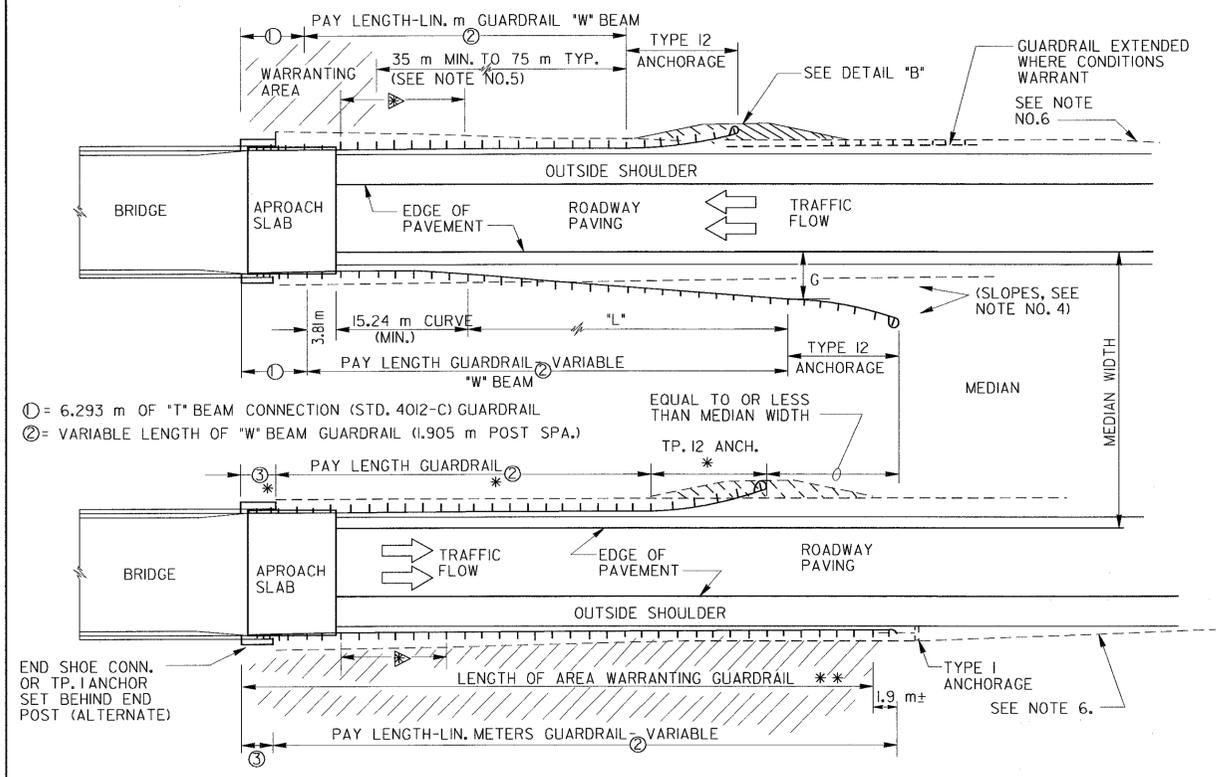


GUARDRAIL LOCATION AT BRIDGE ENDS



STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	STP-2094 (1)	402	513



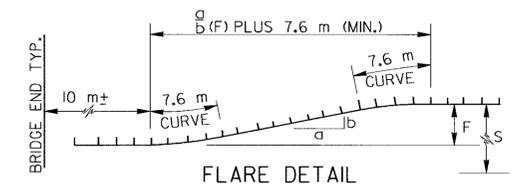
- ① = 6.293 m OF "T" BEAM CONNECTION (STD. 4012-C) GUARDRAIL
- ② = VARIABLE LENGTH OF "W" BEAM GUARDRAIL (1.905 m POST SPA.)
- ③ = 2.48 m OF T BEAM (END SHOE & TRANSITION SECTION)-OR TYPE I ANCHOR., SET BEHIND END POST & CONNECTED TO W-BEAM

- * OMIT GUARDRAIL AT OUTLET IN MEDIAN FOR MEDIAN WIDTHS OVER 16.46 m.
- ** OMIT GUARDRAIL AT OUTLET ON THE OUTSIDE UNLESS ROADSIDE CONDITIONS WARRANT ITS USE.
- ▶ WHERE THE OUTSIDE SHOULDER WIDTH IS REDUCED ACROSS BRIDGE:
 - a) SHORT INSTALLATION (LESS THAN 62 m TOTAL) OF GUARDRAIL SHALL HAVE STRAIGHT ALIGNMENT;
 - b) LONGER INSTALLATION SHALL BE TRANSITIONED, STARTING 10.0 m ± FROM BRIDGE END, TO THE "S" OFFSET PER FLARE DETAIL.

MEDIAN WIDTH	G	L
11.6 m	2.5 m	61 m
12.0 m	3.0 m	53 m
13.0 m	3.7 m	46 m
13.6 m	4.2 m	42 m
14 m AND OVER	4.9 m	38 m

NOTE:
 FOR DETAILS OF GUARDRAIL AT FIXED OBJECTS NOT IN THE MEDIAN, SEE STANDARD 4056
 FOR DETAILS OF GUARDRAIL PROTECTION OF FIXED OBJECTS IN THE MEDIAN; SEE STANDARD #4055.
 FOR DETAILS OF CONCRETE BARRIERS, SEE STANDARDS 4940, 4948, OR OTHER APPLICABLE DETAILS.

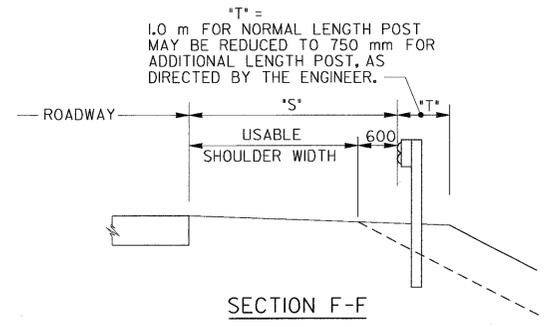
FLARE RATE	
km/h	a/b(MIN.)
110	15:1
105	14:1
100	13:1
90	12:1
80	11:1
70	10:1



SEE NOTE INDICATED BY B, BELOW LEFT, FOR TYPICAL USE OF FLARE.

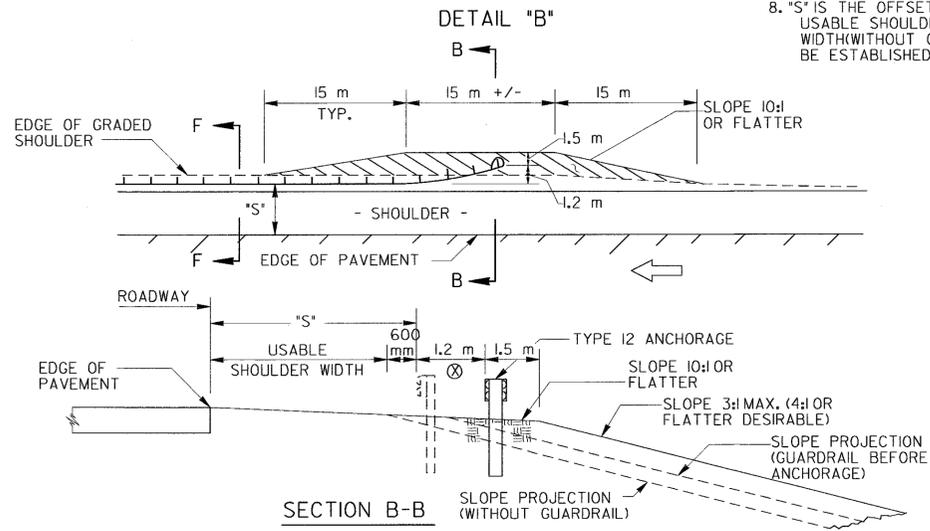
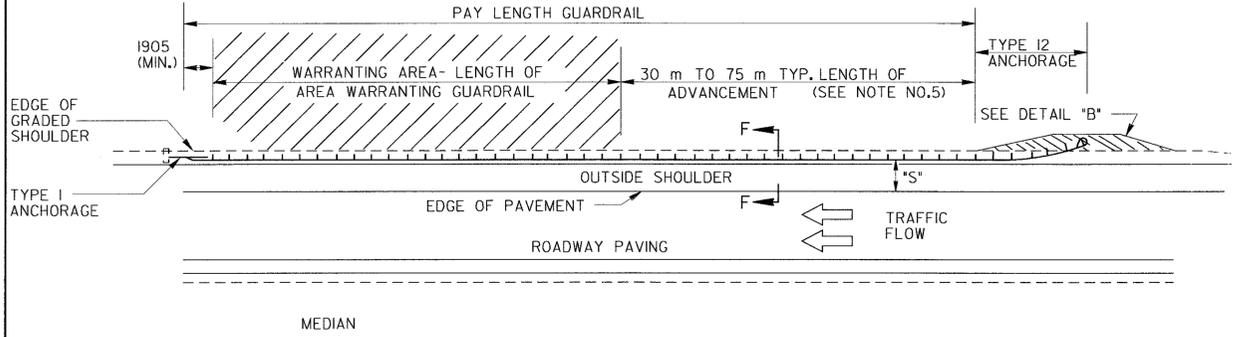
GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, & SUPPLEMENTS THERETO.
2. POST SPACINGS SHALL BE 1.905 m CENTER TO CENTER EXCEPT WHERE REDUCED SPACINGS ARE SPECIFIED AT BRIDGE ENDS OR AT FIXED OBJECTS.
3. FOR DETAILS OF GUARDRAIL, ACCESSORIES, POSTS, OFFSET BLOCKS, ANCHORAGES, ETC., SEE APPLICABLE STANDARD AND/OR CONSTRUCTION DETAILS.
4. NEGATIVE SLOPES IN FRONT OF GUARDRAIL AND TYPE I2 ANCHORAGES SHALL BE 10 : 1 OR FLATTER.
5. GUARDRAIL SHALL BEGIN IN ADVANCE OF A WARRANTING AREA BY A SUFFICIENT LENGTH TO PREVENT VEHICLE PENETRATION BEHIND THE RAIL INTO SHIELDED AREA. THE TYPICAL LENGTHS OF ADVANCEMENT SHOWN MAY BE INCREASED OR DECREASED WHEN SHOWN IN THE PLANS, OR WHERE DIRECTED BY THE ENGINEER BECAUSE OF SPEED DESIGN, ROADSIDE GEOMETRICS, GRADES, OR OTHER CONDITIONS; IF FURTHER INFORMATION IS DESIRED, SEE GA. D.O.T. "GUIDELINES FOR DETERMINING GUARDRAIL NEED, LOCATION AND STANDARDS," OR AASHTO "ROADSIDE DESIGN GUIDE."
6. WHERE GUARDRAIL IS REQUIRED ON THE SHOULDER, THE SHOULDER WILL BE GRADED WIDER THAN NORMAL & FLARED AS SHOWN IN THE DETAILS.
7. GAPS OF LESS THAN 62 m BETWEEN GUARDRAIL INSTALLATIONS SHOULD BE AVOIDED EXCEPT WHERE JUSTIFIED BY LOCAL CONDITIONS.
8. "S" IS THE OFFSET TO FACE OF GUARDRAIL. THIS WILL BE 600 mm GREATER THAN THE NORMAL USABLE SHOULDER WIDTH(WITHOUT GUARDRAIL). HOWEVER, IF THE NORMAL GRADED SHOULDER WIDTH(WITHOUT GUARDRAIL) IS GREATER THAN REQUIRED BY AASHTO, "S" DISTANCE MAY BE ESTABLISHED AS 600 mm GREATER THAN THE AASHTO SHOULDER WIDTH.



S = WIDTH OF USABLE SHOULDER PLUS 600 mm (SEE GEN. NOTE NO. 8).

GUARDRAIL LOCATION ALONG ROADWAY



NOTE: WHERE CONDITIONS PROHIBIT CONSTRUCTION AS HERE SHOWN, THE FLARED EMBANKMENT MAY BE MODIFIED AT THE DIRECTION OF THE ENGINEER OR AS SHOWN ON THE PLANS IN ORDER TO PROVIDE THE 10:1 OR FLATTER SLOPES AROUND THE TY. I2 ANCHORAGE & TO GIVE THE CONSTANT 550 mm CENTER OF RAIL HEIGHT WITH A 1.2 m OFFSET, AS SHOWN.

⊗ THE 1.2 m OFFSET SHOWN IS TYPICAL FOR A FLARED ANCHORAGE. WHERE A NON-FLARED OR REDUCED FLARE ANCHORAGE IS PERMITTED, THIS DIMENSION MAY BE ZERO OR LESS THAN 1.2 m AS DIRECTED BY THE ENGINEER.

SPECIAL NOTE:
 LOCATION AND QUANTITIES GIVEN IN THE PLANS FOR GUARDRAIL AND ANCHORAGES ARE ESTIMATES MADE FROM OFFICE COMPUTATIONS. A FINAL DETERMINATION AS TO LOCATIONS AND QUANTITIES OF GUARDRAIL AND ANCHORAGES WILL BE MADE BY THE ENGINEER OR A REPRESENTATIVE FROM THE OFFICE OF TRAFFIC OPERATIONS AFTER CONSTRUCTION OF ROADWAY.

NOTE: DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE.

5-12-99		10-6-97		10-7-96		DATE	
GENERAL REVISIONS		GENERAL REVISIONS		GENERAL REVISIONS		DATE	
DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA				STANDARD GUARDRAIL LOCATION DETAILS FOR MULTI-LANE DIVIDED HIGHWAYS (WITH SHOULDERS ADJACENT TO ROADWAY) (METRIC)			
APRIL 1996				NUMBER 4051			
DES.	TR.	CHK.	BY	DES.	TR.	CHK.	BY
				(SUBMITTED)	(APPROVED)		
				STATE ROAD & AIRPORT DESIGN ENGR. CHIEF ENGINEER			