

**LITTLE MIAMI SCENIC RIVER HAM-32-0127 (SFN 3102076)**

THE CONTRACTOR SHALL NOT DISCHARGE TOXIC OR HAZARDOUS MATERIALS SUCH AS SEALANTS, PAINT, SOLVENTS, CLEANING AGENTS, EARTHEN MATERIALS, WASTE-WATER, FUELS OR DEBRIS OF ANY KIND TO A SCENIC RIVER, ITS TRIBUTARIES, OR DRAINAGE WAYS. IF REFUELING OF IMMOBILE EQUIPMENT IS NECESSARY WITHIN THE FLOODPLAIN OR NEAR ANY TRIBUTARY DRAINAGE WAYS, DITCHES, OR STREAM, THE CONTRACTOR SHALL PROVIDE SECONDARY CONTAINMENT WITH ENOUGH CAPACITY TO COMPLETELY CONTAIN AND COLLECT ALL POTENTIAL LIQUID WASTES IN THE EVENT OF A SPILL.

ANY AND ALL CONSTRUCTION DEBRIS, EARTHEN DEBRIS, EXCESS ASPHALT OR CONCRETE, WOOD DEBRIS FROM CLEARING, EXCESS FILL MATERIAL, AND TRASH SHOULD BE DISPOSED OF AT AN APPROVED UPLAND SITE OR LAND FILL ABOVE FEMA 100-YEAR FLOOD ELEVATIONS. DISPOSAL OF ANY SUCH MATERIALS WITHIN 1000 FEET OF THE LITTLE MIAMI RIVER IS PROHIBITED. IN ACCORDANCE WITH ORC 3750.06, REPORTABLE SPILLS MUST BE REPORTED TO THE LOCAL FIRE DEPARTMENT (911), THE LOCAL EMERGENCY COORDINATOR (513) 263-8200, AND THE OHIO SPILL LINE (1-800-282-9378).

THE CONTRACTOR SHALL KEEP ALL IDLE EQUIPMENT, FUELS, LUBRICANTS, AND ANY STORAGE FOR/OF POTENTIALLY TOXIC OR HAZARDOUS MATERIALS OUT OF THE FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA AND NOT WITHIN 1000 FEET OF THE LITTLE MIAMI RIVER.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER 40 DAYS PRIOR TO WORK WITHIN 1000 FEET OF THE LITTLE MIAMI RIVER. THE PROJECT ENGINEER SHALL NOTIFY THE DISTRICT ENVIRONMENTAL COORDINATOR 35 DAYS PRIOR TO WORK WITHIN 1000 FEET OF THE SCENIC RIVER. THE DISTRICT ENVIRONMENTAL COORDINATOR SHALL COORDINATE WITH ODNR SCENIC RIVERS A MINIMUM OF 30 DAYS PRIOR TO ANY WORK WITHIN 1000 FEET OF THE LITTLE MIAMI RIVER.

WHEN CUTTING AND CLEARING OF ANY VEGETATION WITHIN 1000 FEET OF THE LITTLE MIAMI RIVER, THE CONTRACTOR SHALL LIMIT THE AMOUNT OF VEGETATION BEING CLEARED TO THE ABSOLUTE MINIMUM NECESSARY TO ACCOMPLISH THE GOAL OF THE PROJECT. VERTICAL PRUNING OF TREES IS PERMITTED IF ANY OVERHANGING LIMBS CAUSE A SAFETY HAZARD OR OBSTRUCT VIEW. THE CONTRACTOR SHALL NOT USE A FLAIL MOWER FOR VERTICAL PRUNING. THE CONTRACTOR MUST AVOID GIRDLING OR SCUFFING TREE TRUNKS.

IF ANY PAINTING, WELDING, SAND AND/OR WATER BLASTING (CLEANING) AT OR OVER THE LITTLE MIAMI RIVER, THEN THE CONTRACTOR SHALL UTILIZE APPROPRIATE APRONS TO PROVIDE FOR COMPLETE CONTAINMENT OF ALL PAINT, WELDING SLAG AND/OR SEALANT OVER SPRAY AND OTHER DEBRIS. APRONS, APPROPRIATE FALSEWORK, OR OTHER BARRIERS SHALL BE UTILIZED ON ALL DECK REPLACEMENT PROJECTS TO PREVENT THE DISCHARGE OF CONCRETE, ASPHALT OR OTHER DEBRIS TO A DESIGNATED SCENIC RIVER. ALL DEBRIS COLLECTED SHALL BE DISPOSED OF AT AN APPROVED UPLAND SITE OR LAND FILL ABOVE FEMA 100-YEAR FLOOD ELEVATIONS. DISPOSAL OF ANY SUCH MATERIALS WITHIN 1000 FEET OF THE LITTLE MIAMI RIVER IS PROHIBITED.

**ARMLEDER-LUNKEN CONNECTOR - HAM-32-0127 (SFN 3102076)**

THE CONTRACTOR SHALL MAINTAIN SAFE PUBLIC ACCESS TO ARMLEDER-LUNKEN CONNECTOR TRAIL AT ALL TIMES DURING CONSTRUCTION ACTIVITIES VIA FLAGGING OPERATIONS AND/OR A DETOUR APPROVED BY THE PROJECT ENGINEER AND GREAT PARKS OF HAMILTON COUNTY.

THE CONTRACTOR SHALL PROVIDE THE CONSTRUCTION SCHEDULE TO ODOT AND BENJAMIN HELMES OF GREAT PARKS OF HAMILTON COUNTY (513-259-9565, [BHELMES@GREATPARKS.ORG](mailto:BHELMES@GREATPARKS.ORG)) 30 DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

TO PROTECT THE ARMLEDER-LUNKEN CONNECTOR TRAIL AND THE PUBLIC, THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY CONSTRUCTION FENCING ALONG THE KNOWN BOUNDARIES OF ARMLEDER-LUNKEN CONNECTOR TRAIL WITHIN THE PROJECT CONSTRUCTION LIMITS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

THE CONTRACTOR SHALL RESTORE THE ARMLEDER-LUNKEN CONNECTOR TRAIL WITHIN THE PROJECT CONSTRUCTION LIMITS TO A SATISFACTORY CONDITION. ANY AND ALL DAMAGE MADE TO THE TRAIL DUE TO CONSTRUCTION ACTIVITIES SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE.

**SOLE SOURCE AQUIFER HAM-32-0127 (SFN 3102076)**

THIS PROJECT IS LOCATED WITHIN A SOLE SOURCE AQUIFER. IN ORDER TO MINIMIZE THE POTENTIAL FOR CONTAMINATION, THE CONTRACTOR SHALL UTILIZE PROPER CONTAINMENT AND DIKING IN REFUELING AREAS. FUELS, TOXIC/HAZARDOUS MATERIALS, AND CHEMICALS SHALL NOT BE STORED NEAR DRAINAGE WAYS, DITCHES, OR STREAMS. A SPILL KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL IMMEDIATELY TAKE STEPS TO MITIGATE ANY EVENT, SUCH AS A SPILL OF FUELS, OILS, OR CHEMICALS, THAT COULD THREATEN TO CONTAMINATE THE DRINKING WATER SUPPLY. IF THE SPILL IS A REPORTABLE AMOUNT (PER OHIO EPA'S RELEASE REPORTING REQUIREMENTS), THE CONTRACTOR SHALL CONTACT CINCINNATI FIRE DEPARTMENT (513)-352-6242 OR THE OHIO EPA'S SPILLS HOTLINE 1-800-282-9378 FOR CLEAN-UP OF THE SPILL.

**SOLE SOURCE AQUIFER - BUT-27-0601 (SFN 0900702)**

THIS PROJECT IS LOCATED WITHIN A SOLE SOURCE AQUIFER. IN ORDER TO MINIMIZE THE POTENTIAL FOR CONTAMINATION, THE CONTRACTOR SHALL UTILIZE PROPER CONTAINMENT AND DIKING IN REFUELING AREAS. FUELS, TOXIC/HAZARDOUS MATERIALS, AND CHEMICALS SHALL NOT BE STORED NEAR DRAINAGE WAYS, DITCHES, OR STREAMS. A SPILL KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL IMMEDIATELY TAKE STEPS TO MITIGATE ANY EVENT, SUCH AS A SPILL OF FUELS, OILS, OR CHEMICALS, THAT COULD THREATEN TO CONTAMINATE THE DRINKING WATER SUPPLY. IF THE SPILL IS A REPORTABLE AMOUNT (PER OHIO EPA'S RELEASE REPORTING REQUIREMENTS), THE CONTRACTOR SHALL CONTACT MILLVILLE FIRE DEPARTMENT & EMERGENCY (513)-863-3410 OR THE OHIO EPA'S SPILLS HOTLINE 1-800-282-9378 FOR CLEAN-UP OF THE SPILL.

**SOLE SOURCE AQUIFER HAM-562-0211 (SFN 3100855)**

THIS PROJECT IS LOCATED WITHIN A SOLE SOURCE AQUIFER. IN ORDER TO MINIMIZE THE POTENTIAL FOR CONTAMINATION, THE CONTRACTOR SHALL UTILIZE PROPER CONTAINMENT AND DIKING IN REFUELING AREAS. FUELS, TOXIC/HAZARDOUS MATERIALS, AND CHEMICALS SHALL NOT BE STORED NEAR DRAINAGE WAYS, DITCHES, OR STREAMS. A SPILL KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL IMMEDIATELY TAKE STEPS TO MITIGATE ANY EVENT, SUCH AS A SPILL OF FUELS, OILS, OR CHEMICALS, THAT COULD THREATEN TO CONTAMINATE THE DRINKING WATER SUPPLY. IF THE SPILL IS A REPORTABLE AMOUNT (PER OHIO EPA'S RELEASE REPORTING REQUIREMENTS), THE CONTRACTOR SHALL CONTACT NORWOOD FIRE DEPARTMENT (513)-458-4550 OR THE OHIO EPA'S SPILLS HOTLINE 1-800-282-9378 FOR CLEAN-UP OF THE SPILL.

DESIGN AGENCY



DESIGNER

GTF

REVIEWER

AP 09-14-22

PROJECT ID

105478

SHEET

TOTAL

4 | 50

ITEM 614, MAINTAINING TRAFFIC

MAINTAIN ALL THE EXISTING LANES OF TRAFFIC AT ALL TIMES, EXCEPT LANE CLOSURES ARE PERMITTED IN ACCORDANCE WITH THE LANE VALUE TABLE, BY USE OF THE EXISTING PAVEMENT.

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 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.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE  
ITEM DURATION SIGN DISPLAYED  
OF CLOSURE TO PUBLIC

RAMP & >=2 WEEKS 14 CALENDAR DAYS PRIOR  
TO CLOSURE

ROAD > 12 HOURS 7 CALENDAR DAYS PRIOR  
& < 2 WEEKS TO CLOSURE

CLOSURES < 12 HOURS 2 BUSINESS DAYS PRIOR  
TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS THE DISTRICT 8 PHONE NUMBER 513-933-6600.

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

- CHRISTMAS FOURTH OF JULY
- NEW YEARS LABOR DAY
- MEMORIAL DAY THANKSGIVING
- FLYING PIG MARATHON
- OKTOBERFEST ZININNATI
- RIVERFEST, ETC.

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 FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

ITEM 614, MAINTAINING TRAFFIC (CONT'D)

DAY OF HOLIDAY TIME ALL LANES  
OR EVENT MUST BE OPEN TO TRAFFIC

SUNDAY 12:00N FRIDAY THROUGH 6:00AM MONDAY  
 MONDAY 12:00N FRIDAY THROUGH 6:00AM TUESDAY  
 MONDAY (TOTAL SOLAR ECLIPSE) 12:00N MONDAY THROUGH 6:00 AM WEDNESDAY  
 TUESDAY 12:00N MONDAY THROUGH 6:00AM WEDNESDAY  
 WEDNESDAY 12:00N TUESDAY THROUGH 6:00AM THURSDAY  
 THURSDAY 12:00N WEDNESDAY THROUGH 6:00AM FRIDAY  
 THURSDAY (THANKSGIVING ONLY) 6:00AM WEDNESDAY THROUGH 6:00AM MONDAY  
 FRIDAY 12:00N THURSDAY THROUGH 6:00AM MONDAY  
 SATURDAY 12:00N FRIDAY THROUGH 6:00AM MONDAY

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

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 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.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

WINDOW CONTRACT TABLE

USE THE FOLLOWING TABLE AS REFERRED TO IN THE PROPOSAL:

DESCRIPTION OR LOCATION OF CRITICAL WORK	CALENDER DAYS TO COMPLETE	DISINCENTIVE \$ PER DAY	WORK WINDOW	
			START	END
COMPLETE ALL WORK DURING SOUTHBOUND RIGHT LANE CLOSURE & RETURN TRAFFIC TO THE ORIGINAL LANE CONFIGURATION AT HAM-22-0622	5	PER C&MS 108.07	CONTRACT EXECUTION DATE	PROJECT COMPLETION DATE
COMPLETE HYDRODEMOLITION AND CONSTRUCTION OF CONCRETE OVERLAY REQUIRING CLOSURE OF ALL LANES OF TRAFFIC AND DETOUR & RETURN TRAFFIC TO THE ORIGINAL LANE CONFIGURATION AT BUT-27-0601	7	PER C&MS 108.07	6/15/2023	8/15/2023
COMPLETE INSTALLATION OF FORWARD AND REAR ABUTMENT BEARINGS AT HAM-32-0127	90	PER C&MS 108.07	12/1/2023	3/1/2024

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

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

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

LANE VALUE CONTRACT

THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE FOR EACH UNIT OF TIME THE DESCRIBED CRITICAL LANE/RAMP IS RESTRICTED FROM FULL USE BY THE TRAVELING PUBLIC WITHIN THE RESTRICTED TIME PERIOD. THE DISINCENTIVES WILL BE ASSESSED FOR ALL RESTRICTIONS OF THE CRITICAL WORK. CRITICAL WORK IS SHOWN IN THE LANE VALUE CONTRACT TABLE. CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTIONS OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE, OR THE ENTIRE PROJECT IF NOT OTHERWISE LISTED. UNRESTRICTED TRAFFIC IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE WITH SPECIFIED STRIPING AND SAFETY FEATURES IN PLACE.

LANE VALUE CONTRACT TABLE

DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT PER LANE
ALL LANES ON I-75 OPEN TO TRAFFIC (VARIOUS LOCATIONS)	SEE PERMITTED LANE CLOSURE SCHEDULE	1 MINUTE	\$330
ALL LANES ON I-75 NORTHBOUND OPEN TO TRAFFIC; WAR-63-0010 (4:3, 4:2)	7 AM TO 8 PM	1 MINUTE	\$300
A MINIMUM OF TWO LANES ON I-75 NORTHBOUND OPEN TO TRAFFIC; WAR-63-0010 (4:1)	6 AM TO 10 PM (WEEKDAY) 7 AM TO MIDNIGHT (WEEKEND) (FRI. NIGHT - SUN. MORNING)	1 MINUTE	\$300
ALL LANES ON I-71 OPEN TO TRAFFIC	SEE PERMITTED LANE CLOSURE SCHEDULE	1 MINUTE	\$285
ALL LANES ON SR-562 OPEN TO TRAFFIC	SEE PERMITTED LANE CLOSURE SCHEDULE	1 MINUTE	\$360
ALL LANES AND RAMPS OPEN TO TRAFFIC ON WESTERN HILLS VIADUCT THE WEEKEND LANE CLOSURE MAY OCCUR A MAXIMUM OF TWO TIMES	6 AM MON. TO 9 PM FRI.	1 MINUTE	\$115
ALL LANES ON SR-32 OPEN TO TRAFFIC	3 PM TO 7 PM & 6 AM TO 9 AM	1 MINUTE	\$180
ALL LANES OPEN ON HAM-22-0622 EXCEPT AS NOTED IN WINDOW CONTRACT	6 AM TO 8 PM	1 MINUTE	\$70
ONE LANE TWO-WAY TRAFFIC BY USE OF FLAGGERS ON HAM-562-0253	NONE	1 MINUTE	\$20
RAMP LANE FROM NORTHBOUND I-471 TO US-50 OPEN TO TRAFFIC; OVERNIGHT CLOSURE	5 AM TO 10 PM	1 MINUTE	\$240
RAMP LANE FROM NORTHBOUND I-471 TO US-50 OPEN TO TRAFFIC; WEEKEND CLOSURE	5 AM MON. TO 10 PM FRI.	1 MINUTE	\$240

NOTE:

1. THE PERMITTED LANE CLOSURE SCHEDULE IS LOCATED ON THE ODOT WEBSITE <http://plcm.dot.state.oh.us/> THE LATEST REVISION, 14 DAYS PRIOR TO THE BID, SHALL BE IN EFFECT FOR THIS PROJECT.
2. NO CLOSURES 2 HOURS BEFORE THE EVENT START TIME NOR 2 HOURS AFTER THE EVENT END TIME FOR EVENTS AT GREAT AMERICAN BALL PARK, PAUL BROWN STADIUM, OR HERITAGE BANK CENTER. THIS RESTRICTION ALSO APPLIES TO ANY OTHER LOCAL VENUE GENERATING AN EVENT ATTENDANCE OF 10,000+.

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 LISTED CONTACTS.

THIS NOTIFICATION SHALL BE RECEIVED 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 OF WORK, 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 TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO LISTED CONTACTS
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS 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.

CONTACT THE FOLLOWING:

- DISTRICT PUBLIC INFORMATION OFFICER BY EMAIL AT DOT.D08.PIO@DOT.OHIO.GOV
- DISTRICT PERMIT SECTION BY EMAIL AT D08.PERMITS@DOT.OHIO.GOV
- CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY EMAIL AT HAULING.PERMITS@DOT.OHIO.GOV

DESIGN AGENCY



DESIGNER GTF

REVIEWER SK 11/01/22

PROJECT ID 105478

SHEET 5

TOTAL 50

**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 WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&M 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).

IN ADDITION TO THE REQUIREMENT OF C&M 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: 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).

FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING 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,
- AAOT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

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

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

- THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR
  - THE ACTIVE WORK AREA Laterally Closest to the OPEN TRAVELED LANE; OR
  - OTHER LOCATION AS APPROVED BY THE ENGINEER.
- THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

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 IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES 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&M 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 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 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 1200 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.

**FLOODLIGHTING**

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN**

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&M 614.03.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

**ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (CONTINUED)**

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.) THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&M 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

**HAM-22-6.22**

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN   1   SIGN MONTH ASSUMING   1   PCMS SIGN(S) FOR   1   MONTH(S)

**HAM-75-2.52**

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN   2   SIGN MONTH ASSUMING   2   PCMS SIGN(S) FOR   1   MONTH(S)

**HAM-471-0.00**

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN   4   SIGN MONTH ASSUMING   2   PCMS SIGN(S) FOR   2   MONTH(S)

DESIGN AGENCY



DESIGNER

GTF

REVIEWER

SK 11-01-22

PROJECT ID

105478

SHEET TOTAL

6 | 50



**REFERENCE SHALL BE MADE TO THE FOLLOWING STANDARD DRAWINGS:**

AS-1-15	REVISED 07-17-15	MGS-3.1	REVISED 01-19-18
EXJ-4-87	REVISED 01-19-18	MGS-3.2	REVISED 01-18-13
PCB-91	REVISED 07-17-20	TVPF-1-18	REVISED 07-20-18
SBR-1-20	REVISED 07-17-20	VPF-1-90	REVISED 07-20-18

**REFERENCE SHALL BE MADE TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:**

800	DATED 01-20-2023
842	DATED 07-15-2011
848	DATED 01-15-2021

**DESIGN DATA:**

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC SCC - COMPRESSIVE STRENGTH 4.5 KSI

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60 KSI

**DESIGN SPECIFICATIONS**

THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE LRFD BRIDGE DESIGN SPECIFICATIONS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

**EXISTING STRUCTURE PLANS**

THE EXISTING STRUCTURE PLANS ARE AVAILABLE ONLINE THROUGH THE FOLLOWING WEBSITE:  
<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/D08-105478/Reference%20Files/>

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH ALL PERTINENT EXISTING DRAWINGS AND DETAILS RELEVANT TO THIS PROJECT.

**EXISTING STRUCTURE VERIFICATION**

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTION 102.05, 105.02 AND 513.04.

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN**

THIS WORK CONSISTS OF THE REMOVAL OF THE FOLLOWING: CONCRETE PARAPETS, PORTIONS OF APPROACH SLABS, VANDAL PROTECTION FENCING, PORTIONS OF BRIDGE DRAINAGE PIPES AND APPURTENANCES, & PORTIONS OF EXPANSION JOINT STEEL. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL OF CONCRETE. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

THE CONTRACTOR MUST REVIEW THE STRUCTURE WHEN PREPARING HIS BID. THE CONTRACTOR WILL REVIEW THE CONDITION OF THE STRUCTURE TO DETERMINE WHAT DEBRIS WILL FALL FROM THE STRUCTURE DURING REMOVAL. THE CONTRACTOR WILL DETERMINE THE CORRESPONDING COST TO CLEAN UP ANY AND ALL DEBRIS WHICH FALLS FROM THE STRUCTURE DURING ANY REMOVAL OPERATION. THE COST TO CLEAR AND CLEAN UP ALL DEBRIS DURING REMOVAL SHALL BE INCLUDED WITH THE BID FOR THIS ITEM OF WORK. NO ADDITIONAL COST WILL BE RECOGNIZED TO CLEAN DEBRIS RESULTING FROM THE STRUCTURE REMOVAL OPERATION.

ALL UTILITIES MUST REMAIN ACTIVE DURING CONSTRUCTION UNLESS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL TEMPORARILY SUPPORT ANY CONDUITS AND ELECTRICAL BOXES AS NECESSARY TO PERFORM THE REPAIRS.

**ITEM 509 - REINFORCING STEEL, REPLACEMENT OF REINFORCING STEEL, AS PER PLAN**

REPLACEMENT OF ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ADDITIONAL QUANTITIES HAVE BEEN PROVIDED FOR DOWEL HOLES, IF NEEDED, TO EMBED THE REPLACEMENT REINFORCING INTO THE EXISTING STRUCTURE. PAYMENT FOR DOWEL HOLES SHALL BE MADE AT THE BID UNIT PRICE FOR ITEM 510 DOWEL HOLES, AS PER PLAN.

**ITEM 510 - DOWEL HOLES, AS PER PLAN**

USE AN ANCHOR ADHESIVE EVALUATED ACCORDING TO ICCES REPORT AC308, "ACCEPTANCE CRITERIA FOR POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE ELEMENTS", FOR CRACKED AND UNCRACKED CONCRETE APPLICATIONS. PUBLISHED ICCES REPORTS FOR ACCEPTABLE PRODUCTS ARE AVAILABLE AT:

[WWW.ICC-ES.ORG/EVALUATION\\_REPORTS/INDEX.SHTML](http://WWW.ICC-ES.ORG/EVALUATION_REPORTS/INDEX.SHTML)

SELECT FROM ONE OF THE FOLLOWING APPROVED PRODUCTS:

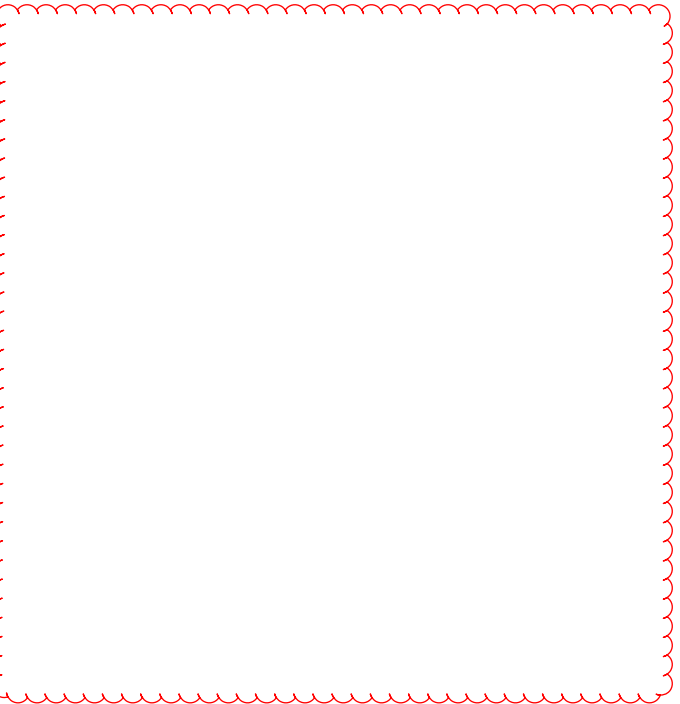
DEWALT/POWERS FASTENERS PURE 110 + EPOXY ADHESIVE ANCHOR SYSTEM (ICCES REPORT ESR-3298)

ADHESIVES TECHNOLOGY CORPORATION (ATC) ULTRABOND HS-1CC ADHESIVE ANCHOR SYSTEM (ICCES REPORT ESR-4094)

SIMPSON STRONG-TIE SET-3G EPOXY ADHESIVE ANCHORS (ICCES REPORT ESR-4057)

HILTI HIT-HY 200 ADHESIVE ANCHOR SYSTEM (ICCES REPORT ESR-3187)

INSTALL ADHESIVE ANCHORS ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS PUBLISHED IN SECTION 4.3 OF THE ICCES REPORTS LISTED ABOVE. THE MINIMUM EMBEDMENT DEPTH FOR ANCHORS SHALL BE AS SHOWN IN THE PLANS.



**ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN**

THIS WORK CONSISTS OF TEMPORARILY SUPPORTING THE EXISTING STRUCTURES TO COMPLETE THE WORK AS DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

**ITEM 530 - SPECIAL - ASHLAR STONE FORM LINER (ALTERNATE BID #1)**

DESCRIPTION:

THIS ITEM SHALL INCLUDE MATERIALS, LABOR, TOOLS EQUIPMENT AND INCIDENTALS NECESSARY TO INCORPORATE DECORATIVE FORM LINER ON THE EXTERIOR FACES OF THE CONCRETE PARAPETS.

THE ADDITIONAL THICKNESS OF THE DECORATIVE FORM LINER SHALL BE ADDED TO THE EXTERIOR FACE OF THE STANDARD SBR-1-20 PARAPET SHOWN HEREIN. THE INCORPORATION OF THIS FORM LINER SHALL NOT RESULT IN ANY REDUCTION TO THE PROPOSED ROADWAY WIDTH.

FORM LINER:

ACCEPTABLE FORM LINER MANUFACTURERS INCLUDE CUSTOMROCK FORM LINER, [WWW.CUSTOMROCK.COM](http://WWW.CUSTOMROCK.COM), PHONE: 1-800-637-2447 OR APPROVED EQUAL.

ACCEPTABLE FORM LINER PATTERNS INCLUDE #1103 RUSTIC ASHLAR (KEYED) OR APPROVED EQUAL.

**ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN (ALTERNATE BID #1)**

VANDAL PROTECTION FENCE AESTHETICS  
IN ADDITION TO THE CONSTRUCTION AND MATERIAL SPECIFICATIONS PROVIDED IN ODOT STANDARD BRIDGE DRAWING VPF-1-90, ALL GALVANIZED POSTS, RAILS, BASE PLATES AND HARDWARE SHALL BE COATED WITH TWO SHOP APPLIED COATS AS FOLLOWS:

COATING OF ALL FENCING ITEMS SHALL BE IN ACCORDANCE WITH CMS 514, FINISHED WORK AT THE DISCRETION OF THE ENGINEER. EXCEPT AS NOTED BELOW.

THE GALVANIZED COATING SYSTEM MAY BE APPLIED BY A GALVANIZER NOT PRE-QUALIFIED AS A FABRICATION SHOP UNDER SUPPLEMENT 1078, BUT THE PRE-QUALIFIED FABRICATOR OF THE FENCING SHALL BE RESPONSIBLE FOR THE QUALITY OF THE APPLIED GALVANIZED COATING SYSTEM AND ANY REPAIRS, RE-FABRICATION AND ADDITIONAL ASSEMBLIES REQUIRED TO ASSURE THE FABRICATED STEEL MEETS THE PLAN REQUIREMENTS.

**ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN (ALTERNATE BID 1) (CONTINUED)**

THE TWO SHOP COATS SHALL BE APPLIED IN A STRUCTURAL STEEL FABRICATION SHOP HAVING PERMANENT BUILDINGS PER 513.04 AND PRE QUALIFIED AT THE UF LEVEL. THE PAINT QUALITY CONTROL SPECIALIST (QCS) SHALL BE QUALIFIED AS SPECIFIED IN 514.04.

PRIOR TO GALVANIZING, ALL CORNERS OF THERMALLY CUT OR SHEARED EDGES SHALL HAVE A 1/16 INCH RADIUS OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE.

GALVANIZE THE FABRICATED FENCING AND HARDWARE ACCORDING TO CMS 711.02, EXCEPT DO NOT PERFORM WATER QUENCHING.

AFTER GALVANIZATION, REMOVE ZINC HIGH SPOTS SUCH AS METAL DRIP LINE AND OTHERS THAT WOULD DETRACT FROM THE PAINT APPEARANCE BY SSPC SP2 OR SP3. TAKE CARE THAT THE BASE GALVANIZED COATING IS NOT REMOVED. CHECK REPAIRED AREAS FOR REQUIRED COATING THICKNESS.

REPAIR GALVANIZED COATINGS DAMAGED IN THE SHOP ACCORDING TO ASTM A780 METHOD A3. REPAIR GALVANIZED COATINGS DAMAGED IN THE FIELD ACCORDING TO ASTM A780 METHOD A1.

AFTER REMOVING HIGH SPOTS, CLEAN THE GALVANIZED COATING ACCORDING TO SSPC SP-1. THE CLEANING SOLUTION SHALL BE AN ALKALINE SOLUTION WITH A PH RANGING FROM A MINIMUM OF 11 TO A MAXIMUM OF 12. THIS SOLUTION CAN BE APPLIED BY IMMERSION, SPRAY OR SOFT NYLON BRUSH. FOLLOW CLEANING WITH A HOT WATER OR HOT PRESSURE WASHER RINSE. SEPARATE INDIVIDUAL PIECES AND POSITION TO FACILITATE DRAINAGE AND DRYING. THE PIECES SHALL BE COMPLETELY DRY BEFORE PROCEEDING.

AFTER CLEANING, ABRASIVE BLAST THE PIECES ACCORDING TO SSPC-SP7 BRUSH-OFF BLAST CLEANING. THE BLASTING OPERATION SHALL ROUGHEN THE GALVANIZED SURFACE TO AN ANGULAR SURFACE PROFILE OF 0.75 TO 1.00 MILLS. SELECT THE BLASTING EQUIPMENT, TECHNIQUE AND ABRASIVE MATERIAL TO PROVIDE FOR THE SPECIFIED SURFACE PROFILE WITHOUT REMOVAL OF EXCESSIVE ZINC LAYERS. THE AMOUNT OF REMOVAL OF ZINC MILAGE SHALL NOT EXCEED 1.0 MIL. REMOVE ALL ABRASIVE RESIDUE WITH CLEAN COMPRESSED AIR OR OTHER METHODS ACCEPTABLE TO THE DEPARTMENT.

AFTER OBTAINING SURFACE PROFILE, SHOP APPLY A TWO COAT PAINT SYSTEM CONSISTING OF EPOXY INTERMEDIATE COAT AND A URETHANE FINISH COAT MEETING THE REQUIREMENTS OF CMS 708.02. THE FINISH COAT SHALL MATCH FEDERAL COLOR STANDARD FS595B -16440 GRAY. APPLY THE EPOXY COATING WITHIN 24 HOURS OF THE BRUSH-OFF

PRIOR TO FABRICATION OF THE FENCING SYSTEM, FABRICATE A SAMPLE FENCE PANEL OF A LENGTH AGREEABLE TO THE ENGINEER WHICH INCLUDES TWO POST, ALL HARDWARE, INCIDENTALS AND COATINGS. THE ENGINEER WILL USE THIS SAMPLE PANEL TO JUDGE ACCEPTANCE OF THE FABRICATION, COATINGS AND QUALITY CONTROL PROGRAM. AFTER THE REVIEW OF THIS SAMPLE, THE DEPARTMENT AND THE CONTRACTOR MAY AGREE UPON ANY FABRICATION, COATING, QUALITY CONTROL OR INSTALLATION CHANGES AS A MODIFICATION TO THESE NOTES. THE FABRICATION CAN PROCEED ANYTIME AFTER THE ACCEPTANCE OF THIS SAMPLE PANEL. THE SAMPLE PANEL MAY BE INCORPORATED INTO THE

DESIGN AGENCY



DESIGNER  
GTF

REVIEWER  
CAH 11/12/22

PROJECT ID  
105478

SHEET TOTAL  
21 50

**ITEM 607 - FENCE MISC.: VANDAL PROTECTION FENCE REBUILT**

**BRIDGE No.: WAR-63-0010**

REMOVE AND DISPOSE OF EXISTING TEMPORARY HORIZONTAL STRUTS. SALVAGE EXISTING FENCE FABRIC FOR RESUSE REPLACE THE SALVAGED POST, BASEPLATE, AND TWO SECTIONS OF DECORATIVE VANDAL PROTECTION FENCE. THE SALVAGED FENCE ELEMENTS HAVE BEEN PREVIOUSLY REMOVED DUE TO COLLISION DAMAGE TO THE CONCRETE PARAPET.

SALVAGED FENCE ELEMENTS ARE AVAILABLE AT THE CITY OF MONROE PUBLIC WORKS DEPARTMENT (CONTACT JASON HOLBROOK, 513-727-8953, HOLBROOK.J@MONROEOHIO.ORG; 1000 HOMAN AVE, MONROE, OH 45050). FURNISH AND INSTALL NEW CONNECTION BOLTS/NUTS/WASHERS FOR THE FENCE AND BASE PLATES AS WELL AS NEW FABRIC TIES FOR THE FENCE FABRIC AS SHOWN IN THE FENCE REPAIR DETAILS.

PAYMENT FOR FURNISHING AND INSTALLING NEW VANDAL FENCING HARDWARE AS INDICATED IN THE PLAN DETAILS AND NOTES TO BE INCLUDED IN ITEM 607 - FENCE MISC.: VANDAL PROTECTION FENCE REBUILT.

REMOVE EXISTING FENCE ELEMENTS PER CMS 202. PAYMENT FOR ALL WORK ASSOCIATED WITH THE REMOVAL OF EXISTING VANDAL PROTECTION FENCE ELEMENTS TO BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED.

SEE EXISTING FENCING DETAILS, SHEET 26

**BRIDGE No.: HAM-562-0253**

REMOVE EXISTING HORIZONTAL RAIL AND VERTICAL POST ELEMENTS INCLUDING POSTS SLEEVES AS INDICATED IN THE PLANS. SEE S.C.D. VPF-1-90 FOR ADDITIONAL VANDAL PROTECTION FENCE DETAILS.

PAYMENT FOR FURNISHING AND INSTALLING NEW VANDAL FENCING HARDWARE AS INDICATED IN THE PLAN DETAILS AND NOTES TO BE INCLUDED IN ITEM 607 - FENCE MISC.: VANDAL PROTECTION FENCE REBUILT. PERFORM WELDING PER CMS 513. REPAIR GALVANIZATION ACCORDING TO CMS 711.02

REMOVE EXISTING FENCE ELEMENTS PER CMS 202. PAYMENT FOR ALL WORK ASSOCIATED WITH THE REQUIRED TO REMOVE RAIL AND POST ELEMENTS TO BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED.

SEE EXISTING FENCING DETAILS, SHEET 46 AND VPF-1-90

**ITEM 842 - CORRECTING ELEVATION OF CONCRETE APPROACH SLABS WITH HIGH DENSITY POLYURETHANE**

DESCRIPTION: THIS WORK CONSISTS OF INJECTING THE SOIL AND FILLING VOIDS UNDER CONCRETE APPROACH SLABS AND THE SOIL, INJECTED AT A DEPTH OF 4 FEET IN A FOOT GRID PATTERN. USING HIGH DENSITY POLYURETHANE (HDP). ALL PROVISIONS OF SS 842 APPLY EXCEPT AS MODIFIED IN THIS NOTE. THE SETTLED APPROACH SLAB AT THE PAVEMNET END SHALL BE RAISED APPROXIMATELY 1".

MATERIALS: SUPPLY A HIGH DENSITY POLYURETHANE MEETING THE PROPERTIES SPECIFIED BELOW AND VERIFIED BY CERTIFIED TEST DATA FROM AN INDEPENDENT TESTING LABORATORY. AT LEAST 24 HOURS PRIOR TO PERFORMING WORK, SUBMIT CERTIFIED TEST DATA TO THE ENGINEER FOR APPROVAL.

PROPERTY	ASTM TEST	REQUIRED VALUE
MATERIAL DENSITY	D1622 (NOTE 1)	3.0 LBS/FT3 MINIMUM
TENSILE STRENGTH, 1 HOUR	D1623 (NOTE 1)	40 PSI MINIMUM
COMPRESSIVE STRENGTH, 1 HOUR	D1621 (NOTE 1)	40 PSI MINIMUM
DIMENSIONAL STABILITY, HIGH TEMPERATURE, 1 DAY	D2126	+3.3% CHANGE @158 °F (70 °C), 97 % RELATIVE HUMIDITY
DIMENSIONAL STABILITY, HIGH TEMPERATURE, 7 DAY	D2126	+4.0% CHANGE @158 °F (70 °C), 97 % RELATIVE HUMIDITY
DIMENSIONAL STABILITY, LOW TEMPERATURE, 1 DAY	D2126	-0.35% CHANGE @- 22 °F (-30 °C), AMBIENT RELATIVE HUMIDITY
DIMENSIONAL STABILITY, LOW TEMPERATURE, 7 DAY	D2126	-0.60% CHANGE @-22 °F (-30 °C), AMBIENT RELATIVE HUMIDITY
WATER ABSORPTION	D2842	LESS THAN 2.0% VOLUME

NOTE 1: SUPPLY MATERIAL THAT WILL MEET A MINIMUM DENSITY OF AT LEAST 50% OF THE REQUIRED DENSITY VALUE WHEN PREPARED UNDER A HEAD OF WATER.

MANUFACTURER'S SHIPPING RECORD: PROVIDE MANUFACTURER BATCH NUMBERS AND SHIPPING INVOICES. MARK EACH COMPONENT CONTAINER WITH THE FOLLOWING INFORMATION:  
 A. NUMBER OF GALLONS (LITERS)  
 B. NET WEIGHT OF MATERIAL  
 C. BATCH NUMBER  
 D. DATE OF PRODUCTION  
 E. EFFECTIVE SHELF LIFE OF THE PRODUCT  
 F. COMPANY NAME AND ADDRESS  
 G. COMPONENT TRADE NAME AS GIVEN IN THE MATERIAL TEST DATA  
 H. MATERIAL SAFETY DATA SHEETS (MSDS)

EQUIPMENT. SUBMIT AN INVENTORY OF ALL LIFTING EQUIPMENT TO THE ENGINEER FOR REVIEW. PROVIDE THE FOLLOWING EQUIPMENT AS A MINIMUM:

- A. ELECTRIC OR PNEUMATIC DRILL CAPABLE OF DRILLING 5/8-INCH DIAMETER HOLES TO THE DEPTH OF THE SLAB.
- B. TRUCK OR TRAILER MOUNTED PUMPING UNIT, WITH PRE-HEATERS AND VOLUMETRIC CONTROLS CAPABLE OF INJECTING THE HDP BETWEEN THE APPROACH SLAB AND SUB-BASE. THE PUMPING UNIT MUST BE CAPABLE OF CONTROLLING THE RATE OF APPROACH SLAB RISE AND MEASURE THE MATERIAL USAGE. THE UNIT SHALL BE EQUIPPED WITH CERTIFIED FLOW METERS TO MEASURE FLOW OF BOTH COMPONENT MATERIALS SEPARATELY TO MEASURE THE AMOUNT OF HIGH-DENSITY POLYURETHANE INJECTED AT EACH LOCATION. THE CERTIFIED FLOW METER SHALL HAVE A DIGITAL OUTPUT TO SHOW BOTH POUNDS AND GALLONS OF EACH COMPONENT MATERIAL AND HELP INSURE A ONE TO ONE MIX RATIO.
- C. LASER-LEVELING UNIT TO ENSURE THAT THE APPROACH SLAB IS ON AN EVEN PLANE AND TO THE EXISTING ELEVATIONS.

**ITEM 842 - CORRECTING ELEVATION OF CONCRETE APPROACH SLABS WITH HIGH DENSITY POLYURETHANE (CONT.)**

CONSTRUCTION PLAN: BEFORE PERFORMING WORK, PREPARE AND SUBMIT A PLAN TO THE ENGINEER THAT INCLUDES THE FOLLOWING MINIMUM INFORMATION:

- A. EXISTING ELEVATIONS OF THE APPROACH SLAB AND ADJACENT PAVEMENT.
- B. INJECTION HOLE LAYOUT
- C. MAPPING OF EXISTING CRACKS
- D. CONTRACTOR'S WRITTEN STANDARD INSTALLATION PROCEDURES

DRILLING HOLES: LOCATE AND DRILL A SERIES OF 5/8-INCH HOLES AS NECESSARY TO FILL VOIDS UNDER THE APPROACH SLAB. ADHERE TO THE FOLLOWING REQUIREMENTS:

- A. HOLES SHALL BE DRILLED NOT LESS THAN 12 INCHES (300 MM) NOR MORE THAN 18 INCHES (450 MM) FROM EACH EDGE OR JOINT
- B. SPACING OF HOLES SHALL NOT EXCEED 4 FEET (1.2 M) CENTER TO CENTER IN ANY DIRECTION.
- C. DEPTH OF HOLES SHALL BE DRILLED TO A DEPTH OF 4 FEET BELOW THE BOTTOM OF THE CONCRETE APPROACH SLAB.

GENERAL: RESET FLOW METERS ON MATERIAL PUMPING UNITS TO ZERO, PRIOR TO PERFORMING THE WORK EACH DAY. PERFORM A TEST SHOT OF MATERIAL OF A MINIMUM OF 1 GALLON. COMPARE THE DIGITAL OUTPUT IN GALLONS OF EACH COMPONENT TO DETERMINE THE ACTUAL RATIO. IF RATIO IS LESS THAN 0.95 OR GREATER THAN 1.05, CHECK SYSTEM FOR PROBLEMS, FIX, AND RECHECK RATIO. INJECT HDP UNDER THE SLAB ACCORDING TO THE CONTRACTOR'S WRITTEN STANDARD INSTALLATION PROCEDURES. REMOVE ANY EXCESSIVE POLYURETHANE MATERIAL FROM THE INJECTION AREA. RECORD MATERIAL USED FROM THE VOLUMETRIC METERS ON MATERIAL PUMPING UNITS.

USE A TIGHT STRING LINE OR LASER LEVEL TO MONITOR AND VERIFY ELEVATIONS. TAKE PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING SLABS. STOP THE OPERATION IF CRACKING OCCURS DURING THE INJECTION PROCEDURE AND INFORM THE ENGINEER. ALTER THE OPERATIONS TO PREVENT ADDITIONAL CRACKING. REPAIR APPROACH SLAB AND PAVEMENT AREAS THAT DO NOT MEET PROPOSED ELEVATIONS. REPAIR ALL AREAS DAMAGED AS A RESULT OF THE WORK. MAKE REPAIRS TO THE SATISFACTION OF THE ENGINEER. DO NOT PERFORM WORK WHEN THE SUBGRADE TEMPERATURE IS BELOW 32 °F (0 °C) OR VISIBLY FROZEN. RECORD FINAL ELEVATIONS OF THE APPROACH SLAB AND ADJACENT PAVEMENT IN THE SAME LOCATIONS AS WERE RECORDED FOR EXISTING ELEVATIONS PRIOR TO BEGINNING WORK.

FILLING HOLES: CLEAN HOLES TO THE DEPTH OF THE SLAB, THEN FILL WITH NON SHRINK NONMETALLIC GROUT CONFORMING TO C&MS 705.20

**104.02 ADJUSTMENT EXCLUSION**

THE ENGINEER SHALL NOT ADJUST UNIT PRICES AS DESCRIBED IN 104.02.D.2 FOR ITEM 842 - CORRECTING ELEVATION OF CONCRETE APPROACH SLABS WITH HIGH DENSITY POLYURETHANE

**METHOD OF MEASUREMENT.** THE DEPARTMENT WILL MEASURE THE WEIGHT OF HDP MATERIAL PUMPED.

**ITEM 516 - ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATES (NEOPRENE), AS PER PLAN**

ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 60 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300° F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

BEARING REPOSITIONING: IF STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80° F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60° F (±) 10° F, THE BEAMS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60° F (±) 10° F.

STRUCTURAL STEEL FOR BEARING LOAD PLATE, MASONRY PLATE, SHIMS AND HP SECTIONS SHALL BE A709 GRADE 50 AND INCLUDED WITH ITEM 516 FOR PAYMENT. ALL STRUCTURAL STEEL USED FOR THE PROPOSED BEARING SHALL BE FIELD PAINTED PER OZEU. PAINT COLOR SHALL BE FEDERAL COLOR 14277 AND BE INCLUDED IN ITEM 514 FOR PAYMENT.

THE CONTRACTOR IS REQUIRED TO FIELD VERIFY THE EXISTING BOTTOM OF BEAM AND BEAM SEAT ELEVATIONS FOR EACH GIRDER AT THE ABUTMENTS PRIOR TO JACKING OPERATIONS AND FABRICATION OF BEARINGS. THE CONTRACTOR IS TO SUBMIT THE VERIFIED ELEVATIONS TO THE DISTRICT8 BRIDGE ENGINEER PRIOR TO JACKING. APPROVAL OF THE ELEVATIONS IS NOT REQUIRED.

ANY BEARING HP-SECTION HEIGHTS OR DIMENSIONS SHOWN SHALL BE CONSIDERED APPROXIMATE AND ARE SHOWN FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY THE HEIGHT OF REQUIRED HP-SECTION BY MEASURING THE DISTANCE BETWEEN THE BEAM SEAT ELEVATION AND THE BOTTOM OF THE EXISTING BEAM FLANGE AND THEN SUBTRACTING FROM THAT DISTANCE THE THICKNESS OF THE BEARING AND LOAD PLATES.

ANY PLATE THICKNESS ADJUSTMENTS AND/OR SHIMS REQUIRED TO COMPLETE THE BEARINGS INSTALLATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. A MAXIMUM OF ONE SHIM PLATE SHALL BE ALLOWED PER BEARING.

IN ADDITION TO THE REQUIREMENTS OF 516 AND THE DETAILS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL ASSURE THAT THERE IS A SNUG FIT BETWEEN THE BEARING DEVICE AND BEARING SEAT. THE CONTRACTOR SHALL ASSURE THAT NO BEAMS OR BEARING DEVICES ARE FLOATING.

SET MASONRY PLATES ON BRIDGE SEATS THAT ARE FLAT AND SMOOTHLY FINISHED. IF THE BRIDGE SEAT AREA IS UNEVEN, USE A BUSHHAMMER OR GRINDER FOLLOWED BY A THIN FILM OF PORTLAND CEMENT MORTAR OR PASTE TO FILL THE PITTED SURFACE TO BRING THE SEAT AREA TO THE PROPER ELEVATION AND PROVIDE A LEVEL, EVEN SURFACE.

BASIS OF PAYMENT: THE UNIT PRICE BIDS SHALL INCLUDE ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL THE LAMINATED ELASTOMERIC BEARINGS WITH STEEL LOAD PLATES AND HP-SECTIONS INCLUDING GRINDING OF WELDS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516 - ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.



DESIGNER	GTF
REVIEWER	CAH
PROJECT ID	105478
SHEET	TOTAL
23	50

ESTIMATED QUANTITIES - STRUCTURE No.: WAR-63-0010 (SFN 8301425) (03/IMS/14 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
202	11201	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN				LUMP	21
511	34410	2	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE			2		
512	10100	8	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			8		
607	98200		LS	FENCE, MISC.: VANDAL PROTECTION FENCE REBUILT				LUMP	23

ESTIMATED QUANTITIES - STRUCTURE No.: BUT-27-0601 (SFN 0900702) (02/NHS/47 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
512	10100	197	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			197		
512	74000	197	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES			197		
516	31000	60	FT	JOINT SEALER, HOT APPLIED, 705.04			60		
519	11100	40	SF	PATCHING CONCRETE STRUCTURE			40		
609	24510	15	FT	CURB, TYPE 4-C				15	
848	10000	733	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (T = 1.25")			733		
848	20000	733	SY	SURFACE PREPARATION USING HYDRODEMOLITION			733		
848	30000	12	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY			12		
848	50000	75	SY	HAND CHIPPING			75		
848	50100	LUMP		TEST SLAB			LS		

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-75-1747 (SFN 3111261) (01/IMS/47 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
202	11201	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN			LUMP		21
503	21300	LUMP	LS	UNCLASSIFIED EXCAVATION			LUMP		
509	10000	12040	LB	EPOXY COATED REINFORCING STEEL			12040		
509	20000	100	LB	CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT			100		
509	26000	10374	LB	GALVANIZED STEEL REINFORCEMENT			10374		
509	30020	12596	FT	NO. 4 GFRP DEFORMED BARS			12596		
510	10001	2128	EACH	DOWEL HOLES, AS PER PLAN			2016	112	21
511	34460	124	CY	CLASS QC SCC CONCRETE, BRIDGE DECK (PARAPET)			124		
512	10100	300	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			300		21
512	74000	134	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES			134		
516	13600	17	SF	1" PREFORMED EXPANSION JOINT FILLER			17		
516	31010	6	FT	2" DEEP JOINT SEALER			6		
526	15000	15	SY	REINFORCED CONCRETE APPROACH SLABS (T=13")				15	
530	00600	1201	SF	SPECIAL - STRUCTURES, ASHLAR STONE FORM LINER			1201		21
625	25500	822	FT	CONDUIT, 3", 725.04			822		
625	30700	6	EACH	PULL BOX, 725.08, 18"			6		
842	10000	5000	LB	CORRECTING ELEVATION OF CONCRETE APPROACH SLABS WITH HIGH DENSITY POLYURETHANE				5000	23


ESTIMATED QUANTITIES - STRUCTURE No.: HAM-75-1747 (SFN 3111261) (01/IMS/47 FUNDING SPLIT) ALTERNATES A									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
607	39900	358.54	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN, WEST CHESTER, SOUTH SIDE (ALTERNATE 1)			358.54		21
607	40000	358.54	FT	SPECIAL - VANDAL PROTECTION FENCE AESTHETIC, 6 FT STRAIGHT, COATED FABRIC, WEST CHESTER, SOUTH SIDE (ALTERNATE 2)			358.54		22

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-75-1747 (SFN 3111261) (01/IMS/47 FUNDING SPLIT) ALTERNATES B									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
607	39900	358.54	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN, SHARONVILLE, NORTH SIDE (ALTERNATE 1)			358.54		22
607	40000	358.54	FT	SPECIAL - VANDAL PROTECTION FENCE AESTHETIC, 6 FT STRAIGHT, COATED FABRIC, SHARONVILLE, NORTH SIDE (ALTERNATE 2)			358.54		22

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-75-1747 (SFN 3111261) (01/IMS/47 FUNDING SPLIT) ALTERNATES C									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
530	00200	LUMP	LS	SPECIAL - STRUCTURES, AESTHETIC LETTERING, SHARONVILLE, NORTH SIDE (ALTERNATE 1)			LUMP		22
530	00600	1021	SF	SPECIAL - STRUCTURES, ASHLAR STONE FORM LINER, SHARONVILLE, NORTH SIDE (ALTERNATE 1)			1021		22
530	00600	1201	SF	SPECIAL - STRUCTURES, ASHLAR STONE FORM LINER (ALTERNATE 2)			1201		22

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-71-0320 (SFN 3114260) (01/IMS/47 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
519	12300	35	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B			35		
512	73500	1005	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN			1005		

DESIGN AGENCY



DESIGNER  
GTF

REVIEWER  
AS 07/26/22

PROJECT ID  
105478

SHEET TOTAL  
24 50

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-75-0252 (SFN 3105458) (01/IMS/47 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
519	12300	65	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B			65		

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-32-0127 (SFN 3102076) (02/NHS/47 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
202	11200	LUMP	LS	PORTIONS OF STRUCTURE REMOVED				LUMP	
514	00050	995	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			995		
514	00056	995	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			995		
514	00060	1090	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, INTERMEDIATE COAT			1090		
516	44301	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (T = 4.468")	20				23
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LS	21
530	00400	2	EACH	SPECIAL - STRUCTURES.: CLEANING ABUTMENT BEAM SEAT	2				44

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-22-0622 (SFN 3100855) (02/NHS/47 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
512	73500	1020	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN			1020		
847	10000	25	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY ( T = 1.25")			25		
847	20000	1	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY			1		
847	30000	LUMP		TEST SLAB			LUMP		
847	30200	2	CY	FULL DEPTH REPAIR			2		
847	30400	25	SY	EXISTING CONCRETE OVERLAY REMOVED (T = 1.25")			25		

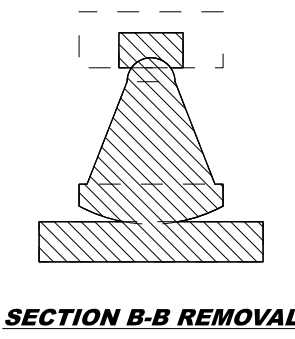
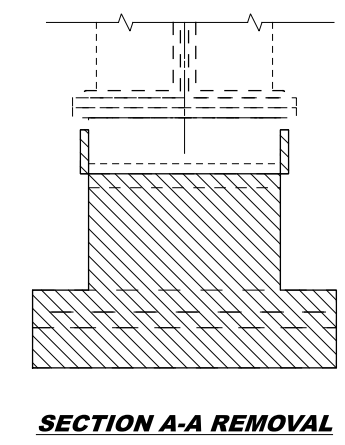
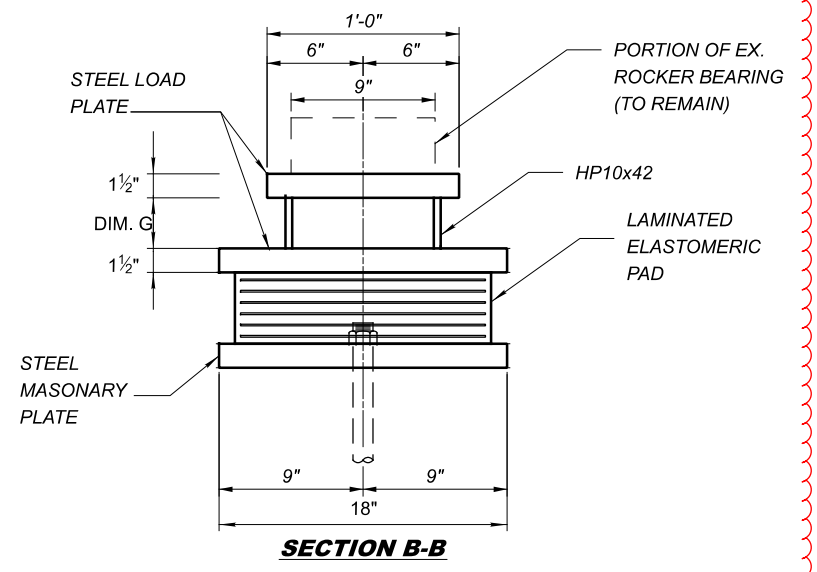
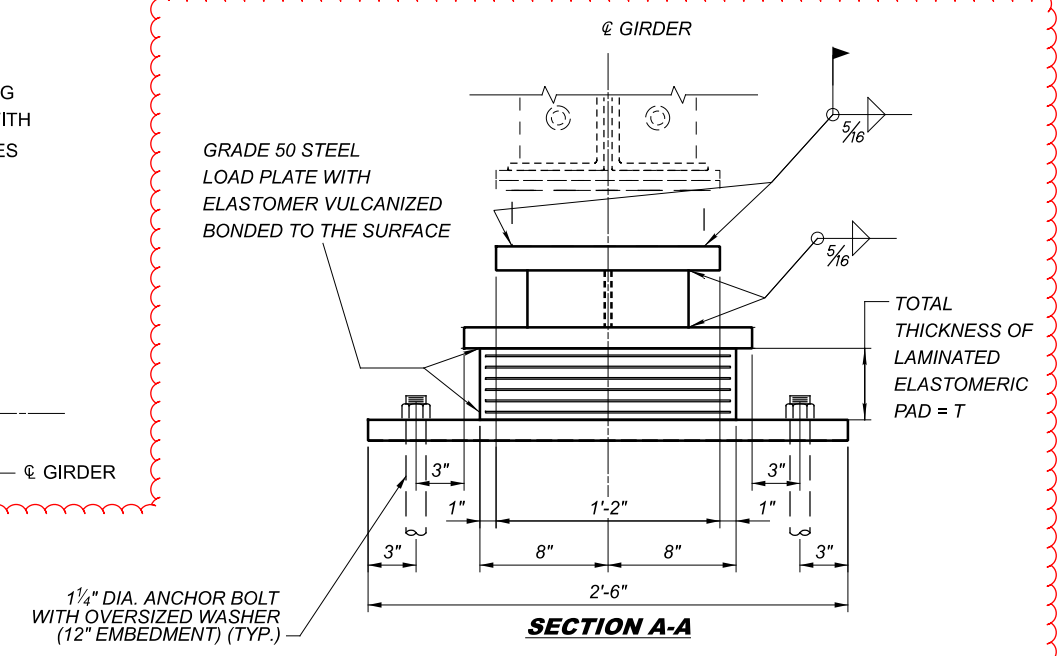
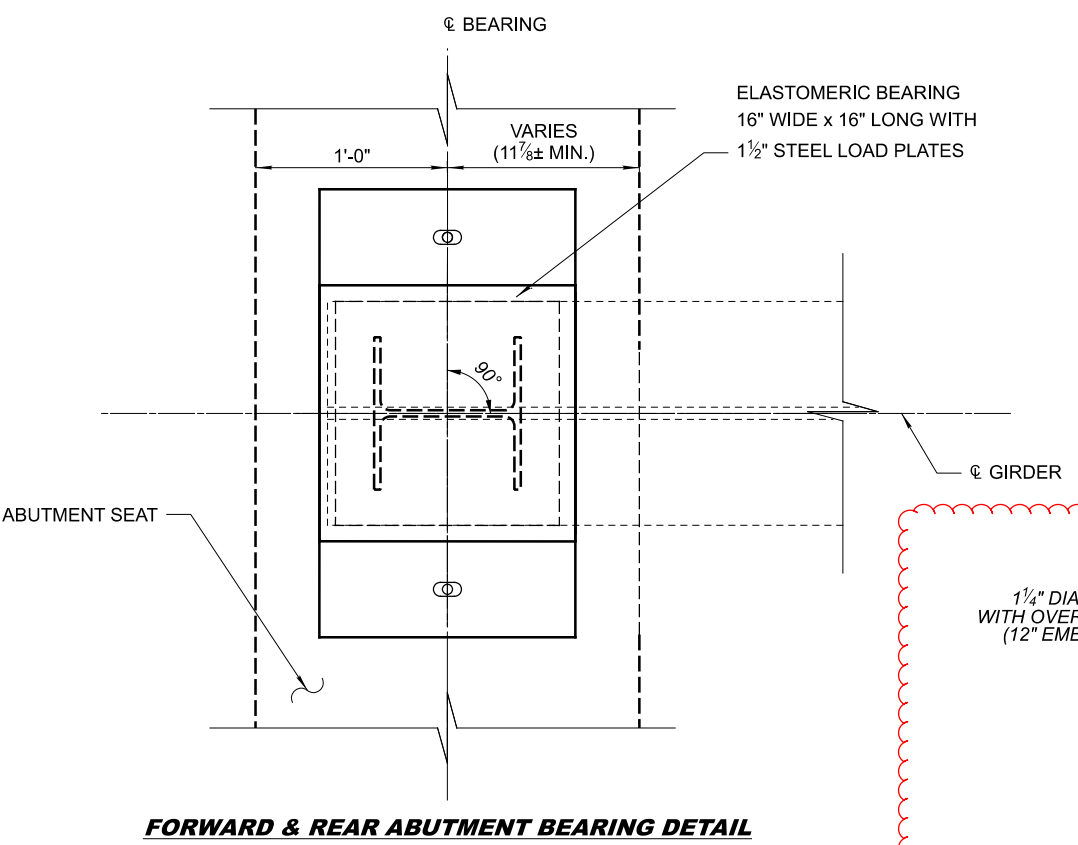
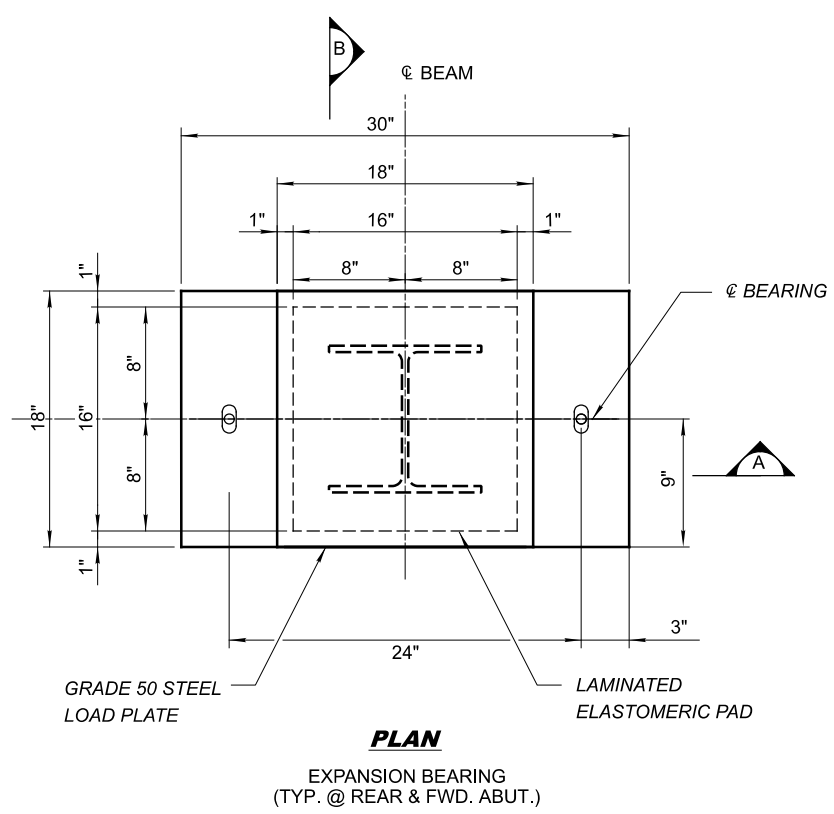
ESTIMATED QUANTITIES - STRUCTURE No.: HAM-562-0253 (SFN 3114023) (02/NHS/47 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
512	73500	694	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN			694		
519	11100	416	SF	PATCHING CONCRETE STRUCTURE			416		
607	98200	LUMP	LS	FENCE, MISC.: VANDAL PROTECTION FENCE REBUILT				LUMP	23
609	24510	20	FT	CURB, TYPE 4-C				20	

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-75-0088 (SFN 3109038) (01/IMS/47 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
202	11201	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN				LUMP	21
518	51100	130	FT	8" PIPE DOWNSPOUT, INCLUDING SPECIALS				130	
518	12500	6	EACH	SCUPPER, MISC.: SCUPPER AND DRAINAGE CONDUIT CLEAN-OUT				6	48

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-471-0000R (SFN 3117367) (01/IMS/47 FUNDING SPLIT)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET
202	11201	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN			LUMP		21
509	25000	10	LB	UNCOATED STEEL REINFORCEMENT			10		
510	10000	14	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT			14		
512	10600	10	FT	CONCRETE REPAIR BY EPOXY INJECTION			10		
513	10200	654	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF			654		







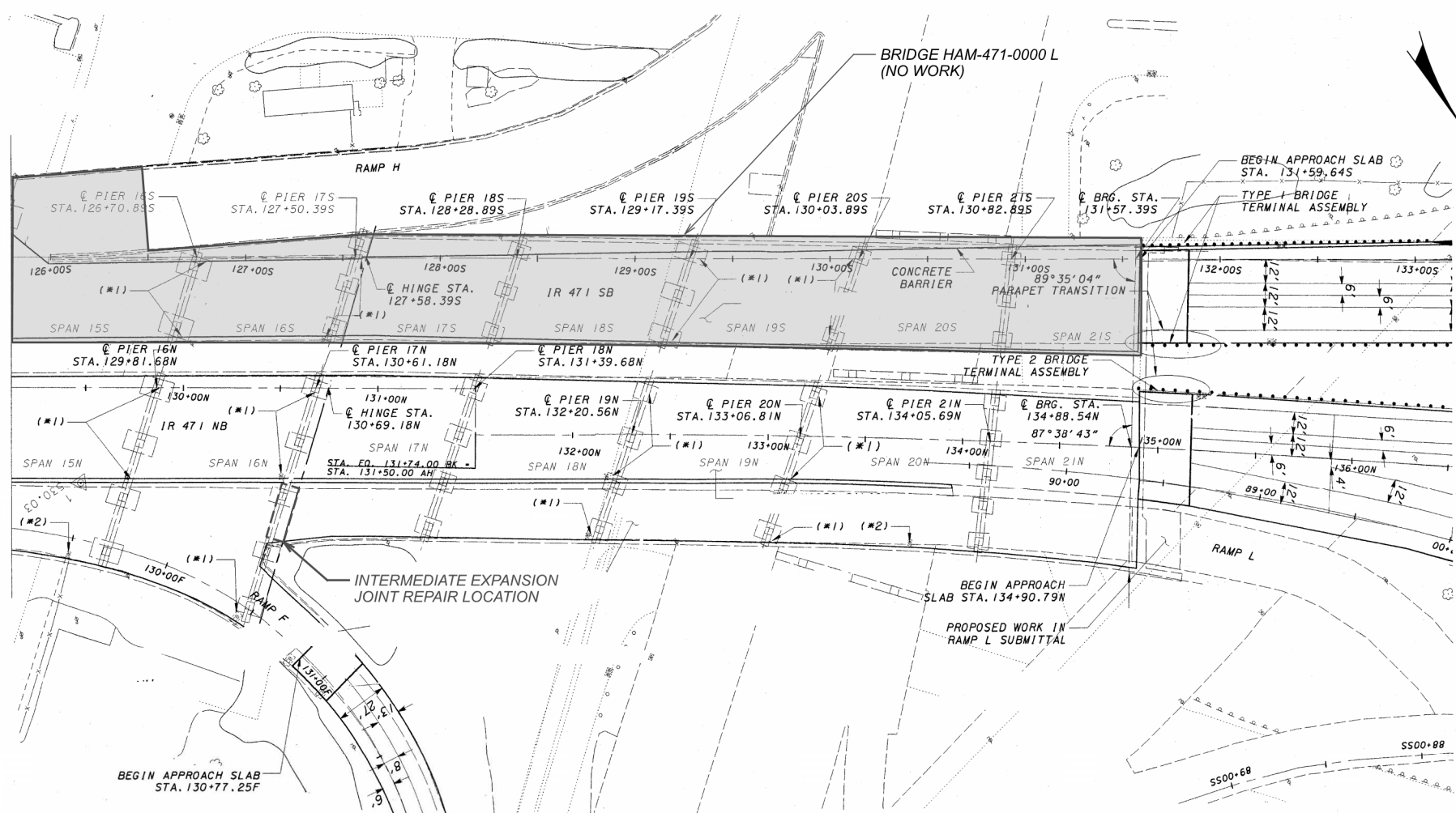
**NOTE:**  
SEE STRUCTURAL GENERAL NOTES SHEET 23 / 50 FOR ITEM 516 - ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATES (NEOPRENE), AS PER PLAN

**LEGEND**  
ITEM 202 - PORTIONS OF STRUCTURE REMOVED

FORWARD AND REAR ABUTMENT ELASTOMERIC PAD DATA FOR EXISTING BEAMS												
SUB-STRUCTURE	ELASTOMERIC PAD						REACTIONS			MAXIMUM DESIGN LOAD (K)		
	T	NO. OF INTER. LAYERS	ti	te	STEEL LAMINATES		TYPE	DEAD LOAD (KIPS)	LIVE* LOAD (KIPS)		MASONRY LOAD (KIPS)	
					NO.	THICK.						
HAM-32-0217	ABUTMENTS	4.468"	5	0.600"	0.420"	6	0.1046"	EXP.	76.05	101.58	177.63	

ti = THICKNESS OF INTERNAL ELASTOMER LAYER, te = THICKNESS OF EXTERNAL ELASTOMER LAYER  
 \* W/O IMPACT

ABUTMENT ELASTOMERIC BEARING PAD DATA (FORWARD AND REAR)							
BEAM No.	A	B	C	D	E	F	G
	EXISTING MEASURED BEARING HEIGHT	EX. BEARING THICKNESS TO REMAIN	PROPOSED BEARING THICKNESS	REQ'D LOAD R <sub>L</sub> THICKNESS AT Q <sub>L</sub> BEARING (TOP)	REQ'D LOAD R <sub>L</sub> THICKNESS AT Q <sub>L</sub> BEARING (BOTTOM)	REQ'D MASONRY R <sub>L</sub> THICKNESS AT Q <sub>L</sub> BEARING	HP SECT. THICKNESS (A-B-C-D-E-F)
1	15.5" ±	3.5" ±	4.468"	1.50"	1.50"	1.50"	3" ±
2	15.5" ±	3.5" ±	4.468"	1.50"	1.50"	1.50"	3" ±
3	15.5" ±	3.5" ±	4.468"	1.50"	1.50"	1.50"	3" ±
4	11" ±	2.5" ±	4.468"	1.50"	1.50"	1.50"	1 1/2" ±
5	11" ±	2.5" ±	4.468"	1.50"	1.50"	1.50"	1 1/2" ±
6	15.5" ±	3.5" ±	4.468"	1.50"	1.50"	1.50"	3" ±
7	15.5" ±	3.5" ±	4.468"	1.50"	1.50"	1.50"	3" ±
8	15.5" ±	3.5" ±	4.468"	1.50"	1.50"	1.50"	3" ±
9	15.5" ±	3.5" ±	4.468"	1.50"	1.50"	1.50"	3" ±
10	15.5" ±	3.5" ±	4.468"	1.50"	1.50"	1.50"	3" ±



**PLAN**

**NOTES**

- 1) DETAILS ON THIS SITE PLAN SHEET ARE FROM ARCHIVED PLANS AND SHOULD BE USED FOR REFERENCE ONLY
- 2) FOR BIDDING PURPOSES, ASSUMED PLATE DIMENSIONS ARE AS FOLLOWS: 16' LONG x 8" WIDE x 1 1/2" THICK. CONTRACTOR IS TO FIELD VERIFY DIMENSIONS PRIOR TO ORDERING MATERIALS. SEE MAINTENANCE OF TRAFFIC POLICY EXCEPTION NOTE ON SHEET 7/50 FOR CONSTRUCTION SEQUENCE.

**LEGEND**

- ITEM 202, PORTIONS OF STRUCTURE REMOVED
- EXISTING MSC OVERLAY
- NO WORK TO BE PERFORMED ON BRIDGE NO.: HAM-471-0000L

**DESIGN TRAFFIC:**

**HAM-IR 471-0.00**  
 2023 ADT = 110,000      2023 ADTT = 3,300  
 DHV = 16,000  
 DESIGN SPEED = 70 MPH      LEGAL SPEED = 70 MPH  
 DESIGN FUNCTIONAL CLASSIFICATION: 01-PRINCIPAL ARTERIAL FREEWAY

**EXISTING STRUCTURE**

TYPE: CONTINUOUS WELDED PLATE GIRDER WITH REINFORCED CONCRETE DECK

SPANS: 109.75', 140.00', 130.67', 93.94', 90.50', 64.25', 103.25'

ROADWAY: VARIES

LOADING: HS 20-44

SKEW: VARIES

WEARING SURFACE: 2 1/2" MICROSILICA MODIFIED CONC. OVERLAY (2001)

APPROACH SLABS: AS-1-81 (25'-0" LONG)

ALIGNMENT: VARIES

CROWN: VARIES

COORDINATES: LATITUDE 39° 06' 05.56"  
 LONGITUDE -84° 29' 47.33"

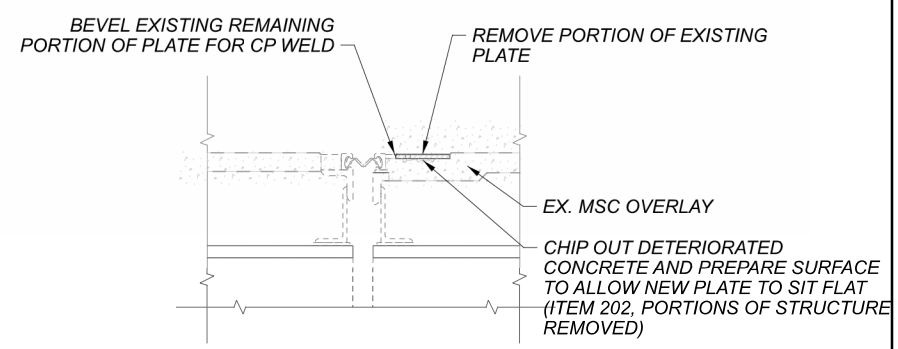
STRUCTURE FILE NUMBER: 317367

DATE BUILT: 7/1/1976

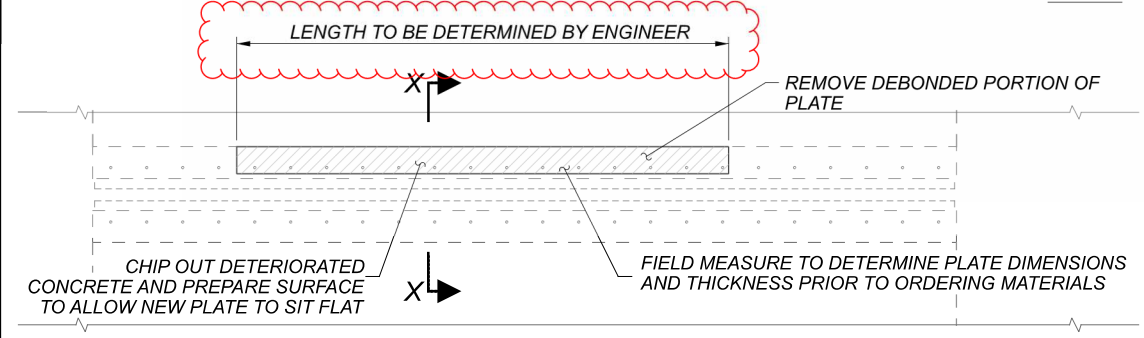
DISPOSITION: INTERMEDIATE EXPANSION JOINT REPAIR

**PROPOSED WORK**

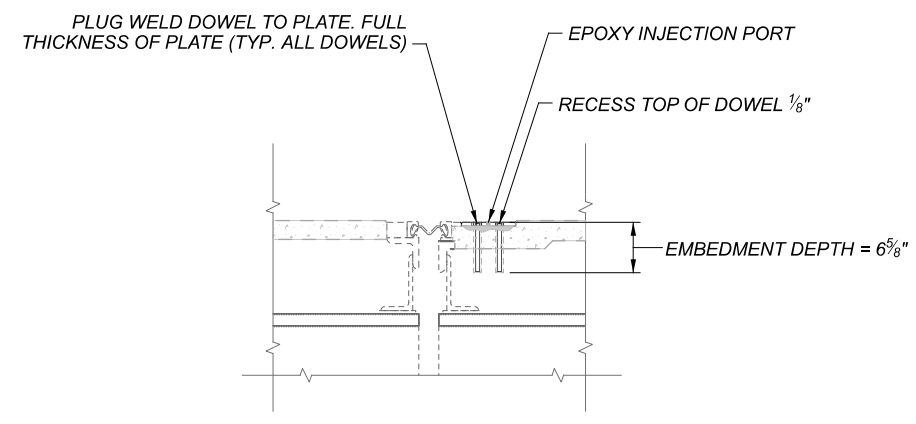
- 1.) FIELD MEASURE PLATE LENGTH, WIDTH, AND THICKNESS. THE LENGTH SHALL BE DETERMINED BY THE ENGINEER.
- 2.) FABRICATE PLATE AND PREDRILL HOLES FOR DOWELS AND INJECTION PORTS. BEVEL EDGES FOR COMPLETE PENETRATION WELD.
- 3.) CLOSE RAMP. REMOVE SECTION OF DAMAGED PLATE. CHIP OUT CONCRETE TO ALLOW PLATE TO SIT FLAT. WELD INTO PLACE ALL 3 SIDES
- 4.) DRILL AND GROUT DOWELS. RECESS DOWELS 1/8" FROM TOP OF PLATE
- 5.) PLUG WELD DOWELS TO PLATE.
- 6.) EPOXY INJECT VOID UNDER PLATE.



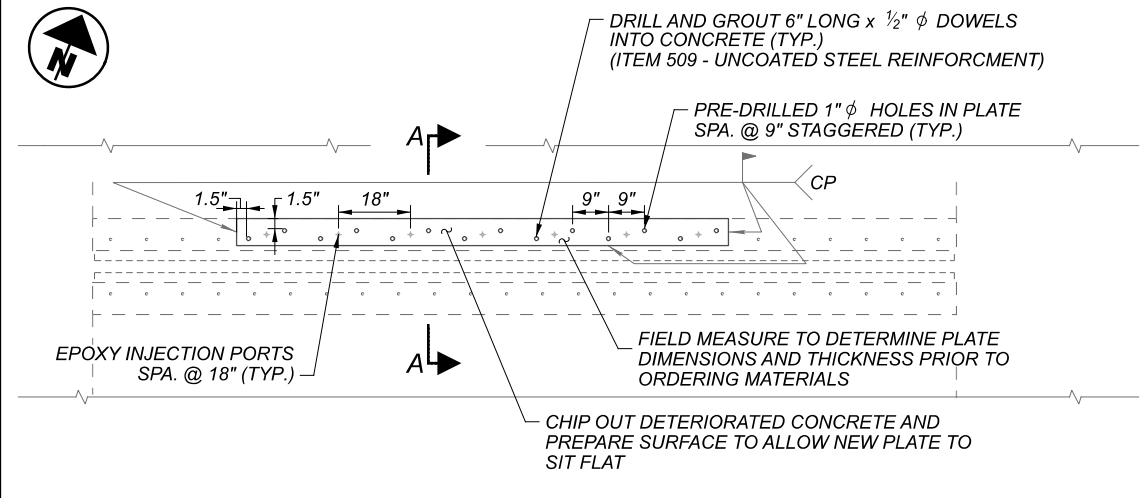
**SECTION X-X**



**INTERMEDIATE JOINT REMOVAL PLAN**



**SECTION A-A**



**INTERMEDIATE JOINT REPAIR PLAN**



**SITE PLAN**  
**BRIDGE No.: HAM-471-0000R**  
**I.R. 471 OVER US ROUTE 52 & 3RD STREET CONNECTOR**

D08-BM-FY2022

MODEL: Sheet\_PAPER: 34x22 (in.) DATE: 3/14/2023 TIME: 12:06:11 PM USER: gfreeman  
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SFN	317367
DESIGN AGENCY	
DESIGNER/CHECKER	GTF CAH
REVIEWER	CAH 12/21/22
PROJECT ID	105478
SUBSET	TOTAL
1	1
SHEET	TOTAL
50	50