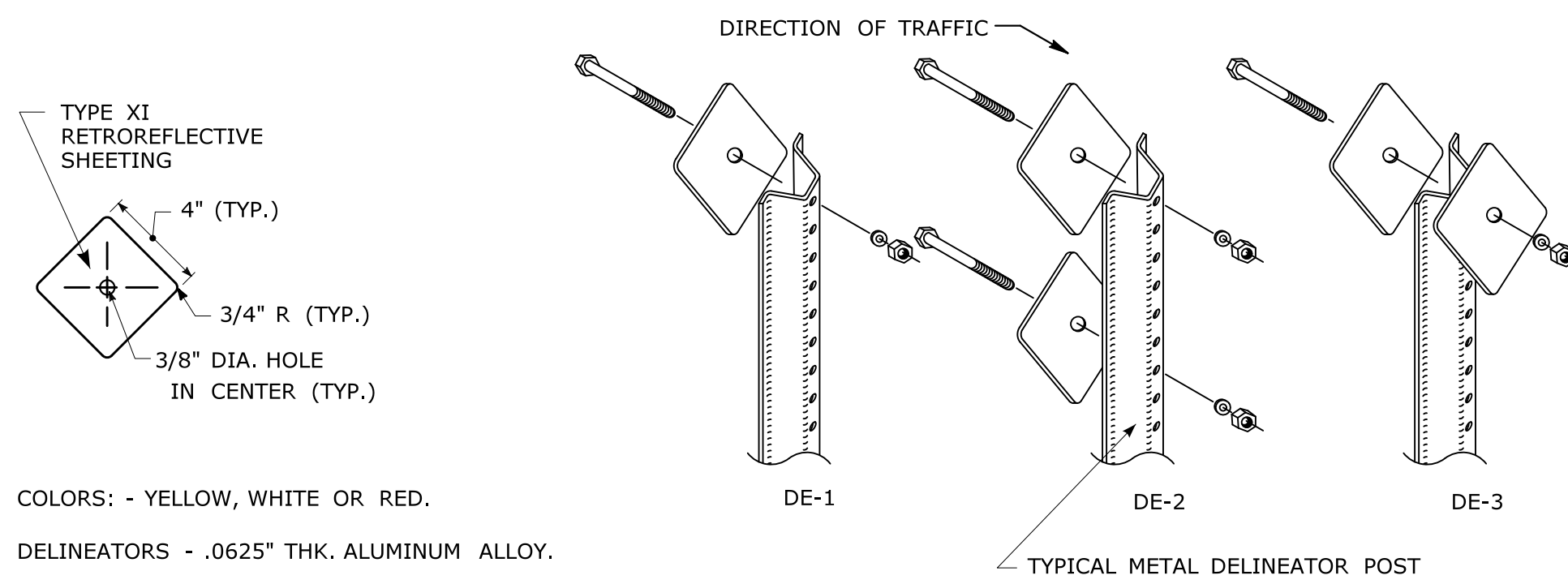


**DELINEATORS DE-1, DE-2, DE-3  
INSTALLATION ON DELINEATOR POSTS**



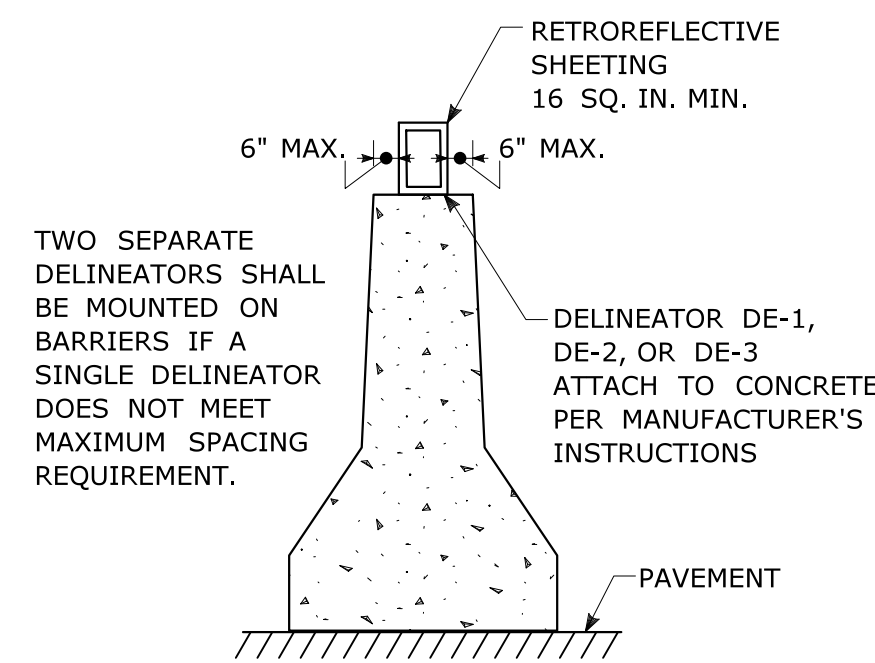
COLORS: - YELLOW, WHITE OR RED.

DELINEATORS - .0625" THK. ALUMINUM ALLOY.

FACE SHALL BE PRESSURE SENSITIVE, SELF ADHERING, TYPE XI RETROREFLECTIVE SHEETING.

DELINEATORS SHALL BE FASTENED WITH 5/16" STAINLESS STEEL ASTM A-193 CLASS 1, GRADE B8 (TYPE 304) OR BETTER HEX HEAD BOLT (LENGTH AS REQUIRED), WASHER AND FIBER INSERT SELF LOCKING NUT, ON STANDARD METAL DELINEATOR POST.

**INSTALLATION ON  
PERMANENT CONCRETE BARRIER,  
BRIDGE PARAPETS AND  
RETAINING WALLS**

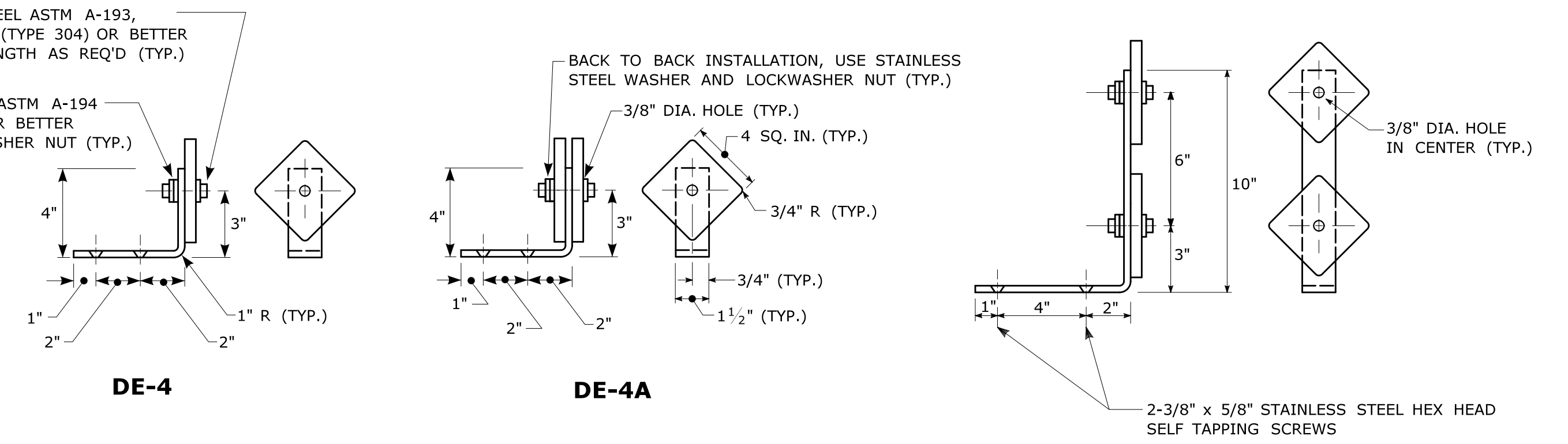


TWO SEPARATE DELINEATORS SHALL BE MOUNTED ON BARRIERS IF A SINGLE DELINEATOR DOES NOT MEET MAXIMUM SPACING REQUIREMENT.

**DELINEATORS DE-4, DE-4A, DE-5  
FOR INSTALLATION ON METAL BRIDGE RAIL**

5/16" STAINLESS STEEL ASTM A-193, CLASS 1 GRADE B8 (TYPE 304) OR BETTER HEX HEAD BOLT, LENGTH AS REQ'D (TYP.)

USE STAINLESS STEEL ASTM A-194 GRADE 8 (TYPE 304) OR BETTER WASHER AND LOCKWASHER NUT (TYP.)



COLORS: - YELLOW, WHITE OR RED.

DELINEATORS - .0625" THK. ALUMINUM ALLOY.

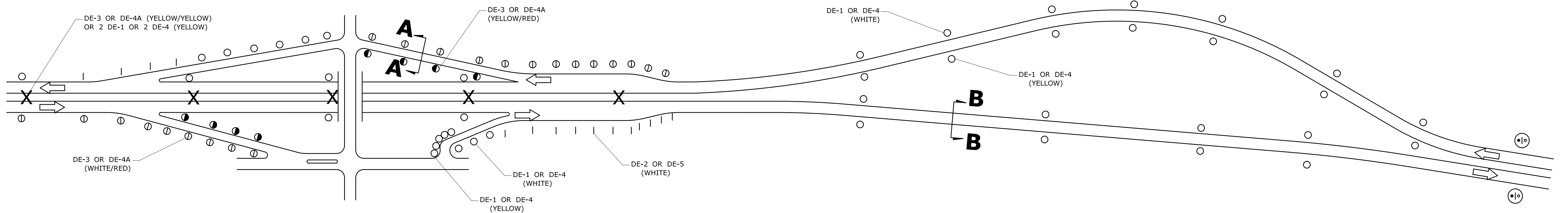
BRACKET - .125" THK. ALUMINUM ALLOY, AND SHALL CONFORM TO SPECIFICATION M.18.07-03 BRIDGE RAIL MOUNTING BRACKETS.

FACE SHALL BE PRESSURE SENSITIVE, SELF ADHERING, TYPE XI RETROREFLECTIVE SHEETING. USE STAINLESS STEEL WASHERS ON FACE OF DELINEATORS, 5/8" O.D. X 3/8" I.D. X .032" THK. (TYP.)

DELINEATORS TYPE DE-4, DE-4A, AND DE-5 TO BE PAID FOR UNDER SECTION 12.05 DELINEATORS.

DELINEATORS DE-1, DE-2, DE-3 TO BE PAID FOR UNDER SECTION 12.05 DELINEATORS.

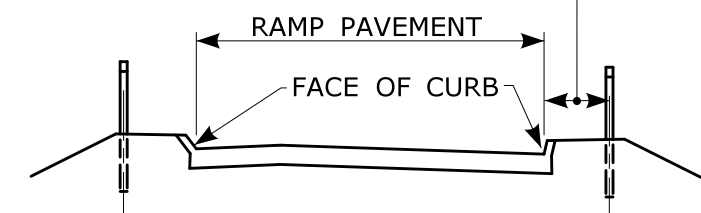
**TYPICAL MAINLINE & INTERCHANGE DELINEATION**



**DELINEATOR SPACING NOTES:**

- 1) AT LOCATIONS WHERE THE MEDIAN WIDTH (BETWEEN SHOULDERS) IS 12' OR LESS, AND MEDIAN BEAM RAIL IS PRESENT, TYPE DE-3 DELINEATORS SHALL BE MOUNTED WITHIN THE MEDIAN BEAM RAIL.
- 2) SPACING ON MAINLINE EXPRESSWAY TANGENTS SHALL BE 400'.
- 3) SPACING ON MAINLINE EXPRESSWAY CURVES SHALL BE AS SPECIFIED IN THE MUTCD TABLE.
- 4) ON ACCELERATION AND DECELERATION LANES AND ON-RAMP TANGENT SECTIONS, DELINEATOR SPACING SHALL BE 100'.
- 5) ON CURVED PORTIONS OF RAMP, DELINEATOR SPACING SHALL BE IN ACCORDANCE WITH THE MUTCD TABLE, BUT NOT TO EXCEED 100'.
- 6) ON OFF-RAMP TANGENT SECTIONS, DELINEATOR SPACING SHALL BE 50' THROUGHOUT.
- 7) GUIDE RAIL AND BARRIER DELINEATOR SPACING SHALL BE AS SPECIFIED IN THE CORRESPONDING SPECIFICATIONS AND DETAILS.

2' TYP. TO 8' MAX. AS DIRECTED BY ENGINEER. ONE OFFSET SHALL BE USED THROUGHOUT PROJECT. DELINEATORS TO BE PLACED IN LINE WITH GUIDE RAIL POSTS WHEN GUIDE RAIL IS 8' OR LESS FROM THE EDGE OF THE ROAD.



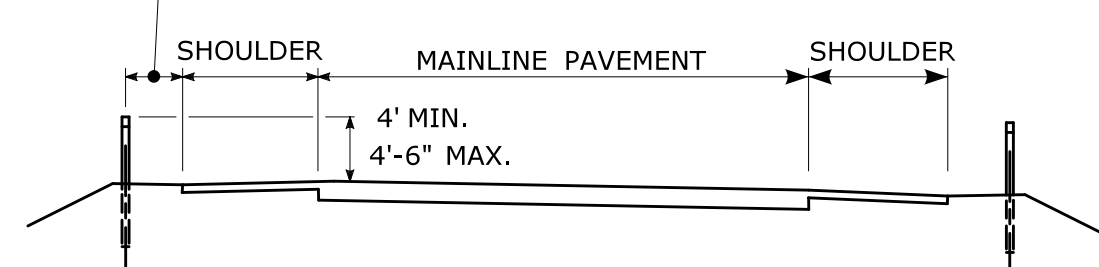
**SECTION A-A**

DELINEATOR PLACEMENT ON RAMP  
ON TANGENT SECTIONS - RIGHT SIDE OF RAMP  
ON CURVED SECTIONS - BOTH SIDES OF CURVE  
ON TANGENT AND CURVE - BOTH SIDES OF OFF-RAMP

**LEGEND:**

- DE-1 DELINEATORS OR DE-4 DELINEATOR ASSEMBLY
- | DE-2 DELINEATORS OR DE-5 DELINEATOR ASSEMBLY (WHITE)
- X DE-3 DELINEATOR OR DE-4A DELINEATOR ASSEMBLY (YELLOW & YELLOW)
- DE-3 DELINEATORS OR DE-4A DELINEATOR ASSEMBLY (BI-COLOR: YELLOW & RED)
- ⊙ DE-3 DELINEATORS OR DE-4A DELINEATOR ASSEMBLY (BI-COLOR: WHITE & RED)
- ⊕ D10-1, 2, 3, OR 4 ASSEMBLY TO BE INSTALLED WHERE SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER. (REFERENCE LOCATION/MILE POST SIGNS)

2' TYP. TO 8' MAX. AS DIRECTED BY ENGINEER. ONE OFFSET SHALL BE USED THROUGHOUT PROJECT. DELINEATORS TO BE PLACED IN LINE WITH GUIDE RAIL POSTS WHEN GUIDE RAIL IS 8' OR LESS FROM THE EDGE OF THE ROAD.



**SECTION B-B**

DELINEATOR PLACEMENT ON MAINLINE

**COLOR APPLICATION, FOR DE-1 THRU DE-5**

1. UNLESS INDICATED OTHERWISE, THE DELINEATOR OR BARRIER DELINEATOR COLOR SHALL CONFORM TO THE COLOR OF THE PAVEMENT EDGE LINE ON THE SIDE OF THE ROAD WHERE THE DELINEATORS OR BARRIER DELINEATORS ARE PLACED.
2. SINGLE RED DELINEATORS ARE MOUNTED ON THE BACK SIDE OF DELINEATOR POSTS FOR WRONG WAY DRIVER APPLICATIONS.

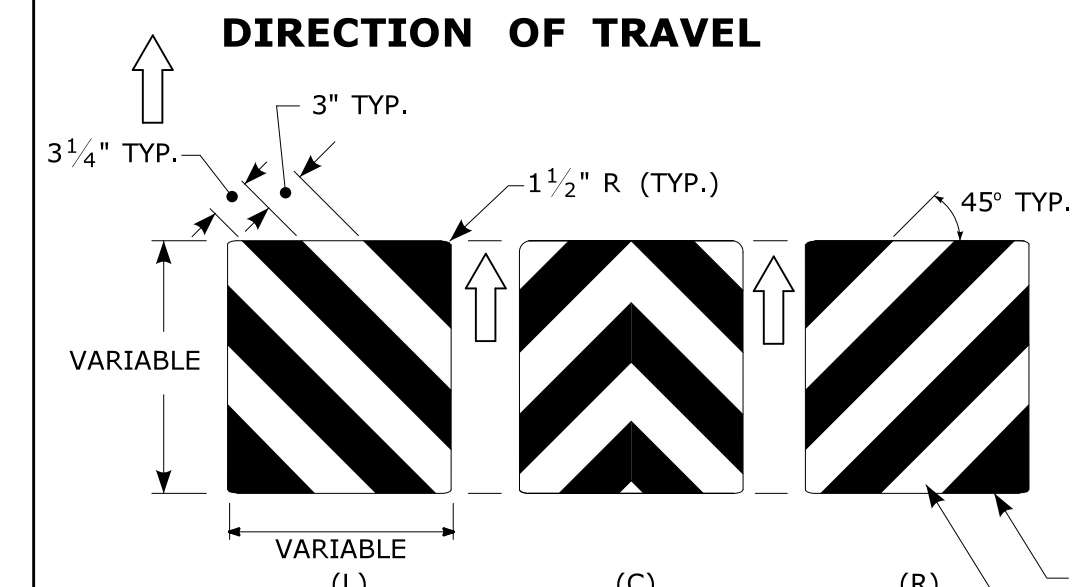
**MUTCD TABLE - APPROXIMATE SPACING FOR DELINEATORS ON HORIZONTAL CURVES**

RADIUS (R) OF CURVE (feet)	APPROXIMATE SPACING (S) ON CURVE (feet)
50	20
115	25
180	35
250	40
300	50
400	50
500	55
600	65
700	70
800	75
900	80
1,000	85
	90

DISTANCE IN FEET WERE ROUNDED TO THE NEAREST 5 FEET. SPACING FOR SPECIFIC RADII MAY BE INTERPOLATED FROM TABLE. THE MINIMUM SPACING SHOULD BE 20 FEET. THE SPACING ON CURVES SHOULD NOT EXCEED 300 FEET. IN ADVANCE OF OR BEYOND A CURVE, AND PROCEEDING AWAY FROM THE END OF THE CURVE, THE SPACING OF THE FIRST DELINEATOR IS 2S, THE SECOND IS 3S, AND THE THIRD 6S BUT NOT TO EXCEED 300 FEET.

S REFERS TO THE DELINEATOR SPACING FOR SPECIFIC RADII COMPUTED FROM THE FORMULA:  $S=3\sqrt{R-50}$ .

**ATTENUATOR REFLECTORS  
SIGN #40-4266**



THIS SHEETING WITHOUT A SUBSTRATE TO BE INSTALLED ON THE NOSE OF THE IMPACT ATTENUATOR WITH ADHESIVE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE SHEETING SHALL COVER THE NOSE OF THE IMPACT ATTENUATOR. ON A CURVED NOSE, THE WIDTH OF THE SHEETING SHALL EXTEND 1" BEYOND THE POINT OF CURVATURE ON EACH SIDE OF THE NOSE. THE HEIGHT AND WIDTH OF THE SHEETING VARIES DEPENDING ON THE SIZE OF THE NOSE OF THE IMPACT ATTENUATOR.

BLACK OPAQUE (TYP.)  
YELLOW TYPE IV OR TYPE IX RETROREFLECTIVE STRIPE (ANGLE DOWNWARD TOWARD ADJACENT PAVEMENT) (TYP.)

**ATTENUATOR REFLECTOR TO BE PAID FOR UNDER SECTION 18.0 IMPACT ATTENUATOR**

REVISION DESCRIPTION  
REV. DATE

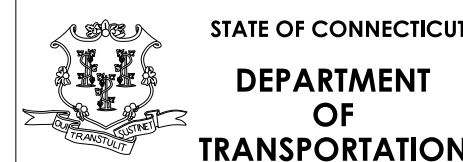
DESIGNER/DRAFTER: CHECKED BY:

NOT TO SCALE

SIGNATURE/  
BLOCK:

APPROVED BY:

OFFICE OF ENGINEERING  
2800 BERLIN TURNPIKE  
NEWINGTON, CT 06111



PROJECT NUMBER: 0000-0000

PROJECT DESCRIPTION: SAMPLE PROJECT DESCRIPTION

TOWN(S): SAMPLE TOWN(S)

DRAWING TITLE: DELINEATION, DELINEATORS AND ATTENUATOR REFLECTOR DETAILS

DRAWING NO.

SHEET NO.