



# PURCHASING DEPARTMENT

TWELVE EAST 4<sup>TH</sup> AVENUE, SUITE 106 • ROME, GEORGIA 30162

PHONE: 706.291.5118 • FAX: 706.290.6099 • [www.romefloyd.com](http://www.romefloyd.com)

Date: 30 Oct 2012

To: To Whom It May Concern

Subj: Request for Quote: RFQ 12-1106 Guardrail and Installation (Prosperity Way)

Floyd County is requesting a quote for the purchase and installation of 350 of Guardrail

All quotes will be submitted on the attached quote sheet

Quotes are to include all costs including Labor, Installation and shipping or delivery charges. Quotes submitted will be FOB Destination (Rome Ga. 30161).

Quotes are due no later than **2PM 6 Nov 2012**. Quotes may be submitted by Email, Fax, US Mail or hand delivered to Floyd County Public Works Warehouse office 337 Black Bluff Rd. Rome Ga. 30161 Fax 706-291-5283 – Email [bollenr@floydcountyga.org](mailto:bollenr@floydcountyga.org)

Quotes are to remain valid for a period of 30 days from the date of quote.

A Purchase Order will be used for ordering - Invoices are paid within 30 days of the invoice date unless terms pre approved by both the County and the provider. A discount for early payment may be considered if noted on the bid sheet. Invoices submitted for payment will reference the Purchase Order Number given.

Bidders must complete the Contractor Affidavit attached with the quote

**Any questions regarding this RFQ will be sent to Rhonda Bollen, PWC Warehouse Manager, 706 236-2489 or [bollenr@floydcountyga.org](mailto:bollenr@floydcountyga.org), or Fax 706 291-5283**

**Successful bidder will install and make deliveries to:**

Prosperity Way intersects Hwy 140 just east of Hwy 53 in NE Floyd County, about half mile north on Prosperity

**BOARD OF COMMISSIONERS**

IRWIN BAGWELL, CHAIRMAN

GARY FRICKS VICECHAIRMAN

JOHN MAYES

LARRY MAXEY

RHONDA S. WALLACE

**ADMINISTRATION**

NANCY LAM, CPPB, CPPO, PURCHASING DIRECTOR

EVERETT GRAY, CPPB, PURCHASING AGENT

## RFQ 12-1106 Guardrail and Installation (Prosperity Way)

### **Scope of Work**

#### 1. General Overview

Floyd County has built a new road (Prosperity Way) that intersects Hwy 140 just east of Hwy 53 in NE Floyd County. About half a mile north on Prosperity is a culvert that needs to have a guardrail installed per the attached specs. The scope of this project is for the purchase and installation of guardrail.

#### 2. Description

The bid should be for the purchase and installation of 350' of guardrail, Type W with 4 - Type 1 Anchors and 1 Type 12 Anchor. Please use the bid format below. Reference GDOT drawings also attached. Roadway Plan and Profile locates the guard rail on project sheet 13-004A which is attached for general information, but exact location is marked in field. Guardrail is to be 31". West side of Prosperity is 200' with 3 Type 1 anchors, and the East side of Prosperity is 150' with 1 Type 12 anchor and 1 Type 1 anchor.

#### 3. Schedule

Bids will be received until Tuesday, November 6<sup>th</sup>, 2012 at 2 pm. Work should be complete by close of business on November 28th, 2012.

**QUOTE SHEET**

RFQ 12-1106 Guardrail and Installation (Prosperity Way)

Quotes Due 2PM - 6 Nov 2012

<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Amount</u>
Guardrail, Type W	LF	350	_____	_____
Guardrail, Anchorage, Type 1	Ea	4	_____	_____
Guardrail Anchorage, Type 12	Ea	1	_____	_____
Installation	Ea	1	_____	_____
Project Total				_____

Company Name:

Contact:

Phone:

Fax:

Email:

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**Contractor Affidavit under O.C.G.A. § 13-10-91(b)(1)**

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of Floyd County Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

\_\_\_\_\_  
Federal Work Authorization User Identification Numer

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
Name of Contractor

\_\_\_\_\_  
Address of Contractor

Guardrail and Installation (Prosperity Way)

Name of Project

FLOYD COUNTY GEORGIA

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_, \_\_\_\_ in 201\_\_ in \_\_\_\_\_(city), \_\_\_\_\_(state).

\_\_\_\_\_  
Signature of Authorized Officer or Agent

\_\_\_\_\_  
Printed Name and Title of Authorized Officer or Agent

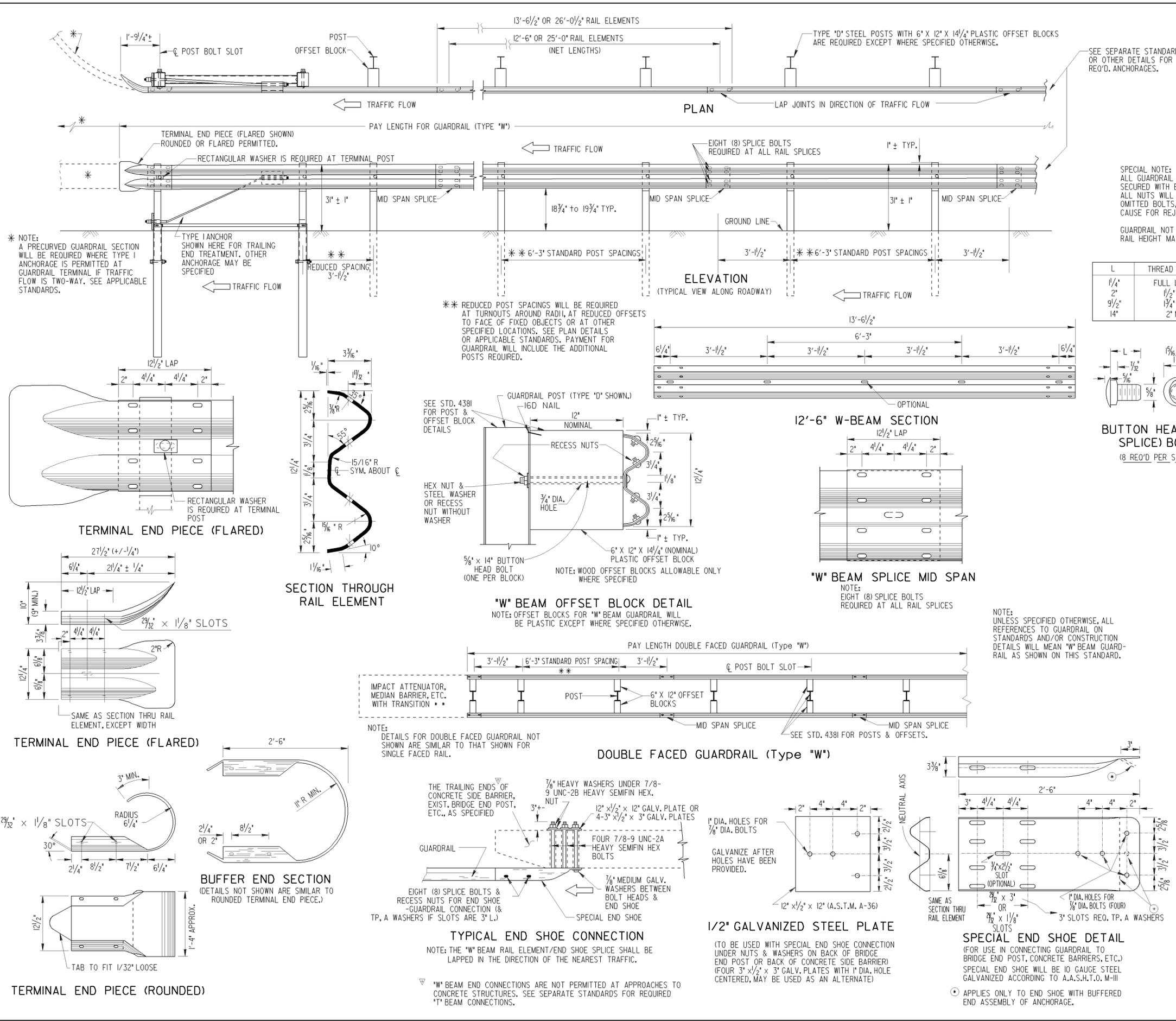
SUBSCRIBED AND SWORN BEFORE ME

ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 201\_\_.

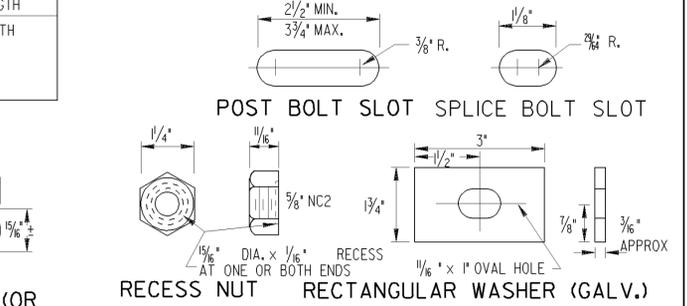
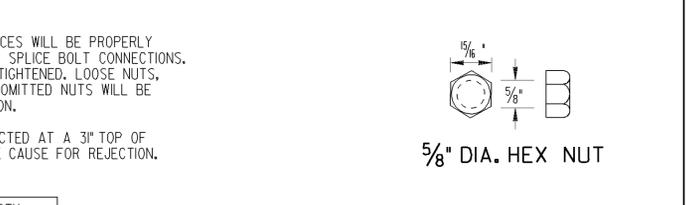
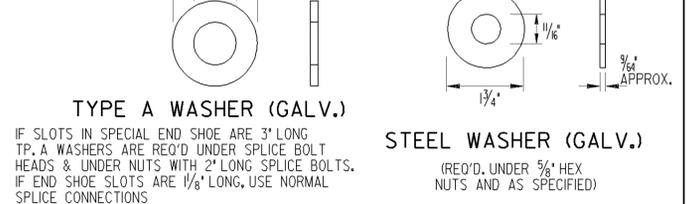
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_

(Notary Seal or Stamp Required)



STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



**GENERAL NOTES:**

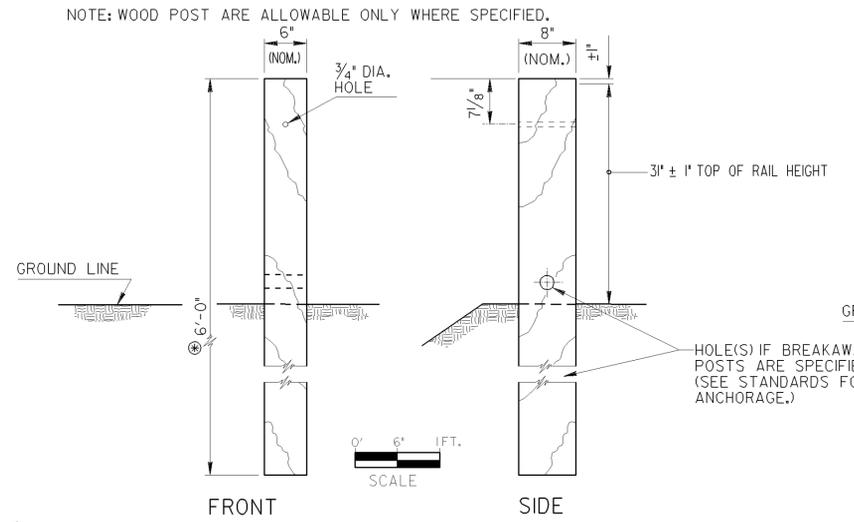
- SPECIFICATIONS: GEORGIA STANDARD CURRENT EDITION, AND SUPPLEMENTS THERETO.
- NUTS, BOLTS, WASHERS, RAIL, TERMINAL SECTIONS, END SHOES, BACK-UP PLATES, END SECTIONS AND OTHER GUARDRAIL HARDWARE ARE IN ACCORDANCE WITH THE CURRENT ARTBA TECHNICAL BULLETIN NO. 268 ... UNLESS SPECIFIED OTHERWISE, DIMENSIONS FOR POSTS AND OFFSET BLOCKS WILL BE ACCORDING TO GA. STANDARD 4381.
- FOR DETAILS OF GUARDRAIL ANCHORAGES, SEE APPLICABLE STANDARDS AND/OR CONSTRUCTION DETAILS.
- FOR LOCATION OF GUARDRAIL SEE APPLICABLE LOCATION STANDARDS.
- ALL STEEL HARDWARE COMPONENTS WILL BE GALVANIZED AFTER FABRICATION. GALVANIZING REPAIR COMPOUND (SEC. 645) WILL BE FIELD APPLIED TO ANY COATINGS DAMAGED.
- WHEN GUARDRAIL IS REQUIRED ON CURVES WITH RADII LESS THAN 150', PRECURVED RAIL WILL BE REQUIRED.
- PAYMENT FOR GUARDRAIL (Type "W") TO INCLUDE OFFSET BLOCKS, POST, BACK-UP PLATES WHERE REQUIRED, BOLTS, NUTS, WASHERS, TERMINAL SECTIONS, ADDITIONAL POST WHERE REQUIRED, & REMOVAL AND REPLACEMENT OF PORTIONS OF MEDIAN PAVING, SPILLWAYS, OR CATCH BASINS WHERE NECESSARY.
- ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
- STANDARD NET LENGTH OF RAIL ELEMENTS MAY BE EITHER 12'-6" OR 25'-0". THESE LENGTHS SHALL BE ARRANGED TO PROVIDE AS NEARLY AS POSSIBLE THE REQUIRED LENGTH FOR EACH INSTALLATION.
- WHEN REPLACING EXISTING 27" HEIGHT RUNS OF GUARDRAIL WITH 31" HEIGHT RAIL THE EXISTING OFFSET DISTANCE FROM THE GUARDRAIL POST TO THE EDGE OF PAVEMENT MAY REMAIN THE SAME.

DATE		DEPARTMENT OF TRANSPORTATION	
		STATE OF GEORGIA	
REVISION		STANDARD	
		"W" BEAM GUARDRAIL 31 INCH GUARDRAIL HEIGHT	
NO SCALE		AUGUST 2011	
DES.	G.L.O. (SUBMITTED)	 STATE DESIGN POLICY ENGINEER	
DRW.	G.L.O.		
CHK.	B.R.E. (APPROVED)		
REVIEW	A.S.	 CHIEF ENGINEER	
NUMBER		4380	

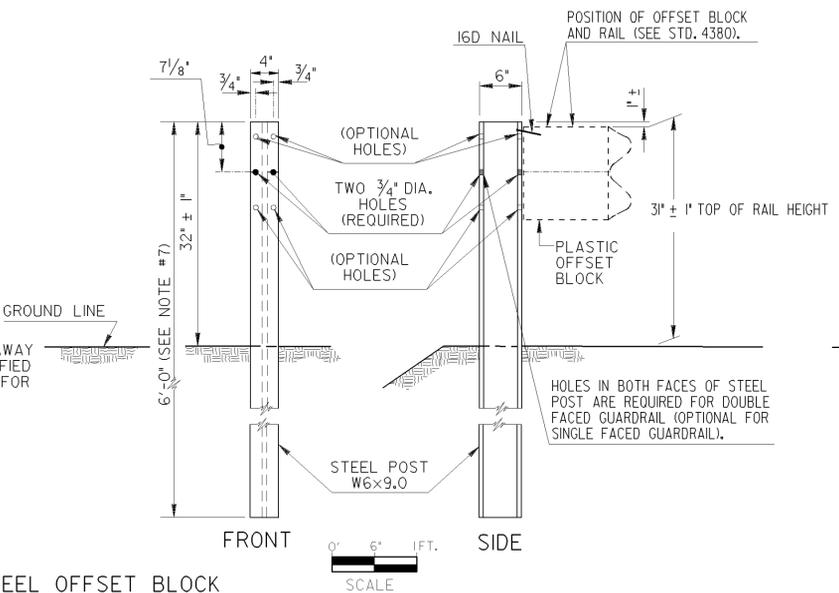
DATE	DEPARTMENT OF TRANSPORTATION		
	STATE OF GEORGIA		
REVISION	STANDARD		
	"W" BEAM GUARDRAIL 31 INCH GUARDRAIL HEIGHT		
	NO SCALE	AUGUST 2011	
DES.	G.L.O. (SUBMITTED)	 STATE DESIGN POLICY ENGINEER	
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STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

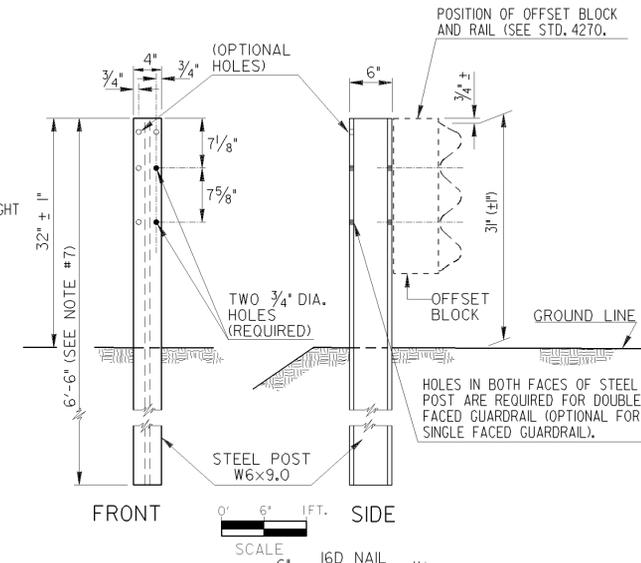
**TYPE A WOOD POST (FOR "W" BEAM GUARDRAIL)**



**TYPE D STEEL POST (FOR "W" BEAM GUARDRAIL)**

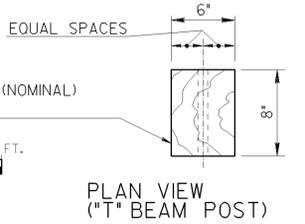


**TYPE D-T STEEL POST (FOR "T" BEAM GUARDRAIL)**



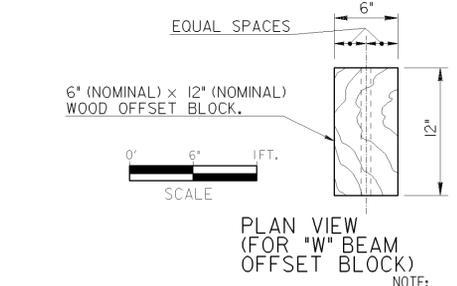
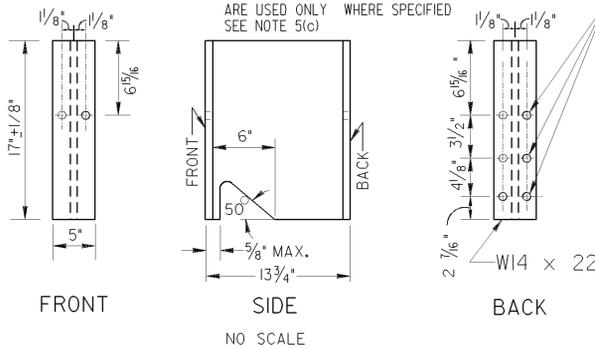
- GENERAL NOTES:**
- SPECIFICATIONS GEORGIA STANDARD, CURRENT EDITION AND SUPPLEMENTS THERETO.
  - STEEL POSTS MAY BE EITHER ROLLED OR WELDED STRUCTURAL SHAPES. STEEL OFFSET BLOCKS SHALL BE ROLLED. WELDED POSTS SHALL BE SEAL WELDED BETWEEN WEB AND FLANGE BEFORE GALVANIZING.
  - WHERE WOOD POST OR WOOD OFFSET BLOCKS ARE PERMITTED, THE WOOD SHALL BE TREATED IN ACCORDANCE WITH GEORGIA STANDARD SPECIFICATIONS.
  - ALL BOLTS USED FOR FASTENING THE RAIL AND OFFSET BLOCKS TO WOOD POSTS SHALL HAVE SUFFICIENT LENGTH TO EXTEND AT LEAST 1/4" BEYOND THE FULL NUT, UP TO 3" BEYOND.
  - (d) "W" BEAM GUARDRAIL: ALL OFFSET BLOCKS SHALL BE 12" DEPTH PLASTIC BLOCKS EXCEPT FOR (d) BELOW.
    - (b) "T" BEAM GUARDRAIL: STANDARD INSTALLATION WILL USE 8" DEPTH PLASTIC BLOCKS UNLESS OTHERWISE APPROVED.
    - (c) 13 3/4" DEPTH MODIFIED STEEL OFFSETS MAY BE SPECIFIED WHERE JUSTIFIED FOR MORE SEVERE CONDITIONS. PAY ITEM IS --GUARDRAIL, TP T, MODIFIED OFFSET BLOCK--PER LIN. FT.
    - (d) WOOD OFFSET BLOCKS MAY BE USED ONLY AT AN ISOLATED LOCATION WITHIN A RUN OF GUARDRAIL, WHERE OTHER BLOCK TYPES WOULD NOT PROVIDE PROPER FIT, AS DETERMINED BY THE ENGINEER OR SHOWN IN THE PLANS.
  - POSTS WILL BE SPACED AT 6'-3" C. TO C., UNLESS OTHERWISE NOTED.
  - ADDITIONAL LENGTH POSTS, WHERE SPECIFIED, SHALL BE 7'-0" AND 7'-6" LONG FOR "W" BEAM AND "T" BEAM GUARDRAILS RESPECTIVELY, WITH HOLES DIMENSIONED FROM THE POST-TOP THE SAME AS SHOWN.
  - 9'-0" POST REQUIRED IF GUARDRAIL INSTALLED ON A 2:1 SLOPE.

SEE SEPARATE STANDARD OR DETAIL FOR POSTS IN TUBE SLEEVE.



**MODIFIED STEEL OFFSET BLOCK FOR "T" BEAM GUARDRAIL**

NOTE: MODIFIED STEEL OFFSET BLOCKS ARE USED ONLY WHERE SPECIFIED SEE NOTE 5(c)

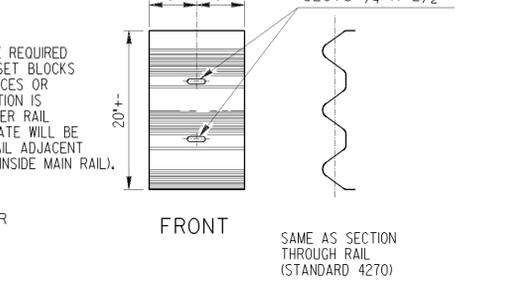


WOOD POSTS AND WOOD OFFSET BLOCKS MAY BE ROUGH OR SURFACED.

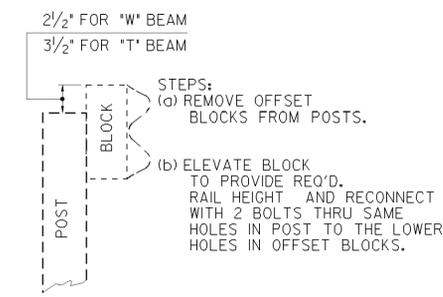
DIMENSIONS FOR WOOD POSTS AND WOOD OFFSET BLOCKS ARE NOMINAL IN ACCORDANCE WITH ACCEPTED LUMBER INDUSTRY STANDARDS.

NOTE: BACK-UP PLATES ARE REQUIRED WITH ALL STEEL OFFSET BLOCKS EXCEPT AT RAIL SPLICES OR WHERE ONE RAIL SECTION IS NESTED INSIDE ANOTHER RAIL SECTION. BACK-UP PLATE WILL BE LOCATED BACK OF RAIL ADJACENT TO OFFSET BLOCKS (INSIDE MAIN RAIL).

**BACK-UP PLATE (FOR "T" BEAM GUARDRAIL)**

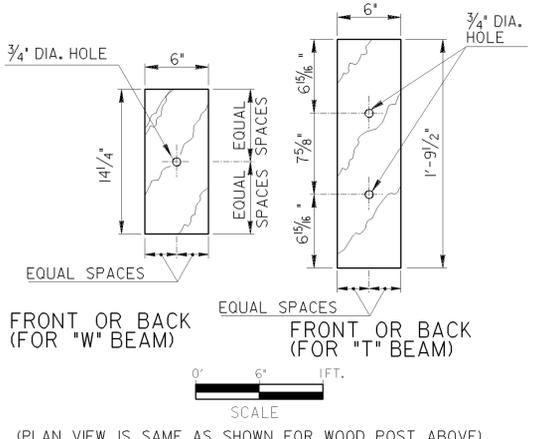


**HEIGHT CORRECTION IF NEEDED FOR RESURFACED PROJECTS**



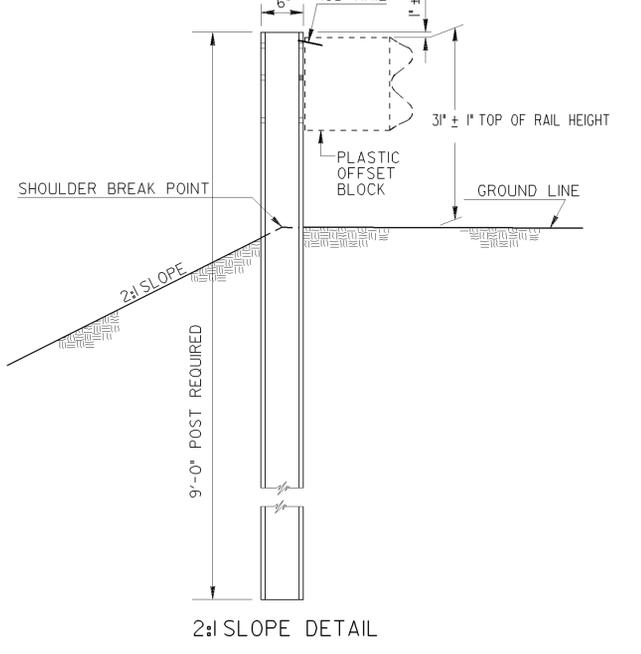
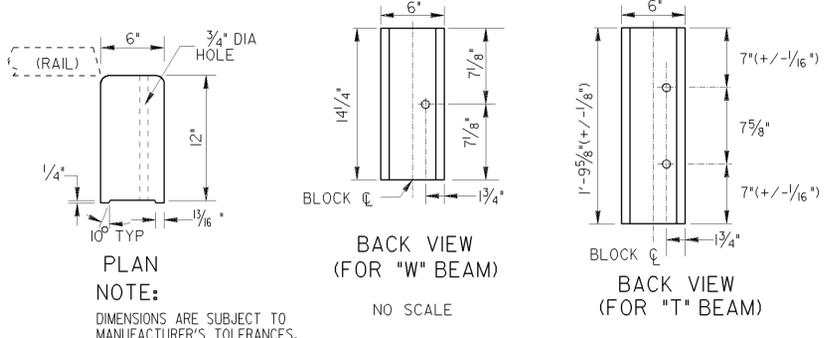
NOTE: WHERE WOOD OFFSET BLOCK ON STEEL POST IS PERMITTED IN "W" BEAM INSTALLATION, A NAIL OR SCREW FROM POST TO WOOD IS REQUIRED TO PREVENT ROTATION OF THE BLOCK.

**WOOD OFFSET BLOCKS (WHERE PERMITTED, SEE NOTE 5(d))**



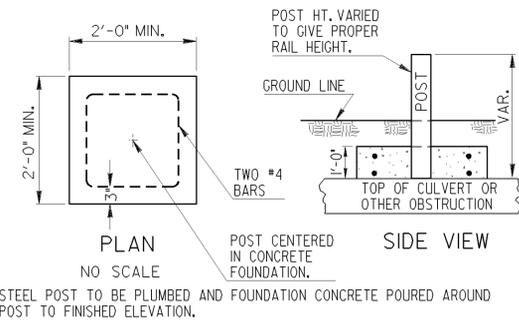
**STANDARD PLASTIC OFFSET BLOCKS**

NOTE: PLASTIC OFFSET BLOCKS SHALL BE OF TYPE LISTED IN GA. DOT OPL OF APPROVED PRODUCTS OR PER STANDARD SPECIFICATIONS.



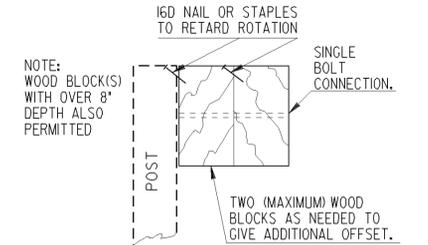
**CONCRETE FOUNDATION FOR POST IN SHALLOW FILLS OVER CULVERTS OR OTHER OBSTRUCTIONS**

(NOTE: PLATE MOUNTED POST MAY BE USED AS AN ALTERNATE, SEE SEPARATE SHEET).



PAYMENT FOR GUARDRAIL TO INCLUDE ALL EXTRA WORK AND MATERIALS INCLUDING CONCRETE (CL. A OR CL. B) AND NO. 4 BARS.

IF OFFSET FROM RAIL FACE TO HEADWALL IS LESS THAN 4'-3", POST SPACINGS ARE REDUCED TO 3'-1/2" C.C. ACROSS THE CULVERT WITH 7 SUCH SPACINGS IN ADVANCE AT NO ADDITIONAL PAYMENT.



**ADDITIONAL DEPTH OFFSET BLOCKOUTS (FOR USE WHERE GREATER THAN STANDARD OFFSET IS SPECIFIED)**

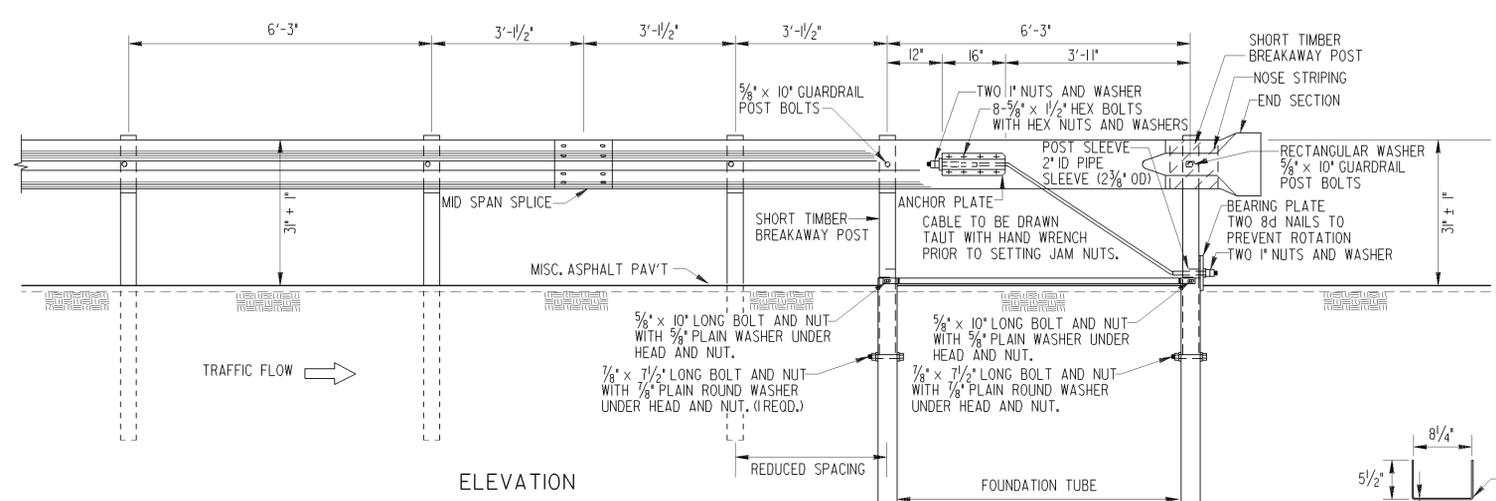
NOTE: ADDITIONAL DEPTH OFFSETS BELOW ARE SHOWN FOR "W" BEAM. SIMILAR OFFSETS MAY BE APPLIED FOR "T" BEAM GUARDRAIL.

NOTE: ADDITIONAL DEPTH OFFSETS ARE PERMITTED ONLY WHERE AN ISOLATED POST MUST BE PLACED AT A GREATER THAN NORMAL OFFSET.

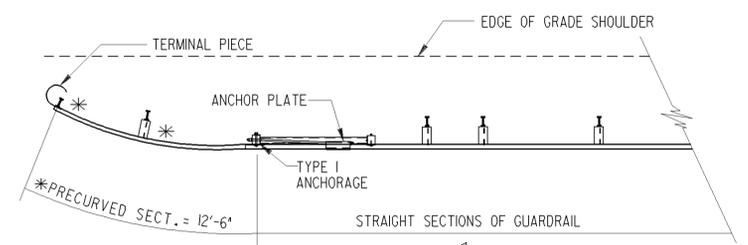
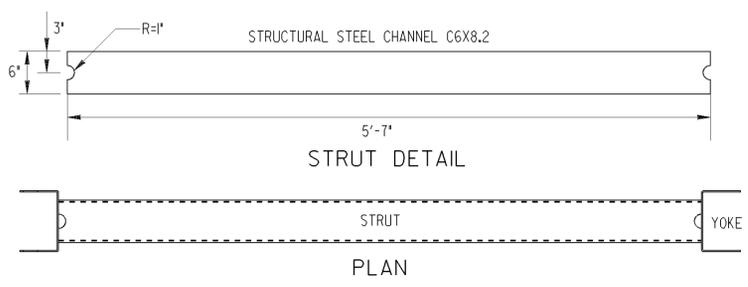
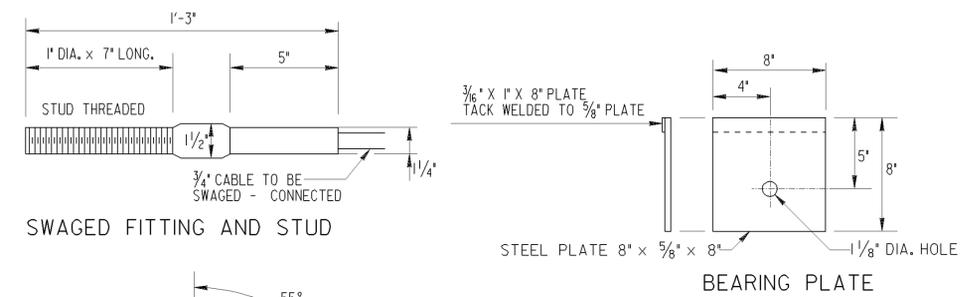
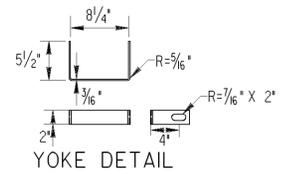
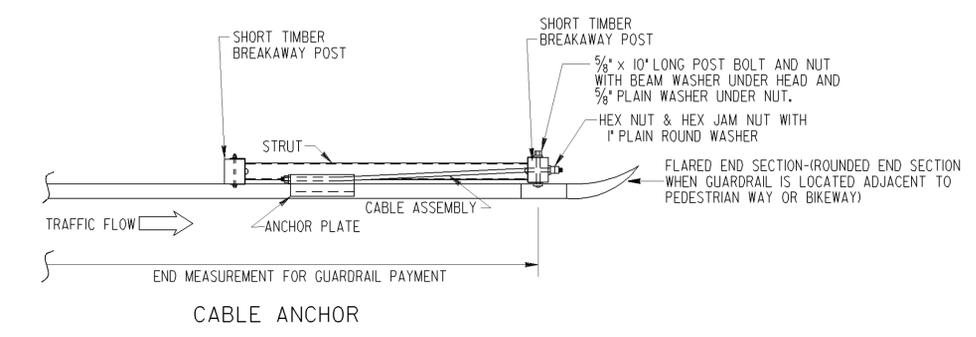
NOTE: FOR BLOCK CONNECTION TO POST AND TO RAIL SEE STD. 4380 OR 4385.

DATE		DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
REVISION		STANDARD POSTS AND OFFSET BLOCKS FOR "W" & "T" BEAM GUARDRAIL 31 INCH GUARDRAIL HEIGHT	
SCALE: AS SHOWN		AUGUST 2011	
DES. G.L.O.	(SUBMITTED) <i>[Signature]</i>	NUMBER	
DRW. G.L.O.	STATE DESIGN POLICY ENGINEER	4381	
CHK. B.R.E.	(APPROVED) <i>[Signature]</i>		
REVIEW B.A.S.	CHIEF ENGINEER		

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

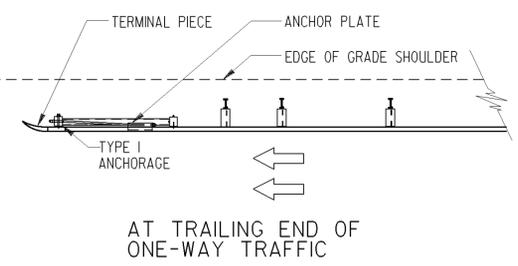


THE PAYMENT FOR THE ITEMS OF END ANCHORAGE ASSEMBLY TYPE I-31(CABLE OPTION) SHALL BE FULL COMPENSATION FOR FURNISHING AND INSTALLING EITHER THE ROUND OR THE BUFFER END SECTION, THE BEAM ANCHOR PLATE, CABLE ASSEMBLY, PIPE SLEEVE, SOIL PLATE, STEEL TUBE, BEARING PLATE, SHORT TIMBER BREAKAWAY POST, OFFSET BLOCKS AND THE NECESSARY HARDWARE.

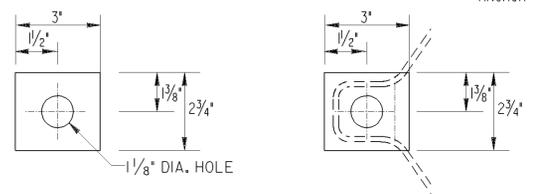
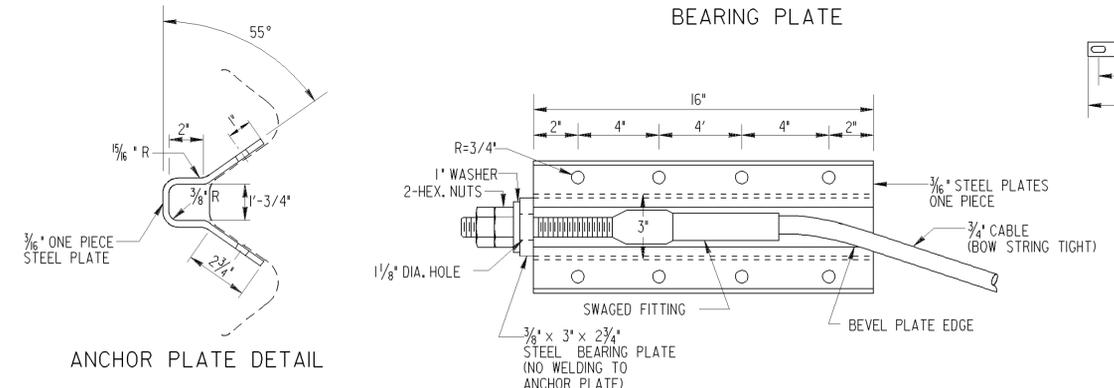


\* PRECURVED SECTION SHALL UTILIZE POST OF THE SAME LENGTH AS REQUIRED FOR THE ADJOINING STRAIGHT SECTIONS, REGARDLESS OF DISTANCE TO GRADED SHOULDER EDGE.

AT TRAILING END OF TWO-WAY TRAFFIC (WHICH FALLS OUTSIDE CLEAR ZONE OF OPPOSING TRAFFIC)

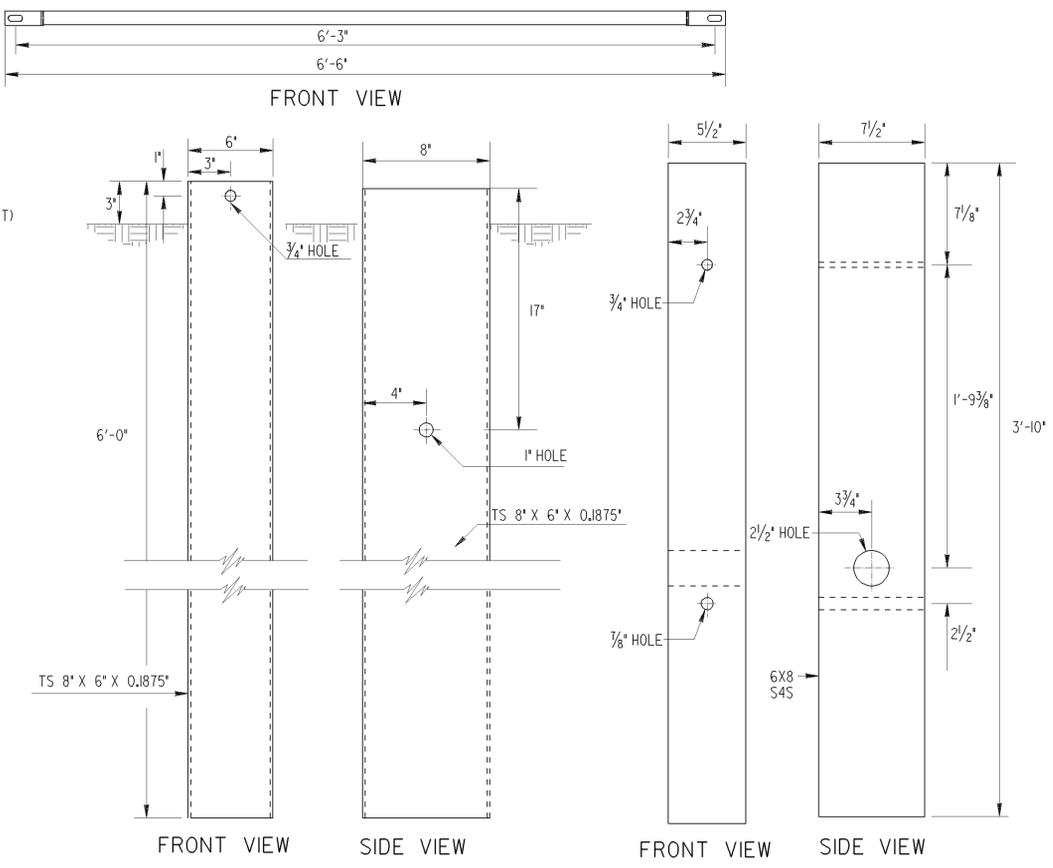
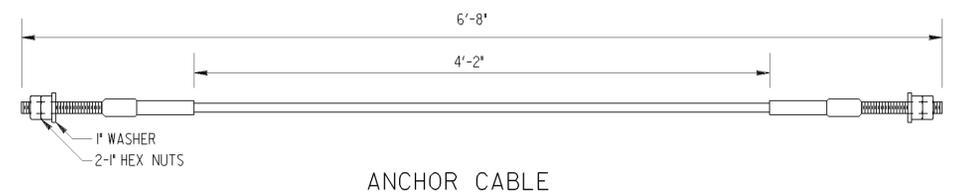


NOTE: SEE STD. 4388 OR OTHER APPLICABLE DETAILS FOR REQUIREMENT FOR TYPE I2 ANCHORAGE ON THE TRAILING END.



NOTE: ANCHOR PLATES SHOWN HERE WITH GUARDRAIL (TYPE "W") ATTACHMENT TO GUARDRAIL (TYPE "T") WILL BE THE SAME EXCEPT THAT THE ANCHOR PLATE WILL BE LOCATED BETWEEN THE BOTTOM AND MIDDLE CORRUGATIONS.

STANDARD ANCHOR PLATE DETAILS

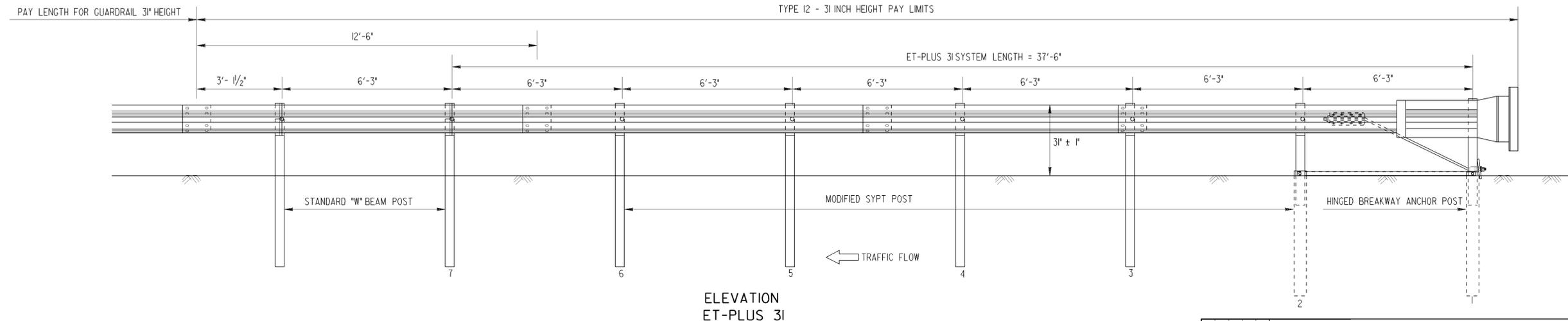
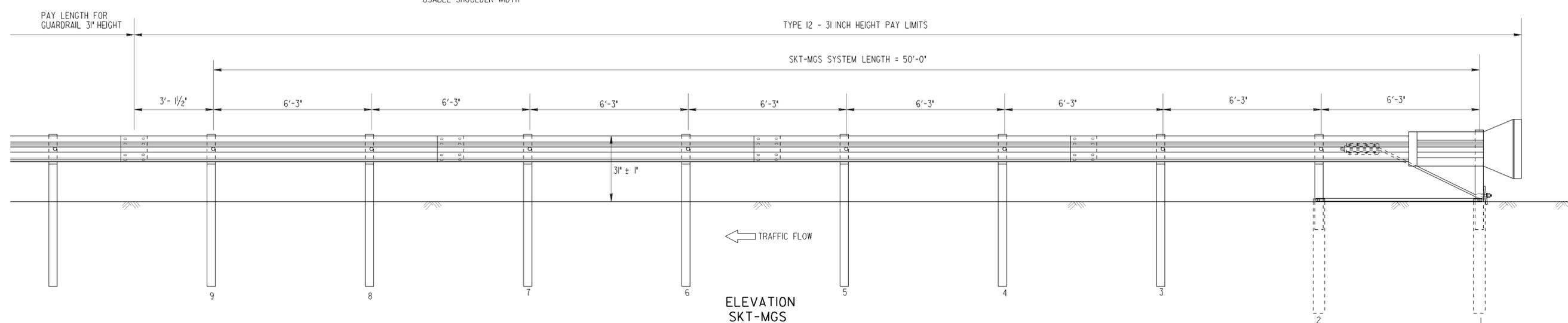
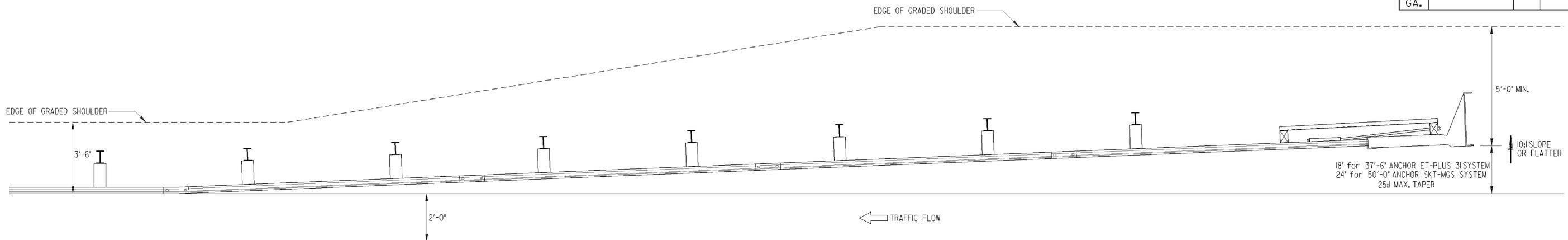


NOTE: SEE STANDARD 4382 FOR GUARDRAIL CONNECTION TO CONCRETE FACE.

- GENERAL NOTES:
- SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION & SUPPLEMENTS THERE TO.
  - FOR DETAILS OF GUARDRAIL HARDWARE, POST, OTHER TYPE ANCHORAGE, LOCATION, ETC. SEE SEPARATE STANDARDS AS APPLICABLE.
  - GUARDRAIL INSTALLATIONS, INCLUDING ANCHORAGES AND CONNECTIONS, ARE TO BE COMPLETED BEFORE BEING SUBJECT TO TRAFFIC UNLESS OTHERWISE APPROVED.
  - PAYMENT FOR ANCHORAGE INCLUDES ANCHOR PLATE; 3/4" CABLE; BREAKAWAY POSTS; FOUNDATION TUBES; STRUT AND ALL ACCOMPANYING HARDWARE.

DATE		DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
REVISION		STANDARD GUARDRAIL ANCHORAGE TYPE I 31 INCH GUARDRAIL HEIGHT	
NO SCALE		AUGUST 2011	
BY	DES. G.L.O. (SUBMITTED)	NUMBER	
	DRW. G.L.O.	4383	
CHK. B.R.E.	(APPROVED) <i>Donald M. Ben</i>	STATE DESIGN POLICY ENGINEER	
REVIEW B.A.S.	CHIEF ENGINEER		

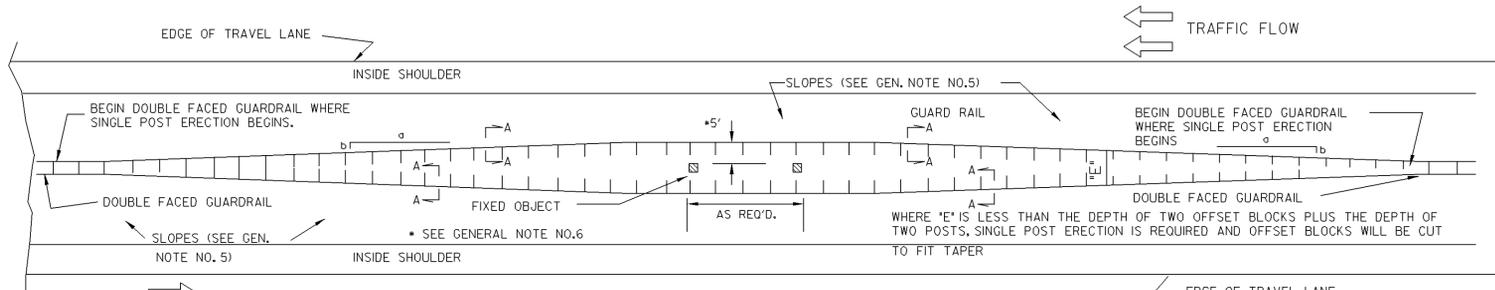
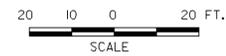
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



- GENERAL NOTES:
- SPECIFICATIONS: GEORGIA STANDARD CURRENT EDITION, AND SUPPLEMENTS THERETO.
  - GUARDRAIL ANCHORAGE TYPE 12, 31 INCH HEIGHT SHALL BE AN ET-PLUS 31 AS MANUFACTURED BY TRINITY INDUSTRIES, INC. OR AN SKT-MGS AS MANUFACTURED BY ROAD SYSTEMS, INC. AND SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
  - A MAXIMUM FLARE OF 25d OVER THE SYSTEM LENGTH OF THE TERMINAL IS REQUIRED FOR EITHER THE ET-PLUS 31 OR THE SKT-MGS.

DATE		DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
REVISION		STANDARD TYPE 12 31 INCH GUARDRAIL HEIGHT	
NO SCALE		AUGUST 2011	
BY	DES. G.L.O. (SUBMITTED)	NUMBER	
CHK.	DRW. G.L.O.	4384	
REVIEW	B.R.E. (APPROVED)	STATE DESIGN POLICY ENGINEER	
	A.S.J.	CHIEF ENGINEER	

# GUARDRAIL LOCATIONS IN MEDIANS

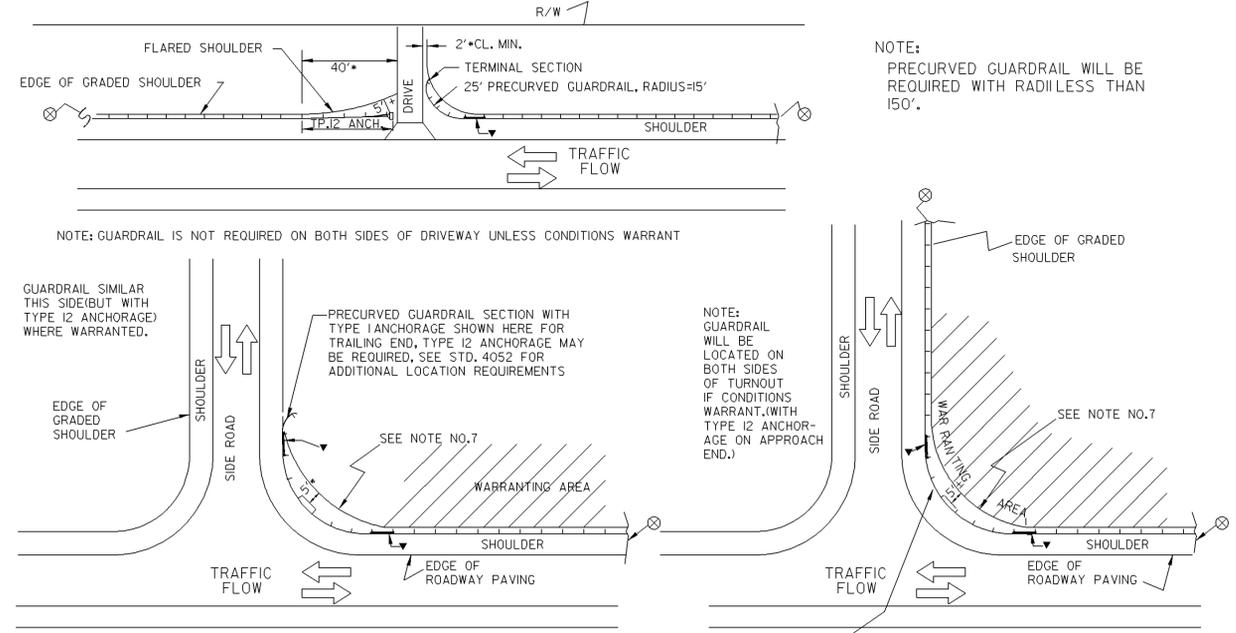


DESIGN "A" - CONTINUOUS GUARDRAIL AT FIXED OBJECT

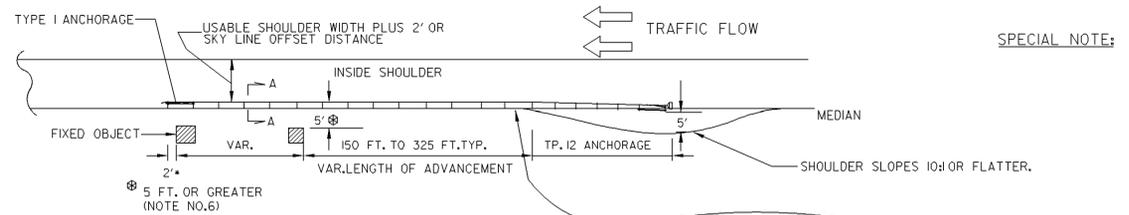
NOTE: DESIGN "A" IS OF LIMITED APPLICATION. SEE SEPARATE STANDARDS OR DETAILS FOR DOUBLE FACED GUARDRAIL ON INSIDE SHOULDERS OF MEDIANS OR FOR CONCRETE MEDIAN BARRIERS AT FIXED OBJECTS.

# GUARDRAIL LOCATIONS AT TURNOUTS

NO SCALE



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



SPECIAL NOTE:

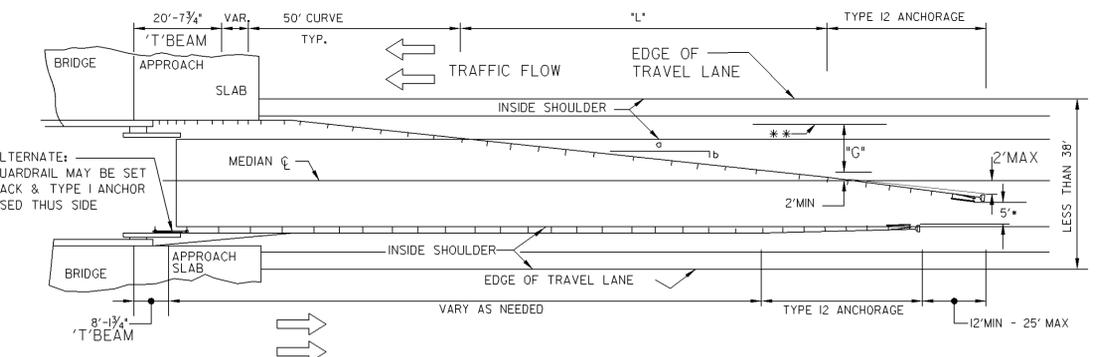
FOR CONTINUOUS DOUBLE FACED GUARDRAIL ON THE INSIDE SHOULDER OF MEDIAN, SEE SEPARATE DETAILS.

DESIGN "C"-GUARDRAIL ON INSIDE SHOULDERS AT FIXED OBJECTS

NOTE: GUARDRAIL PROTECTION SHALL BE REQUIRED ON BOTH SIDES OF OBJECT FOR DESIGN "C", UNLESS OTHERWISE SPECIFIED.

ANY PORTION OF GUARDRAIL WITH THE BACK SIDE OF POST EXPOSED INSIDE THE CLEAR ZONE OF OPPOSING TRAFFIC SHALL BE DOUBLE FACED, EXCEPT FOR BREAK-AWAY POSTS.

NOTE: SEE SEPARATE STANDARDS FOR GUARDRAIL CONNECTIONS AND POST SPACINGS AT BRIDGE ENDS

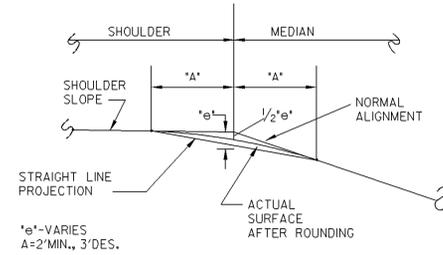


DESIGN "D"-GUARDRAIL AT BRIDGE ENDS IN NARROW MEDIAN

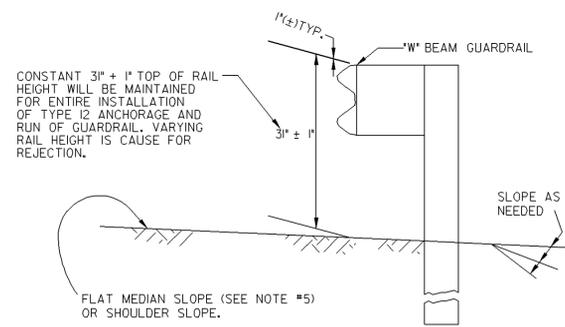
DESIGN "D" IS LIMITED FOR USE WHERE THE GRASSED MEDIAN AT BRIDGE APPROACHES IS ALMOST FLUSH (SLOPES NOT STEEPER THAN 20:1) AND MEDIAN IS LESS THAN 38 FT. IN WIDTH FOR OTHER CONDITIONS, SEE STD. 4387 OR CONSTRUCTION DETAILS.

⊕ FOR WIDER MEDIANS, SEE STD.4051

FLARE RATE: DESIGN "A", "B", & "D"	
DESIGN SPEED (mph)	MAX. FLARE RATE a/b
70	15
60	13
50	11
40	9
30	7



DETAIL OF SHOULDER ROUNDING (TYPICAL FOR EXISTING GUARDRAIL INSTALLATIONS ON 6:1 OR ON 8:1 SLOPE)



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

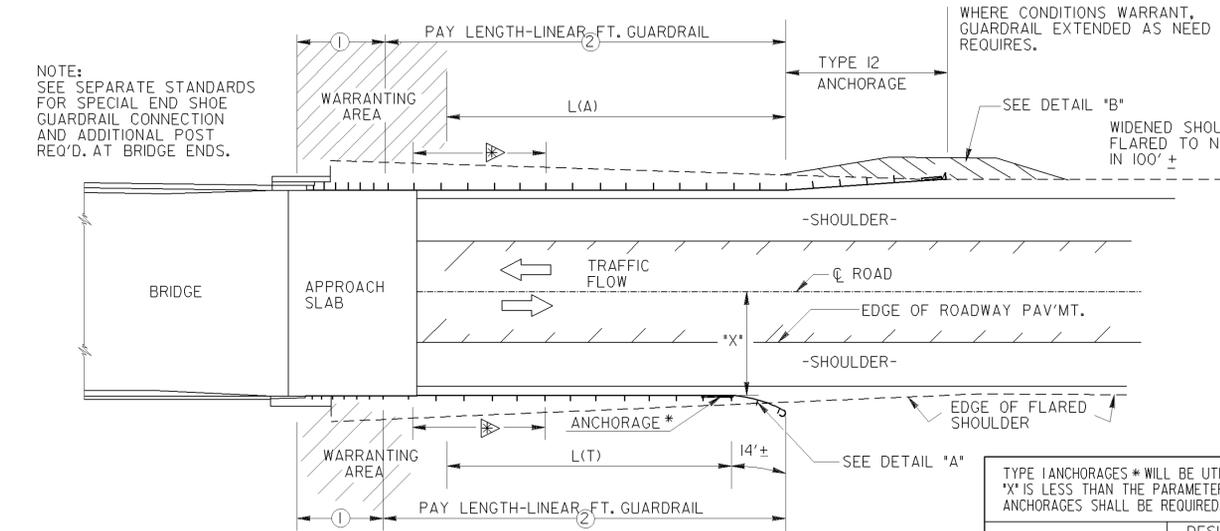
GENERAL NOTES:

- SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, AND SUPPLEMENTS THERETO.
- FOR DETAILS OF GUARDRAIL HARDWARE, POST, AND OFFSET BLOCKS, SEE STANDARDS 4381 AND 4382.
- FOR DETAILS OF GUARDRAIL ANCHORAGES, SEE SEPARATE STANDARDS, OR CONSTRUCTION DETAILS AS APPLICABLE.
- FOR DETAILS OF DOUBLE FACED GUARDRAIL ATTACHED TO OR TERMINATED AT CONCRETE MEDIAN BARRIER, SEE STANDARD 4940.
- NEGATIVE SLOPES IN FRONT OF GUARDRAIL AND ALL ANCHORAGES SHALL BE 10:1, OR FLATTER, FOR ALL NEW INSTALLATIONS.
- OFFSET BETWEEN FACE OF GUARDRAIL AND FACE OF FIXED OBJECT SHALL BE 5 FT. + DESIRABLE, 4'-3" MINIMUM, WHERE AN OFFSET OF LEAST 4'-3" CANNOT BE OBTAINED, DOUBLE POST SPACINGS (3'-1/2" O.C.) IN FRONT OF OBJECT PLUS A MINIMUM OF 7 SUCH SPACINGS IN ADVANCE OF OBJECT IS REQUIRED WITH A 3 FT. MINIMUM OFFSET.
- WHERE PRECURVED GUARDRAIL IS INSTALLED AROUND RADI AT INTERSECTING SIDE ROADS, THE SHOULDER AREA BACK OF THE GUARDRAIL IS TO BE WIDENED AS SHOWN ABOVE WITH THE OFFSET BETWEEN THE TRAVEL LANE AND GUARDRAIL REMAINING APPROXIMATELY CONSTANT.

DATE		DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
REVISION		STANDARD GUARDRAIL LOCATIONS IN MEDIANS GUARDRAIL LOCATIONS AT TURNOUTS 31 INCH GUARDRAIL HEIGHT	
SCALE: AS SHOWN		AUGUST 2011	
BY	DES. G.L.O. (SUBMITTED)	NUMBER	
	DRW. G.L.O.	4386	
	CHK. B.R.E.	STATE DESIGN POLICY ENGINEER	
	REVIEW B.A.S.	(APPROVED) <i>Donnell M. Run</i> CHIEF ENGINEER	

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

NOTE: FOR MINIMAL REDUCTION (TO 2') OF SHOULDER ACROSS BRIDGE, ALIGNMENT SHALL BE STRAIGHT FOR SHORT INSTALLATIONS (LESS THAN 200' TOTAL) AS SHOWN HEREON. FOR LONGER INSTALLATIONS, OR GREATER REDUCTION OF SHOULDER WIDTH, GUARDRAIL INSTALLATION SHALL BE AS PER DETAIL AT BOTTOM MIDDLE.

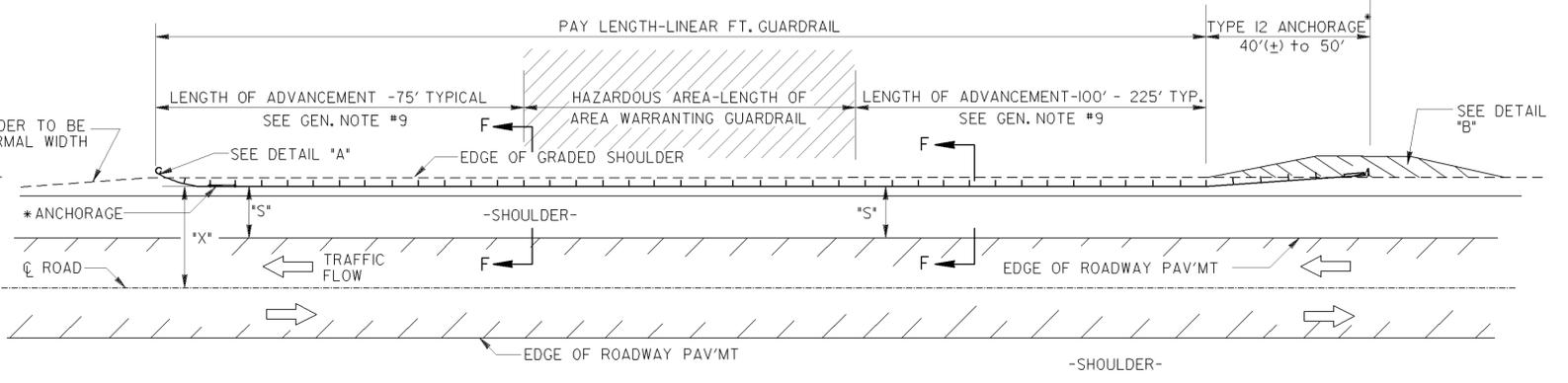


TRAFFIC VOLUME	MIN. L(T)	MIN. L(A)
DHV OVER 400	100'-0"	137'-6"
DHV 200-400	87'-6"	125'-0"
DHV 100-200	75'-0"	112'-6"
ADT 400 & OVER	62'-6"	100'-0"
ADT UNDER 400	50'-0"	87'-6"

① = 20'-7 3/4" OF "T" BEAM (STD. 4012-C)  
 ② = VARIABLE LENGTH OF "W" BEAM (6'-3" POST SPA.)  
**GUARDRAIL LOCATION AT BRIDGE ENDS**



NOTE: THESE MINIMUM LENGTHS ARE FOR STRAIGHT ALIGNMENTS IN ADVANCE OF WARRANTING AREA.



**GUARDRAIL LOCATION ALONG ROADWAY**



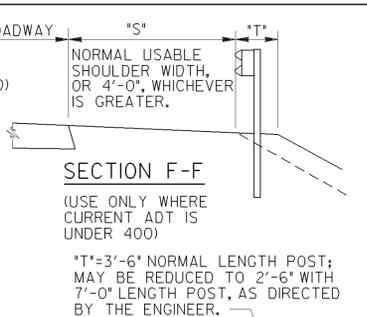
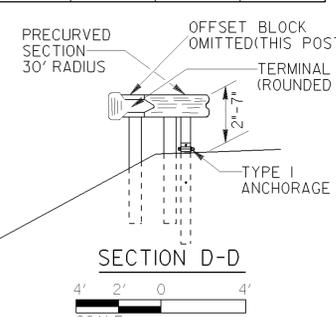
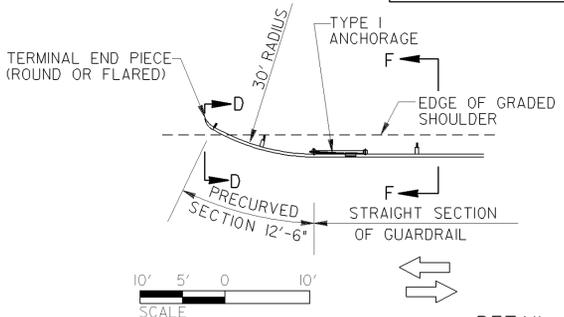
"S" IS THE OFFSET TO THE FACE OF THE GUARDRAIL; THIS WILL BE TWO(2) FEET GREATER THAN THE USABLE SHOULDER WIDTH (PER AASHTO MINIMUM SHOULDER REQUIREMENTS) EXCEPT WHERE THE CURRENT A.D.T. IS UNDER 400, IN WHICH CASE "S" MAY BE EQUAL TO THE USABLE OR GRADED SHOULDER WIDTH (NOT LESS THAN 4).

TYPE I ANCHORAGES \* WILL BE UTILIZED AT THE TRAILING END, UNLESS THE DISTANCE "X" IS LESS THAN THE PARAMETER GIVEN IN THIS TABLE IN WHICH CASE TYPE I2 ANCHORAGES SHALL BE REQUIRED.

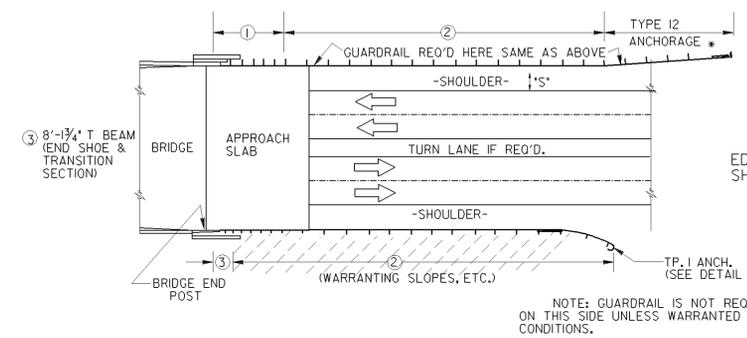
DESIGN TRAFFIC VOLUME	DESIGN SPEEDS (AS SHOWN ON COVER SHEET)				
	40 MPH	50 MPH	55 MPH	60 MPH	70 MPH
OVER 6000 A.D.T.	14'	18'	22'	30'	30'
1500 - 6000 A.D.T.	12'	16'	20'	26'	28'
750 - 1500 A.D.T.	10'	12'	16'	20'	24'
UNDER 750 A.D.T.	7'	10'	12'	16'	20'

**GENERAL NOTES:**

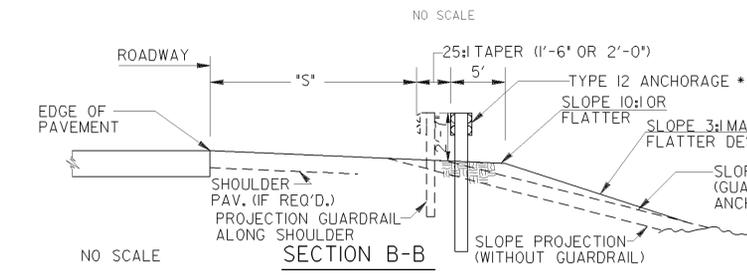
- GUARDRAIL, ITS FITTINGS, PARTS, ETC. ARE TO BE IN ACCORDANCE WITH GEORGIA STANDARD SPECIFICATIONS AND/OR SPECIAL PROVISIONS.
- FOR DETAILS OF BEAM TYPE GUARDRAIL, ACCESSORIES, GUARDRAIL POST, OFFSET BLOCKS, GUARDRAIL ANCHORAGES TYPE I AND TYPE I2, & BRIDGE END CONNECTION DETAILS, SEE APPLICABLE GEORGIA STANDARD PLANS AND/OR CONSTRUCTION DETAILS.
- ALL OFFSET AND LENGTHS HERE SHOWN ARE APPLIED TO FACE OF GUARDRAIL.
- POST SPACING SHALL BE 6'3" C. TO C., UNLESS OTHERWISE NOTED.
- TYPE I2 ANCHORAGES SHOULD BE TERMINATED ON SLOPES 10:1 OR FLATTER. WHERE NORMAL SLOPE IS STEEPER, A 10:1 OR FLATTER SLOPE SHOULD BE CONSTRUCTED AT LOCATIONS WHERE TYPE I2 ANCHOR FLARES BACK OF SHOULDER.
- GUARDRAIL SHALL NOT BE ERECTED ON SLOPES WHICH ARE STEEPER THAN 10:1, EXCEPT FOR THE PORTION OF PRECURVED (SHOP CURVED) SECTION THAT EXTENDS BACK OF THE SHOULDER AS SHOWN IN DETAIL "A" WHICH IS ERECTED ON NORMAL SLOPES OR EXCEPT WHERE SHOWN OTHERWISE IN PLANS.
- PAY LENGTH SHALL BE MEASURED ALONG FACE OF GUARDRAIL.
- W. BEAM GUARDRAIL WILL HAVE A CONSTANT TOP OF RAIL HT. OF 2'-7" THRU OUT INSTALLATION EXCEPT WHERE A PORTION OF THE PRECURVED SECTION SHOWN IN DETAIL "A" EXTENDS BACK OF THE GRADED SHOULDER.
- GUARDRAIL WILL EXTEND PAST HAZARD ON BOTH THE APPROACH & TRAILING ENDS TO PREVENT VEHICLE PENETRATION BEHIND THE RAIL INTO THE HAZARDOUS 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 GEOMETRY, SIZE OF HAZARD, OR OTHER CONDITIONS. IF FURTHER INFORMATION IS DESIRED; SEE THE AASHTO "ROADSIDE DESIGN GUIDE".



NOTE: DETAIL "A" IS FOR USE ONLY WHERE TYPE I ANCHORAGES ARE PERMITTED AS SHOWN ABOVE OTHERWISE, SEE DETAIL "B" FOR PROPER INSTALLATION OF TYPE I2 ANCHORAGES.

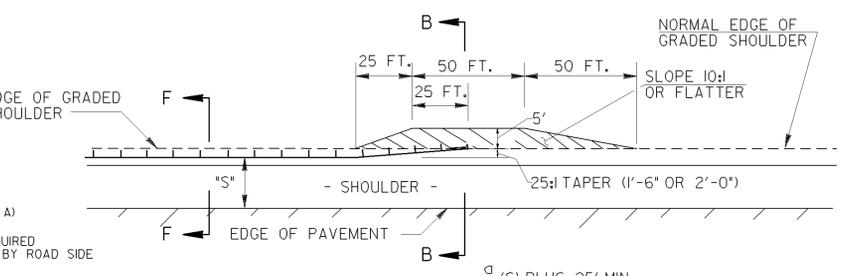


**GUARDRAIL AT BRIDGE END OF MULTI-LANE UNDIVIDED HIGHWAY**



**DETAIL "B"**

WHERE SHOWN ON THE PLANS OR APPROVED BY THE ENGINEER, THE EMBANKMENT FLARE SHOWN ABOVE FOR TYPE I ANCHORAGE MAY BE MODIFIED, PROVIDED 10:1 OR FLATTER SLOPES ARE PROVIDED IN FRONT OF THE RAIL & A CONSTANT 3 INCH RAIL HEIGHT IS MAINTAINED.



**GUARDRAIL LOCATION AT END OF NARROW BRIDGE**

(NOTE: DETAILS NOT SHOWN HERE ARE SIMILAR TO THOSE AT TOP LEFT.)

OPERATING SPEED (MPH)	FLARE RATE a/b
60	13:1 MIN.
55	12:1 MIN.
50	11:1 MIN.
40	9:1 MIN.

\* OR APPROVED ALTERNATE, MEETING MANUAL FOR ASSESSING SAFETY HARDWARE(MASH) REQUIREMENTS

DATE		DEPARTMENT OF TRANSPORTATION	
		STATE OF GEORGIA	
REVISION	DATE	STANDARD GUARDRAIL LOCATION DETAILS FOR UNDIVIDED HIGHWAYS AND ROADS (WITH SHOULDERS) ADJACENT TO THE ROADWAY) 31 INCH GUARDRAIL HEIGHT	
		SCALE AS SHOWN	
		AUGUST 2011	
BY	DES. G.L.O. (SUBMITTED)	STATE DESIGN POLICY ENGINEER	
		CHK. B.R.E. (APPROVED)	CHIEF ENGINEER
REVIEW B.A.S.			NUMBER

