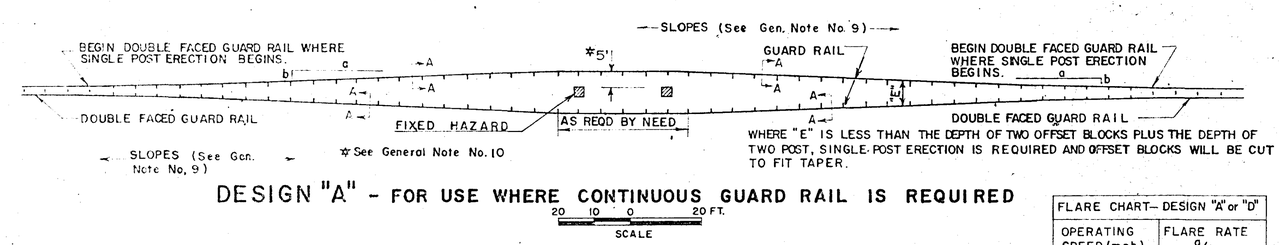
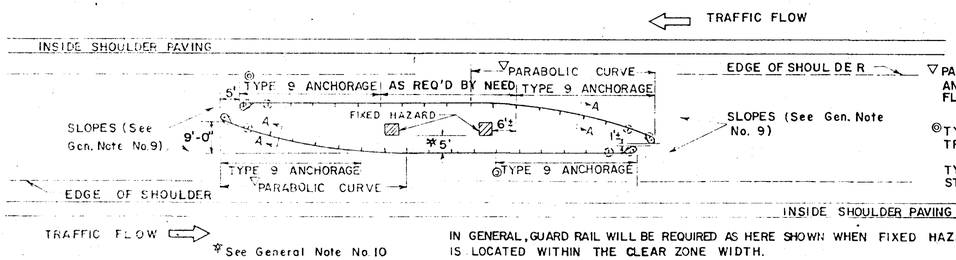
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	TSAP 193 (9)	61-A	135



DESIGN "A" - FOR USE WHERE CONTINUOUS GUARD RAIL IS REQUIRED

20 10 0 20 FT.
SCALE

FLARE CHART– DESIGN "A" or "D"	
OPERATING SPEED (mph)	FLARE RATE a/b
70	15 Min.
60	13 Min.
50	11 Min.
40	9 Min.



▽ PARABOLIC CURVE CONSIST OF TYPE 9 ANCHORAGE PLUS 12'-6" OF GUARD RAIL FLARED 9 FT.

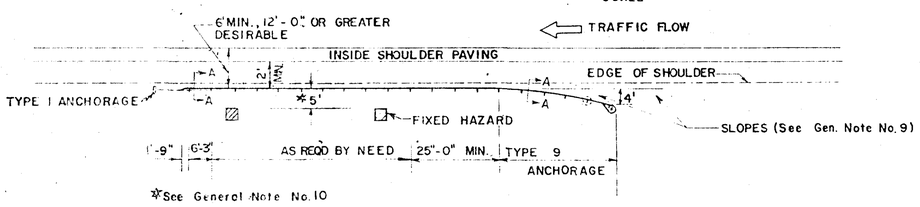
© TYPE 9 ANCHORAGE WITHOUT FLARE AT TRAILING END OF TRAFFIC FLOW.

TYPE 9 ANCHORAGE SHALL BE ACCORDING TO STANDARD 4050 EXCEPT AS NOTED ABOVE

IN GENERAL, GUARD RAIL WILL BE REQUIRED AS HERE SHOWN WHEN FIXED HAZARD IS LOCATED WITHIN THE CLEAR ZONE WIDTH.

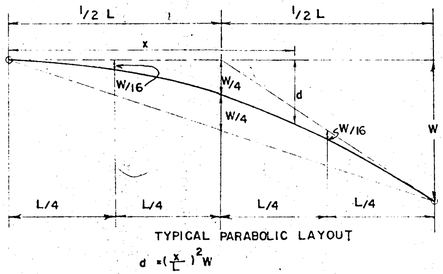
DESIGN "B" - FOR USE WHERE CONTINUOUS GUARD RAIL IS NOT REQUIRED

20 10 0 20 FT.
SCALE

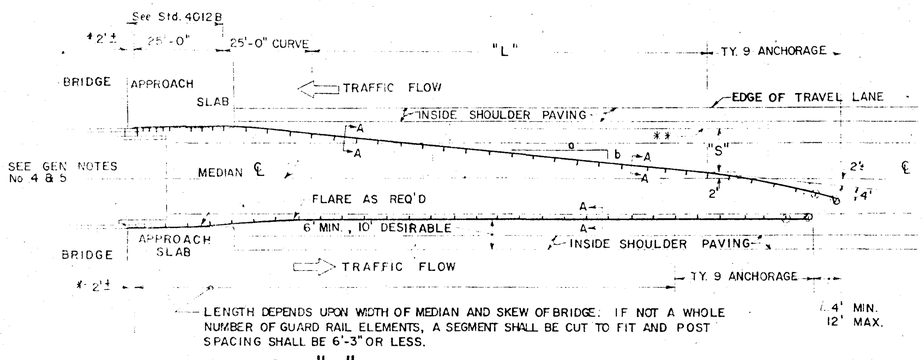


DESIGN "C" - FOR USE WHERE FIXED HAZARD IS NOT CENTERED IN MEDIAN

20 10 0 20 FT.
SCALE



PARABOLIC DETAIL



LENGTH DEPENDS UPON WIDTH OF MEDIAN AND SKEW OF BRIDGE. IF NOT A WHOLE NUMBER OF GUARD RAIL ELEMENTS, A SEGMENT SHALL BE CUT TO FIT AND POST SPACING SHALL BE 6'-3" OR LESS.

** PROJECTION FROM FACE OF GUARDRAIL AT BRIDGE END

"S" = DISTANCE FROM ** TO WITHIN 2' OF MEDIAN ℄

min. "L" = "S"(a/b) - 12.5'

FOR MINIMUM FLARE a/b SEE CHART AT TOP.

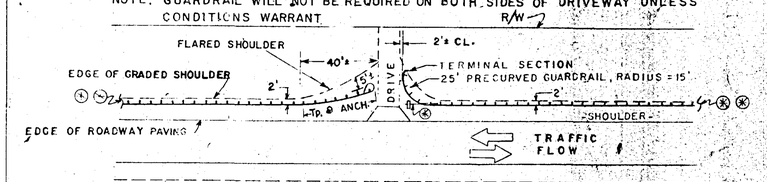
DESIGN "D" - FOR USE AT BRIDGE ENDS WHERE MEDIAN WIDTH IS 40 FT. OR LESS AND CONTINUOUS GUARD RAIL IS NOT REQUIRED

20 10 0 20 FT.
SCALE

* PAYMENT FOR GUARDRAIL INCLUDES GUARDRAIL ATTACHMENTS AT BRIDGE ENDS.

LOCATION OF GUARD RAIL IN MEDIAN

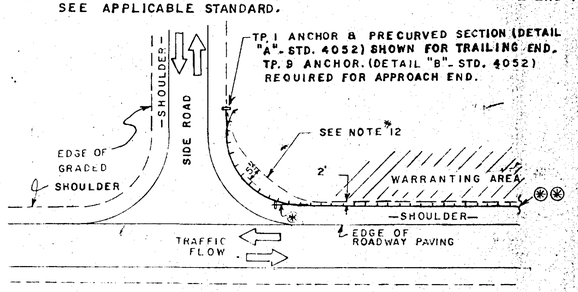
NOTE: GUARDRAIL WILL NOT BE REQUIRED ON BOTH SIDES OF DRIVEWAY UNLESS CONDITIONS WARRANT



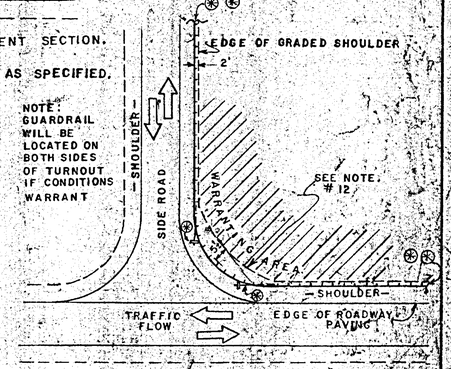
NOTE: PRECURVED GUARDRAIL WILL BE REQUIRED WITH RADII LESS THAN 150'.

(1) TYPE I ANCHORAGE - ATTACHED TO GUARDRAIL AT END OF TANGENT SECTION.

(2)(2) EXTENDED GUARDRAIL ANCHORED OR CONNECTED TO BRIDGE END AS SPECIFIED. SEE APPLICABLE STANDARD.



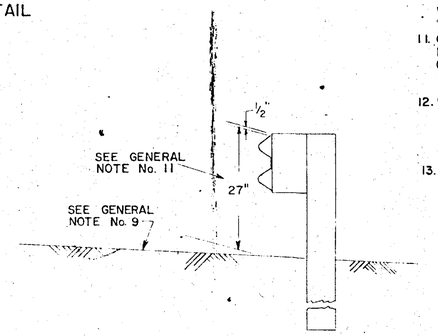
NOTE: GUARDRAIL WILL BE LOCATED ON BOTH SIDES OF TURNOUT IF CONDITIONS WARRANT



LOCATION OF GUARDRAIL AT TURNOUTS

GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD AND/OR SPECIAL PROVISIONS.
2. FOR DETAILS OF GUARD RAIL AND TERMINAL SECTIONS SEE GA. STD. 4010.
3. FOR DETAILS OF POSTS AND OFFSET BLOCKS, SEE GA. STD. 4011.
4. FOR DETAILS OF GUARD RAIL ANCHORAGES AND BRIDGE END CONNECTION DETAILS SEE APPLICABLE GA. STANDARDS AND/OR CONSTRUCTION DETAILS.
5. FOR DETAILS CONCERNING ATTACHMENT OF GUARD RAIL TO BRIDGE, SEE BRIDGE PLANS.
6. ALL OFFSETS AND LENGTHS HERE SHOWN ARE APPLIED TO FACE OF GUARD RAIL.
7. POSTS SPACING SHALL BE 6'-3" UNLESS OTHERWISE NOTED.
8. PRECURVED ELEMENT OF GUARDRAIL SHALL BE ERECTED AT A HEIGHT WHICH IS IN THE SAME PLANE AS THAT LOCATED ON SHOULDER.
9. NEGATIVE MEDIAN SLOPES SHALL BE 10:1 OR FLATTER IN FRONT OF ALL GUARD RAIL AND ALL TYPE 9 ANCHORAGES, EXCEPT WHERE FACE OF RAIL IS LOCATED MORE THAN 12 FT. FROM EDGE OF GRADED SHOULDER, IN WHICH CASE SUCH SLOPES MAY BE 6:1 OR FLATTER.
10. A 5 FT. MINIMUM OFFSET BETWEEN FACE OF GUARD RAIL AND FIXED HAZARD IS REQUIRED AS HERE SHOWN. HOWEVER WHERE FIXED HAZARD IS WITHIN 7 FT. FROM EDGE OF ROADWAY PAVING AND THE 5 FT. MINIMUM OFFSET CANNOT BE OBTAINED, A 4 FT. OFFSET WILL BE PERMITTED. ANY OFFSET LESS THAN 4 FT. WILL REQUIRE DOUBLE POST SPACINGS (3'-1 1/2" c. TO c.) IN FRONT OF FIXED HAZARD PLUS A MINIMUM OF 7 SUCH SPACINGS IN ADVANCE OF HAZARD.
11. GUARDRAIL (Type "W") WILL HAVE A CONSTANT TOP OF RAIL HEIGHT OF 27" THOUGHOUT INSTALLATION EXCEPT WHERE A PRECURVED ELEMENT OF RAIL EXTENDS BACK OF THE GRADED SHOULDER. 27" RAIL HEIGHT WILL BE MEASURED RELATIVE TO THE GUARDRAIL DIRECTLY UNDER THE FACE OF THE RAIL AS SHOWN IN SECTION A-A.
12. WHERE GUARDRAIL IS REQUIRED AT SIDE ROADS, GRADED SHOULDER WILL BE FLARED TO PROVIDE THE AREA SHOWN BACK OF GUARDRAIL WHILE THE DISTANCE FROM EDGE OF ROADWAY PAVING TO FACE OF GUARDRAIL REMAINS APPROXIMATELY CONSTANT AROUND TURNOUT.
13. QUANTITIES AND LOCATIONS SHOWN IN THE PLANS FOR GUARDRAIL AND ANCHORAGES MAY BE ALTERED WHERE THE ENGINEER OR A REPRESENTATIVE FROM THE OFFICE OF TRAFFIC AND SAFETY DETERMINES THAT FEILD CONDITIONS JUSTIFY SUCH A CHANGE.



SECTION A-A
(SHOWN FOR "W" BEAM GUARDRAIL)

BY	REVISIONS	DATE
R.M.U.	"E" OFFSET & MEDIAN	10-29-75
R.M.U.	GEN. REVISION	12-4-75
R.M.U.	GEN. NOTE NO. 9	7-26-76
R.M.U.	Add Sec. A, Rev. Dwg. 9, Dim. 6.5, & Sht. 2	2-3-77
R.M.U.	Rev. Gen. Note 10	1-18-79

R.M.U. Turnouts, Flare Rate, Note 12, 13 3-14-80

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
STANDARD

LOCATION OF GUARD RAIL IN MEDIAN
LOCATION OF GUARD RAIL AT TURNOUTS

SCALE AS SHOWN NOV. 1971

DESIGNED	RMU	SUBMITTED	STATE ROAD DESIGN ENGINEER
DRAWN	RMU		
TRACED	RMU	APPROVED	STATE HIGHWAY ENGINEER
CHECKED	JEC		

NUMBER 4022A