

Appendix D r01 – Class D Order of Magnitude Cost Estimate

EC + DFO – Co-Location at FWI

For:

Environment Canada & Department of Oceans and Fisheries

Fresh Water Institute (FWI)

Winnipeg, Manitoba

Project No. R.075255

Prepared by:

Coupland Kraemer Architecture + Interior Design Inc.

February 28, 2017





**FRESH WATER INSTITUTE
CO-LOCATION OF ENVIRONMENT
CANADA AND THE DEPARTMENT
OF FISERIES AND OCEANS**

Winnipeg, MB

February 21, 2017

**Order Magnitude Estimate # 2
(Class D)**

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1.0 INTRODUCTION

The estimate presented in this report provides an assessment of the direct and indirect construction costs for the proposed Fresh Water Institute Co-Location of Environment Canada and the Department of Fisheries and Oceans, located on the University of Manitoba Campus, Winnipeg, MB.

The estimated costs contained in this report are based on schematic design drawings, outline briefs and reports prepared by Coupland Kraemer Architecture & Interior Design (CK A +ID) and their consulting engineers. The documents provided are not sufficiently detailed to allow the project to proceed for a fixed-price tender call. The estimate provides a reasonable cost envelope within which the project design can be developed. Further estimates based on more detailed design information may, however, vary from this baseline.

Detailed specifications are not completed at the schematic design stage and therefore, cost assumptions for the anticipated final design products had to be made. As well, final design decisions will be made during the preparation of tender documents. The order magnitude estimate (Class D) estimate reflects those drawings and information made available at the time the estimate was prepared and may not totally reflect the final tender package.

A complete description of the work, including the associated cost, is summarized under the “Cost Plan” appendix in this report. The purpose of the cost plan is to identify to CK A + ID and their consulting engineers; the types, quality, quantity of materials and methods of construction utilized to produce the order magnitude estimate (class D). In simplicity, the cost plan is a large shopping list of construction items, materials, and methods. If items in the schematic design estimate are not required or desired, the items may be removed from the estimate/design and the cost will be reduced. If additional items are required or desired, which are currently not included in the estimate, then either additional funds will be required, or savings must be incorporated elsewhere in the design to offset the cost increase.

The estimate is not representative of the low bid that will be received at the time of tendering. An indication of the range of bids expected can only be estimated at the time of the tender based on the final contract documents, specific market conditions at the time of tender, including number of other projects out to tender at the same time, interest in project and availability of specified materials in local market. The current estimate represents a fair and reasonable value for what is currently shown on the schematic design estimate, design briefs and those requirements as discussed with CK A + ID and their consulting engineers: assuming adequate coverage from both the General Contractors and associated sub trades.

In order to maintain the budget parameters established in this report, BTY strongly recommends that a final cost estimates be prepared just prior to going to tender to review the final contract documents and current market conditions.



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2.0 PROJECT DESCRIPTION

The facility was comprised of, 2 storey Administration block with full basement, 4 storey Lab block with full basement, 3 storey service block with full basement. The scope of work can be summarized as follows:

Base Building

- Removal of interior doors, CMU and GWB wall partition affected by the renovation.
- New exit door and window openings Level 2 and 3 of Administration block.
- Replace and install new window coverings to all existing and new windows.
- Renovation of base building; Sheet vinyl floor, ceramic floor tile for floor finishes; Make good existing metal linear ceiling and acoustic T-bar ceiling to ceiling finishes; Ceramic wall tile to wash rooms to wall finishes.
- Allowance for new millwork to washrooms all floor levels.
- Remove and replace existing metal stair guardrails and handrails.
- Replace exterior free standing building signage and allowance for interior signage's.
- Renovation of existing washrooms on all levels, conversion of locker rooms to wash rooms extensions and conversion of available rooms to barrier free washrooms.
- Update elevator cars of Lab block building
- Allowance for hazardous material removal.

Environment Canada

- Removal of interior doors and GWB wall partition affected by the renovation.
- New interior hollow metal doors and painted gypsum board, sound insulated, metal stud wall interior partitions to new office layout.
- Finishes includes; Sheet vinyl floor, carpet, raised flooring to Level 3 EC offices for floor finishes; Acoustic T-bar ceiling to ceiling finishes; Painted gypsum walls to wall finishes.
- Allowance for new millwork to offices and kitchenettes to all floor levels.
- Allowance for new work stations for EC staffs.
- Addition of security fencing to NW overflow parking area for EC staff use.
- Conversion of open site space to asphalt parking area (37%).

Department of Fisheries and Oceans

- Removal of interior doors and GWB wall partition affected by the renovation.
- Finishes includes; Sheet vinyl floor, carpet, raised flooring to Level 3 EC offices for floor finishes; Acoustic T-bar ceiling to ceiling finishes; Painted gypsum walls to wall finishes.
- Conversion of laboratory spaces to WP2.0 compliant office works spaces for Department of Fisheries and Oceans and Environment Canada staffs.
- Allowance for new work stations for DFO staffs.
- Allowance for new millwork to offices and kitchenettes to all floor levels.
- Allowance for new food service equipment.
- Allowance for temporary office area swing space for DFO staffs to Annex building during the renovation period.
- Conversion of open site space to asphalt parking area (63%).



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2.0 PROJECT DESCRIPTION (cont...)

Mechanical Scope:

- Mechanical Scope of work include modification, renovation and conversion of existing plumbing & drainage system, fire protection system, HVAC and controls to suit new building functionality and layout.
- Mechanical Site services include the rerouting of storm system, sanitary system, fire and water main affected by the new exterior construction and the connection of building addition to the existing building utilities.

Electrical scope includes:

- Electrical works include power distribution, lighting and auxiliary systems. Normal and emergency power distribution system will be upgraded to support the new power requirements. Lighting will be LED fixtures controlled by switches and occupancy sensors. Auxiliary systems include voice/data, fire alarm, clock, CATV, intercom, CCTV, card access, public address, sound masking and audio video system.
- Electrical site services include new parking lot lighting.



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3.0 EXECUTIVE SUMMARY: PROJECT

The current estimated cost of the project may be summarized as follows:

| Item | | Estimated Cost | Percentage |
|---|--|---------------------|-------------|
| A. | Land Cost (Excluded) | \$0 | 0% |
| B. | Construction | \$9,960,000 | 59% |
| C. | Allowances | \$4,534,000 | 27% |
| D. | Professional Fees & Disbursements | \$0 | 0% |
| E. | Municipal Fees, Testing & Field Analysis | \$0 | 0% |
| F. | Management & Overhead | \$0 | 0% |
| G. | Project Contingency | \$0 | 0% |
| H. | Furnishing, Fittings & Equipment | \$1,971,500 | 12% |
| I. | Harmonized Sales Tax 0.00% | \$0 | 0% |
| Total Project Cost January 2017 Dollars | | \$16,465,500 | 97% |
| J. | Escalation 2.60% | \$428,100 | 3% |
| Escalated Project Cost February 2018 Dollars | | \$16,893,600 | 100% |

Please note that, where zero dollar values are stated, BTY has excluded these costs and the values should be carried in a separate budget (if applicable).

4.0 AREAS

The gross floor area of the project measured in accordance with the guidelines established by the Canadian Institute of Quantity Surveyors is:

| Location | Base Building Area m ² | Environment Canada Area m ² | Department of Fisheries and Ocean Area m ² | Total |
|-------------------------------|-----------------------------------|--|---|----------------------------|
| Level 1 | 180 m ² | 445 m ² | 740 m ² | 1,365 m ² |
| Level 2 | 165 m ² | 445 m ² | 520 m ² | 1,130 m ² |
| Level 3 | 165 m ² | 525 m ² | 610 m ² | 1,300 m ² |
| Level 4 | 165 m ² | 700 m ² | 470 m ² | 1,335 m ² |
| Level 5 | 165 m ² | 700 m ² | 675 m ² | 1,540 m ² |
| EC Additional office area | | 400 m ² | | 400 m ² |
| Total Gross Floor Area | 840 m² | 3,215 m² | 3,015 m² | 7,070 m² |



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5.0 PROJECT COST ESTIMATE

The current estimated cost of the project is as follows:

| Description | Total Cost | Percentage |
|---|---------------------|-------------|
| A. LAND COST | \$0 | 0% |
| 1 Land (Excluded) | \$0 | |
| 2 Legal Fees (Excluded) | \$0 | |
| B. CONSTRUCTION | \$9,960,000 | 59% |
| 1 Base Building | \$2,317,700 | |
| 2 Environment Canada | \$3,927,200 | |
| 3 Department of Fisheries and Oceans | \$3,715,100 | |
| C. ALLOWANCES | \$4,534,000 | 27% |
| 1 Design Allowance (Design & Program Changes) | \$2,386,300 | |
| 2 Construction Allowance (Changes During Construction) | \$2,147,700 | |
| D. PROFESSIONAL FEES | \$0 | 0% |
| 1 Programming | \$0 | |
| 2 Architectural | \$0 | |
| 3 Structural | \$0 | |
| 4 Mechanical | \$0 | |
| 5 Electrical | \$0 | |
| 6 Cost Consultant | \$0 | |
| 7 Other Consultants and Disbursements | \$0 | |
| E. MUNICIPAL FEES, TESTING & FIELD ANALYSIS | \$0 | 0% |
| 1 Development Cost Levies | \$0 | |
| 2 Permits, Testing, Field Analysis, Connection Fees | \$0 | |
| F. MANAGEMENT & OVERHEAD | \$0 | 0% |
| 1 Project Management Fee | \$0 | |
| 2 Owner's Planning and Administration Cost | \$0 | |
| 3 Project Insurance | \$0 | |
| 4 Project Commissioning | \$0 | |
| G. PROJECT CONTINGENCY: 0% of items D to F | \$0 | 0% |
| TOTAL CONSTRUCTION COST | \$14,494,000 | 86% |
| H. FURNISHING, FITTINGS & EQUIPMENT | \$1,971,500 | 12% |
| 1 Furnishings, Fittings & Equipment | \$1,971,500 | |
| PROJECT COST | \$16,465,500 | 97% |
| I. HARMONIZED SALES TAX 0.00% | \$0 | 0% |
| TOTAL PROJECT COST January 2017 Dollars | \$16,465,500 | 97% |
| J. ESCALATION | \$428,100 | 3% |
| 1 Escalation Reserve 2.60% of item A to G | \$376,800 | |
| 2 FF&E Escalation 2.60% of item H | \$51,300 | |
| TOTAL ESCALATED PROJECT COST February 2018 Dollars | \$16,893,600 | 100% |



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6.0 DEFINITIONS

The estimate for the project has been prepared and summarized in the following categories. The scope of work covered within each category is as follows

A. Land Cost:

These costs include the acquisition of the site and associated fees, service obligations and property purchase tax.

B. Construction:

This category encompasses all direct and indirect construction costs including building(s), associated site development work and general contractor's general requirements and fee.

C. Allowances

Allowances for cost increases as the design is developed and/or the work is performed on site.

D. Professional Fees:

Within this section professional fees have been estimated for the primary design team consultants including: the architect, structural, mechanical & electrical engineers, and the cost consultant. Other specialist consultants and an allowance for disbursements are also included. Where available, all consultant fees have been calculated based on the current schedule of recommended charges published by professional associations.

E. Municipal & Connection Fees:

This section includes an estimate for all project related fees and charges required as part of the development by the city and other authorities having jurisdiction. These costs include Development Cost Charges (DCC's), Building Permits, levies and associated legal and survey fees. These costs are based on current city formulas and schedules.

F. Management & Overhead:

The project management fee is charged by a company or individual providing project management services. The Owner's Planning and Administrative cost covers the owner's project-related management costs. Provisions are also included for project insurance, commissioning the facility prior to handover and move-in costs.

G. Project Contingency:

This allowance is provided as an owner's contingency to cover changes to non-construction items.

H. Furnishings, Fittings & Equipment:

The Furnishings, Fittings & Equipment estimate for the project has been compiled using a combination of BTY Group's own historical cost data and information specific to this project.

I. Taxes

The amount is adjusted to reflect rebates available to certain types of project.

J. Escalation

This is an allowance for increases in prices of inputs to the project, occurring after the date of the estimate, on the final cost of the project. This allowance is calculated based on BTY's projected annual escalation rates as stated in this report.



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7.0 CONSTRUCTION COST SUMMARY: LOCATION

The estimated construction cost of the project may be summarized as follows:

| Description | Base Building | Environment Canada | Department of Fisheries and Oceans | Total Cost |
|--|------------------------|------------------------|------------------------------------|------------------------------|
| Base Cost | \$1,980,900 | \$2,838,900 | \$2,314,400 | \$7,134,200 |
| Site Works | \$0 | \$417,400 | \$674,700 | \$1,092,100 |
| General Requirements | \$336,800 | \$670,900 | \$726,000 | \$1,733,700 |
| Design Contingency (20.0%) | \$463,600 | \$923,400 | \$999,300 | \$2,386,300 |
| Change Order Allowance (15.0%) | \$417,200 | \$831,100 | \$899,400 | \$2,147,700 |
| Total Construction Cost | \$3,198,500 | \$5,681,700 | \$5,613,800 | \$14,494,000 |
| Furnishings, Fittings and Equipment | \$0 | \$690,000 | \$1,281,500 | \$1,971,500 |
| Total Project Cost | \$3,198,500 | \$6,371,700 | \$6,895,300 | \$16,465,500 |
| Escalation Allowance (2.6%) | \$83,200 | \$165,700 | \$179,200 | \$428,100 |
| Total Escalated Project Cost | \$3,281,700 | \$6,537,400 | \$7,074,500 | \$16,893,600 |
| Gross Floor Area (m ²) | 840 m ² | 3,215 m ² | 3,015 m ² | 7,070 m² |
| Cost/m ² January 2017 Dollars | \$3,808/m ² | \$1,982/m ² | \$2,287/m ² | \$2,329/m² |
| Cost/sf January 2017 Dollars | \$354/sf | \$184/sf | \$212/sf | \$216/sf |
| Cost/m ² Feb 2018 Dollars | \$3,907/m ² | \$2,033/m ² | \$2,346/m ² | \$2,389/m² |
| Cost/sf Feb 2018 Dollars | \$363/sf | \$189/sf | \$218/sf | \$222/sf |

8.0 CONSTRUCTION COST SUMMARY: DISCIPLINE

| Discipline | Cost \$ | Cost/m ² | Cost/sf | Percentage |
|---------------------------------|---------------------|---------------------|-----------------|-------------|
| Architectural | \$4,527,700 | \$640.41 | \$59.50 | 27% |
| Structural | \$0 | \$0.00 | \$0.00 | 0% |
| Mechanical | \$1,665,700 | \$235.60 | \$21.89 | 10% |
| Electrical | \$1,290,900 | \$182.59 | \$16.96 | 8% |
| Site Development | \$1,092,100 | \$154.47 | \$14.35 | 6% |
| Demolition & Hazardous Material | \$1,621,400 | \$229.34 | \$21.31 | 10% |
| General Requirements | \$1,733,700 | \$245.22 | \$22.78 | 10% |
| Net Construction Cost | \$11,931,500 | \$1,687.62 | \$156.78 | 71% |
| Design Contingency (20.0%) | \$2,386,300 | \$337.52 | \$31.36 | 14% |
| Change Order Allowance (15.0%) | \$2,147,700 | \$303.78 | \$28.22 | 13% |
| Escalation Allowance (2.6%) | \$428,100 | \$60.55 | \$5.63 | 3% |
| Total Construction Cost | \$16,893,600 | \$2,389.48 | \$221.99 | 100% |



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9.0 EXCLUSIONS

The construction estimate includes all direct and indirect construction costs identified in the drawings and other information provided by the Prime Consultant. The estimate specifically excludes the following:

- Land costs
- Professional fees/disbursements, planning, administrative, financing costs and project commissioning
- Legal fees and expenses
- Removal of contaminated soil and/or rock excavation (if applicable)
- Unforeseen ground conditions/associated extras
- Phasing of the works and accelerated schedule
- Erratic market conditions, such as lack of bidders, proprietary specifications

10.0 TAXES

The estimate excludes payable Goods & Service Tax (G.S.T.)

11.0 PROJECT SCHEDULE & ESCALATION

For the purpose of identifying and quantifying the escalation allowance for this project, BTY has considered the following schedule:

| Activity | Start | Finish | Duration |
|----------------|------------|------------|-----------|
| Design | March 2017 | March 2018 | 12 months |
| Tender & Award | April 2018 | May 2018 | 2 months |
| Construction | June 2018 | June 2019 | 12 months |

Based on the above schedule, the mid-point of construction is: February 2018

The number of months from the date of this estimate is: 14 months

On this basis, BTY has calculated the escalation for this project to be 2.60%

Our current projected escalation rates are shown below. In the event that there is slippage in the schedule, further escalation based on the projected escalation rate per annum should be included in the estimate.

| Current BTY Group Forecast | 2016 | 2017 | 2018 |
|----------------------------|------|------|------|
| | 1% | 1% | 2% |



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12.0 PRICING

The estimate has been priced at current rates taking into account the size, location and nature of the project. The unit rates utilized are considered competitive for a project of this type, bid under a stipulated lump-sum form of tender in an open market, with a minimum of five (5) bids, supported by the requisite number of sub-contractors.

The estimate allows for labour, material, equipment and other input costs at current rates and levels of productivity. It does not take into account extraordinary market conditions, where bidders may be few and may include in their tenders disproportionate contingencies and profit

13.0 RISK MITIGATION

BTY Group recommends that the Owner, Project Manager and Design Team carefully review this document, including exclusions, inclusions and assumptions, contingencies, escalation and mark-ups.

Requests for modifications of any apparent errors or omissions to this document must be made to BTY Group within ten (10) days of receipt of this estimate. Otherwise, it will be understood that the contents have been concurred with and accepted.

It is recommended that BTY Group design and propose a cost management framework for implementation. This framework would require that a series of further estimates be undertaken at key design stage milestones and a final update estimate produced which is representative of the completed tender documents, project delivery model and schedule. The final updated estimate will address changes and additions to the documents, as well as addenda issued during the bidding process. BTY Group is unable to reconcile bid results to any estimate not produced from bid documents including all addenda.

In order to maintain the budget parameters established in this report, BTY strongly recommends that further cost estimates are prepared at major design stage milestones to track and monitor the cost of the proposed design as it evolves. The major milestone estimates are typically carried out at the Program, Schematic Design, Design Development, 50% Working Drawings, 75% Working Drawings and 95% Working Drawings stages.

14.0 CONTINGENCIES

Design Allowance

A design contingency of \$2,386,300 or Twenty Percent (20.0%) required PWGSC, has been included in the estimate to cover modifications to the program, drawings and specifications during the design. This allowance should be re-considered as the design proceeds, being ultimately reduced to zero at the tender stage.

Construction Allowance

An allowance of Fifteen Percent (15.0%) or \$2,147,700 required by PWGSC, has been included in the estimate for changes occurring during the construction period of the project. This amount may be expended due to site conditions or if there are modifications to the drawings and specifications.

Project Contingency

As the soft cost have been excluded in this costing exercise, an allowance of Zero Percent (0%) of the soft costs has been included in the project cost plan to cover changes to non-construction items.



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16.0 DOCUMENTATION

The following documentation was used as the basis for preparing this estimate:

| Drawings | Description | Rev. | Date |
|--|-------------------------------|------|---------------|
| Architectural: Department of Fisheries and Oceans | | | |
| 1 | Existing Floor Plan - Level 1 | | Nov. 22, 2016 |
| 2 | Existing Floor Plan - Level 2 | | Nov. 22, 2016 |
| 3 | Existing Floor Plan - Level 3 | | Nov. 22, 2016 |
| 4 | Existing Floor Plan - Level 4 | | Nov. 22, 2016 |
| 5 | Existing Floor Plan - Level 5 | | Nov. 22, 2016 |
| Environment Canada Renovation | | | |
| J1 | Option J - Level 1 | | Nov. 18, 2016 |
| J2 | Option J - Level 2 | | Nov. 18, 2016 |
| J3 | Option J - Level 3 | | Nov. 18, 2016 |
| J4 | Option J - Level 4 | | Nov. 18, 2016 |
| J5 | Option J - Level 5 | | Nov. 18, 2016 |
| Department of Fisheries and Oceans | | | |
| J1 | Option J - Level 1 | | Nov. 22, 2016 |
| J2 | Option J - Level 2 | | Nov. 22, 2016 |
| J3 | Option J - Level 3 | | Nov. 22, 2016 |
| J4 | Option J - Level 4 | | Nov. 22, 2016 |
| J5 | Option J - Level 5 | | Nov. 22, 2016 |
| | Existing Parking Plan | | Oct. 12, 2016 |
| | Proposed Parking Plan | | Nov. 22, 2016 |

| Briefs/Description | Pgs | Date |
|---|-----|-----------------|
| Building Capability Report: | | |
| EC + DFO - Functional Programs | 91 | October, 2016 |
| Architectural, Mechanical and Electrical Area Summary | | |
| Cost Item Summary | 2 | no date |
| Asbestos Reassessment: PINCHIN | | |
| Report Asbestos Reassessment 501 University Cres Winnipeg MB BGIS | 108 | October 7, 2016 |
| Fisheries AMEC Detailed Room by Room Report: Amec | | |
| Detailed Room by Room Asbestos Survey | 19 | March, 2003 |



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17.0 APPENDICIES



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APPENDIX I : Elemental Analysis



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ELEMENTAL COST ANALYSIS

Gross Floor Area 7,070 m²

| Element | Ratio G.F.A. | Element Quantity | Unit | Unit Rate | Amount \$ | Total Cost \$ | Cost/Floor Area \$/ m ² | % |
|---|--------------|------------------|----------------|-----------|-----------|------------------|------------------------------------|---------------|
| A1 SUBSTRUCTURE | | | | | | 0 | 0.00 | 0.0% |
| A11.1 Standard Foundations | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| A11.2 Special Conditions | 0.00 | 0 | lm | 0.00 | 0 | | 0.00 | |
| A12 Building Excavation | 0.00 | 0 | m ³ | 0.00 | 0 | | 0.00 | |
| A2 STRUCTURE | | | | | | 0 | 0.00 | 0.0% |
| A21 Lowest Floor Construction | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| A22.1 Upper Floor Construction | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| A22.2 Stair Construction | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| A23 Roof Construction | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| A3 EXTERIOR ENCLOSURE | | | | | | 33,600 | 4.75 | 0.4% |
| A31 Walls Below Grade | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| A32.1 Walls Above Grade | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| A32.2 Struct. Walls Above Grade | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| A32.3 Curtain Walls | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| A33.1 Windows & Louvres | 0.01 | 45 | m ² | 702.22 | 31,600 | | 4.47 | |
| A33.2 Glazed Screens | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| A33.3 Doors | 0.00 | 1 | lv's | 2,000.00 | 2,000 | | 0.28 | |
| A34.1 Roof Covering | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| A34.2 Skylights | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| A35 Soffits & Projections | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| B1 PARTITIONS & DOORS | | | | | | 536,700 | 75.91 | 6.1% |
| B11.1 Fixed Partitions | 0.37 | 2,585 | m ² | 131.72 | 340,500 | | 48.16 | |
| B11.2 Moveable Partitions | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| B11.3 Structural Partitions | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| B12 Doors | 0.01 | 102 | lv's | 1,923.53 | 196,200 | | 27.75 | |
| B2 FINISHES | | | | | | 1,489,100 | 210.62 | 17.0% |
| B21 Floor Finishes | 1.00 | 7,070 | m ² | 103.73 | 733,400 | | 103.73 | |
| B22 Ceiling Finishes | 1.00 | 7,070 | m ² | 56.72 | 401,000 | | 56.72 | |
| B23 Wall Finishes | 2.52 | 17,788 | m ² | 19.94 | 354,700 | | 50.17 | |
| B3 FITTINGS & EQUIPMENT | | | | | | 2,468,300 | 349.12 | 28.2% |
| B31.1 Metals | 0.05 | 324 | lm | 375.00 | 121,500 | | 17.19 | |
| B31.2 Millwork | 0.02 | 135 | lm | 713.33 | 96,300 | | 13.62 | |
| B31.3 Specialties | 1.00 | 7,070 | m ² | 16.62 | 117,500 | | 16.62 | |
| B31.4 Furniture | 1.00 | 7,070 | m ² | 275.67 | 1,949,000 | | 275.67 | |
| B32.0 Equipment | 0.00 | 13 | lm | 1,730.77 | 22,500 | | 3.18 | |
| B33.0 Elevator | 0.00 | 5 | stop | 32,300 | 161,500 | | 22.84 | |
| C1 MECHANICAL ALLOWANCE | | | | | | 1,665,700 | 235.60 | 19.0% |
| C11 Mechanical Work | 1.00 | 7,070 | m ² | 63.22 | 447,000 | | 63.2 | |
| C12 Fire Protection | 1.00 | 7,070 | m ² | 31.53 | 222,900 | | 31.53 | |
| C14 HVAC & Controls | 1.00 | 7,070 | m ² | 140.85 | 995,800 | | 140.85 | |
| C2 ELECTRICAL ALLOWANCE | | | | | | 1,290,900 | 182.59 | 14.7% |
| C21 Service and Distribution | 1.00 | 7,070 | m ² | 9.72 | 68,700 | | 9.72 | |
| C23 Lighting and Power | 1.00 | 7,070 | m ² | 100.25 | 708,800 | | 100.25 | |
| C25 Special Systems | 1.00 | 7,070 | m ² | 72.62 | 513,400 | | 72.62 | |
| Z1 GENERAL REQUIREMENTS & FEES | | | | | | 1,272,400 | 179.97 | 14.5% |
| Z11 General Requirements | 13.00% | | | | 973,000 | | 137.62 | |
| Z12 Profit | 4.00% | | | | 299,400 | | 42.35 | |
| NET BUILDING COST | | | | | | 8,756,700 | 1,238.57 | 100.0% |

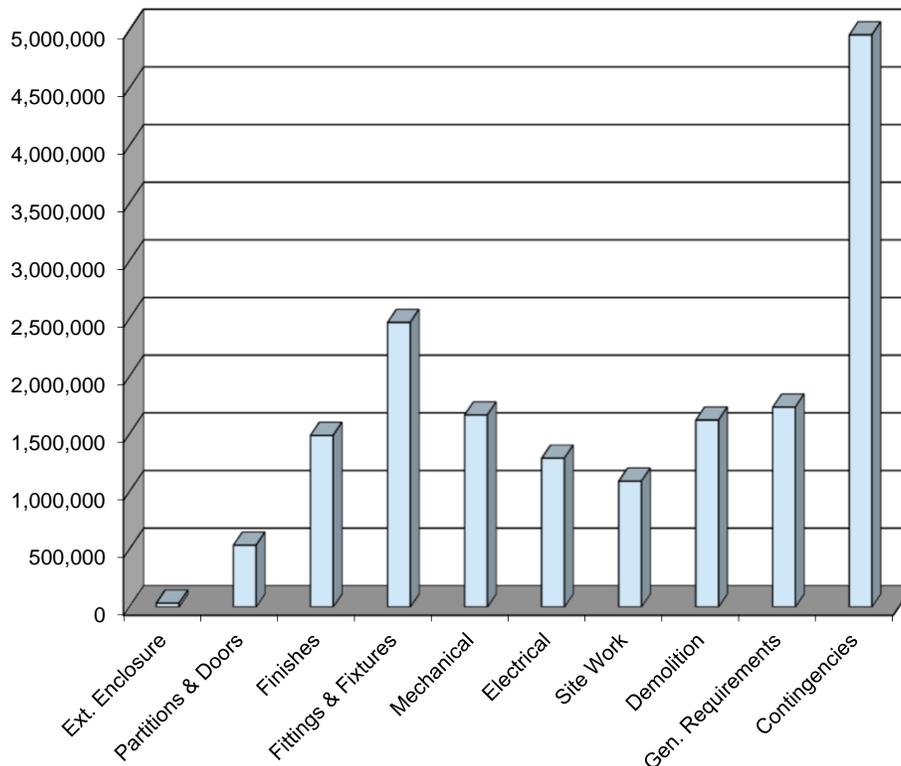


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ELEMENTAL COST ANALYSIS

Gross Floor Area 7,070 m²

| Element | Ratio G.F.A. | Element Quantity | Unit | Unit Rate | Amount \$ | Total Cost \$ | Cost/Floor Area \$/ m ² | % |
|---|--------------|------------------|----------------|-----------|-----------|-------------------|------------------------------------|---|
| NET BUILDING COST | | | | | | 8,756,700 | 1,238.57 | |
| D1 SITE WORK ALLOWANCE | | | | | | 1,092,100 | 154.47 | |
| D11.1 | 1.00 | 7,070 | m ² | 11.29 | 79,800 | | 11.29 | |
| D11.2 | 1.00 | 7,070 | m ² | 121.85 | 861,500 | | 121.85 | |
| D11.3 | 1.00 | 7,070 | m ² | 4.53 | 32,000 | | 4.53 | |
| D11.4 | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| D12 | 1.00 | 7,070 | m ² | 6.72 | 47,500 | | 6.72 | |
| D13 | 1.00 | 7,070 | m ² | 10.08 | 71,300 | | 10.08 | |
| D2 DEMOLITION/HAZARDOUS MAT'L | | | | | | 1,621,400 | 229.34 | |
| D21.1 | 1.00 | 7,070 | m ² | 87.89 | 621,400 | | 87.89 | |
| D21.2 | 0.00 | 0 | m ² | 0.00 | 0 | | 0.00 | |
| D22 | 1.00 | 7,070 | m ² | 141.44 | 1,000,000 | | 141.44 | |
| Z1 GENERAL REQUIREMENTS & FEES | | | | | | 461,300 | 65.25 | |
| Z11 | 13.00% | | | | 352,800 | | 49.90 | |
| Z12 | 4.00% | | | | 108,500 | | 15.35 | |
| NET CONSTRUCTION COST | | | | | | 11,931,500 | 1,687.62 | |
| Z2 CONTINGENCIES | | | | | | 4,962,100 | 701.85 | |
| Z21 | 20.00% | | | | 2,386,300 | | 337.52 | |
| Z22 | 15.00% | | | | 2,147,700 | | 303.78 | |
| Z23 | 2.60% | | | | 428,100 | | 60.55 | |
| TOTAL CONSTRUCTION COST | | | | | | 16,893,600 | 2,389.48 | |





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APPENDIX II : Cost Plan

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Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

A3 EXTERIOR ENCLOSURE

A33.1 Windows & Louvres

Base Building:

| | | | | |
|--|----|----|----------|--------|
| Aluminum windows | 20 | no | 1,580.00 | 31,600 |
| Aluminum : (1,500x1,500mm) triple glazed windows | | | | |
| Caulking | | | | |

| | |
|---|------------------------|
| <u>Total Windows & Louvres</u> | <u>\$31,600</u> |
|---|------------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

A3 EXTERIOR ENCLOSURE

A33.3 Exterior Doors

Base Building:

| | | | | |
|--|---|-----|----------|-------|
| Hollow metal doors and frames; to Level 2 | 1 | lvs | 2,000.00 | 2,000 |
| Hollow metal door: 914 x 2133 Welded frame : 914 x 2133 Paint interior metal doors & frames Door poly. rigid insulation Door caulking Exterior hardware: single doors | | | | |

| | | | | |
|-----------------------------|--|--|--|----------------|
| Total Exterior Doors | | | | \$2,000 |
|-----------------------------|--|--|--|----------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

B1 PARTITIONS & DOORS

B11.1 Fixed Partitions

Environment Canada:

| | | | | |
|-----------------------------|-------|----------------|--------|---------|
| Metal stud walls | 2,310 | m ² | 131.73 | 304,300 |
| 92 mm metal stud : 25 gauge | | | | |
| Sound insulation (75%) | | | | |
| 12 mm drywall type X | | | | |

Department of Fisheries and Oceans:

| | | | | |
|-----------------------------|-----|----------------|--------|--------|
| Metal stud walls | 275 | m ² | 131.64 | 36,200 |
| 92 mm metal stud : 25 gauge | | | | |
| Sound insulation (75%) | | | | |
| 12 mm drywall type X | | | | |

| | |
|--------------------------------------|-------------------------|
| <i>Total Fixed Partitions</i> | <i>\$340,500</i> |
|--------------------------------------|-------------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

B1 PARTITIONS & DOORS

B12 Interior Doors

Environment Canada:

| | | | | |
|--|----|-----|----------|---------|
| Hollow metal doors and frames; to Level 2 Hollow metal door: 914 x 2133 Welded frame : 914 x 2133 Paint interior metal doors & frames Fire rated door/frame label Interior hardware: single doors | 67 | lvs | 1,923.88 | 128,900 |
|--|----|-----|----------|---------|

Department of Fisheries and Oceans:

| | | | | |
|--|----|-----|----------|--------|
| Hollow metal doors and frames; to Level 2 Hollow metal door: 914 x 2133 Welded frame : 914 x 2133 Paint interior metal doors & frames Fire rated door/frame label Interior hardware: single doors | 35 | lvs | 1,922.86 | 67,300 |
|--|----|-----|----------|--------|

| | |
|------------------------------------|-------------------------|
| <i>Total Interior Doors</i> | <i>\$196,200</i> |
|------------------------------------|-------------------------|

Draft

| Description | Quantity | Unit | Rate | Amount |
|--|----------|------|--------|-------------------------|
| B2 FINISHES | | | | |
| <i>B21 Floor Finishes</i> | | | | |
| <u>Base Building:</u> | | | | |
| Sheet vinyl flooring Vinyl sheet floor; | 550 | m2 | 65.09 | 35,800 |
| Base Allowance for rubber base 100mm high | 355 | m | 7.89 | 2,800 |
| Ceramic floor tile Ceramic floor tiles; to washrooms | 160 | m2 | 124.92 | 20,000 |
| Repair/make good existing floor tiles; to washrooms | 130 | m2 | 25.38 | 3,300 |
| <u>Environment Canada:</u> | | | | |
| Sheet vinyl flooring Chemical resist. sheet floor; to wet/dry lab | 560 | m2 | 90.00 | 50,400 |
| Vinyl sheet floor; | 1,115 | m2 | 65.02 | 72,500 |
| Carpet Carpet floor finish | 1,140 | m2 | 85.00 | 96,900 |
| Allowance for carpet floor finish; to EC additional office area | 400 | m2 | 85.00 | 34,000 |
| Raised flooring Allowance for raised floor; to 3 level Admin EC | 525 | m2 | 250.10 | 131,300 |
| Base Allowance for rubber base 100mm high | 2,997 | m | 8.01 | 24,000 |
| <u>Department of Fisheries and Oceans:</u> | | | | |
| Sheet vinyl flooring Vinyl sheet floor; | 1,110 | m2 | 65.05 | 72,200 |
| Carpet Carpet floor finish | 1,905 | m2 | 84.99 | 161,900 |
| Base Allowance for rubber base 100mm high | 3,533 | m | 8.01 | 28,300 |
| <u>Total Floor Finishes</u> | | | | <u>\$733,400</u> |



Draft

| Description | Quantity | Unit | Rate | Amount |
|--|----------|------|-------|---------|
| B2 FINISHES | | | | |
| <i>B22 Ceiling Finishes</i> | | | | |
| <u>Base Building:</u> | | | | |
| Metal linear ceiling | | | | |
| Allowance to make good existing metal linear ceiling; to Lab block corridors | 550 | m2 | 15.09 | 8,300 |
| Ceiling Finishes | | | | |
| Acoustic T-bar ceiling water resistant; to washrooms | 290 | m2 | 65.15 | 18,900 |
| <u>Environment Canada:</u> | | | | |
| Ceiling Finishes | | | | |
| Acoustic T-bar ceiling | 2,815 | m2 | 60.00 | 168,900 |
| Allowance for acoustic T-bar ceiling; to EC additional office area | 400 | m2 | 60.00 | 24,000 |
| <u>Department of Fisheries and Oceans:</u> | | | | |
| Ceiling Finishes | | | | |
| Acoustic T-bar ceiling | 3,015 | m2 | 60.00 | 180,900 |

Total Ceiling Finishes ***\$401,000***



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| Description | Quantity | Unit | Rate | Amount |
|---|----------|------|--------|-------------------------|
| B2 FINISHES | | | | |
| <i>B23 Wall Finishes</i> | | | | |
| <u>Base Building:</u> | | | | |
| Wall Finishes | | | | |
| Allowance to make good and paint wall; to Lab block corridors | 1,080 | m2 | 18.98 | 20,500 |
| Ceramic wall tile | | | | |
| Ceramic wall tiles; to washrooms | 441 | m2 | 124.94 | 55,100 |
| Repair/make good existing wall tiles; to washrooms | 315 | m2 | 25.08 | 7,900 |
| <u>Environment Canada:</u> | | | | |
| Wall Finishes | | | | |
| Latex wall finish | 7,193 | m2 | 17.00 | 122,300 |
| Allowance for latex wall finish; to EC additional office area | 280 | m2 | 17.14 | 4,800 |
| <u>Department of Fisheries and Oceans:</u> | | | | |
| Wall Finishes | | | | |
| Latex wall finish | 8,479 | m2 | 16.99 | 144,100 |
| <u>Total Wall Finishes</u> | | | | <u>\$354,700</u> |



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

B3 FITTINGS & EQUIPMENT

B31.1 Metals

Base Building:

Metal stair guardrails & handrails

New Exit stair rails and guard rails

324 m 375.00 121,500

| | | | | |
|---------------------|--|--|--|------------------|
| Total Metals | | | | \$121,500 |
|---------------------|--|--|--|------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

B3 FITTINGS & EQUIPMENT

B31.2 Millwork

Base Building:

Millwork

| | | | | |
|--------------------------------------|----|---|--------|--------|
| Allowance for millwork; to washrooms | 45 | m | 500.00 | 22,500 |
|--------------------------------------|----|---|--------|--------|

Environment Canada:

Millwork

| | | | | |
|--|----|---|----------|--------|
| Allowance for millwork; Kitchenette | 24 | m | 1,000.00 | 24,000 |
| Allowance for millwork; Shelves, filing cabinets | 16 | m | 550.00 | 8,800 |

Department of Fisheries and Oceans:

Millwork

| | | | | |
|--|----|---|----------|--------|
| Allowance for millwork; Kitchenette | 30 | m | 1,000.00 | 30,000 |
| Allowance for millwork; Shelves, filing cabinets | 20 | m | 550.00 | 11,000 |

| | |
|------------------------------|------------------------|
| <i>Total Millwork</i> | <i>\$96,300</i> |
|------------------------------|------------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

B3 FITTINGS & EQUIPMENT

B31.3 Specialties

Base Building:

Window Coverings

| | | | | |
|---|-----|----|--------|--------|
| Allowance for new window coverings; to existing windows | 480 | m2 | 100.00 | 48,000 |
| Window coverings; to new windows | 45 | m2 | 100.00 | 4,500 |

Washroom accessories

| | | | | |
|------------------------------------|----|------|----------|--------|
| Allowance for Washroom accessories | 20 | sets | 2,500.00 | 50,000 |
|------------------------------------|----|------|----------|--------|

Replace free standing building signage

| | | | |
|---|----|-----------|--------|
| 1 | no | 10,000.00 | 10,000 |
|---|----|-----------|--------|

Environment Canada:

Interior Signage

| | | | | |
|--------------------------------|---|-----|----------|-------|
| Allowance for Interior signage | 1 | sum | 2,500.00 | 2,500 |
|--------------------------------|---|-----|----------|-------|

Department of Fisheries and Oceans:

Interior Signage

| | | | | |
|--------------------------------|---|-----|----------|-------|
| Allowance for Interior signage | 1 | sum | 2,500.00 | 2,500 |
|--------------------------------|---|-----|----------|-------|

| | |
|---------------------------------|-------------------------|
| <i>Total Specialties</i> | <i>\$117,500</i> |
|---------------------------------|-------------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

B3 FITTINGS & EQUIPMENT

B31.4 Furniture

Environment Canada:

Work stations

| | | | | |
|--|-----|-----|----------|---------|
| Allowance for New works stations (1830 x 2440) | 170 | no. | 4,000.00 | 680,000 |
|--|-----|-----|----------|---------|

Department of Fisheries and Oceans:

Work stations

| | | | | |
|--|-----|-----|----------|-----------|
| Allowance for New works stations (1830 x 2440) | 286 | no. | 4,000.00 | 1,144,000 |
|--|-----|-----|----------|-----------|

Temporary office area swing space in Annex

| | | | | |
|---|---|-----|------------|---------|
| Allowance for 100 Workstations, 1 meeting room, 1 quiet room, 1 kitchenette (1 year total); to empty annex building | 1 | sum | 125,000.00 | 125,000 |
|---|---|-----|------------|---------|

| | |
|-------------------------------|---------------------------|
| <i>Total Furniture</i> | <i>\$1,949,000</i> |
|-------------------------------|---------------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

B3 FITTINGS & EQUIPMENT

B32 Equipment

Environment Canada:

Kitchen equipment

| | | | | |
|--------------------------------------|---|-----|----------|--------|
| Allowance for food service equipment | 4 | no. | 2,500.00 | 10,000 |
|--------------------------------------|---|-----|----------|--------|

Department of Fisheries and Oceans:

Kitchen equipment

| | | | | |
|--------------------------------------|---|-----|----------|--------|
| Allowance for food service equipment | 5 | no. | 2,500.00 | 12,500 |
|--------------------------------------|---|-----|----------|--------|

| | |
|-------------------------------|------------------------|
| <i>Total Equipment</i> | <i>\$22,500</i> |
|-------------------------------|------------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

B3 FITTINGS & EQUIPMENT

B33.1 Elevators

Base Building:

Elevators

| | | | | |
|---------------------------------------|---|------|-----------|---------|
| Elevator : passenger; 2 cars, 5 stops | 2 | cars | 80,750.00 | 161,500 |
|---------------------------------------|---|------|-----------|---------|

| | | | | |
|------------------------|--|--|--|------------------|
| Total Elevators | | | | \$161,500 |
|------------------------|--|--|--|------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|--|----------|------|-------|---------|
| C1 MECHANICAL | | | | |
| C11 Plumbing and Drainage | | | | |
| <u>Base Building:</u> | | | | |
| Plumbing fixtures, water and drains | 840 | m2 | 50.00 | 42,000 |
| <u>Environment Canada:</u> | | | | |
| Plumbing fixtures, water and drains | 3,215 | m2 | 65.00 | 209,000 |
| <u>Department of Fisheries and Oceans:</u> | | | | |
| Plumbing fixtures, water and drains | 3,015 | m2 | 65.00 | 196,000 |

Total Plumbing and Drainage **\$447,000**



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

C1 MECHANICAL

C12 Fire Protection

Base Building:

| | | | | |
|--|-----|----|-------|--------|
| Relocate and add sprinkler heads to suit | 840 | m2 | 28.00 | 23,500 |
|--|-----|----|-------|--------|

Environment Canada:

| | | | | |
|--|-------|----|-------|---------|
| Relocate and add sprinkler heads to suit | 3,215 | m2 | 32.00 | 102,900 |
|--|-------|----|-------|---------|

Department of Fisheries and Oceans:

| | | | | |
|--|-------|----|-------|--------|
| Relocate and add sprinkler heads to suit | 3,015 | m2 | 32.00 | 96,500 |
|--|-------|----|-------|--------|

| | | | | |
|-------------------------------------|--|--|--|------------------|
| <i>Total Fire Protection</i> | | | | \$222,900 |
|-------------------------------------|--|--|--|------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|---|----------|------|--------|------------------|
| C1 MECHANICAL | | | | |
| C13 HVAC | | | | |
| <u>Base Building:</u> | | | | |
| Ductwork modifications, reheat changes to suit layout | 840 | m2 | 100.00 | 84,000 |
| <u>Environment Canada:</u> | | | | |
| Ductwork modifications, reheat changes to suit layout | 3,215 | m2 | 100.00 | 321,500 |
| Exhaust upgrades to suit space plan | 3,215 | m2 | 25.00 | 80,400 |
| <u>Department of Fisheries and Oceans:</u> | | | | |
| Ductwork modifications, reheat changes to suit layout | 3,015 | m2 | 100.00 | 301,500 |
| Exhaust upgrades to suit space plan | 3,015 | m2 | 25.00 | 75,400 |
| Total HVAC | | | | \$862,800 |



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

C1 MECHANICAL

C14 Controls

Base Building:

| | | | | |
|--|-----|----|-------|-------|
| Relocate thermostats add devices as required | 840 | m2 | 10.00 | 8,400 |
|--|-----|----|-------|-------|

Environment Canada:

| | | | | |
|--|-------|----|-------|--------|
| Relocate thermostats add devices as required | 3,215 | m2 | 20.00 | 64,300 |
|--|-------|----|-------|--------|

Department of Fisheries and Oceans:

| | | | | |
|--|-------|----|-------|--------|
| Relocate thermostats add devices as required | 3,015 | m2 | 20.00 | 60,300 |
|--|-------|----|-------|--------|

| | | | | |
|-----------------------|--|--|--|------------------|
| Total Controls | | | | \$133,000 |
|-----------------------|--|--|--|------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

C2 ELECTRICAL

C21 Service & Distribution

Base Building:

| | | | | |
|--|-----|----|------|-------|
| Use existing distribution, relocate panels, add breakers | 840 | m2 | 7.50 | 6,300 |
|--|-----|----|------|-------|

Environment Canada:

| | | | | |
|--|-------|----|-------|--------|
| Use existing distribution, relocate panels, add breakers | 3,215 | m2 | 10.00 | 32,200 |
|--|-------|----|-------|--------|

Department of Fisheries and Oceans:

| | | | | |
|--|-------|----|-------|--------|
| Use existing distribution, relocate panels, add breakers | 3,015 | m2 | 10.00 | 30,200 |
|--|-------|----|-------|--------|

| | | | | |
|--|--|--|--|------------------------|
| <i>Total Service & Distribution</i> | | | | <i>\$68,700</i> |
|--|--|--|--|------------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|--|----------|------|-------|---------|
| C2 ELECTRICAL | | | | |
| <i>C22 Lighting, Devices & Heating</i> | | | | |
| <u>Base Building:</u> | | | | |
| Replace lighting, receptales to suit partitons | 840 | m2 | 65.00 | 54,600 |
| <u>Environment Canada:</u> | | | | |
| Replace lighting, receptales to suit partitons | 3,215 | m2 | 90.00 | 289,400 |
| Direct connections for lab equipment | 3,215 | m2 | 15.00 | 48,200 |
| <u>Department of Fisheries and Oceans:</u> | | | | |
| Replace lighting, receptales to suit partitons | 3,015 | m2 | 90.00 | 271,400 |
| Direct connections for lab equipment | 3,015 | m2 | 15.00 | 45,200 |

Total Lighting, Devices & Heating **\$708,800**



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| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

C2 ELECTRICAL

C23 Systems & Ancillaries

Base Building:

| | | | | |
|---|-----|----|-------|--------|
| Fire alarm upgrades and relocation, Data and Comms upgrades and relocations, security | 840 | m2 | 55.00 | 46,200 |
|---|-----|----|-------|--------|

Environment Canada:

| | | | | |
|---|-------|----|-------|---------|
| Fire alarm upgrades and relocation, Data and Comms upgrades and relocations, security | 3,215 | m2 | 75.00 | 241,100 |
|---|-------|----|-------|---------|

Department of Fisheries and Oceans:

| | | | | |
|---|-------|----|-------|---------|
| Fire alarm upgrades and relocation, Data and Comms upgrades and relocations, security | 3,015 | m2 | 75.00 | 226,100 |
|---|-------|----|-------|---------|

| | | | | |
|---|--|--|--|------------------|
| <i>Total Systems & Ancillaries</i> | | | | \$513,400 |
|---|--|--|--|------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

D1 SITE WORK

D11.1 Site Preparation

Environment Canada:

Site preparation; 37% of cost to EC

| | | | | |
|--|-------|----------------|-------|--------|
| Site clearing including vegetation | 3,515 | m ² | 1.99 | 7,000 |
| Strip top soil 300mm dp and dispose off-site | 390 | m ³ | 39.98 | 15,600 |

Department of Fisheries and Oceans:

Site preparation; 63% of cost to DFO

| | | | | |
|--|-------|----------------|-------|--------|
| Site clearing including vegetation | 5,985 | m ² | 2.01 | 12,000 |
| Strip top soil 300mm dp and dispose off-site | 1,131 | m ³ | 39.96 | 45,200 |

| | |
|--------------------------------------|------------------------|
| <i>Total Site Preparation</i> | <i>\$79,800</i> |
|--------------------------------------|------------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|---|----------|----------------|-------|-------------------------|
| D1 SITE WORK | | | | |
| <i>D11.2 Hard Surfaces</i> | | | | |
| <u>Environment Canada:</u> | | | | |
| Hard surfaces; 37% of cost to EC | | | | |
| New asphalt paving to parking lot | 3,515 | m ² | 85.01 | 298,800 |
| Rough grading - pavement | | | | |
| Finish grading - pavement | | | | |
| Granular "A" base | | | | |
| Asphalt paving to parking lots | | | | |
| Pavement markings : 4" wide | | | | |
| Allowance for tying up to existing pavement | | | | |
| Concrete curbs; 37% of cost to EC | | | | |
| Concrete curbs | 296 | lm | 67.57 | 20,000 |
| <u>Department of Fisheries and Oceans:</u> | | | | |
| Hard surfaces; 63% of cost to DFO | | | | |
| New asphalt paving to parking lot | 5,985 | m ² | 85.00 | 508,700 |
| Rough grading - pavement | | | | |
| Finish grading - pavement | | | | |
| Granular "A" base | | | | |
| Asphalt paving to parking lots | | | | |
| Pavement markings : 4" wide | | | | |
| Allowance for tying up to existing pavement | | | | |
| Concrete curbs; 63% of cost to DFO | | | | |
| Concrete curbs | 504 | lm | 67.46 | 34,000 |
| <u>Total Hard Surfaces</u> | | | | <u>\$861,500</u> |



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

D1 SITE WORK

D11.3 Site Improvements

Environment Canada:

Chain-link fence; 100% of cost to EC

Install new chain-link fence (2.4m ht)

Install new manual slide gate

| | | | |
|-----|-----|----------|--------|
| 180 | m | 150.00 | 27,000 |
| 2 | no. | 2,500.00 | 5,000 |

Total Site Improvements

\$32,000



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| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

D1 SITE WORK

D12 Mechanical Site Services

Environment Canada:

| | | | | |
|---|-------|----------------|------|--------|
| Parking surface drains; 37% of cost to EC | 3,515 | m ² | 5.00 | 17,600 |
|---|-------|----------------|------|--------|

Department of Fisheries and Oceans:

| | | | | |
|--|-------|----------------|------|--------|
| Parking surface drains; 63% of cost to DFO | 5,985 | m ² | 5.00 | 29,900 |
|--|-------|----------------|------|--------|

| | | | | |
|--|--|--|--|------------------------|
| <i>Total Mechanical Site Services</i> | | | | <i>\$47,500</i> |
|--|--|--|--|------------------------|



Draft

| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

D1 SITE WORK

D13 Electrical Site Services

Environment Canada:

| | | | | |
|----------------------|-------|----------------|------|--------|
| Parking lot lighting | 3,515 | m ² | 7.50 | 26,400 |
|----------------------|-------|----------------|------|--------|

Department of Fisheries and Oceans:

| | | | | |
|----------------------|-------|----------------|------|--------|
| Parking lot lighting | 5,985 | m ² | 7.50 | 44,900 |
|----------------------|-------|----------------|------|--------|

| | |
|--|------------------------|
| <i>Total Electrical Site Services</i> | <i>\$71,300</i> |
|--|------------------------|

Draft

| Description | Quantity | Unit | Rate | Amount |
|---|----------|----------------|----------|--------|
| D2 ANCILLARY WORK | | | | |
| <i>D21.1 Demolition</i> | | | | |
| Selective Demolition | | | | |
| <u>Base Building:</u> | | | | |
| Allowance to remove exterior wall to create door opening; to level 2 | 1 | no | 1,000.00 | 1,000 |
| Remove GWB steel stud partition; to existing washrooms | 174 | m ² | 20.16 | 3,500 |
| Remove CMU partition; to existing washrooms | 95 | m ² | 34.66 | 3,300 |
| Allowance to remove exterior wall to create window opening (1,500x1,500mm); | 20 | no | 1,000.00 | 20,000 |
| Remove existing exit stair rails and guard rails | 324 | m | 54.94 | 17,800 |
| Remove existing lockers | 162 | no | 50.00 | 8,100 |
| Remove washroom cubicles | 21 | no | 61.90 | 1,300 |
| Remove washroom Accessories | 10 | sets | 140.00 | 1,400 |
| Allowance to remove existing free standing building signage | 1 | no | 500.00 | 500 |
| Remove existing interior doors | 15 | no | 80.00 | 1,200 |
| Mechanical disconnects and removal | 840 | m ² | 20.00 | 16,800 |
| Electrical disconnects and removal | 840 | m ² | 20.00 | 16,800 |
| <u>Environment Canada:</u> | | | | |
| Remove GWB steel stud partition; | 1,700 | m ² | 20.00 | 34,000 |
| Remove CMU partition; | 1,118 | m ² | 34.98 | 39,100 |
| Remove glazed steel stud partition; | 55 | m ² | 52.54 | 2,900 |
| Remove wall paint finish; | 1,621 | m ² | 1.97 | 3,200 |
| Remove floor finish; | 163 | m ² | 6.13 | 1,000 |

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| Description | Quantity | Unit | Rate | Amount |
|--|----------|----------------|-------|-------------------------|
| D2 ANCILLARY WORK | | | | |
| <i>D21.1 Demolition</i> | | | | |
| <u>Environment Canada: (con't)</u> | | | | |
| Allowance to remove existing laboratory millwork; | 163 | m | 49.78 | 8,100 |
| Remove floor finish; to renovation areas | 2,765 | m ² | 6.00 | 16,600 |
| Remove acoustic ceiling tile finishes; to renovation areas | 2,765 | m ² | 7.99 | 22,100 |
| Remove existing interior doors | 114 | no | 79.82 | 9,100 |
| Mechanical disconnects and removal | 2,905 | m2 | 20.00 | 58,100 |
| Electrical disconnects and removal | 2,905 | m2 | 20.00 | 58,100 |
| <u>Department of Fisheries and Oceans:</u> | | | | |
| Remove GWB steel stud partition; | 1,703 | m ² | 20.02 | 34,100 |
| Remove CMU partition; | 1,335 | m ² | 34.99 | 46,700 |
| Remove wall paint finish; | 2,645 | m ² | 2.00 | 5,300 |
| Allowance to remove existing laboratory millwork; | 189 | m | 49.87 | 9,400 |
| Remove floor finish; to renovation areas | 3,015 | m ² | 6.00 | 18,100 |
| Remove ceiling gypsum finishes; to renovation areas | 740 | m ² | 20.00 | 14,800 |
| Remove acoustic ceiling tile finishes; to renovation areas | 2,275 | m ² | 8.00 | 18,200 |
| Remove existing interior doors | 127 | no | 80.31 | 10,200 |
| Mechanical disconnects and removal | 3,015 | m2 | 20.00 | 60,300 |
| Electrical disconnects and removal | 3,015 | m2 | 20.00 | 60,300 |
| <u>Total Demolition</u> | | | | <u>\$621,400</u> |



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| Description | Quantity | Unit | Rate | Amount |
|-------------|----------|------|------|--------|
|-------------|----------|------|------|--------|

D2 ANCILLARY WORK

D21.2 Hazardous Materials

Base Building:

| | | | | |
|---|---|-----|--------------|-----------|
| Allowance for removal of hazardous material | 1 | sum | 1,000,000.00 | 1,000,000 |
|---|---|-----|--------------|-----------|

| | |
|---|---------------------------|
| <i>Total Hazardous Materials</i> | <i>\$1,000,000</i> |
|---|---------------------------|



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BTY Group

BTY is one of Canada's most successful and experienced Quantity Surveying and Cost Management consultancies.

Since 1977, BTY has earned a reputation for providing clients with professional and practical advice of the highest calibre. The diversity of our client base attests to our ability to apply critical analysis and thinking to the task at hand. We have provided support to clients for capital investment in the health, education, research, leisure, retail, residential and commercial sectors

We have provided consulting services for over \$15 billion of construction projects in the last thirty eight years.

For all the services we offer, BTY listens to your current and upcoming needs. We provide innovative alternatives and consistently deliver the required solutions with cost-conscious creativity. Since we serve clients whose needs span the entire life of an asset, from needs assessment through asset delivery and beyond, we believe that BTY integrated approach represents a better way to deliver KNOWLEDGE TO BUILD WITH.

Resources

The current complement of the BTY offices is 80 technical staff and includes Quantity Surveyors, Construction Estimators and Professional Engineers, all of whom have detailed knowledge and understanding of the many factors affecting construction costs. As a full service Quantity Surveying practice, we have the background required to provide a full range of services including capital cost planning, estimating, life cycle costing, risk and sustainable design analysis.

We make extensive use of a variety of automated systems during the performance of our duties. These systems include cost estimating software, word processing, spreadsheet and project scheduling programs that are used for the preparation of cost reports and other documentation. Our quantity take-offs are prepared with the assistance of computer driven digitizers that run in conjunction with our proprietary estimating program.

In addition to the resources based in our Calgary and Toronto offices, we can also draw on the project experience and knowledge of our associate offices that are located in Vancouver, Edmonton, Calgary, Saskatoon, St. Catharines, Toronto, Ottawa, Montreal, Los Angeles, Phoenix, Atlanta and recently opened office in Ankara, Turkey.



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Toronto

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Knowledge to build with.*