

# Milwaukee Public Library

## Martin Luther King Jr. Library

310 W. Locust St.  
Milwaukee, WI 53212

For Owner Review  
October 06, 2023

### **DD Estimate**

October 5, 2023

**DRAFT**

Project: 2020A053

### **Prepared For:**

Moody Nolan  
209 South LaSalle Street  
Suite 820  
Chicago, IL 60604

## **NOTES REGARDING PREPARATION OF ESTIMATE**

This estimate was prepared based on the following documents provided by Moody Nolan Architects:

1. MPL-MLK Library Design Development Drawings issued September 18, 2023.
2. Information regarding the project was also obtained via meetings, phone conversations, and email messages that clarified the project scope.

## **BIDDING PROCESS - MARKET CONDITIONS**

This document is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this document. Unit rates have been generated from current material/labor rates, historical production data, and discussions with relevant subcontractors and material suppliers. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated.

Pricing reflects probable construction costs obtainable in the Milwaukee, Wisconsin area on the bid date. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors with a minimum of 3 bidders for all items of subcontracted work and a with a minimum of 3 bidders for a general contractor. Experience indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids.

Since The Concord Group has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, this statement of probable construction cost is based on industry practice, professional experience and qualifications, and represents The Concord Group's best judgment as professional construction cost consultants familiar with the construction industry. However, The Concord Group cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

## **CURRENT MARKET CONDITIONS**

It should be noted that there is ongoing volatility in the construction materials market due to the effects of the pandemic on both the production and supply of materials. Due to the lack of in stock materials suppliers are struggling to fulfill orders in a timely manner, which in turn leads to much longer than normal lead times. The impact of ongoing global raw material shortages and fuel price increases adds to the overall spike in material pricing coupled with the increased demand for construction that the construction industry is now seeing. These factors should be considered when determining the bidding strategy and schedule for projects.

## **ASSUMED CONSTRUCTION PARAMETERS**

The pricing is based on the following project parameters:

1. A construction notice to proceed date of January 15, 2024.
2. A substantial completion date of December 20, 2024.
3. The contract will be competitively bid to multiple contractors.
4. All contractors will be required to pay prevailing wages.
5. There are no phasing requirements.
6. The contractors will have full access to the site during normal working hours
7. Estimate detail includes pricing as of October 2023.

### **EXCLUSIONS**

The following are excluded from the cost of this estimate:

1. Professional Design Fees
2. Testing Fees
3. Owner Contingencies/Scope Changes
4. Construction Contingency
5. Premium Time / Restrictions on Contractor Working Hours
6. Cost Escalation
7. Finance and Legal Charges
8. Environmental Abatement Costs
9. Temporary Owner Facilities
10. Moisture Mitigation
11. Stairs
12. Fireplace
13. Equipment (Owner Furnished/Installed)
14. Artwork
15. Elevator
16. Third Party Commissioning
17. Geothermal Well Field (By Developer)
18. Electric Vehicle Charging Station (By Owner or Future)
19. Telephone / Data Equipment
20. Contaminated Soil Removal
21. Structurally Unsuitable Soil Removal
22. Future Cost Impacts Based on Supply Chain Impacts

For Owner Review  
October 06, 2023

DD Estimate  
10/05/2023  
DRAFT

COST SUMMARY		17,671 GSF	\$/SF	BUILDING TOTAL
<b>01000</b>	GENERAL REQUIREMENTS		\$0.00	\$0
<b>02000</b>	EXISTING CONDITIONS		\$0.00	\$0
<b>03000</b>	CONCRETE		\$0.79	\$14,033
<b>04000</b>	MASONRY		\$0.43	\$7,665
<b>05000</b>	METALS		\$2.65	\$46,799
<b>06000</b>	WOODS, PLASTICS & COMPOSITES		\$16.81	\$297,082
<b>07000</b>	THERMAL & MOISTURE PROTECTION SYSTEM		\$0.34	\$5,937
<b>08000</b>	OPENINGS		\$14.61	\$258,217
<b>09000</b>	FINISHES		\$60.15	\$1,062,975
<b>10000</b>	SPECIALTIES		\$19.30	\$341,034
<b>11000</b>	EQUIPMENT		\$4.22	\$74,576
<b>12000</b>	FURNISHINGS		\$16.57	\$292,810
<b>13000</b>	SPECIAL CONSTRUCTION		\$0.00	\$0
<b>14000</b>	CONVEYING EQUIPMENT		\$0.00	\$0
<b>21000</b>	FIRE SUPPRESSION		\$2.13	\$37,551
<b>22000</b>	PLUMBING		\$11.74	\$207,459
<b>23000</b>	HEATING, VENTILATING & AIR CONDITIONING		\$53.08	\$938,001
<b>26000</b>	ELECTRICAL		\$41.68	\$736,484
<b>27000</b>	COMMUNICATIONS		\$19.31	\$341,141
<b>28000</b>	ELECTRONIC SAFETY AND SECURITY		\$17.94	\$316,994
<b>31000</b>	EARTHWORK		\$0.07	\$1,194
<b>32000</b>	EXTERIOR IMPROVEMENTS		\$0.00	\$0
<b>33000</b>	UTILITIES		\$12.33	\$217,935
<b>SUBTOTAL</b>			<b>\$294.15</b>	<b>\$5,197,887</b>
	DESIGN CONTINGENCY	7.00%	\$20.59	\$363,852
	GENERAL CONDITIONS/BOND/INSURANCE	9.00%	\$28.33	\$500,557
	CONTRACTOR'S FEES	3.50%	\$12.01	\$212,180
	ESCALATION TO MID-POINT OF CONSTRUCTION	3.75%	\$13.32	\$235,293
<b>TOTAL ESTIMATED CONSTRUCTION COSTS</b>			<b>\$368.39</b>	<b>\$6,509,769</b>

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>03000 CONCRETE</b>				
<b>03600 Precast Architectural Concrete</b>				
Precast concrete seat and back, bench	1	EACH	5,385.43	5,385
<b>SUBTOTAL: Precast Architectural Concrete</b>				<b>\$5,385</b>
<b>03900 Miscellaneous Concrete</b>				
Formwork for strip footings, bench	80	SQFT	10.17	814
Formwork at stair landing	15	SQFT	10.33	155
Formwork for foundation walls, bench	344	SQFT	10.98	3,779
Reinforcement in strip footings, avg 65 lbs/cy, bench	130	LBS	1.63	212
Reinforcement in foundation walls, avg 115 lbs/cy, bench	460	LBS	1.73	795
Concrete in strip footings, bench	2	CUYD	238.62	477
Concrete in foundation walls, bench	4	CUYD	246.28	985
Concrete slab on grade, 4" thk, with mesh reinforcement, bench	58	SQFT	6.34	368
Concrete slab on grade, 6" thk, with mesh reinforcement, stair landing	50	SQFT	6.34	317
Geofoam fill for stair landing	2	CUYD	125.78	252
Concrete fill at metal pan stair tread	15	LNFT	32.86	493
<b>SUBTOTAL: Miscellaneous Concrete</b>				<b>\$8,647</b>
<b>TOTAL: CONCRETE</b>				<b>\$14,033</b>
<b>04000 MASONRY</b>				
<b>04100 Exterior Masonry</b>				
Brick facade, modular, 2-2/3"x8"x4" thk, bench	78	SQFT	34.12	2,661
Cast stone coping, 18" wide x 4" deep, bench	20	LNFT	173.40	3,468
CMU backup, bench	78	SQFT	19.69	1,536
<b>SUBTOTAL: Exterior Masonry</b>				<b>\$7,665</b>
<b>TOTAL: MASONRY</b>				<b>\$7,665</b>
<b>05000 METALS</b>				
<b>05100 Structural Steel</b>				
Structural steel allowance at movable walls	2	TONS	5,842.37	11,685
Structural steel beams, HSS Tubes, bench	374	LBS	4.10	1,534
<b>SUBTOTAL: Structural Steel</b>				<b>\$13,219</b>
<b>05300 Stairs</b>				
Metal pan stairs	15	LNFT	53.08	796
Steel railing system, painted	10	LNFT	122.50	1,225
<b>SUBTOTAL: Stairs</b>				<b>\$2,021</b>
<b>05900 Miscellaneous Metals</b>				
Miscellaneous angles, channels, lintels, etc.	17,671	SQFT	1.79	31,559
<b>SUBTOTAL: Miscellaneous Metals</b>				<b>\$31,559</b>
<b>TOTAL: METALS</b>				<b>\$46,799</b>

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>06000 WOODS, PLASTICS &amp; COMPOSITES</b>				
<b>06200 Rough Carpentry</b>				
Miscellaneous wood blocking & rough carpentry	17,671	SQFT	1.83	32,334
<b>SUBTOTAL: Rough Carpentry</b>				<b>\$32,334</b>
<b>06300 Millwork</b>				
Built-in wall seating	10	LNFT	449.96	4,500
P-lam base cabinets and solid surface countertops	72	LNFT	644.18	46,381
P-lam base cabinets and 36" deep solid surface countertops	4	LNFT	794.18	3,177
P-lam base cabinets and 42" deep solid surface countertops	6	LNFT	869.18	5,215
P-Lam mail slots, 3'-0" high	12	LNFT	345.40	4,145
P-lam wall hung cabinets	71	LNFT	387.44	27,508
Interactive wall, 8'-6" h. x 2'-0". Pleastic laminate w/upholstered seating	28	LNFT	779.30	21,820
Full height cabinet, 2'-0" x 7'-0", plastic laminate	1	EACH	1,499.80	1,500
Interactive casework at teen area, 5'-0" h. x 2'-0". Plastic laminate	21	LNFT	410.26	8,615
Closet rod and shelf	6	LNFT	121.80	731
Solid surface countertops with supports, 18" deep	45	LNFT	233.58	10,511
Solid surface window sills	194	LNFT	131.30	25,472
P-lam top and bottom rails at marker boards	40	LNFT	16.92	677
Circualtion Desk. Plastic laminate w/quartz surround and worksurfaces	43	LNFT	1,615.04	69,447
Service Point Desk.. Plastic laminate w/quartz surround and worksurfaces	17	LNFT	1,615.04	27,456
<b>SUBTOTAL: Millwork</b>				<b>\$257,154</b>
<b>06400 Wood &amp; Plastic Finishes</b>				
P-lam at TV surround	32	SQFT	8.79	281
Plastic laminate wall panels w/mtl. edge. various shapes. assume z-clipped to wall	382	SQFT	19.14	7,312
<b>SUBTOTAL: Wood &amp; Plastic Finishes</b>				<b>\$7,593</b>
<b>TOTAL: WOODS, PLASTICS &amp; COMPOSITES</b>				<b>\$297,082</b>
<b>07000 THERMAL &amp; MOISTURE PROTECTION</b>				
<b>07800 Caulking &amp; Sealants</b>				
Miscellaneous caulking & sealants	17,671	SQFT	0.34	5,937
<b>SUBTOTAL: Caulking &amp; Sealants</b>				<b>\$5,937</b>
<b>TOTAL: THERMAL &amp; MOISTURE PROTECTION</b>				<b>\$5,937</b>
<b>08000 OPENINGS</b>				
<b>08400 Interior Doors, Frames, &amp; Hardware</b>				
HM frame, Type 1, 3'-0" x 7'-0"	15	EACH	829.30	12,440
HM frame, Type 2, 3'-0" x 7'-0", w/4" header	1	EACH	834.30	834
HM frame, Type 3, 6'-0" x 7'-0"	10	EACH	1,051.45	10,515
HM Door, Type A, 3'-0" x 7'-0"	2	EACH	917.15	1,834
HM Door, Type A, 3'-8" x 7'-10"	1	EACH	1,212.15	1,212
AL/GL Door, Type B, 3'-0" x 9'-10"	3	EACH	5,737.15	17,211
AL/GL Door, Type B, 3'-2" x 9'-10"	2	EACH	6,052.15	12,104

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
AL/GL Door, Type B, 3'-10" x 9'-10"	2	EACH	7,297.15	14,594
AL/GL Door, Type BB, (2) 3'-0" x 7'-0"	2	EACH	8,234.30	16,469
WD Door, Type A, 3'-0" x 7'-0"	13	EACH	1,117.15	14,523
WD Door, Type AA, (2) 3'-0" x 7'-0"	6	EACH	2,234.30	13,406
WD Door, Type L, (1) 4'-0" x 7'-0", (1) 2'-0" x 7'-0" w/glass lite	2	EACH	2,434.30	4,869
Hardware set, single	24	EACH	1,084.30	26,023
Hardware set, double	10	EACH	1,768.60	17,686
Fire rated, 45 minute per leaf	11	EACH	80.00	880
Fire rated, 90 minute per leaf	2	EACH	150.00	300
<b>SUBTOTAL: Interior Doors, Frames, &amp; Hardware</b>				<b>\$164,900</b>
<b>08500 Interior Glazing</b>				
Interior storefront	967	SQFT	67.36	65,140
Vinyl graphic film on glass, 10'-0" h.	1,407	SQFT	20.03	28,177
<b>SUBTOTAL: Interior Glazing</b>				<b>\$93,317</b>
<b>TOTAL: OPENINGS</b>				<b>\$258,217</b>

## 09000 FINISHES

### 09100 Plaster & Gypsum Board

Gypsum board ceiling, suspended, G1	596	SQFT	12.12	7,225
Gypsum board ceiling, suspended, G2, moisture resistant	548	SQFT	12.12	6,643
Gypsum board soffit, G1	2,379	SQFT	19.12	45,486
Gyp board bulkhead	4,136	SQFT	13.96	57,755
Partition 1H: 1-5/8" metal studs, 5/8" gypboard one side, full-height	2,327	SQFT	9.25	21,532
Partition 2G: 2-1/2" metal studs, 5/8" gypboard one side, 2" mineral fiber blanket insulation, full-height	11,357	SQFT	9.18	104,214
Partition 3G: 3-5/8" metal studs, 5/8" gypboard one side, 3" mineral fiber blanket insulation, full-height	750	SQFT	9.90	7,426
Partition 3H: 3-5/8" metal studs, 5/8" gypboard one side, full-height.	535	SQFT	8.19	4,382
Partition 4A: 6" metal studs, 5/8" type x gypboard each side, full-height. 1-hour rated	4,318	SQFT	12.11	52,300
Partition 4D: 6" metal studs, 5/8" gypboard each side, full-height	12,157	SQFT	11.42	138,883
Partition 4H: 6" metal studs, 5/8" gypboard one side, full-height	540	SQFT	8.69	4,694
Partition CS1: (2) 3-5/8" metal studs, 5/8" gypboard each side, (2) 3" mineral fiber blanket insulation, full-height	264	SQFT	19.23	5,077
Partition CS3: (2) 3-5/8" metal studs, 5/8" gypboard each side, (2) 3" mineral fiber blanket insulation, full-height	443	SQFT	19.23	8,520
Partition S6: 6" metal studs, (2) 5/8" type x gypboard each side, 5" mineral fiber blanket insulation, full-height, 1-hour rated	880	SQFT	20.52	18,061
Partition SF3: 3-5/8" metal studs, (2) 5/8" type x gypboard one side, 3" mineral fiber blanket insulation, full-height, 1-hour rated	506	SQFT	13.34	6,752

**SUBTOTAL: Plaster & Gypsum Board \$488,949**

### 09200 Floor Finishes

Porcelain tile floor, PTF-1	2,136	SQFT	16.06	34,300
Porcelain tile floor, PTF-2	1,421	SQFT	16.06	22,819

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Porcelain tile base, PTB-1	201	LNFT	20.46	4,113
Luxury vinyl tile, LVT-1	3,608	SQFT	9.28	33,491
Rubber base, RB-1	1,185	LNFT	3.12	3,696
Rubber base, RB-2	1,074	LNFT	3.12	3,350
Sealed Concrete (SC-1)	2,064	SQFT	1.68	3,474
Carpet tile, CPT-1	2,709	SQFT	6.46	17,487
Carpet tile, CPT-2	4,264	SQFT	6.46	27,525
Walk off carpet, WO-1	728	SQFT	33.28	24,231
<b>SUBTOTAL: Floor Finishes</b>				<b>\$174,485</b>
<b>09300 Wall Finishes</b>				
Wood donor wall SW-1	251	SQFT	32.29	8,106
AWP Felt wall panel. various sizes	91	SQFT	14.33	1,304
Ceramic wall tile, backsplash	160	SQFT	13.02	2,083
Porcelain wall tile, CT-1	1,498	SQFT	15.77	23,624
Vinyl wall covering, WC-1	381	SQFT	4.36	1,659
Vinyl wall covering, WC-2	186	SQFT	4.36	810
Vinyl applied wall graphic	63	SQFT	7.61	479
<b>SUBTOTAL: Wall Finishes</b>				<b>\$38,065</b>
<b>09400 Ceiling Finishes</b>				
ACT system, 2'x2', A1	2,769	SQFT	8.40	23,256
ACT system, 2'x4', A2	630	SQFT	4.75	2,992
ACT, 2'x8', concealed grid, A3	5,336	SQFT	12.94	69,026
Direct glue acoustic panels, AP1	230	SQFT	6.35	1,460
Felt baffle ceiling, 8" x 38", SP1	78	EACH	424.65	33,123
Specialty ceiling, SP2. Felt panel	360	SQFT	57.61	20,738
Specialty ceiling, SP3. 2' x 4' perforated panel	497	SQFT	43.67	21,702
Specialty ceiling, felt panel, SP3	497	SQFT	50.86	25,278
Felt baffle ceiling, 8" x 38", SP4	48	EACH	424.65	20,383
Wood linear plank ceiling, W1	1,728	SQFT	47.01	81,233
<b>SUBTOTAL: Ceiling Finishes</b>				<b>\$299,192</b>
<b>09600 Paints &amp; Coatings</b>				
Paint interior door	2	EACH	124.16	248
Stain interior door	35	EACH	162.88	5,701
Paint door frame	26	EACH	78.14	2,032
Paint walls, PT	28,444	SQFT	1.22	34,801
Epoxy paint, EP-1	1,392	SQFT	1.72	2,388
Paint gyp board ceiling/soffit, G2, moisture resistant	548	SQFT	1.52	832
Paint gyp board ceiling/soffit/bulkhead, GB-1	7,111	SQFT	1.52	10,799
Paint exposed structure, ES2	3,132	SQFT	1.75	5,484
<b>SUBTOTAL: Paints &amp; Coatings</b>				<b>\$62,284</b>
<b>TOTAL: FINISHES</b>				<b>\$1,062,975</b>

## 10000 SPECIALTIES



DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>10100 Visual Display Units</b>				
Tackable wall, TW-1	172	SQFT	11.16	1,920
Glass markerboard, 4' x 4'	1	EACH	396.20	396
Glass markerboard, 5' x 4'	3	EACH	456.20	1,369
Glass markerboard, 6' x 4'	3	EACH	516.20	1,549
Glass markerboard, 8' x 4'	4	EACH	636.20	2,545
Wall mounted literature display	3	EACH	662.15	1,986
<b>SUBTOTAL: Visual Display Units</b>				<b>\$9,764</b>
<b>10200 Signage</b>				
Monumental sign, "MLK" letters, 13'-8" high	1	EACH	55,000.00	55,000
Wall mounted letters, dimensional, 6" h., assume aluminum	23	EACH	91.85	2,112
Wall mounted letters, dimensional, 9" h., assume aluminum	98	EACH	110.81	10,859
Exterior signage allowance	1	LSUM	20,000.00	20,000
Wall mounted letters, dimensional, 3" h., assume aluminum	30	EACH	67.01	2,010
Interior signage - allowance	17,671	SQFT	4.44	78,410
<b>SUBTOTAL: Signage</b>				<b>\$168,391</b>
<b>10300 Movable Partitions</b>				
Operable accordion partition, solid, 10' high, approx 11' long	1	EACH	11,692.04	11,692
Folding security partition, metal grille, assume 12' high. Approx 22' long	1	EACH	16,444.00	16,444
Operable partition, glazed, assume 10' high including one (1) door, approx 44' long	1	EACH	106,168.18	106,168
<b>SUBTOTAL: Movable Partitions</b>				<b>\$134,304</b>
<b>10400 Toilet Accessories</b>				
Toilet partition, accessible	2	EACH	1,584.30	3,169
Toilet partition, standard	3	EACH	1,237.44	3,712
Toilet paper dispenser, double roll, B1	9	EACH	114.05	1,026
Paper towel dispenser, J1	4	EACH	103.58	414
Napkin disposal, stainless steel, surface mounted	5	EACH	128.58	643
Baby diaper changing station, Z7	3	EACH	786.26	2,359
Electric hand dryer, Z6	2	EACH	567.15	1,134
Toilet seat cover dispenser, Z8	7	EACH	82.13	575
Coat hook	24	EACH	20.37	489
Utility mop holder & shelf, stainless steel	1	EACH	194.05	194
Grab bar set, three piece, D1	4	EACH	290.73	1,163
Mirror above sink, N2	7	EACH	239.15	1,674
<b>SUBTOTAL: Toilet Accessories</b>				<b>\$16,552</b>
<b>10500 Fire Protection Specialties</b>				
Fire extinguisher & cabinet, recessed	4	EACH	487.40	1,950
<b>SUBTOTAL: Fire Protection Specialties</b>				<b>\$1,950</b>
<b>10600 Lockers &amp; Benches</b>				
Locker, two tier	6	EACH	333.58	2,001
<b>SUBTOTAL: Lockers &amp; Benches</b>				<b>\$2,001</b>

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>10700 Wall &amp; Door Protection</b>				
Wall protection, 4'-0" high	1,050	SQFT	7.69	8,070
<b>SUBTOTAL: Wall &amp; Door Protection</b>				<b>\$8,070</b>
<b>TOTAL: SPECIALTIES</b>				<b>\$341,034</b>
<b>11000 EQUIPMENT</b>				
<b>11200 Library Equipment</b>				
Theft detection gates, dual corridor	2	EACH	33,123.20	66,246
Theft detection equipment, desensitizers	1	EACH	1,268.60	1,269
Book drop, through wall	1	EACH	3,937.20	3,937
<b>SUBTOTAL: Library Equipment</b>				<b>\$71,452</b>
<b>11900 Miscellaneous Equipment</b>				
Microwave oven, break room, assumed CFCI	1	EACH	581.48	581
Refrigerator, break room, assumed CFCI	1	EACH	972.47	972
Undercounter refrigerator, lacion room, assume CFCI	1	EACH	704.39	704
Dishwasher, break room, assumed CFCI	1	EACH	865.61	866
<b>SUBTOTAL: Miscellaneous Equipment</b>				<b>\$3,124</b>
<b>TOTAL: EQUIPMENT</b>				<b>\$74,576</b>
<b>12000 FURNISHINGS</b>				
<b>12100 Window Treatment</b>				
Manual window shades	2,510	SQFT	9.37	23,518
<b>SUBTOTAL: Window Treatment</b>				<b>\$23,518</b>
<b>12300 Loose Furniture</b>				
Loose Furniture / FFE Allowance	17,671	SQFT	15.24	269,292
<b>SUBTOTAL: Loose Furniture</b>				<b>\$269,292</b>
<b>TOTAL: FURNISHINGS</b>				<b>\$292,810</b>
<b>21000 FIRE SUPPRESSION</b>				
<b>21200 Fire Sprinkler Equipment &amp; Specialties</b>				
Wet sprinkler system - interior buildout	17,671	SQFT	2.13	37,551
<b>SUBTOTAL: Fire Sprinkler Equipment &amp; Specialties</b>				<b>\$37,551</b>
<b>TOTAL: FIRE SUPPRESSION</b>				<b>\$37,551</b>
<b>22000 PLUMBING</b>				
<b>22200 Plumbing Fixtures</b>				
Water closet, wall hung, hardwired sensor-op flush valve, WC-1	7	EACH	2,999.40	20,996
Lavatory, wall hung, hardwired sensor-op faucet, L1	2	EACH	2,400.52	4,801
Lavatory, double bowl drop in, hardwired sensor-op faucet, L2	3	EACH	4,618.28	13,855
Lavatory, single bowl drop in, hardwired sensor-op faucet, L3	1	EACH	3,727.33	3,727
Urinal, wall hung, battery-op automatic flush valve, UR-1	1	EACH	2,345.52	2,346

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Sink, stainless steel, double basin self-rimming, manual faucet, S-2	2	EACH	2,292.15	4,584
Electric water cooler, ADA-bilevel, w/bottle filler, EWC-1	1	EACH	3,205.87	3,206
Mop basin, floor fixture, MB-1	1	EACH	2,895.52	2,896
<b>SUBTOTAL: Plumbing Fixtures</b>				<b>\$56,410</b>
<b>22300 Plumbing Equipment &amp; Specialties</b>				
Domestic water heater, electrical 50 gal.	1	EACH	6,391.04	6,391
DHW recirculating pump	1	EACH	1,678.21	1,678
Expansion tank	1	EACH	1,511.22	1,511
Water softener	1	EACH	4,891.04	4,891
Thermostatic mixing valve - central	1	EACH	4,572.76	4,573
Thermostatic mixing valve - 1/2", point of use	8	EACH	284.10	2,273
Circuit setter balancing valve, 3/4"	2	EACH	162.28	325
RPZ backflow preventer, 3/4", lead free	3	EACH	1,385.76	4,157
Hub drains	2	EACH	497.74	995
Floor drains, FD-1	6	EACH	707.59	4,246
Floor drains FD-2	1	EACH	1,089.10	1,089
Cleanouts - floor	8	EACH	738.39	5,907
Cleanouts - wall	4	EACH	404.55	1,618
<b>SUBTOTAL: Plumbing Equipment &amp; Specialties</b>				<b>\$39,654</b>
<b>22400 Domestic Water, Waste &amp; Vent, &amp; Storm Drainage Piping</b>				
Domestic water pipe, fittings, and supports, 2" type L copper	120	LNFT	59.53	7,144
Domestic water pipe, fittings, and supports, 1-1/2" type L copper	70	LNFT	46.85	3,280
Domestic water pipe, fittings, and supports, 1" type L copper	10	LNFT	34.38	344
Domestic water pipe, fittings, and supports, 3/4" type L copper	310	LNFT	26.48	8,209
Domestic water pipe, fittings, and supports, 1/2" type L copper	210	LNFT	22.43	4,710
Pipe insulation, 2" domestic water piping	120	LNFT	12.13	1,455
Pipe insulation, 1-1/2" domestic water piping	70	LNFT	10.26	718
Pipe insulation, 1" domestic water piping	10	LNFT	9.80	98
Pipe insulation, 3/4" domestic water piping	310	LNFT	9.29	2,881
Pipe insulation, 1/2" domestic water piping	210	LNFT	8.85	1,859
Sanitary/waste pipe, fittings, and supports, sched. 40 PVC, AG, 3"	60	LNFT	51.18	3,071
Sanitary/waste pipe, fittings, and supports, sched. 40 PVC, AG, 2"	10	LNFT	41.28	413
Vent pipe, fittings, and supports, sched. 40 PVC, AG, 3"	60	LNFT	51.18	3,071
Vent pipe, fittings, and supports, sched. 40 PVC, AG, 2"	280	LNFT	41.28	11,558
Vent pipe, fittings, and supports, sched. 40 PVC, AG, 1-1/2"	70	LNFT	34.82	2,437
Sanitary/waste pipe and fittings, PVC, UG, 4"	210	LNFT	43.55	9,145
Sanitary/waste pipe and fittings, PVC, UG, 3"	30	LNFT	35.09	1,053
Sanitary/waste pipe and fittings, PVC, UG, 2"	45	LNFT	27.27	1,227
Vent pipe and fittings, PVC, UG, 3"	10	LNFT	35.09	351
Vent pipe and fittings, PVC, UG, 2"	10	LNFT	27.27	273
Tie new domestic water piping into existing	1	EACH	735.26	735
Tie new sanitary/waste piping into existing	1	EACH	800.95	801
Tie new vent piping into existing	1	EACH	661.76	662
Excavation, bedding, backfill, and patching - UG piping	305	LNFT	118.36	36,099

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Incoming service, w/meter & backflow preventers	1	EACH	5,891.04	5,891
Pipe and valve tagging	720	LNFT	1.37	986
System pressure testing, water pipe chlorination, and pipe flushing - domestic plumbing	1	LSUM	2,925.60	2,926
<b>SUBTOTAL: Domestic Water, Waste &amp; Vent, &amp; Storm Drainage Piping</b>				<b>\$111,394</b>
<b>TOTAL: PLUMBING</b>				<b>\$207,459</b>

## 23000 HEATING VENTILATION & AIR CONDITIONING

### 23200 Ventilation & Exhaust

DOAS AHU, 5 tons/2,000 cfm, w/energy recovery	1	EACH	35,784.00	35,784
Humidifier, electric, 12 lbs/hr	1	EACH	3,164.00	3,164
AC split system, MDF room, 2-1/2 tons	1	EACH	10,392.00	10,392
Refrigeration tubing, AC split system	60	LNFT	21.53	1,292
Pipe insulation, refrigeration piping, AC split system	60	LNFT	11.10	666
Condensate drain piping - AC split system	30	LNFT	27.87	836
Pipe insulation, condensate drain piping - AC split system	30	LNFT	10.07	302
Condensate drain piping - water source heat pumps	400	LNFT	55.42	22,169
Pipe insulation, condensate drain piping - heat pumps	400	LNFT	12.80	5,121
Variable frequency drive, fan, Water air heat pump, (MC supply, EC install)	5	EACH	1,637.21	8,186
Heat pump, water-air, 2300 CFM, 6 tons, HP-1, HP-3	2	EACH	15,892.00	31,784
Heat pump, water-air, 1600 CFM, 4 tons, HP-2, HP-4	2	EACH	14,392.00	28,784
Heat pump, water-air, 800 CFM, 2 tons, HP-5	1	EACH	6,428.00	6,428
Heat pump connections - valves, fittings, and insulation	5	EACH	1,607.00	8,035
VVT zone dampers	4	EACH	741.00	2,964
Galvanized steel duct, rectangular	10,670	LBS	12.73	135,811
Galvanized steel spiral duct, 14" dia.	110	LNFT	56.33	6,196
Galvanized steel spiral duct, 10" dia.	100	LNFT	32.00	3,200
Galvanized steel spiral duct, 8" dia.	270	LNFT	22.08	5,961
Duct insulation	7,230	SQFT	8.20	59,274
Registers, grilles and diffusers	31	EACH	111.20	3,447
Slot diffusers (4'-0" length)	3	EACH	294.40	883
Slot diffusers (8'-0" length)	22	EACH	495.50	10,901
Flexible duct, insulated	280	LNFT	23.55	6,594
Transfer duct & grille	11	EACH	382.75	4,210
Louvers, EA, 72x108	1	EACH	9,056.00	9,056
Louvers, OA, 72x108	1	EACH	9,056.00	9,056
Fireplace vent	50	LNFT	62.27	3,113
Combination fire/smoke dampers	2	EACH	3,464.00	6,928

**SUBTOTAL: Ventilation & Exhaust \$430,537**

### 23300 Central Hydronic & Steam Equipment & Specialties

Water water heat pump, heat capacity 50.5 mbh, HP-6, HP-7	2	EACH	18,900.80	37,802
Geothermal circulating pump, inline	3	EACH	2,343.80	7,031
HW circulating pump, primary, inline	2	EACH	743.80	1,488
HW circulating pump, secondary, inline	2	EACH	743.80	1,488

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Variable frequency drive, pump, 2 hp (MC supply, EC install), P1, 2, 3	3	EACH	1,637.21	4,912
Variable frequency drive, pump, 2 hp (MC supply, EC install), water-water, heat pump, HP-6, HP-7	2	EACH	1,637.21	3,274
Variable frequency drive, pump, fractional hp (MC supply, EC install) P6, 7	2	EACH	1,104.86	2,210
Vibration isolation, pumps	7	EACH	1,818.80	12,732
Isolation valves, pumps, butterfly, geothermal	7	EACH	542.06	3,794
Flexible pump connections, geothermal pumps	14	EACH	184.90	2,589
Triple duty valve, geothermal pumps	7	EACH	909.40	6,366
Pump strainer, Y-type, geothermal pumps	7	EACH	257.35	1,801
HW buffer tank	1	EACH	9,462.80	9,463
Air separator, geothermal pumps	1	EACH	1,625.24	1,625
Makeup heating hot water provision	1	EACH	2,231.40	2,231
Glycol fill system, geothermal	1	EACH	14,950.40	14,950
<b>SUBTOTAL: Central Hydronic &amp; Steam Equipment &amp; Specialties</b>				<b>\$113,756</b>
<b>23400 Heating &amp; Ventilating Terminals</b>				
Cabinet unit heaters, HW hydronic	4	EACH	3,287.60	13,150
Unit heaters, HW hydronic	2	EACH	1,787.60	3,575
Fintube radiators, HW	296	LNFT	145.95	43,201
HW connections - valves, fittings, and specialties	6	EACH	593.80	3,563
<b>SUBTOTAL: Heating &amp; Ventilating Terminals</b>				<b>\$63,490</b>
<b>23500 HVAC Piping</b>				
HHWS/R pipe, type L copper pipe, fittings, and supports, 2"	440	LNFT	55.69	24,505
HHWS/R pipe, type L copper pipe, fittings, and supports, 1-1/2"	400	LNFT	39.69	15,875
HHWS/R pipe, type L copper pipe, fittings, and supports, 1"	125	LNFT	28.08	3,510
HHWS/R pipe, type L copper pipe, fittings, and supports, 3/4"	1,000	LNFT	23.69	23,694
Ground source/geothermal pipe, std. wgt. blk. steel pipe, fittings, and supports, welded/flanged, 4"	100	LNFT	112.55	11,255
Ground source/geothermal pipe, std. wgt. blk. steel pipe, fittings, and supports, welded/flanged, 3"	25	LNFT	96.73	2,418
Ground source/geothermal pipe, std. wgt. blk. steel pipe, fittings, and supports, welded/flanged, 2-1/2"	10	LNFT	87.42	874
Ground source/geothermal pipe, type L copper pipe, fittings, and supports, 2"	40	LNFT	55.69	2,228
Ground source/geothermal pipe, type L copper pipe, fittings, and supports, 1-1/2"	20	LNFT	39.69	794
Ground source/geothermal pipe, type L copper pipe, fittings, and supports, 1"	200	LNFT	28.08	5,615
Pipe insulation, HHWS/R, 2"	440	LNFT	12.80	5,633
Pipe insulation, HHWS/R, 1-1/2"	400	LNFT	12.07	4,829
Pipe insulation, HHWS/R, 1"	125	LNFT	10.07	1,259
Pipe insulation, HHWS/R, 3/4"	1,000	LNFT	9.62	9,625
Pipe insulation, ground source/geothermal, 4"	100	LNFT	17.16	1,716
Pipe insulation, ground source/geothermal, 3"	25	LNFT	14.35	359
Pipe insulation, ground source/geothermal, 2-1/2"	10	LNFT	13.59	136
Pipe insulation, ground source/geothermal, 2"	40	LNFT	12.83	513
Pipe insulation, ground source/geothermal, 1-1/2"	20	LNFT	12.07	241
Pipe insulation, ground source/geothermal, 1"	200	LNFT	10.07	2,015

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Pipe and valve tagging - interior bldg HVAC piping	2,360	LNFT	1.32	3,125
<b>SUBTOTAL: HVAC Piping</b>				<b>\$120,219</b>
<b>23600 Temperature Controls</b>				
DDC controls - DOAS AHU	1	EACH	10,000.00	10,000
DDC controls - AC split system - MDF room	1	EACH	2,500.00	2,500
DDC controls - heat pumps, air water source	5	EACH	4,000.00	20,000
DDC controls - heat pumps, water to water source	2	EACH	4,000.00	8,000
DDC controls - humidifier unit	1	EACH	2,000.00	2,000
DDC controls - VVT dampers	4	EACH	1,500.00	6,000
DDC controls - hydronic pumps, variable speed	7	EACH	7,500.00	52,500
Thermostats/temperature sensors	13	EACH	500.00	6,500
CO2 sensors	13	EACH	500.00	6,500
Miscellaneous points & devices	1	LSUM	15,000.00	15,000
Utility meter interfaces	1	LSUM	15,000.00	15,000
Headend/central controls	1	LSUM	15,000.00	15,000
Programming, testing, and training	1	LSUM	10,000.00	10,000
<b>SUBTOTAL: Temperature Controls</b>				<b>\$169,000</b>
<b>23700 Testing, Balancing, &amp; Commissioning</b>				
Air testing and balancing	1	LSUM	18,000.00	18,000
Pipe system testing and balancing	1	LSUM	11,000.00	11,000
HVAC system commissioning assistance	1	LSUM	12,000.00	12,000
<b>SUBTOTAL: Testing, Balancing, &amp; Commissioning</b>				<b>\$41,000</b>
<b>TOTAL: HEATING VENTILATION &amp; AIR CONDITIONING</b>				<b>\$938,001</b>

## 26000 ELECTRICAL

### 26200 Main Power Distribution

Main Distribution Switchboard 480/277V 3ph 4w 1000A - MDP	1	EACH	34,820.80	34,821
Transient suppressor/voltage regulator, including connection to switchboard	1	EACH	1,929.44	1,929
Fuses, high capacity, dual element, 600 V, 400 amp PV SYSTEM	2	EACH	289.20	578
Panelboards MLO 42ct 400A - PV PANEL WITH (4) 200A/3P BREAKERS	1	EACH	10,747.20	10,747
Panelboards MLO 42ct 225A - Panels B, AL, AR, & C	4	EACH	6,781.91	27,128
Panelboards MLO 42ct 100A - Panel U	1	EACH	4,618.88	4,619
Panelboards MLO 12ct 60A - Panel EM	1	EACH	2,358.88	2,359
Electric metallic tubing, 1-1/4" diameter, to 15' high, including fittings and supports	50	LNFT	17.14	857
Electric metallic tubing, 1-1/2" diameter, to 15' high, including fittings and supports	150	LNFT	20.15	3,022
Electric metallic tubing, 2" diameter, to 15' high, including fittings and supports	75	LNFT	26.91	2,018
Electric metallic tubing, 2-1/2" diameter, to 15' high, including fittings and supports	300	LNFT	36.22	10,867
Electric metallic tubing, 3" diameter, to 15' high, including fittings and supports	250	LNFT	41.16	10,289
New 20 KVA UPS unit	1	EACH	38,217.76	38,218
Automatic transfer switches, enclosed, 3 pole, 60 amp ATS EM	1	EACH	3,179.44	3,179
Wire, copper, stranded, 600 volt, #10, type THWN-THHN, in raceway	50	LNFT	1.26	63

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Wire, copper, stranded, 600 volt, #8, type THWN-THHN, in raceway	150	LNFT	1.79	268
Wire, copper, stranded, 600 volt, #4, type THWN-THHN, in raceway	550	LNFT	2.85	1,568
Wire, copper, stranded, 600 volt, #3, type THWN-THHN, in raceway	150	LNFT	3.79	569
Wire, copper, stranded, 600 volt, 2/0, type THWN-THHN, in raceway	50	LNFT	7.02	351
Wire, copper, stranded, 600 volt, 3/0, type THWN-THHN, in raceway	600	LNFT	8.70	5,219
Wire, copper, stranded, 600 volt, 4/0, type THWN-THHN, in raceway	1,200	LNFT	11.45	13,738
Wire, copper, stranded, 600 volt, 250 kcmil, type THWN-THHN, in raceway	1,000	LNFT	13.28	13,275
<b>SUBTOTAL: Main Power Distribution</b>				<b>\$185,682</b>
<b>26400 Grounding &amp; Lightning Protection System</b>				
Grounding System per code	1	LSUM	14,294.40	14,294
<b>SUBTOTAL: Grounding &amp; Lightning Protection System</b>				<b>\$14,294</b>
<b>26500 Lighting</b>				
Light fixture, interior, L.E.D. mounting hardware and connections - Type - A2 2x2	6	EACH	410.20	2,461
Light fixture, interior, L.E.D. mounting hardware and connections - Type - A1 2X2	2	EACH	410.20	820
Light fixture, interior, L.E.D. mounting hardware and connections - Type - H 8' LINEAR	15	EACH	1,330.24	19,954
Light fixture, interior, L.E.D. mounting hardware and connections - Type - F1 8' LINEAR	5	EACH	1,330.24	6,651
Light fixture, interior, L.E.D. mounting hardware and connections - Type - E1 WALL PACK	1	EACH	628.72	629
Light fixture, interior, L.E.D. mounting hardware and connections - Type - DECORATIVE PENDANTS	10	EACH	3,718.40	37,184
Light fixture, interior, L.E.D. mounting hardware and connections - Type - L1 8' LINEAR	2	EACH	1,249.72	2,499
Light fixture, interior, L.E.D. mounting hardware and connections - Type - PT CEILING FAN	10	EACH	943.08	9,431
Light fixture, interior, L.E.D. mounting hardware and connections - Type - U 8' LINEAR	4	EACH	1,249.72	4,999
Light fixture, interior, L.E.D. mounting hardware and connections - Type - D1 6" RECESSED	35	EACH	713.04	24,956
Light fixture, interior, L.E.D. mounting hardware and connections - Type - W WALL SCONCES	2	EACH	904.72	1,809
Light fixture, interior, L.E.D. mounting hardware and connections - Type - A3 2X2	33	EACH	410.20	13,537
Light fixture, interior, L.E.D. mounting hardware and connections - Type - S2 4' LINEAR	8	EACH	686.20	5,490
Light fixture, interior, L.E.D. mounting hardware and connections - Type - S1 4' LINEAR	10	EACH	686.20	6,862
Light fixture, interior, L.E.D. mounting hardware and connections - Type - RECESSED LIGHTING	18	EACH	713.04	12,835
Light fixture, interior, L.E.D. mounting hardware and connections - Type - PL 6' LINEAR	13	EACH	989.04	12,858
Light fixture, interior, L.E.D. mounting hardware and connections - Type - LA 6' LINEAR	5	EACH	989.04	4,945
Light fixture, interior, L.E.D. mounting hardware and connections - Type - P PENDANT	5	EACH	3,028.40	15,142



DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Lighting System - Light fixtures including installation and hook up Exterior linear Area	800	SQFT	7.97	6,377
Lighting System - Light fixtures including installation and hook up in the Community Room	2,061	SQFT	7.97	16,428
Lighting System - Light fixtures including installation and hook up in the Entry Marketplace area	350	SQFT	7.97	2,790
Lighting System - Light fixtures including installation and hook up Teen and Adult Area	3,200	SQFT	7.97	25,507
Lighting System - Exterior building light fixtures including installation and hook up	1	LSUM	15,000.00	15,000
Lighting System - Blue Ridge Technologies lighting control system, including cabling and connections	17,671	SQFT	2.17	38,396
Lighting System - Branch wiring installation 600 V, including 3/4" EMT conduit and THWN wire, 20A	17,671	SQFT	4.88	86,226
<b>SUBTOTAL: Lighting</b>				<b>\$373,784</b>
<b>26600 Branch Power Distribution &amp; Devices</b>				
Duplex receptacle, backbox, grounded, 120 volt, 20 amp	64	EACH	122.13	7,816
Duplex receptacle, Ground Fault Interrupting, 20 amp	23	EACH	145.36	3,343
Duplex receptacle, USB charger combination, 20 amp	28	EACH	143.36	4,014
Duplex receptacle, tamper resistant, 20 amp	6	EACH	126.56	759
Quadruplex receptacle, backbox, grounded, 120 volt, 20 amp	12	EACH	130.02	1,560
Quadruplex receptacle, grounded, 120 volt, 20 amp - floor mounted	28	EACH	372.72	10,436
Power special purpose receptacles 20A 1P	16	EACH	125.36	2,006
Power special purpose receptacles 20A 3P	6	EACH	134.36	806
Cable reel, with receptacle 120 V, 20 A & 3#12 cable,	2	EACH	1,089.72	2,179
Branch wiring installation 600 V, including 3/4" EMT conduit and THWN wire, 20A	17,671	SQFT	6.25	110,453
<b>SUBTOTAL: Branch Power Distribution &amp; Devices</b>				<b>\$143,373</b>
<b>26700 Mechanical Equipment Connections &amp; Feeders</b>				
Motors connection, disconnect switches and associated feeders - Electrified plumbing fixture connection	13	EACH	450.00	5,850
Motors connection, disconnect switches and associated feeders - DOAS AHU, 5 tons/2,000 cfm	1	EACH	3,500.00	3,500
Motors connection, disconnect switches and associated feeders - Domestic water heater, electric	1	EACH	1,800.00	1,800
Motors connection, disconnect switches and associated feeders - Hand Dryer Connection	4	EACH	1,200.00	4,800
Motors connection, disconnect switches and associated feeders - Water water heat pump, Heat capacity 50.5 MBH, HP-6, HP-7	2	EACH	1,700.00	3,400
<b>SUBTOTAL: Mechanical Equipment Connections &amp; Feeders</b>				<b>\$19,350</b>
<b>TOTAL: ELECTRICAL</b>				<b>\$736,484</b>
<b>27000 COMMUNICATIONS</b>				
<b>27200 Tele/Data Systems</b>				
Provision for IT room, plywood, cable tray, grounding, sleeves	1	EACH	9,294.40	9,294
MDF rack assembly 2 racks, switching equipment by Owner	1	EACH	5,147.20	5,147
Voice/Data wall outlet, back box and plate, 1 gang, 1-port	17	EACH	141.96	2,413



DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Voice/Data wall outlet, back box and plate, 1 gang, 2-port	8	EACH	155.95	1,248
Voice/Data wall outlet, back box and plate, 1 gang, 3-port	10	EACH	185.64	1,856
Voice/Data wall outlet, back box and plate, 1 gang, 4-port	1	EACH	242.52	243
Voice/Data outlet, back box and plate, 1 gang, 2-port - floor mounted	7	EACH	376.72	2,637
Voice/Data outlet, back box and plate, 1 gang, 4-port - floor mounted	2	EACH	436.40	873
Wireless Access Point and mounting hardware	12	EACH	534.72	6,417
TV wall outlet, back box and plate, 1 gang, 1-port	4	EACH	259.72	1,039
HILTI Fire Proof Wall Sleeves	10	EACH	714.72	7,147
Electric metallic tubing, 1" diameter, to 15' high, including fittings and supports	400	LNFT	17.68	7,073
Electric metallic tubing, 1-1/4" diameter, to 15' high, including fittings and supports	200	LNFT	19.85	3,970
Cable tray, 4" deep, basket type, 12" wide, to 15' elevation, including fittings & supports	300	LNFT	33.65	10,095
Cable tray, 4" deep, basket type, 12" wide, to 15' elevation, 90 degree elbow	1	EACH	196.49	196
Cable tray, 4" deep, basket type, 12" wide, to 15' elevation, Tee	3	EACH	280.49	841
Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6	12,200	LNFT	2.50	30,466
Terminations and testing	17,671	SQFT	0.71	12,614
<b>SUBTOTAL: Tele/Data Systems</b>				<b>\$103,569</b>
<b>27300 Intercom &amp; Public Address Systems</b>				
PA/Sound system, speaker, ceiling mounted	46	EACH	426.50	19,619
Conduit and PA/Intercommunication wiring	3,000	LNFT	13.80	41,408
Terminations and testing	17,671	SQFT	0.21	3,665
<b>SUBTOTAL: Intercom &amp; Public Address Systems</b>				<b>\$64,692</b>
<b>27500 Clock System</b>				
Master clock (Dukane 24A715)	11	EACH	2,678.88	29,468
Electric metallic tubing, 1" diameter, to 15' high, including fittings and supports	1,100	LNFT	14.60	16,058
<b>SUBTOTAL: Clock System</b>				<b>\$45,525</b>
<b>27600 Audio/Visual &amp; Television System</b>				
Audio/visual System, complete	17,671	SQFT	7.21	127,355
<b>SUBTOTAL: Audio/Visual &amp; Television System</b>				<b>\$127,355</b>
<b>TOTAL: COMMUNICATIONS</b>				<b>\$341,141</b>

## 28000 ELECTRONIC SAFETY & SECURITY

### 28200 Fire Alarm Systems

Fire alarm control panel, addressable, up to 100 points, connections & programming	1	EACH	20,968.00	20,968
Smoke detector, duct type, addressable	3	EACH	1,035.40	3,106
Manual alarm station, addressable	5	EACH	332.76	1,664
Speaker and strobe light alarm Ceiling	43	EACH	356.76	15,341
Speaker and strobe light alarm wall	8	EACH	356.76	2,854
Fire alarm wiring installation, including 3/4" EMT conduit and FA cable wire	17,671	SQFT	1.13	20,023
Testing and engineering	17,671	SQFT	0.85	15,006

**SUBTOTAL: Fire Alarm Systems \$78,962**

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>28300 Intrusion Detection &amp; Access Control Systems</b>				
Access control system with printer & control console, 3 zones	1	EACH	13,573.60	13,574
Card reader, flush type, multi-code	12	EACH	636.14	7,634
Door contacts, magnetic switch	9	EACH	332.36	2,991
Motion Detector	10	EACH	714.72	7,147
Emergency Push Buttons	3	EACH	411.04	1,233
Aiphone Ax series central exchange unit (4 Master - 8 door), model Ax-084C	2	EACH	1,825.77	3,652
Aiphone color video hands-free master station	1	EACH	2,011.44	2,011
Aiphone flush mount video door station	1	EACH	1,789.44	1,789
Conduit and security wiring	3,400	LNFT	16.32	55,487
Terminations and testing	17,671	SQFT	0.85	15,013
<b>SUBTOTAL: Intrusion Detection &amp; Access Control Systems</b>				<b>\$110,531</b>
<b>28400 CCTV System</b>				
Control panel, switcher and recording device assembly	1	EACH	19,921.68	19,922
Indoor dome camera, color, tilt/pan;	8	EACH	2,824.16	22,593
Indoor dome camera, color, tilt/pan/zoom;	9	EACH	3,074.16	27,667
Dome camera integrated PTZ pan tilt & zoom -	6	EACH	3,794.16	22,765
Conduit and CCTV wiring	1	LSUM	21,316.11	21,316
Terminations, testing and engineering	17,671	SQFT	0.75	13,237
<b>SUBTOTAL: CCTV System</b>				<b>\$127,501</b>
<b>TOTAL: ELECTRONIC SAFETY &amp; SECURITY</b>				<b>\$316,994</b>
<b>31000 EARTHWORK</b>				
<b>31200 Site Grading</b>				
Fine grading at bench area	125	SQFT	0.67	84
<b>SUBTOTAL: Site Grading</b>				<b>\$84</b>
<b>31300 Foundation Excavation &amp; Fill</b>				
Excavate for bench foundation	23	CUYD	11.94	275
Backfill with imported material	12	CUYD	48.55	583
<b>SUBTOTAL: Foundation Excavation &amp; Fill</b>				<b>\$857</b>
<b>31700 Pavement Bases</b>				
CA-6 base, 6" thk at bench	5	CUYD	50.53	253
<b>SUBTOTAL: Pavement Bases</b>				<b>\$253</b>
<b>TOTAL: EARTHWORK</b>				<b>\$1,194</b>
<b>33000 UTILITIES</b>				
<b>33200 Site Water Service</b>				
Domestic water service provisions	1	LSUM	82,210.97	82,211
<b>SUBTOTAL: Site Water Service</b>				<b>\$82,211</b>
<b>33300 Site Sanitary &amp; Storm Sewer</b>				
Storm and sanitary sewer provisions	1	LSUM	83,547.00	83,547

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>SUBTOTAL: Site Sanitary &amp; Storm Sewer</b>				<b>\$83,547</b>
<b>33400 Natural Gas Service</b>				
Coordinate gas service provision with local utility	1	LSUM	2,391.02	2,391
<b>SUBTOTAL: Natural Gas Service</b>				<b>\$2,391</b>
<b>33800 Site Electrical</b>				
Utility company provisions and coordination,	1	EACH	6,500.00	6,500
Rework site electrical to accomodate the new library	1	EACH	15,000.00	15,000
40A EV Charger Rough in and Connection	2	EACH	7,576.64	15,153
Lighted Sign Connection	1	EACH	1,858.88	1,859
Electrical conduit and wiring for signs	1	EACH	5,000.00	5,000
Underground conduit, PVC, 1 1/4" , excludes excavation, backfill and cast in place concrete	100	LNFT	26.74	2,674
Excavating and back filling trench, sand and gravel, 1' wide .excavator, 20' to 24' deep	100	LNFT	36.00	3,600
<b>SUBTOTAL: Site Electrical</b>				<b>\$49,786</b>
<b>TOTAL: UTILITIES</b>				<b>\$217,935</b>