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**ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN**

PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 77 SHALL BE REMOVED TO PROVIDE ACCESS TO PIER 1 AND PIER 3 AT LOCATION 5: CUY-77-0223 (OAKES ROAD OVER IR 77); PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 480 RAMP SHALL BE REMOVED TO PROVIDE ACCESS TO PIER 1 AT LOCATION 6: CUY-77-0881 (IR 77 RAMP OVER IR 480 RAMP) AND PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 271 SHALL BE REMOVED TO PROVIDE ACCESS TO PIER 2 AND PIER 4 AT LOCATION 10: CUY-422-1122 (US 422 [CHAGRIN BOULEVARD] OVER IR 271).

IN ADDITION TO CMS ITEM 202, THIS ITEM SHALL INCLUDE SAWCUTTING THE EXISTING ASPHALT PAVEMENT AT A DISTANCE OF 4" FROM THE TOE OF THE EXISTING CONCRETE BARRIER; CAREFULLY REMOVING 4" OF THE ASPHALT PAVEMENT ADJACENT AND PARALLEL TO THE EXISTING CONCRETE BARRIER; AND SAWCUTTING THE EXISTING CONCRETE BARRIER TO BE REMOVED. THE EXISTING CONCRETE BARRIER SAWCUTS SHALL BE LOCATED AT THE EXISTING CONTRACTION JOINTS AROUND THE EXISTING REBAR AND CHIPPING THE CONCRETE AWAY LEAVING THE EXISTING REBAR IN PLACE. THE LENGTH OF EXISTING CONCRETE BARRIER TO BE REMOVED SHALL BE DETERMINED BASED ON THE DISTANCE REQUIRED TO PERFORM THE PIER REPAIRS. THE CONCRETE BARRIER END SECTIONS SHALL REMAIN AND SHALL NOT BE DISTURBED.

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS REQUIRED TO PERFORM THIS WORK, TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED WITH ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN FOR PAYMENT.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

LOCATION 5: CUY-77-0223 (OAKES ROAD OVER IR 77)	
ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN	<u>80</u> FT
LOCATION 6: CUY-77-0881 (IR-77 RAMP OVER IR 480 RAMP)	
ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN	<u>54</u> FT
LOCATION 10: CUY-422-1122 (US 422 [CHAGRIN BOULEVARD] OVER IR 271)	
ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN	<u>240</u> FT

**ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN (A)**

THE EXISTING CONCRETE BARRIER ALONG IR 71 SHALL BE REMOVED TO PROVIDE ACCESS TO PIER 1 AND PIER 3 AT LOCATION 3: CUY-71-0467 (WHITNEY ROAD OVER IR 71). IN ADDITION TO CMS ITEM 202, THIS ITEM SHALL INCLUDE SAWCUTTING THE EXISTING ASPHALT PAVEMENT AT A DISTANCE OF 4" FROM THE TOE OF THE EXISTING BARRIER AND CAREFULLY REMOVING THE EXISTING CONCRETE BARRIER AND THE 4" OF ASPHALT PAVEMENT.

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS REQUIRED TO PERFORM THIS WORK, TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED WITH ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN (A) FOR PAYMENT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

LOCATION 3: CUY-71-0467 (WHITNEY ROAD OVER IR 71)	
ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN (A)	<u>110</u> FT
ITEM 202 - GUARDRAIL REMOVED	<u>275</u> FT

**ITEM 204 - PROOF ROLLING**

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE CALCULATIONS AND CARRIED TO THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. SEE PLAN SHEET 74 FOR ADDITIONAL INFORMATION.

ITEM 204 - PROOF ROLLING	<u>1</u> HOUR
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**ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350)**

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

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

**ITEM 609 - CURB, TYPE 6, AS PER PLAN**

PORTIONS OF THE EXISTING CURB ALONG TURNEY ROAD SHALL BE REPLACED ALONG THE APPROACH SLABS AT LOCATION 14: CUY-480-2019 (TURNEY ROAD OVER IR 480), AND PORTIONS OF THE EXISTING CURB ALONG US 6A (DETROIT RD.) SHALL BE REPLACED AT THE REAR NW CORNER OFF THE APPROACH SLAB AT LOCATION 15: CUY-06A-0042 (US 6A [DETROIT ROAD] OVER ROCKY RIVER).

IN ADDITION TO CMS 609, THIS ITEM SHALL MATCH THE EXISTING CURB HEIGHT OF THE BRIDGE AND SMOOTHLY TRANSITION DOWN TO MATCH TO THE HEIGHT OF THE EXISTING CURB.

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS REQUIRED TO PERFORM THIS WORK TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED WITH ITEM 609 - CURB, TYPE 6, AS PER PLAN.

**ITEM 619 - FIELD OFFICE, TYPE B, AS PER PLAN**

A TYPE B FIELD OFFICE IS REQUIRED FOR THIS PROJECT. THE FOLLOWING REVISIONS TO EQUIPMENT SUPPLIED WITH THE TYPE B FIELD OFFICE, AS SPECIFIED IN CMS TABLE 619.02-1, FIELD OFFICE, SHALL APPLY:

THE COPIER SUPPLIED MUST MEET THE REQUIREMENTS OF THE COPIER SUPPLIED WITH THE TYPE C FIELD OFFICE.	
THE BROAD BAND INTERNET CONNECTION MUST MEET A MINIMUM DOWNLOAD SPEED OF 10MB PER SECOND AND A MINIMUM UPLOAD SPEED OF 5MB PER SECOND.	
THE CONTRACTOR SHALL FURNISH, SET-UP AND MAINTAIN A WI-FI ROUTER MEETING THE REQUIREMENTS OF IEEE 802.11ac FOR THE EXCLUSIVE USE OF THE DEPARTMENT.	
ALL OTHER FIELD OFFICE ITEMS SUPPLIED SHALL MEET THE REQUIREMENTS OF A TYPE B FIELD OFFICE.	
ITEM 619 - FIELD OFFICE, TYPE B, AS PER PLAN	<u>12</u> MNTH

**ASPHALT PAVEMENT PATCHING**

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PATCHING ANY DETERIORATED ASPHALT FOLLOWING THE BACKWALL REPAIRS AT LOCATION 6: CUY-77-0881 (IR 77 RAMP OVER IR 480 RAMP), THE APPROACH SLAB REPLACEMENT AT LOCATION 8: CUY-90-0683 (RAMP B OVER IR 90), AND THE JOINT REPAIRS AND CURB REPLACEMENT AT LOCATION 14: CUY-480-2019 (TURNEY ROAD OVER IR 480) AND IS TO BE USED AS DIRECTED BY THE ENGINEER.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR THE ASPHALT PATCHING AT THE LOCATIONS PROVIDED ABOVE.:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441)	<u>10</u> CY
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THE ABOVE QUANTITY IS BASED ON A PAVEMENT WIDTH OF TWO FEET ALONG THE LENGTH OF THE ROADWAY AND AN ESTIMATED THICKNESS OF THREE INCHES.

THE COST OF ALL THE WORK DESCRIBED ABOVE INCLUDING LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PERFORM THIS WORK TO THE SATISFACTION OF THE ENGINEER SHALL BE PAID FOR AT THE UNIT CONTRACT BID PRICE FOR ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441).

**ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN**

PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 77 SHALL BE REPLACED AT PIER 1 AND PIER 3 OF LOCATION 5: CUY-77-0223 (OAKES ROAD OVER IR 77); PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 480 RAMP SHALL BE REPLACED AT PIER 1 OF LOCATION 6: CUY-77-0881 (IR 77 RAMP OVER IR 480 RAMP); AND PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 271 SHALL BE REPLACED AT PIER 2 AND PIER 4 OF LOCATION 10: CUY-422-1122 (US 422 [CHAGRIN BOULEVARD] OVER IR 271).

IN ADDITION TO CMS 622, THIS ITEM SHALL INCLUDE CONSTRUCTING A SPREAD FOOTING THAT EXTENDS FROM THE BACK OF THE BARRIER TO 4" FROM THE TOE OF THE CONCRETE BARRIER. THE SPREAD FOOTING SHALL BE PER STANDARD DRAWING RM-4.6. THE CROSS-SLOPE OF THE CONCRETE FOOTING SURFACE SHALL MATCH THE CROSS-SLOPE OF THE EXISTING ASPHALT PAVEMENT ADJACENT TO THE BARRIER. THE ELEVATION OF THE CONCRETE FOOTING SURFACE SHALL MATCH INTO THE EXISTING ADJACENT ASPHALT SURFACE. FORM THE BARRIER AROUND THE EXISTING REBAR TO MATCH INTO THE EXISTING CONCRETE END SECTION.

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS REQUIRED TO PERFORM THIS ITEM, TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED WITH ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN FOR PAYMENT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

LOCATION 5: CUY-77-0223 (OAKES ROAD OVER IR 77)	
ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN	<u>52</u> FT
LOCATION 6: CUY-77-0881 (IR 77 RAMP OVER IR 480 RAMP)	
ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN	<u>40</u> FT
LOCATION 10: CUY-422-1122 (US 422 [CHAGRIN BOULEVARD] OVER IR 271)	
ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN	<u>198</u> FT

**ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN (A)**

THE EXISTING CONCRETE BARRIER ALONG IR 71 SHALL BE REPLACED AT PIER 1 AND PIER 3 OF LOCATION 3: CUY-71-0467 (WHITNEY ROAD OVER IR 71). IN ADDITION TO CMS ITEM 622, THIS ITEM SHALL INCLUDE CONSTRUCTING A SPREAD FOOTING THAT EXTENDS FROM THE BACK OF THE BARRIER TO 4" FROM THE TOE OF THE CONCRETE BARRIER. THE SPREAD FOOTING SHALL BE PER THE STANDARD DRAWING RM-4.6. THE CROSS-SLOPE OF THE CONCRETE FOOTING SURFACE SHALL MATCH THE CROSS-SLOPE OF THE EXISTING ASPHALT PAVEMENT ADJACENT TO THE BARRIER. THE ELEVATION OF THE CONCRETE FOOTING SURFACE SHALL MATCH INTO THE EXISTING ADJACENT ASPHALT SURFACE.

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS REQUIRED TO PERFORM THIS WORK, TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED WITH ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN (A) FOR PAYMENT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

LOCATION 3: CUY-71-0467 (WHITNEY ROAD OVER IR 71)	
ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN (A)	<u>82</u> FT
ITEM 622 - CONCRETE BARRIER END SECTION, TYPE D	<u>2</u> EACH
ITEM 606 - MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	<u>2</u> EACH
ITEM 606 - GUARDRAIL, TYPE MGS	<u>150</u> FT
ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350)	<u>2</u> EACH

**ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN**

PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 77 SHALL BE REPLACED AT PIER 1 AND PIER 3 OF LOCATION 5: CUY-77-0223 (OAKES ROAD OVER IR 77); PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 480 RAMP SHALL BE REPLACED AT PIER 1 OF LOCATION 6: CUY-77-0881 (IR 77 RAMP OVER IR 480 RAMP); AND PORTIONS OF THE EXISTING CONCRETE BARRIER ALONG IR 271 SHALL BE REPLACED AT PIER 2 AND PIER 4 OF LOCATION 10: CUY-422-1122 (CHAGRIN BOULEVARD] OVER IR 271).

IN ADDITION TO CMS 622, THIS ITEM SHALL INCLUDE CONSTRUCTING A SPREAD FOOTING THAT EXTENDS FROM THE BACK OF THE BARRIER TO 4" FROM THE TOE OF THE CONCRETE BARRIER. THE SPREAD FOOTING SHALL BE PER STANDARD DRAWING RM-4.6. THE CROSS-SLOPE OF THE CONCRETE FOOTING SURFACE SHALL MATCH THE CROSS-SLOPE OF THE EXISTING ASPHALT PAVEMENT ADJACENT TO THE BARRIER. THE ELEVATION OF THE CONCRETE FOOTING SURFACE SHALL MATCH INTO THE EXISTING ADJACENT ASPHALT SURFACE.

ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS REQUIRED TO PERFORM THIS ITEM, TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED WITH ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN FOR PAYMENT.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

LOCATION 5: CUY-77-0223 (OAKES ROAD OVER IR 77)	
ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	<u>1</u> EACH
LOCATION 6: CUY-77-0881 (IR-77 RAMP OVER IR 480 RAMP)	
ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	<u>1</u> EACH
LOCATION 10: CUY-422-1122 (US 422 [CHAGRIN BOULEVARD] OVER IR 271)	
ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	<u>3</u> EACH

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GENERAL NOTES - 3

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LOCATION 7: CUY-77-0909 (IR 77 OVER IR 480)

(CONTINUED FROM SHEET 12 )

THE CONTRACTOR SHALL PERFORM THE WORK IN FIVE PHASES OF CONSTRUCTION ON THE IR 77 NORTHBOUND BRIDGE. THE CONTRACTOR SHALL PERFORM THE REAR ABUTMENT JOINT REPLACEMENT, REAR ABUTMENT PATCHING AND SEALING OF PATCHED AREAS OF THE REAR ABUTMENT DURING PHASES ONE, TWO AND THREE FOR THE IR 77 NORTHBOUND STRUCTURE. THE CONTRACTOR SHALL SHIM THE FORWARD ABUTMENT JOINT DURING PHASES FOUR AND FIVE FOR THE IR 77 NORTHBOUND STRUCTURE. THE FIRST PHASE SHALL CLOSE THE EAST PORTION OF THE BRIDGE AND SHIFT TRAFFIC TO THE INSIDE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO LANES OF TRAFFIC. THE FIRST PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMP TO THE SOUTH IN ACCORDANCE WITH MT-98.10 (LANE CLOSURE AT ENTRANCE RAMP). THE SECOND PHASE SHALL CLOSE THE OUTSIDE PORTION OF THE BRIDGE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC TYPICAL SECTION, 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 ONE LANE OF TRAFFIC. THE SECOND PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMP TO THE SOUTH IN ACCORDANCE WITH MT-98.10 (LANE CLOSURE AT ENTRANCE RAMP). THE CONTRACTOR SHALL PERFORM THE WORK FOR PHASE TWO IN ONE WEEKEND CLOSURE. THE THIRD PHASE SHALL CLOSE THE WEST PORTION OF THE BRIDGE AND SHIFT TRAFFIC TO THE OUTSIDE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO LANES OF TRAFFIC. THE THIRD PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMP TO THE SOUTH IN ACCORDANCE WITH MT-98.10 (LANE CLOSURE AT ENTRANCE RAMP). THE FOURTH PHASE SHALL CLOSE THE OUTSIDE TRAVEL LANE 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. THE FIFTH 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 ONE LANE OF TRAFFIC. THE FIFTH PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMP TO THE SOUTH IN ACCORDANCE WITH MT-98.10 (LANE CLOSURE AT ENTRANCE RAMP).

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR IR 77 AT THE BRIDGE LOCATION.

THE CONTRACTOR SHALL NOT PERFORM REPAIRS FOR LOCATION 6 (CUY-77-0881) AND LOCATION 7 (CUY-77-0909) CONCURRENTLY.

LOCATION 8: CUY-90-0683 (RAMP B OVER IR 90)

THE CONTRACTOR SHALL PERFORM THE WORK IN THREE PHASES OF CONSTRUCTION ON RAMP B. THE CONTRACTOR SHALL PERFORM THE ABUTMENT JOINT REPLACEMENT, TRIMMING BEAM ENDS, PAINTING DAMAGED STEEL, APPROACH SLAB REPLACEMENT, FORWARD APPROACH CURB REPLACEMENT, GROUND MOUNTED SIGN REMOVAL AND REERECTION, RAILING PATCHING, RAILING SEALING, FORWARD ABUTMENT DOWNSPOUT MODIFICATION, AND GUARDRAIL REMOVAL AND REERECTION DURING PHASE ONE ON RAMP B. THE CONTRACTOR SHALL PERFORM THE ABUTMENT JOINT REPLACEMENT, TRIMMING BEAM ENDS, PAINTING DAMAGED STEEL AND APPROACH SLAB REPLACEMENT DURING PHASE TWO ON RAMP B. THE CONTRACTOR SHALL PERFORM THE ABUTMENT JOINT REPLACEMENT, TRIMMING BEAM ENDS, PAINTING DAMAGED STEEL, APPROACH SLAB REPLACEMENT, FORWARD APPROACH CURB REPLACEMENT, GROUND MOUNTED SIGN REMOVAL AND REERECTION, RAILING PATCHING, RAILING SEALING, AND GUARDRAIL REMOVAL AND REERECTION DURING PHASE THREE ON RAMP B. THE FIRST PHASE SHALL CLOSE THE INSIDE PORTION OF THE BRIDGE 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 LANES OF TRAFFIC. THE FIRST PHASE SHALL ALSO CLOSE THE LEFT TURN LANE AT THE INTERSECTION WITH HILLIARD BOULEVARD. THE ADJACENT THRU LANE WILL BE MARKED WITH A THRU/LEFT TURN ARROW DURING PHASE ONE. LANE AND SIGNAL MODIFICATION WILL BE REQUIRED AT THE INTERSECTION WITH HILLIARD BOULEVARD DURING PHASE ONE. THE CONTRACTOR SHALL INSTALL TEMPORARY RUMBLE STRIPS PER MAINTENANCE OF TRAFFIC NOTE "ITEM SPECIAL - RUMBLE STRIPS". THE SECOND PHASE SHALL CLOSE THE OUTSIDE PORTION OF THE BRIDGE 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), MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-95.32 (CLOSING LEFT LANES OF A MULTI-LANE UNDIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ONE LANE OF TRAFFIC. THE CONTRACTOR SHALL PERFORM THE WORK FOR PHASE TWO IN ONE WEEKEND WITH A SINGLE LANE CLOSURE. THE THIRD PHASE SHALL CLOSE THE OUTSIDE PORTION OF THE BRIDGE 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 LANES OF TRAFFIC. THE THIRD PHASE SHALL ALSO CLOSE THE RIGHT TURN LANE AT HILLIARD BOULEVARD. THE ADJACENT LANE WILL BE MARKED WITH A THRU/RIGHT ARROW DURING PHASE THREE. LANE AND SIGNAL MODIFICATION WILL BE REQUIRED AT THE INTERSECTION WITH HILLIARD BOULEVARD DURING PHASE THREE. THE CONTRACTOR SHALL INSTALL TEMPORARY RUMBLE STRIPS PER MAINTENANCE OF TRAFFIC NOTE "ITEM SPECIAL - RUMBLE STRIPS".

THE CONTRACTOR SHALL PERFORM THE WORK IN TWO PHASES OF CONSTRUCTION ON IR 90. THE CONTRACTOR SHALL PERFORM THE PIER ONE REPAIRS, THE PIER THREE REPAIRS, ABUTMENT SEALING AND ABUTMENT PATCHING DURING PHASE ONE ON IR 90. THE CONTRACTOR SHALL PERFORM THE PIER TWO REPAIRS DURING PHASE TWO ON IR 90. THE FIRST PHASE SHALL CLOSE THE EASTBOUND OUTSIDE SHOULDER AND THE WESTBOUND OUTSIDE SHOULDER IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) WHILE MAINTAINING THREE LANES OF TRAFFIC IN EACH DIRECTION. THE SECOND PHASE SHALL CLOSE THE EASTBOUND INSIDE SHOULDER IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) AND SHALL CLOSE THE WESTBOUND INSIDE TRAVEL LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING THREE LANES OF TRAFFIC IN THE EASTBOUND DIRECTION AND TWO LANES OF TRAFFIC IN THE WESTBOUND DIRECTION. THE CONTRACTOR MAY CLOSE THE WESTBOUND INSIDE SHOULDER AND THE EASTBOUND INSIDE TRAVEL LANE AS AN ALTERNATIVE FOR PHASE TWO CONSTRUCTION ON IR 90.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR IR 90 AT THE BRIDGE LOCATION.

MULTIPLE WEEKEND CLOSURES WILL BE REQUIRED TO COMPLETE THE WORK ON IR 90.

LOCATION 10: CUY-422-1122 (US 422 [CHAGRIN BOULEVARD] OVER IR 271)

THE CONTRACTOR SHALL PERFORM THE WORK IN FIVE PHASES OF CONSTRUCTION ON CHAGRIN BOULEVARD. THE CONTRACTOR SHALL REPLACE PORTIONS OF THE NORTH GIRDER, REPLACE PORTIONS OF THE NORTH DECK AND REPLACE PORTIONS OF THE NORTH SIDEWALK DURING PHASE ONE ON CHAGRIN BOULEVARD. THE CONTRACTOR SHALL REPLACE PORTIONS OF THE SOUTH GIRDER, REPLACE PORTIONS OF THE SOUTH DECK AND REPLACE PORTIONS OF THE SOUTH SIDEWALK DURING PHASE TWO ON CHAGRIN BOULEVARD. THE CONTRACTOR SHALL PATCH THE NORTH PARAPET AND SEAL THE NORTH PARAPET DURING PHASE THREE ON CHAGRIN BOULEVARD. THE CONTRACTOR SHALL REPLACE THE REAR STRIP SEAL DURING PHASE FOUR ON CHAGRIN BOULEVARD. THE CONTRACTOR SHALL PATCH THE SOUTH PARAPET AND SEAL THE SOUTH PARAPET DURING PHASE FIVE ON CHAGRIN BOULEVARD. THE FIRST PHASE SHALL SHIFT THE TRAVEL LANES TO THE SOUTH IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO LANES OF TRAFFIC IN THE WESTBOUND DIRECTION AND TWO LANES OF TRAFFIC IN THE EASTBOUND DIRECTION. SIGNAL MODIFICATION MAY BE REQUIRED AT THE INTERSECTIONS WITH THE IR 271 SOUTHBOUND RAMPS TO THE WEST OF THE BRIDGE AND AT THE INTERSECTION WITH THE IR 271 NORTHBOUND RAMPS TO THE EAST OF THE BRIDGE DURING PHASE ONE. PEDESTRIAN TRAFFIC SHALL BE DETOURED TO THE SOUTH SIDEWALK IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS) DURING PHASE ONE. THE RAMPS TO THE EAST AND TO THE WEST OF THE STRUCTURE SHALL REMAIN OPEN AT ALL TIMES DURING PHASE ONE. THE SECOND PHASE SHALL SHIFT THE TRAVEL LANES TO THE NORTH IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TWO LANES OF TRAFFIC IN THE WESTBOUND DIRECTION AND TWO LANES OF TRAFFIC IN THE EASTBOUND DIRECTION. SIGNAL MODIFICATION MAY BE REQUIRED AT THE INTERSECTIONS WITH THE IR 271 SOUTHBOUND RAMPS TO THE WEST OF THE BRIDGE AND AT THE INTERSECTION WITH THE IR 271 NORTHBOUND RAMPS TO THE EAST OF THE BRIDGE DURING PHASE TWO. PEDESTRIAN TRAFFIC SHALL BE DETOURED TO THE NORTH SIDEWALK IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS) DURING PHASE TWO. THE RAMPS TO THE EAST OF THE STRUCTURE AND TO THE WEST OF THE STRUCTURE SHALL REMAIN OPEN AT ALL TIMES DURING PHASE TWO. THE THIRD PHASE SHALL CLOSE THE OUTSIDE WESTBOUND LANE IN ACCORDANCE MT-95.31 (CLOSING RIGHT LANES OF A MULTI-LANE UNDIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ONE WESTBOUND LANE OF TRAFFIC ON THE EXISTING INSIDE WESTBOUND LANE AND TWO EASTBOUND LANES OF TRAFFIC IN THE EXISTING EASTBOUND LANES. PEDESTRIAN TRAFFIC SHALL BE DETOURED TO THE SOUTH SIDEWALK IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS) DURING PHASE THREE. THE RAMPS TO THE EAST AND TO THE WEST OF THE STRUCTURE SHALL REMAIN OPEN AT ALL TIMES DURING PHASE THREE. PHASE THREE WILL REQUIRE MULTIPLE OVERNIGHT CLOSURES TO COMPLETE. LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS DURING PHASE THREE. THE FOURTH PHASE SHALL REQUIRE 3 SUBPHASES TO COMPLETE. THE FIRST SUBPHASE SHALL CLOSE THE OUTSIDE WESTBOUND LANE AS DESCRIBED FOR PHASE 3. THE SECOND SUBPHASE SHALL CLOSE THE INSIDE WESTBOUND LANE AND THE INSIDE EASTBOUND LANE IN ACCORDANCE MT-95.32 (CLOSING LEFT LANES OF A MULTI-LANE UNDIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ONE WESTBOUND LANE OF TRAFFIC ON THE EXISTING OUTSIDE WESTBOUND LANE AND ONE EASTBOUND LANE OF TRAFFIC ON THE EXISTING OUTSIDE EASTBOUND LANE. THE THIRD SUBPHASE SHALL CLOSE THE OUTSIDE EASTBOUND LANE AS DESCRIBED FOR PHASE 5. THE REAR STRIP SEAL SHALL BE INSTALLED IN ONE CONTINUOUS PIECE. PHASE THREE WILL REQUIRE ONE SINGLE OVERNIGHT CLOSURE TO COMPLETE. LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS DURING PHASE FOUR. THE FIFTH PHASE SHALL CLOSE THE OUTSIDE EASTBOUND LANE IN ACCORDANCE MT-95.31 (CLOSING RIGHT LANES OF A MULTI-LANE UNDIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ONE EASTBOUND LANE OF TRAFFIC ON THE EXISTING INSIDE EASTBOUND LANE AND TWO WESTBOUND LANES OF TRAFFIC IN THE EXISTING WESTBOUND LANES. PEDESTRIAN TRAFFIC SHALL BE DETOURED TO THE NORTH SIDEWALK IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS) DURING PHASE FIVE. THE RAMPS TO THE EAST OF THE STRUCTURE AND TO THE WEST OF THE STRUCTURE SHALL REMAIN OPEN AT ALL TIMES DURING PHASE FIVE. PHASE FIVE WILL REQUIRE MULTIPLE OVERNIGHT CLOSURES TO COMPLETE. LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS DURING PHASE FIVE.

THE CONTRACTOR SHALL PERFORM THE WORK IN FOUR PHASES OF CONSTRUCTION ON IR 271. THE CONTRACTOR SHALL REPAIR THE ABUTMENTS, REFURBISH THE BEARINGS, REPAIR PIER ONE AND REPAIR PIER FIVE DURING PHASE ONE ON IR 271. THE CONTRACTOR SHALL REPAIR PIER TWO AND REPAIR PIER FOUR DURING PHASE TWO ON IR 271. THE WORK WILL REQUIRE THE REMOVAL AND REPLACEMENT OF PORTIONS OF THE TYPE D CONCRETE BARRIER LOCATED ADJACENT TO PIERS TWO, FOUR AND FIVE DURING PHASE ONE AND TWO. THE CONTRACTOR SHALL REPAIR PIER THREE DURING PHASE THREE ON IR 271. THE CONTRACTOR SHALL PROVIDE A SHOULDER CLOSURE IN THE OUTSIDE NORTHBOUND LANE OF IR 271 DURING PHASE FOUR ON IR 271 IN ORDER TO REMOVE THE EXISTING SOUTH GIRDER, DECK AND SIDEWALK ON CHAGRIN BOULEVARD. THE FIRST PHASE SHALL CLOSE THE OUTSIDE SHOULDERS ON IR 271 NORTHBOUND IN ACCORDANCE WITH MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY) AND IR 271 SOUTHBOUND IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) WHILE MAINTAINING FOUR LANES OF TRAFFIC IN THE NORTHBOUND DIRECTION ON IR 271, ONE ENTRANCE RAMP ACCELERATION LANE IN THE NORTHBOUND DIRECTION ON IR 271, THREE LANES OF TRAFFIC IN THE SOUTHBOUND DIRECTION ON IR 271, ONE ENTRANCE RAMP ACCELERATION LANE IN THE SOUTHBOUND DIRECTION ON IR 271 AND ALL EXISTING IR 271 EXPRESS LANES. THE SECOND PHASE SHALL CLOSE THE NORTHBOUND INSIDE SHOULDER ON IR 271 AND THE SOUTHBOUND INSIDE SHOULDER ON IR 271 LANE IN ACCORDANCE WITH MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY) AND THE SECOND PHASE SHALL CLOSE THE NORTHBOUND OUTSIDE SHOULDER ON THE IR 271 EXPRESS AND THE SOUTHBOUND OUTSIDE SHOULDER ON IR 271 EXPRESS IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) WHILE MAINTAINING FOUR LANES OF TRAFFIC IN THE NORTHBOUND DIRECTION ON IR 271, ONE ENTRANCE RAMP ACCELERATION LANE IN THE NORTHBOUND DIRECTION ON IR 271, THREE LANES OF TRAFFIC IN THE SOUTHBOUND DIRECTION ON IR 271, ONE ENTRANCE RAMP ACCELERATION LANE IN THE SOUTHBOUND DIRECTION ON IR 271 AND ALL EXISTING IR 271 EXPRESS LANES. THE THIRD PHASE SHALL CLOSE THE NORTHBOUND SHOULDER ON IR 271 IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) IN ORDER TO REMOVE THE EXISTING SOUTH GIRDER, DECK AND SIDEWALK ON CHAGRIN BOULEVARD. THE THIRD PHASE SHALL OCCUR CONCURRENTLY WITH PHASE TWO ON CHAGRIN BOULEVARD.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR IR 271 AT THE BRIDGE LOCATION. MULTIPLE OVERNIGHT/WEEKEND CLOSURES WILL BE REQUIRED TO COMPLETE THE WORK ON IR 271 DURING PHASE ONE, PHASE TWO AND PHASE THREE.

LOCATION 11: CUY-422-1827 L (US 422 WB OVER SOLON ROAD)

LOCATION 12: CUY-422-1827 R (US 422 EB OVER SOLON ROAD)

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

ALL TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR IS ONLY PERMITTED TO RESTRICT TRAFFIC OR CLOSE LANES ON US 422 FOR WORK NOT ASSOCIATED WITH THE APPROACH SLAB REPLACEMENT PER THE ODOT DISTRICT 12 PERMITTED LANE CLOSURE TIMES PUBLISHED ON THE ODOT WEBSITE LISTED BELOW.

<http://www.dot.state.oh.us/districts/D12/HighwayManagement/Pages/PermittedLaneClosures.aspx>

THE REVISION APPLICABLE FOR THIS PROJECT SHALL BE THE MOST CURRENT REVISION PUBLISHED 30 DAYS PRIOR TO THE BID DATE.

NO RAMP CLOSURES TO OR FROM US 422 ARE PERMITTED AT ANY TIMES.

TRAFFIC ON SOLON ROAD SHALL BE MAINTAINED AT ALL TIMES. ONE LANE IS PERMITTED TO BE CLOSED WITH THE USE OF FLAGGERS. BOTH LANES SHALL BE MAINTAINED WEEKDAYS FROM 6:00 AM TO 9:00 AM AND 3:00 PM TO 6:00 PM.

THE CONTRACTOR SHALL PERFORM THE PARAPET PATCHING, PARAPET SEALING, AND SCUPPER CLEANING IN TWO PHASES OF CONSTRUCTION ON THE WESTBOUND US-422 BRIDGE. THE WORK WILL REQUIRE CLOSING THE SHOULDERS IN ACCORDANCE WITH SCD MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY), MT-98.20 LANE CLOSURE AT EXIT RAMP USING DRUMS) AND MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS).

(CONTINUED ON SHEET 14 )

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LOCATION 16: CUY-490-0100 (IR 490 OVER CUYAHOGA RIVER)

THE CONTRACTOR SHALL PERFORM THE DECK PATCHING - OVERLAY REMOVAL USING HYDRODEMOLITION AND MICROSILICA MODIFIED CONCRETE OVERLAY PER ITEM 848 AND FULL DEPTH DECK REPAIR - ITEM 848.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE ODOT PLCM HOURS. THE CONTRACTOR SHALL PREPARE AND SUBMIT A MOT PLAN FOR THIS WORK FOR REVIEW AND ACCEPTANCE BY ODOT UNDER ITEM 614 IN ADVANCE OF SCHEDULING THIS WORK.

IT IS ANTICIPATED THAT THE CONTRACTOR WILL PERFORM THE WORK IN THREE PHASES OF CONSTRUCTION ON IR 490. THE FOLLOWING IS A CONCEPTUAL PHASE SUMMARY FOR REFERENCE.

THE CONTRACTOR SHALL REPLACE PORTIONS OF THE BRIDGE RAILINGS, REPAIR OR REPLACE PORTIONS OF VANDAL PROTECTION FENCE, PERFORM DECK PATCHING, AND PERFORM FULL DEPTH DECK REPAIR DURING PHASE ONE ON IR 490 WESTBOUND. PHASE ONE WOULD CLOSE THE WESTBOUND OUTSIDE SHOULDER, THE WEST 7TH STREET DECELERATION LANE AND THE ROCKEFELLER AVENUE ACCELERATION LANE IN ACCORDANCE WITH ODOTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3) AND MT-98.29 (EXIT RAMP CLOSURE) WHILE MAINTAINING FOUR WESTBOUND LANES OF IR 490 TRAFFIC, THE IR 77 SOUTHBOUND RAMP AND THE IR 77 NORTHBOUND RAMP. PHASE ONE WOULD REQUIRE THE CLOSURE OF THE ROCKEFELLER AVENUE ENTRANCE RAMP AND THE WEST 7TH STREET EXIT RAMP. PHASE ONE WOULD REQUIRE MULTIPLE WEEKEND CLOSURES TO COMPLETE. PHASE ONE WOULD REQUIRE ODOT'S APPROVAL FOR THE CLOSURE OF THE ROCKEFELLER AVENUE ENTRANCE RAMP AND THE WEST 7TH STREET EXIT RAMP.

THE CONTRACTOR SHALL REPLACE PORTIONS OF THE BRIDGE RAILINGS, REPAIR OR REPLACE PORTIONS OF VANDAL PROTECTION FENCE, PERFORM DECK PATCHING, AND PERFORM FULL DEPTH DECK REPAIR DURING PHASE ONE ON IR 490 EASTBOUND. PHASE ONE WOULD CLOSE THE EASTBOUND OUTSIDE SHOULDER, THE WEST 7TH STREET ACCELERATION LANE AND THE BROADWAY AVENUE DECELERATION LANE IN ACCORDANCE WITH ODOTCD FIGURE 6H-3 (WORK ON THE SHOULDERS - TYPICAL APPLICATION 3), MT-98.11 (LANE CLOSURE AT ENTRANCE RAMP ACCELERATION LANE) AND MT-98.29 (EXIT RAMP CLOSURE) WHILE MAINTAINING FOUR EASTBOUND LANES OF IR 490 TRAFFIC, THE WEST 7TH STREET ENTRANCE RAMP, THE IR 77 SOUTHBOUND RAMP AND THE IR 77 NORTHBOUND RAMP. PHASE ONE WOULD REQUIRE THE CLOSURE OF THE BROADWAY AVENUE EXIT RAMP. PHASE ONE WOULD REQUIRE MULTIPLE WEEKEND CLOSURES TO COMPLETE. PHASE ONE WOULD REQUIRE ODOT'S APPROVAL FOR THE CLOSURE OF THE BROADWAY AVENUE EXIT RAMP.

THE CONTRACTOR SHALL PERFORM DECK PATCHING AND PERFORM FULL DEPTH DECK REPAIR DURING PHASE TWO ON IR 490 WESTBOUND. THE CONTRACTOR SHALL REPLACE PORTIONS OF THE BRIDGE RAILINGS, AND REPAIR OR REPLACE PORTIONS OF VANDAL PROTECTION FENCE AT THE FORWARD END OF THE STRUCTURE TO THE EAST OF THE ROCKEFELLER ENTRANCE RAMP DURING PHASE TWO ON IR 490 WESTBOUND. THE SECOND PHASE SHALL CLOSE THE TWO OUTSIDE LANES OF THE WESTBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-98.29 (EXIT RAMP CLOSURE) WHILE MAINTAINING TWO WESTBOUND LANES OF IR 490 TRAFFIC. PHASE TWO WOULD REQUIRE CLOSURE OF THE ROCKEFELLER AVENUE ENTRANCE RAMP, CLOSURE OF THE IR 77 SOUTHBOUND ENTRANCE RAMP AND CLOSURE OF THE IR 77 NORTHBOUND ENTRANCE RAMP. PHASE TWO WOULD REQUIRE CLOSURE OF THE EXIT RAMP TO WEST 7TH STREET. PHASE TWO WOULD REQUIRE MULTIPLE WEEKEND CLOSURES TO COMPLETE. PHASE TWO WOULD REQUIRE ODOT'S APPROVAL FOR THE CLOSURE OF THE ROCKEFELLER AVENUE ENTRANCE RAMP, THE IR 77 SOUTHBOUND ENTRANCE RAMP, THE IR 77 NORTHBOUND ENTRANCE RAMP AND THE WEST 7TH STREET EXIT RAMP.

THE CONTRACTOR SHALL PERFORM DECK PATCHING AND PERFORM FULL DEPTH DECK REPAIR DURING PHASE TWO ON IR 490 EASTBOUND. THE CONTRACTOR SHALL REPLACE PORTIONS OF THE BRIDGE RAILINGS, AND REPAIR OR REPLACE PORTIONS OF VANDAL PROTECTION FENCE AT THE FORWARD END OF THE STRUCTURE TO THE EAST OF THE BROADWAY AVENUE EXIT RAMP DURING PHASE TWO ON IR 490 EASTBOUND. THE SECOND PHASE SHALL CLOSE THE TWO OUTSIDE LANES OF THE EASTBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS), MT-98.11 (LANE CLOSURE AT ENTRANCE RAMP ACCELERATION LANE) AND MT-98.29 (EXIT RAMP CLOSURE) WHILE MAINTAINING TWO EASTBOUND LANES OF IR 490 TRAFFIC, THE WEST 7TH STREET ENTRANCE RAMP, THE IR 77 SOUTHBOUND RAMP LANE AND THE IR 77 NORTHBOUND RAMP LANE. PHASE TWO WOULD REQUIRE CLOSURE OF THE BROADWAY AVENUE EXIT RAMP. PHASE TWO WOULD REQUIRE MULTIPLE WEEKEND CLOSURES TO COMPLETE. PHASE TWO WOULD REQUIRE ODOT'S APPROVAL FOR THE CLOSURE OF THE BROADWAY AVENUE EXIT RAMP.

THE CONTRACTOR SHALL REPLACE PORTIONS OF THE BRIDGE RAILINGS, REPAIR OR REPLACE PORTIONS OF VANDAL PROTECTION FENCE, PERFORM DECK PATCHING, AND PERFORM FULL DEPTH DECK REPAIR DURING PHASE THREE ON IR 490 WESTBOUND. THE THIRD PHASE SHALL CLOSE THE TWO INSIDE LANES OF THE WESTBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-101.60 (ROAD CLOSURE USING TYPE 3 BARRICADES) WHILE MAINTAINING TWO WESTBOUND LANES OF IR 490 TRAFFIC ON THE STRUCTURE, THE ROCKEFELLER AVENUE ENTRANCE RAMP, THE IR 77 SOUTHBOUND ENTRANCE RAMP, THE IR 77 NORTHBOUND ENTRANCE RAMP AND THE WEST 7TH STREET EXIT RAMP. PHASE THREE WOULD REQUIRE CLOSING THE WESTBOUND LANES OF IR 490 TO THE EAST OF THE STRUCTURE (CLOSURE PERMITTED BY THE PLCM FOR WEEKEND CLOSURES). PHASE THREE WOULD REQUIRE MULTIPLE WEEKENDS TO COMPLETE.

THE CONTRACTOR SHALL REPLACE PORTIONS OF THE BRIDGE RAILINGS, REPAIR OR REPLACE PORTIONS OF VANDAL PROTECTION FENCE, PERFORM DECK PATCHING, AND PERFORM FULL DEPTH DECK REPAIR DURING PHASE THREE ON IR 490 EASTBOUND. THE THIRD PHASE SHALL CLOSE THE TWO INSIDE LANES OF THE EASTBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TWO EASTBOUND LANES OF IR 490 TRAFFIC, THE BROADWAY AVENUE EXIT RAMP, THE IR 77 SOUTHBOUND EXIT RAMP, THE IR 77 NORTHBOUND EXIT RAMP AND THE WEST 7TH STREET ENTRANCE RAMP. PHASE THREE WOULD REQUIRE MULTIPLE WEEKENDS TO COMPLETE.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR IR 490 AT THE BRIDGE LOCATION. ALL MOT SHALL BE COORDINATED WITH ODOT PRIOR TO SCHEDULING THE WORK.

TO ACCOMMODATE THE OPENING OF THE OPPORTUNITY CORRIDOR PROJECT, ALL WORK (DECK REPAIRS, PARAPET REPAIRS AND FENCE REPAIRS) ON BRIDGE NO. CUY-490-0100 (SFN 1811991) SHALL BE COMPLETED BY OCTOBER 15, 2021.

**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, HERINAFTER 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.

STATION		SIDE	607				614				622		646								
			TEMPORARY VANDAL PROTECTION FENCE, TYPE B	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	BARRIER REFLECTOR, TYPE 1, ONE WAY	OBJECT MARKER, ONE WAY	WORK ZONE CENTER LINE, CLASS I, TYPE I	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE I	WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, ANCHORED	LANE LINE, 4"	CENTER LINE	CROSSWALK LINE						
FROM	TO		FT	EACH	EACH	EACH	MILE	MILE	FT	FT	FT	FT	MILE	MILE	FT						
<b>LOCATION 10: PHASE 1</b>																					
<i>BLACKOUT TAPE</i>																					
14+45.19	19+57.62	RT/LT								1537.29											
<i>WORK ZONE PAVEMENT MARKING</i>																					
14+45.19	19+57.62	RT				512.43	512.43	512.43													
14+45.19	19+57.62	LT					512.43	512.43													
<i>BARRIER</i>																					
16+97.00	17+60.00	LT		1	2	1				63											
<b>LOCATION 10: PHASE 2</b>																					
<i>BLACKOUT TAPE</i>																					
11+45.38	18+92.80	RT/LT								2242.26											
<i>WORK ZONE PAVEMENT MARKING</i>																					
11+45.38	18+89.13	RT						743.75	743.75												
11+45.38	18+94.77	LT				749.39	749.39	749.39													
<i>BARRIER</i>																					
16+37.00	17+03.00	RT	66	1	1	1					66										
17+03.00	17+58.00	RT			1	1				55											
<i>PERMANENT PAVEMENT MARKING</i>																					
11+45.38	19+57.62	RT/LT										1624.48	812.24								
PARK E. DR. NORTH SIDE OF US 422		LT													185.00						
PARK E. DR. SOUTH SIDE OF US 422		RT													123.00						
US 422 WEST SIDE OF PARK E. DRIVE		RT/LT													171.00						
US 422 TO IR 271 SB RAMP (SOUTH OF US 422)		RT													46.00						
US 422 TO IR 271 NB RAMP (SOUTH OF US 422)		RT													46.00						
IR 271 NB TO US 422 RAMP		RT													135.00						
ORANGE PLACE SOUTH SIDE OF USS 422		RT													87.00						
WALNUT HILLS SOUTH SIDE OF USS 422		RT													55.00						
US 422 WEST OF MAPLECREST ROAD		RT/LT													83.00						
IR 271 SB TO US 422 RAMP (NORTH OF US 422)		LT													127.00						
US 422 TO IR 271 SB RAMP (NORTH OF US 422)		LT													42.00						
US 422 TO IR 271 NB RAMP (NORTH OF US 422)		LT													40.00						
<b>LOCATION 10: IR 271 PHASE 2</b>																					
<i>BLACKOUT TAPE</i>																					
				1							116										
<b>LOCATION 10: IR 271 PHASE 4</b>																					
<i>BLACKOUT TAPE</i>																					
				1							116										
<b>LOCATION 10: IR 271 PHASE 5</b>																					
<i>BLACKOUT TAPE</i>																					
				1							86	30									
<b>TOTALS</b>																					
			66	5	4	3	1261.82	2518.00	2518.00	3779.55	436	96	1624.48	812.24	1140.00						
<i>CONVERT TO MILES</i>							0.24	0.48					0.31	0.16							
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>			<b>66</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>0.24</b>	<b>0.48</b>	<b>2518</b>	<b>3780</b>	<b>436</b>	<b>96</b>	<b>0.31</b>	<b>0.16</b>	<b>1140</b>						

**MAINTENANCE OF TRAFFIC SUBSUMMARY**  
**LOCATION 10: CUY -422-1122**

CALCULATED  
MES  
CHECKED  
ALP

**CUY-BH-FY2021(B) MISC**  
**PID NO. 109131**

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SHEET NUMBER														PARTICIPATION		ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8-11	12-66	74-80	81	89-102	103-106	107-115	116-125	126-150	151-170	171-188	189-205	206-229	230-236	237-253	01/NFP/BR							
																					<b>ROADWAY</b>	
LS		605													LS		201	11001	LS	CLEARING AND GRUBBING, AS PER PLAN	9	
		70													605		202	30000	SF	WALK REMOVED		
		80													70		202	30001	SF	WALK REMOVED, AS PER PLAN	9	
374															80		202	30700	FT	CONCRETE BARRIER REMOVED		
															374		202	30701	FT	CONCRETE BARRIER REMOVED, AS PER PLAN	10	
110		28							28						110		202	30701	FT	CONCRETE BARRIER REMOVED, AS PER PLAN (A)	10	
275		385		250											56		202	32000	FT	CURB REMOVED		
		112.5													910		202	38000	FT	GUARDRAIL REMOVED		
		110													112.5		202	38200	FT	GUARDRAIL REMOVED FOR REUSE		
															110		202	75000	FT	FENCE REMOVED		
			5							600					600		202	75201	FT	FENCE REMOVED FOR REUSE, AS PER PLAN	171,174,178,179	
100															5		202	75800	EACH	DISCONNECT EXISTING CIRCUIT		
100		518								108					100		203	10000	CY	EXCAVATION		
		1								1					100		203	20000	CY	EMBANKMENT		
															626		204	10000	SY	SUBGRADE COMPACTION		
															2		204	45000	2	PROOF ROLLING		
150		162.5		25						730					730		209	10001	730	FT	DITCH CLEANOUT, AS PER PLAN	171,174
		112.5													337.5		606	15050	337.5	FT	GUARDRAIL, TYPE MGS	
		4		2											112.5		606	16500	112.5	FT	GUARDRAIL REBUILT, TYPE 5	
2															8		606	26150	8	EACH	ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350)	
															2		606	26550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
2		4		4											10		606	35002	10	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
		2													2		606	35010	2	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1	
		2													2		606	35102	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
		2													2		606	35110	2	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 2	
		110													110		607	20000	110	FT	FENCE, TYPE CL	
		675								600					600		607	70000	600	FT	FENCELINE SEEDING AND MULCHING	
290															675		608	10000	675	SF	4" CONCRETE WALK	
82															290		622	10161	290	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN	10
															82		622	10161	82	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN (A)	10
															2		622	25000	2	EACH	CONCRETE BARRIER END SECTION, TYPE D	
															5		622	25051	5	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	10
LS															LS		SPECIAL	69098400	LS		SITE ACCESS	11
																					<b>EROSION CONTROL</b>	
131															131		659	00300	131	CY	TOPSOIL	
771															771		659	10000	771	SY	SEEDING AND MULCHING	
15															15		659	14000	15	SY	REPAIR SEEDING AND MULCHING	
0.04															0.04		659	20000	0.04	TON	COMMERCIAL FERTILIZER	
3															3		659	35000	3	MGAL	WATER	
25000															25000		832	30000	25000	EACH	EROSION CONTROL	
																					<b>DRAINAGE</b>	
		137													137		605	11110	137	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
																					<b>PAVEMENT</b>	
10		84								18					10		251	01010	10	CY	PARTIAL DEPTH PAVEMENT REPAIR (441)	
															102		304	20000	102	CY	AGGREGATE BASE	
		28							28						28		609	24510	28	FT	CURB, TYPE 4-C	
															28		609	26001	28	FT	CURB, TYPE 6, AS PER PLAN	10

GENERAL SUMMARY

CUY-BH-FY2021(B) MISC  
 PID NO. 109131



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SHEET NUMBER														PARTICIPATION		ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8-11	12-66	74-80	81	89-102	103-106	107-115	116-125	126-150	151-170	171-188	189-205	206-229	230-236	237-253	01/ NFP/BR							
										<b>MAINTENANCE OF TRAFFIC</b>												
	1506														1506		607	39994	1506	FT	TEMPORARY VANDAL FENCE, TYPE B	
	708									64					772		614	11110	772	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
	4														4		SPECIAL	61411300	4	EACH	WORK ZONE TRAFFIC SIGNAL	18
	4423														4423		614	11630	4423	FT	INCREASED BARRIER DELINEATION	
	23									2					25		614	12380	25	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
	1894														1894		614	12800	1894	EACH	WORK ZONE RAISED PAVEMENT MARKER	
	229														229		614	13310	229	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
	124														124		614	13310	124	EACH	BARRIER REFLECTOR, TYPE 1, TWO WAY	
	105														105		614	13312	105	EACH	BARRIER REFLECTOR, TYPE 2, ONE WAY	
	294														294		614	13350	294	EACH	OBJECT MARKER, ONE WAY	
	121														121		614	13360	121	EACH	OBJECT MARKER, TWO WAY	
	74														74		614	18601	74	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	19
	0.84														0.84		614	21200	0.84	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
										1.00					1.00		614	22110	1.00	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
	11.09														11.09		614	22210	11.09	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
										1500					1500		614	23210	1500	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	
	16934														16934		614	23400	16934	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE I	
	2089														2089		614	23410	2089	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 740.06, TYPE I	
										2040					2040		614	24200	2040	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT	
										25					25		614	24202	25	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	
	5185														5185		614	24402	5185	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 740.06, TYPE I	
	166														166		614	26400	166	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
	30														30		614	30400	30	EACH	WORK ZONE ARROW, CLASS I, 740.06, TYPE I	
	13792														13792		614	98100	13792	FT	WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE	19
															LS		615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
	170														170		615	20000	170	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
	1														1		616	10000	1	MGAL	WATER	
	6015									2290					8305		622	41100	8305	FT	PORTABLE BARRIER, UNANCHORED	
	1536									45					1581		622	41110	1581	FT	PORTABLE BARRIER, ANCHORED	
	1280														1280		SPECIAL	69013000	1280	FT	RUMBLE STRIPS	18
										<b>INCIDENTALS</b>												
	LS														LS		108	10000	LS		CPM PROGRESS SCHEDULE	
	LS														LS		614	11000	LS		MAINTAINING TRAFFIC	
															LS		614	12420	LS		DETOUR SIGNING	
12															12		619	16011	12	MNTH	FIELD OFFICE, TYPE B, AS PER PLAN	10
LS															LS		623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	9
															LS		624	10000	LS		MOBILIZATION	

**GENERAL SUMMARY**

CUY-BH-FY2021(B) MISC  
 PID NO. 109131

**ESTIMATED QUANTITIES**

CALCULATED dht DATED 10/20  
 CHECKED RRB DATED 1/21

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	2/17
202	75260	441	FT	VANDAL PROTECTION FENCE REMOVED					
509	10000	18,361	LB	EPOXY COATED REINFORCING STEEL	18,361				
510	10000	564	EACH	DOWEL HOLES WITH NON-SHRINK, NON-METALIC GROUT	540		24		
511	34410	183	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE	180		3		
512	10050	255	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	255				
512	10101	999	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	553	291	155		2/17
512	74001	609	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN	198	282	129		2/17
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	2/17
516	12200	10	FT	STRUCTURAL STEEL EXPANSION JOINT (SIDEWALK)	10				
516	46701	1	EACH	RESET BEARING, AS PER PLAN	1				2/17
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LS	2/17
SPECIAL	51900100	6061	SF	COMPOSITE FIBER WRAP SYSTEM		6061			3/17
519	11101	429	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN		79	350		2/17
519	12200	30	SY	PATCHING CONCRETE BRIDGE DECK - TYPE A	30				
526	98200	34	FT	APPROACH SLABS, MISC.: CURB REMOVAL AND REPLACEMENT				34	11/17
SPECIAL	53000600	4901	SF	STRUCTURE: TIMBER SUBDECK	4901				3/17
607	39901	441	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	441				11/17
844	10001	665	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN		665			3/17

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RICHLAND ENGINEERING LIMITED 29 NORTH PARK STREET MANSFIELD, OHIO 44902 	DATE 01/2021
	REVIEWED DLR STRUCTURE FILE NUMBER 1812556
DRAWN RB REVISED	DESIGNED BLN CHECKED dht
ESTIMATED QUANTITIES - LOCATION 13 BRIDGE NO. CUY-480-1955 TRANSPORTATION BOULEVARD OVER IR 480	
CUY-BH-FY2021(B) MISC PID No. 109131	
4 / 17	192 253