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ESTIMATED QUANTITIES						CALC. JHL	DATE 12/31/2014	CHK'D ABP	CHK'D ABP	DATE 1/5/2015
ITEM	ITEM EXT.	UNIT	DESCRIPTION	ABUTMENTS	SUPERSTR.	GENERAL	TOTAL	PARTICIPATION 07/IMS/BR	SHT. REF.	
202	11203		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	LS	4, 6, 7, 8/41	
202	22901	SY	APPROACH SLAB REMOVED, AS PER PLAN			320	320	320	4, 6, 7, 8/41	
202	23500	SY	WEARING COURSE REMOVED		519	320	839	839		
503	11101		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN				LS	LS	4 & 12 - 16/41	
503	21100	CY	UNCLASSIFIED EXCAVATION	395			395	395		
505	11100		PILE DRIVING EQUIPMENT MOBILIZATION				LS	LS		
507	00100	FT	STEEL PILES HP10X42, FURNISHED	3,120			3,120	3,120		
507	00150	FT	STEEL PILES HP10X42, DRIVEN	2,860			2'860	2,860		
507	93300	EACH	STEEL POINTS OR SHOES	52			52	52		
509	10001	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	41,233	79,646	1,109	121,988	121,988	4 / 41	
510	10000	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	220			220	220		
511	21523	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN		380		380	380	4 / 41	
511	33500	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	2			2	2		
511	34450	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)		21		21	21		
511	44112	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	289			289	289		
511	46512	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	163			163	163		
511	53010	CY	CLASS QC1 CONCRETE, MISC.: MOMENT SLAB AND PARAPET WITH QC/QA			8	8	8	39 / 41	
512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	587	299	118	1,004	1,004		
512	33000	SY	TYPE 2 WATERPROOFING	26	5		31	31		
515	14080	EACH	STRAIGHT STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 2, TYPE WF42-49 (67'-6" BEAM LENGTH)		10		10	10		
515	20001	EACH	INTERMEDIATE DIAPHRAGMS, AS PER PLAN		9		9	9	25 / 41	
516	10010	FT	ARMORLESS PREFORMED JOINT SEAL			221	221	221	36 - 38 / 41	
516	13600	SF	1" PREFORMED EXPANSION JOINT FILLER	250		15	265	265		
516	13900	SF	2" PREFORMED EXPANSION JOINT FILLER		81	67	148	148		
516	14020	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	241			241	241		
516	44301	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (BEARING: 1'-8" x 1'-2" x 4½", LOAD PLATE: 1'-9" x 1'-3" x 1½")		20		20	20	35 / 41	
518	21200	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	241			241	241		
518	40000	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	110			110	110		
518	40010	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	10			10	10		
526	30011	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN			729	729	729	36 & 37 / 41	
526	90030	FT	TYPE C INSTALLATION			221	221	221		

1232

1815

5

41

FRA-70/71-12.68 / 14.86 (PROJ. 4R) PID No. 105523

ESTIMATED QUANTITIES
FRA-70-1282R
RAMP C5 OVER SOUDER AVE.

DESIGNED
JHL

CHECKED
ABP

DRAWN
JHL

REVIEWED
CAS

DATE
10/17/18

BURGESS & NIPLE

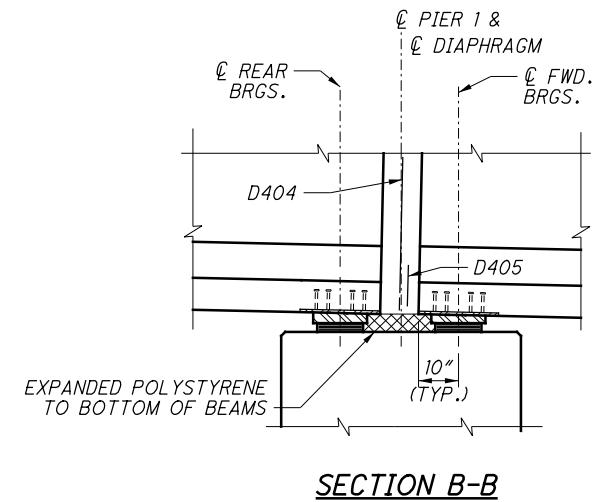
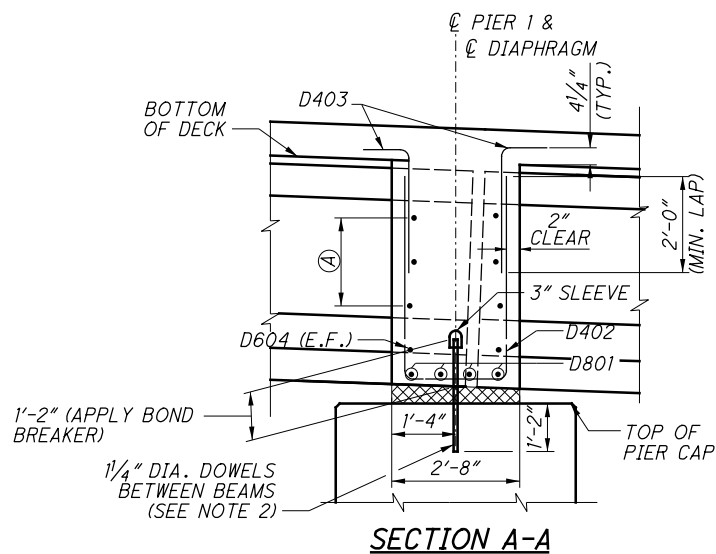
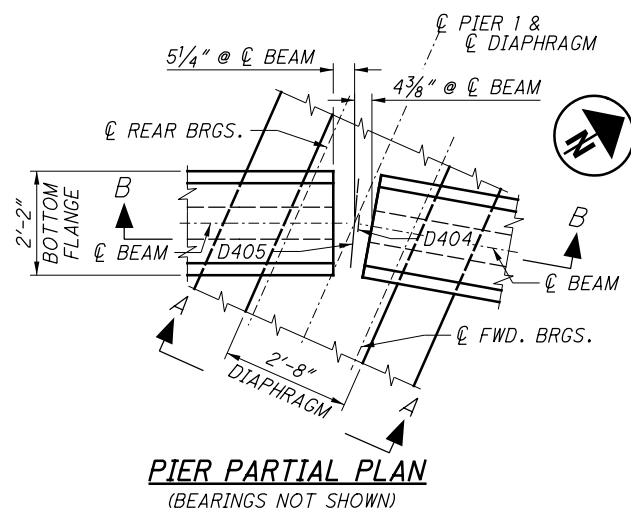
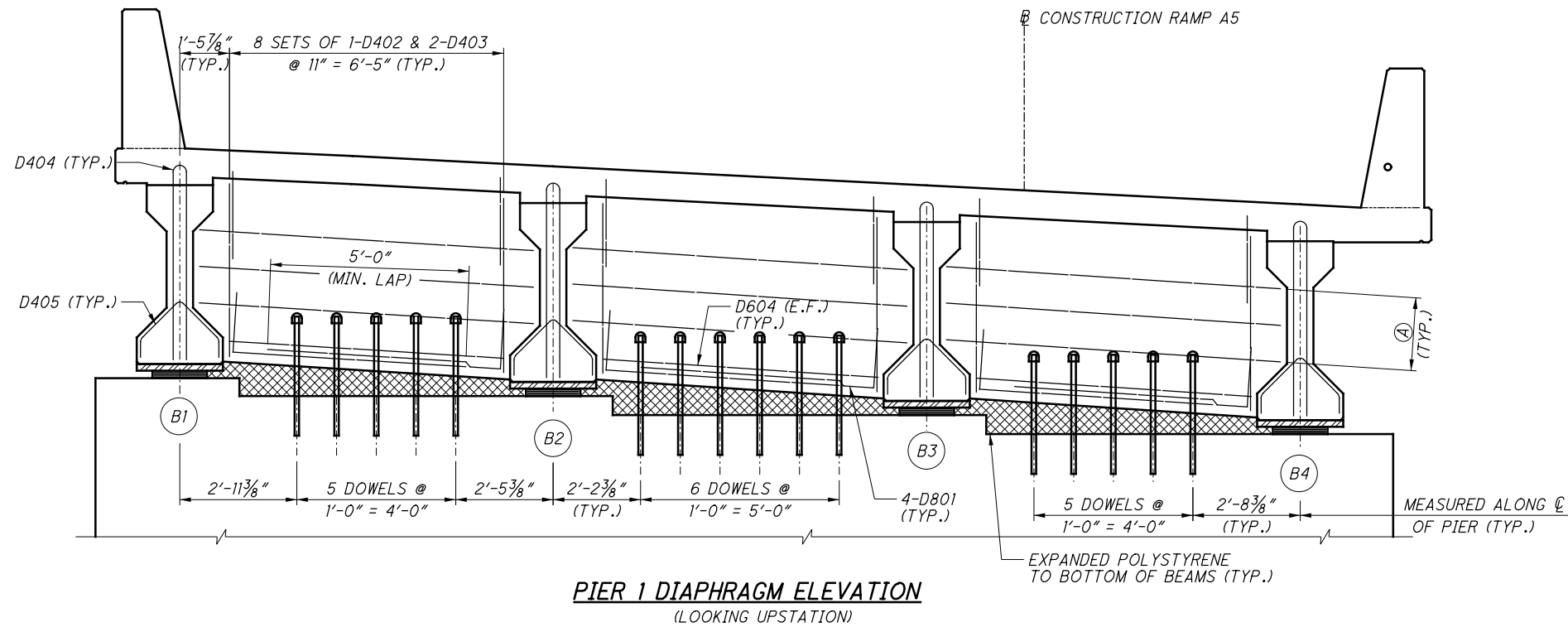
Engineers ■ Architects ■ Planners

5085 REED ROAD, COLUMBUS, OHIO 43220

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ESTIMATED QUANTITIES							CALC.	DATE	CHECKED	DATE
							JDH	3/6/2015	BEN	3/24/2015
ITEM	ITEM EXT.	UNIT	DESCRIPTION	ABUTMENT	PIER	SUPERSTR.	GENERAL	TOTAL	PARTICIPATION 03/IMS/BR	SHEET REF.
505	11100		PILE DRIVING EQUIPMENT MOBILIZATION	LS				LS	LS	
507	00100	FT	STEEL PILES HP10X42, FURNISHED	800				800	800	
507	00150	FT	STEEL PILES HP10X42, DRIVEN	760				760	760	
507	93300	EACH	STEEL POINTS OR SHOES	8				8	8	
509	10001	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	6,094	11,434	70,330		87,858	87,858	3/31
510	10000	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT		16			16	16	
511	21523	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN			194		194	194	3/31
511	34450	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			54		54	54	
511	41510	CY	CLASS QC1 CONCRETE, PIER ABOVE FOOTINGS		30			30	30	
511	44110	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	39				39	39	
511	45600	CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE		32			32	32	
511	46510	CY	CLASS QC1 CONCRETE, FOOTING	25				25	25	
512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	77		712	52	841	841	
512	33000	SY	TYPE 2 WATERPROOFING	72				72	72	
513	95030	EACH	STRUCTURAL STEEL, MISC.: PARAPET SLIDING PLATE JOINT			2		2	2	26/31
515	15020	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 (BEAM LENGTH VARIES 67'-3 ⁷ / ₈ " TO 103'-2 ⁵ / ₈ ")			8		8	8	
515	20001	EACH	INTERMEDIATE DIAPHRAGMS, AS PER PLAN			18		18	32	12/31
516	11210	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL			32		32	44	
516	13900	SF	2" PREFORMED EXPANSION JOINT FILLER	44				44	8	27/31
516	44101	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (BEARING: 16.5" x 11.5" x 2.25")			8		8		
516	44201	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (BEARING: 16" x 15" x 4")			8		8	8	27/31
518	21200	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	23				23	23	
518	40000	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	32				32	32	
524	94908	FT	DRILLED SHAFTS, 54" DIAMETER, INTO BEDROCK		9			9	9	
524	94915	FT	DRILLED SHAFTS, 60" DIAMETER, ABOVE BEDROCK, AS PER PLAN		136			136	136	3/31
524	95100	EACH	DRILLED SHAFTS, MISC.: THERMAL INTEGRITY PROFILER (T.I.P.) WIRE CABLE TESTING OF DRILLED SHAFTS		2			2	2	3/31
526	30011	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN				105	105	105	3/31
526	90010	FT	TYPE A INSTALLATION				32	32	32	

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LEGEND:

B# = BEAM DESIGNATION

BRGS. = BEARINGS
E.F. = EACH FACE
FWD. = FORWARD

A = 3-D605 (E.F.) @ 11" = 1'-10"

NOTES:

1. CONCRETE STRENGTH: $f'_c = 4.5$ KSI (DIAPHRAGM)
2. 1/4" DIA. x 3'-0" LONG SMOOTH DOWEL BAR, WITH SLEEVE, ASTM F1554, GRADE 105, GALVANIZED PER 711.02. INSTALL DOWEL ACCORDING TO ITEM 510 DOWEL HOLES WITH NON-SHRINK, NON-METALLIC GROUT, 705.20. A TOTAL OF 16 DOWELS ARE REQUIRED. SEE PIER DIAPHRAGM ELEVATION FOR DOWEL LOCATIONS. DOWELS ARE INCLUDED WITH ITEM 515 - DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 (BEAM LENGTH VARIES 67'-3 3/8" TO 103'-2 5/8" FOR PAYMENT).
3. SEE STANDARD DRAWING PSID-1-13 FOR DETAILS NOT SHOWN.
4. PIER 1 DIAPHRAGM CONCRETE: PLACE THE PIER 1 DIAPHRAGM CONCRETE ENCASE THE STRUCTURAL MEMBER ENDS AND DECK CONCRETE (4'-0" ON EACH SIDE OF CENTERLINE OF PIER 1) AFTER THE DECK PLACEMENT IN THE ADJACENT SPANS IS COMPLETE. SEE SHEET 17 / 31.

ESTIMATED QUANTITIES

CALCULATED: RFV DATE: 5-29-19
CHECKED: TJW DATE: 5-30-19

ITEM	EXT.	TOTAL 03/IMS/B R	UNITS	DESCRIPTION	ABUTMENT	PIER	SUPER.	GENERAL	A.P.P. REFERENCE SHEET NO.
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING					
503	21100	767	CY	UNCLASSIFIED EXCAVATION	767				
505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION					
507	00100	1,890	FT	STEEL PILES HP10X42, FURNISHED	1,890				
507	00150	1,755	FT	STEEL PILES HP10X42, DRIVEN	1,755				
507	93300	27	EACH	STEEL POINTS OR SHOES	27				
509	10001	895,729	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	23,664	216,790	655,275		8
511	34447	2,274	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			2,274		8
511	34450	326	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			326		
511	43512	289	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	289				
511	45602	1,236	CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/QA		1236			
512	10100	4,775	SY	SEALING CONCRETE SURFACES (EPOXY-URETHANE)	222	2309	2244		
513	10300	2,352,904	LB	STRUCTURAL STEEL MEMBERS, LEVEL 5			2,352,904		
513	10401	1,495,251	LB	STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN			1,495,251		8
513	20000	27,788	EACH	WELDED STUD SHEAR CONNECTORS			27,788		
513	95030	6	EACH	STRUCTURAL STEEL, MISC.: PARAPET SLIDING PLATE JOINT			6		8
514	00060	3,476	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			3,476		
514	00066	3,476	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			3,476		
514	10000	3	EACH	FINAL INSPECTION REPAIR			3		
516	12400	163	FT	SPECIAL - MODULAR EXPANSION JOINT			163		8
516	44101	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (1'-5" DIA.) (PTFE)			10		10
516	44101	6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (1'-6 1/2" DIA.) (PTFE)			6		10
518	12301	8	EACH	SCUPPER, INCLUDING SUPPORTS, AS PER PLAN			8		64
518	21200	81	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	81				
518	40000	100	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	100				
518	40010	30	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	30				
518	51201	60	FT	PIPE DOWNSPOUT, INCLUDING SPECIALS, AS PER PLAN (DIAMETER = 10")		60			65
518	60031	15	FT	PIPE HORIZONTAL CONDUCTOR, AS PER PLAN			15		66
524	94919	107	FT	DRILLED SHAFTS, 60" DIAMETER, INTO BEDROCK, AS PER PLAN		107			11
524	94931	814	FT	DRILLED SHAFTS, 66" DIAMETER, ABOVE BEDROCK, AS PER PLAN		814			11
524	94931	235	FT	DRILLED SHAFTS, 66" DIAMETER, ABOVE BEDROCK, AS PER PLAN, PIER 4		235			11
524	94935	36	FT	DRILLED SHAFTS, 66" DIAMETER, INTO BEDROCK, AS PER PLAN		36			11
524	94947	182	FT	DRILLED SHAFTS, 72" DIAMETER, ABOVE BEDROCK, AS PER PLAN		182			11
526	30010	187	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")				187	
526	90010	85	FT	TYPE A INSTALLATION				85	
601	21000	870	SY	CONCRETE SLOPE PROTECTION				870	
601	32104	1,190	CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC				1190	
869	00101	28	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS, AS PER PLAN			28		11
SPECIAL	69098100	181	FT	COVERED WALKWAY SYSTEM				181	7

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ESTIMATED QUANTITIES							CALC. JHL	DATE 6/2/2015	CHK'D JDH	DATE 6/2/2015
ITEM	ITEM EXT.	UNIT	DESCRIPTION	ABUTMENTS	SUPERSTR.	GENERAL	TOTAL	PARTICIPATION		SHT. REF.
								04/IMS/BR	05/NHS/BR	
202	11203		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	LS	LS	3 / 31
202	22900	SY	APPROACH SLAB REMOVED			323	323	194	129	
202	23500	SY	WEARING COURSE REMOVED		619	367	986	592	394	
505	11100		PILE DRIVING EQUIPMENT MOBILIZATION				LS	LS	LS	
507	00100	FT	STEEL PILES HP10X42, FURNISHED	4,390			4,390	2,634	1,756	
507	00150	FT	STEEL PILES HP10X42, DRIVEN	4,165			4,165	2,499	1,666	
507	92201	FT	PREBORED HOLES, AS PER PLAN	92			92	55	37	3 / 31
507	93300	EACH	STEEL POINTS OR SHOES	45			45	27	18	
509	10001	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	32,020	93,877		125,897	75,538	50,359	3 / 31
511	21523	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN		501		501	300	201	3 / 31
511	33500	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	2			2	1	1	
511	34450	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)		29		29	17	12	
511	44112	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	192			192	115	77	
511	46512	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	158			158	95	63	
512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	343	405	105	853	512	341	
512	33000	SY	TYPE 2 WATERPROOFING	3	8		11	7	4	
515	15030	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 MOD. (60 IN.) (91'-10" BEAM LENGTH)		9		9	5	4	
515	20001	EACH	INTERMEDIATE DIAPHRAGMS, AS PER PLAN		24		24	14	10	16 / 31
516	10010	FT	ARMORLESS PREFORMED JOINT SEAL			204	204	122	82	
516	13900	SF	2" PREFORMED EXPANSION JOINT FILLER		167		167	100	67	
516	14020	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	234			234	140	94	
516	44201	EACH	ELASTOMERIC BEARING WITH INTERNAL STEEL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (BEARING: 1'-6" x 1'-4" x 3/8". LOAD PLATE: 1'-7" x 1'-5" x 2")		18		18	11	7	26 / 31
518	21200	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	164			164	98	66	
518	40000	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	192			192	115	77	
526	30011	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN			655	655	393	262	4 / 31
526	90030	FT	TYPE C INSTALLATION			204	204	122	82	

GENERAL NOTES (CONTINUED):

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN: THE REQUIREMENTS OF 511.03 AND 511.04 SHALL APPLY TO THIS ITEM OF WORK. THIS ITEM SHALL INCLUDE, BUT IS NOT LIMITED TO THE CONCRETE, REINFORCING STEEL, PEJF, GFRP BARS, AND HMWM SEALER NECESSARY TO FORM AND PLACE THE APPROACH SLABS AND CONCRETE PARAPETS ON THE APPROACH SLABS, AS SHOWN IN THE PLANS. PAYMENT FOR THIS ITEM SHALL ALSO INCLUDE THE ITEMS LISTED ON STANDARD DRAWING AS-1-15 AND ALL OTHER NECESSARY MATERIALS, LABOR, AND EQUIPMENT AND SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 526 REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN.

DECK PLACEMENT DESIGN ASSUMPTIONS:
THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.51 KIPS.
A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103 INCHES.
A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 INCHES.
A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65 INCHES.

STANDARD ABBREVIATIONS:

ABUT. = ABUTMENT
BOT. = BOTTOM
BRG. = BEARINGS
c/c = CENTER-TO-CENTER
CIP = CAST-IN-PLACE
C.J. = CONSTRUCTION JOINT
CLR. = CLEAR
CMS = CONSTRUCTION AND MATERIAL SPECIFICATIONS
CONST. = CONSTRUCTION
C.P.P. = CORRUGATED PLASTIC PIPE
DIA. = DIAMETER
DIM. = DIMENSION
DWG. = DRAWING
E.F. = EACH FACE
EB = EASTBOUND
EL. = ELEVATION
EQ. = EQUAL
EXP. = EXPANSION
F.A. = FORWARD ABUTMENT
F.F. = FAR FACE
FWD. = FORWARD
GFRP = GLASS FIBER REINFORCED POLYMER

HMWM = HIGH MOLECULAR WEIGHT METHACRYLATE
LT. = LEFT
M.C. = MECHANICAL CONNECTOR
MAX. = MAXIMUM
MGS = MIDWEST GUARDRAIL SYSTEM
MID. = MIDDLE
MIN. = MINIMUM
MSE = MECHANICALLY STABILIZED EARTH
N.F. = NEAR FACE
o/o = OUT-TO-OUT
PEJF = PREFORMED EXPANSION JOINT FILLER
R.A. = REAR ABUTMENT
RT. = RIGHT
S.O. = SERIES OF
SPA. = SPACES
STA. = STATION
STD. = STANDARD
T&B = TOP & BOTTOM
t/t = TOE-TO-TOE
TYP. = TYPICAL
U.N.O. = UNLESS NOTED OTHERWISE

1511

1815

4 / 31

FRA-70/71-12.68 / 14.86 (PROJ. 4R) 105523

PID No. 105523

GENERAL NOTES AND ESTIMATED QUANTITIES

FRA-70-1373R I-70 EB OVER SHORT STREET

DESIGNED
TTK

DRAWN
AAA

REVIEWED
CAS

DATE
10/18/18

CHECKED
JHL

STRUCTURE FILE NUMBER
2510020

BURGESS & NIPLE

Engineers ■ Architects ■ Planners

5085 REED ROAD, COLUMBUS, OHIO 43220

3486 - E

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STANDARD ABBREVIATIONS:

ABUT. = ABUTMENT
BOT. = BOTTOM
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c/c = CENTER-TO-CENTER
CIP = CAST-IN-PLACE
C.J. = CONSTRUCTION JOINT
CLR. = CLEAR
CMS = CONSTRUCTION AND MATERIAL SPECIFICATIONS
CONST. = CONSTRUCTION
C.P.P. = CORRUGATED PLASTIC PIPE
DIA. = DIAMETER
DIM. = DIMENSION
DWG. = DRAWING
E.F. = EACH FACE
EB = EASTBOUND
EL. = ELEVATION
EQ. = EQUAL
EXP. = EXPANSION
F.A. = FORWARD ABUTMENT
F.F. = FAR FACE
FWD. = FORWARD

GFRP = GLASS FIBER REINFORCED POLYMER
LT. = LEFT
MAX. = MAXIMUM
MID. = MIDDLE
MIN. = MINIMUM
MSE = MECHANICALLY STABILIZED EARTH
N.F. = NEAR FACE
o/o = OUT-TO-OUT
PEJF = PREFORMED EXPANSION JOINT FILLER
R.A. = REAR ABUTMENT
RT. = RIGHT
S.O. = SERIES OF
SPA. = SPACES
STA. = STATION
STD. = STANDARD
T&B = TOP & BOTTOM
t/t = TOE-TO-TOE
TYP. = TYPICAL
U.N.O. = UNLESS NOTED OTHERWISE
V.C. = VERTICAL CURVE

ESTIMATED QUANTITIES						CALC'D	DATE	CHK'D	DATE
						ABP	7/27/2015	JDH	7/30/2015
ITEM	ITEM EXT.	UNIT	DESCRIPTION	ABUTMENTS	SUPERSTR.	GENERAL	TOTAL	PARTICIPATION 03/IMS/BR	SHT. REF.
505	11100		PILE DRIVING EQUIPMENT MOBILIZATION				LS	LS	
507	00100	FT	STEEL PILES HP10X42, FURNISHED	2,155			2,155	2,155	
507	00150	FT	STEEL PILES HP10X42, DRIVEN	2,050			2,050	2,050	
507	93300	EACH	STEEL POINTS OR SHOES	21			21	21	
509	10001	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	12,564	42,810		55,374	55,374	3 / 25
511	21523	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN		212		212	212	3 / 25
511	33500	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	2			2	2	
511	34450	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)		29		29	29	
511	44112	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	66			66	66	
511	46512	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	70			70	70	
512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	124	404		528	528	
515	15030	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 MOD. (60 IN.)		4		4	4	
			(91'-2" BEAM LENGTH)						
515	20001	EACH	INTERMEDIATE DIAPHRAGMS, AS PER PLAN		9		9	9	11 / 25
516	10010	FT	ARMORLESS PREFORMED JOINT SEAL			85	85	85	
516	13900	SF	2" PREFORMED EXPANSION JOINT FILLER		167		167	167	
516	14020	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	124			124	124	
516	44201	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE),		8		8	8	21 / 25
			AS PER PLAN (BEARING: 1'-6" x 1'-4" x 3 1/8", LOAD PLATE: 1'-7" x 1'-5" x 2")						
518	21200	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	63			63	63	
518	40000	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	88			88	88	
526	30011	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN			276	276	276	3 / 25
526	90030	FT	TYPE C INSTALLATION			85	85	85	

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9/13/2021
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ESTIMATED QUANTITIES

CALCULATED: RFV
CHECKED: MLS
DATE: 4/6/2018
DATE: 5/23/2019

ITEM	EXT.	TOTAL	PARTICIPATION	UNITS	DESCRIPTION	ABUT.	PIER	SUPER.	GENERAL	A.P.P. REFERENCE SHEET NO.
			03/IMS/BR							
503	11101	LS	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN					1569
503	21100	7,708	7,708	CY	UNCLASSIFIED EXCAVATION	5,878	1,830			
509	10001	1,508,568	1,508,568	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	571,149	388,043	474,768	74,608	1569
511	33418	871	871	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE	469	402			
511	33500	7	7	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	7				
511	34446	1,097	1,097	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			1,097		
511	34450	139	139	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			139		
511	41012	1,238	1,238	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTING		1,238			
511	44112	2,713	2,713	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	2,713				
511	46512	1,922	1,922	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	1,567	355			
512	10100	7,010	7,010	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), LIGHT NEUTRAL	3,231	2,889	890		
512	10100	8,863	8,863	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), BLACK			8,863		
512	33000	22	22	SY	TYPE 2 WATERPROOFING	22				
513	10200	3,250	3,250	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF	3,250				
515	15110	45	45	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, WF60-49 (BEAM LENGTH VARIES 93'-1 1/2" TO 99'-2 3/8")			45		
515	20000	129	129	EACH	INTERMEDIATE DIAPHRAGMS			129		
516	11211	254	254	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN (4")			254		1661
516	13600	2,057	2,057	SF	1" PREFORMED EXPANSION JOINT FILLER	304	1,823			
516	13900	1,040	1,040	SF	2" PREFORMED EXPANSION JOINT FILLER	674	366			
516	14020	23	23	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	23				
516	44101	90	90	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-1" x 1'-11" x 2.70"), AS PER PLAN	45	45			1628
518	12000	4	4	EACH	SCUPPERS, INCLUDING SUPPORTS			4		
518	21200	922	922	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	922				
518	40000	835	835	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	835				
518	40010	44	44	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	44				
518	51100	35	35	FT	8" PIPE DOWNSPOUT, INCLUDING SPECIALS				35	
518	60030	272	272	FT	PIPE HORIZONTAL CONDUCTOR				272	
524	95442	234	234	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK WITH QC/QA	234				
524	95452	1,686	1,686	FT	DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK WITH QC/QA		1,686			
524	95472	3,751	3,751	FT	DRILLED SHAFTS, 60" DIAMETER, ABOVE BEDROCK WITH QC/QA, AS PER PLAN	3,751				1569
526	30011	661	661	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN				661	1668
526	90010	47	47	FT	TYPE A INSTALLATION				47	
SPECIAL	53013000	6,060	6,060	SF	SPECIAL - FORM LINER	4,830		1,230		1569
SPECIAL	53000600	1,200	1,200	SF	STRUCTURES: PRECAST FACADE PANELS	1,200				1570

DESIGN AGENCY

GPD GROUP

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DATE
9-6-19

REVIEWED
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DRAWN
MLS

DESIGNED
MLS

FILE NUMBER
2510021

STRUCTURE

REVISED

RHC

ESTIMATED QUANTITIES

BRIDGE NO. FRA-70-1390C
RAMP C5 OVER I-70/71

FRA-70/71-12.68 / 14.86
PID No. 105523

8 / 118

1571
1815