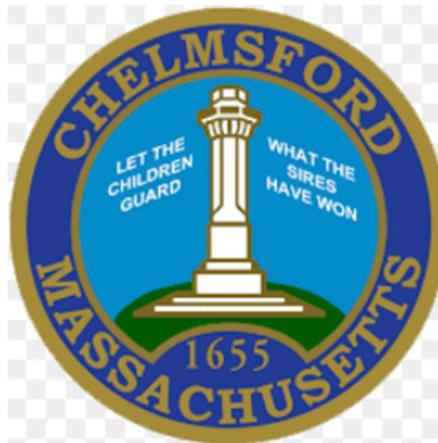


CHELMSFORD FIRE STATION #3 AND #5 PROJECTS

Owner's Project Manager (OPM) Monthly Project Report

5 January 2026

Prepared for:



Town of Chelmsford

Prepared by:



I. EXECUTIVE SUMMARY

The project has completed the Design Development (DD) phase and has advanced into the Construction Documents (CD) phase, which is scheduled for completion by the end of February 2026. At the conclusion of the DD phase, two independent cost estimates were prepared by separate cost consulting firms. These estimates were subsequently reconciled, and based on the latest reconciled estimate, the project remains on budget.

Prior to completing the CD phase and advertising the project for bidding, a 90% CD estimating set will be issued to the cost consultants for a final cost estimate. This effort will help ensure that the construction contract remains within the approved budget before the project goes out to bid.

Throughout the design process, the Town has remained actively engaged and has provided periodic feedback on the program and design. The project team has been meeting with the Town on a bi-weekly basis to review design progress and provide status updates. At the conclusion of the CD phase, the project team will attend a Permanent Building Committee meeting to present an update on the project's progress and outline the upcoming next steps.

Several key permitting milestones were also achieved during this phase of the project. The project team attended multiple meetings with the Planning Board, Conservation Commission, and Board of Health, and all required permit approvals have been received. The team is currently awaiting the issuance of the Orders of Conditions from the respective boards, after which all construction-related permit requirements will be incorporated into the bid documents.

Another significant milestone during this phase was the Town's receipt of a letter from the State confirming approval of its application to the Climate Leader Community Grant Program. Upon successful completion of the project, the Town will receive \$1 million in grant funding. Following project completion, the project team will provide the required documentation related to construction activities, including the installation of photovoltaic panels, HVAC systems, and the geothermal system. In addition to this grant, the project team has been coordinating with MassSave program vendors to review the design and calculate potential rebate amounts for the project.

While discussions with MassSave are ongoing, LeftField, on behalf of the Town, has applied for new electric services for both stations. Agreements with the utility company, National Grid, have been executed, and National Grid's legal team is currently

preparing the required easement documents. Once finalized, these easements will be brought forward for approval at the Spring 2026 Town Meeting.

LeftField has also initiated the contractor prequalification process, which is required by law due to the project's construction cost exceeding the statutory threshold for prequalification. Requests for Qualifications (RFQs) for both filed sub-bidders and general contractors have been prepared, advertised, and made publicly available. Qualification submissions are due on January 9th, after which the prequalification review subcommittee will evaluate the submissions. Only contractors deemed qualified through this process will be eligible to bid on the project.

In addition, LeftField has been coordinating with several external consultants outside of TGAS's contract, managing scopes such as environmental investigations and geothermal well design on behalf of the Town. The geothermal drilling contractor has completed a test well and thermal conductivity testing. With this data, the mechanical engineer will be able to finalize the design of the geothermal heating and cooling system.

The geoenvironmental consultant has also collected soil samples and coordinated the required notifications with the Massachusetts Department of Environmental Protection (DEP). While PFAS concentrations were identified below the threshold requiring special disposal, PFOS was detected in the soil. As a result, soil excavated from affected areas will require disposal at a regulated facility. The disposal location and any additional testing will be coordinated with the contractor and the consultant during construction.

LeftField will continue to manage and coordinate these consultant efforts on behalf of the Town and will provide ongoing updates as the project progresses.

For additional information, please refer to the relevant sections of this report.

II. PROJECT PROCUREMENT

Architect/Engineer Procurement:

The contract between the Town and The Galante Architecture Studio (TGAS) was officially executed on June 15, 2025. TGAS is responsible for providing basic design services, including architectural, structural, mechanical, electrical, plumbing, fire protection (MEP/FP), civil, and landscape architectural services. In addition, TGAS is managing reimbursable services such as geotechnical engineering, wetland delineation, and other

specialty consultants as outlined in the design contract. Full details of the design scope are included in the executed contract.

The Town and TGAS executed a contract amendment to include photovoltaic (PV) roof-mounted solar panels at Stations #3 and #5, as well as a geothermal heating and cooling system at Station #3.

Owner's Project Manager Procurement:

LeftField was awarded the Owner's Project Management (OPM) contract to provide project management services throughout the design and construction phases of the project. The scope of OPM services includes three independent cost estimates during the design phase, as well as limited site supervision during the construction phase for both fire stations—assuming both stations will be constructed concurrently.

General Contractor:

LeftField has initiated the contractor prequalification process for both the filed sub-bidders and general contractors. The RFQ has been prepared and advertised. Qualification submissions are due on January 9, after which the packages will be reviewed and forwarded to the prequalification subcommittee for approval of the qualified contractors.

The bidding is scheduled for March 2026, with the construction contract expected to be awarded following the bidding process in early spring 2026.

Geo-environmental Design Consultant:

The Town is responsible for conducting the geo-environmental site assessment in accordance with Massachusetts General Law Chapter 21E. On behalf of the Town, LeftField solicited proposals from design consultants, and the contract for geo-environmental services was awarded to Universal Environmental Consultants (UEC).

UEC investigated both stations and, after testing, identified PFAS-6 in the soil, which required additional investigation and notification to the DEP. Following further review, it was determined that special disposal is not required based on the PFAS-6 levels. However, PFOS was also detected in the soil, which does require disposal at a regulated facility. This disposal will be coordinated with the contractor and UEC.

Geothermal Test Well Contractor:

The Town executed a contract with Skillings & Sons, LLC to perform a geothermal test well and associated thermal conductivity testing in support of the geothermal HVAC system design. Skillings & Sons obtained the required well opening permit and mobilized to the site

on November 13, 2025. Upon mobilization, construction fencing was installed around the drilling area to maintain site safety.

The contractor drilled the test well to a depth of approximately 805 feet below grade, installed the geothermal loop, and performed the required thermal conductivity testing. Upon completion, the test results and final report were submitted to the Town and the design engineer to inform and support the final geothermal HVAC system design.

III. PROJECT BUDGET & INVOICING

The Design Development (DD) pricing set was prepared by the design team, TGAS, and issued to the project team on October 31, 2025. The DD pricing was independently estimated by both LeftField's and TGAS's cost estimators, after which the two estimates were reconciled. The reconciled estimates are included in the Attachments section of this report and confirm that the project remains within the approved budget.

Based on the schematic design-level estimate and additional \$1 million grant money, the overall construction cost is projected at approximately \$20.5 million, while the total project budget remains \$26 million.

To support the project budget, the Town, Fire Department, and project team jointly decided not to construct temporary fire stations. During construction, Engine 3 will be temporarily reassigned to Station 2, and the Engine 5 crew will operate out of Fire Headquarters.

More detailed cost estimates will be developed at the construction documents phase as the design advances and specifications for each scope of work, including the geothermal and solar panel systems, are completed. While significant value engineering (VE) efforts are not anticipated at this stage, the project team will continue to review select design elements with Town leadership and make adjustments as needed.

LeftField continues to actively monitor the overall project budget through both internal tracking and its accounting system, which manages and reviews all project invoices. All invoices are reviewed by LeftField prior to submission to the Town for monthly payment processing.

The updated project budget and invoice package for December 2025 are included in the Attachments section of this report.

IV. PROJECT SCHEDULE

LeftField developed the initial project schedule and shared it with the Town. This schedule aligns with the OPM and Designer RFQ documents and has been accepted as the baseline schedule.

The team anticipate to complete the project by October-November 2027. However, since the addition of the photovoltaic (PV) solar panel to station #3 and #5 and geothermal heating and cooling system to station #3, the completion of the project might be a little longer than anticipated. Nevertheless, the team targets to move the fire fighters to the new buildings before the second winter of the construction, which will be before December 2027.

The project schedule is included in the attachments section of this report.

V. DESIGN UPDATE

The design development review comments from the Town have been received and are being incorporated into the design. The Construction Documents (CD) phase is anticipated to be completed by February 27, 2026. The design team will also issue a separate 90% Construction Documents (CD) progress set, which will be provided to the estimators to prepare a construction cost estimate based on the 90% CD drawings. All design consultants, including civil, landscape, mechanical, electrical, plumbing, fire protection, security, technology, and solar have been actively coordinating their work with TGAS to produce the construction documents drawings and specifications.

The Town and project team have participated in multiple design meetings to review and clarify the scope of work for each discipline, including Owner-furnished and installed Furniture, Fixtures, Equipment (FFE), and Technology Equipment. Interior and exterior building material samples have been shared with the Town.

Geothermal and solar systems have been incorporated into the project scope, and detailed design coordination is ongoing. LeftField has been assisting the Town with the procurement and coordination of geothermal test wells and related design development activities.

The project team continues to meet regularly with the Town and leadership group to incorporate feedback and maintain alignment on design goals. Biweekly design meetings are held throughout the design phase, with additional sessions scheduled as needed to address specific topics.

VI. PERMITTING UPDATE

The project team met with various Town departments, including the Conservation Agent, Planning Director, DPW Director, Health Director, Building Inspector, and Engineering Department, to review the project. Following these meetings, the team

prepared a permitting roadmap, submitted the required applications, and addressed comments from the respective boards. As a result, the following permit approvals were successfully obtained:

- ZBA: October 2
- Planning Board: November 12 and December 10
- Conservation Commission: November 25
- Board of Health: December 2

The project team also met with the Permanent Building Committee to provide project updates to committee members and abutters. The next Permanent Building Committee meeting is scheduled for the end of the Construction Documents phase in February 2026.

VII. CONSTRUCTION UPDATE

Construction for both stations is scheduled to begin following the bidding process, approximately in early spring 2026. Both stations are planned to start concurrently, with an estimated construction duration of approximately 16-18 months.

VIII. ATTACHMENTS

- Attachment A Updated Project Budget
- Attachment B Monthly Project Invoice Package for December 2025
- Attachment C Updated Project Schedule
- Attachment D DD Level Construction Cost Estimates

ATTACHMENT A - UPDATED PROJECT BUDGET

TOWN OF CHELMSFORD - FIRE STATIONS #3 AND #5 - BUDGET TRACKING

Town of Chelmsford

Chelmsford Fire Stations #3 and #5

Project Director / Manager: David Saindon / Hamdi Cobanoglu



Period Ending 12/31/2025
Includes Invoice Package # 8

Current Budget



	Orig. Budget	Budget Changes	Revised Budget	Committed Costs	Expended	Unspent	Remaining Budget	% Complete	CTC	Anticipated C @ C	Variance
	[A]	[B]	[C]	[D]	[E]	[F]=[D]-[E]	[G]=[C]-[D]	(against commit't'd)	(beyond committed)	[J]=[D]+[I]	(Under) / Over
									[H]=[E]/[D]	[I]	[K]=[J]-[C]
0100 0000 ADMINISTRATION	\$1,080,000	\$0	\$1,080,000	\$990,000	\$220,000	\$770,000	\$90,000		\$90,000	\$1,080,000	\$0
0101 0000 Legal Fees	\$25,000	\$0	\$25,000	\$0	\$0	\$0	\$25,000		\$25,000	\$25,000	\$0
0102 0000 Owner's Project Manager - Basic Services - SD thru Closeout (Leftfield)	\$990,000	\$0	\$990,000	\$990,000	\$220,000	\$770,000	\$0	22%	\$0	\$990,000	\$0
0102 0400 Schematic / Design Development	inc. above	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0102 0500 Construction Contract Docs & Bidding	inc. above	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0102 0700 Construction Contract Administration	inc. above	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0102 0800 Closeout	inc. above	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0102 1000 Reimbursable & Other Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0102 1200 Electronic Bidding Services (BidDocs)	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$10,000		\$10,000	\$10,000	\$0
0103 0000 Advertising	\$5,000	\$0	\$5,000	\$0	\$0	\$0	\$5,000		\$5,000	\$5,000	\$0
0199 0000 Other Administrative Costs	\$50,000	\$0	\$50,000	\$0	\$0	\$0	\$50,000		\$50,000	\$50,000	\$0
0200 0000 ARCHITECTURE & ENGINEERING	\$2,350,000	\$0	\$2,350,000	\$2,183,708	\$996,189	\$1,187,520	\$166,292		\$166,292	\$2,350,000	\$0
0201 0000 A&E - Basic Services - SD thru Closeout (Galante)	\$2,000,000	\$0	\$2,000,000	\$1,985,000	\$952,800	\$1,032,200	\$15,000		\$15,000	\$2,000,000	\$0
0201 0200 Feasibility Study	inc. above	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0201 0300 Schematic Design	inc. above	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0201 0400 Design Development	inc. above	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0201 0500 Construction Contract Documents	inc. above	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0201 0600 Bidding	inc. above	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0201 0700 Construction Contract Administration	inc. above	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0201 0800 Closeout	inc. above	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0201 0800 Estimating	inc. above	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0203 0000 Reimbursable Services											
0203 9900 Other Reimbursable Costs	\$350,000	(\$195,613)	\$154,388	\$3,096	\$3,096	\$0	\$151,292	100%	\$151,292	\$154,388	\$0
0203 9900 PV Design (SDA) (Amend #1)	\$0	\$170,274	\$170,274	\$170,274	\$30,333	\$139,941	\$0	18%	\$0	\$170,274	\$0
0203 9900 Survey of Station 5 Adjacent Parcel (GPI) (Amend #2)	\$0	\$3,960	\$3,960	\$3,960	\$3,960	\$0	\$0	100%	\$0	\$3,960	\$0
0203 9900 ZBA Variance & Add Survey for Geothermal Wells (GPI & BH) (Amend #3)	\$0	\$21,379	\$21,379	\$21,379	\$6,000	\$15,379	\$0	28%	\$0	\$21,379	\$0
0500 0000 CONSTRUCTION CONTRACT	\$18,800,000	\$1,700,000	\$20,500,000	\$0	\$0	\$0	\$20,500,000		\$20,500,000	\$20,500,000	\$0
0501 0000 Construction Contract (Station #3)	\$8,200,000	\$1,900,000	\$10,100,000	\$0	\$0	\$0	\$10,100,000		\$10,100,000	\$10,100,000	\$0
0502 0000 Change Orders	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0503 0000 Construction Contract (Station #5)	\$9,500,000	\$900,000	\$10,400,000	\$0	\$0	\$0	\$10,400,000		\$10,400,000	\$10,400,000	\$0
0504 0000 Change Orders	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0505 0000 Temporary Fire Stations	\$1,100,000	(\$1,100,000)	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0600 0000 MISCELLANEOUS PROJECT COSTS	\$300,000	\$45,689	\$345,689	\$115,689	\$77,982	\$37,707	\$230,000		\$230,000	\$345,689	\$0
0601 0000 Utility Company Backcharges and Utility Use for Temp Stations	\$120,000	(\$20,000)	\$100,000	\$0	\$0	\$0	\$100,000		\$100,000	\$100,000	\$0
0602 0000 Inspection and Testing	\$120,000	\$0	\$120,000	\$0	\$0	\$0	\$120,000		\$120,000	\$120,000	\$0
0603 0000 Peer Review	\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$10,000		\$10,000	\$10,000	\$0
0604 0000 Other Misc. Costs	\$50,000	(\$50,000)	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0604 0000 Phase I ESA (UEC)	\$0	\$4,500	\$4,500	\$4,500	\$4,500	\$0	\$0	100%	\$0	\$4,500	\$0
0604 0000 Hydrant Flow Test (Rustic FP)	\$0	\$2,000	\$2,000	\$2,000	\$2,000	\$0	\$0	100%	\$0	\$2,000	\$0
0604 0000 GeoEnvironmental (KMM)	\$0	\$6,100	\$6,100	\$6,100	\$6,100	\$0	\$0	100%	\$0	\$6,100	\$0
0604 0000 GeoEnvironmental (Coneco)	\$0	\$20,859	\$20,859	\$20,859	\$0	\$20,859	\$0	0%	\$0	\$20,859	\$0
0604 0000 LSP - RNF and Additional Assessment (Coneco)	\$0	\$12,650	\$12,650	\$12,650	\$0	\$12,650	\$0	0%	\$0	\$12,650	\$0
0604 0000 Supplemental Subsurface Investigation (Coneco)	\$0	\$15,980	\$15,980	\$15,980	\$11,782	\$4,198	\$0	74%	\$0	\$15,980	\$0
0604 0000 Geothermal Test Drilling (Skillings & Sons)	\$0	\$53,600	\$53,600	\$53,600	\$53,600	\$0	\$0	100%	\$0	\$53,600	\$0
0700 0000 FURNISHINGS & EQUIPMENT	\$800,000	(\$230,000)	\$570,000	\$0	\$0	\$0	\$570,000		\$570,000	\$570,000	\$0
0701 0000 Furnishings & Equipment (FF+E)	\$250,000	\$0	\$250,000	\$0	\$0	\$0	\$250,000		\$250,000	\$250,000	\$0
0702 0000 Technology/Communication (including \$100K for Zetron System)	\$350,000	(\$30,000)	\$320,000	\$0	\$0	\$0	\$320,000		\$320,000	\$320,000	\$0
0703 0000 Security Cameras/Door Access/Etc.	\$200,000	(\$200,000)	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
0800 0000 OWNER'S CONTINGENCY	\$1,670,000	(\$515,689)	\$1,154,311	\$0	\$0	\$0	\$1,154,311		\$1,154,311	\$1,154,311	\$0
0801 0000 Owner's Contingency (soft)	\$226,500	(\$65,689)	\$160,811	\$0	\$0	\$0	\$160,811		\$160,811	\$160,811	\$0
0507 0000 Owner's Construction Contingency (hard)	\$1,443,500	(\$450,000)	\$993,500	\$0	\$0	\$0	\$993,500		\$993,500	\$993,500	\$0
PROJECT TOTALS	\$25,000,000	\$1,000,000	\$26,000,000	\$3,289,397	\$1,294,171	\$1,995,227	\$22,710,603	\$0	\$22,710,603	\$26,000,000	\$0

ATTACHMENT B - MONTHLY PROJECT INVOICES

Chelmsford Fire Stations #3 and #5

Date: 1/1/2026
 Period Ending: 12/31/2025
 MSBA Reimbursement Package #: **Invoice Summary #8**
 Included GC/CM Requisition: **N/A**

Invoice #	Invoice Date	Vendor	Value	
8	12/31/2025	Leftfield, LLC - OPM Services	\$20,000.00	
			\$20,000.00	Invoice Total \$20,000.00
2501-010	1/1/2026	The Galante Architecture Studio, Inc. - Construction Documents	\$59,550.00	
2501-010	1/1/2026	The Galante Architecture Studio, Inc. - Amend #1 - PV Design	\$9,900.00	
2501-010	1/1/2026	The Galante Architecture Studio, Inc. - Amend #2 - Survey of Station 5 Adjacent Parcel	\$1,980.00	
2501-010	1/1/2026	The Galante Architecture Studio, Inc. - Amend #3 - ZBA Variance & Add Survey for Geothermal Wells	\$6,000.00	
2501-010	1/1/2026	The Galante Architecture Studio, Inc. -Reimbursables - Printing for Various Committee Meetings	\$2,014.54	
			\$79,444.54	Invoice Total \$79,444.54
122416	12/31/2025	Skillings & Sons, LLC - Geothermal Test Well Drilling & Testing	\$53,600.00	
			\$53,600.00	Invoice Total \$53,600.00

\$153,044.54



 Leftfield Project Manager Approval

 1/1/2026
 Date



THE RIGHT CHOICE IN PROJECT MANAGEMENT

Mrs. Christine Clancy
 DPW Director
 Town of Chelmsford
 9 Alpha Road
 Chelmsford, MA 01824

Invoice Date: 12/31/25
 Invoice No: 8

FOR: OPM Services for Chelmsford Fire Stations #3 and #5 Project

Professional Services for the month of December 2025 \$20,000.00

Total this Invoice \$20,000.00



Contract / Invoice Summary To Date

			<u>Committed Costs</u>	<u>Total Expended</u>	<u>LF Inv. #8</u>	<u>Unspent</u>
			[D]	[E]	[Pending]	[F]=[D]-[E]-[Pending]
0001	0000	Owner's Project Manager	\$990,000	\$220,000	\$20,000	\$770,000
0001	0000	Basic Services - SD thru Closeout	\$990,000	\$220,000	\$20,000	\$770,000

Please Remit Payment To:

LeftField, LLC
 PO Box 307
 Hingham, MA 02043

Invoice # 2501-010 **1-Jan-26** **TGAS No. 2501.00**

Project: **Chelmsford Fire Stations #3 & 5**

Client: **Town of Chelmsford**
 9 Alpha Road
 Chelmsford, MA 01824
 Christine Clancy
cclancy@chelmsfordma.gov

Architect: **The Galante Architecture Studio, Inc.**
 146 Mount Auburn Street
 Cambridge, MA 02138
 617.576.2500

Locations: 260 Old Westford Rd
 & 295 Acton Rd

For professional architectural services

Base Services	Contract Amount	Percent Complete	Prior Billed	Current Billed	Completed To Date	Remaining
Schematic Design	\$ 496,250.00	100%	\$ 496,250.00	\$ -	\$ 496,250.00	\$ -
Design Development	\$ 397,000.00	100%	\$ 397,000.00	\$ -	\$ 397,000.00	\$ -
Construction Documents	\$ 595,500.00	10%		\$ 59,550.00	\$ 59,550.00	\$ 535,950.00
Bidding and Negotiation	\$ 99,250.00			\$ -	\$ -	\$ 99,250.00
Construction Admin	\$ 397,000.00			\$ -	\$ -	\$ 397,000.00
	\$ 1,985,000.00		\$ 893,250.00	\$ 59,550.00	\$ 952,800.00	\$ 1,032,200.00

Subtotal for Base Services **\$ 59,550.00**

Additional Services	Contract	% Complete	Prior Billed	Current	Completed	Remaining
Amendment #1	\$ 170,274.00	17.81%	\$ 20,432.88	\$ 9,900.00	\$ 30,332.88	\$ 139,941.12
Amendment #2	\$ 3,960.00	100.00%	\$ 1,980.00	\$ 1,980.00	\$ 3,960.00	\$ -
Amendment #3r1	\$ 21,378.50	28.07%	\$ -	\$ 6,000.00	\$ 6,000.00	\$ 15,378.50
				\$ 17,880.00	\$ 40,292.88	\$ 155,319.62

Subtotal for Additional Services **\$ 17,880.00**

Reimbursable Expenses

Printing						\$ 1,831.40
		<i>subtotal</i>				\$ 1,831.40
				x		1.1

Subtotal for reimbursable expenses **\$ 2,014.54**

TOTAL THIS INVOICE **\$ 79,444.54**

~~PAST DUE 2501-008 \$ 55,697.43~~

~~PAST DUE 2501-009 \$ 47,185.88~~

TOTAL NOW DUE **\$ 182,327.85**

Invoice is payable upon receipt. Thank you!



Camillo Villa
The Galante Architecture Studios Inc (TGAS)
146 Mount Auburn Street
Cambridge, MA 02138

November 25, 2025
Invoice No: 0423837

Project NEX-2500034.01 Chelmsford, MA - TGAS - 260 Old Westford Road
Contract Authorizations 6/23/2025, 10/2/2025
Contract Terms: NTE \$71,150 Plus Reimbursables
Send invoices to: accounting@galantearchitecture.com

Professional Services from September 20, 2025 to October 31, 2025

Task 00003 Design Development

Professional Personnel

	Hours	Rate	Amount
Senior Engineer			
grading & drainage plan review, discussion, markup	1.50	180.00	270.00
QA/QC grading and drainage plan and report	4.50	180.00	810.00
review grading & drainage plan and utilities	1.00	180.00	180.00
review grading & drainage plan, markup	.50	180.00	90.00
site and grading coordination	.50	180.00	90.00
utility plan review & discussions	1.00	180.00	180.00
Engineer			
MassDEP NOI	12.50	145.00	1,812.50
Notice of Intent	6.50	145.00	942.50
Technician			
Abutters List	.50	95.00	47.50
Copy Plans and Report, Copies/Production Sheets	1.00	95.00	95.00
Copy Reports, Documents, and Plans for planning board submission	2.00	95.00	190.00
Drop off Planning Board Submittal	1.50	95.00	142.50
Research Conservation Commission Submittal	.50	95.00	47.50
finalized markups for review and plotted pdf sets for signature	2.00	95.00	190.00
QA markups and revisions	1.00	95.00	95.00
QA Planset markups and revisions	5.50	95.00	522.50

Project	NEX-2500034.01	Chelmsford, MA - TGAS - 260 Old Westford	Invoice	0423837
		.50 95.00	47.50	
	QA/QC	1.50 95.00	142.50	
	Reviewed markups for final submission and plotted full set for review and submission	1.00 95.00	95.00	
	Updated footprints	.50 95.00	47.50	
	utility			
Designer		1.00 135.00	135.00	
	100% Design Development	.50 135.00	67.50	
	95% Design Development	7.00 135.00	945.00	
	Grading & Drainage Plan	.50 135.00	67.50	
	Prepare CAD files	42.00 135.00	5,670.00	
	Site Plan Set	1.50 135.00	202.50	
	CAD Submittal	9.00 135.00	1,215.00	
	Drainage report	4.50 135.00	607.50	
	Drainage Report, drafting	2.00 135.00	270.00	
	O and M	1.00 135.00	135.00	
	Response letter setup (x2)	5.00 135.00	675.00	
	Site plan markups	9.00 135.00	1,215.00	
	Stormwater Report			
Project Coordinator		1.50 85.00	127.50	
	Plot Plans and documents for submittal			
Department Head		4.00 225.00	900.00	
	QA/QC plans			
Environmental Scientist		1.00 150.00	150.00	
	Review and combined wetland delineation report.	7.50 150.00	1,125.00	
	Wetland Delineation Report			
Project Director (VP)		1.00 255.00	255.00	
	Review and mark up NOI application, download example BVW filed delineation reports	1.50 255.00	382.50	
	Review and mark up plan set	1.00 255.00	255.00	
	Review and mark up project narrative and sustainability checklist			
Project Manager		2.00 190.00	380.00	
	Finalize site plans submission. Update Narrative.			

Project	NEX-2500034.01	Chelmsford, MA - TGAS - 260 Old Westford	Invoice	0423837
		1.00 190.00	190.00	
		Markup and submit site plans for 100% DD submission.		
		1.00 190.00	190.00	
		Markup site plans for 100% DD submission and add geothermal overview plan.		
		1.00 190.00	190.00	
		Markup site plans for 100% DD submission based on call with town and client.		
		1.00 190.00	190.00	
		Markup site plans for 95% DD submission, and make some CAD revisions. Coordinate with client and project team.		
		2.50 190.00	475.00	
		Markup site plans for 95% DD submission, Coordinate with client and project team. Update plans with MEP info.		
		2.00 190.00	380.00	
		Markup site plans for 95% DD submission.		
		.50 190.00	95.00	
		Planning Board response to comments letter.		
		.50 190.00	95.00	
		Project Coordination		
		.50 190.00	95.00	
		Review NOI.		
		.50 190.00	95.00	
		Review of preliminary town stormwater comments.		
		3.00 190.00	570.00	
		Site Plan Review Application (and other applications) and supplemental material. Including Project Narrative addressing Rules and Regulation requirements.		
		4.00 190.00	760.00	
		Site Plan review package. Narrative, applications, Sustainability checklist, Land Disturbance Permit, etc. Review Site Plans Set / QA set.		
		3.50 190.00	665.00	
		Site Plan review package. Narrative, applications, Sustainability checklist, Land Disturbance Permit, etc. Review Site Plans Set / QA set. Review lighting specs. Review Landscape Plan. Review Water District/BOH submittal requirements.		
		3.00 190.00	570.00	
		Site Plan review package. Narrative, applications, Sustainability checklist, Land Disturbance Permit, etc. Review Site Plans Set / QA set. Review lighting specs. Review Landscape Plan. Review Water District/BOH submittal requirements. Review stormwater report. Update Standard 3. Issue 50% Check set to client.		
		2.50 190.00	475.00	
		Site Plan review package. Narrative, applications, Sustainability checklist, Land Disturbance Permit, etc. Review Site Plans Set / QA set. Review photometric Plan. Review Landscape Plan.		
		2.50 190.00	475.00	
		Site Plan review package. Narrative, applications, Sustainability checklist, Land Disturbance Permit, etc. Review Site Plans Set / QA set. Review stormwater report. Sustainability Checklist.		
		1.00 190.00	190.00	
		Submit PDFs to town for Site Plan review. Coordinate and submit PDFs to DPW for Land Disturb Permit. Coordinate and submit PDF for Groundwater Protection to Water District/BOH. Prepare to submit 75% check set to client. Start construction specs.		
		1.00 190.00	190.00	
		Submit PDFs to town for Site Plan review. Coordinate and submit PDFs to DPW for Land Disturb Permit. Prepare to submit 75% check set to client. Start construction specs.		
		.50 190.00	95.00	

Project coordination

Totals

Total Labor

179.50

26,802.50

26,802.50

Total this Task

26,802.50

Task 00004 Meetings and Coordination

Professional Personnel

	Hours	Rate	Amount	
Project Manager				
	.50	190.00	95.00	
Call with client and MEP regarding utility coordination for 100% DD.	.50	190.00	95.00	
Check in meeting with client and team.	1.00	190.00	190.00	
Coordinate with landscape architect and lighting consultant/client	.50	190.00	95.00	
Coordinate with landscape architect.	.50	190.00	95.00	
Meeting with client and MEP	.50	190.00	95.00	
Meeting with Client and MEP.	.50	190.00	95.00	
Meeting with client and Town regarding preliminary stormwater comments based on planning board submission.	.50	190.00	95.00	
Meeting with Client to discuss planning board submittal requirements.	4.50	190.00	855.00	
Project coordination with team and client for Planning Board Submission.	1.50	190.00	285.00	
Project coordination with team and client for Planning Board Submission. Site Plan Review Application and supplemental material.				
Totals	10.50		1,995.00	
Total Labor				1,995.00
				Total this Task 1,995.00

Task 00009 Additional Survey for Geothermal

Professional Personnel

	Hours	Rate	Amount	
2-Person Survey Crew				
	7.50	230.00	1,725.00	
Add'l topo				
Senior Survey Tech	4.50	135.00	607.50	
ECP drafting	.50	135.00	67.50	
ECP updates	1.50	135.00	202.50	
Drafting Markups	1.00	135.00	135.00	
ecp updates				
Field Survey Manager	.50	160.00	80.00	
Consult w/crew on traverse and clarify limits of expanded topo.	1.00	160.00	160.00	
Prepare field package for expanded topo coverage. Review w/crew.				

Department Head

.50	225.00	112.50
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Survey coordination and review for additional utilities/geotech

Project Manager

2.50	190.00	475.00
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Project coordination and plan updates

.50	190.00	95.00
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Project coordination and review additional field work

.50	190.00	95.00
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review scope for additional field work and set up field crew

1.50	190.00	285.00
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Update, review and finalize ECP

Totals	22.00	4,040.00
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Total Labor			4,040.00
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Total this Task			4,040.00
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Task 99999 Expenses

Reimbursable Expenses

Mileage		42.70
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Reproductions & Photos		678.10
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Total Reimbursables		720.80	720.80
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Total this Task			720.80
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Billing Limits

Current

Prior

To-Date

Total Billings	33,558.30	28,937.20	62,495.50
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Limit			71,150.00
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Remaining			8,654.50
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Total this Invoice			33,558.30
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Ted Galante
The Galante Architecture Studios Inc (TGAS)
146 Mount Auburn Street
Cambridge, MA 02138

November 26, 2025
Invoice No: 0423941

Project NEX-2500034.02 Chelmsford, MA - TGAS - Station #5 295 Acton Road
Contract Authorization 6/23/2025
Email Authorization 8/26/2025
Contract Terms: NTE \$65,700 Plus Reimbursables
Send invoices to: accounting@galantearchitecture.com

Professional Services from September 20, 2025 to October 31, 2025

Task 00003 Design Development

Professional Personnel

	Hours	Rate	Amount
Senior Engineer			
grading & drainage plan markup	1.50	180.00	270.00
markup grading & drainage plan, review pre & post HydroCAD	3.50	180.00	630.00
plan review	1.50	180.00	270.00
plan review	1.00	180.00	180.00
QA/QC grading & drainage plan & report	4.50	180.00	810.00
Engineer			
Grading and Drainage	4.50	145.00	652.50
Technician			
Abutters List	.50	95.00	47.50
coordinate submittal	.50	95.00	47.50
Copy Plans and Report, Copies/Production Sheets for planning board submission	1.00	95.00	95.00
Copy Reports, Documents, and Plans for planning board submission	2.00	95.00	190.00
Drop off Planning Board Submittal	1.50	95.00	142.50
Drop off plans	.50	95.00	47.50
Request Certified Abutters List, Letter of Authorization	.50	95.00	47.50
Plan revisions and markups	1.50	95.00	142.50
plotted pdf set for review	.50	95.00	47.50

Project	NEX-2500034.02	Chelmsford, MA - TGAS - Station #5	Invoice	0423941
		.50 95.00	47.50	
	Scanned in QA/QC set			
		6.50 95.00	617.50	
	Site plan set markups, updated footprints and utility plan MEP revisions			
		3.50 95.00	332.50	
	Utility plan revision and base layout changes, Plotted plans for review and submission			
Designer				
		1.00 135.00	135.00	
	100% Design Development			
		.50 135.00	67.50	
	95% Design Development			
		8.50 135.00	1,147.50	
	Grading & Drainage			
		.50 135.00	67.50	
	Prepare CAD files			
		.50 135.00	67.50	
	Review preliminary engineering comments			
		39.50 135.00	5,332.50	
	Site Plan Set			
		4.00 135.00	540.00	
	CAD Submittal, drainage design, grading, drafting			
		11.00 135.00	1,485.00	
	Drafting			
		1.50 135.00	202.50	
	Drainage report			
		7.00 135.00	945.00	
	Drainage Report and O and M			
		9.00 135.00	1,215.00	
	Drainage report, markups			
		4.50 135.00	607.50	
	Grading, drainage, drafting			
		1.00 135.00	135.00	
	O&M, Drainage report			
		4.50 135.00	607.50	
	QA revisions, DRAFTING			
		.50 135.00	67.50	
	Response letter setup (x2)			
		.50 135.00	67.50	
	Specification printout			
Project Coordinator				
		2.00 85.00	170.00	
	Plot Plans and documents for submittal			
Department Head				
		.50 225.00	112.50	
	Grading/Drainage review			
		3.00 225.00	675.00	
	QA/QC Plan set			
Project Director (VP)				
		1.50 255.00	382.50	
	Review and mark up plan set			
		.50 255.00	127.50	
	Review electrical site plan from CES, discuss with project manager			
		1.00 255.00	255.00	
	Review waiver requests and discuss with PM			

Project Manager

	1.00	190.00	190.00
Coordinate submittal requirements.			
	1.00	190.00	190.00
Coordinate with landscape architect and lighting consultant/client			
	.50	190.00	95.00
Coordinate with landscape architect.			
	2.00	190.00	380.00
Finalize site plans submission. Update Narrative.			
	1.00	190.00	190.00
Markup and submit site plans for 100% DD submission.			
	1.00	190.00	190.00
Markup site plans for 100% DD submission based on call with town and client.			
	.50	190.00	95.00
Markup site plans for 100% DD submission.			
	1.00	190.00	190.00
Markup site plans for 95% DD submission and make some CAD revisions.			
	2.00	190.00	380.00
Markup site plans for 95% DD submission.			
	1.50	190.00	285.00
Markup site plans for 95% DD submission. Update plans with MEP info			
	1.00	190.00	190.00
Markup site plans for 95% DD submission. Update plans with MEP info.			
	.50	190.00	95.00
Proj Coord.			
	.50	190.00	95.00
Review and start response to comments letter.			
	.50	190.00	95.00
Review of preliminary town stormwater comments.			
	4.00	190.00	760.00
Site Plan review package. Narrative, applications, Sustainability checklist, Land Disturbance Permit, etc. Review Site Plans Set / QA set.			
	3.50	190.00	665.00
Site Plan review package. Narrative, applications, Sustainability checklist, Land Disturbance Permit, etc. Review Site Plans Set / QA set. Review lighint specs. Review Landscape Plan.			
	2.00	190.00	380.00
Site Plan review package. Narrative, applications, Sustainability checklist, Land Disturbance Permit, etc. Review Site Plans Set / QA set. Review lighting specs. Review Landscape Plan. Review Water District/BOH submittal requirements. Review stormwater report. Coordinate with MEP. Issue 50% Check set to client.			
	2.50	190.00	475.00
Site Plan review package. Narrative, applications, Sustainability checklist, Land Disturbance Permit, etc. Review Site Plans Set / QA set. Review photometric Plan.			
	2.00	190.00	380.00
Site Plan review package. Narrative, applications, Sustainability checklist, Land Disturbance Permit, etc. Review Site Plans Set / QA set. Review stormwater report. Sustainability Checklist.			
Totals	166.00		24,350.00
Total Labor			24,350.00
		Total this Task	24,350.00

Task 00004 Meetings and Coordination

Professional Personnel

	Hours	Rate	Amount	
Project Director (VP)				
	3.50	255.00	892.50	
Prepare for and attend ZBA hearing				
Project Manager				
	.50	190.00	95.00	
Call with client and MEP regarding utility coordination for 100% DD.				
	.50	190.00	95.00	
Check in meeting with client and team.				
	.50	190.00	95.00	
Meeting with client and MEP				
	.50	190.00	95.00	
Meeting with Client and MEP.				
	.50	190.00	95.00	
Meeting with client and Town regarding preliminary stormwater comments based on planning board submission.				
	.50	190.00	95.00	
Meeting with Client to discuss planning board submittal requirements.				
	4.50	190.00	855.00	
Project coordination with team and client for Planning Board Submission.				
	1.00	190.00	190.00	
Project coordination with team and client for Planning Board Submission. Site Plan Review Application (and other applications) and supplemental material.				
	1.00	190.00	190.00	
Project coordination with team and client for Planning Board Submission. Site Plan Review Application and supplemental material.				
Totals	13.00		2,697.50	
Total Labor				2,697.50
				Total this Task 2,697.50

 Task 00007 Additional Survey

Professional Personnel

	Hours	Rate	Amount	
Senior Survey Tech				
	1.00	135.00	135.00	
Drafting Markups				
Project Manager				
	1.00	190.00	190.00	
Update, review and finalize ECP				
Totals	2.00		325.00	
Total Labor				325.00
				Total this Task 325.00

 Task 99999 Expenses

Reimbursable Expenses

Mileage			21.70	
Reproductions & Photos			703.30	
Total Reimbursables			725.00	725.00
				Total this Task 725.00

Billing Limits

	Current	Prior	To-Date	
Total Billings	28,097.50	25,853.30	53,950.80	
Limit			65,700.00	
Remaining			11,749.20	
		Total this Invoice		28,097.50



Ted Galante
The Galante Architecture Studios Inc (TGAS)
146 Mount Auburn Street
Cambridge, MA 02138

October 16, 2025
Invoice No: 0421615

Project NEX-2500034.02 Chelmsford, MA - TGAS - Station #5 295 Acton Road
Contract Authorization 6/23/2025
Email Authorization 8/26/2025
Contract Terms: NTE \$65,700 Plus Reimbursables
Send invoices to: accounting@galantearchitecture.com

Professional Services from August 23, 2025 to September 19, 2025

Task 00003 Design Development

Professional Personnel

		Hours	Rate	Amount
Engineer				
	8/27/2025	1.00	145.00	145.00
Drainage modeling	8/28/2025	1.50	145.00	217.50
Drainage modeling	9/2/2025	1.50	145.00	217.50
Drainage modeling	9/3/2025	1.00	145.00	145.00
Drainage modeling	9/10/2025	1.50	145.00	217.50
Update building footprint and grading and drainage	9/17/2025	2.00	145.00	290.00
Drainage design and report				
Technician				
	8/26/2025	1.00	95.00	95.00
Site plan set creation	8/27/2025	2.50	95.00	237.50
Site plan set creation work.	8/28/2025	2.50	95.00	237.50
Utility and erosion creation and plotted pdf for review	8/29/2025	1.00	95.00	95.00
Plotted set for review				
Designer				
	9/12/2025	1.00	135.00	135.00
Prepare CAD files for landscape architect and lighting consultants	9/17/2025	2.00	135.00	270.00
Site Plan Set	9/19/2025	6.00	135.00	810.00
Site Plan Set				
Department Head				
	9/11/2025	1.00	225.00	225.00
PSP, markups, team coord				

Project	NEX-2500034.02	Chelmsford, MA - TGAS - Station #5	Invoice	0421615
Project Manager				
	8/26/2025	.50	190.00	95.00
Site Plan team progress check in.				
	9/3/2025	1.50	190.00	285.00
Check in meeting. Review By-Laws. Zoning Due Diligence report review. Application review and requirements.				
	9/4/2025	.50	190.00	95.00
Application review and requirements and project coordination with project team and client.				
	9/5/2025	1.00	190.00	190.00
Application review and requirements.				
	9/8/2025	1.50	190.00	285.00
Review Site Plan and Conservation regulation requirements. Confirm with town and coordinate with team. Coordinate revisions to ECP based on review of Geotech report.				
	9/9/2025	1.00	190.00	190.00
Discuss/review impacts of PFAS and impacts on stormwater design.				
	9/17/2025	1.50	190.00	285.00
Coordinate submittal requirements. Review zoning form.				
	9/17/2025	.50	190.00	95.00
Team check in meeting				
	9/18/2025	1.00	190.00	190.00
Coordinate submittal requirements. Review zoning form.				
	Totals	34.50		5,047.50
	Total Labor			5,047.50
			Total this Task	5,047.50

Task	00004	Meetings and Coordination	Hours	Rate	Amount
Professional Personnel					
Project Director (VP)					
	9/5/2025	.50	255.00	127.50	
Meeting Client regarding project timeline.					
Project Manager					
	9/5/2025	.50	190.00	95.00	
Meeting with Client regarding project timeline.					
	9/10/2025	.50	190.00	95.00	
coordination meeting with client and landscape architect to discuss preliminary layout.					
	Totals	1.50		317.50	
	Total Labor			317.50	
			Total this Task	317.50	

Task	00007	Additional Survey	Hours	Rate	Amount
Professional Personnel					
2-Person Survey Crew					
	9/3/2025	7.00	230.00	1,610.00	
ECP abutting lot					
Senior Survey Tech					
	9/9/2025	7.50	135.00	1,012.50	
ECP expansion drafting					
	9/8/2025	1.00	135.00	135.00	
drafting					

Project	NEX-2500034.02	Chelmsford, MA - TGAS - Station #5	Invoice	0421615
Field Survey Manager				
	8/29/2025	1.00	160.00	160.00
Prepare field package for additional work. Review w/crew.				
	9/3/2025	.50	160.00	80.00
Consult w/crew.				
Senior Survey Manager				
	9/8/2025	1.00	180.00	180.00
processing				
Department Head				
	8/27/2025	.50	225.00	112.50
Survey coordination				
	9/9/2025	.50	225.00	112.50
Survey coordination and review for additional work				
Totals		19.00		3,402.50
Total Labor				3,402.50
			Total this Task	3,402.50

Task	99999	Expenses		
Reimbursable Expenses				
Mileage			55.30	
Reproductions & Photos			450.00	
Total Reimbursables			505.30	505.30
			Total this Task	505.30

Billing Limits	Current	Prior	To-Date	
Total Billings	9,272.80	16,580.50	25,853.30	
Limit			65,700.00	
Remaining			39,846.70	
			Total this Invoice	9,272.80



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Skillings & Sons, LLC.
9 Columbia Drive
Amherst, NH 03031
603-459-2600

BILL TO

Town of Chelmsford
50 Billerica Road
Chelmsford, MA 01824

INVOICE
122416

INVOICE DATE
12/31/2025

JOB ADDRESS

Chelmsford Fire Station
260 Old Westford Road
Chelmsford, MA 01824 USA

Completed Date 11/24/2025

Customer PO #

Payment Term Due Upon Receipt

Due Date 12/31/2025

DESCRIPTION OF WORK

DATE DRILLED: 11/21/2025
DEPTH OF BOREHOLE: 805'
CASING: 40' of 6" 13LB
LOOP TYPE: 1.50X810
GROUTED
MAKING 35-40 GPM

TASK	DESCRIPTION	QTY	PRICE	TOTAL
GeoClosedLoop	GeoClosedLoop: SYSTEM DESCRIPTION One (1) 805-foot-deep boreholes 6" bore Max Loop Length: 810 feet Grout Mixture Conductivity specified @1.4BTU/Hr Diameter (dia.) of pipe: 1.5-inch SCOPE OF WORK Equipment mobilization and 780' of rock drilling (location picked by others) including 30' casing	1.00	\$24,600.00	\$24,600.00
DR6	Well Drilling 6": Well drilling 6" refers to the process of drilling a hole in the bedrock to access groundwater, with a diameter of 6 inches.	805.00	\$0.00	\$0.00
GROUTING	GROUT WELL: Grouting of bore hole supplied and installed {including sample}	1.00	\$4,500.00	\$4,500.00
GEO112-810DR11 - i	GEOTHERMAL 1 1/2" BY 810' LOOP DR-11	1.00	\$4,700.00	\$4,700.00
MATERIAL	DESCRIPTION	QUANTITY	PRICE	TOTAL
MISCM	Water Management (1 vac removal)	1.00	\$13,900.00	\$13,900.00

MISCM	Conductivity Testing (including report)	1.00	\$5,900.00	\$5,900.00
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SUB-TOTAL	\$53,600.00
TAX	\$0.00

TOTAL DUE	\$53,600.00
PAYMENT	\$0.00

BALANCE DUE	\$53,600.00
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ATTACHMENT C - UPDATED PROJECT SCHEDULE

FIRE STATIONS #3 AND #5 FIRE DEPARTMENT TOWN OF CHELMSFORD, CHELMSFORD, MA	PROJECT SCHEDULE FOR THE CHELMSFORD FIRE STATIONS #3 AND #5	04-Jan-26 19:31
-------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------	-----------------

Activity ID	Activity Name	Start	Finish	Original Duration	Resources	2025												2026												2027												2028											
						Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug										
Chelmsford Fire Stations #3 and #5		31-Mar-25	26-Nov-27	695		26-Nov-27, Chelmsford Fire Stations #3 and #5																																															
Designer and OPM Procurement		31-Mar-25	11-Apr-25	10		11-Apr-25, Designer and OPM Procurement ◆ Designer Contract Award ◆ OPM Contract Award																																															
A1000	Designer Contract Award		31-Mar-25	0																																																	
A1010	OPM Contract Award	31-Mar-25	11-Apr-25	10																																																	
Initial Design Activities		14-Apr-25	16-May-25	25		16-May-25, Initial Design Activities ■ Design Kick-Off Meeting ■ Review Previous Study and Design Information ■ Existing Conditions Survey ■ Programming Meetings for Station #3 and #5 ■ Initial Permitting Assessment ■ Prepare Project Schedule (for both stations) ■ Prepare Project Budget (for both stations)																																															
A1020	Design Kick-Off Meeting	14-Apr-25	18-Apr-25	5																																																	
A1030	Review Previous Study and Design Information	21-Apr-25	02-May-25	10																																																	
A1040	Existing Conditions Survey	21-Apr-25	16-May-25	20																																																	
A1050	Programming Meetings for Station #3 and #5	21-Apr-25	02-May-25	10																																																	
A1060	Initial Permitting Assessment	05-May-25	09-May-25	5																																																	
A1065	Prepare Project Schedule (for both stations)	05-May-25	16-May-25	10																																																	
A1067	Prepare Project Budget (for both stations)	05-May-25	16-May-25	10																																																	
Schematic Design Phase		19-May-25	15-Aug-25	65		15-Aug-25, Schematic Design Phase ■ Site Assessment (Geotechnical, Geoenvironmental) ■ Preparation of SD Drawings and Specs ■ Cost Estimates ■ Estimate Reconciliation ■ Value Engineering ■ Approval of Schematic Design																																															
A1070	Site Assessment (Geotechnical, Geoenvironmental)	19-May-25	06-Jun-25	15																																																	
A1080	Preparation of SD Drawings and Specs	19-May-25	04-Jul-25	35																																																	
A1090	Cost Estimates	07-Jul-25	25-Jul-25	15																																																	
A1100	Estimate Reconciliation	28-Jul-25	01-Aug-25	5																																																	
A1110	Value Engineering	04-Aug-25	08-Aug-25	5																																																	
A1120	Approval of Schematic Design	11-Aug-25	15-Aug-25	5																																																	
Design Development Phase		18-Aug-25	31-Oct-25	55		31-Oct-25, Design Development Phase ■ Preparation of DD Drawings and Specs ■ DD Level Cost Estimates ■ Estimate Reconciliation ■ Approval of Design Development Phase																																															
A1130	Preparation of DD Drawings and Specs	18-Aug-25	26-Sep-25	30																																																	
A1140	DD Level Cost Estimates	29-Sep-25	17-Oct-25	15																																																	
A1150	Estimate Reconciliation	20-Oct-25	24-Oct-25	5																																																	
A1160	Approval of Design Development Phase	27-Oct-25	31-Oct-25	5																																																	
Construction Documents Phase		03-Nov-25	27-Feb-26	85		27-Feb-26, Construction Documents Phase 16-Jan-26, 90% Construction Documents ■ Preparation of 90% CD Drawings and Specs ■ 90% CD Level Cost Estimates ■ Estimate Reconciliation ■ Approval of 90% Construction Documents 27-Feb-26, 100% Construction Documents ■ Preparation of 100% CD Drawings and Specs ■ Approval of 100% Construction Documents																																															
90% Construction Documents		03-Nov-25	16-Jan-26	55																																																	
A1170	Preparation of 90% CD Drawings and Specs	03-Nov-25	12-Dec-25	30																																																	
A1175	90% CD Level Cost Estimates	15-Dec-25	02-Jan-26	15																																																	
A1177	Estimate Reconciliation	05-Jan-26	09-Jan-26	5																																																	
A1180	Approval of 90% Construction Documents	12-Jan-26	16-Jan-26	5																																																	
100% Construction Documents		19-Jan-26	27-Feb-26	30																																																	
A1190	Preparation of 100% CD Drawings and Specs	19-Jan-26	20-Feb-26	25																																																	
A1200	Approval of 100% Construction Documents	23-Feb-26	27-Feb-26	5																																																	
Permitting		18-Aug-25	05-Dec-25	80		05-Dec-25, Permitting ■ Initial Review of the Projects with the Departments ■ Zoning Board Review & Approval (Oct 2nd) ■ Planning Board Review & Approval (Nov 12th) ■ Conservation Commission Review & Approval (Nov 25th)																																															
A1210	Initial Review of the Projects with the Departments	18-Aug-25	05-Sep-25	15																																																	
A1220	Zoning Board Review & Approval (Oct 2nd)	15-Sep-25	24-Oct-25	30																																																	
A1230	Planning Board Review & Approval (Nov 12th)	27-Oct-25	05-Dec-25	30																																																	
A1240	Conservation Commission Review & Approval (Nov 25th)	27-Oct-25	05-Dec-25	30																																																	
Procurement of Trade Contractors and General Contractor		03-Nov-25	03-Apr-26	110		03-Apr-26, Procurement of Trade Contractors and General Contractor ■ Trade and GC Prequalifications ■ Trade Contractors Bidding ■ GC Bidding ■ GC Contract Award																																															
A1320	Trade and GC Prequalifications	03-Nov-25	09-Jan-26	50																																																	
A1330	Trade Contractors Bidding	02-Mar-26	20-Mar-26	15																																																	
A1340	GC Bidding	02-Mar-26	27-Mar-26	20																																																	
A1350	GC Contract Award	30-Mar-26	03-Apr-26	5																																																	
Construction		04-May-26	01-Oct-27	370		01-Oct-27, Construction ■ Site Mobilization ■ Demo and Siteworks ■ Foundation and Structural Works ■ Building Enclosure ■ MEP/FP Installation ■ Finishes ■ Equipment and Communication Systems Installation ■ FFE and Technology Equipment Installation ■ Punchlist ◆ Substantial Completion ■ Stations Occupied																																															
A1355	Site Mobilization	04-May-26	22-May-26	15																																																	
A1360	Demo and Siteworks	25-May-26	24-Jul-26	45																																																	
A1370	Foundation and Structural Works	27-Jul-26	06-Nov-26	75																																																	
A1380	Building Enclosure	09-Nov-26	29-Jan-27	60																																																	
A1390	MEP/FP Installation	01-Feb-27	07-May-27	70																																																	
A1400	Finishes	10-May-27	30-Jul-27	60																																																	
A1410	Equipment and Communication Systems Installation	02-Aug-27	27-Aug-27	20																																																	
A1420	FFE and Technology Equipment Installation	30-Aug-27	10-Sep-27	10																																																	
A1430	Punchlist	13-Sep-27	24-Sep-27	10																																																	
A1440	Substantial Completion		24-Sep-27	0																																																	
A1450	Stations Occupied	27-Sep-27	01-Oct-27	5																																																	
Project Closeout		27-Sep-27	26-Nov-27	45		26-Nov-27, Project Closeout ■ Owner Trainings ■ O&M Manuals Submission ■ Punch Items Closed ■ DCAMM Evaluation Submission																																															
A1460	Owner Trainings	04-Oct-27	15-Oct-27	10																																																	
A1470	O&M Manuals Submission	27-Sep-27	08-Oct-27	10																																																	
A1480	Punch Items Closed	27-Sep-27	29-Oct-27	25																																																	
A1490	DCAMM Evaluation Submission	01-Nov-27	12-Nov-27	10																																																	

ATTACHMENT D - CONSTRUCTION COST ESTIMATES

CHELMSFORD FIRE STATIONS DESIGN DEVELOPMENT COST ESTIMATE



GFA: Gross Floor Area
Rates Current At August 2025

LOCATION SUMMARY

Ref	Location	GFA SF	GFA \$/SF	Total Cost \$
A	Fire Station - Engine 3	8,384	1,068.10	8,954,969
B	Fire Station - Engine 5	8,986	818.20	7,352,314
ESTIMATED NET COST		17,370	938.82	16,307,283
MARGINS & ADJUSTMENTS				
	General Conditions / General Requirements		9.8 %	1,600,000
	Bonds & Insurances		3.0 %	537,218
	Contractor's Fee		4.0 %	737,780
	Design / Estimating Contingency		5.0 %	959,114
	Construction Contingency (by Owner)			Excl.
	Sub-total	17,370	1,159.55	20,141,395
	Tariff Allowance			Excl.
	Escalation Allowance - to start of Construction June 2026		2.9 %	574,030
	Sub-total	17,370	1,192.60	20,715,425
	Owners Contingency			Excl.
ESTIMATED TOTAL COST		17,370	1,192.60	20,715,425

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CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



GFA: Gross Floor Area
Rates Current At August 2025

LOCATION SUMMARY

Ref	Location	GFA SF	GFA \$/SF	Total Cost \$
A	Fire Station - Engine 3	8,384	1,068.10	8,954,969
ESTIMATED NET COST		8,384	1,068.10	8,954,969
MARGINS & ADJUSTMENTS				
	General Conditions / General Requirements		9.8 %	878,623
	Bonds & Insurances		3.0 %	295,007
	Contractor's Fee		4.0 %	405,144
	Design / Estimating Contingency		5.0 %	526,687
	Construction Contingency (by Owner)			Excl.
	Sub-total	8,384	1,319.23	11,060,430
	Tariff Allowance			Excl.
	Escalation Allowance - to start of Construction June 2026		2.8 %	315,222
	Sub-total	8,384	1,356.83	11,375,652
	Owners Contingency			Excl.
	ESTIMATED TOTAL COST	8,384	1,356.83	11,375,652

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CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



GFA: Gross Floor Area
Rates Current At August 2025

LOCATION SUMMARY

Ref	Location	GFA SF	GFA \$/SF	Total Cost \$
B	Fire Station - Engine 5	8,986	818.20	7,352,314
ESTIMATED NET COST		8,986	818.20	7,352,314
MARGINS & ADJUSTMENTS				
	General Conditions / General Requirements		9.8 %	721,377
	Bonds & Insurances		3.0 %	242,211
	Contractor's Fee		4.0 %	332,636
	Design / Estimating Contingency		5.0 %	432,427
	Construction Contingency (by Owner)			Excl.
Sub-total		8,986	1,010.57	9,080,965
	Tariff Allowance			Excl.
	Escalation Allowance - to start of Construction June 2026		2.9 %	258,808
Sub-total		8,986	1,039.37	9,339,773
	Owners Contingency			Excl.
ESTIMATED TOTAL COST		8,986	1,039.37	9,339,773

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CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS SUMMARY

A Fire Station - Engine 3

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	GFA \$/SF	Total Cost \$
02	Existing Conditions	34.05	285,440
03	Concrete	45.03	377,573
04	Masonry	35.13	294,553
05	Metals	36.01	301,934
06	Wood, Plastics, and Composites	5.43	45,486
07	Thermal and Moisture Protection	166.95	1,399,720
08	Openings	55.69	466,925
09	Finishings	76.81	643,953
10	Specialties	10.31	86,436
11	Equipment	6.08	51,000
12	Furnishings	0.31	2,587
21	Fire Suppression	11.50	96,416
22	Plumbing	45.89	384,724
23	Heating, Ventilating, and Air Conditioning	227.68	1,908,907
26	Electrical	135.25	1,133,914
27	Communications	15.31	128,391
28	Electronic Safety and Security	12.43	104,189
31	Earthwork	44.11	369,810
32	Exterior Improvements	62.55	524,408
33	Utilities	41.58	348,603
FIRE STATION - ENGINE 3		1,068.10	8,954,969

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS SUMMARY

A Fire Station - Engine 3

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	GFA \$/SF	Total Cost \$
MARGINS & ADJUSTMENTS			
	General Conditions / General Requirements		878,623
	Bonds & Insurances		295,007
	Contractor's Fee		405,144
	Design / Estimating Contingency		526,687
	Construction Contingency (by Owner)		Excl.
	Sub-total	1,319.23	11,060,430
	Tariff Allowance		Excl.
	Escalation Allowance - to start of Construction June 2026		315,222
	Sub-total	1,356.83	11,375,652
	Owners Contingency		Excl.
	ESTIMATED TOTAL COST	1,356.83	11,375,652

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CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS SUMMARY

B Fire Station - Engine 5

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	GFA \$/SF	Total Cost \$
02	Existing Conditions	26.45	237,698
03	Concrete	36.84	331,060
04	Masonry	39.95	359,021
05	Metals	47.04	422,666
06	Wood, Plastics, and Composites	6.32	56,804
07	Thermal and Moisture Protection	131.31	1,179,914
08	Openings	50.68	455,390
09	Finishings	71.30	640,716
10	Specialties	10.06	90,441
11	Equipment	5.68	51,000
12	Furnishings	0.31	2,803
14	Conveying Equipment	27.82	250,000
21	Fire Suppression	11.50	103,339
22	Plumbing	45.26	406,690
23	Heating, Ventilating, and Air Conditioning	79.01	709,954
26	Electrical	107.75	968,286
27	Communications	14.69	131,975
28	Electronic Safety and Security	12.82	115,161
31	Earthwork	29.10	261,496
32	Exterior Improvements	40.63	365,074
33	Utilities	23.68	212,826
FIRE STATION - ENGINE 5		818.20	7,352,314

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS SUMMARY

B Fire Station - Engine 5

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	GFA \$/SF	Total Cost \$
MARGINS & ADJUSTMENTS			
	General Conditions / General Requirements		721,377
	Bonds & Insurances		242,211
	Contractor's Fee		332,636
	Design / Estimating Contingency		432,427
	Construction Contingency (by Owner)		Excl.
	Sub-total	1,010.57	9,080,965
	Tariff Allowance		Excl.
	Escalation Allowance - to start of Construction June 2026		258,808
	Sub-total	1,039.37	9,339,773
	Owners Contingency		Excl.
	ESTIMATED TOTAL COST	1,039.37	9,339,773

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CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
02	Existing Conditions				
1	Hazardous abatement (Engine 3) - as per Haz Mat Report	LS	1.0	120,000.00	120,000
3	Demolition of existing single story building, including removal of foundations etc.	SF	2,701.8	20.00	54,036
214	Break out & dispose of existing bituminous concrete	SF	14,362.9	1.00	14,363
371	Break-out portion of existing roadway for utility work	SF	588.7	3.00	1,766
373	Break-out portion of existing sidewalk for utility work	SF	309.0	1.50	464
215	Break out & dispose of existing concrete pad	SF	159.0	1.50	238
216	Break out & dispose of existing granite curb	LF	22.1	10.00	221
217	Saw cut to existing bituminous concrete	LF	295.1	20.00	5,902
220	Relocate exercise area w/ wood chips	SF	999.0	20.00	19,980
241	Remove & dispose of existing flag pole	EA	1.0	1,000.00	1,000
374	Remove existing granite curb and store for re-use	LF	69.0	30.00	2,070
377	Remove existing boulder for re-location as directed by Owner	EA	23.0	500.00	11,500
385	Remove trees	EA	3.0	500.00	1,500
494	Remove water services piping	LF	244.6	40.00	9,784
495	Remove gas services piping	LF	365.7	40.00	14,628
496	Remove sewer services piping	LF	310.7	40.00	12,428
497	Remove storm services piping	LF	89.0	40.00	3,560
498	Remove manhole	EA	1.0	1,500.00	1,500
499	Remove septic tank	EA	1.0	8,000.00	8,000
507	Remove gas meter	EA	2.0	250.00	500
515	Cut and cap existing gas service along Old Westford Road	EA	2.0	1,000.00	2,000
	02 - Existing Conditions			34.05 /SF	285,440
03	Concrete				
5	Cast-in-place concrete, slab-on-grade; 5" thick inc. WWF	SF	5,336.6	16.00	85,386
4	Cast-in-place concrete, slab-on-grade; 8" thick	SF	2,433.9	15.00	36,508
7	Form; edge of slab	LF	462.9	20.00	9,258
6	Reinforcement - WWF 6 x 6 - W2.9 x W2.9	SF	5,336.6		Incl.
8	Reinforcement to slab-on-grade	Lb	1,921.8	2.00	3,844
219	Misc. control joints, expansion joints, thickening etc.	SF	7,770.6	1.80	13,987
9	Vapor barrier	SF	7,770.6	0.80	6,217
10	Rigid insulation (thickness undefined)	SF	7,770.6	5.00	38,853
11	Cast-in-place concrete, strip footings	CY	58.3	400.00	23,320
13	Form; strip footings	SF	1,251.2	20.00	25,024

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
14	Reinforcement to strip footings	Lb	2,757.2	2.00	5,514
15	Cast-in-place concrete, frost walls, 8" thick	CY	44.2	400.00	17,680
16	Form; frost walls	SF	3,565.9	20.00	71,318
197	Form; 8" brick shelf	LF	1,213.6		Excl.
17	Reinforcement to frost walls	Lb	4,764.1	2.00	9,528
646	Concrete base panel	SF	778.4	40.00	31,136
03 - Concrete				45.03 /SF	377,573
04	Masonry				
12	P-1 partition - 8" CMU block, ground face both sides	SF	2,440.9	50.00	122,045
354	N - partition - 6" CMU on both sides	SF	943.8	40.00	37,752
18	Reinforcement to CMU bearing walls	Lb	3,384.6	1.00	3,385
326	8" CMU at exterior walls, 1 ground face	SF	2,736.9	48.00	131,371
04 - Masonry				35.13 /SF	294,553
05	Metals				
591	Roof construction; apparatus bay roof - 22K joists	T	3.500	7,000.00	24,500
583	Roof construction; 14" LGMF joists	T	11.437	6,500.00	74,340
191	Roof construction; structural steel	T	4.023	7,000.00	28,161
21	1 1/2" 18GA roof deck	SF	8,972.5	6.50	58,321
22	Misc. steel/plates/connections/base plates/anchor bolts etc.	T	2.846	7,000.00	19,922
40	Rooftop mechanical equipment platform	SF	53.1	150.00	7,965
41	Mechanical privacy panel screening inc. secondary steel	SF	174.0		Excl.
56	Miscellaneous metals (MEP supports, casework supports, etc)	SF	8,384.0	9.50	79,648
255	Trench drain	LF	32.5		Excl.
327	Structural framing for storefront system (2 lbs/sf)	T	0.599	8,000.00	4,792
342	Caged roof access ladder	LF	17.0	175.00	2,975
343	Roof access ladder	LF	9.7	135.00	1,310
05 - Metals				36.01 /SF	301,934
06	Wood, Plastics, and Composites				
48	Wood blocking / rough carpentry	SF	8,384.0	1.50	12,576
273	Casework; kitchen island inc. base units, 3'-8" wide	LF	10.0		Excl.
274	Casework; architectural wood base cabinet (maple veneer) inc. quartz surfacing countertop (2' deep)	LF	15.6	600.00	9,360
275	Casework; architectural wood overhead cabinets (maple veneer) (3'-9" high)	LF	5.3	450.00	2,385

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
640	Casework; architectural wood overhead cabinets (maple veneer) (3'-0" high)	LF	4.9	425.00	2,083
638	Casework; architectural wood overhead cabinets (maple veneer) (1'-0" high)	LF	6.6	350.00	2,310
276	Casework; architectural wood base cabinet (maple veneer) below monitor (2' deep)	LF	18.6	500.00	9,300
641	Casework; vanity with undermount sink	LF	3.3	350.00	1,155
277	Casework; countertop work station to office	LF	8.5	250.00	2,125
332	Allowance casework not yet identified	SF	8,384.0	0.50	4,192
06 - Wood, Plastics, and Composites				5.43 /SF	45,486
07	Thermal and Moisture Protection				
23	EX1 - 3" insulated metal panels - custom color w/ 3/4" hat channels	SF	4,947.4		Excl.
24	EX2 - 3/4" weather treated wood - custom color w/ 3/4" hat channels	SF	3,154.3		Excl.
562	WD-01, High pressure laminate composite panel	SF	2,463.4	65.00	160,121
563	MTL-01, Prefinished standing seam metal panel	SF	4,429.7	85.00	376,525
567	MTL-02, Prefinished flush seam metal panel @ Apparatus Bay/Dayroom	SF	1,059.6	80.00	84,768
26	Premium; corrosion resistant masonry anchor fasteners	SF	7,130.8	10.00	71,308
30	Air/vapor retarder	SF	3,515.2	6.00	21,091
27	Permeable vapor barrier	SF	4,394.5	8.00	35,156
28	5/8" glass mat sheathing	SF	4,394.5	5.00	21,973
29	6" rock wool insulation	SF	8,101.0		Excl.
643	4" mineral wool insulation	SF	7,908.8	4.20	33,217
44	PVC Roofing membrane, incl.(2 layers) plywood sheathing, 6" rigid insulation, AWB	SF	9,164.0	38.50	352,814
49	Firestopping	SF	8,384.0	1.00	8,384
50	Interior caulking and sealing	SF	8,384.0	1.50	12,576
57	Roof walkway pads - allowance Engine 3	LS	1.0	5,000.00	5,000
58	Roof safety fall-arrest system - allowance Engine 3	LS	1.0	10,000.00	10,000
59	Misc. trims and flashings	SF	9,584.9	2.00	19,170
60	Exterior caulking and sealing	SF	9,584.9	1.50	14,377
566	Metal louver	SF	8.0	125.00	1,000
341	Metal fascia	LF	564.6	50.00	28,230
328	Misc. roof metals & flashings allowance	SF	9,164.1	1.50	13,746
329	Roof wood blocking	SF	9,164.1	0.80	7,331
338	Waterproofing layer to frost wall (assumed)	SF	1,782.9	17.50	31,201

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
576	WD-01, High pressure laminate composite soffit panel	SF	375.0	80.00	30,000
564	MTL-02, Prefinished flush seam metal soffit @ Apparatus Bay/ Dayroom	SF	553.3	90.00	49,797
642	Trellis system	SF	341.0	35.00	11,935
07 - Thermal and Moisture Protection				166.95 /SF	1,399,720
08	Openings				
31	Aluminum fixed window unit	SF	258.7	150.00	38,805
32	Aluminum storefront glazing	SF	596.4	175.00	104,370
538	Single door, 3'-0" x 7'-0" hollow metal door, including frame, finish & hardware	EA	6.0	3,000.00	18,000
34	Double door, 6'-0" x 7'-3/8" fully glazed aluminum door, including frame, finish & hardware	Pair	1.0	10,000.00	10,000
35	Overhead sectional door, 12'-0" x 12'-0" w/ glass panels	EA	1.0		Excl.
36	Overhead sectional door, 14'-0" x 12'-0" w/ glass panels	EA	1.0	25,000.00	25,000
577	3'-0" x 7'-0" Single leaf hollow metal painted flush door, including frame, finish & hardware	EA	10.0	3,000.00	30,000
631	3'-0" x 7'-0" Single leaf hollow metal painted flush door, including frame, finish & hardware (90 mins fire rated)	EA	4.0	3,500.00	14,000
630	3'-0" x 7'-0" Single leaf hollow metal painted flush door, including frame, finish & hardware (45 mins fire rated)	EA	2.0	3,250.00	6,500
581	3'-0" x 7'-0" Single leaf hollow metal clear coated flush door, including frame, finish & hardware	EA	2.0	3,000.00	6,000
579	3'-0" x 7'-0" Single leaf wood clear coated flush door, including frame, finish & hardware (20 min fire rated)	EA	9.0	3,000.00	27,000
585	3'-0" x 7'-0" Single leaf wood flush door, including frame, finish & hardware	EA	1.0	2,750.00	2,750
580	3'-0" x 7'-0" Single leaf hollow metal with full glass painted door, including frame, finish & hardware	EA	1.0	3,500.00	3,500
587	2'-11 1/2" x 7'-0" Single leaf aluminum with full glass door, including frame, finish & hardware	EA	1.0	4,000.00	4,000
584	3'-6" x 7'-0" Hollow metal sliding painted door, including frame, finish & hardware	EA	1.0	3,500.00	3,500
588	Card readers, door contact and request to exit device	EA	7.0		Incl.
47	GL2 - interior store front glazing	SF	268.0	125.00	33,500
194	Overhead sectional door, 14'-0" x 14'-0" w/ glass panels	EA	4.0	35,000.00	140,000
08 - Openings				55.69 /SF	466,925

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
09	Finishings				
45	EB1 partition - 3- 5/8" metal stud, 1-1/2" hat channels w/ 5/8" Type "X" GWB both sides, sound attenuation batt insulation, 1hr fire rated	SF	5,957.7	19.00	113,196
360	EB partition - 3- 5/8" metal stud, 1-1/2" hat channels w/ 5/8" GWB both sides, sound attenuation batt insulation	SF	739.7	17.00	12,575
362	FB1S partition - 6" metal stud, w/ 5/8" GWB both sides, sound attenuation batt insulation, 1hr fire rated	SF	800.0	20.50	16,400
368	EA1 partition - 3- 5/8" metal stud w/ 5/8" GWB on one side, sound attenuation batt insulation, 1-hr fire rated	SF	642.0	16.00	10,272
379	EJ partition - 3-5/8" metal stud w/ 5/8" Cement board (one side)	SF	335.8	15.00	5,037
380	gwbT2 - 2 x 2 wood studs with 5/8 GWB on both sides	SF	227.0	15.00	3,405
25	8" LGMF at exterior walls, batt insulation, interior lining	SF	4,394.5	25.00	109,863
645	5/8" Plywood sheathing, 6" metal stud backing	SF	1,460.0	16.50	24,090
501	LIN-01 - Linoleum flooring	SF	2,123.5	15.00	31,853
82	EPX-01 - Epoxy over concrete floor finish	SF	3,238.8	20.00	64,776
83	TLF-01 - Ceramic floor tile	SF	355.7	30.00	10,671
84	CONC-01 - Sealed concrete	SF	734.0	2.00	1,468
85	CPT-01 - Walk off mat	SF	152.5	55.00	8,387
513	CPT-02 - Carpet Tile	SF	232.5	8.00	1,860
87	RBF-02 - Fitness flooring	SF	604.2	22.00	13,292
88	Resilient wall base	LF	1,676.8	5.00	8,384
89	Tile wall base	LF	227.5	20.00	4,550
90	5/8" Gypsum board ceiling system on 3 5/8" metal stud framing	SF	2,238.6	20.00	44,772
493	5/8" Moisture resistant gypsum board ceiling system on 3 5/8" metal stud framing	SF	345.5	21.00	7,255
91	Paint to GWB	SF	2,583.7	1.80	4,651
92	2' x 2' ACT Ceiling system	SF	1,820.8	9.00	16,387
93	Paint finish to exposed structure	SF	2,993.1	2.00	5,986
94	Misc. soffits and bulkheads	SF	8,384.0	0.50	4,192
549	Paint to CMU	SF	6,496.8	2.50	16,242
550	Paint to GWB	SF	12,143.7	1.80	21,859
551	Paint to cement board	SF	253.0	2.00	506
98	CT1 - ceramic wall tile (showers)	SF	2,222.4	30.00	66,672
330	Gypsum board partitions not yet identified (GFA measured)	SF	8,384.0	0.50	4,192
337	Misc. floor preparation & protection	SF	7,439.7	1.50	11,160

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
86	R1 - Resilient rubber	SF	2,787.2		Excl.
09 - Finishings				76.81 /SF	643,953
10	Specialties				
51	Markerboards / tackboards	SF	8,384.0	0.50	4,192
52	Fire extinguisher and cabinet	EA	4.4	450.00	1,980
53	Corner guards and crash rails	SF	8,384.0	0.30	2,515
54	Interior code and wayfinding signage	SF	8,384.0	1.30	10,899
55	Exterior building signage - Engine 3	LS	1.0	10,000.00	10,000
70	Restroom accessories; toilet grab bar set	EA	3.0	250.00	750
81	Restroom accessories; shower grab bar set	EA	3.0	250.00	750
71	Restroom accessories; toilet roll holder	EA	6.0	150.00	900
72	Restroom accessories; toilet seat cover dispenser	EA	6.0	175.00	1,050
73	Restroom accessories; sanitary napkin disposal	EA	6.0	550.00	3,300
74	Restroom accessories; soap dispenser	EA	6.0	150.00	900
75	Restroom accessories; paper towel dispenser	EA	6.0	150.00	900
78	Restroom accessories; mirror	EA	6.0	600.00	3,600
77	Restroom accessories; glass shower screen	EA	4.0	3,000.00	12,000
76	Restroom accessories; coat/robe hook	EA	6.0	50.00	300
79	Janitor accessories	EA	1.0	1,250.00	1,250
80	Lockers	EA	13.0	550.00	7,150
230	TOG lockers 24" x 24"	EA	16.0	1,500.00	24,000
10 - Specialties				10.31 /SF	86,436
11	Equipment				
222	Gear washer w/ extractor	EA	1.0	16,000.00	16,000
223	Gear dryer	EA	1.0	17,500.00	17,500
224	Washer/dryer	EA	1.0	2,000.00	2,000
305	Lint interceptor 48" x 48" x 12"	EA	1.0	1,000.00	1,000
225	Fridge freezer	EA	1.0	5,000.00	5,000
226	Range cooker + oven	EA	1.0	7,500.00	7,500
227	Dishwasher	EA	1.0	1,500.00	1,500
228	Microwave	EA	1.0	500.00	500
229	Standard fitness equipment set (treadmill, elliptical, bench & dumbbells)	EA	1.0		Excl.
11 - Equipment				6.08 /SF	51,000
12	Furnishings				
156	Exterior window shades, manual (typical) - to windows only	SF	258.7	10.00	2,587

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
157	Loose furniture, fittings, and equipment - FF&E (by Owner)	LS	1.0		Excl.
	12 - Furnishings			0.31 /SF	2,587
21	Fire Suppression				
133	Wet sprinkler system w/- zone control, schedule 40 steel distribution, sprinkler heads, testing, etc	SF	8,384.0	10.00	83,840
134	General Requirements: supervision, shop drawings, as-build drawings, tags, markers, tools, rentals, permits, fees etc.	Item			12,576
303	Fire pump (not required)	LS	1.0		Excl.
	21 - Fire Suppression			11.50 /SF	96,416
22	Plumbing				
113	Kitchen equipment indirect drain and water hook-up connections	LS	1.0	2,000.00	2,000
114	General Requirements: supervision, shop drawings, as-build drawings, tags, markers, tools, rentals, permits, fees etc.	Item			50,181
672	1 1/2" CW, Copper Type L (pipe, fittings, supports)	LF	79.0	32.00	2,528
673	1" CW, Copper Type L (pipe, fittings, supports)	LF	115.0	22.00	2,530
674	1/2" CW, Copper Type L (pipe, fittings, supports)	LF	34.0	14.00	476
675	2" CW, Copper Type L (pipe, fittings, supports)	LF	60.0	42.00	2,520
676	3/4" CW, Copper Type L (pipe, fittings, supports)	LF	25.0	18.00	450
677	1" HW, Copper Type L (pipe, fittings, supports)	LF	97.5	24.00	2,340
678	1/2" HW, Copper Type L (pipe, fittings, supports)	LF	31.5	14.00	441
679	3/4" HW, Copper Type L (pipe, fittings, supports)	LF	97.5	18.00	1,755
680	1/2" HWR, Copper Type L (pipe, fittings, supports)	LF	127.5	14.00	1,785
681	3/4" HWR, Copper Type L (pipe, fittings, supports)	LF	50.0	18.00	900
682	Insulation, 1" Fiberglass on 1" HW Copper	LF	97.5	10.00	975
683	Insulation, 1" Fiberglass on 1/2" HW/R Copper	LF	159.0	7.00	1,113
684	Insulation, 1" Fiberglass on 3/4" HW/R Copper	LF	147.5	8.00	1,180
648	4" Oil Waste, No-Hub Cast Iron (pipe, fittings, couplings, supports)	LF	170.5	90.00	15,345
649	4" Sanitary, No-Hub Cast Iron (pipe, fittings, couplings, supports)	LF	228.0	90.00	20,520
650	6" Sanitary, No-Hub Cast Iron (pipe, fittings, couplings, supports)	LF	98.0	120.00	11,760
651	2" Vent, No-Hub Cast Iron (pipe, fittings, couplings, supports)	LF	124.5	70.00	8,715
652	3" Vent, No-Hub Cast Iron (pipe, fittings, couplings, supports)	LF	86.0	85.00	7,310
653	ET-1, AMTROL ST-30VC-DD EXPANSION TANK, 16.5 GAL, DIAPHRAGM, VERTICAL, MEP ROOM	EA	1.0	4,200.00	4,200
654	HWST-1, LOCHINVAR RJA120 HOT WATER STORAGE TANK, 119 GAL, GLASS-LINED, VERTICAL, MEP ROOM	EA	1.0	9,500.00	9,500

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
655	BFP-1 Backflow Preventer, Watts LF009, 2", RPZ Assembly w/ relief, checks, shutoff valves, strainer, flood sensor	EA	1.0	5,600.00	5,600
656	BFP-2 Backflow Preventer, Watts LF009, 1-1/2", RPZ Assembly w/ relief, checks, shutoff valves, strainer, flood sensor	EA	1.0	4,200.00	4,200
657	AC-1 Air Compressor, Ingersoll Rand 2475N5-200.3-FP, 17.2 CFM @ 90 PSI, 175 PSIG, 80 Gal Vertical, 5HP/208V/3PH	EA	1.0	14,800.00	14,800
658	ACD-1 Air Dryer, Ingersoll Rand D25IN, Refrigerated Non-Cycling, 15 CFM, 203 PSIG	EA	1.0	6,300.00	6,300
659	WH-1, Lochinvar CHPA120PD Electric Water Heater, 120 gal	EA	1.0	14,000.00	14,000
660	HWRP-1, Bell & Gossett Ecocirc XL N 36-45 Recirculation Pump, Domestic HW	EA	1.0	6,000.00	6,000
661	EWC-1: Elkay LZ8WSLK bottle filler + cooler; refrigerated; ADA; includes 3000-gal filter, mounting frames, cane apron	EA	1.0	6,200.00	6,200
662	EWS-1: Bradley S19-314 combo eyewash/shower; 22 GPM; includes TV-2 mixing valve + TP-1 trap primer	EA	1.0	9,800.00	9,800
663	JS-1: FIAT TSB-400 terrazzo mop basin; includes Chicago #897-CCP faucet, vacuum breaker, wall guard, mop hanger, hose & bracket, sill faucet, strainer	EA	2.0	4,900.00	9,800
664	L-1: American Standard 0355.012 ADA lavatory; Sloan EBF-85 sensor faucet; Smith 0700 supports; includes TV-3 mixing valve	EA	1.0	2,150.00	2,150
665	L-2: American Standard 0355.012 ADA lavatory; Symmons 4-208-X faucet; Smith 0700 supports; includes TV-3 mixing valve	EA	5.0	1,950.00	9,750
666	S-1: Elkay ELUHAD211555PD ADA undermount sink; T&S B-0300-VR4 -WS faucet; LKPDAD18B grid drain; includes Symmons 7-225 mixing valve	EA	1.0	2,450.00	2,450
685	S-2: Elkay SS81242 floor-mount sink; Chicago 640-L9E35 faucet; LKAD-35 grid drain; includes Symmons 7-225 mixing valve	EA	1.0	2,850.00	2,850
686	SH-1: Accessible shower compartment (by others) w/ Symmons 9605-PLR-1.5 shower system; includes mixing valve, slide bar, hose & head	EA	1.0	7,200.00	7,200
687	SH-2: Accessible shower compartment (by others) w/ Symmons 9605-PLR-1.5 system; includes mixing valve, slide bar, hose & head	EA	3.0	6,950.00	20,850
688	WC-1: Sloan ST-2459 accessible wall-hung toilet; Royal 111-ESS sensor flush valve; Olsonite 955SS seat; ISCA-101 carrier; includes Sloan EL-154 transformer	EA	3.0	4,850.00	14,550
689	WC-2: Sloan ST-2459 standard wall-hung toilet; Royal 111-ESS sensor flush valve; Olsonite 955SS seat; ISCA-101 carrier; includes Sloan EL-154 transformer	EA	3.0	4,550.00	13,650
692	FCO-1 Floor Cleanout, JR Smith 4020 Series, nickel bronze top	EA	1.0	525.00	525
693	FCO-2 Floor Cleanout, JR Smith 4231 Series, extra heavy duty	EA	1.0	650.00	650
694	GCO-1 Ground Cleanout, JR Smith 40250 Series, heavy duty	EA	4.0	575.00	2,300
696	FD-1 Floor Drain, JR Smith 2010 Series, nickel bronze strainer	EA	8.0	650.00	5,200

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
697	FD-2 Floor Drain, JR Smith 2473 Series, heavy duty	EA	1.0	725.00	725
699	TD-1 Trench Drain, JR Smith 9878, 10" wide, ADA grate	EA	4.0	9,500.00	38,000
701	SOI-1 Oil/Water Separator, Striem OS-350, 350-gallon	EA	1.0	18,000.00	18,000
702	LI-1 Lint Interceptor, Striem TT-3, 19-gallon	EA	1.0	3,200.00	3,200
714	FS-1 Floor Sink, JR Smith 3100C-13, 6" receptor w/ bucket	EA	1.0	1,150.00	1,150
715	WB-1 Washer Shutoff Valve, Watts A2C-WB-M1 Intelli-Flow	EA	2.0	925.00	1,850
716	HR-1 Compressed Air Hose Reel, Coxreels C-L350-5012-A	EA	1.0	1,850.00	1,850
717	HY-1 Truck-Fill Hose Reel, Hannay EPFF28-30-31-10.5	EA	1.0	3,600.00	3,600
718	RD-1/OD-1 Roof/Overflow Drain, JR Smith 1800	EA	6.0	1,500.00	9,000
22 - Plumbing				45.89 /SF	384,724
23	Heating, Ventilating, and Air Conditioning				
121	DOAS-1, AAON RNA-008 (1,500 CFM) with Energy Recovery Wheel, Water Source Heat Pump, Electric Preheat Coil, Exhaust Fan, Direct Drive Motors, Factory Controls Prep	EA	1.0	42,800.00	42,800
128	BAS Controls c/w front end work station, graphics, wiring, devices, testing etc	SF	8,384.0	12.00	100,608
129	Third party commissioning & air balancing c/w- report	SF	8,384.0	1.30	10,899
132	General Requirements: supervision, shop drawings, as-build drawings, tags, markers, tools, rentals, permits, fees etc.	Item			249,000
720	FC-B, Enviro-Tec HPP08, horizontal 4-pipe FCU, 300 CFM, 9.5 MBH total / 7.6 MBH sens, 2-row CHW, HW reheat, EC motor	EA	2.0	6,500.00	13,000
721	FC-C, Enviro-Tec HPP12, horizontal 4-pipe FCU, 400 CFM, 12.3 MBH total / 10.1 MBH sens, EC motor	EA	2.0	7,500.00	15,000
722	FC-D, Enviro-Tec HPP16, horizontal 4-pipe FCU, 600 CFM, 18.0 MBH total / 14.8 MBH sens, EC motor	EA	1.0	9,000.00	9,000
723	FC-E, Enviro-Tec HPP20, horizontal 4-pipe FCU, 800 CFM, 23.0 MBH total / 19.2 MBH sens, EC motor	EA	1.0	10,500.00	10,500
724	FC-F, Enviro-Tec HDD30, horizontal 4-pipe FCU, 1000 CFM, 30.0 MBH total / 24.5 MBH sens, EC motor	EA	1.0	12,000.00	12,000
725	Vehicle exhaust source-capture system (Plymovent-type): includes high-temp hose, magnetic nozzle, sliding track/rail or motorized reel, high-temp inline exhaust fan, flex connectors, auto-start sensor, control panel, mounts & hardware, condensation kit, testing/commissioning	EA	1.0	24,000.00	24,000
726	Greenheck roof exhaust fan: includes fan, curb, backdraft damper, vibration isolators, flex connectors, roof flashing kit, hardware, factory startup	EA	1.0	5,200.00	5,200
727	Greenheck ESD-435 Louver, 30"x30", stationary blade, drainable, insect screen, baked enamel finish, mounting flanges, hardware	EA	2.0	1,050.00	2,100

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
729	Indeeco QUA 2 kW slip-in duct heater, integral disconnect, limit switches, control panel, mounting flange, hardware	EA	3.0	1,650.00	4,950
730	Indeeco QUA 3 kW slip-in duct heater, integral disconnect, limit switches, control panel, mounting flange, hardware	EA	2.0	1,850.00	3,700
731	Indeeco QUA 5 kW slip-in duct heater, integral disconnect, limit switches, control panel, mounting flange, hardware	EA	2.0	2,050.00	4,100
733	Water-to-Water Heat Pump, 5-Ton, ClimateMaster SW060	EA	7.0	9,000.00	63,000
734	3 HP Taco KV pump, 60 GPM, 75' TDH, glycol-rated, includes isolation valves, check, flex connectors, supports, controls wiring allowance	EA	2.0	11,500.00	23,000
735	0.6 HP Taco VR circulator, 15 GPM, 20' TDH, inline pump, isolation valves, unions	EA	7.0	3,250.00	22,750
736	0.6 HP Taco VR circulator, 15 GPM, 20' TDH, load pump, same configuration as SP	EA	7.0	3,250.00	22,750
737	1 HP Taco VR pump, 20 GPM, 40' TDH, chilled-water rated, with isolation valves, flexes, supports	EA	2.0	5,900.00	11,800
738	1 HP Taco VR pump, 30 GPM, 40' TDH, hot-water loop, valves, flexes, supports	EA	2.0	6,250.00	12,500
739	0.6 HP Taco VR pump, 15 GPM, 20' TDH, radiant floor loop circulator	EA	1.0	3,400.00	3,400
740	1 HP Taco VR pump, 26 GPM, 30' TDH, snow-melt source loop	EA	1.0	6,600.00	6,600
741	1 HP Taco VR pump, 14 GPM, 30' TDH, snow-melt load loop	EA	1.0	6,300.00	6,300
742	Indoor Fan Coil Unit, LG ZRNU243SKSA, wall-mounted DX fan coil, 2.0 ton, 24.2 MBH cooling, 25.6 MBH heating	EA	1.0	3,000.00	3,000
743	Outdoor Heat Pump Compressor Unit, LG ZRNU024GSS0, 2.0 ton, low-ambient kit to 0°F, 208V/1-phase, MCA 26.4, MOP 30	EA	1.0	5,500.00	5,500
744	UH-A, Rittling RH-33 Hydronic Unit Heater, 7.2 MBH, 630 CFM, 30% PG, suspended horizontal mount, includes factory disconnect, 1 filter, mounting kit	EA	1.0	2,330.00	2,330
745	CUH-A, Rittling RFRC-420-06 Ceiling-Recessed Hydronic Unit Heater, 12.1 MBH, 450 CFM, vestibule installation, includes disconnect, filter, mounting hardware	EA	1.0	3,260.00	3,260
746	CUH-B, Beacon/Morris TwinFlo W120 Wall-Mounted Hydronic Unit Heater, 8.0 MBH, 127 CFM, includes mounting brackets, trim kit, valves, unions	EA	2.0	2,310.00	4,620
747	EUH-1 THRU 4, Modine VE, 5 kW Electric Unit Heater, Industrial-Grade Vertical Mount, Integral Single-Stage Thermostat, 208V/3Ph	EA	4.0	1,550.00	6,200
748	HX-1, Plate Heat Exchanger (Taco). Hot side: water 30% PG; Cold side: water 40% PG.	EA	1.0	18,000.00	18,000
749	R-1, Hydronic Fin Tube Radiation	LF	42.0	145.00	6,090

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
750	Provide 7,000 LF of 500-ft vertical geothermal boreholes with 1-1/4" HDPE U-bends, thermally enhanced grout, lateral trenching and header piping, HDPE fusion, pressure testing, and complete closed-loop installation	LF	7,000.0	150.00	1,050,000
751	2" CHW, Copper Type L (pipe, fittings, supports)	LF	1,000.0	42.00	42,000
752	Ductwork with insulation	Lb	3,250.0	22.00	71,500
753	DIFFUSERS / REGISTERS / GRILLES	EA	40.0	305.00	12,200
754	Fire/Smoke Damper	EA	5.0	1,050.00	5,250
23 - Heating, Ventilating, and Air Conditioning				227.68 /SF	1,908,907
26	Electrical				
136	Emergency generator, 3-phase diesel, 250kW/312.5kVA (including control panels, controls, etc)	EA	1.0	60,525.50	60,901
137	800A Manual transfer switch N3R w/camlocks for temp. generator connection -MTS-1	EA	1.0	13,036.00	13,117
140	Interior lighting material and controls only Engine 3- fixtures and lighting control devices install NIC	SF	8,384.0	10.30	86,408
150	Grounding and bonding	SF	8,384.0	0.90	7,855
151	Lightning protection	SF	8,384.0		Excl.
527	Photovoltaic (PV) solar panel system	SF	5,252.0	56.00	295,245
154	Photovoltaic (PV) solar system infrastructure, raceways, conduit, etc	SF	8,384.0	1.90	15,710
155	General Requirements: supervision, shop drawings, as-build drawings, tags, markers, tools, rentals, permits, fees etc.	Item			112,831
372	Utility transformer-by utility company	EA	1.0		Excl.
167	Primary service - (2) 4" C PVC empty concrete encased ductback site electrical distribution inc. trenching	LF	134.2	137.40	18,609
169	Fixture type P1	EA	6.0	2,054.90	12,367
172	Fixture type P2	EA	3.0	2,764.00	8,292
235	Remove & dispose of existing service pole (see Site electrical)	EA	1.0		Incl.
265	800A Secondary Emergency service - (3) 4" C PVC w/4#500 & 1#2/0 gnd concrete encased ductback site electrical distribution inc. trenching	LF	46.2	376.40	17,488
266	800A Secondary service #1-(3) 4"PVC (3) 4#600 kCMIL copper wire and (1) empty 4" concrete encased	LF	29.5	392.00	11,664
267	Empty (2) 3" underground concrete encased building to garage allowance-location TBD	LF	405.0	117.10	47,432
262	Connection to secondary side of utility transformer	EA	1.0	931.00	937
297	(3) 1.25 PVC and wiring ductback/cable to emergency generator	LF	41.7	92.80	3,907
315	Automatic transfer switch N3R service rated- 800A, 208Y/120V	EA	1.0	18,437.00	18,551

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
316	MDP - 800A 208Y/120V, 3 phase, 4-wire w/ SPD-1 (1200A copper bus oversized to incorporate PV system)	EA	1.0	19,675.00	19,675
318	PP1A/PP1B - 225A-MCB, 208Y/120V, 3 phase, 4-wire	EA	2.0	3,817.80	7,683
319	PPIT - 150A-MCB, 208Y/120V, 3 phase, 4-wire w/SPD-3	EA	1.0	2,514.50	2,530
370	PP1C - 225A-MCB, 208Y/120V, 3 phase, 4-wire	EA	1.0	3,841.00	3,841
320	MP1 - 400A-MCB, 208Y/120V, 3 phase, 4-wire w/SPD-2	EA	1.0	6,324.00	6,324
321	LP1 - 125A-MCB, 208Y/120V, 3 phase, 4-wire w/SPD-3	EA	1.0	2,253.00	2,267
346	MMU-Multi-meter monitoring system (connected to each feeder)	EA	1.0	1,396.50	1,405
347	800A Utility current transformer/meter cabinet N3R mounted on Utility transformer	EA	1.0	6,751.00	6,793
348	800A N3R Service disconnect switch	EA	1.0	12,850.00	12,930
355	Primary manhole per code-allowance	EA	2.0	11,625.00	23,423
357	1.25" PVC and circuitry underground from ATS to generator	LF	22.0	54.40	1,196
358	EV ready base detail (assume including 2nd receptacle being shown next to each other) also includes concrete base	EA	1.0	9,772.50	9,833
363	800A (2) 4"PVC (4)600 kCMIL	LF	54.2	410.10	22,344
366	Central inverter-5kW	EA	1.0	2,327.50	2,342
381	Underground branch lighting circuitry & lighting control	LF	437.2	29.90	13,108
382	Type G1 fixture-allowance not found on fixture schedule	EA	1.0	796.00	796
383	Remove existing secondary overhead service	EA	1.0	2,061.00	2,061
387	Light fixture L1 - 8' long direct only pendant LED-install only	EA	5.0	349.40	1,757
413	Light fixture L1 - 8' long direct only pendant LED, emergency-install only	EA	2.0	389.30	785
388	Light fixture LED1 - 2x2 recessed light fixture-install only	EA	13.0	116.40	1,522
407	Light fixture LED1 - 2x2 recessed light fixture, emergency-install only	EA	9.0	157.50	1,425
389	Light fixture LED2 - 2x2 recessed light fixture-install only	EA	13.0	116.50	1,522
428	Light fixture LED2 - 2x2 recessed light fixture, emergency-install only	EA	1.0	158.00	158
390	Light fixture P1.A - 14" dia. round pendant high bay light fixture-install only	EA	11.0	465.60	5,153
406	Light fixture P1.A - 14" dia. round pendant high bay light fixture, emergency-install only	EA	4.0	523.90	2,110
391	Light fixture R1 - 4" round LED downlight-install only	EA	49.0	146.00	7,208
408	Light fixture R1 - 4" round LED downlight, emergency-install only	EA	18.0	187.40	3,390
409	Light fixture R2 - 4" round LED downlight, emergency-install only	EA	6.0	187.60	1,130
395	Light fixture C1 - 1" downspot light-install only	EA	4.0	117.00	468
418	Light fixture R3 - 2" round LED downlight, emergency-install only	EA	4.0	157.40	633

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
394	Light fixture X1 - thermoplastic exit sign-install only	EA	13.0	116.30	1,522
422	Light track for fixture C1 - Exterior cantenary skyline cable	LF	24.0	30.00	720
396	Light fixture C2 - 32' long linear recessed light-install only	EA	1.0	937.00	937
410	Light fixture W1 - special linear side throw light, emergency-install only	EA	5.0	233.10	1,171
401	Light fixture W2 - special linear side throw light-install only	EA	2.0	175.30	352
402	Light fixture W3 - special linear side throw light-install only	EA	1.0	176.00	176
411	Light fixture W3 - special linear side throw light, emergency-install only	EA	1.0	275.00	275
403	Light fixture W4 - 6' long linear light-install only	EA	1.0	205.00	205
404	Light fixture YR1 - 4" round wall wash downlight-install only	EA	3.0	147.00	441
405	Light fixture YR2 - 4" round downlight, emergency-install only	EA	1.0	147.00	147
412	Occupancy sensor-install only	EA	17.0	88.40	1,513
414	Occupancy sensor, high bay sensor-install only	EA	2.0	111.50	223
415	Normal lighting controller-install only	EA	8.0	116.40	937
416	Emergency lighting controller-install only	EA	6.0	116.30	703
417	Single pole toggle switch-install only	EA	4.0	87.40	352
392	Vacancy sensor switch-install only	EA	3.0	88.40	267
393	Dimmer switch w/ ceiling sensor-install only	EA	9.0	116.30	1,054
399	Occupancy sensor switch-install only	EA	6.0	88.40	534
400	Vacancy dimmer switch-install only	EA	6.0	88.40	534
419	Momentary pushbutton w/ceiling sensors-install only	EA	4.0	117.00	468
421	Light control relay panel "LCP" -install only	EA	1.0	815.00	820
476	Conduit and wiring for light fixtures & lighting control	EA	233.0	242.00	56,759
423	Duplex receptacle	EA	40.0	97.80	3,935
424	Duplex receptacle, GFCI	EA	32.0	135.00	4,347
425	Duplex receptacle, GFCI, WP	EA	11.0	172.50	1,907
426	Duplex receptacle, USB	EA	6.0	153.70	928
427	Duplex receptacle, TV	EA	12.0	97.70	1,181
429	Duplex receptacle, DW	EA	1.0	97.50	98
430	Duplex receptacle, REF	EA	2.0	97.80	197
431	Duplex receptacle, W	EA	2.0	97.80	197
432	Duplex receptacle, WB	EA	2.0	97.80	197
433	Duplex receptacle, DSK	EA	4.0	97.90	394
439	Double duplex receptacle	EA	28.0	144.40	4,066
440	Specialty receptacle	EA	6.0	125.90	759
434	Specialty receptacle, CR	EA	4.0	125.90	506

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
435	Specialty receptacle, D	EA	2.0	125.80	253
437	Specialty receptacle, R	EA	1.0	125.50	126
438	Specialty receptacle, TP	EA	5.0	125.60	632
436	Overhead door opener & 3-button operation station	EA	5.0	181.80	913
441	Junction box	EA	2.0	51.20	103
442	Floor box type A, power (includes trenching in floor)	EA	2.0	3,836.30	7,720
478	Conduit and wiring for branch power	EA	165.0	209.60	34,783
482	Mechanical connection, 15A-1P (including feeder)	EA	6.0	852.10	5,138
483	Mechanical connection, 20A-1P (including feeder)	EA	11.0	885.80	9,801
484	Mechanical connection, 20A-2P (including feeder and 30A disc sw)	EA	10.0	1,061.80	10,690
485	Mechanical connection, 20A-3P (including feeder and 30A disc sw))	EA	2.0	1,154.40	2,326
486	Mechanical connection, 25A-2P (including feeder)	EA	1.0	1,008.50	1,015
487	Mechanical connection, 30A-2P (including feeder and 30A disc sw)	EA	2.0	1,139.80	2,296
488	Mechanical connection, 30A-3P (including feeder and 30A disc sw)	EA	3.0	1,340.70	4,022
489	Mechanical connection, 40A-3P (including feeder and 60A disc sw)	EA	3.0	1,591.30	4,804
481	Mechanical connection, 100A-3P (including feeder and 100A disc sw)	EA	2.0	3,010.00	6,057
480	Mechanical connection, 110A (including feeder and 200A disc sw)	EA	1.0	3,848.50	3,872
541	Feeder allowance(EMT)-Feeder schedule on drawing E-300 indicates "Copper Conductors"	SF	8,384.0	6.30	53,415
26 - Electrical				135.25 /SF	1,133,914
27	Communications				
143	Telecommunications system, incl. raceways, conduit, wiring, and head-end equipment etc	SF	8,384.0	2.10	18,067
322	Emergency responder radio coverage system/BDA, inc. devices, wiring, head-end equipment etc.	SF	8,384.0	2.80	23,565
148	Audio-visual, incl. raceways, wiring, and head-end equipment etc.	SF	8,384.0	3.70	31,421
149	Public-address system, incl. devices, wiring, head-end equipment, etc	SF	8,384.0	1.40	11,783
170	Site telecoms distribution-(4) 4" empty inc. trenching (allowance to telecom provider-100')	LF	162.6	187.20	30,621
171	Connection and cabling to existing telecom service-by utility company	EA	1.0		Excl.
509	A/V; ceiling speaker-rough in only	EA	23.0	98.70	2,284
510	A/V; ceiling speaker w/ light-rough in only	EA	6.0	107.10	646
511	A/V; ceiling speaker, high intensity-rough in only	EA	2.0	107.00	215
519	A/V; horn speaker-rough in only	EA	1.0	111.00	111
512	A/V; fire alerting monitor-rough in only	EA	4.0	116.20	468
516	A/V; security monitor-rough in only	EA	2.0	116.30	234

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
517	A/V; TV monitor-rough in only	EA	8.0	232.80	1,874
518	Wifi access point-rough in only	EA	8.0	87.50	705
520	Bluetooth speakers-rough in only	EA	3.0	76.10	230
521	2-port data outlet-rough in only	EA	26.0	99.70	2,607
590	Site telecom underground concrete encased under drivable surface	LF	30.4	116.20	3,560
27 - Communications				15.31 /SF	128,391
28	Electronic Safety and Security				
145	Security system-infrastructure, cabling, devices and head end equipment	SF	8,384.0	4.70	39,276
459	Fire alarm; fire alarm control panel	EA	1.0	9,777.50	9,838
457	Fire alarm; bi-directional amplifier annunciator	EA	1.0	3,259.00	3,279
458	Fire alarm; cellular communicator	EA	1.0	465.50	468
444	Fire alarm; manual pull station	EA	6.0	214.30	1,293
445	Fire alarm; fire department key box	EA	1.0	526.00	529
446	Fire alarm; strobe-only unit	EA	6.0	251.30	1,518
447	Fire alarm; combination horn / strobe light	EA	22.0	335.40	7,420
452	Fire alarm; combination horn / strobe light, weatherproof	EA	1.0	368.00	370
448	Fire alarm; ceiling mounted smoke detector	EA	4.0	368.10	1,480
455	Fire alarm; ceiling mounted smoke detector with low frequency	EA	6.0	372.50	2,249
454	Fire alarm; ceiling mounted smoke detector with multi-criteria	EA	3.0	418.40	1,265
451	Fire alarm; ceiling mounted smoke detector with carbon monoxide sounder base	EA	2.0	418.40	843
449	Fire alarm; ceiling mounted heat detector with temperature rating	EA	1.0	232.00	234
450	Fire alarm; ceiling mounted carbon monoxide detector	EA	3.0	307.10	928
453	Fire alarm; monitor module	EA	6.0	195.60	1,181
456	Fire alarm; exterior beacon	EA	1.0	470.00	473
475	Fire alarm; conduit and wiring for fire alarm fixtures	EA	65.0	237.30	15,529
491	Fire alarm; device verification, testing, programming & commissioning	EA	65.0	65.10	4,263
492	CCTV, 360 degree outdoor multi-sensor camera-rough in only	EA	4.0	326.70	1,312
514	CCTV, fix dome camera-rough in only	EA	2.0	181.50	365
502	Access control, video intercom-rough in only	EA	4.0	116.40	468
503	Access control, door contact-rough in only	EA	14.0	60.60	853
504	Access control, card reader-rough in only	EA	15.0	349.40	5,270
505	Access control, request-to-exit device-rough in only	EA	13.0	116.50	1,522
506	Access control, electronic hardware-rough in only	EA	13.0	60.60	792

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
508	Access control, overhead door control-rough in only	EA	5.0	232.90	1,171
602	Site security allowance (drawings SEC 100 & SEC200	LS	1.0		Excl.
28 - Electronic Safety and Security				12.43 /SF	104,189
31	Earthwork				
173	Site clearing and grubbing	Acre	0.95	5,000.00	4,750
174	Temporary construction fence	LF	899.6	25.00	22,490
344	Construction entrance	SF	1,135.8	7.00	7,951
345	Washdown area	EA	1.0	5,000.00	5,000
349	Silt fence	LF	1,154.0	11.00	12,694
350	Filter sock, 12"Ø	LF	122.6	3.50	430
351	Erosion blanket	SF	330.0	1.30	429
352	Inlet protection	EA	2.0	250.00	500
353	Temporary stockpile area	SF	1,203.1		Nil
359	Erosion control maintenance and removal	Item			4,500
361	Snow removal (season)	EA	1.0	10,000.00	10,000
364	Dust control	Item			20,000
176	Mobilization, layouts, survey, etc - Engine 3	LS	1.0	12,000.00	12,000
530	Remove unsuitable materials (fill)	CY	986.0	20.00	19,720
533	Cut site to proposed level	CY	99.0	20.00	1,980
534	Generator pad excavation	CY	20.0	18.00	360
535	Pavement excavation	CY	694.0	18.00	12,492
531	Subsurface detention system excavation	CY	185.0	20.00	3,700
532	Bioretention basin excavation	CY	210.0	20.00	4,200
536	Fill to proposed level using imported materials	CY	278.8	45.00	12,546
537	Remove excavated materials from site	CY	2,194.0	30.00	65,820
181	Rough and fine grading	SF	41,369.1	0.80	33,095
182	Excavation in rock - allowance	LS	1.0	25,000.00	25,000
183	Excavation in contaminated soils	LS	1.0		Excl.
298	Excavation for concrete foundations	CY	401.7	25.00	10,042
299	Remove and dispose of excavated spoils	CY	401.7	35.00	14,059
300	Imported backfill to foundation excavation	CY	282.9	60.00	16,974
301	Sub-soil perimeter drain	LF	462.9	25.00	11,572
302	Imported subbase to SOG	CY	192.4	65.00	12,506
340	Allowance for de-watering	LS	1.0	25,000.00	25,000
31 - Earthwork				44.11 /SF	369,810

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
32	Exterior Improvements				
236	Heavy duty concrete pavement/apron	SF	3,177.9	20.00	63,558
543	Heavy duty bituminous concrete	SY	914.0	50.00	45,700
544	Standard bituminous concrete	SY	218.0	35.00	7,630
250	Granite curb	LF	609.9	80.00	48,792
545	Prepare and compact sub-base	SF	13,357.2	1.30	17,365
546	Granular base	CY	553.8	75.00	41,535
238	Concrete sidewalk/patio, 4" deep	SF	2,489.7	12.00	29,876
239	Concrete transformer/generator pad inc. subbase (no details provided)	SF	230.7	20.00	4,614
240	Concrete trash enclosure pad inc. subbase (no details provided) - none indicated	SF	323.0		Excl.
552	Install salvaged curb	LF	21.0	35.00	735
242	Pavement marking - directional arrow	EA	2.0	500.00	1,000
243	Pavement marking - 12" stop bar	LF	12.0	6.00	72
244	Pavement marking - hatched markings	SF	152.0	2.50	380
245	Pavement marking - disabled symbol	EA	1.0	500.00	500
246	Pavement marking - 4" line marking	LF	95.2	2.50	238
247	30" x 30" stop sign post	EA	1.0	750.00	750
248	12" x 18" disabled parking sign post	EA	1.0	500.00	500
557	6" x 12" van accessible sign post	EA	1.0	500.00	500
253	Flag pole	EA	1.0	12,000.00	12,000
254	Bollard	EA	12.0	1,500.00	18,000
258	Trash enclosure fence - (assumed 6'-0" high)	LF	35.0		Excl.
259	Trash enclosure double gate - (assumed 6'-0" high)	EA	1.0		Excl.
378	Move existing boulder to new location per Owner's direction	EA	23.0	500.00	11,500
542	Make good road way following utility connections	SY	65.7	120.00	7,884
548	Pavement marking - 15" crosswalk	LF	166.0	6.50	1,079
555	Bituminous sidewalk, 3" overall depth	SY	11.0	35.00	385
553	Prepare and compact sub-base	SF	2,580.7	1.30	3,355
554	Granular base	CY	94.2	75.00	7,065
620	Trees	EA	25.0	1,000.00	25,000
621	Shrubs	EA	319.0	300.00	95,700
623	Imported backfill	CY	87.5	80.00	7,000
625	Bioretention grasses	EA	335.0	25.00	8,375
626	Mulch for planting areas, 3" thick	SF	8,316.5	1.80	14,970

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
627	4" loam seeded w/ fescue turf	SF	12,084.0	1.50	18,126
628	Allowance; topsoil 6" thick	CY	377.8	80.00	30,224
32 - Exterior Improvements				62.55 /SF	524,408
33	Utilities				
260	Connection to existing water service line along existing roadway	EA	1.0	12,000.00	12,000
161	6" CLDI water service inc. trenching	LF	93.8	185.00	17,353
264	2" type K domestic water service inc. trenching	LF	22.5	165.00	3,712
575	6" PVC sewer service line inc. trenching	LF	460.3	80.00	36,824
574	Connection to existing sewer service line along existing roadway	EA	1.0	12,000.00	12,000
573	Manholes	EA	3.0	8,000.00	24,000
257	Clean out	EA	3.0	750.00	2,250
572	1" domestic water service inc. trenching	LF	61.0	125.00	7,625
586	Sewer pipe concrete encasement	LF	20.5	75.00	1,537
568	Fire hydrant	EA	1.0	9,000.00	9,000
569	Water valve	EA	3.0		Incl.
589	Underground detention system with 24"Ø N-12 solid piping including backfill, geotextile, etc.	SF	706.0	65.00	45,890
605	Connect to existing catch basin	EA	1.0	5,000.00	5,000
592	Storm drain manhole	EA	6.0	8,500.00	51,000
593	Catch basin	EA	2.0	6,500.00	13,000
594	OCS	EA	2.0	7,000.00	14,000
601	Yard drain	EA	1.0	5,800.00	5,800
595	HDPE Pipe, 6" Ø including trenching and backfill	LF	46.0	70.00	3,220
596	HDPE Pipe, 8" Ø including trenching and backfill	LF	6.1	85.00	518
597	HDPE Pipe, 12" Ø including trenching and backfill	LF	182.1	100.00	18,210
598	HDPE Pipe, 24" Ø including trenching and backfill	LF	2.0	200.00	400
599	Rain guardian turret inlet structure	EA	2.0	8,000.00	16,000
600	Bioretention perforated 6" Ø PVC pipe	LF	107.0	90.00	9,630
603	Trench drain	LF	24.2	100.00	2,420
606	Flared end	EA	1.0	1,500.00	1,500
607	Headwall	EA	1.0	9,500.00	9,500
610	Clean out	EA	1.0	750.00	750
608	Riprap, stone outlet, etc.	SF	154.0	6.00	924

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

A Fire Station - Engine 3 (continued)

GFA: 8,384 SF Cost/SF: 1,068.10
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
609	Bioretention basin backfill, etc.,	SF	1,227.0	20.00	24,540
				41.58 /SF	348,603
FIRE STATION - ENGINE 3				1,068.10 /SF	8,954,969

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CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
02	Existing Conditions				
2	Hazardous abatement (Engine 5) - as per Haz Mat Report	LS	1.0	95,000.00	95,000
3	Demolition of existing single story building, including removal of foundations etc.	SF	2,606.2	20.00	52,124
214	Break out & dispose of existing bituminous concrete	SF	7,608.1	1.00	7,608
371	Break-out portion of existing roadway for utility work	SF	818.3	3.00	2,455
215	Break out & dispose of existing concrete pad	SF	147.0	1.50	221
524	Break-out concrete walkway	SF	175.0	1.50	263
216	Break out & dispose of existing granite curb	LF	65.9	10.00	659
217	Saw cut to existing bituminous concrete	LF	195.9	20.00	3,918
522	Remove existing flag pole and store for relocation	EA	1.0	1,000.00	1,000
385	Remove trees	EA	4.0	500.00	2,000
523	Remove evergreen trees	EA	5.0	300.00	1,500
525	Remove chainlink fence	LF	308.0	10.00	3,080
528	Remove existing vinyl fence and store for re-installation	LF	28.0	10.00	280
494	Remove water services piping	LF	120.4	40.00	4,816
495	Remove gas services piping	LF	125.3	40.00	5,012
496	Remove sewer services piping	LF	69.3	40.00	2,772
499	Remove septic tank	EA	1.0	8,000.00	8,000
507	Remove gas meter	EA	1.0	250.00	250
526	Remove leaching field	SF	779.0	60.00	46,740
	02 - Existing Conditions			26.45 /SF	237,698
03	Concrete				
5	Cast-in-place concrete, slab-on-grade; 5" thick inc. WWF	SF	2,713.4	16.00	43,414
4	Cast-in-place concrete, slab-on-grade; 8" thick	SF	2,357.1	15.00	35,357
7	Form; edge of slab	LF	349.1	20.00	6,982
6	Reinforcement - WWF 6 x 6 - W2.9 x W2.9	SF	2,713.4		Incl.
8	Reinforcement to slab-on-grade	Lb	1,861.2	2.00	3,722
219	Misc. control joints, expansion joints, thickening etc.	SF	5,070.4	1.80	9,127
9	Vapor barrier	SF	5,070.4	0.80	4,056
10	Rigid insulation (thickness undefined)	SF	5,070.4	5.00	25,352
11	Cast-in-place concrete, strip footings	CY	44.7	400.00	17,880
13	Form; strip footings	SF	958.8	20.00	19,176
14	Reinforcement to strip footings	Lb	2,112.8	2.00	4,226
558	Cast-in-place concrete, footings	CY	1.0	400.00	400

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
559	Form; footings	SF	22.0	20.00	440
560	Reinforcement to footings	Lb	42.0	5.00	210
15	Cast-in-place concrete, frost walls, 8" thick	CY	31.8	400.00	12,720
16	Form; frost walls	SF	2,556.1	20.00	51,122
197	Form; 8" brick shelf	LF	924.4		Excl.
17	Reinforcement to frost walls	Lb	3,414.9	2.00	6,830
646	Concrete base panel	SF	492.6	40.00	19,704
187	2'-6" concrete topping slab	SF	2,888.0	14.00	40,432
188	Reinforcement - WWF 6 x 6 - W2.9 x W2.9	SF	2,888.0		Incl.
189	Pour stop	LF	458.0	20.00	9,160
565	Allowance; concrete pier - assumed 1'-0" high (no details)	LS	1.0	750.00	750
200	Allowance - elevator pit inc. pad, walls, waterproofing etc.	LS	1.0	20,000.00	20,000
03 - Concrete				36.84 /SF	331,060
04	Masonry				
12	P-1 partition - 8" CMU block, ground face both sides	SF	2,175.1	50.00	108,755
354	N - partition - 6" CMU on both sides	SF	2,686.2	40.00	107,448
18	Reinforcement to CMU bearing walls	Lb	4,861.4	1.00	4,861
326	8" CMU at exterior walls, 1 ground face	SF	2,874.1	48.00	137,957
04 - Masonry				39.95 /SF	359,021
05	Metals				
616	Roof construction; apparatus bay roof - 20K joists	T	3.520	7,000.00	24,640
583	Roof construction; 14" LGMF joists	T	5.343	6,500.00	34,730
191	Roof construction; structural steel	T	3.347	7,000.00	23,429
21	1 1/2" 18GA roof deck	SF	5,769.5	6.50	37,502
618	1/2" 20GA roof deck	SF	47.0	5.50	259
22	Misc. steel/plates/connections/base plates/anchor bolts etc.	T	1.834	7,000.00	12,838
40	Rooftop mechanical equipment platform	SF	122.9	150.00	18,435
56	Miscellaneous metals (MEP supports, casework supports, etc)	SF	8,986.0	9.50	85,367
255	Trench drain	LF	32.5		Excl.
604	Floor construction; K joists	T	4.400	7,000.00	30,800
190	Misc. steel/plates/connections/base plates/anchor bolts etc.	T	0.880	7,000.00	6,160
186	1/2" 20GA floor deck	SF	2,888.0	5.50	15,884
325	Shear studs	EA	482.0	7.00	3,374
201	Elevator hoist beam	EA	1.0	7,500.00	7,500
202	Elevator pit ladder	EA	1.0	1,200.00	1,200

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
203	Elevator sump pit grate and frame	EA	1.0	2,000.00	2,000
205	4'-10" Wide metal pan egress stair w/- concrete-fill	FT/R	28.0	3,000.00	84,000
231	Metal stair handrail	LF	106.0	175.00	18,550
232	Metal stair guardrail	LF	42.0	225.00	9,450
327	Structural framing for storefront system (2 lbs/sf)	T	0.611	8,000.00	4,888
343	Roof access ladder	LF	12.3	135.00	1,660
05 - Metals				47.04 /SF	422,666
06	Wood, Plastics, and Composites				
48	Wood blocking / rough carpentry	SF	8,986.0	1.50	13,479
274	Casework; architectural wood base cabinet (maple veneer) inc. quartz surfacing countertop (2' deep)	LF	22.4	600.00	13,440
275	Casework; architectural wood overhead cabinets (maple veneer) (3'-9" high)	LF	6.7	450.00	3,015
640	Casework; architectural wood overhead cabinets (maple veneer) (3'-0" high)	LF	9.1	425.00	3,867
639	Casework; architectural wood overhead cabinets (maple veneer) (2'-6" high)	LF	3.0	400.00	1,200
638	Casework; architectural wood overhead cabinets (maple veneer) (1'-0" high)	LF	7.4	350.00	2,590
276	Casework; architectural wood base cabinet (maple veneer) below monitor (2' deep)	LF	19.4	500.00	9,700
641	Casework; vanity with undermount sink	LF	9.7	350.00	3,395
277	Casework; countertop work station to office	LF	6.5	250.00	1,625
332	Allowance casework not yet identified	SF	8,986.0	0.50	4,493
06 - Wood, Plastics, and Composites				6.32 /SF	56,804
07	Thermal and Moisture Protection				
23	EX1 - 3" insulated metal panels - custom color w/ 3/4" hat channels	SF	5,453.6		Excl.
24	EX2 - 3/4" weather treated wood - custom color w/ 3/4" hat channels	SF	1,277.7		Excl.
562	WD-01, High pressure laminate composite panel	SF	2,201.6	65.00	143,104
563	MTL-01, Prefinished standing seam metal panel	SF	4,622.3	85.00	392,895
567	MTL-02, Prefinished flush seam metal panel @ Apparatus Bay/Dayroom	SF	811.4	80.00	64,912
398	Metal panel @ Elevator penthouse	SF	138.0	75.00	10,350
26	Premium; corrosion resistant masonry anchor fasteners	SF	7,486.2	10.00	74,862
30	Air/vapor retarder	SF	3,366.8	6.00	20,201
27	Permeable vapor barrier	SF	4,612.5	8.00	36,900
28	5/8" glass mat sheathing	SF	4,612.5	5.00	23,062

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
29	6" rock wool insulation	SF	6,731.0		Excl.
643	4" mineral wool insulation	SF	7,520.2	4.20	31,585
43	Roof hatch - 3'-8" x 6'-8"	EA	1.0	2,000.00	2,000
49	Firestopping	SF	8,986.0	1.00	8,986
50	Interior caulking and sealing	SF	8,986.0	1.50	13,479
732	TPO Roofing membrane, incl.(2 layers) plywood sheathing, 6" rigid insulation, AWB	SF	6,090.0	33.50	204,015
59	Misc. trims and flashings	SF	9,153.1	2.00	18,306
60	Exterior caulking and sealing	SF	9,153.1	1.50	13,730
566	Metal louver	SF	8.0	125.00	1,000
61	Roof walkway pads - allowance Engine 5	LS	1.0	5,000.00	5,000
62	Roof safety fall-arrest system - allowance Engine 5	LS	1.0	10,000.00	10,000
341	Metal fascia	LF	449.4	50.00	22,470
328	Misc. roof metals & flashings allowance	SF	6,089.9	1.50	9,135
329	Roof wood blocking	SF	6,089.9	0.80	4,872
338	Waterproofing layer to frost wall (assumed)	SF	1,278.1	17.50	22,367
564	MTL-02, Prefinished flush seam metal soffit @ Apparatus Bay/Dayroom	SF	313.7	90.00	28,233
397	Misc. metal soffit	SF	205.0	90.00	18,450
07 - Thermal and Moisture Protection				131.31 /SF	1,179,914
08	Openings				
31	Aluminum fixed window unit	SF	280.3	150.00	42,045
32	Aluminum storefront glazing	SF	608.6	175.00	106,505
33	Single door, 3'-4" x 7'-0" hollow metal door, including frame, finish & hardware	EA	2.0		Excl.
538	Single door, 3'-0" x 7'-0" hollow metal door, including frame, finish & hardware	EA	1.0	3,000.00	3,000
192	Single door, 3'-0" x 7'-0" fully glazed aluminum door, including frame, finish & hardware	EA	1.0	5,000.00	5,000
539	Single door, 3'-7 13/32" x 7'-1/4" fully glazed aluminum door, including frame, finish & hardware	EA	1.0	5,500.00	5,500
632	2'-6" x 7'-0" Single leaf hollow metal painted flush door, including frame, finish & hardware (90 mins fire rated)	EA	1.0	3,500.00	3,500
577	3'-0" x 7'-0" Single leaf hollow metal painted flush door, including frame, finish & hardware	EA	6.0	3,000.00	18,000

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
631	3'-0" x 7'-0" Single leaf hollow metal painted flush door, including frame, finish & hardware (90 mins fire rated)	EA	11.0	3,500.00	38,500
630	3'-0" x 7'-0" Single leaf hollow metal painted flush door, including frame, finish & hardware (45 mins fire rated)	EA	3.0	3,250.00	9,750
635	3'-0" x 7'-0" Single leaf hollow metal painted full glass door, including frame, finish & hardware	EA	1.0	4,000.00	4,000
579	3'-0" x 7'-0" Single leaf wood clear coated flush door, including frame, finish & hardware (20 min fire rated)	EA	6.0	3,000.00	18,000
633	3'-0" x 7'-0" Single leaf wood clear coated flush door, including frame, finish & hardware	EA	4.0	2,750.00	11,000
637	3'-0" x 7'-0" Single leaf wood clear coated flush door, including frame, finish & hardware (90 mins fire rated)	EA	2.0	3,250.00	6,500
585	3'-0" x 7'-0" Single leaf wood flush door, including frame, finish & hardware	EA	2.0	2,750.00	5,500
629	3'-0" x 7'-0" Single leaf aluminum with full glass door, including frame, finish & hardware	EA	1.0	4,500.00	4,500
636	3'-0" x 8'-10" Single leaf aluminum with full glass door, including frame, finish & hardware	EA	1.0	5,000.00	5,000
634	3'-6" x 7'-0" Hollow metal sliding painted door, including frame, finish & hardware (90 mins fire rated)	EA	1.0	3,750.00	3,750
588	Card readers, door contact and request to exit device	EA	5.0		Incl.
619	Mirrored wall (6mm thick tempered glass, Q1 grade)	SF	277.0	45.00	12,465
617	E-interior store front glazing	SF	35.0	125.00	4,375
614	L- interior store front glazing	SF	132.0	125.00	16,500
615	G- interior store front grazing	SF	68.0	125.00	8,500
193	Overhead sectional door, 11'-0" x 10'-0" w/ glass panels	EA	1.0	18,500.00	18,500
194	Overhead sectional door, 14'-0" x 14'-0" w/ glass panels	EA	3.0	35,000.00	105,000
			08 - Openings	50.68 /SF	455,390
09	Finishings				
45	EB1 partition - 3- 5/8" metal stud, 1-1/2" hat channels w/ 5/8" Type "X" GWB both sides, sound attenuation batt insulation, 1hr fire rated	SF	5,029.3	19.00	95,557
360	EB partition - 3- 5/8" metal stud, 1-1/2" hat channels w/ 5/8" GWB both sides, sound attenuation batt insulation	SF	451.3	17.00	7,672
611	F2BS partition - 6"metal stud, w/ 5/8" GWB both sides, sound attenuation batt insulation, 2hr fire rated	SF	1,082.0	23.00	24,886
613	EA partition - 3- 5/8" metal stud w/ 5/8" GWB on one side, sound attenuation batt insulation	SF	558.0	13.50	7,533

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
379	EJ partition - 3-5/8" metal stud w/ 5/8" Cement board (one side)	SF	694.2	15.00	10,413
25	8" LGMF at exterior walls, batt insulation, interior lining	SF	4,612.5	25.00	115,312
645	5/8" Plywood sheathing, 6" metal stud backing	SF	757.0	16.50	12,491
501	LIN-01 - Linoleum flooring	SF	2,669.5	15.00	40,042
82	EPX-01 - Epoxy over concrete floor finish	SF	3,016.2	20.00	60,324
83	TLF-01 - Ceramic floor tile	SF	354.3	30.00	10,629
84	CONC-01 - Sealed concrete	SF	624.0	2.00	1,248
85	CPT-01 - Walk off mat	SF	97.5	55.00	5,363
513	CPT-02 - Carpet Tile	SF	75.5	8.00	604
87	RBF-02 - Fitness flooring	SF	385.8	22.00	8,488
88	Resilient wall base	LF	1,649.2	5.00	8,246
89	Tile wall base	LF	217.5	20.00	4,350
90	5/8" Gypsum board ceiling system on 3 5/8" metal stud framing	SF	2,387.4	20.00	47,748
493	5/8" Moisture resistant gypsum board ceiling system on 3 5/8" metal stud framing	SF	345.5	21.00	7,256
624	(2) Layers Type "X" GWB on 3 5/8 metal stud framing	SF	472.0	25.00	11,800
91	Paint to GWB	SF	3,204.3	1.80	5,767
92	2' x 2' ACT Ceiling system	SF	1,352.2	9.00	12,170
93	Paint finish to exposed structure	SF	2,791.9	2.00	5,584
94	Misc. soffits and bulkheads	SF	8,986.0	0.50	4,493
549	Paint to CMU	SF	8,076.2	2.50	20,191
550	Paint to GWB	SF	12,842.3	1.80	23,116
98	CT1 - ceramic wall tile (showers)	SF	1,643.6	30.00	49,308
206	Linoleum flooring finish and rubber stair treads - steel pan with concrete tread (treads/risers/landings)	SF	416.0	5.00	2,080
622	Glazing at the kitchen/Dayroom	SF	177.0	125.00	22,125
330	Gypsum board partitions not yet identified (GFA measured)	SF	8,986.0	0.50	4,493
331	Wall base	LF	119.0	5.00	595
337	Misc. floor preparation & protection	SF	7,221.3	1.50	10,832
86	R1 - Resilient rubber	SF	2,989.8		Excl.
	09 - Finishings			71.30 /SF	640,716
10	Specialties				
51	Markerboards / tackboards	SF	8,986.0	0.50	4,493
52	Fire extinguisher and cabinet	EA	4.6	450.00	2,070
53	Corner guards and crash rails	SF	8,986.0	0.30	2,696

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
54	Interior code and wayfinding signage	SF	8,986.0	1.30	11,682
63	Exterior building signage - Engine 5	LS	1.0	10,000.00	10,000
70	Restroom accessories; toilet grab bar set	EA	3.0	250.00	750
81	Restroom accessories; shower grab bar set	EA	2.0	250.00	500
71	Restroom accessories; toilet roll holder	EA	6.0	150.00	900
72	Restroom accessories; toilet seat cover dispenser	EA	6.0	175.00	1,050
73	Restroom accessories; sanitary napkin disposal	EA	6.0	550.00	3,300
74	Restroom accessories; soap dispenser	EA	6.0	150.00	900
75	Restroom accessories; paper towel dispenser	EA	6.0	150.00	900
78	Restroom accessories; mirror	EA	6.0	600.00	3,600
77	Restroom accessories; glass shower screen	EA	4.0	3,000.00	12,000
76	Restroom accessories; coat/robe hook	EA	6.0	50.00	300
79	Janitor accessories	EA	2.0	1,250.00	2,500
80	Lockers	EA	16.0	550.00	8,800
230	TOG lockers 24" x 24"	EA	16.0	1,500.00	24,000
10 - Specialties				10.06 /SF	90,441
11	Equipment				
222	Gear washer w/ extractor	EA	1.0	16,000.00	16,000
223	Gear dryer	EA	1.0	17,500.00	17,500
224	Washer/dryer	EA	1.0	2,000.00	2,000
305	Lint interceptor 48" x 48" x 12"	EA	1.0	1,000.00	1,000
225	Fridge freezer	EA	1.0	5,000.00	5,000
226	Range cooker + oven	EA	1.0	7,500.00	7,500
227	Dishwasher	EA	1.0	1,500.00	1,500
228	Microwave	EA	1.0	500.00	500
229	Standard fitness equipment set (treadmill, elliptical, bench & dumbbells)	EA	1.0		Excl.
11 - Equipment				5.68 /SF	51,000
12	Furnishings				
156	Exterior window shades, manual (typical) - to windows only	SF	280.3	10.00	2,803
157	Loose furniture, fittings, and equipment - FF&E (by Owner)	LS	1.0		Excl.
12 - Furnishings				0.31 /SF	2,803
14	Conveying Equipment				
207	(2) Stop passenger elevator	EA	1.0	250,000.00	250,000
208	Elevator cab finishes	EA	1.0		Incl.
14 - Conveying Equipment				27.82 /SF	250,000

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
21	Fire Suppression				
133	Wet sprinkler system w/- zone control, schedule 40 steel distribution, sprinkler heads, testing, etc	SF	8,986.0	10.00	89,860
134	General Requirements: supervision, shop drawings, as-build drawings, tags, markers, tools, rentals, permits, fees etc.	Item			13,479
303	Fire pump (not required)	LS	1.0		Excl.
	21 - Fire Suppression			11.50 /SF	103,339
22	Plumbing				
113	Kitchen equipment indirect drain and water hook-up connections	LS	1.0	2,000.00	2,000
114	General Requirements: supervision, shop drawings, as-build drawings, tags, markers, tools, rentals, permits, fees etc.	Item			53,047
672	1 1/2" CW, Copper Type L (pipe, fittings, supports)	LF	79.0	32.00	2,528
673	1" CW, Copper Type L (pipe, fittings, supports)	LF	115.0	22.00	2,530
674	1/2" CW, Copper Type L (pipe, fittings, supports)	LF	34.0	14.00	476
675	2" CW, Copper Type L (pipe, fittings, supports)	LF	60.0	42.00	2,520
676	3/4" CW, Copper Type L (pipe, fittings, supports)	LF	25.0	18.00	450
677	1" HW, Copper Type L (pipe, fittings, supports)	LF	97.5	24.00	2,340
678	1/2" HW, Copper Type L (pipe, fittings, supports)	LF	31.5	14.00	441
679	3/4" HW, Copper Type L (pipe, fittings, supports)	LF	97.5	18.00	1,755
680	1/2" HWR, Copper Type L (pipe, fittings, supports)	LF	127.5	14.00	1,785
681	3/4" HWR, Copper Type L (pipe, fittings, supports)	LF	50.0	18.00	900
682	Insulation, 1" Fiberglass on 1" HW Copper	LF	97.5	10.00	975
683	Insulation, 1" Fiberglass on 1/2" HW/R Copper	LF	159.0	7.00	1,113
684	Insulation, 1" Fiberglass on 3/4" HW/R Copper	LF	147.5	8.00	1,180
648	4" Oil Waste, No-Hub Cast Iron (pipe, fittings, couplings, supports)	LF	170.5	90.00	15,345
649	4" Sanitary, No-Hub Cast Iron (pipe, fittings, couplings, supports)	LF	228.0	90.00	20,520
650	6" Sanitary, No-Hub Cast Iron (pipe, fittings, couplings, supports)	LF	98.0	120.00	11,760
651	2" Vent, No-Hub Cast Iron (pipe, fittings, couplings, supports)	LF	124.5	70.00	8,715
652	3" Vent, No-Hub Cast Iron (pipe, fittings, couplings, supports)	LF	86.0	85.00	7,310
653	ET-1, AMTROL ST-30VC-DD EXPANSION TANK, 16.5 GAL, DIAPHRAGM, VERTICAL, MEP ROOM	EA	1.0	4,200.00	4,200
654	HWST-1, LOCHINVAR RJA120 HOT WATER STORAGE TANK, 119 GAL, GLASS-LINED, VERTICAL, MEP ROOM	EA	1.0	9,500.00	9,500
655	BFP-1 Backflow Preventer, Watts LF009, 2", RPZ Assembly w/ relief, checks, shutoff valves, strainer, flood sensor	EA	2.0	5,600.00	11,200
657	AC-1 Air Compressor, Ingersoll Rand 2475N5-200.3-FP, 17.2 CFM @ 90 PSI, 175 PSIG, 80 Gal Vertical, 5HP/208V/3PH	EA	1.0	14,800.00	14,800

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
658	ACD-1 Air Dryer, Ingersoll Rand D25IN, Refrigerated Non-Cycling, 15 CFM, 203 PSIG	EA	1.0	6,300.00	6,300
659	WH-1, Lochinvar CHPA120PD Electric Water Heater, 120 gal	EA	2.0	14,000.00	28,000
660	HWRP-1, Bell & Gossett Ecocirc XL N 36-45 Recirculation Pump, Domestic HW	EA	1.0	6,000.00	6,000
661	EWC-1: Elkay LZ8WSLK bottle filler + cooler; refrigerated; ADA; includes 3000-gal filter, mounting frames, cane apron	EA	1.0	6,200.00	6,200
662	EWS-1: Bradley S19-314 combo eyewash/shower; 22 GPM; includes TV-2 mixing valve + TP-1 trap primer	EA	1.0	9,800.00	9,800
663	JS-1: FIAT TSB-400 terrazzo mop basin; includes Chicago #897-CCP faucet, vacuum breaker, wall guard, mop hanger, hose & bracket, sill faucet, strainer	EA	2.0	4,900.00	9,800
664	L-1: American Standard 0355.012 ADA lavatory; Sloan EBF-85 sensor faucet; Smith 0700 supports; includes TV-3 mixing valve	EA	2.0	2,150.00	4,300
665	L-2: American Standard 0355.012 ADA lavatory; Symmons 4-208-X faucet; Smith 0700 supports; includes TV-3 mixing valve	EA	4.0	1,950.00	7,800
666	S-1: Elkay ELUHAD211555PD ADA undermount sink; T&S B-0300-VR4 -WS faucet; LKPDAD18B grid drain; includes Symmons 7-225 mixing valve	EA	1.0	2,450.00	2,450
685	S-2: Elkay SS81242 floor-mount sink; Chicago 640-L9E35 faucet; LKAD-35 grid drain; includes Symmons 7-225 mixing valve	EA	1.0	2,850.00	2,850
686	SH-1: Accessible shower compartment (by others) w/ Symmons 9605-PLR-1.5 shower system; includes mixing valve, slide bar, hose & head	EA	1.0	7,200.00	7,200
687	SH-2: Accessible shower compartment (by others) w/ Symmons 9605-PLR-1.5 system; includes mixing valve, slide bar, hose & head	EA	3.0	6,950.00	20,850
688	WC-1: Sloan ST-2459 accessible wall-hung toilet; Royal 111-ESS sensor flush valve; Olsonite 955SS seat; ISCA-101 carrier; includes Sloan EL-154 transformer	EA	3.0	4,850.00	14,550
689	WC-2: Sloan ST-2459 standard wall-hung toilet; Royal 111-ESS sensor flush valve; Olsonite 955SS seat; ISCA-101 carrier; includes Sloan EL-154 transformer	EA	3.0	4,550.00	13,650
692	FCO-1 Floor Cleanout, JR Smith 4020 Series, nickel bronze top	EA	1.0	525.00	525
693	FCO-2 Floor Cleanout, JR Smith 4231 Series, extra heavy duty	EA	1.0	650.00	650
694	GCO-1 Ground Cleanout, JR Smith 40250 Series, heavy duty	EA	4.0	575.00	2,300
696	FD-1 Floor Drain, JR Smith 2010 Series, nickel bronze strainer	EA	8.0	650.00	5,200
697	FD-2 Floor Drain, JR Smith 2473 Series, heavy duty	EA	1.0	725.00	725
699	TD-1 Trench Drain, JR Smith 9878, 10" wide, ADA grate	EA	4.0	9,500.00	38,000
701	SOI-1 Oil/Water Separator, Striem OS-350, 350-gallon	EA	1.0	18,000.00	18,000
702	LI-1 Lint Interceptor, Striem TT-3, 19-gallon	EA	1.0	3,200.00	3,200
714	FS-1 Floor Sink, JR Smith 3100C-13, 6" receptor w/ bucket	EA	1.0	1,150.00	1,150

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
715	WB-1 Washer Shutoff Valve, Watts A2C-WB-M1 Intelli-Flow	EA	2.0	925.00	1,850
716	HR-1 Compressed Air Hose Reel, Coxreels C-L350-5012-A	EA	1.0	1,850.00	1,850
717	HY-1 Truck-Fill Hose Reel, Hannay EPFF28-30-31-10.5	EA	1.0	3,600.00	3,600
718	RD-1/OD-1 Roof/Overflow Drain, JR Smith 1800	EA	6.0	1,500.00	9,000
755	Stancor SE-50 Elevator Sump Pump, 50 GPM @ 22 ft head, submersible	EA	1.0	3,500.00	3,500
22 - Plumbing				45.26 /SF	406,690
23	Heating, Ventilating, and Air Conditioning				
128	BAS Controls c/w front end work station, graphics, wiring, devices, testing etc	SF	8,986.0	12.00	107,832
129	Third party commissioning & air balancing c/w- report	SF	8,986.0	1.30	11,682
132	General Requirements: supervision, shop drawings, as-build drawings, tags, markers, tools, rentals, permits, fees etc.	Item			93,000
719	FC-A, Enviro-Tec HPP06, horizontal 4-pipe FCU, 200 CFM, 6.4 MBH total / 5.1 MBH sens CHW coil, HW reheat, 2-row CHW, EC motor	EA	2.0	6,000.00	12,000
720	FC-B, Enviro-Tec HPP08, horizontal 4-pipe FCU, 300 CFM, 9.5 MBH total / 7.6 MBH sens, 2-row CHW, HW reheat, EC motor	EA	2.0	6,500.00	13,000
721	FC-C, Enviro-Tec HPP12, horizontal 4-pipe FCU, 400 CFM, 12.3 MBH total / 10.1 MBH sens, EC motor	EA	1.0	7,500.00	7,500
723	FC-E, Enviro-Tec HPP20, horizontal 4-pipe FCU, 800 CFM, 23.0 MBH total / 19.2 MBH sens, EC motor	EA	2.0	10,500.00	21,000
725	Vehicle exhaust source-capture system (Plymovent-type): includes high-temp hose, magnetic nozzle, sliding track/rail or motorized reel, high-temp inline exhaust fan, flex connectors, auto-start sensor, control panel, mounts & hardware, condensation kit, testing/commissioning	EA	1.0	24,000.00	24,000
726	Greenheck roof exhaust fan: includes fan, curb, backdraft damper, vibration isolators, flex connectors, roof flashing kit, hardware, factory startup	EA	1.0	5,200.00	5,200
727	Greenheck ESD-435 Louver, 30"x30", stationary blade, drainable, insect screen, baked enamel finish, mounting flanges, hardware	EA	2.0	1,050.00	2,100
729	Indeeco QUA 2 kW slip-in duct heater, integral disconnect, limit switches, control panel, mounting flange, hardware	EA	4.0	1,650.00	6,600
731	Indeeco QUA 5 kW slip-in duct heater, integral disconnect, limit switches, control panel, mounting flange, hardware	EA	2.0	2,050.00	4,100
734	3 HP Taco KV pump, 60 GPM, 75' TDH, glycol-rated, includes isolation valves, check, flex connectors, supports, controls wiring allowance	EA	2.0	11,500.00	23,000
735	0.6 HP Taco VR circulator, 15 GPM, 20' TDH, inline pump, isolation valves, unions	EA	7.0	3,250.00	22,750
736	0.6 HP Taco VR circulator, 15 GPM, 20' TDH, load pump, same configuration as SP	EA	7.0	3,250.00	22,750

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
737	1 HP Taco VR pump, 20 GPM, 40' TDH, chilled-water rated, with isolation valves, flexes, supports	EA	2.0	5,900.00	11,800
738	1 HP Taco VR pump, 30 GPM, 40' TDH, hot-water loop, valves, flexes, supports	EA	5.0	6,250.00	31,250
739	0.6 HP Taco VR pump, 15 GPM, 20' TDH, radiant floor loop circulator	EA	1.0	3,400.00	3,400
740	1 HP Taco VR pump, 26 GPM, 30' TDH, snow-melt source loop	EA	1.0	6,600.00	6,600
741	1 HP Taco VR pump, 14 GPM, 30' TDH, snow-melt load loop	EA	1.0	6,300.00	6,300
742	Indoor Fan Coil Unit, LG ZRNU243SKSA, wall-mounted DX fan coil, 2.0 ton, 24.2 MBH cooling, 25.6 MBH heating	EA	2.0	3,000.00	6,000
743	Outdoor Heat Pump Compressor Unit, LG ZRNU024GSS0, 2.0 ton, low-ambient kit to 0°F, 208V/1-phase, MCA 26.4, MOP 30	EA	2.0	5,500.00	11,000
744	UH-A, Rittling RH-33 Hydronic Unit Heater, 7.2 MBH, 630 CFM, 30% PG, suspended horizontal mount, includes factory disconnect, 1 filter, mounting kit	EA	1.0	2,330.00	2,330
745	CUH-A, Rittling RFRC-420-06 Ceiling-Recessed Hydronic Unit Heater, 12.1 MBH, 450 CFM, vestibule installation, includes disconnect, filter, mounting hardware	EA	1.0	3,260.00	3,260
746	CUH-B, Beacon/Morris TwinFlo W120 Wall-Mounted Hydronic Unit Heater, 8.0 MBH, 127 CFM, includes mounting brackets, trim kit, valves, unions	EA	1.0	2,310.00	2,310
747	EUH-1 THRU 4, Modine VE, 5 kW Electric Unit Heater, Industrial-Grade Vertical Mount, Integral Single-Stage Thermostat, 208V/3Ph	EA	4.0	1,550.00	6,200
748	HX-1, Plate Heat Exchanger (Taco). Hot side: water 30% PG; Cold side: water 40% PG.	EA	1.0	18,000.00	18,000
749	R-1, Hydronic Fin Tube Radiation	LF	42.0	145.00	6,090
751	2" CHW, Copper Type L (pipe, fittings, supports)	LF	1,000.0	42.00	42,000
752	Ductwork with insulation	Lb	3,575.0	22.00	78,650
753	DIFFUSERS / REGISTERS / GRILLES	EA	40.0	305.00	12,200
754	Fire/Smoke Damper	EA	5.0	1,050.00	5,250
756	CH-1, CH-2 – LG Model KCHH017, nominal 17-ton air-cooled scroll heat-pump chiller	EA	2.0	40,400.00	80,800
23 - Heating, Ventilating, and Air Conditioning				79.01 /SF	709,954
26	Electrical				
136	Emergency generator, 3-phase diesel, 250kW/312.5kVA (including control panels, controls, etc)	EA	1.0	60,525.50	60,150
137	800A Manual transfer switch N3R w/camlocks for temp. generator connection -MTS-1	EA	1.0	13,036.00	12,955
288	Interior lighting material and controls only Engine 5-fixtures and lighting control install NIC	SF	8,986.0	10.20	91,471

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
150	Grounding and bonding	SF	8,986.0	0.90	8,316
151	Lightning protection	SF	8,986.0		Excl.
527	Photovoltaic (PV) solar panel system	SF	2,391.0	56.00	132,757
154	Photovoltaic (PV) solar system infrastructure, raceways, conduit, etc	SF	8,986.0	1.90	16,631
155	General Requirements: supervision, shop drawings, as-build drawings, tags, markers, tools, rentals, permits, fees etc.	Item			100,356
372	Utility transformer-by utility company	EA	1.0		Excl.
167	Primary service - (2) 4" C PVC empty concrete encased ductback site electrical distribution inc. trenching	LF	433.8	137.40	59,412
169	Fixture type P1	EA	2.0	2,054.90	4,072
265	800A Secondary Emergency service - (3) 4" C PVC w/4#500 & 1#2/0 gnd concrete encased ductback site electrical distribution inc. trenching	LF	39.8	376.40	14,879
266	800A Secondary service #1-(3) 4"PVC (3) 4#600 kCMIL copper wire and (1) empty 4" concrete encased	LF	68.5	392.00	26,750
262	Connection to secondary side of utility transformer	EA	1.0	931.00	925
297	(3) 1.25 PVC and wiring ductback/cable to emergency generator	LF	127.3	92.80	11,780
315	Automatic transfer switch N3R service rated- 800A, 208Y/120V	EA	1.0	18,437.00	18,323
367	MDP - 800A 208Y/120V, 3 phase, 4-wire w/ SPD-1	EA	1.0	17,721.00	17,721
318	PP1A/PP1B - 225A-MCB, 208Y/120V, 3 phase, 4-wire	EA	2.0	3,817.80	7,588
319	PPIT - 150A-MCB, 208Y/120V, 3 phase, 4-wire w/SPD-3	EA	1.0	2,514.50	2,499
376	PP2-150A MCB 208Y/120V, 3 phase, 4 wire	EA	1.0	2,452.00	2,452
369	MP1 - 225A-MCB, 208Y/120V, 3 phase, 4-wire w/SPD-3	EA	1.0	3,956.00	3,956
375	MP2 - 400A-MCB, 208Y/120V, 3 phase, 4-wire w/SPD-2	EA	1.0	6,246.00	6,246
321	LP1 - 125A-MCB, 208Y/120V, 3 phase, 4-wire w/SPD-3	EA	1.0	2,253.00	2,239
346	MMU-Multi-meter monitoring system (connected to each feeder)	EA	1.0	1,396.50	1,388
347	800A Utility current transformer/meter cabinet N3R mounted on Utility transformer	EA	1.0	6,751.00	6,709
348	800A N3R Service disconnect switch	EA	1.0	12,850.00	12,770
355	Primary manhole per code-allowance	EA	3.0	11,625.00	34,702
356	(4) 1.25 PVC and wiring ductback/cable to emergency generator	LF	39.0	115.70	4,511
358	EV ready base detail (assume including 2nd receptacle being shown next to each other) also includes concrete base	EA	1.0	9,772.50	9,712
363	800A (2) 4"PVC (4)600 kCMIL	LF	39.8	410.10	16,205
365	Elevator control 1.25 PVC underground conduit and circuitry	LF	54.0	53.70	2,898
366	Central inverter-5kW	EA	1.0	2,327.50	2,313
381	Underground branch lighting circuitry & lighting control	LF	225.8	29.90	6,687

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
384	Type G2 fixture-allowance not found on fixture schedule	EA	1.0	833.00	833
387	Light fixture L1 - 8' long direct only pendant LED-install only	EA	4.0	349.40	1,388
413	Light fixture L1 - 8' long direct only pendant LED, emergency-install only	EA	4.0	389.30	1,551
388	Light fixture LED1 - 2x2 recessed light fixture-install only	EA	12.0	116.40	1,388
407	Light fixture LED1 - 2x2 recessed light fixture, emergency-install only	EA	7.0	157.50	1,095
389	Light fixture LED2 - 2x2 recessed light fixture-install only	EA	10.0	116.50	1,157
461	Light fixture ELV - 4' linear elevator shaft light-install only	EA	4.0	87.00	348
390	Light fixture P1.A - 14" dia. round pendant high bay light fixture-install only	EA	11.0	465.60	5,090
406	Light fixture P1.A - 14" dia. round pendant high bay light fixture, emergency-install only	EA	5.0	523.90	2,605
391	Light fixture R1 - 4" round LED downlight-install only	EA	68.0	146.00	9,879
408	Light fixture R1 - 4" round LED downlight, emergency-install only	EA	13.0	187.40	2,418
466	Light fixture R2 - 4" round LED downlight-install only	EA	5.0	145.20	726
409	Light fixture R2 - 4" round LED downlight, emergency-install only	EA	3.0	187.60	558
465	Light fixture R3 - 2" round LED downlight-install only	EA	2.0	147.00	294
418	Light fixture R3 - 2" round LED downlight, emergency-install only	EA	3.0	157.40	469
394	Light fixture X1 - thermoplastic exit sign-install only	EA	15.0	116.30	1,735
464	Light fixture C2 - 8' long linear recessed light-install only	EA	3.0	231.30	694
443	Light fixture W1 - special linear side throw light-install only	EA	2.0	190.50	381
410	Light fixture W1 - special linear side throw light, emergency-install only	EA	3.0	233.10	694
401	Light fixture W2 - special linear side throw light-install only	EA	1.0	175.30	174
463	Vacancy sensor-install only	EA	1.0	88.00	88
412	Occupancy sensor-install only	EA	22.0	88.40	1,934
415	Normal lighting controller-install only	EA	8.0	116.40	925
416	Emergency lighting controller-install only	EA	8.0	116.30	925
417	Single pole toggle switch-install only	EA	5.0	87.40	435
462	Single pole toggle switch w/ weatherproof cover-install only	EA	2.0	88.00	176
392	Vacancy sensor switch-install only	EA	4.0	88.40	352
393	Dimmer switch w/ ceiling sensor-install only	EA	12.0	116.30	1,388
399	Occupancy sensor switch-install only	EA	7.0	88.40	615
400	Vacancy dimmer switch-install only	EA	6.0	88.40	527
421	Light control relay panel "LCP" -install only	EA	1.0	815.00	810
476	Conduit and wiring for light fixtures & lighting control	EA	251.0	242.00	60,391

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
423	Duplex receptacle	EA	37.0	97.80	3,595
467	Duplex receptacle, WP	EA	1.0	116.00	116
424	Duplex receptacle, GFCI	EA	34.0	135.00	4,562
425	Duplex receptacle, GFCI, WP	EA	7.0	172.50	1,198
426	Duplex receptacle, USB	EA	6.0	153.70	916
427	Duplex receptacle, TV	EA	16.0	97.70	1,555
429	Duplex receptacle, DW	EA	1.0	97.50	97
430	Duplex receptacle, REF	EA	2.0	97.80	194
431	Duplex receptacle, W	EA	2.0	97.80	194
432	Duplex receptacle, WB	EA	2.0	97.80	194
433	Duplex receptacle, DSK	EA	3.0	97.90	291
439	Double duplex receptacle	EA	22.0	144.40	3,156
440	Specialty receptacle	EA	4.0	125.90	500
434	Specialty receptacle, CR	EA	3.0	125.90	375
435	Specialty receptacle, D	EA	2.0	125.80	250
437	Specialty receptacle, R	EA	1.0	125.50	125
438	Specialty receptacle, TP	EA	6.0	125.60	750
436	Overhead door opener & 3-button operation station	EA	3.0	181.80	541
441	Junction box	EA	3.0	51.20	153
442	Floor box type A, power (includes trenching in floor)	EA	2.0	3,836.30	7,625
478	Conduit and wiring for branch power	EA	155.0	209.60	32,273
482	Mechanical connection, 15A-1P (including feeder)	EA	4.0	852.10	3,383
483	Mechanical connection, 20A-1P (including feeder)	EA	10.0	885.80	8,800
484	Mechanical connection, 20A-2P (including feeder and 30A disc sw)	EA	12.0	1,061.80	12,670
485	Mechanical connection, 20A-3P (including feeder and 30A disc sw))	EA	3.0	1,154.40	3,446
486	Mechanical connection, 25A-2P (including feeder)	EA	1.0	1,008.50	1,002
487	Mechanical connection, 30A-2P (including feeder and 30A disc sw)	EA	3.0	1,139.80	3,403
489	Mechanical connection, 40A-3P (including feeder and 60A disc sw)	EA	3.0	1,591.30	4,744
490	Mechanical connection, 90A-3P (including feeder)	EA	2.0	2,204.00	4,408
481	Mechanical connection, 100A-3P (including feeder and 100A disc sw)	EA	2.0	3,010.00	5,983
480	Mechanical connection, 110A (including feeder and 200A disc sw)	EA	1.0	3,848.50	3,825
541	Feeder allowance(EMT)-Feeder schedule on drawing E-300 indicates "Copper Conductors"	SF	8,986.0	6.30	56,546
26 - Electrical				107.75 /SF	968,286

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
27	Communications				
143	Telecommunications system, incl. raceways, conduit, wiring, and head-end equipment etc	SF	8,986.0	2.10	19,126
322	Emergency responder radio coverage system/BDA, inc. devices, wiring, head-end equipment etc.	SF	8,986.0	2.80	24,947
148	Audio-visual, incl. raceways, wiring, and head-end equipment etc.	SF	8,986.0	3.70	33,262
149	Public-address system, incl. devices, wiring, head-end equipment, etc	SF	8,986.0	1.40	12,473
170	Site telecoms distribution-(4) 4" empty inc. trenching (allowance to telecom provider-100')	LF	145.4	187.20	27,044
171	Connection and cabling to existing telecom service-by utility company	EA	1.0		Excl.
509	A/V; ceiling speaker-rough in only	EA	25.0	98.70	2,452
510	A/V; ceiling speaker w/ light-rough in only	EA	6.0	107.10	639
511	A/V; ceiling speaker, high intensity-rough in only	EA	2.0	107.00	213
512	A/V; fire alerting monitor-rough in only	EA	7.0	116.20	810
516	A/V; security monitor-rough in only	EA	2.0	116.30	231
517	A/V; TV monitor-rough in only	EA	8.0	232.80	1,851
518	Wifi access point-rough in only	EA	10.0	87.50	870
520	Bluetooth speakers-rough in only	EA	6.0	76.10	455
521	2-port data outlet-rough in only	EA	20.0	99.70	1,980
590	Site telecom underground concrete encased under drivable surface	LF	48.6	116.20	5,622
	27 - Communications			14.69 /SF	131,975
28	Electronic Safety and Security				
145	Security system-infrastructure, cabling, devices and head end equipment	SF	8,986.0	4.70	41,578
459	Fire alarm; fire alarm control panel	EA	1.0	9,777.50	9,717
457	Fire alarm; bi-directional amplifier annunciator	EA	1.0	3,259.00	3,239
458	Fire alarm; cellular communicator	EA	1.0	465.50	463
472	Fire alarm; terminal cabinet	EA	1.0	523.00	523
473	Fire alarm; power supply	EA	1.0	999.00	999
444	Fire alarm; manual pull station	EA	5.0	214.30	1,064
445	Fire alarm; fire department key box	EA	1.0	526.00	523
446	Fire alarm; strobe-only unit	EA	7.0	251.30	1,749
447	Fire alarm; combination horn / strobe light	EA	19.0	335.40	6,330
452	Fire alarm; combination horn / strobe light, weatherproof	EA	1.0	368.00	366
474	Fire alarm; ceiling mounted combination horn / strobe light	EA	1.0	333.00	333
448	Fire alarm; ceiling mounted smoke detector	EA	3.0	368.10	1,097

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
455	Fire alarm; ceiling mounted smoke detector with low frequency	EA	6.0	372.50	2,221
454	Fire alarm; ceiling mounted smoke detector with multi-criteria	EA	5.0	418.40	2,082
451	Fire alarm; ceiling mounted smoke detector with carbon monoxide sounder base	EA	3.0	418.40	1,249
460	Fire alarm; ceiling mounted smoke detector wired to elevator recall system	EA	3.0	393.30	1,180
449	Fire alarm; ceiling mounted heat detector with temperature rating	EA	3.0	232.00	694
450	Fire alarm; ceiling mounted carbon monoxide detector	EA	4.0	307.10	1,222
453	Fire alarm; monitor module	EA	6.0	195.60	1,166
471	Fire alarm; control module	EA	3.0	675.70	2,027
456	Fire alarm; exterior beacon	EA	1.0	470.00	467
468	Fire alarm; tamper switch	EA	4.0	115.80	463
469	Fire alarm; flow switch	EA	2.0	115.50	231
470	Fire alarm; pressure switch	EA	2.0	115.50	231
475	Fire alarm; conduit and wiring for fire alarm fixtures	EA	84.0	237.30	19,822
491	Fire alarm; device verification, testing, programming & commissioning	EA	84.0	65.10	5,441
492	CCTV, 360 degree outdoor multi-sensor camera-rough in only	EA	2.0	326.70	648
514	CCTV, fix dome camera-rough in only	EA	2.0	181.50	361
502	Access control, video intercom-rough in only	EA	4.0	116.40	463
503	Access control, door contact-rough in only	EA	9.0	60.60	541
504	Access control, card reader-rough in only	EA	12.0	349.40	4,164
505	Access control, request-to-exit device-rough in only	EA	9.0	116.50	1,041
506	Access control, electronic hardware-rough in only	EA	9.0	60.60	541
508	Access control, overhead door control-rough in only	EA	4.0	232.90	925
602	Site security allowance (drawings SEC 100 & SEC200)	LS	1.0		Excl.
28 - Electronic Safety and Security				12.82 /SF	115,161
31	Earthwork				
173	Site clearing and grubbing	Acre	0.35	5,000.00	1,750
174	Temporary construction fence	LF	561.4	25.00	14,035
344	Construction entrance	SF	1,011.2	7.00	7,078
345	Washdown area	EA	1.0	5,000.00	5,000
349	Silt fence	LF	579.0	11.00	6,369
350	Filter sock, 12"Ø	LF	40.4	3.50	141
352	Inlet protection	EA	3.0	250.00	750
353	Temporary stockpile area	SF	1,089.9		Nil

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE



LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
359	Erosion control maintenance and removal	Item			2,500
361	Snow removal (season)	EA	1.0	10,000.00	10,000
364	Dust control	Item			10,000
178	Mobilization, layouts, survey, etc - Engine 5	LS	1.0	8,000.00	8,000
530	Remove unsuitable materials (fill)	CY	1,092.0	20.00	21,840
533	Cut site to proposed level	CY	3.0	20.00	60
534	Generator pad excavation	CY	7.0	18.00	126
535	Pavement excavation	CY	233.0	18.00	4,194
531	Subsurface detention system excavation	CY	225.0	20.00	4,500
536	Fill to proposed level using imported materials	CY	767.2	45.00	34,524
537	Remove excavated materials from site	CY	1,560.0	30.00	46,800
181	Rough and fine grading	SF	15,039.9	0.80	12,032
182	Excavation in rock - allowance	LS	1.0	25,000.00	25,000
183	Excavation in contaminated soils	LS	1.0		Excl.
298	Excavation for concrete foundations	CY	296.3	25.00	7,408
299	Remove and dispose of excavated spoils	CY	296.3	35.00	10,371
300	Imported backfill to foundation excavation	CY	202.1	60.00	12,126
301	Sub-soil perimeter drain	LF	349.1	25.00	8,728
302	Imported subbase to SOG	CY	125.6	65.00	8,164
	31 - Earthwork			29.10 /SF	261,496
32	Exterior Improvements				
236	Heavy duty concrete pavement/apron	SF	2,509.1	20.00	50,182
543	Heavy duty bituminous concrete	SY	431.0	50.00	21,550
250	Granite curb	LF	375.1	80.00	30,008
545	Prepare and compact sub-base	SF	6,384.8	1.30	8,300
546	Granular base	CY	283.2	75.00	21,240
238	Concrete sidewalk/patio, 4" deep	SF	667.3	12.00	8,008
239	Concrete transformer/generator pad inc. subbase (no details provided)	SF	176.3	20.00	3,526
244	Pavement marking - hatched markings	SF	152.0	2.50	380
245	Pavement marking - disabled symbol	EA	1.0	500.00	500
246	Pavement marking - 4" line marking	LF	80.8	2.50	202
248	12" x 18" disabled parking sign post	EA	1.0	500.00	500
557	6" x 12" van accessible sign post	EA	1.0	500.00	500
561	Install salvaged flag pole	EA	1.0	2,500.00	2,500
254	Bollard	EA	16.0	1,500.00	24,000

CHELMSFORD FIRE STATIONS

DESIGN DEVELOPMENT COST ESTIMATE

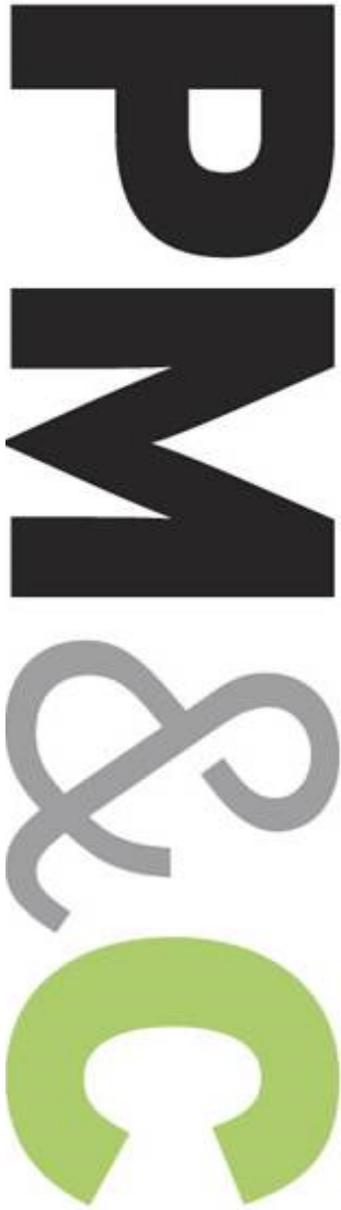


LOCATION DIVISIONS ITEM

B Fire Station - Engine 5 (continued)

GFA: 8,986 SF Cost/SF: 818.20
Rates Current At August 2025

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
529	Re-install vinyl fence	LF	28.0	10.00	280
542	Make good road way following utility connections	SY	91.3	120.00	10,956
553	Prepare and compact sub-base	SF	667.3	1.30	867
554	Granular base	CY	24.8	75.00	1,860
556	Wooden stockade fence, 8' high	LF	442.0	285.00	125,970
620	Trees	EA	7.0	1,000.00	7,000
621	Shrubs	EA	45.0	300.00	13,500
623	Imported backfill	CY	121.5	80.00	9,720
626	Mulch for planting areas, 3" thick	SF	3,183.5	1.80	5,730
627	4" loam seeded w/ fescue turf	SF	4,386.0	1.50	6,579
628	Allowance; topsoil 6" thick	CY	140.2	80.00	11,216
32 - Exterior Improvements				40.63 /SF	365,074
33	Utilities				
570	Connection to existing water service line	EA	1.0	5,000.00	5,000
161	6" CLDI water service inc. trenching	LF	216.2	185.00	39,997
264	2" type K domestic water service inc. trenching	LF	20.5	165.00	3,383
256	4" PVC sewer service line inc. trenching	LF	12.0	65.00	780
575	6" PVC sewer service line inc. trenching	LF	56.7	80.00	4,536
163	Connection to existing sewer service line	EA	1.0	5,000.00	5,000
586	Sewer pipe concrete encasement	LF	20.5	75.00	1,538
569	Water valve	EA	2.0		Incl.
234	Underground infiltration system (Cultec) including backfill, fabric, etc.,	SF	1,573.0	50.00	78,650
592	Strom drain manhole	EA	4.0	8,500.00	34,000
593	Catch basin	EA	2.0	6,500.00	13,000
596	HDPE Pipe, 8" Ø including trenching and backfill	LF	1.9	85.00	162
597	HDPE Pipe, 12" Ø including trenching and backfill	LF	3.9	100.00	390
612	SC-310 Chambers including end caps, etc.	LF	96.0	210.00	20,160
603	Trench drain	LF	54.8	100.00	5,480
610	Clean out	EA	1.0	750.00	750
33 - Utilities				23.68 /SF	212,826
FIRE STATION - ENGINE 5				818.20 /SF	7,352,314



**Design Development
Estimate**

Chelmsford FD Engine 3 & 5
New Construction
Chelmsford, MA

PM&C LLC
20 Downer Ave, Suite 5
Hingham, MA 02043
(T) 781-740-8007
(F) 781-740-1012

Prepared for:

TGAS Inc.

December 3, 2025



Design Development

BASIS OF ESTIMATE

This cost estimate was produced from Design Development drawings, specifications and other documentation prepared by TGAS Inc. and their design team dated 10/31/25 . Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

This estimate includes all direct construction costs, construction manager's profit and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be under:
Chapter 149 of the Massachusetts General Laws to pre-qualified general contractors, and pre-qualified sub-contractors, open specifications for materials and manufacturers.

The estimate is based on **prevailing wage** rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

ITEMS NOT INCLUDED IN THIS ESTIMATE

Items not included in this estimate are:

All professional fees and insurance

Items identified in the design as Not In Contract (NIC)

Items identified in the design as by others

Owner supplied and/or installed items (e.g. technology, furniture and equipment, etc.)

Utility company back charges, including work required off-site

Work to City streets and sidewalks, (except as noted in this estimate)

Fitness equipment

Loose furnishings

ESTIMATE UNITS & ABBREVIATIONS LEGEND

ALW	ALLOWANCE	LS	LUMP SUM
ALT	ALTERNATE	LV(S)	DOOR LEAF/LEAVES
BF	BOARD FOOT	LVL	LAMINATED VENEER LUMBER
DY(S)	DAY	MTH(S)	MONTH
EA	EACH	NIC	NOT IN CONTRACT
FLT(S)	FLIGHT (OF STAIRS)	OPT	OPTION
GFA	GROSS FOOTAGE AREA	QTY	QUANTITY
GSF	GROSS SQUARE FOOTAGE	SF	SQUARE FOOTAGE
HR(S)	HOUR	STOP	ELEVATOR STOP
HSS	HOLLOW STRUCTURAL SECTION	SY	SQUARE YARD
LBS	POUNDS	TN(S)	TONS (STEEL TONNAGE)
LF	LINEAR FOOTAGE	WK(S)	WEEK
LOC	LOCATION	YD(S)	YARD



Chelmsford FD Engine 3 & 5
New Construction
 Chelmsford, MA

12/3/2025

MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Cost
TRADE COSTS				
New Construction Fire Station Engine 5	Jun-26	8,818	\$743.03	\$6,552,032
New Construction Fire Station Engine 3	Jun-26	8,326	\$803.61	\$6,690,888
Sitework @ Engine 5				\$1,006,769
Sitework @ Engine 3				\$1,492,600
HazMat removals allowance budget				see detail
SUBTOTAL TRADE COSTS	Jun-26	17,144	\$918.24	\$15,742,289
Design and Estimating Contingency		5.0%		\$787,114
Escalation to Bid		2.0%		\$314,846
SUBTOTAL				\$16,844,249
Subcontractor Bonds				In rates
General Conditions		16	months	\$1,600,000
General Requirements	2.0%			\$336,885
Winter Conditions				excl
Insurances - GLI/Builders Risk	2.15%			\$362,151
Bond	1.00%			\$168,442
Building Permit				Waived
Overhead & Profit	4.0%			\$673,770
TOTAL ESTIMATED CONSTRUCTION COST		17,144	\$1,166	\$19,985,497

Alternates (Markedup) :

ALT1 Zinc metal panel ilo of aluminum @ Station 3	ADD	\$	237,477
ALT2 Zinc metal panel ilo of aluminum @ Station 5	ADD	\$	223,342



CONSTRUCTION COST SUMMARY IN CSI FORMAT

DIVISION	Engine 5 CSI Detail		Engine 3 CSI Detail		Sitework Engine 5		Sitework Engine 3	
	Subtotal	Total	Subtotal	Total	Subtotal	Total	Subtotal	Total
DIV. 2 EXISTING CONDITIONS		\$134,630		\$160,575				
024100 Demolition	\$39,630		\$40,575					
028000 Facility Remediation	\$95,000		\$120,000					
DIV. 3 CONCRETE		\$331,146		\$371,990				
033000 Concrete	\$331,146		\$371,990					
033001 Concrete - Earthwork								
DIV. 4 MASONRY		\$362,539		\$290,962				
FSB 040001 Unit Masonry	\$362,539		\$290,962					
040002 Stone								
DIV. 5 METALS		\$463,136		\$306,355				
FSB 055001 Metal Fabrications	\$211,708		\$49,956					
051000 Structural Framing	\$191,275		\$191,110					
053000 Metal Decking	\$60,153		\$65,289					
DIV. 6 WOODS & PLASTICS		\$65,320		\$64,948				
061000 Rough Carpentry	\$18,605		\$17,958					
062000 Finish Carpentry								
064000 Architectural Woodwork	\$46,715		\$46,990					
DIV. 7 THERMAL & MOISTURE PROTECTION		\$1,277,787		\$1,429,352				
FSB 071000 Dampproofing & Waterproofing	\$154,924		\$191,116					
072000 Thermal Protection	\$30,584		\$28,912					
074000 Roofing & Siding Panels	\$721,811		\$768,846					
FSB 075000 Membrane Roofing	\$304,350		\$413,926					
077000 Roof & Wall Specialties / Accessories	\$34,200		\$9,900					
078100 Fireproofing	\$31,918		\$16,652					
DIV. 8 DOORS & WINDOWS		\$479,870		\$494,570				
FSB 080001 Metal Windows	\$156,300		\$158,370					
081110 Metal Doors and Frames	\$57,250		\$53,000					
083100 Access Doors and Frames	\$5,000		\$5,000					
083300 Coiling Doors & Grilles	\$125,000		\$167,500					
084400 Entrances, Storefronts, & Curtain Walls	\$10,000		\$10,000					
FSB 088000 Glazing	\$59,220		\$30,800					
087100 Door Hardware	\$57,100		\$59,900					
089000 Louvers & Vents	\$10,000		\$10,000					
DIV. 9 FINISHES		\$681,156		\$666,415				
FSB 090002 Tiling	\$99,090		\$97,968					
FSB 090004 Acoustical Ceilings	\$10,920		\$14,280					
096000 Floor Preparation								
FSB 090006 Resilient Flooring	\$45,037		\$35,836					
FSB 090007 Painting	\$71,844		\$63,193					
092100 Gypsum Board Assemblies	\$381,115		\$372,638					
096700 Fluid-Applied Flooring	\$70,464		\$77,112					
096800 Carpet Flooring	\$2,686		\$5,388					
098000 Acoustic Treatment								
DIV. 10 SPECIALTIES		\$119,270		\$116,810				
101100 Visual Display Surfaces	\$6,720		\$6,720					
101400 Signage	\$37,800		\$36,600					
102110 Toilet and Shower Partitions	\$4,800		\$4,800					
102600 Wall & Door Protection	\$9,440		\$8,480					
102800 Toilet & Bathroom Accessories	\$21,060		\$20,760					
104400 Fire Extinguishers	\$1,050		\$1,050					
105000 Storage Specialties	\$38,400		\$38,400					
DIV. 11 EQUIPMENT		\$54,500		\$54,500				
119000 Other Equipment	\$54,500		\$54,500					
DIV. 12 FURNISHINGS		\$12,320		\$9,380				
122000 Window Treatment	\$12,320		\$9,380					
123000 Casework								
124800 Rugs & Mats								



CONSTRUCTION COST SUMMARY IN CSI FORMAT

DIVISION	<i>Engine 5 CSI Detail</i>		<i>Engine 3 CSI Detail</i>		<i>Sitework Engine 5</i>		<i>Sitework Engine 3</i>	
	Subtotal	Total	Subtotal	Total	Subtotal	Total	Subtotal	Total
DIV. 14 CONVEYING SYSTEMS		\$250,000						
FSB 140001 Conveying Systems	\$250,000							
DIV. 21 FIRE PROTECTION		\$87,532		\$86,350				\$86,350
FSB 210000 Fire Protection	\$87,532		\$86,350					
DIV. 22 PLUMBING		\$406,359		\$398,564				\$398,564
FSB 220001 Plumbing	\$406,359		\$398,564					
DIV. 23 HVAC		\$806,014		\$1,081,335				\$1,081,335
FSB 230001 HVAC	\$806,014		\$1,081,335					
DIV. 26 ELECTRICAL		\$1,020,453		\$1,158,782				\$1,158,782
260001 Electrical	\$1,020,453		\$1,158,782					
DIV. 31 EARTHWORK - SITE						\$369,029		\$549,189
311000 Site Clearing					\$164,359		\$231,236	
312000 Earth Moving					\$204,670		\$317,953	
DIV. 32 EXTERIOR IMPROVEMENTS						\$317,448		\$395,423
321000 Bituminous Concrete Paving					\$43,675		\$52,115	
321313 Concrete Paving					\$67,042		\$101,692	
321440 Stone Paving								
321640 Granite Curbing					\$23,985		\$44,810	
323000 Site Improvements					\$119,325		\$63,780	
329300 Planting					\$63,421		\$133,026	
DIV. 33 UTILITIES						\$320,292		\$547,988
331000 Water Utilities					\$48,069		\$63,629	
333000 Sanitary Sewerage					\$13,938		\$77,334	
334000 Stormwater Utilities					\$104,980		\$242,345	
337000 Electrical Utilities					\$153,305		\$164,680	
SUBTOTAL DIRECT (TRADE) COST		Engine 5 \$6,552,032	Engine 3 \$6,690,888		Site Engine 5 \$1,006,769		Site Engine 3 \$1,492,600	



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
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Engine 5 CSI Detail

GROSS FLOOR AREA CALCULATION - PER A0-04

001	1st Floor		5,556	sf					
002	2nd Floor		3,262	sf					
004	TOTAL GROSS FLOOR AREA (GFA)						8,818	sf	

02 EXISTING CONDITIONS

008	024100 Demolition								
009	Demo extg Building @ Engine 5		2,642	sf	15.00	39,630			
010	SUBTOTAL:						\$	39,630	
013	028000 Facility Remediation								
015	Hazmat Abatement @ Engine 5, provided by others		1	ls	95,000.00	95,000			
016	SUBTOTAL:						\$	95,000	
018	TOTAL, DIVISION 4 - MASONRY								\$134,630

03 CONCRETE

022	033000 Concrete							
024	A1010 STANDARD FOUNDATIONS							
025	<u>Concrete Summary</u>							
026	FW Foundation Walls		53					
027	WF Wall Footings		48					
028	CF Spread Footings		1					
029	CW Concrete Wall & Footing							
030	SOG Slab on Grade		112					
031	Total Concrete		214	cy				
17	<u>Wall footing, various widths</u>		572	lf	937.08			
18	Formwork		953	sf	20.00	19,060		
19	Re-bar		3,840	lbs	2.50	9,600		
20	WF Concrete material; 4,500 psi		48	cy	190.00	9,120		
21	Placing concrete		48	cy	150.00	7,200		
23	Foundation wall footing 30"W x 10"D		323	lf			w/ above	
24	Grade beam 30"W x 10"D		249	lf			w/ above	
27	<u>Foundation wall, various heights</u>		325	lf				
28	Formwork		867	sf	20.00	17,340		
29	Re-bar		5,300	lbs	2.50	13,250		
30	FW Concrete material; 4,500 psi		53	cy	190.00	10,070		
31	Placing concrete		53	cy	150.00	7,950		
33	Perimeter frost wall, allow 1'-4"W x 3'-0"H		323	lf			w/ above	
051	<u>Column footing & piers, various</u>		2	ea				
052	Formwork		45	sf	20.00	900		
053	Re-bar		80	lbs.	2.50	200		
054	CF Concrete material; 4,500 psi		1	cy	170.00	170		
055	Placing concrete		1	cy	120.00	120		
056	Set anchor bolts grout plates		2	ea	150.00	300		
058	F4 Foundation spread footing 4'-0"W x 1'-4"D		1	ea			w/ above	
059	P1		1	ea			w/ above	
061	<u>Slab on grade 8"D w/ VB & rigid ins @ Apparatus Bay</u>		2,342	sf				
062	Vapor barrier, heavy duty, 15 mil		2,342	sf	1.00	2,342		
063	Reinforcement		7,200	lbs	2.50	18,000		
064	WWF reinforcement			sf	2.00		NR	
065	Concrete - 8" thick		60	cy	190.00	11,400		
066	SOG Placing concrete		60	cy	250.00	15,000		
067	Finishing and curing concrete		2,342	sf	6.00	14,052		
068	Moisture vapor reduction admixture; barrier one		60	cy	60.00		NR	
070	<u>Slab on grade 5"D w/ VB & rigid ins @ remainder</u>		3,214	sf				
071	Vapor barrier, heavy duty, 15 mil		3,214	sf	1.00	3,214		



CODE	DESCRIPTION	Column1	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST	
Engine 5 CSI Detail									
072	Reinforcement			lbs	2.50		NR		
073	WWF reinforcement		3,696	sf	2.00	7,392			
074	Concrete - 5" thick		52	cy	190.00	9,880			
075	SOG Placing concrete		52	cy	250.00	13,000			
076	Finishing and curing concrete		3,214	sf	6.00	19,284			
077	Moisture vapor reduction admixture; barrier one		52	cy	60.00	NR			
078									
079	<u>Misc. for SOG</u>								
080	Elevator Pit, complete		1	ls	40,000.00	40,000			
081	Underslab insulation		5,556	sf	5.00	27,780			
082	Concrete base panel		1	ls	20,000.00	20,000			
083									
084	<u>Concrete on Metal Deck</u>		3,262	sf					
085	WWF reinforcement		3,751	sf	2.00	7,502			
086	Concrete fill to metal deck; normal weight, 2 1/2" thick		25	cy	200.00	5,000			
087	Place and finish concrete		3,262	sf	6.00	19,572			
088	Rebar to decks		979	lbs	2.50	2,448			
089	033000 SUBTOTAL:						\$ 331,146		
090									
091	033001 Concrete - Earthwork								
092									
093	312000 <u>EARTHWORK</u>								
094	<u>Strip footings</u>								
095	Excavation		330	cy	14.00	w/ site work			
096	Backfill with existing fill		57	cy	25.00	w/ site work			
097	Gravel fill beneath footings, 6"		28	cy	55.00	w/ site work			
098	Remove off-site		196	cy	80.00	w/ site work			
099									
100	<u>Slab on grade</u>								
101	Compacted granular fill, 6"		43	cy	50.00	w/ site work			
102	Geo textile fabric		2,342	sf	1.00	w/ site work			
103	Compact sub-grade		2,342	sf	1.50	w/ site work			
104	Underslab drainage , lower level		2,342	sf	3.00	NR			
105	E & B for underslab plumbing		2,342	sf	2.00	NR			
106	033001 SUBTOTAL:						\$ -		
107									
108	TOTAL, DIVISION 03 CONCRETE							\$331,146	
109									
110	04 MASONRY								
111									
112	040001 Unit Masonry								
113									
114	<u>Exterior Cladding</u>								
115	Exterior backup wall, CMU 8"		2,971	sf	45.00	133,695			
116									
117	<u>Interior Partitions</u>		4,697	sf					
118	Wall N- 6" CMU to underside of deck, Paint 1S		126	sf	40.00	5,040			
119	Wall N- 6" CMU to underside of deck, Paint 2S		1,806	sf	40.00	72,240			
120	Wall P-1 8" CMU to underside of deck, Paint 1S		896	sf	45.00	40,320			
121	Wall P-1 8" CMU to underside of deck, Paint 2S		1,869	sf	45.00	84,105			
122									
123	<u>Misc Metals @ Masonry</u>								
124	Misc. metals & lintels as req'd at exterior CMU		2,971	sf	2.00	5,942			
125	Seismic clips		55	ea	300.00	16,500			
126	Misc. metals & lintels as req'd at CMU partitions		4,697	sf	1.00	4,697			
127	040001 SUBTOTAL:						\$ 362,539		
128									
129	TOTAL, DIVISION 4 - MASONRY							\$362,539	
130									
131	05 METALS								
132									
133	051000 Structural Framing		15	tns					
134			3.40	lbs/sf					
135									
136	<u>Floor Framing</u>								
137	Floor construction, 20K open web steel joists spaced at 2'-6" max on center 5 psf		9	tns	7,000.00	63,000			
138	2nd Fl		8.56	tns		w/ above			
139	Moment connections, allowance			ea	900.00	NR			
140	Shear studs			ea	7.00	NR			



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST	
Engine 5 CSI Detail									
141	Roof construction, steel framing LGMF roof joists		3,422	sf	15.00	51,330			
142	<u>Roof Framing</u>								
143	Roof construction, 22K open web steel joists spaced at 4'-0" max on center 5PSF, wide flange beams included		6	tns	7,000.00	42,000			
144	Roof Area		6.17	tns			w/ above		
146	Moment connections, allowance		12	ea	800.00	9,600			
147	Shear studs			ea	7.00	NR			
148	Metal galvanized roof deck canopy			sf	6.00				
149	Allow roof dunnage for MEP equipment		1	alw	10,000.00	10,000			
150	Allow steel for PV panel system			tns	7,000.00	NR			
151	Welded 6" MTL Stud @ MTL-02		1,023	sf	15.00	15,345			
152	051000 SUBTOTAL:						\$	191,275	
153									
154	053000 Metal Decking								
155									
156	1/2"D 20 GA deck @ Floor		3,262	sf	6.00	19,572			
157	R1 Roof deck 1-1/2"D 18GA		5,775	sf	7.00	40,425			
158	R2 Roof deck 1/2"D 20GA		26	sf	6.00	156			
159	053000 SUBTOTAL:						\$	60,153	
160									
161	055001 Metal Fabrications								
162									
163	<u>Stair Construction</u>								
164	Stair 01 - egress, metal framed 4'-8"W w/ landings		1	flt	50,000.00	50,000			
165	Stair 02 - egress, metal framed 4'-8"W w/ landings		1	flt	50,000.00	50,000			
166	Concrete pan infill		2	flt	7,000.00	14,000			
167									
168	<u>Misc.</u>								
169	Misc. metals - guardrail @ Stairs		31	lf	400.00	12,400			
170	Misc. metals - handrail @ Stairs		64	lf	350.00	22,400			
171	Elevator hoist beam, ladder & sump pit grate/frame		1	ls	10,000.00	10,000			
172	Misc. metals as req'd throughout, allowance		8,818	gsf	6.00	52,908			
173	055001 SUBTOTAL:						\$	211,708	
174									
175	TOTAL, DIVISION 5 - METALS								\$463,136
176									
177	06 WOOD & PLASTICS								
178									
179	061000 Rough Carpentry								
180									
181	Wood blocking at openings @ Windows		706	lf	4.00	2,824			
182	Wood blocking at openings @ Exterior doors		17	lf	4.00	68			
183	Wood blocking and misc. rough carpentry as req'd in partition:		8,349	sf	0.50	4,175			
184	Wood blocking at openings @ Interior doors		680	lf	4.00	2,720			
185	Rough carpentry as req'd throughout, allowance		8,818	gsf	1.00	8,818			
186	061000 SUBTOTAL:						\$	18,605	
187									
188	064000 Architectural Woodwork								
189									
190	<u>General</u>								
191	Misc. finish carpentry, allowance		8,818	gsf	0.75	w/ below			
192	Millwork cabinetry @ Kitchen/Dayroom		19	lf	800.00	15,200			
193	Counter/Workstation @ Office 103		6	lf	500.00	3,000			
194	Solid surface window sill		31	lf	65.00	2,015			
195	<u>Apparatus Bay</u>								
196	Counter/workstation SS-1 @ Workshop		17	lf	150.00	2,550			
197	<u>Kitchen /Day Room</u>								
198	Cabinet, base p. lam		24	lf	300.00	7,200			
199	Quartz countertop		24	lf	200.00	4,800			
200	Cabinet, wall p. lam		27	lf	350.00	9,450			
201	Cabinet, tall storage p.lam		2	ea	1,250.00	2,500			
202	064000 SUBTOTAL:						\$	46,715	
203									
204	TOTAL, DIVISION 6 - WOOD & PLASTICS								\$65,320
205									
206	07 THERMAL & MOISTURE PROTECTION								
207									
208	071000 Dampproofing & Waterproofing								
209									



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Engine 5 CSI Detail								
210	<u>Exterior Cladding</u>							
211	Waterproofing layer to frost wall, allowance		2,275	sf	15.00	34,125		
212	AWRB (vapor permeable) @ exterior cladding		7,646	sf	8.00	61,168		
213	Air/vapor retarder		3,823	sf	2.00	7,646		
214	Sealants @ exterior cladding		7,646	sf	1.10	8,411		
215	5/8" glass mat sheathing		4,839	sf	5.00	24,195		
216	Backer rod & double sealant @ Windows		706	lf	12.00	8,472		
217	Backer rod & double sealant @ Exterior doors		17	lf	12.00	204		
218	<u>Interior</u>							
219								
220	Miscellaneous sealants at partitions		13,046	sf	0.30	3,914		
221	Joint sealants as req'd throughout, allowance		8,818	gsf	0.50	4,409		
222	Backer rod & double sealant @ Interior Doors		680	lf	3.50	2,380		
223								
224	071000	SUBTOTAL:					\$	154,924
225								
226	072000	Thermal Protection						
227								
228	4" rock wool insulation @ Exterior		7,646	sf	4.00	30,584		
229	072000	SUBTOTAL:					\$	30,584
230								
231	074000	Roofing & Siding Panels	7,946	sf				
232								
233	074213	<u>WALL PANELS</u>						
234	MTL-1	Exterior cladding MTL-1, Prefinished standing seam w/ 8" MS Backup	2,842	sf	80.00	227,360		
235	MTL-1	Exterior cladding MTL-1, Prefinished standing seam w/ 8" CMU Backup	1,997	sf	80.00	159,760		
236	MTL-2	Exterior cladding MTL-2, Prefinished flush seam metal panel w/ 8" CMU Backup	539	sf	70.00	37,730		
237	MTL-2	Exterior cladding MTL-2, Prefinished flush seam metal panel w/ 8" MS Backup	484	sf	70.00	33,880		
238	WD-1	Exterior cladding WD-1 high pressure laminate composite panel, w/ 8" CMU Backup	735	sf	90.00	66,150		
239	WD-1	Exterior cladding WD-1 high pressure laminate composite panel, w/ 8" MS Backup	1,349	sf	90.00	121,410		
240	Premium; corrosion resistant masonry anchor fasteners		7,946	sf	8.50	67,541		
241	Prefinished aluminum screen		114	sf	70.00	7,980		
242	Premium for zinc panels, standing seam		4,839	sf	30.00	Alternate		
243	Premium for zinc panels, flush		1,023	sf	30.00	Alternate		
244	074000	SUBTOTAL:					\$	721,811
245								
246	075000	Membrane Roofing						
247								
248	Roof Qty Summary		5,893	sf				
249	Roof, general		5,893	sf				
250								
251	070001	<u>WATERPROOFING, DAMPPROOFING AND CAULKING</u>						
252	Joint sealants @ roof, allowance		5,893	sf	1.00	5,893		
253								
254	070002	<u>ROOFING AND FLASHING</u>						
255	Roof, membrane system		5,893	sf				
256	TPO membrane		5,893	sf	16.00	94,288		
257	1/2" High density roof cover board		5,893	sf	3.50	20,626		
258	(2) 3" rigid poly iso insulation		5,893	sf	12.00	70,716		
259	Continuous vapor retarder on sloped metal deck		5,893	sf	3.00	17,679		
260	1 1/2" closed cell spray foam insulation on spray applied thermal barrier to 4'-0" underside of deck		5,893	sf		NR		
261	Roof to wall edge		145	lf	40.00	5,800		
262	Through wall flashing w/ end dams/drip edge set					included w/ above		
263	Metal counter flashing w/ drip edge & cont cleat					included w/ above		
264	Adhered membrane flashing					included w/ above		
265	Flat Termination bard & hot weld					included w/ above		
266	Roof edge flashing & fascia assembly		510	lf	60.00	30,600		
267	Pre fabricated alum snap-on fascia cover					included w/ above		
268	Adhered membrane flashing					included w/ above		
269	Flat Termination bar & hot weld					included w/ above		
270	Wood blocking					included w/ div 06 above		
271	Parapet to screen mechanical units 4'-0"H		57	lf	200.00	not shown		
272	Rough blocking at roof edge		4,597	lf	6.00	27,582		



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST	
273	Overhang soffit, allow		323	sf	60.00	19,380			
274	Miscellaneous flashings @ roof		5,893	sf	2.00	11,786			
275 075000	SUBTOTAL:						\$ 304,350		
276									
277	077000 Roof & Wall Specialties / Accessories								
278									
279	Elevator Headhouse 9'x9' and vent		1	ea	24,300.00	24,300			
280	Roof access hatch assembly		1	ea	3,900.00	3,900			
281	Roof accessory, walker pad		200	sf	15.00	3,000			
282	Roof ladder		1	ea	3,000.00	3,000			
283 077000	SUBTOTAL:						\$ 34,200		
284									
285	078100 Fireproofing								
286									
287	Firestopping throughout		8,818	gsf	1.00	8,818			
288	Fireproofing to roof framing, per roof plan		5,775	sf	4.00	23,100			
289 078100	SUBTOTAL:						\$ 31,918		
290									
291	TOTAL, DIVISION 7 - THERMAL AND MOISTURE PROTECTION							\$1,277,787	
292									
293	08 DOORS & WINDOWS								
294									
295	081110 Metal Doors and Frames								
296									
297	<u>Exterior Doors</u>								
298	Door 1 - 3070 EXT-HM		1	ea	1,000.00	1,000			
299	Frame 3070 EXT- FGF-1		1	ea	600.00	600			
300	Install doors		1	ea	200.00	200			
301									
302	<u>Interior Door Summary</u>								
303	Single Leaf, 3'-0"W x 7'H		37	ea				costs included below	
304	Single Leaf, 2'-6"W x 7'H		3	ea				costs included below	
305	Double Leaf, 6'W x 7'H			ea				costs included below	
306	Irregular Leaf, 5'W x 7'H			ea				costs included below	
307									
308	081113 HOLLOW METAL DOOR FRAMES								
309	Hollow metal door, single leaf 3070		20	lv	450.00	9,000			
310	Hollow metal door, single leaf 2670		3	lv	400.00	1,200			
311	Hollow metal door, dbl leaf 6070			lv	900.00				
312									
313	Hollow metal frame, single leaf 3070		35	ea	400.00	14,000			
314	Hollow metal frame, single leaf 2670		3	ea	350.00	1,050			
315	Hollow metal frame, dble leaf 6070			ea	800.00				
316	HM framing for glazing @ sidelite & transom			sf	40.00				
317	Install doors		38	ea	150.00	5,700			
318	Acoustic rated premium		6	ea	1,000.00	6,000			
319	Fire rated premium, 60min, allow		10	ea	200.00	2,000			
320									
321	084000 WOOD DOORS								
322	Wood door, single leaf 3070		15	lv	600.00	9,000			
323									
324	083300 OVERHEAD DOOR								
325	Door 3 - 3670 INT-HM, sliding		1	ls	1,500	1,500			
326									
327	084110 ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS								
328	Aluminum door, single leaf in storefront		2	lv	3,000.00	6,000			
329	Aluminum door, dbl leaf in storefront			lv	6,000.00				
330 081110	SUBTOTAL:						\$ 57,250		
331									
332	083100 Access Doors and Frames								
333									
334	Access doors		1	ls	5,000.00	5,000			
335 083100	SUBTOTAL:						\$ 5,000		
336									
337	084400 Entrances, Storefronts, & Curtain Walls								
338									
339	Door ED1 2782 EXT-ALU in curtainwall		2	ea	5,000.00	10,000			
340 084400	SUBTOTAL:						\$ 10,000		
341									
342	083300 Coiling Doors & Grilles								
343									
344	OHD 14'-0"L x 14'-0"H, fully glazed		3	ea	35,000.00	105,000			



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST	
Engine 5 CSI Detail									
345		OHD 11'-0"L x 10'-0"H, fully glazed	1	ea	20,000.00	20,000			
346	083300	SUBTOTAL:					\$ 125,000		
347									
348	080001	Metal Windows	1,184	sf					
349		Windows, metal - operable							
350									
351		Windows, metal	269	sf	170.00	45,730			
352		PW A	86	sf		w/ above			
353		PW B	94	sf		w/ above			
354		PW F	89	sf		w/ above			
355		Storefront, metal	81	sf	170.00	13,770			
356		SF H	81	sf		w/ above			
357		Curtainwall, metal	484	sf	200.00	96,800			
358		CW C	114						
359		CW J	176						
360		CW K	194						
361		Spandrel in curtain wall		sf	100.00	not shown			
362	080001	SUBTOTAL:					\$ 156,300		
363									
364	088000	Glazing							
365									
366		Interior glazing- X @ Dayroom 202	63	sf	140.00	8,820			
367		Interior glazing- E @ Office 103	60	sf	140.00	8,400			
368		Interior storefront - G @ Vestibule100	120	sf	140.00	16,800			
369		Interior storefront - L @ Fitness 118	180	sf	140.00	25,200			
370	088000	SUBTOTAL:					\$ 59,220		
371									
372	089000	Louvers & Vents							
373									
374		Louvers, fixed, allowance	100	sf	100.00	10,000			
375	089000	SUBTOTAL:					\$ 10,000		
376									
377	087100	Door Hardware							
378									
379		Hardware, typical interior	40	set	900.00	36,000			
380		Hardware, typical @ Exterior	3	ea	1,200.00	3,600			
381		Card reader, door contact, & electric hardware system	5	ea	3,500.00	17,500			
382	087100	SUBTOTAL:					\$ 57,100		
383									
384	TOTAL, DIVISION 8 - DOORS AND WINDOWS								\$479,870
385									
386	09	FINISHES							
387									
388	090002	Tiling							
389									
390		Wall finish, ceramic tile @ Above Counter	56	sf	40.00	2,240			
391		Wall finish, ceramic tile @ Shower	360	sf	40.00	14,400			
392		Wall finish, ceramic tile @ Toilet	1570	sf	40.00	62,800			
393		Flooring, TLF-01 - ceramic tile	330	sf	42.00	13,860			
394		Floor base, tile	193	lf	30.00	5,790			
395	090002	SUBTOTAL:					\$ 99,090		
396									
397	098000	Acoustic Treatment							
398									
399		Acoustical panels, allowance	500	sf	45.00	not shown			
400		Acoustic separation from floor above Kitchen/Dining, allowance	595	sf	30.00	not shown			
401		Acoustic separation from floor above Fitness, allowance	392	sf	30.00	not shown			
402	098000	SUBTOTAL:					\$ -		
403									
404	090006	Resilient Flooring							
405									
406		Rubber tread finishing	2	flt	3,500.00	7,000			
407		Flooring, LIN-01 - Linoleum	2,767	sf	8.00	22,136			
408		Flooring, LIN-01 - slip resistant premium @ Corridor Only, allowance	1,003	sf	3.00	3,009			
409		Flooring, RBF-02 - Fitness	385	sf	22.00	8,470			
410		Floor base, rubber	1,474	lf	3.00	4,422			
411	090006	SUBTOTAL:					\$ 45,037		
412									
413	096700	Fluid-Applied Flooring							
414									



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST	
Engine 5 CSI Detail									
415	Flooring, EPX-01 - epoxy		2,936	sf	24.00	70,464			
416	096700						\$	70,464	
417									
418	096800	Carpet Flooring							
419									
420	Flooring, CPT-02		8	sy	80.00	640			
421	Flooring, WOM1		93	sf	22.00	2,046			
422	096800						\$	2,686	
423									
424	090004	Acoustical Ceilings							
425									
426	Ceiling, ACT 2x2		1,365	sf	8.00	10,920			
427	090004						\$	10,920	
428									
429	092100	Gypsum Board Assemblies							
430									
431		<u>Exterior Backup</u>	9,350						
432		8" Metal stud backup wall @ exterior cladding	4,675	sf	20.00	93,500			
433		Interior batt insulation	4,675	sf	4.00	18,700			
434		Interior face GWB to stud backup	4,675	sf	5.00	23,375			
435									
436		<u>Interior Partitions</u>	8,349						
437			1S			492			
438			2S			7,857			
439		Wall EA- 3 5/8" MF, NR GWB, 1L-OS w/ sound att, high impact resistant	492	sf	13.00	6,396			
440		Wall EB- 3 5/8" MF, NR GWB 1L-ES w/ sound att, high impact resistant - bearing wall	314	sf	18.00	5,652			
441		Wall EB1- 3 5/8" MF, 1HR GWB/CB 1L-ES w/ sound att, high impact resistant	4,947	sf	18.00	89,046			
442		Wall EJ- 3 5/8" MF, NR GWB/CB 1L-ES w/ sound att, high impact resistant	683	sf	18.00	12,294			
443		Wall FB2S- 6" MF, 2HR GWB, 1L-ES w/ sound att. Impact resi	1,913	sf	18.00	34,434			
444		Impact resistant premium	16,206	sf	2.00	32,412			
445		Ceiling, GWB	2,364	sf	18.00	42,552			
446		Ceiling, GWB R (2) layers GWBX	457	sf	22.00	10,054			
447		Ceiling, MRGWB @ toilet rooms	333	sf	20.00	6,660			
448		Soffits as req'd, allow 10% of room perimeters	215.7	lf	28.00	6,040			
449	092100						\$	381,115	
450									
451	090007	Painting							
452									
453		Paint interior face of exterior wall	7,946	sf	1.00	7,946			
454		Paint doors & frames	40	ea	225.00	9,000			
455		Paint CMU walls	8,372	sf	2.00	16,744			
456		Paint GWB walls	16,206	sf	1.50	24,309			
457		EXP1 exposed underside of structure, no work	3,079	sf				no work assumed	
458		EXP2 exposed underside of structure, paint		sf	3.00			no work assumed	
459		Paint railing & stringers	2	flt	2,500.00	5,000			
460		Paint GWB ceiling & soffit	2,580	sf	1.50	3,870			
461		Paint GWB w/ epoxy paint	333	sf	10.00	3,330			
462		Flooring, SC1 - sealed concrete	658	sf	2.50	1,645			
463	090007						\$	71,844	
464									
465	TOTAL, DIVISION 9 - FINISHES								\$681,156
466									
467	10	SPECIALTIES							
468									
469	101100	Visual Display Surfaces							
470									
471	C1030	SPECIALTIES / MILLWORK							
472									
473		Display unit, Markerboard MBD-1 4', allowance	5	ea	480.00	2,400			
474		Display unit, Markerboard MBD-1 8', allowance	2	ea	960.00	1,920			
475		Poster case, allowance	2	ea	1,200.00	2,400			
476	101100						\$	6,720	
477									
478	101400	Signage							
479									
480		<u>Exterior</u>							
481		Exterior signage 18" dimensional lettering - "CHELMSFORD FIRE DEPARTMENT"	24	ea	750.00	18,000			



CODE	DESCRIPTION	Column1	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST	
Engine 5 CSI Detail									
482	Exterior signage 72" pint mounted metal lettering "5"		1	ls	15,000.00	15,000			
483	<u>Interior</u>								
484	Room/door signage		40	ea	120.00	4,800			
485 101400	SUBTOTAL						\$	37,800	
486									
487	102800 Toilet & Bathroom Accessories								
488	<i>Toilet Room Summary</i>								
489									
490	Single toilet ADA		2	rms					
491	Single toilet w/ shower		4	rms					
492	Toilet accessories, group			rms					
493									
494	SA - Shower accessories, ADA stall		4	ea	1,200.00	4,800			
495	SA - Shower accessories, standard stall			ea	500.00				
496	TA - Diaper Changing Table		2	ea	800.00	1,600			
497	TA - Grab bars		6	ea	250.00	1,500			
498	TA - Hand dryer		10	ea	600.00	6,000			
499	TA - Mirror, framed		6	ea	200.00	1,200			
500	TA - Paper towel dispenser		10	ea	200.00	2,000			
501	TA - Sanitary napkin disposal		4	ea	100.00	400			
502	TA - Soap dispenser		6	ea	60.00	360			
503	TA - Toilet paper holder		6	ea	100.00	600			
504	TA - Waste bin		10	ea	200.00	2,000			
505	Janitor storage, accessories		2	rms	300.00	600			
506 102800	SUBTOTAL:						\$	21,060	
507									
508	102600 Wall & Door Protection								
509									
510	Wall protection, corner guard SS, allowance		5	ea	280.00	1,400			
511	Wall protection, crash rail, allowance		200	lf	30.00	6,000			
512	Wall protection, FRP @ JC, allowance		136	sf	15.00	2,040			
513 102600	SUBTOTAL:						\$	9,440	
514									
515	102110 Toilet and Shower Partitions								
516									
517	Shower Units, ADA			ea	3,600.00				
518	Shower Units, standard pan only		4	ea	1,200.00	4,800			
519 102110	SUBTOTAL:						\$	4,800	
520									
521	104400 Fire Extinguishers								
522									
523	Fire extinguisher cabinets		3	ea	350.00	1,050			
524 104400	SUBTOTAL:						\$	1,050	
525									
526	105000 Storage Specialties								
527									
528	Storage, locker metal, turn out gear @ Turnout		16	ea	1,800.00	28,800			
529	Personal lockers, metal 2 tier		32	ea	300.00	9,600			
530 105000	SUBTOTAL:						\$	38,400	
531									
532	TOTAL, DIVISION 10 SPECIALTIES								\$119,270
533									
534	11 EQUIPMENT								
535									
536	119000 Other Equipment								
537									
538	Appliance, dryer		1	ea	2,000.00	2,000			
539	Appliance, washer		1	ea	500.00	500			
540	Appliance, gear washer/dryer		1	ea	25,000.00	25,000			
541	Appliance, range & oven		1	ea	2,000.00	2,000			
542	Appliance, microwave		1	ea	500.00	500			
543	Appliance, dishwasher		1	ea	1,500.00	1,500			
544	Appliance, refrigerator		1	ea	3,000.00	3,000			
545	Reconcile		1	ls	20,000.00	20,000			
546	Full height mirror @ Fitness		392	sf	60.00	NR			
547	Fire department equipment by others								
548 119000	SUBTOTAL:						\$	54,500	
549									



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
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Engine 5 CSI Detail

550	TOTAL, DIVISION 11 EQUIPMENT							\$54,500
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551	12	FURNISHINGS						
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553	122000	Window Treatment						
554		Window treatment, allowance	1,184	sf	10.00	11,840		
555		Window treatment @ interior glazing, allowance	60	sf	8.00	480		
556		Motorized window treatment @ Fitness, allowance		sf	50.00	NR		
557		SUBTOTAL:					\$ 12,320	

559	122000							
560							\$	12,320
561	TOTAL, DIVISION 12 FURNISHINGS							\$12,320

562	14	CONVEYING SYSTEMS						
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563	140001	Conveying Systems						
564		Elevator 2 stop	1	ls	250,000.00	250,000		
565		SUBTOTAL					\$	250,000

566	140001							
567							\$	250,000
568	TOTAL, DIVISION 14 CONVEYING SYSTEMS							\$250,000

569	21	FIRE PROTECTION						
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570	210000	Fire Protection						
571		<u>Fire Equipment</u>						
572		6" Fire water service entrance	1	ea	10,000.00	10,000		
573		Double check valve assembly	1	ea	5,500.00	5,500		
574		Wet alarm check valve assembly	1	ea	3,800.00	3,800		
575		Dry alarm check valve assembly						Assume NR
576		Fire pump						Assume NR
577		Floor control valve assembly	1	ea	2,000.00	2,000		
578		FDV in Recessed Cabinet	1	ea	850.00	850		
579		Fire department connection	1	ea	1,600.00	1,600		
580		Electric bell	1	ea	500.00	500		
581		Misc. Fire protection valves & accessories						NR
582		<u>Fire Distribution</u>						
583		Sprinkler heads	88	ea	95.00	8,360		
584		Dry Barrell Sprinkler Head Allowance	1	ls	2,500.00	2,500		
585		Main sprinkler piping	424	lf	53.00	22,472		
586		Branch sprinkler piping	650	lf	35.00	22,750		
587		<u>Miscellaneous</u>						
588		Demolition, cut cap, make safe	1	ls	1,200.00	1,200		
589		Coordination & BIM	1	ls	2,500.00	2,500		
590		Hydraulic calculations	1	ls	500.00	500		
591		Coring, sleeves & fire stopping	1	ls	1,000.00	1,000		
592		Shop drawings	1	ls	800.00	800		
593		Commissioning of system	1	ls	1,200.00	1,200		
594		Fees & permits						waived
595		SUBTOTAL					\$	87,532

596	210000							
597							\$	87,532
598	TOTAL, DIVISION 21							\$87,532

599	22	PLUMBING						
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600	220001	Plumbing						
601		<u>Equipment</u>						
602		Water meter assembly	1	ea	4,800.00	4,800		
603		Main reduced pressure backflow preventer	1	ea	5,500.00	5,500		
604		Reduced pressure backflow preventer serving apparatus bay	1	ea	2,500.00	2,500		
605		120 gallon electric water heaters	2	ea	20,000.00	40,000		
606		Hot water storage tank - 119 gallon	1	ea	6,000.00	6,000		
607		Water softner & brine tank	1	ea	6,500.00	6,500		
608		Mixing valve	1	ea	7,000.00	7,000		
609		Expansion tank	1	ea	2,500.00	2,500		
610		Recirc. Pump	1	ea	3,500.00	3,500		
611		Elevator sump pump with oil separator	1	ea	6,800.00	6,800		



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Engine 5 CSI Detail								
619	Exterior waste oil/water separator		1	ea	12,000.00	12,000		
620	Air compressor & air dryer assembly		1	ea	15,000.00	15,000		
621	Lint Interceptor		1	ea	2,500.00	2,500		
622	Misc Plumbing Equipment		8,671	gsf	0.50	4,336		
623	<u>Plumbing Fixtures & Specialties</u>							
624	Water Closet		6	ea	2,000.00	12,000		
625	Lavatory		6	ea	1,800.00	10,800		
626	Mop receptor		2	ea	1,850.00	3,700		
627	Electric water cooler - carried forward		1	ea	4,000.00	4,000		
628	Shower		4	ea	2,800.00	11,200		
629	Kitchen Sink		1	ea	1,800.00	1,800		
630	Washing machine connection		1	ea	500.00	500		
631	Sink		1	ea	1,900.00	1,900		
632	Decon sink		1	ea	2,600.00	2,600		
633	Emergency Eye/Face Wash - carried forward		1	ea	1,600.00	1,600		
634	Freeze proof wall hydrant allowance		3	ea	500.00	1,500		
635	Freeze proof roof hydrant allowance		2	ea	600.00	1,200		
636	Air hose reel		4	ea	1,400.00	5,600		
637	Refrigerator connection		1	ea	400.00	400		
638	Dishwasher connection		1	ea	400.00	400		
639	Hose bibb - allowance		6	ea	400.00	2,400		
640	Truck fill valve		2	ea	650.00	1,300		
641	Water hose reel		2	ea	1,650.00	3,300		
642	Roof Drain, combined		6	ea	2,000.00	12,000		
643	Trench Drain		32	lf	150.00	4,800		
644	Floor Drain		10	ea	1,600.00	16,000		
645	<u>Domestic Water Type L Copper Pipe & Insulation</u>							
646	Domestic water pipe with fittings & hangers (2" & less)		1,100	lf	48.00	52,800		
647	Valves & accessories		1	ls	8,976.00	8,976		
648	Domestic water pipe insulation		1,100	lf	10.00	11,000		
649	<u>Sanitary Waste And Vent Pipe w/ Hangers</u>							
650	Sanitary waste pipe, below grade, includes oil waste		500	lf	47.00	23,500		
651	Sanitary waste pipe with fittings & hangers, above grade,		560	lf	50.00	28,000		
652	<u>Storm Drainage, Hubless Cast Iron Pipe</u>							
653	Primary & Secondary Storm water pipe with fittings & hangers		8,671	gsf	2.20	19,076		
654	<u>Gas And Fuel Distribution Pipe</u>							
655	Gas pipe with fittings & hangers					NIC		
656	<u>Compressed Air Piping</u>							
657	Compressed Air piping w/ valves & accessories		8,671	gsf	1.00	8,671		
658	<u>Miscellaneous</u>							
659	Demolition, cut cap, make safe		1	ls	4,000.00	4,000		
660	BIM, Coordination & Supervision		1	ls	26,500.00	26,500		
661	Coring, sleeves & firestopping		1	ls	1,200.00	1,200		
662	Commissioning support		1	ls	2,500.00	2,500		
663	Testing and sterilization		1	ls	2,200.00	2,200		
664	Fees & permits		1	ls		Waived		
665 220001	SUBTOTAL						\$ 406,359	

TOTAL, DIVISION 22 **\$406,359**

23 HVAC

230001 HVAC

HVAC Equipment

Heating / Cooling Equipment

674	Outdoor air-source heat pump chillers - 17 ton		2	ea	40,000.00	80,000		
675	Back-up 60 KW electric boiler - assume required		1	ea	25,000.00	25,000		
676	FCU - 4 pipe, (average 1.06 ton)		7	ea	4,500.00	31,500		
677	Split System - 2ton		2	ea	7,800.00	15,600		
678	Buffer tank		2	ea	7,800.00	15,600		
679	Bypass Feeder		2	ea	6,000.00	12,000		



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Engine 5 CSI Detail								
681	Air separator		1	ea	4,500.00	4,500		
682	Expansion tank		3	ea	500.00	1,500		
683	Glycol make up unit		3	ea	1,600.00	4,800		
684	Heat exchanger		1	ea	18,000.00	18,000		
685	Unit heater hydronic		1	ea	1,500.00	1,500		
686	Unit heater electric		4	ea	1,400.00	5,600		
687	Cabinet unit heater hydronic		2	ea	1,600.00	3,200		
688	Under slab radiant heating at apparatus bay		2,360	gsf	10.00	23,600		
689	Snowmelt at apparatus bay apron		470	gsf	10.00	4,700		
690	<u>Pumps</u>							
691	Chiller pump (29gpm)		3	ea	7,500.00	22,500		
692	Chilled water pump (20gpm)		2	ea	5,000.00	10,000		
693	Heating hot water pump (30gpm)		2	ea	7,500.00	15,000		
694	Back-up boiler pump (not sized) - assume required		1	ea	6,000.00	6,000		
695	Under slab heating pump		3	ea	3,000.00	9,000		
696	<u>Air distribution</u>							
697	DOAS unit - heat pump heating & cooling w/ ER		1,500	cfm	26.00	39,000		
698	Exhaust fan EF-2 (1875cfm) - CO2/NO2 emergency exh		1	ea	2,500.00	2,500		
699	Vehicle exhaust system incl EF-1		1	ls	50,000.00	50,000		
700	<u>Sheet metal & Accessories</u>							
701	Sheet metal & accessories		6,300	lbs	17.00	107,100		
702	Duct insulation		4,300	sf	5.00	31,500		
703	Registers, grills, diffusers		37	ea	180.00	6,660		
704	Louvers		3	ea	750.00	2,250		
705	Motorized damper		2	ea	1,500.00	3,000		
706	Electric duct heater		5	ea	1,200.00	6,000		
707	<u>Mech Piping</u>							
708	HW Piping with fittings & hangers		1,000	lf	48.00	48,000		
709	CW Piping with fittings & hangers		650	lf	48.00	31,200		
710	Refrigerant piping with fittings & hangers (Split System)		400	lf	43.00	17,200		
711	Condensate drain piping with fittings & hangers		200	lf	32.00	6,400		
712	<u>Piping Insulation</u>							
713	Piping insulation		2,250	lf	8.00	18,000		
714	<u>Automatic Temperature Controls</u>							
715	Automatic temperature controls DDC - Based on information		8,671	gsf	9.30	80,640		
716	<u>Balancing</u>							
717	System testing & balancing		8,671	gsf	0.90	7,804		
718	<u>Miscellaneous</u>							
719	Demolition		1	ls	8,000.00	8,000		
720	Coordination & Supervision		1	ls	20,000.00	20,000		
721	Coring, sleeves & fire stopping		1	ls	2,340.00	2,340		
722	Equipment start-up and inspection		1	ls	1,320.00	1,320		
723	Rigging & equipment rental		1	ls	7,500.00	7,500		
724	Fees & permits					Waived		
725 230001	SUBTOTAL						\$	806,014
726								
727	TOTAL, DIVISION 23							\$806,014
728								
729	26 ELECTRICAL							
730								
731	260001 Electrical							
732								
733	D5010 SERVICE & DISTRIBUTION							
734	<u>Gear & Distribution</u>							
735	Normal Power							
736	Energy monitoring		1	ls	10,000.00	10,000		
737	SPD		4	ea	850.00	3,400		
738	800A disconnect switch WP		1	ea	15,500.00	15,500		
739	1200AF/800AT 120/208V distribution panelboard		1	ea	30,000.00	30,000		
740	400A 120/208V panelboard MCB		1	ea	12,000.00	12,000		
741	225A 120/208V panelboard MCB		3	ea	3,500.00	10,500		
742	150A 120/208V panelboard MCB		2	ea	3,000.00	6,000		
743	125A 120/208V panelboard MCB		1	ea	1,500.00	1,500		
744	800A feed		40	lf	397.00	15,880		



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Engine 5 CSI Detail								
745	400A feed		60	lf	201.00		12,060	
746	225A feed		105	lf	74.00		7,770	
747	150A feed		60	lf	47.00		2,820	
748	125A feed		15	lf	43.00		645	
749	<u>Generator Power</u>							
750	250KW diesel emergency generator with SA/WP cover		1	ls	120,000.00		120,000	
751	Annunciator		1	ea	2,500.00		2,500	
752	800A MTS with camlocks		1	ea	18,000.00		18,000	
753	800A ATS		1	ea	15,000.00		15,000	
754	Rigging		1	ls	10,000.00		10,000	
755	Fuel testing		1	ls	10,000.00		10,000	
756	<u>PV</u>							
757	PV Array and installation 1,886 SF area		1	ls	150,000.00		150,000	
758	Infrastructure only per narrative		1	ls	5,000.00		5,000	
759	<u>Equipment Wiring feeds and connections</u>							
760	Elevator feed and connection		1	ea	5,000.00		5,000	
761	Elevator cab power feed and connection		1	ea	1,200.00		1,200	
762	Sump Pump feed and connection		1	ea	1,200.00		1,200	
763	ASHP feed and connection		2	ea	8,500.00		17,000	
764	Chiller pump feed and connection		1	ea	8,500.00		8,500	
765	Boiler feed and connection (Electric 60KW,) allow 50 LF		1	ea	5,500.00		5,500	
766	DOAS feed and connection (100A)		1	ea	5,500.00		5,500	
767	Glycol unit feed and connection		3	ea	1,200.00		3,600	
768	Split system feed and connection		2	ea	2,500.00		5,000	
769	EF feed and connection		1	ea	850.00		850	
770	Kitchen EF feed and connection		1	ea	850.00		850	
771	FCU feed and connection		7	ea	1,000.00		7,000	
772	CUH/UH feed and connection		7	ea	850.00		5,950	
773	Pump feed and connection		11	ea	1,200.00		13,200	
774	WH feed and connection		2	ea	550.00		1,100	
775	Radiant heat feed and connection		1	ea	650.00		650	
776	Snow Melt feed and connection		1	ea	550.00		550	
777	VEX feed and connection		1	ea	2,000.00		2,000	
778	Air compressor feed and connection		1	ea	1,200.00		1,200	
779	Overhead door feed and connection		3	ea	2,500.00		7,500	
780	Cord reel with feed and connection		3	ea	2,000.00		6,000	
781	Dryer receptacle with feed and connection		2	ea	550.00		1,100	
782	Range receptacle with feed and connection		1	ea	600.00		600	
783	20A feed and connection		1	ea	1,500.00		1,500	
784	D5020 LIGHTING & POWER							
785	<u>Lighting fixtures</u>							
786	Exit		15	ea	250.00		3,750	
787	Type ELV		4	ea	250.00		1,000	
788	Type C2		24	lf	150.00		3,600	
789	Type L1		8	ea	250.00		2,000	
790	Type LED1		19	ea	250.00		4,750	
791	Type LED2		10	ea	250.00		2,500	
792	Type P1.A		16	ea	450.00		7,200	
793	Type R1		82	ea	350.00		28,700	
794	Type R2		6	ea	350.00		2,100	
795	Type R3		3	ea	350.00		1,050	
796	Type W1		5	ea	350.00		1,750	
797	Type W2		1	ea	350.00		350	
798	<u>Lighting Control</u>							
799	Lighting Controls System		8,671	gsf	2.50		21,678	
800	LCP		1	ea	2,500.00		2,500	
801	5 KW Central Inverter (per narrative)		1	ls	7,500.00		7,500	
802	<u>Lighting circuitry</u>							
803	Lighting circuitry		8,671	gsf	2.50		21,678	
804	<u>Branch devices</u>							
805								



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Engine 5 CSI Detail								
806	Double duplex receptacle		24	ea	52.00	1,248		
807	Duplex receptacle		62	ea	26.00	1,612		
808	Duplex receptacle (USB)		6	ea	31.00	186		
809	Double Duplex receptacle (floor box)		3	ea	26.00	78		
810	GFI duplex receptacle		36	ea	44.00	1,584		
811	GFI duplex receptacle WP		6	ea	54.00	324		
812	Special purpose receptacle		3	ea	55.00	165		
813	Device plate		137	ea	6.00	822		
814	Floor box		3	ea	550.00	1,650		
815	Device box		140	ea	28.00	3,920		
816	3/4" EMT		2,000	lf	8.50	17,000		
817	#12 THHN		10,000	lf	0.90	9,000		
818	MC cable		1,000	lf	5.00	5,000		
819								
820	D5030 COMMUNICATION & SECURITY SYSTEMS							
821	<u>Communications</u>							
822	MDF Fit-out		1	loc	10,000.00	10,000		
823	Switches and racks		1	loc	15,000.00	15,000		
824	2-port device		19	ea	44.00	836		
825	TV device		13	ea	22.00	286		
826	WAP device (2-port)		8	ea	750.00	6,000		
827	Device box with conduit stub to ceiling		40	ea	145.00	5,800		
828	Cat 6A cabling		10,000	lf	1.75	17,500		
829	Closet grounding		1	loc	1,000.00	1,000		
830	Cable tray		15	lf	70.00	1,050		
831	4" sleeves		4	ea	250.00	1,000		
832	<u>PA System</u>							
833	Head end		1	ls	10,000.00	10,000		
834	Speaker		31	ea	200.00	6,200		
835	Horn Speaker		2	ea	250.00	500		
836	Speaker Backbox		33	ea	65.00	2,145		
837	3/4" EMT		500	lf	8.50	4,250		
838	Cabling		2,500	lf	2.00	5,000		
839	<u>Zetron system (Alerting)</u>							
840	Rough-in only, conduit and cable tray		1	loc	5,000.00	5,000		
841	Zetron system (Alerting)		1	ls	40,000.00	By others		
842	<u>Antenna System/Satellite Dish</u>							
843	Rough-in only, conduit and cable tray		1	loc	5,000.00	5,000		
844	<u>Two-Way Elevator Communication</u>							
845	Two-Way Elevator Communication		1	ls	5,000.00	5,000		
846	<u>Radio/Dispatch Room</u>							
847	Rough-in only, conduit and cable tray		1	ls	5,000.00	5,000		
848	<u>Audio/Visual</u>							
849	Rough-in and power to AV systems (Fitness Room, Training)		1	loc	2,500.00	2,500		
850	<u>Bi-directional Amplification System</u>							
851	BDA/DAS (allow)		1	ls	10,000.00	10,000		
852	<u>Fire Alarm</u>							
853	Control panel		1	ls	8,500.00	8,500		
854	Power supply		1	ea	1,000.00	1,000		
855	DACT		1	ea	1,000.00	1,000		
856	Beacon/Bell		2	ea	250.00	500		
857	Knox box		1	ea	350.00	350		
858	Initiating device		28	ea	140.00	3,920		
859	Audio Visual device		19	ea	125.00	2,375		
860	Audio Visual device WP		1	ea	135.00	135		
861	Visual device		7	ea	105.00	735		
862	Tamper/Flow switch connection only		8	ea	85.00	680		
863	Modules		15	ea	165.00	2,475		
864	Device box		80	ea	30.00	2,400		
865	3/4" EMT		2,800	lf	8.50	23,800		
866	FA cable			lf	2.00			
867	Test and programming		1	ls	2,500.00	2,500		
868	<u>Security System</u>							
869	Head end and licensing		1	ls	20,000.00	20,000		
870	Camera		2	ea	1,050.00	2,100		
871	Camera PTZ WP		2	ea	2,000.00	4,000		
872	Card reader		12	ea	550.00	6,600		
873	Door contact		12	ea	250.00	3,000		
874	REX		9	ea	250.00	2,250		
875	Electric Hinge (provided by DHC) connection only		8	ea	125.00	1,000		
876	Electric transfer (provided by DHC) connection only		8	ea	125.00	1,000		
877	VMS		1	ea	2,500.00	2,500		
878	VES (Remote)		3	ea	1,200.00	3,600		
879	Device box		57	ea	28.00	1,596		
880	3/4" EMT		4,000	lf	8.50	34,000		
881	Security cabling		4,500	lf	1.90	8,550		
882								



CODE	DESCRIPTION	Column1	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST	
Engine 5 CSI Detail									
883	D5040	OTHER ELECTRICAL SYSTEMS							
884		<u>Common Work Result for Electrical</u>							
885		Lightning protection system	1	ls	10,000.00	NIC			
886		Grounding & Bonding	1	ls	10,000.00	10,000			
887		Demolition work	1	ls	7,500.00	7,500			
888		Seismic	1	ls	2,500.00	2,500			
889		Coordination study	1	ls	5,000.00	5,000			
890		Temp power and lights	1	ls	10,000.00	10,000			
891		Coordination, BIM	1	ls	20,000.00	20,000			
892		Fees & Permits				assumes waived			
893		Recon adjustment	1	ls	(10,000.00)	(10,000)			
894 260001		SUBTOTAL					\$ 1,020,453		
895									
896	TOTAL, DIVISION 26								\$1,020,453
897									



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
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Engine 3 CSI Detail

GROSS FLOOR AREA CALCULATION - PER A0-04

001	1st Floor		8,326	sf					
002	2nd Floor			sf					
004	TOTAL GROSS FLOOR AREA (GFA)						8,326	sf	

02 EXISTING CONDITIONS

008	024100 Demolition								
009	Demo extg Building @ Engine 5		2,705	sf	15.00	40,575			
010	SUBTOTAL:						\$	40,575	
013	028000 Facility Remediation								
015	Hazmat Abatement @ Engine 5, provided by others		1	ls	120,000.00	120,000			
016	SUBTOTAL:						\$	120,000	
018	TOTAL, DIVISION 4 - MASONRY								\$160,575

03 CONCRETE

022	033000 Concrete							
024	A1010 STANDARD FOUNDATIONS							
025	<u>Concrete Summary</u>							
026	FW Foundation Walls		41					
027	WF Wall Footings		78					
028	CF Spread Footings							
029	CW Concrete Wall & Footing							
030	SOG Slab on Grade		183					
031	Total Concrete		302	cy				
17	<u>Wall footing, various widths</u>		755	lf	933.33			
18	Formwork		1,534	sf	20.00	30,680		
19	Re-bar		6,240	lbs	2.50	15,600		
20	WF Concrete material; 4,500 psi		78	cy	190.00	14,820		
21	Placing concrete		78	cy	150.00	11,700		
23	Foundation wall footing 30"W x 10"D		479	lf			w/ above	
24	Interior bear wall footing 30"W x 1'-4"D		276	lf			w/ above	
27	<u>Foundation wall, various heights</u>		479	lf				
28	Formwork		3,034	sf	20.00	60,680		
29	Re-bar		4,100	lbs	2.50	10,250		
30	FW Concrete material; 4,500 psi		41	cy	190.00	7,790		
31	Placing concrete		41	cy	150.00	6,150		
33	Frost wall 8"W x 3'-2"H		479	lf			w/ above	
051	<u>Slab on grade 8"D w/ VB & rigid ins @ Apparatus Bay</u>		2,331	sf	28.27			
052	Vapor barrier, heavy duty, 15 mil		2,331	sf	1.00	2,331		
053	Reinforcement		8,040	lbs	2.50	20,100		
054	WWF reinforcement		2,681	sf	2.00	NR		
055	SOG Concrete - 8" thick		67	cy	190.00	12,730		
056	Placing concrete		67	cy	250.00	16,750		
057	Finishing and curing concrete		2,331	sf	6.00	13,986		
058	Moisture vapor reduction admixture; barrier one		67	cy	60.00	NR		
060	<u>Slab on grade 5"D w/ VB & rigid ins @ remainder</u>		5,995	sf	17.81			
061	Vapor barrier, heavy duty, 15 mil		5,995	sf	1.00	5,995		
062	Reinforcement		13,920	lbs	2.50	NR		
063	WWF reinforcement		6,894	sf	2.00	13,788		
064	SOG Concrete - 5" thick		116	cy	190.00	22,040		
065	Placing concrete		116	cy	250.00	29,000		
066	Finishing and curing concrete		5,995	sf	6.00	35,970		
067	Moisture vapor reduction admixture; barrier one		116	cy	60.00	NR		
069	<u>Misc.</u>							
199	Underslab insulation		8,326	sf	5.00	41,630		



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST	
071 033000	SUBTOTAL:						\$ 371,990		
072									
073	033001	Concrete - Earthwork							
074									
075	312000	EARTHWORK							
076		Strip footings							
077		Excavation	489	cy	14.00	w/ site work			
078		Backfill with existing fill	84	cy	25.00	w/ site work			
079		Gravel fill beneath footings, 6"	42	cy	55.00	w/ site work			
080		Remove off-site	285	cy	80.00	w/ site work			
081									
082		Slab on grade							
083		Compacted granular fill, 6"	43	cy	50.00	w/ site work			
084		Geo textile fabric	2,331	sf	1.00	w/ site work			
085		Compact sub-grade	2,331	sf	1.50	w/ site work			
086		Underslab drainage , lower level	2,331	sf	3.00	NR			
087		E & B for underslab plumbing	2,331	sf	2.00	NR			
088 033001	SUBTOTAL:						\$ -		
089									
090	TOTAL, DIVISION 03 CONCRETE							\$371,990	
091									
092	04	MASONRY							
093									
094	040001	Unit Masonry							
095									
096		Exterior Cladding							
097		Exterior backup wall, CMU 8"	2,680	sf	45.00	120,600			
098									
099		Interior Partitions	3,567	sf					
100		Wall N- 6" CMU to Underside of Deck, Paint 2S	1,136	sf	40.00	45,440			
101		Wall P-1 - 8" CMU to underside of deck, Paint 1S	272	sf	45.00	12,240			
102		Wall P-1 - 8" CMU to underside of deck, Paint 2S	2,159	sf	45.00	97,155			
103									
104		Misc Metals @ Masonry							
105		Misc. metals & lintels as req'd at exterior CMU	2,680	sf	2.00	5,360			
106		Seismic clips @ Interior partitions	22	ea	300.00	6,600			
107		Misc. metals & lintels as req'd at CMU interior partitions	3,567	sf	1.00	3,567			
108 040001	SUBTOTAL:						\$ 290,962		
109									
110	TOTAL, DIVISION 4 - MASONRY							\$290,962	
111									
112	05	METALS							
113									
114	051000	Structural Framing	7	tns					
115			1.68	lbs/sf					
116									
117		Roof Framing							
118		Roof construction, 22K open web steel joists spaced at 4'-0" max on center 5PSF, wide flange beams included	7.38	tns	7,000.00	51,660			
119		Roof Area	7.38	tns		w/ above			
120		Wide flange beams		tns	7,000.00	w/ above			
121 051200		Roof construction, steel framing 14" LGMF roof joists	6,158	sf	15.00	92,370			
122		Moment connections, allowance	12	ea	800.00	9,600			
123		Shear studs	1,399	ea	7.00	NR			
124		Metal galvanized roof deck canopy		sf	6.00				
125		Allow roof dunnage for MEP equipment	1	alw	10,000.00	10,000			
126		Allow steel for PV panel system		tns	7,000.00	NR			
127		Roof screen 8'-6"H, framing	32	lf	712.50	not shown			
128		Welded 6" MTL Stud @ MTL-01/02	1,832	sf	15.00	27,480	check division 9 for RLB		
129 051000	SUBTOTAL:						\$ 191,110		
130									
131	053000	Metal Decking							
132									
133		Metal galvanized roof deck at roofs - 5/8"D 22 GA deck	9,327	sf	7.00	65,289			
134		Roof Area	9,327	sf					
135 053000	SUBTOTAL:						\$ 65,289		
136									
137	055001	Metal Fabrications							
138									
139		Misc.							
140		Misc. metals as req'd throughout, allowance	8,326	gsf	6.00	49,956			
141 055001	SUBTOTAL:						\$ 49,956		
142									



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
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Engine 3 CSI Detail

TOTAL, DIVISION 5 - METALS								\$306,355
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06	WOOD & PLASTICS
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061000 Rough Carpentry

143								
144								
145								
146								
147								
148								
149								
150								
151								
152								
153								
154	061000							
155							\$	17,958
156								
157								
158								
159								
160								
161								
162								
163								
164								
165								
166								
167								
168								
169								
170								
171								
172	064000						\$	46,900
173								
174								
175								

064000 Architectural Woodwork

General

159								w/ below
160								
161								
162								
163								
164								
165								
166								
167								
168								
169								
170								
171								
172	064000						\$	46,900

TOTAL, DIVISION 6 - WOOD & PLASTICS								\$64,948
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07	THERMAL & MOISTURE PROTECTION
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071000 Dampproofing & Waterproofing

Exterior Cladding

181								higher quantity
182								deduct at LGMF assemblies
183								deduct at LGMF assemblies
184								deduct at LGMF assemblies
185								deduct at LGMF assemblies
186								
187								

Interior

188								
189								
190								
191								
192								
193								
194	071000						\$	191,116

072000 Thermal Protection

195								
196								
197								
198								deduct at LGMF assemblies
199	072000						\$	28,912

074000 Roofing & Siding Panels

074213 WALL PANELS

200								
201								
202								
203								
204	MTL-1							
205	MTL-1							
206	MTL-1							
207	MTL-2							
208	MTL-2							



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST	
Engine 3 CSI Detail									
209	WD-1	Exterior cladding WD-1 high pressure laminate composite panel, w/ 8" CMU Backup	280	sf	90.00	25,200			
210	WD-1	Exterior cladding WD-1 high pressure laminate composite panel, w/ 8" MS Backup	2,043	sf	90.00	183,870			
211		Premium; corrosion resistant masonry anchor fasteners	8,556	sf	8.50	72,726			
212		Premium for zinc panels, standing seam	5,074	sf	30.00	Alternate			
213		Premium for zinc panels, flush	1,159	sf	30.00	Alternate			
214	074000	SUBTOTAL:					\$ 768,846		
215									
216	075000	Membrane Roofing							
217									
218		Roof Qty Summary	9,200	sf					
219		Roof, general	9,200	sf					
220									
221	070001	<i>WATERPROOFING, DAMPPROOFING AND CAULKING</i>							
222		Joint sealants @ roof, allowance	9,200	sf	1.00	9,200			
223									
224	070002	<i>ROOFING AND FLASHING</i>							
225		Roof, membrane system	9,200	sf					
226		TPO membrane	9,200	sf	16.00	147,200			
227		1/2" High density roof cover board	9,200	sf	3.50	32,200			
228		(2) 3" rigid poly iso insulation	9,200	sf	12.00	110,400			
229		Continuous vapor retarder on sloped metal deck	9,200	sf	3.00	27,600			
230		1 1/2" closed cell spray foam insulation on spray applied thermal barrier to 4'-0" underside of deck	9,200	sf		NR			
231		Roof to wall edge	70	lf	40.00	2,800			
232		Through wall flashing w/ end dams/drip edge set				included w/ above			
233		Metal counter flashing w/ drip edge & cont cleat				included w/ above			
234		Adhered membrane flashing				included w/ above			
235		Flat Termination bard & hot weld				included w/ above			
236		Roof edge flashing & fascia assembly	564	lf	60.00	33,840			
237		Pre fabricated alum snap-on fascia cover				included w/ above			
238		Adhered membrane flashing				included w/ above			
239		Flat Termination bar & hot weld				included w/ above			
240		Wood blocking				included w/ div 06 above			
241		Rough blocking at roof edge	1,331	lf	6.00	7,986			
242		Parapet to screen mechanical units 4'-0"H		lf	200.00				
243		Soffit, WD-1 w/ alu J profile, 3/4" subgirt & plywood sheathing	405	sf	60.00	24,300			
244		Soffit, Prefinished flush seam metal panel on LGMF		sf		w/ exterior cladding			
245		Miscellaneous flashings @ roof	9,200	sf	2.00	18,400			
246	075000	SUBTOTAL:					\$ 413,926		
247									
248	077000	Roof & Wall Specialties / Accessories							
249									
250		Elevator Headhouse 9'x9' and vent		ea	24,300.00				
251		Roof access hatch assembly	1	ea	3,900.00	3,900			
252		Roof accessory, walker pad	200	sf	15.00	3,000			
253		Roof ladder	1	ea	3,000.00	3,000			
254	077000	SUBTOTAL:					\$ 9,900		
255									
256	078100	Fireproofing							
257									
258		Firestopping throughout	8,326	gsf	2.00	16,652			
259		Fireproofing to roof framing, per roof plan				Assumed NR			
260	078100	SUBTOTAL:					\$ 16,652		
261									
262	TOTAL, DIVISION 7 - THERMAL AND MOISTURE PROTECTION								\$1,429,352
263									
264	08 DOORS & WINDOWS								
265									
266	081100	Metal Doors and Frames							
267									
268		<u>Exterior Doors</u>							
269		Door 1 - 3070 EXT-HM	6	ea	1,000.00	6,000			
270		Frame 3070 EXT- FGF-1	6	ea	600.00	3,600			
271		Install doors	6	ea	200.00	1,200			
272									
273		<u>Interior Door Summary</u>							
274		Single Leaf, 3'-0"W x 7'H	30	ea		costs included below			
275		Single Leaf, 3'-6"W x 7'H		ea		costs included below			



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Engine 3 CSI Detail								
276		Double Leaf, 6'W x 7'H		ea				costs included below
277		Irregular Leaf, 5'W x 7'H		ea				costs included below
278								
279	08113	<i>HOLLOW METAL DOOR FRAMES</i>						
280		Hollow metal door, single leaf 3070	21	lv	450.00	9,450		
281		Hollow metal door, single leaf 3670		lv	500.00			
282		Hollow metal door, dbl leaf 6070		lv	900.00			
283								
284		Hollow metal frame, single leaf 3070	29	ea	400.00	11,600		
285		Hollow metal frame, single leaf 3670		ea	450.00			
286		Hollow metal frame, dble leaf 6070		ea	800.00			
287		HM framing for glazing @ sidelite & transom		sf	40.00			
288		Install doors	29	ea	150.00	4,350		
289		Acoustic rated premium	7	ea	1,000.00	7,000		
290		Fire rated premium, 60min, allow	10	ea	200.00	2,000		
291								
292	084000	<i>WOOD DOORS</i>						
293		Wood door, single leaf 3070	8	lv	600.00	4,800		
294								
295	084110	<i>ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS</i>						
296		Aluminum door, single leaf in storefront	1	lv	3,000.00	3,000		
297		Aluminum door, dbl leaf in storefront		lv	2,500.00			
298	081110	SUBTOTAL:					\$	53,000
299								
300	083100	Access Doors and Frames						
301		Access doors	1	ls	5,000.00	5,000		
302								
303	083100	SUBTOTAL:					\$	5,000
304								
305	084400	Entrances, Storefronts, & Curtain Walls						
306								
307		Door ED1 6070 EXT-ALU in curtainwall	1	ea	10,000.00	10,000		
308	084400	SUBTOTAL:					\$	10,000
309								
310	083300	Coiling Doors & Grilles						
311		OHD 14'-0"L x 14'-0"H, fully glazed	4	ea	35,000.00	140,000		
312		OHD 12'-0"L x 12'-0"H, fully glazed	1	ea	26,000.00	26,000		
313		Door SD1 3670 INT-HM, Sliding barn door	1	ls	1,500.00	1,500		
314								
315	083300	SUBTOTAL:					\$	167,500
316								
317	080001	Metal Windows	834	sf				
318		Windows, metal - operable						
319								
320		Windows, metal	281	sf	170.00	47,770		
321		SF A	181	sf		w/ above		
322		SF B	100	sf		w/ above		
323		Storefront, metal						
324								
325		Storefront, metal	553	sf	200.00	110,600		
326		D	223	sf		w/ above		
327		E	330	sf		w/ above		
328		Spandrel in curtain wall		sf	100.00			
329	080001	SUBTOTAL:					\$	158,370
330								
331	088000	Glazing						
332		Interior Storefront C @ Office 103	80	sf	140.00	11,200		
333		Interior Storefront D, GL2 @ Fitness 135	50	sf	140.00	7,000		
334		Interior Storefront G, GL2 @ Fitness 135	90	sf	140.00	12,600		
335								
336	088000	SUBTOTAL:					\$	30,800
337								
338	089000	Louvers & Vents						
339								
340		Louvers, fixed, allowance	100	sf	100.00	10,000		
341	089000	SUBTOTAL:					\$	10,000
342								
343	087100	Door Hardware						
344		Hardware, typical interior	30	set	900.00	27,000		
345		Hardware, typical @ Exterior	7	ea	1,200.00	8,400		
346								



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
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Engine 3 CSI Detail

347		Card reader, door contact,& electric hardware system	7	ea	3,500.00	24,500		
348	087100	SUBTOTAL:					\$	59,900
349								
350		TOTAL, DIVISION 8 - DOORS AND WINDOWS						\$494,570
351								
352		09 FINISHES						
353								
354		090002 Tiling						
355		Wall finish, ceramic tile @ Above Counter	40	sf	40.00	1,600		
356		Wall finish, ceramic tile @ Shower	370	sf	40.00	14,800		
357		Wall finish, ceramic tile @ Toilet	1540	sf	40.00	61,600		
358		Flooring, TLF-01 - ceramic tile	339	sf	42.00	14,238		
359		Floor base, tile	191	lf	30.00	5,730		
360		SUBTOTAL:					\$	97,968
361	090002							
362		098000 Acoustic Treatment						
363		Acoustical panels, allowance	500	sf	45.00	not shown		
364		SUBTOTAL:					\$	-
365	098000							
366		090006 Resilient Flooring						
367		Flooring, LIN-01	2,069	sf	8.00	16,552	bump up	
368		Flooring, LIN-01 - slip resistant premium @ Corridor Only, allowance	747	sf	3.00	2,241		
369		Flooring, RBF-02 - Fitness	618	sf	22.00	13,596		
370		Floor base, rubber	1,149	lf	3.00	3,447		
371		SUBTOTAL:					\$	35,836
372	090006							
373		096700 Fluid-Applied Flooring						
374		Flooring, EPX-01 - epoxy	3,213	sf	24.00	77,112		
375		SUBTOTAL:					\$	77,112
376	096700							
377		096800 Carpet Flooring						
378		Flooring, Carpet	25	sy	80.00	2,000		
379		Flooring, WOM1	154	sf	22.00	3,388		
380		SUBTOTAL:					\$	5,388
381	096800							
382		090004 Acoustical Ceilings						
383		Ceiling, ACT 2x2	1,785	sf	8.00	14,280		
384		SUBTOTAL:					\$	14,280
385	090004							
386		092100 Gypsum Board Assemblies						
387		<u>Exterior Backup</u>	4,548					
388		8" Metal stud backup wall @ exterior cladding	4,548	sf	20.00	90,960		
389		Interior batt insulation	4,548	sf	4.00	18,192		
390		Interior face GWB to stud backup	4,548	sf	5.00	22,740		
391		<u>Interior Partitions</u>	8,848					
392			<i>1S</i>	<i>816</i>				
393			<i>2S</i>	<i>8,032</i>				
394		Wall EA- 3 5/8" MF, NR GWB, 1L-OS w/ sound att, high impact resistant	816	sf	13.00	10,608		
395		Wall EB- 3 5/8" MF, NR GWB 1L-ES w/ sound att, high impact resistant - bearing wall		sf	18.00			
396		Wall EB1- 3 5/8" MF, 1HR GWB/CB 1L-ES w/ sound att, high impact resistant	6,384	sf	18.00	114,912		
397		Wall EJ- 3 5/8" MF, NR GWB/CB 1L-ES w/ sound att, high impact resistant	752	sf	18.00	13,536		
398		Wall FB2S- 6" MF, 2HR GWB, 1L-ES w/ sound att. Impact resi	896	sf	18.00	16,128		
399		Impact resistant premium	16,880	sf	2.00	33,760		
400		Ceiling, GWB	2,207	sf	18.00	39,726		
401		Ceiling, MRGWB @ toilet rooms	341	sf	20.00	6,820		
402		Soffits as req'd, allow 10% of room perimeters	187.7	lf	28.00	5,256		
403		SUBTOTAL:					\$	372,638
404	092100							
405		090007 Painting						
406		Paint interior face of exterior wall	8,556	sf	1.00	8,556		
407		Paint doors & frames	30	ea	225.00	6,750		



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
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Engine 3 CSI Detail

417	Paint CMU walls		6,862	sf	2.00	13,724		
418	Paint GWB walls		16,880	sf	1.50	25,320		
419	EXP1 exposed underside of structure, no work		2,968	sf				
420	EXP2 exposed underside of structure, paint			sf	3.00	no work assumed		
421	Paint GWB ceiling & soffit		2,395	sf	1.50	3,593		
422	Paint GWB w/ epoxy paint		341	sf	10.00	3,410		
423	Flooring, CONC-01 - sealed concrete		736	sf	2.50	1,840		
424	090007						\$	63,193
425								
426								
427								
428								
429								
430								
431								
432								
433								
434								
435								
436								
437	101100						\$	6,720
438								
439								
440								
441								
442								
443								
444								
445								
446	101400						\$	36,600
447								
448								
449								
450								
451								
452								
453								
454								
455								
456								
457								
458								
459								
460								
461								
462								
463								
464								
465								
466								
467	102800						\$	20,760
468								
469								
470								
471								
472								
473								
474	102600						\$	8,480
475								
476								
477								
478								
479								
480	102110						\$	4,800
481								
482								
483								
484								

TOTAL, DIVISION 9 - FINISHES								\$666,415
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10	SPECIALTIES
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101100 Visual Display Surfaces

C1030 SPECIALTIES / MILLWORK

434	Display unit, Markerboard MBD-1 4', allowance		5	ea	480.00	2,400		
435	Display unit, Markerboard MBD-1 8', allowance		2	ea	960.00	1,920		
436	Poster case, allowance		2	ea	1,200.00	2,400		
437	101100						\$	6,720

101400 Signage

Exterior

442	Exterior signage 18" dimensional lettering - "CHELMSFORD FIRE DEPARTMENT"		24	ea	750.00	18,000		
443	Exterior signage 72" pin mounted metal lettering "3"		1	ls	15,000.00	15,000		

Interior

445	Room/door signage		30	ea	120.00	3,600		
446	101400						\$	36,600

102800 Toilet & Bathroom Accessories

Toilet Room Summary

451	Single toilet ADA		2	rms				
452	Single toilet w/ shower		4	rms				
453	Toilet accessories, group			rms				
454								
455	SA - Shower accessories, ADA stall		4	ea	1,200.00	4,800		
456	SA - Shower accessories, standard stall			ea	500.00			
457	TA - Diaper Changing Table		2	ea	800.00	1,600		
458	TA - Grab bars		6	ea	250.00	1,500		
459	TA - Hand dryer		10	ea	600.00	6,000		
460	TA - Mirror, framed		6	ea	200.00	1,200		
461	TA - Paper towel dispenser		10	ea	200.00	2,000		
462	TA - Sanitary napkin disposal		4	ea	100.00	400		
463	TA - Soap dispenser		6	ea	60.00	360		
464	TA - Toilet paper holder		6	ea	100.00	600		
465	TA - Waste bin		10	ea	200.00	2,000		
466	Janitor storage, accessories		1	rms	300.00	300		
467	102800						\$	20,760

102600 Wall & Door Protection

471	Wall protection, corner guard SS, allowance		5	ea	280.00	1,400		
472	Wall protection, crash rail, allowance		200	lf	30.00	6,000		
473	Wall protection, FRP @ JC, allowance		72	sf	15.00	1,080		
474	102600						\$	8,480

102110 Toilet and Shower Partitions

478	Shower Units, ADA			ea	3,600.00			
479	Shower Units, standard pan only		4	ea	1,200.00	4,800		
480	102110						\$	4,800

104400 Fire Extinguishers

484	Fire extinguisher cabinets		3	ea	350.00	1,050		
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CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
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Engine 3 CSI Detail

485	104400						\$	1,050
486								
487	105000	Storage Specialties						
488								
489		Storage, locker metal, turn out gear @ Turnout	16	ea	1,800.00	28,800		
490		Personal lockers, metal 2 tier	32	ea	300.00	9,600		
491	105000						\$	38,400
492								

TOTAL, DIVISION 10 SPECIALTIES								\$116,810
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11	EQUIPMENT
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496								
497	119000	Other Equipment						
498								
499		Appliance, dryer	1	ea	2,000.00	2,000		
500		Appliance, washer	1	ea	500.00	500		
501		Appliance, gear washer/dryer	1	ea	25,000.00	25,000		
502		Appliance, range & oven	1	ea	2,000.00	2,000		
503		Appliance, microwave	1	ea	500.00	500		
504		Appliance, dishwasher	1	ea	1,500.00	1,500		
505		Appliance, refrigerator	1	ea	3,000.00	3,000		
506		Full height mirror @ Fitness	440	sf	60.00	Removed		
507		Reconcile	1	ls	20,000.00	20,000		
508		Fire department equipment by others						
509	119000						\$	54,500
510								

TOTAL, DIVISION 11 EQUIPMENT								\$54,500
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12	FURNISHINGS
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515	122000	Window Treatment						
516								
517		Window treatment @ dayroom & bunk room, allowance	834	sf	10.00	8,340		
518		Window treatment @ interior glazing, allowance	130	sf	8.00	1,040		
519		Motorized window treatment @ Fitness, allowance		sf	50.00	NR		
520	122000						\$	9,380
521								
522	123000	Casework						
523								
524	123000						\$	-
525								

TOTAL, DIVISION 12 FURNISHINGS								\$9,380
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14	CONVEYING SYSTEMS
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529	140001	Conveying Systems						
530								
531		Elevator 2 stop	-	ls	175,000.00			
532								
533	140001						\$	-
534								

TOTAL, DIVISION 14 CONVEYING SYSTEMS								
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21	FIRE PROTECTION
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537	210000	Fire Protection						
538								
539		<u>Fire Equipment</u>						
540								
541		6" Fire water service entrance	1	ea	10,000.00	10,000		
542		Double check valve assembly	1	ea	5,500.00	5,500		
543		Wet alarm check valve assembly	1	ea	3,800.00	3,800		
544		Dry alarm check valve assembly						Assume NR
545		Fire pump						Assume NR
546		Floor control valve assembly	1	ea	2,000.00	2,000		
547		2 1/2" FDV in Recessed Cabinet - carried forward	1	ea	850.00	850		
548								
549		Fire department connection	1	ea	1,600.00	1,600		
550		Electric bell	1	ea	500.00	500		
551		Misc. Fire protection valves & accessories						NR
552		<u>Fire Distribution</u>						
553		Sprinkler heads	84	ea	95.00	7,980		
554		Dry Barrell Sprinkler Head Allowance	1	ls	2,500.00	2,500		



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Engine 3 CSI Detail								
555	Main sprinkler piping		230	lf	53.00	12,190		
556	Branch sprinkler piping		778	lf	35.00	27,230		
557	Add dry head at canopy		2	ea	2,500.00	5,000		
558	<u>Miscellaneous</u>							
559	Demolition, cut cap, make safe		1	ls	1,200.00	1,200		
560	Coordination & BIM		1	ls	2,500.00	2,500		
561	Hydraulic calculations		1	ls	500.00	500		
562	Coring, sleeves & fire stopping		1	ls	1,000.00	1,000		
563	Shop drawings		1	ls	800.00	800		
564	Commissioning of system		1	ls	1,200.00	1,200		
565	Fees & permits					waived		
566 210000	SUBTOTAL						\$	86,350
567	TOTAL, DIVISION 21							
568								886,350
569								
570	22	PLUMBING						
571								
572	220001	Plumbing						
573								
574	<u>Equipment</u>							
575	Water meter assembly		1	ea	4,800.00	4,800		
576	Main reduced pressure backflow preventer		1	ea	5,500.00	5,500		
577	Reduced pressure backflow preventer serving apparatus bay		1	ea	2,500.00	2,500		
578	120 gallon electric water heaters		2	ea	20,000.00	40,000		
579	Hot water storage tank - 119 gallon		1	ea	6,000.00	6,000		
580	Water softner & brine tank		1	ea	6,500.00	6,500		
581	Mixing valve		1	ea	7,000.00	7,000		
582	Expansion tank		1	ea	3,000.00	3,000		
583	Recirc. Pump		1	ea	3,500.00	3,500		
584	Exterior waste oil/water separator		1	ea	12,000.00	12,000		
585	Air compressor & air dryer assembly		1	ea	15,000.00	15,000		
586	Lint Interceptor		1	ea	2,500.00	2,500		
587	Misc Plumbing Equipment		8,326	gsf	0.50	4,163		
588	<u>Plumbing Fixtures & Specialties</u>							
589	Water Closet		6	ea	2,000.00	12,000		
590	Lavatory		6	ea	1,800.00	10,800		
591	Janitors sink		2	ea	1,850.00	3,700		
592	Electric water cooler carried forward		1	ea	4,000.00	4,000		
593	Shower		4	ea	2,800.00	11,200		
594	Kitchen Sink		1	ea	1,800.00	1,800		
595	Decon sink		1	ea	2,600.00	2,600		
596	Washing machine connection		2	ea	500.00	1,000		
597	Refrigerator connection		1	ea	550.00	550		
598	Dishwasher connection		1	ea	400.00	400		
599	Combination eye wash shower		1	ea	3,200.00	3,200		
600	Freeze proof wall hydrant (allowance)		3	ea	500.00	1,500		
601	Freeze proof roof hydrant (allowance)		2	ea	600.00	1,200		
602	Air hose reel		4	ea	1,400.00	5,600		
603	Hose bibb (allowance)		3	ea	400.00	1,200		
604	Truck fill valve		2	ea	650.00	1,300		
605	Water hose reel		2	ea	1,650.00	3,300		
606	Roof Drain, combined		6	ea	2,000.00	12,000		
607	Trench Drain		32	lf	150.00	4,800		
608	Floor Drain		12	ea	1,600.00	19,200		
609	<u>Domestic Water Type L Copper Pipe & Insulation</u>							
610	Domestic water pipe with fittings & hangers (2" & less)		1,300	lf	48.00	62,400		
611	Valves & accessories		1	ls	10,608.00	10,608		
612	Domestic water pipe insulation		1,300	lf	10.00	13,000		
613	<u>Sanitary Waste And Vent Pipe w/ Hangers</u>							
614	Sanitary waste pipe, below grade, includes oil waste		600	lf	47.00	28,200		
615	Sanitary waste pipe with fittings & hangers, above grade,		550	lf	50.00	27,500		
616	<u>Storm Drainage, Hubless Cast Iron Pipe</u>							



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
617	Primary & Secondary Storm water pipe with fittings & hangers		8,326	gsf	2.20	18,317		
618	<u>Gas And Fuel Distribution Pipe</u>							
619	Gas pipe with fittings & hangers					NIC		
620	<u>Compressed Air Piping</u>							
621	Compressed Air piping w/ valves & accessories		8,326	gsf	1.00	8,326		
622	<u>Miscellaneous</u>							
623	Demolition, cut cap, make safe		1	ls	4,000.00	4,000		
624	BIM, Coordination & Supervision		1	ls	6,500.00	6,500		
625	Coring, sleeves & firestopping		1	ls	1,200.00	1,200		
626	Commissioning support		1	ls	2,500.00	2,500		
627	Testing and sterilization		1	ls	2,200.00	2,200		
628	Fees & permits		1	ls		Waived		
629 220001	SUBTOTAL						\$ 398,564	

TOTAL, DIVISION 22 \$398,564

23 HVAC

230001 HVAC

637	<u>Geothermal</u>							
638	7no. Geothermal wells - 400ft deep		5,600	vfl	58.00	324,800		
639	<u>HVAC Equipment</u>							
640	<u>Heating / Cooling Equipment</u>							
641	Indoor water to water heat pump - (HP 1 thru 7) (nominal 5tons - assume 7x5= 35tons)		1	ea	70,000.00	70,000		
642	Back-up 60 KW electric boiler - assume required		1	ea	25,000.00	25,000		
643	FCU - 4 pipe, (average 1.375 ton)		7	ea	4,500.00	31,500		
644	Split System		1	ea	7,800.00	7,800		
645	Buffer tank		2	ea	7,800.00	15,600		
646	Bypass Feeder		3	ea	6,000.00	18,000		
647	Air separator		1	ea	4,500.00	4,500		
648	Expansion tank		4	ea	500.00	2,000		
649	Glycol make up unit		2	ea	1,600.00	3,200		
650	Heat exchanger		1	ea	18,000.00	18,000		
651	Unit heater hydronic		1	ea	1,500.00	1,500		
652	Cabinet unit heater hydronic		3	ea	1,500.00	4,500		
653	Unit heater electric		4	ea	1,400.00	5,600		
654	Cabinet unit heater hydronic		2	ea	1,600.00	3,200		
655	Fin tube radiation panels - hydronic		48	lf	150.00	7,200		
656	Under slab radiant heating at apparatus bay		2,330	gsf	10.00	23,300		
657	Snowmelt at apparatus bay apron		650	gsf	10.00	6,500		
658	<u>Pumps</u>							
659	Ground water pump secondary loop - 60GPM		2	ea	9,000.00	18,000		
660	Chilled water pump -20GPM		2	ea	5,000.00	10,000		
661	Hot water pump -30GPM		2	ea	7,500.00	15,000		
662	Back-up boiler pump (not sized) - assume required		1	ea	6,000.00	6,000		
663	Under slab heating pump		3	ea	3,000.00	9,000		
664	<u>Air distribution</u>							
665	DOAS unit - heat pump heating & cooling w/ ER		1,500	cfm	26.00	39,000		
666	Exhaust fan EF-2 (1850cfm)		1	ea	2,500.00	2,500		
667	Vehicle exhaust system incl EF-1		1	ls	70,000.00	70,000		
668	<u>Sheet metal & Accessories</u>							
669	Sheet metal & accessories		6,000	lbs	17.00	102,000		
670	Duct insulation		4,000	sf	5.00	30,000		
671	Registers, grills, diffusers		40	ea	180.00	7,200		
672	Louvers		2	ea	750.00	1,500		
673	Motorized damper		2	ea	1,500.00	3,000		
674	Electric duct heater		7	ea	1,200.00	8,400		
675	<u>Mech Piping</u>							
676	HW Piping with fittings & hangers		750	lf	48.00	36,000		
677	CW Piping with fittings & hangers		400	lf	48.00	19,200		
678	Refrigerant piping with fittings & hangers (Split System)		200	lf	43.00	8,600		



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
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Engine 3 CSI Detail

679	Condensate drain piping with fittings & hangers		200	lf	32.00	6,400		
680	<u>Piping Insulation</u>							
681	Piping insulation		1,550	lf	8.00	12,400		
682	<u>Automatic Temperature Controls</u>							
683	Automatic temperature controls DDC - Based on information		8,326	gsf	7.00	58,282		
684	Balancing							
685	System testing & balancing		8,326	gsf	0.90	7,493		
686	<u>Miscellaneous</u>							
687	Demolition		1	ls	8,000.00	8,000		
688	Coordination & Supervision		1	ls	20,000.00	20,000		
689	Coring, sleeves & fire stopping		1	ls	2,340.00	2,340		
690	Equipment start-up and inspection		1	ls	1,320.00	1,320		
691	Rigging & equipment rental		1	ls	7,500.00	7,500		
692	Fees & permits					Waived		
693	230001 SUBTOTAL						\$	1,081,335

TOTAL, DIVISION 23								\$1,081,335
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26	ELECTRICAL
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260001	Electrical
D5010	SERVICE & DISTRIBUTION

702	<u>Gear & Distribution</u>							
703	Normal Power							
704	Energy monitoring		1	ls	10,000.00	10,000		
705	SPD		4	ea	850.00	3,400		
706	800A disconnect switch WP		1	ea	15,500.00	15,500		
707	1200AF/800AT 120/208V distribution panelboard		1	ea	30,000.00	30,000		
708	400A 120/208V panelboard MCB		1	ea	12,000.00	12,000		
709	225A 120/208V panelboard MCB		3	ea	3,500.00	10,500		
710	150A 120/208V panelboard MCB		1	ea	3,000.00	3,000		
711	125A 120/208V panelboard MCB		1	ea	1,500.00	1,500		
712	800A feed		80	lf	397.00	31,760		
713	400A feed		15	lf	201.00	3,015		
714	225A feed		110	lf	74.00	8,140		
715	150A feed		50	lf	47.00	2,350		
716	125A feed		20	lf	43.00	860		
717	<u>Generator Power</u>							
718	250KW diesel emergency generator with SA/WP cover		1	ls	120,000.00	120,000		
719	Annunciator		1	ea	2,500.00	2,500		
720	800A MTS with camlocks		1	ea	18,000.00	18,000		
721	800A ATS		1	ea	15,000.00	15,000		
722	Rigging		1	ls	10,000.00	10,000		
723	Fuel testing		1	ls	10,000.00	10,000		
724	<u>PV</u>							
725	PV Array and installation 5,120 SF area		1	ls	310,000.00	310,000		
726	Infrastructure only per narrative		1	ls	1,000.00	1,000		
727	Infrastructure only per narrative		1	ls	2,500.00	2,500		
728	<u>Equipment Wiring feeds and connections</u>							
729	HP feed and connection		7	ea	2,500.00	17,500		
730	Geothermal pump feed and connection (allow)		1	ls	7,500.00	7,500		
731	Boiler feed and connection (Electric 60KW,) allow 50 LF		1	ea	5,500.00	5,500		
732	DOAS feed and connection (100A)		1	ea	5,500.00	5,500		
733	Glycol unit feed and connection		2	ea	1,200.00	2,400		
734	Split system feed and connection		1	ea	2,500.00	2,500		
735	EF feed and connection		2	ea	850.00	1,700		
736	VEX feed and connection		1	ea	1,500.00	1,500		
737	Kitchen EF feed and connection		1	ea	850.00	850		
738	FCU feed and connection		7	ea	1,000.00	7,000		
739	CUH/UH feed and connection		9	ea	850.00	7,650		
740	Pump feed and connection		11	ea	1,200.00	13,200		
741	WH feed and connection		2	ea	550.00	1,100		



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Engine 3 CSI Detail								
742	Radiant heat feed and connection		1	ea	650.00	650		
743	Snow Melt feed and connection		1	ea	550.00	550		
744	VEX feed and connection		1	ea	2,000.00	2,000		
745	Air compressor feed and connection		1	ea	1,200.00	1,200		
746	Overhead door feed and connection		5	ea	2,500.00	12,500		
747	Cord reel with feed and connection		4	ea	2,000.00	8,000		
748	Dryer receptacle with feed and connection		2	ea	550.00	1,100		
749	20A feed and connection		2	ea	1,500.00	3,000		
750								
751	D5020 LIGHTING & POWER							
752	<u>Lighting fixtures</u>							
753	Exit		13	ea	250.00	3,250		
754	Type C1		4	ea	450.00	1,800		
755	Type C2		32	lf	150.00	4,800		
756	Type L1		7	ea	250.00	1,750		
757	Type LED1		21	ea	250.00	5,250		
758	Type LED2		14	ea	250.00	3,500		
759	Type P1.A		15	ea	450.00	6,750		
760	Type R1		67	ea	350.00	23,450		
761	Type R2		6	ea	350.00	2,100		
762	Type R3		4	ea	350.00	1,400		
763	Type W1		5	ea	350.00	1,750		
764	Type W2		2	ea	350.00	700		
765	Type W3		2	ea	350.00	700		
766	Type W4		1	ea	500.00	500		
767	Type YR1		3	ea	350.00	1,050		
768	Type YR2		1	ea	350.00	350		
769	<u>Lighting Control</u>							
770	Lighting Controls System		8,756	gsf	2.00	17,512		
771	5 KW Central Inverter (per narrative)		1	ls	7,500.00	7,500		
772	<u>Lighting circuitry</u>							
773	Lighting circuitry		8,756	gsf	2.50	21,890		
774	<u>Branch devices</u>							
775	Double duplex receptacle		28	ea	52.00	1,456		
776	Duplex receptacle		66	ea	26.00	1,716		
777	Duplex receptacle (USB)		6	ea	31.00	186		
778	Double Duplex receptacle (floor box)		2	ea	26.00	52		
779	GFI duplex receptacle		30	ea	44.00	1,320		
780	GFI duplex receptacle WP		11	ea	54.00	594		
781	Special purpose receptacle		4	ea	55.00	220		
782	Device plate		141	ea	6.00	846		
783	Floor box		2	ea	550.00	1,100		
784	Device box		150	ea	28.00	4,200		
785	3/4" EMT		2,000	lf	8.50	17,000		
786	#12 THHN		10,000	lf	0.90	9,000		
787	MC cable		1,000	lf	5.00	5,000		
788								
789	D5030 COMMUNICATION & SECURITY SYSTEMS							
790	<u>Communications</u>							
791	MDF Fit-out		1	loc	10,000.00	10,000		
792	Switches and racks		1	loc	15,000.00	15,000		
793	2-port device		25	ea	44.00	1,100		
794	TV device		10	ea	22.00	220		
795	WAP device (2-port)		7	ea	750.00	5,250		
796	Device box with conduit stub to ceiling		42	ea	145.00	6,090		
797	Cat 6A cabling		1,200	lf	1.75	2,100		
798	Closet grounding		1	loc	1,000.00	1,000		
799	Cable tray		15	lf	70.00	1,050		
800	4" sleeves		4	ea	250.00	1,000		
801	<u>PA System</u>							
802	Head end		1	ls	10,000.00	10,000		
803	Speaker		17	ea	200.00	3,400		
804	Horn Speaker		10	ea	250.00	2,500		
805	Speaker Backbox		27	ea	65.00	1,755		
806	3/4" EMT		500	lf	8.50	4,250		
807	Cabling		2,000	lf	2.00	4,000		
808	<u>Zetron system (Alerting)</u>							



CODE	DESCRIPTION	Column	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST	
Engine 3 CSI Detail									
809	Rough-in only, conduit and cable tray		1	loc	5,000.00	5,000			
810	Zetron system (Alerting)		1	ls	40,000.00	By others			
811	<u>Antenna System/Satellite Dish</u>								
812	Rough-in only, conduit and cable tray		1	loc	5,000.00	5,000			
813	<u>Two-Way Elevator Communication</u>								
814	Two-Way Elevator Communication		1	ls	5,000.00	5,000			
815	<u>Radio/Dispatch Room</u>								
816	Rough-in only, conduit and cable tray		1	ls	5,000.00	5,000			
817	<u>Audio/Visual</u>								
818	Rough-in and power to AV systems (Fitness Room, Training)		2	loc	2,500.00	5,000			
819	<u>Bi-directional Amplification System</u>								
820	BDA/DAS (allow)		1	ls	10,000.00	10,000			
821	<u>Fire Alarm</u>								
822	Control panel		1	ls	8,500.00	8,500			
823	DACT		1	ea	1,000.00	1,000			
824	Beacon/Bell		2	ea	250.00	500			
825	Knox box		1	ea	350.00	350			
826	Initiating device		25	ea	140.00	3,500			
827	Audio Visual device		21	ea	125.00	2,625			
828	Audio Visual device WP		1	ea	135.00	135			
829	Visual device		6	ea	105.00	630			
830	Modules		12	ea	165.00	1,980			
831	Device box		68	ea	30.00	2,040			
832	3/4" EMT		2,400	lf	8.50	20,400			
833	FA cable		4,000	lf	2.00	8,000			
834	Test and programming		1	ls	2,500.00	2,500			
835	<u>Security System</u>								
836	Head end and licensing		1	ls	20,000.00	20,000			
837	Camera		2	ea	1,050.00	2,100			
838	Camera PTZ WP		4	ea	2,000.00	8,000			
839	Card reader		14	ea	550.00	7,700			
840	Door contact		19	ea	250.00	4,750			
841	REX		12	ea	250.00	3,000			
842	Electric Hinge (provided by DHC) connection only		12	ea	125.00	1,500			
843	Electric transfer (provided by DHC) connection only		12	ea	125.00	1,500			
844	VMS		1	ea	2,500.00	2,500			
845	VES (Remote)		3	ea	1,200.00	3,600			
846	Device box		80	ea	28.00	2,240			
847	3/4" EMT		2,000	lf	8.50	17,000			
848	Security cabling		6,000	lf	1.90	11,400			
849									
850	D5040 OTHER ELECTRICAL SYSTEMS								
851	<u>Common Work Result for Electrical</u>								
852	Lightning protection system		1	ls	10,000.00	NIC			
853	Grounding & Bonding		1	ls	10,000.00	10,000			
854	Demolition work		1	ls	7,500.00	7,500			
855	Seismic		1	ls	2,500.00	2,500			
856	Coordination study		1	ls	5,000.00	5,000			
857	Temp power and lights		1	ls	10,000.00	10,000			
858	Coordination, BIM		1	ls	20,000.00	20,000			
859	Fees & Permits					assumes waived			
860	Recon adjustment		1	ls	(10,000.00)	(10,000)			
861 280001	SUBTOTAL						\$ 1,158,782		
862									
863	TOTAL, DIVISION 26							\$1,158,782	
864									
						\$ 6,690,888	\$ 6,690,888	\$ 6,690,888	



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITWORK ENGINE 5

G SITEWORK							
G10 SITE PREPARATION & DEMOLITION							
311000 GENERAL CONDITIONS							
311000	6' high site construction fence	526	lf	16.00	8,416		
311000	6' high site construction fence double gate	1	loc	5,000.00	5,000		
311000	Site construction entrance and removal/restoration	1	loc	10,000.00	10,000		
311000	Mobilization & Demobilization	1	ea	15,000.00	w_GRs		
311000	Temp laydown areas	1	ls	10,000.00	w_GRs		
311000	Construction offices area prep - allowance	1	ls	10,000.00	10,000		
311000	Temporary signs	1	ls	20,000.00	Excluded		
311000	Wheel wash rack	1	ls	8,000.00	8,000		
311000	Engineering/layout	4	mths	8,000.00	w_GRs		
311000	Concrete washout area	1	ea	2,500.00	2,500		
311000	Snow removal - allowance	1	ls		Excluded		
311000	Winter conditions - allowance	1	ls		Excluded		
311000	Police details	1	ls		Excluded		
311000	Site security	1	ls		Excluded		
311000	Job site construction trailer	1	ls		Excluded		
311000	Temp utilities for job trailer	1	ls		Excluded		
311000 SITE SALVAGE ITEMS							
311000	Relocated wood chip exercise area	1	ls	10,000.00	Assumed NR		
311000 SITE DEMOLITION AND RELOCATIONS							
311000	Demolish existing paving	8,134	sf	1.00	8,134		
311000	Demolish existing concrete walk	313	sf	3.00	939		
311000	Demolish curbing	65	lf	6.00	390		
311000	Demolish existing fencing	370	lf	5.00	1,850		
311000	Miscellaneous site demolition; furnishings, concrete pads, signs etc	1	ls	10,000.00	10,000		
311000 UTILITY DEMOLITION							
311000	Cut/cap utility lines	2	ea	10,000.00	20,000		
311000	Demolish existing gas lines	125	lf	15.00	1,875		
311000	Demolish existing water lines	194	lf	25.00	4,850		
311000	Demolish existing drainage utility structures	1	ea	500.00	500		
311000	Demolish existing leach field	788	sf	30.00	23,640		
311000	Pump and remove septic tanks	1	ls	10,000.00	10,000		
311000 ROADWAY WORK							
311000	Sawcut	196	lf	8.25	1,617		
311000	Remove pavement	317	sf	3.50	1,110		
311000	Temp pavement patching	317	sf	6.00	1,902		
311000	Steel plates	1	ls	2,500.00	2,500		
311000	Police details	7	dy	850.00	5,950		
311000	Permanent pavement patch	317	sf	8.00	2,536		
311000 VEGETATION & TOPSOIL MANAGEMENT							
311000	Clear and grub	1	ls	15,000.00	15,000		
311000	Remove existing trees	9	ea	850.00	7,650		
312000 EROSION & SEDIMENT CONTROL							
312000	Silt Fence; installation and removal	579	lf	11.00	6,369		
312000	Silt Sacks; installation and removal	3	ea	250.00	750		
312000	Compost Filter Sock; installation and removal	40	lf	15.00	600		
312000	Filter fabric over slotted drain	55	lf	18.00	990		
312000	Groundwater management/ control measures	1	ls	15,000.00	15,000		
312000	Street sweeping & dust control allowance	1	ls	5,000.00	5,000		
312000	Erosion Control monitoring & maintenance	1	ls	5,000.00	5,000		
SUBTOTAL						198,068	
312000 BUILDING EARTHWORK							
312000	Cut - over-excavate 3'	546	cy	10.00	5,460		
312000	Fill - import structural - 25% swell	793	cy	65.00	51,545		
312000 SOIL DISPOSAL - conversion factor 1.7 to tons							



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
SITWORK ENGINE 5								
60	312000	Load excess soils for disposal	546	cy	2.50	1,365		
61	312000	Less than RCS-1 - clean non-regulated	928	tn	12.00	11,136		
62	030000	FOUNDATION EARTHWORK						
63	312000	<u>Strip footings</u>						
64	312000	Excavation	330	cy	14.00	4,620		
65	312000	Backfill with existing fill	57	cy	25.00	1,425		
66	312000	Gravel fill beneath footings, 6"	28	cy	55.00	1,540		
67	312000	Remove off-site	196	cy	80.00	15,680		
68		SUBTOTAL					92,771	
69								
70	312000	SITE EARTHWORK						
71	312000	<u>Site cut to design subgrade</u>	192	cy				
72	312000	Cut	192	cy	10.00	1,920		
73	312000	<u>Site fill to design subgrade</u>	21	cy				
74	312000	Fill - from cut	21	cy	12.00	252		
75								
76	312000	ROCK REMOVAL						
77	312000	Allowance for ledge	1	ls	25,000.00	25,000		
78								
79	312000	SOIL DISPOSAL - conversion factor 1.7 to tons						
80	312000	Load excess soils for disposal	171	cy	2.50	428		
81	312000	Less than RCS-1 - clean non-regulated	291	tn	12.00	3,492		
82								
83	312000	ESTABLISHING GRADE						
84	312000	Sub grade establishment	11,433	sf	0.15	1,715		
85	312000	Fine grading throughout the site	11,433	sf	0.25	2,858		
86								
87	312000	HAZARDOUS MATERIALS						
88	312000	UST removal allowance	1	ls	50,000.00	Assumed NR		
89	312000	Soil disposal & replacement allowance	10	cy	430.00	Assumed NR		
90		SUBTOTAL					35,665	
91								
92	TOTAL - SITE PREPARATION							\$326,504
93								
94	G20	SITE IMPROVEMENTS						
95	320000	ROADWAYS AND PARKING LOTS						
96		<u>Asphalt Paving; parking lots and roadway</u>	4,612	sf				
97	312000	gravel base; 12" thick	171	cy	60.00	10,260		
98	321000	asphalt top; 2" thick	59	tns	250.00	14,750		
99	321000	asphalt binder; 2.5" thick	73	tns	250.00	18,250		
100		<u>Vehicular Concrete</u>	2,605	sf				
101	312000	gravel base; 12" thick	96	cy	60.00	5,760		
102	321313	Broom finish concrete paving; 8" thick	2,605	sf	22.00	57,310		
103	320000	CURBING						
104	321640	Vertical granite curb	369	lf	65.00	23,985		
105	321000	Parking spot	5	ea	85.00	425		
106	321000	Parking spot ADA	1	ea	250.00	250		
107	320000	ROAD MARKINGS AND SIGNS						
108	321000	Sign allowance	1	ls	5,000.00	5,000		
109	321000	Pavement markings allowance	1	ls	5,000.00	5,000		
110	320000	SUBTOTAL					140,990	
111								
112	320000	PEDESTRIAN PAVING						
113		<u>Concrete sidewalks</u>	547	sf				
114	312000	gravel base; 8" thick	14	cy	60.00	840		
115	321313	Broom finish concrete paving; 4" thick	547	sf	12.00	6,564		



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITWORK ENGINE 5

116		Concrete pads	176	sf				
117	312000	gravel base; 12" thick	7	cy	60.00	420		
118	321313	Broom finish concrete paving; 6" thick	176	sf	18.00	3,168		
119	320000	SUBTOTAL					10,992	
120								
121	320000	SITE IMPROVEMENTS						
122	320000	SITE FURNISHINGS						
123	323000	Bollards - concrete filled steel	19	ea	1,100.00	20,900		
124	323000	Flagpole - 30' Ht.	1	ea	7,000.00	7,000		
125	323000	Flagpole foundation	1	ea	3,000.00	3,000		
126	320000	FENCING						
127	323000	8' Ht - Wood fence	441	lf	125.00	55,125		
128	323000	Remove and reset existing fence	12	lf	75.00	900		
129		SUBTOTAL					86,925	
130								
131		Landscaping						
132	329900	TOPSOIL						
133	329300	Topsoil - imported 4" thick	44	cy	65.00	2,860		
134	329300	Soil and mulch at planting areas; 12" thick	68	cy	125.00	8,500		
135	329900	LAWN AND SEED	2,852	sf				
136	329300	Topsoil 4" thick - required - swell 25%	44	cy		incl. above		
137	329300	Scarify subgrade	2,852	sf	0.25	713		
138	329300	Power rake and hydroseed disturbed areas	2,852	sf	0.35	998		
139	329900	TREES						
140	329300	Deciduous trees - 2-2.5" cal.	7	ea	1,200.00	8,400		
141	329300	Deciduous trees - 2.5-3" cal.	17	ea	1,600.00	27,200		
142	329300	Evergreen trees - 4-5' Ht.	7	ea	250.00	1,750		
143	329300	Evergreen trees - 5-6' Ht.	21	ea	500.00	10,500		
144	329900	MAINTENANCE						
145	329300	1-yr plant maintenance	1	ls	2,500.00	2,500		
146	328400	IRRIGATION						
147	329300	Allowance				Assumed NR		
148		SUBTOTAL					63,421	
149								
150	TOTAL - SITE IMPROVEMENTS							\$302,328

G30 CIVIL MECHANICAL UTILITIES

153	210000	FIRE PROTECTION					
154	331000	6" CLDI	216	lf	49.64	10,722	
155	331000	Fire department connection	1	ea	2,500.00	2,500	
156	331000	Gate valve	2	ea	1,200.00	2,400	
157	331000	Fire hydrant	1	ea	6,500.00	6,500	
158	331000	Thrust blocks	9	ea	500.00	4,500	
159	331000	WATER UTILITIES					
160	331000	2" poly	21	lf	28.00	588	
161	331000	CONNECTIONS					
162	331000	Connect to existing water line; 6/8/10 (in site)	1	ea	8,000.00	8,000	
163	312000	EXCAVATION & BACKFILL	237	lf			
164	331000	DI gravity piping excavation	211	cy	46.75	9,864	
165	331000	Trench bedding	47	cy	38.50	1,810	
166	331000	Pressure test & chlorinate	237	lf	5.00	1,185	
167	331000	Allowance for temporary water service	1	ea	25,000.00	NR	
168	331000	Allowance for temporary support of existing utilities	1	ea	15,000.00	NR	
169		SUBTOTAL					48,069
170							
171	333000	SANITARY SEWER					



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITWORK ENGINE 5

172	333000	6" PVC	70	lf	35.00	2,450		
173	333000	Oil water separator	1	ea	15,000.00	w_MEP		
174	333000	CONNECTIONS						
175	333000	Connect to existing	1	ea	5,000.00	5,000		
176	312000	EXCAVATION & BACKFILL - Gravity	70	lf				
177	333000	PVC gravity piping excavation	62	cy	46.75	2,899		
178	333000	Trench bedding	21	cy	38.50	809		
179	333000	Pressure testing	70	lf	4.00	280		
180	333000	OWS; E&B only	1	ea	2,500.00	2,500		
181		SUBTOTAL					13,938	
182								
183	334000	STORM DRAINAGE						
184	334000	12" HDPE	10	lf	70.00	700		
185	334000	8" CMP	10	lf	60.00	600		
186	334000	12" HDPE - perforated - Infiltration trench	104	lf	135.00	14,040		
187	334000	CB - 4' Dia.	3	ea	3,800.00	11,400		
188	334000	4' Dia. DMH - 0-5' deep	4	ea	4,200.00	16,800		
189	334000	CO	2	ea	1,200.00	2,400		
190	334000	Roof drain	16	lf	35.00	560		
191	334000	Roof drain connections	1	ea	500.00	500		
192	334000	Trench drains	55	lf	350.00	19,250		
193	334000	SUBSURFACE DRAINAGE SYSTEMS						
194		<u>Underground rechargers</u>	1,581	sf				
195	334000	SC- 310 chambers and installation - 31cuft/per chamber with a 6" stone base	47	ea	375.00	17,625		
196	334000	SC-310 end cap and installation - allowance	18	ea	150.00	2,700		
197	312000	Excavate	527	cy	25.00	13,175		
198	312000	Load excess soils for disposal	527	cy	2.50	1,318		
199	312000	Less than RCS-1 - clean non-regulated	896	tn	12.00	10,752		
200	334000	Install stone base	163	tn	65.00	10,595		
201	334000	Fine grade base	1,581	sf	0.25	395		
202	334000	Back-fill infiltration bed with 1-2" crushed stone	89	tn	50.00	4,450		
203	334000	Geotextile fabrics	3,953	sf	0.75	2,965		
204		SUBTOTAL					130,225	
205								
206								
207	TOTAL - SITE MECHANICAL UTILITIES							\$192,232
208								

G40 ELECTRICAL UTILITIES

Civil

211	323000	Trenching, Backfilling, Concrete work					
212	323000	Primary /Secondary duct bank	370	lf	55.00	20,350	
213	323000	Telecommunication duct bank	110	lf	55.00	6,050	
214	323000	Site lighting duct bank	500	lf	12.00	6,000	
		SUBTOTAL					32,400

Service/Power

216	337000	Utility Vault Connections				Utility Co.	
217	337000	2-4" Primary service duct bank (allow)	250	lf	40.00	10,000	
218	337000	800A primary service duct bank (allow)	40	lf	398.00	15,920	
219	337000	1200A Generator duct bank and control wiring	80	lf	517.00	41,360	
220	337000	1-1/4" conduits (LF includes (4) runs)	250	lf	15.50	3,875	
221	337000	Relocate Power Utilities	1	ls	50,000.00	50,000	
222	337000	<u>Communications</u>					
223	337000	Pole riser	1	ls	1,200.00	1,200	
224	337000	Duct bank 4-4" conduits (allow)	110	lf	80.00	8,800	
225	337000	<u>Site Lighting</u>					
226	337000	Type G2	1	ea	2,000.00	2,000	



<i>CSI</i>				<i>UNIT</i>	<i>EST'D</i>	<i>SUB</i>	<i>TOTAL</i>	
<i>CODE</i>	<i>DESCRIPTION</i>	<i>QTY</i>	<i>UNIT</i>	<i>COST</i>	<i>COST</i>	<i>TOTAL</i>	<i>COST</i>	
SITWORK ENGINE 5								
227	337000	Type P1	2	ea	2,000.00	4,000		
228	337000	Pole base and grounding	3	ea	550.00	1,650		
229	337000	Site Lighting circuitry	250	lf	18.00	4,500		
230	337000	<u>EV Stations</u>						
231	337000	Dual EV stations (EV Ready)	2	loc	2,500.00	5,000		
232	337000	<u>Site Demolition</u>						
233	337000	Site Demolition	1	ls	5,000.00	5,000		
234		SUBTOTAL					153,305	
236								
237								
238	TOTAL - SITE ELECTRICAL UTILITIES							\$185,705
239								
240								
241	TOTAL - SITE DEVELOPMENT							\$1,006,769



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITWORK ENGINE 3

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
G SITEWORK							
G10 SITE PREPARATION & DEMOLITION							
311000 GENERAL CONDITIONS							
311000	6' high site construction fence	837	lf	16.00	13,392		
311000	6' high site construction fence double gate	1	loc	5,000.00	5,000		
311000	Site construction entrance and removal/restoration	1	loc	10,000.00	10,000		
311000	Mobilization & Demobilization	1	ea	15,000.00	w_GRs		
311000	Temp laydown areas	1	ls	10,000.00	w_GRs		
311000	Construction offices area prep - allowance	1	ls	10,000.00	10,000		
311000	Temporary signs	1	ls	20,000.00	Excluded		
311000	Wheel wash rack	1	ls	8,000.00	8,000		
311000	Engineering/layout	4	mths	8,000.00	w_GRs		
311000	Concrete washout area	1	ea	2,500.00	2,500		
311000	Snow removal - allowance	1	ls		Excluded		
311000	Winter conditions - allowance	1	ls		Excluded		
311000	Police details	1	ls		Excluded		
311000	Site security	1	ls		Excluded		
311000	Job site construction trailer	1	ls		Excluded		
311000	Temp utilities for job trailer	1	ls		Excluded		
311000 SITE SALVAGE ITEMS							
311000	Relocated wood chip exercise area	1	ls	10,000.00	10,000		
311000	Relocate boulders	35	ea	350.00	12,250		
311000 SITE DEMOLITION AND RELOCATIONS							
311000	Demolish curbing	120	lf	6.00	720		
311000	Demolish existing paving	14,495	sf	1.00	14,495		
311000	Demolish existing concrete walk	160	sf	3.00	480		
311000	Miscellaneous site demolition; furnishings, concrete pads, signs etc	1	ls	15,000.00	15,000		
311000 UTILITY DEMOLITION							
311000	Cut/cap utility lines	3	ea	10,000.00	30,000		
311000	Demolish existing gas lines	366	lf	15.00	5,490		
311000	Demolish existing utility lines	644	lf	25.00	16,100		
311000	Demolish existing utility structures	4	ea	500.00	2,000		
311000	Pump and remove septic tanks	1	ls	10,000.00	10,000		
311000	Demolish existing leach field	725	sf	30.00	21,750		
311000 ROADWAY WORK							
311000	Sawcut	297	lf	8.25	2,450		
311000	Remove pavement	726	sf	3.50	2,541		
311000	Temp pavement patching	726	sf	8.00	5,808		
311000	Steel plates	1	ls	2,500.00	2,500		
311000	Police details	7	dy	850.00	5,950		
311000	Permanent pavement patch	726	sf	10.00	7,260		
311000 VEGETATION & TOPSOIL MANAGEMENT							
311000	Clear and grub	1	ls	15,000.00	15,000		
311000	Remove existing trees	3	ea	850.00	2,550		
312000 EROSION & SEDIMENT CONTROL							
312000	Silt Fence; installation and removal	1,155	lf	11.00	12,705		
312000	Compost Filter Sock; installation and removal	96	lf	15.00	1,440		
312000	Silt Sacks; installation and removal	6	ea	250.00	1,500		
312000	Slope stabilization matting	329	sf	1.25	411		
312000	Groundwater management/ control measures	1	ls	15,000.00	15,000		
312000	Street sweeping & dust control allowance	1	ls	5,000.00	5,000		
312000	Erosion Control monitoring & maintenance	1	ls	5,000.00	5,000		
						272,292	
312000 BUILDING EARTHWORK							
312000	Cut - over-excavate 4'	1,491	cy	10.00	14,910		
312000	Fill - import structural - 25% swell	1,080	cy	65.00	70,200		
312000 SOIL DISPOSAL - conversion factor 1.7 to tons							



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
SITWORK ENGINE 3								
60	312000	Load excess soils for disposal	1,491	cy	2.50	3,728		
61	312000	Less than RCS-1 - clean non-regulated	2,535	tn	12.00	30,420		
62	030000	FOUNDATION EARTHWORK						
63	312000	<u>Strip footings</u>						
64	312000	Excavation	489	cy	14.00	6,846		
65	312000	Backfill with existing fill	84	cy	25.00	2,100		
66	312000	Gravel fill beneath footings, 6"	42	cy	55.00	2,310		
67	312000	Remove off-site	285	cy	80.00	22,800		
68		SUBTOTAL					153,314	
69								
70	312000	SITE EARTHWORK						
71	312000	<u>Site cut to design subgrade</u>	736	cy				
72	312000	Cut	736	cy	10.00	7,360		
73	312000	Store cut onsite	206	cy	3.50	721		
74	312000	<u>Site fill to design subgrade</u>	206	cy				
75	312000	Fill - from cut	206	cy	12.00	2,472		
76								
77	312000	ROCK REMOVAL						
78	312000	Allowance for ledge	1	ls	25,000.00	25,000		
79								
80	312000	SOIL DISPOSAL - conversion factor 1.7 to tons						
81	312000	Load excess soils for disposal	530	cy	2.50	1,325		
82	312000	Less than RCS-1 - clean non-regulated	901	tn	12.00	10,812		
83								
84	312000	GEO THERMAL						
85	312000	Site support	7	ea	3,500.00	24,500		
86								
87	312000	ESTABLISHING GRADE						
88	312000	Sub grade establishment	36,830	sf	0.15	5,525		
89	312000	Fine grading throughout the site	36,830	sf	0.25	9,208		
90								
91	312000	HAZARDOUS MATERIALS						
92	312000	UST removal allowance	1	ls	50,000.00	Assumed NR		
93	312000	Soil disposal & replacement allowance	10	cy	430.00	Assumed NR		
94	312000	SUBTOTAL					86,923	
95								
96	TOTAL - SITE PREPARATION							\$512,529
97								
98	G20	SITE IMPROVEMENTS						
99	320000	ROADWAYS AND PARKING LOTS						
100	321000	<u>Asphalt Paving: parking lots and roadway</u>	8,136	sf				
101	321000	gravel base; 12" thick	301	cy	60.00	18,060		
102	321000	asphalt top; 1.5" thick	78	tns	225.00	17,550		
103	321000	asphalt binder; 2.5" thick	129	tns	130.00	16,770		
104	321000	<u>Asphalt Paving: parking lots and roadway</u>	1,963	sf				
105	321000	gravel base; 12" thick	73	cy	60.00	4,380		
106	321000	asphalt top; 1" thick	12	tns	225.00	2,700		
107	321000	asphalt binder; 2" thick	25	tns	130.00	3,250		
108		<u>Vehicular Concrete</u>	2,776	sf				
109	321000	gravel base; 18" thick	154	cy	60.00	9,240		
110	321313	Broom finish concrete paving; 8" thick	2,776	sf	22.00	61,072		
111	320000	CURBING						
112	321640	Vertical granite curb	624	lf	65.00	40,560		
113	321640	ADA Curb cuts	5	ea	850.00	4,250		
114	320000	ROAD MARKINGS AND SIGNS						
115	321000	Parking spot	7	ea	85.00	595		



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
SITWORK ENGINE 3								
116	321000	Parking spot ADA	1	ea	250.00	250		
117	321000	Crosswalk hatching	2	loc	2,500.00	5,000		
118	321000	Sign allowance	1	ls	5,000.00	5,000		
119	321000	EV Parking Space allowance	2	ea	250.00	500		
120		SUBTOTAL					189,177	
121								
122	320000	PEDESTRIAN PAVING						
123		<u>Concrete sidewalks</u>	2,413	sf				
124	312000	gravel base; 6" thick	45	cy	60.00	2,700		
125	321313	Broom finish concrete paving; 4" thick	2,413	sf	12.00	28,956		
126		<u>Concrete pads</u>	648	sf				
127	312000	gravel base; 18" thick	36	cy	60.00	2,160		
128	321313	Broom finish concrete paving; 6" thick	648	sf	18.00	11,664		
129		<u>Bituminous concrete walkways</u>	91	sf				
130	312000	gravel base; 6" thick	2	cy	60.00	120		
131	321000	asphalt top; 1" thick	1	tns	250.00	250		
132	321000	asphalt binder; 2" thick	1	tns	250.00	250		
133		SUBTOTAL					46,100	
134								
135	320000	SITE IMPROVEMENTS						
136	320000	SITE FURNISHINGS						
137	323000	Bollards - concrete filled steel	11	ea	1,100.00	12,100		
138	323000	Flagpole - 30' Ht.	1	ea	7,000.00	7,000		
139	323000	Flagpole foundation	1	ea	3,000.00	3,000		
140	323000	Roof trellis framing system	328	sf	35.00	11,480		
141		SUBTOTAL					33,580	
142								
143		Landscaping						
144	329300	329900 TOPSOIL						
145	329300	Topsoil - imported	432	cy	65.00	28,080		
146	329300	329900 LAWN AND SEED	13,344	sf				
147	329300	Topsoil 4" thick - required - swell 25%	204	cy		incl. above		
148	329300	Planting areas - 12" thick - required - swell 25%	228	cy		incl. above		
149	329300	Scarify subgrade	18,273	sf	0.25	4,568		
150	329300	Power rake and hydroseed disturbed areas	13,344	sf	0.35	4,670		
151	329300	329900 TREES						
152	329300	Deciduous trees - 1.5-2" cal.	12	ea	1,000.00	12,000		
153	329300	Deciduous trees - 2-2.5" cal.	13	ea	1,200.00	15,600		
154	329300	Deciduous trees - 2.5-3" cal.	26	ea	1,600.00	41,600		
155	329300	Evergreen trees - 5-6' Ht.	14	ea	500.00	7,000		
156	329300	329900 SHRUBS						
157	329300	Shrubs - 24"-36"	12	ea	100.00	1,200		
158	329300	Shrubs - 18"-24"	146	ea	75.00	10,950		
159	329300	329900 GROUNDCOVERS - GRASSES/PERENNIALS/VINES						
160	329300	Groundcovers - 2" plugs	335	ea	8.00	2,680		
161	329300	Groundcovers - #1 container	121	ea	18.00	2,178		
162	329300	329900 MAINTENANCE						
163	329300	1-yr plant maintenance	1	ls	2,500.00	2,500		
164	329300	328400 IRRIGATION						
165	329300	Allowance				Assumed NR		
166		SUBTOTAL					133,026	
167								
168	TOTAL - SITE IMPROVEMENTS							\$401,883
169								
170	G30	CIVIL MECHANICAL UTILITIES						



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITWORK ENGINE 3							
171	331000 210000 FIRE PROTECTION						
172	331000 6" CLDI	93	lf	49.64	4,617		
173	331000 Fire department connection	1	ea	2,500.00	2,500		
174	331000 Gate valve	4	ea	1,200.00	4,800		
175	331000 Fire hydrant	1	ea	6,500.00	6,500		
176	331000 Thrust blocks	2	ea	500.00	1,000		
177	331000 331000 WATER UTILITIES						
178	331000 1" poly	60	lf	18.00	1,080		
179	331000 2" poly	22	lf	28.00	616		
180	331000 331000 CONNECTIONS						
181	331000 Connect to existing water line; 6/8/10 (inside site)	1	ea	8,000.00	8,000		
182	331000 312000 EXCAVATION & BACKFILL	175	lf				
183	331000 DI gravity piping excavation	156	cy	46.75	7,293		
184	331000 Trench bedding	35	cy	38.50	1,348		
185	331000 Pressure test & chlorinate	175	lf	5.00	875		
186	331000 Allowance for temporary water service	1	ea	25,000.00	25,000		
187	331000 Allowance for temporary support of existing utilities	1	ea	15,000.00	NR		
188	331000 SUBTOTAL					63,629	
189							
190	333000 333000 SANITARY SEWER						
191	333000 6" PVC	439	lf	35.00	15,365		
192	333000 SMH - 5-12' deep	3	ea	6,625.00	19,875		
193	333000 Cleanouts	3	ea	1,200.00	3,600		
194	333000 Concrete encasement	1	ls	3,500.00	3,500		
195	333000 Oil water separator - 5-12' deep	1	ea	15,000.00	w/ MEP		
196	333000 333000 CONNECTIONS						
197	333000 Connect to existing structure (inside site)	1	ea	5,000.00	5,000		
198	333000 Connect to existing building	1	ea	2,500.00	2,500		
199	333000 312000 EXCAVATION & BACKFILL - Gravity	439	lf				
200	333000 PVC gravity piping excavation	390	cy	46.75	18,233		
201	333000 Trench bedding	130	cy	38.50	5,005		
202	333000 Pressure testing	439	lf	4.00	1,756		
203	333000 OWS; E&B only	1	ea	2,500.00	2,500		
204	333000 SUBTOTAL					77,334	
205							
206	334000 334000 STORM DRAINAGE						
207	334000 24" HDPE	2	lf	100.00	200		
208	334000 12" HDPE	184	lf	70.00	12,880		
209	334000 6" HDPE	30	lf	55.00	1,650		
210	334000 6" HDPE - perforated	106	lf	70.00	7,420		
211	334000 CB - 4' Dia. W_hoods	2	ea	4,200.00	8,400		
212	334000 CO	1	ea	1,200.00	1,200		
213	334000 4' Dia. DMH - 0-5' deep	3	ea	4,200.00	12,600		
214	334000 WQS; one for each sub-surface	2	ea	18,000.00	36,000		
215	334000 FES	1	ea	2,500.00	2,500		
216	334000 Concrete headwall - 5' tall, 10' long	1	ea	15,000.00	15,000		
217	334000 OCS	2	ea	8,000.00	16,000		
218	334000 Rain Guardian Turrets	2	ea	4,575.00	9,150		
219	334000 Rip rap	160	sf	30.00	4,800		
220	334000 Roof drain	36	lf	35.00	1,260		
221	334000 Roof drain connections	1	ea	500.00	500		
222	334000 Trench drains	24	lf	350.00	8,400		
223	334000 YD	1	ea	2,500.00	2,500		
224	334000 Connect to existing	1	ea	5,000.00	5,000		
225	334000 334000 SURFACE DRAINAGE SYSTEMS						
226	334000 Bio retention/Rain Garden	1,205	sf				
227	334000 shape basins	1,205	sf	2.50	3,013		
228	334000 mulch	11	cy	50.00	550		
229	334000 24" Planting soil mix	89	cy	90.00	8,010		



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
SITWORK ENGINE 3								
230	334000	6" HDPE - perforated	106	lf	70.00	7,420		
231	334000	12" Pipe bedding	45	cy	65.00	2,925		
232	334000	Liner	4,820	sf	2.00	9,640		
233	334000	334000	<u>SUBSURFACE DRAINAGE SYSTEMS</u>					
234	334000	Infiltration System - 1	476	sf				
235	334000	24" CPP perf.	157	lf	175.00	27,475		
236	334000	Excavate	53	cy	25.00	1,325		
237	334000	Back-fill infiltration bed with 1-2" crushed stone	25	cy	80.00	2,000		
238	334000	Geotextile fabrics	2,380	sf	0.75	1,785		
239	334000	Infiltration System - 2	227	sf				
240	334000	24" CPP perf.	157	lf	175.00	27,475		
241	334000	Excavate	25	cy	25.00	625		
242	334000	Back-fill infiltration bed with 1-2" crushed stone	25	cy	80.00	2,000		
243	334000	Geotextile fabrics	1,135	sf	0.75	851		
244	334000	312000	<u>SOIL DISPOSAL - conversion factor 1.7 to tons</u>					
245	334000	Load excess soils for disposal	78	cy	2.50	195		
246	334000	Less than RCS-1 - clean non-regulated	133	tn	12.00	1,596		
247		SUBTOTAL					242,345	
248								
249								
250								
251	TOTAL - SITE MECHANICAL UTILITIES						\$383,308	

252							
253	G40	ELECTRICAL UTILITIES					
254	312000	<u>Civil</u>					
255	323000	Trenching, Backfilling, Concrete work					
256	323000	Primary /Secondary duct bank	210	lf	55.00	11,550	
257	323000	Telecommunication duct bank	90	lf	55.00	4,950	
258	323000	Garage duct bank	140	lf	55.00	7,700	
259	323000	Site lighting duct bank	500	lf	12.00	6,000	
260		SUBTOTAL					30,200
261		<u>Service/Power</u>					
262	337000	Utility Vault Connections					Utility Co.
263	337000	2-4" Primary service duct bank (allow)	100	lf	40.00	4,000	
264	337000	800A primary service duct bank (allow)	30	lf	398.00	11,940	
265	337000	1200A Generator duct bank and control wiring	80	lf	517.00	41,360	
266	337000	1-1/4" conduits (LF includes (4) runs)	200	lf	15.50	3,100	
267	337000	Relocate Power Utilities	1	ls	50,000.00	50,000	
268	337000	<u>Communications</u>					
269	337000	Pole riser	1	ls	1,200.00	1,200	
270	337000	Duct bank 4-4" conduits (allow)	90	lf	80.00	7,200	
271	337000	<u>Site Lighting</u>					
272	337000	Type G1	1	ea	2,000.00	2,000	
273	337000	Type P1	3	ea	2,000.00	6,000	
274	337000	Type P2	2	ea	2,750.00	5,500	
275	337000	Pole base and grounding	6	ea	550.00	3,300	
276	337000	Site Lighting circuitry	500	lf	18.00	9,000	
277	337000	<u>EV Stations</u>					
278	337000	Dual EV stations (EV Ready)	2	loc	2,500.00	5,000	
279	337000	<u>Garage</u>					
280	337000	2-3" conduits (Empty)	140	lf	72.00	10,080	
281	337000	<u>Site Demolition</u>					
282	337000	Site Demolition	1	ls	5,000.00	5,000	
283		SUBTOTAL					164,680
284							
285	TOTAL - SITE ELECTRICAL UTILITIES						\$194,880



<i>CSI</i>				<i>UNIT</i>	<i>EST'D</i>	<i>SUB</i>	<i>TOTAL</i>
<i>CODE</i>	<i>DESCRIPTION</i>	<i>QTY</i>	<i>UNIT</i>	<i>COST</i>	<i>COST</i>	<i>TOTAL</i>	<i>COST</i>

SITWORK ENGINE 3

288

289

TOTAL - SITE DEVELOPMENT							\$1,492,600
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