

ITEM 202 GUARDRAIL REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING EXISTING GUARDRAIL IN ACCORDANCE WITH THE SPECIFICATIONS, EXCEPT THAT THE EXISTING GUARDRAIL PANELS AND POSTS SHALL BE CAREFULLY DISMANTLED AND STORED TO BE USED AS EROSION PROTECTION AS STATED IN ITEM 606 GUARDRAIL, MISC.: SHOULDER SUPPORT BENCHING. PAYMENT FOR ITEM 202 GUARDRAIL REMOVED, AS PER PLAN SHALL BE AT THE CONTRACT UNIT PRICE PER FOOT OF GUARDRAIL REMOVED AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS DESCRIBED ABOVE.

12 GUARDRAIL POSTS AND 10 GUARDRAIL PANELS THAT ARE DEEMED IN GOOD CONDITION AND APPROVED FOR SALVAGE BY THE ENGINEER, SHALL BE DELIVERED TO: KNOX COUNTY ODOT GARAGE, 505 HARCOURT RD, MOUNT VERNON, OH 43050
CONTACT JOE BRANDT, 740.392.3066, TO SCHEDULE DELIVERY.

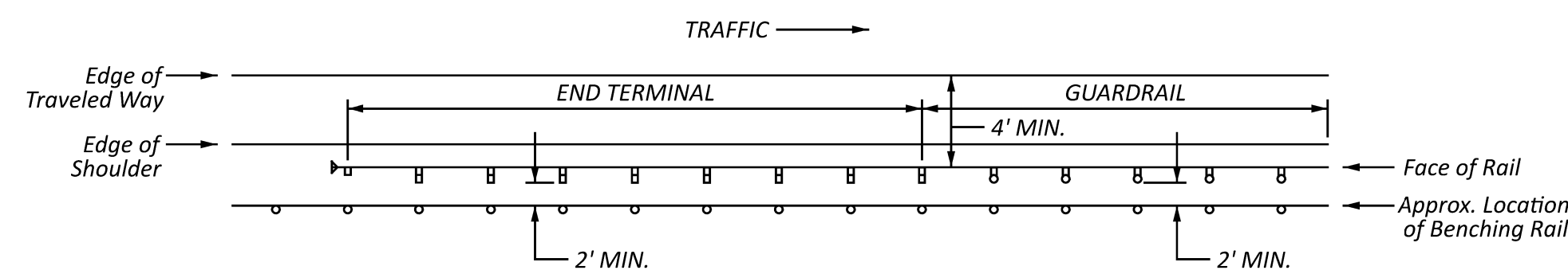
EXISTING GUARDRAIL PANELS AND POSTS THAT ARE DAMAGED OR DEEMED UNNECESSARY BY THE ENGINEER SHALL BE DISPOSED OF ACCORDING TO SECTION 202.02 OF ODOT'S CMS.

ITEM 203 EMBANKMENT, AS PER PLAN

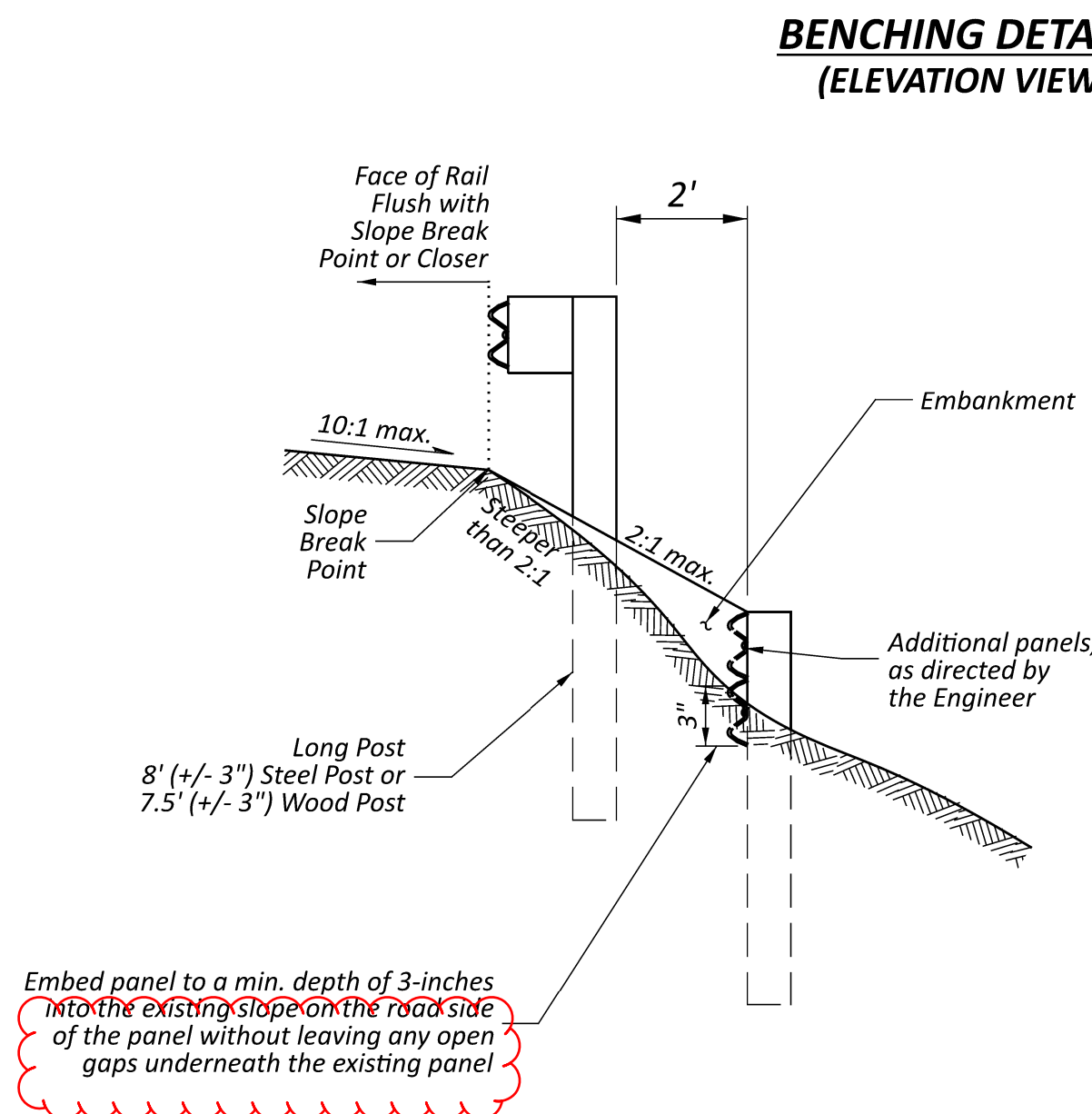
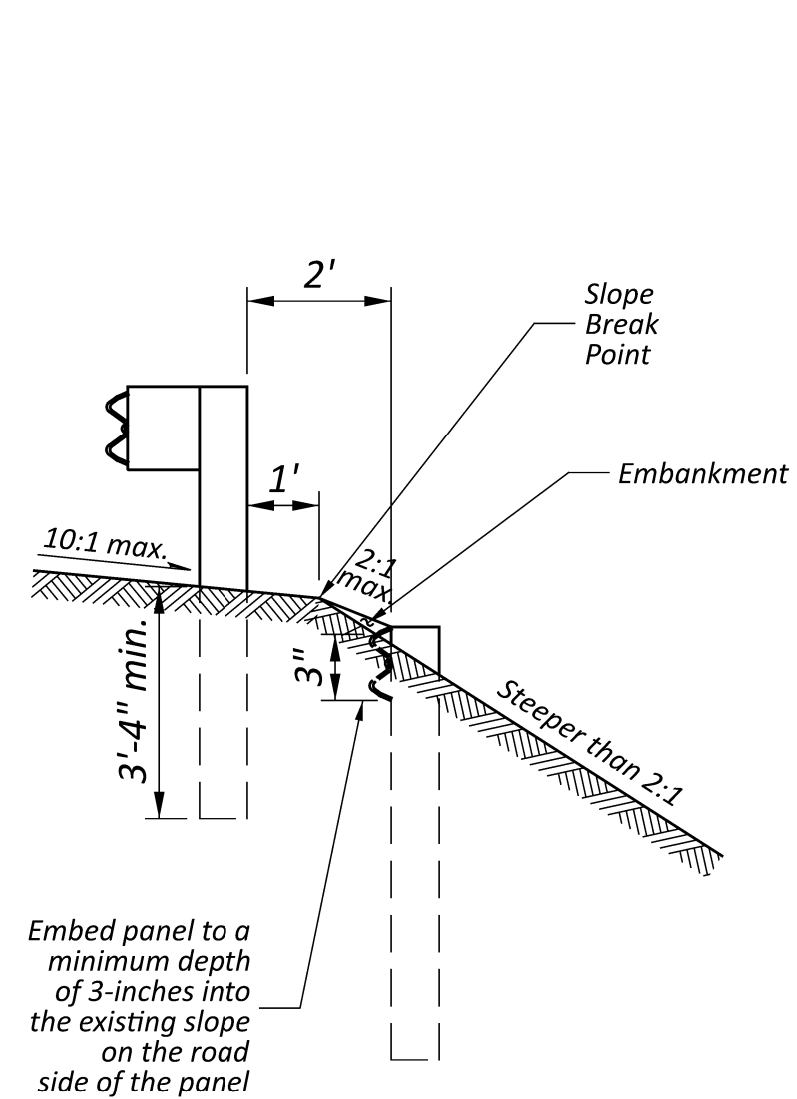
ALL THE REQUIREMENTS FOR ITEM 203 EMBANKMENT SHALL BE MET EXCEPT THE TOP 2 FEET OF PROPOSED EMBANKMENT SHALL NOT CONTAIN ANY GRANULAR MATERIAL. THIS APPLIES TO ALL AREAS OUTSIDE THE EXISTING TREATED PAVEMENT. THIS ITEM MAY ALSO BE USED IN AREAS AS DIRECTED BY THE ENGINEER (FOR ERODED AREAS, BENCHING RAIL, ETC.). SEE CALCULATIONS ON SHEET P.4

ITEM 606 GUARDRAIL, MISC.: SHOULDER SUPPORT BENCHING

THIS ITEM SHALL CONSIST OF INSTALLING THE PREVIOUSLY REMOVED GUARDRAIL PANELS AND POSTS (ITEM 202, GUARDRAIL REMOVED, AS PER PLAN) BY PLACING THEM 2- FEET BEHIND NEWLY INSTALLED RAIL ITEM 606 GUARDRAIL, TYPE MGS WITH LONG POSTS. THESE GUARDRAIL PANELS AND POSTS SHALL PROVIDE BENCHING TO RETAIN GRADING LIMITS BEHIND GUARDRAIL. PANELS SHALL BE EMBEDDED TO A MINIMUM DEPTH OF 3" INTO THE EXISTING SLOPE ON THE ROAD SIDE OF THE PANEL, OR, UTILIZE A GEOTEXTILE FABRIC AS SHOWN IN THE ALTERNATE DETAIL BELOW. IF NECESSARY, AS DIRECTED BY THE ENGINEER, ADDITIONAL PANELS MAY BE INSTALLED TO ATTAIN THE REQUIRED DEPTH TO CREATE A 2:1 SLOPE. LOCATIONS FOR BENCHED RAIL SHALL BE DETERMINED BY THE ENGINEER.



BENCHING DETAILS (PLAN VIEW)



BENCHING DETAILS (ELEVATION VIEW)

ITEM 606 GUARDRAIL POST, STEEL, AS PER PLAN

A 9' LONG W6X9 STEEL POST MAY BE USED IN AREAS WHERE THE STANDARD MGS LONG-POST DOES NOT WORK. THE USE OF THIS POST SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO INSTALLATION. BEFORE UTILIZING THE W6X9 STEEL POST, THE CONTRACTOR SHALL DEMONSTRATE THAT THE STANDARD MGS LONG-POST FAILS TO WORK EVEN IF THE BLOCKOUT IS OMITTED.

ITEM 606 GUARDRAIL POST, STEEL, AS PER PLAN 200 EACH

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350 OR MASH 2016)

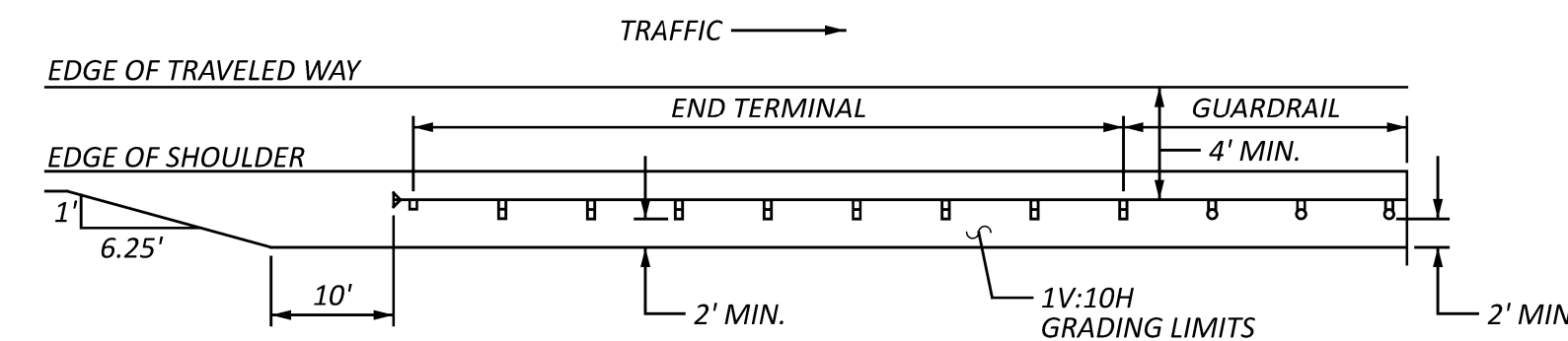
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE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

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.193

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.

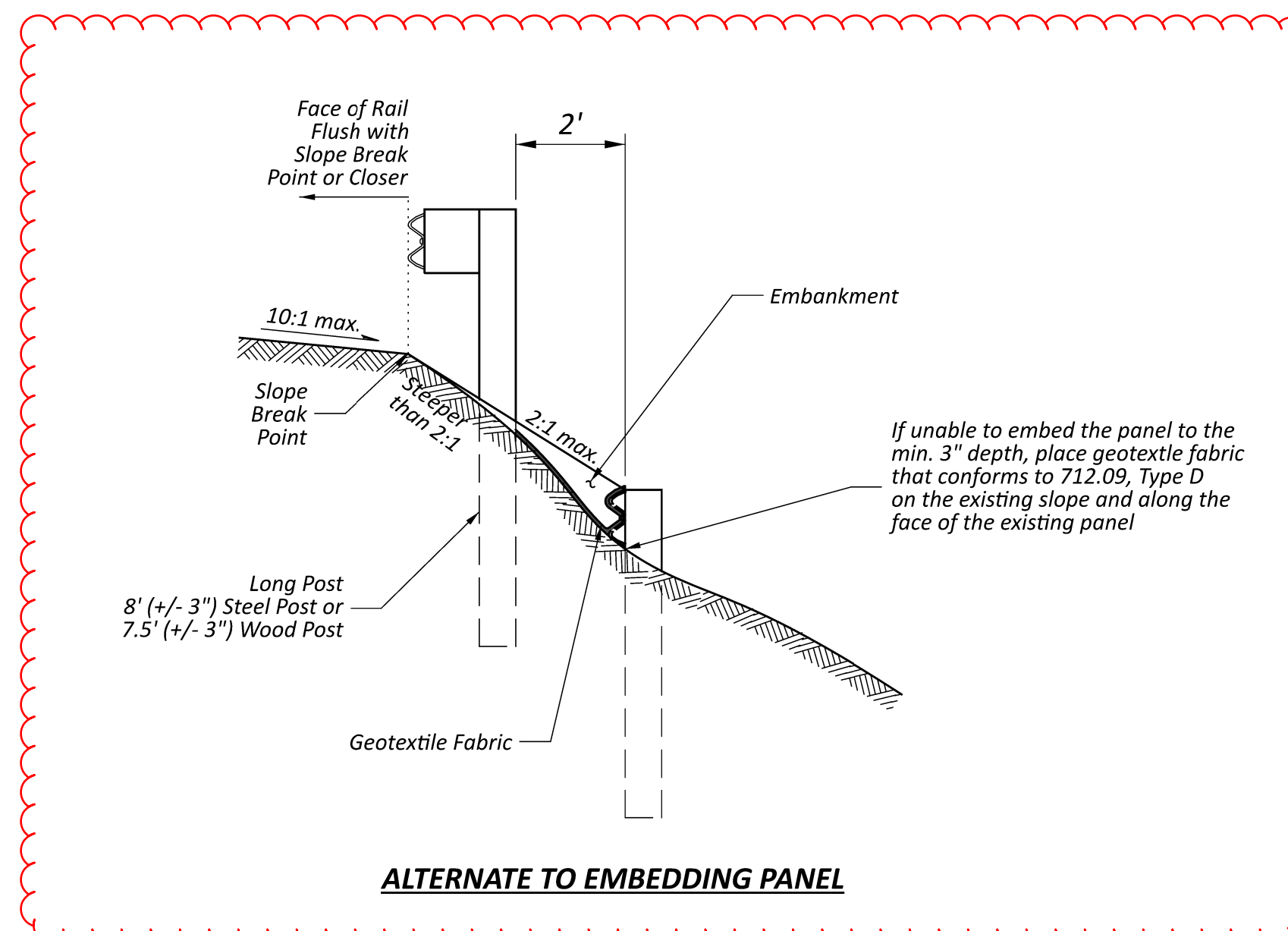
PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING,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



GRADING DETAILS FOR ANCHOR ASSEMBLY, MGS TYPE E

ITEM 606 SPECIAL - RESHAPING BERM

BERMS AT LOCATIONS WHERE EXISTING GUARDRAIL IS REMOVED AND WHERE NEW GUARDRAIL IS TO BE INSTALLED, THE BERMS SHALL BE RESHAPED AS DIRECTED BY THE ENGINEER TO INSURE A SMOOTH SURFACE FREE OF ALL IRREGULARITIES. EXCESS EXCAVATION RESULTING FROM RESHAPING BERMS SHALL BE DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT FOR BERM RESHAPING SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER FOOT FOR ITEM 606 SPECIAL - RESHAPING BERM.



ALTERNATE TO EMBEDDING PANEL

DESIGN AGENCY



DESIGNER
TLR

REVIEWER
DNM 01-24-23

PROJECT ID
117544

SHEET TOTAL
P.3 10