



CITY OF BENTONVILLE
SE WALTON BLVD. AND MEDICAL CENTER PKWY. IMPROVEMENTS
ENGINEER'S ESTIMATE OF PROBABLE COST
PRELIMINARY DESIGN - MARCH 2022



**Engineer's Estimate of
 Probable Cost**

ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
1	Roadway Construction Control	LS	1	\$20,000.00	\$20,000.00
2	Trench and Excavation Systems	LS	1	\$5,000.00	\$5,000.00
3	Clearing and Grubbing	LS	1	\$30,000.00	\$30,000.00
4	Excavation	CY	910	\$30.00	\$27,300.00
5	Embankment	CY	225	\$25.00	\$5,625.00
6	Subgrade Preparation	SY	1,732	\$4.00	\$6,928.00
7	4" Topsoil Placement	SY	2,862	\$4.00	\$11,448.00
8	18" Class III R.C. Pipe	LF	229	\$100.00	\$22,900.00
9	24" Class III R.C. Pipe	LF	142	\$110.00	\$15,620.00
10	24" Class III R.C. Flared End Section	EA	1	\$1,800.00	\$1,800.00
11	4'x3' Special Inlet	EA	2	\$8,000.00	\$16,000.00
12	4'x6.5' Special Inlet	EA	1	\$13,500.00	\$13,500.00
13	7'x3' Special Inlet	EA	4	\$14,750.00	\$59,000.00
14	7'x4.5' Special Inlet	EA	1	\$15,500.00	\$15,500.00
15	7'x7' Special Inlet	EA	1	\$10,570.00	\$10,570.00
16	10'x3' Special Inlet	EA	2	\$8,000.00	\$16,000.00
17	4'x4.5' Type Special Junction Box	EA	1	\$5,500.00	\$5,500.00
18	4'x4' Junction Box	EA	2	\$5,150.00	\$10,300.00
19	Neenah R-3246-AL Combination Inlet Frame	EA	4	\$2,500.00	\$10,000.00
20	Neenah R-3293-2 Combination Inlet Frame	EA	6	\$6,600.00	\$39,600.00
21	Neenah R-3293-3 Combination Inlet Frame	EA	2	\$8,500.00	\$17,000.00
22	Neenah R-3076-6B Curb Hood	EA	8	\$1,000.00	\$8,000.00
23	6" Aggregate Base Course	SY	1,732	\$15.00	\$25,980.00
24	ACHM Surface Course (PG 70-22)	TON	585	\$150.00	\$87,750.00
25	ACHM Binder Course (PG 64-22)	TON	312	\$135.00	\$42,120.00
26	4" U.T. P.C.C. Base Course	SY	113	\$60.00	\$6,780.00
27	Cold Milling	SY	3,435	\$8.00	\$27,480.00
28	Concrete Curb and Gutter (Type A) (1'-6")	LF	1,137	\$25.00	\$28,425.00
29	4" Concrete Sidewalk	SY	348	\$65.00	\$22,620.00
30	6" Concrete Sidewalk	SY	42	\$80.00	\$3,360.00
31	Concrete Apron	SY	86	\$95.00	\$8,170.00
32	Concrete Driveway	SY	47	\$80.00	\$3,760.00
33	Asphalt Driveway	SY	67	\$70.00	\$4,690.00
34	Concrete Retaining Wall	SF	913	\$70.00	\$63,910.00
35	Sodding	SY	2,862	\$5.00	\$14,310.00
36	6" Striping (Thermoplastic)	LF	2,762	\$3.00	\$8,286.00
37	12" Striping (Thermoplastic)	LF	838	\$19.00	\$15,922.00
38	Pavement Symbols (Thermoplastic)	EA	28	\$500.00	\$14,000.00
39	Standard Street Sign Installation	EA	2	\$400.00	\$800.00
40	Remove, Salvage, and Reinstall Street Sign	EA	2	\$400.00	\$800.00
41	Erosion Control	LS	1	\$10,000.00	\$10,000.00
42	Traffic Control	LS	1	\$35,000.00	\$35,000.00
43	Mobilization	LS	1	\$70,000.00	\$70,000.00
44	ACHM Pavement Permanent Repair	SY	42	\$150.00	\$6,300.00
45	Handicap Ramp Concrete	SY	69	\$129.00	\$8,901.00
46	Detectable Warning Device	SF	103	\$52.00	\$5,356.00

47	Retaining Wall Integral with 6" Thick Sidewalk	SY	61	\$120.00	\$7,320.00
48	Retaining Wall Integral with Handicap Ramp	SY	38	\$200.00	\$7,600.00
49	Decorative Gravel	SY	69	\$90.00	\$6,210.00
50	Guardrail (ARDOT Type A)	LF	275	\$50.00	\$13,750.00
51	Terminal Anchor Post (Type 1)	EA	2	\$1,100.00	\$2,200.00
52	Remove, Salvage, and Reinstall Monument Signs	EA	2	\$15,000.00	\$30,000.00
53	Remove, Salvage, and Reinstall Solar Panel for Sign	EA	1	\$2,500.00	\$2,500.00
54	Remove, Salvage, and Reinstall Handrail	LF	18	\$100.00	\$1,800.00
55	System Local Controller-Fiber (8 Phases)	EA	1	\$40,000.00	\$40,000.00
56	Ethernet Switch	EA	1	\$2,750.00	\$2,750.00
57	GPS Preemption System	EA	1	\$50,000.00	\$50,000.00
58	Battery Backup System	EA	1	\$10,700.00	\$10,700.00
59	WIC Fiber Enclosure	EA	1	\$2,400.00	\$2,400.00
60	Traffic Signal Head, LED, (3 Section, 1 Way)	EA	10	\$1,400.00	\$14,000.00
61	Traffic Signal Head, LED, (4 Section, 1 Way)	EA	2	\$1,750.00	\$3,500.00
62	Traffic Signal Head, LED, (5 Section, 1 Way)	EA	2	\$3,500.00	\$7,000.00
63	Central Control Unit	EA	1	\$5,250.00	\$5,250.00
64	Pole Mounted Assembly	EA	8	\$1,375.00	\$11,000.00
65	Infrared Programming Device	EA	1	\$1,875.00	\$1,875.00
66	Countdown Pedestrian Signal Head, Led	EA	8	\$2,500.00	\$20,000.00
67	Traffic Signal Cable (5C/14 A.W.G.)	LF	2,908	\$2.50	\$7,270.00
68	Traffic Signal Cable (7C/14 A.W.G.)	LF	264	\$3.25	\$858.00
69	Traffic Signal Cable (20C/14 A.W.G.)	LF	736	\$7.00	\$5,152.00
70	Electrical Conductors-In-Conduit (1C/8 A.W.G., E.G.C.)	LF	826	\$2.25	\$1,858.50
71	Electrical Conductors-In-Conduit (1C/12 A.W.G., E.G.C.)	LF	220	\$1.75	\$385.00
72	Electrical Conductors-In-Conduit (2C/6 A.W.G.)	LF	37	\$5.00	\$185.00
73	Electrical Conductors For Luminaires	LF	956	\$2.25	\$2,151.00
74	Communication Cable, Fiber (12 Channel)	LF	111	\$6.00	\$666.00
75	Galvanized Steel Conduit (2")	LF	14	\$42.50	\$595.00
76	Non-Metallic Conduit (2")	LF	111	\$20.00	\$2,220.00
77	Non-Metallic Conduit (3")	LF	831	\$37.50	\$31,162.50
78	Concrete Pull Box (Type 3)	EA	4	\$1,250.00	\$5,000.00
79	Concrete Pull Box (Type 1 HD)	EA	1	\$1,500.00	\$1,500.00
80	Concrete Pull Box (Type 3 HD)	EA	7	\$2,900.00	\$20,300.00
81	Pull Box For Fiber, DS-1609, 20"X48"X24"	EA	2	\$3,750.00	\$7,500.00
82	Traffic Signal Mast Arm And Pole With Foundation (36')	EA	1	\$39,000.00	\$39,000.00
83	Traffic Signal Mast Arm And Pole With Foundation (38')	EA	1	\$42,000.00	\$42,000.00
84	Traffic Signal Mast Arm And Pole With Foundation (48')	EA	1	\$51,000.00	\$51,000.00
85	Traffic Signal Mast Arm And Pole With Foundation (54')	EA	1	\$57,000.00	\$57,000.00
86	LED Luminaire Assembly	EA	4	\$1,000.00	\$4,000.00
87	Traffic Signal Pedestal Pole With Foundation	EA	6	\$3,125.00	\$18,750.00
88	Service Point Assembly (2 Circuits)	EA	1	\$3,500.00	\$3,500.00
89	18" Street Name Sign (Install Only)	EA	4	\$250.00	\$1,000.00
90	Video Detector Rack (16 Channel)	EA	1	\$3,750.00	\$3,750.00
91	Video Detector (IP)	EA	7	\$4,375.00	\$30,625.00
92	Video Cable (Exterior Cat 5E)	LF	1,490	\$2.25	\$3,352.50
93	Video Monitor (CLR)	EA	1	\$1,300.00	\$1,300.00
94	Central Control Unit (4 Channel)	EA	2	\$9,375.00	\$18,750.00
95	Video Processor, Edge Card IP (2 Camera)	EA	5	\$8,500.00	\$42,500.00
96	Utility Mobilization	LS	1	\$5,000.00	\$5,000.00

97	Utility Trench Excavation Safety Systems	LS	1	\$8,000.00	\$8,000.00
98	Spot Dig and Verify Exiting Utility Locations	LS	1	\$2,000.00	\$2,000.00
99	Bypass Pumping	LS	1	\$10,000.00	\$10,000.00
100	8" SDR-26 PVC Sewer Line	LF	98	\$100.00	\$9,800.00
101	4' ID San. Sewer Drop Manhole, Cast-in-Place, 0' to 6' Depth	EA	1	\$6,000.00	\$6,000.00
102	4' ID San. Sewer Manhole Additional Depth, Over 6'	VF	9.7	\$300.00	\$2,910.00
103	6' ID San. Sewer Manhole, Cast-in-Place, 0' to 6' Depth	EA	1	\$8,000.00	\$8,000.00
104	6' ID San. Sewer Manhole Additional Depth, Over 6'	VF	9.7	\$500.00	\$4,850.00
105	Core Existing Manhole	EA	1	\$3,000.00	\$3,000.00
106	Raise Manhole Rim to Proposed Grade	VF	0.1	\$2,000.00	\$200.00
107	Lower Manhole Rim to Proposed Grade	VF	0.8	\$1,500.00	\$1,200.00
108	12"x6" Tapping Sleeve and Valve	EA	1	\$7,000.00	\$7,000.00
109	Fire Hydrant Assembly	EA	1	\$6,500.00	\$6,500.00
110	1" Water Service Line and 5/8" Meter Set	EA	1	\$3,000.00	\$3,000.00
111	Salvage Fire Hydrant	EA	1	\$1,000.00	\$1,000.00
112	Adjust Valve Box to Proposed Grade	EA	2	\$200.00	\$400.00
113	Flowable Fill for Abandoned Pipe	CY	2	\$300.00	\$600.00
114	Trench Undercut and Backfill	CY	50	\$100.00	\$5,000.00
115	Rock Excavation for Utilities	CY	50	\$200.00	\$10,000.00

Subtotal Roadway, Drainage, and Traffic Signal	<u>\$1,525,496.50</u>
Subtotal Water and Sewer	<u>\$94,460.00</u>
20% Contingency	<u>\$323,991.30</u>

Total Engineer's Construction Cost Estimate \$1,943,947.80

Additional Estimated Costs

Engineering Design Services Fee	<u>\$271,414.00</u>
Engineering Construction Phase Services Fee	<u>\$89,175.00</u>
Property Acquisition Cost	<u>\$106,000.00</u>
Franchise Utility Relocation Estimate	<u>\$375,000.00</u>
Construction Testing Fee	<u>\$10,000.00</u>

Total Estimated Project Cost \$2,795,536.80