

**ITEM 606 - GUARDRAIL, MISC.: ALTERNATIVE GUARDRAIL PLACEMENT:**  
 THIS ITEM SHALL BE USED WHEN THE CONTRACTOR IS REQUIRED TO USE AN ALTERNATE METHOD TO SET POSTS TO PREVENT DAMAGE TO AN UNDERGROUND OBSTACLE, SUCH AS A UTILITY. THE USE OF THIS ITEM WILL BE AS DEEMED NECESSARY BY THE ENGINEER. THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED TO SET AND BACKFILL POSTS WHILE MEETING THE REQUIREMENTS OF THE APPLICABLE GUARDRAIL ITEM BEING PERFORMED. APPLICABLE GUARDRAIL ITEMS INCLUDE BUT ARE NOT LIMITED TO SETTING POSTS (AND SLEEVES) FOR TYPE 5, TYPE MGS, ANCHOR ASSEMBLIES, AND BRIDGE TERMINAL ASSEMBLIES. PAYMENT SHALL BE AT THE UNIT BID PRICE OF EACH AND SHALL BE PAID FOR IN ADDITION TO THE APPLICABLE GUARDRAIL PLACEMENT ITEM LISTED ABOVE.

LOC	COUNTY	ROUTE	BEG SLM	END SLM	QUANTITY	UNIT
1	FRA	104	0.00	6.52	100	FT
TOTAL					100	FT

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED:  
 ITEM 606 - GUARDRAIL, MISC.: ALTERNATIVE GUARDRAIL PLACEMENT:  
 = 100 FT

**ITEM 606 - ITEM 606 - ANCHOR ASSEMBLY, (MGS) TYPE E, AS PER PLAN:**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

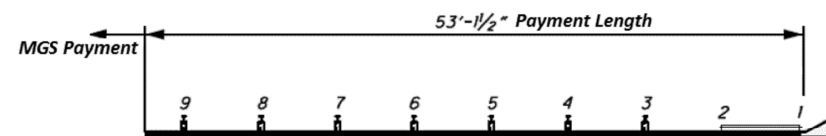
**WHEN THE FACE OF THE ADJACENT (ATTACHED) GUARDRAIL IS LESS THAN 4' OFFSET FROM THE PROPOSED EDGE LINE, THE PROPOSED TYPE E ANCHOR ASSEMBLY SHALL BE INSTALLED USING A 25:1 FLARE RATE (24" OFFSET DESIGN) AS DETAILED IN THE SHOP DRAWINGS AND AS DIRECTED BY THE ENGINEER.**

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

**THE PAYMENT LIMIT (LENGTH) FOR THE PROPOSED ANCHOR ASSEMBLY, (MGS) TYPE E, AS PER PLAN SHALL BE 53'-1/2" (TO THE STANDARD MGS CONNECTION) AS DETAILED BELOW.**



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

**ITEM 606 - BRIDGE TERMINAL ASSEMBLY, TYPE 4, AS PER PLAN:**  
 BRIDGE TERMINAL ASSEMBLY, TYPE 4, AS PER PLAN SHALL BE CONSTRUCTED AS PER THE GUARDRAIL DETAILS (PLAN INSERT) ON SHEETS 16/33. PAYMENT FOR THIS ITEM SHALL BE MADE AT THE UNIT PRICE BID OF EACH AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, MATERIALS, AND ALL TYPE 5 GUARDRAIL COMPONENTS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL BRIDGE TERMINAL ASSEMBLY, TYPE 4.

**ITEM 623 - MONUMENT BOX ADJUSTED TO GRADE:**  
 THIS ITEM OF WORK WILL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO ADJUST TO GRADE THE EXISTING MONUMENT BOX TO 1/4 INCH BELOW THE PROPOSED ASPHALT ELEVATION.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.  
 ITEM 623 - MONUMENT BOX ADJUSTED TO GRADE: = 4 EACH

**ITEM 690 - MAILBOX REMOVED AND RESET:**  
 THIS ITEM IS A CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER FOR MAILBOXES ENCRANCHING INTO THE PROPOSED ASPHALT SHOULDER TREATMENT AND/OR GUARDRAIL REPLACEMENT. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO REMOVE AND RESET EXISTING MAILBOXES. IT IS EXPECTED THAT THE CONTRACTOR WILL PROVIDE A NEW SUPPORT.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14. STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181. ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL. POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE. SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THIS ITEM IS NOT INTENDED FOR MAILBOX OR MAILBOX POSTS WHICH BECOME DAMAGED BY THE CONTRACTOR. GREAT CARE SHALL BE TAKEN TO PREVENT DAMAGE TO ANY OF THE EXISTING MAILBOXES OR MAILBOX POSTS DURING THE PAVING OPERATIONS. ANY MAILBOX OR MAILBOX POST WHICH BECOMES DAMAGED BY THE CONTRACTOR'S PAVING OPERATIONS SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY:  
 ITEM 690 - MAILBOX REMOVED AND RESET = 2 EACH

**GRADING AND EROSION CONTROL:**  
 AREAS DISTURBED BY GUARDRAIL ACTIVITIES AND AREAS WHERE EMBANKMENT HAVE BEEN PLACED SHALL BE REPAIRED WITH THE FOLLOWING QUANTITIES, AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED:

ITEM	QUANTITY	UNIT	DESCRIPTION
659	311	CY YD	TOPSOIL
659	2750	SQ YD	SEEDING AND MULCHING
659	138	SQ YD	REPAIR SEEDING AND MULCHING
659	138	SQ YD	INTER-SEEDING
659	0.37	TON	COMMERCIAL FERTILIZER
659	0.57	ACRE	LIME
659	15	M.GAL	WATER

**REVIEW OF DRAINAGE FACILITIES**  
 BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING ALONG WITH PHOTOS BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

**FIRE HYDRANTS:**  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS AND FEES THAT ARE REQUIRED FOR THE USE OF ANY FIRE HYDRANTS. A SIAMESE VALVE IS TO BE USED ON THE HYDRANT OUTLET IF A HOSE IS TO BE LEFT CONNECTED AND UNATTENDED.

**ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), TYPE A, AS PER PLAN:**  
 ALL AREAS TO BE REPAIRED SHALL BE LOCATED BY THE ENGINEER AND THE WORK PERFORMED PRIOR TO RESURFACING. REPAIR AREAS SHALL CONSIST OF REMOVING 6" OF PAVEMENT AND PLACING 6" ITEM 301 - ASPHALT CONCRETE BASE, PG64-22. PARTIAL DEPTH PAVEMENT REPAIR SHALL BE STARTED AND COMPLETED IN THE SAME WORKING DAY.

IN ADDITION TO THE SPECIFIC LOCATIONS GIVEN ON SHEET 14/33, THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.  
 ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, TYPE A, AS PER PLAN = 342.7 SY