
CONCEPT DESIGN COST ESTIMATE – AUGUST 2022 REPRICING

31 AUGUST 2022

WHEELER MEMORIAL LIBRARY RENOVATION & ADDITION

ORANGE, MA



WHEELER MEMORIAL LIBRARY

CONCEPTUAL DESIGN COST ESTIMATES



PROJECT DETAILS

Basis of Estimate

This estimate has been prepared at the request of the Johnson Roberts Associates and is to provide a Concept Design Cost Study for the renovation and addition to the existing Wheeler Memorial Library, located at 49 E Main in Belmont, MA.

The estimate is based upon measured quantities and built-up rates prepared from the Concept Design drawings and Sketch-Up Model issued to RLB on the 20th of December 2016, prepared by Johnson Roberts Associates.

Where information was insufficient, assumptions and allowances were made based wherever possible on discussions with the architect and engineers.

It is assumed that the project will be competitively bid by four to six general contractors and that the awarded contractor and all subcontractors will be required to pay prevailing wage rates. It is also expected that the project will be competitively bid by four to six subcontractors where filed sub-bids are required.

Unit pricing is based on August 2022 costs. A Design / Estimating Contingency of 15.0% has been included and a construction escalation allowance of 8.0% has been included in the estimate up to Q3 2023.

Items Specifically Included

- . This estimate is based on a "Renovation" Gross Floor Area of approx. 8,233 sq.ft.
- . This estimate is based on an "Addition" Gross Floor Area of approx. 12,050 sq.ft

Items Specifically Excluded

- . Modifications and/or repairs to existing masonry façade (unless noted otherwise).
- . Modifications and/or repairs to existing window sills, headers, and reveals (unless noted otherwise).
- . Structural repairs and modifications, unless noted otherwise.
- . Wiring and equipment to communications systems (estimate includes infrastructure only).
- . Wiring and equipment to security systems (estimate includes infrastructure only).
- . Book security / detection system (assume by Owner).
- . Library storage, racking, and/or shelving (assume by Owner).
- . Interior feature signage.
- . Removal, storage, and re-installation of existing FF&E.
- . Re-routing and/or modifications to existing water and sewer utilities.
- . Re-routing and/or modifications to existing electrical and communications utilities.
- . Deep foundation systems.
- . Excavation in rock and/or contaminated soils.
- . Excavation within and/or below groundwater table.
- . Hazardous materials abatement, unless noted otherwise.
- . Costs associated with phasing the construction work, including out of hours work.
- . Furniture, Fittings and Equipment (FF&E).
- . Murals and works of art.
- . Mock-ups.

WHEELER MEMORIAL LIBRARY

CONCEPTUAL DESIGN COST ESTIMATES

PROJECT DETAILS

- . Work outside the site boundaries unless noted otherwise.
- . Owner's / Construction contingency.
- . Land and legal costs.
- . Architectural, Engineering and other professional fees.
- . Geotechnical, traffic and all other studies.
- . Items marked as "Excl." in the estimate.
- . Escalation beyond Q3 2023.

Documents

Please refer to Basis of Estimate.

WHEELER MEMORIAL LIBRARY

CONCEPTUAL DESIGN COST ESTIMATES



GFA: Gross Floor Area
Rates Current At August 2022

LOCATION SUMMARY

Ref	Location	GFA SF	GFA \$/SF	Total Cost \$
A	New Addition	12,049.9	478.14	5,761,569
B	Renovation	8,233.9	291.27	2,398,281
ESTIMATED NET COST		20,284	402.28	8,159,850
MARGINS & ADJUSTMENTS				
	General Conditions / Requirements	11.0 %		900,000
	Bonds and Insurance	3.0 %		271,796
	Overhead and Profit	5.0 %		466,582
	Design / Estimating Contingency	15.0 %		1,469,734
Estimated Total Cost before Escalation		20,284	555.52	11,267,962
	Escalation Allowance up to Q3 2023	8.0 %		901,437
ESTIMATED TOTAL COST		20,284	599.96	12,169,399

WHEELER MEMORIAL LIBRARY

CONCEPTUAL DESIGN COST ESTIMATES



Gross Floor Area: 20,284 SF
Rates Current At August 2022

DIVISIONS/ELEMENTS SUMMARY

Ref	Description	GFA \$/SF	Total Cost \$
02	Existing Conditions		
F2010	Building Elements Demolition	4.87	98,808
G1020	Site Demolition and Relocations	0.74	15,000
	02 - Existing Conditions	5.61	113,808
03	Concrete		
A1010	Standard Foundations	6.95	140,925
A1020	Special Foundations	11.09	225,000
A1030	Slab on Grade	4.52	91,680
B1010	Floor Construction	1.73	35,138
B2010	Exterior Walls	1.86	37,700
	03 - Concrete	26.15	530,443
04	Masonry		
B2010	Exterior Walls	26.81	543,875
	04 - Masonry	26.81	543,875
05	Metals		
B1010	Floor Construction	10.51	213,168
B1020	Roof Construction	14.29	289,863
B2010	Exterior Walls	5.92	120,180
C1030	Fittings	5.00	101,420
C2010	Stair Construction	3.70	75,000
	05 - Metals	39.42	799,631
06	Wood, Plastics, and Composites		
B3010	Roof Coverings	0.68	13,824
C1030	Fittings	3.00	60,852
E2010	Fixed Furnishings	9.63	195,375
	06 - Wood, Plastics, and Composites	13.31	270,051
07	Thermal and Moisture Protection		
A1010	Standard Foundations	0.13	2,730
A1030	Slab on Grade	1.85	37,493
B1010	Floor Construction	1.04	21,083
B1020	Roof Construction	1.16	23,502
B2010	Exterior Walls	4.89	99,149
B3010	Roof Coverings	10.42	211,444
C1010	Partitions	2.25	45,639
	07 - Thermal and Moisture Protection	21.74	441,040

WHEELER MEMORIAL LIBRARY

CONCEPTUAL DESIGN COST ESTIMATES



Gross Floor Area: 20,284 SF
Rates Current At August 2022

DIVISIONS/ELEMENTS SUMMARY

Ref	Description	GFA \$/SF	Total Cost \$
08	Openings		
B2010	Exterior Walls	5.98	121,275
B2030	Exterior Doors	1.65	33,500
C1010	Partitions	7.05	143,000
C1020	Interior Doors	4.46	90,500
	08 - Openings	19.14	388,275
09	Finishings		
B2010	Exterior Walls	1.48	30,045
C1010	Partitions	11.86	240,653
C2020	Stair Finishes	0.70	14,280
C3010	Wall Finishes	3.77	76,428
C3020	Floor Finishes	14.13	286,610
C3030	Ceiling Finishes	19.92	403,986
	09 - Finishings	51.86	1,052,002
10	Specialties		
C1030	Fittings	2.55	51,753
D4030	Fire Protection Specialties	0.49	10,000
	10 - Specialties	3.04	61,753
11	Equipment		
E1020	Institutional Equipment	0.74	15,000
	11 - Equipment	0.74	15,000
12	Furnishings		
C3020	Floor Finishes	0.39	7,930
E2010	Fixed Furnishings	0.34	6,930
	12 - Furnishings	0.73	14,860
14	Conveying Equipment		
D1010	Elevators & Lifts	8.63	175,000
	14 - Conveying Equipment	8.63	175,000
21	Fire Suppression		
D4010	Sprinklers	14.00	283,976
	21 - Fire Suppression	14.00	283,976
22	Plumbing		
D2010	Plumbing Fixtures	1.36	27,600
D2020	Domestic Water Distribution	7.00	141,988
D2030	Sanitary Waste	5.75	116,633

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Ref	Description	GFA \$/SF	Total Cost \$
D2040	Rain Water Drainage	2.50	50,710
D2090	Other Plumbing Systems	3.32	67,426
	22 - Plumbing	19.93	404,357
23	Heating, Ventilating, and Air Conditioning		
D3020	Heat Generating Systems	8.00	162,272
D3030	Cooling Generating Systems	4.35	88,157
D3040	Distribution Systems	40.00	811,360
D3060	Controls & Instrumentations	8.50	172,414
D3070	Systems Testing & Balancing	1.00	20,284
D3090	Other HVAC Systems & Equipment	6.29	127,589
	23 - Heating, Ventilating, and Air Conditioning	68.14	1,382,076
26	Electrical		
D5010	Electrical Service & Distribution	9.16	185,770
D5020	Lighting and Branch Wiring	25.00	507,100
D5090	Other Electrical Systems	4.49	91,000
	26 - Electrical	38.65	783,870
27	Communications		
D5030	Communications & Security	7.75	157,201
	27 - Communications	7.75	157,201
28	Electronic Safety and Security		
D5030	Communications & Security	8.00	162,272
	28 - Electronic Safety and Security	8.00	162,272
31	Earthwork		
A1010	Standard Foundations	1.92	39,007
A1030	Slab on Grade	2.40	48,717
G1010	Site Clearing	1.73	35,000
G1030	Site Earthwork	1.80	36,500
G2020	Parking Lots	2.26	45,936
G2030	Pedestrian Paving	0.82	16,534
	31 - Earthwork	10.93	221,694
32	Exterior Improvements		
G2020	Parking Lots	5.09	103,219
G2030	Pedestrian Paving	0.97	19,640
G2040	Site Development	4.16	84,315

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Ref	Description	GFA \$/SF	Total Cost \$
G2050	Landscaping	2.83	57,492
	32 - Exterior Improvements	13.05	264,666
33	Utilities		
G3010	Water Supply	0.99	20,000
G3020	Sanitary Water	0.74	15,000
G3030	Storm Sewer	1.23	25,000
G4020	Site Lighting	1.68	34,000
	33 - Utilities	4.63	94,000
ESTIMATED NET COST		402.28	8,159,850
MARGINS & ADJUSTMENTS			
General Conditions / Requirements			900,000
Bonds and Insurance			271,796
Overhead and Profit			466,582
Design / Estimating Contingency			1,469,734
Estimated Total Cost before Escalation		555.52	11,267,962
Escalation Allowance up to Q3 2023			901,437
ESTIMATED TOTAL COST		599.96	12,169,399

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DIVISIONS/ELEMENTS ITEM

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
02	EXISTING CONDITIONS				
F2010	Building Elements Demolition				
227	Interior gut demolition of existing building	SF	8,234	12.00	98,808
	F2010 - Building Elements Demolition			4.87/SF	98,808
G1020	Site Demolition and Relocations				
4	Allowance for site demolitions and relocations	Item			15,000
	G1020 - Site Demolition and Relocations			0.74/SF	15,000
	02 - EXISTING CONDITIONS			5.61/SF	113,808
03	CONCRETE				
A1010	Standard Foundations				
5	Perimeter isolated spread footing, allow 6' x 6' x 12" to new build	EA	35	1,200.00	42,000
6	Interior isolated spread footing, allow 5' x 5' x 12" deep to new build	EA	27	900.00	24,300
7	Perimeter strip footing to foundation walls, allow 3 x 12" thick to new build	LF	130	105.00	13,650
8	Perimeter foundation walls, allow 12" thick to new build	SF	520	45.00	23,400
9	Concrete piers, allow 2' x 2' to new build	LF	130	225.00	29,250
204	Elevator pad footing, allow 12' thick	SF	110	20.00	2,200
52	Elevator pit walls to new build	SF	175	35.00	6,125
	A1010 - Standard Foundations			6.95/SF	140,925
A1020	Special Foundations				
47	Allowance for underpinning to connect the existing with the new build assumed length of 90ft	Item			225,000
	A1020 - Special Foundations			11.09/SF	225,000
A1030	Slab on Grade				
10	Concrete slab on grade, allow 5" thick to new build	SF	7,008	10.00	70,080
198	Minor repair work to existing slab	SF	4,320	5.00	21,600
	A1030 - Slab on Grade			4.52/SF	91,680
B1010	Floor Construction				
200	Concrete topping to slab on metal deck allow 5 1/2" overall depth to new build	SF	4,685	7.50	35,138
	B1010 - Floor Construction			1.73/SF	35,138

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Ref	Description	Unit	Qty	Rate \$	Total Cost \$
B2010	Exterior Walls				
33	Precast concrete band on exterior walls of new build assumed at 12"	SF	377	100.00	37,700
	B2010 - Exterior Walls			1.86/SF	37,700
	03 - CONCRETE			26.15/SF	530,443
04	MASONRY				
B2010	Exterior Walls				
32	Brick facing to exterior walls of new building	SF	5,632	50.00	281,600
34	Power clean and wash exterior walls of existing building to include stand alone and attached columns	SF	4,877	3.50	17,070
36	Clean and/or powerfloat existing exterior concrete/stone panels	SF	387	3.50	1,355
35	Masonry repointing on exterior walls of existing building	SF	4,877	50.00	243,850
	B2010 - Exterior Walls			26.81/SF	543,875
	04 - MASONRY			26.81/SF	543,875
05	METALS				
B1010	Floor Construction				
201	Metal floor deck, allow 3" deep to new build	SF	4,685	6.50	30,453
213	Allowance for structural steel framing including columns, beams, etc.	T	28.11	6,500.00	182,715
	B1010 - Floor Construction			10.51/SF	213,168
B1020	Roof Construction				
12	Allowance for structural steel framing including columns, beams, trusses and braces to roof of new build	T	39.17	6,500.00	254,605
13	Metal roof deck to flat roof, allow 1 1/2" thick to new build	SF	3,915	4.50	17,618
199	Metal roof deck to pitched allow 1 1/2" thick to new build	SF	3,920	4.50	17,640
	B1020 - Roof Construction			14.29/SF	289,863
B2010	Exterior Walls				
14	Metal framing to exterior walls to new build	SF	6,009	20.00	120,180
	B2010 - Exterior Walls			5.92/SF	120,180
C1030	Fittings				
217	Allowance for miscellaneous metals	SF	20,284	5.00	101,420
	C1030 - Fittings			5.00/SF	101,420

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DIVISIONS/ELEMENTS ITEM

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
C2010	Stair Construction				
216	Metal stairs with concrete filled pans and landing, approximately 4'-6" wide	FT/R	30	2,500.00	75,000
	C2010 - Stair Construction			3.70/SF	75,000
	05 - METALS			39.42/SF	799,631
06	WOOD, PLASTICS, AND COMPOSITES				
B3010	Roof Coverings				
17	Allowance for rough carpentry	SF	6,912	2.00	13,824
	B3010 - Roof Coverings			0.68/SF	13,824
C1030	Fittings				
16	Allowance for rough carpentry	SF	20,284	1.25	25,355
166	Allowance for wood blocking	SF	20,284	1.75	35,497
	C1030 - Fittings			3.00/SF	60,852
E2010	Fixed Furnishings				
18	Casework: Main reception desk	LF	17	1,000.00	17,000
19	Casework: Welcome Center counter	LF	11	250.00	2,750
20	Casework: Adult space reference desk	LF	138	750.00	103,500
21	Casework: Children's Area Reception Desk	LF	10	750.00	7,500
22	Casework: Children's story room craft base cabinet with plastic laminate countertop	LF	73	550.00	40,150
23	Casework: Kitchen base units with plastic laminate countertop	LF	22	550.00	12,100
24	Casework: Kitchen wall units	SF	22	350.00	7,700
25	Casework: Solid surface lavatory including supports and brackets	LF	17	275.00	4,675
26	Casework: Plastic Laminate workstation including supports and brackets - none indicated	Item			Excl.
	E2010 - Fixed Furnishings			9.63/SF	195,375
	06 - WOOD, PLASTICS, AND COMPOSITES			13.31/SF	270,051
07	THERMAL AND MOISTURE PROTECTION				
A1010	Standard Foundations				
27	Air and vapor barrier	SF	520	0.75	390
28	Rigid insulation	SF	520	4.50	2,340
	A1010 - Standard Foundations			0.13/SF	2,730
A1030	Slab on Grade				
29	Air and vapor barrier	SF	7,008	0.85	5,957

WHEELER MEMORIAL LIBRARY

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Ref	Description	Unit	Qty	Rate \$	Total Cost \$
30	Rigid insulation	SF	7,008	4.50	31,536
	A1030 - Slab on Grade			1.85/SF	37,493
B1010	Floor Construction				
58	Allowance for moisture mitigation system on new build - assumed not required	SF	12,749		Excl.
228	Allowance for spray applied fireproofing	SF	4,685	4.50	21,083
	B1010 - Floor Construction			1.04/SF	21,083
B1020	Roof Construction				
229	Allowance for spray applied fireproofing	SF	7,834	3.00	23,502
	B1020 - Roof Construction			1.16/SF	23,502
B2010	Exterior Walls				
39	Batt insulation to exterior walls of new build	SF	6,009	6.00	36,054
40	Air and vapor barrier to exterior walls of new build	SF	6,009	7.50	45,068
214	Gypsum board sheathing	SF	6,009	3.00	18,027
	B2010 - Exterior Walls			4.89/SF	99,149
B3010	Roof Coverings				
41	Membrane roofing, complete	SF	2,993	40.00	119,720
42	Asphalt shingle roofing for new build	SF	3,920	10.00	39,200
43	Gypsum board sheathing for new build	SF	3,920	3.00	11,760
44	Ice and water protection to new build	SF	1,960	1.50	2,940
46	Rigid insulation, allow 2" thick on new build	SF	3,920	4.50	17,640
49	Allowance for minor repair/work to existing roof (assumed 3,530 SF)	Item			10,000
50	Allowance for miscellaneous roof flashing on new build	SF	6,912	0.75	5,184
92	Allowance for roof walkway	Item			5,000
	B3010 - Roof Coverings			10.42/SF	211,444
C1010	Partitions				
51	Miscellaneous firestopping	SF	20,284	0.75	15,213
54	Miscellaneous caulking and sealing	SF	20,284	1.50	30,426
	C1010 - Partitions			2.25/SF	45,639
	07 - THERMAL AND MOISTURE PROTECTION			21.74/SF	441,040
08	OPENINGS				
B2010	Exterior Walls				
37	Curtain wall to new build	SF	693	175.00	121,275
	B2010 - Exterior Walls			5.98/SF	121,275

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DIVISIONS/ELEMENTS ITEM

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
B2030	Exterior Doors				
61	Double leaf glazed aluminums doors including frame, hardware and finish	Pair	2	12,000.00	24,000
62	Single leaf hollow metal doors including frame, hardware and finish	EA	2	2,250.00	4,500
63	Double leaf hollow metal doors including frame, hardware and finish	Pair	1	5,000.00	5,000
	B2030 - Exterior Doors			1.65/SF	33,500
C1010	Partitions				
64	Interior glazed aluminium storefront system	SF	1,430	100.00	143,000
	C1010 - Partitions			7.05/SF	143,000
C1020	Interior Doors				
65	Double leaf glazed aluminum doors including frame, hardware and finish		3	12,000.00	36,000
66	Single leaf half glazed wood doors including frame, hardware and finish	EA	11	2,500.00	27,500
67	Single leaf wood doors including frame hardware and finish	EA	9	2,000.00	18,000
215	Single hollow metal doors including frame hardware and finish	EA	2	4,500.00	9,000
	C1020 - Interior Doors			4.46/SF	90,500
	08 - OPENINGS			19.14/SF	388,275
09	FINISHINGS				
B2010	Exterior Walls				
202	Gypsum board to inner lining exterior walls	SF	6,009	5.00	30,045
	B2010 - Exterior Walls			1.48/SF	30,045
C1010	Partitions				
69	Gypsum board to interior walls of existing building	SF	1,780	12.00	21,360
70	Gypsum board to interior walls of new build	SF	13,364	12.00	160,368
71	Gypsum board to interior walls to existing to plumbing enclosures	SF	403	25.00	10,075
72	Gypsum board to interior walls of new build to plumbing enclosures	SF	1,590	25.00	39,750
53	Gypsum board elevator shaft walls	SF	364	25.00	9,100
	C1010 - Partitions			11.86/SF	240,653
C2020	Stair Finishes				
89	Rubber floor base on stairs on existing floors	SF	311	20.00	6,220
90	Rubber floor base on stairs on new build	SF	403	20.00	8,060
	C2020 - Stair Finishes			0.70/SF	14,280

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Ref	Description	Unit	Qty	Rate \$	Total Cost \$
C3010	Wall Finishes				
73	Ceramic tiles to existing restroom walls	SF	264	20.00	5,280
74	Ceramic tiles to new build restroom walls	SF	1,104	20.00	22,080
75	Prepare and apply paint to existing interior walls	SF	12,802	1.50	19,203
76	Prepare and apply paint to new build of interior walls	SF	9,910	1.50	14,865
77	Allowance for feature wall finish	Item			15,000
	C3010 - Wall Finishes			3.77/SF	76,428
C3020	Floor Finishes				
57	Allowance to prepare floors to receive new finish on existing building	SF	6,543	2.00	13,086
219	Terrazzo flooring to existing building	SF	1,364	55.00	75,020
220	Terrazzo flooring to new build	SF	1,423	55.00	78,265
78	Carpet flooring to existing building	SY	209	55.00	11,495
218	Carpet flooring to new build	SY	962	55.00	52,910
79	Porcelain floor tiling for restroom areas in existing building	SF	65	25.00	1,625
80	Porcelain floor tiling for restroom areas in new build	SF	244	25.00	6,100
81	Vinyl composition floor tiling for other areas in existing building	SF	1,841	8.00	14,728
82	Vinyl composition floor tiling for other areas in new build	SF	385	8.00	3,080
83	Concrete sealer on existing floors	SF	1,401	2.50	3,503
84	Concrete sealer on new build	SF	116	2.50	290
86	Stained wood base	LF	1,261	15.00	18,915
88	Porcelain floor base	LF	171	25.00	4,275
221	Rubber floor base	LF	553	6.00	3,318
	C3020 - Floor Finishes			14.13/SF	286,610
C3030	Ceiling Finishes				
94	Acoustic ceiling tile system	SF	7,649	10.00	76,490
96	Gypsum board ceiling system	SF	5,408	20.00	108,160
98	Prepare and apply paint to gypsum board ceiling	SF	5,408	1.50	8,112
99	Prepare and apply paint to exposed structure	SF	1,516	1.50	2,274
100	Allowance for decorative ceiling	SF	2,786	75.00	208,950
	C3030 - Ceiling Finishes			19.92/SF	403,986
	09 - FINISHINGS			51.86/SF	1,052,002
10	SPECIALTIES				
C1030	Fittings				
105	Toilet accessories; paper towel dispenser/waste receptacle	EA	4	850.00	3,400

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Ref	Description	Unit	Qty	Rate \$	Total Cost \$
106	Toilet accessories; grab bars	EA	8	120.00	960
107	Toilet accessories; sanitary napkin disposal units	EA	4	500.00	2,000
108	Toilet accessories; liquid soap dispenser	EA	4	75.00	300
109	Toilet accessories; baby changing station	EA	4	750.00	3,000
110	Toilet accessories; toilet paper holder	EA	4	50.00	200
111	Toilet accessories; coat hooks	EA	4	30.00	120
112	Toilet accessories; mirrors	SF	24	65.00	1,560
113	Allowance for interior signage	SF	20,284	0.75	15,213
114	Allowance for exterior building signage	Item			25,000
	C1030 - Fittings			2.55/SF	51,753
D4030	Fire Protection Specialties				
115	Allowance for fire extinguisher and cabinets	Item			10,000
	D4030 - Fire Protection Specialties			0.49/SF	10,000
	10 - SPECIALTIES			3.04/SF	61,753
11	EQUIPMENT				
E1020	Institutional Equipment				
116	Allowance for book and media through wall drop return including drop cart	EA	2	7,500.00	15,000
	E1020 - Institutional Equipment			0.74/SF	15,000
	11 - EQUIPMENT			0.74/SF	15,000
12	FURNISHINGS				
C3020	Floor Finishes				
117	Recessed entry mat	SF	122	65.00	7,930
	C3020 - Floor Finishes			0.39/SF	7,930
E2010	Fixed Furnishings				
119	Manually operated window shades	SF	693	10.00	6,930
	E2010 - Fixed Furnishings			0.34/SF	6,930
	12 - FURNISHINGS			0.73/SF	14,860
14	CONVEYING EQUIPMENT				
D1010	Elevators & Lifts				
222	Passenger elevator, 2-stops	EA	1	175,000.00	175,000
	D1010 - Elevators & Lifts			8.63/SF	175,000
	14 - CONVEYING EQUIPMENT			8.63/SF	175,000

WHEELER MEMORIAL LIBRARY

CONCEPTUAL DESIGN COST ESTIMATES



Gross Floor Area: 20,284 SF
Rates Current At August 2022

DIVISIONS/ELEMENTS ITEM

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
21	FIRE SUPPRESSION				
D4010	Sprinklers				
120	Allowance for sprinkler system	SF	8,234	14.00	115,276
121	Allowance for sprinkler system	SF	12,050	14.00	168,700
	D4010 - Sprinklers			14.00/SF	283,976
	21 - FIRE SUPPRESSION			14.00/SF	283,976
22	PLUMBING				
D2010	Plumbing Fixtures				
122	Water closet - handicap	EA	4	2,500.00	10,000
125	Lavatory sink	EA	4	1,500.00	6,000
126	Kitchen sink	EA	3	1,500.00	4,500
127	Craft sink	EA	1	2,500.00	2,500
128	Mop sink (Janitors)	EA	2	1,800.00	3,600
129	Hose bibb	EA	2	500.00	1,000
	D2010 - Plumbing Fixtures			1.36/SF	27,600
D2020	Domestic Water Distribution				
131	Allowance for domestic water distribution system	SF	20,284	7.00	141,988
	D2020 - Domestic Water Distribution			7.00/SF	141,988
D2030	Sanitary Waste				
133	Allowance for sanitary waste system	SF	20,284	5.75	116,633
	D2030 - Sanitary Waste			5.75/SF	116,633
D2040	Rain Water Drainage				
60	Allowance for rain water drainage	SF	20,284	2.50	50,710
	D2040 - Rain Water Drainage			2.50/SF	50,710
D2090	Other Plumbing Systems				
135	Gas: allowance for gas piping on hook-up only	SF	20,284	1.50	30,426
138	Subcontractor GC/GR	Item			37,000
	D2090 - Other Plumbing Systems			3.32/SF	67,426
	22 - PLUMBING			19.93/SF	404,357
23	HEATING, VENTILATING, AND AIR CONDITIONING				
D3020	Heat Generating Systems				
139	Allowance for modification to existing heat generation system	SF	8,234	8.00	65,872
140	Allowance for heat generation system in new build	SF	12,050	8.00	96,400
	D3020 - Heat Generating Systems			8.00/SF	162,272

WHEELER MEMORIAL LIBRARY

CONCEPTUAL DESIGN COST ESTIMATES



Gross Floor Area: 20,284 SF
Rates Current At August 2022

DIVISIONS/ELEMENTS ITEM

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
D3030	Cooling Generating Systems				
141	Allowance for modification to existing cooling generation system	SF	7,294	3.00	21,882
142	Allowance for cooling generation system for new build	SF	12,050	5.50	66,275
	D3030 - Cooling Generating Systems			4.35/SF	88,157
D3040	Distribution Systems				
144	Allowance for distribution system	SF	20,284	40.00	811,360
	D3040 - Distribution Systems			40.00/SF	811,360
D3060	Controls & Instrumentations				
146	Allowance for controls and instrumentation	SF	20,284	8.50	172,414
	D3060 - Controls & Instrumentations			8.50/SF	172,414
D3070	Systems Testing & Balancing				
148	Systems balancing and testing	SF	20,284	1.00	20,284
	D3070 - Systems Testing & Balancing			1.00/SF	20,284
D3090	Other HVAC Systems & Equipment				
149	Rigging and hoisting	Item			10,000
150	Temporary heating	SF	20,284	0.75	15,213
151	Subcontractor GC/GR	Item			102,376
	D3090 - Other HVAC Systems & Equipment			6.29/SF	127,589
	23 - HEATING, VENTILATING, AND AIR CONDITIONING			68.14/SF	1,382,076
26	ELECTRICAL				
D5010	Electrical Service & Distribution				
152	Allowance for modification to electrical service and distribution	SF	8,234	5.00	41,170
153	Allowance for electrical service and distribution on new build	SF	12,050	12.00	144,600
	D5010 - Electrical Service & Distribution			9.16/SF	185,770
D5020	Lighting and Branch Wiring				
155	Allowance for interior lighting and controls	SF	20,284	20.00	405,680
156	Allowance for branch power and receptacles	SF	20,284	5.00	101,420
	D5020 - Lighting and Branch Wiring			25.00/SF	507,100
D5090	Other Electrical Systems				
158	Subcontractor GC/GR	Item			91,000
	D5090 - Other Electrical Systems			4.49/SF	91,000
	26 - ELECTRICAL			38.65/SF	783,870

WHEELER MEMORIAL LIBRARY

CONCEPTUAL DESIGN COST ESTIMATES



Gross Floor Area: 20,284 SF
Rates Current At August 2022

DIVISIONS/ELEMENTS ITEM

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
27	COMMUNICATIONS				
D5030	Communications & Security				
160	Allowance for Tel/Data - infrastructure only	SF	20,284	2.75	55,781
162	Allowance for AV/Sound system infrastructure only	SF	20,284	5.00	101,420
	D5030 - Communications & Security			7.75/SF	157,201
	27 - COMMUNICATIONS			7.75/SF	157,201
28	ELECTRONIC SAFETY AND SECURITY				
D5030	Communications & Security				
164	Allowance for fire alarm system on new build	SF	20,284	4.50	91,278
165	Allowance for security system - infrastructure only	SF	20,284	3.50	70,994
	D5030 - Communications & Security			8.00/SF	162,272
	28 - ELECTRONIC SAFETY AND SECURITY			8.00/SF	162,272
31	EARTHWORK				
A1010	Standard Foundations				
206	Excavate for building foundation	CY	393	20.00	7,860
207	Remove excavated materials from site	CY	393	35.00	13,755
167	Prepare and compact sub-base	SF	2,628	1.50	3,942
208	Imported foundation backfill	CY	269	50.00	13,450
	A1010 - Standard Foundations			1.92/SF	39,007
A1030	Slab on Grade				
209	Excavate for slab on grade	CY	411	20.00	8,220
210	Remove excavated materials from site	CY	411	35.00	14,385
211	Prepare and compact sub-base	SF	7,008	1.50	10,512
212	Granular fill below slab on grade	CY	260	60.00	15,600
	A1030 - Slab on Grade			2.40/SF	48,717
G1010	Site Clearing				
2	Site clearance and grubbing	Item			10,000
3	Allowance for erosion and sedimentation control	Item			25,000
	G1010 - Site Clearing			1.73/SF	35,000
G1030	Site Earthwork				
169	Construction entry	Item			6,500
170	Allowance for site grading	Item			30,000
	G1030 - Site Earthwork			1.80/SF	36,500
G2020	Parking Lots				
171	Excavate for parking lot sub-base	CY	541	12.00	6,492

WHEELER MEMORIAL LIBRARY

CONCEPTUAL DESIGN COST ESTIMATES



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Rates Current At August 2022

DIVISIONS/ELEMENTS ITEM

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
172	Remove excavated spoil from site	CY	541	35.00	18,935
173	Prepare and compact sub-base	SF	9,729	1.50	14,594
174	Granular fill to parking pavement	CY	91	65.00	5,915
	G2020 - Parking Lots			2.26/SF	45,936
G2030	Pedestrian Paving				
175	Excavate for walkways	CY	175	12.00	2,100
176	Remove excavated spoil from site	CY	175	35.00	6,125
177	Prepare and compact sub-base	SF	4,716	1.50	7,074
178	Granular fill to pedestrian walkways	CY	19	65.00	1,235
	G2030 - Pedestrian Paving			0.82/SF	16,534
	31 - EARTHWORK			10.93/SF	221,694
32	EXTERIOR IMPROVEMENTS				
G2020	Parking Lots				
179	Bituminous asphalt top and finish course to parking pavement	SY	199	35.00	6,965
180	Pre-cast concrete curbs	LF	1,973	30.00	59,190
181	Pavement marking, parking lanes	LF	2,492	3.00	7,476
182	Pavement marking, striping	SF	7,147	4.00	28,588
183	Pavement marking, handicap symbol	EA	2	500.00	1,000
	G2020 - Parking Lots			5.09/SF	103,219
G2030	Pedestrian Paving				
184	Concrete walkway, allow 5" thick	SF	907	8.00	7,256
185	Concrete base to pedestrian pavers, allow 5" thick	SF	258	8.00	2,064
186	Unit walkway pavers	SF	258	40.00	10,320
	G2030 - Pedestrian Paving			0.97/SF	19,640
G2040	Site Development				
91	Allowance to clean and polish existing granite entrance staircase	SF	453	5.00	2,265
188	Allowance for fencing - assumed not required	LF	752		Excl.
189	Allowance for play area surfacing	SF	3,282	25.00	82,050
193	Allowance for work on existing fencewall - assumed not required	LF	126		Excl.
	G2040 - Site Development			4.16/SF	84,315
G2050	Landscaping				
190	Allowance for trees	Item			15,000
191	Allowance for ground covers, shrubs, evergreens, etc.	Item			15,000

WHEELER MEMORIAL LIBRARY

CONCEPTUAL DESIGN COST ESTIMATES



Gross Floor Area: 20,284 SF
Rates Current At August 2022

DIVISIONS/ELEMENTS ITEM

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
192	Allowance for loam and seed	SF	9,997	2.75	27,492
	G2050 - Landscaping			2.83/SF	57,492
	32 - EXTERIOR IMPROVEMENTS			13.05/SF	264,666
33	UTILITIES				
G3010	Water Supply				
223	Allowance for minor modification to existing water service	Item			20,000
	G3010 - Water Supply			0.99/SF	20,000
G3020	Sanitary Water				
224	Allowance for minor modification to existing sewer system	Item			15,000
	G3020 - Sanitary Water			0.74/SF	15,000
G3030	Storm Sewer				
225	Allowance for minor modification to existing storm drain	Item			25,000
	G3030 - Storm Sewer			1.23/SF	25,000
G4020	Site Lighting				
226	Allowance for site lighting	EA	4	8,500.00	34,000
	G4020 - Site Lighting			1.68/SF	34,000
	33 - UTILITIES			4.63/SF	94,000
ESTIMATED NET COST				402.28/SF	8,159,850