FEATURE 214
OUTSIDE SHOULDERS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	Yes	Length	No	Yes
Responsible Party for Data Collection	District Planning				

Definition/Background: The outside shoulders are used for lateral support of the roadway.

MLTRFSEP | MANAGED LANE SEPARATOR

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
37		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All managed lanes.	2-right 3-left	N/A

How to Gather this Data: Record the type of separator between the managed lane and mainline through lane(s) in the same direction.

Codes	Descriptions
0	None
1	Flexible Posts
2	Guardrail
3	Barrier Wall
4	Vegetation (Effective 9/2018)

EXAMPLES

1: Flexible Posts

2: Guardrail

3: Barrier Wall

SHLDTYPE | HIGHWAY SHOULDER TYPE
SHLDTYPX | HIGHWAY SHOULDER TYPE (X=2,3)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
37	44, 48, 49, 50, 53	Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways on the SHS, all HPMS standard samples off the SHS, Active Exclusive roadways, all SIS related roadways, and all managed lanes.	1-right & left 2-right 3-left	N/A

Definition/Background: Denotes type of outside shoulder located adjacent to the outside travel lane. Outside shoulders provide for the accommodation of stopped vehicles, emergency use, and lateral support of the roadbed. SHLDTYPE is the shoulder adjacent to the roadway centerline. The intent is to code outside shoulder, not the right-of-way.

How to Gather this Data: Record the highway shoulder type starting with the first shoulder adjacent to the outside travel lane. Collect information for up to three types of shoulders (SHLDTYPE, SHLDTYP2, and SHLDTYP3). Each shoulder type is independently measured. Do not record shoulder types less than 1 foot in width.

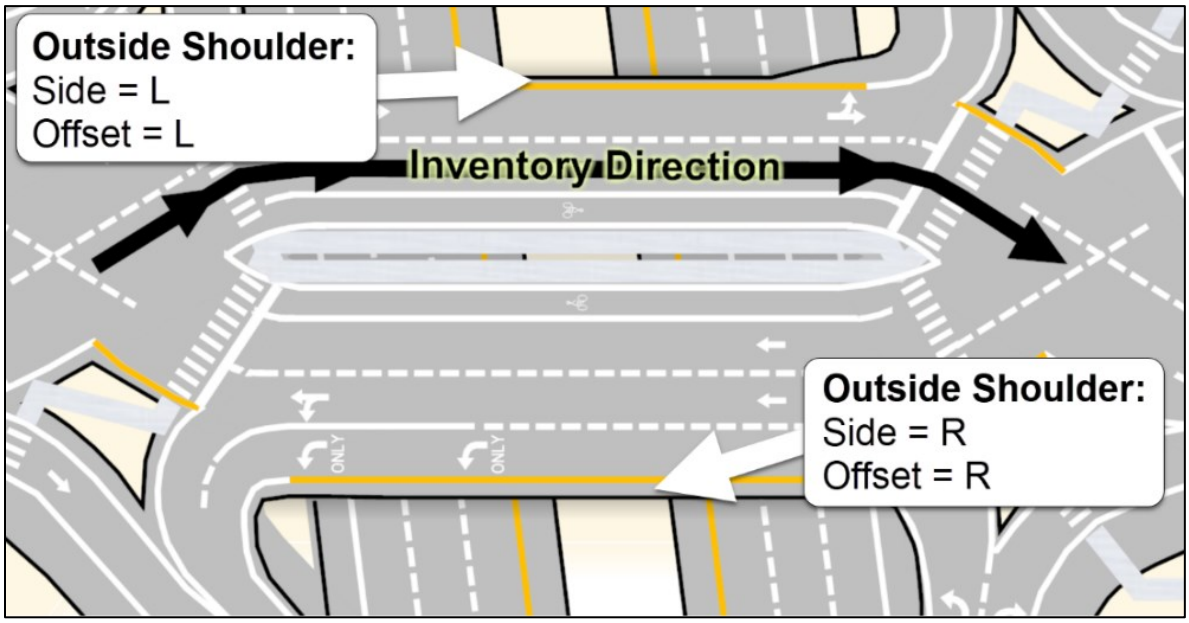
Special Situations: No additional shoulder type is required if the first shoulder type is curb & gutter or a raised curb. Also, no additional shoulder type is required after any physical barriers, i.e., guardrails, barrier walls, or noise walls. These are inventoried by the Office of Maintenance.

For paved shoulders that contain sinusoidal rumble strips in the edge striping or in the shoulder, code the shoulder type as code '1'-PAVED. These types of shoulders allow for bicycle use. For all other warnings or audible vibratory treatments, code the shoulder type as '2'-PAVED WITH WARNING.

For designated bike lanes, also code Feature 216. In the presence of bicycle keyhole lanes, maintain the predominant shoulder type(s) and width(s). Bicycle keyhole width is coded under F216 (BIKSLTWD) and is not captured as a separate paved shoulder.

Within a DDI crossover area (between the two crossover intersections), the road side of the inside and outside shoulders as defined approaching and leaving the crossover area is reversed. In other words: within the crossover area, the outside shoulder is the shoulder to the left of the direction of travel.

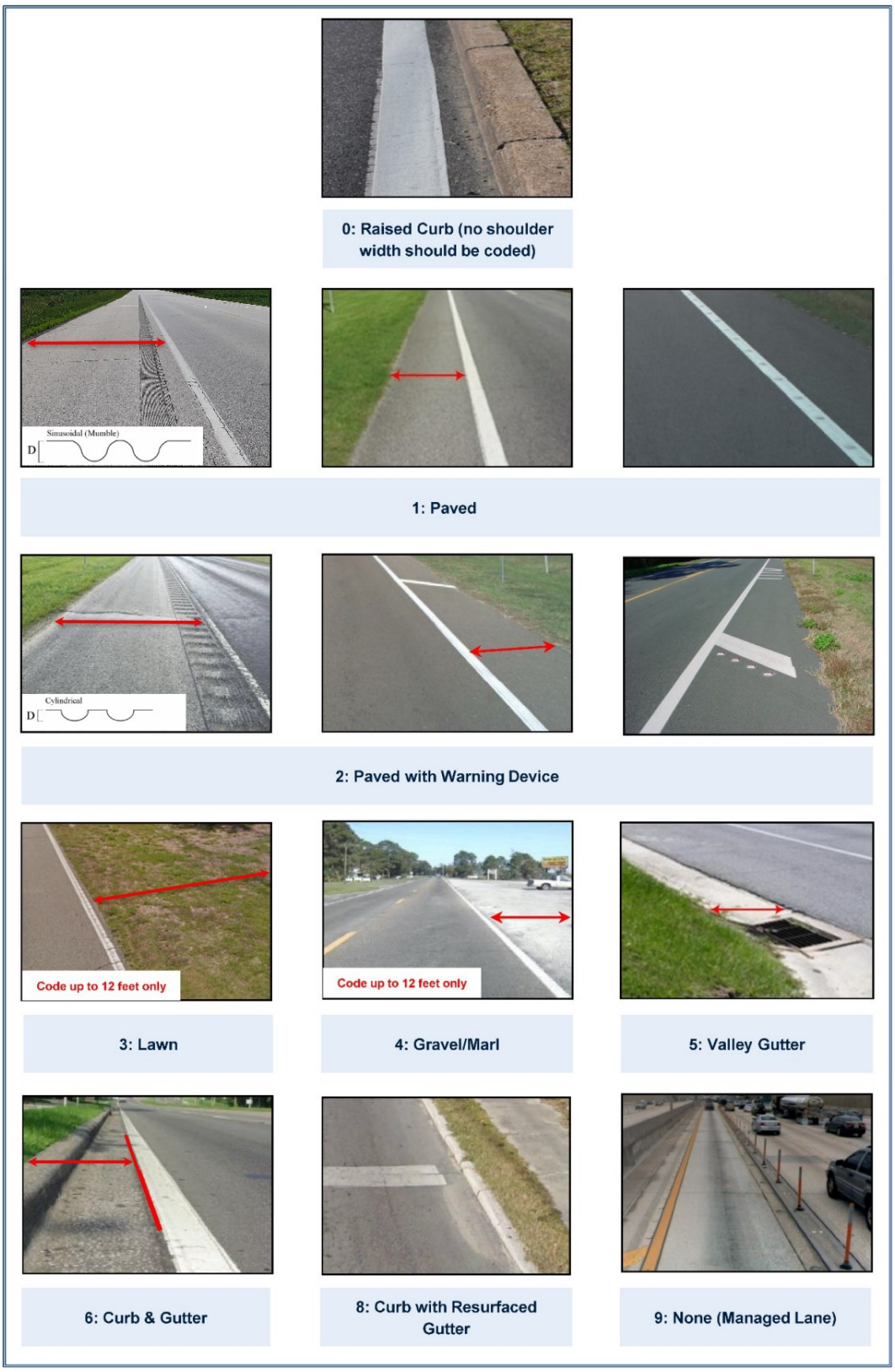
OUTSIDE SHOULDERS AT A DDI CROSSOVER AREA



Note: Within the crossover area at a diverging diamond interchange, the outside shoulder on the inventory side of the roadway is coded as Side = L, and the outside shoulder on the opposite side is coded as Side = R.

Codes	Descriptions	Additional Information
0	Raised Curb	No shoulder width should be coded.
1	Paved	Includes paved parking,bicycle lanes, sinusoidal ground-in rumble strips (effective May 2026), and rumble stripe treatments.
2	Paved with Warning Device	Paved shoulder that contains diagonal markings, cylindrical ground-in rumble strips, or raised thermoplastic markers.
3	Lawn	Coded to a maximum of 12 feet.
4	Gravel/Marl	Coded to a maximum of 12 feet.
5	Valley Gutter	This is not a barrier.
6	Curb & Gutter	
7	Other	This may include Managed Lane.
8	Curb with Resurfaced Gutter	
9	None	No shoulder or width exists.

EXAMPLES



Note: Arrows depict where measurements are taken.

SLDWIDTH | HIGHWAY SHOULDER WIDTH
SHLDWTHX | HIGHWAY SHOULDER WIDTH (X=2,3)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
38	42, 45, 46, 50	Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways on and off the SHS, all HPMS standard samples, Active Exclusive roadways, all SIS related roadways, and all managed lanes.	1-right & left 2-right 3-left	N/A

Definition/Background: Width of either SHLDTYPE, SHLDTYP2, or SHLDTYP3. Shoulder width should be entered separately for each shoulder type.

Cross-Reference/Tolerance: Dimensional Accuracy: 1 foot

How to Gather this Data:

1. Record shoulders that are 1 foot or greater.
2. Measurements should be rounded to the nearest 6 inches, excluding lawn shoulders.[1]
3. Lawn shoulders should be measured in increments of 1 foot, up to 12 feet.[2]

[1] *Measure widths of shoulders that are 1 foot wide or wider and code to the nearest 6-inch accuracy.*

[2] *Lawn shoulder type should be rounded to the nearest foot accuracy.*

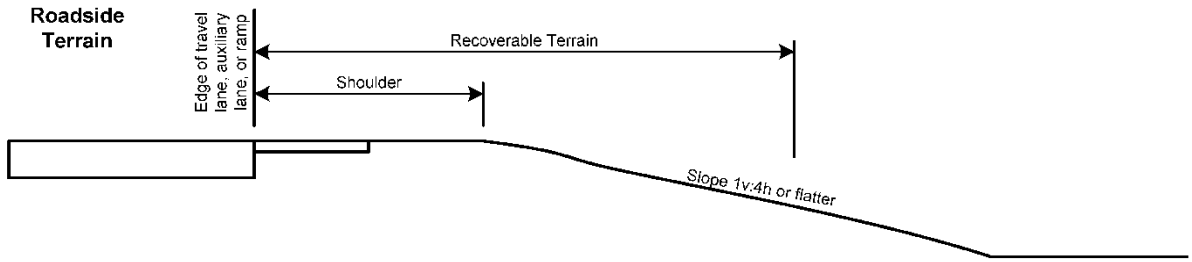
Lawn shoulder type should only be collected to a maximum of 12 feet, if it is safely traversable and on a slope that is 1v:4h or flatter. All other shoulder types are to be collected according to their physical attributes. See the roadside terrain diagram below.

Paved shoulders that are 1 foot or less are not considered shoulders, because they are incidental since they exist primarily due to the necessary spacing required for the 1-foot width of the wheel of the striping equipment. Shoulders are required to be at least 1 foot wide or wider before they are collected.

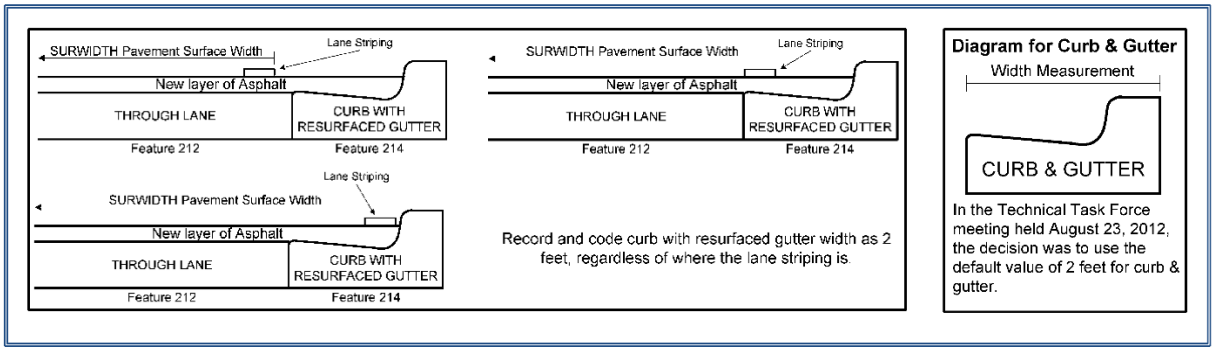
In the presence of bicycle keyhole lanes, maintain the predominant shoulder width(s). Bicycle keyhole width is coded under F216 (BIKSLTWD) and is not captured as a separate paved shoulder.

Value for Shoulder Width: 3 Bytes: XX.X—Record number of feet. Enter to nearest 6 inches (0.5 feet)

Special Situations: If the shoulder slopes, i.e., a ditch exists, extend the measuring tape horizontally until it is over the end of the slope and then take the measurement.



For paved shoulders, include the width of the designated bike lane in the shoulder width. Code '6'-curb and gutter and '8'-curb with resurfaced gutter width as 2 feet regardless of where the lane striping is.

Reference the diagram on outside shoulder width for more information.

EXAMPLE