

LAW-141-1298 ESTIMATED QUANTITIES						MADE BY CCJ	CHECKED BY BTJ		
						DATE 10/10/18	DATE 10/17/18		
ITEM	ITEM EXT.	TOTAL	UNITS	DESCRIPTION	LAW-141-1298				SHT. REF.
					ABUTS.	PIERS	SUPER.	GENERAL	
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	3
202	22900	70	SQ YD	APPROACH SLAB REMOVED				70	
202	23500	595	SQ YD	WEARING COURSE REMOVED				595	
503	11101	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN				LUMP	3
503	21100	91	CU YD	UNCLASSIFIED EXCAVATION	91				
509	10000	62687	LB	EPOXY COATED REINFORCING STEEL	8991		53696		
511	33501	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	2				3
511	34446	242	CU YD	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			242		
511	43510	59	CU YD	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING	59				
512	10100	130	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	43		87		
512	33000	41	SQ YD	TYPE 2 WATERPROOFING	41				
513	10241	189000	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2, AS PER PLAN			189000		3, 4, 5
513	20000	3228	EACH	WELDED STUD SHEAR CONNECTORS			3228		
516	13600	3	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	3				
516	13900	90	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	90				
516	14020	97	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	97				
516	44100	4	EACH	ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (13"x15"x2.55") AND LOAD PLATE (14"x16"x1.5") (NEOPRENE)	4				
516	44100	4	EACH	ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (13"x15"x2.55") AND LOAD PLATE (14"x16"x1.625") (NEOPRENE)	4				
516	44200	8	EACH	ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (16.5"x15.5"x3.12") AND LOAD PLATE (17.5"x17.5"x1.5") (NEOPRENE)		8			
517	70000	406	FT	RAILING (TWIN STEEL TUBE)			406		
518	21200	49	CU YD	POROUS BACKFILL WITH GEOTEXTILE FABRIC	49				
SPECIAL	518E22300	488	FT	SPECIAL - STEEL DRIP STRIP			488		20
518	40000	65	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	65				
518	40010	84	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	84				
526	25010	181	SQ YD	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")				181	
526	90010	65	FT	TYPE A INSTALLATION				65	
613	41201	154	CU YD	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	154				3



Project: LAW-141-12.98
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QUANTITY COMPUTATIONS

Date: 4/4/18
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DESCRIPTION: APPROACH SLAB REMOVED

ITEM NO. 202E22900
QUANTITY 70
UNIT SY

	Length (FT)	Width (FT)	#		
APPROACH SLAB REAR	15	21	1	35	SY
APPROACH SLAB FORWARD	15	21	1	35	SY

TOTAL= 70 SY



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QUANTITY COMPUTATIONS

Date: 4/4/18
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DESCRIPTION: WEARING SURFACE REMOVED

ITEM NO. 202E23500
QUANTITY 595
UNIT SY

	Width (ft)	Length (ft)	Area (SY)	#		
Approach Slab			35	2	70	SY
Bridge Deck	24	197		1	525	

TOTAL= 595 SY



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Date: 4/3/18
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QUANTITY COMPUTATIONS

DESCRIPTION: COFFERDAMS AND EXCAVATION BRACING

ITEM NO. 503E11100
QUANTITY 1
UNIT LS

Total= \$100,000
Includes cost for Temporary Access Fill



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QUANTITY COMPUTATIONS

Date: 4/4/18
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DESCRIPTION: UNCLASSIFIED EXCAVATION

ITEM NO. 503E21100
 QUANTITY 91
 UNIT CY

	area (SF)	top el	bot el	width (ft)	Length (ft)		
Forward Abutment and WW's		589.0	580.1	3	46	1232.34	45.64
Rear Abutment and WW's		588.0	579.2	3	46	1218.54	45.13

Excavate behind abutment and ww's to bottom of footing

Abut Total= 90.77

TOTAL= 91 CY



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QUANTITY COMPUTATIONS

Date: 4/8/18
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DESCRIPTION: EPOXY COATED REINFORCING STEEL

ITEM NO. 509E10000
QUANTITY 62687
UNIT LB

	Conc. (CY)	Total	
Superstructure		53696	LB
Abutments		8991	LB
TOTAL=		62687	LB



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QUANTITY COMPUTATIONS

Date: 4/4/18
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DESCRIPTION: SEMI-INTEGRAL DIAPHRAGM GUIDE

ITEM NO. 511E33500
QUANTITY 2
UNIT EACH

REAR ABUTMENT # 1
FORWARD ABUBMENT 1

TOTAL= 2 EACH



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Date: 10/10/18
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QUANTITY COMPUTATIONS

DESCRIPTION: CLASS QC2 CONCRETE, WITH QA/QC, BRIDGE DECK

ITEM NO. 511E34446
 QUANTITY 242
 UNIT CY

	<i>Area (FT^2)</i>	<i>Length (FT)</i>	<i>Width (FT)</i>	<i>Ht / Depth (FT)</i>	#	Total (CF)	Total (CY)
Deck	28.40	197.44			1	5607.3	207.7
Diaphragm-below haunches		32.5	3.5000	3.3700	2	766.7	28.4
Subtract diaphragm guide		3	3.5000	1.8300	2	-38.4	-1.4
Diaphragm-above CJ	14.8		3.0000		2	88.8	3.3
Diaphragm next to WW's		1.50	3.5000	4.5100	4	94.7	3.5
Subtract beam area	0.41		2.5000		8	-8.2083333	-0.3
TOTAL =						242.0	CY



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Date: 10/10/18
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DESCRIPTION: CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING

ITEM NO. 511E43510
 QUANTITY 59
 UNIT CY

Abutment Concrete

	Area (ft ²)	Ht (ft.)	Width (ft)	Len (ft)	#	Total (CF)
Rear footing		3.0	6.00	32.5	1	585.00
Rear Abutment Stem		0.9	3.50	32.5	1	104.65
Rear WW's- below beam seat		3.9	1.75	4.4166	2	60.60
Rear WW's- above beam seat		4.7	1.75	2.75	2	45.33
Forward footing		3.0	6.00	32.5	1	585.00
Forward Abutment Stem		0.9	3.50	32.5	1	102.38
Forward WW's- below beam seat		3.9	1.75	4.4166	2	60.29
Forward WW's- above beam seat		4.7	1.75	2.75	2	45.33
Abutment Total=						1588.57 58.84

TOTAL= 59.0 CY



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Date: 10/10/18
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DESCRIPTION: SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ITEM NO. 512E10100
 QUANTITY 130
 UNIT SY

Abutments

		Sealing Ht (ft)	Width (ft)	Face Area (SF)	#	Area (SF)	Area (SY)
REAR	Stem and WW Face			41.00	1	41.00	4.6
	Diaphragm Face			137.00	1	137.00	15.2
	WW Back Face			4.20	2	4.20	0.5
	WW side	2.50	1.75	4.375	2	8.75	1.0
						Rear Abutment Total=	191.0
FORWARD	Stem and WW Face			41.00	1	41.00	4.6
	Diaphragm Face			137.00	1	137.00	15.2
	WW Back Face			4.20	2	4.20	0.5
	WW side	2.50	1.75	4.375	2	8.75	1.0
						Forward Abutment Total=	191.0
					Abutments Total=	382.0	43.0

Superstructure

	Perimeter (ft)	Length (ft)	#	Area (SF)	Area (SY)	
Deck Fascias	2.00	195	2	780.00	86.7	
				Fascia Total=	780.00	87.0

TOTAL= 1161.90 130.0 SY



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QUANTITY COMPUTATIONS

Date: 10/10/18
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DESCRIPTION: SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN

ITEM NO. 512E10300
QUANTITY 44
UNIT SY

	LENGTH (FT)	Width (FT)	#	Total (SF)	Total (SY)
Rear	197.50	2	1	395.00	43.9

TOTAL = 44.0 SY



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QUANTITY COMPUTATIONS

Date: 10/10/18
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DESCRIPTION: TYPE 2 WATERPROOFING

ITEM NO. 512E33000
QUANTITY 41
UNIT SY

	Height (FT)	Width (FT)	#	Total (SF)	Total (SY)
Rear	4.40	41.3334	1	181.76	20.2
Forward	4.38	41.3334	1	180.94	20.1
Total=				362.7	40.3

TOTAL = 41.0 SY



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QUANTITY COMPUTATIONS

Date: 10/10/18
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DESCRIPTION: STRUCTURAL STEEL MEMBERS, LEVEL 2

ITEM NO. 513E10240
 QUANTITY 189000
 UNIT LB

	Length (ft)	Width (ft)	thickness (ft)	wt (lb)	#	%	Total (lb)
W33X201	196.4368			201	4	1	157935.2
DIAPHRAGMS	27.62			6.1	117		19712.4
WEB SPLICE PLATES	2.38	2.16	0.04	104.74	8		179.1
FLANGE SPLICE PLATES	3.69	1.31	0.06	135.87	16		602.8
BOLTS				0.184	304		55.9
CONNECTION ANGLES	9.4			13.6	78		9971.5
FILLER PLATE	0.4167	0.4167	0.0313	2.66	39		0.6
							Total= 188457.5
wt steel=	490 #/cf						
TOTAL =							189000 LB



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QUANTITY COMPUTATIONS

Date: 10/10/18
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DESCRIPTION: WELDED STUD SHEAR CONNECTORS

ITEM NO. 513E20000
QUANTITY 3228
UNIT EACH

SHEAR STUD # of rows # of beams				Total
BEAM	269	3	4	3228

TOTAL= 3228 EACH



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QUANTITY COMPUTATIONS

Date: 10/10/18
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DESCRIPTION: 1" PREFORMED EXPANSION JOINT FILLER

ITEM NO. 516E13600
 QUANTITY 3
 UNIT SF

	Area (SF)	#
<i>REAR ABUTMENT</i>	0.63	2.00
<i>FORWARD ABUTMENT</i>	0.63	2.00

	Area	
	1.3	SF
	1.3	SF
ABUTMENT TOTAL=	2.5	SF

TOTAL = 3.0 SF



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QUANTITY COMPUTATIONS

Date: 4/4/18
 By: AMT
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DESCRIPTION: 2" PREFORMED EXPANSION JOINT FILLER

ITEM NO. 516E13900
 QUANTITY 90
 UNIT SF

	<i>Length</i>	<i>height</i>	<i>#</i>	<i>Area</i>	
<i>Wingwalls/diaphragm inteface</i>	1.75	4.71	4	33.0	SF
<i>Diaphragm Guide</i>	6.75	3.50	2	47.3	SF

ABUTMENT TOTAL= 80.2 SF

TOTAL = 90.0 SF



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QUANTITY COMPUTATIONS

Date: 4/4/18
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DESCRIPTION: SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL

ITEM NO. 516E14020
QUANTITY 97
UNIT FT

	Length	#	Total (FT)
Rear abutment	48.40	1	48
Forward Abutment	48.40	1	48

TOTAL = 97 FT



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QUANTITY COMPUTATIONS

Date: 10/10/18
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DESCRIPTION: ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (13"x15x2.55")
AND LOAD PLATE (14"xX16x1.5") (NEOPRENE)

ITEM NO. 516E44100
QUANTITY 4
UNIT EA

	# BRGS	#	Total
Abutments	4	1	4

TOTAL = 4 EA



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DESCRIPTION: ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (13"x15x2.55")
AND LOAD PLATE (14"xX16x1.625") (NEOPRENE)

ITEM NO. 516E44100
QUANTITY 4
UNIT EA

	# BRGS	#	Total
Abutments	4	1	4

TOTAL = 4 EA



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Date: 10/10/18
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QUANTITY COMPUTATIONS

DESCRIPTION: ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES
(16.5"x15.5"x3.12") AND LOAD PLATE (17.5"x16.5"x1.5") (NEOPRENE)

ITEM NO. 516E44200
QUANTITY 8
UNIT EA

	# BRGS	#	Total
Piers	4	2	8

TOTAL = 8 EA



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QUANTITY COMPUTATIONS

Date: 4/4/18
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DESCRIPTION: RAILING (TWIN STEEL TUBE)

ITEM NO. 517E70000
 QUANTITY 406
 UNIT FT

Bridge Railing

		Length (ft)	#	ft
Bridge	LEFT	202.62	1	202.6
Bridge	RIGHT	202.62	1	202.6
			TOTAL=	405.2

TOTAL= 406 CY



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QUANTITY COMPUTATIONS

Date: 4/8/18
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DESCRIPTION: POROUS BACKFILL WITH GEOTEXTILE FABRIC

ITEM NO. 518E21200
 QUANTITY 49
 UNIT CY

	area (SF)	top el	bot el	width (ft)	Length (ft)		
Forward Abutment and WW's	586.3	579.2	2	46	655.04	24.26	
Rear Abutment and WW's	587.2	580.1	2	46	656.88	24.33	

Abut Total= 48.59

TOTAL= 49 CY



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QUANTITY COMPUTATIONS

Date: 10/10/18
Calc. By: CCJ
Date: BTJ
Check By: _____

DESCRIPTION: SPECIAL - STEEL DRIP STRIP

ITEM NO. 518E22300
QUANTITY 488
UNIT FT

	1.5' Strips (#)	Length	Total L	Total (FT)
Left Side	31	197.44	243.94	244
Right Side	31	197.44	243.94	244

TOTAL = 488 FT



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QUANTITY COMPUTATIONS

Date: 10/10/18
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DESCRIPTION: 6" PERFORATED CORRUGATED PLASTIC PIPE

ITEM NO. 518E40000
QUANTITY 65
UNIT FT

	Length	#	Total (FT)
Rear Abutment	32.50	1	33
Forward Abutmen	32.50	1	33

TOTAL = 65 FT



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Date: 10/10/18
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DESCRIPTION: 6" NON-PERFORATED CORRUGATED PLASTIC PIPE INCLUDING SPECIALS

ITEM NO. 518E40010
QUANTITY 84
UNIT FT

	Length	#	Total (FT)
Rear Abutment	22	2	44
Forward Abutment	20	2	40

TOTAL = 84 FT



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QUANTITY COMPUTATIONS

Date: 10/10/18
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DESCRIPTION: REINFORCED CONCRETE APPROACH SLAB WITH QC/QA (T=15")

ITEM NO. 526E25000
 QUANTITY 181
 UNIT SY

	Length (FT)	Width (FT)	#	Total (SF)	Total (SY)
Rear	25	32.5	1	812.50	90.3
Forward	25	32.5	1	812.50	90.3
Total=				1625.0	180.6

TOTAL = 181.0 SY



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Date: 4/4/18
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DESCRIPTION: TYPE A INSTALLATION

ITEM NO. 526E90010
QUANTITY 65
UNIT FT

	Len (ft)	#
Rear Sleeper Slab	32.5	1
Forward Sleeper Slab	32.5	1

**Total
Length
(FT)**

32.5
32.5
TOTAL **65.0**

TOTAL = 65.0 FT



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QUANTITY COMPUTATIONS

Date: 4/8/18
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DESCRIPTION: ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC

ITEM NO. 601E32204
QUANTITY 382
UNIT CY

	Width (SF)	Length (FT)	Depth (FT)	Total (CF)	Total (CY)
Rear Abutment	39	66	2	5148	190.7
Forward Abutment	39	66	2	5148	190.7

TOTAL= 10296 381.3

TOTAL = 10296.0 382.0 CY



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QUANTITY COMPUTATIONS

Date: 4/4/18
By: AMT
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DESCRIPTION: LOW STRENGTH MORTAR BACKFILL, AS PER PLAN

ITEM NO. 614E41201
QUANTITY 154
UNIT CY

	AREA 1	AREA 2	AREA 3	ENGTH (F)	#	TOTAL
REAR ABUTMENT	8.75	41.82	13.12	32.50	1	76.66
FORWARD ABUTMENT	8.75	42.20	13.24	32.50	1	77.27

TOTAL= 154 EACH