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.

THE CONTRACTOR SHALL NOTIFY THE LOCAL MUNICIPALITIES OF PEDESTRIAN BRIDGE CLOSURES OR ANY OTHER PEDESTRIAN RESTRICTIONS AT LEAST 2 WEEKS PRIOR TO IMPLEMENTATION. USE ADVANCED WARNING SIGNS TO ALERT PEDESTRIANS 3 DAYS PRIOR TO THE IMPLEMENTATION OF PEDESTRIAN BRIDGE CLOSURES OR ANY OTHER PEDESTRIAN RESTRICTIONS. FOR LOCATION 2, THE BROOK PARK CITY ENGINEER SHALL BE NOTIFIED. FOR LOCATION 4, THE BEACHWOOD CITY ENGINEER SHALL BE NOTIFIED. FOR LOCATIONS 5 AND 6, THE NORTH OLMSTED CITY ENGINEER SHALL BE NOTIFIED. FOR LOCATION 7, THE NORTH OLMSTED CITY ENGINEER SHALL BE NOTIFIED. THE PEDESTRIAN BRIDGE CLOSURE FOR LOCATION 5 IS EXPECTED TO HAVE A 21 DAY DURATION. THE PEDESTRIAN BRIDGE CLOSURE FOR LOCATION 6 IS EXPECTED TO HAVE A 21 DAY DURATION. THE PEDESTRIAN BRIDGE CLOSURES FOR LOCATIONS 5 AND 6 SHALL NOT OCCUR CONCURRENTLY.

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

II. LANE CLOSURE RESTRICTIONS

1. LANE CLOSURES MAY ONLY BE IMPLEMENTED AT THE TIMES PERMITTED BY THE "DISTRICT 12 PERMITTED LANE CLOSURE TIMES" LIST WHICH IS LOCATED ON THE ODOT WEB SITE: HTTP://WWW.DOT.STATE.OH.US/DISTRICTS/D12/HIGHWAY MANAGEMENT/PAGES/PERMITTEDLANECLOSURES.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.

2. UNLESS OTHERWISE NOTED, EXIT AND ENTRANCE RAMP LANES SHALL REMAIN OPEN AT ALL TIMES AND EXHIBIT A MINIMUM WIDTH OF ELEVEN (11) FEET.

3. MAINTENANCE OF TRAFFIC SHALL FOLLOW THE INSTRUCTION OF THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET AND THE LATEST REVISION OF THE OMUTCD.

4. PEDESTRIAN TRAFFIC SHALL BE PERMITTED AND ACCOMMODATED ON AT LEAST ONE SIDE AT ALL TIMES AT LOCATIONS WHERE PEDESTRIAN TRAFFIC IS CURRENTLY MAINTAINED EXCEPT THAT PEDESTRIAN TRAFFIC SHALL BE DETOURED FOR THE PEDESTRIAN BRIDGES AT ANOTHER LOCATION.

5. ALL DRIVES AND SIDE STREETS SHALL BE MAINTAINED AT ALL TIMES.

LOCATION 1 (CUY-71-0579)
I-71 OVER CR 299 (FOWLES ROAD):
THE CONTRACTOR SHALL PERFORM THE DECK SEALING WORK IN TWO PHASES OF CONSTRUCTION FOR THE SOUTHBOUND STRUCTURE. THE FIRST PHASE SHALL CLOSE THE TWO OUTSIDE TRAVEL LANES AND THE DECELERATION LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS), MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) AND MT-98.29 (EXIT RAMP CLOSURE) WHILE MAINTAINING THE INSIDE TRAVEL LANE AND MAINTAINING A SECOND LANE ON THE INSIDE SHOULDER. THE CONTRACTOR SHALL PERFORM WORK FOR PHASE ONE IN ONE WEEKEND. PHASE ONE MAINTENANCE OF TRAFFIC WILL REQUIRE MARKINGS TO SHIFT LANES AND MAINTAIN TWO LANES OF TRAFFIC. MARKING ITEMS HAVE BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARY. THE MARKING SHALL BE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE HIGHWAY WITH DRUMS), MT-99.30 (WORK ZONE DELINEATION) AND MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) EXCEPT THAT THE WORK ZONE RAISED PAVEMENT MARKERS ARE NOT REQUIRED FOR THE WEEKEND LANE CLOSURE. THE SECOND PHASE SHALL CLOSE THE INSIDE TRAVEL LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE TWO OUTSIDE TRAVEL LANES AND THE RAMP DECELERATION LANE.

THE CONTRACTOR SHALL PERFORM THE DECK SEALING WORK IN TWO PHASES OF CONSTRUCTION FOR THE NORTHBOUND STRUCTURE. THE FIRST PHASE SHALL CLOSE THE TWO OUTSIDE TRAVEL LANES AND THE ACCELERATION LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS), MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) AND MT-101.60 (ROAD CLOSURE USING TYPE 3 BARRICADES) WHILE MAINTAINING TRAFFIC ON THE INSIDE TRAVEL LANE AND MAINTAINING A SECOND LANE ON THE INSIDE SHOULDER. THE CONTRACTOR SHALL PERFORM WORK FOR PHASE ONE IN ONE WEEKEND. PHASE ONE MAINTENANCE OF TRAFFIC WILL REQUIRE MARKINGS TO SHIFT LANES AND MAINTAIN TWO LANES OF TRAFFIC. MARKING ITEMS HAVE BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARY. THE MARKING SHALL BE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE HIGHWAY WITH DRUMS), MT-99.30 (WORK ZONE DELINEATION) AND MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) EXCEPT THAT THE WORK ZONE RAISED PAVEMENT MARKERS ARE NOT REQUIRED FOR THE WEEKEND LANE CLOSURE. THE SECOND PHASE SHALL CLOSE THE INSIDE TRAVEL LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING THE TWO OUTSIDE TRAVEL LANES AND THE ACCELERATION LANE.

THE CONTRACTOR SHALL PERFORM THE COMPRESSION FLANGE RETROFIT, PIER PATCHING AND PIER SEALING WORK ON CR 299 (FOWLES ROAD) IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) BY CLOSING THE SHOULDERS IN EACH DIRECTION AND PROVIDING FLAGGERS IN ACCORDANCE WITH MT-97.10 (FLAGGER CLOSING 1 LANE OF A 2-LANE HIGHWAY - STATIONARY OPERATION).

THE ABUTMENT PATCHING AND ABUTMENT SEALING WILL NOT REQUIRE MAINTENANCE OF TRAFFIC. THE CONTRACTOR CAN ACCESS THE ABUTMENTS FROM FOWLES ROAD AND PARK IN THE AREAS OUTSIDE OF THE TRAFFIC LANES.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR I-71 AT THE BRIDGE LOCATION. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON FOWLES ROAD.

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.

LOCATION 2 (CUY-71-0856)
I-71 OVER SYLVIA DRIVE:
THE CONTRACTOR SHALL PERFORM THE PARAPET PATCHING AND SEALING WORK IN TWO PHASES. THE FIRST PHASE SHALL CLOSE THE INSIDE LANE ON IR 71 (NORTHBOUND AND SOUTHBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TWO LANES OF TRAFFIC IN EACH DIRECTION, THE SOUTHBOUND ACCELERATION LANE AND THE NORTHBOUND DECELERATION LANE. THE SECOND PHASE SHALL CLOSE THE SOUTHBOUND OUTSIDE SHOULDER AND THE ENTRANCE RAMP LANE ON THE SOUTHBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-98.10 (LANE CLOSURE AT ENTRANCE RAMP) WHILE MAINTAINING ALL SOUTHBOUND LANES OF TRAFFIC INCLUDING ACCESS FROM THE ENTRANCE RAMP TO THE NORTH. THE SECOND PHASE SHALL ALSO CLOSE THE NORTHBOUND OUTSIDE SHOULDER AND THE EXIT RAMP LANE ON THE NORTHBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ALL NORTHBOUND LANES OF TRAFFIC INCLUDING ACCESS TO THE EXIT RAMP TO THE NORTH.

THE CONTRACTOR SHALL PERFORM THE COMPRESSION FLANGE RETROFIT, PIER SEALING AND PIER PATCHING WORK BY CLOSING ONE LANE ON SYLVIA DRIVE IN ACCORDANCE WITH MT-97.10 (FLAGGER CLOSING 1 LANE OF A 2-LANE HIGHWAY - STATIONARY OPERATION) WHILE MAINTAINING TWO WAY TRAFFIC IN THE OTHER LANE.

THE SIDEWALK ALONG SYLVIA DRIVE SHALL BE CLOSED DURING THE COMPRESSION FLANGE RETROFIT, PIER SEALING AND PIER PATCHING WORK AND DETOURED IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS).

THE ABUTMENT BEARING REPLACEMENT, ABUTMENT PATCHING, ABUTMENT SEALING AND CROSSFRAME REPAIR WILL NOT REQUIRE MAINTENANCE OF TRAFFIC. THE CONTRACTOR CAN GAIN ACCESS TO THE ABUTMENTS FROM SYLVIA DRIVE AND CAN PARK IN THE FENCED IN AREAS NEXT TO THE STRUCTURE BY USE OF THE GATES.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR I-71 AT THE BRIDGE LOCATION. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON SYLVIA DRIVE EXCEPT AS REQUIRED TO PERFORM THE COMPRESSION FLANGE RETROFIT, PIER SEALING AND PIER PATCHING WORK AS DEFINED ABOVE. LANE CLOSURES ON SYLVIA DRIVE SHALL BE AS PERMISSIBLE BY THE CITY OF BROOK PARK AND SHALL NOT OCCUR DURING PEAK TRAFFIC HOURS.

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.

LOCATION 3 (CUY-71-1007)
I-71 RAMP T OVER I-480 MAINLINE:
THE CONTRACTOR SHALL PERFORM THE ABUTMENT AND PIER BEARING WORK BY CLOSING THE OUTSIDE SHOULDER OF IR 480 EASTBOUND IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING ALL EASTBOUND TRAVEL LANES. THE CONTRACTOR SHALL PERFORM THE ABUTMENT AND PIER BEARING WORK BY CLOSING THE OUTSIDE SHOULDER OF IR 480 WESTBOUND IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) AND MT-98.10 (LANE CLOSURE AT ENTRANCE RAMP) WHILE MAINTAINING ALL WESTBOUND TRAVEL LANES AND ACCESS FROM THE ENTRANCE RAMP TO THE EAST.

LANE CLOSURES (INCLUDING SHOULDER CLOSURES) SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR I-480 AT THE BRIDGE LOCATION.

LOCATION 4 (CUY-271-0972 & 0974)
FAIRMOUNT BOULEVARD OVER I-271 & I-271X:
THE CONTRACTOR SHALL PERFORM WORK IN SIX PHASES OF CONSTRUCTION FOR THE IR 271 MAINLINE AND IR 271 EXPRESS LANES. THE CONTRACTOR SHALL RESET THE ABUTMENT BEARINGS DURING PHASE 1. THE CONTRACTOR SHALL PERFORM PIER REPAIRS DURING PHASES 1 AND 4. THE CONTRACTOR SHALL PERFORM DECK HAUNCH CONCRETE REMOVAL AND VANDAL PROTECTION FENCE REPLACEMENT DURING ALL SIX PHASES OF CONSTRUCTION. THE FIRST PHASE SHALL CLOSE THE IR 271 MAINLINE (NORTHBOUND AND SOUTHBOUND) OUTSIDE SHOULDERS IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING THE THREE TRAVEL LANES. THE SECOND PHASE SHALL CLOSE THE IR 271 MAINLINE (NORTHBOUND AND SOUTHBOUND) OUTSIDE TRAVEL LANES IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING THE TWO INSIDE TRAVEL LANES. THE THIRD PHASE SHALL CLOSE THE TWO INSIDE TRAVEL LANES OF IR 271 MAINLINE (NORTHBOUND AND SOUTHBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ONE LANE OF TRAFFIC ON THE OUTSIDE TRAVEL LANE. THE THIRD PHASE SHALL ALSO MAINTIAN THE EXIT RAMPS IN ACCORDANCE WITH MT-98.20 (LANE CLOSURE AT EXIT RAMP USING DRUMS). THE FOURTH PHASE SHALL CLOSE THE IR 271 MAINLINE (NORTHBOUND AND SOUTHBOUND) INSIDE SHOULDERS IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING THE THREE TRAVEL LANES. THE FOURTH PHASE SHALL ALSO CLOSE THE OUTSIDE SHOULDER OF IR 271 EXPRESS LANES (NORTHBOUND AND SOUTHBOUND) IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING THE THREE TRAVEL LANES. THE FIFTH PHASE SHALL CLOSE THE OUTSIDE LANE (SLIP RAMP) OF IR 271 EXPRESS LANES (NORTHBOUND AND SOUTHBOUND) AT THE BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE TWO INSIDE TRAVEL LANES. THE FIFTH PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMPS IN ACCORDANCE WITH MT-98.11 (LANE CLOSURE AT ENTRANCE RAMP ACCELERATION LANE). THE SIXTH PHASE SHALL CLOSE THE TWO INSIDE TRAVEL LANES OF IR 271 EXPRESS LANES (NORTHBOUND AND SOUTHBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE OUTSIDE TRAVEL LANE. THE SIXTH PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMPS. PHASES 1 THRU 6 SHALL OCCUR CONCURRENTLY WITH PHASE 2 ON FAIRMOUNT BOULEVARD.

THE CONTRACTOR SHALL PERFORM WORK ON FAIRMOUNT BOULEVARD IN TWO PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL PERFORM DECK AND SIDEWALK SEALING DURING PHASE 1. THE CONTRACTOR SHALL SEAL THE DECK AND REPLACE THE VANDAL PROTECTION FENCE DURING PHASE 2. PHASE TWO SHALL OCCUR CONCURRENTLY WITH PHASES 1 THRU 6 ON I-271. THE FIRST PHASE SHALL CLOSE THE OUTSIDE LANES (EASTBOUND AND WESTBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE INSIDE LANES. THE FIRST PHASE SHALL ALSO CLOSE THE SIDEWALK ALONG FAIRMOUNT BOULEVARD AND PEDESTRIAN TRAFFIC SHALL BE DETOURED IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS). THE SECOND PHASE SHALL CLOSE THE INSIDE LANES (EASTBOUND AND WESTBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE OUTSIDE LANES.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR THE I-271 MAINLINE AND THE I-271 EXPRESS LANES AT THE BRIDGE LOCATION. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON FAIRMOUNT BOULEVARD. LANE CLOSURES ON FAIRMOUNT BOULEVARD SHALL BE COORDINATED WITH THE CITY OF BEACHWOOD.

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.

CALCULATED ALP
CHECKED TJF

MAINTENANCE OF TRAFFIC NOTES - 1

D12-BH-FY2021(A) MISC
PID NO. 103162

LOCATION 5 (CUY-480-0126)
CHRISTMAN DRIVE PEDESTRIAN BRIDGE OVER I-480:
THE CONTRACTOR SHALL PERFORM WORK IN TWO PHASES OF CONSTRUCTION FOR IR 480. THE CONTRACTOR SHALL REPAIR THE PIERS DURING PHASES 1 AND 2. THE CONTRACTOR SHALL PATCH THE ABUTMENTS, REPAIR THE FENCE, PERFORM THE ABUTMENT DRAINAGE REPAIRS (DECK CORING AND INSTALLING PVC PIPE), PATCH THE ABUTMENT RAMP AND REPAIR THE ABUTMENT SLIDING PLATE JOINT DURING PHASE 1. THE FIRST PHASE SHALL CLOSE THE IR 480 (EASTBOUND) OUTSIDE SHOULDER IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) AND MT-98.22 (LANE CLOSURE IN DECELERATION LANE) WHILE MAINTAINING THE THREE EASTBOUND TRAVEL LANES AND THE DECELERATION LANE. THE FIRST PHASE SHALL ALSO CLOSE THE IR 480 (WESTBOUND) OUTSIDE SHOULDER IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING THE THREE WESTBOUND TRAVEL LANES. THE SECOND PHASE SHALL CLOSE THE IR 480 (EASTBOUND AND WESTBOUND) INSIDE SHOULDERS IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING THE THREE WESTBOUND TRAVEL LANES, THE THREE EASTBOUND TRAVEL LANES AND THE DECELERATION LANE.

THE CONTRACTOR SHALL PERFORM THE ABUTMENT RAMP PATCHING AND ABUTMENT SLIDING PLATE JOINT REPAIR WORK ON THE CHRISTMAN DRIVE PEDESTRIAN BRIDGE BY CLOSING THE PEDESTRIAN BRIDGE DURING CONSTRUCTION AND DETOURING PEDESTRIAN TRAFFIC IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS). LOCATION 6 (CUY-480-0177) SHALL NOT BE CLOSED AT THE SAME TIME AS THIS LOCATION. THE EXPECTED PEDESTRIAN BRIDGE CLOSURE IS 21 DAYS.

THE ABUTMENT WALL PATCHING, FENCE REPAIRS AND THE ABUTMENT DRAINAGE REPAIRS (DECK CORING AND INSTALLING PVC PIPE) WILL NOT REQUIRE MAINTENANCE OF TRAFFIC FOR THE PEDESTRIAN BRIDGE.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR I-480 AT THE BRIDGE LOCATION. THE PEDESTRIAN BRIDGE CLOSURE ON CHRISTMAN DRIVE SHALL BE COORDINATED WITH THE CITY OF NORTH OLMSTED.

LOCATION 5 (CUY-480-0126)

LOCATION 6 (CUY-480-0177)
CYPRUS DRIVE PEDESTRIAN BRIDGE OVER I-480:
THE CONTRACTOR SHALL PERFORM WORK IN TWO PHASES OF CONSTRUCTION FOR IR 480. THE CONTRACTOR SHALL PERFORM THE PIER REPAIR AND PIER SEALING WORK DURING PHASES 1 AND 2. THE CONTRACTOR SHALL REPAIR THE APPROACH RAMPS, REPAIR THE FENCE, REPLACE THE VANDAL PROTECTION FENCE AND PATCH THE DECK DURING PHASE 1. THE FIRST PHASE SHALL CLOSE THE IR 480 (EASTBOUND) OUTSIDE SHOULDER IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING THE THREE EASTBOUND TRAVEL LANES AND THE ACCELERATION LANE. THE FIRST PHASE SHALL ALSO CLOSE THE IR 480 (WESTBOUND) OUTSIDE SHOULDER IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING THE THREE WESTBOUND TRAVEL LANES AND THE DECELERATION LANE. THE SECOND PHASE SHALL CLOSE THE IR 480 (EASTBOUND AND WESTBOUND) INSIDE SHOULDERS IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING THE THREE WESTBOUND TRAVEL LANES, THE DECELERATION LANE, THE THREE EASTBOUND TRAVEL LANES AND THE ACCELERATION LANE.

THE CONTRACTOR SHALL PERFORM THE APPROACH RAMP REPAIRS, FENCE REPAIRS, VANDAL PROTECTION FENCE REPLACEMENT, AND THE DECK PATCHING WORK ON THE CYPRUS DRIVE PEDESTRIAN BRIDGE BY CLOSING THE PEDESTRIAN BRIDGE DURING CONSTRUCTION AND DETOURING PEDESTRIAN TRAFFIC IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS). LOCATION 5 (CUY-480-0126) SHALL NOT BE CLOSED AT THE SAME AS THIS LOCATION. THE EXPECTED PEDESTRIAN BRIDGE CLOSURE IS 21 DAYS.

THE CONTRACTOR SHALL PROVIDE LANE CLOSURES ON I-480 IN ORDER TO REPLACE THE VANDAL PROTECTION FENCE ON THE CYPRUS DRIVE PEDESTRIAN BRIDGE. THE LANE CLOSURES SHALL BE IN ACCORDANCE WITH ODOT'S MAINTENANCE OF TRAFFIC STANDARD DRAWINGS AND SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR I-480 AT THE BRIDGE LOCATION.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR I-480 AT THE BRIDGE LOCATION. THE PEDESTRIAN BRIDGE CLOSURE ON CYPRUS DRIVE SHALL BE COORDINATED WITH THE CITY OF NORTH OLMSTED.

LOCATION 6 (CUY-480-0177)

LOCATION 7 (CUY-480-0501)
I-480 OVER SR-17 (BROOKPARK ROAD):
THE CONTRACTOR SHALL PERFORM THE PARAPET PATCHING, PARAPET SEALING, PARAPET REPLACEMENT, SHOULDER EXCAVATION, BACKWALL REPAIR, FULL DEPTH PAVEMENT REPAIR, APPROACH SLAB PATCHING, DECK PATCHING AND BACKWALL REPLACEMENT WORK IN SIX PHASES ON IR 480.

DURING PHASE ONE, THE CONTRACTOR SHALL PATCH AND SEAL THE OUTSIDE WESTBOUND PARAPET, PERFORM THE SHOULDER EXCAVATION (WESTBOUND FORWARD ABUTMENT), REPAIR THE BACKWALL (WESTBOUND FORWARD ABUTMENT), REPAIR THE SHOULDER PAVEMENT BEHIND THE BACKWALL REPAIR (WESTBOUND FORWARD ABUTMENT), AND PATCH THE APPROACH SLAB AND BACKWALL IN THE OUTSIDE LANE (WESTBOUND FORWARD ABUTMENT). THE FIRST PHASE SHALL MAINTAIN THREE LANES OF TRAFFIC ON IR 480 (WESTBOUND) IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER). THE EASTBOUND BRIDGE WILL NOT REQUIRE MAINTENANCE OF TRAFFIC DURING THIS PHASE AND ALL EASTBOUND LANES SHALL REMAIN OPEN.

DURING PHASE TWO, THE CONTRACTOR SHALL PATCH THE DECK AND APPROACH SLAB AT THE WESTBOUND FORWARD ABUTMENT. THE SECOND PHASE SHALL CLOSE THE NORTH PORTION OF THE IR 480 WESTBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) WHILE MAINTAINING TRAFFIC ON THE INSIDE WESTBOUND TRAVEL LANE AND THE INSIDE WESTBOUND SHOULDER. THE CONTRACTOR SHALL PERFORM WORK FOR PHASE TWO IN ONE WEEKEND. PHASE TWO MAINTENANCE OF TRAFFIC WILL REQUIRE MARKINGS TO SHIFT LANES AND MAINTAIN TWO LANES OF TRAFFIC. MARKING ITEMS HAVE BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARY. THE MARKING SHALL BE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE HIGHWAY WITH DRUMS), MT-99.30 (WORK ZONE DELINEATION) AND MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) EXCEPT THAT THE WORK ZONE RAISED PAVEMENT MARKERS ARE NOT REQUIRED.

DURING PHASE THREE, THE CONTRACTOR SHALL PATCH THE MEDIAN PARAPET, SEAL THE MEDIAN PARAPET AND REPLACE PORTIONS OF THE MEDIAN PARAPET. THE THIRD PHASE SHALL MAINTAIN THREE LANES OF TRAFFIC ON IR 480 (EASTBOUND AND WESTBOUND) IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER).

DURING PHASE FOUR, THE CONTRACTOR SHALL PATCH THE DECK AT THE EASTBOUND FORWARD ABUTMENT. THE FOURTH PHASE SHALL CLOSE THE NORTH PORTION OF THE IR 480 EASTBOUND BRIDGE LANES IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) WHILE MAINTAINING TRAFFIC ON THE OUTSIDE EASTBOUND TRAVEL LANE AND THE OUTSIDE EASTBOUND SHOULDER. THE CONTRACTOR SHALL PERFORM WORK FOR PHASE FOUR IN ONE WEEKEND. PHASE FOUR MAINTENANCE OF TRAFFIC WILL REQUIRE MARKINGS TO SHIFT LANES AND MAINTAIN TWO LANES OF TRAFFIC. MARKING ITEMS HAVE BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARY. THE MARKING SHALL BE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE HIGHWAY WITH DRUMS), MT-99.30 (WORK ZONE DELINEATION) AND MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) EXCEPT THAT THE WORK ZONE RAISED PAVEMENT MARKERS ARE NOT REQUIRED.

DURING PHASE FIVE, THE CONTRACTOR SHALL PATCH THE DECK AT THE EASTBOUND FORWARD ABUTMENT. THE FIFTH PHASE SHALL CLOSE THE SOUTH PORTION OF THE IR 480 EASTBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) WHILE MAINTAINING TRAFFIC ON THE INSIDE EASTBOUND TRAVEL LANE AND THE INSIDE EASTBOUND SHOULDER. THE CONTRACTOR SHALL PERFORM WORK FOR PHASE FIVE IN ONE WEEKEND. PHASE FIVE MAINTENANCE OF TRAFFIC WILL REQUIRE MARKINGS TO SHIFT LANES AND MAINTAIN TWO LANES OF TRAFFIC. MARKING ITEMS HAVE BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARY. THE MARKING SHALL BE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE HIGHWAY WITH DRUMS), MT-99.30 (WORK ZONE DELINEATION) AND MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) EXCEPT THAT THE WORK ZONE RAISED PAVEMENT MARKERS ARE NOT REQUIRED.

DURING PHASE SIX, THE CONTRACTOR SHALL PATCH AND SEAL THE EASTBOUND OUTSIDE PARAPET. THE SIXTH PHASE SHALL CLOSE THE OUTSIDE LANE OF IR 480 (EASTBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE TWO INSIDE EASTBOUND TRAVEL LANES.

THE CONTRACTOR SHALL PERFORM WORK IN THREE PHASES ON BROOKPARK ROAD. THE CONTRACTOR SHALL PERFORM DRILLING OUT THE WEB CRACKS, PATCHING THE PIER, REPAIRING THE PIER AND SEALING THE PIER DURING PHASES 1, 2 AND 3. THE CONTRACTOR SHALL REPAIR ABUTMENT BEARINGS, RESET ABUTMENT BEARINGS, PATCH THE ABUTMENTS, SEAL THE ABUTMENTS AND REMOVE THE TREE DURING PHASES 2 AND 3. PORTIONS OF THE FENCE SHALL BE REMOVED TO PROVIDE ACCESS TO THE ABUTMENTS DURING CONSTRUCTION (SEE GENERAL NOTE ITEM 607 - FENCE, MISC.: FENCE REMOVED AND REERECTED). THE FIRST PHASE SHALL CLOSE THE INSIDE LANES ON BROOKPARK ROAD (EASTBOUND AND WESTBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE OUTSIDE LANES (EASTBOUND AND WESTBOUND). THE SECOND PHASE SHALL CLOSE THE OUTSIDE LANE ON BROOKPARK ROAD (EASTBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE INSIDE LANE (EASTBOUND). THE SECOND PHASE SHALL ALSO CLOSE THE SIDEWALK (EASTBOUND) IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS). THE THIRD PHASE SHALL CLOSE THE OUTSIDE LANE ON BROOKPARK ROAD (WESTBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE INSIDE LANE (WESTBOUND). THE THIRD PHASE SHALL ALSO CLOSE THE SIDEWALK (WESTBOUND) IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS).

THE WORK CONSTRUCTED FROM IR 480 MAY OCCUR CONCURRENTLY WITH THE WORK CONSTRUCTED FROM BROOKPARK ROAD.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON BROOKPARK ROAD. LANE CLOSURES ON SR-17 (BROOKPARK ROAD) SHALL BE COORDINATED WITH THE CITY OF NORTH OLMSTED AND SHALL NOT OCCUR DURING PEAK TRAFFIC HOURS. LANE CLOSURES SHALL OCCUR DURING NIGHTTIME HOURS AS APPROVED BY THE ENGINEER.

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.

CALCULATED ALP
CHECKED TJF

MAINTENANCE OF TRAFFIC NOTES - 2

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PID NO. 103162

SHEET NUMBER													ITEM	ITEM EXT.	PARTICIPATION		GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5-7	8-20	27-35	36-48	49-50	51-57	58-63	64-69	70-96							01/NFP/BR					
																			ROADWAY	
LS													201	11001	LS		LS		CLEARING AND GRUBBING, AS PER PLAN	7
140													202	75000	140		140	FT	FENCE REMOVED	
25													203	10000	25		25	CY	EXCAVATION	
38													203	20000	38		38	CY	EMBANKMENT	
140													607	20000	140		140	FT	FENCE, TYPE CL	
90													607	98000	90		90	FT	FENCE, MISC.: FENCE REMOVED AND REERECTED	7
LS													SPECIAL	69098400	LS		LS		SITE ACCESS	7
																			EROSION CONTROL	
8													659	00300	8		8	CY	TOPSOIL	
65													659	10000	65		65	SY	SEEDING AND MULCHING	
4													659	14000	4		4	SY	REPAIR SEEDING AND MULCHING	
0.01													659	20000	0.01		0.01	TON	COMMERCIAL FERTILIZER	
1													659	35000	1		1	MGAL	WATER	
10000													832	30000	10000		10000	EACH	EROSION CONTROL	
																			PAVEMENT	
16													255	10010	16		16	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1	
82													255	20000	82		82	FT	FULL DEPTH PAVEMENT SAWING	
																			TRAFFIC CONTROL	
	118												621	00300	118		118	EACH	RPM REFLECTOR	
	118												621	54001	118		118	EACH	RAISED PAVEMENT MARKER REMOVED, AS PER PLAN	12
0.01													642	00104	0.01		0.01	MILE	EDGE LINE, 6", TYPE 1	
																			STRUCTURE REPAIR (CUY-71-0579, SFN 1804081 SB SFN 1804111 NB - LOCATION 1	
		LS											202	11203	LS		LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	24
		2405											512	10050	2405		2405	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
		1072											512	10101	1072		1072	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	24
		539											512	74001	539		539	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN	24
		12887											513	21600	12887		12887	LB	STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN (BOTTOM FLANGE RETROFITS)	26
		LS											514	00100	LS		LS		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
		LS											514	00200	LS		LS		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
		LS											514	00300	LS		LS		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
		LS											514	00401	LS		LS		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN	26
		556											SPECIAL	51900100	556		556	SF	COMPOSITE FIBER WRAP SYSTEM	25
		284											519	11101	284		284	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	24
		9											844	10001	9		9	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN	25
																			STRUCTURE REPAIR (CUY-71-0856, SFN 1804359 - LOCATION 2)	
			LS										202	11203	LS		LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	24
			298										512	10101	298		298	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	24
			6										512	74001	6		6	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN	24
			639										513	21501	639		639	LB	REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN	24
			10100										513	21600	10100		10100	LB	STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN (BOTTOM FLANGE RETROFITS)	26
			LS										514	00100	LS		LS		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
			LS										514	00200	LS		LS		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
			LS										514	00300	LS		LS		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
			LS										514	00401	LS		LS		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN	26
			38										516	44101	38		38	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (2.190"x8"x12" WITH 2-7/8" OR 2-1/2" LOAD PLATE WITH SHIMS), AS PER PLAN	47
			LS										516	47001	LS		LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	24
			629										SPECIAL	51900100	629		629	SF	COMPOSITE FIBER WRAP SYSTEM	25
			93										519	11101	93		93	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	24
			13										844	10001	13		13	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN	25
																			STRUCTURE REPAIR (CUY-71-1007, 1814257 - LOCATION 3)	
				10									516	46701	10		10	EACH	RESET BEARING, AS PER PLAN	24
				LS									516	47001	LS		LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	24

CALCULATED TJF
CHECKED MS

GENERAL SUMMARY

D12-BH-FY2021(A) MISC
PID NO. 103162

ITEM 513 - STRUCTURAL STEEL, MISC.: DRILLING STRUCTURAL STEEL, GRINDING, AND NDT

FOR LOCATION 7 (CUY-480-0501), THIS WORK CONSISTS OF DRILLING CRACKS AND ENDS OF CRACKS, GRINDING TO ENLARGE DRILLED HOLES, AND NON-DESTRUCTIVE TESTING AS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER. DISTRICT PRODUCTION DEPARTMENT (BRIDGE SECTION) APPROVAL MUST BE OBTAINED BEFORE DRILLING ANY HOLES IN THE FLANGES UNDER THIS PAY ITEM.

DRILL HOLES TO REMOVE ENTIRE CRACKS OR THE APPARENT ENDS OF THE CRACK REVEALED BY THE INITIAL NDT AND/OR VISUAL INSPECTION. GRIND SMOOTH THE EXPOSED CIRCUMFERENCE OF EACH DRILLED HOLE AND CAREFULLY INSPECT FOR CRACKS USING MAGNETIC PARTICLE EXAMINATION AND/OR DYE PENETRATION. CONTINUE DRILLING, GRINDING, AND TESTING UNTIL ALL CRACK ENDS ARE REMOVED. WHEN NO CRACKS ARE DETECTED AT A LOCATION NO HOLES SHALL BE DRILLED UNDER THIS ITEM.

SINCE ANY OF THESE CRACKS COULD PROPAGATE INTO A TENSION ZONE, REMOVING THEIR ENDS IS IMPERATIVE. CRACKS LESS THAN 1½" LONG AND CRACKED AREAS OR DEFECTS LESS THAN 1½" IN DIAMETER SHALL BE REMOVED BY A SINGLE HOLE WHEN PRACTICAL.

ENDS OF CRACKS LONGER THAN 1½" AND DEFECTS SMALLER THAN 1½" SHALL BE DRILLED WITH A 1" DIAMETER DRILL BIT. HOLES SHALL BE CAREFULLY EXAMINED FOR CRACKS IN THE PLANE OF THE PLATE. 1½" OR 2" DIAMETER HOLES MAY BE DRILLED WHERE THE PROXIMITY OF THE CRACK END TO ADJACENT STEEL PRECLUDES DRILLING 1" DIAMETER HOLES.

CLEAN AND PAINT AREAS PER ITEM 514 - PAINTING OF STRUCTURAL STEEL (PAINTING SHALL BE CONSIDERED INCIDENTAL WITH THIS ITEM).

THE LOCATION OF ALL HOLES SHALL BE DETERMINED BY AND DRILLED UNDER THE DIRECTION OF THE ENGINEER.

THE ACCEPTABLE NUMBER OF HOLES DRILLED IN THE STRUCTURAL STEEL AS DETAILED ABOVE WILL BE PAID FOR AT THE CONTRACT PRICE FOR EACH HOLE. PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, LABOR, AND EQUIPMENT NECESSARY FOR DRILLING THE HOLES, GRINDING TO ENLARGE HOLES, AND NDT.

THE FOLLOWING HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES:

ITEM 513 - STRUCTURAL STEEL, MISC.: DRILLING STRUCTURAL STEEL, GRINDING, AND NDT.....13 EACH

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN

FOR LOCATIONS 1 (CUY-71-0579 AND 2 (CUY-71-0856), THE FINAL PAINT COLOR SHALL CLOSELY MATCH THE EXISTING BRIDGE COLOR, AS APPROVED BY THE ENGINEER.

ITEM 519 - PATCHING CONCRETE BRIDGE DECK - TYPE B (FOR OVERNIGHT REPAIRS)

FOR LOCATION 7 (CUY-480-0501)

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 ¾ 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.

F. PATCHING:

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

1. TYPE A - THE MIXTURE SHALL CONSIST OF 1 PART HIGH-EARLY-STRENGTH PORTLAND CEMENT, 1½ PARTS FINE AGGREGATE AND 1½ 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, A 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.

2. 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.

3. 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 511.17, 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
SPECIAL	SQUARE YARD	PATCHING CONCRETE BRIDGE DECKS, TYPE B (FOR OVERNIGHT REPAIRS)

LOCATION 1

CUY-071-0579 (IR-71 OVER FOWLES ROAD)

ITEM 513- STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN (BOTTOM FLANGE RETROFITS)

THE BRIDGE REPAIRS REQUIRE THE INSTALLATION OF NEW BOLTED COMPRESSION SPLICE PLATES TO THE BOTTOM FLANGE NEAR THE PIERS. THE SKEW OF THE BRIDGE WILL LIKELY CAUSE SOME LOCATIONS OF INTERFERENCE WITH THE PERPENDICULAR CROSS FRAMES WITH THIS RETROFIT WORK. THE CLOSENESS OF THE LOWER CHORD OF THE CROSS FRAMES TO THE TOP OF THE BOTTOM FLANGE WILL CAUSE DIFFICULTIES INSTALLING THE SPLICE PLATES, DRILLING THE BOLT HOLES, AND INSTALLING BOLTS. IN THESE LOCATIONS THE CONTRACTOR CAN EITHER REMOVE THE BOTTOM CROSS FRAME CHORD (AND MODIFY THE ENDS OF THE DIAGONALS) AND EVENTUALLY RELOCATED IT TO A HIGHER LEVEL OR REPLACE THE CROSS FRAMES WITH SHALLOWER MEMBERS. THE CONTRACTOR IS FREE TO MODIFY AND REUSE THE EXISTING CROSS FRAME MEMBERS PROVIDED THAT THERE ARE QUALITY WELD CONNECTIONS TO THE BEAM WEB AND AMONG THE CROSS FRAME MEMBERS. THIS WORK SHALL BE INCIDENTAL TO THE INSTALLATION OF THE RETROFITS.

LOCATION 2

CUY-071-0856 (IR-71 OVER SYLVIA ROAD)

ITEM 513- STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN (BOTTOM FLANGE RETROFITS)

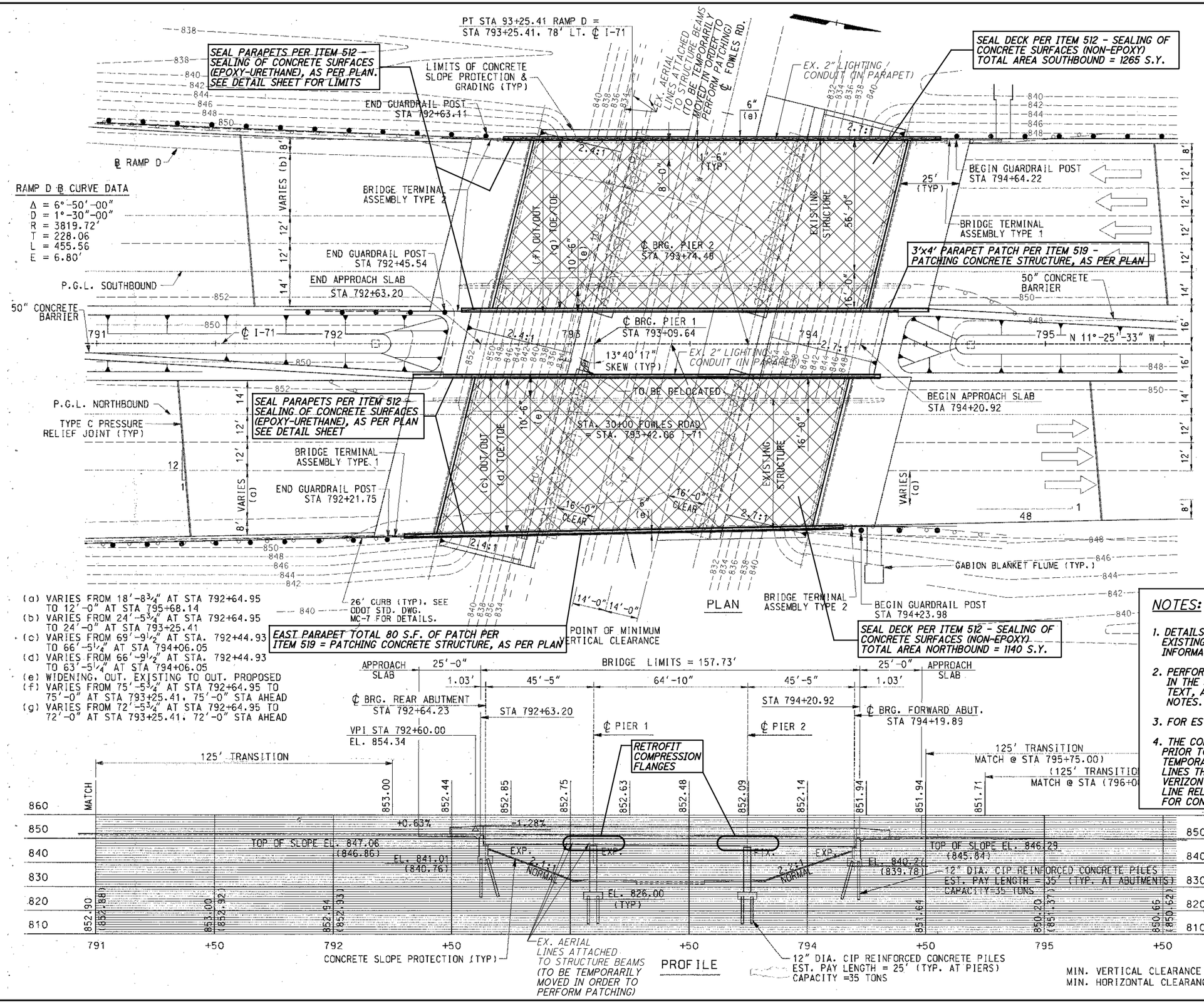
THE BRIDGE REPAIRS REQUIRE THE INSTALLATION OF NEW BOLTED COMPRESSION SPLICE PLATES TO THE BOTTOM FLANGE NEAR THE PIERS. THE SKEW OF THE BRIDGE WILL LIKELY CAUSE SOME LOCATIONS OF INTERFERENCE WITH THE PERPENDICULAR CROSS FRAMES WITH THIS RETROFIT WORK. THE CLOSENESS OF THE LOWER CHORD OF THE CROSS FRAMES TO THE TOP OF THE BOTTOM FLANGE WILL CAUSE DIFFICULTIES INSTALLING THE SPLICE PLATES, DRILLING THE BOLT HOLES, AND INSTALLING BOLTS. IN THESE LOCATIONS THE CONTRACTOR CAN EITHER REMOVE THE BOTTOM CROSS FRAME CHORD (AND MODIFY THE ENDS OF THE DIAGONALS) AND EVENTUALLY RELOCATED IT TO A HIGHER LEVEL OR REPLACE THE CROSS FRAMES WITH SHALLOWER MEMBERS. THE CONTRACTOR IS FREE TO MODIFY AND REUSE THE EXISTING CROSS FRAME MEMBERS PROVIDED THAT THERE ARE QUALITY WELD CONNECTIONS TO THE BEAM WEB AND AMONG THE CROSS FRAME MEMBERS. THIS WORK SHALL BE INCIDENTAL TO THE INSTALLATION OF THE RETROFITS.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		VARIOUS	

STRUCTURE GENERAL NOTES - 3

D12-BH-FY2021(A) MISC
PID No. 103162



NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. FOR ESTIMATED QUANTITIES SEE SHEET 2/9.
4. THE CONTRACTOR SHALL CONTACT VERIZON PRIOR TO CONSTRUCTION TO COORDINATE THE TEMPORARY RELOCATION OF VERIZON'S AERIAL LINES THAT ARE ATTACHED TO THE BRIDGE. VERIZON WILL BE RESPONSIBLE FOR THE AERIAL LINE RELOCATION. SEE THE GENERAL NOTES FOR CONTACT INFORMATION.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1804081 (L) 1804111 (R)

GENERAL PLAN – LOCATION 1
BRIDGE NO. CUY-71-0579
OVER CR 299 (FOWLES ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

ESTIMATED QUANTITIES

CALCULATED JLS DATED 6/2020
CHECKED dht DATED 6/2020

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	24
512	10050	2405	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	2405				
512	10101	1072	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	512	537	23		24
512	74001	539	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN		527	12		24
513	21600	12,887	LB	STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN (BOTTOM FLANGE RETROFITS)	12,887				26
514	00100	LS		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL				LS	
514	00200	LS		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT				LS	
514	00300	LS		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT				LS	
514	00401	LS		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN				LS	26
SPECIAL	51900100	556	SF	COMPOSITE FIBER WRAP SYSTEM		556			25
519	11101	284	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	92	87	105		24
844	10001	9	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN		9			25

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

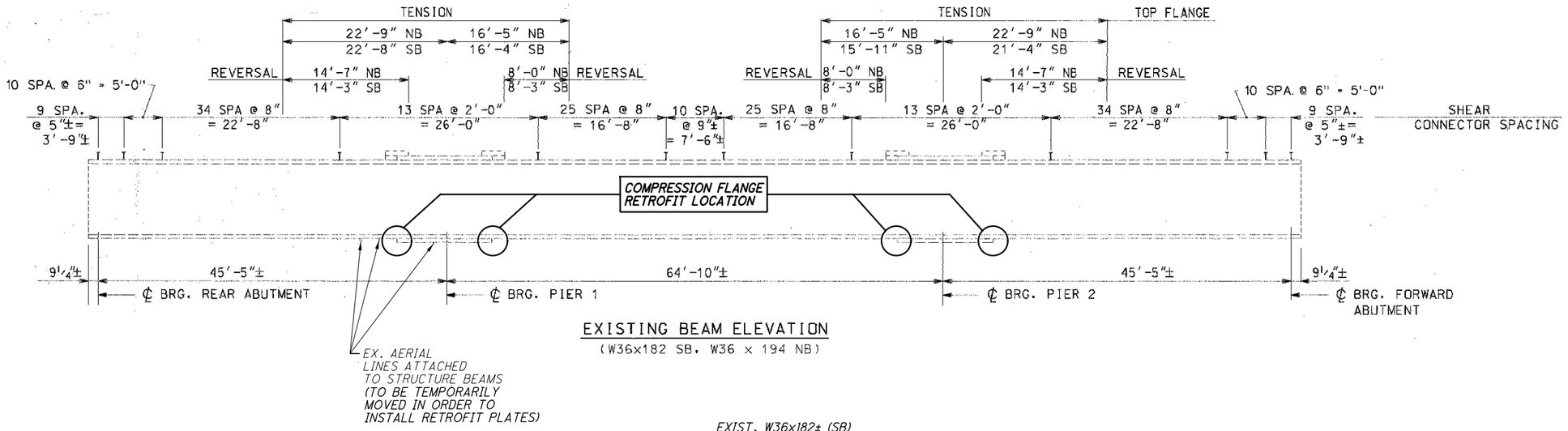
DESIGNED BLN | DRAWN JSB | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1604081 (L) 1804111 (R)

ESTIMATED QUANTITIES - LOCATION 1
BRIDGE NO. CUY-71-0579
OVER CR 299 (FOWLES ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

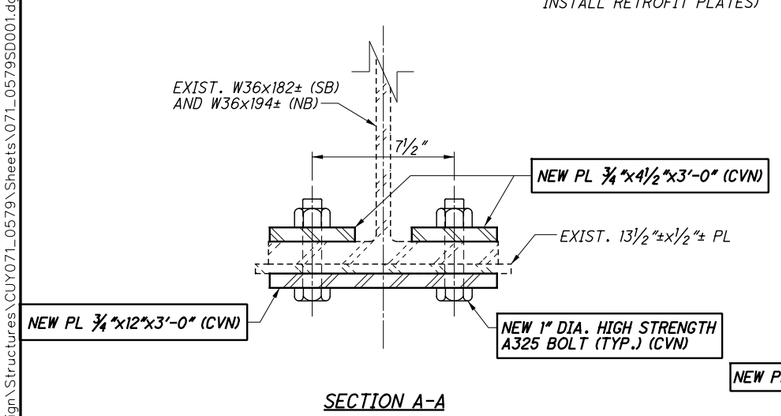
2 / 9

28
96

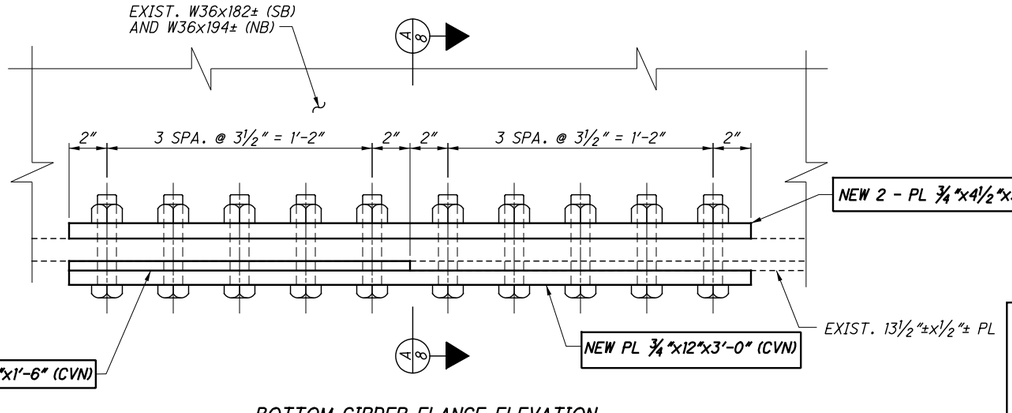


EXISTING BEAM ELEVATION

(W36x182 SB, W36 x 194 NB)



SECTION A-A



BOTTOM GIRDER FLANGE ELEVATION

COMPRESSION FLANGE RETROFIT DETAILS

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. FOR ESTIMATED QUANTITIES SEE SHEET 2/9.
5. EXISTING STEEL SURFACES DAMAGED BY THE CONTRACTOR'S OPERATIONS DURING CONSTRUCTION SHALL BE REPAIRED. THE REPAIRS SHALL BE INCLUDED FOR PAYMENT WITH THE FOLLOWING ITEMS:
   - ITEM 514 - SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL
   - ITEM 514 - FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT
   - ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT
   - ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN
6. ALL NEW STEEL SURFACES SHALL BE PAINTED AND INCLUDED FOR PAYMENT WITH THE FOLLOWING ITEMS:
   - ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT
   - ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN

CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS OF C&MS 711.01.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1604081 (L) 1804111 (R)

RETROFIT DETAILS - LOCATION 1

BRIDGE NO. CUY-71-0579
OVER CR 299 (FOWLES ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

ESTIMATED QUANTITIES

CALCULATED JLS DATED 6/2020
CHECKED dht DATED 6/2020

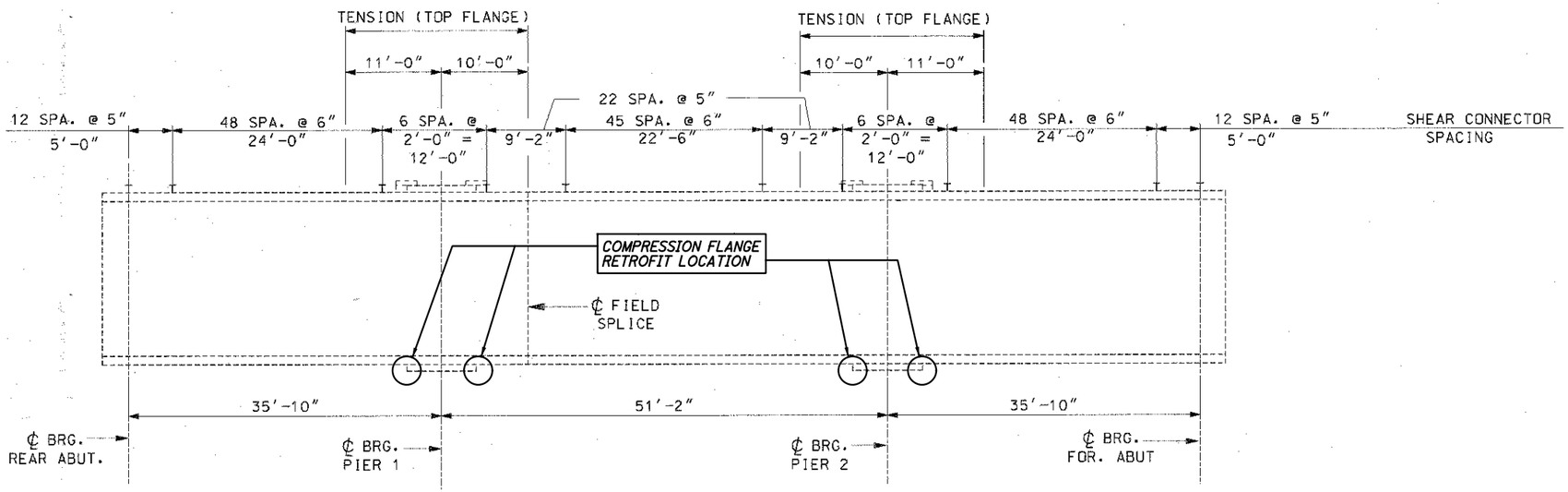
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPER.	PIERS	ABUTS.	GEN'L	REF. SHEET
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	24
512	10101	298	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	287	6	5		24
512	74001	6	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN		3	3		24
513	21501	639	LB	REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN	639				24, 45 & 46
513	21600	10,100	LB	STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN (BOTTOM FLANGE RETROFITS)	10,100				26
514	00100	LS		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL				LS	
514	00200	LS		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT				LS	
514	00300	LS		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT				LS	
514	00401	LS		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN				LS	26
516	44101	38	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (2.190"x8"x12" WITH 2⅞" OR 2½" LOAD PLATE WITH SHIMS), AS PER PLAN	38				47
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LS	24
SPECIAL	51900100	629	SF	COMPOSITE FIBER WRAP SYSTEM		629			25
519	11101	93	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	43	31	19		24
844	10001	13	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN		13			25

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JSB | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1804359

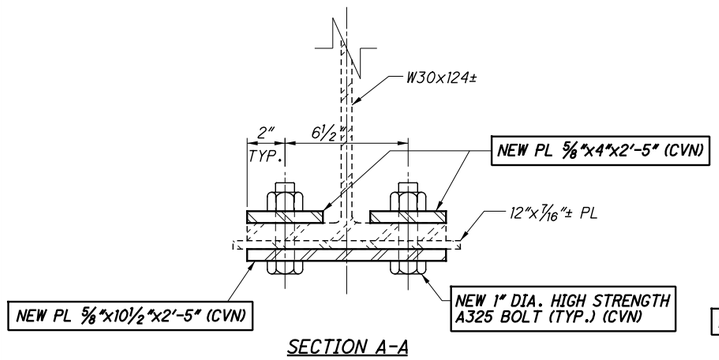
ESTIMATED QUANTITY - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

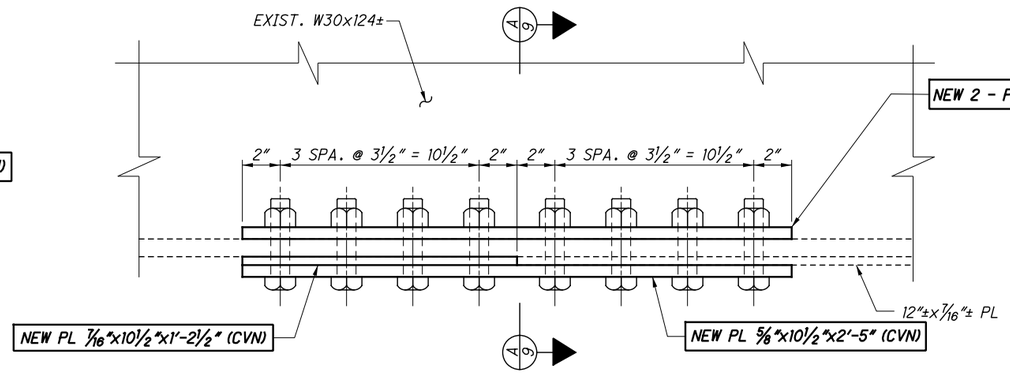


EXISTING BEAM ELEVATION

W30 X 124



SECTION A-A



BOTTOM GIRDER FLANGE ELEVATION

COMPRESSION FLANGE RETROFIT DETAILS

NOTES:

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4. FOR ESTIMATED QUANTITIES SEE SHEET 2/13.
5. EXISTING STEEL SURFACES DAMAGED BY THE CONTRACTOR'S OPERATIONS DURING CONSTRUCTION SHALL BE REPAIRED. THE REPAIRS SHALL BE INCLUDED FOR PAYMENT WITH THE FOLLOWING ITEMS:
   - ITEM 514 - SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL
   - ITEM 514 - FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT
   - ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT
   - ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN
6. ALL NEW STEEL SURFACES SHALL BE PAINTED AND INCLUDED FOR PAYMENT WITH THE FOLLOWING ITEMS:
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   - ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN

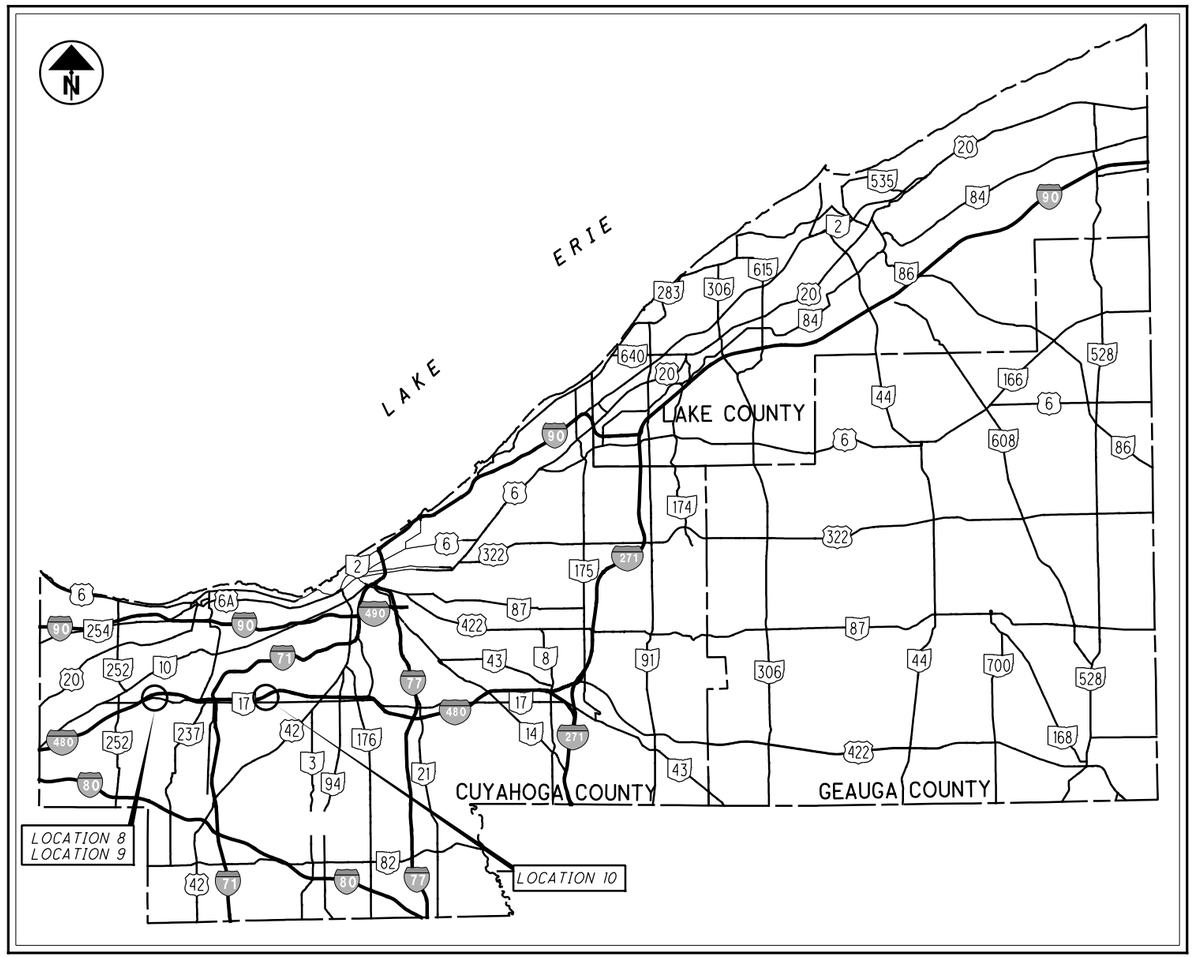
CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS OF C&MS 711.01.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1804359

RETROFIT DETAILS - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVANIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162



LOCATION MAP

LATITUDE: 41°24'54" N LONGITUDE: 81°36'54" W

(NOTE: FOR COORDINATES PER LOCATION, SEE SHEET 2

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

D12-BH-FY2021(A) MISC(8-10) PART 2

FOR PART 1, SEE D12-BH-FY2021(A) MISC (1-7)

LOCATION	BRIDGE NUMBER	STRUCTURAL FILE NUMBER	CITY	TOWNSHIP	VILLAGE
8	CUY-480-0612	1814168	FAIRVIEW PARK		
9	CUY-480-0616	1814176	FAIRVIEW PARK		
10	CUY-480-1075	1812912	CLEVELAND		

INDEX OF SHEETS:

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF VARIOUS REPAIRS INCLUDING VANDAL FENCE REPLACMENT, BEARING REPAIRS, CONCRETE REPAIRS AND STEEL REPAIRS.

THIS IS A MAINTENANCE PROJECT.

PROJECT EARTH DISTURBED AREA:	N/A
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT FOR THE SIDE ROADS AS DESCRIBED ON SHEETS AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED _____

DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____

DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig

OHIO811.org Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764

(Non-members must be called directly)

PLAN PREPARED BY:

CARPENTER MARTY transportation

6612 SINGLETREE DRIVE COLUMBUS, OH 43229

614.656.2424 * WWW.CMTRAN.COM

ENGINEERS SEAL:

FOR STRUCTURES OVER 20' SPAN

STATE OF OHIO PROFESSIONAL ENGINEER REGISTERED SHANE THOMAS KALINOSKI 73569

SIGNED: Shane Kalinoski

DATE: 10/29/2020

ENGINEERS SEAL:

FOR ENTIRE PLAN EXCEPT STRUCTURES OVER 20' SPAN

STATE OF OHIO PROFESSIONAL ENGINEER REGISTERED TONY W. GRIESHOP 70196

SIGNED: Tony W Grieshop

DATE: 10/29/2020

STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
SEE PART 1	SEE PART 1	SEE PART 1

FEDERAL PROJECT NO. NON-FEDERAL

PID NO. 103162

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT CSX

D12-BH-FY2021(A) MISC PID NO. 103162

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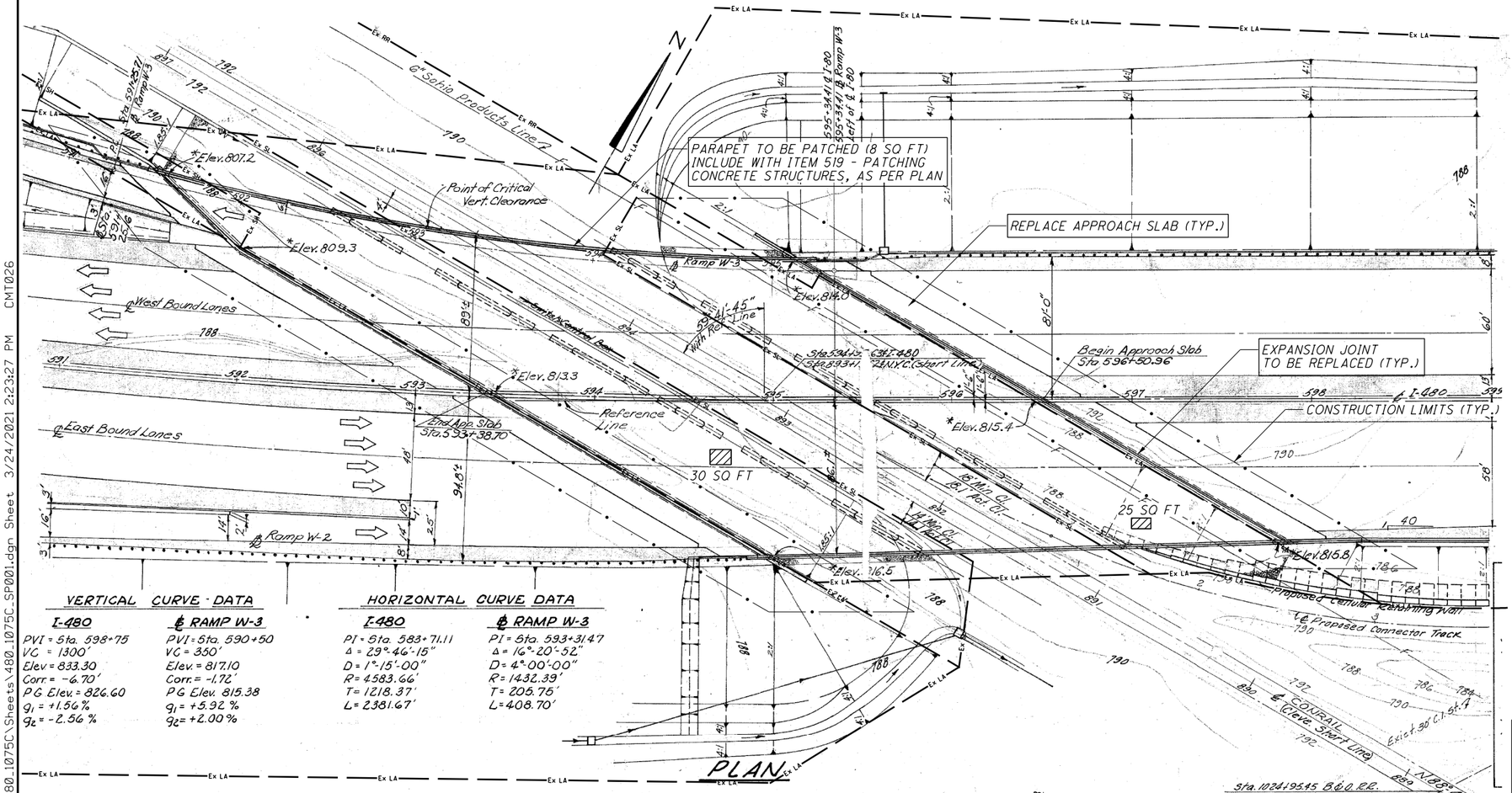


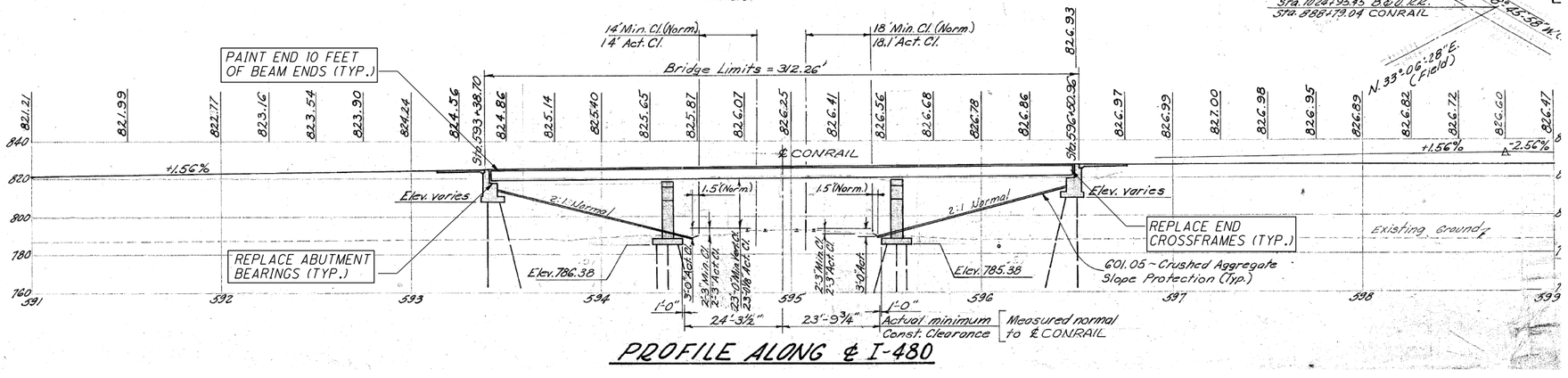
PLAN

VERTICAL CURVE - DATA

I-480	℄ RAMP W-3
PVI = Sta. 598+75	PVI = Sta. 590+50
VC = 1300'	VC = 350'
Elev = 833.30	Elev. = 817.10
Corr. = -6.70'	Corr. = -1.72'
P.G. Elev. = 826.60	P.G. Elev. 815.38
g_1 = +1.56 %	g_1 = +5.92 %
g_2 = -2.56 %	g_2 = +2.00 %

HORIZONTAL CURVE DATA

I-480	℄ RAMP W-3
PI = Sta. 583+71.11	PI = Sta. 593+31.47
Δ = 29°-46'-15"	Δ = 16°-20'-52"
D = 1°-15'-00"	D = 4°-00'-00"
R = 4583.66'	R = 1432.39'
T = 1218.37'	T = 205.75'
L = 2381.67'	L = 408.70'



PROFILE ALONG ℄ I-480

LEGEND

▨ INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE BRIDGE DECKS, TYPE B. TOTAL AREA THIS SHEET = 55 S.F.

NOTES:

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3. FOR ESTIMATED QUANTITIES SEE SHEET 2/34.
4. PATCH THE WEARING SURFACE PER PROPOSAL NOTE 512, TYPE B PATCH. PATCH ONLY THE AREAS SHOWN IN THE PLANS TO BE REPAIRED AS DIRECTED BY THE ENGINEER. AREAS THAT ARE DESIGNATED FOR REPAIR ARE AREAS THAT ARE PATCHED WITH ASPHALT, SPALLED, OR HEAVILY CRACKED. DELAMINATED AREAS IMMEDIATELY CONTIGUOUS TO THE DESIGNATED REPAIR AREAS SHALL BE REMOVED AND REPAIRED WITH THE SAME PATCH. AREAS OF THE WEARING SURFACE ARE KNOWN TO EXIST THAT ARE DELAMINATED WHEN SOUNDED BUT ARE NOT SHOWING VISIBLE SIGNS OF DISTRESS. THESE AREAS SHALL NOT BE REPAIRED UNLESS DIRECTED TO DO SO BY THE PROJECT ENGINEER AND DISTRICT BRIDGE ENGINEER. PAYMENT WILL BE BASED UPON THE ACTUAL QUANTITIES REPAIRED AND ACCEPTED BY THE ENGINEER. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
5. THE PARAPET PATCH SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 12 S.F.
6. CONTRACTOR ACCESS SHALL BE RESTRICTED WITHIN THE CSX RAILROAD R/W.

DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-17-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814168	

GENERAL PLAN - LOCATION 10
BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

1 / 34

41 / 74

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