

Industrial Rail Corridor Expansion Project
Port of Longview

Cost Estimate - Preliminary

Summary - Order of Magnitude Estimate of Probable Construction Cost

February 7, 2019



Item	Phase 1 Quantity	Full Build Quantity	Unit	Unit Cost	Phase 1 Total	Full Build Total	Notes
Mobilization & Site Preparation							
1 Mobilization (5%)	1	1	LS	\$3,222,521.93	\$2,554,317	\$3,222,520	See note 3
2 Utility Locates	1	1	LS	\$1,800.00	\$1,800	\$1,800	
3 TESC BMPs	1	1	LS	\$61,435.00	\$61,440	\$61,440	
4 Cofferdam and Dewatering for Utilities	1	1	LS	\$150,000.00	\$150,000	\$150,000	Allowance, Pond crossing, ~25% of crossing costs
5 Construction Stormwater Sediment Removal	1	1	LS	\$220,000.00	\$220,000	\$220,000	Allowance for pumps and tanks during construction
6 Small Building Demolition, Haul, and Disposal	400	400	SF	\$5.00	\$2,000	\$2,000	Sheds and truck scale buildings
7 Building Demolition, Haul, and Disposal	26,000	26,000	SF	\$12.00	\$312,000	\$312,000	Main landfill building
8 Clearing and Grubbing	30	30	AC	\$10,000.00	\$300,000	\$300,000	
9 Remove Trees	290	290	EA	\$150.00	\$43,500	\$43,500	Cost to get area to strippable conditions
10 HMA Sawcut	867	867	LF	\$2.90	\$2,510	\$2,510	4" HMA Sawcut
11 Remove Pavement	9,152	9,152	SY	\$7.00	\$64,060	\$64,060	HMA removal. Unknown depth. Assumed 4"
12 Remove Light Poles	8	8	EA	\$300.00	\$2,400	\$2,400	
13 Remove Bollards	50	50	EA	\$26.00	\$1,300	\$1,300	
14 Remove Hydrant	2	2	EA	\$750.00	\$1,500	\$1,500	
15 Remove Tipping Wall	250	250	LF	\$28.00	\$7,000	\$7,000	RS Means
16 Remove Masonry Wall	700	700	LF	\$3.10	\$2,170	\$2,170	RS Means
17 Remove Chainlink Fence	830	830	LF	\$2.30	\$1,910	\$1,910	RS Means
18 Remove Track	3,510	3,510	TF	\$16.75	\$58,790	\$58,790	North Lead
19 Remove Turnout	5	5	EA	\$7,500.00	\$37,500	\$37,500	North Lead
20 Removal and Disposal of Contaminated Materials	7,172	7,172	CY	\$75.00	\$537,900	\$537,900	Assume all landfill material is contaminated
21 Remove and Haul Storage Tank	1	1	EA	\$2,000.00	\$2,000	\$2,000	1,000 Gal wash pad tank
22 Protect Existing Monitoring Well	4	4	EA	\$900.00	\$3,600	\$3,600	
23 Adjust Monitoring Well	1	1	EA	\$1,400.00	\$1,400	\$1,400	
24 Utility Demolition	1,600	1,600	LF	\$10.00	\$16,000	\$16,000	400 LF Water, 1200 LF Sewer
25 CDF for Culvert Abandonment	227	227	CY	\$42.00	\$9,530	\$9,530	3x 36" Culverts under existing corridor
26 Remove Transmission Pole Station	3	3	EA	\$8,000.00	\$24,000	\$24,000	assume costs to hold line and any PUD review costs
27 Existing Catch Basin Demolition	3	3	EA	\$242.00	\$730	\$730	
28 De-Mobilization (5%)	1	1	LS	\$3,222,521.93	\$2,554,317	\$3,222,520	See note 3
Subtotal - Mobilization & Site Preparation					\$6,973,673	\$8,310,080	

Surface Improvements							
29 Unsuitable Excavation and Replacement	676	676	CY	\$44.00	\$29,740	\$29,740	Allowance
30 Excavation and Backfill	6,804	6,804	CY	\$10.50	\$71,440	\$71,440	Utility Trenching, 96" culvert trenching
31 Excavation Placed Onsite as Fill	2,028	2,028	CY	\$10.50	\$21,290	\$21,290	West end excavation
32 Embankment, general granular fill	493,242	493,242	CY	\$32.50	\$16,030,370	\$16,030,370	Kerr estimate
33 Embankment, small select granular fill, in water	65,722	65,722	CY	\$45.50	\$2,990,350	\$2,990,350	Kerr estimate
34 Embankment, small select granular fill, land based	74,766	74,766	CY	\$25.00	\$1,869,150	\$1,869,150	
35 Embankment, large select granular fill	327,897	327,897	CY	\$37.00	\$12,132,190	\$12,132,190	Kerr estimate
36 Geotextile - Embankment	101,757	101,757	SY	\$17.00	\$1,729,870	\$1,729,870	Kerr estimate
37 Geotextile - Land Based	159,797	159,797	SY	\$1.60	\$255,680	\$255,680	Kerr estimate
38 Embankment, general granular fill, surcharge material	115,075	115,075	CY	\$32.50	\$3,739,940	\$3,739,940	
39 Access Roads	2,757	4,363	CY	\$53.00	\$146,120	\$231,240	
40 Inspection Roads	13,654	25,438	CY	\$53.00	\$723,660	\$1,348,210	
41 Hot Mix Asphalt Pavement, 3" thickness	201	201	TN	\$120.00	\$24,120	\$24,120	Only where BNSF existing is replaced
42 Crash Walls	1	1	ALLOW	\$150,000.00	\$150,000	\$150,000	
43 Pipe Gate	1	1	EA	\$3,500.00	\$3,500	\$3,500	
44 Guardrail	0	7,073	LF	\$34.00	\$0	\$240,480	Not shown on 1-25 set, South Side Only, 8 FT posts
Subtotal - Surface Improvements					\$39,917,420	\$40,867,570	

Storm Drainage Improvements							
45 Catch Basin, WSDOT Type 1	5	5	EA	\$1,950.00	\$9,750	\$9,750	
46 Catch Basin, WSDOT Type 2, 48"	1	1	EA	\$4,250.00	\$4,250	\$4,250	
47 Catch Basin, WSDOT Type 2, 72"	1	1	EA	\$9,035.00	\$9,035	\$9,035	
48 Catch Basin, WSDOT Type 2, 120"	2	2	EA	\$26,700.00	\$53,400	\$53,400	
49 Storm Drain Line, 12" PVC	214	214	LF	\$51.50	\$11,021	\$11,021	
50 Track Subdrain, 8" dia.	2,027	2,027	LF	\$24.50	\$49,662	\$49,662	Includes trenching, storm drain pipe, drain rock, geotextile and backfill to top of pipe bedding.
51 Storm Drain Subdrain Cleanout	9	9	EA	\$750.00	\$6,750	\$6,750	PVC cleanouts with concrete collar and cast iron frame and cap.

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52 Culvert, 18" dia.	90	90	LF	\$36.30	\$3,987	\$3,987	Rsmmeans plus trenching
53 Culvert, 24" dia.	496	496	LF	\$47.30	\$28,421	\$28,421	Rsmmeans plus trenching
54 Culvert, 30" dia.	505	505	LF	\$69.30	\$40,047	\$40,047	Rsmmeans plus trenching
55 Culvert, 36" dia.	534	534	LF	\$74.25	\$46,058	\$46,058	Rsmmeans plus trenching
56 Culvert, 48" dia.	114	114	LF	\$99.55	\$12,717	\$12,717	Rsmmeans plus trenching
57 Culvert, 96" dia., 12GA	1	1	EA	\$160,810.00	\$160,810	\$160,810	600 LF Contec Estimate. Includes Freight & Installation Brackets. Options for Aluminized or Aluminum CMP. +30% markup for contractor
58 Infiltration Trench, Gravel	6,672	6,672	TN	\$24.00	\$160,136	\$160,136	Specific Weight = 1.48 TON / CY. \$20/TN from North Lead. \$24/TN from WSDOT Bid Tab
59 Infiltration Trench, Sand	6,113	6,113	TN	\$18.00	\$110,038	\$110,038	Specific Weight = 1.22 TON / CY. Cost escalated from WSDOT Bid tabs (Std. Item No. 04-
60 Infiltration Trench, Geotextile Liner	35,927	35,927	SY	\$2.57	\$92,331	\$92,331	Cost from WSDOT Bid Tabs (Std. Item No. 7530 Construction Geotextile for Separation) = :
61 Culvert Rock Pad Erosion Control	13	13	CY	\$76.00	\$988	\$988	Cost from WSDOT Bid tabs (Std. Item No. 0924 Rock for Erosion and Scour Protection Cla
62 Culvert Headwalls	322	322	CY	\$900.00	\$289,800	\$289,800	
63 Finger Slough Dredging/Excavation	1,444	1,444	CY	\$55.00	\$79,420	\$79,420	\$50 per cubic yards plus 10% mobilization
64 Shoreline Erosion Protection - Rip Rap - 2' deep	325	325	CY	\$64.50	\$20,963	\$20,963	
Subtotal - Storm Drainage Improvements					\$1,189,582	\$1,189,582	

Utility Improvements

65 Lighting - New Yard Poles	4	4	EA	\$8,000.00	\$32,000	\$32,000	P77 40' Pole Unit
66 Lighting - Handholes	4	4	EA	\$2,100.00	\$8,400	\$8,400	P77
67 Lighting - Light Pole Foundations	4	4	EA	\$4,380.00	\$17,520	\$17,520	P77 40' Pole Unit
68 Lighting power service	2	2	EA	\$35,000.00	\$70,000	\$70,000	
69 Water - 8" Backflow Preventer - Relocate	2	2	EA	\$4,000.00	\$8,000	\$8,000	SWAG
70 Water - 8" Gate Valve - Relocation	2	2	EA	\$2,500.00	\$5,000	\$5,000	SWAG
71 Power - Relocate Distribution Pole	2	2	EA	\$10,000.00	\$20,000	\$20,000	
72 Power - Relocate Transmission Pole Station	2	2	EA	\$25,000.00	\$50,000	\$50,000	Rsmmeans, SIA
73 Water - 12" HDPE	670	670	LF	\$42.20	\$28,270	\$28,270	Rsmmeans
74 12" Water	665	665	LF	\$120.00	\$79,800	\$79,800	RS means
75 Water - 24" Casing	385	385	LF	\$350.00	\$134,750	\$134,750	Rsmmeans
76 Sewer - Manhole	1	1	EA	\$5,450.00	\$5,450	\$5,450	Rsmmeans
77 Sewer - 36" HDPE Force Main	665	665	LF	\$220.00	\$146,300	\$146,300	Rsmmeans
78 Sewer - 48" Casing	385	385	LF	\$770.00	\$296,450	\$296,450	Rsmmeans
79 Sewer - 36" Elbows	5	5	EA	\$1,235.00	\$6,180	\$6,180	Rsmmeans
80 Connect to Three Rivers Water and Sewer Pipelines	1	1	ALLOW	\$50,000.00	\$50,000	\$50,000	
81 Compressed air system power service	1	1	ALLOW	\$50,000.00	\$50,000	\$50,000	
Subtotal - Utility Improvements					\$1,008,120	\$1,008,120	

Railroad Improvements

82 Furnish and Install Track	33673	76247	TF	\$240.00	\$8,081,520	\$18,299,280	
83 Furnished and Install Turnout, No 11	3	12	EA	\$119,000.00	\$357,000	\$1,428,000	From SIA SOV
84 Furnished and Install Turnout, No 15	3	8	EA	\$140,000.00	\$420,000	\$1,120,000	
85 Compressed Air Piping	612	612	LF	\$15.00	\$9,180	\$9,180	
86 Dual Air Connection Pit	3	5	EA	\$5,800.00	\$17,400	\$29,000	
87 Air System Shed	1	1	EA	\$35,000.00	\$35,000	\$35,000	

Subtotal - Railroad Improvements - On-Site **\$8,920,100** **\$20,920,460**

Design Contingency (10%) **\$5,800,889** **\$7,229,581**

Subtotal - Estimate of Bid (2019 \$) **\$63,809,784** **\$79,525,393**

Washington State Sales Tax (7.8%) \$4,977,163.17 \$6,202,980.64

Subtotal **\$68,786,947** **\$85,728,373**

Construction Contingency (10%) \$6,878,695 \$8,572,837
Total Estimate of Probable Construction Cost (2019 \$) **\$75,665,642** **\$94,301,211**

Notes and Assumptions:

1	Estimate based on 2019 dollars, no escalation is included.
2	Estimate does not include costs for Pacific Fibre access road, or associated earthwork.
3	Mobilization and Demobilization unit costs shown are for full build only. The phase 1 unit cost and total cost for mobilization and demobilization are calculated in the Phase 1 Total column.