

G:\ProjectData\2021\FRA\14985_FRA-315-4.15\Design\Roadway\Sheets\14985_GG001.dgn 3/2/2022 11:01:16 AM jenniferm

SHEET NUM.											PART.	ITEM	ITEM	GRAND	UNIT		SEE		
					9	11			14		01/NFA/ BR	ITEM	EXT	TOTAL		DESCRIPTION	NO.		
																ROADWAY			
								LUMP			LUMP	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	14		
						39					39	202	22900	39	SY	APPROACH SLAB REMOVED			
																EROSION CONTROL			
												1,500	832	30000	1,500	EACH	EROSION CONTROL		
																TRAFFIC CONTROL			
						82					82	621	00100	82	EACH	RPM			
						82					82	621	54000	82	EACH	RAISED PAVEMENT MARKER REMOVED			
						0.59					0.59	644	00104	0.59	MILE	EDGE LINE, 6"			
						1.04					1.04	644	00204	1.04	MILE	LANE LINE, 6"			
						1,240					1,240	644	00404	1,240	FT	CHANNELIZING LINE, 12"			
						1.87					1.87	644	30030	1.87	MILE	REMOVAL OF PAVEMENT MARKING			
																LIGHTING			
												2	625	00451	2	EACH	CONNECTION, FUSED PULL APART, AS PER PLAN	11	
												2	625	00461	2	EACH	CONNECTION, UNFUSED PULL APART, AS PER PLAN	11	
												2	625	00480	2	EACH	CONNECTION, UNFUSED PERMANENT		
												1	625	10503	1	EACH	LIGHT POLE (INSTALLATION ONLY), AS PER PLAN	11	
												4	625	10614	4	EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE		
						818					818	625	23200	818	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE			
						182					182	625	25910	182	FT	CONDUIT CLEANED AND CABLES REMOVED			
												2	625	27561	2	EACH	LUMINAIRE, INSTALLATION ONLY, AS PER PLAN	11	
												1	625	29930	1	EACH	MEDIAN JUNCTION BOX		
												1	SPECIAL	62540010	1	EACH	REPLACEMENT OF EXISTING LIGHTING UNIT	11	
												1	625	75410	1	EACH	LIGHT POLE REMOVED FOR REUSE		
												2	625	75508	2	EACH	LUMINAIRE REMOVED FOR REUSE		
												2	625	75800	2	EACH	DISCONNECT CIRCUIT		
																STRUCTURE REPAIR (SFN: 2515512)			
									25,881		25,881	509	10000	25,881	LB	EPOXY COATED REINFORCING STEEL			
									259		259	509	20001	259	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	14		
									2,176		2,176	509	30030	2,176	FT	NO. 5 GFRP DEFORMED BARS			
									66		66	511	34447	66	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN	14		
									70		70	511	34448	70	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)			
									253		253	512	10100	253	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			
									19		19	516	13600	19	SF	1" PREFORMED EXPANSION JOINT FILLER			
									19		19	516	13900	19	SF	2" PREFORMED EXPANSION JOINT FILLER			
									10		10	518	12300	10	EACH	SCUPPERS, INCLUDING SUPPORTS			
									39		39	526	25000	39	SY	REINFORCED CONCRETE APPROACH SLABS (T=15")			
									70		70	847	50000	70	SY	HAND CHIPPING			

GENERAL SUMMARY

FRA - 315 - 4.15

CALCULATED
JAS
CHECKED
BBB

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

GSD-1-19 REVISED 01-15-21
 HL-20.13 DATED 04-17-21
 HL-30.33 DATED 04-17-21

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

NONE

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 9TH EDITION 2020, AND THE ODOT BRIDGE DESIGN MANUAL, 2021 EDITION, INCLUDING REVISIONS THROUGH JANUARY 2021.

DESIGN DATA:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH, 4500 PSI (SUPERSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI

DESIGN LOADING:

HS-20-44

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM THE PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05 AND 105.03. BASE CONTRACT BID PRICE UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

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

DESCRIPTION:
 THIS WORK CONSISTS OF THE REMOVAL OF PORTIONS OF THE EXISTING CONCRETE DECK, ABUTMENTS, AND MEDIAN BARRIER. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

CUT LINE JOINT PREPARATION:
 SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. 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.

REMOVAL METHODS:
 THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHICEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS, THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS.

DECK EDGE REMOVAL ALONG THE EXPANSION JOINT SHALL PRESERVE THE EXISTING REINFORCING STEEL BARS. IF REQUIRED FOR PROPER FIT UP OF THE PROPOSED EXPANSION JOINT THE EXISTING REINFORCING STEEL BARS MAY BE TRIMMED WITH APPROVAL FROM THE ENGINEER.

IF AN EXISTING REINFORCING STEEL BAR IS DAMAGED OR DETERMINED UNUSEABLE BY THE ENGINEER, THEN IT SHALL BE REPLACED BY THE USE OF A MECHANICAL CONNECTOR AND A REINFORCING STEEL BAR OF THE SAME SIZE AND LENGTH THAT WAS DAMAGED AT NO ADDITIONAL COST TO THE DEPARTMENT.

THE EXISTING BEAM ENDS SHALL HAVE A MINIMUM OF 3 INCHES OF CLEARANCE FROM THE EXISTING BACKWALL. IF THERE IS LESS THEN 3 INCHES OF CLEARANCE, THE EXISTING BEAM ENDS SHALL BE TRIMMED TO ALLOW FOR A MINIMUM OF 3 INCHES OF CLEARANCE.

THE EXISTING BRIDGE RAILING AND TERMIAL ASSEMBLY MAY BE REMOVED IF NEEDED TO COMPLETE THE PROPOSED WORK. THE REMOVAL SHALL BE DONE IN MANNER AS NOT TO DAMAGE THE EXISTING RAILING.

MEASUREMENT & PAYMENT:
 THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVAL AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

WASTE WATER

THE CONTRACTOR SHALL CONTAIN, AND PROPERLY DISPOSE OF (OFF SITE) ALL WASTE WATER GENERATED DURING THE WORK. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO ALL WATER USED TO CURE CONCRETE AND ALL WATER GENERATED DURING THE CONCRETE SAWING/DRILLING OPERATIONS. AS SUCH, THE CONTRACTOR IS REQUIRED TO SUBMIT A PLAN TO THE ENGINEER DESCRIBING THE METHOD TO BE USED TO CONTAIN, COLLECT AND DISPOSE OF ALL WASTE WATER DURING WORK. THE DESCRIPTION MUST INCLUDE, BUT IS NOT LIMITED TO, ALL CONCRETE SAW WASTE WATER AND ALL WATER CURING WORK. THE PLAN IS TO BE SUBMITTED AND ACCEPTED BY THE ENGINEER PRIOR TO ANY ACTIVITY ON THE EXISTING STRUCTURE.

ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN:

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

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

A QUANTITY OF 259 POUNDS HAS BEEN INCLUDED IN THE PLANS FOR PAYMENT.

ITEM 511 CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN:

THE CONCRETE QUANTITY FOR ABUTMENT DIAPHRAGMS SHALL BE INCLUDED WITH DECK CONCRETE FOR PAYMENT.

ABBREVIATIONS:

- ABUT. - ABUTMENT
- A.S. - APPROACH SLAB
- BRG. - BEARING
- C/C - CENTER TO CENTER
- C.J. - CONSTRUCTION JOINT
- C.I.P. - CAST-IN-PLACE
- CONC. - CONCRETE
- CONST. - CONSTRUCTION
- DIA. - DIAMETER
- EL. - ELEVATION
- EX. - EXISTING
- EXP. - EXPANSION
- F.A. - FORWARD ABUTMENT
- F/F - FACE TO FACE
- FWD. - FORWARD
- IN. - INCH
- L.F. - LEFT FORWARD
- LT. - LEFT
- MID. - MIDDLE
- MIN. - MINIMUM
- NB - NORTHBOUND
- PROP. - PROPOSED
- R.A. - REAR ABUTMENT
- RT. - RIGHT
- SB - SOUTHBOUND
- SDC - SUPERPLASTICIZED DENSE CONCRETE
- SPA. - SPACES
- STA. - STATION
- SUPER. - SUPERSTRUCTURE
- T/T - TOE TO TOE
- TYP. - TYPICAL
- VERT. - VERTICAL
- W/ - WITH

ESTIMATED QUANTITIES

CALCULATED BY: MMS DATE: 10/14/2021
 CHECKED BY: JGM DATE: 10/14/2021

ITEM	EXT.	QUANTITY	UNIT	DESCRIPTION	ABUT.	SUPER.	PIERS	GEN.	SHEET NO.
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN		LUMP			2/9
202	22900	39	SQ YD	APPROACH SLAB REMOVED		39			
509	10000	25,881	POUND	EPOXY COATED REINFORCING STEEL		25,881			
509	20001	259	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN		259			2/9
509	30030	2,176	FT	NO. 5 GFRP DEFORMED BARS		2,176			
511	34447	66	CU YD	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN		66			2/9
511	34448	70	CU YD	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)		70			
512	10100	253	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	7	246			
516	13600	19	SQ FT	1" PREFORMED EXPANSION JOINT FILLER		19			
516	13900	19	SQ FT	2" PREFORMED EXPANSION JOINT FILLER		19			
518	12300	10	EACH	SCUPPERS, INCLUDING SUPPORTS		10			
526	25000	39	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=15")		39			
847	50000	70	SQ YD	HAND CHIPPING		70			

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RESOURCE INTERNATIONAL, INC.
 6550 PRESIDENTIAL GATEWAY
 COLUMBUS, OHIO 43231
 (614) 823-4949

 DATE: 10/2021
 REVIEWED: NCK
 DRAWN: JGM
 DESIGNED: JGM
 CHECKED: MMS
 STRUCTURE FILE NUMBER: 2515512
GENERAL NOTES & ESTIMATED QUANTITIES
 BRIDGE NO. FRA-315-0415
 SR 315 OVER WOODY HAYES DRIVE
FRA -315 -04.15
 PID No. 114985
 2 / 9
 14
 21