

# Santa Cruz Downtown Library

## Feasibility Study

Menlo Park, California

### Based on review & analysis of:

Program Design Package

### Report Prepared for:

Noll & Tam Architects

October 4, 2017

*more value, less risk*

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111 Pine St, Suite 1315 | San Francisco | CA | 94111

TEL: (415) 981-9430 | FAX: (415) 941-9434

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## BASIS OF ESTIMATE

### REFERENCE DOCUMENTATION

This Construction Cost Estimate was produced from the following documentation. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

<u>Document</u>	<u>Date</u>
Noll & Tam Library Presentation	9/13/2017
Drawings of existing building	
Downtown Feasibility Study excerpt	6/21/2017

### PROJECT DESCRIPTION

The scope of work comprises four development schemes for the library, each at 44,000 gross square feet. There are three new schemes for the existing site, as well a scheme to renovate the existing building, and one in which the library is built out as a tenant space within the new planned parking structure.

The scheme cost models develop \$/SF units for building systems and are based on benchmark costs of the same system in similar buildings adjusted to meet site conditions, expected quality, and local vocabulary. Below are a description of some basic assumptions informing the cost models.

Foundations presume spread footings on competent soils. Superstructure may be steel or concrete frame including wood frame or light gauge steel stud framing and shearwalls. The models adopt a likely exterior wall to floor plate ratio and assign a composite rate of \$157/SF of skin. Roofing assumes a TPO or similar membrane including rigid insulation, with skylights in the one story scheme and a occupied roof deck in the two story scheme.

Interior construction assumes stud framing with gypsumboard, wood doors, interior glazing, and standard toilet room accessories, markerboards, signage, etc. Floor finishes include tile in toilet rooms, carpet, with allowances for polished concrete and some stone or equivalent. Ceiling finishes may be a combination of exposed structure, suspended gypsumboard, wood, and acoustic tile. Wall finishes include paint, tile, and allowances for acoustic treatment.

Plumbing systems include fixtures, service piping, rainwater drainage, gas piping, water heater, sterilization and testing of plumbing systems. HVAC systems include heat generation and chilling with hydronic distribution and/or air duct distribution including outlets, dampers and insulation. DDC controls, testing, balancing, and commissioning the HVAC systems are included. Fire protection includes new automatic sprinkler system, complete. Electrical includes service and distribution systems, motor work, user convenience panels and outlets, lighting panels and fixtures, specialty items including grounding, teldata outlets, fire alarm and intrusion alarm systems.

Equipment includes break room appliances, amenities such as a fireplace, and OFCI library equipment. Furnishings include cabinetry, library shelving, and window coverings (some motorized).

Assumptions for the Library tenant improvement build-out scheme coupled to the garage include an 18' floor-to-floor height, with the superstructure, exterior cladding, and waterproofing provided by others. Portions of the mechanical and electrical infrastructure are also provided by others. The Library would provide a topping slab over the substructure provided by others.

### BASIS FOR PRICING

This estimate reflects the fair construction value for this project and should not be construed as a prediction of low bid. Prices are based on local prevailing wage construction costs at the time the estimate was prepared. Pricing assumes a procurement process with competitive bidding for all sub-trades of the construction work, which is to mean a minimum of 3 bids for all subcontractors and materials/equipment suppliers. If fewer bids are solicited or received, prices can be expected to be higher. Conversely in the current competitive market should a larger number of sub-bids be received (i.e. 6 and above) pricing can expected to be lower than the current estimate.

Subcontractor's markups have been included in each line item unit price. Markups cover the cost of field overhead, home office overhead and subcontractor's profit. Subcontractor's markups typically range from 15% to 25% of the unit price depending on market conditions.

General Contractor's/Construction Manager's Site Requirement costs are calculated on a percentage basis. General Contractor's/Construction Manager's Jobsite Management costs are also calculated on a percentage basis.

<b>Site Requirements</b>	2.5 - 3.5%
<b>Jobsite Management</b>	9% - 12%
<b>Phasing</b>	0.0%

General Contractor's/Construction Manager's overhead and fees are based on a percentage of the total direct costs plus general conditions, and covers the contractor's bond, insurance, site office overheads and profit.

<b>Insurance &amp; Bonding</b>	2.5%
General Contractor Bonding	
Sub-Contractor Bonding	
OSIP	

**BASIS OF ESTIMATE**

Fee (G.C. Profit) 4.0%

**Additional conditions of construction**

- The general contract will be by CM/GC method or competitively bid with qualified general and main subcontractors
- The entire scope of work for each scheme will be bid as one project
- There will not be small business set-aside and equal opportunity employment requirements
- The contractor will be required to pay prevailing wages

Unless identified otherwise, the cost of such items as overtime, shift premiums and construction phasing are not included in the line item unit price.

This cost estimate is based on standard industry practice, professional experience and knowledge of the local construction market costs. TBD Consultants have no control over the material and labor costs, contractors methods of establishing prices or the market and bidding conditions at the time of bid. Therefore TBD Consultants do not guarantee that the bids received will not vary from this cost estimate.

**CONTINGENCY**

Design Contingency 15.0%

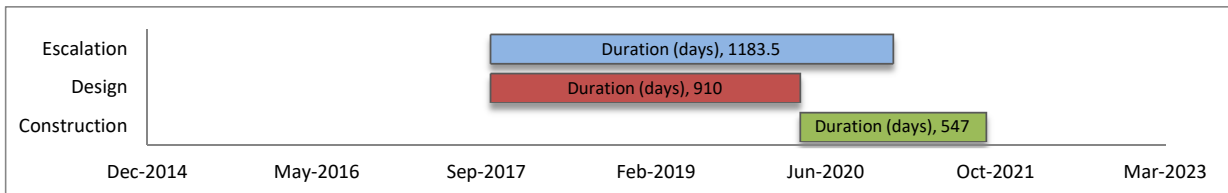
The Design Contingency is carried to cover scope that lacks definition and scope that is *anticipated* to be added to the Design. As the Design becomes more complete the Design Contingency will reduce.

Construction Contingency 0.0% *Carried else where in owners budget*

The Construction Contingency has not been carried to cover the unforeseen during construction execution and Risks that do not currently have mitigation plans. (As Risks are mitigated, Construction Contingency can be reduce, but should not be eliminated.)

An owners contingency has not been included in this construction cost estimate, but it is advised that the owner carry additional contingency to cover scope change, bidding conditions, claims and delays.

**CONSTRUCTION SCHEDULE**



Construction Start Date	Apr-2020	Construction End Date	Sep-2021
Mid-date of Construction		Construction Duration	18 months
Escalation Period	48 months	Escalation End Date	Construction Mid-Point

**ESCALATION**

All of the schemes except the renovation assume a start date of April 2020. The renovation presumes a start date of April 2019

<b>Escalation:</b>	20.51%	Compounded Rate
Year 1	6.50%	
Year 2	6.00%	
Year 3	5.50%	
Year 4	5.00%	
Year 5	4.00%	
Beyond 5 Years	3.50%	

This calculation does not account for adverse bidding conditions and a separate Bid Contingency should be carried if there are limited qualified bidders or if a market research study indicates.

## BASIS OF ESTIMATE

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### EXCLUSIONS

- Preconstruction services
- Surge & moving costs
- AESS
- Fireproofing steel
- Emergency power
- AV and security equipment
- Telecommunications equipment
- Photovoltaic and other alternative power generation systems
- Artwork / Public art
- FSC-certified manufactured lumber (Glulams, TJI's, etc. - see alternate)
- Jockey pump and fire pump
- Utility connection fees and charges
- Pre-action fire sprinklers
- Raised access flooring
- Level 5 finish
- Furniture, fixtures and equipment (FF&E) except stacks & appliances
- Land acquisition, feasibility studies, financing costs and all other owner costs
- Site surveys, existing condition reports and soils investigation costs
- Hazardous materials investigations; abatement costs provided as allowance
- Permits
- Owner's contingency
- Design Fees
- Costs for LEED certification

OVERALL SUMMARY

LIBRARY SCHEMES	SF AREA	\$/SF	CONSTRUCTION COST \$
Renovation of Existing	44,000	\$504.00	22,176,000
Sitework	59,200	\$28.40	1,681,000
Escalation to Start Date April 2019	13.8%		3,301,809
<b>Total, Renovation Scheme</b>	<b>44,000</b>	<b>\$617.25</b>	<b>27,158,809</b>
One Story Scheme	44,000	\$609.00	26,796,000
Sitework (includes demo existing building)	59,200	\$31.70	1,877,000
Escalation to Start Date April 2020	20.5%		5,880,832
<b>Total, One Story Scheme</b>	<b>44,000</b>	<b>\$785.31</b>	<b>34,553,832</b>
Two Story Scheme with Roof Deck	44,000	\$632.00	27,796,620
Sitework (includes demo existing building)	59,200	\$37.90	2,244,000
Escalation to Start Date April 2020	20.5%		6,161,331
<b>Total, Two Story w/ Deck Scheme</b>	<b>44,000</b>	<b>\$822.77</b>	<b>36,201,951</b>
Library Tenant Improvement Share of Garage	44,000	\$380.00	16,720,000
Sitework			NIC
Escalation to Start Date April 2020	20.5%		3,429,272
<b>Total, Garage Tenant Improvement Scheme</b>	<b>44,000</b>	<b>\$457.94</b>	<b>20,149,272</b>

**KEY CRITERIA**

**AREA TABULATION**

Floor	REMODEL	NEW	PERIMETER	HEIGHT	COMMENTS
<b>Renovation of Existing</b>					
First Floor	28,000		810	15' - 3"	
Second Floor	16,000		510	17' - 0"	
<b>Subtotal</b>		<b>44,000 SF</b>			

<b>Renovation of Existing - GSF Not Incl. 50% Covered Area</b>	<b>44,000 SF</b>
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Gross Wall Area	21,650	SF		0.492
Retaining Wall Area	0	SF		0.000
Finished Wall Area	21,650	SF		0.492
Glazing Area	5,413	SF	25.00%	0.123
Roof Area	33,500	SF		0.761
Interior Partition Length	2,200	LF		0.050

**RENOVATION OF EXISTING - UNIFORMAT II SUMMARY**

GSF : 44,000

SECTION	%	TOTAL	\$ / SF	COMMENTS
10 FOUNDATIONS	2.2%	352,000	\$8.00	
20 BASEMENT CONSTRUCTION				
<b>A SUBSTRUCTURE</b>	<b>2.2%</b>	<b>352,000</b>	<b>\$8.00</b>	
10 SUPERSTRUCTURE	8.2%	1,320,000	\$30.00	
20 EXTERIOR ENCLOSURE	13.7%	2,200,000	\$50.00	
30 ROOFING	4.1%	660,000	\$15.00	
<b>B SHELL</b>	<b>26.0%</b>	<b>4,180,000</b>	<b>\$95.00</b>	
10 INTERIOR CONSTRUCTION	10.9%	1,760,000	\$40.00	
20 STAIRS				
30 INTERIOR FINISHES	15.0%	2,420,000	\$55.00	
<b>C INTERIORS</b>	<b>26.0%</b>	<b>4,180,000</b>	<b>\$95.00</b>	
10 CONVEYING				
20 PLUMBING	2.5%	396,000	\$9.00	
30 HVAC	16.4%	2,640,000	\$60.00	
40 FIRE PROTECTION	1.9%	308,000	\$7.00	
50 ELECTRICAL	16.9%	2,728,000	\$62.00	
<b>D SERVICES</b>	<b>37.7%</b>	<b>6,072,000</b>	<b>\$138.00</b>	
10 EQUIPMENT	0.5%	88,000	\$2.00	
20 FURNISHINGS	5.5%	880,000	\$20.00	
<b>E EQUIPMENT + FURNISHINGS</b>	<b>6.0%</b>	<b>968,000</b>	<b>\$22.00</b>	
10 SPECIAL CONSTRUCTION				
20 SELECTIVE BUILDING DEMOLITION	2.2%	352,000	\$8.00	
<b>F SPECIAL CONSTRUCTION + DEMOLITION</b>	<b>2.2%</b>	<b>352,000</b>	<b>\$8.00</b>	
<b>G BUILDING SITEWORK</b>				Separate section
<b>DIRECT COSTS</b>		<b>16,104,000</b>	<b>\$366.00</b>	
SITE REQUIREMENTS	3.0%	483,120	\$10.98	
JOBSITE MANAGEMENT	9.5%	1,529,880	\$34.77	
PHASING				
<b>ESTIMATE SUB-TOTAL</b>		<b>18,117,000</b>	<b>\$411.75</b>	
INSURANCE + BONDING	2.5%	452,925	\$10.29	
FEE	4.0%	724,680	\$16.47	
<b>ESTIMATE SUB-TOTAL</b>		<b>19,294,605</b>	<b>\$438.51</b>	
DESIGN CONTINGENCY	15.0%	2,894,191	\$65.78	
CONSTRUCTION CONTINGENCY				Excluded
<b>ESTIMATE SUB-TOTAL</b>		<b>22,188,796</b>	<b>\$504.29</b>	
ESCALATION				Start Date April 2019
<b>ESTIMATE TOTAL</b>		<b>22,188,796</b>	<b>\$504.29</b>	Total add-ons 37.78%



**KEY CRITERIA**

**AREA TABULATION**

Floor	ENCLOSED	COVERED	PERIMETER	HEIGHT	COMMENTS
<b>One Story Scheme</b>					
First Floor	44,000		1,050	16.00	Assume average height
<b>Subtotal</b>	<b>44,000 SF</b>	<b>0 SF</b>			
<b>One Story Scheme - GSF Not Incl.</b>					
<b>50% Covered Area</b>		<b>44,000 SF</b>			

Gross Wall Area	21,840	SF		0.496
Retaining Wall Area	0	SF		0.000
Finished Wall Area	21,840	SF		0.496
Glazing Area	5,460	SF	25.00%	0.124
Roof Area	46,200	SF		1.050
Interior Partition Length	2,200	LF		0.050

**ONE STORY SCHEME - UNIFORMAT II SUMMARY**

GSF : 44,000

SECTION	%	TOTAL	\$ / SF	COMMENTS
10 FOUNDATIONS	5.9%	1,144,000	\$26.00	
20 BASEMENT CONSTRUCTION				
<b>A SUBSTRUCTURE</b>	<b>5.9%</b>	<b>1,144,000</b>	<b>\$26.00</b>	
10 SUPERSTRUCTURE	13.1%	2,552,000	\$58.00	
20 EXTERIOR ENCLOSURE	17.6%	3,432,000	\$78.00	
30 ROOFING	5.7%	1,100,000	\$25.00	
<b>B SHELL</b>	<b>36.4%</b>	<b>7,084,000</b>	<b>\$161.00</b>	
10 INTERIOR CONSTRUCTION	9.0%	1,760,000	\$40.00	
20 STAIRS				
30 INTERIOR FINISHES	12.4%	2,420,000	\$55.00	
<b>C INTERIORS</b>	<b>21.5%</b>	<b>4,180,000</b>	<b>\$95.00</b>	
10 CONVEYING				
20 PLUMBING	2.0%	396,000	\$9.00	
30 HVAC	13.6%	2,640,000	\$60.00	
40 FIRE PROTECTION	1.6%	308,000	\$7.00	
50 ELECTRICAL	14.0%	2,728,000	\$62.00	
<b>D SERVICES</b>	<b>31.2%</b>	<b>6,072,000</b>	<b>\$138.00</b>	
10 EQUIPMENT	0.5%	88,000	\$2.00	
20 FURNISHINGS	4.5%	880,000	\$20.00	
<b>E EQUIPMENT + FURNISHINGS</b>	<b>5.0%</b>	<b>968,000</b>	<b>\$22.00</b>	
10 SPECIAL CONSTRUCTION				
20 SELECTIVE BUILDING DEMOLITION				
<b>F SPECIAL CONSTRUCTION + DEMOLITION</b>				
<b>G BUILDING SITEWORK</b>				Separate section
<b>DIRECT COSTS</b>		<b>19,448,000</b>	<b>\$442.00</b>	
SITE REQUIREMENTS	3.0%	583,440	\$13.26	
JOBSITE MANAGEMENT	9.5%	1,847,560	\$41.99	
SHIFT PREMIUM				
<b>ESTIMATE SUB-TOTAL</b>		<b>21,879,000</b>	<b>\$497.25</b>	
INSURANCE + BONDING	2.5%	546,975	\$12.43	
FEE	4.0%	875,160	\$19.89	
<b>ESTIMATE SUB-TOTAL</b>		<b>23,301,135</b>	<b>\$529.57</b>	
DESIGN CONTINGENCY	15.0%	3,495,170	\$79.44	
CONSTRUCTION CONTINGENCY				Excluded
<b>ESTIMATE SUB-TOTAL</b>		<b>26,796,305</b>	<b>\$609.01</b>	
ESCALATION				Start Date April 2020
<b>ESTIMATE TOTAL</b>		<b>26,796,305</b>	<b>\$609.01</b>	Total add-ons 37.78%

**KEY CRITERIA**

**AREA TABULATION**

Floor	ENCLOSED	COVERED	PERIMETER	HEIGHT	COMMENTS
<b>Two Story w/ Roof Deck Scheme</b>					
First Floor	26,000		840	16.00	
Second Floor	18,000		540	16.00	
<b>Subtotal</b>	<b>44,000 SF</b>	<b>0 SF</b>			
<b>Two Story w/ Roof Deck Scheme - GSF Not Incl. 50% Covered Area</b>		<b>44,000 SF</b>			

Gross Wall Area	22,080	SF		0.502
Retaining Wall Area	0	SF		0.000
Finished Wall Area	22,080	SF		0.502
Glazing Area	6,624	SF	30.00%	0.151
Roof Area	28,600	SF		0.650
Interior Partition Length	2,200	LF		0.050

**TWO STORY W/ ROOF DECK SCHEME - UNIFORMAT II SUMMARY**

GSF : 44,000

SECTION	%	TOTAL	\$ / SF	COMMENTS
10 FOUNDATIONS	4.6%	924,000	\$21.00	
20 BASEMENT CONSTRUCTION				
<b>A SUBSTRUCTURE</b>	<b>4.6%</b>	<b>924,000</b>	<b>\$21.00</b>	
10 SUPERSTRUCTURE	16.4%	3,300,000	\$75.00	
20 EXTERIOR ENCLOSURE	17.2%	3,476,000	\$79.00	
30 ROOFING	4.8%	968,000	\$22.00	
<b>B SHELL</b>	<b>38.4%</b>	<b>7,744,000</b>	<b>\$176.00</b>	
10 INTERIOR CONSTRUCTION	8.7%	1,760,000	\$40.00	
20 STAIRS	0.7%	132,000	\$3.00	
30 INTERIOR FINISHES	12.0%	2,420,000	\$55.00	
<b>C INTERIORS</b>	<b>21.4%</b>	<b>4,312,000</b>	<b>\$98.00</b>	
10 CONVEYING	0.8%	154,000	\$3.50	
20 PLUMBING	2.0%	396,000	\$9.00	
30 HVAC	13.1%	2,640,000	\$60.00	
40 FIRE PROTECTION	1.5%	308,000	\$7.00	
50 ELECTRICAL	13.5%	2,728,000	\$62.00	
<b>D SERVICES</b>	<b>30.9%</b>	<b>6,226,000</b>	<b>\$141.50</b>	
10 EQUIPMENT	0.4%	88,000	\$2.00	
20 FURNISHINGS	4.4%	880,000	\$20.00	
<b>E EQUIPMENT + FURNISHINGS</b>	<b>4.8%</b>	<b>968,000</b>	<b>\$22.00</b>	
10 SPECIAL CONSTRUCTION				
20 SELECTIVE BUILDING DEMOLITION				
<b>F SPECIAL CONSTRUCTION + DEMOLITION</b>				
<b>G BUILDING SITEWORK</b>				
<b>DIRECT COSTS</b>		<b>20,174,000</b>	<b>\$458.50</b>	
SITE REQUIREMENTS	3.0%	605,220	\$13.76	
JOBSITE MANAGEMENT	9.5%	1,916,530	\$43.56	
SHIFT PREMIUM				
<b>ESTIMATE SUB-TOTAL</b>		<b>22,695,750</b>	<b>\$515.81</b>	
INSURANCE + BONDING	2.5%	567,394	\$12.90	
FEE	4.0%	907,830	\$20.63	
<b>ESTIMATE SUB-TOTAL</b>		<b>24,170,974</b>	<b>\$549.34</b>	
DESIGN CONTINGENCY	15.0%	3,625,646	\$82.40	
CONSTRUCTION CONTINGENCY				Excluded
<b>ESTIMATE SUB-TOTAL</b>		<b>27,796,620</b>	<b>\$631.74</b>	
ESCALATION				Start Date April 2020
<b>ESTIMATE TOTAL</b>		<b>27,796,620</b>	<b>\$631.74</b>	Total add-ons 37.78%

**RENOVATION SCHEME SITEWORK - UNIFORMAT II SUMMARY**

GSF : 59,200

SECTION	%	TOTAL	\$ / SF	COMMENTS
10 SITE PREPARATION	10.8%	131,200	\$2.22	
20 SITE IMPROVEMENTS	68.3%	832,050	\$14.05	
30 SITE MECHANICAL UTILITIES	8.6%	104,550	\$1.77	
40 SITE ELECTRICAL UTILITIES	12.4%	150,960	\$2.55	
<b>G BUILDING SITEWORK</b>	<b>100.0%</b>	<b>1,218,760</b>	<b>\$20.59</b>	
<b>DIRECT COSTS</b>		<b>1,218,760</b>	<b>\$20.59</b>	
SITE REQUIREMENTS	3.0%	36,563	\$0.62	
JOBSITE MANAGEMENT	9.5%	115,782	\$1.96	
SHIFT PREMIUM				Excluded
<b>ESTIMATE SUB-TOTAL</b>		<b>1,371,105</b>	<b>\$23.16</b>	
INSURANCE + BONDING	2.5%	34,278	\$0.58	
FEE	4.0%	54,844	\$0.93	
<b>ESTIMATE SUB-TOTAL</b>		<b>1,460,227</b>	<b>\$24.67</b>	
DESIGN CONTINGENCY	15.0%	219,034	\$3.70	
CONSTRUCTION CONTINGENCY				Excluded
<b>ESTIMATE SUB-TOTAL</b>		<b>1,679,261</b>	<b>\$28.37</b>	
ESCALATION				
<b>ESTIMATE TOTAL</b>		<b>1,679,261</b>	<b>\$28.37</b>	Total add-ons 37.78%

RENOVATION SCHEME SITEWORK - UNIFORMAT II SUMMARY

GSF : 59,200

REF	MF	DESCRIPTION	QUANTITY	UoM	UNIT RATE	TOTAL	COMMENTS
1							
2		<b>Site Preparation</b>					
3		Site area	59,200	SF			
4		Building footprint	28,000	SF			
5							
6		Site clearing and grading					
7		Protect existing features	1	LS	10,000.00	10,000	
8		Construction fencing	800	LF	15.00	12,000	
9		SWPPP	31,200	SF	1.00	31,200	
10		Tree removal					NIC
11							
12		Site demolition & removal					
13		Existing building					NIC
14		Miscellaneous site features & paving	31,200	SF	2.00	62,400	
15							
16		Rough & fine grading; retain existing lawn	31,200	SF	0.50	15,600	
17							
18		Hazardous materials abatement					NIC
19							
20							
21		<b>SITE PREPARATION</b>				<b>131,200</b>	<b>\$2.22 / SF</b>
22							
23		<b>Site Improvements</b>					
24							
25		<u>Vehicular Paving and Curbs</u>					
26		New parking area, 50% of available ground plane	15,600	SF	6.00	93,600	
27							
28		<u>Pedestrian Paving</u>					
29		Replace existing sidewalk on 3 sides	7,430	SF	15.00	111,450	Additional to site area
30		Hardscape, 50% available area	7,800	SF	20.00	156,000	
31							
32		<u>Landscaping &amp; Irrigation</u>					
33		Allow new landscaping & irrigation on 50% available area	7,800	SF	25.00	195,000	
34							
35		<u>Site Structures</u>					
36		Allow utility & trash enclosures	1	LS	80,000.00	80,000	
37		Seat walls, trellises, planters, etc.	31,200	SF	5.00	156,000	
38							
39		<u>Site Furnishings</u>					
40		Allowance for recycling receptacles, bollards, etc.	1	LS	15,000.00	15,000	
41							
42		<u>Site Signage</u>					
43		Signage & pavement markings	1	LS	25,000.00	25,000	
44							
45							
46		<b>SITE IMPROVEMENTS</b>				<b>832,050</b>	<b>\$14.05 / SF</b>
47							
48		<b>Site Mechanical Utilities</b>					
49							
50		<u>Water Supply</u>					
51		Fire water connection to existing system	1	LS	10,000.00	10,000	
52		Hydrants					NIC
53		Domestic water connection to existing systems	1	LS	15,000.00	15,000	
54							
55		<u>Sanitary Sewer</u>					
56		Connect to existing sewer system	150	LF	85.00	12,750	
57		Allow manholes	2	EA	7,500.00	15,000	

RENOVATION SCHEME SITEWORK - UNIFORMAT II SUMMARY

GSF : 59,200

REF	MF	DESCRIPTION	QUANTITY	UoM	UNIT RATE	TOTAL	COMMENTS
58							
59		<u>Storm Sewer</u>					
60		Assume natural percolation & storm drain pipework	31,200	SF	1.50	46,800	
61							
62		<u>Natural Gas</u>					
63		Connect to existing system	1	LS	5,000.00	5,000	
64							
65							
66		<b>SITE MECHANICAL UTILITIES</b>				<b>104,550</b>	<b>\$1.77 / SF</b>
67							
68		<u>Site Electrical Utilities</u>					
69							
70		<u>Electrical Distribution</u>					
71		Site electrical distribution	59,200	SF	0.90	53,280	
72							
73		<u>Site Lighting</u>	59,200	SF	1.50	88,800	
74							
75		<u>Site Communications &amp; Security</u>					
76		Site distribution & connections	59,200	SF	0.15	8,880	
77							
78							
79		<b>SITE ELECTRICAL UTILITIES</b>				<b>150,960</b>	<b>\$2.55 / SF</b>

**ONE STORY SCHEME SITEWORK - UNIFORMAT II SUMMARY**

GSF : 59,200

SECTION	%	TOTAL	\$ / SF	COMMENTS
10 SITE PREPARATION	38.6%	526,560	\$8.89	
20 SITE IMPROVEMENTS	40.7%	554,450	\$9.37	
30 SITE MECHANICAL UTILITIES	9.7%	131,750	\$2.23	
40 SITE ELECTRICAL UTILITIES	11.1%	150,960	\$2.55	
<b>G BUILDING SITEWORK</b>	<b>100.0%</b>	<b>1,363,720</b>	<b>\$23.04</b>	
<b>DIRECT COSTS</b>		<b>1,363,720</b>	<b>\$23.04</b>	
SITE REQUIREMENTS	3.0%	40,912	\$0.69	
JOBSITE MANAGEMENT	9.5%	129,553	\$2.19	
SHIFT PREMIUM				Excluded
<b>ESTIMATE SUB-TOTAL</b>		<b>1,534,185</b>	<b>\$25.92</b>	
INSURANCE + BONDING	2.5%	38,355	\$0.65	
FEE	4.0%	61,367	\$1.04	
<b>ESTIMATE SUB-TOTAL</b>		<b>1,633,907</b>	<b>\$27.60</b>	
DESIGN CONTINGENCY	15.0%	245,086	\$4.14	
CONSTRUCTION CONTINGENCY				Excluded
<b>ESTIMATE SUB-TOTAL</b>		<b>1,878,993</b>	<b>\$31.74</b>	
ESCALATION				
<b>ESTIMATE TOTAL</b>		<b>1,878,993</b>	<b>\$31.74</b>	Total add-ons 37.78%



ONE STORY SCHEME SITEWORK - UNIFORMAT II SUMMARY

GSF : 59,200

REF	MF	DESCRIPTION	QUANTITY	UoM	UNIT RATE	TOTAL	COMMENTS
1							
2		<b>Site Preparation</b>					
3		Site area	43,500	SF			
4		Three additional lots	15,700	SF			
5		Building footprint	44,000	SF			
6							
7		Site clearing and grading					
8		Protect existing features	1	LS	10,000.00	10,000	
9		Construction fencing	800	LF	15.00	12,000	
10		SWPPP	15,200	SF	0.30	4,560	
11		Tree removal					NIC
12							
13		Site demolition & removal					
14		Existing building	44,000	SF	10.00	440,000	
15		Miscellaneous site features & paving	15,200	SF	2.00	30,400	
16							
17		Rough & fine grading	59,200	SF	0.50	29,600	
18							
19		Hazardous materials abatement					NIC
20							
21							
22		<b>SITE PREPARATION</b>				<b>526,560</b>	<b>\$8.89 / SF</b>
23							
24		<b>Site Improvements</b>					
25							
26		<u>Vehicular Paving and Curbs</u>					
27		New parking area, 50% of available ground plane	7,600	SF	10.00	76,000	
28							
29		<u>Pedestrian Paving</u>					
30		Replace existing sidewalk on 3 sides	7,430	SF	15.00	111,450	Additional to site area
31		Hardscape, 50% ground plane excluding parking	3,800	SF	20.00	76,000	
32							
33		<u>Landscaping &amp; Irrigation</u>					
34		Allow new landscaping & irrigation on 50% ground plane excluding parking	3,800	SF	25.00	95,000	
35							
36		<u>Site Structures</u>					
37		Allow utility & trash enclosures	1	LS	80,000.00	80,000	
38		Seat walls, trellises, planters, etc.	15,200	SF	5.00	76,000	
39							
40		<u>Site Furnishings</u>					
41		Allowance for recycling receptacles, bollards, etc.	1	LS	15,000.00	15,000	
42							
43		<u>Site Signage</u>					
44		Signage & pavement markings	1	LS	25,000.00	25,000	
45							
46							
47		<b>SITE IMPROVEMENTS</b>				<b>554,450</b>	<b>\$9.37 / SF</b>
48							
49		<b>Site Mechanical Utilities</b>					
50							
51		<u>Water Supply</u>					
52		Fire water connection to existing system	1	LS	10,000.00	10,000	
53		Hydrants					NIC
54		Domestic water connection to existing systems	1	LS	15,000.00	15,000	
55							
56		<u>Sanitary Sewer</u>					
57		Connect to existing sewer system	150	LF	85.00	12,750	
58		Allow manholes	2	EA	7,500.00	15,000	

ONE STORY SCHEME SITEWORK - UNIFORMAT II SUMMARY

GSF : 59,200

REF	MF	DESCRIPTION	QUANTITY	UoM	UNIT RATE	TOTAL	COMMENTS
59							
60		<u>Storm Sewer</u>					
61		Assume natural percolation & storm drain pipework	59,200	SF	1.25	74,000	
62							
63		<u>Natural Gas</u>					
64		Connect to existing system	1	LS	5,000.00	5,000	
65							
66							
67		<b>SITE MECHANICAL UTILITIES</b>				<b>131,750</b>	<b>\$2.23 / SF</b>
68							
69		<u>Site Electrical Utilities</u>					
70							
71		<u>Electrical Distribution</u>					
72		Site electrical distribution	59,200	SF	0.90	53,280	
73							
74		<u>Site Lighting</u>	59,200	SF	1.50	88,800	
75							
76		<u>Site Communications &amp; Security</u>					
77		Site distribution & connections	59,200	SF	0.15	8,880	
78							
79							
80		<b>SITE ELECTRICAL UTILITIES</b>				<b>150,960</b>	<b>\$2.55 / SF</b>

**TWO STORY SCHEME SITEWORK - UNIFORMAT II SUMMARY**

GSF : 59,200

SECTION	%	TOTAL	\$ / SF	COMMENTS
10 SITE PREPARATION	34.6%	563,360	\$9.52	
20 SITE IMPROVEMENTS	48.1%	783,000	\$13.23	
30 SITE MECHANICAL UTILITIES	8.1%	131,750	\$2.23	
40 SITE ELECTRICAL UTILITIES	9.3%	150,960	\$2.55	
<b>G BUILDING SITEWORK</b>	<b>100.0%</b>	<b>1,629,070</b>	<b>\$27.52</b>	
<b>DIRECT COSTS</b>		<b>1,629,070</b>	<b>\$27.52</b>	
SITE REQUIREMENTS	3.0%	48,872	\$0.83	
JOBSITE MANAGEMENT	9.5%	154,762	\$2.61	
SHIFT PREMIUM				Excluded
<b>ESTIMATE SUB-TOTAL</b>		<b>1,832,704</b>	<b>\$30.96</b>	
INSURANCE + BONDING	2.5%	45,818	\$0.77	
FEE	4.0%	73,308	\$1.24	
<b>ESTIMATE SUB-TOTAL</b>		<b>1,951,829</b>	<b>\$32.97</b>	
DESIGN CONTINGENCY	15.0%	292,774	\$4.95	
CONSTRUCTION CONTINGENCY				Excluded
<b>ESTIMATE SUB-TOTAL</b>		<b>2,244,604</b>	<b>\$37.92</b>	
ESCALATION				
<b>ESTIMATE TOTAL</b>		<b>2,244,604</b>	<b>\$37.92</b>	Total add-ons 37.78%

**TWO STORY SCHEME SITework - UNIFORMAT II SUMMARY**

GSF : 59,200

REF	MF	DESCRIPTION	QUANTITY	UoM	UNIT RATE	TOTAL	COMMENTS
1							
2		<b>Site Preparation</b>					
3		Site area	43,500	SF			
4		Three additional lots	15,700	SF			
5		Building footprint	28,000	SF			
6							
7		<u>Site clearing and grading</u>					
8		Protect existing features	1	LS	10,000.00	10,000	
9		Construction fencing	800	LF	15.00	12,000	
10		SWPPP	31,200	SF	0.30	9,360	
11		Tree removal					NIC
12							
13		<u>Site demolition &amp; removal</u>					
14		Existing building	44,000	SF	10.00	440,000	
15		Miscellaneous site features & paving	31,200	SF	2.00	62,400	
16							
17		Rough & fine grading	59,200	SF	0.50	29,600	
18							
19		Hazardous materials abatement					NIC
20							
21							
22		<b>SITE PREPARATION</b>				<b>563,360</b>	<b>\$9.52 / SF</b>
23							
24		<b>Site Improvements</b>					
25							
26		<u>Vehicular Paving and Curbs</u>					
27		New parking area, 50% of available ground plane	15,600	SF	10.00	156,000	
28							
29		<u>Pedestrian Paving</u>					
30		Replace existing sidewalk on 3 sides		SF	15.00		Additional to site area
31		Hardscape, 50% ground plane excluding parking	7,800	SF	20.00	156,000	
32							
33		<u>Landscaping &amp; Irrigation</u>					
34		Allow new landscaping & irrigation on 50% ground plane excluding parking	7,800	SF	25.00	195,000	
35							
36		<u>Site Structures</u>					
37		Allow utility & trash enclosures	1	LS	80,000.00	80,000	
38		Seat walls, trellises, planters, etc.	31,200	SF	5.00	156,000	
39							
40		<u>Site Furnishings</u>					
41		Allowance for recycling receptacles, bollards, etc.	1	LS	15,000.00	15,000	
42							
43		<u>Site Signage</u>					
44		Signage & pavement markings	1	LS	25,000.00	25,000	
45							
46							
47		<b>SITE IMPROVEMENTS</b>				<b>783,000</b>	<b>\$13.23 / SF</b>
48							
49		<b>Site Mechanical Utilities</b>					
50							
51		<u>Water Supply</u>					
52		Fire water connection to existing system	1	LS	10,000.00	10,000	
53		Hydrants					NIC
54		Domestic water connection to existing systems	1	LS	15,000.00	15,000	
55							
56		<u>Sanitary Sewer</u>					
57		Connect to existing sewer system	150	LF	85.00	12,750	
58		Allow manholes	2	EA	7,500.00	15,000	

**TWO STORY SCHEME SITEWORK - UNIFORMAT II SUMMARY**

GSF : 59,200

REF	MF	DESCRIPTION	QUANTITY	UoM	UNIT RATE	TOTAL	COMMENTS
59							
60		<u>Storm Sewer</u>					
61		Assume natural percolation & storm drain pipework	59,200	SF	1.25	74,000	
62							
63		<u>Natural Gas</u>					
64		Connect to existing system	1	LS	5,000.00	5,000	
65							
66							
67		<b>SITE MECHANICAL UTILITIES</b>				<b>131,750</b>	<b>\$2.23 / SF</b>
68							
69		<u>Site Electrical Utilities</u>					
70							
71		<u>Electrical Distribution</u>					
72		Site electrical distribution	59,200	SF	0.90	53,280	
73							
74		<u>Site Lighting</u>	59,200	SF	1.50	88,800	
75							
76		<u>Site Communications &amp; Security</u>					
77		Site distribution & connections	59,200	SF	0.15	8,880	
78							
79							
80		<b>SITE ELECTRICAL UTILITIES</b>				<b>150,960</b>	<b>\$2.55 / SF</b>