	6	5	18	36
14: Robert Ave. & Main Street - 60@63.7 -	S-W	0	NBL	1	2	4	1	3	6
14: Robert Ave. & Main Street - 60@63.7 -	S-N	0	NBT	0	0	0	0	0	0
15: N Granite SD Access & Main Street - 39	E-N	0	WBR	2	8	15	3	10	19
15: N Granite SD Access & Main Street - 39	E-S	0	WBL	3	8	16	3	11	21
15: N Granite SD Access & Main Street - 61	N-E	2.174524	SBL	1	3	6	2	5	11
15: N Granite SD Access & Main Street - 61	N-S	0	SBT	5	16	30	8	23	46
15: N Granite SD Access & Main Street - 62	S-E	0	NBR	0	1	2	0	0	0
15: N Granite SD Access & Main Street - 62	S-N	0	NBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 41@707.2	W-N	23.08612	EBL	5	16	32	4	25	44
16: Oakland Ave. & Main Street - 41@707.2	W-S	23.08612	EBR	5	16	32	4	25	44
16: Oakland Ave. & Main Street - 63@154.7	N-W	0	SBR	1	3	6	1	3	5
16: Oakland Ave. & Main Street - 63@154.7	N-S	0	SBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 66@184.7	S-W	1.807164	NBL	2	6	11	3	9	18
16: Oakland Ave. & Main Street - 66@184.7	S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 65(	E-N	0	WBR	2	7	13	3	8	17
17: S Granite SD Access & Main Street - 65(	E-S	0	WBL	2	7	13	3	8	17
17: S Granite SD Access & Main Street - 67(	N-E	1.872743	SBL	1	5	9	1	4	8
17: S Granite SD Access & Main Street - 67(	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 69(	S-E	4.265461	NBR	1	4	7	0	1	2
17: S Granite SD Access & Main Street - 69(	S-N	0	NBT	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: Slip Ramp to CD Road & flyover

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	5	15.6	B	0.36	***16.9***	***B***	***41.5***	***E***	5239	5320	98.5%	8197	9850	83.2%	65.28	41.48	0.478	13.542
EB I-80 (State to 700 E)	Weave	5	18.8	B	0.71	***20.5***	***C***	***33.7***	***D***	6463	6530	99.0%	9588	11250	85.2%	66.14	57.53	0.715	4.960
EB I-80 (Over 700 E)	Basic	4	17.8	B	0.72	***19.5***	***C***	***30.3***	***D***	5001	5060	98.8%	7369	8630	85.4%	67.29	62.01	0.725	2.541
WB I-80 (Over 700 E)	Basic	4	47.6	F	17.63	***77.9***	***F***	***24.6***	***C***	6959	8020	86.8%	6097	6130	99.5%	21.69	65.39	17.631	0.734
WB I-80 (700 E to State)	Weave	5	50.1	F	8.35	***60.0***	***F***	***25.7***	***C***	8846	10050	88.0%	7434	7490	99.3%	29.12	61.03	8.349	1.701
WB I-80 (Over State)	Diverge	4	46.2	F	4.25	***46.2***	***F***	***30.3***	***D***	8033	9180	87.5%	6384	6470	98.7%	50.93	64.65	4.247	1.516
WB I-80 to WB CD Ramp	Ramp	2	40.7	E	5.18	***41.6***	***E***	***27.2***	***C***	4486	5250	85.4%	3418	3550	96.3%	54.98	65.21	7.567	1.915
WB I-80 (West of State)	Diverge	3	16.6	B	1.38	***16.6***	***B***	***14.9***	***B***	3380	3930	86.0%	2836	2920	97.1%	64.47	66.60	1.378	1.037
WB I-80 to NB I-15	Ramp	3	16.3	B	1.22	***16.3***	***B***	***13.9***	***B***	2644	3010	87.8%	2218	2240	99.0%	55.88	56.22	1.220	1.182
To SB I-15 Ramp	Ramp	2	16.4	B	1.27	***17.5***	***B***	***16.4***	***B***	1836	1990	92.3%	1727	1770	97.5%	53.99	54.80	1.718	1.358
To WB 201 Ramp	Ramp	2	30.9	C	1.35	***30.9***	***C***	***22.5***	***B***	3185	3690	86.3%	2355	2410	97.7%	52.04	54.44	1.347	1.448
WB I-80 to SB I-15/WB 201	Diverge	3	43.3	E	6.64	***48.1***	***F***	***31.1***	***D***	4935	5680	86.9%	4009	4180	95.9%	35.40	47.88	11.768	3.832
WB CD	Weave (CD)	3	32.3	D	10.56	***37.6***	***E***	***23.5***	***B***	5425	6150	88.2%	4392	4580	95.9%	52.77	64.08	20.798	1.354
EB I-80 Ramp	Ramp	2	19.8	B	1.86	***21.3***	***B***	***29.7***	***C***	1044	1210	86.3%	1170	1400	83.6%	25.12	20.61	4.272	5.922
EB I-80 I-15 to State	Weave	6	17.0	B	0.25	***18.3***	***B***	***38.0***	***E***	6481	6540	99.1%	9557	11260	84.9%	61.95	41.05	0.321	10.165
NB I-15 Off Ramp 2	Ramp	1	14.1	B	0.85	***15.6***	***B***	***17.1***	***B***	893	900	99.3%	930	940	98.9%	60.25	56.77	1.540	5.697
NB I-15 Off Ramp 1	Ramp	2	11.3	A	0.31	***12.1***	***B***	***14.4***	***B***	1599	1600	99.9%	1876	1880	99.8%	69.28	68.16	0.313	0.629
EB 201/SB I-15 1	Merge	5	19.3	B	0.32	***20.9***	***C***	***65.7***	***F***	5551	5640	98.4%	8627	10320	83.6%	62.00	32.34	0.388	7.284
EB 201 Ramp	Ramp	2	16.6	B	0.13	***17.9***	***B***	***90.2***	***F***	2348	2350	99.9%	3461	4480	77.2%	69.27	17.15	0.196	15.269
SB I-15 Ramp	Ramp	3	12.7	B	0.19	***13.7***	***B***	***50.2***	***F***	2532	2590	97.8%	4535	4900	92.6%	64.88	30.44	0.192	5.936
WB I-80 Ramp (700 E)	Ramp	2	40.1	E	11.67	***103.0***	***F***	***18.9***	***B***	1955	2590	75.5%	1334	1360	98.1%	10.27	36.96	53.682	3.007
Slip Ramp	Ramp	1	2.3	A	0.46	***2.4***	***A***	***3.2***	***A***	154	170	90.8%	168	200	84.0%	67.15	50.07	0.637	0.896
SB I-15 Ramp to I-80 EB	Merge	3	18.6	B	0.30	***20.0***	***B***	***94.5***	***F***	2500	2520	99.2%	3559	4680	76.0%	64.35	15.62	0.350	12.028
EB I-80 (Over State)	Basic	4	19.0	C	0.46	***20.6***	***C***	***42.0***	***E***	5270	5320	99.1%	8260	9850	83.9%	67.16	49.76	0.599	5.285
SB I-15 Ramp to I-80 EB	Merge	2	22.0	C	0.65	***23.8***	***C***	***97.8***	***F***	2509	2520	99.6%	3546	4680	75.8%	55.46	16.72	0.816	17.777
NB I-15 Ramp to State Street	Ramp	1	15.3	B	1.27	***17.0***	***B***	***18.3***	***B***	897	900	99.7%	934	940	99.4%	55.26	54.03	1.780	2.932
NB I-15 Ramp to EB I-80	Ramp	1	10.5	A	0.94	***11.6***	***A***	***15.7***	***B***	690	700	98.5%	928	940	98.7%	62.86	61.81	1.288	2.021

I-15 NB Separated Ramp with Left Exit

Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7	W-E	EBT	EB						495							899
1: 2100 South & State Street - 2@1436.4 - 6	E-W	WBT	WB						689							875
1: 2100 South & State Street - 3@1101.9 - 5	N-S	SBT	SB						611							1919
1: 2100 South & State State Street - 4@1031.1 - 8	S-N	NBT	NB						1361							1066
1: 2100 South & State Street - 159@246.4 -	S-E	NBR	NB						182							181
1: 2100 South & State Street - 160@288.7 -	S-W	NBL	NB						168							268
1: 2100 South & State Street - 161@166.4 -	E-S	WBL	WB						270							267
1: 2100 South & State Street - 162@152.6 -	W-N	EBL	EB						143							173
1: 2100 South & State Street - 163@133.8 -	N-W	SBR	SB						73							169
1: 2100 South & State Street - 164@371.3 -	N-E	SBL	SB						84							218
1: 2100 South & State Street - 165@166.2 -	E-N	WBR	WB						86							101
1: 2100 South & State Street - 255@187.5 -	W-S	EBR	EB	31.29	C				159	52.04	D					322
2: Street Car Crossing & State Street - 5@10	N-S	SBT	SB						889							2243
2: Street Car Crossing & State Street - 5@10	N-W	SBR	SB						150							246
2: Street Car Crossing & State Street - 10@1	S-N	NBT	NB						1515							1322
2: Street Car Crossing & State Street - 174@	W-S	EBR	EB						300							295
2: Street Car Crossing & State Street - 175@	W-N	EBL	EB						197							202
2: Street Car Crossing & State Street - 177@	S-W	NBL	NB	13.02	B				193	30.04	C					367
3: WB I-80 & State Street - 90@8.1 - 10@47	S-N	NBT	NB						1251							1177
3: WB I-80 & State Street - 96@9.7 - 37@36	S-W	NBL	NB						31							20
3: WB I-80 & State Street - 96@9.7 - 118@4	S-W	NBL	NB						498							370
3: WB I-80 & State Street - 124@1240.6 - 37	E-W	WBT	WB						77							144
3: WB I-80 & State Street - 124@1240.6 - 91	E-S	WBL	WB						234							365
3: WB I-80 & State Street - 124@1240.6 - 11	E-W	WBT	WB						0							0
3: WB I-80 & State Street - 125@249.7 - 10@	E-N	WBR	WB						455							516
3: WB I-80 & State Street - 155@285.8 - 97@	N-S	SBT	SB	17.56	B				599	23.95	C					809
3: WB I-80 & State Street - 156@284.4 - 37@	N-W	SBR	SB						11							10
3: WB I-80 & State Street - 156@284.4 - 118	N-W	SBR	SB						396							577
3: WB I-80 & State Street - 157@282.8 - 91@	N-S	SBT	SB						176							1130
4: EB I-80 & State Street - 92@5.5 - 12@38.2	N-S	SBT	SB						0							0
4: EB I-80 & State Street - 98@6.3 - 25@59.6	N-E	SBL	SB						18							19
4: EB I-80 & State Street - 98@6.3 - 122@62	N-E	SBL	SB						581							791
4: EB I-80 & State Street - 120@1777.0 - 25@	W-E	EBT	EB						130							123
4: EB I-80 & State Street - 120@1777.0 - 89@	W-N	EBL	EB						538							459
4: EB I-80 & State Street - 120@1777.0 - 122	W-E	EBT	EB	24.63	C	32.35	C		0	28.13	C	40.38	C			0
4: EB I-80 & State Street - 121@193.1 - 12@	W-S	EBR	EB						554							700
4: EB I-80 & State Street - 144@76.3 - 89@2	S-N	NBT	NB						714							719
4: EB I-80 & State Street - 145@75.0 - 25@5	S-E	NBR	NB						18							16
4: EB I-80 & State Street - 145@75.0 - 10032	S-E	NBR	NB						616							519
4: EB I-80 & State Street - 146@331.6 - 95@	S-N	NBT	NB						529							390
4: EB I-80 & State Street - 10063@12.6 - 12@	N-S	SBT	SB						409							1496
5: Oakland & State Street - 12@191.7 - 12@	N-S	SBT	SB						963							2193
5: Oakland & State Street - 22@609.6 - 11@	E-N	WBR	WB					9.57	A 29						16.06 C	49
5: Oakland & State Street - 146@91.4 - 146	S-N	NBT	NB						530							393
5: Oakland & State Street - 147@71.3 - 11@	S-N	NBT	NB						1321							1208
5: Oakland & State Street - 147@71.3 - 21@	S-E	NBR	NB						12							18
6: East Grantie SD RIRO & State Street - 12@	N-W	SBR	SB						243							67
6: East Grantie SD RIRO & State Street - 12@	N-S	SBT	SB						721							2126
6: East Grantie SD RIRO & State Street - 23@	W-S	EBR	EB					6.26	A 49						7.17 A	97
6: East Grantie SD RIRO & State Street - 100	S-N	NBT	NB						1332							1232
6: East Grantie SD RIRO & State Street - 100	S-N	NBT	NB						529							392
7: 2700 South & State Street - 14@1205.4 -	N-S	SBT	SB						608							1957
7: 2700 South & State Street - 15@1184.3 -	S-N	NBT	NB						1518							1361
7: 2700 South & State Street - 17@647.5 - 1	W-S	EBR	EB						40							98
7: 2700 South & State Street - 17@647.5 - 1	W-E	EBT	EB						59							327
7: 2700 South & State Street - 20@820.0 - 1	E-W	WBT	WB						156							151
7: 2700 South & State Street - 148@291.2 -	S-W	NBL	NB	16.21	B				120	33.90	C					87
7: 2700 South & State Street - 149@150.8 -	S-E	NBR	NB						21							87
7: 2700 South & State Street - 150@28.0 - 1	W-N	EBL	EB						149							292
7: 2700 South & State Street - 153@329.4 -	N-E	SBL	SB						53							152
7: 2700 South & State Street - 154@188.7 -	N-W	SBR	SB						114							108
7: 2700 South & State Street - 10014@53.9 -	E-N	WBR	WB						199							69
7: 2700 South & State Street - 10015@17.9 -	E-S	WBL	WB						74							129
8: WB I-80 & 700 East - 72@299.7 - 73@63.	N-S	SBT	SB						675							1770
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB						2514							1972
8: WB I-80 & 700 East - 87@30.0 - 137@28.	S-SW	NBL	NB						963							693
8: WB I-80 & 700 East - 135@1579.2 - 73@6	E-S	WBL	WB						99							224
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	WBL	WB						0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	WBR	WB						752							571
8: WB I-80 & 700 East - 168@218.7 - 83@57	N-S	SBT	SB	14.64	B				311	18.45	B					776
8: WB I-80 & 700 East - 169@299.3 - 137@2	N-SW	SBR	SB						1038							662
9: EB I-80 & 700 East - 74@24.8 - 10189@12	N-S	SBT	SB						774							1992
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB						1762							1069
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB			31.09	C		312			35.22	C			776
9: EB I-80 & 700 East - 133@1231.9 - 79@56	W-N	EBL	EB						753							904
9: EB I-80 & 700 East - 133@1231.9 - 140@6	W-NE	EBL	EB						0							0
9: EB I-80 & 700 East - 134@318.9 - 10188@	W-S	EBR	EB						699							1316
9: EB I-80 & 700 East - 166@226.1 - 86@53.	S-N	NBT	NB						971							692
9: EB I-80 & 700 East - 167@274.8 - 140@66	S-NE	NBR	NB	24.19	C				152	23.10	C					151
9: EB I-80 & 700 East - 10188@14.1 - 76@3.	N-S	SBT	SB						79							154
10: 2400 S & West Temple - 33@704.1 - 35@	E-W	WBT	WB					7.76	A 6						7.61 A	8
10: 2400 S & West Temple - 33@704.1 - 56@	E-N	WBR	WB						12							19
10: 2400 S & West Temple - 33@704.1 - 101	E-S	WBL	WB						18							8
10: 2400 S & West Temple - 34@51.1 - 32@	W-E	EBT	EB						0							4
10: 2400 S & West Temple - 34@51.1 - 56@	W-N	EBL	EB						0							0
10: 2400 S & West Temple - 34@51.1 - 1010	W-S	EBR	EB						0							0
10: 2400 S & West Temple - 57@353.0 - 32@	N-E	SBL	SB						6							5

10: 2400 S & West Temple - 57@353.0 - 35@N-W	SBR	SB			0		5
10: 2400 S & West Temple - 57@353.0 - 101N-S	SBT	SB			138		261
10: 2400 S & West Temple - 10107@1.9 - 32S-E	NBR	NB			5		6
10: 2400 S & West Temple - 10107@1.9 - 35S-W	NBL	NB			4		0
10: 2400 S & West Temple - 10107@1.9 - 56S-N	NBT	NB			190		280
11: Robert Ave. & West Temple - 28@710.2 E-W	WBT	WB			0		0
11: Robert Ave. & West Temple - 28@710.2 E-S	WBL	WB			4		6
11: Robert Ave. & West Temple - 28@710.2 E-N	WBR	WB			4		3
11: Robert Ave. & West Temple - 31@117.4 W-E	EBT	EB			0		5
11: Robert Ave. & West Temple - 31@117.4 W-S	EBR	EB			0		4
11: Robert Ave. & West Temple - 31@117.4 W-N	EBL	EB	7.29	A	4	11.44 B	4
11: Robert Ave. & West Temple - 44@282.3 S-E	NBR	NB			6		5
11: Robert Ave. & West Temple - 44@282.3 S-W	NBL	NB			7		6
11: Robert Ave. & West Temple - 44@282.3 S-N	NBT	NB			192		277
11: Robert Ave. & West Temple - 49@19.8 - N-E	SBL	SB			5		5
11: Robert Ave. & West Temple - 49@19.8 - N-W	SBR	SB			0		5
11: Robert Ave. & West Temple - 49@19.8 - N-S	SBT	SB			152		258
12: Oakland Ave & West Temple - 40@711.CE-W	WBT	WB	8.11	A	18	12.01 B	4
12: Oakland Ave & West Temple - 40@711.CE-N	WBR	WB			10		21
12: Oakland Ave & West Temple - 40@711.CE-S	WBL	WB			10		5
12: Oakland Ave & West Temple - 43@473.CW-E	EBT	EB			4		20
12: Oakland Ave & West Temple - 43@473.CW-N	EBL	EB			4		9
12: Oakland Ave & West Temple - 43@473.CW-S	EBR	EB			11		9
12: Oakland Ave & West Temple - 45@261.8N-E	SBL	SB			11		10
12: Oakland Ave & West Temple - 45@261.8N-W	SBR	SB			10		5
12: Oakland Ave & West Temple - 45@261.8N-S	SBT	SB			135		253
12: Oakland Ave & West Temple - 46@527.CS-E	NBR	NB			13		22
12: Oakland Ave & West Temple - 46@527.CS-W	NBL	NB			9		11
12: Oakland Ave & West Temple - 46@527.CS-N	NBT	NB			190		261
13: 2400 S & Main Street - 32@716.9 - 36@;W-E	EBT	EB			0		0
13: 2400 S & Main Street - 32@716.9 - 55@W-S	EBR	EB			5		4
13: 2400 S & Main Street - 32@716.9 - 58@;W-N	EBL	EB			5		9
13: 2400 S & Main Street - 37@672.9 - 33@;E-W	WBT	WB	13.74	B	27	24.32 C	20
13: 2400 S & Main Street - 37@672.9 - 55@E-S	WBL	WB			28		22
13: 2400 S & Main Street - 37@672.9 - 58@;E-N	WBR	WB			63		135
13: 2400 S & Main Street - 54@239.9 - 33@;S-W	NBL	NB			4		4
13: 2400 S & Main Street - 54@239.9 - 36@;S-E	NBR	NB			0		0
13: 2400 S & Main Street - 54@239.9 - 58@;S-N	NBT	NB			338		495
13: 2400 S & Main Street - 59@503.7 - 33@;N-W	SBR	SB			4		9
13: 2400 S & Main Street - 59@503.7 - 36@;N-E	SBL	SB			0		0
13: 2400 S & Main Street - 59@503.7 - 55@N-S	SBT	SB			190		471
14: Robert Ave. & Main Street - 26@405.6 - E-W	WBT	WB			0		0
14: Robert Ave. & Main Street - 26@405.6 - E-N	WBR	WB			0		4
14: Robert Ave. & Main Street - 26@405.6 - E-S	WBL	WB	8.43	A	4	9.98 A	4
14: Robert Ave. & Main Street - 29@709.2 - W-E	EBT	EB			0		5
14: Robert Ave. & Main Street - 29@709.2 - W-N	EBL	EB			7		5
14: Robert Ave. & Main Street - 29@709.2 - W-S	EBR	EB			4		6
14: Robert Ave. & Main Street - 55@232.4 - N-E	SBL	SB			0		10
14: Robert Ave. & Main Street - 55@232.4 - N-W	SBR	SB			5		5
14: Robert Ave. & Main Street - 55@232.4 - N-S	SBT	SB			217		481
14: Robert Ave. & Main Street - 60@63.7 - 2S-E	NBR	NB			5		5
14: Robert Ave. & Main Street - 60@63.7 - 2S-W	NBL	NB			4		5
14: Robert Ave. & Main Street - 60@63.7 - 5S-N	NBT	NB			337		491
15: N Granite SD Access & Main Street - 39@E-N	WBR	WB	1.35	A	18	1.22 A	60
15: N Granite SD Access & Main Street - 39@E-S	WBL	WB			15		5
15: N Granite SD Access & Main Street - 61@N-E	SBL	SB			12		14
15: N Granite SD Access & Main Street - 61@N-S	SBT	SB			214		478
15: N Granite SD Access & Main Street - 62@S-E	NBR	NB			9		4
15: N Granite SD Access & Main Street - 62@S-N	NBT	NB			328		442
16: Oakland Ave. & Main Street - 41@707.2 W-N	EBL	EB	6.69	A	10	7.71 A	28
16: Oakland Ave. & Main Street - 41@707.2 W-S	EBR	EB			17		23
16: Oakland Ave. & Main Street - 63@154.7 N-W	SBR	SB			17		13
16: Oakland Ave. & Main Street - 63@154.7 N-S	SBT	SB			214		471
16: Oakland Ave. & Main Street - 66@184.7 S-W	NBL	NB			21		16
16: Oakland Ave. & Main Street - 66@184.7 S-N	NBT	NB			324		418
17: S Granite SD Access & Main Street - 65@E-N	WBR	WB	1.45	A	8	1.71 A	19
17: S Granite SD Access & Main Street - 65@E-S	WBL	WB			17		17
17: S Granite SD Access & Main Street - 67@N-E	SBL	SB			14		5
17: S Granite SD Access & Main Street - 67@N-S	SBT	SB			217		488
17: S Granite SD Access & Main Street - 69@S-E	NBR	NB			51		37
17: S Granite SD Access & Main Street - 69@S-N	NBT	NB			337		415

2040 Queue Report (AM PM)

I-15 NB Separated Ramp with Left Exit

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Stre	W-E	174.6265	EBT	163	45	237	1157	408	1830
1: 2100 South & State Stre	E-W	214.1699	WBT	243	79	373	368	189	679
1: 2100 South & State Stre	N-S	85.32742	SBT	107	30	156	419	180	716
1: 2100 South & State Stre	S-N	169.4632	NBT	184	61	285	167	98	330
1: 2100 South & State Stre	S-E	8.03573	NBR	79	96	237	96	78	224
1: 2100 South & State Stre	S-W	37.5873	NBL	76	28	122	125	60	225
1: 2100 South & State Stre	E-S	118.9249	WBL	121	33	175	190	170	470
1: 2100 South & State Stre	W-N	68.47503	EBL	75	22	111	357	557	1276
1: 2100 South & State Stre	N-W	17.42454	SBR	19	16	46	43	35	100
1: 2100 South & State Stre	N-E	42.12137	SBL	47	18	77	75	44	148
1: 2100 South & State Stre	E-N	15.36324	WBR	12	20	44	88	156	346
1: 2100 South & State Stre	W-S	24.32716	EBR	29	16	56	667	585	1632
2: Street Car Crossing & St	N-S	55.07013	SBT	88	54	177	415	268	857
2: Street Car Crossing & St	N-W	55.07013	SBR	131	61	231	93	57	186
2: Street Car Crossing & St	S-N	49.85622	NBT	43	39	107	112	93	266
2: Street Car Crossing & St	W-S	32.67396	EBR	171	61	271	267	164	538
2: Street Car Crossing & St	W-N	177.1218	EBL	63	44	135	341	164	611
2: Street Car Crossing & St	S-W	26.06465	NBL	0	1	2	0	0	0
3: WB I-80 & State Street ·	S-N	0	NBT	0	0	0	0	0	0
3: WB I-80 & State Street ·	S-W	0	NBL	116	47	193	335	231	716
3: WB I-80 & State Street ·	S-W	0	NBL	116	47	193	344	236	733
3: WB I-80 & State Street ·	E-W	132.1729	WBT	116	47	193	335	231	716
3: WB I-80 & State Street ·	E-S	132.1729	WBL	179	110	360	347	285	817
3: WB I-80 & State Street ·	E-W	132.1729	WBT	235	63	340	210	130	425
3: WB I-80 & State Street ·	E-N	164.551	WBR	74	62	176	152	132	370
3: WB I-80 & State Street ·	N-S	145.0657	SBT	77	60	176	111	87	255
3: WB I-80 & State Street ·	N-W	45.72649	SBR	79	28	126	268	198	594
3: WB I-80 & State Street ·	N-W	53.78992	SBR	0	0	0	0	0	0
3: WB I-80 & State Street ·	N-S	73.66205	SBT	0	2	3	0	0	0
4: EB I-80 & State Street -	N-S	0	SBT	242	78	371	199	78	327
4: EB I-80 & State Street -	N-E	0	SBL	242	78	371	233	156	490
4: EB I-80 & State Street -	N-E	0	SBL	242	78	371	199	78	327
4: EB I-80 & State Street -	W-E	32.56218	EBT	166	125	372	312	209	657
4: EB I-80 & State Street -	W-N	32.56218	EBL	252	58	348	280	53	368
4: EB I-80 & State Street -	W-E	32.56218	EBT	219	96	378	243	90	391
4: EB I-80 & State Street -	W-S	59.41976	EBR	220	95	377	267	78	395
4: EB I-80 & State Street -	S-N	191.4667	NBT	158	49	239	111	72	229
4: EB I-80 & State Street -	S-E	125.9509	NBR	0	0	0	43	91	194
4: EB I-80 & State Street -	S-E	127.9788	NBR	0	0	0	0	2	4
4: EB I-80 & State Street -	S-N	121.0591	NBT	16	13	38	64	121	263
4: EB I-80 & State Street -	N-S	0	SBT	1	4	7	16	37	76
5: Oakland & State Street	N-S	0	SBT	68	66	177	102	61	202
5: Oakland & State Street	E-N	11.66736	WBR	5	15	30	8	16	35
5: Oakland & State Street	S-N	0	NBT	3	10	20	0	3	6
5: Oakland & State Street	S-N	9.300787	NBT	25	13	46	32	13	54
5: Oakland & State Street	S-E	13.13167	NBR	126	146	367	364	287	836
6: East Grantie SD RIRO &	N-W	0	SBR	92	27	136	292	144	529
6: East Grantie SD RIRO &	N-S	0	SBT	176	50	259	209	63	313
6: East Grantie SD RIRO &	W-S	31.20281	EBR	42	25	84	201	86	344
6: East Grantie SD RIRO &	S-N	48.1531	NBT	34	27	79	169	98	330

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6: East Grantie SD RIRO &	S-N	38.70323	NBT	60	36	120	65	37	127
7: 2700 South & State Stre	N-S	103.7174	SBT	6	12	25	61	82	196
7: 2700 South & State Stre	S-N	169.0802	NBT	86	46	161	169	105	342
7: 2700 South & State Stre	W-S	43.75622	EBR	20	23	57	44	33	99
7: 2700 South & State Stre	W-E	33.05047	EBT	17	17	45	52	85	193
7: 2700 South & State Stre	E-W	56.16649	WBT	48	25	89	35	30	85
7: 2700 South & State Stre	S-W	46.33563	NBL	42	34	98	129	117	321
7: 2700 South & State Stre	S-E	7.068628	NBR	144	36	203	219	112	405
7: 2700 South & State Stre	W-N	54.5752	EBL	83	63	187	86	120	284
7: 2700 South & State Stre	N-E	10.68829	SBL	292	129	504	254	144	491
7: 2700 South & State Stre	N-W	12.19713	SBR	45	29	93	74	48	153
7: 2700 South & State Stre	E-N	38.19397	WBR	45	29	93	92	37	152
7: 2700 South & State Stre	E-S	31.09067	WBL	6	18	36	38	69	151
8: WB I-80 & 700 East - 72	N-S	141.1327	SBT	424	500	1249	58	109	237
8: WB I-80 & 700 East - 80	S-N	148.1698	NBT	65	30	115	119	58	215
8: WB I-80 & 700 East - 87	S-SW	65.809	NBL	592	580	1548	224	64	329
8: WB I-80 & 700 East - 13	E-S	77.16601	WBL	59	35	116	252	64	357
8: WB I-80 & 700 East - 13	E-SW	77.16601	WBL	271	81	405	211	123	415
8: WB I-80 & 700 East - 13	E-N	11.21833	WBR	271	81	405	267	73	388
8: WB I-80 & 700 East - 16	N-S	87.49564	SBT	5	13	26	53	91	204
8: WB I-80 & 700 East - 16	N-SW	1.921018	SBR	894	641	1951	202	153	454
9: EB I-80 & 700 East - 74(	N-S	76.96049	SBT	0	0	0	57	117	250
9: EB I-80 & 700 East - 78(	S-N	248.655	NBT	17	15	42	20	15	44
9: EB I-80 & 700 East - 85(	N-NE	46.34186	SBL	17	15	42	16	15	41
9: EB I-80 & 700 East - 133	W-N	242.2711	EBL	17	15	42	20	15	44
9: EB I-80 & 700 East - 133	W-NE	242.2711	EBL	0	0	0	0	2	4
9: EB I-80 & 700 East - 134	W-S	0	EBR	0	0	0	0	2	3
9: EB I-80 & 700 East - 166	S-N	207.9056	NBT	0	0	0	0	2	4
9: EB I-80 & 700 East - 167	S-NE	0	NBR	1	6	12	1	4	8
9: EB I-80 & 700 East - 101	N-S	0	SBT	0	3	6	1	6	11
10: 2400 S & West Temple	E-W	12.55215	WBT	0	2	4	0	0	0
10: 2400 S & West Temple	E-N	12.55215	WBR	1	5	9	0	0	0
10: 2400 S & West Temple	E-S	12.55215	WBL	0	0	0	4	11	22
10: 2400 S & West Temple	W-E	0	EBT	6	12	26	7	12	27
10: 2400 S & West Temple	W-N	0	EBL	6	12	26	7	12	27
10: 2400 S & West Temple	W-S	0	EBR	6	12	25	7	12	27
10: 2400 S & West Temple	N-E	0	SBL	3	10	19	9	12	29
10: 2400 S & West Temple	N-W	0	SBR	3	10	19	9	12	29
10: 2400 S & West Temple	N-S	0	SBT	3	10	19	7	12	26
10: 2400 S & West Temple	S-E	0	NBR	0	1	2	0	2	4
10: 2400 S & West Temple	S-W	0	NBL	0	0	0	0	2	4
10: 2400 S & West Temple	S-N	0	NBT	0	0	0	0	2	3
11: Robert Ave. & West Te	E-W	0	WBT	19	35	76	17	34	73
11: Robert Ave. & West Te	E-S	0	WBL	0	0	0	3	10	20
11: Robert Ave. & West Te	E-N	0	WBR	20	15	45	16	16	42
11: Robert Ave. & West Te	W-E	0	EBT	20	15	45	16	16	42
11: Robert Ave. & West Te	W-S	0	EBR	20	15	45	18	15	43
11: Robert Ave. & West Te	W-N	0	EBL	15	15	39	22	15	47
11: Robert Ave. & West Te	S-E	0	NBR	14	15	38	22	15	46
11: Robert Ave. & West Te	S-W	0	NBL	14	15	38	18	16	44
11: Robert Ave. & West Te	S-N	0	NBT	1	6	11	2	10	18
11: Robert Ave. & West Te	N-E	0	SBL	0	0	0	1	7	13
11: Robert Ave. & West Te	N-W	0	SBR	0	0	0	0	1	2

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11: Robert Ave. & West Te	N-S	0	SBT	0	5	8	1	5	8
11: Robert Ave. & West Te	W-E	0	EBT	0	5	8	1	6	11
12: Oakland Ave & West T	E-W	16.66032	WBT	8	11	27	10	13	31
12: Oakland Ave & West T	E-N	16.66032	WBR	8	11	27	10	13	31
12: Oakland Ave & West T	E-S	16.66032	WBL	8	11	27	24	35	82
12: Oakland Ave & West T	W-E	17.04076	EBT	46	31	97	91	69	206
12: Oakland Ave & West T	W-N	16.65659	EBL	46	31	97	91	69	206
12: Oakland Ave & West T	W-S	16.6845	EBR	46	31	97	75	77	202
12: Oakland Ave & West T	N-E	0	SBL	0	4	7	1	4	8
12: Oakland Ave & West T	N-W	0	SBR	0	0	0	0	3	6
12: Oakland Ave & West T	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West T	S-E	5.925707	NBR	0	0	0	0	0	0
12: Oakland Ave & West T	S-W	5.332815	NBL	0	0	0	0	0	0
12: Oakland Ave & West T	S-N	2.023688	NBT	0	0	0	1	6	11
13: 2400 S & Main Street -	W-E	9.216253	EBT	3	9	18	6	11	24
13: 2400 S & Main Street -	W-S	9.216253	EBR	3	9	18	6	11	25
13: 2400 S & Main Street -	W-N	9.216253	EBL	9	13	30	10	14	33
13: 2400 S & Main Street -	E-W	40.32251	WBT	9	13	30	10	14	33
13: 2400 S & Main Street -	E-S	40.32251	WBL	9	13	30	9	14	32
13: 2400 S & Main Street -	E-N	40.32251	WBR	0	0	0	1	7	13
13: 2400 S & Main Street -	S-W	0	NBL	0	0	0	0	5	8
13: 2400 S & Main Street -	S-E	0	NBR	0	0	0	2	11	19
13: 2400 S & Main Street -	S-N	0	NBT	0	3	6	4	17	32
13: 2400 S & Main Street -	N-W	0	SBR	0	2	3	0	3	5
13: 2400 S & Main Street -	N-E	0	SBL	0	0	0	1	4	8
13: 2400 S & Main Street -	N-S	0	SBT	2	8	15	5	10	21
14: Robert Ave. & Main St	E-N	2.504154	WBR	1	4	7	2	10	20
14: Robert Ave. & Main St	E-S	2.504154	WBL	2	14	25	6	21	41
14: Robert Ave. & Main St	N-E	20.45398	SBL	0	1	3	0	0	0
14: Robert Ave. & Main St	N-S	20.45398	SBT	0	0	0	5	12	25
14: Robert Ave. & Main St	S-E	62.20186	NBR	17	15	41	24	14	47
14: Robert Ave. & Main St	S-N	62.20186	NBT	17	15	41	19	16	45
14: Robert Ave. & Main St	W-N	99.66389	EBL	1	4	7	0	2	4
14: Robert Ave. & Main St	W-S	98.8645	EBR	0	0	0	1	4	8
15: N Granite SD Access &	E-N	6.06257	WBR	0	0	0	1	5	9
15: N Granite SD Access &	E-S	6.674063	WBL	2	6	12	4	9	18
15: N Granite SD Access &	N-E	2.031985	SBL	2	6	12	3	8	16
15: N Granite SD Access &	N-S	65.86514	SBT	1	5	9	1	4	6
15: N Granite SD Access &	S-E	0	NBR	0	0	0	0	0	0
15: N Granite SD Access &	S-N	0	NBT	1	4	7	0	1	2
16: Oakland Ave. & Main S	W-N	23.08612	EBL	1	4	7	0	1	2
16: Oakland Ave. & Main S	W-S	23.08612	EBR	1	4	7	0	1	2
16: Oakland Ave. & Main S	N-W	2.865219	SBR	1	4	7	0	1	2
16: Oakland Ave. & Main S	N-S	0	SBT	1	4	7	0	1	2
16: Oakland Ave. & Main S	S-W	4.059704	NBL	1	4	7	0	1	2
16: Oakland Ave. & Main S	S-N	0	NBT	1	4	7	0	1	2
17: S Granite SD Access &	E-N	0	WBR	1	4	7	0	1	2
17: S Granite SD Access &	E-S	0	WBL	1	4	7	0	1	2
17: S Granite SD Access &	N-E	18.72536	SBL	1	4	7	0	1	2
17: S Granite SD Access &	N-S	2.732545	SBT	1	4	7	0	1	2
17: S Granite SD Access &	S-E	4.266891	NBR	1	4	7	0	1	2
17: S Granite SD Access &	S-N	0	NBT	1	4	7	0	1	2

Freeway LOS AM PM

I-15 NB Separated Ramp with Left Exit

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (West of State)	Basic	4	16.6	B	0.36	***18.1***	***C***	***32.4***	***D***	4614	4620	99.9%	7489	8910	84.1%	67.26	60.23	0.47	4.04
EB I-80 (State to 700 E)	Weave	6	15.6	B	0.51	***16.9***	***B***	***27.1***	***C***	6476	6530	99.2%	9625	11250	85.6%	66.88	60.55	0.51	8.32
EB I-80 (Approaching 700 E)	Basic	5	14.3	B	0.61	***15.8***	***B***	***24.8***	***C***	4959	5060	98.0%	7316	8630	84.8%	66.41	60.25	0.64	1.84
WB I-80 (Over 700 E)	Basic	4	52.0	F	13.62	***83.5***	***F***	***25.0***	***C***	6903	8020	86.1%	6097	6130	99.5%	20.16	64.38	13.62	1.38
WB I-80 (700 E to State)	Weave	5	55.8	F	17.73	***69.1***	***F***	***25.2***	***C***	8755	10050	87.1%	7436	7490	99.3%	25.10	62.05	17.73	0.98
WB I-80 (Over State)	Diverge	4	47.8	F	5.57	***48.7***	***F***	***30.6***	***D***	7948	9180	86.6%	6387	6470	98.7%	47.38	63.97	5.57	1.48
WB I-80 to WB CD Ramp	Ramp	2	40.5	E	2.70	***41.4***	***E***	***27.0***	***C***	4454	5250	84.8%	3417	3550	96.3%	54.00	64.74	5.78	2.76
WB I-80 (West of State)	Diverge	3	16.9	B	1.60	***16.9***	***B***	***15.1***	***B***	3338	3930	84.9%	2839	2920	97.2%	63.58	66.51	1.60	1.12
WB I-80 to NB I-15	Ramp	3	16.0	B	1.37	***16.0***	***B***	***13.9***	***B***	2608	3010	86.6%	2220	2240	99.1%	55.78	56.25	1.37	1.15
To SB I-15 Ramp	Ramp	2	16.3	B	1.30	***17.7***	***B***	***16.5***	***B***	1832	1990	92.0%	1732	1770	97.9%	54.09	54.98	1.30	1.32
To WB 201 Ramp	Ramp	2	30.5	C	2.01	***30.5***	***C***	***22.7***	***B***	3173	3690	86.0%	2352	2410	97.6%	52.41	53.98	2.32	1.47
WB I-80 to SB I-15/WB 201	Diverge	3	43.9	E	5.61	***46.2***	***F***	***32.2***	***D***	4911	5680	86.5%	4012	4180	96.0%	37.76	47.19	11.77	3.27
WB CD	Weave (CD)	3	29.9	C	1.43	***32.7***	***D***	***23.6***	***B***	5391	6150	87.7%	4395	4530	97.0%	56.49	63.78	10.70	1.36
EB I-15 On Ramp	Ramp	2	19.5	B	1.68	***20.0***	***B***	***26.7***	***C***	1044	1210	86.3%	1174	1400	83.8%	26.49	22.71	3.52	5.49
EB State Street On-Ramp	Ramp	5	14.0	B	0.18	***15.2***	***B***	***49.0***	***F***	4794	4940	97.0%	7655	9380	81.6%	66.49	38.05	0.22	13.31
NB I-15 Off Ramp 2	Ramp	2	11.9	A	0.29	***12.7***	***B***	***123.3***	***F***	1592	1600	99.5%	1758	1880	93.5%	65.44	11.76	0.29	61.74
NB I-15 Off Ramp 1	Ramp	2	12.3	B	0.13	***13.1***	***B***	***69.4***	***F***	1593	1600	99.6%	1834	1880	97.5%	63.78	21.21	0.13	55.82
EB 201/SB I-15 2	basic	5	18.9	B	0.11	***20.5***	***C***	***34.4***	***D***	4854	4940	98.3%	7753	9380	82.7%	65.70	53.30	0.24	21.28
EB 201/SB I-15 1	Merge	5	21.1	C	0.16	***22.7***	***C***	***37.3***	***E***	4847	4940	98.1%	7743	9380	82.5%	62.26	52.54	0.35	18.81
EB 201 Ramp	Ramp	2	20.0	B	0.40	***22.0***	***B***	***76.6***	***F***	2347	2350	99.9%	2990	4480	66.7%	56.27	19.37	0.75	7.21
SB I-15 Ramp	Ramp	3	13.6	B	0.11	***14.6***	***B***	***28.8***	***C***	2587	2590	99.9%	4891	4900	99.8%	62.19	59.55	0.16	1.26
700 E WB On-Ramp	Ramp	2	39.7	E	12.44	***117.9***	***F***	***18.2***	***B***	1943	2030	95.7%	1334	1360	98.1%	8.55	37.16	45.93	3.84
NB I-15 Ramp 3	Ramp	2	11.4	A	0.39	***12.3***	***B***	***113.7***	***F***	1551	1600	97.0%	1674	1880	89.0%	66.17	8.34	0.42	44.66
EB CD	Basic	1	10.1	A	0.88	***10.7***	***A***	***17.2***	***B***	688	700	98.3%	857	940	91.2%	67.47	49.28	1.04	3.33
EB I-80 (Over 700 E)	Basic	4	17.8	B	0.71	***19.4***	***C***	***29.3***	***D***	5007	5060	99.0%	7393	8630	85.7%	67.92	65.10	0.71	1.51
EB I-80 over State	Basic	5	15.1	B	0.35	***16.3***	***B***	***26.1***	***D***	5278	5320	99.2%	8306	9850	84.3%	68.07	64.86	0.46	2.06

Alternative: I-15 NB to Main Street with Flyover

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7	W-E	EBT	EB							496							899
1: 2100 South & State Street - 2@1436.4 - 6	E-W	WBT	WB							689							878
1: 2100 South & State Street - 3@1101.9 - 5	N-S	SBT	SB							612							1933
1: 2100 South & State Street - 4@1031.1 - 8	S-N	NBT	NB							1112							961
1: 2100 South & State Street - 159@246.4 -	S-E	NBR	NB							30							131
1: 2100 South & State Street - 160@288.7 -	S-W	NBL	NB							115							218
1: 2100 South & State Street - 161@166.4 -	E-S	WBL	WB							270							272
1: 2100 South & State Street - 162@152.6 -	W-N	EBL	EB							143							173
1: 2100 South & State Street - 163@133.8 -	N-W	SBR	SB							73							170
1: 2100 South & State Street - 164@371.3 -	N-E	SBL	SB							84							220
1: 2100 South & State Street - 165@166.2 -	E-N	WBR	WB							86							100
1: 2100 South & State Street - 255@187.5 -	W-S	EBR	EB	31.62	C					159	46.21	D					320
2: Street Car Crossing & State Street - 5@1(	N-S	SBT	SB							888							2272
2: Street Car Crossing & State Street - 5@1(	N-W	SBR	SB							150							250
2: Street Car Crossing & State Street - 10@1	S-N	NBT	NB							1060							1111
2: Street Car Crossing & State Street - 174@	W-S	EBR	EB							301							294
2: Street Car Crossing & State Street - 175@	W-N	EBL	EB							197							202
2: Street Car Crossing & State Street - 177@	S-W	NBL	NB	10.80	B					125	21.85	C					231
3: WB I-80 & State Street - 90@8.1 - 10@47	S-N	NBT	NB							736							827
3: WB I-80 & State Street - 96@9.7 - 37@36	S-W	NBL	NB							31							20
3: WB I-80 & State Street - 96@9.7 - 118@4	S-W	NBL	NB							497							366
3: WB I-80 & State Street - 124@1240.6 - 3	E-W	WBT	WB							75							144
3: WB I-80 & State Street - 124@1240.6 - 9	E-S	WBL	WB							231							366
3: WB I-80 & State Street - 124@1240.6 - 11	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 125@249.7 - 10(	E-N	WBR	WB							451							516
3: WB I-80 & State Street - 155@285.8 - 97(	N-S	SBT	SB	18.64	B					598	22.68	C					817
3: WB I-80 & State Street - 156@284.4 - 37(	N-W	SBR	SB							11							10
3: WB I-80 & State Street - 156@284.4 - 11	N-W	SBR	SB							397							585
3: WB I-80 & State Street - 157@282.8 - 91(	N-S	SBT	SB							175							1143
4: EB I-80 & State Street - 92@5.5 - 12@38.	N-S	SBT	SB							0							0
4: EB I-80 & State Street - 98@6.3 - 25@59.	N-E	SBL	SB							18							21
4: EB I-80 & State Street - 98@6.3 - 122@62	N-E	SBL	SB							580							797
4: EB I-80 & State Street - 120@1622.2 - 25	W-E	EBT	EB							37							28
4: EB I-80 & State Street - 120@1622.2 - 89	W-N	EBL	EB							21							116
4: EB I-80 & State Street - 120@1622.2 - 12	W-E	EBT	EB	19.88	B	28.65	B			0	20.58	C	35.02	C			0
4: EB I-80 & State Street - 121@193.1 - 12@	W-S	EBR	EB							261							244
4: EB I-80 & State Street - 144@76.3 - 89@2	S-N	NBT	NB							714							711
4: EB I-80 & State Street - 145@75.0 - 25@5	S-E	NBR	NB							18							16
4: EB I-80 & State Street - 145@75.0 - 1003	S-E	NBR	NB							616							513
4: EB I-80 & State Street - 146@331.6 - 95@	S-N	NBT	NB							528							386
4: EB I-80 & State Street - 10063@12.6 - 12	N-S	SBT	SB							405							1507
5: Oakland & State Street - 12@191.7 - 12@	N-S	SBT	SB							667							1750
5: Oakland & State Street - 22@609.6 - 11@	E-N	WBR	WB					9.34	A	29					14.85	B	49
5: Oakland & State Street - 146@91.4 - 146	S-N	NBT	NB							529							389
5: Oakland & State Street - 147@71.3 - 11@	S-N	NBT	NB							1320							1193
5: Oakland & State Street - 147@71.3 - 21@	S-E	NBR	NB							13							18
6: East Grantie SD RIRO & State Street - 12(	N-W	SBR	SB							109							23
6: East Grantie SD RIRO & State Street - 12(	N-S	SBT	SB							558							1729
6: East Grantie SD RIRO & State Street - 23(	W-S	EBR	EB					6.26	A	49					7.04	A	97
6: East Grantie SD RIRO & State Street - 100	S-N	NBT	NB							1331							1214
6: East Grantie SD RIRO & State Street - 100	S-N	NBT	NB							529							387
7: 2700 South & State Street - 14@1205.4 -	N-S	SBT	SB							491							1758
7: 2700 South & State Street - 15@1184.3 -	S-N	NBT	NB							1518							1350
7: 2700 South & State Street - 17@647.5 - 1	W-S	EBR	EB							40							97
7: 2700 South & State Street - 17@647.5 - 1	W-E	EBT	EB							59							324
7: 2700 South & State Street - 20@820.0 - 1	E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291.2 -	S-W	NBL	NB	16.38	B					120	39.25	D					87
7: 2700 South & State Street - 149@150.8 -	S-E	NBR	NB							21							87
7: 2700 South & State Street - 150@28.0 - 1	W-N	EBL	EB							149							286
7: 2700 South & State Street - 153@329.4 -	N-E	SBL	SB							31							56
7: 2700 South & State Street - 154@188.7 -	N-W	SBR	SB							90							9
7: 2700 South & State Street - 10014@53.9	E-N	WBR	WB							199							69
7: 2700 South & State Street - 10015@17.9	E-S	WBL	WB							74							130
8: WB I-80 & 700 East - 72@299.7 - 73@63.	N-S	SBT	SB							674							1767
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB							2507							1978
8: WB I-80 & 700 East - 87@30.0 - 137@28.	S-SW	NBL	NB							956							693
8: WB I-80 & 700 East - 135@1579.2 - 73@(	E-S	WBL	WB							99							224
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.	E-N	WBR	WB							751							571
8: WB I-80 & 700 East - 168@218.7 - 83@5	N-S	SBT	SB	15.91	B					312	18.57	B					774
8: WB I-80 & 700 East - 169@299.3 - 137@	N-SW	SBR	SB							1039							663
9: EB I-80 & 700 East - 74@24.8 - 10189@1	N-S	SBT	SB							773							1991
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB							1758							1070
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB			33.45	C			313			35.92	C			775
9: EB I-80 & 700 East - 133@1227.2 - 79@5	W-N	EBL	EB							754							910

9: EB I-80 & 700 East - 133@1227.2 - 140@	W-NE	EBL	EB				0			0
9: EB I-80 & 700 East - 134@318.9 - 10188@	W-S	EBR	EB				698			1327
9: EB I-80 & 700 East - 166@226.1 - 86@53.	S-N	NBT	NB				964			695
9: EB I-80 & 700 East - 167@274.8 - 140@6	S-NE	NBR	NB	25.65	C		151	23.71 C		151
9: EB I-80 & 700 East - 10188@14.1 - 76@3.	N-S	SBT	SB				74			147
10: 2400 S & West Temple - 33@704.1 - 35(	E-W	WBT	WB			7.51 A	5		8.12 A	6
10: 2400 S & West Temple - 33@704.1 - 56(	E-N	WBR	WB				12			19
10: 2400 S & West Temple - 33@704.1 - 10	E-S	WBL	WB				23			14
10: 2400 S & West Temple - 34@51.1 - 32@	W-E	EBT	EB				0			4
10: 2400 S & West Temple - 34@51.1 - 56@	W-N	EBL	EB				0			0
10: 2400 S & West Temple - 34@51.1 - 101(	W-S	EBR	EB				0			0
10: 2400 S & West Temple - 57@353.0 - 32(	N-E	SBL	SB				6			5
10: 2400 S & West Temple - 57@353.0 - 35(	N-W	SBR	SB				0			5
10: 2400 S & West Temple - 57@353.0 - 10	N-S	SBT	SB				138			261
10: 2400 S & West Temple - 10107@1.9 - 3	S-E	NBR	NB				5			6
10: 2400 S & West Temple - 10107@1.9 - 3	S-W	NBL	NB				4			0
10: 2400 S & West Temple - 10107@1.9 - 5(	S-N	NBT	NB				186			276
11: Robert Ave. & West Temple - 28@403.9	E-W	WBT	WB				0			0
11: Robert Ave. & West Temple - 28@403.9	E-S	WBL	WB				0			0
11: Robert Ave. & West Temple - 28@403.9	E-N	WBR	WB				0			0
11: Robert Ave. & West Temple - 31@117.4	W-E	EBT	EB				0			5
11: Robert Ave. & West Temple - 31@117.4	W-S	EBR	EB				0			4
11: Robert Ave. & West Temple - 31@117.4	W-N	EBL	EB			7.01 A	4		11.45 B	4
11: Robert Ave. & West Temple - 44@282.3	S-E	NBR	NB				11			10
11: Robert Ave. & West Temple - 44@282.3	S-W	NBL	NB				7			6
11: Robert Ave. & West Temple - 44@282.3	S-N	NBT	NB				191			277
11: Robert Ave. & West Temple - 49@19.8 -	N-E	SBL	SB				9			9
11: Robert Ave. & West Temple - 49@19.8 -	N-W	SBR	SB				0			5
11: Robert Ave. & West Temple - 49@19.8 -	N-S	SBT	SB				152			259
11: Robert Ave. & West Temple - 259@287.	W-E	EBT	EB				906			944
12: Oakland Ave & West Temple - 40@711.(	E-W	WBT	WB			8.46 A	18		8.17 A	4
12: Oakland Ave & West Temple - 40@711.(	E-N	WBR	WB				14			25
12: Oakland Ave & West Temple - 40@711.(	E-S	WBL	WB				10			5
12: Oakland Ave & West Temple - 43@473.(	W-E	EBT	EB				4			20
12: Oakland Ave & West Temple - 43@473.(	W-N	EBL	EB				4			9
12: Oakland Ave & West Temple - 43@473.(	W-S	EBR	EB				11			9
12: Oakland Ave & West Temple - 45@261.(	N-E	SBL	SB				11			10
12: Oakland Ave & West Temple - 45@261.(	N-W	SBR	SB				10			5
12: Oakland Ave & West Temple - 45@261.(	N-S	SBT	SB				131			248
12: Oakland Ave & West Temple - 46@527.(	S-E	NBR	NB				13			22
12: Oakland Ave & West Temple - 46@527.(	S-W	NBL	NB				9			11
12: Oakland Ave & West Temple - 46@527.(	S-N	NBT	NB				190			261
13: 2400 S & Main Street - 32@716.9 - 36@	W-E	EBT	EB				0			0
13: 2400 S & Main Street - 32@716.9 - 55@	W-S	EBR	EB				5			4
13: 2400 S & Main Street - 32@716.9 - 58@	W-N	EBL	EB				5			9
13: 2400 S & Main Street - 37@672.9 - 33@	E-W	WBT	WB			15.92 C	27		24.48 C	20
13: 2400 S & Main Street - 37@672.9 - 55@	E-S	WBL	WB				27			21
13: 2400 S & Main Street - 37@672.9 - 58@	E-N	WBR	WB				61			134
13: 2400 S & Main Street - 54@239.9 - 33@	S-W	NBL	NB				8			9
13: 2400 S & Main Street - 54@239.9 - 36@	S-E	NBR	NB				0			0
13: 2400 S & Main Street - 54@239.9 - 58@	S-N	NBT	NB				861			834
13: 2400 S & Main Street - 59@503.7 - 33@	N-W	SBR	SB				4			9
13: 2400 S & Main Street - 59@503.7 - 36@	N-E	SBL	SB				0			0
13: 2400 S & Main Street - 59@503.7 - 55@	N-S	SBT	SB				190			471
14: Robert Ave. & Main Street - 26@400.7 -	E-N	WBR	WB				0			4
14: Robert Ave. & Main Street - 26@400.7 -	E-S	WBL	WB				4			4
14: Robert Ave. & Main Street - 55@232.2 -	N-E	SBL	SB				0			11
14: Robert Ave. & Main Street - 55@232.2 -	N-S	SBT	SB			15.50 C	222		17.44 C	484
14: Robert Ave. & Main Street - 60@60.5 - 2	S-E	NBR	NB				5			5
14: Robert Ave. & Main Street - 60@60.5 - 5	S-N	NBT	NB				350			486
14: Robert Ave. & Main Street - 259@1071.	W-N	EBL	EB				520			355
14: Robert Ave. & Main Street - 259@1071.	W-S	EBR	EB				386			590
15: N Granite SD Access & Main Street - 39(	E-N	WBR	WB			6.16 A	33		8.97 A	65
15: N Granite SD Access & Main Street - 39(	E-S	WBL	WB				0			0
15: N Granite SD Access & Main Street - 61(	N-E	SBL	SB				12			13
15: N Granite SD Access & Main Street - 61(	N-S	SBT	SB				600			1065
15: N Granite SD Access & Main Street - 62(	S-E	NBR	NB				31			36
15: N Granite SD Access & Main Street - 62(	S-N	NBT	NB				320			428
16: Oakland Ave. & Main Street - 41@707.2	W-N	EBL	EB			7.39 A	10		11.58 B	29
16: Oakland Ave. & Main Street - 41@707.2	W-S	EBR	EB				17			23
16: Oakland Ave. & Main Street - 63@154.7	N-W	SBR	SB				22			18
16: Oakland Ave. & Main Street - 63@154.7	N-S	SBT	SB				578			1046
16: Oakland Ave. & Main Street - 66@184.7	S-W	NBL	NB				21			16
16: Oakland Ave. & Main Street - 66@184.7	S-N	NBT	NB				341			435
17: S Granite SD Access & Main Street - 65(	E-N	WBR	WB				24			37
17: S Granite SD Access & Main Street - 65(	E-S	WBL	WB				0			0
17: S Granite SD Access & Main Street - 67(	N-E	SBL	SB			2.38 A	147		2.44 A	53

17: S Granite SD Access & Main Street - 67@N-S	SBT	SB		450	1018
17: S Granite SD Access & Main Street - 69@S-E	NBR	NB		51	37
17: S Granite SD Access & Main Street - 69@S-N	NBT	NB		337	416

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				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 -	W-E	174.6265	EBT	163	45	237	1157	408	1831
1: 2100 South & State Street - 2@1436.4 -	E-W	214.1699	WBT	243	82	378	243	79	373
1: 2100 South & State Street - 3@1101.9 -	N-S	85.32742	SBT	107	32	161	107	30	156
1: 2100 South & State Street - 4@1031.1 -	S-N	169.4632	NBT	144	43	214	184	61	285
1: 2100 South & State Street - 159@246.4	S-E	8.03573	NBR	16	24	56	79	96	237
1: 2100 South & State Street - 160@288.7	S-W	37.5873	NBL	58	21	92	76	28	122
1: 2100 South & State Street - 161@166.4	E-S	118.9249	WBL	122	40	188	121	33	175
1: 2100 South & State Street - 162@152.6	W-N	68.47503	EBL	76	24	115	75	22	111
1: 2100 South & State Street - 163@133.8	N-W	17.42454	SBR	19	16	45	19	16	46
1: 2100 South & State Street - 164@371.3	N-E	42.12137	SBL	46	19	79	47	18	77
1: 2100 South & State Street - 165@166.2	E-N	15.36324	WBR	11	18	41	12	20	44
1: 2100 South & State Street - 255@187.5	W-S	24.32716	EBR	29	19	61	29	16	56
2: Street Car Crossing & State Street - 5@1	N-S	55.07013	SBT	85	50	167	88	54	177
2: Street Car Crossing & State Street - 5@1	N-W	55.07013	SBR	85	50	167	88	54	177
2: Street Car Crossing & State Street - 10@	S-N	49.85622	NBT	57	24	97	131	61	231
2: Street Car Crossing & State Street - 174(	W-S	32.67396	EBR	42	40	108	43	39	107
2: Street Car Crossing & State Street - 175(	W-N	177.1218	EBL	169	60	269	171	61	271
2: Street Car Crossing & State Street - 177(	S-W	26.06465	NBL	39	34	94	63	44	135
3: WB I-80 & State Street - 90@8.1 - 10@4	S-N	0	NBT	0	0	0	0	1	2
3: WB I-80 & State Street - 96@9.7 - 37@3	S-W	0	NBL	0	0	0	0	0	0
3: WB I-80 & State Street - 96@9.7 - 118@	S-W	0	NBL	0	0	0	0	0	0
3: WB I-80 & State Street - 124@1240.6 - 3	E-W	132.1729	WBT	126	42	195	116	47	193
3: WB I-80 & State Street - 124@1240.6 - 9	E-S	132.1729	WBL	126	42	195	116	47	193
3: WB I-80 & State Street - 124@1240.6 - 1	E-W	132.1729	WBT	126	42	195	116	47	193
3: WB I-80 & State Street - 125@249.7 - 10	E-N	164.551	WBR	174	97	335	179	110	360
3: WB I-80 & State Street - 155@285.8 - 97	N-S	145.0657	SBT	202	66	311	235	63	340
3: WB I-80 & State Street - 156@284.4 - 37	N-W	45.72649	SBR	62	49	143	74	62	176
3: WB I-80 & State Street - 156@284.4 - 11	N-W	53.78992	SBR	67	45	140	77	60	176
3: WB I-80 & State Street - 157@282.8 - 91	N-S	73.66205	SBT	75	29	122	79	28	126
4: EB I-80 & State Street - 92@5.5 - 12@38	N-S	0	SBT	0	0	0	0	0	0
4: EB I-80 & State Street - 98@6.3 - 25@59	N-E	0	SBL	0	0	0	0	2	3
4: EB I-80 & State Street - 98@6.3 - 122@6	N-E	0	SBL	0	0	0	0	2	3
4: EB I-80 & State Street - 120@1622.2 - 25	W-E	32.56218	EBT	32	22	69	242	78	371
4: EB I-80 & State Street - 120@1622.2 - 89	W-N	32.56218	EBL	32	22	69	242	78	371

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4: EB I-80 & State Street - 120@1622.2 - 12	W-E	32.56218	EBT	32	22	69	242	78	371
4: EB I-80 & State Street - 121@193.1 - 12(	W-S	59.41976	EBR	67	30	116	166	125	372
4: EB I-80 & State Street - 144@76.3 - 89@	S-N	191.4667	NBT	247	56	340	252	58	348
4: EB I-80 & State Street - 145@75.0 - 25@	S-E	125.9509	NBR	211	88	356	219	96	378
4: EB I-80 & State Street - 145@75.0 - 1003	S-E	127.9788	NBR	212	86	355	220	95	377
4: EB I-80 & State Street - 146@331.6 - 95(	S-N	121.0591	NBT	159	48	237	158	49	239
4: EB I-80 & State Street - 10063@12.6 - 12	N-S	0	SBT	0	0	0	0	0	0
5: Oakland & State Street - 12@191.7 - 12(	N-S	0	SBT	0	5	9	0	0	0
5: Oakland & State Street - 22@609.6 - 11(	E-N	11.66736	WBR	16	14	39	16	13	38
5: Oakland & State Street - 146@91.4 - 14(	S-N	0	NBT	0	5	9	1	4	7
5: Oakland & State Street - 147@71.3 - 11(	S-N	9.300787	NBT	47	45	122	49	49	130
5: Oakland & State Street - 147@71.3 - 21(	S-E	13.13167	NBR	64	62	167	68	66	177
6: East Grantie SD RIRO & State Street - 12(	N-W	0	SBR	4	15	29	5	15	30
6: East Grantie SD RIRO & State Street - 12(	N-S	0	SBT	2	12	21	3	10	20
6: East Grantie SD RIRO & State Street - 23(	W-S	31.20281	EBR	25	13	46	25	13	46
6: East Grantie SD RIRO & State Street - 10(	S-N	48.1531	NBT	116	129	330	126	146	367
6: East Grantie SD RIRO & State Street - 10(	S-N	38.70323	NBT	99	132	317	115	149	360
7: 2700 South & State Street - 14@1205.4 ·	N-S	103.7174	SBT	85	27	129	92	27	136
7: 2700 South & State Street - 15@1184.3 ·	S-N	169.0802	NBT	176	48	255	176	50	259
7: 2700 South & State Street - 17@647.5 -	W-S	43.75622	EBR	42	27	86	42	25	84
7: 2700 South & State Street - 17@647.5 -	W-E	33.05047	EBT	34	28	81	34	27	79
7: 2700 South & State Street - 20@820.0 -	E-W	56.16649	WBT	59	33	114	60	36	120
7: 2700 South & State Street - 148@291.2 ·	S-W	46.33563	NBL	36	28	82	38	26	81
7: 2700 South & State Street - 149@150.8 ·	S-E	7.068628	NBR	6	11	24	6	12	25
7: 2700 South & State Street - 150@28.0 -	W-N	54.5752	EBL	84	45	159	86	46	161
7: 2700 South & State Street - 153@329.4 ·	N-E	10.68829	SBL	10	15	35	20	23	57
7: 2700 South & State Street - 154@188.7 ·	N-W	12.19713	SBR	16	15	40	17	17	45
7: 2700 South & State Street - 10014@53.9	E-N	38.19397	WBR	46	24	85	48	25	89
7: 2700 South & State Street - 10015@17.9	E-S	31.09067	WBL	41	33	96	42	34	98
8: WB I-80 & 700 East - 72@299.7 - 73@63	N-S	141.1327	SBT	146	31	198	144	36	203
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	148.1698	NBT	116	74	237	83	63	187
8: WB I-80 & 700 East - 87@30.0 - 137@28	S-SW	65.809	NBL	195	101	361	292	129	504
8: WB I-80 & 700 East - 135@1579.2 - 73@	E-S	77.16601	WBL	48	23	86	45	29	93
8: WB I-80 & 700 East - 135@1579.2 - 137(	E-SW	77.16601	WBL	48	23	86	45	29	93
8: WB I-80 & 700 East - 136@72.0 - 70@87	E-N	11.21833	WBR	4	12	24	6	18	36
8: WB I-80 & 700 East - 168@218.7 - 83@5	N-S	87.49564	SBT	100	32	153	100	37	161

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8: WB I-80 & 700 East - 169@299.3 - 137@	N-SW	1.921018	SBR	37	143	273	424	500	1249
9: EB I-80 & 700 East - 74@24.8 - 10189@1	N-S	76.96049	SBT	69	27	114	65	30	115
9: EB I-80 & 700 East - 78@281.6 - 79@56.	S-N	248.655	NBT	300	174	587	592	580	1548
9: EB I-80 & 700 East - 85@22.3 - 140@66.	N-NE	46.34186	SBL	59	39	123	59	35	116
9: EB I-80 & 700 East - 133@1227.2 - 79@5	W-N	242.2711	EBL	265	73	385	271	81	405
9: EB I-80 & 700 East - 133@1227.2 - 140@	W-NE	242.2711	EBL	265	73	385	271	81	405
9: EB I-80 & 700 East - 134@318.9 - 10188(	W-S	0	EBR	7	18	37	5	13	26
9: EB I-80 & 700 East - 166@226.1 - 86@53	S-N	207.9056	NBT	368	306	873	894	641	1951
9: EB I-80 & 700 East - 167@274.8 - 140@6	S-NE	0	NBR	1	4	8	1	4	7
9: EB I-80 & 700 East - 10188@14.1 - 76@3	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 33@704.1 - 35	E-W	10.01214	WBT	21	15	45	17	15	42
10: 2400 S & West Temple - 33@704.1 - 56	E-N	10.01214	WBR	21	15	45	17	15	42
10: 2400 S & West Temple - 33@704.1 - 10	E-S	10.01214	WBL	21	15	45	17	15	42
10: 2400 S & West Temple - 34@51.1 - 32(	W-E	0	EBT	0	0	0	0	0	0
10: 2400 S & West Temple - 34@51.1 - 56(	W-N	0	EBL	0	0	0	0	0	0
10: 2400 S & West Temple - 34@51.1 - 101	W-S	0	EBR	0	0	0	0	0	0
10: 2400 S & West Temple - 57@353.0 - 32	N-E	0	SBL	1	8	14	1	6	12
10: 2400 S & West Temple - 57@353.0 - 35	N-W	0	SBR	0	3	5	0	3	6
10: 2400 S & West Temple - 57@353.0 - 10	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 3	S-E	0	NBR	0	0	0	0	2	4
10: 2400 S & West Temple - 10107@1.9 - 3	S-W	0	NBL	0	4	7	1	5	9
10: 2400 S & West Temple - 10107@1.9 - 5	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@403.9	E-W	0	WBT	0	0	0	6	12	26
11: Robert Ave. & West Temple - 28@403.9	E-S	0	WBL	0	0	0	6	12	26
11: Robert Ave. & West Temple - 28@403.9	E-N	0	WBR	0	0	0	6	12	25
11: Robert Ave. & West Temple - 31@117.4	W-E	0	EBT	3	9	18	3	10	19
11: Robert Ave. & West Temple - 31@117.4	W-S	0	EBR	3	9	18	3	10	19
11: Robert Ave. & West Temple - 31@117.4	W-N	0	EBL	3	9	18	3	10	19
11: Robert Ave. & West Temple - 44@282.3	S-E	0	NBR	0	2	3	0	1	2
11: Robert Ave. & West Temple - 44@282.3	S-W	0	NBL	0	3	5	0	0	0
11: Robert Ave. & West Temple - 44@282.3	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 49@19.8	N-E	0	SBL	1	6	11	1	6	11
11: Robert Ave. & West Temple - 49@19.8	N-W	0	SBR	1	6	10	19	35	76
11: Robert Ave. & West Temple - 49@19.8	N-S	0	SBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 259@287	W-E	0	EBT	0	0	0	20	15	45
12: Oakland Ave & West Temple - 40@711	E-W	14.40059	WBT	22	15	47	20	15	45

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12: Oakland Ave & West Temple - 40@711	E-N	14.40059	WBR	22	15	47	20	15	45
12: Oakland Ave & West Temple - 40@711	E-S	14.40059	WBL	22	15	47	15	15	39
12: Oakland Ave & West Temple - 43@473	W-E	17.07698	EBT	15	14	38	14	15	38
12: Oakland Ave & West Temple - 43@473	W-N	16.69281	EBL	14	14	37	14	15	38
12: Oakland Ave & West Temple - 43@473	W-S	16.72072	EBR	14	14	37	1	6	11
12: Oakland Ave & West Temple - 45@261	N-E	0	SBL	1	6	11	0	0	0
12: Oakland Ave & West Temple - 45@261	N-W	0	SBR	0	3	5	0	0	0
12: Oakland Ave & West Temple - 45@261	N-S	0	SBT	0	0	0	0	5	8
12: Oakland Ave & West Temple - 46@527	S-E	5.925707	NBR	0	5	9	0	5	8
12: Oakland Ave & West Temple - 46@527	S-W	5.332815	NBL	1	6	10	0	2	3
12: Oakland Ave & West Temple - 46@527	S-N	2.023688	NBT	0	2	3	8	11	27
13: 2400 S & Main Street - 32@716.9 - 36@	W-E	9.216253	EBT	6	10	24	8	11	27
13: 2400 S & Main Street - 32@716.9 - 55@	W-S	9.216253	EBR	6	10	24	8	11	27
13: 2400 S & Main Street - 32@716.9 - 58@	W-N	9.216253	EBL	6	10	24	46	31	97
13: 2400 S & Main Street - 37@672.9 - 33@	E-W	35.4327	WBT	53	33	108	46	31	97
13: 2400 S & Main Street - 37@672.9 - 55@	E-S	35.4327	WBL	53	33	108	46	31	97
13: 2400 S & Main Street - 37@672.9 - 58@	E-N	35.4327	WBR	53	33	108	0	4	7
13: 2400 S & Main Street - 54@239.9 - 33@	S-W	0	NBL	1	4	7	0	0	0
13: 2400 S & Main Street - 54@239.9 - 36@	S-E	0	NBR	0	0	0	0	0	0
13: 2400 S & Main Street - 54@239.9 - 58@	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 33@	N-W	0	SBR	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 36@	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 55@	N-S	0	SBT	0	0	0	3	9	18
14: Robert Ave. & Main Street - 26@400.7	E-N	2.513968	WBR	3	8	17	3	9	18
14: Robert Ave. & Main Street - 26@400.7	E-S	2.513968	WBL	3	8	17	3	9	18
14: Robert Ave. & Main Street - 55@232.2	N-E	48.75497	SBL	51	18	81	9	13	30
14: Robert Ave. & Main Street - 55@232.2	N-S	48.75497	SBT	51	18	81	9	13	30
14: Robert Ave. & Main Street - 60@60.5 -	S-E	72.40533	NBR	82	36	142	9	13	30
14: Robert Ave. & Main Street - 60@60.5 -	S-N	72.40533	NBT	82	36	142	0	0	0
14: Robert Ave. & Main Street - 259@1071	W-N	93.41814	EBL	137	54	226	0	0	0
14: Robert Ave. & Main Street - 259@1071	W-S	103.1452	EBR	147	54	235	0	0	0
15: N Granite SD Access & Main Street - 39	E-N	2.232976	WBR	5	13	27	0	3	6
15: N Granite SD Access & Main Street - 39	E-S	2.436807	WBL	5	14	28	0	2	3
15: N Granite SD Access & Main Street - 61	N-E	0	SBL	3	16	29	0	0	0
15: N Granite SD Access & Main Street - 61	N-S	46.74271	SBT	45	35	103	2	8	15
15: N Granite SD Access & Main Street - 62	S-E	0	NBR	2	10	18	2	9	16

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15: N Granite SD Access & Main Street - 62	S-N	0	NBT	0	1	2	1	4	7
16: Oakland Ave. & Main Street - 41@707..	W-N	23.08612	EBL	16	14	39	2	14	25
16: Oakland Ave. & Main Street - 41@707..	W-S	23.08612	EBR	16	14	39	0	1	3
16: Oakland Ave. & Main Street - 63@154.	N-W	0	SBR	1	7	12	0	0	0
16: Oakland Ave. & Main Street - 63@154.	N-S	0	SBT	0	0	0	17	15	41
16: Oakland Ave. & Main Street - 66@184.	S-W	4.215394	NBL	3	8	17	17	15	41
16: Oakland Ave. & Main Street - 66@184.	S-N	0	NBT	0	0	0	1	4	7
17: S Granite SD Access & Main Street - 65(	E-N	0	WBR	0	3	4	0	0	0
17: S Granite SD Access & Main Street - 65(	E-S	0	WBL	0	3	5	2	5	11
17: S Granite SD Access & Main Street - 67(	N-E	17.37151	SBL	15	16	43	0	0	0
17: S Granite SD Access & Main Street - 67(	N-S	0	SBT	0	3	6	2	6	12
17: S Granite SD Access & Main Street - 69(	S-E	4.269277	NBR	1	4	7	2	6	12
17: S Granite SD Access & Main Street - 69(	S-N	0	NBT	0	0	0	1	5	9

Alternative: I-15 NB to Main Street with Flyover

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (West of State)	Basic	4	16.7	B	0.40	***18.2***	***C***	***34.9***	***D***	4614	4620	99.9%	7447	8910	83.6%	66.87	53.62	0.20	1.56
EB I-80 (State to 700 E)	Weave	6	15.5	B	0.53	***17.0***	***B***	***25.3***	***C***	6475	6530	99.2%	9697	11250	86.2%	66.91	64.32	0.31	0.75
EB I-80 (Approaching 700 E)	Basic	5	14.3	B	0.61	***15.7***	***B***	***23.5***	***C***	4958	5060	98.0%	7360	8630	85.3%	66.78	63.60	0.40	0.82
WB I-80 (Over 700 E)	Basic	4	76.0	F	19.85	***92.1***	***F***	***25.9***	***C***	5788	8020	72.2%	6099	6130	99.5%	15.37	62.05	4.31	0.69
WB I-80 (700 E to State)	Weave	5	60.6	F	12.51	***68.8***	***F***	***25.7***	***C***	7473	10050	74.4%	7438	7490	99.3%	21.57	59.19	5.69	0.98
WB I-80 (Over State)	Diverge	4	47.8	F	6.89	***48.7***	***F***	***30.6***	***D***	6787	9180	73.9%	6387	6470	98.7%	28.70	64.55	3.39	0.76
WB I-80 to WB CD Ramp	Ramp	2	77.1	F	7.63	***79.1***	***F***	***28.1***	***C***	3805	5250	72.5%	3417	3550	96.3%	24.07	61.88	3.24	2.39
WB I-80 (West of State)	Diverge	3	16.9	B	2.11	***16.9***	***B***	***15.1***	***B***	2840	3930	72.3%	2838	2920	97.2%	64.16	66.78	0.87	0.59
WB I-80 to NB I-15	Ramp	3	14.1	B	1.84	***14.1***	***B***	***13.8***	***B***	2227	3010	74.0%	2222	2240	99.2%	56.07	56.27	0.69	0.77
To SB I-15 Ramp	Ramp	2	14.3	B	1.23	***15.5***	***B***	***16.3***	***B***	1677	1990	84.3%	1733	1770	97.9%	55.78	55.67	1.01	0.68
To WB 201 Ramp	Ramp	2	24.6	C	1.77	***24.6***	***C***	***22.5***	***B***	2679	3690	72.6%	2365	2410	98.1%	54.76	55.02	1.04	1.23
WB I-80 to SB I-15/WB 201	Diverge	3	43.9	E	1.93	***46.2***	***F***	***32.5***	***D***	4274	5680	75.2%	4025	5180	77.7%	52.12	52.04	1.50	1.18
WB CD	Weave (CD)	3	29.6	C	1.95	***30.7***	***C***	***24.2***	***C***	4724	6150	76.8%	4415	4530	97.5%	51.74	62.38	1.45	1.16
EB State Street On-Ramp	Ramp	2	20.4	B	2.69	***21.4***	***B***	***27.4***	***C***	1045	1210	86.4%	1205	1400	86.0%	24.94	22.88	2.69	3.74
EB I-80 I-15 to State	Weave	5	14.1	B	0.17	***15.3***	***B***	***41.5***	***E***	4794	4940	97.0%	7611	9380	81.1%	66.17	39.06	0.15	5.55
NB I-15 Off Ramp 2	Ramp	2	11.9	A	0.29	***12.8***	***B***	***15.0***	***B***	1592	1600	99.5%	1868	1880	99.3%	65.44	64.90	0.19	0.22
NB I-15 Off Ramp 1	Ramp	2	12.3	B	0.13	***13.1***	***B***	***15.4***	***B***	1593	1600	99.6%	1869	1880	99.4%	63.78	63.60	0.09	0.12
EB 201/SB I-15 2	Basic	5	14.4	B	0.09	***15.6***	***B***	***48.6***	***F***	4854	4940	98.3%	7714	9380	82.2%	65.50	35.94	0.09	5.00
EB 201/SB I-15 1	Merge	5	21.1	C	0.16	***22.7***	***C***	***37.3***	***E***	4847	4940	98.1%	7706	9380	82.2%	62.05	41.16	0.15	0.79
EB 201 Ramp	Ramp	2	20.0	B	0.39	***22.0***	***B***	***78.5***	***F***	2347	2350	99.9%	2953	4480	65.9%	56.28	18.74	0.29	3.58
SB I-15 Ramp	Ramp	3	13.6	B	0.11	***14.6***	***B***	***29.4***	***C***	2587	2590	99.9%	4891	4900	99.8%	62.14	58.47	0.10	0.20
700 E WB On-Ramp	Ramp	2	74.3	F	26.85	***140.2***	***F***	***18.7***	***B***	1759	2030	86.7%	1337	1360	98.3%	6.18	37.21	4.95	1.85
NB I-15 Ramp 3	Ramp	2	11.4	A	0.39	***12.3***	***B***	***14.5***	***B***	1551	1600	97.0%	1819	1880	96.8%	66.17	65.16	0.29	0.29
EB CD	Basic	1	10.1	A	0.88	***10.7***	***A***	***14.5***	***B***	688	700	98.3%	925	940	98.4%	67.47	66.68	0.88	0.74
EB I-80 (Over 700 E)	Basic	4	17.8	B	0.68	***19.3***	***C***	***28.6***	***D***	5007	5060	99.0%	7436	8630	86.2%	67.97	66.12	0.46	0.87
EB I-80 over State	Basic	5	15.1	B	0.36	***16.4***	***B***	***26.5***	***D***	5278	5320	99.2%	8338	9850	84.6%	67.80	63.32	0.23	0.80

Alternative: CD to State St., I-15 NB Flyover, Additional EB Lane

Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7@5	W-E	EB							496							900
1: 2100 South & State Street - 2@1436.4 - 6@4	E-W	WB							690							878
1: 2100 South & State Street - 3@1101.9 - 5@6	N-S	SB							612							1932
1: 2100 South & State Street - 4@1031.1 - 8@5	S-N	NB							1056							989
1: 2100 South & State Street - 159@246.4 - 7@	S-E	NBR							31							137
1: 2100 South & State Street - 160@288.7 - 6@	S-W	NBL							110							225
1: 2100 South & State Street - 161@166.4 - 5@	E-S	WBL							270							272
1: 2100 South & State Street - 162@152.6 - 8@	W-N	EBL							143							174
1: 2100 South & State Street - 163@133.8 - 6@	N-W	SBR							73							171
1: 2100 South & State Street - 164@371.3 - 7@	N-E	SBL							84							220
1: 2100 South & State Street - 165@166.2 - 8@	E-N	WBR							86							100
1: 2100 South & State Street - 255@187.5 - 5@	W-S	EBR	31.79	C					159	46.52	D					322
2: Street Car Crossing & State Street - 5@1044.	N-S	SBT							889							2272
2: Street Car Crossing & State Street - 5@1044.	N-W	SBR							150							251
2: Street Car Crossing & State Street - 10@1228	S-N	NBT							999							1157
2: Street Car Crossing & State Street - 174@664	W-S	EBR							301							294
2: Street Car Crossing & State Street - 175@210	W-N	EBL							197							202
2: Street Car Crossing & State Street - 177@146	S-W	NBL	10.87	B					112	22.49	C					238
3: WB I-80 & State Street - 90@8.1 - 10@47.0	S-N	NBT							737							880
3: WB I-80 & State Street - 96@9.7 - 37@36.9	S-W	NBL							31							22
3: WB I-80 & State Street - 96@9.7 - 118@45.7	S-W	NBL							498							387
3: WB I-80 & State Street - 124@1240.6 - 37@3	E-W	WBT							63							141
3: WB I-80 & State Street - 124@1240.6 - 91@3	E-S	WBL							199							356
3: WB I-80 & State Street - 124@1240.6 - 118@	E-W	WBT							0							0
3: WB I-80 & State Street - 125@249.7 - 10@47	E-N	WBR							374							511
3: WB I-80 & State Street - 155@285.8 - 97@42	N-S	SBT	20.65	C					599	27.46	C					820
3: WB I-80 & State Street - 156@284.4 - 37@36	N-W	SBR							11							11
3: WB I-80 & State Street - 156@284.4 - 118@4	N-W	SBR							397							585
3: WB I-80 & State Street - 157@282.8 - 91@34	N-S	SBT							176							1144
4: EB I-80 & State Street - 92@5.5 - 12@38.2	N-S	SBT							0							0
4: EB I-80 & State Street - 98@6.3 - 25@59.6	N-E	SBL							18							20
4: EB I-80 & State Street - 98@6.3 - 122@62.0	N-E	SBL							580							800
4: EB I-80 & State Street - 120@1622.2 - 25@59	W-E	EBT							37							28
4: EB I-80 & State Street - 120@1622.2 - 89@28	W-N	EBL							21							115
4: EB I-80 & State Street - 120@1622.2 - 122@6	W-E	EBT	19.58	B	30.54	C			0	18.85	B	38.06	C			0
4: EB I-80 & State Street - 121@193.1 - 12@38.	W-S	EBR							260							244
4: EB I-80 & State Street - 144@76.3 - 89@28.3	S-N	NBT							715							767
4: EB I-80 & State Street - 145@75.0 - 25@59.6	S-E	NBR							17							18
4: EB I-80 & State Street - 145@75.0 - 10032@9	S-E	NBR							616							550
4: EB I-80 & State Street - 146@331.6 - 95@47.	S-N	NBT							528							408
4: EB I-80 & State Street - 10063@12.6 - 12@38	N-S	SBT							375							1498
5: Oakland & State Street - 12@191.7 - 12@266	N-S	SBT							634							1742
5: Oakland & State Street - 22@609.6 - 11@42.	E-N	WBR					9.82	A	29					12.75	B	49
5: Oakland & State Street - 146@91.4 - 146@18	S-N	NBT							529							414
5: Oakland & State Street - 147@71.3 - 11@42.	S-N	NBT							1320							1287
5: Oakland & State Street - 147@71.3 - 21@32.	S-E	NBR							13							20
6: East Grantie SD RIRO & State Street - 12@27	N-W	SBR							100							22
6: East Grantie SD RIRO & State Street - 12@27	N-S	SBT							535							1719
6: East Grantie SD RIRO & State Street - 23@25	W-S	EBR					6.15	A	49					7.05	A	97
6: East Grantie SD RIRO & State Street - 10004@	S-N	NBT							1332							1308
6: East Grantie SD RIRO & State Street - 10008@	S-N	NBT							529							414
7: 2700 South & State Street - 14@1205.4 - 16@	N-S	SBT							471							1748
7: 2700 South & State Street - 15@1184.3 - 13@	S-N	NBT							1518							1372
7: 2700 South & State Street - 17@647.5 - 16@	W-S	EBR							40							99
7: 2700 South & State Street - 17@647.5 - 19@	W-E	EBT							59							331
7: 2700 South & State Street - 20@820.0 - 18@	E-W	WBT							156							151
7: 2700 South & State Street - 148@291.2 - 18@	S-W	NBL	15.96	B					120	24.81	C					88
7: 2700 South & State Street - 149@150.8 - 19@	S-E	NBR							21							87
7: 2700 South & State Street - 150@28.0 - 13@	W-N	EBL							149							302
7: 2700 South & State Street - 153@329.4 - 19@	N-E	SBL							32							57
7: 2700 South & State Street - 154@188.7 - 18@	N-W	SBR							90							9
7: 2700 South & State Street - 10014@53.9 - 13	E-N	WBR							199							69
7: 2700 South & State Street - 10015@17.9 - 16	E-S	WBL							74							130
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	SBT							662							1768
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT							2317							1977
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	NBL							824							696
8: WB I-80 & 700 East - 135@1579.2 - 73@63.1	E-S	WBL							81							224
8: WB I-80 & 700 East - 135@1579.2 - 137@28.	E-SW	WBL							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	WBR							625							571
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	SBT	26.94	C					306	18.37	B					774
8: WB I-80 & 700 East - 169@299.3 - 137@28.7	N-SW	SBR							996							663
9: EB I-80 & 700 East - 74@24.8 - 10189@12.0	N-S	SBT							743							1993
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT							1564							1069
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL			50.45	C			307			34.29	C			775
9: EB I-80 & 700 East - 133@1227.2 - 79@56.2	W-N	EBL							754							908
9: EB I-80 & 700 East - 133@1227.2 - 140@66.9	W-NE	EBL							0							0
9: EB I-80 & 700 East - 134@318.9 - 10188@13.	W-S	EBR							698							1330
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	NBT							839							695
9: EB I-80 & 700 East - 167@274.8 - 140@66.9	S-NE	NBR	35.59	D					135	22.05	C					151
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	SBT							75							154
10: 2400 S & West Temple - 33@704.1 - 35@43	E-W	WBT					7.70	A	6					8.59	A	7
10: 2400 S & West Temple - 33@704.1 - 56@30	E-N	WBR							12							19
10: 2400 S & West Temple - 33@704.1 - 10106(	E-S	WBL							21							13
10: 2400 S & West Temple - 34@51.1 - 32@34.	W-E	EBT							0							4
10: 2400 S & West Temple - 34@51.1 - 56@30.	W-N	EBL							0							0
10: 2400 S & West Temple - 34@51.1 - 10106@	W-S	EBR							0							0
10: 2400 S & West Temple - 57@353.0 - 32@34	N-E	SBL							6							5

10: 2400 S & West Temple - 57@353.0 - 35@43	N-W	SBR	SB		0		5
10: 2400 S & West Temple - 57@353.0 - 10106@	N-S	SBT	SB		138		261
10: 2400 S & West Temple - 10107@1.9 - 32@3	S-E	NBR	NB		5		6
10: 2400 S & West Temple - 10107@1.9 - 35@4	S-W	NBL	NB		4		0
10: 2400 S & West Temple - 10107@1.9 - 56@3	S-N	NBT	NB		186		276
11: Robert Ave. & West Temple - 28@403.9 - 3(	E-W	WBT	WB		0		0
11: Robert Ave. & West Temple - 28@403.9 - 45	E-S	WBL	WB		0		0
11: Robert Ave. & West Temple - 28@403.9 - 48	E-N	WBR	WB		0		0
11: Robert Ave. & West Temple - 31@117.4 - 2(	W-E	EBT	EB		0		5
11: Robert Ave. & West Temple - 31@117.4 - 45	W-S	EBR	EB		0		4
11: Robert Ave. & West Temple - 31@117.4 - 48	W-N	EBL	EB	6.63 A	4	11.45 B	4
11: Robert Ave. & West Temple - 44@282.3 - 2(	S-E	NBR	NB		10		10
11: Robert Ave. & West Temple - 44@282.3 - 3(	S-W	NBL	NB		7		6
11: Robert Ave. & West Temple - 44@282.3 - 48	S-N	NBT	NB		192		277
11: Robert Ave. & West Temple - 49@19.8 - 29(	N-E	SBL	SB		9		9
11: Robert Ave. & West Temple - 49@19.8 - 30(	N-W	SBR	SB		0		5
11: Robert Ave. & West Temple - 49@19.8 - 45(	N-S	SBT	SB		150		259
11: Robert Ave. & West Temple - 259@287.1 - 2	W-E	EBT	EB		906		944
12: Oakland Ave & West Temple - 40@711.0 - 4	E-W	WBT	WB	8.07 A	18	7.98 A	4
12: Oakland Ave & West Temple - 40@711.0 - 4	E-N	WBR	WB		14		25
12: Oakland Ave & West Temple - 40@711.0 - 4	E-S	WBL	WB		10		5
12: Oakland Ave & West Temple - 43@473.0 - 4	W-E	EBT	EB		4		20
12: Oakland Ave & West Temple - 43@473.0 - 4	W-N	EBL	EB		4		9
12: Oakland Ave & West Temple - 43@473.0 - 4	W-S	EBR	EB		11		9
12: Oakland Ave & West Temple - 45@261.8 - 4	N-E	SBL	SB		11		10
12: Oakland Ave & West Temple - 45@261.8 - 4	N-W	SBR	SB		10		5
12: Oakland Ave & West Temple - 45@261.8 - 4	N-S	SBT	SB		129		248
12: Oakland Ave & West Temple - 46@527.0 - 4	S-E	NBR	NB		13		22
12: Oakland Ave & West Temple - 46@527.0 - 4	S-W	NBL	NB		9		11
12: Oakland Ave & West Temple - 46@527.0 - 4	S-N	NBT	NB		190		261
13: 2400 S & Main Street - 32@716.9 - 36@24.3	W-E	EBT	EB		0		0
13: 2400 S & Main Street - 32@716.9 - 55@6.1	W-S	EBR	EB		5		4
13: 2400 S & Main Street - 32@716.9 - 58@21.9	W-N	EBL	EB		5		9
13: 2400 S & Main Street - 37@672.9 - 33@22.5	E-W	WBT	WB	14.27 B	25	22.87 C	19
13: 2400 S & Main Street - 37@672.9 - 55@6.1	E-S	WBL	WB		24		21
13: 2400 S & Main Street - 37@672.9 - 58@21.9	E-N	WBR	WB		57		134
13: 2400 S & Main Street - 54@239.9 - 33@22.5	S-W	NBL	NB		8		9
13: 2400 S & Main Street - 54@239.9 - 36@24.3	S-E	NBR	NB		0		0
13: 2400 S & Main Street - 54@239.9 - 58@21.9	S-N	NBT	NB		861		834
13: 2400 S & Main Street - 59@503.7 - 33@22.5	N-W	SBR	SB		4		9
13: 2400 S & Main Street - 59@503.7 - 36@24.3	N-E	SBL	SB		0		0
13: 2400 S & Main Street - 59@503.7 - 55@6.1	N-S	SBT	SB		190		471
14: Robert Ave. & Main Street - 26@400.7 - 54(	E-N	WBR	WB		0		4
14: Robert Ave. & Main Street - 26@400.7 - 61(	E-S	WBL	WB		4		4
14: Robert Ave. & Main Street - 55@232.2 - 27(	N-E	SBL	SB		0		11
14: Robert Ave. & Main Street - 55@232.2 - 61(	N-S	SBT	SB	12.86 B	220	13.21 B	484
14: Robert Ave. & Main Street - 60@60.5 - 27@	S-E	NBR	NB		5		5
14: Robert Ave. & Main Street - 60@60.5 - 54@	S-N	NBT	NB		349		486
14: Robert Ave. & Main Street - 259@1071.8 - 5	W-N	EBL	EB		520		355
14: Robert Ave. & Main Street - 259@1071.8 - 6	W-S	EBR	EB		386		589
15: N Granite SD Access & Main Street - 39@12	E-N	WBR	WB	6.23 A	33	8.78 A	65
15: N Granite SD Access & Main Street - 39@12	E-S	WBL	WB		0		0
15: N Granite SD Access & Main Street - 61@36	N-E	SBL	SB		12		13
15: N Granite SD Access & Main Street - 61@36	N-S	SBT	SB		599		1065
15: N Granite SD Access & Main Street - 62@13	S-E	NBR	NB		30		37
15: N Granite SD Access & Main Street - 62@13	S-N	NBT	NB		321		428
16: Oakland Ave. & Main Street - 41@707.2 - 62	W-N	EBL	EB	7.78 A	10	10.73 B	29
16: Oakland Ave. & Main Street - 41@707.2 - 67	W-S	EBR	EB		17		23
16: Oakland Ave. & Main Street - 63@154.7 - 4(	N-W	SBR	SB		22		18
16: Oakland Ave. & Main Street - 63@154.7 - 67	N-S	SBT	SB		575		1046
16: Oakland Ave. & Main Street - 66@184.7 - 4(	S-W	NBL	NB		21		16
16: Oakland Ave. & Main Street - 66@184.7 - 62	S-N	NBT	NB		341		435
17: S Granite SD Access & Main Street - 65@23	E-N	WBR	WB		24		37
17: S Granite SD Access & Main Street - 65@23	E-S	WBL	WB		0		0
17: S Granite SD Access & Main Street - 67@18	N-E	SBL	SB	2.44 A	147	2.79 A	53
17: S Granite SD Access & Main Street - 67@18	N-S	SBT	SB		447		1017
17: S Granite SD Access & Main Street - 69@50	S-E	NBR	NB		51		37
17: S Granite SD Access & Main Street - 69@50	S-N	NBT	NB		337		416

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Alternative: CD to State St., I-15 NB Flyover, Additional EB Lane

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 -	W-E	183.1688	EBT	18	186	326	101	1468	2523
1: 2100 South & State Street - 2@1436.4 -	E-W	207.7384	WBT	25	240	421	75	438	798
1: 2100 South & State Street - 3@1101.9 -	N-S	93.6555	SBT	10	110	192	127	580	1084
1: 2100 South & State Street - 4@1031.1 -	S-N	203.8131	NBT	28	194	348	13	184	318
1: 2100 South & State Street - 159@246.4	S-E	71.30926	NBR	37	101	204	23	89	170
1: 2100 South & State Street - 160@288.7	S-W	59.12202	NBL	10	80	143	12	107	188
1: 2100 South & State Street - 161@166.4	E-S	118.597	WBL	15	122	216	86	252	501
1: 2100 South & State Street - 162@152.6	W-N	86.18214	EBL	6	81	140	88	435	806
1: 2100 South & State Street - 163@133.8	N-W	17.89614	SBR	4	19	35	7	30	56
1: 2100 South & State Street - 164@371.3	N-E	42.08472	SBL	6	47	83	11	91	161
1: 2100 South & State Street - 165@166.2	E-N	15.34753	WBR	8	18	38	6	17	34
1: 2100 South & State Street - 255@187.5	W-S	30.80437	EBR	5	32	58	319	1256	2392
2: Street Car Crossing & State Street - 5@1	N-S	43.35784	SBT	18	89	165	167	612	1177
2: Street Car Crossing & State Street - 5@1	N-W	43.35784	SBR	18	89	165	167	612	1177
2: Street Car Crossing & State Street - 10@	S-N	110.8186	NBT	25	142	259	11	74	133
2: Street Car Crossing & State Street - 174	W-S	31.33532	EBR	13	46	88	24	82	159
2: Street Car Crossing & State Street - 175	W-N	177.1152	EBL	20	169	299	40	221	405
2: Street Car Crossing & State Street - 177	S-W	41.7259	NBL	14	60	114	45	306	551
3: WB I-80 & State Street - 90@8.1 - 10@4	S-N	0	NBT	0	0	0	31	103	200
3: WB I-80 & State Street - 96@9.7 - 37@3	S-W	0	NBL	0	0	0	19	66	128
3: WB I-80 & State Street - 96@9.7 - 118@	S-W	0	NBL	0	0	0	19	66	128
3: WB I-80 & State Street - 124@1240.6 -	E-W	130.7761	WBT	12	140	244	20	198	347
3: WB I-80 & State Street - 124@1240.6 -	E-S	130.7761	WBL	12	140	244	20	198	347
3: WB I-80 & State Street - 124@1240.6 -	E-W	130.7761	WBT	12	140	244	20	198	347
3: WB I-80 & State Street - 125@249.7 - 1	E-N	217.0597	WBR	51	221	415	34	219	395
3: WB I-80 & State Street - 155@285.8 - 9	N-S	150.3438	SBT	24	204	361	54	238	447
3: WB I-80 & State Street - 156@284.4 - 3	N-W	62.92205	SBR	16	67	126	32	130	246
3: WB I-80 & State Street - 156@284.4 - 1	N-W	69.10709	SBR	17	72	136	31	131	248
3: WB I-80 & State Street - 157@282.8 - 9	N-S	68.09024	SBT	9	73	130	77	385	713
4: EB I-80 & State Street - 92@5.5 - 12@3	N-S	0	SBT	1	2	3	25	71	142
4: EB I-80 & State Street - 98@6.3 - 25@5	N-E	0	SBL	0	0	0	22	62	125
4: EB I-80 & State Street - 98@6.3 - 122@	N-E	0	SBL	0	0	0	22	62	125
4: EB I-80 & State Street - 120@1728.6 - 2	W-E	215.7389	EBT	32	230	412	19	188	330
4: EB I-80 & State Street - 120@1728.6 - 8	W-N	215.7389	EBL	32	230	412	19	188	330
4: EB I-80 & State Street - 120@1728.6 - 1	W-E	215.7389	EBT	32	230	412	19	188	330
4: EB I-80 & State Street - 121@193.1 - 12	W-S	91.38301	EBR	26	117	218	86	318	610
4: EB I-80 & State Street - 144@76.3 - 89@	S-N	213.2326	NBT	26	252	441	13	295	499
4: EB I-80 & State Street - 145@75.0 - 25@	S-E	160.4475	NBR	33	237	424	30	284	499
4: EB I-80 & State Street - 145@75.0 - 100	S-E	160.5862	NBR	33	238	425	30	286	502
4: EB I-80 & State Street - 146@331.6 - 95	S-N	124.6817	NBT	18	156	276	24	146	265
4: EB I-80 & State Street - 10063@12.6 - 1	N-S	0	SBT	1	2	3	25	71	142
5: Oakland & State Street - 12@191.7 - 12	N-S	0	SBT	0	0	0	1	2	4
5: Oakland & State Street - 22@609.6 - 11	E-N	11.60519	WBR	5	16	31	5	21	40
5: Oakland & State Street - 146@91.4 - 14	S-N	0	NBT	1	4	8	2	6	13
5: Oakland & State Street - 147@71.3 - 11	S-N	11.27439	NBT	21	52	106	18	99	181
5: Oakland & State Street - 147@71.3 - 21	S-E	18.93615	NBR	28	73	148	24	134	245
6: East Grantie SD RIRO & State Street - 12	N-W	4.543849	SBR	5	17	33	3	8	16
6: East Grantie SD RIRO & State Street - 12	N-S	2.737916	SBT	3	11	22	2	5	10
6: East Grantie SD RIRO & State Street - 23	W-S	31.19843	EBR	5	25	46	4	34	60
6: East Grantie SD RIRO & State Street - 10	S-N	59.96589	NBT	71	164	342	495	932	2033
6: East Grantie SD RIRO & State Street - 10	S-N	45.38983	NBT	71	166	345	499	928	2030
7: 2700 South & State Street - 14@1205.4	N-S	107.257	SBT	9	93	163	19	265	456
7: 2700 South & State Street - 15@1184.3	S-N	174.9007	NBT	17	189	329	93	303	594
7: 2700 South & State Street - 17@647.5 -	W-S	46.15201	EBR	10	42	79	124	312	638

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7: 2700 South & State Street - 17@647.5 -	W-E	35.46098	EBT	10	34	67	124	306	629
7: 2700 South & State Street - 20@820.0 -	E-W	56.1186	WBT	11	59	108	11	57	105
7: 2700 South & State Street - 148@291.2	S-W	44.05988	NBL	7	38	69	14	44	86
7: 2700 South & State Street - 149@150.8	S-E	7.027772	NBR	3	11	21	5	22	42
7: 2700 South & State Street - 150@28.0 -	W-N	54.69704	EBL	16	84	154	128	311	641
7: 2700 South & State Street - 153@329.4	N-E	36.70495	SBL	11	42	80	18	78	147
7: 2700 South & State Street - 154@188.7	N-W	16.30501	SBR	4	18	33	5	18	34
7: 2700 South & State Street - 10014@53.!	E-N	42.14901	WBR	9	47	87	6	29	54
7: 2700 South & State Street - 10015@17.!	E-S	31.09067	WBL	10	41	77	13	70	128
8: WB I-80 & 700 East - 72@299.7 - 73@6:	N-S	141.16	SBT	10	145	250	26	277	483
8: WB I-80 & 700 East - 80@28.1 - 70@87.	S-N	132.1359	NBT	22	109	202	8	34	64
8: WB I-80 & 700 East - 87@30.0 - 137@3(	S-SW	73.67245	NBL	107	247	514	24	342	589
8: WB I-80 & 700 East - 135@1579.2 - 73@	E-S	77.36176	WBL	9	51	93	13	90	162
8: WB I-80 & 700 East - 135@1579.2 - 137	E-SW	77.36176	WBL	9	51	93	13	90	162
8: WB I-80 & 700 East - 136@72.0 - 70@8:	E-N	11.21833	WBR	7	16	33	7	18	37
8: WB I-80 & 700 East - 168@218.7 - 83@!	N-S	87.48818	SBT	9	101	176	13	177	305
8: WB I-80 & 700 East - 169@299.3 - 137@	N-SW	1.921018	SBR	61	140	292	4	11	22
9: EB I-80 & 700 East - 74@24.8 - 10189@	N-S	84.24087	SBT	10	71	128	11	106	187
9: EB I-80 & 700 East - 78@281.6 - 79@56	S-N	265.438	NBT	225	445	958	20	236	409
9: EB I-80 & 700 East - 85@22.3 - 140@66	N-NE	42.90279	SBL	12	56	105	21	256	443
9: EB I-80 & 700 East - 133@1231.9 - 79@	W-N	235.1167	EBL	30	290	508	25	321	555
9: EB I-80 & 700 East - 133@1231.9 - 140(	W-NE	235.1167	EBL	30	290	508	25	321	555
9: EB I-80 & 700 East - 134@318.9 - 10188	W-S	0	EBR	4	13	26	9	25	51
9: EB I-80 & 700 East - 166@226.1 - 86@5	S-N	221.0498	NBT	355	607	1357	48	288	524
9: EB I-80 & 700 East - 167@274.8 - 140@	S-NE	0	NBR	1	4	8	1	4	7
9: EB I-80 & 700 East - 10188@14.1 - 76@	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 33@704.1 - 3!	E-W	7.611237	WBT	5	18	35	6	22	41
10: 2400 S & West Temple - 33@704.1 - 5(	E-N	7.611237	WBR	5	18	35	6	22	41
10: 2400 S & West Temple - 33@704.1 - 1(	E-S	7.611237	WBL	5	18	35	6	22	41
10: 2400 S & West Temple - 34@51.1 - 32(	W-E	0	EBT	0	0	0	1	2	4
10: 2400 S & West Temple - 34@51.1 - 56(	W-N	0	EBL	0	0	0	1	2	4
10: 2400 S & West Temple - 34@51.1 - 10:	W-S	0	EBR	0	0	0	1	2	4
10: 2400 S & West Temple - 57@353.0 - 3:	N-E	0	SBL	2	7	14	1	5	10
10: 2400 S & West Temple - 57@353.0 - 3!	N-W	0	SBR	1	3	6	0	0	0
10: 2400 S & West Temple - 57@353.0 - 1(	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - :	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - :	S-W	0	NBL	1	4	8	0	0	0
10: 2400 S & West Temple - 10107@1.9 - !	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@710.	E-W	2.575479	WBT	4	12	24	4	12	25
11: Robert Ave. & West Temple - 28@710.	E-S	2.558841	WBL	4	12	24	4	12	25
11: Robert Ave. & West Temple - 28@710.	E-N	2.531768	WBR	4	12	24	4	12	24
11: Robert Ave. & West Temple - 31@117.	W-E	0	EBT	4	9	18	4	12	24
11: Robert Ave. & West Temple - 31@117.	W-S	0	EBR	4	9	18	4	12	24
11: Robert Ave. & West Temple - 31@117.	W-N	0	EBL	4	9	18	4	12	24
11: Robert Ave. & West Temple - 44@282.	S-E	0	NBR	0	1	2	0	1	3
11: Robert Ave. & West Temple - 44@282.	S-W	0	NBL	1	2	5	1	3	6
11: Robert Ave. & West Temple - 44@282.	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 49@19.8	N-E	2.913105	SBL	2	5	11	2	5	10
11: Robert Ave. & West Temple - 49@19.8	N-W	8.146827	SBR	12	36	71	13	36	73
11: Robert Ave. & West Temple - 49@19.8	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West Temple - 40@711	E-W	16.71183	WBT	4	20	37	6	17	33
12: Oakland Ave & West Temple - 40@711	E-N	16.71183	WBR	4	20	37	6	17	33
12: Oakland Ave & West Temple - 40@711	E-S	16.71183	WBL	4	20	37	6	17	33
12: Oakland Ave & West Temple - 43@473	W-E	17.04076	EBT	6	15	30	5	22	42
12: Oakland Ave & West Temple - 43@473	W-N	16.65659	EBL	6	14	29	5	22	40
12: Oakland Ave & West Temple - 43@473	W-S	16.6845	EBR	6	14	29	5	22	40
12: Oakland Ave & West Temple - 45@261	N-E	0	SBL	2	6	11	3	10	20

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12: Oakland Ave & West Temple - 45@261	N-W	0	SBR	1	3	6	2	8	16
12: Oakland Ave & West Temple - 45@261	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West Temple - 46@527	S-E	5.925707	NBR	2	5	10	1	4	7
12: Oakland Ave & West Temple - 46@527	S-W	5.332815	NBL	2	6	12	2	7	13
12: Oakland Ave & West Temple - 46@527	S-N	2.023688	NBT	1	2	4	0	0	0
13: 2400 S & Main Street - 32@716.9 - 36(	W-E	9.74766	EBT	4	11	22	5	12	25
13: 2400 S & Main Street - 32@716.9 - 55(	W-S	9.74766	EBR	4	11	22	5	12	25
13: 2400 S & Main Street - 32@716.9 - 58(	W-N	9.74766	EBL	4	11	22	5	12	25
13: 2400 S & Main Street - 37@672.9 - 33(	E-W	38.98342	WBT	11	51	95	18	91	169
13: 2400 S & Main Street - 37@672.9 - 55(	E-S	38.98342	WBL	11	51	95	18	91	169
13: 2400 S & Main Street - 37@672.9 - 58(	E-N	38.98342	WBR	11	51	95	18	91	169
13: 2400 S & Main Street - 54@239.9 - 33(	S-W	0	NBL	1	4	7	2	5	10
13: 2400 S & Main Street - 54@239.9 - 36(	S-E	0	NBR	0	0	0	1	4	9
13: 2400 S & Main Street - 54@239.9 - 58(	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 33(	N-W	0	SBR	0	0	0	0	1	3
13: 2400 S & Main Street - 59@503.7 - 36(	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 55(	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 26@405.6	E-W	0	WBT	3	8	16	3	10	20
14: Robert Ave. & Main Street - 26@405.6	E-N	0	WBR	3	8	16	3	10	20
14: Robert Ave. & Main Street - 26@405.6	E-S	0	WBL	3	8	16	3	10	20
14: Robert Ave. & Main Street - 29@709.2	W-E	10.32267	EBT	5	13	25	4	14	27
14: Robert Ave. & Main Street - 29@709.2	W-N	10.32267	EBL	5	13	25	4	14	27
14: Robert Ave. & Main Street - 29@709.2	W-S	10.32267	EBR	5	13	25	4	14	27
14: Robert Ave. & Main Street - 55@232.4	N-E	0	SBL	0	0	0	2	6	12
14: Robert Ave. & Main Street - 55@232.4	N-W	0	SBR	1	2	4	2	5	10
14: Robert Ave. & Main Street - 55@232.4	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 60@63.7 -	S-E	0	NBR	1	3	6	6	19	37
14: Robert Ave. & Main Street - 60@63.7 -	S-W	0	NBL	1	2	4	1	4	8
14: Robert Ave. & Main Street - 60@63.7 -	S-N	0	NBT	0	0	0	0	0	0
15: N Granite SD Access & Main Street - 3	E-N	0	WBR	3	9	17	3	9	18
15: N Granite SD Access & Main Street - 3	E-S	0	WBL	3	9	18	3	10	19
15: N Granite SD Access & Main Street - 61	N-E	2.174524	SBL	1	3	6	2	5	11
15: N Granite SD Access & Main Street - 61	N-S	0	SBT	4	15	29	8	23	46
15: N Granite SD Access & Main Street - 62	S-E	0	NBR	0	1	2	0	0	0
15: N Granite SD Access & Main Street - 62	S-N	0	NBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 41@707.	W-N	23.08612	EBL	5	16	32	4	25	44
16: Oakland Ave. & Main Street - 41@707.	W-S	23.08612	EBR	5	16	32	4	25	44
16: Oakland Ave. & Main Street - 63@154.	N-W	0	SBR	1	3	6	1	3	5
16: Oakland Ave. & Main Street - 63@154.	N-S	0	SBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 66@184.	S-W	1.807164	NBL	2	5	10	3	9	18
16: Oakland Ave. & Main Street - 66@184.	S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 65	E-N	0	WBR	2	7	13	3	8	16
17: S Granite SD Access & Main Street - 65	E-S	0	WBL	2	7	13	3	8	16
17: S Granite SD Access & Main Street - 67	N-E	1.872743	SBL	1	5	10	1	4	8
17: S Granite SD Access & Main Street - 67	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 69	S-E	4.265461	NBR	1	4	7	0	1	2
17: S Granite SD Access & Main Street - 69	S-N	0	NBT	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: CD to State St., I-15 NB Flyover, Additional EB Lane

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	5	15.4	B	0.29	***16.6***	***B***	***57.1***	***F***	5266	5360	98.2%	8026	9870	81.3%	66.95	28.11	0.31	11.98
EB I-80 (State to 700 E)	Weave	5	18.9	B	0.57	***20.6***	***C***	***32.7***	***D***	6496	6570	98.9%	9404	11270	83.4%	66.37	57.61	0.57	1.22
EB I-80 (Over 700 E)	Basic	4	17.8	B	0.62	***19.4***	***C***	***28.4***	***D***	4988	5060	98.6%	7195	8630	83.4%	67.69	63.85	0.68	1.65
WB I-80 (Over 700 E)	Basic	4	78.0	F	15.17	***93.9***	***F***	***25.9***	***C***	5704	8020	71.1%	6099	6130	99.5%	14.86	62.04	15.17	2.03
WB I-80 (700 E to State)	Weave	5	65.3	F	9.88	***68.6***	***F***	***27.0***	***C***	7370	10090	73.0%	7455	7510	99.3%	21.48	57.79	9.88	10.95
WB I-80 (Over State)	Diverge	4	48.6	F	3.75	***50.0***	***F***	***30.6***	***D***	6664	9180	72.6%	6385	6470	98.7%	28.02	64.25	4.46	2.21
WB I-80 to WB CD Ramp	Ramp	2	79.7	F	4.00	***79.9***	***F***	***28.4***	***C***	3728	5250	71.0%	3417	3550	96.3%	23.06	61.89	4.93	5.74
WB I-80 (West of State)	Diverge	3	16.8	B	1.74	***16.8***	***B***	***15.0***	***B***	2791	3930	71.0%	2839	2920	97.2%	63.86	66.73	1.74	1.09
WB I-80 to NB I-15	Ramp	3	13.9	B	1.68	***13.9***	***B***	***13.8***	***B***	2189	3010	72.7%	2221	2240	99.2%	56.06	56.30	1.68	1.16
To SB I-15 Ramp	Ramp	2	14.1	B	1.31	***15.2***	***B***	***16.1***	***B***	1657	1990	83.3%	1727	1770	97.5%	55.78	55.64	1.31	1.33
To WB 201 Ramp	Ramp	2	24.2	C	1.54	***24.2***	***C***	***22.6***	***B***	2635	3690	71.4%	2363	2410	98.0%	54.75	54.82	1.54	1.48
WB I-80 to SB I-15/WB 201	Diverge	3	43.0	E	2.02	***46.0***	***F***	***31.7***	***D***	4211	5680	74.1%	4018	4180	96.1%	52.33	52.17	2.02	2.05
WB CD	Weave (CD)	3	29.7	C	1.66	***30.6***	***C***	***24.4***	***C***	4657	6150	75.7%	4408	4530	97.3%	51.33	62.33	2.50	1.84
EB I-80 Ramp	Ramp	2	20.9	B	2.54	***21.8***	***B***	***26.8***	***C***	1053	1210	87.1%	1193	1400	85.2%	24.67	23.32	4.06	4.75
EB I-80 I-15 to State	Weave	5	15.1	B	0.26	***16.3***	***B***	***67.2***	***F***	5129	5360	95.7%	7822	9870	79.3%	66.28	23.22	0.27	13.52
NB I-15 Off Ramp 2	Ramp	1	13.8	B	1.33	***15.0***	***B***	***16.1***	***B***	883	900	98.1%	920	940	97.9%	61.71	60.48	1.51	1.96
NB I-15 Off Ramp 1	Ramp	2	12.6	B	1.07	***13.5***	***B***	***16.5***	***B***	1600	1600	100.0%	1877	1880	99.8%	62.52	59.98	1.58	1.21
EB 201/SB I-15 2	Basic	5	14.3	B	0.21	***22.6***	***C***	***46.0***	***F***	4798	5360	89.5%	7355	9870	74.5%	65.75	45.05	0.25	10.21
EB 201/SB I-15 1	Merge	5	16.9	B	0.23	***18.3***	***B***	***70.4***	***F***	5257	5360	98.1%	8086	9870	81.9%	64.14	23.17	0.26	10.85
EB 201 Ramp	Ramp	2	15.7	B	0.08	***16.9***	***B***	***94.7***	***F***	2224	2240	99.3%	3488	4230	82.5%	69.26	17.17	0.08	22.71
SB I-15 Ramp	Ramp	3	12.7	B	0.09	***13.8***	***B***	***77.1***	***F***	2415	2070	116.7%	3934	4700	83.7%	61.63	16.58	0.21	15.65
WB I-80 Ramp (700 E)	Ramp	2	81.3	F	24.89	***141.1***	***F***	***19.5***	***B***	1748	2070	84.5%	1354	1380	98.1%	6.14	35.85	24.89	4.55

Alternative: CD to State St. I-15 NB Flyover, Add EB Lane with Ramp

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7@51	W-E	EBT	EB							495							899
1: 2100 South & State Street - 2@1436.4 - 6@43	E-W	WBT	WB							689							872
1: 2100 South & State Street - 3@1101.9 - 5@67	N-S	SBT	SB							611							1923
1: 2100 South & State Street - 4@1031.1 - 8@53	S-N	NBT	NB							1358							1074
1: 2100 South & State Street - 159@246.4 - 7@5	S-E	NBR	NB							181							192
1: 2100 South & State Street - 160@288.7 - 6@4	S-W	NBL	NB							168							277
1: 2100 South & State Street - 161@166.4 - 5@6	E-S	WBL	WB							270							265
1: 2100 South & State Street - 162@152.6 - 8@5	W-N	EBL	EB							143							175
1: 2100 South & State Street - 163@133.8 - 6@4	N-W	SBR	SB							73							170
1: 2100 South & State Street - 164@371.3 - 7@5	N-E	SBL	SB							84							220
1: 2100 South & State Street - 165@166.2 - 8@5	E-N	WBR	WB							86							100
1: 2100 South & State Street - 255@187.5 - 5@6	W-S	EBR	EB	31.06	C					159	53.36	D					323
2: Street Car Crossing & State Street - 5@1044.9	N-S	SBT	SB							889							2241
2: Street Car Crossing & State Street - 5@1044.9	N-W	SBR	SB							149							248
2: Street Car Crossing & State Street - 10@1228.	S-N	NBT	NB							1510							1347
2: Street Car Crossing & State Street - 174@664.!	W-S	EBR	EB							301							293
2: Street Car Crossing & State Street - 175@210.0	W-N	EBL	EB							197							201
2: Street Car Crossing & State Street - 177@146.	S-W	NBL	NB	12.83	B					194	31.43	C					384
3: WB I-80 & State Street - 90@8.1 - 10@47.0	S-N	NBT	NB							1252							1214
3: WB I-80 & State Street - 96@9.7 - 37@36.9	S-W	NBL	NB							31							20
3: WB I-80 & State Street - 96@9.7 - 118@45.7	S-W	NBL	NB							498							364
3: WB I-80 & State Street - 124@1240.6 - 37@36	E-W	WBT	WB							77							143
3: WB I-80 & State Street - 124@1240.6 - 91@34	E-S	WBL	WB							233							365
3: WB I-80 & State Street - 124@1240.6 - 118@4	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 125@249.7 - 10@47.(	E-N	WBR	WB							452							516
3: WB I-80 & State Street - 155@285.8 - 97@42.(	N-S	SBT	SB	17.75	B					597	24.42	C					810
3: WB I-80 & State Street - 156@284.4 - 37@36.!	N-W	SBR	SB							11							10
3: WB I-80 & State Street - 156@284.4 - 118@45	N-W	SBR	SB							396							574
3: WB I-80 & State Street - 157@282.8 - 91@34.!	N-S	SBT	SB							176							1130
4: EB I-80 & State Street - 92@5.5 - 12@38.2	N-S	SBT	SB							0							0
4: EB I-80 & State Street - 98@6.3 - 25@59.6	N-E	SBL	SB							18							20
4: EB I-80 & State Street - 98@6.3 - 122@62.0	N-E	SBL	SB							579							791
4: EB I-80 & State Street - 120@1728.6 - 25@59.	W-E	EBT	EB							140							128
4: EB I-80 & State Street - 120@1728.6 - 89@28.	W-N	EBL	EB							540							503
4: EB I-80 & State Street - 120@1728.6 - 122@62	W-E	EBT	EB	22.56	C	30.54	C			0	21.62	C	35.80	C			0
4: EB I-80 & State Street - 121@193.1 - 12@38.2	W-S	EBR	EB							599							772
4: EB I-80 & State Street - 144@76.3 - 89@28.3	S-N	NBT	NB							714							712
4: EB I-80 & State Street - 145@75.0 - 25@59.6	S-E	NBR	NB							17							16
4: EB I-80 & State Street - 145@75.0 - 10032@97	S-E	NBR	NB							614							513
4: EB I-80 & State Street - 146@331.6 - 95@47.4	S-N	NBT	NB							528							386
4: EB I-80 & State Street - 10063@12.6 - 12@38.	N-S	SBT	SB							408							1493
5: Oakland & State Street - 12@191.7 - 12@266.	N-S	SBT	SB							1005							2265
5: Oakland & State Street - 22@609.6 - 11@42.3	E-N	WBR	WB					9.23	A	29					15.56	C	49
5: Oakland & State Street - 146@91.4 - 146@181	S-N	NBT	NB							529							389
5: Oakland & State Street - 147@71.3 - 11@42.3	S-N	NBT	NB							1319							1194
5: Oakland & State Street - 147@71.3 - 21@32.7	S-E	NBR	NB							13							18
6: East Grantie SD RIRO & State Street - 12@274	N-W	SBR	SB							247							69
6: East Grantie SD RIRO & State Street - 12@274	N-S	SBT	SB							759							2194
6: East Grantie SD RIRO & State Street - 23@259	W-S	EBR	EB					6.37	A	49					7.63	A	97
6: East Grantie SD RIRO & State Street - 10004@	S-N	NBT	NB							1332							1216
6: East Grantie SD RIRO & State Street - 10008@	S-N	NBT	NB							528							388
7: 2700 South & State Street - 14@1205.4 - 16@	N-S	SBT	SB							632							2011
7: 2700 South & State Street - 15@1184.3 - 13@	S-N	NBT	NB							1518							1352
7: 2700 South & State Street - 17@647.5 - 16@1	W-S	EBR	EB							40							97
7: 2700 South & State Street - 17@647.5 - 19@1	W-E	EBT	EB							59							320
7: 2700 South & State Street - 20@820.0 - 18@7	E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291.2 - 18@	S-W	NBL	NB	16.64	B					120	35.77	D					88
7: 2700 South & State Street - 149@150.8 - 19@	S-E	NBR	NB							21							87
7: 2700 South & State Street - 150@28.0 - 13@5	W-N	EBL	EB							149							285
7: 2700 South & State Street - 153@329.4 - 19@	N-E	SBL	SB							53							159
7: 2700 South & State Street - 154@188.7 - 18@	N-W	SBR	SB							126							113
7: 2700 South & State Street - 10014@53.9 - 13(	E-N	WBR	WB							199							69
7: 2700 South & State Street - 10015@17.9 - 16(	E-S	WBL	WB							74							129
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	SBT	SB							675							1768
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB							2513							2057
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	NBL	NB							948							695
8: WB I-80 & 700 East - 135@1579.2 - 73@63.1	E-S	WBL	WB							99							224
8: WB I-80 & 700 East - 135@1579.2 - 137@28.7	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	WBR	WB							750							571
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	SBT	SB	15.65	B					311	18.24	B					774
8: WB I-80 & 700 East - 169@299.3 - 137@28.7	N-SW	SBR	SB							1038							663
9: EB I-80 & 700 East - 74@21.7 - 10189@12.0	N-S	SBT	SB							774							1991
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB							1739							1070
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB			33.73	C			312			35.61	C			775
9: EB I-80 & 700 East - 133@1172.7 - 79@56.2	W-N	EBL	EB							777							989
9: EB I-80 & 700 East - 133@1172.7 - 140@66.9	W-NE	EBL	EB							0							0
9: EB I-80 & 700 East - 134@318.9 - 10188@13.8	W-S	EBR	EB							723							1422
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	NBT	NB							954							696
9: EB I-80 & 700 East - 167@274.8 - 140@66.9	S-NE	NBR	NB	26.36	C					149	23.79	C					151
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	SBT	SB							76							160
10: 2400 S & West Temple - 33@704.1 - 35@43.!	E-W	WBT	WB					7.58	A	6					7.41	A	6
10: 2400 S & West Temple - 33@704.1 - 56@30.	E-N	WBR	WB							12							19
10: 2400 S & West Temple - 33@704.1 - 10106@	E-S	WBL	WB							18							10
10: 2400 S & West Temple - 34@51.1 - 32@34.2	W-E	EBT	EB							0							4
10: 2400 S & West Temple - 34@51.1 - 56@30.3	W-N	EBL	EB							0							0
10: 2400 S & West Temple - 34@51.1 - 10106@1	W-S	EBR	EB							0							0
10: 2400 S & West Temple - 57@353.0 - 32@34.	N-E	SBL	SB							6							5

10: 2400 S & West Temple - 57@353.0 - 35@43.!N-W	SBR	SB			0		5
10: 2400 S & West Temple - 57@353.0 - 10106@N-S	SBT	SB			138		261
10: 2400 S & West Temple - 10107@1.9 - 32@34S-E	NBR	NB			5		6
10: 2400 S & West Temple - 10107@1.9 - 35@43S-W	NBL	NB			4		0
10: 2400 S & West Temple - 10107@1.9 - 56@30S-N	NBT	NB			190		280
11: Robert Ave. & West Temple - 28@710.2 - 30(E-W	WBT	WB			0		0
11: Robert Ave. & West Temple - 28@710.2 - 45(E-S	WBL	WB			4		6
11: Robert Ave. & West Temple - 28@710.2 - 48(E-N	WBR	WB			4		3
11: Robert Ave. & West Temple - 31@117.4 - 29(W-E	EBT	EB			0		5
11: Robert Ave. & West Temple - 31@117.4 - 45(W-S	EBR	EB			0		4
11: Robert Ave. & West Temple - 31@117.4 - 48(W-N	EBL	EB	8.33	A	4	11.62	B 4
11: Robert Ave. & West Temple - 44@282.3 - 29(S-E	NBR	NB			6		5
11: Robert Ave. & West Temple - 44@282.3 - 30(S-W	NBL	NB			7		6
11: Robert Ave. & West Temple - 44@282.3 - 48(S-N	NBT	NB			192		277
11: Robert Ave. & West Temple - 49@19.8 - 29@N-E	SBL	SB			5		5
11: Robert Ave. & West Temple - 49@19.8 - 30@N-W	SBR	SB			0		5
11: Robert Ave. & West Temple - 49@19.8 - 45@N-S	SBT	SB			152		258
12: Oakland Ave & West Temple - 40@711.0 - 42E-W	WBT	WB	8.17	A	18	12.00	B 4
12: Oakland Ave & West Temple - 40@711.0 - 44E-N	WBR	WB			10		21
12: Oakland Ave & West Temple - 40@711.0 - 47E-S	WBL	WB			10		5
12: Oakland Ave & West Temple - 43@473.0 - 41W-E	EBT	EB			4		20
12: Oakland Ave & West Temple - 43@473.0 - 44W-N	EBL	EB			4		9
12: Oakland Ave & West Temple - 43@473.0 - 47W-S	EBR	EB			11		9
12: Oakland Ave & West Temple - 45@261.8 - 41N-E	SBL	SB			11		10
12: Oakland Ave & West Temple - 45@261.8 - 42N-W	SBR	SB			10		5
12: Oakland Ave & West Temple - 45@261.8 - 47N-S	SBT	SB			135		254
12: Oakland Ave & West Temple - 46@527.0 - 41S-E	NBR	NB			13		22
12: Oakland Ave & West Temple - 46@527.0 - 42S-W	NBL	NB			9		11
12: Oakland Ave & West Temple - 46@527.0 - 44S-N	NBT	NB			190		261
13: 2400 S & Main Street - 32@716.9 - 36@24.3 W-E	EBT	EB			0		0
13: 2400 S & Main Street - 32@716.9 - 55@6.1 W-S	EBR	EB			5		4
13: 2400 S & Main Street - 32@716.9 - 58@21.9 W-N	EBL	EB			5		9
13: 2400 S & Main Street - 37@672.9 - 33@22.5 E-W	WBT	WB	14.65	B	27	24.52	C 20
13: 2400 S & Main Street - 37@672.9 - 55@6.1 E-S	WBL	WB			28		21
13: 2400 S & Main Street - 37@672.9 - 58@21.9 E-N	WBR	WB			63		135
13: 2400 S & Main Street - 54@239.9 - 33@22.5 S-W	NBL	NB			4		4
13: 2400 S & Main Street - 54@239.9 - 36@24.3 S-E	NBR	NB			0		0
13: 2400 S & Main Street - 54@239.9 - 58@21.9 S-N	NBT	NB			338		495
13: 2400 S & Main Street - 59@503.7 - 33@22.5 N-W	SBR	SB			4		9
13: 2400 S & Main Street - 59@503.7 - 36@24.3 N-E	SBL	SB			0		0
13: 2400 S & Main Street - 59@503.7 - 55@6.1 N-S	SBT	SB			190		471
14: Robert Ave. & Main Street - 26@405.6 - 28@E-W	WBT	WB			0		0
14: Robert Ave. & Main Street - 26@405.6 - 54@E-N	WBR	WB			0		4
14: Robert Ave. & Main Street - 26@405.6 - 61@E-S	WBL	WB	8.11	A	4	8.86	A 4
14: Robert Ave. & Main Street - 29@709.2 - 27@W-E	EBT	EB			0		5
14: Robert Ave. & Main Street - 29@709.2 - 54@W-N	EBL	EB			7		5
14: Robert Ave. & Main Street - 29@709.2 - 61@W-S	EBR	EB			4		6
14: Robert Ave. & Main Street - 55@232.4 - 27@N-E	SBL	SB			0		10
14: Robert Ave. & Main Street - 55@232.4 - 28@N-W	SBR	SB			5		5
14: Robert Ave. & Main Street - 55@232.4 - 61@N-S	SBT	SB			217		481
14: Robert Ave. & Main Street - 60@63.7 - 27@2S-E	NBR	NB			5		5
14: Robert Ave. & Main Street - 60@63.7 - 28@2S-W	NBL	NB			4		5
14: Robert Ave. & Main Street - 60@63.7 - 54@1S-N	NBT	NB			337		491
15: N Granite SD Access & Main Street - 39@121E-N	WBR	WB	1.02	A	18	1.16	A 60
15: N Granite SD Access & Main Street - 39@121E-S	WBL	WB			15		5
15: N Granite SD Access & Main Street - 61@36.!N-E	SBL	SB			12		14
15: N Granite SD Access & Main Street - 61@36.!N-S	SBT	SB			214		479
15: N Granite SD Access & Main Street - 62@135S-E	NBR	NB			9		4
15: N Granite SD Access & Main Street - 62@135S-N	NBT	NB			328		442
16: Oakland Ave. & Main Street - 41@707.2 - 62(W-N	EBL	EB	6.69	A	10	7.74	A 28
16: Oakland Ave. & Main Street - 41@707.2 - 67(W-S	EBR	EB			17		23
16: Oakland Ave. & Main Street - 63@154.7 - 40(N-W	SBR	SB			17		13
16: Oakland Ave. & Main Street - 63@154.7 - 67(N-S	SBT	SB			213		471
16: Oakland Ave. & Main Street - 66@184.7 - 40(S-W	NBL	NB			21		16
16: Oakland Ave. & Main Street - 66@184.7 - 62(S-N	NBT	NB			324		418
17: S Granite SD Access & Main Street - 65@232 E-N	WBR	WB	1.29	A	8	1.85	A 19
17: S Granite SD Access & Main Street - 65@232 E-S	WBL	WB			17		17
17: S Granite SD Access & Main Street - 67@180 N-E	SBL	SB			14		5
17: S Granite SD Access & Main Street - 67@180 N-S	SBT	SB			218		489
17: S Granite SD Access & Main Street - 69@505 S-E	NBR	NB			51		37
17: S Granite SD Access & Main Street - 69@505 S-N	NBT	NB			337		415

2040 Queue Report (AM PM)

Alternative: CD to State St. I-15 NB Flyover, Add EB Lane with Ramp

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 - 7	W-E	170.4696	EBT	12	163	280	419	1152	2319
1: 2100 South & State Street - 2@1436.4 - 6	E-W	214.0723	WBT	26	242	426	68	426	771
1: 2100 South & State Street - 3@1101.9 - 5	N-S	94.00281	SBT	11	109	191	172	624	1202
1: 2100 South & State Street - 4@1031.1 - 8	S-N	214.691	NBT	23	192	340	16	190	330
1: 2100 South & State Street - 159@246.4 -	S-E	75.02182	NBR	28	80	160	29	104	201
1: 2100 South & State Street - 160@288.7 -	S-W	58.90686	NBL	10	78	140	11	123	215
1: 2100 South & State Street - 161@166.4 -	E-S	118.875	WBL	15	123	218	97	251	512
1: 2100 South & State Street - 162@152.6 -	W-N	70.28763	EBL	7	76	132	61	217	420
1: 2100 South & State Street - 163@133.8 -	N-W	17.42454	SBR	4	19	35	23	83	160
1: 2100 South & State Street - 164@371.3 -	N-E	42.128	SBL	6	47	83	11	92	162
1: 2100 South & State Street - 165@166.2 -	E-N	15.35076	WBR	7	18	37	6	18	36
1: 2100 South & State Street - 255@187.5 -	W-S	24.35225	EBR	6	30	55	454	687	1588
2: Street Car Crossing & State Street - 5@1(	N-S	50.37178	SBT	19	89	166	211	665	1308
2: Street Car Crossing & State Street - 5@1(	N-W	50.37178	SBR	19	89	166	211	665	1308
2: Street Car Crossing & State Street - 10@1	S-N	116.9698	NBT	25	140	257	16	96	175
2: Street Car Crossing & State Street - 174@	W-S	32.77688	EBR	14	45	87	24	83	162
2: Street Car Crossing & State Street - 175@	W-N	177.1455	EBL	20	169	299	35	220	399
2: Street Car Crossing & State Street - 177@	S-W	44.71262	NBL	10	70	126	58	369	667
3: WB I-80 & State Street - 90@8.1 - 10@47	S-N	0	NBT	0	0	0	33	94	188
3: WB I-80 & State Street - 96@9.7 - 37@36	S-W	0	NBL	1	2	4	21	60	121
3: WB I-80 & State Street - 96@9.7 - 118@4	S-W	0	NBL	1	2	4	21	60	121
3: WB I-80 & State Street - 124@1240.6 - 3	E-W	137.6177	WBT	12	129	225	22	196	345
3: WB I-80 & State Street - 124@1240.6 - 9	E-S	137.6177	WBL	12	129	225	22	196	345
3: WB I-80 & State Street - 124@1240.6 - 1	E-W	137.6177	WBT	12	129	225	22	196	345
3: WB I-80 & State Street - 125@249.7 - 10(	E-N	219.7711	WBR	45	237	436	37	246	443
3: WB I-80 & State Street - 155@285.8 - 97(	N-S	138.3507	SBT	29	203	364	35	246	441
3: WB I-80 & State Street - 156@284.4 - 37(	N-W	51.75542	SBR	16	62	119	26	118	220
3: WB I-80 & State Street - 156@284.4 - 11	N-W	58.11303	SBR	16	66	126	25	120	222
3: WB I-80 & State Street - 157@282.8 - 91(	N-S	75.72585	SBT	8	74	131	53	390	696
4: EB I-80 & State Street - 92@5.5 - 12@38.	N-S	0	SBT	1	3	6	31	92	183
4: EB I-80 & State Street - 98@6.3 - 25@59.	N-E	0	SBL	0	0	0	25	86	166
4: EB I-80 & State Street - 98@6.3 - 122@62	N-E	0	SBL	0	0	0	25	86	166
4: EB I-80 & State Street - 120@1728.6 - 25(	W-E	227.6368	EBT	37	251	452	25	231	406
4: EB I-80 & State Street - 120@1728.6 - 89(	W-N	227.6368	EBL	37	251	452	25	231	406
4: EB I-80 & State Street - 120@1728.6 - 12	W-E	227.6368	EBT	37	251	452	25	231	406
4: EB I-80 & State Street - 121@193.1 - 12@	W-S	0	EBR	3	10	19	7	22	43
4: EB I-80 & State Street - 144@76.3 - 89@2	S-N	173.6121	NBT	29	248	438	15	293	498
4: EB I-80 & State Street - 145@75.0 - 25@5	S-E	119.0865	NBR	46	219	408	32	284	500
4: EB I-80 & State Street - 145@75.0 - 1003	S-E	121.3283	NBR	46	221	410	32	284	501
4: EB I-80 & State Street - 146@331.6 - 95@	S-N	125.2469	NBT	19	156	277	26	145	265
4: EB I-80 & State Street - 10063@12.6 - 12(	N-S	0	SBT	1	3	6	31	92	183
5: Oakland & State Street - 12@191.7 - 12@	N-S	0	SBT	0	0	0	3	9	17
5: Oakland & State Street - 22@609.6 - 11@	E-N	11.64028	WBR	4	16	31	5	21	39
5: Oakland & State Street - 146@91.4 - 146(	S-N	0	NBT	1	2	3	5	10	20
5: Oakland & State Street - 147@71.3 - 11@	S-N	3.620587	NBT	22	49	103	21	96	178
5: Oakland & State Street - 147@71.3 - 21@	S-E	7.451466	NBR	29	67	140	29	129	242
6: East Grantie SD RIRO & State Street - 12(	N-W	1.836344	SBR	4	18	35	4	13	25
6: East Grantie SD RIRO & State Street - 12(	N-S	0	SBT	4	13	25	3	9	18
6: East Grantie SD RIRO & State Street - 23(	W-S	31.2007	EBR	5	25	46	4	34	61
6: East Grantie SD RIRO & State Street - 100	S-N	42.14003	NBT	73	139	303	467	813	1808
6: East Grantie SD RIRO & State Street - 100	S-N	41.96079	NBT	73	140	304	472	808	1804
7: 2700 South & State Street - 14@1205.4 -	N-S	127.1715	SBT	11	105	183	28	322	559
7: 2700 South & State Street - 15@1184.3 -	S-N	173.6086	NBT	16	181	314	47	259	475
7: 2700 South & State Street - 17@647.5 - 1	W-S	46.15277	EBR	10	42	79	82	279	542
7: 2700 South & State Street - 17@647.5 - 1	W-E	35.46173	EBT	10	34	67	82	273	533
7: 2700 South & State Street - 20@820.0 - 1	E-W	56.17799	WBT	11	59	108	10	57	105

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7: 2700 South & State Street - 148@291.2 -	S-W	50.20577	NBL	7	37	68	13	44	86
7: 2700 South & State Street - 149@150.8 -	S-E	7.031721	NBR	3	11	22	5	22	41
7: 2700 South & State Street - 150@28.0 - 1	W-N	54.70767	EBL	16	83	154	85	278	543
7: 2700 South & State Street - 153@329.4 -	N-E	31.55623	SBL	8	21	43	18	76	144
7: 2700 South & State Street - 154@188.7 -	N-W	13.66948	SBR	5	19	38	6	19	37
7: 2700 South & State Street - 10014@53.9	E-N	39.66008	WBR	8	47	86	6	28	52
7: 2700 South & State Street - 10015@17.9	E-S	31.09067	WBL	9	41	77	12	70	129
8: WB I-80 & 700 East - 72@299.7 - 73@63.	N-S	140.9777	SBT	9	145	249	23	276	478
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	150.0435	NBT	22	117	216	7	33	62
8: WB I-80 & 700 East - 87@30.0 - 137@28.	S-SW	63.70163	NBL	75	194	395	19	338	575
8: WB I-80 & 700 East - 135@1579.2 - 73@(	E-S	77.36176	WBL	10	50	93	13	90	162
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	77.36176	WBL	10	50	93	13	90	162
8: WB I-80 & 700 East - 136@72.0 - 70@87.	E-N	11.21833	WBR	7	17	35	7	18	37
8: WB I-80 & 700 East - 168@218.7 - 83@57	N-S	87.48818	SBT	10	101	176	13	175	303
8: WB I-80 & 700 East - 169@299.3 - 137@2	N-SW	1.921018	SBR	39	141	271	3	9	18
9: EB I-80 & 700 East - 74@21.7 - 10189@1	N-S	86.85913	SBT	11	70	126	11	107	188
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	270.6051	NBT	78	359	670	17	238	411
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	42.91304	SBL	12	56	104	20	255	442
9: EB I-80 & 700 East - 133@1172.7 - 79@5(	W-N	250.7742	EBL	25	275	480	37	334	589
9: EB I-80 & 700 East - 133@1172.7 - 140@(	W-NE	250.7742	EBL	25	275	480	37	334	589
9: EB I-80 & 700 East - 134@318.9 - 10188@	W-S	0	EBR	7	20	40	9	35	66
9: EB I-80 & 700 East - 166@226.1 - 86@53.	S-N	224.4378	NBT	199	449	940	80	307	587
9: EB I-80 & 700 East - 167@274.8 - 140@6(	S-NE	0	NBR	2	5	10	1	2	5
9: EB I-80 & 700 East - 10188@14.1 - 76@3.	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 33@704.1 - 35(	E-W	7.565376	WBT	4	20	37	4	19	36
10: 2400 S & West Temple - 33@704.1 - 56(	E-N	7.565376	WBR	4	20	37	4	19	36
10: 2400 S & West Temple - 33@704.1 - 101	E-S	7.565376	WBL	4	20	37	4	19	36
10: 2400 S & West Temple - 34@51.1 - 32@	W-E	0	EBT	0	0	0	1	2	4
10: 2400 S & West Temple - 34@51.1 - 56@	W-N	0	EBL	0	0	0	1	2	4
10: 2400 S & West Temple - 34@51.1 - 101(	W-S	0	EBR	0	0	0	1	2	4
10: 2400 S & West Temple - 57@353.0 - 32(	N-E	0	SBL	2	7	13	1	5	10
10: 2400 S & West Temple - 57@353.0 - 35(	N-W	0	SBR	1	3	6	0	0	0
10: 2400 S & West Temple - 57@353.0 - 101	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 32	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 35	S-W	0	NBL	1	4	8	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 56(	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@710.2	E-W	2.575479	WBT	4	12	24	4	12	25
11: Robert Ave. & West Temple - 28@710.2	E-S	2.558841	WBL	4	12	24	4	12	25
11: Robert Ave. & West Temple - 28@710.2	E-N	2.531768	WBR	4	12	24	4	12	24
11: Robert Ave. & West Temple - 31@117.4	W-E	0	EBT	4	9	18	4	12	24
11: Robert Ave. & West Temple - 31@117.4	W-S	0	EBR	4	9	18	4	12	24
11: Robert Ave. & West Temple - 31@117.4	W-N	0	EBL	4	9	18	4	12	24
11: Robert Ave. & West Temple - 44@282.3	S-E	0	NBR	0	1	2	0	1	3
11: Robert Ave. & West Temple - 44@282.3	S-W	0	NBL	1	2	5	1	3	7
11: Robert Ave. & West Temple - 44@282.3	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 49@19.8 -	N-E	2.913104	SBL	2	5	11	2	5	10
11: Robert Ave. & West Temple - 49@19.8 -	N-W	8.146827	SBR	12	36	71	13	36	73
11: Robert Ave. & West Temple - 49@19.8 -	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West Temple - 40@711.(	E-W	16.71183	WBT	4	20	37	6	17	33
12: Oakland Ave & West Temple - 40@711.(	E-N	16.71183	WBR	4	20	37	6	17	33
12: Oakland Ave & West Temple - 40@711.(	E-S	16.71183	WBL	4	20	37	6	17	33
12: Oakland Ave & West Temple - 43@473.(	W-E	17.04076	EBT	6	15	30	5	22	42
12: Oakland Ave & West Temple - 43@473.(	W-N	16.65659	EBL	6	14	29	5	22	40
12: Oakland Ave & West Temple - 43@473.(	W-S	16.6845	EBR	6	14	29	5	22	40
12: Oakland Ave & West Temple - 45@261.8	N-E	0	SBL	2	6	11	3	10	20
12: Oakland Ave & West Temple - 45@261.8	N-W	0	SBR	1	3	6	2	8	16
12: Oakland Ave & West Temple - 45@261.8	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West Temple - 46@527.(	S-E	5.925707	NBR	2	5	10	1	4	7
12: Oakland Ave & West Temple - 46@527.(	S-W	5.332815	NBL	2	6	12	2	7	13

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12: Oakland Ave & West Temple - 46@527.(	S-N	2.023688	NBT	1	2	4	0	0	0
13: 2400 S & Main Street - 32@716.9 - 36@	W-E	9.74766	EBT	4	11	22	5	12	25
13: 2400 S & Main Street - 32@716.9 - 55@	W-S	9.74766	EBR	4	11	22	5	12	25
13: 2400 S & Main Street - 32@716.9 - 58@	W-N	9.74766	EBL	4	11	22	5	12	25
13: 2400 S & Main Street - 37@672.9 - 33@	E-W	42.87882	WBT	11	52	97	19	92	170
13: 2400 S & Main Street - 37@672.9 - 55@	E-S	42.87882	WBL	11	52	97	19	92	170
13: 2400 S & Main Street - 37@672.9 - 58@	E-N	42.87882	WBR	11	52	97	19	92	170
13: 2400 S & Main Street - 54@239.9 - 33@	S-W	0	NBL	1	4	7	2	5	10
13: 2400 S & Main Street - 54@239.9 - 36@	S-E	0	NBR	0	0	0	1	4	7
13: 2400 S & Main Street - 54@239.9 - 58@	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 33@	N-W	0	SBR	0	0	0	0	1	3
13: 2400 S & Main Street - 59@503.7 - 36@	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 55@	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 26@405.6 -	E-W	2.669583	WBT	3	9	18	4	10	21
14: Robert Ave. & Main Street - 26@405.6 -	E-N	2.669583	WBR	3	9	18	4	10	21
14: Robert Ave. & Main Street - 26@405.6 -	E-S	2.669583	WBL	3	9	18	4	10	21
14: Robert Ave. & Main Street - 29@709.2 -	W-E	10.32267	EBT	5	13	25	4	14	27
14: Robert Ave. & Main Street - 29@709.2 -	W-N	10.32267	EBL	5	13	25	4	14	27
14: Robert Ave. & Main Street - 29@709.2 -	W-S	10.32267	EBR	5	13	25	4	14	27
14: Robert Ave. & Main Street - 55@232.4 -	N-E	0	SBL	0	0	0	2	6	12
14: Robert Ave. & Main Street - 55@232.4 -	N-W	0	SBR	1	2	4	2	5	10
14: Robert Ave. & Main Street - 55@232.4 -	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 60@63.7 - 2	S-E	0	NBR	1	3	6	6	20	38
14: Robert Ave. & Main Street - 60@63.7 - 2	S-W	0	NBL	0	1	2	1	3	6
14: Robert Ave. & Main Street - 60@63.7 - 5	S-N	0	NBT	0	0	0	0	0	0
15: N Granite SD Access & Main Street - 39(	E-N	0	WBR	3	9	18	3	9	18
15: N Granite SD Access & Main Street - 39(	E-S	0	WBL	3	10	19	3	10	19
15: N Granite SD Access & Main Street - 61(	N-E	2.174524	SBL	1	3	6	2	5	10
15: N Granite SD Access & Main Street - 61(	N-S	0	SBT	5	16	32	8	25	49
15: N Granite SD Access & Main Street - 62(	S-E	0	NBR	0	1	2	0	0	0
15: N Granite SD Access & Main Street - 62(	S-N	0	NBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 41@707.2	W-N	23.08612	EBL	5	16	32	4	25	44
16: Oakland Ave. & Main Street - 41@707.2	W-S	23.08612	EBR	5	16	32	4	25	44
16: Oakland Ave. & Main Street - 63@154.7	N-W	0	SBR	1	4	7	1	3	6
16: Oakland Ave. & Main Street - 63@154.7	N-S	0	SBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 66@184.7	S-W	1.807164	NBL	2	6	11	3	9	18
16: Oakland Ave. & Main Street - 66@184.7	S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 65@	E-N	0	WBR	2	7	13	3	8	16
17: S Granite SD Access & Main Street - 65@	E-S	0	WBL	2	7	13	3	8	17
17: S Granite SD Access & Main Street - 67@	N-E	1.872743	SBL	1	5	10	1	4	8
17: S Granite SD Access & Main Street - 67@	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 69@	S-E	4.265461	NBR	1	4	7	0	1	2
17: S Granite SD Access & Main Street - 69@	S-N	0	NBT	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: CD to State St. I-15 NB Flyover, Add EB Lane with Ramp

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	6	13.0	B	0.26	***14.1***	***B***	***23.5***	***C***	5424	5320	102.0%	9038	9850	91.8%	67.7	65.6	0.3	1.1
EB I-80 (State to 700 E)	Weave	6	16.1	B	0.57	***17.5***	***B***	***30.7***	***D***	6639	6530	101.7%	10391	11250	92.4%	66.5	58.4	0.6	5.7
EB I-80 (Over 700 E)	Basic	4	18.6	C	0.92	***20.3***	***C***	***36.8***	***E***	5113	5060	101.1%	7944	8630	92.1%	66.3	54.7	0.9	7.0
WB I-80 (Over 700 E)	Basic	4	46.3	F	11.44	***84.9***	***F***	***24.9***	***C***	6915	8020	86.2%	6097	6130	99.5%	19.8	64.4	11.4	1.3
WB I-80 (700 E to State)	Weave	5	53.4	F	9.78	***69.5***	***F***	***25.3***	***C***	8742	10050	87.0%	7439	7490	99.3%	24.8	61.8	9.8	1.1
WB I-80 (Over State)	Diverge	4	48.7	F	6.27	***49.7***	***F***	***30.5***	***D***	7926	9180	86.3%	6390	6470	98.8%	46.3	64.2	6.3	1.3
WB I-80 to WB CD Ramp	Ramp	2	40.6	E	4.41	***41.2***	***E***	***27.2***	***C***	4435	5250	84.5%	3419	3550	96.3%	54.3	65.0	7.0	2.1
WB I-80 (West of State)	Diverge	3	17.0	B	1.25	***17.0***	***B***	***15.0***	***B***	3332	3930	84.8%	2840	2920	97.3%	63.6	66.5	1.3	1.1
WB I-80 to NB I-15	Ramp	3	16.0	B	1.09	***16.0***	***B***	***13.8***	***B***	2604	3010	86.5%	2221	2240	99.2%	56.0	56.3	1.3	1.2
To SB I-15 Ramp	Ramp	2	16.1	B	1.20	***17.2***	***B***	***16.5***	***B***	1820	1990	91.5%	1723	1770	97.3%	54.2	54.6	1.2	1.6
To WB 201 Ramp	Ramp	2	30.3	C	2.00	***30.3***	***C***	***22.7***	***B***	3149	3690	85.3%	2353	2410	97.7%	52.5	54.1	2.0	1.6
WB I-80 to SB I-15/WB 201	Diverge	3	41.7	E	7.34	***46.0***	***F***	***31.6***	***D***	4883	5680	86.0%	4005	4180	95.8%	37.5	46.7	10.7	4.5
WB CD	Weave (CD)	3	29.9	C	2.13	***32.4***	***D***	***23.4***	***B***	5369	6150	87.3%	4386	4530	96.8%	56.7	64.1	13.6	1.6
EB I-80 Ramp	Ramp	2	19.6	B	1.80	***20.8***	***B***	***28.7***	***C***	1043	1210	86.2%	1165	1400	83.2%	25.8	21.3	4.1	5.5
EB I-80 I-15 to State	Weave	7	14.4	B	0.18	***15.5***	***B***	***24.8***	***C***	6764	6540	103.4%	10540	11260	93.6%	65.6	62.5	0.2	1.3
NB I-15 Off Ramp 2	Ramp	2	8.9	A	1.35	***9.5***	***A***	***10.1***	***A***	1095	1070	102.3%	1102	1140	96.7%	59.8	57.9	1.4	1.7
NB I-15 Off Ramp 1	Ramp	2	12.6	B	1.07	***13.5***	***B***	***16.5***	***B***	1600	1600	100.0%	1877	1880	99.8%	62.5	60.0	1.6	1.2
EB 201/SB I-15 2	Merge	7	14.0	B	0.27	***15.3***	***B***	***15.4***	***B***	6462	6540	98.8%	10071	11260	89.4%	64.6	58.5	0.3	1.4
EB 201/SB I-15 1	Merge	6	15.9	B	0.21	***17.4***	***B***	***45.0***	***F***	5548	5470	101.4%	9254	10120	91.4%	63.8	45.1	0.3	1.7
EB 201 Ramp	Ramp	2	16.7	B	0.07	***17.9***	***B***	***54.6***	***F***	2349	2350	99.9%	4301	4480	96.0%	69.1	47.3	0.1	31.8
SB I-15 Ramp	Ramp	3	13.7	B	0.22	***14.9***	***B***	***70.2***	***F***	2588	2420	106.9%	4174	4700	88.8%	61.2	19.6	0.4	8.4
WB I-80 Ramp (700 E)	Ramp	2	42.9	E	13.28	***121.7***	***F***	***18.8***	***B***	1933	2030	95.2%	1337	1360	98.3%	8.0	36.7	36.3	2.9
SB I-15 Ramp to I-80 EB	Ramp	2	17.6	B	0.17	***18.9***	***B***	***40.2***	***E***	2321	2350	98.8%	4246	4480	94.8%	64.7	53.9	0.3	8.9
EB I-80 Over State St.	Basic	5	15.7	B	0.36	***16.9***	***B***	***29.0***	***D***	5442	5320	102.3%	9078	9850	92.2%	67.6	64.1	0.4	1.9
SB I-15 Ramp to I-80 EB	Ramp	2	19.1	B	0.34	***20.6***	***B***	***41.6***	***E***	2245	2350	95.5%	4105	4480	91.6%	57.3	50.1	0.5	5.2
NB I-15 Ramp to I-80 EB	Ramp	1	15.6	B	1.98	***16.8***	***B***	***18.3***	***B***	894	900	99.3%	931	940	99.1%	55.6	54.1	2.0	2.5
NB I-15 Ramp to I-80 EB Flyover	Ramp	1	10.6	A	1.54	***11.9***	***A***	***16.3***	***B***	675	700	96.5%	899	940	95.6%	60.3	57.0	2.4	3.5
EB I-80 Over 700E	Basic	4	18.1	C	0.73	***19.7***	***C***	***31.8***	***D***	5102	5060	100.8%	7925	8630	91.8%	67.9	63.3	0.7	3.0
NB I-15 Ramp to I-80 EB Flyover to State	Ramp	1	3.3	A	0.59	***3.3***	***A***	***2.9***	***A***	225	170	132.1%	194	200	97.0%	71.3	71.5	0.7	0.8

Alternative: CD System to Main Street

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7@51.6	W-E	EBT	EB							496							897
1: 2100 South & State Street - 2@1436.4 - 6@43.7	E-W	WBT	WB							689							878
1: 2100 South & State Street - 3@1101.9 - 5@67.0	N-S	SBT	SB							612							1937
1: 2100 South & State Street - 4@1031.1 - 8@53.2	S-N	NBT	NB							1054							967
1: 2100 South & State Street - 159@246.4 - 7@51.6	S-E	NBR	NB							31							117
1: 2100 South & State Street - 160@288.7 - 6@43.7	S-W	NBL	NB							108							204
1: 2100 South & State Street - 161@166.4 - 5@67.0	E-S	WBL	WB							270							270
1: 2100 South & State Street - 162@152.6 - 8@53.2	W-N	EBL	EB							143							173
1: 2100 South & State Street - 163@133.8 - 6@43.7	N-W	SBR	SB							73							170
1: 2100 South & State Street - 164@371.3 - 7@51.6	N-E	SBL	SB							84							220
1: 2100 South & State Street - 165@166.2 - 8@53.2	E-N	WBR	WB							86							100
1: 2100 South & State Street - 255@187.5 - 5@67.0	W-S	EBR	EB	31.69	C					159	46.64	D					321
2: Street Car Crossing & State Street - 5@1044.9 - 1	N-S	SBT	SB							889							2275
2: Street Car Crossing & State Street - 5@1044.9 - 1	N-W	SBR	SB							150							250
2: Street Car Crossing & State Street - 10@1228.3 -	S-N	NBT	NB							996							1092
2: Street Car Crossing & State Street - 174@664.9 -	W-S	EBR	EB							301							293
2: Street Car Crossing & State Street - 175@210.6 -	W-N	EBL	EB							197							202
2: Street Car Crossing & State Street - 177@146.2 -	S-W	NBL	NB	10.74	B					102	21.36	C					213
3: WB I-80 & State Street - 90@8.1 - 10@47.0	S-N	NBT	NB							727							789
3: WB I-80 & State Street - 96@9.7 - 37@36.9	S-W	NBL	NB							31							22
3: WB I-80 & State Street - 96@9.7 - 118@45.7	S-W	NBL	NB							497							389
3: WB I-80 & State Street - 124@1240.6 - 37@36.9	E-W	WBT	WB							63							141
3: WB I-80 & State Street - 124@1240.6 - 91@34.5	E-S	WBL	WB							200							356
3: WB I-80 & State Street - 124@1240.6 - 118@45.7	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 125@249.7 - 10@47.0	E-N	WBR	WB							370							512
3: WB I-80 & State Street - 155@285.8 - 97@42.0	N-S	SBT	SB	20.55	C					598	26.89	C					819
3: WB I-80 & State Street - 156@284.4 - 37@36.9	N-W	SBR	SB							11							10
3: WB I-80 & State Street - 156@284.4 - 118@45.7	N-W	SBR	SB							396							585
3: WB I-80 & State Street - 157@282.8 - 91@34.5	N-S	SBT	SB							176							1143
4: EB I-80 & State Street - 92@5.5 - 12@38.2	N-S	SBT	SB							0							0
4: EB I-80 & State Street - 98@6.3 - 25@59.6	N-E	SBL	SB							18							20
4: EB I-80 & State Street - 98@6.3 - 122@62.0	N-E	SBL	SB							581							799
4: EB I-80 & State Street - 120@1302.7 - 25@59.6	W-E	EBT	EB							39							24
4: EB I-80 & State Street - 120@1302.7 - 89@28.3	W-N	EBL	EB							12							25
4: EB I-80 & State Street - 120@1302.7 - 122@62.0	W-E	EBT	EB	20.28	C	30.84	C			0	18.71	B	37.49	C			0
4: EB I-80 & State Street - 121@193.1 - 12@38.2	W-S	EBR	EB							140							117
4: EB I-80 & State Street - 144@76.3 - 89@28.3	S-N	NBT	NB							714							766
4: EB I-80 & State Street - 145@75.0 - 25@59.6	S-E	NBR	NB							17							18
4: EB I-80 & State Street - 145@75.0 - 10032@97.6	S-E	NBR	NB							615							549
4: EB I-80 & State Street - 146@331.6 - 95@47.4	S-N	NBT	NB							528							410
4: EB I-80 & State Street - 10063@12.6 - 12@38.2	N-S	SBT	SB							374							1501
5: Oakland & State Street - 12@191.7 - 12@266.5	N-S	SBT	SB							514							1616
5: Oakland & State Street - 22@609.6 - 11@42.3	E-N	WBR	WB					9.39	A	29					14.43	B	49
5: Oakland & State Street - 146@91.4 - 146@181.0	S-N	NBT	NB							529							414
5: Oakland & State Street - 147@71.3 - 11@42.3	S-N	NBT	NB							1319							1284
5: Oakland & State Street - 147@71.3 - 21@32.7	S-E	NBR	NB							13							20
6: East Grantie SD RIRO & State Street - 12@274.6 -	N-W	SBR	SB							89							22
6: East Grantie SD RIRO & State Street - 12@274.6 -	N-S	SBT	SB							425							1594
6: East Grantie SD RIRO & State Street - 23@259.7 -	W-S	EBR	EB					6.17	A	49					6.95	A	97
6: East Grantie SD RIRO & State Street - 10004@16.	S-N	NBT	NB							1332							1307
6: East Grantie SD RIRO & State Street - 10008@16.	S-N	NBT	NB							529							414
7: 2700 South & State Street - 14@1205.4 - 16@10	N-S	SBT	SB							408							1630
7: 2700 South & State Street - 15@1184.3 - 13@57.	S-N	NBT	NB							1518							1373
7: 2700 South & State Street - 17@647.5 - 16@106.	W-S	EBR	EB							40							99
7: 2700 South & State Street - 17@647.5 - 19@119.	W-E	EBT	EB							59							331
7: 2700 South & State Street - 20@820.0 - 18@72.5	E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291.2 - 18@72.	S-W	NBL	NB	15.96	B					120	24.58	C					88
7: 2700 South & State Street - 149@150.8 - 19@11	S-E	NBR	NB							21							87
7: 2700 South & State Street - 150@28.0 - 13@57.1	W-N	EBL	EB							149							302
7: 2700 South & State Street - 153@329.4 - 19@11	N-E	SBL	SB							21							48
7: 2700 South & State Street - 154@188.7 - 18@72.	N-W	SBR	SB							50							9
7: 2700 South & State Street - 10014@53.9 - 13@5	E-N	WBR	WB							199							69
7: 2700 South & State Street - 10015@17.9 - 16@1	E-S	WBL	WB							74							130
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	SBT	SB							658							1767
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB							2303							1878
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	NBL	NB							817							698
8: WB I-80 & 700 East - 135@1579.2 - 73@63.1	E-S	WBL	WB							81							224
8: WB I-80 & 700 East - 135@1579.2 - 137@28.7	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	WBR	WB							619							571
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	SBT	SB	27.15	C					305	18.52	B					775
8: WB I-80 & 700 East - 169@299.3 - 137@28.7	N-SW	SBR	SB							989							663
9: EB I-80 & 700 East - 74@24.8 - 10189@12.0	N-S	SBT	SB							738							1990
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB							1550							1069
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB			51.13	C			303			34.40	C			775
9: EB I-80 & 700 East - 133@1227.2 - 79@56.2	W-N	EBL	EB							753							810
9: EB I-80 & 700 East - 133@1227.2 - 140@66.9	W-NE	EBL	EB							0							0
9: EB I-80 & 700 East - 134@318.9 - 10188@13.8	W-S	EBR	EB							697							1193
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	NBT	NB							831							699
9: EB I-80 & 700 East - 167@274.8 - 140@66.9	S-NE	NBR	NB	36.07	D					133	21.95	C					151
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	SBT	SB							75							133
10: 2400 S & West Temple - 33@704.1 - 35@43.9	E-W	WBT	WB					7.43	A	6					8.40	A	7
10: 2400 S & West Temple - 33@704.1 - 56@30.3	E-N	WBR	WB							12							19
10: 2400 S & West Temple - 33@704.1 - 10106@10	E-S	WBL	WB							20							14
10: 2400 S & West Temple - 34@51.1 - 32@34.2	W-E	EBT	EB							0							4

10: 2400 S & West Temple - 34@51.1 - 56@30.3	W-N	EBL	EB		0		0
10: 2400 S & West Temple - 34@51.1 - 10106@10.:	W-S	EBR	EB		0		0
10: 2400 S & West Temple - 57@353.0 - 32@34.2	N-E	SBL	SB		6		5
10: 2400 S & West Temple - 57@353.0 - 35@43.9	N-W	SBR	SB		0		5
10: 2400 S & West Temple - 57@353.0 - 10106@10	N-S	SBT	SB		138		261
10: 2400 S & West Temple - 10107@1.9 - 32@34.2	S-E	NBR	NB		5		6
10: 2400 S & West Temple - 10107@1.9 - 35@43.9	S-W	NBL	NB		4		0
10: 2400 S & West Temple - 10107@1.9 - 56@30.3	S-N	NBT	NB		186		276
11: Robert Ave. & West Temple - 28@403.9 - 30@1	E-W	WBT	WB		0		0
11: Robert Ave. & West Temple - 28@403.9 - 45@9	E-S	WBL	WB		0		0
11: Robert Ave. & West Temple - 28@403.9 - 48@2	E-N	WBR	WB		0		0
11: Robert Ave. & West Temple - 31@117.4 - 29@2	W-E	EBT	EB		0		5
11: Robert Ave. & West Temple - 31@117.4 - 45@9	W-S	EBR	EB		0		4
11: Robert Ave. & West Temple - 31@117.4 - 48@2	W-N	EBL	EB	7.24 A	4	11.47 B	4
11: Robert Ave. & West Temple - 44@282.3 - 29@2	S-E	NBR	NB		10		10
11: Robert Ave. & West Temple - 44@282.3 - 30@1	S-W	NBL	NB		7		6
11: Robert Ave. & West Temple - 44@282.3 - 48@2	S-N	NBT	NB		191		277
11: Robert Ave. & West Temple - 49@19.8 - 29@20	N-E	SBL	SB		9		9
11: Robert Ave. & West Temple - 49@19.8 - 30@17	N-W	SBR	SB		0		5
11: Robert Ave. & West Temple - 49@19.8 - 45@9.	N-S	SBT	SB		149		259
12: Oakland Ave & West Temple - 40@711.0 - 42@	E-W	WBT	WB		19		4
12: Oakland Ave & West Temple - 40@711.0 - 44@	E-N	WBR	WB	8.13 A	14	8.55 A	25
12: Oakland Ave & West Temple - 40@711.0 - 47@	E-S	WBL	WB		9		5
12: Oakland Ave & West Temple - 43@473.0 - 41@	W-E	EBT	EB		4		20
12: Oakland Ave & West Temple - 43@473.0 - 44@	W-N	EBL	EB		4		9
12: Oakland Ave & West Temple - 43@473.0 - 47@	W-S	EBR	EB		11		9
12: Oakland Ave & West Temple - 45@261.8 - 41@	N-E	SBL	SB		11		10
12: Oakland Ave & West Temple - 45@261.8 - 42@	N-W	SBR	SB		10		5
12: Oakland Ave & West Temple - 45@261.8 - 47@	N-S	SBT	SB		130		248
12: Oakland Ave & West Temple - 46@527.0 - 41@	S-E	NBR	NB		13		22
12: Oakland Ave & West Temple - 46@527.0 - 42@	S-W	NBL	NB		9		11
12: Oakland Ave & West Temple - 46@527.0 - 44@	S-N	NBT	NB		190		261
13: 2400 S & Main Street - 32@716.9 - 36@24.3	W-E	EBT	EB		0		0
13: 2400 S & Main Street - 32@716.9 - 55@6.1	W-S	EBR	EB		5		4
13: 2400 S & Main Street - 32@716.9 - 58@21.9	W-N	EBL	EB		5		9
13: 2400 S & Main Street - 37@672.9 - 33@22.5	E-W	WBT	WB		24		21
13: 2400 S & Main Street - 37@672.9 - 55@6.1	E-S	WBL	WB	14.73 B	24	22.62 C	20
13: 2400 S & Main Street - 37@672.9 - 58@21.9	E-N	WBR	WB		56		132
13: 2400 S & Main Street - 54@239.9 - 33@22.5	S-W	NBL	NB		8		9
13: 2400 S & Main Street - 54@239.9 - 36@24.3	S-E	NBR	NB		0		0
13: 2400 S & Main Street - 54@239.9 - 58@21.9	S-N	NBT	NB		869		918
13: 2400 S & Main Street - 59@503.7 - 33@22.5	N-W	SBR	SB		4		9
13: 2400 S & Main Street - 59@503.7 - 36@24.3	N-E	SBL	SB		0		0
13: 2400 S & Main Street - 59@503.7 - 55@6.1	N-S	SBT	SB		190		471
14: Robert Ave. & Main Street - 26@400.7 - 54@12	E-N	WBR	WB		0		4
14: Robert Ave. & Main Street - 26@400.7 - 61@11	E-S	WBL	WB		4		4
14: Robert Ave. & Main Street - 55@232.2 - 27@29	N-E	SBL	SB		0		11
14: Robert Ave. & Main Street - 55@232.2 - 61@11	N-S	SBT	SB		220		484
14: Robert Ave. & Main Street - 60@60.5 - 27@29.5	S-E	NBR	NB	13.21 B	5	13.40 B	5
14: Robert Ave. & Main Street - 60@60.5 - 54@12.:	S-N	NBT	NB		350		488
14: Robert Ave. & Main Street - 259@1071.7 - 27@	W-E	EBT	EB		8		7
14: Robert Ave. & Main Street - 259@1071.7 - 54@	W-N	EBL	EB		530		438
14: Robert Ave. & Main Street - 259@1071.7 - 61@	W-S	EBR	EB		498		679
15: N Granite SD Access & Main Street - 39@121.3	E-N	WBR	WB	6.60 A	33	8.87 A	65
15: N Granite SD Access & Main Street - 39@121.3	E-S	WBL	WB		0		0
15: N Granite SD Access & Main Street - 61@36.1 -	N-E	SBL	SB		12		13
15: N Granite SD Access & Main Street - 61@36.1 -	N-S	SBT	SB		710		1155
15: N Granite SD Access & Main Street - 62@135.9	S-E	NBR	NB		31		36
15: N Granite SD Access & Main Street - 62@135.9	S-N	NBT	NB		320		428
16: Oakland Ave. & Main Street - 41@707.2 - 62@3	W-N	EBL	EB	8.10 A	10	12.52 B	29
16: Oakland Ave. & Main Street - 41@707.2 - 67@4	W-S	EBR	EB		17		23
16: Oakland Ave. & Main Street - 63@154.7 - 40@3	N-W	SBR	SB		22		18
16: Oakland Ave. & Main Street - 63@154.7 - 67@4	N-S	SBT	SB		687		1137
16: Oakland Ave. & Main Street - 66@184.7 - 40@3	S-W	NBL	NB		21		16
16: Oakland Ave. & Main Street - 66@184.7 - 62@3	S-N	NBT	NB		341		435
17: S Granite SD Access & Main Street - 65@232.9 -	E-N	WBR	WB		24		37
17: S Granite SD Access & Main Street - 65@232.9 -	E-S	WBL	WB		0		0
17: S Granite SD Access & Main Street - 67@180.0 -	N-E	SBL	SB	2.26 A	156	2.16 A	53
17: S Granite SD Access & Main Street - 67@180.0 -	N-S	SBT	SB		548		1109
17: S Granite SD Access & Main Street - 69@505.0 -	S-E	NBR	NB		51		37
17: S Granite SD Access & Main Street - 69@505.0 -	S-N	NBT	NB		337		416

2040 Queue Report (AM PM)

Alternative: CD System to Main Street

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 - 7@51.6	W-E	174.6265	EBT	163	45	237	1142	391	1786
1: 2100 South & State Street - 2@1436.4 - 6@43.7	E-W	214.1699	WBT	243	82	378	394	139	624
1: 2100 South & State Street - 3@1101.9 - 5@67.0	N-S	85.32742	SBT	107	33	161	450	132	668
1: 2100 South & State Street - 4@1031.1 - 8@53.2	S-N	167.9026	NBT	144	41	213	164	39	229
1: 2100 South & State Street - 159@246.4 - 7@51.6	S-E	8.033433	NBR	16	24	56	60	50	143
1: 2100 South & State Street - 160@288.7 - 6@43.7	S-W	41.45578	NBL	59	22	96	87	32	140
1: 2100 South & State Street - 161@166.4 - 5@67.0	E-S	118.9249	WBL	122	41	189	173	121	373
1: 2100 South & State Street - 162@152.6 - 8@53.2	W-N	68.47503	EBL	76	24	115	191	310	703
1: 2100 South & State Street - 163@133.8 - 6@43.7	N-W	17.41647	SBR	19	16	45	30	22	66
1: 2100 South & State Street - 164@371.3 - 7@51.6	N-E	42.12137	SBL	46	19	79	91	30	142
1: 2100 South & State Street - 165@166.2 - 8@53.2	E-N	15.36324	WBR	11	18	41	11	17	39
1: 2100 South & State Street - 255@187.5 - 5@67.0	W-S	24.32716	EBR	29	19	61	576	537	1463
2: Street Car Crossing & State Street - 5@1044.9 - 158@52.	N-S	53.37505	SBT	83	50	167	346	196	670
2: Street Car Crossing & State Street - 5@1044.9 - 176@37.	N-W	53.37505	SBR	83	50	167	346	196	670
2: Street Car Crossing & State Street - 10@1228.3 - 4@51.2	S-N	49.44565	NBT	55	26	97	42	22	78
2: Street Car Crossing & State Street - 174@664.9 - 158@5	W-S	31.79928	EBR	43	38	106	79	68	192
2: Street Car Crossing & State Street - 175@210.6 - 4@51.2	W-N	177.1193	EBL	169	60	268	228	141	461
2: Street Car Crossing & State Street - 177@146.2 - 176@3	S-W	19.43694	NBL	36	29	83	112	66	222
3: WB I-80 & State Street - 90@8.1 - 10@47.0	S-N	0	NBT	0	0	0	78	98	239
3: WB I-80 & State Street - 96@9.7 - 37@36.9	S-W	0	NBL	0	2	4	50	60	150
3: WB I-80 & State Street - 96@9.7 - 118@45.7	S-W	0	NBL	0	2	4	50	60	150
3: WB I-80 & State Street - 124@1240.6 - 37@36.9	E-W	132.1891	WBT	126	39	190	195	54	284
3: WB I-80 & State Street - 124@1240.6 - 91@34.5	E-S	132.1891	WBL	126	39	190	195	54	284
3: WB I-80 & State Street - 124@1240.6 - 118@45.7	E-W	132.1891	WBT	126	39	190	195	54	284
3: WB I-80 & State Street - 125@249.7 - 10@47.0	E-N	148.4077	WBR	183	105	355	181	92	333
3: WB I-80 & State Street - 155@285.8 - 97@42.0	N-S	144.7483	SBT	200	62	302	236	158	497
3: WB I-80 & State Street - 156@284.4 - 37@36.9	N-W	50.48035	SBR	62	46	138	124	99	287
3: WB I-80 & State Street - 156@284.4 - 118@45.7	N-W	56.84593	SBR	66	43	136	126	98	287
3: WB I-80 & State Street - 157@282.8 - 91@34.5	N-S	73.72865	SBT	75	27	120	371	191	686
4: EB I-80 & State Street - 92@5.5 - 12@38.2	N-S	0	SBT	0	0	0	0	0	0
4: EB I-80 & State Street - 98@6.3 - 25@59.6	N-E	0	SBL	0	0	0	0	0	0
4: EB I-80 & State Street - 98@6.3 - 122@62.0	N-E	0	SBL	0	0	0	0	0	0
4: EB I-80 & State Street - 120@1302.7 - 25@59.6	W-E	34.97023	EBT	33	25	74	34	25	75
4: EB I-80 & State Street - 120@1302.7 - 89@28.3	W-N	34.97023	EBL	33	25	74	34	25	75
4: EB I-80 & State Street - 120@1302.7 - 122@62.0	W-E	34.97023	EBT	33	25	74	34	25	75
4: EB I-80 & State Street - 121@193.1 - 12@38.2	W-S	40.01263	EBR	44	23	82	39	20	73
4: EB I-80 & State Street - 144@76.3 - 89@28.3	S-N	186.9944	NBT	246	53	333	294	20	327
4: EB I-80 & State Street - 145@75.0 - 25@59.6	S-E	116.8643	NBR	208	89	355	277	61	377
4: EB I-80 & State Street - 145@75.0 - 10032@97.6	S-E	121.2196	NBR	209	88	354	279	58	375
4: EB I-80 & State Street - 146@331.6 - 95@47.4	S-N	129.6467	NBT	158	48	237	149	51	232
4: EB I-80 & State Street - 10063@12.6 - 12@38.2	N-S	0	SBT	0	0	0	0	0	0
5: Oakland & State Street - 12@191.7 - 12@266.5	N-S	0	SBT	0	0	0	0	0	0
5: Oakland & State Street - 22@609.6 - 11@42.3	E-N	11.66761	WBR	16	14	39	21	12	41
5: Oakland & State Street - 146@91.4 - 146@181.0	S-N	0	NBT	1	6	10	1	10	18
5: Oakland & State Street - 147@71.3 - 11@42.3	S-N	9.300798	NBT	40	45	115	95	25	137
5: Oakland & State Street - 147@71.3 - 21@32.7	S-E	13.13168	NBR	56	62	158	129	35	186
6: East Grantie SD RIRO & State Street - 12@274.6 - 24@20	N-W	0	SBR	3	13	25	1	6	10
6: East Grantie SD RIRO & State Street - 12@274.6 - 143@3	N-S	0	SBT	2	10	18	0	3	5
6: East Grantie SD RIRO & State Street - 23@259.7 - 143@3	W-S	31.20735	EBR	25	13	46	34	13	55
6: East Grantie SD RIRO & State Street - 10004@16.7 - 147(	S-N	48.95923	NBT	112	131	328	821	466	1590
6: East Grantie SD RIRO & State Street - 10008@16.6 - 146(	S-N	39.50935	NBT	99	131	316	818	467	1588
7: 2700 South & State Street - 14@1205.4 - 16@106.4	N-S	93.30034	SBT	80	30	130	210	43	281
7: 2700 South & State Street - 15@1184.3 - 13@57.1	S-N	168.7564	NBT	176	47	254	233	106	408
7: 2700 South & State Street - 17@647.5 - 16@106.4	W-S	43.74151	EBR	42	27	86	269	168	545
7: 2700 South & State Street - 17@647.5 - 19@119.5	W-E	33.05047	EBT	34	29	82	263	168	539
7: 2700 South & State Street - 20@820.0 - 18@72.5	E-W	56.13589	WBT	59	33	114	57	31	108
7: 2700 South & State Street - 148@291.2 - 18@72.5	S-W	41.94315	NBL	36	28	81	39	31	91
7: 2700 South & State Street - 149@150.8 - 19@119.5	S-E	7.068628	NBR	6	11	24	20	16	46
7: 2700 South & State Street - 150@28.0 - 13@57.1	W-N	54.563	EBL	84	45	158	267	168	544
7: 2700 South & State Street - 153@329.4 - 19@119.5	N-E	4.414386	SBL	6	12	26	17	20	50
7: 2700 South & State Street - 154@188.7 - 18@72.5	N-W	7.053935	SBR	11	14	33	2	6	12

7: 2700 South & State Street - 10014@53.9 - 13@57.1	E-N	38.21284	WBR	46	24	85	28	20	60
7: 2700 South & State Street - 10015@17.9 - 16@106.4	E-S	31.09067	WBL	41	33	96	72	38	135
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	141.1327	SBT	146	32	199	274	68	386
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	142.3136	NBT	113	63	217	35	25	75
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	72.86795	NBL	185	107	362	327	60	426
8: WB I-80 & 700 East - 135@1579.2 - 73@63.1	E-S	77.16601	WBL	49	23	87	90	34	146
8: WB I-80 & 700 East - 135@1579.2 - 137@28.7	E-SW	77.16601	WBL	49	23	87	90	34	146
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	11.21833	WBR	4	13	26	5	18	36
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	87.49564	SBT	100	32	154	175	42	244
8: WB I-80 & 700 East - 169@299.3 - 137@28.7	N-SW	1.921018	SBR	18	80	150	3	9	18
9: EB I-80 & 700 East - 74@24.8 - 10189@12.0	N-S	76.64318	SBT	70	30	118	100	32	153
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	249.2874	NBT	326	226	700	224	44	296
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	46.34186	SBL	59	38	122	254	63	358
9: EB I-80 & 700 East - 133@1227.2 - 79@56.2	W-N	253.3956	EBL	266	74	387	271	74	393
9: EB I-80 & 700 East - 133@1227.2 - 140@66.9	W-NE	253.3956	EBL	266	74	387	271	74	393
9: EB I-80 & 700 East - 134@318.9 - 10188@13.8	W-S	0	EBR	5	13	26	9	21	44
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	211.3006	NBT	374	310	886	281	126	490
9: EB I-80 & 700 East - 167@274.8 - 140@66.9	S-NE	0	NBR	1	4	8	1	4	8
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 33@704.1 - 35@43.9	E-W	9.98909	WBT	20	16	46	21	16	47
10: 2400 S & West Temple - 33@704.1 - 56@30.3	E-N	9.98909	WBR	20	16	46	21	16	47
10: 2400 S & West Temple - 33@704.1 - 10106@10.2	E-S	9.98909	WBL	20	16	46	21	16	47
10: 2400 S & West Temple - 34@51.1 - 32@34.2	W-E	0	EBT	0	0	0	0	2	4
10: 2400 S & West Temple - 34@51.1 - 56@30.3	W-N	0	EBL	0	0	0	0	2	4
10: 2400 S & West Temple - 34@51.1 - 10106@10.2	W-S	0	EBR	0	0	0	0	2	4
10: 2400 S & West Temple - 57@353.0 - 32@34.2	N-E	0	SBL	1	7	13	1	6	10
10: 2400 S & West Temple - 57@353.0 - 35@43.9	N-W	0	SBR	0	3	5	0	0	0
10: 2400 S & West Temple - 57@353.0 - 10106@10.2	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 32@34.2	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 35@43.9	S-W	0	NBL	0	4	7	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 56@30.3	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@403.9 - 30@17.2	E-W	0	WBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@403.9 - 45@9.4	E-S	0	WBL	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@403.9 - 48@20.1	E-N	0	WBR	0	0	0	0	0	0
11: Robert Ave. & West Temple - 31@117.4 - 29@20.1	W-E	0	EBT	3	9	18	9	13	30
11: Robert Ave. & West Temple - 31@117.4 - 45@9.4	W-S	0	EBR	3	9	18	9	13	30
11: Robert Ave. & West Temple - 31@117.4 - 48@20.1	W-N	0	EBL	3	9	18	9	13	30
11: Robert Ave. & West Temple - 44@282.3 - 29@20.1	S-E	0	NBR	0	1	2	0	2	3
11: Robert Ave. & West Temple - 44@282.3 - 30@17.2	S-W	0	NBL	0	2	4	0	3	5
11: Robert Ave. & West Temple - 44@282.3 - 48@20.1	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 49@19.8 - 29@20.1	N-E	0	SBL	1	6	11	2	8	14
11: Robert Ave. & West Temple - 49@19.8 - 30@17.2	N-W	0	SBR	0	5	8	1	8	14
11: Robert Ave. & West Temple - 49@19.8 - 45@9.4	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West Temple - 40@711.0 - 42@19.8	E-W	14.65693	WBT	22	15	47	19	16	46
12: Oakland Ave & West Temple - 40@711.0 - 44@31.2	E-N	14.65693	WBR	22	15	47	19	16	46
12: Oakland Ave & West Temple - 40@711.0 - 47@24.9	E-S	14.65693	WBL	22	15	47	19	16	46
12: Oakland Ave & West Temple - 43@473.0 - 41@28.2	W-E	17.04076	EBT	15	14	38	22	15	46
12: Oakland Ave & West Temple - 43@473.0 - 44@31.2	W-N	16.65659	EBL	14	14	37	21	14	45
12: Oakland Ave & West Temple - 43@473.0 - 47@24.9	W-S	16.6845	EBR	14	14	37	21	14	45
12: Oakland Ave & West Temple - 45@261.8 - 41@28.2	N-E	0	SBL	1	5	10	2	10	19
12: Oakland Ave & West Temple - 45@261.8 - 42@19.8	N-W	0	SBR	0	3	5	1	8	15
12: Oakland Ave & West Temple - 45@261.8 - 47@24.9	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West Temple - 46@527.0 - 41@28.2	S-E	5.925707	NBR	0	5	9	0	4	7
12: Oakland Ave & West Temple - 46@527.0 - 42@19.8	S-W	5.332815	NBL	1	6	11	2	7	13
12: Oakland Ave & West Temple - 46@527.0 - 44@31.2	S-N	2.023688	NBT	0	2	3	0	0	0
13: 2400 S & Main Street - 32@716.9 - 36@24.3	W-E	9.216253	EBT	6	11	24	9	12	28
13: 2400 S & Main Street - 32@716.9 - 55@6.1	W-S	9.216253	EBR	6	11	24	9	12	28
13: 2400 S & Main Street - 32@716.9 - 58@21.9	W-N	9.216253	EBL	6	11	24	9	12	28
13: 2400 S & Main Street - 37@672.9 - 33@22.5	E-W	38.20904	WBT	57	36	116	97	56	189
13: 2400 S & Main Street - 37@672.9 - 55@6.1	E-S	38.20904	WBL	57	36	116	97	56	189
13: 2400 S & Main Street - 37@672.9 - 58@21.9	E-N	38.20904	WBR	57	36	116	97	56	189
13: 2400 S & Main Street - 54@239.9 - 33@22.5	S-W	0	NBL	1	5	9	1	7	13
13: 2400 S & Main Street - 54@239.9 - 36@24.3	S-E	0	NBR	0	3	6	0	5	9
13: 2400 S & Main Street - 54@239.9 - 58@21.9	S-N	0	NBT	0	2	3	0	3	5

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13: 2400 S & Main Street - 59@503.7 - 33@22.5	N-W	0	SBR	0	0	0	0	5	8
13: 2400 S & Main Street - 59@503.7 - 36@24.3	N-E	0	SBL	0	0	0	0	4	6
13: 2400 S & Main Street - 59@503.7 - 55@6.1	N-S	0	SBT	0	0	0	0	2	3
14: Robert Ave. & Main Street - 26@400.7 - 54@12.7	E-W	2.513968	WBT	3	8	17	5	10	22
14: Robert Ave. & Main Street - 26@400.7 - 61@11.4	E-N	2.513968	WBR	3	8	17	5	10	22
14: Robert Ave. & Main Street - 55@232.2 - 27@29.5	E-S	54.14053	WBL	52	19	83	97	29	145
14: Robert Ave. & Main Street - 55@232.2 - 61@11.4	W-E	54.14053	EBT	52	19	83	97	29	145
14: Robert Ave. & Main Street - 60@60.5 - 27@29.5	W-N	74.17109	EBL	83	36	143	115	38	177
14: Robert Ave. & Main Street - 60@60.5 - 54@12.7	W-S	74.17109	EBR	83	36	143	115	38	177
14: Robert Ave. & Main Street - 259@1071.7 - 27@29.5	N-E	150.9287	SBL	156	67	266	175	84	313
14: Robert Ave. & Main Street - 259@1071.7 - 54@12.7	N-W	150.9287	SBR	156	67	266	175	84	313
14: Robert Ave. & Main Street - 259@1071.7 - 61@11.4	N-S	160.6969	SBT	165	67	276	185	84	323
15: N Granite SD Access & Main Street - 39@121.3 - 60@3(	S-E	3.961194	NBR	5	13	27	12	16	39
15: N Granite SD Access & Main Street - 39@121.3 - 63@5(	S-W	4.368857	NBL	5	14	28	13	17	42
15: N Granite SD Access & Main Street - 61@36.1 - 38@23.	S-N	0	NBT	3	14	26	7	25	48
15: N Granite SD Access & Main Street - 61@36.1 - 63@56.	E-N	25.49392	WBR	51	33	105	68	18	97
15: N Granite SD Access & Main Street - 62@135.9 - 38@2:	E-S	0	WBL	2	10	18	14	28	60
15: N Granite SD Access & Main Street - 62@135.9 - 60@3(	N-E	0	SBL	0	2	4	1	7	13
16: Oakland Ave. & Main Street - 41@707.2 - 62@37.8	N-S	23.1165	SBT	16	14	40	26	15	51
16: Oakland Ave. & Main Street - 41@707.2 - 67@49.9	S-E	23.1165	NBR	16	14	40	26	15	51
16: Oakland Ave. & Main Street - 63@154.7 - 40@31.3	S-N	0	NBT	0	3	6	0	3	5
16: Oakland Ave. & Main Street - 63@154.7 - 67@49.9	W-N	0	EBL	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 66@184.7 - 40@31.3	W-S	8.749468	EBR	4	10	20	7	14	30
16: Oakland Ave. & Main Street - 66@184.7 - 62@37.8	N-W	0	SBR	0	0	0	0	3	5
17: S Granite SD Access & Main Street - 65@232.9 - 66@55	N-S	0	SBT	0	3	4	0	2	3
17: S Granite SD Access & Main Street - 65@232.9 - 68@30	S-W	0	NBL	0	3	5	0	2	3
17: S Granite SD Access & Main Street - 67@180.0 - 64@29	S-N	14.84853	NBT	15	18	45	6	11	25
17: S Granite SD Access & Main Street - 67@180.0 - 68@30	E-N	0	WBR	0	3	6	0	0	0
17: S Granite SD Access & Main Street - 69@505.0 - 64@29	E-S	4.26998	WBL	1	4	7	0	1	2
17: S Granite SD Access & Main Street - 69@505.0 - 66@55	N-E	0	SBL	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: CD System to Main Street

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (West of State)	Basic	4	19.3	C	0.453052	***21.0***	***C***	***34.8***	***D***	5305	5320	99.7%	7403	9850	75.2%	66.43	53.55	0.59	3.59
EB I-80 (State to 700 E)	Weave	6	15.5	B	0.536955	***16.9***	***B***	***22.3***	***C***	6475	6530	99.2%	8722	11250	77.5%	67.00	65.53	0.54	0.75
EB I-80 (Approaching 700 E)	Basic	5	14.3	B	0.676397	***15.6***	***B***	***20.6***	***C***	4958	5060	98.0%	6634	8630	76.9%	67.01	65.36	0.68	1.06
WB I-80 (Over 700 E)	Basic	4	77.4	F	15.09241	***94.1***	***F***	***25.9***	***C***	5723	8020	71.4%	6099	6130	99.5%	14.52	62.05	15.09	1.98
WB I-80 (700 E to State)	Weave	5	63.1	F	10.04137	***67.9***	***F***	***25.7***	***C***	7377	10050	73.4%	7440	7490	99.3%	21.17	59.35	10.04	3.94
WB I-80 (Over State)	Diverge	4	46.2	F	5.758748	***48.8***	***F***	***31.1***	***D***	6708	9180	73.1%	6386	6470	98.7%	28.09	64.67	5.85	1.54
WB I-80 to WB CD Ramp	Ramp	2	79.4	F	3.388716	***79.5***	***F***	***28.3***	***C***	3762	5250	71.7%	3417	3550	96.2%	23.43	61.56	4.11	3.70
WB I-80 (West of State)	Diverge	3	17.1	B	2.123521	***17.1***	***B***	***15.0***	***B***	2809	3930	71.5%	2840	2920	97.2%	63.99	66.86	2.12	1.05
WB I-80 to NB I-15	Ramp	3	13.9	B	1.95609	***13.9***	***B***	***13.8***	***B***	2201	3010	73.1%	2222	2240	99.2%	56.00	56.31	1.96	1.17
To SB I-15 Ramp	Ramp	2	14.2	B	1.274945	***15.5***	***B***	***16.3***	***B***	1664	1990	83.6%	1732	1770	97.9%	55.80	55.73	1.54	1.29
To WB 201 Ramp	Ramp	2	24.4	C	1.654923	***24.5***	***C***	***22.7***	***B***	2648	3690	71.8%	2365	2410	98.1%	54.83	54.88	1.65	1.66
WB I-80 to SB I-15/WB 201	Diverge	3	42.8	E	1.585819	***43.1***	***E***	***31.8***	***D***	4236	5680	74.6%	4025	4180	96.3%	52.63	51.33	1.94	2.39
WB CD	Weave (CD)	3	29.9	C	1.821062	***30.9***	***C***	***24.5***	***C***	4685	6150	76.2%	4417	4530	97.5%	51.39	62.28	2.30	1.86
EB State Street On-Ramp	Ramp	2	19.8	B	2.940714	***22.3***	***B***	***26.8***	***C***	1045	1210	86.3%	1202	1400	85.8%	23.96	22.78	4.58	7.81
EB I-80 I-15 to State	Weave	5	15.9	B	0.292201	***17.4***	***B***	***52.0***	***F***	5380	5510	97.6%	7408	10060	73.6%	65.20	34.05	0.43	14.93
NB I-15 Off Ramp 2	Ramp	2	7.6	A	0.680412	***8.1***	***A***	***8.8***	***A***	1035	1030	100.5%	1123	1200	93.6%	66.99	66.09	0.68	0.83
NB I-15 Off Ramp 1	Ramp	2	12.4	B	0.957671	***13.4***	***B***	***16.3***	***B***	1583	1600	99.0%	1857	1880	98.8%	62.63	59.95	1.36	1.59
EB 201/SB I-15 2	Basic	5	16.2	B	0.258272	***17.7***	***B***	***52.2***	***F***	5407	5510	98.1%	7452	10060	74.1%	64.30	33.94	0.37	32.25
EB 201/SB I-15 1	Merge	5	24.4	C	0.307444	***26.3***	***C***	***40.5***	***E***	5395	5510	97.9%	7437	10060	73.9%	61.23	37.45	0.46	18.18
EB 201 Ramp	Ramp	2	19.5	B	0.353521	***21.2***	***B***	***87.7***	***F***	2335	2350	99.4%	2933	4480	65.5%	58.16	16.56	0.57	7.36
SB I-15 Ramp	Ramp	3	13.7	B	0.140719	***14.8***	***B***	***108.9***	***F***	2589	2590	100.0%	3883	4900	79.2%	61.25	11.74	0.19	17.84
700 E WB On-Ramp	Ramp	2	80.7	F	32.07119	***141.2***	***F***	***19.2***	***B***	1744	2030	85.9%	1338	1360	98.4%	5.97	36.02	32.07	3.89
NB I-15 Ramp 3	Ramp	2	7.3	A	0.624986	***7.8***	***A***	***8.4***	***A***	1008	1030	97.9%	1096	1200	91.3%	67.89	67.62	0.62	0.83
EB I-80 (Over 700 E)	Basic	4	17.8	B	0.745502	***19.3***	***C***	***25.4***	***C***	5007	5060	98.9%	6701	8630	77.7%	67.92	66.87	0.75	1.23
EB I-80 over State	Basic	5	15.1	B	0.35903	***16.4***	***B***	***23.1***	***C***	5279	5320	99.2%	7368	9850	74.8%	67.84	63.87	0.45	0.92

Alternative: SR-201 and I-15 SB Braided Ramps with I-15 NB Flyover

Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7	W-E	EB							495							893
1: 2100 South & State Street - 2@1436.4 - 6	E-W	WB							689							876
1: 2100 South & State Street - 3@1101.9 - 5	N-S	SB							611							1924
1: 2100 South & State Street - 4@1031.1 - 8	S-N	NB							1351							1069
1: 2100 South & State Street - 159@246.4 - 1	S-E	NB							179							190
1: 2100 South & State Street - 160@288.7 - 6	S-W	NB							167							274
1: 2100 South & State Street - 161@166.4 - 1	E-S	WB							270							268
1: 2100 South & State Street - 162@152.6 - 1	W-N	EB							143							174
1: 2100 South & State Street - 163@133.8 - 6	N-W	SB							73							169
1: 2100 South & State Street - 164@371.3 - 1	N-E	SB							84							220
1: 2100 South & State Street - 165@166.2 - 1	E-N	WBR							86							100
1: 2100 South & State Street - 255@187.5 - 1	W-S	EBR	31.28	C					159	51.55	D					318
2: Street Car Crossing & State Street - 5@10	N-W	SBR							889							2242
2: Street Car Crossing & State Street - 5@10	S-N	NBT							150							248
2: Street Car Crossing & State Street - 10@1	W-S	EBR							1503							1339
2: Street Car Crossing & State Street - 174@1	W-N	EBL							301							293
2: Street Car Crossing & State Street - 175@	S-W	NBL							197							201
2: Street Car Crossing & State Street - 177@	S-N	NBT	12.71	B					191	30.66	C					371
3: WB I-80 & State Street - 90@8.1 - 10@47.	S-W	NBL							1246					1.470046		1196
3: WB I-80 & State Street - 96@9.7 - 37@36.	E-W	WBT							31							20
3: WB I-80 & State Street - 96@9.7 - 118@45	E-S	WBL							497							364
3: WB I-80 & State Street - 124@1240.6 - 37	E-W	WBT							75							144
3: WB I-80 & State Street - 124@1240.6 - 91	E-N	WBR							230							365
3: WB I-80 & State Street - 124@1240.6 - 11	N-S	SBT							0							0
3: WB I-80 & State Street - 125@249.7 - 10@	N-W	SBR							449					18.557269		515
3: WB I-80 & State Street - 155@285.8 - 97@	N-W	SBR	17.70	B					598	25.55	C					809
3: WB I-80 & State Street - 156@284.4 - 37@	N-S	SBT							11							10
3: WB I-80 & State Street - 156@284.4 - 118	N-S	SBT							397							577
3: WB I-80 & State Street - 157@282.8 - 91@	N-E	SBL							175							1129
4: EB I-80 & State Street - 92@5.5 - 12@38.2	W-S	EBR							0							0
4: EB I-80 & State Street - 98@6.3 - 25@59.6	W-E	EBT							18							20
4: EB I-80 & State Street - 98@6.3 - 122@62	W-N	EBL							580							789
4: EB I-80 & State Street - 120@2857.4 - 12@	W-E	EBT							604							715
4: EB I-80 & State Street - 120@2857.4 - 25@	S-N	NBT							131							123
4: EB I-80 & State Street - 120@2857.4 - 89@	S-E	NBR	28.20	C	35.57	C			536	28.80	C	43.51	C			492
4: EB I-80 & State Street - 120@2857.4 - 122	S-E	NBR							0							0
4: EB I-80 & State Street - 144@76.3 - 89@2	S-N	NBT							712							704
4: EB I-80 & State Street - 145@75.0 - 25@5	N-S	SBT							18							16
4: EB I-80 & State Street - 145@75.0 - 10032	N-S	SBT							612							510
4: EB I-80 & State Street - 146@331.6 - 95@	E-N	WBR							528							384
4: EB I-80 & State Street - 10063@12.6 - 12@	S-N	NBT							406							1495
5: Oakland & State Street - 12@191.7 - 12@	S-E	NBR							1010							2208
5: Oakland & State Street - 22@609.6 - 11@	N-W	SBR					9.59	A	29					17.96	C	49
5: Oakland & State Street - 146@91.4 - 146@	N-S	SBT							530							385
5: Oakland & State Street - 147@71.3 - 11@	W-S	EBR							1319							1185
5: Oakland & State Street - 147@71.3 - 21@	S-N	NBT							13							18
6: East Grantie SD RIRO & State Street - 12@	N-S	SBT							239							70
6: East Grantie SD RIRO & State Street - 12@	S-N	NBT							771							2139
6: East Grantie SD RIRO & State Street - 23@	W-S	EBR					6.45	A	49					7.27	A	97
6: East Grantie SD RIRO & State Street - 100	W-E	EBT							1332							1205
6: East Grantie SD RIRO & State Street - 100	E-W	WBT							529							386
7: 2700 South & State Street - 14@1205.4 - 1	S-E	NBR							606							1962
7: 2700 South & State Street - 15@1184.3 - 1	W-N	EBL							1519							1349
7: 2700 South & State Street - 17@647.5 - 16	N-E	SBL							40							97
7: 2700 South & State Street - 17@647.5 - 15	N-W	SBR							59							319
7: 2700 South & State Street - 20@820.0 - 11	E-N	WBR							156							151
7: 2700 South & State Street - 148@291.2 - 1	E-S	WBL	15.68	B					120	42.44	D					87
7: 2700 South & State Street - 149@150.8 - 1	N-S	SBT							21							87
7: 2700 South & State Street - 150@28.0 - 1	S-N	NBT							149					26.01	D	282
7: 2700 South & State Street - 153@329.4 - 1	S-SW	NBL							50							156
7: 2700 South & State Street - 154@188.7 - 1	E-S	WBL							167							113
7: 2700 South & State Street - 10014@53.9 - E	SW	WBL							199					9.32	A	69
7: 2700 South & State Street - 10015@17.9 - E	N	WBR							74							129
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-SW	SBR							675							1768
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	N-S	SBT							2500							1948
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-N	NBT							955							695
8: WB I-80 & 700 East - 135@1579.2 - 73@6	N-NE	SBL							97							224
8: WB I-80 & 700 East - 135@1579.2 - 137@	W-N	EBL							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	W-NE	EBL							742							571
8: WB I-80 & 700 East - 168@218.7 - 83@57	W-S	EBR	15.70	B					311	18.57	B					775
8: WB I-80 & 700 East - 169@299.3 - 137@2	S-N	NBT							1039					7.78	A	663
9: EB I-80 & 700 East - 74@24.8 - 10189@12	N-S	SBT							772							1991
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	E-W	WBT							1755							1069
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	E-N	WBR			33.98	C			312			35.19	C	15.52	C	775
9: EB I-80 & 700 East - 133@1231.9 - 79@56	E-S	WBL							747							879
9: EB I-80 & 700 East - 133@1231.9 - 140@6	W-E	EBT							0							0
9: EB I-80 & 700 East - 134@318.9 - 10188@	W-N	EBL							689							1283
9: EB I-80 & 700 East - 166@226.1 - 86@53.1	W-S	EBR							964							696
9: EB I-80 & 700 East - 167@274.8 - 140@66	N-E	SBL	26.58	C					151	22.88	C					151
9: EB I-80 & 700 East - 10188@14.1 - 76@3.1	N-W	SBR							75							147
10: 2400 S & West Temple - 33@704.1 - 35@	S-E	NBR					7.53	A	6					7.94	A	6
10: 2400 S & West Temple - 33@704.1 - 56@	S-W	NBL							12							20
10: 2400 S & West Temple - 33@704.1 - 101	S-N	NBT							19							8
10: 2400 S & West Temple - 34@51.1 - 32@	E-W	WBT							0							4
10: 2400 S & West Temple - 34@51.1 - 56@	E-S	WBL							0							0
10: 2400 S & West Temple - 34@51.1 - 1010	E-N	WBR							0							0
10: 2400 S & West Temple - 57@353.0 - 32@	W-E	EBT							6							5

10: 2400 S & West Temple - 57@353.0 - 35@W-S	EBR	EB			0		5
10: 2400 S & West Temple - 57@353.0 - 101 W-N	EBL	EB			138		261
10: 2400 S & West Temple - 10107@1.9 - 32 S-E	NBR	NB			5		6
10: 2400 S & West Temple - 10107@1.9 - 35 S-W	NBL	NB			4		0
10: 2400 S & West Temple - 10107@1.9 - 56 S-N	NBT	NB			190		280
11: Robert Ave. & West Temple - 28@710.2 N-W	SBR	SB			0		0
11: Robert Ave. & West Temple - 28@710.2 N-S	SBT	SB			4		6
11: Robert Ave. & West Temple - 28@710.2 E-W	WBT	WB			4		3
11: Robert Ave. & West Temple - 31@117.4 E-N	WBR	WB			0		5
11: Robert Ave. & West Temple - 31@117.4 E-S	WBL	WB			0		4
11: Robert Ave. & West Temple - 31@117.4 W-E	EBT	EB	7.25	A	4	11.64 B	4
11: Robert Ave. & West Temple - 44@282.3 W-N	EBL	EB			6		5
11: Robert Ave. & West Temple - 44@282.3 W-S	EBR	EB			7		6
11: Robert Ave. & West Temple - 44@282.3 N-E	SBL	SB			192		277
11: Robert Ave. & West Temple - 49@19.8 - N-W	SBR	SB			5		5
11: Robert Ave. & West Temple - 49@19.8 - N-S	SBT	SB			0		5
11: Robert Ave. & West Temple - 49@19.8 - S-E	NBR	NB			152		258
12: Oakland Ave & West Temple - 40@711.0 S-N	NBT	NB	8.23	A	18	12.02 B	4
12: Oakland Ave & West Temple - 40@711.0 W-E	EBT	EB			10		21
12: Oakland Ave & West Temple - 40@711.0 W-S	EBR	EB			10		5
12: Oakland Ave & West Temple - 43@473.0 W-N	EBL	EB			4		20
12: Oakland Ave & West Temple - 43@473.0 E-W	WBT	WB			4		9
12: Oakland Ave & West Temple - 43@473.0 E-S	WBL	WB			11		9
12: Oakland Ave & West Temple - 45@261.8 E-N	WBR	WB			11		10
12: Oakland Ave & West Temple - 45@261.8 S-W	NBL	NB			10		5
12: Oakland Ave & West Temple - 45@261.8 S-E	NBR	NB			135		253
12: Oakland Ave & West Temple - 46@527.0 S-N	NBT	NB			13		22
12: Oakland Ave & West Temple - 46@527.0 N-W	SBR	SB			9		11
12: Oakland Ave & West Temple - 46@527.0 N-E	SBL	SB			190		261
13: 2400 S & Main Street - 32@716.9 - 36@2 E-W	WBT	WB			0		0
13: 2400 S & Main Street - 32@716.9 - 55@0 E-N	WBR	WB			5		4
13: 2400 S & Main Street - 32@716.9 - 58@2 E-S	WBL	WB			5		9
13: 2400 S & Main Street - 37@672.9 - 33@2 W-E	EBT	EB	14.48	B	28	21.92 C	20
13: 2400 S & Main Street - 37@672.9 - 55@0 W-N	EBL	EB			27		20
13: 2400 S & Main Street - 37@672.9 - 58@2 W-S	EBR	EB			62		133
13: 2400 S & Main Street - 54@239.9 - 33@2 N-E	SBL	SB			4		4
13: 2400 S & Main Street - 54@239.9 - 36@2 N-W	SBR	SB			0		0
13: 2400 S & Main Street - 54@239.9 - 58@2 N-S	SBT	SB			338		496
13: 2400 S & Main Street - 59@503.7 - 33@2 S-E	NBR	NB			4		9
13: 2400 S & Main Street - 59@503.7 - 36@2 S-W	NBL	NB			0		0
13: 2400 S & Main Street - 59@503.7 - 55@0 S-N	NBT	NB			190		471
14: Robert Ave. & Main Street - 26@405.6 - E-S	WBL	WB			0		0
14: Robert Ave. & Main Street - 26@405.6 - N-E	SBL	SB			0		4
14: Robert Ave. & Main Street - 26@405.6 - N-S	SBT	SB	8.11	A	4	8.38 A	4
14: Robert Ave. & Main Street - 29@709.2 - S-E	NBR	NB			0		5
14: Robert Ave. & Main Street - 29@709.2 - S-N	NBT	NB			7		5
14: Robert Ave. & Main Street - 29@709.2 - W-N	EBL	EB			4		6
14: Robert Ave. & Main Street - 55@232.4 - W-S	EBR	EB			0		10
14: Robert Ave. & Main Street - 55@232.4 - N-W	SBR	SB			5		5
14: Robert Ave. & Main Street - 55@232.4 - N-S	SBT	SB			217		481
14: Robert Ave. & Main Street - 60@63.7 - 2 S-W	NBL	NB			5		5
14: Robert Ave. & Main Street - 60@63.7 - 2 S-N	NBT	NB			4		5
14: Robert Ave. & Main Street - 60@63.7 - 5 E-N	WBR	WB			337		491
15: N Granite SD Access & Main Street - 39@N-E	SBL	SB	1.02	A	18	1.18 A	60
15: N Granite SD Access & Main Street - 39@N-S	SBT	SB			15		5
15: N Granite SD Access & Main Street - 61@S-E	NBR	NB			12		14
15: N Granite SD Access & Main Street - 61@S-N	NBT	NB			214		479
15: N Granite SD Access & Main Street - 62@W-E	EBT	EB			9		4
15: N Granite SD Access & Main Street - 62@E-W	WBT	WB			328		442
16: Oakland Ave. & Main Street - 41@707.2 S-N	NBT	NB	6.68	A	10	7.70 A	28
16: Oakland Ave. & Main Street - 41@707.2 S-E	NBR	NB			17		23
16: Oakland Ave. & Main Street - 63@154.7 S-W	NBL	NB			17		13
16: Oakland Ave. & Main Street - 63@154.7 E-S	WBL	WB			213		472
16: Oakland Ave. & Main Street - 66@184.7 W-N	EBL	EB			21		16
16: Oakland Ave. & Main Street - 66@184.7 N-W	SBR	SB			324		418
17: S Granite SD Access & Main Street - 65@E-N	WBR	WB	1.24	A	8	1.79 A	19
17: S Granite SD Access & Main Street - 65@W-S	EBR	EB			17		17
17: S Granite SD Access & Main Street - 67@N-S	SBT	SB			14		5
17: S Granite SD Access & Main Street - 67@N-W	SBR	SB			217		490
17: S Granite SD Access & Main Street - 69@S-N	NBT	NB			51		37
17: S Granite SD Access & Main Street - 69@W-S	EBR	EB			337		415

2040 Queue Report (AM PM)

Alternative: SR-201 and I-15 SB Braided Ramps with I-15 NB Flyover

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Stre	W-E	170.4696	EBT	12	162	280	419	1163	2338
1: 2100 South & State Stre	E-W	214.0723	WBT	27	242	426	368	189	679
1: 2100 South & State Stre	N-S	94.00281	SBT	11	110	192	419	180	716
1: 2100 South & State Stre	S-N	224.6294	NBT	25	189	336	167	98	330
1: 2100 South & State Stre	S-E	65.80182	NBR	31	84	170	96	78	224
1: 2100 South & State Stre	S-W	54.5508	NBL	11	80	143	125	60	225
1: 2100 South & State Stre	E-S	118.875	WBL	15	123	218	190	170	470
1: 2100 South & State Stre	W-N	70.28765	EBL	7	76	132	357	557	1276
1: 2100 South & State Stre	N-W	17.42454	SBR	4	20	36	43	35	100
1: 2100 South & State Stre	N-E	42.128	SBL	6	47	83	75	44	148
1: 2100 South & State Stre	E-N	15.3503	WBR	8	19	39	88	156	346
1: 2100 South & State Stre	W-S	24.35225	EBR	7	29	55	667	585	1632
2: Street Car Crossing & St	N-S	50.37178	SBT	19	88	165	436	263	870
2: Street Car Crossing & St	N-W	50.37178	SBR	19	88	165	415	268	857
2: Street Car Crossing & St	S-N	105.3922	NBT	22	137	248	93	57	186
2: Street Car Crossing & St	W-S	30.58022	EBR	14	44	86	112	93	266
2: Street Car Crossing & St	W-N	177.1325	EBL	20	169	298	267	164	538
2: Street Car Crossing & St	S-W	29.32987	NBL	16	67	126	341	164	611
3: WB I-80 & State Street	S-N	0	NBT	0	0	0	0	0	0
3: WB I-80 & State Street	S-W	0	NBL	0	0	0	0	0	0
3: WB I-80 & State Street	S-W	0	NBL	0	0	0	0	0	0
3: WB I-80 & State Street	E-W	135.3515	WBT	13	126	222	335	231	716
3: WB I-80 & State Street	E-S	135.3515	WBL	13	126	222	344	236	733
3: WB I-80 & State Street	E-W	135.3515	WBT	13	126	222	335	231	716
3: WB I-80 & State Street	E-N	208.7423	WBR	58	237	449	347	285	817
3: WB I-80 & State Street	N-S	147.1032	SBT	27	200	357	210	130	425
3: WB I-80 & State Street	N-W	50.47744	SBR	16	61	118	152	132	370
3: WB I-80 & State Street	N-W	56.86122	SBR	15	65	123	111	87	255
3: WB I-80 & State Street	N-S	75.5422	SBT	8	74	131	268	198	594
4: EB I-80 & State Street -	N-S	0	SBT	2	5	10	0	0	0
4: EB I-80 & State Street -	N-E	0	SBL	0	1	2	0	0	0
4: EB I-80 & State Street -	N-E	0	SBL	0	1	2	0	0	0
4: EB I-80 & State Street -	W-S	294.2074	EBR	43	311	556	199	78	327
4: EB I-80 & State Street -	W-E	287.9054	EBT	43	305	546	233	156	490
4: EB I-80 & State Street -	W-N	287.9054	EBL	43	305	546	199	78	327
4: EB I-80 & State Street -	W-E	287.9054	EBT	43	305	546	312	209	657
4: EB I-80 & State Street -	S-N	198.5229	NBT	29	254	448	280	53	368
4: EB I-80 & State Street -	S-E	141.7442	NBR	42	231	424	243	90	391
4: EB I-80 & State Street -	S-E	143.9861	NBR	42	232	425	267	78	395
4: EB I-80 & State Street -	S-N	135.7886	NBT	20	157	279	111	72	229
4: EB I-80 & State Street -	N-S	0	SBT	2	5	10	43	91	194
5: Oakland & State Street	N-S	0	SBT	0	0	0	0	2	4
5: Oakland & State Street	E-N	11.60206	WBR	4	16	31	64	121	263
5: Oakland & State Street	S-N	0	NBT	1	4	8	16	37	76
5: Oakland & State Street	S-N	0	NBT	22	52	109	93	43	164
5: Oakland & State Street	S-E	0	NBR	31	75	155	102	61	202
6: East Grantie SD RIRO &	N-W	22.54849	SBR	6	17	35	8	16	35

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6: East Grantie SD RIRO &	N-S	15.13052	SBT	4	12	24	0	3	6
6: East Grantie SD RIRO &	W-S	31.21329	EBR	5	25	46	32	13	54
6: East Grantie SD RIRO &	S-N	31.58301	NBT	69	141	301	364	287	836
6: East Grantie SD RIRO &	S-N	26.03858	NBT	72	143	308	312	313	828
7: 2700 South & State Stre	N-S	98.70969	SBT	8	90	157	292	144	529
7: 2700 South & State Stre	S-N	170.5585	NBT	14	177	306	209	63	313
7: 2700 South & State Stre	W-S	46.15073	EBR	10	42	79	201	86	344
7: 2700 South & State Stre	W-E	35.4597	EBT	10	34	67	169	98	330
7: 2700 South & State Stre	E-W	56.11141	WBT	11	59	108	65	37	127
7: 2700 South & State Stre	S-W	41.99955	NBL	7	36	66	36	29	84
7: 2700 South & State Stre	S-E	7.027772	NBR	3	11	22	61	82	196
7: 2700 South & State Stre	W-N	54.7144	EBL	17	84	155	169	105	342
7: 2700 South & State Stre	N-E	19.97725	SBL	5	20	38	44	33	99
7: 2700 South & State Stre	N-W	24.81682	SBR	6	21	40	52	85	193
7: 2700 South & State Stre	E-N	41.71948	WBR	9	46	85	35	30	85
7: 2700 South & State Stre	E-S	31.09067	WBL	9	41	77	129	117	321
8: WB I-80 & 700 East - 72	N-S	140.9792	SBT	10	146	250	219	112	405
8: WB I-80 & 700 East - 80	S-N	181.4068	NBT	24	119	220	86	120	284
8: WB I-80 & 700 East - 87	S-SW	85.90362	NBL	78	195	400	254	144	491
8: WB I-80 & 700 East - 13	E-S	77.36176	WBL	9	53	96	74	48	153
8: WB I-80 & 700 East - 13	E-SW	77.36176	WBL	9	53	96	92	37	152
8: WB I-80 & 700 East - 13	E-N	11.21833	WBR	7	16	34	38	69	151
8: WB I-80 & 700 East - 16	N-S	87.48818	SBT	10	101	175	133	76	260
8: WB I-80 & 700 East - 16	N-SW	1.921018	SBR	31	95	188	58	109	237
9: EB I-80 & 700 East - 74(	N-S	93.387	SBT	9	71	126	119	58	215
9: EB I-80 & 700 East - 78(	S-N	258.7694	NBT	69	345	637	224	64	329
9: EB I-80 & 700 East - 85(	N-NE	42.90279	SBL	12	56	104	252	64	357
9: EB I-80 & 700 East - 133	W-N	249.948	EBL	25	265	463	211	123	415
9: EB I-80 & 700 East - 133	W-NE	249.948	EBL	25	265	463	267	73	388
9: EB I-80 & 700 East - 134	W-S	0	EBR	4	13	27	53	91	204
9: EB I-80 & 700 East - 166	S-N	219.6262	NBT	173	408	847	202	153	454
9: EB I-80 & 700 East - 167	S-NE	0	NBR	1	4	9	21	43	92
9: EB I-80 & 700 East - 101	N-S	0	SBT	0	0	0	57	117	250
10: 2400 S & West Temple	E-W	7.565912	WBT	5	19	37	20	15	44
10: 2400 S & West Temple	E-N	7.565912	WBR	5	19	37	16	15	41
10: 2400 S & West Temple	E-S	7.565912	WBL	5	19	37	20	15	44
10: 2400 S & West Temple	W-E	0	EBT	0	0	0	0	2	4
10: 2400 S & West Temple	W-N	0	EBL	0	0	0	0	2	3
10: 2400 S & West Temple	W-S	0	EBR	0	0	0	0	2	4
10: 2400 S & West Temple	N-E	0	SBL	2	7	13	1	4	8
10: 2400 S & West Temple	N-W	0	SBR	1	3	6	1	6	11
10: 2400 S & West Temple	N-S	0	SBT	0	0	0	0	2	3
10: 2400 S & West Temple	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple	S-W	0	NBL	1	4	8	0	0	0
10: 2400 S & West Temple	S-N	0	NBT	0	0	0	4	11	22
11: Robert Ave. & West Te	E-W	2.575479	WBT	4	12	24	7	12	27
11: Robert Ave. & West Te	E-S	2.558841	WBL	4	12	24	7	12	27
11: Robert Ave. & West Te	E-N	2.531768	WBR	4	12	24	7	12	27
11: Robert Ave. & West Te	W-E	0	EBT	4	9	18	9	12	29
11: Robert Ave. & West Te	W-S	0	EBR	4	9	18	9	12	29

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11: Robert Ave. & West Te	W-N	0	EBL	4	9	18	7	12	26
11: Robert Ave. & West Te	S-E	0	NBR	0	1	2	0	2	4
11: Robert Ave. & West Te	S-W	0	NBL	1	2	5	0	2	4
11: Robert Ave. & West Te	S-N	0	NBT	0	0	0	0	2	3
11: Robert Ave. & West Te	N-E	2.913104	SBL	2	5	11	5	19	36
11: Robert Ave. & West Te	N-W	8.146827	SBR	12	36	71	17	34	73
11: Robert Ave. & West Te	N-S	0	SBT	0	0	0	3	10	20
12: Oakland Ave & West T	E-W	16.71183	WBT	4	20	36	16	16	42
12: Oakland Ave & West T	E-N	16.71183	WBR	4	20	36	16	16	42
12: Oakland Ave & West T	E-S	16.71183	WBL	4	20	36	18	15	43
12: Oakland Ave & West T	W-E	17.04076	EBT	6	15	30	22	15	47
12: Oakland Ave & West T	W-N	16.65659	EBL	6	14	29	22	15	46
12: Oakland Ave & West T	W-S	16.6845	EBR	6	14	29	18	16	44
12: Oakland Ave & West T	N-E	0	SBL	2	6	11	2	10	18
12: Oakland Ave & West T	N-W	0	SBR	1	3	6	1	7	13
12: Oakland Ave & West T	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West T	S-E	5.925707	NBR	2	5	10	1	5	8
12: Oakland Ave & West T	S-W	5.332815	NBL	2	6	12	1	6	11
12: Oakland Ave & West T	S-N	2.023688	NBT	1	2	4	2	8	15
13: 2400 S & Main Street ·	W-E	9.74766	EBT	4	11	22	10	13	31
13: 2400 S & Main Street ·	W-S	9.74766	EBR	4	11	22	10	13	31
13: 2400 S & Main Street ·	W-N	9.74766	EBL	4	11	22	24	35	82
13: 2400 S & Main Street ·	E-W	31.53294	WBT	13	52	99	91	69	206
13: 2400 S & Main Street ·	E-S	31.53294	WBL	13	52	99	91	69	206
13: 2400 S & Main Street ·	E-N	31.53294	WBR	13	52	99	75	77	202
13: 2400 S & Main Street ·	S-W	0	NBL	1	4	7	1	4	8
13: 2400 S & Main Street ·	S-E	0	NBR	0	0	0	0	3	6
13: 2400 S & Main Street ·	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street ·	N-W	0	SBR	0	0	0	0	0	0
13: 2400 S & Main Street ·	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street ·	N-S	0	SBT	0	0	0	1	6	11
14: Robert Ave. & Main St	E-W	2.669583	WBT	3	9	18	6	11	24
14: Robert Ave. & Main St	E-N	2.669583	WBR	3	9	18	6	11	24
14: Robert Ave. & Main St	E-S	2.669583	WBL	3	9	18	6	11	25
14: Robert Ave. & Main St	W-E	10.32267	EBT	5	13	25	10	14	33
14: Robert Ave. & Main St	W-N	10.32267	EBL	5	13	25	10	14	33
14: Robert Ave. & Main St	W-S	10.32267	EBR	5	13	25	9	14	32
14: Robert Ave. & Main St	N-E	0	SBL	0	0	0	1	7	13
14: Robert Ave. & Main St	N-W	0	SBR	1	2	4	0	5	8
14: Robert Ave. & Main St	N-S	0	SBT	0	0	0	2	11	19
14: Robert Ave. & Main St	S-E	0	NBR	1	3	6	4	17	32
14: Robert Ave. & Main St	S-W	0	NBL	0	1	2	0	3	5
14: Robert Ave. & Main St	S-N	0	NBT	0	0	0	1	4	8
15: N Granite SD Access &	E-N	0	WBR	2	9	16	5	10	21
15: N Granite SD Access &	E-S	0	WBL	3	9	17	4	10	21
15: N Granite SD Access &	N-E	2.174524	SBL	1	3	7	2	10	20
15: N Granite SD Access &	N-S	0	SBT	5	18	35	6	21	41
15: N Granite SD Access &	S-E	0	NBR	0	1	2	0	0	0
15: N Granite SD Access &	S-N	0	NBT	0	0	0	5	12	25
16: Oakland Ave. & Main S	W-N	23.08612	EBL	5	16	32	24	14	47

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16: Oakland Ave. & Main S	W-S	23.08612	EBR	5	16	32	19	16	45
16: Oakland Ave. & Main S	N-W	0	SBR	1	3	6	0	2	4
16: Oakland Ave. & Main S	N-S	0	SBT	0	0	0	1	4	8
16: Oakland Ave. & Main S	S-W	1.807164	NBL	2	5	11	2	8	15
16: Oakland Ave. & Main S	S-N	0	NBT	0	0	0	1	5	9
17: S Granite SD Access &	E-N	0	WBR	2	6	13	4	9	18
17: S Granite SD Access &	E-S	0	WBL	2	7	13	3	8	16
17: S Granite SD Access &	N-E	1.872743	SBL	1	5	10	1	4	6
17: S Granite SD Access &	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access &	S-E	4.265461	NBR	1	4	7	0	1	2
17: S Granite SD Access &	S-N	0	NBT	0	0	0	20	42	89

Freeway LOS AM PM

Alternative: SR-201 and I-15 SB Braided Ramps with I-15 NB Flyover

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (West of State)	Basic	4	18.2	C	0.44	***19.9***	***C***	***38.9***	***E***	4992	5320	93.8%	7687	9850	78.0%	66.04	50.19	0.53	3.86
EB I-80 (State to 700 E)	Weave	5	18.7	B	0.72	***20.4***	***C***	***32.5***	***D***	6407	6530	98.1%	9330	11250	82.9%	65.89	57.44	0.72	3.34
EB I-80 (Approaching 700 E)	Basic	4	17.8	B	0.85	***19.4***	***C***	***28.8***	***D***	4959	5060	98.0%	7156	8630	82.9%	67.01	62.27	0.85	1.90
WB I-80 (Over 700 E)	Basic	4	54.3	F	13.88	***84.7***	***F***	***24.9***	***C***	6846	8020	85.4%	6097	6130	99.5%	19.78	64.47	13.88	1.24
WB I-80 (700 E to State)	Weave	5	58.0	F	13.89	***70.0***	***F***	***25.4***	***C***	8696	10050	86.5%	7435	7490	99.3%	24.69	61.54	13.89	1.19
WB I-80 (Over State)	Diverge	4	76.0	F	6.83	***76.0***	***F***	***29.1***	***D***	7894	9180	86.0%	6384	6470	98.7%	47.24	63.59	6.83	1.31
WB I-80 to WB CD Ramp	Ramp	2	40.9	E	5.31	***40.9***	***E***	***27.3***	***C***	4421	5250	84.2%	3418	3550	96.3%	53.86	64.81	5.31	2.11
WB I-80 (West of State)	Diverge	3	14.3	B	1.25	***14.3***	***B***	***14.9***	***B***	3311	3930	84.3%	2836	2920	97.1%	63.84	66.40	1.45	1.06
WB I-80 to NB I-15	Ramp	3	15.8	B	1.25	***15.8***	***B***	***13.8***	***B***	2588	3010	86.0%	2218	2240	99.0%	55.91	56.30	1.25	1.23
To SB I-15 Ramp	Ramp	2	16.2	B	1.42	***17.4***	***B***	***16.5***	***B***	1821	1990	91.5%	1724	1770	97.4%	54.18	54.81	1.42	1.46
To WB 201 Ramp	Ramp	2	29.8	C	1.21	***30.0***	***C***	***22.6***	***B***	3138	3690	85.0%	2351	2460	95.6%	52.48	54.27	1.67	1.56
WB I-80 to SB I-15/WB 201	Diverge	3	26.5	C	8.85	***27.7***	***C***	***28.6***	***D***	4870	5680	85.7%	4004	4180	95.8%	39.55	47.40	8.85	4.37
WB CD	Weave (CD)	3	29.0	C	1.82	***30.9***	***C***	***23.5***	***B***	5356	6150	87.1%	4386	4530	96.8%	58.78	63.95	2.45	1.26
EB CD On-ramp	Ramp	2	22.5	B	0.69	***24.6***	***C***	***66.5***	***F***	2991	3120	95.9%	4059	5640	72.0%	64.05	30.49	1.02	3.61
EB State Street On-Ramp	Ramp	3	13.3	B	1.58	***14.2***	***B***	***18.9***	***B***	1042	1210	86.1%	1163	1400	83.1%	24.91	21.89	2.39	4.50
EB I-80 I-15 to State	Basic	3	14.8	B	0.33	***16.0***	***B***	***48.0***	***F***	3007	3120	96.4%	4082	5640	72.4%	65.97	37.05	0.41	5.28
NB I-15 Off Ramp 2	Ramp	1	14.2	B	1.36	***15.4***	***B***	***16.6***	***B***	899	900	99.9%	937	940	99.6%	61.17	59.88	1.53	2.01
NB I-15 Off Ramp 1	Ramp	2	12.6	B	1.07	***13.5***	***B***	***16.5***	***B***	1600	1600	100.0%	1877	1880	99.8%	62.52	59.99	1.58	1.21
EB 201/SB I-15 2	Basic	2	16.9	B	0.59	***18.4***	***C***	***95.0***	***F***	2277	2420	94.1%	3102	4700	66.0%	65.20	16.12	0.61	9.10
EB 201/SB I-15 1	Diverge	3	23.8	C	0.18	***25.7***	***C***	***122.3***	***F***	2539	2650	95.8%	3287	4900	67.1%	63.12	15.09	0.30	7.58
EB 201 Ramp	Ramp	2	16.7	B	0.07	***17.9***	***B***	***77.3***	***F***	2349	2350	99.9%	4201	4480	93.8%	69.10	26.33	0.09	22.38
SB I-15 Ramp	Ramp	3	13.6	B	0.11	***14.6***	***B***	***87.2***	***F***	2588	2650	97.7%	3353	4900	68.4%	62.12	12.69	0.16	8.11
700 E WB On-Ramp	Ramp	2	42.7	E	11.60	***118.9***	***F***	***18.9***	***B***	1941	2030	95.6%	1337	1360	98.3%	8.30	36.78	37.08	3.82
SR-201	Basic	2	15.9	B	0.57	***17.3***	***B***	***34.2***	***D***	2182	2200	99.2%	3898	4210	92.6%	66.53	58.60	0.71	4.46
SR-201 Ramp	Ramp	2	17.3	B	0.19	***18.7***	***B***	***46.4***	***F***	2298	2350	97.8%	4102	4488	91.4%	64.92	45.46	0.35	7.92
EB I-80 (Over 700 E)	Basic	4	18.8	C	0.41	***20.4***	***C***	***35.9***	***E***	5221	5320	98.1%	8032	9850	81.5%	67.20	56.61	0.59	1.89
SR-201	Basic	2	18.6	C	0.52	***20.3***	***C***	***44.0***	***E***	2187	2200	99.4%	3907	4210	92.8%	56.90	45.37	0.78	5.81
NB I-15 Ramp	Ramp	1	15.6	B	1.98	***16.8***	***B***	***18.3***	***B***	894	900	99.3%	931	940	99.1%	55.60	54.07	1.98	2.50
NB I-15 Flyover	Ramp	1	10.7	A	1.14	***11.4***	***A***	***15.3***	***B***	692	700	98.9%	931	940	99.0%	64.32	62.57	1.50	2.09
NB I-15 Flyover merge	Ramp	1	10.3	A	0.87	***10.9***	***A***	***14.5***	***B***	690	700	98.6%	927	940	98.6%	66.40	65.27	1.24	1.82
SR-201 Slip Ramp	Ramp	1	2.7	A	0.72	***2.7***	***A***	***4.7***	***A***	148	150	98.5%	259	270	95.8%	59.99	57.69	0.72	0.98

Alternative: EB Ramp Metering (using Alt C1)

Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7	W-E	EBT	EB						496							901
1: 2100 South & State Street - 2@1436.4 - 6	E-W	WBT	WB						690							876
1: 2100 South & State Street - 3@1101.9 - 5	N-S	SBT	SB						611							1933
1: 2100 South & State Street - 4@1031.1 - 8	S-N	NBT	NB						1257							1015
1: 2100 South & State Street - 159@246.4 - S	E	NBR	NB						117							156
1: 2100 South & State Street - 160@288.7 - S	W	NBL	NB						146							243
1: 2100 South & State Street - 161@166.4 - E	S	WBL	WB						270							271
1: 2100 South & State Street - 162@152.6 - W	N	EBL	EB						143							174
1: 2100 South & State Street - 163@133.8 - N	W	SBR	SB						73							170
1: 2100 South & State Street - 164@371.3 - N	E	SBL	SB						84							221
1: 2100 South & State Street - 165@166.2 - E	N	WBR	WB						86							101
1: 2100 South & State Street - 255@187.5 - W	S	EBR	EB	31.49	C				159	47.64	D					323
2: Street Car Crossing & State Street - 5@1	N-S	SBT	SB						889							2272
2: Street Car Crossing & State Street - 5@1	N-W	SBR	SB						150							251
2: Street Car Crossing & State Street - 10@	S-N	NBT	NB						1323							1217
2: Street Car Crossing & State Street - 174@	W-S	EBR	EB						301							292
2: Street Car Crossing & State Street - 175@	W-N	EBL	EB						197							201
2: Street Car Crossing & State Street - 177@	S-W	NBL	NB	12.21	B				163	25.42	C					305
3: WB I-80 & State Street - 90@8.1 - 10@4	S-N	NBT	NB						1035							1006
3: WB I-80 & State Street - 96@9.7 - 37@3	S-W	NBL	NB						31							20
3: WB I-80 & State Street - 96@9.7 - 118@4	S-W	NBL	NB						498							366
3: WB I-80 & State Street - 124@1240.6 - 3	E-W	WBT	WB						78							145
3: WB I-80 & State Street - 124@1240.6 - 9	E-S	WBL	WB						232							365
3: WB I-80 & State Street - 124@1240.6 - 1	E-W	WBT	WB						0							0
3: WB I-80 & State Street - 125@249.7 - 10	E-N	WBR	WB						449							516
3: WB I-80 & State Street - 155@285.8 - 97	N-S	SBT	SB	17.61	B				598	22.83	C					817
3: WB I-80 & State Street - 156@284.4 - 37	N-W	SBR	SB						11							10
3: WB I-80 & State Street - 156@284.4 - 11	N-W	SBR	SB						396							582
3: WB I-80 & State Street - 157@282.8 - 91	N-S	SBT	SB						175							1137
4: EB I-80 & State Street - 92@5.5 - 12@38.	N-S	SBT	SB						0							0
4: EB I-80 & State Street - 98@6.3 - 25@59.	N-E	SBL	SB						18							20
4: EB I-80 & State Street - 98@6.3 - 122@6	N-E	SBL	SB						580							796
4: EB I-80 & State Street - 120@1810.3 - 25	W-E	EBT	EB						89							77
4: EB I-80 & State Street - 120@1810.3 - 89	W-N	EBL	EB						319							292
4: EB I-80 & State Street - 120@1810.3 - 12	W-E	EBT	EB	22.06	C	30.40	C		0	22.21	C	35.59	C			0
4: EB I-80 & State Street - 121@193.1 - 12@	W-S	EBR	EB						429							488
4: EB I-80 & State Street - 144@76.3 - 89@	S-N	NBT	NB						715							714
4: EB I-80 & State Street - 145@75.0 - 25@	S-E	NBR	NB						18							16
4: EB I-80 & State Street - 145@75.0 - 1003	S-E	NBR	NB						616							514
4: EB I-80 & State Street - 146@331.6 - 95@	S-N	NBT	NB						527							385
4: EB I-80 & State Street - 10063@12.6 - 12	N-S	SBT	SB						406							1501
5: Oakland & State Street - 12@191.7 - 12@	N-S	SBT	SB						836							1989
5: Oakland & State Street - 22@609.6 - 11@	E-N	WBR	WB					8.75	A 29					16.06	C	48
5: Oakland & State Street - 146@91.4 - 146	S-N	NBT	NB						529							389
5: Oakland & State Street - 147@71.3 - 11@	S-N	NBT	NB						1321							1197
5: Oakland & State Street - 147@71.3 - 21@	S-E	NBR	NB						13							18
6: East Grantie SD RIRO & State Street - 12	N-W	SBR	SB						182							46
6: East Grantie SD RIRO & State Street - 12	N-S	SBT	SB						652							1943
6: East Grantie SD RIRO & State Street - 23	W-S	EBR	EB					6.30	A 49					7.22	A	97
6: East Grantie SD RIRO & State Street - 100	S-N	NBT	NB						1332							1218
6: East Grantie SD RIRO & State Street - 100	S-N	NBT	NB						530							388
7: 2700 South & State Street - 14@1205.4 - N	S	SBT	SB						559							1872
7: 2700 South & State Street - 15@1184.3 - S	N	NBT	NB						1518							1353
7: 2700 South & State Street - 17@647.5 - 1	W-S	EBR	EB						40							98
7: 2700 South & State Street - 17@647.5 - 1	W-E	EBT	EB						59							324
7: 2700 South & State Street - 20@820.0 - 1	E-W	WBT	WB						156							151
7: 2700 South & State Street - 148@291.2 - S	W	NBL	NB	16.18	B				120	37.63	D					88
7: 2700 South & State Street - 149@150.8 - S	E	NBR	NB						21							87
7: 2700 South & State Street - 150@28.0 - 1	W-N	EBL	EB						149							285
7: 2700 South & State Street - 153@329.4 - N	E	SBL	SB						43							108
7: 2700 South & State Street - 154@188.7 - N	W	SBR	SB						102							62
7: 2700 South & State Street - 10014@53.9	E-N	WBR	WB						199							69
7: 2700 South & State Street - 10015@17.9	E-S	WBL	WB						74							130
8: WB I-80 & 700 East - 72@299.7 - 73@63	N-S	SBT	SB						675							1768
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB						2433							1919
8: WB I-80 & 700 East - 87@30.0 - 137@28	S-SW	NBL	NB						952							695
8: WB I-80 & 700 East - 135@1579.2 - 73@	E-S	WBL	WB						99							224
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	WBL	WB						0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87	E-N	WBR	WB						747							571
8: WB I-80 & 700 East - 168@218.7 - 83@5	N-S	SBT	SB	16.13	B				312	18.44	B					774
8: WB I-80 & 700 East - 169@299.3 - 137@.	N-SW	SBR	SB						1037							663
9: EB I-80 & 700 East - 74@24.8 - 10189@1	N-S	SBT	SB						773							1991
9: EB I-80 & 700 East - 78@281.6 - 79@56.	S-N	NBT	NB						1748							1069
9: EB I-80 & 700 East - 85@22.3 - 140@66.	N-NE	SBL	SB			33.55	C		313			34.86	C			776
9: EB I-80 & 700 East - 133@1231.9 - 79@5	W-N	EBL	EB						687							850
9: EB I-80 & 700 East - 133@1231.9 - 140@	W-NE	EBL	EB						0							0
9: EB I-80 & 700 East - 134@318.9 - 10188	W-S	EBR	EB						666							1265
9: EB I-80 & 700 East - 166@226.1 - 86@53	S-N	NBT	NB						961							697
9: EB I-80 & 700 East - 167@274.8 - 140@6	S-NE	NBR	NB	25.60	C				151	22.59	C					151
9: EB I-80 & 700 East - 10188@14.1 - 76@3	N-S	SBT	SB						73							141
10: 2400 S & West Temple - 33@704.1 - 35	E-W	WBT	WB					7.47	A 6					8.10	A	6
10: 2400 S & West Temple - 33@704.1 - 56	E-N	WBR	WB						12							19
10: 2400 S & West Temple - 33@704.1 - 10	E-S	WBL	WB						18							10
10: 2400 S & West Temple - 34@51.1 - 32@	W-E	EBT	EB						0							4

10: 2400 S & West Temple - 34@51.1 - 56@	W-N	EBL	EB		0		0
10: 2400 S & West Temple - 34@51.1 - 101	W-S	EBR	EB		0		0
10: 2400 S & West Temple - 57@353.0 - 32	N-E	SBL	SB		6		5
10: 2400 S & West Temple - 57@353.0 - 35	N-W	SBR	SB		0		5
10: 2400 S & West Temple - 57@353.0 - 10	N-S	SBT	SB		138		261
10: 2400 S & West Temple - 10107@1.9 - 3	S-E	NBR	NB		5		6
10: 2400 S & West Temple - 10107@1.9 - 3	S-W	NBL	NB		4		0
10: 2400 S & West Temple - 10107@1.9 - 5	S-N	NBT	NB		190		280
11: Robert Ave. & West Temple - 28@710.2	E-W	WBT	WB		0		0
11: Robert Ave. & West Temple - 28@710.2	E-S	WBL	WB		4		6
11: Robert Ave. & West Temple - 28@710.2	E-N	WBR	WB		4		3
11: Robert Ave. & West Temple - 31@117.4	W-E	EBT	EB		0		5
11: Robert Ave. & West Temple - 31@117.4	W-S	EBR	EB		0		4
11: Robert Ave. & West Temple - 31@117.4	W-N	EBL	EB	8.08 A	4	11.44 B	4
11: Robert Ave. & West Temple - 44@282.3	S-E	NBR	NB		6		5
11: Robert Ave. & West Temple - 44@282.3	S-W	NBL	NB		7		6
11: Robert Ave. & West Temple - 44@282.3	S-N	NBT	NB		192		277
11: Robert Ave. & West Temple - 49@19.8	N-E	SBL	SB		5		5
11: Robert Ave. & West Temple - 49@19.8	N-W	SBR	SB		0		5
11: Robert Ave. & West Temple - 49@19.8	N-S	SBT	SB		152		258
12: Oakland Ave & West Temple - 40@711.	E-W	WBT	WB	8.15 A	18	12.57 B	4
12: Oakland Ave & West Temple - 40@711.	E-N	WBR	WB		10		21
12: Oakland Ave & West Temple - 40@711.	E-S	WBL	WB		10		5
12: Oakland Ave & West Temple - 43@473.	W-E	EBT	EB		4		20
12: Oakland Ave & West Temple - 43@473.	W-N	EBL	EB		4		9
12: Oakland Ave & West Temple - 43@473.	W-S	EBR	EB		11		9
12: Oakland Ave & West Temple - 45@261.	N-E	SBL	SB		11		10
12: Oakland Ave & West Temple - 45@261.	N-W	SBR	SB		10		5
12: Oakland Ave & West Temple - 45@261.	N-S	SBT	SB		136		254
12: Oakland Ave & West Temple - 46@527.	S-E	NBR	NB		13		22
12: Oakland Ave & West Temple - 46@527.	S-W	NBL	NB		9		11
12: Oakland Ave & West Temple - 46@527.	S-N	NBT	NB		190		261
13: 2400 S & Main Street - 32@716.9 - 36@	W-E	EBT	EB		0		0
13: 2400 S & Main Street - 32@716.9 - 55@	W-S	EBR	EB		5		4
13: 2400 S & Main Street - 32@716.9 - 58@	W-N	EBL	EB		5		9
13: 2400 S & Main Street - 37@672.9 - 33@	E-W	WBT	WB	13.31 B	27	25.46 D	20
13: 2400 S & Main Street - 37@672.9 - 55@	E-S	WBL	WB		27		22
13: 2400 S & Main Street - 37@672.9 - 58@	E-N	WBR	WB		64		134
13: 2400 S & Main Street - 54@239.9 - 33@	S-W	NBL	NB		4		4
13: 2400 S & Main Street - 54@239.9 - 36@	S-E	NBR	NB		0		0
13: 2400 S & Main Street - 54@239.9 - 58@	S-N	NBT	NB		338		495
13: 2400 S & Main Street - 59@503.7 - 33@	N-W	SBR	SB		4		9
13: 2400 S & Main Street - 59@503.7 - 36@	N-E	SBL	SB		0		0
13: 2400 S & Main Street - 59@503.7 - 55@	N-S	SBT	SB		190		471
14: Robert Ave. & Main Street - 26@405.6	E-W	WBT	WB		0		0
14: Robert Ave. & Main Street - 26@405.6	E-N	WBR	WB		0		4
14: Robert Ave. & Main Street - 26@405.6	E-S	WBL	WB	8.47 A	4	9.01 A	4
14: Robert Ave. & Main Street - 29@709.2	W-E	EBT	EB		0		5
14: Robert Ave. & Main Street - 29@709.2	W-N	EBL	EB		7		5
14: Robert Ave. & Main Street - 29@709.2	W-S	EBR	EB		4		6
14: Robert Ave. & Main Street - 55@232.4	N-E	SBL	SB		0		10
14: Robert Ave. & Main Street - 55@232.4	N-W	SBR	SB		5		5
14: Robert Ave. & Main Street - 55@232.4	N-S	SBT	SB		217		481
14: Robert Ave. & Main Street - 60@63.7 -	S-E	NBR	NB		5		5
14: Robert Ave. & Main Street - 60@63.7 -	S-W	NBL	NB		4		5
14: Robert Ave. & Main Street - 60@63.7 -	S-N	NBT	NB		337		491
15: N Granite SD Access & Main Street - 39	E-N	WBR	WB	1.16 A	18	1.17 A	60
15: N Granite SD Access & Main Street - 39	E-S	WBL	WB		15		5
15: N Granite SD Access & Main Street - 61	N-E	SBL	SB		12		14
15: N Granite SD Access & Main Street - 61	N-S	SBT	SB		215		480
15: N Granite SD Access & Main Street - 62	S-E	NBR	NB		9		4
15: N Granite SD Access & Main Street - 62	S-N	NBT	NB		328		442
16: Oakland Ave. & Main Street - 41@707.2	W-N	EBL	EB	6.69 A	10	7.66 A	29
16: Oakland Ave. & Main Street - 41@707.2	W-S	EBR	EB		17		23
16: Oakland Ave. & Main Street - 63@154.7	N-W	SBR	SB		17		13
16: Oakland Ave. & Main Street - 63@154.7	N-S	SBT	SB		212		471
16: Oakland Ave. & Main Street - 66@184.7	S-W	NBL	NB		21		16
16: Oakland Ave. & Main Street - 66@184.7	S-N	NBT	NB		324		418
17: S Granite SD Access & Main Street - 65	E-N	WBR	WB	1.50 A	8	1.86 A	19
17: S Granite SD Access & Main Street - 65	E-S	WBL	WB		17		17
17: S Granite SD Access & Main Street - 67	N-E	SBL	SB		14		5
17: S Granite SD Access & Main Street - 67	N-S	SBT	SB		217		489
17: S Granite SD Access & Main Street - 69	S-E	NBR	NB		51		37
17: S Granite SD Access & Main Street - 69	S-N	NBT	NB		337		415

2040 Queue Report (AM PM)

Alternative: EB Ramp Metering (using Alt C1)

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 - 7@51.6	W-E	174.6265	EBT	12	163	280	406	1165	2327
1: 2100 South & State Street - 2@1436.4 - 6@43.7	E-W	214.1699	WBT	27	243	428	68	418	759
1: 2100 South & State Street - 3@1101.9 - 5@67.0	N-S	91.93159	SBT	11	109	190	84	506	919
1: 2100 South & State Street - 4@1031.1 - 8@53.2	S-N	194.3867	NBT	17	172	301	19	182	320
1: 2100 South & State Street - 159@246.4 - 7@51.6	S-E	27.18387	NBR	17	56	109	23	94	177
1: 2100 South & State Street - 160@288.7 - 6@43.7	S-W	52.17192	NBL	10	70	126	10	108	188
1: 2100 South & State Street - 161@166.4 - 5@67.0	E-S	118.9249	WBL	15	122	216	61	216	417
1: 2100 South & State Street - 162@152.6 - 8@53.2	W-N	68.47503	EBL	7	76	132	157	480	949
1: 2100 South & State Street - 163@133.8 - 6@43.7	N-W	17.42454	SBR	4	19	36	40	139	269
1: 2100 South & State Street - 164@371.3 - 7@51.6	N-E	42.128	SBL	6	46	83	10	90	159
1: 2100 South & State Street - 165@166.2 - 8@53.2	E-N	15.36327	WBR	8	18	37	6	17	35
1: 2100 South & State Street - 255@187.5 - 5@67.0	W-S	24.32716	EBR	7	29	55	413	645	1478
2: Street Car Crossing & State Street - 5@1044.9 - 158@52.	N-S	53.24771	SBT	18	88	164	136	497	956
2: Street Car Crossing & State Street - 5@1044.9 - 176@37.	N-W	53.24771	SBR	18	88	164	136	497	956
2: Street Car Crossing & State Street - 10@1228.3 - 4@51.2	S-N	91.61625	NBT	17	111	200	8	61	109
2: Street Car Crossing & State Street - 174@664.9 - 158@5	W-S	29.40573	EBR	14	43	85	25	81	160
2: Street Car Crossing & State Street - 175@210.6 - 4@51.2	W-N	177.1438	EBL	20	169	299	45	234	430
2: Street Car Crossing & State Street - 177@146.2 - 176@3	S-W	40.63511	NBL	14	58	111	46	213	397
3: WB I-80 & State Street - 90@8.1 - 10@47.0	S-N	0	NBT	0	0	0	31	94	187
3: WB I-80 & State Street - 96@9.7 - 37@36.9	S-W	0	NBL	1	2	3	17	62	119
3: WB I-80 & State Street - 96@9.7 - 118@45.7	S-W	0	NBL	1	2	3	17	62	119
3: WB I-80 & State Street - 124@1240.6 - 37@36.9	E-W	132.0115	WBT	14	128	226	19	195	340
3: WB I-80 & State Street - 124@1240.6 - 91@34.5	E-S	132.0115	WBL	14	128	226	19	195	340
3: WB I-80 & State Street - 124@1240.6 - 118@45.7	E-W	132.0115	WBT	14	128	226	19	195	340
3: WB I-80 & State Street - 125@249.7 - 10@47.0	E-N	181.5057	WBR	54	216	411	33	220	397
3: WB I-80 & State Street - 155@285.8 - 97@42.0	N-S	145.8985	SBT	24	197	349	59	240	455
3: WB I-80 & State Street - 156@284.4 - 37@36.9	N-W	47.11403	SBR	16	62	119	41	127	250
3: WB I-80 & State Street - 156@284.4 - 118@45.7	N-W	55.1536	SBR	15	66	125	41	128	253
3: WB I-80 & State Street - 157@282.8 - 91@34.5	N-S	71.92894	SBT	9	74	132	68	373	685
4: EB I-80 & State Street - 92@5.5 - 12@38.2	N-S	0	SBT	0	0	0	4	17	32
4: EB I-80 & State Street - 98@6.3 - 25@59.6	N-E	0	SBL	0	0	0	5	19	37
4: EB I-80 & State Street - 98@6.3 - 122@62.0	N-E	0	SBL	0	0	0	5	19	37
4: EB I-80 & State Street - 120@1810.3 - 25@59.6	W-E	155.0915	EBT	11	151	261	16	138	244
4: EB I-80 & State Street - 120@1810.3 - 89@28.3	W-N	155.0915	EBL	11	151	261	16	138	244
4: EB I-80 & State Street - 120@1810.3 - 122@62.0	W-E	155.0915	EBT	11	151	261	16	138	244
4: EB I-80 & State Street - 121@193.1 - 12@38.2	W-S	91.59048	EBR	13	98	175	17	121	217
4: EB I-80 & State Street - 144@76.3 - 89@28.3	S-N	186.2456	NBT	28	246	435	15	295	502
4: EB I-80 & State Street - 145@75.0 - 25@59.6	S-E	124.1438	NBR	44	214	398	35	281	498
4: EB I-80 & State Street - 145@75.0 - 10032@97.6	S-E	128.4606	NBR	45	216	401	35	281	499
4: EB I-80 & State Street - 146@331.6 - 95@47.4	S-N	129.8774	NBT	19	159	281	24	146	266
4: EB I-80 & State Street - 10063@12.6 - 12@38.2	N-S	0	SBT	0	0	0	4	17	32
5: Oakland & State Street - 12@191.7 - 12@266.5	N-S	0	SBT	0	0	0	0	0	0
5: Oakland & State Street - 22@609.6 - 11@42.3	E-N	11.65801	WBR	5	16	31	5	21	40
5: Oakland & State Street - 146@91.4 - 146@181.0	S-N	0	NBT	1	3	6	3	7	14
5: Oakland & State Street - 147@71.3 - 11@42.3	S-N	12.57832	NBT	19	46	95	22	98	183
5: Oakland & State Street - 147@71.3 - 21@32.7	S-E	20.24008	NBR	26	63	129	28	133	248
6: East Grantie SD RIRO & State Street - 12@274.6 - 24@20	N-W	15.92313	SBR	5	16	31	2	7	15
6: East Grantie SD RIRO & State Street - 12@274.6 - 143@3	N-S	10.50534	SBT	4	11	21	2	6	12
6: East Grantie SD RIRO & State Street - 23@259.7 - 143@3	W-S	31.20735	EBR	4	25	46	4	34	60
6: East Grantie SD RIRO & State Street - 10004@16.7 - 147(	S-N	34.40114	NBT	51	134	273	438	807	1770
6: East Grantie SD RIRO & State Street - 10008@16.6 - 146(	S-N	22.67232	NBT	51	138	279	440	804	1767
7: 2700 South & State Street - 14@1205.4 - 16@106.4	N-S	115.7418	SBT	10	94	165	21	251	436
7: 2700 South & State Street - 15@1184.3 - 13@57.1	S-N	170.8402	NBT	16	177	307	65	259	493
7: 2700 South & State Street - 17@647.5 - 16@106.4	W-S	43.74147	EBR	9	42	79	89	282	555
7: 2700 South & State Street - 17@647.5 - 19@119.5	W-E	33.05043	EBT	10	34	66	89	276	546
7: 2700 South & State Street - 20@820.0 - 18@72.5	E-W	56.13702	WBT	11	59	108	11	58	106
7: 2700 South & State Street - 148@291.2 - 18@72.5	S-W	41.9498	NBL	7	36	66	14	42	83
7: 2700 South & State Street - 149@150.8 - 19@119.5	S-E	7.068628	NBR	3	11	21	5	21	40
7: 2700 South & State Street - 150@28.0 - 13@57.1	W-N	54.56971	EBL	16	84	155	101	287	574
7: 2700 South & State Street - 153@329.4 - 19@119.5	N-E	13.98864	SBL	5	19	36	11	43	81
7: 2700 South & State Street - 154@188.7 - 18@72.5	N-W	18.94531	SBR	5	17	33	4	12	25

7: 2700 South & State Street - 10014@53.9 - 13@57.1	E-N	39.74203	WBR	8	46	85	7	28	54
7: 2700 South & State Street - 10015@17.9 - 16@106.4	E-S	31.09067	WBL	10	41	77	13	72	131
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	141.1343	SBT	10	146	250	22	275	475
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	144.5305	NBT	21	109	202	8	35	65
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	72.82342	NBL	77	180	375	21	331	568
8: WB I-80 & 700 East - 135@1579.2 - 73@63.1	E-S	77.16601	WBL	9	51	93	13	90	161
8: WB I-80 & 700 East - 135@1579.2 - 137@28.7	E-SW	77.16601	WBL	9	51	93	13	90	161
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	11.21833	WBR	7	13	29	7	18	37
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	87.49564	SBT	9	100	174	14	174	302
8: WB I-80 & 700 East - 169@299.3 - 137@28.7	N-SW	1.921018	SBR	54	165	326	2	9	16
9: EB I-80 & 700 East - 74@24.8 - 10189@12.0	N-S	84.91322	SBT	10	68	122	10	103	180
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	255.2513	NBT	45	285	515	17	226	389
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	46.34186	SBL	12	59	109	20	254	439
9: EB I-80 & 700 East - 133@1231.9 - 79@56.2	W-N	221.3383	EBL	20	239	415	26	281	489
9: EB I-80 & 700 East - 133@1231.9 - 140@66.9	W-NE	221.3383	EBL	20	239	415	26	281	489
9: EB I-80 & 700 East - 134@318.9 - 10188@13.8	W-S	0	EBR	4	13	25	7	28	53
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	211.4308	NBT	171	348	745	40	261	471
9: EB I-80 & 700 East - 167@274.8 - 140@66.9	S-NE	0	NBR	1	4	8	1	3	6
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 33@704.1 - 35@43.9	E-W	7.590116	WBT	4	18	35	5	21	40
10: 2400 S & West Temple - 33@704.1 - 56@30.3	E-N	7.590116	WBR	4	18	35	5	21	40
10: 2400 S & West Temple - 33@704.1 - 10106@10.2	E-S	7.590116	WBL	4	18	35	5	21	40
10: 2400 S & West Temple - 34@51.1 - 32@34.2	W-E	0	EBT	0	0	0	1	2	4
10: 2400 S & West Temple - 34@51.1 - 56@30.3	W-N	0	EBL	0	0	0	1	2	4
10: 2400 S & West Temple - 34@51.1 - 10106@10.2	W-S	0	EBR	0	0	0	1	2	4
10: 2400 S & West Temple - 57@353.0 - 32@34.2	N-E	0	SBL	2	7	13	1	5	10
10: 2400 S & West Temple - 57@353.0 - 35@43.9	N-W	0	SBR	1	3	6	0	0	0
10: 2400 S & West Temple - 57@353.0 - 10106@10.2	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 32@34.2	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 35@43.9	S-W	0	NBL	1	4	8	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 56@30.3	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@710.2 - 30@17.2	E-W	2.575479	WBT	4	12	24	4	12	25
11: Robert Ave. & West Temple - 28@710.2 - 45@9.4	E-S	2.558841	WBL	4	12	24	4	12	25
11: Robert Ave. & West Temple - 28@710.2 - 48@20.1	E-N	2.531768	WBR	4	12	24	4	12	24
11: Robert Ave. & West Temple - 31@117.4 - 29@20.1	W-E	0	EBT	4	9	18	4	12	24
11: Robert Ave. & West Temple - 31@117.4 - 45@9.4	W-S	0	EBR	4	9	18	4	12	24
11: Robert Ave. & West Temple - 31@117.4 - 48@20.1	W-N	0	EBL	4	9	18	4	12	24
11: Robert Ave. & West Temple - 44@282.3 - 29@20.1	S-E	0	NBR	0	1	2	0	1	3
11: Robert Ave. & West Temple - 44@282.3 - 30@17.2	S-W	0	NBL	1	2	5	1	3	6
11: Robert Ave. & West Temple - 44@282.3 - 48@20.1	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 49@19.8 - 29@20.1	N-E	2.913104	SBL	2	5	11	2	5	10
11: Robert Ave. & West Temple - 49@19.8 - 30@17.2	N-W	8.146827	SBR	12	36	71	13	36	73
11: Robert Ave. & West Temple - 49@19.8 - 45@9.4	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West Temple - 40@711.0 - 42@19.8	E-W	16.71183	WBT	4	20	36	6	17	33
12: Oakland Ave & West Temple - 40@711.0 - 44@31.2	E-N	16.71183	WBR	4	20	36	6	17	33
12: Oakland Ave & West Temple - 40@711.0 - 47@24.9	E-S	16.71183	WBL	4	20	36	6	17	33
12: Oakland Ave & West Temple - 43@473.0 - 41@28.2	W-E	17.04076	EBT	6	15	30	5	22	41
12: Oakland Ave & West Temple - 43@473.0 - 44@31.2	W-N	16.65659	EBL	6	14	29	5	22	40
12: Oakland Ave & West Temple - 43@473.0 - 47@24.9	W-S	16.6845	EBR	6	14	29	5	22	40
12: Oakland Ave & West Temple - 45@261.8 - 41@28.2	N-E	0	SBL	2	6	11	3	10	20
12: Oakland Ave & West Temple - 45@261.8 - 42@19.8	N-W	0	SBR	1	3	6	2	8	16
12: Oakland Ave & West Temple - 45@261.8 - 47@24.9	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West Temple - 46@527.0 - 41@28.2	S-E	5.925707	NBR	2	5	10	2	5	10
12: Oakland Ave & West Temple - 46@527.0 - 42@19.8	S-W	5.332815	NBL	2	6	12	3	7	15
12: Oakland Ave & West Temple - 46@527.0 - 44@31.2	S-N	2.023688	NBT	1	2	4	0	1	2
13: 2400 S & Main Street - 32@716.9 - 36@24.3	W-E	9.74766	EBT	4	11	22	5	12	25
13: 2400 S & Main Street - 32@716.9 - 55@6.1	W-S	9.74766	EBR	4	11	22	5	12	25
13: 2400 S & Main Street - 32@716.9 - 58@21.9	W-N	9.74766	EBL	4	11	22	5	12	25
13: 2400 S & Main Street - 37@672.9 - 33@22.5	E-W	41.02894	WBT	12	53	99	19	92	170
13: 2400 S & Main Street - 37@672.9 - 55@6.1	E-S	41.02894	WBL	12	53	99	19	92	170
13: 2400 S & Main Street - 37@672.9 - 58@21.9	E-N	41.02894	WBR	12	53	99	19	92	170
13: 2400 S & Main Street - 54@239.9 - 33@22.5	S-W	0	NBL	1	4	7	2	5	10
13: 2400 S & Main Street - 54@239.9 - 36@24.3	S-E	0	NBR	0	0	0	1	4	7
13: 2400 S & Main Street - 54@239.9 - 58@21.9	S-N	0	NBT	0	0	0	0	0	0

2040 Queue Report (AM PM)

13: 2400 S & Main Street - 59@503.7 - 33@22.5	N-W	0	SBR	0	0	0	0	1	3
13: 2400 S & Main Street - 59@503.7 - 36@24.3	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 55@6.1	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 26@405.6 - 28@21.3	E-W	2.669583	WBT	3	9	18	4	10	21
14: Robert Ave. & Main Street - 26@405.6 - 54@12.4	E-N	2.669583	WBR	3	9	18	4	10	21
14: Robert Ave. & Main Street - 26@405.6 - 61@11.8	E-S	2.669583	WBL	3	9	18	4	10	21
14: Robert Ave. & Main Street - 29@709.2 - 27@24.6	W-E	10.32267	EBT	5	13	25	4	14	27
14: Robert Ave. & Main Street - 29@709.2 - 54@12.4	W-N	10.32267	EBL	5	13	25	4	14	27
14: Robert Ave. & Main Street - 29@709.2 - 61@11.8	W-S	10.32267	EBR	5	13	25	4	14	27
14: Robert Ave. & Main Street - 55@232.4 - 27@24.6	N-E	0	SBL	0	0	0	2	6	12
14: Robert Ave. & Main Street - 55@232.4 - 28@21.3	N-W	0	SBR	1	2	4	2	5	10
14: Robert Ave. & Main Street - 55@232.4 - 61@11.8	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 60@63.7 - 27@24.6	S-E	0	NBR	1	4	8	6	19	37
14: Robert Ave. & Main Street - 60@63.7 - 28@21.3	S-W	0	NBL	1	2	4	1	3	6
14: Robert Ave. & Main Street - 60@63.7 - 54@12.4	S-N	0	NBT	0	0	0	0	0	0
15: N Granite SD Access & Main Street - 39@121.3 - 60@3	E-N	0	WBR	3	9	17	3	9	18
15: N Granite SD Access & Main Street - 39@121.3 - 63@5	E-S	0	WBL	3	9	18	3	10	19
15: N Granite SD Access & Main Street - 61@36.1 - 38@23.	N-E	2.174524	SBL	1	3	7	2	5	10
15: N Granite SD Access & Main Street - 61@36.1 - 63@56.	N-S	0	SBT	5	15	30	8	24	48
15: N Granite SD Access & Main Street - 62@135.9 - 38@2	S-E	0	NBR	0	1	2	0	0	0
15: N Granite SD Access & Main Street - 62@135.9 - 60@3	S-N	0	NBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 41@707.2 - 62@37.8	W-N	23.08612	EBL	5	16	32	4	25	44
16: Oakland Ave. & Main Street - 41@707.2 - 67@49.9	W-S	23.08612	EBR	5	16	32	4	25	44
16: Oakland Ave. & Main Street - 63@154.7 - 40@31.3	N-W	0	SBR	1	3	6	1	3	5
16: Oakland Ave. & Main Street - 63@154.7 - 67@49.9	N-S	0	SBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 66@184.7 - 40@31.3	S-W	1.807164	NBL	1	5	10	3	9	18
16: Oakland Ave. & Main Street - 66@184.7 - 62@37.8	S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 65@232.9 - 66@55	E-N	0	WBR	2	7	13	3	8	17
17: S Granite SD Access & Main Street - 65@232.9 - 68@30	E-S	0	WBL	2	7	13	3	8	17
17: S Granite SD Access & Main Street - 67@180.0 - 64@29	N-E	1.872743	SBL	1	5	9	1	4	8
17: S Granite SD Access & Main Street - 67@180.0 - 68@30	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 69@505.0 - 64@29	S-E	4.265461	NBR	1	4	7	0	1	2
17: S Granite SD Access & Main Street - 69@505.0 - 66@55	S-N	0	NBT	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: EB Ramp Metering (using Alt C1)

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (West of State)	Basic	4	18.3	C	0.44	***19.6***	***C***	***34.7***	***D***	3931	5320	73.9%	7799.0	9850	79.2%	66.56	56.29	0.64	1.16
EB I-80 (State to 700 E)	Weave	6	15.1	B	0.45	***16.3***	***B***	***26.1***	***C***	4903	6530	75.1%	9111.0	11250	81.0%	66.01	58.10	0.58	2.32
EB I-80 (Approaching 700 E)	Basic	5	13.8	B	0.52	***15.1***	***B***	***22.6***	***C***	3840	5060	75.9%	6991.9	8630	81.0%	67.17	61.85	0.58	1.58
WB I-80 (Over 700 E)	Basic	4	50.8	F	13.63	***84.6***	***F***	***25.0***	***C***	6425	8020	80.1%	6097.1	6130	99.5%	19.68	64.33	13.63	1.47
WB I-80 (700 E to State)	Weave	5	56.6	F	10.79	***69.9***	***F***	***25.4***	***C***	8056	10050	80.2%	7437.2	7490	99.3%	24.60	61.61	10.79	1.12
WB I-80 (Over State)	Diverge	4	49.4	F	3.79	***49.5***	***F***	***30.9***	***D***	7404	9180	80.7%	6387.2	6470	98.7%	46.52	63.54	6.57	1.56
WB I-80 to WB CD Ramp	Ramp	2	41.6	E	3.99	***41.6***	***E***	***27.4***	***C***	4122	5250	78.5%	3417.6	3550	96.3%	53.68	64.73	4.07	2.27
WB I-80 (West of State)	Diverge	3	16.8	B	1.62	***16.8***	***B***	***15.1***	***B***	3180	3930	80.9%	2839.9	2920	97.3%	63.49	66.26	1.62	1.18
WB I-80 to NB I-15	Ramp	3	16.0	B	1.52	***16.0***	***B***	***13.9***	***B***	2498	3010	83.0%	2220.9	2240	99.1%	55.76	56.26	1.52	1.31
To SB I-15 Ramp	Ramp	2	16.1	B	1.22	***17.3***	***B***	***16.5***	***B***	1593	1990	80.0%	1731.2	1770	97.8%	54.43	54.80	1.22	1.51
To WB 201 Ramp	Ramp	2	30.1	C	1.41	***30.1***	***C***	***22.6***	***B***	3005	3690	81.4%	2352.6	2410	97.6%	52.80	54.17	2.78	1.53
WB I-80 to SB I-15/WB 201	Diverge	3	40.3	E	4.99	***42.0***	***E***	***32.2***	***D***	4500	5680	79.2%	4009.9	4180	95.9%	40.53	46.47	4.99	4.56
WB CD	Weave (CD)	3	32.4	D	9.57	***33.3***	***D***	***23.6***	***B***	4892	6150	79.5%	4393.4	4530	97.0%	56.44	63.98	11.31	1.20
EB State Street On-Ramp	Ramp	2	19.5	B	2.24	***20.4***	***B***	***27.1***	***C***	833	1210	68.8%	1173.4	1400	83.8%	26.12	22.47	4.29	6.20
EB I-80 I-15 to State	Weave	5	18.2	B	0.61	***19.4***	***B***	***36.0***	***E***	4595	6540	70.3%	8516.5	11260	75.6%	60.56	41.00	0.82	11.54
NB I-15 Off Ramp 2	Ramp	2	170.3	F	4.06	***170.3***	***F***	***167.3***	***F***	903	1600	56.5%	911.5	1880	48.5%	2.60	2.69	5.93	6.07
NB I-15 Off Ramp 1	Ramp	2	210.0	F	23.90	***288.2***	***F***	***283.4***	***F***	956	1600	59.8%	938.6	1880	49.9%	1.55	1.58	23.90	11.38
EB 201/SB I-15 2	Basic	5	14.7	B	0.10	***16.1***	***B***	***51.7***	***F***	3738	4940	75.7%	7698.0	9380	82.1%	64.12	30.11	0.35	9.11
EB 201/SB I-15 1	Weave	5	15.3	B	0.16	***16.7***	***B***	***84.4***	***F***	3689	4940	74.7%	7613.5	9380	81.2%	60.32	18.17	0.44	10.76
EB 201 Ramp	Ramp	2	19.0	B	0.19	***20.5***	***B***	***115.4***	***F***	1777	2350	75.6%	2870.0	4480	64.1%	57.04	11.54	0.29	8.39
SB I-15 Ramp	Ramp	3	13.6	B	0.11	***14.6***	***B***	***32.1***	***D***	1958	2590	75.6%	4890.8	4900	99.8%	59.38	53.70	0.16	3.56
700 E WB On-Ramp	Ramp	2	41.7	E	13.81	***110.4***	***F***	***18.8***	***B***	1559	2030	76.8%	1335.4	1360	98.2%	9.67	37.28	41.71	3.68
NB I-15 Ramp 3	Ramp	2	17.8	B	0.83	***17.8***	***B***	***17.6***	***B***	923	1600	57.7%	932.0	1880	49.6%	26.52	26.44	1.71	1.55
EB CD	Basic	1	20.3	C	1.17	***20.3***	***C***	***20.5***	***C***	904	1600	56.5%	913.3	1880	48.6%	45.12	44.12	2.03	2.02

Appendix B

Future 2040 WB Weave Area Conditions

VISSIM Analysis Results

Alternative: WB I-80 Diverge Point

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8	W-E	EBT	EB							496							896
1: 2100 South & State Street - 2@1436.4	E-W	WBT	WB							689							873
1: 2100 South & State Street - 3@1101.9	N-S	SBT	SB							611							1915
1: 2100 South & State Street - 4@1031.1	S-N	NBT	NB							1363							1032
1: 2100 South & State Street - 159@246	S-E	NBR	NB							181							167
1: 2100 South & State Street - 160@288	S-W	NBL	NB							169							252
1: 2100 South & State Street - 161@166	E-S	WBL	WB							270							265
1: 2100 South & State Street - 162@152	W-N	EBL	EB							143							173
1: 2100 South & State Street - 163@133	N-W	SBR	SB							73							169
1: 2100 South & State Street - 164@371	N-E	SBL	SB							84							219
1: 2100 South & State Street - 165@166	E-N	WBR	WB							86							100
1: 2100 South & State Street - 255@187	W-S	EBR	EB	31.33	C					159	50.80	D					320
2: Street Car Crossing & State Street - 5(	N-S	SBT	SB							889							2236
2: Street Car Crossing & State Street - 5(	N-W	SBR	SB							150							245
2: Street Car Crossing & State Street - 10	S-N	NBT	NB							1515							1254
2: Street Car Crossing & State Street - 17	W-S	EBR	EB							301							293
2: Street Car Crossing & State Street - 17	W-N	EBL	EB							197							202
2: Street Car Crossing & State Street - 17	S-W	NBL	NB	12.74	B					194	29.65	C					346
3: WB I-80 & State Street - 90@8.1 - 10(	S-N	NBT	NB							1252							1096
3: WB I-80 & State Street - 96@9.7 - 37(	S-W	NBL	NB							31							21
3: WB I-80 & State Street - 96@9.7 - 118	S-W	NBL	NB							498							362
3: WB I-80 & State Street - 124@1240.6	E-W	WBT	WB							78							142
3: WB I-80 & State Street - 124@1240.6	E-S	WBL	WB							234							363
3: WB I-80 & State Street - 124@1240.6	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 125@249.7 -	E-N	WBR	WB							457							510
3: WB I-80 & State Street - 155@285.8 -	N-S	SBT	SB	17.29	B					598	23.85	C					809
3: WB I-80 & State Street - 156@284.4 -	N-W	SBR	SB							11							10
3: WB I-80 & State Street - 156@284.4 -	N-W	SBR	SB							396							577
3: WB I-80 & State Street - 157@282.8 -	N-S	SBT	SB							176							1128
4: EB I-80 & State Street - 92@5.5 - 12@	N-S	SBT	SB							0							0
4: EB I-80 & State Street - 98@6.3 - 25@	N-E	SBL	SB							18							19
4: EB I-80 & State Street - 98@6.3 - 122(	N-E	SBL	SB							580							790
4: EB I-80 & State Street - 120@1810.3 -	W-E	EBT	EB							130							111
4: EB I-80 & State Street - 120@1810.3 -	W-N	EBL	EB							539							393
4: EB I-80 & State Street - 120@1810.3 -	W-E	EBT	EB	24.53	C	32.47	C			0	23.89	C	37.30	C			0
4: EB I-80 & State Street - 121@193.1 - 1	W-S	EBR	EB							553							634
4: EB I-80 & State Street - 144@76.3 - 8	S-N	NBT	NB							715							704
4: EB I-80 & State Street - 145@75.0 - 2	S-E	NBR	NB							17							16
4: EB I-80 & State Street - 145@75.0 - 1(	S-E	NBR	NB							616							512
4: EB I-80 & State Street - 146@331.6 - 9	S-N	NBT	NB							529							383
4: EB I-80 & State Street - 10063@12.6 -	N-S	SBT	SB							409							1490
5: Oakland & State Street - 12@191.7 - 1	N-S	SBT	SB							962							2123
5: Oakland & State Street - 22@609.6 - 1	E-N	WBR	WB					9.02	A	29					16.53	C	49
5: Oakland & State Street - 146@91.4 - 1	S-N	NBT	NB							530							385
5: Oakland & State Street - 147@71.3 - 1	S-N	NBT	NB							1320							1186
5: Oakland & State Street - 147@71.3 - 2	S-E	NBR	NB							12							17
6: East Grantie SD RIRO & State Street -	N-W	SBR	SB							243							63
6: East Grantie SD RIRO & State Street -	N-S	SBT	SB							719							2060
6: East Grantie SD RIRO & State Street -	W-S	EBR	EB					6.22	A	49					7.11	A	97
6: East Grantie SD RIRO & State Street -	S-N	NBT	NB							1331							1207
6: East Grantie SD RIRO & State Street -	S-N	NBT	NB							529							384
7: 2700 South & State Street - 14@1205	N-S	SBT	SB							609							1915
7: 2700 South & State Street - 15@1184	S-N	NBT	NB							1518							1352
7: 2700 South & State Street - 17@647.5	W-S	EBR	EB							40							97
7: 2700 South & State Street - 17@647.5	W-E	EBT	EB							59							318
7: 2700 South & State Street - 20@820.0	E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291	S-W	NBL	NB	16.19	B					120	38.95	D					87
7: 2700 South & State Street - 149@150	S-E	NBR	NB							21							87
7: 2700 South & State Street - 150@28.0	W-N	EBL	EB							149							281
7: 2700 South & State Street - 153@329	N-E	SBL	SB							53							141
7: 2700 South & State Street - 154@188	N-W	SBR	SB							112							96
7: 2700 South & State Street - 10014@5	E-N	WBR	WB							199							69
7: 2700 South & State Street - 10015@1	E-S	WBL	WB							74							130
8: WB I-80 & 700 East - 72@299.7 - 73@	N-S	SBT	SB							675							1767
8: WB I-80 & 700 East - 80@28.1 - 70@8	S-N	NBT	NB							2499							1875
8: WB I-80 & 700 East - 87@30.0 - 137@	S-SW	NBL	NB							950							696
8: WB I-80 & 700 East - 135@1579.2 - 7	E-S	WBL	WB							100							224
8: WB I-80 & 700 East - 135@1579.2 - 1	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@	E-N	WBR	WB							758							571
8: WB I-80 & 700 East - 168@218.7 - 83(	N-S	SBT	SB	16.89	B					312	18.74	B					775
8: WB I-80 & 700 East - 169@299.3 - 13	N-SW	SBR	SB							1038							663
9: EB I-80 & 700 East - 74@24.8 - 10189	N-S	SBT	SB							775							1992

9: EB I-80 & 700 East - 78@281.6 - 79@5	S-N	NBT	NB				1750				1069
9: EB I-80 & 700 East - 85@22.3 - 140@6	N-NE	SBL	SB		35.22 C		313		35.19 C		775
9: EB I-80 & 700 East - 133@1231.9 - 79(	W-N	EBL	EB				754				806
9: EB I-80 & 700 East - 133@1231.9 - 14(	W-NE	EBL	EB				0				0
9: EB I-80 & 700 East - 134@318.9 - 101	W-S	EBR	EB				697				1181
9: EB I-80 & 700 East - 166@226.1 - 86@	S-N	NBT	NB				959				695
9: EB I-80 & 700 East - 167@274.8 - 140(	S-NE	NBR	NB	26.87 C			150	22.60 C			151
9: EB I-80 & 700 East - 10188@14.1 - 76(	N-S	SBT	SB				72				137
10: 2400 S & West Temple - 33@704.1 -	E-W	WBT	WB			7.52 A	5			7.42 A	6
10: 2400 S & West Temple - 33@704.1 -	E-N	WBR	WB				12				20
10: 2400 S & West Temple - 33@704.1 -	E-S	WBL	WB				18				9
10: 2400 S & West Temple - 34@51.1 - 3	W-E	EBT	EB				0				4
10: 2400 S & West Temple - 34@51.1 - 5	W-N	EBL	EB				0				0
10: 2400 S & West Temple - 34@51.1 - 1	W-S	EBR	EB				0				0
10: 2400 S & West Temple - 57@353.0 -	N-E	SBL	SB				6				5
10: 2400 S & West Temple - 57@353.0 -	N-W	SBR	SB				0				5
10: 2400 S & West Temple - 57@353.0 -	N-S	SBT	SB				138				261
10: 2400 S & West Temple - 10107@1.9	S-E	NBR	NB				5				6
10: 2400 S & West Temple - 10107@1.9	S-W	NBL	NB				4				0
10: 2400 S & West Temple - 10107@1.9	S-N	NBT	NB				190				280
11: Robert Ave. & West Temple - 28@71	E-W	WBT	WB				0				0
11: Robert Ave. & West Temple - 28@71	E-S	WBL	WB				4				6
11: Robert Ave. & West Temple - 28@71	E-N	WBR	WB				4				3
11: Robert Ave. & West Temple - 31@11	W-E	EBT	EB				0				5
11: Robert Ave. & West Temple - 31@11	W-S	EBR	EB				0				4
11: Robert Ave. & West Temple - 31@11	W-N	EBL	EB			7.25 A	4			11.44 B	4
11: Robert Ave. & West Temple - 44@28	S-E	NBR	NB				6				5
11: Robert Ave. & West Temple - 44@28	S-W	NBL	NB				7				6
11: Robert Ave. & West Temple - 44@28	S-N	NBT	NB				192				277
11: Robert Ave. & West Temple - 49@15	N-E	SBL	SB				5				5
11: Robert Ave. & West Temple - 49@15	N-W	SBR	SB				0				5
11: Robert Ave. & West Temple - 49@15	N-S	SBT	SB				152				258
12: Oakland Ave & West Temple - 40@7	E-W	WBT	WB			8.15 A	18			12.00 B	4
12: Oakland Ave & West Temple - 40@7	E-N	WBR	WB				10				21
12: Oakland Ave & West Temple - 40@7	E-S	WBL	WB				10				5
12: Oakland Ave & West Temple - 43@4	W-E	EBT	EB				4				20
12: Oakland Ave & West Temple - 43@4	W-N	EBL	EB				4				9
12: Oakland Ave & West Temple - 43@4	W-S	EBR	EB				11				9
12: Oakland Ave & West Temple - 45@2	N-E	SBL	SB				11				10
12: Oakland Ave & West Temple - 45@2	N-W	SBR	SB				10				5
12: Oakland Ave & West Temple - 45@2	N-S	SBT	SB				135				254
12: Oakland Ave & West Temple - 46@5	S-E	NBR	NB				13				22
12: Oakland Ave & West Temple - 46@5	S-W	NBL	NB				9				11
12: Oakland Ave & West Temple - 46@5	S-N	NBT	NB				190				261
13: 2400 S & Main Street - 32@716.9 - 3	W-E	EBT	EB				0				0
13: 2400 S & Main Street - 32@716.9 - 5	W-S	EBR	EB				5				4
13: 2400 S & Main Street - 32@716.9 - 5	W-N	EBL	EB				5				9
13: 2400 S & Main Street - 37@672.9 - 3	E-W	WBT	WB			13.13 B	28			27.12 D	20
13: 2400 S & Main Street - 37@672.9 - 5	E-S	WBL	WB				28				21
13: 2400 S & Main Street - 37@672.9 - 5	E-N	WBR	WB				64				133
13: 2400 S & Main Street - 54@239.9 - 3	S-W	NBL	NB				4				4
13: 2400 S & Main Street - 54@239.9 - 3	S-E	NBR	NB				0				0
13: 2400 S & Main Street - 54@239.9 - 5	S-N	NBT	NB				338				496
13: 2400 S & Main Street - 59@503.7 - 3	N-W	SBR	SB				4				9
13: 2400 S & Main Street - 59@503.7 - 3	N-E	SBL	SB				0				0
13: 2400 S & Main Street - 59@503.7 - 5	N-S	SBT	SB				190				471
14: Robert Ave. & Main Street - 26@405	E-W	WBT	WB				0				0
14: Robert Ave. & Main Street - 26@405	E-N	WBR	WB				0				4
14: Robert Ave. & Main Street - 26@405	E-S	WBL	WB			8.36 A	4			8.86 A	4
14: Robert Ave. & Main Street - 29@709	W-E	EBT	EB				0				5
14: Robert Ave. & Main Street - 29@709	W-N	EBL	EB				7				5
14: Robert Ave. & Main Street - 29@709	W-S	EBR	EB				4				6
14: Robert Ave. & Main Street - 55@232	N-E	SBL	SB				0				10
14: Robert Ave. & Main Street - 55@232	N-W	SBR	SB				5				5
14: Robert Ave. & Main Street - 55@232	N-S	SBT	SB				218				481
14: Robert Ave. & Main Street - 60@63.`	S-E	NBR	NB				5				5
14: Robert Ave. & Main Street - 60@63.`	S-W	NBL	NB				4				5
14: Robert Ave. & Main Street - 60@63.`	S-N	NBT	NB				337				491
15: N Granite SD Access & Main Street -	E-N	WBR	WB			1.22 A	18			1.19 A	60
15: N Granite SD Access & Main Street -	E-S	WBL	WB				15				5
15: N Granite SD Access & Main Street -	N-E	SBL	SB				12				14
15: N Granite SD Access & Main Street -	N-S	SBT	SB				214				478
15: N Granite SD Access & Main Street -	S-E	NBR	NB				9				4
15: N Granite SD Access & Main Street -	S-N	NBT	NB				328				442

16: Oakland Ave. & Main Street - 41@7C	W-N	EBL	EB	6.64	A	10	7.71 A 28
16: Oakland Ave. & Main Street - 41@7C	W-S	EBR	EB			17	23
16: Oakland Ave. & Main Street - 63@15	N-W	SBR	SB			17	13
16: Oakland Ave. & Main Street - 63@15	N-S	SBT	SB			214	471
16: Oakland Ave. & Main Street - 66@18	S-W	NBL	NB			21	16
16: Oakland Ave. & Main Street - 66@18	S-N	NBT	NB			324	418
17: S Granite SD Access & Main Street - (	E-N	WBR	WB	1.24	A	8	1.78 A 19
17: S Granite SD Access & Main Street - (	E-S	WBL	WB			17	17
17: S Granite SD Access & Main Street - (	N-E	SBL	SB			14	5
17: S Granite SD Access & Main Street - (	N-S	SBT	SB			216	489
17: S Granite SD Access & Main Street - (	S-E	NBR	NB			51	37
17: S Granite SD Access & Main Street - (	S-N	NBT	NB			337	415

Alternative: WB I-80 Diverge Point

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 - 7	W-E	174.6265	EBT	12	162	280	413	1161	2328
1: 2100 South & State Street - 2@1436.4 - 6	E-W	214.1699	WBT	28	244	431	68	421	762
1: 2100 South & State Street - 3@1101.9 - 5	N-S	91.93159	SBT	11	109	191	84	519	941
1: 2100 South & State Street - 4@1031.1 - 8	S-N	224.4938	NBT	25	194	345	15	187	324
1: 2100 South & State Street - 159@246.4 -	S-E	73.97752	NBR	33	88	178	25	93	179
1: 2100 South & State Street - 160@288.7 -	S-W	61.65207	NBL	11	80	143	11	110	192
1: 2100 South & State Street - 161@166.4 -	E-S	118.9249	WBL	15	122	216	57	217	416
1: 2100 South & State Street - 162@152.6 -	W-N	68.47831	EBL	7	76	132	86	339	644
1: 2100 South & State Street - 163@133.8 -	N-W	17.41647	SBR	4	19	36	26	86	167
1: 2100 South & State Street - 164@371.3 -	N-E	42.09149	SBL	6	46	83	11	91	161
1: 2100 South & State Street - 165@166.2 -	E-N	15.36324	WBR	8	18	37	6	17	35
1: 2100 South & State Street - 255@187.5 -	W-S	24.32716	EBR	7	29	55	404	698	1556
2: Street Car Crossing & State Street - 5@10	N-S	53.34328	SBT	20	89	167	138	575	1086
2: Street Car Crossing & State Street - 5@10	N-W	53.34328	SBR	20	89	167	138	575	1086
2: Street Car Crossing & State Street - 10@1	S-N	111.2782	NBT	23	138	251	11	78	139
2: Street Car Crossing & State Street - 174@	W-S	29.70869	EBR	14	45	87	21	78	151
2: Street Car Crossing & State Street - 175@	W-N	177.1141	EBL	20	169	299	44	219	405
2: Street Car Crossing & State Street - 177@	S-W	46.76902	NBL	14	70	129	56	308	564
3: WB I-80 & State Street - 90@8.1 - 10@47	S-N	0	NBT	0	0	0	31	101	197
3: WB I-80 & State Street - 96@9.7 - 37@36	S-W	0	NBL	0	1	2	18	63	123
3: WB I-80 & State Street - 96@9.7 - 118@4	S-W	0	NBL	0	1	2	18	63	123
3: WB I-80 & State Street - 124@1240.6 - 37	E-W	126.799	WBT	14	128	225	20	193	339
3: WB I-80 & State Street - 124@1240.6 - 91	E-S	126.799	WBL	14	128	225	20	193	339
3: WB I-80 & State Street - 124@1240.6 - 11	E-W	126.799	WBT	14	128	225	20	193	339
3: WB I-80 & State Street - 125@249.7 - 10(	E-N	202.3435	WBR	67	245	471	33	231	415
3: WB I-80 & State Street - 155@285.8 - 97(	N-S	145.638	SBT	27	197	351	73	256	496
3: WB I-80 & State Street - 156@284.4 - 37(	N-W	52.35572	SBR	13	61	114	32	123	236
3: WB I-80 & State Street - 156@284.4 - 118	N-W	58.74823	SBR	12	65	120	32	125	238
3: WB I-80 & State Street - 157@282.8 - 91(	N-S	72.37431	SBT	8	73	129	85	403	749
4: EB I-80 & State Street - 92@5.5 - 12@38.:	N-S	0	SBT	1	2	4	28	71	145
4: EB I-80 & State Street - 98@6.3 - 25@59.(	N-E	0	SBL	0	0	0	23	63	127
4: EB I-80 & State Street - 98@6.3 - 122@62	N-E	0	SBL	0	0	0	23	63	127
4: EB I-80 & State Street - 120@1810.3 - 25(	W-E	201.3611	EBT	30	238	423	18	181	318
4: EB I-80 & State Street - 120@1810.3 - 89(	W-N	201.3611	EBL	30	238	423	18	181	318
4: EB I-80 & State Street - 120@1810.3 - 122	W-E	201.3611	EBT	30	238	423	18	181	318
4: EB I-80 & State Street - 121@193.1 - 12@	W-S	133.0004	EBR	38	157	297	59	311	572
4: EB I-80 & State Street - 144@76.3 - 89@2	S-N	178.7019	NBT	26	247	433	13	295	500
4: EB I-80 & State Street - 145@75.0 - 25@5	S-E	120.0697	NBR	45	219	408	32	285	501
4: EB I-80 & State Street - 145@75.0 - 10032	S-E	124.601	NBR	45	220	408	31	286	502
4: EB I-80 & State Street - 146@331.6 - 95@	S-N	119.4807	NBT	19	156	276	25	144	263
4: EB I-80 & State Street - 10063@12.6 - 12(	N-S	0	SBT	1	2	4	28	71	145
5: Oakland & State Street - 12@191.7 - 12@	N-S	0	SBT	0	0	0	0	0	0
5: Oakland & State Street - 22@609.6 - 11@	E-N	11.65146	WBR	5	16	31	5	21	39
5: Oakland & State Street - 146@91.4 - 146(	S-N	0	NBT	2	5	10	2	5	10
5: Oakland & State Street - 147@71.3 - 11@	S-N	3.622646	NBT	20	49	102	21	98	182
5: Oakland & State Street - 147@71.3 - 21@	S-E	7.453525	NBR	28	70	144	25	133	245
6: East Grantie SD RIRO & State Street - 12@	N-W	14.62824	SBR	5	20	38	1	5	10
6: East Grantie SD RIRO & State Street - 12@	N-S	11.01637	SBT	4	15	28	1	4	8
6: East Grantie SD RIRO & State Street - 23@	W-S	31.1888	EBR	5	25	46	4	34	60
6: East Grantie SD RIRO & State Street - 100	S-N	30.5743	NBT	72	140	302	452	862	1874
6: East Grantie SD RIRO & State Street - 100	S-N	30.45854	NBT	71	142	304	454	859	1870
7: 2700 South & State Street - 14@1205.4 -	N-S	119.4297	SBT	10	98	173	24	269	467
7: 2700 South & State Street - 15@1184.3 -	S-N	177.4046	NBT	16	178	310	57	261	487
7: 2700 South & State Street - 17@647.5 - 1	W-S	43.7414	EBR	9	42	79	107	304	608
7: 2700 South & State Street - 17@647.5 - 1	W-E	33.05036	EBT	10	34	66	107	298	598
7: 2700 South & State Street - 20@820.0 - 1	E-W	56.13702	WBT	11	59	109	11	57	106
7: 2700 South & State Street - 148@291.2 -	S-W	41.92573	NBL	7	36	67	14	43	86
7: 2700 South & State Street - 149@150.8 -	S-E	7.068628	NBR	3	11	21	4	21	38

7: 2700 South & State Street - 150@28.0 - 1	W-N	54.56884	EBL	16	84	155	116	299	610
7: 2700 South & State Street - 153@329.4 -	N-E	26.11727	SBL	6	21	41	14	59	111
7: 2700 South & State Street - 154@188.7 -	N-W	15.15969	SBR	5	18	35	4	16	30
7: 2700 South & State Street - 10014@53.9	E-N	39.86658	WBR	8	46	84	7	29	54
7: 2700 South & State Street - 10015@17.9	E-S	31.09067	WBL	9	41	77	13	71	131
8: WB I-80 & 700 East - 72@299.7 - 73@63.	N-S	141.1327	SBT	10	145	250	23	272	472
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	126.586	NBT	25	118	219	8	34	65
8: WB I-80 & 700 East - 87@30.0 - 137@28.	S-SW	71.87562	NBL	88	199	417	24	326	561
8: WB I-80 & 700 East - 135@1579.2 - 73@6	E-S	77.16601	WBL	10	52	96	13	90	161
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	77.16601	WBL	10	52	96	13	90	161
8: WB I-80 & 700 East - 136@72.0 - 70@87.	E-N	11.21833	WBR	6	17	34	7	18	37
8: WB I-80 & 700 East - 168@218.7 - 83@57	N-S	87.49564	SBT	9	100	174	14	174	302
8: WB I-80 & 700 East - 169@299.3 - 137@2	N-SW	1.921018	SBR	36	98	198	3	10	19
9: EB I-80 & 700 East - 74@24.8 - 10189@1	N-S	84.97261	SBT	10	70	126	11	99	174
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	254.7861	NBT	86	330	631	19	221	385
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	46.34186	SBL	12	59	109	21	255	441
9: EB I-80 & 700 East - 133@1231.9 - 79@5	W-N	233.8465	EBL	27	266	465	22	270	468
9: EB I-80 & 700 East - 133@1231.9 - 140@	W-NE	233.8465	EBL	27	266	465	22	270	468
9: EB I-80 & 700 East - 134@318.9 - 10188@	W-S	0	EBR	7	17	36	6	22	43
9: EB I-80 & 700 East - 166@226.1 - 86@53.	S-N	207.5644	NBT	195	401	858	47	252	463
9: EB I-80 & 700 East - 167@274.8 - 140@6	S-NE	0	NBR	2	6	12	1	3	6
9: EB I-80 & 700 East - 10188@14.1 - 76@3.	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 33@704.1 - 35	E-W	9.879436	WBT	4	19	36	4	19	36
10: 2400 S & West Temple - 33@704.1 - 56	E-N	9.879436	WBR	4	19	36	4	19	36
10: 2400 S & West Temple - 33@704.1 - 101	E-S	9.879436	WBL	4	19	36	4	19	36
10: 2400 S & West Temple - 34@51.1 - 32@	W-E	0	EBT	0	0	0	1	2	4
10: 2400 S & West Temple - 34@51.1 - 56@	W-N	0	EBL	0	0	0	1	2	4
10: 2400 S & West Temple - 34@51.1 - 101	W-S	0	EBR	0	0	0	1	2	4
10: 2400 S & West Temple - 57@353.0 - 32	N-E	0	SBL	2	7	13	1	5	10
10: 2400 S & West Temple - 57@353.0 - 35	N-W	0	SBR	1	3	6	0	0	0
10: 2400 S & West Temple - 57@353.0 - 101	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 32	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 35	S-W	0	NBL	1	4	8	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 56	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@710.2	E-W	2.575479	WBT	4	12	24	4	12	25
11: Robert Ave. & West Temple - 28@710.2	E-S	2.558841	WBL	4	12	24	4	12	25
11: Robert Ave. & West Temple - 28@710.2	E-N	2.531768	WBR	4	12	24	4	12	24
11: Robert Ave. & West Temple - 31@117.4	W-E	0	EBT	4	9	18	4	12	24
11: Robert Ave. & West Temple - 31@117.4	W-S	0	EBR	4	9	18	4	12	24
11: Robert Ave. & West Temple - 31@117.4	W-N	0	EBL	4	9	18	4	12	24
11: Robert Ave. & West Temple - 44@282.3	S-E	0	NBR	0	1	2	0	1	3
11: Robert Ave. & West Temple - 44@282.3	S-W	0	NBL	1	2	5	1	3	6
11: Robert Ave. & West Temple - 44@282.3	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 49@19.8 -	N-E	2.913104	SBL	2	5	11	2	5	10
11: Robert Ave. & West Temple - 49@19.8 -	N-W	8.146827	SBR	12	36	71	13	36	73
11: Robert Ave. & West Temple - 49@19.8 -	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West Temple - 40@711.(	E-W	16.71183	WBT	4	20	37	6	17	33
12: Oakland Ave & West Temple - 40@711.(	E-N	16.71183	WBR	4	20	37	6	17	33
12: Oakland Ave & West Temple - 40@711.(	E-S	16.71183	WBL	4	20	37	6	17	33
12: Oakland Ave & West Temple - 43@473.(	W-E	17.04076	EBT	6	15	30	5	22	41
12: Oakland Ave & West Temple - 43@473.(	W-N	16.65659	EBL	6	14	29	5	22	40
12: Oakland Ave & West Temple - 43@473.(	W-S	16.6845	EBR	6	14	29	5	22	40
12: Oakland Ave & West Temple - 45@261.8	N-E	0	SBL	2	6	11	3	10	20
12: Oakland Ave & West Temple - 45@261.8	N-W	0	SBR	1	3	6	2	8	16
12: Oakland Ave & West Temple - 45@261.8	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West Temple - 46@527.(	S-E	5.925707	NBR	2	5	10	2	6	12
12: Oakland Ave & West Temple - 46@527.(	S-W	5.332815	NBL	2	6	12	3	8	15
12: Oakland Ave & West Temple - 46@527.(	S-N	2.023688	NBT	1	2	4	0	2	3
13: 2400 S & Main Street - 32@716.9 - 36@	W-E	9.74766	EBT	4	11	22	5	12	25
13: 2400 S & Main Street - 32@716.9 - 55@	W-S	9.74766	EBR	4	11	22	5	12	25
13: 2400 S & Main Street - 32@716.9 - 58@	W-N	9.74766	EBL	4	11	22	5	12	25

13: 2400 S & Main Street - 37@672.9 - 33@ E-W	35.57004	WBT	11	51	95	19	93	173
13: 2400 S & Main Street - 37@672.9 - 55@ E-S	35.57004	WBL	11	51	95	19	93	173
13: 2400 S & Main Street - 37@672.9 - 58@ E-N	35.57004	WBR	11	51	95	19	93	173
13: 2400 S & Main Street - 54@239.9 - 33@ S-W	0	NBL	1	4	8	2	5	10
13: 2400 S & Main Street - 54@239.9 - 36@ S-E	0	NBR	0	0	0	1	4	7
13: 2400 S & Main Street - 54@239.9 - 58@ S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 33@ N-W	0	SBR	0	0	0	0	1	3
13: 2400 S & Main Street - 59@503.7 - 36@ N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 55@ N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 26@405.6 - E-W	2.669583	WBT	3	9	18	4	10	21
14: Robert Ave. & Main Street - 26@405.6 - E-N	2.669583	WBR	3	9	18	4	10	21
14: Robert Ave. & Main Street - 26@405.6 - E-S	2.669583	WBL	3	9	18	4	10	21
14: Robert Ave. & Main Street - 29@709.2 - W-E	10.32267	EBT	5	13	25	4	14	27
14: Robert Ave. & Main Street - 29@709.2 - W-N	10.32267	EBL	5	13	25	4	14	27
14: Robert Ave. & Main Street - 29@709.2 - W-S	10.32267	EBR	5	13	25	4	14	27
14: Robert Ave. & Main Street - 55@232.4 - N-E	0	SBL	0	0	0	2	6	12
14: Robert Ave. & Main Street - 55@232.4 - N-W	0	SBR	1	2	4	2	5	10
14: Robert Ave. & Main Street - 55@232.4 - N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 60@63.7 - 2 S-E	0	NBR	1	3	6	6	20	38
14: Robert Ave. & Main Street - 60@63.7 - 2 S-W	0	NBL	0	1	2	1	4	7
14: Robert Ave. & Main Street - 60@63.7 - 5 S-N	0	NBT	0	0	0	0	0	0
15: N Granite SD Access & Main Street - 39@ E-N	0	WBR	2	9	17	3	10	19
15: N Granite SD Access & Main Street - 39@ E-S	0	WBL	3	9	18	3	11	21
15: N Granite SD Access & Main Street - 61@ N-E	2.174524	SBL	1	3	6	2	5	11
15: N Granite SD Access & Main Street - 61@ N-S	0	SBT	5	15	30	8	23	46
15: N Granite SD Access & Main Street - 62@ S-E	0	NBR	0	1	2	0	0	0
15: N Granite SD Access & Main Street - 62@ S-N	0	NBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 41@707.2 W-N	23.08612	EBL	5	16	32	4	25	44
16: Oakland Ave. & Main Street - 41@707.2 W-S	23.08612	EBR	5	16	32	4	25	44
16: Oakland Ave. & Main Street - 63@154.7 N-W	0	SBR	1	3	6	1	3	5
16: Oakland Ave. & Main Street - 63@154.7 N-S	0	SBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 66@184.7 S-W	1.807164	NBL	2	6	11	3	9	18
16: Oakland Ave. & Main Street - 66@184.7 S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 65@ E-N	0	WBR	2	6	13	3	8	16
17: S Granite SD Access & Main Street - 65@ E-S	0	WBL	2	7	13	3	8	17
17: S Granite SD Access & Main Street - 67@ N-E	1.872743	SBL	1	5	10	1	4	8
17: S Granite SD Access & Main Street - 67@ N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 69@ S-E	4.265461	NBR	1	4	7	0	1	2
17: S Granite SD Access & Main Street - 69@ S-N	0	NBT	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: WB I-80 Diverge Point

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	4	19.5	C	0.65	***21.4***	***C***	***33.3***	***D***	5279	5320	99.2%	7411	9850	75.2%	65.74	56.23	0.84	1.39
EB I-80 (State to 700 E)	Weave	5	18.9	B	0.53	***20.7***	***C***	***29.0***	***D***	6466	6530	99.0%	8724	11250	77.5%	65.96	60.97	0.95	1.97
EB I-80 (Over 700 E)	Basic	4	17.9	B	0.71	***19.7***	***C***	***26.5***	***D***	5002	5060	98.9%	6722	8630	77.9%	67.27	64.30	0.92	1.53
WB I-80 (Over 700 E)	Basic	4	45.7	F	10.76	***78.7***	***F***	***25.1***	***C***	7007	8020	87.4%	6097	6130	99.5%	27.17	64.88	10.76	1.34
WB I-80 (700 E to State)	Weave	5	49.4	F	10.88	***67.8***	***F***	***25.4***	***C***	8848	10050	88.0%	7435	7490	99.3%	36.05	62.38	10.88	1.61
WB I-80 (Over State)	Diverge	4	46.2	F	5.01	***47.8***	***F***	***29.9***	***D***	8059	9180	87.8%	6404	6470	99.0%	48.87	64.87	5.64	1.26
WB I-80 to WB CD Ramp	Ramp	2	77.7	F	9.76	***77.8***	***F***	***50.1***	***F***	7969	9180	86.8%	6332	6470	97.9%	52.43	66.15	11.64	2.33
WB I-80 (West of State)	Diverge	3	16.7	B	4.38	***16.7***	***B***	***14.6***	***B***	4518	5250	86.1%	3439	3550	96.9%	51.77	65.71	6.54	1.54
WB I-80 to NB I-15	Ramp	3	18.2	B	1.02	***18.2***	***B***	***14.8***	***B***	3337	3930	84.9%	2800	2920	95.9%	63.53	66.33	1.41	1.05
To SB I-15 Ramp	Ramp	2	24.5	C	1.42	***24.5***	***C***	***20.7***	***B***	2637	3010	87.6%	2214	2240	98.8%	55.92	56.36	1.47	1.82
To WB 201 Ramp	Ramp	2	16.3	B	1.35	***17.2***	***B***	***16.6***	***B***	1832	1990	92.1%	1724	1770	97.4%	54.89	55.09	1.35	1.39
WB I-80 to SB I-15/WB 201	Diverge	3	40.2	E	0.94	***40.2***	***E***	***31.5***	***D***	3191	3690	86.5%	2350	2410	97.5%	53.34	54.56	0.95	1.17
WB CD	Weave (CD)	3	38.6	E	8.65	***38.6***	***E***	***29.1***	***C***	4933	5680	86.9%	4003	4580	87.4%	43.71	48.78	8.65	3.53
EB I-15 On Ramp	Ramp	2	49.8	F	4.88	***51.2***	***F***	***35.8***	***D***	5381	6150	87.5%	4354	4530	96.1%	54.57	63.02	6.48	2.74
EB I-80 I-15 to State	Weave	5	7.8	A	0.79	***8.0***	***A***	***11.0***	***B***	1044	1210	86.3%	1166	1400	83.3%	26.83	22.66	1.30	2.63
NB I-15 Off Ramp 2	Ramp	1	109.1	F	11.05	***128.2***	***F***	***346.6***	***F***	6393	6540	97.8%	8409	11260	74.7%	56.93	24.58	13.43	23.54
NB I-15 Off Ramp 3	Ramp	1	29.3	C	3.94	***34.8***	***D***	***94.5***	***F***	1593	1600	99.6%	1608	1880	85.5%	53.14	17.15	7.28	9.32
NB I-15 Off Ramp 1	Ramp	2	13.4	B	1.99	***14.6***	***B***	***150.9***	***F***	1593	1600	99.6%	1653	1880	87.9%	59.35	8.42	2.49	27.98
EB 201/SB I-15 2	Merge	4	22.4	C	0.12	***24.2***	***C***	***105.7***	***F***	4901	4940	99.2%	6932	9380	73.9%	64.54	20.08	0.44	5.42
EB 201/SB I-15 1	Merge	5	15.3		0.16	***16.7***		***110.4***		4847	4940	98.1%	6863	9380	73.2%	61.75	13.23	0.44	6.38
EB 201 Ramp	Ramp	2	19.0	B	0.19	***20.5***	***B***	***140.3***	***F***	2347	2350	99.9%	2105	4480	47.0%	60.53	7.91	0.32	8.53
SB I-15 Ramp	Ramp	3	13.6	B	0.11	***14.6***	***B***	***44.1***	***E***	2587	2590	99.9%	4891	4900	99.8%	62.27	47.97	0.16	12.96
EB I-80 Ramp	Ramp	2	39.3	E	10.09	***124.8***	***F***	***19.7***	***B***	1929	2030	95.0%	1336	1360	98.2%	13.25	36.60	32.16	3.61

Alternative: I-80 WB 700 East Separated Ramp w/Left Exit

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7@51.6	W-E	EBT	EB							496	47.10						902
1: 2100 South & State Street - 2@1436.4 - 6@43.7	E-W	WBT	WB							690							877
1: 2100 South & State Street - 3@1101.9 - 5@67.0	N-S	SBT	SB							611							1934
1: 2100 South & State Street - 4@1031.1 - 8@53.2	S-N	NBT	NB							1340							1020
1: 2100 South & State Street - 159@246.4 - 7@51.6	S-E	NBR	NB							179							169
1: 2100 South & State Street - 160@288.7 - 6@43.7	S-W	NBL	NB							168							251
1: 2100 South & State Street - 161@166.4 - 5@67.0	E-S	WBL	WB							270	25.68	C					271
1: 2100 South & State Street - 162@152.6 - 8@53.2	W-N	EBL	EB							143							174
1: 2100 South & State Street - 163@133.8 - 6@43.7	N-W	SBR	SB							73							169
1: 2100 South & State Street - 164@371.3 - 7@51.6	N-E	SBL	SB							84							221
1: 2100 South & State Street - 165@166.2 - 8@53.2	E-N	WBR	WB							86							100
1: 2100 South & State Street - 255@187.5 - 5@67.0	W-S	EBR	EB	30.57	C					159							324
2: Street Car Crossing & State Street - 5@1044.9 - 15	N-S	SBT	SB							889							2268
2: Street Car Crossing & State Street - 5@1044.9 - 17	N-W	SBR	SB							150							250
2: Street Car Crossing & State Street - 10@1226.9 - 4	S-N	NBT	NB							1489	17.01	B					1252
2: Street Car Crossing & State Street - 174@664.9 - 15	W-S	EBR	EB							301							293
2: Street Car Crossing & State Street - 175@210.6 - 4	W-N	EBL	EB							197							201
2: Street Car Crossing & State Street - 177@146.2 - 17	S-W	NBL	NB	13.02	B					189							327
3: WB I-80 & State Street - 89@1266.9 - 89@1464.0	E-W	WBT	WB							1836							1224
3: WB I-80 & State Street - 90@184.4 - 10@45.5	S-N	NBT	NB							1274							1139
3: WB I-80 & State Street - 124@1241.3 - 92@92.5	E-S	WBL	WB							224							326
3: WB I-80 & State Street - 124@1241.3 - 118@50.0	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 125@345.7 - 10@45.5	E-N	WBR	WB							507							580
3: WB I-80 & State Street - 155@284.1 - 98@90.8	N-S	SBT	SB							581	21.22	C	28.07	B			798
3: WB I-80 & State Street - 156@284.4 - 118@50.0	N-W	SBR	SB							396							583
3: WB I-80 & State Street - 157@284.8 - 92@92.5	N-S	SBT	SB	14.61	B					194							1164
3: WB I-80 & State Street - 173@156.4 - 118@50.0	S-W	NBL	NB							497							392
4: EB I-80 & State Street - 92@225.5 - 12@38.2	N-S	SBT	SB							417					3.44	A	1488
4: EB I-80 & State Street - 98@223.3 - 122@63.9	N-E	SBL	SB							581							798
4: EB I-80 & State Street - 120@1811.7 - 90@52.5	W-N	EBL	EB							532							339
4: EB I-80 & State Street - 120@1811.7 - 122@63.9	W-E	EBT	EB							0							0
4: EB I-80 & State Street - 121@196.0 - 12@38.2	W-S	EBR	EB							675					7.09	A	641
4: EB I-80 & State Street - 144@78.0 - 90@52.5	S-N	NBT	NB							745							800
4: EB I-80 & State Street - 145@71.2 - 122@63.9	S-E	NBR	NB							616							556
4: EB I-80 & State Street - 146@331.6 - 173@24.1	S-N	NBT	NB	25.14	C	26.02	B			497							392
5: Oakland & State Street - 12@191.7 - 12@266.5	N-S	SBT	SB							1091							2129
5: Oakland & State Street - 22@609.6 - 11@42.0	E-N	WBR	WB							29							49
5: Oakland & State Street - 146@92.9 - 146@180.6	S-N	NBT	NB							498							396
5: Oakland & State Street - 147@71.5 - 11@42.0	S-N	NBT	NB					3.09	A	1334							1311
5: Oakland & State Street - 147@71.5 - 21@32.7	S-E	NBR	NB							13							20
6: East Grantie SD RIRO & State Street - 12@274.6 - 2	N-W	SBR	SB							237							56
6: East Grantie SD RIRO & State Street - 12@274.6 - 1	N-S	SBT	SB							853							2074
6: East Grantie SD RIRO & State Street - 23@259.7 - 1	W-S	EBR	EB					6.35	A	49							98
6: East Grantie SD RIRO & State Street - 10004@16.8	S-N	NBT	NB							1344							1330
6: East Grantie SD RIRO & State Street - 10008@16.6	S-N	NBT	NB							498							397
7: 2700 South & State Street - 14@1205.4 - 16@106.4	N-S	SBT	SB							597	23.74	C					1845
7: 2700 South & State Street - 15@1184.3 - 13@57.1	S-N	NBT	NB							1518							1372
7: 2700 South & State Street - 17@647.5 - 16@106.4	W-S	EBR	EB							40							99
7: 2700 South & State Street - 17@647.5 - 19@119.5	W-E	EBT	EB							59							331
7: 2700 South & State Street - 20@820.0 - 18@72.5	E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291.2 - 18@72.5	S-W	NBL	NB							119							88
7: 2700 South & State Street - 149@150.8 - 19@119.5	S-E	NBR	NB							21							87
7: 2700 South & State Street - 150@28.0 - 13@57.1	W-N	EBL	EB							149							301
7: 2700 South & State Street - 153@329.4 - 19@119.5	N-E	SBL	SB							53							125
7: 2700 South & State Street - 154@188.7 - 18@72.5	N-W	SBR	SB							112							82
7: 2700 South & State Street - 10014@53.9 - 13@57.1	E-N	WBR	WB							199							69
7: 2700 South & State Street - 10015@17.9 - 16@106	E-S	WBL	WB	15.59	B					74							130
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	SBT	SB							675							1768
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB							2529	17.22	B					1829
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	NBL	NB							983							698
8: WB I-80 & 700 East - 135@1579.2 - 73@63.1	E-S	WBL	WB							91							220
8: WB I-80 & 700 East - 135@1579.2 - 137@28.7	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	WBR	WB							701			31.36	C			561
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	SBT	SB							312							774
8: WB I-80 & 700 East - 169@299.3 - 137@28.7	N-SW	SBR	SB							1041							663
9: EB I-80 & 700 East - 74@24.8 - 10189@12.0	N-S	SBT	SB							767							1989
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB							1776							1069
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB							313	19.66	B					776
9: EB I-80 & 700 East - 133@1231.9 - 79@56.2	W-N	EBL	EB							754							760
9: EB I-80 & 700 East - 133@1231.9 - 140@66.9	W-NE	EBL	EB	9.67	A					0							0
9: EB I-80 & 700 East - 134@318.9 - 10188@13.8	W-S	EBR	EB							697							1141
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	NBT	NB							985							697
9: EB I-80 & 700 East - 167@274.8 - 140@66.9	S-NE	NBR	NB							153							151
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	SBT	SB			23.97	B			77					7.29	A	128
10: 2400 S & West Temple - 33@704.1 - 35@43.9	E-W	WBT	WB							1							1
10: 2400 S & West Temple - 33@704.1 - 56@30.3	E-N	WBR	WB							4							7
10: 2400 S & West Temple - 33@704.1 - 10106@10.2	E-S	WBL	WB							4							6
10: 2400 S & West Temple - 34@51.1 - 32@34.2	W-E	EBT	EB							0							4
10: 2400 S & West Temple - 34@51.1 - 56@30.3	W-N	EBL	EB	20.68	C					0							0
10: 2400 S & West Temple - 34@51.1 - 10106@10.2	W-S	EBR	EB							0							0
10: 2400 S & West Temple - 57@353.0 - 32@34.2	N-E	SBL	SB							6							5
10: 2400 S & West Temple - 57@353.0 - 35@43.9	N-W	SBR	SB							0							5
10: 2400 S & West Temple - 57@353.0 - 10106@10.2	N-S	SBT	SB							138							261
10: 2400 S & West Temple - 10107@1.9 - 32@34.2	S-E	NBR	NB							5					9.49	A	6

10: 2400 S & West Temple - 10107@1.9 - 35@43.9	S-W	NBL	NB		6.85	A	4	0
10: 2400 S & West Temple - 10107@1.9 - 56@30.3	S-N	NBT	NB				190	280
11: Robert Ave. & West Temple - 28@710.2 - 30@17.	E-W	WBT	WB				0	0
11: Robert Ave. & West Temple - 28@710.2 - 45@9.4	E-S	WBL	WB				4	6
11: Robert Ave. & West Temple - 28@710.2 - 48@20.	E-N	WBR	WB				4	3
11: Robert Ave. & West Temple - 31@117.4 - 29@20.	W-E	EBT	EB				0	5
11: Robert Ave. & West Temple - 31@117.4 - 45@9.4	W-S	EBR	EB				0	4
11: Robert Ave. & West Temple - 31@117.4 - 48@20.	W-N	EBL	EB				4	4
11: Robert Ave. & West Temple - 44@282.3 - 29@20.	S-E	NBR	NB				6	5
11: Robert Ave. & West Temple - 44@282.3 - 30@17.	S-W	NBL	NB				7	6
11: Robert Ave. & West Temple - 44@282.3 - 48@20.	S-N	NBT	NB		7.25	A	192	277
11: Robert Ave. & West Temple - 49@19.8 - 29@20.1	N-E	SBL	SB				5	5
11: Robert Ave. & West Temple - 49@19.8 - 30@17.2	N-W	SBR	SB				0	5
11: Robert Ave. & West Temple - 49@19.8 - 45@9.4	N-S	SBT	SB				137	255
12: Oakland Ave & West Temple - 40@711.0 - 42@19	E-W	WBT	WB				18	4
12: Oakland Ave & West Temple - 40@711.0 - 44@31	E-N	WBR	WB				10	21
12: Oakland Ave & West Temple - 40@711.0 - 47@24	E-S	WBL	WB				10	5
12: Oakland Ave & West Temple - 43@473.0 - 41@28	W-E	EBT	EB				4	20
12: Oakland Ave & West Temple - 43@473.0 - 44@31	W-N	EBL	EB				4	9
12: Oakland Ave & West Temple - 43@473.0 - 47@24	W-S	EBR	EB		7.60	A	11	9
12: Oakland Ave & West Temple - 45@261.8 - 41@28	N-E	SBL	SB				11	10
12: Oakland Ave & West Temple - 45@261.8 - 42@19	N-W	SBR	SB				10	5
12: Oakland Ave & West Temple - 45@261.8 - 47@24	N-S	SBT	SB				120	250
12: Oakland Ave & West Temple - 46@527.0 - 41@28	S-E	NBR	NB				13	22
12: Oakland Ave & West Temple - 46@527.0 - 42@19	S-W	NBL	NB				9	11
12: Oakland Ave & West Temple - 46@527.0 - 44@31	S-N	NBT	NB				190	261
13: 2400 S & Main Street - 32@716.9 - 36@24.3	W-E	EBT	EB				0	0
13: 2400 S & Main Street - 32@716.9 - 55@6.1	W-S	EBR	EB				5	4
13: 2400 S & Main Street - 32@716.9 - 58@21.9	W-N	EBL	EB		6.32	A	5	9
13: 2400 S & Main Street - 37@456.9 - 33@22.5	E-W	WBT	WB				0	0
13: 2400 S & Main Street - 37@456.9 - 55@6.1	E-S	WBL	WB				0	0
13: 2400 S & Main Street - 37@456.9 - 58@21.9	E-N	WBR	WB				0	0
13: 2400 S & Main Street - 54@239.9 - 33@22.5	S-W	NBL	NB				4	4
13: 2400 S & Main Street - 54@239.9 - 36@24.3	S-E	NBR	NB				0	0
13: 2400 S & Main Street - 54@239.9 - 58@21.9	S-N	NBT	NB				338	495
13: 2400 S & Main Street - 59@503.7 - 33@22.5	N-W	SBR	SB				4	9
13: 2400 S & Main Street - 59@503.7 - 36@24.3	N-E	SBL	SB				0	0
13: 2400 S & Main Street - 59@503.7 - 55@6.1	N-S	SBT	SB				190	471
14: Robert Ave. & Main Street - 26@405.6 - 28@21.3	E-W	WBT	WB				0	0
14: Robert Ave. & Main Street - 26@405.6 - 54@12.4	E-N	WBR	WB				0	4
14: Robert Ave. & Main Street - 26@405.6 - 61@11.8	E-S	WBL	WB		8.11		4	4
14: Robert Ave. & Main Street - 29@709.2 - 27@24.6	W-E	EBT	EB				0	5
14: Robert Ave. & Main Street - 29@709.2 - 54@12.4	W-N	EBL	EB				7	5
14: Robert Ave. & Main Street - 29@709.2 - 61@11.8	W-S	EBR	EB				4	6
14: Robert Ave. & Main Street - 55@232.4 - 27@24.6	N-E	SBL	SB				0	10
14: Robert Ave. & Main Street - 55@232.4 - 28@21.3	N-W	SBR	SB				5	5
14: Robert Ave. & Main Street - 55@232.4 - 61@11.8	N-S	SBT	SB				190	460
14: Robert Ave. & Main Street - 60@63.7 - 27@24.6	S-E	NBR	NB				5	5
14: Robert Ave. & Main Street - 60@63.7 - 28@21.3	S-W	NBL	NB				4	5
14: Robert Ave. & Main Street - 60@63.7 - 54@12.4	S-N	NBT	NB		1.26	A	337	491
15: N Granite SD Access & Main Street - 39@121.3 - 6	E-N	WBR	WB				18	60
15: N Granite SD Access & Main Street - 39@121.3 - 6	E-S	WBL	WB				15	5
15: N Granite SD Access & Main Street - 61@36.1 - 38	N-E	SBL	SB				12	14
15: N Granite SD Access & Main Street - 61@36.1 - 63	N-S	SBT	SB				188	458
15: N Granite SD Access & Main Street - 62@135.9 - 3	S-E	NBR	NB		6.60	A	9	4
15: N Granite SD Access & Main Street - 62@135.9 - 6	S-N	NBT	NB				328	442
16: Oakland Ave. & Main Street - 41@707.2 - 62@37.	W-N	EBL	EB				10	28
16: Oakland Ave. & Main Street - 41@707.2 - 67@49.	W-S	EBR	EB				17	23
16: Oakland Ave. & Main Street - 63@154.7 - 40@31.	N-W	SBR	SB				17	13
16: Oakland Ave. & Main Street - 63@154.7 - 67@49.	N-S	SBT	SB				186	450
16: Oakland Ave. & Main Street - 66@184.7 - 40@31.	S-W	NBL	NB				21	16
16: Oakland Ave. & Main Street - 66@184.7 - 62@37.	S-N	NBT	NB				324	418
17: S Granite SD Access & Main Street - 65@232.9 - 6	E-N	WBR	WB		1.20	A	8	19
17: S Granite SD Access & Main Street - 65@232.9 - 6	E-S	WBL	WB				17	17
17: S Granite SD Access & Main Street - 67@180.0 - 6	N-E	SBL	SB				14	5
17: S Granite SD Access & Main Street - 67@180.0 - 6	N-S	SBT	SB				191	468
17: S Granite SD Access & Main Street - 69@505.0 - 6	S-E	NBR	NB				51	37
17: S Granite SD Access & Main Street - 69@505.0 - 6	S-N	NBT	NB				337	415

2040 Queue Report (AM PM)

Alternative: I-80 WB 700 East Separated Ramp w/Left Exit from raw (See Open Office Doc) from raw (See Open Office Doc)

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Stre	W-E	174.6265	EBT	157	45	232	1150	444	1883
1: 2100 South & State Stre	E-W	214.1699	WBT	234	82	369	372	129	585
1: 2100 South & State Stre	N-S	91.93159	SBT	106	31	157	469	148	714
1: 2100 South & State Stre	S-N	209.6945	NBT	176	73	296	159	53	246
1: 2100 South & State Stre	S-E	60.51791	NBR	73	80	204	116	119	313
1: 2100 South & State Stre	S-W	55.48332	NBL	85	27	131	119	47	196
1: 2100 South & State Stre	E-S	118.9249	WBL	122	40	189	184	110	366
1: 2100 South & State Stre	W-N	68.47503	EBL	79	24	119	220	379	845
1: 2100 South & State Stre	N-W	17.41647	SBR	22	16	48	31	22	67
1: 2100 South & State Stre	N-E	42.0965	SBL	48	19	80	92	30	142
1: 2100 South & State Stre	E-N	15.36327	WBR	15	18	44	18	32	70
1: 2100 South & State Stre	W-S	24.32716	EBR	31	19	62	744	505	1577
2: Street Car Crossing & St	N-S	53.24766	SBT	88	50	171	447	273	897
2: Street Car Crossing & St	N-W	53.24766	SBR	89	50	172	449	273	899
2: Street Car Crossing & St	S-N	103.0838	NBT	134	60	234	59	31	109
2: Street Car Crossing & St	W-S	29.46018	EBR	42	39	106	88	64	193
2: Street Car Crossing & St	W-N	177.1318	EBL	164	60	263	235	133	455
2: Street Car Crossing & St	S-W	32.65907	NBL	70	44	143	244	128	456
3: WB I-80 & State Street ·	E-W	0	WBT	41	179	335	2	11	20
3: WB I-80 & State Street ·	S-N	0	NBT	2	0	2	18	41	86
3: WB I-80 & State Street ·	E-S	110.8016	WBL	107	34	163	144	51	228
3: WB I-80 & State Street ·	E-W	110.8016	WBT	102	34	158	147	51	231
3: WB I-80 & State Street ·	E-N	353.9726	WBR	762	407	1434	1121	463	1884
3: WB I-80 & State Street ·	N-S	131.8106	SBT	182	56	274	166	74	289
3: WB I-80 & State Street ·	N-W	51.72108	SBR	71	44	143	98	77	224
3: WB I-80 & State Street ·	N-S	60.82138	SBT	63	20	97	171	76	297
3: WB I-80 & State Street ·	S-W	0	NBL	20	7	30	38	139	266
4: EB I-80 & State Street -	N-S	0	SBT	8	0	8	15	37	77
4: EB I-80 & State Street -	N-E	0	SBL	2	3	6	9	23	47
4: EB I-80 & State Street -	W-N	169.6608	EBL	231	235	619	136	60	236
4: EB I-80 & State Street -	W-E	169.6608	EBT	229	235	617	130	60	230
4: EB I-80 & State Street -	W-S	286.518	EBR	590	459	1347	1402	359	1993
4: EB I-80 & State Street -	S-N	135.9665	NBT	179	73	299	200	69	313
4: EB I-80 & State Street -	S-E	114.3799	NBR	148	88	293	134	90	282
4: EB I-80 & State Street -	S-N	120.365	NBT	150	45	225	112	40	178
5: Oakland & State Street	N-S	0	SBT	16	0	16	45	238	438
5: Oakland & State Street	E-N	11.60481	WBR	22	14	45	26	27	70
5: Oakland & State Street	S-N	0	NBT	5	7	16	4	19	36
5: Oakland & State Street	S-N	0	NBT	21	34	77	24	37	85
5: Oakland & State Street	S-E	0	NBR	23	45	96	30	49	111
6: East Grantie SD RIRO &	N-W	8.954194	SBR	7	18	37	5	19	36
6: East Grantie SD RIRO &	N-S	5.537547	SBT	4	14	27	5	18	35
6: East Grantie SD RIRO &	W-S	31.19743	EBR	24	13	45	33	13	55
6: East Grantie SD RIRO &	S-N	11.74051	NBT	22	45	96	26	56	119
6: East Grantie SD RIRO &	S-N	11.65777	NBT	14	36	74	14	41	82
7: 2700 South & State Stre	N-S	115.3265	SBT	92	32	146	240	65	348

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7: 2700 South & State Stre	S-N	173.2709	NBT	172	48	251	204	51	288
7: 2700 South & State Stre	W-S	43.74201	EBR	40	27	85	202	85	343
7: 2700 South & State Stre	W-E	33.05097	EBT	33	29	80	198	85	339
7: 2700 South & State Stre	E-W	56.09794	WBT	61	33	116	63	31	115
7: 2700 South & State Stre	S-W	41.94966	NBL	41	27	87	46	33	100
7: 2700 South & State Stre	S-E	7.068628	NBR	7	11	25	27	29	74
7: 2700 South & State Stre	W-N	54.60099	EBL	83	45	158	198	92	349
7: 2700 South & State Stre	N-E	26.0233	SBL	17	20	50	48	33	103
7: 2700 South & State Stre	N-W	12.40914	SBR	17	14	40	13	13	34
7: 2700 South & State Stre	E-N	40.07513	WBR	44	24	84	26	16	53
7: 2700 South & State Stre	E-S	31.09067	WBL	42	33	97	75	38	138
8: WB I-80 & 700 East - 72	N-S	141.1327	SBT	142	32	195	242	56	334
8: WB I-80 & 700 East - 80	S-N	144.0785	NBT	120	73	240	33	25	75
8: WB I-80 & 700 East - 87	S-SW	55.7179	NBL	63	26	106	243	77	369
8: WB I-80 & 700 East - 13	E-S	78.27423	WBL	50	22	87	87	34	143
8: WB I-80 & 700 East - 13	E-SW	78.27423	WBL	53	22	90	93	34	149
8: WB I-80 & 700 East - 13	E-N	11.21598	WBR	9	14	32	6	18	36
8: WB I-80 & 700 East - 16	N-S	87.49564	SBT	100	32	153	161	42	231
8: WB I-80 & 700 East - 16	N-SW	1.929594	SBR	6	12	26	7	24	46
9: EB I-80 & 700 East - 74(	N-S	84.94241	SBT	70	29	118	107	42	177
9: EB I-80 & 700 East - 78(	S-N	262.5611	NBT	287	118	481	211	46	286
9: EB I-80 & 700 East - 85(	N-NE	46.34186	SBL	60	38	123	254	65	361
9: EB I-80 & 700 East - 133	W-N	251.1661	EBL	255	80	387	251	68	364
9: EB I-80 & 700 East - 133	W-NE	251.1661	EBL	257	80	389	256	68	369
9: EB I-80 & 700 East - 134	W-S	0	EBR	14	15	39	16	33	70
9: EB I-80 & 700 East - 166	S-N	238.0613	NBT	218	103	388	223	59	320
9: EB I-80 & 700 East - 167	S-NE	0	NBR	11	5	19	9	48	88
9: EB I-80 & 700 East - 101	N-S	0	SBT	9	0	9	9	48	88
10: 2400 S & West Temple	E-W	7.350483	WBT	6	11	25	10	14	33
10: 2400 S & West Temple	E-N	7.350483	WBR	14	11	33	17	35	75
10: 2400 S & West Temple	E-S	7.350483	WBL	6	11	25	10	14	33
10: 2400 S & West Temple	W-E	0	EBT	0	0	0	0	2	4
10: 2400 S & West Temple	W-N	0	EBL	0	0	0	1	2	4
10: 2400 S & West Temple	W-S	0	EBR	0	0	0	1	2	4
10: 2400 S & West Temple	N-E	0	SBL	1	7	13	1	5	9
10: 2400 S & West Temple	N-W	0	SBR	0	3	5	0	0	0
10: 2400 S & West Temple	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple	S-W	0	NBL	0	4	7	0	0	0
10: 2400 S & West Temple	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Te	E-W	2.575479	WBT	7	12	27	7	12	27
11: Robert Ave. & West Te	E-S	2.558841	WBL	7	12	27	7	12	27
11: Robert Ave. & West Te	E-N	2.531768	WBR	7	12	27	7	12	27
11: Robert Ave. & West Te	W-E	0	EBT	3	9	18	9	13	30
11: Robert Ave. & West Te	W-S	0	EBR	3	9	18	9	13	30
11: Robert Ave. & West Te	W-N	0	EBL	3	9	18	9	13	30
11: Robert Ave. & West Te	S-E	0	NBR	0	1	2	0	1	2
11: Robert Ave. & West Te	S-W	0	NBL	0	2	4	1	3	6
11: Robert Ave. & West Te	S-N	0	NBT	0	0	0	0	1	2

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11: Robert Ave. & West Te	N-E	2.913105	SBL	1	5	10	1	5	10
11: Robert Ave. & West Te	N-W	8.146827	SBR	20	36	79	22	36	82
11: Robert Ave. & West Te	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West T	E-W	16.71183	WBT	19	15	44	17	15	41
12: Oakland Ave & West T	E-N	16.71183	WBR	19	15	44	17	15	41
12: Oakland Ave & West T	E-S	16.71183	WBL	20	15	44	17	15	42
12: Oakland Ave & West T	W-E	17.04076	EBT	14	14	38	21	15	46
12: Oakland Ave & West T	W-N	16.65659	EBL	14	14	37	21	15	45
12: Oakland Ave & West T	W-S	16.6845	EBR	14	14	38	21	15	45
12: Oakland Ave & West T	N-E	0	SBL	2	6	11	2	10	19
12: Oakland Ave & West T	N-W	0	SBR	1	3	6	2	8	16
12: Oakland Ave & West T	N-S	0	SBT	1	0	1	1	4	8
12: Oakland Ave & West T	S-E	5.925707	NBR	1	5	10	1	4	9
12: Oakland Ave & West T	S-W	5.332815	NBL	1	6	10	2	7	13
12: Oakland Ave & West T	S-N	2.023688	NBT	0	2	3	0	0	0
13: 2400 S & Main Street ·	W-E	9.74766	EBT	7	11	25	9	12	30
13: 2400 S & Main Street ·	W-S	9.74766	EBR	7	11	25	9	12	30
13: 2400 S & Main Street ·	W-N	9.74766	EBL	7	11	25	9	12	30
13: 2400 S & Main Street ·	E-W	0	WBT	0	0	0	0	0	0
13: 2400 S & Main Street ·	E-S	0	WBL	0	0	0	0	1	1
13: 2400 S & Main Street ·	E-N	0	WBR	0	0	0	0	1	1
13: 2400 S & Main Street ·	S-W	0	NBL	1	4	7	1	5	9
13: 2400 S & Main Street ·	S-E	0	NBR	0	0	0	0	4	7
13: 2400 S & Main Street ·	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street ·	N-W	0	SBR	0	0	0	0	1	2
13: 2400 S & Main Street ·	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street ·	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main St	E-W	2.669583	WBT	3	9	18	6	10	22
14: Robert Ave. & Main St	E-N	2.669583	WBR	3	9	18	6	10	22
14: Robert Ave. & Main St	E-S	2.669583	WBL	3	9	18	6	10	22
14: Robert Ave. & Main St	W-E	10.32267	EBT	8	13	29	11	14	34
14: Robert Ave. & Main St	W-N	10.32267	EBL	8	13	29	11	14	34
14: Robert Ave. & Main St	W-S	10.32267	EBR	8	13	29	11	14	34
14: Robert Ave. & Main St	N-E	0	SBL	0	0	0	1	6	11
14: Robert Ave. & Main St	N-W	0	SBR	0	2	3	1	5	9
14: Robert Ave. & Main St	N-S	0	SBT	0	0	0	0	1	3
14: Robert Ave. & Main St	S-E	0	NBR	0	3	5	5	19	37
14: Robert Ave. & Main St	S-W	0	NBL	0	2	3	1	3	6
14: Robert Ave. & Main St	S-N	0	NBT	0	0	0	0	0	0
15: N Granite SD Access &	E-N	0	WBR	2	9	16	5	10	20
15: N Granite SD Access &	E-S	0	WBL	2	9	17	5	10	23
15: N Granite SD Access &	N-E	2.174524	SBL	0	3	6	1	5	10
15: N Granite SD Access &	N-S	0	SBT	3	15	27	7	23	45
15: N Granite SD Access &	S-E	0	NBR	0	1	2	0	1	3
15: N Granite SD Access &	S-N	0	NBT	0	0	0	0	2	3
16: Oakland Ave. & Main S	W-N	23.08612	EBL	15	14	38	24	14	47
16: Oakland Ave. & Main S	W-S	23.08612	EBR	15	14	38	24	14	47
16: Oakland Ave. & Main S	N-W	0	SBR	0	3	6	0	3	4
16: Oakland Ave. & Main S	N-S	0	SBT	0	0	0	0	0	0

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16: Oakland Ave. & Main S	S-W	1.807164	NBL	2	5	11	3	9	18
16: Oakland Ave. & Main S	S-N	0	NBT	1	0	1	1	5	9
17: S Granite SD Access &	E-N	0	WBR	2	6	13	3	8	17
17: S Granite SD Access &	E-S	0	WBL	2	6	13	3	8	17
17: S Granite SD Access &	N-E	1.872743	SBL	1	5	9	1	4	7
17: S Granite SD Access &	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access &	S-E	4.265461	NBR	1	4	7	0	1	2
17: S Granite SD Access &	S-N	0	NBT	0	0	0	0	1	2

Alternative: I-80 WB 700 East Separated Ramp w/Left Exit

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (West of State)	Basic	4	19.7	C	0.71	***21.3***	***C***	***32.5***	***D***	5276	5320	99.2%	6952	9850	70.6%	64.92	55.37	0.93	1.92
EB I-80 (State to 700 E)	Weave	5	18.7	B	0.62	***20.5***	***C***	***26.8***	***C***	6461	6530	98.9%	8312	11250	73.9%	66.35	63.63	0.62	1.54
EB I-80 (Approaching 700 E)	Basic	4	17.8	B	0.66	***19.3***	***C***	***24.8***	***C***	5001	5060	98.8%	6409	8630	74.3%	67.61	66.08	0.66	1.35
WB I-80 (Over 700 E)	Basic	4	67.7	F	14.04	***75.4***	***F***	***81.3***	***F***	6440	8020	80.3%	5853	6130	95.5%	21.16	17.50	14.04	35.26
WB I-80 (700 E to State)	Basic	4	28.3	D	1.84	***28.6***	***D***	***75.0***	***F***	6391	10050	63.6%	5723	7490	76.4%	56.41	21.05	1.84	21.35
WB I-80 (Over State)	Diverge	4	31.7	D	1.61	***83.4***	***F***	***24.7***	***C***	5852	9180	63.7%	4881	6470	75.4%	65.14	58.52	1.61	1.75
WB I-80 to WB CD Ramp	Ramp	2	24.0	C	2.44	***24.2***	***B***	***21.4***	***D***	2950	5250	56.2%	2584	3550	72.8%	61.40	60.15	2.44	2.07
WB I-80 (West of State)	Diverge	3	16.2	B	1.43	***16.2***	***B***	***12.1***	***B***	2779	3930	70.7%	2198	2920	75.3%	66.14	66.63	1.43	1.62
WB I-80 to NB I-15	Ramp	3	13.2	B	1.34	***13.2***	***B***	***11.0***	***A***	2167	3010	72.0%	1696	2240	75.7%	56.14	56.45	1.35	1.66
To SB I-15 Ramp	Ramp	2	15.0	B	0.92	***16.3***	***B***	***14.4***	***B***	1814	1990	91.1%	1677	1770	94.7%	57.98	59.25	1.24	1.14
To WB 201 Ramp	Ramp	2	28.3	C	2.11	***28.3***	***C***	***21.6***	***B***	3053	3690	82.7%	2250	2410	93.4%	53.93	55.23	2.13	2.22
WB I-80 to SB I-15/WB 201	Diverge	3	53.1	F	2.99	***54.3***	***F***	***28.5***	***D***	4781	5680	84.2%	3857	4180	92.3%	46.93	54.02	5.49	2.32
WB CD	Weave (CD)	4	27.5	C	2.84	***29.0***	***C***	***22.8***	***B***	5709	6150	92.8%	4818	4530	106.4%	50.15	53.97	2.84	1.74
EB State Street On-Ramp	Ramp	2	23.7	B	3.79	***26.4***	***C***	***33.1***	***D***	1125	1210	93.0%	1278	1400	91.3%	21.90	20.52	5.73	7.76
EB I-80 I-15 to State	Weave	5	22.1	C	2.93	***23.8***	***C***	***76.0***	***F***	6387	6540	97.7%	7836	11260	69.6%	56.74	20.04	4.58	5.96
NB I-15 Off Ramp 2	Ramp	1	27.7	C	5.04	***29.6***	***C***	***121.0***	***F***	1592	1600	99.5%	1418	1880	75.4%	56.52	10.69	15.00	21.46
NB I-15 Off Ramp 1	Ramp	2	12.0	B	0.29	***12.9***	***C***	***162.0***	***F***	1596	1600	99.8%	1553	1880	82.6%	64.77	3.99	0.69	20.77
EB 201/SB I-15 2	Basic	4	18.5	C	0.38	***20.2***	***C***	***97.1***	***F***	4897	4940	99.1%	6540	9380	69.7%	63.93	16.54	0.52	6.23
EB 201/SB I-15 1	Merge	5	23.2	C	0.31	***24.9***	***C***	***125.4***	***F***	4846	4940	98.1%	6477	9380	69.1%	61.30	10.84	0.49	7.51
EB 201 Ramp	Ramp	2	17.8	B	0.23	***19.2***	***B***	***152.1***	***F***	2347	2350	99.9%	1779	4480	39.7%	64.35	5.35	0.31	7.09
SB I-15 Ramp	Ramp	3	13.0	B	0.13	***14.0***	***B***	***59.1***	***F***	2588	2590	99.9%	4879	4900	99.6%	65.03	29.01	0.17	21.85
700 E WB On-Ramp	Ramp	2	20.1	B	0.85	***21.2***	***B***	***14.5***	***B***	2018	2030	99.4%	1357	1360	99.8%	48.55	49.63	1.53	1.39

Alternative: I-80 WB Braided Ramps

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8	W-E	EBT	EB							496							897
1: 2100 South & State Street - 2@1436.4	E-W	WBT	WB							689							878
1: 2100 South & State Street - 3@1101.9	N-S	SBT	SB							612							1937
1: 2100 South & State Street - 4@1031.1	S-N	NBT	NB							1054							967
1: 2100 South & State Street - 159@246	S-E	NBR	NB							31							117
1: 2100 South & State Street - 160@288	S-W	NBL	NB							108							204
1: 2100 South & State Street - 161@166	E-S	WBL	WB							270							270
1: 2100 South & State Street - 162@152	W-N	EBL	EB							143							173
1: 2100 South & State Street - 163@133	N-W	SBR	SB							73							170
1: 2100 South & State Street - 164@371	N-E	SBL	SB							84							220
1: 2100 South & State Street - 165@166	E-N	WBR	WB							86							100
1: 2100 South & State Street - 255@187	W-S	EBR	EB	31.69	C					159	46.64	D					321
2: Street Car Crossing & State Street - 5(	N-S	SBT	SB							889							2275
2: Street Car Crossing & State Street - 5(	N-W	SBR	SB							150							250
2: Street Car Crossing & State Street - 10	S-N	NBT	NB							996							1092
2: Street Car Crossing & State Street - 17	W-S	EBR	EB							301							293
2: Street Car Crossing & State Street - 17	W-N	EBL	EB							197							202
2: Street Car Crossing & State Street - 17	S-W	NBL	NB	10.74	B					102	21.36	C					213
3: WB I-80 & State Street - 90@8.1 - 10(	S-N	NBT	NB							727							789
3: WB I-80 & State Street - 96@9.7 - 37(	S-W	NBL	NB							31							22
3: WB I-80 & State Street - 96@9.7 - 118	S-W	NBL	NB							497							389
3: WB I-80 & State Street - 124@1240.6	E-W	WBT	WB							63							141
3: WB I-80 & State Street - 124@1240.6	E-S	WBL	WB							200							356
3: WB I-80 & State Street - 124@1240.6	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 125@249.7 -	E-N	WBR	WB							370							512
3: WB I-80 & State Street - 155@285.8 -	N-S	SBT	SB							598							819
3: WB I-80 & State Street - 156@284.4 -	N-W	SBR	SB							11							10
3: WB I-80 & State Street - 156@284.4 -	N-W	SBR	SB							396							585
3: WB I-80 & State Street - 157@282.8 -	N-S	SBT	SB	20.55	C					176	26.89	C					1143
4: EB I-80 & State Street - 92@5.5 - 12@	N-S	SBT	SB							0							0
4: EB I-80 & State Street - 98@6.3 - 25@	N-E	SBL	SB							18							20
4: EB I-80 & State Street - 98@6.3 - 122(	N-E	SBL	SB							581							799
4: EB I-80 & State Street - 120@1302.7 -	W-E	EBT	EB							39							24
4: EB I-80 & State Street - 120@1302.7 -	W-N	EBL	EB							12							25
4: EB I-80 & State Street - 120@1302.7 -	W-E	EBT	EB							0							0
4: EB I-80 & State Street - 121@193.1 - 1	W-S	EBR	EB							140							117
4: EB I-80 & State Street - 144@76.3 - 85	S-N	NBT	NB							714							766
4: EB I-80 & State Street - 145@75.0 - 25	S-E	NBR	NB							17							18
4: EB I-80 & State Street - 145@75.0 - 10	S-E	NBR	NB							615							549
4: EB I-80 & State Street - 146@331.6 - 9	S-N	NBT	NB							528							410
4: EB I-80 & State Street - 10063@12.6 -	N-S	SBT	SB	20.28	C	30.84	C			374	18.71	B	37.49	C			1501
5: Oakland & State Street - 12@191.7 - 1	N-S	SBT	SB							514							1616
5: Oakland & State Street - 22@609.6 - 1	E-N	WBR	WB					9.39	A	29					14.43	B	49
5: Oakland & State Street - 146@91.4 - 1	S-N	NBT	NB							529							414
5: Oakland & State Street - 147@71.3 - 1	S-N	NBT	NB							1319							1284
5: Oakland & State Street - 147@71.3 - 2	S-E	NBR	NB	4.23	A					13	5.74	A					20
6: East Grantie SD RIRO & State Street -	N-W	SBR	SB							89							22
6: East Grantie SD RIRO & State Street -	N-S	SBT	SB							425							1594
6: East Grantie SD RIRO & State Street -	W-S	EBR	EB					6.17	A	49					6.95	A	97
6: East Grantie SD RIRO & State Street -	S-N	NBT	NB							1332							1307
6: East Grantie SD RIRO & State Street -	S-N	NBT	NB	9.07	A					529	19.41	B					414
7: 2700 South & State Street - 14@1205	N-S	SBT	SB							408							1630
7: 2700 South & State Street - 15@1184	S-N	NBT	NB							1518							1373
7: 2700 South & State Street - 17@647.5	W-S	EBR	EB							40							99
7: 2700 South & State Street - 17@647.5	W-E	EBT	EB							59							331
7: 2700 South & State Street - 20@820.0	E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291	S-W	NBL	NB							120							88
7: 2700 South & State Street - 149@150	S-E	NBR	NB							21							87
7: 2700 South & State Street - 150@28.0	W-N	EBL	EB							149							302
7: 2700 South & State Street - 153@329	N-E	SBL	SB							21							48
7: 2700 South & State Street - 154@188	N-W	SBR	SB							50							9
7: 2700 South & State Street - 10014@5	E-N	WBR	WB							199							69
7: 2700 South & State Street - 10015@1	E-S	WBL	WB	15.96	B					74	24.58	C					130
8: WB I-80 & 700 East - 72@299.7 - 73@	N-S	SBT	SB							658							1767
8: WB I-80 & 700 East - 80@28.1 - 70@8	S-N	NBT	NB							2303							1878
8: WB I-80 & 700 East - 87@30.0 - 137@	S-SW	NBL	NB							817							698
8: WB I-80 & 700 East - 135@1579.2 - 73	E-S	WBL	WB							81							224
8: WB I-80 & 700 East - 135@1579.2 - 13	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@	E-N	WBR	WB							619							571
8: WB I-80 & 700 East - 168@218.7 - 83(	N-S	SBT	SB							305							775
8: WB I-80 & 700 East - 169@299.3 - 137	N-SW	SBR	SB	27.15	C					989	18.52	B					663
9: EB I-80 & 700 East - 74@24.8 - 10189	N-S	SBT	SB							738							1990
9: EB I-80 & 700 East - 78@281.6 - 79@5	S-N	NBT	NB							1550							1069
9: EB I-80 & 700 East - 85@22.3 - 140@(	N-NE	SBL	SB							303							775
9: EB I-80 & 700 East - 133@1227.2 - 79(	W-N	EBL	EB							753							810

9: EB I-80 & 700 East - 133@1227.2 - 14(	W-NE	EBL	EB					0				0
9: EB I-80 & 700 East - 134@318.9 - 101	W-S	EBR	EB					697				1193
9: EB I-80 & 700 East - 166@226.1 - 86@	S-N	NBT	NB					831				699
9: EB I-80 & 700 East - 167@274.8 - 140(	S-NE	NBR	NB					133				151
9: EB I-80 & 700 East - 10188@14.1 - 76(	N-S	SBT	SB	36.07 D	51.13 C			75	21.95 C	34.40 C		133
10: 2400 S & West Temple - 33@704.1 - E	W	WBT	WB					6				7
10: 2400 S & West Temple - 33@704.1 - E	N	WBR	WB					12				19
10: 2400 S & West Temple - 33@704.1 - E	S	WBL	WB			7.43 A		20			8.40 A	14
10: 2400 S & West Temple - 34@51.1 - 3	W-E	EBT	EB					0				4
10: 2400 S & West Temple - 34@51.1 - 5	W-N	EBL	EB					0				0
10: 2400 S & West Temple - 34@51.1 - 1	W-S	EBR	EB					0				0
10: 2400 S & West Temple - 57@353.0 - N	E	SBL	SB					6				5
10: 2400 S & West Temple - 57@353.0 - N	W	SBR	SB					0				5
10: 2400 S & West Temple - 57@353.0 - N	S	SBT	SB					138				261
10: 2400 S & West Temple - 10107@1.9 S	E	NBR	NB					5				6
10: 2400 S & West Temple - 10107@1.9 S	W	NBL	NB					4				0
10: 2400 S & West Temple - 10107@1.9 S	N	NBT	NB	0.87 A				186				276
11: Robert Ave. & West Temple - 28@4(	E-W	WBT	WB					0				0
11: Robert Ave. & West Temple - 28@4(	E-S	WBL	WB					0				0
11: Robert Ave. & West Temple - 28@4(	E-N	WBR	WB					0				0
11: Robert Ave. & West Temple - 31@11	W-E	EBT	EB					0				5
11: Robert Ave. & West Temple - 31@11	W-S	EBR	EB					0				4
11: Robert Ave. & West Temple - 31@11	W-N	EBL	EB			7.24 A		4			9.72 A	4
11: Robert Ave. & West Temple - 44@28	S-E	NBR	NB					10				10
11: Robert Ave. & West Temple - 44@28	S-W	NBL	NB					7				6
11: Robert Ave. & West Temple - 44@28	S-N	NBT	NB					191				277
11: Robert Ave. & West Temple - 49@19	N-E	SBL	SB					9				9
11: Robert Ave. & West Temple - 49@19	N-W	SBR	SB					0				5
11: Robert Ave. & West Temple - 49@19	N-S	SBT	SB	0.24 A				149				259
12: Oakland Ave & West Temple - 40@7	E-W	WBT	WB					19				4
12: Oakland Ave & West Temple - 40@7	E-N	WBR	WB					14				25
12: Oakland Ave & West Temple - 40@7	E-S	WBL	WB			8.05 A		9			8.19 A	5
12: Oakland Ave & West Temple - 43@4	W-E	EBT	EB					4				20
12: Oakland Ave & West Temple - 43@4	W-N	EBL	EB					4				9
12: Oakland Ave & West Temple - 43@4	W-S	EBR	EB			6.55 A		11			8.89 A	9
12: Oakland Ave & West Temple - 45@2	N-E	SBL	SB					11				10
12: Oakland Ave & West Temple - 45@2	N-W	SBR	SB					10				5
12: Oakland Ave & West Temple - 45@2	N-S	SBT	SB					130				248
12: Oakland Ave & West Temple - 46@5	S-E	NBR	NB					13				22
12: Oakland Ave & West Temple - 46@5	S-W	NBL	NB					9				11
12: Oakland Ave & West Temple - 46@5	S-N	NBT	NB					190				261
13: 2400 S & Main Street - 32@716.9 - 3	W-E	EBT	EB					0				0
13: 2400 S & Main Street - 32@716.9 - 5	W-S	EBR	EB					5				4
13: 2400 S & Main Street - 32@716.9 - 5	W-N	EBL	EB			6.53 A		5			9.81 A	9
13: 2400 S & Main Street - 37@672.9 - 3	E-W	WBT	WB					24				21
13: 2400 S & Main Street - 37@672.9 - 5	E-S	WBL	WB					24				20
13: 2400 S & Main Street - 37@672.9 - 5	E-N	WBR	WB			16.33 C		56			24.23 C	132
13: 2400 S & Main Street - 54@239.9 - 3	S-W	NBL	NB					8				9
13: 2400 S & Main Street - 54@239.9 - 3	S-E	NBR	NB					0				0
13: 2400 S & Main Street - 54@239.9 - 5	S-N	NBT	NB					869				918
13: 2400 S & Main Street - 59@503.7 - 3	N-W	SBR	SB					4				9
13: 2400 S & Main Street - 59@503.7 - 3	N-E	SBL	SB					0				0
13: 2400 S & Main Street - 59@503.7 - 5	N-S	SBT	SB					190				471
14: Robert Ave. & Main Street - 26@400	E-N	WBR	WB					0				4
14: Robert Ave. & Main Street - 26@400	E-S	WBL	WB					4				4
14: Robert Ave. & Main Street - 55@232	N-E	SBL	SB					0				11
14: Robert Ave. & Main Street - 55@232	N-S	SBT	SB					220				484
14: Robert Ave. & Main Street - 60@60.!	S-E	NBR	NB					5				5
14: Robert Ave. & Main Street - 60@60.!	S-N	NBT	NB					350				488
14: Robert Ave. & Main Street - 259@10	W-E	EBT	EB					8				7
14: Robert Ave. & Main Street - 259@10	W-N	EBL	EB					530				438
14: Robert Ave. & Main Street - 259@10	W-S	EBR	EB					498				679
15: N Granite SD Access & Main Street -	E-N	WBR	WB					33				65
15: N Granite SD Access & Main Street -	E-S	WBL	WB			6.60 A		0			8.87 A	0
15: N Granite SD Access & Main Street -	N-E	SBL	SB					12				13
15: N Granite SD Access & Main Street -	N-S	SBT	SB					710				1155
15: N Granite SD Access & Main Street -	S-E	NBR	NB					31				36
15: N Granite SD Access & Main Street -	S-N	NBT	NB					320				428
16: Oakland Ave. & Main Street - 41@7(	W-N	EBL	EB					10				29
16: Oakland Ave. & Main Street - 41@7(	W-S	EBR	EB			8.10 A		17			12.52 B	23
16: Oakland Ave. & Main Street - 63@15	N-W	SBR	SB					22				18
16: Oakland Ave. & Main Street - 63@15	N-S	SBT	SB					687				1137
16: Oakland Ave. & Main Street - 66@18	S-W	NBL	NB					21				16
16: Oakland Ave. & Main Street - 66@18	S-N	NBT	NB					341				435
17: S Granite SD Access & Main Street - (	E-N	WBR	WB					24				37
17: S Granite SD Access & Main Street - (	E-S	WBL	WB			0.71 A		0			0.55 A	0
17: S Granite SD Access & Main Street - (	N-E	SBL	SB					156				53

17: S Granite SD Access & Main Street - (N-S	SBT	SB	548	1109
17: S Granite SD Access & Main Street - (S-E	NBR	NB	51	37
17: S Granite SD Access & Main Street - (S-N	NBT	NB	337	416

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Alternative: I-80 WB Braided Ramps

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Stre	W-E	180.8788	EBT	182	98	344	1151	394	1801
1: 2100 South & State Stre	E-W	212.6227	WBT	262	90	411	394	146	634
1: 2100 South & State Stre	N-S	91.84673	SBT	111	29	159	493	187	801
1: 2100 South & State Stre	S-N	205.2959	NBT	192	70	307	179	50	263
1: 2100 South & State Stre	S-E	88.86575	NBR	71	90	218	90	93	244
1: 2100 South & State Stre	S-W	51.44898	NBL	65	24	105	109	36	168
1: 2100 South & State Stre	E-S	136.7072	WBL	134	51	219	193	150	440
1: 2100 South & State Stre	W-N	68.45185	EBL	74	23	112	160	268	602
1: 2100 South & State Stre	N-W	17.38362	SBR	20	15	46	30	21	64
1: 2100 South & State Stre	N-E	42.14473	SBL	45	18	76	88	30	138
1: 2100 South & State Stre	E-N	4.573433	WBR	10	16	36	10	18	39
1: 2100 South & State Stre	W-S	24.28582	EBR	30	18	59	624	500	1449
2: Street Car Crossing & St	N-S	56.0386	SBT	91	48	170	493	301	989
2: Street Car Crossing & St	N-W	56.0386	SBR	91	48	170	492	301	988
2: Street Car Crossing & St	S-N	117.5139	NBT	138	59	236	73	61	174
2: Street Car Crossing & St	W-S	34.9907	EBR	48	37	109	87	71	204
2: Street Car Crossing & St	W-N	177.1713	EBL	166	56	257	227	139	457
2: Street Car Crossing & St	S-W	39.61836	NBL	71	46	147	269	143	506
3: WB I-80 & State Street ·	S-N	0	NBT	4	20	36	11	30	61
3: WB I-80 & State Street ·	E-S	79.11347	WBL	67	22	104	120	39	184
3: WB I-80 & State Street ·	E-W	79.11347	WBT	66	22	103	119	39	183
3: WB I-80 & State Street ·	E-N	70.78235	WBR	107	61	208	253	153	505
3: WB I-80 & State Street ·	N-S	147.5838	SBT	183	55	274	181	122	383
3: WB I-80 & State Street ·	N-W	32.38172	SBR	55	36	114	85	72	204
3: WB I-80 & State Street ·	N-S	74.48601	SBT	66	19	97	170	85	310
3: WB I-80 & State Street ·	S-W	0	NBL	4	19	36	10	26	52
4: EB I-80 & State Street -	N-S	0	SBT	5	30	54	16	49	98
4: EB I-80 & State Street -	N-E	0	SBL	3	15	27	7	23	45
4: EB I-80 & State Street -	W-N	150.9767	EBL	234	252	650	139	61	239
4: EB I-80 & State Street -	W-E	150.9767	EBT	234	252	650	134	61	234
4: EB I-80 & State Street -	W-S	260.9247	EBR	564	451	1308	1440	353	2022
4: EB I-80 & State Street -	S-N	144.2458	NBT	198	66	308	216	66	324
4: EB I-80 & State Street -	S-E	99.83518	NBR	151	81	284	157	96	315
4: EB I-80 & State Street -	S-N	105.4536	NBT	132	41	200	107	43	179
5: Oakland & State Street	N-S	0	SBT	3	15	28	6	24	46
5: Oakland & State Street	E-N	11.62774	WBR	24	47	101	29	41	96
5: Oakland & State Street	S-N	0	NBT	3	13	24	8	46	84
5: Oakland & State Street	S-N	0	NBT	28	45	102	40	44	113
5: Oakland & State Street	S-E	0	NBR	37	45	111	53	55	144
6: East Grantie SD RIRO &	N-W	0	SBR	7	17	36	4	17	31
6: East Grantie SD RIRO &	N-S	0	SBT	11	38	74	10	35	67
6: East Grantie SD RIRO &	W-S	31.19051	EBR	25	12	44	33	13	54
6: East Grantie SD RIRO &	S-N	13.06626	NBT	26	53	113	46	88	191
6: East Grantie SD RIRO &	S-N	12.98352	NBT	17	45	91	26	68	139
7: 2700 South & State Stre	N-S	84.33358	SBT	74	24	114	225	52	310
7: 2700 South & State Stre	S-N	173.8328	NBT	178	47	256	212	47	290
7: 2700 South & State Stre	W-S	45.75271	EBR	42	26	84	195	91	345
7: 2700 South & State Stre	W-E	38.95441	EBT	35	28	80	190	91	340

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7: 2700 South & State Stre	E-W	65.44555	WBT	66	40	131	56	43	127
7: 2700 South & State Stre	S-W	44.17954	NBL	38	26	81	41	32	94
7: 2700 South & State Stre	S-E	7.067978	NBR	5	10	22	20	16	46
7: 2700 South & State Stre	W-N	52.6417	EBL	81	40	146	182	96	341
7: 2700 South & State Stre	N-E	32.13533	SBL	18	19	50	47	31	98
7: 2700 South & State Stre	N-W	14.54452	SBR	14	12	34	14	16	41
7: 2700 South & State Stre	E-N	50.54293	WBR	55	32	108	36	21	71
7: 2700 South & State Stre	E-S	79.70759	WBL	74	45	149	109	52	195
8: WB I-80 & 700 East - 72	N-S	156.7914	SBT	153	31	203	241	59	338
8: WB I-80 & 700 East - 80	S-N	136.5695	NBT	107	60	205	33	25	74
8: WB I-80 & 700 East - 87	S-SW	45.17789	NBL	56	24	95	220	75	344
8: WB I-80 & 700 East - 13	E-S	71.139	WBL	48	21	82	88	34	144
8: WB I-80 & 700 East - 13	E-SW	71.139	WBL	48	21	82	88	34	144
8: WB I-80 & 700 East - 13	E-N	4.315794	WBR	5	26	47	4	13	25
8: WB I-80 & 700 East - 16	N-S	98.64507	SBT	98	31	148	144	43	215
8: WB I-80 & 700 East - 16	N-SW	0	SBR	4	10	19	3	8	16
9: EB I-80 & 700 East - 74(	N-S	87.7945	SBT	71	27	115	113	59	210
9: EB I-80 & 700 East - 78(	S-N	245.8834	NBT	282	83	419	211	44	283
9: EB I-80 & 700 East - 85(	N-NE	49.40678	SBL	61	52	147	250	64	356
9: EB I-80 & 700 East - 133	W-N	246.8199	EBL	254	71	371	257	73	378
9: EB I-80 & 700 East - 133	W-NE	246.8199	EBL	254	71	371	257	73	378
9: EB I-80 & 700 East - 134	W-S	0	EBR	5	13	26	9	21	43
9: EB I-80 & 700 East - 166	S-N	185.7029	NBT	188	68	300	194	55	285
9: EB I-80 & 700 East - 167	S-NE	0	NBR	1	3	6	2	6	11
9: EB I-80 & 700 East - 101	N-S	0	SBT	0	1	3	1	5	10
10: 2400 S & West Temple	E-W	7.350483	WBT	7	10	23	10	14	33
10: 2400 S & West Temple	E-N	7.350483	WBR	7	10	23	10	14	33
10: 2400 S & West Temple	E-S	7.350483	WBL	7	10	23	10	14	33
10: 2400 S & West Temple	W-E	0	EBT	0	0	0	0	2	4
10: 2400 S & West Temple	W-N	0	EBL	0	0	0	0	2	4
10: 2400 S & West Temple	W-S	0	EBR	0	0	0	0	2	4
10: 2400 S & West Temple	N-E	0	SBL	1	7	13	1	5	10
10: 2400 S & West Temple	N-W	0	SBR	1	3	5	1	3	6
10: 2400 S & West Temple	N-S	0	SBT	0	2	4	1	3	6
10: 2400 S & West Temple	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple	S-W	0	NBL	0	4	7	0	0	0
10: 2400 S & West Temple	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Te	E-W	2.575479	WBT	7	12	26	7	12	27
11: Robert Ave. & West Te	E-S	2.558841	WBL	7	11	26	7	12	27
11: Robert Ave. & West Te	E-N	2.531768	WBR	7	11	25	7	12	27
11: Robert Ave. & West Te	W-E	0	EBT	3	8	16	9	13	30
11: Robert Ave. & West Te	W-S	0	EBR	3	8	16	9	13	30
11: Robert Ave. & West Te	W-N	0	EBL	3	8	16	9	13	30
11: Robert Ave. & West Te	S-E	0	NBR	0	1	2	0	2	4
11: Robert Ave. & West Te	S-W	0	NBL	0	2	4	1	3	6
11: Robert Ave. & West Te	S-N	0	NBT	0	1	2	0	2	4
11: Robert Ave. & West Te	N-E	2.913105	SBL	2	5	10	1	5	10
11: Robert Ave. & West Te	N-W	8.146827	SBR	21	33	76	22	36	82
11: Robert Ave. & West Te	N-S	0	SBT	1	5	9	0	2	4
12: Oakland Ave & West T	E-W	16.71183	WBT	19	14	43	17	15	41
12: Oakland Ave & West T	E-N	16.71183	WBR	19	14	43	17	15	41

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12: Oakland Ave & West T	E-S	16.71183	WBL	19	14	43	17	15	41
12: Oakland Ave & West T	W-E	17.04076	EBT	14	13	36	21	15	46
12: Oakland Ave & West T	W-N	16.65659	EBL	14	13	35	20	15	44
12: Oakland Ave & West T	W-S	16.6845	EBR	14	13	35	21	15	45
12: Oakland Ave & West T	N-E	0	SBL	1	5	9	2	10	19
12: Oakland Ave & West T	N-W	0	SBR	0	3	5	1	8	15
12: Oakland Ave & West T	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West T	S-E	5.925707	NBR	1	4	7	1	4	7
12: Oakland Ave & West T	S-W	5.332815	NBL	1	5	9	2	7	13
12: Oakland Ave & West T	S-N	2.023688	NBT	0	1	3	0	0	0
13: 2400 S & Main Street	W-E	9.74766	EBT	7	10	24	10	12	30
13: 2400 S & Main Street	W-S	9.74766	EBR	7	10	24	10	12	30
13: 2400 S & Main Street	W-N	9.74766	EBL	7	10	24	9	12	29
13: 2400 S & Main Street	E-W	0	WBT	0	0	0	0	0	0
13: 2400 S & Main Street	E-S	0	WBL	0	0	1	0	0	1
13: 2400 S & Main Street	E-N	0	WBR	0	0	0	0	0	0
13: 2400 S & Main Street	S-W	0	NBL	0	2	4	1	5	8
13: 2400 S & Main Street	S-E	0	NBR	0	0	1	0	4	7
13: 2400 S & Main Street	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street	N-W	0	SBR	0	0	0	0	1	2
13: 2400 S & Main Street	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main St	E-W	2.669583	WBT	9	30	58	51	252	467
14: Robert Ave. & Main St	E-N	2.669583	WBR	12	46	88	22	90	170
14: Robert Ave. & Main St	E-S	2.669583	WBL	7	19	38	23	95	180
14: Robert Ave. & Main St	W-E	10.32267	EBT	14	35	72	17	35	75
14: Robert Ave. & Main St	W-N	10.32267	EBL	10	12	30	13	14	37
14: Robert Ave. & Main St	W-S	10.32267	EBR	10	12	29	14	20	47
14: Robert Ave. & Main St	N-E	0	SBL	5	29	52	8	37	69
14: Robert Ave. & Main St	N-W	0	SBR	3	15	27	6	29	53
14: Robert Ave. & Main St	N-S	0	SBT	1	4	7	1	4	7
14: Robert Ave. & Main St	S-E	0	NBR	2	8	15	8	19	39
14: Robert Ave. & Main St	S-W	0	NBL	0	2	3	1	4	7
14: Robert Ave. & Main St	S-N	0	NBT	1	7	12	15	79	146
15: N Granite SD Access &	E-N	0	WBR	5	19	36	17	69	131
15: N Granite SD Access &	E-S	0	WBL	6	19	36	18	69	131
15: N Granite SD Access &	N-E	2.174524	SBL	5	25	47	3	11	21
15: N Granite SD Access &	N-S	0	SBT	5	15	29	11	24	51
15: N Granite SD Access &	S-E	0	NBR	5	26	48	9	47	86
15: N Granite SD Access &	S-N	0	NBT	2	13	24	9	47	86
16: Oakland Ave. & Main S	W-N	23.08612	EBL	15	13	37	24	14	47
16: Oakland Ave. & Main S	W-S	23.08612	EBR	18	13	40	28	18	57
16: Oakland Ave. & Main S	N-W	0	SBR	3	15	27	4	22	40
16: Oakland Ave. & Main S	N-S	0	SBT	3	17	31	11	59	108
16: Oakland Ave. & Main S	S-W	1.807164	NBL	9	41	77	11	47	89
16: Oakland Ave. & Main S	S-N	0	NBT	2	9	16	2	12	21
17: S Granite SD Access &	E-N	0	WBR	4	12	23	11	41	78
17: S Granite SD Access &	E-S	0	WBL	2	6	12	4	8	17
17: S Granite SD Access &	N-E	1.872743	SBL	1	5	9	1	4	8
17: S Granite SD Access &	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access &	S-E	4.265461	NBR	12	61	112	4	24	44

17: S Granite SD Access & S-N	0	NBT	11	61	112	4	24	44

Freeway LOS AM PM

Alternative: I-80 WB Braided Ramps

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (West of State)	Basic	4	19.6	C	0.53	***21.4***	***C***	***32.5***	***D***	5275	5320	99.2%	6969	9850	70.8%	64.85	55.67	0.92	2.48
EB I-80 (State to 700 E)	Weave	5	18.6	B	0.66	***20.5***	***C***	***26.9***	***C***	6458	6530	98.9%	8323	11250	74.0%	66.31	63.70	0.74	1.48
EB I-80 (Approaching 700 E)	Basic	4	17.9	B	0.63	***19.4***	***C***	***25.0***	***C***	5001	5060	98.8%	6415	8630	74.3%	67.54	66.08	0.71	1.33
WB I-80 (Over 700 E)	Basic	4	65.4	F	2.36	***65.4***	***F***	***60.8***	***F***	5120	8020	63.8%	4845	6130	79.0%	19.58	19.73	3.15	8.76
WB I-80 (700 E to State)	Basic	5	21.3	C	2.49	***21.3***	***C***	***19.6***	***C***	5095	8020	63.5%	4815	6130	78.5%	48.44	50.33	2.82	1.67
WB I-80 (Over State)	Basic	4	21.7	C	1.40	***21.8***	***C***	***19.2***	***C***	4555	7340	62.1%	4032	5240	76.9%	52.00	54.24	2.53	2.01
WB I-80 to WB CD Ramp	Ramp	2	35.0	D	6.10	***38.7***	***E***	***24.6***	***C***	3782	5250	72.0%	2893	3550	81.5%	50.30	60.40	11.70	5.15
WB I-80 (West of State)	Diverge	3	45.0	F	1.22	***53.4***	***F***	***25.9***	***C***	2627	3930	66.8%	2392	2920	81.9%	66.50	66.66	1.22	1.06
WB I-80 to NB I-15	Ramp	3	12.3	B	1.09	***12.4***	***B***	***11.5***	***A***	2059	3010	68.4%	1878	2240	83.8%	56.30	56.42	1.22	1.09
To SB I-15 Ramp	Ramp	2	14.6	B	0.83	***15.4***	***B***	***14.2***	***B***	1684	1970	85.5%	1553	1770	87.8%	55.75	55.81	0.98	1.15
To WB 201 Ramp	Ramp	2	23.3	B	0.71	***23.7***	***B***	***18.7***	***B***	2579	3690	69.9%	1989	2410	82.5%	54.77	55.23	1.35	1.48
WB I-80 to SB I-15/WB 201	Diverge	3	17.0	B	1.00	***17.0***	***B***	***15.2***	***B***	4186	5660	74.0%	3480	4180	83.2%	51.68	53.04	2.70	2.05
WB CD	Weave (CD)	3	25.4	C	1.31	***26.6***	***C***	***20.8***	***B***	4631	6130	75.5%	3841	4530	84.8%	58.83	62.74	1.83	2.06
EB State Street On-Ramp	Ramp	2	24.7	C	3.40	***26.6***	***C***	***33.7***	***D***	1125	1210	92.9%	1278	1400	91.3%	21.68	20.02	5.17	6.95
EB I-80 I-15 to State	Weave	5	21.3	C	1.70	***23.7***	***C***	***75.9***	***F***	6385	6540	97.6%	7854	11260	69.8%	56.92	20.13	7.07	5.66
NB I-15 Off Ramp 2	Ramp	1	27.1	C	3.54	***32.2***	***D***	***121.7***	***F***	1592	1600	99.5%	1423	1880	75.7%	55.47	10.74	25.89	22.37
NB I-15 Off Ramp 1	Ramp	2	11.9	A	0.24	***12.8***	***B***	***163.1***	***F***	1596	1600	99.8%	1565	1880	83.3%	63.95	3.96	1.78	24.84
EB 201/SB I-15 2	Basic	4	18.5	C	0.39	***20.1***	***C***	***96.8***	***F***	4897	4940	99.1%	6557	9380	69.9%	64.12	16.61	0.53	7.88
EB 201/SB I-15 1	Weave	5	15.6	B	0.32	***17.0***	***B***	***115.8***	***F***	4846	4940	98.1%	6489	9380	69.2%	60.03	11.04	0.60	9.39
EB 201 Ramp	Ramp	2	18.1	B	0.24	***19.6***	***B***	***150.5***	***F***	2347	2350	99.9%	1788	4480	39.9%	63.05	5.44	0.41	8.55
SB I-15 Ramp	Ramp	3	13.0	B	0.13	***14.0***	***B***	***53.6***	***F***	2588	2590	99.9%	4871	4900	99.4%	65.05	33.64	0.17	38.13
700 E WB On-Ramp	Ramp	2	25.8	C	3.83	***32.2***	***D***	***16.8***	***B***	1813	1840	98.5%	1207	1230	98.1%	29.69	37.37	9.21	3.76

Alternative: Ramp Metering aat 700 East WB Ramp

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Stree	W-E	EBT	EB							496							890
1: 2100 South & State Stree	E-W	WBT	WB							689							876
1: 2100 South & State Stree	N-S	SBT	SB							612							1932
1: 2100 South & State Stree	S-N	NBT	NB							1350							1042
1: 2100 South & State Stree	S-E	NBR	NB							181							170
1: 2100 South & State Stree	S-W	NBL	NB							158							257
1: 2100 South & State Stree	E-S	WBL	WB							270							270
1: 2100 South & State Stree	W-N	EBL	EB							143							171
1: 2100 South & State Stree	N-W	SBR	SB							73							171
1: 2100 South & State Stree	N-E	SBL	SB							84							220
1: 2100 South & State Stree	E-N	WBR	WB							87							100
1: 2100 South & State Stree	W-S	EBR	EB	31.39	C					159	47.96	D					318
2: Street Car Crossing & Sta	N-S	SBT	SB							889							2262
2: Street Car Crossing & Sta	N-W	SBR	SB							150							249
2: Street Car Crossing & Sta	S-N	NBT	NB							1491							1274
2: Street Car Crossing & Sta	W-S	EBR	EB							301							293
2: Street Car Crossing & Sta	W-N	EBL	EB							197							202
2: Street Car Crossing & Sta	S-W	NBL	NB	12.80	B					193	27.69	C					353
3: WB I-80 & State Street - S	S-N	NBT	NB							1253							1122
3: WB I-80 & State Street - S	S-W	NBL	NB							31							21
3: WB I-80 & State Street - S	S-W	NBL	NB							497							371
3: WB I-80 & State Street - 1E	E-W	WBT	WB							79							144
3: WB I-80 & State Street - 1E	E-S	WBL	WB							187							342
3: WB I-80 & State Street - 1E	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 1E	E-N	WBR	WB							430							505
3: WB I-80 & State Street - 1N	S-N	SBT	SB	17.35	B					597	22.88	C					812
3: WB I-80 & State Street - 1N	N-W	SBR	SB							11							10
3: WB I-80 & State Street - 1N	N-W	SBR	SB							396							582
3: WB I-80 & State Street - 1N	S-N	SBT	SB							176							1137
4: EB I-80 & State Street - 9	N-S	SBT	SB							0							0
4: EB I-80 & State Street - 9	N-E	SBL	SB							18							20
4: EB I-80 & State Street - 9	N-E	SBL	SB							580							791
4: EB I-80 & State Street - 1	W-E	EBT	EB							130							111
4: EB I-80 & State Street - 1	W-N	EBL	EB							540							395
4: EB I-80 & State Street - 1	W-E	EBT	EB	24.37	C	31.71	C			0	23.64	C	36.89	C			0
4: EB I-80 & State Street - 1	W-S	EBR	EB							553							633
4: EB I-80 & State Street - 1	S-N	NBT	NB							714							726
4: EB I-80 & State Street - 1	S-E	NBR	NB							17							16
4: EB I-80 & State Street - 1	S-E	NBR	NB							614							522
4: EB I-80 & State Street - 1	S-N	NBT	NB							528							392
4: EB I-80 & State Street - 1(	N-S	SBT	SB							364							1480
5: Oakland & State Street - :	N-S	SBT	SB							915							2111
5: Oakland & State Street - :	E-N	WBR	WB					11.03	B	29					13.72	B	49
5: Oakland & State Street - :	S-N	NBT	NB							529							396
5: Oakland & State Street - :	S-N	NBT	NB							1319							1219
5: Oakland & State Street - :	S-E	NBR	NB							13							19
6: East Grantie SD RIRO & S	N-W	SBR	SB							234							62
6: East Grantie SD RIRO & S	N-S	SBT	SB							683							2048
6: East Grantie SD RIRO & S	W-S	EBR	EB					6.32	A	49					7.13	A	97
6: East Grantie SD RIRO & S	S-N	NBT	NB							1332							1241
6: East Grantie SD RIRO & S	S-N	NBT	NB							529							395
7: 2700 South & State Stree	N-S	SBT	SB							576							1906
7: 2700 South & State Stree	S-N	NBT	NB							1518							1362
7: 2700 South & State Stree	W-S	EBR	EB							40							98
7: 2700 South & State Stree	W-E	EBT	EB							59							330
7: 2700 South & State Stree	E-W	WBT	WB							156							151
7: 2700 South & State Stree	S-W	NBL	NB	15.89	B					120	29.15	C					88
7: 2700 South & State Stree	S-E	NBR	NB							21							87
7: 2700 South & State Stree	W-N	EBL	EB							149							296
7: 2700 South & State Stree	N-E	SBL	SB							53							142
7: 2700 South & State Stree	N-W	SBR	SB							109							97
7: 2700 South & State Stree	E-N	WBR	WB							199							69
7: 2700 South & State Stree	E-S	WBL	WB							74							130
8: WB I-80 & 700 East - 72@	N-S	SBT	SB							215							1076
8: WB I-80 & 700 East - 80@	S-N	NBT	NB							1888							1813
8: WB I-80 & 700 East - 87@	S-SW	NBL	NB							624							618
8: WB I-80 & 700 East - 135	E-S	WBL	WB							102							223
8: WB I-80 & 700 East - 135	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136	E-N	WBR	WB							778							571
8: WB I-80 & 700 East - 168	N-S	SBT	SB	95.37	F					100	63.77	E					481
8: WB I-80 & 700 East - 169	N-SW	SBR	SB							402							421
9: EB I-80 & 700 East - 74@	N-S	SBT	SB							317							1296

9: EB I-80 & 700 East - 78@:	S-N	NBT	NB				1133				1007
9: EB I-80 & 700 East - 85@:	N-NE	SBL	SB		117.90	E	100		83.36	D	483
9: EB I-80 & 700 East - 133@	W-N	EBL	EB				754				807
9: EB I-80 & 700 East - 133@	W-NE	EBL	EB				0				0
9: EB I-80 & 700 East - 134@	W-S	EBR	EB				697				1187
9: EB I-80 & 700 East - 166@	S-N	NBT	NB				624				625
9: EB I-80 & 700 East - 167@	S-NE	NBR	NB	51.28	D		97	37.79	D		143
9: EB I-80 & 700 East - 1018	N-S	SBT	SB				78				134
10: 2400 S & West Temple -	E-W	WBT	WB			7.54 A	5			7.93 A	6
10: 2400 S & West Temple -	E-N	WBR	WB				13				19
10: 2400 S & West Temple -	E-S	WBL	WB				18				9
10: 2400 S & West Temple -	W-E	EBT	EB				0				4
10: 2400 S & West Temple -	W-N	EBL	EB				0				0
10: 2400 S & West Temple -	W-S	EBR	EB				0				0
10: 2400 S & West Temple -	N-E	SBL	SB				6				5
10: 2400 S & West Temple -	N-W	SBR	SB				0				5
10: 2400 S & West Temple -	N-S	SBT	SB				138				261
10: 2400 S & West Temple -	S-E	NBR	NB				5				6
10: 2400 S & West Temple -	S-W	NBL	NB				4				0
10: 2400 S & West Temple -	S-N	NBT	NB				190				280
11: Robert Ave. & West Ten	E-W	WBT	WB				0				0
11: Robert Ave. & West Ten	E-S	WBL	WB				4				6
11: Robert Ave. & West Ten	E-N	WBR	WB				4				3
11: Robert Ave. & West Ten	W-E	EBT	EB				0				5
11: Robert Ave. & West Ten	W-S	EBR	EB				0				4
11: Robert Ave. & West Ten	W-N	EBL	EB			7.25 A	4			11.44 B	4
11: Robert Ave. & West Ten	S-E	NBR	NB				6				5
11: Robert Ave. & West Ten	S-W	NBL	NB				7				6
11: Robert Ave. & West Ten	S-N	NBT	NB				192				277
11: Robert Ave. & West Ten	N-E	SBL	SB				5				5
11: Robert Ave. & West Ten	N-W	SBR	SB				0				5
11: Robert Ave. & West Ten	N-S	SBT	SB				152				258
12: Oakland Ave & West Te	E-W	WBT	WB			8.16 A	18			12.21 B	4
12: Oakland Ave & West Te	E-N	WBR	WB				10				21
12: Oakland Ave & West Te	E-S	WBL	WB				10				5
12: Oakland Ave & West Te	W-E	EBT	EB				4				20
12: Oakland Ave & West Te	W-N	EBL	EB				4				9
12: Oakland Ave & West Te	W-S	EBR	EB				11				9
12: Oakland Ave & West Te	N-E	SBL	SB				11				10
12: Oakland Ave & West Te	N-W	SBR	SB				10				5
12: Oakland Ave & West Te	N-S	SBT	SB				135				255
12: Oakland Ave & West Te	S-E	NBR	NB				13				22
12: Oakland Ave & West Te	S-W	NBL	NB				9				11
12: Oakland Ave & West Te	S-N	NBT	NB				190				261
13: 2400 S & Main Street -	W-E	EBT	EB				0				0
13: 2400 S & Main Street -	W-S	EBR	EB				5				4
13: 2400 S & Main Street -	W-N	EBL	EB				5				9
13: 2400 S & Main Street -	E-W	WBT	WB			16.41 C	27			42.86 E	20
13: 2400 S & Main Street -	E-S	WBL	WB				28				22
13: 2400 S & Main Street -	E-N	WBR	WB				64				133
13: 2400 S & Main Street -	S-W	NBL	NB				4				4
13: 2400 S & Main Street -	S-E	NBR	NB				0				0
13: 2400 S & Main Street -	S-N	NBT	NB				338				495
13: 2400 S & Main Street -	N-W	SBR	SB				4				9
13: 2400 S & Main Street -	N-E	SBL	SB				0				0
13: 2400 S & Main Street -	N-S	SBT	SB				190				471
14: Robert Ave. & Main Stre	E-W	WBT	WB				0				0
14: Robert Ave. & Main Stre	E-N	WBR	WB				0				4
14: Robert Ave. & Main Stre	E-S	WBL	WB			8.11 A	4			8.57 A	4
14: Robert Ave. & Main Stre	W-E	EBT	EB				0				5
14: Robert Ave. & Main Stre	W-N	EBL	EB				7				5
14: Robert Ave. & Main Stre	W-S	EBR	EB				4				6
14: Robert Ave. & Main Stre	N-E	SBL	SB				0				10
14: Robert Ave. & Main Stre	N-W	SBR	SB				5				5
14: Robert Ave. & Main Stre	N-S	SBT	SB				218				481
14: Robert Ave. & Main Stre	S-E	NBR	NB				5				5
14: Robert Ave. & Main Stre	S-W	NBL	NB				4				5
14: Robert Ave. & Main Stre	S-N	NBT	NB				337				491
15: N Granite SD Access & N	E-N	WBR	WB			1.01 A	18			1.20 A	60
15: N Granite SD Access & N	E-S	WBL	WB				15				5
15: N Granite SD Access & N	N-E	SBL	SB				12				14
15: N Granite SD Access & N	N-S	SBT	SB				215				478
15: N Granite SD Access & N	S-E	NBR	NB				9				4
15: N Granite SD Access & N	S-N	NBT	NB				328				442

16: Oakland Ave. & Main St	W-N	EBL	EB	6.69	A	10	7.98	A 28
16: Oakland Ave. & Main St	W-S	EBR	EB			17		23
16: Oakland Ave. & Main St	N-W	SBR	SB			17		13
16: Oakland Ave. & Main St	N-S	SBT	SB			214		471
16: Oakland Ave. & Main St	S-W	NBL	NB			21		16
16: Oakland Ave. & Main St	S-N	NBT	NB			324		418
17: S Granite SD Access & M	E-N	WBR	WB	1.21	A	8	1.78	A 19
17: S Granite SD Access & M	E-S	WBL	WB			17		17
17: S Granite SD Access & M	N-E	SBL	SB			14		5
17: S Granite SD Access & M	N-S	SBT	SB			218		490
17: S Granite SD Access & M	S-E	NBR	NB			51		37
17: S Granite SD Access & M	S-N	NBT	NB			337		415

2040 Queue Report (AM PM)

Alternative: Ramp Metering aat 700 East WB Ramp

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Stre	W-E	174.6265	EBT	12	163	280	411	1182	2361
1: 2100 South & State Stre	E-W	214.1731	WBT	36	74	159	71	110	252
1: 2100 South & State Stre	N-S	91.93159	SBT	25	49	106	96	184	400
1: 2100 South & State Stre	S-N	212.5582	NBT	153	419	844	72	147	314
1: 2100 South & State Stre	S-E	75.56635	NBR	40	76	165	82	158	342
1: 2100 South & State Stre	S-W	61.4672	NBL	53	93	206	246	445	981
1: 2100 South & State Stre	E-S	118.9301	WBL	46	122	248	85	175	373
1: 2100 South & State Stre	W-N	68.47503	EBL	37	65	145	113	150	360
1: 2100 South & State Stre	N-W	17.41647	SBR	28	57	122	72	95	228
1: 2100 South & State Stre	N-E	42.128	SBL	35	60	135	113	199	441
1: 2100 South & State Stre	E-N	15.36324	WBR	156	416	842	82	148	326
1: 2100 South & State Stre	W-S	24.32716	EBR	45	76	171	96	158	358
2: Street Car Crossing & St	N-S	53.24766	SBT	91	210	437	268	457	1023
2: Street Car Crossing & St	N-W	53.24766	SBR	49	111	232	91	189	403
2: Street Car Crossing & St	S-N	102.6061	NBT	45	71	161	118	153	370
2: Street Car Crossing & St	W-S	30.86744	EBR	36	70	152	81	112	266
2: Street Car Crossing & St	W-N	177.1359	EBL	42	65	149	115	214	468
2: Street Car Crossing & St	S-W	39.08912	NBL	210	497	1031	72	153	325
3: WB I-80 & State Street ·	S-N	0	NBT	43	75	166	86	139	315
3: WB I-80 & State Street ·	S-W	0	NBL	89	204	425	270	467	1040
3: WB I-80 & State Street ·	S-W	0	NBL	51	79	181	102	204	438
3: WB I-80 & State Street ·	E-W	106.2056	WBT	54	78	182	120	148	363
3: WB I-80 & State Street ·	E-S	106.2056	WBL	46	78	174	92	116	284
3: WB I-80 & State Street ·	E-W	106.2056	WBT	49	69	163	130	217	489
3: WB I-80 & State Street ·	E-N	175.214	WBR	217	496	1036	87	149	333
3: WB I-80 & State Street ·	N-S	144.1682	SBT	46	73	166	96	156	353
3: WB I-80 & State Street ·	N-W	56.04491	SBR	90	213	442	285	480	1077
3: WB I-80 & State Street ·	N-W	58.28031	SBR	50	78	179	107	205	446
3: WB I-80 & State Street ·	N-S	71.0299	SBT	53	74	175	125	149	371
4: EB I-80 & State Street -	N-S	0	SBT	44	78	172	91	118	286
4: EB I-80 & State Street -	N-E	0	SBL	46	70	161	134	221	499
4: EB I-80 & State Street -	N-E	0	SBL	211	499	1036	90	157	349
4: EB I-80 & State Street -	W-E	203.1998	EBT	51	74	174	108	164	379
4: EB I-80 & State Street -	W-N	203.1998	EBL	97	212	448	295	484	1093
4: EB I-80 & State Street -	W-E	203.1998	EBT	56	76	181	112	210	459
4: EB I-80 & State Street -	W-S	134.5969	EBR	59	78	187	120	146	361
4: EB I-80 & State Street -	S-N	173.7237	NBT	49	80	181	85	106	260
4: EB I-80 & State Street -	S-E	116.0399	NBR	49	71	167	142	221	506
4: EB I-80 & State Street -	S-E	120.3095	NBR	216	498	1037	94	159	357
4: EB I-80 & State Street -	S-N	123.2829	NBT	56	81	190	111	151	360
4: EB I-80 & State Street -	N-S	0	SBT	101	237	491	252	423	950
5: Oakland & State Street	N-S	0	SBT	54	74	176	97	211	446
5: Oakland & State Street	E-N	11.66075	WBR	62	97	222	104	133	324
5: Oakland & State Street	S-N	0	NBT	52	85	193	78	100	242
5: Oakland & State Street	S-N	3.483523	NBT	58	96	216	138	224	508
5: Oakland & State Street	S-E	7.314402	NBR	218	497	1039	94	168	371
6: East Grantie SD RIRO &	N-W	8.100951	SBR	58	80	190	111	163	380
6: East Grantie SD RIRO &	N-S	6.295018	SBT	103	231	484	231	412	910

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6: East Grantie SD RIRO &	W-S	31.1888	EBR	52	69	166	96	196	419
6: East Grantie SD RIRO &	S-N	30.5743	NBT	64	95	221	141	218	501
6: East Grantie SD RIRO &	S-N	30.45854	NBT	51	81	184	103	133	322
7: 2700 South & State Stre	N-S	115.3619	SBT	61	93	214	136	177	428
7: 2700 South & State Stre	S-N	177.5805	NBT	215	498	1036	77	182	377
7: 2700 South & State Stre	W-S	43.74149	EBR	51	79	181	100	128	311
7: 2700 South & State Stre	W-E	33.05045	EBT	94	229	472	248	431	959
7: 2700 South & State Stre	E-W	56.13702	WBT	48	68	160	105	204	443
7: 2700 South & State Stre	S-W	41.95397	NBL	67	96	225	119	150	366
7: 2700 South & State Stre	S-E	7.068628	NBR	50	85	191	84	114	271
7: 2700 South & State Stre	W-N	54.55936	EBL	59	90	207	119	170	398
7: 2700 South & State Stre	N-E	26.19491	SBL	220	496	1040	70	208	414
7: 2700 South & State Stre	N-W	17.79208	SBR	49	74	171	110	129	323
7: 2700 South & State Stre	E-N	39.86658	WBR	104	229	482	269	446	1005
7: 2700 South & State Stre	E-S	31.09067	WBL	60	81	195	126	217	485
8: WB I-80 & 700 East - 72	N-S	1449.172	SBT	118	264	553	113	139	343
8: WB I-80 & 700 East - 80	S-N	141.8197	NBT	59	91	210	82	110	263
8: WB I-80 & 700 East - 87	S-SW	389.4394	NBL	74	111	257	132	177	424
8: WB I-80 & 700 East - 13	E-S	75.36124	WBL	223	496	1042	83	196	407
8: WB I-80 & 700 East - 13	E-SW	75.36124	WBL	57	75	182	100	127	309
8: WB I-80 & 700 East - 13	E-N	15.88514	WBR	95	226	468	251	447	989
8: WB I-80 & 700 East - 16	N-S	66.87758	SBT	52	69	165	114	221	479
8: WB I-80 & 700 East - 16	N-SW	1439.152	SBR	170	379	795	125	154	379
9: EB I-80 & 700 East - 74(	N-S	89.67866	SBT	57	89	204	84	123	287
9: EB I-80 & 700 East - 78(	S-N	199.6495	NBT	83	112	268	125	191	440
9: EB I-80 & 700 East - 85(	N-NE	92.87477	SBL	224	494	1039	70	186	377
9: EB I-80 & 700 East - 133	W-N	232.1796	EBL	63	82	198	102	136	327
9: EB I-80 & 700 East - 133	W-NE	232.1796	EBL	103	240	499	246	450	988
9: EB I-80 & 700 East - 134	W-S	0	EBR	43	60	142	110	216	466
9: EB I-80 & 700 East - 166	S-N	788.1614	NBT	197	420	890	120	152	371
9: EB I-80 & 700 East - 167	S-NE	0	NBR	55	85	195	72	108	250
9: EB I-80 & 700 East - 101	N-S	0	SBT	77	116	269	101	137	326
10: 2400 S & West Temple	E-W	10.1833	WBT	217	497	1037	60	199	388
10: 2400 S & West Temple	E-N	10.1833	WBR	57	78	185	89	117	282
10: 2400 S & West Temple	E-S	10.1833	WBL	107	260	536	250	461	1011
10: 2400 S & West Temple	W-E	0	EBT	48	66	156	105	226	478
10: 2400 S & West Temple	W-N	0	EBL	201	449	942	106	152	357
10: 2400 S & West Temple	W-S	0	EBR	51	85	191	65	105	238
10: 2400 S & West Temple	N-E	0	SBL	76	112	260	147	267	587
10: 2400 S & West Temple	N-W	0	SBR	215	499	1038	83	200	413
10: 2400 S & West Temple	N-S	0	SBT	53	75	177	101	143	338
10: 2400 S & West Temple	S-E	0	NBR	100	257	523	207	420	900
10: 2400 S & West Temple	S-W	0	NBL	38	60	136	60	91	210
10: 2400 S & West Temple	S-N	0	NBT	198	478	987	81	137	307
11: Robert Ave. & West Te	E-W	2.575479	WBT	38	72	157	41	86	183
11: Robert Ave. & West Te	E-S	2.558841	WBL	82	138	309	144	274	596
11: Robert Ave. & West Te	E-N	2.531768	WBR	214	502	1042	65	212	414
11: Robert Ave. & West Te	W-E	0	EBT	57	88	203	91	135	313
11: Robert Ave. & West Te	W-S	0	EBR	98	258	523	206	444	939
11: Robert Ave. & West Te	W-N	0	EBL	38	69	152	72	113	259
11: Robert Ave. & West Te	S-E	0	NBR	214	496	1033	103	168	380

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11: Robert Ave. & West Te	S-W	0	NBL	53	89	200	72	134	292
11: Robert Ave. & West Te	S-N	0	NBT	81	131	298	156	290	634
11: Robert Ave. & West Te	N-E	2.913104	SBL	211	502	1039	66	189	378
11: Robert Ave. & West Te	N-W	8.146827	SBR	47	78	176	99	145	338
11: Robert Ave. & West Te	N-S	0	SBT	92	260	521	152	349	728
12: Oakland Ave & West T	E-W	16.71183	WBT	29	54	119	68	122	270
12: Oakland Ave & West T	E-N	16.71183	WBR	209	500	1034	72	137	297
12: Oakland Ave & West T	E-S	16.71183	WBL	47	79	176	51	107	228
12: Oakland Ave & West T	W-E	17.04076	EBT	67	125	273	158	322	690
12: Oakland Ave & West T	W-N	16.65659	EBL	205	500	1030	65	162	333
12: Oakland Ave & West T	W-S	16.6845	EBR	50	74	173	88	137	315
12: Oakland Ave & West T	N-E	0	SBL	100	263	534	106	265	543
12: Oakland Ave & West T	N-W	0	SBR	44	74	166	67	128	279
12: Oakland Ave & West T	N-S	0	SBT	217	501	1043	106	311	620
12: Oakland Ave & West T	S-E	5.925707	NBR	51	87	194	47	114	235
12: Oakland Ave & West T	S-W	5.332815	NBL	74	132	293	172	349	749
12: Oakland Ave & West T	S-N	2.023688	NBT	150	419	841	57	166	330
13: 2400 S & Main Street ·	W-E	9.74766	EBT	44	74	166	82	131	298
13: 2400 S & Main Street ·	W-S	9.74766	EBR	76	254	494	52	84	191
13: 2400 S & Main Street ·	W-N	9.74766	EBL	33	62	136	80	136	303
13: 2400 S & Main Street ·	E-W	33.70191	WBT	218	502	1046	90	211	438
13: 2400 S & Main Street ·	E-S	33.70191	WBL	53	86	194	64	139	293
13: 2400 S & Main Street ·	E-N	33.70191	WBR	72	144	309	193	377	815
13: 2400 S & Main Street ·	S-W	0	NBL	103	306	608	68	176	358
13: 2400 S & Main Street ·	S-E	0	NBR	37	68	148	97	150	344
13: 2400 S & Main Street ·	S-N	0	NBT	79	305	582	68	98	231
13: 2400 S & Main Street ·	N-W	0	SBR	28	53	116	75	142	308
13: 2400 S & Main Street ·	N-E	0	SBL	217	503	1047	76	149	322
13: 2400 S & Main Street ·	N-S	0	SBT	37	70	153	59	133	278
14: Robert Ave. & Main St	E-W	2.669583	WBT	71	156	329	185	397	840
14: Robert Ave. & Main St	E-N	2.669583	WBR	36	132	254	56	171	339
14: Robert Ave. & Main St	E-S	2.669583	WBL	45	82	180	87	147	329
14: Robert Ave. & Main St	W-E	10.32267	EBT	90	306	595	57	92	209
14: Robert Ave. & Main St	W-N	10.32267	EBL	35	63	139	75	169	355
14: Robert Ave. & Main St	W-S	10.32267	EBR	240	525	1106	56	131	272
14: Robert Ave. & Main St	N-E	0	SBL	40	72	159	64	143	299
14: Robert Ave. & Main St	N-W	0	SBR	79	163	347	210	411	889
14: Robert Ave. & Main St	N-S	0	SBT	47	137	273	70	157	329
14: Robert Ave. & Main St	S-E	0	NBR	42	82	177	91	150	338
14: Robert Ave. & Main St	S-W	0	NBL	89	308	597	67	97	227
14: Robert Ave. & Main St	S-N	0	NBT	33	72	151	82	181	381
15: N Granite SD Access &	E-N	0	WBR	197	502	1025	65	144	302
15: N Granite SD Access &	E-S	0	WBL	34	68	147	62	149	308
15: N Granite SD Access &	N-E	2.174524	SBL	71	159	334	165	330	710
15: N Granite SD Access &	N-S	0	SBT	39	136	264	69	148	314
15: N Granite SD Access &	S-E	0	NBR	41	80	173	82	132	300
15: N Granite SD Access &	S-N	0	NBT	31	72	150	61	102	230
16: Oakland Ave. & Main S	W-N	23.08612	EBL	32	72	151	94	179	389
16: Oakland Ave. & Main S	W-S	23.08612	EBR	205	502	1034	71	142	306
16: Oakland Ave. & Main S	N-W	0	SBR	44	86	186	65	143	300
16: Oakland Ave. & Main S	N-S	0	SBT	72	165	345	199	405	868

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16: Oakland Ave. & Main S	S-W	1.807164	NBL	43	139	272	71	158	332
16: Oakland Ave. & Main S	S-N	0	NBT	42	80	174	90	138	317
17: S Granite SD Access &	E-N	0	WBR	28	67	138	63	110	244
17: S Granite SD Access &	E-S	0	WBL	28	59	126	90	181	388
17: S Granite SD Access &	N-E	1.872743	SBL	146	420	840	65	142	300
17: S Granite SD Access &	N-S	0	SBT	36	74	157	79	158	340
17: S Granite SD Access &	S-E	4.265461	NBR	68	176	359	223	446	959
17: S Granite SD Access &	S-N	0	NBT	43	122	245	84	175	373

Freeway LOS AM PM

Alternative: Ramp Metering aat 700 East WB Ramp

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (West of State)	Basic	4	19.5	C	0.65	***21.4***	***C***	***33.2***	***D***	5279	5320	99.2%	7394	9850	75.1%	64.77	56.04	0.84	1.38
EB I-80 (State to 700 E)	Weave	5	18.9	B	0.58	***20.6***	***C***	***28.9***	***D***	6465	6530	99.0%	8715	11250	77.5%	65.63	60.62	0.75	2.28
EB I-80 (Approaching 700 E)	Basic	4	17.9	B	0.77	***19.7***	***C***	***26.3***	***D***	5002	5060	98.9%	6715	8630	77.8%	66.73	64.13	0.80	1.57
WB I-80 (Over 700 E)	Basic	4	42.0	E	19.27	***77.6***	***F***	***24.5***	***C***	7182	8020	89.6%	6097	6130	99.5%	22.84	65.38	19.27	0.83
WB I-80 (700 E to State)	Basic	5	59.5	F	19.07	***65.0***	***F***	***25.5***	***C***	8079	10050	80.4%	7098	7490	94.8%	23.05	58.63	19.07	5.67
WB I-80 (Over State)	Basic	4	36.8	E	1.83	***37.0***	***E***	***26.3***	***D***	7329	9180	79.8%	6079	6470	94.0%	48.83	59.66	1.83	2.48
WB I-80 to WB CD Ramp	Ramp	2	32.9	D	2.62	***33.4***	***D***	***26.0***	***C***	3878	5250	73.9%	3203	3550	90.2%	58.14	62.83	2.62	2.32
WB I-80 (West of State)	Diverge	3	16.4	B	1.12	***28.4***	***D***	***105.6***	***F***	3300	3930	84.0%	2751	2920	94.2%	63.79	66.26	1.26	1.10
WB I-80 to NB I-15	Ramp	3	15.5	B	1.04	***15.7***	***B***	***13.4***	***B***	2580	3010	85.7%	2148	2240	95.9%	55.93	56.35	1.16	1.20
To SB I-15 Ramp	Ramp	2	12.6	B	1.15	***13.0***	***B***	***15.4***	***B***	1404	1990	70.6%	1623	1770	91.7%	55.05	55.13	1.15	1.22
To WB 201 Ramp	Ramp	2	28.0	C	1.65	***28.4***	***C***	***21.5***	***B***	3000	3690	81.3%	2262	2410	93.9%	53.14	53.97	1.68	1.60
WB I-80 to SB I-15/WB 201	Diverge	3	34.6	D	4.36	***34.6***	***D***	***34.3***	***D***	4324	5680	76.1%	3812	4180	91.2%	43.87	46.85	6.71	3.83
WB CD	Weave (CD)	3	25.4	C	1.17	***26.4***	***C***	***22.6***	***B***	4797	6150	78.0%	4179	4530	92.3%	61.02	63.18	1.68	1.53
EB State Street On-Ramp	Ramp	2	19.5	B	2.69	***20.2***	***B***	***28.5***	***C***	1044	1210	86.3%	1176	1400	84.0%	26.20	21.66	3.50	5.56
EB I-80 I-15 to State	Weave	5	21.8	C	2.21	***25.6***	***C***	***69.5***	***F***	6393	6540	97.8%	8387	11260	74.5%	52.63	24.26	2.69	3.89
NB I-15 Off Ramp 2	Ramp	1	29.3	C	3.94	***34.8***	***D***	***95.6***	***F***	1593	1600	99.6%	1599	1880	85.1%	48.98	16.66	7.28	21.88
NB I-15 Off Ramp 1	Ramp	2	13.4	B	1.99	***14.6***	***B***	***152.0***	***F***	1593	1600	99.6%	1645	1880	87.5%	57.89	5.26	2.49	26.81
EB 201/SB I-15 2	Basic	4	18.4	C	0.12	***20.2***	***C***	***87.4***	***F***	4901	4940	99.2%	6919	9380	73.8%	64.02	19.77	0.44	5.22
EB 201/SB I-15 1	Weave	5	15.3	B	0.16	***16.7***	***B***	***110.2***	***F***	4847	4940	98.1%	6847	9380	73.0%	61.32	12.41	0.44	10.15
EB 201 Ramp	Ramp	2	19.0	B	0.19	***20.5***	***B***	***140.5***	***F***	2347	2350	99.9%	2096	4480	46.8%	60.37	6.80	0.32	10.11
SB I-15 Ramp	Ramp	3	13.6	B	0.11	***14.6***	***B***	***42.4***	***E***	2587	2590	99.9%	4891	4900	99.8%	62.20	41.11	0.16	11.73
700 E WB On-Ramp	Ramp	2	105.7	F	1.12	***105.7***	***F***	***105.9***	***F***	1011	2030	49.8%	1011	1360	74.3%	4.78	4.76	1.49	24.56

Appendix C

Future 2040 I-80 / State Street Interchange Conditions VISSIM Analysis Results

Alternative: SPUI

Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7(	EBT	EB							495							894
1: 2100 South & State Street - 2@1436.4 - 6(	WBT	WB							689							874
1: 2100 South & State Street - 3@1101.9 - 5(	SBT	SB							611							1925
1: 2100 South & State Street - 4@1031.1 - 8(	NBT	NB							1302							1099
1: 2100 South & State Street - 159@246.4 - 7	NBR	NB							180							187
1: 2100 South & State Street - 160@288.7 - (	NBL	NB							161							274
1: 2100 South & State Street - 161@166.4 - !	WBL	WB							270							270
1: 2100 South & State Street - 162@152.6 - !	EBL	EB							143							173
1: 2100 South & State Street - 163@133.8 - (	SBR	SB							73							170
1: 2100 South & State Street - 164@371.3 - 7	SBL	SB							84							220
1: 2100 South & State Street - 165@166.2 - !	WBR	WB							85							100
1: 2100 South & State Street - 255@187.5 - !	EBR	EB	30.48	C					159	49.18	D					319
2: Street Car Crossing & State Street - 5@10	SBT	SB							888							2246
2: Street Car Crossing & State Street - 5@10	SBR	SB							149							247
2: Street Car Crossing & State Street - 10@1	NBT	NB							1447							1371
2: Street Car Crossing & State Street - 174@(	EBR	EB							301							293
2: Street Car Crossing & State Street - 175@	EBL	EB							197							201
2: Street Car Crossing & State Street - 177@	NBL	NB	9.92	A					179	30.69	C					381
3: I-80 & State Street SPUI - 101@1752.7 - 1(	EBT	EB							5303							8091
3: I-80 & State Street SPUI - 108@1194.3 - 1	WBT	WB							2877							2903
3: I-80 & State Street SPUI - 108@1194.3 - 1(	WBT	WB							3958							3528
3: I-80 & State Street SPUI - 120@1739.5 - 1(	EBL	EB							538							456
3: I-80 & State Street SPUI - 121@180.0 - 12	EBR	EB							683							845
3: I-80 & State Street SPUI - 124@1187.3 - 1	WBL	WB							201							363
3: I-80 & State Street SPUI - 125@189.9 - 10	WBR	WB							436							659
3: I-80 & State Street SPUI - 144@55.1 - 10@	NBT	NB							746							803
3: I-80 & State Street SPUI - 145@51.0 - 122	NBR	NB							616							555
3: I-80 & State Street SPUI - 146@309.8 - 11	NBL	NB							496							391
3: I-80 & State Street SPUI - 155@283.7 - 12	SBL	SB							582							793
3: I-80 & State Street SPUI - 156@282.9 - 10	SBR	SB							396							580
3: I-80 & State Street SPUI - 157@282.4 - 12	SBT	SB	19.13	B	19.13	B			193	17.72	B	17.72	B			1153
5: Oakland & State Street - 12@212.4 - 12@	SBT	SB							1077							2361
5: Oakland & State Street - 22@609.6 - 11@	WBR	WB							29							49
5: Oakland & State Street - 146@91.6 - 146@	NBT	NB							499							395
5: Oakland & State Street - 147@71.3 - 11@	NBT	NB							1335							1307
5: Oakland & State Street - 147@71.3 - 21@	NBR	NB					7.73	A	13					7.48	A	20
6: East Grantie SD RIRO & State Street - 12@	SBR	SB							234							69
6: East Grantie SD RIRO & State Street - 12@	SBT	SB							845							2292
6: East Grantie SD RIRO & State Street - 23@	EBR	EB							49							98
6: East Grantie SD RIRO & State Street - 100(	NBT	NB							1346							1328
6: East Grantie SD RIRO & State Street - 100(	NBT	NB					6.30	A	498					7.14	A	395
7: 2700 South & State Street - 14@1205.4 - 1	SBT	SB							584							1973
7: 2700 South & State Street - 15@1184.3 - 1	NBT	NB							1518							1372
7: 2700 South & State Street - 17@647.5 - 1(	EBR	EB							40							99
7: 2700 South & State Street - 17@647.5 - 1(	EBT	EB							59							331
7: 2700 South & State Street - 20@820.0 - 1(	WBT	WB							156							151
7: 2700 South & State Street - 148@291.2 - 1	NBL	NB							120							87
7: 2700 South & State Street - 149@150.8 - 1	NBR	NB							21							87
7: 2700 South & State Street - 150@28.0 - 1	EBL	EB							149							301
7: 2700 South & State Street - 153@329.4 - 1	SBL	SB							52							155
7: 2700 South & State Street - 154@188.7 - 1	SBR	SB							113							112
7: 2700 South & State Street - 10014@53.9 - W	WBR	WB							199							69
7: 2700 South & State Street - 10015@17.9 - W	WBL	WB	15.33	B					74	23.35	C					130
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	SBT	SB							661							1767
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	NBT	NB							2310							1947
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	NBL	NB							822							695
8: WB I-80 & 700 East - 135@1579.2 - 73@6	WBL	WB							81							224
8: WB I-80 & 700 East - 135@1579.2 - 137@	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	WBR	WB							613							571
8: WB I-80 & 700 East - 168@218.7 - 83@57	SBT	SB							306							775
8: WB I-80 & 700 East - 169@299.3 - 137@2	SBR	SB	26.69	C					998	18.46	B					663
9: EB I-80 & 700 East - 74@24.8 - 10189@12	SBT	SB							742							1991
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	NBT	NB							1556							1069
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	SBL	SB							307							775
9: EB I-80 & 700 East - 133@1231.9 - 79@56	EBL	EB							754							878
9: EB I-80 & 700 East - 133@1231.9 - 140@6	EBL	EB							0							0
9: EB I-80 & 700 East - 134@318.9 - 10188@	EBR	EB							699							1287
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	NBT	NB							836							695
9: EB I-80 & 700 East - 167@274.8 - 140@66	NBR	NB							136							150
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	SBT	SB	36.52	D	51.38	C			78	22.59	C	34.86	C			149
10: 2400 S & West Temple - 33@704.1 - 35@	WBT	WB							1							1
10: 2400 S & West Temple - 33@704.1 - 56@	WBR	WB							4							7
10: 2400 S & West Temple - 33@704.1 - 101	WBL	WB							4							6
10: 2400 S & West Temple - 34@51.1 - 32@	EBT	EB							0							4
10: 2400 S & West Temple - 34@51.1 - 56@	EBL	EB							0							0

10: 2400 S & West Temple - 34@51.1 - 1010	EBR	EB			0				0
10: 2400 S & West Temple - 57@353.0 - 32@	SBL	SB			6				5
10: 2400 S & West Temple - 57@353.0 - 35@	SBR	SB			0				5
10: 2400 S & West Temple - 57@353.0 - 101	SBT	SB			138				261
10: 2400 S & West Temple - 10107@1.9 - 32	NBR	NB			5				6
10: 2400 S & West Temple - 10107@1.9 - 35	NBL	NB			4				0
10: 2400 S & West Temple - 10107@1.9 - 56	NBT	NB	0.38	A	190	0.40	A	7.29 A	280
11: Robert Ave. & West Temple - 28@710.2	WBT	WB			0				0
11: Robert Ave. & West Temple - 28@710.2	WBL	WB			4				6
11: Robert Ave. & West Temple - 28@710.2	WBR	WB			4				3
11: Robert Ave. & West Temple - 31@117.4	EBT	EB			0				5
11: Robert Ave. & West Temple - 31@117.4	EBR	EB			0				4
11: Robert Ave. & West Temple - 31@117.4	EBL	EB			4				4
11: Robert Ave. & West Temple - 44@282.3	NBR	NB			6				5
11: Robert Ave. & West Temple - 44@282.3	NBL	NB			7				6
11: Robert Ave. & West Temple - 44@282.3	NBT	NB			192				277
11: Robert Ave. & West Temple - 49@19.8 -	SBL	SB			5				5
11: Robert Ave. & West Temple - 49@19.8 -	SBR	SB			0				5
11: Robert Ave. & West Temple - 49@19.8 -	SBT	SB	0.34	A	137	0.49	A	9.49 A	255
12: Oakland Ave & West Temple - 40@711.0	WBT	WB			18				4
12: Oakland Ave & West Temple - 40@711.0	WBR	WB			10				21
12: Oakland Ave & West Temple - 40@711.0	WBL	WB			10				5
12: Oakland Ave & West Temple - 43@473.0	EBT	EB			4				20
12: Oakland Ave & West Temple - 43@473.0	EBL	EB			4				9
12: Oakland Ave & West Temple - 43@473.0	EBR	EB			11				9
12: Oakland Ave & West Temple - 45@261.8	SBL	SB			11				10
12: Oakland Ave & West Temple - 45@261.8	SBR	SB			10				5
12: Oakland Ave & West Temple - 45@261.8	SBT	SB			120				250
12: Oakland Ave & West Temple - 46@527.0	NBR	NB			13				22
12: Oakland Ave & West Temple - 46@527.0	NBL	NB			9			9.07 A	11
12: Oakland Ave & West Temple - 46@527.0	NBT	NB	1.23	A	190	1.20	A		261
13: 2400 S & Main Street - 32@716.9 - 36@	EBT	EB			0				0
13: 2400 S & Main Street - 32@716.9 - 55@	EBR	EB			5				4
13: 2400 S & Main Street - 32@716.9 - 58@	EBL	EB			5				9
13: 2400 S & Main Street - 37@175.7 - 33@	WBT	WB			0				0
13: 2400 S & Main Street - 37@175.7 - 55@	WBL	WB			0				0
13: 2400 S & Main Street - 37@175.7 - 58@	WBR	WB			0				0
13: 2400 S & Main Street - 54@239.9 - 33@	NBL	NB			4				4
13: 2400 S & Main Street - 54@239.9 - 36@	NBR	NB			0				0
13: 2400 S & Main Street - 54@239.9 - 58@	NBT	NB			338				495
13: 2400 S & Main Street - 59@503.7 - 33@	SBR	SB			4				9
13: 2400 S & Main Street - 59@503.7 - 36@	SBL	SB		6.32 A	0			7.87 A	0
13: 2400 S & Main Street - 59@503.7 - 55@	SBT	SB	0.19	A	190	0.16	A		471
14: Robert Ave. & Main Street - 26@321.1 -	WBT	WB			0				0
14: Robert Ave. & Main Street - 26@321.1 -	WBR	WB			0				4
14: Robert Ave. & Main Street - 26@321.1 -	WBL	WB			4				4
14: Robert Ave. & Main Street - 29@709.2 -	EBT	EB			0				5
14: Robert Ave. & Main Street - 29@709.2 -	EBL	EB			7				5
14: Robert Ave. & Main Street - 29@709.2 -	EBR	EB			4				6
14: Robert Ave. & Main Street - 55@232.4 -	SBL	SB			0				10
14: Robert Ave. & Main Street - 55@232.4 -	SBR	SB			5				5
14: Robert Ave. & Main Street - 55@232.4 -	SBT	SB			190				460
14: Robert Ave. & Main Street - 60@63.7 - 2	NBR	NB			5				5
14: Robert Ave. & Main Street - 60@63.7 - 2	NBL	NB		7.80 A	4				5
14: Robert Ave. & Main Street - 60@63.7 - 5	NBT	NB	0.21	A	337	0.26	A	7.85 A	491
15: N Granite SD Access & Main Street - 39@	WBR	WB			18				60
15: N Granite SD Access & Main Street - 39@	WBL	WB			15				5
15: N Granite SD Access & Main Street - 61@	SBL	SB			12				14
15: N Granite SD Access & Main Street - 61@	SBT	SB			188				458
15: N Granite SD Access & Main Street - 62@	NBR	NB			9				4
15: N Granite SD Access & Main Street - 62@	NBT	NB	0.11	A 1.00 A	328	0.14	A	1.13 A	442
16: Oakland Ave. & Main Street - 41@707.2	EBL	EB			10				28
16: Oakland Ave. & Main Street - 41@707.2	EBR	EB			17				23
16: Oakland Ave. & Main Street - 63@154.7	SBR	SB			17				13
16: Oakland Ave. & Main Street - 63@154.7	SBT	SB			186				450
16: Oakland Ave. & Main Street - 66@184.7	NBL	NB			21				16
16: Oakland Ave. & Main Street - 66@184.7	NBT	NB	0.50	A 6.60 A	324	0.52	A	7.72 A	418
17: S Granite SD Access & Main Street - 65@	WBR	WB			8				19
17: S Granite SD Access & Main Street - 65@	WBL	WB			17				17
17: S Granite SD Access & Main Street - 67@	SBL	SB			14				5
17: S Granite SD Access & Main Street - 67@	SBT	SB			191				468
17: S Granite SD Access & Main Street - 69@	NBR	NB			51				37
17: S Granite SD Access & Main Street - 69@	NBT	NB	0.16	A 1.20 A	337	0.12	A	1.71 A	415

2040 Queue Report (AM PM)

Alternative: SPUI

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 - 7	W-E	170.4696	EBT	162	45	237	1188	388	1828
1: 2100 South & State Street - 2@1436.4 - 6	E-W	214.0646	WBT	242	79	372	86	173	372
1: 2100 South & State Street - 3@1101.9 - 5	N-S	89.88092	SBT	109	31	161	89	179	384
1: 2100 South & State Street - 4@1031.1 - 8	S-N	176.2506	NBT	164	76	290	85	162	352
1: 2100 South & State Street - 159@246.4 -	S-E	53.20789	NBR	59	89	207	55	98	217
1: 2100 South & State Street - 160@288.7 -	S-W	67.88161	NBL	81	29	129	79	124	284
1: 2100 South & State Street - 161@166.4 -	E-S	118.88	WBL	123	43	194	37	81	172
1: 2100 South & State Street - 162@152.6 -	W-N	70.28765	EBL	76	24	115	44	106	218
1: 2100 South & State Street - 163@133.8 -	N-W	17.40803	SBR	19	16	46	81	278	540
1: 2100 South & State Street - 164@371.3 -	N-E	42.1147	SBL	47	20	79	88	241	486
1: 2100 South & State Street - 165@166.2 -	E-N	15.26982	WBR	12	18	41	125	307	632
1: 2100 South & State Street - 255@187.5 -	W-S	24.35225	EBR	29	19	60	90	186	397
2: Street Car Crossing & State Street - 5@10	N-S	51.72322	SBT	81	48	160	79	163	348
2: Street Car Crossing & State Street - 5@10	N-W	51.72322	SBR	81	48	160	86	153	338
2: Street Car Crossing & State Street - 10@1	S-N	47.39179	NBT	71	45	146	60	108	239
2: Street Car Crossing & State Street - 174@	W-S	29.41604	EBR	43	39	108	77	131	293
2: Street Car Crossing & State Street - 175@	W-N	177.1632	EBL	169	60	268	37	76	162
2: Street Car Crossing & State Street - 177@	S-W	25.82958	NBL	39	39	104	53	120	250
3: I-80 & State Street SPUI - 101@1752.7 - 1	W-E	0	EBT	0	0	0	85	278	544
3: I-80 & State Street SPUI - 108@1194.3 - 1	E-W	1254.571	WBT	978	664	2073	91	234	477
3: I-80 & State Street SPUI - 108@1194.3 - 1	E-W	1254.571	WBT	978	664	2073	122	290	601
3: I-80 & State Street SPUI - 120@1739.5 - 1	W-N	197.1801	EBL	209	54	298	95	177	387
3: I-80 & State Street SPUI - 121@180.0 - 12	W-S	20.86661	EBR	47	94	202	87	149	333
3: I-80 & State Street SPUI - 124@1187.3 - 1	E-S	79.72032	WBL	83	31	133	74	131	290
3: I-80 & State Street SPUI - 125@189.9 - 10	E-N	0	WBR	21	42	91	44	85	185
3: I-80 & State Street SPUI - 144@55.1 - 10@	S-N	96.26381	NBT	123	53	211	80	133	299
3: I-80 & State Street SPUI - 145@51.0 - 122	S-SE	33.60949	NBR	9	24	49	43	103	212
3: I-80 & State Street SPUI - 146@309.8 - 11	S-W	175.5976	NBL	166	50	248	59	123	261
3: I-80 & State Street SPUI - 155@283.7 - 12	N-SE	144.7805	SBL	163	64	268	84	278	543
3: I-80 & State Street SPUI - 156@282.9 - 10	N-W	0	SBR	3	11	21	91	236	480
3: I-80 & State Street SPUI - 157@282.4 - 12	N-S	38.9114	SBT	42	20	75	126	277	583
5: Oakland & State Street - 12@212.4 - 12@	N-S	0	SBT	0	0	0	108	198	434
5: Oakland & State Street - 22@609.6 - 11@	E-N	11.75518	WBR	16	14	39	92	165	364
5: Oakland & State Street - 146@91.6 - 146	S-N	0	NBT	0	0	0	90	148	334
5: Oakland & State Street - 147@71.3 - 11@	S-N	4.812686	NBT	8	24	48	54	94	210
5: Oakland & State Street - 147@71.3 - 21@	S-E	0	NBR	10	31	62	80	130	294
6: East Grantie SD RIRO & State Street - 12@	N-W	11.52354	SBR	5	15	30	40	103	210
6: East Grantie SD RIRO & State Street - 12@	N-S	5.862276	SBT	3	9	18	57	115	247
6: East Grantie SD RIRO & State Street - 23@	W-S	31.20735	EBR	25	13	46	83	280	546
6: East Grantie SD RIRO & State Street - 100	S-N	0	NBT	24	43	95	94	246	501
6: East Grantie SD RIRO & State Street - 100	S-N	0	NBT	21	41	89	120	257	544
7: 2700 South & State Street - 14@1205.4 -	N-S	99.71347	SBT	82	29	129	115	197	439
7: 2700 South & State Street - 15@1184.3 -	S-N	177.8457	NBT	180	52	267	85	135	307
7: 2700 South & State Street - 17@647.5 - 1	W-S	46.15218	EBR	42	28	88	87	127	297
7: 2700 South & State Street - 17@647.5 - 1	W-E	35.46114	EBT	34	30	83	52	88	197
7: 2700 South & State Street - 20@820.0 - 1	E-W	56.11973	WBT	59	33	113	86	133	305
7: 2700 South & State Street - 148@291.2 -	S-W	43.15731	NBL	37	28	83	41	77	168
7: 2700 South & State Street - 149@150.8 -	S-E	7.027806	NBR	6	11	24	64	116	255
7: 2700 South & State Street - 150@28.0 - 1	W-N	54.69782	EBL	84	45	158	85	279	545
7: 2700 South & State Street - 153@329.4 -	N-E	19.78226	SBL	23	25	63	94	242	493
7: 2700 South & State Street - 154@188.7 -	N-W	18.96436	SBR	14	15	38	113	228	489
7: 2700 South & State Street - 10014@53.9 -	E-N	43.24867	WBR	47	26	90	92	157	351
7: 2700 South & State Street - 10015@17.9 -	E-S	31.09067	WBL	41	33	96	87	129	300
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	140.9789	SBT	145	36	205	90	123	293
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	150.4256	NBT	106	67	216	49	81	183
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	75.16036	NBL	317	101	484	81	124	286
8: WB I-80 & 700 East - 135@1579.2 - 73@6	E-S	76.19348	WBL	44	22	80	38	71	155
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	76.19348	WBL	44	22	80	61	119	256
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	11.0273	WBR	5	15	31	87	280	550
8: WB I-80 & 700 East - 168@218.7 - 83@57	N-S	87.48818	SBT	101	35	158	94	243	494
8: WB I-80 & 700 East - 169@299.3 - 137@2	N-SW	1.921018	SBR	558	422	1255	106	213	457

9: EB I-80 & 700 East - 74@24.8 - 10189@12	N-S	93.61546	SBT	67	29	115	95	144	332
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	282.8043	NBT	886	513	1731	88	135	311
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	42.90279	SBL	58	39	122	90	132	308
9: EB I-80 & 700 East - 133@1231.9 - 79@56	W-N	244.8186	EBL	264	75	387	50	89	196
9: EB I-80 & 700 East - 133@1231.9 - 140@6	W-NE	244.8186	EBL	264	75	387	80	127	290
9: EB I-80 & 700 East - 134@318.9 - 10188@	W-S	0	EBR	7	19	39	38	68	151
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	261.4564	NBT	1144	605	2141	62	122	264
9: EB I-80 & 700 East - 167@274.8 - 140@66	S-NE	0	NBR	0	2	4	88	281	552
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	0	SBT	0	0	0	92	241	490
10: 2400 S & West Temple - 33@704.1 - 35@	E-W	7.350483	WBT	7	11	25	108	216	465
10: 2400 S & West Temple - 33@704.1 - 56@	E-N	7.350483	WBR	7	11	25	95	149	341
10: 2400 S & West Temple - 33@704.1 - 101	E-S	7.350483	WBL	7	11	25	86	137	313
10: 2400 S & West Temple - 34@51.1 - 32@	W-E	0	EBT	0	0	0	90	130	305
10: 2400 S & West Temple - 34@51.1 - 56@	W-N	0	EBL	0	0	0	54	90	203
10: 2400 S & West Temple - 34@51.1 - 1010	W-S	0	EBR	0	0	0	84	135	306
10: 2400 S & West Temple - 57@353.0 - 32@	N-E	0	SBL	1	7	12	40	79	171
10: 2400 S & West Temple - 57@353.0 - 35@	N-W	0	SBR	0	3	5	58	116	250
10: 2400 S & West Temple - 57@353.0 - 101	N-S	0	SBT	0	0	0	84	274	536
10: 2400 S & West Temple - 10107@1.9 - 32	S-E	0	NBR	0	0	0	91	239	486
10: 2400 S & West Temple - 10107@1.9 - 35	S-W	0	NBL	0	4	7	108	213	460
10: 2400 S & West Temple - 10107@1.9 - 56	S-N	0	NBT	0	0	0	106	167	382
11: Robert Ave. & West Temple - 28@710.2	E-W	2.575479	WBT	7	12	27	88	140	319
11: Robert Ave. & West Temple - 28@710.2	E-S	2.558841	WBL	7	12	27	90	137	316
11: Robert Ave. & West Temple - 28@710.2	E-N	2.531768	WBR	7	12	27	50	89	197
11: Robert Ave. & West Temple - 31@117.4	W-E	0	EBT	3	9	18	80	123	282
11: Robert Ave. & West Temple - 31@117.4	W-S	0	EBR	3	9	18	41	77	167
11: Robert Ave. & West Temple - 31@117.4	W-N	0	EBL	3	9	18	56	138	283
11: Robert Ave. & West Temple - 44@282.3	S-E	0	NBR	0	1	2	80	272	529
11: Robert Ave. & West Temple - 44@282.3	S-W	0	NBL	0	2	4	89	235	477
11: Robert Ave. & West Temple - 44@282.3	S-N	0	NBT	0	0	0	81	164	351
11: Robert Ave. & West Temple - 49@19.8 -	N-E	2.913105	SBL	1	5	10	89	146	330
11: Robert Ave. & West Temple - 49@19.8 -	N-W	8.146827	SBR	21	36	80	70	122	272
11: Robert Ave. & West Temple - 49@19.8 -	N-S	0	SBT	0	0	0	86	137	312
12: Oakland Ave & West Temple - 40@711.0	E-W	16.71183	WBT	20	15	44	54	98	216
12: Oakland Ave & West Temple - 40@711.0	E-N	16.71183	WBR	20	15	44	74	121	274
12: Oakland Ave & West Temple - 40@711.0	E-S	16.71183	WBL	20	15	44	36	70	150
12: Oakland Ave & West Temple - 43@473.0	W-E	17.04076	EBT	15	14	38	50	140	282
12: Oakland Ave & West Temple - 43@473.0	W-N	16.65659	EBL	14	14	37	78	271	525
12: Oakland Ave & West Temple - 43@473.0	W-S	16.6845	EBR	14	14	37	86	220	449
12: Oakland Ave & West Temple - 45@261.8	N-E	0	SBL	1	6	11	83	192	400
12: Oakland Ave & West Temple - 45@261.8	N-W	0	SBR	0	3	5	83	173	368
12: Oakland Ave & West Temple - 45@261.8	N-S	0	SBT	0	0	0	53	81	186
12: Oakland Ave & West Temple - 46@527.0	S-E	5.925707	NBR	0	5	9	69	108	248
12: Oakland Ave & West Temple - 46@527.0	S-W	5.332815	NBL	1	6	10	42	86	183
12: Oakland Ave & West Temple - 46@527.0	S-N	2.023688	NBT	0	2	3	92	164	362
13: 2400 S & Main Street - 32@716.9 - 36@7	W-E	9.74766	EBT	7	11	25	50	131	266
13: 2400 S & Main Street - 32@716.9 - 55@6	W-S	9.74766	EBR	7	11	25	38	131	254
13: 2400 S & Main Street - 32@716.9 - 58@7	W-N	9.74766	EBL	7	11	25	85	267	525
13: 2400 S & Main Street - 37@175.7 - 33@7	E-W	0	WBT	0	0	0	74	162	342
13: 2400 S & Main Street - 37@175.7 - 55@6	E-S	0	WBL	0	0	0	83	192	400
13: 2400 S & Main Street - 37@175.7 - 58@7	E-N	0	WBR	0	0	0	79	168	355
13: 2400 S & Main Street - 54@239.9 - 33@7	S-W	0	NBL	0	4	6	55	88	200
13: 2400 S & Main Street - 54@239.9 - 36@7	S-E	0	NBR	0	0	0	68	109	249
13: 2400 S & Main Street - 54@239.9 - 58@7	S-N	0	NBT	0	0	0	42	79	172
13: 2400 S & Main Street - 59@503.7 - 33@7	N-W	0	SBR	0	0	0	86	165	358
13: 2400 S & Main Street - 59@503.7 - 36@7	N-E	0	SBL	0	0	0	51	134	273
13: 2400 S & Main Street - 59@503.7 - 55@6	N-S	0	SBT	0	0	0	33	138	261
14: Robert Ave. & Main Street - 26@321.1 -	E-W	2.670046	WBT	4	9	18	74	267	515
14: Robert Ave. & Main Street - 26@321.1 -	E-N	2.670046	WBR	4	9	18	72	151	321
14: Robert Ave. & Main Street - 26@321.1 -	E-S	2.670046	WBL	4	9	18	82	182	382
14: Robert Ave. & Main Street - 29@709.2 -	W-E	10.32267	EBT	8	13	29	80	157	339
14: Robert Ave. & Main Street - 29@709.2 -	W-N	10.32267	EBL	8	13	29	47	79	178
14: Robert Ave. & Main Street - 29@709.2 -	W-S	10.32267	EBR	8	13	29	67	105	239
14: Robert Ave. & Main Street - 55@232.4 -	N-E	0	SBL	0	0	0	44	79	175

14: Robert Ave. & Main Street - 55@232.4 - N-W	0	SBR	0	2	3	84	153	336
14: Robert Ave. & Main Street - 55@232.4 - N-S	0	SBT	0	0	0	51	126	258
14: Robert Ave. & Main Street - 60@63.7 - 2 S-E	0	NBR	0	3	5	35	134	256
14: Robert Ave. & Main Street - 60@63.7 - 2 S-W	0	NBL	0	2	3	72	264	508
14: Robert Ave. & Main Street - 60@63.7 - 5 S-N	0	NBT	0	0	0	76	171	359
15: N Granite SD Access & Main Street - 39@ E-N	0	WBR	2	9	16	86	204	422
15: N Granite SD Access & Main Street - 39@ E-S	0	WBL	2	9	17	78	174	365
15: N Granite SD Access & Main Street - 61@ N-E	2.174524	SBL	0	3	6	41	73	161
15: N Granite SD Access & Main Street - 61@ N-S	0	SBT	3	15	27	62	104	233
15: N Granite SD Access & Main Street - 62@ S-E	0	NBR	0	1	2	36	69	150
15: N Granite SD Access & Main Street - 62@ S-N	0	NBT	0	0	0	82	157	341
16: Oakland Ave. & Main Street - 41@707.2 W-N	23.08612	EBL	16	14	39	102	291	583
16: Oakland Ave. & Main Street - 41@707.2 W-S	23.08612	EBR	16	14	39	48	137	273
16: Oakland Ave. & Main Street - 63@154.7 N-W	0	SBR	0	3	6	83	280	545
16: Oakland Ave. & Main Street - 63@154.7 N-S	0	SBT	0	0	0	79	173	365
16: Oakland Ave. & Main Street - 66@184.7 S-W	1.807164	NBL	1	5	10	78	173	363
16: Oakland Ave. & Main Street - 66@184.7 S-N	0	NBT	0	0	0	72	141	305
17: S Granite SD Access & Main Street - 65@ E-N	0	WBR	2	6	13	58	97	217
17: S Granite SD Access & Main Street - 65@ E-S	0	WBL	2	6	13	60	102	228
17: S Granite SD Access & Main Street - 67@ N-E	1.872743	SBL	1	5	9	39	84	178
17: S Granite SD Access & Main Street - 67@ N-S	0	SBT	0	0	0	76	144	314
17: S Granite SD Access & Main Street - 69@ S-E	4.265461	NBR	1	4	7	92	291	572
17: S Granite SD Access & Main Street - 69@ S-N	0	NBT	0	0	0	94	254	513

Freeway LOS AM PM

Alternative: SPUI

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	4	19.3	C	0.50	***21.0***	***C***	***40.4***	***E***	5277	5320	99.2%	8054	9850	81.8%	66.04	51.88	0.62	12.71
EB I-80 (State to 700 E)	Weave	5	19.2	B	0.66	***20.6***	***C***	***31.9***	***D***	6465	6530	99.0%	9390	11250	83.5%	65.64	59.40	0.66	1.72
EB I-80 (Over 700 E)	Basic	4	17.9	B	0.59	***19.4***	***C***	***28.3***	***D***	5005	5060	98.9%	7213	8630	83.6%	67.71	64.46	0.67	1.46
WB I-80 (Over 700 E)	Basic	4	91.1	F	5.39	***91.1***	***F***	***25.9***	***C***	5693	7930	71.8%	6099	5990	101.8%	15.64	62.00	6.69	2.03
WB I-80 (700 E to State)	Weave	5	68.5	F	6.57	***68.5***	***F***	***27.9***	***C***	7423	9960	74.5%	7435	7350	101.2%	21.50	56.07	6.94	3.83
WB I-80 (Over State)	Diverge	4	73.2	F	4.27	***76.4***	***F***	***40.0***	***E***	6774	9180	73.8%	6383	6470	98.7%	29.01	54.01	5.78	5.66
WB I-80 to WB CD Ramp	Ramp	2	71.3	F	4.96	***72.8***	***F***	***43.9***	***E***	3826	5250	72.9%	3412	3550	96.1%	26.43	41.21	6.87	14.15
WB I-80 (West of State)	Diverge	3	14.5	B	1.48	***14.6***	***B***	***14.8***	***B***	2819	3930	71.7%	2838	2920	97.2%	63.90	65.35	1.48	1.13
WB I-80 to NB I-15	Ramp	3	13.3	B	1.21	***13.3***	***B***	***13.8***	***B***	2213	3010	73.5%	2221	2240	99.2%	56.03	56.29	1.21	1.18
To SB I-15 Ramp	Ramp	2	14.3	B	1.24	***15.6***	***B***	***16.3***	***B***	1688	1990	84.8%	1725	1770	97.5%	55.68	55.53	1.26	1.38
To WB 201 Ramp	Ramp	2	24.2	C	0.94	***24.8***	***C***	***22.5***	***B***	2688	3690	72.8%	2363	2410	98.1%	54.84	55.02	1.16	1.87
WB I-80 to SB I-15/WB 201	Diverge	3	35.7	E	2.16	***36.9***	***E***	***33.5***	***D***	4298	5680	75.7%	4014	4180	96.0%	52.49	52.17	2.16	2.50
WB CD	Weave (CD)	3	29.6	C	1.24	***31.2***	***C***	***26.8***	***C***	4746	6150	77.2%	4408	4530	97.3%	51.19	56.89	1.40	3.56
EB I-15 On Ramp	Ramp	3	10.4	A	0.92	***11.4***	***A***	***12.8***	***B***	1161	1210	95.9%	1304	1400	93.2%	35.35	34.23	1.11	0.92
EB I-80 I-15 to State	Weave	5	19.5	B	0.62	***21.6***	***C***	***55.5***	***F***	6281	6410	98.0%	9045	11130	81.3%	61.31	33.87	1.07	16.22
NB I-15 Off Ramp 2	Ramp	1	25.8	C	1.46	***28.1***	***C***	***63.1***	***F***	1590	1510	105.3%	1855	1780	104.2%	59.39	31.56	1.46	31.01
NB I-15 Off Ramp 3	Ramp	1	17.2	B	0.86	***18.4***	***B***	***44.2***	***E***	1083	1510	71.7%	1262	1780	70.9%	61.51	30.30	1.01	18.99
NB I-15 Off Ramp 1	Ramp	2	12.1	B	0.22	***13.0***	***B***	***23.2***	***B***	1597	1540	103.7%	1872	1780	105.2%	64.61	47.03	0.22	17.96
EB 201/SB I-15 2	Merge	4	21.0	C	0.34	***22.7***	***C***	***46.5***	***F***	4872	4900	99.4%	7464	9350	79.8%	64.58	39.06	0.56	16.91
EB 201/SB I-15 1	Merge	5	15.6		0.38	***17.1***		***43.1***		4721	4900	96.3%	7223	9350	77.3%	58.23	34.54	0.64	11.69
EB 201 Ramp	Ramp	2	17.8	B	0.21	***19.2***	***B***	***95.7***	***F***	2342	2330	100.5%	2755	4470	61.6%	64.26	13.62	0.34	7.12
SB I-15 Ramp	Ramp	3	13.0	B	0.13	***14.0***	***B***	***28.3***	***C***	2582	2570	100.5%	4881	4880	100.0%	65.01	60.73	0.17	1.61
EB I-80 Ramp	Ramp	2	93.1	F	26.68	***139.8***	***F***	***18.8***	***B***	1757	2030	86.6%	1335	1360	98.2%	6.19	37.07	26.68	3.61

Alternative: Loop Ramp

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7@51.	W-E	EBT	EB							496							895
1: 2100 South & State Street - 2@1436.4 - 6@43.	E-W	WBT	WB							689							879
1: 2100 South & State Street - 3@1101.9 - 5@67.	N-S	SBT	SB							607							1935
1: 2100 South & State Street - 4@1031.1 - 8@53.	S-N	NBT	NB							1320							955
1: 2100 South & State Street - 159@246.4 - 7@5	S-E	NBR	NB							187							182
1: 2100 South & State Street - 160@288.7 - 6@4	S-W	NBL	NB							155							261
1: 2100 South & State Street - 161@166.4 - 5@6	E-S	WBL	WB							270							271
1: 2100 South & State Street - 162@152.6 - 8@5	W-N	EBL	EB							143							173
1: 2100 South & State Street - 163@133.8 - 6@4	N-W	SBR	SB							76							172
1: 2100 South & State Street - 164@371.3 - 7@5	N-E	SBL	SB							85							221
1: 2100 South & State Street - 165@166.2 - 8@5	E-N	WBR	WB							88							101
1: 2100 South & State Street - 255@187.5 - 5@6	W-S	EBR	EB	32.558998	C					159	46.13990552	D					318
2: Street Car Crossing & State Street - 5@1044.9	N-S	SBT	SB							882							2268
2: Street Car Crossing & State Street - 5@1044.9	N-W	SBR	SB							152							252
2: Street Car Crossing & State Street - 10@1228.	S-N	NBT	NB							1466							1205
2: Street Car Crossing & State Street - 174@664.	W-S	EBR	EB							301							293
2: Street Car Crossing & State Street - 175@210.	W-N	EBL	EB							197							201
2: Street Car Crossing & State Street - 177@146.	S-W	NBL	NB	13.15235584	B					185	27.72974993	C					344
3: WB I-80 & State Street - 90@8.1 - 10@47.0	S-N	NBT	NB							1277							1198
3: WB I-80 & State Street - 96@9.7 - 37@36.9	S-W	NBL	NB							31							20
3: WB I-80 & State Street - 96@9.7 - 118@45.7	S-W	NBL	NB							503							397
3: WB I-80 & State Street - 124@1240.6 - 37@36	E-W	WBT	WB							59							83
3: WB I-80 & State Street - 124@1240.6 - 91@38	E-S	WBL	WB							0							0
3: WB I-80 & State Street - 124@1240.6 - 118@4	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 124@1240.6 - 10056@	E-S	WBL	WB							204							241
3: WB I-80 & State Street - 125@249.7 - 10@47.0	E-N	WBR	WB							375							343
3: WB I-80 & State Street - 156@284.4 - 37@36.9	N-W	SBR	SB							10							11
3: WB I-80 & State Street - 156@284.4 - 118@45	N-W	SBR	SB							402							589
3: WB I-80 & State Street - 157@281.5 - 91@38.3	N-S	SBT	SB							0							0
3: WB I-80 & State Street - 157@281.5 - 10056@	N-S	SBT	SB	18.594042	B					766	35.54260312	D					1954
4: Oakland & State Street - 12@277.7 - 24@49.9	N-W	SBR	SB							68							22
4: Oakland & State Street - 12@277.7 - 143@40.0	N-S	SBT	SB							311							1364
4: Oakland & State Street - 22@316.8 - 21@48.9	E-N	WBR	WB							568							433
4: Oakland & State Street - 22@316.8 - 24@49.9	E-W	WBT	WB							171							48
4: Oakland & State Street - 22@316.8 - 143@40.0	E-S	WBL	WB							402							640
4: Oakland & State Street - 25@68.7 - 21@48.9	W-N	EBL	EB							0							0
4: Oakland & State Street - 25@68.7 - 122@71.5	W-E	EBT	EB							0							0
4: Oakland & State Street - 25@68.7 - 143@40.6	W-S	EBR	EB							49							98
4: Oakland & State Street - 100@277.0 - 122@71	N-E	SBL	SB							590							805
4: Oakland & State Street - 121@206.9 - 21@48.9	S-N	NBT	NB							1241							1187
4: Oakland & State Street - 121@206.9 - 24@49.9	S-W	NBL	NB							0							0
4: Oakland & State Street - 121@206.9 - 122@71	S-E	NBR	NB	32.41041453	C	40.65697312	C			610	30.3831285	C	53.34071664	C			546
7: 2700 South & State Street - 14@1205.4 - 16@	N-S	SBT	SB							598							1844
7: 2700 South & State Street - 15@1184.3 - 13@9	S-N	NBT	NB							1514							1367
7: 2700 South & State Street - 17@647.5 - 16@1	W-S	EBR	EB							40							99
7: 2700 South & State Street - 17@647.5 - 19@1	W-E	EBT	EB							59							331
7: 2700 South & State Street - 20@820.0 - 18@7	E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291.2 - 18@	S-W	NBL	NB							122							89
7: 2700 South & State Street - 149@150.8 - 19@	S-E	NBR	NB							22							91
7: 2700 South & State Street - 150@28.0 - 13@5	W-N	EBL	EB							149							302
7: 2700 South & State Street - 153@329.4 - 19@	N-E	SBL	SB							53							151
7: 2700 South & State Street - 154@188.7 - 18@	N-W	SBR	SB							114							110
7: 2700 South & State Street - 10014@53.9 - 13@	E-N	WBR	WB							199							69
7: 2700 South & State Street - 10015@17.9 - 16@	E-S	WBL	WB	16.98012024	B					74	24.0886033	C					130
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	SBT	SB							667							1765
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB							2341							1855
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	NBL	NB							829							660
8: WB I-80 & 700 East - 135@1579.2 - 73@63.1	E-S	WBL	WB							83							182
8: WB I-80 & 700 East - 135@1579.2 - 137@28.7	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	WBR	WB							626							469
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	SBT	SB							309							774
8: WB I-80 & 700 East - 169@299.3 - 137@28.7	N-SW	SBR	SB	26.52962853	C					1002	23.75017748	C					655
9: EB I-80 & 700 East - 74@24.8 - 10189@12.0	N-S	SBT	SB							749							1946
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB							1573							1044
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB							310							773
9: EB I-80 & 700 East - 133@1231.9 - 79@56.2	W-N	EBL	EB							769							812
9: EB I-80 & 700 East - 133@1231.9 - 140@66.9	W-NE	EBL	EB							0							0
9: EB I-80 & 700 East - 134@318.9 - 10188@13.8	W-S	EBR	EB							712							1194
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	NBT	NB							842							664
9: EB I-80 & 700 East - 167@274.8 - 140@66.9	S-NE	NBR	NB							136							148
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	SBT	SB	35.49176893	D	52.52068531	C			76	26.28333897	C	47.64537883	C			143
10: 2400 S & West Temple - 33@704.1 - 35@43.9	E-W	WBT	WB							5							4
10: 2400 S & West Temple - 33@704.1 - 56@30.3	E-N	WBR	WB							12							16
10: 2400 S & West Temple - 33@704.1 - 10106@	E-S	WBL	WB							17							8
10: 2400 S & West Temple - 34@51.1 - 32@34.2	W-E	EBT	EB							0							4
10: 2400 S & West Temple - 34@51.1 - 56@30.3	W-N	EBL	EB							0							0
10: 2400 S & West Temple - 34@51.1 - 10106@1	W-S	EBR	EB							0							0
10: 2400 S & West Temple - 57@353.0 - 32@34.2	N-E	SBL	SB							6							5
10: 2400 S & West Temple - 57@353.0 - 35@43.9	N-W	SBR	SB							0							5
10: 2400 S & West Temple - 57@353.0 - 10106@	N-S	SBT	SB							138							261
10: 2400 S & West Temple - 10107@1.9 - 32@34	S-E	NBR	NB							5							6
10: 2400 S & West Temple - 10107@1.9 - 35@43	S-W	NBL	NB							4							0
10: 2400 S & West Temple - 10107@1.9 - 56@30	S-N	NBT	NB	0.817050874	A					190	1.357296535	A					280
11: Robert Ave. & West Temple - 28@710.2 - 30@	E-W	WBT	WB					6.7320095	A	0					9.054077	A	0
11: Robert Ave. & West Temple - 28@710.2 - 45@	E-S	WBL	WB							4							6
11: Robert Ave. & West Temple - 28@710.2 - 48@	E-N	WBR	WB							4							3
11: Robert Ave. & West Temple - 31@117.4 - 29@	W-E	EBT	EB					7.252612	A	0					9.496757	A	5

11: Robert Ave. & West Temple - 31@117.4 - 45@	W-S	EBR	EB			0			4
11: Robert Ave. & West Temple - 31@117.4 - 48@	W-N	EBL	EB			4			4
11: Robert Ave. & West Temple - 44@282.3 - 29@	S-E	NBR	NB			6			5
11: Robert Ave. & West Temple - 44@282.3 - 30@	S-W	NBL	NB			7			6
11: Robert Ave. & West Temple - 44@282.3 - 48@	S-N	NBT	NB			192			277
11: Robert Ave. & West Temple - 49@19.8 - 29@	N-E	SBL	SB			5			5
11: Robert Ave. & West Temple - 49@19.8 - 30@	N-W	SBR	SB			0			5
11: Robert Ave. & West Temple - 49@19.8 - 45@	N-S	SBT	SB	0.337549533 A		149	0.48793139 A		258
12: Oakland Ave & West Temple - 40@711.0 - 42	E-W	WBT	WB			18			4
12: Oakland Ave & West Temple - 40@711.0 - 44	E-N	WBR	WB			10			21
12: Oakland Ave & West Temple - 40@711.0 - 47	E-S	WBL	WB			10			5
12: Oakland Ave & West Temple - 43@473.0 - 41	W-E	EBT	EB			4			20
12: Oakland Ave & West Temple - 43@473.0 - 44	W-N	EBL	EB		7.6210558 A	4		7.768562875 A	9
12: Oakland Ave & West Temple - 43@473.0 - 47	W-S	EBR	EB			11			9
12: Oakland Ave & West Temple - 45@261.8 - 41	N-E	SBL	SB			11			10
12: Oakland Ave & West Temple - 45@261.8 - 42	N-W	SBR	SB		6.5477142 A	10		9.0678007 A	5
12: Oakland Ave & West Temple - 45@261.8 - 47	N-S	SBT	SB			133			253
12: Oakland Ave & West Temple - 46@527.0 - 41	S-E	NBR	NB			13			22
12: Oakland Ave & West Temple - 46@527.0 - 42	S-W	NBL	NB			9			11
12: Oakland Ave & West Temple - 46@527.0 - 44	S-N	NBT	NB	1.19334361 A		190	1.197735145 A		261
13: 2400 S & Main Street - 32@716.9 - 36@24.3	W-E	EBT	EB			0			0
13: 2400 S & Main Street - 32@716.9 - 55@6.1	W-S	EBR	EB			5			4
13: 2400 S & Main Street - 32@716.9 - 58@21.9	W-N	EBL	EB		6.4680015 A	5		7.979106 A	9
13: 2400 S & Main Street - 37@672.9 - 33@22.5	E-W	WBT	WB			24			15
13: 2400 S & Main Street - 37@672.9 - 55@6.1	E-S	WBL	WB		9.790611385 A	22		12.503746 B	12
13: 2400 S & Main Street - 37@672.9 - 58@21.9	E-N	WBR	WB			54			88
13: 2400 S & Main Street - 54@239.9 - 33@22.5	S-W	NBL	NB			4			4
13: 2400 S & Main Street - 54@239.9 - 36@24.3	S-E	NBR	NB			0			0
13: 2400 S & Main Street - 54@239.9 - 58@21.9	S-N	NBT	NB			338			495
13: 2400 S & Main Street - 59@503.7 - 33@22.5	N-W	SBR	SB			4			9
13: 2400 S & Main Street - 59@503.7 - 36@24.3	N-E	SBL	SB			0			0
13: 2400 S & Main Street - 59@503.7 - 55@6.1	N-S	SBT	SB	1.686530404 A		190	1.529178899 A		471
14: Robert Ave. & Main Street - 26@405.6 - 28@	E-W	WBT	WB			0			0
14: Robert Ave. & Main Street - 26@405.6 - 54@	E-N	WBR	WB			0			4
14: Robert Ave. & Main Street - 26@405.6 - 61@	E-S	WBL	WB			4			4
14: Robert Ave. & Main Street - 29@709.2 - 27@	W-E	EBT	EB		8.208522 A	0		7.392596 A	5
14: Robert Ave. & Main Street - 29@709.2 - 54@	W-N	EBL	EB			7			5
14: Robert Ave. & Main Street - 29@709.2 - 61@	W-S	EBR	EB			4			6
14: Robert Ave. & Main Street - 55@232.4 - 27@	N-E	SBL	SB		6.3098395 A	0		7.845677333 A	10
14: Robert Ave. & Main Street - 55@232.4 - 28@	N-W	SBR	SB			5			5
14: Robert Ave. & Main Street - 55@232.4 - 61@	N-S	SBT	SB			212			472
14: Robert Ave. & Main Street - 60@63.7 - 27@2.	S-E	NBR	NB			5			5
14: Robert Ave. & Main Street - 60@63.7 - 28@2	S-W	NBL	NB			4			5
14: Robert Ave. & Main Street - 60@63.7 - 54@1	S-N	NBT	NB	0.216694841 A		337	0.295430143 A		491
15: N Granite SD Access & Main Street - 39@121.	E-N	WBR	WB			18			60
15: N Granite SD Access & Main Street - 39@121.	E-S	WBL	WB			15			5
15: N Granite SD Access & Main Street - 61@36.1	N-E	SBL	SB		0.998765111 A	12		1.166973176 A	14
15: N Granite SD Access & Main Street - 61@36.1	N-S	SBT	SB			209			470
15: N Granite SD Access & Main Street - 62@135.	S-E	NBR	NB			9			4
15: N Granite SD Access & Main Street - 62@135.	S-N	NBT	NB	0.114037819 A		328	0.149532077 A		442
16: Oakland Ave. & Main Street - 41@707.2 - 62@	W-N	EBL	EB			10			28
16: Oakland Ave. & Main Street - 41@707.2 - 67@	W-S	EBR	EB			17			23
16: Oakland Ave. & Main Street - 63@154.7 - 40@	N-W	SBR	SB		6.616898889 A	17		7.720190083 A	13
16: Oakland Ave. & Main Street - 63@154.7 - 67@	N-S	SBT	SB			208			463
16: Oakland Ave. & Main Street - 66@184.7 - 40@	S-W	NBL	NB			21			16
16: Oakland Ave. & Main Street - 66@184.7 - 62@	S-N	NBT	NB	0.496018571 A		324	0.504187759 A		418
17: S Granite SD Access & Main Street - 65@232.	E-N	WBR	WB			8			19
17: S Granite SD Access & Main Street - 65@232.	E-S	WBL	WB			17			17
17: S Granite SD Access & Main Street - 67@180.	N-E	SBL	SB		1.198925333 A	14		1.775758 A	5
17: S Granite SD Access & Main Street - 67@180.	N-S	SBT	SB			213			480
17: S Granite SD Access & Main Street - 69@505.	S-E	NBR	NB			51			37
17: S Granite SD Access & Main Street - 69@505.	S-N	NBT	NB	0.156420417 A		337	0.12031348 A		415

2040 Queue Report (AM PM)

Alternative: Loop Ramp

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Stre	W-E	174.6265	EBT	163	45	238	1179	386	1815
1: 2100 South & State Stre	E-W	214.1961	WBT	242	79	373	420	158	680
1: 2100 South & State Stre	N-S	89.43075	SBT	109	31	160	528	203	862
1: 2100 South & State Stre	S-N	265.4833	NBT	237	112	421	166	67	276
1: 2100 South & State Stre	S-E	54.50077	NBR	62	82	197	95	103	265
1: 2100 South & State Stre	S-W	64.57525	NBL	82	24	120	125	43	195
1: 2100 South & State Stre	E-S	118.9609	WBL	122	43	193	230	171	513
1: 2100 South & State Stre	W-N	68.47836	EBL	76	24	116	302	472	1081
1: 2100 South & State Stre	N-W	17.39115	SBR	20	16	46	37	84	176
1: 2100 South & State Stre	N-E	44.37635	SBL	47	20	80	93	31	144
1: 2100 South & State Stre	E-N	49.04582	WBR	58	34	114	62	34	118
1: 2100 South & State Stre	W-S	24.32716	EBR	29	19	61	624	564	1555
2: Street Car Crossing & St	N-S	59.92231	SBT	85	50	168	576	340	1137
2: Street Car Crossing & St	N-W	59.92231	SBR	85	50	168	576	340	1137
2: Street Car Crossing & St	S-N	117.139	NBT	172	96	330	150	109	330
2: Street Car Crossing & St	W-S	28.90782	EBR	43	40	109	86	78	215
2: Street Car Crossing & St	W-N	177.1564	EBL	169	60	268	230	147	473
2: Street Car Crossing & St	S-W	32.40105	NBL	56	47	133	377	179	672
3: WB I-80 & State Street	S-N	73.73966	NBT	104	49	186	149	88	294
3: WB I-80 & State Street	S-W	80.67711	NBL	126	78	254	171	61	272
3: WB I-80 & State Street	S-W	80.67711	NBL	126	78	254	171	61	272
3: WB I-80 & State Street	E-W	173.0102	WBT	195	69	308	438	258	864
3: WB I-80 & State Street	E-S	173.0102	WBL	195	69	308	438	258	864
3: WB I-80 & State Street	E-W	173.0102	WBT	195	69	308	438	258	864
3: WB I-80 & State Street	E-S	173.0102	WBL	195	69	308	438	258	864
3: WB I-80 & State Street	E-N	175.5668	WBR	202	116	393	251	245	655
3: WB I-80 & State Street	N-W	54.04269	SBR	63	45	137	119	80	251
3: WB I-80 & State Street	N-W	57.99559	SBR	67	41	134	121	79	251
3: WB I-80 & State Street	N-S	74.97554	SBT	77	29	125	323	181	622
3: WB I-80 & State Street	N-S	74.97554	SBT	77	29	125	323	181	622
4: Oakland & State Street	N-W	39.61894	SBR	47	46	123	146	94	301
4: Oakland & State Street	N-S	39.61894	SBT	47	46	123	146	94	301
4: Oakland & State Street	E-N	180.2814	WBR	185	48	265	230	61	331
4: Oakland & State Street	E-W	180.2814	WBT	185	48	265	230	61	331
4: Oakland & State Street	E-S	180.2814	WBL	185	48	265	230	61	331
4: Oakland & State Street	W-N	22.11418	EBL	18	12	37	30	16	56
4: Oakland & State Street	W-E	22.11418	EBT	18	12	37	30	16	56
4: Oakland & State Street	W-S	22.11418	EBR	18	12	37	30	16	56
4: Oakland & State Street	N-E	124.1451	SBL	196	78	324	257	126	465
4: Oakland & State Street	S-N	362.4769	NBT	457	122	657	467	144	705
4: Oakland & State Street	S-W	362.4769	NBL	457	122	657	467	144	705
4: Oakland & State Street	S-E	362.4769	NBR	457	122	657	467	144	705
7: 2700 South & State Stre	N-S	160.1369	SBT	126	34	183	301	81	434
7: 2700 South & State Stre	S-N	177.2381	NBT	188	57	282	216	55	306

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7: 2700 South & State Stre	W-S	43.74157	EBR	42	27	86	208	86	350
7: 2700 South & State Stre	W-E	33.05054	EBT	34	29	81	204	86	346
7: 2700 South & State Stre	E-W	56.13704	WBT	59	33	114	58	33	112
7: 2700 South & State Stre	S-W	47.49574	NBL	39	28	84	46	34	103
7: 2700 South & State Stre	S-E	7.068628	NBR	6	11	25	23	17	50
7: 2700 South & State Stre	W-N	54.58173	EBL	84	45	158	199	96	358
7: 2700 South & State Stre	N-E	44.27691	SBL	36	29	84	66	46	142
7: 2700 South & State Stre	N-W	29.26634	SBR	39	30	89	18	19	50
7: 2700 South & State Stre	E-N	38.13216	WBR	47	26	90	25	15	50
7: 2700 South & State Stre	E-S	31.09067	WBL	41	33	96	72	38	135
8: WB I-80 & 700 East - 72	N-S	141.1327	SBT	146	32	199	276	71	393
8: WB I-80 & 700 East - 80	S-N	150.8092	NBT	118	75	241	34	25	76
8: WB I-80 & 700 East - 87	S-SW	65.87384	NBL	210	97	370	322	55	413
8: WB I-80 & 700 East - 13	E-S	77.16601	WBL	51	25	92	90	34	146
8: WB I-80 & 700 East - 13	E-SW	77.16601	WBL	51	25	92	90	34	146
8: WB I-80 & 700 East - 13	E-N	11.21833	WBR	5	15	31	6	19	36
8: WB I-80 & 700 East - 16	N-S	87.49564	SBT	100	32	154	172	38	234
8: WB I-80 & 700 East - 16	N-SW	1.921018	SBR	23	81	157	3	9	18
9: EB I-80 & 700 East - 74(	N-S	91.64501	SBT	70	30	119	101	33	156
9: EB I-80 & 700 East - 78(	S-N	265.6989	NBT	320	195	642	223	46	299
9: EB I-80 & 700 East - 85(	N-NE	46.34186	SBL	59	39	123	254	62	357
9: EB I-80 & 700 East - 133	W-N	267.0263	EBL	262	72	380	274	73	394
9: EB I-80 & 700 East - 133	W-NE	267.0263	EBL	262	72	380	274	73	394
9: EB I-80 & 700 East - 134	W-S	0	EBR	5	13	26	8	23	46
9: EB I-80 & 700 East - 166	S-N	249.0558	NBT	384	302	883	245	82	381
9: EB I-80 & 700 East - 167	S-NE	0	NBR	1	4	8	0	3	5
9: EB I-80 & 700 East - 101	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple	E-W	11.98964	WBT	21	15	46	20	14	43
10: 2400 S & West Temple	E-N	11.98964	WBR	21	15	46	20	14	43
10: 2400 S & West Temple	E-S	11.98964	WBL	21	15	46	20	14	43
10: 2400 S & West Temple	W-E	0	EBT	0	0	0	0	2	4
10: 2400 S & West Temple	W-N	0	EBL	0	0	0	0	2	4
10: 2400 S & West Temple	W-S	0	EBR	0	0	0	0	2	4
10: 2400 S & West Temple	N-E	0	SBL	1	7	12	1	5	9
10: 2400 S & West Temple	N-W	0	SBR	0	3	5	0	1	2
10: 2400 S & West Temple	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple	S-W	0	NBL	0	4	7	0	0	0
10: 2400 S & West Temple	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Te	E-W	2.575479	WBT	7	12	27	7	12	27
11: Robert Ave. & West Te	E-S	2.558841	WBL	7	12	27	7	12	27
11: Robert Ave. & West Te	E-N	2.531768	WBR	7	12	27	7	12	27
11: Robert Ave. & West Te	W-E	0	EBT	3	9	18	9	12	30
11: Robert Ave. & West Te	W-S	0	EBR	3	9	18	9	12	30
11: Robert Ave. & West Te	W-N	0	EBL	3	9	18	9	12	30
11: Robert Ave. & West Te	S-E	0	NBR	0	1	2	0	1	2
11: Robert Ave. & West Te	S-W	0	NBL	0	3	5	0	3	5

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11: Robert Ave. & West Te	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Te	N-E	2.913105	SBL	1	5	10	1	4	8
11: Robert Ave. & West Te	N-W	8.146827	SBR	21	36	80	22	36	81
11: Robert Ave. & West Te	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West T	E-W	16.71183	WBT	20	15	44	17	15	42
12: Oakland Ave & West T	E-N	16.71183	WBR	20	15	44	17	15	42
12: Oakland Ave & West T	E-S	16.71183	WBL	20	15	44	17	15	42
12: Oakland Ave & West T	W-E	17.04076	EBT	15	14	38	22	15	48
12: Oakland Ave & West T	W-N	16.65659	EBL	14	14	37	22	15	47
12: Oakland Ave & West T	W-S	16.6845	EBR	14	14	37	22	15	47
12: Oakland Ave & West T	N-E	0	SBL	1	6	11	2	10	19
12: Oakland Ave & West T	N-W	0	SBR	0	3	5	1	8	15
12: Oakland Ave & West T	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West T	S-E	5.925707	NBR	0	5	9	0	4	7
12: Oakland Ave & West T	S-W	5.332815	NBL	1	6	11	2	7	13
12: Oakland Ave & West T	S-N	2.023688	NBT	0	2	3	0	0	0
13: 2400 S & Main Street ·	W-E	9.74766	EBT	7	11	25	10	13	30
13: 2400 S & Main Street ·	W-S	9.74766	EBR	7	11	25	10	13	30
13: 2400 S & Main Street ·	W-N	9.74766	EBL	7	11	25	10	13	30
13: 2400 S & Main Street ·	E-W	33.59999	WBT	48	30	97	73	44	145
13: 2400 S & Main Street ·	E-S	33.59999	WBL	48	30	97	73	44	145
13: 2400 S & Main Street ·	E-N	33.59999	WBR	48	30	97	73	44	145
13: 2400 S & Main Street ·	S-W	0	NBL	1	4	8	1	5	8
13: 2400 S & Main Street ·	S-E	0	NBR	0	0	0	0	4	7
13: 2400 S & Main Street ·	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street ·	N-W	0	SBR	0	0	0	0	1	2
13: 2400 S & Main Street ·	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street ·	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main St	E-W	2.669583	WBT	3	9	18	6	11	24
14: Robert Ave. & Main St	E-N	2.669583	WBR	3	9	18	6	11	24
14: Robert Ave. & Main St	E-S	2.669583	WBL	3	9	18	6	11	24
14: Robert Ave. & Main St	W-E	10.32267	EBT	8	13	29	11	14	35
14: Robert Ave. & Main St	W-N	10.32267	EBL	8	13	29	11	14	35
14: Robert Ave. & Main St	W-S	10.32267	EBR	8	13	29	11	14	35
14: Robert Ave. & Main St	N-E	0	SBL	0	0	0	1	6	11
14: Robert Ave. & Main St	N-W	0	SBR	0	2	3	0	5	9
14: Robert Ave. & Main St	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main St	S-E	0	NBR	0	3	5	5	18	34
14: Robert Ave. & Main St	S-W	0	NBL	0	2	3	1	3	6
14: Robert Ave. & Main St	S-N	0	NBT	0	0	0	0	0	0
15: N Granite SD Access &	E-N	0	WBR	2	9	16	5	10	21
15: N Granite SD Access &	E-S	0	WBL	2	9	17	5	10	22
15: N Granite SD Access &	N-E	2.174524	SBL	0	3	6	2	6	11
15: N Granite SD Access &	N-S	0	SBT	3	15	28	8	24	47
15: N Granite SD Access &	S-E	0	NBR	0	1	2	0	0	0
15: N Granite SD Access &	S-N	0	NBT	0	0	0	0	0	0
16: Oakland Ave. & Main S	W-N	23.08612	EBL	16	14	39	24	14	47

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16: Oakland Ave. & Main S	W-S	23.08612	EBR	16	14	39	24	14	47
16: Oakland Ave. & Main S	N-W	0	SBR	0	3	6	0	3	5
16: Oakland Ave. & Main S	N-S	0	SBT	0	0	0	0	0	0
16: Oakland Ave. & Main S	S-W	1.807164	NBL	1	5	10	2	9	17
16: Oakland Ave. & Main S	S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access &	E-N	0	WBR	2	7	13	3	8	17
17: S Granite SD Access &	E-S	0	WBL	2	7	13	3	8	17
17: S Granite SD Access &	N-E	1.872743	SBL	1	5	9	1	4	8
17: S Granite SD Access &	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access &	S-E	4.265461	NBR	1	4	7	0	1	2
17: S Granite SD Access &	S-N	0	NBT	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: Loop Ramp

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	4	19.1	C	0.553151	***20.6***	***C***	***31.4***	***D***	5244	5320	98.6%	7193	9850	73.0%	66.56	56.23	0.59	2.12
EB I-80 (State to 700 E)	Weave	5	19.3	B	0.599598	***21.0***	***C***	***27.9***	***C***	6546	6530	100.3%	8689	11250	77.2%	65.20	62.41	0.61	22.42
EB I-80 (Over 700 E)	Basic	4	18.0	B	0.514859	***19.7***	***C***	***25.4***	***C***	5062	5060	100.0%	6692	8750	76.5%	67.49	66.04	0.69	8.38
WB I-80 (Over 700 E)	Basic	4	76.3	F	16.94902	***92.3***	***F***	***114.2***	***F***	5779	8020	72.1%	5199	6130	84.8%	15.29	9.33	16.95	11.42
WB I-80 (700 E to State)	Weave	5	59.6	F	15.8259	***67.9***	***F***	***100.5***	***F***	7465	10050	74.3%	6190	7490	82.6%	21.82	10.79	15.83	23.16
WB I-80 (Over State)	Diverge	4	50.2	F	9.942051	***50.2***	***F***	***30.9***	***D***	6782	9180	73.9%	5306	6470	82.0%	28.47	55.46	9.94	16.11
WB I-80 to WB CD Ramp	Ramp	2	76.5	F	9.070474	***79.3***	***F***	***25.1***	***C***	3801	5250	72.4%	2786	3550	78.5%	23.83	57.46	9.07	10.17
WB I-80 (West of State)	Diverge	3	16.9	B	2.090434	***16.9***	***B***	***15.0***	***B***	2840	3930	72.3%	2386	2920	81.7%	64.52	66.07	2.09	3.54
WB I-80 to NB I-15	Ramp	3	14.0	B	1.873199	***14.0***	***B***	***12.5***	***B***	2225	3010	73.9%	1867	2240	83.4%	56.08	56.33	1.87	15.99
To SB I-15 Ramp	Ramp	2	14.3	B	1.370854	***15.7***	***B***	***14.3***	***B***	1685	1990	84.7%	1528	1770	86.3%	55.74	55.84	1.51	26.20
To WB 201 Ramp	Ramp	2	24.8	C	1.772493	***24.8***	***C***	***19.9***	***B***	2676	3690	72.5%	1954	2460	79.4%	54.83	55.24	1.78	46.13
WB I-80 to SB I-15/WB 201	Diverge	3	44.3	E	2.546947	***45.3***	***F***	***32.4***	***D***	4282	5680	75.4%	3419	4230	80.8%	51.70	53.27	2.55	35.27
WB CD	Weave (CD)	3	29.9	C	1.730359	***30.7***	***C***	***21.6***	***B***	4734	6150	77.0%	3770	4580	82.3%	51.85	60.72	1.94	26.57
EB I-15 On Ramp	Ramp	2	18.4	B	1.227238	***19.2***	***B***	***21.2***	***B***	1177	1200	98.1%	1328	1380	96.2%	31.40	32.04	2.31	2.70
EB I-15 On Ramp	Ramp	2	13.6	B	1.041948	***14.2***	***B***	***16.2***	***B***	1198	6540	18.3%	1349	11260	12.0%	43.43	42.77	1.75	11.77
EB I-15 On Ramp	Ramp	2	14.5	B	1.906596	***15.4***	***B***	***19.7***	***B***	1197	1600	74.8%	1347	1880	71.7%	40.09	35.50	2.70	9.31
EB I-15 On Ramp	Ramp	2	19.9	B	6.787959	***21.5***	***B***	***30.4***	***C***	1153	1600	72.1%	1297	1880	69.0%	28.08	22.53	6.79	2.53
EB I-80 I-15 to State	Weave	5	19.1	B	0.32984	***20.6***	***C***	***42.6***	***E***	6476	4940	131.1%	8420	9380	89.8%	66.03	40.20	0.36	4.21
NB I-15 Off Ramp 2	Ramp	1	26.1	C	1.179077	***28.4***	***C***	***83.7***	***F***	1592	4940	32.2%	1751	9380	18.7%	58.85	20.85	1.93	4.74
NB I-15 Off Ramp 1	Ramp	2	12.0	A	0.250039	***12.9***	***B***	***70.5***	***F***	1596	2350	67.9%	1840	4480	41.1%	65.07	13.18	0.37	6.54
EB 201/SB I-15 2	Merge	4	21.6	C	0.507187	***23.0***	***C***	***107.0***	***F***	4898	2590	189.1%	6760	4900	138.0%	64.66	17.35	0.64	8.28
EB 201/SB I-15 1	Merge	5	15.4		0.416189	***16.9***		***113.3***		4845	4900	98.9%	6743	9350	72.1%	60.42	11.56	0.76	4.92
EB 201 Ramp	Ramp	2	18.7	B	0.44754	***20.7***	***B***	***140.7***	***F***	2347	2330	100.7%	2324	4470	52.0%	59.94	6.39	1.13	21.76
SB I-15 Ramp	Ramp	3	13.0	B	0.133266	***14.0***	***B***	***62.0***	***F***	2588	2570	100.7%	4878	4880	100.0%	64.86	28.95	0.17	22.42
EB I-80 Ramp	Ramp	2	71.0	F	27.93577	***139.0***	***F***	***143.1***	***F***	1771	2030	87.2%	1252	1360	92.1%	6.21	5.60	27.94	8.38

Alternative: Split Diamond at Main Street

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1-1@1466.8-7@51.6	W-E	EBT	EB							497							898
1-2@1436.4-6@43.7	E-W	WBT	WB							690							878
1-3@1101.9-5@67.0	N-S	SBT	SB							611							1935
1-4@1031.1-8@53.2	S-N	NBT	NB							1286							1028
1-159@246.4-7@51.6	S-E	NBR	NB							183							168
1-160@288.7-6@43.7	S-W	NBL	NB							158							253
1-161@166.4-5@67.0	E-S	WBL	WB							271							273
1-162@152.6-8@53.2	W-N	EBL	EB							141							175
1-163@133.8-6@43.7	N-W	SBR	SB							73							170
1-164@371.3-7@51.6	N-E	SBL	SB							83							220
1-165@166.2-8@53.2	E-N	WBR	WB							86							100
1-255@187.5-5@67.0	W-S	EBR	EB	31.70	C					112	46.19	D					320
2-5@1044.9-158@52.6	N-S	SBT	SB							840							2278
2-5@1044.9-176@37.4	N-W	SBR	SB							149							252
2-10@1228.5-4@51.2	S-N	NBT	NB							1428							1255
2-174@664.9-158@52.6	W-S	EBR	EB							300							294
2-175@210.6-4@51.2	W-N	EBL	EB							197							201
2-177@146.2-176@37.4	S-W	NBL	NB	12.44	B					94	20.60	C					198
3-90@9.3-10@47.2	S-N	NBT	NB							1207							979
3-96@8.2-118@45.9	S-W	NBL	NB							497							393
3-124@1241.9-91@34.5	E-S	WBL	WB							187							327
3-124@1241.9-118@45.9	E-W	WBT	WB							0							0
3-125@250.5-10@47.2	E-N	WBR	WB							403							620
3-155@273.1-97@42.4	N-S	SBT	SB							584							802
3-156@284.3-118@45.9	N-W	SBR	SB							346							585
3-157@282.4-91@34.5	N-S	SBT	SB	17.87	B					196	32.17	C					1167
4-92@6.3-12@38.7	N-S	SBT	SB							0							0
4-98@6.7-122@65.7	N-E	SBL	SB							584							802
4-120@643.8-89@28.3	W-N	EBL	EB							462							179
4-120@643.8-122@65.7	W-E	EBT	EB							0							0
4-121@316.3-12@38.7	W-S	EBR	EB							508							463
4-144@77.2-89@28.3	S-N	NBT	NB							746							802
4-145@73.8-10032@86.8	S-E	NBR	NB							615							556
4-146@329.7-95@47.0	S-N	NBT	NB	23.12	C					497	22.06	C					393
4-10063@6.1-12@38.7	N-S	SBT	SB							384							1495
5-12@192.0-12@267.5	N-S	SBT	SB							891							1957
5-22@609.6-11@50.2	E-N	WBR	WB							29							49
5-146@91.7-146@178.6	S-N	NBT	NB					2.60	A	498					3.06	A	396
5-147@79.4-11@50.2	S-N	NBT	NB							1334							1311
5-10010@1.7-21@32.7	SW-E	NBR	NB	2.01	A					13	1.73	A					20
6-12@275.5-24@20.9	N-W	SBR	SB							229							51
6-12@275.5-143@32.1	N-S	SBT	SB							662							1906
6-23@259.7-143@32.1	W-S	EBR	EB							49							98
6-10004@16.9-147@72.9	S-N	NBT	NB					3.94	A	1345					4.53	A	1331
6-10008@17.8-146@84.4	S-N	NBT	NB	2.70	A					498	2.38	A					397
7-14@1205.4-16@106.4	N-S	SBT	SB							519							1770
7-15@1184.3-13@57.1	S-N	NBT	NB							1519							1372
7-17@647.5-16@106.4	W-S	EBR	EB							40							99
7-17@647.5-19@119.5	W-E	EBT	EB							59							331
7-20@820.0-18@72.5	E-W	WBT	WB							156							151
7-148@291.2-18@72.5	S-W	NBL	NB							119							88
7-149@150.8-19@119.5	S-E	NBR	NB							21							87
7-150@28.0-13@57.1	W-N	EBL	EB							149							302
7-153@329.4-19@119.5	N-E	SBL	SB							40							117
7-154@188.7-18@72.5	N-W	SBR	SB							8							9
7-10014@53.9-13@57.1	E-N	WBR	WB							198							69
7-10015@17.9-16@106.4	E-S	WBL	WB	15.82	B					74	24.58	C					129
8-72@299.7-73@63.1	N-S	SBT	SB							642							1767
8-80@28.1-70@87.4	S-N	NBT	NB							2270							1834
8-87@30.0-137@28.7	S-SW	NBL	NB							800							694
8-135@1579.2-73@63.1	E-S	WBL	WB							74							222
8-135@1579.2-137@28.7	E-SW	WBL	WB							0							0
8-136@72.0-70@87.4	E-N	WBR	WB							558							566
8-168@218.7-83@57.4	N-S	SBT	SB							298							775
8-169@299.3-137@28.7	N-SW	SBR	SB	29.00	C					958	19.13	B					663
9-74@24.8-10189@12.0	N-S	SBT	SB			34.07	C			715			52.04	C			1991
9-78@281.6-79@56.2	S-N	NBT	NB							1515							1069
9-85@22.3-140@66.9	N-NE	SBL	SB							297							775
9-133@1231.9-79@56.2	W-N	EBL	EB							755							765
9-133@1231.9-140@66.9	W-NE	EBL	EB							0							0
9-134@318.9-10188@13.8	W-S	EBR	EB							698							1146
9-166@226.1-86@53.8	S-N	NBT	NB							813							695
9-167@274.8-140@66.9	S-NE	NBR	NB							130							151
9-10188@14.1-76@3.8	N-S	SBT	SB	36.75	D	48.59	C			75	21.14	C	27.42	B			130
10-33@121.6-35@43.9	E-W	WBT	WB							0							0
10-33@121.6-56@30.3	E-N	WBR	WB							0							0
10-33@121.6-10106@10.2	E-S	WBL	WB					0.13	A	0					0.14	A	0
10-34@51.1-32@34.2	W-E	EBT	EB							0							4
10-34@51.1-56@30.3	W-N	EBL	EB							0			26.79				0
10-34@51.1-10106@10.2	W-S	EBR	EB							0							0
10-57@353.0-32@34.2	N-E	SBL	SB							6							5
10-57@353.0-35@43.9	N-W	SBR	SB							0							5
10-57@353.0-10106@10.2	N-S	SBT	SB							138							261
10-10107@1.9-32@34.2	S-E	NBR	NB							5							6
10-10107@1.9-35@43.9	S-W	NBL	NB							4							0
10-10107@1.9-56@30.3	S-N	NBT	NB							191	0.20	A					281
11-28@223.0-30@17.2	E-W	WBT	WB					0.11	A	0					0.15	A	0

11-28@223.0-45@9.4	E-S	WBL	WB			0					0
11-28@223.0-48@20.1	E-N	WBR	WB			0					0
11-31@117.4-29@20.1	W-E	EBT	EB			0					0
11-31@117.4-45@9.4	W-S	EBR	EB			0					10
11-31@117.4-48@20.1	W-N	EBL	EB			4					4
11-44@282.3-29@20.1	S-E	NBR	NB			0					0
11-44@282.3-30@17.2	S-W	NBL	NB			7					6
11-44@282.3-48@20.1	S-N	NBT	NB			197					282
11-49@19.8-29@20.1	N-E	SBL	SB			0					0
11-49@19.8-30@17.2	N-W	SBR	SB			0					5
11-49@19.8-45@9.4	N-S	SBT	SB			137	0.38	A			255
12-40@711.0-42@19.8	E-W	WBT	WB	8.78	A	28			8.73	A	12
12-40@711.0-44@31.2	E-N	WBR	WB			14					25
12-40@711.0-47@24.9	E-S	WBL	WB			18					9
12-43@473.0-41@28.2	W-E	EBT	EB			4					20
12-43@473.0-44@31.2	W-N	EBL	EB			4					9
12-43@473.0-47@24.9	W-S	EBR	EB			11					9
12-45@261.8-41@28.2	N-E	SBL	SB			16					21
12-45@261.8-42@19.8	N-W	SBR	SB			10					5
12-45@261.8-47@24.9	N-S	SBT	SB			112					239
12-46@527.0-41@28.2	S-E	NBR	NB			19					27
12-46@527.0-42@19.8	S-W	NBL	NB			9					11
12-46@527.0-44@31.2	S-N	NBT	NB			184	1.53	A			254
13-26@162.0-58@28.0	E-N	WBR	WB			0					0
13-27@165.0-55@16.7	E-S	WBL	WB			0					0
13-54@228.2-58@28.0	S-N	NBT	NB			422					643
13-59@498.4-36@33.5	N-W	SBR	SB			1					41
13-59@498.4-55@16.7	N-S	SBT	SB			245	11.77	B			446
13-118@666.6-36@33.5	E-W	WBT	WB			843					978
14-55@208.0-61@16.8	N-S	SBT	SB			245					436
14-55@208.0-120@26.4	N-E	SBL	SB			0					10
14-60@65.3-54@37.0	S-N	NBT	NB			341					501
14-60@65.3-120@26.4	S-E	NBR	NB			5					5
14-248@1088.1-120@26.4	W-E	EBT	EB			966					626
14-256@137.7-61@16.8	W-S	EBR	EB			177					124
14-257@135.1-54@37.0	W-N	EBL	EB			82					143
15-39@121.3-60@45.9	E-N	WBR	WB			18	45.30	D			60
15-39@121.3-63@56.2	E-S	WBL	WB	4.14	A	15			14.72	B	5
15-61@36.1-38@23.1	N-E	SBL	SB			14					10
15-61@36.1-63@56.2	N-S	SBT	SB			408					550
15-62@135.9-38@23.1	S-E	NBR	NB			9					4
15-62@135.9-60@45.9	S-N	NBT	NB			329					448
16-41@707.2-62@37.8	W-N	EBL	EB			15					39
16-41@707.2-67@49.9	W-S	EBR	EB			23	5.18	A			28
16-63@154.7-40@31.3	N-W	SBR	SB			36					25
16-63@154.7-67@49.9	N-S	SBT	SB			388					531
16-66@184.7-40@31.3	S-W	NBL	NB	7.14	A	24			8.71	A	20
16-66@184.7-62@37.8	S-N	NBT	NB			322					413
17-65@232.9-66@55.3	E-N	WBR	WB	1.55	A	8	0.97	A	2.53	A	19
17-65@232.9-68@30.9	E-S	WBL	WB			17					17
17-67@180.0-64@29.5	N-E	SBL	SB			15					8
17-67@180.0-68@30.9	N-S	SBT	SB			397					553
17-69@505.0-64@29.5	S-E	NBR	NB			51	0.24	A			37
17-69@505.0-66@55.3	S-N	NBT	NB			337					415
1-1@1466.8-7@51.6	W-E	EBT	EB			381					
1-2@1436.4-6@43.7	E-W	WBT	WB			528					
1-3@1101.9-5@67.0	N-S	SBT	SB			475					
1-4@1031.1-8@53.2	S-N	NBT	NB			1114					

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Alternative: Split Diamond at Main Street

				AM			PM		
Movement	From	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@146		170.4697	EBT	163	46	239	1169	409	1843
1: 2100 South & State Street - 2@143		214.743	WBT	243	80	375	387	126	595
1: 2100 South & State Street - 3@110		94.00281	SBT	109	32	162	465	142	699
1: 2100 South & State Street - 4@103		206.8647	NBT	182	70	298	200	51	284
1: 2100 South & State Street - 159@2		78.80411	NBR	68	76	193	115	92	267
1: 2100 South & State Street - 160@2		61.4495	NBL	81	26	123	123	41	190
1: 2100 South & State Street - 161@1		118.869	WBL	124	45	198	169	108	347
1: 2100 South & State Street - 162@1		70.28759	EBL	76	24	116	280	452	1025
1: 2100 South & State Street - 163@1		17.42454	SBR	19	16	45	30	23	68
1: 2100 South & State Street - 164@3		42.128	SBL	47	20	79	92	31	144
1: 2100 South & State Street - 165@1		15.3503	WBR	11	18	40	12	17	41
1: 2100 South & State Street - 255@1		24.35225	EBR	29	19	60	732	511	1575
2: Street Car Crossing & State Street -		48.40901	SBT	81	50	163	329	148	573
2: Street Car Crossing & State Street -		48.40901	SBR	81	50	163	329	148	573
2: Street Car Crossing & State Street -		127.1251	NBT	148	65	255	55	28	101
2: Street Car Crossing & State Street -		30.86159	EBR	44	38	107	79	62	181
2: Street Car Crossing & State Street -		177.1967	EBL	169	60	268	226	125	432
2: Street Car Crossing & State Street -		12.30119	NBL	29	29	77	109	59	205
3: WB I-80 & State Street - 26@241.7		5.45406	#N/A	2	13	23	1	9	16
3: WB I-80 & State Street - 90@9.3 - 1		0	NBT	0	0	0	103	93	257
3: WB I-80 & State Street - 96@8.2 - 1		0	NBL	1	7	13	70	64	176
3: WB I-80 & State Street - 124@1241		149.6238	WBL	141	45	215	196	56	289
3: WB I-80 & State Street - 124@1241		149.6238	WBT	141	45	215	196	56	289
3: WB I-80 & State Street - 125@250.		198.1882	WBR	229	109	409	375	235	764
3: WB I-80 & State Street - 155@273.		141.7039	SBT	196	63	300	200	112	384
3: WB I-80 & State Street - 156@284.		46.79953	SBR	56	45	129	94	71	212
3: WB I-80 & State Street - 157@282.		75.91598	SBT	77	26	120	302	110	484
4: EB I-80 & State Street - 26@79.1 - 1		4.983466	#N/A	1	8	14	1	5	10
4: EB I-80 & State Street - 92@4.6 - 1		0	SBT	0	0	0	3	13	25
4: EB I-80 & State Street - 98@5.1 - 1		0	SBL	0	0	0	2	14	25
4: EB I-80 & State Street - 120@662.8		288.3164	EBL	269	137	495	136	101	302
4: EB I-80 & State Street - 120@662.8		288.3164	EBT	269	137	495	136	101	302
4: EB I-80 & State Street - 120@662.8		288.3164	EBL	269	137	495	136	101	302
4: EB I-80 & State Street - 121@335.3		150.8175	EBR	163	86	304	478	196	801
4: EB I-80 & State Street - 144@79.1 -		144.092	NBT	199	70	315	212	59	310
4: EB I-80 & State Street - 144@79.1 -		144.092	NBT	199	70	315	212	59	310
4: EB I-80 & State Street - 145@75.7 -		124.7791	NBR	174	87	317	182	82	317
4: EB I-80 & State Street - 146@331.7		112.0769	NBT	146	44	219	108	38	170
4: EB I-80 & State Street - 146@331.7		112.0769	NBT	146	44	219	108	38	170
4: EB I-80 & State Street - 10063@4.5		0	SBT	0	0	0	3	13	25
5: Oakland & State Street - 12@206.7		0	SBT	0	0	0	0	0	0
5: Oakland & State Street - 22@609.6		11.64738	WBR	16	14	39	21	12	41
5: Oakland & State Street - 146@91.7		0	NBT	0	1	2	0	0	0
5: Oakland & State Street - 147@79.4		0	NBT	21	38	83	22	37	83

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5: Oakland & State Street - 10010@1.	0	#N/A	26	48	104	28	47	105
6: East Grantie SD RIRO & State Stree	1.909576	SBR	2	9	18	1	5	9
6: East Grantie SD RIRO & State Stree	0	SBT	1	5	9	0	4	6
6: East Grantie SD RIRO & State Stree	31.76323	EBR	25	13	46	34	13	56
6: East Grantie SD RIRO & State Stree	32.40106	NBT	33	53	121	46	78	176
6: East Grantie SD RIRO & State Stree	32.5387	NBT	23	44	96	34	71	151
7: 2700 South & State Street - 14@12	113.6922	SBT	89	29	138	255	50	336
7: 2700 South & State Street - 15@11	176.2824	NBT	178	51	261	217	50	300
7: 2700 South & State Street - 17@64	46.15532	EBR	42	27	87	207	87	350
7: 2700 South & State Street - 17@64	35.46428	EBT	34	29	82	202	87	346
7: 2700 South & State Street - 20@82	56.11282	WBT	59	33	113	58	31	109
7: 2700 South & State Street - 148@2	41.69734	NBL	36	28	82	42	31	94
7: 2700 South & State Street - 149@1	7.027772	NBR	6	11	24	22	16	48
7: 2700 South & State Street - 150@2	54.69929	EBL	84	45	158	198	95	354
7: 2700 South & State Street - 153@3	19.72107	SBL	19	22	56	64	37	125
7: 2700 South & State Street - 154@1	5.186893	SBR	10	13	31	2	6	11
7: 2700 South & State Street - 10014(	41.70547	WBR	47	26	89	26	16	53
7: 2700 South & State Street - 10015(	31.09067	WBL	41	33	96	71	38	134
8: WB I-80 & 700 East - 72@299.7 - 7	140.9789	SBT	146	32	199	278	58	373
8: WB I-80 & 700 East - 80@28.1 - 70	151.6033	NBT	119	69	233	35	26	77
8: WB I-80 & 700 East - 87@30.0 - 13	76.8633	NBL	199	99	362	329	52	415
8: WB I-80 & 700 East - 135@1579.2 -	72.87108	WBL	51	23	89	90	33	145
8: WB I-80 & 700 East - 135@1579.2 -	72.87108	WBL	51	23	89	90	33	145
8: WB I-80 & 700 East - 136@72.0 - 7(	11.03034	WBR	6	18	35	4	13	27
8: WB I-80 & 700 East - 168@218.7 -	87.48818	SBT	101	33	154	176	41	244
8: WB I-80 & 700 East - 169@299.3 -	1.921018	SBR	21	95	178	4	10	20
9: EB I-80 & 700 East - 74@24.8 - 101	86.58818	SBT	71	28	117	104	30	154
9: EB I-80 & 700 East - 78@281.6 - 79	270.4086	NBT	317	206	657	228	54	317
9: EB I-80 & 700 East - 85@22.3 - 140	42.90279	SBL	56	35	113	258	64	363
9: EB I-80 & 700 East - 133@1231.9 -	239.6608	EBL	271	81	405	288	81	421
9: EB I-80 & 700 East - 133@1231.9 -	239.6608	EBL	271	81	405	288	81	421
9: EB I-80 & 700 East - 134@318.9 - 1	0	EBR	7	17	34	14	35	72
9: EB I-80 & 700 East - 166@226.1 - 8	257.5227	NBT	375	321	904	267	104	439
9: EB I-80 & 700 East - 167@274.8 - 1	0	NBR	1	4	8	1	4	7
9: EB I-80 & 700 East - 10188@14.1 -	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 33@121.	0	WBT	0	0	0	0	0	0
10: 2400 S & West Temple - 33@121.	0	WBR	0	0	0	0	0	0
10: 2400 S & West Temple - 33@121.	0	WBL	0	0	0	0	0	0
10: 2400 S & West Temple - 34@51.1	0	EBT	0	0	0	0	2	4
10: 2400 S & West Temple - 34@51.1	0	EBL	0	0	0	0	2	4
10: 2400 S & West Temple - 34@51.1	0	EBR	0	0	0	0	2	4
10: 2400 S & West Temple - 57@353.	0	SBL	1	7	12	1	5	9
10: 2400 S & West Temple - 57@353.	0	SBR	0	3	5	0	0	0
10: 2400 S & West Temple - 57@353.	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1	0	NBL	0	4	7	0	0	0
10: 2400 S & West Temple - 10107@1	0	NBT	0	0	0	0	0	0

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11: Robert Ave. & West Temple - 28@	0	WBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@	0	WBL	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@	0	WBR	0	0	0	0	0	0
11: Robert Ave. & West Temple - 31@	0	EBT	3	9	18	9	12	30
11: Robert Ave. & West Temple - 31@	0	EBR	3	9	18	9	12	30
11: Robert Ave. & West Temple - 31@	0	EBL	3	9	18	9	12	30
11: Robert Ave. & West Temple - 44@	0	NBR	0	0	0	0	0	0
11: Robert Ave. & West Temple - 44@	0	NBL	0	2	4	0	3	5
11: Robert Ave. & West Temple - 44@	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 49@	0	SBL	0	0	0	0	0	0
11: Robert Ave. & West Temple - 49@	0	SBR	0	5	8	1	6	11
11: Robert Ave. & West Temple - 49@	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West Temple - 40(	17.01291	WBT	25	17	52	25	20	58
12: Oakland Ave & West Temple - 40(	17.01291	WBR	25	17	52	25	20	58
12: Oakland Ave & West Temple - 40(	17.01291	WBL	25	17	52	25	20	58
12: Oakland Ave & West Temple - 43(	17.04076	EBT	15	14	38	22	15	46
12: Oakland Ave & West Temple - 43(	16.65659	EBL	14	14	37	21	14	45
12: Oakland Ave & West Temple - 43(	16.6845	EBR	14	14	37	21	14	45
12: Oakland Ave & West Temple - 45(	0	SBL	2	7	13	4	14	27
12: Oakland Ave & West Temple - 45(	0	SBR	0	3	5	2	11	19
12: Oakland Ave & West Temple - 45(	0	SBT	0	0	0	0	2	3
12: Oakland Ave & West Temple - 46(	5.925707	NBR	0	5	9	0	4	7
12: Oakland Ave & West Temple - 46(	5.332815	NBL	1	6	10	2	6	12
12: Oakland Ave & West Temple - 46(	2.023688	NBT	0	2	3	0	0	0
13: 2400 S & Main Street - 54@228.2	45.88483	NBT	46	19	78	135	51	220
13: 2400 S & Main Street - 59@498.4	34.01041	SBT	42	17	69	88	31	140
13: 2400 S & Main Street - 118@666.	184.9093	WBT	210	65	317	100	59	197
13: 2400 S & Main Street - 118@666.	203.8688	WBL	229	65	336	119	59	217
13: 2400 S & Main Street - 118@666.	198.7384	WBR	223	65	331	114	59	211
14: Robert Ave. & Main Street - 55@2	23.11192	SBT	14	13	35	96	42	165
14: Robert Ave. & Main Street - 55@2	23.11192	SBL	14	13	35	96	42	165
14: Robert Ave. & Main Street - 60@6	55.07564	NBT	72	34	128	127	36	186
14: Robert Ave. & Main Street - 60@6	42.52354	NBR	62	35	120	117	36	176
14: Robert Ave. & Main Street - 248@	231.1196	EBL	265	100	430	472	323	1005
14: Robert Ave. & Main Street - 248@	213.4957	EBR	247	100	412	455	324	989
14: Robert Ave. & Main Street - 248@	231.1196	EBT	265	100	430	472	323	1005
15: N Granite SD Access & Main Stree	3.882241	WBR	4	11	22	16	20	49
15: N Granite SD Access & Main Stree	4.289903	WBL	4	11	23	18	20	51
15: N Granite SD Access & Main Stree	0	SBL	1	5	9	10	30	58
15: N Granite SD Access & Main Stree	16.16445	SBT	39	44	112	41	46	117
15: N Granite SD Access & Main Stree	0	NBR	1	7	12	34	39	98
15: N Granite SD Access & Main Stree	0	NBT	0	0	0	5	16	31
16: Oakland Ave. & Main Street - 41@	25.73974	EBL	20	14	43	28	13	49
16: Oakland Ave. & Main Street - 41@	25.73974	EBR	20	14	43	28	13	49
16: Oakland Ave. & Main Street - 63@	0	SBR	1	5	8	1	10	19
16: Oakland Ave. & Main Street - 63@	0	SBT	0	0	0	0	5	8
16: Oakland Ave. & Main Street - 66@	2.243283	NBL	3	8	16	4	8	17

2040 Queue Report (AM PM)

16: Oakland Ave. & Main Street - 66@	0	NBT	0	0	0	0	0	0
17: S Granite SD Access & Main Stree	0	WBR	3	7	14	4	9	18
17: S Granite SD Access & Main Stree	0	WBL	3	7	14	4	9	18
17: S Granite SD Access & Main Stree	0	SBL	2	6	12	1	5	10
17: S Granite SD Access & Main Stree	0	SBT	0	0	0	0	0	0
17: S Granite SD Access & Main Stree	4.268893	NBR	1	4	7	0	1	2
17: S Granite SD Access & Main Stree	0	NBT	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: Split Diamond at Main Street

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	4	19.3	C	0.52	***21.1***	***C***	***35.6***	***E***	5267	5320	99.0%	7833	9850	79.5%	65.62	56.91	0.80	4.55
EB I-80 (State to 700 E)	Weave	5	18.7	B	0.72	***20.5***	***C***	***30.2***	***D***	6461	6530	98.9%	9188	11250	81.7%	66.32	62.22	0.72	1.56
EB I-80 (Over 700 E)	Basic	4	17.8	B	0.65	***19.4***	***C***	***27.8***	***D***	5003	5060	98.9%	7069	8750	80.8%	67.60	64.99	0.66	1.40
WB I-80 (Over 700 E)	Basic	4	71.8	F	9.50	***75.3***	***F***	***39.7***	***E***	5329	8020	66.5%	5966	6130	97.3%	17.50	43.28	9.50	25.50
WB I-80 (700 E to State)	Weave	5	67.4	F	5.60	***67.4***	***F***	***44.2***	***E***	7003	10050	69.7%	7264	7490	97.0%	20.83	40.94	7.45	32.93
WB I-80 (Over State)	Diverge	4	43.7	E	1.94	***49.1***	***F***	***29.8***	***D***	6381	9180	69.5%	6230	6470	96.3%	26.09	58.45	4.05	5.05
WB I-80 to WB CD Ramp	Ramp	2	83.1	F	2.64	***83.1***	***F***	***33.1***	***D***	3564	5250	67.9%	3286	3550	92.6%	21.09	52.94	4.34	11.28
WB I-80 (West of State)	Diverge	3	17.0	B	1.77	***17.0***	***B***	***15.0***	***B***	2668	3930	67.9%	2793	2920	95.7%	64.82	66.48	1.77	1.63
WB I-80 to NB I-15	Ramp	3	13.3	B	1.52	***13.3***	***B***	***13.7***	***B***	2093	3010	69.5%	2187	2240	97.6%	56.05	56.28	1.52	1.68
To SB I-15 Ramp	Ramp	2	13.7	B	0.89	***15.0***	***B***	***16.0***	***B***	1623	1990	81.5%	1695	1770	95.8%	55.84	55.70	1.36	1.63
To WB 201 Ramp	Ramp	2	22.7	B	0.65	***23.2***	***B***	***21.9***	***B***	2521	3690	68.3%	2295	2460	93.3%	55.10	55.17	1.09	3.37
WB I-80 to SB I-15/WB 201	Diverge	3	42.4	E	0.86	***42.4***	***E***	***30.9***	***D***	4067	5680	71.6%	3918	4230	92.6%	53.08	53.25	1.57	3.37
WB CD	Weave (CD)	3	29.2	C	1.37	***30.5***	***C***	***27.8***	***C***	4422	6150	71.9%	4231	4580	92.4%	49.20	52.76	1.77	3.85
I-80 EB OnRamp	Ramp	2	21.1	B	5.14	***21.2***	***B***	***27.8***	***C***	1036	1210	85.6%	1199	1400	85.6%	24.67	22.80	5.14	6.39
EB I-80 I-15 to State	Basic	5	20.2	C	0.65	***22.5***	***C***	***48.5***	***F***	6363	6540	97.3%	8953	11260	79.5%	59.48	37.74	1.48	14.60
NB I-15 Off Ramp 2	Ramp	1	25.9	C	1.11	***28.5***	***C***	***50.9***	***F***	1584	1600	99.0%	1853	1880	98.6%	58.35	40.82	1.33	29.65
NB I-15 Off Ramp 1	Ramp	2	12.0	A	0.22	***12.9***	***B***	***16.8***	***B***	1595	1600	99.7%	1871	1880	99.5%	65.15	58.57	0.22	4.03
EB 201/SB I-15 2	Merge	4	22.0	C	0.27	***23.5***	***C***	***36.3***	***E***	4873	4940	98.6%	7238	9380	77.2%	64.18	50.16	0.60	8.20
EB 201/SB I-15 1	Merge	5	15.5		0.33	***17.1***		***30.2***		4802	4940	97.2%	7113	9380	75.8%	59.20	49.29	0.85	5.71
EB 201 Ramp	Ramp	2	18.4	B	1.10	***20.4***	***B***	***80.3***	***F***	2344	2350	99.8%	2489	4480	55.6%	60.74	15.02	1.91	5.73
SB I-15 Ramp	Ramp	3	13.0	B	0.14	***14.0***	***B***	***27.3***	***C***	2582	2590	99.7%	4880	4900	99.6%	64.89	62.73	0.17	0.98
EB I-80 Ramp	Ramp	2	94.7	F	21.20	***142.2***	***F***	***21.4***	***B***	1712	2030	84.3%	1334	1360	98.1%	5.97	33.55	21.20	10.43

Alternative: Split Diamond w/TT

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8	W-E	EBT	EB							495							900
1: 2100 South & State Street - 2@1436.4	E-W	WBT	WB							689							877
1: 2100 South & State Street - 3@1101.5	N-S	SBT	SB							611							1933
1: 2100 South & State Street - 4@1031.2	S-N	NBT	NB							1289							1058
1: 2100 South & State Street - 159@246	S-E	NBR	NB							181							184
1: 2100 South & State Street - 160@288	S-W	NBL	NB							159							269
1: 2100 South & State Street - 161@166	E-S	WBL	WB							270							273
1: 2100 South & State Street - 162@152	W-N	EBL	EB							143							173
1: 2100 South & State Street - 163@133	N-W	SBR	SB							73							170
1: 2100 South & State Street - 164@371	N-E	SBL	SB							84							220
1: 2100 South & State Street - 165@166	E-N	WBR	WB							86							100
1: 2100 South & State Street - 255@187	W-S	EBR	EB	31.24	C					159	46.34	D					320
2: Street Car Crossing & State Street - 5(	N-S	SBT	SB							888							2277
2: Street Car Crossing & State Street - 5(	N-W	SBR	SB							151							251
2: Street Car Crossing & State Street - 1(	S-N	NBT	NB							1433							1325
2: Street Car Crossing & State Street - 17	W-S	EBR	EB							301							293
2: Street Car Crossing & State Street - 17	W-N	EBL	EB							197							201
2: Street Car Crossing & State Street - 17	S-W	NBL	NB	12.47	B					96	21.02	C					201
3: WB I-80 & State Street - 26@241.7 - 2	SE-NW	#N/A	#N/A							232							236
3: WB I-80 & State Street - 90@9.3 - 10(	S-N	NBT	NB							1207							1058
3: WB I-80 & State Street - 96@8.2 - 11	S-W	NBL	NB							497							392
3: WB I-80 & State Street - 124@1241.9	E-S	WBL	WB							190							329
3: WB I-80 & State Street - 124@1241.9	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 125@250.5 -	E-N	WBR	WB							411							613
3: WB I-80 & State Street - 155@273.1 -	N-S	SBT	SB							581							799
3: WB I-80 & State Street - 156@284.3 -	N-W	SBR	SB	16.55	B					397	29.93	C					586
3: WB I-80 & State Street - 157@282.4 -	N-S	SBT	SB							194							1167
4: EB I-80 & State Street - 26@79.1 - 26(	SW-N	#N/A	#N/A							231							236
4: EB I-80 & State Street - 92@4.6 - 12@	N-S	SBT	SB							0							0
4: EB I-80 & State Street - 98@5.1 - 122(	N-E	SBL	SB							581							799
4: EB I-80 & State Street - 120@662.8 - 8	W-N	EBL	EB							0							0
4: EB I-80 & State Street - 120@662.8 - 1	W-E	EBT	EB							0							0
4: EB I-80 & State Street - 120@662.8 - 1	W-N	EBL	EB							461							259
4: EB I-80 & State Street - 121@335.3 - 1	W-S	EBR	EB							560							652
4: EB I-80 & State Street - 144@79.1 - 8	S-N	NBT	NB	23.25	C					0	17.90	B					0
4: EB I-80 & State Street - 144@79.1 - 1(	S-N	NBT	NB							745							800
4: EB I-80 & State Street - 145@75.7 - 1	S-E	NBR	NB							615							556
4: EB I-80 & State Street - 146@331.7 - 1	S-N	NBT	NB							0							0
4: EB I-80 & State Street - 146@331.7 - 1	S-N	NBT	NB							497							392
4: EB I-80 & State Street - 10063@4.5 - 1	N-S	SBT	SB	2.19	A					383	1.70	A					1495
5: Oakland & State Street - 12@206.7 - 1	N-S	SBT	SB							942							2147
5: Oakland & State Street - 22@609.6 - 1	E-N	WBR	WB							29							49
5: Oakland & State Street - 146@91.7 - 1	S-N	NBT	NB					2.85	A	498					2.81	A	395
5: Oakland & State Street - 147@79.4 - 1	S-N	NBT	NB							1334							1310
5: Oakland & State Street - 10010@1.7 -	SW-E	#N/A	#N/A	2.64	A					13	2.28	A					20
6: East Grantie SD RIRO & State Street -	N-W	SBR	SB							228							68
6: East Grantie SD RIRO & State Street -	N-S	SBT	SB							714							2079
6: East Grantie SD RIRO & State Street -	W-S	EBR	EB							49							97
6: East Grantie SD RIRO & State Street -	S-N	NBT	NB					3.89	A	1346							1330
6: East Grantie SD RIRO & State Street -	S-N	NBT	NB							498							396
7: 2700 South & State Street - 14@1205	N-S	SBT	SB							518							1856
7: 2700 South & State Street - 15@1184	S-N	NBT	NB							1519							1372
7: 2700 South & State Street - 17@647.1	W-S	EBR	EB							40							99
7: 2700 South & State Street - 17@647.1	W-E	EBT	EB							59							331
7: 2700 South & State Street - 20@820.6	E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291	S-W	NBL	NB							120					39.66	E	89
7: 2700 South & State Street - 149@150	S-E	NBR	NB	15.88	B					21	25.88	C					87
7: 2700 South & State Street - 150@28.(	W-N	EBL	EB							149							301
7: 2700 South & State Street - 153@329	N-E	SBL	SB							52							164
7: 2700 South & State Street - 154@188	N-W	SBR	SB							48							9
7: 2700 South & State Street - 10014@5	E-N	WBR	WB							199							69
7: 2700 South & State Street - 10015@1	E-S	WBL	WB							74							129
8: WB I-80 & 700 East - 72@299.7 - 73@	N-S	SBT	SB							652							1768
8: WB I-80 & 700 East - 80@28.1 - 70@8	S-N	NBT	NB							2297							1927
8: WB I-80 & 700 East - 87@30.0 - 137@	S-SW	NBL	NB	28.43	C					812	18.64	B	43.45	C			692
8: WB I-80 & 700 East - 135@1579.2 - 7	E-S	WBL	WB			36.24	C			76							221
8: WB I-80 & 700 East - 135@1579.2 - 1	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@	E-N	WBR	WB							565							564
8: WB I-80 & 700 East - 168@218.7 - 83(	N-S	SBT	SB							300							775
8: WB I-80 & 700 East - 169@299.3 - 13	N-SW	SBR	SB							977							663
9: EB I-80 & 700 East - 74@24.8 - 10189	N-S	SBT	SB							728							1989
9: EB I-80 & 700 East - 78@281.6 - 79@1	S-N	NBT	NB							1543							1070
9: EB I-80 & 700 East - 85@22.3 - 140@(	N-NE	SBL	SB							300							774
9: EB I-80 & 700 East - 133@1231.9 - 79	W-N	EBL	EB	36.64	D					756	23.13	C					858
9: EB I-80 & 700 East - 133@1231.9 - 14	W-NE	EBL	EB							0							0

9: EB I-80 & 700 East - 134@318.9 - 101	W-S	EBR	EB				698				1257
9: EB I-80 & 700 East - 166@226.1 - 86@	S-N	NBT	NB			62.65 F	825			28.59 D	694
9: EB I-80 & 700 East - 167@274.8 - 140	S-NE	NBR	NB				133				151
9: EB I-80 & 700 East - 10188@14.1 - 76	N-S	SBT	SB				77				139
10: 2400 S & West Temple - 33@121.6 - E	W	WBT	WB				0				0
10: 2400 S & West Temple - 33@121.6 - E	N	WBR	WB				0				0
10: 2400 S & West Temple - 33@121.6 - E	S	WBL	WB				0				0
10: 2400 S & West Temple - 34@51.1 - 3	W-E	EBT	EB				0				4
10: 2400 S & West Temple - 34@51.1 - 5	W-N	EBL	EB				0				0
10: 2400 S & West Temple - 34@51.1 - 1	W-S	EBR	EB				0				0
10: 2400 S & West Temple - 57@353.0 - N	E	SBL	SB	0.15 A			6	0.20 A			5
10: 2400 S & West Temple - 57@353.0 - N	W	SBR	SB			0.20 A	0			0.26 A	5
10: 2400 S & West Temple - 57@353.0 - N	S	SBT	SB				138				261
10: 2400 S & West Temple - 10107@1.9 S	E	NBR	NB				5				6
10: 2400 S & West Temple - 10107@1.9 S	W	NBL	NB			0.14 A	4			0.15 A	0
10: 2400 S & West Temple - 10107@1.9 S	N	NBT	NB				190				280
11: Robert Ave. & West Temple - 28@2	E-W	WBT	WB				0				0
11: Robert Ave. & West Temple - 28@2	E-S	WBL	WB				0				0
11: Robert Ave. & West Temple - 28@2	E-N	WBR	WB				0				0
11: Robert Ave. & West Temple - 31@1	W-E	EBT	EB				0				0
11: Robert Ave. & West Temple - 31@1	W-S	EBR	EB				0				10
11: Robert Ave. & West Temple - 31@1	W-N	EBL	EB				4				4
11: Robert Ave. & West Temple - 44@2	S-E	NBR	NB				0				0
11: Robert Ave. & West Temple - 44@2	S-W	NBL	NB				7			0.15 A	6
11: Robert Ave. & West Temple - 44@2	S-N	NBT	NB				195				282
11: Robert Ave. & West Temple - 49@1	N-E	SBL	SB				0				0
11: Robert Ave. & West Temple - 49@1	N-W	SBR	SB			0.06 A	0				5
11: Robert Ave. & West Temple - 49@1	N-S	SBT	SB				137				255
12: Oakland Ave & West Temple - 40@7	E-W	WBT	WB				23				13
12: Oakland Ave & West Temple - 40@7	E-N	WBR	WB			8.68 A	12			9.29 A	26
12: Oakland Ave & West Temple - 40@7	E-S	WBL	WB				15				9
12: Oakland Ave & West Temple - 43@4	W-E	EBT	EB				4				20
12: Oakland Ave & West Temple - 43@4	W-N	EBL	EB				4				9
12: Oakland Ave & West Temple - 43@4	W-S	EBR	EB				11				9
12: Oakland Ave & West Temple - 45@2	N-E	SBL	SB				16				21
12: Oakland Ave & West Temple - 45@2	N-W	SBR	SB				10				5
12: Oakland Ave & West Temple - 45@2	N-S	SBT	SB				112				239
12: Oakland Ave & West Temple - 46@5	S-E	NBR	NB				19				27
12: Oakland Ave & West Temple - 46@5	S-W	NBL	NB				9				11
12: Oakland Ave & West Temple - 46@5	S-N	NBT	NB				184				254
13: 2400 S & Main Street - 54@228.2 - 5	S-N	NBT	NB				422				696
13: 2400 S & Main Street - 59@498.4 - 5	N-S	SBT	SB				200				487
13: 2400 S & Main Street - 118@666.6 - E	W	WBT	WB				892				977
13: 2400 S & Main Street - 118@666.6 - E	S	WBL	WB				0				0
13: 2400 S & Main Street - 118@666.6 - E	N	WBR	WB				0				0
14: Robert Ave. & Main Street - 55@20	N-S	SBT	SB				199				476
14: Robert Ave. & Main Street - 55@20	N-E	SBL	SB				0				11
14: Robert Ave. & Main Street - 60@65.	S-N	NBT	NB				341				501
14: Robert Ave. & Main Street - 60@65.	S-E	NBR	NB				5				5
14: Robert Ave. & Main Street - 248@1	W-N	EBL	EB				82				197
14: Robert Ave. & Main Street - 248@1	W-S	EBR	EB				125				179
14: Robert Ave. & Main Street - 248@1	W-E	EBT	EB				1019				902
15: N Granite SD Access & Main Street -	E-N	WBR	WB				18				60
15: N Granite SD Access & Main Street -	E-S	WBL	WB			3.81 A	16			15.57 C	5
15: N Granite SD Access & Main Street -	N-E	SBL	SB				11				14
15: N Granite SD Access & Main Street -	N-S	SBT	SB				314				641
15: N Granite SD Access & Main Street -	S-E	NBR	NB				9				4
15: N Granite SD Access & Main Street -	S-N	NBT	NB				328				448
16: Oakland Ave. & Main Street - 41@7	W-N	EBL	EB			6.94 A	15			8.98 A	39
16: Oakland Ave. & Main Street - 41@7	W-S	EBR	EB				23				28
16: Oakland Ave. & Main Street - 63@1	N-W	SBR	SB				28				28
16: Oakland Ave. & Main Street - 63@1	N-S	SBT	SB				301				618
16: Oakland Ave. & Main Street - 66@1	S-W	NBL	NB				24				20
16: Oakland Ave. & Main Street - 66@1	S-N	NBT	NB				322				414
17: S Granite SD Access & Main Street -	E-N	WBR	WB			1.33 A	8			2.21 A	19
17: S Granite SD Access & Main Street -	E-S	WBL	WB				17				17
17: S Granite SD Access & Main Street -	N-E	SBL	SB				13				5
17: S Granite SD Access & Main Street -	N-S	SBT	SB				311				640
17: S Granite SD Access & Main Street -	S-E	NBR	NB				51				37
17: S Granite SD Access & Main Street -	S-N	NBT	NB				337				415

2040 Queue Report (AM PM)

Alternative: Split Diamond w/TT

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Stre	W-E	170.4697	EBT	163	46	239	1201	394	1852
1: 2100 South & State Stre	E-W	214.743	WBT	243	80	375	391	127	600
1: 2100 South & State Stre	N-S	94.00281	SBT	109	32	162	470	148	714
1: 2100 South & State Stre	S-N	206.8647	NBT	182	70	298	201	51	285
1: 2100 South & State Stre	S-E	78.80411	NBR	68	76	193	117	93	271
1: 2100 South & State Stre	S-W	61.4495	NBL	81	26	123	123	41	192
1: 2100 South & State Stre	E-S	118.869	WBL	124	45	198	171	109	350
1: 2100 South & State Stre	W-N	70.28759	EBL	76	24	116	294	468	1067
1: 2100 South & State Stre	N-W	17.42454	SBR	19	16	45	30	23	68
1: 2100 South & State Stre	N-E	42.128	SBL	47	20	79	93	32	146
1: 2100 South & State Stre	E-N	15.3503	WBR	11	18	40	12	17	41
1: 2100 South & State Stre	W-S	24.35225	EBR	29	19	60	774	517	1627
2: Street Car Crossing & St	N-S	48.40901	SBT	81	50	163	331	150	579
2: Street Car Crossing & St	N-W	48.40901	SBR	81	50	163	331	150	579
2: Street Car Crossing & St	S-N	127.1251	NBT	148	65	255	55	28	101
2: Street Car Crossing & St	W-S	30.86159	EBR	44	38	107	79	63	183
2: Street Car Crossing & St	W-N	177.1967	EBL	169	60	268	229	128	440
2: Street Car Crossing & St	S-W	12.30119	NBL	29	29	77	109	61	209
3: WB I-80 & State Street ·	SE-NW	5.45406	#N/A	2	13	23	1	9	16
3: WB I-80 & State Street ·	S-N	0	NBT	0	0	0	105	94	259
3: WB I-80 & State Street ·	S-W	0	NBL	1	7	13	71	64	177
3: WB I-80 & State Street ·	E-S	149.6238	WBL	141	45	215	197	56	290
3: WB I-80 & State Street ·	E-W	149.6238	WBT	141	45	215	197	56	290
3: WB I-80 & State Street ·	E-N	198.1882	WBR	229	109	409	378	236	768
3: WB I-80 & State Street ·	N-S	141.7039	SBT	196	63	300	198	110	381
3: WB I-80 & State Street ·	N-W	46.79953	SBR	56	45	129	95	71	213
3: WB I-80 & State Street ·	N-S	75.91598	SBT	77	26	120	303	111	486
4: EB I-80 & State Street -	SW-N	4.983466	#N/A	1	8	14	1	5	10
4: EB I-80 & State Street -	N-S	0	SBT	0	0	0	3	13	25
4: EB I-80 & State Street -	N-E	0	SBL	0	0	0	2	14	25
4: EB I-80 & State Street -	W-N	288.3164	EBL	269	137	495	137	106	312
4: EB I-80 & State Street -	W-E	288.3164	EBT	269	137	495	137	106	312
4: EB I-80 & State Street -	W-N	288.3164	EBL	269	137	495	137	106	312
4: EB I-80 & State Street -	W-S	150.8175	EBR	163	86	304	491	200	820
4: EB I-80 & State Street -	S-N	144.092	NBT	199	70	315	213	59	311
4: EB I-80 & State Street -	S-N	144.092	NBT	199	70	315	213	59	311
4: EB I-80 & State Street -	S-E	124.7791	NBR	174	87	317	182	82	318
4: EB I-80 & State Street -	S-N	112.0769	NBT	146	44	219	109	38	172
4: EB I-80 & State Street -	S-N	112.0769	NBT	146	44	219	109	38	172
4: EB I-80 & State Street -	N-S	0	SBT	0	0	0	3	13	25
5: Oakland & State Street	N-S	0	SBT	0	0	0	0	0	0
5: Oakland & State Street	E-N	11.64738	WBR	16	14	39	21	12	40
5: Oakland & State Street	S-N	0	NBT	0	1	2	0	0	0
5: Oakland & State Street	S-N	0	NBT	21	38	83	22	37	82
5: Oakland & State Street	SW-E	0	#N/A	26	48	104	28	46	104
6: East Grantie SD RIRO &	N-W	1.909576	SBR	2	9	18	1	5	9

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6: East Grantie SD RIRO &	N-S	0	SBT	1	5	9	0	4	6
6: East Grantie SD RIRO &	W-S	31.76323	EBR	25	13	46	34	13	55
6: East Grantie SD RIRO &	S-N	32.40106	NBT	33	53	121	47	79	177
6: East Grantie SD RIRO &	S-N	32.5387	NBT	23	44	96	35	71	152
7: 2700 South & State Stre	N-S	113.6922	SBT	89	29	138	256	50	338
7: 2700 South & State Stre	S-N	176.2824	NBT	178	51	261	219	52	306
7: 2700 South & State Stre	W-S	46.15532	EBR	42	27	87	209	87	352
7: 2700 South & State Stre	W-E	35.46428	EBT	34	29	82	204	87	347
7: 2700 South & State Stre	E-W	56.11282	WBT	59	33	113	58	32	111
7: 2700 South & State Stre	S-W	41.69734	NBL	36	28	82	42	32	94
7: 2700 South & State Stre	S-E	7.027772	NBR	6	11	24	22	16	49
7: 2700 South & State Stre	W-N	54.69929	EBL	84	45	158	199	95	355
7: 2700 South & State Stre	N-E	19.72107	SBL	19	22	56	63	37	124
7: 2700 South & State Stre	N-W	5.186893	SBR	10	13	31	2	6	11
7: 2700 South & State Stre	E-N	41.70547	WBR	47	26	89	26	15	51
7: 2700 South & State Stre	E-S	31.09067	WBL	41	33	96	71	38	135
8: WB I-80 & 700 East - 72	N-S	140.9789	SBT	146	32	199	279	58	374
8: WB I-80 & 700 East - 80	S-N	151.6033	NBT	119	69	233	34	26	77
8: WB I-80 & 700 East - 87	S-SW	76.8633	NBL	199	99	362	330	52	416
8: WB I-80 & 700 East - 13	E-S	72.87108	WBL	51	23	89	91	33	145
8: WB I-80 & 700 East - 13	E-SW	72.87108	WBL	51	23	89	91	33	145
8: WB I-80 & 700 East - 13	E-N	11.03034	WBR	6	18	35	5	14	27
8: WB I-80 & 700 East - 16	N-S	87.48818	SBT	101	33	154	175	40	241
8: WB I-80 & 700 East - 16	N-SW	1.921018	SBR	21	95	178	4	10	20
9: EB I-80 & 700 East - 74(	N-S	86.58818	SBT	71	28	117	104	31	155
9: EB I-80 & 700 East - 78(	S-N	270.4086	NBT	317	206	657	230	55	320
9: EB I-80 & 700 East - 85(	N-NE	42.90279	SBL	56	35	113	257	63	362
9: EB I-80 & 700 East - 133	W-N	239.6608	EBL	271	81	405	288	82	424
9: EB I-80 & 700 East - 133	W-NE	239.6608	EBL	271	81	405	288	82	424
9: EB I-80 & 700 East - 134	W-S	0	EBR	7	17	34	14	36	73
9: EB I-80 & 700 East - 166	S-N	257.5227	NBT	375	321	904	269	105	443
9: EB I-80 & 700 East - 167	S-NE	0	NBR	1	4	8	1	4	7
9: EB I-80 & 700 East - 101	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple	E-W	0	WBT	0	0	0	0	0	0
10: 2400 S & West Temple	E-N	0	WBR	0	0	0	0	0	0
10: 2400 S & West Temple	E-S	0	WBL	0	0	0	0	0	0
10: 2400 S & West Temple	W-E	0	EBT	0	0	0	0	2	4
10: 2400 S & West Temple	W-N	0	EBL	0	0	0	0	2	4
10: 2400 S & West Temple	W-S	0	EBR	0	0	0	0	2	4
10: 2400 S & West Temple	N-E	0	SBL	1	7	12	1	5	9
10: 2400 S & West Temple	N-W	0	SBR	0	3	5	0	1	2
10: 2400 S & West Temple	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple	S-W	0	NBL	0	4	7	0	0	0
10: 2400 S & West Temple	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Te	E-W	0	WBT	0	0	0	0	0	0
11: Robert Ave. & West Te	E-S	0	WBL	0	0	0	0	0	0
11: Robert Ave. & West Te	E-N	0	WBR	0	0	0	0	0	0
11: Robert Ave. & West Te	W-E	0	EBT	3	9	18	9	12	30

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11: Robert Ave. & West Te	W-S	0	EBR	3	9	18	9	12	30
11: Robert Ave. & West Te	W-N	0	EBL	3	9	18	9	12	30
11: Robert Ave. & West Te	S-E	0	NBR	0	0	0	0	0	0
11: Robert Ave. & West Te	S-W	0	NBL	0	2	4	0	3	5
11: Robert Ave. & West Te	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Te	N-E	0	SBL	0	0	0	0	0	0
11: Robert Ave. & West Te	N-W	0	SBR	0	5	8	1	6	11
11: Robert Ave. & West Te	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West T	E-W	17.01291	WBT	25	17	52	25	20	58
12: Oakland Ave & West T	E-N	17.01291	WBR	25	17	52	25	20	58
12: Oakland Ave & West T	E-S	17.01291	WBL	25	17	52	25	20	58
12: Oakland Ave & West T	W-E	17.04076	EBT	15	14	38	22	15	47
12: Oakland Ave & West T	W-N	16.65659	EBL	14	14	37	22	15	46
12: Oakland Ave & West T	W-S	16.6845	EBR	14	14	37	22	15	46
12: Oakland Ave & West T	N-E	0	SBL	2	7	13	4	14	27
12: Oakland Ave & West T	N-W	0	SBR	0	3	5	2	11	19
12: Oakland Ave & West T	N-S	0	SBT	0	0	0	0	2	3
12: Oakland Ave & West T	S-E	5.925707	NBR	0	5	9	0	4	7
12: Oakland Ave & West T	S-W	5.332815	NBL	1	6	10	2	7	13
12: Oakland Ave & West T	S-N	2.023688	NBT	0	2	3	0	0	0
13: 2400 S & Main Street ·	S-N	45.88483	NBT	46	19	78	136	52	221
13: 2400 S & Main Street ·	N-S	34.01041	SBT	42	17	69	88	32	141
13: 2400 S & Main Street ·	E-W	184.9093	WBT	210	65	317	101	59	198
13: 2400 S & Main Street ·	E-S	203.8688	WBL	229	65	336	119	59	217
13: 2400 S & Main Street ·	E-N	198.7384	WBR	223	65	331	114	59	212
14: Robert Ave. & Main St	N-S	23.11192	SBT	14	13	35	96	42	165
14: Robert Ave. & Main St	N-E	23.11192	SBL	14	13	35	96	42	165
14: Robert Ave. & Main St	S-N	55.07564	NBT	72	34	128	127	36	186
14: Robert Ave. & Main St	S-E	42.52354	NBR	62	35	120	117	36	176
14: Robert Ave. & Main St	W-N	231.1196	EBL	265	100	430	482	331	1028
14: Robert Ave. & Main St	W-S	213.4957	EBR	247	100	412	465	332	1012
14: Robert Ave. & Main St	W-E	231.1196	EBT	265	100	430	482	331	1028
15: N Granite SD Access &	E-N	3.882241	WBR	4	11	22	16	20	49
15: N Granite SD Access &	E-S	4.289903	WBL	4	11	23	17	20	51
15: N Granite SD Access &	N-E	0	SBL	1	5	9	10	30	58
15: N Granite SD Access &	N-S	16.16445	SBT	39	44	112	40	46	116
15: N Granite SD Access &	S-E	0	NBR	1	7	12	33	38	97
15: N Granite SD Access &	S-N	0	NBT	0	0	0	5	16	31
16: Oakland Ave. & Main S	W-N	25.73974	EBL	20	14	43	28	13	49
16: Oakland Ave. & Main S	W-S	25.73974	EBR	20	14	43	28	13	49
16: Oakland Ave. & Main S	N-W	0	SBR	1	5	8	1	10	19
16: Oakland Ave. & Main S	N-S	0	SBT	0	0	0	0	5	8
16: Oakland Ave. & Main S	S-W	2.243283	NBL	3	8	16	4	9	18
16: Oakland Ave. & Main S	S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access &	E-N	0	WBR	3	7	14	4	9	18
17: S Granite SD Access &	E-S	0	WBL	3	7	14	4	9	18
17: S Granite SD Access &	N-E	0	SBL	2	6	12	1	5	9
17: S Granite SD Access &	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access &	S-E	4.268893	NBR	1	4	7	0	1	2

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17: S Granite SD Access & S-N	0	NBT	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: Split Diamond w/TT

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	4	19.3	C	0.52	***21.1***	***C***	***35.1***	***E***	5267	5320	99.0%	7836	9850	79.6%	65.62	57.51	0.80	3.22
EB I-80 (State to 700 E)	Weave	5	18.7	B	0.73	***20.5***	***C***	***30.3***	***D***	6461	6530	98.9%	9193	11250	81.7%	66.40	62.20	0.73	1.68
EB I-80 (Over 700 E)	Basic	4	17.8	B	0.68	***19.4***	***C***	***27.6***	***D***	5003	5060	98.9%	7071	8750	80.8%	67.59	65.27	0.68	1.17
WB I-80 (Over 700 E)	Basic	4	69.3	F	6.48	***75.8***	***F***	***38.5***	***E***	5334	8020	66.5%	5995	6130	97.8%	17.40	43.23	8.07	21.25
WB I-80 (700 E to State)	Weave	5	63.9	F	3.25	***66.8***	***F***	***39.9***	***E***	7018	10050	69.8%	7294	7490	97.4%	20.76	44.03	5.34	32.25
WB I-80 (Over State)	Diverge	4	44.4	E	1.97	***45.7***	***F***	***29.6***	***D***	6395	9180	69.7%	6256	6470	96.7%	26.44	58.66	3.84	5.15
WB I-80 to WB CD Ramp	Ramp	2	82.5	F	2.61	***82.7***	***F***	***34.3***	***D***	3576	5250	68.1%	3309	3550	93.2%	21.47	51.96	5.30	19.13
WB I-80 (West of State)	Diverge	3	17.1	B	1.26	***17.1***	***B***	***15.0***	***B***	2674	3930	68.0%	2801	2920	95.9%	64.90	66.44	1.26	1.42
WB I-80 to NB I-15	Ramp	3	13.5	B	1.24	***13.5***	***B***	***13.7***	***B***	2099	3010	69.7%	2193	2240	97.9%	56.09	56.29	1.24	1.44
To SB I-15 Ramp	Ramp	2	13.9	B	0.94	***15.1***	***B***	***15.9***	***B***	1628	1990	81.8%	1704	1770	96.3%	55.62	55.69	1.03	1.45
To WB 201 Ramp	Ramp	2	23.1	B	0.70	***23.1***	***B***	***21.9***	***B***	2520	3690	68.3%	2310	2460	93.9%	55.05	55.14	1.14	3.18
WB I-80 to SB I-15/WB 201	Diverge	3	40.9	E	0.85	***41.5***	***E***	***30.1***	***D***	4073	5680	71.7%	3939	4230	93.1%	53.00	53.76	1.52	3.21
WB CD	Weave (CD)	3	29.1	C	1.27	***30.1***	***C***	***27.4***	***C***	4430	6150	72.0%	4252	4580	92.8%	49.37	52.51	1.83	4.50
I-80 EB OnRamp	Ramp	2	20.1	B	3.20	***20.7***	***B***	***28.4***	***C***	1036	1210	85.6%	1197	1400	85.5%	25.63	22.51	4.06	5.89
EB I-80 I-15 to State	Basic	5	20.2	C	0.66	***22.5***	***C***	***47.9***	***F***	6363	6540	97.3%	8950	11260	79.5%	59.42	38.46	1.48	14.44
NB I-15 Off Ramp 2	Ramp	1	25.9	C	1.11	***28.5***	***C***	***48.1***	***F***	1584	1600	99.0%	1849	1880	98.3%	58.35	41.15	1.33	23.71
NB I-15 Off Ramp 1	Ramp	2	12.0	A	0.22	***12.9***	***B***	***16.9***	***B***	1595	1600	99.7%	1870	1880	99.5%	65.15	58.44	0.22	9.83
EB 201/SB I-15 2	Merge	4	22.0	C	0.27	***23.5***	***C***	***37.6***	***E***	4873	4940	98.6%	7240	9380	77.2%	64.18	50.93	0.60	7.61
EB 201/SB I-15 1	Merge	5	15.5		0.33	***17.1***		***29.6***		4802	4940	97.2%	7118	9380	75.9%	59.20	49.95	0.85	4.61
EB 201 Ramp	Ramp	2	18.4	B	1.10	***20.4***	***B***	***80.4***	***F***	2344	2350	99.8%	2482	4480	55.4%	60.74	14.95	1.91	4.17
SB I-15 Ramp	Ramp	3	13.0	B	0.14	***14.0***	***B***	***27.3***	***C***	2582	2590	99.7%	4880	4900	99.6%	64.89	62.92	0.17	0.99
EB I-80 Ramp	Ramp	2	89.5	F	26.10	***143.5***	***F***	***20.6***	***B***	1724	2030	84.9%	1333	1360	98.0%	5.88	33.96	26.10	7.49

Alternative: Split Diamond (WB)

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7	W-E	EBT	EB							495							893
1: 2100 South & State Street - 2@1436.4 - 6	E-W	WBT	WB							689							877
1: 2100 South & State Street - 3@1101.9 - 5	N-S	SBT	SB							611							1931
1: 2100 South & State Street - 4@1031.1 - 8	S-N	NBT	NB							1283							1051
1: 2100 South & State Street - 159@246.4 -	S-E	NBR	NB							182							177
1: 2100 South & State Street - 160@288.7 -	S-W	NBL	NB							160							263
1: 2100 South & State Street - 161@166.4 -	E-S	WBL	WB							270							272
1: 2100 South & State Street - 162@152.6 -	W-N	EBL	EB							143							172
1: 2100 South & State Street - 163@133.8 -	N-W	SBR	SB							73							170
1: 2100 South & State Street - 164@371.3 -	N-E	SBL	SB							84							219
1: 2100 South & State Street - 165@166.2 -	E-N	WBR	WB							86							100
1: 2100 South & State Street - 255@187.5 -	W-S	EBR	EB	30.94	C					159	48.34	D					319
2: Street Car Crossing & State Street - 5@10	N-S	SBT	SB							889							2261
2: Street Car Crossing & State Street - 5@10	N-W	SBR	SB							150							248
2: Street Car Crossing & State Street - 10@1	S-N	NBT	NB							1424							1299
2: Street Car Crossing & State Street - 174@	W-S	EBR	EB							300							294
2: Street Car Crossing & State Street - 175@	W-N	EBL	EB							197							202
2: Street Car Crossing & State Street - 177@	S-W	NBL	NB	13.23	B					175	28.02	C					349
3: WB I-80 & State Street - 90@9.3 - 10@47	S-N	NBT	NB							1283							1196
3: WB I-80 & State Street - 96@8.2 - 118@4	S-W	NBL	NB							497							392
3: WB I-80 & State Street - 124@1241.9 - 91	E-S	WBL	WB							188							322
3: WB I-80 & State Street - 124@1241.9 - 11	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 125@250.5 - 10	E-N	WBR	WB							404							605
3: WB I-80 & State Street - 155@273.1 - 97	N-S	SBT	SB							581							795
3: WB I-80 & State Street - 156@284.3 - 118	N-W	SBR	SB							396							585
3: WB I-80 & State Street - 157@282.4 - 91	N-S	SBT	SB	17.62	B					194	30.89	C					1164
4: EB I-80 & State Street - 92@6.3 - 12@38.	N-S	SBT	SB							0							0
4: EB I-80 & State Street - 98@6.7 - 122@65	N-E	SBL	SB							581							795
4: EB I-80 & State Street - 120@1814.8 - 89	W-N	EBL	EB							539							394
4: EB I-80 & State Street - 120@1814.8 - 122	W-E	EBT	EB							0							0
4: EB I-80 & State Street - 121@322.7 - 12@	W-S	EBR	EB							685							718
4: EB I-80 & State Street - 144@77.2 - 89@2	S-N	NBT	NB							744							800
4: EB I-80 & State Street - 145@73.8 - 10032	S-E	NBR	NB							617							556
4: EB I-80 & State Street - 146@329.7 - 95@	S-N	NBT	NB							497							392
4: EB I-80 & State Street - 10063@6.1 - 12@	N-S	SBT	SB	22.62	C	33.60	C			381	20.99	C	43.34	C			1485
5: Oakland & State Street - 12@192.0 - 12@	N-S	SBT	SB							1067							2202
5: Oakland & State Street - 22@609.6 - 11@	E-N	WBR	WB					8.02	A	29					8.44	A	49
5: Oakland & State Street - 146@91.7 - 146@	S-N	NBT	NB							498							396
5: Oakland & State Street - 147@79.4 - 11@	S-N	NBT	NB							1333							1310
5: Oakland & State Street - 10010@1.7 - 21@	SW-E	#N/A	#N/A							13							20
6: East Grantie SD RIRO & State Street - 12@	N-W	SBR	SB							230							62
6: East Grantie SD RIRO & State Street - 12@	N-S	SBT	SB							838							2139
6: East Grantie SD RIRO & State Street - 23@	W-S	EBR	EB					6.35	A	49					7.33	A	98
6: East Grantie SD RIRO & State Street - 100	S-N	NBT	NB							1345							1331
6: East Grantie SD RIRO & State Street - 100	S-N	NBT	NB							499							396
7: 2700 South & State Street - 14@1205.4 -	N-S	SBT	SB							579							1879
7: 2700 South & State Street - 15@1184.3 -	S-N	NBT	NB							1519							1372
7: 2700 South & State Street - 17@647.5 - 1	W-S	EBR	EB							40							99
7: 2700 South & State Street - 17@647.5 - 1	W-E	EBT	EB							59							331
7: 2700 South & State Street - 20@820.0 - 1	E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291.2 -	S-W	NBL	NB							120							87
7: 2700 South & State Street - 149@150.8 -	S-E	NBR	NB							21							87
7: 2700 South & State Street - 150@28.0 - 1	W-N	EBL	EB							149							302
7: 2700 South & State Street - 153@329.4 -	N-E	SBL	SB							52							137
7: 2700 South & State Street - 154@188.7 -	N-W	SBR	SB							112							93
7: 2700 South & State Street - 10014@53.9	E-N	WBR	WB							199							69
7: 2700 South & State Street - 10015@17.9	E-S	WBL	WB	15.47	B					74	24.89	C					129
8: WB I-80 & 700 East - 72@299.7 - 73@63.	N-S	SBT	SB							646							1768
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB							2275							1898
8: WB I-80 & 700 East - 87@30.0 - 137@28.	S-SW	NBL	NB							799							694
8: WB I-80 & 700 East - 135@1579.2 - 73@6	E-S	WBL	WB							75							220
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.	E-N	WBR	WB							565							561
8: WB I-80 & 700 East - 168@218.7 - 83@57	N-S	SBT	SB							299							774
8: WB I-80 & 700 East - 169@299.3 - 137@2	N-SW	SBR	SB	28.79	C					966	18.62	B					662
9: EB I-80 & 700 East - 74@24.8 - 10189@12	N-S	SBT	SB							720							1988
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB							1523							1069
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB							301							776
9: EB I-80 & 700 East - 133@1231.9 - 79@5	W-N	EBL	EB							757							830
9: EB I-80 & 700 East - 133@1231.9 - 140@	W-NE	EBL	EB							0							0
9: EB I-80 & 700 East - 134@318.9 - 10188@	W-S	EBR	EB							698							1218
9: EB I-80 & 700 East - 166@226.1 - 86@53.	S-N	NBT	NB							814							696
9: EB I-80 & 700 East - 167@274.8 - 140@6	S-NE	NBR	NB							132							151
9: EB I-80 & 700 East - 10188@14.1 - 76@3.	N-S	SBT	SB	37.30	D	55.77	D			77	21.90	C	38.14	C			143
10: 2400 S & West Temple - 33@121.6 - 35	E-W	WBT	WB							0							0
10: 2400 S & West Temple - 33@121.6 - 56	E-N	WBR	WB							0							0
10: 2400 S & West Temple - 33@121.6 - 101	E-S	WBL	WB							0							0
10: 2400 S & West Temple - 34@51.1 - 32@	W-E	EBT	EB							0							4
10: 2400 S & West Temple - 34@51.1 - 56@	W-N	EBL	EB							0							0
10: 2400 S & West Temple - 34@51.1 - 1010	W-S	EBR	EB							0							0
10: 2400 S & West Temple - 57@353.0 - 32	N-E	SBL	SB							6							5
10: 2400 S & West Temple - 57@353.0 - 35	N-W	SBR	SB							0							5
10: 2400 S & West Temple - 57@353.0 - 101	N-S	SBT	SB							138							261
10: 2400 S & West Temple - 10107@1.9 - 32	S-E	NBR	NB							5							6
10: 2400 S & West Temple - 10107@1.9 - 35	S-W	NBL	NB							4							0
10: 2400 S & West Temple - 10107@1.9 - 56	S-N	NBT	NB							195							286
11: Robert Ave. & West Temple - 28@710.2	E-W	WBT	WB					6.79	A	0					7.45	A	0

11: Robert Ave. & West Temple - 28@710.2 E-S	WBL	WB			10			12	
11: Robert Ave. & West Temple - 28@710.2 E-N	WBR	WB			8			12	
11: Robert Ave. & West Temple - 31@117.4 W-E	EBT	EB		7.22 A	0		9.59 A	5	
11: Robert Ave. & West Temple - 31@117.4 W-S	EBR	EB			0			4	
11: Robert Ave. & West Temple - 31@117.4 W-N	EBL	EB			4			4	
11: Robert Ave. & West Temple - 44@282.3 S-E	NBR	NB			6			5	
11: Robert Ave. & West Temple - 44@282.3 S-W	NBL	NB			7			6	
11: Robert Ave. & West Temple - 44@282.3 S-N	NBT	NB			191			277	
11: Robert Ave. & West Temple - 49@19.8 - N-E	SBL	SB			5			5	
11: Robert Ave. & West Temple - 49@19.8 - N-W	SBR	SB			0			5	
11: Robert Ave. & West Temple - 49@19.8 - N-S	SBT	SB			132			250	
12: Oakland Ave & West Temple - 40@711.0 E-W	WBT	WB		7.72 A	18		8.73 A	4	
12: Oakland Ave & West Temple - 40@711.0 E-N	WBR	WB			10			21	
12: Oakland Ave & West Temple - 40@711.0 E-S	WBL	WB			10			5	
12: Oakland Ave & West Temple - 43@473.0 W-E	EBT	EB		6.54 A	4		8.99 A	20	
12: Oakland Ave & West Temple - 43@473.0 W-N	EBL	EB			4			9	
12: Oakland Ave & West Temple - 43@473.0 W-S	EBR	EB			11			9	
12: Oakland Ave & West Temple - 45@261.8 N-E	SBL	SB			11			10	
12: Oakland Ave & West Temple - 45@261.8 N-W	SBR	SB			10			5	
12: Oakland Ave & West Temple - 45@261.8 N-S	SBT	SB			121			251	
12: Oakland Ave & West Temple - 46@527.0 S-E	NBR	NB			13			22	
12: Oakland Ave & West Temple - 46@527.0 S-W	NBL	NB			9			11	
12: Oakland Ave & West Temple - 46@527.0 S-N	NBT	NB			190			261	
13: 2400 S & Main Street - 54@228.2 - 58@ S-N	NBT	NB			339			494	
13: 2400 S & Main Street - 59@498.4 - 55@ N-S	SBT	SB			196			477	
13: 2400 S & Main Street - 118@666.6 - 36@E-W	WBT	WB			893			977	
13: 2400 S & Main Street - 118@666.6 - 55@E-S	WBL	WB			0			0	
13: 2400 S & Main Street - 118@666.6 - 58@E-N	WBR	WB	11.95 B		0	10.89 B		0	
14: Robert Ave. & Main Street - 26@405.6 - E-W	WBT	WB			0			0	
14: Robert Ave. & Main Street - 26@405.6 - E-N	WBR	WB			0			4	
14: Robert Ave. & Main Street - 26@405.6 - E-S	WBL	WB		7.94 A	4		6.93 A	4	
14: Robert Ave. & Main Street - 29@709.2 - W-E	EBT	EB			0			5	
14: Robert Ave. & Main Street - 29@709.2 - W-N	EBL	EB			7			5	
14: Robert Ave. & Main Street - 29@709.2 - W-S	EBR	EB		7.31 A	4		7.86 A	6	
14: Robert Ave. & Main Street - 55@232.4 - N-E	SBL	SB			0			11	
14: Robert Ave. & Main Street - 55@232.4 - N-W	SBR	SB			10			15	
14: Robert Ave. & Main Street - 55@232.4 - N-S	SBT	SB			185			455	
14: Robert Ave. & Main Street - 60@63.7 - 2S-E	NBR	NB			5			5	
14: Robert Ave. & Main Street - 60@63.7 - 2S-W	NBL	NB			8			9	
14: Robert Ave. & Main Street - 60@63.7 - 5S-N	NBT	NB			333			486	
15: N Granite SD Access & Main Street - 39@E-N	WBR	WB			18			60	
15: N Granite SD Access & Main Street - 39@E-S	WBL	WB		1.74 A	16		1.73 A	5	
15: N Granite SD Access & Main Street - 61@N-E	SBL	SB			12			13	
15: N Granite SD Access & Main Street - 61@N-S	SBT	SB			183			453	
15: N Granite SD Access & Main Street - 62@S-E	NBR	NB			9			4	
15: N Granite SD Access & Main Street - 62@S-N	NBT	NB			328			442	
16: Oakland Ave. & Main Street - 41@707.2 W-N	EBL	EB		6.71 A	10		7.80 A	29	
16: Oakland Ave. & Main Street - 41@707.2 W-S	EBR	EB			17			23	
16: Oakland Ave. & Main Street - 63@154.7 N-W	SBR	SB			17			13	
16: Oakland Ave. & Main Street - 63@154.7 N-S	SBT	SB			181			445	
16: Oakland Ave. & Main Street - 66@184.7 S-W	NBL	NB			21			16	
16: Oakland Ave. & Main Street - 66@184.7 S-N	NBT	NB			324			418	
17: S Granite SD Access & Main Street - 65@E-N	WBR	WB		1.35 A	8		1.96 A	19	
17: S Granite SD Access & Main Street - 65@E-S	WBL	WB			17			17	
17: S Granite SD Access & Main Street - 67@N-E	SBL	SB			14			5	
17: S Granite SD Access & Main Street - 67@N-S	SBT	SB			185			463	
17: S Granite SD Access & Main Street - 69@S-E	NBR	NB			51			37	
17: S Granite SD Access & Main Street - 69@S-N	NBT	NB			337			415	

2040 Queue Report (AM PM)

Alternative: Split Diamond (WB)

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 - 7	W-E	170.4697	EBT	163	40	228	1206	363	1805
1: 2100 South & State Street - 2@1436.4 - 6	E-W	214.0732	WBT	40	75	164	416	158	677
1: 2100 South & State Street - 3@1101.9 - 5	N-S	94.00281	SBT	40	56	132	562	232	945
1: 2100 South & State Street - 4@1031.1 - 8	S-N	217.5202	NBT	76	107	253	193	56	285
1: 2100 South & State Street - 159@246.4 -	S-E	75.79182	NBR	52	73	173	102	85	242
1: 2100 South & State Street - 160@288.7 -	S-W	54.38624	NBL	65	90	213	118	41	185
1: 2100 South & State Street - 161@166.4 -	E-S	118.875	WBL	69	87	212	226	175	514
1: 2100 South & State Street - 162@152.6 -	W-N	70.28434	EBL	52	64	157	387	521	1247
1: 2100 South & State Street - 163@133.8 -	N-W	17.42454	SBR	59	95	217	30	22	66
1: 2100 South & State Street - 164@371.3 -	N-E	42.128	SBL	62	77	190	93	32	145
1: 2100 South & State Street - 165@166.2 -	E-N	15.3503	WBR	40	65	147	12	18	41
1: 2100 South & State Street - 255@187.5 -	W-S	24.35229	EBR	39	73	159	712	492	1523
2: Street Car Crossing & State Street - 5@10	N-S	55.01482	SBT	32	58	127	593	334	1144
2: Street Car Crossing & State Street - 5@10	N-W	55.01482	SBR	25	115	214	593	334	1144
2: Street Car Crossing & State Street - 10@1	S-N	107.783	NBT	29	61	130	77	62	179
2: Street Car Crossing & State Street - 174@	W-S	29.04718	EBR	36	56	128	83	68	196
2: Street Car Crossing & State Street - 175@	W-N	177.1538	EBL	66	105	239	220	120	418
2: Street Car Crossing & State Street - 177@	S-W	44.9705	NBL	51	75	175	326	168	603
3: WB I-80 & State Street - 90@9.3 - 10@47	S-N	0	NBT	77	103	247	103	94	258
3: WB I-80 & State Street - 96@8.2 - 118@4	S-W	0	NBL	70	95	226	70	63	173
3: WB I-80 & State Street - 124@1241.9 - 91	E-S	159.9502	WBL	59	73	180	208	84	347
3: WB I-80 & State Street - 124@1241.9 - 11	E-W	159.9502	WBT	67	87	210	208	84	347
3: WB I-80 & State Street - 125@250.5 - 10(	E-N	189.0752	WBR	64	79	194	450	292	931
3: WB I-80 & State Street - 155@273.1 - 97(	N-S	137.3454	SBT	47	67	158	203	133	423
3: WB I-80 & State Street - 156@284.3 - 118	N-W	53.72816	SBR	43	74	165	110	104	282
3: WB I-80 & State Street - 157@282.4 - 91(	N-S	75.66602	SBT	30	56	122	302	146	543
4: EB I-80 & State Street - 92@6.3 - 12@38.:	N-S	0	SBT	21	102	190	13	33	67
4: EB I-80 & State Street - 98@6.7 - 122@65	N-E	0	SBL	28	62	131	15	42	84
4: EB I-80 & State Street - 120@1814.8 - 89(	W-N	158.8034	EBL	35	53	122	173	179	468
4: EB I-80 & State Street - 120@1814.8 - 12:	W-E	158.8034	EBT	64	105	237	173	179	468
4: EB I-80 & State Street - 121@322.7 - 12@	W-S	131.4137	EBR	57	83	194	1338	376	1958
4: EB I-80 & State Street - 144@77.2 - 89@2	S-N	128.3234	NBT	77	100	243	212	59	310
4: EB I-80 & State Street - 145@73.8 - 10032	S-E	110.5476	NBR	79	97	240	178	88	324
4: EB I-80 & State Street - 146@329.7 - 95@	S-N	116.8329	NBT	59	72	178	108	38	171
4: EB I-80 & State Street - 10063@6.1 - 12@	N-S	0	SBT	67	97	226	13	33	67
5: Oakland & State Street - 12@192.0 - 12@	N-S	0	SBT	52	65	160	1	6	11
5: Oakland & State Street - 22@609.6 - 11@	E-N	11.64078	WBR	40	59	138	21	12	41
5: Oakland & State Street - 146@91.7 - 146(	S-N	0	NBT	47	81	181	0	0	0
5: Oakland & State Street - 147@79.4 - 11@	S-N	10.31227	NBT	31	60	129	22	37	82
5: Oakland & State Street - 10010@1.7 - 21(	SW-E	14.63212	#N/A	31	94	187	28	47	105
6: East Grantie SD RIRO & State Street - 12@	N-W	4.552856	SBR	34	68	146	5	20	38
6: East Grantie SD RIRO & State Street - 12@	N-S	2.810228	SBT	29	44	101	5	18	35
6: East Grantie SD RIRO & State Street - 23@	W-S	31.19347	EBR	60	103	231	34	13	56
6: East Grantie SD RIRO & State Street - 100	S-N	26.55403	NBT	47	68	159	37	70	153
6: East Grantie SD RIRO & State Street - 100	S-N	26.69167	NBT	72	101	238	27	62	129
7: 2700 South & State Street - 14@1205.4 -	N-S	119.2356	SBT	71	83	208	267	58	363
7: 2700 South & State Street - 15@1184.3 -	S-N	172.0255	NBT	68	88	213	215	51	299
7: 2700 South & State Street - 17@647.5 - 1	W-S	46.15078	EBR	76	110	258	209	85	350
7: 2700 South & State Street - 17@647.5 - 1	W-E	35.45974	EBT	60	73	181	204	86	346
7: 2700 South & State Street - 20@820.0 - 1	E-W	56.11394	WBT	47	68	159	58	32	111
7: 2700 South & State Street - 148@291.2 -	S-W	41.77954	NBL	55	83	191	43	34	98

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7: 2700 South & State Street - 149@150.8 -	S-E	7.027016	NBR	33	66	142	21	17	49
7: 2700 South & State Street - 150@28.0 - 1	W-N	54.69747	EBL	30	93	183	200	94	354
7: 2700 South & State Street - 153@329.4 -	N-E	19.35513	SBL	32	64	137	55	33	109
7: 2700 South & State Street - 154@188.7 -	N-W	19.45911	SBR	29	45	103	16	16	42
7: 2700 South & State Street - 10014@53.9	E-N	43.25129	WBR	58	101	224	26	15	51
7: 2700 South & State Street - 10015@17.9	E-S	31.09067	WBL	46	72	164	72	38	135
8: WB I-80 & 700 East - 72@299.7 - 73@63.	N-S	140.9789	SBT	67	88	213	276	54	366
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	158.2984	NBT	64	84	202	32	24	71
8: WB I-80 & 700 East - 87@30.0 - 137@28.	S-SW	67.57577	NBL	55	75	179	332	51	417
8: WB I-80 & 700 East - 135@1579.2 - 73@6	E-S	72.87108	WBL	73	94	228	90	33	145
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	72.87108	WBL	59	71	175	90	33	145
8: WB I-80 & 700 East - 136@72.0 - 70@87.	E-N	11.03034	WBR	52	70	168	5	14	27
8: WB I-80 & 700 East - 168@218.7 - 83@57	N-S	87.48818	SBT	60	79	191	174	39	239
8: WB I-80 & 700 East - 169@299.3 - 137@2	N-SW	1.921018	SBR	35	61	135	4	11	21
9: EB I-80 & 700 East - 74@24.8 - 10189@1	N-S	86.58908	SBT	33	99	197	102	32	154
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	268.7456	NBT	35	67	145	225	43	297
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	42.90279	SBL	31	46	108	257	63	361
9: EB I-80 & 700 East - 133@1231.9 - 79@5	W-N	251.3871	EBL	55	101	222	283	88	429
9: EB I-80 & 700 East - 133@1231.9 - 140@	W-NE	251.3871	EBL	47	74	169	283	88	429
9: EB I-80 & 700 East - 134@318.9 - 10188@	W-S	0	EBR	58	87	202	14	47	92
9: EB I-80 & 700 East - 166@226.1 - 86@53.	S-N	260.2847	NBT	64	90	213	265	93	417
9: EB I-80 & 700 East - 167@274.8 - 140@6	S-NE	0	NBR	55	71	171	1	4	8
9: EB I-80 & 700 East - 10188@14.1 - 76@3.	N-S	0	SBT	60	67	171	0	0	0
10: 2400 S & West Temple - 33@121.6 - 35	E-W	0	WBT	64	71	181	0	0	0
10: 2400 S & West Temple - 33@121.6 - 56	E-N	0	WBR	54	68	166	0	0	0
10: 2400 S & West Temple - 33@121.6 - 101	E-S	0	WBL	68	97	229	0	0	0
10: 2400 S & West Temple - 34@51.1 - 32@	W-E	0	EBT	36	60	134	0	2	4
10: 2400 S & West Temple - 34@51.1 - 56@	W-N	0	EBL	29	75	153	0	2	4
10: 2400 S & West Temple - 34@51.1 - 101	W-S	0	EBR	22	42	91	0	2	4
10: 2400 S & West Temple - 57@353.0 - 32	N-E	0	SBL	32	47	109	1	5	9
10: 2400 S & West Temple - 57@353.0 - 35	N-W	0	SBR	46	90	195	0	1	2
10: 2400 S & West Temple - 57@353.0 - 101	N-S	0	SBT	41	58	138	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 32	S-E	0	NBR	80	108	259	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 35	S-W	0	NBL	51	69	165	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 56	S-N	0	NBT	66	91	216	0	0	0
11: Robert Ave. & West Temple - 28@710.2	E-W	10.43313	WBT	74	81	208	16	15	41
11: Robert Ave. & West Temple - 28@710.2	E-S	10.36658	WBL	66	78	196	16	15	41
11: Robert Ave. & West Temple - 28@710.2	E-N	10.25828	WBR	74	104	246	15	15	41
11: Robert Ave. & West Temple - 31@117.4	W-E	0	EBT	65	86	207	9	12	30
11: Robert Ave. & West Temple - 31@117.4	W-S	0	EBR	36	64	141	9	12	30
11: Robert Ave. & West Temple - 31@117.4	W-N	0	EBL	27	67	138	9	12	30
11: Robert Ave. & West Temple - 44@282.3	S-E	0	NBR	22	41	90	0	1	2
11: Robert Ave. & West Temple - 44@282.3	S-W	0	NBL	31	42	100	0	3	5
11: Robert Ave. & West Temple - 44@282.3	S-N	0	NBT	43	86	184	0	0	0
11: Robert Ave. & West Temple - 49@19.8 -	N-E	0	SBL	43	57	137	1	5	9
11: Robert Ave. & West Temple - 49@19.8 -	N-W	32.37731	SBR	78	111	260	46	42	116
11: Robert Ave. & West Temple - 49@19.8 -	N-S	0	SBT	51	77	178	0	0	0
12: Oakland Ave & West Temple - 40@711.(	E-W	14.46163	WBT	63	84	202	18	16	44
12: Oakland Ave & West Temple - 40@711.(	E-N	14.46163	WBR	82	100	246	18	16	44
12: Oakland Ave & West Temple - 40@711.(	E-S	14.46163	WBL	63	76	188	18	16	44
12: Oakland Ave & West Temple - 43@473.(	W-E	17.04076	EBT	71	100	236	22	15	47
12: Oakland Ave & West Temple - 43@473.(	W-N	16.65659	EBL	65	90	213	22	15	46
12: Oakland Ave & West Temple - 43@473.(	W-S	16.6845	EBR	38	66	147	22	15	46
12: Oakland Ave & West Temple - 45@261.8	N-E	0	SBL	27	67	138	2	10	19

2040 Queue Report (AM PM)

12: Oakland Ave & West Temple - 45@261.8	N-W	0	SBR	25	49	105	1	8	15
12: Oakland Ave & West Temple - 45@261.8	N-S	0	SBT	31	47	109	0	1	2
12: Oakland Ave & West Temple - 46@527.(	S-E	5.925707	NBR	49	91	200	0	4	7
12: Oakland Ave & West Temple - 46@527.(	S-W	5.332815	NBL	45	60	145	2	7	13
12: Oakland Ave & West Temple - 46@527.(	S-N	2.023688	NBT	81	115	271	0	0	0
13: 2400 S & Main Street - 54@228.2 - 58@	S-N	52.07212	NBT	54	77	182	89	34	146
13: 2400 S & Main Street - 59@498.4 - 55@	N-S	31.81015	SBT	66	88	210	82	31	133
13: 2400 S & Main Street - 118@666.6 - 36@	E-W	179.0717	WBT	90	108	268	74	38	136
13: 2400 S & Main Street - 118@666.6 - 55@	E-S	198.0313	WBL	66	75	190	91	40	158
13: 2400 S & Main Street - 118@666.6 - 58@	E-N	192.9008	WBR	71	95	228	86	40	153
14: Robert Ave. & Main Street - 26@405.6 -	E-W	2.50469	WBT	66	88	211	6	10	22
14: Robert Ave. & Main Street - 26@405.6 -	E-N	2.50469	WBR	36	66	146	6	10	22
14: Robert Ave. & Main Street - 26@405.6 -	E-S	2.50469	WBL	28	71	146	6	10	22
14: Robert Ave. & Main Street - 29@709.2 -	W-E	9.722485	EBT	24	43	94	10	13	32
14: Robert Ave. & Main Street - 29@709.2 -	W-N	9.722485	EBL	30	42	99	10	13	32
14: Robert Ave. & Main Street - 29@709.2 -	W-S	9.722485	EBR	42	84	180	10	13	32
14: Robert Ave. & Main Street - 55@232.4 -	N-E	0	SBL	39	58	134	2	8	14
14: Robert Ave. & Main Street - 55@232.4 -	N-W	0	SBR	80	110	261	2	10	19
14: Robert Ave. & Main Street - 55@232.4 -	N-S	0	SBT	53	82	188	1	4	8
14: Robert Ave. & Main Street - 60@63.7 - 2	S-E	0	NBR	57	75	181	5	19	36
14: Robert Ave. & Main Street - 60@63.7 - 2	S-W	0	NBL	72	87	215	1	5	10
14: Robert Ave. & Main Street - 60@63.7 - 5	S-N	0	NBT	54	71	171	0	0	0
15: N Granite SD Access & Main Street - 39@	E-N	0	WBR	68	93	222	6	11	24
15: N Granite SD Access & Main Street - 39@	E-S	0	WBL	70	89	217	7	12	26
15: N Granite SD Access & Main Street - 61@	N-E	0	SBL	47	77	175	1	6	11
15: N Granite SD Access & Main Street - 61@	N-S	0	SBT	41	76	166	12	29	61
15: N Granite SD Access & Main Street - 62@	S-E	0	NBR	33	61	133	0	0	0
15: N Granite SD Access & Main Street - 62@	S-N	0	NBT	32	46	108	0	0	0
16: Oakland Ave. & Main Street - 41@707.2	W-N	23.08612	EBL	43	80	175	24	14	47
16: Oakland Ave. & Main Street - 41@707.2	W-S	23.08612	EBR	41	57	135	24	14	47
16: Oakland Ave. & Main Street - 63@154.7	N-W	0	SBR	76	107	252	0	4	7
16: Oakland Ave. & Main Street - 63@154.7	N-S	0	SBT	54	80	186	0	0	0
16: Oakland Ave. & Main Street - 66@184.7	S-W	2.193804	NBL	63	90	211	2	8	15
16: Oakland Ave. & Main Street - 66@184.7	S-N	0	NBT	70	91	220	0	0	0
17: S Granite SD Access & Main Street - 65@	E-N	0	WBR	58	72	177	4	9	19
17: S Granite SD Access & Main Street - 65@	E-S	0	WBL	63	95	219	4	9	19
17: S Granite SD Access & Main Street - 67@	N-E	1.902874	SBL	64	81	197	1	6	10
17: S Granite SD Access & Main Street - 67@	N-S	0	SBT	44	68	156	0	0	0
17: S Granite SD Access & Main Street - 69@	S-E	4.265461	NBR	39	68	151	0	1	2
17: S Granite SD Access & Main Street - 69@	S-N	0	NBT	34	57	128	0	0	0

Freeway LOS AM PM

Alternative: Split Diamond (WB)

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	4	19.3	C	0.52	***21.1***	***C***	***35.1***	***E***	5267	5320	99.0%	7836	9850	79.6%	65.62	57.51	0.80	3.22
EB I-80 (State to 700 E)	Weave	5	18.7	B	0.73	***20.5***	***C***	***30.3***	***D***	6461	6530	98.9%	9193	11250	81.7%	66.40	62.20	0.73	1.68
EB I-80 (Over 700 E)	Basic	4	17.8	B	0.68	***19.4***	***C***	***27.6***	***D***	5003	5060	98.9%	7071	8750	80.8%	67.59	65.27	0.68	1.17
WB I-80 (Over 700 E)	Basic	4	69.3	F	6.48	***75.8***	***F***	***38.5***	***E***	5334	8020	66.5%	5995	6130	97.8%	17.40	43.23	8.07	21.25
WB I-80 (700 E to State)	Weave	5	64	F	3.25	***66.8***	***F***	***39.1***	***E***	7018	10050	69.8%	7294	7490	97.4%	20.76	44.03	5.34	32.25
WB I-80 (Over State)	Diverge	4	45	F	1.97	***48.1***	***F***	***30.0***	***D***	6395	9180	69.7%	6256	6470	96.7%	26.44	58.66	3.84	5.15
WB I-80 to WB CD Ramp	Ramp	2	82	F	2.61	***82.7***	***F***	***32.3***	***D***	3576	5250	68.1%	3309	3550	93.2%	21.47	51.96	5.30	19.13
WB I-80 (West of State)	Diverge	3	17	B	1.26	***17.1***	***B***	***14.8***	***B***	2674	3930	68.0%	2801	2920	95.9%	64.90	66.44	1.26	1.42
WB I-80 to NB I-15	Ramp	3	13	B	1.24	***13.5***	***B***	***13.7***	***B***	2099	3010	69.7%	2193	2240	97.9%	56.09	56.29	1.24	1.44
To SB I-15 Ramp	Ramp	2	14	B	0.94	***15.1***	***B***	***15.9***	***B***	1628	1990	81.8%	1704	1770	96.3%	55.62	55.69	1.03	1.45
To WB 201 Ramp	Ramp	2	23	B	0.70	***23.1***	***B***	***21.9***	***B***	2520	3690	68.3%	2310	2460	93.9%	55.05	55.14	1.14	3.18
WB I-80 to SB I-15/WB 201	Diverge	3	40	E	0.85	***42.7***	***E***	***30.3***	***D***	4073	5680	71.7%	3939	4230	93.1%	53.00	53.76	1.52	3.21
WB CD	Weave (CD)	3	29	C	1.27	***30.1***	***C***	***27.4***	***C***	4430	6150	72.0%	4252	4580	92.8%	49.37	52.51	1.83	4.50
I-80 EB OnRamp	Ramp	2	20	B	3.20	***20.7***	***B***	***28.4***	***C***	1036	1210	85.6%	1197	1400	85.5%	25.63	22.51	4.06	5.89
EB I-80 I-15 to State	Basic	5	20	C	0.66	***22.5***	***C***	***46.1***	***F***	6363	6540	97.3%	8950	11260	79.5%	59.42	38.46	1.48	14.44
NB I-15 Off Ramp 2	Ramp	1	26	C	1.11	***28.5***	***C***	***48.1***	***F***	1584	1600	99.0%	1849	1880	98.3%	58.35	41.15	1.33	23.71
NB I-15 Off Ramp 1	Ramp	2	12	A	0.22	***12.9***	***B***	***16.9***	***B***	1595	1600	99.7%	1870	1880	99.5%	65.15	58.44	0.22	9.83
EB 201/SB I-15 2	Merge	4	22	C	0.27	***23.5***	***C***	***56.2***	***F***	4873	4940	98.6%	7240	9380	77.2%	64.18	50.93	0.60	7.61
EB 201/SB I-15 1	Merge	5	15.5		0.33	***17.1***		***29.6***		4802	4940	97.2%	7118	9380	75.9%	59.20	49.95	0.85	4.61
EB 201 Ramp	Ramp	2	18.4	B	1.10	***20.4***	***B***	***80.4***	***F***	2344	2350	99.8%	2482	4480	55.4%	60.74	14.95	1.91	4.17
SB I-15 Ramp	Ramp	3	13.0	B	0.14	***14.0***	***B***	***27.3***	***C***	2582	2590	99.7%	4880	4900	99.6%	64.89	62.92	0.17	0.99
EB I-80 Ramp	Ramp	2	89.5	F	26.10	***143.5***	***F***	***20.6***	***B***	1724	2030	84.9%	1333	1360	98.0%	5.88	33.96	26.10	7.49

Alternative: DDI

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7	W-E	EBT	EB							680							771
1: 2100 South & State Street - 2@1436.4 - 6	E-W	WBT	WB							246							1043
1: 2100 South & State Street - 3@1101.9 - 9	N-S	SBT	SB							690							427
1: 2100 South & State Street - 4@1031.1 - 8	S-N	NBT	NB							1208							697
1: 2100 South & State Street - 159@246.4 - S	S-E	NBR	NB							350							697
1: 2100 South & State Street - 160@288.7 - S	S-W	NBL	NB							678							686
1: 2100 South & State Street - 161@166.4 - E	E-S	WBL	WB							375							387
1: 2100 South & State Street - 162@152.6 - W	W-N	EBL	EB							723							326
1: 2100 South & State Street - 163@133.8 - N	N-W	SBR	SB							446							159
1: 2100 South & State Street - 164@371.3 - N	N-E	SBL	SB							416							227
1: 2100 South & State Street - 165@166.2 - E	N-E	WBR	WB							289							676
1: 2100 South & State Street - 255@187.5 - W	W-S	EBR	EB	32.18	C					543	61.73	E					670
2: Street Car Crossing & State Street - 5@1(	N-S	SBT	SB							387							927
2: Street Car Crossing & State Street - 5@1(	N-W	SBR	SB							473							207
2: Street Car Crossing & State Street - 10@9	S-N	NBT	NB							609							714
2: Street Car Crossing & State Street - 174@	W-S	EBR	EB					28.59	D	291							334
2: Street Car Crossing & State Street - 175@	W-N	EBL	EB							789							1271
2: Street Car Crossing & State Street - 177@	S-W	NBL	NB	12.98	B					97	38.57	D					1449
3: DDI I-80 & State Street (1) - 11@58.0 - 9	S-N	NBT	NB							548							614
3: DDI I-80 & State Street (1) - 11@58.0 - 1	S-NE	NBR	NB							876							748
3: DDI I-80 & State Street (1) - 94@407.5 -	N-S	SBT	SB			14.87	B			305			25.45	B			630
3: DDI I-80 & State Street (1) - 94@407.5 -	N-E	SBL	SB							657							682
3: DDI I-80 & State Street (1) - 120@1708.2	W-N	EBL	EB							287							583
3: DDI I-80 & State Street (1) - 121@145.6	NW-S	#N/A	#N/A	7.96	A					679	12.17	B					409
4: DDI I-80 & State Street (2) - 93@298.7 -	S-N	NBT	NB							406							676
4: DDI I-80 & State Street (2) - 93@298.7 -	S-W	NBL	NB							386							516
4: DDI I-80 & State Street (2) - 124@1207.6	E-S	WBL	WB							283							914
4: DDI I-80 & State Street (2) - 125@275.1	SE-N	#N/A	#N/A							501							834
4: DDI I-80 & State Street (2) - 156@113.5	N-SW	SBR	SB							184							966
4: DDI I-80 & State Street (2) - 157@62.8 -	N-S	SBT	SB	9.60	A					423	19.97	B					434
5: Oakland & State Street - 12@63.2 - 12@	N-S	SBT	SB							301							676
5: Oakland & State Street - 22@609.6 - 11@	E-N	WBR	WB					16.08	C	222					23.96	C	171
5: Oakland & State Street - 147@74.0 - 11@	S-N	NBT	NB							687							766
5: Oakland & State Street - 147@74.0 - 21@	S-E	NBR	NB							52							1175
6: East Grantie SD RIRO & State Street - 12(	N-W	SBR	SB							246							575
6: East Grantie SD RIRO & State Street - 12(	N-S	SBT	SB							813							704
6: East Grantie SD RIRO & State Street - 23(	W-S	EBR	EB					6.92	A	217					7.99	A	645
6: East Grantie SD RIRO & State Street - 10(	S-N	NBT	NB							473							700
7: 2700 South & State Street - 14@1205.4 - N	S-S	SBT	SB							162							531
7: 2700 South & State Street - 15@1184.3 - S	S-N	NBT	NB							579							340
7: 2700 South & State Street - 17@647.5 - 1	W-S	EBR	EB							83							597
7: 2700 South & State Street - 17@647.5 - 1	W-E	EBT	EB							279							477
7: 2700 South & State Street - 20@820.0 - 1	E-W	WBT	WB							262							352
7: 2700 South & State Street - 148@291.2 - S	S-W	NBL	NB							499							770
7: 2700 South & State Street - 149@150.8 - S	S-E	NBR	NB							80							650
7: 2700 South & State Street - 150@28.0 - 1	W-N	EBL	EB							245							356
7: 2700 South & State Street - 153@329.4 - N	N-E	SBL	SB							63							620
7: 2700 South & State Street - 154@188.7 - N	N-W	SBR	SB	15.13	B					207	22.46	C					68
7: 2700 South & State Street - 10014@53.9	E-N	WBR	WB							267							531
7: 2700 South & State Street - 10015@17.9	E-S	WBL	WB							59							1023
8: WB I-80 & 700 East - 72@299.7 - 73@63	N-S	SBT	SB							192							193
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB							638							482
8: WB I-80 & 700 East - 87@30.0 - 137@28	S-SW	NBL	NB							240							460
8: WB I-80 & 700 East - 135@1579.2 - 73@	E-S	WBL	WB							27							536
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	WBL	WB							49							239
8: WB I-80 & 700 East - 136@72.0 - 70@87	E-N	WBR	WB							223							261
8: WB I-80 & 700 East - 168@218.7 - 83@5	N-S	SBT	SB							88							641
8: WB I-80 & 700 East - 169@299.3 - 137@	N-SW	SBR	SB	10.88						254							376
9: EB I-80 & 700 East - 74@24.8 - 10189@1	N-S	SBT	SB							223							232
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB							467							280
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB							175							110
9: EB I-80 & 700 East - 133@1231.9 - 79@5	W-N	EBL	EB							178							355
9: EB I-80 & 700 East - 133@1231.9 - 140@	W-NE	EBL	EB							52							201
9: EB I-80 & 700 East - 134@318.9 - 10188@	W-S	EBR	EB			50.14	D			220			34.12	C			76
9: EB I-80 & 700 East - 166@226.1 - 86@53	S-N	NBT	NB							242							453
9: EB I-80 & 700 East - 167@274.8 - 140@6	S-NE	NBR	NB							43							535
9: EB I-80 & 700 East - 10188@14.1 - 76@3	N-S	SBT	SB	19.09						21							185
10: 2400 S & West Temple - 33@704.1 - 35	E-W	WBT	WB							30							66
10: 2400 S & West Temple - 33@704.1 - 56	E-N	WBR	WB							6							66
10: 2400 S & West Temple - 33@704.1 - 10	E-S	WBL	WB					6.82	A	6					7.50	A	217
10: 2400 S & West Temple - 34@51.1 - 32@	W-E	EBT	EB							48							184
10: 2400 S & West Temple - 34@51.1 - 56@	W-N	EBL	EB							54							168
10: 2400 S & West Temple - 34@51.1 - 101	W-S	EBR	EB							48							536
10: 2400 S & West Temple - 57@353.0 - 32	N-E	SBL	SB							3							319
10: 2400 S & West Temple - 57@353.0 - 35	N-W	SBR	SB							38							316

10: 2400 S & West Temple - 57@353.0 - 10	N-S	SBT	SB				122				231
10: 2400 S & West Temple - 10107@1.9 - 3	S-E	NBR	NB				91				84
10: 2400 S & West Temple - 10107@1.9 - 3	S-W	NBL	NB	0.38	A		7				433
10: 2400 S & West Temple - 10107@1.9 - 5	S-N	NBT	NB				49				169
11: Robert Ave. & West Temple - 28@710.2	E-W	WBT	WB				94				40
11: Robert Ave. & West Temple - 28@710.2	E-S	WBL	WB				6				43
11: Robert Ave. & West Temple - 28@710.2	E-N	WBR	WB				84				65
11: Robert Ave. & West Temple - 31@117.4	W-E	EBT	EB				5				11
11: Robert Ave. & West Temple - 31@117.4	W-S	EBR	EB				36				7
11: Robert Ave. & West Temple - 31@117.4	W-N	EBL	EB			7.25	A 10			9.49	A 68
11: Robert Ave. & West Temple - 44@282.3	S-E	NBR	NB				49				77
11: Robert Ave. & West Temple - 44@282.3	S-W	NBL	NB				57				117
11: Robert Ave. & West Temple - 44@282.3	S-N	NBT	NB				127				6
11: Robert Ave. & West Temple - 49@19.8	N-E	SBL	SB				51				72
11: Robert Ave. & West Temple - 49@19.8	N-W	SBR	SB				9				183
11: Robert Ave. & West Temple - 49@19.8	N-S	SBT	SB				39				147
12: Oakland Ave & West Temple - 40@711.	E-W	WBT	WB				134				4
12: Oakland Ave & West Temple - 40@711.	E-N	WBR	WB				111				77
12: Oakland Ave & West Temple - 40@711.	E-S	WBL	WB			7.09	A 90			7.77	A 232
12: Oakland Ave & West Temple - 43@473.	W-E	EBT	EB				17				5
12: Oakland Ave & West Temple - 43@473.	W-N	EBL	EB				115				113
12: Oakland Ave & West Temple - 43@473.	W-S	EBR	EB				8				11
12: Oakland Ave & West Temple - 45@261.	N-E	SBL	SB				208				72
12: Oakland Ave & West Temple - 45@261.	N-W	SBR	SB				18				11
12: Oakland Ave & West Temple - 45@261.	N-S	SBT	SB				54				116
12: Oakland Ave & West Temple - 46@527.	S-E	NBR	NB				21				79
12: Oakland Ave & West Temple - 46@527.	S-W	NBL	NB				53				171
12: Oakland Ave & West Temple - 46@527.	S-N	NBT	NB				51				118
13: 2400 S & Main Street - 32@716.9 - 36@	W-E	EBT	EB				82				9
13: 2400 S & Main Street - 32@716.9 - 55@	W-S	EBR	EB				54				66
13: 2400 S & Main Street - 32@716.9 - 58@	W-N	EBL	EB			6.31	A 9			7.89	A 238
13: 2400 S & Main Street - 54@239.9 - 33@	S-W	NBL	NB				26				158
13: 2400 S & Main Street - 54@239.9 - 36@	S-E	NBR	NB				138				108
13: 2400 S & Main Street - 54@239.9 - 58@	S-N	NBT	NB				238				8
13: 2400 S & Main Street - 59@503.7 - 33@	N-W	SBR	SB				89				238
13: 2400 S & Main Street - 59@503.7 - 36@	N-E	SBL	SB				124				4
13: 2400 S & Main Street - 59@503.7 - 55@	N-S	SBT	SB				282				115
14: Robert Ave. & Main Street - 26@405.6 ·	E-W	WBT	WB				198				9
14: Robert Ave. & Main Street - 26@405.6 ·	E-N	WBR	WB				442				68
14: Robert Ave. & Main Street - 26@405.6 ·	E-S	WBL	WB			7.24	A 101			7.32	A 11
14: Robert Ave. & Main Street - 29@709.2 ·	W-E	EBT	EB				65				115
14: Robert Ave. & Main Street - 29@709.2 ·	W-N	EBL	EB				87				70
14: Robert Ave. & Main Street - 29@709.2 ·	W-S	EBR	EB				104				106
14: Robert Ave. & Main Street - 55@232.4 ·	N-E	SBL	SB				71				128
14: Robert Ave. & Main Street - 55@232.4 ·	N-W	SBR	SB				124				6
14: Robert Ave. & Main Street - 55@232.4 ·	N-S	SBT	SB				113				3
14: Robert Ave. & Main Street - 60@63.7 -	S-E	NBR	NB				150				246
14: Robert Ave. & Main Street - 60@63.7 -	S-W	NBL	NB				245				145
14: Robert Ave. & Main Street - 60@63.7 -	S-N	NBT	NB				202				107
15: N Granite SD Access & Main Street - 39	E-N	WBR	WB				456				236
15: N Granite SD Access & Main Street - 39	E-S	WBL	WB				169				443
15: N Granite SD Access & Main Street - 61	N-E	SBL	SB			0.72	A 216			1.14	A 424
15: N Granite SD Access & Main Street - 61	N-S	SBT	SB				271				369
15: N Granite SD Access & Main Street - 62	S-E	NBR	NB				458				55
15: N Granite SD Access & Main Street - 62	S-N	NBT	NB				616				73
16: Oakland Ave. & Main Street - 41@707.2	W-N	EBL	EB				140				67
16: Oakland Ave. & Main Street - 41@707.2	W-S	EBR	EB				228				166
16: Oakland Ave. & Main Street - 63@154.7	N-W	SBR	SB			6.60	A 273			7.72	A 45
16: Oakland Ave. & Main Street - 63@154.7	N-S	SBT	SB				241				160
16: Oakland Ave. & Main Street - 66@184.7	S-W	NBL	NB				342				139
16: Oakland Ave. & Main Street - 66@184.7	S-N	NBT	NB				227				88
17: S Granite SD Access & Main Street - 65	E-N	WBR	WB				74				511
17: S Granite SD Access & Main Street - 65	E-S	WBL	WB			0.73	A 136			1.78	A 293
17: S Granite SD Access & Main Street - 67	N-E	SBL	SB				311				356
17: S Granite SD Access & Main Street - 67	N-S	SBT	SB				270				181
17: S Granite SD Access & Main Street - 69	S-E	NBR	NB				610				265
17: S Granite SD Access & Main Street - 69	S-N	NBT	NB				168				402

2040 Queue Report (AM PM)

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Stre	W-E	172.6588	EBT	162	45	236	1169	414	1852
1: 2100 South & State Stre	E-W	214.0483	WBT	243	79	373	547	272	996
1: 2100 South & State Stre	N-S	92.08828	SBT	107	30	156	789	289	1266
1: 2100 South & State Stre	S-N	226.3343	NBT	184	61	285	172	85	312
1: 2100 South & State Stre	S-E	72.11842	NBR	79	96	237	96	97	255
1: 2100 South & State Stre	S-W	71.93732	NBL	76	28	122	139	46	215
1: 2100 South & State Stre	E-S	118.8749	WBL	121	33	175	429	306	933
1: 2100 South & State Stre	W-N	70.28429	EBL	75	22	111	155	258	580
1: 2100 South & State Stre	N-W	17.41647	SBR	19	16	46	27	43	99
1: 2100 South & State Stre	N-E	44.38279	SBL	47	18	77	89	35	147
1: 2100 South & State Stre	E-N	19.26697	WBR	12	20	44	12	18	43
1: 2100 South & State Stre	W-S	24.31948	EBR	29	16	56	779	521	1638
2: Street Car Crossing & St	N-S	53.00325	SBT	88	54	177	932	250	1344
2: Street Car Crossing & St	N-W	53.00325	SBR	88	54	177	932	241	1330
2: Street Car Crossing & St	S-N	95.9188	NBT	131	61	231	162	178	455
2: Street Car Crossing & St	W-S	28.93771	EBR	43	39	107	96	57	191
2: Street Car Crossing & St	W-N	177.1855	EBL	171	61	271	198	105	372
2: Street Car Crossing & St	S-W	14.56448	NBL	63	44	135	555	246	960
3: DDI I-80 & State Street	S-N	135.725	NBT	0	1	2	195	51	279
3: DDI I-80 & State Street	S-NE	71.404	NBR	0	0	0	150	88	296
3: DDI I-80 & State Street	N-S	60.07236	SBT	0	0	0	262	115	452
3: DDI I-80 & State Street	N-E	0	SBL	116	47	193	142	108	320
3: DDI I-80 & State Street	W-N	102.4758	EBL	116	47	193	94	42	163
3: DDI I-80 & State Street	NW-S	0	#N/A	116	47	193	7	55	98
4: DDI I-80 & State Street	S-N	94.6593	NBT	179	110	360	185	85	326
4: DDI I-80 & State Street	S-W	0	NBL	235	63	340	18	60	117
4: DDI I-80 & State Street	E-S	31.75631	WBL	74	62	176	75	36	134
4: DDI I-80 & State Street	SE-N	16.821	#N/A	77	60	176	85	169	364
4: DDI I-80 & State Street	N-SW	2.184728	SBR	79	28	126	3	9	17
4: DDI I-80 & State Street	N-S	84.41385	SBT	0	0	0	347	254	767
5: Oakland & State Street	N-S	6.329147	SBT	0	2	3	0	9	15
5: Oakland & State Street	E-N	11.6267	WBR	0	2	3	23	15	48
5: Oakland & State Street	S-N	20.45915	NBT	242	78	371	55	47	132
5: Oakland & State Street	S-E	29.45422	NBR	242	78	371	76	69	189
6: East Grantie SD RIRO &	N-W	11.69564	SBR	242	78	371	3	13	25
6: East Grantie SD RIRO &	N-S	8.052875	SBT	166	125	372	2	41	69
6: East Grantie SD RIRO &	W-S	31.25486	EBR	252	58	348	35	14	58
6: East Grantie SD RIRO &	S-N	19.32607	NBT	219	96	378	41	72	160
7: 2700 South & State Stre	N-S	97.47764	SBT	220	95	377	314	96	471
7: 2700 South & State Stre	S-N	171.3215	NBT	158	49	239	221	50	304
7: 2700 South & State Stre	W-S	46.15191	EBR	0	0	0	208	87	351
7: 2700 South & State Stre	W-E	35.46087	EBT	0	0	0	203	87	346
7: 2700 South & State Stre	E-W	56.11973	WBT	16	13	38	57	31	109
7: 2700 South & State Stre	S-W	51.8959	NBL	1	4	7	41	30	91
7: 2700 South & State Stre	S-E	7.027772	NBR	49	49	130	22	22	58

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7: 2700 South & State Stre	W-N	54.71886	EBL	68	66	177	198	93	351
7: 2700 South & State Stre	N-E	23.30068	SBL	5	15	30	71	45	146
7: 2700 South & State Stre	N-W	29.90936	SBR	3	10	20	19	22	55
7: 2700 South & State Stre	E-N	41.68093	WBR	25	13	46	26	17	54
7: 2700 South & State Stre	E-S	31.09067	WBL	126	146	367	71	39	134
8: WB I-80 & 700 East - 72	N-S	141.1611	SBT	115	149	360	274	53	361
8: WB I-80 & 700 East - 80	S-N	127.1706	NBT	92	27	136	35	27	80
8: WB I-80 & 700 East - 87	S-SW	77.20374	NBL	176	50	259	331	52	417
8: WB I-80 & 700 East - 13	E-S	77.62609	WBL	42	25	84	92	33	146
8: WB I-80 & 700 East - 13	E-SW	77.62609	WBL	34	27	79	92	33	146
8: WB I-80 & 700 East - 13	E-N	16.08448	WBR	60	36	120	4	14	27
8: WB I-80 & 700 East - 16	N-S	87.48818	SBT	38	26	81	175	43	247
8: WB I-80 & 700 East - 16	N-SW	1.921018	SBR	6	12	25	4	10	20
9: EB I-80 & 700 East - 74(	N-S	86.4683	SBT	86	46	161	106	31	157
9: EB I-80 & 700 East - 78(	S-N	248.9908	NBT	20	23	57	231	61	332
9: EB I-80 & 700 East - 85(	N-NE	42.90279	SBL	17	17	45	256	63	360
9: EB I-80 & 700 East - 133	W-N	253.4357	EBL	48	25	89	291	87	434
9: EB I-80 & 700 East - 133	W-NE	253.4357	EBL	42	34	98	291	87	434
9: EB I-80 & 700 East - 134	W-S	0	EBR	144	36	203	12	29	59
9: EB I-80 & 700 East - 166	S-N	214.5119	NBT	83	63	187	276	116	468
9: EB I-80 & 700 East - 167	S-NE	0	NBR	292	129	504	0	10	16
9: EB I-80 & 700 East - 101	N-S	0	SBT	45	29	93	0	11	18
10: 2400 S & West Temple	E-W	7.350483	WBT	45	29	93	10	23	48
10: 2400 S & West Temple	E-N	7.350483	WBR	6	18	36	10	23	48
10: 2400 S & West Temple	E-S	7.350483	WBL	100	37	161	10	18	39
10: 2400 S & West Temple	W-E	0	EBT	424	500	1249	0	25	41
10: 2400 S & West Temple	W-N	0	EBL	65	30	115	0	2	4
10: 2400 S & West Temple	W-S	0	EBR	592	580	1548	0	2	4
10: 2400 S & West Temple	N-E	0	SBL	59	35	116	1	6	11
10: 2400 S & West Temple	N-W	0	SBR	271	81	405	0	4	7
10: 2400 S & West Temple	N-S	0	SBT	271	81	405	0	4	7
10: 2400 S & West Temple	S-E	0	NBR	5	13	26	0	0	0
10: 2400 S & West Temple	S-W	0	NBL	894	641	1951	0	0	0
10: 2400 S & West Temple	S-N	0	NBT	1	4	7	0	0	0
11: Robert Ave. & West Te	E-W	2.575479	WBT	0	0	0	7	12	28
11: Robert Ave. & West Te	E-S	2.558841	WBL	17	15	42	7	12	27
11: Robert Ave. & West Te	E-N	2.531768	WBR	17	15	42	7	12	27
11: Robert Ave. & West Te	W-E	0	EBT	17	15	42	9	12	29
11: Robert Ave. & West Te	W-S	0	EBR	0	0	0	9	12	29
11: Robert Ave. & West Te	W-N	0	EBL	0	0	0	9	12	29
11: Robert Ave. & West Te	S-E	0	NBR	0	0	0	0	4	6
11: Robert Ave. & West Te	S-W	0	NBL	1	6	12	0	4	8
11: Robert Ave. & West Te	S-N	0	NBT	0	3	6	0	3	5
11: Robert Ave. & West Te	N-E	2.913105	SBL	0	0	0	1	6	10
11: Robert Ave. & West Te	N-W	8.146827	SBR	0	2	4	23	35	81
11: Robert Ave. & West Te	N-S	0	SBT	1	5	9	0	3	4
12: Oakland Ave & West T	E-W	16.71183	WBT	0	0	0	17	15	41

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12: Oakland Ave & West T	E-N	16.71183	WBR	6	12	26	17	15	41
12: Oakland Ave & West T	E-S	16.71183	WBL	6	12	26	17	15	41
12: Oakland Ave & West T	W-E	17.04076	EBT	6	12	25	22	14	46
12: Oakland Ave & West T	W-N	16.65659	EBL	3	10	19	21	16	49
12: Oakland Ave & West T	W-S	16.6845	EBR	3	10	19	22	14	45
12: Oakland Ave & West T	N-E	0	SBL	3	10	19	2	10	19
12: Oakland Ave & West T	N-W	0	SBR	0	1	2	1	9	15
12: Oakland Ave & West T	N-S	0	SBT	0	0	0	0	2	4
12: Oakland Ave & West T	S-E	5.925707	NBR	0	0	0	0	4	6
12: Oakland Ave & West T	S-W	5.332815	NBL	1	6	11	2	7	13
12: Oakland Ave & West T	S-N	2.023688	NBT	19	35	76	0	3	4
13: 2400 S & Main Street ·	W-E	9.74766	EBT	0	0	0	9	12	30
13: 2400 S & Main Street ·	W-S	9.74766	EBR	20	15	45	9	12	30
13: 2400 S & Main Street ·	W-N	9.74766	EBL	20	15	45	9	12	30
13: 2400 S & Main Street ·	S-W	0	NBL	20	15	45	1	4	7
13: 2400 S & Main Street ·	S-E	0	NBR	15	15	39	0	2	4
13: 2400 S & Main Street ·	S-N	0	NBT	14	15	38	0	0	0
13: 2400 S & Main Street ·	N-W	0	SBR	14	15	38	0	3	4
13: 2400 S & Main Street ·	N-E	0	SBL	1	6	11	0	2	4
13: 2400 S & Main Street ·	N-S	0	SBT	0	0	0	0	2	4
14: Robert Ave. & Main St	E-W	2.669583	WBT	0	0	0	6	10	23
14: Robert Ave. & Main St	E-N	2.669583	WBR	0	5	8	6	10	22
14: Robert Ave. & Main St	E-S	2.669583	WBL	0	5	8	6	10	22
14: Robert Ave. & Main St	W-E	10.32267	EBT	0	2	3	11	14	33
14: Robert Ave. & Main St	W-N	10.32267	EBL	8	11	27	11	14	33
14: Robert Ave. & Main St	W-S	10.32267	EBR	8	11	27	11	14	33
14: Robert Ave. & Main St	N-E	0	SBL	8	11	27	1	7	13
14: Robert Ave. & Main St	N-W	0	SBR	46	31	97	0	6	10
14: Robert Ave. & Main St	N-S	0	SBT	46	31	97	0	3	4
14: Robert Ave. & Main St	S-E	0	NBR	46	31	97	5	19	36
14: Robert Ave. & Main St	S-W	0	NBL	0	4	7	1	4	8
14: Robert Ave. & Main St	S-N	0	NBT	0	0	0	0	3	5
15: N Granite SD Access &	E-N	0	WBR	0	0	0	5	9	20
15: N Granite SD Access &	E-S	0	WBL	0	0	0	5	10	22
15: N Granite SD Access &	N-E	2.174524	SBL	0	0	0	2	5	10
15: N Granite SD Access &	N-S	0	SBT	0	0	0	7	23	45
15: N Granite SD Access &	S-E	0	NBR	3	9	18	0	0	0
15: N Granite SD Access &	S-N	0	NBT	3	9	18	0	0	0
16: Oakland Ave. & Main S	W-N	23.08612	EBL	3	9	18	25	13	46
16: Oakland Ave. & Main S	W-S	23.08612	EBR	9	13	30	25	13	46
16: Oakland Ave. & Main S	N-W	0	SBR	9	13	30	0	3	5
16: Oakland Ave. & Main S	N-S	0	SBT	9	13	30	0	0	0
16: Oakland Ave. & Main S	S-W	1.807164	NBL	0	0	0	2	9	17
16: Oakland Ave. & Main S	S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access &	E-N	0	WBR	0	0	0	3	8	17
17: S Granite SD Access &	E-S	0	WBL	0	3	6	3	8	17
17: S Granite SD Access &	N-E	1.872743	SBL	0	2	3	1	4	7

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17: S Granite SD Access &	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access &	S-E	4.265461	NBR	2	8	15	0	2	3
17: S Granite SD Access &	S-N	0	NBT	2	9	16	0	0	0
1: 2100 South & State Stre	W-E	189.454	EBT						
1: 2100 South & State Stre	E-W	215.4158	WBT						
1: 2100 South & State Stre	N-S	109.8627	SBT						
1: 2100 South & State Stre	S-N	203.9206	NBT						
1: 2100 South & State Stre	S-E	96.49919	NBR						
1: 2100 South & State Stre	S-W	73.27363	NBL						
1: 2100 South & State Stre	E-S	118.7019	WBL						
1: 2100 South & State Stre	W-N	72.71821	EBL						
1: 2100 South & State Stre	N-W	12.99989	SBR						
1: 2100 South & State Stre	N-E	49.15561	SBL						
1: 2100 South & State Stre	E-N	5.41295	WBR						
1: 2100 South & State Stre	W-S	21.20858	EBR						
2: Street Car Crossing & St	N-S	81.228	SBT						
2: Street Car Crossing & St	N-W	81.228	SBR						
2: Street Car Crossing & St	S-N	104.7822	NBT						
2: Street Car Crossing & St	W-S	33.89086	EBR						

Alternative: DDI

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	4	19.8	C	0.51	***21.5***	***C***	***40.3***	***E***	5365	5320	100.8%	7993	9850	81.1%	65.43	50.78	0.72	10.48
EB I-80 (State to 700 E)	Weave	5	19.1	B	0.58	***20.7***	***C***	***30.3***	***D***	6570	6530	100.6%	9296	11250	82.6%	66.41	61.81	0.58	1.64
EB I-80 (Over 700 E)	Basic	4	18.2	C	0.56	***19.7***	***C***	***27.9***	***D***	5078	5060	100.4%	7140	8630	82.7%	67.54	64.85	0.71	1.63
WB I-80 (Over 700 E)	Basic	4	79.6	F	15.87	***92.8***	***F***	***25.3***	***C***	5749	7930	72.5%	6080	5990	101.5%	15.22	63.35	15.87	1.59
WB I-80 (700 E to State)	Weave	5	61.4	F	13.12	***67.3***	***F***	***25.8***	***C***	7451	9960	74.8%	7418	7350	100.9%	21.78	60.26	13.12	1.27
WB I-80 (Over State)	Diverge	4	49.6	F	8.21	***49.6***	***F***	***31.6***	***D***	6840	9180	74.5%	6508	6470	100.6%	29.17	64.84	8.21	1.47
WB I-80 to WB CD Ramp	Ramp	2	75.6	B	9.34	***79.9***	***F***	***31.6***	***C***	3835	5250	73.1%	3483	3550	98.1%	24.02	59.61	9.34	13.25
WB I-80 (West of State)	Diverge	3	17.1	B	2.06	***17.1***	***B***	***15.2***	***B***	2853	3930	72.6%	2883	2920	98.7%	64.04	66.63	2.06	1.14
WB I-80 to NB I-15	Ramp	3	14.1	B	1.74	***14.1***	***B***	***14.0***	***B***	2234	3010	74.2%	2257	2240	100.8%	56.04	56.24	1.74	1.19
To SB I-15 Ramp	Ramp	2	14.5	B	1.29	***15.6***	***B***	***15.9***	***B***	1695	1990	85.2%	1722	1770	97.3%	55.78	55.77	1.59	1.23
To WB 201 Ramp	Ramp	2	24.8	E	1.34	***24.9***	***C***	***23.1***	***B***	2696	3690	73.1%	2418	2410	100.3%	54.73	54.74	1.34	1.65
WB CD	Weave (CD)	3	30.3	C	1.13	***31.0***	***C***	***25.0***	***C***	4775	6150	77.6%	4466	4530	98.6%	51.90	61.83	1.50	2.42
EB I-15 On Ramp	Ramp	2	18.9	B	1.90	***20.6***	***B***	***22.9***	***B***	1171	1210	96.8%	1263	1400	90.2%	29.71	27.95	2.64	4.49
EB I-80 I-15 to State	Weave	5	20.9	C	0.75	***23.0***	***C***	***55.0***	***F***	6309	6410	98.4%	8929	11130	80.2%	57.75	33.77	1.35	12.94
NB I-15 Off Ramp 2	Ramp	1	27.8	C	1.20	***30.5***	***C***	***65.3***	***F***	1589	1510	105.2%	1842	1780	103.5%	54.51	29.96	1.47	29.65
EB 201/SB I-15 2	Merge	4	22.0	C	0.34	***23.6***	***C***	***40.6***	***E***	4813	4900	98.2%	7212	9350	77.1%	64.77	43.61	0.53	18.51
EB 201/SB I-15 1	Merge	5	15.4		0.39	***16.8***		***33.6***		4840	4900	98.8%	7257	9350	77.6%	60.57	44.26	0.62	10.81
EB 201 Ramp	Ramp	2	17.8	B	0.27	***19.4***	***B***	***88.9***	***F***	2343	2330	100.6%	2586	4470	57.8%	63.85	13.78	0.69	6.77
SB I-15 Ramp	Ramp	3	12.9	B	0.14	***13.9***	***B***	***27.2***	***C***	2590	2570	100.8%	4895	4880	100.3%	65.48	63.20	0.18	1.51

Alternative: CFI

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7	W-E	EBT	EB							495							888
1: 2100 South & State Street - 2@1436.4 - 6	E-W	WBT	WB							689							870
1: 2100 South & State Street - 3@1101.9 - 5	N-S	SBT	SB							605							1863
1: 2100 South & State Street - 4@1031.1 - 8	S-N	NBT	NB							1354							1075
1: 2100 South & State Street - 159@246.4 - 1	S-E	NBR	NB							190							190
1: 2100 South & State Street - 160@288.7 - 6	S-W	NBL	NB							175							281
1: 2100 South & State Street - 161@166.4 - 1	E-S	WBL	WB							270							261
1: 2100 South & State Street - 162@152.6 - 1	W-N	EBL	EB							143							172
1: 2100 South & State Street - 163@133.8 - 6	N-W	SBR	SB							76							167
1: 2100 South & State Street - 164@371.3 - 1	N-E	SBL	SB							88							216
1: 2100 South & State Street - 165@166.2 - 1	E-N	WBR	WB							86							100
1: 2100 South & State Street - 255@187.5 - 1	W-S	EBR	EB	30.42	C					159	56.31	E					317
2: Street Car Crossing & State Street - 5@10	N-S	SBT	SB							878							2174
2: Street Car Crossing & State Street - 5@10	N-W	SBR	SB							154							241
2: Street Car Crossing & State Street - 10@1	S-N	NBT	NB							1523							1345
2: Street Car Crossing & State Street - 174@1	W-S	EBR	EB					28.26	D	301							293
2: Street Car Crossing & State Street - 175@1	W-N	EBL	EB							197							202
2: Street Car Crossing & State Street - 177@1	S-W	NBL	NB	10.01	B					187	36.68	D					374
3: WB I-80 & State Street - 90@219.6 - 10@1	S-N	NBT	NB							1303							1268
3: WB I-80 & State Street - 96@73.7 - 118@1	S-W	NBL	NB							507							403
3: WB I-80 & State Street - 124@1254.5 - 92	E-S	WBL	WB			34.76	C			198			39.84	C			349
3: WB I-80 & State Street - 125@243.7 - 10	E-N	WBR	WB							408							469
3: WB I-80 & State Street - 155@466.8 - 98	N-S	SBT	SB							592							780
3: WB I-80 & State Street - 157@464.4 - 92	N-S	SBT	SB	21.00	C					175	28.76	C					1108
3: WB I-80 & State Street - 157@464.4 - 118	N-W	SBR	SB							404							563
4: EB I-80 & State Street - 92@261.4 - 10036	N-S	SBT	SB							373							1454
4: EB I-80 & State Street - 98@305.5 - 122@1	N-E	SBL	SB							592							781
4: EB I-80 & State Street - 120@1807.0 - 90@	W-N	EBL	EB							570							469
4: EB I-80 & State Street - 121@283.5 - 1003	W-S	EBR	EB					29.32	D	573							743
4: EB I-80 & State Street - 144@5.2 - 90@12	S-N	NBT	NB	22.91	C					733	20.60	C					800
4: EB I-80 & State Street - 145@5.5 - 122@8	S-E	NBR	NB							631							564
4: EB I-80 & State Street - 146@314.6 - 99@	S-N	NBT	NB							506							402
5: Oakland & State Street - 12@139.7 - 12@	N-S	SBT	SB							947							2197
5: Oakland & State Street - 22@609.6 - 11@	E-N	WBR	WB					8.99	A	29					7.56	A	49
5: Oakland & State Street - 146@91.4 - 146@	S-N	NBT	NB							508							403
5: Oakland & State Street - 147@71.4 - 11@	S-N	NBT	NB							1336							1316
5: Oakland & State Street - 147@71.4 - 21@	S-E	NBR	NB							12							20
6: East Grantie SD RIRO & State Street - 12@	N-W	SBR	SB							241							72
6: East Grantie SD RIRO & State Street - 12@	N-S	SBT	SB							707							2125
6: East Grantie SD RIRO & State Street - 23@	W-S	EBR	EB					6.20	A	49					6.90	A	97
6: East Grantie SD RIRO & State Street - 100	S-N	NBT	NB							1348							1335
6: East Grantie SD RIRO & State Street - 100	S-N	NBT	NB							507							404
7: 2700 South & State Street - 14@1205.4 - 1	N-S	SBT	SB							596							1944
7: 2700 South & State Street - 15@1184.3 - 1	S-N	NBT	NB							1514							1367
7: 2700 South & State Street - 17@647.5 - 1	W-S	EBR	EB							40							102
7: 2700 South & State Street - 17@647.5 - 1	W-E	EBT	EB							59							331
7: 2700 South & State Street - 20@820.0 - 1	E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291.2 - 1	S-W	NBL	NB	14.87	B					124	20.82	C					90
7: 2700 South & State Street - 149@150.8 - 1	S-E	NBR	NB							22							91
7: 2700 South & State Street - 150@28.0 - 1	W-N	EBL	EB							149							302
7: 2700 South & State Street - 153@329.4 - 1	N-E	SBL	SB							53							156
7: 2700 South & State Street - 154@188.7 - 1	N-W	SBR	SB							112							118
7: 2700 South & State Street - 10014@53.9 -	E-N	WBR	WB							199							69
7: 2700 South & State Street - 10015@17.9 -	E-S	WBL	WB							74							129
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	SBT	SB							573							1768
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB							2546							1939
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	NBL	NB							976							696
8: WB I-80 & 700 East - 135@1579.2 - 73@6	E-S	WBL	WB	19.78	B					84	18.03	B					225
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	WBR	WB							640							576
8: WB I-80 & 700 East - 168@218.7 - 83@57	N-S	SBT	SB							271							774
8: WB I-80 & 700 East - 169@299.3 - 137@2	N-SW	SBR	SB							861							663
9: EB I-80 & 700 East - 74@24.8 - 10189@12	N-S	SBT	SB							656							1993
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB			33.46	C			1779			32.49	C			1068
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB							273							775
9: EB I-80 & 700 East - 133@1231.9 - 79@56	W-N	EBL	EB							770							870
9: EB I-80 & 700 East - 133@1231.9 - 140@6	W-NE	EBL	EB	20.98	C					0	20.94	C					0
9: EB I-80 & 700 East - 134@318.9 - 10188@	W-S	EBR	EB							714							1270
9: EB I-80 & 700 East - 166@226.1 - 86@53.1	S-N	NBT	NB							985							696
9: EB I-80 & 700 East - 167@274.8 - 140@66	S-NE	NBR	NB							153							151
9: EB I-80 & 700 East - 10188@14.1 - 76@3.1	N-S	SBT	SB							78							146
10: 2400 S & West Temple - 33@704.1 - 35@	E-W	WBT	WB							1							1
10: 2400 S & West Temple - 33@704.1 - 56@	E-N	WBR	WB							4							7
10: 2400 S & West Temple - 33@704.1 - 101	E-S	WBL	WB					7.60	A	4					7.16	A	6
10: 2400 S & West Temple - 34@51.1 - 32@	W-E	EBT	EB							0							4
10: 2400 S & West Temple - 34@51.1 - 56@	W-N	EBL	EB							0							0
10: 2400 S & West Temple - 34@51.1 - 1010	W-S	EBR	EB							0							0
10: 2400 S & West Temple - 57@353.0 - 32@	N-E	SBL	SB							6							5
10: 2400 S & West Temple - 57@353.0 - 35@	N-W	SBR	SB							0							5
10: 2400 S & West Temple - 57@353.0 - 101	N-S	SBT	SB							138							261
10: 2400 S & West Temple - 10107@1.9 - 32	S-E	NBR	NB							5							6
10: 2400 S & West Temple - 10107@1.9 - 35	S-W	NBL	NB							4							0
10: 2400 S & West Temple - 10107@1.9 - 56	S-N	NBT	NB							190							280
11: Robert Ave. & West Temple - 28@710.2	E-W	WBT	WB							0							0
11: Robert Ave. & West Temple - 28@710.2	E-S	WBL	WB							4							6
11: Robert Ave. & West Temple - 28@710.2	E-N	WBR	WB							4							4
11: Robert Ave. & West Temple - 31@117.4	W-E	EBT	EB							0							5

11: Robert Ave. & West Temple - 31@117.4	W-S	EBR	EB		0		4
11: Robert Ave. & West Temple - 31@117.4	W-N	EBL	EB	7.25 A	4	9.49 A	4
11: Robert Ave. & West Temple - 44@282.3	S-E	NBR	NB		6		5
11: Robert Ave. & West Temple - 44@282.3	S-W	NBL	NB		7		6
11: Robert Ave. & West Temple - 44@282.3	S-N	NBT	NB		192		277
11: Robert Ave. & West Temple - 49@19.8 -	N-E	SBL	SB		5		5
11: Robert Ave. & West Temple - 49@19.8 -	N-W	SBR	SB		0		5
11: Robert Ave. & West Temple - 49@19.8 -	N-S	SBT	SB		137		255
12: Oakland Ave & West Temple - 40@711.0	E-W	WBT	WB		18		4
12: Oakland Ave & West Temple - 40@711.0	E-N	WBR	WB		10		21
12: Oakland Ave & West Temple - 40@711.0	E-S	WBL	WB	7.60 A	10	7.77 A	5
12: Oakland Ave & West Temple - 43@473.0	W-E	EBT	EB		4		20
12: Oakland Ave & West Temple - 43@473.0	W-N	EBL	EB		4		9
12: Oakland Ave & West Temple - 43@473.0	W-S	EBR	EB		11		9
12: Oakland Ave & West Temple - 45@261.8	N-E	SBL	SB		11		11
12: Oakland Ave & West Temple - 45@261.8	N-W	SBR	SB		10		5
12: Oakland Ave & West Temple - 45@261.8	N-S	SBT	SB		120		250
12: Oakland Ave & West Temple - 46@527.0	S-E	NBR	NB		13		22
12: Oakland Ave & West Temple - 46@527.0	S-W	NBL	NB		9		11
12: Oakland Ave & West Temple - 46@527.0	S-N	NBT	NB		190		261
13: 2400 S & Main Street - 32@716.9 - 36@2	W-E	EBT	EB		0		0
13: 2400 S & Main Street - 32@716.9 - 55@0	W-S	EBR	EB		5		4
13: 2400 S & Main Street - 32@716.9 - 58@2	W-N	EBL	EB	6.32 A	5	7.89 A	9
13: 2400 S & Main Street - 54@239.9 - 33@2	S-W	NBL	NB		4		4
13: 2400 S & Main Street - 54@239.9 - 36@2	S-E	NBR	NB		0		0
13: 2400 S & Main Street - 54@239.9 - 58@2	S-N	NBT	NB		338		495
13: 2400 S & Main Street - 59@503.7 - 33@2	N-W	SBR	SB		4		10
13: 2400 S & Main Street - 59@503.7 - 36@2	N-E	SBL	SB		0		0
13: 2400 S & Main Street - 59@503.7 - 55@0	N-S	SBT	SB		190		471
14: Robert Ave. & Main Street - 26@405.6 -	E-W	WBT	WB		0		0
14: Robert Ave. & Main Street - 26@405.6 -	E-N	WBR	WB		0		4
14: Robert Ave. & Main Street - 26@405.6 -	E-S	WBL	WB	8.11 A	4	7.32 A	4
14: Robert Ave. & Main Street - 29@709.2 -	W-E	EBT	EB		0		5
14: Robert Ave. & Main Street - 29@709.2 -	W-N	EBL	EB		7		5
14: Robert Ave. & Main Street - 29@709.2 -	W-S	EBR	EB		4		6
14: Robert Ave. & Main Street - 55@232.4 -	N-E	SBL	SB		0		11
14: Robert Ave. & Main Street - 55@232.4 -	N-W	SBR	SB		5		5
14: Robert Ave. & Main Street - 55@232.4 -	N-S	SBT	SB		190		460
14: Robert Ave. & Main Street - 60@63.7 - 2	S-E	NBR	NB		5		5
14: Robert Ave. & Main Street - 60@63.7 - 2	S-W	NBL	NB		4		5
14: Robert Ave. & Main Street - 60@63.7 - 5	S-N	NBT	NB		337		491
15: N Granite SD Access & Main Street - 39@	E-N	WBR	WB		18		60
15: N Granite SD Access & Main Street - 39@	E-S	WBL	WB		15		5
15: N Granite SD Access & Main Street - 61@	N-E	SBL	SB	1.03 A	12	1.14 A	14
15: N Granite SD Access & Main Street - 61@	N-S	SBT	SB		188		458
15: N Granite SD Access & Main Street - 62@	S-E	NBR	NB		9		4
15: N Granite SD Access & Main Street - 62@	S-N	NBT	NB		328		442
16: Oakland Ave. & Main Street - 41@707.2	W-N	EBL	EB		10		29
16: Oakland Ave. & Main Street - 41@707.2	W-S	EBR	EB	6.60 A	17	7.72 A	23
16: Oakland Ave. & Main Street - 63@154.7	N-W	SBR	SB		17		13
16: Oakland Ave. & Main Street - 63@154.7	N-S	SBT	SB		186		450
16: Oakland Ave. & Main Street - 66@184.7	S-W	NBL	NB		21		16
16: Oakland Ave. & Main Street - 66@184.7	S-N	NBT	NB		324		418
17: S Granite SD Access & Main Street - 65@	E-N	WBR	WB		8		20
17: S Granite SD Access & Main Street - 65@	E-S	WBL	WB	1.20 A	17	1.78 A	18
17: S Granite SD Access & Main Street - 67@	N-E	SBL	SB		14		5
17: S Granite SD Access & Main Street - 67@	N-S	SBT	SB		191		468
17: S Granite SD Access & Main Street - 69@	S-E	NBR	NB		51		39
17: S Granite SD Access & Main Street - 69@	S-N	NBT	NB		337		415

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Alternative: CFI

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 - 7@51.6	W-E	172.6588	EBT	162	45	237	1202	366	1807
1: 2100 South & State Street - 2@1436.4 - 6@43.7	E-W	214.0723	WBT	242	79	373	408	243	810
1: 2100 South & State Street - 3@1101.9 - 5@67.0	N-S	92.08828	SBT	109	31	161	747	276	1202
1: 2100 South & State Street - 4@1031.1 - 8@53.2	S-N	197.5714	NBT	161	59	258	149	72	267
1: 2100 South & State Street - 159@246.4 - 7@51.	S-E	45.48801	NBR	64	92	216	95	102	263
1: 2100 South & State Street - 160@288.7 - 6@43.	S-W	67.22665	NBL	82	28	127	113	55	203
1: 2100 South & State Street - 161@166.4 - 5@67.	E-S	118.875	WBL	123	44	197	400	419	1091
1: 2100 South & State Street - 162@152.6 - 8@53.	W-N	70.28531	EBL	76	24	115	240	421	935
1: 2100 South & State Street - 163@133.8 - 6@43.	N-W	17.41647	SBR	19	16	45	26	23	64
1: 2100 South & State Street - 164@371.3 - 7@51.	N-E	44.38279	SBL	48	20	81	82	42	150
1: 2100 South & State Street - 165@166.2 - 8@53.	E-N	15.20332	WBR	12	18	42	11	16	38
1: 2100 South & State Street - 255@187.5 - 5@67.	W-S	24.35225	EBR	30	19	61	749	566	1682
2: Street Car Crossing & State Street - 5@1044.9 -	N-S	53.0054	SBT	81	47	159	829	326	1366
2: Street Car Crossing & State Street - 5@1044.9 -	N-W	53.0054	SBR	81	47	159	829	326	1366
2: Street Car Crossing & State Street - 10@1037.9 -	S-N	67.5048	NBT	69	41	137	56	64	162
2: Street Car Crossing & State Street - 174@664.9 -	W-S	25.96108	EBR	43	39	107	153	201	484
2: Street Car Crossing & State Street - 175@210.6 -	W-N	177.1906	EBL	169	60	268	195	137	421
2: Street Car Crossing & State Street - 177@146.2 -	S-W	31.0321	NBL	56	43	126	418	251	832
3: WB I-80 & State Street - 90@219.6 - 10@24.2	S-N	93.24067	NBT	128	47	206	106	63	210
3: WB I-80 & State Street - 96@73.7 - 118@8.3	S-W	0	NBL	0	0	0	0	0	0
3: WB I-80 & State Street - 124@1254.5 - 92@54.6	E-S	124.4957	WBL	99	29	147	300	476	1086
3: WB I-80 & State Street - 125@243.7 - 10@24.2	E-N	170.6343	WBR	198	154	451	847	497	1667
3: WB I-80 & State Street - 155@466.8 - 98@98.0	N-S	137.7116	SBT	190	70	305	299	154	553
3: WB I-80 & State Street - 157@464.4 - 92@54.6	N-S	91.69052	SBT	81	52	167	300	317	824
3: WB I-80 & State Street - 157@464.4 - 118@8.3	N-W	91.69052	SBR	81	52	167	300	317	824
4: EB I-80 & State Street - 92@261.4 - 10036@120.	N-S	98.08316	SBT	92	43	162	302	93	456
4: EB I-80 & State Street - 98@305.5 - 122@81.5	N-E	0	SBL	1	8	14	0	3	6
4: EB I-80 & State Street - 120@1807.0 - 90@12.4	W-N	204.1596	EBL	212	120	410	318	468	1089
4: EB I-80 & State Street - 121@283.5 - 10030@77.	W-S	73.35863	EBR	77	29	124	115	58	211
4: EB I-80 & State Street - 144@5.2 - 90@12.4	S-N	182.2394	NBT	206	68	318	205	70	320
4: EB I-80 & State Street - 145@5.5 - 122@81.5	S-E	195.999	NBR	272	82	406	252	96	411
4: EB I-80 & State Street - 146@314.6 - 99@27.9	S-N	183.0902	NBT	192	46	268	151	66	259
5: Oakland & State Street - 12@139.7 - 12@214.7	N-S	0	SBT	0	0	0	0	0	0

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5: Oakland & State Street - 22@609.6 - 11@42.2	E-N	12.23373	WBR	17	14	40	52	126	259
5: Oakland & State Street - 146@91.4 - 146@181.(	S-N	0	NBT	3	14	26	0	4	7
5: Oakland & State Street - 147@71.4 - 11@42.2	S-N	7.563035	NBT	31	44	103	29	42	98
5: Oakland & State Street - 147@71.4 - 21@32.7	S-E	11.39296	NBR	43	60	142	42	58	138
6: East Grantie SD RIRO & State Street - 12@222.7	N-W	7.117374	SBR	3	11	21	0	3	5
6: East Grantie SD RIRO & State Street - 12@222.7	N-S	3.410085	SBT	1	7	12	0	0	0
6: East Grantie SD RIRO & State Street - 23@259.7	W-S	31.18671	EBR	25	13	46	34	13	56
6: East Grantie SD RIRO & State Street - 10004@16	S-N	59.68128	NBT	68	151	317	199	485	998
6: East Grantie SD RIRO & State Street - 10008@16	S-N	59.48903	NBT	60	150	307	192	485	992
7: 2700 South & State Street - 14@1205.4 - 16@1(	N-S	107.1676	SBT	75	39	138	233	142	467
7: 2700 South & State Street - 15@1184.3 - 13@57	S-N	174.8224	NBT	178	49	258	328	330	873
7: 2700 South & State Street - 17@647.5 - 16@106	W-S	46.1522	EBR	42	27	87	186	106	362
7: 2700 South & State Street - 17@647.5 - 19@119	W-E	35.46116	EBT	34	29	82	182	106	357
7: 2700 South & State Street - 20@820.0 - 18@72.!	E-W	56.14091	WBT	59	33	114	133	253	552
7: 2700 South & State Street - 148@291.2 - 18@72	S-W	49.9737	NBL	39	28	85	39	32	92
7: 2700 South & State Street - 149@150.8 - 19@11	S-E	7.027772	NBR	6	11	24	19	16	46
7: 2700 South & State Street - 150@28.0 - 13@57.!	W-N	54.70411	EBL	84	46	159	251	180	548
7: 2700 South & State Street - 153@329.4 - 19@11	N-E	22.99313	SBL	18	21	53	82	60	181
7: 2700 South & State Street - 154@188.7 - 18@72	N-W	20.24166	SBR	19	17	47	25	22	62
7: 2700 South & State Street - 10014@53.9 - 13@5	E-N	44.94554	WBR	47	26	90	108	266	548
7: 2700 South & State Street - 10015@17.9 - 16@1	E-S	31.09067	WBL	41	33	96	147	253	565
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	141.1611	SBT	140	48	219	231	90	380
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	148.1777	NBT	111	72	230	30	25	72
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	53.70213	NBL	88	42	158	269	72	387
8: WB I-80 & 700 East - 135@1579.2 - 73@63.1	E-S	74.91465	WBL	48	24	88	83	42	151
8: WB I-80 & 700 East - 135@1579.2 - 137@28.7	E-SW	74.91465	WBL	48	24	88	83	42	151
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	15.69433	WBR	5	14	27	4	12	24
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	87.48818	SBT	97	39	161	145	59	242
8: WB I-80 & 700 East - 169@299.3 - 137@28.7	N-SW	1.929594	SBR	841	602	1833	158	499	982
9: EB I-80 & 700 East - 74@24.8 - 10189@12.0	N-S	92.30373	SBT	69	31	121	102	54	190
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	262.5699	NBT	290	108	469	206	81	339
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	42.90279	SBL	62	43	134	236	93	389
9: EB I-80 & 700 East - 133@1231.9 - 79@56.2	W-N	257.241	EBL	276	90	424	281	98	442
9: EB I-80 & 700 East - 133@1231.9 - 140@66.9	W-NE	257.241	EBL	276	90	424	281	98	442
9: EB I-80 & 700 East - 134@318.9 - 10188@13.8	W-S	0	EBR	6	16	33	13	45	87
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	225.0751	NBT	234	116	425	358	421	1053

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9: EB I-80 & 700 East - 167@274.8 - 140@66.9	S-NE	0	NBR	1	4	7	0	3	5
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 33@704.1 - 35@43.9	E-W	7.350483	WBT	7	11	25	10	14	33
10: 2400 S & West Temple - 33@704.1 - 56@30.3	E-N	7.350483	WBR	7	11	25	10	14	33
10: 2400 S & West Temple - 33@704.1 - 10106@1(	E-S	7.350483	WBL	7	11	25	10	14	33
10: 2400 S & West Temple - 34@51.1 - 32@34.2	W-E	0	EBT	0	0	0	0	2	4
10: 2400 S & West Temple - 34@51.1 - 56@30.3	W-N	0	EBL	0	0	0	0	2	4
10: 2400 S & West Temple - 34@51.1 - 10106@10.	W-S	0	EBR	0	0	0	0	2	4
10: 2400 S & West Temple - 57@353.0 - 32@34.2	N-E	0	SBL	1	7	12	1	5	9
10: 2400 S & West Temple - 57@353.0 - 35@43.9	N-W	0	SBR	0	3	5	0	0	0
10: 2400 S & West Temple - 57@353.0 - 10106@1(	N-S	0	SBT	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 32@34.2	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 35@43.9	S-W	0	NBL	0	4	7	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 56@30.3	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@710.2 - 30@	E-W	2.575479	WBT	7	12	27	7	12	28
11: Robert Ave. & West Temple - 28@710.2 - 45@	E-S	2.558841	WBL	7	12	27	7	12	28
11: Robert Ave. & West Temple - 28@710.2 - 48@	E-N	2.531768	WBR	7	12	27	7	12	27
11: Robert Ave. & West Temple - 31@117.4 - 29@	W-E	0	EBT	3	9	18	9	13	30
11: Robert Ave. & West Temple - 31@117.4 - 45@	W-S	0	EBR	3	9	18	9	13	30
11: Robert Ave. & West Temple - 31@117.4 - 48@	W-N	0	EBL	3	9	18	9	13	30
11: Robert Ave. & West Temple - 44@282.3 - 29@	S-E	0	NBR	0	1	2	0	1	2
11: Robert Ave. & West Temple - 44@282.3 - 30@	S-W	0	NBL	0	2	4	0	3	5
11: Robert Ave. & West Temple - 44@282.3 - 48@	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 49@19.8 - 29@2(	N-E	2.913105	SBL	1	5	10	1	5	9
11: Robert Ave. & West Temple - 49@19.8 - 30@1	N-W	8.146827	SBR	21	36	80	23	36	83
11: Robert Ave. & West Temple - 49@19.8 - 45@9.	N-S	0	SBT	0	0	0	0	0	0
12: Oakland Ave & West Temple - 40@711.0 - 42@	E-W	16.71183	WBT	20	15	44	17	15	42
12: Oakland Ave & West Temple - 40@711.0 - 44@	E-N	16.71183	WBR	20	15	44	17	15	42
12: Oakland Ave & West Temple - 40@711.0 - 47@	E-S	16.71183	WBL	20	15	44	17	15	42
12: Oakland Ave & West Temple - 43@473.0 - 41@	W-E	17.04076	EBT	15	14	38	22	15	46
12: Oakland Ave & West Temple - 43@473.0 - 44@	W-N	16.65659	EBL	14	14	37	21	15	45
12: Oakland Ave & West Temple - 43@473.0 - 47@	W-S	16.6845	EBR	14	14	37	22	15	46
12: Oakland Ave & West Temple - 45@261.8 - 41@	N-E	0	SBL	1	6	11	2	10	19
12: Oakland Ave & West Temple - 45@261.8 - 42@	N-W	0	SBR	0	3	5	1	8	15
12: Oakland Ave & West Temple - 45@261.8 - 47@	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West Temple - 46@527.0 - 41@	S-E	5.925707	NBR	0	5	9	0	4	7

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12: Oakland Ave & West Temple - 46@527.0 - 42@	S-W	5.332815	NBL	1	6	10	2	7	13
12: Oakland Ave & West Temple - 46@527.0 - 44@	S-N	2.023688	NBT	0	2	3	0	0	0
13: 2400 S & Main Street - 32@716.9 - 36@24.3	W-E	9.74766	EBT	7	11	25	9	12	30
13: 2400 S & Main Street - 32@716.9 - 55@6.1	W-S	9.74766	EBR	7	11	25	9	12	30
13: 2400 S & Main Street - 32@716.9 - 58@21.9	W-N	9.74766	EBL	7	11	25	9	12	30
13: 2400 S & Main Street - 54@239.9 - 33@22.5	S-W	0	NBL	0	3	5	1	4	7
13: 2400 S & Main Street - 54@239.9 - 36@24.3	S-E	0	NBR	0	0	0	0	0	0
13: 2400 S & Main Street - 54@239.9 - 58@21.9	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 33@22.5	N-W	0	SBR	0	0	0	0	1	2
13: 2400 S & Main Street - 59@503.7 - 36@24.3	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 55@6.1	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 26@405.6 - 28@2	E-W	2.669583	WBT	3	9	18	6	10	22
14: Robert Ave. & Main Street - 26@405.6 - 54@1	E-N	2.669583	WBR	3	9	18	6	10	22
14: Robert Ave. & Main Street - 26@405.6 - 61@1	E-S	2.669583	WBL	3	9	18	6	10	22
14: Robert Ave. & Main Street - 29@709.2 - 27@2	W-E	10.32267	EBT	8	13	29	11	14	34
14: Robert Ave. & Main Street - 29@709.2 - 54@1	W-N	10.32267	EBL	8	13	29	11	14	34
14: Robert Ave. & Main Street - 29@709.2 - 61@1	W-S	10.32267	EBR	8	13	29	11	14	34
14: Robert Ave. & Main Street - 55@232.4 - 27@2	N-E	0	SBL	0	0	0	1	6	12
14: Robert Ave. & Main Street - 55@232.4 - 28@2	N-W	0	SBR	0	2	3	0	5	9
14: Robert Ave. & Main Street - 55@232.4 - 61@1	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 60@63.7 - 27@24.	S-E	0	NBR	0	3	5	5	19	37
14: Robert Ave. & Main Street - 60@63.7 - 28@21.	S-W	0	NBL	0	2	3	1	3	6
14: Robert Ave. & Main Street - 60@63.7 - 54@12.	S-N	0	NBT	0	0	0	0	0	0
15: N Granite SD Access & Main Street - 39@121.3	E-N	0	WBR	2	9	16	5	10	21
15: N Granite SD Access & Main Street - 39@121.3	E-S	0	WBL	2	9	17	5	10	23
15: N Granite SD Access & Main Street - 61@36.1 -	N-E	2.174524	SBL	0	3	6	2	5	10
15: N Granite SD Access & Main Street - 61@36.1 -	N-S	0	SBT	3	15	27	7	23	45
15: N Granite SD Access & Main Street - 62@135.9	S-E	0	NBR	0	1	2	0	0	0
15: N Granite SD Access & Main Street - 62@135.9	S-N	0	NBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 41@707.2 - 62@	W-N	23.08612	EBL	16	14	39	25	14	47
16: Oakland Ave. & Main Street - 41@707.2 - 67@	W-S	23.08612	EBR	16	14	39	25	14	47
16: Oakland Ave. & Main Street - 63@154.7 - 40@	N-W	0	SBR	0	3	6	0	3	5
16: Oakland Ave. & Main Street - 63@154.7 - 67@	N-S	0	SBT	0	0	0	0	0	0
16: Oakland Ave. & Main Street - 66@184.7 - 40@	S-W	1.807164	NBL	1	5	10	2	9	17
16: Oakland Ave. & Main Street - 66@184.7 - 62@	S-N	0	NBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 65@232.9	E-N	0	WBR	2	6	13	3	8	17

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17: S Granite SD Access & Main Street - 65@232.9	E-S	0	WBL	2	6	13	3	8	17
17: S Granite SD Access & Main Street - 67@180.0	N-E	1.872743	SBL	1	5	9	1	4	7
17: S Granite SD Access & Main Street - 67@180.0	N-S	0	SBT	0	0	0	0	0	0
17: S Granite SD Access & Main Street - 69@505.0	S-E	4.265461	NBR	1	4	7	0	1	2
17: S Granite SD Access & Main Street - 69@505.0	S-N	0	NBT	0	0	0	0	0	0

Freeway LOS AM PM

Alternative: CFI

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	4	19.8	C	0.39	***21.4***	***C***	***38.4***	***E***	5364	5320	100.8%	7963	9850	80.8%	65.42	52.44	0.76	8.36
EB I-80 (State to 700 E)	Weave	5	19.3	B	0.54	***20.6***	***C***	***30.6***	***D***	6566	6530	100.6%	9278	11250	82.5%	66.11	61.62	0.71	2.17
EB I-80 (Over 700 E)	Basic	4	18.1	C	0.57	***19.7***	***C***	***28.0***	***D***	5078	5060	100.4%	7134	8630	82.7%	67.69	64.98	0.77	1.57
WB I-80 (Over 700 E)	Basic	4	87.0	F	8.39	***90.8***	***F***	***72.8***	***F***	5864	7930	74.0%	5900	5990	98.5%	16.20	22.70	8.39	48.05
WB I-80 (700 E to State)	Weave	5	65.7	F	7.39	***66.1***	***F***	***72.0***	***F***	7619	9960	76.5%	7115	7350	96.8%	23.37	22.07	9.02	30.03
WB I-80 (Over State)	Diverge	4	44.61163107	E	12.90	***45.9***	***F***	***30.7***	***D***	6993	9180	76.2%	6199	6470	95.8%	38.92	52.65	13.67	5.46
WB I-80 to WB CD Ramp	Ramp	2	67.4	F	22.28	***70.1***	***F***	***32.3***	***D***	3890	5250	74.1%	3280	3550	92.4%	29.50	51.12	22.50	13.68
WB I-80 (West of State)	Diverge	3	15.61623155	B	1.99	***15.8***	***B***	***13.2***	***B***	2952	3930	75.1%	2783	2920	95.3%	64.84	65.34	1.99	1.89
WB I-80 to NB I-15	Ramp	3	13.9	B	1.62	***13.9***	***B***	***13.6***	***B***	2319	3010	77.0%	2180	2240	97.3%	55.99	56.23	1.62	1.55
To SB I-15 Ramp	Ramp	2	14.6	B	1.34	***14.8***	***B***	***15.6***	***B***	1641	1990	82.5%	1669	1770	94.3%	55.73	55.46	1.58	1.82
To WB 201 Ramp	Ramp	2	25.1	C	1.56	***25.9***	***C***	***21.4***	***B***	2799	3690	75.9%	2287	2410	94.9%	54.48	54.86	1.95	3.99
WB I-80 to SB I-15/WB 201	Diverge	3	38.98525433	E	2.66	***43.3***	***E***	***29.4***	***D***	4358	5680	76.7%	3885	4180	93.0%	51.02	51.65	2.77	4.41
WB CD	Weave (CD)	3	29.5	C	1.23	***31.9***	***C***	***25.1***	***C***	4829	6150	78.5%	4269	4530	94.2%	51.26	58.78	2.27	4.69
EB I-15 On Ramp	Ramp	2	17.4	B	1.52	***17.6***	***B***	***21.8***	***B***	1141	1210	94.3%	1271	1400	90.8%	32.80	30.82	1.79	2.16
EB I-15 On Ramp	Ramp	2	21.5	B	5.60	***22.8***	***B***	***34.5***	***D***	1200	1210	99.2%	1319	1400	94.2%	26.93	20.36	5.60	7.03
EB I-80 I-15 to State	Weave	5	21.0	C	0.57	***23.1***	***C***	***54.5***	***F***	6353	6410	99.1%	8975	11130	80.6%	57.68	34.16	1.26	10.16
NB I-15 Off Ramp 2	Ramp	1	27.4	C	1.14	***30.1***	***C***	***63.2***	***F***	1586	1510	105.0%	1857	1780	104.3%	55.31	30.16	1.68	25.74
NB I-15 Off Ramp 1	Ramp	2	12.0	A	0.22	***12.9***	***B***	***22.3***	***B***	1597	1540	103.7%	1874	1780	105.3%	64.92	47.48	0.22	12.59
EB 201/SB I-15 2	Merge	4	21.81742895	C	0.33	***23.3***	***C***	***51.5***	***F***	4843	4900	98.8%	7232	9350	77.3%	64.36	46.88	0.50	11.70
EB 201/SB I-15 1	Merge	5	15.3		0.36	***16.9***		***29.9***		4776	4900	97.5%	7141	9350	76.4%	59.55	49.86	0.85	4.01
EB 201 Ramp	Ramp	2	18.2	B	0.28	***20.6***	***B***	***80.8***	***F***	2348	2330	100.8%	2524	4470	56.5%	60.37	15.22	2.28	3.95
SB I-15 Ramp	Ramp	3	13.0	B	0.13	***14.0***	***B***	***27.1***	***C***	2585	2570	100.6%	4887	4880	100.1%	64.78	63.29	0.17	0.31
EB I-80 Ramp	Ramp	2	96.9	F	23.79	***141.7***	***F***	***42.6***	***E***	1777	2030	87.5%	1334	1360	98.1%	6.22	23.12	23.79	58.84

Alternative: Bigger Diamond

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 -	W-E	EBT	EB							496							902
1: 2100 South & State Street - 2@1436.4 -	E-W	WBT	WB							689							877
1: 2100 South & State Street - 3@1101.9 -	N-S	SBT	SB							611							1932
1: 2100 South & State Street - 4@1031.1 -	S-N	NBT	NB							1298							1057
1: 2100 South & State Street - 159@246.4 ·	S-E	NBR	NB							178							170
1: 2100 South & State Street - 160@288.7 ·	S-W	NBL	NB							161							258
1: 2100 South & State Street - 161@166.4 ·	E-S	WBL	WB							270							270
1: 2100 South & State Street - 162@152.6 ·	W-N	EBL	EB							143							175
1: 2100 South & State Street - 163@133.8 ·	N-W	SBR	SB							73							171
1: 2100 South & State Street - 164@371.3 ·	N-E	SBL	SB							84							220
1: 2100 South & State Street - 165@166.2 ·	E-N	WBR	WB							87							100
1: 2100 South & State Street - 255@187.5 ·	W-S	EBR	EB	31.08	C					159	47.8380653	D					322
2: Street Car Crossing & State Street - 5@1	N-S	SBT	SB							889							2268
2: Street Car Crossing & State Street - 5@1	N-W	SBR	SB							149							250
2: Street Car Crossing & State Street - 10@	S-N	NBT	NB							1440							1292
2: Street Car Crossing & State Street - 174@	W-S	EBR	EB							301							293
2: Street Car Crossing & State Street - 175@	W-N	EBL	EB							197							201
2: Street Car Crossing & State Street - 177@	S-W	NBL	NB	13.16	B					179	26.81718202	C					337
3: WB I-80 & State Street - 90@184.4 - 10@	S-N	NBT	NB							1275							1140
3: WB I-80 & State Street - 124@1242.1 - 9	E-S	WBL	WB							198							358
3: WB I-80 & State Street - 124@1242.1 - 1	E-W	WBT	WB							0							0
3: WB I-80 & State Street - 125@335.6 - 10	E-N	WBR	WB							436							645
3: WB I-80 & State Street - 155@284.1 - 98	N-S	SBT	SB							581							798
3: WB I-80 & State Street - 156@284.4 - 11	N-W	SBR	SB							397							582
3: WB I-80 & State Street - 157@284.8 - 92	N-S	SBT	SB							194							1160
3: WB I-80 & State Street - 173@156.4 - 11	S-W	NBL	NB	16.62	B					497	19.5196644	B					391
4: EB I-80 & State Street - 92@225.5 - 12@	N-S	SBT	SB							391							1518
4: EB I-80 & State Street - 98@223.3 - 122@	N-E	SBL	SB							581							798
4: EB I-80 & State Street - 120@1811.7 - 90	W-N	EBL	EB							531							341
4: EB I-80 & State Street - 120@1811.7 - 12	W-E	EBT	EB							0							0
4: EB I-80 & State Street - 121@196.0 - 12@	W-S	EBR	EB							676							640
4: EB I-80 & State Street - 144@78.0 - 90@	S-N	NBT	NB							744							800
4: EB I-80 & State Street - 145@71.2 - 122@	S-E	NBR	NB							616							557
4: EB I-80 & State Street - 146@331.6 - 173	S-N	NBT	NB	25.28	C	32.81	C			497	20.91359179	C	32.24393797	C			391
5: Oakland & State Street - 12@191.7 - 12@	N-S	SBT	SB							1066							2159
5: Oakland & State Street - 22@609.6 - 11@	E-N	WBR	WB					9.80	A	29					9.75318	A	49
5: Oakland & State Street - 146@92.9 - 146	S-N	NBT	NB							499							396
5: Oakland & State Street - 147@71.5 - 11@	S-N	NBT	NB							1333							1310
5: Oakland & State Street - 147@71.5 - 21@	S-E	NBR	NB							13	1.622898	A					20
6: East Grantie SD RIRO & State Street - 12	N-W	SBR	SB							229							56
6: East Grantie SD RIRO & State Street - 12	N-S	SBT	SB							837							2101
6: East Grantie SD RIRO & State Street - 23	W-S	EBR	EB					6.24	A	49					6.990465	A	97
6: East Grantie SD RIRO & State Street - 10	S-N	NBT	NB							1345							1332
6: East Grantie SD RIRO & State Street - 10	S-N	NBT	NB							498	2.919475388	A					396
7: 2700 South & State Street - 14@1205.4 ·	N-S	SBT	SB							581							1872
7: 2700 South & State Street - 15@1184.3 ·	S-N	NBT	NB							1517							1371
7: 2700 South & State Street - 17@647.5 -	W-S	EBR	EB							40							99
7: 2700 South & State Street - 17@647.5 -	W-E	EBT	EB							59							332
7: 2700 South & State Street - 20@820.0 -	E-W	WBT	WB							156							151
7: 2700 South & State Street - 148@291.2 ·	S-W	NBL	NB							119							88
7: 2700 South & State Street - 149@150.8 ·	S-E	NBR	NB							21							87
7: 2700 South & State Street - 150@28.0 -	W-N	EBL	EB							149							301
7: 2700 South & State Street - 153@329.4 ·	N-E	SBL	SB							52							126
7: 2700 South & State Street - 154@188.7 ·	N-W	SBR	SB							111							83
7: 2700 South & State Street - 10014@53.9	E-N	WBR	WB							199							69
7: 2700 South & State Street - 10015@17.9	E-S	WBL	WB	15.58	B					74	24.16417544	C					130
8: WB I-80 & 700 East - 72@299.7 - 73@63	N-S	SBT	SB							660							1767
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB							2324							1837
8: WB I-80 & 700 East - 87@30.0 - 137@28	S-SW	NBL	NB							827							696
8: WB I-80 & 700 East - 135@1579.2 - 73@	E-S	WBL	WB							80							224
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87	E-N	WBR	WB							621							571
8: WB I-80 & 700 East - 168@218.7 - 83@5	N-S	SBT	SB							306							774
8: WB I-80 & 700 East - 169@299.3 - 137@	N-SW	SBR	SB	27.43	C					986	18.92019654	B					663
9: EB I-80 & 700 East - 74@24.8 - 10189@1	N-S	SBT	SB							740							1991
9: EB I-80 & 700 East - 78@281.6 - 79@56.	S-N	NBT	NB							1570							1069
9: EB I-80 & 700 East - 85@22.3 - 140@66.	N-NE	SBL	SB							305							776
9: EB I-80 & 700 East - 133@1231.9 - 79@5	W-N	EBL	EB							754							767
9: EB I-80 & 700 East - 133@1231.9 - 140@	W-NE	EBL	EB							0							0
9: EB I-80 & 700 East - 134@318.9 - 10188(	W-S	EBR	EB							697							1139
9: EB I-80 & 700 East - 166@226.1 - 86@53	S-N	NBT	NB							840							696
9: EB I-80 & 700 East - 167@274.8 - 140@6	S-NE	NBR	NB							136							151
9: EB I-80 & 700 East - 10188@14.1 - 76@3	N-S	SBT	SB	36.86	D	54.27	C			76	21.79	C	38.35	C			128
10: 2400 S & West Temple - 33@704.1 - 35	E-W	WBT	WB					6.85	A	1					7.29	A	1
10: 2400 S & West Temple - 33@704.1 - 56	E-N	WBR	WB							4							7

10: 2400 S & West Temple - 33@704.1 - 10	E-S	WBL	WB			4			6
10: 2400 S & West Temple - 34@51.1 - 32(	W-E	EBT	EB			0			4
10: 2400 S & West Temple - 34@51.1 - 56(	W-N	EBL	EB			0			0
10: 2400 S & West Temple - 34@51.1 - 101	W-S	EBR	EB			0			0
10: 2400 S & West Temple - 57@353.0 - 32	N-E	SBL	SB			6			5
10: 2400 S & West Temple - 57@353.0 - 35	N-W	SBR	SB			0			5
10: 2400 S & West Temple - 57@353.0 - 10	N-S	SBT	SB			138			261
10: 2400 S & West Temple - 10107@1.9 - 3	S-E	NBR	NB			5			6
10: 2400 S & West Temple - 10107@1.9 - 3	S-W	NBL	NB			4			0
10: 2400 S & West Temple - 10107@1.9 - 5	S-N	NBT	NB			190			280
11: Robert Ave. & West Temple - 28@710.(	E-W	WBT	WB			0			0
11: Robert Ave. & West Temple - 28@710.(	E-S	WBL	WB			4			6
11: Robert Ave. & West Temple - 28@710.(	E-N	WBR	WB			4			3
11: Robert Ave. & West Temple - 31@117.4	W-E	EBT	EB	7.25	A	0	9.49	A	5
11: Robert Ave. & West Temple - 31@117.4	W-S	EBR	EB			0			4
11: Robert Ave. & West Temple - 31@117.4	W-N	EBL	EB			4			4
11: Robert Ave. & West Temple - 44@282.(	S-E	NBR	NB			6			5
11: Robert Ave. & West Temple - 44@282.(	S-W	NBL	NB			7			6
11: Robert Ave. & West Temple - 44@282.(	S-N	NBT	NB			192			277
11: Robert Ave. & West Temple - 49@19.8	N-E	SBL	SB			5			5
11: Robert Ave. & West Temple - 49@19.8	N-W	SBR	SB			0			5
11: Robert Ave. & West Temple - 49@19.8	N-S	SBT	SB			137			255
12: Oakland Ave & West Temple - 40@711	E-W	WBT	WB	7.60	A	18			4
12: Oakland Ave & West Temple - 40@711	E-N	WBR	WB			10			21
12: Oakland Ave & West Temple - 40@711	E-S	WBL	WB			10			5
12: Oakland Ave & West Temple - 43@473	W-E	EBT	EB			4	9.07	A	20
12: Oakland Ave & West Temple - 43@473	W-N	EBL	EB			4			9
12: Oakland Ave & West Temple - 43@473	W-S	EBR	EB			11			9
12: Oakland Ave & West Temple - 45@261	N-E	SBL	SB			11			10
12: Oakland Ave & West Temple - 45@261	N-W	SBR	SB			10			5
12: Oakland Ave & West Temple - 45@261	N-S	SBT	SB			120			250
12: Oakland Ave & West Temple - 46@527	S-E	NBR	NB			13			22
12: Oakland Ave & West Temple - 46@527	S-W	NBL	NB			9			11
12: Oakland Ave & West Temple - 46@527	S-N	NBT	NB			190			261
13: 2400 S & Main Street - 32@716.9 - 36(	W-E	EBT	EB	6.32	A	0	7.89	A	0
13: 2400 S & Main Street - 32@716.9 - 55(	W-S	EBR	EB			5			4
13: 2400 S & Main Street - 32@716.9 - 58(	W-N	EBL	EB			5			9
13: 2400 S & Main Street - 37@456.9 - 33(	E-W	WBT	WB			0			0
13: 2400 S & Main Street - 37@456.9 - 55(	E-S	WBL	WB			0			0
13: 2400 S & Main Street - 37@456.9 - 58(	E-N	WBR	WB			0			0
13: 2400 S & Main Street - 54@239.9 - 33(	S-W	NBL	NB			4			4
13: 2400 S & Main Street - 54@239.9 - 36(	S-E	NBR	NB			0			0
13: 2400 S & Main Street - 54@239.9 - 58(	S-N	NBT	NB			338			495
13: 2400 S & Main Street - 59@503.7 - 33(	N-W	SBR	SB			4			9
13: 2400 S & Main Street - 59@503.7 - 36(	N-E	SBL	SB			0			0
13: 2400 S & Main Street - 59@503.7 - 55(	N-S	SBT	SB			190			471
14: Robert Ave. & Main Street - 26@405.6	E-W	WBT	WB	8.11	A	0	7.32	A	0
14: Robert Ave. & Main Street - 26@405.6	E-N	WBR	WB			0			4
14: Robert Ave. & Main Street - 26@405.6	E-S	WBL	WB			4			4
14: Robert Ave. & Main Street - 29@709.2	W-E	EBT	EB			0			5
14: Robert Ave. & Main Street - 29@709.2	W-N	EBL	EB			7			5
14: Robert Ave. & Main Street - 29@709.2	W-S	EBR	EB			4			6
14: Robert Ave. & Main Street - 55@232.4	N-E	SBL	SB			0			10
14: Robert Ave. & Main Street - 55@232.4	N-W	SBR	SB			5			5
14: Robert Ave. & Main Street - 55@232.4	N-S	SBT	SB			190			460
14: Robert Ave. & Main Street - 60@63.7 -	S-E	NBR	NB			5			5
14: Robert Ave. & Main Street - 60@63.7 -	S-W	NBL	NB			4			5
14: Robert Ave. & Main Street - 60@63.7 -	S-N	NBT	NB			337			491
15: N Granite SD Access & Main Street - 39	E-N	WBR	WB	1.03	A	18	1.14	A	60
15: N Granite SD Access & Main Street - 39	E-S	WBL	WB			15			5
15: N Granite SD Access & Main Street - 61	N-E	SBL	SB			12			14
15: N Granite SD Access & Main Street - 61	N-S	SBT	SB			188			458
15: N Granite SD Access & Main Street - 62	S-E	NBR	NB			9			4
15: N Granite SD Access & Main Street - 62	S-N	NBT	NB			328			442
16: Oakland Ave. & Main Street - 41@707.(	W-N	EBL	EB	6.60	A	10	7.72	A	28
16: Oakland Ave. & Main Street - 41@707.(	W-S	EBR	EB			17			23
16: Oakland Ave. & Main Street - 63@154.(	N-W	SBR	SB			17			13
16: Oakland Ave. & Main Street - 63@154.(	N-S	SBT	SB			186			450
16: Oakland Ave. & Main Street - 66@184.(	S-W	NBL	NB			21			16
16: Oakland Ave. & Main Street - 66@184.(	S-N	NBT	NB			324			418
17: S Granite SD Access & Main Street - 65(	E-N	WBR	WB	1.20	A	8	1.78	A	19
17: S Granite SD Access & Main Street - 65(	E-S	WBL	WB			17			17
17: S Granite SD Access & Main Street - 67(	N-E	SBL	SB			14			5
17: S Granite SD Access & Main Street - 67(	N-S	SBT	SB			191			468
17: S Granite SD Access & Main Street - 69(	S-E	NBR	NB			51			37
17: S Granite SD Access & Main Street - 69(	S-N	NBT	NB			337			415

2040 Queue Report (AM PM)

Alternative: Bigger Diamond

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 - 7	W-E	174.6265	EBT	179	92	332	1166	423	1865
1: 2100 South & State Street - 2@1436.4 - 6	E-W	214.1699	WBT	241	81	375	382	131	599
1: 2100 South & State Street - 3@1101.9 - 5	N-S	91.93159	SBT	112	32	164	483	177	775
1: 2100 South & State Street - 4@1031.1 - 8	S-N	223.4258	NBT	186	72	305	173	50	257
1: 2100 South & State Street - 159@246.4 -	S-E	70.95329	NBR	70	85	209	89	83	226
1: 2100 South & State Street - 160@288.7 -	S-W	57.97945	NBL	75	24	115	109	36	169
1: 2100 South & State Street - 161@166.4 -	E-S	118.9249	WBL	118	41	186	185	133	404
1: 2100 South & State Street - 162@152.6 -	W-N	68.47837	EBL	74	24	114	242	428	949
1: 2100 South & State Street - 163@133.8 -	N-W	17.41647	SBR	20	16	47	36	84	174
1: 2100 South & State Street - 164@371.3 -	N-E	42.10645	SBL	45	19	77	88	31	139
1: 2100 South & State Street - 165@166.2 -	E-N	15.3637	WBR	11	18	41	12	17	40
1: 2100 South & State Street - 255@187.5 -	W-S	24.32716	EBR	29	19	60	769	505	1603
2: Street Car Crossing & State Street - 5@10	N-S	61.18293	SBT	87	49	167	487	307	993
2: Street Car Crossing & State Street - 5@10	N-W	61.18293	SBR	86	49	166	485	307	992
2: Street Car Crossing & State Street - 10@1	S-N	119.3158	NBT	139	68	252	75	35	132
2: Street Car Crossing & State Street - 174@	W-S	30.87695	EBR	49	39	113	82	60	181
2: Street Car Crossing & State Street - 175@	W-N	177.0554	EBL	166	60	265	225	123	427
2: Street Car Crossing & State Street - 177@	S-W	44.54393	NBL	69	49	150	264	147	507
3: WB I-80 & State Street - 90@184.4 - 10@	S-N	2.482983	NBT	2	9	17	16	35	73
3: WB I-80 & State Street - 124@1242.1 - 92	E-S	113.7632	WBL	94	31	145	140	42	209
3: WB I-80 & State Street - 124@1242.1 - 11	E-W	113.7632	WBT	93	31	144	140	42	209
3: WB I-80 & State Street - 125@335.6 - 10@	E-N	160.3751	WBR	199	113	386	476	345	1045
3: WB I-80 & State Street - 155@284.1 - 98@	N-S	142.0927	SBT	186	58	282	170	95	327
3: WB I-80 & State Street - 156@284.4 - 118	N-W	44.92726	SBR	55	39	119	90	73	210
3: WB I-80 & State Street - 157@284.8 - 92@	N-S	56.92244	SBT	58	20	92	171	83	307
3: WB I-80 & State Street - 173@156.4 - 118	S-W	0	NBL	2	8	14	13	28	60
4: EB I-80 & State Street - 92@225.5 - 12@3	N-S	0	SBT	5	28	52	18	55	109
4: EB I-80 & State Street - 98@223.3 - 122@	N-E	0	SBL	2	13	24	9	33	64
4: EB I-80 & State Street - 120@1811.7 - 90@	W-N	150.5032	EBL	204	111	387	222	366	827
4: EB I-80 & State Street - 120@1811.7 - 122	W-E	150.5032	EBT	199	111	382	214	366	818
4: EB I-80 & State Street - 121@196.0 - 12@	W-S	255.1999	EBR	548	442	1277	1437	354	2021
4: EB I-80 & State Street - 144@78.0 - 90@5	S-N	136.9647	NBT	173	73	293	201	70	317
4: EB I-80 & State Street - 145@71.2 - 122@	S-E	98.32577	NBR	139	84	277	135	89	282
4: EB I-80 & State Street - 146@331.6 - 173@	S-N	118.8953	NBT	141	46	217	108	37	169
5: Oakland & State Street - 12@191.7 - 12@	N-S	0	SBT	2	8	15	5	17	33
5: Oakland & State Street - 22@609.6 - 11@	E-N	11.65606	WBR	26	54	114	28	41	96
5: Oakland & State Street - 146@92.9 - 146@	S-N	0	NBT	2	11	20	9	49	90
5: Oakland & State Street - 147@71.5 - 11@	S-N	0	NBT	21	45	95	29	44	102
5: Oakland & State Street - 147@71.5 - 21@	S-E	0	NBR	26	45	100	39	50	121
6: East Grantie SD RIRO & State Street - 12@	N-W	11.18041	SBR	6	16	33	4	19	35
6: East Grantie SD RIRO & State Street - 12@	N-S	5.577316	SBT	16	69	130	13	50	95
6: East Grantie SD RIRO & State Street - 23@	W-S	31.19051	EBR	24	13	45	33	13	55
6: East Grantie SD RIRO & State Street - 100	S-N	5.460633	NBT	17	40	84	22	51	107
6: East Grantie SD RIRO & State Street - 100	S-N	5.419261	NBT	13	33	67	13	39	77
7: 2700 South & State Street - 14@1205.4 -	N-S	104.8695	SBT	90	31	142	235	53	323
7: 2700 South & State Street - 15@1184.3 -	S-N	171.299	NBT	171	48	251	203	47	280
7: 2700 South & State Street - 17@647.5 - 1	W-S	43.7383	EBR	41	27	85	201	90	349
7: 2700 South & State Street - 17@647.5 - 1	W-E	33.04726	EBT	33	29	80	197	90	345
7: 2700 South & State Street - 20@820.0 - 1	E-W	56.09794	WBT	57	33	112	56	31	107
7: 2700 South & State Street - 148@291.2 -	S-W	44.14606	NBL	35	28	81	39	31	90
7: 2700 South & State Street - 149@150.8 -	S-E	7.068628	NBR	5	11	23	20	16	47
7: 2700 South & State Street - 150@28.0 - 1	W-N	54.57696	EBL	81	45	156	188	98	350
7: 2700 South & State Street - 153@329.4 -	N-E	25.69145	SBL	16	21	51	46	34	103
7: 2700 South & State Street - 154@188.7 -	N-W	15.7031	SBR	16	15	40	14	15	38
7: 2700 South & State Street - 10014@53.9 -	E-N	39.95058	WBR	45	24	84	25	16	51

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7: 2700 South & State Street - 10015@17.9	E-S	31.09067	WBL	40	33	94	70	38	133
8: WB I-80 & 700 East - 72@299.7 - 73@63.	N-S	141.1327	SBT	141	32	193	265	61	364
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	148.1626	NBT	111	68	223	34	25	75
8: WB I-80 & 700 East - 87@30.0 - 137@28.	S-SW	75.62681	NBL	193	111	375	309	62	411
8: WB I-80 & 700 East - 135@1579.2 - 73@6	E-S	77.16601	WBL	50	23	88	87	34	143
8: WB I-80 & 700 East - 135@1579.2 - 137@	E-SW	77.16601	WBL	50	23	88	87	34	143
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	11.21833	WBR	4	15	29	5	18	36
8: WB I-80 & 700 East - 168@218.7 - 83@57	N-S	87.49564	SBT	96	32	150	168	42	237
8: WB I-80 & 700 East - 169@299.3 - 137@2	N-SW	1.921018	SBR	15	61	115	3	10	19
9: EB I-80 & 700 East - 74@24.8 - 10189@12	N-S	84.33455	SBT	68	30	117	99	37	160
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	257.299	NBT	290	131	506	212	45	286
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	46.34186	SBL	57	39	121	247	64	352
9: EB I-80 & 700 East - 133@1231.9 - 79@56	W-N	244.9994	EBL	258	83	394	260	77	387
9: EB I-80 & 700 East - 133@1231.9 - 140@6	W-NE	244.9994	EBL	258	83	394	260	77	387
9: EB I-80 & 700 East - 134@318.9 - 10188@	W-S	0	EBR	5	11	23	11	36	70
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	234.6813	NBT	445	362	1042	234	86	376
9: EB I-80 & 700 East - 167@274.8 - 140@66	S-NE	0	NBR	1	3	6	1	5	10
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	0	SBT	0	1	3	1	5	10
10: 2400 S & West Temple - 33@704.1 - 35@	E-W	7.350483	WBT	7	11	25	10	14	33
10: 2400 S & West Temple - 33@704.1 - 56@	E-N	7.350483	WBR	7	11	25	10	14	33
10: 2400 S & West Temple - 33@704.1 - 101	E-S	7.350483	WBL	7	11	25	10	14	33
10: 2400 S & West Temple - 34@51.1 - 32@	W-E	0	EBT	0	0	0	0	2	4
10: 2400 S & West Temple - 34@51.1 - 56@	W-N	0	EBL	0	0	0	0	2	4
10: 2400 S & West Temple - 34@51.1 - 1010	W-S	0	EBR	0	0	0	0	2	4
10: 2400 S & West Temple - 57@353.0 - 32@	N-E	0	SBL	1	7	13	1	5	10
10: 2400 S & West Temple - 57@353.0 - 35@	N-W	0	SBR	1	3	5	1	3	6
10: 2400 S & West Temple - 57@353.0 - 101	N-S	0	SBT	0	2	4	1	3	6
10: 2400 S & West Temple - 10107@1.9 - 32	S-E	0	NBR	0	0	0	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 35	S-W	0	NBL	0	4	7	0	0	0
10: 2400 S & West Temple - 10107@1.9 - 56	S-N	0	NBT	0	0	0	0	0	0
11: Robert Ave. & West Temple - 28@710.2	E-W	2.575479	WBT	7	12	27	7	12	27
11: Robert Ave. & West Temple - 28@710.2	E-S	2.558841	WBL	7	12	27	7	12	27
11: Robert Ave. & West Temple - 28@710.2	E-N	2.531768	WBR	7	12	27	7	12	27
11: Robert Ave. & West Temple - 31@117.4	W-E	0	EBT	3	9	18	9	13	30
11: Robert Ave. & West Temple - 31@117.4	W-S	0	EBR	3	9	18	9	13	30
11: Robert Ave. & West Temple - 31@117.4	W-N	0	EBL	3	9	18	9	13	30
11: Robert Ave. & West Temple - 44@282.3	S-E	0	NBR	0	1	2	0	2	4
11: Robert Ave. & West Temple - 44@282.3	S-W	0	NBL	0	2	4	1	3	6
11: Robert Ave. & West Temple - 44@282.3	S-N	0	NBT	0	1	2	0	2	4
11: Robert Ave. & West Temple - 49@19.8 -	N-E	2.913105	SBL	2	5	11	1	5	10
11: Robert Ave. & West Temple - 49@19.8 -	N-W	8.146827	SBR	21	36	80	22	36	82
11: Robert Ave. & West Temple - 49@19.8 -	N-S	0	SBT	1	5	9	0	2	4
12: Oakland Ave & West Temple - 40@711.0	E-W	16.71183	WBT	19	15	44	17	15	41
12: Oakland Ave & West Temple - 40@711.0	E-N	16.71183	WBR	19	15	44	17	15	41
12: Oakland Ave & West Temple - 40@711.0	E-S	16.71183	WBL	19	15	44	17	15	41
12: Oakland Ave & West Temple - 43@473.0	W-E	17.04076	EBT	14	14	38	21	15	46
12: Oakland Ave & West Temple - 43@473.0	W-N	16.65659	EBL	14	14	37	20	15	44
12: Oakland Ave & West Temple - 43@473.0	W-S	16.6845	EBR	14	14	37	21	15	45
12: Oakland Ave & West Temple - 45@261.8	N-E	0	SBL	1	6	11	2	10	19
12: Oakland Ave & West Temple - 45@261.8	N-W	0	SBR	0	3	5	1	8	15
12: Oakland Ave & West Temple - 45@261.8	N-S	0	SBT	0	0	0	0	1	2
12: Oakland Ave & West Temple - 46@527.0	S-E	5.925707	NBR	1	5	9	1	4	7
12: Oakland Ave & West Temple - 46@527.0	S-W	5.332815	NBL	1	6	10	2	7	13
12: Oakland Ave & West Temple - 46@527.0	S-N	2.023688	NBT	0	2	3	0	0	0
13: 2400 S & Main Street - 32@716.9 - 36@7	W-E	9.74766	EBT	7	11	26	10	12	30
13: 2400 S & Main Street - 32@716.9 - 55@6	W-S	9.74766	EBR	7	11	26	10	12	30
13: 2400 S & Main Street - 32@716.9 - 58@7	W-N	9.74766	EBL	7	11	25	9	12	29
13: 2400 S & Main Street - 37@456.9 - 33@7	E-W	0	WBT	0	0	0	0	0	0

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13: 2400 S & Main Street - 37@456.9 - 55@(	E-S	0	WBL	0	0	1	0	0	1
13: 2400 S & Main Street - 37@456.9 - 58@2	E-N	0	WBR	0	0	0	0	0	0
13: 2400 S & Main Street - 54@239.9 - 33@2	S-W	0	NBL	0	4	6	1	5	8
13: 2400 S & Main Street - 54@239.9 - 36@2	S-E	0	NBR	0	0	1	0	4	7
13: 2400 S & Main Street - 54@239.9 - 58@2	S-N	0	NBT	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 33@2	N-W	0	SBR	0	0	0	0	1	2
13: 2400 S & Main Street - 59@503.7 - 36@2	N-E	0	SBL	0	0	0	0	0	0
13: 2400 S & Main Street - 59@503.7 - 55@(	N-S	0	SBT	0	0	0	0	0	0
14: Robert Ave. & Main Street - 26@405.6 -	E-W	2.669583	WBT	9	30	58	53	259	480
14: Robert Ave. & Main Street - 26@405.6 -	E-N	2.669583	WBR	12	47	89	21	83	158
14: Robert Ave. & Main Street - 26@405.6 -	E-S	2.669583	WBL	7	19	38	23	98	185
14: Robert Ave. & Main Street - 29@709.2 -	W-E	10.32267	EBT	14	36	73	17	33	72
14: Robert Ave. & Main Street - 29@709.2 -	W-N	10.32267	EBL	10	13	30	13	14	36
14: Robert Ave. & Main Street - 29@709.2 -	W-S	10.32267	EBR	10	14	34	14	19	45
14: Robert Ave. & Main Street - 55@232.4 -	N-E	0	SBL	4	24	43	7	32	59
14: Robert Ave. & Main Street - 55@232.4 -	N-W	0	SBR	3	15	27	8	42	78
14: Robert Ave. & Main Street - 55@232.4 -	N-S	0	SBT	1	5	9	1	5	8
14: Robert Ave. & Main Street - 60@63.7 - 2	S-E	0	NBR	2	8	14	8	19	39
14: Robert Ave. & Main Street - 60@63.7 - 2	S-W	0	NBL	1	3	5	1	3	6
14: Robert Ave. & Main Street - 60@63.7 - 5	S-N	0	NBT	1	7	12	28	151	277
15: N Granite SD Access & Main Street - 39@	E-N	0	WBR	5	15	30	23	100	188
15: N Granite SD Access & Main Street - 39@	E-S	0	WBL	5	15	30	23	100	188
15: N Granite SD Access & Main Street - 61@	N-E	2.174524	SBL	5	25	46	4	11	22
15: N Granite SD Access & Main Street - 61@	N-S	0	SBT	5	15	30	11	24	51
15: N Granite SD Access & Main Street - 62@	S-E	0	NBR	5	26	49	8	45	82
15: N Granite SD Access & Main Street - 62@	S-N	0	NBT	3	14	26	9	49	89
16: Oakland Ave. & Main Street - 41@707.2	W-N	23.08612	EBL	15	14	38	25	14	48
16: Oakland Ave. & Main Street - 41@707.2	W-S	23.08612	EBR	19	17	46	29	23	66
16: Oakland Ave. & Main Street - 63@154.7	N-W	0	SBR	4	19	34	5	27	50
16: Oakland Ave. & Main Street - 63@154.7	N-S	0	SBT	7	39	71	21	113	207
16: Oakland Ave. & Main Street - 66@184.7	S-W	1.807164	NBL	9	42	79	10	40	76
16: Oakland Ave. & Main Street - 66@184.7	S-N	0	NBT	1	8	15	4	22	40
17: S Granite SD Access & Main Street - 65@	E-N	0	WBR	4	11	22	12	47	89
17: S Granite SD Access & Main Street - 65@	E-S	0	WBL	2	6	13	4	8	18
17: S Granite SD Access & Main Street - 67@	N-E	1.872743	SBL	1	5	9	1	4	8
17: S Granite SD Access & Main Street - 67@	N-S	0	SBT	0	0	0	1	3	5
17: S Granite SD Access & Main Street - 69@	S-E	4.265461	NBR	8	38	70	10	53	97
17: S Granite SD Access & Main Street - 69@	S-N	0	NBT	7	38	70	10	53	97

Freeway LOS AM PM

Alternative: Bigger Diamond

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	4	19.5	C	0.52	***21.3***	***C***	***32.3***	***D***	5275	5320	99.2%	6965	9850	70.7%	65.15	55.62	0.74	2.87
EB I-80 (State to 700 E)	Weave	5	18.6	B	0.62	***20.4***	***C***	***26.7***	***C***	6458	6530	98.9%	8316	11250	73.9%	66.50	63.64	0.66	1.79
EB I-80 (Over 700 E)	Basic	4	17.8	B	0.65	***19.4***	***C***	***24.7***	***C***	5001	5060	98.8%	6413	8750	73.3%	67.70	66.11	0.70	1.45
WB I-80 (Over 700 E)	Basic	4	77.2	F	11.99	***92.0***	***F***	***27.1***	***D***	5736	8020	71.5%	6094	6130	99.4%	15.05	59.33	11.99	13.22
WB I-80 (700 E to State)	Weave	5	61.0	F	13.42	***67.2***	***F***	***28.2***	***D***	7414	10050	73.8%	7423	7490	99.1%	21.69	57.43	13.42	19.67
WB I-80 (Over State)	Diverge	4	51.7	F	6.95	***51.7***	***F***	***30.8***	D	6737	9180	73.4%	6372	6470	98.5%	28.09	64.02	6.95	2.73
WB I-80 to WB CD Ramp	Ramp	2	77.2	F	9.48	***79.4***	***F***	***29.6***	***C***	3780	5250	72.0%	3406	3550	95.9%	23.50	60.31	9.48	7.33
WB I-80 (West of State)	Diverge	3	16.9	B	1.47	***16.9***	***B***	***15.1***	B	2818	3930	71.7%	2834	2920	97.1%	64.30	66.70	1.47	1.19
WB I-80 to NB I-15	Ramp	3	14.1	B	1.29	***14.1***	***B***	***13.9***	***B***	2210	3010	73.4%	2217	2240	99.0%	56.05	56.32	1.29	1.27
To SB I-15 Ramp	Ramp	2	14.4	B	0.98	***15.4***	***B***	***16.3***	***B***	1668	1990	83.8%	1727	1770	97.6%	55.78	55.62	1.41	1.34
To WB 201 Ramp	Ramp	2	24.9	C	1.59	***24.9***	***C***	***22.5***	***B***	2663	3690	72.2%	2361	2460	96.0%	54.66	55.07	2.20	1.69
WB I-80 to SB I-15/WB 201	Diverge	3	43.1	E	1.47	***44.9***	***E***	***32.6***	D	4254	5680	74.9%	4015	4230	94.9%	52.18	52.05	2.54	2.79
WB CD	Weave (CD)	3	29.9	C	1.71	***30.9***	***C***	***24.6***	***C***	4701	6150	76.4%	4406	4580	96.2%	51.53	61.65	2.28	2.28
EB I-15 On Ramp	Ramp	2	24.4	C	4.39	***25.9***	***C***	***32.8***	***D***	1125	1210	93.0%	1278	1400	91.3%	22.22	19.98	4.79	6.69
EB I-80 I-15 to State	Weave	5	21.3	C	1.84	***23.7***	***C***	***75.1***	***F***	6385	6540	97.6%	7874	11260	69.9%	56.84	20.50	4.55	6.76
NB I-15 Off Ramp 2	Ramp	1	27.1	C	3.52	***29.9***	***C***	***118.4***	***F***	1592	1600	99.5%	1485	1880	79.0%	55.31	11.24	12.48	22.48
NB I-15 Off Ramp 1	Ramp	2	11.9	A	0.24	***12.8***	***B***	***163.0***	***F***	1596	1600	99.8%	1659	1880	88.3%	65.62	4.06	0.41	21.52
EB 201/SB I-15 2	Merge	4	22.1	C	0.42	***23.6***	***C***	***109.9***	F	4897	4940	99.1%	6571	9380	70.1%	64.18	16.69	0.51	6.47
EB 201/SB I-15 1	Merge	5	15.6		0.33	***17.0***		***117.2***		4846	4940	98.1%	6551	9380	69.8%	60.00	10.84	0.59	8.84
EB 201 Ramp	Ramp	2	18.1	B	0.24	***19.6***	***B***	***151.3***	***F***	2347	2350	99.9%	2132	4480	47.6%	63.05	5.34	0.41	9.81
SB I-15 Ramp	Ramp	3	13.0	B	0.13	***14.0***	***B***	***54.3***	***F***	2588	2590	99.9%	4872	4900	99.4%	65.05	32.49	0.17	36.82
EB I-80 Ramp	Ramp	2	82.3	F	37.79	***141.8***	***F***	***19.9***	***B***	1749	2030	86.1%	1336	1360	98.2%	5.94	35.01	37.79	3.80

Alternative: Thru-Turn

Movement	Movement	Movement	Approach	AM Signal Delay	AM Signal LOS	AM Interchange Delay	AM Interchange LOS	AM Approach Delay	AM Approach LOS	AM Vol	PM Signal Delay	PM Signal LOS	PM Interchange Delay	PM Interchange LOS	PM Approach Delay	PM Approach LOS	PM Vol
1: 2100 South & State Street - 1@1466.8 - 7@	W-E	EBT	EB							495							601
1: 2100 South & State Street - 2@1436.4 - 6@	E-W	WBT	WB							689							610
1: 2100 South & State Street - 3@1101.9 - 5@	N-S	SBT	SB							611							829
1: 2100 South & State Street - 4@1031.1 - 8@	S-N	NBT	NB							1230							776
1: 2100 South & State Street - 159@246.4 - 7	S-E	NBR	NB							142							96
1: 2100 South & State Street - 160@288.7 - 6	S-W	NBL	NB							147							199
1: 2100 South & State Street - 161@166.4 - 5	E-S	WBL	WB							270							169
1: 2100 South & State Street - 162@152.6 - 8	W-N	EBL	EB							143							117
1: 2100 South & State Street - 163@133.8 - 6	N-W	SBR	SB							73							74
1: 2100 South & State Street - 164@371.3 - 7	N-E	SBL	SB							84							95
1: 2100 South & State Street - 165@166.2 - 8	E-N	WBR	WB							86							72
1: 2100 South & State Street - 255@187.5 - 5	W-S	EBR	EB	32.15	C					159	107.09	F					203
2: Street Car Crossing & State Street - 5@104	N-S	SBT	SB							889							1076
2: Street Car Crossing & State Street - 5@104	N-W	SBR	SB							150							116
2: Street Car Crossing & State Street - 10@90	S-N	NBT	NB							1324							1017
2: Street Car Crossing & State Street - 174@6	W-S	EBR	EB							301							78
2: Street Car Crossing & State Street - 175@2	W-N	EBL	EB							197							53
2: Street Car Crossing & State Street - 177@1	S-W	NBL	NB	12.60	B					160	98.19	F					189
3: WB I-80 & State Street - 124@1241.1 - 89@	E-N	WBR	WB							645							787
3: WB I-80 & State Street - 144@360.2 - 89@	S-N	NBT	NB							1613							1217
3: WB I-80 & State Street - 156@284.4 - 118@	N-W	SBR	SB							875							612
3: WB I-80 & State Street - 157@280.5 - 157@	N-S	SBT	SB	8.13	A					978	45.26	D					1160
4: EB I-80 & State Street - 120@1779.5 - 12@	W-S	EBR	EB							976							384
4: EB I-80 & State Street - 144@77.5 - 144@	S-N	NBT	NB							1614							1221
4: EB I-80 & State Street - 145@75.0 - 10032@	S-E	NBR	NB							1174							865
4: EB I-80 & State Street - 157@553.5 - 12@	N-S	SBT	SB	16.91	B	27297.25	F			977	51.81	D	70193.15	F			1158
5: Oakland & State Street - 12@187.1 - 12@	N-S	SBT	SB							1953							1519
5: Oakland & State Street - 13@1554.4 - 11@	S-N	NBT	NB							2759							2045
5: Oakland & State Street - 13@1554.4 - 21@	S-E	NBR	NB							11							20
5: Oakland & State Street - 22@609.6 - 11@	E-N	WBR	WB	5.90	A			7.93	A	29	23.89	C			7.23	A	46
6: East Grantie SD RIRO & State Street - 12@	N-W	SBR	SB							195							21
6: East Grantie SD RIRO & State Street - 12@	N-S	SBT	SB							645							992
6: East Grantie SD RIRO & State Street - 12@	N-S	SBT	SB							1113							506
6: East Grantie SD RIRO & State Street - 13@	S-N	NBT	NB							2770							2066
6: East Grantie SD RIRO & State Street - 23@	W-S	EBR	EB							49							98
6: East Grantie SD RIRO & State Street - 1021	N-S	SBT	SB	2.40	A			6.19	A	1112	5.89	A			7.05	A	507
7: 2700 South & State Street - 14@1204.5 - 1	N-S	SBT	SB							552							995
7: 2700 South & State Street - 15@1184.3 - 1	S-N	NBT	NB							1512							1282
7: 2700 South & State Street - 17@647.5 - 16	W-S	EBR	EB							40							94
7: 2700 South & State Street - 17@647.5 - 19	W-E	EBT	EB							59							313
7: 2700 South & State Street - 20@820.0 - 18	E-W	WBT	WB							156							148
7: 2700 South & State Street - 148@291.2 - 1	S-W	NBL	NB							120							81
7: 2700 South & State Street - 149@150.8 - 1	S-E	NBR	NB							21							83
7: 2700 South & State Street - 150@28.0 - 13	W-N	EBL	EB							148							282
7: 2700 South & State Street - 153@329.4 - 1	N-E	SBL	SB							44							60
7: 2700 South & State Street - 154@188.7 - 1	N-W	SBR	SB							101							36
7: 2700 South & State Street - 10014@53.9 -	E-N	WBR	WB							194							65
7: 2700 South & State Street - 10015@17.9 -	E-S	WBL	WB	27.06	C					74	19.53	B					127
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	SBT	SB							665							1705
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	NBT	NB							2308							1575
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	NBL	NB							838							665
8: WB I-80 & 700 East - 135@1579.2 - 73@63	E-S	WBL	WB							84							203
8: WB I-80 & 700 East - 135@1579.2 - 137@2	E-SW	WBL	WB							0							0
8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	WBR	WB							633							516
8: WB I-80 & 700 East - 168@218.7 - 83@57.	N-S	SBT	SB							308							751
8: WB I-80 & 700 East - 169@299.3 - 137@28	N-SW	SBR	SB	26.98	C					993	22.41	C					632
9: EB I-80 & 700 East - 74@24.8 - 10189@12.	N-S	SBT	SB							748							1909
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	NBT	NB							1587							1034
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	SBL	SB							310							751
9: EB I-80 & 700 East - 133@1231.9 - 79@56.	W-N	EBL	EB							722							540
9: EB I-80 & 700 East - 133@1231.9 - 140@6	W-NE	EBL	EB							0							0
9: EB I-80 & 700 East - 134@318.9 - 10188@1	W-S	EBR	EB							681							809
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	NBT	NB							853							665
9: EB I-80 & 700 East - 167@274.8 - 140@66.	S-NE	NBR	NB							137							146
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	SBT	SB	35.25	D	50.00	C			73	21.83	C	38.10	C			100
10: 2400 S & West Temple - 33@704.1 - 35@	E-W	WBT	WB							1							1
10: 2400 S & West Temple - 33@704.1 - 56@	E-N	WBR	WB							4							7
10: 2400 S & West Temple - 33@704.1 - 101	E-S	WBL	WB							4							6
10: 2400 S & West Temple - 34@51.1 - 32@3	W-E	EBT	EB							0							4
10: 2400 S & West Temple - 34@51.1 - 56@3	W-N	EBL	EB							0							0
10: 2400 S & West Temple - 34@51.1 - 1010	W-S	EBR	EB							0							0
10: 2400 S & West Temple - 57@353.0 - 32@	N-E	SBL	SB							6							5
10: 2400 S & West Temple - 57@353.0 - 35@	N-W	SBR	SB							0							5
10: 2400 S & West Temple - 57@353.0 - 101	N-S	SBT	SB							138							261
10: 2400 S & West Temple - 10107@1.9 - 32@	S-E	NBR	NB							5							6
10: 2400 S & West Temple - 10107@1.9 - 35@	S-W	NBL	NB							4							0
10: 2400 S & West Temple - 10107@1.9 - 56@	S-N	NBT	NB					6.85	A	190					7.29	A	280
11: Robert Ave. & West Temple - 28@710.2 -	E-W	WBT	WB							0							0
11: Robert Ave. & West Temple - 28@710.2 -	E-S	WBL	WB							4							6
11: Robert Ave. & West Temple - 28@710.2 -	E-N	WBR	WB							4							3
11: Robert Ave. & West Temple - 31@117.4 -	W-E	EBT	EB							0							5
11: Robert Ave. & West Temple - 31@117.4 -	W-S	EBR	EB							0							4
11: Robert Ave. & West Temple - 31@117.4 -	W-N	EBL	EB							4							4
11: Robert Ave. & West Temple - 44@282.3 -	S-E	NBR	NB							6							5
11: Robert Ave. & West Temple - 44@282.3 -	S-W	NBL	NB							7							6
11: Robert Ave. & West Temple - 44@282.3 -	S-N	NBT	NB							192							277
11: Robert Ave. & West Temple - 49@19.8 - 2	N-E	SBL	SB							5							5

11: Robert Ave. & West Temple - 49@19.8 - 3	N-W	SBR	SB		0		5
11: Robert Ave. & West Temple - 49@19.8 - 4	N-S	SBT	SB	7.25 A	137	9.49 A	255
12: Oakland Ave & West Temple - 40@711.0	E-W	WBT	WB		18		4
12: Oakland Ave & West Temple - 40@711.0	E-N	WBR	WB		10		21
12: Oakland Ave & West Temple - 40@711.0	E-S	WBL	WB		10		5
12: Oakland Ave & West Temple - 43@473.0	W-E	EBT	EB		4		20
12: Oakland Ave & West Temple - 43@473.0	W-N	EBL	EB		4		9
12: Oakland Ave & West Temple - 43@473.0	W-S	EBR	EB		11		9
12: Oakland Ave & West Temple - 45@261.8	N-E	SBL	SB		11		10
12: Oakland Ave & West Temple - 45@261.8	N-W	SBR	SB		10		5
12: Oakland Ave & West Temple - 45@261.8	N-S	SBT	SB		120		250
12: Oakland Ave & West Temple - 46@527.0	S-E	NBR	NB		13		22
12: Oakland Ave & West Temple - 46@527.0	S-W	NBL	NB	7.60 A	9		11
12: Oakland Ave & West Temple - 46@527.0	S-N	NBT	NB		190	9.07 A	261
13: 2400 S & Main Street - 32@716.9 - 36@2	W-E	EBT	EB		0		0
13: 2400 S & Main Street - 32@716.9 - 55@6	W-S	EBR	EB		5		4
13: 2400 S & Main Street - 32@716.9 - 58@2	W-N	EBL	EB		5		9
13: 2400 S & Main Street - 37@175.7 - 33@2	E-W	WBT	WB		0		0
13: 2400 S & Main Street - 37@175.7 - 55@6	E-S	WBL	WB		0		0
13: 2400 S & Main Street - 37@175.7 - 58@2	E-N	WBR	WB		0		0
13: 2400 S & Main Street - 54@239.9 - 33@2	S-W	NBL	NB		4		4
13: 2400 S & Main Street - 54@239.9 - 36@2	S-E	NBR	NB		0		0
13: 2400 S & Main Street - 54@239.9 - 58@2	S-N	NBT	NB		338		495
13: 2400 S & Main Street - 59@503.7 - 33@2	N-W	SBR	SB		4		9
13: 2400 S & Main Street - 59@503.7 - 36@2	N-E	SBL	SB	6.32 A	0	7.89 A	0
13: 2400 S & Main Street - 59@503.7 - 55@6	N-S	SBT	SB		190		471
14: Robert Ave. & Main Street - 26@405.6 - 2	E-W	WBT	WB		0		0
14: Robert Ave. & Main Street - 26@405.6 - 5	E-N	WBR	WB		0		4
14: Robert Ave. & Main Street - 26@405.6 - 6	E-S	WBL	WB		4		4
14: Robert Ave. & Main Street - 29@709.2 - 2	W-E	EBT	EB		0		5
14: Robert Ave. & Main Street - 29@709.2 - 5	W-N	EBL	EB		7		5
14: Robert Ave. & Main Street - 29@709.2 - 6	W-S	EBR	EB		4		6
14: Robert Ave. & Main Street - 55@232.4 - 2	N-E	SBL	SB	7.24 A	0		10
14: Robert Ave. & Main Street - 55@232.4 - 2	N-W	SBR	SB		5		5
14: Robert Ave. & Main Street - 55@232.4 - 6	N-S	SBT	SB		190		460
14: Robert Ave. & Main Street - 60@63.7 - 27	S-E	NBR	NB		5		5
14: Robert Ave. & Main Street - 60@63.7 - 28	S-W	NBL	NB		4		5
14: Robert Ave. & Main Street - 60@63.7 - 54	S-N	NBT	NB		337	7.85 A	491
15: N Granite SD Access & Main Street - 39@	E-N	WBR	WB		18		60
15: N Granite SD Access & Main Street - 39@	E-S	WBL	WB		15		5
15: N Granite SD Access & Main Street - 61@	N-E	SBL	SB	0.72	12		14
15: N Granite SD Access & Main Street - 61@	N-S	SBT	SB		188		458
15: N Granite SD Access & Main Street - 62@	S-E	NBR	NB		9		4
15: N Granite SD Access & Main Street - 62@	S-N	NBT	NB		328	1.14 A	442
16: Oakland Ave. & Main Street - 41@707.2 -	W-N	EBL	EB		10		28
16: Oakland Ave. & Main Street - 41@707.2 -	W-S	EBR	EB	6.60 A	17		23
16: Oakland Ave. & Main Street - 63@154.7 -	N-W	SBR	SB		17		13
16: Oakland Ave. & Main Street - 63@154.7 -	N-S	SBT	SB		186		450
16: Oakland Ave. & Main Street - 66@184.7 -	S-W	NBL	NB		21		16
16: Oakland Ave. & Main Street - 66@184.7 -	S-N	NBT	NB		324	7.59 A	418
17: S Granite SD Access & Main Street - 65@	E-N	WBR	WB		8		19
17: S Granite SD Access & Main Street - 65@	E-S	WBL	WB		17		17
17: S Granite SD Access & Main Street - 67@	N-E	SBL	SB		14		5
17: S Granite SD Access & Main Street - 67@	N-S	SBT	SB		191		468
17: S Granite SD Access & Main Street - 69@	S-E	NBR	NB		51		37
17: S Granite SD Access & Main Street - 69@	S-N	NBT	NB	1.20 A	337	1.78 A	415

2040 Queue Report (AM PM)

Alternative: Thru-Turn

				AM			PM		
Movement	Dir	Qmax	Movement	Ave Max	Std Max	95th	Ave Max	Std Max	95th
1: 2100 South & State Street - 1@1466.8 - 7@	W-E	170.4696	EBT	99	229	477	160	312	675
1: 2100 South & State Street - 2@1436.4 - 6@	E-W	214.0723	WBT	117	250	529	368	189	679
1: 2100 South & State Street - 3@1101.9 - 5@	N-S	94.00281	SBT	117	261	549	419	180	716
1: 2100 South & State Street - 4@1031.1 - 8@	S-N	232.332	NBT	125	268	567	167	98	330
1: 2100 South & State Street - 159@246.4 - 7(	S-E	43.14864	NBR	134	278	592	96	78	224
1: 2100 South & State Street - 160@288.7 - 6(	S-W	68.82225	NBL	131	277	587	125	60	225
1: 2100 South & State Street - 161@166.4 - 5(	E-S	118.8678	WBL	135	270	580	190	170	470
1: 2100 South & State Street - 162@152.6 - 8(	W-N	70.28765	EBL	152	272	602	357	557	1276
1: 2100 South & State Street - 163@133.8 - 6(	N-W	17.41647	SBR	155	274	607	43	35	100
1: 2100 South & State Street - 164@371.3 - 7(	N-E	42.13001	SBL	144	264	579	75	44	148
1: 2100 South & State Street - 165@166.2 - 8(	E-N	15.3503	WBR	141	250	553	88	156	346
1: 2100 South & State Street - 255@187.5 - 5(	W-S	24.35225	EBR	145	239	539	667	585	1632
2: Street Car Crossing & State Street - 5@104	N-S	50.37	SBT	151	240	546	436	263	870
2: Street Car Crossing & State Street - 5@104	N-W	50.37	SBR	146	246	552	415	268	857
2: Street Car Crossing & State Street - 10@90	S-N	92.11802	NBT	155	239	550	93	57	186
2: Street Car Crossing & State Street - 174@6	W-S	29.89687	EBR	155	239	550	112	93	266
2: Street Car Crossing & State Street - 175@21	W-N	177.2285	EBL	159	241	558	267	164	538
2: Street Car Crossing & State Street - 177@1	S-W	25.90048	NBL	124	183	427	341	164	611
3: WB I-80 & State Street - 124@1241.1 - 89@	E-N	217.4868	WBR	92	85	232	0	0	0
3: WB I-80 & State Street - 144@360.2 - 89@	S-N	0	NBT	94	83	231	0	0	0
3: WB I-80 & State Street - 156@284.4 - 118@	N-W	19.6163	SBR	101	81	235	0	0	0
3: WB I-80 & State Street - 157@280.5 - 157@	N-S	0	SBT	107	86	249	335	231	716
4: EB I-80 & State Street - 120@1779.5 - 12@	W-S	824.7761	EBR	119	158	380	344	236	733
4: EB I-80 & State Street - 144@77.5 - 144@2	S-N	0	NBT	121	177	413	335	231	716
4: EB I-80 & State Street - 145@75.0 - 10032@	S-E	40.93492	NBR	86	83	223	347	285	817
4: EB I-80 & State Street - 157@553.5 - 12@3	N-S	0	SBT	119	217	476	210	130	425
5: Oakland & State Street - 12@187.1 - 12@2	N-S	19.55136	SBT	113	245	517	152	132	370
5: Oakland & State Street - 13@1554.4 - 11@	S-N	34.67481	NBT	126	279	586	111	87	255
5: Oakland & State Street - 13@1554.4 - 21@	S-E	49.05498	NBR	125	294	610	268	198	594
5: Oakland & State Street - 22@609.6 - 11@5(	E-N	12.30412	WBR	134	301	630	0	0	0
6: East Grantie SD RIRO & State Street - 12@2	N-W	75.05569	SBR	129	302	628	0	0	0
6: East Grantie SD RIRO & State Street - 12@2	N-S	95.34776	SBT	123	303	623	0	0	0
6: East Grantie SD RIRO & State Street - 12@2	N-S	95.34776	SBT	129	306	633	199	78	327
6: East Grantie SD RIRO & State Street - 13@1	S-N	32.39917	NBT	125	307	632	233	156	490
6: East Grantie SD RIRO & State Street - 23@2	W-S	31.2023	EBR	121	307	627	199	78	327
6: East Grantie SD RIRO & State Street - 10213	N-S	97.26355	SBT	123	305	625	312	209	657
7: 2700 South & State Street - 14@1204.5 - 1(	N-S	86.95274	SBT	127	306	631	280	53	368
7: 2700 South & State Street - 15@1184.3 - 1	S-N	171.0481	NBT	124	306	629	243	90	391
7: 2700 South & State Street - 17@647.5 - 16(	W-S	46.15065	EBR	135	305	638	267	78	395
7: 2700 South & State Street - 17@647.5 - 19(	W-E	35.45961	EBT	121	307	627	111	72	229
7: 2700 South & State Street - 20@820.0 - 18(	E-W	56.1186	WBT	125	304	626	43	91	194
7: 2700 South & State Street - 148@291.2 - 1	S-W	47.78303	NBL	126	303	625	0	2	4
7: 2700 South & State Street - 149@150.8 - 1	S-E	7.027772	NBR	155	338	713	64	121	263
7: 2700 South & State Street - 150@28.0 - 13(	W-N	54.69704	EBL	121	304	623	16	37	76
7: 2700 South & State Street - 153@329.4 - 1	N-E	16.99527	SBL	124	301	620	93	43	164
7: 2700 South & State Street - 154@188.7 - 1	N-W	17.10338	SBR	116	304	618	102	61	202
7: 2700 South & State Street - 10014@53.9 - 1	E-N	41.7196	WBR	116	305	620	8	16	35
7: 2700 South & State Street - 10015@17.9 - 1	E-S	31.09067	WBL	117	301	614	0	3	6
8: WB I-80 & 700 East - 72@299.7 - 73@63.1	N-S	141.1611	SBT	108	301	604	32	13	54
8: WB I-80 & 700 East - 80@28.1 - 70@87.4	S-N	143.7548	NBT	115	301	612	364	287	836
8: WB I-80 & 700 East - 87@30.0 - 137@28.7	S-SW	77.26621	NBL	116	299	610	312	313	828
8: WB I-80 & 700 East - 135@1579.2 - 73@63.	E-S	77.36176	WBL	121	300	616	292	144	529
8: WB I-80 & 700 East - 135@1579.2 - 137@2	E-SW	77.36176	WBL	65	47	143	209	63	313

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8: WB I-80 & 700 East - 136@72.0 - 70@87.4	E-N	11.21833	WBR	65	50	149	201	86	344
8: WB I-80 & 700 East - 168@218.7 - 83@57.4	N-S	87.48818	SBT	67	52	153	169	98	330
8: WB I-80 & 700 East - 169@299.3 - 137@28.	N-SW	1.921018	SBR	70	53	157	65	37	127
9: EB I-80 & 700 East - 74@24.8 - 10189@12.(	N-S	93.5342	SBT	67	53	154	36	29	84
9: EB I-80 & 700 East - 78@281.6 - 79@56.2	S-N	278.3759	NBT	80	67	190	61	82	196
9: EB I-80 & 700 East - 85@22.3 - 140@66.9	N-NE	42.90279	SBL	73	66	182	169	105	342
9: EB I-80 & 700 East - 133@1231.9 - 79@56.2	W-N	240.887	EBL	76	60	174	44	33	99
9: EB I-80 & 700 East - 133@1231.9 - 140@66	W-NE	240.887	EBL	85	71	203	52	85	193
9: EB I-80 & 700 East - 134@318.9 - 10188@1	W-S	0	EBR	79	67	190	35	30	85
9: EB I-80 & 700 East - 166@226.1 - 86@53.8	S-N	237.9808	NBT	82	80	215	129	117	321
9: EB I-80 & 700 East - 167@274.8 - 140@66.9	S-NE	0	NBR	95	84	234	219	112	405
9: EB I-80 & 700 East - 10188@14.1 - 76@3.8	N-S	0	SBT	86	80	217	86	120	284
10: 2400 S & West Temple - 33@704.1 - 35@4	E-W	7.350483	WBT	92	92	245	254	144	491
10: 2400 S & West Temple - 33@704.1 - 56@3	E-N	7.350483	WBR	94	101	261	74	48	153
10: 2400 S & West Temple - 33@704.1 - 1010(	E-S	7.350483	WBL	88	109	268	92	37	152
10: 2400 S & West Temple - 34@51.1 - 32@34	W-E	0	EBT	93	114	281	38	69	151
10: 2400 S & West Temple - 34@51.1 - 56@3(	W-N	0	EBL	91	110	272	133	76	260
10: 2400 S & West Temple - 34@51.1 - 10106(	W-S	0	EBR	77	88	221	58	109	237
10: 2400 S & West Temple - 57@353.0 - 32@3	N-E	0	SBL	78	93	232	119	58	215
10: 2400 S & West Temple - 57@353.0 - 35@4	N-W	0	SBR	78	90	226	224	64	329
10: 2400 S & West Temple - 57@353.0 - 1010(	N-S	0	SBT	81	106	256	252	64	357
10: 2400 S & West Temple - 10107@1.9 - 32@	S-E	0	NBR	84	109	265	211	123	415
10: 2400 S & West Temple - 10107@1.9 - 35@	S-W	0	NBL	80	113	267	267	73	388
10: 2400 S & West Temple - 10107@1.9 - 56@	S-N	0	NBT	80	117	274	53	91	204
11: Robert Ave. & West Temple - 28@710.2 - 1	E-W	2.575479	WBT	84	124	289	202	153	454
11: Robert Ave. & West Temple - 28@710.2 - 4	E-S	2.558841	WBL	77	131	294	21	43	92
11: Robert Ave. & West Temple - 28@710.2 - 4	E-N	2.531768	WBR	80	142	314	57	117	250
11: Robert Ave. & West Temple - 31@117.4 - 1	W-E	0	EBT	71	139	301	20	15	44
11: Robert Ave. & West Temple - 31@117.4 - 4	W-S	0	EBR	66	139	295	16	15	41
11: Robert Ave. & West Temple - 31@117.4 - 4	W-N	0	EBL	69	141	303	20	15	44
11: Robert Ave. & West Temple - 44@282.3 - 1	S-E	0	NBR	59	132	276	0	2	4
11: Robert Ave. & West Temple - 44@282.3 - 1	S-W	0	NBL	57	142	292	0	2	3
11: Robert Ave. & West Temple - 44@282.3 - 4	S-N	0	NBT	58	147	300	0	2	4
11: Robert Ave. & West Temple - 49@19.8 - 2	N-E	2.913105	SBL	54	143	291	1	4	8
11: Robert Ave. & West Temple - 49@19.8 - 3(	N-W	8.146827	SBR	42	139	271	1	6	11
11: Robert Ave. & West Temple - 49@19.8 - 4	N-S	0	SBT	34	99	197	0	2	3
12: Oakland Ave & West Temple - 40@711.0 -	E-W	16.71183	WBT	30	114	218	0	0	0
12: Oakland Ave & West Temple - 40@711.0 -	E-N	16.71183	WBR	26	122	227	0	0	0
12: Oakland Ave & West Temple - 40@711.0 -	E-S	16.71183	WBL	29	142	263	4	11	22
12: Oakland Ave & West Temple - 43@473.0 -	W-E	17.04076	EBT	4	10	20	7	12	27
12: Oakland Ave & West Temple - 43@473.0 -	W-N	16.65659	EBL	5	10	22	7	12	27
12: Oakland Ave & West Temple - 43@473.0 -	W-S	16.6845	EBR	5	10	22	7	12	27
12: Oakland Ave & West Temple - 45@261.8 -	N-E	0	SBL	5	10	22	9	12	29
12: Oakland Ave & West Temple - 45@261.8 -	N-W	0	SBR	5	10	21	9	12	29
12: Oakland Ave & West Temple - 45@261.8 -	N-S	0	SBT	6	12	27	7	12	26
12: Oakland Ave & West Temple - 46@527.0 -	S-E	5.925707	NBR	6	12	26	0	2	4
12: Oakland Ave & West Temple - 46@527.0 -	S-W	5.332815	NBL	5	11	23	0	2	4
12: Oakland Ave & West Temple - 46@527.0 -	S-N	2.023688	NBT	5	10	20	0	2	3
13: 2400 S & Main Street - 32@716.9 - 36@24	W-E	9.74766	EBT	6	13	27	5	19	36
13: 2400 S & Main Street - 32@716.9 - 55@6.	W-S	9.74766	EBR	6	11	24	17	34	73
13: 2400 S & Main Street - 32@716.9 - 58@21	W-N	9.74766	EBL	6	12	26	3	10	20
13: 2400 S & Main Street - 37@175.7 - 33@22	E-W	0	WBT	6	12	26	16	16	42
13: 2400 S & Main Street - 37@175.7 - 55@6.	E-S	0	WBL	6	12	25	16	16	42
13: 2400 S & Main Street - 37@175.7 - 58@21	E-N	0	WBR	5	11	24	18	15	43
13: 2400 S & Main Street - 54@239.9 - 33@22	S-W	0	NBL	6	10	23	22	15	47
13: 2400 S & Main Street - 54@239.9 - 36@24	S-E	0	NBR	4	9	18	22	15	46

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13: 2400 S & Main Street - 54@239.9 - 58@21	S-N	0	NBT	5	10	22	18	16	44
13: 2400 S & Main Street - 59@503.7 - 33@22	N-W	0	SBR	6	11	24	2	10	18
13: 2400 S & Main Street - 59@503.7 - 36@24	N-E	0	SBL	7	12	27	1	7	13
13: 2400 S & Main Street - 59@503.7 - 55@6.	N-S	0	SBT	7	11	25	0	1	2
14: Robert Ave. & Main Street - 26@405.6 - 2	E-W	2.669583	WBT	7	11	25	1	5	8
14: Robert Ave. & Main Street - 26@405.6 - 5	E-N	2.669583	WBR	6	10	23	1	6	11
14: Robert Ave. & Main Street - 26@405.6 - 6	E-S	2.669583	WBL	5	10	21	2	8	15
14: Robert Ave. & Main Street - 29@709.2 - 2	W-E	10.32267	EBT	5	10	22	10	13	31
14: Robert Ave. & Main Street - 29@709.2 - 5	W-N	10.32267	EBL	4	9	18	10	13	31
14: Robert Ave. & Main Street - 29@709.2 - 6	W-S	10.32267	EBR	5	9	19	24	35	82
14: Robert Ave. & Main Street - 55@232.4 - 2	N-E	0	SBL	4	8	18	91	69	206
14: Robert Ave. & Main Street - 55@232.4 - 2	N-W	0	SBR	4	8	18	91	69	206
14: Robert Ave. & Main Street - 55@232.4 - 6	N-S	0	SBT	4	8	18	75	77	202
14: Robert Ave. & Main Street - 60@63.7 - 27	S-E	0	NBR	3	8	16	1	4	8
14: Robert Ave. & Main Street - 60@63.7 - 28	S-W	0	NBL	3	6	13	0	3	6
14: Robert Ave. & Main Street - 60@63.7 - 54	S-N	0	NBT	1	6	12	0	0	0
15: N Granite SD Access & Main Street - 39@1	E-N	0	WBR	1	6	11	0	0	0
15: N Granite SD Access & Main Street - 39@1	E-S	0	WBL	2	6	12	0	0	0
15: N Granite SD Access & Main Street - 61@3	N-E	2.174524	SBL	2	6	11	1	6	11
15: N Granite SD Access & Main Street - 61@3	N-S	0	SBT	2	5	10	6	11	24
15: N Granite SD Access & Main Street - 62@1	S-E	0	NBR	3	8	16	6	11	24
15: N Granite SD Access & Main Street - 62@1	S-N	0	NBT	3	9	17	6	11	25
16: Oakland Ave. & Main Street - 41@707.2 -	W-N	23.08612	EBL	3	9	17	10	14	33
16: Oakland Ave. & Main Street - 41@707.2 -	W-S	23.08612	EBR	3	8	16	10	14	33
16: Oakland Ave. & Main Street - 63@154.7 -	N-W	0	SBR	2	6	11	9	14	32
16: Oakland Ave. & Main Street - 63@154.7 -	N-S	0	SBT	3	6	13	1	7	13
16: Oakland Ave. & Main Street - 66@184.7 -	S-W	1.807164	NBL	3	7	15	0	5	8
16: Oakland Ave. & Main Street - 66@184.7 -	S-N	0	NBT	3	7	13	2	11	19
17: S Granite SD Access & Main Street - 65@2	E-N	0	WBR	3	9	18	4	17	32
17: S Granite SD Access & Main Street - 65@2	E-S	0	WBL	3	8	15	0	3	5
17: S Granite SD Access & Main Street - 67@1	N-E	1.872743	SBL	2	8	16	1	4	8
17: S Granite SD Access & Main Street - 67@1	N-S	0	SBT	3	8	15	5	10	21
17: S Granite SD Access & Main Street - 69@5	S-E	4.265461	NBR	3	10	19	4	10	21
17: S Granite SD Access & Main Street - 69@5	S-N	0	NBT	2	6	13	2	10	20
18: South Thru Turn - 13@1208.8 - 13@1410.	S-N	342.3937	NBT	14	62	116	6	21	41
18: South Thru Turn - 13@1208.8 - 262@88.8	S-E	342.3937	NBR	24	83	161	0	0	0
18: South Thru Turn - 143@87.3 - 14@51.9	N-S	0	SBT	12	57	106	5	12	25
18: South Thru Turn - 263@553.1 - 13@1410.	E-N	0	WBR	15	74	137	24	14	47
18: South Thru Turn - 264@113.7 - 13@1410.	N-N	224.0417	#N/A	38	115	228	19	16	45
18: South Thru Turn - 264@113.7 - 262@88.8	N-E	224.0417	SBL	49	134	270	0	2	4
19: North Thru Turn - 10@146.5 - 10@348.9	S-N	0	NBT	43	137	269	1	4	8
19: North Thru Turn - 25@145.5 - 9@119.0	S-S	192.6125	#N/A	55	153	307	2	8	15
19: North Thru Turn - 25@145.5 - 266@67.7	S-W	192.6125	NBL	73	167	349	1	5	9
19: North Thru Turn - 158@610.1 - 9@119.0	N-S	165.7721	SBT	71	166	345	4	9	18
19: North Thru Turn - 265@493.4 - 9@119.0	W-S	0	EBR	74	178	367	3	8	16
19: North Thru Turn - 267@6.1 - 266@67.7	N-W	7.887219	SBR	81	204	418	1	4	6
19: North Thru Turn - 10042@49.3 - 266@67.	N-W	7.887219	SBR	94	229	472	0	0	0

Freeway LOS AM PM

Alternative: Thru-Turn

Name	Analysis Type	Lanes	Density/Lane	LOS	CI	AM Den/Ln	AM LOS	PM Den/Ln	PM LOS	AM Volume hr	Demand hr	%Served	PM Volume hr	Demand hr	%Served	AM Speed pk 15	PM Speed pk 15	AM CI	PM CI
EB I-80 (Over State)	Basic	4	19.4	C	0.59	***21.3***	***C***	***21.6***	***C***	5145	5320	96.7%	5375	9850	54.6%	62.48	59.75	0.97	3.49
EB I-80 (State to 700 E)	Weave	5	18.6	B	0.58	***19.4***	***B***	***18.4***	***B***	6302	6530	96.5%	6159	11250	54.7%	66.58	66.06	0.81	3.56
EB I-80 (Over 700 E)	Basic	4	17.7	B	0.66	***18.6***	***C***	***17.5***	***B***	4891	5060	96.7%	4664	8630	54.0%	67.65	67.06	0.84	3.26
WB I-80 (Over 700 E)	Basic	4	73.5	F	18.15	***92.7***	***F***	***94.9***	***F***	5833	8020	72.7%	5603	6130	91.4%	15.15	14.89	18.15	39.21
WB I-80 (700 E to State)	Weave	5	57.7	F	14.65	***67.9***	***F***	***86.5***	***F***	7514	10050	74.8%	6691	7490	89.3%	21.60	15.36	14.65	34.33
WB I-80 (Over State)	Diverge	4	46.4	F	13.81	***49.7***	***F***	***26.4***	***C***	6821	9180	74.3%	5765	6470	89.1%	29.04	53.56	13.81	8.96
WB I-80 to WB CD Ramp	Ramp	2	73.1	F	16.91	***78.8***	***F***	***28.0***	***C***	3813	5250	72.6%	3042	3550	85.7%	24.07	52.05	16.91	11.74
WB I-80 (West of State)	Diverge	3	16.9	B	1.97	***16.9***	***B***	***12.6***	***B***	2859	3930	72.7%	2612	2920	89.5%	64.48	65.84	1.97	3.37
WB I-80 to NB I-15	Ramp	3	14.5	B	1.84	***14.5***	***B***	***13.1***	***B***	2240	3010	74.4%	2045	2240	91.3%	56.08	56.29	1.84	3.03
To SB I-15 Ramp	Ramp	2	14.4	B	1.56	***15.6***	***B***	***12.2***	***B***	1672	1990	84.0%	1279	1770	72.2%	55.55	55.92	1.56	4.54
To WB 201 Ramp	Ramp	2	25.3	C	2.48	***25.3***	***C***	***20.7***	***B***	2684	3690	72.7%	2109	2410	87.5%	54.63	55.17	2.48	7.02
WB I-80 to SB I-15/WB 201	Diverge	3	43.9	E	2.65	***45.6***	***F***	***25.3***	***C***	4279	5680	75.3%	3329	4180	79.6%	51.94	53.42	2.65	7.76
WB CD	Weave (CD)	3	30.0	C	1.52	***30.2***	***C***	***20.7***	***B***	4720	6150	76.7%	3677	4530	81.2%	52.08	60.56	1.52	7.91
EB I-15 On Ramp	Ramp	2	14.6	B	1.06	***15.7***	***B***	***12.3***	***B***	1097	1210	90.6%	808	1400	57.7%	35.54	35.43	1.06	5.83
EB I-80 I-15 to State	Weave	5	24.3	C	7.56	***67.7***	***F***	***109.0***	***F***	6021	6540	92.1%	5807	11260	51.6%	17.33	9.04	7.56	10.64
NB I-15 Off Ramp 2	Ramp	1	29.5	C	3.54	***124.7***	***F***	***196.5***	***F***	1302	1600	81.4%	703	1880	37.4%	9.52	1.82	9.97	27.20
NB I-15 Off Ramp 1	Ramp	2	12.2	B	0.75	***144.7***	***F***	***209.5***	***F***	1457	1600	91.1%	925	1880	49.2%	4.46	0.82	25.35	19.83
EB 201/SB I-15 2	Merge	4	22.1	C	0.78	***24.2***	***C***	***106.0***	***F***	4782	4940	96.8%	5204	9380	55.5%	48.31	10.44	0.98	12.68
EB 201/SB I-15 1	Merge	5	15.4		0.40	***17.3***		***122.8***		4848	4940	98.1%	5346	9380	57.0%	58.98	7.40	0.43	12.57
EB 201 Ramp	Ramp	2	18.0	B	0.29	***19.8***	***B***	***165.7***	***F***	2343	2350	99.7%	1336	4480	29.8%	62.47	1.64	0.53	21.68
SB I-15 Ramp	Ramp	3	13.0	B	0.13	***14.0***	***B***	***97.8***	***F***	2581	2590	99.7%	4334	4900	88.5%	64.71	13.92	0.17	14.20
EB I-80 Ramp	Ramp	2	64.6	F	27.83	***140.5***	***F***	***52.5***	***F***	1771	2030	87.2%	1268	1360	93.2%	6.12	22.05	27.83	93.88

MEMORANDUM

Date: August 9, 2016

To: Peter Tang, P.E. – UDOT Region 2 Project Manager

From: Ryan Hales, P.E., PTOE, AICP
Jeremy Searle, P.E., PTOE

Subject: I-80 / State Street Interchange EIS Travel Demand Model Sensitivity Analysis

UT13-537

PURPOSE

The purpose of this memorandum is to detail the sensitivity analysis that was completed to compare the results of version 7 (v7) of the Wasatch Front Regional Council (WFRC) Travel Demand Model (TDM) with the results from version 8 (v8). This analysis was completed in conjunction with the I-80 / State Street Interchange Environmental Impact Study (EIS). When the traffic analysis for the I-80 / State Street Interchange EIS was completed, v7 of the TDM was the adopted and most up to date version. However, since that time, a newer version (v8) has been created and adopted.

VERSION 7 SUB-AREA CALIBRATION

Future traffic for the I-80 / State Street Interchange EIS was estimated using v7 of the TDM. The model covers the four-county urban area and is calibrated to that area, but at any given subarea it usually needs additional sub-area calibration.

The model was run for a base year of 2012, and its results were compared to UDOT's Traffic on Utah Highways values for all streets that have counts between I-15 and 700 East, and between 2100 South and 2700 South. UDOT counts reflect Average Annual Daily Traffic (AADT), which are averaged across Saturdays and Sundays, whereas the travel model estimates Average Weekday Traffic (AWDT), which is usually about 10 percent higher than AADT. Therefore, UDOT's AADT values were increased by 10 percent to reflect typical weekday conditions.

In general, the model was close to the existing counts. For streets where the model was estimating too much traffic, the default assumptions for free flow speed were reviewed

and reduced when it seemed justifiable. For streets where the model did not have enough traffic, speeds were reviewed and increased when it seemed justifiable.

Even after sub-area calibration, it is still impossible for any model to exactly replicate existing conditions. Therefore, when estimating 2040 traffic, best practice is to record how far off the base year was from known counts, and then add that much back into the final result. Future (2040) volumes were adjusted by observing the difference between the base model (2012) and existing (and recent) traffic volumes and applying that difference to the travel demand model's future (2040) volumes. The future (2040) peak period turning movement counts were calculated using the NCHRP 255 methodology which creates future turning movement counts as a function of existing peak hour turning movement counts and future daily volumes (adjusted from the 2040 travel demand model).

WFRC allocates expected growth by 2040 to Traffic Analysis Zones (TAZs) across multiple counties, but there is a good chance that growth in any given locale may not match well with local expectations for that area. In this case, South Salt Lake is aggressively pursuing major redevelopment of several areas in the study area. Their proposed plans for commercial square footage were reviewed and converted into either retail, industrial, or other jobs (usually office jobs), and placed into the relevant TAZs. They are also planning significant new dwelling units, which were converted into households and people for use in the model. In that effort, it was assumed that the redevelopment would entirely replace existing uses, and not be additive to existing uses.

Therefore, the existing TAZ structure within the study area was adjusted to account for land use changes that are being planned by South Salt Lake. With these adjustments, although there is significant residential growth anticipated, there is less employment because existing businesses would be replaced by multi-family. So while development will all be new, it is not necessarily generating significantly more trips than were already generated before.

VERSION 8 TRAVEL DEMAND MODEL RESULTS

Future traffic volumes for the I-80 / State Street Interchange EIS study area using v8 of the TDM were obtained from Horrocks Engineers. These values were then compared to the future traffic volumes generated by the calibrated v7 TDM. This comparison is shown in Table 1.

As shown in Table 1, the changes in ramp volumes are fairly minimal, with two increasing a little and two decreasing a little. This should have little effect on the interchange operations, which was shown to have excess capacity. The freeway volumes drop slightly in both the east and westbound directions with v8, but are still so high that a full traffic analysis would produce very similar results. The percent change in the compared segments were between 2.7 - 6.7%, except for the segment on westbound I-80 west of

State Street (10.4%). This segment wasn't the problem in the westbound analysis, because the backups occurred before this point.

Table 1 Level of Service Descriptions for Freeway Segments

I-80 / State Street EIS TDM Comparison				
Segment	**Calibrated TDM (v7)**	**TDM (v8)**	**Difference in Volumes**	**% Change**
EB I-80 West of State	100,550	97,800	2,750	-2.7%
EB I-80 East of State	100,400	93,700	6,700	-6.7%
WB I-80 East of State	96,600	92,700	3,900	-4.0%
WB I-80 West of State	106,900	95,800	11,100	-10.4%
EB off-ramp	12,800	15,200	-2,400	18.8%
EB on-ramp	12,600	11,100	1,500	-11.9%
WB off-ramp	10,300	9,400	900	-8.7%
WB on-ramp	10,600	12,400	-1,800	17.0%
Hales Engineering, 2016				

The volumes shown in Table 1 represent daily volumes. The traffic analyses completed for the EIS were completed for the a.m. and p.m. peak hours, which would be approximately 10 percent of the daily volumes. Therefore, a change in daily volumes of 1,000 vehicles would represent a change in approximately 100 vehicles during the peak hour. It was determined that the changes in projected future volumes were minimal enough to have little to no impact on the results of the traffic analyses completed for the I-80 / State Street Interchange EIS.

Summary of I-80 / State Street Interchange Analyses

The following is a summary of the sensitivity analysis comparing the v7 TDM results with the v8 TDM model results:

1. The traffic analysis for the I-80 / State Street Interchange EIS were completed with the most current and adopted version of the WFRC TDM available at the time (v7).
2. Since that time, a new version of the TDM has been adopted (v8). The results in the study area from the calibrated v7 model were compared with the results from v8 of the TDM.
3. The comparison showed that future projected volumes were anticipated to change slightly with v8 of the TDM. However, the changes in projected future volumes were minimal enough to have little to no impact on the results of the traffic analyses completed for the I-80 / State Street Interchange EIS.

NOISE STUDY

1.0 INTRODUCTION

This Noise Analysis was prepared in accordance with 23 CFR §772 and the UDOT Noise Abatement Policy, last revised February 13, 2014.

1.1 DESCRIPTION OF PROJECT

The Federal Highway Administration (FHWA) and the Utah Department of Transportation (UDOT) have initiated an Environmental Impact Statement (EIS) for proposed transportation improvements at and near the State Street Interchange on Interstate 80 (I-80) in the City of South Salt Lake, Salt Lake County, Utah. I-80 is an existing limited access freeway that runs east-west, and State Street (US-89) is an existing state highway that runs north-south (see Figure 1 for study area).

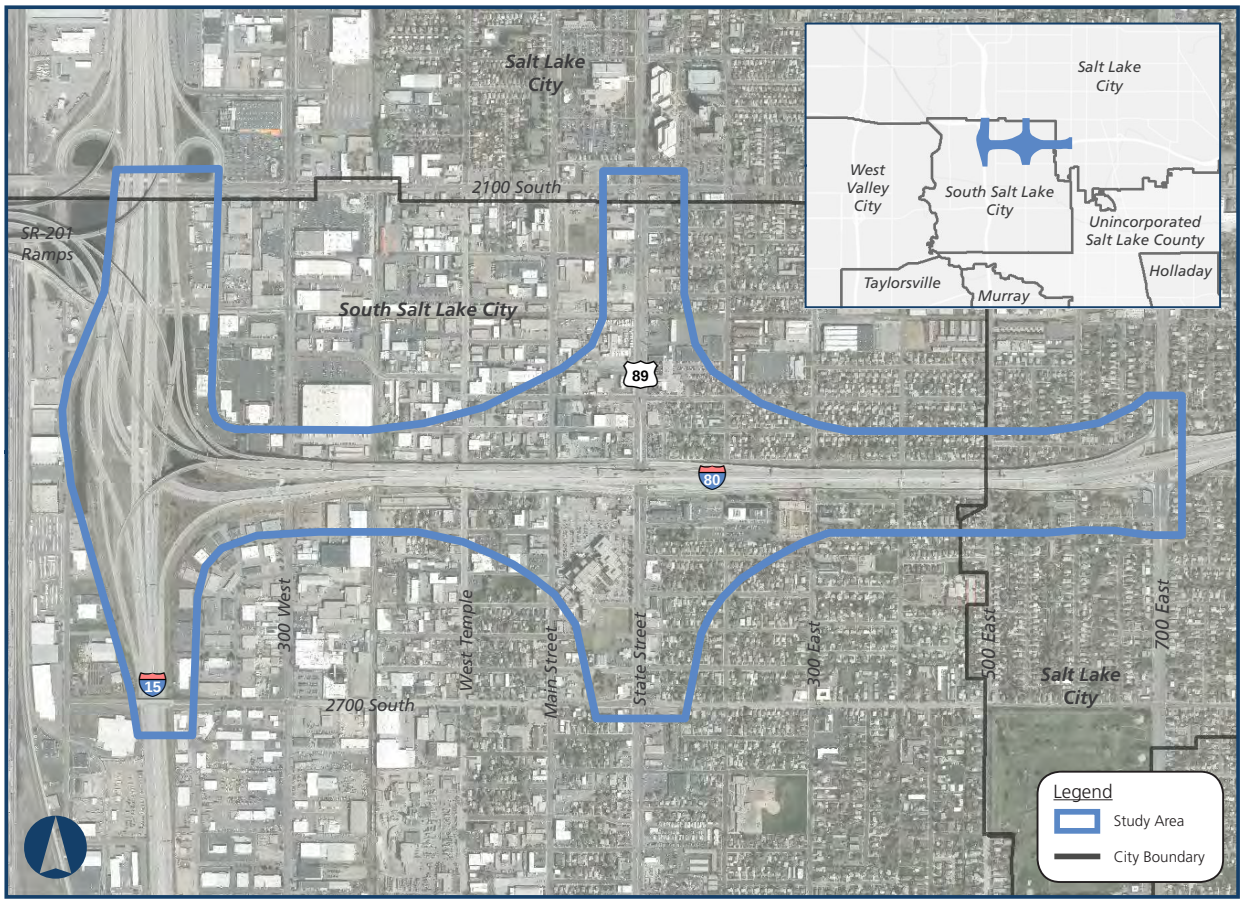


Figure 1. Study Area

Three alternatives have been selected for detailed study as a part of the EIS. Each of the alternatives involve improvements to the I-80 State Street Interchange. These alternatives include:

- 1 - Single Point Urban Interchange (SPUI)
- 3N - Split Diamond at Main Street, North Side Only
- 7 - Diamond Interchange

1.2 APPLICABILITY

The UDOT Noise Abatement Policy states that "noise abatement will be considered for all Type I projects where noise impacts are identified." Type I projects are projects that include any of the following: the construction of a highway at a new location, the physical alteration of an existing highway that substantially alters its alignment, the addition of a through traffic lane, the addition of an auxiliary lane, or the addition or relocation of interchange lanes or ramps. This project is considered a Type I project because of the changes to the I-80 and State Street Interchange lanes and ramps.

2.0 ANALYSIS OF TRAFFIC NOISE IMPACTS

Traffic noise is measured in A-weighted sound levels in decibels (dBA) which most closely approximates the way the human ear hears sounds at different frequencies (see Figure 1). Since traffic noise varies over time, the sound levels for this noise analysis are expressed as "equivalent levels" or Leq, representing the average sound level over a one hour period of time. Unless noted otherwise, all sound levels in this noise analysis are expressed in the hourly equivalent noise level.

Figure 2. Sound Levels (in dBA) of Common Sounds (Compiled from Federal Transit Administration and Environmental Protection Agency Data)

2.1 NOISE ABATEMENT CRITERIA

FHWA has established Noise Abatement Criteria for several categories of land use activities (see Table 1). FHWA's noise criteria is based on sound levels that are considered to be an impact to nearby property owners, also known as receptors. Primary consideration is to be given for exterior areas where frequent human use occurs.

UDOT has developed a Noise Abatement Policy for transportation projects, which conforms to FHWA noise abatement requirements outlined in 23 CFR §772. UDOT's Noise Abatement Policy states that a traffic noise impact occurs when either 1) the future worst case noise level is equal to or greater than the UDOT Noise Abatement Criteria for specified land use categories or, 2) the future worst case noise level is greater than or equal to an increase of 10 dBA over the existing noise level.

Table 1: Noise Abatement Criteria

Activity Category	Leq (h)	Activity Description
A	56 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	66 (Exterior)	Residential.

Activity Category	Leq (h)	Activity Description
C	66 (Exterior)	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings.
D	51 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	71 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	---	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	---	Undeveloped lands that are not permitted.

Source: UDOT Noise Abatement Policy

Noise impact and abatement analyses are required within Land Use Activity Categories A, B, C, D, and E (see Table 1) only when development exists or has been permitted (formal building permit issued prior to the date the final environmental decision document is approved). Activity Categories F and G include lands that are not sensitive to traffic noise. There are no impact criteria for these land use types and an analysis of noise impacts is not required.

2.2 NOISE SENSITIVE LAND USES

There are no Activity Category A land uses within the study area. Activity Category B land uses include all residences. Activity Category C land uses within the study area include Woodrow Wilson Elementary School, Granite School District Education Center, Granite Community and Family Center, City of South Salt Lake City Hall, Broadview Entertainment Arts University, Avalon Valley Rehabilitation Center, South Salt Lake Lion's Park, and a meetinghouse for the Church of Jesus Christ of Latter-day Saints. The interior of each of the schools, the Granite Community and Family Center, the City of South Salt Lake City Hall, the Avalon Valley Rehabilitation Center, and the Church of Jesus Christ of Latter-day Saints meetinghouse would be considered Activity Category D. Activity Category E land uses include all other businesses, offices, restaurants, and hotels/motels located within the study area (i.e., KFC, Steamhead Cafe, Ramada, etc). The UDOT Noise Policy states that a noise impact analysis will not be required for Activity Categories F and G.

2.3 EXISTING NOISE

The primary source of noise in the study area is automobile and truck traffic from I-80, State Street, and other roadways in the area. Existing traffic sound levels for each receptor in the study area were calculated using the Traffic Noise Model (TNM) 2.5 software using existing conditions (travel lane configurations and the posted speed limit). Existing noise levels were determined using the greatest hourly traffic noise conditions likely to occur on a regular basis, or Level-of-Service (LOS) C traffic volumes.

On-site measurements were made to verify the accuracy of the model and are shown in Table 2 and the Existing Noise Levels figures in Appendix A.

Table 2: Field Noise Measurements

Site #	Location	Field Noise Level (dBA)	TNM Output (dBA)	Difference
R1	North side of I-80 near the intersection of 2400 South and West Temple	63.5	61.1	2.4
R2	South side of I-80 near the intersection of Robert Avenue and West Temple	68.0	66.3	1.7
R3	North side of I-80 near the intersection of 2400 South and 200 East	65.3	61.1	4.2*
R4	South Salt Lake Lions Park on the South Side of I-80 near the intersection of Robert Avenue and 300 East	61.3	59.5	1.8

*The difference in dBA at this location is due to environmental factors (i.e., wind)

Existing noise levels can be seen in the Existing Noise Levels figures in Appendix A. The number of receptors that currently experience a noise level that would be considered an impact is twelve.

2.4 NO-ACTION ALTERNATIVE NOISE

The No-action Alternative would maintain I-80 and State Street in their current roadway configurations. This alternative assumes that short-term minor restoration (safety and maintenance) activities that maintain continued operation of the existing roadway facilities would be ongoing. The No-action Alternative assumes all other improvements included in the 2040 RTP would be implemented. Noise levels for the No-action Alternative would generally be the same as existing conditions.

2.5 INTERCHANGE ALTERNATIVES NOISE

Projected traffic noise levels for each Interchange Alternative were calculated with TNM 2.5 software using build conditions (travel lane configurations and traffic volumes). Noise levels were determined using the greatest hourly traffic noise conditions likely to occur on a regular basis, or level-of-service (LOS) C traffic volumes.

1 - Single Point Urban Interchange (SPUI)

The Single Point Urban Interchange (SPUI) Alternative would cause State Street and all ramps at the interchange to come to a single signalized intersection.

Noise levels resulting from the Single Point Urban Interchange Alternative would generally remain the same throughout the study area, with the greatest increase being 0.4 dBA at Receptors 12B and 13B (see maps in Appendix A). The number of receptors that would be considered impacted by traffic noise is twelve.

Projected future worst case noise levels and impacted receptors can be seen in the 1 - Single Point Urban Interchange (SPUI) Alternative Noise Levels figures in Appendix A.

3N - Split Diamond at Main Street, North Side Only

Under the Split Diamond at Main Street, North Side Only Alternative the existing configuration of the interchange on the south side would remain the same. This alternative would involve constructing a westbound frontage road between State Street and Main Street to allow for multiple access points to South Salt Lake City. This alternative would also construct a Main Street westbound on-ramp.

Noise levels resulting from the Split Diamond Interchange Alternative would generally remain the same throughout the study area, with the greatest increase being 6.4 dBA at Receptor 97B (see maps in Appendix A). The number of receptors that would be considered impacted by traffic noise is 13.

Projected future worst case noise levels and impacted receptors can be seen in the 3N - Split Diamond at Main Street, North Side Only Alternative Noise Levels figures in Appendix A.

7 - Diamond Interchange

Under the Diamond Interchange Alternative, the interchange configuration would remain the same. However, the on/off-ramp intersections with State Street would be further apart and additional lanes would be constructed on State Street.

Noise levels resulting from the Diamond Interchange Alternative would generally remain the same throughout the study area, with the greatest increase being 1.4 dBA at Receptor 24B The number of receptors that would be considered impacted is twelve.

Projected future worst case noise levels and impacted receptors can be seen in the 7 - Diamond Interchange Alternative Noise Levels figures in Appendix A.

2.6 SUMMARY

Table 3 shows a summary of existing, No-action Alternative, and Interchange Alternatives noise levels (the suffix on the Map Label represents the activity category). Refer to the figures in Appendix A for receptor locations.

Table 3: Summary of Existing, No-action Alternative, and Interchange Alternatives Noise Levels

Map Label	Existing Noise Levels (dBA)	Impact	1 - Noise Levels (dBA)	Impact	3N - Noise Levels (dBA)	Impact	7 - Noise Levels (dBA)	Impact
1B	62	No	61.9	No	61.9	No	61.5	No
2B	61	No	60.8	No	60.8	No	60.4	No
3B	60.9	No	60.8	No	60.8	No	60.5	No
4B	61	No	60.9	No	60.9	No	60.5	No
5B	61.1	No	61	No	61	No	60.7	No
6B	61.6	No	61.3	No	61.3	No	60.9	No
7B	61.4	No	61.2	No	61.2	No	60.7	No
8B	61.4	No	61.2	No	61.2	No	60.7	No
9B	62.1	No	61.8	No	61.8	No	61	No
10B	62.3	No	62	No	62	No	61.1	No
11B	62	No	61.9	No	61.9	No	61.1	No
12B	67.1	Yes	67.5	Yes	67.5	Yes	67	Yes
13B	64.4	No	64.8	No	64.8	No	63.6	No
14B	63.2	No	63.4	No	63.4	No	61.7	No
15B	62.8	No	62.9	No	62.9	No	61.3	No
16B	62.4	No	62.3	No	62.2	No	61.1	No
17B	62.1	No	61.6	No	61.5	No	61.1	No
18B	62	No	61.4	No	61.3	No	61.1	No
19B	62.1	No	61.4	No	61.4	No	61.2	No
20B	62.1	No	61.5	No	61.5	No	61.6	No
21B	62.6	No	62	No	62.3	No	62.3	No
22B	62.8	No	62.5	No	63.5	No	63.5	No
23B	63.3	No	63.1	No	64.6	No	64.6	No

Map Label	Existing Noise Levels (dBA)	Impact	1 - Noise Levels (dBA)	Impact	3N - Noise Levels (dBA)	Impact	7 - Noise Levels (dBA)	Impact
24B	65.8	No	65.5	No	67.3	Yes	67.2	Yes
25B	62	No	62	No	62.3	No	62.3	No
26B	60.9	No	61	No	61.1	No	61.1	No
27B	61	No	61	No	61.1	No	61.1	No
28B	60.8	No	60.8	No	60.8	No	60.9	No
29B	60.6	No	60.6	No	60.7	No	60.7	No
30B	59.7	No	59.7	No	59.6	No	59.7	No
31B	58.8	No	58.8	No	58.8	No	58.8	No
32B	58.1	No	58	No	58	No	58	No
33B	57.9	No	57.8	No	57.8	No	57.9	No
34B	57.6	No	57.6	No	57.6	No	57.7	No
35B	57.5	No	57.4	No	57.5	No	57.5	No
36B	61.3	No	61.3	No	61.3	No	61.3	No
37B	61.7	No	61.6	No	61.6	No	61.6	No
38B	61.4	No	61.4	No	61.4	No	61.4	No
39B	62.6	No	62.6	No	62.6	No	62.6	No
40B	58.7	No	58.7	No	58.7	No	58.7	No
41B	58.7	No	58.7	No	58.7	No	58.7	No
42B	58.5	No	58.5	No	58.5	No	58.5	No
43B	58.6	No	58.5	No	58.6	No	58.6	No
44B	61.8	No	61.7	No	61.7	No	61.7	No
45B	61.7	No	61.7	No	61.7	No	61.7	No
46B	63.2	No	63.2	No	63.2	No	63.2	No
47B	63	No	63	No	63	No	63	No
48B	62.6	No	62.5	No	62.6	No	62.5	No
49B	60.9	No	60.9	No	61	No	60.9	No
50B	61.1	No	61.1	No	61.1	No	61.1	No
51B	61.3	No	61.3	No	61.3	No	61.3	No
52B	61.6	No	61.6	No	61.6	No	61.6	No
53B	57	No	57	No	57	No	57	No
54B	57	No	57	No	57	No	57	No
55B	57.1	No	57.1	No	57.1	No	57.1	No
56B	57.2	No	57.2	No	57.2	No	57.2	No
57B	59.7	No	59.7	No	59.7	No	59.7	No
58B	59.6	No	59.6	No	59.7	No	59.6	No
59B	59.4	No	59.5	No	59.5	No	59.5	No
60B	59.5	No	59.5	No	59.6	No	59.5	No
61B	58.4	No	58.4	No	58.5	No	58.5	No
62B	58.4	No	58.4	No	58.4	No	58.4	No

Map Label	Existing Noise Levels (dBA)	Impact	1 - Noise Levels (dBA)	Impact	3N - Noise Levels (dBA)	Impact	7 - Noise Levels (dBA)	Impact
63B	58.3	No	58.3	No	58.4	No	58.4	No
64B	58.4	No	58.4	No	58.4	No	58.4	No
65B	61.4	No	61.4	No	61.4	No	61.4	No
66B	60.8	No	60.8	No	60.9	No	60.8	No
67B	61.8	No	61.7	No	61.8	No	61.8	No
68B	62.3	No	62.2	No	62.3	No	62.3	No
69B	62.5	No	62.4	No	62.5	No	62.5	No
70B	62.9	No	62.8	No	62.9	No	62.8	No
71B	63	No	63.1	No	63.2	No	63.1	No
72B	62.2	No	62.3	No	62.4	No	62.3	No
73B	61.6	No	61.7	No	61.8	No	61.7	No
74B	61.1	No	61.1	No	61.3	No	61.2	No
75B	59.4	No	59.4	No	59.5	No	59.4	No
76B	59	No	59	No	59.1	No	59	No
77B	58.8	No	58.8	No	58.9	No	58.8	No
78B	59.8	No	59.8	No	59.9	No	59.8	No
79B	60.4	No	60.4	No	60.5	No	60.5	No
80B	61.1	No	61.2	No	61.2	No	61.2	No
81B	61.9	No	62.1	No	62.1	No	62.1	No
82B	61.2	No	61.2	No	61.2	No	61.3	No
83B	60.2	No	60.3	No	60.4	No	60.4	No
84B	63.7	No	63.8	No	63.9	No	63.9	No
85B	63.1	No	63	No	63.1	No	63	No
86B	67.2	Yes	67	Yes	67.1	Yes	66.9	Yes
87B	69.3	Yes	69.2	Yes	69.3	Yes	69.1	Yes
88B	67.4	Yes	67.7	Yes	67.8	Yes	67.7	Yes
89B	66.5	Yes	66.6	Yes	66.7	Yes	66.6	Yes
90B	65	No	65.2	No	65.2	No	65.1	No
91B	64.4	No	64.5	No	64.5	No	64.5	No
92B	64.5	No	64.7	No	64.6	No	64.7	No
93B	65.5	No	65.5	No	65.6	No	65.6	No
94B	61.6	No	61.8	No	61.8	No	61.8	No
95B	62.6	No	62.8	No	62.8	No	62.8	No
96B	63.3	No	63.4	No	63.5	No	63.5	No
97B	66.4	Yes	66.3	Yes	72.8	Yes	65.6	No
98B	66.4	Yes	66.3	Yes	72.4	Yes	66	Yes
99B	67	Yes	67	Yes	70.4	Yes	66.6	Yes
100B	66.7	Yes	66.7	Yes	69.1	Yes	66.7	Yes
101B	67.2	Yes	67.1	Yes	68.1	Yes	67	Yes

Map Label	Existing Noise Levels (dBA)	Impact	1 - Noise Levels (dBA)	Impact	3N - Noise Levels (dBA)	Impact	7 - Noise Levels (dBA)	Impact
102B	67.4	Yes	67.3	Yes	68.2	Yes	67.3	Yes
103B	67.2	Yes	67.2	Yes	68	Yes	67.3	Yes

3.0 NOISE ABATEMENT

According to the UDOT Noise Abatement Policy, specific conditions must be met before traffic noise abatement is implemented. Noise mitigation must be considered feasible and reasonable. Some of the factors considered when determining if mitigation is feasible and reasonable include, but are not limited to, the following:

- **Engineering Considerations:** Engineering considerations such as safety, presence of cross streets, sight distance, access to adjacent properties, barrier height, topography, drainage, utilities, maintenance access and maintenance of the abatement measure must be taken into account as part of establishing feasibility.
- **Safety on Urban Non-Access Controlled Roadways:** To avoid a damaged wall from becoming a safety hazard, in the event of a failure, wall height shall be no greater than the distance from the back of curb to the face of proposed wall.
- **Noise Abatement Design Goal:** Every reasonable effort should be made to obtain substantial noise reductions. UDOT defines the minimum noise reduction (design goal) from proposed abatement measures to be 8 dBA or greater for at least 75% of front-row receptors.
- **Cost Effectiveness:** The cost used to determine reasonable mitigation for Activity Category B is $30,000 per benefited receptor. (A benefited receptor is a noise-sensitive receptor that is predicted to receive a minimum of 8 dBA of noise reduction as a result of noise abatement.) The cost used to determine reasonable mitigation for Activity Categories A, C, D, or E is $360 per linear foot.
- **Viewpoints of Property Owners and Residents:** As part of the final design phase, public balloting would take place if noise abatement measures appear to meet the criteria outlined in UDOT's Noise Abatement Policy.

Under UDOT's Noise Abatement Policy, only Type I projects are eligible for noise abatement measures. Type I projects are projects that include any of the following: the construction of a highway at a new location, the physical alteration of an existing highway that substantially alters its alignment, the addition of a through traffic lane, the addition of an auxiliary lane, or the addition or relocation of interchange lanes or ramps. The Proposed Action is a Type I project so noise abatement was considered. The types of noise mitigation measures considered included traffic management measures and noise barriers.

3.1 TRAFFIC MANAGEMENT MEASURES

Traffic management measures include reducing speed or signing for the restriction of compression brakes. According to the Highway Traffic Noise Analysis and Abatement Policy and Guidance report produced by FHWA, a reduction in speed of more than 20 mph is necessary for a noticeable decrease in noise levels. Therefore, speed reduction is not a reasonable abatement measure for this project because it is not consistent with the roadway classification.

3.2 NOISE BARRIERS

For a sound wall to be effective, it must be high enough and long enough to block the view of the noise source from the receptor's perspective. The Highway Traffic Noise Analysis and Abatement Policy and Guidance states that a good rule of thumb is that the noise barrier should extend four times as far in each direction as the distance from the receptor to the barrier. For instance, if the receptor is 50 feet from the proposed noise barrier, the barrier needs to extend at least 200 feet on either side of the receptor in order to shield the receptor from noise traveling past the ends of the barrier.

See below for a summary of the noise wall analysis. A more detailed noise wall analysis is in Appendix B.

1 - SPUI

Noise Wall 1

Noise Wall 1 would be located on the north side of I-80 between West Temple and Main Street (see Noise Wall Analysis figure in Appendix A). A 6-ft to 18-ft high wall would not reduce noise levels by 8 dBA to any receptor; therefore, Noise Wall 1 is not considered feasible and reasonable according to the UDOT Noise Abatement Policy (see noise wall analysis in Appendix B).

3N - SPLIT DIAMOND

Noise Wall 1 and Noise Wall 2

Noise Wall 1 would be located on the north side of I-80 between West Temple and Main Street on the north side of the ramp. Noise Wall 2 would also be located between West Temple and Main Street between the ramp and I-80 (see Noise Wall Analysis figure in Appendix A). Both walls would be required to block noise due to the grade variations between the ramp and I-80. A 6-ft to 18-ft high wall would not reduce noise levels by 8 dBA to at least 75 percent of front row receptors; therefore, Noise Wall 1 and Noise Wall 2 are not considered feasible and reasonable according to the UDOT Noise Abatement Policy (see noise wall analysis in Appendix B).

7 - DIAMOND

Noise Wall 1

Noise Wall 1 would be located on the north side of I-80 between West Temple and Main Street (see Noise Wall Analysis figure in Appendix A). A 6-ft to 18-ft high wall would not reduce noise levels by 8 dBA to any receptor; therefore, Noise Wall 1 is not considered feasible and reasonable according to the UDOT Noise Abatement Policy (see noise wall analysis in Appendix B).

4.0 CONSTRUCTION IMPACTS

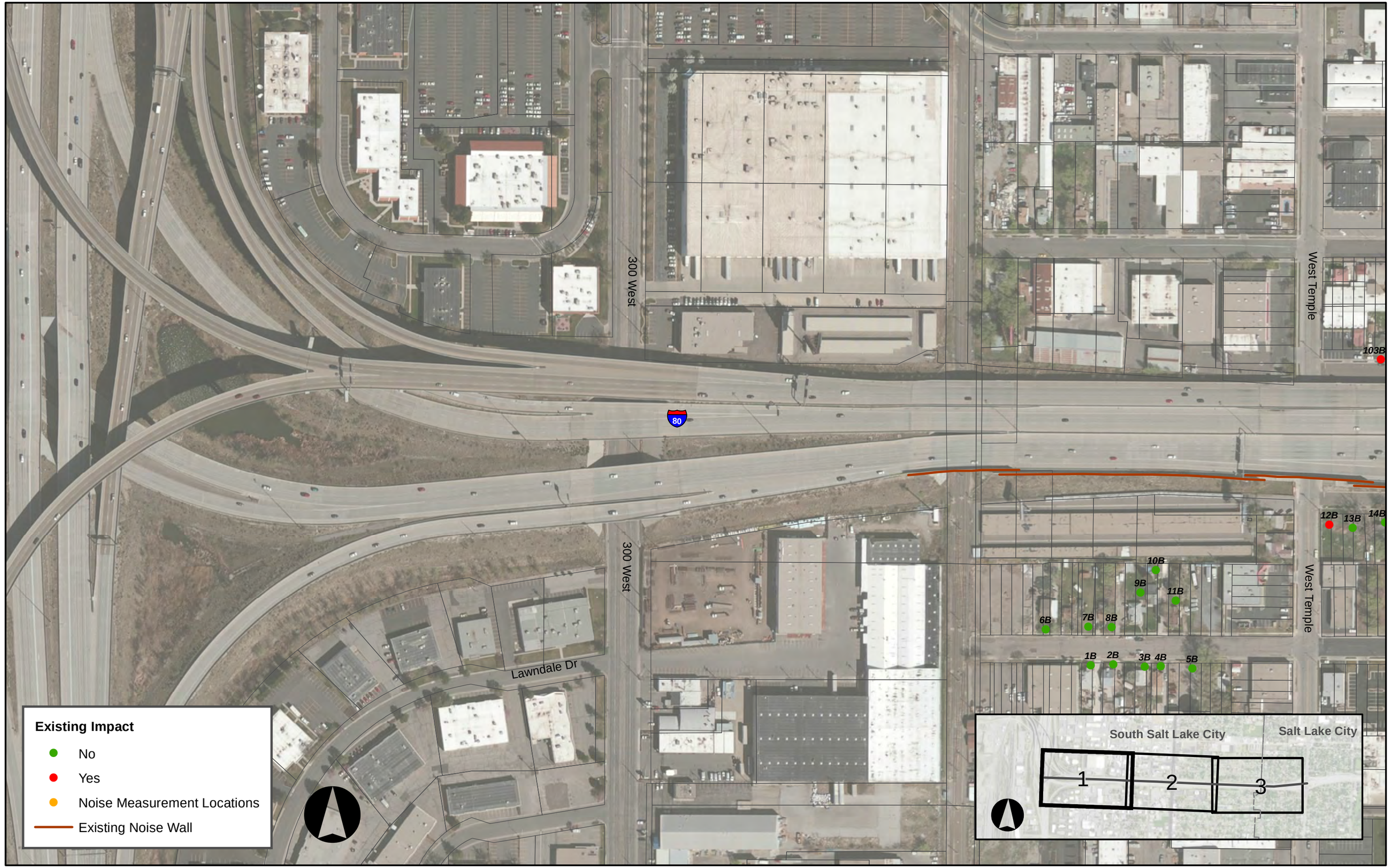
Construction noise impacts are considered temporary and will be minimized through adherence to UDOT Standard Specification 01355 Environmental Compliance, Part 3.6 - Noise Control. Extended disruption of normal activities is not anticipated, since no receptors are expected to be exposed to construction noise for a long duration of time.

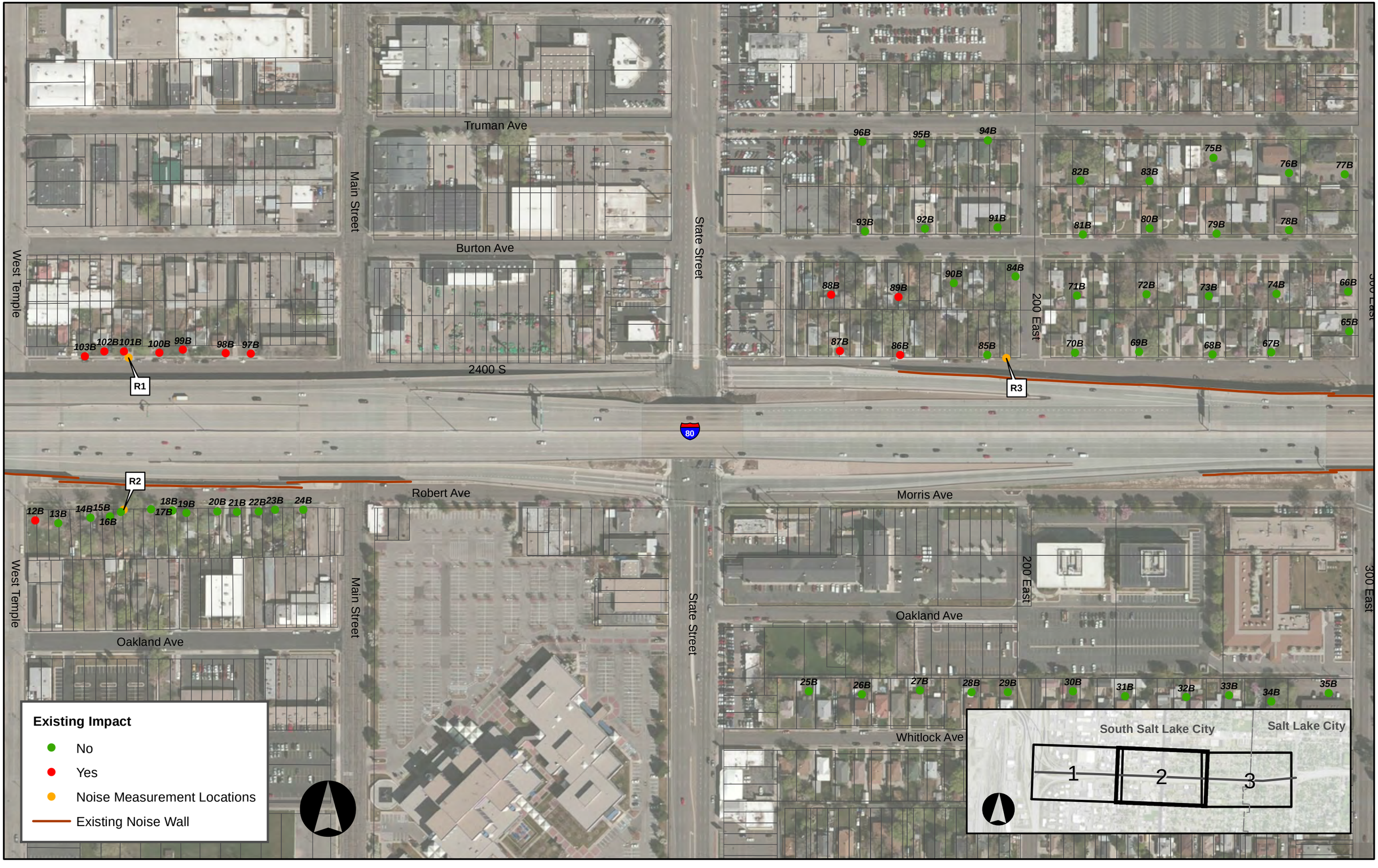
5.0 CONCLUSION

Each alternative would result in noise levels remaining generally the same throughout the study area. See maps of Interchange Alternatives' Noise Levels figures in Appendix A. The SPUI, Split Diamond, and Diamond interchanges would impact twelve, thirteen, and twelve receptors, respectively.

Noise walls of varying heights were analyzed for each alternative at one location north of I-80 between West Temple and Main Street; however, a noise wall at this location would not provide the required 8 dBA reduction to 75% of front-row receptors. Therefore, noise walls are not considered feasible and reasonable according to the UDOT Noise Abatement Policy.

APPENDIX A: FIGURES


300 West
West Temple
80
Lawndale Dr
103B
12B
13B
14B
10B
9B
11B
6B
7B
8B
1B
2B
3B
4B
5B
Existing Impact
No
Yes
Noise Measurement Locations
Existing Noise Wall
South Salt Lake City
Salt Lake City
1
2
3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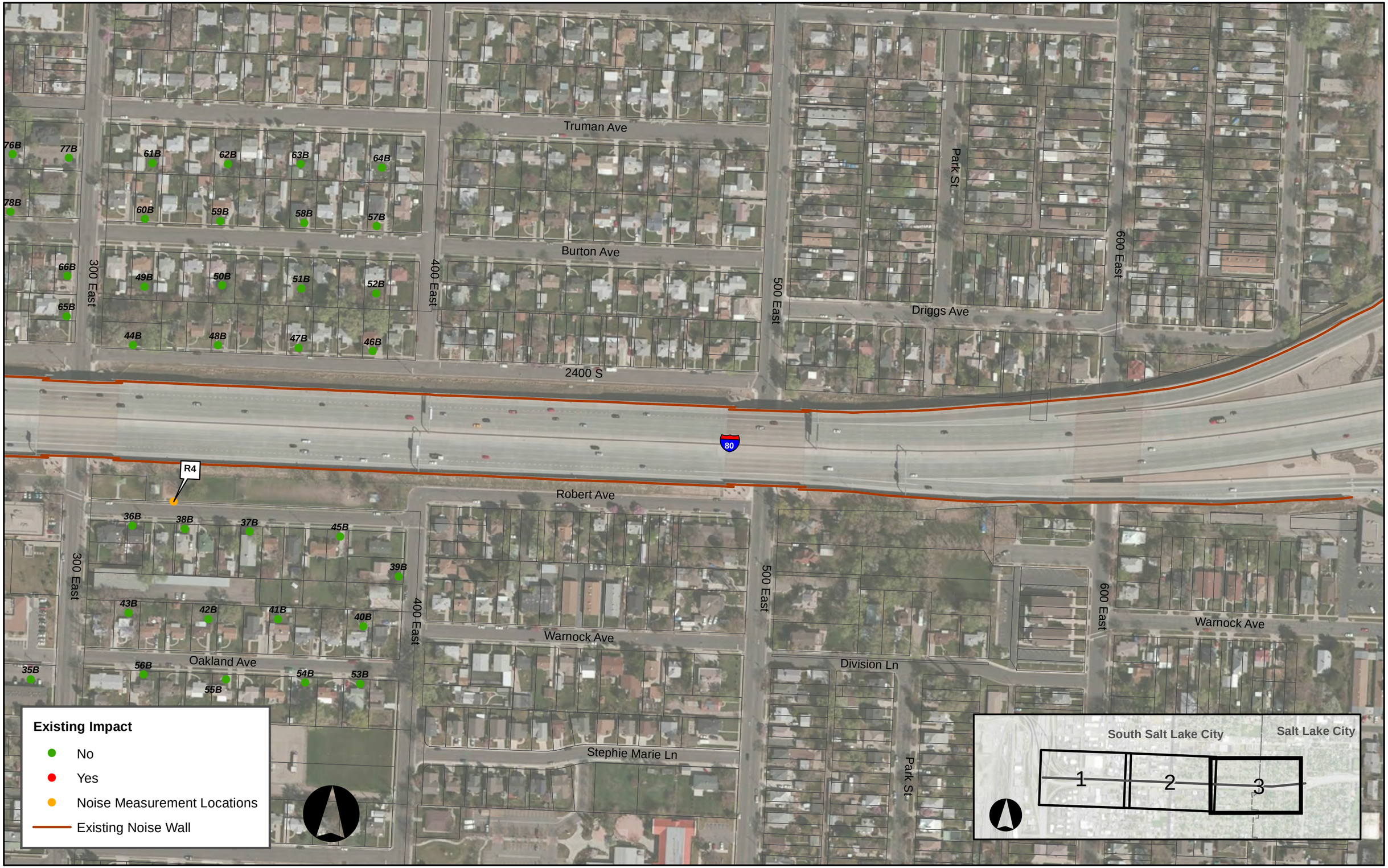
Burton Ave
2400 S
Main Street
State Street
West Temple
200 East
300 East
96B
95B
94B
93B
92B
91B
75B
76B
77B
82B
83B
81B
80B
79B
78B
88B
89B
90B
84B
87B
86B
85B
71B
72B
73B
74B
66B
70B
69B
68B
67B
65B
103B
102B
101B
100B
99B
98B
97B
R1
R3
80
R2
12B
13B
14B
15B
16B
17B
18B
19B
20B
21B
22B
23B
24B
Robert Ave
Morris Ave
Oakland Ave
Whitlock Ave
25B
26B
27B
28B
29B
30B
31B
32B
33B
34B
35B
Existing Impact
No
Yes
Noise Measurement Locations
Existing Noise Wall
South Salt Lake City
Salt Lake City
1
2
3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Robert Ave
Warnock Ave
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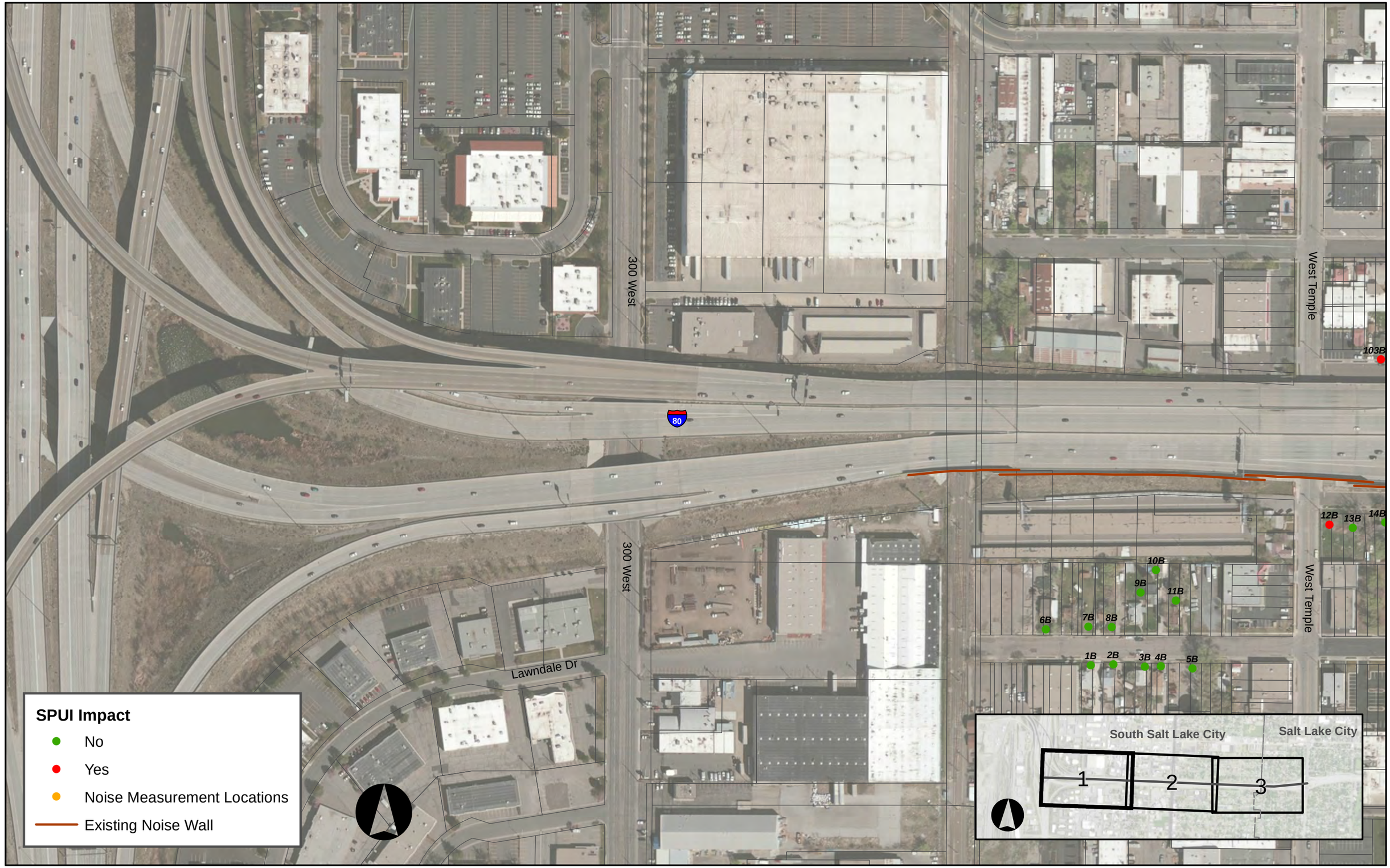
Division Ln
Driggs Ave
Park St
300 East
400 East
500 East
600 East
80
R4
76B
77B
78B
61B
62B
63B
64B
60B
59B
58B
57B
66B
65B
49B
50B
51B
52B
44B
48B
47B
46B
36B
38B
37B
45B
39B
43B
42B
41B
40B
35B
56B
55B
54B
53B
Existing Impact
No
Yes
Noise Measurement Locations
Existing Noise Wall
South Salt Lake City
Salt Lake City
1
2
3


300 West
West Temple
80
Lawndale Dr
103B
12B
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14B
10B
9B
11B
6B
7B
8B
1B
2B
3B
4B
5B
SPUI Impact
No
Yes
Noise Measurement Locations
Existing Noise Wall
South Salt Lake City
Salt Lake City
1
2
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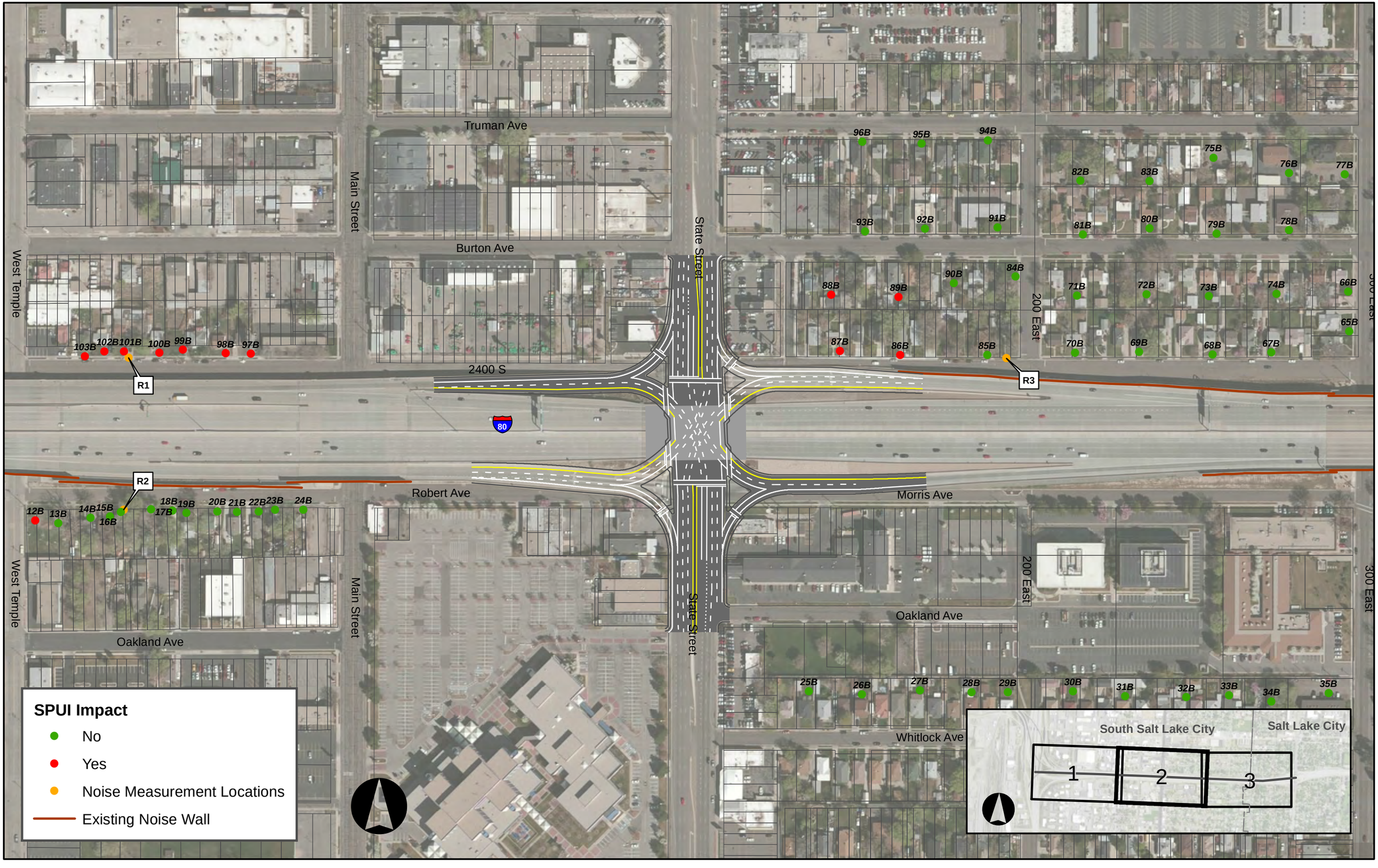
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Robert Ave
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Oakland Ave
Whitlock Ave
Main Street
State Street
West Temple
200 East
300 East
80
R1
R2
R3
96B
95B
94B
93B
92B
91B
75B
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77B
82B
83B
81B
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73B
74B
66B
65B
70B
69B
68B
67B
103B
102B
101B
100B
99B
98B
97B
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13B
14B
15B
16B
17B
18B
19B
20B
21B
22B
23B
24B
25B
26B
27B
28B
29B
30B
31B
32B
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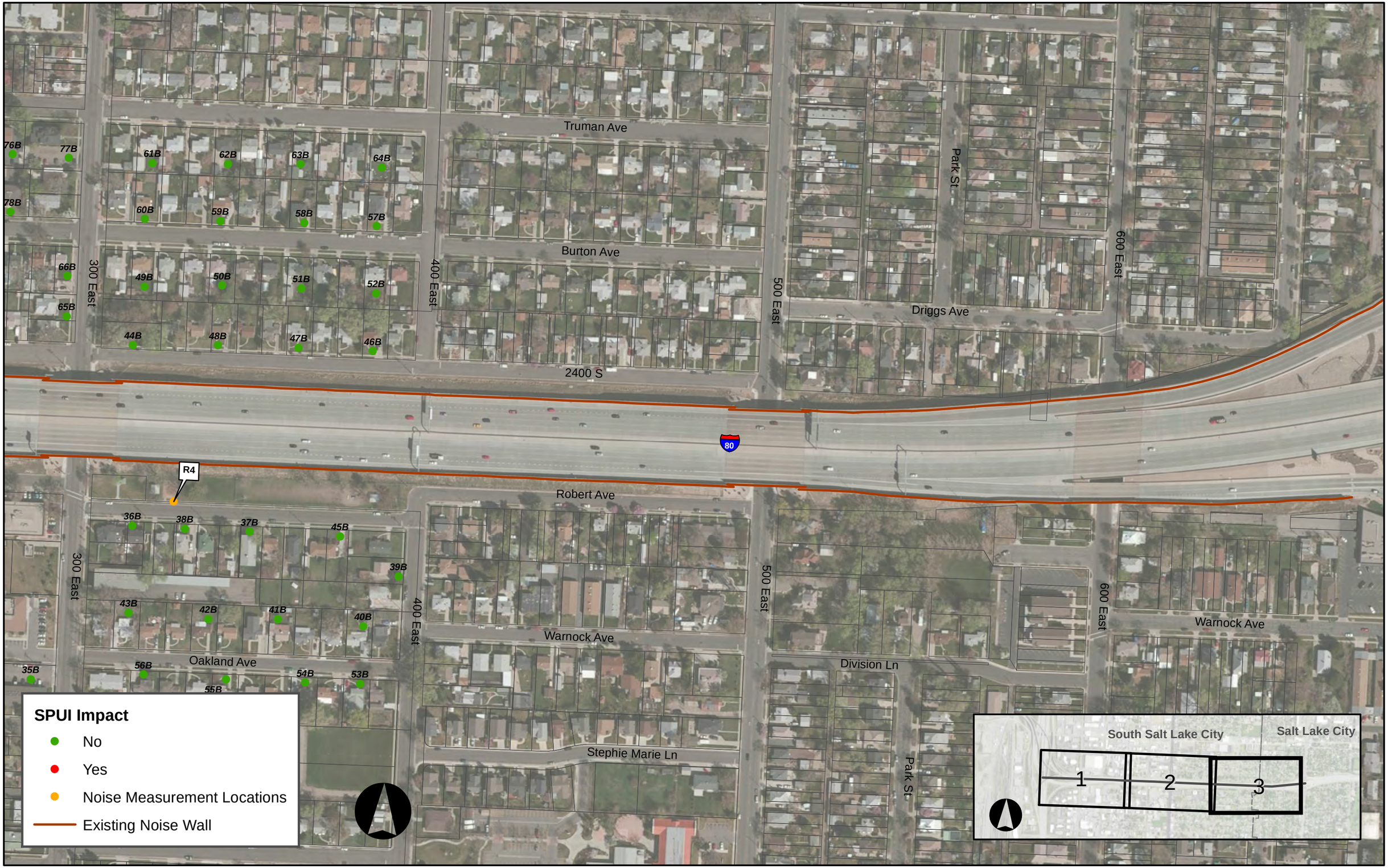
35B
SPUI Impact
No
Yes
Noise Measurement Locations
Existing Noise Wall
South Salt Lake City
Salt Lake City
1
2
3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600 East
Park St
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35B
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SPUI Impact
No
Yes
Noise Measurement Locations
Existing Noise Wall
South Salt Lake City
Salt Lake City
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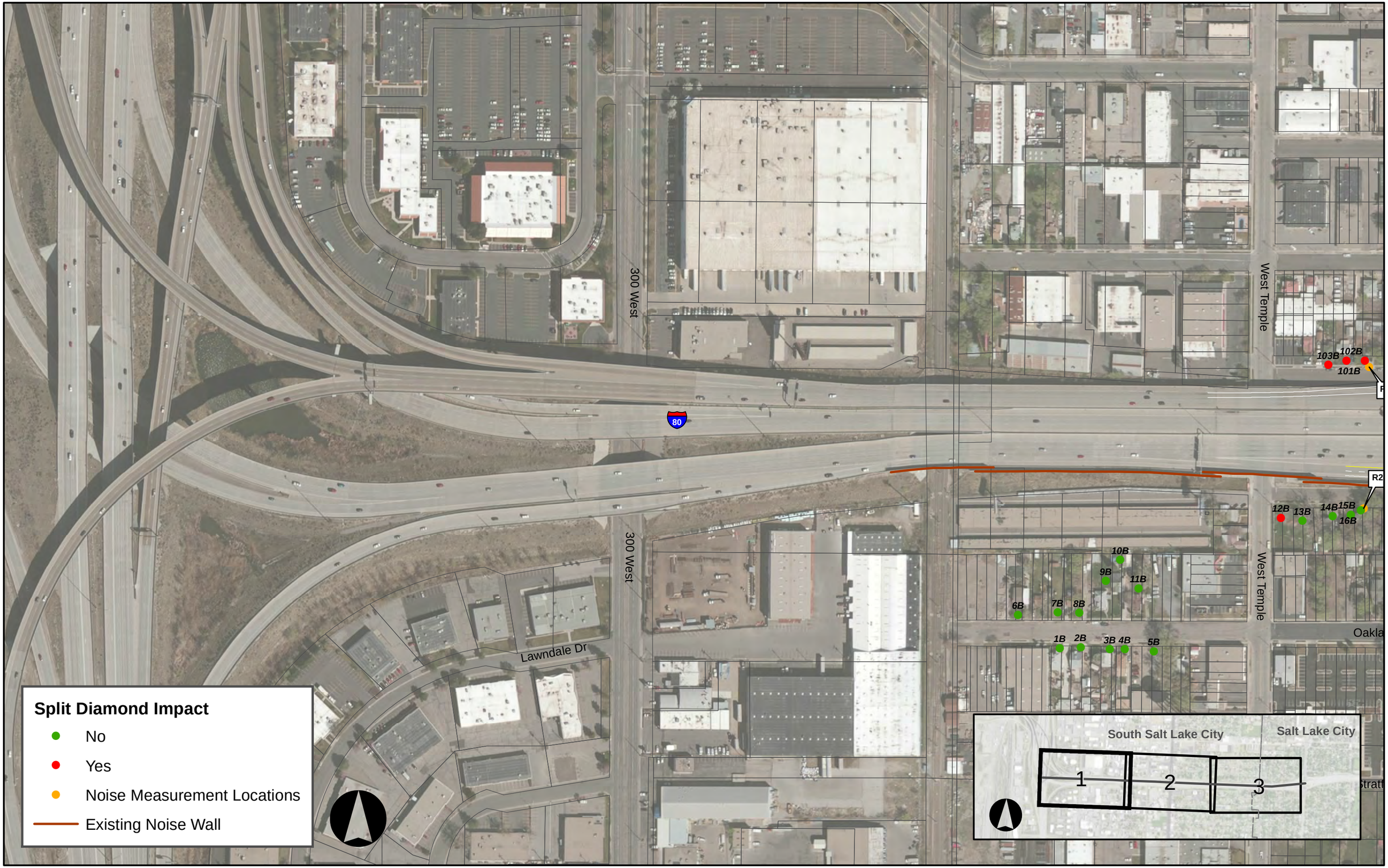
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West Temple
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103B
102B
101B
R2
12B
13B
14B
15B
16B
10B
9B
11B
6B
7B
8B
1B
2B
3B
4B
5B
Lawndale Dr
Oakla
Split Diamond Impact
No
Yes
Noise Measurement Locations
Existing Noise Wall
South Salt Lake City
Salt Lake City
1
2
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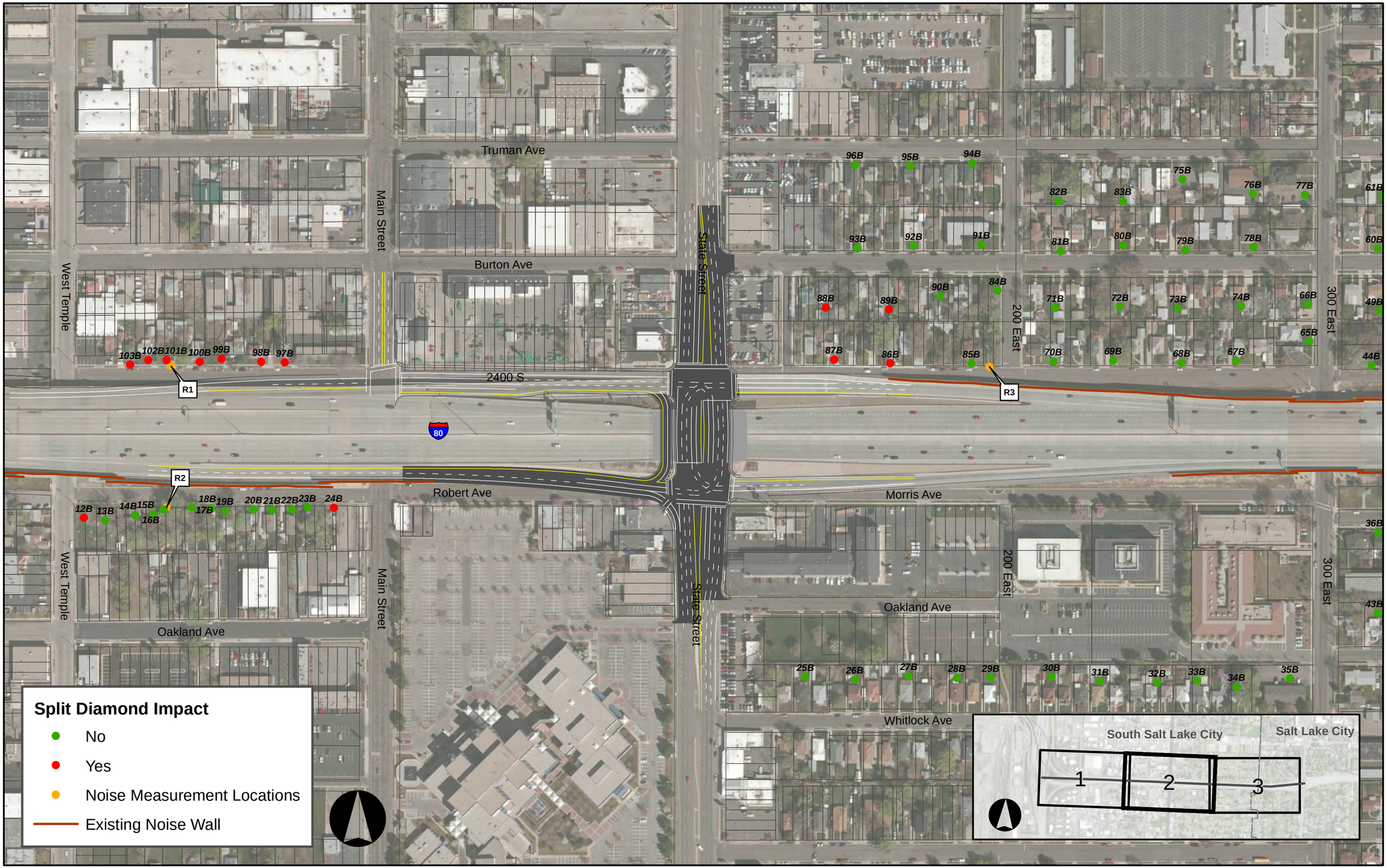
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24B
25B
26B
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28B
29B
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31B
32B
33B
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43B
Split Diamond Impact
No
Yes
Noise Measurement Locations
Existing Noise Wall
South Salt Lake City
Salt Lake City
1
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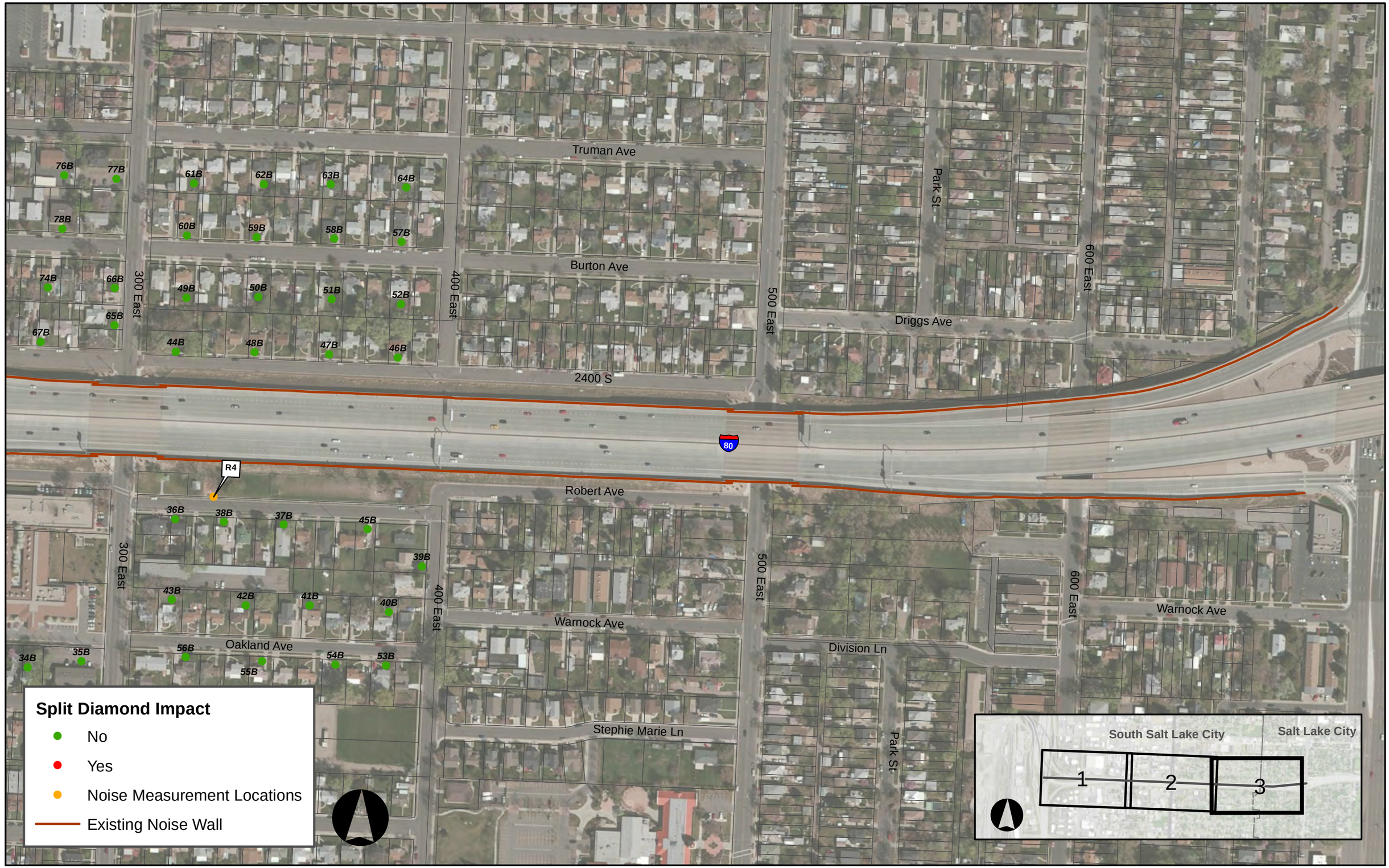
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500 East
600 East
Park St
Park St
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38B
37B
45B
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43B
42B
41B
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34B
35B
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53B
Split Diamond Impact
No
Yes
Noise Measurement Locations
Existing Noise Wall
South Salt Lake City
Salt Lake City
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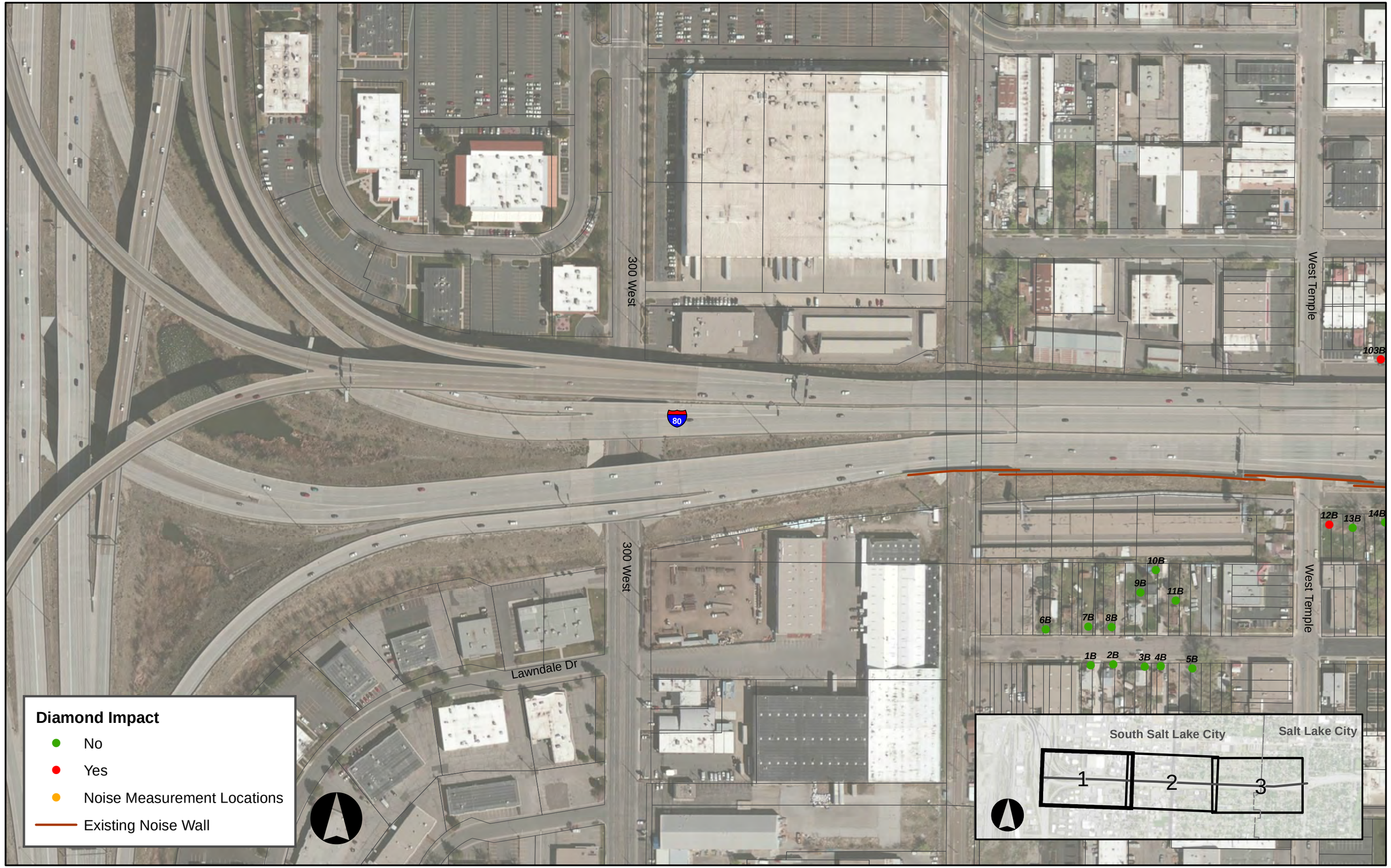
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103B
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13B
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10B
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11B
6B
7B
8B
1B
2B
3B
4B
5B
Lawndale Dr
Diamond Impact
No
Yes
Noise Measurement Locations
Existing Noise Wall
South Salt Lake City
Salt Lake City
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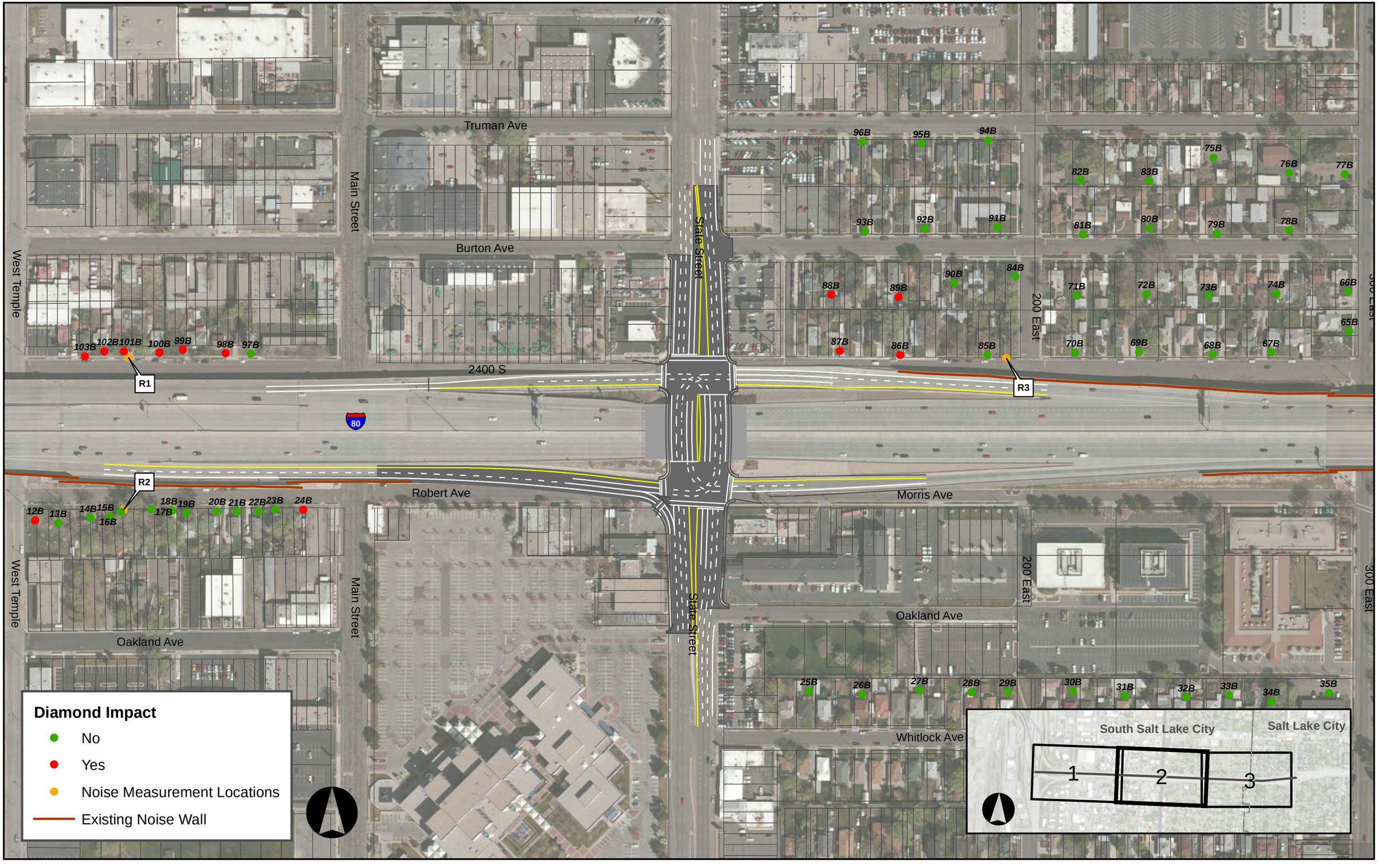
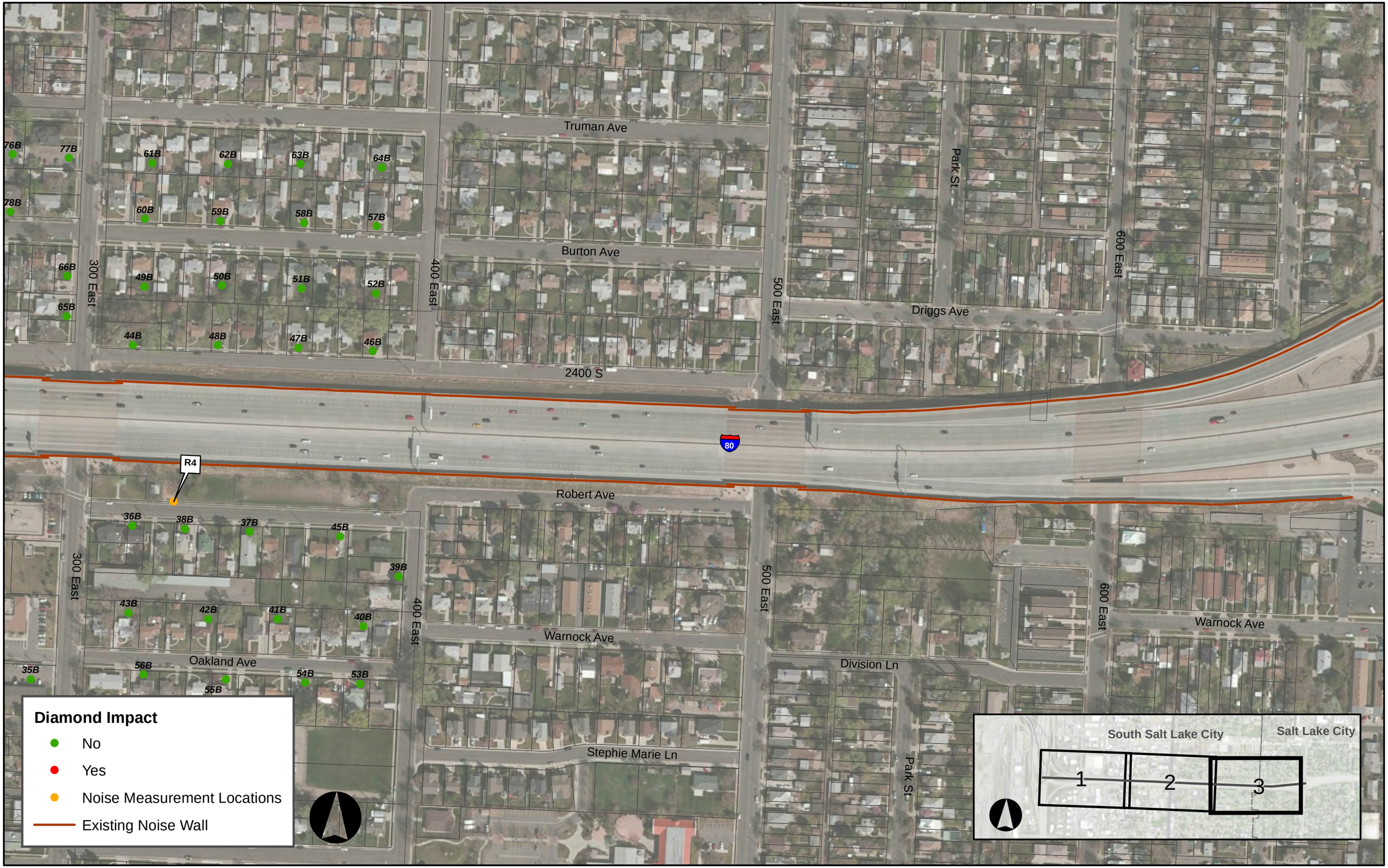


Diamond Impact

- No
- Yes
- Noise Measurement Locations
- Existing Noise Wall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46B
36B
38B
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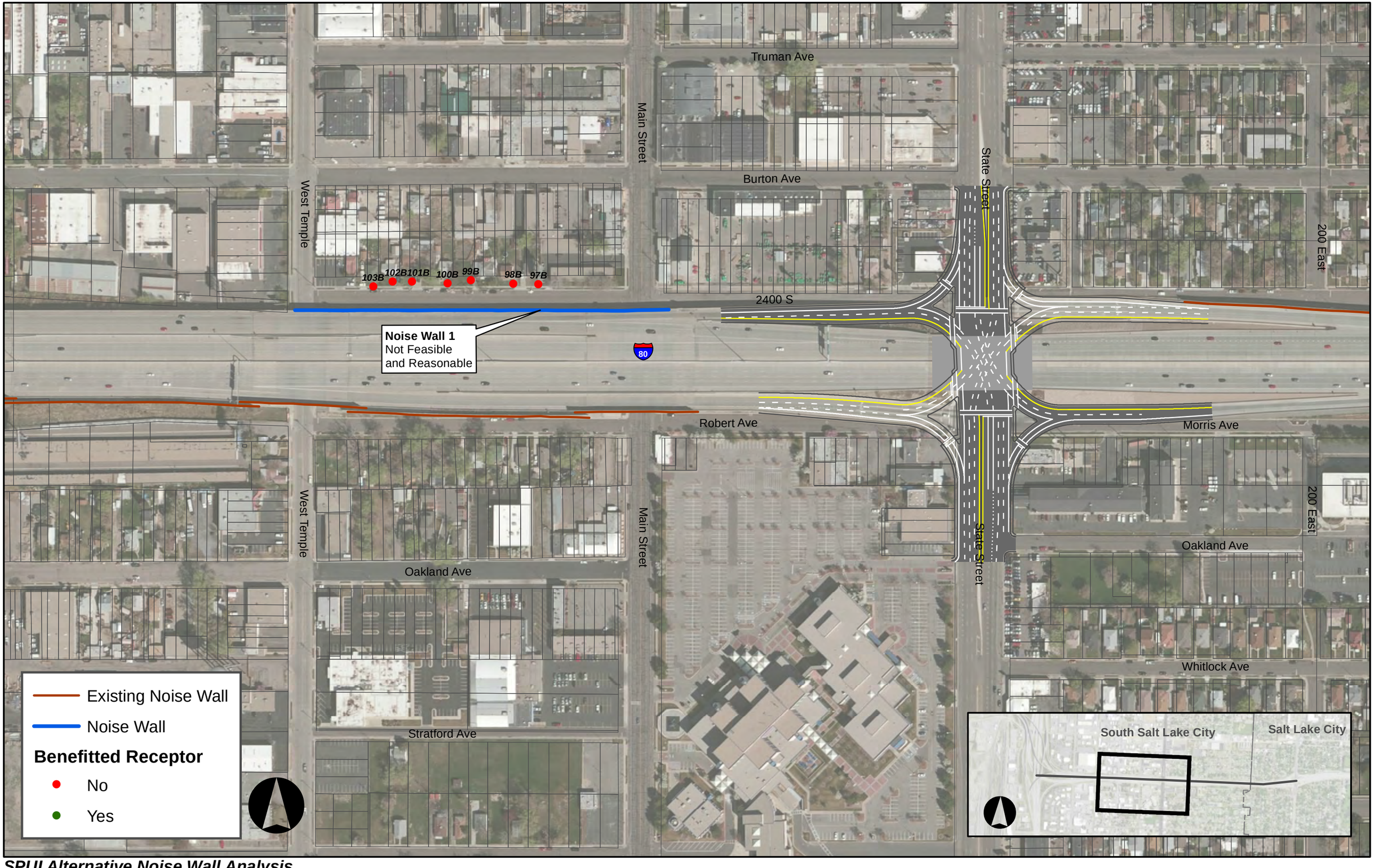
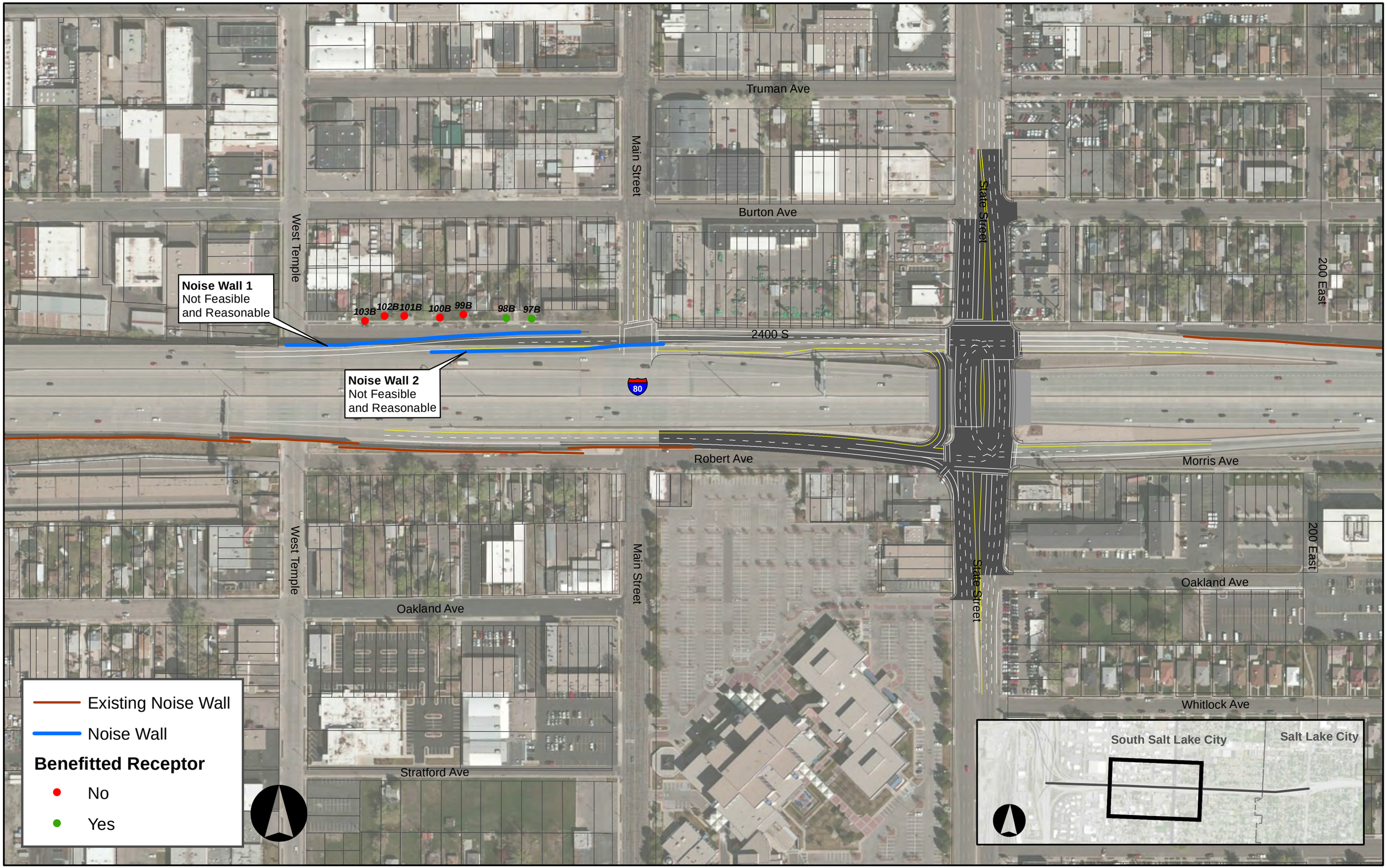
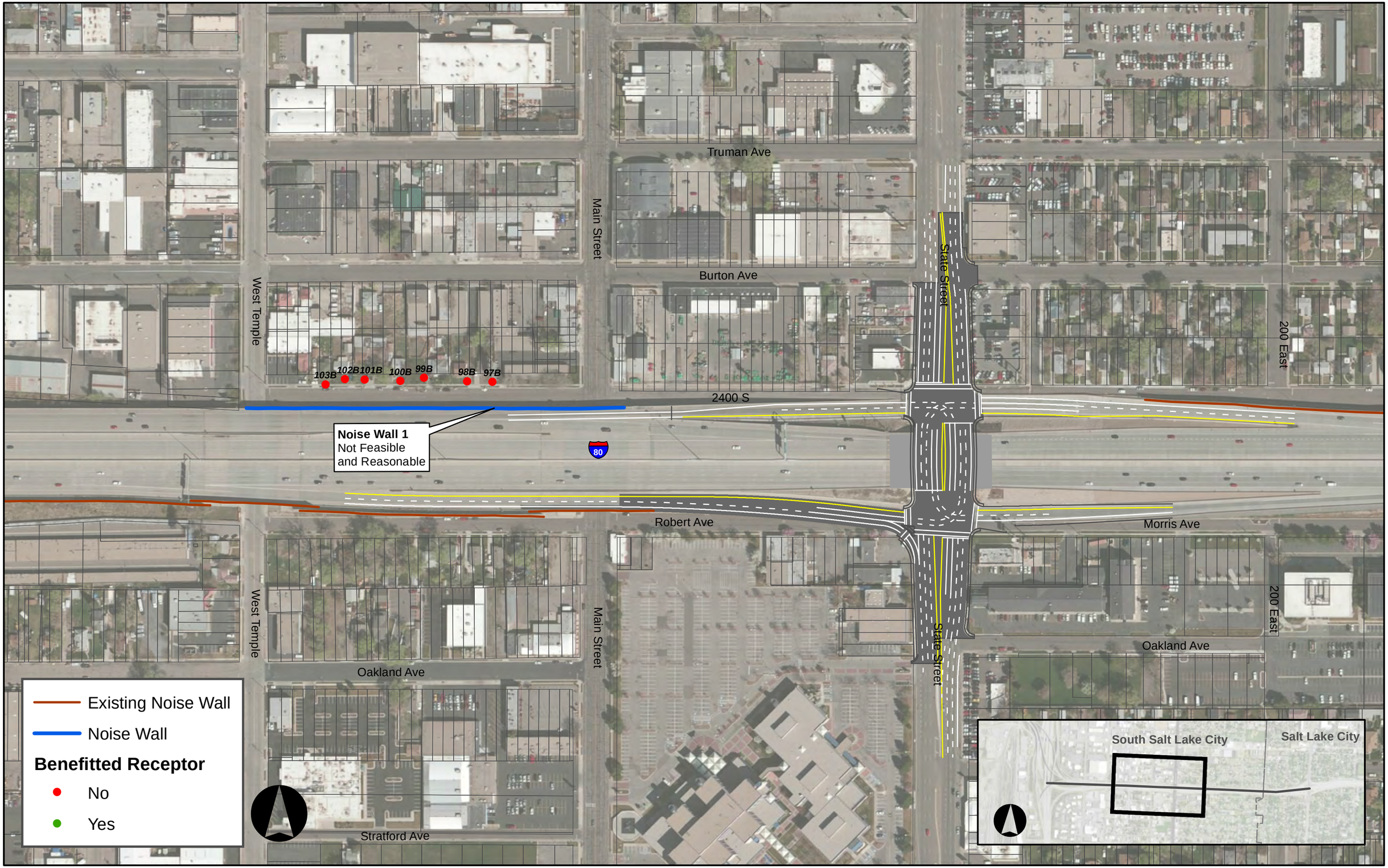
41B
40B
35B
56B
55B
54B
53B
Diamond Impact
No
Yes
Noise Measurement Locations
Existing Noise Wall
South Salt Lake City
Salt Lake City
1
2
3



SPUI Alternative Noise Wall Analysis



Split Diamond Alternative Noise Wall Analysis



Diamond Interchange Alternative Noise Wall Analysis

APPENDIX B: NOISE WALL ANALYSIS

SPUI Noise Wall 1

Wall Length: 875 ft
Wall Cost per sq ft: $20
# of First Row Receivers: 7

Name	# of DU	1st Row	# of 1st Row	6-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	8-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	10-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	12-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	14-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	16-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	18-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors
97B	1	Yes	1	1	No	No	0	0	1.3	No	No	0	0	1.5	No	No	0	0	1.8	No	No	0	0	1.9	No	No	0	0	2.1	No	No	0	0	2.3	No	No	0	0
98B"	1	Yes	1	1.3	No	No	0	0	1.7	No	No	0	0	2	No	No	0	0	2.3	No	No	0	0	2.5	No	No	0	0	2.8	No	No	0	0	3	No	No	0	0
99B"	1	Yes	1	2	No	No	0	0	2.6	No	No	0	0	3	No	No	0	0	3.4	No	No	0	0	3.6	No	No	0	0	3.9	No	No	0	0	4.2	No	No	0	0
100B"	1	Yes	1	1.8	No	No	0	0	2.4	No	No	0	0	2.8	No	No	0	0	3.2	No	No	0	0	3.5	No	No	0	0	3.8	No	No	0	0	4.1	No	No	0	0
101B"	1	Yes	1	2.2	No	No	0	0	2.9	No	No	0	0	3.2	No	No	0	0	3.7	No	No	0	0	3.9	No	No	0	0	4.2	No	No	0	0	4.5	No	No	0	0
102B"	1	Yes	1	2.1	No	No	0	0	2.7	No	No	0	0	3.1	No	No	0	0	3.5	No	No	0	0	3.7	No	No	0	0	4	No	No	0	0	4.2	No	No	0	0
103B"	1	Yes	1	1.8	No	No	0	0	2.3	No	No	0	0	2.6	No	No	0	0	3	No	No	0	0	3.2	No	No	0	0	3.4	No	No	0	0	3.7	No	No	0	0
# of First-Row Benefited:						0					0					0					0					0					0					0		
% of First-Row Benefited:						0.0%					0.0%					0.0%					0.0%					0.0%					0.0%					0.0%		
Noise Abatement Design Goal:						No					No					No					No					No					No					No		
# of Benefited:						0					0					0					0					0					0					0		
Cost of Noise Wall:						$105,000.00					$140,000.00					$175,000.00					$210,000.00					$245,000.00					$280,000.00					$315,000.00		
Cost per Benefited Receiver:						-					-					-					-					-					-					-		
Cost Effectiveness:						No					No					No					No					No					No					No		
Feasible and Reasonable:						**No**					**No**					**No**					**No**					**No**					**No**					**No**		

Split Diamond Noise Walls 1 & 2

Wall Length: 1220 ft
Wall Cost per sq ft: $20
# of First Row Receivers: 7

Name	# of DU	1st Row	# of 1st Row	6-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	8-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	10-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	12-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	14-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	16-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	18-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors
97B"	1	Yes	1	0.7	No	No	0	0	1	No	No	0	0	2.5	No	No	0	0	4.7	No	No	0	0	6.9	No	No	0	0	7.9	No	No	0	0	8.5	Yes	Yes	1	1
98B"	1	Yes	1	1.2	No	No	0	0	2.7	No	No	0	0	4.8	No	No	0	0	6.7	No	No	0	0	7.8	No	No	0	0	8.5	Yes	Yes	1	1	9	Yes	Yes	1	1
99B"	1	Yes	1	1.6	No	No	0	0	3.5	No	No	0	0	4.7	No	No	0	0	5.6	No	No	0	0	6.4	No	No	0	0	7.1	No	No	0	0	7.6	No	No	0	0
100B"	1	Yes	1	2.5	No	No	0	0	3.5	No	No	0	0	4.3	No	No	0	0	4.9	No	No	0	0	5.5	No	No	0	0	5.9	No	No	0	0	6.3	No	No	0	0
101B"	1	Yes	1	2.2	No	No	0	0	2.7	No	No	0	0	3.2	No	No	0	0	3.7	No	No	0	0	4	No	No	0	0	4.3	No	No	0	0	4.5	No	No	0	0
102B"	1	Yes	1	1.8	No	No	0	0	2.4	No	No	0	0	2.8	No	No	0	0	3.1	No	No	0	0	3.3	No	No	0	0	3.5	No	No	0	0	3.7	No	No	0	0
103B"	1	Yes	1	1.7	No	No	0	0	1.8	No	No	0	0	2	No	No	0	0	2.2	No	No	0	0	2.3	No	No	0	0	2.4	No	No	0	0	2.6	No	No	0	0
# of First-Row Benefited:						0					0					0					0					0					1					2		
% of First-Row Benefited:						0.0%					0.0%					0.0%					0.0%					0.0%					14.3%					28.6%		
Noise Abatement Design Goal:						No					No					No					No					No					No					No		
# of Benefited:						0					0					0					0					0					1					2		
Cost of Noise Wall:						$146,400.00					$195,200.00					$244,000.00					$292,800.00					$341,600.00					$390,400.00					$439,200.00		
Cost per Benefited Receiver:						-					-					-					-					-					$390,400.00					$219,600.00		
Cost Effectiveness:						No					No					No					No					No					No					No		
Feasible and Reasonable:						**No**					**No**					**No**					**No**					**No**					**No**					**No**		

Diamond Interchange Noise Wall 1

Wall Length: 875 ft
Wall Cost per sq ft: $20
# of First Row Receivers: 7

Name	# of DU	1st Row	# of 1st Row	6-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	8-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	10-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	12-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	14-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	16-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors	18-ft Wall	Benefited	1st Row Benefitted Receptor	# 1st Row	# Benefited Receptors
97B"	1	Yes	1	1	No	No	0	0	1.6	No	No	0	0	1.9	No	No	0	0	2.2	No	No	0	0	2.4	No	No	0	0	2.6	No	No	0	0	2.8	No	No	0	0
98B"	1	Yes	1	1.1	No	No	0	0	2.1	No	No	0	0	2.5	No	No	0	0	2.9	No	No	0	0	3.2	No	No	0	0	3.4	No	No	0	0	3.7	No	No	0	0
99B"	1	Yes	1	1	No	No	0	0	2.4	No	No	0	0	3	No	No	0	0	3.5	No	No	0	0	3.8	No	No	0	0	4.1	No	No	0	0	4.4	No	No	0	0
100B"	1	Yes	1	1	No	No	0	0	2.7	No	No	0	0	3.3	No	No	0	0	3.8	No	No	0	0	4.1	No	No	0	0	4.4	No	No	0	0	4.7	No	No	0	0
101B"	1	Yes	1	1.4	No	No	0	0	3	No	No	0	0	3.5	No	No	0	0	3.9	No	No	0	0	4.2	No	No	0	0	4.5	No	No	0	0	4.8	No	No	0	0
102B"	1	Yes	1	1.4	No	No	0	0	2.9	No	No	0	0	3.4	No	No	0	0	3.9	No	No	0	0	4.1	No	No	0	0	4.4	No	No	0	0	4.7	No	No	0	0
103B"	1	Yes	1	1.7	No	No	0	0	2.7	No	No	0	0	3.1	No	No	0	0	3.5	No	No	0	0	3.8	No	No	0	0	4	No	No	0	0	4.3	No	No	0	0
# of First-Row Benefited:						0					0					0					0					0					0					0		
% of First-Row Benefited:						0.0%					0.0%					0.0%					0.0%					0.0%					0.0%					0.0%		
Noise Abatement Design Goal:						No					No					No					No					No					No					No		
# of Benefited:						0					0					0					0					0					0					0		
Cost of Noise Wall:						$105,000.00					$140,000.00					$175,000.00					$210,000.00					$245,000.00					$280,000.00					$315,000.00		
Cost per Benefited Receiver:						-					-					-					-					-					-					-		
Cost Effectiveness:						No					No					No					No					No					No					No		
Feasible and Reasonable:						**No**					**No**					**No**					**No**					**No**					**No**					**No**		

RECONNAISSANCE LEVEL SURVEY

Environmental Impact Statement for I-80; State Street
South Salt Lake, Salt Lake County
PIN 6995, Project No. F-I80-2(180)123

Looking south on State Street near 2500 South in 1916. The Madison School is on the left.
Shipler Collection, Utah State Historical Society

Prepared by Nancy Calkins, Anna Lord, and Peter Steele of Horrocks Engineers
For Utah Department of Transportation and Federal Highway Administration

June 2015

ABSTRACT

This report contains the results of a Reconnaissance Level Survey of properties bordering Interstate 80 and State Street in South Salt Lake, Salt Lake County, Utah. This survey was conducted at the request of the Utah Department of Transportation in conjunction with the Federal Highway Administration. Nancy Calkins, Anna Lord, and Peter Steele of Horrocks Engineers conducted the historic research, fieldwork, and analysis of data collected during fieldwork. At the request of Elizabeth Giraud of the Utah Department of Transportation, a Standard Reconnaissance Level Survey was conducted in areas with predominantly historic buildings while a Selective Reconnaissance Level Survey was conducted in areas with predominantly non-historic buildings. To extend the life of the survey, all buildings constructed within the past 45 years were documented in the Selective Survey. A total of 168 properties were surveyed, 85 of which were determined eligible for inclusion on the National Register of Historic Places. The results of this survey are provided herein to assist the Utah Department of Transportation in decisions to be made regarding historic properties within the current project Area of Potential Effects.

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South Salt Lake, Salt Lake County
June 2015

Objective: To survey all buildings within the Area of Potential Effects (APE) which were constructed during the historic period, which may be affected by the proposed interchange improvements at State Street and Interstate 80. This survey is to identify those buildings within the APE, which may be eligible for inclusion in the National Register of Historic Places and those that may be of historic importance to the community of South Salt Lake. An archaeology report from the field work conducted by Peter Steele, entitled "A Class II Archaeological Resources Inventory for the I-80; State Street Interchange EIS," will accompany this report.

Survey Boundaries: The Survey Boundary coincides with the project APE and includes roughly those properties immediately adjacent to Interstate 80 from the west side of 700 East on the east to the east side of Interstate 15, on the west. The APE also includes a north-south section of those properties adjacent to State Street from the south side of 2100 South on the north to the north side of 2700 South on the south. As the APE is irregularly shaped, please see the figure in Appendix B for the exact location of the APE. At the request of the Utah Department of Transportation, a Standard Reconnaissance Level survey was conducted in areas which were predominantly historic buildings, while a Selective Survey was conducted in areas which had a large number of non-historic structures. For the Selective Survey, all buildings constructed within the last 45 years (in or before 1970) were surveyed. The current property boundary was used as the historic boundary for all surveyed properties.

Physical Environment: The survey area is located four miles south of downtown Salt Lake City mostly within the city boundaries of South Salt Lake. The exception is the area adjacent to Interstate 80 (I-80) on the north between 500 East and 700 East (Driggs Avenue), which is part of Salt Lake City. The neighborhoods surrounding I-80 are older, well-established neighborhoods which were dissected by its construction in the 1960s. State Street and the area west of State Street to Interstate 15 (I-15) are mostly commercial and light industrial areas with a few scattered homes and business offices.

Historic Context: The historic context is specific to the area of South Salt Lake from 2100 South to 2700 South and does not cover all of the area within the city boundaries. Also, due to the separate and unique development of properties along State Street, there will be a section in each of the following contextual periods to address the development of State Street during that historic period.

South of the City-The Farmers Ward: 1848-1889

On August 2, 1847, just nine days after their arrival, the first Anglo-American settlers of the Salt Lake Valley laid out a very large plat of their future home, which they called Great Salt Lake City. Under the direction of their leader, Brigham Young, this small group of members of the

Church of Jesus Christ of Latter-day Saints (LDS or Mormon) platted the city according to the City of Zion plat, which involved a central residential area surrounded by larger farms. This type of plat allowed for social cohesion and unity, rather than residents being spread out on farms throughout the entire valley. This central residential core is what this first plat consisted of, extending south to the present-day 900 South.

The following year the area south of the city was platted in what became known as the Big Field Survey. It was the location for larger farms outside of the central residential core of the city. The land closest to the city (between present-day 900 South and 2100 South) was divided into five-acre parcels and the land further south (to present-day 4500 South) divided into ten-acre parcels. When the surveys were completed, parcels were assigned to individual owners, most of whom had homes in the city. Parcels were assigned in large quantities to many of the church leaders, including Brigham Young who had 600 acres between present-day 2100 South and 2700 South from State Street to 1300 East. Another leader, prominent in territorial politics, the Territorial Militia, and the LDS Church, General Robert Taylor Burton had a 90-acre farm to the west of Brigham Young's farm. Much of the land within the current survey boundaries was originally owned by these two early leaders.

The Big Field Survey was part of one ward (both ecclesiastical and civil) which ran from the Wasatch Mountains on the east to the Jordan River on the west and was named the Sugar House Ward. In 1877 this ward was divided along 500 East and all land west of 500 East to the Jordan River became the Farmers Ward, so named because of the productive farms in the area. The Farmers Ward remained scattered farmsteads for the next twenty years or so until the growing population of Salt Lake City of land outside the original city boundaries.

The Transcontinental Railroad was completed near Ogden in 1869 and within a year the Utah Southern Railway was completed through the Salt Lake Valley. This railway eventually connected many communities south of Salt Lake City to the rail line in Ogden. The location of this railway had a strong impact on the future development of the property adjacent to the tracks, which ran along what is now 200 West and sectioned off the western portion of what would become South Salt Lake. This railway was eventually purchased by Union Pacific. The Denver and Rio Grande line was constructed to the west of this line, further dividing the Farmers Ward. Naturally the land surrounding the rail road became shipping yards for livestock and produce and would eventually become locations for industry.

State Street: Originally called the Territorial Road, State Street was the first road which traversed the entire length of the territory, connecting communities throughout the state with Salt Lake City. During this time period it was a dusty and muddy road which traveled through scattered farms in the area south of 2100 South. Several agriculturally based businesses including dairies and mills were constructed along the road as well as homes associated with local farms.

Suburban Development: 1890-1935

After the death of Brigham Young in 1877, his farmstead remained in the Young family until purchased by real-estate developer, George M. Cannon in 1889. In 1890, Cannon filed a plat with the Salt Lake County Recorder for the large Forest Dale Subdivision, from 600 East to 900 East between present-day 2100 South and 2700 South in the Big Field Survey.

That same year, Jesse W. Fox, Surveyor General of the Utah Territory, filed a plat for Central Park Subdivision, which included forty acres north of 2700 South between State and 200 East. He was

fond of Manhattan's Central Park and chose the name for that reason. The street names of Vidas and Beryl in the plat were named for his two daughters. This was the first subdivision plat filed in what is now South Salt Lake and remained the only subdivision until the death of Robert Taylor Burton in 1907.

By 1907 when Robert T. Burton died, there were twelve Burton family homes constructed on his farm along State Street between 2100 South and 2400 South. While these family members all lived on the family farm, only one of them actually made a living farming. The economic base of the Salt Lake had become diversified and most of the family engaged in business or building trades[1]. The decision was made to subdivide Robert Burton's farm and the family teamed up with Kimball and Richards, who were becoming the premier land developers in Utah. Burton Place and Burton Place 2nd Addition plats were filed in 1908, followed by Burton Place A in 1913 and Burton Acres in 1916. The names of the streets in this area are all from the Burton family, including Robert, Taylor, Burton, Truman, and Haven Avenues.

Although Kimball and Richards found remarkable success with their east-side developments such as the large Highland Park Subdivision, they did not meet with as much success in this western area of the Big Field Survey. In all, Kimball and Richards filed 19 plats in what is now South Salt Lake, including the Burton plats, Lockwood, Hollywood Tract, and Southgate Park plats 1-11. However, the company did not devote the resources to development in these west-side developments that they did for their east-side developments.[2] While the reasons for this are only speculative, Kimball and Richards had lobbied hard to have their east-side developments annexed into Salt Lake City. With that came city services like sewer and water lines, which the unincorporated areas of the west side developments did not have. Although annexation of the Farmers Ward area into Salt Lake City was attempted several times, each time it was voted down by the residents. Despite being platted into subdivisions, even as late as 1935, the Farmers Ward area still was largely scattered farmsteads with individual wells for culinary water and sewage running in open ditches. In a 1937 aerial photograph of the area it is very clear where the boundary of Salt Lake City runs along 500 East. To the east are developed neighborhoods, to the west it still shows scattered farmsteads except for a few subdivisions.

State Street: With the growth of Salt Lake City, the use of the Territorial Road as a major artery of travel increased. An electric streetcar line built by the Salt Lake Rapid Transit Company in 1893 ran down State Street from Salt Lake City to Murray. With the increased use of the automobile in the early Twentieth Century, State Street was paved along that same route from downtown Salt Lake City to Murray. Homes constructed along State Street were often grand homes of the well-to-do, much as they were along major routes in Salt Lake City, such as South Temple Street. However, the increased automobile traffic along State Street brought more commercial construction including service stations. By 1925 there were four service stations between 2100 South and 2700 South.

With the creation of the national highway system in 1926, State Street became part of Highway 89 which ran from the Mexican border to the Canadian border. The Utah portion of Highway 89 was the original territorial route and the national highway system brought even more travelers along State Street. Eleven more service stations were constructed between 2100 South and 2700 South within ten years of the designation of State Street as Highway 89. Associated with the People's Auto Service at 2315 South State Street in 1929 was the People's Auto Court, the first of

[1] 1900 and 1910 Census
[2] Broschinsky, Korral, Intensive Level Survey, South Salt Lake, 2011.

many motels to be constructed along this major travel route. Local markets, bakeries, barbershops, and restaurants were constructed along State Street as well during this time period. By 1935 there were four markets, three barbershops, three bakeries, and four restaurants on State Street between 2100 South and 2700 South. As the growth of businesses increased, the number of residential properties along State Street decreased. Just in the ten years between 1925 and 1935, there was a twenty percent decrease in the number of residences between 2100 South and 2700 South from 56 homes to 45. This was during a period of general growth in residences in the area, denoting a change in the makeup of properties along State Street. Several of the large homes were converted to businesses including a maternity hospital, a rest home and a funeral parlor.

South Salt Lake Incorporation and Growth: 1936-1957

The water and sewer problems were the main impetus for change in what became South Salt Lake. The unsuccessful attempts to be annexed into Salt Lake City were motivated by these issues and without annexation, some form of government needed to be organized to address the problem. In 1936, a majority of area residents petitioned Salt Lake County for incorporation as the town of Central Park. This town included all the area between 2100 South and Mill Creek. However, one year later, the majority of residents voted to un-incorporate the town. The town of Central Park was relatively small in area and population, and may not have qualified for Federal Aid to fund their water and sewer projects.

In response to the financial difficulties brought on by the Great Depression, the Federal Government funded community projects through the Public Works Administration and the Works Progress Administration, both created by the National Industrial Recovery Act of 1933. The purpose of funding projects was to create jobs, but not all communities qualified.

A final attempt was made for annexation into Salt Lake City and although the proposed annexation was approved by Salt Lake City government, they could not promise any help with the sewer or water lines for three or four years more.[3] As a result, a new attempt was made to incorporate the town, this time as a larger town of South Salt Lake. According to Robert Fitts, the first mayor of the Town of South Salt Lake, the purpose of incorporation was "principally to qualify for Federal Aid in building a sanitary sewer system."[4] The vote passed by a narrow margin and the town incorporated on September 22, 1938, just two days before the application to the Public Works Administration (PWA) was due. Following several setbacks with funding from the PWA, the project was finally funded by the Works Progress Administration (WPA) with the town funding the materials and the WPA funding the 600 men eventually employed on the project.[5] The work, which was anticipated to take about a year, was begun in February of 1939. By June, the leaders of South Salt Lake hit another setback when members of the community who lived near the proposed sewage treatment plant at 2100 South and 200 West (now 300 West) complained that the plant would be a detriment to their area. Salt Lake City then joined the protest because the plant bordered their city. The leaders of South Salt Lake went so far as to abandon their planned system if they could connect to the Salt Lake City sewer system. Salt Lake City officials refused, but still sought to block the construction of the treatment plant. The tenacity of the early leaders of South Salt Lake cannot be overstated. The project was completed, the treatment plant constructed, and the leaders then turned their attention to financing a culinary water system. Due to World War II and disputes with Salt Lake City over water rights, it was not

[3] Stucki, Dick. *South Salt Lake History*. p 18.
[4] Ibid.
[5] "Rites Launch Sewer Project For South Salt Lake Area." Salt Lake Tribune, February 18, 1939

until the 10th Anniversary of the town of South Salt Lake, that the Town Board announced the construction of the "New $500,000 Independent Water System."[6]

When completed in September 1949, the new "$750,000 independent water system"[7] (the cost went up) included over 26 miles of pipe and a 300,000 gallon water tower located at 2500 S. West Temple. The town officials saw the new water system as "the biggest lure in drawing new business to the community." They further encouraged commercial development by stating that there was "plenty of low-cost commercial building space available, much of it along the main arteries of Main and State Streets."[8]

Over the ten year period from 1940 to 1950 the Town of South Salt Lake experienced a 32 % growth rate. Most of the remaining farms east of State Street were platted into subdivisions, including Taylor Subdivision in 1949 and Oakland Avenue Subdivision in 1950. As these subdivisions were developed, surrounding subdivisions from previous time-periods which had empty lots were in-filled with post-war housing. As a result of this growth the leaders of South Salt Lake petitioned and received from the Governor a Third Class City status which gave them more latitude to levy needed taxes.[9]

Commercial and industrial development increased in the areas west of State Street. Among the developments there were several drive-in theaters (one named The Autorium), a bowling alley, and the Fritos Factory constructed at 2470 S. Main Street in 1950.

In 1957 building permits issued in South Salt Lake dropped significantly over previous years. According to City Manager, Homer Chandler the reason for the drop was that "the city's residential areas had neared their expansion limits." [10] The City of South Salt Lake is one square mile and entirely bounded by other communities. Once the available land was developed in residential areas, the only option for growth came in the form of demolition or adaptation of previously constructed buildings.

State Street: The development of State Street peaked during this time period with roughly 120 buildings on State Street between 2100 South and 2700 South (there are currently 49 buildings in this same area.) Residential structures decreased from 45 in 1935 to 12 in 1955, while businesses increased from 42 to 94 during the same time period. In addition to new construction, some of these businesses were developed in existing residential structures, while others modified existing residences by adding store fronts to homes. In addition to the service stations, stores, barber shops, and restaurants, there were car lots, a bar, and the State Liquor Store all built in the 1940s. In the mid-1950s, the South Salt Lake city center was constructed on the west side of State Street near 2500 South across from the Madison School, which included city offices, the public library, and an auditorium.

Division by Interstate Highways: 1958-1970

The most dramatic effect on the community of South Salt Lake began with the announcement of the simultaneous construction of Interstate 15 and the segment of Interstate 80 from the mouth of Parley's Canyon to Interstate 15. Interestingly, at that time they were commonly

[6] "Future of Infant South Salt Lake Bright on 10th Birthday," Salt Lake Tribune. September 26, 1948, p 27.
[7] "Water System in South S.L. Studied as Business Spur." Salt Lake Tribune, September 13, 1949, p 14.
[8] ibid.
[9] "South S.L. Asks Status of Third Class City," Salt Lake Tribune, July 12. 1950, p 7.
[10] "South S.L. Builds Less in Past Year," Salt Lake Tribune, January 3, 1958, p. 15.

known, even in the newspapers, as the "north-south freeway" and the "east-west freeway." Although both freeways crossed through South Salt Lake, it was Interstate 80 which had the greatest effect. The route chosen through the Salt Lake Valley was along 2400 South, which not only took out entire blocks of homes, but separated close-knit neighborhoods and divided local LDS wards in half.

Even after the homes were removed and residents came to accept the changes, the earth-fill design of the freeway was a surprise to many. As trucks began to haul in fill to build up the freeway, residents and public leaders alike called for a stop to the construction. Many had believed the freeway would be constructed on pillars through the town, and not large hillsides which would be seen out the front windows of many residences. J. Bracken Lee, Mayor of Salt Lake City joined in the protest calling for an explanation from the head of the State Road Commission, C. Taylor Burton. Burton responded to Mayor Lee as well as the citizens committee of South Salt Lake that unless the community could come up with the additional 17.8 million dollars to change the plans, the freeway would be constructed as planned. Burton stated, "The Bureau of Public Roads will not provide additional funds, and I doubt that South Salt Lake would be in a position to do so."[11] Ironically, C. Taylor Burton was the grandson of Robert Taylor Burton, who first settled this area of South Salt Lake. C. Taylor Burton had grown up in a home on State Street just one block north of the freeway site.

Not everyone was upset by the freeway construction, however. In response to the citizens group protesting the freeway through their community, the South Salt Lake Chamber of Commerce wrote a letter stating that while they were aware that there would be adjustments to make and some homes and businesses would be lost, they were "also aware of the fact that the areas adjacent to the highway will expand with new businesses and industry."[12]

The story actually played out quite differently than asserted by the Chamber of Commerce. In the ten years from 1960 to 1970, business along State Street decreased by 20% and residential buildings decreased by 70%.

State Street: As stated above, both business and residences along State Street decreased during this time period. While it may appear that the decrease was due to demolition for Interstate 80, there were actually only six structures demolished on State Street for freeway construction. The greatest reason for the decrease in numbers of commercial buildings is due to demolition of smaller buildings (both residential and commercial) to open larger lots for the construction of larger buildings. There were several large office complexes built along State Street during this time in the area south of newly-constructed Interstate 80. Also of note during this time period was the construction of the first franchised fast-food restaurant on State Street, a Taco Time, was constructed at 2497 S. State Street in 1967.

Present-day Redevelopment

In the last 45 years South Salt Lake has struggled to maintain growth and development, especially in the areas west of State Street. The residential subdivisions east of State Street have, for the most part, remained cohesive neighborhoods. Recently there has been new construction on vacant lots resulting from either demolition of older homes or subdivision of larger lots. There has been a great deal of turn-over in businesses along State Street. The City of South Salt Lake

[11] "South S.L. Gets Earthfill Reply," Salt Lake Tribune, June 7, 1960 p 33.
[12] "Group Urges Route on 2400 South," Salt Lake Tribune, March 1, 1959 p 94.

sold their city complex in the late 1980s and moved to their present location on Morris Avenue. This move was to make way for a large hospital complex to be built on State Street, which has since been sold to Granite School District. In the last few years the City of South Salt Lake has been heavily promoting redevelopment which has included the demolition of entire city blocks for the construction of large apartment complexes.

Summary of Properties within the Historic Context:

Of the 168 properties surveyed 97 were determined eligible for the National Register of Historic Places. The following is an assessment of all surveyed buildings, whether determined eligible or ineligible, to give better context to those which are eligible.

South of the City- The Farmers Ward: 1848-1889

Only three buildings remain in the survey area from this time period. This is partially due to the very scattered condition originally of houses during this time period. Of these three buildings, the earliest (1873) is a two-story Central Passage house which has been recently covered with synthetic stucco. The other two houses are brick Central Block with Projecting Bays with Victorian Eclectic Style. Only two of the buildings were determined eligible for the National Register of Historic Places.

Suburban Development: 1890-1935

Of the buildings within the survey boundaries from this time period, three are commercial buildings which are 1- and 2-part blocks, and one service bay/businesses. These commercial buildings were all originally brick construction, although stucco has been applied to one recently.

There are 48 residential buildings remaining in the survey area, 21 of which retain architectural integrity. The earliest of these are Victorian types and styles: Crosswing, Central Block, and Central Passage with various materials including brick and concrete block. Alterations to these buildings include the recent application of stucco. Bungalows in the survey area began to be constructed in 1905, with the last in 1932. Many of these Bungalows were frame construction so the most common alteration is the application of aluminum or vinyl siding. There are several Period Cottages constructed from 1930-1933.

South Salt Lake Incorporation and Growth: 1936-1957

The greatest number of buildings recorded within the survey boundaries is from this historic period, which accurately reflects the greatest period of growth in South Salt Lake. A total of 95 buildings were recorded including 19 commercial and 76 residential. The residential buildings are WWII-Era Cottages and Early Ranch-type houses some of which were constructed as in-fill in older neighborhoods, but the majority were constructed in subdivisions. Both building types are either brick or frame construction with original materials, asbestos or shingle siding on the frame buildings. Of the 76 residential buildings, 43 retain architectural integrity. Alterations to these frame buildings are the application of aluminum or vinyl siding, brick veneer, and stucco.

In commercial buildings, there appears be a shift from 1-and 2-part blocks to commercial/industrial blocks in the early 1950s and service bay businesses and restaurants become more common. Only two of the 19 commercial buildings constructed during this time period retain architectural integrity.

Division by Interstate Highways: 1958-1970

The buildings recorded in the survey from this time period also accurately reflect the historic context, with reduced growth, especially in residential construction. As South Salt Lake has very limited area in which to grow, both residential buildings and commercial buildings were/are demolished in order for new buildings to be constructed. There were 17 commercial buildings recorded which were either in-fill or replacement of earlier residential or commercial buildings. The commercial buildings from this time period are generally concrete block or brick commercial/industrial block and 13 of the 17 recorded retain architectural integrity. The four which have been altered have recently been covered with synthetic stucco.

The five residential buildings recorded from this time period are Ranch-type homes constructed on remaining lots in earlier subdivisions. The two constructed of brick retain original materials, the others have been clad in vinyl siding,

Explanation of Fieldwork Techniques:

Prior to conducting the survey a search of Preservation Pro online was conducted to find any previously recorded sites. Only those on Driggs Avenue in the east section of the survey had been previously recorded. The Salt Lake County Interactive Property Maps were also consulted online to determine construction dates of all buildings within the survey boundaries. Any historic photographs contained with property information were copied for reference in the field. In addition, Sanborn Insurance Maps, city directories, historic aerial photographs and historic subdivision plats were studied to determine settlement patterns prior to the survey. All pertinent information was input into the Historic Survey App for reference in the field.

The survey was conducted on April 24, 2015 and April 29, 2015 by Anna Lord, Nancy Calkins, and Peter Steele of Horrocks Engineers. As per Utah Department of Transportation's request, a Standard Reconnaissance Level Survey was conducted in areas where the majority of the buildings were historic, while a Selective Reconnaissance Level Survey was conducted in areas where the majority of the buildings were not historic. This generally fell along lines of residential and commercial areas. The Standard surveys were appropriate in residential areas and the Selective Surveys were conducted in commercial areas.

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1966: AAL 1FF 71, AAL 1FF 112
1971: AAL 1MM 18, AAL 1MM 100

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Appendix A

Survey Datasheets and Photographic Contact Sheets

415 W 2100 SOUTH
Inelig./Non-contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2100 South	415	W	NC	Service Station	1	Service Bay/Business	0	0	1968	Concrete Block	20th C. Commercial	Alterations In 1980. Modifications to façade and roofline.

5 E 2400 SOUTH
Inelig./Non-contributing

121 E 2400 SOUTH
Out-of-period

133 E 2400 SOUTH
Eligible/Contributing

145 E 2400 SOUTH
Out-of-period

155 E 2400 SOUTH
Out-of-period

165 E 2400 SOUTH
Eligible/Contributing

167 E 2400 SOUTH
Eligible/Contributing

169 E 2400 SOUTH
Eligible/Contributing

173 E 2400 SOUTH
Eligible/Contributing

175 E 2400 SOUTH
Inelig./Non-contributing

177 E 2400 SOUTH
Inelig./Non-contributing

207 E 2400 SOUTH
Inelig./Non-contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2400 South	5	E	NC	Commercial (Gen.)	1	Other Early 21st C. Type	0	0	1965	Concrete Block	20th C. Commercial	Large Op Addition To Rear Of Building.
2400 South	121	E	OP	Residential (Gen.)	1	Manufactured Home	0	0	2006	Vinyl Siding	Manufactured Home (Gen.)	
2400 South	133	E	EC	Residential (Gen.)	1	WWII-Era Cottage	2	0	1942	Vinyl Siding	Minimal Traditional	
2400 South	145	E	OP	Residential (Gen.)	1.5	Other Late 20th C. Type	0	0	1998	Vinyl Siding	Late 20th C.: Other	
2400 South	155	E	OP	Residential (Gen.)	1.5	Other Late 20th C. Type	0	0	1998	Vinyl Siding	Late 20th C.: Other	
2400 South	165	E	EC	Residential (Gen.)	1	Bungalow	1	0	1922	Shingle Siding	Arts & Crafts	
2400 South	167	E	EC	Multiple Dwelling	2	Other Apt./Hotel Plan	1	0	1955	Regular Brick	Ranch/Rambler (Gen.)	
2400 South	169	E	EC	Residential (Gen.)	1.5	Bungalow	0	0	1911	Stucco/Plaster	Victorian Eclectic	
2400 South	173	E	EC	Residential (Gen.)	1.5	Bungalow	0	0	1911	Stucco/Plaster	Bungalow	Alterations To Facade From 1944
2400 South	175	E	NC	Residential (Gen.)	1	Bungalow	1	0	1918	Regular Brick	Minimal Traditional	Dormer Removed, Altered Railing, Windows Replaced
2400 South	177	E	NC	Residential (Gen.)	1	Bungalow	0	0	1909	Vinyl Siding	Bungalow	Original Windows
2400 South	207	E	NC	Residential (Gen.)	1	Early Ranch / Rambler	2	0	1950	Vinyl Siding	Early Ranch (Gen.)	Vinyl Windows, Altered Siding

211 E 2400 SOUTH
Eligible/Contributing

215 E 2400 SOUTH
Inelig./Non-contributing

225 E 2400 SOUTH
Inelig./Non-contributing

235 E 2400 SOUTH
Inelig./Non-contributing

241 E 2400 SOUTH
Eligible/Contributing

247 E 2400 SOUTH
Eligible/Contributing

251 E 2400 SOUTH
Eligible/Contributing

255 E 2400 SOUTH
Eligible/Contributing

265 E 2400 SOUTH
Inelig./Non-contributing

275 E 2400 SOUTH
Eligible/Contributing

285 E 2400 SOUTH
Eligible/Contributing

325 E 2400 SOUTH
Inelig./Non-contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2400 South	211	E	EC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1950	Aluminum Siding	Early Ranch (Gen.)	Wide Siding Similar To Original
2400 South	215	E	NC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1950	Asbestos Siding	Minimal Traditional	West Window Altered On Primary Facade, Garage Attached With Rear Addition.
2400 South	225	E	NC	Residential (Gen.)	1	Bungalow	0	0	1924	Regular Brick	Bungalow	Enclosed Porch, Rear Addition, Windows Replaced
2400 South	235	E	NC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1948	Stucco/Plaster	Minimal Traditional	Altered Materials/Style
2400 South	241	E	EC	Residential (Gen.)	1	Early Ranch with Garage	1	0	1950	Striated Brick	Early Ranch (Gen.)	
2400 South	247	E	EC	Residential (Gen.)	1	WWII-Era Cottage	1	1	1951	Striated Brick	Minimal Traditional	
2400 South	251	E	EC	Residential (Gen.)	1	Early Ranch / Rambler	0	1	1948	Striated Brick	Early Ranch (Gen.)	Windows Replaced
2400 South	255	E	EC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1941	Striated Brick	Early Ranch (Gen.)	
2400 South	265	E	NC	Residential (Gen.)	1	WWII-Era Cottage	0	1	1940	Asbestos Siding	Minimal Traditional	Front Windows Altered, East Side Window Covered, Garage Attached With Rear Addition.
2400 South	275	E	EC	Residential (Gen.)	1	WWII-Era Cottage	0	1	1949	Striated Brick	Minimal Traditional	Windows Replaced
2400 South	285	E	EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1952	Roman Brick	Early Ranch (Gen.)	
2400 South	325	E	NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Vinyl Siding	Early Ranch (Gen.)	

333 E 2400 SOUTH
Eligible/Contributing

341 E 2400 SOUTH
Eligible/Contributing

349 E 2400 SOUTH
Inelig./Non-contributing

357 E 2400 SOUTH
Eligible/Contributing

365 E 2400 SOUTH
Inelig./Non-contributing

373 E 2400 SOUTH
Inelig./Non-contributing

381 E 2400 SOUTH
Inelig./Non-contributing

389 E 2400 SOUTH
Inelig./Non-contributing

397 E 2400 SOUTH
Eligible/Contributing

405 E 2400 SOUTH
Eligible/Contributing

413 E 2400 SOUTH
Inelig./Non-contributing

421 E 2400 SOUTH
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2400 South	333	E	EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Aluminum Siding	Early Ranch (Gen.)	
2400 South	341	E	EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Aluminum Siding	Early Ranch (Gen.)	
2400 South	349	E	NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Vinyl Siding	Early Ranch (Gen.)	Windows Replaced And Narrow Vinyl Siding.
2400 South	357	E	EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Shingle Siding	Early Ranch (Gen.)	Porch Addition In-Period
2400 South	365	E	NC	Residential (Gen.)	1	Early Ranch / Rambler	0	0	1950	Shingle Siding	Early Ranch (Gen.)	Garage Filled In, Carport Added.
2400 South	373	E	NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Vinyl Siding	Early Ranch (Gen.)	Siding And Windows Replaced. Garage Enclosed.
2400 South	381	E	NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1950	Aluminum Siding	Early Ranch (Gen.)	Siding Has Been Replaced. East Front Window Covered.
2400 South	389	E	NC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1950	Vinyl Siding	Early Ranch (Gen.)	Siding Replaced. Windows Replaced/Altered. Garage Enclosed.
2400 South	397	E	EC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1950	Aluminum Siding	Early Ranch (Gen.)	Windows And Siding Have Been Replaced.
2400 South	405	E	EC	Residential (Gen.)	1	Early Ranch / Rambler	0	0	1952	Asbestos Siding	Early Ranch (Gen.)	Original Siding And Windows Intact
2400 South	413	E	NC	Residential (Gen.)	1.5	WWII-Era Cottage	0	1	1952	Vinyl Siding	Minimal Traditional	Chimney Is In Historic Tax Photo C.1960. Original Windows.
2400 South	421	E	EC	Residential (Gen.)	2	Early Ranch with Garage	0	1	1952	Aluminum Siding	Minimal Traditional	Wwii Cottage? Windows Replaced.

429 E 2400 SOUTH
Eligible/Contributing

435 E 2400 SOUTH
Inelig./Non-contributing

443 E 2400 SOUTH
Inelig./Non-contributing

451 E 2400 SOUTH
Inelig./Non-contributing

459 E 2400 SOUTH
Inelig./Non-contributing

465 E 2400 SOUTH
Eligible/Contributing

473 E 2400 SOUTH
Eligible/Contributing

481 E 2400 SOUTH
Inelig./Non-contributing

487 E 2400 SOUTH
Eligible/Contributing

495 E 2400 SOUTH
Eligible/Contributing

34 W 2400 SOUTH
Eligible/Contributing

42 W 2400 SOUTH
Inelig./Non-contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2400 South	429	E	EC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1952	Aluminum Siding	Early Ranch (Gen.)	Windows Replaced. Wide Siding Imitates Original
2400 South	435	E	NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1952	Aluminum Siding	Early Ranch (Gen.)	Windows And Siding Have Been Replaced.
2400 South	443	E	NC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1952	Aluminum Siding	Early Ranch (Gen.)	Windows And Siding Have Been Replaced.
2400 South	451	E	NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1952	Vinyl Siding	Early Ranch (Gen.)	Windows Replaced But Retain Style
2400 South	459	E	NC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1952	Aluminum Siding	Early Ranch (Gen.)	Carport Addition, Windows And Siding Replaced
2400 South	465	E	EC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1952	Aluminum Siding	Early Ranch (Gen.)	Siding And Windows Replaced.
2400 South	473	E	EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1959	Aluminum Siding	Early Ranch (Gen.)	Was Siding Replaced In Period?
2400 South	481	E	NC	Residential (Gen.)	1	Early Ranch with Garage	0	1	1952	Aluminum Siding	Early Ranch (Gen.)	Massive Chimney An Addition.
2400 South	487	E	EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1952	Aluminum Siding	Early Ranch (Gen.)	
2400 South	495	E	EC	Residential (Gen.)	1	Early Ranch with Garage	1	0	1952	Shingle Siding	Early Ranch (Gen.)	
2400 South	34	W	EC	Residential (Gen.)	1	WWII-Era Cottage	0	0	1955	Masonite Siding	Minimal Traditional	
2400 South	42	W	NC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1950	Vinyl Siding	Early 21st C.: Other	Windows Replaced, Altered Materials, Porch Additions

44 W 2400 SOUTH
Inelig./Non-contributing

48 W 2400 SOUTH
Inelig./Non-contributing

54 W 2400 SOUTH
Inelig./Non-contributing

66 W 2400 SOUTH
Eligible/Contributing

70 W 2400 SOUTH
Eligible/Contributing

78 W 2400 SOUTH
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2400 South	44	W	NC	Residential (Gen.)	1	Central Blk w/ Proj Bays	1	0	1909	Aluminum Siding	20th C.: Other	Porch Enclosed, Altered Materials
2400 South	48	W	NC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1949	Stamped Brick Veneer	Early Ranch (Gen.)	
2400 South	54	W	NC	Residential (Gen.)	1	Bungalow	0	1	1921	Synth. Stucco/EIFS	20th C.: Other	
2400 South	66	W	EC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1940	Asbestos Siding	Early Ranch (Gen.)	Original Siding And Windows
2400 South	70	W	EC	Residential (Gen.)	1	Bungalow	0	0	1915	Narrow Clapboard (Waterfall)	Bungalow	Original Siding
2400 South	78	W	EC	Residential (Gen.)	1	Ranch	0	0	1950	Concrete Block	Ranch/Rambler (Gen.)	Porch Canopy Is Visible On 1965 Aerial

111 E 2700 SOUTH
Inelig./Non-contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
2700 South	111	E	NC	Restaurant	1	Other Late 20th C. Type	0	0	1963	Concrete Block	Late 20th C.: Other	Windows Altered And Added Stone On Primary Facade.

2375 S 300 EAST
Eligible/Contributing

2384 S 300 EAST
Inelig./Non-contributing

2389 S 300 EAST
Eligible/Contributing

2396 S 300 EAST
Eligible/Contributing

2445 S 300 EAST
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
300 East	2375	S	EC	Residential (Gen.)	1	Early Ranch / Rambler	0	1	1956	Roman Brick	Early Ranch (Gen.)	
300 East	2384	S	NC	Residential (Gen.)	1	Central Blk w/ Proj Bays	1	0	1908	Aluminum Siding	Late 20th C.: Other	Siding Over Original Brick, Windows Altered
300 East	2389	S	EC	Residential (Gen.)	1.5	Central Blk w/ Proj Bays	0	1	1888	Regular Brick	Victorian Eclectic	Rear Addition In 1928 (From Sosl History) Op Dormers
300 East	2396	S	EC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1947	Striated Brick	Early Ranch (Gen.)	Windows Replaced, Basement Entry Added On South
300 East	2445	S	EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1948	Regular Brick	Early Ranch (Gen.)	

2415 S 300 WEST
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
300 West	2415	S	EC	Industrial (Gen.)	1	Warehouse	0	0	1960	Concrete Block	20th C. Commercial	Has Multiple Buildings, Most Of Which Are Historic.

2450 S 400 EAST
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
400 East	2450	S	EC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1951	Regular Brick	Minimal Traditional	

2130 S 400 WEST
Inelig./Non-contributing

2200 S 400 WEST
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
400 West	2130	S	NC	Commercial (Gen.)	1	Service Bay/Business	0	1	1955	Concrete Block	20th C. Commercial	Enclosed Bays, Recent Stucco, Se Add'N
400 West	2200	S	EC	Commercial (Gen.)	2	Comm./Insdustrial Block	2	0	1961	Concrete Block	20th C. Commercial	

2393 S 500 EAST
Eligible/Contributing

2446 S 500 EAST
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
500 East	2393	S	EC	Residential (Gen.)	1	Central Blk w/ Proj Bays	2	0	1880	Regular Brick	Victorian Eclectic	House Number Is 2393. Brick Barn
500 East	2446	S	EC	SINGLE DWELLING	1	OTHER RESIDENTIAL TYPE	0	0	1940	Regular Brick	Period Revival (Gen.)	

64 E BURTON AVENUE
Eligible/Contributing

132 E BURTON AVENUE
Inelig./Non-contributing

136 E BURTON AVENUE
Inelig./Non-contributing

140 E BURTON AVENUE
Out-of-period

142 E BURTON AVENUE
Inelig./Non-contributing

150 E BURTON AVENUE
Eligible/Contributing

154 E BURTON AVENUE
Eligible/Contributing

158 E BURTON AVENUE
Eligible/Contributing

174 E BURTON AVENUE
Out-of-period

176 E BURTON AVENUE
Inelig./Non-contributing

149 W BURTON AVENUE
Eligible/Contributing

157 W BURTON AVENUE
Inelig./Non-contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Burton Avenue	64	E	EC	Residential (Gen.)	1	Box Bungalow	0	0	1919	Clapboard Siding	Bungalow	
Burton Avenue	132	E	NC	Residential (Gen.)	1	WWII-Era Cottage	0	1	1940	Aluminum Siding	Minimal Traditional	Siding, Windows And Roof Have All Been Altered.
Burton Avenue	136	E	NC	Residential (Gen.)	1	Bungalow	1	0	1922	Stamped Brick Veneer	Bungalow	Porch And Siding Altered. Was Originally Wood Siding
Burton Avenue	140	E	OP	Residential (Gen.)	1	Other Early 21st C. Type	0	0	2013	Synth. Stucco/EIFS	Early 21st C.: Other	
Burton Avenue	142	E	NC	Residential (Gen.)	1	Bungalow	1	0	1915	Clapboard Siding	Bungalow	Porched Has Been Enclosed.
Burton Avenue	150	E	EC	Residential (Gen.)	1	Bungalow	0	1	1938	Concrete Block	Bungalow	Porch Has Been Altered, Front Entry To Side, Posts Removed. Widows Replaced
Burton Avenue	154	E	EC	Residential (Gen.)	1	Bungalow	0	1	1932	Regular Brick	Bungalow	
Burton Avenue	158	E	EC	Residential (Gen.)	1	Box Bungalow	1	0	1930	Asbestos Siding	Bungalow	
Burton Avenue	174	E	OP	Residential (Gen.)	1	Other Early 21st C. Type	0	0	2007	Vinyl Siding	Early 21st C.: Other	
Burton Avenue	176	E	NC	Residential (Gen.)	1.5	Bungalow	0	0	1916	Wood Sheet	Victorian Eclectic and Arts and Crafts	Altered Materials, Gable End Windows Altered
Burton Avenue	149	W	EC	Residential (Gen.)	1	Comm./Insdustrial Block	0	1	1969	Concrete Block	20th C. Commercial	
Burton Avenue	157	W	NC	Commercial (Gen.)	1	Comm./Insdustrial Block	1	0	1968	Concrete Block	20th C. Commercial	East (Front) Altered Post- 1971 Aerial Photo

171 W BURTON AVENUE
Inelig./Non-contributing

175 W BURTON AVENUE
Eligible/Contributing

177 W BURTON AVENUE
Inelig./Non-contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Burton Avenue	171	W	NC	Residential (Gen.)	1	Other Late 20th C. Type	1	0	1924	Aluminum Siding	20th C.: Other	Addition To Front/Poor Condition
Burton Avenue	175	W	EC	Residential (Gen.)	1	Early Ranch / Rambler	2	0	1947	Wood: Other/Undef.	Early Ranch (Gen.)	His House Is Not Visible From The Street.
Burton Avenue	177	W	NC	Residential (Gen.)	1	Other Residential Type	0	0	1965	Concrete Block	Other/Unclear Style	Poor Condition, Could Be Part Of Property In Front.

518 E Driggs Avenue
Eligible/Contributing

504 E DRIGGS AVENUE
Eligible/Contributing

518 E DRIGGS AVENUE
Eligible/Contributing

524 E DRIGGS AVENUE
Eligible/Contributing

532 E DRIGGS AVENUE
Eligible/Contributing

536 E DRIGGS AVENUE
Eligible/Contributing

538 E DRIGGS AVENUE
Eligible/Contributing

550 E DRIGGS AVENUE
Inelig./Non-contributing

552 E DRIGGS AVENUE
Eligible/Contributing

560 E DRIGGS AVENUE
Inelig./Non-contributing

562 E DRIGGS AVENUE
Eligible/Contributing

572 E DRIGGS AVENUE
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Driggs Avenue	504	E	EC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1942	Striated Brick	Minimal Traditional	Vinyl Siding, Vinyl Windows, Carport Add'N
Driggs Avenue	518	E	EC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1944	Vinyl Siding	Minimal Traditional	Original Windows Under Storm Windows.
Driggs Avenue	524	E	EC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1941	Aluminum Siding	Minimal Traditional	
Driggs Avenue	532	E	EC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1940	Asbestos Siding	Minimal Traditional	
Driggs Avenue	536	E	EC	Residential (Gen.)	1	Bungalow	1	0	1905	Regular Brick	Victorian: Other	Rear Addition.
Driggs Avenue	538	E	EC	Residential (Gen.)	1.5	Period Cottage	0	0	1933	Clapboard Siding	English Cottage	
Driggs Avenue	550	E	NC	Residential (Gen.)	1.5	Crosswing - Double	0	1	1890	Synth. Stucco/EIFS	Victorian Eclectic	Recent Stucco Over Brick. Windows Altered
Driggs Avenue	552	E	EC	Residential (Gen.)	1	Early Ranch / Rambler	0	0	1951	Striated Brick	Early Ranch (Gen.)	
Driggs Avenue	560	E	NC	Residential (Gen.)	1	Other Early 21st C. Type	1	0	1950	Vinyl Siding	Early 21st C.: Other	Large Addition On Primary Facade.
Driggs Avenue	562	E	EC	Residential (Gen.)	1	Central Blk w/ Proj Bays	0	1	1895	Regular Brick	Victorian Eclectic	
Driggs Avenue	572	E	EC	Residential (Gen.)	1	Bungalow	1	0	1915	Regular Brick	Bungalow	Rear Addition, Original Windows.
Driggs Avenue	574	E	EC	Residential (Gen.)	1	Bungalow	1	0	1925	Regular Brick	Bungalow	

574 E DRIGGS AVENUE
Eligible/Contributing

584 E DRIGGS AVENUE
Inelig./Non-contributing

604 E DRIGGS AVENUE
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Driggs Avenue	584	E	NC	Residential (Gen.)	2	Central Passage	0	0	1873	Synth. Stucco/EIFS	Classical: Other	Recent Stucco And Porch Addition
Driggs Avenue	604	E	EC	Residential (Gen.)	1.5	Central Blk w/ Proj Bays	0	1	1895	Regular Brick	Victorian Eclectic	

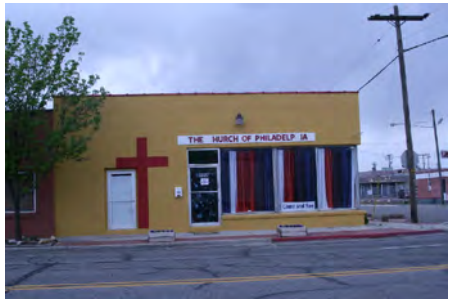
380 W LAWNDALE DRIVE
Inelig./Non-contributing

400 W LAWNDALE DRIVE
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Lawndale Drive	380	W	NC	Commercial (Gen.)	1	Comm./Insdustrial Block	0	0	1970	Regular Brick	20th C. Commercial	Center Front Canopy Addition
Lawndale Drive	400	W	EC	Commercial (Gen.)	1	Comm./Insdustrial Block	0	0	1969	Regular Brick	20th C. Commercial	

109 E Leslie Avenue
Inelig./Non-contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Leslie Avenue	109	E	NC	Residential (Gen.)	1.5	Central Passage	1	0	1913	Regular Brick	Victorian: Other	Commercial Front (Recently Altered) Added C. 1970 Totally Obscures House



2356 S MAIN
Inelig./Non-contributing

2364 S MAIN
Inelig./Non-contributing

2365 S MAIN
Inelig./Non-contributing

2386 S MAIN
Eligible/Contributing

2391 S MAIN
Inelig./Non-contributing

2445 S MAIN
Eligible/Contributing

2470 S MAIN
Eligible/Contributing

2500 S MAIN
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Main	2356	S	NC	Commercial (Gen.)	1	1-Part Block	2	0	1948	Synth. Stucco/EIFS	20th C. Commercial	Recent Stucco Over Brick
Main	2364	S	NC	Commercial (Gen.)	1	1-Part Block	0	1	1914	Synth. Stucco/EIFS	20th C. Commercial	Stucco Over Brick
Main	2365	S	NC	Commercial (Gen.)	1	Comm./Insdustrial Block	0	0	1961	Decorative Concrete Block	20th C. Commercial	Windows Altered
Main	2386	S	EC	Residential (Gen.)	1	Boxcar Apt.	0	0	1930	Stucco/Plaster	Modern: Other	
Main	2391	S	NC	Residential (Gen.)	2	Other Late 20th C. Type	0	0	1962	Wood: Other/Undef.	Other/Unclear Style	Multiple Additions And Alterations.
Main	2445	S	EC	Commercial (Gen.)	1	Service Bay/Business	0	0	1930	Regular Brick	20th C. Commercial	1950S Alteration To Roof And Windows
Main	2470	S	EC	Commercial (Gen.)	1	Comm./Insdustrial Block	0	0	1950	Regular Brick	20th C. Commercial	
Main	2500	S	EC	Commercial (Gen.)	1	Comm./Insdustrial Block	0	0	1950	Concrete Block	20th C. Commercial	

48 E ROBERT AVENUE
Eligible/Contributing

54 E ROBERT AVENUE
Eligible/Contributing

320 E ROBERT AVENUE
Inelig./Non-contributing

322 E ROBERT AVENUE
Eligible/Contributing

330 E ROBERT AVENUE
Inelig./Non-contributing

344 E ROBERT AVENUE
Eligible/Contributing

350 E ROBERT AVENUE
Inelig./Non-contributing

354 E ROBERT AVENUE
Out-of-period

360 E ROBERT AVENUE
Eligible/Contributing

366 E ROBERT AVENUE
Eligible/Contributing

384 E ROBERT AVENUE
Eligible/Contributing

390 E ROBERT AVENUE
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Robert Avenue	48	E	EC	Commercial (Gen.)	1	Comm./Insdustrial Block	0	0	1960	Regular Brick	20th C. Commercial	
Robert Avenue	54	E	EC	Commercial (Gen.)	1	Comm./Insdustrial Block	0	0	1960	Regular Brick	20th C. Commercial	
Robert Avenue	320	E	NC	Residential (Gen.)	2	Other Late 20th C. Type	0	0	1961	Regular Brick	Late 20th C.: Other	Space Between Dormers Enclosed, Roof Altered
Robert Avenue	322	E	EC	Residential (Gen.)	1	Early Ranch / Rambler	0	0	1955	Regular Brick	Ranch/Rambler (Gen.)	Basement Corner Window Original
Robert Avenue	330	E	NC	Residential (Gen.)	1	Early Ranch / Rambler	0	1	1955	Regular Brick	Ranch/Rambler (Gen.)	Addition Of Enclosed Porch On Primary Facade.
Robert Avenue	344	E	EC	Residential (Gen.)	1	Early Ranch / Rambler	0	0	1952	Regular Brick	Ranch/Rambler (Gen.)	
Robert Avenue	350	E	NC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1947	Vinyl Siding	Ranch/Rambler (Gen.)	Siding And Windows Have Been Altered.
Robert Avenue	354	E	OP	Residential (Gen.)	1	Other Late 20th C. Type	0	0	1951	Aluminum Siding	Late 20th C.: Other	1951 House Was At The Back Of Lot-Demolished
Robert Avenue	360	E	EC	Residential (Gen.)	2	WWII-Era Cottage	0	0	1947	Stucco/Plaster	Minimal Traditional	
Robert Avenue	366	E	EC	Residential (Gen.)	1	Other Apt./Hotel Plan	1	0	1951	Concrete Block	Postwar: Other	
Robert Avenue	384	E	EC	Residential (Gen.)	1	Duplex (Apt.)	1	0	1951	Concrete Block	Early Ranch (Gen.)	
Robert Avenue	390	E	EC	Residential (Gen.)	1	Early Ranch with Garage	0	0	1951	Concrete Block	Early Ranch (Gen.)	

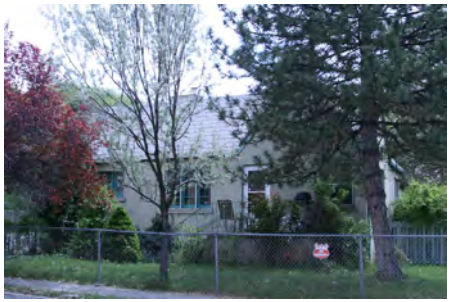
402 E ROBERT AVENUE
Inelig./Non-contributing

406 E ROBERT AVENUE
Inelig./Non-contributing

420 E ROBERT AVENUE
Inelig./Non-contributing

436 E ROBERT AVENUE
Eligible/Contributing

450 E ROBERT AVENUE
Inelig./Non-contributing



460 E ROBERT AVENUE
Eligible/Contributing

470 E ROBERT AVENUE
Inelig./Non-contributing

486 E ROBERT AVENUE
Eligible/Contributing

11 W ROBERT AVENUE
Eligible/Contributing

15 W ROBERT AVENUE
Eligible/Contributing

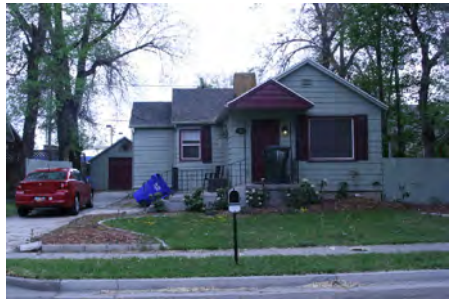
23 W ROBERT AVENUE
Out-of-period

25 W ROBERT AVENUE
Out-of-period

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Robert Avenue	402	E	NC	Residential (Gen.)	1	WWII-Era Cottage	0	1	1938	Aluminum Siding	Minimal Traditional	Porch, Siding And Windows Altered.
Robert Avenue	406	E	NC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1938	Vinyl Siding	Minimal Traditional	
Robert Avenue	420	E	NC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1938	Aluminum Siding	Minimal Traditional	Porch Alt, Front Windows Were Originally Paired
Robert Avenue	436	E	EC	Residential (Gen.)	1	WWII-Era Cottage	0	0	1939	Stucco/Plaster	Minimal Traditional	
Robert Avenue	450	E	NC	Residential (Gen.)	1	WWII-Era Cottage	0	2	1936	Aluminum Siding	Minimal Traditional	Siding And Windows Have Been Altered.
Robert Avenue	460	E	EC	Residential (Gen.)	1	Period Cottage	1	0	1933	Stucco/Plaster	English Cottage	
Robert Avenue	470	E	NC	SINGLE DWELLING	1	Period Cottage	1	0	1930	Aluminum Siding	English Cottage	Altered Materials, Altered Facade-
Robert Avenue	486	E	EC	Multiple Dwelling	1	Other Apt./Hotel Plan	0	1	1955	Regular Brick	Ranch/Rambler (Gen.)	4 Units
Robert Avenue	11	W	EC	Residential (Gen.)	1	WWII-Era Cottage	0	0	1947	Asbestos Siding	Minimal Traditional	
Robert Avenue	15	W	EC	Residential (Gen.)	1	WWII-Era Cottage	0	0	1947	Regular Brick	Ranch/Rambler (Gen.)	
Robert Avenue	23	W	OP	Residential (Gen.)	1	Manufactured Home	0	0	2002	Vinyl Siding	Manufactured Home (Gen.)	
Robert Avenue	25	W	OP	Residential (Gen.)	1	Manufactured Home	0	0	2002	Vinyl Siding	Manufactured Home (Gen.)	

37 W ROBERT AVENUE
Inelig./Non-contributing

41 W ROBERT AVENUE
Inelig./Non-contributing



43 W ROBERT AVENUE
Eligible/Contributing

49 W ROBERT AVENUE
Eligible/Contributing

51 W ROBERT AVENUE
Inelig./Non-contributing

79 W ROBERT AVENUE
Eligible/Contributing

91 W ROBERT AVENUE
Inelig./Non-contributing

93 W ROBERT AVENUE
Out-of-period

95 W ROBERT AVENUE
Out-of-period

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Robert Avenue	37	W	NC	Residential (Gen.)	1	Other Residential Type	0	0	1951	Stucco/Plaster	Other/Unclear Style	
Robert Avenue	41	W	NC	Residential (Gen.)	1	Other Early 21st C. Type	0	0	1915	Vinyl Siding	Early 21st C.: Other	Porch Enckosed, Roof, Windows And Siding Altered. Originally A Crosswing
Robert Avenue	43	W	EC	Residential (Gen.)	1	WWII-Era Cottage	2	0	1946	Aluminum Siding	Minimal Traditional	
Robert Avenue	49	W	EC	Residential (Gen.)	1	Bungalow	0	2	1910	Asbestos Siding	Bungalow	
Robert Avenue	51	W	NC	Residential (Gen.)	1	Clipped-Gable Cottage	0	0	1919	Vinyl Siding	Bungalow	East Front Window Moved
Robert Avenue	79	W	EC	Residential (Gen.)	1	WWII-Era Cottage	1	0	1947	Concrete Block	Minimal Traditional	
Robert Avenue	91	W	NC	Residential (Gen.)	1	Bungalow	0	0	1920	Vinyl Siding	Bungalow	Siding Replaced, Porch Altered
Robert Avenue	93	W	OP	Residential (Gen.)	1.5	Other Early 21st C. Type	0	0	2014	Synth. Stucco/EIFS	Early 21st C.: Other	
Robert Avenue	95	W	OP	Residential (Gen.)	1.5	Other Early 21st C. Type	0	0	2014	Synth. Stucco/EIFS	Early 21st C.: Other	

2115 S STATE
Inelig./Non-contributing

2121 S STATE
Inelig./Non-contributing

2225 S STATE
Inelig./Non-contributing

2265 S STATE
Eligible/Contributing

2280 S STATE
Inelig./Non-contributing

2309 S STATE
Inelig./Non-contributing

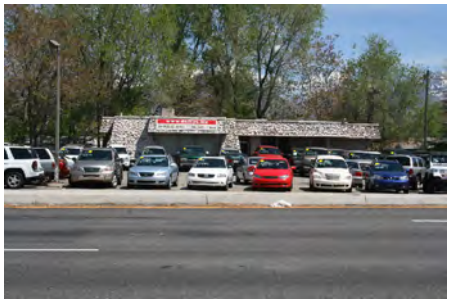
2368 S STATE
Inelig./Non-contributing

2432 A S STATE
Inelig./Non-contributing

2432 B S STATE
Inelig./Non-contributing

2468 S STATE
Inelig./Non-contributing

2473 S STATE
Eligible/Contributing



2497 S STATE
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
State	2115	S	NC	Restaurant	1	Other Late 20th C. Type	0	0	1939	Wood Sheet	20th C.: Other	Altered Materials/Facade
State	2121	S	NC	Business/Office	2	Other Early 21st C. Type	0	0	1955	Regular Brick	Early 21st C.: Other	Large Add'N/Alteration
State	2225	S	NC	Animal Facility	1	Other Early 21st C. Type	0	0	1953	Regular Brick	Early 21st C.: Other	Recent Add'N/Alt With Plywood
State	2265	S	EC	Recreation/Culture	1	Comm./Insdustrial Block	0	0	1960	Regular Brick	20th C. Commercial	Vacant Bowling Facility- Signage On State Contributing
State	2280	S	NC	Commercial (Gen.)	1	Enframed Window Wall	3	1	1959	Stucco/Plaster	20th C. Commercial	Altered Facade And Large Add'Ns
State	2309	S	NC	Commercial (Gen.)	1	Other Late 20th C. Type	0	2	1950	Synth. Stucco/EIFS	20th C. Commercial	Historic Building Subsumed In Modern Additions. Bowed Roof Visible From Some Angles.
State	2368	S	NC	Commercial (Gen.)	2	Enframed Block	0	1	1940	Stucco/Plaster	20th C.: Other	Altered Facade And Materials, South Addition,
State	2432 A	S	NC	Commercial (Gen.)	1	Service Bay/Business	1	0	1953	Stucco/Plaster	20th C. Commercial	Altered Materials And Style. Originally Separate From Property To The South.
State	2432 B	S	NC	Commercial (Gen.)	1	Enframed Window Wall	0	0	1967	Concrete Block	20th C. Commercial	Originally Separate Parcel From Gas Station. Building has lost original context.
State	2468	S	NC	Commercial (Gen.)	1	Comm./Insdustrial Block	0	0	1966	Stucco/Plaster	20th C. Commercial	Altered Facade And Materials, Removal Of Decorative Elements, Entrance Moved From East To South
State	2473	S	EC	Service Station	1	Service Station	0	0	1961	Concrete Block	20th C. Commercial	Canopy And Pumps Removed
State	2497	S	EC	Restaurant	1	Other Late 20th C. Type	0	0	1968	Concrete Block	20th C. Commercial	Early Fast Food Franchise

2505 S STATE
Inelig./Non-contributing

2507 S STATE
Inelig./Non-contributing

2511 S STATE
Inelig./Non-contributing

2547 S STATE
Eligible/Contributing

2561 S STATE
Inelig./Non-contributing

2567 S STATE
Inelig./Non-contributing

2583 S STATE
Inelig./Non-contributing

2585 S STATE
Inelig./Non-contributing

2607 S STATE
Inelig./Non-contributing

2611 S STATE
Inelig./Non-contributing

2634 S STATE
Eligible/Contributing

2635 S STATE
Inelig./Non-contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
State	2505	S	NC	Commercial (Gen.)	1	2-Part Block	0	0	1954	Synth. Stucco/EIFS	20th C. Commercial	Recent Stucco Alt
State	2507	S	NC	Restaurant	1	Other Early 21st C. Type	0	0	1950	Synth. Stucco/EIFS	Early 21st C.: Other	Recent Stucco/Alt
State	2511	S	NC	Service Station	1	1-Part Block	0	0	1922	Synth. Stucco/EIFS	20th C. Commercial	Recent Alterations
State	2547	S	EC	Commercial (Gen.)	1	Service Bay/Business	0	0	1968	Concrete Block	20th C. Commercial	
State	2561	S	NC	Commercial (Gen.)	1	2-Part Block	0	0	1930	Striated Brick	20th C. Commercial	Altered Facade
State	2567	S	NC	Commercial (Gen.)	1	2-Part Block	0	0	1948	Regular Brick	20th C. Commercial	Alteration To South Windows
State	2583	S	NC	Business/Office	1	1-Part Block	0	0	1949	Imitation Stone	20th C. Commercial	Recent Alterations
State	2585	S	NC	Residential (Gen.)	1	Other Early 21st C. Type	0	0	1955	Synth. Stucco/EIFS	20th C. Commercial	Altered Facade
State	2607	S	NC	Commercial (Gen.)	1	Other Early 21st C. Type	0	1	1946	Stucco/Plaster	20th C. Commercial	Altered Facade
State	2611	S	NC	Residential (Gen.)	1.5	Crosswing	2	0	1910	Concrete Block	Victorian Eclectic	Commercial Front Added 1950S Recently Altered With Stucco
State	2634	S	EC	Commercial (Gen.)	1	Other Late 20th C. Type	0	0	1963	Oversized Brick	Late 20th C.: Other	
State	2635	S	NC	Service Station	1	Service Bay/Business	0	0	1953	Concrete Block	20th C. Commercial	Bay Enclosed/Add'N On South

2641 S STATE
Inelig./Non-contributing

2643 S STATE
Inelig./Non-contributing

2699 S STATE
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
State	2641	S	NC	Commercial (Gen.)	1	Other Commercial/Public	0	0	1941	Synth. Stucco/EIFS	20th C. Commercial	Altered Facade
State	2643	S	NC	Restaurant	1	1-Part Block	0	0	1936	Wood: Other/Undef.	20th C. Commercial	Currently Altering Facade Original Signage Visible
State	2699	S	EC	Restaurant	1	Drive-In Restaurant	0	0	1955	Concrete Block	20th C. Commercial	

2375 S WEST TEMPLE
Inelig./Non-contributing

2444 S WEST TEMPLE
Inelig./Non-contributing

2450 S WEST TEMPLE
Eligible/Contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
West Temple	2375	S	NC	Commercial (Gen.)	1	Comm./Insdustrial Block	0	0	1949	Regular Brick	20th C. Commercial	Addition On North Side, Entrance Enclosed On Primary Facade
West Temple	2444	S	NC	Residential (Gen.)	1	Ranch with Garage	0	0	1952	Aluminum Siding	Early Ranch (Gen.)	Altered Windows And Siding, Garage Enclosed
West Temple	2450	S	EC	Residential (Gen.)	1	Early Ranch / Rambler	1	0	1952	Asbestos Siding	Early Ranch (Gen.)	In-Period Addition Of Barber Shop On Front

121 E WHITLOCK AVENUE
Inelig./Non-contributing

125 E WHITLOCK AVENUE
Eligible/Contributing

129 E WHITLOCK AVENUE
Eligible/Contributing

141 E WHITLOCK AVENUE
Inelig./Non-contributing

145 E WHITLOCK AVENUE
Inelig./Non-contributing

149 E WHITLOCK AVENUE
Inelig./Non-contributing

161 E WHITLOCK AVENUE
Inelig./Non-contributing

163 E WHITLOCK AVENUE
Inelig./Non-contributing

169 E WHITLOCK AVENUE
Inelig./Non-contributing

171 E WHITLOCK AVENUE
Inelig./Non-contributing

173 E WHITLOCK AVENUE
Inelig./Non-contributing

181 E WHITLOCK AVENUE
Inelig./Non-contributing

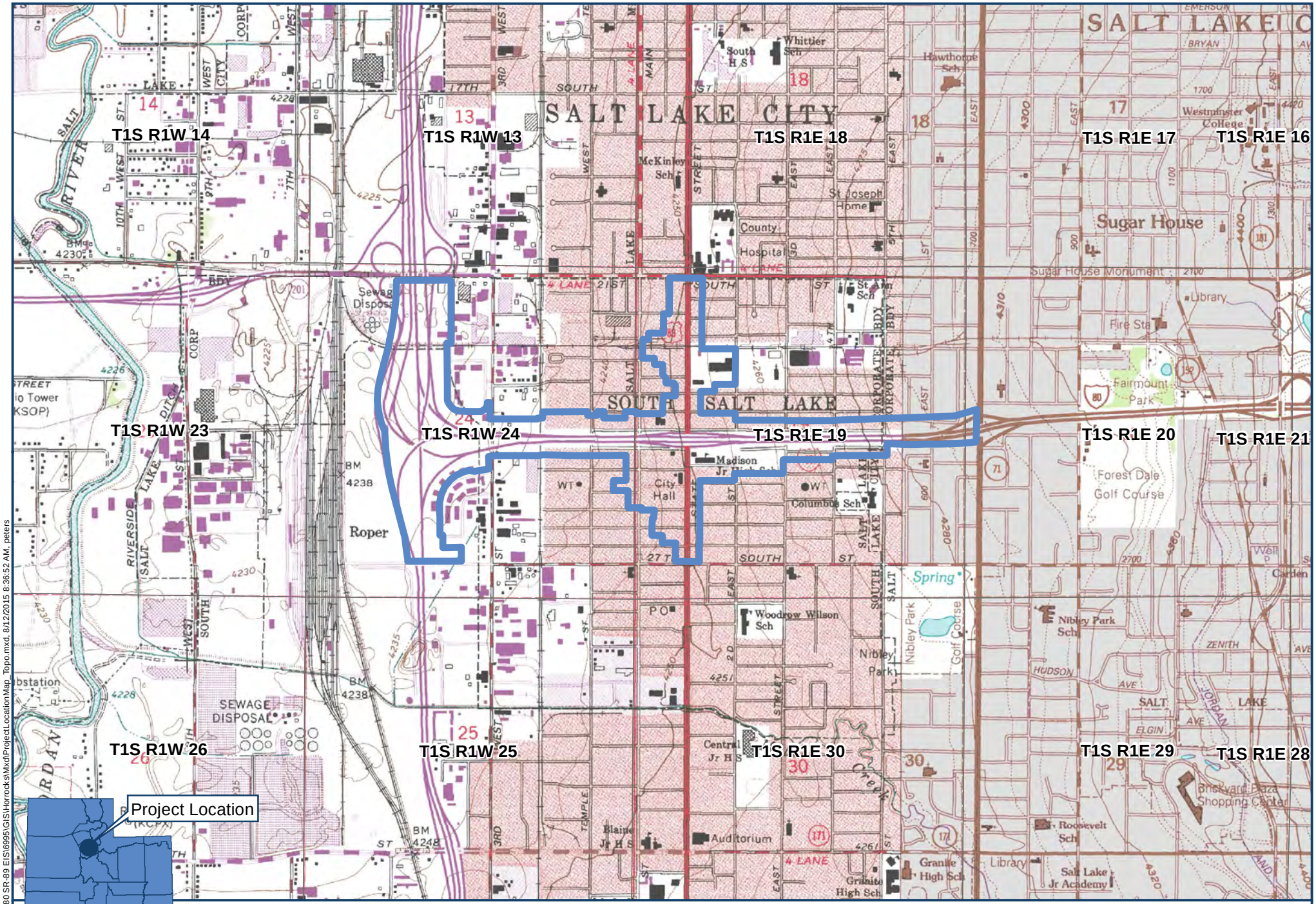
Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Whitlock Avenue	121	E	NC	Residential (Gen.)	1	Bungalow	0	0	1922	Vinyl Siding	Clipped-Gable Cottage	Porch Entry Altered, Siding Altered
Whitlock Avenue	125	E	EC	Residential (Gen.)	1	Bungalow	0	1	1920	Shingle Siding	Prairie School	
Whitlock Avenue	129	E	EC	Residential (Gen.)	1	Bungalow	0	1	1921	Shingle Siding	Arts & Crafts	
Whitlock Avenue	141	E	NC	Residential (Gen.)	1	Bungalow	0	0	1924	Aluminum Siding	Bungalow	Altered Porch And Siding, Windows Replaced
Whitlock Avenue	145	E	NC	Residential (Gen.)	2	Period Cottage	0	1	1926	Aluminum Siding	Late 20th C.: Other	Large Out-Of-Scale Addition, Altered Windows And Materials
Whitlock Avenue	149	E	NC	Residential (Gen.)	1	Bungalow	0	1	1921	Aluminum Siding	Bungalow	Windows Replaced, Porch, Siding, And Roof Alterations
Whitlock Avenue	161	E	NC	Residential (Gen.)	1	Bungalow	1	0	1921	Vinyl Siding	Bungalow	Siding And Porch Have Been Altered, Windows Replaced But Retains Original Character
Whitlock Avenue	163	E	NC	Residential (Gen.)	1	Bungalow	1	0	1921	Vinyl Siding	Bungalow	Siding And Porch Have Been Altered, Windows Replaced But Retains Original Character.
Whitlock Avenue	169	E	NC	Residential (Gen.)	1	Bungalow	1	0	1921	Vinyl Siding	Bungalow	Siding And Porch Have Been Altered, Windows Replaced But Retains Original Character.
Whitlock Avenue	171	E	NC	Residential (Gen.)	1	Bungalow	1	0	1923	Vinyl Siding	Bungalow	In-Period Porch Alteration, Windows Repaced, Siding Imitates Original
Whitlock Avenue	173	E	NC	Residential (Gen.)	1	Foursquare (Box)	0	1	1922	Aluminum Siding	Bungalow	Siding Obscures Original Character, Porch Hood Addition, Windows Replaced
Whitlock Avenue	181	E	NC	Residential (Gen.)	1	Bungalow	1	0	1923	Aluminum Siding	Bungalow	Enclosed Porch, Altered Materials, Could Be In-Period Alterations

191 E WHITLOCK AVENUE
Inelig./Non-contributing

Street Name	House #	Dir.	Eval.	Original Use	Ht.	Plan Type	OB Con	OB Non	C. Date	Materials	Building Style	Comments
Whitlock Avenue	191	E	NC	Residential (Gen.)	1	Bungalow	0	0	1923	Aluminum Siding	Bungalow	Altered Porch, Windows Replaced Siding Obscures Original Character

Appendix B

Survey Maps



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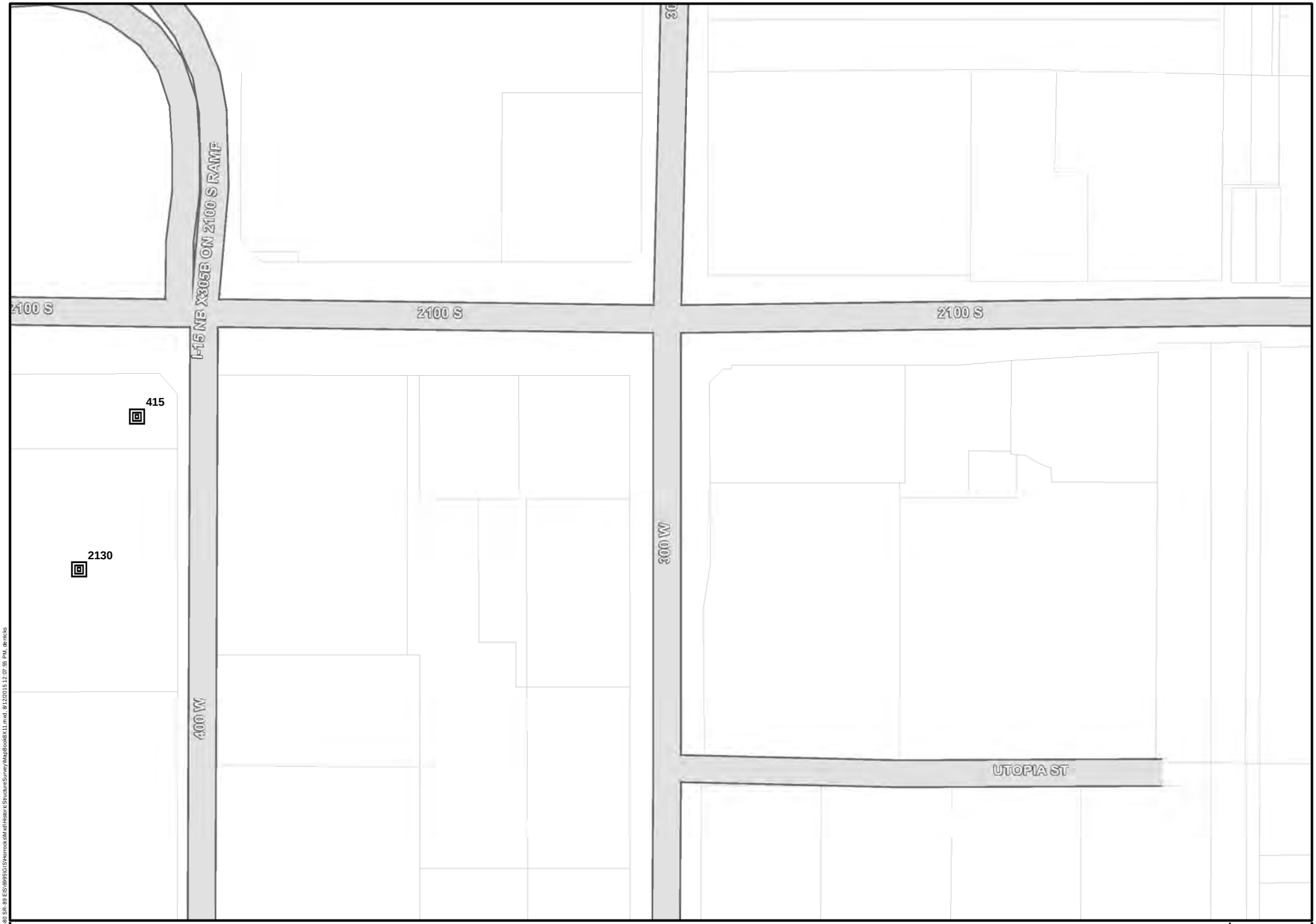

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Eligible/Contributing
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I-80 & State Street EIS

Historic Structure Eligibility

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Demolished
Eligible/Contributing
Inelig./Non-contributing

I-80 & State Street EIS

Historic Structure Eligibility

DATE 8/12/2015
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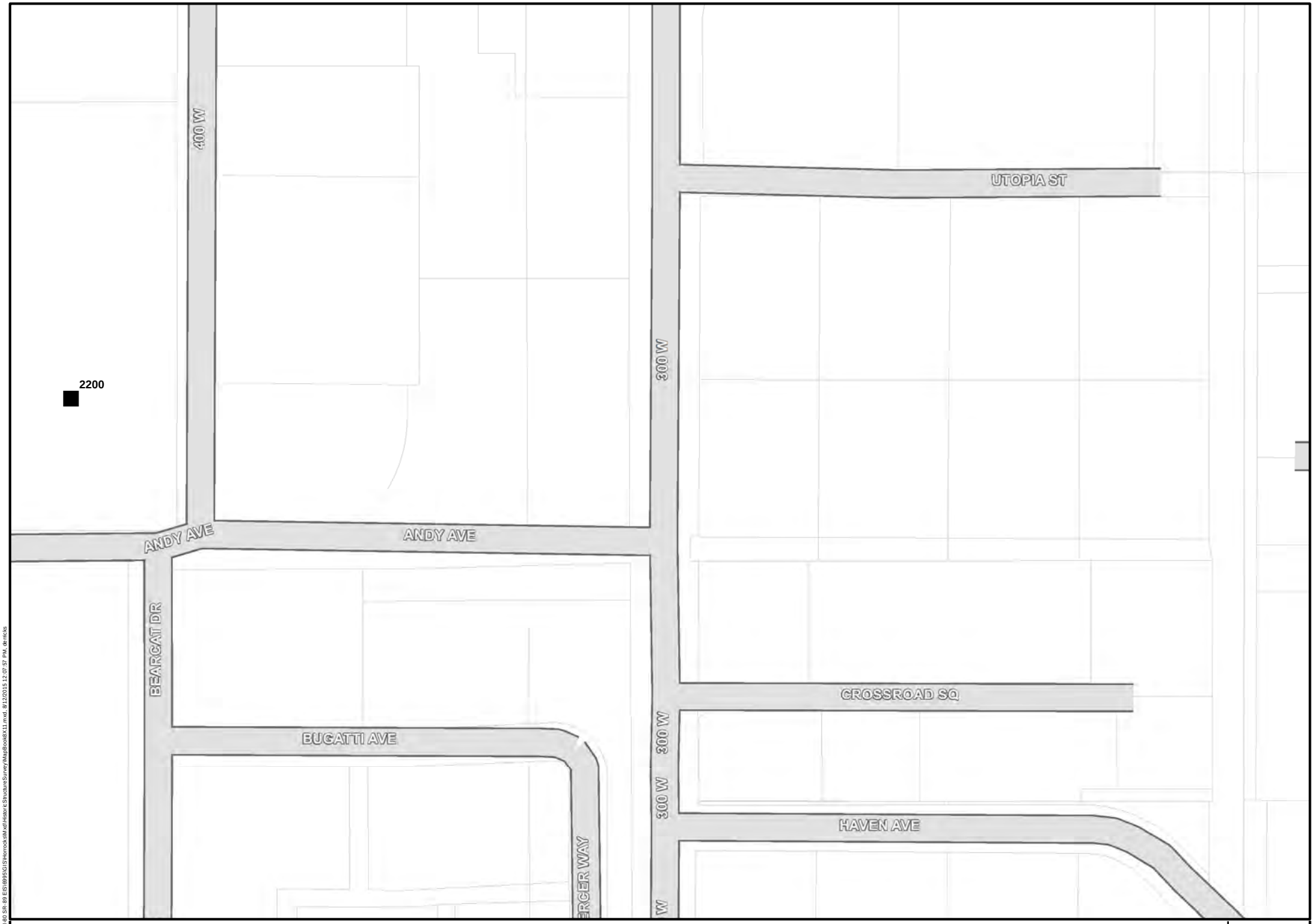

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Eligible/Contributing
Inelig./Non-contributing

I-80 & State Street EIS

Historic Structure Eligibility

DATE 8/12/2015

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Out-of-period
Demolished
Eligible/Contributing
Inelig./Non-contributing

I-80 & State Street EIS

Historic Structure Eligibility

DATE 8/12/2015
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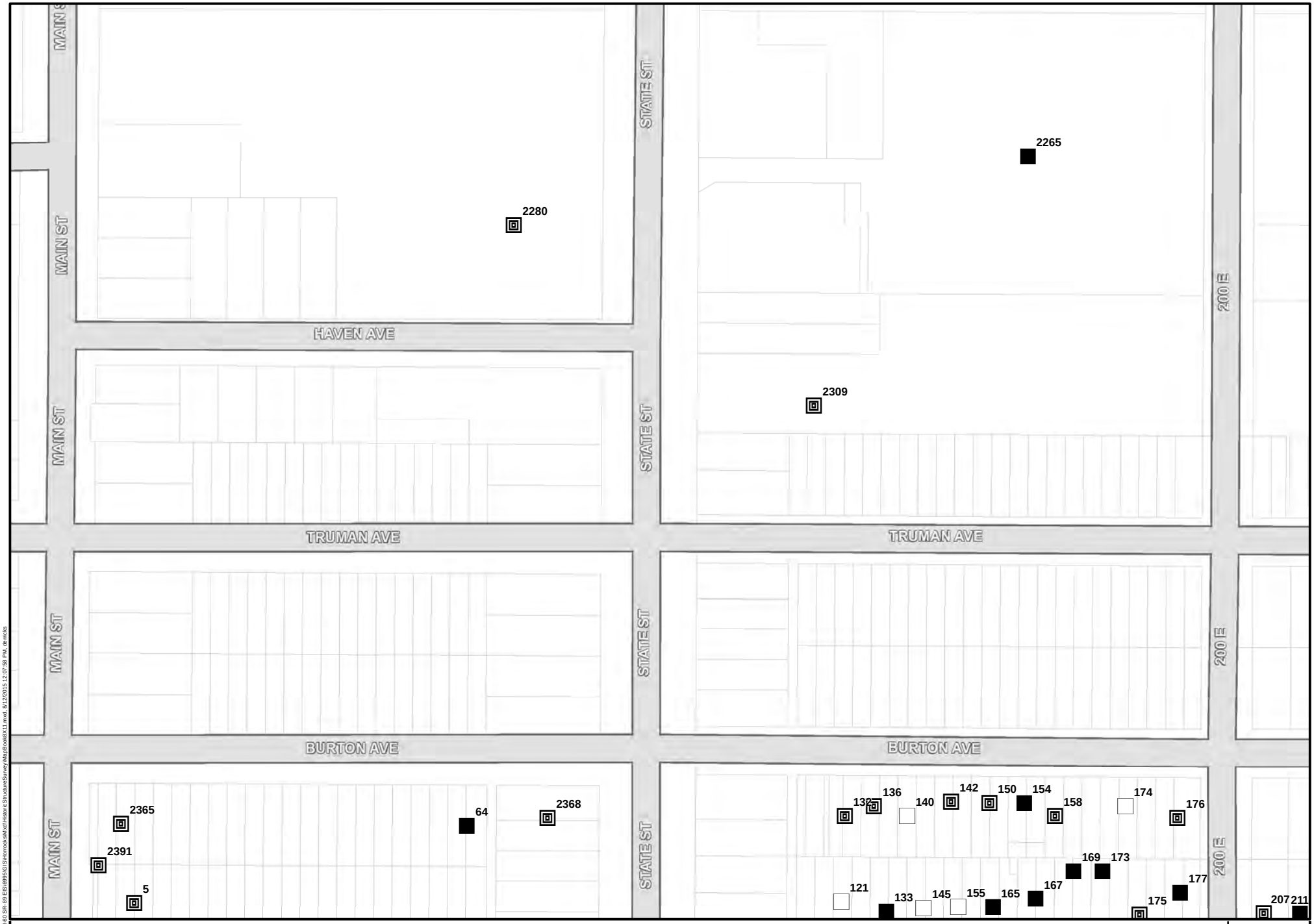

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Historic Structure Eligibility

DATE 8/12/2015

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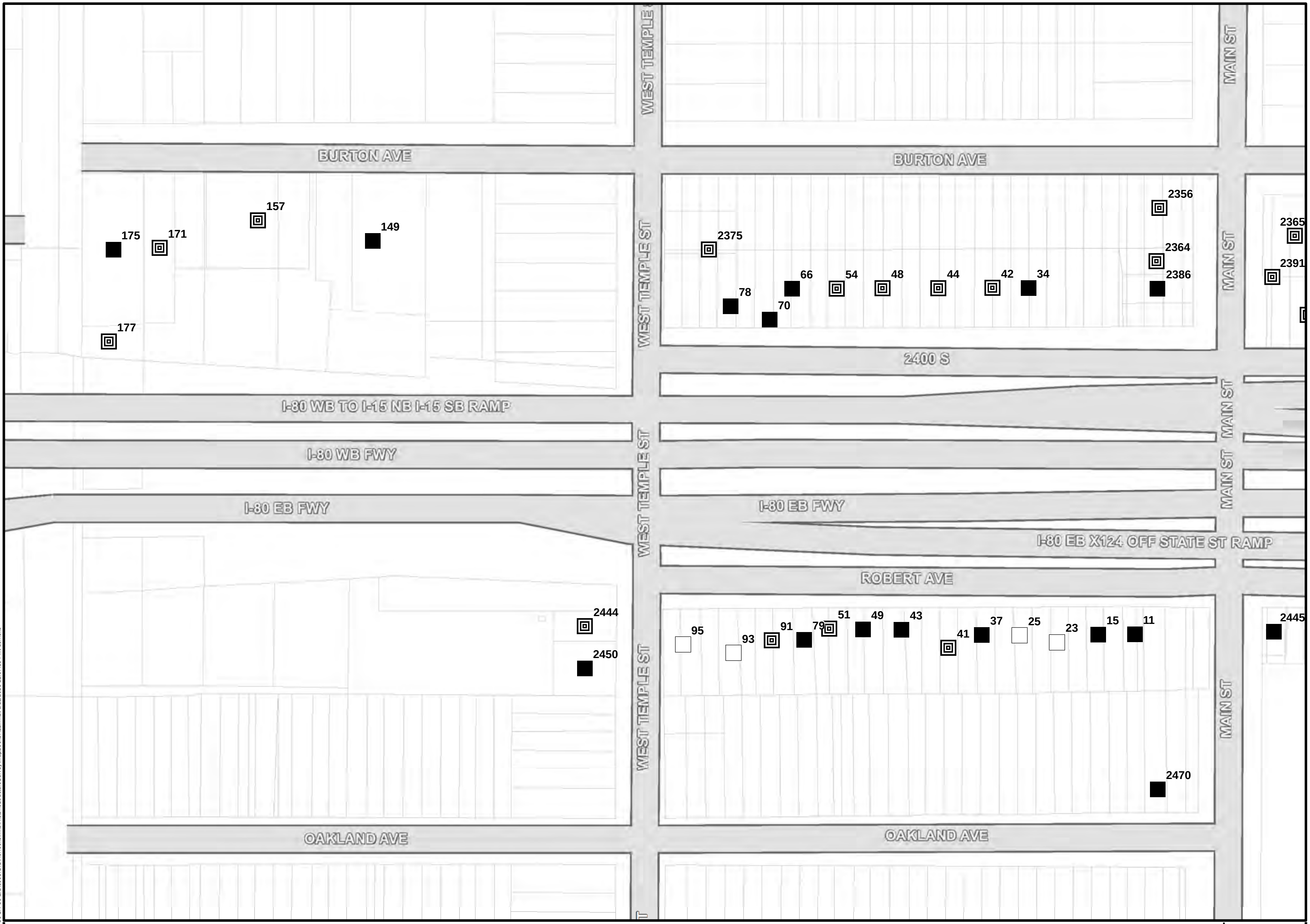

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- ☒ Demolished
- ■ Eligible/Contributing
- ⊡ Inelig./Non-contributing

I-80 & State Street EIS

Historic Structure Eligibility

DATE 8/12/2015

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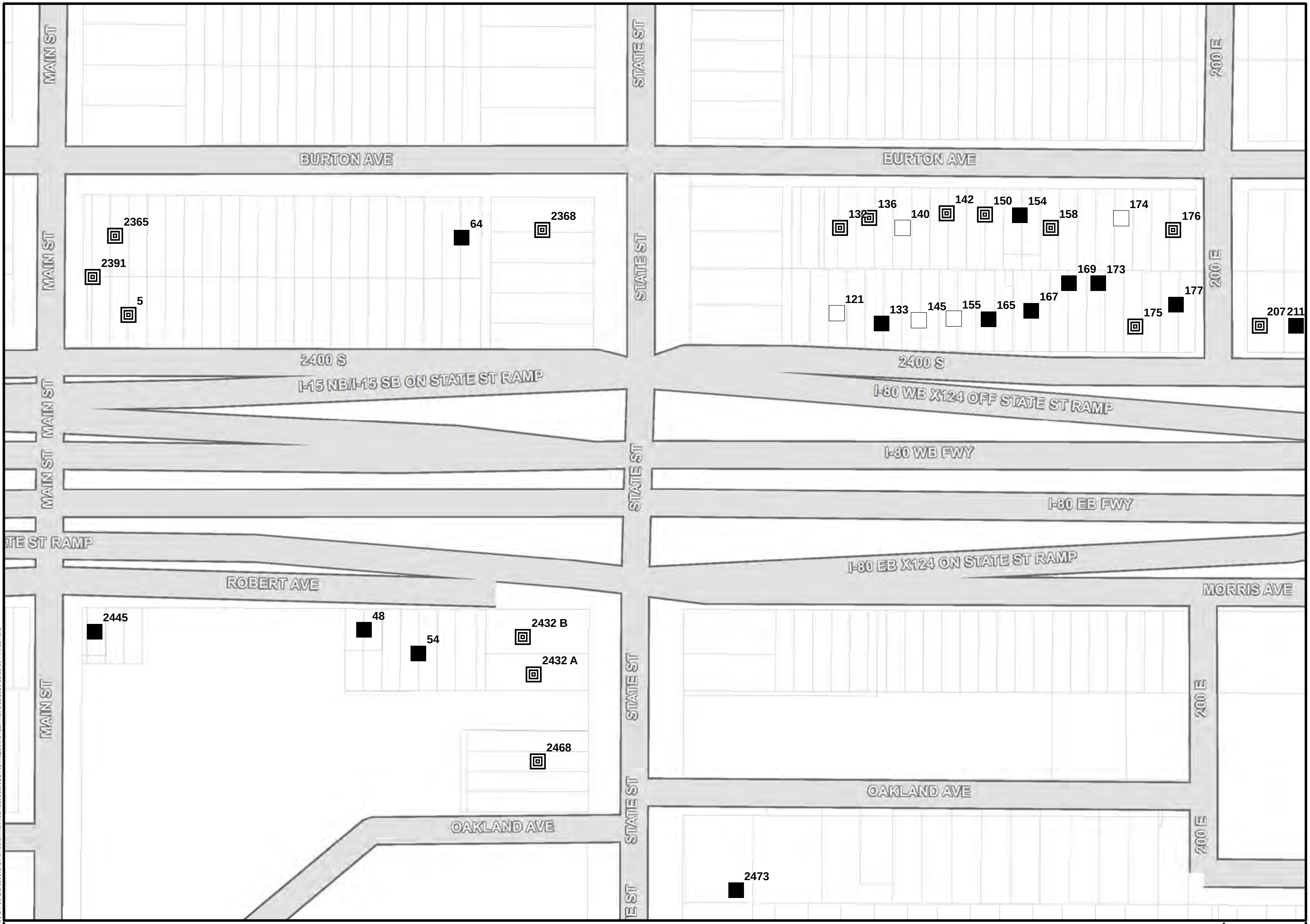

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☐ Out-of-period	■ Eligible/Contributing
☒ Demolished	▣ Inelig./Non-contributing

I-80 & State Street EIS

Historic Structure Eligibility

DATE 8/12/2015

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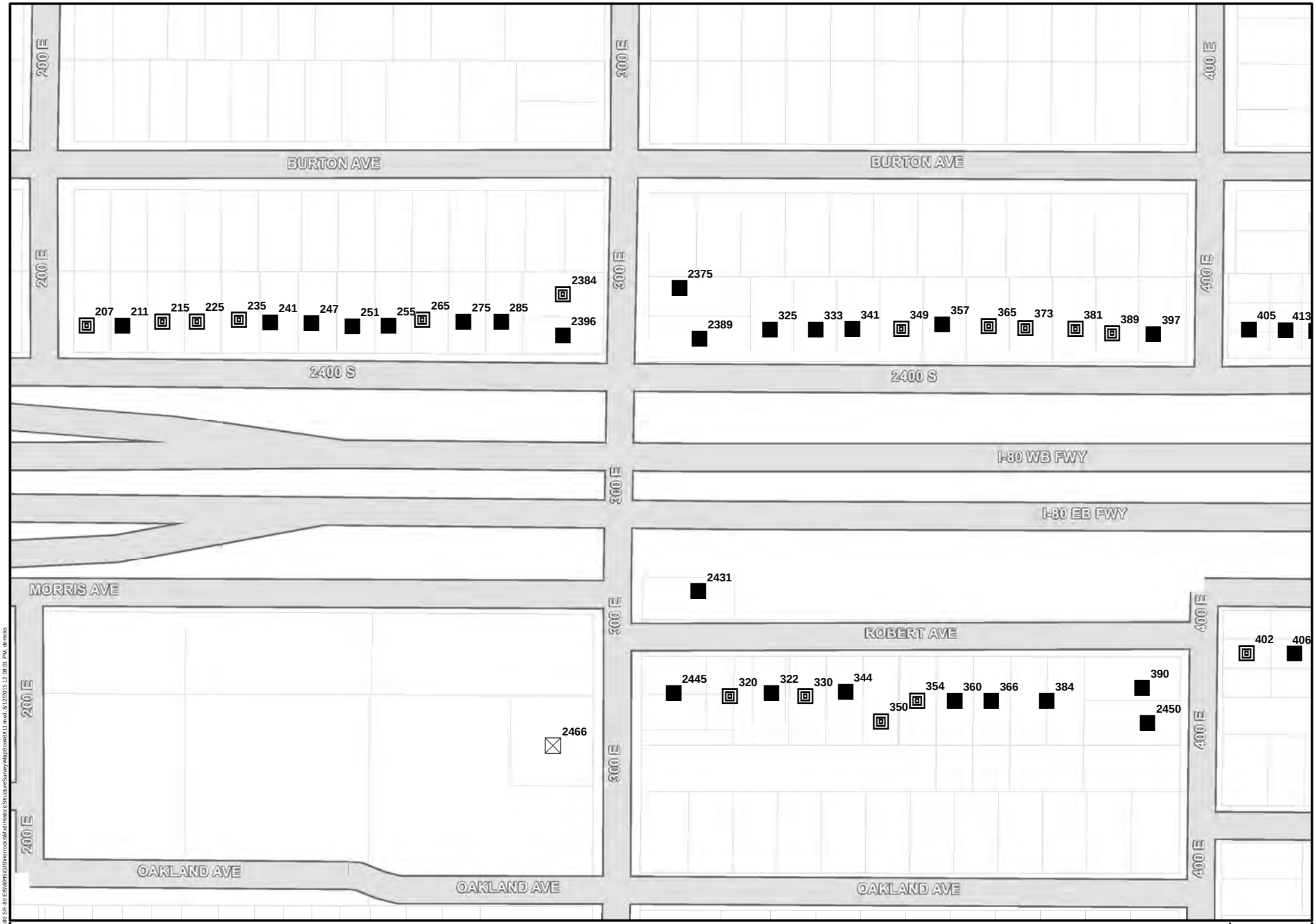

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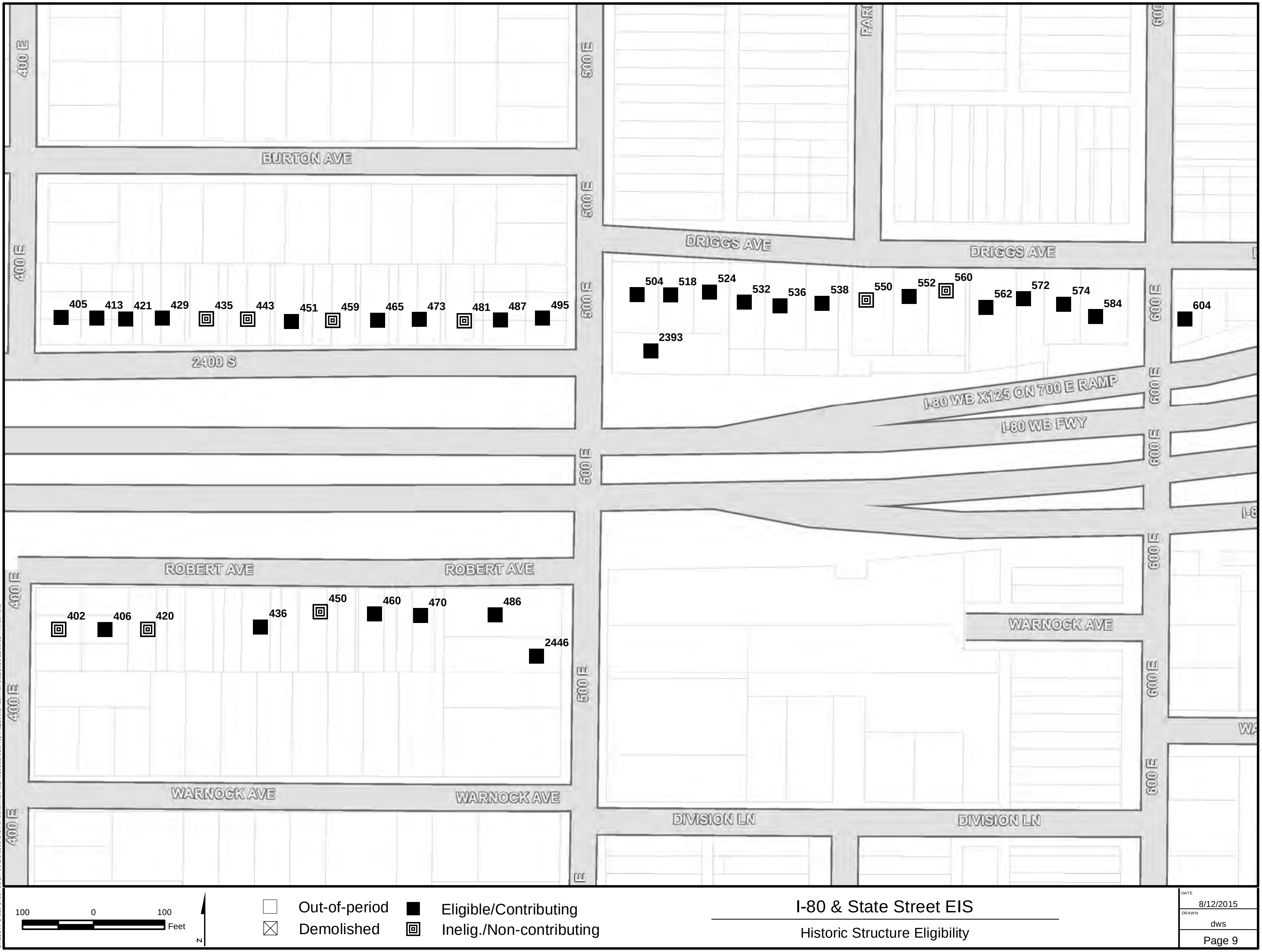

☐ Out-of-period	■ Eligible/Contributing
☒ Demolished	▣ Inelig./Non-contributing

I-80 & State Street EIS

Historic Structure Eligibility

DATE 8/12/2015
DRAWN dws

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Out-of-period
Demolished
Eligible/Contributing
Inelig./Non-contributing

I-80 & State Street EIS

Historic Structure Eligibility

DATE 8/12/2015

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Out-of-period
Demolished
Eligible/Contributing
Inelig./Non-contributing

I-80 & State Street EIS

Historic Structure Eligibility

DATE 8/12/2015
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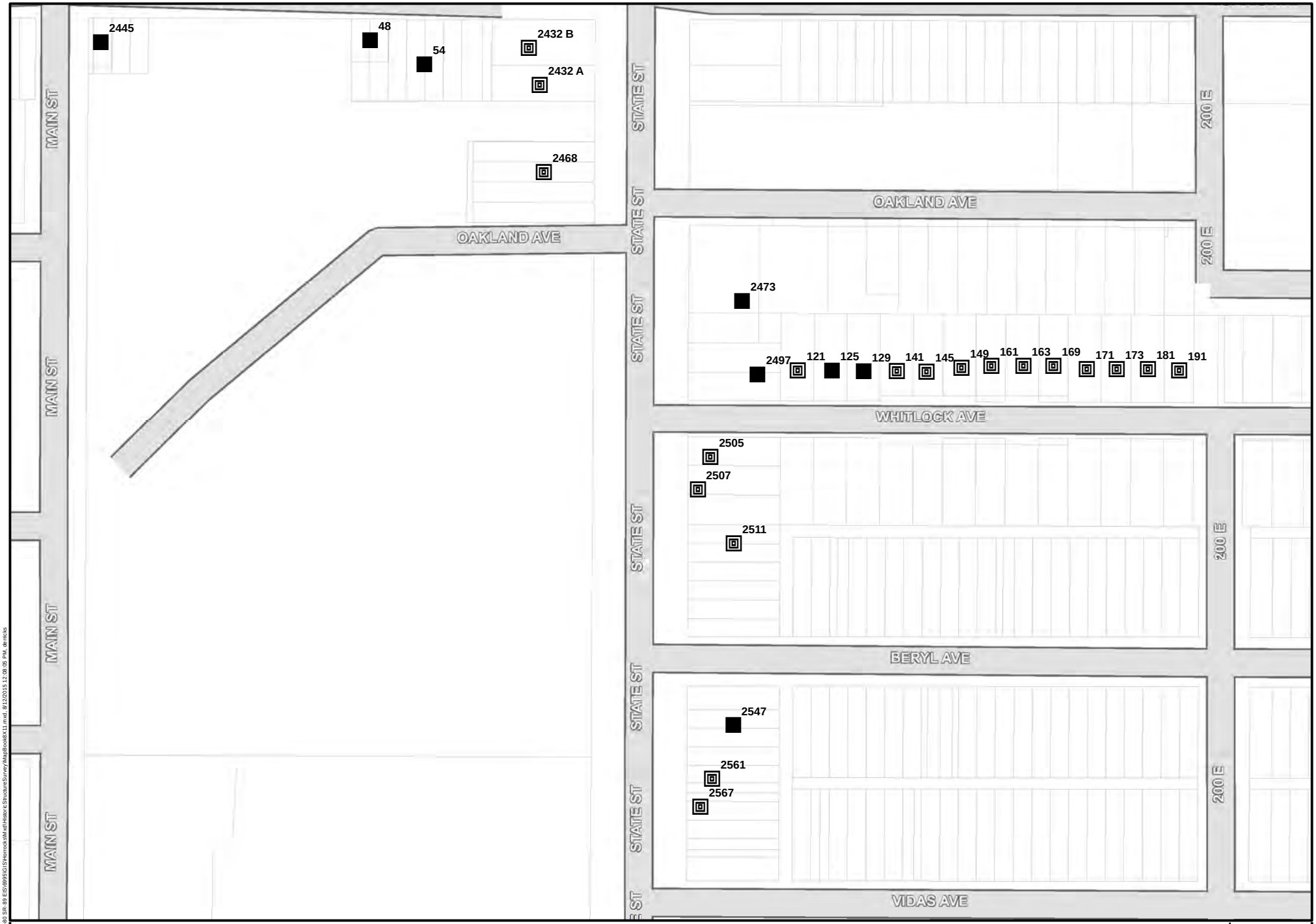

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Demolished
Eligible/Contributing
Inelig./Non-contributing

I-80 & State Street EIS

Historic Structure Eligibility

DATE 8/12/2015
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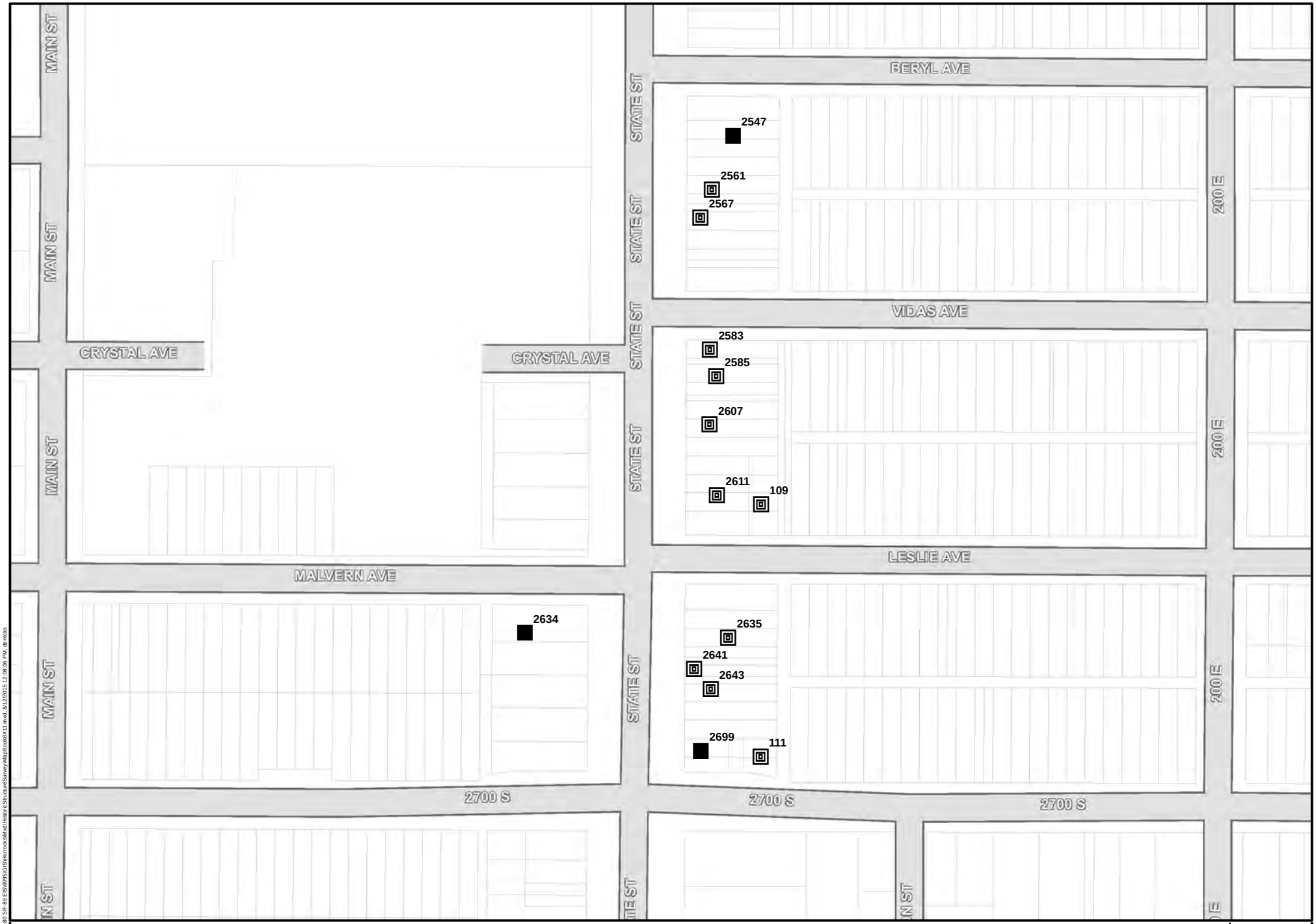

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Out-of-period
Demolished
Eligible/Contributing
Inelig./Non-contributing

I-80 & State Street EIS

Historic Structure Eligibility

DATE 8/12/2015
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