

Engineer's cost estimate:**Belden Place PUD**

Notes:

1. This Engineer's cost estimate is for the Final Submittal and the associated construction plans dated August 23, 2021
2. Cost/Unit values reflect the combined estimated cost to purchase materials and the labor required for construction/installation.
3. 10% Contingency is assumed for "For Construction" Submittals.
4. See pages following this summary for detailed cost breakdowns.
5. Standard rock clause applies.
6. Water & Sewer tap fees not included.
7. Hwy. 24 18" culvert crossing & culvert to river discharge. 50% of costs to be covered by Town of Minto.

<u>Cost Item Summary</u>	<u>COST/UNIT</u>	<u>UNIT</u>	<u>QUANTITY</u>	<u>COST</u>
General Conditions	\$557,044	L S	1.0	\$557,044
Water	\$320,370	L S	1.0	\$320,370
Sanitary Sewer	\$171,743	L S	1.0	\$171,743
Shallow Utilities (gas, electric, telephone/internet, CATV)	\$372,509	L S	1.0	\$372,509
Roads & Sidewalks	\$294,963	L S	1.0	\$294,963
Landscaping	\$138,053	L S	1.0	\$138,053
Storm Drain to Eagle River (50% of estimated cost)	\$249,582	L S	0.5	\$124,791

TOTAL**\$1,979,473**

	DESCRIPTION	COST/UNIT	UNIT	QUANTITY	TOTAL COST
Item	Belden PUD General Conditions				
1	Mobilization, Demobilization and Incidentals: including but not limited to: all permits, coordination, labor, equipment, all other materials, services, safety, utility locates, excavations, soil preparations, site grading, vertical adjustments to existing utility structures or other items not individual itemized but required to effect construction, initiation, and completion of the project.	\$18,000	LS	1	\$18,000
2	Site Grading and Earthwork: including but not limited to: topsoil removal, excavation (5,175 CY), export of material, 12" scarify and recompact entire road Right Of Way subgrade, fill placement (8,130 CY), screen approx. 1,000 CY of import already existing on-site for fill placement, import additional 2,000 CY of fill from off-site source, water for compaction, compaction testing to 95% standard proctor, all other materials, labor and equipment necessary for a completed project.	\$245,000	LS	1	\$245,000
3	Unsuitable Material Removal & Replacement - in areas below designed subgrade elevation as determined and field mesured by project engineer: including but not limited to: excavation, material removal, furnish and placement and water of Class 2 Aggregate replacement material, furnishing, labor, equipment, hauling, compaction, and all other materials, labor and equipment necessary for a completed project	\$45	CY	50	\$2,250
4	Rock Excavation- including but not limited to: removal of rock (as defined per CDOT Standards) from required areas to be excavated as measured in field by project engineer and all other materials, labor and equipment necessary for a completed project	\$250	LS	50	\$12,500
5	Contractor Trailer	\$1,000	LS	1	\$1,000
6	Security Fence	\$10	LF	675	\$6,750
7	Traffic Control	\$6,000	LS	1	\$6,000
8	Quality control testing	\$10,000	LS	1	\$10,000
9	Survey monumentation + final plat	\$1,300	EA	26	\$33,800
10	Stormwater Management	\$5,000	LS	1	\$5,000
11	MSE Retaining Wall @ West side Property Line and North side of Lot 16	\$35	Face SF	925	\$32,375
12	South Side Property Line Drainage Channel	\$20	LF	283	\$5,660
12	Erosion and Sediment Control - Silt Fencing	\$2.25	LF	1,400	\$3,150
13	Erosion and Sediment Control - Temporary Channelization	\$10	LF	630	\$6,300
14	Erosion and Sediment Control - culvert inlet protection	\$500	EA	1	\$500
15	Erosion and Sediment Control - Vehicle Tracking Pad (1,400 SF)	\$3,000	LS	1	\$3,000
16	Erosion and Sediment Control - Erosion Control Mats	\$10	SF	1,300	\$13,000
17	Dust Mitigation	\$7,500	LS	1	\$7,500
18	Concrete & Flow-Fill Washout structure	\$2,500	EA	1	\$2,500
19	Removal and Disposal of Sediment (Labor)	\$60	HR	20	\$1,200
20	Removal and Disposal of Sediment (Equipment)	\$150	HR	20	\$3,000
21	Erosion Control Mangement	\$95	DAY	60	\$5,700
22	Sweeping (sediment removal)	\$170	HR	20	\$3,400
23	Removal of Trash	\$115	HR	20	\$2,300
24	Sanitary facility	\$750	EA	1	\$750
25	Bus Stop	\$15,000	EA	1	\$15,000
26	SUBTOTAL				\$445,635
27	PERIODIC CONSTRUCTION INSPECTION, AS-BUILTS (5% OF COSTS)				\$22,282
28	CONSTRUCTION STAKING (10% OF COSTS)				\$44,564
29	CONSTRUCTION CONTINGENCY (10% OF COSTS)				\$44,564
30	TOTAL				\$557,044

	DESCRIPTION	COST/UNIT	UNIT	QUANTITY	TOTAL COST
Item	Belden PUD Water Main and Services				
31	Connection to Existing - Saw-Cut connection to existing water main (not a hot tap), including but not limited to: potholling, labor, excavation, sawcuts, fittings, valves all 3 sides of new "T", vavle boxes, debris cap, tracer wire, polywrap, thrustblocks, bedding, backfill, compaction, appurtenances, all other materials, labor and necessary equipment	\$10,000	EA	3	\$30,000
32	8" DIP water main with polywrap & concrete thrustblocks. 7' min. cover	\$100	LF	1,092	\$109,200
33	8" - " T" w/ thrustblock	\$1,000	EA	4	\$4,000
34	8" gate valve and box installed on main	\$2,000	EA	11	\$22,000
35	8" dia. field lock gaskets (joint restraint zones)	\$500	ZONE	24	\$12,000
36	6" DIP service lines	\$100	LF	33	\$3,300
37	6" dia. Service line construction (8x6" tee, 6" GV, 6" plug, kickblock, joint restraints)	\$2,000	EA	2	\$4,000
38	3/4" Water Service: jointless copper tubing : including but not limited to: excavation, bedding, backfill, compaction, compaction testing to 95% standard proctor, saddle, corporation stop, curb stop & box, jointless copper tubing, fittings, tracer wire, connections, district inspection, pressure testing and all other materials, labor and equipment necessary for a completed project	\$1,600	EA	25	\$40,000
39	Fire Hydrants w/ 8" tee & 6" gate valve & 6" pipe, thrustblock, joint restraints	\$8,000	EA	4	\$32,000
40	3/4" Water Services encasement: 20 ft of a pipe casing, concrete, or Controlled Low Strength Material (ex. Flowable fill) , per each.	\$500	EA	4	\$2,000
41	8" Main DIP encasement: 20 ft of a pipe casing, concrete, or Controlled Low Strength Material (ex. Flowable fill) , per each.	\$500	EA	6	\$3,000
42	Town of Minturn Water inspection fees	\$5,000	EA	1	\$5,000
43	Pressure Test and Bacteria Test	\$5,000	EA	1	\$5,000
44	SUBTOTAL				\$271,500
45	PERIODIC CONSTRUCTION INSPECTION, AS-BUILTS (5% OF COSTS)				\$13,575
46	CONSTRUCTION STAKING (3% OF COSTS)				\$8,145
47	CONSTRUCTION CONTINGENCY (10% OF COSTS)				\$27,150
48	TOTAL				\$320,370

	DESCRIPTION	COST/UNIT	UNIT	QUANTITY	TOTAL COST
Item	Belden PUD Sanitary Sewer Main and Services				
49	Sanitary Sewer Manhole Modification (Interconnection at existing sewer main manhole adjacent to HWY 24) including vacuum testing	\$5,000	EA	1	\$5,000
50	8" Sanitary Sewer Main (less than 10' deep). Including testing	\$85	LF	705	\$59,925
56	Insulate 8" Sanitary Sewer Main	\$1,000	EACH	1	\$1,000
51	4' Sanitary Sewer manholes including vacuum testing	\$4,200	EA	5	\$21,000
52	4" Gravity Sanitary Sewer Service lines	\$1,400	EA	23	\$32,200
53	2" Pressurized Sanitary Sewer service lines	\$1,400	EA	2	\$2,800
54	6" Sanitary Sewer service lines: 6" diameter (1@71', 1@56')	\$60	LF	127	\$7,620
55	4" Gravity Sanitary Sewer Services and 2" Pressurized Sanitary Sewer Services encasement at waterline crossings: 20 ft. of a pipe casing, concrete, or Controlled Low Strength Material (ex. Flowable fill)	\$500	EA	18	\$9,000
56	Eagle River Sanitation District inspection fees	\$5,000	EA	1	\$5,000
57	Televise and documentation	\$5	LF	400	\$2,000
58	SUBTOTAL				\$145,545
59	PERIODIC CONSTRUCTION INSPECTION, AS-BUILTS (5% OF COSTS)				\$7,277
60	CONSTRUCTION STAKING (3% OF COSTS)				\$4,366
61	CONSTRUCTION CONTINGENCY (10% OF COSTS)				\$14,555
62	TOTAL				\$171,743

	DESCRIPTION	COST/UNIT	UNIT	QUANTITY	TOTAL COST
Item	Belden PUD Shallow Utilities Mains and Services (Elec, Gas, Communications)				
63	Electrical lines and vaults (mat'l by Excel-estimated- "for construction" approval pending)	\$100,000.0	ea	1	\$100,000
64	Century-Tel Contract (none reqd)	\$0.0	ea	1	\$0
65	Electric Transformer Pads/Vault Installation: including but not limited to: coordination with provider, excavation, installation (Pads/Vaults provided by others), bedding, backfill, compaction, compaction testing to 95% standard proctor, (wiring by others) and all other materials, labor and equipment necessary for a completed project.	\$1,200.0	EA	7	\$8,400
66	Gas, Electric and Communication Common Trench for Main+Services (4' min. cover for Elec.): including but not limited to coordination with Utility Provider, conduit installation (main electrical conduit provided by others, gas Utility to provide and install pipe and reconnections, services conduit provided by contractor - 2@4", 2@2"), excavation, bedding, sleeves at road crossings, backfill, marker tape, compaction, compaction testing to 95% standard proctor, and all other materials, labor and equipment necessary for a completed project	\$28.0	LF	1,105	\$30,940
67	Gas, Electric & Communication Services within Common Main Trench (3' min. cover for Elec.): including but not limited to: conduit installation (conduit provided by contractor - 2@4", 2@2"), pull boxes, radius elbows, excavation, bedding, sleeves at road crossings, termination at the location on lot per construction drawings, backfill, marker tape, compaction, compaction testing to 95% standard proctor, and all other materials, labor and equipment necessary for a completed project	\$40.0	LF	1,218	\$48,720
68	Gas, Electric & Communication Services outside of Common Main Trench (3' min. cover for Elec.): including but not limited to: conduit installation (conduit provided by contractor - 2@4", 2@2"), pull boxes, radius elbows, excavation, bedding, sleeves at road crossings, termination at the location on lot per construction drawings, backfill, marker tape, compaction, compaction testing to 95% standard proctor, and all other materials, labor and equipment necessary for a completed project	\$40.0	LF	300	\$12,000
69					
70	Street lights				
71	Shielded- 30'x250W HPS (Includes 2 unmetered panel & contactor photo cell actuator)	\$7,500.0	ea	9	\$67,500
72	Light Pole Base: including but not limited to: excavation, concrete base, reinforcing, 1.5" conduit connection to transformer, bedding, sleeves at road crossings, backfill, compaction, compaction testing to 95% standard proctor, (pole/lamp/wiring installed by others) and all other materials, labor and equipment necessary for a completed project	\$1,850.0	lf	9	\$16,650
73					
74	Natural gas				
75	Natural gas piping materials & welding (mat'l by Excel Gas-estimated- "for construction" approval pending)	\$12.0	lf	2,623	\$31,476
76	Gas Line <u>Main</u> Trenching Gas: including but not limited to: coordination with Utility Provider (Utility to provide and install pipe and reconnections), excavation, bedding, sleeves at road crossings, backfill, compaction, compaction testing to 95% standard proctor, all other materials and all other materials, labor and equipment necessary for a completed project,		lf	included in above quantities	
77	Gas Line <u>Main</u> Trenching Gas: including but not limited to: coordination with Utility Provider (Utility to provide and install pipe and reconnections), excavation, bedding, sleeves at road crossings, backfill, compaction, compaction testing to 95% standard proctor, all other materials and all other materials, labor and equipment necessary for a completed project,		lf	included in above quantities	
78	SUBTOTAL				\$315,686
79	PERIODIC CONSTRUCTION INSPECTION, AS-BUILTS (5% OF COSTS)				\$15,784
80	CONSTRUCTION STAKING (3% OF COSTS)				\$9,471
81	CONSTRUCTION CONTINGENCY (10% OF COSTS)				\$31,569
82	TOTAL				\$372,509

	DESCRIPTION	COST/UNIT	UNIT	QUANTITY	TOTAL COST
Item	Belden PUD Road Work: 3.5"HBP & 8" Class 6 + 36" C&G + 3.0' Intermittent Sidewalk				
83	Scarify-wet-compact subgrade included in Item 2	\$2.5	SY		
84	Geotextile Fabric Contech C-200 (as needed)	\$9.0	SY	135	\$1,211
85	Silver Loop & Belden Way - 3.5" HBP over 8" class 6 -including but not limited to: soil preparation, 8" aggregate base course, compaction, compaction testing to 95% standard proctor	\$7.5	SF	12,109	\$90,818
86	Concrete Flatwork (entrance fillets, islands, valley pan crossings: including but not limited to: soil preparation, 8" aggregate base course, compaction, compaction testing to 95% standard proctor	\$15.0	SF	832	\$12,480
87	Curb & Gutter: including but not limited to: soil preparation, 8" aggregate base course, compaction, compaction testing to 95% standard proctor	\$42.0	LF	1,059	\$44,478
88	Curb, Gutter and Sidewalk: including but not limited to: soil preparation, 8" aggregate base course, compaction, compaction testing to 95% standard proctor	\$72.0	LF	673	\$48,456
89	Parking Areas (13Total) (Turfstone Pavers) over 8" ABC	\$15.0	SF	2,106	\$31,590
90	4 Ft Path to Bus Stop	\$10.0	SF	347	\$3,470
91	Scupper w/Reinforced Turf outlet	\$1,000.0	EA	2	\$2,000
92	Adjust sewer MH @ paving	\$500.0	EA	3	\$1,500
93	Adjust water gatevalves @ paving	\$500.0	EA	11	\$5,500
98	Pavement Markings and Striping: including but not limited to: lane lines, crosswalks, stop bars, turn arrows,one way arroes	\$2,500.0	LS	1	\$2,500
99	Sign - Street Name (Silver Loop and Belden Way)	\$400.0	EA	2	\$800
100	Sign - STOP R1-1, 30"x30"	\$400.0	EA	1	\$400
101	Sign - Speed Limit	\$200.0	EA	1	\$200
102	Sign - No Parking On Street	\$200.0	EA	1	\$200
103	Sign - Not a Through Street	\$200.0	EA	1	\$200
104	SUBTOTAL				\$245,802
105	PERIODIC CONSTRUCTION INSPECTION, AS-BUILTS (5% OF COSTS)				\$12,290
106	CONSTRUCTION STAKING (5% OF COSTS)				\$12,290
107	CONSTRUCTION CONTINGENCY (10% OF COSTS)				\$24,580
108	TOTAL				\$294,963

	DESCRIPTION	COST/UNIT	UNIT	QUANTITY	TOTAL COST
Item	Belden PUD Landscaping				
109	Irrigation Water Tap	\$5,000	ea	1	\$5,000
110	PARK				
111	Deciduous Trees				
112	Honeycrisp Apple 2" Cal	\$475	ea	4	\$1,900
113	Evergreen Trees				
114	Baby Blue Eyes Spruce 6 ft	\$725	ea	5	\$3,625
115	Ornamental Trees				
116	Thunderchild Crabapple 2" Cal	\$510	ea	1	\$510
117	Deciduous Shrubs				
118	Ash-leaf Spirea 5 Gal	\$65	ea	6	\$390
119	Miss Kim Lilac 5 Gal	\$65	ea	9	\$585
120	Landscaping Miscellaneous				
121	Irrigation System (DesignBuild)	\$6,000	ea	1	\$6,000
122	Turfstone pavers	\$810	sf	16	\$12,839
123	Topsoil (soil + placement)	\$65	cy	270	\$17,550
124	Seeding (hydraulic)	\$0.18	sf	3,411	\$614
125	Soil Conditioning	\$1.04	sf	3,411	\$3,547
126	Picnic Table	\$2,300	ea	1	\$2,300
127	Balance Logs	\$1,100	ea	1	\$1,100
128	Decorative Boulders	\$500	ea	1	\$500
129	Dog Waste Station	\$455	ea	1	\$455
130	Concrete Curbing	\$33	lf	132.00	\$4,356
131	Fibar Engineered Play Surface	\$105	cy	27	\$2,835
132	3" Shredded Mulch	\$110	cy	7	\$770
133	TRACTS B & D, LOT 17				
134	Evergreen Trees				
135	Baby Blue Eyes Spruce 6 ft	\$725	ea	11	\$7,975
136	Ornamental Trees				
137	Autumn Brilliance Serviceberry 8" clump	\$500	ea	8	\$4,000
138	Deciduous Shrubs				
139	Miss Kim Lilac 5 Gal	\$65	ea	4	\$260
140	Landscaping Miscellaneous				
110	Irrigation System (DesignBuild)	\$6,000	ea	1	\$6,000
111	Topsoil (soil + placement)	\$65	cy	270	\$17,550
112	Seeding (hydraulic)	\$0.18	sf	3,411	\$614
113	Soil Conditioning	\$1.04	sf	3,411	\$3,547
114	Dog Waste Station	\$455	ea	2	\$910
115	3" Shredded Mulch	\$110	cy	7	\$770
116	Landscape Maintenance (24 month)	\$24,000	l s	1	\$24,000
117	SUBTOTAL				\$125,502
118	CONSTRUCTION CONTINGENCY (10% OF COSTS)				\$12,550
119	TOTAL				\$138,053

	DESCRIPTION	COST/UNIT	UNIT	QUANTITY	TOTAL COST
Item	Belden PUD - 18" STORM DRAIN TO EAGLE RIVER - HWY 24 CROSSING & BONEYARD OPEN SPACE CROSSING				
120	Mobilization (included in Item 1 Belden PUD mobilization by same contractor)	\$10,000	L S		
121	Clearing and grubbing	\$1,000	L S	1	\$1,000
122	Removal of Debris	\$600	L S	1	\$600
123	Erosion Log Type 1 (12 inch)	\$8	LF	20	\$160
124	Erosion Bales (Weed Free)	\$25	EACH	20	\$500
125	Silt Fence	\$2.25	LF	270	\$608
126	Sawing Asphalt Mat (Highway 24)	\$50	LF	50	\$2,500
127	Removal of Asphalt Mat (Highway 24)	\$20	SY	27	\$533
128	Potholing	\$275	HOURL	10	\$2,750
129	Trench Box for excavation at open space	\$5,000	L S	1	\$5,000
130	18-Inch Reinforced Concrete Pipe (Hwy 24 Crossing - complete in place)	\$200	LF	206	\$41,120
131	18-Inch Reinforced Concrete Pipe Flared End Section w/Trash Grate	\$1,000	EACH	2	\$2,000
132	Insulate existing utility crossings in Hwy 24	\$1,000	EACH	1	\$1,000
133	Inlet Type R L5 (5 Foot)	\$5,000	EACH	2	\$10,000
134	Inlet Type D Inlet (5 Foot)	\$7,000	EACH	1	\$7,000
135	Hydrodynamic Separator (Cascade 4)	\$11,000	EACH	1	\$11,000
136	Flow Fill Culvert Backfill (@Highway 24)	\$400	CY	19	\$7,407
137	Aggregate Base Course (Class 6) (@highway ROW)	\$60	CY	48	\$2,889
138	Hot Mix Asphalt	\$100	TON	14	\$1,400
139	Stabilized outlet protection - RipRap (9 inch)	\$140	CY	20	\$2,800
140	Geotextile @ RipRap (Drainage) (Class 1)	\$6	SY	44	\$267
141	Proof Rolling	\$100	HOURL	4	\$400
142	Blading	\$250	HOURL	10	\$2,500
143	Backhoe	\$160	HOURL	10	\$1,600
144	Combination Loader	\$150	HOURL	10	\$1,500
145	Laborer	\$60	HOURL	80	\$4,800
146	Topsoil	\$20	CY	43	\$852
147	Concrete Washout structure (included in Belden PUD staging area)	\$2,500	EACH		
148	Vehicle Tracking Pad	\$3,000	EACH	1	\$3,000
149	Removal and Disposal of Sediment (Labor)	\$60	HR	2	\$120
150	Removal and Disposal of Sediment (Equipment)	\$150	HR	2	\$300
151	Erosion Control Mangement	\$95	DAY	10	\$950
152	Soil Conditioning	\$2,500	ACRE	1	\$2,500
153	Seeding (Native) (Hydraulic)	\$2,000	ACRE	1	\$2,000
154	Sanitary Facility	\$500	EACH	1	\$500
155	Surveying as-builts	\$5,000	L S	1	\$5,000
156	Epoxy Pavement Marking	\$120	GAL	10	\$1,200
157	Flagging	\$35	HR	160	\$5,600
158	Traffic Control Inspection	\$300	DAY	14	\$4,200
159	Traffic Control Management	\$900	DAY	14	\$12,600
160	Flashing Beacon (Portable)	\$1,400	EACH	4	\$5,600
161	Construction Traffic Sign (Panel Size A)	\$50	EACH	16	\$800
162	Construction Traffic Sign (Panel Size B)	\$80	EACH	44	\$3,520
163	Portable Message Sign Panel	\$3,000	EACH	2	\$6,000
164	Advance Warning Flashing or Sequencing Arrow Panel (C Type)	\$600	EACH	2	\$1,200
165	Drum Channelizing Device	\$60	EACH	10	\$600
166	Barrier (temporary)	\$50	LF	100	\$5,000
167	Rumble Strip (Portable)	\$2,000	EACH	6	\$12,000
168	Traffic Signal (Temporary)	\$7,100	EACH	2	\$14,200
169	Night Work Lighting	\$2,200	L S	1	\$2,200
170	SUBTOTAL				\$201,276
171	N, PERIODIC CONSTRUCTION INSPECTION, AS-BUILTS & TRAFFIC CONTROL PLAN (12% OF COSTS)				\$24,153
172	CONSTRUCTION STAKING (2% OF COSTS)				\$4,026
173	CONSTRUCTION CONTINGENCY (10% OF COSTS)				\$20,128
174	TOTAL COST				\$249,582