



30% Construction Documents Cost Estimate

March 4, 2024

County of Sonoma
Morgue and Public Health Building
Santa Rosa, CA



Prepared for COAR Design Group

INTRODUCTION

BASIS OF ESTIMATE

This Cost Estimate is based upon the 30% Construction drawing package dated 02/16/2024, prepared by COAR Design Group, along with verbal and written guidance from the design/engineering team.

ESTIMATE MARK UPS

The following markups are included in this estimate:

1) General Conditions	12.48%
2) Overhead and Profit (OH&P)	4.50%
3) Bonds & Insurance	2.50%
4) Design Contingency	5.00%
5) Escalation to MOC, 09/11/25	9.05%
Escalation per annum:	
2024	6.50%
2025	5.00%
2026	4.50%

EXCLUSIONS

The following items are excluded in this estimate.

- 1) Professional fees, inspections and testing.
- 2) Escalation beyond midpoint of construction, September 2025. The anticipated construction start is November 2024, with a 20 month schedule.
- 3) FF and E, unless specifically referenced in this estimate.
- 3) Plan check fees and building permit fees.
- 4) Construction/Owner's contingency costs.
- 5) Construction management fees / Preconstruction fees.
- 6) Soft costs.
- 7) Off-site work
- 8) Night time and weekends work.
- 9) Accelerated construction schedule.
- 10) Phasing.

ITEMS AFFECTING COST ESTIMATE

Items that may change the estimated construction cost may include but are not limited to the following:

- 1) Unforeseen sub-surface condition.
- 2) Any changes to the scope of work not included in this report. We recommend updating the estimate to capture the value of any changes.
- 3) Sole source procurement.
- 4) Any changes or delay from the projected construction schedule.

CLARIFICATIONS

- 1) This estimate is based on the assumption of a competitive bid environment by a minimum of four at the Subcontractor level.
- 2) This estimate assumes the use of prevailing wages. The estimate does not include a PLA or CSWPA.
- 3) This estimate assumes the CMAR delivery method.
- 4) This estimate does not include the prequalification process for the Subcontractor. If prequalification will be required and implemented, this will have a cost impact on the project.

CONSTRUCTION COST SUMMARY

Base Scope Elements	Area	Cost / SF	Total
NEW MORGUE AND PUBLIC HEALTH BUILDING	22,538 SF	\$941.73	\$21,224,682
NEW MORGUE AND PUBLIC HEALTH BUILDING EQUIPMENT	22,538 SF	\$208.27	\$4,694,030
SITework	75,068 SF	\$96.33	\$7,231,462
TOTAL ESTIMATED CONSTRUCTION COST			\$33,150,174

Main CSI Summary

Element		Total	Cost/SF
01	General Requirements	\$600,000	\$26.62
02	Existing Conditions	\$379,555	\$16.84
03	Concrete	\$822,849	\$36.51
04	Masonry		
05	Metals	\$240,639	\$10.68
06	Woods, Plastics, and Composites	\$2,271,291	\$100.78
07	Thermal and Moisture Protection	\$1,883,468	\$83.57
08	Openings	\$924,983	\$41.04
09	Finishes	\$1,583,471	\$70.26
10	Specialties	\$159,152	\$7.06
11	Equipment	\$3,402,535	\$150.97
12	Furnishings		
13	Special Construction		
14	Conveying Equipment		
21	Fire Suppression	\$205,880	\$9.13
22	Plumbing	\$1,488,387	\$66.04
23	Heating, Ventilating, and Air Conditioning (HVAC)	\$1,792,901	\$79.55
26	Electrical	\$3,232,152	\$143.41
27	Communications	\$443,212	\$19.67
28	Electronic Safety and Security	\$519,272	\$23.04
31	Earthwork	\$626,647	\$27.80
32	Exterior Improvements	\$1,461,845	\$64.86
33	Utilities	\$1,296,140	\$57.51
34	Transportation	\$35,000	\$1.55
48	Electric Power Generation	\$660,000	\$29.28
	Subtotal	\$24,029,379	\$1,066.17
	General Conditions	12.48%	\$3,000,000
	Subtotal	\$27,029,379	\$1,199.28
	Overhead and Profit (OH&P)	4.50%	\$1,216,322
	Subtotal	\$28,245,701	\$1,253.25
	Bonds & Insurance	2.50%	\$706,143
	Subtotal	\$28,951,843	\$1,284.58
	Design Contingency	5.00%	\$1,447,592
	Subtotal	\$30,399,435	\$1,348.81
	Escalation to MOC, 09/11/25	9.05%	\$2,750,739
TOTAL ESTIMATED CONSTRUCTION COST		\$33,150,174	\$1,470.86

New Morgue and Public Health Building

New Morgue and Public Health Building Summary

Element	Gross Floor Area	22,538 SF	Total	Cost/SF
01	General Requirements			
02	Existing Conditions			
03	Concrete		\$822,849	\$36.51
04	Masonry			
05	Metals		\$240,639	\$10.68
06	Woods, Plastics, and Composites		\$2,271,291	\$100.78
07	Thermal and Moisture Protection		\$1,883,468	\$83.57
08	Openings		\$924,983	\$41.04
09	Finishes		\$1,583,471	\$70.26
10	Specialties		\$159,152	\$7.06
11	Equipment			
12	Furnishings			
13	Special Construction			
14	Conveying Equipment			
21	Fire Suppression		\$205,880	\$9.13
22	Plumbing		\$1,488,387	\$66.04
23	Heating, Ventilating, and Air Conditioning (HVAC)		\$1,792,901	\$79.55
26	Electrical		\$2,165,394	\$96.08
27	Communications		\$308,254	\$13.68
28	Electronic Safety and Security		\$463,989	\$20.59
31	Earthwork		\$414,358	\$18.38
48	Electric Power Generation		\$660,000	\$29.28
	Subtotal		\$15,385,015	\$682.63
	General Conditions	12.48%	\$1,920,776	\$85.22
	Subtotal		\$17,305,791	\$767.85
	Overhead and Profit (OH&P)	4.50%	\$778,761	\$34.55
	Subtotal		\$18,084,551	\$802.40
	Bonds & Insurance	2.50%	\$452,114	\$20.06
	Subtotal		\$18,536,665	\$822.46
	Design Contingency	5.00%	\$926,833	\$41.12
	Subtotal		\$19,463,498	\$863.59
	Escalation to MOC, 09/11/25	9.05%	\$1,761,184	\$78.14
TOTAL ESTIMATED CONSTRUCTION COST			\$21,224,682	\$941.73

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New Morgue and Public Health Building Detail Elements

Element	Quantity	Unit	Unit Cost	Total
03 Concrete				
Construction layout/staking, 3 person crew	2	day	\$3,940.83	\$7,882
Pad footings, 3'-0" sq. x 1'-6" deep				
Concrete, 3000 psi	1	cy	\$240.10	\$264
Concrete placement	1	cy	\$68.01	\$75
Form	108	sf	\$21.60	\$2,333
Reinforcement (allow 120#/cy)	132	lbs	\$2.72	\$360
Excavation	2	cy	\$45.96	\$101
Backfill, common material	1	cy	\$16.99	\$19
Haul excess	1	cy	\$33.38	\$37
Pad footings, 2'-0" sq. x 1'-6" deep				
Concrete, 3000 psi	1	cy	\$240.10	\$240
Concrete placement	1	cy	\$68.01	\$68
Form	36	sf	\$21.60	\$778
Reinforcement (allow 120#/cy)	120	lbs	\$2.72	\$327
Excavation	2	cy	\$45.96	\$92
Backfill, common material	1	cy	\$16.99	\$17
Haul excess	1	cy	\$33.38	\$33
Pad footings, 4'-0" sq. x 1'-6" deep				
Concrete, 3000 psi	1	cy	\$240.10	\$240
Concrete placement	1	cy	\$68.01	\$68
Form	24	sf	\$21.60	\$518
Reinforcement (allow 120#/cy)	120	lbs	\$2.72	\$327
Excavation	2	cy	\$45.96	\$92
Backfill, common material	1	cy	\$16.99	\$17
Haul excess	1	cy	\$33.38	\$33
Continuous footing, 12" width x 1'-6" deep				
Concrete, 3000 psi	11	cy	\$240.10	\$2,641
Concrete placement	11	cy	\$68.01	\$748
Formwork	522	sf	\$26.34	\$13,750
Reinforcement (allow 110#/cy)	1,210	lbs	\$2.72	\$3,296
Excavation	22	cy	\$13.83	\$304
Backfill	11	cy	\$16.99	\$187
Haul excess	11	cy	\$33.38	\$367

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New Morgue and Public Health Building Detail Elements

Element	Quantity	Unit	Unit Cost	Total
Continuous footing, 18" width x 1'-6" deep				
Concrete, 3000 psi	113	cy	\$240.10	\$27,131
Concrete placement	113	cy	\$68.01	\$7,685
Formwork	4,086	sf	\$26.34	\$107,629
Reinforcement (allow 110#/cy)	12,430	lbs	\$2.72	\$33,861
Excavation	226	cy	\$13.83	\$3,126
Backfill	113	cy	\$16.99	\$1,920
Haul excess	113	cy	\$33.38	\$3,771
Continuous footing, 24" width x 1'-6" deep				
Concrete, 3000 psi	60	cy	\$240.10	\$14,406
Concrete placement	60	cy	\$68.01	\$4,081
Formwork	1,626	sf	\$26.34	\$42,830
Reinforcement (allow 110#/cy)	6,600	lbs	\$2.72	\$17,979
Excavation	120	cy	\$13.83	\$1,660
Backfill	60	cy	\$16.99	\$1,020
Haul excess	60	cy	\$33.38	\$2,003
Continuous footing, 36" width x 1'-6" deep				
Concrete, 3000 psi	31	cy	\$240.10	\$7,443
Concrete placement	31	cy	\$68.01	\$2,108
Formwork	558	sf	\$26.34	\$14,698
Reinforcement (allow 110#/cy)	3,410	lbs	\$2.72	\$9,289
Excavation	62	cy	\$13.83	\$858
Backfill	31	cy	\$16.99	\$527
Haul excess	31	cy	\$33.38	\$1,035
Slab on grade, allow 5" thick with #4 @ 18" OC EW				
Concrete, 3000 psi	383	cy	\$240.10	\$91,859
Concrete placement	383	cy	\$78.19	\$29,913
Reinforcing steel	26,505	lb	\$2.61	\$69,151
Edge formwork	1,302	lf	\$11.85	\$15,429
Sand base - 2"	22,538	cy	\$2.66	\$59,842
Gravel sub base - 4"	22,538	sf	\$2.18	\$49,163
Vapor barrier	22,538	sf	\$0.89	\$20,149
Finish to slab	22,538	sf	\$1.37	\$30,895
Add for thickened edges	27	cy	\$318.29	\$8,442
Premium to slab depressions	342	sf	\$5.96	\$2,038
Miscellaneous				
6" concrete curb at exterior walls	825	lf	\$29.80	\$24,585
6" concrete curb at interior walls	831	lf	\$29.80	\$24,764
Miscellaneous concrete	22,538	sf	\$2.50	\$56,345
			Subtotal - Concrete	<u>\$822,849</u>

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Element	Quantity	Unit	Unit Cost	Total
05 Metals				
Miscellaneous steel				
HSS10x6x5/8	3,428	lb	\$7.45	\$25,541
HSS5x5x1/4	5,453	lb	\$7.45	\$40,625
HSS5x5x3/8	4,059	lb	\$7.45	\$30,237
HSS6x4x1/4	218	lb	\$7.45	\$1,625
Miscellaneous bolts and connections	2,632	lb	\$8.01	\$21,076
Steel decking				
Sallyport roof decking, 1-1/2" x 20 ga	2,687	sf	\$9.36	\$25,153
Deck edging	248	lf	\$14.57	\$3,614
Miscellaneous metal fabrication and supports				
Wall mounted steel access roof ladder	1	ea	\$2,615.86	\$2,616
Metal mechanical screen, allowance	22,538	gsf	\$4.00	\$90,152
			Subtotal - Metals	<u>\$240,639</u>

06 Woods, Plastics, and Composites

Wall framing				
Exterior framing, 2" x 6" studs at 16" oc	13,094	sf	\$12.04	\$157,630
Interior framing, 2" x 6" studs at 16" oc	20,627	sf	\$12.04	\$248,314
Interior framing, 2" x 4" studs at 16" oc	12,672	sf	\$8.56	\$108,443
Additional blocking, support backing, stiffeners, etc.	46,393	sf	\$0.35	\$16,238
Roof framing				
16" TJI @ 24" oc	23,829	sf	\$14.07	\$335,386
2" x 8" @24" OC	377	sf	\$25.74	\$9,706
3-1/2" LVL x 16" depth	21	lf	\$121.49	\$2,551
3-1/2" LVL under perimeter of MU &6'0"	410	lf	\$121.49	\$49,810
5-1/8" x 18" GLB	331	lf	\$200.13	\$66,243
5-1/8" x 15" GLB	95	lf	\$166.78	\$15,844
3-1/2" LVL x 16" depth	1,296	lf	\$121.49	\$157,449
Header beams , allow 6" x 12"	462	lf	\$115.85	\$53,523
Connections and hardware	22,538	gsf	\$4.50	\$101,421
Wood post, allowance	22,538	gsf	\$6.50	\$146,497

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Element	Quantity	Unit	Unit Cost	Total
Sheathing				
Plywood sheathing, exterior, 5/8" T	13,094	sf	\$4.87	\$63,731
Exterior shear wall premium	8,377	sf	\$0.77	\$6,490
Plywood sheathing, interior shear wall, 5/8" T	12,565	sf	\$5.64	\$70,893
Plywood sheathing, roof, 5/8" T	23,829	sf	\$4.43	\$105,519
Plywood sheathing, back of parapet, 5/8" T	3,630	sf	\$4.43	\$16,074
Building casework				
Base cabinet with solid surface top	708	lf	\$652.70	\$462,111
Stainless steel counter top, 2'-9" wide	23	lf	\$746.25	\$17,164
Upper cabinet stainless steel	11	lf	\$506.60	\$5,573
Full cabinet	9	lf	\$868.82	\$7,819
Full cabinet _Stainless steel	7	lf	\$1,430.40	\$10,013
Stainless steel island	8	lf	\$1,174.12	\$9,393
Vanity counter, solid surface	6	lf	\$256.28	\$1,538
Miscellaneous rough carpentry and hardware	22,538	gsf	\$1.15	\$25,919
				<u>\$25,919</u>
Subtotal - Woods, Plastics, and Composites				<u>\$2,271,291</u>

07 Thermal and Moisture Protection

Roofing system				
TPO single ply roof membrane, fully adhered	23,829	sf	\$9.40	\$223,933
TPO single ply roof membrane, back of parapet	3,630	sf	\$9.44	\$34,270
Roof insulation				
Rigid roof insulation, allow 5" T	23,829	sf	\$7.92	\$188,797
Tapered insulation	3,574	sf	\$4.72	\$16,872
Cover board, allow 1/2" thick	23,829	sf	\$2.34	\$55,684
Wall insulation				
Exterior, unfaced batt insulation, 6" T	13,094	sf	\$2.79	\$36,573
Interior, unfaced batt insulation, 6" T	20,627	sf	\$2.79	\$57,613
Interior, unfaced batt insulation, 4" T	12,672	sf	\$2.53	\$32,065
Exterior wall and soffit finishes				
Fiber cement rainscreen system	13,094	sf	\$50.48	\$661,001
Fascia to arch entry feature	1,035	sf	\$32.78	\$33,931
Fundermaxx, walls and soffits	1,762	sf	\$61.63	\$108,586
Fundermaxx, underside of canopy	2,800	sf	\$61.63	\$172,554

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Element	Quantity	Unit	Unit Cost	Total
Sheet metal				
Base flashing and counter flashing	1,815	lf	\$32.78	\$59,496
Miscellaneous sheet metal	22,538	gsf	\$1.50	\$33,807
Aluminum sunshades				
Mullion integrated aluminum sunshade	570	sf	\$137.08	\$78,136
Miscellaneous				
Miscellaneous caulking and sealants, allowance	22,538	gsf	\$4.00	<u>\$90,152</u>
Subtotal - Thermal and Moisture Protection				<u>\$1,883,468</u>

08 Openings

Exterior glazing and doors				
Storefront window system, 1" insulated glass with low E coating	794	sf	\$149.21	\$118,472
Aluminum frames insulated window	992	sf	\$125.16	\$124,159
Exterior doors				
Automatic sliding door including automatic operator	2	ea	\$34,506.75	\$69,013
Storefront door including hardware, pair	3	pr	\$9,250.44	\$27,751
Metal door, including hardware, double	3	pr	\$7,239.93	\$21,720
HM door and frame including hardware, single	5	ea	\$3,808.14	\$19,041
Premiums				
Panic hardware, per leaf	6	ea	\$1,430.40	\$8,582
Door closer	17	ea	\$795.13	\$13,517
Exterior doors				
Roll up door, 10'-0" W x 9'-9" H , manual	2	ea	\$6,568.28	\$13,137
Interior glazing and doors				
Interior storefront wall system, allowance	116	sf	\$117.41	\$13,590
Interior doors				
Automatic sliding door including operator, 6'-0" W x 7'-0" H	6	ea	\$30,389.82	\$182,339
Fiber glass door with aluminum frame, single 3'-0" W x 7'-0" H	2	ea	\$4,159.90	\$8,320
Fiber glass door, double	16	pr	\$6,156.15	\$98,498
HM door and frame including hardware, single	44	ea	\$3,579.49	\$157,498
HM door and frame including hardware, double	1	ea	\$6,264.11	\$6,264

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Element	Quantity	Unit	Unit Cost	Total
Premiums				
Door closer	78	ea	\$458.92	\$35,796
Lead line door and frame	1	ea	\$7,285.44	\$7,285
				Subtotal - Openings
				<u>\$924,983</u>

09 Finishes

Exterior wall finishes				
Stucco finish	278	sf	\$26.22	\$7,290
Gypsum board sheathing				
Gypsum wall board, type x finished, interior of exterior	13,094	sf	\$5.03	\$65,903
Gypsum wall board, type x finished	64,497	sf	\$5.03	\$324,620
Ballistic resistant gypsum board	980	sf	\$49.02	\$48,038
Lead lined gypsum board, 5/8" with 1/16" lead	1,121	sf	\$35.83	\$40,161
Interior finishes, allowance				
Floors				
Static dissipative flooring	11,655	sf	\$16.09	\$187,586
Porcelain / ceramic tile	342	sf	\$23.69	\$8,101
Sealed concrete	3,153	sf	\$3.16	\$9,960
Luxury vinyl tiles	7,388	sf	\$12.22	\$90,267
Base				
Rubber base	5,432	lf	\$5.23	\$28,391
Ceramic cove base	168	lf	\$25.05	\$4,209
Walls				
Cementitious backer board	1,512	sf	\$11.89	\$17,980
Ceramic tile	1,512	sf	\$27.59	\$41,709
Stainless steel wainscot	1,200	sf	\$38.30	\$45,963
Paint walls, complete, including surface prep, primer & 2 coats finish with roller	65,688	sf	\$4.59	\$301,549
Wall tile grout	1,512	sf	\$3.64	\$5,498

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Element	Quantity	Unit	Unit Cost	Total
Ceilings				
Acoustic tile ceiling, 24" x 24"	13,836	sf	\$15.97	\$220,967
Soffit	980	sf	\$17.50	\$17,150
Gypsum board ceilings, including framing	1,417	sf	\$16.86	\$23,884
Gypsum board ceilings, including framing (sealed)	3,469	sf	\$19.38	\$67,242
Open to ceiling, painted	2,836	sf	\$3.87	\$10,987
Painted gypsum board ceiling	4,886	sf	\$3.28	\$16,016
			Subtotal - Finishes	<u>\$1,583,471</u>

10 Specialties

Building specialties				
Lockers, 12" x 18" x 72",	31	ea	\$602.26	\$18,670
Miscellaneous building specialties, allowance	22,538	sf	\$2.00	\$45,076
Signage and wayfindings				
Wall mounted sign, " SONOMA COUNTY MORGUE AND PUBLIC HEALTH LAB"	1	ea	\$10,587.51	\$10,588
Signage and room identification, allowance	22,538	gsf	\$2.50	\$56,345
Toilet / restroom specialties				
Bathroom mirrors	48	sf	\$33.69	\$1,617
Grab bars	9	ea	\$133.28	\$1,200
Janitor mop sink rack	1	ea	\$159.14	\$159
Paper towel dispenser combo unit, recessed	8	ea	\$732.41	\$5,859
Seat cover dispenser	9	ea	\$137.76	\$1,240
Soap dispenser	9	ea	\$140.55	\$1,265
Toilet paper dispenser	9	ea	\$67.53	\$608
Coat hook	9	ea	\$60.67	\$546
Sanitary napkin disposal	9	ea	\$530.84	\$4,778
Hand dryer	9	ea	\$1,011.36	\$9,102
Shower stall including accessories	1	ea	\$1,350.00	\$1,350
Changing room accessories	1	ea	\$750.00	\$750
			Subtotal - Specialties	<u>\$159,152</u>

11 Equipment

Equipment, see breakout cost

Subtotal - Equipment

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Element	Quantity	Unit	Unit Cost	Total
21 Fire Suppression				
Wet pipe sprinkler system, enclosed area	19,538	sf	\$10.00	\$195,380
Wet pipe sprinkler system, un-enclosed area (Sallyport)	3,000	sf	\$3.50	\$10,500
Subtotal - Fire Suppression				<u>\$205,880</u>
22 Plumbing				
Equipment				
Water heater, electric 119 gal	2	ea	\$9,600.00	\$19,200
Instantaneous hot water heater	1	ea	\$478.00	\$478
Expansion tank	2	ea	\$3,600.00	\$7,200
Circulation pump	2	ea	\$2,520.00	\$5,040
Water softener	1	ea	\$17,140.00	\$17,140
Water deionizer	1	ea	\$12,000.00	\$12,000
Fixtures, including pipe and rough-in				
Water closet, ADA	9	ea	\$12,638.50	\$113,747
Lavatory, ADA	11	ea	\$12,477.50	\$137,253
Shower, ADA	3	ea	\$14,984.50	\$44,954
Sink	4	ea	\$12,477.50	\$49,910
Sink ADA	26	ea	\$10,902.00	\$283,452
Janitor sink, ADA	3	ea	\$7,107.00	\$21,321
Floor sink	8	ea	\$6,751.65	\$54,013
Floor drains	35	ea	\$3,151.00	\$110,285
Hose bibb	8	ea	\$2,829.00	\$22,632
Floor cleanout	9	ea	\$253.00	\$2,277
Grade cleanout	7	ea	\$483.00	\$3,381
Dry cleaning box	1	ea	\$1,265.00	\$1,265
Emergency shower / eye wash	11	ea	\$3,636.30	\$39,999
Pipe and connections for lab and healthcare	6,294	sf	\$23.00	\$144,762
Pipe and connections for dry cleaning appliances	1	ls	\$20,590.00	\$20,590
Condensate drain pipe distribution				
Gas pipe distribution for lab and healthcare	22,538	gsf	\$1.95	\$43,949
Chemical waste piping and equipment	6,294	sf	\$11.50	\$72,381
	6,294	sf	\$4.03	\$25,333
Roof drain				
Roof and over flow drain	16	ea	\$1,391.50	\$22,264
Drainage pipe	640	lf	\$161.00	\$103,040
Downspout cover	12	ea	\$184.00	\$2,208

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Element	Quantity	Unit	Unit Cost	Total
Miscellaneous				
Water meter	1	ea	\$6,957.50	\$6,958
Access panels	8	ea	\$460.00	\$3,680
Clean and test	1	ls	\$20,861.00	\$20,861
Noise and vibration control	1	ls	\$17,384.00	\$17,384
Firestopping	1	ls	\$24,337.00	\$24,337
Seismic supports	1	ls	\$27,814.00	\$27,814
Test and balance	32	hr	\$140.00	\$4,480
Commissioning assistance only	20	hr	\$140.00	\$2,800
			Subtotal - Plumbing	<u>\$1,488,387</u>

23 Heating, Ventilating, and Air Conditioning (HVAC)

Equipment				
Rooftop heat pump with heat recovery coil,DX heat pump				
26 Ton, 6400 cfm	1	ea	\$98,800.00	\$98,800
23 Ton, 5500 cfm	1	ea	\$87,400.00	\$87,400
7.5 Ton, 2000 cfm	1	ea	\$28,500.00	\$28,500
Installation	120	hrs	\$165.00	\$19,800
VRF heat pump outdoor unit				
12.2 Ton	2	ea	\$26,840.00	\$53,680
12 Ton	2	ea	\$26,400.00	\$52,800
6 Ton	1	ea	\$13,200.00	\$13,200
Installation	90	hrs	\$165.00	\$14,850
VRF heat pump with heat recovery unit				
20 ton	1	ea	\$48,000.00	\$48,000
Installation	40	hrs	\$165.00	\$6,600
VRF indoor unit				
0.5 Ton	5	ea	\$1,100.00	\$5,500
0.6 Ton	1	ea	\$1,320.00	\$1,320
0.75 Ton	2	ea	\$1,650.00	\$3,300
1.0 Ton	4	ea	\$2,200.00	\$8,800
1.25 Ton	3	ea	\$2,750.00	\$8,250
1.5 Ton	2	ea	\$3,300.00	\$6,600
2.0 Ton	2	ea	\$4,400.00	\$8,800
4.5 Ton	1	ea	\$9,900.00	\$9,900
Installation	46	hrs	\$165.00	\$7,590
Split system				
3 Ton,1000 cfm	2	ea	\$12,600.00	\$25,200
Installation	12	hrs	\$165.00	\$1,980
Energy recovery ventilator				
ERV-1	1	ea	\$2,800.00	\$2,800
ERV-2	1	ea	\$2,800.00	\$2,800
Installation	8	hrs	\$165.00	\$1,320

New Morgue and Public Health Building Detail Elements

Element	Quantity	Unit	Unit Cost	Total
Exhaust fans				
500 cfm	1	ea	\$1,188.00	\$1,188
200 cfm	1	ea	\$1,188.00	\$1,188
150 cfm	1	ea	\$1,188.00	\$1,188
6000 cfm for Laboratory	1	ea	\$18,000.00	\$18,000
5000 cfm for Laboratory	1	ea	\$15,000.00	\$15,000
2000 cfm for Laboratory	1	ea	\$10,000.00	\$10,000
Installation	72	hrs	\$165.00	\$11,880
Tax and freight	1	ls	\$89,640.00	\$89,640
Air distribution				
Ductwork, galvanized steel	18,768	lb	\$21.00	\$394,118
Duct insulation, wrap	8,258	sf	\$7.79	\$64,311
Refrigerant pipe	1,320	lf	\$71.30	\$94,116
Diffusers / registers / grilles	148	ea	\$552.00	\$81,696
Volume dampers	1	ls	\$39,420.00	\$39,420
Duct silencers	1	ls	\$31,530.00	\$31,530
VAV Box	22	ea	\$1,364.00	\$30,008
Louvers	10	ea	\$1,380.00	\$13,800
HVAC controls, EMS				
Head end equipment / software / programming / testing and controls distribution	23,804	gsf	\$10.58	\$251,846
CO2 sensors	23,804	gsf	\$0.76	\$18,067
Start-up / test / balance	60	hr	\$165.00	\$9,900
Commissioning assist	20	hr	\$165.00	\$3,300
Rigging	1	ls	\$30,000.00	\$30,000
Seismic bracing	23,804	gsf	\$0.65	\$15,473
Penetrations and fire stopping	23,804	gsf	\$0.60	\$14,282
BIM modelling for clash detection	1	ls	\$35,160.00	\$35,160

Subtotal - Heating, Ventilating, and Air Conditioning (HVAC) \$1,792,901

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New Morgue and Public Health Building Detail Elements

Element	Quantity	Unit	Unit Cost	Total
26 Electrical				
Service & distribution equipment				
MSB 1000 Amps, 277/480V, 3P, 4W	1	ea	\$115,000.00	\$115,000
ATS 1000A, 4P	1	ea	\$23,201.25	\$23,201
Metering	1	ea	\$5,382.00	\$5,382
Grounding	1	ea	\$8,970.00	\$8,970
225 KVA transformer 480V-120/208V-N1	1	ea	\$42,458.00	\$42,458
800 amps distribution panel, 120/208V, 3P, 4W - DPL	1	ea	\$53,044.99	\$53,045
150 amps panel, 120/208V, 3P, 4W- LMA,LMB,LC	3	ea	\$4,807.92	\$14,424
225 amps panel, 120/208V, 3P, 4W- LA,LB,LD	6	ea	\$5,788.64	\$34,732
300 amps panel, 277/208V, 3P, 4W- HMA,HMB	2	ea	\$7,233.20	\$14,466
100 amps panel, 277/480V, 3P, 4W	5	ea	\$4,209.92	\$21,050
400 amps panel, 277/480V, 3P, 4W - HMC	1	ea	\$8,814.52	\$8,815
Inverter	1	ea	\$23,920.00	\$23,920
800 amps feeder	35	lf	\$468.23	\$16,388
400 amps feeder	35	lf	\$285.84	\$10,005
300 amps feeder	160	lf	\$257.14	\$41,142
225 amps feeder	457	lf	\$154.28	\$70,431
150 amps feeder	341	lf	\$119.60	\$40,784
100 amps feeder	721	lf	\$84.68	\$61,010
Inverter feeder	35	lf	\$67.60	\$2,366
PV infrastructure allowance	1	ls	\$26,450.00	\$26,450
HVAC and equipment connections				
Roof top heat pump unit	3	ea	\$1,042.23	\$3,127
Connection to heat pump outdoor unit	5	ea	\$491.05	\$2,455
Connection to HRU	1	ea	\$747.50	\$748
Connection to EF - 2000 cfm - 6000 cfm	3	ea	\$632.50	\$1,898
Connection to EF - 500 cfm and below	3	ea	\$380.00	\$1,140
Connection to heat pump indoor unit	20	ea	\$507.40	\$10,148
Split system unit	2	ea	\$850.00	\$1,700
Circulation pump	2	ea	\$556.47	\$1,113
Water heater	2	ea	\$496.13	\$992
Instant water heater	1	ea	\$390.00	\$390
Expansion tank	2	ea	\$621.00	\$1,242
Water softener & deionizer	2	ea	\$390.00	\$780
VAV connections	22	ea	\$378.40	\$8,325
Disconnect switch, 25/3 fused	5	ea	\$713.00	\$3,565
Disconnect switch, 30/3 fused	8	ea	\$851.47	\$6,812
Disconnect switch, 40/3 fused	20	ea	\$907.35	\$18,147
Disconnect switch, 60/3 fused	3	ea	\$1,119.65	\$3,359
Disconnect switch, 100/3 fused	4	ea	\$1,340.90	\$5,364

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New Morgue and Public Health Building Detail Elements

Element	Quantity	Unit	Unit Cost	Total
25 amp branch	450	lf	\$30.82	\$13,869
30 amp branch	2,070	lf	\$32.91	\$68,130
40 amp branch	2,000	lf	\$41.40	\$82,800
60 amp branch	300	lf	\$63.51	\$19,052
100 amp branch	400	lf	\$81.45	\$32,582
Mech Shades connection				
Shade control power panel, installation only	11	ea	\$390.00	\$4,290
Shade control switch, installation only	11	ea	\$175.00	\$1,925
Motor disconnect plugs, installation only	29	ea	\$105.00	\$3,045
Junction box, ceiling	34	ea	\$154.50	\$5,253
LV switch for skylight daylight dimming	3	ea	\$280.00	\$840
1/2" conduit	1,049	lf	\$13.00	\$13,642
3/4" conduit	270	lf	\$15.19	\$4,094
1" conduit	198	lf	\$19.60	\$3,881
1-1/4" conduit	66	lf	\$27.18	\$1,794
Power/data cable	1,177	lf	\$21.06	\$24,790
(5) #12 + (1) #12EG feeder	836	lf	\$22.69	\$18,967
Cat 5 cable	154	lf	\$3.38	\$521
3/4" conduit & LV feeder	59	lf	\$18.44	\$1,088
Power control feeder	495	lf	\$23.00	\$11,385
Convenience power				
Duplex receptacle	293	ea	\$149.04	\$43,669
Duplex receptacle - GFI	90	ea	\$209.99	\$18,899
Duplex receptacle - GFI, WP	9	ea	\$272.55	\$2,453
Duplex receptacle, controlled	96	ea	\$178.25	\$17,112
Duplex receptacle - GFI, controlled	16	ea	\$238.74	\$3,820
Double duplex receptacle	26	ea	\$218.50	\$5,681
Double duplex receptacle - GFI, wall	1	ea	\$276.00	\$276
Sngle receptacle	11	ea	\$149.50	\$1,645
Junction box, wall	40	ea	\$172.50	\$6,900
Combination receptacle - duplex controlled & data	2	ea	\$487.52	\$975
Combination receptacle - double duplex & data	2	ea	\$500.50	\$1,001
Plumbing sensor	6	ea	\$202.40	\$1,214
Wiremold raceways, surface mounted	501	lf	\$28.00	\$14,024
Feeder	8,880	lf	\$28.73	\$255,096

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New Morgue and Public Health Building Detail Elements

Element	Quantity	Unit	Unit Cost	Total
Lighting and lighting control				
AA - Recessed 1'x4' troffer	30	ea	\$380.00	\$11,400
AB - Recessed 1'x4' troffer	72	ea	\$390.00	\$28,080
AC - Recessed 2'x2' LED flat panel	52	ea	\$180.00	\$9,360
AD - 4' surface lensed strip light	23	ea	\$350.00	\$8,050
AF - Surface mounted linear luminaire	89	lf	\$120.00	\$10,680
AH - Recessed 2'x4' LED flat panel	52	ea	\$298.00	\$15,496
AJ - Sealed 2x4 flat panel LED troffer	37	ea	\$350.00	\$12,950
AK - Small profile undercabinet luminaire	70	lf	\$75.00	\$5,250
AL - 6" round decorative downlight	16	ea	\$310.00	\$4,960
AM - 6" round downlight	6	ea	\$320.00	\$1,920
AN - 1'x1' safelight luminaire	2	ea	\$650.00	\$1,300
AQ - Recessed linear LED wall wash	52	lf	\$120.00	\$6,240
AR - Surface mounted linear luminaire	37	ea	\$450.00	\$16,650
AT - Sealed LED 1x4 flat panel LED troffer	2	ea	\$335.00	\$670
BA - 6" round exterior downlight	21	ea	\$301.00	\$6,321
BB - Exterior vandal-resistant wall sconce	5	ea	\$920.00	\$4,600
BE - Linear ingrade asymmetric wall wash	6	ea	\$480.00	\$2,880
BF- Surface mounted exterior canopy luminaire	20	ea	\$280.00	\$5,600
EX1 - Single faced LED exit sign, ceiling	15	ea	\$180.00	\$2,700
EX2 - Dual faced LED exit sign, wall	1	ea	\$250.00	\$250
Attic stock	1	ls	\$1,560.00	\$1,560
Tax and freight	1	ls	\$25,110.00	\$25,110
Installation	680	hrs	\$140.00	\$95,130
20 amp branch	11,900	lf	\$28.73	\$341,851
Lighting controls	22,538	sf	\$4.50	\$101,421
Additional electrical requirements				
Firestopping electrical	22,538	gsf	\$0.35	\$7,931
Seismic bracing / miscellaneous supports	22,538	gsf	\$0.47	\$10,575
Electrical temporary power	22,538	gsf	\$1.17	\$26,437
Commissioning, planning, and coordination	1	ea	\$9,970.50	\$9,971
			Subtotal - Electrical	<u>\$2,165,394</u>

27 Communications

Voice and data system (infrastructure only, excluding devices and head-end equipment)

IDF room fit-out (sleeves, racks, busway, etc.)	1	ls	\$20,000.00	\$20,000
#2 Data outlet, wall	150	ea	\$150.00	\$22,500
WAP(backbox)	42	ea	\$285.00	\$11,970
Conduit, 3" emt	136	lf	\$64.00	\$8,704
Conduit, 1" emt	4,224	lf	\$19.60	\$82,799
CAT-6 cable	12,672	lf	\$3.23	\$40,981

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New Morgue and Public Health Building Detail Elements

Element	Quantity	Unit	Unit Cost	Total
Audio-video system (infrastructure only)	22,538	gsf	\$2.39	\$53,911
PA & clock system (infrastructure only)	22,538	gsf	\$2.99	\$67,389
Subtotal - Communications				<u>\$308,254</u>

28 Electronic Safety and Security

Closed circuit television system	22,538	gsf	\$4.42	\$99,618
Access control system	22,538	gsf	\$5.20	\$117,198
Security system including equipment	22,538	gsf	\$4.78	\$107,822
Fire alarm system				
FACP interface and programming	1	ls	\$7,221.50	\$7,222
FACP	1	ea	\$9,500.00	\$9,500
Manual pull station	1	ea	\$383.25	\$383.25
Heat detector	2	ea	\$483.75	\$967.50
Smoke detector	4	ea	\$440.00	\$1,760.00
Strobe, wall	54	ea	\$306.30	\$16,540
Horn / strobe, wall	27	ea	\$314.35	\$8,487
Conduit 3/4", emt	3,080	lf	\$15.19	\$46,788
Cable, rated	12,320	lf	\$3.87	\$47,703
Subtotal - Electronic Safety and Security				<u>\$463,989</u>

31 Earthwork

Earthwork				
Field staking / layout, 3 person crew	1	day	\$4,446.24	\$4,446
Over-excavate, sort and recompact, 3'-0" below and 5'-0" beyond building footprint area including setback	2,794	cy	\$14.90	\$41,624
Hydrated lime treatment to building pad, allow 6% by weight	235	tn	\$843.22	\$197,868
Scarify/mixing every 12" T	67,614	sf	\$1.09	\$73,866
Import select fill, backfill and compact	503	cy	\$41.72	\$20,978
Haul excess	503	cy	\$29.80	\$14,985
Disposal fee	503	cy	\$90.59	\$45,553
Fine grading	22,538	sf	\$0.42	\$9,403
Erosion control	22,538	sf	\$0.25	\$5,635
Subtotal - Earthwork				<u>\$414,358</u>

New Morgue and Public Health Building Detail Elements

Element	Quantity	Unit	Unit Cost	Total
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48 Electric Power Generation

PV - 102kW	1	Is	\$510,000.00	\$510,000
BESS-30kW / 128kWH, 480V (NEMA 3R).	1	Is	\$150,000.00	<u>\$150,000</u>

Subtotal - Electric Power Generation **\$660,000**

New Morgue and Public Health Building Equipment

**Morgue and Public Health Building
 New Morgue and Public Health Building Equipment
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New Morgue and Public Health Building Equipment Summary

Element	Gross Floor Area	22,538 SF	Total	Cost/SF
11 Equipment			\$3,402,535	\$150.97
Subtotal			\$3,402,535	\$150.97
General Conditions		12.48%	\$424,797	\$18.85
Subtotal			\$3,827,332	\$169.82
Overhead and Profit (OH&P)		4.50%	\$172,230	\$7.64
Subtotal			\$3,999,562	\$177.46
Bonds & Insurance		2.50%	\$99,989	\$4.44
Subtotal			\$4,099,551	\$181.90
Design Contingency		5.00%	\$204,978	\$9.09
Subtotal			\$4,304,528	\$190.99
Escalation to MOC, 09/11/25		9.05%	\$389,502	\$17.28
TOTAL ESTIMATED CONSTRUCTION COST			\$4,694,030	\$208.27

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New Morgue and Public Health Building Equipment Detail Elements

Element	Quantity	Unit	Unit Cost	Total
11 Equipment				
Mortuary equipment including refrigerators, allowance				
Equipment cost	1	ls	\$487,785.00	\$487,785
Sales Tax (9.25%)	1	ls	\$45,120.11	\$45,120
Freight	1	ls	\$19,995.00	\$19,995
Installation (open shop rate)	1	ls	\$45,995.00	\$45,995
Premium for prevailing wage installation	1	ls	\$6,899.25	\$6,899
Training	1	ls	\$1,950.00	\$1,950
Seismic engineering	1	ls	\$7,500.00	\$7,500
Walk-In Refrigerator, Quote provided by MORTECH Manufacturing dated August 21, 2023				
Walk-in refrigerator, 920 SF	1	ls	\$750,000.00	\$750,000
Sales Tax (9.25%)	1	ls	\$69,375.00	\$69,375
Freight	1	ls	\$19,995.00	\$19,995
Installation (open shop rate)	1	ls	\$565,000.00	\$565,000
Premium for prevailing wage installation	1	ls	\$84,750.00	\$84,750
Seismic engineering	1	ls	\$8,995.00	\$8,995
Walk-In Freezer, Quote provided by MORTECH Manufacturing dated August 21, 2023				
Walk-in freezer, 205 SF	1	ls	\$175,000.00	\$175,000
Sales Tax (9.25%)	1	ls	\$16,187.50	\$16,188
Freight	1	ls	\$9,995.00	\$9,995
Installation (open shop rate)	1	ls	\$135,000.00	\$135,000
Premium for prevailing wage installation	1	ls	\$20,250.00	\$20,250
Seismic engineering	1	ls	\$7,500.00	\$7,500
X-ray equipment, allowance	1	ls	\$150,000.00	\$150,000
Miscellaneous equipment including storage for evidence/secure storage, detectives storage, records and supply storage, wet tissue storage, forensic dentist storage, etc	22,538	gsf	\$30.00	\$676,140
Escalation to quotes above (3%)	1	ls	\$99,102.96	\$99,103
			Subtotal - Equipment	<u>\$3,402,535</u>

Sitework

Sitework Summary

Element	Gross Site Area	75,068 SF	Total	Cost/SF
01	General Requirements		\$600,000	\$7.99
02	Existing Conditions		\$379,555	\$5.06
26	Electrical		\$1,066,758	\$14.21
27	Communications		\$134,959	\$1.80
28	Electronic Safety and Security		\$55,283	\$0.74
31	Earthwork		\$212,289	\$2.83
32	Exterior Improvements		\$1,461,845	\$19.47
33	Utilities		\$1,296,140	\$17.27
34	Transportation		\$35,000	\$0.47
48	Electric Power Generation			
	Subtotal		\$5,241,829	\$69.83
	General Conditions	12.48%	\$654,428	\$8.72
	Subtotal		\$5,896,256	\$78.55
	Overhead and Profit (OH&P)	4.50%	\$265,332	\$3.53
	Subtotal		\$6,161,588	\$82.08
	Bonds & Insurance	2.50%	\$154,040	\$2.05
	Subtotal		\$6,315,627	\$84.13
	Design Contingency	5.00%	\$315,781	\$4.21
	Subtotal		\$6,631,409	\$88.34
	Escalation to MOC, 09/11/25	9.05%	\$600,053	\$7.99
TOTAL ESTIMATED CONSTRUCTION COST			\$7,231,462	\$96.33

Morgue and Public Health Building
Sitework
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Sitework Detail Elements

Element	Quantity	Unit	Unit Cost	Total
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01 General Requirements

General requirements, allowance	1	ls	\$600,000.00	<u>\$600,000</u>
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Subtotal - General Requirements \$600,000

02 Existing Conditions

Site demolition, allowance				
AC pavement	18,217	sf	\$1.79	\$32,572
Sawcut of existing concrete/AC	1,735	lf	\$5.78	\$10,030
Existing building	2,359	sf	\$29.80	\$70,298
Concrete sidewalk	6,028	sf	\$3.28	\$19,760
Landscape including trees and vegetation	70,977	sf	\$0.60	\$42,302
Remove existing water service backflow preventer with utility provider	1	ea	\$858.24	\$858
Remove existing water service meter	1	ea	\$572.16	\$572
Remove existing gas riser and piping associated	1	ea	\$762.88	\$763
Remove existing transformer and utility line associated	1	ea	\$1,907.20	\$1,907
Remove existing telephone box & utility line	1	ea	\$667.52	\$668
Remove sign,post and foundation	5	ea	\$268.20	\$1,341
Remove existing site light,post foundation & electrical lines	6	ea	\$1,728.40	\$10,370
Remove existing drain inlet	6	ea	\$357.60	\$2,146
Remove existing trees	73	ea	\$447.00	\$32,631
Remove of storm drain pipe and down spot	58	lf	\$44.70	\$2,593
Removal existing sewer lateral and abandon beyond property	59	lf	\$44.70	\$2,637
Remove existing guardrail/Handrail	78	lf	\$17.88	\$1,395
Remove existing storm drain pipe	303	lf	\$44.70	\$13,544
Remove exiting fence including gates	705	lf	\$8.94	\$6,303
Remove existing earthen shoulders	2,988	sf	\$0.77	\$2,315
Remove existing steps & ramp	23	sf	\$14.30	\$329
Remove existing curbs & gutter	1,380	lf	\$10.13	\$13,982
Hazmat abatement, not included				
Miscellaneous demolition	250	hr	\$75.00	\$18,750
Protection of existing to remain	1	ls	\$6,500.00	\$6,500
Hauling and disposal including dump charges, allowance	1	ls	\$58,914.00	\$58,914
Temporary construction				
Fence and gates	1,750	lf	\$14.90	<u>\$26,075</u>

Subtotal - Existing Conditions \$379,555

Sitework Detail Elements

Element	Quantity	Unit	Unit Cost	Total
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26 Electrical

Demo of existing cables/equipment/safe-off	72	hrs	\$140.00	\$10,080
Service & distribution equipment				
Utility transformer - 500kVA 12kV/277/480V,3PH 4W				Excluded
(3)#2/0 XLP 15kV cables in (E) 4"C	150	lf	\$96.53	\$14,479
Diesel Generator - 400KW/500KVA, 277/480V, 3P, 4W	1	ea	\$235,000.00	\$235,000
Grounding	1	ls	\$3,500.00	\$3,500
1000amps feeder - MSB	365	lf	\$694.10	\$253,347
150 amps feeder	566	lf	\$115.00	\$65,090
Trenching & backfilling	200	lf	\$55.00	\$11,000
Convenience power	1	ls	\$15,000.00	\$15,000
Lighting and lighting control				
BC - Exterior pole mounted light luminaire(incl. foundation)	17	ea	\$8,419.00	\$143,123
BD - Exterior pole mounted light(incl. foundation) - 3 heads	2	ea	\$14,518.00	\$29,036
BD - Exterior pole mounted light(incl. foundation) - 1 heads	2	ea	\$10,166.00	\$20,332
BG - Ultra low profile step light	12	ea	\$1,110.50	\$13,326
BH - low profile surface mounted luminaire	3	ea	\$1,344.50	\$4,034
20 amp branch	2,070	lf	\$28.73	\$59,465
Additional lighting allowance, dumpster	1	ls	\$5,000.00	\$5,000
Lighting controls	1	ls	\$10,000.00	\$10,000
Trenching & backfilling	1,500	lf	\$50.00	\$75,000
Additional electrical requirements				
Electrical temporary power	75,068	sf	\$1.20	\$89,781
Commissioning, planning, and coordination	1	ea	\$10,166.00	\$10,166

Subtotal - Electrical **\$1,066,758**

27 Communications

Site communications				
Conduit, 4" pvc	1,450	lf	\$37.35	\$54,150
Fiber cabling	3,886	lf	\$10.45	\$40,609
Pull box	4	ea	\$1,800.00	\$7,200
Trenching, backfill and compaction	600	lf	\$55.00	\$33,000

Subtotal - Communications **\$134,959**

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Sitework Detail Elements

Element	Quantity	Unit	Unit Cost	Total
28 Electronic Safety and Security				
Site security, allowance	75,068	sf	\$0.50	\$37,534
Site FA				
3/4" conduit	220	lf	\$15.19	\$3,342
FA cabling	880	lf	\$3.87	\$3,407
Trenching & backfilling	220	lf	\$50.00	\$11,000
				<u>\$55,283</u>
31 Earthwork				
Earthwork				
Field staking / layout, 3 person crew	2	day	\$3,495.05	\$6,990
Rough grading, cut and fill, based on no soil leaving job site	3,058	cy	\$10.13	\$30,987
Over-excavate and recompact paving area and hardscape area, 2'-0" below / 3-0" beyond	4,907	cy	\$14.90	\$73,111
Fine grading	48,250	sf	\$0.24	\$11,503
Erosion control				
Install drop inlet protection	18	ea	\$536.40	\$9,655
Install temporary construction entrance	1,213	sf	\$17.50	\$21,228
Straw wattles	1,020	lf	\$8.64	\$8,815
SWPPP and BMP maintenance	1	ls	\$50,000.00	\$50,000
				<u>\$212,289</u>
32 Exterior Improvements				
AC paving				
AC pavement, parking, allow 2.5" over 6" AB	5,100	sf	\$5.11	\$26,077
AC pavement, drive aisle, allow 3" over 8" AB	23,624	sf	\$6.67	\$157,580
AC pavement, heavy duty, allow 4" over 10" AB	3,733	sf	\$9.07	\$33,863
Connect new AC pavement to existing	622	lf	\$5.36	\$3,336
Hauling	365	cy	\$32.44	\$11,842
Hardscape				
Pedestrian, allow natural gray, top cast, 4" thick o/ 4" AB	10,577	sf	\$17.77	\$187,925
Concrete steps	77	lf	\$95.36	\$7,343
Concrete pad allowance	79	sf	\$41.72	\$3,296
Depress concrete sidewalk	739	sf	\$13.60	\$10,047

Morgue and Public Health Building
Sitework
 Santa Rosa, CA
 30% Construction Documents Cost Estimate

03/04/24

Sitework Detail Elements

Element	Quantity	Unit	Unit Cost	Total
Concrete curb, gutter and ramp				
Tactile warning tiles	359	sf	\$58.08	\$20,849
Concrete curb, straight	1,033	lf	\$28.94	\$29,895
Concrete curb, radius	206	lf	\$48.33	\$9,955
Accessible curb ramp	1,001	sf	\$20.86	\$20,881
Concrete curb & gutter, 30" W	808	lf	\$65.73	\$53,113
Valley gutter	293	lf	\$71.52	\$20,955
Curb opening	5	ea	\$417.20	\$2,086
Striping / signage				
Precast concrete wheel stop	12	ea	\$131.12	\$1,573
Parking stall	52	ea	\$53.64	\$2,789
ADA pavement marking	3	ea	\$202.64	\$608
ADA signage including post and foundation	3	ea	\$506.60	\$1,520
Hatched striping	790	sf	\$6.73	\$5,320
"NO PARKING" pavement marking	5	ea	\$160.92	\$805
Replace existing crosswalk striping	285	sf	\$5.50	\$1,568
Miscellaneous allowance for pavement striping, signage, and parking specialties	32,457	sf	\$0.30	\$9,737
Site fence and walls				
Chain link fence, 8'-0" H	875	lf	\$93.62	\$81,921
Chain link gate, pedestrian, single	2	ea	\$1,094.26	\$2,189
Chain link gate, vehicular, 21'-0" W, double	2	pr	\$6,258.00	\$12,516
Concrete footing, allow 18" Ø x 5'-0" D	127	ea	\$506.60	\$64,528
Site wall				
Concrete planter wall including footing	153	lf	\$178.80	\$27,356
CMU block wall	44	lf	\$419.00	\$18,436
Bioretention area cutoff wall	64	lf	\$84.00	\$5,376
Site structures				
Trash enclosure, allowance	1	ls	\$95,000.00	\$95,000
Site specialties, signage and furnishings				
Bench, 6'-0" long	4	ea	\$2,562.80	\$10,251
Ramp handrail, stainless steel	103	lf	\$160.92	\$16,575
Stair handrail, stainless steel	8	lf	\$160.92	\$1,287
Picnic table	3	set	\$3,874.00	\$11,622
Receptacle, trash and recycle	1	set	\$2,324.40	\$2,324
Site signage, allowance	1	ls	\$20,000.00	\$20,000
Miscellaneous site specialties and furnishings, allowance	1	ls	\$50,000.00	\$50,000

Sitework Detail Elements

Element	Quantity	Unit	Unit Cost	Total
Landscape and irrigation,				
Soil preparation	26,414	sf	\$0.89	\$23,614
Trees, 24" box	36	ea	\$525.00	\$18,900
Shrubs and groundcover	26,414	sf	\$6.50	\$171,691
Shrub, 15 gal	14	ea	\$77.48	\$1,085
Shrub, 5 gal	212	ea	\$41.72	\$8,845
Shrub, 1 gal	680	ea	\$23.39	\$15,903
Mulch to shrub area - bark mulch	26,414	sf	\$1.61	\$42,505
Irrigation, planting	26,414	sf	\$4.47	\$118,071
Maintenance (60 days)	1	mo	\$10,000.00	\$10,000
Irrigation controller	1	ls	\$7,500.00	\$7,500
Grade earthen swale	71	lf	\$19.50	\$1,385
				\$1,461,845
			Subtotal - Exterior Improvements	<u>\$1,461,845</u>

33 Utilities

Fire water				
Building POC, temp cap and label	1	ea	\$447.00	\$447
Connect to (E) mainline, hot tap	1	ea	\$5,960.00	\$5,960
Connect to (E) mainline	2	ea	\$4,172.00	\$8,344
FDC	1	ea	\$2,656.84	\$2,657
PIV	1	ea	\$4,589.20	\$4,589
Fire hydrant	3	ea	\$5,781.20	\$17,344
Pipe, 8" pvc, including trench and backfill	1,099	lf	\$160.92	\$176,851
Pipe, 12" pvc, including trench and backfill	748	lf	\$196.68	\$147,117
Miscellaneous elbows, 8" Ø	23	ea	\$1,388.43	\$31,934
Water service meter	1	ea	\$8,043.25	\$8,043
Double detector check valve	2	ea	\$28,343.96	\$56,688
Combination water service	1	ea	\$5,960.00	\$5,960
Gate valve with valve box extension, 6" Ø, NRS	3	ea	\$7,900.22	\$23,701
Gate valve with valve box extension, 8" Ø, NRS	3	ea	\$8,505.33	\$25,516
Domestic water				
Building POC, temp cap and label	1	ea	\$298.00	\$298
Connect to fire water line	1	ea	\$2,980.00	\$2,980
Pipe, allow 4" pvc, including trench and backfill	378	lf	\$89.40	\$33,793
Gate valve with valve box extension, 4" Ø, NRS	1	ea	\$4,797.97	\$4,798
Meter, 4" Ø	1	ea	\$7,180.37	\$7,180
Miscellaneous elbow, 4" Ø	7	ea	\$281.78	\$1,972
Backflow preventer, 4" Ø	1	ea	\$10,719.29	\$10,719
Thrust block	7	ea	\$417.20	\$2,920

**Morgue and Public Health Building
Sitework
Santa Rosa, CA
30% Construction Documents Cost Estimate**

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Sitework Detail Elements

Element	Quantity	Unit	Unit Cost	Total
Sanitary sewer				
Bldg. POC, temp cap and label	3	ea	\$298.00	\$894
Connect new line to existing line	1	ea	\$2,384.00	\$2,384
SS cleanout	4	ea	\$1,311.20	\$5,245
Pipe, 6" pvc, including trench and backfill	255	lf	\$109.71	\$27,975
Natural gas, allowance	75,068	sf	\$0.75	\$56,301
Irrigation main line				
Main line SCH40 PVC	3,722	lf	\$53.64	\$199,648
Backflow preventer, 4" Ø	1	ea	\$10,719.29	\$10,719
Meter, 4" Ø	1	ea	\$7,180.37	\$7,180
Temp cap and label for future connection	1	ea	\$417.20	\$417
Storm drain				
Drain inlet, 24" x 24"	16	ea	\$1,430.40	\$22,886
Drain inlet, 48" x 48"	1	ea	\$2,622.40	\$2,622
Bldg. RD POC, temp cap and label	6	ea	\$298.00	\$1,788
Cleanout	5	ea	\$1,311.20	\$6,556
Manhole SDMH	1	ea	\$7,748.00	\$7,748
Pipe, 6" pvc, including trench and backfill	597	lf	\$96.41	\$57,556
Pipe, 8" pvc, including trench and backfill	169	lf	\$99.43	\$16,803
Bio-retention basin	3,224	sf	\$25.63	\$82,625
Detention pond, allowance	1	ls	\$57,740.48	\$57,740
Pipe, 12" pvc, including trench and backfill	799	lf	\$129.33	\$103,336
Pipe, 15" pvc, including trench and backfill	278	lf	\$143.04	\$39,765
Connect to existing drain	2	ea	\$2,980.00	\$5,960
Connect to exit curb	1	ea	\$178.80	\$179

Subtotal - Utilities \$1,296,140

34 Transportation

Traffic control, allowance	1	ls	\$35,000.00	\$35,000
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Subtotal - Transportation \$35,000

48 Electric Power Generation

See building div.48

Subtotal - Electric Power Generation