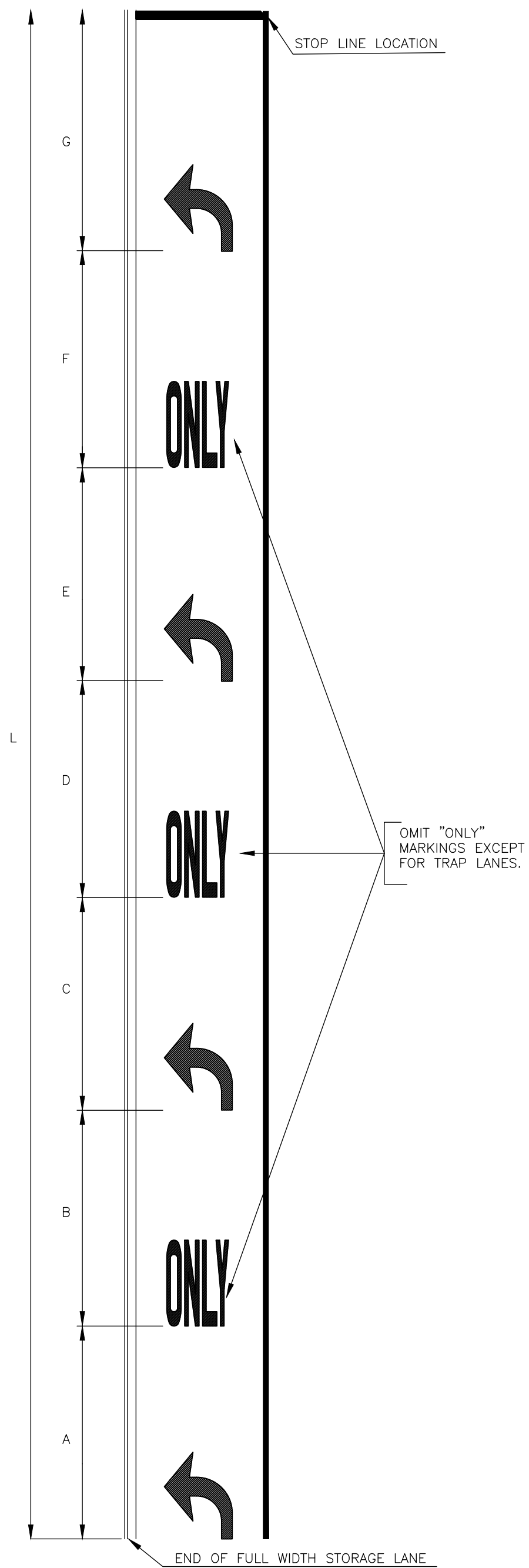


L	A	B	C	D	E	F	G
<80'	ONE	ARROW					
81'-100'	30'	30'	21'-40'				
101'-120'	40'	40'	21'-40'				
121'-140'	45'	45'	31'-50'				
141'-160'	55'	55'	31'-50'				
161'-180'	65'	65'	31'-50'				
181'-200'	75'	75'	31'-50'				
201'-220'	80'	80'	41'-60'				
221'-240'	45'	45'	45'	45'	41'-60'		
241'-260'	50'	50'	50'	50'	41'-60'		
261'-280'	55'	55'	55'	55'	41'-60'		
281'-300'	60'	60'	60'	60'	41'-60'		
301'-320'	65'	65'	65'	65'	41'-60'		
321'-340'	70'	70'	70'	70'	41'-60'		
341'-360'	75'	75'	75'	75'	41'-60'		
361'-380'	80'	80'	80'	80'	41'-60'		
381'-400'	55'	55'	55'	55'	55'	51'-70'	
401'-420'	60'	60'	60'	60'	60'	41'-60'	
421'-440'	65'	65'	65'	65'	65'	31'-50'	
441'-460'	65'	65'	65'	65'	65'	51'-70'	
461'-480'	70'	70'	70'	70'	70'	41'-60'	
481'-500'	75'	75'	75'	75'	75'	31'-50'	
>500'	80'	80'	80'	80'	80'	80'	Varies

TURN LANE WORD AND SYMBOL SPACING SCHEDULE

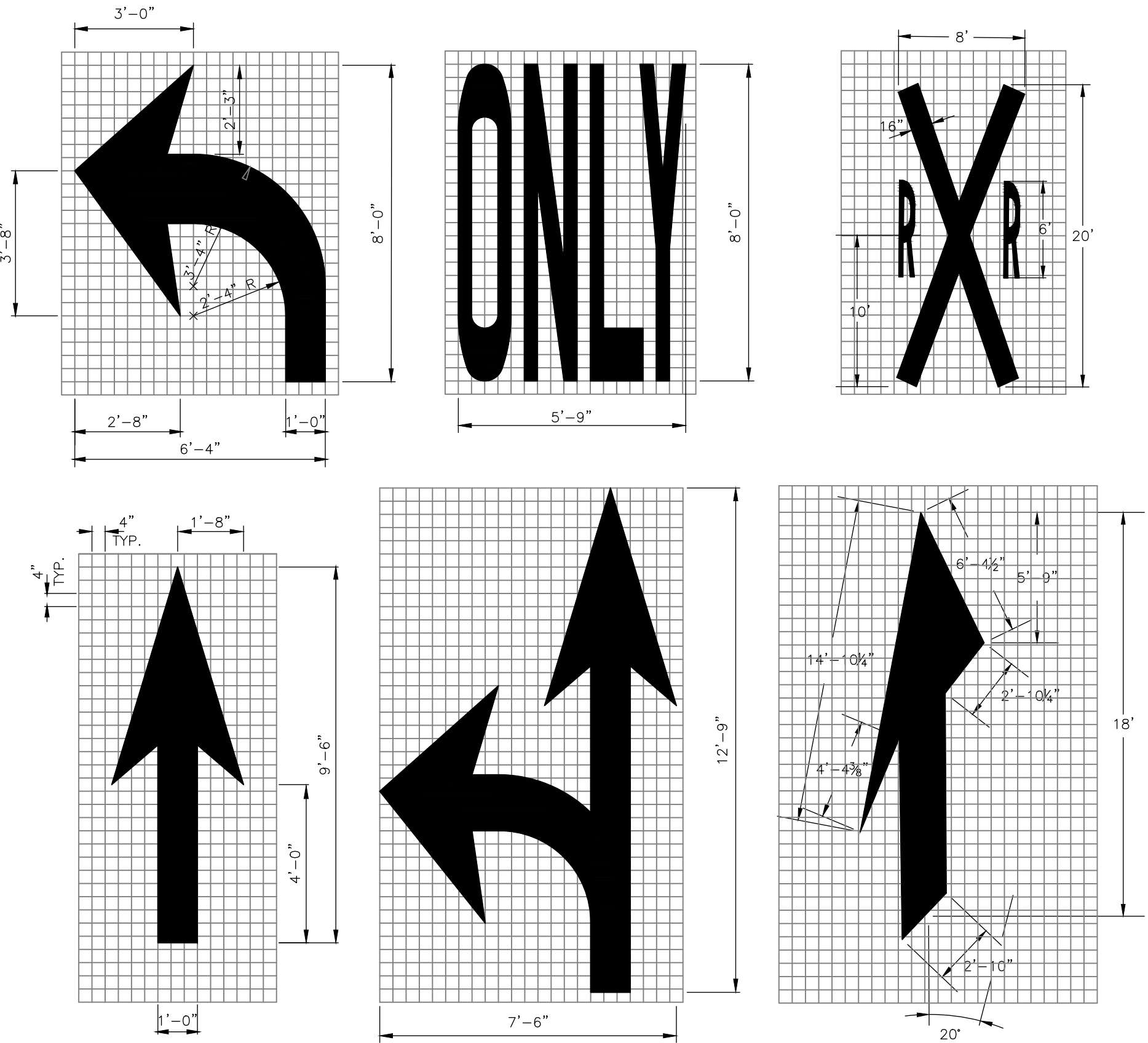


TURN LANE WORD AND SYMBOL LAYOUT

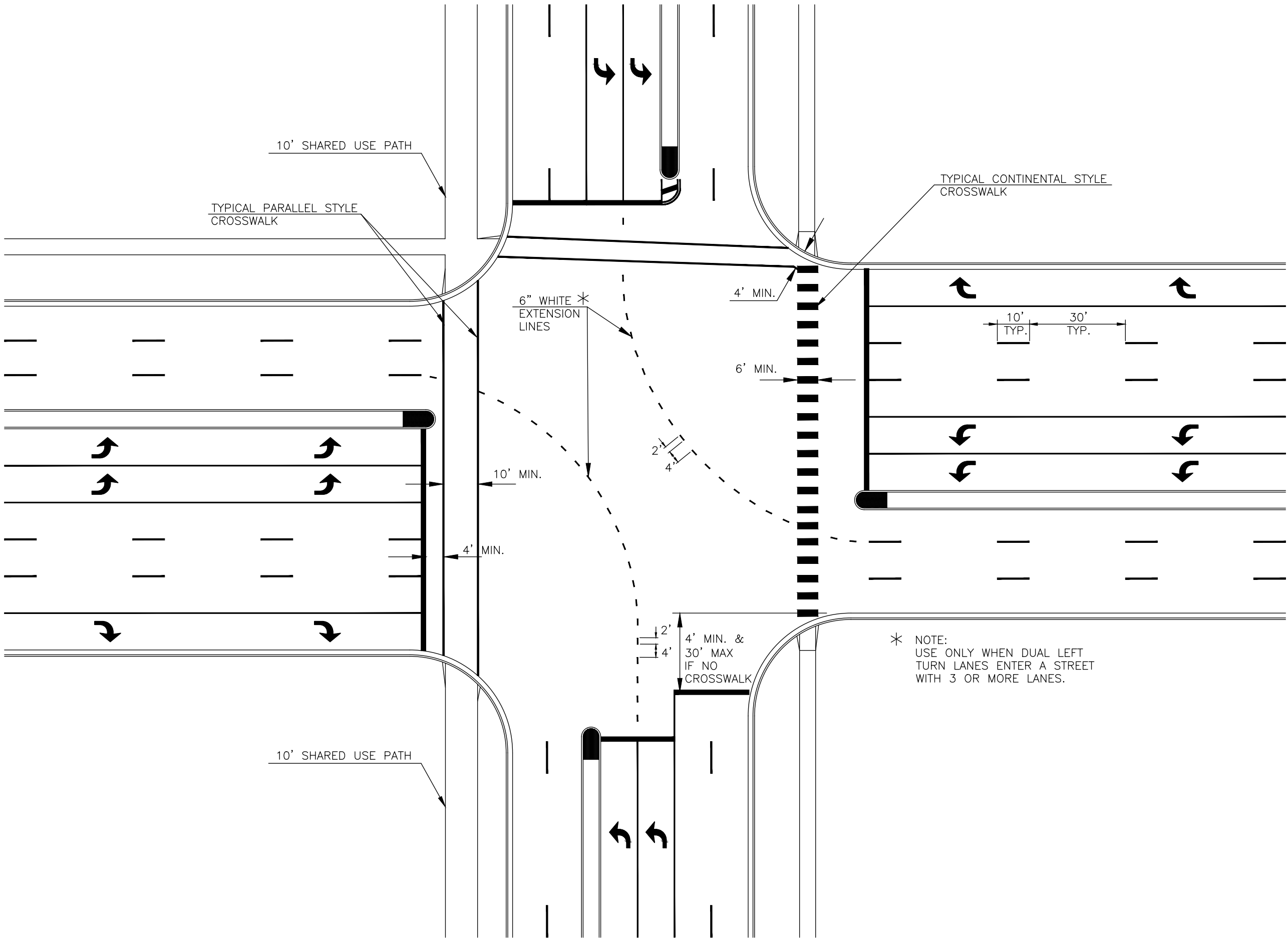
TURN LANE WORD AND SYMBOL SPACING INFORMATION

NOTES:
1) WORD & SYMBOL MARKINGS SHALL BE WHITE.
2) RIGHT TURN AND COMBINATION RIGHT TURN/STRAIGHT ARROWS ARE REVERSE OF ARROWS SHOWN.

WORD AND SYMBOL DETAILS

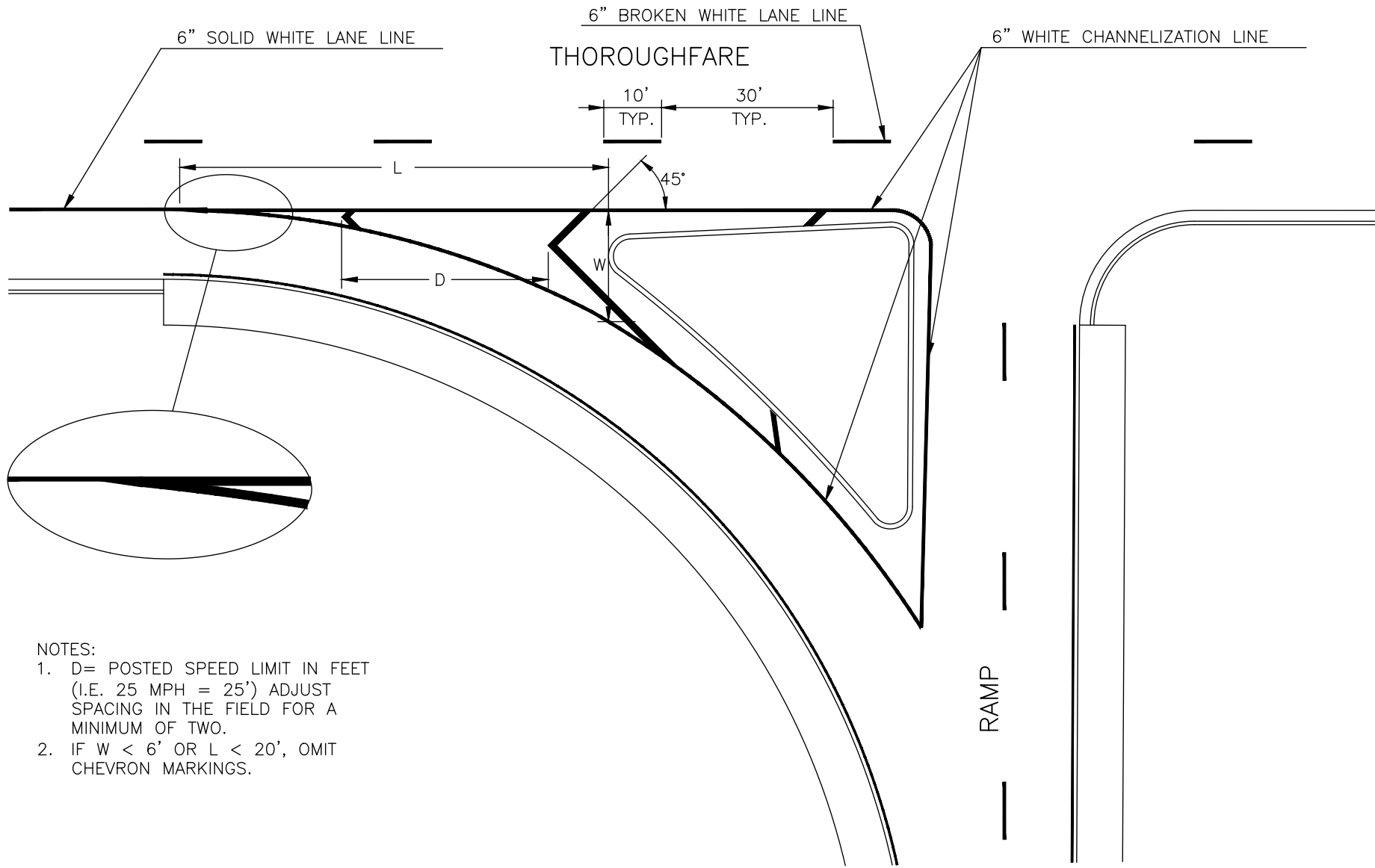


TYPICAL CROSSWALK AND LEFT TURN EXTENSION LINE MARKINGS



PAVEMENT MARKING GENERAL NOTES

- ALL PERMANENT PAVEMENT MARKINGS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AS INDICATED IN THE PLANS OR AS DIRECTED BY THE CITY INSPECTOR.
- PAVEMENT MARKINGS ON CONCRETE SHALL BE PER THE SPECIFICATIONS, UNLESS OTHERWISE INDICATED ON THE PLANS OR DIRECTED BY THE CITY INSPECTOR. SEE THE PAVEMENT MARKING MATERIAL MATRIX.
 - ALL PATTERNED COLD PLASTIC AND CONTRAST PATTERNED COLD PLASTIC PAVEMENT MARKING MATERIAL, INCLUDING SYMBOLS AND WORDS, INSTALLED ON CONCRETE SPEED HUMPS, SHALL HAVE A BLACK CONTRASTING EDGE.
 - CONCRETE PAVEMENT BENEATH MARKING SHALL BE GROOVED, USING A METHOD APPROVED BY THE ENGINEER, TO FACILITATE ATTACHMENT (SUBSIDIARY). INSTALLATION SHALL BE PERFORMED WITH A MATERIAL COMPLIANT SEALER.
 - ALL PREFORMED THERMOPLASTIC AND THERMOPLASTIC PAVEMENT MARKING MATERIAL SHALL BE INSTALLED WITH A MATERIAL COMPLIANT SEALER.
 - INSTALLATION OF ALL PAVEMENT MARKING MATERIALS SHALL BE PERFORMED TO MANUFACTURER'S RECOMMENDATIONS.
- PAVEMENT MARKINGS ON ASPHALT SHALL BE PER THE SPECIFICATIONS, UNLESS OTHERWISE INDICATED ON THE PLANS OR DIRECTED BY THE CITY INSPECTOR. SEE THE PAVEMENT MARKING MATERIAL MATRIX.
 - ALL PATTERNED COLD PLASTIC AND CONTRAST PATTERNED COLD PLASTIC PAVEMENT MARKING MATERIAL SHALL BE LAID IN HOT ASPHALT WHEN INSTALLED IN CONJUNCTION WITH AN OVERLAY PROJECT. FOR EXISTING SURFACES, ASPHALT PAVEMENT BENEATH MARKING SHALL BE GROOVED USING A METHOD APPROVED BY THE ENGINEER, TO FACILITATE ATTACHMENT (SUBSIDIARY). INSTALLATION SHALL BE PERFORMED WITH A MATERIAL COMPLIANT SEALER.
- CROSSWALK LINES SHALL BE INSTALLED SUCH THAT THE MINIMUM DISTANCE BETWEEN THE INSIDE EDGE OF THE LINE TO THE INSIDE EDGE OF LINE IS 6 FEET, AND SPACED TO AVOID WHEEL PATHS.
- STOP LINES SHALL BE INSTALLED SUCH THAT THE MINIMUM DISTANCE BETWEEN THE OUTSIDE EDGE OF THE BACK CROSSWALK LINE AND THE TRAILING EDGE OF THE STOP LINE IS 4 FEET.
- SKIP LINES SHALL NOT EXTEND PAST THE STOP BAR OR INTO THE CROSSWALK.
- WHITE BROKEN LANE LINES SHALL BE CARRIED THROUGH INTERSECTIONS WITH PRIVATE STREETS UNLESS THERE IS A LEFT TURN BAY INTO THE PRIVATE STREET. THEN A GAP SHOULD BE LEFT IN THE BROKEN WHITE LANE LINES FOR THE LEFT TURN MOVEMENT TO PASS THROUGH.
- THE PROPOSED PERMANENT MARKINGS SHALL BE LAID OUT BY THE CONTRACTOR IN ADVANCE OF THE MARKING INSTALLATION. MARKINGS SHALL NOT BE APPLIED UNTIL THE LAYOUT AND CONDITIONS OF THE SURFACE HAVE BEEN APPROVED BY THE CITY INSPECTOR.



TYPICAL MARKINGS AT DIRECTIONAL ISLANDS

PAVEMENT MARKING MATERIAL MATRIX									
PERMANENT MARKINGS - STANDARD MATERIALS	MARKING TYPE					PAVEMENT TYPE			
	LONGITUDINAL LINES	TRANSVERSE LINES	ON-STREET PARKING	SYMBOLS	COLOR-PAVEMENT MARKING	CONCRETE	ASPHALT	MICRO-SURFACING	CHIP SEAL
METHYL METHACRYLATE (MMA)	X	X			X	X	X		
PREFORMED THERMOPLASTIC*	X	X	X	X	X	X	X	X	
PATTERNED COLD PLASTIC*	X					X	X		
CONTRAST PATTERNED COLD PLASTIC*	X					X	X		
TEMPORARY MARKINGS									
COLD PLASTIC	X	X				X	X	X	
PAINT	X	X				X	X	X	X
TEMPORARY TAPE	X	X				X	X	X	X

*ALLOWED WITH WRITTEN APPROVAL.

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SHEET ____ OF ____

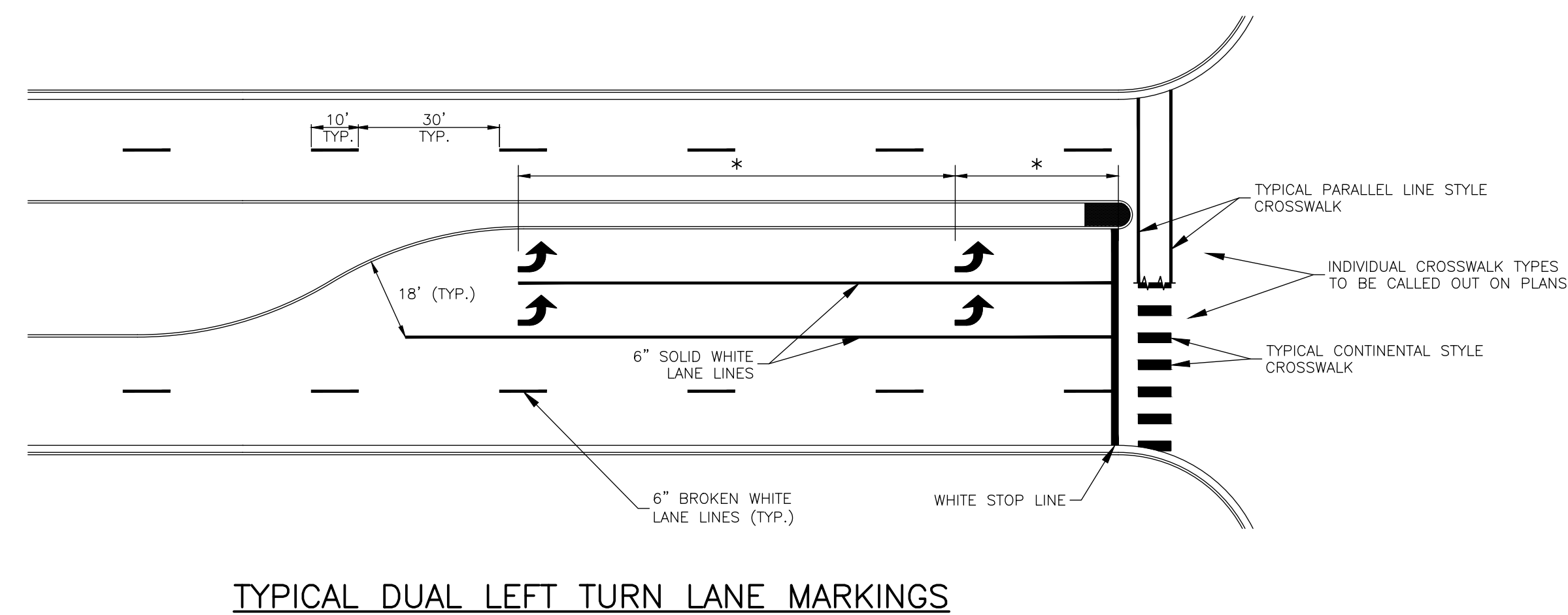
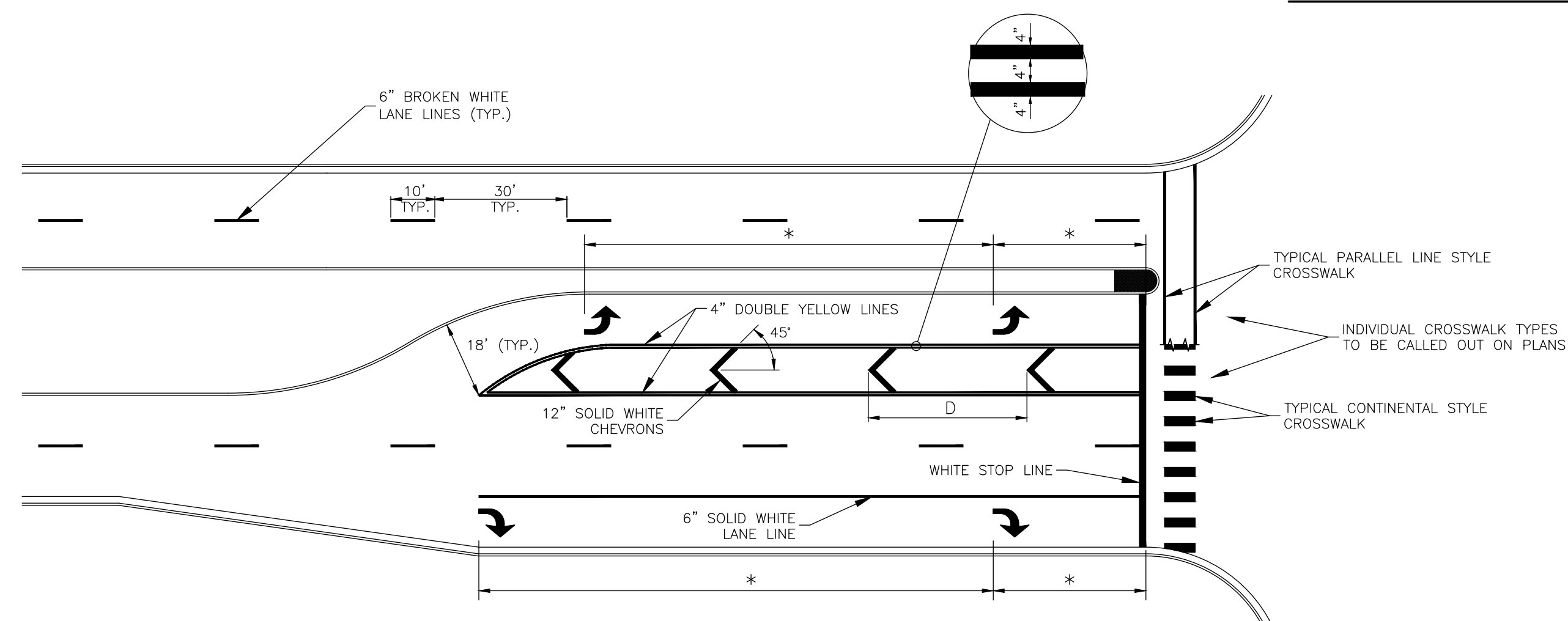
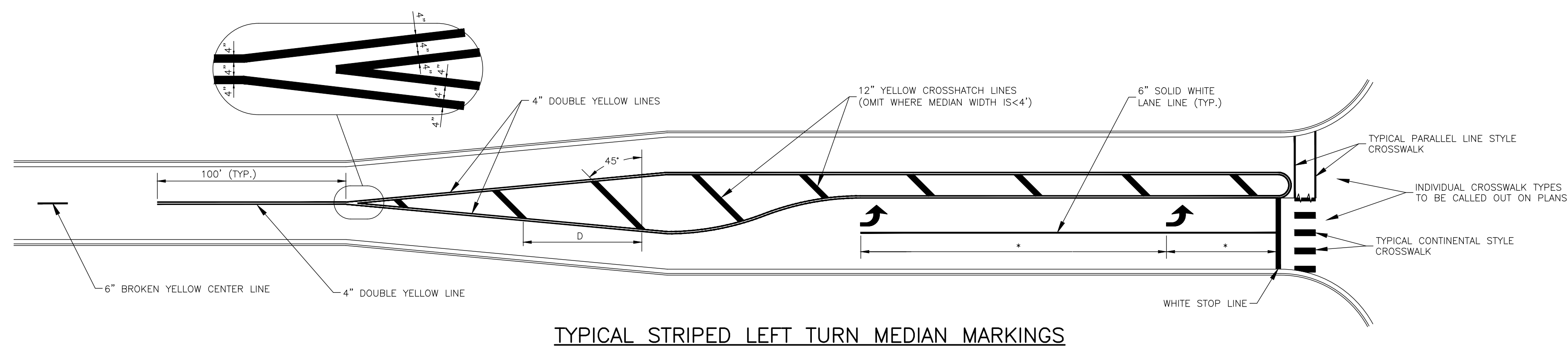
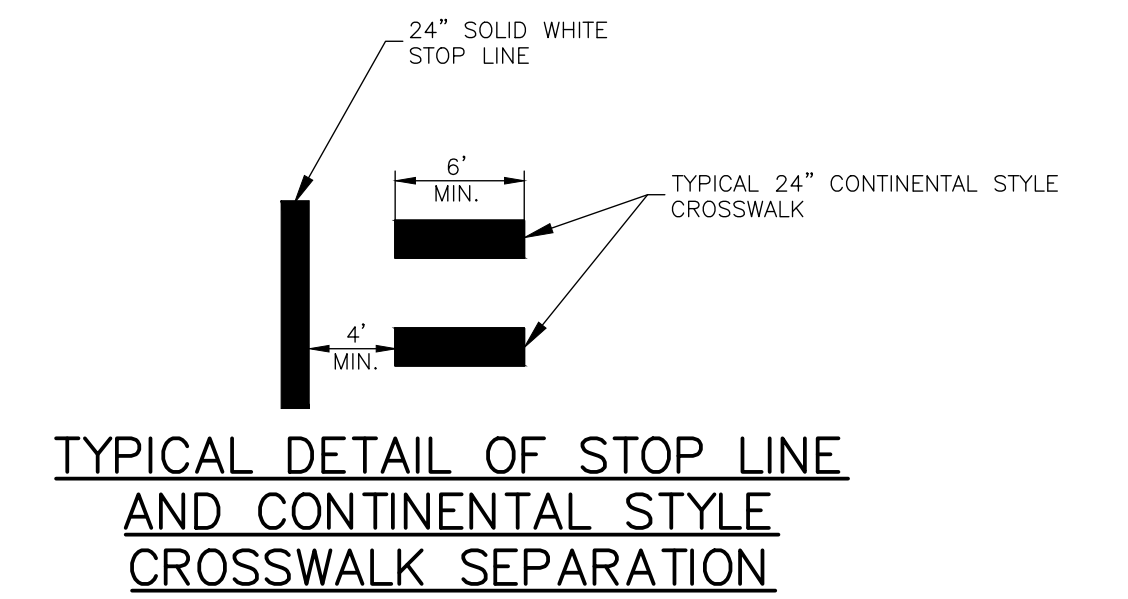
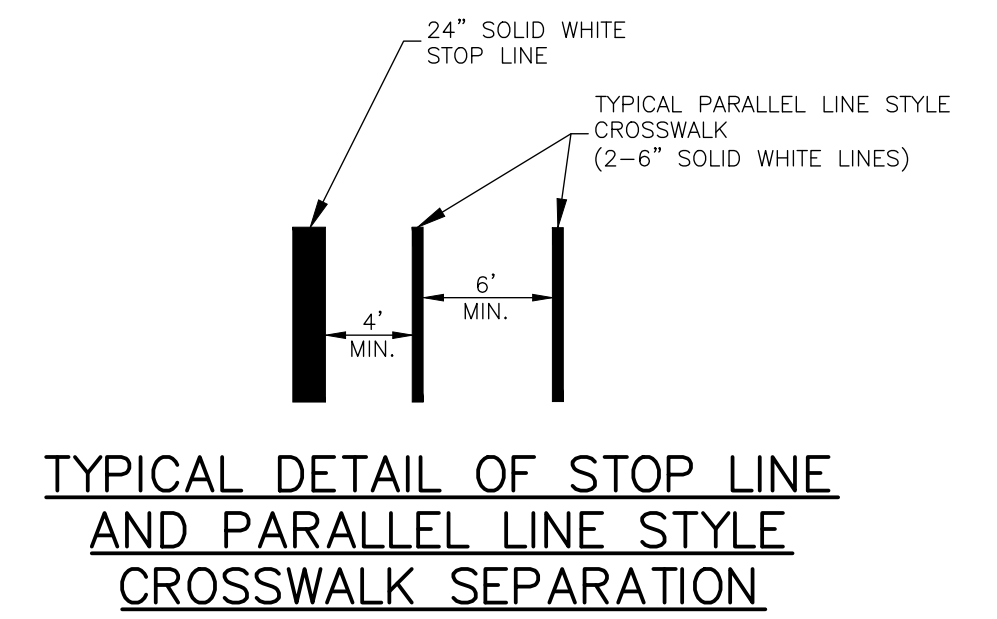
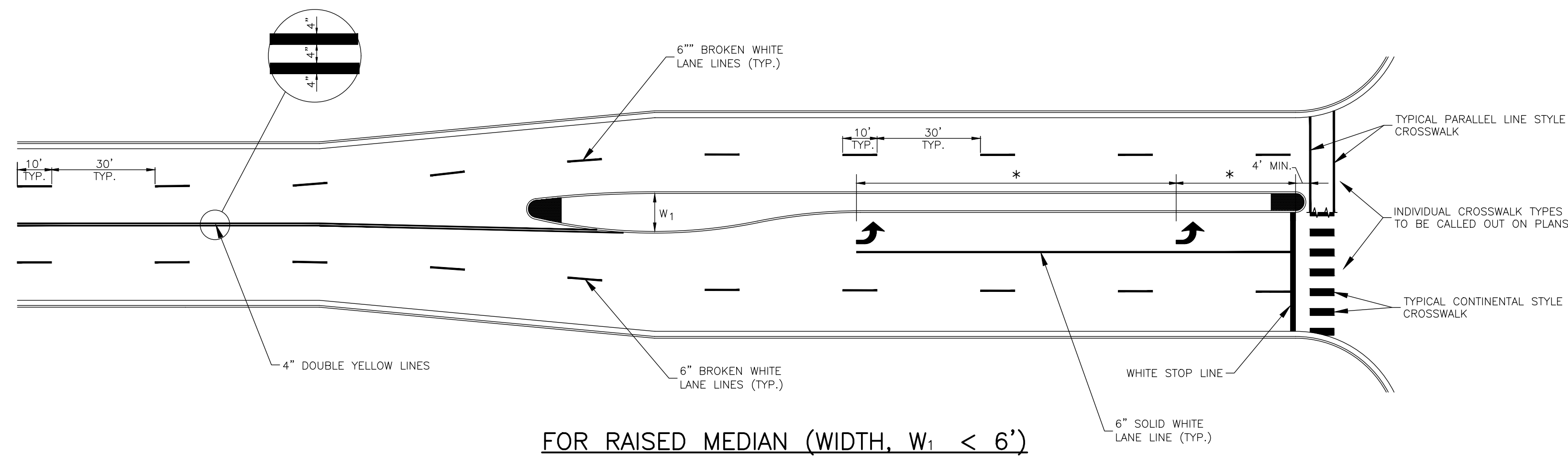
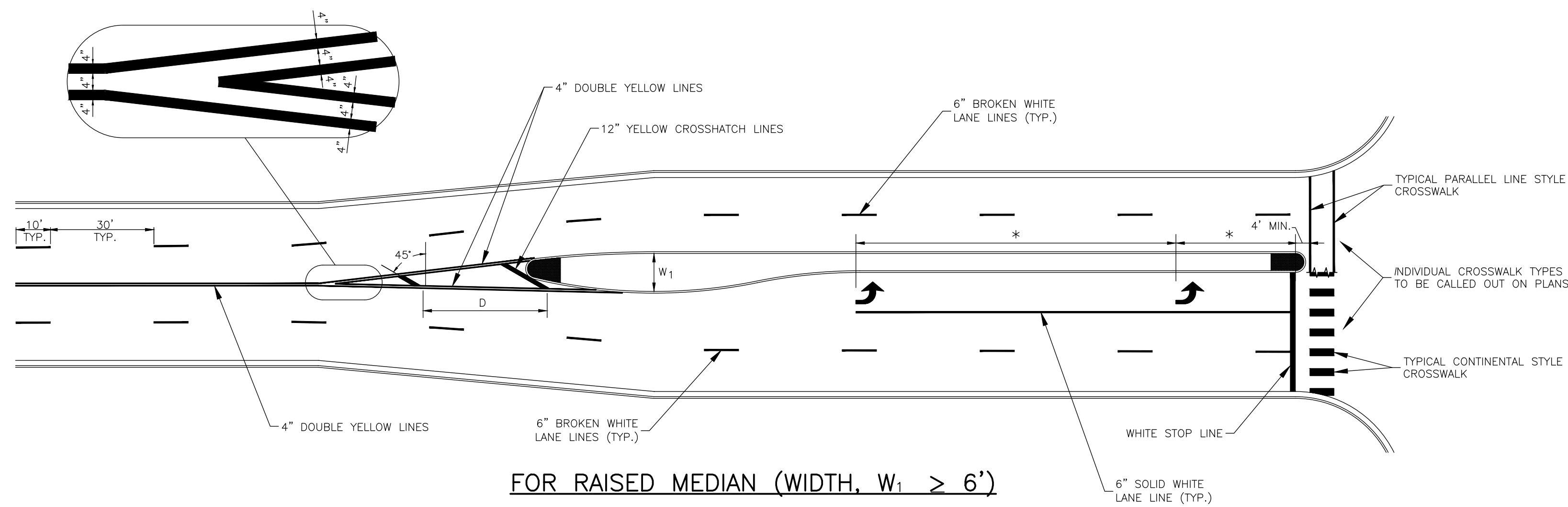
DATE	BY	REVISION
05-01-22	LJM	REPLACES ALL PREVIOUS VERSIONS OF PAVEMENT MARKING DETAILS
04-01-21	LJM	TYPICAL SHARED LANE MARKING SYMBOL (SHARROW) NOTES CORRECTED



STANDARD DETAILS FOR
PAVEMENT MARKING
GENERAL NOTES AND DETAILS

DAVID P. CRONIN
CITY ENGINEER

CRAIG S. OWENS
CITY MANAGER



2022 EDITION

SHEET ____ OF ____

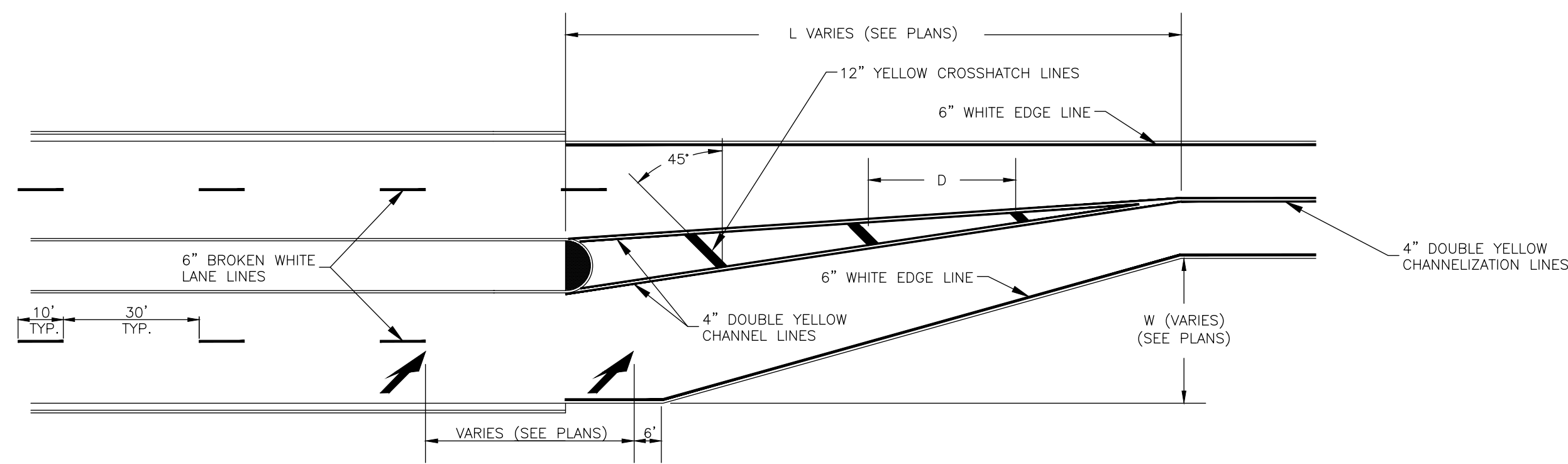
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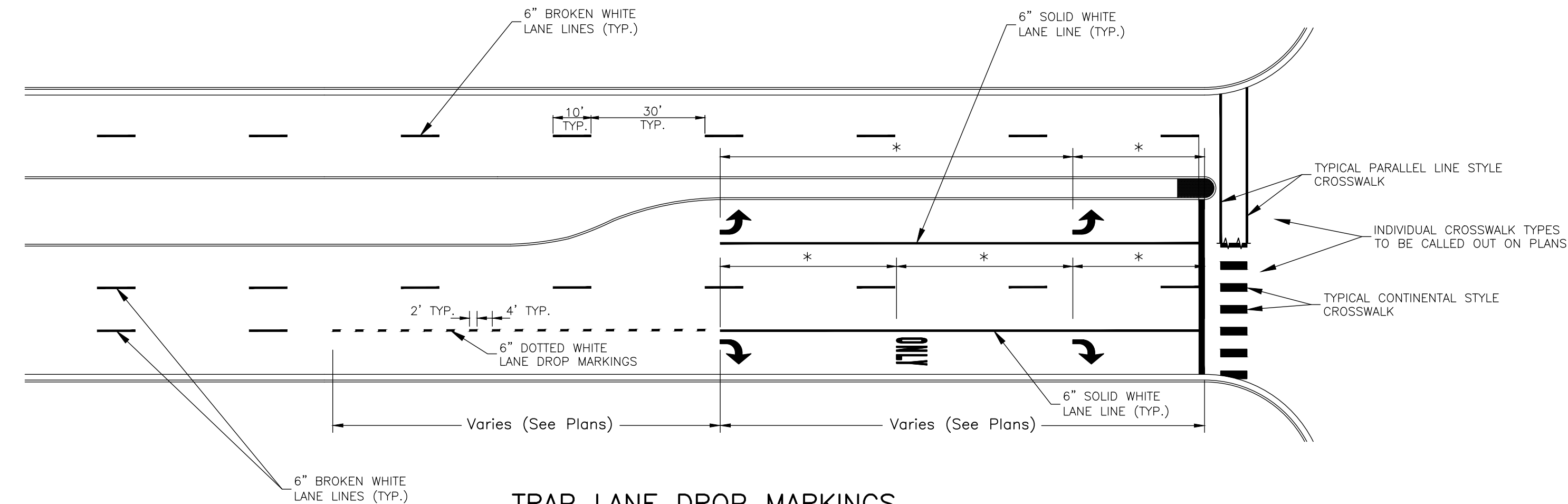
STANDARD DETAILS FOR
PAVEMENT MARKING
TURNBAY PAVEMENT MARKING

DAVID P. CRONIN
CITY ENGINEER

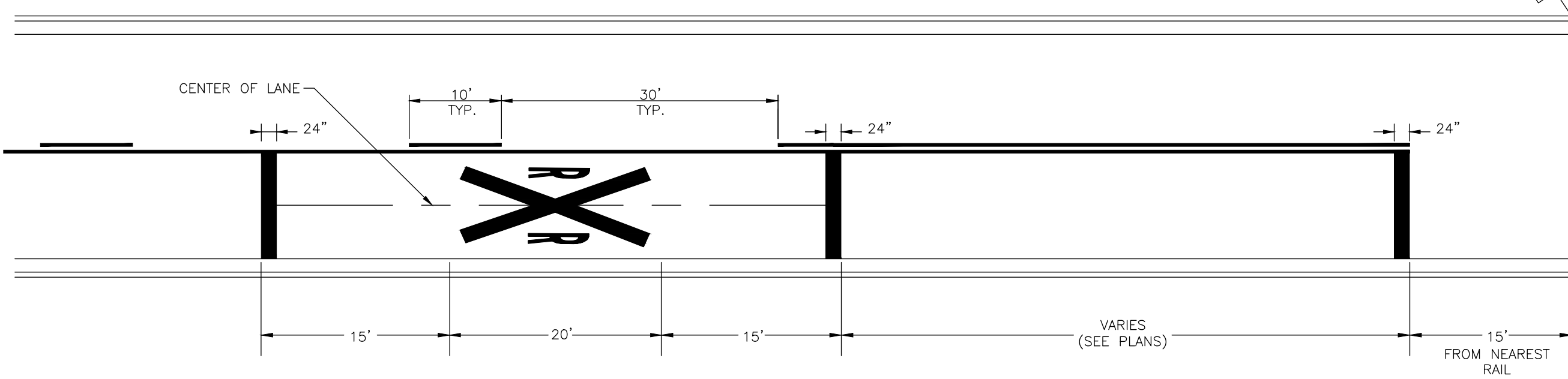
CRAIG S. OWENS
CITY MANAGER



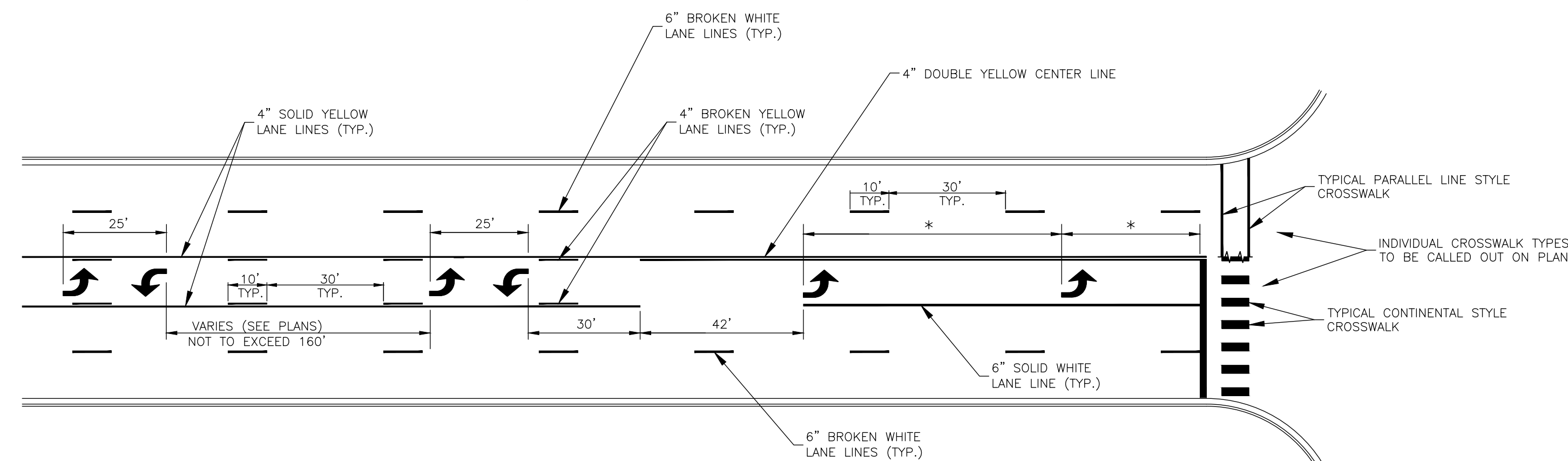
LANE REDUCTION TRANSITION MARKINGS



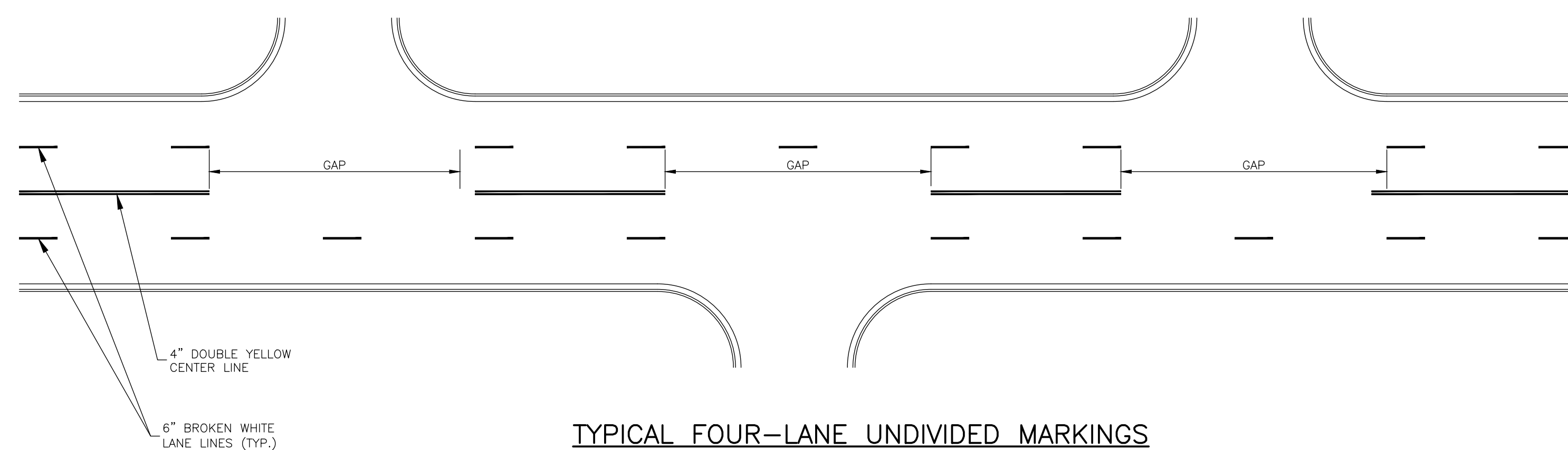
TRAP LANE DROP MARKINGS



GRADE CROSSING PAVEMENT MARKINGS

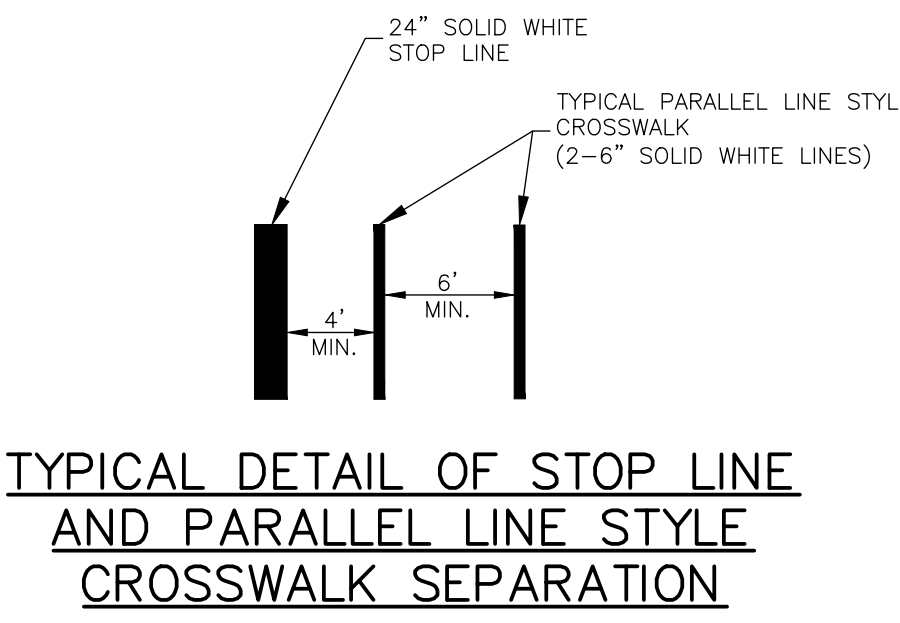


TYPICAL TWO-WAY LEFT TURN MARKINGS

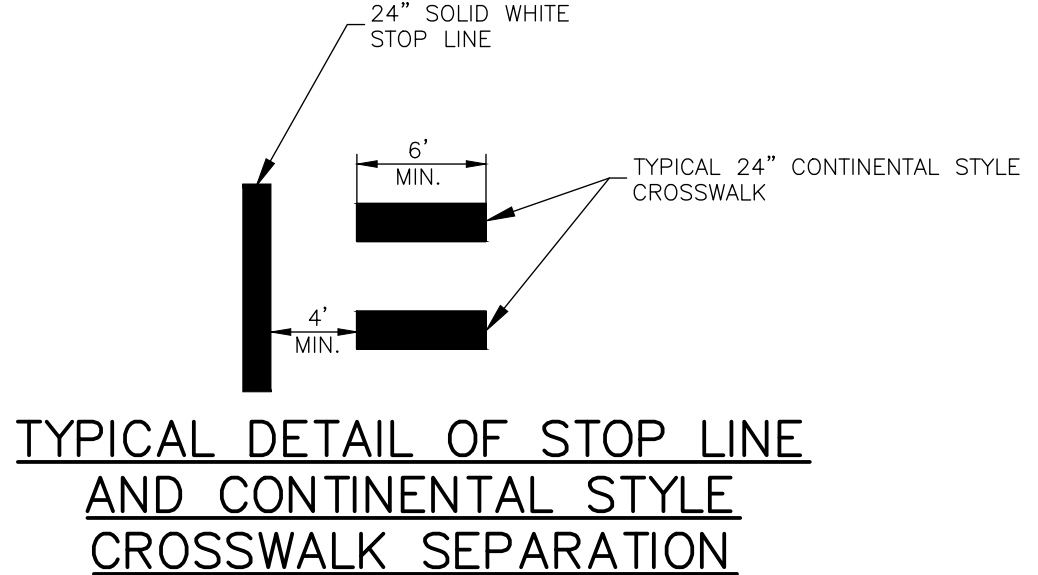


TYPICAL FOUR-LANE UNDIVIDED MARKINGS
WITH SIDE STREET INTERSECTIONS

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.

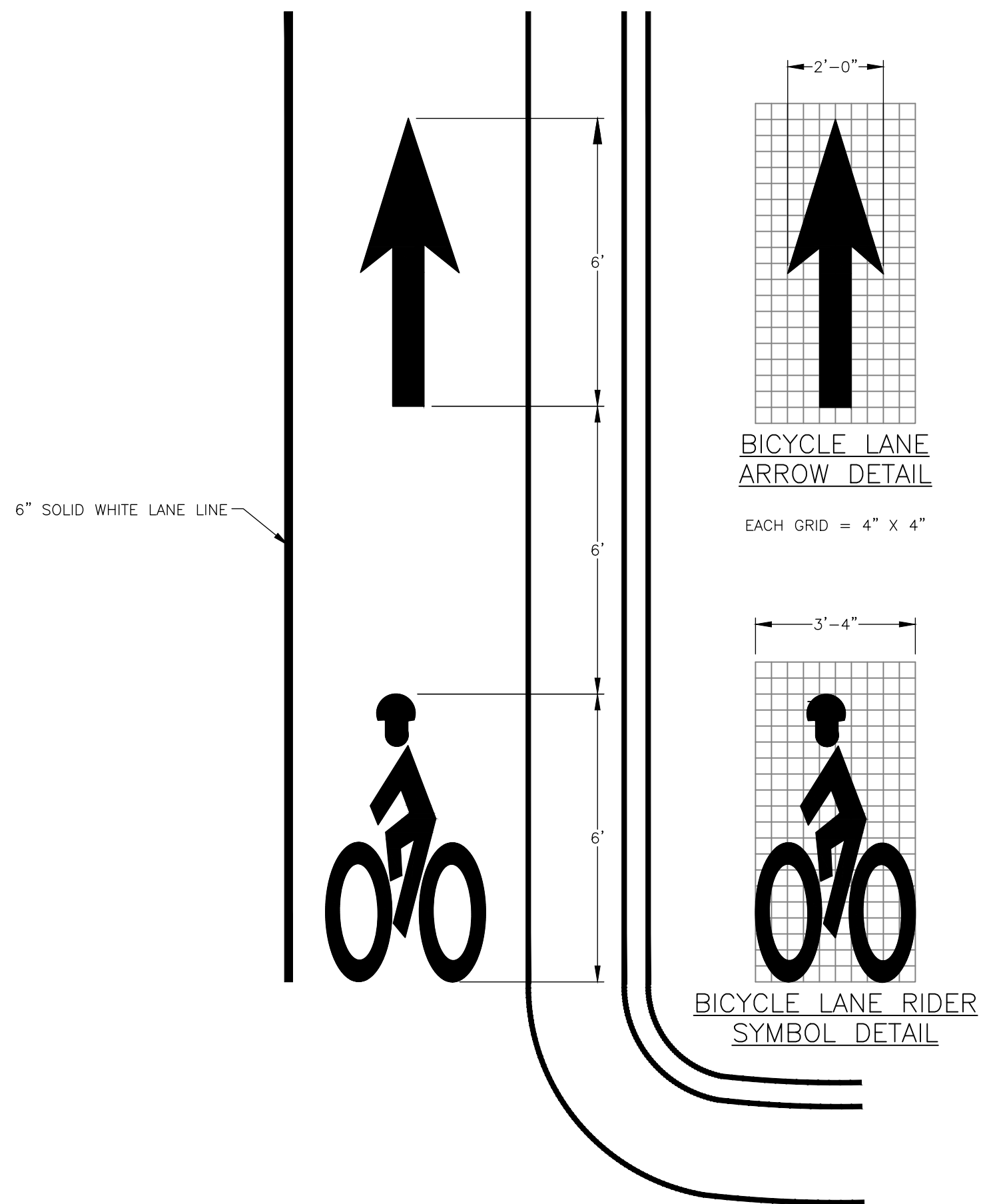


TYPICAL DETAIL OF STOP LINE
AND PARALLEL LINE STYLE
CROSSWALK SEPARATION

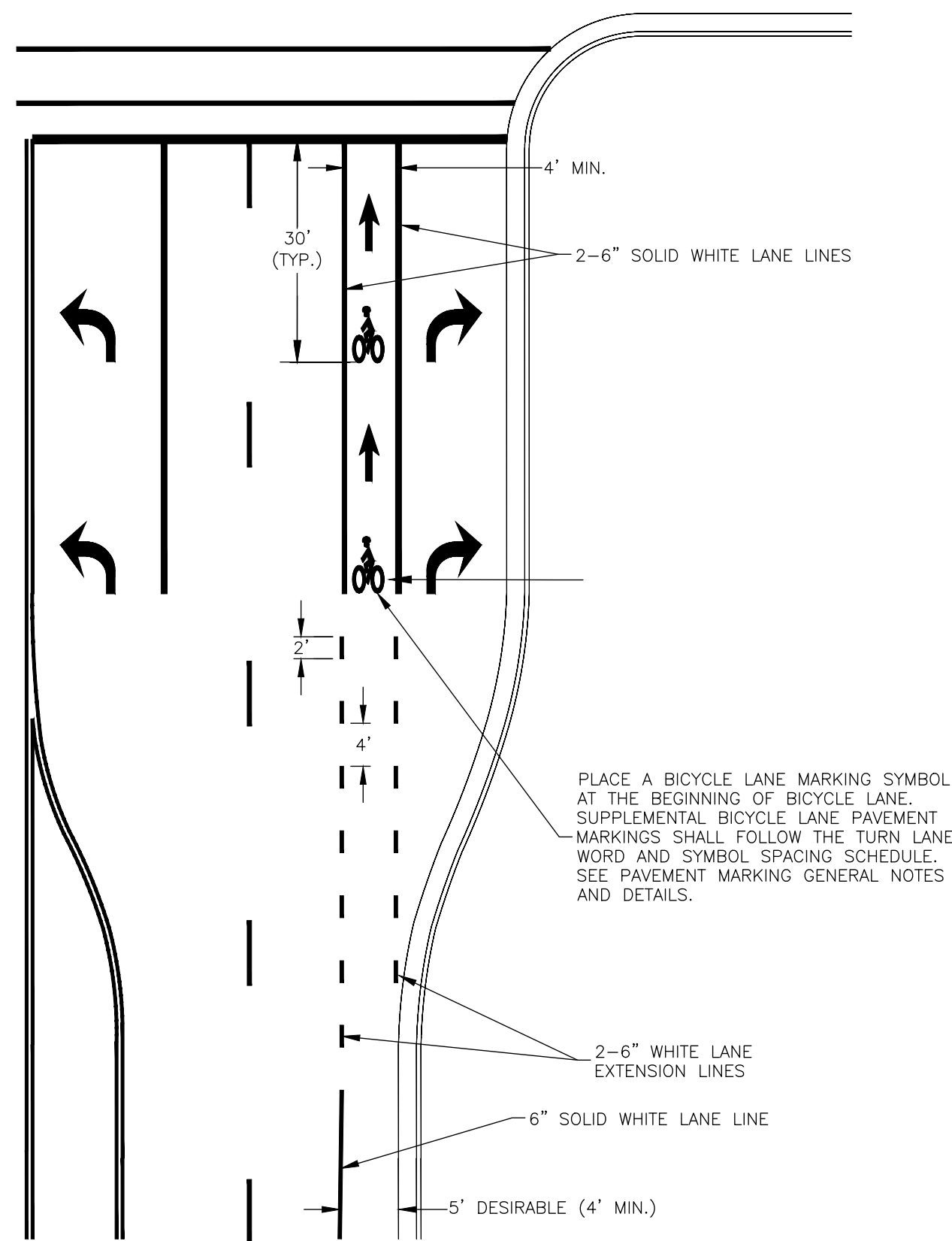


TYPICAL DETAIL OF STOP LINE
AND CONTINENTAL STYLE
CROSSWALK SEPARATION

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.



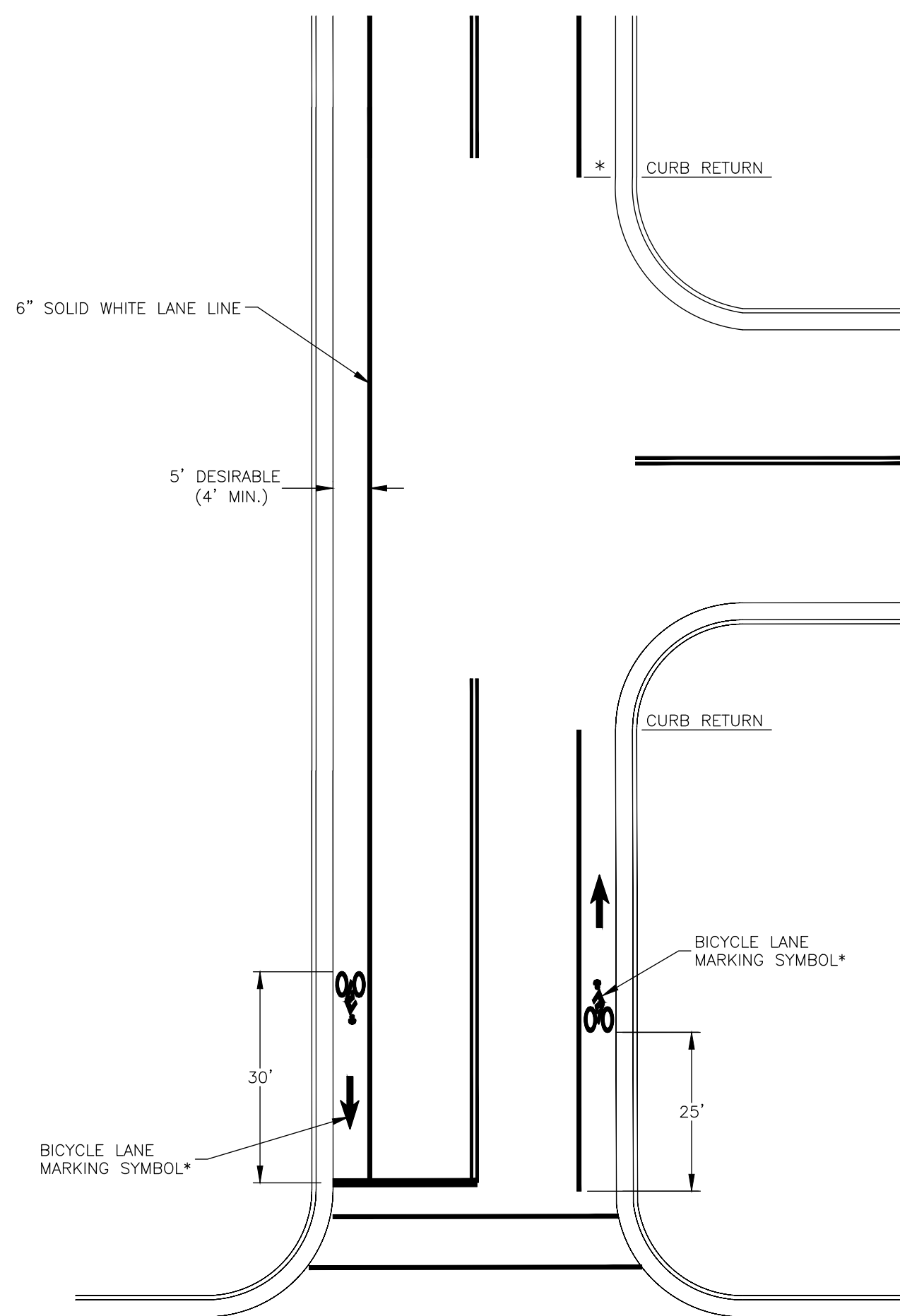
TYPICAL BICYCLE LANE MARKING SYMBOL



TYPICAL BICYCLE LANE APPROACHING RIGHT-TURN LANE

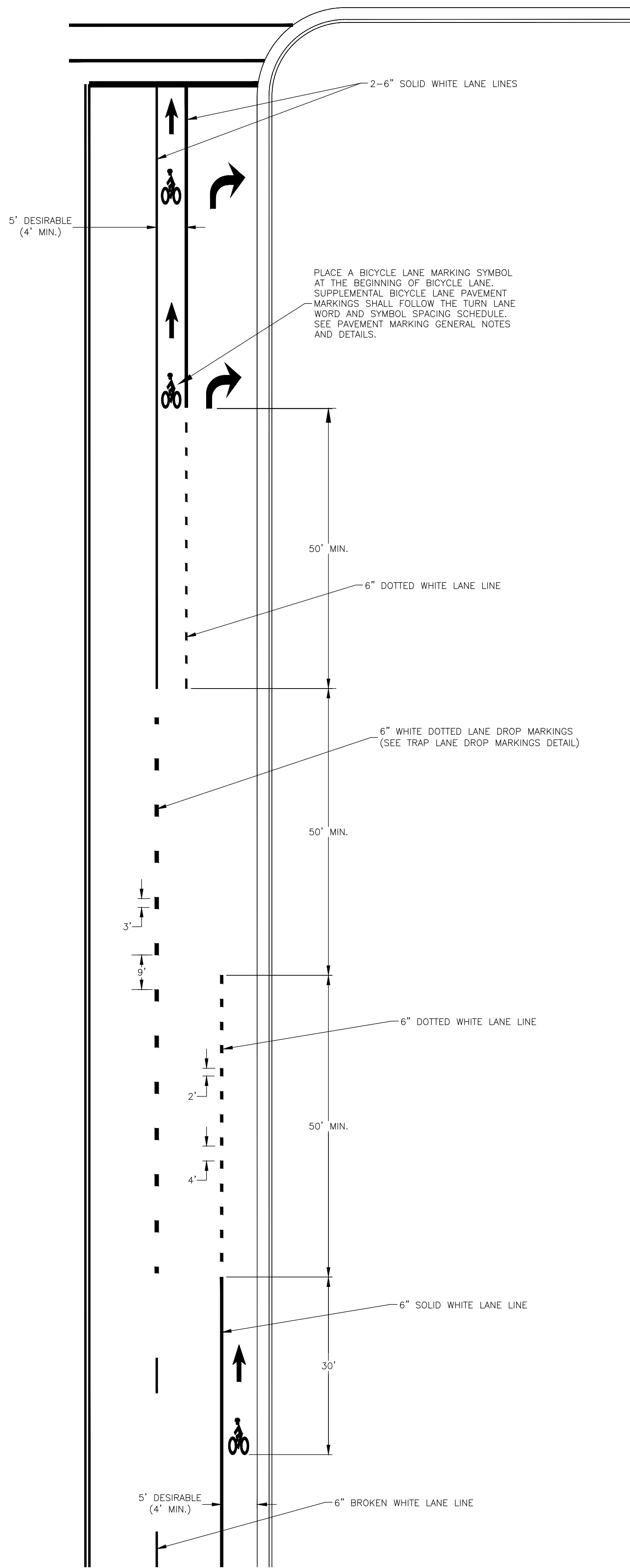
BICYCLE LANE MARKING SYMBOL NOTES

1. LONGITUDINAL PAVEMENT MARKINGS (6" 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, THEN 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 MARKING SYMBOL 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 MARKING SYMBOL SHALL INCLUDE THE BICYCLE LANE ARROW AND BICYCLE SYMBOL.
5. BICYCLE LANE MARKING SYMBOL SHALL BE PLACED CENTERED IN THE BICYCLE LANE, WHEN POSSIBLE. CARE SHOULD BE TAKEN TO AVOID PLACING THE BICYCLE LANE MARKING SYMBOL IN THE GUTTER PAN.
6. BICYCLE LANE MARKING SYMBOL IS COMPRISED OF THE BICYCLE LANE RIDER SYMBOL AND ONE BICYCLE LANE ARROW. MEASUREMENT WILL BE MADE PER EACH FOR EACH BICYCLE LANE RIDER SYMBOL AND PER EACH FOR EACH BICYCLE LANE ARROW.

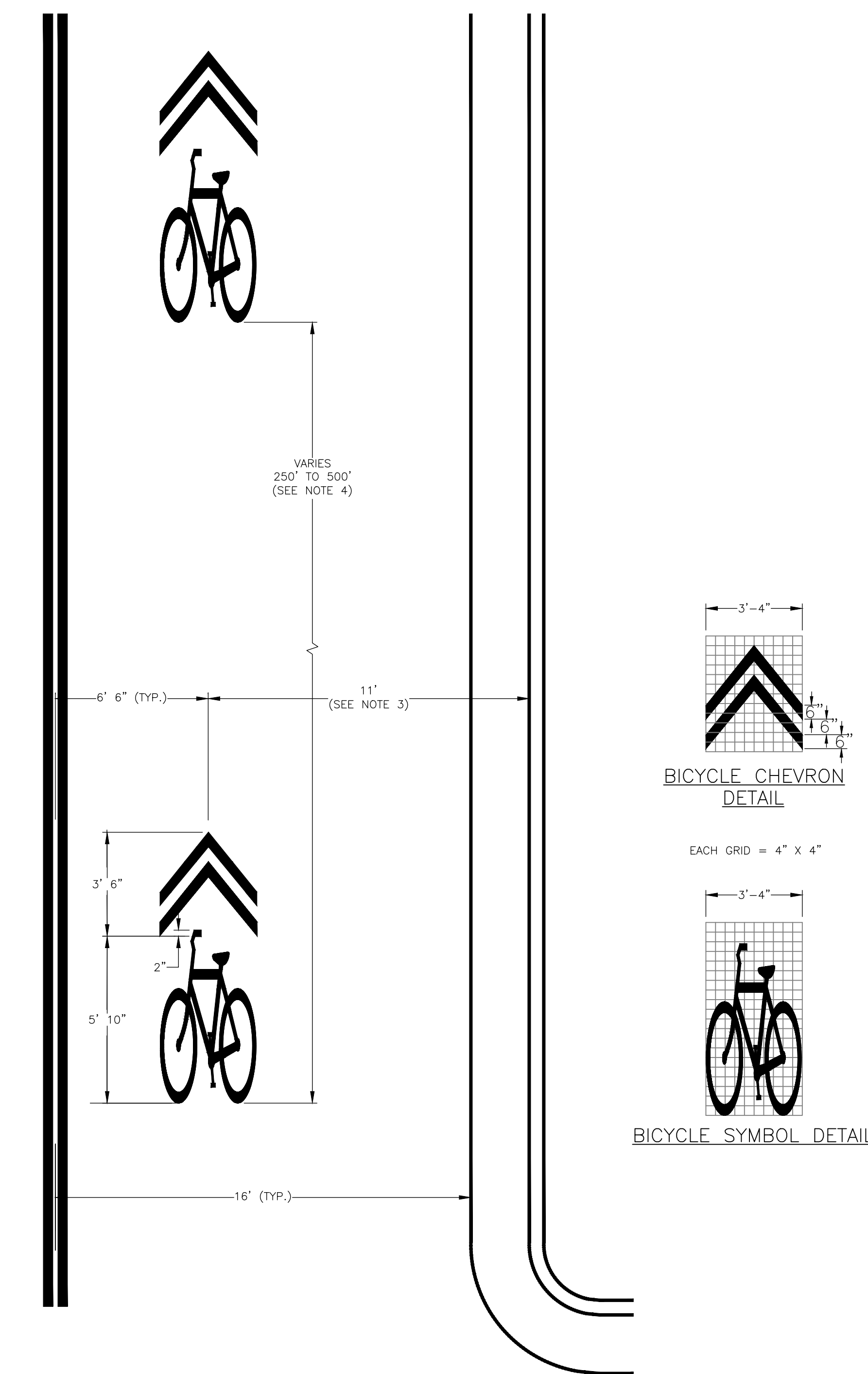


TYPICAL BICYCLE LANE

BICYCLE LANE MARKING SYMBOLS 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 JUDGEMENT.



TYPICAL BICYCLE LANE APPROACHING TRAP THROUGH LANE



SHARED LANE MARKING SYMBOL 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 MARKING SYMBOL 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 SYMBOL SHOULD BE PLACED IMMEDIATELY AFTER AN INTERSECTION AND PER ENGINEERING JUDGEMENT THEREAFTER BETWEEN 250 AND 500 FEET.
5. SHARED LANE MARKING SYMBOL (SHARROW) IS COMPRISED OF THE BICYCLE SYMBOL AND TWO (2) BICYCLE CHEVRONS. MEASUREMENT WILL BE PER EACH FOR THE COMBINED BICYCLE SYMBOL AND BICYCLE CHEVRONS.

TYPICAL SHARED LANE MARKING SYMBOL (SHARROW)

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05-01-22	LJM	REPLACES ALL PREVIOUS VERSIONS OF PAVEMENT MARKING DETAILS
04-01-21	LJM	TYPICAL SHARED LANE MARKING SYMBOL (SHARROW) NOTES CORRECTED

**City of Lawrence**
MUNICIPAL SERVICES & OPERATIONS

STANDARD DETAILS FOR
PAVEMENT MARKING
BICYCLE LANE AND SHARED LANE

4 OF 5

DAVID P. CRONIN
CITY ENGINEER

CRAIG S. OWENS
CITY MANAGER

