

**SCHEMATIC DESIGN
CONSTRUCTION COST REPORT**

Renovation & Addition

at

Jones Public Library

August 17, 2022

A large, diagonal red line cuts across the page from the bottom left to the top right. Below this line, there are architectural drawings and two rolled-up blueprints. The drawings include a floor plan with various rooms labeled, such as 'OWNER OFFICE', 'NORTH DEPT. RECEPTION', 'NORTH MEETING', 'MIDDLE', and several 'OFFICE' spaces. There are also stairs labeled 'UP' and 'DN'. The rolled-up blueprints are in the foreground, showing some text like 'RENOVATION' and 'JONES PUBLIC LIBRARY'.

Fennessy Consulting Services

27 Glen Street, Suite 8, Stoughton, MA 02072
www.fennessyconsulting.com



August 17, 2022

Josephine Penta
Finergold Alexander Architects
77 North Washington Street
7th Floor
Boston, MA 02114

JONES PUBLIC LIBRARY - Renovation & Addition, Amherst, MA

Dear Josephine:

Please find enclosed our Construction Cost Model for the above referenced project based on schematic design information prepared by your office and design team, dated July 21, 2022.

The financial summary of this cost model is outlined below, however we recommend you review the Executive Summary to fully understand the basis of this report and the included and excluded financial impacts contained therein.

	Const. Start	Gross Floor Area	\$/sf	Estimated Cost
Renovation	Jun-23	27,603	\$485.01	\$13,387,751
Addition	Jun-23	33,928	\$578.39	\$19,623,734
Site Work	Jun-23			\$2,370,957
ESTIMATED CONTRACT AWARD		61,531	\$575.03	\$35,382,442

Alternates

None considered at this time

Bidding conditions are expected to reflect competitive bidding to pre-qualified general contractors, open bidding to prequalified sub-contractors, open specifications for materials and manufactures.

This estimate includes all direct construction costs, general contractor's overhead and profit and design contingency. Cost escalation impacts have been included in this report.

Excluded from the estimate are: construction contingency, loose furnishings and equipment, architect's and engineer's fees, moving, administrative and financing costs. Please refer to Exclusions section of the attached report for further information.

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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.

If you have any questions or require further analysis please do not hesitate to contact us.

Sincerely,

A handwritten signature in black ink that reads 'Seamus Fennessy'. The signature is written in a cursive, flowing style.

Seamus Fennessy *MRICS*
Principal/Owner

Enclosures

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The Project

This project in Amherst, Massachusetts comprises the partial demolition of the existing building, renovations to 27,600 gsf of the remaining building. An addition of approximately 34,700 gsf will be added to the rear of the existing structure. Site preparation and development rounds out the complete project scope together with all associated site preparation and development.

The program includes reading rooms collections areas for all age groups, tutor rooms, study rooms, group project/meeting rooms, special collections storage, large meeting room, library administration spaces and a board room.

Site work includes reconstruction of the access road, limited staff parking, pedestrian walkways and plaza, together with associated soft and hardscape.

Financial Status

*Our construction cost model for the entire project is in the order of **\$35.38MM**. Within this total we are including \$3.0MM of contingencies and \$1.94MM for future price escalation reflecting the construction schedule outlined herein.*

Risk

A formal risk analysis has not been performed for this project. Some risk factors to be considered at this time include:

- Design Contingency*
- Escalation/Market risk*
- Construction/Payment default*
- Approvals process/Funding*

Design Contingency

*This construction cost model is based on schematic drawings and specification. Due to this incomplete nature of the design we have utilized historic data and personal experience to complete this cost model. To help alleviate possible cost increases as a result of design completion we recommend a **design contingency of 10%**. We have included this contingency in our cost model. As design progresses this contingency will reduce.*

Escalation/Market Risk

The nation has come through the worst of the economic impact that materialized with Covid 19. However it is still with us and still having major impacts on construction costs. Outside of the general and well documented issues relating to the supply chain (material shortages, containers in wrong locations and a worldwide shortage of truck drivers) and labor shortages the industry demand itself grew by approximately 12% in 2021 and is expected to grow another 6% in 2022.

The continuing higher material prices, shortages of key materials and lack of skilled labor will all contribute to inflationary pressures on construction prices, and all of this is prior to the inevitable impacts of infrastructure dollars hitting the market. However the pace of inflation is likely to ease as the economy returns to a more normal and sustainable level of output later in the year.

*For these reasons we are continuing to recommend an annual escalation factor of 6 - 7% for the next twelve months dropping to 5 - 6% thereafter. We have **included an escalation factor of 5.9%** in this cost report. As we move closer to bid date we will continue to review and adjust the escalation factor as appropriate. It is possible that a higher escalation factor will be required for later years.*

Construction/Payment Default

There is a real risk of contractors, subcontractors and material suppliers ceasing to exist due to their inability to honor low bids as material and labor prices increase. We highly recommend that each project has adequate protection in the form of sub guard (preferred) or bonding for both performance and payment. The current estimate includes for subcontractor bonding within the unit rates.

Approvals Process/Funding.

For the purpose of this report we have included both of these categories together. The risk here is that the funding and approvals process will take significantly longer than expected and hence subject this project to increases in price escalation. We have not included any such pressures in this cost model.

Peer/Comparable Projects

We at Fennessy Consulting Services do not like to compare individual projects against some perceived cost/sf. Our reasoning for this is based on the fact that no two projects are the same and as such a typical cost/sf is not all that applicable or reliable. We treat each project as a unique entity.

As a quality control measure we make comparisons of the various building component costs in this estimate against others. We make this comparison to verify that nothing is out of the ordinary. If we come across an abnormal component cost we double check this cost to ensure its accuracy.

Cost Estimate Prepared From	Dated	Received
Schematic design drawings		
Architecture by Finegold Alexander Architects	07/01/22	07/01/22
Structure by RSE Associates	07/01/22	07/01/22
Mechanical, Plumbing, Electrical and Fire Protection by BLW Engineers	07/01/22	07/01/22
Landscape by Berkshire Design Group	06/24/22	07/01/22
Interior Design by Stefura Associates	07/01/22	07/01/22
Reports and Narratives		
Hazardous Material Inspection Report by ACT Environmental Engineers	09/29/16	07/01/22
Outline Specification by Mark T Wilhelm, Architect	07/01/22	07/21/22
Other contributors		
Code by Kevin Hastings	06/23/22	02/22/12

Conditions of Construction

The pricing is based on the following general conditions of construction

A start date of June 2023

A construction period of 18 months

The general contract will be competitively bid to qualified general contractors and main subcontractors.

There will not be small business set aside requirements

The contractor will be required to pay prevailing wage rates.

There are no phasing requirements

The general contractor will have full access to the site during normal business hours

The Cost Plan is based on the following conditions:

The costs in this report covers construction costs only calculated at current bidding price level (reflecting the current projected construction schedule) with a separate allowance for cost escalation.

Cost escalation is included to the mid point of the construction schedule. Unit rates in the body of the report include appropriate escalation allowances to deliver specific trades within the prescribed schedule if the project were to commence today.

Cost associated with additional escalation required for future start date are included as a below the line markup. This report has included this additional escalation to the scheduled start date of construction noted in this report.

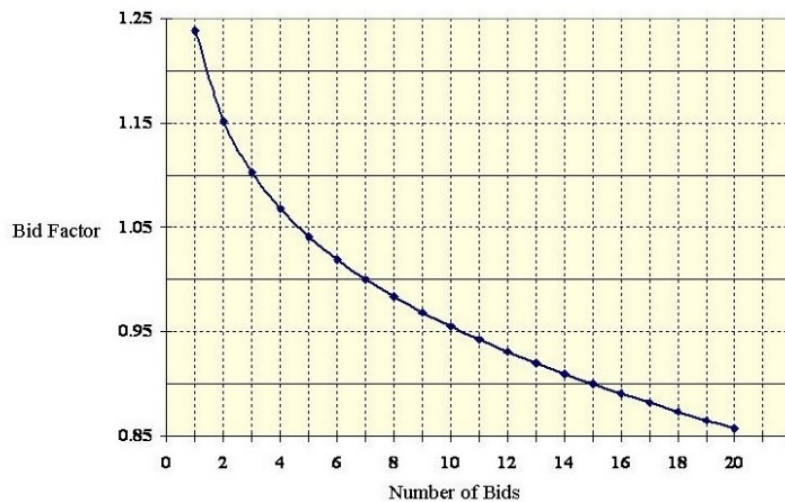
Bidding Process - Market Conditions

This document is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this document. Unit rates have been obtained from historical records and/or discussion with contractors. The unit rates reflect current bid costs in the area.

All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated. The mark-ups cover the costs of field overhead, home office overhead and profit and range from 15% to 25% of the cost for a particular item of work.

Pricing reflects probable construction costs obtainable in the project locality on the date of this statement of probable costs. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors and general contractors, with a minimum of 5 bidders for all items of work. Experience and research indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids.

Effect of Competition on Prices



Source: Area Cost Factor Study, U.S. Army Corps of Engineers

The following cost items have been excluded from this report. Many of these will in fact be required and should be budgeted within the "Soft Cost" component of the project budget

- *Owner supplied and installed furniture, fixtures and equipment*
- *Loose furniture and equipment except as specifically identified*
- *Security head-end equipment*
- *Tele/data head end equipment*
- *Audio visual equipment*
- *Compression of schedule, premium or shift work, and restrictions on the contractor's working hours*
- *Design, testing, inspection or construction management fees*
- *Architectural and design fees*
- *Scope change and post contract contingencies*
- *Assessments, taxes, finance, legal and development charges*
- *Environmental impact mitigation*
- *Builder's risk, project wrap-up and other owner provided insurance program*
- *Land and easement acquisition*
- *Cost escalation beyond a start date of June 2023*
- *Sales tax*

Areas Calculation

	New	Existing	Total
RENOVATION			
Ground		8,876	
Level 1		9,012	
Level 2		6,350	
Level 3		2,475	
Level 4		890	
TOTAL GROSS FLOOR AREA	0	27,603	27,603
ADDITION			
Ground	11,336		
Level 1	11,651		
Level 2	11,693		
TOTAL GROSS FLOOR AREA	34,680	0	34,680
SITE AREAS			
	Preparation	Development	
Complete		45,702	34,051

		Renovation	Addition	Site Work	Total
A10 FOUNDATIONS		\$44,770	\$571,535	\$0	\$616,305
A20 BASEMENT CONSTRUCTION		\$0	\$271,244	\$0	\$271,244
B10 SUPERSTRUCTURE		\$239,381	\$2,915,781	\$0	\$3,155,162
B20 EXTERIOR CLOSURE		\$577,401	\$1,477,158	\$0	\$2,054,559
B30 ROOFING		\$781,078	\$1,127,871	\$0	\$1,908,949
C10 INTERIOR CONSTRUCTION		\$974,255	\$1,369,002	\$0	\$2,343,257
C20 STAIRCASES		\$272,550	\$176,860	\$0	\$449,410
C30 FINISHES		\$733,185	\$779,109	\$0	\$1,512,294
D10 CONVEYING SYSTEMS		\$0	\$275,170	\$0	\$275,170
D20 PLUMBING		\$328,921	\$495,695	\$0	\$824,616
D30 HVAC		\$2,231,230	\$2,724,044	\$0	\$4,955,274
D40 FIRE PROTECTION		\$294,362	\$201,660	\$0	\$496,022
D50 ELECTRICAL		\$1,747,547	\$1,972,016	\$0	\$3,719,563
E10 EQUIPMENT		\$32,950	\$31,600	\$0	\$64,550
E20 FURNISHINGS		\$200,452	\$180,800	\$0	\$381,252
F10 SPECIAL CONSTRUCTION		\$65,000	\$75,000	\$0	\$140,000
F20 SELECTIVE BUILDING DEMOLITION		\$1,050,672	\$0	\$0	\$1,050,672
					\$0
Total Building Construction		\$9,573,754	\$14,644,545	\$0	\$24,218,299
G10 SITE PREPARATION		\$0	\$0	\$403,088	\$403,088
G20 SITE IMPROVEMENTS		\$0	\$0	\$844,456	\$844,456
G30 SITE MECHANICAL UTILITIES		\$0	\$0	\$417,050	\$417,050
G40 SITE ELECTRICAL		\$0	\$0	\$163,350	\$163,350
G90 OTHER SITE CONSTRUCTION		\$0	\$0	\$0	\$0
Total Site Construction		\$0	\$0	\$1,827,944	\$1,827,944
TOTAL BUILDING & SITE		\$9,573,754	\$14,644,545	\$1,827,944	\$26,046,243
MARKUPS		\$1,918,864	\$2,201,308	\$207,387	\$4,327,559
General conditions & project requirements	13.7%	\$1,312,500	\$1,312,500	\$100,000	\$2,725,000
Bond and insurance	2.0%	\$217,725	\$319,141	\$38,559	\$575,425
Building permit	0.0%	\$0	\$0	\$0	\$0
Prime contractor's head office overhead and profit (Fee)	3.5%	\$388,639	\$569,667	\$68,828	\$1,027,134
PLANNED CONSTRUCTION COST	Aug-22	\$11,492,618	\$16,845,853	\$2,035,331	\$30,373,802
CONTINGENCIES/ESCALATION		\$1,895,133	\$2,777,881	\$335,626	\$5,008,640
Design & pricing contingency	10.0%	\$1,149,262	\$1,684,585	\$203,533	\$3,037,380
Gmp contingency	0.0%	\$0	\$0	\$0	\$0
Escalation to start date (June 2023)	5.9%	\$745,871	\$1,093,296	\$132,093	\$1,971,260
ESTIMATED CONTRACT AWARD	Jun-23	\$13,387,751	\$19,623,734	\$2,370,957	\$35,382,442
	GFA	27,603	33,928		61,531
	\$/sf	\$485.01	\$578.39		\$575.03

Renovation - Summary

	Total	GFA \$/sf	27,603 %
A10 Foundations	\$44,770	\$1.62	0.39%
A1010 Foundations	\$0	\$0.00	0.00%
A1020 Special Foundations	\$0	\$0.00	0.00%
A1020 Slab on Grade	\$44,770	\$1.62	0.39%
A20 Basement Construction	\$0	\$0.00	0.00%
A2010 Basement Earthwork	\$0	\$0.00	0.00%
A2020 Basement Walls	\$0	\$0.00	0.00%
B10 Superstructure	\$239,381	\$8.67	2.08%
B1010 Floor Construction	\$149,730	\$5.42	1.30%
B1020 Roof Construction	\$89,651	\$3.25	0.78%
B20 Exterior Closure	\$577,401	\$20.92	5.02%
B2010 Exterior Walls	\$361,999	\$13.11	3.15%
B2020 Windows	\$204,142	\$7.40	1.78%
B2030 Exterior Doors	\$11,260	\$0.41	0.10%
B30 Roofing	\$781,078	\$28.30	6.80%
B3010 Roof Covering	\$781,078	\$28.30	6.80%
B3020 Roof Openings	\$0	\$0.00	0.00%
C10 Interior Construction	\$974,255	\$35.30	8.48%
C1010 Partitions	\$605,735	\$21.94	5.27%
C1020 Interior Doors	\$228,220	\$8.27	1.99%
C1030 Specialties	\$140,300	\$5.08	1.22%
C20 Staircases	\$272,550	\$9.87	2.37%
C2010 Stair Construction	\$222,000	\$8.04	1.93%
C2020 Stair Finishes	\$50,550	\$1.83	0.44%
C30 Finishes	\$733,185	\$26.56	6.38%
C3010 Wall Finishes	\$263,354	\$9.54	2.29%
C3020 Floor Finishes	\$168,262	\$6.10	1.46%
C3030 Ceiling Finishes	\$301,569	\$10.93	2.62%
D10 Conveying Systems	\$0	\$0.00	0.00%
D1010 Elevators and Lifts	\$0	\$0.00	0.00%
D1020 Escalators and Moving Walkways	\$0	\$0.00	0.00%
D1030 Other Conveying Systems	\$0	\$0.00	0.00%
D20 Plumbing	\$328,921	\$11.92	2.86%
D2010 Plumbing Complete	\$328,921	\$11.92	2.86%
D30 Heating, Ventilation & Air Conditioning	\$2,231,230	\$80.83	19.41%
D3010 HVAC, Complete	\$2,231,230	\$80.83	19.41%
D40 Fire Protection	\$294,362	\$10.66	2.56%
D4010 Fire Protection, Complete	\$294,362	\$10.66	2.56%
D50 Electrical	\$1,747,547	\$63.31	15.21%
D5010 Electrical, Complete	\$1,747,547	\$63.31	15.21%
E10 Equipment	\$32,950	\$1.19	0.29%
E1010 Commercial Equipment	\$25,000	\$0.91	0.22%
E1020 Institutional Equipment	\$3,500	\$0.13	0.03%
E1030 Vehicular Equipment	\$0	\$0.00	0.00%
E1090 Other Equipment	\$4,450	\$0.16	0.04%
E20 Furnishings	\$200,452	\$7.26	1.74%
E2010 Fixed Furnishings	\$200,452	\$7.26	1.74%
E2020 Loose Furnishings	\$0	\$0.00	0.00%

Renovation - Summary

		Total	GFA \$/sf	27,603 %
F10 Special Construction		\$65,000	\$2.35	0.57%
F1010 Special Structures		\$40,000	\$1.45	0.35%
F1020 Integrated Construction		\$0	\$0.00	0.00%
F1030 Special Systems and Facilities		\$25,000	\$0.91	0.22%
F20 Selective Building Demolition		\$1,050,672	\$38.06	9.14%
F2010 Building Elements Demolition		\$687,852	\$24.92	5.99%
F2020 Hazardous Components Abatement		\$362,820	\$13.14	3.16%
TOTAL BUILDING CONSTRUCTION		\$9,573,754	\$346.84	83.30%
Total Site Construction	See separate section			
TOTAL BUILDING & SITE		\$9,573,754	\$346.84	83.30%
Markups		\$1,918,864	\$69.52	16.70%
General Conditions				
General conditions & project requirements	13.71%	\$1,312,500	\$47.55	11.42%
Bond and insurance	2.00%	\$217,725	\$7.89	1.89%
Building permit	0.00%	\$0	\$0.00	0.00%
Overhead and profit				
Prime contractor's head office overhead and profit (Fee)	3.50%	\$388,639	\$14.08	3.38%
PLANNED CONSTRUCTION COST	Aug-22	\$11,492,618	\$416.35	100.00%
Contingencies/Escalation		\$1,895,133	\$68.66	
Contingencies				
Design and pricing contingency	10.00%	\$1,149,262	\$41.64	
Gmp contingency	0.00%	\$0	\$0.00	
Escalation				
Escalation to start date (June 2023)	5.90%	\$745,871	\$27.02	
ESTIMATED CONTRACT AWARD	Jun-23	\$13,387,751	\$485.01	

Renovation - Estimate Detail

	Quantity	Unit	Rate	Total
<u>A1030 SLAB ON GRADE</u>				
Standard slab on grade				
Gravel fill	17	CY	75.00	1,275
Rigid insulation under slab on grade	894	SF	3.00	2,682
Vapor barrier	894	SF	0.50	447
Formwork to ramp edge	61	LF	30.00	1,830
Mesh reinforcing 15% lap	1,028	SF	1.25	1,285
Reinforcement dowel to existing	106	EA	60.00	6,360
Concrete in slab, complete	14	CY	233.50	3,269
Finishing and curing	894	SF	1.75	1,565
Control and construction joints	894	SF	0.50	447
Perimeter joints	32	LF	3.00	96
Existing slab on grade				
Patching existing surfacing after demolition	8,124	SF	2.00	16,248
Miscellaneous				
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	14	CY	19.00	266
Equipment pads	300	SF	30.00	9,000
Subtotal				\$44,770
<u>B1010 FLOOR CONSTRUCTION</u>				
Steel construction				
Floor framing				
Infill existing openings	3	T	13,000.00	39,000
Framing at new staircase	5	LOC	6,000.00	30,000
Shear studs	565	EA	4.50	2,543
Metal decking, standard	565	SF	12.00	6,780
Concrete construction				
Concrete topping to floors				
Mesh reinforcing 15% lap	650	SF	1.25	813
Concrete topping	9	CY	233.50	2,102
Finishing and curing	565	SF	1.75	989
Control and construction joints	565	SF	0.60	339
Miscellaneous concrete costs				
Premium for pump grade concrete mix and pump	9	CY	70.00	630
Existing floor slabs				
Infill existing penetrations	18,162	SF	1.00	18,162
Repair top surface after demolition	18,727	SF	2.00	37,454
Miscellaneous				
Fireproofing steel	565	SF	2.75	1,554
Fire stopping	18,727	SF	0.50	9,364
Subtotal				\$149,730

Renovation - Estimate Detail

	Quantity	Unit	Rate	Total
<u>B1020 ROOF CONSTRUCTION</u>				
Steel construction				
Steel members in roof framing				
Canopy framing	580	LB	5.00	2,900
Framing not shown on structure but suggested by architecture	6.4	T	6,000.00	38,400
Metal decking, standard	1,478	SF	10.00	14,780
Wood construction				
Allow for modifications to existing wood structure	1	LS	25,000.00	25,000
Existing roof slab				
Infill existing penetrations	9,012	SF	0.50	4,506
Miscellaneous				
Fireproofing steel	1,478	SF	2.75	4,065
Intumescent paint to beams		SF	28.00	
Subtotal				\$89,651
<u>B2010 EXTERIOR WALL</u>				
Existing interior backup				
Patch at locations of removed partitions	34	LOC	400.00	13,600
Patch at locations of mep systems and specialties/casework demolition	10,000	SF	1.00	10,000
Interior backup - metal stud				
Metal stud framing	1,580	SF	11.00	17,380
Densshield or similar to exterior face of stud backup	1,580	SF	4.50	7,110
Insulation	1,580	SF	7.00	11,060
Air barrier	1,580	SF	7.50	11,850
Drywall lining to interior face of stud backup	1,580	SF	5.20	8,216
Exterior skin - stone				
Clean	5,325	SF	7.50	39,938
Repoint	1,331	SF	45.00	59,895
Exterior skin - stone chimneys				
Clean	500	SF	7.50	3,750
Repoint	500	SF	45.00	22,500
Vent cap	3	EA	1,500.00	4,500
Exterior skin - metal panel				
General areas	1,580	SF	85.00	134,300
Miscellaneous				
Scaffolding to exterior wall	1,580	SF	5.00	7,900
Lift staging	1	LS	10,000.00	10,000
Subtotal				\$361,999
<u>B2020 WINDOWS</u>				
Wood windows and glazing				
Windows, glazed				
Replace sash	1,077	SF	150.00	161,550
Paint to windows	2,154	SF	8.00	17,232

Renovation - Estimate Detail

	Quantity	Unit	Rate	Total
Aluminum storefront				
Storefront system, glazed				
Complete	125	SF	115.00	14,375
Ancillaries				
Backer rod and double sealant	845	LF	7.00	5,915
Wood blocking at openings	845	LF	6.00	5,070
Subtotal				\$204,142
<u>B2030 EXTERIOR DOORS</u>				
Hollow metal doors, frame and hardware				
Single leaf				
New door including sidelight	1	PR	4,800.00	4,800
	1			
Wood doors, frames and hardware				
Double leaf at storefront system				
Complete		PR	4,500.00	
Miscellaneous				
Added cost for door operators	1	EA	6,000.00	6,000
Paint to doors	1	EA	120.00	120
Paint to frames	1	EA	130.00	130
Backer rod and double sealant	1	EA	100.00	100
Wood blocking at openings	1	EA	110.00	110
Subtotal				\$11,260
<u>B3010 ROOF COVERING</u>				
Slate roofing	8,429	SF	65.00	547,885
Ice and water shield	8,429	SF	3.75	31,609
Insulation	8,429	SF	5.00	42,145
Rough blocking	8,429	SF	0.60	5,057
Strapping	6,338	LF	4.00	25,352
Metal roofing				
Copper roofing	60	SF	130.00	7,800
Canopy roofing system				
Glass canopy	48	SF	250.00	12,000
Miscellaneous roofing				
Repairs and replacement of cornices and soffits at eaves	1	LS	75,000.00	75,000
Fascia mounted gutters at sloped roofing	258	LF	35.00	9,030
Down spouts	120	LF	35.00	4,200
Trim at eaves/fascia to roof - In exterior wall				
Flashings	600	LF	20.00	12,000
Edge trim/stop	450	LF	20.00	9,000
Subtotal				\$781,078
<u>C1010 PARTITIONS</u>				
Partitions, drywall				
Typical	11,438	SF	17.80	203,596
Typical, over glass	1,092	SF	26.70	29,156
Plumbing chase	1,036	SF	12.20	12,639

Renovation - Estimate Detail

	Quantity	Unit	Rate	Total
Single sided	616	SF	9.60	5,914
Patch at locations of removed partitions	32	LOC	400.00	12,800
Patch at locations of mep systems and specialties/casework demolition	17,000	SF	1.00	17,000
Partitions masonry				
8" CMU, reinforced at egress stairs	3,934	SF	34.00	133,756
12" CMU, reinforced at vault	336	SF	36.00	12,096
Window walls and borrowed lights				
Aluminum				
Glass partition, complete	702	SF	75.00	52,650
Folding partitions				
Folding glass wall	280	SF	210.00	58,800
Rails and handrails, stainless steel and glass				
Rail at ramps and the like	32	LF	600.00	19,200
Handrail	20	LF	60.00	1,200
Miscellaneous				
Sealants and caulking at partitions	27,603	SF	0.50	13,802
Rough blocking	5,521	LF	6.00	33,126
Subtotal				\$605,735

C1020 INTERIOR DOORS

Wood doors				
Single leaf				
Type F	27	EA	2,500.00	67,500
Type FG	14	EA	2,800.00	39,200
Double leaf				
Type FF	6	PR	4,500.00	27,000
Type FGFG	1	PR	5,600.00	5,600
Added cost for sidelights				
Complete	6	EA	400.00	2,400
Aluminum doors				
Single leaf door				
Type J (assumed)	3	EA	5,800.00	17,400
Specialty doors				
Allowance for miscellaneous access doors	6	EA	500.00	3,000
Coiling fire door	2	EA	21,600.00	43,200
Miscellaneous				
Paint to doors	55	EA	120.00	6,600
Paint to frames	48	EA	130.00	6,240
Sealants and caulking	48	EA	100.00	4,800
Wood blocking at openings	48	EA	110.00	5,280
Subtotal				\$228,220

C1030 SPECIALTIES

Specialties				
Toilet partitions, phenolic, handicapped	2	EA	1,800.00	3,600
Toilet partitions, phenolic, regular	3	EA	1,500.00	4,500

Renovation - Estimate Detail

	Quantity	Unit	Rate	Total
Miscellaneous metal to ceiling supported toilet partitions	5	EA	500.00	2,500
Vanity counters				
Solid surface	12	LF	300.00	3,600
Toilet accessories				
Medium toilet	2	EA	5,250.00	10,500
Small toilet	1	EA	3,250.00	3,250
Mirrors	7	EA	400.00	2,800
Mop and broom holder	1	EA	150.00	150
Marker boards and tack boards	1	LS	3,000.00	3,000
Lockers, single tier	15	OPE	350.00	5,250
Signage/Directories	27,603	SF	0.45	12,421
Corner guards	10	EA	100.00	1,000
Fire extinguishers and cabinets	8	EA	475.00	3,800
Miscellaneous				
Miscellaneous shelving	1	LS	1,500.00	1,500
Backer panels in electrical closets	4	LS	250.00	1,000
Allowance for miscellaneous metals not identifiable at this stage	27,603	SF	2.50	69,008
Miscellaneous sealants throughout building	27,603	SF	0.45	12,421
Subtotal				\$140,300

C2010 STAIR CONSTRUCTION

Feature staircase				
Rehabilitate existing	3	FLT	15,000.00	45,000
Egress/Internal circulation staircases				
Egress staircase, including rails and handrails	5	FLT	35,000.00	175,000
Miscellaneous steps and ladders				
Access ladder to roof (assumed)	1	EA	2,000.00	2,000
Subtotal				\$222,000

C2020 STAIR FINISHES

Stair finishes				
Rehabilitate existing	3	FLT	4,600.00	13,800
Rubber	5	FLT	4,600.00	23,000
Paint and sealer to egress staircases	5	FLT	2,750.00	13,750
Subtotal				\$50,550

C3010 WALL FINISHES

Paint				
To cmu	336	SF	1.35	454
To gwb or plaster	55,292	SF	1.20	66,350
Tile				
Ceramic tile	1,782	SF	25.00	44,550
Miscellaneous				
Exposed/clean existing facades to remain exposed in completed project	1	LS	50,000.00	50,000

Renovation - Estimate Detail

	Quantity	Unit	Rate	Total
Repointing allowance	1	LS	50,000.00	50,000
Acoustic wall panels	800	SF	65.00	52,000
Subtotal				\$263,354
<u>C3020 FLOOR FINISHES</u>				
Resilient flooring				
Linoleum	2,298	SF	11.00	25,278
Carpet				
Carpet tile	1,678	SY	60.00	100,680
Floor tile				
Porcelain tile	952	SF	28.00	26,656
Marble thresholds @ bathrooms	5	EA	110.00	550
Resins/sealers				
Concrete sealer	2,799	SF	0.75	2,099
Bases to walls				
Allowance	1	LS	12,998.50	12,999
Subtotal				\$168,262
<u>C3030 CEILING FINISHES</u>				
Drywall				
On light gauge framing support system	360	SF	18.00	6,480
On suspension system	1,402	SF	12.00	16,824
Acoustical ceiling tile				
2' x 2'	12,270	SF	8.50	104,295
2, x 5"	3,428	SF	12.00	41,136
Wood				
Compound wood ceiling	2,007	SF	65.00	130,455
Paint				
Drywall or plaster ceiling	1,762	SF	1.35	2,379
Subtotal				\$301,569
<u>D2010 PLUMBING</u>				
Equipment				
Water meter	1	EA	3,500.00	3,500
Backflow preventer, 4"	1	EA	6,000.00	6,000
Backflow preventor, 1/2"	2	EA	850.00	1,700
Domestic water heater, gas fired				
80 gal	1	EA	17,000.00	17,000
Circulation pump				
CP-1	1	EA	2,500.00	2,500
Expansion tank	1	EA	1,750.00	1,750
Oil separator	1	EA	9,500.00	9,500
Thermostatic mixing valve	2	EA	4,500.00	9,000
Trap primer	7	EA	950.00	6,650
Fixtures				
Water closet	7	EA	1,850.00	12,950
Urinal	1	EA	1,825.00	1,825
Lavatory	7	EA	1,600.00	11,200

Renovation - Estimate Detail

	Quantity	Unit	Rate	Total
Mop service basin	1	EA	1,450.00	1,450
Sink	1	EA	1,500.00	1,500
Water cooler	1	EA	4,500.00	4,500
Hose bib	3	EA	350.00	1,050
Wall hydrant	2	EA	850.00	1,700
Domestic water piping				
Piping	1,350	LF	32.00	43,200
Valves & accessories	1	LS	8,600.00	8,600
Pipe insulation	1,350	LF	10.00	13,500
Sanitary waste and vent piping				
Floor drain	7	EA	1,050.00	7,350
Clean out	10	EA	250.00	2,500
Piping	1,000	LF	60.00	60,000
Fixture rough in / connections	25	EA	400.00	10,000
Storm piping				
Combination roof/overflow drain RD-1	2	EA	1,760.00	3,520
Clean out	4	EA	300.00	1,200
Piping	130	LF	60.00	7,800
Insulate existing horizontal piping	33	LF	22.00	726
Gas installation	1	LS	50,000.00	50,000
Miscellaneous				
Demolition - cut and make safe	1	LS	5,000.00	5,000
Commissioning	1	LS	5,500.00	5,500
Testing and sterilization	1	LS	2,750.00	2,750
Shop drawings	1	LS	5,500.00	5,500
Coring, sleeves & firestopping	1	LS	5,500.00	5,500
Fees & permits	1	LS	2,500.00	2,500
Subtotal				\$328,921

D3010 HVAC*Hvac*

Heating equipment to include condensing boilers, humidifiers, pumps, etc.	27,603	SF	2.90	80,049
Cooling equipment to include chillers, cooling towers, pumps, etc.	27,603	SF	7.04	194,325
Air handling units and the like	27,603	SF	14.01	386,718
Return and exhaust fans and the like	27,603	SF	2.60	71,768
Distribution equipment to include fan coil units, vav boxes and the like	27,603	SF	3.64	100,475
Hot water piping	27,603	SF	6.55	180,800
Chilled water piping	27,603	SF	4.55	125,594
Condenser water piping	27,603	SF	1.25	34,504
Sheet metal, to include ductwork, dampers, grilles, registers and diffusers	27,603	SF	25.87	714,090
Insulation to include pipe and duct	27,603	SF	6.72	185,492
Balancing	27,603	SF	1.25	34,504
Controls	27,603	SF	10.35	285,691
Demolition - cut and make safe	1	LS	15,000.00	15,000

Renovation - Estimate Detail

	Quantity	Unit	Rate	Total
Coordination & management	1	LS	33,100.00	33,100
Commissioning	1	LS	9,650.00	9,650
Pipe and duct identification, equipment tagging	1	LS	1,400.00	1,400
Shop drawings	1	LS	13,800.00	13,800
Seismic bracing & vibration control	1	LS	4,150.00	4,150
Coring, sleeves & firestopping	1	LS	3,050.00	3,050
Rigging & equipment rental	1	LS	33,100.00	33,100
Adjust for vrf system	27,603	SF	(10.00)	(276,030)
Subtotal				\$2,231,230

D4010 FIRE PROTECTION*Equipment & Valves*

Fire department connection	1	LS	2,500.00	2,500
Fire alarm test header	1	LS	1,200.00	1,200
Backflow preventer	1	EA	10,000.00	10,000
Double check valve assembly	1	EA	14,000.00	14,000
Wet alarm check valve	1	EA	5,500.00	5,500
Zone control valve assembly	5	EA	1,500.00	7,500
Miscellaneous valves	1	LS	2,500.00	2,500
Sprinkler heads	217	EA	90.00	19,530
Branch sprinkler pipe with fittings & hangers	2,170	LF	35.00	75,950
Main sprinkler pipe with fittings & hangers	651	LF	60.00	39,060

Clean agent system in special collections

Complete	3,786	SF	27.00	102,222
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Miscellaneous

Demolition - cut and make safe	1	LS	3,000.00	3,000
Coordination & management	1	LS	1,800.00	1,800
Engineering/hydraulic calculations	1	LS	1,800.00	1,800
Shop drawings	1	LS	6,000.00	6,000
Coring, sleeves & firestopping	1	LS	1,800.00	1,800

Subtotal **\$294,362**

D5010 ELECTRICAL*Electrical installation*

Normal power and feeders	27,603	SF	9.25	255,328
Emergency power and feeders	27,603	SF	5.00	138,015
Equipment wiring	27,603	SF	2.58	71,216
Lighting	27,603	SF	20.00	552,060
Lighting control	27,603	SF	3.00	82,809
Branch devices	27,603	SF	2.00	55,206
Lighting and branch circuitry	27,603	SF	4.50	124,214
Tele/data, complete	27,603	SF	3.75	103,511
Audiovisual rough-in and power	27,603	SF	0.50	13,802
Fire alarm	27,603	SF	3.75	103,511
Emergency responder radio communication	27,603	SF	1.00	27,603
Security system (excluding head-end)	27,603	SF	5.00	138,015

Renovation - Estimate Detail

	Quantity	Unit	Rate	Total
Grounding and bonding	27,603	SF	0.23	6,349
Miscellaneous	27,603	SF	2.75	75,908
Subtotal				\$1,747,547
<u>E1010 COMMERCIAL EQUIPMENT</u>				
Security and vault equipment				
Book security equipment	1	LS	25,000.00	25,000
Subtotal				\$25,000
<u>E1020 INSTITUTIONAL EQUIPMENT</u>				
Audio-visual equipment				
Projection screen , electrical	1	EA	3,500.00	3,500
Subtotal				\$3,500
<u>E1090 OTHER EQUIPMENT</u>				
Residential equipment				
Refrigerator	1	EA	2,500.00	2,500
Oven	1	EA	1,000.00	1,000
Hood	1	EA	450.00	450
Microwave	1	EA	500.00	500
Subtotal				\$4,450
<u>E2010 FIXED FURNISHINGS</u>				
Kitchen casework				
Base storage units	9	LF	340.00	3,060
Counter top	9	LF	140.00	1,260
Wall storage units	9	LF	280.00	2,520
Workroom				
Work counters	19	LF	250.00	4,750
Wall storage units	19	LF	280.00	5,320
Administration area				
Reception counter	24	LF	1,500.00	36,000
Base storage units	30	LF	340.00	10,200
Counter top	30	LF	140.00	4,200
Wall storage units	30	LF	280.00	8,400
Miscellaneous casework				
Allowance	33,928	SF	2.00	67,856
Entry mat				
Entry mat and frame	50	SF	50.00	2,500
Window treatment				
Mecho shades	1,077	SF	18.00	19,386
Library shelving				
Compact shelving	1	LS	35,000.00	35,000
Other library shelving		By Owner		
Subtotal				\$200,452

Renovation - Estimate Detail

	Quantity	Unit	Rate	Total
<u>E2020 LOOSE FURNISHINGS</u>				
Loose furnishings				
By owner				
Subtotal				\$0
<u>F1010 SPECIAL STRUCTURES</u>				
Mockups				
Exterior mockups	1	LS	25,000.00	25,000
Interior mockups	1	LS	15,000.00	15,000
Subtotal				\$40,000
<u>F1030 SPECIAL SYSTEMS AND FACILITIES</u>				
Remove and reinstall fireplace				
Complete	1	EA	25,000.00	25,000
Subtotal				\$25,000
<u>F2010 BUILDING ELEMENTS DEMOLITION</u>				
Interior demolition				
Remove partitions and doors	1,404	LF	33.60	47,174
Remove floor and ceiling finishes	17,481	SF GFA	4.10	71,672
Remove casework and specialties	17,481	SF GFA	1.35	23,599
Remove MEP systems (excluding ductwork)	17,481	SF GFA	4.00	69,924
Remove louvers	2	EA	250.00	500
Remove staircase	7	FLT	4,500.00	31,500
Remove elevator	1	EA	25,000.00	25,000
Remove rails and accessories	45	LF	6.00	270
Remove windows	16	EA	350.00	5,600
Remove shed	1	EA	750.00	750
Remove concrete pad	219	SF	10.00	2,190
Protect during demolition				
Fireplace	5	EA	1,000.00	5,000
Staircase	1	EA	3,000.00	3,000
Structure to hold up exterior wall	3	LOC	10,000.00	30,000
Roof demolition				
Remove existing slate	6,024	SF	8.00	48,192
Remove membrane	2,824	SF	2.75	7,766
Exterior demolition				
Saw cut masonry for new opening	71	LF	45.00	3,195
Remove masonry	1	LS	25,000.00	25,000
Structural demolition				
Saw cut existing concrete slab on grade	106	LF	7.50	795
Remove existing concrete slab on grade	600	SF	15.00	9,000
Remove existing upper floors	6,109	SF	25.00	152,725
Remove existing roof structure	3,000	SF	25.00	75,000
Allow for bracing /temporary shoring	1	LS	50,000.00	50,000
Subtotal				\$687,852

Renovation - Estimate Detail

	Quantity	Unit	Rate	Total
<u>F2020 HAZARDOUS COMPONENTS ABATEMENT</u>				
Hazardous materials abatement				
Black mastic in boiler room	120	SF	7.00	840
Black mastic in mechanical room	90	SF	7.00	630
Vat floor tile	1,100	SF	6.00	6,600
Door and window caulking	155	EA	450.00	69,750
Plaster base coat and wallboard joint compound	30,000	SF	7.50	225,000
Transite sewer pipe	1	LS	30,000.00	30,000
Lead paint protocol	1	LS	30,000.00	30,000
Subtotal				\$362,820
<u>MARKUPS</u>				
General conditions and project requirements				
General conditions and requirements	17.5	MTH	75,000	1,312,500
Bond and Insurance	2.0%		10,886,254	217,725
Building permit	0.0%		11,103,979	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.5%		11,103,979	388,639
Subtotal				\$1,918,864
<u>CONTINGENCIES/ESCALATION</u>				
Contingencies				
Design contingency	10.0%		11,492,618	1,149,262
GMP contingency	0.0%		12,641,880	
Escalation				
Escalation to Start Date (June 2023)	5.9%		12,641,880	745,871
Subtotal				\$1,895,133

	Total	GFA \$/sf	33,928 %
A10 Foundations	\$571,535	\$16.85	3.39%
A1010 Foundations	\$370,382	\$10.92	2.20%
A1020 Special Foundations	\$35,000	\$1.03	0.21%
A1020 Slab on Grade	\$166,153	\$4.90	0.99%
A20 Basement Construction	\$271,244	\$7.99	1.61%
A2010 Basement Earthwork	\$202,480	\$5.97	1.20%
A2020 Basement Walls	\$68,764	\$2.03	0.41%
B10 Superstructure	\$2,915,781	\$85.94	17.31%
B1010 Floor Construction	\$1,594,821	\$47.01	9.47%
B1020 Roof Construction	\$1,320,960	\$38.93	7.84%
B20 Exterior Closure	\$1,477,158	\$43.54	8.77%
B2010 Exterior Walls	\$863,610	\$25.45	5.13%
B2020 Windows	\$585,548	\$17.26	3.48%
B2030 Exterior Doors	\$28,000	\$0.83	0.17%
B30 Roofing	\$1,127,871	\$33.24	6.70%
B3010 Roof Covering	\$735,371	\$21.67	4.37%
B3020 Roof Openings	\$392,500	\$11.57	2.33%
C10 Interior Construction	\$1,369,002	\$40.35	8.13%
C1010 Partitions	\$831,766	\$24.52	4.94%
C1020 Interior Doors	\$351,380	\$10.36	2.09%
C1030 Specialties	\$185,856	\$5.48	1.10%
C20 Staircases	\$176,860	\$5.21	1.05%
C2010 Stair Construction	\$145,860	\$4.30	0.87%
C2020 Stair Finishes	\$31,000	\$0.91	0.18%
C30 Finishes	\$779,109	\$22.96	4.62%
C3010 Wall Finishes	\$297,762	\$8.78	1.77%
C3020 Floor Finishes	\$243,165	\$7.17	1.44%
C3030 Ceiling Finishes	\$238,182	\$7.02	1.41%
D10 Conveying Systems	\$275,170	\$8.11	1.63%
D1010 Elevators and Lifts	\$275,170	\$8.11	1.63%
D1020 Escalators and Moving Walkways	\$0	\$0.00	0.00%
D1030 Other Conveying Systems	\$0	\$0.00	0.00%
D20 Plumbing	\$495,695	\$14.61	2.94%
D2010 Plumbing Complete	\$495,695	\$14.61	2.94%
D30 Heating, Ventilation & Air Conditioning	\$2,724,044	\$80.29	16.17%
D3010 HVAC, Complete	\$2,724,044	\$80.29	16.17%
D40 Fire Protection	\$201,660	\$5.94	1.20%
D4010 Fire Protection, Complete	\$201,660	\$5.94	1.20%
D50 Electrical	\$1,972,016	\$58.12	11.71%
D5010 Electrical, Complete	\$1,972,016	\$58.12	11.71%
E10 Equipment	\$31,600	\$0.93	0.19%
E1010 Commercial Equipment	\$25,000	\$0.74	0.15%
E1020 Institutional Equipment	\$3,600	\$0.11	0.02%
E1030 Vehicular Equipment	\$0	\$0.00	0.00%
E1090 Other Equipment	\$3,000	\$0.09	0.02%
E20 Furnishings	\$180,800	\$5.33	1.07%
E2010 Fixed Furnishings	\$180,800	\$5.33	1.07%
E2020 Loose Furnishings	\$0	\$0.00	0.00%

		Total	GFA \$/sf	33,928 %
F10 Special Construction		\$75,000	\$2.21	0.45%
F1010 Special Structures		\$75,000	\$2.21	0.45%
F1020 Integrated Construction		\$0	\$0.00	0.00%
F1030 Special Systems and Facilities		\$0	\$0.00	0.00%
F20 Selective Building Demolition		\$0	\$0.00	0.00%
F2010 Building Elements Demolition		\$0	\$0.00	0.00%
F2020 Hazardous Components Abatement		\$0	\$0.00	0.00%
TOTAL BUILDING CONSTRUCTION		\$14,644,545	\$431.64	86.93%
Total Site Construction	See separate section			
TOTAL BUILDING & SITE		\$14,644,545	\$431.64	86.93%
Markups		\$2,201,308	\$64.88	13.07%
General Conditions				
General conditions and project requirements	8.96%	\$1,312,500	\$38.68	7.79%
Bond and insurance	2.00%	\$319,141	\$9.41	1.89%
Building permit	0.00%	\$0	\$0.00	0.00%
Overhead and profit				
Prime contractor's head office overhead and profit (Fee)	3.50%	\$569,667	\$16.79	3.38%
PLANNED CONSTRUCTION COST	Aug-22	\$16,845,853	\$496.52	100.00%
Contingencies/Escalation		\$2,777,881	\$81.88	
Contingencies				
Design and pricing contingency	10.00%	\$1,684,585	\$49.65	
Gmp contingency	0.00%	\$0	\$0.00	
Escalation				
Escalation to start date (June 2023)	5.90%	\$1,093,296	\$32.22	
ESTIMATED CONTRACT AWARD	Jun-23	\$19,623,734	\$578.39	

	Quantity	Unit	Rate	Total
A1010 FOUNDATIONS				
<i>Strip footings at exterior</i>				
Excavation	223	CY	15.00	3,345
Remove off site	223	CY	25.00	5,575
Backfill with gravel	199	CY	45.00	8,955
Formwork	430	SF	15.00	6,450
Reinforcement	2,160	LB	1.80	3,888
Concrete	24	CY	243.00	5,832
<i>Strip footings at retaining wall</i>				
Excavation	86	CY	15.00	1,290
Remove off site	86	CY	25.00	2,150
Backfill with gravel	77	CY	45.00	3,465
Formwork	166	SF	15.00	2,490
Reinforcement	810	LB	1.80	1,458
Concrete	9	CY	243.00	2,187
<i>Strip footings at interior</i>				
Excavation	74	CY	15.00	1,110
Remove off site	74	CY	25.00	1,850
Backfill with gravel	52	CY	45.00	2,340
Formwork	400	SF	15.00	6,000
Reinforcement	1,980	LB	1.75	3,465
Concrete	22	CY	243.00	5,346
<i>Strip footings at elevation changes</i>				
Excavation	23	CY	15.00	345
Remove off site	23	CY	25.00	575
Backfill with gravel	17	CY	45.00	765
Formwork	155	SF	15.00	2,325
Reinforcement	540	LB	1.75	945
Concrete	6	CY	222.00	1,332
<i>Column footings at exterior</i>				
Excavation	337	CY	15.00	5,055
Remove excavated material off site	337	CY	25.00	8,425
Backfill with gravel	283	CY	45.00	12,735
Formwork	790	SF	15.00	11,850
Reinforcement	4,860	LB	1.75	8,505
Concrete	54	CY	243.00	13,122
<i>Column footings at interior</i>				
Excavation	174	CY	15.00	2,610
Remove excavated material off site	174	CY	25.00	4,350
Backfill with gravel	115	CY	45.00	5,175
Formwork	840	SF	15.00	12,600
Reinforcement	5,310	LB	1.50	7,965
Concrete	59	CY	243.00	14,337
<i>Foundation walls</i>				
Formwork	4,903	SF	15.00	73,545
Reinforcement	12,258	LB	1.75	21,452
Concrete	121	CY	252.50	30,553
Waterproofing, mastic	2,452	SF	2.50	6,130

	Quantity	Unit	Rate	Total
Insulation	2,452	SF	2.50	6,130
Wall at elevation change				
Formwork	1,518	SF	15.00	22,770
Reinforcement	3,795	LB	1.75	6,641
Concrete	28	CY	252.50	7,070
Waterproofing, mastic	759	SF	2.50	1,898
Insulation	759	SF	2.50	1,898
Miscellaneous				
Allowance for piers/pilasters	5	EA	625.00	3,125
Set base plates	5	EA	125.00	625
Miscellaneous concrete costs - premium for pump				
grade concrete mix and pump	325	CY	19.00	6,175
Perimeter foundation drainage, including gravel				
and filter fabric	83	LF	26.00	2,158
Subtotal				\$370,382
<u>A1020 SPECIAL FOUNDATIONS</u>				
Underpinning	10	CY	3,500.00	35,000
Subtotal				\$35,000
<u>A1030 SLAB ON GRADE</u>				
Standard slab on grade				
Gravel fill	424	CY	45.00	19,080
Rigid insulation under slab on grade	11,438	SF	3.00	34,314
Vapor barrier	11,438	SF	0.50	5,719
Mesh reinforcing 15% lap	13,154	SF	1.25	16,443
Concrete in slab, complete	178	CY	233.50	41,563
Finishing and curing	11,438	SF	1.75	20,017
Control and construction joints	11,438	SF	0.60	6,863
Isolation joints at columns	136	LF	4.50	612
Perimeter joints	615	LF	4.00	2,460
Elevator/Escalator pit				
Excavation	36	CY	15.00	540
Remove excavated material off site	36	CY	25.00	900
Backfill with gravel	17	CY	45.00	765
Formwork to slab edge	54	SF	15.00	810
Reinforcement in slab	450	LB	1.75	788
Concrete in slab	5	CY	243.00	1,215
Formwork to pit walls	180	SF	15.00	2,700
Added cost for sump	1	LS	500.00	500
Reinforcement	450	LB	1.75	788
Concrete in pit walls	7	CY	252.50	1,768
Cementitious waterproofing to elevator pit	261	SF	18.00	4,698
Miscellaneous				
Miscellaneous concrete costs - premium for pump				
grade concrete mix and pump	190	CY	19.00	3,610
Subtotal				\$166,153

	Quantity	Unit	Rate	Total
<u>A2010 BASEMENT EARTHWORK</u>				
Basement earthwork				
Excavation	2,948	CY	15.00	44,220
Excavate for working space	224	CY	15.00	3,360
Remove excavated material off site	3,172	CY	25.00	79,300
Backfill around basement walls with gravel	224	CY	45.00	10,080
Support of excavation - soldier pile and lagging	1,008	SF	65.00	65,520
Subtotal				\$202,480
<u>A2020 BASEMENT WALLS</u>				
Basement walls				
Formwork to walls	1,848	SF	15.00	27,720
Reinforcement	6,468	LB	1.75	11,319
Concrete in walls	46	CY	252.50	11,615
Waterproofing, membrane, including protection board	924	SF	9.00	8,316
Insulation	924	SF	3.50	3,234
Miscellaneous				
Allowance for piers/pilasters	5	EA	750.00	3,750
Set base plates	5	EA	120.00	600
Water stops	83	LF	10.00	830
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	46	CY	30.00	1,380
Subtotal				\$68,764
<u>B1010 FLOOR CONSTRUCTION</u>				
Steel construction				
Columns				
W section	23	T	5,800.00	133,400
Shear/brace frames				
Tube/pipe	6	T	6,500.00	39,000
Floor framing				
W sections	113	T	5,800.00	655,400
Shear studs	4,518	EA	4.00	18,072
Moment connections	119	EA	675.00	80,325
Bent plate in pour stop	900	LF	30.00	27,000
Metal decking, standard	22,592	SF	9.50	214,624
Concrete construction				
Concrete topping to floors				
Mesh reinforcing 15% lap	25,981	SF	1.25	32,476
Concrete topping	351	CY	233.50	81,959
Finishing and curing	22,592	SF	1.75	39,536
Control and construction joints	22,592	SF	0.60	13,555
Miscellaneous concrete costs				
Premium for pump grade concrete mix and pump	351	CY	19.00	6,669
Added cost for lightweight concrete	351	CY	27.00	9,477

Addition - Estimate Detail

	Quantity	Unit	Rate	Total
Miscellaneous				
Fireproofing steel	22,592	SF	2.75	62,128
Fire stopping	22,592	SF	0.50	11,296
Seismic joints	400	LF	50.00	20,000
Adjust inaccurate measurement				
Eliminate steel construction	11,693	sf	(51.69)	(604,411)
Add wood construction	11,693	sf	64.51	754,315
Subtotal				\$1,594,821
<u>B1020 ROOF CONSTRUCTION</u>				
Steel construction				
Columns				
W section	14	T	5,800.00	81,200
Shear/brace frames				
Tube/pipe	3	T	6,500.00	19,500
Steel members in roof framing				
W sections	42	T	5,800.00	243,600
Moment connections	54	EA	675.00	36,450
Wood construction				
Glulam construction				
9" x 9" columns (12' - 14')	19	EA	1,160.00	22,040
Beams/Joists				
6 3/4" x 12" (7' - 9')	14	EA	1,190.00	16,660
8 3/4" x 16 1/2" (3' - 5')	10	EA	1,200.00	12,000
8 3/4" x 16 1/2" (5' - 7')	4	EA	1,370.00	5,480
8 3/4" x 20 1/2" (14' - 16')	17	EA	2,510.00	42,670
10" x 16 1/2" (10' - 12')	2	EA	1,940.00	3,880
10" x 16 1/2" (14' - 16')	4	EA	2,340.00	9,360
10" x 16 1/2" (16' - 18')	9	EA	2,540.00	22,860
10" x 16 1/2" (20' - 24')	2	EA	3,130.00	6,260
10" x 20 1/2" (12' - 14')	2	EA	2,470.00	4,940
10" x 20 1/2" (18' - 22')	11	EA	3,450.00	37,950
10" x 20 1/2" (24' - 28')	3	EA	4,180.00	12,540
10" x 20 1/2" (34' - 36')	1	EA	5,160.00	5,160
10" x 25 1/2" (34' - 36')	5	EA	6,210.00	31,050
Installation costs				
Labor to erect glulam beams and columns	103	EA	500.00	51,500
Crane associated with glulam construction	8.6	DAYS	7,500.00	64,500
Overhead and profits	20%		298,150.00	59,630
Plywood decking - 5 ply CLT	13,843	SF	35.00	484,505
Miscellaneous				
Fireproofing steel	13,843	SF	1.75	24,225
Equipment pads	500	SF	30.00	15,000
Seismic joints	160	LF	50.00	8,000
Subtotal				\$1,320,960

	Quantity	Unit	Rate	Total
<u>B2010 EXTERIOR WALL</u>				
Interior backup - metal stud				
Metal stud framing	8,977	SF	11.00	98,747
Denshield or similar to exterior face of stud backup	8,977	SF	4.50	40,397
Insulation	8,977	SF	7.00	62,839
Air barrier	8,977	SF	7.75	69,572
Drywall lining to interior face of stud backup	8,977	SF	5.20	46,680
Exterior skin - brick (from elevations)				
Brick	3,415	SF	46.00	157,090
Exterior skin - slate				
Granite shelf	218	LF	140.00	30,520
Exterior skin - arriscraft shadow stone				
Cast stone	1,572	SF	58.00	91,176
Exterior skin - metal panel				
General areas	1,088	SF	85.00	92,480
Curtain wall trim (assumed perimeter of curtain wall)	256	SF	60.00	15,360
Soffits @ building overhang	337	SF	85.00	28,645
Light gauge metal support to soffit	337	SF	8.00	2,696
Plywood sheathing at eaves	337	SF	5.00	1,685
Insulation at soffit	337	SF	7.00	2,359
Air barrier	337	SF	7.75	2,612
Miscellaneous				
Lintels - steel	100	LF	50.00	5,000
Relieving angles to brickwork	724	LF	30.00	21,720
Scaffolding to exterior wall	12,888	SF	5.00	64,440
Flashings at sills and lintels	1	LS	6,000.00	6,000
Flashing, thru wall, at parapet	348	LF	22.00	7,656
Control joints in exterior wall (1#/30LF)	498	LF	8.00	3,984
Wood blocking	1,992	LF	6.00	11,952
Subtotal				\$863,610

B2020 WINDOWS

Aluminum windows and glazing				
Windows, glazed				
Type A	12	EA	2,748.00	32,976
Type A1	6	EA	2,748.00	16,488
Type A2	9	EA	3,178.00	28,602
Type A3	9	EA	4,038.00	36,342
Type B	11	EA	5,914.00	65,054
Type B1	3	EA	6,694.00	20,082
Type C	9	EA	7,208.00	64,872
Type C1	5	EA	7,832.00	39,160
Type D	9	EA	4,434.00	39,906
Aluminum storefront				
Storefront system, glazed				
Complete	248	SF	115.00	28,520

Addition - Estimate Detail

	Quantity	Unit	Rate	Total
Aluminum curtain wall				
Curtain wall	715	SF	150.00	107,250
Ancillaries				
Backer rod and double sealant	2,500	LF	7.00	17,500
Wood blocking at openings	2,500	LF	6.00	15,000
Interior sill	421	LF	65.00	27,365
Interior trim	2,211	LF	18.00	39,798
Paint to trim	2,211	LF	3.00	6,633
Subtotal				\$585,548
<u>B2030 EXTERIOR DOORS</u>				
Aluminum doors				
Double leaf				
Complete	2	PR	8,000.00	16,000
Miscellaneous				
Added cost for door operators	2	EA	6,000.00	12,000
Subtotal				\$28,000
<u>B3010 ROOF COVERING</u>				
Metal roofing				
Metal cladding	4,024	SF	45.00	181,080
Plywood sheathing	4,024	SF	5.00	20,120
Insulation	4,024	SF	5.00	20,120
Air barrier	4,024	SF	7.50	30,180
Rough blocking	4,024	SF	0.50	2,012
Strapping	3,026	LF	4.00	12,104
Membrane roofing				
TPO	9,819	SF	13.50	132,557
Abutment of flat roof with adjacent walls	1,900	LF	13.00	24,700
Allowance for working membrane roofing around pipe and duct penetrations	1	LS	13,255.70	13,256
Air barrier	9,819	SF	4.00	39,276
Insulation	9,819	SF	6.00	58,914
Roof sheathing	19,638	SF	4.00	78,552
Rough blocking	5,700	LF	6.00	34,200
Miscellaneous roofing				
Walkway pads	80	EA	60.00	4,800
Flashings	1,900	LF	20.00	38,000
Parapet coping	500	LF	85.00	42,500
Expansion joint cover	60	LF	50.00	3,000
Subtotal				\$735,371
<u>B3020 ROOF OPENINGS</u>				
Skylight system, complete	2,600	SF	150.00	390,000
Roof hatch/ vents	1	LS	2,500.00	2,500
Subtotal				\$392,500

	Quantity	Unit	Rate	Total
C1010 PARTITIONS				
Partitions, drywall				
Typical	11,643	SF	17.80	207,245
Typical, over glass	1,224	SF	26.70	32,681
Plumbing chase	1,185	SF	12.20	14,457
Furring to masonry or concrete	1,463	SF	9.60	14,045
Column covers	78	EA	1,000.00	78,000
Partitions masonry				
8" CMU, reinforced	1,463	SF	34.00	49,742
Window walls and borrowed lights				
Aluminum				
Glass partition, complete	2,520	SF	75.00	189,000
Rails and handrails, stainless steel and glass				
Rail at areas open to below	58	LF	600.00	34,800
Rail at ramps and the like	149	LF	600.00	89,400
Handrail at steps	9	LF	60.00	540
Miscellaneous				
Sealants and caulking at partitions	33,928	SF	0.50	16,964
Rough blocking	17,482	LF	6.00	104,892
Subtotal				\$831,766

C1020 INTERIOR DOORS

Wood doors				
Single leaf				
Type F	18	EA	2,500.00	45,000
Type FG	5	EA	2,800.00	14,000
Double leaf				
Type FF	5	PR	4,500.00	22,500
Type FGFG	5	PR	5,600.00	28,000
Added cost for sidelights				
Complete	6	EA	400.00	2,400
Aluminum doors				
Single leaf door				
Type J (assumed)	12	EA	5,800.00	69,600
Double leaf door				
Type JJ (assumed)	2	PR	9,000.00	18,000
Specialty doors				
Allowance for miscellaneous access doors	7	EA	500.00	3,500
Overhead grilles	750	SF	160.00	120,000
Miscellaneous				
Added cost for door operators	2	EA	6,000.00	12,000
Paint to doors	43	EA	120.00	5,160
Paint to frames	33	EA	130.00	4,290
Sealants and caulking	33	EA	100.00	3,300
Wood blocking at openings	33	EA	110.00	3,630
Subtotal				\$351,380

	Quantity	Unit	Rate	Total
<u>C1030 SPECIALTIES</u>				
<i>Specialties</i>				
Toilet partitions, phenolic, handicapped	2	EA	1,800.00	3,600
Toilet partitions, phenolic, regular	2	EA	1,500.00	3,000
Toilet partitions, phenolic, urinal screens	1	EA	500.00	500
Miscellaneous metal to ceiling supported toilet partitions	4	EA	500.00	2,000
Vanity counters				
Solid surface	15	LF	300.00	4,500
Toilet accessories				
Mop and broom holder	1	EA	150.00	150
Marker boards and tack boards	1	LS	3,500.00	3,500
Signage/Directories	33,928	SF	0.45	15,268
Corner guards	10	EA	100.00	1,000
Fire extinguishers and cabinets	10	EA	500.00	5,000
<i>Miscellaneous</i>				
Storage shelving	1	LS	1,500.00	1,500
Shelf with hanging rod	30	LF	1,500.00	45,000
Backer panels in electrical closets	3	LS	250.00	750
Allowance for miscellaneous metals not identifiable at this stage	33,928	SF	2.50	84,820
Miscellaneous sealants throughout building	33,928	SF	0.45	15,268
Subtotal				\$185,856
<u>C2010 STAIR CONSTRUCTION</u>				
<i>Feature staircase</i>				
Feature stair	40	RSR	2,000.00	80,000
Handrail to feature staircase	84	LF	60.00	5,040
Rail/balustrade to feature staircase	84	LF	600.00	50,400
<i>Miscellaneous steps and ladders</i>				
Steps at library floors	66	LF	120.00	7,920
Access ladder to roof	2	EA	1,250.00	2,500
Subtotal				\$145,860
<u>C2020 STAIR FINISHES</u>				
<i>Stair finishes</i>				
Stone treads and risers	40	RSR	500.00	20,000
Paint and sealer to egress staircases	4	FLT	2,750.00	11,000
Subtotal				\$31,000
<u>C3010 WALL FINISHES</u>				
<i>Paint</i>				
To gwb or plaster	42,975	SF	1.20	51,570
<i>Tile</i>				
Ceramic tile	1,638	SF	25.00	40,950

Addition - Estimate Detail

	Quantity	Unit	Rate	Total
Wood				
Paneling at elevator	1,026	SF	65.00	66,690
Paint/Stain to wood paneling	1,026	SF	2.00	2,052
Acoustic wall panels	2,100	SF	65.00	136,500
Subtotal				\$297,762
<u>C3020 FLOOR FINISHES</u>				
Resilient flooring				
Linoleum	352	SF	11.00	3,872
Carpet				
Carpet tile	3,103	SY	60.00	186,180
Floor tile				
Porcelain tile	1,023	SF	28.00	28,644
Marble thresholds @ bathrooms	5	EA	110.00	550
Resins/sealers				
Concrete sealer	2,886	SF	0.75	2,165
Bases to walls				
Allowance	1	LS	21,753.90	21,754
Subtotal				\$243,165
<u>C3030 CEILING FINISHES</u>				
Drywall				
On suspension system	1,694	SF	12.00	20,328
Vertical drywall soffits	114	LF	30.00	3,420
Acoustical ceiling tile				
2' x 2'	9,182	SF	8.50	78,047
2' x 5"	9,197	SF	12.00	110,364
Wood				
Compound wood ceiling - sealer	9,077	SF	2.50	22,693
Paint				
Exposed structure	508	SF	1.75	889
Drywall or plaster ceiling	1,808	SF	1.35	2,441
Subtotal				\$238,182
<u>D1010 ELEVATORS AND LIFTS</u>				
Passenger elevators				
Passenger elevator, 6 stop	1	EA	259,000.00	259,000
Elevator cab finish	1	EA	15,000.00	15,000
Pit ladders	1	EA	750.00	750
Sill angles	12	LF	35.00	420
Subtotal				\$275,170
<u>D2010 PLUMBING</u>				
Equipment				
Sewerage pump and pit	1	EA	35,000.00	35,000
Elevator sump pump	1	EA	2,750.00	2,750
Trap primer	5	EA	950.00	4,750

	Quantity	Unit	Rate	Total
Fixtures				
Water closet	7	EA	1,850.00	12,950
Urinal	1	EA	1,825.00	1,825
Lavatory	8	EA	1,600.00	12,800
Mop service basin	2	EA	1,450.00	2,900
Sink	3	EA	1,500.00	4,500
Water cooler	2	EA	4,500.00	9,000
Hose bib	5	EA	350.00	1,750
Wall hydrant	3	EA	850.00	2,550
Domestic water piping				
Piping	1,850	LF	32.00	59,200
Valves & accessories	1	LS	11,800.00	11,800
Pipe insulation	1,850	LF	10.00	18,500
Sanitary waste and vent piping				
Floor drain	5	EA	1,050.00	5,250
Clean out	10	EA	250.00	2,500
Piping	1,120	LF	60.00	67,200
Fixture rough in / connections	28	EA	400.00	11,200
Storm piping				
Combination roof/overflow drain RD-1	22	EA	1,760.00	38,720
Clean out	6	EA	300.00	1,800
Piping	2,200	LF	60.00	132,000
Insulate existing horizontal piping	1,100	LF	22.00	24,200
Miscellaneous				
Commissioning	1	LS	8,550.00	8,550
Testing and sterilization	1	LS	4,300.00	4,300
Shop drawings	1	LS	8,600.00	8,600
Coring, sleeves & firestopping	1	LS	8,600.00	8,600
Fees & permits	1	LS	2,500.00	2,500
Subtotal				\$495,695

D3010 HVAC

Hvac

Heating equipment to include condensing boilers, humidifiers, pumps, etc.	33,928	SF	2.90	98,391
Cooling equipment to include chillers, cooling towers, pumps, etc.	33,928	SF	7.04	238,853
Air handling units and the like	33,928	SF	14.01	475,331
Return and exhaust fans and the like	33,928	SF	2.60	88,213
Distribution equipment to include fan coil units, vav boxes and the like	33,928	SF	3.64	123,498
Hot water piping	33,928	SF	6.55	222,228
Chilled water piping	33,928	SF	4.55	154,372
Condenser water piping	33,928	SF	1.25	42,410
Sheet metal, to include ductwork, dampers, grilles, registers and diffusers	33,928	SF	25.87	877,717
Insulation to include pipe and duct	33,928	SF	6.72	227,996
Balancing	33,928	SF	1.25	42,410

	Quantity	Unit	Rate	Total
Controls	33,928	SF	10.35	351,155
Coordination & management	1	LS	40,700.00	40,700
Commissioning	1	LS	11,850.00	11,850
Pipe and duct identification, equipment tagging	1	LS	1,700.00	1,700
Shop drawings	1	LS	16,950.00	16,950
Seismic bracing & vibration control	1	LS	5,100.00	5,100
Coring, sleeves & firestopping	1	LS	3,750.00	3,750
Rigging & equipment rental	1	LS	40,700.00	40,700
Adjust for vrf system	33,928	SF	(10.00)	(339,280)
Subtotal				\$2,724,044

D4010 FIRE PROTECTION

Equipment & Valves

Miscellaneous valves	1	LS	2,500.00	2,500
Sprinkler heads	308	EA	90.00	27,720
Branch sprinkler pipe with fittings & hangers	3,080	LF	35.00	107,800
Main sprinkler pipe with fittings & hangers	924	LF	60.00	55,440

Miscellaneous

Coordination & management	1	LS	1,900.00	1,900
Engineering/hydraulic calculations	1	LS	1,900.00	1,900
Shop drawings	1	LS	2,500.00	2,500
Coring, sleeves & firestopping	1	LS	1,900.00	1,900

Subtotal **\$201,660**

D5010 ELECTRICAL

Electrical installation

Normal power and feeders	33,928	SF	9.25	313,834
Emergency power and feeders	Not required			
Equipment wiring	33,928	SF	2.58	87,534
Lighting	33,928	SF	20.00	678,560
Lighting control	33,928	SF	3.00	101,784
Branch devices	33,928	SF	2.00	67,856
Lighting and branch circuitry	33,928	SF	4.50	152,676
Tele/data, complete	33,928	SF	3.75	127,230
Audiovisual rough-in and power	33,928	SF	0.50	16,964
Fire alarm	33,928	SF	3.75	127,230
Emergency responder radio communication	27,603	SF	1.00	27,603
Security system (excluding head-end)	33,928	SF	5.00	169,640
Grounding and bonding	33,928	SF	0.23	7,803
Miscellaneous	33,928	SF	2.75	93,302

Subtotal **\$1,972,016**

E1010 COMMERCIAL EQUIPMENT

Security and vault equipment

Book security equipment	1	LS	25,000.00	25,000
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Subtotal **\$25,000**

Addition - Estimate Detail

	Quantity	Unit	Rate	Total
<u>E1020 INSTITUTIONAL EQUIPMENT</u>				
Audio-visual equipment				
Projection screen , electrical	2	EA	1,800.00	3,600
Subtotal				\$3,600
<u>E1090 OTHER EQUIPMENT</u>				
Residential equipment				
Refrigerator	1	EA	2,500.00	2,500
Microwave	1	EA	500.00	500
Subtotal				\$3,000
<u>E2010 FIXED FURNISHINGS</u>				
Kitchen casework				
Base storage units	18	LF	340.00	6,120
Counter top	18	LF	140.00	2,520
Wall storage units	18	LF	280.00	5,040
Tech services workroom casework				
Base storage units	9	LF	340.00	3,060
Counter top	9	LF	140.00	1,260
Wall storage units	9	LF	280.00	2,520
Library casework				
Base storage units	17	LF	340.00	5,780
Counter top	17	LF	140.00	2,380
Wall storage units	17	LF	220.00	3,740
Receptionist casework				
Base storage units	52	LF	340.00	17,680
Counter top	52	LF	140.00	7,280
Miscellaneous casework				
Allowance	33,928	SF	2.00	67,856
Entry mat				
Entry mat and frame	50	SF	50.00	2,500
Window treatment				
Mecho shades	2,948	SF	18.00	53,064
Library shelving		By Owner		
Subtotal				\$180,800
<u>E2020 LOOSE FURNISHINGS</u>				
Loose furnishings				
By owner				
Subtotal				\$0
<u>F1010 SPECIAL STRUCTURES</u>				
Mockups				
Exterior mockups	1	LS	50,000.00	50,000
Interior mockups	1	LS	25,000.00	25,000
Subtotal				\$75,000

	Quantity	Unit	Rate	Total
<u>MARKUPS</u>				
General conditions and project requirements				
General conditions and requirements	17.5	MTH	75,000	1,312,500
Bond and Insurance	2.0%		15,957,045	319,141
Building permit	0.0%		16,276,186	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.5%		16,276,186	569,667
Subtotal				\$2,201,308
<u>CONTINGENCIES/ESCALATION</u>				
Contingencies				
Design contingency	10.0%		16,845,853	1,684,585
GMP contingency	0.0%		18,530,438	
Escalation				
Escalation to Start Date (June 2023)	5.9%		18,530,438	1,093,296
Subtotal				\$2,777,881

Site Work - Summary

		Total	SITE AREA \$/sf	34,051 %
G10 Site Preparation		\$403,088	\$11.84	19.80%
G1010 Site Clearing and Demolition		\$361,888	\$10.63	17.78%
G1030 Site Earthwork		\$41,200	\$1.21	2.02%
G1040 Hazardous Waste Remediation		\$0	\$0.00	0.00%
G20 Site Improvement		\$844,456	\$24.80	41.49%
G2010 Roadways and Parking Lots		\$66,024	\$1.94	3.24%
G2030 Pedestrian Paving		\$643,003	\$18.88	31.59%
G2040 Site Development		\$38,200	\$1.12	1.88%
G2050 Landscaping		\$97,229	\$2.86	4.78%
G30 Site Mechanical		\$417,050	\$12.25	20.49%
G3010 Mechanical Utilities		\$417,050	\$12.25	20.49%
G40 Site Electrical		\$163,350	\$4.80	8.03%
G4010 Electrical Utilities & Site Lighting		\$163,350	\$4.80	8.03%
G90 Other Site Construction		\$0	\$0.00	0.00%
G9010 Service and Pedestrian Tunnels		\$0	\$0.00	0.00%
G9090 Other Site Systems		\$0	\$0.00	0.00%
Total Site Construction		\$1,827,944	\$53.68	89.81%
TOTAL BUILDING & SITE		\$1,827,944	\$53.68	89.81%
Markups		\$207,387	\$6.09	10.19%
General Conditions				
General conditions and project requirements	5.47%	\$100,000	\$2.94	4.91%
Bond and insurance	2.00%	\$38,559	\$1.13	1.89%
Building permit	0.00%	\$0	\$0.00	0.00%
Overhead and profit				0.00%
Prime contractor's head office overhead and profit (Fee)	3.50%	\$68,828	\$2.02	3.38%
PLANNED CONSTRUCTION COST	Aug-22	\$2,035,331	\$59.77	100.00%
Contingencies/Escalation		\$335,626	\$9.86	
Contingencies				
Design and pricing contingency	10.00%	\$203,533	\$5.98	
Gmp contingency	0.00%	\$0	\$0.00	
Escalation				
Escalation to start date (June 2023)	5.90%	\$132,093	\$3.88	
ESTIMATED CONTRACT AWARD	Jun-23	\$2,370,957	\$69.63	

Site Work - Estimate Detail

	Quantity	Unit	Rate	Total
<u>G1010 SITE CLEARING AND DEMOLITION</u>				
Site set up				
Site construction fence/barricades	1,200	LF	16.00	19,200
Tree protection	575	LF	25.00	14,375
Erosion control fence	1,200	LF	15.00	18,000
Construction entrance	1	LS	7,500.00	7,500
Silt fence/protection at utility structures	560	LF	18.00	10,080
Clearing and grubbing				
Allowance for site clearance	1.0	ACRE	5,000.00	5,000
Remove trees	10	EA	750.00	7,500
General building demolition				
Demolish existing building, including foundations	236,750	CF	1.00	236,750
Site demolition				
Pavement demolition				
Bituminous concrete	5,592	SF	1.35	7,549
Remove granite or concrete curbs	365	LF	10.00	3,650
Saw cut existing paving	15	LF	8.00	120
Ramp	260	SF	5.00	1,300
Stairs	60	LF	10.00	600
Rails and accessories	33	LF	8.00	264
Demolition of miscellaneous site components	1	LS	30,000.00	30,000
Subtotal				\$361,888
<u>G1030 SITE EARTHWORK</u>				
Site earthwork				
Strip topsoil, store	1,337	CY	12.00	16,044
Site cut to fill	1	LS	15,000.00	15,000
Fine grading	5,078	SY	2.00	10,156
Rock excavation		EXCLUDED		
Subtotal				\$41,200
<u>G1040 HAZARDOUS WASTE REMEDIATION</u>				
Hazardous waste remediation				
Remove contaminated soils		EXCLUDED		
Subtotal				\$0
<u>G2010 ROADWAYS AND PARKING LOTS</u>				
Concrete paving				
Excavation to reduce levels	6	CY	15.00	90
Remove off site	6	CY	25.00	150
Gravel base	6	CY	45.00	270
Perimeter formwork	50	LF	7.00	350
Mesh reinforcing 15% lap	173	SF	1.25	216
Concrete in slab, complete	2.3	CY	233.50	537
Finishing and curing	150	SF	1.50	225
Control and construction joints	150	SF	0.75	113

Site Work - Estimate Detail

	Quantity	Unit	Rate	Total
<i>Bituminous concrete paving in patches</i>				
Excavation to reduce levels	19	CY	20.00	380
Remove off site	19	CY	25.00	475
Gravel base	19	CY	50.00	950
Bituminous concrete patch	500	SF	10.00	5,000
<i>Bituminous concrete paving</i>				
Excavation to reduce levels	182	CY	15.00	2,730
Remove off site	182	CY	25.00	4,550
Gravel base	182	CY	45.00	8,190
Bituminous concrete	126	T	140.00	17,640
<i>Curbing</i>				
Vertical granite curb	364	LF	52.00	18,928
<i>Pavement markings</i>				
Single solid lines, 4" thick	9	SPCE	120.00	1,080
Handicap parking hatching	2	LOC	250.00	500
Crosswalk hatching	1	LOC	250.00	250
Road signage	4	EA	850.00	3,400
Subtotal				\$66,024

G2030 PEDESTRIAN PAVING

<i>Concrete paving</i>				
Excavation to reduce levels	86	CY	15.00	1,290
Remove off site	86	CY	25.00	2,150
Gravel base	86	CY	45.00	3,870
Perimeter formwork	670	LF	7.00	4,690
Mesh reinforcing 15% lap	2,673	SF	1.25	3,341
Concrete in slab, complete	36.1	CY	233.50	8,429
Finishing and curing	2,324	SF	1.50	3,486
Control and construction joints	2,324	SF	0.75	1,743
<i>Stone drip edge</i>				
Excavation to reduce levels	12	CY	15.00	180
Remove off site	12	CY	25.00	300
Gravel base	12	CY	45.00	540
Dressing stone	4	CY	100.00	400
<i>Decomposed granite</i>				
Excavation to reduce levels	13	CY	15.00	195
Remove off site	13	CY	25.00	325
Gravel base	13	CY	45.00	585
Dressing stone	4	CY	75.00	300
<i>Stone pavers</i>				
Excavation to reduce levels	185	CY	15.00	2,775
Remove off site	185	CY	25.00	4,625
Gravel base	185	CY	45.00	8,325
Concrete	5,002	SF	5.00	25,010
Pavers	5,002	SF	100.00	500,200
<i>Boardwalk</i>				
Complete	435	SF	80.00	34,800

Site Work - Estimate Detail

	Quantity	Unit	Rate	Total
Concrete stair				
Footing				
Excavate for footing	31	CY	15.00	465
Remove excavated material off site	31	CY	25.00	775
Backfill with gravel	25	CY	45.00	1,125
Formwork to footing	336	SF	15.00	5,040
Reinforcement in footing	300	LB	1.75	525
Concrete in footing	6	CY	243.00	1,458
Treads and risers				
Gravel base at treads and risers	5	CY	37.00	185
Formwork to risers	72	LF	30.00	2,160
Reinforcement in treads and risers	250	LB	1.75	438
Concrete in treads and risers	5	CY	243.00	1,215
Finishing				
Rubbing exposed concrete	85	SF	2.00	170
Ancillaries				
Rails @ steps and the like	30	LF	350.00	10,500
Curbing				
Vertical granite curb	219	LF	52.00	11,388
Subtotal				\$643,003

G2040 SITE DEVELOPMENT

Fencing				
Wooden fence	50	LF	160.00	8,000
Entrance gate, pier at wooden fence	1	EA	2,500.00	2,500
Site furnishings				
Flagpole including base	2	EA	3,500.00	7,000
Bench, 6' length	4	EA	300.00	1,200
Trash receptacles	2	EA	750.00	1,500
Bollards	4	EA	1,000.00	4,000
Bike racks	4	EA	1,000.00	4,000
Site sign	1	EA	10,000.00	10,000
Subtotal				\$38,200

G2050 LANDSCAPING

Topsoil/planting medium				
Purchased topsoil	764	CY	60.00	45,840
Trees				
Type ?	6	EA	1,800.00	10,800
Shrubs				
Type ?	50	EA	85.00	4,250
Ground cover				
Type ?	1	LS	25,000.00	25,000
Grass/lawn				
Seeding to lawn areas	20,616	SF	0.55	11,339
Subtotal				\$97,229

Site Work - Estimate Detail

	Quantity	Unit	Rate	Total
<u>G3010 MECHANICAL UTILITIES</u>				
Water supply				
DI piping	140	LF	75.00	10,500
Water hydrant	1	EA	3,500.00	3,500
Connect to existing	2	EA	4,000.00	8,000
Excavation/trenching	83	CY	15.00	1,245
Remove from site	41	CY	25.00	1,025
Bedding	41	CY	45.00	1,845
Backfill	42	CY	45.00	1,890
Sanitary sewer				
Sewer piping 6"	60	LF	35.00	2,100
Manhole	1	EA	6,500.00	6,500
Connect to existing	1	EA	3,500.00	3,500
Excavation/trenching	27	CY	15.00	405
Remove from site	13	CY	25.00	325
Bedding	13	CY	45.00	585
Backfill	14	CY	45.00	630
Storm drainage				
Allowance - on site retention	1	LS	375,000.00	375,000
Subtotal				\$417,050
<u>G4010 ELECTRICAL UTILITIES & SITE LIGHTING</u>				
Electrical service				
Primary electrical service duct bank	200	LF	150.00	30,000
Secondary electrical service duct bank	50	LF	450.00	22,500
Manhole	1	EA	4,500.00	4,500
Transformer pad	1	EA	1,800.00	1,800
Site lighting				
20' Light poles @ parking lots	2	EA	3,000.00	6,000
12' Light poles @ walkways lots	12	EA	3,250.00	39,000
Pole base	14	EA	800.00	11,200
Circuitry	700	LF	18.00	12,600
Site communication				
Communication service duct bank	250	LF	125.00	31,250
Manhole	1	EA	4,500.00	4,500
Subtotal				\$163,350
<u>MARKUPS</u>				
General conditions and project requirements				
General conditions and requirements	1.0	MTH	100,000	100,000
Bond and Insurance	2.0%		1,927,944	38,559
Building permit	0.0%		1,966,503	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.5%		1,966,503	68,828
Subtotal				\$207,387

	Quantity	Unit	Rate	Total
<u>CONTINGENCIES/ESCALATION</u>				
Contingencies				
Design contingency	10.0%		2,035,331	203,533
GMP contingency	0.0%		2,238,864	
Escalation				
Escalation to Start Date (June 2023)	5.9%		2,238,864	132,093
Subtotal				\$335,626

	Gross Area:	Renovation 27,603 SF	Addition 33,928 SF	Site work	Total Estimate 61,531 SF	Contractor	+/-
DIVISION 1 - GENERAL REQUIRMENTS							
01-00-00 General Conditions		See Below	See Below	See Below	See Below		
DIVISION 2 - EXISTING CONDITIONS		1,050,672	0	0	1,050,672	0	
02-40-00 Selective Demolition		584,042	0	0	584,042		
02-41-00 Ductwork and Louver Removal/Dismantling		103,810	0	0	103,810		
02-60-00 Hazardous Materials Abatement/Removal		362,820	0	0	362,820		
DIVISION 3 - CONCRETE		107,364	637,169	11,006	755,539	0	
03-05-00 Concrete sealers		2,099	2,165	0	4,264		
03-10-00 Concrete Forming		1,830	169,760	5,040	176,630		
03-20-00 Concrete Reinforcing		8,458	116,133	2,685	127,276		
03-30-00 Cast-in-Place Concrete		94,977	349,111	3,281	447,369		
DIVISION 4 - MASONRY		321,935	328,528	0	650,463	0	
04-21-00 Brick Masonry		0	157,090	0	157,090		
04-22-00 Concrete Masonry Units		145,852	49,742	0	195,594		
04-40-00 Stone Assemblies		0	30,520	0	30,520		
04-70-00 Manufactured Masonry		0	91,176	0	91,176		
04-80-00 Masonry Restoration & Cleaning		176,083	0	0	176,083		
DIVISION 5 - METAL		465,691	1,461,913	10,500	1,938,104	0	
05-10-00 Structural Metal Framing		71,900	729,536	0	801,436		
05-20-00 Metal Joists		38,400	0	0	38,400		
05-30-00 Metal Decking		24,103	214,624	0	238,727		
05-40-00 Cold-Formed Metal Framing		17,380	101,443	0	118,823		
05-50-00 Metal Fabrications		73,508	117,210	0	190,718		
05-55-00 Metal Staircases		220,000	87,920	0	307,920		
05-60-00 Metal Rails and Handrails		20,400	180,180	10,500	211,080		
05-80-00 Expansion Joints		0	31,000	0	31,000		
DIVISION 6 - WOOD & PLASTICS		103,595	1,991,998	0	2,095,593	0	
06-10-00 Rough Carpentry		99,995	1,853,645	0	1,953,640		
06-20-00 Finish Carpentry		0	133,853	0	133,853		
06-40-00 Architectural Woodwork		3,600	4,500	0	8,100		
DIVISION 7 - THERMAL & MOISTURE PROTECTION		955,625	1,105,480	0	2,061,105	0	
07-10-00 Damp proofing and Waterproofing		86,051	168,401	0	254,452		
07-20-00 Thermal Protection		13,742	130,894	0	144,636		
07-33-00 Slate Roof		547,885	0	0	547,885		
07-34-00 Metal Roof		7,800	181,080	0	188,880		
07-40-00 Metal Siding Panels		134,300	136,485	0	270,785		
07-50-00 Membrane Roofing		0	234,227	0	234,227		
07-60-00 Flashing and Sheet Metal		21,000	88,156	0	109,156		
07-70-00 Roofing and Wall Specialties and Accessories		92,730	8,500	0	101,230		
07-81-00 Applied Fireproofing		5,619	86,353	0	91,972		
07-84-00 Firestopping		9,364	11,296	0	20,660		
07-90-00 Joint Sealants		37,134	60,088	0	97,222		
DIVISION 8 - DOORS & WINDOWS		459,475	1,421,252	0	1,880,727	0	
08-10-00 Metal Doors and Frames		4,800	0	0	4,800		
08-20-00 Wood Doors and Frames		139,300	109,500	0	248,800		
08-30-00 Specialty Doors and Frames		3,000	3,500	0	6,500		
08-32-00 Overhead Doors		0	120,000	0	120,000		
08-35-00 Fire Doors/Shutters		43,200	0	0	43,200		
08-40-00 Entrances, Storefronts		84,425	321,120	0	405,545		
08-45-00 Curtain wall		0	107,250	0	107,250		
08-50-00 Windows		161,550	343,482	0	505,032		
08-60-00 Roof Windows and Skylights		12,000	390,000	0	402,000		
08-70-00 Hardware		6,000	24,000	0	30,000		
08-80-00 Glazing		5,200	2,400	0	7,600		
DIVISION 9 - FINISHES		1,081,989	1,269,394	0	2,351,383	0	
09-20-00 Gypsum Wallboard Assemblies		343,335	535,805	0	879,140		
09-30-00 Tiling		71,756	70,144	0	141,900		
09-31-00 Interior Stone		0	20,000	0	20,000		
09-51-00 Acoustical Ceilings		145,431	188,411	0	333,842		
09-52-00 Wood Ceilings		130,455	0	0	130,455		
09-65-00 Resilient Flooring		62,078	3,872	0	65,950		

		Renovation 27,603 SF	Addition 33,928 SF	Site work	Total Estimate 61,531 SF	Contractor	+/-
09-68-00	Carpeting	100,680	186,180	0	286,860		
09-90-00	Painting and Coating	113,255	106,728	0	219,983		
09-95-00	Unassigned	62,999	21,754	0	84,753		
DIVISION 10 - SPECIALTIES		132,771	78,518	0	211,289	0	
10-10-00	Marker board and Tack boards	3,000	3,500	0	6,500		
10-15-00	Signage	12,421	15,268	0	27,689		
10-21-00	Toilet and Shower Partitions	8,100	7,100	0	15,200		
10-26-00	Wall and Corner Guards	1,000	1,000	0	2,000		
10-28-00	Toilet & Bathroom Accessories	13,900	150	0	14,050		
10-30-00	Fireplaces	25,000	0	0	25,000		
10-44-00	Fire Extinguishers	3,800	5,000	0	8,800		
10-51-00	Lockers	5,250	0	0	5,250		
10-53-00	Storage Shelving	1,500	46,500	0	48,000		
10-81-00	Operable/Folding Partitions	58,800	0	0	58,800		
DIVISION 11 - EQUIPMENT		32,950	31,600	0	64,550	0	
11-15-00	Security, Detention and Banking Equipment	25,000	25,000	0	50,000		
11-30-00	Residential Equipment	4,450	3,000	0	7,450		
11-52-00	Audiovisual Equipment	3,500	3,600	0	7,100		
DIVISION 12 - FURNISHINGS		200,452	180,800	0	381,252	0	
12-20-00	Window Treatment	19,386	53,064	0	72,450		
12-30-00	Casework	143,566	125,236	0	268,802		
12-41-00	Entrance mats	2,500	2,500	0	5,000		
12-64-00	Library shelving	35,000	0	0	35,000		
DIVISION 13 - SPECIAL CONSTRUCTION		40,000	75,000	0	115,000	0	
13-90-00	Unassigned	40,000	75,000	0	115,000		
DIVISION 14 - CONVEYING SYSTEMS		17,900	338,440	0	356,340	0	
14-20-00	Elevators	0	274,000	0	274,000		
14-80-00	Scaffolding	17,900	64,440	0	82,340		
DIVISION 21 - FIRE SUPPRESSION		294,362	201,660	0	496,022	0	
21-00-00	Fire Protection	294,362	201,660	0	496,022		
DIVISION 22 - PLUMBING		328,921	495,695	0	824,616	0	
22-00-00	Plumbing	328,921	495,695	0	824,616		
DIVISION 23 - HVAC		2,231,230	2,724,044	0	4,955,274	0	
23-00-00	HVAC	1,945,539	2,372,889	0	4,318,428		
23-10-00	Building Controls	285,691	351,155	0	636,846		
DIVISION 26 - ELECTRICAL		1,747,547	1,972,016	0	3,719,563	0	
26-00-00	Electrical	1,361,105	1,503,349	0	2,864,454		
27-00-00	Communications	117,313	144,194	0	261,507		
28-10-00	Fire Alarm	131,114	154,833	0	285,947		
28-15-00	Security & Duress	138,015	169,640	0	307,655		
DIVISION 31 - EARTHWORK		1,275	328,880	448,583	778,738	0	
31-10-00	Site Clearing	0	0	326,308	326,308		
31-20-00	Earth Moving	1,275	228,360	86,695	316,330		
31-21-00	Erosion and Sedimentation Control	0	0	35,580	35,580		
31-40-00	Shoring and Underpinning	0	35,000	0	35,000		
31-50-00	Excavation Support and Protection	0	65,520	0	65,520		
DIVISION 32 - EXTERIOR IMPROVEMENTS		0	0	777,455	777,455	0	
32-11-00	Concrete paving	0	0	23,130	23,130		
32-12-00	Bituminous Concrete Paving	0	0	22,640	22,640		
32-13-00	Loose Stone Paving	0	0	700	700		
32-14-00	Stone Paver	0	0	525,210	525,210		
32-17-00	Boardwalk	0	0	34,800	34,800		
32-20-00	Curbing	0	0	30,316	30,316		
32-25-00	Pavement Markings	0	0	5,230	5,230		
32-30-00	Site Improvements	0	0	27,700	27,700		
32-35-00	Fences and Gate	0	0	10,500	10,500		
32-92-00	Soil Preparation	0	0	45,840	45,840		
32-93-00	Turf and Grasses	0	0	11,339	11,339		

	Gross Area:	Renovation 27,603 SF	Addition 33,928 SF	Site work	Total Estimate 61,531 SF	Contractor	+/-
32-95-00	Planting	0	0	40,050	40,050		
DIVISION 33 -UTILITIES		0	2,158	580,400	582,558	0	
33-10-00	Water Utilities	0	0	28,005	28,005		
33-30-00	Sewerage Utilities	0	0	14,045	14,045		
33-40-00	Storm Drainage Utilities	0	2,158	375,000	377,158		
33-70-00	Electrical Utilities	0	0	58,800	58,800		
33-75-00	Site Lighting	0	0	68,800	68,800		
33-80-00	Communication Utilities	0	0	35,750	35,750		
TOTAL DIRECT WORK		\$9,573,754	\$14,644,545	\$1,827,944	\$26,046,243	\$0	\$0
MARKUPS		1,918,864	2,201,308	207,387	4,327,559	0	
01-10-00	General Conditions and Project Requirements	1,312,500	1,312,500	100,000	2,725,000		
01-20-00	Insurance, Bond	217,725	319,141	38,559	575,425		
01-30-00	Permits	0	0	0	0		
01-40-00	Prime Contractor's Head Office Overhead & Profit (Fee)	388,639	569,667	68,828	1,027,134		
PLANNED CONSTRUCTION COST (August 2022)		\$11,492,618	\$16,845,853	\$2,035,331	\$30,373,802	\$0	\$0
CONTINGENCIES/ESCALATION		1,895,133	2,777,881	335,626	5,008,640	0	
50-10-00	Design Contingency	1,149,262	1,684,585	203,533	3,037,380		
50-20-00	Construction Contingency	0	0	0	0		
50-30-00	Escalation	745,871	1,093,296	132,093	1,971,260		
ESTIMATED CONTRACT AWARD (June 2023)		\$13,387,751	\$19,623,734	\$2,370,957	\$35,382,442	\$0	\$0

Gross Area:		Renovation 27,603 SF	Addition 33,928 SF	Sitework	Total Estimate 61,531 SF
04-10-00	Masonry	321,935	298,008	0	619,943
04-21-00	Brick Masonry	0	157,090	0	157,090
04-22-00	Concrete Masonry Units	145,852	49,742	0	195,594
04-70-00	Manufactured Masonry	0	91,176	0	91,176
04-80-00	Masonry Restoration & Cleaning	176,083	0	0	176,083
04-90-00	Unassigned	0	0	0	0
05-50-00	Miscellaneous Metals	313,908	385,310	10,500	709,718
05-50-00	Metal Fabrications	73,508	117,210	0	190,718
05-55-00	Metal Staircases	220,000	87,920	0	307,920
05-60-00	Metal Rails and Handrails	20,400	180,180	10,500	211,080
05-70-00	Decorative Metal	0	0	0	0
05-90-00	Unassigned	0	0	0	0
07-10-00	Waterproofing, Dampproofing & Caulking	123,185	228,489	0	351,674
07-10-00	Dampproofing and Waterproofing	86,051	168,401	0	254,452
07-90-00	Joint Sealants	37,134	60,088	0	97,222
07-50-00	Roofing	576,685	503,463	0	1,080,148
07-31-00	Asphalt Shingle Roofing	0	0	0	0
07-32-00	Tile Roof	0	0	0	0
07-33-00	Slate Roof	547,885	0	0	547,885
07-34-00	Metal Roof	7,800	181,080	0	188,880
07-50-00	Membrane Roofing	0	234,227	0	234,227
07-60-00	Flashing and Sheet Metal	21,000	88,156	0	109,156
08-10-00	Windows	245,975	771,852	0	1,017,827
08-40-00	Entrances, Storefronts	84,425	321,120	0	405,545
08-45-00	Curtain wall	0	107,250	0	107,250
08-50-00	Windows	161,550	343,482	0	505,032
08-95-00	Unassigned	0	0	0	0
08-80-00	Glass and Glazing	5,200	2,400	0	7,600
08-80-00	Glazing	5,200	2,400	0	7,600
09-10-00	Plaster	0	0	0	0
09-21-00	Plaster	0	0	0	0
09-30-00	Tile	71,756	70,144	0	141,900
09-30-00	Tiling	71,756	70,144	0	141,900
09-66-00	Terrazzo	0	0	0	0
09-66-00	Resin Matrix Terrazzo	0	0	0	0
09-51-00	Acoustic Ceilings	145,431	188,411	0	333,842
09-51-00	Acoustical Ceilings	145,431	188,411	0	333,842
09-65-00	Resilient Flooring	62,078	3,872	0	65,950
09-65-00	Resilient Flooring	62,078	3,872	0	65,950
09-68-00	Carpet	100,680	186,180	0	286,860
09-68-00	Carpeting	100,680	186,180	0	286,860
09-90-00	Painting	113,255	106,728	0	219,983
09-90-00	Painting and Coating	113,255	106,728	0	219,983

Gross Area:		Renovation 27,603 SF	Addition 33,928 SF	Sitework	Total Estimate 61,531 SF
14-20-00	Conveying	0	274,000	0	274,000
14-10-00	Dumbwaiters	0	0	0	0
14-20-00	Elevators	0	274,000	0	274,000
14-30-00	Moving Stairs and Walks	0	0	0	0
21-00-00	Fire Protection	294,362	201,660	0	496,022
21-00-00	Fire Protection	294,362	201,660	0	496,022
22-00-00	Plumbing	328,921	495,695	0	824,616
22-00-00	Plumbing	328,921	495,695	0	824,616
23-00-00	Hvac	2,231,230	2,724,044	0	4,955,274
02-41-00	Ductwork and Louver Removal/Dismantling	103,810	0	0	103,810
08-90-00	Louvers and Vents	0	0	0	0
23-00-00	HVAC	1,945,539	2,372,889	0	4,318,428
23-10-00	Building Controls	285,691	351,155	0	636,846
26-00-00	Electrical	1,747,547	1,972,016	163,350	3,882,913
26-00-00	Electrical	1,361,105	1,503,349	0	2,864,454
27-00-00	Communications	117,313	144,194	0	261,507
28-10-00	Fire Alarm	131,114	154,833	0	285,947
28-15-00	Security & Duress	138,015	169,640	0	307,655
28-20-00	Audiovisual	0	0	0	0
33-70-00	Electrical Utilities	0	0	58,800	58,800
33-75-00	Site Lighting	0	0	68,800	68,800
33-80-00	Communication Utilities	0	0	35,750	35,750
TOTAL FILED SUB-BID WORK		\$6,682,148	\$8,412,272	\$173,850	\$15,268,270

	Quantity	Unit	Rate	Total
<u>VE1: UTILIZE STEEL FLOOR CONSTRUCTION IN LIEU OF HEAVY LUMBER/CLT</u>				
Trade Costs				
Omit wood construction	(11,693)	SF	64.51	(754,315)
Omit premium in architectural layout of mep systems	(11,693)	SF	1.00	(11,693)
Add steel construction	11,693	SF	51.69	604,411
Add ceilings	11,693	SD	10.00	116,930
Subtotal				(\$44,667)
Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(44,667)	(4,467)
Bond and Insurance	2.00%		(49,134)	(983)
Building permit	0.00%		(50,117)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(50,117)	(1,754)
Subtotal				(\$7,204)
Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(51,871)	(5,187)
GMP contingency	0.00%		(57,058)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(57,058)	(3,344)
Subtotal				(\$8,531)
TOTAL - VE 1				(\$60,402)

VE2: UTILIZE STEEL ROOF CONSTRUCTION IN LIEU OF HEAVY LUMBER/CLT

Trade Costs				
Omit wood construction	(13,843)	SF	64.51	(893,012)
Omit premium in architectural layout of mep systems	(13,843)	SF	1.00	(13,843)
Add steel construction	13,843	SF	51.69	715,545
Add ceilings	13,843	SD	10.00	138,430
Subtotal				(\$52,880)
Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(52,880)	(5,288)
Bond and Insurance	2.00%		(58,168)	(1,163)
Building permit	0.00%		(59,331)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(59,331)	(2,077)
Subtotal				(\$8,528)

	Quantity	Unit	Rate	Total
Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(61,408)	(6,141)
GMP contingency	0.00%		(67,549)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(67,549)	(3,958)
Subtotal				(10,099)
TOTAL - VE 2				(71,507)

VE3: ARRISCRAFT IN LIEU OF CAST STONE

Trade Costs				
Omit cast stone	(1,572)	SF	58.00	(91,176)
Add arriscraft	1,572	SF	52.00	81,744
Subtotal				(9,432)

Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(9,432)	(943)
Bond and Insurance	2.00%		(10,375)	(208)
Building permit	0.00%		(10,583)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(10,583)	(370)
Subtotal				(1,521)

Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(10,953)	(1,095)
GMP contingency	0.00%		(12,048)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(12,048)	(706)
Subtotal				(1,801)
TOTAL - VE 3				(12,754)

VE4: ARRISCRAFT IN LIEU OF METAL PANEL

Trade Costs				
Omit metal panel	(2,668)	SF	85.00	(226,780)
Add arriscraft	2,668	SF	52.00	138,736
Subtotal				(88,044)

	Quantity	Unit	Rate	Total
Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(88,044)	(8,804)
Bond and Insurance	2.00%		(96,848)	(1,937)
Building permit	0.00%		(98,785)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(98,785)	(3,457)
Subtotal				(\$14,198)
Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(102,242)	(10,224)
GMP contingency	0.00%		(112,466)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(112,466)	(6,591)
Subtotal				(\$16,815)
TOTAL - VE 4				(\$119,057)

VE5: ELIMINATE WINDOW SASH REPLACEMENT (IS THIS EVEN POSSIBLE?)

Trade Costs				
Omit repairs/replacement sash to existing windows	(1,078)	SF	150.00	(161,700)
Subtotal				(\$161,700)
Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(161,700)	(16,170)
Bond and Insurance	2.00%		(177,870)	(3,557)
Building permit	0.00%		(181,427)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(181,427)	(6,350)
Subtotal				(\$26,077)
Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(187,777)	(18,778)
GMP contingency	0.00%		(206,555)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(206,555)	(12,104)
Subtotal				(\$30,882)
TOTAL - VE 5				(\$218,659)

	Quantity	Unit	Rate	Total
<u>VE6: STANDING SEAM METAL ROOF IN LIEU OF SLATE</u>				
Trade Costs				
Omit slate roofing	(8,429)	SF	65.00	(547,885)
Add metal roofing	8,429	SF	45.00	379,305
Subtotal				(168,580)
Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(168,580)	(16,858)
Bond and Insurance	2.00%		(185,438)	(3,709)
Building permit	0.00%		(189,147)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(189,147)	(6,620)
Subtotal				(27,187)
Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(195,767)	(19,577)
GMP contingency	0.00%		(215,344)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(215,344)	(12,619)
Subtotal				(32,196)
TOTAL - VE 6				(227,963)

VE7: USE SKYLIGHTS IN LIEU OF SAW TOOTH ROOF (100%)

Trade Costs				
Omit structural complexity	(3,102)	SF	3.00	(9,306)
Omit metal roofing	(2,598)	SF	45.00	(116,910)
Omit northlights	(1)	LS	390,000.00	(390,000)
Add pyramid skylights	700	SD	175.00	122,500
Add tpo roofing	2,165	SF	15.00	32,475
Subtotal				(361,241)
Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(361,241)	(36,124)
Bond and Insurance	2.00%		(397,365)	(7,947)
Building permit	0.00%		(405,312)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(405,312)	(14,186)
Subtotal				(58,257)

	Quantity	Unit	Rate	Total
Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(419,498)	(41,950)
GMP contingency	0.00%		(461,448)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(461,448)	(27,041)
Subtotal				(\$68,991)
TOTAL - VE 7				(\$488,489)

VE8: DECORATIVE METAL IN LIEU OF GLASS RAILINGS

Trade Costs				
Omit rails at staircase	(291)	LF	600.00	(174,600)
Add painted metal - decorative	291	LF	480.00	139,680
Subtotal				(\$34,920)

Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(34,920)	(3,492)
Bond and Insurance	2.00%		(38,412)	(768)
Building permit	0.00%		(39,180)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(39,180)	(1,371)
Subtotal				(\$5,631)

Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(40,551)	(4,055)
GMP contingency	0.00%		(44,606)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(44,606)	(2,614)
Subtotal				(\$6,669)
TOTAL - VE 8				(\$47,220)

VE9: STANDARD OPERABLE WALL IN LIEU OF NANAWALL

Trade Costs				
Omit Nanawall	(280)	SF	210.00	(58,800)
Add folding partition	280	SF	130.00	36,400
Subtotal				(\$22,400)

	Quantity	Unit	Rate	Total
Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(22,400)	(2,240)
Bond and Insurance	2.00%		(24,640)	(493)
Building permit	0.00%		(25,133)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(25,133)	(880)
Subtotal				(\$3,613)
Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(26,013)	(2,601)
GMP contingency	0.00%		(28,614)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(28,614)	(1,677)
Subtotal				(\$4,278)
TOTAL - VE 9				(\$30,291)

VE10: ACT IN LIEU OF COMPOUND WOOD CEILING

Trade Costs

Omit wood

The compound wood is the underside of the structure already eliminated in VE1 and VE2 above

Subtotal **\$0**

Markups

General conditions and project requirements				
General conditions and requirements	10.00%		0	
Bond and Insurance	2.00%		0	
Building permit	0.00%		0	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		0	
Subtotal				\$0

Contingencies/Escalation

Contingencies				
Design contingency	10.00%		0	
GMP contingency	0.00%		0	

	Quantity	Unit	Rate	Total
Escalation				
Escalation to Start Date (June 2023)	5.86%		0	
Subtotal				\$0
TOTAL - VE 10				\$0

VE12: ACT 2 X 2 IN LIEU OF PLANK

Trade Costs

Omit wood

The compound wood is the underside of the structure already eliminated in VE1 and VE2 above

Subtotal **\$0**

Markups

General conditions and project requirements

General conditions and requirements

10.00% 0

Bond and Insurance

2.00% 0

Building permit

0.00% 0

Overhead and Profit

Prime contractor's head office overhead and profit (Fee)

3.50% 0

Subtotal **\$0**

Contingencies/Escalation

Contingencies

Design contingency

10.00% 0

GMP contingency

0.00% 0

Escalation

Escalation to Start Date (June 2023)

5.86% 0

Subtotal **\$0**

TOTAL - VE 11

\$0

VE12: ACT 2 X 2 IN LIEU OF PLANK

Trade Costs

Omit plank ceilings

(12,625) SF 12.00 (151,500)

Add 2' x 2'

12,625 SF 8.50 107,313

Subtotal **(\$44,187)**

	Quantity	Unit	Rate	Total
Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(44,187)	(4,419)
Bond and Insurance	2.00%		(48,606)	(972)
Building permit	0.00%		(49,578)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(49,578)	(1,735)
Subtotal				(7,126)
Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(51,313)	(5,131)
GMP contingency	0.00%		(56,444)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(56,444)	(3,308)
Subtotal				(8,439)
TOTAL - VE 12				(59,752)

VE13: ELIMINATE HVAC AT SPECIAL COLLECTIONS

Trade Costs

What is this?

Subtotal **\$0**

Markups

General conditions and project requirements

General conditions and requirements

10.00% 0

Bond and Insurance

2.00% 0

Building permit

0.00% 0

Overhead and Profit

Prime contractor's head office overhead and profit

(Fee)

3.50% 0

Subtotal **\$0**

Contingencies/Escalation

Contingencies

Design contingency

10.00% 0

GMP contingency

0.00% 0

Escalation

Escalation to Start Date (June 2023)

5.86% 0

Subtotal **\$0**

TOTAL - VE 13

\$0

	Quantity	Unit	Rate	Total
<u>VE14: CONCRETE IN LIEU OF GRANITE PAVING</u>				
Trade Costs				
Omit granite walkways	(5,002)	SF	108.00	(540,216)
Add concrete	5,002	SF	12.48	62,425
Subtotal				(\$477,791)
Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(477,791)	(47,779)
Bond and Insurance	2.00%		(525,570)	(10,511)
Building permit	0.00%		(536,081)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(536,081)	(18,763)
Subtotal				(\$77,053)
Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(554,844)	(55,484)
GMP contingency	0.00%		(610,328)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(610,328)	(35,765)
Subtotal				(\$91,249)
TOTAL - VE 14				(\$646,093)

VE15: BRICK PAVERS IN LIEU OF GRANITE

Trade Costs				
Omit granite walkways	(5,002)	SF	108.00	(540,216)
Add brick pavers	5,002	SF	37.00	185,074
Subtotal				(\$355,142)
Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(355,142)	(35,514)
Bond and Insurance	2.00%		(390,656)	(7,813)
Building permit	0.00%		(398,469)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(398,469)	(13,946)
Subtotal				(\$57,273)

	Quantity	Unit	Rate	Total
Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(412,415)	(41,242)
GMP contingency	0.00%		(453,657)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(453,657)	(26,584)
Subtotal				(67,826)
TOTAL - VE 15				(480,241)

VE16: TYPICAL OPEN TRASH ENCLOSURE IN LIEU OF SIDING AND ROOFING

Trade Costs

Wood fencing only carried in FCS estimate

Subtotal \$0

Markups

General conditions and project requirements

General conditions and requirements

10.00% 0

Bond and Insurance

2.00% 0

Building permit

0.00% 0

Overhead and Profit

Prime contractor's head office overhead and profit

(Fee)

3.50% 0

Subtotal \$0

Contingencies/Escalation

Contingencies

Design contingency

10.00% 0

GMP contingency

0.00% 0

Escalation

Escalation to Start Date (June 2023)

5.86% 0

Subtotal \$0

TOTAL - VE 16

\$0

VE17: ELIMINATE RAIN GARDEN AND DECKING

Trade Costs

Omit boardwalk

(1) LS 34,800.00 (34,800)

Omit rain garden

(1) SF 15,000.00 (15,000)

Subtotal **(49,800)**

	Quantity	Unit	Rate	Total
Markups				
General conditions and project requirements				
General conditions and requirements	10.00%		(49,800)	(4,980)
Bond and Insurance	2.00%		(54,780)	(1,096)
Building permit	0.00%		(55,876)	
Overhead and Profit				
Prime contractor's head office overhead and profit (Fee)	3.50%		(55,876)	(1,956)
Subtotal				(8,032)
Contingencies/Escalation				
Contingencies				
Design contingency	10.00%		(57,832)	(5,783)
GMP contingency	0.00%		(63,615)	
Escalation				
Escalation to Start Date (June 2023)	5.86%		(63,615)	(3,728)
Subtotal				(9,511)
TOTAL - VE 17				(67,343)