

**ITEM 614 - MAINTAINING TRAFFIC**

GENERALLY, THE CONTRACTOR SHALL CONDUCT THEIR OPERATIONS AS TO MAKE THE PROPOSED CONSTRUCTION WITH A MINIMUM HAZARD, DELAY AND INCONVENIENCE TO THE MOTORISTS USING THE HIGHWAY. MAINTENANCE OF TRAFFIC INCLUDES ALL LOCATIONS FOR THIS PROJECT. THIS ITEM SHALL CONSIST OF THE MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS, RAMPS AND SIDEWALKS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAY, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS, AND THE FOLLOWING:

**I. NOTIFICATION**

SINCE FUNCTIONAL TRAFFIC CONTROL IS A MAJOR CONCERN ON THIS PROJECT, IT IS ESSENTIAL THAT THE MOTORING PUBLIC BE ADEQUATELY FOREWARNED OF FUTURE LANE CLOSURES AND TRAFFIC CONSTRICTIONS. THEREFORE, THE CONTRACTOR MUST SUBMIT A WRITTEN SCHEDULE TO THE ODOT PUBLIC INFORMATION OFFICE (216-584-2007 OR D12.PUBLICINFORMATION@DOT.OHIO.GOV) INDICATING THE LOCATIONS AND DATES OF THE LANE CLOSURES AT LEAST 14 DAYS PRIOR TO THE IMPLEMENTATION OF ANY SUCH CLOSURES. ALSO, NOTIFY THE ENGINEER, RESPONSIBLE LAW ENFORCEMENT AGENCIES AND EMERGENCY SERVICES, AND LOCAL MUNICIPALITIES OF LANE CLOSURES OR OTHER RESTRICTIONS AT LEAST 2 WEEKS PRIOR TO IMPLEMENTATION. USE PORTABLE CHANGEABLE MESSAGE SIGNS TO ALERT MOTORISTS 3 DAYS PRIOR TO THE IMPLEMENTATION OF ANY CHANGES SUCH AS LANE CLOSURES OR OTHER 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 (EMAIL: Hauling.Permits@dot.ohio.gov) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). 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 OF TRAFFIC RESTRICTIONS TIME TABLE**

| ITEM  | DURATION OF CLOSURE                               | NOTICE DUE TO PERMITS & PIO  |
|---|---|--|
| RAMP & ROAD CLOSURES                            | > 2 WEEKS<br>> 12 HOURS & < 2 WEEKS<br>< 12 HOURS | 21 CALENDAR DAYS PRIOR TO CLOSURE<br>14 CALENDAR DAYS PRIOR TO CLOSURE<br>4 BUSINESS DAYS PRIOR TO CLOSURE |
| LANE CLOSURES & RESTRICTIONS                    | > 2 WEEKS<br>< 2 WEEKS                            | 14 CALENDAR DAYS PRIOR TO CLOSURE<br>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 RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

THE CONTRACTOR SHALL NOTIFY THE LOCAL MUNICIPALITIES OF SIDEWALK CLOSURES, PEDESTRIAN SIGNAL MODIFICATION OR OTHER PEDESTRIAN RESTRICTIONS AT LEAST 2 WEEKS PRIOR TO IMPLEMENTATION. USE ADVANCED WARNING SIGNS TO ALERT PEDESTRIANS 3 DAYS PRIOR TO THE IMPLEMENTATION OF SIDEWALK CLOSURES, PEDESTRIAN SIGNAL MODIFICATION OR OTHER PEDESTRIAN RESTRICTIONS. FOR LOCATION 1, THE WALTON HILLS CITY ENGINEER AND THE OAKWOOD CITY ENGINEER SHALL BE NOTIFIED. FOR LOCATION 2, THE CLEVELAND CITY ENGINEER SHALL BE NOTIFIED. FOR LOCATION 4, THE CLEVELAND CITY ENGINEER SHALL BE NOTIFIED.

THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN, AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLANGERS, WATCHERS AND INCIDENTALS RELATED THERETO.

|   |         |             |
|---|---------|-------------|
| 1 | 7/12/21 | REVISE NOTE |
| 2 | 9/9/21  | REVISE NOTE |
|   |         |             |

**II. LANE CLOSURE RESTRICTIONS**

- LANE CLOSURES MAY ONLY BE IMPLEMENTED AT THE TIMES PERMITTED BY THE "DISTRICT 12 PERMITTED LANE CLOSURE TIMES" LIST, UNLESS OTHERWISE DETAILED IN THESE PLANS, LOCATED ON THE ODOT WEB SITE: [HTTP://WWW.DOT.STATE.OH.US/DISTRICTS/D12/HIGHWAYMANAGEMENT/PAGES/PERMITTEDLANECLOSURES.ASPX](http://www.dot.state.oh.us/districts/d12/highwaymanagement/pages/permittedsidelane closures.aspx) THE LATEST REVISION 14 DAYS PRIOR TO THE BID DATE SHALL BE IN EFFECT FOR THIS PROJECT. ALL NOTES ON THE PERMITTED LANE CLOSURE TIMES SHALL BE PART OF THIS PROJECT.
- UNLESS OTHERWISE NOTED, EXIT AND ENTRANCE RAMP LANES SHALL REMAIN OPEN AT ALL TIMES AND EXHIBIT A MINIMUM WIDTH OF ELEVEN (11) FEET.
- MAINTENANCE OF TRAFFIC SHALL FOLLOW THE INSTRUCTION OF THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET AND THE LATEST REVISION OF THE ODOTCD.
- PEDESTRIAN TRAFFIC SHALL BE PERMITTED AND ACCOMMODATED ON AT LEAST ONE SIDE AT ALL TIMES AT LOCATIONS WHERE PEDESTRIAN TRAFFIC IS CURRENTLY MAINTAINED.
- ALL DRIVES AND SIDE STREETS SHALL BE MAINTAINED AT ALL TIMES.

**LOCATION 1: CUY-008-0127 (SR 8 [NORTHFIELD ROAD] OVER NORFOLK SOUTHERN RAILWAY)**

ALL WORK FOR THIS STRUCTURE IS BENEATH THE SR 8 (NORTHFIELD ROAD) BRIDGE AND WILL NOT REQUIRE THE MAINTENANCE OF TRAFFIC ON SR 8 (NORTHFIELD ROAD). THE WORK INCLUDES REPAIRING THE DESIGNATED PIER COLUMNS, REPAIRING THE DESIGNATED FLOORBEAM WEB CONNECTIONS, AND PAINTING THE DESIGNATED FLOORBEAM WEB CONNECTIONS. THE CONTRACTOR SHALL DETERMINE THE PHASING OF THE WORK TO BE PERFORMED BENEATH THE SR 8 (NORTHFIELD ROAD) BRIDGE. THE CONTRACTOR SHALL COORDINATE WITH THE RAILROAD AS REQUIRED TO MAKE THE REPAIRS.

**LOCATION 2: CUY-42-1457 (US 42 [PEARL ROAD] OVER NS RAILWAY/ CSX RAILWAY/BIG CREEK)**

THE CONTRACTOR SHALL PERFORM THE WORK IN TWO PHASES OF CONSTRUCTION ON US 42 (PEARL ROAD). THE CONTRACTOR SHALL REPLACE PORTIONS OF THE WALK ON THE APPROACHES, REPLACE THE ABUTMENT JOINTS, REPAIR THE PIER JOINTS, REPLACE THE PIER JOINT SEALS, REPLACE SECTIONS OF THE RAILING, REMOVE AND REERECT THE LIGHT POLE AND LUMINAIRE NEAR PIER 10, REPLACE SECTIONS OF THE SIDEWALK WEARING SURFACE, AND IMPROVE THE DRAINAGE DURING PHASE ONE ON US 42 (PEARL ROAD). THE CONTRACTOR SHALL REPLACE PORTIONS OF THE WALK ON THE APPROACHES, REPLACE THE ABUTMENT JOINTS, REPAIR THE PIER JOINTS, REPLACE THE PIER JOINT SEALS, REPLACE SECTIONS OF THE RAILING, REPLACE SECTIONS OF THE SIDEWALK WEARING SURFACE, REPAIR THE ASPHALT ON THE FORWARD APPROACH, AND IMPROVE THE DRAINAGE DURING PHASE TWO ON US 42 (PEARL ROAD). THE FIRST PHASE SHALL CLOSE THE NORTHBOUND PORTION OF THE BRIDGE AND MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION ON THE TWO EXISTING SOUTHBOUND LANES IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-95.31 (CLOSING RIGHT LANES OF A MULTI-LANE UNDIVIDED HIGHWAY WITH DRUMS). THE EAST SIDEWALK ALONG PEARL ROAD SHALL BE CLOSED DURING PHASE ONE. PEDESTRIAN TRAFFIC SHALL BE DETOURED TO THE WEST SIDEWALK IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS). TEMPORARY "SHARE THE ROAD" (W16-1P-18) SIGNS SHALL BE INSTALLED, PRIOR TO PHASE ONE CONSTRUCTION, ON THE APPROACHES TO THE BRIDGE AT THE BEGINNING OF THE MAINTENANCE OF TRAFFIC LIMITS AND ACROSS THE BRIDGE AS SHOWN IN THE MAINTENANCE OF TRAFFIC PLANS. THE BUS STOP SIGN AND BUS STOP LOCATED AT THE SOUTH END OF THE STRUCTURE (NORTHBOUND) SHALL BE TEMPORARILY RELOCATED, PRIOR TO PHASE ONE CONSTRUCTION, TO THE SOUTH. THE CONTRACTOR SHALL COORDINATE WITH GCRTA FOR THE TEMPORARY RELOCATION OF THE BUS STOP. SEE THE MAINTENANCE OF TRAFFIC NOTES FOR COORDINATION WITH GCRTA. THE SECOND PHASE SHALL CLOSE THE SOUTHBOUND PORTION OF THE BRIDGE AND MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION ON THE TWO EXISTING NORTHBOUND LANES IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-95.31 (CLOSING RIGHT LANES OF A MULTI-LANE UNDIVIDED HIGHWAY WITH DRUMS). THE WEST SIDEWALK ALONG PEARL ROAD SHALL BE CLOSED DURING PHASE TWO. PEDESTRIAN TRAFFIC SHALL BE DETOURED TO THE EAST SIDEWALK IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS). TEMPORARY "SHARE THE ROAD" (W16-1P-18) SIGNS INSTALLED PRIOR TO PHASE ONE CONSTRUCTION SHALL REMAIN DURING PHASE 2 CONSTRUCTION AND SHALL BE REMOVED AFTER PHASE TWO CONSTRUCTION. THE BUS STOP SIGN AND BUS STOP LOCATED AT THE SOUTH END OF THE STRUCTURE (NORTHBOUND) SHALL REMAIN DURING PHASE 2 CONSTRUCTION AND SHALL BE MOVED TO THE ORIGINAL LOCATION AFTER PHASE TWO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH GCRTA FOR THE TEMPORARY RELOCATION OF THE BUS STOP. SEE THE MAINTENANCE OF TRAFFIC NOTES FOR COORDINATION WITH GCRTA.

THE CONTRACTOR SHALL PERFORM THE WORK IN MULTIPLE PHASES OF CONSTRUCTION BENEATH THE US 42 (PEARL ROAD) BRIDGE. THE CONTRACTOR SHALL PROVIDE LANE CLOSURES AND PARKING LOT CLOSURES IN ORDER TO PERFORM THE REPAIRS BENEATH THE BRIDGE. THE CONTRACTOR SHALL PERFORM THE FOLLOWING WORK BENEATH THE US 42 (PEARL ROAD) BRIDGE:

- REAR ABUTMENT - REPLACE THE EXPANSION JOINT
- PIER 2 - CLEAN OUT THE DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS)
- PIER 4 - CLEAN OUT THE DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS); PATCH AND SEAL UPPER PIER CAP AND COLUMNS; REPLACE RAILING ON PEARL ROAD FOR JOINT REPAIRS DURING PHASES 1 AND 2 ON PEARL ROAD
- PIER 5 - CLEAN OUT DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS)
- PIER 6 - CLEAN OUT DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS)
- PIER 7 - CLEAN OUT THE DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS); SEAL UPPER PIER CAP AND COLUMNS; REPLACE RAILING FOR JOINT REPAIRS DURING PHASES 1 AND 2 ON PEARL ROAD
- SPAN 8 - REPLACE DETERIORATED RAILING DURING PHASE 2 ON PEARL ROAD
- PIER 8 CLEAN OUT DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS)
- SPAN 9 - REPLACE DETERIORATED RAILING DURING PHASE 1 AND PHASE 2 ON PEARL ROAD
- PIER 9 CLEAN OUT DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS)
- SPAN 10 - REPLACE DETERIORATED RAILING DURING PHASE 1 ON PEARL ROAD; INSTALL TIMBER SUBDECK
- PIER 10 - CLEAN OUT THE DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS); PATCH AND SEAL UPPER PIER CAP AND COLUMNS; REPLACE RAILING FOR JOINT REPAIRS DURING PHASES 1 AND 2 ON PEARL ROAD
- SPAN 11 - REPLACE DETERIORATED RAILING DURING PHASE 1 ON PEARL ROAD; INSTALL TIMBER SUBDECK
- PIER 11 - CLEAN OUT DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS)
- PIER 12 - CLEAN OUT DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS)
- PIER 13 - CLEAN OUT DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS)
- PIER 14 - CLEAN OUT THE DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUT); PATCH AND SEAL UPPER PIER CAP AND COLUMNS; REPLACE RAILING FOR JOINT REPAIRS DURING PHASES 1 AND 2 ON PEARL ROAD
- PIER 15 - CLEAN OUT DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS)
- FORWARD ABUTMENT - CLEAN OUT DRAINAGE SYSTEM (SCUPPERS AND DOWNSPOUTS); REPLACE THE EXPANSION JOINT

THE CONTRACTOR SHALL CLOSE ONE LANE OF OLD PEARL ROAD WITH FLAGGERS IN ACCORDANCE WITH MT-97.10 (FLAGGER CLOSING 1 LANE OF A 2-LANE HIGHWAY - STATIONARY OPERATION) AS REQUIRED TO MAKE THE REPAIRS. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE PROPERTY OWNERS THAT OCCUPY SPACE UNDER THE BRIDGE. THE CONTRACTOR SHALL COORDINATE WITH THE RAILROADS AS REQUIRED TO MAKE THE REPAIRS. THE CONTRACTOR SHALL CLOSE OFF PORTIONS OF THE PARKING LOTS BENEATH THE BRIDGE AS REQUIRED TO MAKE THE REPAIRS.

ALL WORK REQUIRING RAILROAD COORDINATION SHALL BE COMPLETED WITHIN 90 CONSECUTIVE CALENDAR DAYS. FOR EACH CALENDAR DAY BEYOND THE 90 CONSECUTIVE CALENDAR DAYS THE WORK IN THIS AREA IS NOT COMPLETED, LIQUIDATED DAMAGES WILL BE ACCESSED IN ACCORDANCE WITH CMS 108.07 (TABLE 108.07-1 SCHEDULE OF LIQUIDATED DAMAGES).

WHERE INTERSECTING ROADS OR DRIVES FALL WITHIN THE LANE CLOSURES, ADDITIONAL FLAGGERS, SIGNING, DRUMS, OTHER TRAFFIC CONTROL DEVICES AND TEMPORARY DRIVES SHALL BE USED TO SUPPLEMENT THE CLOSURE, AS DIRECTED BY THE ENGINEER TO ALLOW VEHICULAR INGRESS AND EGRESS AT ALL TIMES. DRUMS AT A MAXIMUM 5 FT SPACING SHALL BE USED TO DELINEATE DRIVE OPENINGS WITHIN THE LANE CLOSURES THROUGH THIS SECTION.



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LOCATION 4: CUY-71-1640 (IR 71 OVER NORFOLK SOUTHERN RAILWAY)

THE CONTRACTOR SHALL PERFORM THE WORK IN THREE PHASES OF CONSTRUCTION ON THE IR 71 SOUTHBOUND BRIDGE. THE CONTRACTOR SHALL PERFORM THE ABUTMENT EXPANSION JOINT REPLACEMENT, APPROACH SLAB REPLACEMENT, MEDIAN BARRIER REPLACEMENT, MEDIAN BARRIER SEALING, APPROACH PAVEMENT REPAIRS, AND UNDERDRAIN REPLACEMENT DURING PHASE ONE FOR THE IR 71 SOUTHBOUND STRUCTURE. THE CONTRACTOR SHALL PERFORM THE ABUTMENT EXPANSION JOINT REPLACEMENT, APPROACH SLAB REPLACEMENT, AND APPROACH PAVEMENT REPAIRS DURING PHASE TWO FOR THE IR 71 SOUTHBOUND STRUCTURE. THE CONTRACTOR SHALL PERFORM THE ABUTMENT EXPANSION JOINT REPLACEMENT, APPROACH SLAB REPLACEMENT, WINGWALL REPLACEMENT, PARAPET REPLACEMENT, WINGWALL SEALING, PARAPET SEALING, APPROACH PAVEMENT REPAIRS, THE FENCE REPLACEMENT, UNDERDRAIN REPLACEMENT, AND GUARDRAIL REPLACEMENT DURING PHASE THREE FOR THE IR 71 SOUTHBOUND STRUCTURE. THE FIRST PHASE SHALL CLOSE THE INSIDE PORTION OF THE BRIDGE AND SHIFT TRAFFIC TO THE OUTSIDE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS), MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER), AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO MAINLINE LANES OF TRAFFIC AND THE ENTRANCE RAMP LANE. THE SECOND PHASE SHALL CLOSE THE MIDDLE PORTION OF THE BRIDGE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS), MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER), AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO MAINLINE LANES OF TRAFFIC AND THE ENTRANCE RAMP LANE. THE THIRD PHASE SHALL CLOSE THE OUTSIDE PORTION OF THE BRIDGE AND SHIFT TRAFFIC TO THE INSIDE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER), AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO MAINLINE LANES OF TRAFFIC AND THE ENTRANCE RAMP LANE.

THE CONTRACTOR SHALL PERFORM THE WORK IN THREE PHASES OF CONSTRUCTION ON THE IR 71 NORTHBOUND BRIDGE. THE CONTRACTOR SHALL PERFORM THE ABUTMENT EXPANSION JOINT REPLACEMENT, APPROACH SLAB REPLACEMENT, MEDIAN BARRIER REPLACEMENT, MEDIAN BARRIER SEALING, APPROACH PAVEMENT REPAIRS, AND UNDERDRAIN REPLACEMENT DURING PHASE ONE FOR THE IR 71 NORTHBOUND STRUCTURE. THE CONTRACTOR SHALL PERFORM THE ABUTMENT EXPANSION JOINT REPLACEMENT, APPROACH SLAB REPLACEMENT, PARAPET REPLACEMENT, PARAPET SEALING, APPROACH PAVEMENT REPAIRS, UNDERDRAIN REPLACEMENT, AND GUARDRAIL REPLACEMENT DURING PHASE TWO FOR THE IR 71 NORTHBOUND STRUCTURE. THE CONTRACTOR SHALL PERFORM THE ABUTMENT EXPANSION JOINT REPLACEMENT, APPROACH SLAB REPLACEMENT, PARAPET REPLACEMENT, AND GUARDRAIL REPLACEMENT DURING PHASE THREE FOR THE IR 71 NORTHBOUND STRUCTURE. THE FIRST PHASE SHALL CLOSE THE INSIDE PORTION OF THE BRIDGE AND SHIFT TRAFFIC TO THE OUTSIDE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER), AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO MAINLINE LANES OF TRAFFIC AND THE EXIT RAMP LANE. THE SECOND PHASE SHALL CLOSE THE MIDDLE PORTION OF THE BRIDGE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS), MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER), AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO MAINLINE LANES OF TRAFFIC AND THE EXIT RAMP LANE. THE THIRD PHASE SHALL CLOSE THE OUTSIDE PORTION OF THE BRIDGE AND SHIFT TRAFFIC TO THE INSIDE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, MT-98.22 (LANE CLOSURE IN DECELERATION LANE), MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER), AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO MAINLINE LANES OF TRAFFIC AND THE EXIT RAMP LANE.

THE DUMPED ROCK FILL INSTALLATION AT PIER ONE RIGHT, THE DUMPED ROCK FILL INSTALLATION AT THE LEFT FORWARD ABUTMENT, AND THE ABUTMENT SEALING WILL NOT REQUIRE THE MAINTENANCE OF TRAFFIC ON IR 71. HOWEVER, THE CONTRACTOR SHALL COORDINATE WITH THE NORFOLK SOUTHERN RAILROAD AS REQUIRED FOR ACCESS BENEATH THE STRUCTURE AND TO MAKE THE REPAIRS.

**III. MAINTENANCE OF TRAFFIC SYSTEMS**

1. WHEN REQUIRED  
WHENEVER ANY PART OF THE TRAVELED SURFACE IS BEING WORKED UPON OR IS OTHERWISE NOT SUITABLE FOR SAFE AND CONVENIENT USE BY VEHICLES, TRAFFIC CONTROL DEVICES SUFFICIENT TO PROTECT SUCH AREAS TO ASSURE THE SAFE AND CONVENIENT PASSAGE OF VEHICULAR TRAFFIC SHALL BE INSTALLED AND MAINTAINED. SUCH TRAFFIC CONTROL DEVICES AND THE MANNER IN WHICH THEY ARE USED SHALL BE CONSISTENT WITH THESE PLANS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, HEREINAFTER REFERRED TO AS THE "MANUAL". THE TRAFFIC CONTROL DEVICE SYSTEM SHALL CONSTITUTE THE MINIMUM PROVISIONS FOR TRAFFIC CONTROL FOR EACH PARTICULAR SITUATION. WHENEVER THE ENGINEER DEEMS IT NECESSARY, ESPECIALLY WHERE A GRADE, CURVE, OR MERGE CONDITION EXISTS, THE ENGINEER MAY DIRECT THAT ADDITIONAL OR ALTERNATIVE DEVICES BE USED.
2. CONDITIONS  
DURING ALL PARTS OF THIS PROJECT, FLAGGERS, SIGNING, BARRICADES, FLASHING ARROWS, ETC. SHALL BE LOCATED AS INDICATED IN THE "MANUAL" OR AS SHOWN IN THE STANDARD DRAWINGS.
3. ADVANCE WARNING SIGNS  
ALL ADVANCE WARNING SIGNS FOR ANY CONDITION WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHENEVER THEY ARE NOT APPLICABLE.
4. FLAGGERS  
AT LEAST TWO FLAGGERS ARE REQUIRED FOR EACH LANE CLOSURE REQUIRING FLAGGERS. THE CONTRACTOR SHALL FURNISH ADDITIONAL FLAGGERS AS DIRECTED BY THE ENGINEER.
5. PROTECTION OF PUBLIC  
PERSONAL CARS SHALL NOT BE PARKED WITHIN THE RIGHT OF WAY.
6. FAILURE TO COMPLY  
IF THERE IS ANY FAILURE TO COMPLY WITH PROVISIONS FOR TRAFFIC CONTROL SET OUT IN THESE PLANS AND NOTES, OR WITH THE PROVISIONS OF THE "MANUAL", THE HIGHWAY IN THE VICINITY OF THE WORK AREA SHALL NOT BE CONSIDERED IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC. ANY FAILURE TO KEEP THE HIGHWAY, IN THE VICINITY OF THE WORK AREA, IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC SHALL BE CONSIDERED A BREACH OF THIS CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF THE AFOREMENTIONED ITEMS.

**IV. MAINTENANCE OF TRAFFIC MATERIALS**

1. SIGNS  
SIGN DIMENSIONS AND SPECIFICATIONS, INCLUDING LETTER SIZES ARE TO BE AS PROVIDED IN THE "MANUAL", OR IN DESIGN DRAWINGS PROVIDED BY THE DEPARTMENT OF TRANSPORTATION. THE SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER PRIOR TO THE START OF THE PROJECT.
2. SIGN SUPPORT  
SIGN SUPPORTS SHALL BE OF SUFFICIENT SIZE AND MASS AS TO SUPPORT THE SIGNS AT THE APPROPRIATE HEIGHT. SUPPORTS SHALL BE AS SHOWN ON THE STANDARD DRAWINGS.
3. FLASHING ARROW REQUIREMENT  
WHENEVER ANY PART OF THE TRAVELED SURFACE OF THE INTERSTATES IS CLOSED, THE MOTORISTS SHALL BE WARNED AND DIRECTED BY THE CONTRACTOR THROUGH THE USE OF ONE FLASHING ARROW PANEL FOR EACH LANE CLOSED. THE CONTRACTOR SHALL REFER TO SUPPLEMENTAL SPECIFICATIONS 821 AND 921, AND THE PROVISIONS SET FORTH IN THE "MANUAL" FOR ALL INFORMATION REGARDING FURNISHING, MAINTAINING, AND USE OF FLASHING ARROW PANELS. PAYMENT FOR THE ABOVE MENTIONED ITEMS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.
4. DRUMS  
DRUMS SHALL BE IN ACCORDANCE WITH PERTINENT SECTIONS OF THE "MANUAL". ALL COSTS FOR INSTALLING, MAINTAINING, AND SUBSEQUENT REMOVAL OF SAID DRUMS IS TO BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.
5. CONES  
CONES, IF UTILIZED, ARE TO BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.

6. BARRIER  
PORTABLE CONCRETE BARRIER, IF NECESSARY, IS TO BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.
7. FLASHERS  
FLASHERS SHALL BE 12 VOLT BATTERY-OPERATED MODELS WITH 7 INCH DIAMETER YELLOW LENSES ILLUMINATED BY RAPID INTERMITTENT FLASHERS OF SHORT DURATION AND ARE TO BE PLACED ON ALL SIGNS AT ALL TIMES AS REQUIRED BY THE "MANUAL" AND THE STANDARD CONSTRUCTION DRAWINGS.
8. FLOODLIGHTING  
FLOODLIGHTING OF THE WORKSITE FOR OPERATIONS CONDUCTED DURING THE NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND ENGINEER SHALL DRIVE THROUGH THE WORKSITE 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, INCIDENTALS AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.
9. WORK VEHICLES  
ALL WORK VEHICLES LICENSED TO OPERATE ON THE HIGHWAY, SHALL BE EQUIPPED WITH A FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT AND SHALL BE OPERATED WITH LIGHTED HEAD AND TAIL LAMPS. THE AMBER LIGHT SHALL BE IN OPERATION AT ALL TIMES WITHIN THE WORK ZONE AND WHILE TRAVELING TO AND FROM THE WORK ZONE WHENEVER THE VEHICLE SPEED IS BELOW THE POSTED LEGAL LIMIT. VEHICLE HAZARD LIGHTS DO NOT SATISFY THIS REQUIREMENT. ALL OTHER EQUIPMENT SHALL BE EQUIPPED WITH A FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT. THE AMBER LIGHT SHALL BE IN OPERATION WHILE THE EQUIPMENT IS WITHIN THE WORK ZONE.

**V. ALTERNATE MAINTENANCE OF TRAFFIC PLANS**

IF THE CONTRACTOR SO ELECTS, HE/SHE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLANS SHALL BE PLACED IN EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING BY THE ODOT DISTRICT CONSTRUCTION ENGINEER.

**VI. NORFOLK SOUTHERN RAILWAY**

THE NORFOLK SOUTHERN RAILWAY SHALL BE MAINTAINED AT ALL TIMES EXCEPT FOR SHORT TERM CLOSURES DURING NON-PEAK HOURS, AS APPROVED BY NORFOLK SOUTHERN RAILWAY AND THE ENGINEER FOR THE BRIDGE REPAIRS.

FLAGGERS, INSURANCE, SAFETY MEASURES, COORDINATION, AND ALL OTHER NORFOLK SOUTHERN RAILWAY REQUIREMENTS SHALL BE IMPLEMENTED. ALL COORDINATION AND APPROVALS SHALL BE OBTAINED PRIOR TO SCHEDULING THE WORK FOR CONSTRUCTION. COPIES OF THE APPROVALS SHALL BE PROVIDED TO THE ENGINEER.

NO STAGING AND/OR STORAGE OF CONSTRUCTION EQUIPMENT OR MATERIALS SHALL OCCUR WITHIN THE NORFOLK SOUTHERN RAILWAY RIGHT OF WAY.

THE CONTRACTOR SHALL DESIGN/UTILIZE A DEBRIS SHIELD AND DEBRIS COLLECTION SYSTEM FOR ALL WORK ADJACENT TO THE RAILROADS (LOCATIONS APPROVED BY CSX, NS, ODOT). THE DESIGN SHALL BE SEALED BY AN ENGINEER AND SUBMITTED TO NS AND ODOT FOR REVIEW AND ACCEPTANCE. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING, AND REMOVAL OF NORFOLK SOUTHERN RAILWAY MAINTENANCE OF TRAFFIC DEVICES REQUIRED THROUGH RAILROAD COORDINATION/APPROVAL PROCESS. ALL MAINTENANCE OF RAILROAD TRAFFIC AND COORDINATION TO PERFORM THE REPAIR WORK SHALL BE INCLUDED IN ITEM 614.

SEE SPECIAL CLAUSES IN THE PROPOSAL FOR ADDITIONAL INFORMATION AND REQUIREMENTS FOR NORFOLK SOUTHERN RAILWAY.



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| 2 | 9/8/21 | ADD NOTE |
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**VII. CSX TRANSPORTATION**

THE CSX TRANSPORTATION SHALL BE MAINTAINED AT ALL TIMES UNDER THE DIRECTION OF THE CSX FLAGGER, AS APPROVED BY CSX TRANSPORTATION AND THE ENGINEER FOR THE BRIDGE REPAIRS.

FLAGGERS, INSURANCE, SAFETY MEASURES, COORDINATION, AND ALL OTHER CSX TRANSPORTATION REQUIREMENTS SHALL BE IMPLEMENTED. ALL COORDINATION AND APPROVALS SHALL BE OBTAINED PRIOR TO SCHEDULING THE WORK FOR CONSTRUCTION. COPIES OF THE APPROVALS SHALL BE PROVIDED TO THE ENGINEER.

NO STAGING AND/OR STORAGE OF CONSTRUCTION EQUIPMENT OR MATERIALS SHALL OCCUR WITHIN THE CSX TRANSPORTATION RIGHT OF WAY.

THE CONTRACTOR SHALL DESIGN/UTILIZE A DEBRIS SHIELD AND DEBRIS COLLECTION SYSTEM FOR ALL WORK ADJACENT TO THE RAILROADS (LOCATIONS APPROVED BY CSX, NS, ODOT). THE DESIGN SHALL BE SEALED BY AN ENGINEER AND SUBMITTED TO CSX AND ODOT FOR REVIEW AND ACCEPTANCE. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW.

THE CONTRACTOR SHALL DESIGN/UTILIZE SURFACE PREPARATION AND SURFACE PROTECTION METHODS THAT FOLLOW ALL ENVIRONMENTAL GUIDELINES AND BE APPROVED IN ADVANCE OF CONSTRUCTION BY CSX. THE DESIGN SHALL BE SEALED BY AN ENGINEER. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW. ALL WASTE MATERIALS GENERATED BY THIS PROJECT, INCLUDING WASHING WITH WATER, CLEANING SOLVENTS, BLASTING, SCRAPING, BRUSHING, AND PAINTING OPERATIONS, SHALL BE CONTAINED, COLLECTED, AND PROPERLY DISPOSED OF BY CONTRACTOR. THE MATERIALS REMOVED DURING THE SURFACE PREPARATION MUST NOT IMPACT THE SURROUNDING AREA INCLUDING GROUND, WATER, OR AIR. MATERIALS MUST NOT BE STORED ON CSX PROPERTY. CONTRACTOR MUST CONTROL ANY OVERSPRAY AND VAPORS DURING APPLICATION. THE WORK MUST BE DONE COMPLYING WITH APPROPRIATE REGULATIONS AND OVER SPRAY CONTROLLED TO PREVENT DAMAGE TO ADJACENT PROPERTY AND VEHICLES IN THE AREA.

IT IS THE POLICY OF CSX THAT ALL MATERIALS DISCARDED BY OR ON BEHALF OF CSX WILL BE MANAGED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS CSX'S BEST MANAGEMENT PRACTICES AND SUSTAINABILITY GOALS.

TO ENSURE THAT THESE GOALS ARE ACHIEVED, CSX HAS MECHANISMS IN PLACE TO MONITOR WASTE MANAGEMENT ACTIVITIES, CAPTURE THE INFORMATION NECESSARY TO ENSURE 100% COMPLIANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS 100% OF THE TIME, AND TRACK PROGRESS IN THE CSX SUSTAINABILITY PROGRAM.

THESE MECHANISMS ALSO ALLOW CSX TO COMPLETE REPORTING REQUIREMENTS TO FEDERAL AND STATE REGULATORY AGENCIES AND DOCUMENT CSX'S PROGRESS TOWARD ITS SUSTAINABILITY GOALS.

WASTE MATERIAL REMOVAL SHALL BE IN ACCORDANCE WITH CSX SOIL AND WATER MANAGEMENT POLICY

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CSX TRANSPORTATION MAINTENANCE OF TRAFFIC THROUGH RAILROAD COORDINATION/APPROVAL PROCESS. ALL MAINTENANCE OF RAILROAD TRAFFIC AND COORDINATION TO PERFORM THE REPAIR WORK SHALL BE INCLUDED IN ITEM 614.

SEE SPECIAL CLAUSES IN THE PROPOSAL INCLUDING CSX PUBLIC PROJECT MANUAL FOR ADDITIONAL INFORMATION AND REQUIREMENTS FOR CSX TRANSPORTATION.

**NOTE:**  
ALL PLAN REFERENCES TO "CHESSIE SYSTEM", "B&O", "CSX RAILWAY" OR "CSX TRANSPORTATION" SHALL BE CONSIDERED AS "CSX TRANSPORTATION, INC."

**VIII. SHARED LANES**

SHARE THE ROAD (W16-IP-18) SIGNS HAVE BEEN INCORPORATED INTO THE LOCATION 2 MAINTENANCE OF TRAFFIC PLANS. THE WORK ZONE TEMPORARY SIGN SUPPORTS, SHARE THE ROAD SIGNS AND REMOVAL SHALL BE INCLUDED WITH ITEM 614 - MAINTAINING TRAFFIC FOR PAYMENT.

**IX. PAYMENT**

REMOVING TEMPORARY MAINTENANCE OF TRAFFIC CONTROL DEVICES INCLUDING DETOURS, INTERSTATE LANE CLOSURES/SHIFTS AND SHARE TO ROAD SIGNS SHALL BE MADE UNDER THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

**CONSTRUCTION TRAFFIC**

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE LOCAL ENFORCEMENT AUTHORITY.

**CONTINUOUS ACCESS**

IN ORDER TO PROVIDE CONTINUOUS ACCESS FOR PEDESTRIANS, PASSENGER VEHICLES, TRUCKS, AND SAFETY EQUIPMENT TO ALL ADJOINING PROPERTIES. THE COST FOR ALL MATERIALS, EQUIPMENT, INCIDENTALS AND LABOR NECESSARY TO PROVIDE CONTINUOUS ACCESS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

**MAINTENANCE OF TRAFFIC CONTROL ZONES**

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN THE SIGNS, DRUMS AND TEMPORARY PAVEMENT MARKINGS AT THE LOCATIONS DETAILED IN THE PLANS OR SPECIFIED IN THE STANDARD DRAWINGS. WHEN THE CONTRACTOR IS NOTIFIED OF DEFICIENCIES, HE SHALL CORRECT THE DEFICIENCIES AS SOON AS POSSIBLE, PREFERABLY WITHIN 12 HOURS AND NO LATER THAN 24 HOURS.

**OVERNIGHT JOINT TRENCH CLOSING**

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A SAFE WORK SITE BY REDUCING THE RISK OF VEHICLES OR PEDESTRIANS FALLING INTO THE OPEN JOINT TRENCH DURING CONSTRUCTION. THE CONTRACTOR SHALL COVER UNFILLED JOINT REPAIR AREAS AT THE END OF EACH WORKDAY WITH A STEEL PLATE.

**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 CMS 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 REQUIREMENTS OF CMS 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 DETERMINED AND PRE-APPROVED BY THE ENGINEER. ANY LEO HOURS WHICH ARE NOT PRE-APPROVED FOR THE FOLLOWING PURPOSES SHALL NOT BE COMPENSABLE:

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).

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 SHOULD MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC, IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

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 CMS 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 WHICH 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.

LOCATION 2: CUY-42-1457 (US 42 [PEARL ROAD] OVER NS RAILWAY/ CSX RAILWAY/BIG CREEK)  
ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 16 HOUR

LOCATION 4: CUY-71-1640 (IR 71 OVER NORFOLK SOUTHERN RAILWAY)  
ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 48 HOUR

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 614 - MAINTAINING TRAFFIC, MISC.: GCRTA COORDINATION**

THE CONTRACTOR SHALL NOTIFY IN WRITING THE GCRTA AT LEAST FOURTEEN (14) CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION, AND AT LEAST SEVEN (7) CALENDAR DAYS BEFORE IMPLEMENTING ANY SUBSTANTIAL CHANGE IN TRAFFIC PATTERN OR CLOSING ANY STREET OR PORTION THEREOF TO TRAFFIC. THIS WILL ALLOW GCRTA SUFFICIENT TIME TO PLAN DETOURS AND NOTIFY THE GENERAL PUBLIC.

THE CONTRACTOR SHALL WORK WITH GCRTA TO ESTABLISH AN APPROVED TEMPORARY BUS STOP LOCATION. GCRTA WILL PROVIDE AND POST THE APPROPRIATE TEMPORARY BUS SIGN SIGNAGE. A MINIMUM OF SEVEN (7) DAYS NOTICE IS REQUIRED FOR THE TEMPORARY RELOCATION OF BUS STOPS.

THE CONTRACTOR SHALL NOTIFY GCRTA AT LEAST FIVE (5) BUSINESS DAYS IN ADVANCE OF CONSTRUCTION COMPLETION SO THAT PERMANENT BUS STOP SIGNS CAN BE RE-INSTALLED BY GCRTA.

THE CONTRACTOR MAY NOT REMOVE ANY BUS STOP SIGNS WITHOUT PRIOR AUTHORIZATION FROM GCRTA.

THE FOLLOWING IS A LIST OF CONTACT INFORMATION FOR GCRTA NOTIFICATIONS.

- CENTRAL COMMUNICATIONS: 216-566-5135, MONITORED 24/7
- TONY RICHARDSON, SERVICE QUALITY, ARICHARDSON@gcrta.org
- HOWARD WESLEY, SERVICE QUALITY, HWESLEY@gcrta.org
- WANDA WARE, SERVICE QUALITY, WWARE@gcrta.org
- ROBERT FLEIG, SERVICE QUALITY COMMUNICATION SPECIALIST, ROBERT.FLEIG@gcrta.org
- MARK RODRIGUEZ, SERVICE QUALITY OFFICE MANAGER, MARK.RODRIGUEZ@gcrta.org
- JOEL FREILICH, SERVICE MANAGEMENT, JFREILICH@gcrta.org
- JEFFREY MACKO, SERVICE MANAGEMENT, JMACKO@gcrta.org

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS AND INCIDENTALS REQUIRED TO PERFORM THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC, MISC.: GCRTA COORDINATION.

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|---|---------|-----------------------|
| 1 | 7/12/21 | ADD NOTE              |
| 2 | 9/8/21  | ADD NOTE              |
| 3 | 9/21/21 | REVISE NOTES/ADD NOTE |

**REFER TO STANDARD BRIDGE DRAWINGS**

BR-2-15 (DATED 7-17-2015)  
EXJ-4-87 (REVISED 1-19-2018)  
VPF-1-90 (REVISED 7-20-2018)

**DESIGN DATA**

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50 YIELD STRENGTH 50 KSI

CONCRETE CLASS QC SCC - COMPRESSIVE STRENGTH 4.5 KSI (BACKWALL AND PORTIONS OF SUPERSTRUCTURE DECK & SIDEWALK)

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (PARAPETS)

**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 SECTIONS 102.05 AND 105.02 OF THE 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

THE EXISTING STRUCTURE PLANS MAY BE REVIEWED AT THE:

OHIO DEPARTMENT OF TRANSPORTATION  
DISTRICT 12 OFFICE  
5500 TRANSPORTATION BOULEVARD  
GARFIELD HEIGHTS, OH 44125

EXISTING PLANS ARE ALSO AVAILABLE THROUGH THE FOLLOWING ODOT WEBSITE

[HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/CONTRACTADMIN/CONTRACTS/PAGES/DESIGNFILES.ASPX](http://www.dot.state.oh.us/divisions/contractadmin/contracts/pages/designfiles.aspx)

**DESCRIPTION OF WORK:**

1. REMOVE THE ABUTMENT EXPANSION JOINTS, BACKWALLS, AND PORTIONS OF SUPERSTRUCTURE SLAB INCLUDING SIDEWALK CONCRETE, STEEL PLATES AND RAILING.
2. CONSTRUCT NEW ABUTMENT STRIP SEAL EXPANSION JOINTS, AND PORTIONS OF SUPERSTRUCTURE AND BACKWALL INCLUDING DECK SLAB, SIDEWALK AND RAILING PER THE PLAN DETAILS.
3. DISASSEMBLE THE REMOVABLE SIDEWALK AND RAILING PLATES AT THE PIER EXPANSION JOINTS, INSPECT FOR PLATE AND CONCRETE DAMAGE AROUND THE JOINT THAT ALLOWS WATER LEAKAGE.
4. REMOVE THE STEEL PARAPET EXPANSION JOINT PLATES AT PIER JOINTS BY CUTTING THEM OFF SMOOTH AT THE SIDEWALK LEVEL AND REPLACE THE CONCRETE IN THIS AREA. ADDITIONALLY, REPAIR/MODIFY STEEL AND CONCRETE PER PLAN DETAILS AND DIRECTION OF ENGINEER IN THE SIDEWALK AREA. THEN REPLACE THE STRIP SEALS IN THE PIER 4 AND 14 JOINTS AND THE DOUBLE CELLULAR SEALS IN THE PIER 7 AND 10 MODULAR JOINTS.
5. REINSTALL SIDEWALK JOINT PLATES AT PIERS USING NEW GALVANIZED BOLTED HARDWARE AFTER ANY REPAIRS ARE MADE AS DIRECTED BY THE ENGINEER.
6. REPLACE PORTIONS OF THE SIDEWALK CONCRETE WEARING SURFACE PER PLAN DETAILS AND AS DIRECTED BY THE ENGINEER.
7. REPLACE SECTIONS OF THE RAILING PER PLAN DETAILS OR DIRECTION OF THE ENGINEER, INCLUDING REMOVING AND RE-ERECTING THE VANDAL PROTECTION FENCE THAT IS REQUIRED FOR THE WORK.
8. INSTALL TIMBER SUBDECK IN SPANS 10 AND 11 OVER THE ROAD AND PARKING AREA BELOW PER PLAN DETAILS.
9. REPAIR THE PIERS 4, 10 AND 14 CAPS AND COLUMNS CONCRETE DETERIORATION FROM WATER LEAKAGE PER PLAN DETAILS AND AS DIRECTED BY THE ENGINEER.
10. FLUSH AND CLEAN OUT THE DRAINAGE SYSTEM INCLUDING SCUPPERS AND PIER DOWNSPOUTS BY REMOVING THE CLEANOUTS AT PIERS 2, 4 THRU 15, AND 18.
11. IF THE DOWNSPOUTS AT CERTAIN PIERS ARE TOO PLUGGED TO BE CLEANED IN PLACE AND THE SYSTEM CANNOT BE BROUGHT TO A FREE-FLOWING CONDITION, THEN THE PLUGGED PIPE SECTIONS SHALL BE DISASSEMBLED OR CUT OUT AND BROUGHT TO THE GROUND. ON THE GROUND THE SECTIONS SHALL BE EITHER CLEANED OUT OR THE PIPE SECTIONS REPLACED PER DIRECTION OF THE ENGINEER AND THE AGREEMENT OF THE CONTRACTOR.
12. AFTER CLEANING THE DRAINAGE SYSTEM, THE PIPES AND CLEANOUTS SHALL BE REASSEMBLED WITH NEW BOLTED HARDWARE PER DIRECTION OF THE ENGINEER.

13. IF IT IS DISCOVERED THAT THE IN-GROUND DOWNSPOUT DRAIN SYSTEM IS PLUGGED BELOW THE DOWNSPOUTS, THE CONTRACTOR SHALL ATTEMPT TO CLEAN THE PIPES BY FLUSHING AND A POWER AUGER. IF THE SYSTEM CAN NOT BE CLEARED WITH A REASONABLE EFFORT, THEN THE BOTTOM OF THE DOWNSPOUT PIPE SHALL BE MODIFIED TO OUTLET ONTO THE GROUND PER PLAN DETAILS AND AT THE DIRECTION OF THE ENGINEER.
14. SEAL UPPER PIER CAPS AND COLUMNS FOR EXPANSION JOINTS AT PIERS 4, 7, 10, AND 14 PER PLAN DETAILS.

APPROACH WORK INCLUDING REPLACING PORTIONS OF SIDEWALK; REPLACING GUARDRAIL AT THE FORWARD LEFT APPROACH; PATCHING THE FORWARD APPROACH SLAB; INSTALLING A NEW JUNCTION BOX AT STA. 21+35± RIGHT; AND REMOVING AND REERECTING THE LIGHT POLE AND LUMINAIRE AT STA. 21+35± RT.

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

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION; AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED 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 SHALL DESIGN/UTILIZE A DEBRIS SHIELD AND DEBRIS COLLECTION SYSTEM FOR ALL WORK ADJACENT TO THE RAILROADS (LOCATIONS APPROVED BY CSX, NS, ODOT). THE DESIGN SHALL BE SEALED BY AN ENGINEER AND SUBMITTED TO CSX AND ODOT FOR REVIEW AND ACCEPTANCE. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW.

**CUT LINE CONSTRUCTION JOINT PREPARATION**

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

**ITEM 202 - VANDAL PROTECTION FENCE REMOVED AND RESET, AS PER PLAN**

THIS ITEM CONSISTS OF REMOVING SECTIONS OF THE EXISTING FENCE ON THE CONCRETE RAILING PARAPET SO THAT JOINT REPAIR WORK CAN BE DONE, OR DETERIORATED SECTIONS OF THE CONCRETE RAILING CAN BE REPLACED. THE EXISTING FENCE POSTS ARE EMBEDDED IN THE CONCRETE RAILING AND WILL BECOME FREE AS THE CONCRETE IS REMOVED. THE EXISTING FENCE AND POST CAN BE SUPPORTED IN PLACE, REMOVED AND STORED, OR DISPOSED OF TO BE REPLACED WITH NEW PER STANDARD DRAWING VPF-1-90. THE REUSED POSTS SHALL BE SET AND BRACED IN THE NEW CONCRETE UNTIL THE CONCRETE HAS SET. AS AN ALTERNATIVE, THE POSTS CAN BE REPLACED BY POSTS WITH BASE PLATES AND ANCHOR BOLTS PER STANDARD DRAWING VPF-1-90.

ALSO INCLUDED IN THIS ITEM IS THE REPAIR OF DAMAGED FENCE FABRIC ON UNIT 3 WEST RAILING (NEAR PIER 9).

THIS WORK SHALL BE MEASURED AND PAID FOR BY FEET OF FENCE REMOVED AND REPLACED IN THE NEW CONCRETE RAILING.

**ITEM SPECIAL - PIPE CLEANOUT, 24" AND UNDER**

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SHOWN IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. ALL SEWERS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - PIPE CLEANOUT, 24" AND UNDER. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

IT IS THE POLICY OF CSX THAT ALL MATERIALS DISCARDED BY OR ON BEHALF OF CSX WILL BE MANAGED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS CSX'S BEST MANAGEMENT PRACTICES AND SUSTAINABILITY GOALS.

TO ENSURE THAT THESE GOALS ARE ACHIEVED, CSX HAS MECHANISMS IN PLACE TO MONITOR WASTE MANAGEMENT ACTIVITIES, CAPTURE THE INFORMATION NECESSARY TO ENSURE 100% COMPLIANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS 100% OF THE TIME, AND TRACK PROGRESS IN THE CSX SUSTAINABILITY PROGRAM.

THESE MECHANISMS ALSO ALLOW CSX TO COMPLETE REPORTING REQUIREMENTS TO FEDERAL AND STATE REGULATORY AGENCIES AND DOCUMENT CSX'S PROGRESS TOWARD ITS SUSTAINABILITY GOALS.

WASTE MATERIAL REMOVAL SHALL BE IN ACCORDANCE WITH CSX SOIL AND WATER MANAGEMENT POLICY

THIS WORK CONSISTS OF CLEANING OUT THE 12" IN GROUND CONDUITS FROM THE INLET OF THE 8" STEEL DOWNSPOUTS TO THE NEAREST MANHOLE. THIS PIPE CLEANOUT SHALL ONLY BE PERFORMED AT PIER LOCATIONS WHERE THE CONDUIT IS PLUGGED, AND THE WORK IS AUTHORIZED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE ESTIMATED QUANTITIES FOR THE ABOVE NOTED WORK:

ITEM SPECIAL - PIPE CLEANOUT, 24" AND UNDER - 200 FT.

**ITEM 511 - CLASS QC SCC CONCRETE, SUPERSTRUCTURE, AS PER PLAN (WITH STEEL FIBERS)**

60 POUNDS OF STEEL FIBERS (ASTM C1116) SHALL BE ADDED PER CUBIC YARD. THE STEEL FIBERS WILL BE ASTM A 820 MATERIAL WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 120,000 PSI. THE LENGTH WILL BE 2 INCHES +/- 5 PERCENT. THE AVERAGE EQUIVALENT DIAMETER WILL BE 0.899 mm WITH AN ASPECT RATIO OF 57 +/- 15 PERCENT. THE MATERIAL WILL BE CONTINUOUSLY DEFORMED CIRCULAR SEGMENT, CLEAN AND FREE OF RUST, OIL AND DELETERIOUS MATERIALS AND CORRUGATED FULL LENGTH FOR INCREASED MECHANICAL ANCHORAGE.

MIX CONCRETE IN A CENTRAL MIXING PLANT OR BY A READY MIXED CONCRETE TRUCK CAPABLE OF DISCHARGING PLASTICIZED CONCRETE HAVING A MAXIMUM WATER-CEMENT RATIO OF 0.40. MIXING EQUIPMENT SHALL MEET THE REQUIREMENTS OF 499.05B. INTRODUCE ADMIXTURES AND FIBERS INTO THE CONCRETE SO THAT THEY SHALL BE DISBURSED THROUGHOUT THE ENTIRE LOAD. BATCH PLANTS SHALL MEET THE REQUIREMENTS OF 499.05A AND BE LOCATED SUCH THAT THE MAXIMUM TIME REQUIRED FROM START OF MIXING TO COMPLETION OF CONCRETE DISCHARGE AT THE WORK SITE SHALL NOT EXCEED 90 MINUTES.

**ITEM 511 - CLASS QC2 CONCRETE, SIDEWALK WEARING SURFACE, AS PER PLAN**

THIS WORK CONSISTS OF REMOVING AND REPLACING THE EXISTING 3" CONCRETE SIDEWALK WEARING SURFACE AT LOCATIONS DESIGNATED IN THE PLANS AND PER THE DIRECTION OF THE ENGINEER. SIDEWALK REINFORCING (WELDED WIRE FABRIC) AND SEALING OF JOINTS SHALL BE PER PLAN DETAILS AND INCLUDED WITH THIS ITEM. THIS WORK SHALL BE PAID PER SQUARE FOOT OF SIDEWALK REMOVED AND REPLACED.

THE CONTRACTOR SHALL DESIGN/UTILIZE A DEBRIS SHIELD AND DEBRIS COLLECTION SYSTEM FOR ALL WORK ADJACENT TO THE RAILROADS (LOCATIONS APPROVED BY CSX, NS, ODOT). THE DESIGN SHALL BE SEALED BY AN ENGINEER AND SUBMITTED TO CSX AND ODOT FOR REVIEW AND ACCEPTANCE. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW.

**ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN**

SEAL PIER CAPS AND PIER LEGS OF THE FOUR EXPANSION JOINT PIERS PER PLAN DETAILS. THE EPOXY-URETHANE SHALL BE LIGHT NEUTRAL COLOR MEETING FEDERAL COLOR STANDARD NO. 17778, OR AS CLOSELY MATCHES THE SEALER COLOR OF THE EXISTING CONCRETE (LIGHT GRAY TYPICAL COLOR). THE CONTRACTOR SHALL DESIGN/UTILIZE A DEBRIS SHIELD AND DEBRIS COLLECTION SYSTEM FOR ALL WORK ADJACENT TO THE RAILROADS (LOCATIONS APPROVED BY CSX, NS, ODOT). THE DESIGN SHALL BE SEALED BY AN ENGINEER AND SUBMITTED TO CSX AND ODOT FOR REVIEW AND ACCEPTANCE. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW.

THE CONTRACTOR SHALL DESIGN/UTILIZE SURFACE PREPARATION AND SURFACE PROTECTION METHODS THAT FOLLOW ALL ENVIRONMENTAL GUIDELINES AND BE APPROVED IN ADVANCE OF CONSTRUCTION BY CSX. THE DESIGN SHALL BE SEALED BY AN ENGINEER. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW. ALL WASTE MATERIALS GENERATED BY THIS PROJECT, INCLUDING WASHING WITH WATER, CLEANING SOLVENTS, BLASTING, SCRAPING, BRUSHING, AND PAINTING OPERATIONS, SHALL BE CONTAINED, COLLECTED, AND PROPERLY DISPOSED OF BY CONTRACTOR. THE MATERIALS REMOVED DURING THE SURFACE PREPARATION MUST NOT IMPACT THE SURROUNDING AREA INCLUDING GROUND, WATER, OR AIR. MATERIALS MUST NOT BE STORED ON CSX PROPERTY. CONTRACTOR MUST CONTROL ANY OVERSPRAY AND VAPORS DURING APPLICATION. THE WORK MUST BE DONE COMPLYING WITH APPROPRIATE REGULATIONS AND OVER SPRAY CONTROLLED TO PREVENT DAMAGE TO ADJACENT PROPERTY AND VEHICLES IN THE AREA.

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**ITEM 512 - REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN**

THIS ITEM IS INCLUDED FOR THE REMOVAL OF EXISTING COATINGS FROM EXISTING CONCRETE SURFACES TO BE SEALED.

THE CONTRACTOR SHALL DESIGN/UTILIZE SURFACE PREPARATION AND SURFACE PROTECTION METHODS THAT FOLLOW ALL ENVIRONMENTAL GUIDELINES AND BE APPROVED IN ADVANCE OF CONSTRUCTION BY CSX. THE DESIGN SHALL BE SEALED BY AN ENGINEER. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW. ALL WASTE MATERIALS GENERATED BY THIS PROJECT, INCLUDING WASHING WITH WATER, CLEANING SOLVENTS, BLASTING, SCRAPING, BRUSHING, AND PAINTING OPERATIONS, SHALL BE CONTAINED, COLLECTED, AND PROPERLY DISPOSED OF BY CONTRACTOR. THE MATERIALS REMOVED DURING THE SURFACE PREPARATION MUST NOT IMPACT THE SURROUNDING AREA INCLUDING GROUND, WATER, OR AIR. MATERIALS MUST NOT BE STORED ON CSX PROPERTY. CONTRACTOR MUST CONTROL ANY OVERSPRAY AND VAPORS DURING APPLICATION. THE WORK MUST BE DONE COMPLYING WITH APPROPRIATE REGULATIONS AND OVER SPRAY CONTROLLED TO PREVENT DAMAGE TO ADJACENT PROPERTY AND VEHICLES IN THE AREA.

**ITEM 516 - ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN (SEAL REPLACEMENT PIER 4 & 14 JOINTS)**

THIS WORK CONSISTS OF REMOVING AND REPLACING THE EXISTING STRIP SEALS IN THE EXPANSION JOINTS. INCLUDED IN THIS ITEM IS THE DISASSEMBLY OF THE CURB, RAILING AND SIDEWALK PLATES AND REASSEMBLY WITH NEW BOLT HARDWARE. THE STEEL RAILING FACING PLATES SHALL BE CUT OFF AT THE SIDEWALK LEVEL AND A MINIMUM OF 2'-0" OF RAILING CONCRETE SHALL BE REMOVED AND REPLACED ON BOTH SIDES OF THE JOINT PER PLAN DETAILS. RESET THE FENCE POSTS IN THE NEW CONCRETE.

THE CONTRACTOR SHALL DESIGN/UTILIZE A DEBRIS SHIELD AND DEBRIS COLLECTION SYSTEM FOR ALL WORK ADJACENT TO THE RAILROADS (LOCATIONS APPROVED BY CSX, NS, ODOT). THE DESIGN SHALL BE SEALED BY AN ENGINEER AND SUBMITTED TO CSX AND ODOT FOR REVIEW AND ACCEPTANCE. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW.

ALSO INCLUDED IS THE INVESTIGATION AND REPAIR OF CONCRETE AND STEEL IN THE SIDEWALK AREA AND REPAIR TO ELIMINATE LEAKING. THE CONTRACTOR SHALL VERIFY THE TYPE, SIZE AND AVAILABILITY OF THE REPLACEMENT SEALS BEFORE EXISTING SEALS ARE REMOVED. IF NO SUITABLE SEALS CAN BE FOUND, THIS WORK SHALL BE NONPERFORMED.

**ITEM SPECIAL - MODULAR EXPANSION JOINT (SEAL REPLACEMENT PIER 7 & 10 JOINTS)**

THIS WORK CONSISTS OF REMOVING AND REPLACING THE EXISTING DOUBLE CELLULAR SEALS IN THE MODULAR EXPANSION JOINTS. INCLUDED IN THIS ITEM IS THE DISASSEMBLY OF THE CURB, RAILING AND SIDEWALK PLATES AND REASSEMBLY WITH NEW BOLT HARDWARE. THE STEEL RAILING FACING PLATES SHALL BE CUT OFF AT THE SIDEWALK LEVEL AND A MINIMUM OF 2'-0" OF RAILING CONCRETE SHALL BE REMOVED AND REPLACED ON BOTH SIDES OF THE JOINT PER PLAN DETAILS. RESET THE FENCE POSTS IN THE NEW CONCRETE.

ALSO INCLUDED IS THE INVESTIGATION AND REPAIR OF CONCRETE AND STEEL IN THE SIDEWALK AREA AND REPAIR TO ELIMINATE LEAKING. THE CONTRACTOR SHALL VERIFY THE TYPE, SIZE AND AVAILABILITY OF THE REPLACEMENT SEALS BEFORE EXISTING SEALS ARE REMOVED. IF NO SUITABLE SEALS CAN BE FOUND, THIS WORK SHALL BE NONPERFORMED.

**ITEM 518 - 8" PIPE DOWNSPOUT, INCLUDING SPECIALS, AS PER PLAN**

THIS WORK CONSISTS OF CUTTING, DISASSEMBLING, REMOVING, AND REPLACING 8" DIAMETER STEEL PIER MOUNTED DOWNSPOUT PIPE THAT HAS BECOME PLUGGED AND CANNOT BE CLEARED. THIS WORK WILL ONLY BE AUTHORIZED BY THE ENGINEER AFTER CLEANOUT OF THE DRAINAGE SYSTEM IN PLACE PROVES TO BE IMPOSSIBLE. PER THE JUDGEMENT OF THE ENGINEER, IF THE PIPING CAN BE CLEANED ON THE GROUND AND THE CONDITION OF THE STEEL PIPING IS STILL IN GOOD CONDITION, THE CONTRACTOR CAN REUSE AND REASSEMBLE IT, OTHERWISE NEW STEEL PIPING SHALL BE USED. REUSE THE EXISTING PIER ATTACHMENT BRACKETS, IF THEY ARE STILL IN GOOD CONDITION, WITH NEW BOLT HARDWARE. IF THE BRACKETS ARE BADLY RUSTED AND DETEIORATED, REPLACE WITH A SIMILAR GALVANIZED STEEL BRACKET WITH ADHESIVE ANCHOR BOLTS. THE STEEL PIPE SHALL BE REASSEMBLED WITH INDUSTRIAL TYPE CLAMP COUPLINGS (VICTAULIC STYLE 99 OR EQUAL) AS APPROVED BY THE ENGINEER. THIS WORK SHALL BE PAID PER FOOT OF PIPE REMOVED AND INSTALLED AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL DESIGN/UTILIZE A DEBRIS SHIELD AND DEBRIS COLLECTION SYSTEM FOR ALL WORK ADJACENT TO THE RAILROADS (LOCATIONS APPROVED BY CSX, NS, ODOT). THE DESIGN SHALL BE SEALED BY AN ENGINEER AND SUBMITTED TO CSX AND ODOT FOR REVIEW AND ACCEPTANCE. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE NOTED WORK:

ITEM 518 - 8" PIPE DOWNSPOUT, INCLUDING SPECIALS, AS PER PLAN - 200 FT.

**ITEM 518 - DOWNSPOUT MODIFICATION, 8"**

THIS WORK CONSISTS OF CUTTING OFF THE BOTTOM OF THE DOWNSPOUT PIPE JUST ABOVE GROUND WHERE IT ENTERS INTO THE IN-GROUND DRAINAGE CONDUITS AND INSTALLING A SURFACE OUTLET. THIS WORK SHALL ONLY BE AUTHORIZED IF THE 12" UNDERGROUND CONDUIT CANNOT BE UNPLUGGED BY THE PIPE CLEANOUT ITEM. A GENERAL OUTLET DETAIL IS INCLUDED IN THE PLANS, BUT PER THE DIRECTION OF THE ENGINEER THE CONFIGURATION MAY NEED TO BE MODIFIED TO PROVIDE THE OPTIMAL DIRECTION OF THE WATER FLOW. THIS ITEM SHALL BE PER EACH LOCATION WHERE THE MODIFICATION IS REQUIRED AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL DESIGN/UTILIZE A DEBRIS SHIELD AND DEBRIS COLLECTION SYSTEM FOR ALL WORK ADJACENT TO THE RAILROADS (LOCATIONS APPROVED BY CSX, NS, ODOT). THE DESIGN SHALL BE SEALED BY AN ENGINEER AND SUBMITTED TO CSX AND ODOT FOR REVIEW AND ACCEPTANCE. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE NOTED WORK:

ITEM 518 - DOWNSPOUT MODIFICATION, 8" - 2 EACH

**ITEM 518 - STRUCTURE DRAINAGE, MISC.: FLUSHING AND CLEANING OF THE DRAINAGE SYSTEM INCLUDING SCUPPERS AND DOWNSPOUTS**

BY REMOVING THE CLEANOUTS ON THE PIER DOWNSPOUTS AND LOOKING AT THE HOPPERS, THE DEGREE OF PLUGGING CAN BE OBSERVED. IF THEY STILL APPEAR TO BE OPEN, FLUSH WITH WATER TO VERIFY THAT THEY ARE CLEAR. IF THERE IS STANDING WATER OR DEBRIS IN THE PIPE, THEN JETTING, AUGERING OR OTHER MEANS (WORKING FROM BOTH TOP AND BOTTOM) SHALL BE EMPLOYED TO BRING THE PIPES TO A FREE-FLOWING CONDITION. CLEANOUT OF THE SCUPPERS AND UPPER SECTION OF THE DOWNSPOUTS TO THE PIER HOPPERS SHALL SIMILARLY BE DONE. AFTER CLEANING THE SYSTEM, THE CLEANOUTS SHALL BE REASSEMBLED WITH NEW GALVANIZED BOLT HARDWARE PER DIRECTION OF THE ENGINEER. THIS WORK SHALL BE PAID PER FOOT OF DOWNSPOUT CLEANED OR ATTEMPTED TO BE CLEANED AFTER A REASONABLE EFFORT.

THE CONTRACTOR SHALL DESIGN/UTILIZE A DEBRIS SHIELD AND DEBRIS COLLECTION SYSTEM FOR ALL WORK ADJACENT TO THE RAILROADS (LOCATIONS APPROVED BY CSX, NS, ODOT). THE DESIGN SHALL BE SEALED BY AN ENGINEER AND SUBMITTED TO CSX AND ODOT FOR REVIEW AND ACCEPTANCE. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW.

IF THE DOWNSPOUTS AT CERTAIN PIERS ARE TOO PLUGGED TO BE CLEANED IN PLACE AND THE SYSTEM CANNOT BE BROUGHT TO A FREE-FLOWING CONDITION, THEN THE PLUGGED PIPE, PER THE DIRECTION OF THE ENGINEER, SHALL BE DISASSEMBLED AND REMOVED PER ITEM 518 - 8" PIPE DOWNSPOUT, INCLUDING SPECIALS, AS PER PLAN.

IT IS THE POLICY OF CSX THAT ALL MATERIALS DISCARDED BY OR ON BEHALF OF CSX WILL BE MANAGED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS CSX'S BEST MANAGEMENT PRACTICES AND SUSTAINABILITY GOALS.

TO ENSURE THAT THESE GOALS ARE ACHIEVED, CSX HAS MECHANISMS IN PLACE TO MONITOR WASTE MANAGEMENT ACTIVITIES, CAPTURE THE INFORMATION NECESSARY TO ENSURE 100% COMPLIANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS 100% OF THE TIME, AND TRACK PROGRESS IN THE CSX SUSTAINABILITY PROGRAM.

THESE MECHANISMS ALSO ALLOW CSX TO COMPLETE REPORTING REQUIREMENTS TO FEDERAL AND STATE REGULATORY AGENCIES AND DOCUMENT CSX'S PROGRESS TOWARD ITS SUSTAINABILITY GOALS.

WASTE MATERIAL REMOVAL SHALL BE IN ACCORDANCE WITH CSX SOIL AND WATER MANAGEMENT POLICY

**ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN**

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED, INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING. WHERE APPLICABLE, CONTRACTOR SHALL ENSURE ANY EXISTING UNDERPASS LIGHTING, BRIDGE RAIL OR ANY OTHER BRIDGE COMPONENTS ARE PROTECTED DURING THE PATCHING OPERATIONS.

THE CONTRACTOR SHALL DESIGN/UTILIZE A DEBRIS SHIELD AND DEBRIS COLLECTION SYSTEM FOR ALL WORK ADJACENT TO THE RAILROADS (LOCATIONS APPROVED BY CSX, NS, ODOT). THE DESIGN SHALL BE SEALED BY AN ENGINEER AND SUBMITTED TO CSX AND ODOT FOR REVIEW AND ACCEPTANCE. ALLOW 30 DAYS FOR EACH RAILROAD REVIEW.

SPECIFIC PATCHING LOCATIONS SHALL BE DETERMINED BY THE ENGINEER IN ACCORDANCE WITH ITEM 519 UNLESS IDENTIFIED IN THE PLANS. IF EXISTING UTILITIES ARE LOCATED WITHIN THE SPECIFIED PATCHING AREAS, THE COST FOR REMOVAL AND REINSTALLING THE UTILITIES SHALL BE INCLUDED IN THIS ITEM. ALL EQUIPMENT, LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO PERFORM THE ABOVE-DESCRIBED WORK SHALL BE INCLUDED FOR PAYMENT AT THE SQUARE FOOT CONTRACT PRICE FOR ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN.

**ITEM 519 - PATCHING CONCRETE BRIDGE DECK - TYPE B**

A. DESCRIPTION:

THIS ITEM SHALL CONSIST OF FURNISHING THE NECESSARY LABOR, MATERIALS AND EQUIPMENT TO REPAIR CONCRETE BRIDGE DECKS, INCLUDING THE REMOVAL OF ALL LOOSE AND UNSOUND CONCRETE, BITUMINOUS PATCHES, SURFACE PREPARATION, BONDING COAT AND THE MIXING, PLACING, FINISHING AND CURING OF THE MORTAR OR CONCRETE PATCHES.

B. MATERIALS:

MATERIALS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

|  |                 |
|--|-----------------|
| FINE AGGREGATE (NATURAL SAND) .....              | 703.02          |
| COARSE AGGREGATE (NO. 8) .....                   | 703.02          |
| PORTLAND CEMENT .....                            | 701.05          |
| QUICK SETTING CONCRETE MORTAR, TYPE 1 OR 2 ..... | 705.21          |
| AIR-ENTRAINING ADMIXTURE .....                   | 705.10          |
| CURING MATERIALS - TYPE A OR B PATCHES .....     | 705.07          |
| CURING MATERIALS - TYPE C PATCHES .....          | MFGR'S          |
|  | RECOMMENDATIONS |

C. REMOVAL OF UNSOUND CONCRETE:

THE ENGINEER SHALL SOUND AND OUTLINE THE AREAS TO BE REMOVED PER DIRECTION OF THE ENGINEER. SOUNDING MAY HAVE TO BE DELAYED UNTIL THE DECK IS SUFFICIENTLY DRY TO PERMIT DETECTION OF ALL AREAS OF DELAMINATION. THE PERIMETER OF ALL REMOVAL AREAS SHALL BE SAWED TO A DEPTH OF 1 INCH TO PRODUCE A VERTICAL OR SLIGHTLY UNDERCUT FACE. ADDITIONAL SAWCUTS MAY BE REQUIRED TO FACILITATE REMOVAL. ALL UNSOUND CONCRETE INCLUDING ALL PATCHES OTHER THAN SOUND PORTLAND CEMENT CONCRETE, AND ALL LOOSE AND DISINTEGRATED CONCRETE SHALL BE REMOVED. THE UNSOUND CONCRETE MAY BE REMOVED BY CHIPPING OR HAND DRESSING. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 35 POUND CLASS AND SHALL BE OPERATED AT AN ANGLE OF LESS THAN 45 DEGREES MEASURED FROM THE SURFACE OF THE DECK. CONCRETE SHALL BE REMOVED IN A MANNER THAT PREVENTS CUTTING, ELONGATING OR DAMAGING REINFORCING STEEL. WHERE THE BOND BETWEEN CONCRETE AND A PRIMARY REINFORCING BAR HAS BEEN DESTROYED, OR WHERE MORE THAN ONE HALF OF THE PERIPHERY OF SUCH A BAR HAS BEEN EXPOSED, THE ADJACENT CONCRETE SHALL BE REMOVED

TO A DEPTH THAT WILL PROVIDE A MINIMUM 3/4 INCH CLEARANCE AROUND THE BAR EXCEPT WHERE OTHER REINFORCING BARS MAKE THIS IMPRACTICABLE. REINFORCEMENT WHICH HAS BECOME LOOSE SHALL BE ADEQUATELY SUPPORTED AND TIED BACK INTO PLACE. AFTER COMPLETION OF THE SECONDARY REMOVAL OPERATIONS, THE ENGINEER WILL RE-SOUND THE DECK TO ENSURE THAT ONLY SOUND CONCRETE REMAINS. MINIMIZE CONSTRUCTION JOINTS. CONSTRUCTION JOINTS SHALL ONLY BE PLACED ON THE PERIMETER OF THE REMOVAL AREAS.

D. SURFACE PREPARATION:

CLEANING SHALL CLOSELY PRECEDE APPLICATION OF THE BONDING GROUT AND/OR THE PATCHING MATERIAL. THE SURFACE TO BE PATCHED AND THE EXPOSED REINFORCING STEEL SHALL BE THOROUGHLY CLEANED BY SANDBLASTING FOLLOWED BY AN AIR BLAST. IT MAY BE NECESSARY TO USE HAND TOOLS TO REMOVE SCALE FROM THE REINFORCING STEEL. FOR TYPE A AND TYPE B PATCHES AND TYPE C PATCHES WHICH DO NOT USE WATER AS THE ACTIVATOR, THE PREPARED SURFACE SHALL BE SURFACE DRY. FOR TYPE C PATCHES WHICH REQUIRE WATER AS THE ACTIVATOR, THE PREPARED SURFACE SHALL BE LEFT IN THE CONDITION AS RECOMMENDED BY THE MANUFACTURER. ANY ADDITIONAL SURFACE PREPARATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE PATCHING MATERIAL WHICH IS USED.

E. BONDING GROUT:

THE GROUT FOR BONDING TYPE A PATCHES SHALL CONSIST OF EQUAL PARTS BY VOLUME OF PORTLAND CEMENT AND SAND, MIXED WITH SUFFICIENT WATER TO FORM A STIFF SLURRY. THE CONSISTENCY OF THIS SLURRY SHALL BE SUCH THAT IT CAN BE APPLIED WITH A STIFF BRUSH OR BROOM TO THE EXISTING SURFACE IN A THIN, UNIFORM COATING. THE COATING OF GROUT SHALL BE SCRUBBED ONTO THE DRY SURFACE IMMEDIATELY BEFORE PLACING THE CONCRETE. CARE SHALL BE EXERCISED TO ENSURE THAT NO EXCESS GROUT IS PERMITTED TO COLLECT IN LOW SPOTS. IN NO CASE SHALL THE GROUT BE PERMITTED TO DRY BEFORE PLACING THE NEW CONCRETE. THINNED GROUT SHALL BE PAINTED OVER ALL JOINTS BETWEEN THE NEW AND EXISTING CONCRETE IMMEDIATELY AFTER THE FINISHING HAS BEEN COMPLETED. TYPE B AND TYPE C PATCHES SHALL BE BONDED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

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**GENERAL NOTES - 2 - LOCATION 2**  
 BRIDGE NO. CUY-42-1457  
 US 42 (PEARL ROAD) OVER NS RAILWAY/CSX RAILWAY/BIG CREEK

**CUY-071-16-40 VAR REPAIR**  
 PID No. 111603

4 / 40

54  
 123

RICHLAND ENGINEERING LIMITED  
 29 NORTH PARK STREET  
 MANSFIELD, OHIO 44902  
 DATE: 06/2021  
 REVIEWED: DLR  
 DRAWN: JLS  
 DESIGNED: BLN  
 CHECKED: dnt  
 STRUCTURE FILE NUMBER: 1803271

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**ESTIMATED QUANTITIES**

CALCULATED JLS DATED 04/2021  
 CHECKED dht DATED 06/2021

| ITEM    | ITEM EXT. | TOTAL  | UNIT | DESCRIPTION   | SUPER. | PIERS | ABUTS. | GEN'L | REF. SHEET |
|---------|-----------|--------|------|---|--------|-------|--------|-------|------------|
| 202     | 11203     | LS     |      | PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN   |        |       |        | LS    | 3/40       |
| SPECIAL | 20270110  | 200    | FT   | PIPE CLEANOUT, 24" AND UNDER  |        |       |        | 200   | 3/40       |
| 202     | 75267     | 400    | FT   | VANDAL PROTECTION FENCE REMOVED AND RESET, AS PER PLAN  |        |       |        | 400   | 3/40       |
| 509     | 10000     | 9948   | LB   | EPOXY COATED REINFORCING STEEL  | 9047   |       | 901    |       |            |
| 511     | 34410     | 37     | CY   | CLASS QC2 CONCRETE, SUPERSTRUCTURE  | 36     |       | 1      |       |            |
| 511     | 34417     | 36     | CY   | CLASS QC SCC CONCRETE, SUPERSTRUCTURE, AS PER PLAN (WITH STEEL FIBERS)                                    | 14     |       | 22     |       | 3/40       |
| 511     | 34423     | 9838   | SF   | CLASS QC2 CONCRETE, SIDEWALK WEARING SURFACE, AS PER PLAN   | 9838   |       |        |       | 3/40       |
| 512     | 10101     | 1441   | SY   | SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN  |        | 1441  |        |       | 3/40       |
| 512     | 74001     | 1398   | SY   | REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN  |        | 1398  |        |       | 3/40       |
| 516     | 01301     | 140    | FT   | ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN (SEAL REPLACEMENT PIER 4 & 14 JOINTS)        | 140    |       |        |       | 3/40       |
| 516     | 11210     | 149    | FT   | STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL   | 149    |       |        |       |            |
| SPECIAL | 51612400  | 140    | FT   | MODULAR EXPANSION JOINT (SEAL REPLACEMENT PIER 7 & 10 JOINTS)   | 140    |       |        |       | 3/40       |
| 518     | 51101     | 200    | FT   | 8" PIPE DOWNSPOUT, INCLUDING SPECIALS, AS PER PLAN  |        |       |        | 200   | 4/40       |
| 518     | 51300     | 2      | EACH | DOWNSPOUT MODIFICATION, 8"  |        |       |        | 2     | 4/40       |
| 518     | 62100     | 1800   | FT   | STRUCTURE DRAINAGE, MISC.: FLUSHING AND CLEANING OF THE DRAINAGE SYSTEM INCLUDING SCUPPERS AND DOWNSPOUTS |        |       |        | 1800  | 4/40       |
| 519     | 11101     | 413    | SF   | PATCHING CONCRETE STRUCTURE, AS PER PLAN  |        | 413   |        |       | 4/40       |
| 519     | 12300     | 8      | SY   | PATCHING CONCRETE BRIDGE DECK - TYPE B  | 8      |       |        |       | 4/40       |
| SPECIAL | 53000600  | 17,792 | SF   | STRUCTURES: TIMBER SUBDECK  | 17,792 |       |        |       | 4/40       |

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**F. PATCHING:**

THE MORTAR OR CONCRETE SHALL BE PLACED AS TYPE A, B, OR C.

- TYPE A - THE MIXTURE SHALL CONSIST OF 1 PART HIGH-EARLY-STRENGTH PORTLAND CEMENT, 11#2 PARTS FINE AGGREGATE AND 11#2 PARTS COARSE AGGREGATE BY VOLUME. SUFFICIENT AIR-ENTRAINING AGENT SHALL BE ADDED TO MAINTAIN AN AIR CONTENT OF 8 PLUS OR MINUS 2 PERCENT. THE SLUMP SHALL BE THE MINIMUM PRACTICAL FOR PLACING AND IN NO CASE SHALL IT EXCEED 2 INCHES. THE MATERIALS SHALL BE MIXED AT THE SITE. READY-MIXED CONCRETE SHALL NOT BE PERMITTED. THE MIX SHALL BE PLACED IN THE AREA TO BE PATCHED WHILE THE BONDING GROUT IS STILL WET, SLIGHTLY OVERFILLED AND STRUCK OFF WITH A VIBRATING SCREED DRAWN SLOWLY ACROSS THE AREA. HAND FINISHING WITH A WOOD FLOAT MAY BE REQUIRED TO PRODUCE A TIGHT, UNIFORM SURFACE.
- TYPE B - PATCHING MATERIAL SHALL BE MADE USING QUICK SETTING CONCRETE MORTAR, TYPE 1 OR 2, 705.21, AND SUITABLE FOR TRAFFIC AFTER OVERNIGHT CLOSURES WITH LIMITED CURING TIME. THE MORTAR SHALL BE MIXED AND PLACED AS PER MANUFACTURER'S RECOMMENDATIONS. COARSE AGGREGATE MAY BE ADDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS WHEN THE DEPTH OF THE PATCH EXCEEDS 1 INCH.
- TYPE C - PATCHING MATERIAL SHALL BE MADE USING A BLEND OF 705.21 TYPE 2 MATERIAL AND SELECTED AGGREGATES WITH AN ACTIVATOR. THESE MATERIALS SHALL BE MIXED AND PLACED AS PER MANUFACTURER'S RECOMMENDATIONS. COARSE AGGREGATE MAY BE ADDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS WHEN THE DEPTH OF THE PATCH EXCEEDS 1 INCH.

**G. CURING:**

TYPE A PATCHES SHALL BE CURED IN ACCORDANCE WITH SECTION 511.14, METHOD (A), FOR NOT LESS THAN 24 HOURS IF MEMBRANE WATERPROOFING IS TO BE APPLIED IMMEDIATELY. IF NOT, METHOD (A) SHALL BE USED FOR 48 HOURS, AFTER WHICH THE MEMBRANE CURING MATERIAL SHALL BE APPLIED AT A RATE OF NOT LESS THAN ONE GALLON PER 200 SQUARE FEET. MEMBRANE CURING MATERIAL SHALL BE REMOVED PRIOR TO PLACING WATERPROOFING. TYPE B AND TYPE C PATCHES SHALL BE CURED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

**H. METHOD OF MEASUREMENT:**

THE QUANTITY SHALL BE THE ACTUAL AREA IN SQUARE YARDS OF THE EXPOSED SURFACE OF ALL PATCHES, IRRESPECTIVE OF THE DEPTH OF THE PATCH, COMPLETE, IN PLACE AND ACCEPTED.

**I. BASIS OF PAYMENT:**

PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR:

| ITEM | UNIT        | DESCRIPTION                            |
|------|-------------|--|
| 519  | SQUARE YARD | PATCHING CONCRETE BRIDGE DECKS, TYPE B |

**ITEM SPECIAL - STRUCTURES: TIMBER SUBDECK**

**DESCRIPTION:**

THIS ITEM SHALL CONSIST OF FURNISHING, CUTTING, FITTING, PLACING AND ERECTING OF TIMBER, AND THE FURNISHING AND INSTALLING OF ALL NECESSARY HARDWARE AS SPECIFIED.

SUBDECK AREAS ABOVE TRAVELED LANES, AS WELL AS PAVED SHOULDERS.

**ITEM SPECIAL - STRUCTURES: TIMBER SUBDECK**

**MATERIALS:**

TIMBER BEAMS SHALL CONFORM TO CMS 711.26 AND SHALL BE DOUGLAS FIR LARCH WITH A COMMERCIAL GRADE OF NO. 2 OR BETTER OR SOUTHERN PINE WITH A COMMERCIAL GRADE OF NO. 2 OR BETTER. PRESERVATIVE TREATMENT FOR TIMBER BEAMS SHALL CONFORM TO CMS 712.06.

THE TIMBER SHEATHING SHALL BE 3/4" CDX PRESERVATIVE TREATED PLYWOOD MANUFACTURED FROM EITHER DOUGLAS FIR OR SOUTHERN PINE. ALL TRANSVERSE EDGES OF THE PLYWOOD SHALL BE SUPPORTED BY TIMBER BEAMS.

THE BOLTS SHALL BE ASTM A449 - TYPE 1 OR SAE J429 - GRADE 5, 3/8" DIAMETER GALVANIZED BOLTS WITH GALVANIZED FENDER WASHERS AND LOCK NUTS. SPACING OF THE BOLTS SHALL BE A MAXIMUM OF 2 FOOT SPACING.

WOOD SCREWS SHALL BE GALVANIZED 3" LONG #10 FASTENERS SPACED AT 2 FOOT MAXIMUM, UNLESS OTHERWISE NOTED.

**GENERAL:**

FIELD MEASUREMENTS SHALL BE TAKEN BEFORE ANY FABRICATION IS PERFORMED.

**METHOD OF MEASUREMENT:**

THE PAYMENT FOR THIS ITEM SHALL BE SQUARE FOOTAGE IN PLACE AND ACCEPTED. THIS ITEM SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE TIMBER SUBDECKING. PAYMENT SHALL BE MADE UNDER ITEM SPECIAL - STRUCTURES: TIMBER SUBDECK.

RICHLAND ENGINEERING LIMITED  
 29 NORTH PARK STREET  
 MANSFIELD, OHIO 44902  
 DATE 06/2021  
 REVIEWED DLR 06/2021  
 STRUCTURE FILE NUMBER 1803271  
 DESIGNED BLN  
 CHECKED dht  
 DRAIN JLS  
 REVISED  
 GENERAL NOTES & ESTIMATED QUANTITIES - LOCATION 2  
 BRIDGE NO. CUY-42-1457  
 US 42 (PEARL ROAD) OVER NS RAILWAY/CSX RAILWAY/BIG CREEK  
 PID No. 111603  
 CUY-071-16.40 VAR REPAIR  
 5/40  
 55  
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