

Detailed Work Hour & Fee Estimate
Commerce City - 88th Avenue: I-76 NB Ramps to SH 2
Prepared by EST - September 26, 2018

Project Specific Requirements		EST													Teaming Partners							TOTALS	
		Principal and PM Gary Johnson, PE	Deputy PM/ Structures Lead Amy Badel, PE	Quality Review Saeed Sobhi, PE	Roadway Lead Chuck Dressen, PE	Traffic Lead Devin Joslin, PE, PTOE	Hydraulics Lead Shawn Dankenbring, PE	Structures Design Wilson Moy, PE	Roadway Design Dave Knight	Hydraulics Design Karl Brauer, CFM	CADD Technician	Admin.	Professional Service Hours	Professional Service Fee	Direct Expense	HDR	Project Vision 21	Goodbee	SAM	Geocal	H.C. Peck	All Traffic Data	
Labor Rate		\$ 215.00	\$ 140.00	\$ 200.00	\$ 200.00	\$ 135.00	\$ 165.00	\$ 180.00	\$ 120.00	\$ 110.00	\$ 90.00	\$ 80.00											
A. Task 1	Project Management and Initiation																						
	Kick-off Meeting	4	4	4	4	4	4						24	\$ 4,220		\$ 1,092							\$ 5,312
	Project Management Plan/Schedule Development	8	16	2	8								34	\$ 5,960									\$ 5,960
	Client Meetings (10)	30	60	6	30	4	4						134	\$ 23,250		\$ 14,440							\$ 37,690
	TAC Meetings (10)	30	60	8	12	4	4						118	\$ 20,050									\$ 20,050
	Council Briefings (3)	6	30	2	6	2	2						48	\$ 7,690									\$ 7,690
	Environmental Meetings	2	8	2									12	\$ 1,950									\$ 1,950
	Meeting Minutes		24									16	40	\$ 4,640									\$ 4,640
	Project Management (Reports/Invoicing)	24	24	2	8	2	2					80	142	\$ 17,520									\$ 17,520
A. Task 1	SubTotal	104	226	26	68	16	16	0	0	0	0	96	552	\$ 85,280	\$ 1,800	\$ 15,532	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 102,612
B. Task 2	Project Purpose, Goals, and Issues																						
	Purpose and Need White Paper		2	2									4	\$ 680		\$ 3,092							\$ 3,772
B. Task 2	SubTotal	0	2	2	0	0	0	0	0	0	0	0	4	\$ 680	\$ 100	\$ 3,092	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,872
C. Task 3	Public Involvement Process																						
C. 1.	Social & Political Risk Assessment and Stakeholder Scoping Input												0	\$ -		\$ 10,936							\$ 10,936
C. 2.	Public Involvement Plan Development												0	\$ -		\$ 17,636							\$ 17,636
C. 3.	Graphic Design & Collateral Material Development		4										4	\$ 560		\$ 31,312							\$ 31,872
C. 4.	Public Involvement Management & Coordination		40										40	\$ 5,600		\$ 8,560							\$ 14,160
C. 5.	Community & Public Events Outreach	16	40		16								72	\$ 12,240		\$ 40,720	\$ 40,000						\$ 92,960
C. 6.	Public Involvement Report/Appendix			4									4	\$ 800		\$ 4,024							\$ 4,824
C. Task 3	SubTotal	16	84	4	16	0	0	0	0	0	0	0	120	\$ 19,200	\$ 400	\$ 113,188	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 172,788
D. Task 4	Traffic Data Collection and Analysis																						
	Data Collection												0	\$ -								\$ 11,500	\$ 11,500
	Build and Calibrate Model					8					16		24	\$ 2,520									\$ 2,520
	Traffic Forecasting	4				24					40		68	\$ 7,700									\$ 7,700
	Evaluate Build vs. No-Build	8	8	4		16					60		96	\$ 11,200									\$ 11,200
	Transportation Technical Report	8	8	4		40					40		100	\$ 12,640									\$ 12,640
D. Task 4	SubTotal	20	16	8	0	88	0	0	0	0	156	0	288	\$ 34,060	\$ 700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,500	\$ 46,260
E. Task 5	Conceptual Layouts and ROW Drawings																						
E. 1.	Aerial Mapping, Design Survey, and ROW Mapping		8						20		16		44	\$ 4,960				\$ 101,490					\$ 106,450
E. 1. j)	Title Work (40 ownerships)												0	\$ -						\$ 9,860			\$ 9,860
E. 1. k)	Subsurface Utility Engineering (SUE)		8						20		8		36	\$ 4,240			\$ 6,800						\$ 11,040
E. 2.	Railroad Coordination	8	24										32	\$ 5,080		\$ 6,304							\$ 11,384
E. 3.	Geotechnical Investigation		16				2				24		42	\$ 4,760					\$ 30,105				\$ 34,865
E. 4.	Develop the Build Alternative	24	40	4	80		20	40	200	60	100		568	\$ 77,660									\$ 77,660
E. 4.	Conceptual Plan Report	4	24	2	40	16			40	16	40	8	190	\$ 25,580									\$ 25,580
E. 4. a)	Minor Arterial Typical Section Alternatives	2	8		8				40		24		82	\$ 10,110									\$ 10,110
E. 4. b)	Railroad Grade Separation	2	60					24			40		126	\$ 16,750									\$ 16,750
E. 4. c)	Access Control Elements	8	2		16	16			8		8		58	\$ 9,040									\$ 9,040
E. 4. d)	Corridor Lighting		4		8								12	\$ 2,160		\$ 3,936							\$ 6,096
E. 4. f)	Landscape Architecture Treatments		4				2				16		22	\$ 2,360			\$ 34,280						\$ 36,640
E. 5.	Alternatives Analysis	8	16	4	16	16		16	4	16	4		100	\$ 15,600									\$ 15,600
E. 6.	Drainage Report						20			160	24	24	228	\$ 24,980									\$ 24,980
E. 7.	Structure Selection Report	4	40					80			40		164	\$ 24,460									\$ 24,460
E. 8. a)	Preferred Alternative 15% Plan Set	12	20	2	8	4	4	8	60	24	40	12	194	\$ 24,420									\$ 24,420
E. 8. b)	15% Cost Estimate	4	8	2	8	4		12	8	8			54	\$ 8,520									\$ 8,520
E. 8.	Right of Way Plans		12		12				16		12		52	\$ 7,080									\$ 7,080
E. 8.	Topographical Survey							16			16		32	\$ 3,360									\$ 3,360
E. Task 5	SubTotal	76	294	14	196	56	44	184	432	284	412	44	2036	\$ 271,120	\$ 5,500	\$ 10,240	\$ -	\$ 41,080	\$ 101,490	\$ 30,105	\$ 9,860	\$ -	\$ 469,395
F. Task 6	Prepare EA																						
F. 1.	EA Project Management / Continuing Requirements	2	8										10	\$ 1,550		\$ 32,558							\$ 34,108
F. 2.	Environmental Project Initiation	4	8	5									17	\$ 2,980		\$ 12,892							\$ 15,872
F. 3.	Environmental Analysis and Documentation												0	\$ -		\$ 22,460							\$ 22,460
F. 4.	Incorporate Cost Estimates Into NEPA Document		8										8	\$ 1,120									\$ 1,120
F. 5.	Data Collection, Field Investigation, Mitigation												0	\$ -		\$ 120,990	\$ 7,850						\$ 128,840
F. 7.	NEPA Documentation Process	8	8	5	4								25	\$ 4,640		\$ 61,692							\$ 66,332
F. Task 6	SubTotal	14	32	10	4	0	0	0	0	0	0	0	60	\$ 10,290	\$ 300	\$ 250,592	\$ -	\$ 7,850	\$ -	\$ -	\$ -	\$ -	\$ 269,032
G. Task 7	Prepare Decision Document																						
	Draft and Final Versions of Decision Document	20	20	16	4								60	\$ 11,100		\$ 9,674							\$ 20,774
G. Task7	SubTotal	20	20	16	4	0	0	0	0	0	0	0	60	\$ 11,100	\$ 300	\$ 9,674	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,074
														Sub-consultants Direct Expense		\$ 12,625		\$ 731					\$ 13,356
Design Services Total		250	674	80	288	160	60	184	432	284	568	140	3120	\$ 431,730	\$ 9,100	\$ 414,943	\$ 40,000	\$ 49,661	\$ 101,490	\$ 30,105	\$ 9,860	\$ 11,500	\$ 1,098,389
Additional Services (at the written direction of Commerce City)		EST													Teaming Partners								
C. Task 3	Public Involvement Process																						
C. 3.	Graphic Design & Collateral Material Development															\$ 10,000							\$ 10,000
D. Task 4	Traffic Data Collection and Analysis																						
	Major Access and Off-Network Circulation Concepts													\$ 26,000									\$ 26,000
	I-76 Ramp Configuration Analysis													\$ 12,000									\$ 12,000
	Corridor Impacts Based on Changes in Network													\$ 13,000									\$ 13,000
E. Task 5	Conceptual Layouts and ROW Drawings																						
E. 1.	Extend Aerial Mapping/Survey to I-76 SB Ramps (QL-C)													\$ 2,000				\$ 6,000					\$ 8,000
E. 2.	Railroad Coordination beyond Diagnostics													\$ 10,000									\$ 10,000
E. 3.	Geotechnical Investigation - pavement life cycle cost analysis																		\$ 9,000				\$ 9,000
E. 4.	Bridge Aesthetics																\$ 7,000						\$ 7,000
E. 4.	Traffic Signal Warrant Studies													\$ 5,000									\$ 5,000
E. 8. b)	Cost Estimate Refinement													\$ 9,000									\$ 9,000
Contingency Total																							\$ 100,000

Fee Distribution		
DBE	\$ 141,126	12.8%
Survey	\$ 101,490	9.2%
HDR	\$ 414,943	37.8%
EST	\$ 440,830	40.1%