



**HIGHWAY FACTORS GROUP CHAIRMAN'S  
FACTUAL REPORT**

**Highway Attachment – UDOT Rumble Strip Policy and UDOT Standard  
Drawings PV-6A - Rumble Strips Location Details and  
PV-7A – Typical Rumble Strip Shoulder Sequencing  
and Applications**

**Bryce Canyon City, Utah**

**HWY19MH012**

(5 pages)

# Use of Rumble Strips

Effective: March 2, 2006

**UDOT 06C-17**

Revised: April 26, 2007

## Purpose

To define the Utah Department of Transportation (Department) use of rumble strips on the state highway system. One of the Department's strategic goals is to improve safety. This goal can be accomplished by reducing the number and severity of single-vehicle, run-off-the-road crashes while preserving safe use of the roadway by bicyclists and pedestrians. Using centerline rumble strips can also reduce head-on crashes.

## Policy

This policy applies to all highways under the jurisdiction of the Department. Placement of rumble strips will be required when the following criteria is met:

### Shoulder Rumble Strips (SRS) – Divided Highways

1. SRS are required on both the left and the right shoulders of all rural interstate highways.
2. Consider SRS on both shoulders of other rural divided highways (non-interstate) and urban areas.

### Shoulder Rumble Strips (SRS) – Undivided Highways

The use of SRS on undivided highways is based on criteria driven evaluation of the following characteristics:

1. For use on rural highways with speeds of 45 mph or higher.
2. Adequate pavement structure exists on the shoulder.
3. Run-off-the-road crash experience is documented.
4. Shoulders are wide enough to provide a minimum of four feet of shoulder between the SRS and the edge of paved shoulder. Increase the dimension to five feet if barrier or guardrail is present at the edge of the shoulder.

### Centerline Rumble Strips (CRS) – Undivided Highways

The use of CRS on undivided highways is based on criteria driven evaluation of the following characteristics:

1. For use on rural highways with speeds of 45 mph or higher.

2. Head-on or opposite direction sideswipe crash experience exists.

**Deviations from Standards** with regards to Rumble Strips may be granted under the Level 1 Elevation process when:

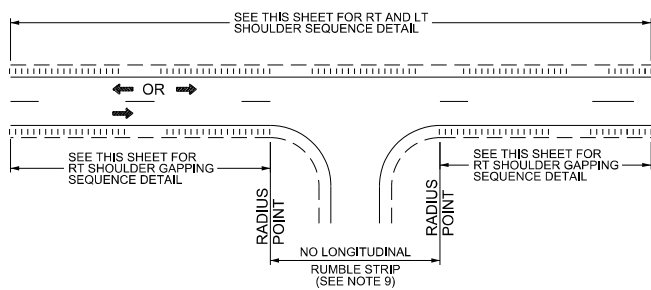
1. Another project is scheduled within two years that will overlay or reconstruct the shoulders or will use the shoulders as a detour.
2. Pavement analysis determines that the pavement structure of the shoulder is inadequate for installation of SRS.
3. Shoulders are less than four feet wide on the left and four and one-half feet wide on the right.

Rumble strips are not recommended where shoulders are used by bicyclists unless there is a minimum clear path of one foot from the rumble strip to the traveled way, four feet from the rumble strip to the outside edge of paved shoulder, or five feet to adjacent guardrail, curb, or other obstacle.

Once installed, rumble strips will be maintained. A single chip seal may be placed over the rumble strip. Any additional chip seals or pavement overlays will result in re-establishing rumble strips.

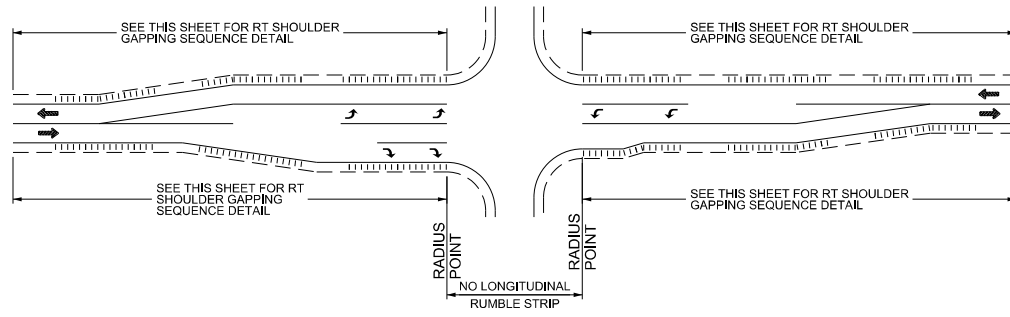


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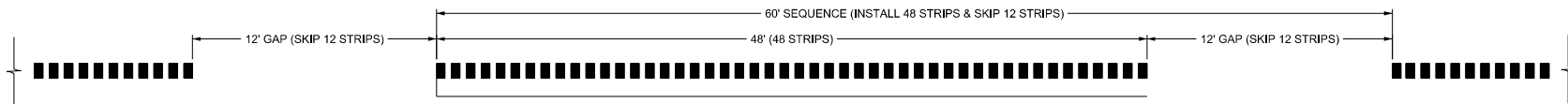


**TYPICAL SHOULDER INSTALLATION AT DRIVEWAY OR ACCESS DETAIL**

USE CONTINUOUS RUMBLE STRIP ON LEFT SHOULDER IN ONE WAY TRAFFIC SITUATIONS



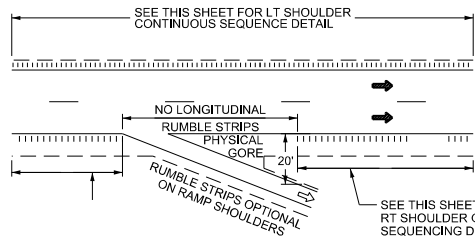
**TYPICAL SHOULDER INSTALLATION AT INTERSECTION DETAIL**



**TYPICAL RIGHT SHOULDER GAPPING SEQUENCE DETAIL**



**TYPICAL LEFT SHOULDER CONTINUOUS SEQUENCE DETAIL**



**TYPICAL SHOULDER INSTALLATION ON EXIT RAMP DETAIL ENTRANCE RAMP SIMILAR**

**NOTES:**

- DO NOT PLACE RUMBLE STRIPS ON STRUCTURES OR APPROACH SLABS.
- DO NOT PLACE RUMBLE STRIPS WITHIN 6 INCHES OF PCCP TRANSVERSE JOINTS.
- APPLY FLUSH OR SEAL COAT UNIFORMLY ON ALL RUMBLE STRIPS ON BITUMINOUS PAVEMENT SURFACES. SEE STANDARD SPECIFICATION 02761.
- MILL RUMBLE STRIPS TO LEAVE A RECTANGULAR SHAPE WITH UNIFORM EDGES. DO NOT DAMAGE ADJACENT PAVEMENT DURING MILLING OPERATION.
- RESTART RUMBLE STRIP SEQUENCE (SEE STD DWG PV 7A & 7B) WHEN RUMBLE STRIPS ARE HALTED OR INTERRUPTED, EXCEPT WHEN TRANSVERSE JOINTS ARE ENCOUNTERED ON PCCP, MANUALLY INTERRUPT SEQUENCE SO RUMBLE STRIPS DO NOT GO THROUGH TRANSVERSE JOINT WHILE MAINTAINING SEQUENCE LENGTH.
- INSTALL RUMBLE STRIPS ONLY WHERE A MINIMUM UNINTERRUPTED LENGTH OF 100 FT CAN BE INSTALLED. DISCONTINUE RUMBLE STRIPS WHEN SHOULDER WIDTH VARIES AND WHEN WIDTH IS LESS THAN SHOWN IN RUMBLE STRIP TABLES, RESUME WHEN WIDTH IS SUFFICIENT AS SHOWN IN RUMBLE STRIP TABLES, FOR MORE THAN A 100 FT IN LENGTH.
- SEE STD DWG PV 6A FOR RUMBLE STRIP TABLES WITH GROOVE WIDTH AND LOCATION.
- SEE STD DWG PV 6B FOR RUMBLE STRIP MILL DETAILS.
- DO NOT PLACE SHOULDER RUMBLE STRIPS THROUGH INTERSECTIONS. DO NOT PLACE SHOULDER RUMBLE STRIPS THROUGH DRIVEWAYS AND ACCESSES WITH NON-CONTINUOUS EDGE LINES. INSTALL SHOULDER RUMBLE STRIP THROUGH DRIVEWAYS AND ACCESSES WITH CONTINUOUS EDGE LINES. SEE DETAILS ON THIS SHEET.
- SEE STD DWG PV 7B FOR CENTER LINE RUMBLE STRIP APPLICATIONS.

NO.	DATE	APPR.	REMARKS

**UTAH DEPARTMENT OF TRANSPORTATION**  
 STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION  
 SALT LAKE CITY, UTAH

RECOMMENDED FOR ADOPTION  
 APPROVED  
 CHAIRMAN STANDARDS COMMITTEE

JAN/01, 2017  
 DATE

JAN/01, 2017  
 DATE

DEPUTY DIRECTOR

**TYPICAL RUMBLE STRIP SHOULDER SEQUENCING AND APPLICATIONS**

STANDARD DRAWING TITLE

STD. DWG. NO.  
**PV 7A**