

I:\ProjectData\02023_FRA-270-48.84\Design\Structures\Sheets\02023_GG001.dgn 10/28/2022 7:04:34 AM jnipp

SHEET NUM.											PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED	BLF	CHECKED	JPH		
			3	4	6	7	11	01/IMS/BR		EXT	TOTAL												
									LS	201	11000	LS			ROADWAY								
															CLEARING AND GRUBBING								
								300	300	202	38000	300	FT		GUARDRAIL REMOVED								
								80	80	202	75000	80	FT		FENCE REMOVED								
			25						25	203	20001	25	CY		EMBANKMENT, AS PER PLAN					3			
									375	375	204	10000	375	SY	SUBGRADE COMPACTION								
									200	200	606	15050	200	FT	GUARDRAIL, TYPE MGS								
									4	4	606	35000	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1								
									80	80	607	15100	80	FT	FENCE, TYPE 47RA								
															EROSION CONTROL								
								88	88	601	21060	88	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT									
			2,000					2,000	659	00530	2,000	SY	SEEDING AND MULCHING, CLASS 3B										
			0.2					0.2	659	20000	0.2	TON	COMMERCIAL FERTILIZER										
			0.41					0.41	659	31000	0.41	ACRE	LIME										
			10					10	659	35000	10	MGAL	WATER										
								2,000	832	30000	2,000	EACH	EROSION CONTROL										
															PAVEMENT								
								450	450	254	01000	450	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 3"									
								41	41	304	20000	41	CY	AGGREGATE BASE									
								81	81	407	10000	81	GAL	TACK COAT									
								38	38	441	50000	38	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22									
								100	100	609	24510	100	FT	CURB, TYPE 4-C									
															LIGHTING								
								1	625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM										
															OTHER UTILITIES								
			LS					LS	804	98200	LS				FIBER OPTIC CABLE, MISC.:MAINTAINING 144 STRAND FIBER OPTIC CABLE DURING CONSTRUCTION					4			
															TRAFFIC CONTROL								
								7	7	621	00100	7	EACH	RPM									
								7	7	621	54000	7	EACH	RAISED PAVEMENT MARKER REMOVED									
								0.05	0.05	644	00104	0.05	MILE	EDGE LINE, 6"									
								0.03	0.03	644	00300	0.03	MILE	CENTER LINE									
								0.14	0.14	646	10010	0.14	MILE	EDGE LINE, 6"									
								0.07	0.07	646	10200	0.07	MILE	CENTER LINE									
															STRUCTURE OVER 20 FOOT SPAN SEE SHEET 16/34								
															MAINTENANCE OF TRAFFIC								
					150			150	614	11110	150	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE										
						4		4	614	12380	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)										
						66		66	614	13310	66	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL										
						22		22	614	13360	22	EACH	OBJECT MARKER, TWO WAY										
					15			15	614	18601	15	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN					6					
						0.2		0.2	614	21100	0.2	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT										
						0.3		0.3	614	22110	0.3	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT										
						24		24	614	26200	24	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT										
									LS	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC									
						70		70	615	25000	70	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B										
						240		240	622	41100	240	FT	PORTABLE BARRIER, UNANCHORED										
						800		800	622	41100	800	FT	PORTABLE BARRIER, ANCHORED										
									LS	614	11000	LS		INCIDENTALS									
									LS	623	10000	LS		MAINTAINING TRAFFIC									
									LS	624	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING									
									LS	624	10000	LS		MOBILIZATION									

GENERAL SUMMARY

FRA - 270-45.84

ITEM 204 SUBGRADE COMPACTION

STA. 48+00.00 TO 48+65.09 = 65.09 FT
 STA. 52+35.30 TO 53+15.00 = 79.70 FT
 144.79' x 2' / 9 = 32 x 4 = 129 SQ YD

STA. 48+65.09 TO 48+92.31 = 27.22 FT
 STA. 52+08.08 TO 52+35.30 = 27.22 FT
 54.44' x 40.67' / 9 = 246 SQ YD

TOTAL = 375 SQ YD

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, 3"

STA. 48+00.00 TO 48+65.09 = 65.09 FT
 STA. 52+35.30 TO 53+15.00 = 79.70 FT
 144.79' x 28' / 9 = 450 SQ YD

TOTAL = 450 SQ YD

ITEM 304 AGGREGATE BASE

STA. 48+65.09 TO 48+92.31 = 27.22 FT
 STA. 52+08.08 TO 52+35.30 = 27.22 FT
 54.44' x 40.67' x 0.5' / 27 = 41 CU YD

TOTAL = 41 CU YD

ITEM 407 TACK COAT

STA. 48+00.00 TO 48+65.09 = 65.09 FT
 STA. 52+35.30 TO 53+15.00 = 79.70 FT
 144.79' x 28' / 9 x 0.09 GAL/SY = 40.54 GAL x 2 APPLICATIONS = 81 GAL

TOTAL = 81 GAL

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 (TWO LIFTS)

STA. 48+00.00 TO 48+65.09 = 65.09 FT
 STA. 52+35.30 TO 53+15.00 = 79.70 FT
 144.79' x 28' x 0.25' / 27 = 37.54 CU YD

TOTAL = 38 CU YD

ITEM 617 COMPACTED AGGREGATE

STA. 48+00.00 TO 48+65.09 = 65.09 FT
 STA. 52+35.30 TO 53+15.00 = 79.70 FT
 144.79' x 2' x 0.67' / 27 = 7.18 x 4 = 28.74 CU YD

TOTAL = 29 CU YD

ITEM 621 RPM

STA 48+00.00 TO 53+15.00 = 515 FT
 515' / 80' SPA. = 7 EACH

TOTAL = 7 EACH

ITEM 621 RAISED PAVEMENT MARKER REMOVED

STA 48+00.00 TO 53+15.00 = 515 FT
 515' / 80' SPA. = 7 EACH

TOTAL = 7 EACH

ITEM 644 EDGE LINE, 6"

STA 48+00.00 TO 48+65.09 = 65 FT
 65' x 2 / 5280' = 0.025 MILE
 STA 52+35.30 TO 53+00.00 = 80 FT
 80' x 2 / 5280' = 0.030 MILE

TOTAL = 0.05 MILE

ITEM 644 CENTERLINE

STA 48+00.00 TO 48+65.09 = 65 FT
 65' / 5280' = 0.012 MILE
 STA 52+35.30 TO 53+15.00 = 80 FT
 80' / 5280' = 0.015 MILE

TOTAL = 0.03 MILE

ITEM 646 EDGE LINE, 6"

STA 48+65.09 TO 52+35.30 = 370 FT
 370' x 2 / 5280' = 0.14 MILE

TOTAL = 0.14 MILE

ITEM 646 CENTERLINE

STA 48+65.09 TO 52+35.30 = 370 FT
 370' / 5280' = 0.07 MILE

TOTAL = 0.07 MILE

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REF NO.	STATION		SIDE	202	202	601	606	606	607	609
				GUARDRAIL REMOVED	FENCE REMOVED	TIED BLOCK MAT WITH TYPE 2 UNDERLAYMENT	GUARDRAIL, TYPE MGS	BRIDGE TERMINAL ASSEMBLY, TYPE 1	FENCE TYPE 47RA	CURB, TYPE 4C
	FROM	TO		FT	FT	SY	FT	EACH	FT	FT
GR-1	47+94.17	48+69.17	LT	75			50	1		25
GR-2	47+91.68	48+66.68	RT	75			50	1		25
GR-3	52+33.71	53+09.09	LT	75			50	1		25
GR-4	52+31.01	53+06.01	RT	75			50	1		25
F-1			LT		20				20	
F-2			RT		20				20	
F-3			LT		20				20	
F-4			RT		20				20	
T-1	48+41.00		LT			22				
T-2	48+39.00		RT			22				
T-3	52+62.00		LT			22				
T-4	52+59.00		RT			22				
TOTALS CARRIED TO GENERAL SUMMARY				300	80	88	200	4	80	100

CALCULATED
BLF
CHECKED
JPH

PLAN SUB-SUMMARY

FRA - 270 - 45.84

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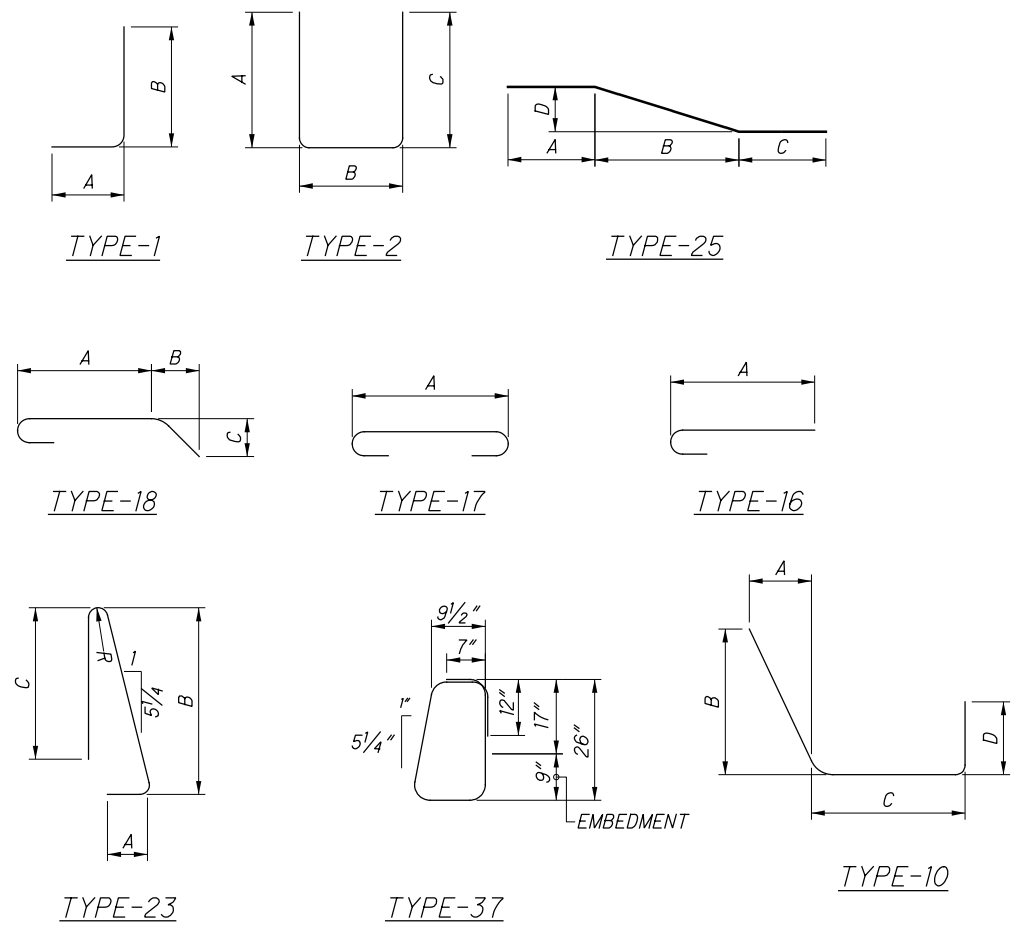
ESTIMATED QUANTITIES (FRA-270-4584 SFN: 2514192)										
ITEM	EXTENSION	TOTAL 01/MS/BR	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #	
202	11201		LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN					2/22	
202	22900	200	SY	APPROACH SLAB REMOVED				200		
202	23500	200	SY	WEARING COURSE REMOVED				200		
503	11100		LS	COFFERDAMS AND EXCAVATION BRACING						
503	21300		LS	UNCLASSIFIED EXCAVATION						
509	10000	125,624	LB	EPOXY COATED REINFORCING STEEL	3,520		122,104			
509	30020	11,130	FT	NO. 4 GFRP DEFORMED BARS			11,130			
510	10000	160	EACH	DOWEL HOLES WITH NONSHANK, NONMETALLIC GROUT	160					
511	33501	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	2					
511	34412	375	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE			375			
511	34448	109	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)			109			
511	45710	40	CY	CLASS QC1 CONCRETE, ABUTMENT	40					
512	10050	793	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	50		743			
513	20000	5,590	EACH	WELDED STUD SHEAR CONNECTORS			5,590			
513	95030	30	EACH	STRUCTURAL STEEL, MISC.: 2" DIA. FIELD DRILLED HOLES			30		2/22	
514	00051	241	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN			241		2&3/22	
514	00057	241	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN			241		3/22	
516	10010	71	FT	ARMORLESS PREFORMED JOINT SEAL				71		
516	13900	135	SF	2" PREFORMED EXPANSION JOINT FILLER				128		
516	44300	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (12.75"x12.75"x4.0868")				10		
516	44300	15	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15"x15"x4.0868")				15		
516	44400	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15.25"x15.25"x5.046")				5		
516	47001		LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					2/22	
518	21200	40	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	40					
518	40000	128	FT	6" PERFORATED CORRUGATED PLASTIC PIPE				128		
518	40010	32	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS				32		
519	11100	14	SF	PATCHING OF CONCRETE STRUCTURE	14					
526	25000	209	SY	REINFORCED CONCRETE APPROACH SLABS (T=15")				209		
526	90030	75	FT	TYPE C INSTALLATION				75		
607	39900	610	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC			610			
611	99710	4	EACH	PRECAST REINFORCED CONCRETE OUTLET				4		

FRA - 270-45.84 PID No. 102023	ESTIMATED QUANTITIES BRIDGE NO. FRA-270-4584 UNDER WINCHESTER PIKE	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6
4 / 22	16 34	REVIEWED JPH DATE 1/31/22 STRUCTURE FILE NUMBER 2514192
DESIGNED BLF CHECKED DRP	DRAWN BLF REVISED	SHEET #

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MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
DECK											
S401	460	40'-0"	12291	STR							
S402	39	10'-10"	282	STR							
S403	148	14'-0"	1384	STR							
S404	148	29'-0"	2867	STR							
S405	622	4'-4"	1800	10	0'-5"	0'-6"	3'-4"	0'-6"			
S501	629	15'-9"	10333	16	15'-2"						
S502	629	16'-2"	10606	17	15'-0"						
S503	629	22'-3"	14597	16	21'-8"						
S504	629	8'-9"	5740	16	8'-2"						
S505	629	15'-2"	9950	STR							
S506	629	21'-8"	14214	STR							
S507	2	2'-1"	4	16	1'-6"						
S508	2	8'-11"	19	16	8'-4"						
S509	2	15'-9"	33	16	15'-2"						
S510	1	7'-5"	8	16	6'-10"						
S511	1	7'-7"	8	16	7'-0"						
S512	1	14'-5"	15	16	13'-10"						
S513	2	1'-6"	3	STR							
S514	2	8'-4"	17	STR							
S515	2	15'-2"	32	STR							
S516	1	6'-10"	7	STR							
S517	1	7'-0"	7	STR							
S518	1	13'-10"	14	STR							
S519	368	40'-0"	15353	STR							
S520	46	19'-6"	936	STR							
SUBTOTAL			100520								
PARAPETS											
P401*	280	10'-0"	2,800	STR							
P402*	24	6'-4"	162	25	2'-6"	2'-5"	1'-5"	0'-1.5"	0'-5"		
P403*	46	5'-1"	234	STR							
P404*	176	40'-0"	7,040	STR							
P405*	16	12'-6"	200	STR							
P406*	44	12'-0"	528	STR							
P407*	16	11'-0"	176	STR							
P601	742	7'-2"	7,987	37							
P602	742	7'-0"	7,801	23	0'-6"	3'-4"	3'-4"		0'-2"		
	8	4'-1"			1'-0"	3'-3"					
P603	SERIES OF	TO	595	1	TO	TO				0'-1"	
	11	4'-11"			1'-0"	4'-1"					
P604	10	4'-1"	245	1	1'-0"	3'-3"					
*-GFRP SUBTOTAL (FT)			11,130								
SUBTOTAL			16,628								
SUBSTRUCTURE			3,520								
SUPERSTRUCTURE			122,104								
GRAND TOTAL			125,624								

* - GFRP BAR



REINFORCING STEEL LIST
 BRIDGE NO. FRA-270-4584
 UNDER WINCHESTER PIKE

FRA - 270-45.84
 PID No. 102023

22 / 22

34
34

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION DISTRICT 6

REVIEWED DATE
JPH 1/31/22
STRUCTURE FILE NUMBER
2514192

DRAWN
BLF
REVISED

DESIGNED
BLF
CHECKED
DRP