

Report
For
Class D Construction Cost
Estimate

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Ottawa Public Library (Library only), Exemplar site
City of Ottawa

21-Nov-16



November 21, 2016
ref no. 20940

City of Ottawa
20 Metcalfe St, Ottawa,
Ontario, K1P 5M2

For the attention of Paul Hussar,

Dear Paul,

**Ottawa Public Library, Exemplar site
City of Ottawa**

We enclose our updated Class D Construction Cost Estimate for the above-noted based on the documentation provided to us.

Please refer to our Executive Summary, Section 1, for specific qualifications and assumptions associated with this cost report.

We trust this meets with your approval. Should you have any questions please do not hesitate to contact us.

Yours faithfully

Jon Gilford
Senior Cost Manager
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1	Jon Gilford	Marcos Sibal	September 23, 2016
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8	Sopanna Surendran	Haneef Ahmed	November 17, 2016
9		Haneef Ahmed	November 21, 2016
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F:\Tor\Jobs\2014 Jobs - 20860 -\20940 CM - Ottawa Public Library - NK\2016 Estimate\200 Class D Exemplar Site - July 2016\Estimate\Revised Sep + Oct, 2016\Updated , 2016\Nov 16 2016\OPL R9.xlsx]Exec Summary			

1 EXECUTIVE SUMMARY

1.1 Introduction

Turner and Townsend is retained to provide Cost Planning & Design Cost Control services, including preparation of this Class D Construction Cost Analysis, based on the information listed in Section 5. **Our estimate is an Opinion of Probable Cost only** and reflects current local market rates based on normal competitive conditions. Our estimate is intended to be comparable to a range of bids received from a number of competitive general contractors and sub-trades.

Turner and Townsend does not guarantee that tenders or actual construction costs will not vary from this estimate. Adverse market conditions, proprietary and/or sole source specifications, single sourcing of materials and equipment or reduced competition among contractors may cause bids to vary from reasonable estimates based on normal competitive conditions.

The purpose of this Cost Plan is to provide the City of Ottawa with a budget framework within which the project can be developed and cost managed, from Feasibility to Tender award stage.

The Cost Plan has been prepared solely in accordance with the documentation outlined within this document.

This Cost Plan is subject to review, confirmation and/or amendments following revisions to the information stated and discussion(s) with the Client and Design Consultants at which time this report will be reviewed and may be re-issued if required.

1.2 Procurement and Schedule

The Construction Cost Estimate includes all direct construction costs and contractor's overhead and profit. It assumes that the project will be procured on a **Stipulated Lump sum basis**, and that bids will be received from a minimum of five pre-qualified general contractors. We also assume that the project will be completed in a reasonable time frame and have not included any premiums related to "fast-tracking" the project, if required. The unit rates in our estimate are based on construction activities occurring during normal working hours and proceeding within a non-accelerated schedule.

1.3 Risk Assessment

Pricing reflects 4Q 2016 rates and present market/local conditions. Escalation allowance to the anticipated construction start date of 3Q 2019 has been included within our cost analysis at 10%.

The estimate includes an Estimating/Design Contingency Allowance to account for increases in cost as a result of design development through to 100% complete tender documentation.

Post-Contract Contingency (i.e. for Change Directives/Change Orders that may arise during construction) has been included in our cost report at 10%.

We have not accounted for a construction market allowance within the report, however based upon our past and ongoing construction cost project experience in Ottawa, Ontario, we do not foresee any risk of receiving non-competitive bids from major sub – trades.

1.4 Level of Documentation and Assumptions

The estimate is based on the conceptual / preliminary drawings as well as functional program provided. It is supplemented by correspondence and discussions with the Owner and Design Consultants.

We outline some of the major assumptions we have made with respect to this cost analysis: -

- Project to be procured via Stipulated Lump Sum contract
- No major phasing requirements
- No 'Accelerated' schedule premiums allowed

1.5 Measurement and Pricing

The estimate has been developed using generally accepted principles on method of measurement as per the Canadian Institute of Quantity Surveyors Elemental Cost Analysis (CIQS).

The rates used for this estimate include labour and material, equipment, and subcontractor's overheads and profit. Pricing developed for this project is based upon our company's experience with similar projects, and/or quotes provided by subcontractors and suppliers as noted within the estimate. It does not take into account extraordinary market conditions, where bidders may be limited and may include in their tenders disproportionate contingencies and profit margins.

1.6 General Conditions and Fee

The fee included within the estimate for the General Contractor is included as a percentage of the hard construction cost. The general requirements are based on our assumptions of the anticipated construction approach and construction schedule for the project (see section 1.2). The general requirements percentage includes the cost associated with bonding and insurance, however excludes development and/or building permit costs.

1.7 Taxes

Our cost estimate includes HST (1.76%) on Hard Cost only.

1.8 General Statement of Liability

This report is not intended for general circulation, publication or reproduction for any other person or purpose without prior express written permission to each specific instance. Furthermore, this report was written for the exclusive use of City of Ottawa and is not to be relied upon by any other party. Turner and Townsend does not hold any reporting responsibility to any other party.

Turner and Townsend strongly recommends the owner and/or design team review the cost estimate report including line item descriptions, unit prices, allowances, assumptions, exclusions, and contingencies to ensure the appropriate design intent has been accurately captured within the report.

Ottawa Public Library (Library only), Exemplar site
 Class D Cost Analysis

EXECUTIVE SUMMARY

<u>Construction Cost Breakdown:</u>	GFA (sf)	\$/sf	Amount
A BELOW GRADE PARKING:			
A.1 Below Grade Parking only	67,906	\$209	\$14,223,000
A.2 Escalation Allowance (10%) - 3Q 2019			Included
A.3 Construction Contingency Allowance - Post Contract (10%)			Included
A.4 Furniture, Furnishings and Equipment - NIC			Excluded
A.5 LEED Gold Allowance (5%)			\$711,000
A.6 HST (Hard Cost Only)	1.76%		\$263,000
A. Sub-total Below Grade Parking	67,906	\$224	\$15,197,000
B BUILDING:			
B.1 OPL Library Program only	134,550	\$572	\$76,960,000
Sub-Total	134,550	\$572	\$ 76,960,000
B.2 Escalation Allowance (10%) - 3Q 2019			Included
B.3 Construction Contingency Allowance - Post Contract (10%)			Included
Total Construction Cost	134,550	\$572	\$ 76,960,000
B.4 Furniture, Furnishings and Equipment - NIC			Excluded
B.5 LEED Gold Allowance (5%)			\$3,848,000
Total Construction Cost - Including LEED Premium	134,550	\$601	\$ 80,808,000
B.6 HST (Hard Cost Only)	1.76%		\$1,422,000
B. Sub-total Building	134,550	\$611	\$ 82,230,000
Total Estimated Construction Cost, incl HST	202,456	\$481	\$ 97,427,000

Notes/Assumptions:

- 1 The above is an opinion of Probable Cost Only
- 2 Construction contingency included at 10%
- 3 Escalation allowance of 10% included to 3Q 2019
- 4 Small allowance for removal/treatment of contaminated land
- 5 Allowances made for cut and fill
- 6 1 level of parking (level 0 included)
- 7 Allowance for LEED Gold
- 8 Allowance for water retention
- 9 Acoustic treatment to ceiling / wall
- 10
- 11 2 no of Oversized freight elevators and 2 standard elevators allowed for
- 11 We allow for Management of Ground Water and Pumping during construction
- 12 Storm Water Cistern assume 50m3 (Water Retention)
- 13 Allowance for utility relocation has been included
- 14 Layby Cost covered into the Site Development Cost
- 15 No smoke vac is included in Atrium

The following have been specifically excluded:

- 1 Professional Consultant Design Fees
- 2 Specialist Consultant Design Fees
- 3 Legal Fees and Expenses
- 4 Project Management Fees
- 5 Furniture, Furnishings and Equipment (other than detailed in the estimate)
- 6 Owner's Administration Expenses
- 7 Library equipment - book shelves / sorter / mobile shelving etc
- 8 Permits and Development Charges
- 9 Garbage Equipment/Bins
- 10 Food Equipment/Kitchen Equipment
- 11 Construction Price Escalation Beyond - 3Q 2019
- 12 A/V/head end Equipment
- 13 IT & Communication Equipment
- 14 Premiums for Single Sourced Materials
- 15 Schedule Acceleration Premium
- 16 Emergency Generator
- 17 Land Acquisition Cost
- 18 Major Sitework Other Than Allowance Noted In The Estimate
- 19 Moving Cost
- 20 Artwork
- 21 Automated Blinds
- 22 No allowance for demolition or alterations
- 23 Raised Floor, Stage
- 24 Removal of Contaminated Soils - Budget Provided by Golder
- 25 High Density Shelving
- 26 Allowance for work to CSST

2 ELEMENTAL ESTIMATE

ELEMENTAL COST SUMMARY
Class D Cost Analysis



Project: OTTAWA PUBLIC LIBRARY (Library only) - Exemplar Site (Site 8) - Parking
 Location: Ottawa, Ontario
 Owner/Client: City of Ottawa
 Architect: Ajon Moryloma

Cat: JG-DD-R9
 File: Nov 21, 2016
 Date: 20940
 Project Number: 20940
 Gross Floor Area: 67,906 sf

Element	Ratio to GFA	Elemental Quantity	Elemental Unit Rate	Elemental Amount	Cost/sf	Amount	
A SHELL							
A1 SUBSTRUCTURE							
A11 Foundation	0.00	0 sf	\$0.00	\$0	\$23.81	\$0.00	
A12 Basement Excavation	0.60	40,474 cy	\$39.95	\$1,617,000	\$23.81	\$1,617,000	11%
A2 STRUCTURE							
A21 Lowest Floor Construction	1.00	67,906 sf	\$11.50	\$781,000	\$48.15	\$11.50	
A22 Upper Floor Construction	0.00	0 sf	\$0.00	\$0	\$0.00	\$0.00	
A23 Roof Construction	0.73	49,776 sf	\$50.00	\$2,489,000	\$36.65	\$3,270,000	23%
A3 EXTERIOR ENCLOSURE							
A31 Walls Below Grade	0.26	17,431 sf	\$40.79	\$711,000	\$25.15	\$10.47	
A32 Walls Above Grade	0.00	0 sf	\$0.00	\$0	\$0.00	\$0.00	
A33 Windows & Entrances	0.00	0 sf	\$0.00	\$0	\$0.00	\$0.00	
A34 Roof Covering	0.73	49,776 sf	\$15.01	\$747,000	\$11.00	\$11.00	
A35 Projections	1.00	67,906 sf	\$3.68	\$250,000	\$3.68	\$1,708,000	12%
B INTERIORS							
B1 PARTITIONS & DOORS							
B11 Partitions	0.07	4,753 sf	\$39.97	\$190,000	\$3.48	\$2.80	
B12 Doors	0.00	23 No	\$2,005.85	\$46,000	\$0.68	\$236,000	2%
B2 FINISHES							
B21 Floor Finishes	1.00	67,906 sf	\$4.51	\$306,000	\$8.01	\$4.51	
B22 Ceiling Finishes	1.00	67,906 sf	\$2.50	\$170,000	\$2.50	\$2.50	
B23 Wall Finishes	1.00	67,906 sf	\$1.00	\$68,000	\$1.00	\$544,000	4%
B3 FITTINGS & EQUIPMENT							
B31 Fittings & Fixtures	1.00	67,906 sf	\$2.50	\$170,000	\$2.50	\$2.50	
B32 Equipment	1.00	67,906 sf	\$0.00	\$0	\$0.00	\$0.00	
B33 Conveying Systems	0.00	0 Stp	\$0.00	\$0	\$0.00	\$170,000	1%
C SERVICES							
C1 MECHANICAL							
C11 Plumbing & Drainage	1.00	67,906 sf	\$3.50	\$238,000	\$11.02	\$3.50	
C12 Fire Protection	1.00	67,906 sf	\$3.00	\$204,000	\$3.00	\$3.00	
C13 H.V.A.C.	1.00	67,906 sf	\$3.50	\$238,000	\$3.50	\$3.50	
C14 Controls	1.00	67,906 sf	\$1.00	\$68,000	\$1.00	\$748,000	5%
C2 ELECTRICAL							
C21 Service & Distribution	1.00	67,906 sf	\$4.51	\$306,000	\$11.52	\$4.51	
C22 Lighting, Devices & Heating	1.00	67,906 sf	\$5.01	\$340,000	\$5.01	\$5.01	
C23 Systems & Ancillaries	1.00	67,906 sf	\$2.00	\$136,000	\$2.00	\$782,000	5%
NET BUILDING COST (Excluding Site)					\$133.64	\$9,075,000	64%
D SITE & ANCILLARY WORK							
D1 SITE WORK							
D11 Site Development	0.12	8,091 sf	\$0.00	\$0	\$0.00	\$0.00	
D12 Mechanical Site Services	0.12	8,091 sf	\$0.00	\$0	\$0.00	\$0.00	
D13 Electrical Site Services	0.12	8,091 sf	\$0.00	\$0	\$0.00	\$0	0%
D2 ANCILLARY WORK							
D21 Demolition	0.00	0 sf	\$0.00	\$0	\$0.00	\$0.00	
D22 Alterations	0.00	0 sf	\$0.00	\$0	\$0.00	\$0	0%
NET BUILDING COST (Including Site)					\$133.64	\$9,075,000	
Z GENERAL REQUIREMENTS & ALLOWANCES							
Z1 GEN. REQ. & FEE 12%							
Z11 General Requirements	9.0%			\$817,000	\$12.03		
Z12 Fee	3.0%			\$272,000	\$4.01	\$1,089,000	8%
TOTAL CONSTRUCTION ESTIMATE (Excluding Allowances)						\$10,164,000	71%
Z2 ALLOWANCES 40%							
Z21 Estimating Allowance	20.0%			\$2,031,000	\$29.91		
Z22 Escalation Allowance	10.0% 3Q 2019			\$1,014,000	\$14.93		
Z23 Construction Allowance	10.0%			\$1,014,000	\$14.93	\$4,059,000	29%
TOTAL CONSTRUCTION ESTIMATE (Including Allowances)						\$14,223,000	100%
					Cost/unit		
GFA	67,906 sf				\$209	sf	
GFA	6,309 m2				\$2,255	m2	

Project: OTTAWA PUBLIC LIBRARY (Library only) - Exemplar Site (Site 8) - Parking File: JG-DD-R9
 Location: Ottawa, Ontario Date: Nov 21, 2016
 Owner/Client: City of Ottawa Project Number: 20940
 Architect: Ajon Moryiama Gross Floor Area: 67906 sf

Description	Quantity	Rate	Amount
GROSS FLOOR AREA			
A1 SUBSTRUCTURE			
A11 Foundations			
Below Grade Parking	67,906 sf		
TOTAL A11 Foundations	0 sf	0.00	0
A12 Basement Excavation			
Below Grade Parking	67,906 sf	23.81	1,617,020
TOTAL A12 Basement Excavation	40,474 cy	39.95	1,617,000
TOTAL A1 SUBSTRUCTURE			1,617,000
A2 STRUCTURE			
A21 Lowest Floor Construction			
Below Grade Parking	+ 67,906 sf	11.50	780,920
TOTAL A21 Lowest Floor Construction	67,906 sf	11.50	781,000
A22 Upper Floor Construction			
Below Grade Parking - NOT REQUIRED	67,906 sf		
TOTAL A22 Upper Floor Construction	0 sf	0.00	0
A23 Roof Construction			
Below Grade Parking	67,906 sf	36.65	2,488,800
Roof	+ 49,776 sf	50.00	
TOTAL A23 Roof Construction	49,776 sf	50.00	2,489,000
TOTAL A2 STRUCTURE			3,270,000
A3 EXTERIOR ENCLOSURE			
A31 Walls Below Grade			
Below grade parking	67,906 sf	10.46	710,560
OPL Program only	134,550 sf	1.20	
TOTAL A31 Walls Below Grade	17,431 sf	40.79	711,000
A32 Walls Above Grade			
TOTAL A32 Walls Above Grade			

Project: OTTAWA PUBLIC LIBRARY (Library only) - Exemplar Site (Site 8) - Parking File: JG-DD-R9
 Location: Ottawa, Ontario Date: Nov 21, 2016
 Owner/Client: City of Ottawa Project Number: 20940
 Architect: Ajon Moryama Gross Floor Area: 67906 sf

Description	Quantity	Rate	Amount
A33 Windows & Entrances			
<hr/>			
TOTAL A33 Windows & Entrances	0 sf	0.00	0
A34 Roof Covering			
<hr/>			
Below Grade Parking - waterproofing + protection board	+ 49,776 sf	15.00	746,640
TOTAL A34 Roof Covering	49,776 sf	15.01	747,000
A35 Projections			
<hr/>			
Parking	67,906 sf	3.68	250,000
TOTAL A35 Projections	67,906 sf	3.68	250,000
TOTAL A3 EXTERIOR ENCLOSURE			1,708,000
TOTAL A SHELL			6,595,000
B1 PARTITIONS & DOORS			
<hr/>			
B11 Partitions			
<hr/>			
Below Grade Parking	67,906 sf	2.80	190,140
TOTAL B11 Partitions	4,753 sf	39.97	190,000
B12 Doors			
<hr/>			
Below Grade Parking	67,906 sf	0.68	46,000
TOTAL B12 Doors	23 No	2005.85	46,000
TOTAL B1 PARTITIONS & DOORS			236,000
B2 FINISHES			
<hr/>			
B21 Floor Finishes			
<hr/>			
Below grade parking	67,906 sf	4.50	305,580
TOTAL B21 Floor Finishes	67,906 sf	4.51	306,000
B22 Ceiling Finishes			
<hr/>			
Below grade parking	+ 67,906 sf	2.50	169,770
TOTAL B22 Ceiling Finishes	67,906 sf	2.50	170,000

Project: OTTAWA PUBLIC LIBRARY (Library only) - Exemplar Site (Site 8) - Parking File: JG-DD-R9
 Location: Ottawa, Ontario Date: Nov 21, 2016
 Owner/Client: City of Ottawa Project Number: 20940
 Architect: Ajon Moryama Gross Floor Area: 67906 sf

Description	Quantity	Rate	Amount
B23 Wall Finishes			
Below grade parking	+ 67,906 sf	1.00	67,910
TOTAL B23 Wall Finishes	67,906 sf	1.00	68,000
TOTAL B2 FINISHES			544,000
B3 FITTINGS & EQUIPMENT			
B31 Fittings & Fixtures			
Below grade parking	+ 67,906 sf	2.50	169,770
TOTAL B31 Fittings & Fixtures	67,906 sf	2.50	170,000
B32 Equipment			
TOTAL B32 Equipment	67,906 sf	0.00	0
B33 Conveying Systems			
Below grade parking	67,906 sf		
TOTAL B33 Conveying Systems	0 Stp	0.00	0
TOTAL B3 FITTINGS & EQUIPMENT			170,000
TOTAL B INTERIORS			950,000
C1 MECHANICAL			
C11 Plumbing & Drainage			
Allowance for parking area	+ 67,906 sf	3.50	237,670
TOTAL C11 Plumbing & Drainage	67,906 sf	3.50	238,000
C12 Fire Protection			
Allowance for parking area	+ 67,906 sf	3.00	203,720
TOTAL C12 Fire Protection	67,906 sf	3.00	204,000
C13 HVAC			
Allowance for parking area	+ 67,906 sf	3.50	237,670
TOTAL C13 HVAC	67,906 sf	3.50	238,000

Project: OTTAWA PUBLIC LIBRARY (Library only) - Exemplar Site (Site 8) - Parking File: JG-DD-R9
 Location: Ottawa, Ontario Date: Nov 21, 2016
 Owner/Client: City of Ottawa Project Number: 20940
 Architect: Ajon Moryiama Gross Floor Area: 67906 sf

Description	Quantity	Rate	Amount
C14 Controls			
Allowance for parking area	+ 67,906 sf	1.00	67,910
TOTAL C14 Controls	67,906 sf	1.00	68,000
TOTAL C1 MECHANICAL			748,000
C2 ELECTRICAL			
C21 Service & Distribution			
Allowance for parking area	+ 67,906 sf	4.50	305,580
TOTAL C21 Service & Distribution	67,906 sf	4.51	306,000
C22 Lighting, Devices & Heating			
Allowance for parking area	+ 67,906 sf	5.00	339,530
TOTAL C22 Lighting, Devices & Heating	67,906 sf	5.01	340,000
C23 Systems & Ancillaries			
Allowance for parking area	+ 67,906 sf	2.00	135,810
TOTAL C23 Systems & Ancillaries	67,906 sf	2.00	136,000
TOTAL C2 ELECTRICAL			782,000
TOTAL C SERVICES			1,530,000
NET BUILDING COST (EXCLUDING SITE)			9,075,000
D1 SITE WORK			
D11 Site Development			
Below grade parking	67,906 sf		
TOTAL D11 Site Development	8,091 sf	0.00	0
D12 Mechanical Site Services			
Below grade parking	67,906 sf		
TOTAL D12 Mechanical Site Services	8,091 sf	0.00	0
D13 Electrical Site Services			
Below grade parking	67,906 sf		
TOTAL D13 Electrical Site Services	8,091 sf	0.00	0

Project: OTTAWA PUBLIC LIBRARY (Library only) - Exemplar Site (Site 8) - Parking File: JG-DD-R9
 Location: Ottawa, Ontario Date: Nov 21, 2016
 Owner/Client: City of Ottawa Project Number: 20940
 Architect: Ajon Moryiama Gross Floor Area: 67906 sf

Description	Quantity	Rate	Amount
TOTAL D1 SITE WORK			0
D2 ANCILLARY WORK			
D21 Demolition			
N/A			
TOTAL D21 Demolition		sf	0.00
D22 Alterations			
N/A			
TOTAL D22 Alterations		0 sf	0.00
TOTAL D2 ANCILLARY WORK			0
TOTAL D SITE & ANCILLARY WORK			0
NET BUILDING COST (INCLUDING SITE)			9,075,000
Z1 GENERAL REQUIREMENTS & FEE			
Z11 General Requirements			
General Requirements		Is	817,000
TOTAL Z11 General Requirements			817,000
Z12 Fee			
Fee		Is	272,000
TOTAL Z12 Fee			272,000
TOTAL Z1 GENERAL REQUIREMENTS & FEE			1,089,000
TOTAL CONSTRUCTION ESTIMATE EXCLUDING ALLOWANCES			10,164,000
Z2 CONTINGENCIES			
Z21 Estimating Contingency			
Estimating Contingency		Is	2,031,000
TOTAL Z21 Estimating Contingency			2,031,000

Project: OTTAWA PUBLIC LIBRARY (Library only) - Exemplar Site (Site 8) - Parking File: JG-DD-R9
 Location: Ottawa, Ontario Date: Nov 21, 2016
 Owner/Client: City of Ottawa Project Number: 20940
 Architect: Ajon Moryiama Gross Floor Area: 67906 sf

Description	Quantity	Rate	Amount
Z22 Escalation Contingency			
Escalation Contingency	1s		1,014,000
TOTAL Z22 Escalation Contingency			1,014,000
Z23 Construction Contingency			
Construction Contingency	1s		1,014,000
Total Z23 Construction Contingency			1,014,000
TOTAL Z2 CONTINGENCIES			4,059,000
TOTAL Z GENERAL REQUIREMENTS & CONTINGENCIES			5,148,000
TOTAL BUILDING COST INCLUDING ALLOWANCES			14,223,000

ELEMENTAL COST SUMMARY
Class D Cost Analysis



Project: OTTAWA PUBLIC LIBRARY (Library only) - Exemplar Site (Site 8) - Above Grade
 Location: Ottawa, Ontario
 Owner/Client: City of Ottawa
 Architect: Ajon Moryloma

Cat: JG-DD-R9
 File: Nov 21, 2016
 Date: 20940
 Project Number: 20940
 Gross Floor Area: 134,550 sf

Element	Ratio to GFA	Elemental Quantity	Elemental Unit Rate	Elemental Amount	Cost/sf	Amount	
A SHELL							
A1 SUBSTRUCTURE							
A11 Foundation	0.11	15,387 sf	\$51.02	\$785,000	\$8.55	\$5.83	
A12 Basement Excavation	0.30	40,474 cy	\$9.04	\$366,000	\$2.72	\$1,151,000	1%
A2 STRUCTURE							
A21 Lowest Floor Construction	0.11	15,387 sf	\$11.50	\$177,000	\$62.03	\$1.32	
A22 Upper Floor Construction	0.89	119,163 sf	\$52.71	\$6,281,000	\$46.68		
A23 Roof Construction	0.28	37,757 sf	\$50.00	\$1,888,000	\$14.03	\$8,346,000	11%
A3 EXTERIOR ENCLOSURE							
A31 Walls Below Grade	0.13	17,431 sf	\$9.24	\$161,000	\$1.20		
A32 Walls Above Grade	0.27	36,966 sf	\$60.00	\$2,218,000	\$16.48		
A33 Windows & Entrances	0.16	21,626 sf	\$132.94	\$2,875,000	\$21.37		
A34 Roof Covering	0.28	37,757 sf	\$64.70	\$2,443,000	\$18.16		
A35 Projections	1.00	134,550 sf	\$6.10	\$821,000	\$6.10	\$8,518,000	11%
B INTERIORS							
B1 PARTITIONS & DOORS							
B11 Partitions	0.81	108,986 sf	\$29.00	\$3,161,000	\$23.49		
B12 Doors	0.00	250 No	\$1,999.26	\$500,000	\$3.72	\$3,661,000	5%
B2 FINISHES							
B21 Floor Finishes	1.00	134,550 sf	\$21.00	\$2,826,000	\$21.00		
B22 Ceiling Finishes	1.00	134,550 sf	\$16.73	\$2,251,000	\$16.73		
B23 Wall Finishes	2.50	336,375 sf	\$5.85	\$1,968,000	\$14.63	\$7,045,000	9%
B3 FITTINGS & EQUIPMENT							
B31 Fittings & Fixtures	1.00	134,550 sf	\$28.70	\$3,862,000	\$28.70		
B32 Equipment	1.00	134,550 sf	\$1.49	\$200,000	\$1.49		
B33 Conveying Systems	0.00	12 Stp	\$64,583.33	\$775,000	\$5.76	\$4,837,000	6%
C SERVICES							
C1 MECHANICAL							
C11 Plumbing & Drainage	1.00	134,550 sf	\$10.00	\$1,346,000	\$10.00		
C12 Fire Protection	1.00	134,550 sf	\$4.00	\$538,000	\$4.00		
C13 H.V.A.C.	1.00	134,550 sf	\$35.00	\$4,709,000	\$35.00		
C14 Controls	1.00	134,550 sf	\$6.00	\$807,000	\$6.00	\$7,400,000	10%
C2 ELECTRICAL							
C21 Service & Distribution	1.00	134,550 sf	\$18.00	\$2,422,000	\$18.00		
C22 Lighting, Devices & Heating	1.00	134,550 sf	\$17.00	\$2,287,000	\$17.00		
C23 Systems & Ancillaries	1.00	134,550 sf	\$8.50	\$1,144,000	\$8.50	\$5,853,000	8%
NET BUILDING COST (Excluding Site)					\$347.91	\$46,811,000	61%
D SITE & ANCILLARY WORK							
D1 SITE WORK							
D11 Site Development	0.06	8,091 sf	\$194.17	\$1,571,000	\$16.88	\$11.68	
D12 Mechanical Site Services	0.06	8,091 sf	\$55.62	\$450,000	\$3.34		
D13 Electrical Site Services	0.06	8,091 sf	\$30.90	\$250,000	\$1.86	\$2,271,000	3%
D2 ANCILLARY WORK							
D21 Demolition	0.00	0 sf	\$0.00	\$0	\$0.00		
D22 Alterations	0.00	0 sf	\$0.00	\$0	\$0.00	\$0	0%
NET BUILDING COST (Including Site)					\$364.79	\$49,082,000	
Z GENERAL REQUIREMENTS & ALLOWANCES							
Z1 GEN. REQ. & FEE 12%							
Z11 General Requirements	9.0%			\$4,417,000	\$32.83		
Z12 Fee	3.0%			\$1,472,000	\$10.94	\$5,889,000	8%
TOTAL CONSTRUCTION ESTIMATE (Excluding Allowances)						\$54,971,000	71%
Z2 ALLOWANCES 40%							
Z21 Estimating Allowance	20.0%			\$10,994,000	\$81.71		
Z22 Escalation Allowance	10.0% 3Q 2019			\$5,497,000	\$40.85		
Z23 Construction Allowance	10.0%			\$5,498,000	\$40.86	\$21,989,000	29%
TOTAL CONSTRUCTION ESTIMATE (Including Allowances)						\$76,960,000	100%
						Cost/unit	
GFA	134,550 sf					\$572	sf
GFA	12,500 m2					\$6,157	m2

OTTAWA PUBLIC LIBRARY (Library only) - Exemplar Site (Site 8) - Above Grade
 Location: Ottawa, Ontario
 Owner/Client: City of Ottawa
 Architect: Ajon Moryiama

File: JG-DD-R9
 Date: Nov 21, 2016
 Project Number: 20940
 Gross Floor Area: 134,550m²

Description	Quantity	Rate	Amount
A1 SUBSTRUCTURE			
A11 Foundations			
OPL Program only	134,550 sf	5.83	784,500
TOTAL A11 Foundations	15,387 sf	51.02	785,000
A12 Basement Excavation			
OPL Program only	134,550 sf	2.72	366,400
TOTAL A12 Basement Excavation	40,474 cy	9.04	366,000
TOTAL A1 SUBSTRUCTURE			1,151,000
A2 STRUCTURE			
A21 Lowest Floor Construction			
OPL Program only	134,550 sf	1.32	176,950
	+ 15,387 sf		
TOTAL A21 Lowest Floor Construction	15,387 sf	11.50	177,000
A22 Upper Floor Construction			
OPL Program only	134,550 sf	46.68	6,280,650
	+ 119,163 sf		
TOTAL A22 Upper Floor Construction	119,163 sf	52.71	6,281,000
A23 Roof Construction			
OPL Program only	134,550 sf	14.03	1,887,850
suspended slab	+ 37,757 sf	50.00	
TOTAL A23 Roof Construction	37,757 sf	50.00	1,888,000
TOTAL A2 STRUCTURE			8,346,000
A3 EXTERIOR ENCLOSURE			
A31 Walls Below Grade			
OPL Program only	134,550 sf	1.20	161,000
TOTAL A31 Walls Below Grade	17,431 sf	9.24	161,000
A32 Walls Above Grade			
OPL Program only	134,550 sf	16.48	2,217,970
TOTAL A32 Walls Above Grade	36,966 sf	60.00	2,218,000

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 Project Number: 20940
 Gross Floor Area: 134,550m²

Description	Quantity	Rate	Amount
A33 Windows & Entrances			
OPL Program only	134,550 sf	21.37	2,875,460
TOTAL A33 Windows & Entrances	21,626 sf	132.94	2,875,000
A34 Roof Covering			
OPL Program only	134,550 sf	18.16	2,443,220
	+ 37,757 sf		
TOTAL A34 Roof Covering	37,757 sf	64.70	2,443,000
A35 Projections			
OPL Program only	134,550 sf	6.10	821,400
TOTAL A35 Projections	134,550 sf	6.10	821,000
TOTAL A3 EXTERIOR ENCLOSURE			8,518,000
TOTAL A SHELL			18,015,000
B1 PARTITIONS & DOORS			
B11 Partitions			
OPL Program only	134,550 sf	23.49	3,160,580
TOTAL B11 Partitions	108,986 sf	29.00	3,161,000
B12 Doors			
OPL Program only	134,550 sf	3.72	500,190
Hollow Metal Door	+ 250 no	2000.00	
TOTAL B12 Doors	250 No	1999.26	500,000
TOTAL B1 PARTITIONS & DOORS			3,661,000
B2 FINISHES			
B21 Floor Finishes			
OPL Program only	+ 134,550 sf	21.00	2,825,550
TOTAL B21 Floor Finishes	134,550 sf	21.00	2,826,000
B22 Ceiling Finishes			
OPL Program only	+ 134,550 sf	16.73	2,250,690
TOTAL B22 Ceiling Finishes	134,550 sf	16.73	2,251,000

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 Project Number: 20940
 Gross Floor Area: 134,550m²

Description	Quantity	Rate	Amount
B23 Wall Finishes			
OPL Program only	+ 336,375 sf	5.85	1,968,280
TOTAL B23 Wall Finishes	336,375 sf	5.85	1,968,000
TOTAL B2 FINISHES			7,045,000
B3 FITTINGS & EQUIPMENT			
B31 Fittings & Fixtures			
OPL Program only	+ 134,550 sf	28.70	3,861,790
TOTAL B31 Fittings & Fixtures	134,550 sf	28.70	3,862,000
B32 Equipment			
retractable seating	200 no	1000.00	200,000
Allowance for stage - Excluded			
TOTAL B32 Equipment	134,550 sf	1.49	200,000
B33 Conveying Systems			
OPL Program only	134,550 sf	5.76	775,000
Oversized freight elevator - 1 no	+ 4 stp	75000.00	
Standard elevator - 2 no	+ 8 stp	40000.00	
TOTAL B33 Conveying Systems	12 Stp	64583.33	775,000
TOTAL B3 FITTINGS & EQUIPMENT			4,837,000
TOTAL B INTERIORS			15,543,000
C1 MECHANICAL			
C11 Plumbing & Drainage			
Allowance	+ 134,550 sf	10.00	1,345,500
TOTAL C11 Plumbing & Drainage	134,550 sf	10.00	1,346,000
C12 Fire Protection			
Allowance	+ 134,550 sf	4.00	538,200
TOTAL C12 Fire Protection	134,550 sf	4.00	538,000
C13 HVAC			
Allowance	+ 134,550 sf	35.00	4,709,250

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 Project Number: 20940
 Gross Floor Area: 134,550m²

Description	Quantity	Rate	Amount
TOTAL C13 HVAC	134,550 sf	35.00	4,709,000
C14 Controls			
Allowance	+ 134,550 sf	6.00	807,300
TOTAL C14 Controls	134,550 sf	6.00	807,000
TOTAL C1 MECHANICAL			7,400,000
C2 ELECTRICAL			
C21 Service & Distribution			
Allowance	+ 134,550 sf	18.00	2,421,900
TOTAL C21 Service & Distribution	134,550 sf	18.00	2,422,000
C22 Lighting, Devices & Heating			
Allowance	+ 134,550 sf	17.00	2,287,350
TOTAL C22 Lighting, Devices & Heating	134,550 sf	17.00	2,287,000
C23 Systems & Ancillaries			
Allowance	+ 134,550 sf	8.50	1,143,680
TOTAL C23 Systems & Ancillaries	134,550 sf	8.50	1,144,000
TOTAL C2 ELECTRICAL			5,853,000
TOTAL C SERVICES			13,253,000
NET BUILDING COST (EXCLUDING SITE)			46,811,000
D1 SITE WORK			
D11 Site Development			
OPL Program only	134,550 sf	11.68	1,571,000
TOTAL D11 Site Development	8,091 sf	194.17	1,571,000
D12 Mechanical Site Services			
OPL Program only	134,550 sf	3.34	450,000
TOTAL D12 Mechanical Site Services	8,091 sf	55.62	450,000
D13 Electrical Site Services			
OPL Program only	134,550 sf	1.86	250,000

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 Architect: Ajon Moryama

File: JG-DD-R9
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 Project Number: 20940
 Gross Floor Area: 134,550m2

Description	Quantity	Rate	Amount
TOTAL D13 Electrical Site Services	8,091 sf	30.90	250,000
TOTAL D1 SITE WORK			2,271,000
D2 ANCILLARY WORK			
D21 Demolition			
N/A			
TOTAL D21 Demolition	0 sf	0.00	0
D22 Alterations			
N/A			
TOTAL D22 Alterations	0 sf	0.00	0
TOTAL D2 ANCILLARY WORK			0
TOTAL D SITE & ANCILLARY WORK			2,271,000
NET BUILDING COST (INCLUDING SITE)			49,082,000
Z1 GENERAL REQUIREMENTS & FEE			
Z11 General Requirements			
General Requirements	Is		4,417,000
TOTAL Z11 General Requirements			4,417,000
Z12 Fee			
Fee	Is		1,472,000
TOTAL Z12 Fee			1,472,000
TOTAL Z1 GENERAL REQUIREMENTS & FEE			5,889,000
TOTAL CONSTRUCTION ESTIMATE EXCLUDING ALLOWANCES			54,971,000
Z2 CONTINGENCIES			
Z21 Estimating Contingency			

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 Architect: Ajon Moryama

File: JG-DD-R9
 Date: Nov 21, 2016
 Project Number: 20940
 Gross Floor Area: 134,550m²

Description	Quantity	Rate	Amount
Estimating Contingency	Is		10,994,000
TOTAL Z21 Estimating Contingency			10,994,000
Z22 Escalation Contingency			
Escalation Contingency	Is		5,497,000
TOTAL Z22 Escalation Contingency			5,497,000
Z23 Construction Contingency			
Construction Contingency	Is		5,498,000
Total Z23 Construction Contingency			5,498,000
TOTAL Z2 CONTINGENCIES			21,989,000
TOTAL Z GENERAL REQUIREMENTS & CONTINGENCIES			27,878,000
TOTAL BUILDING COST INCLUDING ALLOWANCES			76,960,000

3 AREA SUMMARY

Class D

Ottawa Public Library (Library only), Exemplar site



Revision: 5

City of Ottawa

Area Schedule

FLOOR	Parking	OPL																GROSS INTERNAL FLOOR AREA
Level 0	67,906	134,550																202,456
Level 1																		0
Level 2																		0
Level 3																		0
Level 4																		0
TOTAL	67,906	134,550	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	202,456
Last Report																		
Movement																		

Area Schedule

making the difference

4 DOCUMENT LIST

Dwg no.	Document	Prepared By	Dated	Date Received
	<u>ARCHITECTURAL</u>			
	Updated sketches	Ajon Moryiama	19-Oct-2016	25-Oct-2016
	Updated GFA	OPL	2-Nov-2016	2-Nov-2016
	<u>STRUCTURAL</u>			
	N/A			
	<u>LANDSCAPE</u>			
	N/A			
	<u>CIVILS</u>			
	N/A			
	<u>MECHANICAL</u>			
	N/A			
	<u>ELECTRICAL</u>			
	N/A			
	<u>SPECIFICATIONS</u>			
	N/A			