

**SCHEMATIC DESIGN  
COST REPORT**

***Renovation & Addition***

at

**JONES PUBLIC LIBRARY**

June 15, 2020



June 15, 2020

Josephine Penta  
**Finegold 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 you and your design team, dated April 29, 2020.

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.

	<b>Const. Start</b>	<b>Gross Floor</b>	<b>\$/sf</b>	<b>Estimated Cost</b>
Renovation	Mar-21	26,875	\$334.68	\$8,994,650
New Building	Mar-21	34,421	\$418.31	\$14,398,742
Site Work	Mar-21			\$1,400,808
<b>ESTIMATED CONTRACT AWARD</b>		<b>61,296</b>	<b>\$404.50</b>	<b>\$24,794,200</b>

**Alternates**

Alternate 1: Heavy engineered wood structure in lieu of steel \$365,926

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, hazardous waste removal, 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.

**Fennessy Consulting Services**



*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 style with a prominent 'S' and 'F'.

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 26,900 gsf of the remaining building, the construction of an addition of approximately 34,400 gsf together with all associated site preparation and development.

The program includes the typical program areas one finds in established public libraries together with 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 **\$24.8MM**. Within this total we are including \$3.08MM of contingencies and escalation.

### **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 revised schematic drawings. 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

It is too early to determine the effects of the current Covid19 virus on construction costs going forward. It is our opinion that material priced will start to decline. Labor, especially union labor will continue to increase due to agreed wage rate increases. In addition to this there may be labor shortages as projects start to go on accelerated schedules to complete (making those project more attractive to available labor - overtime). This could result in premiums to attract labor to other projects.

Labor practices are likely to change, at least in the short term, resulting in a lower production output. Lower production results in longer construction durations. Lower production and longer construction durations will result in increased construction costs.

Some projects will be cancelled. This could result in more competitive bids in some trades by subcontractors pricing low to replace lost backlog or to simply to stay in business. This may help counteract some price increases but will only be prevalent in competitive bid projects and may not occur in negotiated or construction management projects (in our opinion, 3 sub-bids does not constitute competitive bidding)

Assuming a large reduction in market escalation would be unwise and risky. We recommend and have **included an escalation factor of 3.8%**. This is based on an annual escalation factor of 4%, a drop from the previous 5% that we were recommending/experiencing. As we move closer to bid date we will continue to review and adjust the escalation factor as appropriate.

Construction/Payment Default

Due to the factors mentioned above there is likely to be an increased risk that contractors and material suppliers could cease to exist. 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.

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**

*Fennessy Consulting Services does 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.*

*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.*

<b>Cost Estimate Prepared From</b>	<b>Dated</b>	<b>Received</b>
Drawings issued for		
Schematic Design	04/29/20	05/13/20
Original Schematic Design	08/31/16	08/31/16
Outline Specification	08/29/16	08/31/16

**Conditions of Construction**

*The pricing is based on the following general conditions of construction*

*A start date of March 2021*

*A construction period of 18 months*

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

*There will not be small business set aside requirements*

*The contractor will be required to pay prevailing wages*

*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.*

*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 and devices*
- *Tele date head end equipment and devices*
- *Audio visual equipment*
- *Hazardous material handling, disposal and abatement*
- *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 March 2021*

## Areas Calculation

	New	Existing	Total
<b>BUILDING</b>			
Ground	11,368	8,870	
Level 1	11,562	9,043	
Level 2	11,491	6,576	
Level 3		2,386	
<b>TOTAL GROSS FLOOR AREA</b>	34,421	26,875	61,296

	Preparation	Development
<b>SITE AREAS</b>		
Complete		42,024
	55,089	

JONES PUBLIC LIBRARY

Renovation & Addition

Amherst, MA

SCHEMATIC DESIGN COST REPORT

June 15, 2020

Overall Summary

	Renovation	New Building	Site Work	Total
A10 FOUNDATIONS	\$85,452	\$383,309	\$0	\$468,761
A20 BASEMENT CONSTRUCTION	\$0	\$140,412	\$0	\$140,412
B10 SUPERSTRUCTURE	\$487,823	\$1,526,420	\$0	\$2,014,243
B20 EXTERIOR CLOSURE	\$543,369	\$1,842,956	\$0	\$2,386,325
B30 ROOFING	\$463,304	\$890,793	\$0	\$1,354,097
C10 INTERIOR CONSTRUCTION	\$727,656	\$740,617	\$0	\$1,468,273
C20 STAIRCASES	\$147,500	\$97,100	\$0	\$244,600
C30 FINISHES	\$548,250	\$781,357	\$0	\$1,329,607
D10 CONVEYING SYSTEMS	\$22,000	\$181,230	\$0	\$203,230
D20 PLUMBING	\$241,875	\$163,500	\$0	\$405,375
D30 HVAC	\$1,558,750	\$1,996,418	\$0	\$3,555,168
D40 FIRE PROTECTION	\$174,688	\$206,526	\$0	\$381,214
D50 ELECTRICAL	\$1,021,250	\$1,307,998	\$0	\$2,329,248
E10 EQUIPMENT	\$22,950	\$6,500	\$0	\$29,450
E20 FURNISHINGS	\$39,795	\$108,080	\$0	\$147,875
F10 SPECIAL CONSTRUCTION	\$10,000	\$42,000	\$0	\$52,000
F20 SELECTIVE BUILDING DEMOLITION	\$517,312	\$0	\$0	\$517,312

<b>Total Building Construction</b>	<b>\$6,611,974</b>	<b>\$10,415,216</b>	<b>\$0</b>	<b>\$17,027,190</b>
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G10 SITE PREPARATION	\$0	\$0	\$282,122	\$282,122
G20 SITE IMPROVEMENTS	\$0	\$0	\$328,215	\$328,215
G30 SITE MECHANICAL UTILITIES	\$0	\$0	\$260,826	\$260,826
G40 SITE ELECTRICAL	\$0	\$0	\$150,950	\$150,950
G90 OTHER SITE CONSTRUCTION	\$0	\$0	\$0	\$0

<b>Total Site Construction</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,022,113</b>	<b>\$1,022,113</b>
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<b>TOTAL BUILDING &amp; SITE</b>	<b>\$6,611,974</b>	<b>\$10,415,216</b>	<b>\$1,022,113</b>	<b>\$18,049,303</b>
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MARKUPS		<b>\$1,265,631</b>	<b>\$2,195,348</b>	<b>\$204,729</b>	<b>\$3,665,708</b>
General conditions & project requirements	12.9%	\$850,000	\$1,530,000	\$140,000	\$2,520,000
Bond and insurance	2.0%	\$149,239	\$238,904	\$23,242	\$411,385
Building permit	0.0%	\$0	\$0	\$0	\$0
Head office overhead and profit (Fee)	3.5%	\$266,392	\$426,444	\$41,487	\$734,323

<b>PLANNED CONSTRUCTION COST</b>	<b>Jun-20</b>	<b>\$7,877,605</b>	<b>\$12,610,564</b>	<b>\$1,226,842</b>	<b>\$21,715,011</b>
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CONTINGENCIES/ESCALATION		<b>\$1,117,045</b>	<b>\$1,788,178</b>	<b>\$173,966</b>	<b>\$3,079,189</b>
Design & pricing contingency	10.0%	\$787,761	\$1,261,056	\$122,684	\$2,171,501
Gmp contingency	0.0%	\$0	\$0	\$0	\$0
Escalation to start date (March 2021)	3.8%	\$329,284	\$527,122	\$51,282	\$907,688

<b>ESTIMATED CONTRACT AWARD</b>	<b>Mar-21</b>	<b>\$8,994,650</b>	<b>\$14,398,742</b>	<b>\$1,400,808</b>	<b>\$24,794,200</b>
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GFA	26,875	34,421	61,296
\$/sf	\$334.68	\$418.31	\$404.50

ALTERNATES

Alternate 1: Heavy engineered wood structure in lieu of steel	\$365,926
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	Total	GFA \$/sf	26,875 %
<b>A10 Foundations</b>	<b>\$85,452</b>	<b>\$3.18</b>	<b>1.08%</b>
A1010 Foundations	\$17,413	\$0.65	0.22%
A1020 Special Foundations	\$0	\$0.00	0.00%
A1020 Slab on Grade	\$68,039	\$2.53	0.86%
<b>A20 Basement Construction</b>	<b>\$0</b>	<b>\$0.00</b>	<b>0.00%</b>
A2010 Basement Earthwork	\$0	\$0.00	0.00%
A2020 Basement Walls	\$0	\$0.00	0.00%
<b>B10 Superstructure</b>	<b>\$487,823</b>	<b>\$18.15</b>	<b>6.19%</b>
B1010 Floor Construction	\$302,393	\$11.25	3.84%
B1020 Roof Construction	\$185,430	\$6.90	2.35%
<b>B20 Exterior Closure</b>	<b>\$543,369</b>	<b>\$20.22</b>	<b>6.90%</b>
B2010 Exterior Walls	\$312,658	\$11.63	3.97%
B2020 Windows	\$224,821	\$8.37	2.85%
B2030 Exterior Doors	\$5,890	\$0.22	0.07%
<b>B30 Roofing</b>	<b>\$463,304</b>	<b>\$17.24</b>	<b>5.88%</b>
B3010 Roof Covering	\$463,304	\$17.24	5.88%
B3020 Roof Openings	\$0	\$0.00	0.00%
<b>C10 Interior Construction</b>	<b>\$727,656</b>	<b>\$27.08</b>	<b>9.24%</b>
C1010 Partitions	\$459,086	\$17.08	5.83%
C1020 Interior Doors	\$160,550	\$5.97	2.04%
C1030 Specialties	\$108,020	\$4.02	1.37%
<b>C20 Staircases</b>	<b>\$147,500</b>	<b>\$5.49</b>	<b>1.87%</b>
C2010 Stair Construction	\$115,000	\$4.28	1.46%
C2020 Stair Finishes	\$32,500	\$1.21	0.41%
<b>C30 Finishes</b>	<b>\$548,250</b>	<b>\$20.40</b>	<b>6.96%</b>
C3010 Wall Finishes	\$155,875	\$5.80	1.98%
C3020 Floor Finishes	\$215,000	\$8.00	2.73%
C3030 Ceiling Finishes	\$177,375	\$6.60	2.25%
<b>D10 Conveying Systems</b>	<b>\$22,000</b>	<b>\$0.82</b>	<b>0.28%</b>
D1010 Elevators and Lifts	\$22,000	\$0.82	0.28%
D1020 Escalators and Moving Walkways	\$0	\$0.00	0.00%
D1030 Other Conveying Systems	\$0	\$0.00	0.00%
<b>D20 Plumbing</b>	<b>\$241,875</b>	<b>\$9.00</b>	<b>3.07%</b>
D2010 Plumbing Complete	\$241,875	\$9.00	3.07%
<b>D30 Heating, Ventilation and Air Conditioning</b>	<b>\$1,558,750</b>	<b>\$58.00</b>	<b>19.79%</b>
D3010 HVAC, Complete	\$1,558,750	\$58.00	19.79%
<b>D40 Fire Protection</b>	<b>\$174,688</b>	<b>\$6.50</b>	<b>2.22%</b>
D4010 Fire Protection, Complete	\$174,688	\$6.50	2.22%
<b>D50 Electrical</b>	<b>\$1,021,250</b>	<b>\$38.00</b>	<b>12.96%</b>
D5010 Electrical, Complete	\$1,021,250	\$38.00	12.96%
<b>E10 Equipment</b>	<b>\$22,950</b>	<b>\$0.85</b>	<b>0.29%</b>
E1010 Commercial Equipment	\$15,000	\$0.56	0.19%
E1020 Institutional Equipment	\$3,500	\$0.13	0.04%
E1030 Vehicular Equipment	\$0	\$0.00	0.00%
E1090 Other Equipment	\$4,450	\$0.17	0.06%

		Total	GFA \$/sf	26,875 %
<b>E20 Furnishings</b>		<b>\$39,795</b>	<b>\$1.48</b>	<b>0.51%</b>
E2010 Fixed Furnishings		\$39,795	\$1.48	0.51%
E2020 Loose Furnishings		\$0	\$0.00	0.00%
<b>F10 Special Construction</b>		<b>\$10,000</b>	<b>\$0.37</b>	<b>0.13%</b>
F1010 Special Structures		\$0	\$0.00	0.00%
F1020 Integrated Construction		\$0	\$0.00	0.00%
F1030 Special Construction Systems and Facilities		\$10,000	\$0.37	0.13%
<b>F20 Selective Building Demolition</b>		<b>\$517,312</b>	<b>\$19.25</b>	<b>6.57%</b>
F2010 Building Elements Demolition		\$517,312	\$19.25	6.57%
F2020 Hazardous Components Abatement		\$0	\$0.00	0.00%
<b>TOTAL BUILDING CONSTRUCTION</b>		<b>\$6,611,974</b>	<b>\$246.03</b>	<b>83.93%</b>
<b>Markups</b>		<b>\$1,265,631</b>	<b>\$47.09</b>	<b>16.07%</b>
General Conditions				
General conditions & project requirements	12.9%	\$850,000	\$31.63	10.79%
Bond and insurance	2.0%	\$149,239	\$5.55	1.89%
Building permit	0.0%	\$0	\$0.00	0.00%
Overhead and profit				
Head office overhead and profit	3.5%	\$266,392	\$9.91	3.38%
<b>PLANNED CONSTRUCTION COST</b>	<b>Jun-20</b>	<b>\$7,877,605</b>	<b>\$293.12</b>	<b>100.00%</b>
<b>Contingencies/Escalation</b>		<b>\$1,117,045</b>	<b>\$41.56</b>	
Contingencies				
Design and pricing contingency	10.0%	\$787,761	\$29.31	
Gmp contingency	0.0%	\$0	\$0.00	
Escalation				
Escalation to start date (March 2021)	3.8%	\$329,284	\$12.25	
<b>ESTIMATED CONTRACT AWARD</b>	<b>Mar-21</b>	<b>\$8,994,650</b>	<b>\$334.68</b>	

	Quantity	Unit	Rate	Total
<b><u>A1010 FOUNDATIONS</u></b>				
Strip footings at elevation changes				
Excavation	22	CY	28.00	616
Remove off site	22	CY	40.00	880
Backfill with gravel	15	CY	60.00	900
Formwork	120	SF	15.00	1,800
Reinforcement	630	LB	1.50	945
Concrete	7	CY	203.46	1,424
Walls at elevation changes				
Formwork	360	SF	15.00	5,400
Reinforcement	900	LB	1.50	1,350
Concrete	9	CY	210.90	1,898
Waterproofing, mastic	180	SF	3.00	540
Insulation	180	SF	3.00	540
Miscellaneous				
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	16	CY	70.00	1,120
<b>Subtotal</b>				<b>\$17,413</b>
<b><u>A1030 SLAB ON GRADE</u></b>				
Standard slab on grade				
Gravel fill	122	CY	80.00	9,760
Rigid insulation under slab on grade	3,307	SF	3.50	11,575
Vapor barrier	3,307	SF	0.50	1,654
Mesh reinforcing 15% lap	3,803	SF	1.20	4,564
Reinforcement - dowel to existing	89	EA	50.00	4,450
Concrete in slab, complete	51	CY	223.20	11,383
Finishing and curing	3,307	SF	2.00	6,614
Control and construction joints	3,307	SF	0.60	1,984
Perimeter joints	350	LF	4.50	1,575
Existing slab on grade				
Patch surface of existing after demolition	5,563	SF	0.60	3,338
Miscellaneous				
Equipment pads	300	SF	30.00	9,000
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	51	CY	42.00	2,142
<b>Subtotal</b>				<b>\$68,039</b>
<b><u>B1010 FLOOR CONSTRUCTION</u></b>				
Steel construction				
Floor framing				
Framing to infill at removed elevator and staircase	3	T	10,200.00	30,600
Framing at replaced floor framing	16	T	10,200.00	163,200
Additional framing at stair penetrations	5	LOC	4,000.00	20,000
Shear studs	767	EA	4.50	3,452
Bent plate in pour stop	30	LF	30.00	900

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Amherst, MA

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June 15, 2020

**Renovation - Estimate Detail**

	Quantity	Unit	Rate	Total
Metal decking				
Metal decking, standard	3,836	SF	5.25	20,139
Concrete construction				
Concrete topping to floors				
Mesh reinforcing 15% lap	4,411	SF	1.00	4,411
Concrete topping	60	CY	191.06	11,464
Finishing and curing	3,836	SF	1.80	6,905
Control and construction joints	3,836	SF	0.60	2,302
Existing concrete topping				
Repair top surface after demolition	19,217	SF	0.75	14,413
Patch existing floor penetrations	14,169	SF	0.30	4,251
Miscellaneous concrete costs				
Premium for pump grade concrete mix and pump	60	CY	21.00	1,260
Added cost for lightweight concrete	60	CY	32.40	1,944
Masonry wall - load bearing				
Included in Partitions				
Miscellaneous				
Fireproofing steel	3,836	SF	2.50	9,590
Fire stopping	18,005	SF	0.42	7,562
<b>Subtotal</b>				<b>\$302,393</b>

**B1020 ROOF CONSTRUCTION**

Steel construction				
Steel members in roof framing				
Supplement/rebuild/modify framing at level				
three addition	2,104	SF	30.00	63,120
Allow for infill of existing penetrations	1	LS	6,600.00	6,600
New structure to create flat roof over existing				
pitched	9	TN	8,400.00	75,600
Canopy framing	1	LS	7,500.00	7,500
Metal decking				
Metal decking, standard	4,208	SF	5.00	21,040
Miscellaneous				
Fireproofing steel	4,208	SF	2.50	10,520
Wood construction				
Plywood decking				
Replace existing	210	SF	5.00	1,050
<b>Subtotal</b>				<b>\$185,430</b>

**B2010 EXTERIOR WALL**

Existing interior backup.				
Repair existing at removed partitions	26	LOC	425.00	11,050
Repair existing at removed mep systems	9,848	SF	1.00	9,848
Interior backup - metal stud				
Metal stud framing	1,575	SF	9.00	14,175
Denshield or similar to exterior face of stud backup	1,575	SF	4.50	7,088



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**Renovation - Estimate Detail**

	Quantity	Unit	Rate	Total
Insulation	1,575	SF	5.00	7,875
Air barrier	1,575	SF	7.00	11,025
Drywall lining to interior face of stud backup	1,575	SF	4.25	6,694
Exterior skin - stone				
Clean	5,324	SF	6.00	31,944
Repoint	532	SF	24.00	12,768
Exterior skin - stone chimneys				
Clean	500	SF	7.50	3,750
Repoint	500	SF	28.00	14,000
Vent cap	3	EA	400.00	1,200
Exterior skin - wood				
Wood siding	269	SF	26.00	6,994
Paint wood siding	1,345	SF	3.00	4,035
Eaves/fascia work,				
Replace existing	361	LF	100.00	36,100
Paint	723	LF	16.00	11,568
Cornice				
Replace existing	16	LF	150.00	2,400
Paint	189	SF	6.00	1,134
Decorative door trim				
Allow for repairs	1	LS	900.00	900
Paint	1	LS	360.00	360
Exterior skin - metal panel				
General areas	1,575	SF	65.00	102,375
Miscellaneous				
Scaffolding to exterior wall	1,575	SF	5.00	7,875
Lift staging	1	LS	7,500.00	7,500
<b>Subtotal</b>				<b>\$312,658</b>

**B2020 WINDOWS**

Wood windows and glazing				
Windows, glazed				
Replace sash	1,077	SF	170.00	183,090
Paint to windows	2,154	SF	6.50	14,001
Aluminum storefront				
Storefront system, glazed				
Complete	182	SF	105.00	19,110
Ancillaries				
Backer rod and double sealant	862	LF	6.50	5,603
Wood blocking at openings	862	LF	3.50	3,017
<b>Subtotal</b>				<b>\$224,821</b>

	Quantity	Unit	Rate	Total
<b><u>B2030 EXTERIOR DOORS</u></b>				
<i>Hollow metal doors, frame and hardware</i>				
<i>Double leaf</i>				
Complete	1	PR	4,000.00	4,000
<i>Miscellaneous</i>				
Paint to door and frame	5	EA	250.00	1,250
Backer rod and double sealant	5	EA	110.00	550
Wood blocking at openings	1	EA	90.00	90
<b>Subtotal</b>				<b>\$5,890</b>
<b><u>B3010 ROOF COVERING</u></b>				
Slate roofing	6,024	SF	48.00	289,152
Ice and water shield	6,024	SF	3.50	21,084
Rough blocking	6,024	SF	0.50	3,012
Strapping	4,529	LF	3.50	15,852
Copper roofing	58	SF	120.00	6,960
TPO roof membrane	2,824	SF	12.00	33,888
Abutment of flat roof with adjacent walls	504	LF	11.00	5,544
Allowance for working membrane roofing around pipe and duct penetrations	1	LS	3,388.80	3,389
Insulation tapered	2,824	SF	5.00	14,120
Roof sheathing	2,824	SF	3.75	10,590
Air barrier	2,824	SF	4.00	11,296
Rough blocking	1,512	LF	3.60	5,443
Canopy roofing system				
Glass canopy	61	SF	180.00	10,980
Miscellaneous roofing				
Walkway pads	8	EA	55.00	440
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	554	LF	18.00	9,972
Edge trim/stop	464	LF	18.00	8,352
<b>Subtotal</b>				<b>\$463,304</b>
<b><u>C1010 PARTITIONS</u></b>				
<i>Partitions, drywall</i>				
Typical	11,256	SF	12.80	144,077
Typical, over glass	1,242	SF	19.20	23,846
Plumbing chase	668	SF	8.05	5,377
Mechanical shaft	223	SF	13.80	3,077
Single sided	914	SF	6.30	5,758
Patch at locations of mep systems and specialties/casework demolition	16,897	SF	0.60	10,138
Partitions masonry				
8" CMU, reinforced, around stairs	3,616	SF	30.00	108,480

**JONES PUBLIC LIBRARY****Renovation & Addition**

Amherst, MA

**SCHEMATIC DESIGN COST REPORT**

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**Renovation - Estimate Detail**

	Quantity	Unit	Rate	Total
<i>Window walls and borrowed lights</i>				
Glass partition, aluminum, complete	798	SF	65.00	51,870
<i>Folding partitions</i>				
Wood, acoustic	599	SF	120.00	71,880
<i>Rails and handrails, painted metal</i>				
Rails at access ramps	25	LF	550.00	13,750
Handrails at access ramps	25	LF	60.00	1,500
<i>Miscellaneous</i>				
Sealants and caulking at partitions	26,875	SF	0.40	10,750
Rough blocking	2,861	LF	3.00	8,583
<b>Subtotal</b>				<b>\$459,086</b>
<b><u>C1020 INTERIOR DOORS</u></b>				
<i>Wood doors</i>				
Single leaf				
Complete	42	EA	2,200.00	92,400
Double leaf				
Complete	3	PR	4,000.00	12,000
<i>Aluminum doors</i>				
Double leaf door				
Complete	4	EA	8,500.00	34,000
<i>Specialty doors</i>				
Allowance for miscellaneous access doors	5	EA	500.00	2,500
<i>Miscellaneous</i>				
Paint to door and frame	48	EA	250.00	12,000
Sealants and caulking	45	EA	90.00	4,050
Wood blocking at openings	45	EA	80.00	3,600
<b>Subtotal</b>				<b>\$160,550</b>
<b><u>C1030 SPECIALTIES</u></b>				
<i>Specialties</i>				
Toilet partitions, phenolic, handicapped	2	EA	1,500.00	3,000
Toilet partitions, phenolic, regular	3	EA	1,200.00	3,600
Toilet partitions, phenolic, urinal screens	1	EA	500.00	500
Miscellaneous metal to ceiling supported toilet parti	5	EA	300.00	1,500
<i>Vanity counters</i>				
Solid surface	10	LF	250.00	2,500
<i>Toilet accessories</i>				
Medium toilet	2	EA	2,250.00	4,500
Small toilet	2	EA	1,750.00	3,500
Mop and broom holder	1	EA	120.00	120
Marker boards and tack boards	1	LS	2,750.00	2,750
Lockers, single tier	15	OPE	300.00	4,500
Signage/Directories	26,875	SF	0.45	12,094
Fire extinguishers and cabinets	8	EA	475.00	3,800

	Quantity	Unit	Rate	Total
<i>Miscellaneous</i>				
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	26,875	SF	2.00	53,750
Miscellaneous sealants throughout building	26,875	SF	0.35	9,406
<b>Subtotal</b>				<b>\$108,020</b>
<b><u>C2010 STAIR CONSTRUCTION</u></b>				
<i>Egress/Internal circulation staircases</i>				
Egress staircase, including rails and handrails	5	FLT	23,000.00	115,000
<b>Subtotal</b>				<b>\$115,000</b>
<b><u>C2020 STAIR FINISHES</u></b>				
<i>Stair finishes</i>				
Rubber	5	FLT	3,750.00	18,750
Paint and sealer to egress staircases	5	FLT	2,750.00	13,750
<b>Subtotal</b>				<b>\$32,500</b>
<b><u>C3010 WALL FINISHES</u></b>				
<i>Walls complete</i>				
Complete	26,875	SF GFA	5.80	155,875
<b>Subtotal</b>				<b>\$155,875</b>
<b><u>C3020 FLOOR FINISHES</u></b>				
<i>Complete floor</i>				
Complete	26,875	SF GFA	8.00	215,000
<b>Subtotal</b>				<b>\$215,000</b>
<b><u>C3030 CEILING FINISHES</u></b>				
<i>Ceilings complete</i>				
Complete	26,875	SF	6.60	177,375
<b>Subtotal</b>				<b>\$177,375</b>
<b><u>D1010 ELEVATORS AND LIFTS</u></b>				
<i>Lifts</i>				
Wheelchair lift	1	EA	22,000.00	22,000
<b>Subtotal</b>				<b>\$22,000</b>
<b><u>D2010 PLUMBING</u></b>				
<i>Plumbing</i>				
Complete	26,875	SF	9.00	241,875
<b>Subtotal</b>				<b>\$241,875</b>

	Quantity	Unit	Rate	Total
<b><u>D3010 HVAC</u></b>				
Hvac				
Complete	26,875	SF	58.00	1,558,750
<b>Subtotal</b>				<b>\$1,558,750</b>
<b><u>D4010 FIRE PROTECTION</u></b>				
Sprinkler installation				
Complete	26,875	SF	6.50	174,688
<b>Subtotal</b>				<b>\$174,688</b>
<b><u>D5010 ELECTRICAL</u></b>				
Electrical installation				
Complete	26,875	SF	38.00	1,021,250
<b>Subtotal</b>				<b>\$1,021,250</b>
<b><u>E1010 COMMERCIAL EQUIPMENT</u></b>				
Security and vault equipment				
Book security equipment	1	LS	15,000.00	15,000
<b>Subtotal</b>				<b>\$15,000</b>
<b><u>E1020 INSTITUTIONAL EQUIPMENT</u></b>				
Audio-visual equipment				
Projection screen , electrical	1	EA	3,500.00	3,500
<b>Subtotal</b>				<b>\$3,500</b>
<b><u>E1090 OTHER EQUIPMENT</u></b>				
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
<b>Subtotal</b>				<b>\$4,450</b>
<b><u>E2010 FIXED FURNISHINGS</u></b>				
Kitchen casework				
Base storage units	11	LF	350.00	3,850
Counter top	1	LF	180.00	180
Wall storage units	11	LF	250.00	2,750
Copy casework				
Base storage units	12	LF	350.00	4,200
Counter top	12	LF	180.00	2,160
Wall storage units	12	LF	250.00	3,000
Work counters	20	LF	250.00	5,000
Entry mat				
Entry mat and frame	50	SF	50.00	2,500

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**Renovation - Estimate Detail**

	Quantity	Unit	Rate	Total
Window treatment				
Mecho shades	1,077	SF	15.00	16,155
Library shelving		By Owner		
<b>Subtotal</b>				<b>\$39,795</b>
<b><u>E2020 LOOSE FURNISHINGS</u></b>				
Loose furnishings				
By owner				
<b>Subtotal</b>				<b>\$0</b>
<b><u>F1030 SPECIAL CONSTRUCTION SYSTEMS AND FACILITIES</u></b>				
Remove and reinstall fireplace				
Complete	1	EA	10,000.00	10,000
<b>Subtotal</b>				<b>\$10,000</b>
<b><u>F2010 BUILDING ELEMENTS DEMOLITION</u></b>				
Interior demolition				
Remove partitions and doors	1,404	LF	25.20	35,381
Remove floor and ceiling finishes	17,481	SF GFA	3.75	65,554
Remove casework and specialties	17,481	SF GFA	1.20	20,977
Remove MEP systems (excluding ductwork)	17,481	SF GFA	3.50	61,184
Remove louvers	2	EA	150.00	300
Remove staircase	7	FLT	3,500.00	24,500
Remove elevator	1	EA	18,000.00	18,000
Remove rails and accessories	45	LF	5.50	248
Remove windows	16	EA	200.00	3,200
Remove shed	1	EA	600.00	600
Remove concrete pad	219	SF	8.00	1,752
Protect during demolition				
Fireplace	5	EA	750.00	3,750
Staircase	1	EA	2,500.00	2,500
Structure to hold up exterior wall	3	LOC	6,000.00	18,000
Roof demolition				
Remove existing slate	6,024	SF	6.00	36,144
Remove membrane	2,824	SF	2.50	7,060
Exterior demolition				
Saw cut masonry for new opening	71	LF	40.00	2,840
Remove masonry	1	LS	24,000.00	24,000
Structural demolition				
Saw cut existing concrete slab on grade	106	LF	7.00	742
Remove existing concrete slab on grade	600	SF	14.00	8,400
Remove existing upper floors	6,109	SF	20.00	122,180
Remove existing roof structure	3,000	SF	20.00	60,000
<b>Subtotal</b>				<b>\$517,312</b>

	Quantity	Unit	Rate	Total
<b><u>F2020 HAZARDOUS COMPONENTS ABATEMENT</u></b>				
<i>Hazardous materials abatement</i>				
Remove hazardous building materials			EXCLUDED	
<b>Subtotal</b>				<b>\$0</b>
<b><u>MARKUPS</u></b>				
<i>General conditions and project requirements</i>				
General conditions and requirements	17.0	MTH	50,000	850,000
Bond and Insurance	2.0%		7,461,974	149,239
Building permit	0.0%		7,611,213	
<i>Overhead and Profit</i>				
Contractors overhead and profit (Fee)	3.5%		7,611,213	266,392
<b>Subtotal</b>				<b>\$1,265,631</b>
<b><u>CONTINGENCIES/ESCALATION</u></b>				
<i>Contingencies</i>				
Design contingency	10.0%		7,877,605	787,761
GMP contingency	0.0%		8,665,366	
<i>Escalation</i>				
Escalation to Start Date (March 2021)	3.8%		8,665,366	329,284
<b>Subtotal</b>				<b>\$1,117,045</b>

	Total	GFA \$/sf	34,421 %
<b>A10 Foundations</b>	<b>\$383,309</b>	<b>\$11.14</b>	<b>3.04%</b>
A1010 Foundations	\$207,466	\$6.03	1.65%
A1020 Special Foundations	\$33,000	\$0.96	0.26%
A1020 Slab on Grade	\$142,843	\$4.15	1.13%
<b>A20 Basement Construction</b>	<b>\$140,412</b>	<b>\$4.08</b>	<b>1.11%</b>
A2010 Basement Earthwork	\$65,322	\$1.90	0.52%
A2020 Basement Walls	\$75,090	\$2.18	0.60%
<b>B10 Superstructure</b>	<b>\$1,526,420</b>	<b>\$44.35</b>	<b>12.10%</b>
B1010 Floor Construction	\$1,041,050	\$30.24	8.26%
B1020 Roof Construction	\$485,370	\$14.10	3.85%
<b>B20 Exterior Closure</b>	<b>\$1,842,956</b>	<b>\$53.54</b>	<b>14.61%</b>
B2010 Exterior Walls	\$1,088,356	\$31.62	8.63%
B2020 Windows	\$728,600	\$21.17	5.78%
B2030 Exterior Doors	\$26,000	\$0.76	0.21%
<b>B30 Roofing</b>	<b>\$890,793</b>	<b>\$25.88</b>	<b>7.06%</b>
B3010 Roof Covering	\$560,453	\$16.28	4.44%
B3020 Roof Openings	\$330,340	\$9.60	2.62%
<b>C10 Interior Construction</b>	<b>\$740,617</b>	<b>\$21.52</b>	<b>5.87%</b>
C1010 Partitions	\$452,906	\$13.16	3.59%
C1020 Interior Doors	\$129,310	\$3.76	1.03%
C1030 Specialties	\$158,401	\$4.60	1.26%
<b>C20 Staircases</b>	<b>\$97,100</b>	<b>\$2.82</b>	<b>0.77%</b>
C2010 Stair Construction	\$83,600	\$2.43	0.66%
C2020 Stair Finishes	\$13,500	\$0.39	0.11%
<b>C30 Finishes</b>	<b>\$781,357</b>	<b>\$22.70</b>	<b>6.20%</b>
C3010 Wall Finishes	\$144,568	\$4.20	1.15%
C3020 Floor Finishes	\$335,605	\$9.75	2.66%
C3030 Ceiling Finishes	\$301,184	\$8.75	2.39%
<b>D10 Conveying Systems</b>	<b>\$181,230</b>	<b>\$5.27</b>	<b>1.44%</b>
D1010 Elevators and Lifts	\$181,230	\$5.27	1.44%
D1020 Escalators and Moving Walkways	\$0	\$0.00	0.00%
D1030 Other Conveying Systems	\$0	\$0.00	0.00%
<b>D20 Plumbing</b>	<b>\$163,500</b>	<b>\$4.75</b>	<b>1.30%</b>
D2010 Plumbing Complete	\$163,500	\$4.75	1.30%
<b>D30 Heating, Ventilation and Air Conditioning</b>	<b>\$1,996,418</b>	<b>\$58.00</b>	<b>15.83%</b>
D3010 HVAC, Complete	\$1,996,418	\$58.00	15.83%
<b>D40 Fire Protection</b>	<b>\$206,526</b>	<b>\$6.00</b>	<b>1.64%</b>
D4010 Fire Protection, Complete	\$206,526	\$6.00	1.64%
<b>D50 Electrical</b>	<b>\$1,307,998</b>	<b>\$38.00</b>	<b>10.37%</b>
D5010 Electrical, Complete	\$1,307,998	\$38.00	10.37%
<b>E10 Equipment</b>	<b>\$6,500</b>	<b>\$0.19</b>	<b>0.05%</b>
E1010 Commercial Equipment	\$0	\$0.00	0.00%
E1020 Institutional Equipment	\$3,500	\$0.10	0.03%
E1030 Vehicular Equipment	\$0	\$0.00	0.00%
E1090 Other Equipment	\$3,000	\$0.09	0.02%



		Total	GFA \$/sf	34,421 %
<b>E20 Furnishings</b>		<b>\$108,080</b>	<b>\$3.14</b>	<b>0.86%</b>
E2010 Fixed Furnishings		\$108,080	\$3.14	0.86%
E2020 Loose Furnishings		\$0	\$0.00	0.00%
<b>F10 Special Construction</b>		<b>\$42,000</b>	<b>\$1.22</b>	<b>0.33%</b>
F1010 Special Structures		\$42,000	\$1.22	0.33%
F1020 Integrated Construction		\$0	\$0.00	0.00%
F1030 Special Construction Systems and Facilities		\$0	\$0.00	0.00%
<b>F20 Selective Building Demolition</b>		<b>\$0</b>	<b>\$0.00</b>	<b>0.00%</b>
F2010 Building Elements Demolition		\$0	\$0.00	0.00%
F2020 Hazardous Components Abatement		\$0	\$0.00	0.00%
<b>TOTAL BUILDING CONSTRUCTION</b>		<b>\$10,415,216</b>	<b>\$302.58</b>	<b>82.59%</b>
<b>Markups</b>		<b>\$2,195,348</b>	<b>\$63.78</b>	<b>17.41%</b>
General Conditions				
General conditions and project requirements	14.7%	\$1,530,000	\$44.45	12.13%
Bond and insurance	2.0%	\$238,904	\$6.94	1.89%
Building permit	0.0%	\$0	\$0.00	0.00%
Overhead and profit				
General contractor's head office overhead and profit	3.5%	\$426,444	\$12.39	3.38%
<b>PLANNED CONSTRUCTION COST</b>	<b>Jun-20</b>	<b>\$12,610,564</b>	<b>\$366.36</b>	<b>100.00%</b>
<b>Contingencies/Escalation</b>		<b>\$1,788,178</b>	<b>\$51.95</b>	
Contingencies				
Design and pricing contingency	10.0%	\$1,261,056	\$36.64	
Gmp contingency	0.0%	\$0	\$0.00	
Escalation				
Escalation to start date (March 2021)	3.8%	\$527,122	\$15.31	
<b>ESTIMATED CONTRACT AWARD</b>	<b>Mar-21</b>	<b>\$14,398,742</b>	<b>\$418.31</b>	

	Quantity	Unit	Rate	Total
<b><u>A1010 FOUNDATIONS</u></b>				
<i>Strip footings at exterior</i>				
Excavation	289	CY	13.00	3,757
Remove off site	289	CY	22.00	6,358
Backfill with gravel	258	CY	38.00	9,804
Formwork	557	SF	12.50	6,963
Reinforcement	2,790	LB	1.30	3,627
Concrete	31	CY	192.30	5,961
<i>Strip footings at elevation changes</i>				
Excavation	41	CY	13.00	533
Remove off site	41	CY	22.00	902
Backfill with gravel	29	CY	38.00	1,102
Formwork	220	SF	12.50	2,750
Reinforcement	1,080	LB	1.30	1,404
Concrete	12	CY	192.30	2,308
<i>Strip footings at retaining wall</i>				
Excavation	34	CY	13.00	442
Remove off site	34	CY	22.00	748
Backfill with gravel	24	CY	38.00	912
Formwork	184	SF	12.50	2,300
Reinforcement	900	LB	1.30	1,170
Concrete	10	CY	192.30	1,923
<i>Column footings at basement level</i>				
Excavation	40	CY	13.00	520
Remove excavated material off site	40	CY	22.00	880
Backfill with gravel	27	CY	38.00	1,026
Formwork	188	SF	12.50	2,350
Reinforcement	1,170	LB	1.30	1,521
Concrete	13	CY	192.30	2,500
<i>Column footings at exterior</i>				
Excavation	207	CY	13.00	2,691
Remove excavated material off site	207	CY	22.00	4,554
Backfill with gravel	188	CY	38.00	7,144
Formwork	336	SF	12.50	4,200
Reinforcement	1,710	LB	1.30	2,223
Concrete	19	CY	192.30	3,654
<i>Column footings at trellis canopy</i>				
Excavation	95	CY	13.00	1,235
Remove excavated material off site	95	CY	22.00	2,090
Backfill with gravel	89	CY	38.00	3,382
Formwork	160	SF	12.50	2,000
Reinforcement	540	LB	1.30	702
Concrete	6	CY	192.30	1,154
<i>Column footings at interior</i>				
Excavation	91	CY	13.00	1,183
Remove excavated material off site	91	CY	22.00	2,002

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**Renovation & Addition**

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**New Building - Estimate Detail**

	Quantity	Unit	Rate	Total
Backfill with gravel	61	CY	38.00	2,318
Formwork	424	SF	12.50	5,300
Reinforcement	2,700	LB	1.30	3,510
Concrete	30	CY	192.30	5,769
<b>Foundation walls</b>				
Formwork	2,226	SF	12.50	27,825
Reinforcement	5,565	LB	1.30	7,235
Concrete	55	CY	198.50	10,918
Waterproofing, mastic	1,113	SF	3.00	3,339
Insulation	1,113	SF	3.00	3,339
<b>Walls at elevation changes</b>				
Formwork	550	SF	12.50	6,875
Reinforcement	1,375	LB	1.30	1,788
Concrete	7	CY	198.50	1,390
Waterproofing, mastic	275	SF	3.00	825
Insulation	275	SF	3.00	825
<b>Miscellaneous</b>				
Allowance for piers/pilasters	26	EA	650.00	16,900
Set base plates	36	EA	125.00	4,500
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	177	CY	19.00	3,363
Perimeter foundation drainage, including gravel and filter fabric	92	LF	16.00	1,472
<b>Subtotal</b>				<b>\$207,466</b>
 <b><u>A1020 SPECIAL FOUNDATIONS</u></b>				
Underpinning adjacent to elevator	10	CY	3,300.00	33,000
<b>Subtotal</b>				<b>\$33,000</b>
 <b><u>A1030 SLAB ON GRADE</u></b>				
<b>Standard slab on grade</b>				
Gravel fill	421	CY	38.00	15,998
Rigid insulation under slab on grade	11,368	SF	3.00	34,104
Vapor barrier	11,368	SF	0.40	4,547
Mesh reinforcing 15% lap	13,073	SF	1.00	13,073
Concrete in slab, complete	177	CY	186.10	32,940
Finishing and curing	11,368	SF	1.60	18,189
Control and construction joints	11,368	SF	0.50	5,684
Isolation joints at columns	96	LF	4.00	384
Perimeter joints	590	LF	3.50	2,065
<b>Elevator/Escalator pit</b>				
Excavation	36	CY	13.00	468
Remove excavated material off site	36	CY	22.00	792
Backfill with gravel	17	CY	38.00	646
Formwork to slab edge	54	SF	12.50	675
Reinforcement in slab	450	LB	1.30	585

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	Quantity	Unit	Rate	Total
Concrete in slab	5	CY	192.30	962
Formwork to pit walls	180	SF	12.50	2,250
Reinforcement	450	LB	1.30	585
Concrete in pit walls	7	CY	198.50	1,390
Cementitious waterproofing to elevator pit	261	SF	15.00	3,915
Miscellaneous				
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	189	CY	19.00	3,591
<b>Subtotal</b>				<b>\$142,843</b>

**A2010 BASEMENT EARTHWORK**

Backfill existing lower level void around basement walls with gravel	1,719	CY	38.00	65,322
<b>Subtotal</b>				<b>\$65,322</b>

**A2020 BASEMENT WALLS**

Retaining walls				
Formwork to walls	2,389	SF	14.00	33,446
Reinforcement	8,362	LB	1.30	10,871
Concrete in walls	59	CY	198.50	11,712
Waterproofing, membrane, including protection board	1,195	SF	8.00	9,560
Insulation	1,195	SF	3.00	3,585
Miscellaneous				
Allowance for piers/pilasters	5	EA	675.00	3,375
Set base plates	5	EA	125.00	625
Water stops	92	LF	8.00	736
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	59	CY	20.00	1,180
<b>Subtotal</b>				<b>\$75,090</b>

**B1010 FLOOR CONSTRUCTION**

Steel construction				
Columns				
W section	23	T	4,350.00	100,050
Shear/brace frames				
W sections	6	T	4,350.00	26,100
Tube/pipe	6	T	4,850.00	29,100
Floor framing				
W sections	115	T	4,350.00	500,250
Shear studs	4,611	EA	4.00	18,444
Bent plate in pour stop	899	LF	28.00	25,172
Metal decking				
Metal decking, standard	23,053	SF	4.00	92,212

	Quantity	Unit	Rate	Total
<i>Concrete construction</i>				
<i>Concrete topping to floors</i>				
Mesh reinforcing 15% lap	26,511	SF	1.00	26,511
Concrete topping	359	CY	186.10	66,810
Finishing and curing	23,053	SF	1.60	36,885
Control and construction joints	23,053	SF	0.60	13,832
<i>Miscellaneous concrete costs</i>				
Premium for pump grade concrete mix and pump	359	CY	20.00	7,180
Added cost for lightweight concrete	359	CY	30.00	10,770
<i>Masonry wall - load bearing</i>				
<i>Included in Partitions</i>				
<i>Miscellaneous</i>				
Fireproofing steel	23,053	SF	2.50	57,633
Fire stopping	23,053	SF	0.40	9,221
Seismic joints	435	LF	48.00	20,880
<b>Subtotal</b>				<b>\$1,041,050</b>

**B1020 ROOF CONSTRUCTION**

<i>Steel construction</i>				
<i>Columns</i>				
W section	12	T	4,350.00	52,200
<i>Shear/brace frames</i>				
W sections	3	T	4,350.00	13,050
Tube/pipe	3	T	4,850.00	14,550
<i>Steel members in roof framing</i>				
W sections	64	T	4,350.00	278,400
<i>Structural steel</i>				
Trellis structure	3	T	10,000.00	30,000
Paint (tnemec) to trellis	3	T	450.00	1,350
<i>Metal decking</i>				
Metal decking, standard	11,702	SF	4.00	46,808
<i>Masonry wall - load bearing</i>				
<i>Included in partitions</i>				
<i>Miscellaneous</i>				
Fireproofing steel	14,152	SF	2.50	35,380
Equipment pads	200	SF	30.00	6,000
Seismic joints	159	LF	48.00	7,632
<b>Subtotal</b>				<b>\$485,370</b>

**B2010 EXTERIOR WALL**

<i>Interior backup - metal stud</i>				
Metal stud framing 6" x 18 gauge	9,720	SF	8.75	85,050
Denshield or similar to exterior face of stud backup	9,720	SF	4.00	38,880
Insulation	9,720	SF	5.00	48,600
Air barrier	9,720	SF	6.50	63,180
Drywall lining to interior face of stud backup	9,720	SF	4.00	38,880

**JONES PUBLIC LIBRARY**

**Renovation & Addition**

Amherst, MA

**SCHEMATIC DESIGN COST REPORT**

June 15, 2020

**New Building - Estimate Detail**

	Quantity	Unit	Rate	Total
<i>Exterior skin - brick</i>				
Brick	5,375	SF	40.00	215,000
Sills	182	LF	40.00	7,280
<i>Exterior skin - slate</i>				
General areas	2,916	SF	100.00	291,600
Granite Shelf	262	LF	120.00	31,440
<i>Exterior skin - metal panel</i>				
General areas	1,092	SF	60.00	65,520
Curtainwall trim	75	LF	70.00	5,250
Eaves/fascia work at north lights	523	LF	100.00	52,300
Light gauge metal support to eaves	381	LF	16.00	6,096
Plywood sheathing at eaves	953	SF	4.00	3,812
Insulation at eaves	953	SF	5.00	4,765
Air barrier	953	SF	6.50	6,195
Soffits @ building overhang	163	SF	50.00	8,150
Light gauge metal support to soffit	163	SF	8.00	1,304
Plywood sheathing at eaves	163	SF	4.00	652
Insulation at soffit	163	SF	5.00	815
Air barrier	163	SF	6.50	1,060
<i>Miscellaneous</i>				
Lintels - steel	97	LF	30.00	2,910
Relieving angles to brickwork	839	LF	25.00	20,975
Scaffolding to exterior wall	14,170	SF	4.50	63,765
Flashings at sills and lintels	1	LS	5,000.00	5,000
Flashing, thru wall, at parapet	466	LF	20.00	9,320
Control joints in exterior wall (1#/30LF)	556	LF	5.00	2,780
Wood blocking	2,222	LF	3.50	7,777
<b>Subtotal</b>				<b>\$1,088,356</b>

**B2020 WINDOWS**

<i>Aluminum windows and glazing</i>				
<i>Windows, glazed</i>				
Complete	2,500	SF	90.00	225,000
<i>Aluminum storefront</i>				
<i>Storefront system, glazed</i>				
Complete	200	SF	95.00	19,000
<i>Aluminum curtain wall</i>				
Curtain wall	1,750	SF	125.00	218,750
<i>Ancillaries</i>				
Backer rod and double sealant	2,460	LF	6.50	15,990
Wood blocking at openings	2,460	LF	3.50	8,610
Interior sill	8,750	LF	25.00	218,750
Interior trim	1,875	LF	12.00	22,500
<b>Subtotal</b>				<b>\$728,600</b>

	Quantity	Unit	Rate	Total
<b><u>B2030 EXTERIOR DOORS</u></b>				
Aluminum doors				
Double leaf				
Complete	2	PR	8,000.00	16,000
Miscellaneous				
Added cost for door operators	2	EA	5,000.00	10,000
<b>Subtotal</b>				<b>\$26,000</b>
<b><u>B3010 ROOF COVERING</u></b>				
Metal roofing	4,175	SF	40.00	167,000
Plywood sheathing	4,175	SF	4.00	16,700
Insulation	4,175	SF	5.00	20,875
Air barrier	4,175	SF	6.50	27,138
Rough blocking	4,175	SF	0.50	2,088
Strapping	3,139	LF	3.60	11,300
TPO roof membrane	7,527	SF	12.00	90,324
Abutment of flat roof with adjacent walls	1,861	LF	11.00	20,471
Allowance for working membrane roofing around pipe and duct penetrations	1	LS	16,619.25	16,619
Insulation tapered	7,527	SF	4.80	36,130
Roof sheathing	7,527	SF	3.60	27,097
Air barrier	7,527	SF	4.00	30,108
Rough blocking	5,583	LF	3.50	19,541
Miscellaneous roofing				
Walkway pads	92	EA	55.00	5,060
Trim at eaves/fascia to roof - In exterior wall				
Flashings	1,861	LF	15.00	27,915
Edge trim/stop	124	LF	18.00	2,232
Parapet coping	493	LF	75.00	36,975
Expansion joint cover	60	LF	48.00	2,880
<b>Subtotal</b>				<b>\$560,453</b>
<b><u>B3020 ROOF OPENINGS</u></b>				
Glass roof - north lights	2,186	SF	120.00	262,320
North light gables	546	SF	120.00	65,520
Roof hatch/ vents	1	LS	2,500.00	2,500
<b>Subtotal</b>				<b>\$330,340</b>
<b><u>C1010 PARTITIONS</u></b>				
Partitions, drywall				
Typical	13,518	SF	12.80	173,030
Typical, over glass	1,298	SF	19.20	24,922
Plumbing chase	1,080	SF	8.05	8,694
GWB column covers	78	EA	900.00	70,200
Partitions masonry				
8" CMU, reinforced, elevator	1,596	SF	30.00	47,880

**JONES PUBLIC LIBRARY**

**Renovation & Addition**

Amherst, MA

**SCHEMATIC DESIGN COST REPORT**

June 15, 2020

**New Building - Estimate Detail**

	Quantity	Unit	Rate	Total
<i>Window walls and borrowed lights</i>				
Glass partition , aluminum, complete	835	SF	65.00	54,275
<i>Rails and handrails, stainless steel and glass</i>				
Rail at areas open to below	92	LF	550.00	50,600
<i>Miscellaneous</i>				
Sealants and caulking at partitions	34,421	SF	0.40	13,768
Rough blocking	3,179	LF	3.00	9,537
<b>Subtotal</b>				<b>\$452,906</b>

**C1020 INTERIOR DOORS**

<i>Wood doors</i>				
Single leaf				
Complete	26	EA	2,200.00	57,200
Double leaf				
Complete	7	PR	4,000.00	28,000
<i>Aluminum doors</i>				
Double leaf door				
Complete	2	EA	8,000.00	16,000
<i>Specialty doors</i>				
Allowance for miscellaneous access doors	5	EA	500.00	2,500
<i>Miscellaneous</i>				
Added cost for door operators	2	EA	5,000.00	10,000
Paint to door and frame	40	EA	250.00	10,000
Sealants and caulking	33	EA	90.00	2,970
Wood blocking at openings	33	EA	80.00	2,640
<b>Subtotal</b>				<b>\$129,310</b>

**C1030 SPECIALTIES**

<i>Specialties</i>				
Toilet partitions, phenolic, handicapped	2	EA	1,500.00	3,000
Toilet partitions, phenolic, regular	3	EA	1,200.00	3,600
Toilet partitions, phenolic, urinal screens	1	EA	500.00	500
Miscellaneous metal to ceiling supported toilet part	5	EA	300.00	1,500
<i>Vanity counters</i>				
Solid surface	10	LF	250.00	2,500
<i>Toilet accessories</i>				
Medium toilet	2	EA	2,250.00	4,500
Small toilet	3	EA	1,750.00	5,250
Mop and broom holder	1	EA	120.00	120
Marker boards and tack boards	1	LS	3,000.00	3,000
Signage/Directories	34,421	SF	0.45	15,489
Corner guards	20	EA	100.00	2,000
Fire extinguishers and cabinets	10	EA	475.00	4,750



	Quantity	Unit	Rate	Total
<i>Miscellaneous</i>				
<i>Miscellaneous shelving</i>				
Storage shelving	254	LF	38.00	9,652
Shelf with hanging rod	82	LF	45.00	3,690
Backer panels in electrical closets	3	LS	250.00	750
Allowance for miscellaneous metals not identifiable at this stage	34,421	SF	2.50	86,053
Miscellaneous sealants throughout building	34,421	SF	0.35	12,047
<b>Subtotal</b>				<b>\$158,401</b>
 <b><u>C2010 STAIR CONSTRUCTION</u></b>				
<i>Feature staircase</i>				
<i>Feature stair</i>				
Feature stair	30	RSR	1,800.00	54,000
Handrail to feature staircase	35	LF	60.00	2,100
Rail/balustrade to feature staircase	35	LF	550.00	19,250
<i>Miscellaneous steps and ladders</i>				
<i>Steps at library floors</i>				
Steps at library floors	60	LF	100.00	6,000
Access ladder to roof	3	EA	750.00	2,250
<b>Subtotal</b>				<b>\$83,600</b>
 <b><u>C2020 STAIR FINISHES</u></b>				
<i>Stair finishes</i>				
<i>Stone treads and risers</i>				
Stone treads and risers	30	RSR	450.00	13,500
<b>Subtotal</b>				<b>\$13,500</b>
 <b><u>C3010 WALL FINISHES</u></b>				
<i>Walls complete</i>				
<i>Complete</i>				
Complete	34,421	SF	4.20	144,568
<b>Subtotal</b>				<b>\$144,568</b>
 <b><u>C3020 FLOOR FINISHES</u></b>				
<i>Floors complete</i>				
<i>Complete</i>				
Complete	34,421	SF	9.75	335,605
<b>Subtotal</b>				<b>\$335,605</b>
 <b><u>C3030 CEILING FINISHES</u></b>				
<i>Ceilings complete</i>				
<i>Complete</i>				
Complete	34,421	SF	8.75	301,184
<b>Subtotal</b>				<b>\$301,184</b>
 <b><u>D1010 ELEVATORS AND LIFTS</u></b>				
<i>Passenger elevators</i>				
<i>Passenger elevator, 3 stop</i>				
Passenger elevator, 3 stop	1	EA	165,000.00	165,000
Elevator cab finish	1	EA	15,000.00	15,000

	Quantity	Unit	Rate	Total
Pit ladders	1	EA	750.00	750
Sill angles	12	LF	40.00	480
<b>Subtotal</b>				<b>\$181,230</b>
<b><u>D2010 PLUMBING</u></b>				
Plumbing				
Complete	34,421	SF	4.75	163,500
<b>Subtotal</b>				<b>\$163,500</b>
<b><u>D3010 HVAC</u></b>				
Hvac				
Complete	34,421	SF	58.00	1,996,418
<b>Subtotal</b>				<b>\$1,996,418</b>
<b><u>D4010 FIRE PROTECTION</u></b>				
Sprinkler				
Complete	34,421	SF	6.00	206,526
<b>Subtotal</b>				<b>\$206,526</b>
<b><u>D5010 ELECTRICAL</u></b>				
Electrical installation				
Complete	34,421	SF	38.00	1,307,998
<b>Subtotal</b>				<b>\$1,307,998</b>
<b><u>E1020 INSTITUTIONAL EQUIPMENT</u></b>				
Audio-visual equipment				
Projection screen , electrical	1	EA	3,500.00	3,500
<b>Subtotal</b>				<b>\$3,500</b>
<b><u>E1090 OTHER EQUIPMENT</u></b>				
Residential equipment				
Refrigerator	1	EA	2,500.00	2,500
Microwave	1	EA	500.00	500
<b>Subtotal</b>				<b>\$3,000</b>
<b><u>E2010 FIXED FURNISHINGS</u></b>				
Kitchen casework				
Base storage units	17	LF	350.00	5,950
Counter top	17	LF	180.00	3,060
Wall storage units	17	LF	250.00	4,250
Tech services workroom casework				
Base storage units	8	LF	350.00	2,800
Counter top	8	LF	180.00	1,440
Wall storage units	12	LF	250.00	3,000

	Quantity	Unit	Rate	Total
<i>Library casework</i>				
Base storage units	38	LF	350.00	13,300
Counter top	38	LF	180.00	6,840
Wall storage units	8	LF	250.00	2,000
<i>Receptionist</i>				
Base storage units	48	LF	350.00	16,800
Counter top	48	LF	180.00	8,640
<i>Entry mat</i>				
Entry mat and frame	50	SF	50.00	2,500
<i>Window treatment</i>				
Mecho shades	2,500	SF	15.00	37,500
<i>Library shelving</i>				
	By Owner			
<b>Subtotal</b>				<b>\$108,080</b>
 <b><u>E2020 LOOSE FURNISHINGS</u></b>				
<i>Loose furnishings</i>				
<i>    By owner</i>				
<b>Subtotal</b>				<b>\$0</b>
 <b><u>F1010 SPECIAL STRUCTURES</u></b>				
<i>Mockups</i>				
Exterior mockups	1	LS	30,000.00	30,000
Interior mockups	1	LS	12,000.00	12,000
<b>Subtotal</b>				<b>\$42,000</b>
 <b><u>MARKUPS</u></b>				
<i>General conditions and project requirements</i>				
General conditions and requirements	17.0	MTH	90,000	1,530,000
Bond and Insurance	2.0%		11,945,216	238,904
Building permit	0.0%		12,184,120	
<i>Overhead and Profit</i>				
Contractors overhead and profit (Fee)	3.5%		12,184,120	426,444
<b>Subtotal</b>				<b>\$2,195,348</b>
 <b><u>CONTINGENCIES/ESCALATION</u></b>				
<i>Contingencies</i>				
Design contingency	10.0%		12,610,564	1,261,056
GMP contingency	0.0%		13,871,620	
<i>Escalation</i>				
Escalation to Start Date (March 2021)	3.8%		13,871,620	527,122
<b>Subtotal</b>				<b>\$1,788,178</b>

		Total	SITE AREA \$/sf	42,024 %
<b>TOTAL BUILDING CONSTRUCTION</b>		<b>\$0</b>	<b>\$0.00</b>	<b>0.00%</b>
<b>G10 Site Preparation</b>		<b>\$282,122</b>	<b>\$6.71</b>	<b>23.00%</b>
G1010 Site Clearing and Demolition		\$258,760	\$6.16	21.09%
G1030 Site Earthwork		\$23,362	\$0.56	1.90%
G1040 Hazardous Waste Remediation		\$0	\$0.00	0.00%
<b>G20 Site Improvement</b>		<b>\$328,215</b>	<b>\$7.81</b>	<b>26.75%</b>
G2010 Roadways and Parking Lots		\$60,914	\$1.45	4.97%
G2030 Pedestrian Paving		\$135,767	\$3.23	11.07%
G2040 Site Development		\$80,195	\$1.91	6.54%
G2050 Landscaping		\$51,339	\$1.22	4.18%
<b>G30 Site Mechanical</b>		<b>\$260,826</b>	<b>\$6.21</b>	<b>21.26%</b>
G3010 Mechanical Utilities		\$260,826	\$6.21	21.26%
<b>G40 Site Electrical</b>		<b>\$150,950</b>	<b>\$3.59</b>	<b>12.30%</b>
G4010 Electrical Utilities and Site Lighting		\$150,950	\$3.59	12.30%
<b>G90 Other Site Construction</b>		<b>\$0</b>	<b>\$0.00</b>	<b>0.00%</b>
G9010 Service and Pedestrian Tunnels		\$0	\$0.00	0.00%
G9090 Other Site Systems		\$0	\$0.00	0.00%
<b>Total Site Construction</b>		<b>\$1,022,113</b>	<b>\$24.32</b>	<b>83.31%</b>
<b>TOTAL BUILDING &amp; SITE</b>		<b>\$1,022,113</b>	<b>\$24.32</b>	<b>83.31%</b>
<b>Markups</b>		<b>\$204,729</b>	<b>\$4.87</b>	<b>16.69%</b>
General Conditions				
General conditions and project requirements	13.7%	\$140,000	\$3.33	11.41%
Bond and insurance	2.0%	\$23,242	\$0.55	1.89%
Building permit	0.0%	\$0	\$0.00	0.00%
Overhead and profit				0.00%
General contractor's head office overhead and profit	3.5%	\$41,487	\$0.99	3.38%
<b>PLANNED CONSTRUCTION COST</b>	<b>Jun-20</b>	<b>\$1,226,842</b>	<b>\$29.19</b>	<b>100.00%</b>
<b>Contingencies/Escalation</b>		<b>\$173,966</b>	<b>\$4.14</b>	
Contingencies				
Design and pricing contingency	10.0%	\$122,684	\$2.92	
Gmp contingency	0.0%	\$0	\$0.00	
Escalation				
Escalation to start date (March 2021)	3.8%	\$51,282	\$1.22	
<b>ESTIMATED CONTRACT AWARD</b>	<b>Mar-21</b>	<b>\$1,400,808</b>	<b>\$33.33</b>	

	Quantity	Unit	Rate	Total
<b><u>G1010 SITE CLEARING AND DEMOLITION</u></b>				
Site set up				
Site construction fence/barricades	1,200	LF	15.00	18,000
Erosion control fence	1,200	LF	14.00	16,800
Construction entrance	1	LS	7,500.00	7,500
Silt fence/protection at utility structures	560	LF	15.00	8,400
Clearing and grubbing				
Allowance for site clearance	1.3	ACRE	4,800.00	6,240
General building demolition				
Demolish existing building, including foundations	236,750	CF	0.80	189,400
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	7.00	105
Ramp	260	SF	1.80	468
Stairs	60	LF	7.50	450
Rails and accessories	33	LF	6.00	198
<b>Subtotal</b>				<b>\$258,760</b>
<b><u>G1030 SITE EARTHWORK</u></b>				
Site earthwork				
Strip topsoil, store	668	CY	10.00	6,680
Site cut to fill	1	LS	7,500.00	7,500
Fine grading	6,121	SY	1.50	9,182
Rock excavation			EXCLUDED	
<b>Subtotal</b>				<b>\$23,362</b>
<b><u>G1040 HAZARDOUS WASTE REMEDIATION</u></b>				
Hazardous waste remediation				
Remove contaminated soils			EXCLUDED	
<b>Subtotal</b>				<b>\$0</b>
<b><u>G2010 ROADWAYS AND PARKING LOTS</u></b>				
Bituminous concrete paving				
Excavation to reduce levels	197	CY	12.00	2,364
Remove off site	197	CY	22.00	4,334
Gravel base	197	CY	38.00	7,486
Bituminous concrete	136	T	120.00	16,320
Curbing				
Vertical granite curb	541	LF	50.00	27,050
Pavement markings				
Single solid lines, 4" thick	7	SPCE	80.00	560
Handicap parking hatching	2	LOC	200.00	400
Road signage	3	EA	800.00	2,400
<b>Subtotal</b>				<b>\$60,914</b>

	Quantity	Unit	Rate	Total
<b><u>G2030 PEDESTRIAN PAVING</u></b>				
Concrete paving				
Excavation to reduce levels	90	CY	12.00	1,080
Remove off site	90	CY	22.00	1,980
Gravel base	90	CY	38.00	3,420
Concrete paving, ? thick	2,417	SF	7.00	16,919
Stone paving				
Excavation to reduce levels	49	CY	12.00	588
Remove off site	49	CY	22.00	1,078
Gravel base	49	CY	38.00	1,862
Concrete bed	1,320	SF	6.00	7,920
Stone paving	1,320	SF	75.00	99,000
Concrete stair				
Premium for steps	16	LF	120.00	1,920
<b>Subtotal</b>				<b>\$135,767</b>
<b><u>G2040 SITE DEVELOPMENT</u></b>				
Seat wall				
Footing				
Excavate for footing	23	CY	12.00	276
Backfill with selected excavated material	21	CY	12.00	252
Remove off site	21	CY	22.00	462
Formwork to footing	44	SF	12.50	550
Reinforcement in footing	140	LB	1.30	182
Concrete in footing	2	CY	192.30	385
Wall				
Formwork to wall	220	SF	14.00	3,080
Reinforcement in wall	550	LB	1.30	715
Concrete in wall	5	CY	198.50	993
Finishing				
Facing to retaining walls, slate	88	SF	100.00	8,800
Cap to wall, slate	22	LF	150.00	3,300
Site furnishings				
Storage shed	1	LS	6,000.00	6,000
Water feature	1	LS	25,000.00	25,000
Bench	5	EA	2,800.00	14,000
Tree grates	1	EA	1,200.00	1,200
Bollards	4	EA	750.00	3,000
Site sign	1	EA	12,000.00	12,000
<b>Subtotal</b>				<b>\$80,195</b>
<b><u>G2050 LANDSCAPING</u></b>				
Topsoil/planting medium				
Spread existing topsoil, 6" thick	668	CY	10.00	6,680
Trees				
Type ?	10	EA	1,800.00	18,000

	Quantity	Unit	Rate	Total
Shrubs				
Type ?	50	EA	85.00	4,250
Ground cover				
Type ?	1	LS	5,000.00	5,000
Grass/lawn				
Seeding to lawn areas	31,652	SF	0.55	17,409
<b>Subtotal</b>				<b>\$51,339</b>

**G3010 MECHANICAL UTILITIES**

Water supply				
DI piping	250	LF	70.00	17,500
Copper piping 1 1/2"	100	LF	30.00	3,000
Water hydrant	1	EA	3,000.00	3,000
Connect to existing	2	EA	3,500.00	7,000
Excavation/trenching	207	CY	12.00	2,484
Remove from site	207	CY	22.00	4,554
Bedding	52	CY	40.00	2,080
Backfill	155	CY	40.00	6,200
Sanitary sewer				
Sewer piping 6"	300	LF	30.00	9,000
Manhole	4	EA	6,000.00	24,000
Connect to existing	1	EA	3,000.00	3,000
Excavation/trenching	133	CY	12.00	1,596
Remove from site	133	CY	22.00	2,926
Bedding	33	CY	40.00	1,320
Backfill	100	CY	40.00	4,000
Storm drainage				
Allowance - on site retention	1	LS	150,000.00	150,000
Gas distribution				
Gas connection piping			By Utilities Company	
Connect to existing			By Utilities Company	
Excavation/trenching	259	CY	12.00	3,108
Remove from site	259	CY	22.00	5,698
Bedding	28	CY	40.00	1,120
Backfill	231	CY	40.00	9,240
<b>Subtotal</b>				<b>\$260,826</b>

**G4010 ELECTRICAL UTILITIES AND SITE LIGHTING**

Electrical service				
Primary electrical service duct bank	200	LF	150.00	30,000
Secondary electrical service duct bank	50	LF	300.00	15,000
Manhole	1	EA	4,500.00	4,500
Transformer pad	1	EA	1,800.00	1,800

	Quantity	Unit	Rate	Total
<i>Site lighting</i>				
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	750.00	10,500
Circuitry	700	LF	12.00	8,400
<i>Site communication</i>				
Communication service duct bank	250	LF	125.00	31,250
Manhole	1	EA	4,500.00	4,500
<b>Subtotal</b>				<b>\$150,950</b>

**MARKUPS**

<i>General conditions and project requirements</i>				
General conditions and requirements	1.0	MTH	140,000	140,000
Bond and Insurance	2.0%		1,162,113	23,242
Building permit	0.0%		1,185,355	
<i>Overhead and Profit</i>				
Contractors overhead and profit (Fee)	3.5%		1,185,355	41,487
<b>Subtotal</b>				<b>\$204,729</b>

**CONTINGENCIES/ESCALATION**

<i>Contingencies</i>				
Design contingency	10.0%		1,226,842	122,684
GMP contingency	0.0%		1,349,526	
<i>Escalation</i>				
Escalation to Start Date (March 2021)	3.8%		1,349,526	51,282
<b>Subtotal</b>				<b>\$173,966</b>



	Quantity	Unit	Rate	Total
<b><u>ALTERNATE 1: HEAVY ENGINEERED WOOD STRUCTURE IN LIEU OF STEEL</u></b>				
<b>Trade Costs</b>				
Omissions				
Steel structural steel beams and columns	(1)	LS	1,032,144.00	(1,032,144)
Metal decking	(1)	LS	139,020.00	(139,020)
Concrete topping	(1)	LS	161,988.00	(161,988)
Fireproofing steel	(1)	LS	93,013.00	(93,013)
Eliminate column enclosures	(1)	LS	70,200.00	(70,200)
Reduction in finished ceiling quantity (30% reduction)	(10,326)	SF	8.75	(90,353)
Additions				
Glulam columns and beams	34,421	SF	21.75	748,657
Cross laminated timber decking, with acoustic undelayment and concrete topping	23,053	SF	35.88	827,142
Cross laminated timber decking at roof	11,702	SF	26.88	314,550
<b>Subtotal</b>				<b>\$303,631</b>
<b>Markups</b>				
General conditions and project requirements				
General conditions and requirements		No change		
Bond and Insurance	2.00%		303,631	6,073
Building permit	0.00%		309,704	
Overhead and Profit				
Contractors overhead and profit (Fee)	3.50%		309,704	10,840
<b>Subtotal</b>				<b>\$16,913</b>
<b>Contingencies/Escalation</b>				
Contingencies				
Design contingency	10.00%		320,544	32,054
GMP contingency	0.00%		352,598	
Escalation				
Escalation to Start Date (March 2021)	3.78%		352,598	13,328
<b>Subtotal</b>				<b>\$45,382</b>
<b>TOTAL - ALTERNATE 1</b>				<b>\$365,926</b>