



Mount Vernon Fire Department
Mount Vernon, WA

Conceptual - Rev 4
December 3, 2018
Cumming Project No. 18-01155.00



Prepared for Mackenzie

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EXECUTIVE SUMMARY

1.1 Introduction

This estimate has been prepared, pursuant to an agreement between Mackenzie and Cumming, for the purpose of establishing a probable cost of construction at the conceptual design stage.

The project scope is the renovation of two existing fire stations, and the construction of a new, 24,000 sf, fire station.

1.2 Project Schedule

	Start	Finish	Duration
Design & Engineering	Feb-19	Mar-20	12 months
Construction	Mar-20	Apr-21	14 months

1.3 Key Assumptions & Exclusions

This document should be read in association with Methods and Assumptions sections. Key assumptions built into the above cost breakdown include

Key Assumptions

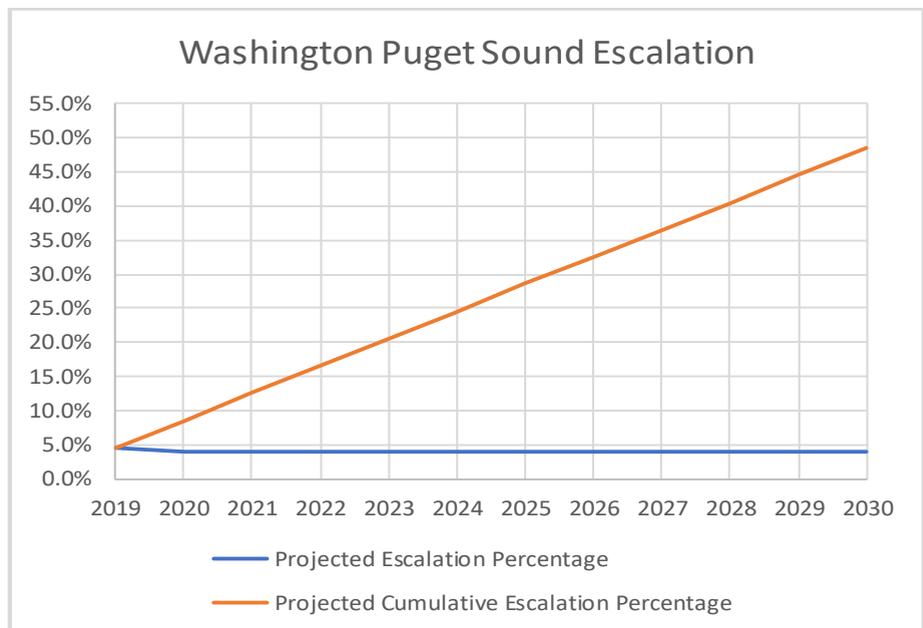
- Design/Bid/Build
- Single Phase Construction

Key Exclusions

- Project Soft Costs, other than specified furnishings & equipment
- Department Relocation
- AV Equipment supply (OFCI video conference install is included)
- Existing building demo (partial demo at renovations is included)
- Soil remediation and treatments (piles are included at FS #1)
- WSST

1.4 Escalation Projection

Year	Projected Escalation Percentage	Projected Cumulative Escalation Percentage
2019	4.5%	4.5%
2020	4.0%	8.5%
2021	4.0%	12.5%
2022	4.0%	16.5%
2023	4.0%	20.5%
2024	4.0%	24.5%
2025	4.0%	28.5%
2026	4.0%	32.5%
2027	4.0%	36.5%
2028	4.0%	40.5%
2029	4.0%	44.5%
2030	4.0%	48.5%



APPROACH & METHODOLOGY

Basis of Estimate	<ul style="list-style-type: none">- List documents used- Final Concept Design 11.2.2018 Reduced - dated 11/2/18- MVFD_Exist Plan Markups for Costing-11.01.18 - dated 11/1/18- MVFD_Narrative Scope Station 2- Electrical - dated 11/8/18- MVFD_Narrative Scope Station 2-Sazan Mech - dated 11/8/18- MVFD_Narrative Scope Station 3- Electrical - dated 11/8/18- MVFD_Narrative Scope Station 3- Sazan Mech - dated 11/8/18- MVFD_Prelim Cost Spec Stat 2.3-11.06.18 - dated 11/6/18- MVFD_Preliminary Spec-06.11.18 - dated 11/6/18
Estimate Format	A component cost classification format has been used for the preparation of this estimate. It classifies costs by building system / element.
Cost Mark Ups	The following % mark ups have been included in each design option: <ul style="list-style-type: none">- General Conditions (7.00% on direct costs)- General Requirements (3.00% compound)- Bonds & Insurance (2.00% compound)- Contractor's Fee (4.00% compound)- Aggregated Design Contingency (10.36% compound)- Construction Contingency (0.00% compound)
Escalation	- Escalation to MOC, 09/29/20 (8.30% compound)
Design Contingency	An allowance of 9% for undeveloped design details has been included in this estimate. As the design of each system is further developed, details which historically increase cost become apparent and must be incorporated into the estimate while decreasing the % burden.
Construction Schedule	Construction schedule has not been developed as of publication of this estimate.
Method of Procurement	The estimate is based on a Design/Bid/Build delivery model.
Bid Conditions	This estimate has been based upon competitive bid situations (minimum of 3 bidders) for all items of subcontracted work.
Basis For Quantities	To a small degree, this estimate has been based upon the actual measurement of different items of work, however the vast majority is based on parametric measurements used in conjunction with other projects of a similar nature.
Basis for Unit Costs	Unit costs as contained herein are based on current bid prices in the northern Puget Sound area. Sub overheads and profit are included in each line item unit cost. Their overhead and profit covers each sub's cost for labor burden, materials, and equipment, sales taxes, field overhead, home office overhead, and profit. The general contractor's overhead is shown separately on the master summary
Sources for Pricing	This estimate was prepared by a team of qualified cost consultants experienced in estimating construction costs at all stages of design. These consultants have used pricing data from Cumming's database for municipal facility construction, updated to reflect current conditions in the north Puget Sound area.

APPROACH & METHODOLOGY

Key Exclusions

The following items have been excluded from our estimate:

- Project Soft Costs, other than specified furnishings & equipment
- Department Relocation
- AV Equipment supply (OFCI video conference install is included)
- Existing building demo (partial demo at renovations is included)
- Soil remediation and treatments (piles are included at FS #1)
- WSST

Items Affecting Cost Estimate

Items which may change the estimated construction cost include, but are not limited to:

- Modifications to the scope of work included in this estimate.
- Unforeseen sub-surface conditions.
- Restrictive technical specifications or excessive contract conditions.
- Any specified item of material or product that cannot be obtained from 3 sources.
- Any other non-competitive bid situations.
- Bids delayed beyond the projected schedule.

Statement of Probable Cost

Cumming has no control over the cost of labor and materials, the general contractor's or any subcontractor's method of determining prices, or competitive bidding and market conditions. This estimate is made on the basis of the experience, qualifications, and best judgement of a professional consultant familiar with the construction industry. Cumming, however, cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent cost estimates.

Cumming's staff of professional cost consultants has prepared this estimate in accordance with generally accepted principles and practices. This staff is available to discuss its contents with any interested party.

Pricing reflects probable construction costs obtainable in the project locality on the target dates specified and is a determination of fair market value for the construction of this project. The estimate is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all sub and general contractors with a range of 3 - 4 bidders for all items of work. Experience and research indicates that a fewer number of bidders may result in higher bids. Conversely, an increased number of bidders may result in more competitive bid day responses.

Recommendations

Cumming recommends that the Owner and the Architect carefully review this entire document to ensure it reflects their design intent. Requests for modifications of any apparent errors or omissions to this document must be made to Cumming within ten days of receipt of this estimate. Otherwise, it will be assumed that its contents have been reviewed and accepted. If the project is over budget or there are unresolved budget issues, alternate systems / schemes should be evaluated before proceeding into further design phases.

It is recommended that there are preparations of further cost estimates throughout design by Cumming to determine overall cost changes since the preparation of this preliminary estimate. These future estimates will have detailed breakdowns indicating materials by type, kind, and size, priced by their respective units of measure.

SCOPE ASSUMPTIONS

Description	Assumed Scope
General Project Info	<ul style="list-style-type: none"> - Local GC laydown / compound area within proximity. - Local trade parking available both onsite (partial) and offsite. - All sub trades to be competitively bid. - Labor pool from Puget Sound area.
Detailed Assumptions	
1. Substructure / Foundations	<ul style="list-style-type: none"> - Mass excavation and off haul. - Piles assumed at Station #1. - Continuous footings / spread footings for existing building additions and for Station #1. - Sub slab drainage and vault for Station #1.
2. Structure	<ul style="list-style-type: none"> - Assumed slab on grade, steel columns, structural steel, metal decks at Station #1. - Assume modifications to wooden structures at Stations #2 and #3.
3. Envelope / Roofing	<ul style="list-style-type: none"> - Station #1. <ul style="list-style-type: none"> - Exterior substrate of metal studs, densglas sheathing, batt insulation. - Blend of exterior brick veneer, cast in place walls, and composite metal panel systems. - Exterior storefront glazing. - Assumed 60 mil TPO or similar roof. - Assume metal and wood T&G soffits. - Stations #2 and #3. <ul style="list-style-type: none"> - Wood framed walls with composite paneling. Storefront at Station #2 vestibule. - Wood framed roof with composition roofing.
4. Interiors	<ul style="list-style-type: none"> - Station #1. <ul style="list-style-type: none"> - Metal stud framed, to deck, interior construction. - Stations #1, #2, and #3. <ul style="list-style-type: none"> - Solid core wood interior doors. - Floor allowances for range of finishes - Assume gypsum board ceilings in restrooms and personnel decon rooms. - Assume open to structure ceiling in mechanical, electrical, storage, stairs, apparatus bays, and apparatus bay support rooms. - Assume SC wood doors with HM frames. - Wall allowances for range of finishes. - Allowance for restroom partitions and specialties. - Allowance for install of miscellaneous OFCI equipment. - Allowance for casework. - Assume wood framing (stations #2 and #3)
5. Vert. Transportation	<ul style="list-style-type: none"> - Two-stop elevator for Station #1.

SCOPE ASSUMPTIONS

Description	Assumed Scope
6. Plumbing	- Plumbing is a cost per square foot allowance.
7. HVAC	- HVAC is a cost per square foot allowance.
8. Electrical	- Electrical is a cost per square foot allowance.
9. Fire Protection	- Fire Protection is a cost per square foot allowance.
10. Sitework	<ul style="list-style-type: none"> - Station #1. <ul style="list-style-type: none"> - Demo of Snoqualmie St between Cleveland Ave and S 2nd St, including asphalt and concrete complete. - Allowance for removal of utilities in Snoqualmie St, and rerouting around site via S 2nd St, alley south of station, and Cleveland Ave. - Clear, grub, and cut and fill of site, assuming balanced site. - Dewatering as required. - Pedestrian plaza pavement, and seat wall, extending north to library, terminating at south face of library. - Trees as shown in plans. Allowance for irrigated landscaping in plan space shown as landscaped. - Onsite and offsite sidewalks and miscellaneous flat work. - CMU trash enclosure. - Asphalt drives and parking, with additional offsite parking. - Allowance for underground stormwater storage vault. - Allowance for domestic and fire water. - Allowance for sanitary sewer. - Allowance for stormwater drainage. - Allowance for natural gas service. - Station #2. <ul style="list-style-type: none"> - New concrete patios. - Allowance for site adjustments at new vestibule. - 6' high security fence with privacy slats. - Allowance for new powered cantilever gate/fence with battery backup and proximity reader on pedestal. - Station #3. <ul style="list-style-type: none"> - New concrete apron and modified asphalt approach. - Allowance for new powdered double-swing gate/fence with battery backup and proximity reader on pedestal. - Allowance for modified and new landscape and driveline edge.

SCOPE ASSUMPTIONS

Description	Assumed Scope
11. Exclusions	<ul style="list-style-type: none">- Project Soft Costs, other than specified furnishings & equipment- Department Relocation- AV Equipment supply (OFCI video conference install is included)- Existing building demo (partial demo at renovations is included)- Soil remediation and treatments (piles are included at FS #1)- WSST

SUMMARY

Element	Area	Cost / SF	Total
Fire Station #1	24,000	\$689.50	\$16,548,045
Fire Station #2	4,289	\$462.13	\$1,982,086
Fire Station #3	5,634	\$571.56	\$3,220,165
Total Estimated Construction Cost	33,923	\$641.17	\$21,750,296

Breakouts

Fire Station #1			
Building			\$13,869,478
Sitework			\$1,547,526
Offsite Work			\$1,131,041
Fire Station #1			
Special Foundations	<i>Includes piles, some dewatering, stormwater vault</i>		\$1,544,157
Snoqualmie Street Work	<i>Includes streetwork, but does not include site improvements</i>		\$752,439
Snoqualmie Plaza	<i>Includes flatwork, landscape, lighting, fence, and flagpole</i>		\$171,967
Fire Station #2			
Building			\$1,824,196
Sitework			\$157,890
Fire Station #3			
Building			\$3,011,730
Sitework			\$208,435

Escalation

Project Delayed 5 years to 2025 Construction Start			
Fire Station #1			\$21,264,238
Fire Station #2			\$2,546,981
Fire Station #3			\$4,137,912
TOTAL			\$27,949,130
Project Delayed 10 years to 2030 Construction Start			
Fire Station #1			\$24,573,847
Fire Station #2			\$2,943,398
Fire Station #3			\$4,781,945
TOTAL			\$32,299,190

SUMMARY MATRIX

Element	Fire Station #1 24,000 SF			Fire Station #2 4,289 SF		
	Subsystem	System	Cost/SF	Subsystem	System	Cost/SF
A) SUBSTRUCTURE		\$930,260	\$38.76		\$27,306	\$6.37
10 Foundations	\$638,800		\$26.62	\$13,320		\$3.11
40 Slabs-on-Grade	\$179,670		\$7.49	\$13,986		\$3.26
90 Substructure Related Activities	\$111,790		\$4.66			
B) SHELL		\$2,751,196	\$114.63		\$207,495	\$48.38
10 Superstructure	\$886,624		\$36.94	\$31,968		\$7.45
20 Exterior Vertical Enclosures	\$1,441,001		\$60.04	\$129,828		\$30.27
30 Exterior Horizontal Enclosures	\$423,571		\$17.65	\$45,699		\$10.65
C) INTERIORS		\$1,255,259	\$52.30		\$242,863	\$56.62
10 Interior Construction	\$946,741		\$39.45	\$119,248		\$27.80
20 Interior Finishes	\$308,518		\$12.85	\$123,615		\$28.82
D) SERVICES		\$4,912,827	\$204.70		\$675,248	\$157.44
10 Conveying	\$150,000		\$6.25			
20 Plumbing	\$930,480		\$38.77	\$127,563		\$29.74
30 Heating, Ventilation, and Air Conditioning (HVAC)	\$1,071,360		\$44.64	\$140,232		\$32.70
40 Fire Protection	\$146,400		\$6.10	\$18,250		\$4.26
50 Electrical	\$1,639,387		\$68.31	\$175,849		\$41.00
60 Communications	\$300,000		\$12.50	\$53,613		\$12.50
70 Electronic Safety and Security	\$491,600		\$20.48	\$139,600		\$32.55
80 Integrated Automation	\$183,600		\$7.65	\$20,142		\$4.70
E) EQUIPMENT & FURNISHINGS		\$201,440	\$8.39		\$36,768	\$8.57
10 Equipment	\$33,440		\$1.39	\$6,745		\$1.57
20 Furnishings	\$168,000		\$7.00	\$30,023		\$7.00
F) SPECIAL CONSTRUCTION & DEMOLITION					\$42,890	\$10.00
30 Demolition				\$42,890		\$10.00
G) SITEWORK		\$1,941,114	\$80.88		\$106,683	\$24.87
10 Site Preparation	\$627,057		\$26.13			
20 Site Improvements	\$519,057		\$21.63	\$106,683		\$24.87
30 Liquid and Gas Site Utilities	\$725,000		\$30.21			
Subtotal Cost		\$11,992,095	\$499.67		\$1,339,253	\$312.25
General Conditions	7.0%	\$839,447	\$34.98		\$93,748	\$21.86
General Requirements	3.0%	\$384,946	\$16.04		\$42,990	\$10.02
Bonds & Insurance	2.0%	\$264,330	\$11.01		\$29,520	\$6.88
Contractor's Fee	4.0%	\$539,233	\$22.47		\$60,220	\$14.04
Aggregated Design Contingency	10.4%	\$1,261,805	\$52.58		\$264,694	\$61.71
Escalation to MOC, 09/29/20	8.3%	\$1,266,190	\$52.76		\$151,661	\$35.36
Total Estimated Construction Cost		\$16,548,045	\$689.50		\$1,982,086	\$462.13

SUMMARY MATRIX

Element	Fire Station #3 5,634 SF			Overall Totals		
	Subsystem	System	Cost/SF	Subsystem	System	Cost/SF
A) SUBSTRUCTURE		\$83,517	\$14.82		\$1,041,083	\$30.69
10 Foundations	\$40,740		\$7.23	\$692,860		\$20.42
40 Slabs-on-Grade	\$42,777		\$7.59	\$236,433		\$6.97
90 Substructure Related Activities				\$111,790		\$3.30
B) SHELL		\$607,815	\$107.88		\$3,566,506	\$105.14
10 Superstructure	\$134,791		\$23.92	\$1,053,383		\$31.05
20 Exterior Vertical Enclosures	\$334,778		\$59.42	\$1,905,607		\$56.17
30 Exterior Horizontal Enclosures	\$138,246		\$24.54	\$607,516		\$17.91
C) INTERIORS		\$391,973	\$69.57		\$1,890,095	\$55.72
10 Interior Construction	\$261,056		\$46.34	\$1,327,045		\$39.12
20 Interior Finishes	\$130,917		\$23.24	\$563,050		\$16.60
D) SERVICES		\$893,888	\$158.66		\$6,481,963	\$191.08
10 Conveying				\$150,000		\$4.42
20 Plumbing	\$208,701		\$37.04	\$1,266,744		\$37.34
30 Heating, Ventilation, and Air Conditioning (HVAC)	\$178,143		\$31.62	\$1,389,735		\$40.97
40 Fire Protection	\$30,533		\$5.42	\$195,183		\$5.75
50 Electrical	\$230,994		\$41.00	\$2,046,230		\$60.32
60 Communications	\$70,425		\$12.50	\$424,038		\$12.50
70 Electronic Safety and Security	\$151,110		\$26.82	\$782,309		\$23.06
80 Integrated Automation	\$23,983		\$4.26	\$227,725		\$6.71
E) EQUIPMENT & FURNISHINGS		\$57,544	\$10.21		\$295,752	\$8.72
10 Equipment	\$18,106		\$3.21	\$58,291		\$1.72
20 Furnishings	\$39,438		\$7.00	\$237,461		\$7.00
F) SPECIAL CONSTRUCTION & DEMOLITION		\$56,340	\$10.00		\$99,230	\$2.93
30 Demolition	\$56,340		\$10.00	\$99,230		\$2.93
G) SITEWORK		\$144,719	\$25.69		\$2,192,516	\$64.63
10 Site Preparation				\$627,057		\$18.48
20 Site Improvements	\$144,719		\$25.69	\$770,459		\$22.71
30 Liquid and Gas Site Utilities				\$725,000		\$21.37
Subtotal Cost		\$2,235,796	\$396.84		\$15,567,144	\$459
General Conditions	7.0%	\$156,506	\$27.78	\$1,089,700		\$32.12
General Requirements	3.0%	\$71,769	\$12.74	\$499,705		\$14.73
Bonds & Insurance	2.0%	\$49,281	\$8.75	\$343,131		\$10.11
Contractor's Fee	4.0%	\$100,534	\$17.84	\$699,987		\$20.63
Aggregated Design Contingency	10.4%	\$359,884	\$63.88	\$1,886,383		\$55.61
Escalation to MOC, 09/29/20	8.3%	\$246,394	\$43.73	\$1,664,245		\$49.06
Total Estimated Construction Cost		\$3,220,165	\$571.56		\$21,750,296	\$641.17

SCHEDULE OF AREAS AND CONTROL QUANTITIES

Schedule of Areas	Fire Station #1	Fire Station #2	Fire Station #3	SF
1. Enclosed Areas (x 100%)				
Level 1	16,000			16,000
Level 2	8,000			8,000
Existing - Untouched		9,711	4,526	14,237
Additions		1,303	4,187	5,490
Renovations		2,986	1,447	4,433
Total Enclosed	24,000	14,000	10,160	48,160
2. Unenclosed Areas				
Sitework	25,020	1,902	6,427	33,349
Offsite Work	4,740			4,740
Total Unenclosed	29,760	1,902	6,427	19,045

Fire Station #1

SUMMARY - FIRE STATION #1

Element	Subsystem	System	Cost / SF
A - SUBSTRUCTURE		\$930,260	\$38.76
A10 Foundations	\$638,800		\$26.62
A1010 Standard Foundations	\$638,800		\$26.62
A40 Slabs-on-Grade	\$179,670		\$7.49
A4010 Standard Slabs-on-Grade	\$175,670		\$7.32
A4040 Pits and Bases	\$4,000		\$0.17
A90 Substructure Related Activities	\$111,790		\$4.66
A9010 Substructure Excavation	\$31,940		\$1.33
A9020 Construction Dewatering	\$79,850		\$3.33
B - SHELL		\$2,751,196	\$114.63
B10 Superstructure	\$886,624		\$36.94
B1010 Floor Construction	\$432,300		\$18.01
B1020 Roof Construction	\$394,324		\$16.43
B1080 Stairs	\$60,000		\$2.50
B20 Exterior Vertical Enclosures	\$1,441,001		\$60.04
B2010 Exterior Walls	\$1,130,266		\$47.09
B2020 Exterior Windows	\$181,335		\$7.56
B2050 Exterior Doors and Grilles	\$129,400		\$5.39
B30 Exterior Horizontal Enclosures	\$423,571		\$17.65
B3010 Roofing	\$423,571		\$17.65
C - INTERIORS		\$1,255,259	\$52.30
C10 Interior Construction	\$946,741		\$39.45
C1010 Interior Partitions	\$589,374		\$24.56
C1030 Interior Doors	\$175,000		\$7.29
C1070 Suspended Ceiling Construction	\$20,207		\$0.84
C1090 Interior Specialties	\$156,960		\$6.54
C20 Interior Finishes	\$308,518		\$12.85
C2010 Wall Finishes	\$65,486		\$2.73
C2030 Flooring	\$140,053		\$5.84
C2040 Stair Finishes	\$5,000		\$0.21
C2050 Ceiling Finishes	\$97,979		\$4.08
D - SERVICES		\$4,912,827	\$204.70
D10 Conveying	\$150,000		\$6.25
D1010 Vertical Conveying Systems	\$150,000		\$6.25
D20 Plumbing	\$930,480		\$38.77
D2010 Domestic Water Distribution	\$393,600		\$16.40
D2020 Sanitary Drainage	\$192,480		\$8.02
D2030 Building Support Plumbing Systems	\$293,760		\$12.24
D2050 General Service Compressed-Air	\$50,640		\$2.11
D30 Heating, Ventilation, and Air Condition (HVAC)	\$1,071,360		\$44.64
D3030 Cooling Systems	\$756,960		\$31.54
D3050 Facility HVAC Distribution Systems	\$314,400		\$13.10
D40 Fire Protection	\$146,400		\$6.10
D4010 Fire Suppression	\$146,400		\$6.10
D50 Electrical	\$1,639,387		\$68.31
D5010 Facility Power Generation	\$250,000		\$10.42
D5020 Electrical Service and Distribution	\$360,000		\$15.00

Mount Vernon Fire Department

Mount Vernon, WA

Conceptual - Rev 4

Project # 18-01155.00

12/03/18

SUMMARY - FIRE STATION #1

Element	Subsystem	System	Cost / SF
D5030 General Purpose Electrical Power	\$210,000		\$8.75
D5040 Lighting	\$504,000		\$21.00
D60 Communications	\$300,000		\$12.50
D6010 Data Communications	\$132,000		\$5.50
D6030 Audio-Video Communication	\$168,000		\$7.00
D70 Electronic Safety and Security	\$491,600		\$20.48
D7010 Access Control and Intrusion Detection	\$99,600		\$4.15
D7050 Detection and Alarm	\$276,000		\$11.50
D7070 Electronic Monitoring and Control	\$96,000		\$4.00
D80 Integrated Automation	\$183,600		\$7.65
D8010 Integrated Automation Facility Controls	\$183,600		\$7.65
E - EQUIPMENT & FURNISHINGS		\$201,440	\$8.39
E10 Equipment	\$33,440		\$1.39
E1010 Vehicle and Pedestrian Equipment			
E1030 Commercial Equipment	\$9,440		\$0.39
E1040 Institutional Equipment	\$24,000		\$1.00
E20 Furnishings	\$168,000		\$7.00
E2010 Fixed Furnishings	\$168,000		\$7.00
G - SITEWORK		\$1,941,114	\$80.88
G10 Site Preparation	\$627,057		\$26.13
G1010 Site Clearing	\$2,502		\$0.10
G1020 Site Elements Demolition	\$609,542		\$25.40
G1070 Site Earthwork	\$15,013		\$0.63
G20 Site Improvements	\$519,057		\$21.63
G2010 Roadways	\$72,000		\$3.00
G2020 Parking Lots	\$71,365		\$2.97
G2030 Pedestrian Plazas and Walkways	\$151,492		\$6.31
G2060 Site Development	\$138,750		\$5.78
G2080 Landscaping	\$85,450		\$3.56
G30 Liquid and Gas Site Utilities	\$725,000		\$30.21
G3010 Water Supply	\$75,000		\$3.13
G3020 Sanitary Sewerage Utilities	\$35,000		\$1.46
G3030 Storm Drainage Utilities	\$600,000		\$25.00
G3090 Liquid and Gas Site Utilities Supplementary Components	\$15,000		\$0.63
Subtotal		\$11,992,095	\$499.67
General Conditions	7.00%	\$839,447	\$34.98
Subtotal		\$12,831,542	\$534.65
General Requirements	3.00%	\$384,946	\$16.04
Subtotal		\$13,216,488	\$550.69
Bonds & Insurance	2.00%	\$264,330	\$11.01
Subtotal		\$13,480,818	\$561.70
Contractor's Fee	4.00%	\$539,233	\$22.47
Subtotal		\$14,020,051	\$584.17
Design Contingency	9.00%	\$1,261,805	\$52.58

SUMMARY - FIRE STATION #1

Element	Subsystem	System	Cost / SF
Subtotal		\$15,281,855	\$636.74
Escalation to MOC, 09/29/20	8.29%	\$1,266,190	\$52.76
TOTAL ESTIMATED CONSTRUCTION COST		\$16,548,045	\$689.50

Total Area: 24,000 SF

DETAIL ELEMENTS - FIRE STATION #1

Element	Quantity	Unit	Unit Cost	Total
A - SUBSTRUCTURE				
A10 Foundations				
A1010 Standard Foundations				
Piles & pile caps - allowance	15,970	sf	\$30.00	\$479,100
Foundation footings and stem walls	15,970	sf	\$10.00	\$159,700
				\$638,800
A10 Foundations				\$638,800
A40 Slabs-on-Grade				
A4010 Standard Slabs-on-Grade				
Slab on grade, complete	15,970	sf	\$11.00	\$175,670
				\$175,670
A4040 Pits and Bases				
Elevator pit	1	ea	\$4,000.00	\$4,000
				\$4,000
A40 Slabs-on-Grade				\$179,670
A90 Substructure Related Activities				
A9010 Substructure Excavation				
Foundation excavation and fill	15,970	sf	\$2.00	\$31,940
				\$31,940
A9020 Construction Dewatering				
Dewatering allowance	15,970	sf	\$2.50	\$39,925
Dewatering premium (associated with piles)	15,970	sf	\$2.50	\$39,925
				\$79,850
A90 Substructure Related Activities				\$111,790
A - SUBSTRUCTURE				\$930,260
B - SHELL				
B10 Superstructure				
B1010 Floor Construction				
Second floor deck, concrete on metal decking, reinforced, including columns and framing	7,860	sf	\$55.00	\$432,300

DETAIL ELEMENTS - FIRE STATION #1

Element	Quantity	Unit	Unit Cost	Total
				<u>\$432,300</u>
B1020 Roof Construction				
Roof structure with metal deck, including columns and framing	14,083	sf	\$28.00	\$394,324
				<u>\$394,324</u>
B1080 Stairs				
Egress stairs	2 flights		\$30,000.00	\$60,000
				<u>\$60,000</u>
B10 Superstructure				\$886,624
B20 Exterior Vertical Enclosures				
B2010 Exterior Walls				
Structural brick, framed, insulated, gypsum board interior	13,020	sf	\$61.00	\$794,196
CIP concrete fascia, framed, insulated, gypsum board interior	2,241	sf	\$85.00	\$190,485
Metal siding, framed, insulated, gypsum board interior	1,032	sf	\$60.00	\$61,920
Cast concrete cornice	823	lf	\$75.00	\$61,725
Metal trim	338	sf	\$50.00	\$16,900
Steel lintel	336	lf	\$15.00	\$5,040
				<u>\$1,130,266</u>
B2020 Exterior Windows				
Exterior glazing at lobby - storefront	825	sf	\$95.00	\$78,375
Exterior glazing - fiberglass framed	1,716	sf	\$60.00	\$102,960
				<u>\$181,335</u>
B2050 Exterior Doors and Grilles				
3'x7' HM door and frame	4	ea	\$3,350.00	\$13,400
6'x7' double interior storefront door	1	ea	\$11,000.00	\$11,000
East apparatus bay - four-fold doors	7	ea	\$15,000.00	\$105,000
West apparatus bay doors - overhead coiling		ea	\$8,000.00	
				<u>\$129,400</u>
B20 Exterior Vertical Enclosures				\$1,441,001
B30 Exterior Horizontal Enclosures				
B3010 Roofing				
Flat roof, complete	14,083	sf	\$25.00	\$352,075
Metal soffit	72	sf	\$25.00	\$1,800
Wood T&G soffit	228	sf	\$42.00	\$9,576
Parapets (framing included in exterior walls)	4,008	sf	\$15.00	\$60,120

DETAIL ELEMENTS - FIRE STATION #1

Element	Quantity	Unit	Unit Cost	Total
				\$423,571
B30 Exterior Horizontal Enclosures				\$423,571
B - SHELL				\$2,751,196
C - INTERIORS				
C10 Interior Construction				
C1010 Interior Partitions				
Partition walls, to deck, insulated	32,743	sf	\$18.00	\$589,374
				\$589,374
C1020 Interior Windows				
Sidelites at offices, conference rooms, and EOC room	16	ea	\$325.00	\$5,200
				\$5,200
C1030 Interior Doors				
3'x7' wood door with frame	75	ea	\$2,200.00	\$165,000
6'x7' double interior storefront door	1	ea	\$10,000.00	\$10,000
				\$175,000
C1070 Suspended Ceiling Construction				
Framed ceilings, with gypsum board	1,837	sf	\$11.00	\$20,207
				\$20,207
C1090 Interior Specialties				
Restroom specialties	1,440	sf	\$15.00	\$21,600
Building specialties - allowance	22,560	sf	\$6.00	\$135,360
				\$156,960
C10 Interior Construction				\$946,741
C20 Interior Finishes				
C2010 Wall Finishes				
Painting	65,486	sf	\$1.00	\$65,486
				\$65,486
C2030 Flooring				
Flooring allowances - including base				
Office & quarters - assume primarily carpet and tile	8,030	sf	\$7.00	\$56,210

DETAIL ELEMENTS - FIRE STATION #1

Element	Quantity	Unit	Unit Cost	Total
Ground floor - assume polished concrete	15,970	sf	\$5.25	\$83,843
				\$140,053
C2040 Stair Finishes				
Allowances	1	ls	\$5,000.00	\$5,000
				\$5,000
C2050 Ceiling Finishes				
Painted hard ceilings	1,837	sf	\$0.86	\$1,580
Painted open to structure	8,456	sf	\$2.66	\$22,493
Suspended acoustical ceilings	13,536	sf	\$5.46	\$73,907
				\$97,979
C20 Interior Finishes				\$308,518

C - INTERIORS \$1,255,259

D - SERVICES

D10 Conveying

D1010 Vertical Conveying Systems

Passenger elevator	2	stop	\$75,000.00	\$150,000
				\$150,000

D10 Conveying \$150,000

D20 Plumbing

D2010 Domestic Water Distribution

Domestic water piping	24,000	sf	\$8.35	\$200,400
Fixture w/rough-in	24,000	sf	\$8.05	\$193,200
				\$393,600

D2020 Sanitary Drainage

Waste/vent piping	24,000	sf	\$8.02	\$192,480
				\$192,480

D2030 Building Support Plumbing Systems

Equipment	24,000	sf	\$1.85	\$44,400
Natural gas system	24,000	sf	\$2.12	\$50,880
Roof Drainage	24,000	sf	\$3.47	\$83,280

DETAIL ELEMENTS - FIRE STATION #1

Element	Quantity	Unit	Unit Cost	Total
Condensate Drainage	24,000	sf	\$2.60	\$62,400
Testing/ firestopping / seismic/ misc	24,000	sf	\$2.20	\$52,800
				<hr/> \$293,760
D2050 General Service Compressed-Air				
Compressed air	24,000	sf	\$2.11	\$50,640
				<hr/> \$50,640
D20 Plumbing				\$930,480
D30 Heating, Ventilation, and Air Conditioning (HVAC)				
D3030 Cooling Systems				
Air side equipment (Split sys, heat pumps, fans)	24,000	sf	\$28.65	\$687,600
Test / balance / firestopping / seismic	24,000	sf	\$2.89	\$69,360
				<hr/> \$756,960
D3050 Facility HVAC Distribution Systems				
Air distribution	24,000	sf	\$13.10	\$314,400
				<hr/> \$314,400
D30 Heating, Ventilation, and Air Conditioning (HVAC)				\$1,071,360
D40 Fire Protection				
D4010 Fire Suppression				
Automatic Sprinkler System	24,000	sf	\$6.10	\$146,400
				<hr/> \$146,400
D40 Fire Protection				\$146,400
D50 Electrical				
D5010 Facility Power Generation				
Generator and ATS	24,000	sf	\$10.42	\$250,000
				<hr/> \$250,000
D5020 Electrical Service and Distribution				
Distribution Equipment	24,000	sf	\$15.00	\$360,000
				<hr/> \$360,000
D5030 General Purpose Electrical Power				
HVAC and Equipment Connections	24,000	sf	\$2.25	\$54,000

DETAIL ELEMENTS - FIRE STATION #1

Element	Quantity	Unit	Unit Cost	Total
Convenience Power	24,000	sf	\$6.50	\$156,000
D5040 Lighting				\$210,000
Lighting and Lighting Control	24,000	sf	\$21.00	\$504,000
D5080 Miscellaneous Electrical Systems				\$504,000
Photovoltaic panels	6,500	sf	\$19.41	\$126,155
Photovoltaic backbone	6,500	sf	\$29.11	\$189,232
				\$315,387
D50 Electrical				\$1,639,387
D60 Communications				
D6010 Data Communications				
Voice and Data System	24,000	sf	\$5.50	\$132,000
				\$132,000
D6030 Audio-Video Communication				
PA System	24,000	sf	\$7.00	\$168,000
				\$168,000
D60 Communications				\$300,000
D70 Electronic Safety and Security				
D7010 Access Control and Intrusion Detection				
Access Control System - includes electronic access for all doors	24,000	sf	\$4.15	\$99,600
				\$99,600
D7050 Detection and Alarm				
Security System	24,000	sf	\$1.50	\$36,000
Fire Alarm System	24,000	sf	\$10.00	\$240,000
				\$276,000
D7070 Electronic Monitoring and Control				
CCTV System	24,000	sf	\$4.00	\$96,000
				\$96,000
D7090 Electronic Safety and Security Supplementary Components				

DETAIL ELEMENTS - FIRE STATION #1

Element	Quantity	Unit	Unit Cost	Total
Alerting System - allowance	1	ls	\$20,000.00	\$20,000
				\$20,000

D70 Electronic Safety and Security \$491,600

D80 Integrated Automation

D8010 Integrated Automation Facility Controls

Direct Digital Controls	24,000	sf	\$7.65	\$183,600
				\$183,600

D80 Integrated Automation \$183,600

D - SERVICES \$4,912,827

E - EQUIPMENT & FURNISHINGS

E10 Equipment

E1030 Commercial Equipment

Install only OFCI food service equipment	1,180	sf	\$8.00	\$9,440
				\$9,440

E1040 Institutional Equipment

Miscellaneous OFCI equipment install allowance	24,000		\$1.00	\$24,000
				\$24,000

E10 Equipment \$33,440

E20 Furnishings

E2010 Fixed Furnishings

Casework allowance	24,000	sf	\$7.00	\$168,000
				\$168,000

E2050 Movable Furnishings

Excluded

E20 Furnishings \$168,000

E - EQUIPMENT & FURNISHINGS \$201,440

G - SITEWORK

DETAIL ELEMENTS - FIRE STATION #1

Element	Quantity	Unit	Unit Cost	Total
G10 Site Preparation				
G1010 Site Clearing				
Site clear and grub	25,021	sf	\$0.10	\$2,502
				\$2,502
G1020 Site Elements Demolition				
Site demolition allowance	25,021	sf	\$2.00	\$50,042
Offsite demolition allowance	4,740	sf	\$3.00	\$14,220
Snoqualmie Street demolition and associated allowances				
Demo asphalt	9,600	sf	\$1.00	\$9,600
Demo sidewalk	2,400	sf	\$3.00	\$7,200
Demo curb and gutter	480	lf	\$6.00	\$2,880
Demo storm drains	2	ea	\$250.00	\$500
Demo trees	12	ea	\$1,500.00	\$18,000
Demo electrical service boxes	2	ea	\$250.00	\$500
Demo site lighting	6	ea	\$500.00	\$3,000
Haul and dispose	2,500	lcy	\$20.00	\$50,000
Potholing allowance	9,600	sf	\$1.00	\$9,600
Mass excavation - assume 5' deep, includes compacted fill	1,800	cy	\$45.00	\$81,000
Remove utilities as required	240	lf	\$200.00	\$48,000
Cut, trench, relay utilities around site, fill, patch - allowance	580	lf	\$500.00	\$290,000
New fire station warning light	1	ea	\$25,000.00	\$25,000
				\$609,542
G1050 Site Remediation				
Excluded				
G1070 Site Earthwork				
Cut, fill, fine grading - assume balanced site	25,021	sf	\$0.50	\$12,511
Erosion control allowance	25,021	sf	\$0.10	\$2,502
				\$15,013

G10 Site Preparation	\$627,057
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G20 Site Improvements

G2010 Roadways

Asphalt drives, including curb and gutter	8,000	sf	\$9.00	\$72,000
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\$72,000

G2020 Parking Lots

Asphalt parking, including curbs, and markings	8,080	sf	\$7.00	\$56,560
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Mount Vernon Fire Department

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DETAIL ELEMENTS - FIRE STATION #1

Element	Quantity	Unit	Unit Cost	Total
Offsite parking, including curbs, and markings	1,645	sf	\$9.00	\$14,805
				\$71,365
G2030 Pedestrian Plazas and Walkways				
Pedestrian Plaza concrete, including all associated work	1,586	sf	\$16.00	\$25,376
Pedestrian Plaza concrete, including all associated work	3,009	sf	\$16.00	\$48,144
Onsite flatwork, including all associated work	750	sf	\$14.00	\$10,500
Offsite flatwork, including all associated work	3,549	sf	\$16.00	\$56,784
Offsite flatwork, including all associated work	668	sf	\$16.00	\$10,688
				\$151,492
G2060 Site Development				
Trash enclosure	1	ea	\$15,000.00	\$15,000
Flag pole	1	ea	\$12,000.00	\$12,000
Brick/steel picket security fence	222	lf	\$100.00	\$22,200
Brick/steel picket security fence	108	lf	\$100.00	\$10,800
Pedestrian Gate	9	lf	\$250.00	\$2,250
Motorized gate	34	lf	\$2,250.00	\$76,500
				\$138,750
G2080 Landscaping				
Seat wall	35	lf	\$250.00	\$8,750
Large trees	6	ea	\$3,500.00	\$21,000
Medium trees	6	ea	\$1,100.00	\$6,600
Medium trees	3	ea	\$1,100.00	\$3,300
Medium trees	1	ea	\$1,100.00	\$1,100
General landscaping, including irrigation	6,235	sf	\$6.00	\$37,410
General landscaping, including irrigation	1,215	sf	\$6.00	\$7,290
				\$85,450
G20 Site Improvements				\$519,057
G30 Site Mechanical Utilities				
G3010 Water Utilities				
Domestic and fire water - allowance	1	ls	\$75,000.00	\$75,000
				\$75,000
G3020 Sanitary Sewerage Utilities				
Sanitary sewage - allowance	1	ls	\$35,000.00	\$35,000
				\$35,000
G3030 Storm Drainage Utilities				
Stormdrain, including underground storage vault system	1	ls	\$600,000.00	\$600,000

DETAIL ELEMENTS - FIRE STATION #1

Element	Quantity	Unit	Unit Cost	Total
				<u>\$600,000</u>
G3090 Liquid and Gas Site Utilities Supplementary Components				
Natural gas - allowance	1	ls	\$15,000.00	\$15,000
				<u>\$15,000</u>
G30 Site Mechanical Utilities				\$725,000
G40 Site Electrical Utilities				
G4010 Site Electric Distribution Systems				
Site power - allowance	1	ls	\$50,000.00	\$50,000
				<u>\$50,000</u>
G4050 Site Lighting				
Site lighting - allowance	1	ls	\$10,000.00	\$10,000
Site lighting - allowance	1	ls	\$10,000.00	\$10,000
				<u>\$20,000</u>
G - SITEWORK				\$1,941,114

Fire Station #2

SUMMARY - FIRE STATION #2

Element	Subsystem	System	Cost / SF
A - SUBSTRUCTURE			
		\$27,306	\$6.37
A10 Foundations	\$13,320		\$3.11
A1010 Standard Foundations	\$13,320		\$3.11
A40 Slabs-on-Grade	\$13,986		\$3.26
A4010 Standard Slabs-on-Grade	\$13,986		\$3.26
B - SHELL			
		\$207,495	\$48.38
B10 Superstructure	\$31,968		\$7.45
B1020 Roof Construction	\$31,968		\$7.45
B20 Exterior Vertical Enclosures	\$129,828		\$30.27
B2010 Exterior Walls	\$85,008		\$19.82
B2020 Exterior Windows	\$25,420		\$5.93
B2050 Exterior Doors and Grilles	\$19,400		\$4.52
B30 Exterior Horizontal Enclosures	\$45,699		\$10.65
B3010 Roofing	\$45,699		\$10.65
C - INTERIORS			
		\$242,863	\$56.62
C10 Interior Construction	\$119,248		\$27.80
C1010 Interior Partitions	\$63,017		\$14.69
C1030 Interior Doors	\$24,200		\$5.64
C1090 Interior Specialties	\$32,031		\$7.47
C20 Interior Finishes	\$123,615		\$28.82
C2010 Wall Finishes	\$10,431		\$2.43
C2030 Flooring	\$82,903		\$19.33
C2050 Ceiling Finishes	\$30,281		\$7.06
D - SERVICES			
		\$675,248	\$157.44
D20 Plumbing	\$127,563		\$29.74
D2010 Domestic Water Distribution	\$67,668		\$15.78
D2020 Sanitary Drainage	\$34,398		\$8.02
D2030 Building Support Plumbing Systems	\$25,497		\$5.94
D30 Heating, Ventilation, and Air Condition (HVAC)	\$140,232		\$32.70
D3030 Cooling Systems	\$79,716		\$18.59
D3050 Facility HVAC Distribution Systems	\$60,516		\$14.11
D40 Fire Protection	\$18,250		\$4.26
D4010 Fire Suppression	\$18,250		\$4.26
D50 Electrical	\$175,849		\$41.00
D5020 Electrical Service and Distribution	\$42,890		\$10.00
D5030 General Purpose Electrical Power	\$37,529		\$8.75
D5040 Lighting	\$90,069		\$21.00
D5080 Miscellaneous Electrical Systems	\$5,361		\$1.25
D60 Communications	\$53,613		\$12.50
D6010 Data Communications	\$23,590		\$5.50
D6030 Audio-Video Communication	\$30,023		\$7.00
D70 Electronic Safety and Security	\$139,600		\$32.55
D7010 Access Control and Intrusion Detection	\$53,120		\$12.39
D7050 Detection and Alarm	\$49,324		\$11.50
D7070 Electronic Monitoring and Control	\$17,156		\$4.00
D80 Integrated Automation	\$20,142		\$4.70
D8010 Integrated Automation Facility Controls	\$20,142		\$4.70

SUMMARY - FIRE STATION #2

Element	Subsystem	System	Cost / SF
E - EQUIPMENT & FURNISHINGS		\$36,768	\$8.57
E10 Equipment	\$6,745		\$1.57
E1010 Vehicle and Pedestrian Equipment			
E1030 Commercial Equipment	\$2,456		\$0.57
E1040 Institutional Equipment	\$4,289		\$1.00
E20 Furnishings	\$30,023		\$7.00
E2010 Fixed Furnishings	\$30,023		\$7.00
F - SPECIAL CONSTRUCTION & DEMOLITION		\$42,890	\$10.00
F30 Demolition	\$42,890		\$10.00
F3030 Selective Demolition	\$42,890		\$10.00
G - SITEWORK		\$106,683	\$24.87
G20 Site Improvements	\$106,683		\$24.87
G2030 Pedestrian Plazas and Walkways	\$15,288		\$3.56
G2060 Site Development	\$16,125		\$3.76
G2080 Landscaping	\$19,020		\$4.43
Subtotal		\$1,339,253	\$312.25
General Conditions	7.00%	\$93,748	\$21.86
Subtotal		\$1,433,000	\$334.11
General Requirements	3.00%	\$42,990	\$10.02
Subtotal		\$1,475,990	\$344.13
Bonds & Insurance	2.00%	\$29,520	\$6.88
Subtotal		\$1,505,510	\$351.02
Contractor's Fee	4.00%	\$60,220	\$14.04
Subtotal		\$1,565,730	\$365.06
Design Contingency	16.91%	\$264,694	\$61.71
Subtotal		\$1,830,425	\$426.77
Escalation to MOC, 09/29/20	8.29%	\$151,661	\$35.36
TOTAL ESTIMATED CONSTRUCTION COST		\$1,982,086	\$462.13

Total Area: 4,289 SF

Mount Vernon Fire Department

Mount Vernon, WA

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DETAIL ELEMENTS - FIRE STATION #2

Element	Quantity	Unit	Unit Cost	Total
A - SUBSTRUCTURE				
A10 Foundations				
A1010 Standard Foundations				
Foundation - new addition - vestibule	128	sf	\$10.00	\$1,280
Foundation - new addition - exercise room	897	sf	\$10.00	\$8,970
Foundation - new addition - kitchen / dining	307	sf	\$10.00	\$3,070
				<u>\$13,320</u>

A10 Foundations \$13,320

A40 Slabs-on-Grade				
A4010 Standard Slabs-on-Grade				
Slab on grade - new addition - vestibule	128	sf	\$10.50	\$1,344
Slab on grade - new addition - exercise room	897	sf	\$10.50	\$9,419
Slab on grade - new addition - kitchen / dining	307	sf	\$10.50	\$3,224
				<u>\$13,986</u>

A40 Slabs-on-Grade \$13,986

A - SUBSTRUCTURE \$27,306

B - SHELL				
B10 Superstructure				
B1020 Roof Construction				
Roof construction - new addition - vestibule	128	sf	\$24.00	\$3,072
Roof construction - new addition - exercise room	897	sf	\$24.00	\$21,528
Roof construction - new addition - kitchen / dining	307	sf	\$24.00	\$7,368
				<u>\$31,968</u>

B10 Superstructure \$31,968

B20 Exterior Vertical Enclosures				
B2010 Exterior Walls				
Full wall assembly - allow for composite wood siding				
Exterior walls - new addition - vestibule	332	sf	\$44.00	\$14,608
Exterior walls - new addition - exercise room	1,077	sf	\$44.00	\$47,388
Exterior walls - new addition - kitchen / dining	523	sf	\$44.00	\$23,012
				<u>\$85,008</u>

B2020 Exterior Windows

Exterior windows - new addition - vestibule	116	sf	\$95.00	\$11,020
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DETAIL ELEMENTS - FIRE STATION #2

Element	Quantity	Unit	Unit Cost	Total
Exterior windows - fiberglass framed - new addition - exercise room	162	sf	\$60.00	\$9,720
Exterior windows - fiberglass framed - new addition - kitchen / dining	78	sf	\$60.00	\$4,680
				<hr/>
B2050 Exterior Doors and Grilles				\$25,420
Exterior doors - new addition - vestibule	1	ea	\$3,350.00	\$3,350
Exterior doors - new addition - exercise room	2	ea	\$3,350.00	6700
Exterior doors - new addition - exercise room - glazed garage door	1	ea	\$6,000.00	6000
Exterior doors - new addition - kitchen / dining	1	ea	\$3,350.00	\$3,350
				<hr/>
				\$19,400

B20 Exterior Vertical Enclosures **\$129,828**

B30 Exterior Horizontal Enclosures

B3010 Roofing

Roofing - new addition - vestibule	128	sf	\$35.00	\$4,480
Roofing - new addition - exercise room	897	sf	\$35.00	\$31,395
Roofing - new addition - kitchen / dining	307	sf	\$32.00	\$9,824
				<hr/>
				\$45,699

B30 Exterior Horizontal Enclosures **\$45,699**

B - SHELL

\$207,495

C - INTERIORS

C10 Interior Construction

C1010 Interior Partitions

Partitions - new addition - exercise room	200	sf	\$18.00	\$3,600
Partitions - space designated for new wall framing	2,306	sf	\$21.00	\$48,426
Partitions - new bunker gear storage room	299	sf	\$10.00	\$2,990
Partitions - framing and fixture for new vestibule	115	sf	\$21.00	\$2,415
Partitions - reconfigure SCBA into Personal Decon	266	sf	\$21.00	\$5,586
				<hr/>
				\$63,017

C1030 Interior Doors

Interior doors - new addition - exercise room	1	ea	\$2,200.00	\$2,200
Interior doors - space designated for new wall framing	6	ea	\$2,200.00	\$13,200
Interior doors - new bunker gear storage room	1	ea	\$2,200.00	\$2,200
Interior doors - framing and fixture for new vestibule	1	ea	\$2,200.00	\$2,200
Interior doors - reconfigure SCBA into Personal Decon	2	ea	\$2,200.00	\$4,400
				<hr/>
				\$24,200

DETAIL ELEMENTS - FIRE STATION #2

Element	Quantity	Unit	Unit Cost	Total
C1090 Interior Specialties				
Interior specialties - new addition - vestibule	128	sf	\$6.00	\$768
Interior specialties - new addition - exercise room	897	sf	\$6.00	\$5,382
Interior specialties - new addition - kitchen / dining	307	sf	\$11.00	\$3,377
Interior specialties - space designated for new wall framing	2,306	sf	\$6.00	\$13,836
Interior specialties - new bunker gear storage room	299	sf	\$8.00	\$2,392
Interior specialties - framing and fixture for new vestibule	115	sf	\$6.00	\$690
Interior specialties - reconfigure SCBA into Personal Decon	266	sf	\$21.00	\$5,586
				\$32,031
C10 Interior Construction				\$119,248
C20 Interior Finishes				
C2010 Wall Finishes				
Wall finishes - new addition - vestibule	648	sf	\$1.00	\$648
Wall finishes - new addition - exercise room	2,128	sf	\$1.00	\$2,128
Wall finishes - new addition - kitchen / dining	1,053	sf	\$1.00	\$1,053
Wall finishes - space designated for new wall framing	2,306	sf	\$2.33	\$5,381
Wall finishes - new bunker gear storage room	299	sf	\$1.11	\$332
Wall finishes - framing and fixture for new vestibule	115	sf	\$2.33	\$268
Wall finishes - reconfigure SCBA into Personal Decon	266	sf	\$2.33	\$621
				\$10,431
C2030 Flooring				
Flooring allowances - including base				
Flooring - new addition - vestibule - assume recessed walk-off mat	128	sf	\$75.00	\$9,600
Flooring - new addition - exercise room	897	sf	\$15.00	\$13,455
Flooring - new addition - kitchen / dining	307	sf	\$18.00	\$5,526
Flooring - space designated for new wall framing	2,306	sf	\$15.00	\$34,590
Flooring - new bunker gear storage room - assume polished concrete	299	sf	\$5.25	\$1,570
Flooring - framing and fixture for new vestibule	115	sf	\$18.00	\$2,070
Flooring - reconfigure SCBA into Personal Decon - assm. pol. concrete	266	sf	\$18.00	\$4,788
Flooring - day room	628	sf	\$18.00	\$11,304
				\$82,903
C2050 Ceiling Finishes				
Ceiling finishes - new addition - vestibule - assume ACT	128	sf	\$5.50	\$704
Ceiling finishes - new addition - exercise room - assume ACT	897	sf	\$5.50	\$4,934
Ceiling finishes - new addition - kitchen / dining - assume ACT & GWB	307	sf	\$7.75	\$2,379
Ceiling finishes - space designated for new wall framing - assume ACT	2,306	sf	\$5.50	\$12,683
Ceiling finishes - new bunker gear storage room - assume painted GWB	299	sf	\$7.75	\$2,317
Ceiling finishes - framing and fixture for new vestibule - assume GWB	115	sf	\$10.00	\$1,150
Ceiling finishes - reconfigure SCBA into Personal Decon - assume GWB	266	sf	\$10.00	\$2,660
Ceiling finishes - day room - assume ACT	628	sf	\$5.50	\$3,454

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DETAIL ELEMENTS - FIRE STATION #2

Element	Quantity	Unit	Unit Cost	Total
				\$30,281

C20 Interior Finishes \$123,615

C - INTERIORS \$242,863

D - SERVICES

D20 Plumbing

D2010 Domestic Water Distribution

New

Domestic water piping	1,303	sf	\$8.35	\$10,880
Fixture w/rough-in	1,303	sf	\$6.00	\$7,818

Renovation

Domestic water piping	2,986	sf	\$8.35	\$24,933
Fixture w/rough-in	2,986	sf	\$8.05	\$24,037

\$67,668

D2020 Sanitary Drainage

New

Waste/vent piping	1,303	sf	\$8.02	\$10,450
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Renovation

Waste/vent piping	2,986	sf	\$8.02	\$23,948
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\$34,398

D2030 Building Support Plumbing Systems

New

Equipment	1,303	sf	\$1.85	\$2,411
Natural gas system	1,303	sf	\$2.00	\$2,606
Roof Drainage	1,303	sf	\$3.47	\$4,521
Condensate Drainage	1,303	sf	\$2.60	\$3,388
Testing/ firestopping / seismic/ misc	1,303	sf	\$2.20	\$2,867

Renovation

Demolition	2,986	sf	\$1.25	\$3,733
Testing/ firestopping / seismic/ misc	2,986	sf	\$2.00	\$5,972

\$25,497

D20 Plumbing \$127,563

D30 Heating, Ventilation, and Air Conditioning (HVAC)

D3030 Cooling Systems

New

Air side equipment (Split sys, heat pumps, fans)	1,303	sf	\$15.00	\$19,545
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DETAIL ELEMENTS - FIRE STATION #2

Element	Quantity	Unit	Unit Cost	Total
Test / balance / firestopping / seismic	1,303	sf	\$2.89	\$3,766
Renovation				
Air side equipment (Split sys, heat pumps, fans)	2,986	sf	\$16.00	\$47,776
Test / balance / firestopping / seismic	2,986	sf	\$2.89	\$8,630
				\$79,716
D3050 Facility HVAC Distribution Systems				
New				
Air distribution	1,303	sf	\$13.10	\$17,069
Renovation				
Demolition	2,986	sf	\$1.45	\$4,330
Air distribution	2,986	sf	\$13.10	\$39,117
				\$60,516
D30 Heating, Ventilation, and Air Conditioning (HVAC)				\$140,232
D40 Fire Protection				
D4010 Fire Suppression				
New				
Automatic Sprinkler System	1,303	sf	\$6.10	\$7,948
Renovation				
Automatic Sprinkler System - relocate heads	2,986	sf	\$3.45	\$10,302
				\$18,250
D40 Fire Protection				\$18,250
D50 Electrical				
D5020 Electrical Service and Distribution				
Distribution Equipment	4,289	sf	\$10.00	\$42,890
				\$42,890
D5030 General Purpose Electrical Power				
HVAC and Equipment Connections	4,289	sf	\$2.25	\$9,650
Convenience Power	4,289	sf	\$6.50	\$27,879
				\$37,529
D5040 Lighting				
Lighting and Lighting Control	4,289	sf	\$21.00	\$90,069
				\$90,069
D5080 Miscellaneous Electrical Systems				
Demolition	4,289	sf	\$1.25	\$5,361

DETAIL ELEMENTS - FIRE STATION #2

Element	Quantity	Unit	Unit Cost	Total
				\$5,361
D50 Electrical				\$175,849
D60 Communications				
D6010 Data Communications				
Voice and Data System	4,289	sf	\$5.50	\$23,590
				\$23,590
D6030 Audio-Video Communication				
PA System	4,289	sf	\$7.00	\$30,023
				\$30,023
D60 Communications				\$53,613
D70 Electronic Safety and Security				
D7010 Access Control and Intrusion Detection				
Access Control System - includes electronic access for all doors	12,800	sf	\$4.15	\$53,120
				\$53,120
D7050 Detection and Alarm				
Security System	4,289	sf	\$1.50	\$6,434
Fire Alarm System	4,289	sf	\$10.00	\$42,890
				\$49,324
D7070 Electronic Monitoring and Control				
CCTV System	4,289	sf	\$4.00	\$17,156
				\$17,156
D7090 Electronic Safety and Security Supplementary Components				
Alerting System - allowance	1	ls	\$20,000.00	\$20,000
				\$20,000
D70 Electronic Safety and Security				\$139,600
D80 Integrated Automation				
D8010 Integrated Automation Facility Controls				
New				
Direct Digital Controls	1,303	sf	\$4.00	\$5,212

DETAIL ELEMENTS - FIRE STATION #2

Element	Quantity	Unit	Unit Cost	Total
Renovation				
Direct Digital Controls	2,986	sf	\$5.00	\$14,930
				<u>\$20,142</u>

D80 Integrated Automation \$20,142

D - SERVICES \$675,248

E - EQUIPMENT & FURNISHINGS

E10 Equipment

E1030 Commercial Equipment

Install only OFCI food services equipment - new addition - kitchen / dining	307	sf	\$8.00	\$2,456
				<u>\$2,456</u>

E1040 Institutional Equipment

Miscellaneous OFCI equipment install allowance	4,289	sf	\$1.00	\$4,289
				<u>\$4,289</u>

E10 Equipment \$6,745

E20 Furnishings

E2010 Fixed Furnishings

Casework allowance	4,289	sf	\$7.00	\$30,023
				<u>\$30,023</u>

E2050 Movable Furnishings

 Excluded

E20 Furnishings \$30,023

E - EQUIPMENT & FURNISHINGS \$36,768

F - SPECIAL CONSTRUCTION & DEMOLITION

F30 Demolition

F3030 Selective Demolition

Miscellaneous demolition	4,289	sf	\$10.00	\$42,890
				<u>\$42,890</u>

F30 Demolition \$42,890

DETAIL ELEMENTS - FIRE STATION #2

Element	Quantity	Unit	Unit Cost	Total
F - SPECIAL CONSTRUCTION & DEMOLITION				\$42,890
G - SITEWORK				
G20 Site Improvements				
G2010 Roadways				
Retop all asphalt	25,000	sf	\$2.25	\$56,250
				<u>\$56,250</u>
G2030 Pedestrian Plazas and Walkways				
New concrete patio, including all associated work	1,092	sf	\$14.00	\$15,288
				<u>\$15,288</u>
G2060 Site Development				
6' high chainlink fence with privacy slats	40	lf	\$50.00	\$2,000
New powered cantilever gate fence	33	lf	\$125.00	\$4,125
Allowance for sitework for new vestibule	1	ls	\$10,000.00	\$10,000
				<u>\$16,125</u>
G2080 Landscaping				
Allowance for landscaping	1,902	sf	\$10.00	\$19,020
				<u>\$19,020</u>
G20 Site Improvements				\$106,683
G - SITEWORK				\$106,683

Fire Station #3

SUMMARY - FIRE STATION #3

Element	Subsystem	System	Cost / SF
A - SUBSTRUCTURE			
		\$83,517	\$14.82
A10 Foundations	\$40,740		\$7.23
A1010 Standard Foundations	\$40,740		\$7.23
A40 Slabs-on-Grade	\$42,777		\$7.59
A4010 Standard Slabs-on-Grade	\$42,777		\$7.59
B - SHELL			
		\$607,815	\$107.88
B10 Superstructure	\$134,791		\$23.92
B1010 Floor Construction	\$37,015		\$6.57
B1020 Roof Construction	\$97,776		\$17.35
B20 Exterior Vertical Enclosures	\$334,778		\$59.42
B2010 Exterior Walls	\$251,548		\$44.65
B2020 Exterior Windows	\$51,480		\$9.14
B2050 Exterior Doors and Grilles	\$31,750		\$5.64
B30 Exterior Horizontal Enclosures	\$138,246		\$24.54
B3010 Roofing	\$138,246		\$24.54
C - INTERIORS			
		\$391,973	\$69.57
C10 Interior Construction	\$261,056		\$46.34
C1010 Interior Partitions	\$130,389		\$23.14
C1030 Interior Doors	\$68,200		\$12.11
C1090 Interior Specialties	\$62,467		\$11.09
C20 Interior Finishes	\$130,917		\$23.24
C2010 Wall Finishes	\$9,056		\$1.61
C2030 Flooring	\$85,935		\$15.25
C2050 Ceiling Finishes	\$35,927		\$6.38
D - SERVICES			
		\$893,888	\$158.66
D20 Plumbing	\$208,701		\$37.04
D2010 Domestic Water Distribution	\$101,738		\$18.06
D2020 Sanitary Drainage	\$46,603		\$8.27
D2030 Building Support Plumbing Systems	\$56,173		\$9.97
D2050 General Service Compressed-Air	\$4,187		\$0.74
D30 Heating, Ventilation, and Air Condition (HVAC)	\$178,143		\$31.62
D3030 Cooling Systems	\$102,239		\$18.15
D3050 Facility HVAC Distribution Systems	\$75,904		\$13.47
D40 Fire Protection	\$30,533		\$5.42
D4010 Fire Suppression	\$30,533		\$5.42
D50 Electrical	\$230,994		\$41.00
D5020 Electrical Service and Distribution	\$56,340		\$10.00
D5030 General Purpose Electrical Power	\$49,298		\$8.75
D5040 Lighting	\$118,314		\$21.00
D5080 Miscellaneous Electrical Systems	\$7,043		\$1.25
D60 Communications	\$70,425		\$12.50
D6010 Data Communications	\$30,987		\$5.50
D6030 Audio-Video Communication	\$39,438		\$7.00
D70 Electronic Safety and Security	\$151,110		\$26.82
D7010 Access Control and Intrusion Detection	\$43,783		\$7.77
D7050 Detection and Alarm	\$64,791		\$11.50
D7070 Electronic Monitoring and Control	\$22,536		\$4.00

SUMMARY - FIRE STATION #3

Element	Subsystem	System	Cost / SF
D80 Integrated Automation	\$23,983		\$4.26
D8010 Integrated Automation Facility Controls	\$23,983		\$4.26
E - EQUIPMENT & FURNISHINGS		\$57,544	\$10.21
E10 Equipment	\$18,106		\$3.21
E1010 Vehicle and Pedestrian Equipment	\$10,000		\$1.77
E1030 Commercial Equipment	\$2,472		\$0.44
E1040 Institutional Equipment	\$5,634		\$1.00
E20 Furnishings	\$39,438		\$7.00
E2010 Fixed Furnishings	\$39,438		\$7.00
F - SPECIAL CONSTRUCTION & DEMOLITION		\$56,340	\$10.00
F30 Demolition	\$56,340		\$10.00
F3030 Selective Demolition	\$56,340		\$10.00
G - SITEWORK		\$144,719	\$25.69
G20 Site Improvements	\$144,719		\$25.69
G2010 Roadways	\$57,935		\$10.28
G2030 Pedestrian Plazas and Walkways	\$55,034		\$9.77
G2060 Site Development	\$1,750		\$0.31
G2080 Landscaping	\$30,000		\$5.32
Subtotal		\$2,235,796	\$396.84
General Conditions	7.00%	\$156,506	\$27.78
Subtotal		\$2,392,302	\$424.62
General Requirements	3.00%	\$71,769	\$12.74
Subtotal		\$2,464,071	\$437.36
Bonds & Insurance	2.00%	\$49,281	\$8.75
Subtotal		\$2,513,352	\$446.10
Contractor's Fee	4.00%	\$100,534	\$17.84
Subtotal		\$2,613,887	\$463.95
Design Contingency	13.77%	\$359,884	\$63.88
Subtotal		\$2,973,771	\$527.83
Escalation to MOC, 09/29/20	8.29%	\$246,394	\$43.73

TOTAL ESTIMATED CONSTRUCTION COST		\$3,220,165	\$571.56
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Total Area: 5,634 SF

Mount Vernon Fire Department

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DETAIL ELEMENTS - FIRE STATION #3

Element	Quantity	Unit	Unit Cost	Total
A - SUBSTRUCTURE				
A10 Foundations				
A1010 Standard Foundations				
Foundation - new addition - apparatus bay	1,448	sf	\$10.00	\$14,480
Foundation - new addition - exercise room & dining	1,229	sf	\$10.00	\$12,290
Foundation - new addition - training room, lobby, and restrooms	1,397	sf	\$10.00	\$13,970
				\$40,740

A10 Foundations \$40,740

A40 Slabs-on-Grade				
A4010 Standard Slabs-on-Grade				
Slab on grade - new addition - apparatus bay	1,448	sf	\$10.50	\$15,204
Slab on grade - new addition - exercise room & dining	1,229	sf	\$10.50	\$12,905
Slab on grade - new addition - training room, lobby, and restrooms	1,397	sf	\$10.50	\$14,669
				\$42,777

A40 Slabs-on-Grade \$42,777

A - SUBSTRUCTURE \$83,517

B - SHELL				
B10 Superstructure				
B1010 Floor Construction				
Storage mezzanine above new apparatus bay	673	sf	\$55.00	\$37,015
				\$37,015
B1020 Roof Construction				
Roof construction - new addition - apparatus bay	1,448	sf	\$24.00	\$34,752
Roof construction - new addition - exercise room & dining	1,229	sf	\$24.00	\$29,496
Roof construction - new addition - training room, lobby, and restrooms	1,397	sf	\$24.00	\$33,528
				\$97,776

B10 Superstructure \$134,791

B20 Exterior Vertical Enclosures				
B2010 Exterior Walls				
Full wall assembly - allow for composite wood siding				
Exterior walls - new addition - apparatus bay	2,630	sf	\$44.00	\$115,720
Exterior walls - new addition - exercise room & dining	1,402	sf	\$44.00	\$61,688
Exterior walls - new addition - training room, lobby, and restrooms	1,685	sf	\$44.00	\$74,140

DETAIL ELEMENTS - FIRE STATION #3

Element	Quantity	Unit	Unit Cost	Total
				<u>\$251,548</u>
B2020 Exterior Windows				
Fiberglass framed windows				
Exterior windows - new addition - appartus bay	395	sf	\$60.00	\$23,700
Exterior windows - new addition - exercise room & dining	210	sf	\$60.00	\$12,600
Exterior windows - new addition - training room, lobby, and restrooms	253	sf	\$60.00	\$15,180
				<u>\$51,480</u>
B2050 Exterior Doors and Grilles				
Exterior doors - new addition - appartus bay	2	ea	\$3,350.00	6700
Exterior doors - new addition - appartus bay - four-fold door	1	ea	\$15,000.00	\$15,000
Exterior doors - new addition - exercise room & dining	2	ea	\$3,350.00	6700
Exterior doors - new addition - training room, lobby, and restrooms	1	ea	\$3,350.00	\$3,350
				<u>\$31,750</u>
B20 Exterior Vertical Enclosures				\$334,778
B30 Exterior Horizontal Enclosures				
B3010 Roofing				
Roofing - new addition - appartus bay	1,448	sf	\$32.00	\$46,336
Roofing - new addition - exercise room & dining	1,229	sf	\$35.00	\$43,015
Roofing - new addition - training room, lobby, and restrooms	1,397	sf	\$35.00	\$48,895
				<u>\$138,246</u>
B30 Exterior Horizontal Enclosures				\$138,246
B - SHELL				\$607,815
C - INTERIORS				
C10 Interior Construction				
C1010 Interior Partitions				
Partitions - new addition - appartus bay	1,448	sf	\$21.00	\$30,408
Partitions - new addition - exercise room & dining	1,229	sf	\$21.00	\$25,809
Partitions - new addition - training room, lobby, and restrooms	1,397	sf	\$21.00	\$29,337
Partitions - converted office to new bunkroom	236	sf	\$21.00	\$4,956
Partitions - modified closet w/ new casework and wall framing	22	sf	\$21.00	\$462
Partitions - new wall framing for new vestibule and hall	119	sf	\$21.00	\$2,499
Partitions - storage mezzanine above new apparatus bay	673	sf	\$21.00	\$14,133
Partitions - area designated for rework	761	sf	\$21.00	\$15,981
Partitions - renovated kitchen	309	sf	\$21.00	\$6,489
Partitions - framing modifications for new office	15	sf	\$21.00	\$315

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DETAIL ELEMENTS - FIRE STATION #3

Element	Quantity	Unit	Unit Cost	Total
				<u>\$130,389</u>
C1030 Interior Doors				
Interior doors - new addition - appartus bay	7	ea	\$2,200.00	\$15,400
Interior doors - new addition - exercise room & dining	6	ea	\$2,200.00	\$13,200
Interior doors - new addition - training room, lobby, and restrooms	7	ea	\$2,200.00	\$15,400
Interior doors - converted office to new bunkroom	1	ea	\$2,200.00	\$2,200
Interior doors - new wall framing for new vestibule and hall	1	ea	\$2,200.00	\$2,200
Interior doors - storage mezzanine above new apparatus bay	3	ea	\$2,200.00	\$6,600
Interior doors - area designated for rework	4	ea	\$2,200.00	\$8,800
Interior doors - renovated kitchen	2	ea	\$2,200.00	\$4,400
				<u>\$68,200</u>
C1090 Interior Specialties				
Interior specialties - new addition - appartus bay	1,448	sf	\$11.00	\$15,928
Interior specialties - new addition - exercise room & dining	1,229	sf	\$8.00	\$9,832
Interior specialties - new addition - training room, lobby, and restrooms	1,397	sf	\$16.00	\$22,352
Interior specialties - converted office to new bunkroom	236	sf	\$6.00	\$1,416
Interior specialties - modified closet w/ new casework and wall framing	22	sf	\$6.00	\$132
Interior specialties - new wall framing for new vestibule and hall	119	sf	\$6.00	\$714
Interior specialties - storage mezzanine above new apparatus bay	673	sf	\$6.00	\$4,038
Interior specialties - area designated for rework	761	sf	\$6.00	\$4,566
Interior specialties - renovated kitchen	309	sf	\$11.00	\$3,399
Interior specialties - framing modifications for new office	15	sf	\$6.00	\$90
				<u>\$62,467</u>
C10 Interior Construction				\$261,056
C20 Interior Finishes				
C2010 Wall Finishes				
Wall finishes - new addition - appartus bay	1,448	sf	\$1.00	\$1,448
Wall finishes - new addition - exercise room & dining	1,229	sf	\$1.00	\$1,229
Wall finishes - new addition - training room, lobby, and restrooms	1,397	sf	\$1.00	\$1,397
Wall finishes - converted office to new bunkroom	236	sf	\$2.33	\$551
Wall finishes - modified closet w/ new casework and wall framing	22	sf	\$2.33	\$51
Wall finishes - new wall framing for new vestibule and hall	119	sf	\$2.33	\$278
Wall finishes - storage mezzanine above new apparatus bay	673	sf	\$2.33	\$1,570
Wall finishes - area designated for rework	761	sf	\$2.33	\$1,776
Wall finishes - renovated kitchen	309	sf	\$2.33	\$721
Wall finishes - framing modifications for new office	15	sf	\$2.33	\$35
				<u>\$9,056</u>
C2030 Flooring				
Flooring allowances - including base				
Flooring - new addition - appartus bay - assume polished concrete	1,448	sf	\$5.25	\$7,602
Flooring - new addition - exercise room & dining	1,229	sf	\$17.50	\$21,508

DETAIL ELEMENTS - FIRE STATION #3

Element	Quantity	Unit	Unit Cost	Total
Flooring - new addition - training room, lobby, and restrooms	1,397	sf	\$17.50	\$24,448
Flooring - converted office to new bunkroom	236	sf	\$15.00	\$3,540
Flooring - modified closet w/ new casework and wall framing - assume polished concrete	22	sf	\$5.25	\$116
Flooring - new wall framing for new vestibule and hall - assume polished concrete	119	sf	\$5.25	\$625
Flooring - storage mezzanine above new apparatus bay - assume polished concrete	673	sf	\$5.25	\$3,533
Flooring - area designated for rework	761	sf	\$15.00	\$11,415
Flooring - renovated kitchen	309	sf	\$18.00	\$5,562
Flooring - framing modifications for new office	15	sf	\$15.00	\$225
Flooring - day room	409	sf	\$18.00	\$7,362

\$85,935

C2050 Ceiling Finishes

Ceiling finishes - new addition - apparatus bay - assume painted OTS	1,448	sf	\$3.00	\$4,344
Ceiling finishes - new addition - exercise room & dining - assume ACT	1,229	sf	\$5.50	\$6,760
Ceiling finishes - new addition - training room, lobby, and restrooms - assume GWB	1,397	sf	\$10.00	\$13,970
Ceiling finishes - converted office to new bunkroom - assume ACT	236	sf	\$5.50	\$1,298
Ceiling finishes - modified closet w/ new casework and wall framing - assume painted OTS	22	sf	\$3.00	\$66
Ceiling finishes - new wall framing for new vestibule and hall - assume ACT	119	sf	\$5.50	\$655
Ceiling finishes - area designated for rework - assume ACT	761	sf	\$5.50	\$4,186
Ceiling finishes - renovated kitchen - assume ACT & GWB	309	sf	\$7.50	\$2,318
Ceiling finishes - framing modifications for new office - assume ACT	15	sf	\$5.50	\$83
Ceiling finishes - day room - assume ACT	409	sf	\$5.50	\$2,250

\$35,927

C20 Interior Finishes

\$130,917

C - INTERIORS

\$391,973

D - SERVICES

D20 Plumbing

D2010 Domestic Water Distribution

New

Domestic water piping	4,187	sf	\$8.35	\$34,961
Fixture w/rough-in	4,187	sf	\$8.00	\$33,496

Renovation

Domestic water piping	1,447	sf	\$10.00	\$14,470
Fixture w/rough-in	1,447	sf	\$13.00	\$18,811

\$101,738

D2020 Sanitary Drainage

DETAIL ELEMENTS - FIRE STATION #3

Element	Quantity	Unit	Unit Cost	Total
New				
Waste/vent piping	4,187	sf	\$8.02	\$33,580
Renovation				
Waste/vent piping	1,447	sf	\$9.00	\$13,023
				\$46,603
D2030 Building Support Plumbing Systems				
New				
Equipment	4,187	sf	\$1.85	\$7,746
Natural gas system	4,187	sf	\$2.00	\$8,374
Roof Drainage	4,187	sf	\$3.47	\$14,529
Condensate Drainage	4,187	sf	\$2.60	\$10,886
Testing/ firestopping / seismic/ misc	4,187	sf	\$2.20	\$9,211
Renovation				
Demolition	1,447	sf	\$1.25	\$1,809
Testing/ firestopping / seismic/ misc	1,447	sf	\$2.50	\$3,618
				\$56,173
D2050 General Service Compressed-Air				
New				
Compressed air	4,187	sf	\$1.00	\$4,187
				\$4,187
D20 Plumbing				\$208,701
D30 Heating, Ventilation, and Air Conditioning (HVAC)				
D3030 Cooling Systems				
New				
Air side equipment (Split sys, heat pumps, fans)	4,187	sf	\$15.00	\$62,805
Test / balance / firestopping / seismic	4,187	sf	\$2.89	\$12,100
Renovation				
Air side equipment (Split sys, heat pumps, fans)	1,447	sf	\$16.00	\$23,152
Test / balance / firestopping / seismic	1,447	sf	\$2.89	\$4,182
				\$102,239
D3050 Facility HVAC Distribution Systems				
New				
Air distribution	4,187	sf	\$13.10	\$54,850
Renovation				
Demolition	1,447	sf	\$1.45	\$2,098
Air distribution	1,447	sf	\$13.10	\$18,956
				\$75,904

DETAIL ELEMENTS - FIRE STATION #3

Element	Quantity	Unit	Unit Cost	Total
D30 Heating, Ventilation, and Air Conditioning (HVAC)				\$178,143
D40 Fire Protection				
D4010 Fire Suppression				
New				
Automatic Sprinkler System	4,187	sf	\$6.10	\$25,541
Renovation				
Automatic Sprinkler System - relocate heads	1,447	sf	\$3.45	\$4,992
				<u>\$30,533</u>
D40 Fire Protection				\$30,533
D50 Electrical				
D5020 Electrical Service and Distribution				
Distribution Equipment				
	5,634	sf	\$10.00	\$56,340
				<u>\$56,340</u>
D5030 General Purpose Electrical Power				
HVAC and Equipment Connections				
	5,634	sf	\$2.25	\$12,677
Convenience Power				
	5,634	sf	\$6.50	\$36,621
				<u>\$49,298</u>
D5040 Lighting				
Lighting and Lighting Control				
	5,634	sf	\$21.00	\$118,314
				<u>\$118,314</u>
D5080 Miscellaneous Electrical Systems				
Demolition				
	5,634	sf	\$1.25	\$7,043
				<u>\$7,043</u>
D50 Electrical				\$230,994
D60 Communications				
D6010 Data Communications				
Voice and Data System				
	5,634	sf	\$5.50	\$30,987
				<u>\$30,987</u>
D6030 Audio-Video Communication				
PA System				
	5,634	sf	\$7.00	\$39,438
				<u>\$39,438</u>

DETAIL ELEMENTS - FIRE STATION #3

Element	Quantity	Unit	Unit Cost	Total
D60 Communications				\$70,425
D70 Electronic Safety and Security				
D7010 Access Control and Intrusion Detection				
Access Control System - includes electronic access for all doors	10,550	sf	\$4.15	\$43,783
				<u>\$43,783</u>
D7050 Detection and Alarm				
Security System	5,634	sf	\$1.50	\$8,451
Fire Alarm System	5,634	sf	\$10.00	\$56,340
				<u>\$64,791</u>
D7070 Electronic Monitoring and Control				
CCTV System	5,634	sf	\$4.00	\$22,536
				<u>\$22,536</u>
D7090 Electronic Safety and Security Supplementary Components				
Alerting System - allowance	1	ls	\$20,000.00	\$20,000
				<u>\$20,000</u>
D70 Electronic Safety and Security				\$151,110
D80 Integrated Automation				
D8010 Integrated Automation Facility Controls				
New				
Direct Digital Controls	4,187	sf	\$4.00	\$16,748
Renovation				
Direct Digital Controls	1,447	sf	\$5.00	\$7,235
				<u>\$23,983</u>
D80 Integrated Automation				\$23,983
D - SERVICES				\$893,888
E - EQUIPMENT & FURNISHINGS				
E10 Equipment				
E1010 Vehicle and Pedestrian Equipment				
Powered double swing gate w/ battery backup and proximity card reader on pedestal	1	pair	\$10,000.00	\$10,000

DETAIL ELEMENTS - FIRE STATION #3

Element	Quantity	Unit	Unit Cost	Total
E1030 Commercial Equipment				\$10,000
Install only food services equipment - renovated kitchen	309	sf	\$8.00	\$2,472
E1040 Institutional Equipment				\$2,472
Miscellaneous OFCI equipment install allowance	5,634	sf	\$1.00	\$5,634
				\$5,634

E10 Equipment \$18,106

E20 Furnishings

E2010 Fixed Furnishings

Casework allowance	5,634	sf	\$7.00	\$39,438
				\$39,438

E2050 Movable Furnishings

 Excluded

E20 Furnishings \$39,438

E - EQUIPMENT & FURNISHINGS \$57,544

F - SPECIAL CONSTRUCTION & DEMOLITION

F30 Demolition

F3030 Selective Demolition

Miscellaneous demolition	5,634	sf	\$10.00	\$56,340
				\$56,340

F30 Demolition \$56,340

F - SPECIAL CONSTRUCTION & DEMOLITION \$56,340

G - SITEWORK

G20 Site Improvements

G2010 Roadways

New asphalt roadway, including all associated work	2,486	sf	\$10.00	\$24,860
Retop all asphalt	14,700	sf	\$2.25	\$33,075

DETAIL ELEMENTS - FIRE STATION #3

Element	Quantity	Unit	Unit Cost	Total
				\$57,935
G2030 Pedestrian Plazas and Walkways				
New concrete apron, including all associated work	3,931	sf	\$14.00	\$55,034
				\$55,034
G2060 Site Development				
6' chain link fence incl. all footings	35	lf	\$50.00	\$1,750
				\$1,750
G2080 Landscaping				
Allowance for modified landscape and drivelane edge	1	ls	\$30,000.00	\$30,000
				\$30,000

G20 Site Improvements \$144,719

G - SITEWORK \$144,719