



ESTIMATED QUANTITIES

Made By: CEJ
Date: 04/18/2019
Checked By: TLC
Date: 04/19/2019 Updated: 12/12/2019

202-11203 PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

202E11203
202E2290(REMOVED) Total = LUMP SUM

202E23500
202E75260

503E11100

503E21300

509E1000(Rear Approach

Forward Approach

510E10000

511E53014 Length = 25.00 ft
511E53014 Width = 16.00 ft
511E53014 Area = 44.44 sq yd

Length = 25.00 ft
Width = 16.00 ft
Area = 44.44 sq yd

511E53014

512E10100 Approach Slab Area = Length x Width
512E33000 = 89 SY

512E71500
512E74000

513E10201

513E20000

513E2100(Rear Approach

Forward Approach

514E00050

514E00056 Length = 25.00 ft
514E00060 Width = 16.00 ft
514E00066 Area = 44.44 sq yd

Length = 25.00 ft
Width = 16.00 ft
Area = 44.44 sq yd

514E00504

514E10000 Approach Slab Area = Length x Width
516E11210 = 89 SY

516E13600
516E31000

516E44301

516E44301

516E4430(L Left Parapet

Right Parapet

516E44401

516E46701 Length = 308.00 ft

Length = 310.00 ft

516E47001

518E21200 Total Fence Length =
518E40000 = 618 FT

518E40010
519E00100

526E25000

526E90020
Total = LUMP SUM

503-21300 UNCLASSIFIED EXCAVATION

Total = LUMP SUM



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512-74000 REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES

Rear Abutment

Breastwall				
	Beam 1	Beam 2	Beam 3	Beam 4
Length =	4.48	11.00	10.50	10.24 ft
Height =	2.69	2.48	1.74	1.00 ft
Area =	1.34	3.03	2.03	1.14 sq yd

Bearing			
	Seat	Steps	Ends
Width =	2.00	2.00	2.47 ft
Height/Length =	35.26	1.69	2.69 ft
Area =	7.84	0.38	0.74 sq yd

Abutment Area = 16.49 sq yd

Forward Abutment

Breastwall				
	Beam 1	Beam 2	Beam 3	Beam 4
Length =	6.28	3.50	10.50	10.68 ft
Height =	2.52	2.61	1.80	1.00 ft
Area =	1.76	1.02	2.10	1.19 sq yd

Bearing			
	Seat	Steps	Ends
Width =	2.00	2.00	2.08 ft
Height/Length =	30.74	1.70	2.52 ft
Area =	6.83	0.38	0.58 sq yd

Abutment Area = 13.85 sq yd

Pier 1

Column	
Number =	3
Height =	12.85 ft
Diameter =	3.00 ft
Area =	363.33 sq ft

Cap						
	Left End	Beam 1	Beam 2	Beam 3	Beam 4	Right End
Length =	4.71	7.42	5.00	10.50	7.75	4.71 ft
Height =	5.46	5.46	5.27	4.51	3.75	3.75 ft
Width =		3.00	3.00	3.00	3.00	ft
Area =	25.73	99.71	67.70	119.14	77.84	17.67 sq ft

Pier Area = 85.68 sq yd

Pier 2

Column	
Number =	3
Height =	11.28 ft
Diameter =	3.00 ft
Area =	318.93 sq ft

Cap						
	Left End	Beam 1	Beam 2	Beam 3	Beam 4	Right End
Length =	4.71	5.83	5.00	10.50	7.75	4.71 ft
Height =	5.27	5.27	5.30	4.53	3.75	3.75 ft
Width =		3.00	3.00	3.00	3.00	ft
Area =	24.83	75.45	68.00	119.56	77.84	17.67 sq ft

Pier Area = 78.03 sq yd

Total Concrete Area = Length x Width
 = 194.1 SY



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513-21001 TRIMMING OF BEAM END, AS PER PLAN

Rear Abutment

Number = 4

Forward Abutment

Number = 4

Total Beams = Number
= 8 EACH



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513-10000 EPOXY COATED REINFORCING STEEL

202E11203

202E2290(Rear Abutment) 2416 lb
 202E2350(Piers) 8864 lb
 202E7526(Forward Abutment) 2140 lb
 503E1110(Superstructure) 82243 lb

503E21300
509E10000

510E10000 Total Resteel Weight = Length x Reinforcement
= **93247** LB

511E53014
511E53014

511E53014

512E10100

512E3300(Rear Abutment)

512E71500

	Brg Seat	Backwall	Left Wing	Right Wing
512E74000				
513E10201	Number = 26	32	18	16

513E20000

513E21001 Rear Abut Dowels = 92 each

514E00050
514E00056

514E0006(Pier 1)

514E00066

514E00504

514E10000 Number = **Cap** 64 each

516E11210

516E13600

516E3100(Pier 2)

516E44301

516E44301

516E44301 Number = **Cap** 60 each

516E44401

516E46701

516E4700(Pier 3)

518E21200

518E40000

518E40010 Number = **Column (3)** 36 each

519E00100

526E25000

526E9002(Forward Abutment)

	Brg Seat	Backwall	Left Wing	Right Wing
526E9002	Number = 22	28	22	14

Fwd Abut Dowels = 86 each

Total Dowels = **338** EACH



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512-10100 SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

202E11203

202E2290 APPROACH SLAB REMOVED

Forward Abutment

202E23500

202E75260

503E11100

503E21300

509E10000

510E10000

511E53014

511E53014

511E53014

512E10100

512E33000

512E71500

512E74000

513E10201

513E20000

513E21001

514E00050

514E00056

514E00060

514E00066

514E00504

514E10000

516E11210

516E13600

516E31000

516E44301

516E44301

516E44301

516E44401

516E46701

516E47001

518E21200

518E40000

518E40010

519E00100

526E25000

526E90020

		Face		
		Left	Right	
Width =		6.34	28.92	ft
Height =		8.11	6.33	ft
Area =		5.71	20.34	sq yd
		Backwall Crown		
		Left	Right	
Width =		5.06	27.70	ft
Height =		0.16	1.94	ft
Area =		0.04	2.99	sq yd
		Bearing		
		Seat	Steps	Ends
Width =		2.00	2.00	2.47
Height/Length =		35.26	1.69	4.33
Area =		7.84	0.38	1.19
		sq yd		
		Wingwall		
		Left	Right	
Length =		14.10	10.66	ft
Height =		7.11	5.33	ft
Area =		5.57	3.16	sq yd
		Parapet		
		Left	Right	
Unit Area =		7.90	7.90	sf/ft
Length =		2.00	2.00	ft
Transition		11.31	11.31	sq yd
Area =		13.06	13.06	sq yd
		Bearings		
Number =		4		
Width =		1.06		
Length =		1.06		
Area =		0.50		
		sq yd		
Abutment Area =		72.84		
		sq yd		

		Face		
		Left	Right	
Width =		5.79	24.96	ft
Height =		7.93	6.33	ft
Area =		5.10	17.56	sq yd
		Backwall Crown		
		Left	Right	
Width =		4.33	23.51	ft
Height =		0.20	1.80	ft
Area =		0.05	2.35	sq yd
		Bearing		
		Seat	Steps	Ends
Width =		2.00	2.00	2.08
Height/Length =		30.74	1.70	4.14
Area =		6.83	0.38	0.96
		sq yd		
		Wingwall		
		Left	Right	
Length =		14.10	10.66	ft
Height =		6.93	5.33	ft
Area =		5.43	3.16	sq yd
		Parapet		
		Left	Right	
Unit Area =		7.90	7.90	sf/ft
Length =		2.00	1.00	ft
Transition		11.31	11.31	sq yd
Area =		13.06	12.19	sq yd
		Bearings		
Number =		4		
Width =		1.13		
Length =		1.13		
Area =		0.56		
		sq yd		
Abutment Area =		66.50		
		sq yd		

Pier 1

		Cap						
		Column	Left End	Beam 1	Beam 2	Beam 3	Beam 4	Right End
Number =		3	4.71	7.42	5.00	10.50	7.75	4.71
Height =		12.85	6.63	6.63	6.44	5.68	4.92	4.92
Diameter =		3.00		3.00	3.00	3.00	3.00	
Area =		363.33	31.24	117.06	79.40	143.71	95.98	23.18
		sq ft						
Pier Area =		94.88						
		sq yd						

Pier 2

		Cap						
		Column	Left End	Beam 1	Beam 2	Beam 3	Beam 4	Right End
Number =		3	4.71	5.83	5.00	10.50	7.75	4.71
Height =		0.00	5.67	5.67	5.70	4.93	4.15	4.15
Diameter =		3.00		3.00	3.00	3.00	3.00	
Area =		0.00	26.72	80.12	72.00	127.96	84.04	19.56
		sq ft						
Pier Area =		45.60						
		sq yd						



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Pier 3

	Column	Cap					
		Left End	Beam 1	Beam 2	Beam 3	Beam 4	Right End
Number =	3	4.71	4.75	5.00	10.50	7.75	4.71 ft
Height =	13.50 ft	5.49	5.49	5.59	4.79	4.00	4.00 ft
Diameter =	3.00 ft		3.00	3.00	3.00	3.00	ft
Area =	381.70 sq ft	25.87	62.87	70.90	125.02	81.72	18.85 sq ft
Pier Area =	85.21 sq yd						

Superstructure

	Left	Right
Length =	310.50 ft	312.21 ft
Width =	10.79 ft	10.38 ft
Area =	3350.81 sq ft	3239.18 sq ft

Superstructure Area = 732.22 sq yd

Total Concrete Area = Length x Width
= 1097.2 SY

512-33000 TYPE 2 WATERPROOFING

Rear Abutment

	Left	Center	Right
Length =	6.42	32.79	7.61 ft
Height =	3.00	3.00	3.00 ft
Area =	2.14	10.93	2.54 sq yd

Waterproof Area = 15.61 sq yd

Forward Abutment

	Left	Center	Right
Length =	9.40	27.83	5.27 ft
Height =	3.00	3.00	3.00 ft
Area =	3.13	9.28	1.76 sq yd

Waterproof Area = 14.17 sq yd

Total Waterproofing Area = Length x Width
= 29.8 SY

512-71500 SPECIAL - URETHANE TOP COAT SEALER

Pier 2

	Column
Number =	3
Height =	13.28 ft
Diameter =	3.00 ft
Area =	41.72 sq yd

Total Sealing Area = Height x Width
= 41.7 SY

519-00100 SPECIAL - COMPOSITE FIBER WRAP SYSTEM

Pier 2



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	<u>Column</u>
Number =	3
Height =	13.28 ft
Diameter =	3.00 ft
Area =	<u>375.48 sq ft</u>

Total Fiber Wrap Area = Height x Width
= 375.5 SF



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513-10201 STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN

202E11203

202E2290 APPROACH SLAB REMOVED

202E23500

202E75260	Unit Weight =	6.10	plf				
503E11100	Number =	1	2	2	4		
503E21300	Length =	7.17	7.63	10.13	10.54	ft	
509E10000	Weight =	43.72	93.03	123.53	257.22	lb	
510E10000	L3x3x5/16 Weight =	517.48					

511E53014

511E53014

511E53014 L4x4x3/8

511E53014	Unit Weight =	9.80	plf				
512E10100	Number =	5	10	10	1	2	
512E71500	Length =	10.42	3.33	2.21	5.75	3.17	ft
512E74000	Weight =	510.42	326.67	216.42	56.35	62.07	lb
513E10201	L4x4x3/8 Weight =	1171.92					

513E20000

513E21001

514E0005 Plate

514E00056

514E00060	Unit Weight =	490	pcf				
514E00066	Number =	6	3	5			
514E00504	Thickness =	0.03	0.03	0.04			
514E10000	Width =	0.42	0.42	1.00			
516E11210	Height =	2.78	2.00	1.00			
516E13600	Fillet Width =	0.08					
516E31000	Fillet Height =	0.21					
516E44301	Weight =	104.83	38.28	102.08			
516E44301	Plate Weight =	245.19					

516E44301

516E44401

516E46701 Total Steel Weight = Number x Length x Unit Weight

516E47001 = **1935** LB

518E21200

518E40000

518E40010

519E00100

526E2500 Beams

526E90020

Beams =	1	3
Rows =	2	2
Number =	389	392

Total Connector Number = Beams x Rows x Number
= **3130** EACH



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514-00050 SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL

202E11203

202E2290 APPROACH SLAB REMOVED

202E23500

202E75260

	W36x230	W36x280	W36x300	
503E11100	Unit Area =	9.87	9.95	9.99 sf/ft
503E21300	Length =	128.57	88.48	92.59 ft
509E10000	Beam Area =	3074.00 sq ft		

510E10000

511E53014

511E53014 Beam 2

511E53014

	W36x230	W36x280	W36x300	
512E10100	Unit Area =	9.97	10.08	10.13 sf/ft
512E33000	Length =	129.54	88.92	93.34 ft
512E71500	Beam Area =	3133.00 sq ft		

512E74000

513E10201

513E20000 Beam 3

513E21001

	W36x230	W36x280	W36x300	
514E00050	Unit Area =	9.97	10.08	10.13 sf/ft
514E00060	Length =	129.54	88.92	93.34 ft
514E00066	Beam Area =	3133.00 sq ft		

514E00504

514E10000

516E11210 Beam 4

516E13600

	W36x230	W36x280	W36x300	
516E31000	Unit Area =	9.87	9.95	9.99 sf/ft
516E44301	Length =	129.54	88.92	93.34 ft
516E44301	Beam Area =	3096.00 sq ft		

516E44401

516E46701

516E47000 Crossframes

518E21200

518E40000 Area = 2581.00 sq ft

518E40010

519E00100

526E25000 Total Steel Area = Unit Area x Length

526E90020 = 15017 SF

514-00056 FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT

Total Steel Area = Previous Calculation
= 15017 SF

514-00060 FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT

Total Steel Area = Previous Calculation
= 15017 SF

514-00066 FIELD PAINTING STRUCTURAL STEEL, FINISH COAT

Total Steel Area = Previous Calculation
= 15017 SF

514-00504 GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL

Total Grinding Hours =
= 20 MNHR



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514-10000 FINAL INSPECTION REPAIR

Beams

Total Length = 1245.05 ft
Spacing = 150.00 ft
Number = 10

Crossframes

Number of Crossframes = 91
Percentage = 5%
Number = 5

Total Repair Number =
= 15 EACH



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516-11210 STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL

202E11203

202E2290 APPROACH SLAB REMOVED

Forward Approach

202E23500

202E75260

Length = 36.44 ft

Length = 30.98 ft

503E11100

503E21300 Total Joint Length =

509E10000 = 67 FT

510E10000

511E53014

511E53014

511E53014

511E53014 Rear Approach

Forward Approach

512E10100

512E33000

512E71500

	Left	Right	Curbs (2)
Length =	13.57	15.37	0.50 ft
Depth =	2.19	2.19	2.60 ft
Area =	29.68	33.62	2.60 sq ft

	Left	Right	Curbs (2)
Length =	15.06	13.33	0.50 ft
Depth =	2.19	2.19	2.60 ft
Area =	32.94	29.16	2.60 sq ft

512E74000

513E10201

513E20000

513E21000

514E00050

514E00056

514E00060

514E00066

514E00504

514E10000

516E11210

516E13600

516E31000

516E44301

516E44301

516E44301

516E44401

516E46701

516E47001

518E21200

518E40000

518E40010

526E25000

526E90020

	Left	Right
Length =	13.57	15.37 ft
Seal Length =	28.94	

	Left	Right
Length =	15.06	13.33 ft
Seal Length =	28.39	

Total Seal Length = 57 FT

519E00100

526E25000

526E90020

	Travelway	Left Curb	Right Curb
Length =	25.00	11.27	9.79 ft
Width =	32.85	0.50	0.50 ft(average)
Area =	91.25	0.63	0.54 sq yd

	Travelway	Left Curb	Right Curb
Length =	25.00	9.91	11.71 ft
Width =	27.55	0.50	0.50 ft(average)
Area =	76.51	0.55	0.65 sq yd

Total Approach Slab Area = Length x Width = 170 SY

526-90020 TYPE B INSTALLATION

Rear Approach

Forward Approach

Length = 33.12 ft
Width = 5.00 ft
Area = 18.40 sq yd

Length = 27.43 ft
Width = 5.00 ft
Area = 15.24 sq yd

Total Joint Mesh Area = Length x Width = 34 SY



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516-44301 ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (12.75" x 12.75" x 4.133

202E11203

202E22900 APPROACH SLAB REMOVED

202E23500

202E75260 Number = 4

503E11100

503E21300

509E10000 Total Bearings =

510E10000 = 4 EACH

511E53014

511E53014

511E53014

511E53014

512E10100 Forward Abutment

512E33000

512E71500 Number = 4

512E74000

513E10201

513E20000 Total Bearings =

513E21001 = 4 EACH

514E00050

514E00056

514E00060

514E00066

514E00502 Pier 3

514E10000

516E11210 Number = 4

516E13600

516E31000

516E44301 Total Bearings =

516E44301 = 4 EACH

516E44301

516E44401

516E46701

516E47001

518E21200 Pier 1

518E40000

518E40010 Number = 4

519E00100

526E25000

526E90020 Total Bearings =

= 4 EACH

516-46701 RESET BEARING, AS PER PLAN

Pier 2

Number = 4

Total Bearings =

= 4 EACH

516-47001 JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

Total = LUMP SUM



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518-21200 POROUS BACKFILL WITH GEOTEXTILE FABRIC

202E11203

202E22900 APPROACH SLAB REMOVED

202E23500

202E75260

	Left	Center	Right
503E11100 Length =	12.02	30.34	15.24 ft
503E21300 Width =	2.00	2.00	2.00 ft
509E10000 Depth =	6.23	5.36	4.44 ft
510E10000 Volume =	5.55	12.05	5.01 cu yd

511E53014

511E53014

511E53014

511E53014 **Backfill Volume =** Length x Width x Depth

512E10100

512E33000

512E71500

512E74000

513E10201

513E20000 Rear Abutment

513E21001

514E00050

	Left	Center	Right
514E00056 Length =	11.52	30.34	14.74 ft
514E00060 Pipe Length =	56.60 ft		

514E00066

514E00504

514E10000

516E11210

516E13600

516E31000

516E44301

516E44300 Rear Abutment

516E44301

516E44401

516E46701 Fill Width = 2.50 2.50 ft

516E47000

518E21200

518E40000

518E40010

519E00100

526E25000

526E90020

Total Pipe Length = Fill Width + Slope x Depth
= **72 FT**

Forward Abutment

	Left	Center	Right
Length =	14.76	25.74	12.47 ft
Width =	2.00	2.00	2.00 ft
Depth =	6.01	5.27	4.43 ft
Volume =	6.57	10.05	4.09 cu yd

Backfill Volume = 20.71 cu yd

Forward Abutment

	Left	Center	Right
Length =	14.26	25.74	11.97 ft
Pipe Length =	51.97 ft		

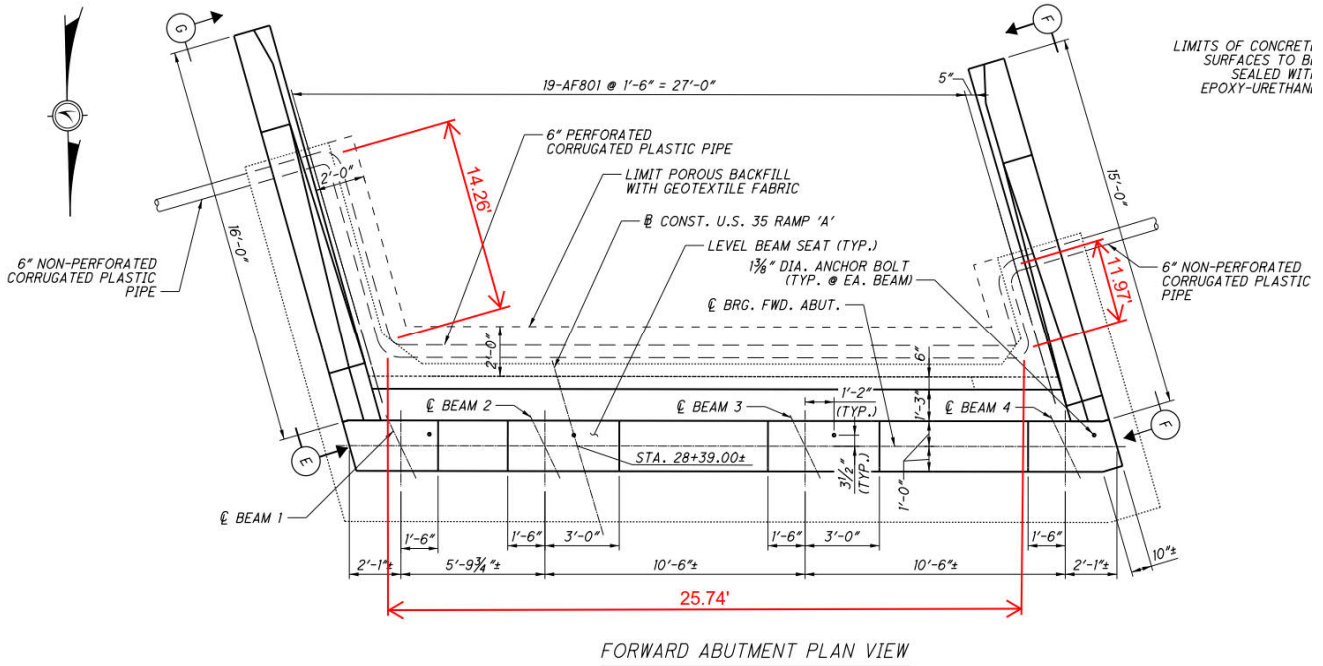
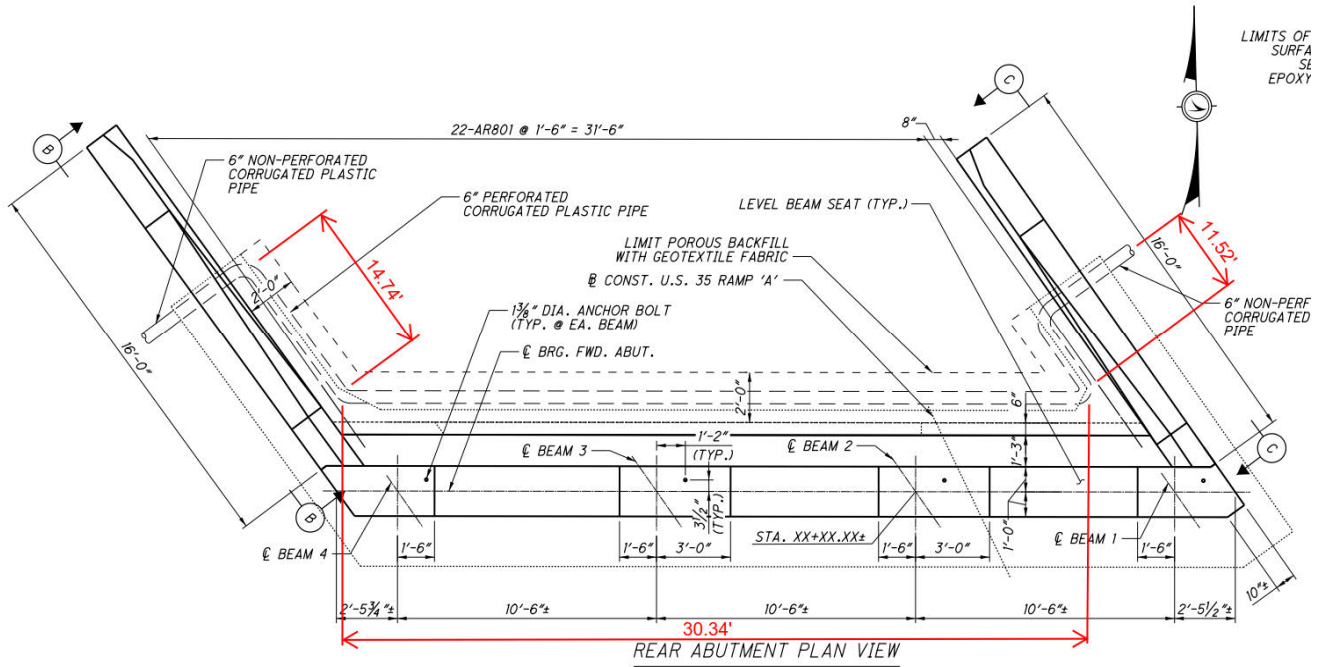
Forward Abutment

	Left	Right
Fill Width =	2.50	2.50 ft
Embankment Slope =	2 : 1	2 : 1
Depth =	8.50	7.00 ft
Length =	19.50	16.50 ft
Pipe Length =	36.00 ft	



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511-53014 CLASS QC3 CONCRETE, MISC.: WITH QC/QA, BRIDGE DECK

202E11203

202E2290 APPROACH SLAB REMOVED

202E23500

202E75260 Length = 311.36 ft
503E11100 Width = 30.00 ft
503E21300 Depth = 0.77 ft
509E10000 Volume = 266.67 cu yd
510E10000

511E53014 Beam 1 Haunch

511E53014 Haunch Depth = 3.75 in
511E53014 Flange Width = 16.66 in
512E10100 Flange Thickness = 1.68 in
512E33000 Beam Length = 309.65 ft
512E71500 Overhang Width = 28.00 in
512E74000 Volume = 10.99 cu yd
513E10201

Beam 2 Haunch

Haunch Depth = 2.75 in
Flange Width = 16.66 in
Flange Thickness = 1.68 in
Beam Length = 311.80 ft
Haunch Width = 16.66 in
Volume = 3.67 cu yd

513E20000 Beam 3 Haunch

513E21001
514E00050 Haunch Depth = 2.75 in
514E00056 Flange Width = 16.66 in
514E00060 Flange Thickness = 1.68 in
514E00066 Beam Length = 311.80 ft
514E00504 Haunch Width = 16.66 in
514E10000 Volume = 3.67 cu yd
516E11210
516E13600

Beam 4 Haunch

Haunch Depth = 2.75 in
Flange Width = 16.66 in
Flange Thickness = 1.68 in
Beam Length = 311.80 ft
Overhang Width = 24.00 in
Volume = 7.40 cu yd

516E31000 Total Deck Volume = Length x Width x Depth
516E44301 = 292.4 CY
516E44301
516E44301

516E44401

516E46701 Parapets

518E21200
518E40000
518E40010 Length = 310.50 ft
519E00100 Area = 588.00 sq in
526E25000 Volume = 46.96 cu yd
526E90020

Right
Length = 312.21 ft
Area = 588.00 sq in
Volume = 47.22 cu yd

Abutment Wings

	Rear Abutment	
	Left	Right
Length =	2.00	2.00 ft
Area =	588.00	588.00 sq in
Transition	1.82	1.82 cu yd
Volume =	2.12	2.12 cu yd

	Forward Abutment	
	Left	Right
Length =	2.00	1.00 ft
Area =	588.00	588.00 sq in
Transition	1.82	1.82 cu yd
Volume =	2.12	1.97 cu yd

Total Parapet Volume = Length x Area
= 102.5 CY



ESTIMATED QUANTITIES

Made By: CEJ
Date: 04/18/2019
Checked By: TLC
Date: 04/19/2019 Updated: 12/12/2019

511-53014 CLASS QC3 CONCRETE, MISC.: PIER

Pier 1

	Cap
Height =	1.17 ft
Width =	3.00 ft
Area =	99.07 sq ft
Bearing Extension =	1.00 ft
Extension Height =	1.52 ft
Pier 1 Volume =	4.46 cu yd

Pier 2

	Cap
Height =	0.40 ft
Width =	3.00 ft
Area =	94.32 sq ft
Bearing Extension =	1.00 ft
Extension Height =	1.55 ft
Pier 2 Volume =	1.57 cu yd

Pier 3

	Column
Number =	3
Height =	15.57 ft
Diameter =	3.00 ft
Volume =	330.17 cu ft

Pier 3 Volume = 28.51 cu yd

	Cap					
	Left End	Beam 1	Beam 2	Beam 3	Beam 4	Right End
Length =	3.00	4.75	5.00	10.50	7.75	3.00 ft
Height =	5.49	5.49	5.59	4.79	4.00	4.00 ft
Width =		3.00	3.00	3.00	3.00	ft
Volume =	19.40	78.23	83.85	150.89	93.00	14.14 cu ft

Total Pier Volume = Length x Width x Depth
= 34.5 CY



ESTIMATED QUANTITIES

Made By: CEJ
Date: 04/18/2019
Checked By: TLC
Date: 04/19/2019 Updated: 12/12/2019

511-53014 CLASS QC3 CONCRETE, MISC.: ABUTMENT

Rear Abutment

Cap	
Height =	0.82 ft
Width =	2.00 ft
Length =	36.44 ft
Bearing Extension =	1.00 ft
Extension Height =	1.48 ft
Volume =	2.32 cu yd

Wingwall		
	Left	Right
Length =	16.00 ft	16.00 ft
Height =	5.38 ft	5.28 ft
Width =	1.50 ft	1.50 ft
Volume =	4.78 cu yd	4.69 cu yd

Backwall				
	Beam 1	Beam 2	Beam 3	Beam 4
Length =	0.78 ft	11.00 ft	10.50 ft	10.50 ft
Height =	3.64 ft	3.85 ft	4.59 ft	5.33 ft
Width =	1.75 ft	1.75 ft	1.75 ft	1.75 ft
Volume =	0.18 cu yd	2.74 cu yd	3.12 cu yd	3.63 cu yd

Backwall Crown		
	Left	Right
Length =	5.05 ft	27.72 ft
Height =	1.86 ft	0.97 ft
Width =	1.75 ft	1.75 ft
Volume =	0.61 cu yd	1.74 cu yd

Keyway			
	Left	Center	Right
Length =	6.77 ft	35.26 ft	7.24 ft
Height =	0.25 ft	0.25 ft	0.25 ft
Width =	1.00 ft	1.25 ft	1.00 ft
Volume =	0.06 cu yd	0.41 cu yd	0.07 cu yd

Approach Slab Seat		
	Left	Right
Length =	5.05 ft	27.74 ft
Height =	2.48 ft	2.48 ft
Width =	0.50 ft	0.50 ft
Volume =	0.23 cu yd	1.28 cu yd

Rear Abutment Volume = 22.86 cu yd

Forward Abutment

Cap	
Height =	0.81 ft
Width =	2.00 ft
Length =	30.98 ft
Bearing Extension =	1.00 ft
Extension Height =	1.61 ft
Volume =	1.98 cu yd

Wingwall		
	Left	Right
Length =	16.00 ft	15.00 ft
Height =	5.33 ft	5.26 ft
Width =	1.50 ft	1.50 ft
Volume =	4.74 cu yd	4.38 cu yd

Backwall				
	Beam 1	Beam 2	Beam 3	Beam 4
Length =	5.54 ft	3.50 ft	10.50 ft	8.30 ft
Height =	3.81 ft	3.72 ft	4.53 ft	5.33 ft

Backwall Crown		
	Left	Right
Length =	4.32 ft	23.52 ft
Height =	1.70 ft	0.90 ft



ESTIMATED QUANTITIES

Made By: CEJ
Date: 04/18/2019
Checked By: TLC

Date: 04/19/2019 Updated: 12/12/2019

Width =	1.75	1.75	1.75	1.75 ft
Volume =	1.37	0.84	3.08	2.87 cu yd

Width =	1.75	1.75 ft
Volume =	0.48	1.37 cu yd

	Keyway		
	Left	Center	Right
Length =	9.26	29.92	5.42 ft
Height =	0.25	0.25	0.25 ft
Width =	1.00	1.25	1.00 ft
Volume =	0.09	0.35	0.05 cu yd

	Approach Slab Seat	
	Left	Right
Length =	4.32	23.52 ft
Height =	2.48	2.48 ft
Width =	0.50	0.50 ft
Volume =	0.20	1.08 cu yd

Forward Abutment Volume = 20.31 cu yd

Total Abutment Volume = Length x Width x Height
 = 43.2 CY