

I47. Crosswalk Presence/Type

Definition: Presence and type of crosswalk crossing this approach leg.

Recommended Attributes:

1. Unmarked crosswalk
2. Marked crosswalk
3. Marked crosswalk with supplemental devices (e.g., in-street yield signs, in-pavement warning lights, pedestrian bulb outs, etc.)
4. Marked crosswalk with refuge island
5. Marked with refuge island and supplemental devices (e.g., in-street yield signs, in-pavement warning lights, pedestrian bulb outs, etc.)
6. Raised crosswalk
7. Pedestrian crossing prohibited at this approach
8. Other

See Figure 22 on page 121 for additional detail.

Note: This element has been changed since MIRE 1.0. The attribute “raised crosswalk” was added in MIRE 2.0.



Unmarked crosswalk



Marked crosswalk



Marked crosswalk with supplemental devices



Marked crosswalk with refuge island



Marked crosswalk with refuge and supplemental devices



Raised crosswalk

Sources: 1. City of Portland, OR, 2. www.pedbikeimages.org / Dan Burden, 3. www.pedbikeimages.org / Tom Harned, 4. www.pedbikeimages.org / Adam Fukushima, 5. www.pedbikeimages.org / Lyubov Zuyeva, 6. www.pedbikeimages.org / Dan Burden

Figure 22. Illustration of Crosswalk Types.

I49. Pedestrian Signal Presence/Type

Definition: Presence and type of pedestrian signal for crossing this approach.

Recommended Attributes:

1. None.
2. Pedestrian Signal with countdown indicator (with Accessible Pedestrian Signal [APS])
3. Pedestrian Signal with countdown indicator (w/o APS)
4. Pedestrian Signal without countdown indicator (with APS)
5. Pedestrian Signal without countdown indicator (w/o APS)

See Figure 23 on page 123 for additional detail.

Note: This is a new element in MIRE 2.0.



Countdown pedestrian signal



Accessible pedestrian signals

Figure 23. Illustration of Pedestrian Signal Types.

Functional System		1	2	3	4	5	6	7
	NHS	IH	OFE	OPA	MiA	MaC	MiC	Local
Rural								
Urban	SP	SP	SP	SP	SP	SP	SP	

SP = Sample Panel Sections

Coding Requirements for Fields 8, 9, and 10:

Value_Numeric: Enter the code from the following table that best describes the peak-period turning lane operation in the inventory direction.

Code	Description
1	No intersection where a right turning movement is permitted exists on the section.
2	Turns permitted; multiple exclusive right turning lanes exist. Through movements are prohibited in these lanes. Multiple turning lanes allow for simultaneous turns from all turning lanes.
3	Turns permitted; a continuous exclusive right turning lane exists from intersection to intersection. Through movements are prohibited in this lane.
4	Turns permitted; a single exclusive right turning lane exists.
5	Turns permitted; no exclusive right turning lanes exist.
6	No right turns are permitted during the peak period.

Value_Text: No entry required. Available for State Use.

Value_Date: No entry required. Available for State Use.

Guidance: Include turning lanes that are located at entrances to shopping centers, industrial parks, and other large traffic generating enterprises as well as public cross streets.

Where peak capacity for a section is governed by a particular intersection that is on the section, code the turning lane operation at that location (referred to as most controlling intersection); otherwise code for a typical intersection.

Through movements are prohibited in exclusive turn lanes.

Use codes '2' through '6' for turn lanes at a signalized or stop sign intersection that is critical to the flow of traffic; otherwise enter the code that best describes the peak-hour turning lane situation for typical intersections on the sample.

Code a continuous turning lane with painted turn bays as a continuous turning lane. Code a through lane that becomes an exclusive turning lane at an intersection as a shared (through/right turn) lane; however, if through and turning movements can be made from a lane at an intersection, it is not an exclusive turning lane.

Roundabouts (as shown in Figure 4.20) should be considered as an intersection where turns are permitted with no exclusive lanes. Use a Code '5' for this item since traffic can either turn or go through the roundabout from the same lane. However, if an exclusive turning lane exists (as indicated by pavement markings), use a Code '4'. Code if the roundabout controls the capacity

of the entire HPMS section. If there is not a controlling intersection, then code for a typical intersection.

Figure 4.20: Roundabout Configuration Example



Source: SRA Consulting Group, Nov. 2008

This Data Item shall be coded based on the same intersection that is used for identifying the percent green time for a given roadway section.

Painted islands (Figure 4.21) located in the center of a roadway should be considered a median, for the purpose of determining whether or not a turn lane exists.

Slip-ramp movements should not be considered for the purpose of determining turn lanes.

On-ramps and off-ramps which provide access to and from grade-separated, intersecting roadways are to be excluded from turn lane consideration.

Figure 4.21: Painted Island Example



Source: TxDOT, Transportation Planning and Programming Division.

Right Turn Lanes Coding Examples:**Figure 4.22: Multiple Turn Lanes (Code '2') Example**

Turns permitted; multiple exclusive right turn lanes exist. Through movements are prohibited in these lanes. Multiple turn lanes allow for simultaneous turns from all turn lanes.

Source: FDOT RCI Field Handbook, Nov. 2008.

Figure 4.23: Continuous Turn Lane (Code '3') Example

Source: Minnesota Dept. of Transportation (MnDOT).

Figure 4.24: Single Turn Lane (Code '4') Example



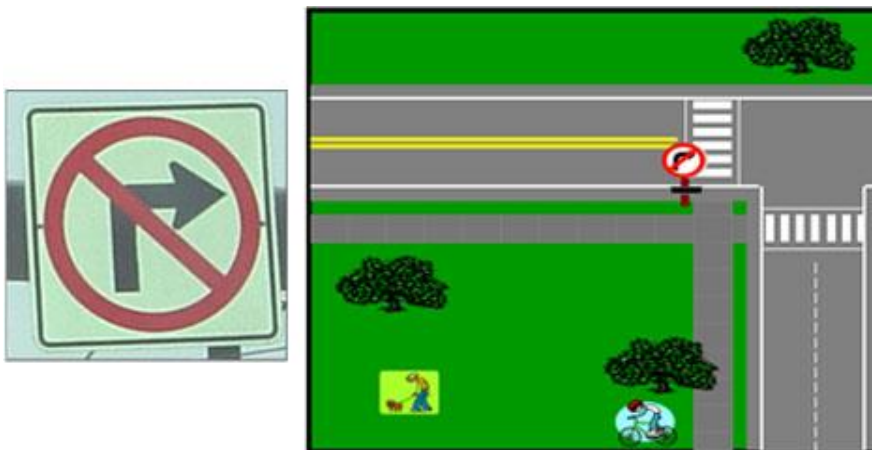
Source: MoveTransport.com

Figure 4.25: No Exclusive Turn Lane (Code '5') Example



Source: FDOT RCI Field Handbook, Nov. 2008.

Figure 4.26 No Right Turn Permitted (Code '6') Example



Source: TxDOT, Transportation Planning and Programming Division.

Item 13: Turn_Lanes_L (Left Turn Lanes)

Description: The presence of left turn lanes at a typical intersection.

Use: For investment requirements modeling to calculate capacity and in congestion analyses, including estimates of delay.

Extent: All Sample Panel sections located in urban areas, optional for all other urban sections beyond the limits of the Sample Panel.

Functional System		1	2	3	4	5	6	7
	NHS	IH	OFE	OPA	MiA	MaC	MiC	Local
Rural								
Urban	SP	SP	SP	SP	SP	SP	SP	

SP = Sample Panel Sections

Coding Requirements for Fields 8, 9, and 10:

Value_Numeric: Enter the code from the following table that best describes the peak-period turning lane operation in the inventory direction.

Code	Description
1	No intersection where a left turning movement is permitted exists on the section.
2	Turns permitted; multiple exclusive left turning lanes exist. Through movements are prohibited in these lanes. Multiple turning lanes allow for simultaneous turns from all turning lanes.
3	Turns permitted; a continuous exclusive left turning lane exists from intersection to intersection. Through movements are prohibited in this lane.
4	Turns permitted; a single exclusive left turning lane exists.
5	Turns permitted; no exclusive left turning lanes exist.
6	No left turns are permitted during the peak period.

Value_Text: No entry required. Available for State Use.

Value_Date: No entry required. Available for State Use.

Guidance: Where peak capacity for a section is governed by a particular intersection that is on the section, code the turning lane operation at that location (referred to as most controlling intersection); otherwise code for a typical intersection.

Include turning lanes that are located at entrances to shopping centers, industrial parks, and other large traffic generating enterprises as well as public cross streets.

Through movements are prohibited in exclusive turn lanes.

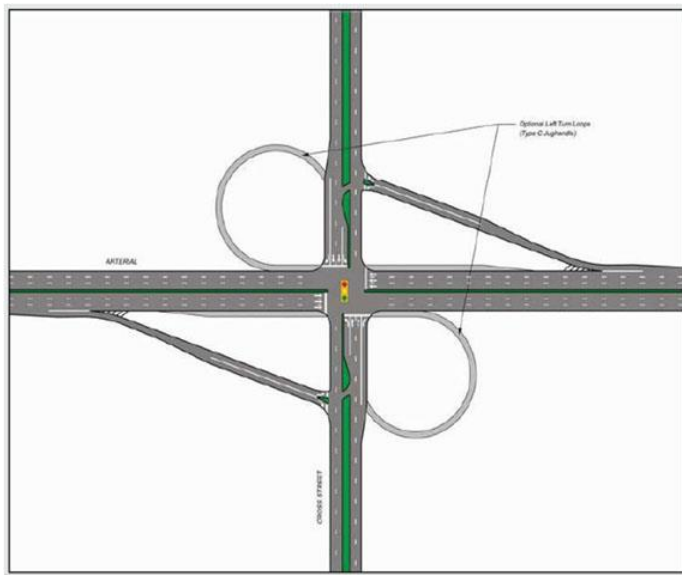
Use codes '2' through '6' for turn lanes at a signalized or stop sign intersection that is critical to the flow of traffic; otherwise enter the code that best describes the peak-hour turning lane situation for typical intersections on the sample.

Code a continuous turning lane with painted turn bays as a continuous turning lane. Code a through lane that becomes an exclusive turning lane at an intersection as a shared (through/left turn) lane; however, if through and turning movements can be made from a lane at an intersection, it is not an exclusive turning lane.

Roundabouts (as shown in Figure 4.20) should be considered as an intersection where turns are permitted with no exclusive lanes. Use a Code '5' for this item since traffic can either turn or go through the roundabout from the same lane. Code if the roundabout controls the capacity of the entire HPMS section. If there is not a controlling intersection, then code for a typical intersection.

On-ramps and off-ramps which provide access to and from grade-separated, intersecting roadways are to be excluded from turn lane consideration.

Figure 4.27: Jug Handle Configuration Example



Source: SRA Consulting Group, Nov. 2008

Jug handle configurations (as shown in Figure 4.27), or lanes on either side of the roadway should be considered as an intersection with protected (exclusive) left turn lanes. Although a jug handle may be viewed as a right turn lane, it is intended for left turn movements, therefore it should not be coded as a right turn lane; instead use Code '6.'

This Data Item shall be coded based on the same intersection that is used for identifying the percent green time for a given roadway section.

Painted islands located in the center of a roadway should be considered a median, for the purposes of determining whether or not a turn lane exists.

Permitted U-turn movements are not to be considered for the purpose of determining turn lanes.

Left Turn Lanes Coding Examples:**Figure 4.28: Multiple Turn Lanes (Code '2') Example**

Turns permitted; multiple exclusive left turn lanes exist. Through movements are prohibited in these lanes. Multiple turn lanes allow for simultaneous turns from all turn lanes.

Source: FDOT RCI Field Handbook, Nov. 2008.

Figure 4.29: Multiple Turn Lanes (Code '2') Example



Source: Unavailable

Figure 4.30: Continuous Turn Lane (Code '3') Example



Source: Kentucky Transportation Cabinet

Example for Coding Turn Lanes and Through Lanes:

For an intersection that has a single left turn lane and no right turn lane with turns permitted in the peak period (as shown in Figure 4.31), use a code '4' for this Data Item, and a code '5' (turns permitted; no exclusive right turning lane exists) for Data Item 12 (Right Turn Lanes). Additionally, this intersection has four through-lanes (Data Item 7), and two peak-lanes (Data Item 10).

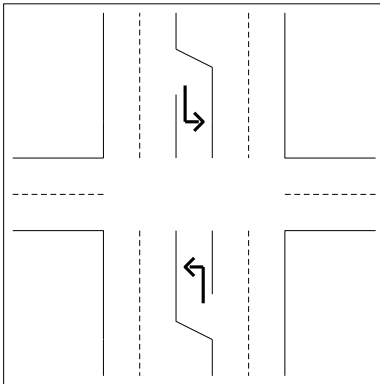
Figure 4.31: Exclusive Turn Lane (Code '4') Example**Figure 4.32: No Exclusive Left Turn Lane (Code '5') Example**

Figure 4.33: No Left Turn Permitted (Code '6')

