

## **GUIDELINES FOR PAVEMENT PRESERVATION PROJECTS**

### **3.1 Preservation Program Funding and Goals**

The objective of the Pavement Preservation Program is to provide cost effective treatments that will preserve the pavement system at its current condition. The hard surface maintenance portion of this program is limited to preventive maintenance and minor responsive maintenance. Projects under the Pavement Preservation Program do not include either minor or major rehabilitation or reconstruction. UDOT's pavement preservation program follows the AASHTO definition as a "planned strategy of cost effective treatments to an existing roadway system and its appurtenances that preserves the system (without substantially increasing structural capacity)."

UDOT's Central Asset Management division analyzes UDOT's roadway network condition each year and determines the percentage of funding allocated to the pavement preservation program. This allocation is directly tied to the "Good Roads Cost Less" philosophy. Once the statewide allocation amount is available the regional allocation is then determined. The Regions identify pavement preservation projects during their yearly STIP workshop meetings and the Utah Transportation Commission is presented with the program amount for approval at the March or April commission meeting. Any individual project exceeding \$3,000,000 will require individual Commission action. These projects will also follow the [budget recovery process](#) outlined by UDOT.

### **3.2 Limitations of Pavement Preservation Projects (eligibility)**

- a. The project must be on the interstate or Level 1 roads. (Projects on Level 2 roads need to be approved by the Asset Management Steering Committee.)
- b. The pavement preservation projects consist of contracted treatments to support the preservation program that include:
  1. Thin asphalt overlays  $\leq 1 \frac{1}{2}$  inches
  2. Rotomilling  $\leq 2 \frac{1}{2}$  inches
  3. Surface seals (For example: chip seal, slurry seal, micro surface, etc.)
  4. Rejuvenation
  5. Hot-in-place recycling
  6. Lane leveling
  7. Profiling lane leveling
  8. Crack sealing
  9. Concrete joint resealing & spall repair
  10. Concrete grinding
  11. Slab jacking and/or under sealing
  12. Minimal full depth/soft spot repair
  13. Other treatments may be used with approval from the Asset Management Steering Committee
- c. Allowable incidental work:
  1. Adjustment of existing features affected by the resurfacing, such as monuments, catch basins, and manhole covers
  2. Repair or replacement of signal detection and traffic counting loops

### 3. Pavement transitions for bridges, side streets, etc.

- d. If there is a bridge within the project limits:
  - 1. If the bridge does not have an existing asphalt overlay, do not perform any work on the bridge (skip bridge)
  - 2. If the bridge has an existing asphalt overlay:
    - i. Evaluate the integrity of the existing asphalt on bridge (cores recommended)
    - ii. If substrate is in good condition as determined by the pavement management engineer
      - a. Rotomill and replace asphalt  $\leq 2 \frac{1}{2}$  inches on deck and approach slab
      - b. Coordinate with the Structures Division
      - c. Provide taper on roadway as necessary; profile and cross-slope adjustments may be required
      - d. Do not place any additional material weight on bridge. Material placed may not exceed material removed
    - iii. If substrate is not adequate as determined by the pavement management engineer:
      - a. Do not perform any work on the bridge; or
      - b. Remove asphalt to deck and approach slab; install waterproofing membrane; and replace asphalt 2 inch minimum and 3 inch maximum; provide taper on roadway as necessary; profile and cross-slope adjustments may be required
      - c. Coordinate with Structures Division
      - d. Do not place any additional material weight on bridge. Material placed may not exceed material removed
      - e. Pothole patching on the bridge deck is only allowed if funding from the Structures Division is added to the project
- e. The scope of the project must meet the following conditions:
  - 1. All work can be performed within the existing roadway prism
  - 2. No roadway widening, or alteration of the horizontal or vertical alignment
  - 3. The project involves no utility work
  - 4. No right-of-way acquisition is required

### **3.3 Safety identification and budget control**

The Pavement Preservation program is established first and foremost for the purpose of pavement preservation. But in addition to furthering the goal of pavement preservation, these projects present cost-effective opportunities to enhance safety. Pavement preservation projects should, at a minimum, maintain the existing level of safety and should consider appropriate ways to enhance it. Preservation projects should not be avoided, deferred, or shortened based on the need to repair or improve roadside safety hardware. However, the project teams should adequately document the decisions related to safety features whether these feature were or were not addressed with the project.

An assessment of existing safety elements will be conducted on each Pavement Preservation project. The required safety improvements listed in section 3.4 must be included in all projects. If the estimated total cost of safety elements, not included in section 3.4, related to a Pavement Preservation project exceeds 10 percent of the project value, submit a detailed request to UDOT Division of Traffic and Safety for supplemental funding to cover the cost of safety improvements beyond 10 percent. If additional funding is not available from the Traffic and safety division, the Project Team will analyze each safety element for inclusion into the project based on engineering analysis and practical design decisions and coordinate with the division of Traffic and Safety. These decisions will be documented within the project file for future reference.

The inclusion of pavement marking tape instead of pavement marking paint should be a project by project decision. As tape is advantageous for certain roadway projects it also competes with the statewide goal of preserving UDOT's entire roadway network. See the Pavement Marking Decision Matrix at <https://sites.google.com/a/utah.gov/pavement-marking-resources/> for more information.

### **3.4 Required safety elements**

Items to be included in all applicable Pavement Preservation projects:

- a. Pavement drop-offs greater than 2 inches
- b. ADA pedestrian ramps that are not to current UDOT standards
- c. Rumble strips installed or re-ground in accordance with UDOT Rumble Strip Policy 06C-17. Take into consideration current pavement condition and pavement width when analyzing rumble strip application
- d. Replacement of turn-down guardrail terminals and connected substandard guardrail within the AASHTO clear zone

### **3.5 One percent budget rule for items outside preservation categories.**

For efficiency purposes a pavement preservation project can include project specific items that are not included in section 3.2 up to one percent of the total project value. These items may include but are not limited to deteriorated signs, non-functioning fence, lack of localized curb and gutter sections, and other items identified by the project teams during the scoping phase of the project. These items will be documented in the Project Definition Document (PDD) during the scoping phase. The quality control check on these items will be performed by the Region Preconstruction Engineer prior to advertisement of the project. If needs exceed one percent additional funding sources are required to include the items in the project bid package. The goal of the one percent funding is to allow for a cost effective approach to preserving other roadside elements outside of the pavement while a Contractor is mobilized to the project location.

Pavement preservation projects should consider integrated transportation solutions where applicable including considerations related to UDOT's Active Transportation Policy 07-117.

### **3.6 Performance measures and reporting**

UDOT reports pavement condition annually in the [Strategic Direction](#) document and on the [Asset Management website](#).