



17 December 2020

# Cost Report

Class C Estimate

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McMurray Metis Cultural Centre  
MacDonald Island Way, Fort McMurray, Alberta  
McMurray Metis Local 1935

making the **difference**

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**Quality Check**

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2 EXECUTIVE COST SUMMARY

Project No. can21273 Rev. 0 December 16, 2020				
MCMURRAY METIS CULTURAL CENTRE SCHEMATIC DESIGN CLASS C CONSTRUCTION AND SOFT COST ANALYSIS EXECUTIVE SUMMARY				
	GFA (sf)	\$/sf		Amount CAD \$
1 Construction costs:				
McMurray Metis Cultural Centre	63,604	\$854		\$54,298,000
Building Works			\$42,789,000	
General Requirements		10%	\$4,279,000	
Fees		3%	\$1,412,000	
Design/Estimating Allowance		12%	\$5,818,000	
McMurray Metis Cultural Centre Site Works				\$4,424,000
Site Works			\$3,486,000	
General Requirements		10%	\$349,000	
Fees		3%	\$115,000	
Design/Estimating Allowance		12%	\$474,000	
<b>Sub-Total Construction Cost</b>				<b>\$58,722,000</b>
2 Escalation Allowance (assumed construction start date of Spring 2021)	0%			Excluded
3 Construction Contingency Allowance - Post Contract	5%			\$2,936,000
4 Net-Zero Energy Premium - included in cost estimate				\$0
5 Net-Zero Carbon Premium - included in cost estimate				\$0
6 One Planet Living Certification and Consultant				\$65,000
<b>Total Estimated Construction Cost</b>				<b>\$61,723,000</b>
Refer BREAKDOWN OF FURNITURE, FURNISHINGS & EQUIPMENT, PROFESSIONAL FEES AND SOFT COSTS				
7 Furniture, Furnishings and Equipment				\$3,317,400
8 AV/IT Equipment				\$285,000
9 Professional Fees				\$3,773,753
10 Municipal Fees + Charges				\$300,000
11 Staff On-Boarded in Final Year of Construction				\$240,000
<b>Total Estimated Construction, Equipment, Professional Fees and Soft Costs</b>				<b>\$69,639,153</b>
12 GST (Goods and services tax)	5%			\$3,482,000
<b>ALTERNATIVES</b>				
13 Modular Brick in lieu of Swiss INSO Kromatix		Saving (-)/Addition(+)		-3,227,000
14 Modular Brick in lieu of Rammed earth wall - Sirewall		Saving (-)/Addition(+)		-1,524,000
15 Conventional triple glazed curtain wall in lieu of triple glazed onyx photovoltaic glass curtain wall		Saving (-)/Addition(+)		-130,000
16 Conventional single glazed curtain wall in lieu of triple glazed onyx photovoltaic glass curtain wall vertical to green roof		Saving (-)/Addition(+)		-414,000
17 Double cell polycarbonate in lieu of semi-translucent photovoltaics glazed greenhouse roof		Saving (-)/Addition(+)		-1,266,000

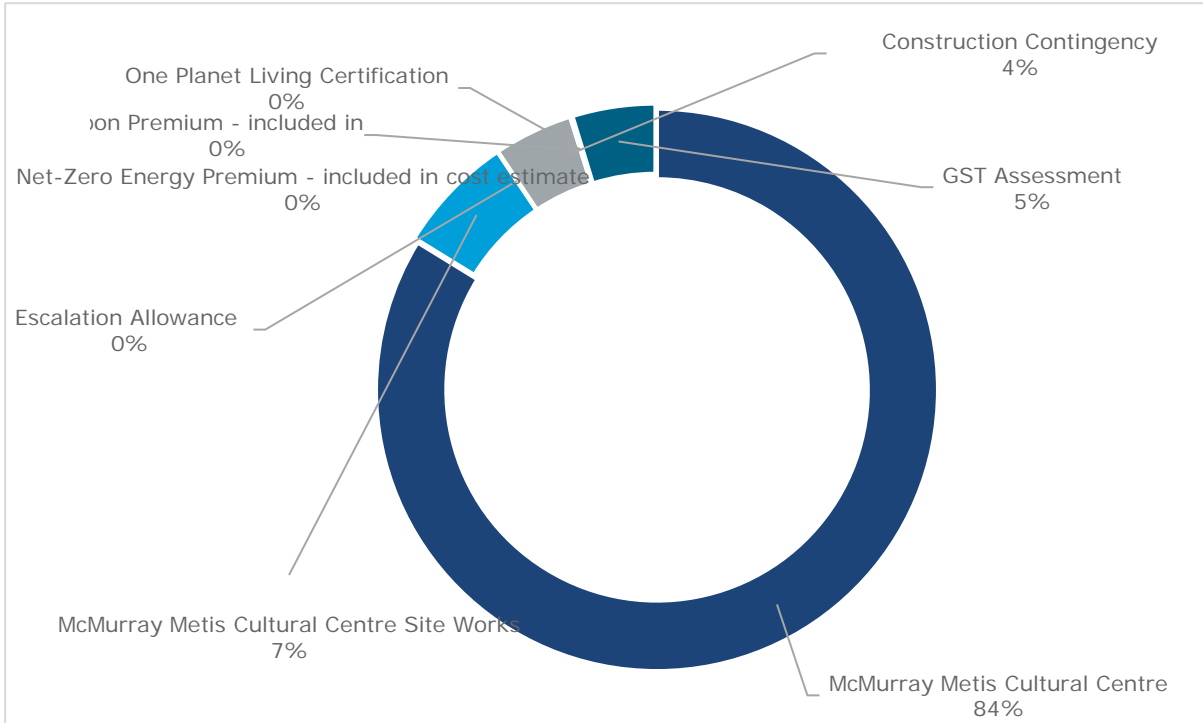
2 EXECUTIVE COST SUMMARY

<p>Project No. can21273 Rev. 0 December 16, 2020</p> <p style="text-align: center;"><b>MCMURRAY METIS CULTURAL CENTRE SCHEMATIC DESIGN CLASS C CONSTRUCTION AND SOFT COST ANALYSIS EXECUTIVE SUMMARY</b></p>
<p><b>Notes:</b></p> <ol style="list-style-type: none"><li>1 The above is an opinion of Probable Cost Only</li><li>2 The estimate assumes the works will be completed by non-unionized labour force</li><li>3 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 Construction Management basis , and that bids will be received from a minimum of three sub contractors for each major trades. 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.</li><li>4 FF&amp;E, Professional fees and AV/IT costs are a placeholder at this time</li></ol> <p><b>The following have been specifically excluded:</b></p> <ol style="list-style-type: none"><li>1 Legal Fees and Expenses</li><li>2 Owner's Administration Expenses</li><li>3 Removal of Contaminated Material, if any</li><li>4 Construction Price Escalation Beyond 4Q 2020</li><li>5 Land costs</li><li>6 Premiums for Single Sourced Materials</li><li>7 Schedule Acceleration Premium</li><li>8 LEED Premiums</li><li>9 AESS Grade Steel</li><li>10 Out of Hours Woking (other than where stated)</li><li>11 Hazardous Material</li><li>12 Loss of Revenue Premiums included by either the Construction Manager or sub trades due to any prohibitive contractual clauses such as Liquidated Damages or</li><li>13 penalties for non completion of the work</li><li>14 Demolition of Existing Structures</li><li>15 Asbestos abatement</li><li>16 Theatre and stage equipment</li></ol>

Section 2 - Executive Summary

Gross Floor Area: 5,909 m<sup>2</sup> 63,604 ft<sup>2</sup>

Ref	Element	TOTAL	\$/m <sup>2</sup>	\$/ft <sup>2</sup>	Cost Ratio
A	McMurray Metis Cultural Centre	\$54,298,000	\$9,189	\$854	84%
B	McMurray Metis Cultural Centre Site Works	\$4,424,000	\$147	\$14	7%
<b>SUB-TOTAL: BUILDING COSTS</b>		<b>\$58,722,000</b>	<b>\$9,938</b>	<b>\$923</b>	<b>91%</b>
C	Escalation Allowance	Excluded	Excluded	Excluded	Excluded
D	Construction Contingency	\$2,936,000	\$497	\$46	5%
<b>TOTAL: BUILDING COSTS</b>		<b>\$61,658,000</b>	<b>\$10,435</b>	<b>\$969</b>	<b>95%</b>
E1	Net-Zero Energy Premium - included in cost estimate	\$0	\$0	\$0	0%
E2	Net-Zero Carbon Premium - included in cost estimate	\$0	\$0	\$0	0%
E2	One Planet Living Certification	\$65,000	\$11	\$1	0%
<b>TOTAL: PROJECT COSTS (exc TAX)</b>		<b>\$61,723,000</b>	<b>\$10,446</b>	<b>\$970</b>	<b>95%</b>
GST	GST Assessment	\$3,086,150	\$522	\$49	5%
<b>TOTAL: PROJECT COSTS (inc TAX)</b>		<b>\$64,809,150</b>	<b>\$10,968</b>	<b>\$1,019</b>	<b>100%</b>



### Section 3 - Financial overview

## 3 Cost Report

### 3.1 Project Introduction

The purpose of this Cost Plan is to provide McMurray Metis Local 1935 with an Opinion of Probable Cost only at Class C and reflects current local market rates and conditions.

The Cost Plan provides indicative construction costs for the McMurray Metis Cultural Centre project in Fort McMurray, for McMurray Metis Local 1935 at Class C correct to a magnitude of +/- 20% to 40%.

The costs have been based upon the information listed in Appendix B and a Gross Floor Area of 63,604 ft<sup>2</sup> as indicated in Appendix A.

The Cost Plan has been prepared solely for the use of McMurray Metis Local 1935 and shall not be relied upon by any third party.

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.

### 3.2 Financial overview

The Building Costs (inclusive of GST) totals \$64,809,150.00 including General Requirements, Overheads & Profit, Contingency, this equates to \$1018.94/ft<sup>2</sup>.

The Project Cost totals \$69,639,152.50 and includes Building Costs, Escalation and any applicable Soft Costs including FF&E, Professional Fees and AV/IT Costs. This equates to \$1094.88/ft<sup>2</sup>.

The Construction Manager's General Requirements have been assumed at 10% and Construction Manager's Fee at 3%

### 3.3 Key cost drivers

- External envelope; Kromatix, Sirewall, photovoltaic glass curtain wall
- Piling and Sono-tube requirements
- Glass canopies and projection structures
- Timber structural; framing and glulam columns and beams
- Equipment allowances
- HVAC
- Site development

### 3.4 Contingency summary

The Design Contingency is set at 12% which equates to \$6,292,000.00

The Construction Contingency is set at \$2,936,000.00

### 3.5 Risks

The Key risks have been considered are summarised below:

- Incomplete design package
- Unique and complex building footprint

**Section 3 - Financial overview****3.6 Escalation Summary**

Works are priced at a Base Date of Q4 2020  
Escalation has been excluded from this estimate

**3.7 General Requirements**

We have included an allowance of 10% for General Requirements within our estimate which represents the current market levels for a project of this nature.

Our allowance for Requirements includes: -

- Site Set Up
- Contractor Staff
- Hoarding
- Mobilization and Demobilization
- Bonding and Insurance
- Temporary Power
- Temporary Heating
- Scaffolding
- Regular and Final Cleaning
- Traffic Control and Management
- Small Tools and Equipment
- Site Signage
- Temporary Office

**3.8 Procurement strategy**

This estimate assumes that the project will be procured on a Construction Management basis , and that bids will be received from a minimum of three sub contractors for each major trades. 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.

**Section 3 - Financial overview****3.9 Measurement and Pricing**

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

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.

The rates used for this estimate are also inclusive of location factor to account for trades, labour and material supply coming from either Edmonton or out of town.

**3.10 General Statement of Liability**

Turner & 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.

Turner & 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 assumed current market conditions.

**3.11 Outstanding actions / information**

- Structural Drawings
- Mechanical and electrical Drawings
- Civil Drawings



**Section 4 - Basis of Costs****4 Basis of Costs****4.1 Information used and outstanding**

The Cost Plan has been prepared solely in accordance with the documentation outlined within this document and as specified in Appendix B.

**4.2 Assumptions**

The following Assumptions have been made in the preparation of the Cost Estimate


1. Works are priced at Q4 2020 with no Escalation applied
2. The Cost Plan assumes that the works will be procured by a Construction Management process. The tender will be based on Class A information or equivalent.
3. Regular working hours
4. No major site grading allowed; relatively flat site is assumed
5. No major phasing requirements
6. No 'Accelerated' schedule premiums allowed
7. Refer to the section 'Elemental Basis' for further specific Works assumptions
8. Non-union labour


**4.3 Exclusions**

The following items are specifically excluded from the Cost Estimate:

1. GST (Goods and services tax)
2. Legal Fees and Expenses
3. Owner's Administration Expenses
4. Removal of Contaminated Material, if any
5. Construction Price Escalation Beyond 4Q 2020
6. Land costs
7. Premiums for Single Sourced Materials
8. Schedule Acceleration Premium
9. LEED Premiums
10. AESS Grade Steel
11. Out of Hours Working (other than where stated)
12. Hazardous Material
13. Loss of Revenue
14. Premiums included by either the Construction Manager or sub trades due to any prohibitive contractual clauses such as Liquidated Damages or penalties for non completion of the work
15. Demolition of Existing Structures
16. Asbestos abatement
17. Theatre and stage equipment

5 SOFT COSTS BREAKDOWN

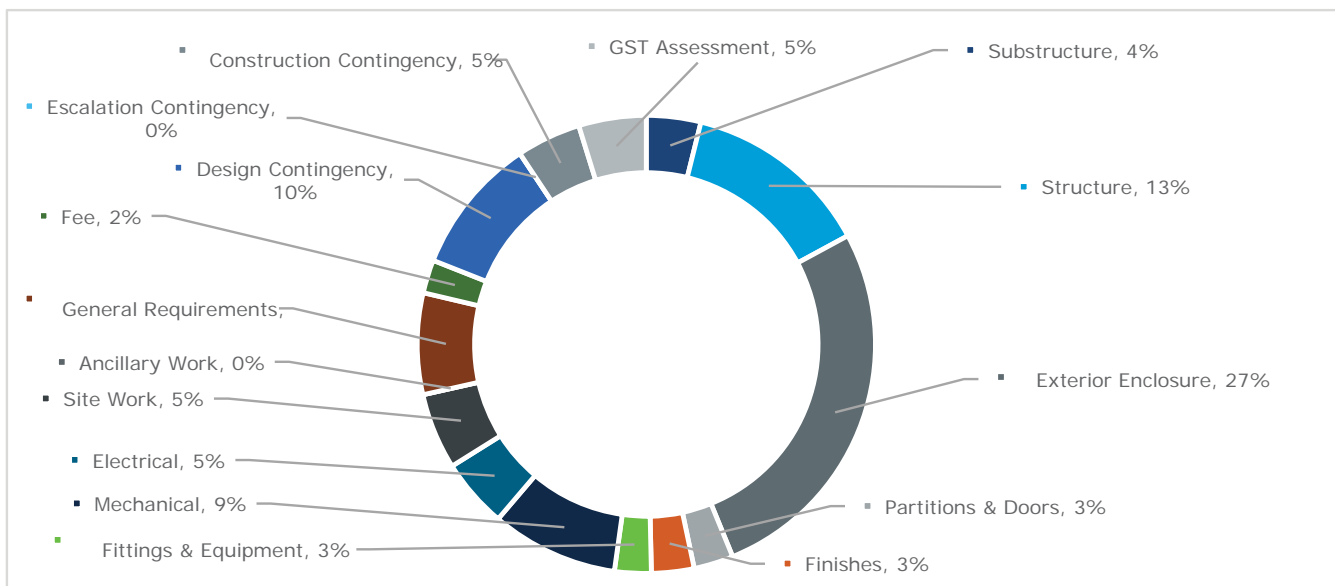
Project No. can21273 Rev. 0 December 4, 2020			
<b>MCMURRAY METIS CULTURAL CENTRE SCHEMATIC DESIGN CLASS C CONSTRUCTION AND SOFT COST ANALYSIS</b>			
<b>BREAKDOWN OF FURNITURE, FURNISHINGS &amp; EQUIPMENT, PROFESSIONAL FEES AND SOFT COSTS</b>			
1 Furniture, Furnishings and Equipment:		\$3,317,400	
Kitchen dock (trash containers and racking)			\$2,000
Kitchen equipment			\$150,000
Kitchen - loose FF&E			\$50,000
Kitchenware goods (utensils, plates, trays, carts, etc)			\$15,000
Gathering Space - loose FF&E (chairs 225 x \$200 each)			\$45,000
Gathering Space - loose FF&E (tables 30 x \$150 each)			\$4,500
Gathering space - lighting etc			\$10,000
Multi-purpose Rooms 1 & 2 - countertop assumed with high and low cabinets, allow 21m			\$39,100
Multi-purpose Rooms 1 & 2 - loose FF&E (tables and chairs)			\$12,000
Resource Centre - loose FF&E (tables, chairs, bookcases and map cabinets)			\$10,000
Resource Centre - countertop assumed with high and low cabinets, allow 10m			\$18,000
Wellness - FF&E placeholder			\$6,000
Green room - storage placeholder			\$8,000
Art Gallery (giftshop) - fixturing with built-in storage			\$50,000
Loading bay - carts, dollies and pallet jack			\$3,000
Wood working shop			\$70,000
Closed offices (30 units) - loose FF&E (desks, chairs, visitor chairs, etc)			\$150,000
Open Furniture and Offices - loose FF&E			\$60,000
Large Board Room (24 seats) - loose FF&E (custom table and chairs)			\$35,000
Board Room #2 (12 seats) - loose FF&E (custom table and chairs)			\$20,000
Board Room #3 (12 seats) - loose FF&E (custom table and chairs)			\$20,000
Lobby Support - FF&E placeholder			\$5,000
Museum Collection Room - cabinets			\$30,000
Museum Collection Room - shelving			\$3,000
Museum Collection Room - chairs, tables and book case			\$20,000
Greenhouse - pots, planters, dirt, vertical plant supports			\$100,000
Greenhouse - shelving			\$50,000
Greenhouse - tools and irrigation system			\$50,000
View Terrace - FF&E			\$15,000
Outdoor Yard Equipment - FF&E			\$15,000
Office Kitchen - dishwashers, allow 2 nos.			\$2,000
Office Kitchen - refrigerators, allow 2 nos.			\$4,000
Office Kitchen - microwave - allow 2 nos.			\$1,000
Circular Gathering Space - Large wood-burning fireplace			\$100,000
Facility management equipment			\$20,000
Facility solid waste handling equipment			\$10,000
Feature film			\$50,000
Exhibit costing			\$2,000,000
Collection room cabinets			\$40,000
Theatre - allowance for theatre seating, assume 62 seats			\$24,800
2 AV/IT Equipment		\$285,000	
Board Room AV equipment and set up			\$70,000
P.O.S. Terminals x 3 (hardware and software for admissions, giftshop and food service)			\$15,000
Digital signage			\$20,000
Office computers (20 x \$3k per unit)			\$60,000
Sound masking			\$100,000
Security - computer			\$20,000

Project No. can21273			
Rev. 0			
December 4, 2020			
<b>MCMURRAY METIS CULTURAL CENTRE</b> <b>SCHEMATIC DESIGN CLASS C CONSTRUCTION AND SOFT COST ANALYSIS</b> <b>BREAKDOWN OF FURNITURE, FURNISHINGS &amp; EQUIPMENT, PROFESSIONAL FEES AND SOFT COSTS</b>			
<b>3 Professional Fees:</b> Museum Consultants (Tom, Tim and Heather) Commissioning Agents One Earth Certification Interpretive Program Developer Legal Survey Architect Structural Mechanical Electrical Civil Landscape Cost Consultant Code Consultant (under Architect) Acoustic Consultant Building Envelope Consultant Kitchen/Food Consultant Additional Consultants Allowance Disbursements (assumes 2 trips/month site review)		<b>\$3,773,753</b>	\$120,000 \$100,000 Included \$50,000 \$60,000 \$1,087,200 \$279,000 \$375,000 \$173,420 \$325,000 \$299,730 \$80,000 \$0 \$50,000 \$75,000 \$15,000 \$200,000 \$484,403
<b>4 Municipal Fees + Charges</b> Rezoning + Subdivision Development Permit Building Permit (based on \$30m construction value) Sundry Municipal Charges		<b>\$300,000</b>	N/A \$15,000 \$275,000 \$10,000
<b>5 Staff On-Boarded in Final Year of Construction</b> Building Manager Front of House Manager Cultural Properties Manager		<b>\$240,000</b>	\$80,000 \$80,000 \$80,000
<b>TOTAL</b>			<b>\$7,916,153</b>

**Section 6 - Headline Construction Costs**

Gross Floor Area: **5,909 m<sup>2</sup>**    **63,604 ft<sup>2</sup>**

Ref	Element	TOTAL	\$/m <sup>2</sup>	\$/ft <sup>2</sup>
A1	Substructure	\$2,480,000	\$420	\$39
A2	Structure	\$8,610,000	\$1,457	\$135
A3	Exterior Enclosure	\$17,304,000	\$2,928	\$272
B1	Partitions & Doors	\$1,798,000	\$304	\$28
B2	Finishes	\$1,950,000	\$330	\$31
B3	Fittings & Equipment	\$1,670,000	\$283	\$26
C1	Mechanical	\$5,812,000	\$984	\$91
C2	Electrical	\$3,165,000	\$536	\$50
D1	Site Work	\$3,486,000	\$590	\$55
D2	Ancillary Work	\$0	\$0	\$0
<b>SUB-TOTAL: BUILDING WORKS</b>		<b>\$46,275,000</b>	<b>\$7,831</b>	<b>\$728</b>
Z11	General Requirements	\$4,628,000	\$783	\$73
Z12	Fee	\$1,527,000	\$258	\$24
<b>TOTAL: BUILDING WORKS ESTIMATE</b>		<b>\$52,430,000</b>	<b>\$8,873</b>	<b>\$824</b>
Z21	Design Contingency	\$6,292,000	\$1,065	\$99
Z22	Escalation Contingency	\$0	\$0	\$0
Z23	Construction Contingency	\$2,936,000	\$497	\$46
<b>TOTAL: CONSTRUCTION COST</b>		<b>\$61,658,000</b>	<b>\$10,435</b>	<b>\$969</b>
GST	GST Assessment	\$3,083,000	\$522	\$48
<b>TOTAL: CONSTRUCTION COST (Inc TAX)</b>		<b>\$64,741,000</b>	<b>\$10,956</b>	<b>\$1,018</b>



**Section 6 - Headline Construction Costs**

making the **difference**

Section 7 - Building Works Elemental Summary

McMurray Metis Cultural Centre								
Ref	Element	Ratio To GFA	Elemental Quantity	Elemental Unit Rate	Total	Cost / m2	Cost / ft2	Cost Ratio
<b>A</b>	<b>Shell</b>				<b>\$28,394,000</b>	<b>\$4,805</b>	<b>\$446</b>	<b>47%</b>
<b>A1</b>	<b>Substructure</b>				<b>\$2,480,000</b>	<b>\$420</b>	<b>\$39</b>	<b>4%</b>
A11	Foundation	0.45	2,649 m <sup>2</sup>	\$936	\$2,480,000	\$420	\$39	4%
A12	Basement excavation	0.00	0 m <sup>3</sup>	\$0	\$0	\$0	\$0	0%
<b>A2</b>	<b>Structure</b>				<b>\$8,610,000</b>	<b>\$1,457</b>	<b>\$135</b>	<b>14%</b>
A21	Lowest Floor Construction	0.45	2,649 m <sup>2</sup>	\$204	\$540,000	\$91	\$8	1%
A22	Upper Floor Construction	0.55	3,260 m <sup>2</sup>	\$1,997	\$6,509,000	\$1,102	\$102	11%
A23	Roof Construction	0.45	2,649 m <sup>2</sup>	\$589	\$1,561,000	\$264	\$25	3%
<b>A3</b>	<b>Exterior Enclosure</b>				<b>\$17,304,000</b>	<b>\$2,928</b>	<b>\$272</b>	<b>29%</b>
A31	Walls Below Grade	0.00	0 m <sup>2</sup>	\$0	\$0	\$0	\$0	0%
A32	Walls Above Grade	0.77	4,539 m <sup>2</sup>	\$1,157	\$5,253,000	\$889	\$83	9%
A33	Windows & Entrances	0.14	801 m <sup>2</sup>	\$2,181	\$1,747,000	\$296	\$27	3%
A34	Roof Covering	0.45	2,649 m <sup>2</sup>	\$1,142	\$3,024,000	\$512	\$48	5%
A35	Projections	1.00	5,909 m <sup>2</sup>	\$1,232	\$7,280,000	\$1,232	\$114	12%
<b>B</b>	<b>Interiors</b>				<b>\$5,418,000</b>	<b>\$917</b>	<b>\$85</b>	<b>9%</b>
<b>B1</b>	<b>Partitions &amp; Doors</b>				<b>\$1,798,000</b>	<b>\$304</b>	<b>\$28</b>	<b>3%</b>
B11	Partitions	0.54	3,184 m <sup>2</sup>	\$500	\$1,593,000	\$270	\$25	3%
B12	Doors	0.02	91 no	\$2,253	\$205,000	\$35	\$3	0%
<b>B2</b>	<b>Finishes</b>				<b>\$1,950,000</b>	<b>\$330</b>	<b>\$31</b>	<b>3%</b>
B21	Floor Finishes	0.84	4,949 m <sup>2</sup>	\$250	\$1,235,000	\$209	\$19	2%
B22	Ceiling Finishes	0.84	4,949 m <sup>2</sup>	\$51	\$253,000	\$43	\$4	0%
B23	Wall Finishes	1.48	8,757 m <sup>2</sup>	\$53	\$462,000	\$78	\$7	1%
<b>B3</b>	<b>Fittings &amp; Equipment</b>				<b>\$1,670,000</b>	<b>\$283</b>	<b>\$26</b>	<b>3%</b>
B31	Fittings & Fixtures	1.00	5,909 m <sup>2</sup>	\$231	\$1,365,000	\$231	\$21	2%
B32	Equipment	1.00	5,909 m <sup>2</sup>	\$0	\$0	\$0	\$0	0%
B33	Conveying Systems	0.00	7 stp	\$43,571	\$305,000	\$52	\$5	1%
<b>C</b>	<b>Services</b>				<b>\$8,977,000</b>	<b>\$1,519</b>	<b>\$141</b>	<b>15%</b>
<b>C1</b>	<b>Mechanical</b>				<b>\$5,812,000</b>	<b>\$984</b>	<b>\$91</b>	<b>10%</b>
C11	Plumbing & Drainage	1.00	5,909 m <sup>2</sup>	\$126	\$744,000	\$126	\$12	1%
C12	Fire Protection	1.00	5,909 m <sup>2</sup>	\$73	\$431,000	\$73	\$7	1%
C13	HVAC	1.00	5,909 m <sup>2</sup>	\$715	\$4,223,000	\$715	\$66	7%
C14	Controls	1.00	5,909 m <sup>2</sup>	\$70	\$414,000	\$70	\$7	1%
<b>C2</b>	<b>Electrical</b>				<b>\$3,165,000</b>	<b>\$536</b>	<b>\$50</b>	<b>5%</b>
C21	Service & Distribution	1.00	5,909 m <sup>2</sup>	\$174	\$1,027,000	\$174	\$16	2%
C22	Lighting, Devices & Heating	1.00	5,909 m <sup>2</sup>	\$204	\$1,208,000	\$204	\$19	2%
C23	Systems & Ancillaries	1.00	5,909 m <sup>2</sup>	\$157	\$930,000	\$157	\$15	2%
<b>D</b>	<b>Site &amp; Ancillary Work</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>0%</b>
<b>D2</b>	<b>Ancillary Work</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>0%</b>
D21	Demolition	0.00	0 m <sup>2</sup>	\$0	\$0	\$0	\$0	0%
D22	Alterations	0.00	0 m <sup>2</sup>	\$0	\$0	\$0	\$0	0%
<b>SUB-TOTAL: NET BUILDING WORKS</b>					<b>\$42,789,000</b>	<b>\$7,241</b>	<b>\$673</b>	<b>71%</b>
<b>Z</b>	<b>General Requirements &amp; Allowances</b>							
<b>Z1</b>	<b>General Requirements &amp; Fee</b>				<b>\$5,691,000</b>	<b>\$963</b>	<b>\$89</b>	<b>10%</b>
Z11	General Requirements		10.0 %		\$4,279,000	\$724	\$67	7%
Z12	Fee		3.0 %		\$1,412,000	\$239	\$22	2%
<b>TOTAL: BUILDING WORKS ESTIMATE</b>					<b>\$48,480,000</b>	<b>\$8,204</b>	<b>\$762</b>	<b>81%</b>
<b>Z2</b>	<b>Allowances</b>				<b>\$8,533,000</b>	<b>\$1,444</b>	<b>\$134</b>	<b>14%</b>
Z21	Design Allowance		12.0 %		\$5,818,000	\$985	\$91	10%
Z22	Escalation Allowance		0.0 %		\$0	\$0	\$0	0%
Z23	Construction Contingency		5.0 %		\$2,715,000	\$459	\$43	5%
<b>TOTAL BUILDING COST</b>					<b>\$57,013,000</b>	<b>\$9,649</b>	<b>\$896</b>	<b>95%</b>
<b>GST</b>	<b>GST Assessment</b>		5.0%		<b>\$2,850,700</b>	<b>\$482</b>	<b>\$45</b>	<b>5%</b>
<b>TOTAL BUILDING COST INC TAX</b>					<b>\$59,864,000</b>	<b>\$10,131</b>	<b>\$941</b>	<b>100%</b>
<b>GFA</b>								
Gross Floor Area (m2):		5,909 m <sup>2</sup>						
Gross Floor Area (ft2):		63,604 ft <sup>2</sup>						

## Section 8 - Building Works Cost Analysis

## Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>A</b>	<b>SHELL</b>				<b>28,394,000</b>	
<b>A1</b>	<b>SUBSTRUCTURE</b>				<b>2,480,000</b>	
<b>A11</b>	<b>Foundation</b>	<b>2,649</b>	<b>m2</b>	<b>936.20</b>	<b>2,480,000</b>	
	<i>Note: The following allowances are based on the structural brief. No structural drawings available. The cost is to be reassessed once further details on the foundations are available. Engineer to verify allowances</i>					
A 11.01	Exterior grade beam, 1000mm wide x 500mm deep	380	m	430.00	163,400	
A 11.08	Interior grade beam, 1000mm wide x 500mm deep	536	m	430.00	230,580	
A 11.09	Pile foundation - CFA piles, 10m deep, include: - 450mm diameter pile	18	no	2,400.00	43,200	As per SB-Canada's pricing
A 11.10	500mm diameter pile	136	no	2,400.00	326,400	As per SB-Canada's pricing
A 11.11	800mm diameter pile	190	no	6,000.00	1,140,000	As per SB-Canada's pricing
A 11.09	Mobilization and Demobilization - allowance	1	sum	185,000.00	185,000	As per SB-Canada's pricings: 55K mob demob + 60K restrict access + 70K working in excavation area
A 11.12	Allowance for spoil removal from site - REUSE IN SITE FOR LANDSCAPE FILL	1	sum	50,000.00	50,000	
A 11.13	Allowance for sono-tube columns - 1500mm deep 450mm diameter pile	18	no	600.00	10,800	
A 11.14	500mm diameter pile	136	no	700.00	95,200	
A 11.15	800mm diameter pile	190	no	1,000.00	190,000	
A 11.16	Stair foundation	2	no	5,000.00	10,000	
A 11.17	Elevator foundation	2	no	5,000.00	10,000	
A 11.18	Allowance for Miscellaneous Foundations	1	sum	25,000.00	25,000	
A 11.19	Area	2,649	m2			
<b>A12</b>	<b>Basement Excavation</b>	<b>0</b>	<b>m3</b>	<b>0.00</b>	<b>0</b>	
A 12.01	No works required					
<b>A2</b>	<b>STRUCTURE</b>				<b>8,610,000</b>	
<b>A21</b>	<b>Lowest Floor Construction</b>	<b>2,649</b>	<b>m2</b>	<b>203.85</b>	<b>540,000</b>	
A 21.01	Concrete slab on grade - 200mm thick	2,649	m2	200.00	529,800	
A 21.10	Allowance for slab thickening	1	sum	5,000.00	5,000	
A 21.11	Allowance for sump pits, housekeeping pads and the like	1	sum	5,000.00	5,000	

## Section 8 - Building Works Cost Analysis

## Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>A22</b>	<b>Upper Floor Construction</b>	<b>3,260</b>	<b>m2</b>	<b>1,996.63</b>	<b>6,509,000</b>	
A 22.01	Reinforced concrete upstand wall - 175mm x 1500m high	380	m	560.00	212,800	
	Concrete - 30 Mpa	100	m3	280.00		
	Formwork	1,140	m2	120.00		
	Reinforcement	6,484	kg	2.00		
A 22.02	Timber suspended floor	3,260	m2			
A 22.03	Framing	3,260	m2	810.00	2,640,600	As per Beamcraft's budget pricing
	16mm sheathing					
	89mm tongue and groove D-Fir decking					
A 22.04	Glulam	3,260	m2	827.00	2,696,020	As per Beamcraft's budget pricing
	315x912 D-Fir 24f-E glulam beams					
	315x342 D-Fir 16c-E glulam columns					
A 22.05	Back up wall - wood stud structural wall	4,539	m2	200.00	907,730	
A 22.06	Exit stair - assumed wood framed (1 no.)	2	flight	3,600.00	7,200	
A 22.07	Feature stair - assumed reinforced concrete (1 no.)	65	m	360.00	23,450	
A 22.08	Allowance for housekeeping pads	1	sum	5,000.00	5,000	
A 22.09	Allowance for miscellaneous metals	3,260	m2	5.00	16,300	
<b>A23</b>	<b>Roof Construction</b>	<b>2,649</b>	<b>m2</b>	<b>589.28</b>	<b>1,561,000</b>	
A 23.01	Greenhouse glazed roof	1,169	m2			
A 23.02	W610x82 beams	50,262	kg	6.25	314,140	Quantity as per measurements based on Engineer's Brief
A 23.03	W410x60 columns	9,900	kg	6.25	61,880	Quantity as per measurements based on Engineer's Brief
A 23.04	HSS167 dia. x 6.4 columns	3,973	kg	6.25	24,830	Quantity as per measurements based on Engineer's Brief
A 23.05	W200x22 purlins	6,742	kg	6.25	42,140	Quantity as per measurements based on Engineer's Brief
A 23.06	HSS127x6.4 cross bracing	13,447	kg	6.25	84,040	Quantity as per measurements based on Engineer's Brief
A 23.07	Reinforced concrete roof (Accessibly roof over service area - part of floor of Amphitheatre)	211	m2	360.00	75,960	
A 23.08	Reinforced concrete roof (below Planted Ramp)	625	m2	360.00	225,000	
A 23.09	Reinforced concrete roof (below Exterior Stair area)	106	m2	360.00	38,160	
A 23.09	Extra over for sloping	731	m2	150.00	109,650	
A 23.10	Steel on wood support (Accessible roof over Circular Gathering Space)	231	m2	300.00	69,300	
A 23.11	Timber roof to Others	307	m2			
A 23.12	Framing	307	m2	810.00	248,670	As per Beamcraft's budget pricing
A 23.13	Glulam - beams and columns	307	m2	827.00	253,890	As per Beamcraft's budget pricing
A 23.14	Allowance for miscellaneous metals	2,649	m2	5.00	13,250	
<b>A3</b>	<b>EXTERIOR ENCLOSURE</b>				<b>17,304,000</b>	
<b>A31</b>	<b>Walls Below Grade</b>	<b>0</b>	<b>m2</b>	<b>0.00</b>	<b>0</b>	
A 31.01	Not works required					
<b>A32</b>	<b>Walls Above Grade</b>	<b>4,539</b>	<b>m2</b>	<b>1,157.40</b>	<b>5,253,000</b>	
A 32.01	Swiss INSO Kromatix	2,872	m2	1,215.00	3,489,910	Supply rate as per architect's brief; installation as per Flynn's budget pricing
A 32.02	Rammed earth wall - Sirewall	1,666	m2	1,058.00	1,762,920	as per Innovative Earth's budget pricing

## Section 8 - Building Works Cost Analysis

## Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>A33</b>	<b>Windows &amp; Entrances</b>	<b>801</b>	<b>m2</b>	<b>2,180.94</b>	<b>1,747,000</b>	
A 33.01	Curtain wall - triple glazed onyx photovoltaic glass	310	m2	2,065.00	640,150	As per Flynn's budget pricing
A 33.02	Curtain wall vertical to green roof - triple glazed onyx photovoltaic glass	360	m2	2,065.00	743,400	As per Flynn's budget pricing
A 33.03	Punched window - triple glazed fibre glass	131	m2	1,777.00	232,840	As per Flynn's budget pricing
A 33.04	Overhead door (4 nos.)	55	m2	600.00	33,000	
A 33.05	Insulated hollow metal door	8	no	2,200.00	17,600	
A 33.06	Glazed door	10	no	3,000.00	30,000	
A 33.07	Allowance for automatic door operator	10	no	5,000.00	50,000	
<b>A34</b>	<b>Roof Covering</b>	<b>2,649</b>	<b>m2</b>	<b>1,141.56</b>	<b>3,024,000</b>	
A 34.01	Greenhouse glazed roof - semi-translucent photovoltaics	1,169	m2	2,065.00	2,413,990	As per Flynn's budget pricing
A 34.02	Accessible roof over service area (part floor of Amphitheatre) - insulation, protection board, membrane, paver stands and pavers.	211	m2	370.00	78,070	
A 34.03	Green roof (Planted Ramp) Insulation, protection board and TPO membrane	625	m2	240.00	150,000	
A 34.04	ZinCo sloped green roof - as per ZinCo's quote Nov 12, 2020	625	m2	280.00	175,000	
A 34.03	Exterior Stair (Level 3) area - see A35 Projections	106	m2			
A 34.05	Roof terrace paving (Accessible roof over Circular Gathering Space) - assumed	231	m2	360.00	83,160	
A 34.06	TPO to Others	307	m2	300.00	92,100	
A 34.02	Attic hatch - allowance	1	sum	5,000.00	5,000	
A 34.07	Roof accessories	2,649	m2	10.00	26,490	



## Section 8 - Building Works Cost Analysis

## Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>A35</b>	<b>Projections</b>	<b>5,909</b>	<b>m2</b>	<b>1,232.02</b>	<b>7,280,000</b>	
A 35.01	<b>Amphitheatre (Canopy Covered)</b>					
A 35.02	Concrete slab on grade - 200mm thick	559	m2	200.00	111,800	
A 35.03	Reinforce concrete roof (below Amphitheatre) - part of, see A23 Roof Construction	211	m2			
A 35.03	Interior grade beam, 1000mm wide x 500mm deep	143	m	430.00	61,490	
	Piling and pile caps - see A11 Foundation					
A 35.04	Glazed canopy - conventional opaque PV's	770	m2	1,992.00	1,533,840	As per Flynn's budget pricing
A 35.04	Structural steel - canopy	55,440	kg	6.25	346,500	
A 35.05	Sloped and stepped seating base slab and wall	339	m	1,500.00	508,740	
A 35.06	Floor finish - assumed grass as per Architect's picture sent December 10, 2020	447	m2	15.00	6,710	
	<b>Amphitheatre (Uncovered)</b>					
A 35.07	Floor finish - assumed CRUSHER DUST as per Architect's picture sent December 10, 2020	536	m2	10.00	5,360	
	<b>Covered Entry Plaza</b>					
A 35.08	Concrete slab on grade - 200mm thick	656	m2	200.00	131,200	
A 35.09	Interior grade beam, 1000mm wide x 500mm deep	158	m	430.00	67,940	
	Piling and pile caps - see A11 Foundation					
A 35.10	Glazed canopy - conventional opaque PV's	656	m2	1,992.00	1,306,750	As per Flynn's budget pricing
A 35.10	Structural steel - canopy	47,232	kg	6.25	295,200	
A 35.11	Floor finish - radial unit paving	656	m2	200.00	131,200	
	<b>Planted Ramp</b>					
A 35.12	Concrete slab on grade - 200mm thick	206	m2	200.00	41,200	
A 35.12	Part of the floor - see A23 Roof Construction	625	m2			
A 35.13	Interior grade beam, 1000mm wide x 500mm deep	142	m	430.00	61,060	
	Piling and pile caps - see A11 Foundation					
A 35.14	Glazed canopy - semi-translucent PV's	831	m2	2,065.00	1,716,020	As per Flynn's budget pricing
A 35.14	Structural steel - canopy	59,832	kg	6.25	373,950	
A 35.15	Floor finish - green roof, see A35 Roof Covering	625	m2			
	<b>View Terrace</b>					
A 35.16	Canopy - assume PUBLIC ART PIECE, by Client as per Architect's comments at meeting December 10, 2020	231	m2			
A 35.16	Structural steel - canopy	16,632	kg	6.25	103,950	
A 35.17	Glazed guardrail	20	m	1,500.00	30,000	
A 35.18	Floor finish - assumed paving, see A35 Roof Covering	231	m2			
	<b>Exterior Stair</b>					
A 35.19	Reinforced concrete stair	214	m	300.00	64,100	
A 35.20	Guardrail - assume metal	74	m	500.00	37,000	
	<b>Exterior Feature Stair</b>					
A 35.21	Reinforced concrete stair	115	m	500.00	57,570	
A 35.22	Handrail - assume metal	19	m	350.00	6,650	
A 35.23	Guardrail - assume metal	16	m	500.00	8,000	
	<b>Water Feature</b>					
A 35.24	Allowance for water feature - stepped and sloping	58	m2	3,000.00	174,000	
A 35.25	Allowance for exterior sun control devices	1	sum	100,000.00	100,000	

## Section 8 - Building Works Cost Analysis

## Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>B</b>	<b>INTERIOR</b>				<b>5,418,000</b>	
<b>B1</b>	<b>PARTITIONS &amp; DOORS</b>				<b>1,798,000</b>	
<b>B11</b>	<b>Partitions</b>	<b>3,184</b>	<b>m2</b>	<b>500.31</b>	<b>1,593,000</b>	
B 11.01	Accordion folding partition (multi-use space) - assumed Modernfold	46	m2	1,400.00	64,400	
B 11.02	Structural support for the above	46	m2	200.00	9,200	
B 11.03	Demountable partitions	833	m2	780.00	649,740	
B 11.04	Glazed partitions	150	m2	1,200.00	180,000	
B 11.05	Partitions - wood framed wall	1,113	m2	180.00	200,340	
B 11.06	Shear wall - wood shear wall	378	m2	300.00	113,400	
B 11.07	Solid wall partitions - assumed masonry	618	m2	350.00	216,300	
B 11.08	Sliding partitions (to workshop and loading)	54	m2	500.00	27,060	
B 11.09	Rough carpentry	1	sum	53,000.00	53,000	
B 11.09	Sealing and Caulking	1	sum	26,500.00	26,500	
B 11.10	Furring and Boxing	1	sum	53,000.00	53,000	
<b>B12</b>	<b>Doors</b>	<b>91</b>	<b>no</b>	<b>2,252.75</b>	<b>205,000</b>	
B 12.01	Hollow metal door	45	no	2,500.00	112,500	
B 12.02	Glazed door	14	no	3,000.00	42,000	
B 12.03	Glazed door - to demountable partitions, included in demountable partition cost	32	no			
B 12.04	Allowance for automatic door operator	10	no	5,000.00	50,000	
<b>B2</b>	<b>FINISHES</b>				<b>1,950,000</b>	
<b>B21</b>	<b>Floor Finishes</b>	<b>4,949</b>	<b>m2</b>	<b>249.53</b>	<b>1,235,000</b>	
	<i>Note: No architectural drawings or specifications provided. Architect to confirm assumptions and allowances.</i>					
B 21.01	Green roof (Indoor)					
B 21.02	Insulation, protection board, membrane, paver stands and pavers.	1,051	m2	370.00	388,870	
B 21.03	ZinCo pedestrian green roof - as per ZinCo's quote Nov 12, 2020	1,051	m2	100.00	105,100	Typo should be pedestrian green roof i.e. indoor
B 21.04	Polished concrete - to Level 1	1,964	m2	90.00	176,780	
B 21.05	Access flooring - to Level 2	1,411	n2	200.00	282,220	
B 21.06	Engineered birch - to Level 2	1,411	n2	160.00	225,780	
B 35.26	Porcelain floor tile - assumed to Kitchen and Washrooms	227	m2	200.00	45,400	
B 21.07	Sealed concrete - assumed to M&E and Stairs	296	m2	35.00	10,360	

## Section 8 - Building Works Cost Analysis

## Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>B22</b>	<b>Ceiling Finishes</b>	<b>4,949</b>	<b>m2</b>	<b>51.12</b>	<b>253,000</b>	
	<i>Note: No architectural drawings or specifications provided. Architects to confirm assumptions and allowance.</i>					
B 22.01	Suspended acoustic "cloud" ceiling - to Co-Working space area	555	m2	300.00	166,500	
B 22.02	Drywall ceiling, painted - assumed to Kitchen and Washrooms	227	m2	90.00	20,430	
B 22.03	Paint - assumed to M&E and Stairs	296	m2	20.00	5,920	
B 22.04	Exposed wood ceiling - assumed to Others	2,820	m2	0.00	0	
B 22.05	Exposed ceiling to Greenhouse	1,051	m2	0.00	0	
B 22.05	Allowance for bulkhead	1	sum	10,000.00	10,000	
B 22.06	Allowance for specialty ceilings	1	sum	50,000.00	50,000	
<b>B23</b>	<b>Wall Finishes</b>	<b>8,757</b>	<b>m2</b>	<b>52.76</b>	<b>462,000</b>	
	<i>Note: No architectural drawings or specifications provided. Architect to confirm assumptions and allowances.</i>					
B 23.01	Wood and natural finishes - to Museum	351	m2	375.00	131,700	
B 23.02	Porcelain wall tile - assumed to Kitchen and Washrooms	416	m2	170.00	70,720	
B 23.03	Paint - assumed to Others	7,989	m2	20.00	159,790	
B 23.04	Allowance for acoustic treatment	1	sum	50,000.00	50,000	
B 23.05	Allowance for colour wool felt	1	sum	50,000.00	50,000	
<b>B3</b>	<b>FITTINGS &amp; EQUIPMENT</b>				<b>1,670,000</b>	
<b>B31</b>	<b>Fittings &amp; Fixtures</b>	<b>5,909</b>	<b>m2</b>	<b>231.00</b>	<b>1,365,000</b>	
B 31.001	<b>Metals</b>					
B 31.01	Miscellaneous metals	5,909	m2	10.00	59,090	
B 31.02	Handrail - to exit stair, assume metal	16	m	300.00	4,800	
B 31.03	Guardrail - to exit stair, assume metal	10	m	350.00	3,500	
B 31.04	Guardrail - to feature stair, assume glass	24	m	1,300.00	31,200	
B 31.05	Guardrail - to mezzanine, assume glass	29	m	1,300.00	37,700	
	<b>Washroom accessories</b>					
B 31.06	Washroom accessories	32	no	1,200.00	38,400	
B 31.07	Washroom accessories - accessible	5	no	1,800.00	9,000	
B 31.08	Toilet compartments	32	no	500.00	16,000	
	<b>Millwork</b>					
	<u>Multipurpose rooms (2 nos.)</u>					
	Countertop - assumed with high and low cabinets - refer Executive Summary					
	<u>Reception</u>					
B 31.09	Reception desk	4	m	3,100.00	12,400	
B 31.10	Countertop - assumed with high and low cabinets	9	m	1,900.00	17,100	
	<u>Amphitheatre</u>					
B 31.11	Allowance for stadium and arena bench seating - 500 seats	500	no	1,300.00	650,000	
	<u>Resource Centre</u>					
	Countertop - assumed with high and low cabinets - refer Executive Summary					
	<u>Theatre</u>					
	Allowance for theatre seating - assume 62 seats - refer Executive Summary					

Section 8 - Building Works Cost Analysis

Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
B 31.12	<u>Museum</u> Allowance for millwork	1	sum	20,000.00	20,000	
B 31.13	<u>Art Gallery</u> Allowance for millwork	1	sum	10,000.00	10,000	
B 31.14	<u>Wood Shop</u> Allowance for millwork	1	sum	5,000.00	5,000	
B 31.15	<u>Boardrooms (2 nos.)</u> Allowance for millwork	1	sum	10,000.00	10,000	
B 31.16	<u>Lobby</u> Reception desk	6	m	3,000.00	18,000	
B 31.17	Countertop - assumed with high and low cabinets	6	m	1,800.00	10,800	
B 31.12	<u>Co-Working Space (2 nos.)</u> Co-Working booth	13	no	2,000.00	26,000	
B 31.18	Worktop - plam	10	m	1,100.00	11,000	
B 31.19	<u>Atrium - Level 2</u> Guardrail - to atrium, assume planters integrated into guards as per Architect's comments at meeting December 10, 2020	33	m	2,500.00	82,500	
B 31.20	<u>Atrium - Level 3 (Greenhouse Bridge)</u> Guardrail - to atrium, assume glass	33	m	1,300.00	42,900	
B 31.20	<u>Office Kitchen</u> Countertop - assumed solid surface	31	m	1,300.00	40,300	
B 31.21	Countertop - assumed with high and low cabinets	22	m	1,800.00	39,600	
B 31.22	<b>Specialties - allowances for</b> Visual display units	1	sum	10,000.00	10,000	
B 31.23	Display cases	1	sum	10,000.00	10,000	
B 31.24	Signage	1	sum	10,000.00	10,000	
B 31.25	Safety specialties	1	sum	10,000.00	10,000	
B 31.26	Storage assemblies	1	sum	10,000.00	10,000	
B 31.27	<b>Furnishings</b> Window treatments - allowance for blinds, assume manual Office accessories - FF&E Rugs and mats - FF&E Office furniture - FF&E Seating - FF&E Institutional furniture - FF&E Interior planters - FF&E	801	m2	150.00	120,150	
<b>B32</b>	<b>Equipment</b>	<b>5,909</b>	<b>m2</b>	<b>0.00</b>	<b>0</b>	
	Refer Executive Summary - Furniture, Furnishings and Equipment					
<b>B33</b>	<b>Conveying Systems</b>	<b>7</b>	<b>stp</b>	<b>43,571.43</b>	<b>305,000</b>	
B 33.01	Passenger elevator (1 no.)	4	stp	50,000.00	200,000	
B 33.02	Hydraulic freight elevator (1 no.)	3	stp	35,000.00	105,000	

Section 8 - Building Works Cost Analysis

Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>C</b>	<b>SERVICES</b>				<b>8,977,000</b>	
<b>C1</b>	<b>MECHANICAL</b>				<b>5,812,000</b>	
<b>C11</b>	<b>Plumbing &amp; Drainage</b>	<b>5,909</b>	<b>m2</b>	<b>125.91</b>	<b>744,000</b>	
C 11.01	<b>Plumbing Equipment</b>					
C 11.02	water meter and backflow preventor	1	sum	10,000.00	10,000	
C 11.03	Domestic Hot Water Heat Pump - see HVAC	1	no		0	
C 11.04	Domestic Hot Water tanks	2	no	10,000.00	20,000	
C 11.05	30kW back-up domestic hot water heater - Allowance	1	no	15,000.00	15,000	
C 11.06	Grease Interceptor	1	no	12,000.00	12,000	
C 11.07	DHW recirculation pump	1	no	2,500.00	2,500	
C 11.08	domestic hot water circulation pumps	2	no	10,000.00	20,000	
C 11.09	domestic hot water expansion tank	1	no	3,500.00	3,500	
C 11.10	storm sump pumps, duplex	1	sum	8,500.00	8,500	
C 11.11	sanitary sump pumps, duplex	1	sum	8,000.00	8,000	
C 11.12	domestic water booster pump	1	sum	25,000.00	25,000	
C 11.13	storm water cistern	1	sum	60,000.00	60,000	
	(Subtotal Plumbing Equipment \$184,500 )					
	Piping, Valves & Accessories					
C 11.14	DCW, domestic cold water	500	m	78.00	39,000	
C 11.15	DHW, domestic hot water	500	m	78.00	39,000	
C 11.16	DHWR, domestic hot water recirculation	400	m	75.00	30,000	
C 11.17	Sanitary drain and vent	1,000	m	88.00	88,000	
C 11.18	Storm Piping	600	m	95.00	57,000	
	(Subtotal Piping, Valves & Accessories \$253,000 )					
	Plumbing Fixture					
C 11.19	Water closet - tank type dual flush	37	no	1,500.00	55,500	
C 11.20	Lavatory - wall hung	37	no	1,300.00	48,100	
C 11.21	Kitchen Sink	2	no	1,100.00	2,200	
C 11.22	Multi-Use Sink, double compartment	4	no	1,200.00	4,800	
C 11.23	Miscellaneous sinks	2	no	800.00	1,600	
C 11.24	janitor sink	1	no	1,400.00	1,400	
C 11.25	Floor drains/Area drains	16	no	400.00	6,400	
C 11.26	Roof Drain	20	no	500.00	10,000	
C 11.27	NFHB-1, non-freeze hose bib	4	no	400.00	1,600	
C 11.28	Rough-in Kitchens	1	sum	15,000.00	15,000	
C 11.29	Irrigation to Green Roof	1	sum	30,000.00	30,000	
	(Subtotal Plumbing Fixture \$176,600 )					
	Miscellaneous					
C 11.30	Testing, balancing & commissioning	1	sum	6,100.00	6,100	
C 11.31	Location Factor	1	sum	124,040.00	124,040	
	(Subtotal Miscellaneous \$190,300 )					
<b>C12</b>	<b>Fire Protection</b>	<b>5,909</b>	<b>m2</b>	<b>72.94</b>	<b>431,000</b>	
C 12.01	<b>Piping and Sprinkler Heads</b>					
C 12.02	Fire sprinkler system	5,909	m <sup>2</sup>	65.00	384,090	
	Fire pump and jockey pump - not required					
	(Subtotal Piping and Sprinkler Heads \$407,600 )					
C 12.03	Standpipe	5,909	m <sup>2</sup>	8.00	47,270	
	standpipe system					
	(Subtotal Standpipe \$45,900 )					
	Miscellaneous					
	kitchen fire suppression system - by kitchen supplier					
	(Subtotal Miscellaneous \$0 )					

Section 8 - Building Works Cost Analysis

Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>C13</b>	<b>HVAC</b>	<b>5,909</b>	<b>m2</b>	<b>714.67</b>	<b>4,223,000</b>	
C 13.01	<b>Air Handling Equipment</b>					
C 13.02	HRV-1 East Wing DOAS - 5300 cfm, glycol heating, Heat Recovery Ventilator	1	no	69,000.00	69,000	
C 13.03	HRV-2 West Wing DOAS - 5300 cfm, glycol heating, Heat Recovery Ventilator	1	no	69,000.00	69,000	
C 13.04	HRV-3 Central Gathering DOAS - 2120 cfm, glycol heating, Heat Recovery Ventilator	1	no	28,000.00	28,000	
C 13.05	HRV-4 Theatre DOAS - 1500 cfm, glycol heating, Heat Recovery Ventilator	1	no	20,000.00	20,000	
C 13.06	MAU-1 Kitchen - 5,300 cfm, glycol heating, filtration, and supply fan	1	no	27,000.00	27,000	
C 13.07	EF-1 Kitchen Exhaust, 2500 cfm	1	no	4,000.00	4,000	
C 13.08	Miscellaneous exhaust fans	4	no	750.00	3,000	
C 13.09	Split system Fan Coil Units, 10 tons	2	no	18,000.00	36,000	
C 13.10	mechanical and electrical rooms ventilation (Subtotal Air Handling Equipment \$263,500 )	1	sum	7,500.00	7,500	
C 13.11	Geothermal System ground source system includes piping, well boring, headers, etc. - 50 boreholes @ 100m	1	ls	488,000.00	488,000	
C 13.12	water-to water heat pumps	8	no	60,000.00	480,000	
C 13.13	expansion tank - building heating & cooling	2	no	5,000.00	10,000	
C 13.14	building heating/cooling pumps, VFD	4	no	16,000.00	64,000	
C 13.15	startup / balancing	1	ls	25,000.00	25,000	
C 13.16	miscellaneous components (Subtotal Geothermal System \$1,087,000 )	1	ls	20,000.00	20,000	
C 13.17	Heating Plant Biomass Boiler - 100 kW, 340 MBH	1	no	32,000.00	32,000	
C 13.18	glycol heat exchanger	1	no	20,000.00	20,000	
C 13.19	glycol circulating pump,tank,etc	1	no	12,500.00	12,500	
C 13.20	chemical treatment, expansion tanks, air separator, glycol make up	1	sum	18,000.00	18,000	
C 13.21	Secondary distribution pumps	4	no	12,000.00	48,000	
C 13.22	Miscellaneous allowance (Subtotal Heating Plant \$150,500 )	1	sum	20,000.00	20,000	
C 13.23	Miscellaneous Testing, balancing and commissioning	1	sum	34,400.00	34,400	
C 13.24	CO2 Sensors	1	sum	15,000.00	15,000	
C 13.25	metering allowance (Subtotal Miscellaneous \$82,400 )	1	sum	30,000.00	30,000	
C 13.26	Piping, Valves & Accessories glycol supply and return to AHU units	200	m	400.00	80,000	
C 13.27	chilled water supply and return to FCUs	900	m	110.00	99,000	
C 13.28	hot water supply and return to FCUs	900	m	110.00	99,000	
C 13.29	hot water supply and return to radiant floor manifolds and miscellaneous heating devices	600	m	95.00	57,000	
C 13.30	Connection to HRV	4	no	1,500.00	6,000	
C 13.31	Connection to Boiler	1	no	1,500.00	1,500	
C 13.32	Connection to pumps	9	no	1,500.00	13,500	
C 13.33	Connection to Heat Pump Units (Subtotal Piping, Valves & Accessories \$376,000 )	8	no	2,500.00	20,000	
C 13.34	Ductwork and Air Distribution Galvanized steel ductwork	38,000	kg	25.00	950,000	
C 13.35	VAV box terminal units	10	no	1,050.00	10,500	
C 13.36	diffusers, registers, grilles	400	no	200.00	80,000	
C 13.37	silencers, allowance (Subtotal Ductwork and Air Distribution \$1,368,500 )	8	no	3,500.00	28,000	
C 13.38	Heating/Cooling Devices Unit Heaters / Forceflow heaters	8	no	1,750.00	14,000	
C 13.39	Fan Coil Units - 4 pipe	30	no	3,500.00	105,000	
C 13.40	radiant floor heating/cooling radiant panels - assume not required	3,000	m2	125.00	375,000	
C 13.41	Location Factor (Subtotal Heating/Cooling Devices \$1,197,780 )	1	sum	703,780.00	703,780	

Section 8 - Building Works Cost Analysis

Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>C14</b>	<b>Controls</b>	<b>5,909</b>	<b>m2</b>	<b>70.06</b>	<b>414,000</b>	
C 14.01	<b>DDC System</b>					
C 14.02	Integrated controls and devices - BMS (Subtotal DDC System \$413,600 )	5,909	m <sup>2</sup>	70.00	413,630	
<b>C2</b>	<b>ELECTRICAL</b>				<b>3,165,000</b>	
<b>C21</b>	<b>Service &amp; Distribution</b>	<b>5,909</b>	<b>m2</b>	<b>173.80</b>	<b>1,027,000</b>	
C 21.01	<b>Normal Power</b>					
C 21.02	SWBD 800A 347/600V 3P 4W main switchboard c/w main & feeder breakers, DMS	1	no	65,000.00	65,000	
C 21.03	Meter cabinet c/w empty conduit	1	no	1,500.00	1,500	
C 21.04	Hoisting and placing	1	sum	2,500.00	2,500	
C 21.05	Concrete base	1	sum	1,500.00	1,500	
C 21.06	4 cell concrete encased duct bank	1	sum	5,000.00	5,000	
C 21.07	Cabling	1	sum	16,000.00	16,000	
C 21.08	Grounding - allowance	1	sum	15,000.00	15,000	
C 21.09	Digital Metering (Subtotal Normal Power \$116,500 )	1	sum	10,000.00	10,000	
C 21.10	Emergency Power Reported to not be required (Subtotal Emergency Power \$0 )	1	no		0	
C 21.11	Distribution Normal Power 600A 347/600V 3P 3W distribution panel	4	no	22,200.00	88,800	
C 21.12	Transformer 112.5kva 600V 120/208V	4	no	5,210.00	20,840	
C 21.13	120/208V 3P 4W distribution panel	4	no	9,160.00	36,640	
C 21.14	100A 120/208V 3P 4W Distribution panel	1	no	2,250.00	2,250	
C 21.15	200A 120/208V 3P 4W Distribution panel	1	no	3,500.00	3,500	
C 21.16	Feeders allowance	1	sum	50,000.00	50,000	
C 21.17	Disconnect for PV	2	no	5,060.00	10,120	
C 21.18	Miscellaneous (Subtotal Distribution \$227,100 )	1	sum	15,000.00	15,000	
C 21.19	Solar Photovoltaic Allowance for 105 kW Solar PV system, 1300m <sup>2</sup> - PV Infrastructure (Subtotal Solar Photovoltaic \$360,000 )	1	sum	360,000.00	360,000	
C 21.20	Motor controls and wiring Allowance for power connections to mechanical equipment, c/w line, load side wiring and disconnect switches (Subtotal Motor controls and wiring \$74,500 )	5,909	m <sup>2</sup>	13.00	76,820	
C 21.21	Miscellaneous Metering system	1	no	35,000.00	35,000	
C 21.22	Testing & commissioning	1	sum	16,000.00	16,000	
C 21.23	Permits, inspections and job setup	1	sum	24,000.00	24,000	
C 21.24	Location Factor (Subtotal Miscellaneous \$330,900 )	1	sum	171,094.00	171,090	
<b>C22</b>	<b>Lighting, Devices &amp; Heating</b>	<b>5,909</b>	<b>m2</b>	<b>204.43</b>	<b>1,208,000</b>	
C 22.01	<b>Lighting</b>					
C 22.02	Allowance for lighting - premium architectural light fixture	400	m <sup>2</sup>	190.00	76,000	
C 22.03	Allowance for lighting - LED fixtures	5,509	m <sup>2</sup>	110.00	605,990	
C 22.04	Allowance for centralized LV lighting control system	5,909	m <sup>2</sup>	20.00	118,180	
C 22.05	Allowance for exit signs (Subtotal Lighting \$805,800 )	5,909	m <sup>2</sup>	5.00	29,550	
C 22.06	Branch Devices Allowance for branch devices (Subtotal Branch Devices \$172,000 )	5,909	m <sup>2</sup>	30.00	177,270	
C 22.07	Location Factor	1	sum	201,398.00	201,400	

**Section 8 - Building Works Cost Analysis**

**Estimate - McMurray Metis Cultural Centre**

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>C23</b>	<b>Systems &amp; Ancillaries</b>	<b>5,909</b>	<b>m2</b>	<b>157.39</b>	<b>930,000</b>	
C 23.01	<b>Fire alarm</b>					
C 23.02	Allowance for FA - single stage (Subtotal Fire alarm \$126,100 )	5,909	m <sup>2</sup>	22.00	130,000	
C 23.03	<b>Security</b> Allowance for devices, sensors/detectors, CCTV cameras, conduit, wiring (Subtotal Security \$143,000 )	5,909	m <sup>2</sup>	25.00	147,730	
C 23.04	<b>Communications</b> Allowance for voice/data empty conduit outlets	5,909	m <sup>2</sup>	10.00	59,090	
C 23.05	Allowance for cat6A cabling for above	5,909	m <sup>2</sup>	20.00	118,180	
C 23.06	Allowance for cable tray	1	sum	25,000.00	25,000	
C 23.07	Allowance for backbone cabling, racks and riser conduit (Subtotal Communications \$254,000 )	5,909	m <sup>2</sup>	10.00	59,090	
C 23.08	<b>AV system</b> A/V Equipment, Devices, Installation & Wiring - By others Allowance for empty conduit	5,909	m <sup>2</sup>	20.00	118,180	
C 23.09	Allowance for power connections to AV devices and equipment (Subtotal AV system \$144,000 )	5,909	m <sup>2</sup>	5.00	29,550	
C 23.10	<b>Sound System</b> Allowance for Theatre sound system (Subtotal Sound System \$50,000 )	1	sum	50,000.00	50,000	
C 23.11	<b>Miscellaneous</b> Testing & commissioning	1	sum	13,000.00	13,000	
C 23.12	Miscellaneous	1	sum	25,000.00	25,000	
C 23.13	Location Factor (Subtotal Miscellaneous \$264,500 )	1	sum	154,964.00	154,960	
<b>D</b>	<b>SITE &amp; ANCILLARY WORK</b>				<b>0</b>	
D1	<b>SITE WORK - See Site Cost Plan</b>				<b>0</b>	
D2	<b>ANCILLARY WORK</b>				<b>0</b>	
D21	<b>Demolition</b>	<b>0</b>	<b>m2</b>	<b>0.00</b>	<b>0</b>	
D 21.01	No Work Required					
D22	<b>Alterations</b>	<b>0</b>	<b>m2</b>	<b>0.00</b>	<b>0</b>	
D 22.01	No Work Required					
<b>SUB-TOTAL: NET BUILDING WORKS</b>					<b>42,789,000</b>	
Z1	<b>GENERAL REQUIREMENTS &amp; FEE</b>				<b>5,691,000</b>	
Z11	<b>General Requirements</b>				<b>4,279,000</b>	
Z 11.01	Contractors General Requirements	10.0	%	42,789,000.00	4,279,000	
Z12	<b>Fee</b>				<b>1,412,000</b>	
Z 12.01	Contractors Fee	3.0	%	47,068,000.00	1,412,000	



## Section 8 - Building Works Cost Analysis

## Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
TOTAL: BUILDING WORKS ESTIMATE					48,480,000	
Z2	ALLOWANCES				8,533,000	
Z21	Design Allowance				5,818,000	
Z 21.01	Design Contingency	12.0	%	48,480,000.00	5,818,000	
Z22	Escalation Allowance				0	
Z 22.01	Escalation allowance	0.0	%	54,298,000.00	0	
Z23	Construction Allowance				2,715,000	
Z 23.01	Construction Contingency	5.0	%	54,298,000.00	2,715,000	
TOTAL CONSTRUCTION COST (including allowances)					57,013,000	
GST	GST Assessment	5%	%	57,013,000.00	2,850,700	
Estimated Overall Construction Cost					59,864,000	

**Section 9 - Site Works Elemental Summary**

McMurray Metis Cultural Centre Site Works									
Ref	Element	Ratio To GFA	Elemental Quantity	Elemental Unit Rate	Total	Cost / m2	Cost / ft2	Cost Ratio	
<b>D</b>	<b>Site &amp; Ancillary Work</b>				<b>\$3,486,000</b>	<b>\$112</b>	<b>\$10</b>	<b>71%</b>	
<b>D1</b>	<b>Site Work</b>				<b>\$3,486,000</b>	<b>\$112</b>	<b>\$10</b>	<b>71%</b>	
D11	Site Development	0.96	30,061 m <sup>2</sup>	\$75	\$2,269,000	\$73	\$7	47%	
D12	Mechanical Site Services	0.96	30,061 m <sup>2</sup>	\$21	\$631,000	\$20	\$2	13%	
D13	Electrical Site Services	0.96	30,061 m <sup>2</sup>	\$19	\$586,000	\$19	\$2	12%	
<b>SUB-TOTAL: NET SITE WORKS</b>					<b>\$3,486,000</b>	<b>\$112</b>	<b>\$10</b>	<b>71%</b>	
<b>Z</b>	<b>General Requirements &amp; Allowances</b>								
<b>Z1</b>	<b>General Requirements &amp; Fee</b>				<b>\$464,000</b>	<b>\$15</b>	<b>\$1</b>	<b>10%</b>	
Z11	General Requirements		10.0 %		\$349,000	\$11	\$1	7%	
Z12	Fee		3.0 %		\$115,000	\$4	\$0	2%	
<b>TOTAL: SITE WORKS ESTIMATE</b>					<b>\$3,950,000</b>	<b>\$127</b>	<b>\$12</b>	<b>81%</b>	
<b>Z2</b>	<b>Allowances</b>				<b>\$695,000</b>	<b>\$22</b>	<b>\$2</b>	<b>14%</b>	
Z21	Design Allowance		12.0 %		\$474,000	\$15	\$1	10%	
Z22	Escalation Allowance		0.0 %		\$0	\$0	\$0	0%	
Z23	Construction Contingency		5.0 %		\$221,000	\$7	\$1	5%	
<b>TOTAL SITE WORKS COST</b>					<b>\$4,645,000</b>	<b>\$149</b>	<b>\$14</b>	<b>95%</b>	
<b>GST</b>	<b>GST Assessment</b>		5.0%		<b>\$232,300</b>	<b>\$0</b>	<b>\$0</b>	<b>0%</b>	
<b>TOTAL SITE WORKS COST INC TAX</b>					<b>\$4,877,000</b>	<b>\$157</b>	<b>\$15</b>	<b>100%</b>	
<b>Gross Site Area</b>									
GSA (m2):		31,162 m <sup>2</sup>							
GSA (ft2):		335,428 ft <sup>2</sup>							

Section 10 - Site Works Cost Analysis

Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>D SITE &amp; ANCILLARY WORK</b>					<b>3,486,000</b>	
<b>D1 SITE WORK</b>					<b>3,486,000</b>	
<b>D11 Site Development</b>		<b>30,061</b>	<b>m2</b>	<b>75.48</b>	<b>2,269,000</b>	
D 11.01	Site area	31,162	m2			
D 11.02	Building footprint	2,649	m2			
D 11.03	Existing boreal forest	1,111	m2			
D 11.04	Clear and grub site	30,051	m2	2.00	60,100	
D 11.05	Rough and fine grading	30,051	m2	4.00	120,200	
D 11.06	Excavate to remove clay - building footprint, 2.5m deep	7,810	m3	30.00	234,300	as per Engineer's Brief
D 11.07	Engineered fill	7,810	m3	40.00	312,400	
D 11.08	Adventure play - assume MULCH as per Architect's comments at meeting December 10, 2020	129	m2	15.00	1,940	
D 11.09	Fabricated bridges	106	m2	500.00	53,230	
D 11.10	Kids play - assume MULCH as per Architect's comments at meeting December 10, 2020	355	m2	15.00	5,330	
D 11.11	Medicinal garden w/ small outdoor classroom - assume CRUSHER DUST PATHWAY as per Architect's comments at meeting December 10, 2020	234	m2	10.00	2,340	
D 11.12	Outdoor classroom - assume MULCH as per Architect's comments at meeting December 10, 2020	102	m2	15.00	1,540	
D 11.13	Outdoor classroom - allowance for WOOD STUMPS as per Architect's comments at meeting December 10, 2020	10	no	200.00	2,000	
D 11.13	Wood Working - GRAVEL as per architect's notes December 14, 2020	654	m2	30.00	19,620	
D 11.13	Outdoor Kitchen, Medicinal Garden pathway - MULCH as per architect's notes December 14, 2020	1,235	m2	15.00	18,530	
D 11.14	Pond - CHANGE TO REFLECTING POOL AND WETLANDS AND REDUCE BY \$100K as per Architect's comments at meeting December 10, 2020	1,797	m2	250.00	449,290	
D 11.15	Radial unit paving	1,125	m2	200.00	225,000	
D 11.16	Ramp	71	m2	300.00	21,320	
D 11.17	Road and pathway - CRUSHER DUST as per architect's notes December 14, 2020	5,458	m2	15.00	81,880	
D 11.18	Rock pavement	472	m2	150.00	70,760	
D 11.19	Crushed stone surfacing	83	m2	180.00	14,900	
D 11.20	Curb	2,296	m	80.00	183,660	
D 11.21	Manufactured metal bollards	22	no	300.00	6,600	
D 11.22	MMCC sign - allowance	1	sum	5,000.00	5,000	
D 11.23	Outdoor kitchen - allowance	1	sum	10,000.00	10,000	
	Trapper's Cabin - OMIT, CLIENT SUPPLIED as per Client's comments at meeting December 10, 2020					
D 11.24	Benches - REDUCE COST BY HALF many benches will be made on-site in the wood shop, as per Architect's comments December 14, 2020	45	m	1,000.00	45,440	
D 11.25	Outdoor Washroom Block	45	m2	500.00	22,440	
D 11.26	Sweat lodge - OMIT, CLIENT SUPPLIED as per Client's comments at meeting December 10, 2020	44	m2	300.00	13,150	
D 11.27	Wood working area - canopy w/ washroom (2 nos.)	164	m2	150.00	24,640	
D 11.28	Steps - at pond	57	m	500.00	28,300	
D 11.29	Trees - CLIENT SUPPLIED as per Client's comments at meeting December 10, 2020	800	no			
D 11.30	Shrubs - CLIENT SUPPLIED as per Client's comments at meeting December 10, 2020	2,950	no			
D 11.31	Planting - OMIT, CLIENT SUPPLIED as per Client's comments at meeting December 10, 2020	15,326	m2			
	Allowances for:-					
D 11.32	Wood fences	1	sum	30,000.00	30,000	As per Architect's Brief
D 11.33	Wood gates	1	sum	5,000.00	5,000	As per Architect's Brief
D 11.34	Retaining walls	1	sum	50,000.00	50,000	As per Architect's Brief
D 11.35	Planting accessories	1	sum	100,000.00	100,000	As per Architect's Brief
D 11.36	Erosion and sediment control	1	sum	50,000.00	50,000	As per Architect's Brief

Section 10 - Site Works Cost Analysis

Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>D12</b>	<b>Mechanical Site Services</b>	<b>30,061</b>	<b>m2</b>	<b>20.99</b>	<b>631,000</b>	
D 12.01	Storm Service					
	Piping					
D 12.02	375mm dia	50	m	400.00	20,000	
D 12.03	Manhole, 1500mm dia	1	no	8,000.00	8,000	
D 12.04	Control Manhole	1	no	30,000.00	30,000	
D 12.05	concrete headwall to pond	1	no	5,000.00	5,000	
D 12.06	pond outlet	1	no	5,000.00	5,000	
	(Subtotal Storm Service \$68,000 )					
	Sanitary Service					
	pipng, 200mm dia.	50	m	280.00	14,000	
D 12.08	Manhole, 1200mm dia	2	no	6,500.00	13,000	
D 12.09	Connect to existing Manhole	1	sum	7,500.00	7,500	
	(Subtotal Sanitary Service \$34,500 )					
	Water Service					
D 12.10	pipng, domestic water, 150mm PVC	50	m	220.00	11,000	
D 12.11	connect to existing piping on site	1	sum	7,500.00	7,500	
	(Subtotal Water Service \$18,500 )					
	Miscellaneous					
D 12.12	Allowance for glycol heating to entrances	1	sum	150,000.00	150,000	
D 12.13	irrigation - allowance	1	sum	50,000.00	50,000	
D 12.14	Earth Tubes 1500mm dia. Precast concrete	100	m	1,300.00	130,000	
D 12.15	Excavation and backfill	1,000	m3	75.00	75,000	
D 12.16	Location Factor	1	sum	105,200.00	105,200	
	(Subtotal Miscellaneous \$562,800 )					
<b>D13</b>	<b>Electrical Site Services</b>	<b>30,061</b>	<b>m2</b>	<b>19.49</b>	<b>586,000</b>	
D 13.01	Power Distribution					
D 13.02	Hydro charges - allowance	1	sum	50,000.00	50,000	
D 13.03	Primary 800kVA pad mounted transformer	1	sum	75,000.00	75,000	
D 13.04	UG concrete encased ductbank	40	m	490.00	19,600	
D 13.05	Cabling	640	m	60.00	38,400	
D 13.06	Excavation and backfilling	140	m3	30.00	4,200	
	(Subtotal Power Distribution \$187,200 )					
	Communications					
D 13.07	Incoming communication cabling and services connections - by others	1	sum	0.00	0	
D 13.08	UG concrete encased ductbank c/w pull string	40	m	390.00	15,600	
D 13.09	Excavation and backfilling	140	m3	30.00	4,200	
	(Subtotal Communications \$19,800 )					
	Site Lighting & Power : allowance					
D 13.10	LED exterior light fixture - allowance	5	no	1,600.00	8,000	
D 13.11	Exterior wall mounted LED light - allowance	30	no	800.00	24,000	
D 13.12	Exterior pole mounted light fixtures c/w poles	10	no	3,700.00	37,000	
D 13.13	Concrete base	15	no	450.00	6,750	
D 13.14	Fixture lamps & wiring	45	no	450.00	20,250	
D 13.15	Exterior lighting controls - allowance	1	sum	15,000.00	15,000	
D 13.16	Allowance for Amphitheatre	1	sum	50,000.00	50,000	
	(Subtotal Site Lighting & Power : allowance \$161,100 )					
	Miscellaneous					
D 13.17	Amphitheatre sound system	1	sum	50,000.00	50,000	
D 13.18	Site security rough in	1	sum	20,000.00	20,000	
D 13.19	Miscellaneous electrical site work	1	sum	50,000.00	50,000	
D 13.20	Location Factor	1	sum	97,600.00	97,600	
	(Subtotal Miscellaneous \$266,400 )					

## Section 10 - Site Works Cost Analysis

## Estimate - McMurray Metis Cultural Centre

Ref	Description	Qty	Unit	Rate	Total	Notes
<b>SUB-TOTAL: NET SITE WORKS</b>					<b>3,486,000</b>	
<b>Z1</b>	<b>GENERAL REQUIREMENTS &amp; FEE</b>				<b>464,000</b>	
<b>Z11</b>	<b>General Requirements</b>				<b>349,000</b>	
Z 11.01	Contractors General Requirements	10.0	%	3,486,000.00	349,000	
<b>Z12</b>	<b>Fee</b>				<b>115,000</b>	
Z 12.01	Contractors Fee	3.0	%	3,835,000.00	115,000	
<b>TOTAL: SITE WORKS ESTIMATE</b>					<b>3,950,000</b>	
<b>Z2</b>	<b>ALLOWANCES</b>				<b>695,000</b>	
<b>Z21</b>	<b>Design Allowance</b>				<b>474,000</b>	
Z 21.01	Design Contingency	12.0	%	3,950,000.00	474,000	
<b>Z22</b>	<b>Escalation Allowance</b>				<b>0</b>	
Z 22.01	Escalation Allowance	0.0	%	4,424,000.00	0	
<b>Z23</b>	<b>Construction Allowance</b>				<b>221,000</b>	
Z 23.01	Construction Contingency	5.0	%	4,424,000.00	221,000	
<b>TOTAL CONSTRUCTION COST (including allowances)</b>					<b>4,645,000</b>	
<b>GST</b>	<b>GST Assessment</b>	<b>5%</b>	<b>%</b>	<b>4,645,000.00</b>	<b>232,300</b>	
<b>Estimated Overall Construction Cost</b>					<b>4,877,000</b>	

## Appendix A - Area schedule

## Estimate - McMurray Metis Cultural Centre

LEVEL	P2	P1	Ground Floor	2nd Floor	3rd Floor	4th Floor	TOTAL (m <sup>2</sup> )	TOTAL (ft <sup>2</sup> )	%
PERIMETER (m)			380	324	245	91			
Total GFA (m2)			2,649	1,799	1,350	111	5,909	63,604	100%
Total GFA (ft2)	0	0	28,514	19,364	14,531	1,195			

## GFA

Main electrical room			33				33	352	1%
Biomass boiler			52				52	561	1%
Wood shop			73				73	790	1%
Loading			52				52	565	1%
Museum elect			12				12	124	0%
Stair			10				10	109	0%
Museum			411				411	4,421	7%
WR			37				37	393	1%
Art gallery			180				180	1,942	3%
Janitor			16				16	173	0%
Corridor			76				76	822	1%
Reception			28				28	297	0%
Mech risers Elec/Comm			21				21	221	0%
Theatre & recording studio			115				115	1,241	2%
Corridor			4				4	40	0%
Green room			70				70	750	1%
WR			47				47	501	1%
Wellness space			81				81	868	1%
Resource centre			93				93	1,006	2%
Multi-Use space			207				207	2,227	4%
Corridor			64				64	686	1%
Kitchen			63				63	676	1%
Loading			30				30	324	1%
Circular gathering space			345				345	3,718	6%
Vestibule			14				14	150	0%
Water entry Main Elec			118				118	1,268	2%
Museum support				53			53	569	1%
Class A Museum support				128			128	1,374	2%
Stair				10			10	107	0%
Co-working space East				220			220	2,367	4%
Co-working space West				336			336	3,611	6%
Lobby				37			37	399	1%
Office kitchen				66			66	707	1%
Stair				19			19	201	0%
Board room				153			153	1,643	3%
Storage				22			22	234	0%
Co Working Space East - WR				6			6	63	0%
Co Working Space West - WR				10			10	108	0%
Stair				10			10	109	0%
Stair - tower exit stair				11			11	123	0%
Stair lobby - Vest at tower exit stair				22			22	241	0%
Stair lobby				5			5	51	0%
Co Working Space East - Corridor				53			53	569	1%
Mezzanine				103			103	1,110	2%
Ramp				20			20	214	0%

Appendix A - Area schedule

Estimate - McMurray Metis Cultural Centre									
LEVEL	P2	P1	Ground Floor	2nd Floor	3rd Floor	4th Floor	TOTAL (m <sup>2</sup> )	TOTAL (ft <sup>2</sup> )	%
PERIMETER (m)			380	324	245	91			
Total GFA (m2)			2,649	1,799	1,350	111	5,909	63,604	100%
Total GFA (ft2)	0	0	28,514	19,364	14,531	1,195			
GFA									
Co Working Space East - Lobby				80			80	859	1%
Mech Room for Circular Gathering				130			130	1,403	2%
Greenhouse East					507		507	5,453	9%
Greenhouse bridge					41		41	443	1%
Greenhouse West					546		546	5,876	9%
Storage					19		19	202	0%
Lift lobby					20		20	218	0%
Stair					18		18	195	0%
Stair						23	23	247	0%
Storage						13	13	140	0%
Lift lobby						16	16	170	0%
Storage						4	4	46	0%
<b>TOTAL GFA (m2)</b>	<b>0</b>	<b>0</b>	<b>2,250</b>	<b>1,492</b>	<b>1,151</b>	<b>56</b>	<b>4,949</b>	<b>53,273</b>	<b>84%</b>
<b>Walls / Void Space</b>	<b>0</b>	<b>0</b>	<b>399</b>	<b>307</b>	<b>199</b>	<b>55</b>	<b>960</b>	<b>10,332</b>	<b>16%</b>
Last Report (m2)							5,909	63,604	
Movement (m2)	0	0	2,649	1,799	1,350	111			

**Appendix B - Information used register**

Document Type	Author	Document Ref.	Title / Description	Date	Revision
<b><u>Architectural</u></b>	Mindful Architect	A0	SITE PLAN	13-11-20	
		A1	LEVEL 1		
		A2	LEVEL 2		
		A3	LEVEL 3		
		A4	LEVEL 4		
		A5	CROSS SECTION		
		A6	3D OVERALL		
		A7	3D ENTRY		
		A8	3D TERRACE		
		A9	3D GATHERING		
		A01	PROJECT STATS		
		A02	SITE PLAN		
		A03	ROOF + FLOOR ASSEMBLIES		
		A11	FLOOR PLAN LEVEL 1		
		A12	FLOOR PLAN LEVEL 2		
		A13	FLOOR PLAN LEVEL 3		
		A14	FLOOR PLAN LEVEL 4		
		A31	SOUTH ELEVATION		
		A32	NORTH ELEVATION		
		A33	EAST ELEVATION		
		A34	WEST ELEVATION		
		A35	FLATTENED NORTH + SOUTH WALLS		
		A40	CROSS SECTION		
A50	ENLARGED PLAN LEVEL 1 WEST				
A51	ENLARGED PLAN LEVEL 1 WEST				
A52	ENLARGED PLAN LEVEL 1 EAST				
A54	ENLARGED PLAN LEVEL 1 EAST				
A55	ENLARGED PLAN LEVEL 2 WEST				
A56	ENLARGED PLAN LEVEL 2				
A57	ENLARGED PLAN LEVEL 2 EAST				
A60	ENLARGED ELEVATIONS NORTH 1				
A61	ENLARGED ELEVATIONS NORTH 2				
A62	ENLARGED ELEVATIONS SOUTH				
	Mindful Architect		McMurray Metis Cultural Center - Narrative Architectural Specification	13-11-20	
<b><u>Structural</u></b>	Miskimmin Structural Engineering Ltd.		Fort McMurray Metis Cultural Center - Concept Design Structural Narrative	30-10-20	
<b><u>Mechanical</u></b>	Archineers Consulting		MMCC Preliminary Mech Systems Report	02-11-20	
<b><u>Electrical</u></b>	SMP Engineering		MMCC Electrical Narrative Spec	02-11-20	
<b><u>Civil</u></b>	WSP		Preliminary Civil Site Report	13-11-20	
<b><u>Landscaping</u></b>	SHARP Landscape Architecture		MMCC LANDSCAPE DESIGN NARRATIVE	13-11-20	
			MMCC Draft Planting Plan	17-11-20	