

ESTIMATED QUANTITIES					LEFT STRUCTURE				RIGHT STRUCTURE				AS PER PLAN
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENT	PIERS	SUPER.	GENERAL	ABUTMENT	PIERS	SUPER.	GENERAL	STR. SHT. NO.
202	11203	LS	LS	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS				LS	2
202	11305	1,814	SY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN			907				907		2
202	22901	752	SY	APPROACH SLAB REMOVED, AS PER PLAN				376				376	3
257	10001	106	SY	DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT, AS PER PLAN			89	17					
503	11100	LS	LS	COFFERDAMS AND EXCAVATION BRACING				LS				LS	
503	21101	72	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	36				36				2
509	10000	503,281	LB	EPOXY COATED REINFORCING STEEL	1,792	3563	246,285		1,792	3564	246,285		
510	10000	2,692	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	188	474	588	96	188	474	588	96	
511	33501	4	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	2				2				3
511	34413	188	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN		94					94		2
511	34447	1,112	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN		556					556		2
511	34451	203	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN		101					102		2
511	50211	77	CY	CLASS QC1 CONCRETE, SUBSTRUCTURE, AS PER PLAN	11	28			10	28			2
511	71300	75	SY	CONCRETE, MISC.: MOLDED BRICK SURFACE							75		
511	71300	75	SY	CONCRETE, MISC.: STAINING CONCRETE SURFACES							75		
511	81300	3	EACH	CONCRETE, MISC.: MOCKUP MOLDED BRICK SURFACE								3	
512	10051	75	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER PLAN							75		4
512	10101	2,581	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	13	622	597	59	14	623	594	59	4
512	33300	11	SY	TYPE A WATERPROOFING			6				5		
513	20000	13,280	EACH	WELDED STUD SHEAR CONNECTORS			6,640				6,640		
513	95030	91	EACH	STRUCTURAL STEEL, MISC.: INTERMEDIATE CROSSFRAMES			45				46		
513	95030	240	EACH	STRUCTURAL STEEL, MISC.: FATIGUE RETROFIT			120				120		
513	95030	22	EACH	STRUCTURAL STEEL, MISC.: TEMPORARY CROSSFRAMES FOR MAINTENANCE OF TRAFFIC			11				11		
514	00050	44,470	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			22,235				22,235		
514	00056	44,470	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			22,235				22,235		
514	00060	44,470	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			22,235				22,235		
514	00067	44,470	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			22,235				22,235		3
514	00504	69	MNHR	GRINDING FINES, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			34				35		
514	10000	40	EACH	FINAL INSPECTION REPAIR			20				20		
516	10010	320	FT	ARMORLESS PREFORMED JOINT SEAL			160				160		
516	10011	316	FT	ARMORLESS PREFORMED JOINT SEAL, AS PER PLAN			158				158		3
516	13600	42	SF	1" PREFORMED EXPANSION JOINT FILLER			21				21		
516	13900	1,642	SF	2" PREFORMED EXPANSION JOINT FILLER			709	113			708	112	
516	25000	1,078	SF	NYLON REINFORCED NEOPRENE SHEETING			539				539		
516	44201	32	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (3.128"x9.5"x18")	16				16				34
516	44201	48	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (3.128"x14"x18")		24				24			34
516	47001	LS	LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LS				LS	3
518	21200	181	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	91				90				
518	40000	336	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	168				168				
518	40010	80	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	42				38				
519	11101	250	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	125				125				3
526	25001	775	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN				388				387	3
526	90030	322	FT	TYPE C INSTALLATION				161				161	
601	20000	6	SY	CRUSHED AGGREGATE SLOPE PROTECTION	3				3				
601	21001	150	SY	CONCRETE SLOPE PROTECTION, AS PER PLAN	75				75				3
SPECIAL	60610920	2,407	SF	NOISE BARRIER, BRIDGE MOUNTED			2,407						4
SPECIAL	60610920	344	SF	NOISE BARRIER, GROUND MOUNTED				344					4
607	39901	262	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN							262		4

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 509E10000
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME EPOXY COATED REINFORCING STEEL PAY UNIT LB

Abutments		
Weight from Schedule =	3584 Pound	3,584
Superstructure w/Railing		
Superstructure Weight from Schedule =	461903 Pound	
Railing Weight from Schedule =	30667 Pound	
Total =	492570 Pound	492,570
Piers		
Weight from Schedule =	3584 Pound	7,127
Sheet Total =		503,281
Item Total =		503,281

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 510E10000
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463
 ITEM NAME DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT PAY UNIT EACH

<u>Abutment Wingwalls</u>				
Rear Right and Fwd. Left				
13 sets of 3	Amount =	39.00	ea	
14 sets of 2 plus 1	Amount =	29.00	ea	
	No. Wingwalls =	2.00	ea	
	Total =	136.00	ea	136
Rear Left and Fwd. Right				
14 sets of 3	Amount =	42.00	ea	
15 sets of 2	Amount =	30.00	ea	
	No. Wingwalls =	2.00	ea	
	Total =	144.00	ea	144
<u>Abutment Diaphragm Guide</u>				
5 DG601 x 2 sides	Amount =	10.00	ea	
7 DG801 x 2 sides	Amount =	14.00	ea	
	No. Guides =	4.00	ea	
	Total =	96.00	ea	96
<u>Superstructure - Median Barrier</u>				
294 - R522 BARS	Amount =	294.00	ea	
294 - R523 BARS	Amount =	294.00	ea	
	Sides =	2.00	ea	
	Total =	1176.00	ea	1,176
			Sheet Total =	1,552
			Item Total =	1,552

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 511E33501
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN PAY UNIT EACH

Rear and Forward Abutments:		
Total = 4.00 ea.	4	
Sheet Total =	4	
Item Total =	4	

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 511E34413
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN PAY UNIT CY

End Diaphragms (Rear Left):				
Length =	79.28 ft			
Width =	4.00 ft			
Average Depth =	4.00 ft			
Deduct for End Diaphragm Guide =	24.00 cf			
Total =	1243.71 cu ft	=	46.06 cu yd	47
End Diaphragms (Rear Right):				
Length =	79.33 ft			
Width =	4.00 ft			
Average Depth =	4.00 ft			
Deduct for End Diaphragm Guide =	24.00 cf			
Total =	1244.54 cu ft	=	46.09 cu yd	47
End Diaphragms (Forward Left):				
Length =	80.21 ft			
Width =	4.00 ft			
Average Depth =	4.00 ft			
Deduct for End Diaphragm Guide =	24.00 cf			
Total =	1258.53 cu ft	=	46.61 cu yd	47
End Diaphragms (Forward Right):				
Length =	80.16 ft			
Width =	4.00 ft			
Average Depth =	4.00 ft			
Deduct for End Diaphragm Guide =	24.00 cf			
Total =	1257.70 cu ft	=	46.58 cu yd	47
Sheet Total =				188
Item Total =			188	

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 511E34447
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463
 ITEM NAME CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN PAY UNIT CY

Main Deck Area		
Length =	255.22	ft
Width =	142.33	ft
Depth =	0.73	ft
Total =	26489.16 cu ft	= 981.08 cu yd
		982
Deck Haunch Area		
Length =	257.14	ft
Haunch Area (from cad) =	0.43	sf
Number of Beams =	16.00	ea
Total =	1769.12 cu ft	= 65.52 cu yd
		66
Deck Area at End Diaphragm and 1 Foot Beyond		
Average Length 4 Quadrants =	79.74	ft
End Diaphragm Section Area (from cad) =	5.36	sf
Number of End Diaphragm Quadrants =	4.00	ea
Total =	1709.73 cu ft	= 63.32 cu yd
		64
Sheet Total =		1,112
Item Total =		1,112

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 511E34451
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLA PAY UNIT CY

<u>Median Bridge Railing</u>		
Length = 265.14 ft		
Area (from cad) = 6.16 sf		
Number of Railings = 2.00 ea		
Total = 3266.47 cu ft = 120.98 cu yd	121	
<u>Outside Railing - Left Structure</u>		
Length = 265.55 ft		
Area (from cad) = 4.08 sf		
Total = 1083.45 cu ft = 40.13 cu yd	41	
<u>Outside Railing - Right Structure</u>		
Length = 264.73 ft		
Area (from cad) = 4.08 sf		
Total = 1080.10 cu ft = 40.00 cu yd	41	
Sheet Total =	203	
Item Total =	203	

QUANTITY
CALCULATIONS

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	511E50211
CHK'D BY:	FJG	DATE:	4/20/18	PAGE NUMBER:	



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME CLASS QC1 CONCRETE, SUBSTRUCTURE, AS PER PLAN PAY UNIT CY

Abutment Wingwalls												
Rear Right and Fwd. Left												
		Area above ex footing =	29.87	sf								
		Width =	0.83	ft								
		No. of Walls =	2.00	ea								
		Total =	49.78	cu ft	=	1.84	cu yd	2				
Area above ex beam seat =							63.43	sf				
Width =							1.50	ft				
No. of Walls =							2.00	ea				
Total =							190.29	cu ft	=	7.05	cu yd	8
Rear Left and Fwd. Right												
		Area above ex footing =	37.06	sf								
		Width =	0.83	ft								
		No. of Walls =	2.00	ea								
		Total =	61.77	cu ft	=	2.29	cu yd	3				
Area above ex beam seat =							67.56	sf				
Width =							1.50	ft				
No. of Walls =							2.00	ea				
Total =							202.68	cu ft	=	7.51	cu yd	8
Pier Caps												
		Height (avg) =	1.05	ft								
		Width =	3.00	ft								
		Length =	159.08	ft								
		No. of Piers =	3.00	ft								
		Total =	1503.31	cu ft	=	55.68	cu yd	56				
Sheet Total =								77				
Item Total =							77					

QUANTITY CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 511E71300
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463
 ITEM NAME CONCRETE, MISC.: MOLDED BRICK SURFACE PAY UNIT SY

Outside Railing - Right Structure Only			
Length =	264.73 ft		
Deduct 3.0' @ each Substructure (3' x 5) =	15.00 ft		
Total Length =	251.73 ft		
Depth =	2.67 ft		
Total =	672.12 sf = 74.68 sy	75	
	Sheet Total =	75	
	Item Total =	75	

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 512E10101
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN PAY UNIT SY

Outside Wingwalls and Appr Slab						
Rear Right and Fwd. Left	Area =	64.84	sf			
	No. of Sides =	2.00	ea			
	Total =	129.68	sf	14.41	sq yd	15
Rear Left and Fwd. Right	Area =	51.10	sf			
	No. of Sides =	2.00	ea			
	Total =	102.2		11.36	sq yd	12
Piers						
Cap Top	Length =	160.58	ft			
	Width =	3.00	ft			
	No. of Piers =	3.00	ea			
	Total =	1445.22	sf	=	160.58	sy
						161
Cap Sides and Ends	Area per Side =	372.82	sf			
	No. of Sides =	4.00	ea			
	No. of Piers =	3.00	ea			
	Total =	4473.84	sf	=	497.09	sy
						498
Cap Bott	Length =	160.58	ft			
	Width =	3.00	ft			
	No. of Piers =	3.00	ea			
	Total =	1445.22	sf			
Minus Area of Column	=	7.07	sf			
	No. of Columns =	36.00	ea			
	Total =	1190.70	sf	=	132.30	sy
						133
Columns	Height (avg) =	12.00	ft			
	Distance Around =	9.42	ft			
	No. of Columns =	12.00	ft			
	No. of Piers =	3.00	ea			
	Total =	4069.44	sf	=	452.16	sy
						453
Sheet Total =						1,272
Item Total =						1,272

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 512E10101
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PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN PAY UNIT SY

Abutment Diaphragms			
Rear Right	assume top/conc slope prot = el 614.0		
	Area at Face = 459.66 sf = 51.07 sy	52	
Rear Left	assume top/conc slope prot = el 614.0		
	Area at Face = 483.64 sf = 53.74 sy	54	
Fwd. Right	assume top/conc slope prot = el 614.0		
	Area at Face = 509.10 sf = 56.57 sy	57	
Fwd. Left	assume top/conc slope prot = el 614.0		
	Area at Face = 504.37 sf = 56.04 sy	57	
Transverse Section			
Outside Railings Left Struct	Length = 265.55 ft		
	Width = 10.73 ft		
	No. of Railings = 1.00 ea		
	Total = 2849.37 sf = 316.60 sy	317	
Outside Railings Right Struct	Length = 264.73 ft		
	Width = 10.73 ft		
	No. of Railings = 1.00 ea		
	Total = 2840.54 sf = 315.62 sy	316	
Median Railing	Length = 265.14 ft		
	Width = 11.47 ft		
	Total = 3041.10 sf = 337.90 sy	338	
Sheet Total =			1,191
Item Total =		2,463	

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 512E10101
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PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN PAY UNIT SY

Approach Slabs					
Outside Railings **	Length =	15.00	ft		
	Width =	7.99	ft		
	No. of Railings =	4.00	ea		
	Total =	479.40	sf = 53.27 sy	54	
Median Railing	Length =	25.00	ft		
	Width =	11.47	ft		
	No. of Railings =	2.00	ea		
	Total =	573.50	sf = 63.72 sy	64	
** used normal perimeter in transitions - taper is negligible					
Sheet Total =				118	
Item Total =				2,581	

QUANTITY
CALCULATIONS

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	512E33300
CHK'D BY:	FJG	DATE:	4/20/18	PAGE NUMBER:	



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME TYPE A WATERPROOFING PAY UNIT SY

Abutment Diaphragms (at phase const joints)		
Width = 3.00 ft		
Height = 4.00 ft		
No. of Const Joints = 8.00 ea		
Total = 96.00 sq ft = 10.67 sq yd	11	
Sheet Total =	11	
Item Total =	11	

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 513E95050
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME STRUCTURAL STEEL, MISC.: TEMPORARY CROSSFRAMES FOR MAINTENAN PAY UNIT EACH

<u>Between Beams H and J</u>		
Total = 22.00 ea	22	
Sheet Total =	22	
Item Total =	22	

QUANTITY
CALCULATIONS

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	514E00056
CHK'D BY:	FJG	DATE:	4/20/18	PAGE NUMBER:	



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT PAY UNIT SF

<u>Existing Beams (W36X160)</u>		
Perimeter (2 x Web) + (3 x Flange) =	9.00 ft	
Length (span 1 or span 4) =	47.67 ft	
Number of Beams =	32.00 ea	
Total =	13728.96 sq ft	13,729
<u>Existing Beams (W36X260)</u>		
Perimeter (2 x Web) + (3 x Flange) =	10.30 ft	
Length (span 2 or span 3) =	81.00 ft	
Number of Beams =	32.00 ea	
Total =	26697.60 sq ft	26,698
<u>Crosframes including Incidental</u>		
Beam Total =	40426.56 sq ft	
Percent of Beam Total =	0.10 %	
Total =	4042.66 sq ft	4,043
Sheet Total =		44,470
Item Total =		44,470

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 514E00067
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN PAY UNIT SF

Existing Beams (W36X160)		
Perimeter (2 x Web) + (3 x Flange) =	9.00 ft	
Length (span 1 or span 4) =	47.67 ft	
Number of Beams =	32.00 ea	
Total =	13728.96 sq ft	13,729
Existing Beams (W36X260)		
Perimeter (2 x Web) + (3 x Flange) =	10.30 ft	
Length (span 2 or span 3) =	81.00 ft	
Number of Beams =	32.00 ea	
Total =	26697.60 sq ft	26,698
Crosframes including Incedentals		
Beam Total =	40426.56 sq ft	
Percent of Beam Total =	0.10 %	
Total =	4042.66 sq ft	4,043
Sheet Total =		44,470
Item Total =		44,470

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 514E00504
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME GRINDING FINES, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL PAY UNIT MNHR

Exist Beams Include 1 minute per linear foot of beam/girder to be coated		
Single Beam Length = 261.50 ft		
Minus Abut Diaphragms = 4.33 ft		
Actual Length = 257.17 ft		
Total Beams = 16 ea		
Total Feet = 4114.72 ft		
Divide by = 60.00 mins/hour		
Total = 68.58 hours	69	
Sheet Total =		69
Item Total =	69	

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 516E10010
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME ARMORLESS PREFORMED JOINT SEAL PAY UNIT FT

<u>Joint Seal @ Sleeper Slabs</u>		
No. of Appr. Slabs =	2.00 ea	
Length =	159.55 ft	
Total =	319.10 ft	320
Sheet Total =		320
Item Total =		320

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 516E13600
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME 1" PREFORMED EXPANSION JOINT FILLER PAY UNIT SF

Joint btwn Bridge Railing and Appr Slab Railing		
Median Railing		
	Area (from cad) = 6.16 sf	
	No. of Locations = 4.00 ea	
	Total = 24.64 sf	25
Outside Railing		
	Area (from cad) = 4.08 sf	
	Number of Railings = 4.00 ea	
	Total = 16.32 sf	17
Sheet Total =		42
Item Total =		42

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 516E25000
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463
 ITEM NAME NYLON REINFORCED NEOPRENE SHEETING PAY UNIT SF

Semi Integral Abutment Joint				
Rear Right				
Length Horizontal w/ 18" added overlap =	81.00	ft		
Height w/ 18" added for overlap =	5.50	ft		
Width =	3.00	ft		
Total =	259.50	sf	260	
Rear Left				
Length Horizontal w/ 18" added overlap =	81.00	ft		
Height w/ 18" added for overlap =	5.50	ft		
Width =	3.00	ft		
Total =	259.50	sf	260	
Rear Abutment beneath Median Barrier				
Height w/ 18" added for overlap =	5.42	ft		
Width =	3.00	ft		
Total =	16.25	sf	17	
Fwd Left				
Length Horizontal w/ 18" added overlap =	81.92	ft		
Height w/ 18" added for overlap =	5.33	ft		
Width =	3.00	ft		
Total =	261.75	sf	262	
Fwd Right				
Length Horizontal w/ 18" added overlap =	81.92	ft		
Height w/ 18" added for overlap =	5.33	ft		
Width =	3.00	ft		
Total =	261.75	sf	262	
Forward Abutment beneath Median Barrier				
Height w/ 18" added for overlap =	5.42	ft		
Width =	3.00	ft		
Total =	16.25	sf	17	
Sheet Total =				1,078
Item Total =			1,078	

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 516E44201
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE PAY UNIT EACH
(NEOPRENE), AS PER PLAN (3.128"x14"x18")

Piers			
No. of Piers =	3.00 each		
No. of Beams =	16.00 each		
Total =	48.00 each	48	
Sheet Total =			48
Item Total =		48	

QUANTITY
CALCULATIONS

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	516E47001
CHK'D BY:	FJG	DATE:	4/20/18	PAGE NUMBER:	



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN PAY UNIT LS

Description:		
Lump Sum	LS	
Sheet Total =	0	
Item Total =	0	

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 518E21200
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME POROUS BACKFILL WITH GEOTEXTILE FABRIC PAY UNIT CY

Abutments				
Rear Right incl 2 ft backfill behind ex wingwall				
Length =	83.50	ft		
Height (avg) =	7.00	ft		
Width =	2.00	ft		
Total =	1169.00	cu ft = 43.30	cu yd	44
Behind New Wingwall above Exist Wingwall Removal Line				
Length =	6.67	ft		
Height =	3.50	ft		
Width =	0.83	ft		
Total =	19.45	cu ft = 0.72	cu yd	1
Rear Left incl 2 ft backfill behind ex wingwall				
Length =	82.65	ft		
Height (avg) =	7.25	ft		
Width =	2.00	ft		
Total =	1198.43	cu ft = 44.39	cu yd	45
Behind New Wingwall above Exist Wingwall Removal Line				
Length =	6.08	ft		
Height =	3.63	ft		
Width =	0.83	ft		
Total =	18.40	cu ft = 0.68	cu yd	1
Fwd Right incl 2 ft backfill behind ex wingwall				
Length =	83.70	ft		
Height (avg) =	7.08	ft		
Width =	2.00	ft		
Total =	1185.19	cu ft = 43.90	cu yd	44
Behind New Wingwall above Exist Wingwall Removal Line				
Length =	6.00	ft		
Height =	3.46	ft		
Width =	0.83	ft		
Total =	17.30	cu ft = 0.64	cu yd	1
Sheet Total =				136
Item Total =			136	

QUANTITY
CALCULATIONS

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	518E40010
CHK'D BY:	FJG	DATE:	4/20/18	PAGE NUMBER:	



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS PAY UNIT FT

Abutments		
Rear Right Corner Drain		
Length = 17.33 ft	18	
Rear Left Corner Drain		
Length = 24.00 ft	24	
Fwd Right Corner Drain		
Length = 19.83 ft	20	
Fwd Left Corner Drain		
Length = 17.83 ft	18	
*** see calc plan sheets here → perf pipe		
Add four feet to get under wingwall		
Sheet Total =	80	
Item Total =	80	

QUANTITY CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 526E25001
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN PAY UNIT SY

Description:		
Average Area Approach Slab Quadrant =	1742.52	sf
Number of Approach Slab Quadrants =	4.00	ea
Total =	6970.07 sq ft = 774.45 sq yd	775
	Sheet Total =	775
	Item Total =	775

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 601E20000
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463
ITEM NAME CRUSHED AGGREGATE SLOPE PROTECTION PAY UNIT SY

End of Abutment Drains		
Area = 12.57 sf		
Depth = 1.00 ft		
No. of Drains = 4 ea		
Total = 50.28 sq ft = 5.59 sq yd	6	
Sheet Total =	6	
Item Total =	6	

QUANTITY
CALCULATIONS

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	601E21001
CHK'D BY:	FJG	DATE:	4/20/18	PAGE NUMBER:	



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME CONCRETE SLOPE PROTECTION, AS PER PLAN PAY UNIT SY

<u>Abutments</u>		
Contingency Total = 1350.00 sf = 150.00 sy	150	
Sheet Total =		150
Item Total =	150	

QUANTITY
CALCULATIONS

CALC. BY: CAF	DATE: 4/20/18	ITEM NUMBER: 606E10930
CHK'D BY: FJG	DATE: 4/20/18	PAGE NUMBER:



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2463

ITEM NAME NOISE BARRIER, GROUND MOUNTED PAY UNIT SF

Noise Barrier - Rear Left Structure		
2 Panels @ 8'-0" =	16.00 ft	
Height =	11.00 ft	
Total =	176.00 sq ft	176
Noise Barrier - Fwd Left Structure		
2 Panels @ 7'-0" =	14.00 ft	
Height =	12.00 ft	
Total =	168.00 sq ft	168
Note: Noise barrier on left structure only		
	Sheet Total =	344
	Item Total =	344

