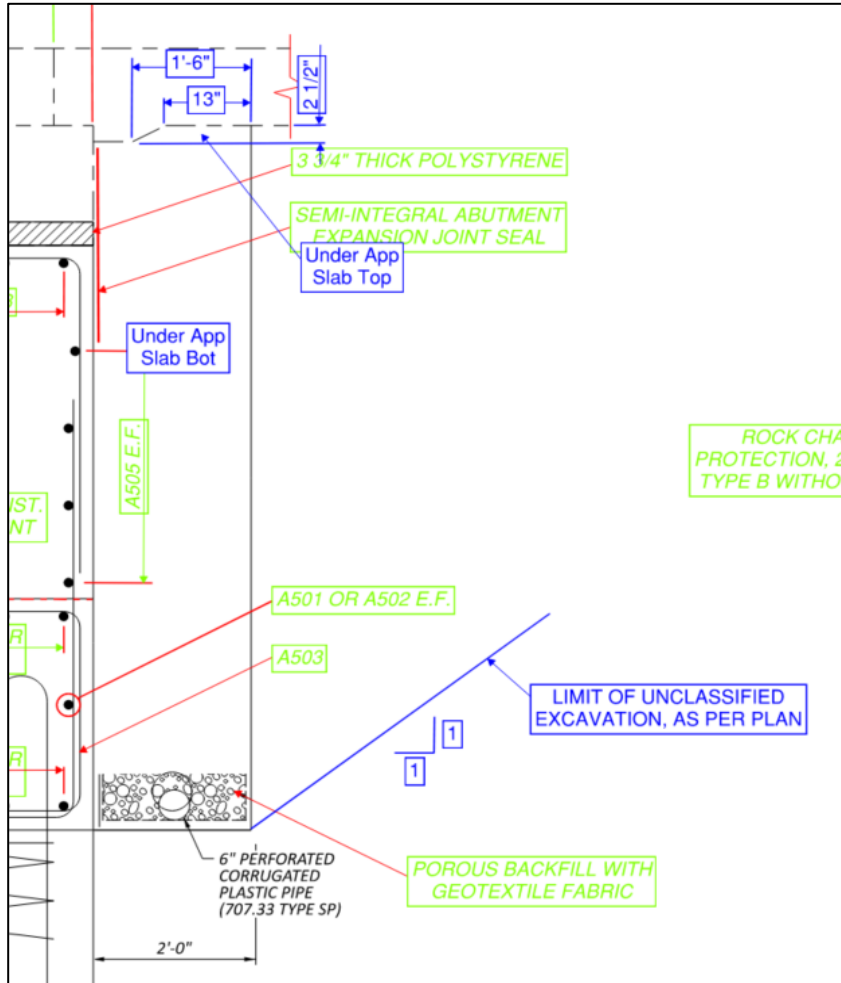




Description Quantity Calculations

503 21101 - UNCLASSIFIED EXCAVATION, AS PER PLAN



Location	Width (ft)	Height (ft)	Length (ft)	Volume	
				CF	CY
Under App Slab Top	1.292	0.208	32.500	8.75	0.32
Under App Slab Bot	2.000	9.000	32.500	585.00	21.67
Behind Por Backfill	4.500	9.000	32.500	1316.25	48.75
At Left Wing	2.000	7.980	8.000	127.68	4.73
Behind Left Wing	3.990	7.980	8.000	254.72	9.43
At Right Wing	2.000	7.980	8.000	127.68	4.73
Behind Right Wing	3.990	7.980	8.000	254.72	9.43

Total = 100.00 CY per Abutment

Grand Total = 2 Abutments x 100CY = **200 CY**

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Description Quantity Calculations**511 31610 - CLASS QC2 CONCRETE, SUPERSTRUCTURE**

Vertical Grade Deck Thickness Adjustment Factor = 1.012
 Transverse Area Deck Thickness Adjustment Factor = 1.026

Location	No.	Length (ft)	Width (ft)	Thick. (ft)	Volume	
					CF	CY
Deck	1	162.000	28.333	0.519	2383.60	88.28
App Slab Key	2	-0.500	26.000	1.000	-26.00	-0.96
Pier T-Section Top	2	3.000	28.333	0.583	99.17	3.67
Pier T-Section Bot	2	0.500	28.333	1.167	33.06	1.22
Above End Diaph	2	1.000	28.333	0.500	28.33	1.05
End Diaphragm	2	1.500	28.333	1.250	106.25	3.94
End Diaph Add'l	4	0.500	1.167	0.500	1.17	0.04

Total = **98 CY****511 41010 - CLASS QC1 CONCRETE, PIER ABOVE FOOTINGS**

Location	No.	Length (ft)	Width (ft)	Thick. (ft)	Volume	
					CF	CY
Column	3	2.677	3.000	-	56.77	2.10
Column	3	2.688	3.000	-	56.99	2.11
Flat Cap	2	4.083	3.000	3.000	73.50	2.72
Sloped Cap	2	12.167	3.000	3.095	225.94	8.37
Sloped Cap	2	12.250	3.000	3.095	227.48	8.43

Total = **24 CY****511 43510 - CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING**

Location	No.	Length (ft)	Width (ft)	Thick. (ft)	Volume	
					CF	CY
Cap	2	48.500	3.000	3.000	873.00	32.33
Flat Seat	2	4.167	3.000	4.390	109.75	4.06
Sloped Seat	2	12.167	3.000	4.485	327.41	12.13
Sloped Seat	2	12.333	3.000	4.485	331.89	12.29
Flat Wing	4	1.917	2.500	6.980	133.78	4.95
Sloped Wing	4	8.000	2.500	4.980	398.40	14.76

Total = **81 CY**

511 51510 - CLASS QC2 CONCRETE, SIDEWALK

Location	No.	Length (ft)	Width (ft)	Thick. (ft)	Volume	
					CF	CY
Flat Sidewalk	1	162.000	1.000	0.745	120.64	4.47
Sloped Sidewalk	1	161.000	4.958	0.707	564.71	20.92

Total = **26 CY**

Description Quantity Calculations**512 10050 - SEALING OF CONCRETE SURFACES (NON-EPOXY)**

Location	No.	Length (ft)	Width (ft)	Area	
				SF	SY
Beam Underside	2	157.000	0.500	157.00	17.44
Beam Side	2	157.000	1.750	549.50	61.06
Side of Deck	2	157.000	0.500	157.00	17.44
Top of Deck	2	162.000	0.167	54.00	6.00
Side of Barrier	4	162.000	2.000	1296.00	144.00
Top of Barrier	2	162.000	1.000	324.00	36.00
Outside of Sidewalk	1	162.000	0.745	120.64	13.40
Top of Sidewalk	1	161.000	5.000	805.00	89.44
Inside of Sidewalk	1	161.000	0.667	107.33	11.93

Superstructure Total = **397 SY**

Top of App SW & SI Slab	2	17.000	5.000	170.00	18.89
Inside of App SW & SI Slab	2	17.000	0.667	22.67	2.52

Approach Slab Total = **22 SY**

Front of Seat	2	28.667	3.000	172.00	19.11
Top of Seat	2	28.667	0.708	40.61	4.51
Side of Seat	4	0.500	3.000	6.00	0.67
Front of Flat Wing	4	1.917	5.600	42.93	4.77
Front of Slope Wing	4	8.000	3.600	115.20	12.80
End of Wing	4	2.500	1.500	15.00	1.67
Top of Wing	4	2.500	10.861	108.61	12.07

Abutment Total = **56 SY**

Pier Cap Top	2	28.500	0.917	52.25	5.81
Pier Cap Sides	4	28.500	3.095	352.86	39.21
Pier Cap Ends	4	3.000	3.000	36.00	4.00
Pier Cap Bottom	2	28.500	3.000	171.00	19.00
Columns	6	-7.069		-42.41	-4.71
Columns	3	2.677	3.000	75.69	8.41
Columns	3	2.688	3.000	75.99	8.44

Pier Total = **81 SY****556 SY**



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Description Quantity Calculations

516 13900 - 2" PREFORMED EXPANSION JOINT FILLER

Location	No.	Width (ft)	Height (ft)	Area SF
Btw Wing & Beam	4	2.500	2.590	25.90
				0.00
				0.00

Abutment Total = **26 SF**

516 14020 - SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL

Behind End Diaphragm = 31.667 ft
Btw LT Wing & Diaph = 4.100 ft
Btw RT Wing & Diaph = 4.100 ft

Total = 40 FT

Grand Total = 2 Abutments x 40ft = **80 FT**



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Description Quantity Calculations

517 75120 - RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING)

North side of Deck = **162 FT**

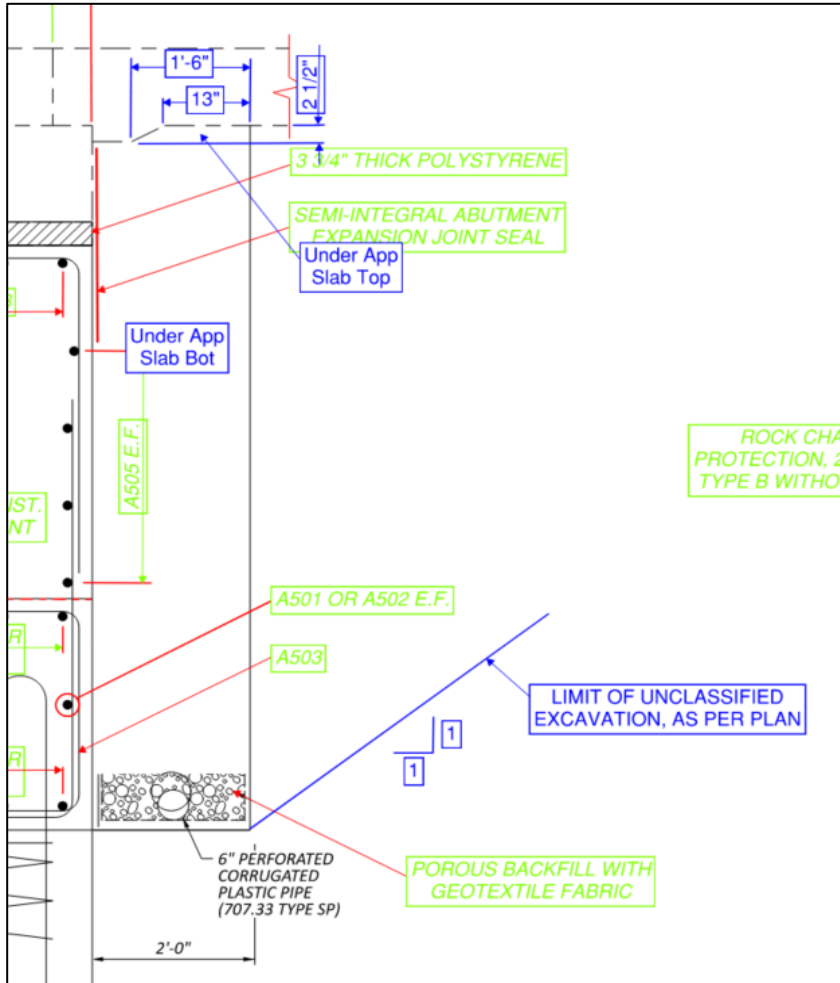
517 75121 - RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING), AS PER PLAN

South side of Deck = **162 FT**



Description Quantity Calculations

518 21200 - POROUS BACKFILL WITH GEOTEXTILE FABRIC



Location	Width (ft)	Height (ft)	Length (ft)	Volume	
				CF	CY
Under App Slab Top	1.292	0.208	32.500	8.75	0.32
Under App Slab Bot	2.000	9.000	32.500	585.00	21.67
At Left Wing	2.000	6.480	8.000	103.68	3.84
At Right Wing	2.000	6.480	8.000	103.68	3.84

Total = 30.00 CY per Abutment

Grand Total = 2 Abutments x 30CY =

60 CY

518 40000 - 6" PERFORATED CORRUGATED PLASTIC PIPE

2 Locations x 48.5ft = **97 LF**

518 40010 - 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS

4 Locations x 12ft = **48 LF**



Description Quantity Calculations

524 94604 - DRILLED SHAFTS, 30" DIAMETER, INTO BEDROCK

8 Abutment Rock Sockets x 7ft = **56 LF**

524 94702 - DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK

4 Forward Abutment Drilled Shafts x ~4' = 16 LF

4 Rear Abutment Drilled Shafts x ~6' = 24 LF

Abutment Total = **40 LF**

524 94803 - DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK, AS PER PLAN

6 Pier Shafts (639-629) = **60 LF**

524 94704 - DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK

6 Pier Shafts x 9' = **54 LF**



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Description Quantity Calculations

526 10001 - REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN

Length = 15 ft
Width = 26.5 ft

Total = 2 Slabs x 15ft x 26.5ft / 9sf/SY = **89 SY**

526 90030 - TYPE C INSTALLATION

Length = 26.50 ft

Total = 2 Slabs x 26.5 ft = **53 FT**



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Description Quantity Calculations

601 34100 - ROCK CHANNEL PROTECTION, TYPE B WITHOUT FILTER

Slope Factor = 1.118
Length = 17 ft
Width = 55 ft
Thickness = 2.5 ft

Rear Abut Volume = $1.118 \times 17\text{ft} \times 55\text{ft} \times 2.5\text{ft} / 27\text{cf/CY} = 96.79 \text{ CY}$

Slope Factor = 1.118
Length = 21 ft
Width = 55 ft
Thickness = 2.5 ft

Fwd Abut Volume = $1.118 \times 21\text{ft} \times 55\text{ft} \times 2.5\text{ft} / 27\text{cf/CY} = 119.57 \text{ CY}$

Total = $96.79\text{CY} + 119.57\text{CY} = \mathbf{217 \text{ CY}}$