



Project Delivery Network
Right of Way Design QC Checklist

Version
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QC Manager:
UDOT ROW Chief Land Surveyor

Introduction

The Project Delivery Network Right of Way Design QC Checklist is to be used with the [UDOT QC/QA Procedures](#). This checklist is a tool to assist the project team in verifying all work is produced with due diligence, using acceptable industry standard techniques, available resources and data, and reasonable decisions by competent professionals. The checklist is a tool and cannot replace the sound judgment and experience of competent professionals. It is the Design Team's responsibility to verify the quality of project documents **before** distribution.

For suggestions or answers to questions please contact:

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QC Documentation

Consistently documenting the QC process is an essential step to the QC procedures. The documentation provides the following benefits:

1. It confirms for project teams that each step in the QC process was completed correctly.
2. It confirms for UDOT that the QC procedures are followed consistently by all project teams.
3. It provides the opportunity for all to find ways of improving the QC/QA procedures.

Documentation has always been used by the project team to perform required quality assurance verification and has been maintained by the design team for reference during construction. It has also served as the way for UDOT to perform project audits to verify the design team followed the required QC/QA procedures. Providing this documentation in ProjectWise increases the opportunities to realize the benefits of QC documentation.

UDOT **requires** the Originator to upload all QC documentation for each deliverable into ProjectWise and attribute it as directed by this QC/QA Design Checklist (see *Recommended QC Documentation Table*). Every deliverable and applicable checklist item must have some form of documentation demonstrating the QC was completed. The QC documentation must be uploaded at or before each milestone review package distribution. The QC process is incomplete until all QC documentation is uploaded and attributed correctly.

The following recommendations are provided for creating QC documentation files:

- Provide all QC documentation required to review the QC process.
- Separate or combine QC documentation into files that are logical for the size and complexity of the project. For example, smaller projects can combine multiple disciplines' plan sheets into one QC file while larger projects should maintain separate files.
- Insert the entire final deliverable copy into the file before the QC check prints.
Example: M&P deliverable, M&P check prints
- Collate the plan sheets, specifications, and special provisions so that each sheet and spec. has the deliverable and check print redlines together.
Example: EC-01 deliverable, EC-01 check prints, EC-02 deliverable, EC-02 check prints, etc.

UDOT QC Documentation Recommendations and Instructions

A balance between consistency and flexibility is required to meet the demands of quality control and the variation in project scopes, teams, budgets, and methods. UDOT is not providing a list of requirements for QC documentation to help meet this balance. UDOT is only requiring that the project team provide all QC documentation, upload it to ProjectWise, and attribute it properly.

Recommended QC Documentation and *UDOT QC Instructions* are provided within the checklist to assist project teams, Checkers, and QA reviewers. These recommendations and instructions are given as guidance and are not meant to change the way a project team performs their QC process if the process meets all UDOT requirements. Project teams may adapt the recommendations and instructions as needed or use them to verify their process meets UDOT's requirements. The recommendations and instructions are not and cannot be completely comprehensive so it is necessary for project teams to make some alterations to the recommendations as needed to meet specific project challenges.

The *UDOT QC Instructions* for each checklist item or group of checklist items can be found italicized under the corresponding items followed by the right justified *Recommended QC Documentation*.

Not all checklist items have a recommended QC documentation. The completed checklist serves as the QC documentation for these items. Provide additional documentation when available.

Some checklist items require coordination, acceptance, or approval to be completed. A space has been provided for these items to identify the documentation being provided as evidence of completion.

The **Originator** is responsible to have all their work checked and to provide and upload all documentation. The **Checker** is responsible to complete a thorough check and provide all documentation to the Originator. Complete QC reviews **before** deliverable distribution.

QC Checklist Instructions

It is **required** to complete and upload into ProjectWise all 14 Design QC Checklists unless otherwise noted by the UDOT Project Manager on the Project QC/QA Plan (*see the UDOT QC/QA Procedures for the Project QC/QA Plan form and instructions*). The Checker must verify all items in the checklist are complete and correct for each deliverable listed along with any additional items the Checker deems necessary.

- The checklist items are not to be interpreted as the only items that need to be checked.
- The Checker places his or her name in the space provided at the beginning of the checklist. Fill out one checklist and include all names if multiple Checkers are used for the same deliverable. Place the Checker's initials next to each item they checked. Use the text box to the left of the item number provided in the form for the Checkers' initials unless the item is not applicable.
- Check the checkbox next to each item that has been checked. Place an **NA** in the checkbox or the text box provided to the left of each item number if the item is not applicable to the project. **ALL** items must have check mark or NA.
- Provide documentation demonstrating the action occurred for checklist items that recommend **Approval Documentation, Coordination Documentation, or Acceptance Documentation**. Documentation may be formal communications, emails, meeting notes, phone conversation logs, or other forms that document communication process. Place the file name in the space provided and follow the attributing convention in the Recommended QC Documentation Table.
- Provided at the end of each checklist is an Estimate Review Checklist. Complete and submit this checklist when checking the estimate as well as completing any checkboxes found on the activity checklist.
- A comments sheet is provided at the end of each discipline's checklist for the Originator and Checker to make comments, notes, and clarifications. Only one comment sheet is provided to minimize space and printing when printing the entire checklist. Use this sheet to document and consolidate the QC check comments.
- Each discipline checklist is separated into activity checklists. Complete the activity checklists necessary for the phase of the project. The Recommended QC Documentation table recommends uploading each activity checklist as a separate file. The checklists may be combined, but each

checklist must be included in the file name and attributed properly (example: QC_4U1_4U3_Checklist_dddmyy).

- Every checklist item in each section of all required Design QC Checklists (see the Project QC/QA Plan) must be completed. It is unacceptable to address an entire section with a blanket statement or a continuous line through all boxes. Each item must have “NA” next to it even if an entire activity or section is not applicable.
- Previously completed checklists may need to be completed again if, after a milestone, changes were made to elements checked on the previous checklist. Complete the necessary checklist items associated with the changed element and mark “NA” on all other items. Combine these checklists with the existing phase checklist into one file (example: QC_4R1_3R1_Checklist_dddmyy).
- Do not recheck items that have been QC checked previously and have not changed or are not affected by a change.

The Originator is required to upload the completed checklist into ProjectWise and attribute it correctly (*see Recommended QC Documentation Table*) once all items are checked and verified. Properly attributed documents can be verified by checking the QC Saved Search folders in ProjectWise.

The following explanations are to aid in completing the QC checklist items:

- A checklist item deemed “complete,” “correct,” or “accurate” does not denote that the item is perfect, but rather that the item satisfies design criteria based on known information, acceptable techniques, and sound judgment.”
- A checklist item deemed “addressed” denotes the item as “reviewed all known concerns and verified the concerns are appropriately mitigated and satisfy design criteria.” Addressed concerns are not necessarily incorporated into the design, but satisfactorily mitigated.
- A checklist item deemed “identified” denotes the item as “an acceptable and economical approach to satisfy design criteria based on known information.”
- A checklist item deemed “verified” denotes the item as “verified the approach/conclusion as acceptable based on known information.”

QC Documentation ProjectWise/Attributing Instructions

ALL QC documentation must be uploaded into ProjectWise and attributed correctly. Please see [UDOT ProjectWise Online Training](#) for more information on ProjectWise and attributing documents.

There are three potential attributing scenarios for all QC documentation in ProjectWise:

1. Not in ProjectWise initially (e.g. scanned documents that will be uploaded/attributed)
2. Already in ProjectWise but either not attributed or attributed incorrectly
3. Already in ProjectWise and correctly attributed for another reason but also in need of a supplemental attribute specifically for QC

No matter how the required documents initially exist, all must be attributed for QC as directed below or the QC documentation is not considered complete as required

It is **required** to properly attribute **ALL** QC documentation. To assist project teams properly name and attribute each document, the following table *Recommended QC Documentation* provides naming and attributing conventions for all recommended QC documentation. These naming and attributing conventions can be adapted for use with all additional documentation or altered for combining documents. Name a file logically with all elements included in the file and follow the naming and attributing convention if altering or combining files. Remember, the goal of naming and attributing is to make the document searchable by someone not intimately associated with the project. All ROW Department required naming and attributing requirements must also be met. Create an additional attribute sheet if needed.

Recommended QC Documentation

Recommended Documentation*	Naming Convention*	Document Type Filter*	Document Type*	Document Subtype*	Document Phase**
Property Spreadsheet Redlines	<i>PIN_QC_ROW_Property_SprdSht_mmddyy</i>	ROW	QC/QA +	Project Documents	Scoping
Checklist 1J1	<i>PIN_QC_ROW_1J1_QC Checklist</i>	ROW	QC/QA +	QC Checklist	Scoping
List of Parcels Redlines	<i>PIN_QC_ROW_Parcel_List_mmddyy</i>	ROW	QC/QA +	Project Documents	Partial or Final
ROW Estimate Redlines	<i>PIN_QC_ROW_Estimate_mmddyy</i>	ROW	QC/QA +	Engineer's Estimate	Partial or Final
Checklist 4J1	<i>PIN_QC_4J1_Checklist_mmddyy</i>	ROW	QC/QA +	QC Checklist	Partial or Final
ROW Summary QC Documentation	<i>PIN_Project_Summary_Complete QC-QA Pkg</i>	ROW	QC/QA +	Plan Sheet	Partial
Final ROW Sheets Redlines	<i>PIN_Project_Final Plans_QC-QA</i>	ROW	QC/QA +	Plan Sheet	Final
Checklist 4J2	<i>PIN_QC_4J2_Checklist_mmddyy</i>	ROW	QC/QA +	QC Checklist	Partial or Final

*Follow the ROW Department's requirements for uploading the QC/QA documentation on Projectwise when applicable

** Use the appropriate document phase; this list is given as a guide.

1J1 Identify Existing Right of Way

Identify existing ROW along the project and adjacent ownerships.

References

1. [Right of Way Division Website](#)
 2. [UDOT Standard and Supplemental Drawings](#)
 3. [UDOT CADD Standards](#)
 4. ePM
 5. [UDOT Project Delivery Network](#)
 6. [UDOT Practical Design Guide](#)
 7. [UDOT QC/QA Procedures](#)
-

Existing ROW Map

Checker: _____

Date Completed: _____ PIN: _____

Complete this QC checklist and submit the QC documentation for additions to the existing ROW Map.

1. All owners in the proposed corridor are identified.
2. The following items were reviewed for the proposed project limits.
 - a. Deeds and easements
 - b. Tax IDs
 - c. County ownership plat maps
 - d. Mining claims
3. All legal descriptions have been reviewed for consistency.
4. The tax ID's were compared with the county plats and records.
5. The Microstation file is in the georeferenced project coordinate system and correctly identifies all necessary ROW information.
 - a. The DGN file follows [UDOT CADD Standards](#).
 - b. The DGN is clearly identified as preliminary.

Check the above items and provide additional documentation when applicable. Submit the checklist when complete.

Recommended QC Documentation: Completed 1J1 QC Checklist

Property Spreadsheet

Checker: _____

Date Completed: _____ PIN: _____

1. The spreadsheet is in a logical format.
2. The spreadsheet contains the following:
 - a. Owner names
 - b. Property addresses
 - c. Tax ID numbers
 - d. Parcel sizes
 - e. Property type
 - f. Other pertinent data
3. All information appears to be correct.
4. Potential ROW and easement impacts are identified.
 - a. Level of risk assigned to each impact is appropriate.
 - b. Source of each impact is identified.
 - c. Possible mitigations are appropriate.

Check the spreadsheet following the UDOT QC/QA Procedures Section 3.4. Complete this QC checklist and submit the QC documentation prior to using the information for other deliverables. Complete additional QC checks and submit documentation for additions to the property spreadsheet.

Recommended QC Documentation: Property Spreadsheet Redlines

4J1 Identify Right of Way Needs

Coordinate with the project team to identify all ROW acquisitions.

References

1. Project Designs
 2. [Right of Way Division Website](#)
 3. [UDOT Project Delivery Network](#)
 4. [UDOT QC/QA Procedures](#)
 5. [UDOT Practical Design Guide](#)
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List of Parcels Affected by Design

Checker: _____

Date Completed: _____ PIN: _____

1. Based on the finalized geometry, all parcels that will be affected by the proposed project are included in the list.
2. All parcels that will be affected by the project are assigned a number.
3. All parcels have the correct owner names, property address, and tax ID number.
4. All property information for parcels affected by design has been entered correctly into ePM.

Check the parcel list following the UDOT QC/QA Procedures Section 3.4.

Recommended QC Documentation: List of Parcels Redlines

Updated ROW Estimate

Checker: _____

Date Completed: _____ PIN: _____

1. The ROW estimate in ePM is current and accurately depicts likely costs of ROW needs.

Check the ePM cost estimate following the UDOT QC/QA Procedures Section 3.4. Provide notes on the QC documentation where necessary to explain prices and calculations.

Recommended QC Documentation: ROW Estimate Redlines

4J2 Develop Right of Way Plans and Documents

Develop ROW plans and documents. Repeat this activity for each partial, final, and supplemental summary.

References

1. [Right of Way Division Website](#)
 2. [Scanning and Mapping Website](#)
 3. [Right-of-Way Design Manual](#)
 4. [UDOT Right-of-Way Operational Manual](#)
 5. [UDOT CADD Standards](#)
 6. [UDOT Standard and Supplemental Drawings](#)
 7. [UDOT Plan Sheet Development Standards](#)
 8. [UDOT Project Delivery Network](#)
 9. [UDOT Practical Design Guide](#)
 10. [UDOT QC/OA Procedures](#)
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ROW Summary

Checker: _____

Date Completed: _____ PIN: _____

Complete this QC checklist and submit the QC documentation for each partial summary, final partial summary, supplemental summaries, and revisions.

1. The ROW design is complete and accurate.
 - a. The plans show all acquisitions that are required for the partial summary.
 - i. Fee taking are shown and called out correctly.
 1. Control of access is included.
 2. Agreements are included.
 - ii. Temporary easements are shown and identified correctly.
 - iii. Perpetual easements are shown and identified correctly.
 - iv. Crossing agreement descriptions are shown and identified correctly.
 - b. All previous project acquisition parcels are shown.
 - c. The .dgn file follows [UDOT CADD Standards](#).
 - d. The design follows the requirements and recommendations in the [Right-of-Way Design Manual](#).
 - e. All dimensions and areas in the drawing agree with the dimensions and areas in the legal descriptions.
2. The plan sheets conform to the [UDOT Plan Sheet Development Standards](#).
 - a. All sheets are cut appropriately.
 - b. All reference files are properly attached.
 - c. All title blocks are filled out correctly.
 - d. CADD standards are followed and maintained on each sheet.

4J2 Continued

- e. All parcel numbers are clear and correct.
- f. All necessary labels, callouts, identifiers, symbols, and notes are provided and correct.
- g. The plan sheets have been prepared in both .dgn and .pdf formats.

Check the plan sheets following the UDOT QC/QA Procedures Section 3.3.

Recommended QC Documentation: ROW Sheets Redlines

- 3. The ROW descriptions are complete and accurate.
 - a. A legal description was prepared for each parcel using the current [UDOT Right-of-Way Operational Manual](#).
 - b. Proper language and format is used for each description.
 - c. Each description closes.
 - d. All station and offsets are correct.
 - e. All geometry and areas match with the Deed Plotter.
 - f. All dimensions and stationing in the descriptions match with the ROW map.
 - g. Appropriate conveyance forms are used.
 - h. The current ownership is confirmed.

Check the descriptions following the UDOT QC/QA Procedures Section 3.4.

Recommended QC Documentation: ROW Descriptions Redlines

- 4. The ROW documents are complete and accurate.
 - a. The following documents are complete, accurate, and consistent with the plans and other documents.
 - i. Ownership Record RW51
 - ii. Summary Sheet RW53
 - iii. Signature documents (deeds and easements)
 - iv. ePM Summary
 - v. Vesting Documents
 - vi. Deed Plotter
 - b. Each document is in the required format.
 - i. RW51 – Word and .pdf (or .tif)
 - ii. RW53 – Word and .pdf (or .tif)
 - iii. Signature documents – Excel and .pdf (or .tif)
 - iv. ePM Summary – Excel
 - v. ROW plan sheets - .pdf (or .tif)

Check each the above listed document and all checklist items following UDOT QC/QA Procedures Section 3. Repeat checklist for each summary and provide all QC documentation with each submittal.

Recommended QC Documentation: ROW Summary QC Documentation

Final ROW Plans

Checker: _____

Date Completed: _____ PIN: _____

1. The plan sheets conform to the [UDOT Plan Sheet Development Standards](#).
 - a. All sheets are cut appropriately.
 - b. All reference files are properly attached.
 - c. All title blocks are filled out correctly.
 - d. CADD standards are followed and maintained on each sheet.
2. All project acquisitions are shown.
3. All parcel numbers are clear and correct.
4. All necessary labels, callouts, identifiers, symbols, and notes are provided and correct.
5. The plan sheets are complete; ready for signature and submission with the Final Partial Summary.

Check the plan sheets following the UDOT QC/QA Procedures Section 3.3.

Recommended QC Documentation: Final ROW Sheets Redlines

QC Check Comments

Provide comments, methods, assumptions, explanations, file locations, and any other information needed to facilitate the QC check. Print and attach this sheet to the checklist. Upload this sheet with the associated checklist.

PIN: _____ Activity: _____ Deliverable(s): _____

Originator: _____

Checker: _____

Additional Commenter(s): _____