

Appendix G – Opinion of Probable Construction Costs

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TABLE 1
ALL-LIMA RAILROAD GRADE SEPARATION
ALTERNATIVE 2A (ELM STREET OVERPASS) PRELIMINARY COST ESTIMATE

DESCRIPTION	ITEM	ITEM EXTENSION	QUANTITY	UNIT	\$/UNIT	TOTAL \$
ROADWAY						
Clearing and Grubbing	201	11000	5	Acre	\$1,100	\$5,062
Excavation	203	10000	2526	Cu. Yd.	\$10	\$25,260
Embankment	203	20000	114464	Cu. Yd.	\$8	\$915,712
Subgrade Compaction	204	10000	17458	Sq. Yd.	\$1	\$17,458
Proof Rolling	204	45000	6	Hours	\$80	\$466
Guardrail, Type 5	606	13000	1013	Lin. Ft.	\$12	\$12,150
Anchor Assembly, Type E-98	606	22010	3	Each	\$2,000	\$6,000
Bridge Terminal Assembly, Type 1	606	35000	2	Each	\$1,200	\$2,400
6" Concrete Walk	608	13000	41908	Sq. Ft.	\$5	\$209,542
ROADWAY SUBTOTAL						\$1,194,049
EROSION CONTROL						
Erosion Control	832	30000	1	Lump	\$24,000	\$24,000
Seeding and Mulching	659	10000	10236	Sq. Yd.	\$1	\$10,236
EROSION CONTROL SUBTOTAL						\$34,236
DRAINAGE						
12-15" Conduit, Type B	603	8900	2227	Lin. Ft.	\$55	\$122,483
Catch Basin, No. 3A	604	00800	40	Each	\$1,600	\$64,000
Catch Basin, No. 3	604	00400	8	Each	\$2,200	\$17,600
Manhole Adjusted to Grade	604	34500	13	Each	\$400	\$5,200
Manhole, No. 3	604	31500	13	Each	\$2,000	\$26,000
4" Shallow Pipe Underdrain	605	05100	8247	Lin. Ft.	\$8	\$65,977
Class C Concrete, Headwall	511	46600	0.2	Cu. Yd.	\$800	\$160
DRAINAGE SUBTOTAL						\$301,420
PAVEMENT						
Asphalt Concrete Base, PG64-22 (8")	301	46000	3879	Cu. Yd.	\$125	\$484,935
Aggregate Base (6")	304	20000	2910	Cu. Yd.	\$38	\$110,565
Aggregate Base (7")	304	20000	3395	Cu. Yd.	\$38	\$128,993
Tack Coat for Intermediate Course	407	14000	698	Gallons	\$3	\$2,095
Asphalt Concrete Surface Course, Type 1, PG64-22 (1.5")	446	47020	606	Cu. Yd.	\$110	\$66,679
Asphalt Concrete Int. Course, Type 1, PG64-22 (1.5")	448	46020	606	Cu. Yd.	\$160	\$96,987
10" Reinforced Concrete Pavement	451	15000	300	Sq. Yd.	\$55	\$16,511
6" Non-Reinforced Concrete Pavement	452	10000	1767	Sq. Yd.	\$35	\$61,850
Combination Curb and Gutter, Type 2	609	12000	8247	Lin. Ft.	\$17	\$140,201
Curb, Type 6	609	26000	1373	Lin. Ft.	\$13	\$17,844
Mountable Curb, As Per Plan	609	Special	302	Lin. Ft.	\$13	\$3,921
PAVEMENT SUBTOTAL						\$1,130,580
UTILITIES-DOES NOT INCLUDE PRIVATE UTILITY RELOCATIONS						
Waterline Removals			4613	Lin. Ft.	\$10	\$46,130
Waterline Relocations			4613	Lin. Ft.	\$150	\$691,953
Waterline Service Removals			53	Each	\$1,600	\$84,800
Waterline Service Relocations			44	Each	\$1,600	\$70,400
UTILITIES SUBTOTAL						\$893,283
TRAFFIC CONTROL						
Traffic Signs			0.62	Mile	\$150,000	\$93,000
Edge Line	642	00100	0.62	Mile	\$3,000	\$1,860
Center Line	642	00300	0.62	Mile	\$4,000	\$2,480
Channelizing Line	642	00390	260	Ft.	\$1	\$260
Transverse Line	642	00690	190	Ft.	\$3	\$570
TRAFFIC CONTROL SUBTOTAL						\$98,170
TRAFFIC SIGNALS						
Traffic Signals	632		1	Each	\$120,000	\$120,000
TRAFFIC SIGNALS SUBTOTAL						\$120,000
LIGHTING						
Lighting			1700	Lin. Ft.	\$35	\$59,500
Roundabout Lighting			1	Each	\$80,000	\$80,000
LIGHTING SUBTOTAL						\$139,500
LANDSCAPING						
Roadway Relocation			1	Lump	\$715,625	\$715,625
Roundabout			1	Lump	\$25,000	\$25,000
LANDSCAPING SUBTOTAL						\$740,625
RETAINING WALLS						
Retaining Wall - Related Items Included			39807	Sq. Ft.	\$95	\$3,781,665
Concrete Coping, Misc., Sleeper Slab and Parapet	840	26001	795	Lin. Ft.	\$260	\$206,700
RETAINING WALLS SUBTOTAL						\$3,988,365
BUILDING DEMOLITION						
Building Demolished	202	56000	16	Each	\$10,000	\$160,000
BUILDING DEMOLITION SUBTOTAL						\$160,000
STRUCTURES						
Bridge - Related Items Included (Including Approach Slab and Sidewalk)			4325	Sq. Ft.	\$160	\$692,000
STRUCTURES SUBTOTAL						\$692,000
					SUBTOTAL	\$9,492,229
Maintaining Traffic (3% of Total Construction Cost)			1	Lump	\$284,767	\$284,767
Field Office, Type A	610	16300	24	Month	\$1,000	\$24,000
Construction Layout Stakes (0.75% of Total Construction Cost)	623	10000	1	Lump	\$71,192	\$71,192
Mobilization (Per ODOT CMS)	624	10000	1	Lump	\$200,000	\$200,000
Subtotal						\$10,072,187
25% Contingency + 11% Inflation						\$3,625,987
Railroad Force Account						\$1,000,000
Performance Bond (0.75% OF Total Construction Cost)			1	Lump	\$71,192	\$71,192
Railroad Insurance Bond			1	Lump	\$10,000	\$10,000
Right-of-Way						\$2,921,750
GRAND TOTAL						\$17,700,000

This estimate represents our Professional Opinion of the Probable Project Construction Cost. The estimate is taken from the historical bid data provided by ODOT for the year 2010. For items where historical bid data provided by ODOT was not available, other similar bid data sources were used to determine costs.

In providing estimates of probable construction cost, the Client understands that the Consultant has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the Consultant's opinions of probable construction costs are made on the basis of the Consultant's professional judgment and experience. The Consultant makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from the Consultant's opinion of the probable construction cost.

TABLE 2
ALL-LIMA RAILROAD GRADE SEPARATION
ALTERNATIVE 2B (ELM STREET UNDERPASS) PRELIMINARY COST ESTIMATES

DESCRIPTION	ITEM	ITEM EXTENSION	QUANTITY	UNIT	\$/UNIT	TOTAL \$
ROADWAY						
Clearing and Grubbing	201	11000	5	Acre	\$1,100	\$4,966
Curb Removed	202		20	Lin. Ft.	\$5.00	\$100
Excavation	203	10000	64525	Cu. Yd.	\$10	\$645,250
Rock Excavation	203	10000	300	Cu. Yd.	\$100	\$30,000
Embankment	203	20000	440	Cu. Yd.	\$8	\$3,520
Subgrade Compaction	204	10000	16145	Sq. Yd.	\$1	\$16,145
Proof Rolling	204	45000	5	Hours	\$80	\$431
FD Pavement Removal and Rigid Replacement	255		16	Sq. Yd.	\$400	\$6,400
Fence, Type 47	607	15000	1111	Lin. Ft.	\$6	\$6,666
6" Concrete Walk	608	13000	38366	Sq. Ft.	\$5	\$191,830
ROADWAY SUBTOTAL						\$905,308
EROSION CONTROL						
Erosion Control	832	30000	1	Lump	\$35,000	\$35,000
Seeding and Mulching	659	10000	11929	Sq. Yd.	\$1	\$11,929
EROSION CONTROL SUBTOTAL						\$46,929
DRAINAGE						
12-15" Conduit, Type B	603		2095	Lin. Ft.	\$55	\$115,225
30" Conduit, AWWA C-905	604		1380	Lin. Ft.	\$200	\$276,000
30" Pipe in 54" Casing Pipe, As Per Plan	SPEC		300	Lin. Ft.	\$800	\$240,000
Catch Basin, No. 3A	604	00800	38	Each	\$1,600	\$60,800
Catch Basin, No. 3	604	00400	6	Each	\$2,200	\$13,200
Manhole, No. 3	604	31500	18	Each	\$2,000	\$36,000
Manhole Adjusted to Grade	604	34500	8	Each	\$400	\$3,200
4" Shallow Pipe Underdrain	605	05100	7472	Lin. Ft.	\$8	\$59,775
Endwall	611		1	Each	\$2,800	\$2,800
Water Quality Structure	SPEC		1	Each	\$15,000	\$15,000
Stormwater Back Flow Prevention Valve	SPEC		1	Each	\$15,000	\$15,000
Dewatering	SPEC		1	LS	\$75,000	\$75,000
DRAINAGE SUBTOTAL						\$912,000
PAVEMENT						
Asphalt Concrete Base, PG64-22 (8")	301	46000	3588	Cu. Yd.	\$125	\$448,480
Aggregate Base (6")	304	20000	2691	Cu. Yd.	\$38	\$102,253
Aggregate Base (7")	304	20000	3198	Cu. Yd.	\$38	\$121,514
Tack Coat for Intermediate Course	407	14000	646	Gallons	\$3	\$1,937
Asphalt Concrete Surface Course, Type 1, PG64-22 (1.5")	446	47020	561	Cu. Yd.	\$110	\$61,666
Asphalt Concrete Int. Course, Type 1, PG64-22 (1.5")	448	46020	561	Cu. Yd.	\$160	\$89,696
10" Reinforced Concrete Pavement	451	15000	300	Sq. Yd.	\$55	\$16,511
6" Non-Reinforced Concrete Pavement	452	10000	1179	Sq. Yd.	\$35	\$41,259
Combination Curb and Gutter, Type 2	609	12000	7472	Lin. Ft.	\$17	\$127,021
Curb, Type 6	609	26000	1393	Lin. Ft.	\$13	\$18,104
Mountable Curb, As Per Plan	609	Special	302	Lin. Ft.	\$13	\$3,921
PAVEMENT SUBTOTAL						\$1,032,362
UTILITIES-DOES NOT INCLUDE PRIVATE UTILITY RELOCATIONS						
Waterline Removals			4290	Lin. Ft.	\$10	\$42,897
Waterline Relocations			4290	Lin. Ft.	\$150	\$643,461
Water Service Removals			48	Each	\$1,600	\$76,800
Water Service Relocations			39	Each	\$1,600	\$62,400
UTILITIES SUBTOTAL						\$825,558
TRAFFIC CONTROL						
Traffic Signs			0.62	Mile	\$150,000	\$93,000
Edge Line	642	00100	0.62	Mile	\$3,000	\$1,860
Center Line	642	00300	0.62	Mile	\$4,000	\$2,480
TRAFFIC CONTROL SUBTOTAL						\$97,340
TRAFFIC SIGNALS						
Traffic Signals	632		1	Each	\$120,000	\$120,000
TRAFFIC SIGNALS SUBTOTAL						\$120,000
LIGHTING						
Lighting			1700	Lin. Ft.	\$35	\$59,500
Roundabout Lighting			1	Each	\$80,000	\$80,000
LIGHTING SUBTOTAL						\$139,500
LANDSCAPING						
Roadway Relocation			1	Lump	\$715,625	\$715,625
Roundabout			1	Lump	\$25,000	\$25,000
LANDSCAPING SUBTOTAL						\$740,625
RETAINING WALLS						
Retaining Wall - Related Items Included			21909	Sq. Ft.	\$95	\$2,081,355
RETAINING WALLS SUBTOTAL						\$2,081,355
BUILDING DEMOLITION						
Building Demolished	202	56000	16	Each	\$10,000	\$160,000
BUILDING DEMOLITION SUBTOTAL						\$160,000
STRUCTURES						
Bridge - Related Items Included			1186	Sq. Ft.	\$550	\$652,300
Retaining Walls for Temporary Runaround			1	Lump	\$350,000	\$350,000
Temporary Railroad Runaround			1	Lump	\$350,000	\$350,000
STRUCTURES SUBTOTAL						\$1,352,300
					SUBTOTAL	\$8,413,276
Maintaining Traffic (3% of Total Construction Cost)			1	Lump	\$252,398	\$252,398
Field Office, Type A	610	16300	24	Month	\$1,000	\$24,000
Construction Layout Stakes (0.75% of Total Construction Cost)	623	10000	1	Lump	\$63,100	\$63,100
Mobilization (Per ODOT CMS)	624	10000	1	Lump	\$200,000	\$200,000
Subtotal						\$8,952,774
25% Contingency + 11% Inflation						\$3,222,999
Railroad Force Account						\$2,000,000
Performance Bond (0.75% OF Total Construction Cost)			1	Lump	\$63,100	\$63,100
Railroad Insurance Bond			1	Lump	\$35,000	\$35,000
Right-of-Way						\$3,079,020
GRAND TOTAL						\$17,350,000

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