



**Downtown Westminster  
Smart City  
Mobility Initiative**

TIGER IX DISCRETIONARY GRANT PROJECT  
FISCAL YEAR 2017

**ATTACHMENT A -  
DETAILED COST ESTIMATES**



**BUDGET INFORMATION - Construction Programs**

*NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.*

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="0.00"/>
2. Land, structures, rights-of-way, appraisals, etc.	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="0.00"/>
3. Relocation expenses and payments	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="0.00"/>
4. Architectural and engineering fees	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="0.00"/>
5. Other architectural and engineering fees	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="0.00"/>
6. Project inspection fees	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="731,000.00"/>
7. Site work	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="0.00"/>
8. Demolition and removal	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="233,220.00"/>
9. Construction	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="6,297,896.40"/>
10. Equipment	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="0.00"/>
11. Miscellaneous	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="0.00"/>
12. SUBTOTAL (sum of lines 1-11)	\$ <input type="text" value="7,262,116.40"/>	\$ <input type="text" value="0.00"/>	\$ <input type="text" value="7,262,116.40"/>
13. Contingencies	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="784,000.00"/>
14. SUBTOTAL	\$ <input type="text" value="8,046,116.40"/>	\$ <input type="text" value="0.00"/>	\$ <input type="text" value="8,046,116.40"/>
15. Project (program) income	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="0.00"/>
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ <input type="text" value="8,046,116.40"/>	\$ <input type="text" value="0.00"/>	\$ <input type="text" value="8,046,116.40"/>
<b>FEDERAL FUNDING</b>			
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter eligible costs from line 16c Multiply X <input type="text"/> % Enter the resulting Federal share.			\$ <input type="text" value="5,000,000.00"/>

## ENGINEER'S DETAILED ESTIMATE METHOD

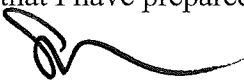
Project Name: <u>Sheridan Boulevard Widening &amp; Underpass North of 88<sup>th</sup> Avenue</u>
Road/Facility Name: <u>Sheridan Boulevard</u>
Route Number: <u>State Highway 95</u>

Item	Percent Range	Percent Selected	Costs
Bid Items (estimate) .....		Subtotal	\$5,759 (A)
Striping .....	0.5% of	(A) <u>0</u> %	\$ <u>0</u>
		Subtotal	\$5,759 (B)
Construction Signing and Traffic Control .....	5 - 25% of	(B) <u>5</u> %	\$ <u>288</u>
(Default - 20%)			
		Subtotal	\$6,047 (C)
Mobilization .....	3 - 10% of	(C) <u>8</u> %	\$ <u>484</u>
(Round up to next \$1,000) (Default - 7%)			
<b>TOTAL COST OF CONSTRUCTION BID ITEMS (CBI)</b>			<b>\$6,531</b>
<u>Force Account Items</u>			
Utilities .....	0.5% of CBI	<u>0.5</u> %	\$ <u>33</u>
Contingencies .....	15% of CBI	<u>11.5</u> %	\$ <u>751</u>
<b>TOTAL COST OF CONSTRUCTION ITEMS (CI)</b>			<b>\$7,315</b>
Construction Engineering (CE)(Consultant) .....	8% - 15% of CI	<u>8</u> %	\$ <u>585</u>
CE Indirects (25% of CE) .....			\$ <u>146</u>
		Subtotal	\$ <u>731</u>
<u>Preliminary Engineering (PE)</u>			
Project Preliminary Engineering (including design)			\$ <u>0</u>
Right-of-Way Acquisition			\$ <u>0</u>
CDOT PE .....	5 - 15% of CI	<u>0</u> %	\$ <u>0</u>
PE Indirects (15% of CDOT PE) .....			\$ <u>0</u>
Entity PE (if applicable) .....			\$ <u>0</u>
Consultant PE (if applicable) .....			\$ <u>0</u>
<b>TOTAL COST</b>			<b>\$8,046</b>

Certification of Cost Estimate (Construction project costs must be certified by a registered professional engineer in the State of Colorado.)

I, Seth R. Plas, #51408  
 (Name - Print) Colorado P.E. #

I certify that I have prepared/approved the cost estimate for this project.

  
 \_\_\_\_\_  
 Signature

10/10/17  
 \_\_\_\_\_  
 Date

**TIGER GRANT ESTIMATE - SHERIDAN BLVD. WIDENING AND UNDERPASS NORTH OF 88TH**

<b>Item Number</b>	<b>Item Code</b>	<b>Description</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit Price \$</b>	<b>Extension \$</b>
1	201	Clearing and Grubbing	1	LS	\$15,000.00	\$15,000.00
2	202	Removal of Tree	6	EACH	\$500.00	\$3,000.00
3	202	Removal of Headwall	2	EACH	\$2,000.00	\$4,000.00
4	202	Removal of Curb and Gutter	2090	LF	\$9.00	\$18,810.00
5	202	Removal of Sidewalk	1750	SY	\$8.00	\$14,000.00
6	202	Removal of Asphalt Mat	4470	SY	\$6.50	\$29,055.00
7	202	Removal of Asphalt (Planing)	10110	SY	\$5.00	\$50,550.00
8	202	Removal of Pavement Marking	2400	SF	\$1.70	\$4,080.00
9	202	Removal of Traffic Signal	4	EACH	\$15,000.00	\$60,000.00
10	202	Removal of Guardrail (Type 3)	770	LF	\$18.50	\$14,245.00
11	202	Removal of Barrier	142	LF	\$20.00	\$2,840.00
12	202	Sawing Concrete	45	LF	\$8.00	\$360.00
13	202	Sawing Asphalt	4320	LF	\$4.00	\$17,280.00
14	203	Unclassified Excavation (Complete in Place)	8000	CY	\$18.00	\$144,000.00
15	206	Structure Excavation	8000	CY	\$18.00	\$144,000.00
16	206	Structure Backfill (Flow-Fill)	1862	CY	\$100.00	\$186,200.00
17	206	Structure Backfill (Class 1)	116	CY	\$35.00	\$4,060.00
18	206	Filter Material (Class A)	11	CY	\$40.00	\$440.00
19	207	Topsoil	1125	CY	\$34.00	\$38,250.00
20	207	Soil Preparation	1500	CY	\$35.00	\$52,500.00
21	208	Silt Fence	2000	LF	\$1.70	\$3,400.00
22	208	Erosion Bales (Weed Free Hay)	50	EACH	\$20.00	\$1,000.00
23	208	Concrete Washout Structure	1	EACH	\$1,100.00	\$1,100.00
24	208	Dewatering Structure	1	EACH	\$1,600.00	\$1,600.00
25	208	Storm Drain Inlet Protection	5	EACH	\$250.00	\$1,250.00
26	208	Sediment Removal and Disposal	100	CY	\$15.00	\$1,500.00
27	208	Erosion Control Supervisor	1	LS	\$6,500.00	\$6,500.00
28	210	Reset Fire Hydrant	1	EACH	\$2,200.00	\$2,200.00
29	210	Reset Light Standard	6	EACH	\$2,500.00	\$15,000.00
30	210	Reset Sign	14	EACH	\$300.00	\$4,200.00
31	212	Seeding (Native)	2	ACRE	\$1,300.00	\$2,600.00
32	213	Mulching (Weed Free Hay)	2	ACRE	\$410.00	\$820.00

**TIGER GRANT ESTIMATE - SHERIDAN BLVD. WIDENING AND UNDERPASS NORTH OF 88TH**

<b>Item Number</b>	<b>Item Code</b>	<b>Description</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit Price \$</b>	<b>Extension \$</b>
33	213	Mulch Tackifier	285	LB	\$2.30	\$655.50
34	403	Hot Bituminous Pavement (Grading G)(100)(PG 78-28)	1565	TON	\$70.00	\$109,550.00
35	403	Hot Bituminous Pavement (Grading SX)(100)(PG 78-28)	1745	TON	\$92.00	\$160,540.00
36	403	Hot Bituminous Pavement (Patching)(Asphalt)	1320	TON	\$125.00	\$165,000.00
37	411	Emulsified Asphalt (slow setting)	3200	GAL	\$4.30	\$13,760.00
38	412	Concrete Pavement (11")	405	SY	\$75.00	\$30,375.00
39	503	Drilled Caisson (30 Inch)	3180	LF	\$360.00	\$1,144,800.00
40	504	Precast Panel Facing	8100	SF	\$35.00	\$283,500.00
41	504	Ground Nailed Wall	250	SF	\$52.00	\$13,000.00
42	505	Sign Lettering	1	LS	\$7,500.00	\$7,500.00
43	509	Structural Steel (Galvanized)	4650	LB	\$8.65	\$40,222.50
44	515	Waterproofing (Membrane)	1900	SY	\$36.00	\$68,400.00
45	518	Bridge Expansion Device	236	LF	\$222.00	\$52,392.00
46	601	Concrete Class B (Bridge)	220	CY	\$750.00	\$165,000.00
47	601	Concrete Class D (Bridge)	830	CY	\$750.00	\$622,500.00
48	601	Concrete Class D (Wall)	600	CY	\$700.00	\$420,000.00
49	601	Structural Concrete Coating	18000	SF	\$1.25	\$22,500.00
50	601	Architectural Concrete Treatment	5050	SF	\$2.65	\$13,382.50
51	601	Architectural Concrete Treatment (Special)	6300	SF	\$2.65	\$16,695.00
52	602	Reinforcing Steel	75000	LB	\$0.95	\$71,250.00
53	602	Reinforcing Steel (Epoxy Coated)	148400	LB	\$1.10	\$163,240.00
54	603	Reinforced Concrete Pipe (24 Inch)	300	LF	\$96.00	\$28,800.00
55	604	Inlet Type C (5 Foot)	2	EACH	\$3,600.00	\$7,200.00
56	604	Inlet Type R L 5 (5 Foot)	2	EACH	\$4,200.00	\$8,400.00
57	604	Manhole Slab Base (5 Foot)	2	EACH	\$7,000.00	\$14,000.00
58	604	Concrete Headwall	40	LF	\$900.00	\$36,000.00
59	606	Guardrail Type 3 (6-3 Post Spacing)	900	LF	\$32.00	\$28,800.00
60	606	Bridge Rail Type 7	390	LF	\$225.00	\$87,750.00
61	607	Fence (Plastic)	100	LF	\$2.10	\$210.00
62	608	Concrete Sidewalk (6 Inch)	2610	SY	\$36.00	\$93,960.00
63	608	Concrete Curb Ramp	100	SY	\$130.00	\$13,000.00
64	609	Curb and Gutter Type 2 (Section I-B)	2130	LF	\$16.00	\$34,080.00

**TIGER GRANT ESTIMATE - SHERIDAN BLVD. WIDENING AND UNDERPASS NORTH OF 88TH**

<b>Item Number</b>	<b>Item Code</b>	<b>Description</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit Price \$</b>	<b>Extension \$</b>
65	609	Curb and Gutter Type 2 (Section II-B)	2465	LF	\$18.00	\$44,370.00
66	612	Delineator (Type I)	24	EACH	\$11.00	\$264.00
67	612	Delineator (Type II)	11	EACH	\$13.40	\$147.40
68	612	Delineator (Type III)	2	EACH	\$14.50	\$29.00
69	612	Delineator (Type I) (Barrier)	8	EACH	\$10.00	\$80.00
70	612	Delineator (Type II) (Barrier)	10	EACH	\$11.00	\$110.00
71	613	1 Inch Electrical Conduit	500	LF	\$11.00	\$5,500.00
72	613	2 Inch Electrical Conduit	1640	LF	\$6.70	\$10,988.00
73	613	4 Inch Electrical Conduit	205	LF	\$18.00	\$3,690.00
74	613	1/2 Inch Electrical Conduit (Plastic)	400	LF	\$5.60	\$2,240.00
75	613	3/4 Inch Electrical Conduit (Plastic)	670	LF	\$7.00	\$4,690.00
76	613	1 Inch Electrical Conduit (Plastic)	400	LF	\$8.00	\$3,200.00
77	613	Luminaire (Special) Pendant Luminaire	7	EACH	\$3,010.00	\$21,070.00
78	613	Service Pedestal	1	EACH	\$557.00	\$557.00
79	613	Wiring	1	LS	\$6,688.00	\$6,688.00
80	614	Sign Panel (Class II)	50	SF	\$18.00	\$900.00
81	614	Steel Sign Post (2x2 Inch Tubing)	11	LF	\$12.00	\$132.00
82	614	Traffic Signal (all items)	4	EACH	\$150,000.00	\$600,000.00
83	618	Prestressed Concrete I (BT42)	930	LF	\$210.00	\$195,300.00
84	620	Field Office (Class 2)	1	EACH	\$14,380.00	\$14,380.00
85	620	Sanitary Facility	2	EACH	\$3,344.00	\$6,688.00
86	625	Construction Surveying	1	LS	\$40,000.00	\$40,000.00
87	627	Pavement Marking Paint (Low VOC Solvent Base)	346	GAL	\$26.00	\$8,996.00
88	627	Thermoplastic Pavement Marking	796	SF	\$2.25	\$1,791.00
89	627	Preformed Plastic Pavement Marking (Type A)	500	SF	\$9.60	\$4,800.00
90	627	Preformed Thermoplastic Marking (Word & Symbol)	163	SF	\$12.00	\$1,956.00
91	627	Preformed Thermoplastic Marking (X-Walk & Stop Bar)	33	SF	\$7.50	\$247.50
<b>Subtotal Sheridan Construction Items (used in CDOT form)</b>						<b>\$5,759,116.40</b>