

[illegible]

<p><i>Note:</i> Delete tables that are not applicable to specific project</p>
<p>Delete reference to materials not being used.</p>

[illegible][illegible][illegible][illegible]

Pavement Marking Bid Items		
Description	Unit	Quantity
4" White (TP)	L.F.	X
4" Yellow (TP)	L.F.	X
6" White (TP)	L.F.	X
8" White (TP)	L.F.	X
12" White (TP)	L.F.	X
12" Yellow (TP)	L.F.	X
4" White (IMP)	L.F.	X
4" Yellow (IMP)	L.F.	X
6" White (IMP)	L.F.	X
8" White (IMP)	L.F.	X
12" White (IMP)	L.F.	X
12" Yellow (IMP)	L.F.	X
24" White (PTP)	L.F.	X
White Turn Arrow (PTP)	Each	X
White Thru Arrow (PTP)	Each	X
White Thru/Turn Arrow (PTP)	Each	X
White Merge Arrow (PTP)	Each	X
White "ONLY" Marking (PTP)	Each	X
White "Railroad Crossing" Symbol (PTP)	Each	X
24" x 36" White Yield Line (PTP)	Each	X
12" x 18" White Yield Line (PTP)	Each	X
White Bike Symbol (PTP)	Each	X
White Bike Sharrow (PTP)	Each	X
White Bike Lane Arrow (PTP)	Each	X
12" White Speed Hump (PTP)	Each	X
Blue & White ISA* Symbol (PTP)	Each	X
4" White (PCP) / (CP)	L.F.	X
4" Yellow (PCP) / (CP)	L.F.	X
6" White (PCP) / (CP)	L.F.	X
8" White (PCP) / (CP)	L.F.	X
12" White (PCP) / (CP)	L.F.	X
12" Yellow (PCP) / (CP)	L.F.	X
24" White (PCP) / (CP)	L.F.	X
White Turn Arrow (PCP) / (CP)	Each	X
White Thru Arrow (PCP) / (CP)	Each	X
White Thru/Turn Arrow (PCP) / (CP)	Each	X
White Merge Arrow (PCP) / (CP)	Each	X
White "ONLY" Marking (PCP) / (CP)	Each	X
White "Railroad Crossing" Symbol (PCP) / (CP)	Each	X
24" x 36" White Yield Line (PCP) / (CP)	Each	X
12" x 18" White Yield Line (PCP) / (CP)	Each	X
White Bike Symbol (PCP) (CP)	Each	X
White Bike Sharrow (PCP) / (CP)	Each	X
White Bike Lane Arrow (PCP) / (CP)	Each	X
4" White (P) / (UA)	L.F.	X
4" Yellow (P) / (UA)	L.F.	X
6" White (P) / (UA)	L.F.	X
8" White (P) / (UA)	L.F.	X
12" White (P) / (UA)	L.F.	X
12" Yellow (P) / (UA)	L.F.	X
24" White (P) / (UA)	L.F.	X
White Turn Arrow (P) / (UA)	Each	X
White Thru Arrow (P) / (UA)	Each	X
White Thru/Turn Arrow (P) / (UA)	Each	X
White Merge Arrow (P) / (UA)	Each	X
White "ONLY" Marking (P) / (UA)	Each	X
White "Railroad Crossing Symbol (P) / (UA)	Each	X
4" White (MMA)	L.F.	X
Blue & White ISA* Symbol (MMA)	Each	X

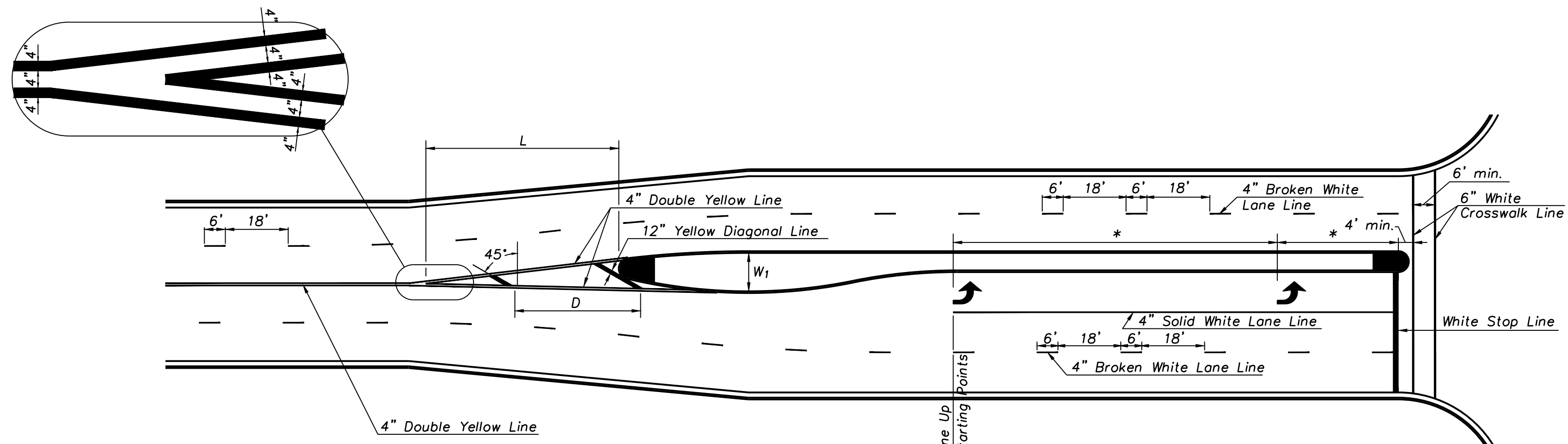
Notes: These approximate quantities were prepared solely for the contractors convenience as a means of setting forth major items and is not guaranteed to be a complete nor accurate list of all items necessary to complete this work. Other items required for a complete installation, as shown or described shall be included in the prices as bid.

- ISA = International Symbol of Accessibility

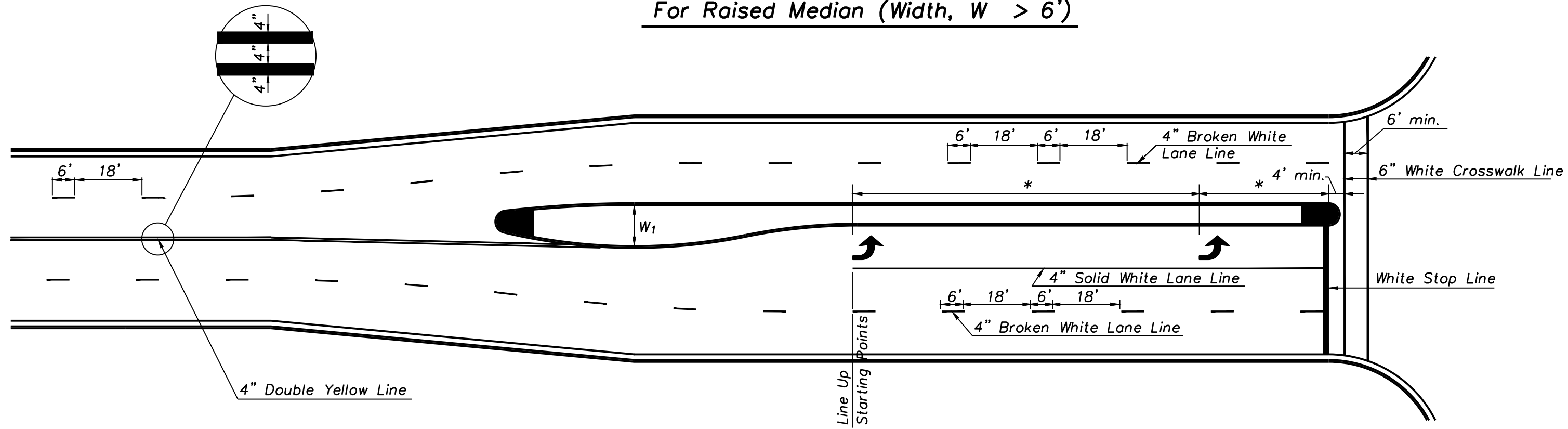
Legend

TP	–	Thermoplastic
PTP	–	Pre-formed Thermoplastic
PCP	–	Patterned Cold Plastic
UA	–	Urethane Acrylate
P	–	Paint
CP	–	Cold Plastic
IMP	–	Integrated Multi-polymer
MMA	–	Methyl Methacrylate

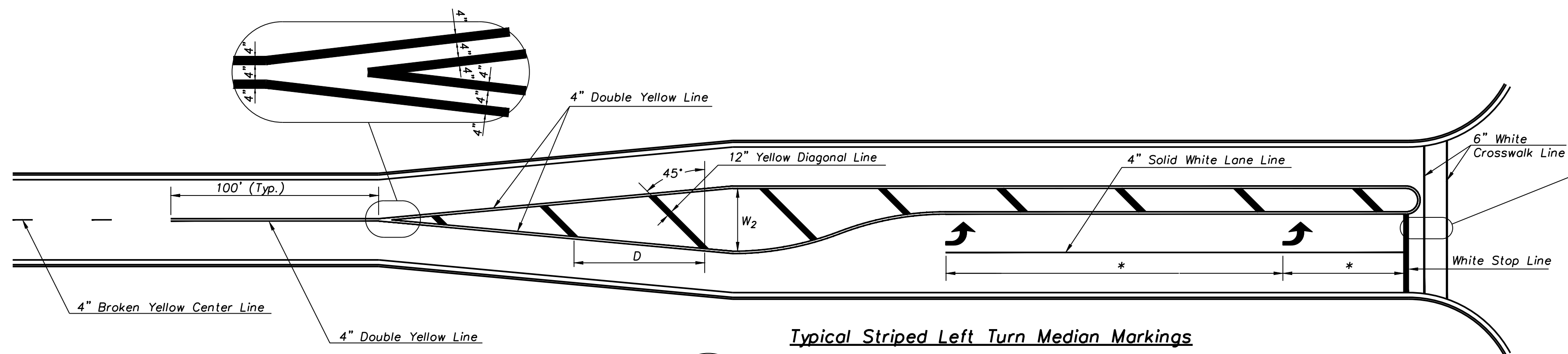
- Notes:
- 1) * Variable, see spacing schedule and/or plans for location.
 - 2) D= posted speed limit in feet (i.e. 25mph = 25' spacing) adjust in the field for a minimum of two.
 - 3) If $W_2 < 4'$ or $L < 20'$, omit diagonal lines.



For Raised Median (Width, $W_1 > 6'$)

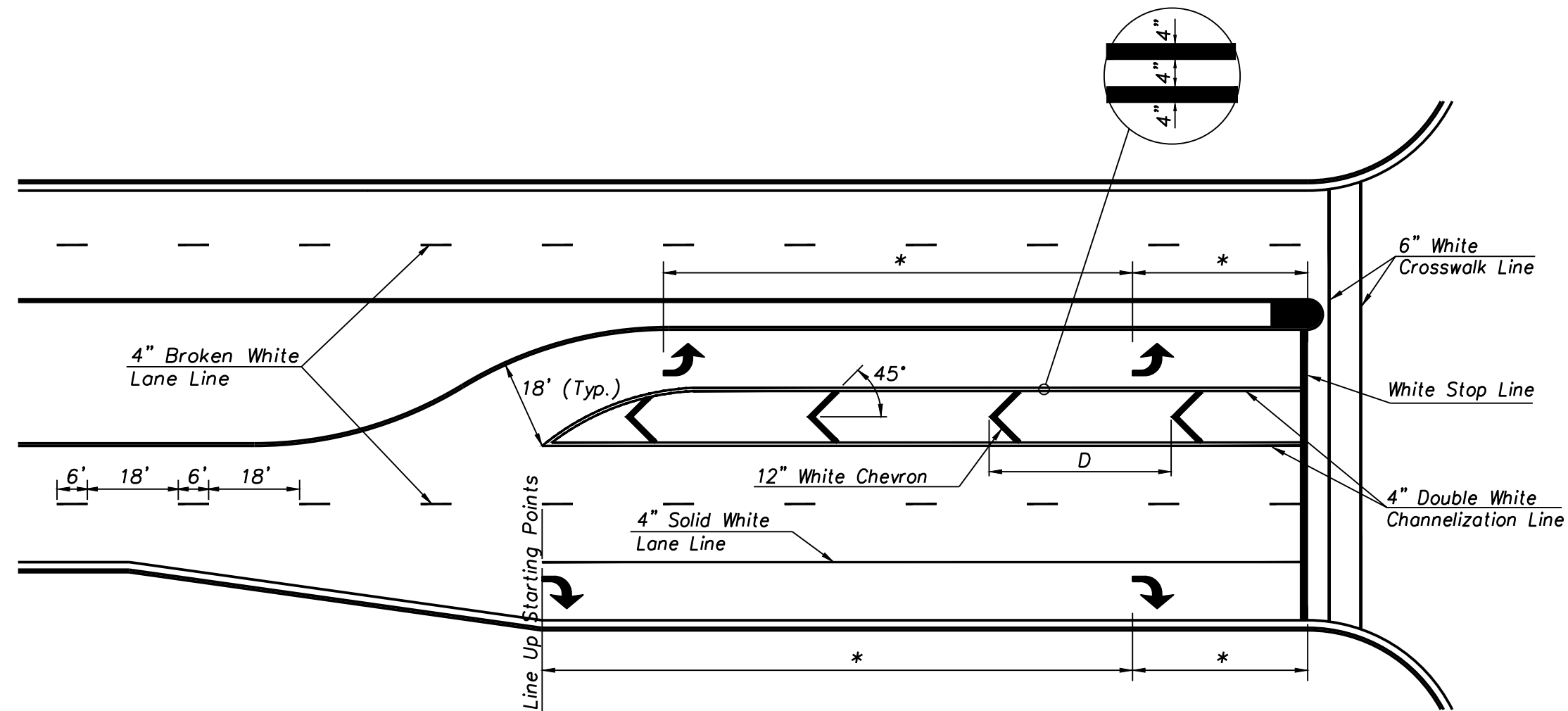
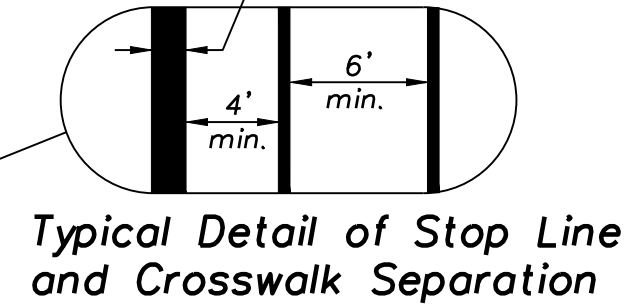


For Raised Median (Width, $W_1 < 6'$)

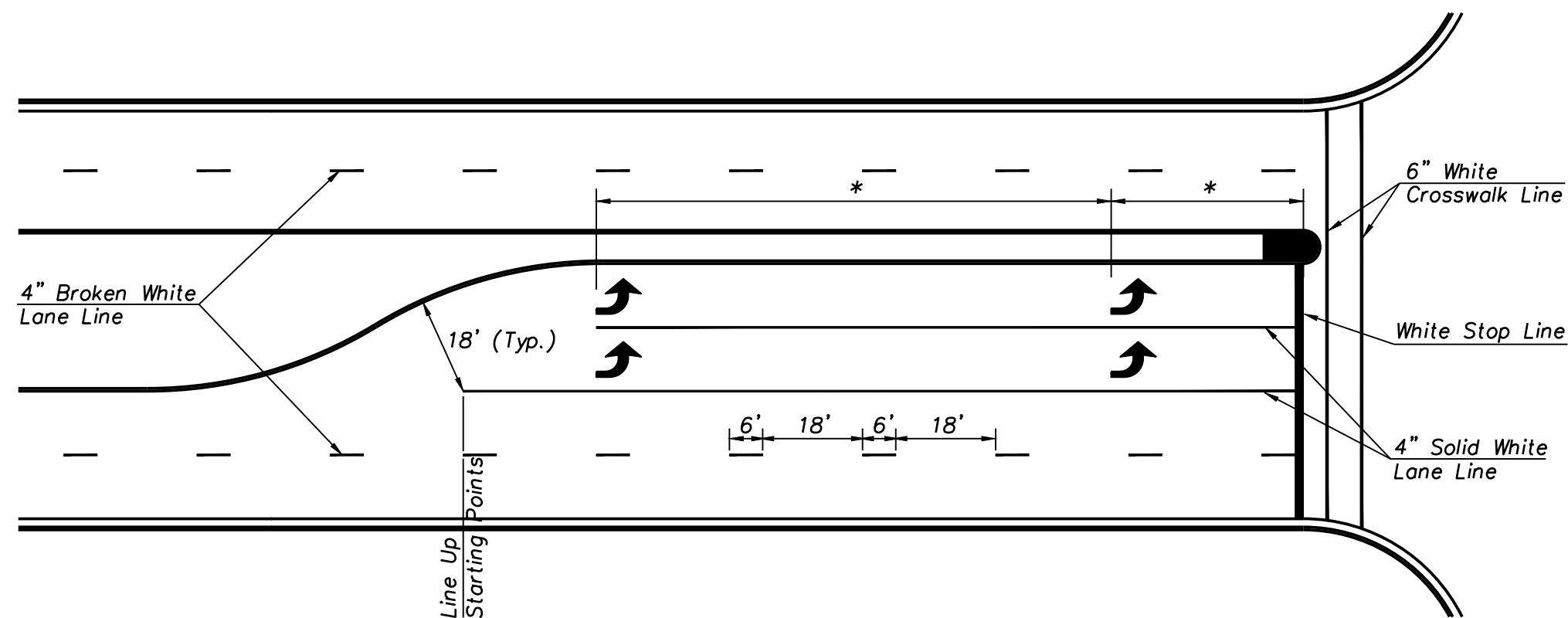


Typical Striped Left Turn Median Markings

- Stop Line Width (When Used):
- 1) 12" will be used at a location where a 30" Stop sign is required.
 - 2) 24" will be used at a location where a 36" Stop sign is required.
 - 3) 24" will be used at all controlled approaches to a traffic signal.



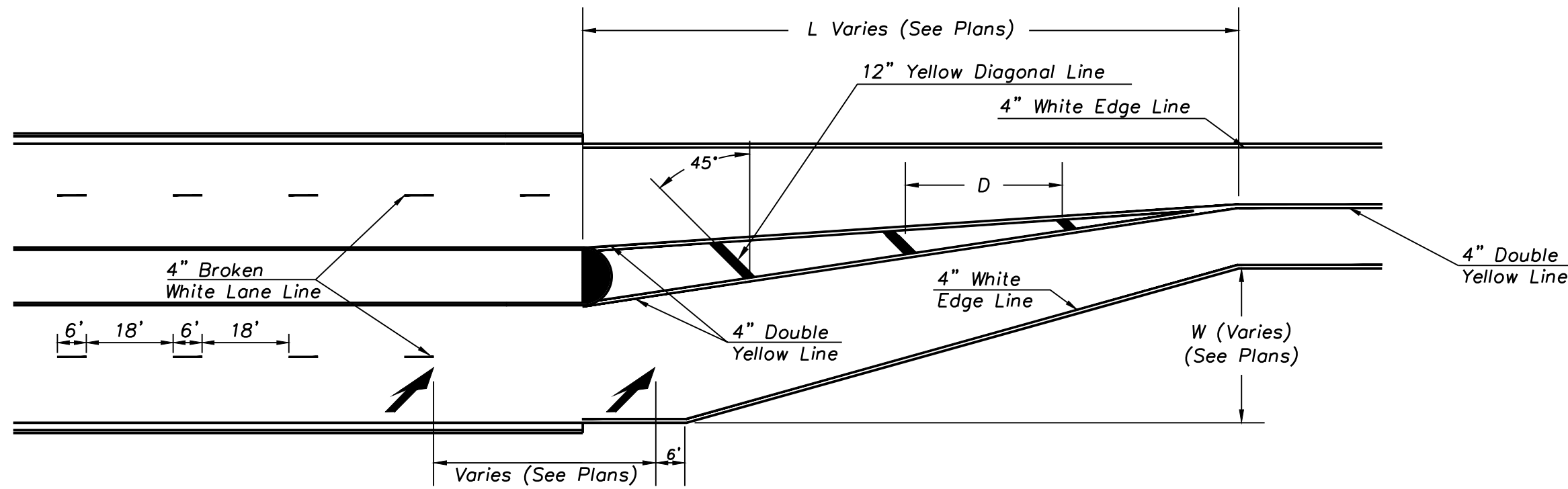
Typical Left Turn Channelization Island Lane Markings



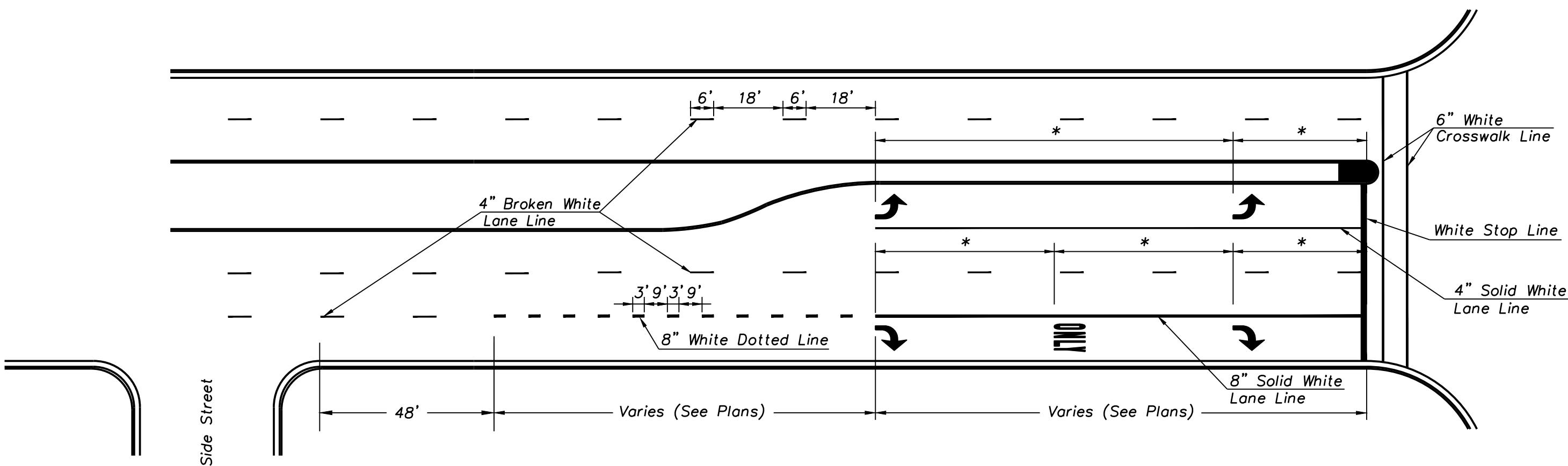
Typical Dual Left Turn Lane Markings

Typical Pavement Marking Details

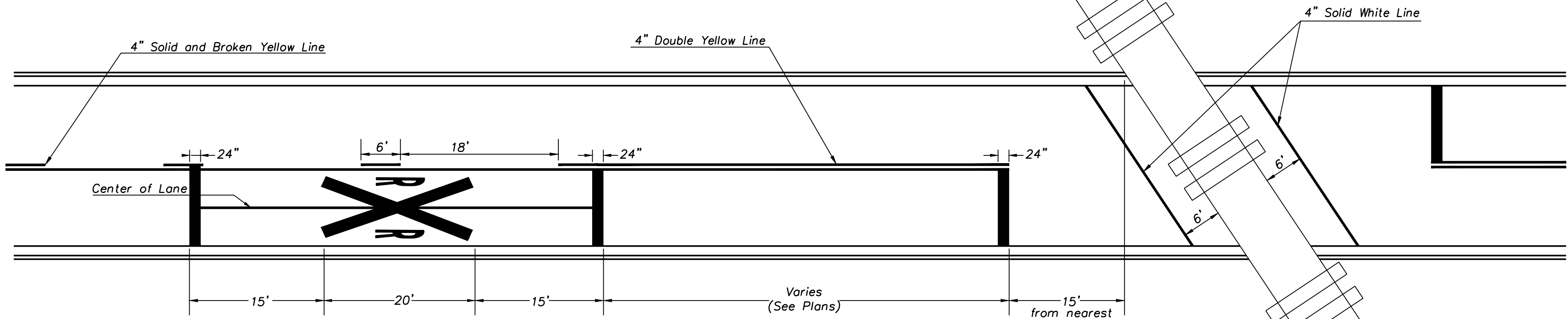
NO.	DATE	REVISIONS	BY
1	09/01/2021	2021 Standard Details	LJK
2			
3			



Lane Reduction Transition Markings

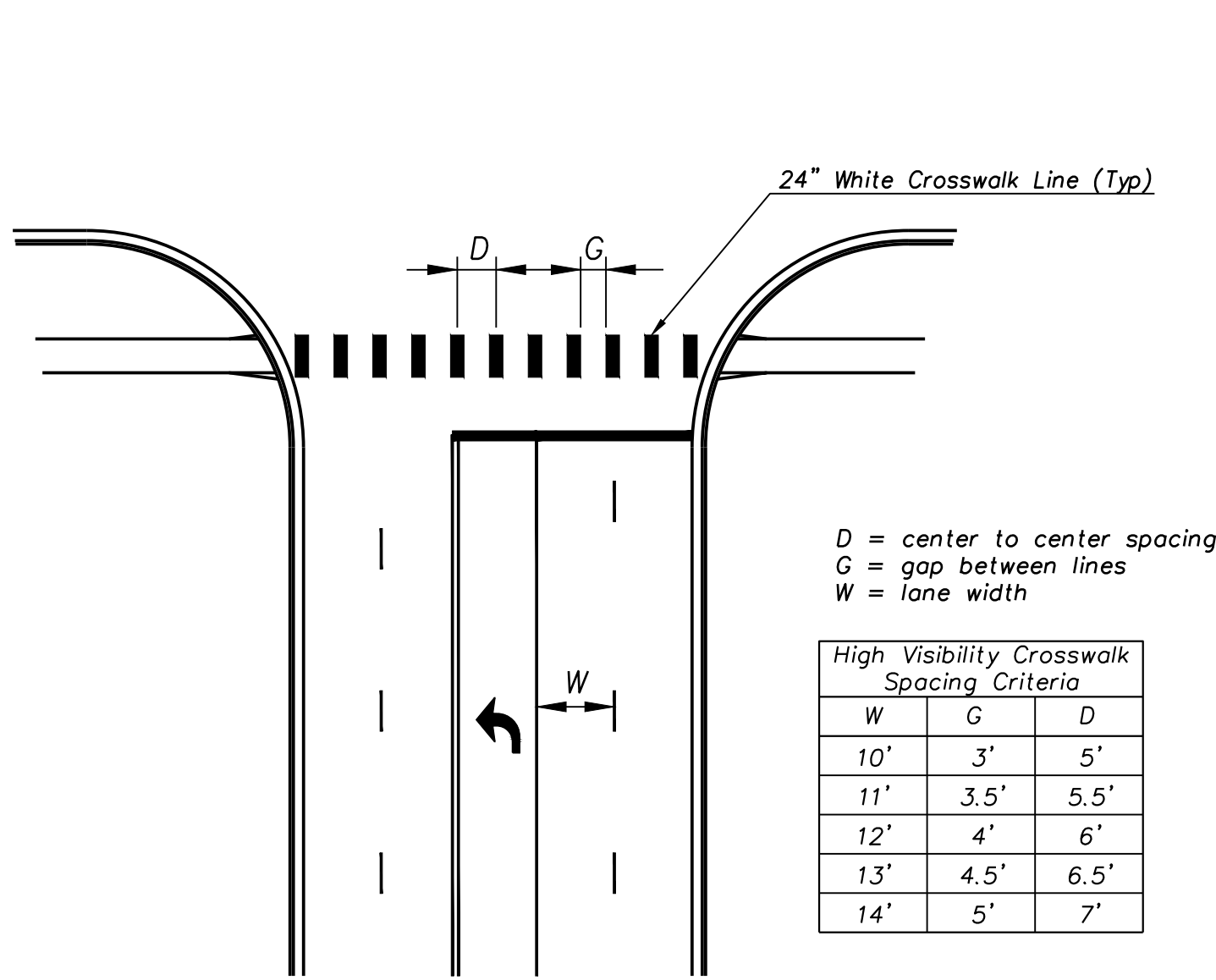


Trap Lane Drop Markings



Grade Crossing Pavement Markings

Notes:
 1) * Variable, see spacing schedule and/or plans for locations.
 2) D= posted speed limit in feet (i.e. 25mph = 25' spacing) adjust in the field for a minimum of two.

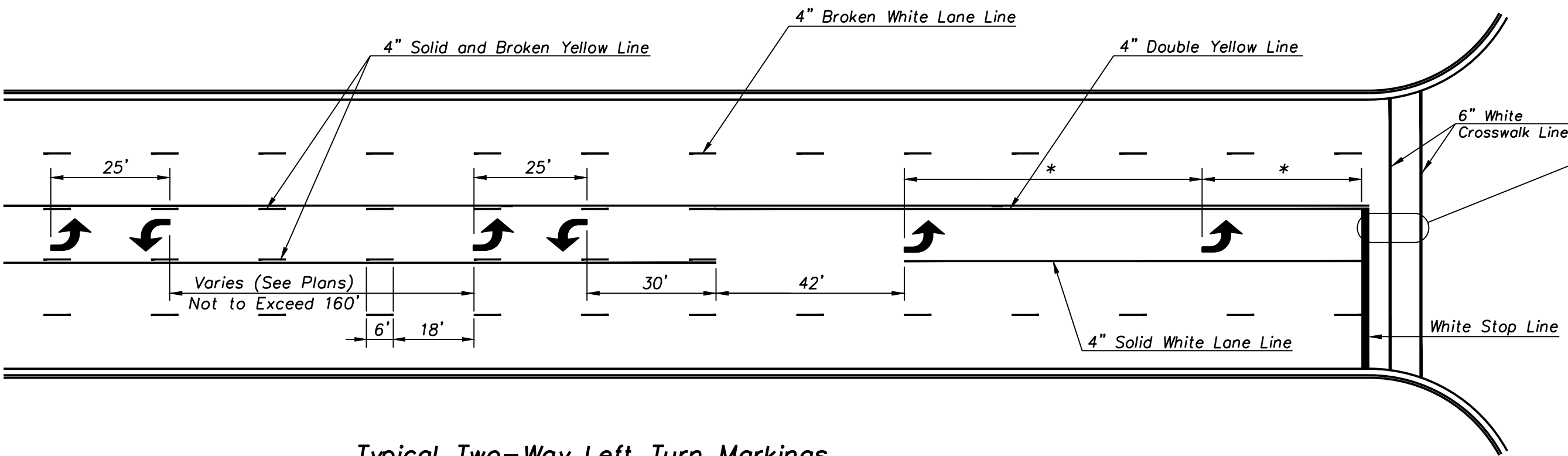


D = center to center spacing
 G = gap between lines
 W = lane width

High Visibility Crosswalk Spacing Criteria		
W	G	D
10'	3'	5'
11'	3.5'	5.5'
12'	4'	6'
13'	4.5'	6.5'
14'	5'	7'

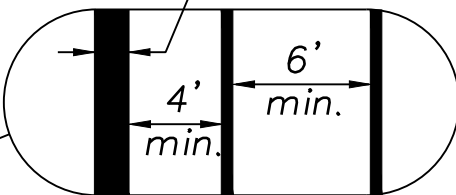
- Notes:
- For roadways with variable lane widths, the lines and gaps should be spaced as evenly as possible across the lanes of vehicle travel to avoid wheel paths.
 - The gaps between the lines can vary from 3' to 5' within the same crosswalk, with the spacing from center to center varying from 5' to 7'.

High Visibility Crosswalk

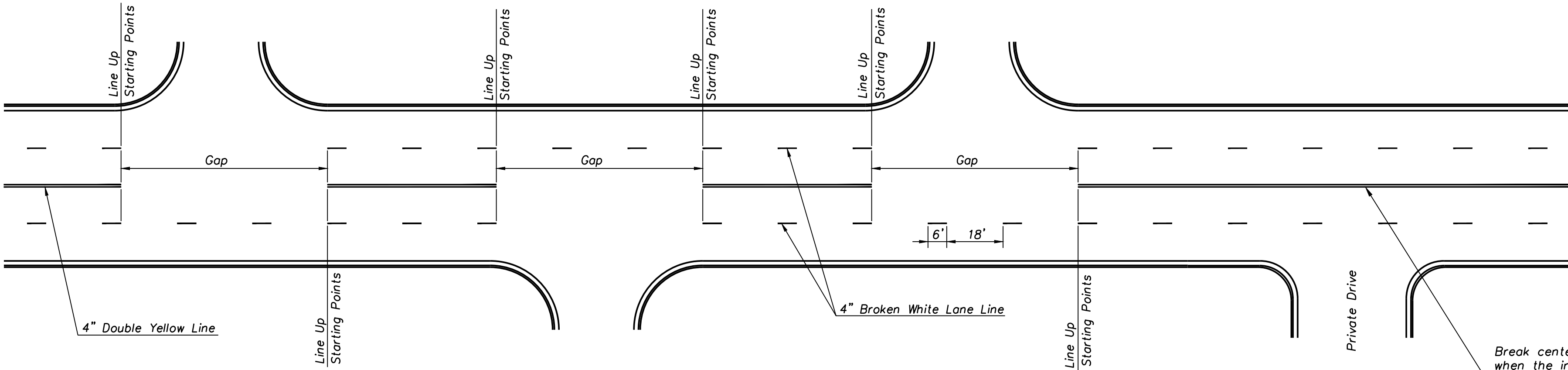


Typical Two-Way Left Turn Markings

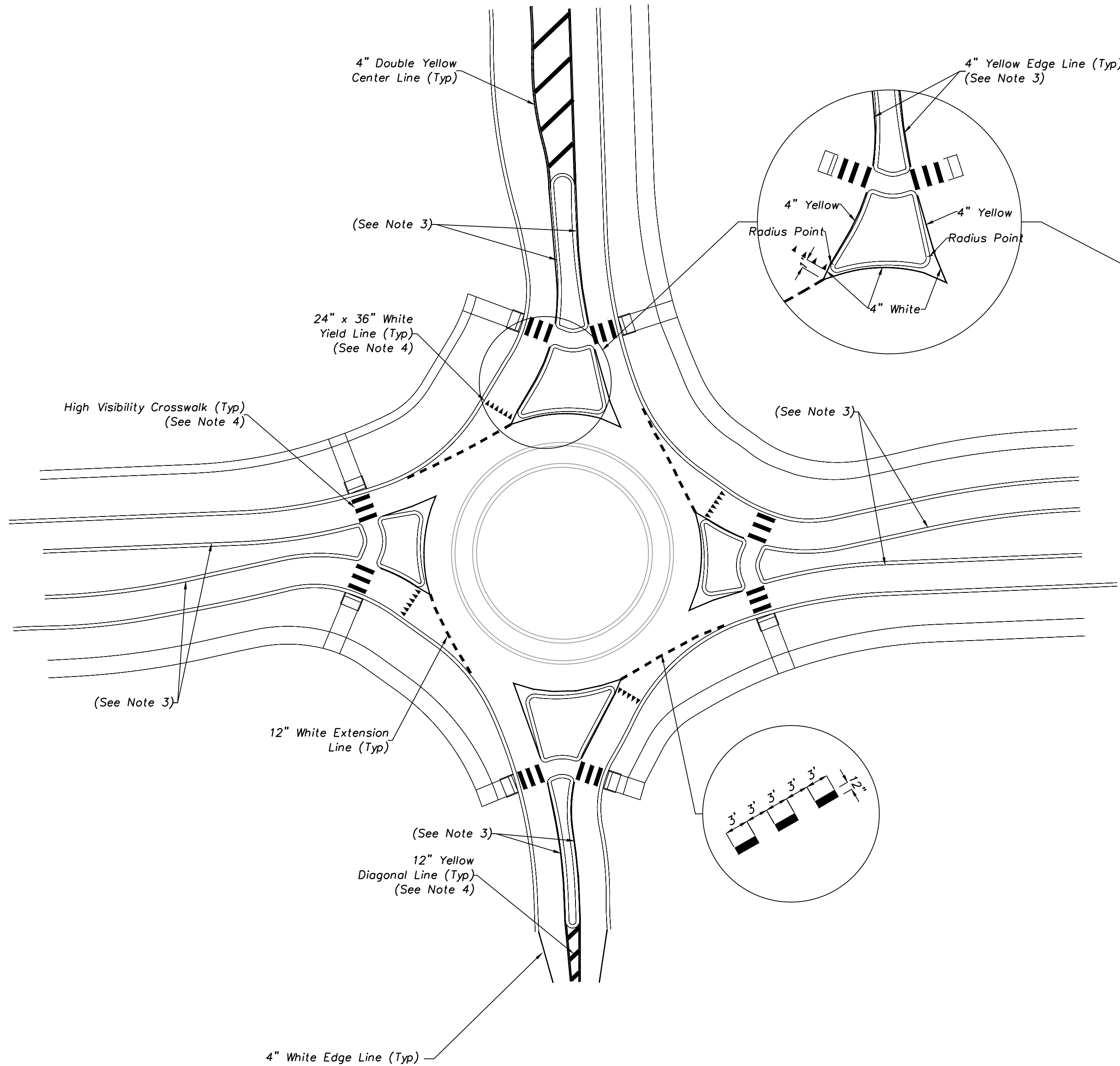
- Stop Line Width (When Used):
- 12" will be used at a location where a 30" Stop sign is required.
 - 24" will be used at a location where a 36" Stop sign is required.
 - 24" will be used at all controlled approaches to a traffic signal.



Typical Detail of Stop Line and Crosswalk Separation

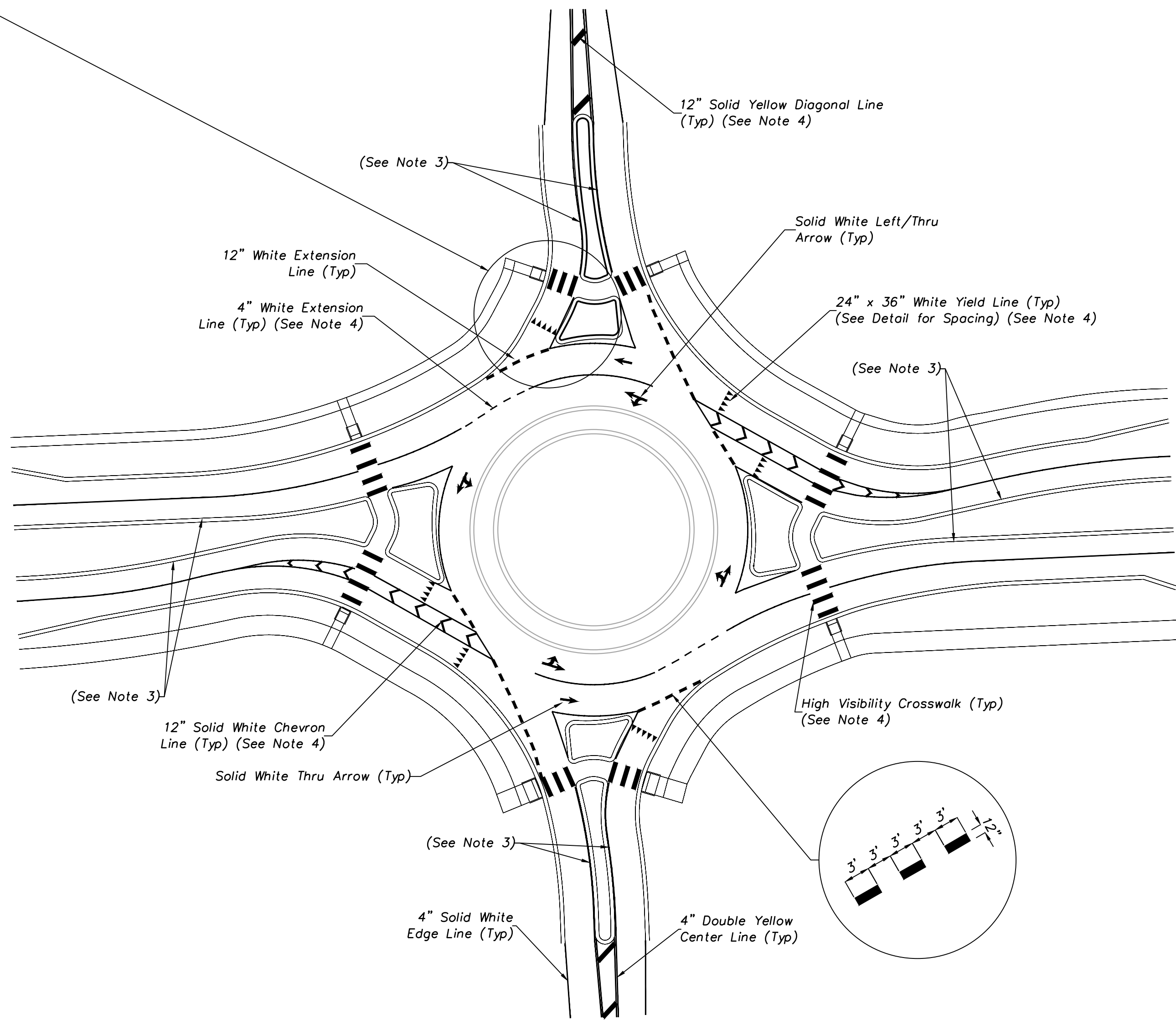


Typical Four-Lane Undivided Markings with Side Street Intersections

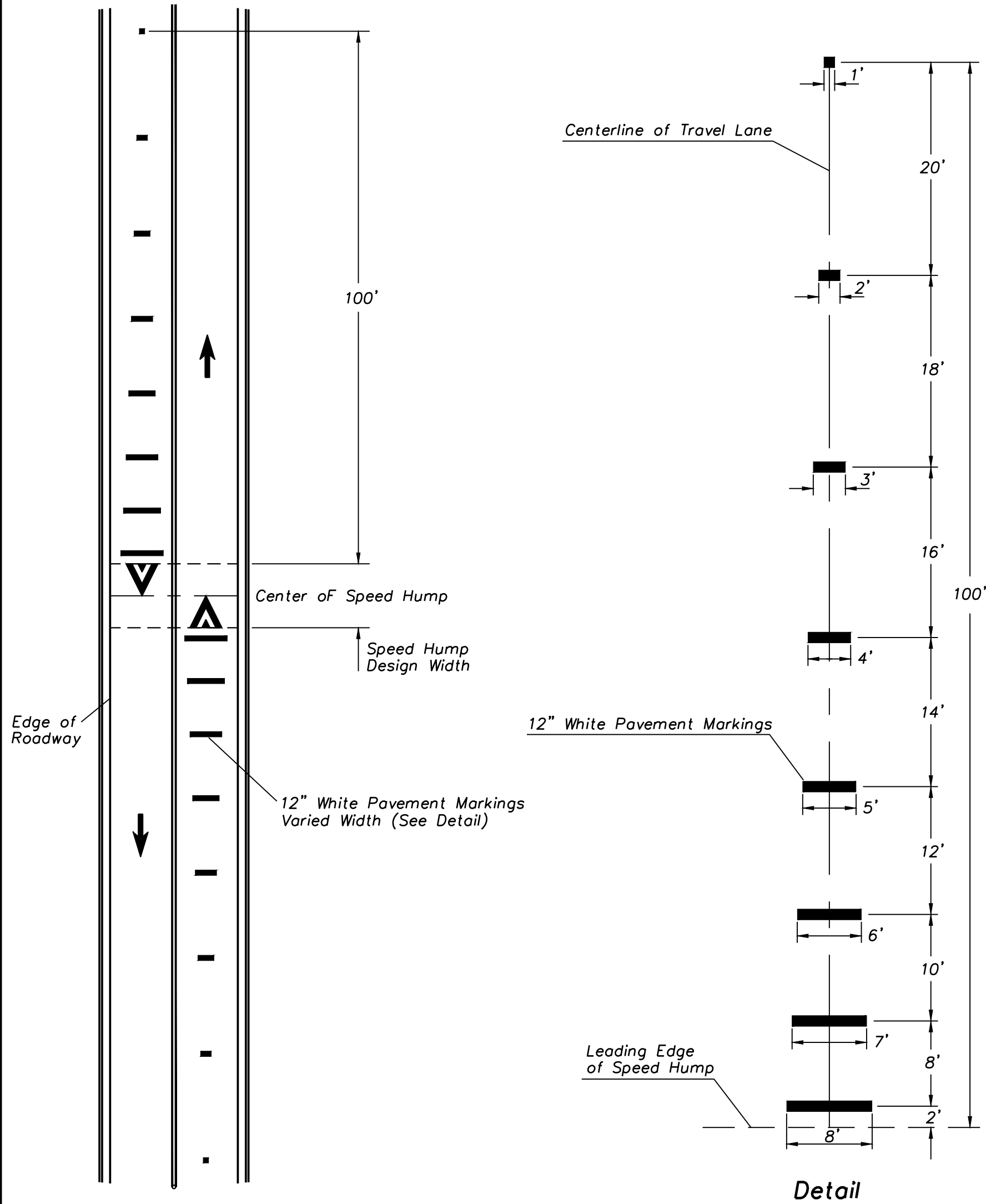


Notes:

1. Because of the variability in design for every roundabout, these details are general guidelines only and do not necessarily reflect all the markings that are necessary.
2. The number of yield line symbols shown are schematic only. Refer to Yield Line Details for proper number and spacing based on lane widths.
3. Install 4" yellow edge line along the splitter island in advance of the crosswalk when the raised splitter island is not an extension of a raised median throughout the corridor. Omit the yellow edge line for continuous medians.
4. High visibility crosswalks, yellow diagonal lines, chevron lines, extension lines and yield lines are shown only for reference. See specific details on other sheets or plan sheets for spacing requirements.

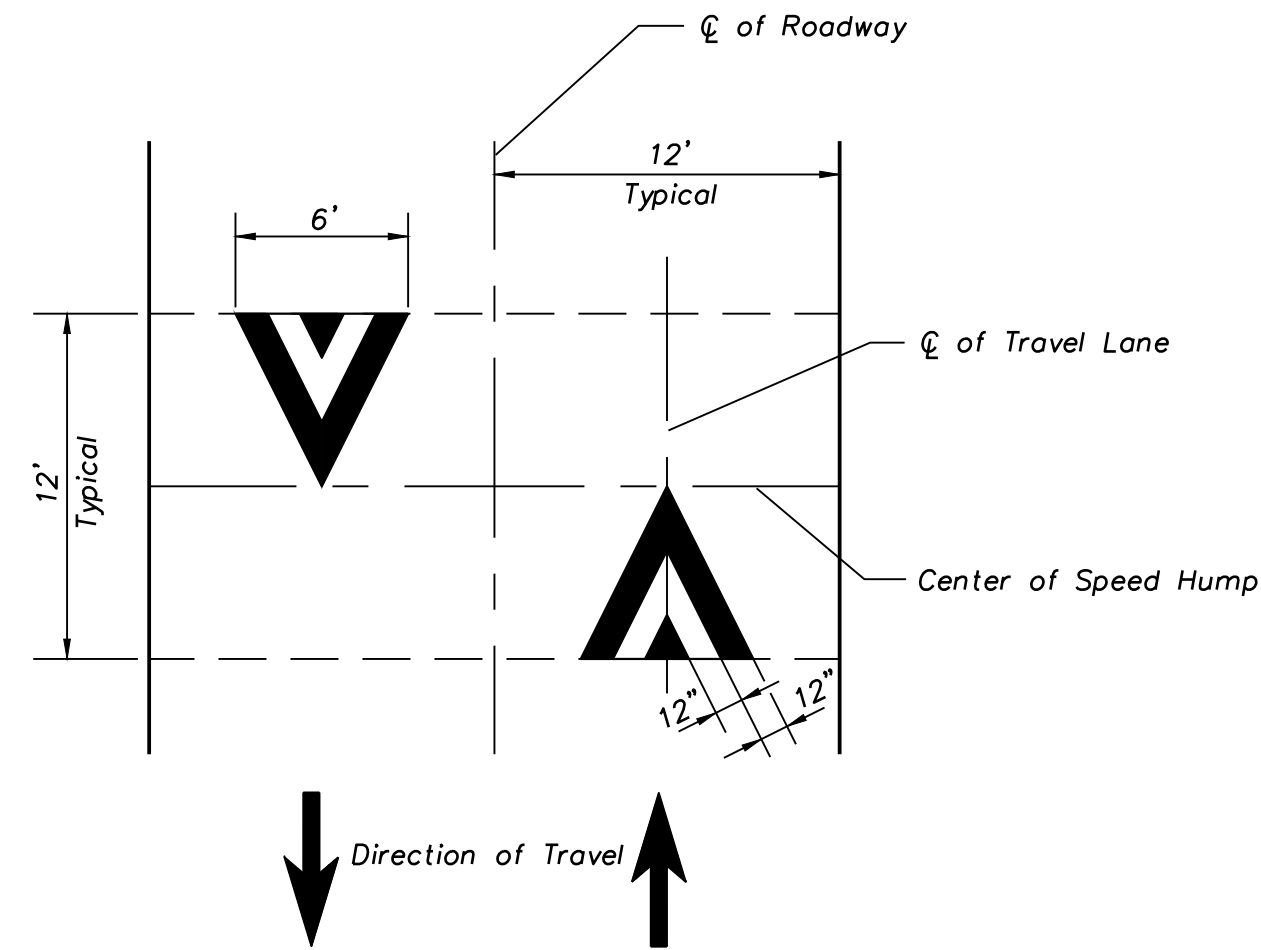


LJK		2021 Standard Details		REVISIONS		BY	
1	09/01/2021	2		NO.	DATE		
2		3					

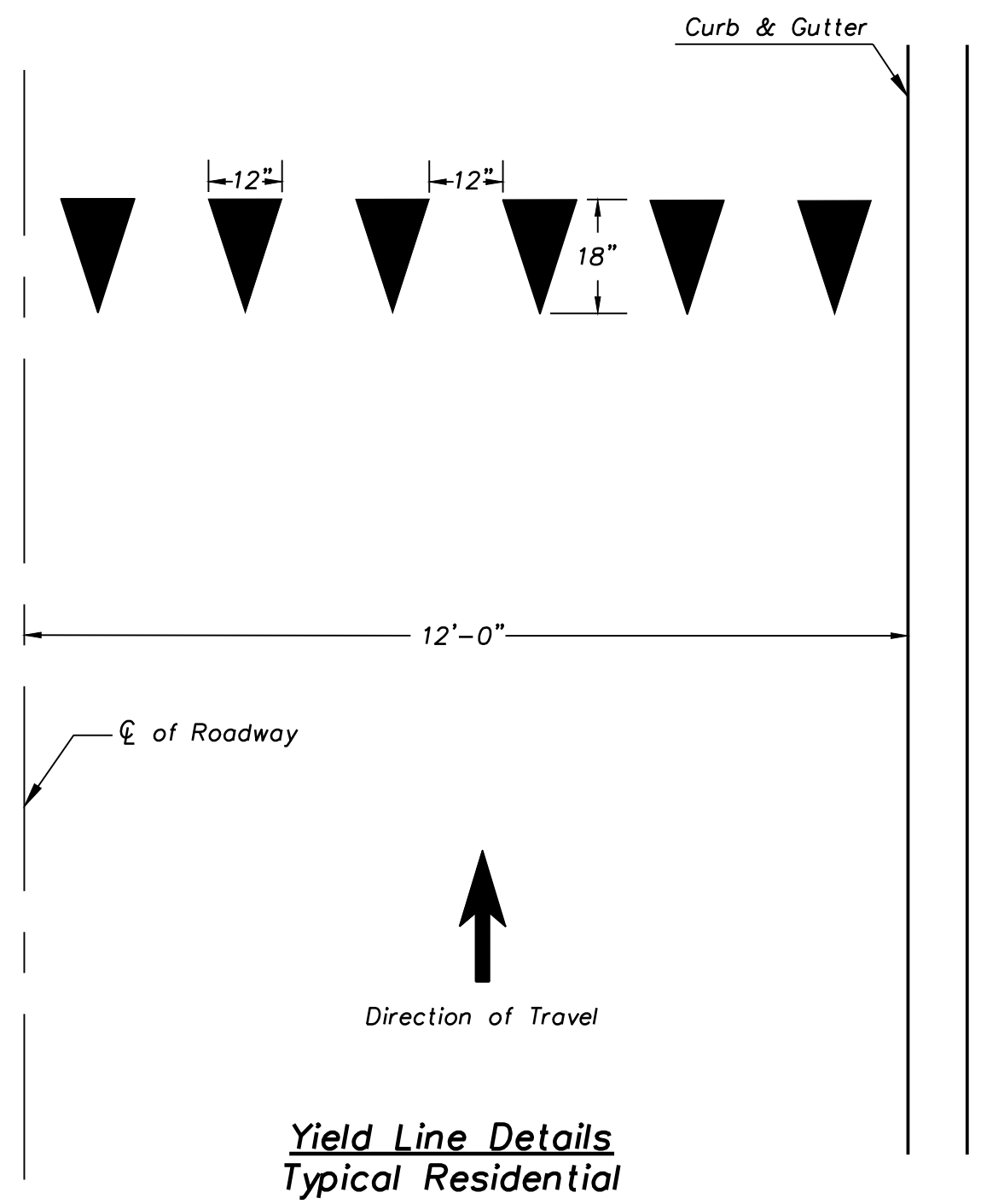


Typical Advance Warning Markings For Speed Humps

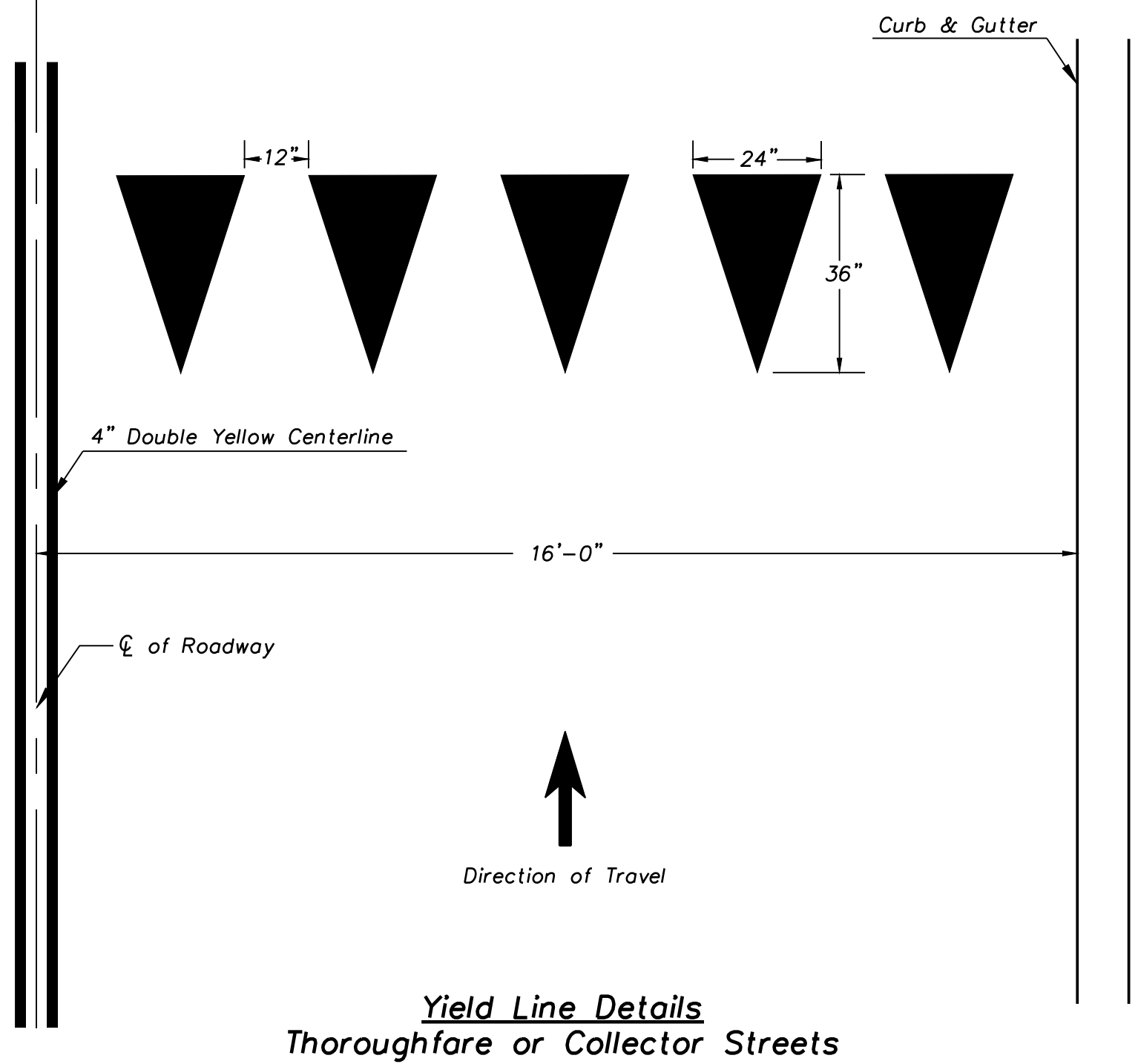
Advance warning markings and speed hump markings shall be measured as "Speed Hump Marking" per each approach.



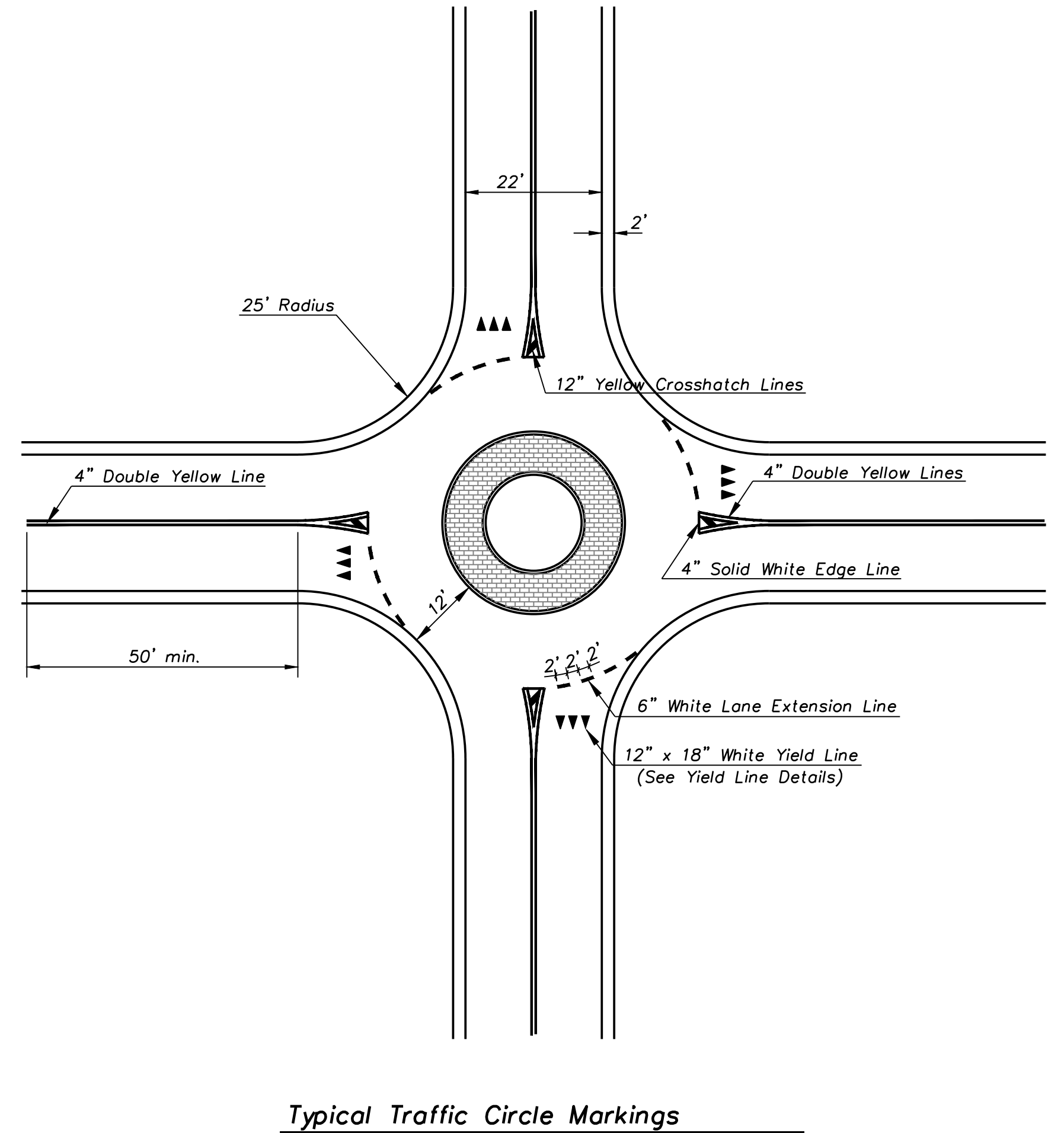
Speed Hump Pavement Marking Detail



**Yield Line Details
Typical Residential**

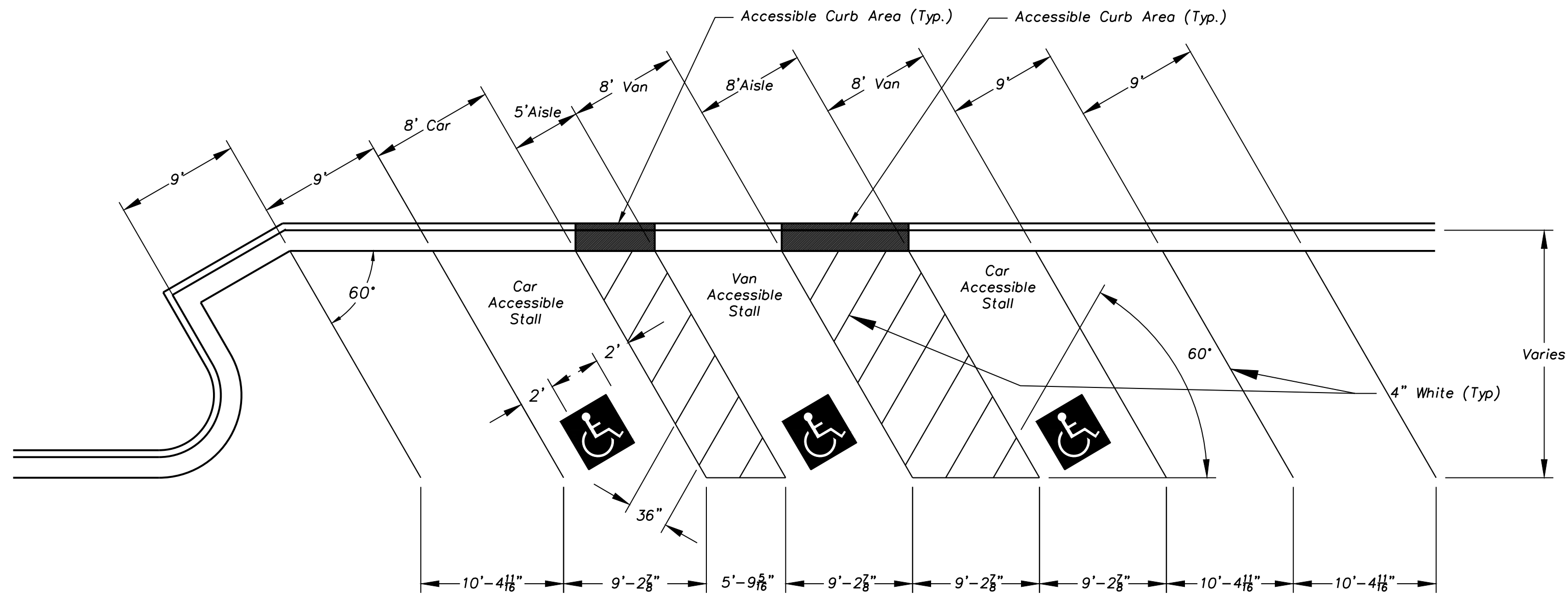


**Yield Line Details
Thoroughfare or Collector Streets**

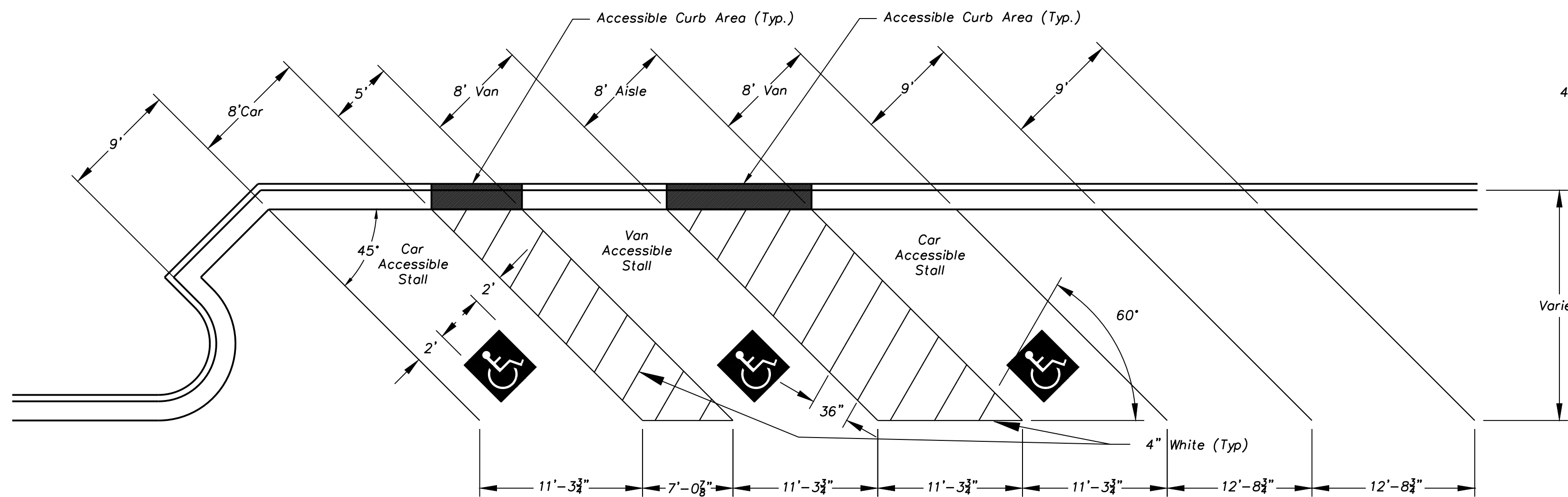


Typical Traffic Circle Markings

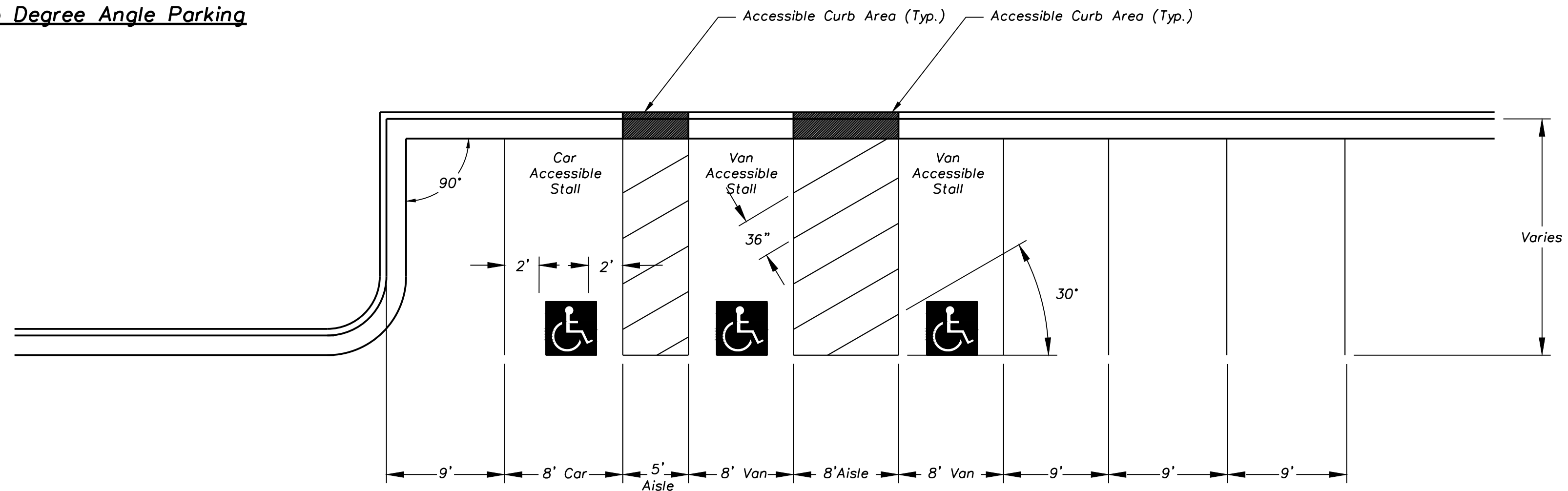
LJK	2021 Standard Details	NO.	DATE	BY
1	09/01/2021	1		
2		2		
3		3		



60 Degree Angle Parking

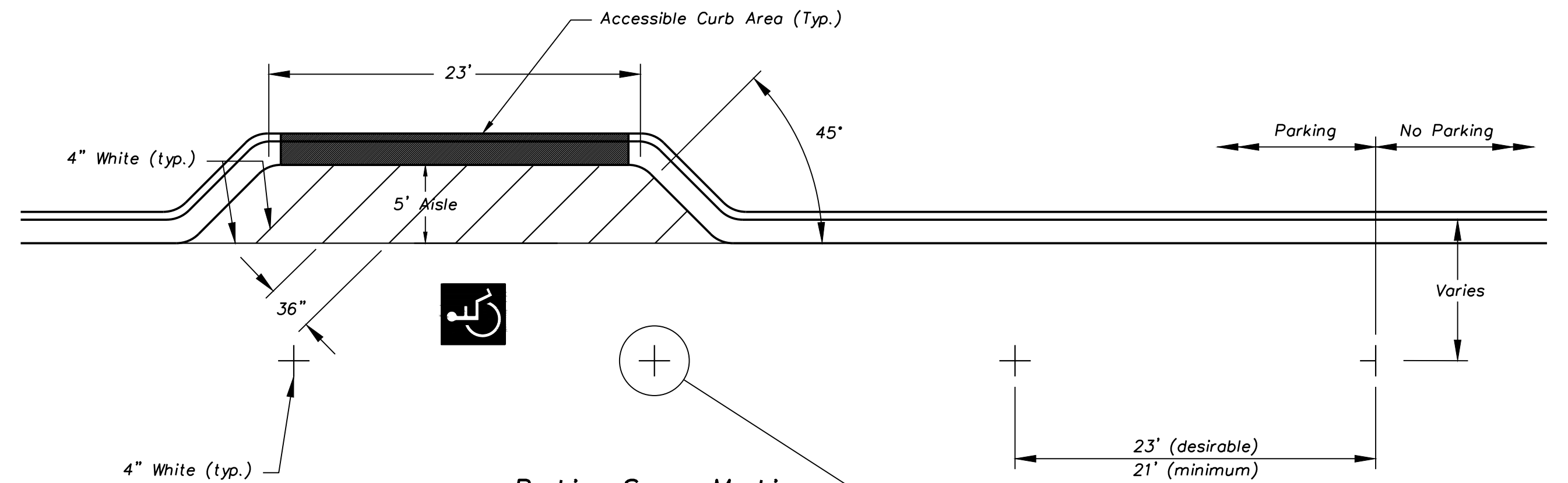


45 Degree Angle Parking

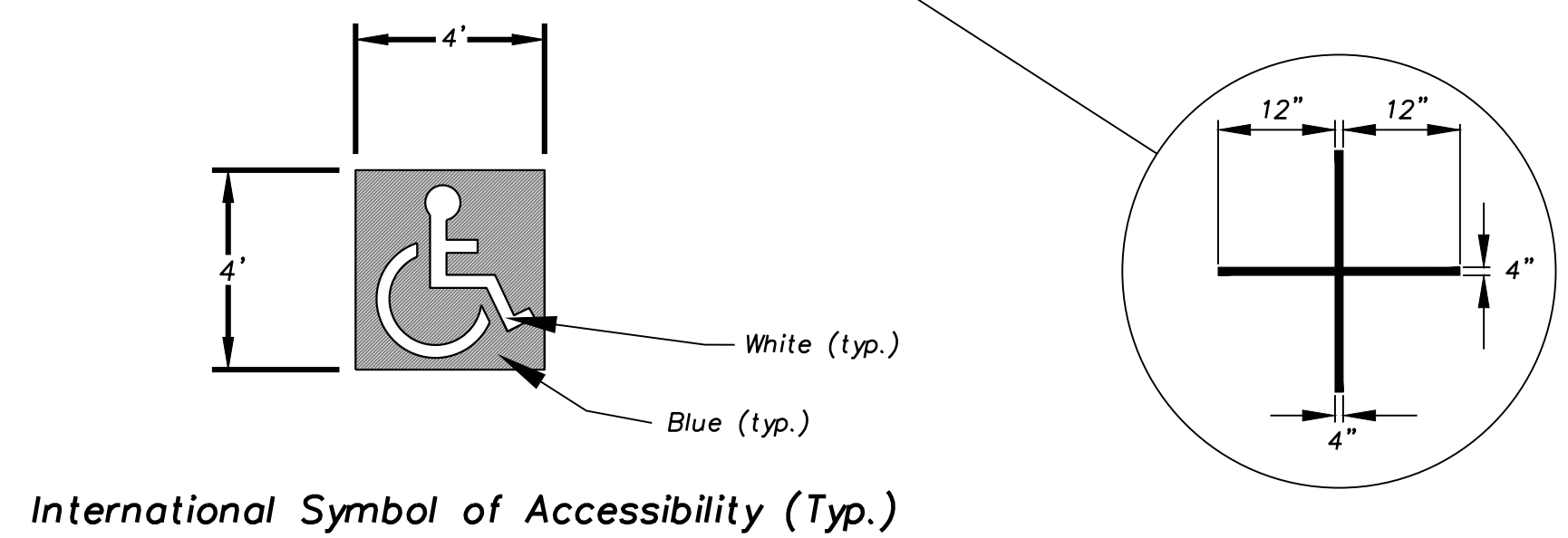


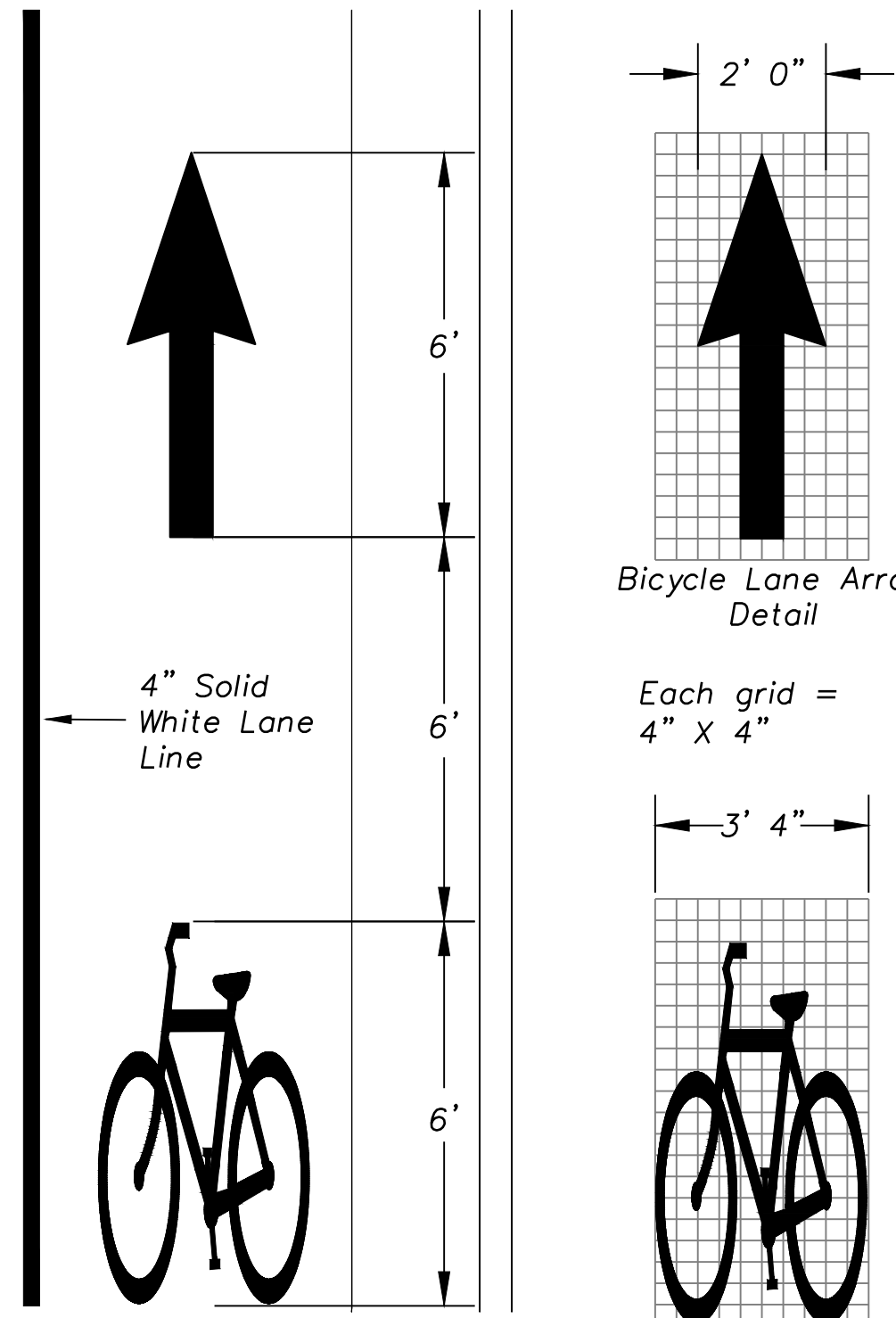
90 Degree Angle Parking

Accessible Parking Pavement Marking Details



**Parking Space Marking
Parallel Parking**

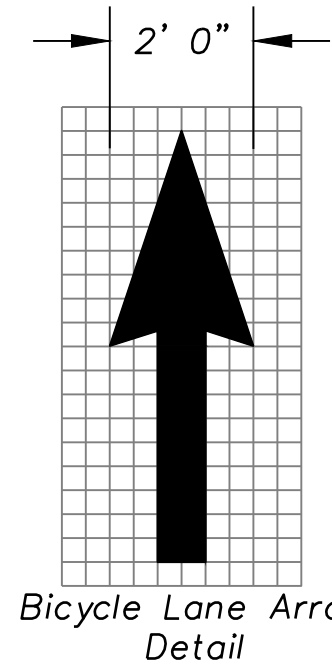




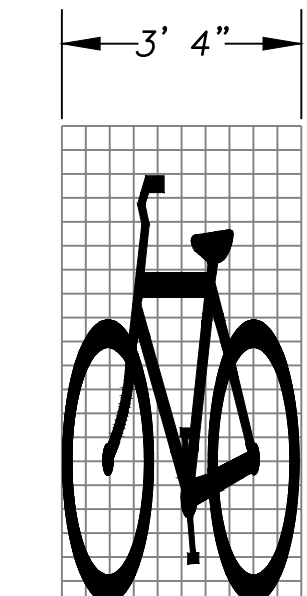
Bicycle Lane Symbol Marking Detail

Bicycle Lane Marking Notes

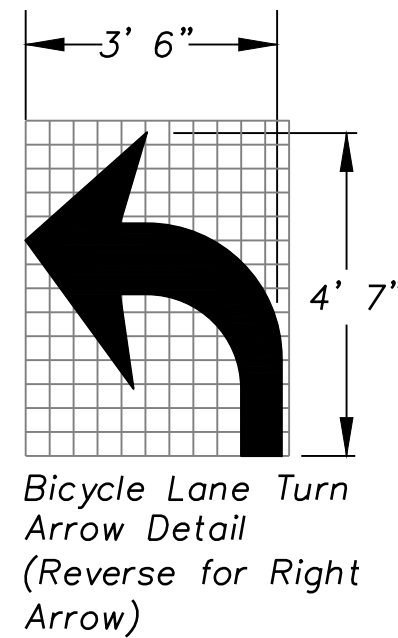
1. Longitudinal pavement markings (4" Solid White Lane Line) shall be used to define bicycle lanes.
2. Bicycle lanes should not be provided on the circular roadway of a roundabout. Bicycle lane markings should stop at least 100 feet before the crosswalk, or if no crosswalk is provided, at least 100 feet before the yield line, or if no yield line is provided, then at least 100 feet before the edge of the circular roadway.
3. If used, Bicycle Lane Lane Symbol Markings should be placed at the beginning of a bicycle lane and at periodic intervals along the bicycle lane based on engineering judgement.
4. Bicycle Lane Symbol Markings are not required at every intersection but should be placed after each intersection with a thoroughfare or collector roadway. Supplemental Bicycle Lane Pavement Markings may also be placed in a visible location in a bicycle lane on the intersection approach (prior to the crosswalk). Install per engineering judgment.
5. Bicycle Lane Symbol Markings shall include the Bicycle Lane Arrow and Bicycle Symbol.
6. Bicycle Lane Symbol Marking shall be placed centered in the bicycle lane, when possible. Care should be taken to avoid placing the Bicycle Lane Symbol marking in the gutter pan.
7. Bicycle Lane Symbol Markings are comprised of the Bicycle Symbol and one Bicycle Lane Arrow. Measurement will be made per each for each Bicycle Symbol and per each for each Bicycle Lane Arrow.



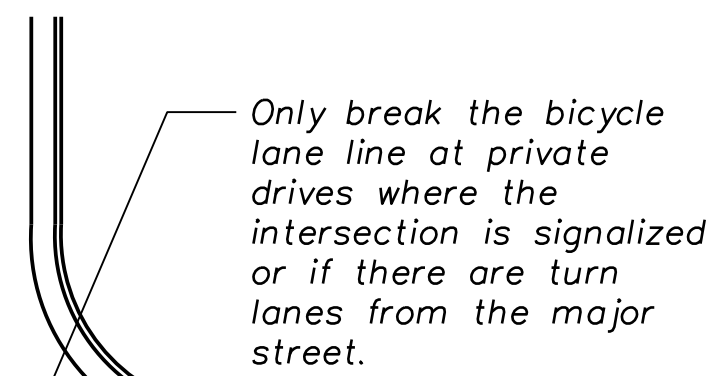
Bicycle Lane Arrow Detail



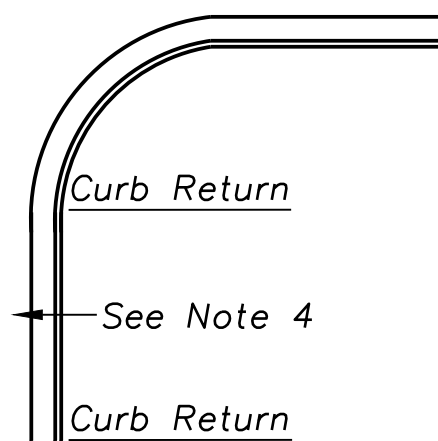
Bicycle Detail



Bicycle Lane Turn Arrow Detail (Reverse for Right Arrow)

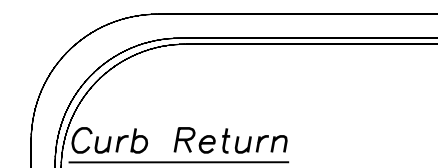


Private Street

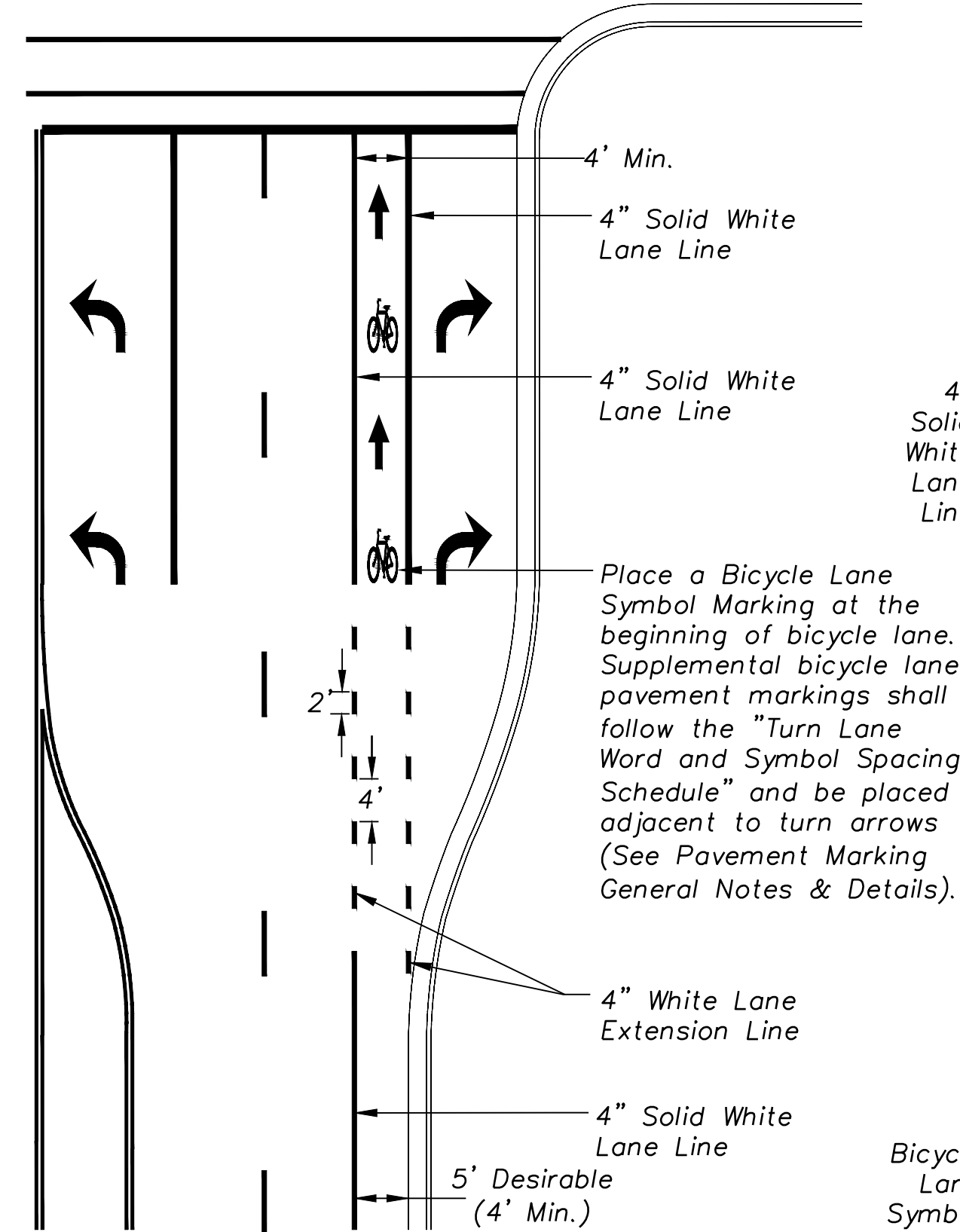


Curb Return

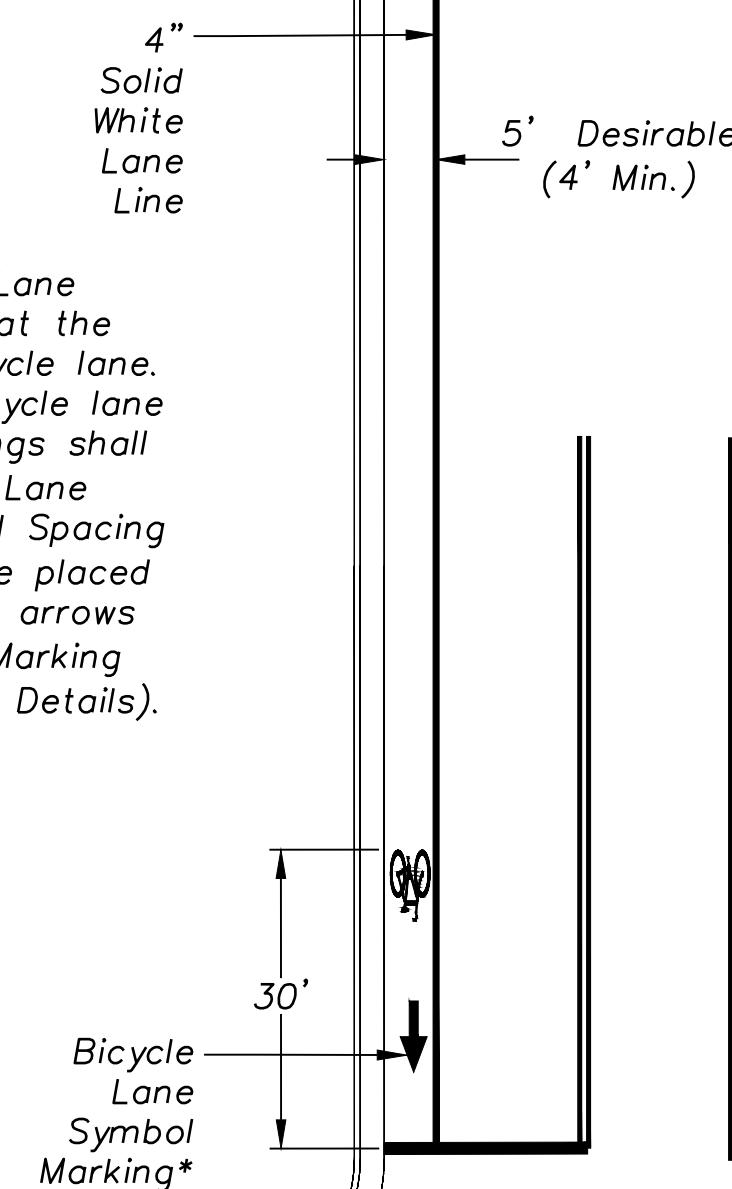
Residential Street



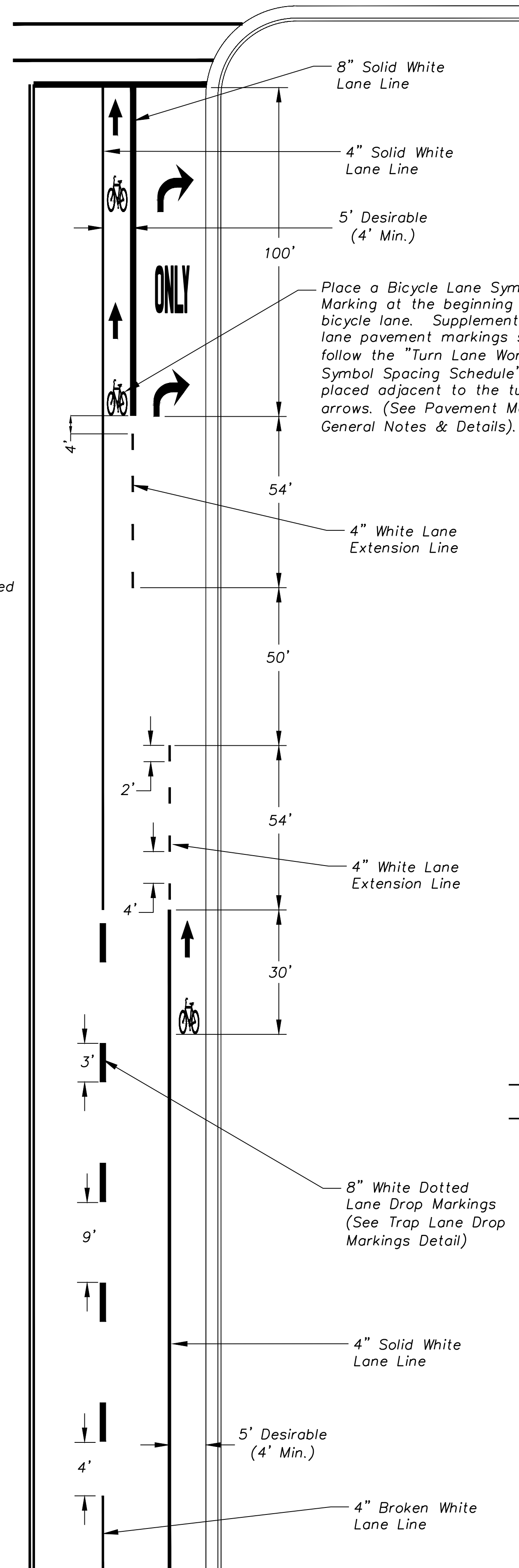
Curb Return



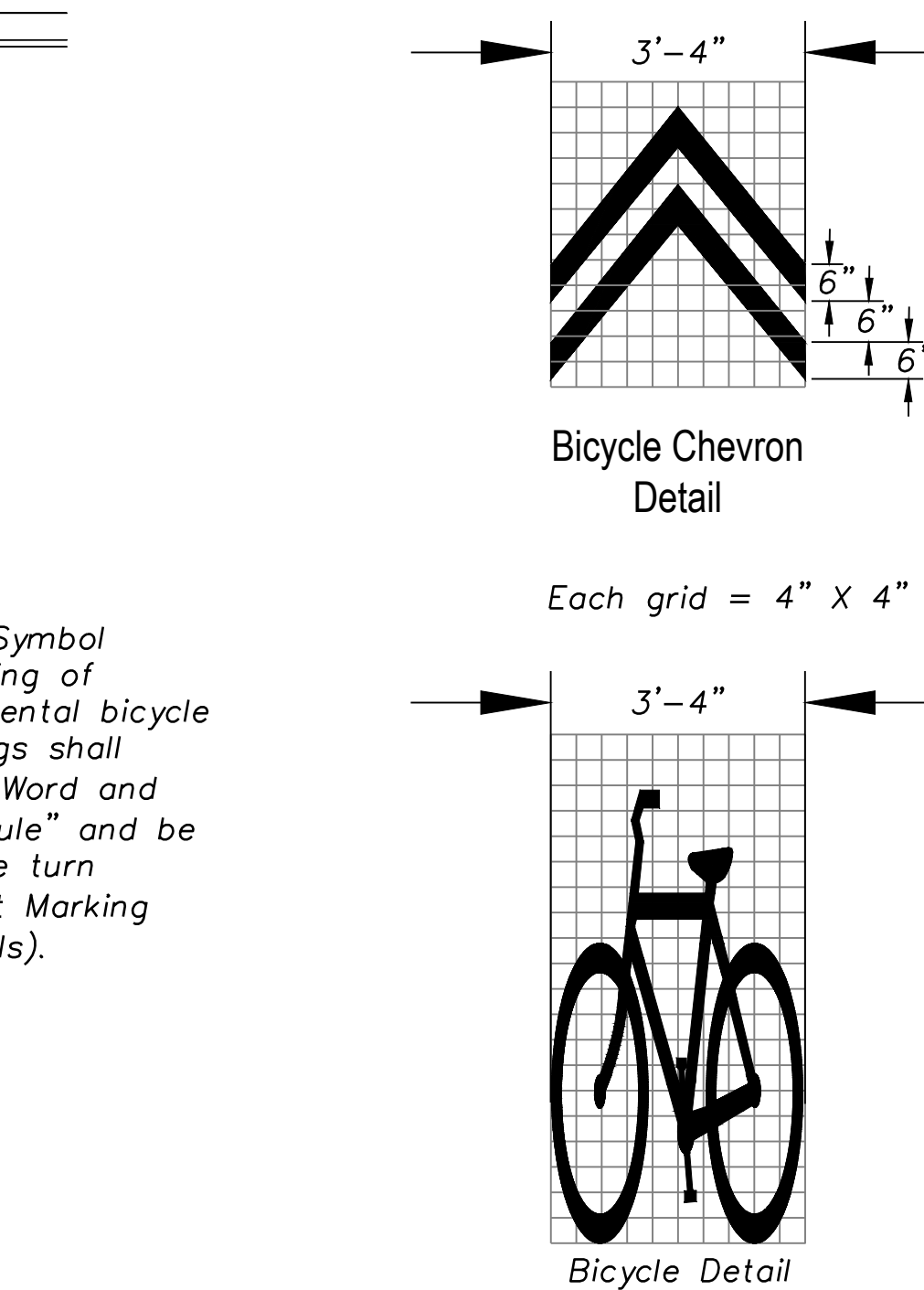
Typical Bicycle Lane at Intersections with Turn Lanes



Typical Bicycle Lane at Intersections without Turn Lanes

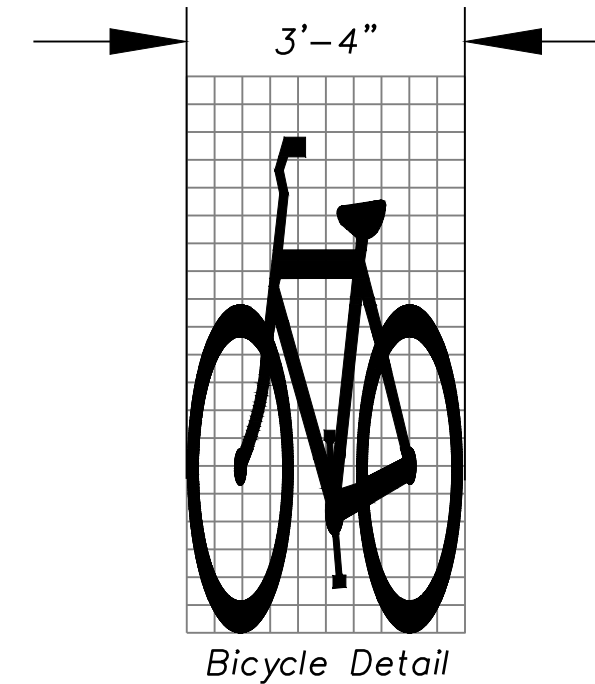


Typical Bicycle Lane Approaching Trap Through Lane



Bicycle Chevron Detail

Each grid = 4" X 4"

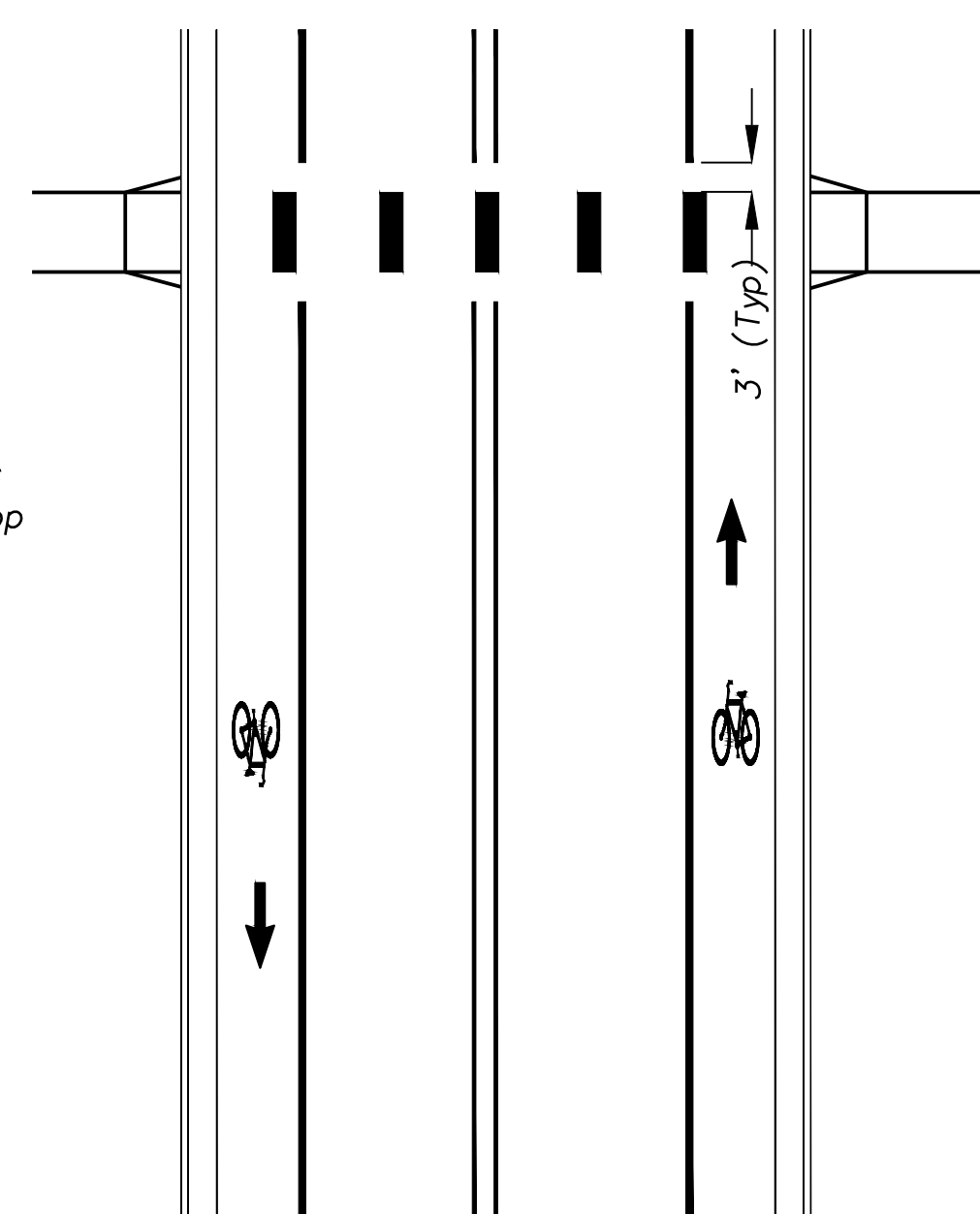


Bicycle Detail

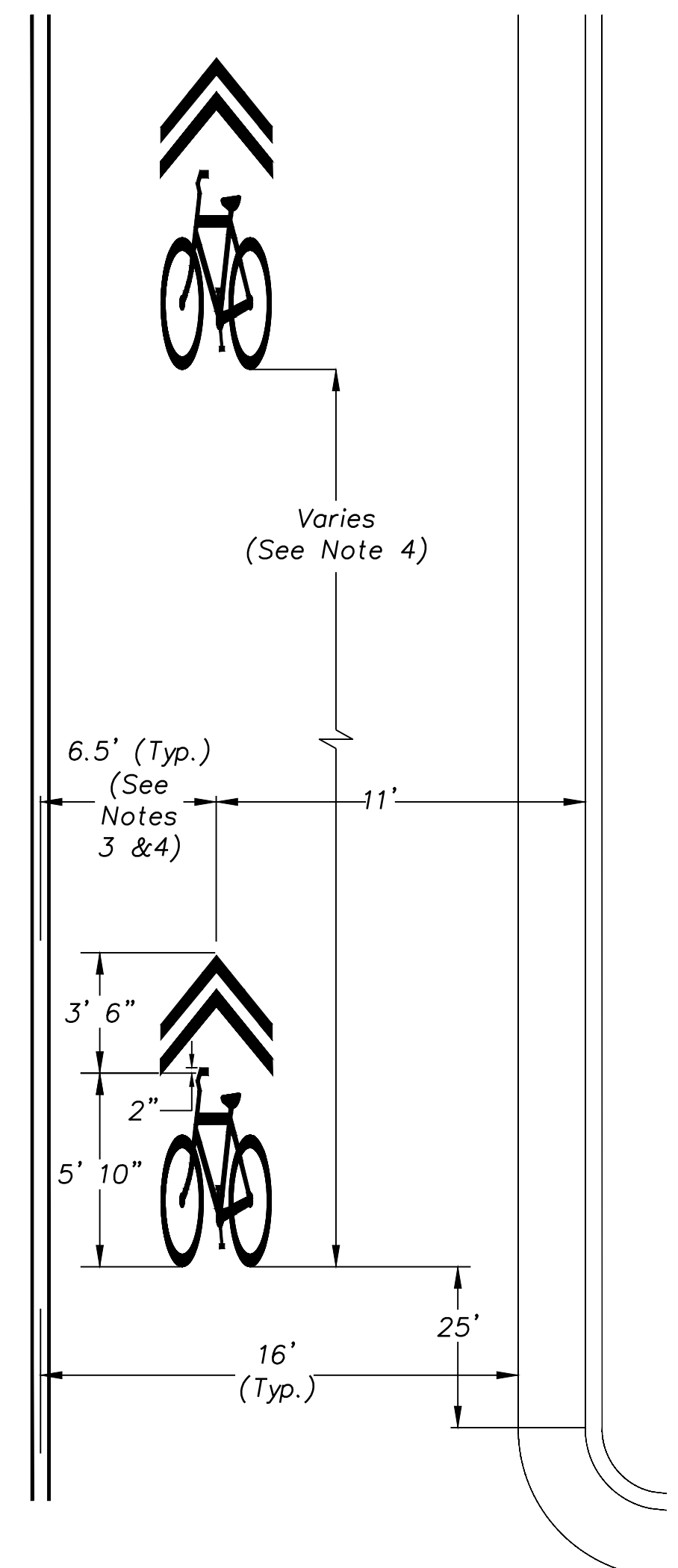
Shared Lane Marking (Sharrow) Detail

Shared Lane Marking Notes:

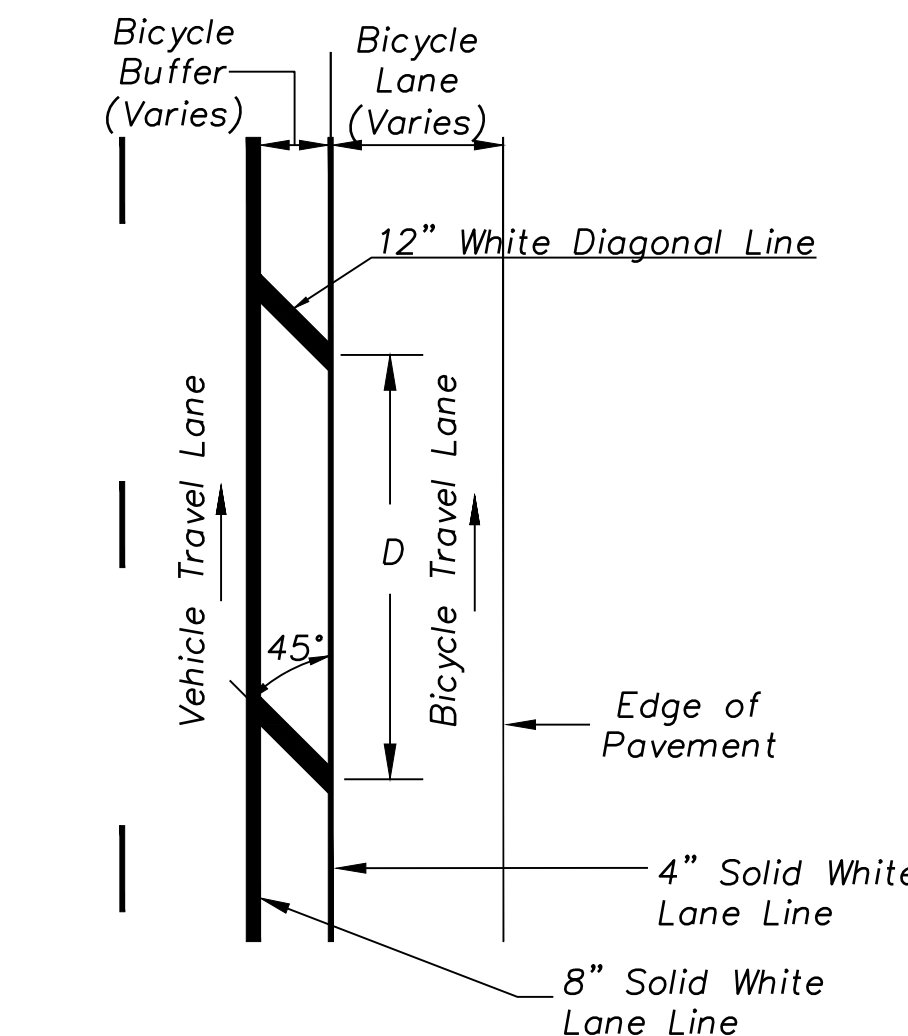
1. The Shared Lane Marking should not be placed on roadways that have a speed limit above 35 mph.
2. Shared Lane Markings shall not be used on shoulders or in designated bicycle lanes.
3. If used in a shared lane with on-street parallel parking, Shared Lane Markings should be placed so that the centers of the marking are at least 11 feet from the face of the curb, or from the edge of the pavement where there is no curb. When parking does not regularly occur, the sharrow marking should be placed such that the centers of the marking are at least 5'-2" from the face of the curb or edge of pavement when there is no curb.
4. If used, the Shared Lane Marking should be placed after an intersection and per engineering judgement thereafter.
5. Shared Lane Marking (Sharrow) symbols are comprised of the Bicycle Symbol and two (2) Chevrons. Measurement will be per each for the Combined Bicycle Symbol and Chevrons.



Typical Bicycle Lane Markings at Mid-Block Crosswalks



Typical Shared Lane Markings (Sharrow)



Buffered Bicycle Lane Markings

Notes

1. D=Posted Speed Limit in feet (i.e. 25mph = 25' spacing).
2. See Bicycle Lane Marking Notes for bicycle lane symbol marking spacing and locations.