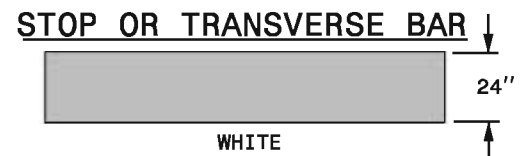
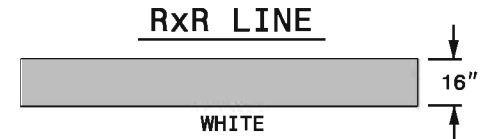
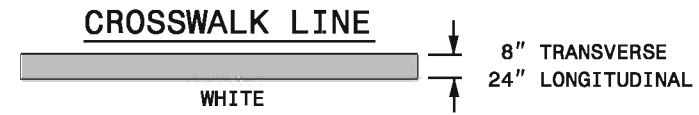
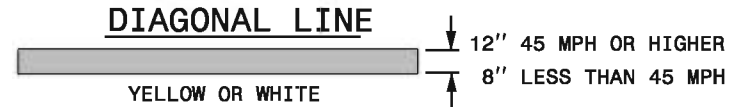
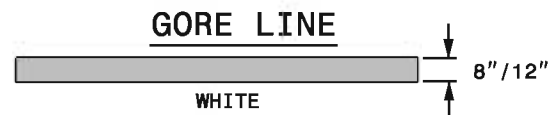
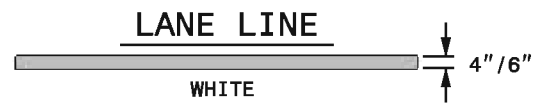
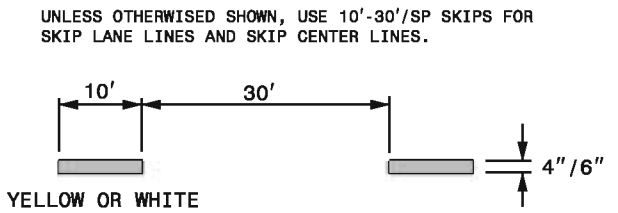


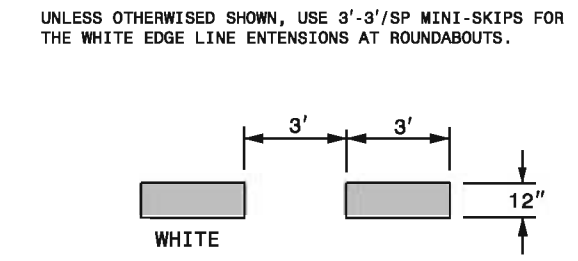
**CONTINUOUS LINES**



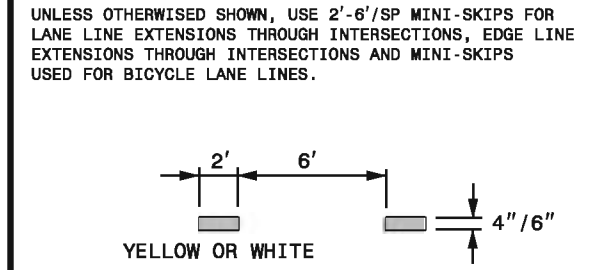
**10'-30'/SP SKIP LINE**



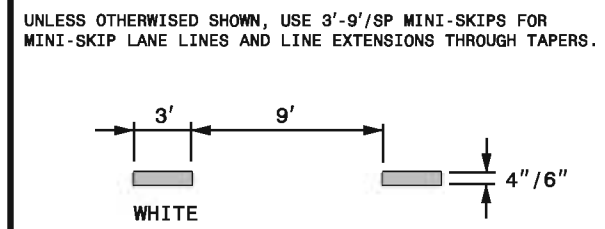
**3'-3'/SP MINI-SKIP LINE**



**2'-6'/SP MINI-SKIP LINE**



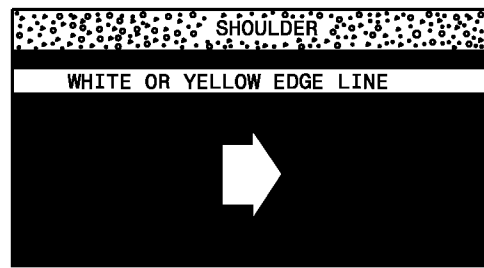
**3'-9'/SP MINI-SKIP LINE**



GENERAL NOTES:

- 1- USE 6" LANE, EDGE, AND CENTER LINES ON ALL FULL CONTROL OF ACCESS FACILITIES AND OTHER ROUTES AS DIRECTED BY THE ENGINEER.
- 2- LANE LINES INDICATED AS "WIDE" ON THE ROADWAY STANDARD DRAWINGS SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.
- 3- GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.

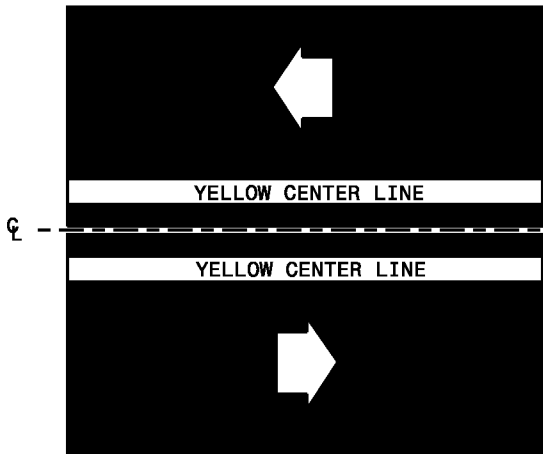
**EDGE LINE OFFSET DETAIL**



2" MAX., REFER ALSO TO TABLE 1  
E.O.T.

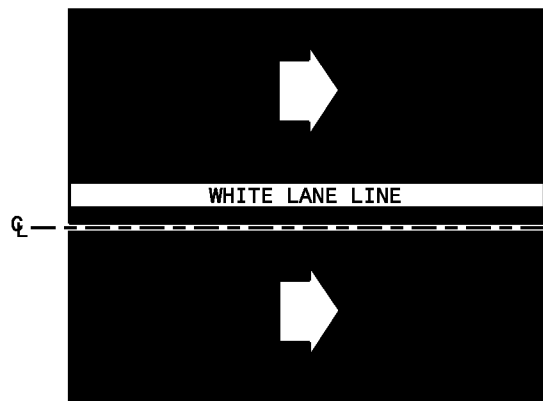
TABLE 1		
EDGE LINE OFFSETS FOR 2-LANE, 2-WAY ROADWAYS WITH UN-PAVED SHOULDERS		
WIDTH (W) OF TRAVEL PAVEMENT	MAX. EDGE LINE OFFSET FROM E.O.T.	MINIMUM LANE WIDTH (W)
16' - 18'	2"	8' - 9'
19'	4"	9'
20'	6"	9.5'
21'	8"	10'
22'	10"	10'
23'	10"	10.5'
24'	1'	11'
26'	2'	11'
28'	2'	12'
30'	3'	12'
32'	4'	12'

**CENTER LINE OFFSET DETAIL**



3" 6"  
3"

**LANE LINE OFFSET DETAIL**



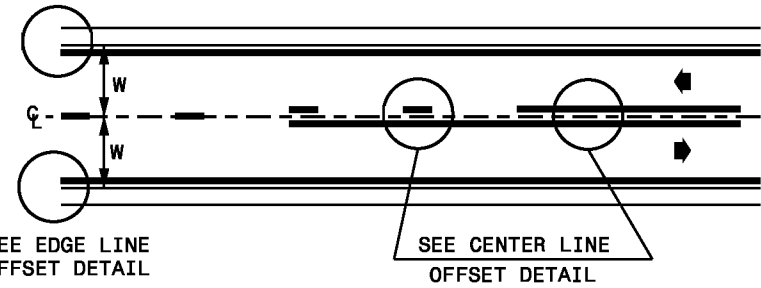
2" TOWARDS LEFT SIDE OF TRAVELWAY

**LEGEND**

- W = WIDTH OF TRAVEL LANE
- E.O.T. = EDGE OF TRAVEL
- ◀ DIRECTION OF TRAFFIC FLOW
- ▶ DIRECTION OF TRAFFIC FLOW

SEE EDGE LINE OFFSET DETAIL

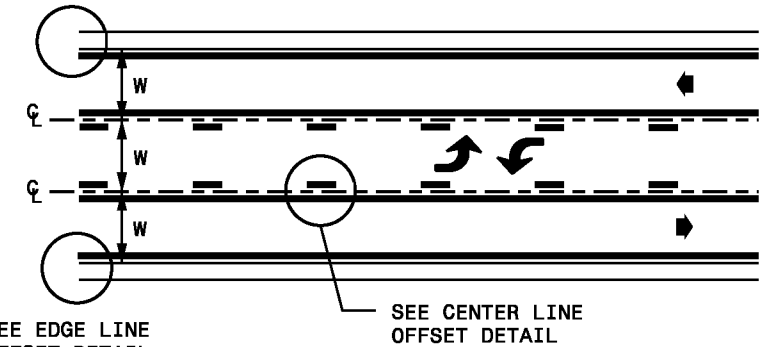
**TWO-WAY UNDIVIDED ROADWAY**



SEE EDGE LINE OFFSET DETAIL

**TWO-WAY UNDIVIDED ROADWAY WITH TWO-WAY LEFT TURN LANE**

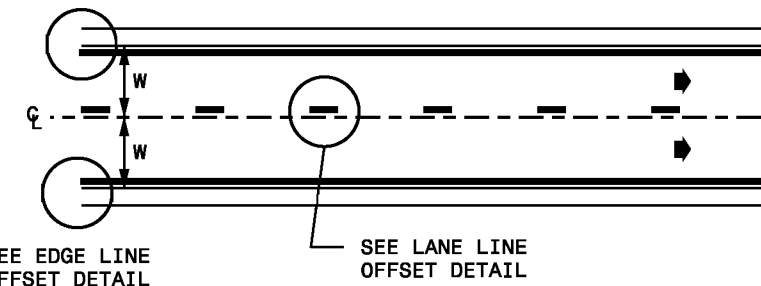
SEE EDGE LINE OFFSET DETAIL



SEE EDGE LINE OFFSET DETAIL

**MULTI-LANE ROADWAY**

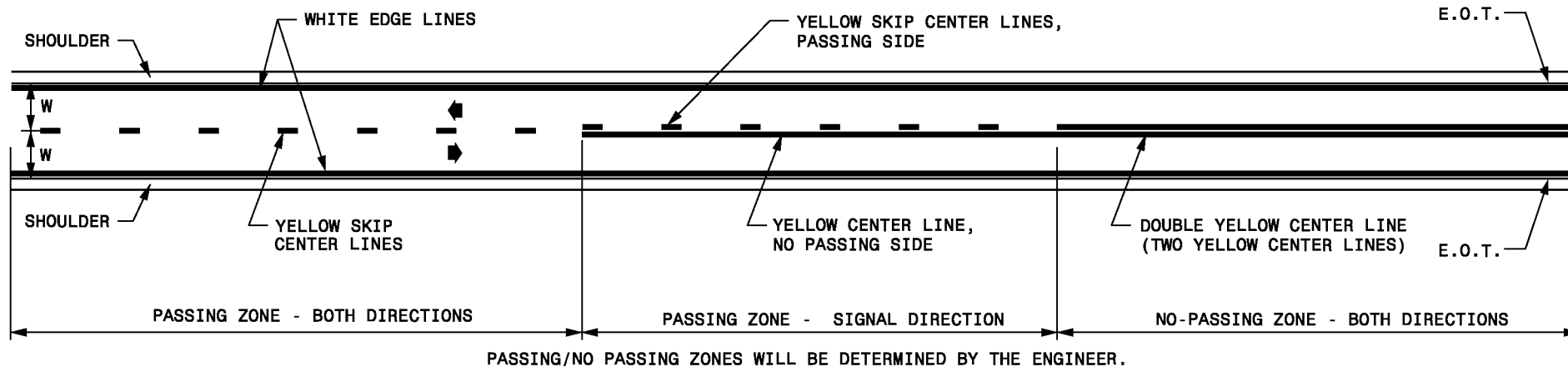
SEE EDGE LINE OFFSET DETAIL



SEE EDGE LINE OFFSET DETAIL

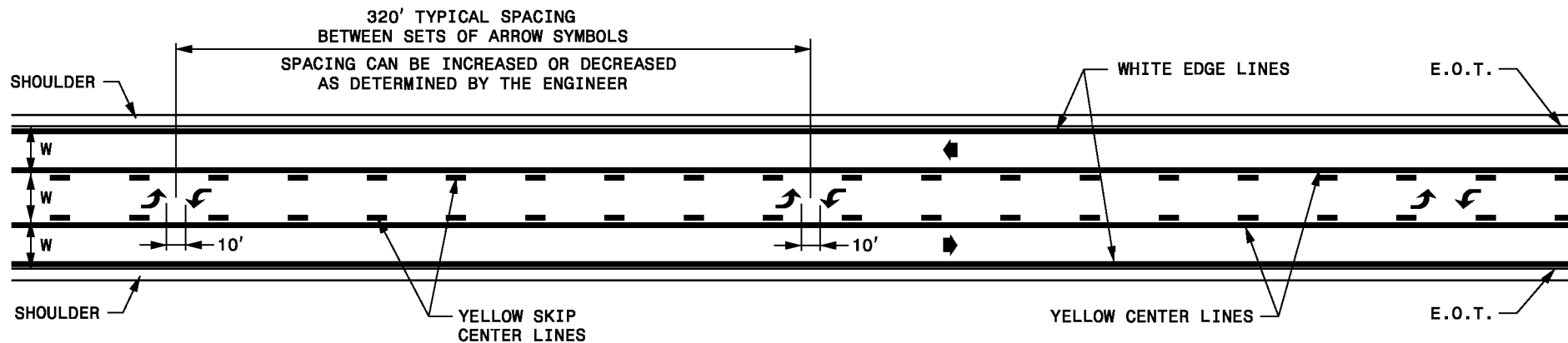
1-12

**TWO-LANE, TWO-WAY ROADWAY**



1-12

**TWO-LANE, TWO-WAY ROADWAY WITH TWO-WAY LEFT TURN LANE**



SHEET 1 OF 2

1205.02

SHEET 1 OF 2

1205.02

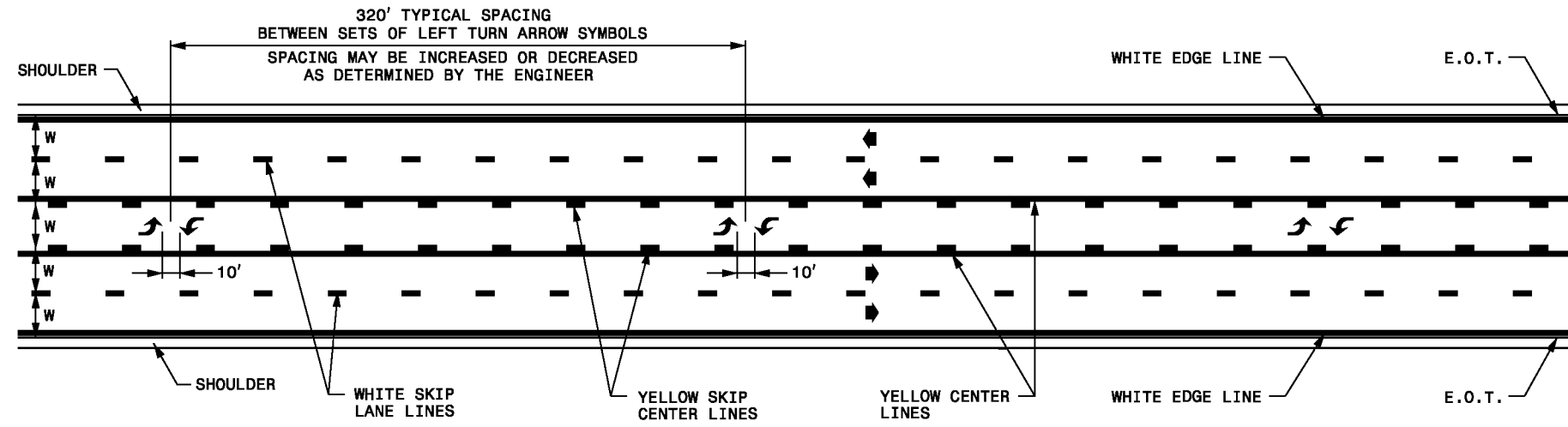
**GENERAL NOTES:**

- 1- EDGE LINES ARE NOT REQUIRED ALONG CURB AND GUTTER LOCATIONS.
- 2- CONTINUE EDGE LINES THROUGH MINOR DRIVEWAYS. DO NOT CONTINUE EDGE LINES AT INTERSECTIONS AND MAJOR DRIVEWAYS, SEE ROADWAY STANDARD DRAWING 1205.05 FOR ADDITIONAL GUIDANCE.
- 3- REFER TO ROADWAY STANDARD DRAWINGS 1205.01 AND 1205.08 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

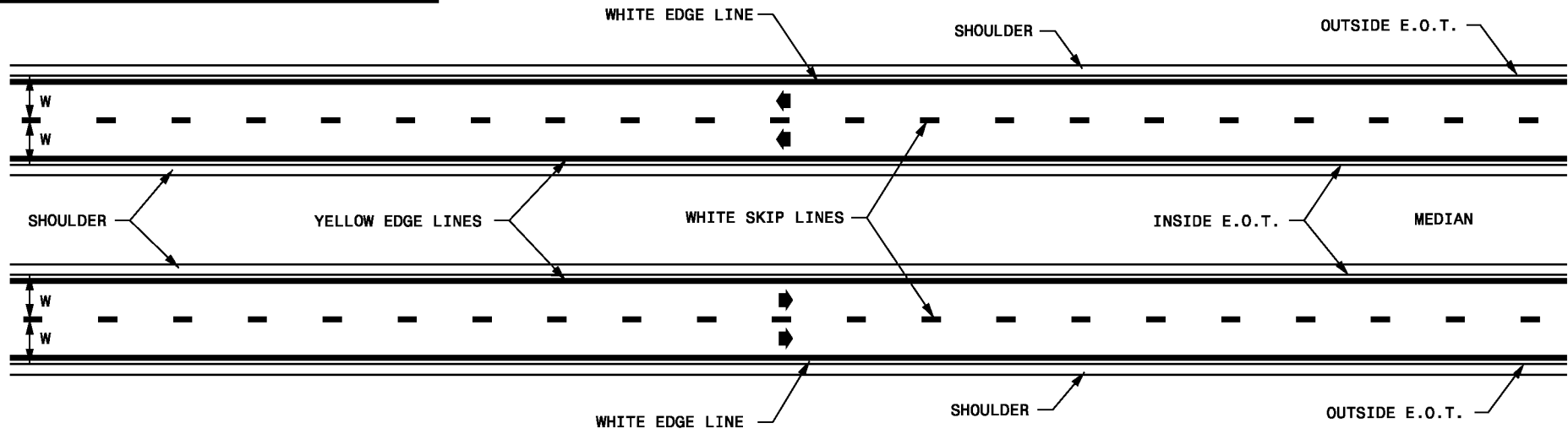
**LEGEND**

- W = WIDTH OF TRAVEL LANE
- E.O.T.= EDGE OF TRAVEL
- ➡ DIRECTION OF TRAFFIC FLOW
- ↩ PAVEMENT MARKING SYMBOLS

**UNDIVIDED MULTI-LANE ROADWAY WITH TWO-WAY LEFT TURN LANE**



**DIVIDED FOUR-LANE ROADWAY**



**GENERAL NOTES:**

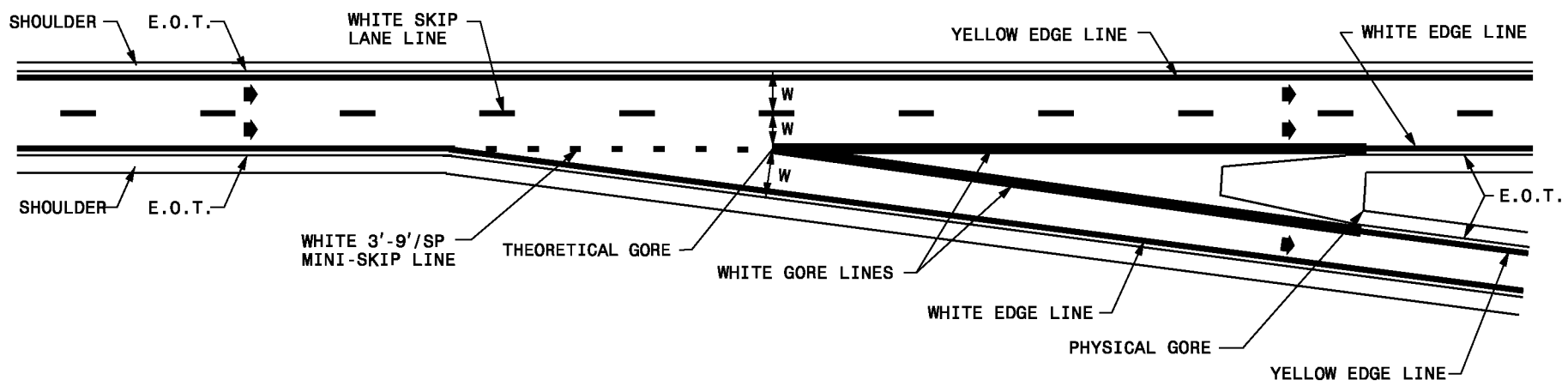
- 1- EDGE LINES ARE NOT REQUIRED ALONG CURB AND GUTTER LOCATIONS.
- 2- CONTINUE EDGE LINES THROUGH MINOR DRIVEWAYS. DO NOT CONTINUE EDGE LINES AT INTERSECTIONS AND MAJOR DRIVEWAYS, SEE ROADWAY STANDARD DRAWING 1205.05 FOR ADDITIONAL GUIDANCE.
- 3- REFER TO ROADWAY STANDARD DRAWINGS 1205.01 AND 1205.08 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND	
W	WIDTH OF TRAVEL LANE
E.O.T.	EDGE OF TRAVEL
➡	DIRECTION OF TRAFFIC FLOW
↩	PAVEMENT MARKING SYMBOLS

1-12

1-12

**TAPERED DECELERATION LANE**



GENERAL NOTES:

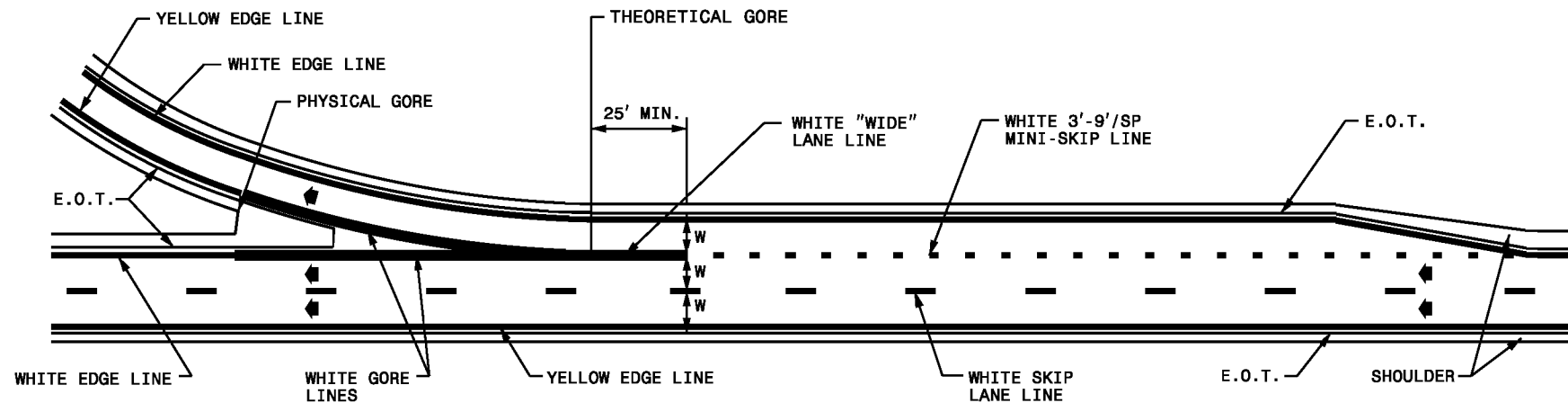
- 1- USE THE SAME LINE WIDTH ON ENTRANCE AND EXIT RAMP.
- 2- GORE LINE MARKINGS TERMINATE AT THE PHYSICAL GORE.
- 3- GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.
- 4- REFER TO ROADWAY STANDARD DRAWING 1205.01 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND	
W	= WIDTH OF TRAVEL LANE
E.O.T.	= EDGE OF TRAVEL
◄	DIRECTION OF TRAFFIC FLOW
▶	

1-12

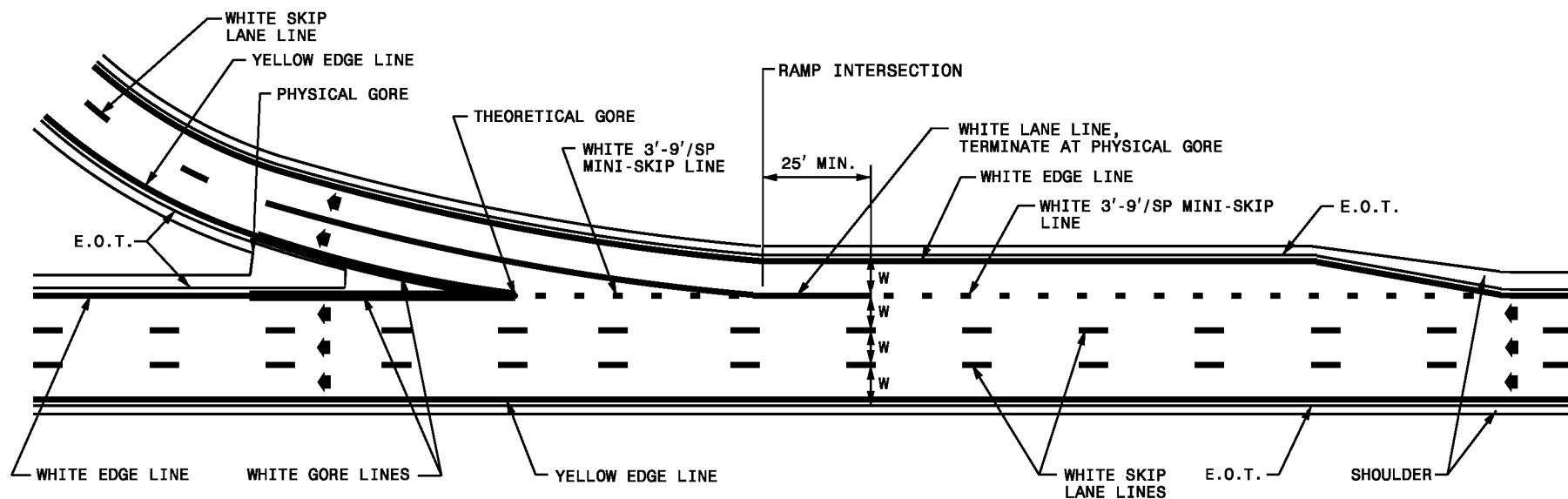
1-12

**PARALLEL DECELERATION LANE**



1-12

**PARALLEL DECELERATION LANE AT A MULTI-LANE EXIT**



**GENERAL NOTES:**

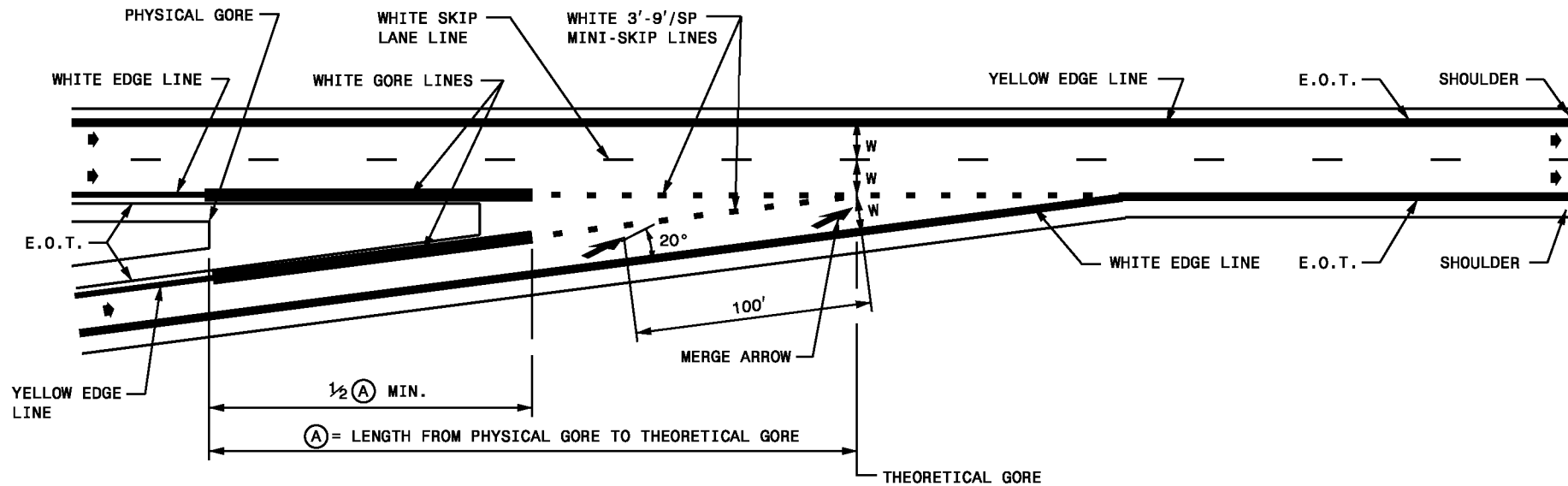
- 1- USE THE SAME LINE WIDTH ON ENTRANCE AND EXIT RAMP.
- 2- GORE LINE MARKINGS TERMINATE AT THE PHYSICAL GORE.
- 3- LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.
- 4- GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.
- 5- REFER TO ROADWAY STANDARD DRAWING 1205.01 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

**LEGEND**

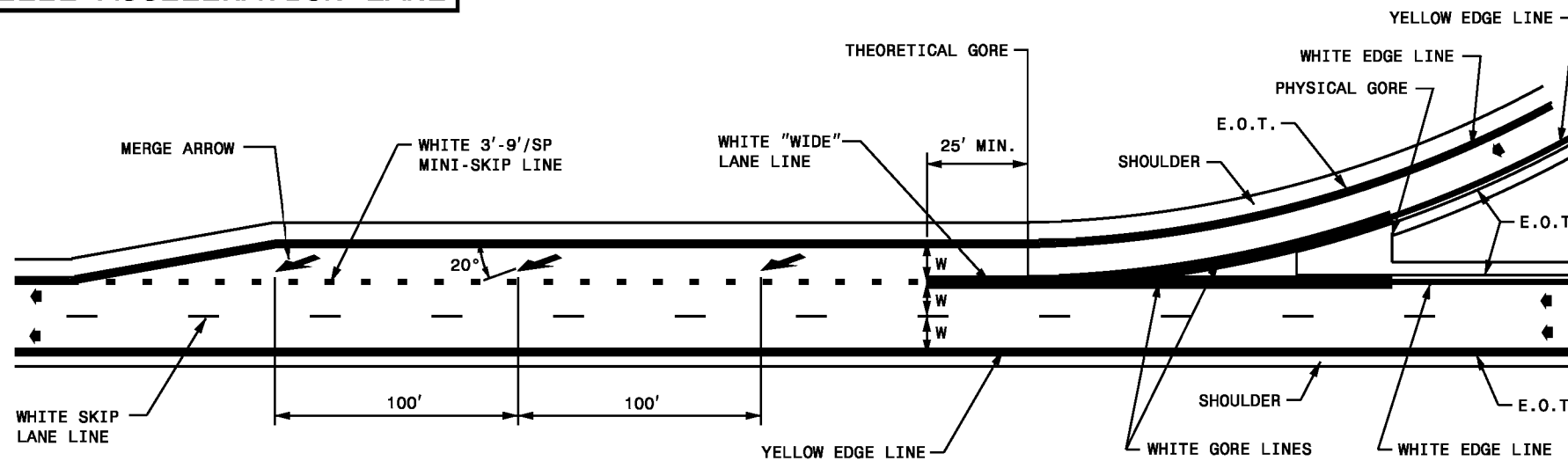
- W = WIDTH OF TRAVEL LANE
- E.O.T.= EDGE OF TRAVEL
- ◄ DIRECTION OF TRAFFIC FLOW
- DIRECTION OF TRAFFIC FLOW

1-12

**TAPERED ACCELERATION LANE**



**PARALLEL ACCELERATION LANE**



**GENERAL NOTES:**

- 1- USE THE SAME LINE WIDTH ON ENTRANCE AND EXIT RAMP.
- 2- GORE LINE MARKINGS TERMINATE AT THE PHYSICAL GORE.
- 3- LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.
- 4- GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.
- 5- REFER TO ROADWAY STANDARD DRAWINGS 1205.01 AND 1205.08 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

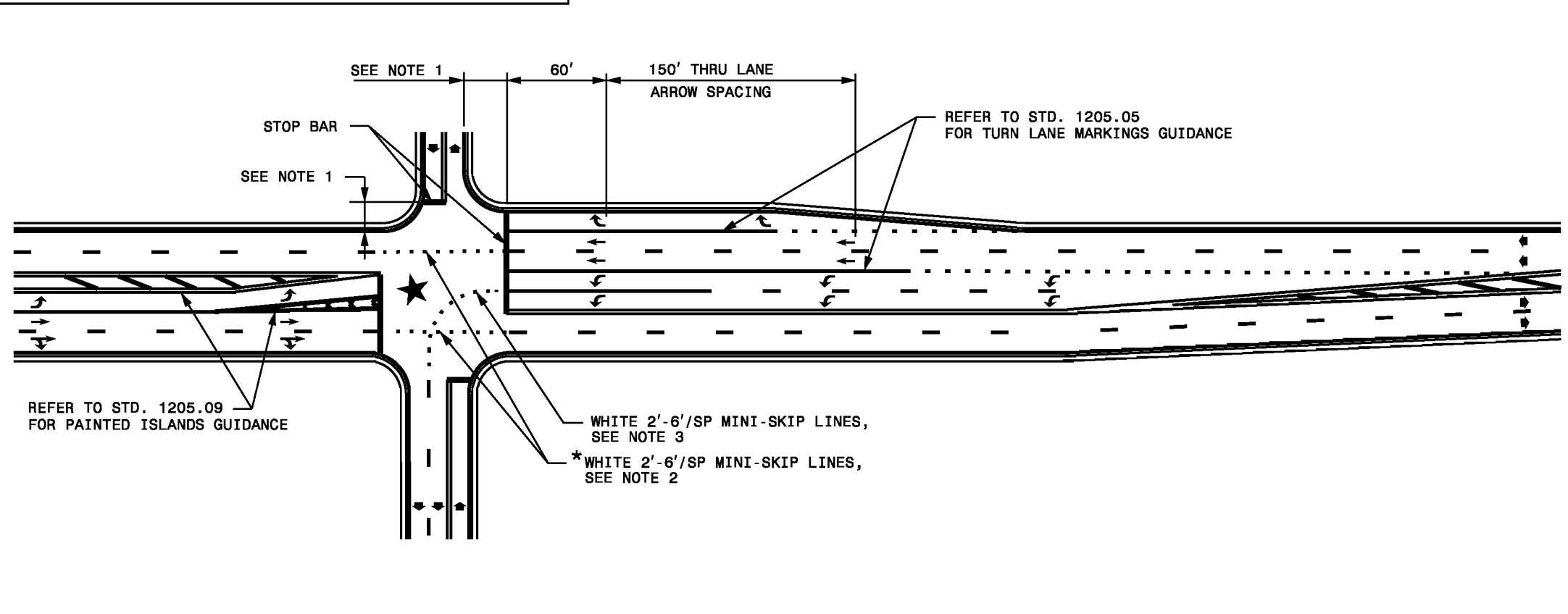
**LEGEND**

- W = WIDTH OF TRAVEL LANE
- E.O.T. = EDGE OF TRAVEL
- ◄ DIRECTION OF TRAFFIC FLOW
- ▬ PAVEMENT MARKING SYMBOLS

1-12

1-12

**SIGNALIZED MULTI-LANE ROADWAY WITH TURN BAYS**



1-12

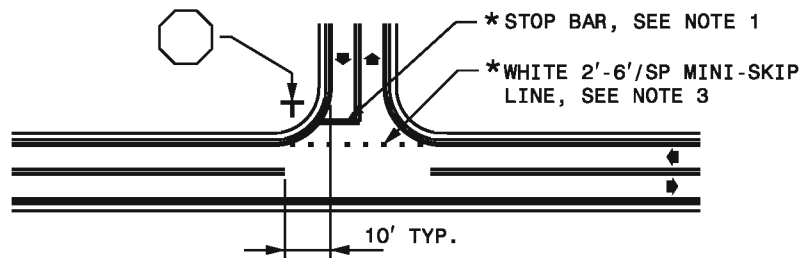
GENERAL NOTES:

- 1- REFER TO THE PAVEMENT MARKING PLAN FOR STOP BAR LOCATIONS FOR SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR AS DIRECTED BY THE ENGINEER.
- 2- MINI-SKIP LANE LINE EXTENSIONS SHOULD BE USED AT INTERSECTIONS THAT HAVE REDUCED VISIBILITY CONDITIONS SUCH AS OFFSET, SKEWED, OR CURVED ROADWAYS.
- 3- MINI-SKIP LANE LINE EXTENSIONS SHALL BE USED WHERE MULTIPLE TURN LANES ARE USED.
- 4- REFER TO ROADWAY STANDARD DRAWINGS 1205.01, 1205.02, 1205.05, 1205.08 AND 1205.09 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

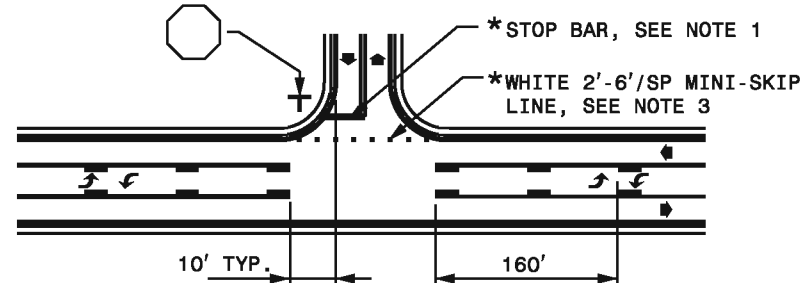
LEGEND	
	DIRECTION OF TRAFFIC FLOW
	PAVEMENT MARKING SYMBOLS
	OPTIONAL



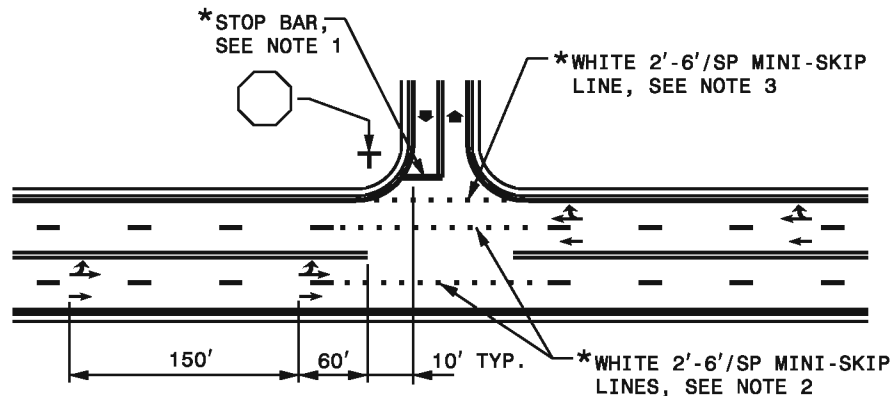
**TWO-LANE, TWO-WAY ROADWAY**



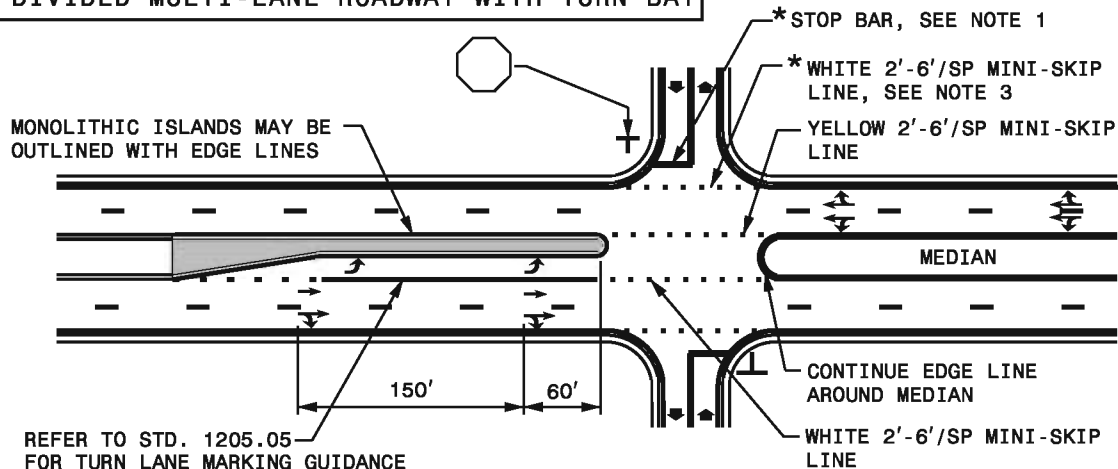
**TWO-LANE, TWO-WAY ROADWAY WITH TWO-WAY LEFT TURN LANE**



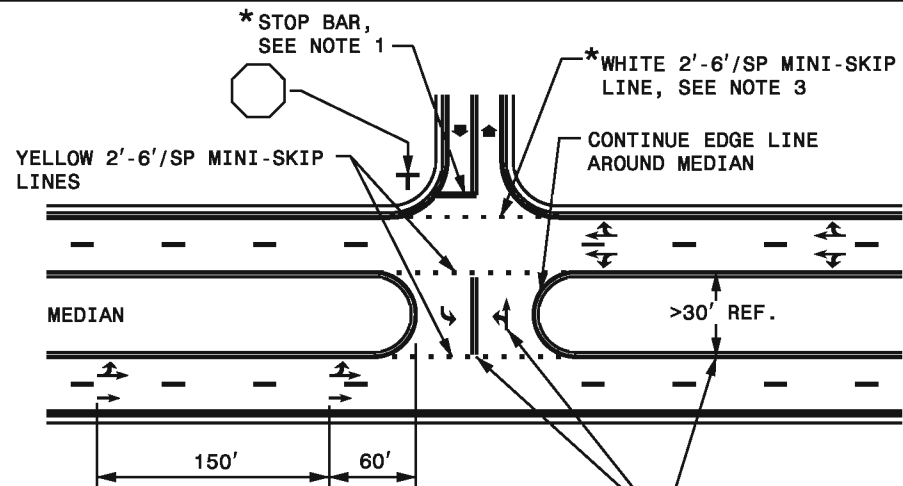
**UNDIVIDED MULTI-LANE ROADWAY**



**DIVIDED MULTI-LANE ROADWAY WITH TURN BAY**



**DIVIDED MULTI-LANE ROADWAY WITH WIDE MEDIAN CROSSOVER**

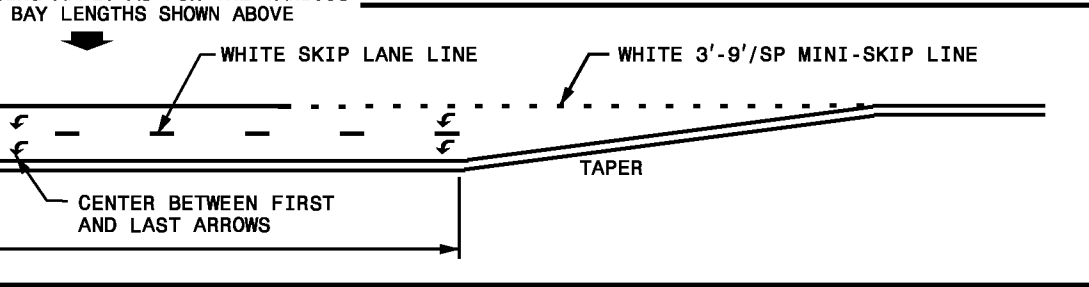
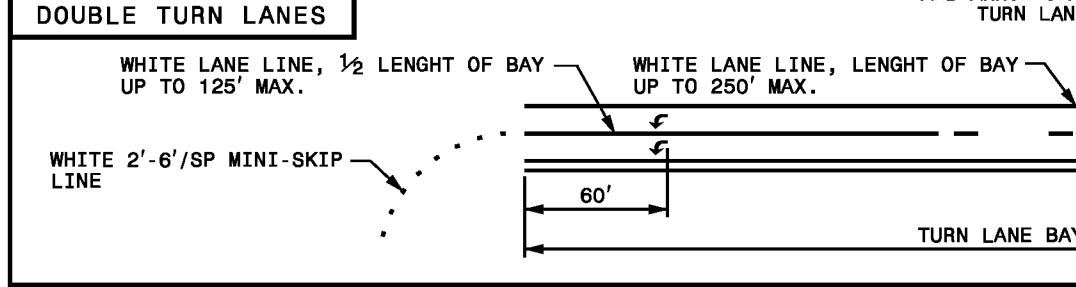
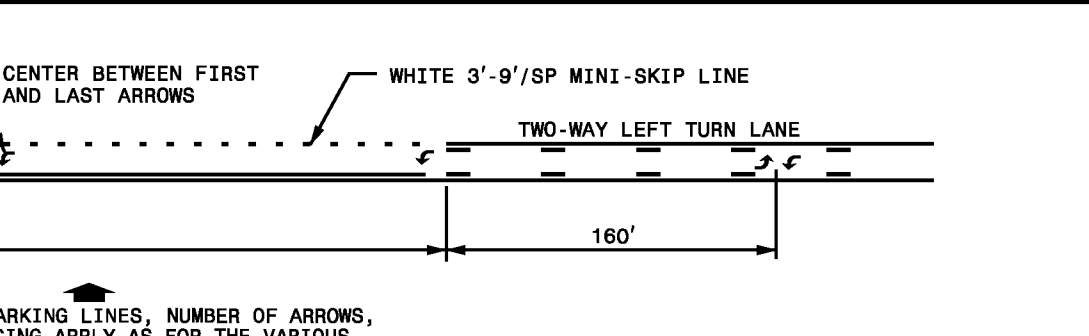
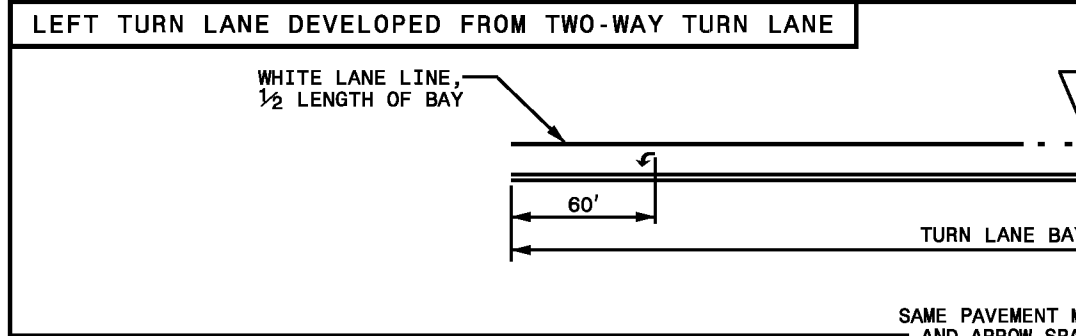
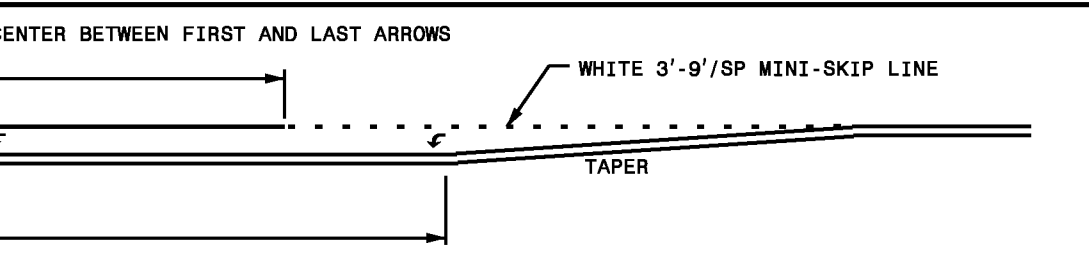
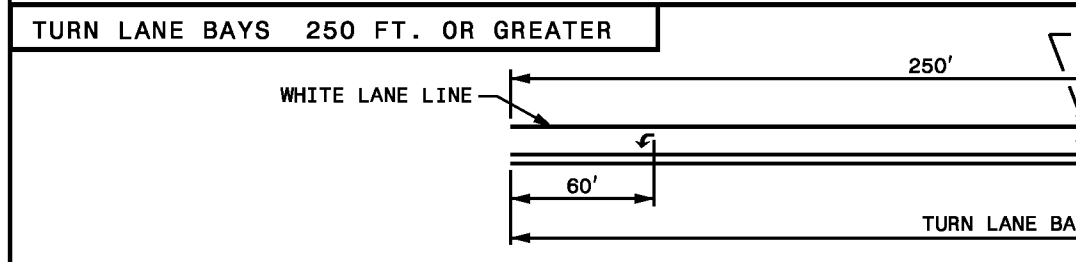
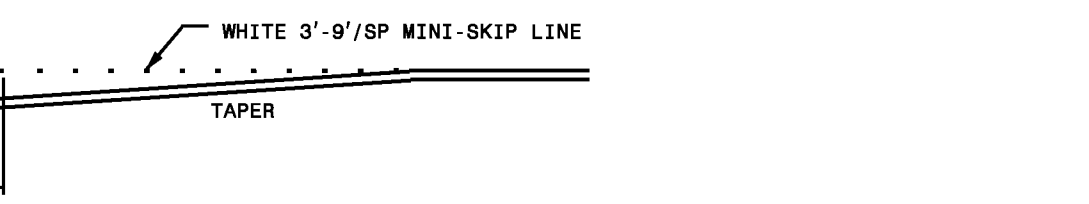
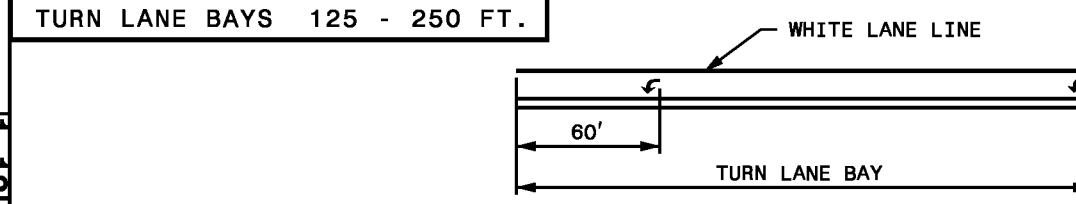
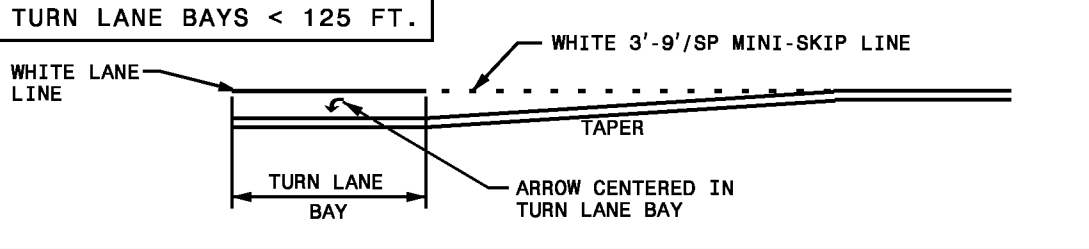
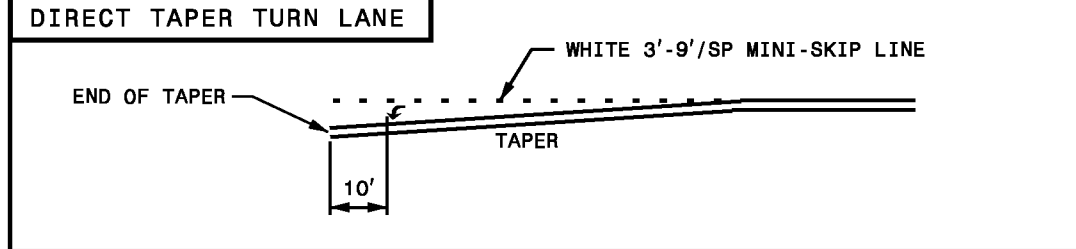


**GENERAL NOTES:**

- 1- PLACEMENT OF STOP BARS AT NON-SIGNALIZED INTERSECTIONS IS OPTIONAL AND USED WHERE IT IS IMPORTANT TO INDICATE THE POINT WHICH VEHICLES ARE REQUIRED TO STOP. PLACE STOP BARS NO LESS THAN 4 FEET AND NO MORE THAN 30 FEET FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY. USE 10 FEET AS THE TYPICAL SETBACK DISTANCE OR AS DIRECTED BY THE ENGINEER.
- 2- MINI-SKIP LANE LINE EXTENSIONS SHOULD BE USED AT INTERSECTIONS THAT HAVE REDUCED VISIBILITY CONDITIONS SUCH AS OFFSET, SKEWED, OR CURVED ROADWAYS.
- 3- MINI-SKIP EDGE LINE EXTENSIONS MAY BE PLACED THROUGH INTERSECTIONS AND MAJOR DRIVEWAYS.
- 4- REFER TO ROADWAY STANDARD DRAWINGS 1205.01, 1205.02, 1205.05, 1205.08 AND 1205.09 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND	
	STOP SIGN
	STATIONARY SIGN
	DIRECTION OF TRAFFIC FLOW
	PAVEMENT MARKING SYMBOLS
*	OPTIONAL

USE DOUBLE YELLOW CENTER LINE AND ARROW SYMBOLS IN MEDIAN CROSSOVER WHEN WIDTH OF MEDIAN EXCEEDS 30 FT, OTHERWISE THEY ARE NOT REQUIRED.



**GENERAL NOTES:**

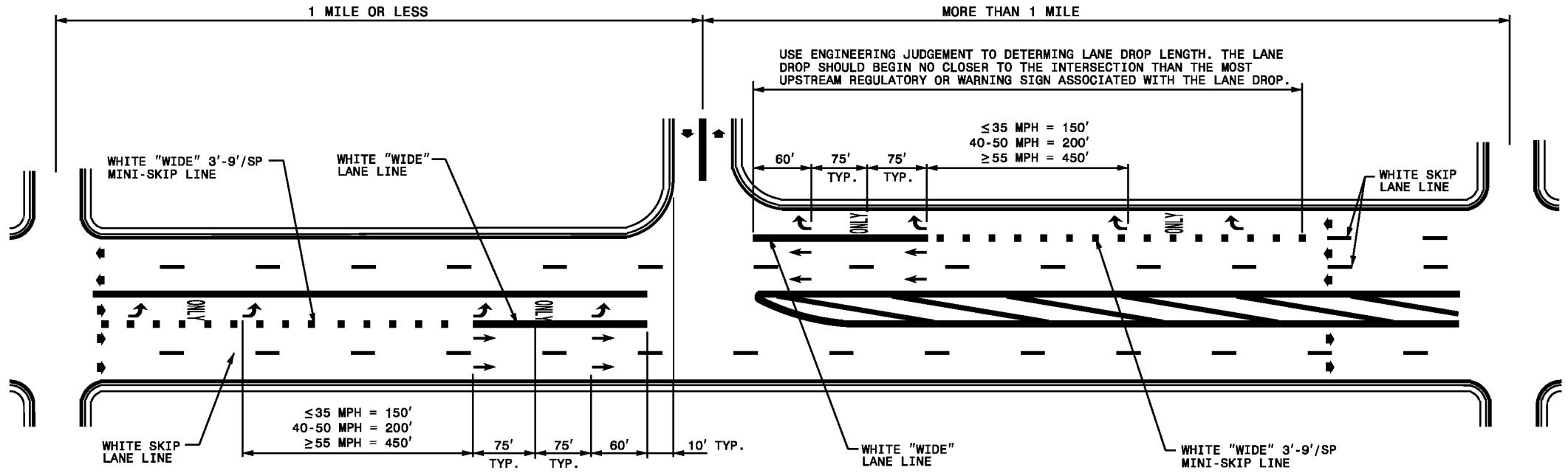
- 1- USE THE GUIDANCE SHOWN ABOVE IN CONJUNCTION WITH THE INTERSECTION GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.04.
- 2- THE NUMBER OF ARROWS SHOWN IS THE MINIMUM REQUIRED. USE ADDITIONAL ARROWS AS DIRECTED BY THE ENGINEER.

LEGEND	
	PAVEMENT MARKING SYMBOL

ENGLISH STANDARD DRAWING FOR PAVEMENT MARKINGS TURN LANES

ENGLISH STANDARD DRAWING FOR PAVEMENT MARKINGS TURN LANES

**THRU-LANE DROP AT AN INTERSECTION**



**GENERAL NOTES:**

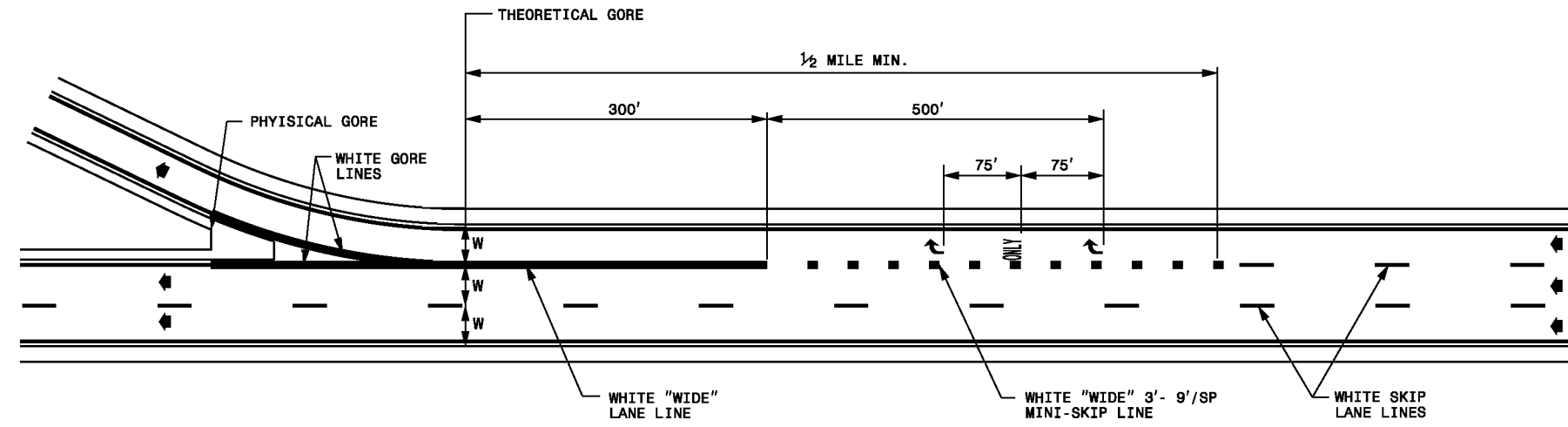
- 1- USE THE GUIDANCE SHOWN ON THE ABOVE DETAIL IN CONJUNCTION WITH INTERSECTION GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.04.
- 2- LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.

LEGEND	
W	= WIDTH OF TRAVEL LANE
←	DIRECTION OF TRAFFIC FLOW
↶ ONLY	PAVEMENT MARKING SYMBOLS & CHARACTERS

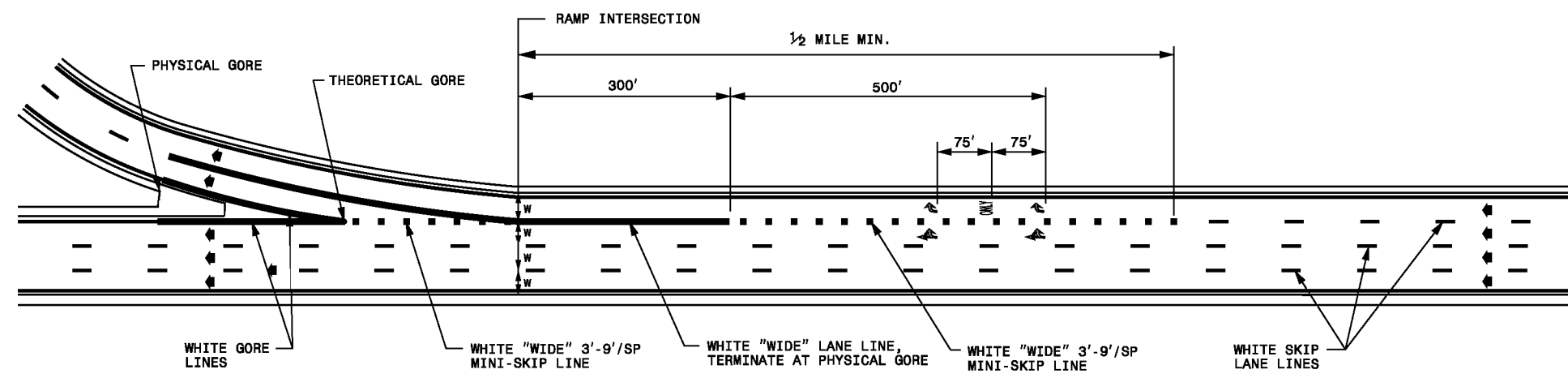
1-12

1-12

LANE DROP AT A SINGLE LANE EXIT RAMP



LANE DROP AT A MULTI-LANE EXIT RAMP

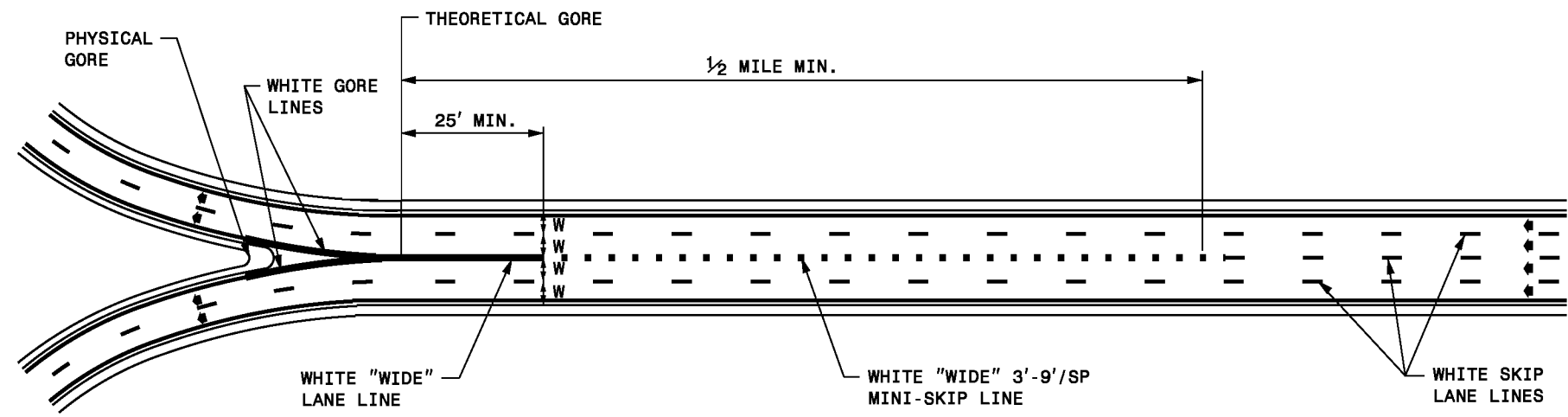


GENERAL NOTES:

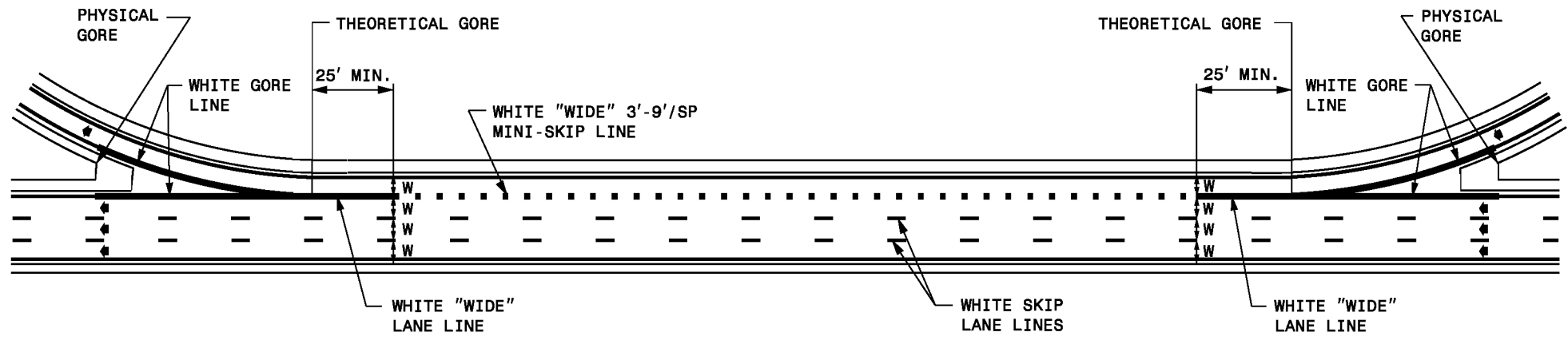
- 1- USE THE GUIDANCE SHOWN ON THE FOLLOWING DETAILS IN CONJUNCTION WITH THE EXIT RAMP GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.03.
- 2- LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.
- 3- GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.

LEGEND	
W	= WIDTH OF TRAVEL LANE
↔	DIRECTION OF TRAFFIC FLOW
↶ ONLY	PAVEMENT MARKING SYMBOLS & CHARACTERS

**ROUTE SPLIT WITH DEDICATED LANES**



**AUXILIARY LANE 2 MILES OR LESS IN LENGTH BETWEEN RAMPS**



**GENERAL NOTES:**

- 1- USE THE GUIDANCE SHOWN ON THE FOLLOWING DETAILS IN CONJUNCTION WITH THE EXIT RAMP GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.03.
- 2- LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.
- 3- GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.

LEGEND	
W	= WIDTH OF TRAVEL LANE
◄	DIRECTION OF TRAFFIC FLOW
◄ ONLY	PAVEMENT MARKING SYMBOLS & CHARACTERS

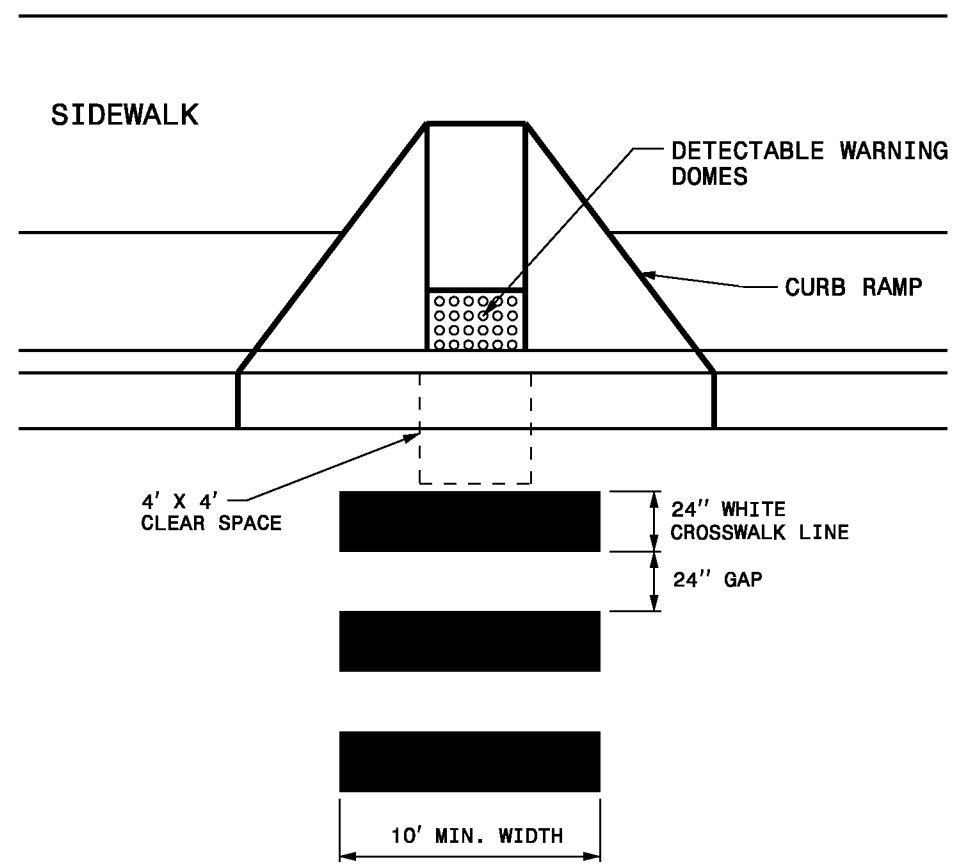
1-12

1-12

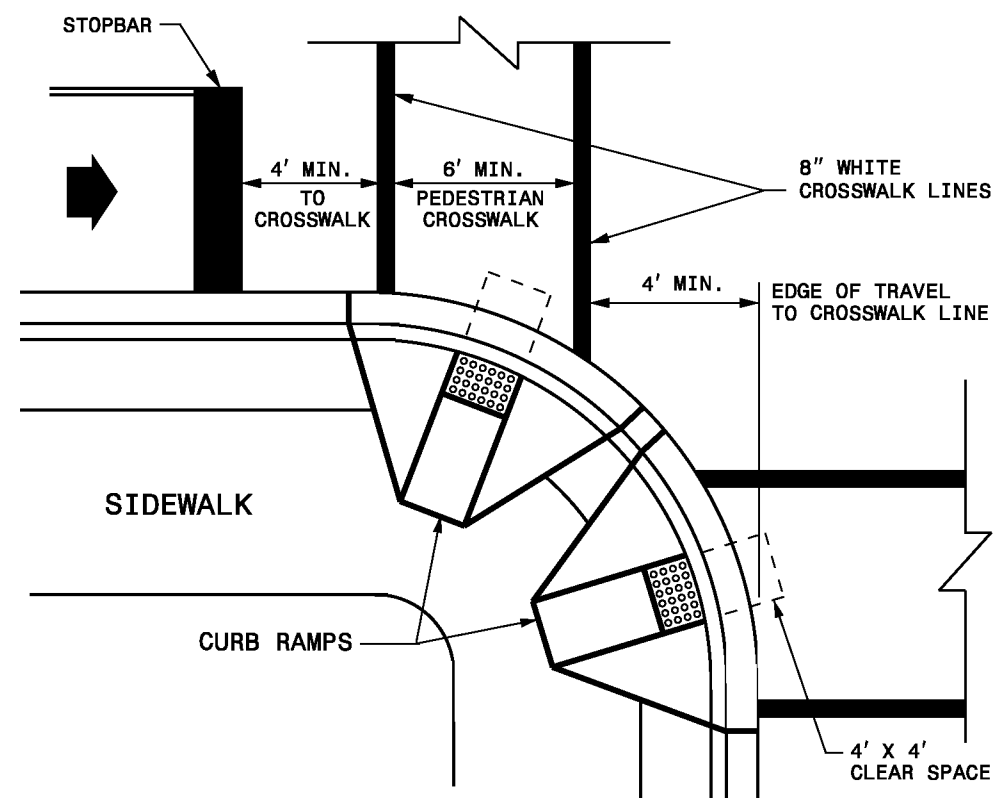
1-12

1-12

**HI-VISIBILITY CROSSWALK**



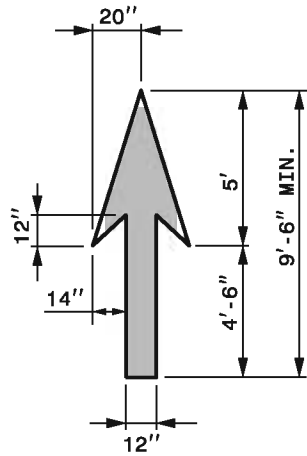
**STANDARD CROSSWALK**



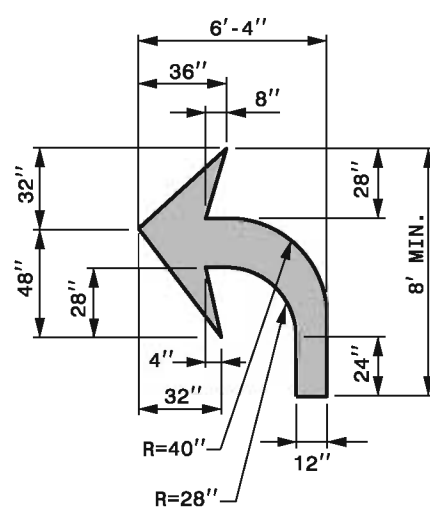
- 1- THE MINIMUM WIDTH OF STANDARD CROSSWALKS IS 6 FEET. THE MINIMUM WIDTH OF HI-VISIBILITY CROSSWALKS IS 10 FEET.
- 2- SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL IS 4' MIN.
- 3- BEYOND THE CURB FACE, A CLEAR SPACE OF 4' X 4' FEET MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE CROSSWALK.
- 4- PLACE STOP BARS A MINIMUM OF 4 FEET FROM NEAREST CROSSWALK LINE. STOP BARS AT SIGNALIZED INTERSECTIONS SHOULD BE COORDINATED WITH THE SIGNAL DESIGN SECTION OR AS DIRECTED BY THE ENGINEER.
- 5- CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST NCDOT ROADWAY STANDARD DRAWINGS.

LEGEND	
	DIRECTION OF TRAFFIC FLOW
	CURB RAMP WITH DETECTABLE WARNING DOMES

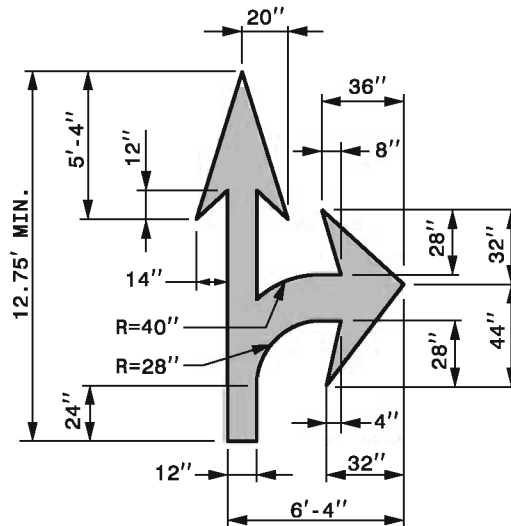
**STRAIGHT ARROW**



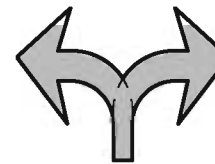
**RIGHT OR LEFT TURN ARROW**



**COMBINATION STRAIGHT AND LEFT OR RIGHT TURN ARROW**

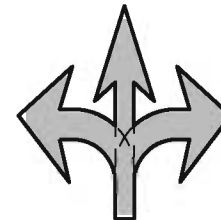


**COMBINATION LEFT AND RIGHT TURN ARROW**



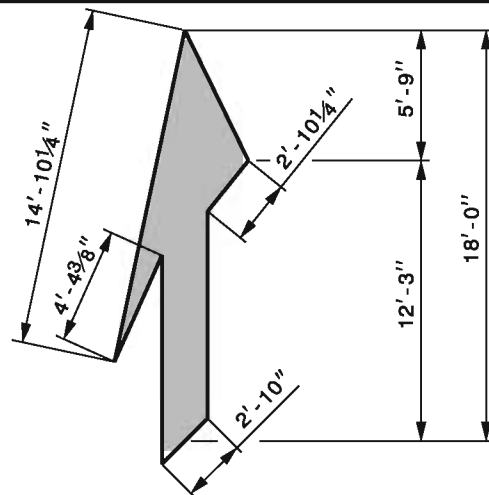
SAME DIMENSIONS APPLY AS FOR THE LEFT/RIGHT TURN ARROW

**COMBINATION LEFT AND STRAIGHT AND RIGHT TURN ARROW**



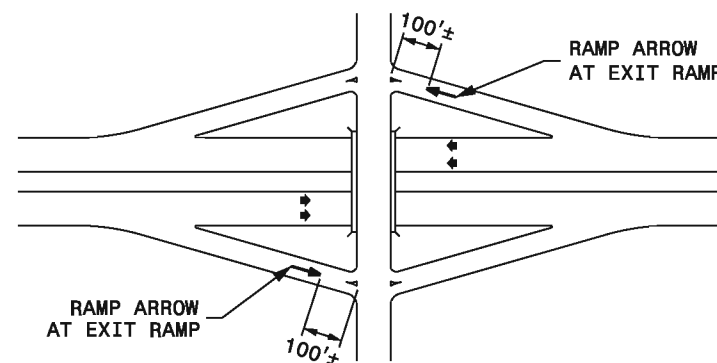
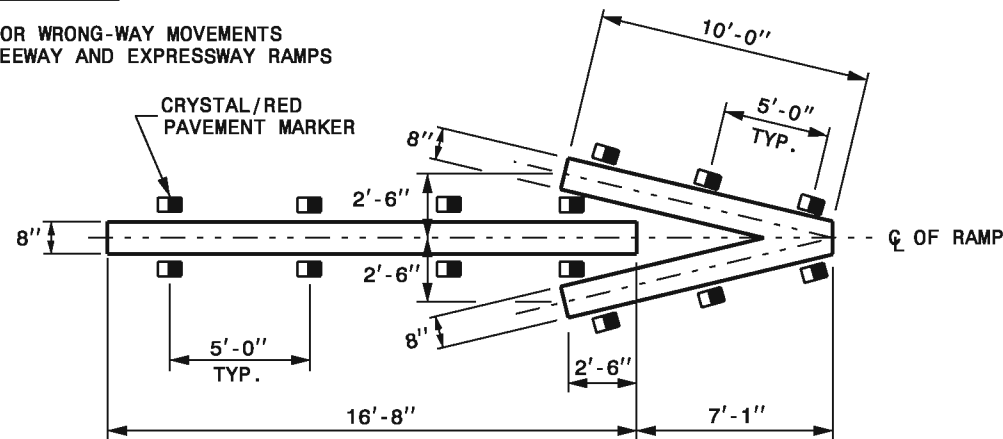
SAME DIMENSIONS APPLY AS FOR THE COMBINATION STRAIGHT AND LEFT/RIGHT TURN ARROW

**MERGE ARROW**



**RAMP ARROW**

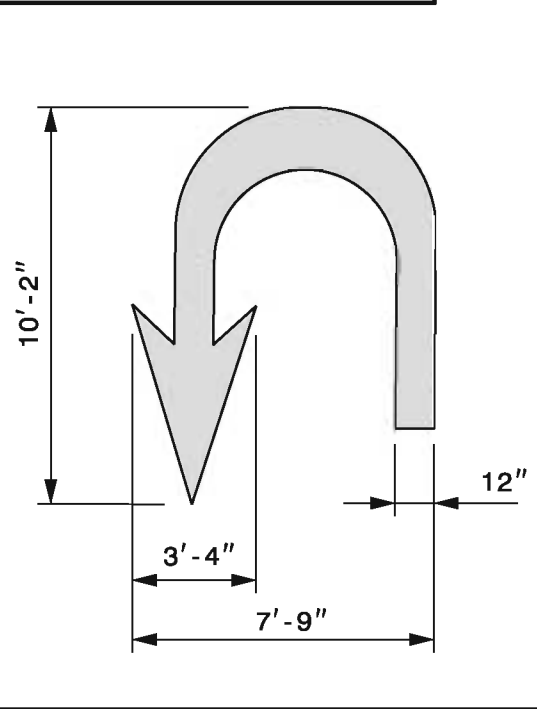
FOR WRONG-WAY MOVEMENTS ON FREEWAY AND EXPRESSWAY RAMP



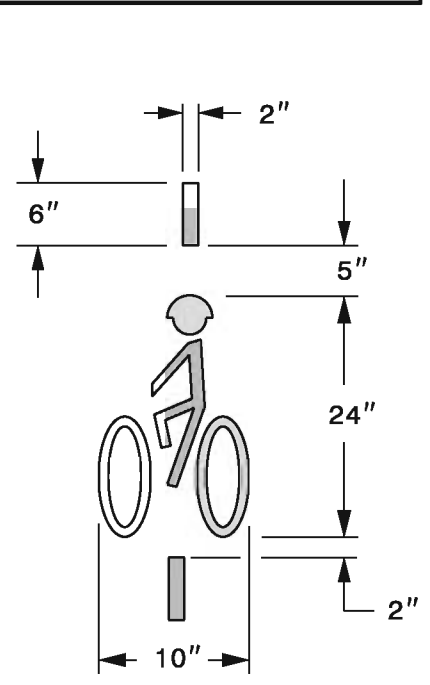
**GENERAL NOTES:**

- 1- USE THE COLOR WHITE FOR ALL PAVEMENT MARKING SYMBOLS.
- 2- DO NOT LOCATE PAVEMENT MARKING SYMBOLS AS TO ENCROACH INTO INTERSECTION AREAS.
- 3- DO NOT PLACE PAVEMENT MARKING SYMBOLS ACROSS TRANSVERSE EXPANSION JOINTS ON PORTLAND CEMENT CONCRETE PAVEMENTS, UNLESS APPROVED BY THE ENGINEER.
- 4- CONFORM ALL SYMBOLS TO THE FHWA "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", (REFER TO SHEETS 5 THRU 8). SYMBOL DIMENSIONS CAN VARY AMONG MANUFACTURERS, THEREFORE SLIGHT VARIANCES ARE ACCEPTABLE, HOWEVER, ALL SYMBOLS ARE REQUIRED TO BE APPROVED BY THE DEPARTMENT.

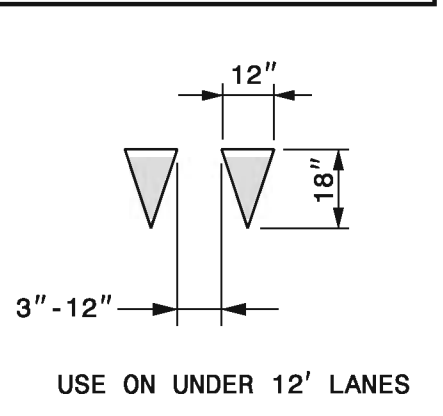
**U-TURN ARROW LEFT**



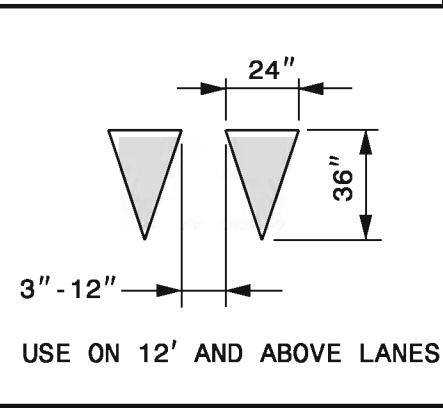
**BICYCLE DETECTOR SYMBOL**



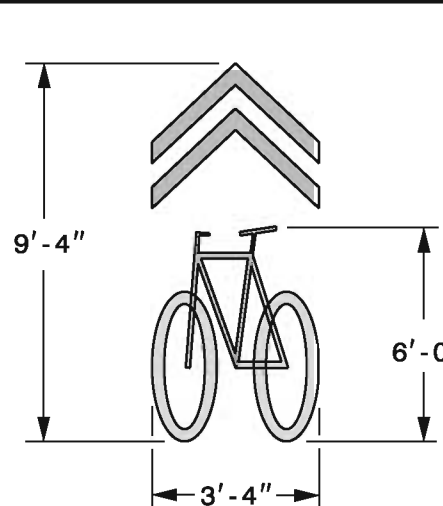
**12" YIELD LINE SYMBOL**



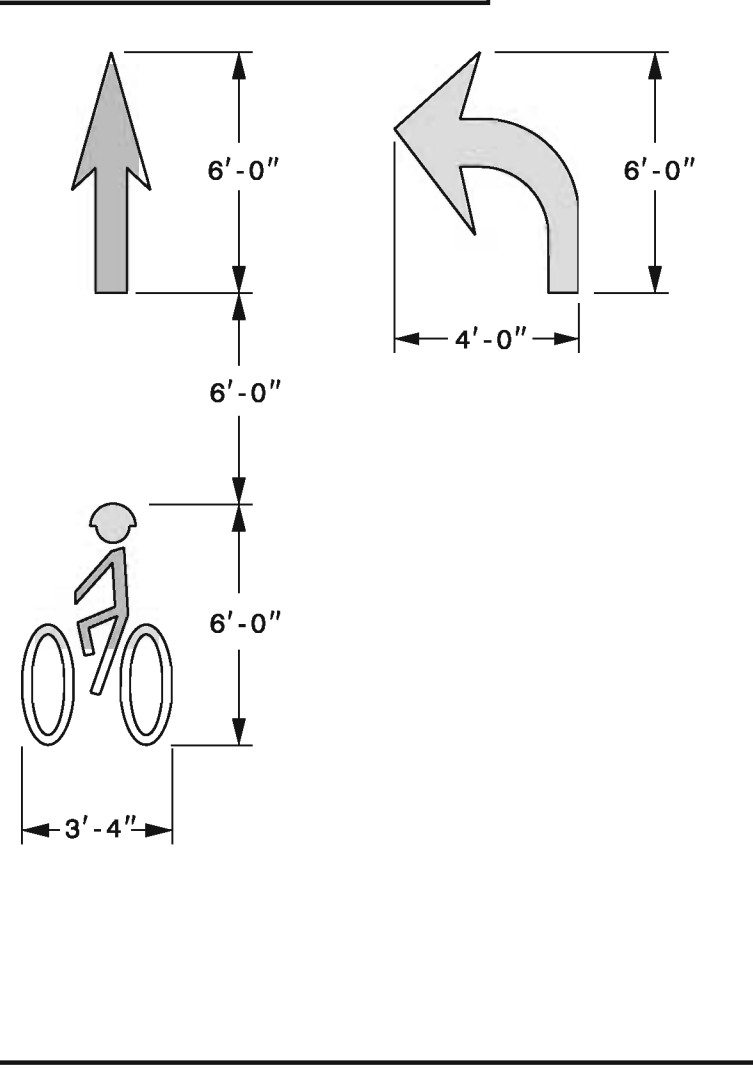
**24" YIELD LINE SYMBOL**



**SHARED LANE SYMBOL**



**BICYCLE LANE SYMBOLS**

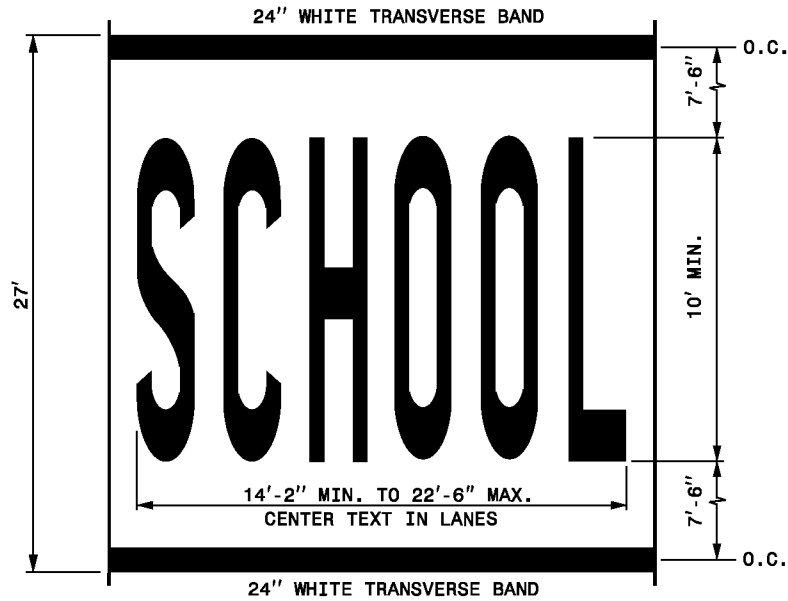


- GENERAL NOTES:
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  - 2- DO NOT LOCATE PAVEMENT MARKING SYMBOLS AS TO ENCROACH INTO INTERSECTION AREAS.
  - 3- DO NOT PLACE PAVEMENT MARKING SYMBOLS ACROSS TRANSVERSE EXPANSION JOINTS ON PORTLAND CEMENT CONCRETE PAVEMENTS, UNLESS APPROVED BY THE ENGINEER.
  - 4- CONFORM ALL SYMBOLS TO THE FHWA "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", (REFER TO SHEETS 5 THRU 8). SYMBOL DIMENSIONS CAN VARY AMONG MANUFACTURERS, THEREFORE SLIGHT VARIANCES ARE ACCEPTABLE, HOWEVER, ALL SYMBOLS ARE REQUIRED TO BE APPROVED BY THE DEPARTMENT.



1-12

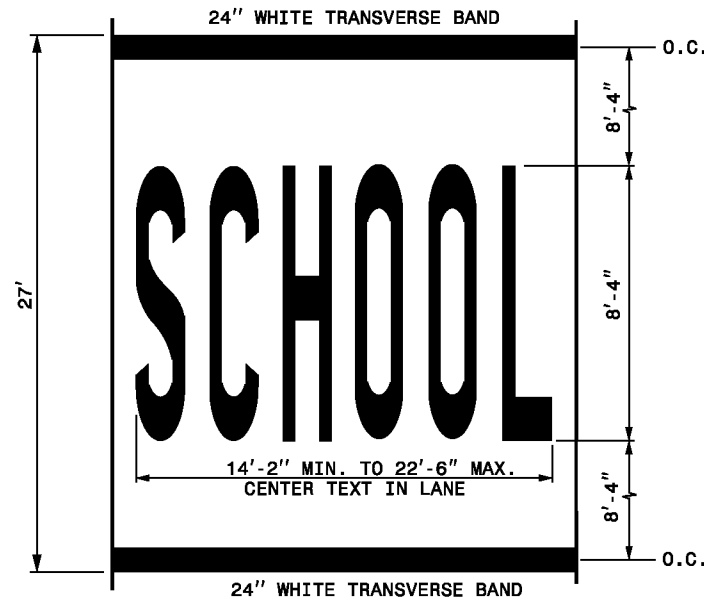
**MULTI-LANE WIDTH "SCHOOL"**



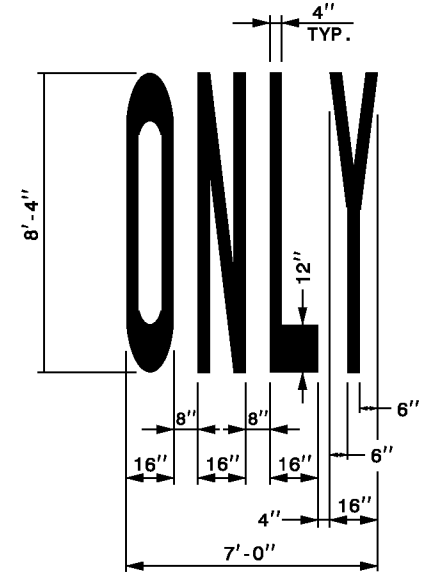
LETTER HEIGHT = 10' MIN.  
LETTER WIDTH = 20"  
SPACING = 10" MIN./30" MAX. (USE EQUAL SPACING BETWEEN LETTERS)

NOTE: THE TWO-LANE PAVEMENT MARKING DIMENSIONS OF "SCHOOL" SHOWN IN PART 7 OF THE MUTCD MAY ALSO BE USED.

**SINGLE LANE WIDTH "SCHOOL"**

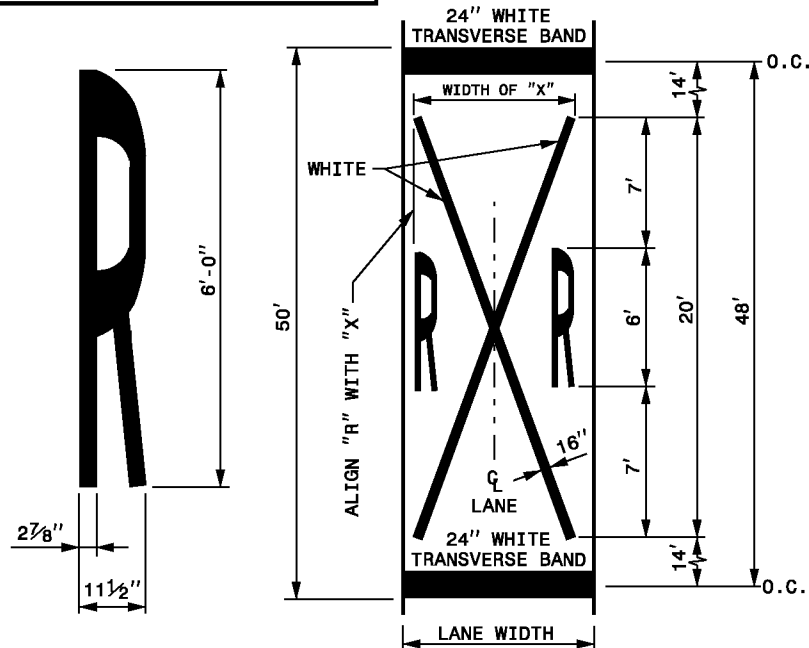


LETTER HEIGHT = 8'-4"  
LETTER WIDTH = 16"  
SPACING = 4" MIN./8" MAX. (USE EQUAL SPACING BETWEEN LETTERS)



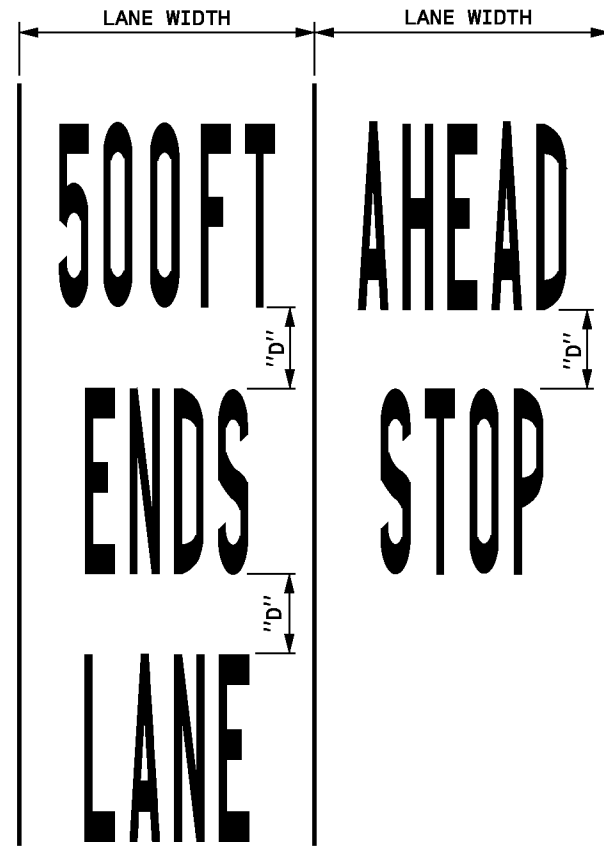
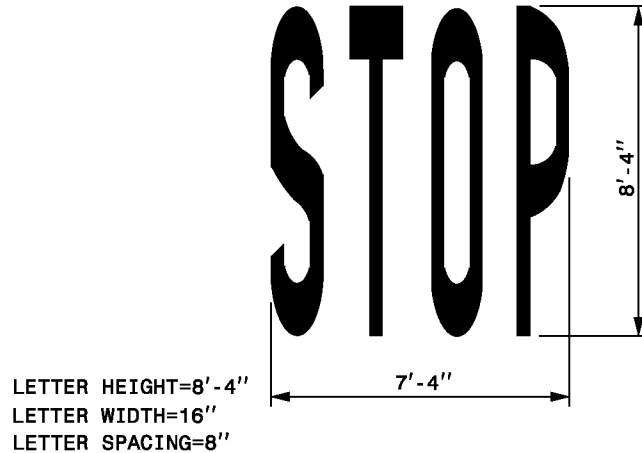
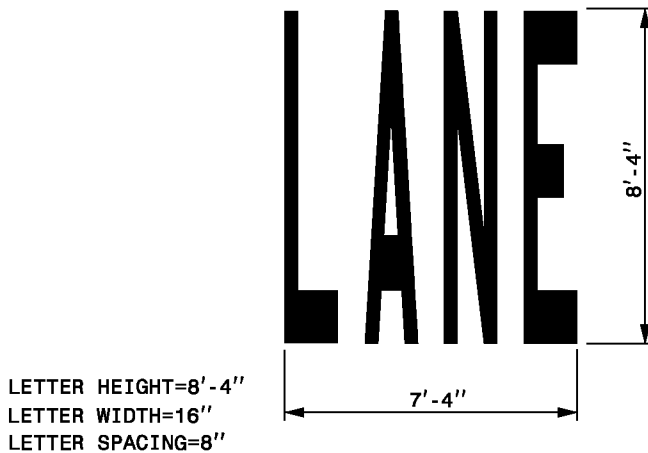
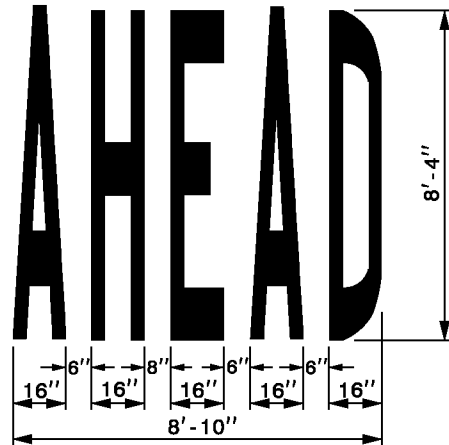
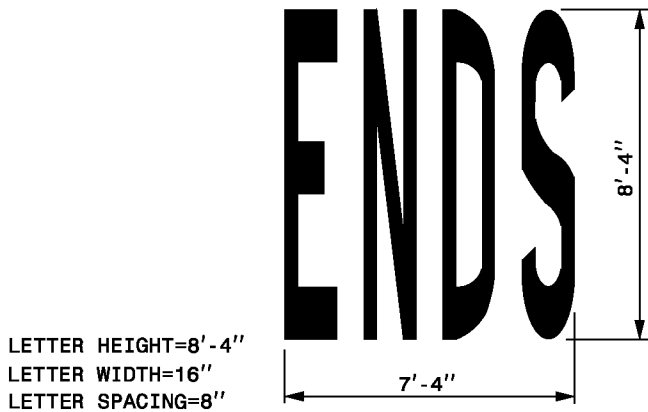
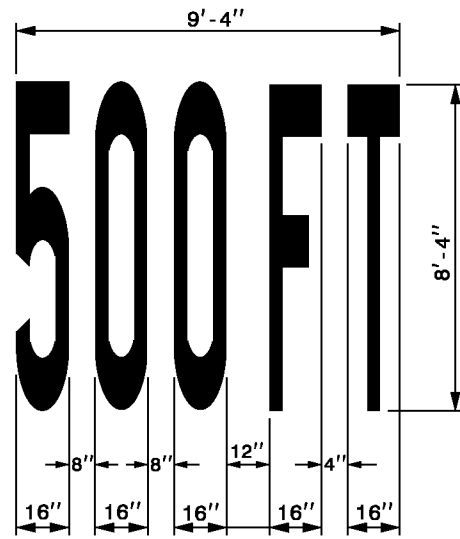
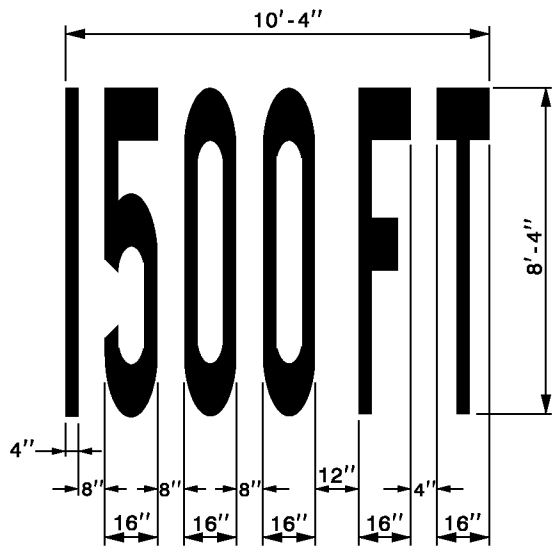
1-12

**RAILROAD RXR SYMBOL**



LANE WIDTH (FEET)	WIDTH OF "X" (FEET)
8' ≤ W ≤ 9'	7'
9' < W ≤ 12'	8'
W > 12'	10'

ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
SYMBOLS AND WORD MESSAGES



DIRECTION OF TRAVEL  
WORDS ARE CENTERED IN TRAVEL LANE

SPEED LIMIT (MPH)	DISTANCE "D" BETWEEN WORD SYMBOLS
35 OR LESS	40'
40 - 50	60'
55 - 60	80'
65 OR GREATER	100'

DISTANCE "D" MAY BE ADJUSTED AS NECESSARY FOR OPTICAL SPACING

ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
SYMBOLS AND WORD MESSAGES

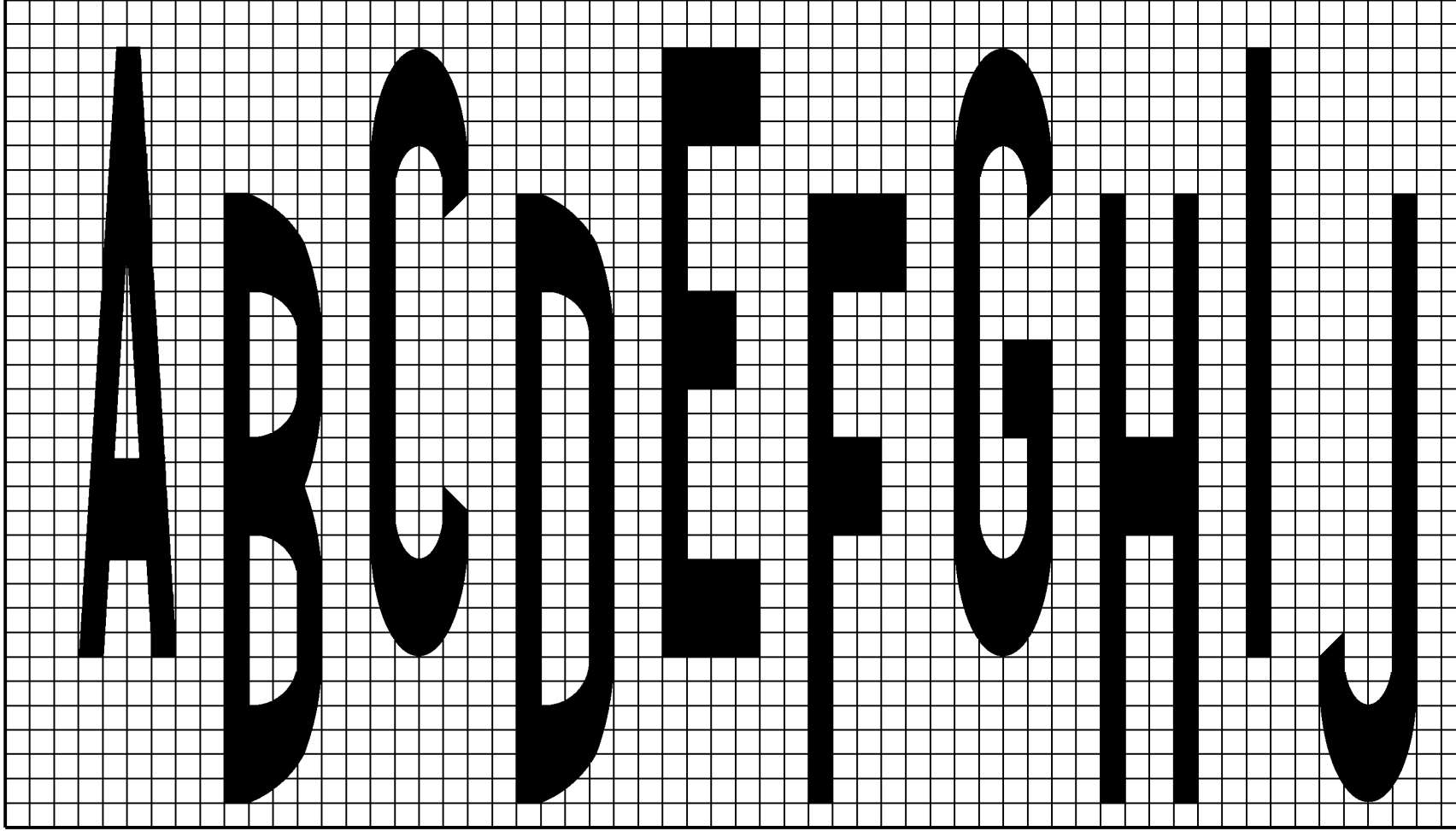
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
SYMBOLS AND WORD MESSAGES

SHEET 5 OF 8

1205.08



GENERAL NOTES:

- 1- STANDARD CHARACTERS ARE 25 GRID UNITS HIGH AND 4 UNITS WIDE (EXCEPT LETTER "I" AND THE NUMBER "1" WHICH ARE 1 UNIT WIDE).
- 2- VERTICAL STROKES ARE 1 UNIT WIDE, HORIZONTAL STROKES ARE 4 UNITS HIGH.
- 3- SPACE 1 UNIT (MIN.) BETWEEN CHARACTERS OR AS OTHERWISE SHOWN (OPTICAL SPACING MAY BE USED).
- 4- STANDARD CHARACTER HEIGHTS ARE 8'-4". EXCEPT FOR THE 6' RAILROAD 'R' SYMBOL AND THE TWO-LANE 10' SCHOOL SYMBOL.
- 5- FOR 8'-4" HIGH CHARACTERS, THE WIDTH IS 16" (USE 4" FOR EACH GRID SQUARE).
- 6- FOR 10' HIGH CHARACTERS, THE WIDTH IS 20" (USE 5" FOR EACH GRID SQUARE).
- 7- FOR 6' HIGH CHARACTERS, THE WIDTH IS 11½" (USE 2⅞" FOR EACH GRID SQUARE).

SHEET 5 OF 8

1205.08

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

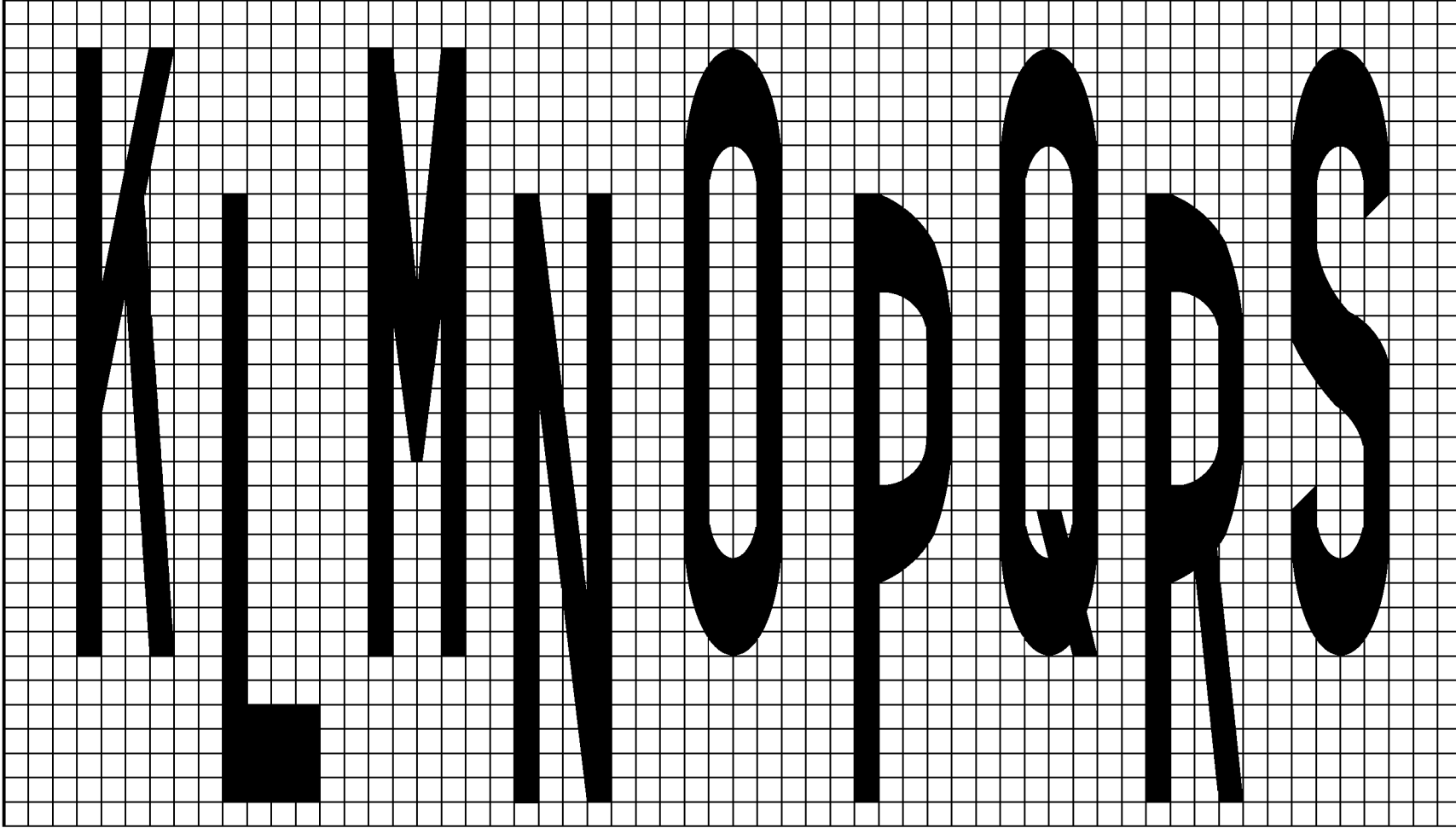
1-12

ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
SYMBOLS AND WORD MESSAGES

SHEET 5 OF 8

1205.08

ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
SYMBOLS AND WORD MESSAGES



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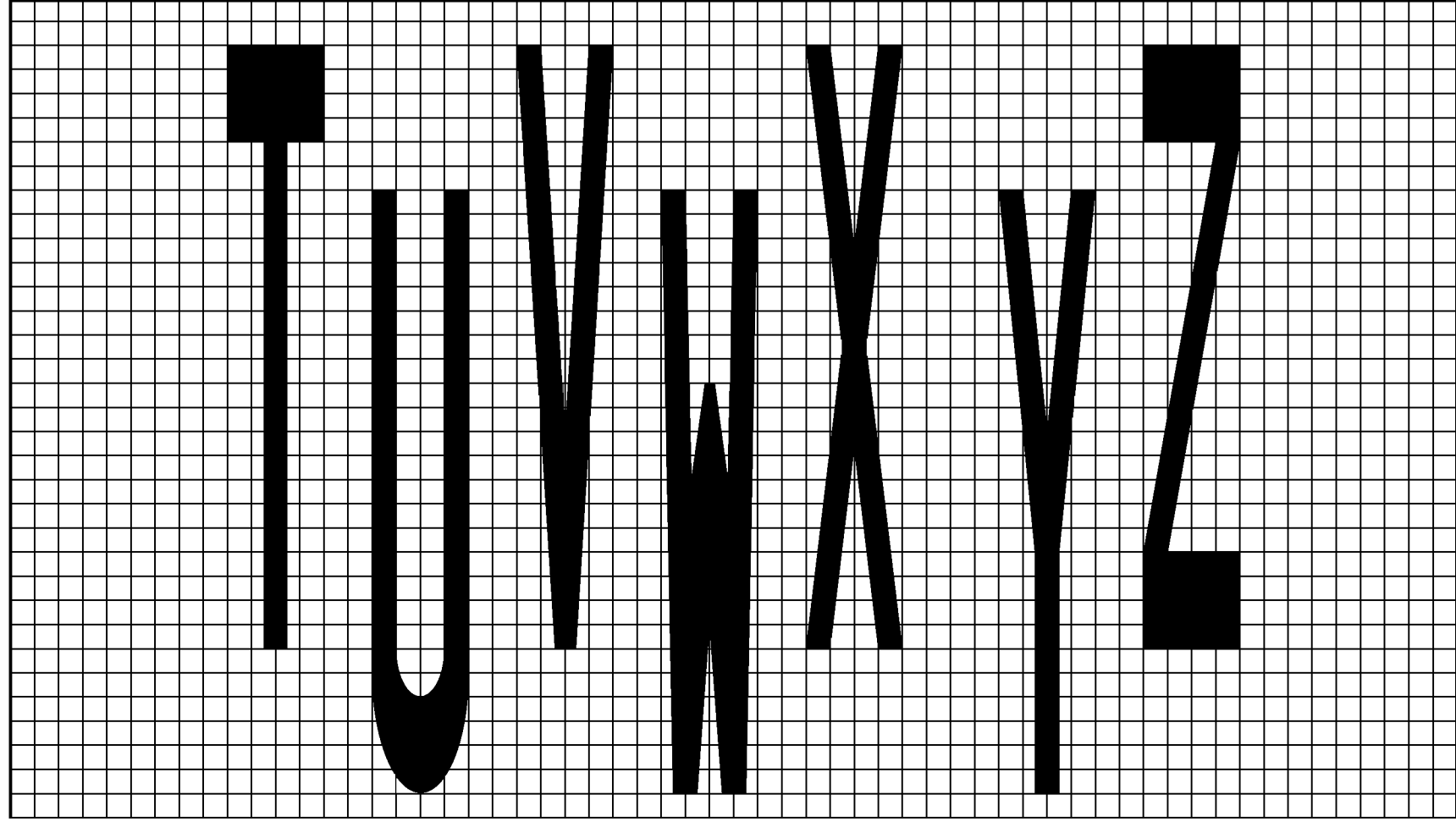
ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
SYMBOLS AND WORD MESSAGES

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
STANDARD ALPHABET AND SYMBOLS FOR  
HIGHWAY PAVEMENT MARKING (USDOT-FHWA)

SHEET 7 OF 8  
**1205.08**



GENERAL NOTES:

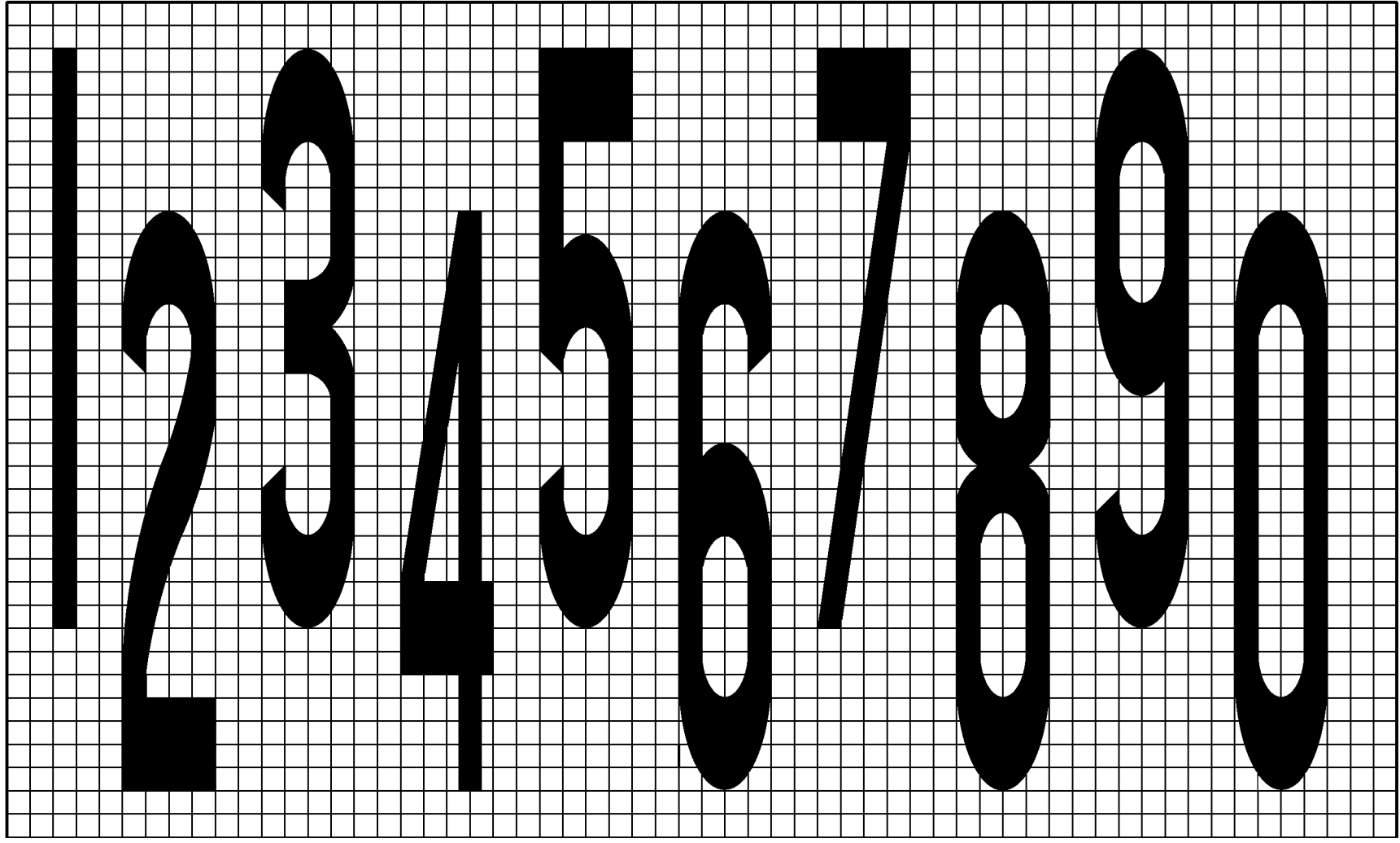
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RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
STANDARD ALPHABET AND SYMBOLS FOR  
HIGHWAY PAVEMENT MARKING (USDOT-FHWA)

SHEET 7 OF 8  
**1205.08**

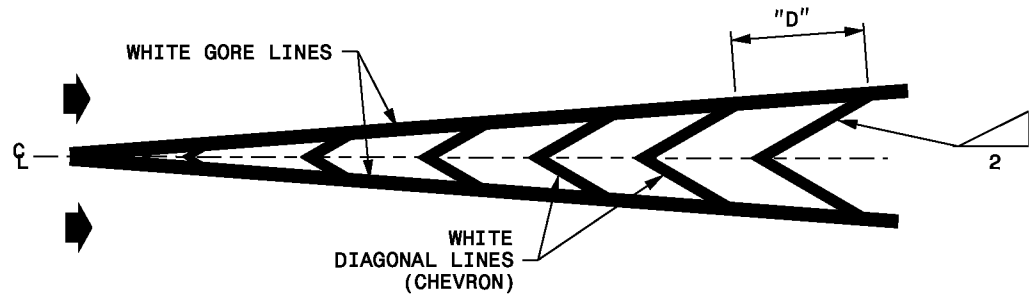


GENERAL NOTES:

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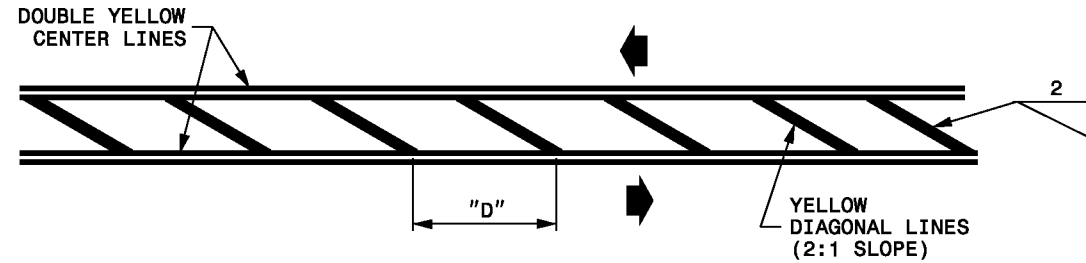
1-12

CHANNELIZING ISLAND SEPARATING TRAFFIC IN SAME DIRECTION

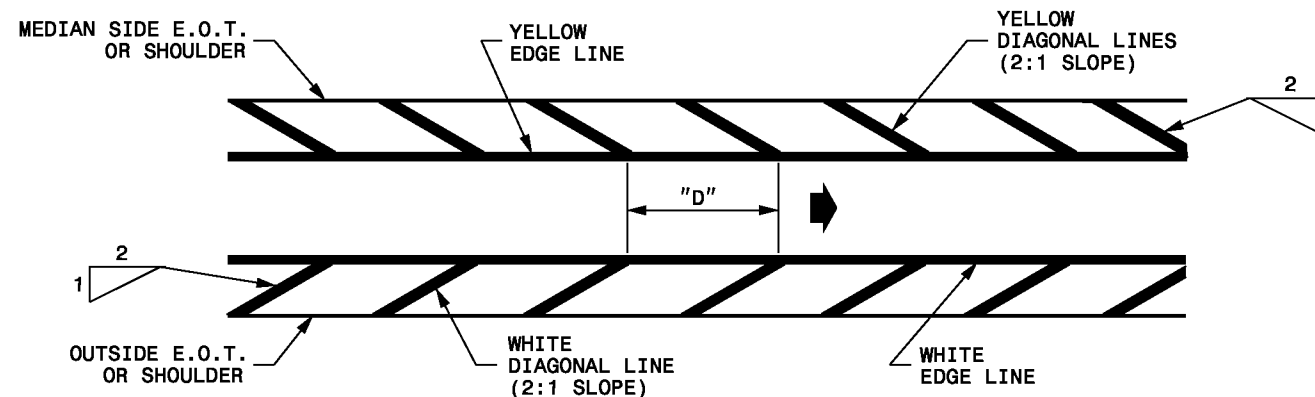


1-12

MEDIAN ISLAND SEPARATING TRAFFIC IN OPPOSING DIRECTIONS



EDGE OF PAVEMENT OR SHOULDER ISLAND



GENERAL NOTES:

- 1- "D" = SPACING OF DIAGONAL LINES (TYPICALLY EQUAL IN FEET TO THE POSTED SPEED LIMIT).
- 2- INCREASE SPACING OF DIAGONALS TO 200' OR MORE ON INTERSTATE ROADWAYS.
- 3- ADJUST SPACING OF DIAGONALS DEPENDING ON THE LENGTH OF THE ISLAND. SPACING MAY BE ADJUSTED AS DETERMINED BY THE ENGINEER.

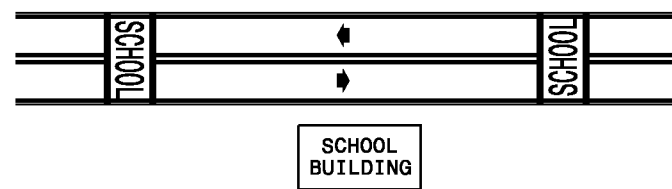
LEGEND

- E.O.T.= EDGE OF TRAVEL
- ➔ DIRECTION OF TRAFFIC FLOW

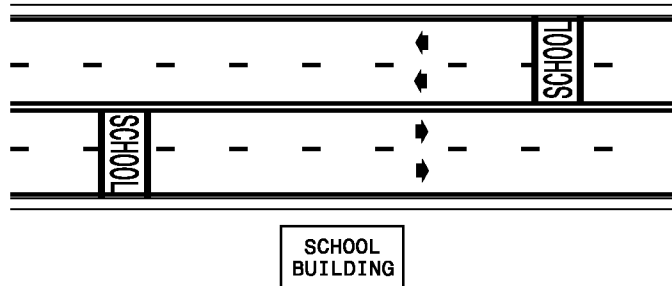
1-12

1-12

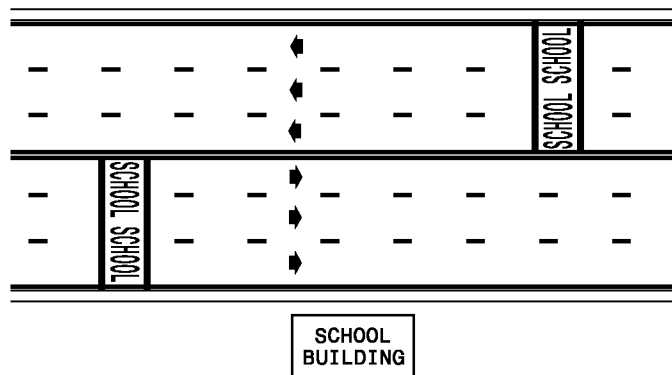
TWO-LANE, TWO-WAY ROADWAY



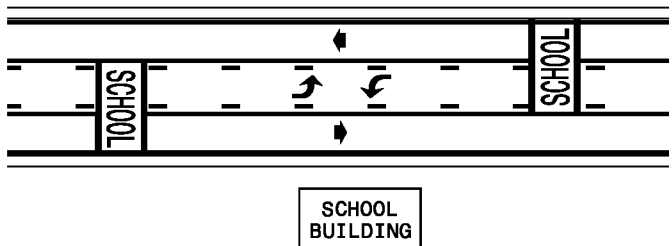
FOUR-LANE ROADWAY (DIVIDED AND UNDIVIDED)



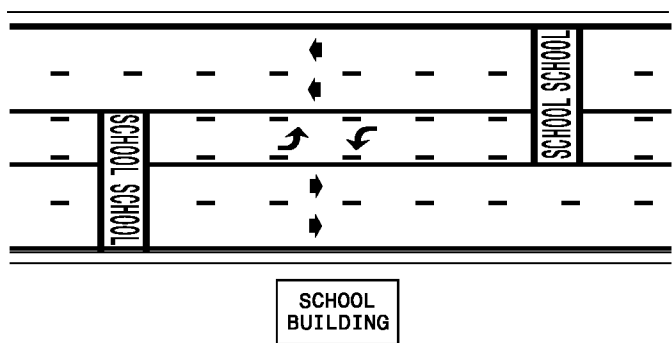
SIX-LANE ROADWAY (DIVIDED AND UNDIVIDED)



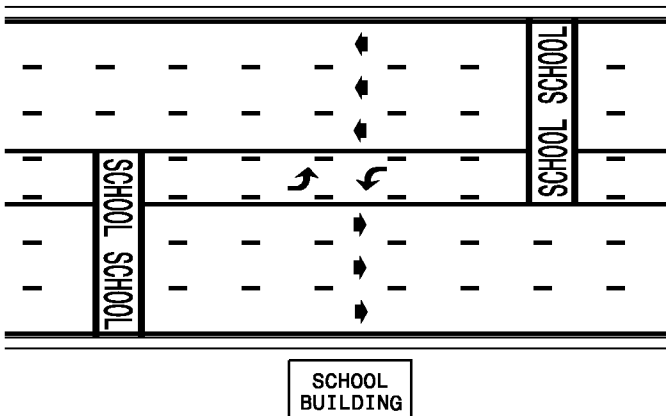
TWO-LANE, TWO-WAY ROADWAY WITH TWO-WAY LEFT TURN LANE



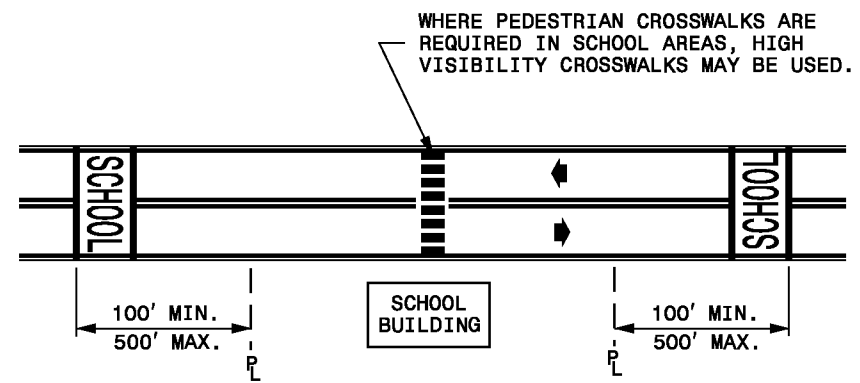
FOUR-LANE ROADWAY WITH TWO-WAY LEFT TURN LANE



SIX-LANE ROADWAY WITH TWO-WAY LEFT TURN LANE



TYPICAL MARKING PLACEMENT



WHERE PEDESTRIAN CROSSWALKS ARE REQUIRED IN SCHOOL AREAS, HIGH VISIBILITY CROSSWALKS MAY BE USED.

GENERAL NOTES:

- 1- SINGLE LANE WIDTH "SCHOOL" WORD MESSAGES CAN BE USED IN EACH APPROACH LANE.
- 2- EXTEND 24" WHITE TRANSVERSE LINES ACROSS ALL APPROACH LANES TO THE SCHOOL AREA. EXTEND 24" WHITE TRANSVERSE LINES ACROSS ENTIRE ROAD WHEN TWO-LANE WIDTH MESSAGES ARE USED ON TWO-LANE, TWO WAY ROADWAYS.
- 3- REFER TO ROADWAY STANDARD DRAWING 1205.08 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND	
P	PROPERTY LINE
↔	DIRECTION OF TRAFFIC FLOW
↶	PAVEMENT MARKING SYMBOLS & CHARACTERS
SCHOOL	

ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
SCHOOL AREAS

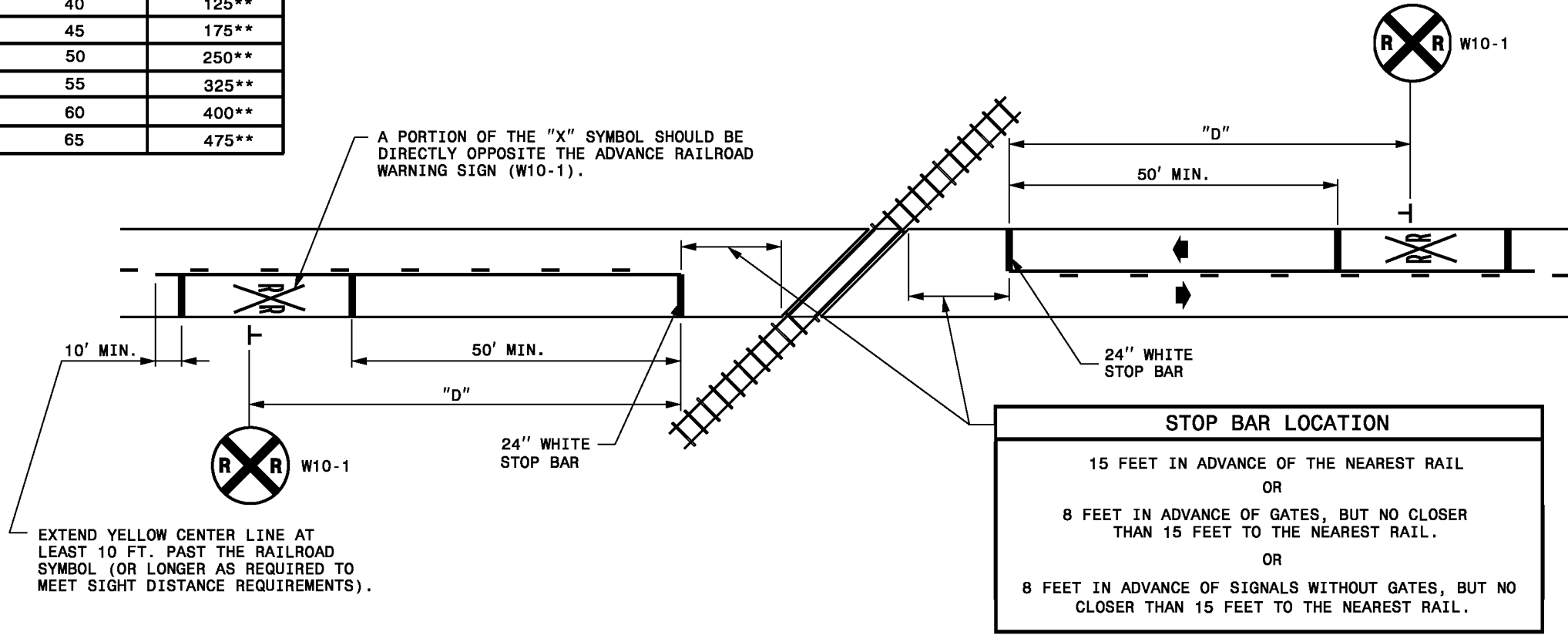
ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
SCHOOL AREAS



ADVANCE WARNING SIGN PLACEMENT DISTANCE	
POSTED OR 85 PERCENTILE SPEED (MPH)	"D" (FEET)
≤ 35	100**
40	125**
45	175**
50	250**
55	325**
60	400**
65	475**

\* ADVANCE PAVEMENT MARKINGS SHALL NOT REQUIRED WHEN THE POSTED OR STATUTORY HIGHWAY SPEED IS LESS THAN 40 MPH OR IN URBAN AREAS IF AN ENGINEERING STUDY INDICATES THAT OTHER INSTALLED DEVICES PROVIDE SUITABLE WARNING AND CONTROL. REFER TO PART 8 OF THE MUTCD FOR ADDITIONAL GUIDANCE.

\*\* THE PLACEMENT LOCATION IS DEPENDENT ON SITE CONDITIONS TO PROVIDE AN ADEQUATE ADVANCE WARNING FOR THE DRIVER. PLACEMENT MAY NEED TO BE ADJUSTED FOR A SIGN LEGIBILITY DISTANCE OF 250 FT.



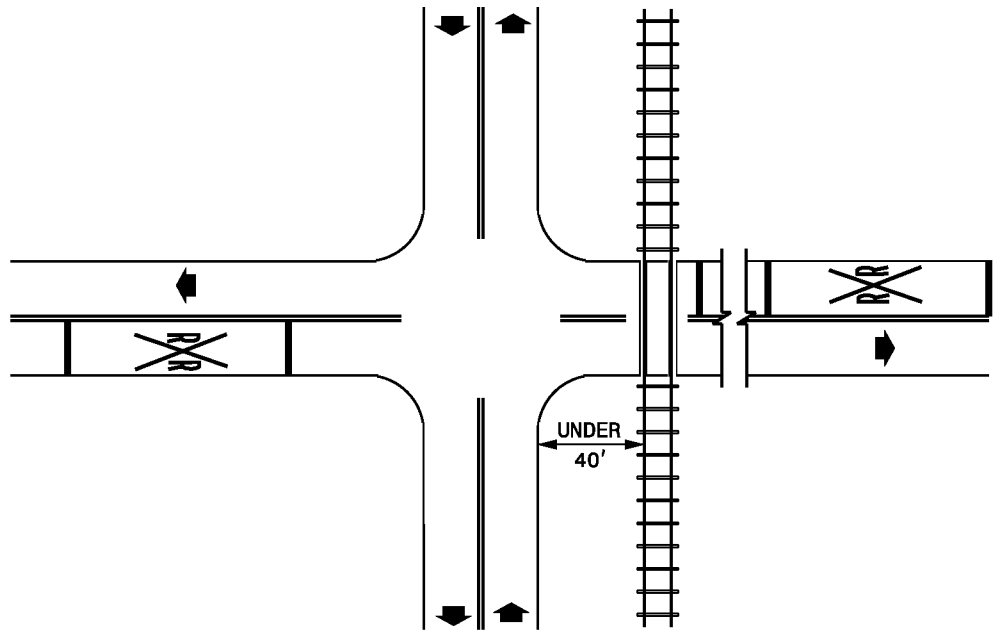
GENERAL NOTES:

- 1- IDENTICAL MARKINGS SHALL BE PLACED IN EACH APPROACH LANE ON ALL PAVED APPROACHES TO GRADE CROSSINGS WHERE SIGNALS OR AUTOMATIC GATES ARE LOCATED, AND AT ALL OTHER GRADE CROSSINGS WHERE THE POSTED OR STATUTORY HIGHWAY SPEED IS 40 MPH OR GREATER.
- 2- EXTEND "RXR" SYMBOL MARKINGS 6 INCHES FROM THE EDGE OF PAVEMENT TO 8 INCHES FROM THE CENTER LINE OF THE ROADWAY OR POSITION THE MARKINGS TO ACCOMMODATE FUTURE PLACEMENT OF EDGE LINE AND CENTER LINE PAVEMENT MARKINGS WHERE CENTER LINES OR EDGE LINES DO NOT EXIST.
- 3- POSITION ALL TRANSVERSE BANDS AND STOP BARS PERPENDICULAR TO THE CENTERLINE OF THE ROADWAY.
- 4- CENTER THE "RXR" SYMBOL ACROSS THE ENTIRE ROADWAY FOR ROADWAYS THAT ARE LESS THAN 16 FEET IN WIDTH.
- 5- EXTEND CENTER LINES BEYOND THE STOP BARS AT "RXR" CROSSING WITH SIGNIFICANT ROADWAY CURB APPROACH.
- 6- REFER TO ROADWAY STANDARD DRAWING 1205.08 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.
- 7- REFER TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" OR SIGNING PLANS FOR ADDITIONAL WARNING SIGNS.

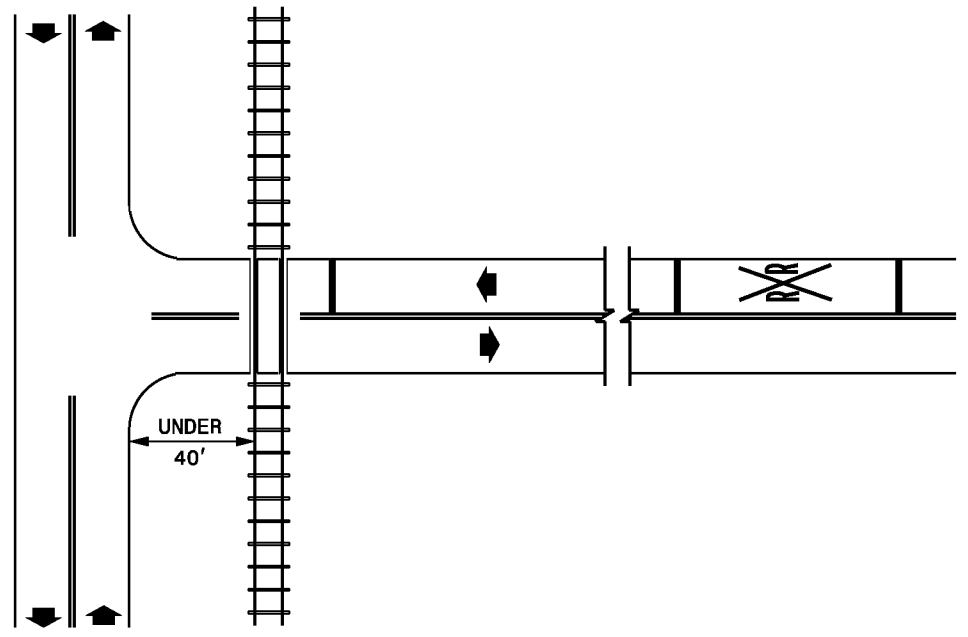
LEGEND	
	DIRECTION OF TRAFFIC FLOW
	PAVEMENT MARKING SYMBOLS
	RAILROAD TRACKS
	STATIONARY SIGN

1-12

RAILROAD LESS THAN 40 FT. FROM INTERSECTION

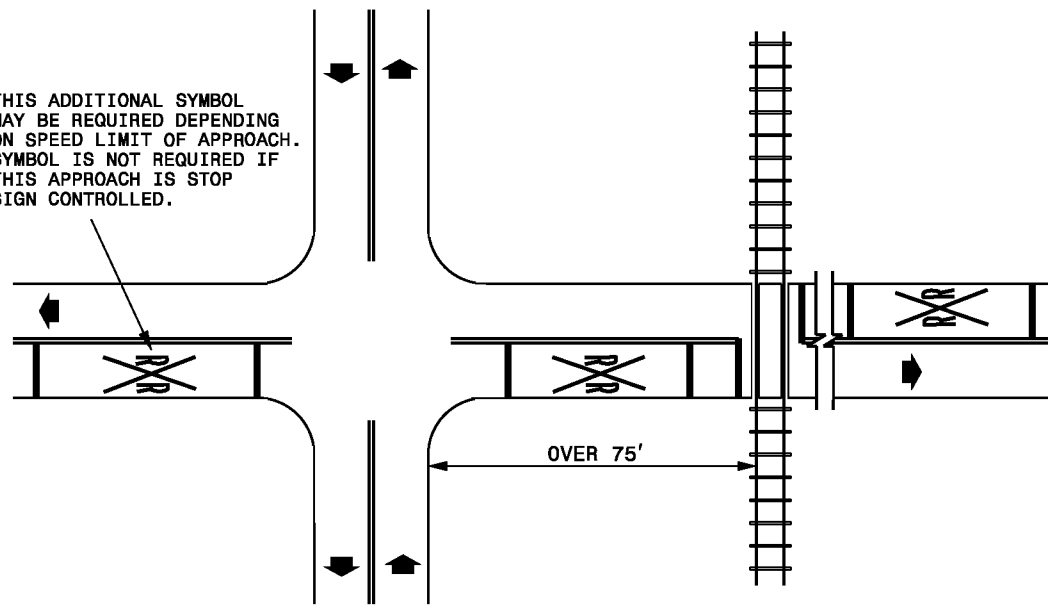


RAILROAD LESS THAN 40 FT. FROM INTERSECTION

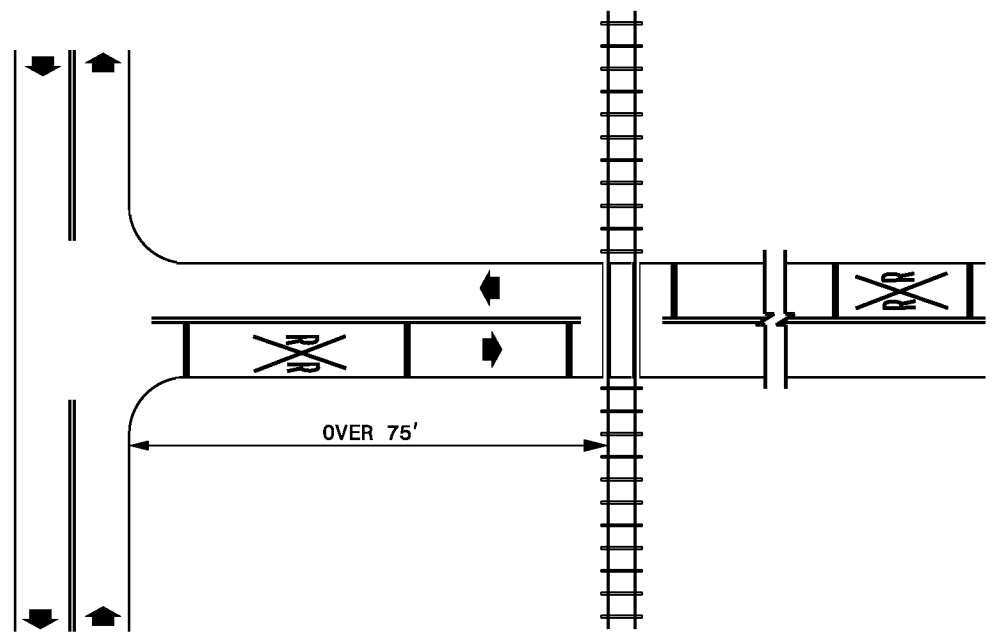


1-12

RAILROAD MORE THAN 75 FT. FROM INTERSECTION



RAILROAD MORE THAN 75 FT. FROM INTERSECTION

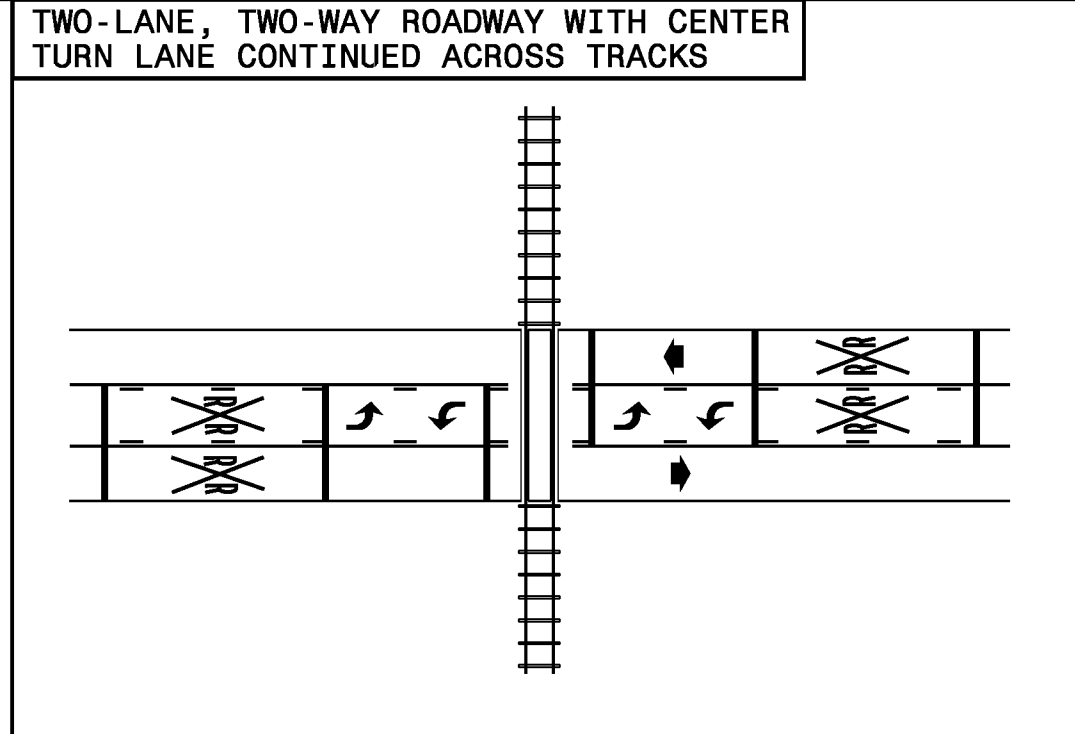
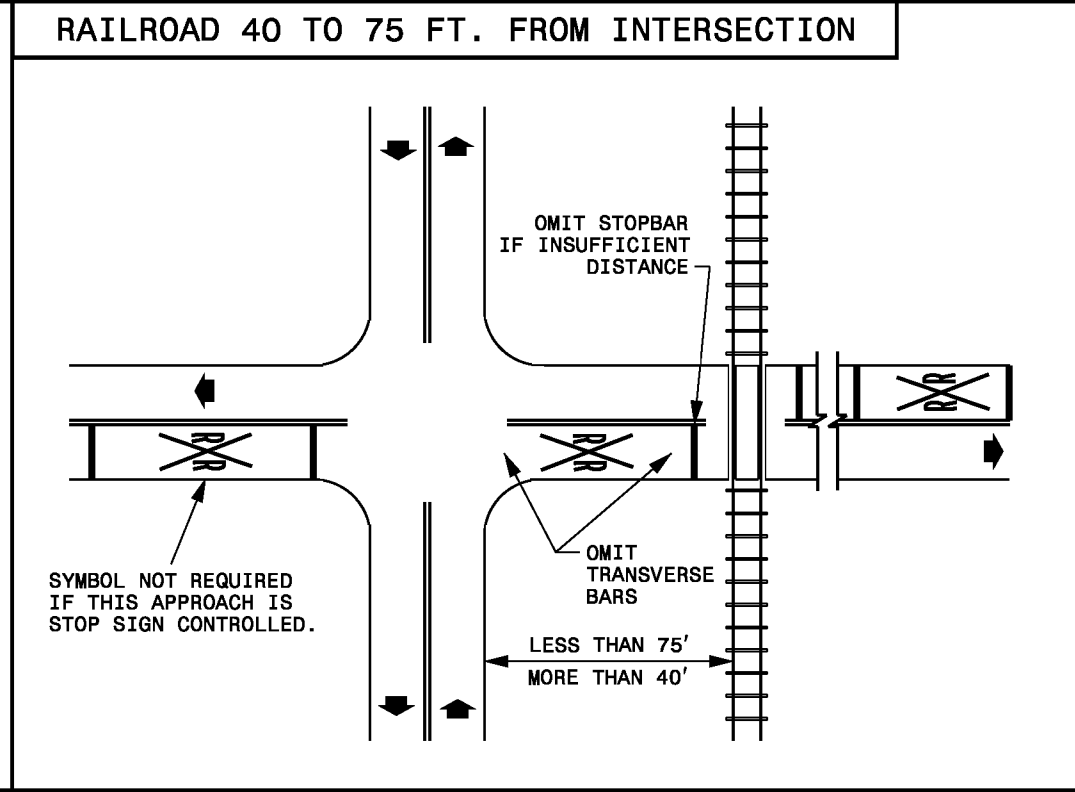
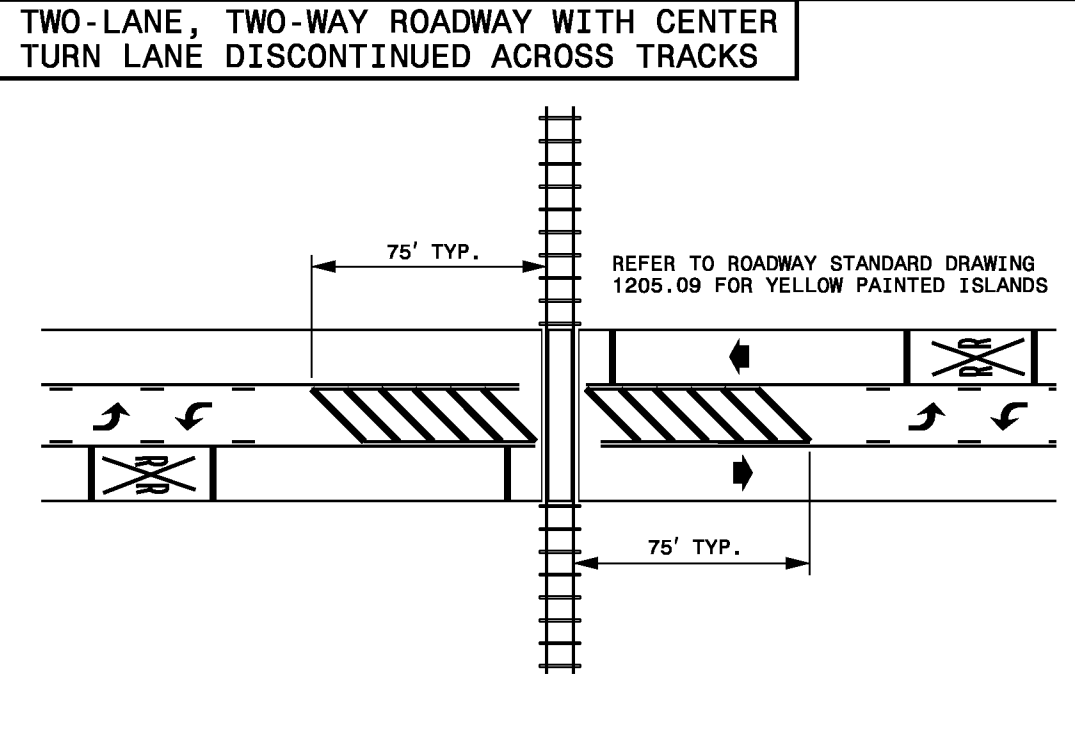
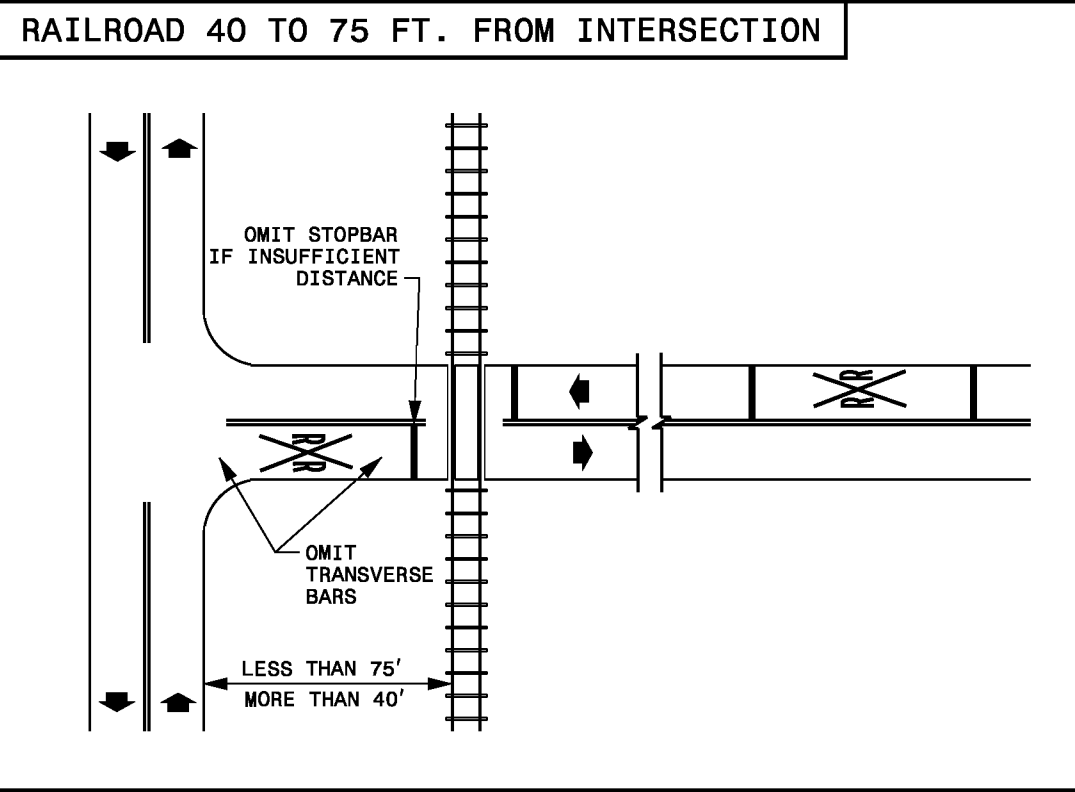


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1-12

ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
 RAILROAD CROSSINGS

SHEET 3 OF 4  
**1205.11**



STATE OF NORTH CAROLINA  
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1-12

ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
 RAILROAD CROSSINGS

SHEET 3 OF 4  
**1205.11**

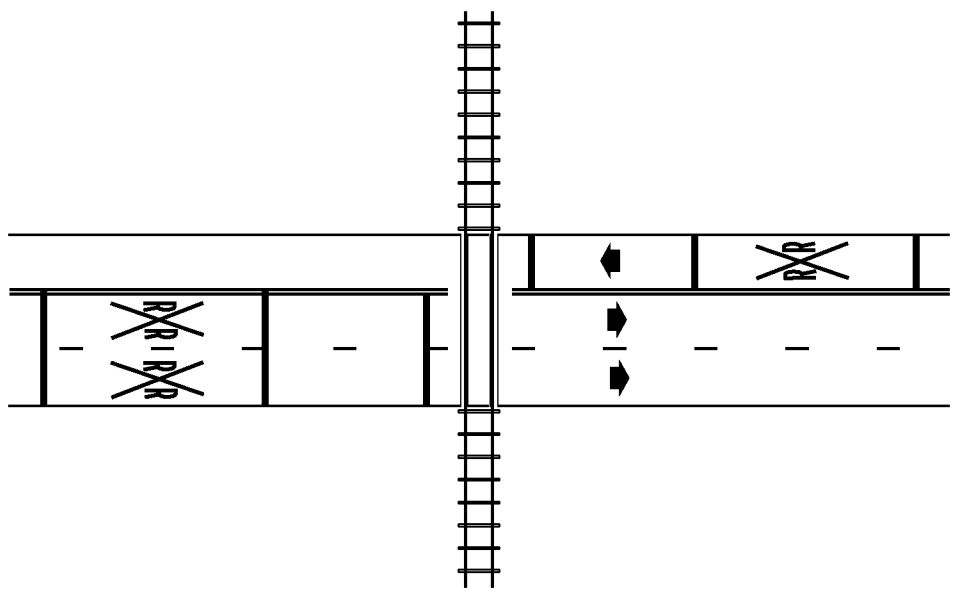
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

1-12

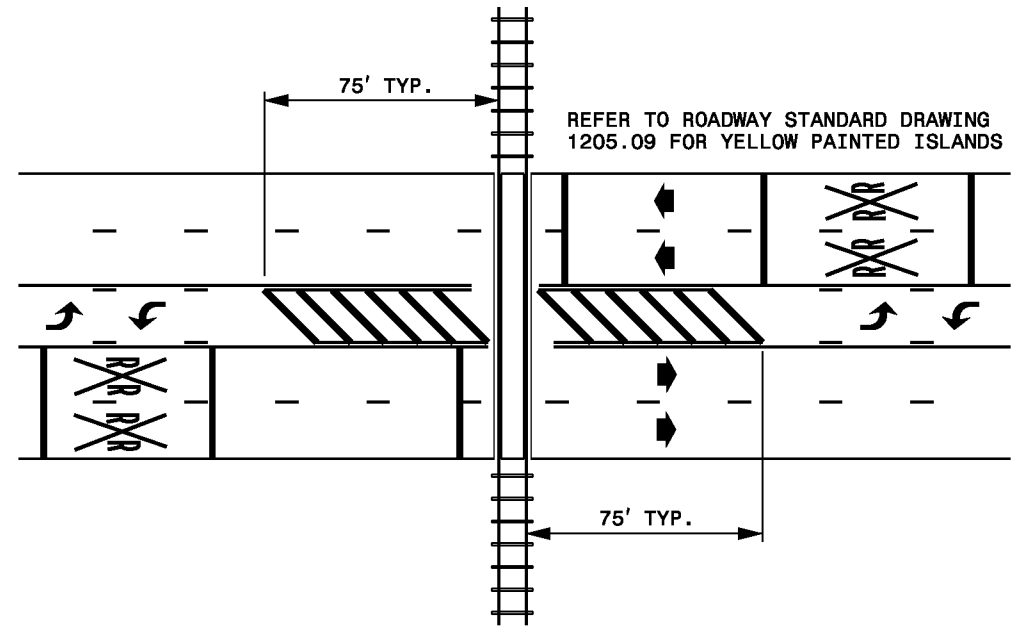
ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
RAILROAD CROSSINGS

SHEET 4 OF 4  
**1205.11**

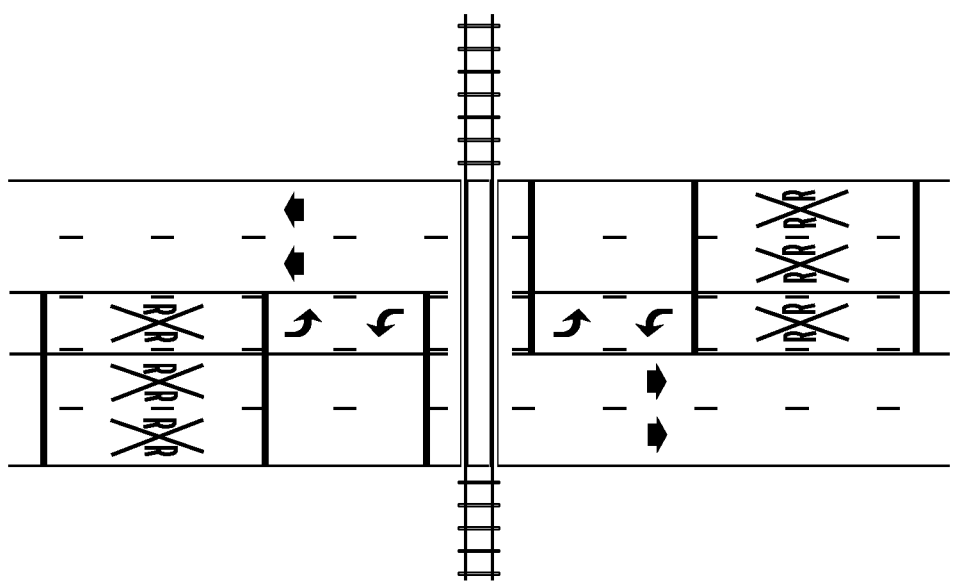
3-LANE, 2-WAY ROADWAY  
(NO CENTER TURN-LANE)



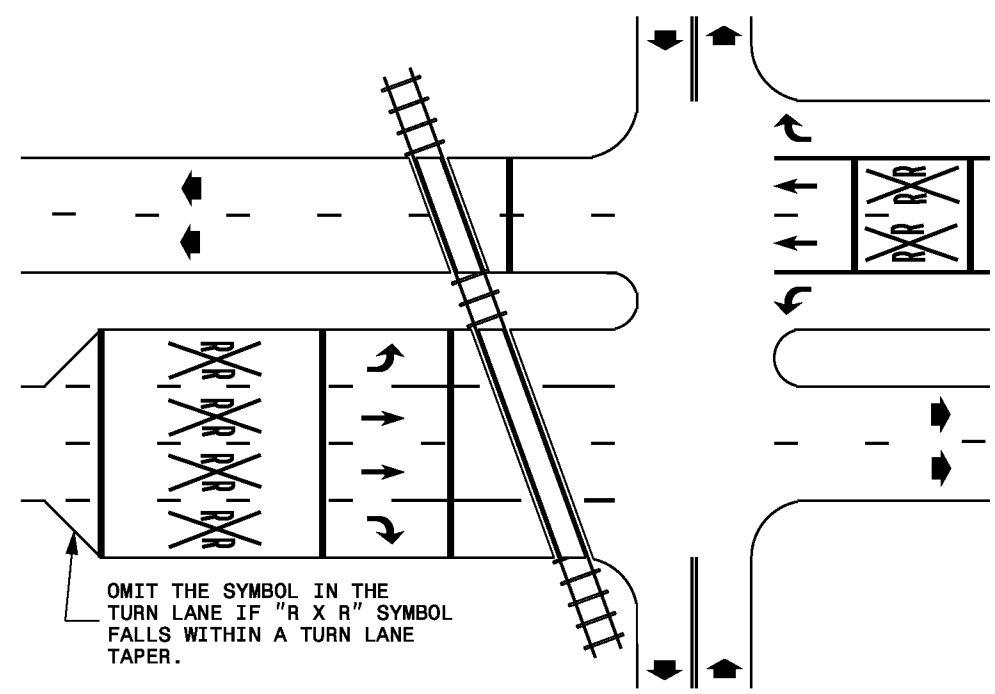
MULTI-LANE ROADWAY WITH CENTER TURN  
LANE DISCONTINUED ACROSS TRACKS



MULTI-LANE ROADWAY WITH CENTER TURN  
LANE CONTINUED ACROSS TRACKS



TURN LANES AT RAILROAD CROSSING



OMIT THE SYMBOL IN THE  
TURN LANE IF "R X R" SYMBOL  
FALLS WITHIN A TURN LANE  
TAPER.

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ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
RAILROAD CROSSINGS

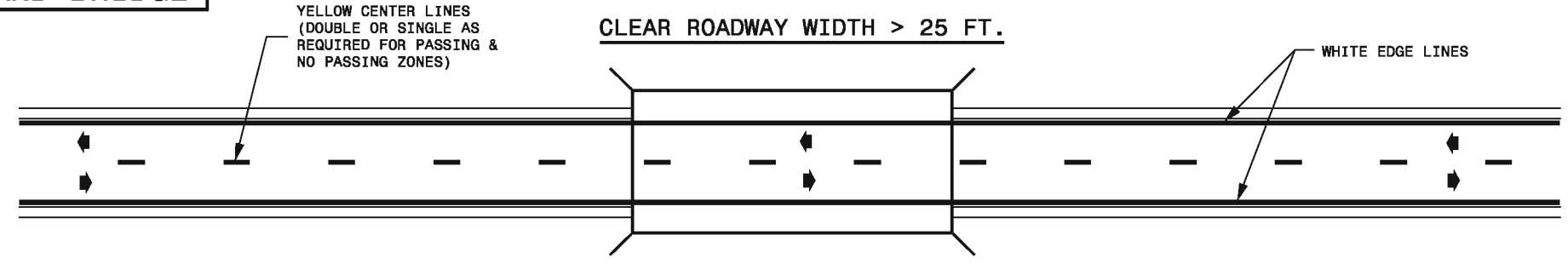
SHEET 4 OF 4  
**1205.11**

1-12

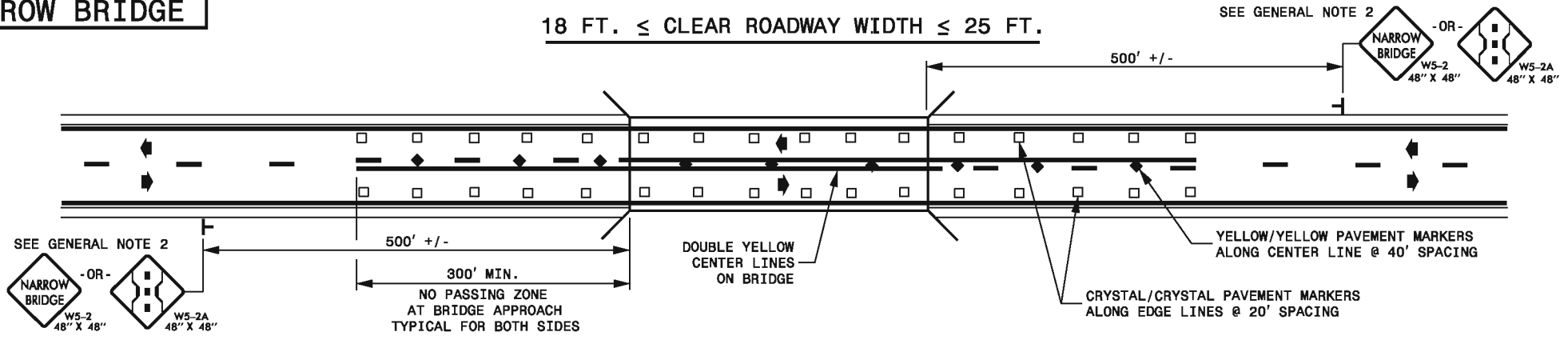
SHEET 1 OF 1

1205.12

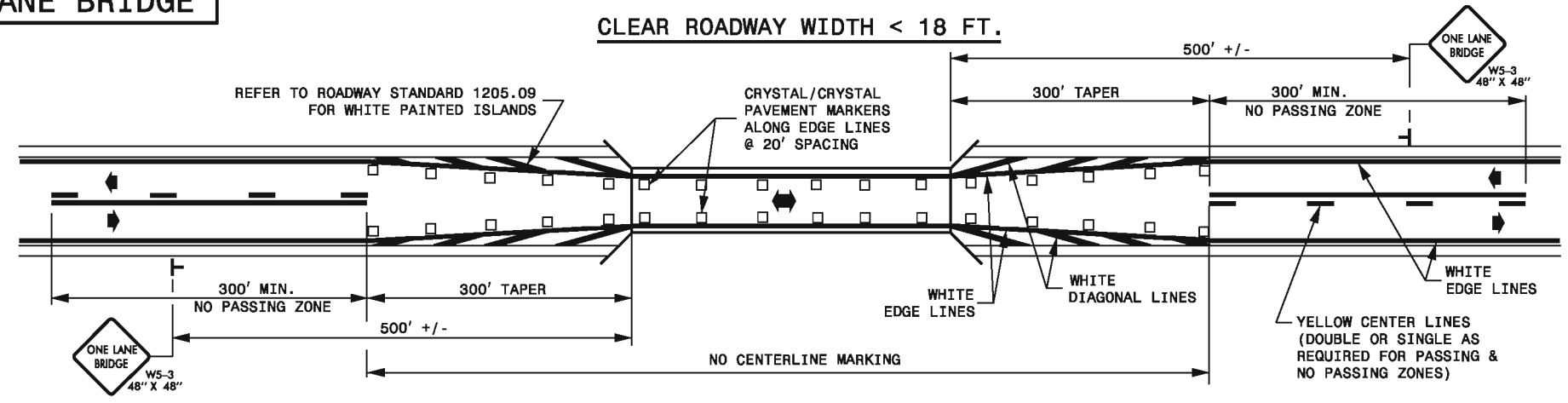
**STANDARD BRIDGE**



**NARROW BRIDGE**



**ONE-LANE BRIDGE**



GENERAL NOTES:

- 1- NO PASSING ZONES SHOWN ARE MINIMUMS. APPLY MINIMUM PASSING AND STOPPING SIGHT DISTANCES AS DETERMINED BY THE ENGINEER.
- 2- FOR BRIDGES 18 TO 25 FEET WIDE, SIGNS MUST BE USED WHEN THE CLEAR ROADWAY WIDTH IS LESS THAN THE WIDTH OF THE APPROACH PAVEMENT PLUS 2 FEET.

LEGEND	
◄	DIRECTION OF TRAFFIC FLOW
◆	YELLOW/YELLOW PAVEMENT MARKER
⊥	STATIONARY SIGN
□	CRYSTAL/CRYSTAL PAVEMENT MARKER

SHEET 1 OF 1

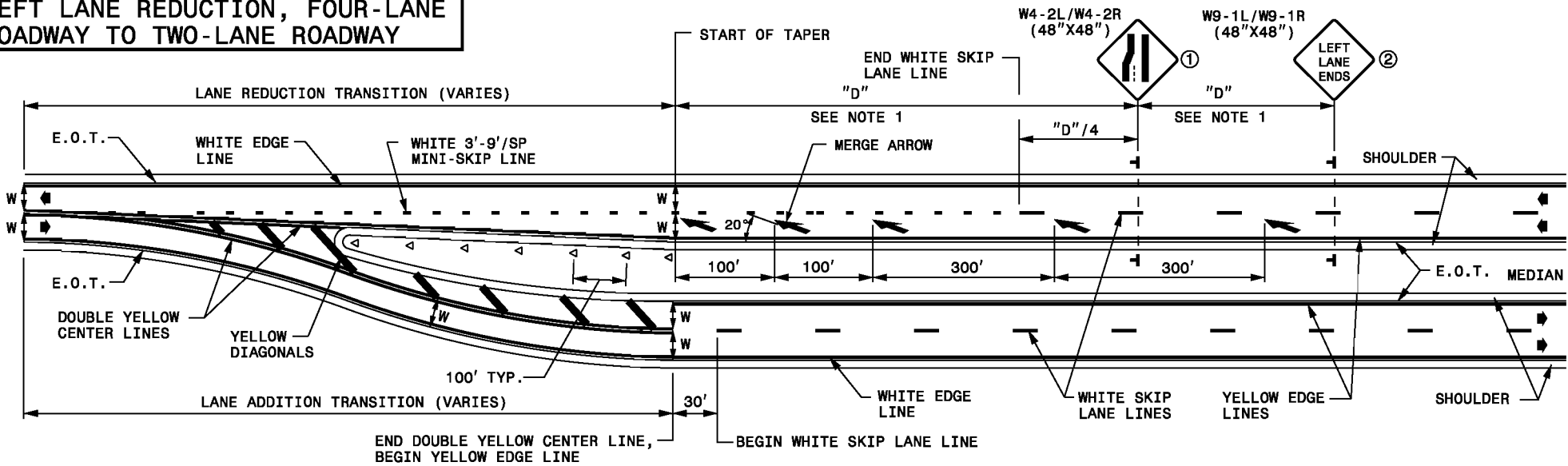
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1-12

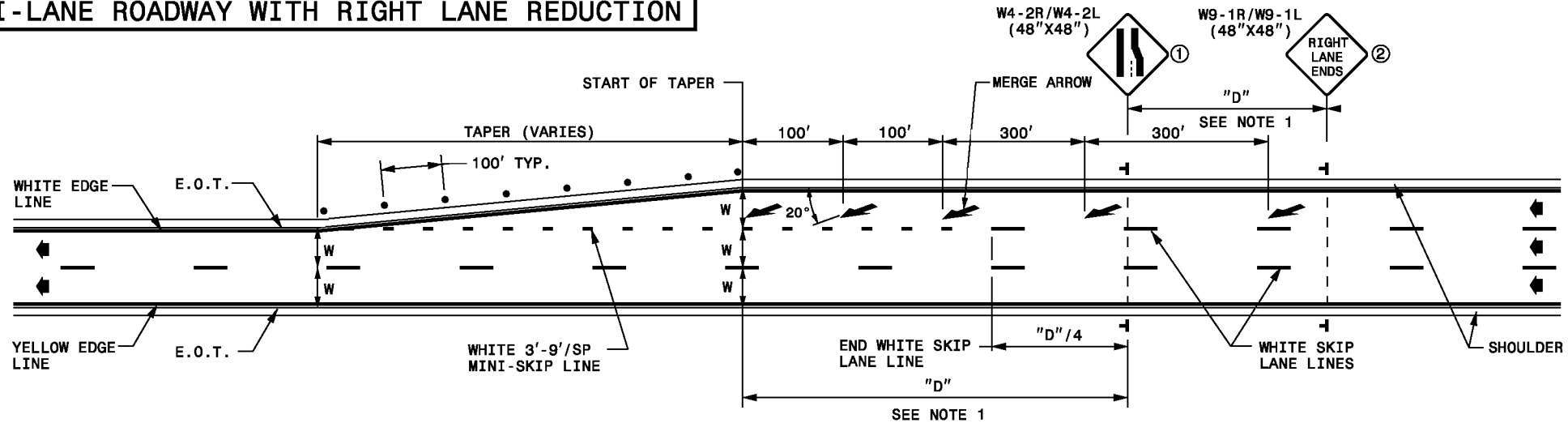
ENGLISH STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
LANE REDUCTIONS

SHEET 1 OF 1  
**1205.13**

**LEFT LANE REDUCTION, FOUR-LANE ROADWAY TO TWO-LANE ROADWAY**



**MULTI-LANE ROADWAY WITH RIGHT LANE REDUCTION**



**GENERAL NOTES:**

- 1- REFER TO SIGNING PLANS OR TABLE "A" FOR ADVANCE WARNING SIGN PLACEMENT DISTANCE.
- 2- REFER TO ROADWAY STANDARD DRAWINGS 1205.01 AND 1205.08 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND	
W = WIDTH OF TRAVEL LANE	⊥ STATIONARY SIGN
↔ DIRECTION OF TRAFFIC FLOW	● CRYSTAL FLEXIBLE DELINEATOR
↘ PAVEMENT MARKING SYMBOLS	◁ YELLOW FLEXIBLE DELINEATOR

TABLE "A"	
ADVANCE WARNING SIGN PLACEMENT DISTANCE	
POSTED OR 85 PERCENTILE SPEED (MPH)	"D" (FEET)
35	565
40	670
45	775
50	885
55	990
60	1,100
65	1,200
70	1,250
75	1,350

DISTANCES SHOWN ARE FOR LEVEL ROADWAYS, MAKE CORRECTIONS FOR GRADES.

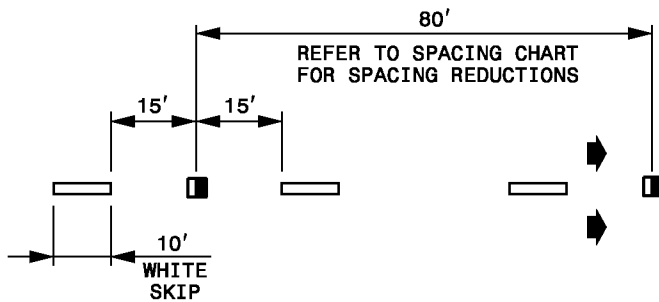
GENERAL NOTES:

- 1- MARKERS ARE GENERALLY NOT REQUIRED ALONG EDGE LINES EXCEPT IF DESIGNATED IN THE PLANS OR DIRECTED BY THE ENGINEER. WHEN THEY ARE REQUIRED, SPACE THEM ON 20 FT. CENTERS, AND OFFSET 2 INCHES FROM THE EDGE LINE ON THE TRAFFIC SIDE.
- 2- PLACE CRYSTAL/RED MARKERS AT INTERSECTIONS AND INTERCHANGES WHERE WRONG-WAY MOVEMENTS ARE POSSIBLE. POSITION THE RED SIDE OF THE MARKER TO FACE "WRONG-WAY" TRAFFIC. WHEN USED, PLACE CRYSTAL/RED MARKERS ALONG THE ENTIRE LENGTH OF THE PROJECT.
- 3- DO NOT PLACE PAVEMENT MARKERS CLOSER THAN 3 INCHES TO A PAVEMENT CONSTRUCTION JOINT (AS FEASIBLE), EXCEPT WHEN PLACED BETWEEN DOUBLE YELLOW CENTER LINES, AND ALONG YELLOW SKIP LINES ON TWO-LANE, TWO-WAY ROADWAYS WHERE PASSING IS ALLOWED IN BOTH DIRECTIONS.
- 4- DO NOT PLACE PAVEMENT MARKERS DIRECTLY ON PAVEMENT MARKING LINES.
- 5- PLACE PAVEMENT MARKERS USED IN CONJUNCTION WITH DOUBLE YELLOW CENTER LINES MID-WAY BETWEEN THE LINES. PROVIDE A GAP BETWEEN THE LINES AND THE MARKER TO REDUCE OVERSPRAYING THE MARKER DURING REPAINTING OPERATIONS.
- 6- MARKERS ARE NOT REQUIRED ALONG MINI-SKIP LINES IN TAPERS.

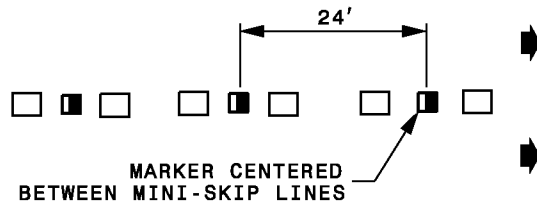
**PAVEMENT MARKER SPACING CHART**

TYPE OF PAVEMENT MARKING	TYPICAL SPACING (FT)
SKIP LINES AND CENTER LINES ALONG THRU LANES- ALONG TANGENT SECTIONS AND HORIZONTAL CURVES LESS THAN 6° HORIZONTAL CURVES ≥ 6°	80 40
TURN LANES- MINI-SKIP LINES SKIP LINES SOLID LINES CENTER LINES	24 40 20 40
MINI-SKIP LINES AT LANE DROP APPROACHES	24
TWO-WAY RAMP CENTER LINES	40
GORE LINES	20
PAINTED ISLANDS- WHITE YELLOW	20 40
RAISED MEDIAN ISLANDS	40
WRONG WAY RAMP ARROW	5
TAPERS	40
NARROW BRIDGES- EDGE LINE CENTER LINE	20 40
ONE LANE BRIDGES- EDGE LINE	20
<b>WORK ZONE APPLICATIONS</b>	
2-LANE, 2-WAY ON-SITE DIVERSION	20 FT. FOR CENTER LINE
ALL OTHER DIVERSIONS	½ NORMAL SPACING

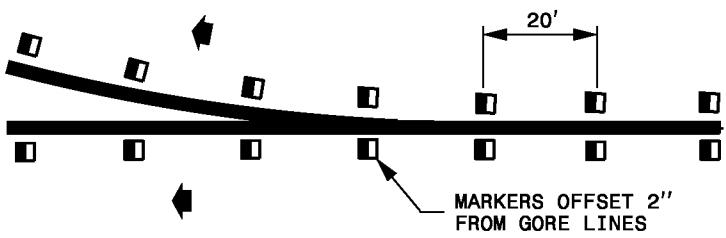
**10'-30'/SP SKIP LINE**



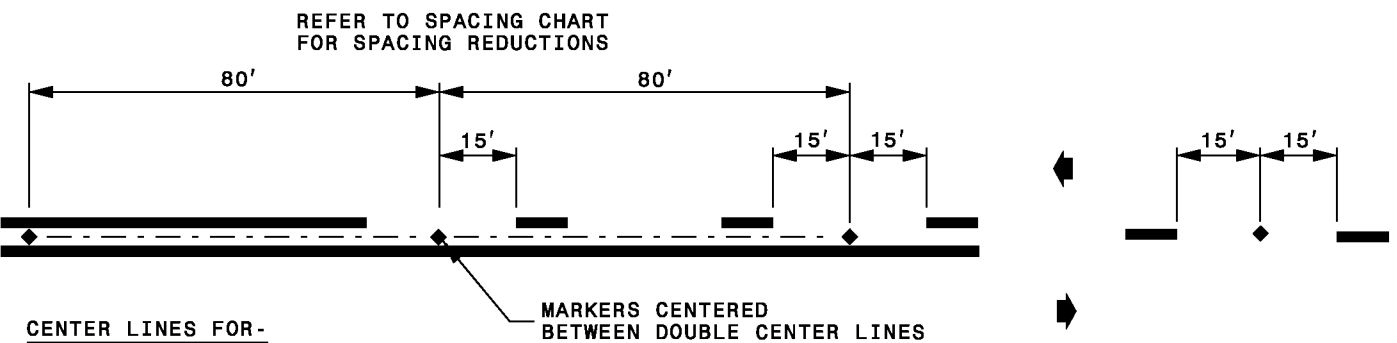
**3'-9'/SP MINI-SKIP LINE**



**GORE LINES**

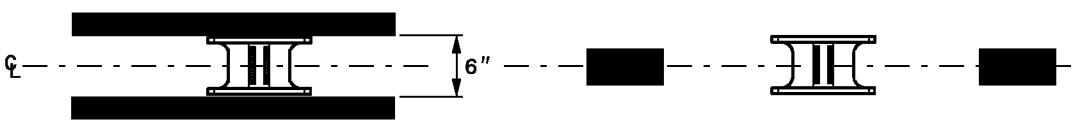


**YELLOW CENTER LINES**

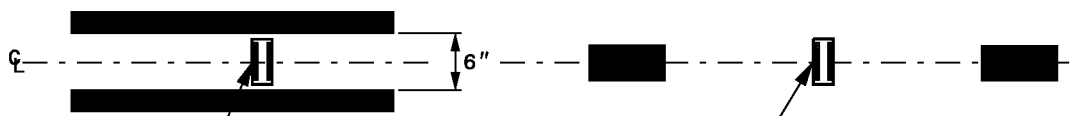


**DETAIL OF PAVEMENT MARKER PLACEMENT**

**SNOWPLOWABLE RAISED PAVEMENT MARKERS**



**RAISED REFLECTIVE PAVEMENT MARKERS**



MARKERS CENTERED BETWEEN DOUBLE CENTER LINES

MARKERS CENTERED BETWEEN SKIP LINES

**LEGEND**

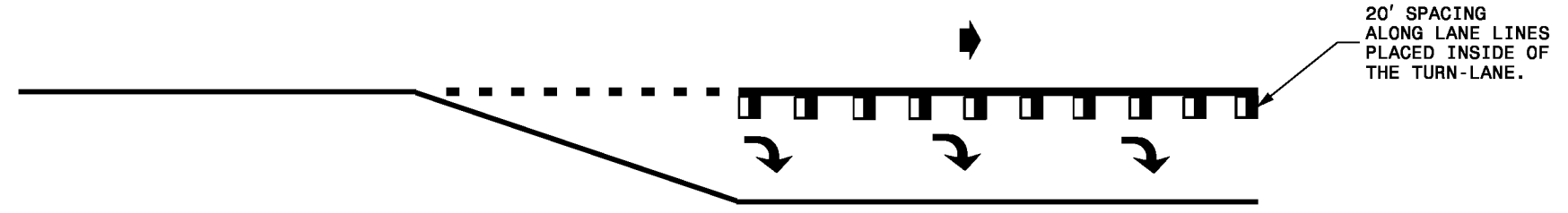
- CRYSTAL/RED PAVEMENT MARKER
- ◆ YELLOW/YELLOW PAVEMENT MARKER
- ➔ DIRECTION OF TRAFFIC FLOW



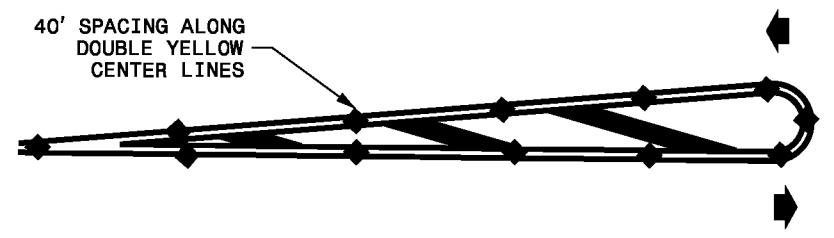
1-12

1-12

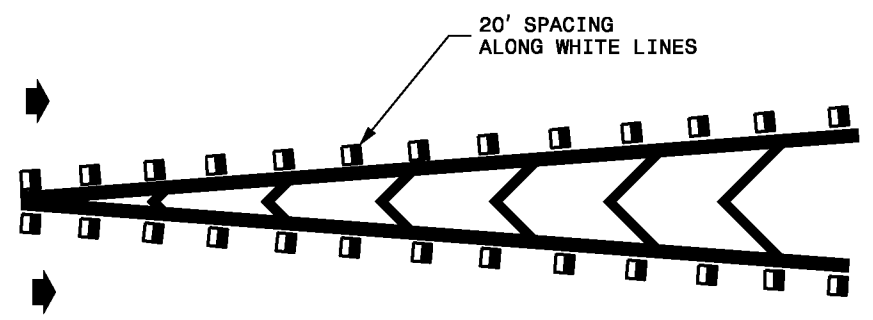
AUXILIARY TURN LANES



YELLOW PAINTED ISLANDS



WHITE PAINTED ISLANDS

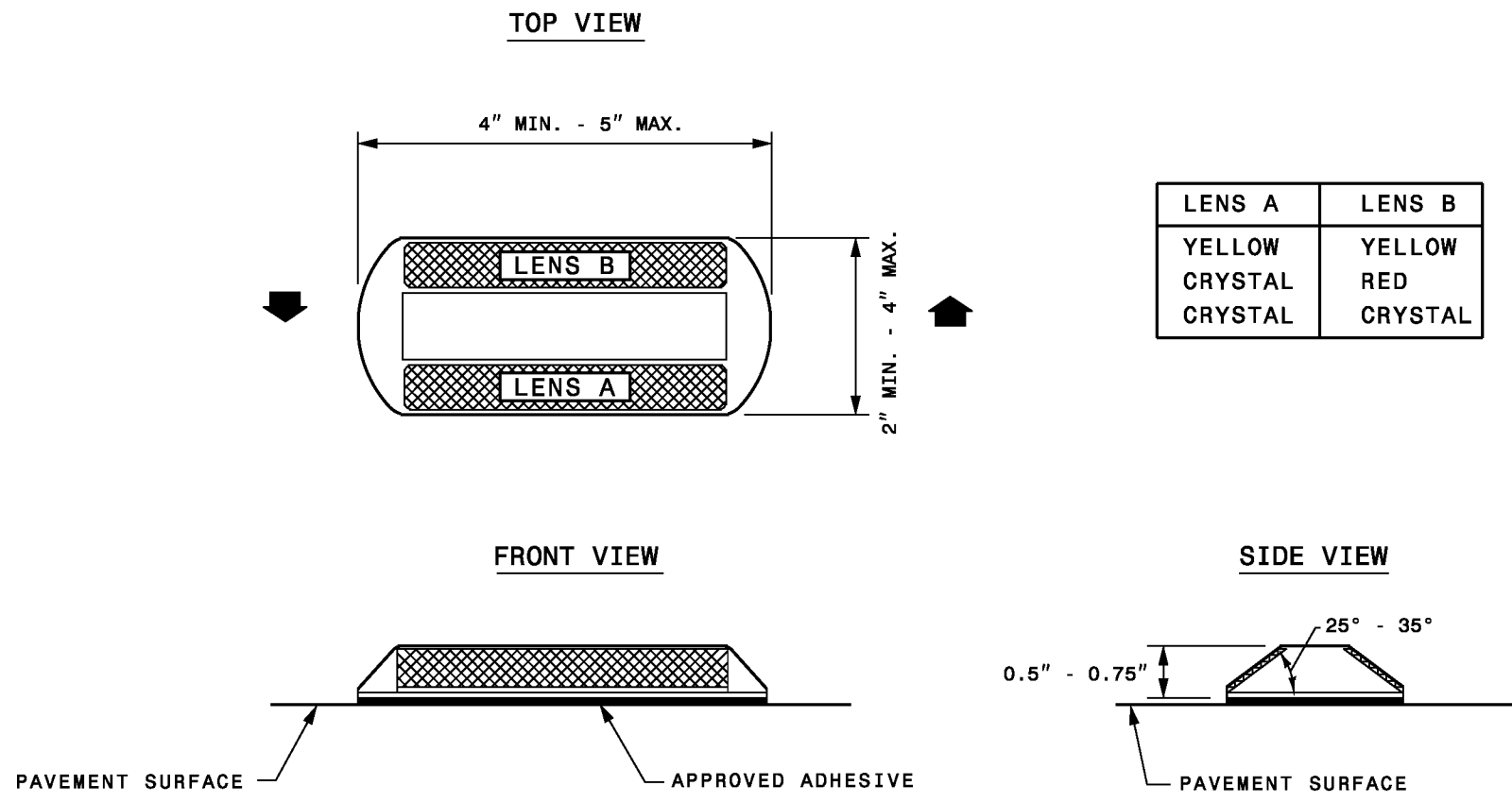


LEGEND	
	DIRECTION OF TRAFFIC FLOW
	CRYSTAL/RED PAVEMENT MARKER
	YELLOW/YELLOW PAVEMENT MARKER
	PAVEMENT MARKING SYMBOL

ENGLISH STANDARD DRAWING FOR  
**RAISED PAVEMENT MARKERS**  
 INSTALLATION SPACING

ENGLISH STANDARD DRAWING FOR  
**RAISED PAVEMENT MARKERS**  
 INSTALLATION SPACING

**TYPICAL PAVEMENT MARKER**



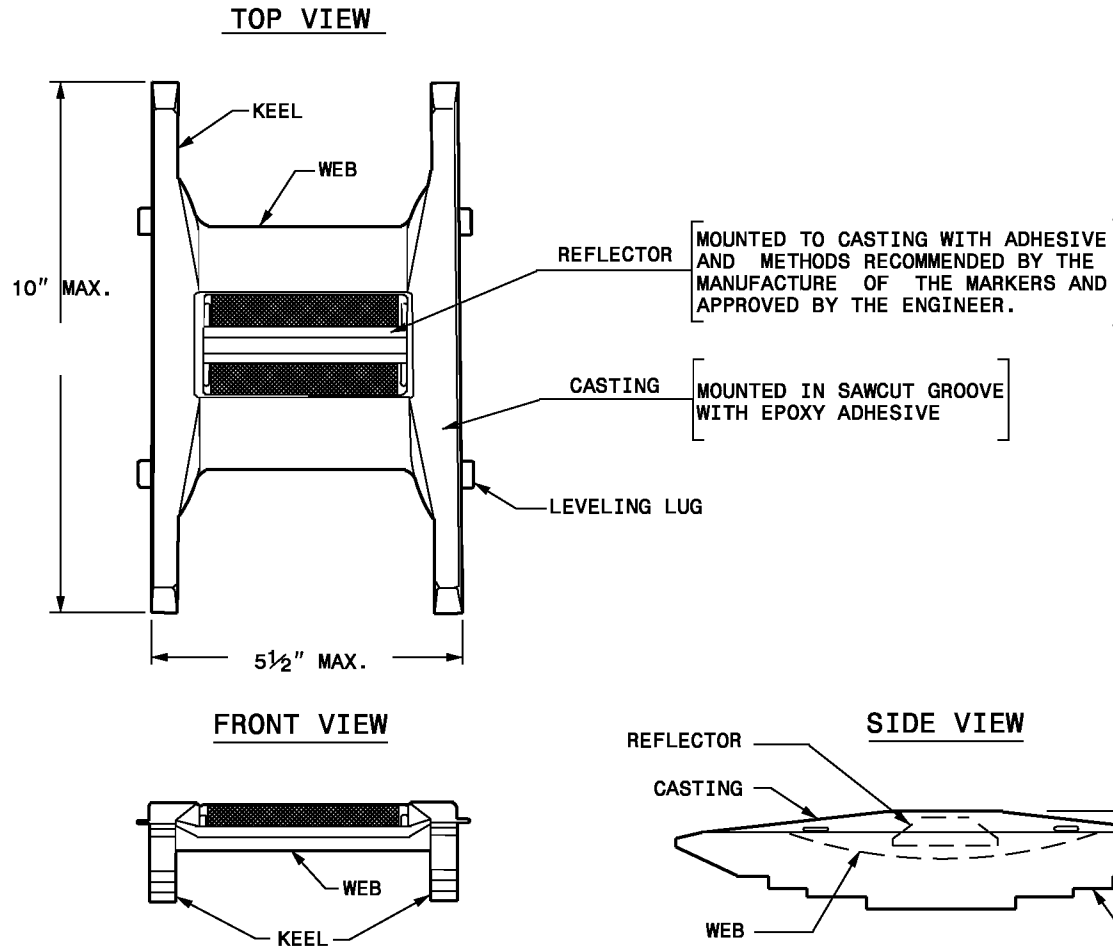
GENERAL NOTES:

- 1- USE A MINIMUM OF 2 SQUARE INCHES FOR THE AREA OF EACH REFLECTIVE LENS.
- 2- FOR A COMPLETE LISTING OF PAVEMENT MARKERS AND ADHESIVES ACCEPTABLE FOR USE IN NORTH CAROLINA CONTACT THE NCDOT SIGNING AND DELINEATION UNIT.

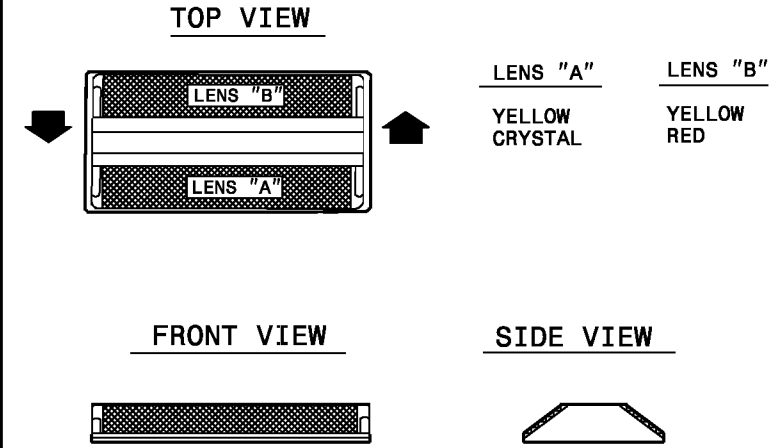
LEGEND	
◄	▲
DIRECTION OF TRAFFIC FLOW	

1-12

**TYPICAL PAVEMENT MARKER**



**REFLECTOR**



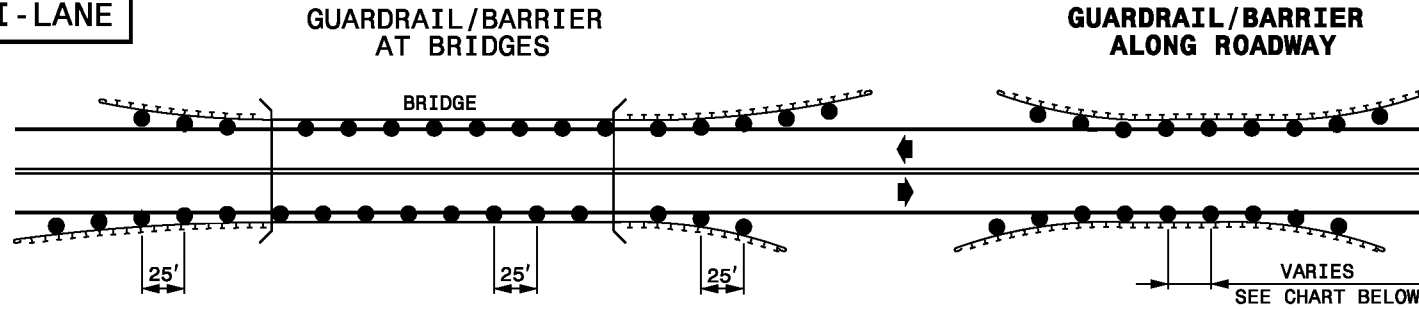
**GENERAL NOTES:**

- 1- USE A MINIMUM OF 1.44+/- SQ. INCH AREA FOR EACH REFLECTIVE LENS.
- 2- SAWCUT GROOVES TO DIMENSIONS PROVIDED BY THE MANUFACTURER.
- 3- CONTACT ALL LEVELING LUGS TO THE PAVEMENT SURFACE.
- 4- REFLECTOR DIMENSIONS CAN VARY, BUT DESIGNED TO FIT IN THE CASTING AND PROVIDE THE REQUIRED REFLECTIVITY.

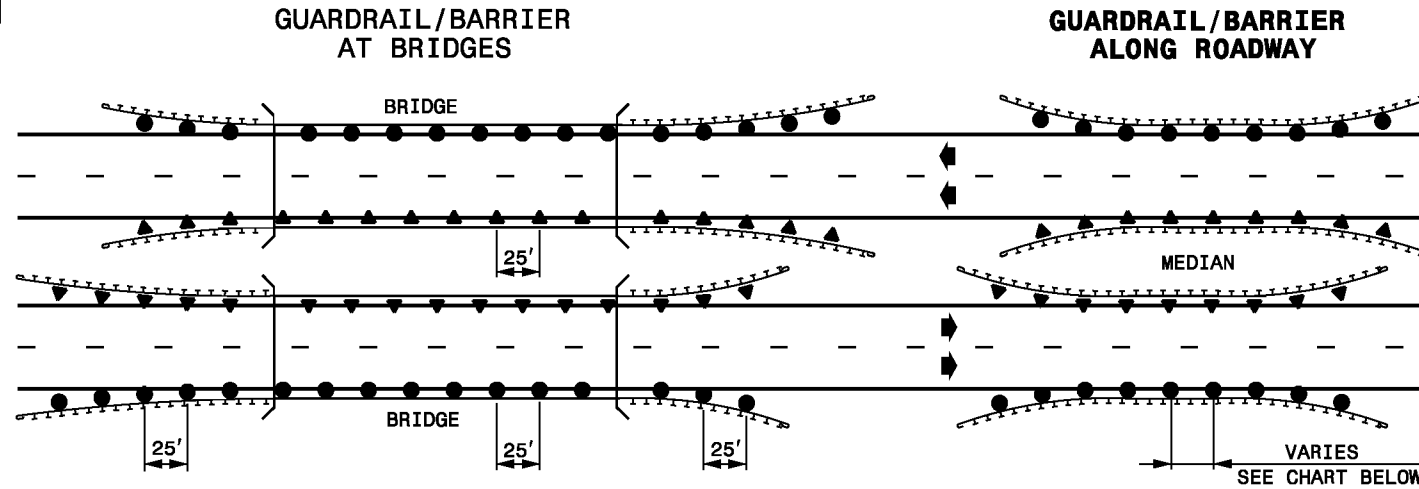


1-12

UNDIVIDED ROADWAYS,  
TWO-LANE AND MULTI-LANE



DIVIDED ROADWAYS



GENERAL NOTES:

- 1- INSTALL DELINEATORS AT ALL LOCATIONS OF PERMANENT AND TEMPORARY GUARDRAILS, CONCRETE BARRIERS, AND BRIDGE RAILS.
- 2- INSTALL DELINEATORS PRIOR TO ALLOWING TRAFFIC TO PROCEED IN AN AREA WITH NEW BARRIER OR GUARDRAIL INSTALLATIONS (TEMPORARY AND PROPOSED).
- 3- CONFORM COLOR OF DELINEATORS TO THE COLOR OF THE ADJACENT EDGE LINES.
- 4- POSITION DELINEATORS SUCH THAT THE REFLECTIVE SHEETING IS PERPENDICULAR TO THE ROADWAY.
- 5- BEGIN DELINEATOR PLACEMENT 5 FEET FROM BARRIER APPROACH ENDS AND 25 FEET FROM GUARDRAIL APPROACH ENDS.
- 6- BARRIER DELINEATORS THAT FALL ON JOINTS OR MOVE CONNECTIONS (UP TO 12 INCHES), ON EITHER SIDE OF THE JOINT.
- 7- POSITION THE GUARDRAIL AND/OR BARRIER DELINEATORS TO ACHIEVE A UNIFORM HEIGHT WITH THE BARRIER DELINEATORS WHERE GUARDRAIL TIES TO CONCRETE BARRIER.

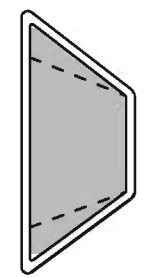
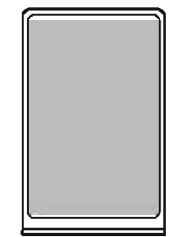
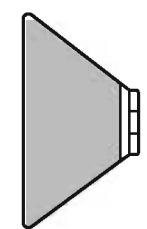
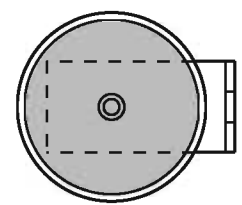
DELINEATOR SPACING REQUIREMENTS FOR PERMANENT AND CONSTRUCTION ZONE GUARDRAIL, BARRIER, AND BRIDGE RAIL	
SPACING (FT.)	RAIL LOCATIONS
100'	ROADWAY CURVATURE < 3° RAIL PARALLEL TO ROADWAY
50'	ROADWAY CURVATURE ≥ 3° RAIL PARALLEL TO ROADWAY
25'	TRANSITIONS, TAPERS, & SECTIONS LESS THAN 200' LONG
25'	BRIDGE RAILS AND RAILS AT BRIDGE APPROACHES

LEGEND	
	DIRECTION OF TRAFFIC FLOW
	YELLOW DELINEATOR
	CRYSTAL DELINEATOR
	GUARDRAIL OR BARRIER

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**TYPICAL DELINEATORS**

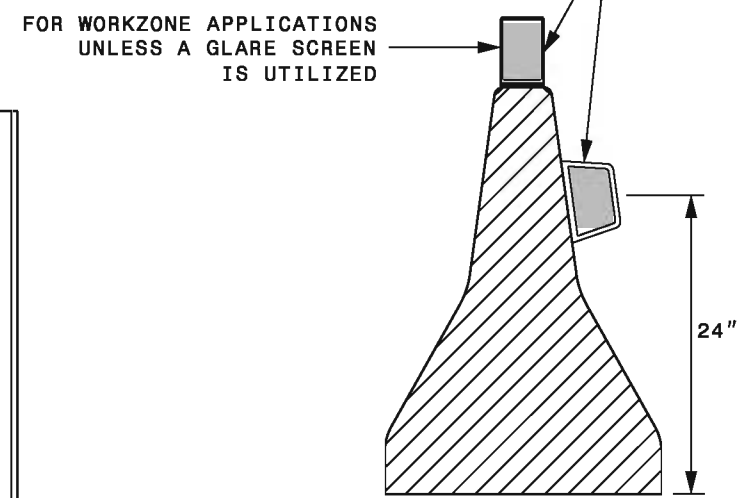
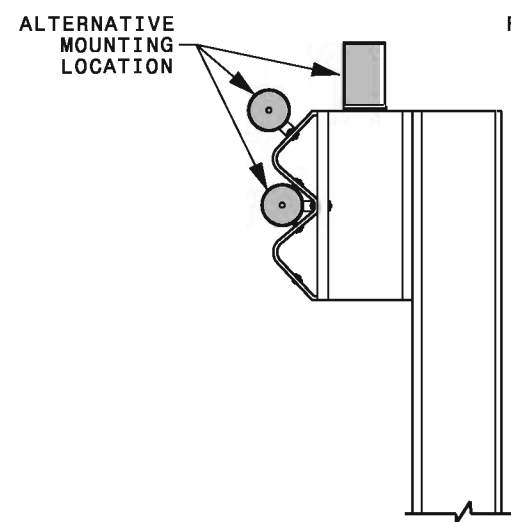


STATE OF  
NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

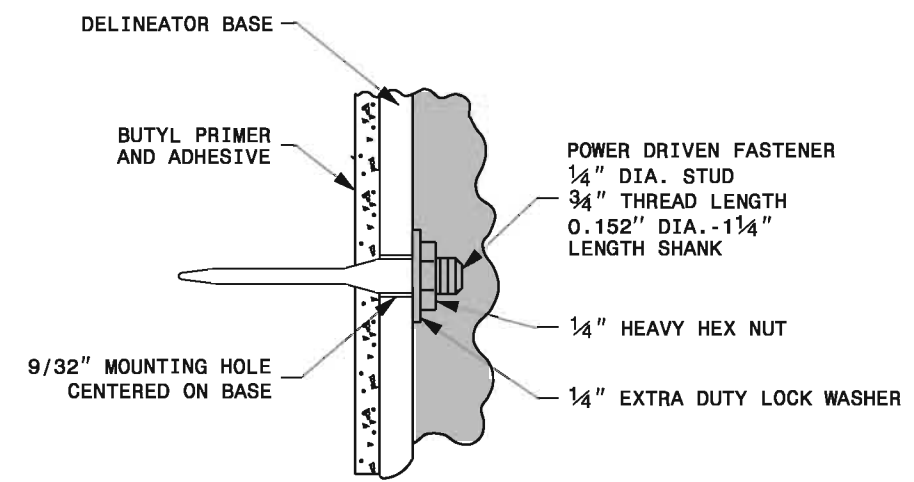
1-12

ENGLISH STANDARD DRAWING FOR  
**GUARDRAIL & BARRIER DELINEATORS**  
TYPES AND MOUNTING

**MOUNTING DETAILS**



**TYPICAL POWER DRIVEN FASTENER INSTALLATION FOR BARRIER**



PAINT THE EXPOSED PORTIONS OF THE NUT, LOCK WASHER, AND POWER DRIVEN FASTENERS WITH ZINC-RICH PAINT TO MEET THE ENGINEER'S APPROVAL AFTER INSTALLATION OF THE ASSEMBLY.

ENGLISH STANDARD DRAWING FOR  
**GUARDRAIL & BARRIER DELINEATORS**  
TYPES AND MOUNTING

SHEET 1 OF 1

1261.02

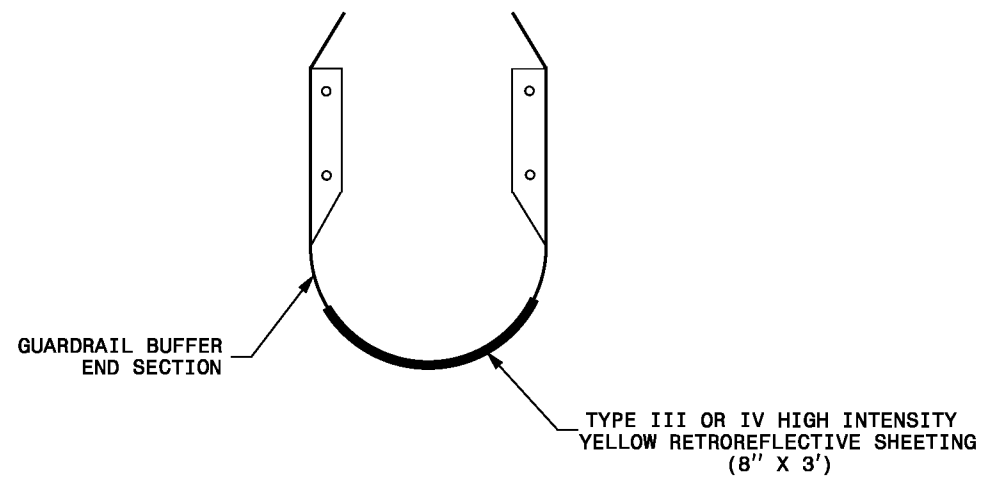
GENERAL NOTES:

- 1- USE A MINIMUM 7 SQ. IN. REFLECTIVE AREA FOR SIDE MOUNTED DELINEATORS.
- 2- USE A MINIMUM 28 SQ. IN. REFLECTIVE AREA FOR TOP MOUNTED BARRIER DELINEATORS.
- 3- USE A MINIMUM 7 SQ. IN. REFLECTIVE AREA FOR TOP MOUNTED GUARDRAIL DELINEATORS.
- 4- USE ADHESIVE, CLIP ON GUARDRAIL POST, GUARDRAIL BOLTS, POWER DRIVEN FASTENERS, OR OTHER MOUNTING METHODS RECOMMENDED BY THE MANUFACTURER AS APPROVED BY THE ENGINEER.

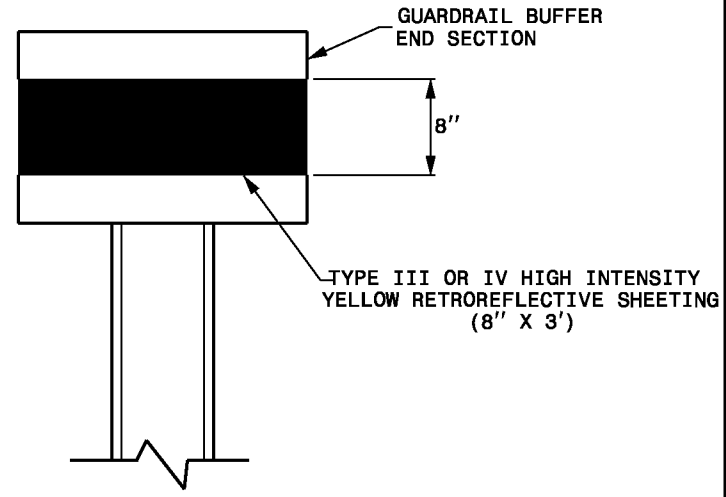
SHEET 1 OF 1

1261.02

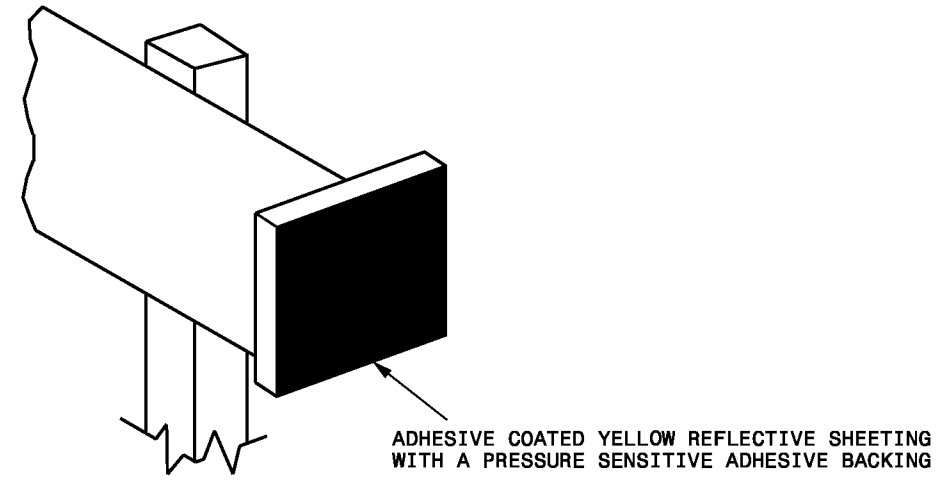
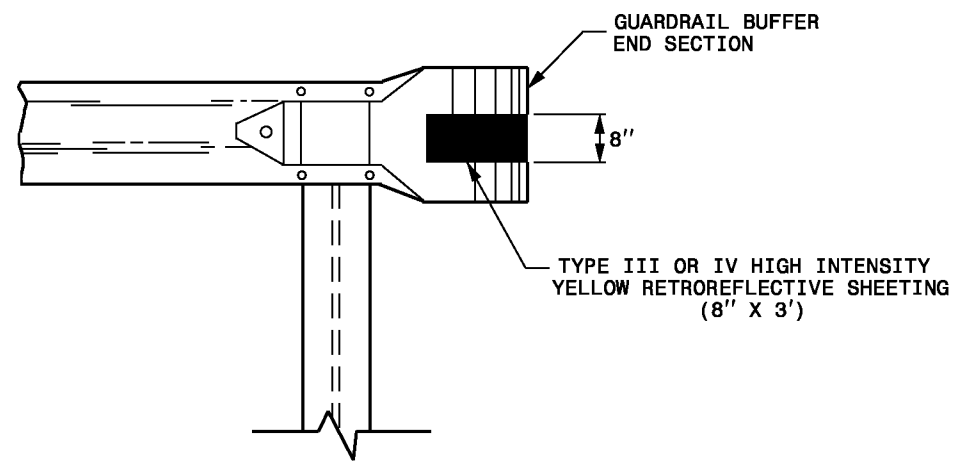
**TOP VIEW**



**FRONT VIEW**

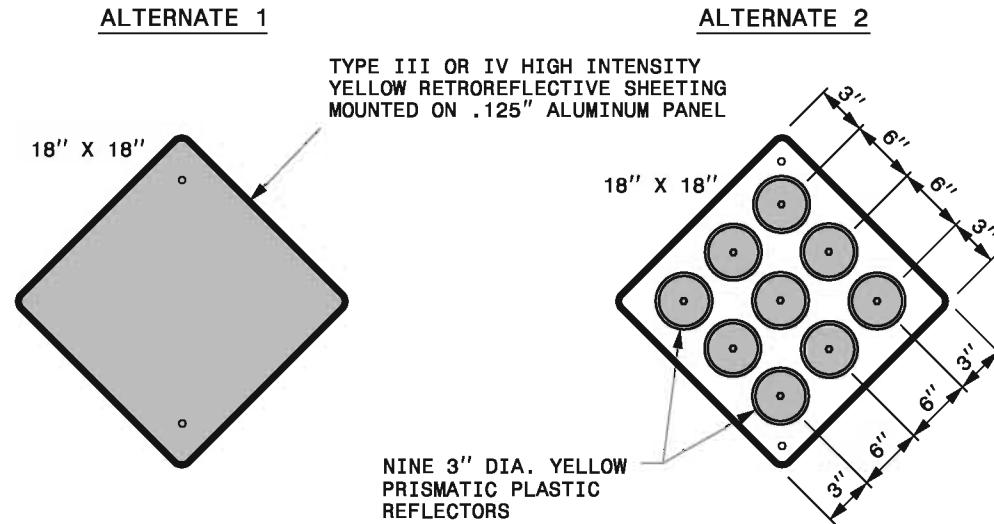


**SIDE VIEW**

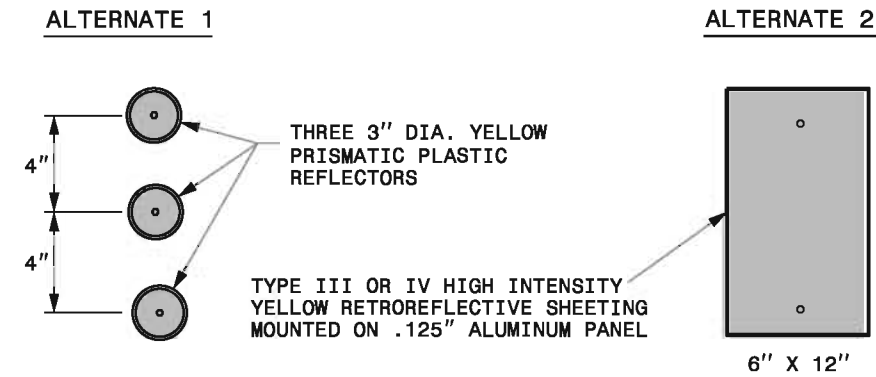


GENERAL NOTES:  
 1- GUARDRAIL END DELINEATION IS REQUIRED ON ALL APPROACH AND TRAILING

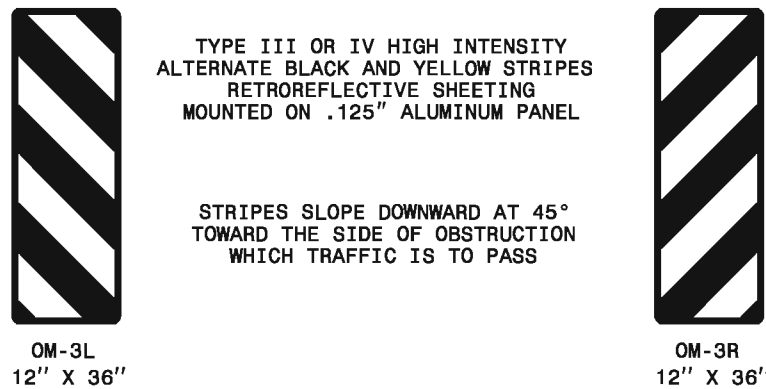
**TYPE I OBJECT MARKERS**



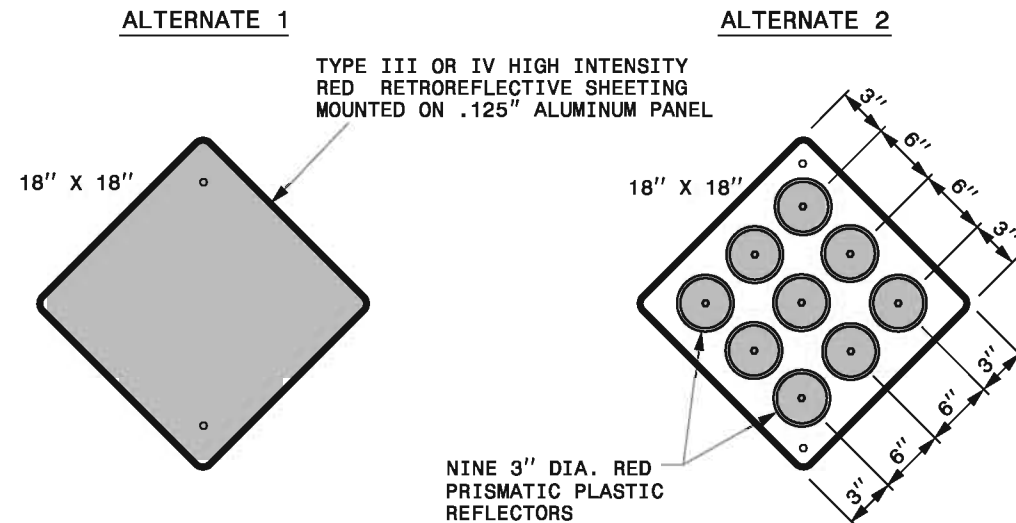
**TYPE 2 OBJECT MARKERS**



**TYPE 3 OBJECT MARKERS**

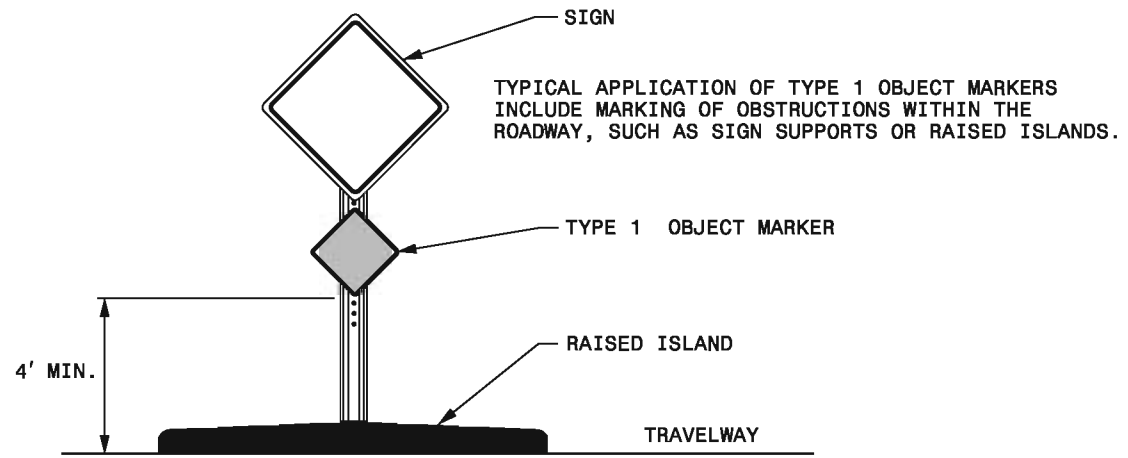


**TYPE 4 OBJECT MARKERS**

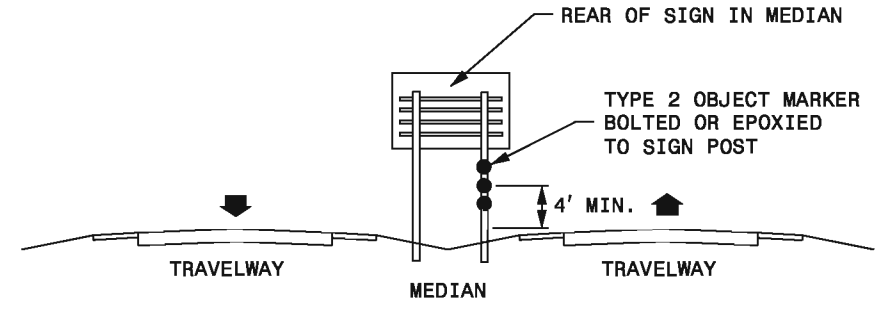


1-12

**TYPE 1 OBJECT MARKERS**

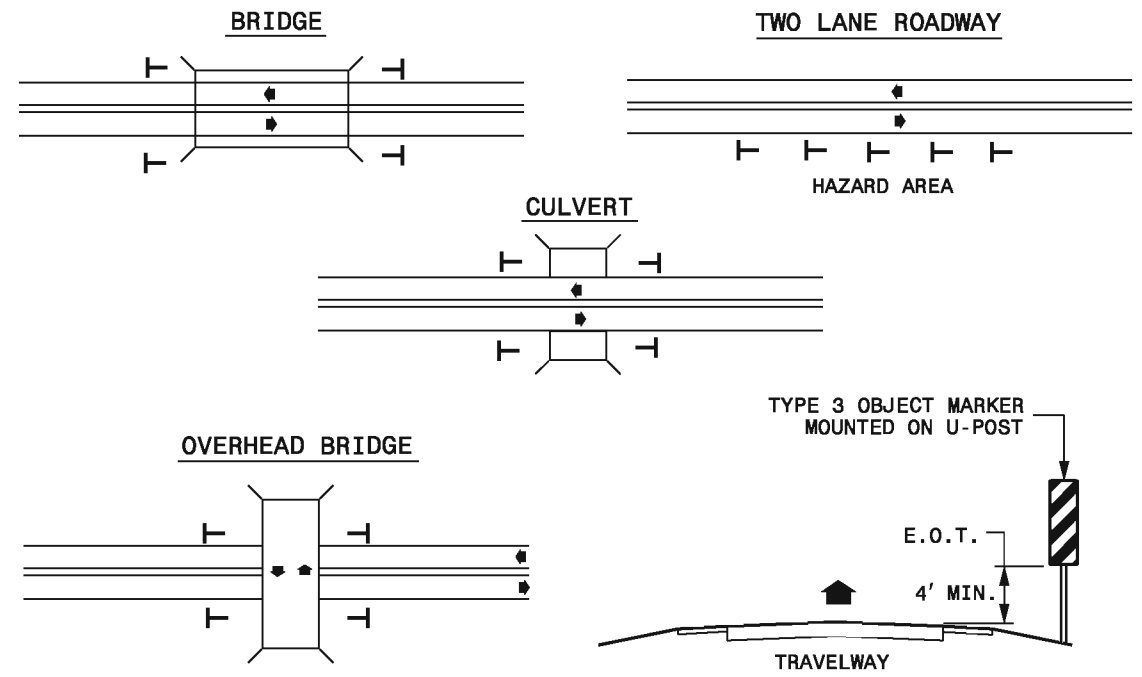


**TYPE 2 OBJECT MARKERS**



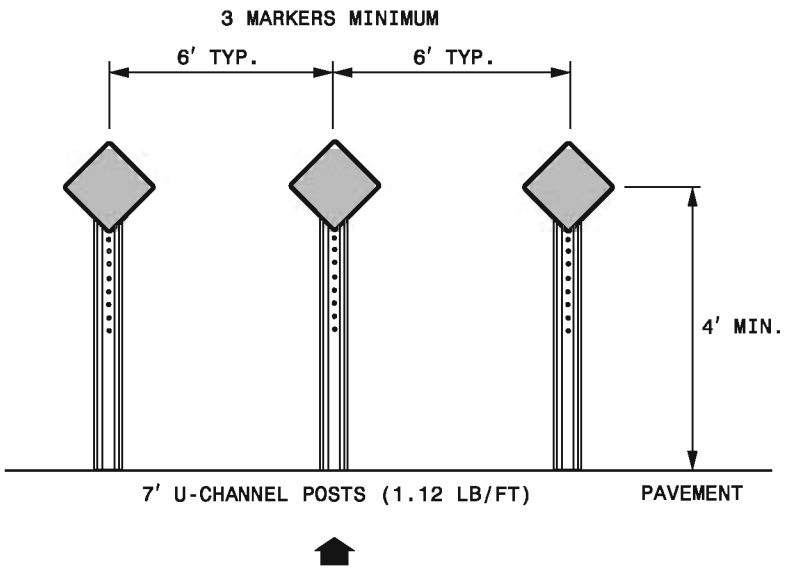
**TYPE 3 OBJECT MARKERS**

TYPICAL APPLICATIONS OF TYPE 3 OBJECT MARKERS INCLUDE DELINEATION OF BRIDGE PIERS, ABUTMENTS AND RAILS, CULVERT HEAD WALLS, NARROW SHOULDER DROP-OFFS, OR OTHER HAZARDOUS ROADSIDE CONDITIONS



**TYPE 4 OBJECT MARKERS**

TYPICAL APPLICATION AT END OF ROADWAY (DEAD END) REGARDLESS OF WHETHER GUARDRAIL IS INSTALLED



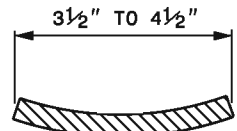
LEGEND	
	TYPE 3 OBJECT MARKER
	DIRECTION OF TRAFFIC FLOW

1-12

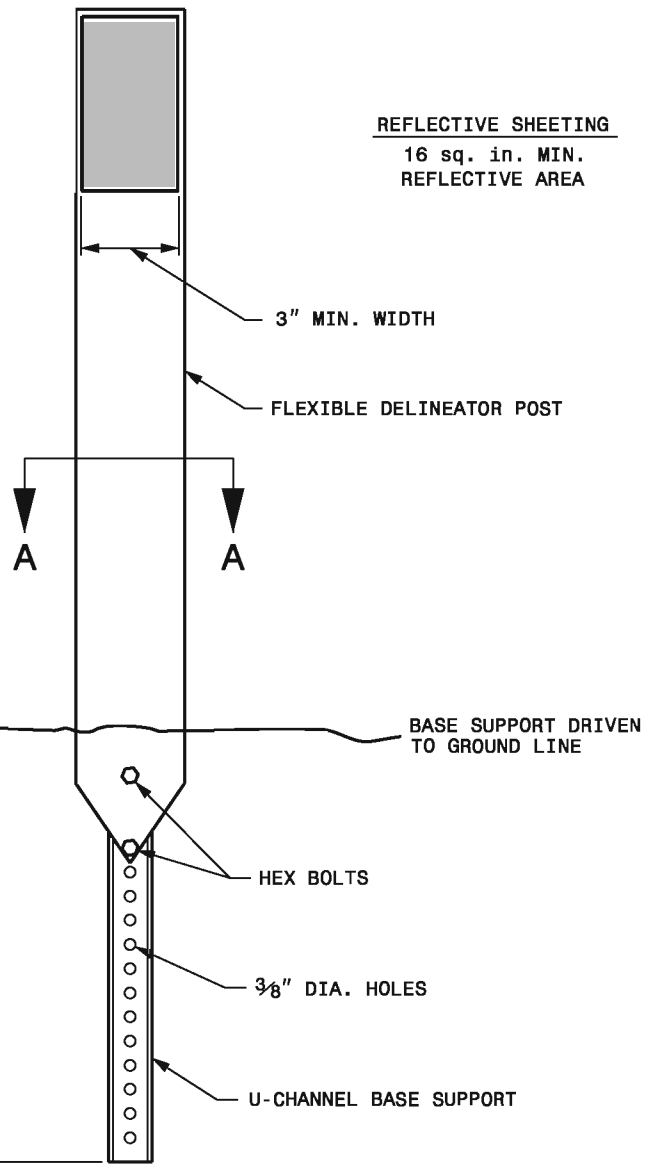


**FLEXIBLE DELINEATOR ASSEMBLY**

POST  
SECTION VIEW A-A



DIRECTION OF TRAFFIC



REFLECTIVE SHEETING  
16 sq. in. MIN.  
REFLECTIVE AREA

3" MIN. WIDTH

FLEXIBLE DELINEATOR POST

BASE SUPPORT DRIVEN TO GROUND LINE

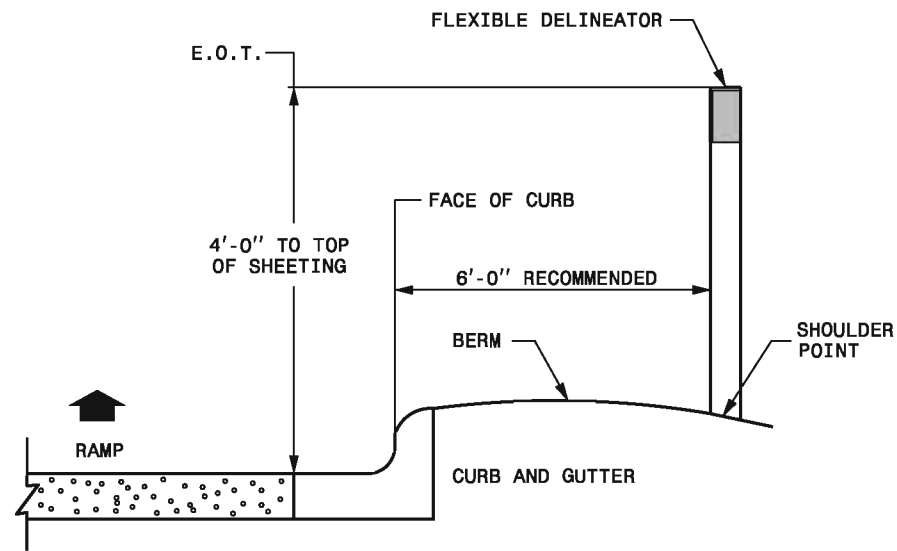
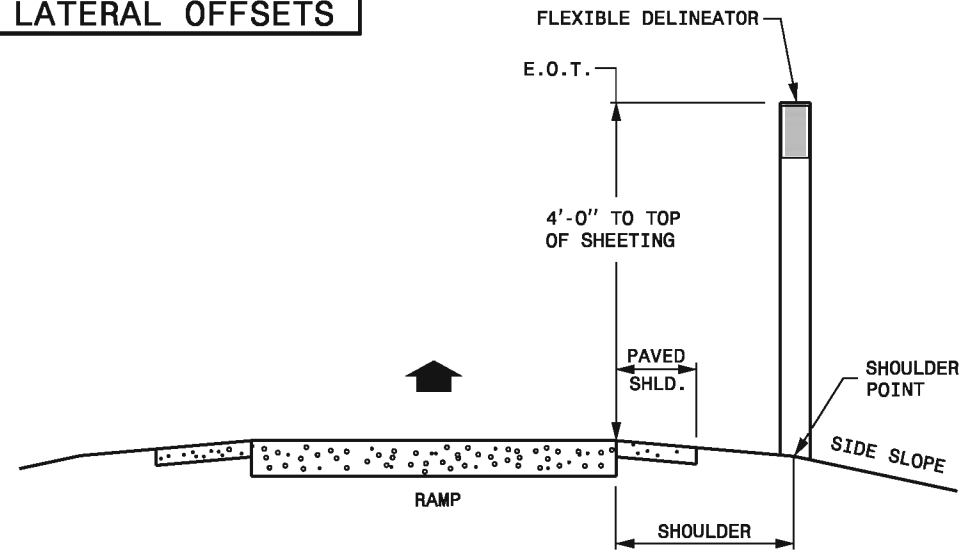
HEX BOLTS

3/8" DIA. HOLES

U-CHANNEL BASE SUPPORT

18"

**LATERAL OFFSETS**



GENERAL NOTES:

1- PLACE DELINEATORS AT CONSTANT DISTANCE FROM TRAVELWAY.

**LEGEND**

W = WIDTH OF TRAVEL LANE

E.O.T. = EDGE OF TRAVEL

➔ DIRECTION OF TRAFFIC FLOW

TABLE A	
CURVATURES 4°00' OR LESS	
HORIZONTAL CURVATURE	DELINEATOR SPACING (FT)
TANGENT TO 0°30'	200'
GREATER THAN 0°30' TO 4°00'	150'
RAMP ACCELERATION DECELERATION LANES	200'
RAMP GORES	50'

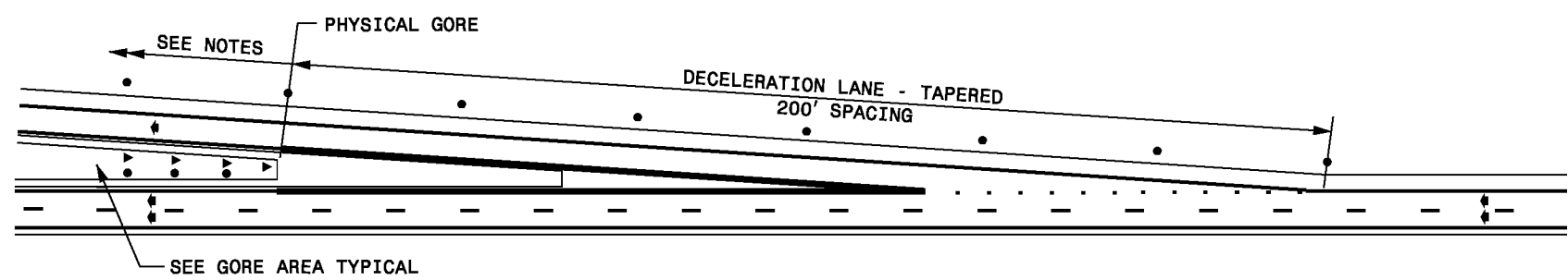
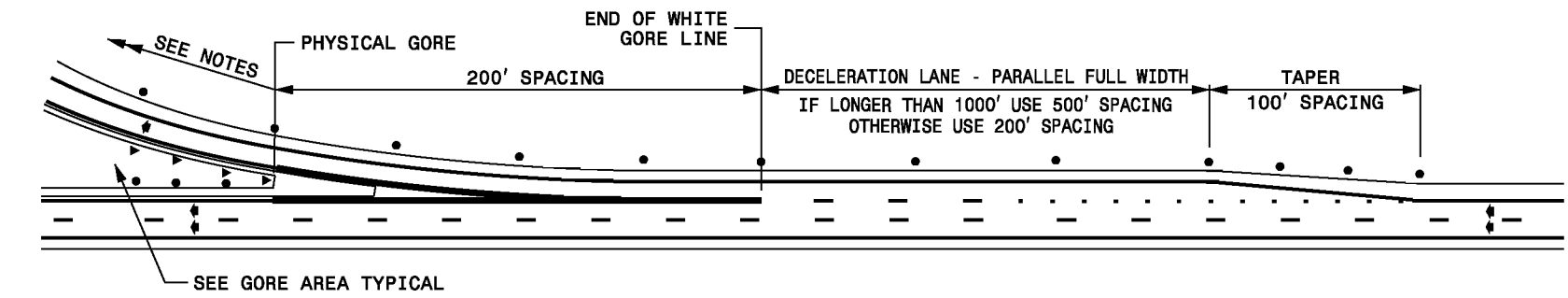
GENERAL NOTES:

- 1-FLEXIBLE DELINEATORS ARE REQUIRED ONLY AT INTERCHANGES.
- 2-FLEXIBLE DELINEATORS ARE NOT REQUIRED WHERE THEY FALL BEHIND GUARDRAIL, OR WHERE ADEQUATE FIXED SOURCE LIGHTING IS PROVIDED.

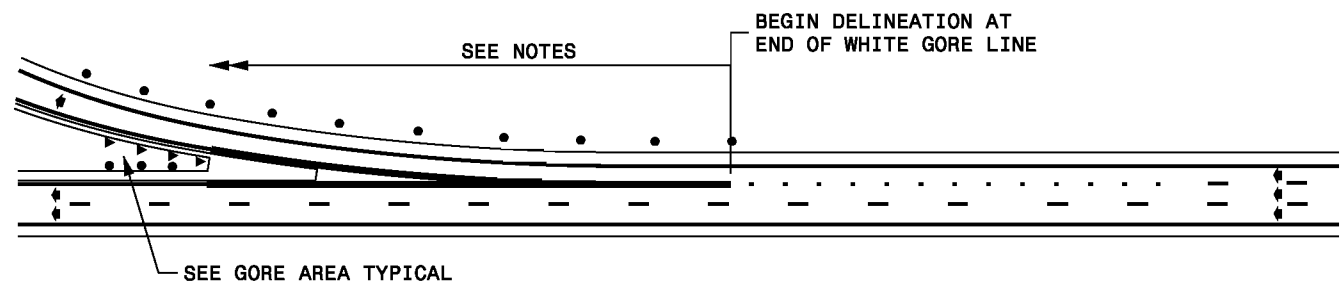
TABLE B	
CURVATURES GREATER THAN 4°00'	
CURVE RADIUS (R) (FT)	DELINEATOR SPACING (S) (FT)
50	20
150	30
200	35
250	40
300	50
400	55
500	65
600	70
700	75
800	80
900	85
1000	90
1100	95
1200	100
1300	105
1400	110

- SPACING ROUNDED TO NEAREST 5 FT.  
 - MIN. SPACING = 20 FT.  
 - SPACING FOR SPECIFIC RADII MAY BE INTERPOLATED FROM TABLE B OR COMPUTED FROM THE FORMULA  $S = (3)\sqrt{R-50}$  WHERE S= SPACING, R= RADIUS, IN FEET.  
 IN ADVANCE OF AND BEYOND A CURVE, THE SPACING OF THE FIRST DELINEATOR IS 2S, THE SECOND 3S, AND THE THIRD 6S BUT NOT TO EXCEED 300 FEET. THE FIRST DELINEATORS ARE CONSIDERED THE ONES NEAREST TO THE ENDS OF THE CURVE.

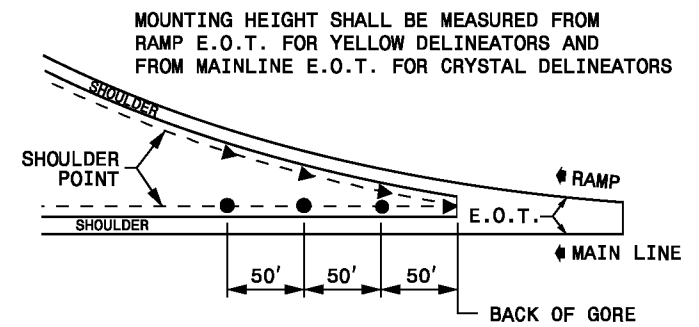
**EXIT RAMP**



**THRU-LANE DROP AT EXIT RAMP**



**GORE AREAS**



**GENERAL NOTES:**

1- CONTINUE DELINEATORS ON RAMPS AND LOOPS, USING TABLES A OR B ON STD. DWG. 1267.02 AND THE FOLLOWING REQUIREMENTS:

PLACE CRYSTAL DELINEATORS ON RIGHT SIDE OF RAMP FOR ALL RIGHT AND LEFT HAND CURVES FOR RAMPS WITH CURVE RADII 1000 FT. OR GREATER.

PLACE YELLOW DELINEATORS ON LEFT SIDE OF CURVE (CONVEX SIDE) RANGING FROM THE P.C. OR S.C. TO THE P.T. OR C.S. IN ADVANCE OF AND BEYOND THE CURVE FOR RAMPS AND LOOPS WITH RIGHT HAND CURVE RADII LESS THAN 1000 FT. CONTINUE WITH CRYSTAL DELINEATORS ON THE RIGHT SIDE WITH A MINIMUM OVERLAP OF 2 DELINEATORS WITHIN THE CURVE. CONTINUE THE CRYSTAL DELINEATORS THROUGH THE RIGHT SIDE OF THE CURVE WHEN THE GAP BETWEEN CRYSTAL DELINEATORS IS LESS THAN 500 FT.

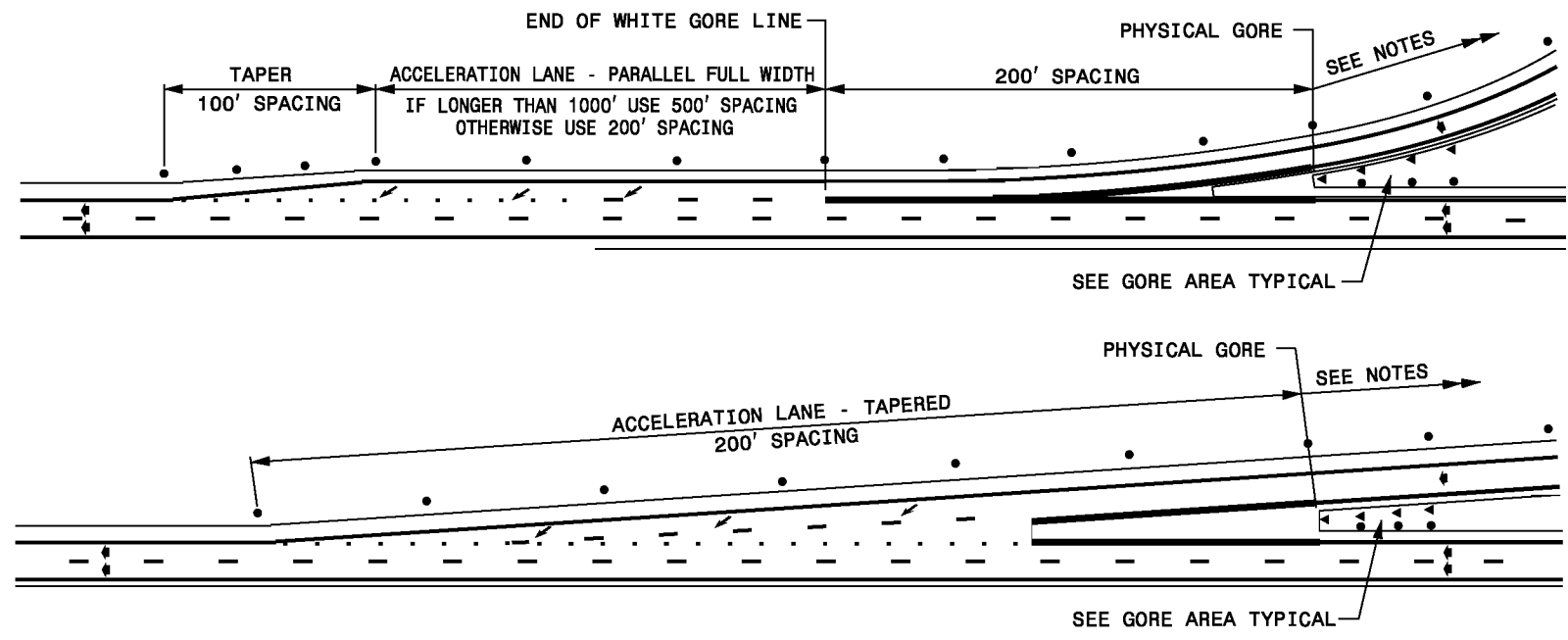
LEGEND	
E.O.T.=	EDGE OF TRAVEL
●	CRYSTAL DELINEATOR
▲	YELLOW DELINEATOR
◄	DIRECTION OF TRAFFIC FLOW

1-12

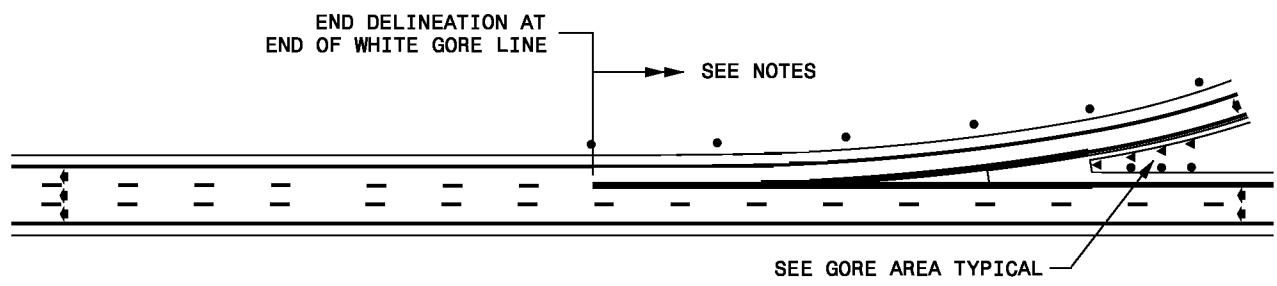
1-12

1-12

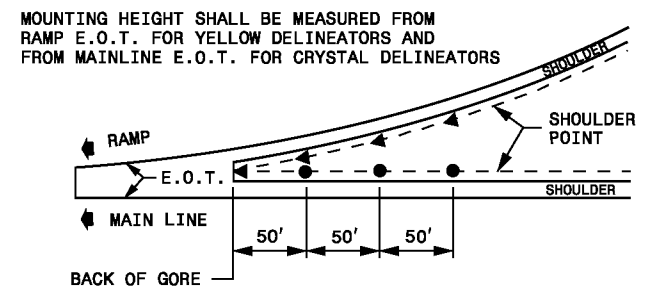
**ENTRANCE RAMPS**



**LANE ADDITION FROM ENTRANCE RAMP**



**GORE AREAS**



**GENERAL NOTES:**

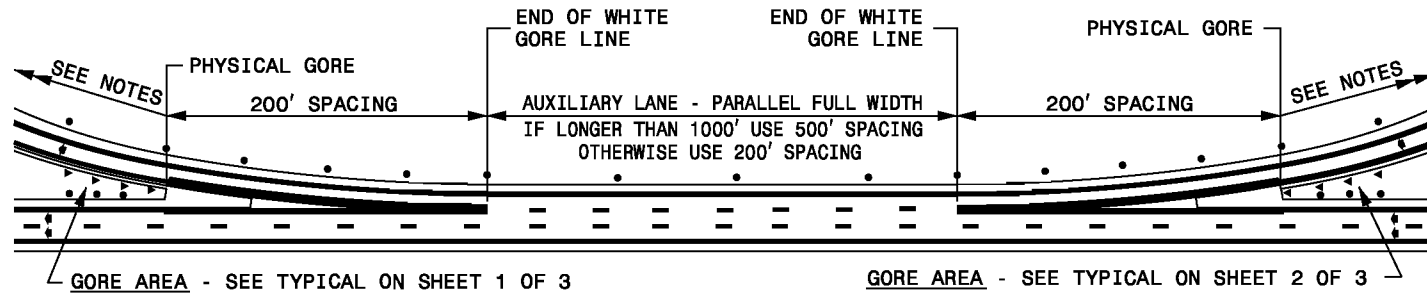
1- CONTINUE DELINEATORS ON RAMPS AND LOOPS, USING TABLES A OR B ON STD. DWG. 1267.02 AND THE FOLLOWING REQUIREMENTS:

PLACE CRYSTAL DELINEATORS ON RIGHT SIDE OF RAMP FOR ALL RIGHT AND LEFT HAND CURVES FOR RAMPS WITH CURVE RADII 1000 FT. OR GREATER.

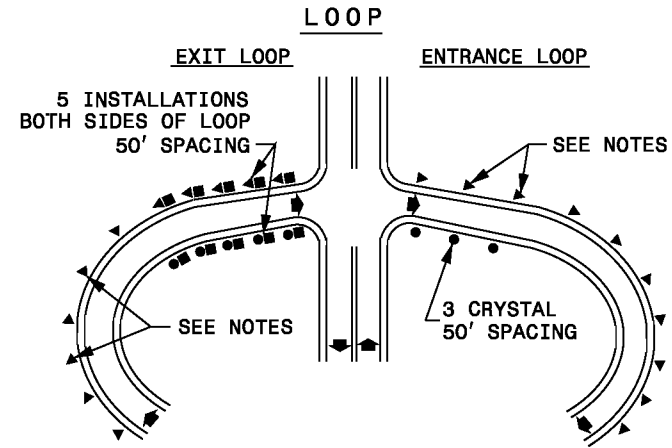
PLACE YELLOW DELINEATORS ON LEFT SIDE OF CURVE (CONVEX SIDE) RANGING FROM THE P.C. OR S.C. TO THE P.T. OR C.S. IN ADVANCE OF AND BEYOND THE CURVE FOR RAMPS AND LOOPS WITH RIGHT HAND CURVE RADII LESS THAN 1000 FT. CONTINUE WITH CRYSTAL DELINEATORS ON THE RIGHT SIDE WITH A MINIMUM OVERLAP OF 2 DELINEATORS WITHIN THE CURVE. CONTINUE THE CRYSTAL DELINEATORS THROUGH THE RIGHT SIDE OF THE CURVE WHEN THE GAP BETWEEN CRYSTAL DELINEATORS IS LESS THAN 500 FT.

LEGEND	
E.O.T.=	EDGE OF TRAVEL
●	CRYSTAL DELINEATOR
▲	YELLOW DELINEATOR
◄	DIRECTION OF TRAFFIC FLOW

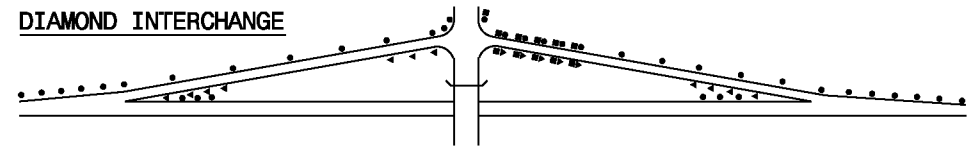
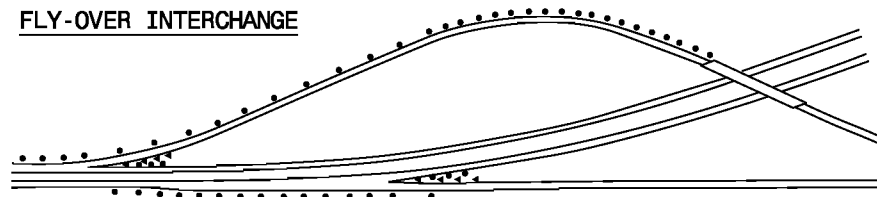
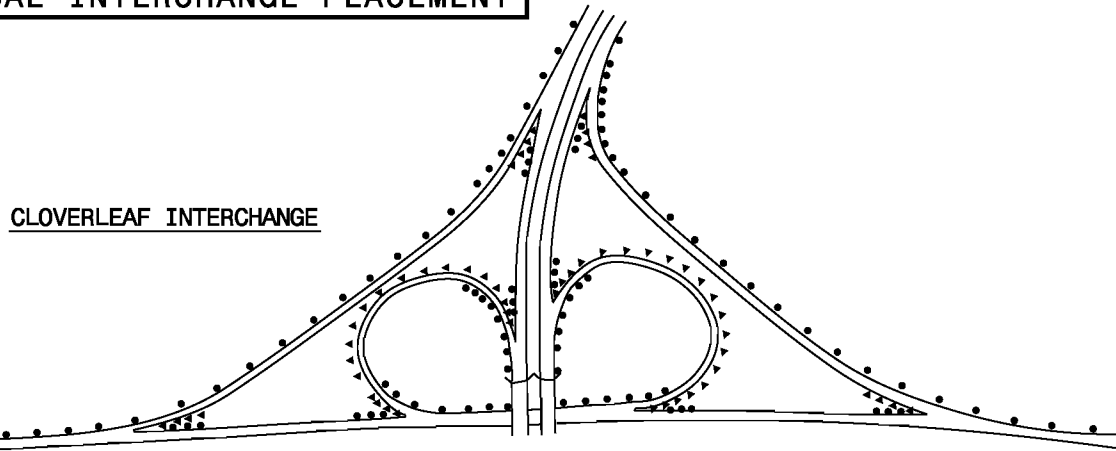
**CLOVERLEAF INTERCHANGE**



**TERMINALS**



**TYPICAL INTERCHANGE PLACEMENT**



**GENERAL NOTES:**

1- CONTINUE DELINEATORS ON RAMPS AND LOOPS, USING TABLES A OR B ON STD. DWG. 1267.02 AND THE FOLLOWING REQUIREMENTS:

PLACE CRYSTAL DELINEATORS ON RIGHT SIDE OF RAMP FOR ALL RIGHT AND LEFT HAND CURVES FOR RAMPS WITH CURVE RADII 1000 FT. OR GREATER.

PLACE YELLOW DELINEATORS ON LEFT SIDE OF CURVE (CONVEX SIDE) RANGING FROM THE P.C. OR S.C. TO THE P.T. OR C.S. IN ADVANCE OF AND BEYOND THE CURVE FOR RAMPS AND LOOPS WITH RIGHT HAND CURVE RADII LESS THAN 1000 FT. CONTINUE WITH CRYSTAL DELINEATORS ON THE RIGHT SIDE WITH A MINIMUM OVERLAP OF 2 DELINEATORS WITHIN THE CURVE. CONTINUE THE CRYSTAL DELINEATORS THROUGH THE RIGHT SIDE OF THE CURVE WHEN THE GAP BETWEEN CRYSTAL DELINEATORS IS LESS THAN 500 FT.

**LEGEND**

- CRYSTAL DELINEATOR
- CRYSTAL DELINEATOR BACK TO BACK WITH RED DELINEATOR
- ◀ YELLOW DELINEATOR
- ◀ CRYSTAL DELINEATOR BACK TO BACK WITH RED DELINEATOR