

Concept-Level Construction Cost Estimate
Location: #1 - Alameda Ave.

Prepared by BRW, Inc.
 BRW Project No. 13042-026
 23-Apr-01
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City and County of Denver Bicycle Master Plan

Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Concrete Sidewalk	SY	0	\$7.00	\$0
202	Removal of Curb	LF	0	\$5.50	\$0
608	Concrete Sidewalk (5" depth, 10' wide)	SY	0	\$40.00	\$0
609	Curb and Gutter Ty 2 (Section II-B)	LF	0	\$16.50	\$0
	Curb Ramp	EA	0	\$1,200.00	\$0
613	Light Pole, Luminaire, and Foundation (sidewalk)	EA	0	\$5,500.00	\$0
623	Utility Adjustments	LS	1	\$25,000.00	\$25,000
	Signing	LS	1	\$10,000.00	\$10,000
	Railroad Underpass Improvements	LS	1	\$1,000,000.00	\$1,000,000
	Intersection Improvements	LS	1	\$500,000.00	\$500,000
Subtotal - Bid Items					\$1,535,000
625	Construction Surveying				\$76,750
627	Striping				\$10,000
630	Traffic Control (20%)				\$153,500
626	Mobilization (5%)				\$76,750
Subtotal - Construction					\$1,852,000
	Construction Engineering (7.5%)				\$1,389,000
	Engineering Survey and Design (7.5%)				\$1,389,000
	Administration (5%)				\$92,600
Subtotal					\$4,722,600
	Contingency (30%)				\$1,416,780
Total					\$6,139,380

Concept-Level Construction Cost Estimate
Location: #2 - Cherry Creek Trail
Segment: 1st Avenue

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Concrete Sidewalk	SY	3,778	\$7.00	\$26,444
202	Removal of Curb	LF	0	\$5.50	\$0
212	Seeding	AC	1	\$2,000.00	\$2,000
213	Mulching	AC	1	\$1,000.00	\$1,000
608	Concrete Sidewalk (5" depth, 10' wide)	SY	3,778	\$40.00	\$151,111
609	Curb and Gutter Ty 2 (Section II-B)	LF	0	\$16.50	\$0
	Curb Ramp	EA		\$1,200.00	\$0
613	Light Pole, Luminaire, and Foundation (sidewalk)	EA		\$5,500.00	\$0
	Signing	LS	1	\$10,000.00	\$10,000
622	Utility Adjustments	LS	0	\$25,000.00	\$0
	R.O.W. Acquisition	LS	1	\$500,000.00	\$500,000
Subtotal - Bid Items					\$661,111
625	Construction Surveying				\$20,000
627	Striping (5%)				\$33,056
630	Traffic Control (20%)				\$132,222
626	Mobilization (12%)				\$79,333
Subtotal - Construction					\$925,722
	Construction Engineering (12%)				\$111,087
	Engineering Survey and Design (15%)				\$138,858
	Administration (5%)				\$46,286
Subtotal					\$1,221,953
	Contingency (30%)				\$366,586
Total					\$1,588,539

Concept-Level Construction Cost Estimate
Location: #2 - Cherry Creek Trail
Segment: University Boulevard

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Concrete Sidewalk	SY	0	\$7.00	\$0
202	Removal of Curb	LF	0	\$5.50	\$0
212	Seeding	AC	0.10	\$2,000.00	\$200
213	Mulching	AC	0.10	\$1,000.00	\$100
608	Concrete Sidewalk (5" depth, 10' wide)	SY	600	\$40.00	\$24,000
609	Curb and Gutter Ty 2 (Section II-B)	LF	0	\$16.50	\$0
	Curb Ramp	EA	2	\$1,200.00	\$2,400
	Signing	LS	1	\$5,000.00	\$5,000
	Grading	LS	1	\$50,000.00	\$50,000
	Underpass Improvements	LS	1	\$500,000.00	\$500,000
Subtotal - Bid Items					\$581,400
625	Construction Surveying				\$10,000
627	Striping				\$0
630	Traffic Control				\$10,000
626	Mobilization				\$10,000
Subtotal - Construction					\$611,400
	Construction Engineering (12%)				\$73,368
	Engineering Survey and Design (15%)				\$91,710
	Administration (5%)				\$30,570
Subtotal					\$807,048
	Contingency (30%)				\$242,114
Total					\$1,049,162

Concept-Level Construction Cost Estimate
Location: #3 - Colorado Blvd. And 12th Ave.

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Concrete Sidewalk	SY	0	\$7.00	\$0
202	Removal of Curb	LF	0	\$5.50	\$0
212	Seeding	AC	0.05	\$2,000.00	\$100
213	Mulching	AC	0.05	\$1,000.00	\$50
608	Concrete Sidewalk (5" depth, 10' wide)	SY	15	\$40.00	\$600
609	Curb and Gutter Ty 2 (Section II-B)	LF	0	\$16.50	\$0
	Curb Ramp	EA	2	\$1,200.00	\$2,400
613	Light Pole, Luminaire, and Foundation (sidewalk)	EA	0	\$5,500.00	\$0
	Signing	LS	1	\$1,000.00	\$1,000
622	Utility Adjustments	LS	1	\$1,000.00	\$1,000
	Traffic Signal Modification	LS	1	\$20,000.00	\$20,000
Subtotal - Bid Items					\$25,000
625	Construction Surveying				\$5,000
627	Striping (10%)				\$2,500
630	Traffic Control (10%)				\$2,500
626	Mobilization (6%)				\$1,500
Subtotal - Construction					\$36,500
	Construction Engineering (12%)				\$4,380
	Engineering Survey and Design (15%)				\$5,475
	Administration (5%)				\$1,825
Subtotal					\$48,180
	Contingency (30%)				\$14,454
Total					\$62,634

Concept-Level Construction Cost Estimate
Location: #4 - Green Valley Ranch and Gateway Area: Grid Routes

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
608	Concrete Sidewalk (5" depth, 10' wide)	SY	4,950	\$40.00	\$198,000
	Lighting	LS	1	\$5,000.00	\$5,000
	Signing	LS	1	\$5,000.00	\$5,000
Subtotal - Bid Items					\$208,000
625	Construction Surveying				\$40,000
627	Striping (5%)				
630	Traffic Control (10%)				\$20,800
626	Mobilization (6%)				\$12,480
Subtotal - Construction					\$281,280
	Construction Engineering (12%)				\$33,754
	Engineering Survey and Design (15%)				\$42,192
	Administration (5%)				\$14,064
Subtotal					\$371,290
	Contingency (30%)				\$111,387
Total					\$482,676

Concept-Level Construction Cost Estimate
Location: #5 - Iliff Ave./Warren/Dahlia at I-25

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
	Curb Ramp	EA	2	\$1,200.00	\$2,400
	Signing	LS	1	\$10,000.00	\$10,000
	Pedestrian Bridge (Steel Girder - 10 ft. width)	LF	250	\$85.00	\$276,250
	Bridge Entry & Exit Ramps	LS	1	\$250,000.00	\$250,000
	Embankment	LS	1	\$50,000.00	\$50,000
	Hot Bituminous Pavement	LS	1	\$50,000.00	\$50,000
	R.O.W. Acquisition	LS	1	\$500,000.00	\$500,000
623	Utility Adjustments	LS	1	\$25,000.00	\$25,000
Subtotal - Bid Items					\$1,163,650
625	Construction Surveying				\$20,000
627	Striping				\$10,000
630	Traffic Control				\$50,000
626	Mobilization				\$25,000
Subtotal - Construction					\$1,268,650
	Construction Engineering (12%)				\$152,238
	Engineering Survey and Design (15%)				\$190,298
	Administration (5%)				\$63,433
Subtotal					\$1,674,618
	Contingency (30%)				\$502,385
Total					\$2,177,003

Concept-Level Construction Cost Estimate**Location: #6 - Iliff Ave. at Santa Fe Dr.**

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
	Curb Ramp	EA	2	\$1,200.00	\$2,400
	Signing	LS	1	\$10,000.00	\$10,000
	Pedestrian Bridge (Steel Girder - 10 ft. width)	LF	600	\$85.00	\$663,000
	Bridge Entry & Exit Ramps	LS	1	\$250,000.00	\$250,000
	Embankment	LS	1	\$50,000.00	\$50,000
	Hot Bituminous Pavement	LS	1	\$50,000.00	\$50,000
	R.O.W. Acquisition	LS	1	\$500,000.00	\$500,000
623	Utility Adjustments	LS	1	\$25,000.00	\$25,000
Subtotal - Bid Items					\$1,550,400
625	Construction Surveying				\$20,000
627	Striping (5%)				\$77,520
630	Traffic Control (20%)				\$310,080
626	Mobilization (12%)				\$186,048
Subtotal - Construction					\$2,144,048
	Construction Engineering (12%)				\$257,286
	Engineering Survey and Design (15%)				\$321,607
	Administration (5%)				\$107,202
Subtotal					\$2,830,143
	Contingency (30%)				\$849,043
Total					\$3,679,186

Concept-Level Construction Cost Estimate

Location: #7 - Iowa Ave. from Acoma to Florida Ave. via Santa Fe Dr.

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
Phase 1					
202	Removal of Concrete Sidewalk	SY	0	\$7.00	\$0
202	Removal of Curb	LF	0	\$5.50	\$0
212	Seeding	AC	0.10	\$2,000.00	\$200
213	Mulching	AC	0.10	\$1,000.00	\$100
608	Concrete Sidewalk (5" depth, 10' wide)	SY	1,500	\$40.00	\$60,000
609	Curb and Gutter Ty 2 (Section II-B)	LF	600	\$16.50	\$9,900
	Curb Ramp	EA	2	\$1,200.00	\$2,400
613	Light Pole, Luminaire, and Foundation (sidewalk)	EA	5	\$5,500.00	\$27,500
	Signing	LS	1	\$10,000.00	\$10,000
622	Utility Adjustments	LS	1	\$25,000.00	\$25,000
Subtotal - Bid Items					\$134,800
625	Construction Surveying				\$20,000
627	Striping				\$5,000
630	Traffic Control				\$20,000
626	Mobilization				\$10,000
Subtotal - Construction					\$189,800
	Construction Engineering (12%)				\$22,776
	Engineering Survey and Design (15%)				\$28,470
	Administration (5%)				\$9,490
Subtotal					\$250,536
	Contingency (30%)				\$75,161
Total (Phase 1)					\$325,697
Phase 2					
	Underpass Improvements	LS	1	\$2,000,000.00	\$2,000,000
Total (Phase 1 & 2)					\$2,325,697

Concept-Level Construction Cost Estimate
Location: #8 - Leetsdale Dr. at Bayaud Ave.

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Concrete Sidewalk	SY	0	\$7.00	\$0
202	Removal of Curb	LF	0	\$5.50	\$0
212	Seeding	AC	0.15	\$2,000.00	\$300
213	Mulching	AC	0.15	\$1,000.00	\$150
608	Concrete Sidewalk (5" depth, 10' wide)	SY	900	\$40.00	\$36,000
609	Curb and Gutter Ty 2 (Section II-B)	LF	800	\$16.50	\$13,200
	Curb Ramp	EA	2	\$1,200.00	\$2,400
610	Median Cover Material	SF	6400	\$6.00	\$38,400
613	Light Pole, Luminaire, and Foundation (sidewalk)	EA	0	\$5,500.00	\$0
	Signing	LS	1	\$5,000.00	\$5,000
622	Utility Adjustments	LS	0	\$1,000.00	\$0
	Grading along Leetsdale Drive	LS	1	\$250,000.00	\$250,000
	R.O.W. Acquisition	LS	1	\$500,000.00	\$500,000
Subtotal - Bid Items					\$845,000
625	Construction Surveying				\$20,000
627	Striping				\$5,000
630	Traffic Control				\$20,000
626	Mobilization (6%)				\$50,700
Subtotal - Construction					\$940,700
	Construction Engineering (12%)				\$112,884
	Engineering Survey and Design (15%)				\$141,105
	Administration (5%)				\$47,035
Subtotal					\$1,241,724
	Contingency (30%)				\$372,517
Total					\$1,614,241

Concept-Level Construction Cost Estimate
Location: #9 - Leetsdale Dr. at Kearney St.

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Concrete Sidewalk	SY	0	\$7.00	\$0
202	Removal of Curb	LF	0	\$5.50	\$0
212	Seeding	AC	0.10	\$2,000.00	\$200
213	Mulching	AC	0.10	\$1,000.00	\$100
608	Concrete Sidewalk (5" depth, 10' wide)	SY	6	\$40.00	\$222
609	Curb and Gutter Ty 2 (Section II-B)	LF	250	\$16.50	\$4,125
	Curb Ramp	EA	2	\$1,200.00	\$2,400
610	Median Cover Material	SF	250	\$6.00	\$1,500
613	Light Pole, Luminaire, and Foundation (sidewalk)	EA	2	\$5,500.00	\$11,000
	Signing	LS	1	\$1,000.00	\$1,000
622	Utility Adjustments	LS	1	\$1,000.00	\$1,000
	Traffic Signal Modification	LS	0	\$10,000.00	\$0
Subtotal - Bid Items					\$21,247
625	Construction Surveying (10%)				\$2,125
627	Striping (5%)				\$1,062
630	Traffic Control (20%)				\$4,249
626	Mobilization (12%)				\$2,550
Subtotal - Construction					\$31,233
	Construction Engineering (12%)				\$3,748
	Engineering Survey and Design (15%)				\$4,685
	Administration (5%)				\$1,562
Subtotal					\$41,228
	Contingency (30%)				\$12,368
Total					\$53,597

Concept-Level Construction Cost Estimate
Location: #10 - Grant Ranch Connection

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
	Off-Street Trail - 10 foot wide trail including all grading	LF	3,000	\$200.00	\$600,000
	Signing	LS	1	\$1,000.00	\$1,000
Subtotal - Bid Items					\$601,000
625	Construction Surveying				\$15,000
627	Striping (5%)				\$0
630	Traffic Control (20%)				\$0
626	Mobilization (12%)				\$0
Subtotal - Construction					\$616,000
	Construction Engineering (12%)				\$73,920
	Engineering Survey and Design (15%)				\$92,400
	Administration (5%)				\$30,800
Subtotal					\$813,120
	Contingency (30%)				\$243,936
Total					\$1,057,056

Concept-Level Construction Cost Estimate
Location: #11 - Northeast Neighborhoods: Off-street Trails

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
	Off-Street Trail - 10 foot wide trail including all grading	LF	1,350	\$200.00	\$270,000
	Signing	LS	1	\$5,000.00	\$5,000
Subtotal - Bid Items					\$275,000
625	Construction Surveying				\$40,000
627	Striping (5%)				\$0
630	Traffic Control (10%)				\$27,500
626	Mobilization (6%)				\$16,500
Subtotal - Construction					\$359,000
	Construction Engineering (12%)				\$43,080
	Engineering Survey and Design (15%)				\$53,850
	Administration (5%)				\$17,950
Subtotal					\$473,880
	Contingency (30%)				\$142,164
Total					\$616,044

Concept-Level Construction Cost Estimate
Location: #12 - Quincy Ave. Bicycle Off-Streetway

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Concrete Sidewalk	SY	900	\$7.00	\$6,300
202	Removal of Curb	LF	1,600	\$5.50	\$8,800
212	Seeding	AC	1.00	\$2,000.00	\$2,000
213	Mulching	AC	1.00	\$1,000.00	\$1,000
608	Concrete Sidewalk (5" depth, 10' wide)	SY	7,000	\$40.00	\$280,000
609	Curb and Gutter Ty 2 (Section II-B)	LF	6,200	\$16.50	\$102,300
	Curb Ramp	EA	3	\$1,200.00	\$3,600
613	Light Pole, Luminaire, and Foundation (sidewalk)	EA		\$5,500.00	\$0
	Signing	LS	1	\$5,000.00	\$5,000
622	Utility Adjustments	LS	1	\$5,000.00	\$5,000
	Earthwork	LS	1	\$100,000.00	\$100,000
Subtotal - Bid Items					\$495,900
625	Construction Surveying				\$20,000
627	Striping				\$5,000
630	Traffic Control (10%)				\$49,590
626	Mobilization (12%)				\$59,508
Subtotal - Construction					\$629,998
	Construction Engineering (12%)				\$75,600
	Engineering Survey and Design (15%)				\$94,500
	Administration (5%)				\$31,500
Subtotal					\$831,597
	Contingency (30%)				\$249,479
Total					\$1,081,077

Concept-Level Construction Cost Estimate
Location: #13 - West Harvard Gulch to Platte Connection

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Concrete Sidewalk	SY	0	\$7.00	\$0
202	Removal of Curb	LF	0	\$5.50	\$0
212	Seeding	AC	0	\$2,000.00	\$0
213	Mulching	AC	0	\$1,000.00	\$0
608	Concrete Sidewalk (5" depth, 10' wide)	SY	900	\$40.00	\$36,000
609	Curb and Gutter Ty 2 (Section II-B)	LF	0	\$16.50	\$0
	Curb Ramp	EA	0	\$1,200.00	\$0
613	Light Pole, Luminaire, and Foundation (sidewalk)	EA	0	\$5,500.00	\$0
	Signing	LS	1	\$10,000.00	\$10,000
622	Utility Adjustments	LS	1	\$5,000.00	\$5,000
	R.O.W. Aquisition	LS	0	\$500,000.00	\$0
Subtotal - Bid Items					\$51,000
625	Construction Surveying				\$20,000
627	Striping (5%)				\$2,550
630	Traffic Control				\$5,000
626	Mobilization				\$2,000
Subtotal - Construction					\$80,550
	Construction Engineering (12%)				\$9,666
	Engineering Survey and Design (15%)				\$12,083
	Administration (5%)				\$4,028
Subtotal					\$106,326
	Contingency (30%)				\$31,898
Total					\$138,224

Concept-Level Construction Cost Estimate
Location: #14 - 43rd Avenue Pedestrian Bridge

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
	Signing	LS	1	\$2,000.00	\$2,000
	Pedestrian Bridge (Steel Girder - 10 ft. width)	LF	700	\$85.00	\$773,500
	Bridge Entry & Exit Ramps	LS	1	\$250,000.00	\$250,000
	Embankment	LS	1	\$50,000.00	\$50,000
	Hot Bituminous Pavement	LS	1	\$50,000.00	\$50,000
	R.O.W. Acquisition	LS	1	\$500,000.00	\$500,000
623	Utility Adjustments	LS	1	\$25,000.00	\$25,000
Subtotal - Bid Items					\$1,650,500
625	Construction Surveying				\$20,000
627	Striping				\$10,000
630	Traffic Control				\$50,000
626	Mobilization				\$25,000
Subtotal - Construction					\$1,755,500
	Construction Engineering (12%)				\$210,660
	Engineering Survey and Design (15%)				\$263,325
	Administration (5%)				\$87,775
Subtotal					\$2,317,260
	Contingency (30%)				\$695,178
Total					\$3,012,438

Concept-Level Construction Cost Estimate
Location: #15 - 46th Ave. from Platte River Trail to National Western
Option A - 46th Avenue

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Concrete Sidewalk	SY	800	\$7.00	\$5,600
202	Removal of Curb	LF	700	\$5.50	\$3,850
608	Concrete Sidewalk (5" depth, 10' wide)	SY	800	\$40.00	\$32,000
609	Curb and Gutter Ty 2 (Section II-B)	LF	700	\$16.50	\$11,550
	Curb Ramp	EA	2	\$1,200.00	\$2,400
613	Light Pole, Luminaire, and Foundation (sidewalk)	EA	5	\$5,500.00	\$27,500
	Signing	LS	1	\$2,500.00	\$2,500
	Intersection Modification	LS	1	\$100,000.00	\$100,000
	Underpass Modification	LS	1	\$50,000.00	\$50,000
623	Utility Adjustments	LS	1	\$25,000.00	\$25,000
Subtotal - Bid Items					\$250,950
625	Construction Surveying				\$20,000
627	Striping				\$5,000
630	Traffic Control (20%)				\$50,190
626	Mobilization (12%)				\$30,114
Subtotal - Construction					\$356,254
	Construction Engineering (12%)				\$42,750
	Engineering Survey and Design (15%)				\$53,438
	Administration (5%)				\$17,813
Subtotal					\$470,255
	Contingency (30%)				\$141,077
Total					\$611,332

Concept-Level Construction Cost Estimate
Location: #15 - 46th Ave. from Platte River Trail to National Western
Option B - Arkins Court

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Concrete Sidewalk	SY	0	\$7.00	\$0
202	Removal of Curb	LF	0	\$5.50	\$0
608	Concrete Sidewalk (5" depth, 10' wide)	SY	200	\$40.00	\$8,000
609	Curb and Gutter Ty 2 (Section II-B)	LF	0	\$16.50	\$0
	Curb Ramp	EA	2	\$1,200.00	\$2,400
613	Light Pole, Luminaire, and Foundation (sidewalk)	EA	5	\$5,500.00	\$27,500
	Signing	LS	1	\$20,000.00	\$20,000
	Intersection Modification	LS	1	\$0.00	\$0
623	Utility Adjustments	LS	1	\$0.00	\$0
Subtotal - Bid Items					\$57,900
625	Construction Surveying				\$20,000
627	Striping				\$5,000
630	Traffic Control (20%)				\$11,580
626	Mobilization (12%)				\$6,948
Subtotal - Construction					\$101,428
	Construction Engineering (12%)				\$12,171
	Engineering Survey and Design (15%)				\$15,214
	Administration (5%)				\$5,071
Subtotal					\$133,885
	Contingency (30%)				\$40,165
Total					\$174,050

Concept-Level Construction Cost Estimate
Location: #18 - Broadway Station Pedestrian Bridge Connection

Prepared by BRW, Inc.
 BRW Project No. 13042-026
 23-Apr-01
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City and County of Denver Bicycle Master Plan

Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
	Curb Ramp	EA	2	\$1,200.00	\$2,400
	Signing	LS	1	\$10,000.00	\$10,000
	Pedestrian Bridge (Steel Girder - 10 ft. width)	LF	300	\$85.00	\$331,500
	Bridge Entry & Exit Ramps	LS	1	\$250,000.00	\$250,000
	Embankment	LS	1	\$50,000.00	\$50,000
	Hot Bituminous Pavement	LS	1	\$50,000.00	\$50,000
	R.O.W. Acquisition	LS	1	\$500,000.00	\$500,000
623	Utility Adjustments	LS	1	\$25,000.00	\$25,000
Subtotal - Bid Items					\$1,218,900
625	Construction Surveying				\$20,000
627	Striping (5%)				\$60,945
630	Traffic Control				\$50,000
626	Mobilization				\$25,000
Subtotal - Construction					\$1,374,845
	Construction Engineering (12%)				\$164,981
	Engineering Survey and Design (15%)				\$206,227
	Administration (5%)				\$68,742
Subtotal					\$1,814,795
	Contingency (30%)				\$544,439
Total					\$2,359,234

Concept-Level Construction Cost Estimate
Location: #20 - Colorado Pedestrian Bridge Connection

Prepared by BRW, Inc.
 BRW Project No. 13042-026
 23-Apr-01
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City and County of Denver Bicycle Master Plan

Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
	Curb Ramp	EA	2	\$1,200.00	\$2,400
	Signing	LS	1	\$10,000.00	\$10,000
	Pedestrian Bridge (Steel Girder - 10 ft. width)	LF	240	\$85.00	\$265,200
	Bridge Entry & Exit Ramps	LS	1	\$250,000.00	\$250,000
	Embankment	LS	1	\$50,000.00	\$50,000
	Hot Bituminous Pavement	LS	1	\$50,000.00	\$50,000
	R.O.W. Acquisition	LS	1	\$500,000.00	\$500,000
623	Utility Adjustments	LS	1	\$25,000.00	\$25,000
Subtotal - Bid Items					\$1,152,600
625	Construction Surveying				\$20,000
627	Striping (5%)				\$57,630
630	Traffic Control				\$50,000
626	Mobilization				\$25,000
Subtotal - Construction					\$1,305,230
	Construction Engineering (12%)				\$156,628
	Engineering Survey and Design (15%)				\$195,785
	Administration (5%)				\$65,262
Subtotal					\$1,722,904
	Contingency (30%)				\$516,871
Total					\$2,239,775

Bicycle Connection
38th St- Blake to Arkins Court/Platte River
Preliminary Cost Estimate

ITEM	QUANTITY	UNIT	PRICE	COST
Concrete Sidewalk (5" depth)	3003	SY	36.00	\$108,108.00
(10' wide from the path along Arkin to 38th and up 38th to wrap around to Blake)				
Curb Ramp	4	EACH	1200.00	\$4,800.00
Sidewalk Wall	116	CY	420.00	\$48,720.00
Class I Fill	651	CY	15.00	\$9,765.00
Bikeway/Ped Railing	700	LF	100.00	\$70,000.00
Lighting	1	LS	15500.00	\$15,500.00
Structural Concrete Coating	1	LS	5000.00	\$5,000.00
Signing	1	LS	10000.00	\$10,000.00
Utility Adjustments	1	LS	20000.00	\$20,000.00
Removals	1	LS	58000.00	\$58,000.00
Retaining wall	163	SF	30.00	\$4,890.00
Traffic Signal Modifications				
38th/Brighton Blvd	1	LS	10000.00	\$10,000.00
38th/Arkins Ct	1	LS	20000.00	\$20,000.00
Traffic Signal New				
38th/Delaney	1	LS	75000.00	\$75,000.00
			Sub Total	\$459,783.00
			Contingency 20%	\$91,956.60
			Construction signing & traffic control 10%	\$45,978.30
			Mobilization 8%	\$36,782.64
			Total of Construction Bid Items	\$542,543.94
			Force Account - Misc 10%	\$54,254.39
			Total of Construction Items	\$596,798.33
			Construction Engineering 12%	\$71,615.80
			Construction Management 4%	\$23,871.93
			Total	\$692,286.07

Exhibit 2
Concept-Level Construction Cost Estimate
Typical Roadway Segment
Broadway Corridor Transportation & Urban Design Study

Prepared by BRW, Inc.
BRW Project No. 13042-026
Dec-00
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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Pipe	LF	561	\$19.00	\$10,659
202	Removal of Concrete Sidewalk	SY	2380	\$7.00	\$16,660
202	Removal of Curb	LF	921	\$5.50	\$5,066
202	Removal of Asphalt Mat	SY	3800	\$4.00	\$15,200
202	Removal of Sign and Post	EA	50	\$115.00	\$5,750
202	Removal of Light Post, Luminaire, and Foundation	EA	7	\$250.00	\$1,750
203	Excavation	CY	900	\$15.50	\$13,950
210	Reset Water Meter	EA	5	\$3,100.00	\$15,500
210	Adjust Valve Box	EA	12	\$545.00	\$6,540
214	Deciduous Tree (4 inch caliper)	EA	12	\$1,500.00	\$18,000
306	Reconditioning	SY	5883	\$4.50	\$26,474
412	Concrete Pavement (11 inch)	SY	3650	\$75.00	\$273,750
603	Reinforced Concrete Pipe (42", avg.)	LF	560	\$108.00	\$60,480
604	Manhole	EA	1	\$5,000.00	\$5,000
608	Concrete Sidewalk	SY	1872	\$40.00	\$74,880
609	Curb and Gutter Ty 2 (Section II-B)	LF	2165	\$16.50	\$35,723
610	Median Cover Material	SF	7034	\$6.00	\$42,204
613	Light Pole, Luminaire, and Foundation (sidewalk)	EA	10	\$5,500.00	\$55,000
613	Light Pole, Luminaire, and Foundation (roadway)	EA	4	\$6,500.00	\$26,000
613	Electrical Conduit	LF	2100	\$10.00	\$21,000
614	Sign Panel (Class I)	SF	50	\$25.00	\$1,250
614	Steel Sign Post	LF	50	\$30.00	\$1,500
623	Utility Adjustments	LS	1	\$25,000.00	\$25,000
	Tree Grate (decorative)*	EA	12	\$2,500.00	\$30,000
	Tree Guard (decorative)*	EA	12	\$2,500.00	\$30,000
	Bench (decorative)*	EA	2	\$2,500.00	\$5,000
	Shelter*	EA	2	\$25,000.00	\$50,000
	District Median Light / Logo Pole*	EA	2	\$25,000.00	\$50,000
	Trash Receptacle*	EA	6	\$800.00	\$4,800
	Lighted Bollard*	EA	8	\$1,200.00	\$9,600
	Information Kiosk*	EA	1	\$25,000.00	\$25,000
Subtotal - Bid Items					\$961,735
625	Construction Surveying				\$20,000
627	Striping (5%)				\$48,087
630	Traffic Control (20%)				\$192,347
626	Mobilization (12%)				\$115,408
Subtotal - Construction					\$1,337,576
	Construction Engineering (12%)				\$160,509.15
	Engineering Survey and Design (15%)				\$200,636.44
	Administration (5%)				\$66,879
Subtotal					\$1,765,601
	Contingency (30%)				\$529,680.20
Total					\$2,295,281

Note: Asterisks (*) denote potential "1% for Art" items.

Exhibit 3
Concept-Level Construction Cost Estimate
Typical Minor Intersection (unsignalized)
Broadway Corridor Transportation & Urban Design Study

Prepared by BRW, Inc.
BRW Project No. 13042-026
Dec-00
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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Structure	EA	3	\$2,750.00	\$8,250
202	Removal of Pipe	LF	136	\$19.00	\$2,584
202	Removal of Concrete Sidewalk	SF	2495	\$7.00	\$17,465
202	Removal of Curb and Gutter	LF	93	\$5.25	\$488
202	Removal of Curb	LF	76	\$5.50	\$418
202	Removal of Asphalt Mat	SY	804	\$4.00	\$3,216
202	Removal of Light Post, Luminaire, and Foundation	EA	2	\$250.00	\$500
203	Excavation	CY	400	\$15.50	\$6,200
210	Reset Fire Hydrant	EA	1	\$2,500.00	\$2,500
306	Reconditioning	SY	1465	\$4.50	\$6,593
412	Concrete Pavement (11 inch)	SY	760	\$75.00	\$57,000
603	Reinforced Concrete Pipe (18")	LF	144	\$62.00	\$8,928
603	Reinforced Concrete Pipe (42", avg.)	LF	100	\$108.00	\$10,800
604	Inlet	EA	4	\$4,000.00	\$16,000
608	Concrete Sidewalk	SY	273	\$40.00	\$10,920
609	Curb and Gutter Ty 2 (Section II-B)	LF	288	\$16.50	\$4,752
610	Median Cover Material	SF	420	\$6.00	\$2,520
613	Electrical Conduit	LF	300	\$10.00	\$3,000
623	Utility Adjustments	LS	1	\$20,000.00	\$20,000
Subtotal - Bid Items					\$182,133.75
625	Construction Surveying				\$15,000
627	Striping (5%)				\$9,107
630	Traffic Control (20%)				\$36,427
626	Mobilization (12%)				\$21,856
Subtotal - Construction					\$264,523
	Construction Engineering (12%)				\$31,742.79
	Engineering Survey and Design (15%)				\$39,678.49
	Administration (5%)				\$13,226
Subtotal					\$349,171
	Contingency (30%)				\$104,751.20
Total					\$453,922

Exhibit 4**Concept-Level Construction Cost Estimate**

Typical Major Intersection (signalized)

Broadway Corridor Transportation & Urban Design Study

Prepared by BRW, Inc.

BRW Project No. 13042-026

Dec-00

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Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
202	Removal of Structure	EA	3	\$2,750.00	\$8,250
202	Removal of Pipe	LF	109	\$19.00	\$2,071
202	Removal of Concrete Sidewalk	SF	2270	\$7.00	\$15,890
202	Removal of Curb and Gutter	LF	78	\$5.25	\$410
202	Removal of Curb	LF	85	\$5.50	\$468
202	Removal of Asphalt Mat	SY	903	\$4.00	\$3,612
202	Removal of Traffic Signal	EA	1	\$15,000.00	\$15,000
202	Removal of Light Post, Luminaire, and Foundation	EA	2	\$250.00	\$500
203	Excavation	CY	500	\$15.50	\$7,750
210	Reset Fire Hydrant	EA	1	\$2,500.00	\$2,500
306	Reconditioning	SY	1503	\$4.50	\$6,764
412	Concrete Pavement (11 inch)	SY	816	\$75.00	\$61,200
603	Reinforced Concrete Pipe (18")	LF	144	\$62.00	\$8,928
603	Reinforced Concrete Pipe (42", avg.)	LF	100	\$108.00	\$10,800
604	Inlet	EA	4	\$4,000.00	\$16,000
608	Concrete Sidewalk	SY	288	\$40.00	\$11,520
609	Curb and Gutter Ty 2 (Section II-B)	LF	266	\$16.50	\$4,389
610	Median Cover Material	SF	500	\$6.00	\$3,000
614	Traffic Signal	LS	1	\$150,000.00	\$150,000
623	Utility Adjustments	LS	1	\$20,000.00	\$20,000
Subtotal - Bid Items					\$349,051
625	Construction Surveying				\$15,000
627	Striping (5%)				\$17,453
630	Traffic Control (20%)				\$69,810
626	Mobilization (12%)				\$41,886
Subtotal - Construction					\$493,199
	Construction Engineering (12%)				\$59,183.90
	Engineering Survey and Design (15%)				\$73,979.88
	Administration (5%)				\$24,660
Subtotal					\$651,023
	Contingency (30%)				\$195,307
Total					\$846,330

**South Platte Pedestrian Bridge
Statement of Probable Costs
Non-Structural Items**

ITEM	QTY	UNIT	UNIT COST	TOTAL COST
Demo. Existing Trail	1440	lf	\$4.00	\$5,760
Excavate Bank	1150	cy	\$7.00	\$8,050
Relocate 4" PVC Irrigation	1440	lf	\$14.00	\$20,160
Retaining Walls	1920	sf	\$18.00	\$34,560
Embankment	900	cy	\$5.00	\$4,500
New Concrete Trail	320	cy	\$150	\$48,000
Landscaping	1.65	ac	\$2,000	\$3,300
Seeding	1.65	ac	\$1,000	\$1,650
Mulch	1.65	ac	\$1,000	\$1,650
Subtotal				\$127,630
Contingency (25%)				\$31,908
Total				<u>\$159,538</u>

BICYCLE MASTER PLAN

SUMMARY OF QUANTITIES

Ex

QUANTITY	ITEM NUMBER	DESCRIPTION	UNIT	UNIT COST	TOTAL COST
4940	613 - 01200	2-INCH ELECTRICAL CONDUIT (PLASTIC)	LF	\$8.50	\$41,990.00
2350	613 - 01300	3-INCH ELECTRICAL CONDUIT (PLASTIC)	LF	\$13.00	\$30,550.00
20	613 - 70250	LUMINAIRE HIGH PRESSURE SODIUM (250 WATT)	EACH	\$607.00	\$12,140.00
53	613 - 07000	PULL BOXES (SPECIAL)	EACH	\$415.50	\$22,021.50
20	614 - 03100	CONCRETE FOOTING (TRAFFIC SIGNAL POLE)	EACH	\$11,050.00	\$221,000.00
40	614 - 70117	PEDESTRIAN SIGNAL FACE (16)	EACH	\$685.00	\$27,400.00
28	614 - 70324	TRAFFIC SIGNAL FACE (8-8-8)	EACH	\$450.00	\$12,600.00
34	614 - 70336	TRAFFIC SIGNAL FACE (12-12-12)	EACH	\$1,250.00	\$42,500.00
5	614 - 72855	TRAFFIC SIGNAL CONTROLLER CABINET	EACH	\$6,600.00	\$33,000.00
20	614 - 72860	PEDESTRIAN PUSH BUTTON	EACH	\$133.00	\$2,660.00
5	614 - 72866	FIRE PREEMPTION UNIT AND TIMER	EACH	\$3,500.00	\$17,500.00
30640	614 - 72875	LOOP DETECTOR WIRE	LF	\$3.00	\$91,920.00
5	614 - 72876	TRAFFIC SIGNAL VEHICLE DETECTOR AMPLIFIER (LOOP TYPE)	EACH	\$500.00	\$2,500.00
15	614 - 83300	TRAFFIC SIGNAL MAST ARM (INSTALL ONLY)	EACH	\$400.00	\$6,000.00
5	614 - 86238	TRAFFIC SIGNAL CONTROLLER (SOLID STATE) (FULL ACTUATED)	EACH	\$15,000.00	\$75,000.00
TOTALS =====>					\$638,781.50

Note:

Unit cost based on information from Colorado Department of Transportation 1999 Cost Data.