PROJECT DESCRIPTION

THIS IS A DISTRICT 2 PROJECT FOR GUARDRAIL REPAIR AND/OR REPLACEMENT. THE MAIN INTENT OF THIS PROJECT IS TO REPAIR AND/OR REPLACE DAMAGED GUARDRAIL, BRIDGE RAIL, ASSEMBLIES, ETC TO ATTAIN A FULLY FUNCTIONAL BARRIER SYSTEM WITHIN DISTRICT 2. WORK WILL BE IN ANY OF THE FOLLOWING COUNTIES ON VARIOUS ROUTES: DEFIANCE, FULTON, HENRY, LUCAS, OTTAWA, SANDUSKY, SENECA, WILLIAMS AND WOOD. ALL WORK WILL BE AS DIRECTED BY DISTRICT 2 CONSTRUCTION MANAGEMENT PER WORK ORDER AND/OR AS DESIGNATED IN THE PLAN.

THE CONTRACTOR SHALL NOT PERFORM ANY GUARDRAIL WORK UNTIL HE RECEIVES THE AUTHORIZATION FROM THE ENGINEER. THIS AUTHORIZATION SHALL BE IN THE FORM OF A "WORK ORDER" (AN EXAMPLE OF THE AFOREMENTIONED WORK ORDER APPEARS ON SHEET 3). THE ENGINEER SHALL FURNISH TO THE CONTRACTOR A COMPLETED AND SIGNED "WORK ORDER" FOR EACH LOCATION BEFORE THE CONTRACTOR MAY COMMENCE WITH THE WORK.

CONTRACT VALUE AND CONTRACT DURATION

THE MAXIMUM CONTRACT VALUE IS $1,500,000. THE TERM OF THE CONTRACT WILL BE FROM 10/15/26 TO 12/31/27.

WORK ORDER RESPONSE TIME

A TWO WEEK PERIOD FROM THE TIME OF AUTHORIZATION FOR THE REPAIR OF ANY ITEM WILL BE USED AS A REQUIRED TIME FOR THE CONTRACTOR TO COMPLETE THE NECESSARY WORK.

FOR WORK ORDERS THAT REQUIRE A RAMP CLOSURE GREATER THAN TWELVE HOURS A THREE WEEK PERIOD WILL BE USED AS A REQUIRED TIME FOR THE CONTRACTOR TO COMPLETE THE NECESSARY WORK TO ALLOW ADEQUATE TIME FOR NOTIFICATION OF TRAFFIC RESTRICTIONS.

PERFORMANCE DISINCENTIVES

THE CONTRACTOR SHALL COMPLETE THE WORK WITHIN THE WORK ORDER RESPONSE TIME DESIGNATED. FAILURE TO COMPLETE THE WORK PRIOR TO THE END OF THE WORK ORDER RESPONSE TIME SHALL RESULT IN ASSESSMENT OF DISINCENTIVES IN ACCORDANCE WITH THE FOLLOWING TABLE. DISINCENTIVE SHALL BE APPLIED FOR ANY PORTION OF A CALENDAR DAY THAT HAS EXCEEDED SUCH TIME.

WORK ORDER RESPONSE TIME	TIME PERIOD	DISINCENTIVE $ PER TIME PERIOD
14 DAYS	DAYS	$1,000
21 DAYS	DAYS	$1,000

PERSONNEL

THE CONTRACTOR SHALL MAINTAIN A MINIMUM FOUR (4) PERSON CREW OF QUALIFIED PERSONNEL AND EQUIPMENT, OR AS REQUIRED BY THE ENGINEER, TO PERFORM THE WORK FOR THE DURATION OF THE CONTRACT.

PUBLIC SAFETY

BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED LAW ENFORCEMENT AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBILE FOR PLACING OR REPLACING NECESSARY TRAFFIC CONTROL DEVICES TO MAINTAIN SAFETY TO THE TRAVELING PUBLIC.

ESTIMATED QUANTITIES

SPECIFIC USAGE OF ESTIMATED QUANTITIES SET UP ON THIS PLAN ARE TO BE USED AS DIRECTED BY THE ENGINEER SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING THE COMPLETION OF THIS PROJECT. THE ENGINEER ALSO MAINTAINS THE RIGHT TO NON-PERFORM ANY OF THE PROJECT'S ITEMS AT ANYTIME.

MATERIALS ON HAND

AT ALL TIMES, THE CONTRACTOR WILL MAINTAIN ON HAND, AND HAVE IN STOCK, GUARDRAIL MATERIALS SUFFICIENT TO COMPLETE 25% OF THE INCOMPLETE CONTRACT BID ITEMS, UP TO THE TIME THAT 75% OF THE WORK IS COMPLETED. AT THIS TIME, THE CONTRACTOR SHALL STOCK SUFFICIENT MATERIALS TO COMPLETE THE PROJECT AS DIRECTED BY THE ENGINEER.

ODOT ROADWAY PLAN INSERT SHEETS

NOT ALL PLAN INSERT SHEETS ARE LISTED ON THE TITLE PAGE AS BEING PART OF THE PLAN. HOWEVER THEY ARE TO BE INCORPORATED INTO THIS PROJECT, AS DESCRIBED BY THE ENGINEER, WHEN APPLICABLE FOR THE MAINTENANCE OF ANY GUARDRAIL RUN. ROADWAY PLAN INSERT SHEETS MAY BE FOUND AT:
http://www.dot.state.oh.us/Divisions/Engineering/Roadway/DesignStandards/roadway/Pages/RoadwayStandardsRoadwayPlanInserts.aspx

UNDERGROUND UTILITIES

EXTREME CAUTION SHOULD BE EXERCISED IN THE AREAS WITH UNDERGROUND WATERLINES, DRAINS, CABLES, SEWERS OR OTHER UTILITIES. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ALL DAMAGE INFLICTED ON UNDERGROUND UTILITIES IN THE EXECUTION OF THIS CONTRACT. SECTIONS 105.07 AND 107.16 OF THE OHIO DEPARTMENT OF TRANSPORTATION MATERIALS AND SPECIFICATIONS REQUIRE, AMONG OTHER THINGS, THAT THE CONTRACTOR COOPERATE WITH ALL UTILITIES LOCATED WITHIN THE LIMITS OF THIS CONSTRUCTION THE LIMITS OF THIS CONSTRUCTION PROJECT AND TAKE FULL RESPONSIBILITY FOR THE PROTECTION OF THE UTILITY PROPERTY AND SERVICES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ANY UTILITIES THAT MAY BE AFFECTED BY THE WORK PERFORMED FOR THIS CONTRACT. THE CONTRACTOR SHALL NOTIFY THE UTILITIES SUFFICIENTLY BEFORE WORK BEGINS SO THAT THE COMPANIES CAN LOCATE AND MARK THE LOCATION OF THEIR FACILITIES.

THE CONTRACTOR SHALL ALSO LOCATE AND AVOID UNDERGROUND DRAINAGE PIPES NOT ASSOCIATED WITH A PARTICULAR UTILITY COMPANY.

IF ANY CONFLICTS OCCUR THE ENGINEER SHALL DETERMINE WHETHER THE POSITION OF THE GUARDRAIL CAN BE ADJUSTED TO AVOID THE UTILITY OR IF RELOCATION OF THE UTILITY WILL BE REQUIRED.

ITEM 606 - GUARDRAIL

ALL MATERIAL EXCAVATED FOR POSTS OR CONCRETE ANCHORS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH 203.01 OF THE SPECIFICATIONS, AND RESTORED TO A NEAT CONDITION SATISFACTORY TO THE ENGINEER. THE COST OF THIS WORK IS TO BE INCLUDED IN THE APPROPRIATE GUARDRAIL BID ITEM. THE LOCATIONS OF GUARDRAIL RUNS SHOWN IN THESE PLANS ARE SUBJECT TO ADJUSTMENT TO ASSURE THAT THE PLANNED INSTALLATION WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

ALL DISTURBED AREAS SHALL BE FERTILIZIED, SEEDED, AND MULCHED AS PER ITEM 659. THE COST OF THIS WORK SHALL BE INCLUDED FOR PAYMENT IN THE RESPECTIVE 606 ITEMS AT EACH WORK LOCATION AND UNDER 832 EROSION CONTROL.

ENVIRONMENTAL COMMITMENTS

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT ANY AND ALL MATERIAL FROM GOING OFF THE EDGE OF BRIDGE DECK(S) AND EDGE OF CULVERT(S) DURING ALL CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL IMMEDIATELY REMOVE ANY MATERIAL THAT FALLS INTO THE ROADSIDE DITCHES, STREAMS, WETLANDS, OR OTHER WATERS THROUGH NON-MECHANICAL MEANS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR WORK IN OR STORE EQUIPMENT AND /OR MATERIALS IN ANY WETLANDS, STREAMS, OR OTHER WATERS. NO WORK OR STAGING IS PERMITTED BELOW THE ORDINARY HIGH WATER MARK (OHWM) OF ANY STREAM AND/OR WITHIN A WETLAND. ANY WORK BELOW THE OHWM AND/OR WITHIN A WETLAND IS A VIOLATION OF THE FEDERAL CLEAN WATER ACT OF 1977.

IF THE GUARDRAIL REPAIR OR REPLACEMENT IS LOCATED WITHIN 1,000 FEET OF THE MAUMEE OR SANDUSKY RIVER WHILE OUTSIDE THE LIMITS OF A MUNICIPAL CORPORATION LIMIT, THE FOLLOWING CONDITIONS APPLY:

1. A SEDIMENT AND EROSION CONTROL PLAN SHALL BE DEVELOPED AND IMPLEMENTED IF THE PROJECT REQUIRES EARTHWORK. ALL CONTROLS SHALL BE PROPERLY MAINTAINED UNTIL FINAL SITE STABILIZATION HAS BEEN ACHIEVED. ALL DENUDED AREAS (LOCATION WHERE VEGETATION IS REMOVED OR ERODIBLE MATERIAL IS EXPOSED TO STORM WATER) SHALL BE SEEDED AND MULCHED AS SPECIFIED IN THE CURRENT OHIO EPA'S CONSTRUCTION GENERAL PERMIT. ALL SEDIMENT AND EROSION CONTROLS SHALL BE REMOVED UPON STABILIZATION OF THE PROJECT AREA.

2. ANY CUTTING AND/OR CLEARING OF ANY VEGETATION ASSOCIATED WITH THE PROJECT SHALL BE COMPLETED IN SUCH A MANNER SO AS TO LIMIT THE AMOUNT OF VEGETATION BEING CLEARED TO THE ABSOLUTE MINIMUM NECESSARY TO ACCOMPLISH THE GOAL OF THE PROJECT.

3. NO TOXIC OR HAZARDOUS MATERIALS SUCH AS SEALANTS, PAINT, SOLVENTS, CLEANING AGENTS, EARTHEN MATERIALS, WASTE-WATER, FUELS OR DEBRIS OF ANY KIND SHALL BE DISCHARGED TO THE MAUMEE RIVER, SANDUSKY RIVER, OR ANY TRIBUTARY WATER COURSES.

4. ALL ASPHALT OR CONCRETE GRINDING, EXCESS ASPHALTIC OR CONCRETE MATERIALS OR ANY OTHER DEBRIS GENERATED DURING THE PROJECT SHALL BE REMOVED FROM WITHIN 1,000 FEET OF THE MAUMEE OR SANDUSKY RIVER AND BE DISPOSED OF AT AN APPROPRIATE FACILITY ABOVE THE FEMA 100 YEAR FLOOD ELEVATION.

PROJECTS REQUIRING ANY WORK ALONG THE BANKS OF EITHER THE MAUMEE OR SANDUSKY RIVERS, WHICH CANNOT COMPLY WITH THESE CONDITIONS, CANNOT PROCEED UNTIL ODOT CONDUCTS ADDITIONAL COORDINATION WITH THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) SCENIC RIVERS. CONTACT THE ACTING DISTRICT 2 ENVIRONMENTAL COORDINATOR, PHOENIX GOLNICK, AT 419-373-4329 TO INITIATE THE APPROPRIATE COORDINATION. ADDITIONAL COORDINATION WITH THE ODNR MAY TAKE UP TO 90 DAYS FROM INITIAL CONTACT WITH THE DISTRICT 2 ENVIRONMENTAL COORDINATOR.

THE CONTRACTOR SHALL ADVISE THE PROJECT ENGINEER AS SOON AS IT IS KNOWN THAT LANE RESTRICTIONS, LANE CLOSURES, AND/OR ROAD CLOSURES ARE NECESSARY. ODOT WILL THEN NOTIFY AFFECTED AGENCIES INCLUDING LOCAL MEDIA OUTLETS, SCHOOLS, POLICE, FIRE, EMERGENCY SERVICES, BUS TRANSPORTATION DEPARTMENTS AND POST OFFICES.

PROTECTION OF INCOMPLETE WORK

ANY HAZARD DURING NON-WORKING HOURS SHALL BE ADEQUATELY PROTECTED WITH DRUMS OR BARRICADES, OR AS DIRECTED BY THE ENGINEER. PAYMENT FOR ANY SUCH WORK REQUIRED SHALL BE CONSIDERED INCIDENTAL AND INCLUDED IN THE GUARDRAIL REPAIR ITEM.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

GUARDRAIL POST HOLES

ALL HOLES REMAINING AFTER REMOVAL OF GUARDRAIL POSTS SHALL BE FILLED WITH GRANULAR MATERIAL. EXCESS MATERIAL RESULTING FROM GUARDRAIL CONSTRUCTION OR EXCESS MATERIAL FROM BERM SHAPING AND/OR FILL MATERIAL FROM SOD SHALL NOT BE USED. ALL FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER. MATERIAL PLACED IN HOLES SHALL BE THOROUGHLY COMPACTED AND LEVELED OFF AS DIRECTED BY THE ENGINEER. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPLICABLE GUARDRAIL ITEM.

CURVED RAIL ELEMENTS

WHEN A CURVED RAIL ELEMENT IS REQUIRED IT WILL APPEAR ON THE "WORK ORDER" GIVEN TO THE CONTRACTOR PRIOR TO WORKING ON THAT LOCATION. THE COST OF THESE CURVED RAIL ELEMENTS SHALL BE PAID PER FOOT OF THE RELATED GUARDRAIL ITEM. THE CONTRACTOR SHALL VERIFY THE RADIUS OF THE CURVED RAIL IN THE FIELD.

ITEM 202 - GUARDRAIL REMOVED

THIS ITEM OF WORK SHALL INCLUDE ALL EQUIPMENT, MATERIAL AND LABOR TO REMOVE EXISTING GUARDRAIL. INCLUDING ALL HARDWARE, POSTS AND RAIL, AS DIRECTED BY THE ENGINEER.

17725 FT ITEM 202 GUARDRAIL REMOVED

ITEM 606 - GUARDRAIL REBUILT, AS PER PLAN

THESE ITEMS SHALL INCLUDE ALL WORK NECESSARY TO REPLACE SECTIONS OF DAMAGED OR DETERIORATED GUARDRAIL WITH TYPE SPECIFIED ON THE PLANS OR THE WORK ORDER AS DIRECTED BY THE ENGINEER.

THESE ITEMS SHALL INCLUDE REPLACING GUARDRAIL, POST(S) AND/OR ASSOCIATED HARDWARE WITHIN THE LENGTH DESIGNATED FOR REPAIR AND ALL WORK NECESSARY TO RESET AND ALIGN POST AND GUARDRAIL DEEMED "FIT" FOR REUSE BY THE ENGINEER.

ADJUSTMENT OF ADJACENT RAIL OUTSIDE THE LIMITS DESIGNATED FOR REPLACEMENT, IF NECESSARY, IN ORDER TO REESTABLISH SPACING, WILL BE CONSIDERED INCIDENTAL TO THIS ITEM.

SECTIONS TO BE REPLACED WILL BE DESIGNATED BY THE ENGINEER BY GUARDRAIL PANEL.

IT IS THE INTENT TO MATCH POSTS IN THE GUARDRAIL RUNS WITH LIKE POSTS (THAT IS WOOD POST FOR WOOD POST AND STEEL POST FOR STEEL).

MATERIALS SHALL BE NEW OR USEABLE SALVAGE UNDER THE REMOVAL ITEMS OF THIS CONTRACT. PAYMENT SHALL BE AT THE UNIT BID PRICE.

ITEM	QTY	UNIT	DESCRIPTION
606	6250	FT	GUARDRAIL REBUILT, TYPE MGS, AS PER PLAN
606	1200	FT	GUARDRAIL REBUILT, TYPE 5, AS PER PLAN
606	62.5	FT	GUARDRAIL REBUILT, TYPE 5, USING 9 FOOT POSTS, AS PER PLAN
606	62.5	FT	GUARDRAIL REBUILT, TYPE MGS WITH LONG POSTS, AS PER PLAN
606	25	FT	GUARDRAIL REBUILT, TYPE MGS HALF POST SPACING, AS PER PLAN

GENERAL NOTES

DESIGN AGENCY

DESIGNER JTP

REVIEWER DEK 08-10-26

PROJECT ID 123729

SHEET P.4 TOTAL 11

ITEM 606 - GUARDRAIL, TYPE MGS, AS PER PLAN

IN THE EVENT THAT 50% OR MORE OF ANY GUARDRAIL RUN NEEDS REBUILT/REPLACED, OR THE RUN IS 300 FT OR LESS, THE CURRENT STANDARD OF GUARDRAIL TYPE MGS SHALL BE USED, AS DIRECTED BY THE ENGINEER, TO REPLACE THE ENTIRE RUN OF GUARDRAIL. WHERE THERE IS AN ANCHOR ASSEMBLY, TYPE A IN SAID RUN, IT SHALL BE REPLACED WITH AN ANCHOR MGS TYPE B, MGS TYPE E OR MGS TYPE T AS WRITTEN IN THE "WORK ORDER", AS DIRECTED BY THE ENGINEER.

TYPE OF POSTS SHALL BE STEEL AS SHOWN IN THE MGS STANDARD CONSTRUCTION DRAWINGS. LENGTH OF POSTS (REGULAR OR LONG) AND POST SPACING SHALL BE DETERMINED BY THE ENGINEER AND WRITTEN IN THE "WORK ORDER".

606 2400 FT GUARDRAIL, TYPE MGS, AS PER PLAN

ITEM 606 - REPLACE EXISTING GUARDRAIL BLOCKOUT

THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REPLACE DAMAGED BLOCKOUTS AS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWINGS MGS-2.1 AND PLAN INSERT SHEET GR-2.1. BLOCKOUTS MUST BE ON APPROVED ODOT LIST. PAYMENT SHALL BE AT THE UNIT PRICE BID.

ITEM	QTY	UNIT	DESCRIPTION
606	6	EACH	REPLACE EXISTING GUARDRAIL BLOCKOUT
606	4	EACH	REPLACE EXISTING GUARDRAIL BLOCKOUT, TYPE MGS

ITEM 606 - ANCHOR ASSEMBLIES

THIS ITEM SHALL INCLUDE ALL EQUIPMENT, MATERIAL AND LABOR NECESSARY TO REPLACE AND/OR CONSTRUCT ANY OF THE FOLLOWING ANCHOR ASSEMBLIES IN ACCORDANCE WITH THEIR RESPECTIVE STANDARD CONSTRUCTION DRAWINGS (MGS), PLAN INSERT SHEETS (TYPE 5) OR MANUFACTURER'S SHOP DRAWINGS, AS DIRECTED BY THE ENGINEER. PAYMENT SHALL BE AT THE UNIT PRICE BID.

ITEM	QTY	UNIT	DESCRIPTION
606	1	EACH	ANCHOR ASSEMBLY, TYPE A
606	1	EACH	ANCHOR ASSEMBLY, TYPE B
606	1	EACH	ANCHOR ASSEMBLY, MGS TYPE B
606	100	EACH	ANCHOR ASSEMBLY, MGS TYPE E
606	11	EACH	ANCHOR ASSEMBLY, TYPE T
606	25	EACH	ANCHOR ASSEMBLY, MGS TYPE T

ITEM 606 - GUARDRAIL REBUILT, BARRIER DESIGN, TYPE 5, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REMOVE AND REPLACE ANY AND ALL EXISTING DAMAGED COMPONENTS OF THE BARRIER DESIGN RAIL IN ACCORDANCE WITH STANDARD DRAWING GR-2.1. SECTIONS TO BE REPLACED WILL BE DESIGNATED BY THE ENGINEER FROM CENTER OF POST TO CENTER OF POST. PAYMENT SHALL BE AT THE UNIT BID PRICE.

ITEM	QTY	UNIT	DESCRIPTION
606	187.5	FT	GUARDRAIL REBUILT, BARRIER DESIGN, TYPE 5, AS PER PLAN

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE B

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE B FLARED END TREATMENTS FOR TYPE MGS GUARDRAIL AS LISTED UNDER "PRODUCTS ACCEPTED FOR NEW INSTALLATIONS" ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON ROADWAY ENGINEERING'S WEB PAGE. INSTALLATION SHALL BE ATTHE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS.

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. 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 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.

THE FACE OF THE TYPE B IMPACT HEAD SHALL BE COVERED WITH SOLID FLUORESCENT YELLOW REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

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

ITEM 606 - ANCHOR ASSEMBLY, TYPE B (TYPE 5)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS 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.

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 27.75 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 FACE OF THE TYPE B IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

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

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE E TANGENETIAL END TREATMENTS FOR TYPE MGS GUARDRAIL AS LISTED UNDER "PRODUCTS ACCEPTED FOR NEW INSTALLATIONS" ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON ROADWAY ENGINEERING'S WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS.

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. 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 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.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH SOLID FLUORESCENT YELLOW REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

WHEN THE FACE OF THE ADJACENT (ATTACHED) GUARDRAIL IS LESS THAN 4' OFFSET FROM THE PROPOSED EDGE LINE, AND PERMITTING SITE CONDITIONS EXIST: THE PROPOSED TYPE E ANCHOR ASSEMBLY SHALL BE INSTALLED AT A CONSISTENT FLARE RATE THROUGH THE FULL LENGTH OF THE SYSTEM. THE FLARE RATE SHALL BE A MAXIMUM OF 25:1 (RESULTING IN A 2' OFFSET). THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE SHOP DRAWINGS, PRODUCT INSTALLATION MANUAL/GUIDANCE, AND AS DIRECTED BY THE ENGINEER.

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 - ANCHOR ASSEMBLY REBUILT, MGS TYPE B, AS PER PLAN
ITEM 606 - ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN

THIS ITEM OF WORK CONSISTS OF REBUILDING A PORTION OF A DAMAGED TYPE B (TYPE 5 AND MGS) ANCHOR ASSEMBLY. THE UNIT BID PRICE FOR EACH ITEM LISTED BELOW SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY (INCLUDING ALL RELATED HARDWARE NOT SEPARATELY SPECIFIED) TO REMOVE AND REPLACE THE DAMAGED COMPONENT. THE ITEMS LISTED BELOW SHALL BE USED AS DIRECTED BY THE ENGINEER.

ITEM	QTY	UNIT	DESCRIPTION
606	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (12.5 FT. GUARDRAIL)
606	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (12.5 FT. SRT-1 ANC/GUARDRAIL)
606	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (12.5 FT. SRT-2/GUARDRAIL)
606	2	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (BUFFER/ROLLED TERMINAL)
606	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (CABLE ANCHOR BRACKET)
606	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (CR POST 1 TOP)
606	4	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (WOOD POST, 45 IN,)
606	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (WOOD POST, 72 IN,)

ITEM 606 - ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN

THIS ITEM OF WORK CONSISTS OF REBUILDING A PORTION OF A DAMAGED MGS TYPE E ANCHOR ASSEMBLY. THE IMPACT HEAD FOR ANY SYSTEM SHALL NOT BE REUSED IF A HEAD-ON CRASH FACILITATED THE EXTRUSION OF GUARDRAIL, OR IF AN ANGLE CRASH RESULTED IN PHSICAL CONTACT WITH THE IMPACT HEAD (TYPICALLY CRASHES THAT OCCUR AT OR BEFORE POST #2).

THE UNIT BID PRICE FOR EACH ITEM LISTED BELOW SHALL INCLUDE ALL LABOR,MATERIALS AND EQUIPMENT NECESSARY (INCLUDING ALL RELATED HARDWARE NOT SEPARATELY SPECIFIED)TO REMOVEAND REPLACE THE DAMAGED COMPONENT. THE ITEMS LISTED BELOW SHALL BE USED AS DIRECTED BY THE ENGINEER.

ITEM	QTY	UNIT	DESCRIPTION
606	10	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (BLOCK-MSKT/SFST)
606	40	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (CABLE: ASSEMBLY/ANCHOR BOX, BEARING: PLATE/RETAINER TIE/MSKT)
606	45	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (IMPACT HEAD/MSKT)
606	2	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (POST #1-BOTTOM/MSKT)
606	52	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (POST #1-TOP/MSKT)
606	2	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (POST #2-BOTTOM/MSKT)
606	30	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (POST #2-TOP/MSKT)
606	45	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (STEEL POST #3-#8/MSKT/SFST)
606	3	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (STRUT/MSKT)
606	55	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (W-BEAM GUARDRAIL 12 GA.-12.5' END SECTION/MSKT)
606	25	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (W-BEAM GUARDRAIL 12 GA., 9'-4 1/2"-MSKT)
606	25	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (W-BEAM GUARDRAIL, 12 GA.-12.5'-MSKT/SFST)

ITEM 606 - BRIDGE TERMINAL ASSEMBLIES

ITEMS SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO CONSTRUCT THE BRIDGE TERMINAL ASSEMBLY IN ACCORDANCE WITH THE MOST RECENT/REVISED AND RELATED STANDARD DRAWING, AND AS DIRECTED BY THE ENGINEER. IT IS THE INTENT TO MATCH POSTS IN THE BRIDGE TERMINAL ASSEMBLY WITH LIKE POSTS (THAT IS, WOOD POSTS FOR WOOD AND STEEL POSTS FOR STEEL). PAYMENT SHALL BE MADE AT THE UNIT BID PRICE FOR THE SPECIFIC BRIDGE TERMINAL ASSEMBLY.

ITEM	QTY	UNIT	DESCRIPTION
606	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
606	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2
606	3	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4

GENERAL NOTES

DESIGN AGENCY

DESIGNER JTP

REVIEWER DEK 08-10-26

PROJECT ID 123729

SHEET P.5 TOTAL 11

D02-GR-FY2027

ITEM 606 - BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1, AS PER PLAN (TYPE 5 AND MGS)

ITEMS LISTED BELOW SHALL BE USED TO REBUILD A DAMAGED BRIDGE TERMINAL ASSEMBLY, TYPE 1 (TYPE 5 AND MGS). THE BID PRICE FOR PRICE FOR EACH ITEM LISTED BELOW SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS [(LISTED ITEM PLUS ANY ASSOCIATED ITEMS REQUIRED AND NOT LISTED SEPARATELY) (IE. HARDWARE, POST BLOCKS, ETC.)].

ITEM	QTY	UNIT	DESCRIPTION
GUARDRAIL TYPE 5 AND MGS			
606	1	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1, AS PER PLAN (12.5 FT RAIL ELEMENT)
606	1	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1, AS PER PLAN (THRIE BEAM RAIL ELEMENT)
606	2	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1, AS PER PLAN (THRIE BEAM TRANSITION SECTION, SYMMETRICAL OR ASYMMETRICAL)
606	1	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1, AS PER PLAN (THRIE BEAM TERMINAL CONNECTOR)

AS DESCRIBED ABOVE THE ITEMS LISTED SHALL INCLUDE ALL ASSOCIATED ITEMS NOT LISTED SEPARATELY (IE. BOLTS, NUTS, WASHERS, POST BLOCKS, SCREWS, ETC.). THE INTENT IS TO PAY FOR ANY OF THE DAMAGED ITEMS LISTED ABOVE AND THE BRIDGE TERMINAL ASSEMBLY SHALL BE REBUILT SO AS TO CREATE A FULLY FUNCTIONAL BRIDGE TERMINAL ASSEMBLY, TYPE 1 (TYPE 5 AND MGS).

ITEM 606 - BRIDGE TERMINAL ASSEMBLIES REBUILT, AS PER PLAN

IT IS THE INTENT TO MATCH POSTS IN THE BRIDGE TERMINAL ASSEMBLIES WITH LIKE POSTS (THAT IS, WOOD POSTS FOR WOOD AND STEEL POSTS FOR STEEL). THIS APPLIES TO THE FOLLOWING BRIDGE TERMINAL ASSEMBLIES, TYPE 1, MGS TYPE 1, TYPE 2, MGS TYPE 2, TYPE 3, TYPE 4, AND TYPE TST, AS PER PLAN.

ANCHOR BOLTS

WHEN REMOVAL OF ANCHOR BOLTS OF DAMAGED BRIDGE TERMINAL ASSEMBLIES IS NECESSARY, THE ANCHORS SHALL BE REPLACED WITH BOLTS EXTENDING THROUGH THE BRIDGE PARAPET, AS DIRECTED BY THE ENGINEER. THIS IS INCLUDED IN THE RESPECTIVE ITEM OF WORK.

ITEM 517 - BRIDGE RAILING REBUILT

THE FOLLOWING ITEMS SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REMOVE AND REPLACE ANY AND ALL DAMAGED COMPONENTS OF ALL TYPES OF BRIDGE RAILING LISTED BELOW, IN ACCORDANCE WITH EACH CORRESPONDING STANDARD CONSTRUCTION DRAWING:

TST-1-99
TST-2-21
DBR-2-73
TBR-1-11

PAYMENT SHALL BE AT THE UNIT BID PRICE.

ITEM	QTY	UNIT	DESCRIPTION
517	25	FT	RAILING (DEEP BEAM RAIL WITH STEEL TUBULAR BACKUP AND TYPE 2 STEEL POSTS AND ANCHOR BOLTS), AS PER PLAN

ITEM 606 - IMPACT ATTENUATOR, TYPE 1 (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE 1 IMPACT ATTENUATORS AS LISTED UNDER "PRODUCTS ACCEPTED FOR NEW, PERMANENT INSTALLATIONS" ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED BY THE ENGINEER, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 1(UNIDIRECTIONAL OR BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED TRANSITIONS, HARDWARE, REFLECTIVE SHEETING AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE 2 IMPACT ATTENUATORS AS LISTED UNDER "PRODUCTS ACCEPTED FOR NEW, PERMANENT INSTALLATIONS" ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 [(SPEED (IN MPH), HAZARD WIDTH (IN INCHES)), (UNIDIRECTIONAL OR BIDIRECTIONAL)], EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED BY THE ENGINEER, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

ITEM 606 - IMPACT ATTENUATOR, TYPE 3 (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE 3 IMPACT ATTENUATORS AS LISTED UNDER "PRODUCTS ACCEPTED FOR NEW, PERMANENT INSTALLATIONS" ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 3 [(SPEED (IN MPH), HAZARD WIDTH (IN INCHES)), (UNIDIRECTIONAL OR BIDIRECTIONAL)], EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED BY THE ENGINEER, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO REMOVE ANY AND ALL EXISTING DAMAGED COMPONENTS OF THE IMPACT ATTENUATOR AND RECONSTRUCT IT AS PER MANUFACTURER SPECIFICATIONS. REFER TO ITEM 606 - IMPACT ATTENUATOR, TYPE 1 [(UNIDIRECTIONAL OR BIDIRECTIONAL)] SEE THIS SHEET FOR MORE DETAILS.

ITEM	QTY	UNIT	DESCRIPTION
606	1	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (1" X 2 1/2" PIPE SLEEVE CAT)
606	3	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (1/2" X 3" X 7" POST PLATE)
606	1	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (1/4" X 18" X 24" SOIL PLATE)
606	1	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (10 GAUGE, BENT PLATE SLEEVE)
606	3	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (10 GAUGE, ROLLED, NOSE PLATE CAT)
606	5	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (10 GAUGE, ROLLED, SIDE PLATE CAT)
606	3	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (2" X 5 1/2" PIPE SLEEVE)
606	3	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (3/4" X 8' CABLE)
606	4	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (3'-6" WOOD POST #1 CAT)
606	20	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (3'-6" WOOD POST #2, 3, 4, 5, 6 CAT)
606	4	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (4'-6" FOUNDATION TUBE)
606	1	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (5/8" X 8" X 8" BEARING PLATE)
606	2	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (6" SLEEVE 6" X 8")
606	1	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (CHANNEL STRUT, 6'-6")
606	10	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (GUARDRAIL 10 GAUGE SECOND PANEL CAT)
606	10	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (GUARDRAIL 12 GAUGE FIRST PANEL CAT)
606	4	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (SPACER CHANNEL CAT)
606	7	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (WOOD BLOCK 1'-2" #1 CAT)
606	30	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 1 (WOOD BLOCK 1'-2" #2, 3, 4, 5, 6 CAT)

IMPACT ATTENUATOR MISC.: REBUILT, TYPE 2 (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO REMOVE ANY AND ALL EXISTING DAMAGED COMPONENTS OF THE IMPACT ATTENUATOR AND RECONSTRUCT IT AS PER MANUFACTURER SPECIFICATIONS. REFER TO ITEM 606 - IMPACT ATTENUATOR, TYPE 2 [(UNIDIRECTIONAL OR BIDIRECTIONAL)] SEE THIS SHEET FOR MORE DETAILS.

ITEM	QTY	UNIT	DESCRIPTION
606	5	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 2 (1153 MM DIAPHRAGM ASSEMBLY, QUADGUARD)
606	5	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 2 (90" STEEL NOSE, QUADGUARD)
606	7	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 2 (BELT NOSE ASSEMBLY)
606	36	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 2 (CARTRIDGE TYPE I)
606	25	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 2 (CARTRIDGE TYPE II)
606	1	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 2 (DIAPHRAGM)
606	5	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 2 (FENDER ASSEMBLY, QUADGUARD)
606	5	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 2 (QUAD BEAM FENDER PANEL)

IMPACT ATTENUATOR MISC.: REBUILT, TYPE 3

THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO REMOVE ANY AND ALL EXISTING DAMAGED COMPONENTS OF THE IMPACT ATTENUATOR AND RECONSTRUCT IT AS PER MANUFACTURER SPECIFICATIONS. REFER TO ITEM 606 - IMPACT ATTENUATOR, TYPE 3, ON THIS SHEET.

ITEM	QTY	UNIT	DESCRIPTION
606	1	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 3 (DIAPHRAGM)
606	1	EACH	IMPACT ATTENUATOR MISC.: REBUILT, TYPE 3 (QUAD BEAM FENDER PANEL)

ITEM 606 - GUARDRAIL MISC.: MEDIAN BOX BEAM AND BOX BEAM RAIL AND POSTS

ANY SECTION OF GUARDRAIL OR POST AND ASSOCIATED HARDWARE DEEMED REUSABLE BY THE ENGINEER MAY BE REUSED. POSTS THAT ARE 5.25' IN LENGTH IN NEED OF REPLACEMENT SHALL BE REPLACED WITH A 7' POST.

THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO REMOVE AND REPLACE ANY AND ALL EXISTING DAMAGED COMPONENTS, RESTORING THE BOX BEAM RAIL TO ITS ORIGINAL CONDITION BEFORE DAMAGE, AS DIRECTED BY THE ENGINEER. THIS ITEM INCLUDES THE COST OF ALL LABOR, EQUIPMENT AND MATERIALS TO REMOVE, REPLACE AND ALIGN DAMAGED COMPONENTS. PAYMENT SHALL BE AT THE UNIT BID PRICE.

ITEM	QTY	UNIT	DESCRIPTION
606	500	FT	GUARDRAIL MISC.: MEDIAN BOX BEAM RAIL, REMOVED AND REBUILT
606	30	EACH	GUARDRAIL MISC.: BOX BEAM RAIL, 5.25 FT POST
606	1	EACH	GUARDRAIL MISC.: BOX BEAM RAIL, 7 FT POST

GENERAL NOTES

DESIGN AGENCY

DESIGNER JTP
REVIEWER DEK 08-10-26
PROJECT ID 123729
SHEET P.6 TOTAL 11

D02-GR-FY2027

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 8/10/2026 TIME: 12:02:15 PM PLTDRV: OHDOT_PDF_Color.pltcfg PENTBL: OHDOT_PenC.tbl USER: Joshua.Paradysz@dot.ohio.gov WORKSPACE: OHDOTCEv02 WORKSET: 123729 PRODUCT: OpenRoadsDesigner 24.00.00.205
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ITEM 606 - CABLE GUARDRAIL

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY ONE OF THE HIGH TENSION FOUR CABLE GUARDRAIL SYSTEMS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, CABLE BARRIER WITH CONCRETE LINE POST FOUNDATION, AND ITEM 606 CABLE BARRIER, ANCHOR ASSEMBLY AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL HIGH TENSION CABLE GUARDRAIL SYSTEM NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. THE LENGTH OF THE TENSIONED CABLE NECESSARY TO INSTALL A FUNCTIONAL ANCHOR SYSTEM SHALL BE INCLUDED IN ITEM 606, CABLE BARRIER WITH CONCRETE LINE POST FOUNDATION.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

SYSTEMS SHALL HAVE A MAXIMUM DEFLECTION OF 8 FEET AND THE MAXIMUM LONGITUDINAL DISTANCE BETWEEN POSTS SHALL BE 15 FT.

INSTALLATION WILL BE A FOUR CABLE HIGH TENSION SYSTEM INSTALLED IN SOCKETED POSTS FOUNDATION WITH A FOUR FOOT WIDE "NO MOW STRIP".

DELINEATE THE CABLE BARRIER USING TYPE 6 BARRIER REFLECTORS PER ITEM 626 OR USING FLEXIBLE POSTS PER ITEM 620 AS CALLED FOR IN THE PLANS OR DIRECTED BY THE ENGINEER.

ANCHOR TERMINAL STRUTS SHALL BE COVERED COMPLETELY ON BOTH SIDES WITH YELLOW TYPE J, ASTM D 4956 TYPE XI REFLECTIVE SHEETING, PER CMS 730.193.

TRANSITIONS TO W-BEAM GUARDRAIL ARE NOT ALLOWED.

REFER TO MANUFACTURER FOR MAXIMUM OFFSET FROM BREAK POINT.

TORPEDO OR BULLET SPLICES ARE NOT ALLOWED. ALL CABLE SPLICES SHALL BE A SWAGED OR OPEN BODY DESIGN THAT ALLOWS FOR ANNUAL INSPECTION BETWEEN THE WEDGE AND STRANDS OF CABLE.

POSTS ARE SET IN SOCKETED CONCRETE FOUNDATIONS AND SHALL NOT BE PERMANENTLY INSTALLED UNTIL THEIR RESPECTIVE RUNS OF TENSIONED CABLE GUARDRAIL ARE READY FOR FINAL CONNECTION TO THE END TERMINAL ASSEMBLY. THE CONTRACTOR SHALL REPLACE ANY POSTS DAMAGED DURING INSTALLATION AS DETERMINED BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.

ITEM 606 - READJUST CABLE TENSION (REPAIR)

THIS ITEM SHALL INCLUDE ALL WORK, EQUIPMENT, AND MATERIAL NECESSARY TO RE-ADJUST TENTION IN THE CABLE TO THE MANUFACTURER'S SPECIFICATIONS AS DIRECTED BY THE ENGINEER. ONLY THE DAMAGED CABLE WITHIN A RUN SHALL BE ADJUSTED. THE BID PRICE PER CABLE SHALL BE FOR ONE EACH.

ITEM	QTY	UNIT	DESCRIPTION
606	40	EACH	GUARDRAIL MISC.: READJUST CABLE TENSION (REPAIR)

ITEM 626 - BARRIER REFLECTORS

BARRIER REFLECTORS SHALL BE PLACED ON ALL NEW OR REPLACEMENT GUARDRAIL RUNS AND SHALL BE PLACED ON REPAIRED GUARDRAIL RUNS WHERE THE SECTION REPAIRED REQUIRES REFLECTORS. PAYMENT SHALL BE AT THE UNIT PRICE BID.

ITEM	QTY	UNIT	DESCRIPTION
626	5	EACH	BARRIER REFLECTOR, TYPE 5 (1-WAY)
626	5	EACH	BARRIER REFLECTOR, TYPE 5 (BIDIRECTIONAL)
626	5	EACH	BARRIER REFLECTOR, TYPE 1 (1-WAY)
626	5	EACH	BARRIER REFLECTOR, TYPE 1 (BIDIRECTIONAL)

ITEM 606 - CABLE BARRIER REPAIR

ALL INDIVIDUAL ITEMS OF THE TENSIONED CABLE BARRIER, INCLUDING END TERMINALS, SHALL BE BID TO INCLUDE LABOR, TOOLS, EQUIPMENT, AND NECESSARY HARDWARE FOR REMOVAL AND REPLACEMENT OF DAMAGED ITEMS AND INSTALLATION OF THE INDIVIDUAL ITEMS NEEDED TO PROVIDE A PROPERLY TENSIONED, COMPLETE AND FUNCTIONAL CABLE BARRIER RUN. CABLE RESET ON POSTS IS TO INCLUDE REATTACHING ALL CABLES TO UNDAMAGED POSTS.

CABLE BARRIER SHALL BE REPAIRED TO THE STANDARDS DESCRIBED IN THE NOTE FOR ITEM 606 - CABLE GUARDRAIL.

THE FOLLOWING ITEMS HAVE BEEN PROVIDED TO REPAIR DAMAGED CABLE BARRIER. ALL PROPOSED ITEMS USED SHALL BE OF SAME MANUFACTURER AS THE DAMAGED COMPONENTS TO BE REPLACED:

ITEM	QTY	UNIT	DESCRIPTION
606	10	EACH	SPECIAL - CABLE BARRIER, CONCRETE LINE POST FOUNDATION
606	10	EACH	SPECIAL - CABLE BARRIER, ANCHOR POST
606	24	EACH	SPECIAL - CABLE BARRIER, TURNBUCKLE
606	125	EACH	SPECIAL - CABLE BARRIER, SPLICE
606	10	EACH	SPECIAL - CABLE BARRIER, POST REFLECTOR
606	25	EACH	SPECIAL - CABLE BARRIER, ANCHOR POST RESET
606	300	EACH	GUARDRAIL MISC.: CABLE RESET ON POSTS
606	340	EACH	GUARDRAIL MISC.: LINE POST

ITEM 606 - ANNUAL CABLE TENSIONING

THIS ITEM SHALL INCLUDE ALL WORK, EQUIPMENT, AND MATERIAL NECESSARY TO VERIFY AND READJUST TENSION IN ALL CABLES IN EACH RUN OF CABLE RAIL TO THE MANUFACTURER'S SPECIFICATIONS AND TO MEET NCHRP REPORT 350 TEST LEVEL 3 REQUIREMENTS. ODOT D-02 PRODUCTION AND/OR HIGHWAY MANAGEMENT WILL DETERMINE APPROXIMATE DATE FOR ANNUAL TENSIONING OF CABLES. EACH CABLE IN EACH RUN WILL BE CHECKED AND TENSION ADJUSTED ANNUALLY.

ITEM	QTY	UNIT	DESCRIPTION
606	300	EACH	GUARDRAIL MISC.: ANNUAL CABLE TENSIONING

THE CONTRACTOR WILL IDENTIFY THE CABLE SYSTEM RUNS BY RECORDING THE NUMBER OF EACH RUN AS LISTED BELOW. THE INDIVIDUAL CABLES WILL BE NUMBERED FROM THE TOP DOWN. THEREFORE, THE NUMBER 4 CABLE OF A 4 CABLE SYSTEM WILL BE THE BOTTOM CABLE. TENSION AND AMBIENT AIR TEMPERATURE ARE TO BE RECORDED FOR EACH CABLE AND ASSOCIATED TO EACH CABLE OF THE

CABLE RUN. ALL EQUUIPMENT, MATERIALS AND LABOR ARE INCLUSIVE. THIS CABLE SPECIFIC DATA IS TO BE SUPPLIED IN A REPORT TO THE DISTRICT 2 ROADWAY SERVICES MANAGER AND PRODUCTION/DESIGN OFFICE. SEE EXAMPLE BELOW:

DATE	RUN	CABLE	AMBIENT TEMP.	INITIAL TENSION LBS.	FINAL TENSION LBS.
09/15/24	4	1	67.3F	6440	5600
09/15/24	4	2	67.3F	6250	5600
09/15/24	4	3	67.3F	6300	5600
09/15/24	4	4	67.3F	6300	5600

NOTES

CABLE RAIL RUNS:

WOOD COUNTY I-75

RUN	STATION TO STATION			MILE TO MILE
	(FROM PID 95436)			
1	275+87	TO 294+00	= 1813'	5.13 TO 5.47
2	293+00	TO 312+92	= 1992'	5.45 TO 5.84
3	313+50	TO 321+75	= 825'	5.85 TO 5.99
4	325+50	TO 355+50	= 3000'	6.08 TO 6.62
5	354+50	TO 375+75	= 2125'	6.60 TO 7.02
6	379+00	TO 385+50	= 650'	7.09 TO 7.20
7	389+25	TO 410+00	= 2075'	7.28 TO 7.67
8	409+00	TO 438+58	= 2958'	7.65 TO 8.21
9	438+98	TO 469+50	= 3052'	8.22 TO 8.80
10	468+50	TO 498+50	= 3000'	8.78 TO 9.34
11	497+50	TO 527+54	= 3004'	9.32 TO 9.90
12	530+50	TO 561+00	= 3050'	9.96 TO 10.53
	(FROM PID 95435)			
13	560+00	TO 590+00	= 3000'	10.51 TO 10.92
14	589+00	TO 597+50	= 850'	10.90 TO 11.23
15	598+50	TO 628+50	= 3000'	11.24 TO 11.81
16	627+50	TO 639+50	= 1200'	11.79 TO 12.03
17	643+75	TO 673+75	= 3000'	12.10 TO 12.67
18	672+75	TO 688+43	= 1568'	12.65 TO 12.94
19	693+00	TO 723+00	= 3000'	13.03 TO 13.60
20	722+00	TO 733+00	= 1100'	13.58 TO 13.78
21	733+50	TO 763+50	= 3000'	13.79 TO 14.35
22	762+50	TO 792+50	= 3000'	14.34 TO 14.90
23	791+50	TO 802+00	= 1050'	14.88 TO 15.08
24	802+75	TO 832+75	= 3000'	15.09 TO 15.66
25	831+75	TO 861+75	= 3000'	15.64 TO 16.21
26	860+75	TO 890+75	= 3000'	16.19 TO 16.76
27	889+75	TO 919+75	= 3000'	16.74 TO 17.30
28	918+75	TO 931+25	= 1250'	17.28 TO 17.52
29	934+50	TO 952+75	= 1825'	17.58 TO 17.93
30	953+25	TO 983+25	= 3000'	17.94 TO 18.50
31	982+25	TO 1008+25	= 2600'	18.48 TO 18.98
32	1013+00	TO 1026+00	= 1300'	19.07 TO 19.43
	(FROM PID 25521)			
33	1025+00	TO 1042+95	= 1795'	19.43 TO 19.63
34	1043+61	TO 1069+61	= 2600'	19.64 TO 20.14
35	1068+61	TO 1094+61	= 2600'	20.12 TO 20.61
36	1093+61	TO 1119+11	= 2550'	20.58 TO 21.07
37	1119+87	TO 1145+87	= 2600'	21.08 TO 21.57
38	1169+87	TO 1195+87	= 2600'	22.03 TO 22.51
39	1194+87	TO 1220+87	= 2600'	22.49 TO 22.99
40	1219+87	TO 1245+87	= 2600'	22.97 TO 23.46
41	1244+87	TO 1271+72	= 2685'	23.44 TO 23.95
42	1270+72	TO 1297+72	= 2700'	23.93 TO 24.44
43	1298+35	TO 1328+88	= 3053'	24.45 TO 25.05
44	1371+85	TO 1376+55	= 470'	25.85 TO 25.93
45	1382+76	TO 1392+76	= 1000'	26.04 TO 26.22
	(FROM PID 93592)			
46	360+72	TO 370+50	= 978'	30.81 TO 30.99
47	374+83	TO 402+35	= 2752'	31.07 TO 31.59
48	401+35	TO 429+92	= 2857'	31.57 TO 32.11
49	425+92	TO 449+64	= 2372'	32.01 TO 32.46

LUCAS COUNTY I-475

RUN	STATION TO STATION			MILE TO MILE
	(FROM PID 88084)			
50	230+50	TO 248+50	= 1800'	4.33 TO 4.66
51	249+00	TO 273+85	= 2485'	4.67 TO 5.13
52	278+75	TO 287+50	= 875'	5.23 TO 5.40
53	291+00	TO 317+00	= 2600'	5.46 TO 5.95
54	316+00	TO 340+80	= 2480'	5.93 TO 6.21
55	345+00	TO 371+00	= 2600'	6.48 TO 6.97
56	370+00	TO 396+55	= 2655'	6.95 TO 7.44
57	400+06	TO 405+00	= 484'	7.52 TO 7.59
	(FROM PID 88252)			
58	735+82	TO 756+50	= 2067'	7.57 TO 7.95
59	754+00	TO 767+00	= 1300'	7.92 TO 8.61
60	767+50	TO 796+02	= 2852'	8.17 TO 8.71
61	795+02	TO 825+30	= 3028'	8.68 TO 9.24
62	825+12	TO 830+50	= 538'	9.26 TO 9.36
	(FROM PID 99731)			
63	10+25	TO 35+25	= 2500'	
64	34+25	TO 47+91.60	= 1367'	
65	51+22.33	TO 69+22.33	= 1800'	
66	74+96	TO 104+96	= 3000'	
67	103+96	TO 129+96	= 2600'	
68	128+96	TO 158+96	= 3000'	
69	157+96	TO 165+40	= 744'	
70	173+43.07	TO 200+00	= 2657'	
71	199+00	TO 211+70	= 1270'	
72	5+25	TO 11+25	= 600'	
73	68+22.33	TO 74+40	= 618'	
74	212+25	TO 228+75.94	= 1651'	

NEW YORK GUIDE RAIL STANDARDS FOR BOX BEAM RAIL

THE NEW YORK GUIDE RAIL STANDARDS ARE NOT INCLUDED WITH THIS PLAN BUT ARE TO BE INCORPORATED FOR USE AS DIRECTED BY THE ENGINEER. NY STANDARDS FOR BOX BEAM GUIDE RAIL ARE TO BE USED FOR THE ERIE COUNTY SR 2/269 STRUCTURE AND APPROACH RAIL AT SANDUSKY BAY. STANDARDS ARE AS FOLLOWS AND THE INTERNET ADDRESS IS BELOW:

606-04	(5 SHEETS)
606-05	(1 SHEET)
606-20	(1 SHEET)
606-21	(1 SHEET)
606-22	(5 SHEETS)
606-25	(3 SHEETS)
606-38	(1 SHEET)

https://www.dot.ny.gov/main/business-center/engineering/specifications/busi-e-standards-usc

WYOMING GUARDRAIL STANDARDS FOR BOX BEAM RAIL

THE WYOMING GUARDRAIL STANDARDS ARE NOT INCLUDED WITH THIS PLAN BUT ARE TO BE INCORPORATED FOR USE AS DIRECTED BY THE ENGINEER. WY STANDARDS FOR BOX BEAM GUARDRAIL ARE TO BE USED FOR THE OTTAWA COUNTY SR 2/269 STRUCTURE AND APPROACH RAIL AT SANDUSKY BAY. STANDARDS ARE AS FOLLOWS AND THE INTERNET ADDRESS IS BELOW:

606-6C	(12 SHEETS)
606-7C	(10 SHEETS)

https://www.dot.state.wy.us/home/engineering_technical_programs/manuals_publications/standardplans/Standard_Plans.html

GENERAL NOTES

DESIGN AGENCY

DESIGNER JTP

REVIEWER DEK 08-10-26

PROJECT ID 123729

SHEET P.7 TOTAL 11

D02-GR-FY2027

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ITEM 614 - MAINTAINING TRAFFIC

ALL LANES OF TRAFFIC SHALL BE OPEN DURING NONPERMITTED LANE CLOSURE TIMES, AND A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED DURING PERMITTED LANE CLOSURE TIMES BY USE OF THE EXISTING PAVEMENT.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES AND RAMPS SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	NEW YEAR
MEMORIAL DAY	FOURTH OF JULY
LABOR DAY	THANKSGIVING
EASTER	

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF THE WEEK	TIMES ALL LANES MUST BE OPEN TO TRAFFIC	
SUNDAY	12:00N FRIDAY	THROUGH 12:00N MONDAY
MONDAY	12:00N FRIDAY	THROUGH 12:00N TUESDAY
TUESDAY	12:00N MONDAY	THROUGH 12:00N WEDNESDAY
WEDNESDAY	12:00N TUESDAY	THROUGH 12:00N THURSDAY
THURSDAY	12:00N WEDNESDAY	THROUGH 12:00N MONDAY
FRIDAY	12:00N THURSDAY	THROUGH 12:00N MONDAY
SATURDAY	12:00N FRIDAY	THROUGH 12:00N MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY WIDE OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHAL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

LANE VALUE CONTRACT			
DESCRIPTION OF LANE/RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE $ PER TIME UNIT
ALL PERMITTED LANE CLOSURE ROUTES INCLUDING: LUCAS: I-75, I-280, I-475, US-23 & US-24 OTTAWA: SR-2 WOOD: I-75, I-280, I-475	PER THE PERMITTED LANE CLOSURE SCHEDULE	EACH 15 MINUTE INCREMENT	$500

ITEM 614 - MAINTENANCE OF TRAFFIC

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH THE PROVISIONS OF ITEM 614 OF THE SPECIFICATIONS. WHERE ALL WORK ACTIVITIES ARE CONFINED TO THE SHOULDER AND NO ENCROACHMENT INTO THE TRAVELED LANES IS NECESSARY, THE MINIMUM TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH FIGURE 6H-3 OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

WHEN WORKING ON THE NARROW BARRIER MEDIAN, TRAFFIC CONTROL SHALL BE PLACED ON BOTH SIDES OF THE MEDIAN, AND PAID AS TWO (2) OF EACH APPROPRIATE PAY ITEMS.

ANY HAZARD DURING NON-WORKING HOURS SHALL BE ADEQUATELY PROTECTED WITH DRUMS OR BARRICADES, OR AS DIRECTED BY THE ENGINEER. PAYMENT SHALL BE AT THE UNIT BID PRICE FOR ONLY ONE TRAFFIC CONTROL SET-UP AND TRAFFIC CONTROL REMOVAL AT THE LOCATION.

WHEN ANY ENCROACHMENT ON THE TRAVELED LANES IS NECESSARY, THE CONTRACTOR SHALL PLACE LANE CLOSURES OR USE FLAGGER CONTROL AS APPROPRIATE, IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

WHERE MULTIPLE REPAIR LOCATIONS ARE IN SUFFICIENTLY CLOSE PROXIMITY THAT THEY CAN BE INCLUDED WITHIN ONE TRAFFIC CONTROL SET-UP, PAYMENT WILL BE MADE FOR ONLY ONE TRAFFIC CONTROL SET-UP FOR THE REPAIR OF SEVERAL AREAS EXCEPT IF THE TOTAL AMOUNT OF WORK EXCEEDS THAT WHICH CAN BE PRACTICALLY ACCOMPLISHED DURING ONE NORMAL DAY. THEN PAYMENT WILL BE MADE FOR ADDITIONAL SET-UP ON SUBSEQUENT DAYS. LOCATIONS OF THIS TYPE SHALL BE DETERMINED BY THE ENGINEER.

ITEM	QTY.	UNIT	DESCRIPTION
614	110	EACH	MAINTENANCE OF TRAFFIC-ONE LANE CLOSURE ON A TWO LANE HIGHWAY
614	30	EACH	MAINTENANCE OF TRAFFIC, ONE LANE CLOSURE ON A 4 LANE OR GREATER DIVIDED HIGHWAY
614	350	EACH	MAINTENANCE OF TRAFFIC FOR SHOULDER CLOSURE
614	1	EACH	MAINTAINING TRAFFIC, MISC.: RAMP CLOSURE

EACH ITEM SHALL INCLUDE SET-UP OF TRAFFIC CONTROL, MAINTENANCE OF TRAFFIC CONTROL, AND REMOVAL OF THE TRAFFIC CONTROL. PAYMENT SHALL BE AT THE UNIT BID PRICE FOR EACH BID ITEM.

PERMITTED LANE CLOSURE SCHEDULE (PLCS)

LANE CLOSURE(S) SHALL CONFORM TO THE PLCS. PUBLISHED PLCS INFORMATION CAN BE FOUND ON THE ODOT WEBSITE AT: HTTPS://WWW.TRANSPORTATION.OHIO.GOV/WPS/PORTAL/GOV/ODOT/WORKING/DATA-TOOLS/RESOURCES/PERMITTED-LANE-CLOSURE

THE MONTHLY PUBLISHED SCHEDULES REQUIRED TO BE USED, FOR EACH PLCS SEGMENT WITHIN THE PROJECT AREA, ARE THOSE THAT COMPRISE THE CONSECUTIVE 12-MONTH PERIOD BEGINNING 15 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE AND ENDING 4 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE. THESE SAME 12 MONTHS APPLY FOR THE LIFE OF THE PROJECT AND SHALL BE APPLIED TO EACH RESPECTIVE MONTH OF CONSTRUCTION (MONTH OF LANE CLOSURE(S) SHALL MATCH MONTH OF PLCS USED). LANE CLOSURE(S) IN PLACE FOR MULTIPLE MONTHS SHALL ALWAYS COMPLY WITH THE CURRENT RESPECTIVE MONTH.

(FOR EXAMPLE: IF THE SALE DATE FOR THE PROJECT WAS MARCH OF 2021, THE MONTHLY PUBLISHED SCHEDULES FOR EACH APPLICABLE PLCS SEGMENT WOULD BE DECEMBER 2019 TO NOVEMBER 2020. IF THIS WAS A THREE-YEAR PROJECT, YEAR THREE WOULD STILL BE USING THE DECEMBER 2019 TO NOVEMBER 2020 MONTHLY SCHEDULES. IF THE PROJECT DESIRED TO CLOSE TWO LANES IN JUNE 2021, REFERENCE WOULD BE MADE TO THE JUNE 2020 SCHEDULE(S) FOR THE RESPECTIVE PLCS SEGMENT(S). IF THE SAME TWO LANES WERE DESIRED TO BE CLOSED AGAIN IN JULY 2021, REFERENCE WOULD BE MADE TO THE JULY 2020 SCHEDULE(S) FOR THE RESPECTIVE PLCS SEGMENT(S).)

MORE RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE AT THE DISCRETION OF THE ENGINEER IN ORDER TO COMPLY WITH THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

LESS RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE SUBJECT TO THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)) AND SHALL NOT BE IMPLEMENTED UNTIL, AND UNLESS, APPROVED BY THE PROPER ODOT AUTHORITY. [EXISTING MOT EXCEPTIONS THAT HAVE ALREADY BEEN APPROVED IN ACCORDANCE TO THE TRAFFIC MANAGEMENT IN IN WORK ZONES POLICY AND STANDARD PROCEDURE ARE DETAILED IN THE APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S) PLAN NOTE.]

ALLOWABLE LANE CLOSURE HOURS FOR FACILITIES NOT COVERED BY THE PLCS, IF ANY, SHALL BE AS SPECIFIED ELSEWHERE IN THE PLANS.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECIEVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OFWORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	4 CALENDAR DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

ODOT NOTIFICATION CONTACT INFORMATION

THE ODOT PROJECT ENGINEER SHALL FORWARD THE CONSTRUCTION NOTIFICATION INFORMATION TO THE FOLLOWING DEPARTMENTS WITHIN THE TIMELINE OUTLINED IN TEM PART 642-58 TO ENSURE COMPLIANCE WITH THE FEDERAL NOTIFICATION REQUIREMENTS:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY PHONE AT:
419-373-4428 OR EMAIL AT: d02.pio@ohio.gov

DISTRICT PERMIT SECTION BY PHONE AT:
419-373-4301 OR EMAIL AT: d02.permits@dot.ohio.gov

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER JTP

REVIEWER DEK 08-10-26

PROJECT ID 123729

SHEET P.8 | TOTAL 11

D02-GR-FY2027

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW SHALL NOT BE PERMITTED AT PROJECT COST NOR TIME COMPENSATION. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

DURING PERIODS WHERE TRAFFIC NEEDS TO BE DIRECTED CONTRARY TO A TRAFFIC CONTROL DEVICE (FLAGGER, SIGN [E.G. STOP SIGN, STREET OR HIGHWAY SIGNS, ETC], SIGNAL OR OTHER DEVICE USED TO REGULATE, WARN OR GUIDE TRAFFIC). TRAFFIC IN THIS INSTANCE INCLUDES VEHICULAR, PEDESTRIAN AND/OR SHARED USE PATH USERS.

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURES THAT MEET ALL OF THE CRITERIA LISTED BELOW: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL

SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/ SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

CRITERIA

- *ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND*
- *AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,*
- *AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)*

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS AND/OR IN CONTRARY TO OTHER TRAFFIC CONTROL DEVICE IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE SHIFT DURATION SHALL NOT BE LESS THAN THE LEO'S MINIMUM SHOW-UP TIME REQUIRED BY THEIR LAW ENFORCEMENT AGENCY. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH THE PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR
FOR ASSISTANCE 30 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

ITEM 624 - MOBILIZATION, AS PER PLAN

THE INTENT OF THIS ITEM IS TO COMPENSATE THE CONTRACTOR FOR THEIR COST TO QUICKLY RESPOND TO AN "EMERGENCY" REPAIR WORK ORDER REQUEST.

THE WORK ORDERS RECEIVED BY THE CONTRACTOR WILL ALL BE LABELED "EMERGENCY" OR "NON-EMERGENCY". IF THE WORK ORDER IS LABELED "EMERGENCY", THE CONTRACTOR WILL BE EXPECTED TO COMPLETE THE WORK ORDER WITHIN 24 HOURS (INCLUDING WEEKENDS) OF NOTIFICATION.

THIS MOBILIZATION WILL APPLY TO EACH LOCATION OF "EMERGENCY" WORK. A LOCATION WILL BE DEFINED AS ANY SET OF "EMERGENCY" WORK ORDERS THAT ARE GIVEN TO THE CONTRACTOR AT A SPECIFIC TIME AND ARE WITHIN A ONE MILE RADIUS.

IN THE EVENT THAT THE CONTRACTOR HAS NOT COMPLETED THE "EMERGENCY" WORK ORDER(S) WITHIN THE 24 HOURS, THEY SHALL BE ASSESSED A DISINCENTIVE OF $1000 PER CALENDAR DAY THAT THE WORK ORDER(S) IS(ARE) NOT COMPLETED. EXCEPTIONS WILL BE GIVEN IF WEATHER PROHIBITS WORK ON ANY OF THESE WORK ORDERS.

PAYMENT FOR THIS ITEM SHALL BE FOR EACH "EMERGENCY" REPAIR COMPLETED WITHIN THE 24 HOURS ALLOTTED. ALL MATERIAL, LABOR, EQUIPMENT, ETC. REQUIRED FOR THE REPAIR WILL BE PAID BY ITS RESPECTIVE PAY ITEM LISTED IN THIS PLAN. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM	QTY	UNIT	DESCRIPTION
624	12	EACH	MOBILIZATION, AS PER PLAN

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER JTP

REVIEWER DEK 08-10-26

PROJECT ID 123729

SHEET P.9 TOTAL 11

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SHEET NUM.						PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
4	5	6	7	8	9	01/NFP						
											ROADWAY	
17,725						17,725	202	38000	17,725	FT	GUARDRAIL REMOVED	
	2,400					2,400	606	15051	2,400	FT	GUARDRAIL, TYPE MGS, AS PER PLAN	5
6,250						6,250	606	16051	6,250	FT	GUARDRAIL REBUILT, TYPE MGS, AS PER PLAN	4
1,200						1,200	606	16501	1,200	FT	GUARDRAIL REBUILT, TYPE 5, AS PER PLAN	4
62.5						62.5	606	16551	62.5	FT	GUARDRAIL REBUILT, TYPE 5, USING 9 FOOT POSTS, AS PER PLAN	4
62.5						62.5	606	16561	62.5	FT	GUARDRAIL REBUILT, TYPE MGS WITH LONG POSTS, AS PER PLAN	4
	187.5					187.5	606	16601	187.5	FT	GUARDRAIL REBUILT, BARRIER DESIGN, TYPE 5, AS PER PLAN	5
25						25	606	16751	25	FT	GUARDRAIL REBUILT, TYPE MGS HALF POST SPACING, AS PER PLAN	4
	6					6	606	17700	6	EACH	REPLACE EXISTING GUARDRAIL BLOCKOUT	
	4					4	606	17750	4	EACH	REPLACE EXISTING GUARDRAIL BLOCKOUT, TYPE MGS	
	1					1	606	25000	1	EACH	ANCHOR ASSEMBLY, TYPE A	
	1					1	606	26000	1	EACH	ANCHOR ASSEMBLY, TYPE B	
	1					1	606	26050	1	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
	100					100	606	26150	100	EACH	ANCHOR ASSEMBLY, MGS TYPE E	
	11					11	606	26500	11	EACH	ANCHOR ASSEMBLY, TYPE T	
	25					25	606	26550	25	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
	1					1	606	27841	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (12.5' GUARDRAIL)	5
	1					1	606	27841	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (12.5' SRT-1 ANC/GUARDRAIL)	5
	1					1	606	27841	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (12.5' SRT-2/GUARDRAIL)	5
	2					2	606	27841	2	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (BUFFER/ROLLED TERMINAL)	5
	1					1	606	27841	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (CABLE ANCHOR BRACKET)	5
	1					1	606	27841	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (CR POST 1 TOP)	5
	4					4	606	27841	4	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (WOOD POST, 45")	5
	1					1	606	27841	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE B, AS PER PLAN (WOOD POST, 72")	5
	10					10	606	27861	10	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (BLOCK - MSKT/SFST)	5
	40					40	606	27861	40	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (CABLE: ASSEMBLY/ANCHOR BOX & BEARING: PLATE/RETAINER TIE/MSKT)	5
	45					45	606	27861	45	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (IMPACT HEAD/MSKT)	5
	2					2	606	27861	2	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (POST #1 - BOTTOM/MSKT)	5
	52					52	606	27861	52	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (POST #1 - TOP/MSKT)	5
	2					2	606	27861	2	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (POST #2 - BOTTOM/MSKT)	5
	30					30	606	27861	30	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (POST #2 - TOP/MSKT)	5
	45					45	606	27861	45	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (STEEL POST #3-#8/MSKT/SFST)	5
	3					3	606	27861	3	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (STRUT/MSKT)	5
	55					55	606	27861	55	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (W-BEAM GUARDRAIL 12 GA. 12.5' END SECTION/MSKT)	5
	25					25	606	27861	25	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (W-BEAM GUARDRAIL 12 GA., 9'-4.5" -MSKT)	5
	25					25	606	27861	25	EACH	ANCHOR ASSEMBLY REBUILT, MGS TYPE E, AS PER PLAN (W-BEAM GUARDRAIL 12 GUAGE, 12.5' -MSKT/SFST)	5
	3					3	606	35002	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
		1				1	606	35011	1	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1, AS PER PLAN (12.5 FT RAIL ELEMENT)	6
		1				1	606	35011	1	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1, AS PER PLAN (THRIE - BEAM RAIL ELEMENT)	6
		1				1	606	35011	1	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1, AS PER PLAN (THRIE - BEAM TERMINAL CONNECTOR)	6
		2				2	606	35011	2	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1, AS PER PLAN (THRIE - BEAM TRANSITION SECTION - SYMMETRICAL OR ASYMMETRICAL)	6
	3					3	606	35102	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
	3					3	606	35140	3	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4	
			10			10	SPECIAL	60655100	10	EACH	CABLE BARRIER, CONCRETE LINE POST FOUNDATION	7
			10			10	SPECIAL	60655140	10	EACH	CABLE BARRIER, ANCHOR POST	7
			24			24	SPECIAL	60655170	24	EACH	CABLE BARRIER, TURNBUCKLE	7
			125			125	SPECIAL	60655180	125	EACH	CABLE BARRIER, SPLICE	7
			10			10	SPECIAL	60655190	10	EACH	CABLE BARRIER, POST REFLECTOR	7
			25			25	SPECIAL	60655220	25	EACH	CABLE BARRIER, ANCHOR POST RESET	7
	1					1	606	61000	1	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (1"x2 ½" PIPE SLEEVE CAT)	6
		3				3	606	61000	3	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (1/2"x3"x7" POST PLATE)	6
		1				1	606	61000	1	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (1/4"x18"x24" SOIL PLATE)	6
		1				1	606	61000	1	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (10 GUAGE, BENT PLATE SLEEVE)	6
		3				3	606	61000	3	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (10 GUAGE, ROLLED NOSE PLATE, CAT)	6
		5				5	606	61000	5	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (10 GUAGE, SIDE PLATE, CAT)	6
		3				3	606	61000	3	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (2"x5 ½" PIPE SLEEVE)	6
		3				3	606	61000	3	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (3/4"x8' CABLE)	6
		4				4	606	61000	4	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (3'-6" WOOD POST #1 CAT)	6
		20				20	606	61000	20	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (3'-6" WOOD POST #2, 3, 4, 5, 6 CAT)	6

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER JTP

REVIEWER DEK 08-10-26

PROJECT ID 123729

SHEET P.10 TOTAL 11

D02-GR-FY2027

SHEET NUM.						PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
4	5	6	7	8	9	01/NFP						
											ROADWAY	
		4				4	606	61000	4	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (4'-6" FOUNDATION TUBE)	6
		1				1	606	61000	1	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (5/8"x8"x8" BEARING PLATE)	6
		2				2	606	61000	2	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (6" SLEEVE 6"x8")	6
		1				1	606	61000	1	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (CHANNEL STRUT, 6'-6")	6
		10				10	606	61000	10	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (GUARDRAIL 10 GUAGE, SECOND PANEL CAT)	6
		10				10	606	61000	10	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (GUARDRAIL 12 GUAGE, FIRST PANEL CAT)	6
		4				4	606	61000	4	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (SPACER CHANNEL CAT)	6
		7				7	606	61000	7	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (WOOD BLOCK 1'-2" #1 CAT)	6
		30				30	606	61000	30	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 1 (WOOD BLOCK 1'-2" #2,3 4, 5, 6 CAT)	6
		5				5	606	61000	5	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 2, (1153 MM DIAPHRAGM ASSEMBLY, QUADGUARD)	6
		5				5	606	61000	5	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 2, (90" STEEL NOSE, QUADGUARD)	6
		7				7	606	61000	7	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 2, (BELT NOSE ASSEMBLY)	6
		36				36	606	61000	36	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 2, (CARTRIDGE TYPE I)	6
		25				25	606	61000	25	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 2, (CARTRIDGE TYPE II)	6
		1				1	606	61000	1	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 2, (DIAPHRAGM)	6
		5				5	606	61000	5	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 2, (FENDER ASSEMBLY, QUADGUARD)	6
		5				5	606	61000	5	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 2, (QUAD BEAM FENDER PANEL)	6
		1				1	606	61000	1	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 3, (DIAPHRAGM)	6
		1				1	606	61000	1	EACH	IMPACT ATTENUATOR, MISC.: REBUILT, TYPE 3, (QUAD BEAM FENDER PANEL)	6
						1	606	61000	1	EACH	IMPACT ATTENUATOR, MISC.: TYPE 1 (UNIDIRECTIONAL OR BIDIRECTIONAL)	6
						1	606	61000	1	EACH	IMPACT ATTENUATOR, MISC.: TYPE 2 (UNIDIRECTIONAL OR BIDIRECTIONAL)	6
						1	606	61000	1	EACH	IMPACT ATTENUATOR, MISC.: TYPE 3 (UNIDIRECTIONAL OR BIDIRECTIONAL)	6
		500				500	606	98000	500	FT	GUARDRAIL, MISC.: MEDIAN BOX BEAM RAIL, REMOVED AND REBUILT	6
			300			300	606	98100	300	EACH	GUARDRAIL, MISC.: ANNUAL CABLE TENSIONING	7
		30				30	606	98100	30	EACH	GUARDRAIL, MISC.: BOX BEAM RAIL, 5.25 FT POSTS	6
		1				1	606	98100	1	EACH	GUARDRAIL, MISC.: BOX BEAM RAIL, 7 FT POSTS	6
			300			300	606	98100	300	EACH	GUARDRAIL, MISC.: CABLE RESET ON POSTS	7
			340			340	606	98100	340	EACH	GUARDRAIL, MISC.: LINE POST	7
			40			40	606	98100	40	EACH	GUARDRAIL, MISC.: READJUST CABLE TENSION (REPAIR)	7
						50	622	10060	50	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B	
						50	622	10100	50	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1	
						50	622	10120	50	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	
						50	622	10140	50	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	
						50	622	10160	50	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
						1	622	25000	1	EACH	CONCRETE BARRIER END SECTION, TYPE D	
		25				25	517	72301	25	FT	RAILING (DEEP BEAM RAIL WITH STEEL TUBULAR BACKUP AND TYPE 2 STEEL POSTS AND ANCHOR BOLTS), AS PER PLAN	6
											EROSION CONTROL	
						1,000	832	30000	1,000	EACH	EROSION CONTROL	
											TRAFFIC CONTROL	
			5			5	626	00102	5	EACH	BARRIER REFLECTOR, TYPE 1 (1 WAY)	
			5			5	626	00102	5	EACH	BARRIER REFLECTOR, TYPE 1 (BIDIRECTIONAL)	
			5			5	626	00116	5	EACH	BARRIER REFLECTOR, TYPE 5 (1 WAY)	
			5			5	626	00116	5	EACH	BARRIER REFLECTOR, TYPE 5 (BIDIRECTIONAL)	
											MAINTENANCE OF TRAFFIC	
				30		30	614	11110	30	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
				110		110	614	13600	110	EACH	MAINTENANCE OF TRAFFIC, ONE LANE CLOSURE ON A TWO LANE HIGHWAY	
				30		30	614	13800	30	EACH	MAINTENANCE OF TRAFFIC, ONE LANE CLOSURE ON A 4 LANE OR GREATER DIVIDED HIGHWAY	
				350		350	614	13900	350	EACH	MAINTENANCE OF TRAFFIC FOR SHOULDER CLOSURE	
				1		1	614	18000	1	EACH	MAINTAINING TRAFFIC, MISC.: RAMP CLOSURE	8
											INCIDENTALS	
						LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
						LS	624	10000	LS		MOBILIZATION	
					12	12	624	15001	12	EACH	MOBILIZATION, AS PER PLAN	9

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER JTP

REVIEWER DEK 08-10-26

PROJECT ID 123729

SHEET P.11 TOTAL 11

D02-GR-FY2027

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 8/10/2026 TIME: 11:58:50 AM PLTDRV: OHDOT_PDF_Color.pltcfg PENTBL: OHDOT_PenC.tbl USER: Joshua.Paradysz@dot.ohio.gov WORKSPACE: OHDOTCEv02 WORKSET: 123729 PRODUCT: OpenRoadsDesigner 24.00.00.205
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