



<b>SUBJECT</b> 1R Program – ADA and other programmatic updates	<b>FINAL NUMBER</b> RD13-02(B)	<b>EFFECTIVE DATE</b> 01/01/2014	<b>VALIDATION DATE</b> N/A	<b>SUPERSEDES or RESCINDS</b> New
<b>WEB LINK(S)</b> <a href="http://www.oregon.gov/ODOT/HWY/TECHSERV/Pages/technicalguidance.aspx">http://www.oregon.gov/ODOT/HWY/TECHSERV/Pages/technicalguidance.aspx</a>				
<b>TOPIC/PROGRAM</b> Highway Design Manual	<b>APPROVED SIGNATURE</b> 			

**PURPOSE**

To update the Highway Design Manual with changes to 1R requirements, including a change based on a USDOJ and USDOT joint technical guidance on implementing the ADA. The 1R program was launched in 2009, and since then, other programmatic changes have come about that are also included here.

**GUIDANCE**

**I. ODOT 1R RESURFACING STANDARD – HDM 1.3.2.5**

The 1R project standard is set forth in the Highway Design Manual. The following information clarifies and updates the 1R Standard.

**A. 1R PROJECT REQUIREMENTS**

- A paving project is initially designated 1R based on the appropriate paving treatment – a single lift overlay or inlay. (There is no formal requirement for pavement design life for an individual project; however, since the 1R treatment is location specific, it is expected that an 8 year pavement life will be the goal of the program).
  - Pavement Services is the final authority regarding the pavement design.
- Where less than *approximately* 5% of a project (based on lane miles paved) includes more than a single lift non-structural overlay or inlay, the project may be designated 1R.
- Where up to *approximately* 25% of a project (based on lane miles paved) includes more than a single lift non-structural overlay, the project may be designated 1R; however, this requires the approval of a design exception.

- Where more than *approximately* 25% of a project (based on lane miles paved) includes more than a single lift non-structural overlay, the project must be designated 3R
  - As an exception to this is rule, a grind and inlay plus an overlay may also be considered for development under the 1R standard; however, this would be uncommon and requires the approval of a design exception.
- Where the appropriate course of action is not clear based on the percentages noted above, include Technical Services Roadway staff in the discussion.
- The safety assessment may indicate that a paving project is best developed under the 3R standard (see below).
- Chip seals are 1R projects and subject to the requirements of the 1R standard, including the roadside inventory. Chip seals do not require ADA work.
- The 1R Pavements and Region Roadway Managers Approval Form must be completed, signed, and submitted to Technical Services Roadway staff prior to the completion of project scoping.

## B. SCOPING REQUIREMENTS

In order to ensure the intent of the program is met in addressing pavement and safety needs, adequate advance information is needed to assure adequate statewide decisions are made.

- **FACS-STIP tool** - Download existing roadside inventory *at time of scoping*
  - Identify pre-230 elements. Funds should be requested from the 1R Safety Features Upgrade Program or other funding sources as early in the process as possible. Replacement of pre-230 elements should be added to the 1R project if additional funds are available.
  - Identify any corners that must be upgraded for ADA
  - Drive through project and note any obvious safety issues not included in the existing inventory
- **Safety Assessment**
  - The Safety Assessment is a formal review process established in each region to ensure the identification of any safety concerns where a 1R project is planned. It provides a basis for the Region Roadway Manager to sign the Roadway Managers Approval Form indicating it is appropriate to apply the 1R standard from a safety standpoint.
  - The Safety Assessment serves two key purposes: First, it needs to ensure that the safety issues are not best addressed through a 3R project rather than a 1R project; that analysis will review whether a crash hotspot exists in the project limits (e.g. a SPIS site) and whether

the crash frequency and severity is such that a 3R project should be considered. Second, if the decision is made that the safety issues are not significant, it is important that the analysis examine safety treatments that avoid reducing safety and examine low cost safety treatments that are practical considering the roadway and roadside character with these locations and treatments expected to come from the systematic safety plans.

- The Safety Assessment includes a review of the Department's Roadway Departure Safety Plan, Intersection Safety Plan, forthcoming Pedestrian/Bicycle Safety Plan, and any other systematic safety plan that is developed. The Safety Assessment includes a list of crash hotspots. The safety assessment identifies recommended countermeasures that could be incorporated into the 1R project.
- The Safety Assessment identifies funding sources (e.g. Safety funds, Maintenance funds) for additional work and proposes a schedule for safety work considering
  - The extent of the safety work proposed, its staging, and traffic control
  - Contractor and State forces availability
  - The opportunities for bundling like safety work in larger contracts
  - Recommended countermeasures should be added to the 1R project if additional funds are available.
- If systemic plans are not current a more detailed analysis will be needed and such a crash history review should cover 3 to 5 years and will include at a minimum:
  - The number and type of crashes
  - The crash severity
  - The crash rate and comparison to the average rate for type of facility
  - Any SPIS sites and ranking
  - The crash analysis should identify crash patterns, contributing factors, and outline potential solutions and remediation
- If systemic plans are not current a more detailed countermeasure analysis process will need to be conducted and should consider:
  - The significance of the existing crash pattern
  - The possibility for changes in future traffic and roadway characteristics
- Where critical safety issues need to be addressed and other funding is not available, it may be most appropriate to designate the paving

project 3R. If critical safety needs are identified and the project is still to be progressed as a 1R project, the safety assessment must directly state the Region Traffic and Safety's support for that approach.

- The Region Traffic Engineer signs the safety assessment and provides a copy to the Region Roadway Manager as supporting documentation for signing the 1R Roadway Manager's Approval Form. Technical Services Roadway Staff is also provided a copy and the Safety Assessment is marked complete on the 1R Tracking Spreadsheet.

### **C. PROJECT INITIATION REQUIREMENTS**

At project initiation, the 1R Roadside Inventory is completed to verify and update the data in the FAC-STIP tool. The Safety Assessment is also reviewed and updated if necessary to ensure it is appropriate to continue to develop the project under the 1R Standard.

## **II. ROADSIDE INVENTORY FOR 1R PROJECTS – HDM 11.1.5**

### **A. SIGNIFICANCE OF THE 1R ROADSIDE INVENTORY**

- The implementation of the 1R Preventative Maintenance Paving Program along with the 1R Safety Features Upgrade Program mark a fundamental change in ODOT's approach to maintaining the highway system while systematically improving safety.
  - Safety improvements traditionally included in 3R projects are now addressed separately on a statewide priority basis under the 1R Safety Features Upgrade Program.
  - To successfully upgrade safety features on a statewide priority basis, an up-to-date inventory of such features must be maintained. The 1R Roadside Inventory is currently the primary means of maintaining the statewide safety features inventory.
  - Implementation of the 1R Safety Features Upgrade Program along with a reliable means to maintain the statewide inventory of safety features was key to FHWA's approval and support of the 1R Preventative Maintenance Paving Program.
  - FHWA's continued support of the 1R Preventative Maintenance Paving Program is contingent on the success of the 1R Safety Features Upgrade Program. Therefore, the importance of completing the 1R Roadside Inventory cannot be overemphasized.

## B. 1R ROADSIDE INVENTORY SAFETY FEATURES AND DATA ELEMENTS

- A 1R project may not go to bid if the inventory is not complete, unless authorized by the 1R Program Manager.
- The following items are included in the 1R Roadside Inventory:

*Note: Culverts are no longer required as part of the 1R Roadside Inventory because dedicated funding is currently available for the culvert inventory. Culverts may be required as part of the 1R Inventory in the future if dedicated funding is no longer available.*

### 1. Traffic Barriers

- Location of Barriers (Highway Number, Begin and End Milepoint)
- Terminal Type
- Impact Attenuator identification
- Barrier Type- Concrete, Guardrail, Cable, etc.
- Barrier Height
- Barrier Condition

### 2. ADA Ramps (See Roadway Technical Advisory RD13-01A on ADA Ramps)

- Cross Street Name
- Physical Condition
- Running Slope
- Counter Slope
- Cross Slope
- Lip Height
- Clear Width
- Detectable Warning
- Level Landing
- Slope Differential
- Functional Condition

### 3. Bridges

- Location (Highway Number and Milepoint)
- Deck Width

### 4. Bicycle Facilities

- Location (Highway Number, Begin and End Milepoint)
- Bike Facility Type (Bike Lane, Shared Lane and Shoulder, etc.)
- Bike Lane Width
- Bike Lane Condition

### 5. Sidewalks

- Location (Highway Number, Begin and End Milepoint)
- Sidewalk Surface (PCC or AC)
- Sidewalk Buffer (Yes or No)
- Sidewalk Width
- Sidewalk Condition

## 6. Signs

- Location (Highway Number and Milepoint)
- Side of Road (Left or Right)
- Sign Legend
- Sign Width and Height Estimate
- Sign Support Type and Size
- Number of Posts
- Recommended Replacement (Yes or No)

### **III. ADA REQUIREMENTS FOR 1R PROJECTS – HDM 1.4.2.11**

#### **A. ADA ALTERATIONS – 2014 US DOJ & FHWA GUIDANCE**

In June 2013, the USDOT together with the USDOJ issued new technical guidance regarding ADA. The new guidance clarifies what constitutes an “alteration” and triggers the requirement to upgrade or provide curb ramps where sidewalks or prepared surfaces exist. This guidance clarifies that ADA work must be completed on 1R projects.

- For projects currently in development and that will be constructed in Federal Fiscal year 2014, a “child” project may be programmed to do ADA work if right-of-way acquisition would otherwise delay the project; however, this requires the approval of a design exception. Also, the child project must be completed within a year of the completion of the 1R paving project.
- Any projects constructed in Fiscal Federal year 2015 or later must include ADA work where applicable.

#### **B. ADA RAMPS – MISSING RAMPS**

All projects that include resurfacing (except for chip seals) shall install curb ramps where applicable.

#### **C. ADA RAMPS – EXISTING NON-STANDARD RAMPS**

All projects that include resurfacing (except for chip seals) shall bring curb ramps up to current standards; except, if a ramp meets the 1991 standard as a minimum, upgrading the ramp may be deferred.

- Ramps that have been rendered nonfunctional over time from excessive settlement, degradation, or by subsequent overlays must be upgraded to current standards.
  - Non-standard ramps that meet the 1991 standard as a minimum must be identified and tracked if not brought up to current standard by the paving project. The ODOT ADA transition plan will address how these

non-standard ramps meeting the 1991 standard as a minimum will be brought up to the current standard.

- Non-standard ramps that meet the 1991 standard may be upgraded as part of a 1R project.
- As part of project scoping and the 1R roadside inventory, all ramps shall be updated with new inventory fields in the FACS-STIP tool or the 1R GPS Application. See *Roadway Technical Advisory RD13-01A on ADA Ramps in 1R Projects*.

### *ACTION REQUIRED*

Sections 1.3.2.5, 11.1.5 & 1.4.2.11 of the HDM will be updated with the guidance presented in this technical bulletin. Sections 5.4.2.1, 6.5.2 & 7.7.2, regarding how the 1R Standard applies to specific highway types, will also be modified as necessary.

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