

REFER TO STANDARD BRIDGE DRAWINGS:

BR-2-15 (DATED 7-17-2015)
EXJ-4-87 (REVISED 1-19-2018)
GSD-1-19 (REVISED 1-15-2021)

REFER TO SUPPLEMENTAL SPECIFICATIONS:

SS 800 (DATED 1-15-2021)
SS 844 (DATED 4-20-2018)

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

THIS WORK CONSISTS OF THE REMOVAL OF PARAPETS, FENCING, SIDEWALKS, END CROSS FRAMES, ABUTMENT BACKWALL, SLAB AND SIDEWALK CONCRETE, APPROACH SLAB, 1 1/2" S.P.C. OVERLAY, ADDITIONAL EPOXY COATED REINFORCEMENT AND EXPANSION JOINTS AS INDICATED IN THE PLANS.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO SECTIONS 102.05 AND 105.02 OF THE 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS.

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

THE EXISTING STRUCTURE PLANS MAY BE REVIEWED AT THE:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 12 OFFICE
5500 TRANSPORTATION BOULEVARD
GARFIELD HEIGHTS, OH 44125

EXISTING PLANS ARE ALSO AVAILABLE THROUGH THE FOLLOWING ODOT WEBSITE:
[HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/CONTRACTADMIN/CONTRACTS/PAGES/DESIGNFILES.ASPX](http://www.dot.state.oh.us/divisions/contractadmin/contracts/pages/designfiles.aspx)

DESCRIPTION OF WORK:

1. PATCH ABUTMENTS
2. PATCH PIERS AND FIBERWRAP
3. REFURBISH ABUTMENT BEARING DEVICES
4. REPAIR FORWARD ABUTMENT SLOPE PROTECTION
5. REPLACE DETERIORATED CROSS FRAMES
6. INSTALL TIMBER SUB DECKING
7. CLEAN OUT SCUPPERS
8. REMOVE AND REPLACE EXPANSION JOINTS
9. REPLACE PARAPETS, VANDAL PROTECTION FENCE, AND SIDEWALKS
10. REPAIR SIDEWALK COVER PLATES
11. SEAL DECK WITH SRS TREATMENT
12. REPLACE GUARDRAIL AT APPROACHES
13. PATCH AND SEAL APPROACH SIDEWALK

CUT LINE CONSTRUCTION JOINT PREPARATION

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

ITEM 511 - CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN

PROPOSED CONCRETE FOR BOTH THE PARAPET AND SIDEWALK ON THE DECK AND APPROACH SLABS SHALL BE QUANTIFIED IN CUBIC YARDS AND BE INCLUDED FOR PAYMENT UNDER ITEM 511 - CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN.

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

SEAL ALL PIER CAPS, ABUTMENT BACK WALLS, AND ABUTMENT STEMS WHERE ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN WAS PERFORMED. THE PROPOSED CONCRETE PARAPETS WITH TWIN STEEL TUBE RAILS SHALL ALSO BE SEALED. THE COLOR OF THE FINISH COAT SHALL BE FS NO. 17778 (LIGHT NEUTRAL). CONTRACTOR SHALL ENSURE ANY EXISTING UNDERPASS LIGHTING, FENCE AND POSTS, RAILING AND ALL OTHER BRIDGE COMPONENTS ARE PROTECTED DURING THE SEALING OPERATIONS. SEALING OF THE FIBER WRAPPED AREAS SHALL BE INCLUDED FOR PAYMENT UNDER ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM.

ALL EQUIPMENT, LABOR, MATERIALS AND INCIDENTALS REQUIRED TO SEAL ALL OF THE AREAS DETAILED IN THE PLANS SHALL BE PAID UNDER ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN.

ITEM 513 - STRUCTURAL STEEL, MISC.: SIDEWALK COVER PLATE REPAIR

THE PLATES COVERING THE SIDEWALK EXPANSION OPENINGS SHALL BE RETROFIT. TRIM EXISTING BENT SLIDING PLATE AT THE FENCE OF SIDEWALK ARMOR. GRIND THE CUT EDGE FLUSH WITH THE TOP SURFACE OF THE ARMOR. WELD THE NEW SLIDING PLATE TO THE TOP OF THE ABUTMENT ARMOR.

MATERIAL SHALL BE A709 GRADE 36 OR 50.

ALL EQUIPMENT, LABOR, AND MATERIALS REQUIRED TO REMOVE THE EXISTING SLIDING PLATE AND INSTALL THE NEW SHALL BE INCLUDED FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL, MISC.: SIDEWALK COVER PLATE REPAIR.

ITEM 516 - REFURBISH BEARING DEVICE, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60° F [15° C], LUBRICATING SLIDING SURFACES, AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING". AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY INSTALL NEW BEARINGS OF THE SAME TYPE AS THE EXISTING IN PLACE OF REFURBISHING THE BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516 - REFURBISH BEARING DEVICE, AS PER PLAN.

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

THIS WORK INCLUDES RAISING OR RE-POSITIONING EXISTING STRUCTURES TO PERFORM THE WORK DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05. IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM 518 - SCUPPER, MISC.: SCUPPER CLEANOUT

IN ADDITION TO CMS 518, THIS WORK SHALL ALSO CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING SCUPPERS SPECIFIED IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. ALL DRAINAGE SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

ALL COSTS INCLUDING LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS TO PERFORM THIS WORK AS APPROVED BY THE ENGINEER SHALL BE PAID FOR AT THE UNIT PRICE BID EACH, FOR ITEM 518 - SCUPPER, MISC.: SCUPPER CLEANOUT, EACH.

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

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

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

ITEM SPECIAL - STRUCTURES: TIMBER SUBDECK

DESCRIPTION:

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

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

MATERIALS:

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

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

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

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

GENERAL:

FIELD MEASUREMENTS SHALL BE TAKEN BEFORE ANY FABRICATION IS PERFORMED.

METHOD OF MEASUREMENT:

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

GENERAL NOTES CONTINUED: SEE SHEET 3/14.

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DESIGN AGENCY		DATE	
8814 ST. CHARLES CLEVELAND, OH 44115		1803875	
REVIEWED	DATE	REVIEWED	DATE
RJM	1803875	RJM	1803875
DRAWN	JAG	CHECKED	RPM
REVISIONS			
GENERAL NOTES - LOCATION 3			
BRIDGE NO. CUY-71-0467			
WHITNEY ROAD OVER IR 71			
CUY-BH-FY2021(B) MISC		PID No. 109131	
2 / 14		90	
		253	

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CALCULATED BY: LAH		DATE: 1/28/2021		ESTIMATED QUANTITIES						
CHECKED BY: MMD		DATE: 1/28/2021								
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPER.	GEN.	REFERENCE SHEET NO.	
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					3/20	
202	75266	90	FT	VANDAL PROTECTION FENCE REMOVED AND RESET			90			
509	20000	6,415	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL			6,415			
511	34444	43	CY	CLASS OC2 CONCRETE, BRIDGE DECK			43			
512	10101	1,164	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN			1,164		3/20	
512	10600	14	FT	CONCRETE REPAIR BY EPOXY INJECTION	14					
512	74000	1,057	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES			1,057			
513	10201	452	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN			452		3/20, 16/20, 17/20	
513	20000	186	EACH	WELDED STUD SHEAR CONNECTORS			186			
513	90000	12,966	LB	STRUCTURAL STEEL, MISC.: NEW BEAM ENDS			12,966		3/20	
513	95030	7	EACH	STRUCTURAL STEEL, MISC.: CROSSFRAME DETACHMENT AND REATTACHMENT			7		3/20	
513	95030	34	EACH	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MEMBERS, DRILLING			34		3/20, 16/20, 17/20	
513	95030	32	EACH	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MEMBERS, COPE HOLES			32		3/20, 16/20, 17/20	
513	95000	69	FT	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MAIN MEMBER, COMPLETE PENETRATION WELDING			69		3/20, 16/20, 17/20	
513	95000	90	FT	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MAIN MEMBER, FILLET WELDING			90		3/20, 16/20, 17/20	
514	20001	78	SF	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT)			78		4/20	
514	27700	934	SF	FIELD PAINTING, MISC.: NEW BEAM ENDS			934		3/20	
516	01300	74	FT	ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS			74			
516	45305	8	EACH	REFURBISH BEARING DEVICE, AS PER PLAN			8		3/20, 11/20	
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					3/20, 11/20	
SPECIAL	51900100	7,805	SF	COMPOSITE FIBER WRAP SYSTEM		7,805			4/20	
519	11101	14	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN			14		3/20	
844	10001	110	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN		110			4/20	

CALCULATED BY: LAH		DATE: 1/28/2021		ESTIMATED QUANTITIES						
CHECKED BY: MMD		DATE: 1/28/2021								
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPER.	GEN.	REFERENCE SHEET NO.	
202	32000	28	FT	CURB REMOVED				28		
609	24510	28	FT	CURB, TYPE 4-C				28		
625	25408	13	FT	CONDUIT, 2", 725.051				13		



REVIEWED DATE: 1/28/2021
 M/JM
 STRUCTURE FILE NUMBER: 181258

DRAWN DATE: 1/28/2021
 LAH
 REVISION: M/JM

DESIGNED DATE: 1/28/2021
 LAH
 CHECKED: MMD

ESTIMATED QUANTITIES - LOCATION 10
 BRIDGE NO. CUY-422-1122
 US 422 (CHAGRIN BLVD.) OVER IIR 271

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

6/20

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 253