



Project: LAW-775-(15.45)(15.70)
 Bridge: LAW-775-1545
 ODOT

Date: 8/26/2020
 By: RG
 Checked: GTB
 Date: 8/26/2020

QUANTITY COMPUTATIONS

DESCRIPTION: STRUCTURE REMOVED, OVER 20 FOOT SPAN

ITEM NO. 202E11002
 QUANTITY 1
 UNIT LUMP

Complete Structure Removal

	Width (ft)	Length (ft)	#	Area (SF)
Superstructure	26.00	40	1	1040.0
assume	\$20.00	SF	Total=	\$20,800.00

Retaining Wall Removal

	Area (SF)	Height (ft)	#	Volume (CY)
Retaining Wall Rear	26.80	13.16	1	13.1
Retaining Wall Rear	79.10	11.41	1	33.4
			Total=	46.5
assume	\$200.00	CY	Total=	\$9,297.92

Total Cost = \$30,097.92

Say = **\$30,000**



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QUANTITY COMPUTATIONS

DESCRIPTION: COFFERDAMS AND EXCAVATION BRACING

ITEM NO. 503E11100
QUANTITY 1
UNIT LUMP

Temporary Sheeting

Height (ft)	Length (ft)	#	Area (SF)
15	56	1	840
say		6 SF	\$5,040.00

Say = \$5,040



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QUANTITY COMPUTATIONS

DESCRIPTION: UNCLASSIFIED EXCAVATION

ITEM NO. 503E21300
 QUANTITY 1
 UNIT LUMP

	LENGTH (FT)	WIDTH (FT)	top el	bot el	HEIGHT (FT)	VOL (CF)	VOL (CY)
Rear Abutment	62	5.0	632.46	624	8.46	5950.68	220.40
Rear Wingwalls	30.1	5.0	629	624	5	752.08	27.85
Rear Wingwalls	30.1	5.0	635.75	629	6.75	1015.31	37.60
Forward Abutment	61.5	5.0	629.955	624	5.955	3466.85	128.40
Forward Wingwalls	29.9	5.0	629	624	5	747.92	27.70
Forward Wingwalls	29.9	5.0	635.75	629	6.75	1009.69	37.40
						Abut Total=	479.35

TOTAL= 479 CU YD



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QUANTITY COMPUTATIONS

DESCRIPTION:

ITEM NO. 505E11100
QUANTITY 1
UNIT LUMP



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QUANTITY COMPUTATIONS

DESCRIPTION: STEEL PILES HP 10X42, FURNISHED

ITEM NO. 507E00100
QUANTITY 775
UNIT FT

	# PILES	LENGTH	TOTAL LENGTH (FT)
REAR	16	25.00	400.0
FORWARD	15	25.00	375.0
TOTAL=			775.0

TOTAL = 775 FT



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QUANTITY COMPUTATIONS

DESCRIPTION: STEEL PILES HP 10X42, DRIVEN

ITEM NO. 507E00150
QUANTITY 620
UNIT FT

	# PILES	LENGTH	TOTAL LENGTH (FT)
REAR	16	20.0	320.0
FORWARD	15	20.0	300.0
TOTAL=			620.0

TOTAL = 620 FT



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QUANTITY COMPUTATIONS

DESCRIPTION: STEEL POINTS OR SHOES

ITEM NO. 507E93300
QUANTITY 30
UNIT EACH

	# PILES	TOTAL (EACH)
REAR	15	15.0
FORWARD	15	15.0
TOTAL=		30.0

TOTAL = 30 EACH



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QUANTITY COMPUTATIONS

DESCRIPTION: EPOXY COATED REINFORCING STEEL

ITEM NO. 509E10000
QUANTITY 10578
UNIT LB

SEE REBAR LIST FOR CALCULATIONS.

Total

TOTAL= 10578 LB



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QUANTITY COMPUTATIONS

Date: 8/26/2020
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DESCRIPTION: CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING

ITEM NO. 511E46010
 QUANTITY 18
 UNIT CU YD

Wingwall

	Length	Ht (ft.)	Area (ft^2)	Width (ft.)	#	Total (CF)
Wingwall 1	15.165	8.25	125.11	1.00	1	125.11
Wingwall 1	2.07	8.75	18.14	1.00	1	18.14
Wingwall 2	9.79	7.25	70.99	1.00	1	70.99
Wingwall 2	2.13	8.75	18.59	1.00	1	18.59
Wingwall 3	11.75	7.25	85.19	1.00	1	85.19
Wingwall 3	2.21	8.75	19.32	1.00	1	19.32
Wingwall 4	15.165	8.25	125.11	1.00	1	125.11
Wingwall 4	2.07	8.75	18.14	1.00	1	18.14

WW Concrete Total= 462.45 17.13 CU. YD

TOTAL= 18.0 CU YD



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QUANTITY COMPUTATIONS

DESCRIPTION: CLASS QC1 CONCRETE, FOOTING

ITEM NO. 511E46510
 QUANTITY 68
 UNIT CU YD

culvert footing width= 3 ft
 culvert footing height= 3.5 ft

Footing Top EL= 627.50
 Footing Bottom EL.= 624.00

Footing

	Area (ft ²)	Ht (ft.)	Width (ft)	Len (ft)	#	Total (CF)
Rear Footing	255.93	3.50			1	895.76
Forward Footing	261.54	3.50			1	915.39
Culvert Notch						0.00

Abutment Total= 1811.15

TOTAL= 68.0 CU YD



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QUANTITY COMPUTATIONS

DESCRIPTION: CLASS QC1 CONCRETE, HEADWALL

ITEM NO. 511E46610
 QUANTITY 2
 UNIT CU YD

Headwall

	Area	Ht (ft.)	#	Total (CF)	
Headwall 1	36	0.50	2	36.00	1.33 CU YD

TOTAL= 2.0 CU YD



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QUANTITY COMPUTATIONS

DESCRIPTION: SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ITEM NO. 512E10100
 QUANTITY 87
 UNIT SQ YD

	Sealing Ht (ft)	Width (ft)	Length (ft)	Width (ft)	Face Area (SF)	#	Area (SF)	Area (SY)
REAR HEADWALL/CULVERT	5.00	36.00				1	180.00	20.0
WW#1	6.13		15.33		93.91	1	93.91	10.4
WW#1	8.75		2.25		19.69	1	19.69	2.2
WW#2	6.13		10.00		61.25	1	61.25	6.8
WW#2	8.75		2.33		20.41	1	20.41	2.3
					Rear Abutment Total=		375.3	41.7
FORWARD EADWALL/CULVERT	5.00	36.00				1	180.00	20.0
WW#3	6.13		12.00		73.50	1	73.50	8.2
WW#3	8.75		2.50		21.88	1	21.88	2.4
WW#4	6.13		15.33		93.90	1	93.90	10.4
WW#4	8.75		2.25		19.69	1	19.69	2.2
					For Abutment Total=		389.0	43.2
					Abutments Total=		764.2	84.91

TOTAL= 764.22 87.0 SQ YD



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QUANTITY COMPUTATIONS

DESCRIPTION: TYPE 2 WATERPROOFING

ITEM NO. 512E33000
 QUANTITY 117
 UNIT SY

		Height (FT)	Length (FT)	No Legs	Total (SF)	Total (SY)
Culvert Top Slab Thickness (FT)	1.5	8.25	58	2	957	106
Culvert Rise (FT)	7					
Extra 3' Width at PEJF		8.25	3	4	99	11

Total = 117 SY



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QUANTITY COMPUTATIONS

DESCRIPTION: TYPE 3 WATERPROOFING

ITEM NO. 512E33010
QUANTITY 233
UNIT SQ YD

	Length (ft)	Height (ft)	#	Area (SF)
Culvert Top	55	38	1	2090

Total= 2090.00

TOTAL = 233 SQ YD



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QUANTITY COMPUTATIONS

DESCRIPTION: 1" PREFORMED EXPANSION JOINT FILLER

ITEM NO. 516E13600
QUANTITY 35
UNIT SQ FT

	<i>Area (SF)</i>	<i>#</i>
WW 1	8.75	4.00

Area
35.0

TOTAL= 35.0

TOTAL = 35.0 SQ FT



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QUANTITY COMPUTATIONS

DESCRIPTION: POROUS BACKFILL WITH GEOTEXTILE FABRIC

ITEM NO. 518E21200
 QUANTITY 13
 UNIT CU YD

Porous backfill behind wingwalls only

	<i>Area (SF)</i>	<i>Width</i>	<i>#</i>		
Wingwall 1	52.83	2	1	105.66	3.91
Wingwall 2	28.80	2	1	57.60	2.13
Wingwall 3	32.10	2	1	64.20	2.38
Wingwall 4	52.83	2	1	105.66	3.91
				ABUTMENTS TOTAL=	12.34

TOTAL = 13.0 CU YD



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QUANTITY COMPUTATIONS

DESCRIPTION: CONDUIT, TYPE A, PRECAST REINFORCED CONCRETE THREE SIDED FLAT TOPPED CULVERT (34'-0" SPAN x 7'-0" RISE)

ITEM NO. 611E70000
 QUANTITY 56
 UNIT FT

Width (FT)	#	Total (FT)
56	1	56
		Total= 56

TOTAL = 56 FT