

APPENDIX G
PRELIMINARY COST ESTIMATES AND
FINANCIAL PLAN

CH2M HILL

SUMMARY - ALTERNATIVE COST ESTIMATE SUMMARY

PROJECT: Murphy Road - Parrell Road to 15th Street			DATE:	SHEET:
DESIGN LEVEL: Corridor Study			8/10/2007	1 of 1
ALTERNATIVE	IMPROVEMENT	BEGIN	END	PROJECT COST
A	CTWLTL	SE Parrell Rd	SE Brosterhous Rd	\$ 9,164,880
B	Left Turn Pockets	SE Parrell Rd	SE Brosterhous Rd	\$ 3,521,186
C	Roundabouts	SE Parrell Rd	SE Brosterhous Rd	\$ 9,540,018
D	CTWLTL & Roundabouts	SE Parrell Rd	SE Brosterhous Rd	\$ 13,833,590
E	CTWLTL & Signals	SE Parrell Rd	SE Brosterhous Rd	\$ 5,473,592
A, B, C	CTWLTL	SE Brosterhous Rd	SE 15TH St	\$ 12,747,161
D, E	2 Lane with Turn Pockets	SE Brosterhous Rd	SE 15TH St	\$ 11,155,891
A	CTWLTL	SE Parrell Rd	SE 15TH St	\$ 21,912,041
B	Left Turn Pockets	SE Parrell Rd	SE 15TH St	\$ 16,268,346
C	Roundabouts	SE Parrell Rd	SE 15TH St	\$ 22,287,179
D	CTWLTL & Roundabouts	SE Parrell Rd	SE 15TH St	\$ 24,989,481
E	CTWLTL & Signals	SE Parrell Rd	SE 15TH St	\$ 16,629,483

— Items Included In This Estimate:

- Overlay of existing pavement
- New Asphalt Concrete and Aggregate Base for widening
- Excavation / Embankment
- Concrete Curbs
- Pavement Markings
- Concrete Curbs
- Sidewalks
- Storm Sewer RCP
- Catch Basins
- Manholes
- Illumination
- Traffic Signals
- Retaining Walls
- Reinforced Backfill
- Bridge
- Landscaping

ALTERNATIVE A:

CH2M HILL					
SUMMARY - QUICK COST ESTIMATE					
PROJECT: Murphy Road from Parrell Rd to Brosterhous		REFERENCE NAME/PHONE			SHEET
DESIGN LEVEL: Corridor Study		Jose Vasquez / 503.235.5000			1 of 1
KIND OF WORK: Widening, Overlay Drainage, Signals. CTWLTL		LENGTH (MI.):	DATE	NAME	
		0.98	2/22/2007		
NO.	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
1	Curb, Sidewalks & Drainage	Mi.	0.98	\$1,412,000	\$1,383,760
2	Bike Boulevard	Mi.	0.00	\$117,000	\$0
3	New Roadway	Lane-Mi.	2.50	\$248,000	\$620,000
4	Overlay Existing Roadway	Lane-Mi.	3.30	\$108,000	\$356,400
5	Reconstruct Existing Roadway	Lane-Mi.	0.00	\$266,000	\$0
6	Roundabout	EA	0.00	\$1,100,000	\$0
7	Restriping Existing Roadway	Lane-Mi.	0.00	\$15,000	\$0
8	Interconnect Signal	LS	3.00	\$30,000	\$90,000
9	New Signal	EA	3.00	\$140,000	\$420,000
10	Signal Modifications	EA	0.00	\$60,000	\$0
11	Transit Enhancements	EA	0.00	\$25,000	\$0
12	Traffic Calming	%	0.0%	-	\$0
13	Illumination	Mi.	0.98	\$260,000	\$254,800
14	Landscaping	Mi.	0.98	\$250,000	\$245,000
15	Bridges	SF	0.00	\$200	\$0
16	Walls	SF	0.00	\$171	\$0
SUBTOTAL					\$3,369,960
ADDITIONAL COSTS		RANGE	PERCENTAGE	TOTAL	
Construction Surveying		1.0-2.5%	2.0%	\$67,000	
TP & DT		3.0-8.0%	8.0%	\$270,000	
Mobilization		8.0-10.0%	10.0%	\$337,000	
Erosion Control		0.5-2.0%	1.0%	\$34,000	
Contingency		40.0%	40.0%	\$1,348,000	
Escalation (per year) -current year		0.5-2.0%	2.0%	\$202,000	
TOTAL CONSTRUCTION COST					\$5,627,960
Right-of-Way					
Parcels		EA	4	\$400,000.00	\$1,600,000
R/W		SF	80,240	\$8.00	\$641,920
Design Engineering		13.0%	13.0%		\$732,000
Construction Engineering		10.0%	10.0%		\$563,000
TOTAL PROJECT COST					\$9,164,880

Assumptions:

Proposed Width: 2 x 6' Bike Lanes, 2 x 14' Travel Lanes, 16' Center Median, 2 X 6' planter strips, 2 x 6' Sidewalks. (56' Curb to Curb)

Pavement Section: 2" Inlay For Existing

6" Asphalt Over 10" Aggregate Base For New

Home purchase on SW corner of Murphy and Parrell is not included.

Proposed R/W Width of 80'; Existing R/W Width ~ 60'

ALTERNATIVE B:

CH2M HILL					
SUMMARY - QUICK COST ESTIMATE					
PROJECT: Murphy Road from Parrell Rd to Brosterhous		REFERENCE NAME/PHONE			SHEET
DESIGN LEVEL: Corridor Study		Jose Vasquez / 503.235.5000			1 of 1
KIND OF WORK: Widening, Overlay Drainage, Signals. LT turns		LENGTH (MI.):	DATE	NAME	
		0.98	2/22/2007		
NO.	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
1	Curb, Sidewalks & Drainage	Mi.	0.33	\$1,412,000	\$461,307
2	Bike Boulevard	Mi.	0.00	\$117,000	\$0
3	New Roadway	Lane-Mi.	1.21	\$248,000	\$299,469
4	Overlay Existing Roadway	Lane-Mi.	3.22	\$108,000	\$348,023
5	Reconstruct Existing Roadway	Lane-Mi.	0.00	\$266,000	\$0
6	Roundabout	EA	0.00	\$1,100,000	\$0
7	Restriping Existing Roadway	Lane-Mi.	0.00	\$15,000	\$0
8	Interconnect Signal	LS	3.00	\$30,000	\$90,000
9	New Signal	EA	3.00	\$140,000	\$420,000
10	Signal Modifications	EA	0.00	\$60,000	\$0
11	Transit Enhancements	EA	0.00	\$25,000	\$0
12	Traffic Calming	%	0.0%	-	\$0
13	Illumination	Mi.	0.33	\$260,000	\$84,943
14	Landscaping	Mi.	0.33	\$250,000	\$81,676
15	Bridges	SF	0.00	\$200	\$0
16	Walls	SF	0.00	\$171	\$0
SUBTOTAL					\$1,785,418

	ADDITIONAL COSTS	RANGE	PERCENTAGE	TOTAL
	Construction Surveying	1.0-2.5%	2.0%	\$36,000
	TP & DT	3.0-8.0%	1.0%	\$18,000
	Mobilization	8.0-10.0%	10.0%	\$179,000
	Erosion Control	0.5-2.0%	1.0%	\$18,000
	Contingency	40.0%	40.0%	\$714,000
	Escalation (per year)	0.5-2.0%	2.0%	
	-current year		2008	\$107,000
TOTAL CONSTRUCTION COST				\$2,857,418
	Right-of-Way			
	Parcels	EA	0	\$400,000.00
	R/W	SF	846	\$8.00
	Design Engineering	13.0%	13.0%	\$371,000
	Construction Engineering	10.0%	10.0%	\$286,000
TOTAL PROJECT COST				\$3,521,186

Assumptions:

Approx. 1/3rd of the segment will need widening reconstruction for the addition of turn pockets.

Proposed Width: 2 x 6' Bike Lanes, 2 x 12' Travel Lanes, 2 x 6' Sidewalks.

(36' Curb to Curb)

Pavement Section: 2" Inlay For Existing

6" Asphalt Over 10" Aggregate Base For New

Home purchase on SW corner of Murphy and Parrell is not included.

Proposed R/W Width of 48'; Existing R/W Width of ~ 60'

ALTERNATIVE C:

CH2M HILL					
SUMMARY - QUICK COST ESTIMATE					
PROJECT: Murphy Road from Parrell Rd to Brosterhous		REFERENCE NAME/PHONE			SHEET
DESIGN LEVEL: Corridor Study		Jose Vasquez / 503.235.5000			1 of 1
KIND OF WORK: Widening, Overlay Drainage, Signals, Roundabouts		LENGTH (MI.):	DATE	NAME	
		0.98	8/10/2007		
NO.	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
1	Curb, Sidewalks & Drainage	Mi.	0.33	\$1,412,000	\$461,307
2	Bike Boulevard	Mi.	0.00	\$117,000	\$0
3	New Roadway	Lane-Mi.	0.00	\$248,000	\$0
4	Overlay Existing Roadway	Lane-Mi.	2.45	\$108,000	\$265,092
5	Reconstruct Existing Roadway	Lane-Mi.	0.00	\$266,000	\$0
6	Roundabout	EA	3.00	\$1,100,000	\$3,300,000
7	Restriping Existing Roadway	Lane-Mi.	0.00	\$15,000	\$0
8	Interconnect Signal	LS	0.00	\$30,000	\$0
9	New Signal	EA	0.00	\$140,000	\$0
10	Signal Modifications	EA	0.00	\$60,000	\$0
11	Transit Enhancements	EA	0.00	\$25,000	\$0
12	Traffic Calming	%	0.0%	-	\$0
13	Illumination	Mi.	0.33	\$260,000	\$84,943
14	Landscaping	Mi.	0.33	\$250,000	\$81,676
15	Bridges	SF	0.00	\$200	\$0
16	Walls	SF	0.00	\$171	\$0
SUBTOTAL					\$4,193,018
ADDITIONAL COSTS		RANGE	PERCENTAGE	TOTAL	
Construction Surveying		1.0-2.5%	2.0%	\$84,000	
TP & DT		3.0-8.0%	1.0%	\$42,000	
Mobilization		8.0-10.0%	10.0%	\$419,000	
Erosion Control		0.5-2.0%	1.0%	\$42,000	
Contingency		40.0%	40.0%	\$1,677,000	
Escalation (per year)		0.5-2.0%	2.0%		
-current year			2008	\$252,000	
TOTAL CONSTRUCTION COST					\$6,709,018
Right-of-Way					
Parcels		EA	3	\$400,000	\$1,200,000
R/W		SF	11,000	\$8.00	\$88,000
Design Engineering		13.0%	13.0%		\$872,000
Construction Engineering		10.0%	10.0%		\$671,000
TOTAL PROJECT COST					\$9,540,018

Assumptions:

Approx. 1/3rd of the segment will need widening reconstruction for the addition of turn pockets.
Proposed Width: 2 x 6' Bike Lanes, 2 x 12' Travel Lanes, 16' Center Median, 2 x 6' Sidewalks.
(36' Curb to Curb)
Pavement Section: 6" Asphalt Over 10" Aggregate Base
Home purchase on SW corner of Murphy and Parrell is not included.
Proposed R/W Width of 64'; Existing R/W Width of ~ 60'

ALTERNATIVE D:

CH2M HILL					
SUMMARY - QUICK COST ESTIMATE					
PROJECT: Murphy Road from Parrell Rd to Brosterhous		REFERENCE NAME/PHONE			SHEET
DESIGN LEVEL: Corridor Study		Jose Vasquez / 503.235.5000			1 of 1
KIND OF WORK: Widening, Overlay, Drainage, & Roundabouts		LENGTH (MI.):	DATE	NAME	
		0.98	8/10/2007		
NO.	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
1	Curb, Sidewalks & Drainage	Mi.	0.98	\$1,412,000	\$1,383,920
2	Bike Boulevard	Mi.	0.00	\$117,000	\$0
3	New Roadway	Lane-Mi.	0.88	\$248,000	\$217,795
4	Overlay Existing Roadway	Lane-Mi.	2.37	\$108,000	\$255,929
5	Reconstruct Existing Roadway	Lane-Mi.	0.00	\$266,000	\$0
6	Roundabout	EA	3.00	\$1,100,000	\$3,300,000
7	Restriping Existing Roadway	Lane-Mi.	0.00	\$15,000	\$0
8	Interconnect Signal	LS	0.00	\$30,000	\$0
9	New Signal	EA	0.00	\$140,000	\$0
10	Signal Modifications	EA	0.00	\$60,000	\$0
11	Transit Enhancements	EA	0.00	\$25,000	\$0
12	Traffic Calming	%	0.0%	-	\$0
13	Illumination	Mi.	0.98	\$260,000	\$254,830
14	Landscaping	Mi.	0.98	\$250,000	\$245,028
15	Bridges	SF	0.00	\$200	\$0
16	Walls	SF	0.00	\$171	\$0
SUBTOTAL					\$5,657,502
ADDITIONAL COSTS		RANGE	PERCENTAGE	TOTAL	
Construction Surveying		1.0-2.5%	2.0%	\$113,000	
TP & DT		3.0-8.0%	1.0%	\$57,000	
Mobilization		8.0-10.0%	10.0%	\$566,000	
Erosion Control		0.5-2.0%	1.0%	\$57,000	
Contingency		40.0%	40.0%	\$2,263,000	
Escalation (per year)		0.5-2.0%	2.0%		
-current year			2008	\$339,000	
TOTAL CONSTRUCTION COST					\$9,052,502
Right-of-Way					
Parcels		EA	6	\$400,000	\$2,400,000
R/W		SF	37,386	\$8.00	\$299,088
Design Engineering		13.0%	13.0%		\$1,177,000
Construction Engineering		10.0%	10.0%		\$905,000
TOTAL PROJECT COST					\$13,833,590

Assumptions:

Proposed Width: 2 x 6' Bike Lanes, 2 x 12' Travel Lanes, 12' Center Median, 2 x 6' Sidewalks.
(48' Curb to Curb)

Pavement Section: 6" Asphalt Over 10" Aggregate Base

Home purchase on SW corner of Murphy and Parrell is not included.

Proposed R/W Width of 60'; Existing R/W Width ~ 60'

ALTERNATIVE E:

CH2M HILL					
SUMMARY - QUICK COST ESTIMATE					
PROJECT: Murphy Road from Parrell Rd to Brosterhous		REFERENCE NAME/PHONE			SHEET
DESIGN LEVEL: Corridor Study		Jose Vasquez / 503.235.5000			1 of 1
KIND OF WORK: Widening, Overlay, Drainage, & Signals		LENGTH (MI.):	DATE	NAME	
		0.98	8/10/2007		
NO.	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
1	Curb, Sidewalks & Drainage	Mi.	0.98	\$1,412,000	\$1,383,920
2	Bike Boulevard	Mi.	0.00	\$117,000	\$0
3	New Roadway	Lane-Mi.	0.12	\$248,000	\$29,290
4	Overlay Existing Roadway	Lane-Mi.	3.13	\$108,000	\$338,020
5	Reconstruct Existing Roadway	Lane-Mi.	0.00	\$266,000	\$0
6	Roundabout	EA	0.00	\$1,100,000	\$0
7	Restriping Existing Roadway	Lane-Mi.	0.00	\$15,000	\$0
8	Interconnect Signal	LS	3.00	\$30,000	\$90,000
9	New Signal	EA	3.00	\$140,000	\$420,000
10	Signal Modifications	EA	0.00	\$60,000	\$0
11	Transit Enhancements	EA	0.00	\$25,000	\$0
12	Traffic Calming	%	0.00	-	\$0
13	Illumination	Mi.	0.98	\$260,000	\$254,830
14	Landscaping	Mi.	0.98	\$250,000	\$245,028
15	Bridges	SF	0.00	\$200	\$0
16	Walls	SF	0.00	\$171	\$0
SUBTOTAL					\$2,761,088

	ADDITIONAL COSTS	RANGE	PERCENTAGE	TOTAL
	Construction Surveying	1.0-2.5%	2.0%	\$55,000
	TP & DT	3.0-8.0%	1.0%	\$28,000
	Mobilization	8.0-10.0%	10.0%	\$276,000
	Erosion Control	0.5-2.0%	1.0%	\$28,000
	Contingency	40.0%	40.0%	\$1,104,000
	Escalation (per year) -current year	0.5-2.0%	2.0%	\$166,000
	TOTAL CONSTRUCTION COST			\$4,418,088
	Right-of-Way			
	Parcels	EA	0	\$400,000
	R/W	SF	4,938	\$8.00
	Design Engineering	13.0%	13%	\$574,000
	Construction Engineering	10.0%	10%	\$442,000
	TOTAL PROJECT COST			\$5,473,592

Assumptions:

Proposed Width: 2 x 6' Bike Lanes, 2 x 12' Travel Lanes, 12' Center Median, 2 x 6' Sidewalks.
(48' Curb to Curb)

Home purchase on SW corner of Murphy and Parrell is not included.

Pavement Section: 6" Asphalt Over 10" Aggregate Base

Proposed R/W Width of 60'; Existing R/W Width ~ 60'

ALTERNATIVES A, B, C: BROSTERHOUS TO 15TH ST.

CH2M HILL					
SUMMARY - QUICK COST ESTIMATE					
PROJECT: Murphy Road - Brosterhous Road to 15th Street		REFERENCE NAME/PHONE Jose Vasquez / 503.235.5000			SHEET 1 of 1
DESIGN LEVEL: Corridor Study					
KIND OF WORK: Roadway New Construction Bridge, Retaining Walls		LENGTH (MI.): 0.38	DATE 2/22/2007	NAME	
NO.	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
1	Curb, Sidewalks & Drainage	Mi.	0.38	\$1,412,000	\$535,383
2	Bike Boulevard	Mi.	0.00	\$117,000	\$0
3	New Roadway	Lane-Mi.	1.77	\$248,000	\$438,822
4	Overlay Existing Roadway	Lane-Mi.	0.00	\$108,000	\$0
5	Reconstruct Existing Roadway	Lane-Mi.	0.00	\$266,000	\$0
6	Roundabout	EA	0.00	\$1,100,000	\$0
7	Restriping Existing Roadway	Lane-Mi.	0.00	\$15,000	\$0
8	Interconnect Signal	LS	0.00	\$30,000	\$0
9	New Signal	EA	0.00	\$140,000	\$0
10	Signal Modifications	EA	0.00	\$60,000	\$0
11	Transit Enhancements	EA	0.00	\$25,000	\$0
12	Traffic Calming	%	0.0%	-	\$0
13	Illumination	Mi.	0.38	\$260,000	\$98,583
14	Landscaping	Mi.	0.38	\$250,000	\$94,792
15	Bridges	SF	14,560.00	\$200	\$2,912,000
16	Walls	SF	7,300.00	\$171	\$1,248,300
SUBTOTAL					\$5,327,881

	ADDITIONAL COSTS	RANGE	PERCENTAGE	TOTAL
	Construction Surveying	1.0-2.5%	2.0%	\$107,000
	TP & DT	3.0-8.0%	4.0%	\$213,000
	Mobilization	8.0-10.0%	10.0%	\$533,000
	Erosion Control	0.5-2.0%	1.0%	\$53,000
	Contingency	40.0%	40.0%	\$2,131,000
	Escalation (per year) -current year	0.5-2.0%	2.0%	\$320,000
	TOTAL CONSTRUCTION COST			\$8,684,881
	Right-of-Way Parcels	EA	0	\$400,000
	R/W	SF	258,160	\$8.00
	Design Engineering	13.0%	13.0%	\$1,129,000
	Construction Engineering	10.0%	10.0%	\$868,000
TOTAL PROJECT COST				\$12,747,161

Assumptions:

Proposed Width: 2 x 6' Bike Lanes, 2 x 14' Travel Lanes, 16' Center Median, 2 x 6' Planter Strips, 2 x 6' Sidewalks. (68' Curb to Curb)
 Proposed Width on Structure: 2 x 6' Bike Lanes, 2 x 14' Travel Lanes, 16' Center Median, 2 x 6' Sidewalks. (56' Curb to Curb)
 Pavement Section: 6" Asphalt Over 10" Aggregate Base
 Proposed R/W Varies 80'-250'

ALTERNATIVES D, E: BROSTERHOUS TO 15TH ST.

CH2M HILL					
SUMMARY - QUICK COST ESTIMATE					
PROJECT: Murphy Road - Brosterhous Road to 15th Street		REFERENCE NAME/PHONE Jose Vasquez / 503.235.5000			SHEET 1 of 1
DESIGN LEVEL: Corridor Study					
KIND OF WORK: Roadway New Construction Bridge, Retaining Walls		LENGTH (MI.): 0.38	DATE 3/14/2007	NAME	
NO.	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
1	Curb, Sidewalks & Drainage	Mi.	0.38	\$1,412,000	\$535,383
2	Bike Boulevard	Mi.	0.00	\$117,000	\$0
3	New Roadway	Lane-Mi.	1.41	\$248,000	\$349,153
4	Overlay Existing Roadway	Lane-Mi.	0.00	\$108,000	\$0
5	Reconstruct Existing Roadway	Lane-Mi.	0.00	\$266,000	\$0
6	Roundabout	EA	0.00	\$1,100,000	\$0
7	Restriping Existing Roadway	Lane-Mi.	0.00	\$15,000	\$0
8	Interconnect Signal	LS	0.00	\$30,000	\$0
9	New Signal	EA	0.00	\$140,000	\$0
10	Signal Modifications	EA	0.00	\$60,000	\$0
11	Transit Enhancements	EA	0.00	\$25,000	\$0
12	Traffic Calming	%	0.0%	-	\$0
13	Illumination	Mi.	0.38	\$260,000	\$98,583
14	Landscaping	Mi.	0.38	\$250,000	\$94,792
15	Bridges	SF	11,232.00	\$200	\$2,246,400
16	Walls	SF	7,300.00	\$171	\$1,248,300
SUBTOTAL					\$4,572,611

	ADDITIONAL COSTS	RANGE	PERCENTAGE	TOTAL
	Construction Surveying	1.0-2.5%	2.0%	\$91,000
	TP & DT	3.0-8.0%	4.0%	\$183,000
	Mobilization	8.0-10.0%	10.0%	\$457,000
	Erosion Control	0.5-2.0%	1.0%	\$46,000
	Contingency	40.0%	40.0%	\$1,829,000
	Escalation (per year) -current year	0.5-2.0%	2.0% 2008	\$274,000
TOTAL CONSTRUCTION COST				\$7,452,611
	Right-of-Way Parcels	EA	0	\$400,000
	R/W	SF	248,660	\$8.00
	Design Engineering	13.0%	13.0%	\$969,000
	Construction Engineering	10.0%	10.0%	\$745,000
TOTAL PROJECT COST				\$11,155,891

Assumptions:

Proposed Width: 2 x 6' Bike Lanes, 2 x 14' Travel Lanes, 16' Center Median, 2 x 6' Planter Strips, 2 x 6' Sidewalks. (56' Curb to Curb)
 Proposed Width on Structure: 2 x 8' Shoulders, 2 x 12' Travel Lanes, 2 x 6' Sidewalks. (40' Curb to Curb)
 Pavement Section: 6" Asphalt Over 10" Aggregate Base
 Proposed R/W Width Varies 80'-230'