

SEE T-22A and T-22B FOR BRIDGE DELINEATION DETAILS

RECOMMENDED SPACING FOR DELINEATORS
 DELINEATORS SHOULD NORMALLY BE SPACED 528' APART, WHERE SUCH IS INTERRUPTED BY DRIVEWAYS, CROSSROADS, ETC., AND WHERE UNDER THE NORMAL SPACING, A DELINEATOR WOULD FALL WITHIN SUCH AN AREA, THAT DELINEATOR MAY BE MOVED IN EITHER DIRECTION A DISTANCE NOT EXCEEDING 1/4 (32%) OF THE NORMAL SPACING, IF SUCH DELINEATOR STILL FALLS WITHIN THAT AREA, IT SHOULD BE ELIMINATED. SEE TABLE BELOW FOR RECOMMENDED SPACING OF HORIZONTAL CURVES.

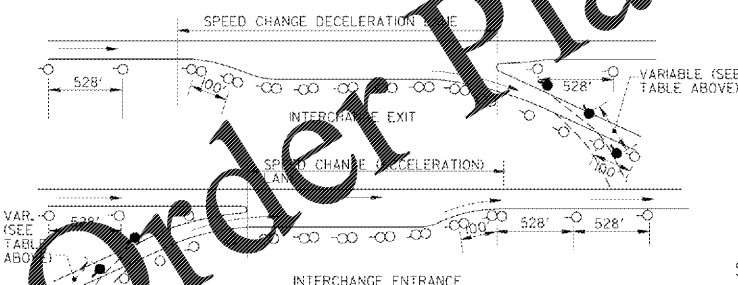
TABLE SPACING (1) FOR DELINEATORS ON HORIZONTAL CURVES				
RADIUS OF CURVE (IN FEET)	SPACING ON CURVE (IN FEET)	SPACING IN ADVANCE & BEYOND CURVE (IN FEET) (MAINLINE ONLY)		
		1ST	2ND	3RD
50	20	40	65	125
100	30	60	90	180
200	40	80	120	240
300	50	100	150	300
400	60	120	180	360
500	70	140	210	420
600	80	160	240	480
700	90	180	270	540
800	100	200	300	600
900	110	220	330	660
1000	120	240	360	720

IN SPACING, S, FOR SPECIFIC RADIUS, R, SHOWN MAY BE INTERPOLATED FROM THE TABLE OR COMPUTED FROM THE FORMULA $S = \sqrt{R \cdot \theta}$ WHERE R IS THE RADIUS OF CURVATURE IN FT. AND S IS ROUNDED TO THE NEAREST 5 FT. THE SPACING TO THE FIRST DELINEATOR IN ADVANCE OF THE CURVE IS 25% OF THE SECOND S, AND THE THIRD S, BUT NONE TO EXCEED 300 FEET, MINIMUM SPACING IS 20 FEET.

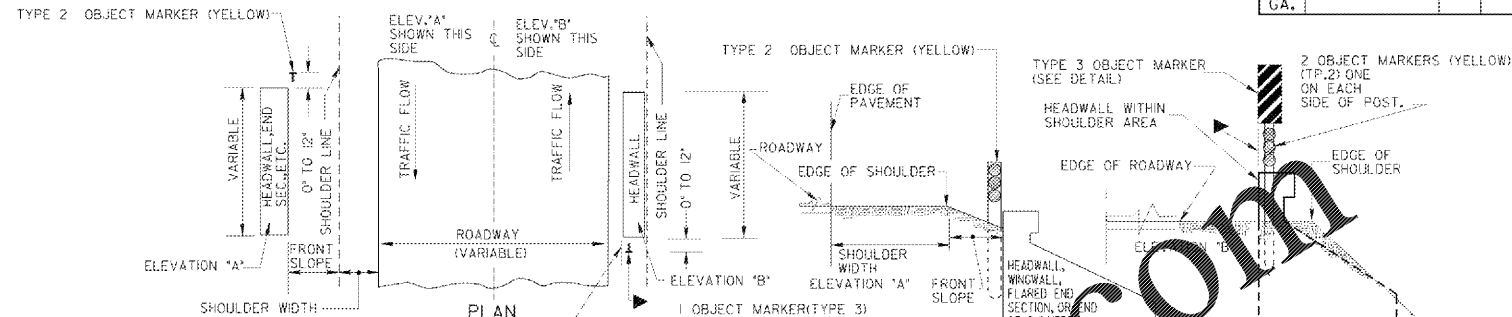
LOCATION OF DELINEATORS ON FREEWAY & EXPRESSWAY TYPE HIGHWAYS

TYPES OF DELINEATORS, ERECTION LOCATION, AND SPACING SHALL BE AS FOLLOWS:

- SINGLE CRYSTAL (WHITE) REFLECTOR UNITS (TYPE 1 DELINEATOR) ON RIGHT SIDE OF MAINLINE AT 528 FOOT SPACING & ON RT. SIDE OF RAMP TGT. SECTIONS AT 100 FOOT SPACING FROM PHYSICAL CORE TO RAMP TERMINUS.
- DOUBLE CRYSTAL (WHITE) REFLECTOR UNITS (TYPE 2 DELINEATOR) ON RIGHT SIDE OF SPEED CHANGE (ACCELERATION & DECELERATION) LANES THAT ARE ON RIGHT SIDE OF MAINLINE AT 100 FOOT SPACING FROM TAPER TO PHYSICAL CORE.
- SINGLE YELLOW REFLECTOR UNITS (TYPE 1 DELINEATOR) ON LEFT SIDE OF RAMP HORIZONTAL CURVES & ON LEFT SIDE OF MAINLINE HORIZONTAL CURVES GREATER THAN 3° CURVATURE.
- DOUBLE YELLOW REFLECTOR UNITS (TYPE 2 DELINEATOR) ON LEFT SIDE OF SPEED CHANGE (ACCELERATION & DECELERATION) LANES THAT ARE ON LEFT SIDE OF MAINLINE AT 100 FOOT SPACING FROM TAPER TO PHYSICAL CORE.
- SINGLE REFLECTOR UNITS (TYPE 1 DELINEATOR) ON LEFT SIDE OF EXIT RAMP AT 100 FOOT SPACING FROM "WRONG WAY" SIGN TO RAMP TERMINUS. USE TYPE 1A REFLECTORS ON RIGHT OR LEFT SIDE OF EXIT RAMP WHERE TYPE 1 (WHITE) YELLOW DELINEATORS ARE USED. FACE OF RED DELINEATORS ORIENTED OPPOSITE TO NORMAL TRAFFIC FLOW.



LOCATION OF OBJECT MARKERS AT CULVERT ENDS

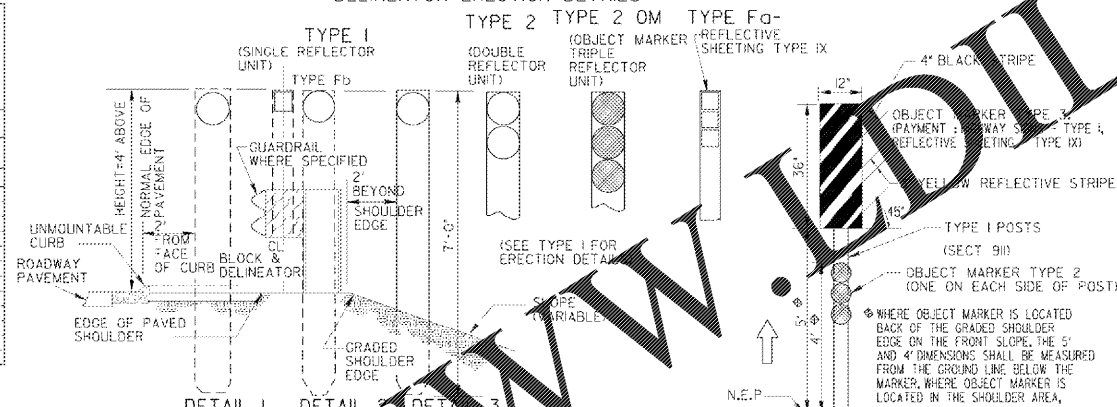


ELEVATION "A" ONE OBJECT MARKER (YELLOW) (TYPE 2) SHALL BE USED WHERE HEADWALLS, FLARED END SECTIONS, OR CULVERT ENDS ARE LOCATED WITHIN THE FRONT SLOPE AS SHOWN IN ELEVATION "A" DETAIL.

ELEVATION "B" A COMBINATION OF ONE OBJECT MARKER (TYPE 3) AND TWO OBJECT MARKERS (YELLOW) (TYPE 2), ONE ON EACH SIDE OF THE POST, SHALL BE USED WHERE HEADWALLS OF CULVERTS ARE LOCATED WITHIN THE EXISTING SHOULDER AREA AS SHOWN IN ELEVATION "B" DETAIL.

NOTE: ON MAJOR DRAINAGE STRUCTURES ON FEDERAL RESURFACING PROJECTS, WHEN ELEVATION "B" EXISTS, THE FIELD REVIEW TEAM WILL RECOMMEND WHICH TO USE: GUARDRAIL, ADDITIONAL DELINEATION, OR EXTENSION OF DRAINAGE STRUCTURE.

DELINEATOR ERECTION DETAILS



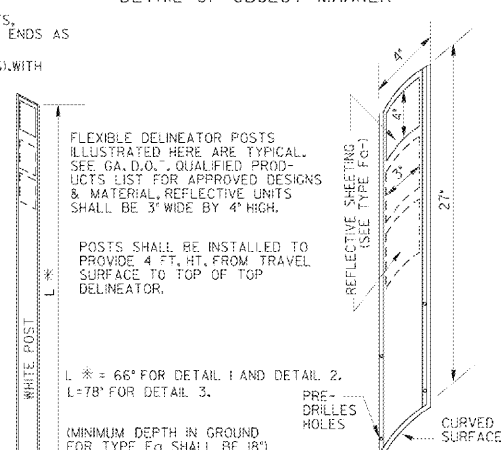
NOTE: ERECTION DETAILS ABOVE ARE TYPICAL FOR ALL TYPES EXCEPT 1A, 2A, 3A, WHICH ARE MOUNTED IN THE POST OR STRUCTURE ALREADY IN PLACE.

DETAIL 1: ERECTION FOR ROADWAYS HAVING UNMOUNTABLE CURBS.

DETAIL 2: ERECTION FOR FREEWAY & GUARDRAIL DELINEATOR POST SHALL BE IN THE PLAN AS FACE OF GUARDRAIL POSTS, EXCEPT FOR TYPE 1A AS SHOWN, AND POSSIBLY AT BRIDGE ENDS AS INDICATED ABOVE.

DETAIL 3: ERECTION FOR ROADWAYS HAVING SHOULDERS (WITHOUT CURBS) WITH UNMOUNTABLE CURBS; ERECTION SHALL BE SAME AS DETAIL 3.

DETAIL OF OBJECT MARKER



FLEXIBLE DELINEATOR POSTS ILLUSTRATED HERE ARE TYPICAL. SEE GA. D.O.T. QUALIFIED PRODUCTS LIST FOR APPROVED DESIGNS & MATERIAL. REFLECTIVE UNITS SHALL BE 3" WIDE BY 4" HIGH.

POSTS SHALL BE INSTALLED TO PROVIDE 4 FT. HT. FROM TRAVEL SURFACE TO TOP OF TOP DELINEATOR.

ROADSIDE FLEXIBLE (COMPOSITE ALLOY) DELINEATOR POST

GUARDRAIL FLEXIBLE (COMPOSITE ALLOY) DELINEATOR POST

TYPE Fa-1 (ONE REFLECT.) TYPE Fa-2 (TWO REFLECT.) TYPE Fa-2 OM (THREE REFLECT.)

TYPE Fb-1 (ONE REFLECT.) TYPE Fb-2 (TWO REFLECT.) TYPE Fb-2 OM (THREE REFLECT.)

TYPES OF DELINEATORS

- TYPE 1 - ALUMINUM OR GALVANIZED STEEL FLANGED "U" CHANNEL POST WITH SINGLE REFLECTOR UNIT. REFLECTOR UNIT TO CONSIST OF: (A) ONE 3" DIAMETER SEALED PRISMATIC REFLECTOR WITH PLATE AND FRAME, OR (B) ONE 4" X 5" RECTANGULAR TYPE 1 LEVEL A REFLECTIVE SHEETING REFLECTOR WITH PLATE AND FRAME, OR (C) ONE 3/4" DIAMETER CENTER MOUNT SEALED PRISMATIC REFLECTOR HOUSED IN ALUMINUM BACKING WITH SINGLE GROMMETTED HOLE IN CENTER OF REFLECTOR.
- TYPE 2 - ALUMINUM OR GALVANIZED STEEL FLANGED "U" CHANNEL POST WITH DOUBLE REFLECTOR UNIT. REFLECTOR UNIT TO CONSIST OF: (A) TWO 3" DIAMETER SEALED PRISMATIC REFLECTORS WITH PLATE AND FRAME, OR (B) TWO 4" X 5" RECTANGULAR TYPE 1 LEVEL A REFLECTIVE SHEETING REFLECTORS WITH PLATE AND FRAME, OR (C) TWO 3/4" DIAMETER CENTER MOUNT SEALED PRISMATIC REFLECTORS HOUSED IN ALUMINUM BACKING WITH SINGLE GROMMETTED HOLE IN CENTER OF EACH REFLECTOR.
- TYPE 3 - ALUMINUM OR GALVANIZED STEEL FLANGED "U" CHANNEL POST WITH TRIPLE REFLECTOR UNIT. REFLECTOR UNIT TO CONSIST OF: (A) THREE 3" DIAMETER SEALED PRISMATIC REFLECTORS WITH PLATE AND FRAME, OR (B) THREE 4" X 5" RECTANGULAR TYPE 1 LEVEL A REFLECTIVE SHEETING REFLECTORS WITH PLATE AND FRAME, OR (C) THREE 3/4" DIAMETER CENTER MOUNT SEALED PRISMATIC REFLECTORS HOUSED IN ALUMINUM BACKING WITH SINGLE GROMMETTED HOLE IN CENTER OF EACH REFLECTOR.
- TYPE 1A - SINGLE REFLECTOR UNIT ONLY MOUNTED ON POST OR STRUCTURE ALREADY IN PLACE. REFLECTOR UNIT SAME AS FOR TYPE 1, 2, AND 2 OM, RESPECTIVELY.
- TYPE Fa - FLEXIBLE DELINEATOR POSTS SHALL BE USED AT LOCATIONS WHERE HIGH FREQUENCY OF HITS ARE ANTICIPATED, SUCH AS CORNER AREAS, OUTSIDE OF SHARP CURVES, ETC., AND MAY ALSO BE USED AS ALTERNATIVES TO TYPE 1, TYPE 2, OR TYPE 3 DELINEATORS WHEN SPECIFIED ON THE PLANS. DIFFERENT DESIGN FLEXIBLE DELINEATORS PERMITTED IF APPROVED BY THE GA. D.O.T. OFFICE OF MATERIALS AND RESEARCH.

GENERAL NOTES:

- A - SPECIFICATIONS: GA. STANDARD, CURRENT EDITION, & SUPPLEMENTS THERETO.
- B - REFLECTORS FOR TYPES 1 AND 1A SHALL BE CRYSTAL (WHITE) YELLOW OR RED, AS SPECIFIED ON THE PLANS. REFLECTORS FOR TYPES 2 AND 2A SHALL BE CRYSTAL (WHITE) OR YELLOW AS SPECIFIED ON THE PLANS. REFLECTORS FOR TYPE 3 AND 3A SHALL BE YELLOW ONLY AS SPECIFIED ON THE PLANS.
- C - WHEN POSTS ARE SET IN CONCRETE, METAL RODS SHALL BE INSERTED IN 3/16" DIA. HOLES LOCATED AT BOTTOM OF POST. MIN SIZE OF RODS SHALL BE 1/2" DIA. X 3" LONG.
- D - MONODIRECTIONAL DELINEATORS SHALL BE USED AND ERECTED AT THE RECOMMENDED SPACING, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- E - FOR ADDITIONAL DATA ON DELINEATORS, REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ALL SUPPLEMENTS THERETO.
- F - DRILL OR PUNCH IT 3/8" DIA. HOLES ON 1" CENTERS FOR A DISTANCE OF 17" MINIMUM FROM TOP POST.

REVISION DATES		DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
NO SCALE	REV. & REDR. MAR., 2001	STANDARD DELINEATORS & MARKERS AND ALTERNATE POSTS	
DES. SUBMITTED: [Signature]	STATE ROAD & AIRPORT DESIGN ENGINEER	NUMBER 9030C	
REV. [Signature]	TR. [Signature]	CHIEF ENGINEER	
CHK. [Signature]	CHIEF ENGINEER		

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