



INVITATION TO TENDER NO. PS20180882 (the “ITT”)
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION –
NEW CONTINENTAL

Tenders are to be addressed to the Supply Chain Management office, 4th Floor, City of Vancouver, 453 West 12th Avenue, Vancouver, British Columbia, Canada, V5Y 1V4, and must be received in the drop box at the Supply Chain Management office prior to 3:00pm, Vancouver Time (as defined in Note 3 below), on THURSDAY, AUGUST 23, 2018 (the “Closing Time”).

Tenders will be not be publicly opened. Tender results can be found within 48 hours of the Closing Time at the following website:

<http://vancouver.ca/doing-business/unverified-tender-results.aspx>

NOTES:

1. Tenders must be delivered by couriers or otherwise in person drop-box outside the Supply Chain Management Office on the 4th floor at the address specified above, prior to the Closing Time. Tenders must be in sealed envelopes or packages marked with the Tenderer’s name and the ITT title and number. Tenderers should submit one copy of the Tender and one copy of each other document required by the Tender Documents, including the bid bond described in Part B of this ITT.
2. “Vancouver Time” will be conclusively deemed to be the time shown on the computer clock at the Main Floor Rotunda Information Desk at Vancouver City Hall.
3. The City of Vancouver is open on business days from 8:30 a.m. to 4:30 p.m., Vancouver Time, and is closed Saturdays, Sundays, and holidays.
4. DO NOT SUBMIT TENDERS BY FAX OR E-MAIL.
5. All queries related to this ITT should be submitted in writing to the attention of:

Philip Lai, Buyer II
Email: philip.lai@vancouver.ca
(the “Contact Person”)

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**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
PART A – INTRODUCTION**

1.0 OVERVIEW OF PROJECT

- 1.1 The City of Vancouver (the “**City**”) invites Tenders for the provision of services of an elevator contractor in the modernization of the passenger elevators at the New Continental.
- 1.2 The Work generally includes, but is not limited to:
- Construction and modernization of 2 (two) traction elevator; and
 - Replacement of 2 controllers, COP’s and hoisting machines as per specifications
- 1.3 The Site is located at 1067 Seymour Street, Vancouver, British Columbia.
- 1.4 The purpose of this ITT is to select a Tenderer with the capability and experience to efficiently and cost-effectively perform and complete the Work.
- 1.5 IF A POTENTIAL TENDERER BELIEVES THAT THE CITY MAY BE UNABLE TO SELECT IT DUE TO A CONFLICT OF INTEREST, BUT IS UNCERTAIN ABOUT THIS, THE POTENTIAL TENDERER IS URGED TO CONTACT THE CONTACT PERSON AS SOON AS POSSIBLE WITH THE RELEVANT INFORMATION SO THAT THE CITY MAY ADVISE THE POTENTIAL TENDERER REGARDING THE MATTER. SEE SCHEDULE “L” FOR AN INDICATION OF THE TYPES OF CONFLICTS OF INTEREST THAT OFTEN ARISE.

2.0 SUSTAINABILITY

- 2.1 The City’s Procurement Policy, Ethical Purchasing Policy and related Supplier Code of Conduct found at <http://vancouver.ca/doing-business/selling-to-and-buying-from-the-city.aspx> align the City’s approach to procurement with its corporate social, environmental and economic sustainability values and goals. They evidence the City’s commitment to maximize benefits to the environment through product and service selection, and to ensure safe and healthy workplaces, where human and civil rights are respected. Each Tenderer is expected to adhere to the supplier performance standards set forth in the Supplier Code of Conduct.
- 2.2 A Contractor is to provide environmentally sensitive products or services wherever possible. Where there is a requirement that a Contractor supply materials, and where such materials may cause adverse environmental effects, each Tenderer should indicate the nature of the hazard(s) in its Tender. Furthermore, each Tenderer should advise the City of any known alternatives or substitutes for such materials that would mitigate such adverse effects.

3.0 TENDER DOCUMENTS

- 3.1 The Tender Documents are:
- (a) Part A – Introduction, and its appendices:
 - (i) Appendix 1 – Mandatory Information Meeting Attendance Form;
 - (ii) Appendix 2 – Response Notification Form; and
 - (iii) Appendix 3 – Site Plan;
 - (b) Part B – Terms and Conditions of ITT Process;
 - (c) Part C - Form of Tender (including all schedules),

INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
PART A – INTRODUCTION

- (d) Part D – Form of Agreement (including all schedules);
- (e) the Specifications (provided separately and to be incorporated into the Contract when finalized);
- (f) the Drawings (provided separately and to be incorporated into the Contract when finalized);
- (g) all addenda or amendments to the ITT, and all questions and answers in connection with the ITT, issued in writing by the City prior to the Closing Time, as well as any addenda, amendments or questions and answers issued in writing by the City after the Closing Time and accepted in writing by the Tenderers.

4.0 MANDATORY INFORMATION MEETING

- 4.1 Tenderers are required to attend the mandatory information meeting (the “**Mandatory Information Meeting**”) on **Tuesday, July 31, 2018** commencing at **10:00a.m.**
- 4.2 The location of the Mandatory Information Meeting will be: **1067 Seymour Street**, Vancouver, British Columbia. ***Please meet in the front of the building at 10:00a.m.*** Street parking is available.
- 4.3 Tenderers are asked to pre-register for the Mandatory Information Meeting by submitting the Mandatory Information Meeting Attendance Form (Appendix 1) to the Contact Person by fax or email prior to **12:00p.m., Monday, July 30, 2018.**

5.0 ADMINISTRATIVE REQUIREMENTS

- 5.1 Tenderers are asked to indicate their intentions to submit Tenders by submitting the Response Notification Form (Appendix 2) to the Contact Person by fax or email on or before **12:00p.m., Wednesday, August 15, 2018.**
- 5.2 It is the sole responsibility of each Tenderer to check the City’s website at <http://vancouver.ca/doing-business/open-bids.aspx> regularly for addenda, amendments and questions and answers related to this ITT, which the City may issue at any time during the process, and for any reason, at its discretion.

6.0 CONDUCT OF ITT – INQUIRES AND CLARIFICATIONS

- 6.1 The City will have conduct of this ITT, and all communications are to be directed only to the Contact Person named on the cover page.
- 6.2 It is the responsibility of each Tenderer to thoroughly examine the Tender Documents and satisfy itself as to the full requirements of this ITT and their acceptability to the Tenderer.
- 6.3 The City welcomes inquiries, requests for clarification or comments from registered Tenderers. All inquiries or comments to the City must be in written form only. All inquiries, requests for clarification and comments must be e-mailed to philip.lai@vancouver.ca prior to **12:00p.m., Wednesday, August 15, 2018**, and must in each case be addressed to the attention of the Contact Person. In response to inquiries, requests for clarification or comments, the City, in its sole discretion, may make amendments to this ITT or may issue questions and answers to all Tenderers who have submitted a Response Notification Form and post them on the City’s website.

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
APPENDIX 1 – INFORMATION MEETING ATTENDANCE FORM**



**CITY OF VANCOUVER
Purchasing Services**

Invitation to Tender No. PS20180882

To acknowledge your intent to attend the Mandatory Information Meeting and to ensure that you receive the required information, please submit this form to the person identified below in accordance with the ITT:

Philip Lai
City of Vancouver
Email: philip.lai@vancouver.ca

Your details:

Tenderer's Name:

_____ **"Tenderer"**

Address:

Telephone:

_____ **Fax:** _____

Key Contact Person:

E-mail:

We will attend the Mandatory Information Meeting for: ITT No. **PS20180882**, "**Contractor Services for Elevator Modernization – New Continental**".

Signature

Name of Authorized Signatory (Please print)

E-mail Address (Please print)

Date

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
APPENDIX 2 – RESPONSE NOTIFICATION FORM**



**CITY OF VANCOUVER
Purchasing Services**

Invitation to Tender No. PS20180882

To acknowledge your intent to submit a Tender and to ensure that you receive the required information, please submit this form to the person identified below in accordance with the ITT:

Philip Lai
City of Vancouver
Email: philip.lai@vancouver.ca

Your details:

Tenderer's Legal Name:

_____ **"Tenderer"**

Address:

Telephone:

_____ **Fax:** _____

Key Contact Person:

E-mail:

We **WILL** / **WILL NOT** submit a Tender in response to ITT No. **PS20180882**, "**Contractor Services for Modernization – New Continental**" on or before the Closing Time.

Signature

Name of Authorized Signatory (Please print)

E-mail Address (Please print)

Date

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
APPENDIX 3 – SCOPE OF WORK/SPECIFICATIONS**

APPENDIX 3 – SCOPE OF WORK/SPECIFICATIONS

SEE ATTACHED:

- Elevator Upgrade Specification – New Continental Passenger Elevator, Issued for Tender: July 19, 2018; Prepared by: VERTECH Elevator Services Inc. (49 pages)

- Electrical Scope of Work – Drawings and Specifications (8 pages):
 - E0 – Fire Alarm Specifications and Drawing List
 - E1 – Fire Alarm General Requirements and Site Plan
 - E2 – Fire Alarm Communication Riser Diagram
 - E3 – Modifications to Graphic Main Annunciator
 - E4 – Mechanical Mezzanine Electrical Plan
 - E5 – Generator Transfer Switch Location P1 (Parkade)
 - E6 – Telecom Entry Level P2 (Parkade)
 - E7 – Elevator Pit Location Level P3 (Parkade)

GENERAL NOTES:

1. Normal Working Hours: Monday to Friday 7:00a.m. to 3:30p.m.
2. One (1) parking stall for company vehicle available.
3. City of Vancouver requires weigh bills for all metal recycled.

Elevator Upgrade Specification

**New Continental Building
1067 Seymour St.
Vancouver, BC**

**Issued for Pricing
July 19, 2018**

Prepared by:

**VERTECH Elevator Services Inc.
Engineering & Consulting
723 – 602 W. Hastings Street
Vancouver, BC V6B 1P2
Ph. (604) 647-4900
Fax (604) 647-4908**

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1. General

1.1. Scope

This specification is intended to cover the upgrading of two (2) existing passenger elevators #3 & 4 as described hereinafter, in a first class workman-like manner, by the Elevator Contractor.

1.2. Definitions

Terms used in the specification shall be defined as given in the latest adopted edition of the ASME A17.1-2007/CSA B44-07 - Safety code for elevators and escalators.

Where the term “Owner” or “Owner’s Representative” is used herein, this shall be read as “The City of Vancouver”.

Where the term “Consultant” is used herein, this shall be read as “VERTECH Elevator Services Inc.”.

Where the term “Contractor” or “Elevator Contractor” is used herein, this shall be read as the person(s) or company contracted by the Owner to furnish materials and labour as required by the specification and contract documents.

1.3. Related Work

To complete this installation, the following items must be performed or furnished by trades other than the Elevator Contractor, in accordance with governing codes: Any other work required to complete the installation or satisfy the regulatory authorities and not specifically listed herein shall be the responsibility of the Elevator Contractor. The following items shall be completed as part of the Owner’s Responsibilities:

- a) Provide and install a CCTV camera in the elevator if required by the Owner.

1.4. Sub-Contract Work

To complete this installation, the following items, as a minimum, shall be subcontracted by the Elevator Contractor, to be performed or furnished by trades other than the Elevator Contractor, in accordance with governing codes:

Miscellaneous Building Sub-Contract Work:

- a) Patching and fire-stopping of any new or existing holes and penetrations in the elevator machine room and hoistway enclosure.
- b) Cutting and patching of building floors, walls, ceilings, finishes, etc. for new fixtures, conduit, etc. including alterations to accommodate the new elevator lobby telephone device if required.
- c) Optional – New Elevator Cab Interior Finishes as specified elsewhere herein.
- d) Optional – New Elevator Cab Flooring as specified elsewhere herein.

Security System:

- a) Disconnection, removal, relocation, reconnection and alteration of the existing card access security system on the #3 & 4 elevator in the machine room and in the cab to permit interfacing with the new elevator control system security interface.
- b) Commissioning, testing and any other alterations or modifications required to the card access security system to make the system fully operational with the new elevator control system and to preserve all existing card reader security system functions.

Pre-approved security system subcontractors are: Rose Security, info@rosesecurity.com (604) 540-7673.

Elevator Voice Communication System:

- a) Provide and install a new elevator telephone system for the building consisting of a new master phone system in the building electrical /communication room complete with UPS.
- b) Provide and install a new handsfree panel mount phone in the car operating panel for each elevator.
- c) Provide and install a new remote telephone handset device in the building lobby.
- d) Provide and install new voice communication failure components (audible and visual signal, etc.) at the main floor hall button fixture.
- e) Make all connections to the existing analog phone line and to the existing elevator telephone wiring.

Pre-approved elevator communication subcontractors are: Webb Solutions, Contact: David Thomson or Geoff McDougall Davidt@cissecurity.ca or geoffm@webbsolutions.ca (604) 501-6652.

Electrical Sub-Contract Work (See attached Electrical Design specifications and drawings):

- f) Provide additions and alterations to the building fire alarm system to provide suitable signals for initiating recall of the elevator in accordance with the B44-07 Elevator Safety Code. Provide smoke detectors at each elevator landing, in the machine room and top of shaft if not already in place and suitable interface signals and programming of the fire alarm system to recall the elevator as required.
- g) Provide new GFCI power outlets in the elevator pit to replace any and all existing power outlets in the pit and machine room areas.
- h) Provide new feeder wires and conduit from the disconnect switch to the new elevator controller or transformer location as required. Size of new disconnect switch and fusing to suit the new elevator equipment requirements.
- i) Provide a connection to a proper earth ground for the elevator electrical power supply. Provide a new separate ground/bonding conductor in the 3 phase elevator power supply with feeder wire to the elevator controller to suit the new equipment.
- j) Provide new double 48" long fluorescent strip light fixtures or LED fixtures in the elevator machine room and pit to replace the existing light fixtures. Pit fixtures shall be guarded against breakage with a wire guard or polycarbonate lens.
- k) Provide a 120 V power supply for the elevator master phone device in the building electrical / communications room.

Include the cost of the subcontract work in the base proposal price or optional prices as applicable but indicate the amounts included for each sub-trade in the submission. Subcontractors shall meet the Owners criteria and shall be approved for work on the site prior to commencement of any work by the sub-contractor.

1.5. Alternative Products

Alternative products to those specified may be accepted provided they are pre-approved in writing by the Owner prior to submission of bid.

Elevator Contractors wishing to obtain pre-approval of alternative products shall make such requests in writing for consideration by the Owner and the Consultant. Requests for alternatives shall include a full description of each product including full-disclosure of the proprietary nature of the equipment including diagnostics, tools, components and spare parts. Requests shall also include a list of sites where the product has been used locally, references and details on the training available for the products including training for third party Elevator Contractors or the Owner's personnel.

Acceptance of alternative products shall not imply acceptance of any deviation or variances from the specified requirements unless such deviations or variances are clearly stated and agreed to in writing prior to the submission deadline.

1.6. Codes and Regulations

All new equipment shall be furnished and installed in accordance with the CSA/CAN-B44-07 Safety Code for Elevators, including any applicable supplements, the BC Safety Standards Act and the BC Elevating Devices Safety Regulation and any other local requirements that may be in force.

The new equipment and installation shall comply with the Canadian Electrical Code, the Vancouver Building ByLaw and Fire Code for the jurisdiction of the work as well as any and all applicable local codes.

1.7. Certificates

The Elevator Contractor shall furnish all licenses and permits and shall arrange for and make all inspections and tests required thereby. The cost of certificates, licenses, permits, etc. for any sub-contract work shall also be included in the basic submission price.

1.8. Material and Workmanship

Provide only new material and equipment designed for elevator use.

Install all equipment in a neat and professional manner. Label all components clearly and secure all wiring in a neat and orderly fashion.

1.9. Warranty

The Elevator Contractor shall guarantee the materials and workmanship of the apparatus furnished under these specifications and will make good any defects not due to ordinary wear and tear or improper use or carelessness which may develop within two (2) years from date of substantial completion of the project. Substantial completion shall be the point at which all of the new equipment has been installed and all of the elevators are operating as a group with all required features operational. The Consultant shall verify the date of substantial completion of the work.

1.10. Hoarding

Provide hoarding for the protection of the public and worker's at the site.

Where the work requires that the hoistway is open provide a substantial hoarding with a locked access door to protect the opening.

Provide barriers at all working floors to protect the public from the area of the work.

1.11. Conduct

The building is occupied and therefore conduct at the site must be appropriate so as not to interfere with the normal functioning of the building.

Materials, tools and other equipment shall be stored and protected in areas designated by the Owner, if available.

Any noisy or smelly work or work requiring that more than one elevator is required to be out of service for any amount of time shall be performed at times suitable to the Owner. Access and use of the elevators will be permitted for moving in new equipment and materials and for removal of equipment. This work shall include items such as hammer drilling, grinding, hoisting equipment in & out of the machine room, work to switch over hall buttons or to test emergency recall and standby power features. Arrange to do such work at times designated by the Owner. The Elevator Contractor shall include an allowance in the contract price to conduct such work in overtime as may be required.

The Elevator Contractor shall be responsible for any damage or soiling of building finishes resulting from performance of the work and the Owner shall reserve the right to deduct the cost of any remedial work required in the event that the Elevator Contractor fails to correct any such damage or soiling.

Any prolonged, disruptive or noisy work that is required to be conducted as rigging, hoisting, etc. shall be done outside of regular working hours. The Elevator Contractor shall make an allowance for significant overtime to perform disruptive work of this nature outside of regular working hours when necessary.

Permitted hours of work at the site will generally be from 7:00 AM to 5:00 PM to be verified with the tenants once the schedule is confirmed. Prior notice and approval must be given and obtained prior to any work being performed outside of the approved hours.

1.12. Site Access

The Elevator Contractor shall examine the site with respect to the constraints and limitations of accessing the areas of the work.

Elevator Contractors shall allow for the existing site conditions in preparing estimates for moving in and installing new equipment, tools and materials as well as equipment removal.

The Elevator Contractor shall protect the building floor levels, stairwells, etc. when using common areas for hoisting, storage and the like. The Elevator Contractor shall be responsible for any damage or soiling of building finishes resulting from performance of the work and the Owner shall reserve the right to deduct the cost of any remedial work required in the event that the Elevator Contractor fails to correct any such damage or soiling.

The Elevator Contractor and all sub-trades will be required to sign in and sign out of the building on a daily basis and to obtain keys / access cards for access in the building.

1.13. Storage

Storage for the Elevator Contractors tools, equipment and for the new elevator equipment may be limited on site and the Elevator Contractor shall ascertain and allow for existing site conditions in this regard.

If equipment is stored on the roof temporarily then provide temporary roof protection to distribute the load and to protect the roof and caution tape the area.

1.14. Personnel

Personnel assigned to the site shall wear suitable, clean uniforms and attire and shall act in a courteous and professional manner while conducting their work on the premises. The personnel shall observe and obey the policies and procedures for the place of work regarding; security, safety, access and routine sign-in requirements and shall obtain and wear identification, if required by and approved by the Owner, at all times when working at the site.

1.15. Site Safety

The site personnel shall be provided with appropriate personal and workplace safety equipment and shall adhere to recognized safe working procedures.

The Elevator Contractor shall adhere to the Worksafe BC Occupational Health and Safety Regulation regarding workplace safety requirements and guidelines for work in confined spaces, fall protection and working with hazardous materials as well as any other applicable conditions or requirements.

1.16. Trademarks, Patents, Copyrights

The equipment provided shall not display any trademarks or other visible company logos.

1.17. Date Compliance

Provide equipment and control systems fully compliant for rollover and operation through the year 2018 and beyond. Provide a letter of assurance certifying that the equipment provided is fully date compliant with respect to time and date storage and time and date information exchange.

1.18. Inspection and Commissioning

Upon completion of the work and prior to turning elevators over for use by the public arrange for acceptance tests and inspections with the regulatory authority. Advise the Owner at least 48 hours in advance of the testing and inspection so that a representative may be on site. The Elevator Contractor shall submit copies of any such inspection reports to the Owner and the Consultant within 48 hours of receipt. Include for any repeat inspections that may be required to satisfy the requirements of the inspecting authority.

Inspection and testing shall also be conducted by the Consultant. Provide qualified manpower, tools, test weights and instruments to complete these tests and any repeat tests that may be required as a result of incomplete or deficient work. Allow for a minimum of one half (1/2) man day per elevator for testing and inspection and additional time for repeat inspections if required.

1.19. Description of Existing Equipment

Elevator/Description	Passenger Elevators #3 & 4
BCSA Elevator ID #'s	13324 & 13325
Manufacturer/Installer	Northern / Northern-West (Thyssen) Elevator
Type of Elevator	Geared Overhead Traction
Capacity	2000 lb.
Rated Speed	350 fpm
Number of Stops	#3 – 16 Stops and #4 – 15 Stops (front only)
Floors Served	#3 - P3,P2,★M,3-15 (Elevator #4 does not stop at level P2)
Controller Type	Normic 100 with DC Variable Voltage / Generator Field Control Drive
Operation	Duplex: Full Selective Collective
Hoist Machine	Northern 280 Geared Traction Machine
Auxiliary Brake	None
Door Type	Single Speed Side Opening
Door Size	3'-0" wide
Door Operator	ECI-895
Door Reopening Device	Formula Systems – Safescreen
Car Operating Panel	One (1) per car, Applied Faceplate
Car Position Indicator	One (1) per car – located above Car Doors
In-Car Riding Lanterns	One (1) per car in Car Door Strike Jamb
Hall Buttons	One (1) Riser at Accessible Height
Hall Direction Lanterns	None
Hall Position Indicator	Digital Position Indicator Display at “M” Floor only (located in door frame header)
Firefighters Elevator:	YES - #3 Identified as designated for FF use
Standby Power:	YES – One elevator at a time

1.20. Cutting and Patching

Any cutting, patching, painting or other restorative work required to accommodate the installation of the new equipment and operating and signal fixtures, and not specifically listed herein as being by others, shall be the responsibility of the Elevator Contractor.

Prior to proceeding with any such work the Elevator Contractor shall review the details of the work with the Owner and obtain approval to proceed.

All effected finishes shall be suitably restored to the Owner's satisfaction.

Portions of this work may be sub-contracted with the permission and approval of the Owner.

Note that environmental testing may be required by the City of Vancouver prior to any concrete cutting of walls, floors or ceilings.

1.21. Remote Conduit and Wiring

Any remote conduit and wiring required to interconnect the elevator control system with lobby panel, panel for emergency personnel, monitoring and control equipment or any other equipment provided under this specifications, and not specifically listed herein as being by others, shall be the responsibility of the Elevator Contractor.

Any wires brought "to the hoistway" by other trades shall be routed to the elevator machine room in the hoistway by the Elevator Contractor.

Prior to proceeding with any such work the Elevator Contractor shall review the details of the work with the Owner and obtain approval to proceed. Portions of this work may be sub-contracted with the permission and approval of the Owner

2. Product – Elevators

2.1. Retained Equipment

The following equipment may be retained provided the requirements of the specification and governing codes and regulations can be met with respect to performance, operation, reliability, safety and other miscellaneous requirements:

Refurbish all retained equipment. Clean, lubricate, paint and adjust all components to appear and operate as new, replace any parts or components that are worn or otherwise damaged. Make allowance for existing wear and other conditions and restore retained equipment to provide smooth, quiet, comfortable and reliable operation of the equipment. Replace or repair any parts that are worn. This shall include but not be limited to sheaves, ropes, motors, brake linings, gears, bearings, seals, switches, etc.

Equipment that may be Retained

- a) Geared Overhead Traction Machine & Brake (Optional)
- b) Overhead and Deflector Sheaves (Optional)
- c) Car Sling, Car Safety, Platform, Cab Structure, Sill and Car Door Panels.
- d) Governor and Governor Idler
- e) Hoistway Entrances, Door Panels, Sills, Hoistway Door Tracks, Safety Retainers and Hangers
- f) Infrared Door Detectors
- g) Counterweight
- h) Buffers
- i) Rails
- j) Cab Interior finishes, Ceiling, and Lighting (Optional)
- k) Pit Ladders

2.2. New Equipment

The following equipment shall be replaced with new equipment as detailed elsewhere in the specifications:

New Equipment to be Provided

- a) Individual Elevator and Group Control System with Restricted Access Security System Interface and Fire and Life Safety Emergency Operational Features.
- b) Geared Machine Refurbishment, New AC Hoist Motors and couplings, New Hoist Ropes and Machine Safety Guards. Refurbishment of Deflector Sheaves.
- c) Variable Speed Drive and Motion Control Equipment.
- d) Velocity and Position Feedback Devices including Load Weighing Device.
- e) Auxiliary braking devices.
- f) Machine Room, Hoistway and Cab Wiring, including Travelling Cables.
- g) Closed Loop Door Operators, Car Door Gate Switch, Linkage, Clutch, Landing Door Interlocks, Car Door Restrictors and Related Hardware.
- h) All New Car and Landing Door Rollers.
- i) Top of Car Inspection Controls, Emergency Cab Light & Bell.

- j) Hoistway Door Unlocking Devices at all floors.
- k) Car and Hall Operating and Signal Fixtures, including Voice Announcers, Car Position Indicators, In-Car Direction Lanterns, Combination Hall Position Indicator and Lantern at M Floor, Hoistway Access Devices and Handsfree Telephone Devices.
- l) Hall Call Button Fixtures at all floors. Emergency feature hall fixture at Level M and remote Recall Fixture in Building Lobby.
- m) Two Way Elevator Voice Communication Device at CACF and Master Phone in Comm/Electrical Room.
- n) Hall Tactile and Braille Markings
- o) Miscellaneous Signage at Recall Levels, on remote recall switch fixture and on machine room equipment.
- p) Car and Counterweight Roller Guides
- q) Car Top Guard Rails and Extended Cab Apron Guards.
- r) Hoist Ropes and Governor Ropes
- s) Silent Compensating Chains
- t) Buffer Return Switches
- u) Pit Stop Switches
- v) Cab Ventilation Fans
- w) Seismic Safety Features.
- x) Optional – Regenerative Drive System.
- y) Optional – New Cab Flooring and Cab Interior Finishes.
- z) Optional – New Geared or Gearless Hoisting Machines.

Remove all replaced equipment from the site and take possession of such equipment. The Owner reserves the right to retain ownership of any equipment removed and shall advise the Elevator Contractor of their intent to retain any such components prior to their removal. Removed materials shall be disposed of in an ecological and environmentally friendly manner and materials should be reused, recycled to avoid unnecessary waste. Metals in particular should be diverted to a certified metal recycling facility and waybills shall be provided for all metals (including the weight) that is diverted to a recycling facility.

Dispose of any replaced equipment in a suitable manner.

2.3. Architectural Finishes

The new equipment provided shall have the following finishes:

Fixture or Component	Material or Finish
Car and Hall Operating & Signal Fixtures	Stainless Steel #4 Brushed Finish
Lobby Phone and Lobby Panel	Stainless Steel #4 Brushed Finish
Optional Cab Interior Components:	
Cab Front Return, Car Door Header, Car Door Jambs and Car Door Panels	New Stainless Steel #4 Brushed Finish cladding
Cab Rear & Side Walls as applicable	New, Vertical, Raised, Removable Panels finished with Plastic Laminate as selected by the Owner. Stainless Steel Brushed Finish panel reveals and kickplate/base.
Cab Ceiling	Re-paint Cab Shell Canopy (White or Black as selected by the Owner) and make suitable for application of suspended ceiling.

Cab Suspended Ceiling	Sectional Stainless Steel Suspended Ceiling Frame with Recessed Pot Lights
Cab Lighting	New energy efficient LED pot lights as approved by the Owner
Cab Handrails	Lustre Products Stainless Steel "Extruded" Handrail 100 mm high with ends returned to the wall finishes
Cab Flooring	New Sheet Vinyl Flooring consisting of 2.5 mm thick solid colour Forbo Walton linoleum or Johnsonite Tarkett Lenza, or equivalent. Final selection to be approved by the Owner

2.4. Car Operating Panel

A new applied car operating panel shall be supplied. Provide one panel per elevator to replace the existing car operating panel.

The panel shall contain a bank of illuminating car call buttons marked to correspond to the landings served, an emergency call button, door open and door close buttons. The emergency call button shall be connected to a bell that serves as an emergency signal.

The car shall be provided with the following switches located in a lockable cabinet:

- a) light toggle switch,
- b) fan toggle switch,
- c) inspection/hoistway access enable keyed switch,
- d) emergency light test switch or button,
- e) 110 V duplex power outlet,
- f) 2 blank cutouts for future keyed switches or other components,

The car shall be provided with the following components flush mounted in the panel faceplate:

- a) Emergency Recall Illuminating Indicator,
- b) Independent Service keyed switch
- c) Stop/Run Keyed Switch,
- d) Integral Emergency Cab Lighting Lens,
- e) Hands Free Emergency Voice Communication Device,
- f) Emergency Telephone Activation Button,
- g) Flush mounted lens and mounting studs for card reader,

The car shall be provided with the following switches and/or devices located in a lockable "Firefighter's Operation cabinet":

- a) In-Car Firefighter's Operation Switch and written instructions,
- b) Call Cancel Button,
- c) Fire Recall Illuminating Indicator,
- d) Emergency Stop Switch or Button,
- e) Additional Door Open and Close Buttons for Front and Rear Doors, as applicable,

All operating devices and components for the public shall be provided with tactile markings mounted flush in the panel faceplate and secured firmly in place with studs and flanges.

All illuminating devices shall be provided with long life LED illumination which is clearly visible in the ambient lighting level of the cab.

The panel faceplate shall be professionally engraved to identify each component, the position of switches, the elevator capacity, the Owner’s identification number as well as any jurisdictional identification numbers applicable to the installation.

Shop drawings shall be submitted with details for review and approval prior to manufacturing.

The following manufacturers and button fixture products are approved for use on this project:

- Dupar Controls – US91 Target Style Vandal Resistant
- MAD Elevator Fixtures – BS, BP Vandal Resistant

2.5. Keying

Elevator Contractors shall provide a common key for each group of devices per the following:

Key Grouping	Restrictions	Function
1	None	Service Cabinet, Independent Service
2	Restricted – Elevator Maintenance & Inspection Personnel Only	Inspection, Hoistway Access & Enabling, Run/Stop
3	Emergency Personnel	Fire Recall, Emergency Power, Voice Communication Failure Reset, Lobby Telephone

2.6. Car Position Indicators

Provide new car position indicator display fixture in the car door header to replace the existing fixtures. If the car door header is completely reclad to conceal the location of the old fixtures then the new car position indicator may be located in the car operating panel. Indicators shall be located at a minimum height of 6’-6” from the cab finished floor level.

The position of the car in the hoistway shall be shown by the illumination of the indication corresponding to the range of landing at which the car is stopped or passing.

Display shall consist of LED 16 segment displays with characters no less than 2” in height.

Display shall be sufficiently illuminated such that they are clearly visible in the ambient lighting level of the cab.

Provide an audible voice announcer to provide messages announcing the floor level and direction of travel.

2.7. Hall Push-Button Fixtures

Provide new flush mounted hall button fixtures at all floors to replace the existing fixtures. The fixtures shall be flush mounted in the corridor walls. Existing back boxes may be reused. Fixtures to be sized to cover existing back boxes. All cutting and patching necessary for the installation of the fixtures shall be the responsibility of the Elevator Contractor.

At each terminal landing, a fixture containing a single button shall be provided and at each intermediate landing, a fixture containing "UP" and "DOWN" buttons shall be provided.

When a call is registered by pressing a hall button, that button shall become illuminated and shall remain illuminated until the call is answered. Provide LED illuminating elements with a minimum usage rating of 100,000 hours. The illumination shall be of sufficient intensity that it is clearly visible in the ambient lighting levels of corridors.

The following manufacturers and button fixture products are approved for use on this project:

- Dupar Controls – US91 Target Style Vandal Resistant
- MAD Elevator Fixtures – BS, BP Vandal Resistant

2.8. In-Car Lanterns

Provide one (1) new in-car direction lantern fixture per car mounted in the car door jambs to replace the existing fixtures. When the car stops and the doors are opening, the lantern shall indicate the direction in which the car is to travel.

All cutting and patching necessary for the installation of the fixture shall be the responsibility of the Elevator Contractor.

The illuminating elements shall be LED lamps with a minimum usage rating of 100,000 hours. The illumination shall be of sufficient intensity that it is clearly visible in the ambient lighting levels of the cab and corridors.

Provide an audible voice announcer to provide messages announcing the direction of travel as the doors are opening.

2.9. Designated Level Emergency Feature Hall Fixture

Incorporate the following into the new hall fixture at the Main floor level for the elevator. The fixture shall contain the following:

- a) A three (3) position firefighters recall keyed switch for the elevators.
- b) An indicator light to indicate the recall operation has been activated for the elevators.
- c) Written Instructions as required by the governing regulations for the operation of the recall switch.
- d) A three (3) position Elevator Emergency Power selection switch
- e) An Elevator Emergency Power Indicator Light and an indicator light for each elevator to show when the respective car is selected for operation on EP.

- f) Elevator voice communication system failure indicator light, audible signal and a means to silence the communication failure audible signal.

The panel shall be engraved as required by the governing regulations.

The fixture shall be flush mounted in the corridor wall. Reuse of the existing back boxes shall be permitted to eliminate the need for cutting and patching.

All cutting and patching necessary for the installation of the fixture shall be the responsibility of the Elevator Contractor.

If all of the new components cannot fit into the existing location then a surface mounted fixture may be permitted subject to acceptance of the design by the Owner and the Elevator Consultant. Surface mount fixtures shall have rounded or chamfered edges and should not protrude more than 1" from the finished wall surface.

2.10. Hall Lanterns and Hall Position Indicators

Provide a new combination hall lantern / hall position indicator fixture at the "M" floor level to replace the existing fixture.

The fixture shall be installed with up and down indications at intermediate landings and single indications at terminal landings. Prior to the arrival of a car at a landing, the lantern shall illuminate and a chime shall sound. The chime shall be furnished to sound once for "UP" and twice for "DOWN" to announce the impending arrival and direction of travel of the car.

The illuminating elements shall be LED with a minimum usage rating of 100,000 hours. The illumination shall be of sufficient intensity that it is clearly visible in the ambient lighting levels of the lobby or corridor areas.

The audible chimes shall be electronic with easily adjustable volume controls. The sound produced shall be pleasing yet distinctive.

Provide hall position indicators incorporated into the fixtures. Displays shall consist of LED 16 segment displays with characters no less than 1" in height.

Displays shall be sufficiently illuminated such that they are clearly visible in the ambient lighting level of the elevator lobby area.

The fixture shall be flush mounted in the landing door header and reuse of the existing back box is permitted if possible otherwise the elevator contractor shall enlarge the cutout and install a larger back box.

All cutting and patching necessary for the installation of the fixture shall be the responsibility of the Elevator Contractor.

2.11. Remote Recall Switch Fixture

The existing fixture for emergency personnel located at the Fire Department Response Point adjacent to the Fire Alarm Annunciator Panel in the building lobby shall be replaced in its entirety as follows:

Provide a new fixture containing the following:

- a) Provide a two (2) position remote emergency recall switch with recall indicator light for the elevators.
- b) Written Instructions as required by the governing regulations for the operation of the recall switch.
- c) Engraving to identify the location of the designated and alternate recall levels.

The existing conduit and wiring between the elevator hoistway or machine room and the remote recall fixture may be retained and reused for interconnections to the new fixture.

2.12. Hoistway Access Devices

Provide new hoistway access keyed switch fixtures at the bottom and top landings for access to the elevator car top and pit regardless of the rated speed of the elevator. Keying shall be the same as the inspection/hoistway access enable keyed switch located in the car operating panel.

The new fixtures shall be installed in the landing door jamb, or in the landing door sight guard for each respective elevator. Do not mount the devices in the hall button fixture.

The Elevator Contractor shall be responsible for any cutting and patching necessary to provide suitable cutouts for the new fixtures, to restore the elevator entrance finishes and infill construction to proper conditions on completion.

The existing hoistway access fixture for elevator #4 at the "M" floor level shall be removed and covered with a blank stainless steel faceplate.

2.13. Voice Announcer

Provide equipment to allow an audible announcement in the elevator cab as follows and as required by the governing regulations. The messages shall be appropriate to reflect the conditions pertinent to the elevator and shall be subject to the Owners approval.

Connect the equipment to the elevator control system and determine the necessary inputs so that the messages reflect the conditions pertaining to the respective elevator or group function. The equipment shall be mounted in the machine room or in the car operating panel, do not mount equipment on the car top with exception of the remote speaker which may be mounted on the car top if necessary.

Mount the remote speaker in the car operating panel or car top behind a protective grille. Ensure that the location of the speaker will allow the announcements to be clearly audible in the car. The system shall be equipped with site adjustable volume control.

As a minimum the system shall include, but is not restricted to the following announcements:

- a) Announcement of the floor designation that the elevator is stopped at or about to stop at.
- b) Announcement of the direction of travel of the elevator. The announcement shall be made when opening the doors in response to car or hall calls.
- c) Announcement warning passengers to stay clear of the doors when closing with the door re-opening device bypassed.
- d) Announcement instructing passengers to exit the elevator when doors open when being recalled to the designated recall floor as a result of emergency recall operation or other similar feature.

All announcements shall be available in both the English and French languages and in a male or female gender voice as selected by the Owner and/or Consultant.

Provide approval forms for the voice announcements, gender and language and other details for review and approval prior to manufacturing.

2.14. Cab Interior Finishes – Separate Price

The existing cab interior finishes shall be retained and reused. Protect the cab finishes against damage throughout the course of the project.

Indicate in the proposal submission the separate optional extra cost to provide new cab interior finishes as follows:

Portions of this work may be subcontracted and the names of all proposed subcontractors shall be provided in the proposal. The Owner shall approve the use of any subcontractor prior to award of any subcontract work. Subcontractors shall provide references where similar work has been performed within the last 24 months.

Completely remove the old finishes including wall panels, reveals, cab suspended ceiling, cab lighting fixtures, etc. Strip the cab walls and car door panels of old laminate finishes and prepare for new finishes. Remove the existing cab flooring as well as any sub floor or old flooring that may still be in place and prepare for new flooring.

The car door, door posts, car door header and front return panel shall all be clad in new stainless steel finishes with overlapping or tight fitting joints. Cladding on the car door shall fully wrap the leading edge of the door panel and all fasteners shall be concealed.

Provide removable wall panels on the rear and side walls of plastic laminate as described elsewhere herein. Panels to be 5/8" thick composition board core with laminated back. Provide stainless steel reveal strips around each panel and in the cab corners and a stainless steel base/kickplate.

Provide a Hewco snap frame cab notice board on the side wall or front return panel wall from George H. Hewitt Co. suitable for one 8.5 x 11" sheet of paper in each cab.

Provide a new suspended ceiling of plastic laminate or stainless steel with removable section for car top escape hatch. Provide a minimum of four (4) new LED pot lights recessed into the cab suspended ceiling or more lighting to provide a suitable lighting level in each cab.

Provide new stainless steel handrails on the cab side and rear walls as specified elsewhere herein.

Provide new satin finish stainless steel protective pad hooks on all walls including front return panel and provide one complete set of new fire retardant protective pads of quilted canvas for the cab walls and front return panels. Include cutouts for the car operating panel(s) as necessary.

The materials provided shall comply with the latest revision of the governing code with respect to flame spread and smoke development classification and other requirements for elevator cab interior finishes.

The counterweight shall be adjusted by adding or removing weight such that the total weight of the counterweight is equal to the weight of the car plus approximately 40 to 50% of the rated capacity to suit the original equipment design or new requirements. Weight addition to the cab shall be limited to a maximum of 5% of the combined original sum of the weight of the cab, enclosure and its capacity. Should the weight addition exceed this 5% then the weight addition shall be reviewed and approved by a registered professional engineer in accordance with clause 8.7.2.15.2 of the B44-07 Elevator Safety Code regarding an increase in the deadweight of the car.

The responsibility for the overall installation lies with the elevator contractor and the Owner does not intend to deal directly with the subcontractors.

2.15. Cab Flooring – Separate Price

The existing cab flooring and base shall be retained and reused as part of the basic scope of work. Protect the cab flooring against damage throughout the course of the project.

Indicate in the submission the separate, optional, extra cost to provide new cab flooring consisting of new heavy duty sheet vinyl flooring as selected by the Owner and as specified elsewhere herein. Optional price to include removal and disposal of old flooring and preparation for new flooring including new subfloor as required.

Any new materials provided shall comply with the latest revision of the governing code with respect to flame spread and smoke development classification and other requirements for elevator cab interior finishes.

The responsibility for the overall installation lies with the Elevator Contractor and the Owner does not intend to deal directly with the subcontractors.

2.16. Car and Counterweight Guides

Provide new spring applied roller guides on the car and counterweight to replace the existing guides.

Roller guides shall remain in uniform contact with the guide rails. As a minimum provide Elsco Model B for the car and Elsco Model D for the counterweight.

2.17. Cab Lighting

Existing lighting shall be retained and protected unless the optional cab interior work is selected in which case provided new lighting as specified elsewhere.

Provide a circuit which shall automatically shut off the cab lighting after the elevator has been idle for a predetermined time period (adjustable). Ensure that this feature is disabled when the elevator is out of service due to malfunction.

2.18. Cab Ventilation

Provide new two (2) speed cab ventilation fan and mount on the car top. Provide a suitable cutout in the cab ceiling and a suitable fan grille if not already in place. The ventilation system shall be suitably isolated and baffled to prevent noise transmission into the cab.

Provide an exhaust fan system with a maximum operating noise level of 60 dbA when operating on high speed.

Provide a circuit which shall automatically shut off the cab ventilation fan after the elevator has been idle for a predetermined time period (adjustable). Ensure that this feature is disabled when the elevator is out of service due to malfunction. Fan to start automatically when activated by car or hall call.

2.19. Requirements for Passengers with Disabilities

Provide equipment in compliance with the latest revision of the Local Building Code and Appendix E of the CSA B44-07 - Safety code for elevators and escalators.

Raised markings shall be furnished adjacent to the car buttons, controls and voice communication device.

Hall Buttons shall be installed at the prescribed height.

Visual signals shall be provided to acknowledge registration of a car or hall call. Audible signals shall be provided to acknowledge registration of a car call.

Visual and audible signals shall be provided to indicate the car position and direction of travel.

Raised markings shall be furnished on each hall door entrance jamb at the prescribed height.

Cab handrails shall be installed at the prescribed height.

2.20. Hall Tactile Markings

The existing tactile and Braille markings on each hall door frame may be retained and reused at each landing where they exist and are located at the correct height of 1525 mm above the finished floor level.

Provide new tactile and Braille markings on each hall door frame at the prescribed height where markings are not already present.

Provide quality embossed metal jamb plate markings.

Provide EJ4 markings with SS-BB Finish Available from Stencil Cutting and Supply (SCS/AIM) Company, Ph. 1-800-783-4633 www.scs-aim.com or pre-approved equivalent product. Do not use plastic or etched plates.

2.21. Emergency Voice Communication Device

A hands free emergency voice communication system shall be furnished in each cab mounted as an integral part of the car operating panel. Necessary wires shall be included in the car travelling cable and shall consist of a minimum of one shielded pair of 20AWG conductors. Arrange to monitor outgoing phone calls and respond to calls received at no extra charge as part of the elevator maintenance agreement if requested to do so by the Owner.

Provide any necessary power supply required by the telephone equipment. The phone equipment shall have a built in back up power supply in the event of the loss of normal AC Power.

The telephone shall be equipped with an auto-dialer and illuminating indicator which shall illuminate when a call has been placed and flash when the call has been answered.

A separate activation button shall be provided on the car operating panel faceplate to activate the emergency voice communication device and initiate a call. The device shall be capable of transmitting a pre-recorded location message with an adjustable call time that can be extended by the monitoring station. The device shall be able to dial a primary emergency number, and be able to automatically dial a backup number in the event there is no answer at the primary number.

Provide a telephone system for communications off site or to a 24 hour monitored location via any of the following: auto dialer, arrange for off-hook type operation through the site PBX system, or arrange the phone to work with existing ringdown equipment.

The phone shall be able to receive incoming calls from other locations and shall be capable of acknowledging incoming calls and establishing hands free two way communication automatically.

The voice communication system shall include means to automatically verify the communication system operability either continuously or on a periodic (minimum daily) basis. If the verification means indicates that the voice communication system is not functional then a signal shall activate the visual and audible signal at the main floor elevator emergency fixture. A means to silence the audible signal shall be provided and it shall be accessible to authorized personnel only.

Provide a Webb Electronics VOIP compatible elevator telephone system or equivalent product.

Provide a new Webb Electronics Master Rescue Station (LS-250 or equivalent) and locate this device in electrical/communications room on the P2 level of the building. Provide a new Webb Electronics Remote Station (LSL-250 or equivalent) in the building lobby area to replace the existing elevator telephone in that location and make all connections to connect to the new elevator telephone equipment. Provide instructions as required at the elevator lobby phone to outline the process for placing calls to the elevator cabs if necessary.

Make all connections between the lobby phone with the master station to allow the new elevator telephones to work with the existing phone line currently in use for the elevators (Ph. # (604) 618-9015). The Elevator Contractor shall locate the existing phone line connections and wiring, disconnect this from the existing equipment and reconnect to the new equipment being provided. Provide all necessary equipment to permit the elevator telephone system to be fully functional using a single telephone line if required by the Owner

The existing analog telephone line used for the existing lobby phone (604) 257-3857 shall be disconnected and cancelled by the Owner.

The Elevator Contractor shall provide all wiring and conduit and connections including power supply and remote connections to the elevator lobby phone to make the complete system operational and compliant with all specified requirements as well as all applicable codes and regulations. Existing conduit and wiring may be retained and reused where available.

The Owner shall provide 24 hour monitoring of phone calls made from the elevator telephone. The Elevator Contractor shall arrange to monitor outgoing phone calls and respond to calls received at no extra charge as part of the elevator maintenance agreement if requested to do so by the Owner. Unless otherwise instructed by the Owner the telephones shall be set up to dial the City of Vancouver's elevator security / monitoring station at 604-708-2194.

2.22. Hoistway Operating Devices

Normal terminal stopping devices shall be provided to slow down and stop the car automatically at the terminal landings and to automatically cut off the power and apply the brake, should the car travel beyond the terminal landings.

Provide all new limit switches at the bottom of the hoistway to replace the existing limit switches.

2.23. Buffers

The existing buffers may be retained and reused as a means for stopping the car and counterweight at the bottom limits of travel. Clean and refurbish the buffers as necessary, add or replace oil or perform any repairs, alterations or changes to ensure proper operation.

Provide buffer return switches on all oil buffers (excluding counterweight buffers suspended beneath the counterweight) as part of the elevator safety circuit.

2.24. Car Top Guard Rail

Provide a substantial metal guard rail on the sides of the car top where the distance measured horizontally from the edge of the car top to the hoistway wall exceeds 300 mm.

The guard rails must be designed and installed to comply with the requirements of B44-07 Section 2.10.2.

2.25. Apron Guards

Provide new apron guard for the elevator to protect the space below the elevator cab.

Where space permits provide guards which extend no less than 4'-0" below the level of the car sill or to the maximum depth as pit depth allows.

2.26. Car Door Restrictor

Provide a mechanical car door restrictor which shall prevent opening the car doors from within the cab when the elevator is out of the door zone.

The following manufacturers and door restrictor products are approved for use on this project:

- Unitec (Otis) – Folding Door Restrictor
- GAL – LWZ-2 Clutch Assembly with Restrictor Clutch
- AMD-2 - Car Door Interlock

2.27. Door Operator

Provide a new heavy duty, solid state, variable speed, closed loop door operator capable of high speed door operation for the elevator car door openings.

Provide closed loop controls consisting of a variable speed motor and encoder assembly and solid state programmable controls. The encoder shall feedback information on the actual position and speed of the doors to the operator logic controls and compare this information to a pre-programmed motion pattern. The operator shall automatically adjust the closing characteristics so that the doors will operate consistently in accordance with the pre-programmed pattern under changing conditions such as wind conditions. The controls shall be equipped with a keypad and display for programming, adjustment and troubleshooting.

Provide a new retractable car door clutch. Provide new linkages, pivots, car gate switch and open and close limit switches.

Refurbish the car door hangers, tracks, gibs and other related components replacing any parts that are worn or damaged.

Replace all car door rollers with new rollers.

Provide an operator which is easily field adjustable for both opening and closing cycles. Adjust the door operation for smooth quiet operation at the times indicated elsewhere in the specifications and acceptable to the Owner and the Consultant.

The following manufacturers and door operator products are approved for use on this project:

- ECI/GAL – VFE 2500
- Otis Elevator – AT400
- AMD-2

2.28. Door Re-opening Device

The existing infrared based light-ray type car door protective devices may be retained and reused.

When in their full open position, the doors shall be unable to initiate closing if a person or object interrupts one or more of the beams. If one or more of the beams are interrupted while the doors are closing, the doors shall stop, then reverse to reopen. The doors shall reclose after a brief time.

After a stop is made, the door shall remain open for a time to permit passenger transfer, after which they shall close automatically. This time interval shall be less for a car call than for a hall call or a coincident car/hall call.

2.29. Hall Door Equipment – New and Refurbished

Refurbish the hall door equipment including, hangers, tracks, gibs, closers, relating devices, safety retainers and other related components replacing any parts that are worn or damaged.

Provide new hall door interlocks and pick up assemblies at each landing.

Provide all new landing door rollers to replace the existing door rollers at all floors.

Provide new standard drop key type hoistway door unlocking devices at all landings for the elevators.

Replace any broken or damaged sight guards on the landing door panels.

2.30. Wiring

Provide complete new machine room, hoistway and cab wiring in accordance with the Canadian Electrical Code. Existing remote wiring to the elevator lobby panel may be retained and reused.

All wiring connections shall be made on terminal blocks which are clearly and permanently labeled.

2.31. Pit Stop Switches

Provide new pit stop switches in each elevator pit to replace the existing switches.

Switches shall be guarded against accidental operation and shall be located such that they are easily accessible from the pit floor level and also from the pit access level. Where the depth of the pit or point of access is such that one switch would not be accessible from both locations then provide one or more auxiliary switches in each location.

2.32. Travelling Cables

Provide new travelling cables with cables designed specifically for elevator use.

Suspend travelling cables under the cab and in the hoistway using the steel core, wire mesh grips or as otherwise recommended by the manufacturer.

Travelling cables shall be installed to prevent twisting and kinking of the cables and the supports shall be horizontally spaced to match the inherent loop diameter of the cable.

Travelling cables should be supported so as not to come into contact with any equipment or the walls of the hoistway. Where contact is unavoidable provide protective pads of quilted canvas or other suitable material to prevent damage to the travelling cables.

Provide spare wiring consisting of the greater of a minimum of 10% or ten (10) individual conductors and provide a minimum of eight (8) twisted shielded pairs of 20 AWG communication conductors for voice communication, audio, video, security or other equipment which may be provided, over and above any pairs required by the elevator control system.

Shielded pairs for use by the current or future elevator security card reader equipment shall be run directly to the elevator security equipment demarcation point in the elevator machine room and shall be of adequate length to do so without splicing.

Travelling cable conductors shall be grouped and provided in separate travelling cables based on the use and signal voltage of the respective conductors. High voltage signals shall be separated from low voltage signals and cables used for serial communication and other noise or interference sensitive purposes.

Travelling cables should form a continuous run from each cab to the control equipment in the machine room. Do not terminate travelling cables or splice conductors at a junction box or any other point in the hoistway.

2.33. Emergency Light and Alarm Bell

A new emergency power unit employing a 12 volt, sealed rechargeable battery and totally static circuits shall be provided to illuminate the elevator car and provide current to the alarm bell in the event of power failure.

Provide a translucent lens mounted integrally in the elevator car operating control panel as the illumination source.

Provide a new emergency alarm bell or signal located on the elevator car top.

2.34. Top of Car Inspection Fixture

Provide a new inspection fixture on top of the car containing continuous pressure "UP" and "DOWN" buttons, an emergency stop button, and an inspection switch. The inspection switch shall make the fixture operable and, at the same time, render the door operator and car and hall buttons inoperative. The operating station shall be located such that it is visible and easily accessible when accessing the car top from a front opening. The actuating switch shall be protected against accidental operation.

Provide a permanent top of car light fixture with a readily available switch and guard.

2.35. Machine Room Floor

The machine room floor shall be painted using a durable low V.O.C water based paint upon completion of the work.

2.36. Rated Speed and Capacity

The rated speed and capacity of the elevators shall remain unchanged.

2.37. Overhead Deflector Sheaves

The overhead deflector sheaves shall be retained and reused. Perform any repairs or replacements to provide smooth, quiet operation.

As a minimum provide and install new bearings in each of the sheaves and regroove sheaves that are imprinted worn or otherwise damaged.

2.38. Geared Machine, Motor and Brake - Refurbishment

The existing geared hoisting machines and brake shall be re-used and re-conditioned. The machine shall be thoroughly cleaned and painted.

The Elevator Contractor shall refurbish the machine including bearings, sheaves, brake and other miscellaneous components that are corroded, worn, cracked or otherwise damaged. As a minimum the following work should be completed by the Elevator Contractor:

1. The machine brake shall be dismantled, cleaned, lubricated, reassembled and adjusted for proper operation. Replace any components that are worn or otherwise damaged. Re-line the brake shoes with new brake pads. Provide a brake data tag and record the brake torque setting if not already in place.
2. Seal any leaks where present and flush and refill the gearcase oil.
3. The machine shall be thoroughly cleaned and painted.
4. Replace sheave shaft bearings with new taper bearings.
5. Replace thrust bearing and adjust the worm and gear alignment to eliminate any backlash or endplay in the gearbox.

The machine shall be raised if necessary to provide space for mounting of a rope brake or other auxiliary braking device.

The refurbishment work shall be documented by the Elevator Contractor including photographs and other assessment documentation of conditions before and after the refurbishment.

2.39. Motor

Provide a new AC drive motor suited to the speed and capacity with a slip specification of 5% or less.

Provide new motor and mounting flange and coupling to adapt the new motor to the existing machine in perfect alignment. Where necessary to achieve proper alignment and to eliminate any noise or vibration the Elevator Contractor shall retain the services of a professional motor alignment and balancing expert complete with laser or traditional alignment tools.

The motor and all elevator machine room equipment shall be rated for operating in a machine room environment that is regulated between 5 and 40 degrees Celsius with 95% non-condensing humidity.

2.40. Motor Coupling

Provide a new flexible coupling between the motor and the reused brake drum and gear box to aid in alignment of the motor and to allow the gearbox shaft to move axially without excessive axial motion in the drive motor shaft. The coupling shall remove end thrusting and prevent overloading of the motor bearings.

Provide a flexible coupling from the Electrical Motor Repair Company or equivalent product (<http://www.elevatormotor.com/main.htm>).

2.41. Machine Safety Guards

Provide safety guards over the rotating portions of the machines including the sheaves, hoist ropes, governors and any exposed portions of the new motor if applicable.

Guards shall be fastened to the machine to protect workers and maintenance personnel from the hazards associated with the open rotating equipment and shall have hinged inspection covers to permit visual inspection of hoist ropes, for lubrication, etc. without the need to fully remove the guards.

Provide guards in accordance with the requirements of clause 2.10.1 of the B44-07 Elevator Safety Code.

2.42. Machine Replacement – Separate Price

Indicate in the submission the separate, optional extra price to provide and install a new geared and/or gearless overhead traction machine to replace the existing machines.

The machine shall be of the compact 1:1 traction type with motor, brake and traction drive sheave compactly mounted on a continuous bedplate and set on steel beams.

Provide a machine with a traction sheave suitable for a single wrap drive.

Provide any necessary deflector sheaves and the supporting beams, to obtain the necessary cable alignment. Mount any and all deflector sheaves totally above the machine room floor and provide sound and vibration isolation to isolate this equipment from the building structure. Arrange the equipment so that the holes penetrating the machine room floor shall be the minimum to allow for the passage of hoisting and governor cables.

Sound isolation pads shall be installed beneath the machine bedplate to reduce vibration and noise transmission to the building structure. Mount the machine on sound isolating pads, and provide complete sound isolation from the building in all directions.

The existing machine beams may be retained and reused at the bidding contractor's option.

Provide review and approval of the existing machine beams by a Registered Professional Engineer and provide copies of this to the Consultant and Elevator Consultant. Alternatively provide new machine beams if necessary and make all alterations required to remove the existing equipment and install the new machinery including cutting, coring, patching, grouting, forming, concrete, etc.

The elevator contractor shall be responsible for any alterations that may be required to bring in and install the new equipment including crane or hoisting requirements, removal and reinstallation of doorways, railings, cutouts in the machine room floor slab, etc.

The new machine shall be provided with a new auxiliary braking device as specified elsewhere.

Provide a machine with a new AC drive motor suited to the speed and capacity with a slip specification of 5% or less.

Provide a new machine with a quiet drum brake mechanism. Do not provide a machine with a disc brake assembly.

The following manufacturers and machine products are approved for use on this project:

- Hollister Whitney – 53/54 OH (drum brake version)
- Torin International – TGD1
- Imperial – 522 AC Gearless

2.43. Auxiliary Braking Device

Provide an auxiliary braking device which acts on the elevator ropes or traction sheave to comply with the CSA-B44-07 Safety Code for Elevators.

Mount the device securely to the drive machine bedplate, machine beams or other suitable location with bolts of adequate strength for the forces generated during the activation of the device in both directions of travel with up to 125% capacity in the elevator. Do not weld the device or its mounting onto the supporting structure.

The device shall be mounted in a location such that it can be readily serviced. If it is necessary to mount the device in an inaccessible location then access platforms, openings or any other additional provisions shall be provided by the Elevator Contractor.

Where the device cannot be secured to the existing machine bedplate or frame, provide mounting details and drawings approved by a Registered Professional Engineer. Provide approval of the structural loads placed on the building by a Registered Professional Engineer.

2.44. Ride Quality

Statically balance the car to hang plumb in the hoistway with no load and the car doors in the fully closed position.

The horizontal peak to peak acceleration, both side to side and front to back shall not exceed 15 millig where g is the acceleration of gravity.

2.45. Governor, Governor Rope and Idler

The car safety shall be operated by a centrifugal speed governor located at the top of the hoistway. The governor shall be calibrated as required by the applicable safety code.

Provide a governor overspeed switch which shall be calibrated to actuate at not more than 90% of the governor trip speed in either direction of travel, or as otherwise required by the applicable safety code. When actuated the switch shall disconnect power to the motor and apply the brake before application of the safety.

The existing governors may be retained and reused provided they meet the requirements of the specifications and the governing regulations. Make any modifications to the governor required for proper operation with the new equipment provided.

Provide new governor rope and fasteners to replace the existing governor rope.

The governor idler in the pit shall be refurbished. As a minimum provide a new bearing or bushing and clean and lubricate the idler sheave to provide smooth quiet operation.

2.46. Counterweight

The existing counterweight shall be retained and re-furbished.

Statically balance the counterweight with the guides removed so that they hang plumb in the centre of the rails.

Balance the counterweight so that it is equal to the weight of the empty cab plus approximately 40 to 50% of the rated capacity to suit the original equipment design or new requirements.

Provide a sign in the pit to indicate the maximum counterweight runby if not already in place.

2.47. Hoist Ropes

Provide new hoist ropes and new wedge clamp rope fasteners to replace the existing ropes and rope clamps.

Ropes shall be of traction steel of size, construction and number to insure proper operation of the elevator and give satisfactory wearing qualities. Rope fasteners shall be of the wedge clamp type.

2.48. Compensation – Silent Chain

Remove the existing compensating chains and associated equipment and provide new silent compensating chains to compensate for the weight of the hoist ropes and to replace the existing compensating chains.

The new chain shall be encased in foam plastic material impregnated with filler weight and shall be suspended beneath the car and counterweight as recommended by the manufacturer.

A quiet chain guidance system shall be installed in the pit consisting of a roller assembly and mounting brackets to eliminate chain sway and to guide the chain such that it will not come into contact with the elevator cab or the stationary hoistway components when the elevator is in operation.

2.49. Three Phase Power Supply

The existing three (3) phase power supply voltage and other characteristics for the elevators shall remain unchanged.

2.50. Controller

Provide a micro-computer based control system to perform all of the functions of safe elevator motion. Included shall be all of the hardware required to connect, transfer and interrupt power, and to protect the motor against overloading.

Controllers shall be connected to each other with a dual communication link. Failure of a single communication link shall not interrupt normal group operation and communication.

Provide a system which does not require a separate group controller but where each car controller is capable of the complete group functions. An acceptable alternative shall be a separate group controller provided with a redundant back up processor capable of performing all group functions should the main processor fail.

Equipment shall be suitable for operating in a machine room environment between 5 and 40 degrees Celsius with 95% non-condensing humidity.

Each controller cabinet containing memory equipment shall be properly shielded from line pollution. The micro-computer system shall be designed to accept reprogramming of common variables on site. As a minimum the following variables shall be site programmable:

- a) Door Open, Close and Dwell Times
- b) Acceleration, Deceleration & Jerk Rates
- c) Parking Floors and Options
- d) Recall Levels

The controller shall be provided with on-board diagnostics and status indicators as an integral part of the controller to aid in troubleshooting, adjusting and maintenance of the equipment. Permanent status indicators shall be provided to indicate the status of the following as a minimum:

- a) Safety Circuit
- b) Door Locks
- c) High Speed
- d) Independent Service
- e) Inspection Operation
- f) Emergency Recall Operation
- g) Out of Service Timer
- h) Drive Failure

On-board diagnostics shall include an event and fault log, a real time clock and a method of displaying the status of all inputs, outputs and internal variables. Provide switches, push buttons, a display and instructions to view the diagnostic information. Provide non-proprietary diagnostics.

The new control, cabinets shall be located such that the existing feeder wiring from the electrical power disconnect switches can be reused and connected to the new equipment.

New feeders if required due to a change in the location of the equipment shall be the responsibility of the Elevator Contractor or their sub-trade.

The control system shall have non-proprietary diagnostics and have technical support and spare parts available to any qualified party.

The following manufacturers and controller products are approved for use on this project:

- GAL – Galaxy 4
- MCE – Motion-4000 or I-Control
- Elevator Controls – Pixel

The Elevator Contractor or their sub-trade shall provide the connections from the mainline disconnect to the controller including flex, wire and all junctions required.

The Elevator Contractor or their sub-trade shall provide the connection from the car light disconnect to the controller.

2.51. Variable Speed Drive – AC VVVF

Provide a closed loop variable speed drive system which uses a software program and mathematical methods to generate an optimum motion profile of the car travel from the origin floor level to the destination floor level. The drive shall utilize solid state devices to control the brake and motor input to provide stepless acceleration and deceleration and regulation at all speeds.

Provide an AC VVVF drive of the flux vector type to suit the existing AC motor with a slip specification of 5% or less or provide a new motor if necessary to suit the new drive. The drive shall use power semiconductor devices and pulse width modulation with a carrier frequency of not less than 2 kHz, to synthesize the three phase output to operate the hoist motor in an essentially synchronous manner. The drive shall be capable of producing full torque at zero speed.

Means shall be provided for the absorption of regenerated power during dynamic braking. This power shall be dissipated in a resistor bank which is separated from the remainder of the control system.

Indicate in the submission the separate, optional extra price to provide a fully regenerative drive system to return power generated during dynamic braking or running with overhauling loads to the power supply lines. The regenerative drive system shall also include means to disable the return of regenerative power to the building electrical system and to dissipate the regenerated power when the elevator is operating from an emergency power source. Provide relays, resistors and logic to divert regenerated power to a resistor bank when the elevator control system receives a signal indicating that it is operating from an emergency or standby power source.

Provide isolation transformers and filtering to eliminate both electrical and audible noise from the drive. The total harmonic and individual harmonic distortion shall not exceed 5% and 3% respectively and the requirements of IEEE-519 shall be adhered to with respect to power harmonics. For purposes of measurement the Point of Common Coupling (PCC) shall be defined as the elevator power supply terminals located in the elevator machine room.

Provide a line reactor between the AC Drive and the Hoist Motor. The line reactor shall be suitably sized to the horsepower rating of the hoist motor. The reactor shall be installed as close as possible to the drive unit.

Circuitry shall be designed and provided with filters to reduce and eliminate electromagnetic interference (EMI), radio frequency interference (RFI) and associated noise when the elevator is operating. The electromagnetic noise level with the elevator running shall be limited to not more than 0.1 dB above the ambient electromagnetic noise level when the elevator is stopped. The electromagnetic noise level at 10 KHz and with the elevator running shall be limited to not more than 0.01 dB above the ambient electromagnetic noise level when the elevator is stopped. The electromagnetic noise levels shall be measured in the elevator machine room with a calibrated radio frequency receiver and a calibrated rod or loop antenna.

The drive and drive cabinets shall be equipped with a suitable cooling system consisting of fans or other means to maintain drive components at a reasonable operating temperature and to exhaust heat from the cabinet.

The drive and all elevator machine room equipment shall be rated for operating in a machine room environment that is regulated between 5 and 40 degrees Celsius with 95% non-condensing humidity.

The new drive and cabinets shall be located such that the existing feeder wiring from the electrical power disconnect switches can be reused and connected to the new equipment.

New feeders if required due to a change in the location of the equipment shall be the responsibility of the Elevator Contractor or their sub-trade.

The following manufacturers and drive products are approved for use on this project:

- Magnetek – HPV900
- MCE – Torqmax/KEB

2.52. Feedback Devices

Provide a dual loop feedback system for the car position and velocity.

A velocity feedback encoder shall provide continuous comparison of the actual car speed to the calculated velocity profile to provide precise control of the acceleration and deceleration up to the final stop.

An incremental car position feedback device shall be provided to accurately feedback the exact position of the elevator cab with an accuracy of +/- 1/8" at any point in the hoistway. Absolute floor number encoding shall be provided at each floor level to establish exact floor position. The system shall not require movement to a terminal landing to determine correct car position. Car position information shall be stored in non-volatile memory to prevent loss of position and permit resumption of normal operation following power loss.

The elevator brake shall be provided with a switch or switches which shall monitor and feedback the status of the application of the brake.

2.53. Load Weighing Device

Provide a cab load-weighing device consisting of sensors that measure the tension in each hoist rope and mount these near the rope fasteners on the car top or car side dead end hitch as applicable if roping is 2:1.

Provide the necessary sensing equipment and electronic logic to interpret the signal from the sensors. Signals shall be provided to the elevator control system to indicate car overload, hall call bypass, anti-nuisance, and for light and heavy load dispatching purposes.

The device shall incorporate an automatic reset feature which will allow the device to be re-calibrated without test weights after the initial adjustment and set up.

The device shall have a resolution and be accurate to within +/- 50 lb.

The device shall also be used for checking and monitoring the rope tension and shall incorporate a display that will visually show the relative rope tension so that unequal rope tension can easily be detected.

2.54. Security Card Access Interface

Provide an interface as follows to connect the new elevator control equipment to the existing restricted access security system:

Floor Selective Car Call Control. Provide a pair of input terminals for each car call for each elevator controller. Connect circuitry to the elevator control system such that an external closed contact at the input terminals shall permit registration of the car call and an open contact shall render the car call inactive.

Arrange that the elevators will park at the last call served or the main lobby. If the control system includes other forms of parking where an elevator is assigned to and moves to a zone to park arrange that this feature will be disabled when the security system is active or that the activation of the door open button will cause the elevator to travel to the main lobby and open its doors if a car call is not registered for the landing.

Arrange internally that the restricted access system and circuitry shall be bypassed when the elevators are switched to in-car emergency service operation.

Arrange the circuitry so that Independent service operation does not bypass the restricted access security system.

Provide the input and output terminals and terminate the wiring from each elevator on terminals located in clearly marked demarcation boxes mounted on the exterior of the elevator control cabinets or in a centrally located demarcation box located in the elevator machine room. The security systems contractor shall provide all wiring and conduit from the demarcation boxes to the security system equipment.

Arrange to test the interface with the security systems sub-contractor.

All work on the security system shall be coordinated with the security systems sub-contractor.

2.55. Seismic Restraint & Operational Features

Provide the following equipment and features for seismic risk zone 3 or greater:

Provide a remote seismic switch to detect both horizontal and vertical seismic motion and secure the device to the machine room wall or other suitable location. Connect the output contacts from the switch to input terminals on the controller(s). The switch and the operation of the elevator shall comply with the requirements of section 8.4.10 of the B44-07 Safety Code.

Provide a counterweight displacement detection system to detect building sway or displacement of the counterweight from its guiding rails. The detection system shall be designed in a foolproof manner to detect malfunction or breakage in the detection system and it shall be operational regardless of the elevator mode of operation. The switch and the operation of the elevator shall comply with the requirements of section 8.4.10 of the B44-07 Safety Code.

Provide car and counterweight position restraints integrated with the guide roller assemblies as specified elsewhere herein.

Provide rope retainer guards on all sheaves to prevent the displacement of ropes if not already in place. Guards shall be continuous or single guards shall be installed for every 30° of arc of contact in accordance with section 8.4.3 of the B44-07 Safety Code.

Provide snag guards to prevent snagging of the hoist cables, governor cable, compensating cables or chain and travelling cables on rail brackets, rails clips, fishplates, vanes and similar components in the hoistway in accordance with section 8.4.3 of the B44-07 Safety Code.

All new equipment shall be mounted and secured to the building structure to prevent displacement or toppling when subjected to horizontal seismic forces resulting in accelerations equal to ½ the rate of acceleration of gravity.

The foregoing items shall all be included in the basic proposal and price for the elevator upgrades.

2.56. CCTV Camera Provisions

The Elevator Contractor shall provide provisions for the installation and connection of a CCTV camera in each elevator. Provide a separate power supply on each cab for a CCTV camera and connect with the spare travelling cable wiring to a demarcation point in the elevator machine room.

The Owner shall purchase or obtain the CCTV camera equipment independently.

Assist with the installation, final connections, testing and commissioning of the CCTV camera system in each elevator cab.

3. Execution

3.1. Car Balancing

The car shall be balanced by means of balance weights to hang plumb in the hoistway with the doors closed and no load in the cab.

3.2. Grounding

Ground the control system and all field apparatus using colour coded bonding wire.

The occurrence of a single accidental ground or short circuit shall not defeat any safety device and shall not permit the car to start or run if any hoistway door or gate interlock is unlocked or if any hoistway door or car door gate contact is not made.

3.3. Sound Isolation

Isolate all equipment producing noise and vibration from the building structure using sound and vibration isolation mounts. This shall include but not be limited to contactors, electronic drive components, controller cabinets and transformers.

3.4. Car Out Of Service Operation

If the car is delayed from leaving a landing for a predetermined, adjustable time while there are calls in the system, the car shall be taken out of normal service and removed from group operation.

The car shall be automatically restored to normal group operation once the delay is corrected.

3.5. Door Operation

Door operation shall be automatic at each landing with opening being initiated as the car arrives at the landing and closing taking place upon expiration of a predetermined adjustable time interval. A minimum of three separate and independent door dwell times shall be provided. Doors shall remain open for an adjustable time period as follows:

- a) A car call time shall predominate when a car call only is being answered.
- b) A hall call time shall predominate when a hall call or both a hall call and car call are being answered.
- c) A short door time value shall predominate after door reversal from the door detector or door open button.

The values for the timers shall be independently field adjustable.

3.6. Door Nudging Operation

If there is either a hall call anywhere in the group or a car call in the car in question and the doors are prevented from closing for a fixed time period, the door protective device shall be rendered inoperative, an audible signal shall sound on the car and the doors shall close at reduced torque. Normal operation shall resume at the next landing reached by the car.

Arrange that the nudging feature can be easily disconnected or disabled in the field so that the audible signal will sound but the doors will not close until such time that the door detector system indicates that the entrance is clear.

3.7. Door Failure Protection

If the doors fail to fully close or open within a predetermined, adjustable time period further attempts to open or close the doors shall cease and the doors shall return to the open or closed position.

After a short time period the control system will attempt to complete the door cycle in a similar manner. In the event that three consecutive failures occur the car shall be removed from service and shutdown by the control system.

3.8. Hall Lantern Operation

Hall lanterns shall illuminate and produce an audible signal to indicate the direction of travel when answering a hall or car call.

Hall lanterns shall activate a minimum of 3 seconds prior to the arrival of a car at a landing and initiation of the door opening cycle. The illumination shall remain active until the door dwell open time has elapsed.

Do not activate lanterns upon a door reversal unless the car is reversing its direction of travel.

Arrange that the operation can be field selectable so that the hall lanterns will only activate in response to a hall call or coincident car and hall call and will not activate if the car is stopping in response to a car call only.

3.9. In-Car Lantern Operation

In car lanterns shall illuminate to indicate the direction of travel when answering a hall or car call. A chime shall sound once for "Up" and twice for "Down" to indicate the direction of travel of the elevator as the doors are opening or an appropriate voice announcement shall be made

In car lanterns shall activate at the initiation of the door opening cycle. The illumination shall remain active until the door dwell open time has elapsed.

Do not activate lanterns upon a door reversal unless the car is reversing its direction of travel.

3.10. Advance Door Opening

Arrange that the doors commence opening as the car is levelling into the landing. The amount of advanced opening shall be consistent regardless of the direction or travel and load in the car and in no case should the doors be open more than 2' before the car stops level with the landing.

3.11. Performance Criteria

The equipment provided shall be capable of operation within the following performance criteria and shall be adjusted accordingly:

Motion Control					
Elevator # or Group	Maximum Flight Time	Maximum Acceleration	Maximum Jerk	Levelling Accuracy	Speed Variation
#3 & 4	11.5	3.5 ft/s ²	8.0 ft/s ³	+/-1/8"	+/- 2%

The flight time shall be measured from the start of the door close cycle until the doors are ¾ open at the adjacent landing on a one floor run between typical floor levels. This time is based on the existing floor heights at the site. The flight time, levelling accuracy and speed variation shall be obtainable in both directions of travel with loads ranging from zero to full rated capacity.

Door Operation					
Elevator # or Group	Maximum Door Opening Time	Maximum Door Closing Time	Maximum Car Call Door Dwell Time	Maximum Hall Call Door Dwell Time	Maximum Short Door Dwell Time
#3 & 4	3.0	3.5	3.0	5.0	2.0

The Owner may request that the door operation be adjusted to other levels more appropriate for the specific tenancy or building environment. Arrange to perform such adjustments only upon mutual agreement and confirmation in writing of the agreed to adjustment times.

Maximum Acceptable Noise Levels			
Elevator # or Group	Door Operation	Cab	Machine Room
#3 & 4	60 dBA	70 dBA	80 dBA

Noise levels shall be measured no further than six feet from the noise source with the meter on the "A" scale with a slow response.

3.12. Inspection Operation

An enabling switch shall be provided in the car operating panel to permit operation of the elevator from on top of the car for inspection purposes, and shall make car and hall buttons inoperative.

On top of the car an operating fixture shall be provided containing continuous pressure "UP" and "DOWN" buttons, an emergency stop button, and a toggle switch. This toggle switch makes the fixture operable and, at the same time, makes the door operator and car and hall buttons inoperative. The operating station shall be located such that it is visible and easily accessible when accessing the car top from a front opening.

3.13. Hoistway Access Operation

An enabling switch shall be provided in the elevator car operating panel or service cabinet to render all car and hall buttons inoperative and to permit operation of the elevator by means of an access keyed switch adjacent to the hoistway entrance at the access landing(s). The movement of the car away from the access landing, by means of the access keyed switch at the landing shall be limited in travel and direction in accordance with the governing safety code.

3.14. Independent Operation

A switch shall be provided in the car operating panel which, when actuated, shall cancel previously registered car calls, disconnect the elevator from the hall buttons, and allow operation from the car buttons only. Door operation shall occur only after constant pressure on the DOOR CLOSE button or on a CAR CALL button.

When on independent operation the elevator shall not activate any hall or in-car lanterns.

3.15. Direct Drive Successive Starting

After all Direct Drives in a group have been shut down due to lack of normal power, only a single drive shall be allowed to start up at one time.

3.16. Automatic Self-Levelling

The car shall be equipped with two-way levelling to automatically bring the car level at any landing regardless of direction of travel and with a load ranging from zero to full rated capacity.

3.17. Load Weighing Operation

The elevator shall bypass further hall calls once loaded to a predetermined, adjustable capacity. This shall be initially set at 50% of the full rated load.

Prevent operation of the elevator if the load weighing device indicates that the platform is overloaded, and shall be set at 100% of rated load. Provide an audible signal which would sound if the loadweighing device and control system determines that the cab is overloaded and sound the signal until such time that the device indicates that the load is within the capacity rating of the elevator.

For gearless machines the load weighing signal shall be used to pre-torque the machine hoist motor prior to release of the brake to prevent roll back due to unbalanced loads.

3.18. Anti-Nuisance Operation

An anti- nuisance feature shall be provided which will reset the car buttons, thus requiring re-registration of car calls, if an excessive number of calls are registered for the measured load.

Alternatively all registered car calls shall be cancelled if the elevator makes three consecutive stops and the door detector beams are not interrupted.

3.19. Firefighter's Emergency Operation

Provide Phase I emergency recall and Phase II emergency in-car operation for the elevators in compliance with the CSA-B44-07 Safety Code for Elevators.

Provide full automatic recall operation as initiated by smoke detectors that are part of the building fire alarm system including recall to a designated level and recall to an alternate level. Provide machine room, pit and hoistway fire alarm device recall activated by signals from sensors in the elevator machine room, pit and hoistways where provided.

Provide clearly labelled terminals for the connection of signals from the building fire alarm system including general alarm, alternate floor recall input, machine room sensor inputs, pit input, hoistway input, etc.

Emergency recall operation to return elevators non-stop to a designated floor, shall be initiated by the building fire alarm system or by keyed switches located at the Main floor lobby or at the Fire Alarm Panel.

The Elevator Contractor shall provide terminals on the new control system to accept signals for recall to the designated level, alternate floor recall, machine room, pit and hoistway device recall as applicable. The fire alarm interfacing signals shall be provided by others as part of the related sub-contract work.

A keyed switch shall be provided in each car for emergency in-car operation by emergency personnel.

The Elevator #3 will continue to be designated for use by Firefighter's. Retain the existing fire hat signs on the elevator door jambs at the recall levels.

Provide floor identification numbers on the hoistway side of the hall door panels to identify each floor level, if not already in place.

Provide signage to identify the elevator at the recall levels. Provide quality metal identification plates with characters a minimum of three (3) inches in size as selected by the Owner and mount on the elevator entrance frame or other approved location. Provide samples of proposed signage for approval by the Owner or Consultant.

The recall levels shall be as follows subject to approval by the regulatory authorities:

Elevator #	Main Recall Level	Alternate Recall Level
#3 & 4	"M"	"3"

3.20. Standby Power Operation

The existing standby power generator is currently arranged to provide power for all elevators in the group with operation limited to operate one elevator at a time. This arrangement shall be mimicked for the new equipment being provided.

Provide in the control system for automatic standby power sequencing operation for each elevator in the group.

Upon interruption of the normal power supply and receipt of the signal indicating that power is available from the standby power system, automatically return the elevators, one at a time, to a field programmable landing at full rated speed. Any car that is unable to move on command within a preset time interval shall be bypassed in order to select another car in its place. After all cars capable of running have been returned to the recall landing, an additional attempt shall be made to automatically return any cars which were initially bypassed before selecting cars to provide normal service to the building. Such cars shall again be passed by after a preset time interval, if they are still unable to move on command. Upon completion of the second recovery attempt (or the initial recovery if all cars have been successfully returned to the recall landing), cars shall be selected to provide normal service to the building. The number of such selected cars shall be the same as specified above to run simultaneously at any time. The selected car(s) shall be field programmable and any such car(s) shall be selected if they are in service.

The pre-selected car that shall continue to run on emergency power shall be elevator #3.

Provide a manual selection switch located at the Main floor, which shall contain a contact position for each elevator and an "AUTOMATIC" position. This manual selection switch shall be overridden during the time in which the cars are returned to the designated landing if the group controller is properly communicating with each car controller. In the absence of such communication, the cars shall automatically acknowledge manual selection from the selection switch. Manual selection of an elevator shall automatically nullify any other previously established automatic or manual selections, thereby enabling the unconditional selection of one specific elevator. Returning the selection to the "AUTOMATIC" position shall cause automatic selection to resume, whereby any previously selected car which is not at the return landing shall remain selected.

Indicator lights shall be provided in conjunction with the manual selection switch to indicate which car is selected to operate at any given time whether manually or automatically selected.

When the regular power is restored, cars shall automatically return to normal operation.

The existing emergency power transfer switch status signal shall be identified and reused and retained.

The elevator standby power operation shall incorporate provisions for the use of an advance warning contact (for future use only at this time) to indicate imminent transfer in the power supply. Upon receipt of an advance warning signal elevators stopped at a landing shall remain parked and cars that are in motion shall proceed normally and park at the nearest available landing in the direction of travel. Cars shall remain parked for an adjustable time period of approximately 30 seconds. The advance warning contact shall be provided prior to transfer from standby to normal power and also from normal to standby power when the generator is tested. The advanced warning or pre-transfer signal would be provided by others at the sole option of the Owner and the provisions to accept this signal shall be provided in the elevator control system in such a manner that this feature can be tested and demonstrated in the presence of the consultant.

The capacity of the standby power generator may be limited and full power may not be available to accelerate and slow down the elevator under load conditions. Provide a feature in the control system which would permit derating of the elevator contract speed and acceleration during standby power operation to reduce the starting currents and power demand on the standby power generating system. The feature would also allow the equipment to be more tolerant of drops or fluctuations in the voltage and frequency of the generator power output. Arrange that this feature can be programmed in the field and will only be utilized if necessary. The contract speed of the elevators would be reduced to approximately 200 fpm or less and the timing of the operations shall ensure that all elevators would be able to recall to the main landing, one at a time, in a time period that would not exceed 5 minutes.

3.21. Group Supervisory System

Group Dispatching shall be accomplished through the use of a Microprocessor-based Group Dispatcher. All dispatching features shall be selected automatically to meet the passenger traffic demand by utilizing a call assignment algorithm. The System, as a minimum, shall monitor landing calls, car calls, loading and unloading of the cars, direction of travel of each car, car load status, door position, car position, call frequency and number of elevators in service. This information shall be analyzed by the Group Controller which will instantly select and dictate the proper action for each car. The selection of action shall correspond to current actual traffic conditions.

When any car, selected or unselected, is filled to a predetermined percentage of capacity at the lobby floor, the car shall be dispatched immediately.

If a car which has no car calls registered arrives at a floor where both up and down hall calls have been registered, the car shall respond to the hall call corresponding to the direction of car travel. If, after making its stop, a car call is not registered and no other hall calls exist ahead of the car corresponding to its original direction of travel, the doors shall close and immediately reopen in response to the hall call for the opposite direction. Directional indicators shall correspond to the direction in which the car is set to travel.

A car shall maintain its original direction at each stop until the doors are fully closed to permit an entering passenger to register a car call before the car reverses its direction of travel.

The building floors shall be divided into zones. The number of zones shall be determined by the number of cars in operation and the number of floors to be served.

During intermittent traffic periods zoning shall be initiated and a car shall be assigned to park in each zone. Cars shall respond to either up or down hall calls for floors in their zone, responding to the highest or lowest call before reversing direction. The cars shall respond to car calls for any floor in any zone.

During light traffic periods cars which are not running shall be assigned to park in a zone. When a car leaves its zone in response to a car call, the temporarily unoccupied zone shall be monitored by a car in the adjacent zone. If only one car leaves its zone in response to calls, it shall be assigned to return to its original zone after it has responded to its final call. A car passing through either an unoccupied or an occupied zone shall respond to calls in these zones providing the calls are for the same direction as the car is travelling.

During heavy traffic periods cars shall be dispatched as follows;

During periods of heavy UP traffic cars shall be dispatched in the up direction from the lobby floor at variable intervals as dictated by the loading, unloading and distribution of the cars. Cars shall reverse direction at the highest registered call and return to the lobby floor. In the absence of a next up car at the lobby floor, the lowest down travelling car shall automatically bypass registered hall calls and proceed to the lobby floor to become available as the next up car. All cars shall park at the lobby floor, the selected next up car shall park with doors in the open position other cars shall park with doors closed.

During periods of heavy DOWN traffic cars shall be dispatched down from the top terminal or an upper floor reversal point depending on the location and direction of travel of the other cars in the group. In the absence of a next up car at the lobby floor, the lowest down travelling car shall automatically bypass registered hall calls and proceed to the lobby floor.

During peak traffic periods cars shall be dispatched as follows;

During UP peak traffic cars shall be immediately dispatched from the lobby floor upon being loaded. In the absence of an available car at the lobby floor, a car shall be selected to bypass registered hall calls and proceed to the lobby floor.

During DOWN peak traffic cars shall be immediately dispatched up from the lobby floor after passengers have exited from the car. Cars shall reverse direction at the highest registered call or at an upper floor reversal point depending on the location and direction of travel of the other cars in the group. A down travelling loaded car shall bypass all registered down hall calls and proceed to the lobby floor. When any car is bypassing down registered hall calls, all other cars in the group shall bypass registered up hall calls.

When registered down hall calls are bypassed by loaded cars or when a down hall call has been registered and unanswered for longer than a normal waiting time the system shall initiate an INTENSE DOWN PEAK traffic pattern to equalize elevator service throughout the building. During Intense Down Peak the building shall be divided into an upper tier and a lower tier. Cars shall be designated as lower tier cars or upper tier cars. Lower tier cars shall normally be dispatched immediately from the lobby floor in response to registered down hall calls in the lower tier. Cars assigned to the lower tier shall bypass all registered up hall calls and shall normally reverse direction at the highest floor in the lower tier. The down travelling car shall respond to registered down hall calls and its registered car calls. Next up indicators at the lobby floor shall be made inoperative for cars assigned to the lower tier. Upper tier cars shall normally be dispatched immediately from the lobby floor in response to registered down hall calls in the upper tier or registered up hall call in the upper or lower tier. Cars assigned to the upper tier shall reverse direction at the highest registered down hall call in the upper tier or at the top terminal. An up travelling upper tier car shall respond to registered up hall calls and its registered car calls. A down travelling upper tier car shall respond to registered down hall calls in the upper and lower tiers. Next up indicators at the lobby floor shall remain operative for cars assigned to the upper tier. Any registered down hall call which remains unanswered for longer than a normal waiting time shall be recognized and given preferred service. When such a down long wait hall call exists, a specific car shall be selected to give priority response to the down long wait calls. The absence of registered down hall calls in either tier shall initiate the assignment of additional cars to assist the other if intense demand continues to exist.

3.22. Hall Call Assignment

Calls shall be assigned to optimize service to the building. The hall call assignment algorithm shall compile the individual car and group status to perform tasks to minimize the average waiting time, and to minimize the number of long wait calls. As a minimum the following system parameters shall be monitored;

Car Information

Car Position & Direction

Car Operational Status (normal, inspection, independent, earthquake)

Car Motion Status

Door Status

Number of Car Calls

Assigned Hall Calls

Coincident Calls

Car Load

Group Information

Hall Call Demand

Group Operational Status (normal, emergency power, emergency recall)

Traffic Pattern (intermittent, light, heavy, peak, two-way, up, down)

Long Wait Call Threshold Time

The hall call assignment processor shall review and evaluate the data several times per second and shall initially assign calls to cars to minimize the waiting time by calculating an estimated time of arrival. As traffic intensifies the processor shall also recognize long wait calls and shall assign calls to minimize the number of long wait calls. The system shall continuously re-assign calls as conditions change and cars become more suitable for assignment.

3.23. Parking of Elevators

Zoned or parked cars shall park with doors closed.

The car selected as next up at the lobby floor shall park with its doors open. If an absence of calls exists, the doors shall close automatically after a predetermined time.

3.24. Temporary Maintenance Period

Upon commencement of work on the site the maintenance of the elevators shall become the responsibility of the successful Elevator Contractor. Provide full maintenance of the equipment from the date the work commences on site until substantial completion of the project. Provide a 24 hour callback service and answer all calls at no extra cost to the Owner.

The cost for the temporary maintenance shall be included in the basic quoted price and this should be calculated, for this interim period, bearing in mind that normally one elevator will be out of service and that workmen will normally be on site.

Provide the maintenance service in conformance with the minimum standards set out in the B44.2-07 Elevator Safety Code Maintenance Requirements and Intervals.

The price for temporary maintenance shall not be subject to adjustment or escalation.

3.25. Warranty Maintenance Period

A quality full maintenance service shall be provided for the elevators by the Elevator Contractor for a period of twelve (12) months after substantial completion of the project to coincide with the warranty period.

The costs for the 12 month warranty maintenance period shall be included in the basic quoted price.

Indicate in the submission the separate optional extra amount to provide maintenance of the elevators for one additional twelve (12) month period. That is, provide a separate price for maintenance of the elevators for the 2nd year of the 2 year warranty period (the price for the 1st year maintenance service should be included in the basic quoted price for the upgrading work).

Provide the maintenance service in conformance with the minimum standards set out in the B44.2-07 Elevator Safety Code Maintenance Requirements and Intervals.

The price for warranty maintenance period shall not be subject to adjustment or escalation.

3.26. Renewable Maintenance – Separate Price

Indicate in the submission the monthly rate for a renewable full preventative maintenance service for the elevators following the expiration of the twelve (12) month warranty period. This shall be based on a five (5) year term contract. Acceptance of the on-going renewable maintenance service shall be at the sole discretion of the Owner.

Provide the maintenance service in conformance with the minimum standards set out in the B44.2-07 Elevator Safety Code Maintenance Requirements and Intervals.

The Elevator Contractor shall provide a copy of the maintenance agreement that the Owner would be requested to enter into as part of the submission. This shall be based on a five (5) year term contract.

3.27. Maintenance Training

Prior to commencement of the warranty maintenance period and any extended maintenance all Elevator Contractor's regular maintenance personnel and key maintenance personnel shall receive certified factory training for the preventative maintenance, repair and trouble-shooting of the new equipment, control systems and software provided. The Elevator Contractor shall be required to provide proof of this certification and training to the Consultant and the Owner as a requirement of Substantial Completion.

3.28. Signs

Signs shall be provided in the main lobby area of the building to inform residents, staff and other users of the elevator that elevator work is in progress. The signs shall be provided by the Elevator Contractor for display over the duration of the project. The design of the signs shall be subject to the Owners approval.

The Elevator Contractor shall also provide simple paper signs (8 ½" x 11") at each floor level on the doors of the elevator that is currently out of service.

3.29. Samples and Drawings

After award of the contract and prior to commencing any work on site submit shop drawings, samples and approval forms for the review and approval of the Owner and/or the Consultant. As a minimum the following shall be submitted:

- a) A copy of the alteration submissions provided to the regulatory authorities.
- b) Shop drawings for all car and hall operating and signal fixtures.
- c) Machine Room Layout drawings showing placement of all new equipment.
- d) Shop Drawings for Optional new Machines and Mounting if provided.
- e) Shop Drawings for Optional new Cab Interiors if provided.
- f) Samples of materials for Optional car cab interiors for approval if provided.
- g) Sample push buttons for approval.
- h) Sample tactile markings for approval.
- i) Power confirmation forms confirming power requirements for new equipment being provided.
- j) Voice Announcer Approval Forms

3.30. Manuals

Upon completion of the project submit hand over documentation for all of the new equipment provided. As a minimum the following shall be provided:

- a) Complete operating and maintenance manuals.
- b) As built wiring diagrams.
- c) A minimum of five (5) copies of each key used except keys specifically for maintenance and inspection personnel.
- d) One (1) archive copy of all software used in the control system, door operator, etc..

Operating and maintenance manuals and wiring diagrams shall be submitted as one (1) original copy and also as an electronic file. The electronic file shall be created and provided by the Elevator Contractor upon completion, submission and approval of the original documentation by the Owner and Consultant. The electronic file shall be an exact copy of the original information submitted and shall be provided in portable

document format (PDF). Ideally one complete electronic file would be provided, however. It will be acceptable to have one file containing the O & M manual, parts lists, etc. and another for the electrical schematics.

Operating and maintenance manuals shall be sufficiently detailed and shall include spare parts lists, As-Built drawings, adjustment procedures, testing procedures, troubleshooting procedures, diagnostic instructions, recommended spare part list and the manufacturer's recommended maintenance tasks and frequencies.

It is understood that the software provided shall be for archive purposes only and shall be for the Owner's exclusive use. A non-disclosure agreement will be signed by a representative of the Owner if required to protect the manufacturer's rights to the exclusivity of the software.

One (1) complete set of wiring diagrams shall be laminated and left on site in the machine room in addition to the foregoing requirements.

3.31. Special Tools

Provide any and all special tools used in the maintenance, repair, adjustments, troubleshooting and diagnostics of the equipment provided.

Special tools provided shall be for the exclusive use of the Owner or the Owner's contracted maintenance personnel and for the on-going maintenance, repair, adjustment, troubleshooting and diagnostics of the equipment.

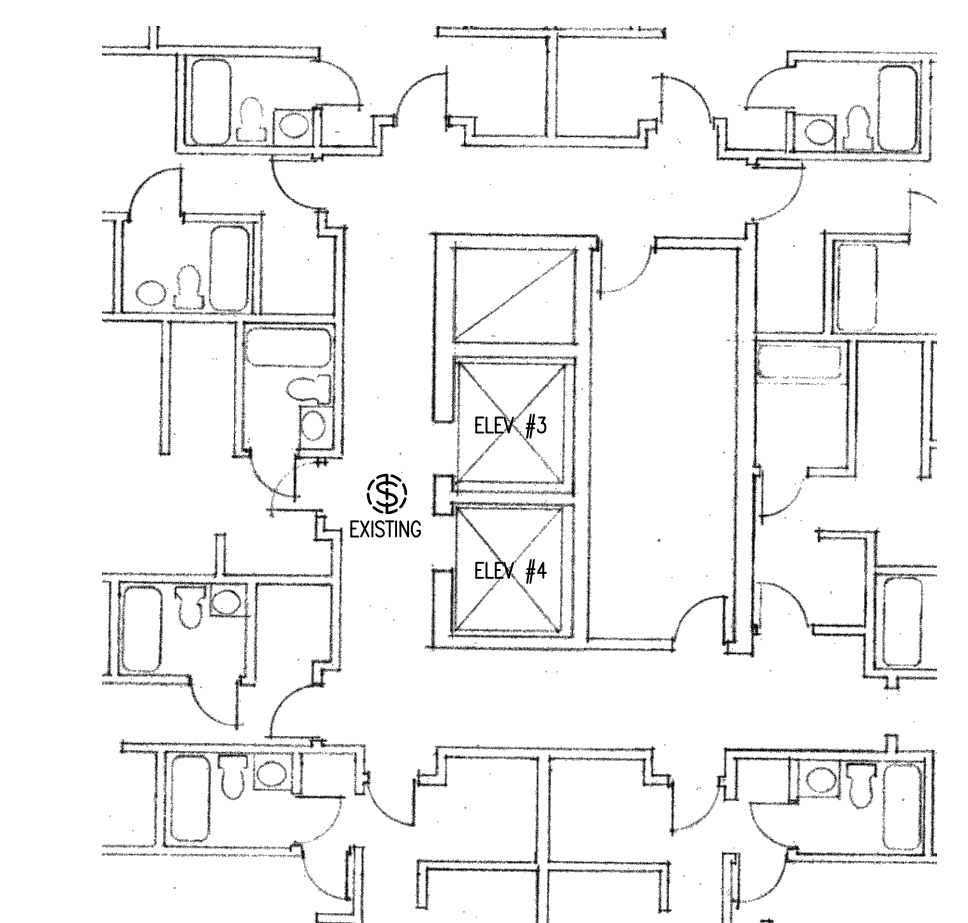
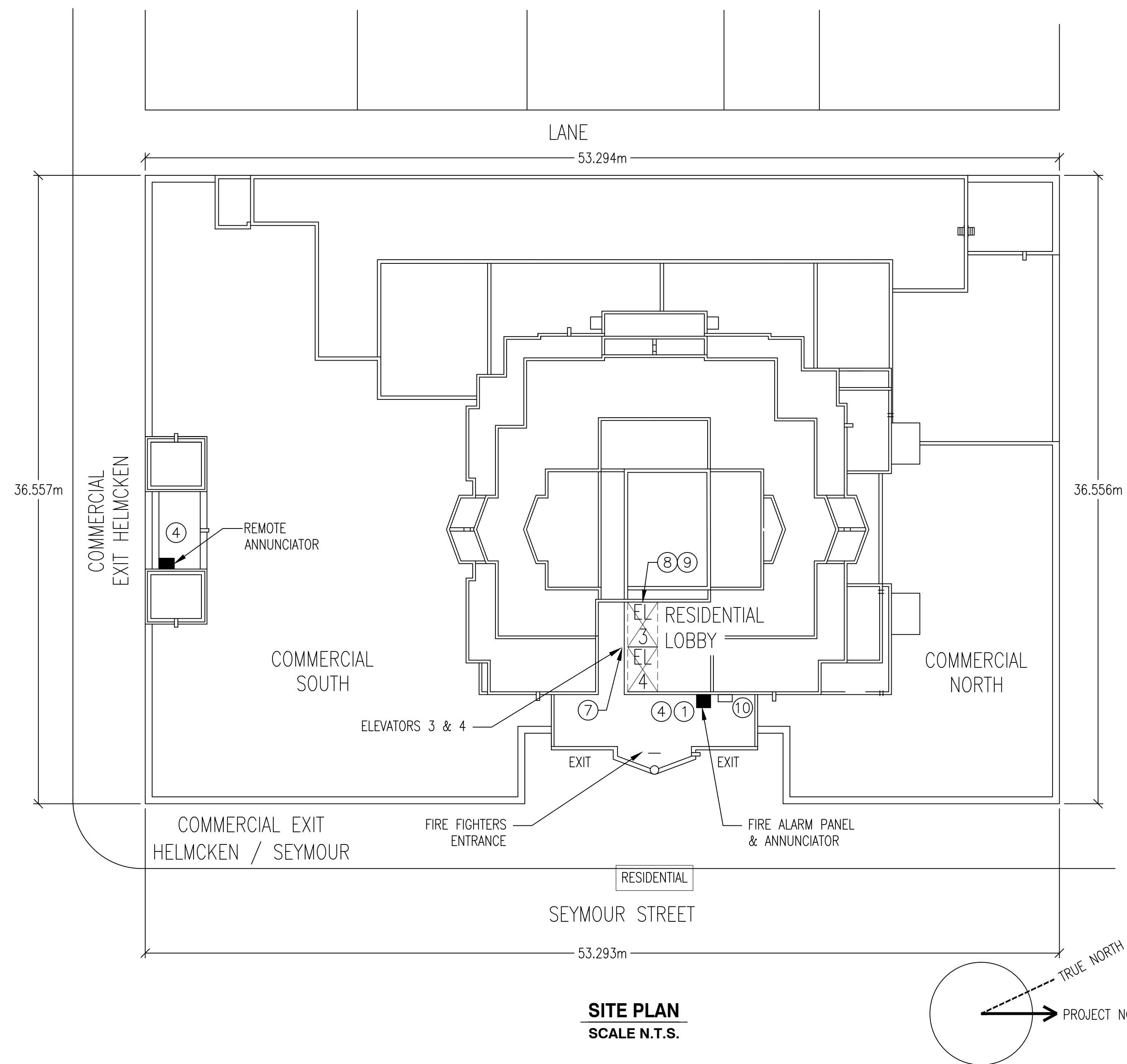
3.32. Schedule

Submit a detailed completion schedule showing start dates, completion dates and milestone dates for the duration of the project. The schedule shall be sufficiently broken down to identify individual tasks or elements of the work. The schedule shall be reviewed regularly and revised according to the progress of the work.

Indicate in the submission the anticipated manufacturing lead time from award until delivery of materials to site to commence work and the anticipated shutdown duration for each elevator in weeks.

4. Attachments:

4.1. *Electrical Scope of Work – Drawings and Specifications*



ALARM ZONES	
PARKING - P4 - SMOKE DETECTOR	PARKING - P4 - PULL STATION
PARKING - P3 - SMOKE DETECTOR	PARKING - P3 - PULL STATION
PARKING - P2 - SMOKE DETECTOR	PARKING - P2 - PULL STATION
PARKING - P1 - SMOKE DETECTOR	PARKING - P1 - PULL STATION
MAIN FL COMM S - SMOKE DETECTOR	MAIN FL COMM S - PULL STATION
MAIN FL COMM N - SMOKE DETECTOR	MAIN FL COMM N - PULL STATION
MAIN FL RES - SMOKE DETECTOR	MAIN FL RES - PULL STATION
MAIN FL ELEV LOBBY - SMOKE DETECTOR	MAIN FL ELEV LOBBY - PULL STATION
LEVEL 2 - SMOKE DETECTOR	LEVEL 2 PULL STATION
LEVEL 3 - SMOKE DETECTOR	LEVEL 3 PULL STATION
LEVEL 4 - SMOKE DETECTOR	LEVEL 4 PULL STATION
LEVEL 5 - SMOKE DETECTOR	LEVEL 5 PULL STATION
LEVEL 6 - SMOKE DETECTOR	LEVEL 6 PULL STATION
LEVEL 7 - SMOKE DETECTOR	LEVEL 7 PULL STATION
LEVEL 8 - SMOKE DETECTOR	LEVEL 8 PULL STATION
LEVEL 9 - SMOKE DETECTOR	LEVEL 9 PULL STATION
LEVEL 10 - SMOKE DETECTOR	LEVEL 10 PULL STATION
LEVEL 11 - SMOKE DETECTOR	LEVEL 11 PULL STATION
LEVEL 12 - SMOKE DETECTOR	LEVEL 12 PULL STATION
LEVEL 13 - SMOKE DETECTOR	LEVEL 13 PULL STATION
LEVEL 14 - SMOKE DETECTOR	LEVEL 14 PULL STATION
LEVEL 15 - SMOKE DETECTOR	LEVEL 15 PULL STATION
ROOF - MECHANICAL ROOM - SMOKE DETECTOR	ROOF - MECHANICAL ROOM - PULL STATION
ROOF - ELEV MACH RM - SMOKE DETECTOR	ELEVATOR 1 (LEVEL 2) - SMOKE / HEAT DETECTOR
TOP OF STAIR 1 (ROOF) - SMOKE DETECTOR	ELEVATOR 2 (LEVEL 3) - SMOKE / HEAT DETECTOR
TOP OF STAIR 2 (LEVEL 10) - SMOKE DETECTOR	RESIDENTIAL ELEVATOR 3 (ROOF) - SMOKE / HEAT DETECTOR
TOP OF STAIR 3 (LEVEL 2) - SMOKE DETECTOR	RESIDENTIAL ELEVATOR 4 (ROOF) - SMOKE / HEAT DETECTOR
TOP OF STAIR 4 (LEVEL 3) - SMOKE DETECTOR	LOADING BAY (LEVEL 1) - HEAT DETECTOR
TOP OF STAIR 5 (LEVEL 2) - SMOKE DETECTOR	ROOF SMOKE EXHAUST FAN (ROOF) - DUCT SMOKE
GARBAGE CHUTE (LEVEL 3) - SMOKE DETECTOR	MAIN ELECTRICAL ROOM (LEVEL P1) - HEAT DETECTOR
FREIGHT ELEVATOR (LEVEL 3) - SMOKE / HEAT DETECTOR	GENERATOR ROOM (LEVEL P2) - SMOKE DETECTOR
MAIN WATER ENTRY FLOW	CAFETERIA (LEVEL 2)
PARKING - P4 - SPRINKLER FLOW	LEVEL 6 - SPRINKLER FLOW
PARKING - P3 - SPRINKLER FLOW	LEVEL 7 - SPRINKLER FLOW
PARKING - P2 - SPRINKLER FLOW	LEVEL 8 - SPRINKLER FLOW
PARKING - P1 - SPRINKLER FLOW	LEVEL 9 - SPRINKLER FLOW
MAIN FL COMM S - SPRINKLER FLOW	LEVEL 10 - SPRINKLER FLOW
MAIN FL COMM N - SPRINKLER FLOW	LEVEL 11 - SPRINKLER FLOW
MAIN FL RES - SPRINKLER FLOW	LEVEL 12 - SPRINKLER FLOW
MAIN FL ELEV LOBBY - SPRINKLER FLOW	LEVEL 13 - SPRINKLER FLOW
LEVEL 2 - SPRINKLER FLOW	LEVEL 14 - SPRINKLER FLOW
LEVEL 3 - SPRINKLER FLOW	LEVEL 15 - SPRINKLER FLOW
LEVEL 4 - SPRINKLER FLOW	LEVEL 16 - SPRINKLER FLOW
LEVEL 5 - SPRINKLER FLOW	ROOF - SPRINKLER FLOW
SUPERVISORY ZONES	
PARKING - P4 - SPRINKLER TAMPERS	LEVEL 7 - SPRINKLER TAMPERS
PARKING - P3 - SPRINKLER TAMPERS	LEVEL 8 - SPRINKLER TAMPERS
PARKING - P2 - SPRINKLER TAMPERS	LEVEL 9 - SPRINKLER TAMPERS
PARKING - P1 - SPRINKLER TAMPERS	LEVEL 10 - SPRINKLER TAMPERS
MAIN FL COMM S - SPRINKLER TAMPERS	LEVEL 11 - SPRINKLER TAMPERS
MAIN FL COMM N - SPRINKLER TAMPERS	LEVEL 12 - SPRINKLER TAMPERS
MAIN FL RES - SPRINKLER TAMPERS	LEVEL 13 - SPRINKLER TAMPERS
MAIN FL ELEV LOBBY - SPRINKLER TAMPERS	LEVEL 14 - SPRINKLER TAMPERS
LEVEL 2 - SPRINKLER TAMPERS	LEVEL 15 - SPRINKLER TAMPERS
LEVEL 3 - SPRINKLER TAMPERS	LEVEL 16 - SPRINKLER TAMPERS
ROOF - SPRINKLER TAMPERS	HEAT TRACING
LEVEL 5 - SPRINKLER TAMPERS	GENERATOR RUN (FUTURE)
LEVEL 6 - SPRINKLER TAMPERS	GENERATOR TROUBLE (FUTURE)
	GENERATOR NOT IN AUTO (FUTURE)
	DRY SYSTEM PRESSURE SWITCH

NO.	DESCRIPTION	DATE	DRAWN
3	RE-ISSUED FOR BP/TENDER	07/25/18	BY
2	ISSUED FOR BP/TENDER	07/11/18	BY
1	ISSUED FOR REVIEW	06/06/18	BY

ISSUES

NO.	DESCRIPTION	DATE	DRAWN

REVISIONS

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SCALE:	AS SHOWN	DRAWN:	CT
DATE:	MAY 09, 18	CHECKED:	RC

SENIORS HOUSING
1067 SEYMOUR
ELEVATOR RECALL REPLACEMENT
Vancouver, BC



FIRE ALARM GENERAL REQUIREMENTS AND SITE PLAN

JOB NO.
18M-00484-00

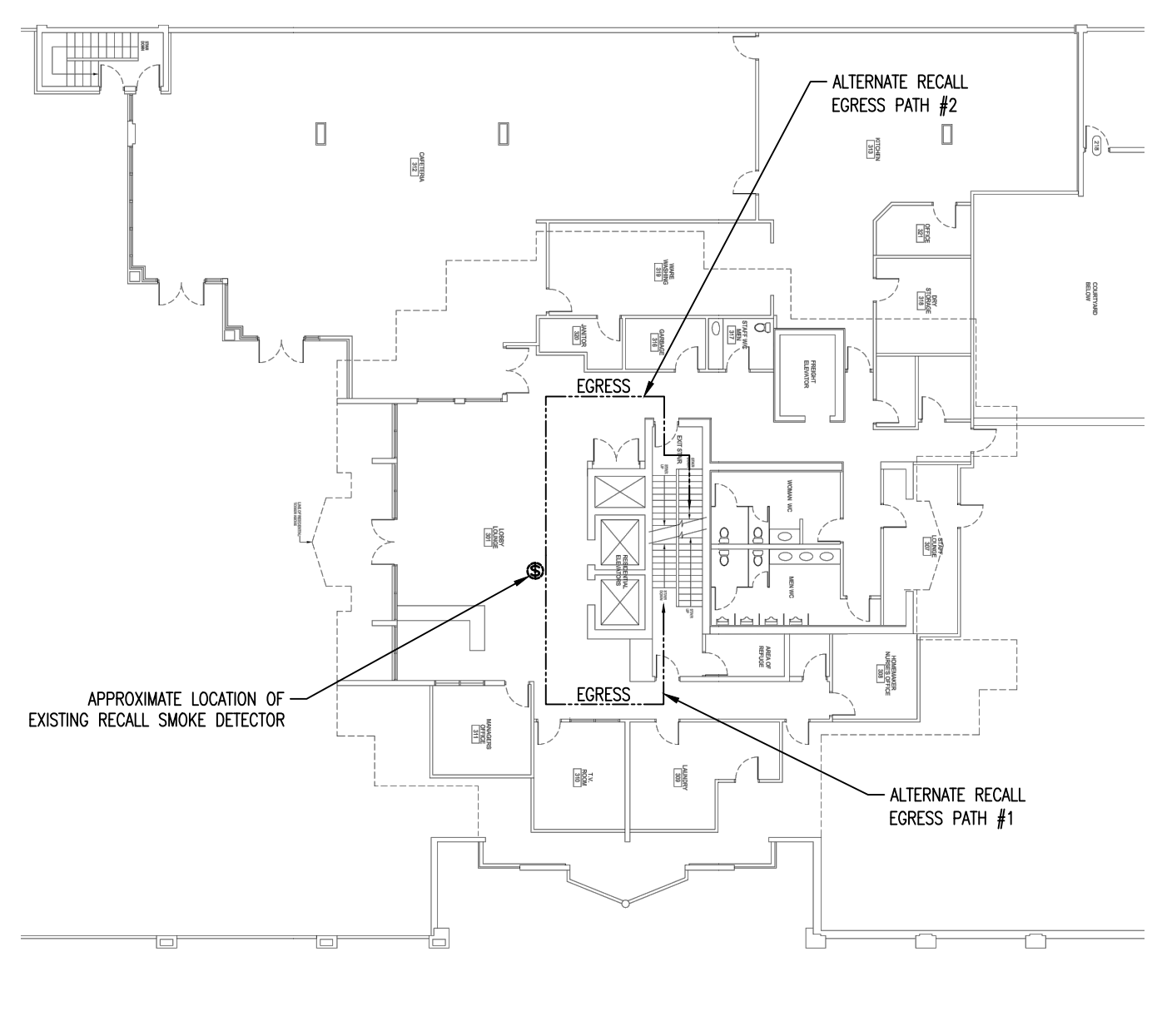
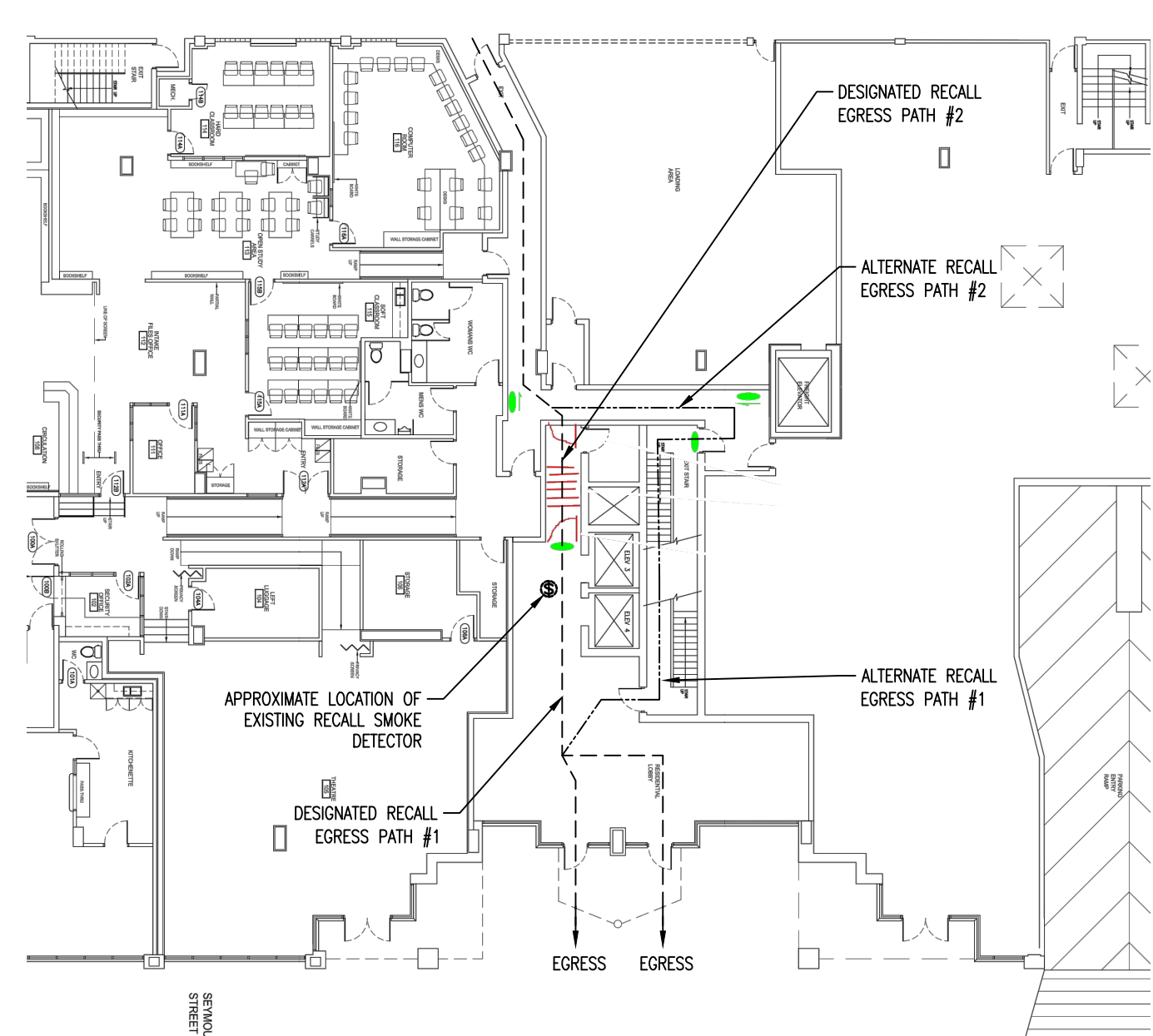
E1

ELEVATOR SEQUENCE OF OPERATION
1067 SEYMOUR STREET VANCOUVER, B.C.

ELEVATOR FUNCTION / SEQUENCE	DEVICE THAT ACTIVATE SEQUENCE	ELEVATOR RESPONSE
RECALL TO DESIGNATED LEVEL 'M'	SMOKE DETECTORS IN ELEVATOR LOBBY AT LEVELS P3, P2, 3-15	ELEVATORS #3 & #4 RECALL TO DESIGNATED RECALL LEVEL 'M'
RECALL TO ALTERNATE LEVEL 'J'	SMOKE DETECTORS IN ELEVATOR LOBBY AT LEVEL 'M' ONLY	ELEVATORS #3 & #4 RECALL TO ALTERNATE RECALL LEVEL 'J'
MACHINE ROOM SMOKE SENSOR RECALL	SMOKE DETECTOR(S) IN ELEVATOR MACHINE ROOM	ELEVATORS #3 & #4 RECALL TO DESIGNATED RECALL LEVEL 'M' WITH FLASHING INDICATOR IN EACH CAB
ELEVATOR HOISTWAY SMOKE SENSOR RECALL	SMOKE OR HEAT DETECTORS IN ELEVATOR HOISTWAY (TOP OF SHAFT)	ELEVATORS #3 & #4 RECALL TO DESIGNATED RECALL LEVEL 'M' WITH FLASHING INDICATOR IN EACH CAB
ELEVATOR PIT FIRE DETECTOR RECALL	HEAT DETECTOR IN ELEVATOR PIT AREA	ELEVATORS #3 & #4 RECALL TO DESIGNATED RECALL LEVEL 'M' WITH FLASHING INDICATOR IN EACH CAB

THIS PROJECT HAS BEEN DESIGNED IN ACCORDANCE WITH CSA B44-07 (ELEVATOR SAFETY CODE), AND SECTION 3.2.6.4 OF THE VBLB 2014 AND VANCOUVER BULLETIN 2018-004-BU/EL.
MANUAL PULL STATIONS AND OTHER FIRE ALARM INITIATING DEVICES NOT SHOWN ABOVE WILL NOT ACTIVATE THE ELEVATOR RECALL.

- GENERAL NOTES - F.A. MODIFICATIONS**
- MODIFY EXISTING (SINGLE STAGE) SIMPLEX (4100 U) PROGRAMMING FOR ELEVATOR RECALL FUNCTION.
 - INSTALL AND VERIFY MACHINE ROOM SMOKE DETECTOR.
 - PROVIDE (5) ISOLATION MODULES FOR LOBBY SMOKE DETECTORS FOR FLOOR RECALL FUNCTION IN THE MACHINE ROOM.
 - UPDATE ANNUNCIATORS TO REFLECT ANY ADDITIONS.
 - CONNECT GENERATOR LEVEL P1 (N PARKADE) RUN SIGNAL TO ELEVATOR CONTROLLERS. (REFER TO DRAWING E6).
 - CO-ORDINATE ALL REQUIREMENTS WITH THE ELEVATOR INSTALLER.
 - PROVIDE TELEPHONE CONNECTION TO ELEVATOR PASSENGER EMERGENCY PHONE TO CONTROLLER AND LOBBY SET. REUSE EXISTING TELECOM CONNECTIONS.
 - UPDATE ELEVATOR PIT RECEPTACLES TO GFCI (GROUND FAULT RECEPTACLES) 20A GFI.
 - UPGRADE ELEVATOR PIT LIGHTING. PROVIDE NEW LITHONIA W SERIES (M2 OR M4). REPLACE ALL EXISTING LIGHTING AND SWITCHING. PROVIDE 1200 LUMENS 3500K 120 VAC DAMP LOCATION LISTED.
 - INSTALL WEB PHONE SYSTEM. ELEVATOR & LOBBY HANDSET WIRING AND POWER FOR MAIN PBX PHONE SYSTEM IN THE TELECOM ROOM IN THE P2 PARKADE. (REFER TO DRAWING E5). PROVIDE PHONE ANALOG LINE. CO-ORDINATE THE SERVICES OF AN APPROVED TELECOM / DATA INSTALLER FOR ALL TELEPHONE WORK BY THE ELEVATOR INSTALLER. MODIFY EXISTING TO SUIT.
 - NOTED EGRESS EXITS ARE LOCATED AT THE MAIN ELEVATOR LOBBY EXIT TO SEYMOUR STREET.





2	ISSUED FOR BP/TENDER	07/11/18	BY
1	ISSUED FOR REVIEW	06/06/18	BY
NO.	DESCRIPTION	DATE	DRAWN

ISSUES

NO.	DESCRIPTION	DATE	DRAWN

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SCALE: AS SHOWN	DRAWN: CT
DATE: MAY 09, 18	CHECKED: RC

**SENIORS HOUSING
1067 SEYMOUR
ELEVATOR RECALL
REPLACEMENT**

Vancouver, BC



FIRE ALARM COMMUNICATION RISER DIAGRAM

FOR REFERENCE RE: REPROGRAMMING ELEVATOR RECALL FUNCTIONS FOR MAINTENANCE/MACHINE ROOM, ELEVATOR PIT, SHFT SMOKE DETECTORS AND ELEVATOR LOBBY RECALL SMOKE DETECTORS.

JOB NO.
18M-00484-00

E2

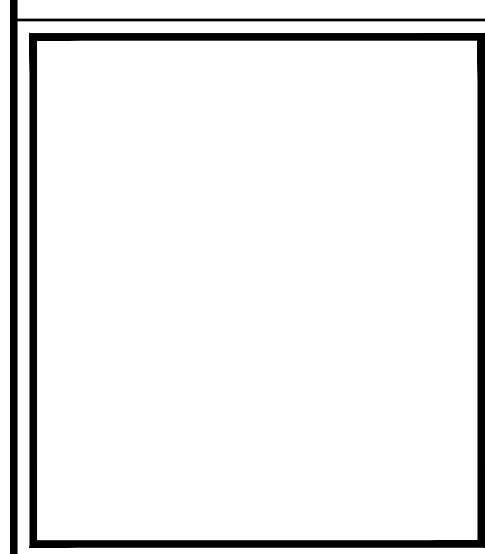
2	ISSUED FOR BP/TENDER	07/11/18	BY
1	ISSUED FOR REVIEW	06/06/18	BY
NO.	DESCRIPTION	DATE	DRAWN

ISSUES

NO.	DESCRIPTION	DATE	DRAWN

REVISIONS

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SCALE: AS SHOWN DRAWN: CT
DATE: MAY 09, 18 CHECKED: RC

**SENIORS HOUSING
1067 SEYMOUR
ELEVATOR RECALL
REPLACEMENT**

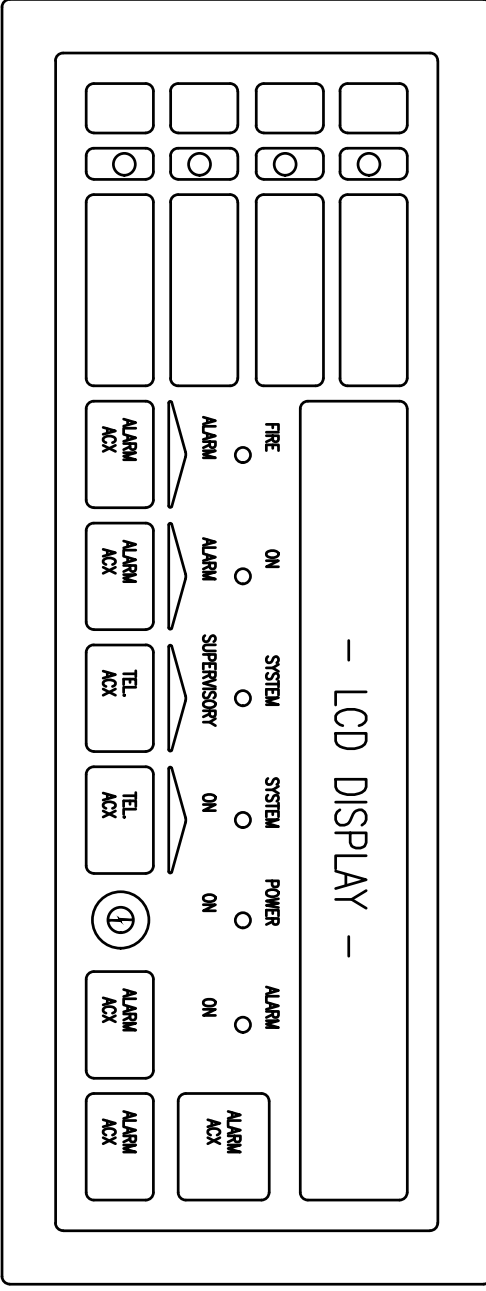
Vancouver, BC



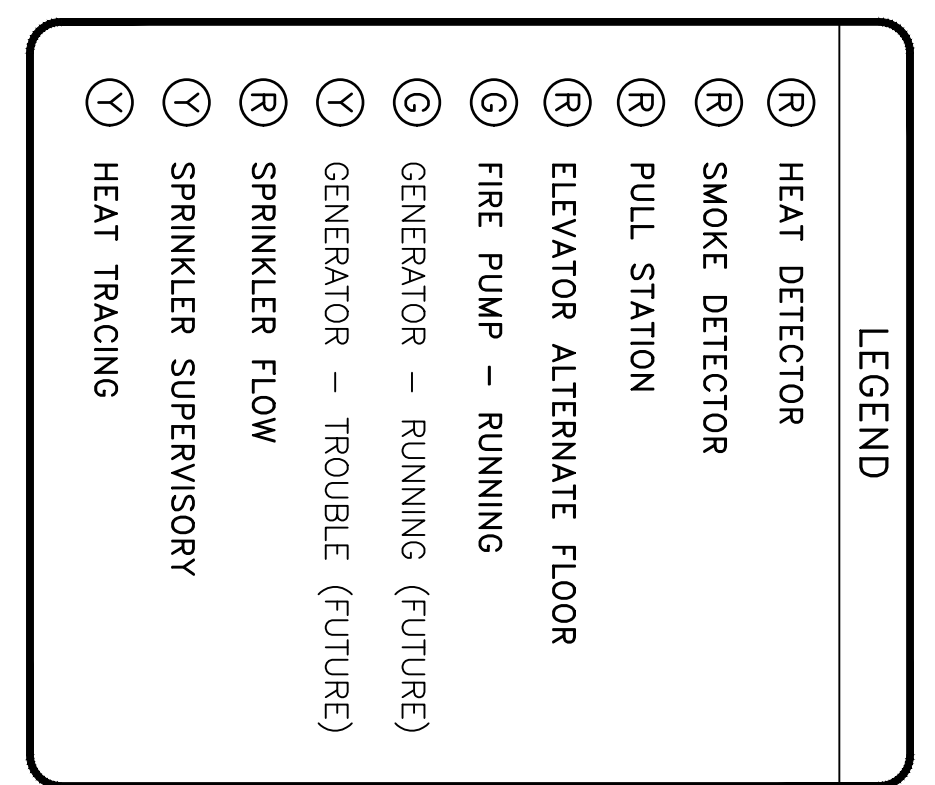
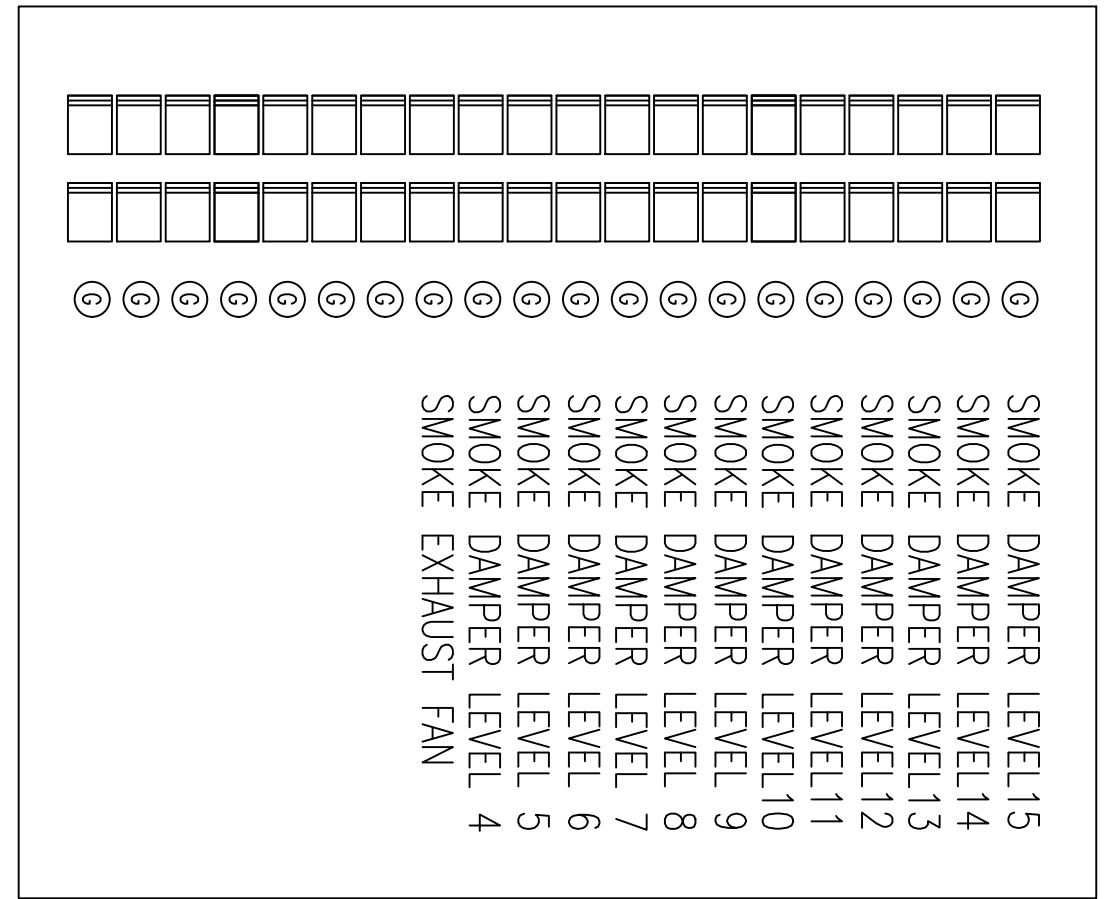
**MODIFICATIONS TO
GRAPHIC MAIN
ANNUNCIATOR**

JOB NO.
18M-00484-00

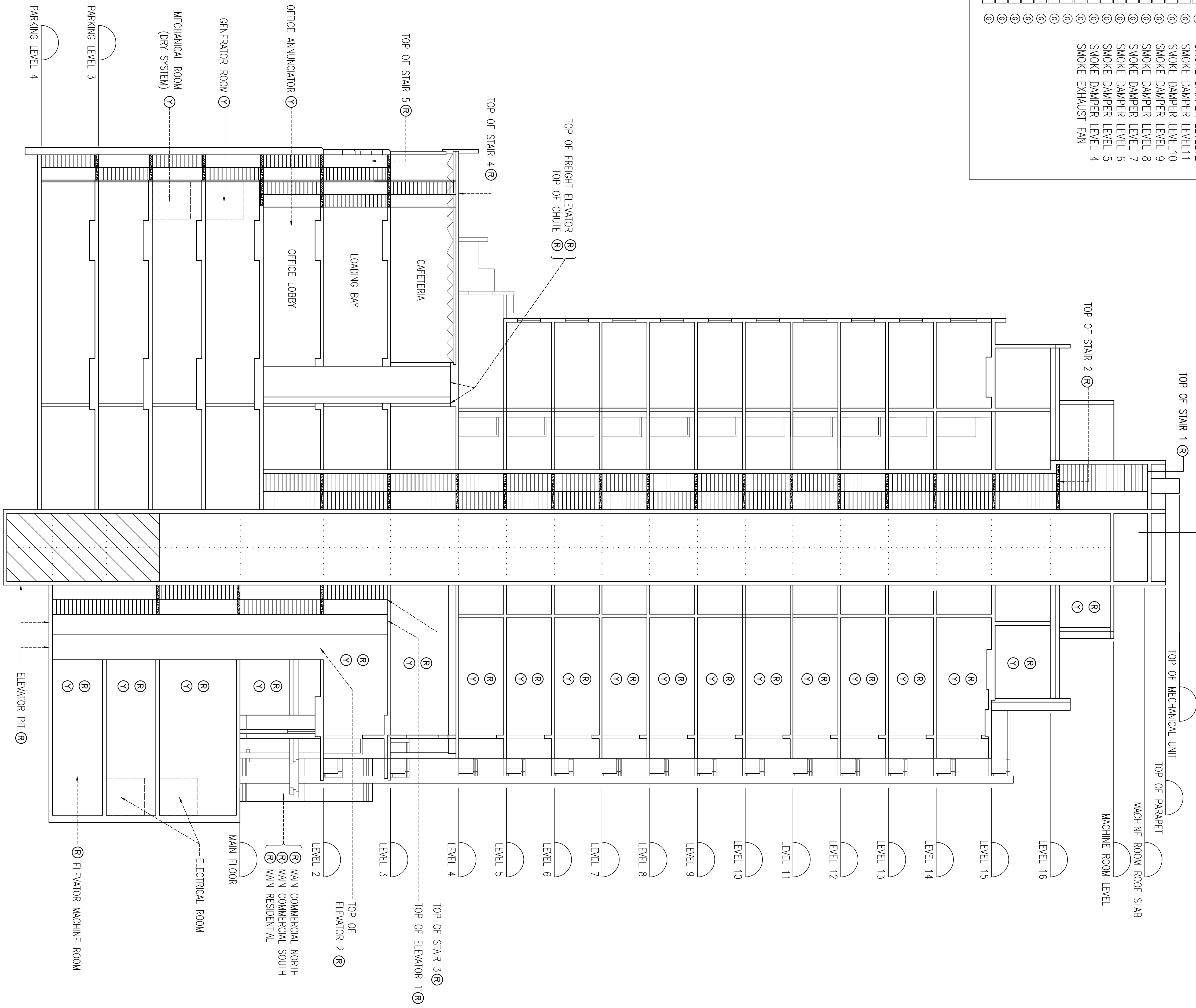
E3



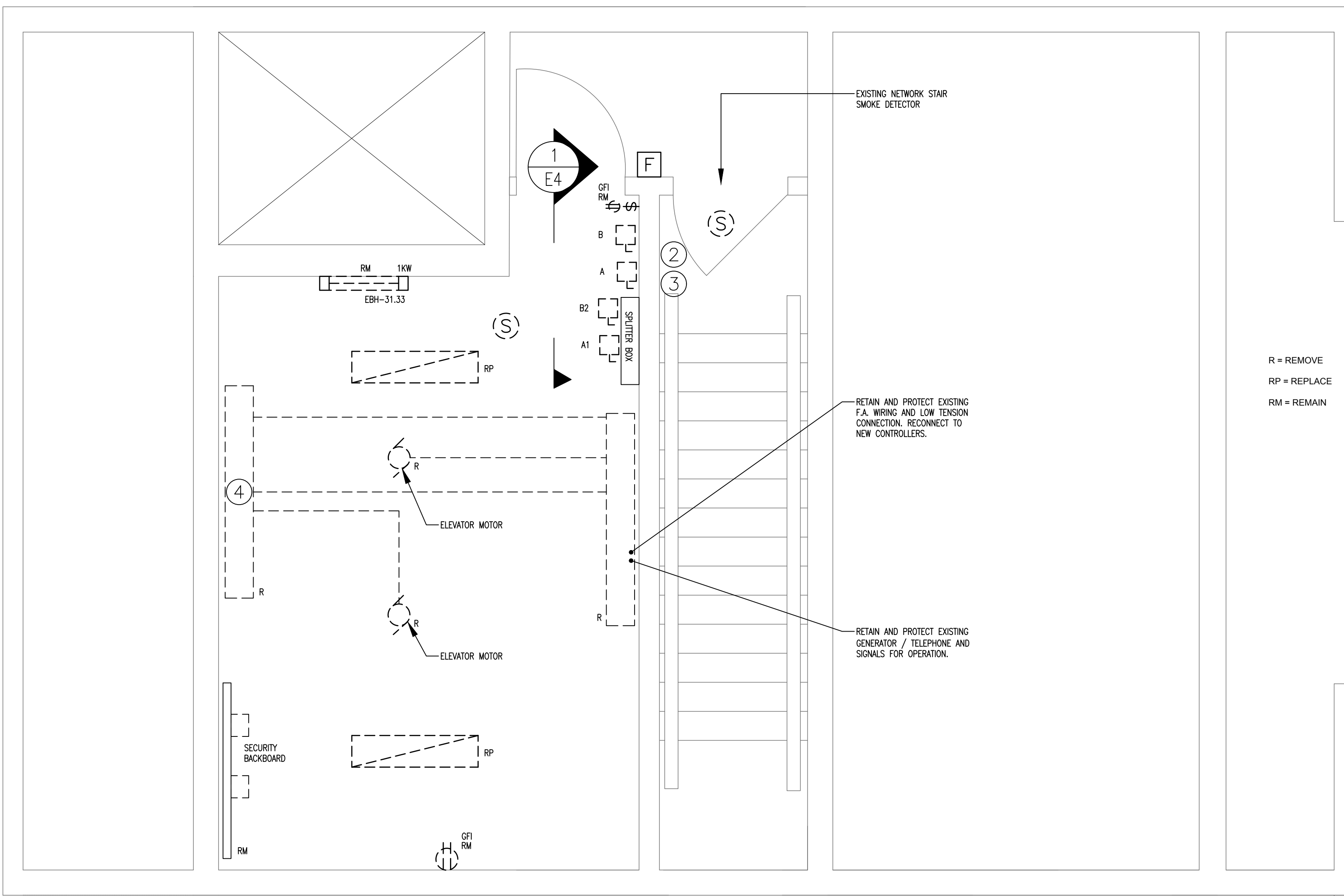
SMOKE & FAN CONTROL



FOR REFERENCE ONLY
TYPICAL OF TWO ANNUNCIATORS



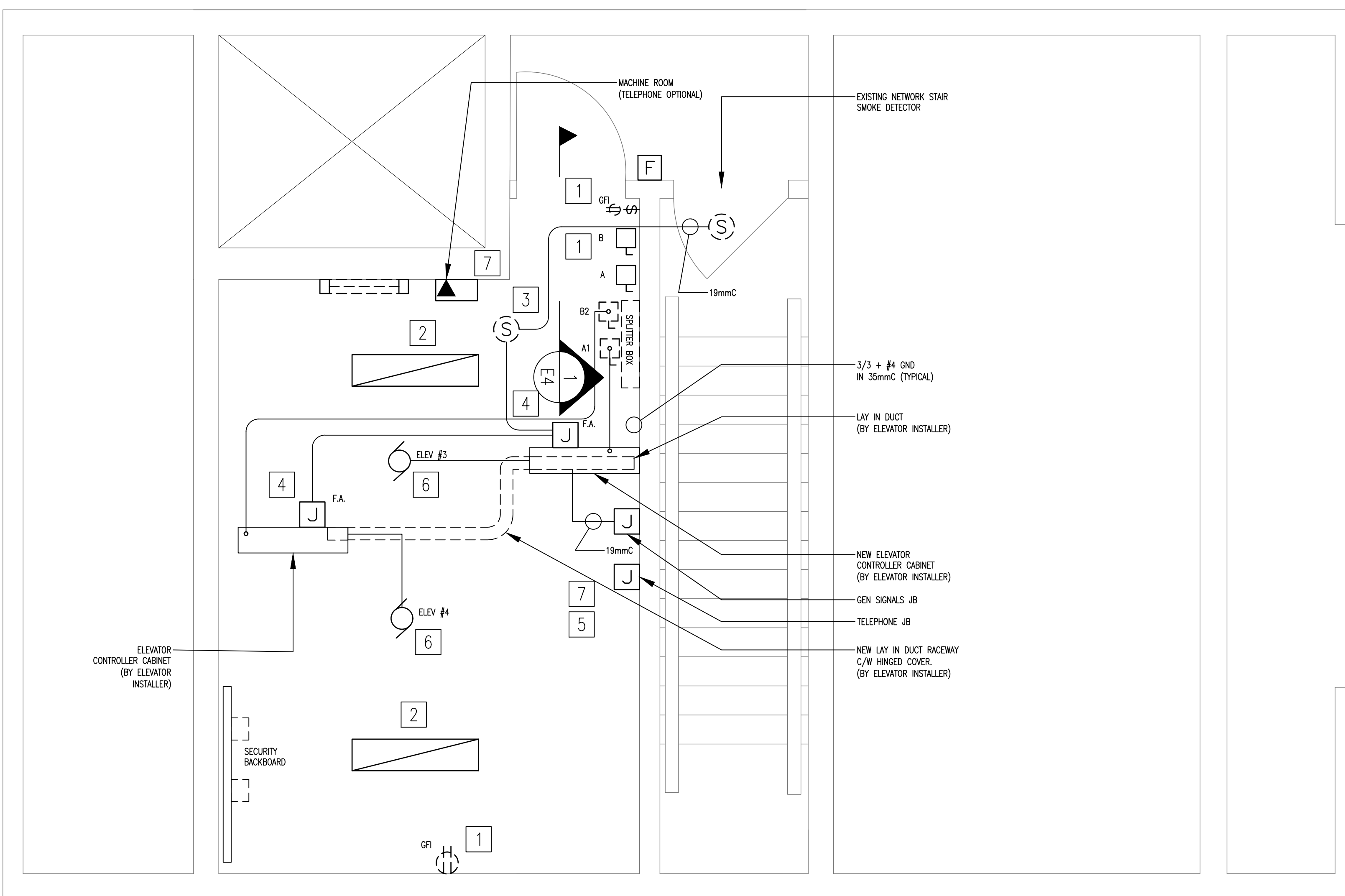
GRAPHIC ZONE LAYOUT
SECTION LOOKING TOWARD NORTH
SCALE N.T.S.



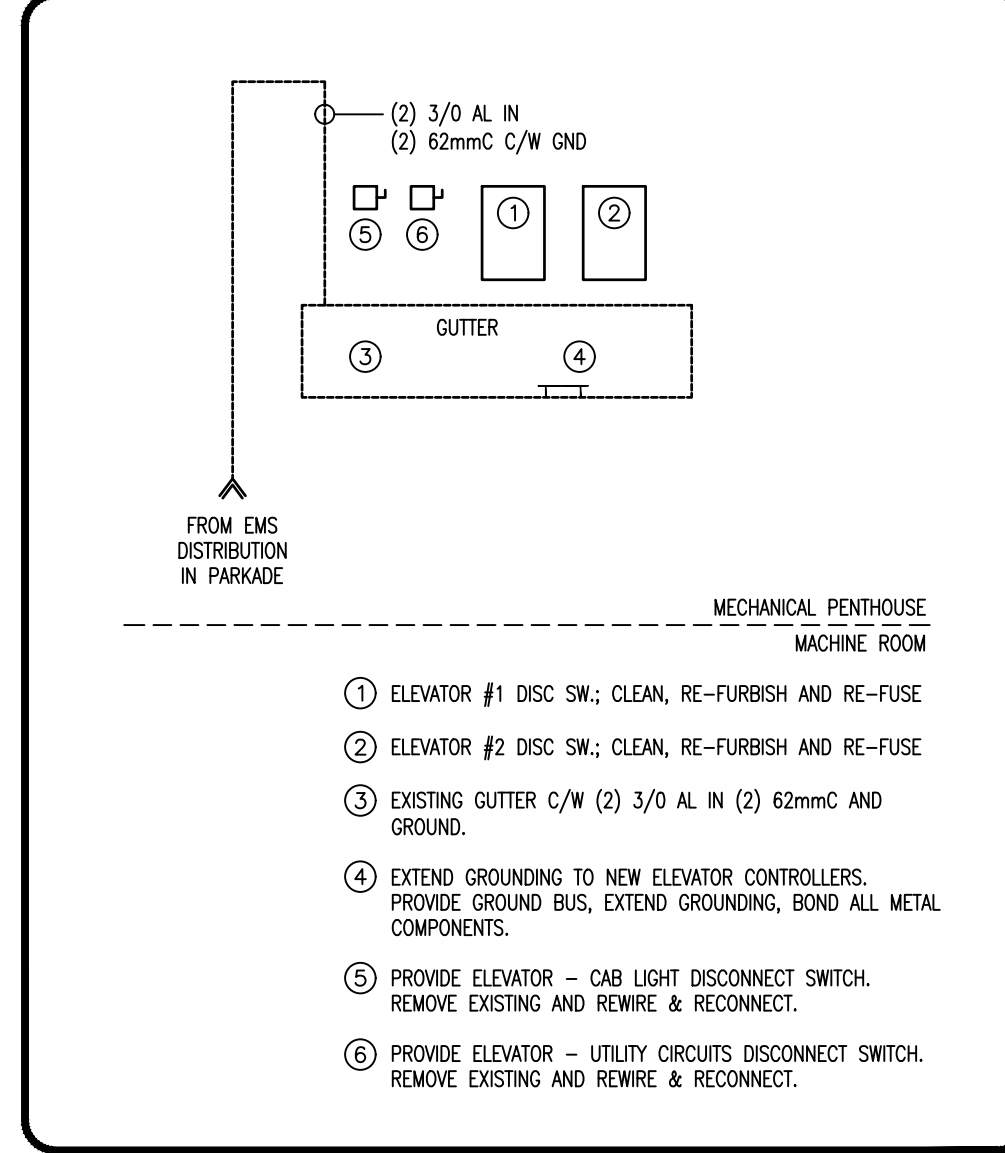
LEVEL 17 ELEVATOR MACHINE ROOM - EXISTING
SCALE N.T.S.

- DEMOLITION NOTES**
- EXISTING ELEVATOR CONTROLLERS AND EQUIPMENT TO BE REMOVED AND REPLACED WITH NEW EQUIPMENT. CO-ORDINATE ALL WORK WITH THE ELEVATOR INSTALLER.
 - REFURBISH AND CLEAN EXISTING ELEVATOR POWER FUSED DISCONNECT SWITCHES.
 - PROVIDE ARROW HART WEATHERPROOF DISCONNECT SWITCH 20A 120VAC OPERATION EXISTING ELEVATOR LIGHTING AND VERIFY DISCONNECT SWITCHES.
 - EXISTING ELEVATOR CONTROLLER AND ELEVATOR DRIVES TO BE DISCONNECTED AND REMOVED. CO-ORDINATE ALL WORK WITH THE ELEVATOR SUPPLIER AND INSTALLER. PROVIDE NEW RACEWAYS, MODIFY EXISTING TO SUIT NEW LAYOUTS AND PROVIDE ALL CONNECTIONS TO NEW EQUIPMENT.
 - VERIFY GENERATOR RUNNING SIGNALS. PROVIDE PRE AND POST TRANSFER SIGNALS. INSTALL CONDUIT WIRING AND ADDITIONAL SIGNALS FOR CONNECTION TO THE ELEVATOR CONTROLLERS. MODIFY AND ADD WIRING TO SUIT.
 - PROTECT AND RETAIN EXISTING GENERATOR / FIRE ALARM / SECURITY AND TELEPHONE CONNECTIONS.

- GENERAL NOTES**
- EXTEND AND CONNECT SYSTEM GROUNDING TO ELEVATOR DISCONNECTS, CONDUIT AND TO THE ELEVATOR CONTROLLERS. PROVIDE #4 AWG GROUND CONDUCTOR. PROVIDE BONDING FOR ALL TRANSFORMERS, POWER SUPPLIES AND MOTOR CHASSIS.
 - REPLACE EXISTING FIXTURE LIGHTS WITH LED, EQUIVALENT LUMENS PACKAGE. LITHONIA WL SERIES (4'-0" 1200mm).
 - PROVIDE MACHINE ROOM SMOKE DETECTOR (CO-ORDINATE INSTALLATION WITH SIMPLEX FIRE ALARM) ARRANGE FOR CORING AND FIRESTOPP OF THE EXTENDED CONDUIT FOR THE NEW ROOM DETECTOR.
 - PROVIDE MINIMUM (5) ISOLATION C/P MODULES TO BE PROGRAMMED TO SUIT THE ELEVATOR RECALL FUNCTIONS. EXTEND CONDUIT AND INSTALL ISOLATION MODULES FOR ELEVATOR CONTROLLER CONNECTIONS.
 - EXTEND AND PROVIDE CONDUITS FOR THE PBX TELEPHONE SYSTEM.
 - VERIFY EXACT MOTOR NAMEPLATE LOADING. ADJUST OVERCURRENT TO SUIT EXACT ELEVATOR MOTOR AND INSTALLER REQUIREMENTS. VERIFY WIRE SIZES AND OVERCURRENT PROTECTION SETTINGS.
 - PROTECT EXISTING TELEPHONE CONNECTIONS. PROVIDE NEW CONDUIT TO SUIT NEW LAYOUT. REFER TO DRAWING E6 FOR INTERCONNECTION DETAILS.



LEVEL 17 ELEVATOR MACHINE ROOM - NEW
SCALE N.T.S.



DISCONNECT UPGRADES (MACHINE ROOM)
SCALE N.T.S.

NO.	DESCRIPTION	DATE	DRAWN
2	ISSUED FOR BP/TENDER	07/11/18	BY
1	ISSUED FOR REVIEW	06/06/18	BY

ISSUES

NO.	DESCRIPTION	DATE	DRAWN

REVISIONS

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SCALE: AS SHOWN DRAWN: CT
DATE: MAY 09, 18 CHECKED: RC

SENIORS HOUSING
1067 SEYMOUR
ELEVATOR RECALL
REPLACEMENT
Vancouver, BC



MECHANICAL MEZZANINE ELECTRICAL PLAN

JOB NO.
18M-00484-00

E4

GENERAL NOTES

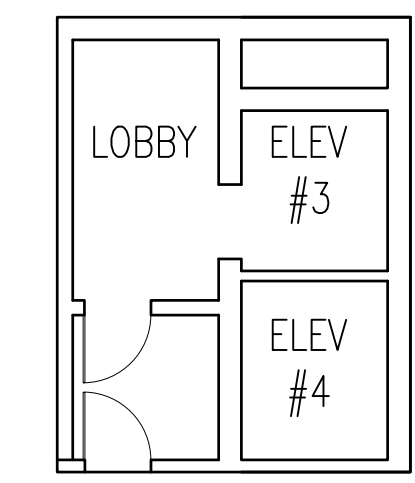
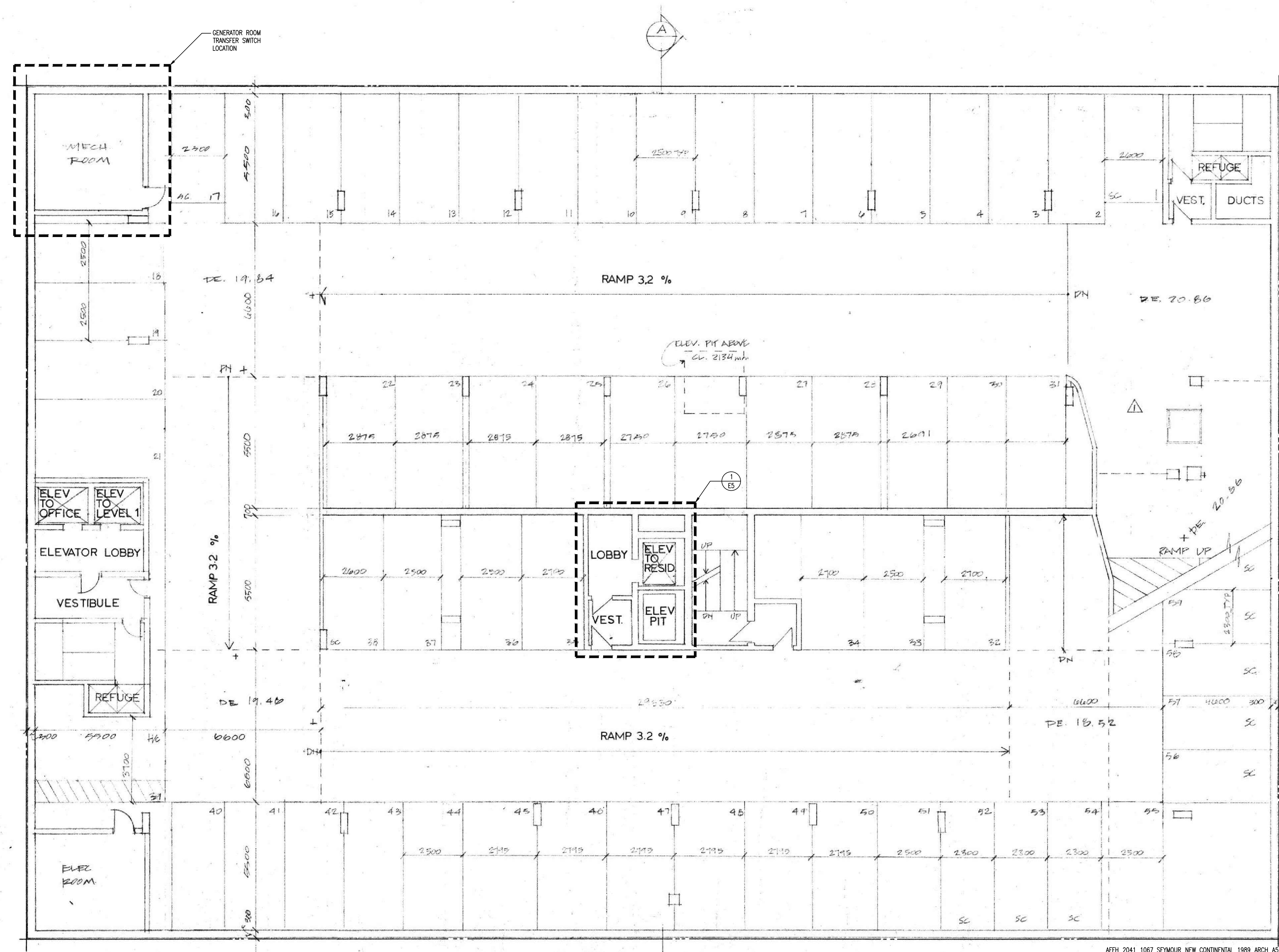
- RECONNECT EXISTING GENERATOR RUNNING SIGNALS TO THE NEW ELEVATOR CONTROLLERS, PRE/POST TRANSFER AND GENERATING RUNNING SIGNALS.
- INVESTIGATE EXISTING WIRING CONFIRM OPERATION AND REWIRE TO SUIT NEW REQUIREMENTS.

2	ISSUED FOR BP/TENDER	07/11/18	BY
1	ISSUED FOR REVIEW	06/06/18	BY

ISSUES

NO.	DESCRIPTION	DATE	DRAWN
REVISIONS			

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ELEVATOR DETAIL
SCALE N.T.S.

SCALE: AS SHOWN DRAWN: CT
DATE: MAY 09, 18 CHECKED: RC

SENIORS HOUSING
1067 SEYMOUR
ELEVATOR RECALL REPLACEMENT
Vancouver, BC



GENERATOR TRANSFER SWITCH LOCATION
P1 (PARKADE)

JOB NO.
18M-00484-00

E5

AFH_2041_1067 SEYMOUR_NEW CONTINENTAL_1989_ARCH_AS

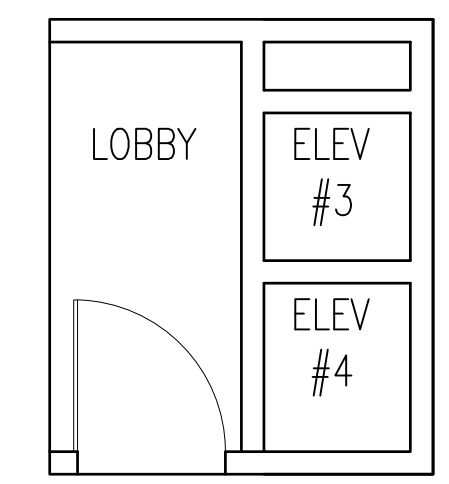
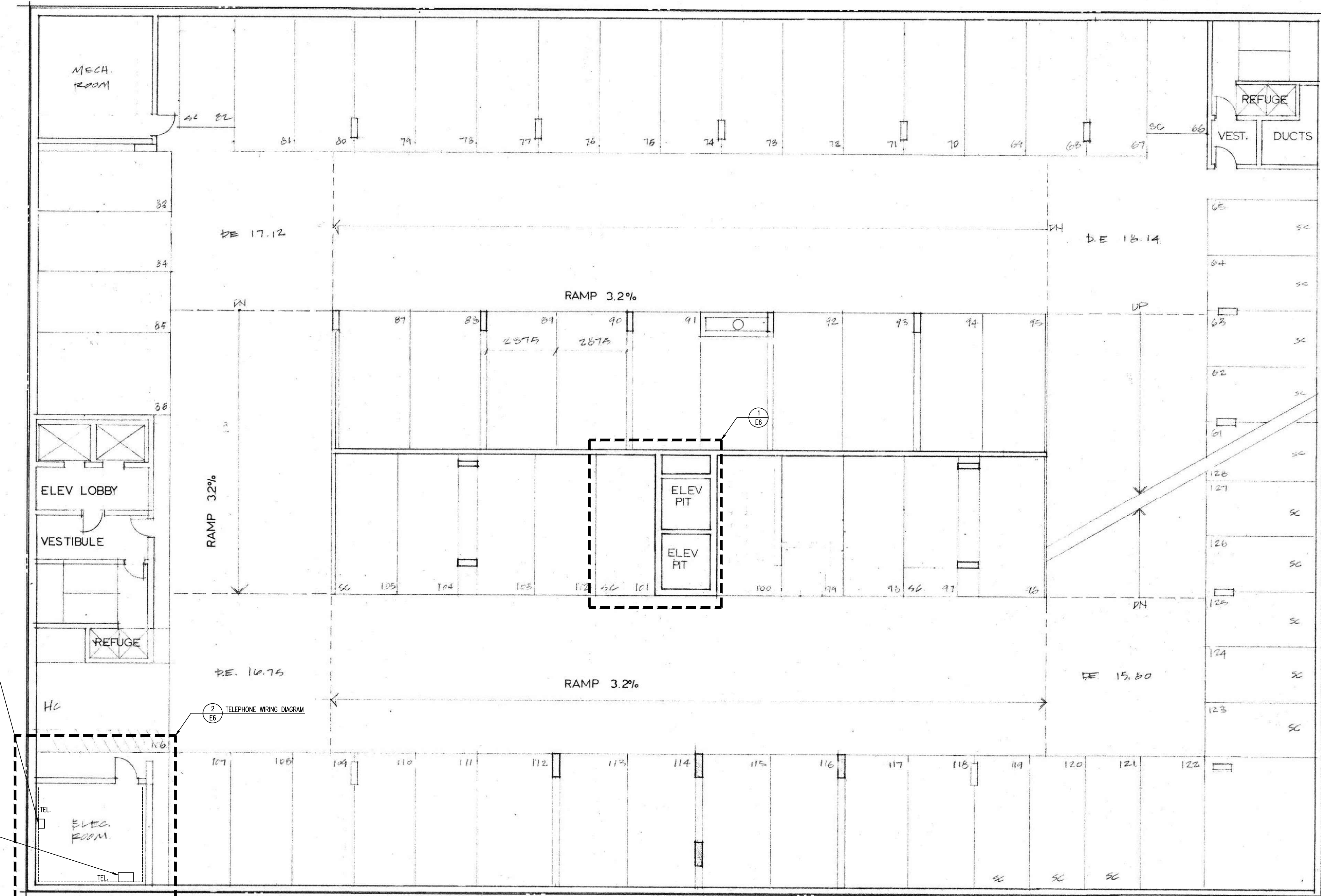
- GENERAL NOTES**
- WEB PHONE PBX TO BE INSTALLED IN MAIN COMMUNICATIONS ROOM IN LEVEL 2 PARKADE.
 - PROVIDE 120 VAC 15A BREAKER FROM EXISTING COMMANDER PANEL BOARD N05042-46, 3A, 4W TO PBX (WEB PHONE).
 - PROVIDE CAT6 CABLE FOR ELEVATOR HANSET TO WEB PHONE PBX.
 - ARRANGE FOR TELEPHONE ANALOG LINE FOR EMERGENCY ELEVATOR SECURITY PHONE.

2	ISSUED FOR BP/TENDER	07/11/18	BY
1	ISSUED FOR REVIEW	06/06/18	BY

ISSUES

NO.	DESCRIPTION	DATE	DRAWN
REVISIONS			

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ELEVATOR DETAIL
SCALE N.T.S.

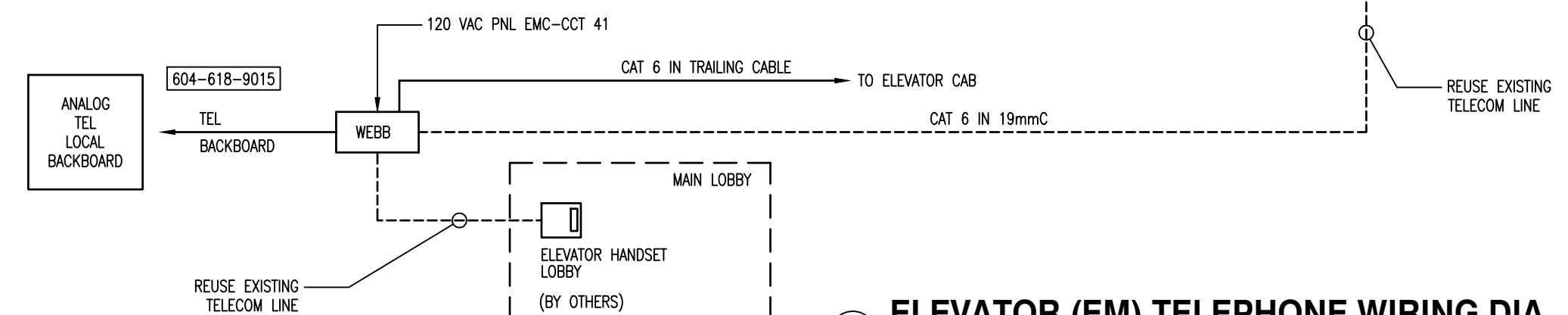
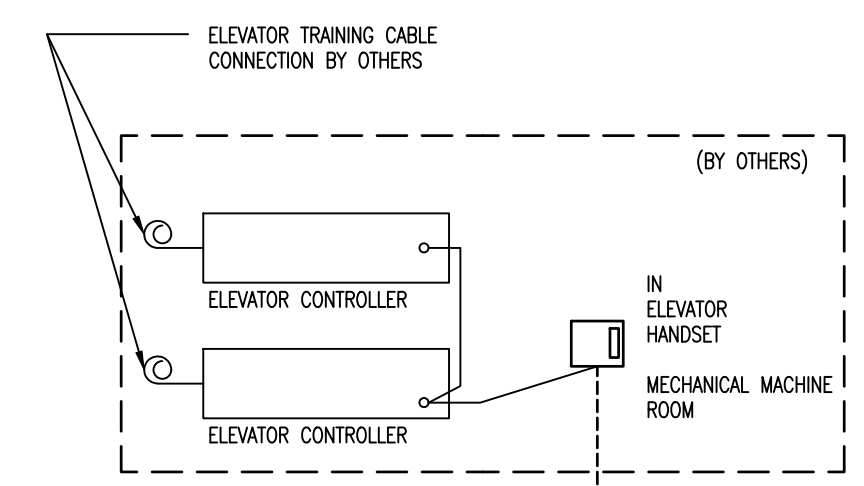
EXACT LOCATION @ DISTRIBUTION TO BE FIELD DETERMINED ON SITE

LOCAL EM PNL EMC 120/208, 3A, 4W

TELEPHONE WIRING DIAGRAM

TELECOM / DATA ENTRY ROOM

AFH_2041_1067 SEYMOUR_NEW CONTINENTAL_1989_ARCH_A6



ELEVATOR (EM) TELEPHONE WIRING DIA
SCALE N.T.S.

**SENIORS HOUSING
1067 SEYMOUR
ELEVATOR RECALL
REPLACEMENT**

Vancouver, BC



**TELECOM ENTRY
LEVEL P2
(PARKADE)**

JOB NO.
18M-00484-00

E6

GENERAL NOTES

- ① RECONNECT EXISTING GENERATOR RUNNING SIGNALS TO THE NEW ELEVATOR CONTROLLERS, PRE/POST TRANSFER AND GENERATING RUNNING SIGNALS.
- ② INVESTIGATE EXISTING WIRING CONFIRM OPERATION AND REWIRE TO SUIT NEW REQUIREMENTS.

2	ISSUED FOR BP/TENDER	07/11/18	BY
1	ISSUED FOR REVIEW	06/06/18	BY

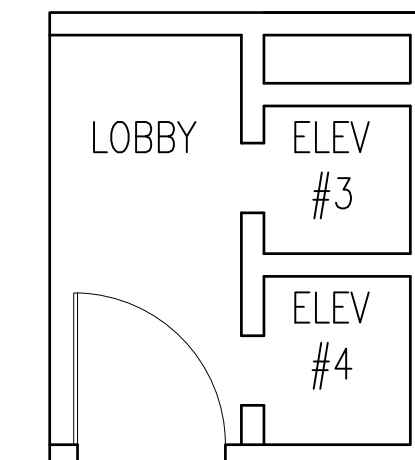
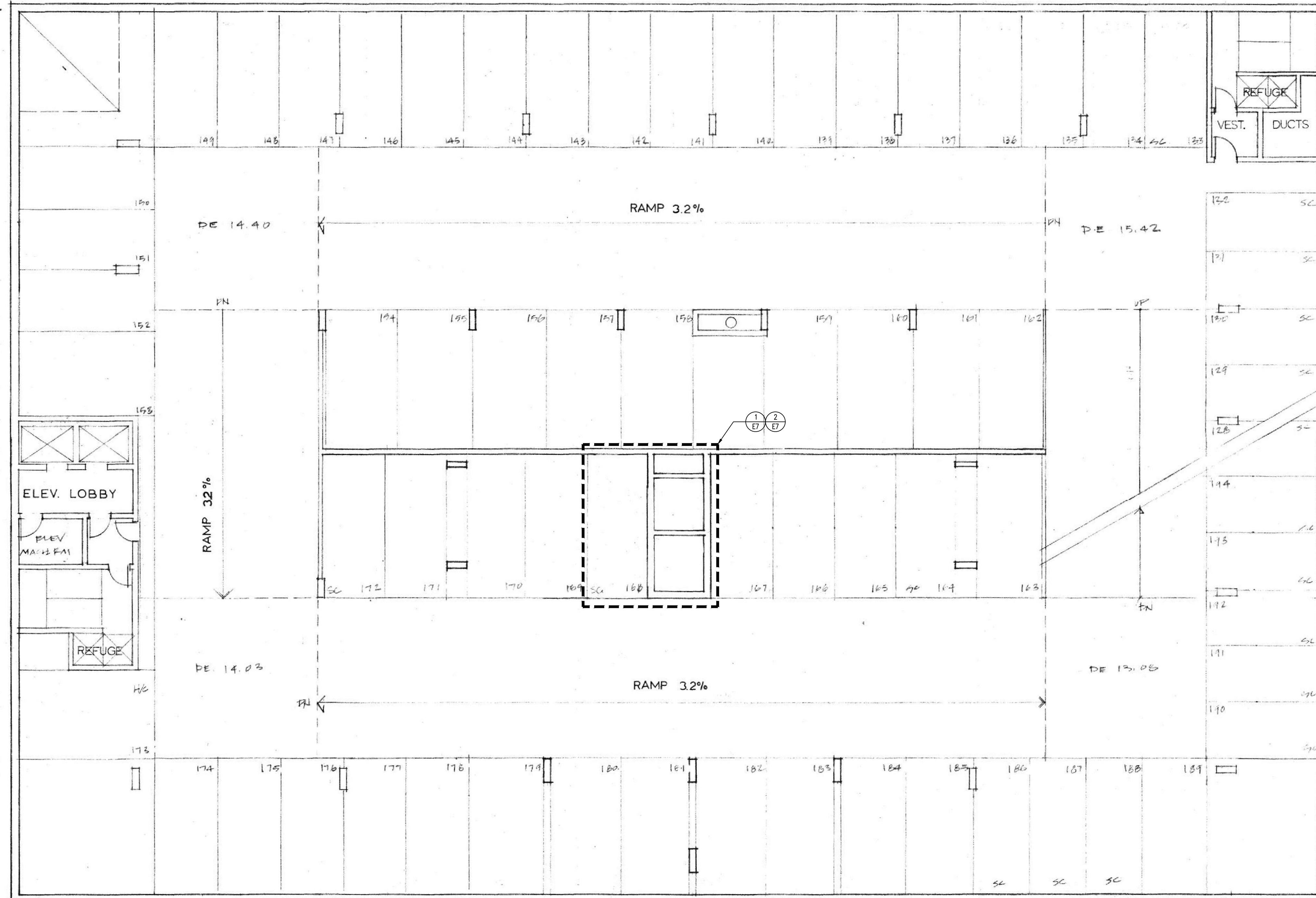
NO.	DESCRIPTION	DATE	DRAWN
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ISSUES

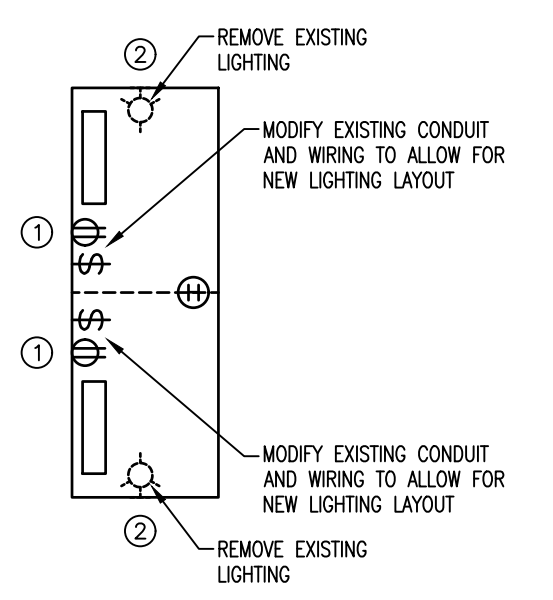
NO.	DESCRIPTION	DATE	DRAWN
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ELEVATOR DETAIL
SCALE N.T.S.



- ① UPGRADE PIT RECEPTACLES TO 20A 120VAC GFCI PROTECTED. REPLACE EXISTING WITH NEW.
- ② UPGRADE PIT LIGHTING. PROVIDE LITHONIA WL4 SERIES LED. REMOVE EXISTING. REWIRE TO SUIT NEW LAYOUT.
- ③ CO-ORDINATE ALL WORK WITH THE ELEVATOR INSTALLER FOR EXACT PLACEMENT, ACCESS AND WORK SCHEDULE.
- ④ PROVIDE HEAT DETECTOR PROGRAMMING FOR ELEVATOR RECALL SYSTEM. PROVIDE ADDRESSABLE DEVICE AS PER THE MANUFACTURERS REQUIREMENTS.

ELEVATOR PIT
SCALE N.T.S.

AFFH_2041_1067 SEYMOUR_NEW CONTINENTAL_1989_ARCH_A5

SCALE: AS SHOWN	DRAWN: CT
DATE: MAY 09, 18	CHECKED: RC

**SENIORS HOUSING
1067 SEYMOUR
ELEVATOR RECALL
REPLACEMENT**

Vancouver, BC



**ELEVATOR PIT
LOCATION
LEVEL P3
(PARKADE)**

JOB NO.
18M-00484-00

E7

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
APPENDIX 4- HAZMAT REPORTS**

**APPENDIX 4
HAZMAT REPORTS**

SEE ATTACHED

- **Hazardous Materials Survey – 1067 Seymour Street – 2017/02/08 (5 pages)**
- **Certificate of Analysis:**
 - **Dated 2018/02/06 – Site Location:** Hazmat Check in Elevator Machine Room New Continental (8 pages)
 - **Dated 2016/01/29 – Site Location:** 1404,1304,1204,1104,1004 New Continental – 1067 Seymour Street (6 pages)
- **ACM Bulk Sample Analysis Results – 2005/06/08 (3 pages)**


Hazardous Materials Sampling: New Continental
Building Code:2041
Address: 1067 Seymour Street, Vancouver BC
Surveyor(s): Jun Han Poon
Purpose: TARGETED HAZARDOUS MATERIAL SAMPLING


A City of Vancouver (COV) Hazardous Materials Technician has completed a targeted hazardous materials survey as requested by the City of Vancouver's Real Estate & Facilities Planning Capital Maintenance Department in preparation for elevator machine equipment upgrades.

Asbestos-Containing Material: Methodology and Results

No samples were collected during this assessment to be analyzed for asbestos.

Lead-Based Paints and Coatings: Methodology and Results
Total Lead in Paint

One (1) representative sample of paint was collected and tested for the presence of lead. Sample collected was analyzed at a COV-approved lab for total lead.

Information from the U.S. Occupational Safety and Health Administration (OSHA) suggests that the improper removal of lead paint containing 600 mg/kg lead results in airborne lead concentrations that exceed half of the exposure limit. Depending on the potential receptors and the work to be performed, paints with lead contents as low as 90 mg/kg can also result in dangerous airborne lead levels.

Sample collected did not exceed the suggested exposure prevention limit of 600 mg/kg paint (Table 2).

Leachable Results of Lead in Paint:

No samples were analyzed for leachable lead. Lead-based paint should be tested for leachable lead prior to disposal to determine if they are a hazardous waste, as defined by BC Ministry of Environment.

Table 2: Lead-based Paints and Leachable/Hazardous Waste Paints (Lead).

Colour	Location	TOTAL LEAD (mg/kg)	EXCEED EXPOSURE PREVENTION CRITERIA? (600 mg/kg)	CHPA LEAD-BASED PAINT? (90 mg/kg)	TCLP LEAD (mg/L)	HAZ WASTE ? (Y/N)
Cream	Elevator Machine Room - Elevator Machine Equipment - Grey paint on Metal	1120	Yes	Yes	-	-

Note: Concentrations above 600 mg/kg are highlighted and in bold
 TCLP: Toxicity Characterization Leaching Procedure
 CHPA: Canadian Hazardous Products Act

HAZARDOUS MATERIAL SURVEY	1067 Seymour Street	2017/02/08
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Polychlorinated Biphenyls (PCBs): Methodology and Results

One (1) sample of hydraulic fluid found in the elevator machine equipment was collected and analyzed for polychlorinated biphenyls (PCBs) by a COV-approved lab.

Sample collected did not contain PCBs as results were below 50 ppm as per United Nations Environment Program Guidelines for Identification of PCBs and Materials Containing PCBs Issued August 1999 (Table 3)

Table 3: Materials tested for Polychlorinated Biphenyls (PCBs)

Material	Location	Total PCBs (mg/kg)
Hydraulic Fluid inside Elevator Machine Equipment	Elevator Machine Room	<0.70

Note: Benchmark level for PCB Regulation is 50 mg/kg = 50ppm.

RISK ASSESSMENT AND RECOMMENDATIONS

Prior to renovation or demolition activities, the hazardous materials identified in this report must be safely contained before disturbance. Depending on the areas to be renovated or demolished, additional destructive sampling may be required to identify asbestos-containing and/or lead-based materials that were not accessed during this management survey.

ASBESTOS

Asbestos-containing materials were not identified during this management survey.

LEAD PAINT

In the event that the surfaces to which lead-based paint has been applied are to be disturbed by sanding, grinding, burning, cutting or otherwise disturbing lead-based paint, then the paint must be removed prior to these activities. The removal of lead paint must be accomplished in compliance with the requirements of the WorkSafeBC Occupational Health & Safety Regulation (current edition).

SILICA-CONTAINING MATERIALS

Present in concrete foundation and may be present in ceramic tiles, stucco and drywall. In the event where materials containing silica are disturbed, safe work procedures must be followed in compliance with the requirements of the WorkSafeBC Occupational Health & Safety Regulation (current edition).

Polychlorinated Biphenyls

No PCBs were identified in the hydraulic fluid of the elevator’s machine equipment.

HAZARDOUS MATERIAL SURVEY	1067 Seymour Street	2017/02/08
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Report Prepared by City of Vancouver Hazardous Materials Team



Per: Jun Han Poon, Hazardous Materials Technician
AHERA Certification No. CABIR-16-073

PHOTOS: 1067 Seymour Street



Photo 1: Grey paint on metal elevator machine equipment in elevator machine room is lead containing.



Photo2: Unpainted concrete walls throughout elevator machine room.

HAZARDOUS MATERIAL SURVEY	1067 Seymour Street	2017/02/08
---------------------------	---------------------	------------

LABORATORY REPORTS: Attached

Your P.O. #: 4700002203
 Your Project #: 700278491
 Site Location: HAZMAT CHECK IN ELEVATOR MACHINE ROOM
 NEW CONTINENTAL
 Your C.O.C. #: 08450101

Attention: Jun Han Poon

City of Vancouver
 West Broadway
 320-507 West Broadway Avenue
 Vancouver, BC
 Canada V5Z 0B4

Report Date: 2018/02/06
 Report #: R2510318
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B806900

Received: 2018/01/29, 13:50

Sample Matrix: Oil
 # Samples Received: 1

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Polychlorinated Biphenyls (1)	1	N/A	2018/02/05	CAL SOP-00149	EPA 8082A R1 m
Total PCBs in Oil (1)	1	N/A	2018/02/06		Auto Calc

Sample Matrix: Solid
 # Samples Received: 1

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Elements by ICP-AES (acid extr. solid)	1	2018/01/31	2018/01/31	BBY7SOP-00018	EPA 6010c R3 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Maxxam Calgary Environmental

Attention: Jun Han Poon

City of Vancouver
West Broadway
320-507 West Broadway Avenue
Vancouver, BC
Canada V5Z 0B4

Your P.O. #: 4700002203
Your Project #: 700278491
Site Location: HAZMAT CHECK IN ELEVATOR MACHINE ROOM
NEW CONTINENTAL
Your C.O.C. #: 08450101

Report Date: 2018/02/06
Report #: R2510318
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B806900
Received: 2018/01/29, 13:50

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Morgan Melnychuk, Burnaby Project Manager
Email: MMelnychuk@maxxam.ca
Phone# (604)638-8034 Ext:8034

=====

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B806900
Report Date: 2018/02/06

City of Vancouver
Client Project #: 700278491
Site Location: HAZMAT CHECK IN ELEVATOR MACHINE ROOM
NEW CONTINENTAL
Your P.O. #: 4700002203
Sampler Initials: JHP

POLYCHLORINATED BIPHENYLS BY GC-ECD (OIL)

Maxxam ID		SW5352		
Sampling Date		2018/01/25 10:30		
COC Number		08450101		
	UNITS	EMR-PCB01- ELEVATOR MACHINE ROOM-ELEVATOR MACHINE EQUIPMENT- HYDRAULIC	RDL	QC Batch
Polychlorinated Biphenyls				
Aroclor 1016	mg/kg	<0.70	0.70	8901855
Aroclor 1221	mg/kg	<0.70	0.70	8901855
Aroclor 1232	mg/kg	<0.70	0.70	8901855
Aroclor 1242	mg/kg	<0.70	0.70	8901855
Aroclor 1248	mg/kg	<0.70	0.70	8901855
Aroclor 1254	mg/kg	<0.70	0.70	8901855
Aroclor 1260	mg/kg	<0.70	0.70	8901855
Aroclor 1268	mg/kg	<0.70	0.70	8901855
Total PCB	mg/kg	<0.70	0.70	8897199
Surrogate Recovery (%)				
NONACHLOROBIPHENYL (sur.)	%	85		8901855
RDL = Reportable Detection Limit				

Maxxam Job #: B806900
Report Date: 2018/02/06

City of Vancouver
Client Project #: 700278491
Site Location: HAZMAT CHECK IN ELEVATOR MACHINE ROOM
NEW CONTINENTAL
Your P.O. #: 4700002203
Sampler Initials: JHP

LEAD IN PAINT CHIPS (SOLID)

Maxxam ID		SW5351		
Sampling Date		2018/01/25 10:30		
COC Number		08450101		
	UNITS	EMR-PB01-ELEVATOR MACHINE ROOM-ELEVATOR MACHINE EQUIPMENT-GREY PAINT ON METAL	RDL	QC Batch
Total Metals by ICP				
Total Lead (Pb)	mg/kg	1120	6.0	8898535
RDL = Reportable Detection Limit				

Maxxam Job #: B806900
Report Date: 2018/02/06

City of Vancouver
Client Project #: 700278491
Site Location: HAZMAT CHECK IN ELEVATOR MACHINE ROOM
NEW CONTINENTAL
Your P.O. #: 4700002203
Sampler Initials: JHP

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	22.3°C
-----------	--------

Sample SW5352 [EMR-PCB01-ELEVATOR MACHINE ROOM-ELEVATOR MACHINE EQUIPMENT-HYDRAULIC FLUID/OIL] : Sample was not submitted in an appropriate container for PCB-Oil analysis.

Results relate only to the items tested.

Maxxam Job #: B806900
Report Date: 2018/02/06

QUALITY ASSURANCE REPORT

City of Vancouver
Client Project #: 700278491

HAZMAT CHECK IN ELEVATOR MACHINE ROOM
Site Location: NEW CONTINENTAL
Your P.O. #: 4700002203
Sampler Initials: JHP

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8901855	NONACHLOROBIPHENYL (sur.)	2018/02/05	75	50 - 130	70	50 - 130	73	%				
8898535	Total Lead (Pb)	2018/01/31					<3.0	mg/kg	25	40	100	70 - 130
8901855	Aroclor 1016	2018/02/05					<0.70	mg/kg	NC	50		
8901855	Aroclor 1221	2018/02/05					<0.70	mg/kg	NC	50		
8901855	Aroclor 1232	2018/02/05					<0.70	mg/kg	NC	50		
8901855	Aroclor 1242	2018/02/05					<0.70	mg/kg	NC	50		
8901855	Aroclor 1248	2018/02/05					<0.70	mg/kg	NC	50		
8901855	Aroclor 1254	2018/02/05					<0.70	mg/kg	NC	50		
8901855	Aroclor 1260	2018/02/05	71	50 - 130	70	50 - 130	<0.70	mg/kg	NC	50		
8901855	Aroclor 1268	2018/02/05					<0.70	mg/kg	NC	50		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

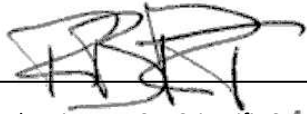
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Maxxam Job #: B806900
Report Date: 2018/02/06

City of Vancouver
Client Project #: 700278491
Site Location: HAZMAT CHECK IN ELEVATOR MACHINE ROOM
NEW CONTINENTAL
Your P.O. #: 4700002203
Sampler Initials: JHP

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Rob Reinert, B.Sc., Scientific Spécialist



Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Maxxam Job #:

B80690

COC #:

08450101

of

Invoice To: Require Report?

Yes No

Company Name: City of Vancouver
 Contact Name: Accounts Payable
 Address: PO Box 7757
Vancouver, BC PC: V8B 0L5
 Phone / Fax#: 604 673 8355 Fax: 604.673.8356
 E-mail: APInvoice@vancouver.ca

Report To:
 Company Name: City of Vancouver
 Contact Name: Jun Han Poon
 Address: 320 - 507 West Broadway
Vancouver PC:
 Ph: 604.873.7048 Fax: 604.873.7084
 E-mail: junhan.poon@vancouver.ca

PO #:	PO# 4700002203
Quotation #:	
Project #:	700278491
Proj. Name:	Hazmat Check in Elevator Machine Room
Location:	New Continental
Sampled by:	Jun Han Poon

REGULATORY REQUIREMENTS:

- CSR
- CCME
- BC Water Quality
- Other Lead Paint & PCBs
- DRINKING WATER

SERVICE REQUESTED:

- Regular Turn Around Time (TAT)
(5 days for most tests)
- RUSH (Please contact the lab)
 1 Day 2 Day 3 Day

Date Required: 2018/2/6 12:00

SPECIAL INSTRUCTIONS:

Return Cooler Ship Sample Bottles (please specify)

Please report in mg/kg. Thanks

Sample Identification	Lab Identification	Sample Type	Date/Time(24hr) Sampled	ANALYSIS REQUESTED			TOTAL LEAD	TOTAL PCB	Number of Containers
				Field Filtered?	Field Acidified?	Field Audited?			
1 EMR-PB01 - Elevator Machine Room - Elevator Machine Equipment - Grey Paint on Metal		Solid	01/25/2018 10:30	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X		
2 EMR-PCB01 - Elevator Machine Room - Elevator Machine Equipment - Hydraulic Fluid/oil		Oil	01/25/2018 10:30	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		X	
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									

Print name and sign		Print name and sign		Laboratory Use Only	
Relinquished By:	Date (yy/mm/dd):	Time (24hr):	Received by:	Date (yy/mm/dd):	Time (24 hr):
Jun Han Poon	2018/01/28	12:00	<i>Eun Sybil</i>	2018/01/28	13:50
Temperature on Receipt (°C)		Custody Seal		Yes No	
A) 22	B) 22	C) 23	Present?	N/A	
Just sampled & rec'd on ice: <input type="checkbox"/>		Intact?		<input type="checkbox"/>	

IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORDS. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL LAT DELAYS.

ICE-N/A



Attention: Jun Han Poon

City of Vancouver
West Broadway
320-507 West Broadway Avenue
Vancouver, BC
Canada V5Z 0B4

Your P.O. #: 4700002203
Your Project #: FLOOD IN SUITES
Site Location: 1404,1304,1204,1104,1004 NEW
CONTINENTAL - 1067 SEYMOUR STREET
Your C.O.C. #: 08417813

Report Date: 2016/01/29
Report #: R2124157
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B606666

Received: 2016/01/28, 16:10

Sample Matrix: PAINT
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Elements by ICP-AES (acid extr. solid)	3	2016/01/29	2016/01/29	BBY7SOP-00018	EPA 6010c R3 m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Morgan Melnychuk, Burnaby Project Manager

Email: MMelnychuk@maxxam.ca

Phone# (604)638-8034 Ext:8034

=====

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B60666
Report Date: 2016/01/29

City of Vancouver
Client Project #: FLOOD IN SUITES
Site Location: 1404,1304,1204,1104,1004 NEW
CONTINENTAL - 1067 SEYMOUR STREET
Your P.O. #: 470002203
Sampler Initials: JHP

LEAD IN PAINT CHIPS (PAINT)

Maxxam ID		OA5250	OA5251	OA5252		
Sampling Date		2016/01/28 11:00	2016/01/28 11:00	2016/01/28 11:00		
COC Number		08417813	08417813	08417813		
	UNITS	1067-14F-PB01 - 14TH FLOOR - NORTH WALL AND WALLS THROUGHOUT IN HALLWAY - GREEN PAINT ON DRYWALL	1067-1404-PB01 - SUITE 1404 - WEST WALL AND WALLS THROUGHOUT - WHITE PAINT ON DRYWALL	1067-10F-PB01 - 10TH FLOOR - NORTH WALL AND WALLS THROUGHOUT HALLWAY - GREEN PAINT ON DRYWALL	RDL	QC Batch
Total Metals by ICP						
Total Lead (Pb)	mg/kg	<3.0	<3.0	<3.0	3.0	8178152
RDL = Reportable Detection Limit						

Maxxam Job #: B606666
Report Date: 2016/01/29

City of Vancouver
Client Project #: FLOOD IN SUITES
Site Location: 1404,1304,1204,1104,1004 NEW
CONTINENTAL - 1067 SEYMOUR STREET
Your P.O. #: 470002203
Sampler Initials: JHP

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B606666
Report Date: 2016/01/29

QUALITY ASSURANCE REPORT

City of Vancouver
Client Project #: FLOOD IN SUITES
1404,1304,1204,1104,1004 NEW
Site Location: CONTINENTAL - 1067 SEYMOUR STREET
Your P.O. #: 4700002203
Sampler Initials: JHP

QC Batch	Parameter	Date	Method Blank		RPD		QC Standard	
			Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8178152	Total Lead (Pb)	2016/01/29	<3.0	mg/kg	NC	35	101	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

Maxxam Job #: B606666
Report Date: 2016/01/29

City of Vancouver
Client Project #: FLOOD IN SUITES
Site Location: 1404,1304,1204,1104,1004 NEW
CONTINENTAL - 1067 SEYMOUR STREET
Your P.O. #: 4700002203
Sampler Initials: JHP

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Rob Reinert, Data Validation Coordinator

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Burnaby: 4506 Canada Way, Burnaby, BC V5G 1K5 Ph: (604) 734-7276 Fax: (604) 731-2388

CUSTODY RECORD



08417813

Invoice To: Reside Report?

Company Name: City of Vancouver
Contact Name: Accounts Payable
Address: PO Box 7757
Vancouver BC V6B 0L5
Phone / Fax#: 604-673-8355
E-mail: apinvoice@vancouver.ca

Yes [X] No []

Maxxam Job #: B606666

COC #:

Report To: City of Vancouver
Company Name: Jun Han Poon
Contact Name: Jun Han Poon
Address: #320 - 507 West Broadway
Vancouver BC V5Z0B4
Phone / Fax#: 604.873.7048
E-mail: junhan.poon@vancouver.ca

PO #: PO# 4700002203
Quotation #:
Project #:
Proj. Name: Flood in Suites 1404,1304,1204,1104,1004
Location: New Continental - 1067 Seymour Street
Sampled by: Jun Han Poon

REGULATORY REQUIREMENTS:

- CSIR
CGME
BC Water Quality
Other
DRINKING WATER

SERVICE REQUESTED:

- Regular Turn Around Time (TAT) (5 days for most tests)
RUSH (Please contact the lab)
1 Day 2 Day 3 Day
Date Required: 16/1/29 14:00

SPECIAL INSTRUCTIONS:
Return Cooler Ship Sample Bottles (please specify)
Please report in mg/kg. Thanks

ANALYSIS REQUESTED

Table with columns for analysis types (Lead, Cadmium, etc.) and checkboxes for requested tests.

Table with columns for Sample Identification, Lab Identification, Sample Type, Date/Time (24hr) Sampled, and Number of Containers.

Relinquished By: Jun Han Poon, Date: 15/1/29, Time: 14:00
Received by: KEVIN CHAN, Date: 2016/1/28, Time: 16:10
Temperature on Receipt (C): All dry, Intact?
Custody Seal: Present

IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORDS. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

Maxxam Analytical Success Through Science ©

28-Jan-16 16:10
Morgan Melnychuk
B606666
RL4 SO131



**Certified Professionals
Providing Quality Services
Throughout Western Canada and
the Territories**

Fax Sheet

To	Allen Lee	Company	COV Environmental Services			
From	Brian Saarela	Fax Number	604-873-7064			
Date	June 8, 2005	Pages	9 (including cover)			
Our Reference	3006-86	Original to be	mailed	Yes	couriered	
Subject	Building B041 - Asbestos bulk Sample Results					

ENTERED

Summary of Services

Occupational Health & Safety

Confined Space Monitoring
Heat Stress & Noise Monitoring
Risk Assessments
Safety Program Audit & Design

Indoor Air Quality

Indoor Air Monitoring
Indoor Air Quality Evaluations
Air Sample Collection & Analysis for Dusts,
Mists, Fumes, Mould & Bacteria

Training Services

Asbestos Awareness & Removal
Confined Space Entry
Respiratory Protection
Mould Awareness & Removal

Project Management

Total Site Decommissioning
Hazardous Materials Abatement
Contaminated Soils & UST Removal
Illegal Drug Lab Decommissioning

Site / Building Assessments

Hazardous Materials
Phase I & Phase II
Pre-Demolition & Renovation
Building Envelope Failure

Analytical Services

Asbestos Bulk Samples
Air Monitoring Samples
DOP Testing of HEPA Units
Dusts, Mists, Fumes, Mould & Bacteria

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Suite 217 – 2323 Quebec Street, Vancouver, BC, Canada V5T 4S7
Tel: (604) 873-8599 Fax: (604) 873-5956 Email: admin@acmenvironmental.com



June 8, 2005

City of Vancouver
Environmental Services Department
#300-515 West 10th Ave.
Vancouver, B.C.
V5Y 4A8

Attn: Allen Lee

RE: Bulk Sample Results - Building B041

A.C.M. Environmental Corporation (ACM) was contacted by Allen Lee from the City of Vancouver Environmental Services Department and asked to analyze nine (9) samples of materials, from the abovementioned building, which were suspected of containing asbestos. The samples were submitted to ACM's laboratory on the afternoon of June 7, 2005 and were analyzed on June 8, 2005.

Results and Methodology

The samples suspected of containing asbestos was analyzed in accordance with the Workers' Compensation Board of British Columbia 0205 Method for identifying asbestos. The method determines the content of asbestos-containing materials by type and percent volume using a combination of polarized light microscopy, morphology, refractive index, extinction, sign of elongation, birefringence and dispersion staining colors.

The results of the materials submitted are attached.

Samples not completely destroyed in testing will be retained for a maximum of sixty (60) days.

If there are any questions concerning this report, please contact our office at 873-8599.

Brian Saarela, CEI
Senior Project Manager
A.C.M. Environmental Corporation

3006R8601

June 8, 2005

Bulk Sample Results:
 City of Vancouver, Environmental Services
 Building B041

Sample Number	Submission Date	Submitted by	Sample Location	Sample Description	Chrysotile			Amosite		Other	
					Asbestos	Asbestos	Asbestos	Asbestos	Asbestos	Asbestos	
3006.461	05.06.07	Allen Lee	#2005-128: 2nd flr, shower/washroom	drywall taping compound	None detected	None detected	None detected	None detected	None detected	None detected	None detected
3006.462	05.06.07	Allen Lee	#2005-129: 2nd flr, shower/washroom	caulking	None detected	None detected	None detected	None detected	None detected	None detected	None detected
3006.463	05.06.07	Allen Lee	#2005-130: 2nd flr, shower/washroom	drywall taping compound	None detected	None detected	None detected	None detected	None detected	None detected	None detected
3006.464	05.06.07	Allen Lee	#2005-131: 2nd flr, T.V. room	ceiling tile	None detected	None detected	None detected	None detected	None detected	None detected	None detected
3006.465	05.06.07	Allen Lee	#2005-132: handicap shower/washroom	drywall taping compound	None detected	None detected	None detected	None detected	None detected	None detected	None detected
3006.466	05.06.07	Allen Lee	#2005-133: arts/pottery room	ceiling tile	None detected	None detected	None detected	None detected	None detected	None detected	None detected
3006.467	05.06.07	Allen Lee	#2005-134: 2nd flr, main lobby	ceiling tile	None detected	None detected	None detected	None detected	None detected	None detected	None detected
3006.468	05.06.07	Allen Lee	#2005-135: studyhall	ceiling tile	None detected	None detected	None detected	None detected	None detected	None detected	None detected
3006.469	05.06.07	Allen Lee	#2005-136: 2nd flr washroom	grey flooring material	None detected	None detected	None detected	None detected	None detected	None detected	None detected

The above samples have been analyzed in accordance with WCB method 0205.

Ref:3006B868S

INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
PART B - TERMS AND CONDITIONS OF ITT PROCESS

1.0 DEFINITIONS AND INTERPRETATION

1.1 Definitions

The following capitalized terms have the meanings set out below when used in the Tender Documents, unless the context requires otherwise:

- (a) **“City”** means the City of Vancouver;
- (b) **“Closing Time”** has the meaning set out on the cover page of this ITT;
- (c) **“Contract”** means a contract substantially in the form of Part D – Form Agreement, to be entered into between the City and a successful Tenderer;
- (d) **“Contractor”** means a Tenderer, the Tender of which (or at least one offer contained within which) the City has accepted, and which Tenderer has consequently entered into a Contract;
- (e) **“Consultant”** means the architect, engineer or other professional consultant who will act as the City’s agent for the purpose of managing and administering a Contract, who may be an employee of the City or an independent consultant engaged by the City on its behalf;
- (f) **“Drawings”** means the portion of the Tender Documents consisting of the graphic and pictorial representations of the Work or Work requirements;
- (g) **“Form of Tender”** means the form of tender in Part C – Form of Tender to this ITT on which Tenderers are to complete their Tenders;
- (h) **“GST”** means the tax payable and imposed pursuant to Part IX of the *Excise Tax Act* (Canada), as amended or replaced from time to time;
- (i) **“Information and Privacy Legislation”** includes the *Freedom of Information and Protection of Privacy Act* (British Columbia) and the regulations thereunder;
- (j) **“Losses”** means, in respect of any matter, all:
 - (i) direct and indirect; and
 - (ii) consequential,

claims, demands, proceedings, losses, damages, liabilities, deficiencies, costs and expenses (including without limitation, all legal and other professional fees and disbursements, interest, penalties and amounts paid in settlement, whether from a third person or otherwise);
- (k) **“Notice of Award”** has the meaning set out in Part C – Form of Tender;
- (l) **“Notice to Proceed”** has the meaning set out in Part C – Form of Tender;
- (m) **“PST”** means the provincial sales tax payable and imposed pursuant to the *Provincial Sales Tax Act* (British Columbia), as amended or replaced from time to time;
- (n) **“Site”** has the same meaning as “Place of the Work,” as defined in the Form of Agreement;

INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
PART B - TERMS AND CONDITIONS OF ITT PROCESS

- (o) **“Specifications”** means the portion of the Tender Documents consisting of the written requirements and standards for products, systems, workmanship, quality, and the services necessary for the performance of the Work;
- (p) **“Tender”** means a tender submitted to the City in response to this ITT;
- (q) **“Tender Contract”** means the contract between the City and each Tenderer governing the ITT process;
- (r) **“Tender Documents”** means the documents identified as such in Part A - Introduction;
- (s) **“Tenderer”** means an entity eligible to participate in this ITT process, or as used in Part C – Form of Tender, a particular such entity;
- (t) **“Tender Price”** means the amount stipulated by the Tenderer in the space provided therefor in the Form of Tender, including all applicable taxes, which price, for greater certainty, is the Tenderer’s proposed Contract Price to complete all of the Work; and
- (u) **“Work”** means the total construction and related services required by the Tender Documents;

All other capitalized terms used in this ITT have the meanings given to them elsewhere in the ITT.

1.2 Interpretation

- (a) In the Tender Documents, any reference to the masculine, the feminine or the neuter includes the others unless the context requires otherwise. Also, any reference to the singular includes the plural where appropriate.
- (b) If there is a conflict between or among (i) the Specifications and Drawings and (ii) the other Tender Documents, the other Tender Documents shall prevail over the Specifications and Drawings.
- (c) In these Tender Documents, the word “should” and the terms “is asked to” and “are asked to” are used to denote actions or Tender inclusions that, while not mandatory, are strongly recommended. In contrast, the terms “will”, “shall”, “must”, “is to”, “are to”, “is required to” and “are required to” are used to denote mandatory requirements of the ITT. If a Tenderer is uncertain as to whether or not a particular action or Tender inclusion is mandatory, the Tenderer should submit an inquiry to the Contact Person.

2.0 SUBMISSION INSTRUCTIONS

- 2.1 Each Tenderer must complete its Tender on the Form of Tender and submit its Tender in accordance with the instructions set forth on the cover page of the ITT and elsewhere herein.
- 2.2 Any Tender received after the Closing Time may be returned unopened to the Tenderer.
- 2.3 Faxed or emailed Tenders and/or other documents will not be accepted.
- 2.4 Each Tender must be signed by an authorized signatory or authorized signatories of the Tenderer (as necessary for due execution on behalf of the Tenderer). Each Tender by a company or partnership should specify the full legal name of the legal entity submitting the Tender.
- 2.5 All blank spaces in the Form of Tender should be filled in and all schedules completed. Any failure by a Tenderer to complete the Form of Tender may result in preference being given to competing Tenderers. All prices and notations should be legibly written in a non-erasable

INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
PART B - TERMS AND CONDITIONS OF ITT PROCESS

medium. Erasures, interlineations or other corrections should be initialled by an authorized signatory of the Tenderer.

- 2.6 Subject to any alternatives or options in respect of which the City requests pricing or other information in a Schedule to the Form of Tender, Tenders are to be all inclusive and without qualification or condition.
- 2.7 The City may, at any time and for any reason, extend the Closing Time by means of a written amendment published on the City's website, as set out in Part A - Introduction.
- 2.8 A Tenderer that has already submitted a Tender may amend its Tender prior to the Closing Time: a) by submitting an amendment identifying a plus or minus variance to the Tenderer's Tender Price or the Tenderer's price for a subset of the Work (if, in the latter case, Section 1.0 of the Form of Tender requests that, in addition to offering a Tender Price for all of the Work, the Tenderer offer prices for subsets of the Work); or b) by sending in a completely new Tender, clearly indicating it replaces the previously submitted Tender. Any such revision must clearly identify the ITT number and the Closing Time. A Tender revision submitted as aforesaid shall effectively amend the Tender and the City shall only review and evaluate the Tender as amended.
- 2.9 The City will not be responsible for any cost incurred by any Tenderer in preparing a Tender.

3.0 BONDS

- 3.1 Tenders will be irrevocable and each offer made therein shall remain open for acceptance by the City for a period of ninety (90) calendar days after the Closing Time. Each Tender must be accompanied by a bid bond valid for a period of ninety (90) calendar days commencing on the Closing Time, payable to the "City of Vancouver", in the amount of ten percent (10%) of the Tender Price, and not a dollar amount, as a guarantee of the due execution of a Contract and the delivery of the performance bond and labour and material payment bond required by the Form of Tender. The forms of these bonds are to be those issued by the Canadian Construction Documents Committee as follows:

Bid Bond:	CCDC 220 (latest)
Performance Bond:	CCDC 221 (latest)
Labour and Material Payment Bond:	CCDC 222 (latest)

- 3.2 Each Tender must be accompanied by a "Consent of Surety", substantially in the form provided as a schedule to the Form of Tender, duly completed by a surety company authorized and licensed to carry on business in British Columbia.
- 3.3 The bid bonds of unsuccessful Tenderers will be returned to them upon request at any time after the Contract is awarded. The bid bond of the Tenderer to whom the award is made will be returned upon request of the Tenderer following: execution of the Contract; delivery of a performance bond for 50% of the Tender Price (or the aggregate tendered price for the subset(s) of the Work in respect of which a Notice of Award has been given) and a labour and material payment bond for 50% of such price; commencement of the Work; and compliance with any other conditions set out in the Form of Tender. The cost of all bond premiums must be included in the Tender Price.
- 3.4 All bonds must be issued by a surety company authorized and licensed to carry on business in British Columbia.

INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
PART B - TERMS AND CONDITIONS OF ITT PROCESS

4.0 TENDER PRICE

- 4.1 Subject to any adjustment for changes to the Work, which is approved by the City in accordance with the Tender Documents or Contract Documents, the Tender Price shall be the maximum compensation owing to the Contractor for the Work (and each tendered price for any subset of the Work referred to in Section 1.0 of the Form of Tender (if applicable) shall be the maximum compensation owing to the Contractor for such subset of the Work) and the Contractor's compensation shall cover and include all profit and all costs of supervision, labour, material, equipment, overhead, financing and all other costs and expenses whatsoever incurred in performing the Work (or the relevant subset of the Work).
- 4.2 If unit prices or other price breakdowns are requested in a schedule to the Form of Tender, such information **must** be included in the Tender. Furthermore, if such unit prices or other price breakdowns are requested in a schedule to the Form of Tender, such amounts may be used to compute interim progress payments and will be reviewed by the City in its evaluation of Tenders; therefore Tenderers should ensure that such amounts accurately reflect their costs for each item. A Tenderer may be required to justify any submitted unit price or other price breakdown.
- 4.3 If an itemized breakdown of the Tender Price (or of the tendered price for any subset of the Work) is requested in a schedule to the Form of Tender, the City may delete any items in order to meet any budget limitation and award a Contract for only the remaining items to a Tenderer who is agreeable thereto.
- 4.4 If Section 1.0 of the Form of Tender requests that, in addition to offering a Tender Price for all of the Work, each Tenderer offer prices for subsets of the Work, then, each such offer made in respect of a subset of the Work by a Tenderer shall be irrevocable to the same extent as, and otherwise subject to all of the same terms and conditions as, the Tenderer's offer to complete all of the Work for the Tender Price. If Tenders are made in respect of subsets of the Work, the City may award a Contract for all of the Work to one Tenderer or it may award multiple Contracts to different Tenderers in respect of particular subsets of the Work. The City may also determine, in order to meet any budget limitation, to award Contract(s) only in respect of one or more, but not all, of the subsets of Work described in Section 1.0 of the Form of Tender. Tenderers are advised that the City is not bound to award any Contract to the Tenderer offering to complete the Work, or offering to complete any subset of the Work, for the lowest price. Without limiting the foregoing, the City may split the award of Contracts even though the aggregate Contract price is higher than any particular Tenderer's Tender Price.

5.0 ACCEPTANCE OF TENDERS

- 5.1 Despite anything to the contrary contained in the Tender Documents:
- (a) Tenderers are notified that the lowest or any Tender (or the lowest price offered for any particular subset of the Work, if applicable) need not necessarily be accepted and the City reserves the right to reject any and all Tenders at any time, or cancel the ITT process, without further explanation or to accept any Tender (or any offer made within a Tender) that is considered advantageous to the City.
 - (b) Acceptance of any offer made within a Tender is contingent on funds being approved and a contract award being made by, or pursuant to authority delegated by, Vancouver City Council and the compliance of the Tenderer with the conditions required to be satisfied upon receipt of a Notice of Award.
 - (c) Tenders which fail to conform to the Tender Documents may or may not be disqualified or rejected. The City may or may not waive any non-compliance with the Tender Documents, including any material non-compliance, irregularity or anomaly, and including

INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
PART B - TERMS AND CONDITIONS OF ITT PROCESS

any non-compliance as to the timing of delivery of anything required by the Tender Documents, and may at its sole discretion elect to retain for consideration Tenders which are non-conforming because they do not contain the content or form required by the Tender Documents or because they have not complied with the process for submission set out in this ITT.

- (d) Where the City is of the view, in its sole discretion, that there is an ambiguity or other discrepancy which cannot be discerned or resolved from examining the contents of a Tender, then whether or not such an ambiguity or discrepancy actually exists on the face of the Tender, the City may, prior to any Contract award, solicit clarification from the Tenderer or accept clarification from the Tenderer on any aspect of the Tender. Such clarification may include the acceptance of any further documents or information which will then form part of the Tender. The soliciting or accepting of such clarification (whether or not solicited) by the City will be without any duty or obligation of the City to advise any other Tenderers or to allow them to vary their tendered price(s) as a result of the acceptance of clarification from any one or more Tenderers and the City will have no liability to any Tenderer as a result of such acceptance of clarification.
- (e) The award of any Contract will be based on an evaluation of the Tenders by the City to determine which, in the City's opinion, offer the best overall value to the City. The City expects to place the greatest emphasis on price; however, the City may take into account other factors affecting value, including those concerning quality, service or sustainability, or Tenderers' past work, reputations or experience. The City may also focus, where relevant, on the overall net impact of a Tender (or an offer therein) on the finances of the City (including both capital and operating costs). Therefore, the City may accept a Tender other than the lowest Tender.
- (f) If the City determines that all Tender Prices are too high, all Tenders may be rejected.
- (g) The City may, prior to any Contract award, agree, with the Tenderer considered to provide best value or any one or more Tenderers, to certain changes to the scope of the Work or certain changes to Contract conditions, in each case without having any duty or obligation to advise any other Tenderers or to allow them to vary any tendered prices as a result of such changes, and the City will have no liability to any other Tenderer as a result of such changes. However, each Tender must be a tender in respect of the Work set forth herein, to complete that Work (or to complete subsets of that Work, if so specified in Section 1.0 of the Form of Tender) under an agreement in the form of the Form of Agreement included as Part D of the ITT, and not propose variations thereto.
- (h) Each Tenderer acknowledges and agrees that the City will not be responsible for Losses incurred by the Tenderer as a result of or arising out of submitting a Tender, or due to the City's acceptance or non-acceptance of its Tender, or any part thereof, or any breach by the City of the Tender Contract between the City and the Tenderer, or arising out of any Contract award not being made in accordance with the express or implied terms of the Tender Documents.
- (i) The City may award a Contract on the basis of policies and preferences not stated in the Tender Documents or otherwise than as stated in the Tender Documents.
- (j) Prior to any Contract award, a Tenderer may be required to demonstrate financial stability. Should the City so request, a Tenderer may be required to provide annual financial reports or a set of financial statements prepared by an accountant.
- (k) City guidelines or policies that may be applicable to the ITT will not give rise to legal rights on the part of any Tenderer, Contractor, subcontractor, supplier, or other person as

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against the City and will in no case create any liability on the part of the City. For certainty, the City's Procurement Policy, as amended or replaced from time to time, is now agreed to be an internal guideline document and creates no legal rights or obligations with respect to this ITT.

- (l) The City may reject any Tender by a Tenderer that has engaged in collusion with another Tenderer or otherwise attempted to influence the outcome of the ITT other than through the submission of its Tender.
- (m) The City may elect, in its sole discretion, to accept for consideration Tenders that contain conditions or qualifications that are in the nature of corrections of typos or resolutions of internal inconsistencies in this ITT or the Form of Agreement in Part D, or that represent immaterial changes to the Form of Agreement in Part D and do not consist of changes of substance or changes to allocations of risk, or with respect to the scope of any Work, that are for the avoidance of doubt only and do not suggest any deviation from the requirements of the ITT. This Section 5.1(m) is a reservation of rights for the benefit of the City and no Tenderer may rely on this paragraph to qualify its Tender.

6.0 AWARD OF CONTRACT

- 6.1 Award of a Contract will be subject to approval by, or pursuant to authority delegated by, Vancouver City Council and the Tenderer's compliance with the conditions required to be met upon receipt of the Notice of Award.
- 6.2 Any successful Tenderer will become a Contractor and will be required to sign a Contract with the City, subject to any amendments approved by the City in writing.

7.0 EXAMINATION OF TENDER DOCUMENTS

- 7.1 Each Tenderer should examine the Tender Documents and must also satisfy itself of the extent of the Work. Each Tenderer must make its own estimate of the facilities and difficulties attending the performance and the completion of Work.
- 7.2 No allowance will be made on behalf of a Contractor for any error, omission or negligence on the Contractor's part or for non-compliance with the requirements of the foregoing clause 7.1.

8.0 SITE EXAMINATION/PRE-SUBMISSION DUE DILIGENCE BY TENDERER

- 8.1 Tenderers should make a careful examination of the Site and investigate and satisfy themselves at their own risk and expense as to all matters relating to the nature and extent of Work, the means of access to the Site, the extent of required coordination with public use of adjacent areas, and any and all matters which are referred to in the Specifications and Drawings and other Tender Documents, or which are necessary for the full and proper completion of any Work or are required by the conditions under which it must be performed. No allowance will be made subsequently for any error, negligence, interpretation, or misinterpretation on a Contractor's part.
- 8.2 The City and the Consultant do not make any representations or warranties concerning the completeness or accuracy of Site and geotechnical information (if any) provided in or with the Tender Documents, and each Tenderer must evaluate such information as part of its overall assessment of actual Site conditions.
- 8.3 If any Tenderer wishes to evaluate any Site conditions, and, for that purpose, requires access or documents from the City beyond the access and documents already provided for in this ITT, the City encourages the Tenderer to submit a written request to the City as far in advance of the Closing Time as is possible. The City will then consider whether or not to facilitate the request. In

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response to such a request, the City may elect to, itself, undertake a particular study and distribute the results to all Tenderers.

9.0 INTERPRETATION AND CLARIFICATIONS

- 9.1 If any Tenderer is in doubt as to the correct interpretation of any part of the Specifications, Drawings, or other Tender Documents, the Tenderer should request an interpretation of the same from the City by the time stated in Part A - Introduction, Section **Error! Reference source not found.** In the absence of such a request, the Tenderer's Tender will be presumed to be based upon the interpretation that may be subsequently given in accordance with the Contract Documents, after award of a Contract.
- 9.2 Prior to the Closing Time, requests for clarification of the Specifications, Drawings, or other Tender Documents may be answered in writing by the City and sent to all prospective Tenderers who have submitted a Response Notification Form on or before the indicated deadline. The City is not responsible for any other explanations or interpretations of the Specifications, Drawings or other Tender Documents.

10.0 PRODUCT APPROVAL

- 10.1 Wherever any material, machinery, equipment or fixture (any "**Product**") is specified or shown in the Tender Documents by reference to a proprietary item, product or model number, catalogue number, manufacturer or trade name or similar reference, each Tenderer obligates itself to submit its Tender and, if applicable, accept award of a Contract based upon the use of such Product. Use of any such reference in the Tender Documents is intended to establish the measure of quality which the City (or its Consultant) has determined to be requisite and necessary for the Work. Where two or more Products are shown or specified, the Contractor has the option of which to use.
- 10.2 For approval of Products other than those specified, a Tenderer should submit a request in writing to the City at least five business days prior to the Closing Time. Requests must clearly define and describe the Product for which approval is requested. Requests should be accompanied by manufacturer's literature, specifications, drawings, cuts, performance data or other information necessary to completely describe the items. Approval by the City will only be in the form of an addendum to the Specifications issued by the City.
- 10.3 Approvals of Products, as noted in clause 10.2 above, shall only be deemed effective insofar as the Products conform to the Specifications.

11.0 INSURANCE

- 11.1 Each Tenderer should ensure that it can maintain the insurance described in the Form of Agreement (Part D).
- 11.2 The Tenderer should complete and submit the "Certificate of Existing Insurance" attached as a Schedule to the Form of Tender, together with the "Undertaking of Insurance" attached as a Schedule to the Form of Tender.
- 11.3 Following Contract award, a successful Tenderer will be required to complete certificates of insurance for the Work (or the particular subset of the Work in respect of which the Contract is made), in the forms attached as a schedule to the Form of Tender.

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12.0 WORKSAFEBC

12.1 The Tenderer should ensure that it can comply with all WorkSafeBC requirements, as described in the Form of Agreement (Part D).

13.0 LABOUR RATES AND EQUIPMENT

13.1 Tenderers must provide, if requested in a schedule to the Form of Tender, the force account labour and equipment rates setting out the all-inclusive hourly rates for all applicable types of equipment as well as the all-inclusive hourly rates for all applicable categories of labour, which rates will then apply pursuant to any Contract.

14.0 LISTS OF SUBCONTRACTORS AND SUPPLIERS

14.1 Tenderers should provide, if requested in a schedule to the Form of Tender, lists of proposed subcontractors and suppliers, specifying the name and address of, and the portion of the Work to be completed by, or the equipment or materials to be supplied by, each proposed subcontractor or supplier.

14.2 The City reserves the right to object to any of the proposed subcontractors or suppliers listed in a Tender. If the City objects to a listed subcontractor or supplier, then the City will permit a Tenderer to propose a substitute subcontractor or supplier acceptable to the City. A Tenderer will not be required to make such a substitution and, if the City objects to a listed subcontractor or supplier, the Tenderer may, rather than propose a substitute subcontractor or supplier, consider its Tender rejected by the City and, by written notice, withdraw its tender. The City shall, in that event, return the Tenderer's bid security.

15.0 TAXES AND FEES

15.1 The successful Tenderer will be required to obtain and pay for any applicable municipal, provincial and federal permits and licences necessary for the proper completion of the Work. The City will not be liable in any manner for the same, and the successful Tenderer agrees to indemnify and save the City harmless from and against all claims and Losses in relation to obtaining and paying for any applicable municipal, provincial and federal permits and licences necessary for the proper completion of the Work.

15.2 Each Tenderer's Tender Price (and each other price offered by the Tenderer in its Tender, if applicable) must, unless otherwise expressly stated, be inclusive of all applicable municipal, provincial, federal and other taxes, and all customs and excise duties and other assessments and charges, including sales taxes assessed upon the sale of goods and services to the City under the Contract, and the successful Tenderer agrees to indemnify and save the City harmless from and against all claims which shall be made with respect thereto.

16.0 NON-RESIDENT WITHHOLDING TAX

16.1 Tenderers are advised that, if the Contractor is not a resident of Canada, federal tax legislation may require that a certain percentage of any Contract Price otherwise payable to the Contractor be withheld by the City and remitted to the Receiver-General for Canada. The percentage required to be withheld and remitted varies depending on, among other things, the country of residence, the provisions of any applicable tax treaties and the nature of the payment. Non-resident Tenderers may contact the Vancouver office of the Canada Revenue Agency for further details. Under any Contract, any and all money so withheld and remitted shall be treated as a payment to the Contractor against the Contract Price.

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17.0 NO CLAIM AGAINST THE CITY

- 17.1 The Tenderer acknowledges and agrees that the City will not be responsible for any Losses incurred by the Tenderer, including, without limiting the generality of the foregoing, any Losses incurred by the Tenderer directly or indirectly caused by any act or omission of the City or breach of any agreement or duty by the City, express or implied, and by submitting a Tender each Tenderer shall be deemed to have agreed that it has no claim whatsoever.
- 17.2 The Tenderer now indemnifies and will protect and save the City and any of its employees, advisors or representatives (including the Consultant) harmless from and against all Losses, in respect of any claim or threatened claim by any of its subcontractors, or materials or equipment suppliers alleging or pleading:
- (a) a breach of the Tender Contract by the City or any of its employees, advisors or representatives (including the Consultant);
 - (b) an unintentional tort, of the City or any of its employees, advisors or representatives (including the Consultant), occurring in the course of conducting this ITT; or
 - (c) liability on any other basis related to the ITT or the Tender Contract.

18.0 DISPUTE RESOLUTION

- 18.1 Any dispute relating in any manner to this ITT, except only disputes arising between the City and any Tenderer to whom the City has made an award of a Contract, which arise under such Contract, will be resolved by arbitration in accordance with the *Commercial Arbitration Act* (British Columbia), amended as follows:
- (a) The arbitrator will be selected by the City's Director – Supply Chain Management;
 - (b) Sections 17.1 and 17.2 above will:
 - (i) bind the arbitrator, the Tenderer and the City; and
 - (ii) survive any and all awards made by the arbitrator; and
 - (c) The Tenderer will bear all costs of the arbitration.

19.0 CONFIDENTIALITY AND PRIVACY

- 19.1 Each Tender, once submitted to the City, will be held in accordance with the City's role as a public body required under Information and Privacy Legislation to protect or disclose certain types of records according to certain statutory rules. Each Tender, upon submission to the City, will be received and held in confidence by the City, unless and to the extent that it is or must be disclosed pursuant to Information and Privacy Legislation or other applicable legal requirements, and except that the City may publicly disclose information about or from Tenders, including without limitation names and prices, in the course of publicly reporting to the Vancouver City Council about the ITT.
- 19.2 If unsuccessful, a Tenderer, at the City's request, shall destroy or return all copies and originals (in any format or medium) of the Tender Documents.

20.0 RELEASE OF INFORMATION RESTRICTED

- 20.1 The release of information about Tenders is restricted. Tenderers can obtain information concerning the names of the other Tenderers who have submitted a Tender and the Tender Price

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shown on each Form of Tender at the following website within 48 hours of the Closing Time. However, no other information is anticipated to be disclosed by the City.

<http://vancouver.ca/doing-business/unverified-tender-results.aspx>

**INVITATION TO TENDER NO. PS20180882
 CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
 PART C - FORM OF TENDER**

Tender of:			
	Legal Name of Person, Partnership or Corporation (the " Tenderer ")		
Business Address:			
Postal or Zip Code:			
Cheques Payable to / Remit to Address:			
Postal or Zip Code:			
Key Contact Person:			
Telephone No.:		Fax No.:	
E-mail:			
Tax registration numbers (as applicable):			
Dun & Bradstreet Number (if available):		WorkSafeBC Account Number:	
City of Vancouver Business License Number (or, if available, Metro West Inter-municipal Business License Number):			
Date, Jurisdiction and Form of Organization (as applicable):			

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
PART C - FORM OF TENDER**

1.0 TENDER PRICE AND SCHEDULE

Having carefully read and examined the Tender Documents, and having agreed to the terms and conditions set out in Parts A and B of the ITT, the undersigned Tenderer (for purposes of this Tender, the "Tenderer") offers to complete the Work and to furnish all plant, tools, equipment, labour, products, material and supervision necessary therefor, and to enter into an agreement in the form of the Form of Agreement set forth as Part D of the ITT to execute the Work, for the Tender Price specified below.

ITT NO. <u>PS20180882</u> – Contractor Services for Elevator Modernization – <u>New Continental</u>
The Tender Price (including all costs, taxes and fees)(as per Schedule A), is _____ dollars and _____ cents (\$_____) The Tender Price <i>includes all PST and GST.</i>

The Tenderer's offer to complete all of the Work is an offer made according to the following schedule:

- (a) Work will begin by **early January, 2019**, subject to the City issuing a Notice to Proceed.
- (b) Substantial performance of the Work will occur by **early June, 2019**
- (c) Total performance of the Work will occur by **early July, 2019**.

2.0 ELECTRONIC PAYMENTS ACKNOWLEDGEMENT

If awarded a contract, the Tenderer agrees that all payments to be made by the City will be by electronic funds transfer, and the Tenderer will provide the City with the necessary banking information to facilitate this process.

3.0 IRREVOCABILITY; NOTICE OF AWARD

The Tenderer agrees that each offer made by the Tenderer herein will be irrevocable and open for acceptance by the City for a period of ninety (90) calendar days commencing on the Closing Time, even if an offer of another Tenderer is accepted by the City. If within this period the City delivers a written notice by which the City accepts an offer of the Tenderer (a "**Notice of Award**"), the Tenderer will, within ten (10) Working Days (as defined in CCDC 2) of the receipt of the Notice of Award, deliver to the City:

- (a) a performance bond and a labour and material payment bond, each in the amount of fifty percent (50%) of the Tender Price, issued by a surety licensed to carry on the business of suretyship in the province of British Columbia, and in a form acceptable to the City;
- (b) a detailed construction schedule consistent with the preliminary construction schedule included in this Tender, which indicates the timing of the major activities of the relevant Work and provides sufficient detail of the critical events and their inter-relationship to

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PART C - FORM OF TENDER

demonstrate such Work will be performed by the relevant completion date stated in this Tender;

- (c) a detailed traffic management plan addressing vehicular and pedestrian movement, safety and access with specific details of the methods, signage and materials used to maintain Site operations and access to staff and public users of the Site;
- (d) a detailed Site-specific safety and health plan addressing as a high-level overview the health and safety issues including, but not limited to hazards, mitigation measures, site orientations, safety meetings, first aid attendant requirements, and training requirements and record keeping;
- (e) a WorkSafeBC number and a "clearance letter" confirming that the Tenderer is in WorkSafeBC compliance;
- (f) a valid City of Vancouver business licence;
- (g) a completed Contractor's Pre-Contract Hazard Assessment Form (in the form of Schedule 9 to the Form of Agreement);
- (h) banking details to support payments by Electronic Funds Transfer (EFT); and
- (i) completed and signed certificates of insurance (in the forms attached as a schedule to this Form of Tender) indicating that all of the insurance coverage required by the Contract is in place.

4.0 NOTICE TO PROCEED

The Tenderer agrees that upon the City's receipt and acceptance (in the City's discretion) of the required submissions listed above, the Tenderer will, within two (2) Working Days, execute and return to the City the Contract and the other Contract Documents requiring execution (in each case, as prepared by the City for execution) and, upon the City's receipt and acceptance thereof, the City may deliver to the Tenderer a "Notice to Proceed", and the Tenderer will:

- (a) commence the relevant Work within two (2) Working Days of the receipt of the Notice to Proceed or such longer time as may be otherwise specified in the Notice to Proceed; and
- (b) issue, post, and copy the City on the "Notice of Project" as and when required under section 20.2 of the *Occupational Health & Safety Regulation* (BC Regulation 296/97).

5.0 CONDITIONS

- (a) The Tenderer agrees that if the Tenderer receives a Notice of Award or a Notice to Proceed and fails or refuses to comply with the requirements stated in the foregoing clause 3.0 or clause 4.0, as the case may be, then such failure or refusal will be deemed to be a repudiation of the Tender Contract and refusal to enter into the relevant Contract and the City may, on written notice to the Tenderer, award the Contract to another party. It is further agreed that, as full compensation on account of damages suffered by the City because of such failure or refusal, the bid security shall be forfeited to the City in the amount equal to the lesser of:
 - (i) the face value of the bid security; and

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
PART C - FORM OF TENDER**

- (ii) the amount by which the Tender Price is less than the amount for which the City contracts with another party to perform the Work.
- (b) The lowest or any submitted tender will not necessarily be accepted in relation to all or any of the Work. The City reserves the right to reject this Tender at any time without further explanation or to accept any Tender considered advantageous to the City.
- (c) The schedules attached to this Form of Tender form an integral part of the same.

6.0 ADDENDA, AMENDMENTS AND QUESTIONS AND ANSWERS

The Tenderer acknowledges receipt of the following addenda, amendments and questions and answers to the Tender Documents:

Addendum No.
Amendment No.
Questions and Answers No.

The Tenderer agrees that it thoroughly understands and accepts the terms and conditions contained therein.

7.0 CITY PRE-CONTRACT HAZARD ASSESSMENT

The Tenderer acknowledges receipt of the completed City Pre-Contract Hazard Assessment (Schedule 8 of Part D - Form of Agreement), subject to GC 9.4.12, Schedule 1 of Part D – Form of Agreement.

8.0 CERTIFICATION

The Tenderer represents and warrants that this Tender complies in all respects with the Tender Documents.

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CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
PART C - FORM OF TENDER**

9.0 LABOUR

The above stated price is based on the Work under the Contract being performed by union/non-union labour. (Delete "union" or "non-union" as applicable).

10.0 CONTRACT TERMS IN THE ITT

Without limitation, the Tenderer expressly agrees with the City to all of the terms and conditions set forth in Part A and Part B of the ITT and is bound thereby.

SIGNED on behalf of the Tenderer this _____ day of _____ 20____ by _____ the _____ duly authorized signatory or signatories of the Tenderer:

Per: _____

Name and Title: _____

Per: _____

Name and Title: _____

If the Tenderer has a corporate seal, the corporate seal should be applied in the space below:

If the Tenderer is an individual, a proprietorship or a partnership, the above signature(s) should be witnessed:

Witness signature

Witness name

Witness address

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "A" (PART C - FORM OF TENDER)**

**SCHEDULE "A"
SCHEDULE OF QUANTITIES AND PRICES**

EACH TENDER MUST COMPLETE THIS SCHEDULE A, AS AMENDED, IN FULL. EACH PAGE OF THIS SCHEDULE A MUST BE INITIALLED BY THE SIGNATORIES OF THE FORM OF TENDER. TENDERS MUST NOT BE SUBMITTED WITHOUT A COMPLETED, DULY EXECUTED SCHEDULE A.

The Tender Price to complete all of the Work is apportioned in accordance with the following table. The prices shown in each of the numbered rows of the table shall include (i) all labour, material and other costs, (ii) overhead and profit, (iii) PST, and (iv) all other taxes, duties, assessments, charges and fees, *except for GST*. GST shall be shown separately on the row provided therefor.

NOTE: Prices must be PST-inclusive. Only GST is to be shown as a separate line item.

The sum of the amounts shown in the table below **MUST** equal the Tender Price stipulated in the space provided in the Form of Tender which, for greater certainty, is the Tenderer's proposed Contract Price for a Contract to complete all of the Work.

EVERY ROW OF THE BELOW TABLE MUST BE COMPLETED WITH A DOLLAR AMOUNT, EVEN IF THAT DOLLAR AMOUNT IS \$0.

Item	TABLE 1 - BASE PRICE - Items for 2 Passenger Elevator	Amount including PST (\$)
1	Demolition, refuse and redundant material removal and disposal	\$ -
2	Miscellaneous metals, Structural steel, Hoarding, paint or sealants.	\$ -
3	Abatement of Hazardous materials (if required)	\$ -
4	Cutting/Coring/Patching and Fire stopping as required	\$ -
5	Supply, delivery and install of Controllers, include 12 month warranty maintenance service period	\$ -
6	Supply, delivery and install of Cab operating panel, fixtures, lanterns and related items	\$ -
7	Replacement door operators, switches, clutches, interlock, restrictors and related hardware.	\$ -
8	Replacement of pit related and car top related equipment, as specified.	\$ -
9	Refurbish Hoisting machines, install rope grippers and new A/C motors.	\$ -
10	Supply, delivery and install, Webb-Emergency phone communication system, as specified.	\$ -
11	Supply, delivery and install of Travel cables/Compensating chains/Ropes and related equipment	\$ -
12	Decommission and recommission of Elevator security system.	\$ -
13	Inspections and permits	\$ -
14	Commissioning, operation and maintenance manuals	\$ -
15	Misc. (give details):	\$ -

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SCHEDULE "A" (PART C - FORM OF TENDER)**

Qualified Electrical Contractor (Sub Contractors)		
1.	Supply, delivery and install of CGFI Outlets/ light Fixtures/phones and related items	\$ -
2.	Supply, delivery and install of F/A devices, related equipment and reprogramming	\$ -
3.	Supply, delivery and install of feeders/Conduit/Switches/Disconnects, as specified	\$ -
4.	Supply, delivery and install of Guarded LED Lighting in Pit and machine room	\$ -
5.	Supply, delivery and install of Ground/Bonding conductor and disconnect in machine room, if required	\$ -
6.	Provide all verification, test results and Electrical permit	\$ -
7.	Misc. (give details):	\$ -
TOTAL BASE PRICE (including all costs, taxes (except GST) & fees)		\$ -

Separate/Optional Prices

These separate prices should be treated individually and may be awarded with the Base Price or may be used to change the scope of the Work upon written instruction from the City. The separate prices will be applied in accordance with PART 6 CHANGES IN THE WORK of the General Conditions of the Stipulated Price Contract (CCDC 2 – 2008), as modified by the Supplementary General Conditions (Schedule 1 to Part D – Form of Agreement). The prices should include (i) all labour, material and other costs, (ii) overhead and profit, (iii) PST, and (iv) all other taxes, duties, assessments, charges and fees, except for GST.

SEPARATE PRICE #1		
No.	Items	Cost (\$)
1.	Flooring for 2 elevators - (Hi-traffic Vinyl-pattern to be approved)	\$ -
2.	New cab finishes (2 elev.)- walls , handrails, ceiling and lighting (finishes approved by owner)	\$ -
3.	Regenerative drives for 2 elevators - (compatible with Generator)	\$ -
4.	New High Efficiency hoisting machines (2 elev.) complete with deflector sheaves	\$ -
5.	Misc. (give details)	\$ -
TOTAL SEPARATE PRICE #1		\$ -

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "A" (PART C - FORM OF TENDER)**

These optional prices will be used to change the scope of the Work upon written instruction from the City. The alternate prices will be applied in accordance with PART 6 CHANGES IN THE WORK of the General Conditions of the Stipulated Price Contract (CCDC 2 – 2008), as modified by the Supplementary General Conditions (Schedule 1 to Part D – Form of Agreement). The prices should include (i) all labour, material and other costs, (ii) overhead and profit, (iii) PST, and (iv) all other taxes, duties, assessments, charges and fees, *except for GST*.

OPTIONAL PRICE #1		
No.	Items for TWO (2) elevators	Cost (\$)
1	Additional Warranty Service and maintenance cost for year 2	\$ -
2	5 year: Service and Maintenance to follow 12 Mo. Warranty Period.	\$ -
NOTE: 2 year warranty on Parts and Labour - 1 year Warranty Maintenance Specified.		

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CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "B" (PART C - FORM OF TENDER)**

SCHEDULE "B"

PRELIMINARY CONSTRUCTION SCHEDULE

The Work is expected to begin by **January, 2019** and substantial performance is targeted for **early-March, 2019**. Please clearly define time requirements for project milestones identified in the table below. If necessary, please add an attachment to this Schedule.

TABLE 1 – PROJECT MILESTONES	
Milestone	Date of Completion

Additional pages may be attached to this page. Each such additional page is to be clearly marked "ITT No. PS20180882, FORM OF TENDER – SCHEDULE B", and is to be signed by the Tenderer.

**INVITATION TO TENDER NO. PS20180882
 CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
 SCHEDULE "C" (PART C - FORM OF TENDER)**

**SCHEDULE "C"
 SUBCONTRACTORS AND SUPPLIERS**

1.0 SUBCONTRACTORS

The Tenderer intends to use the following subcontractors for the portions of the Work identified below. (All subcontractors who are proposed to perform any portion of the Work should be listed.)

Subcontractor	Address	Type of Work

Additional pages may be attached to this page. Each such additional page is to be clearly marked "ITT No. PS20180882, FORM OF TENDER – SCHEDULE C", and is to be signed by the Tenderer.

A hazardous materials survey has been performed at the Site and is attached. No hazardous materials have been identified. If, at any point during construction, the successful Tenderer encounters, or has reason to believe it will encounter, any hazardous materials, the successful Tenderer will be expected to immediately stop work and advise the City who will either decide to abate or will request the Tenderer do so by way of change order and the Tenderer will be required to use one of the City's pre-qualified hazardous material abatement contractors as set out below. Any hazardous materials abatement conducted by the Tenderer, through one of the City's pre-qualified hazardous material abatement contractors, must be completed in accordance with the Occupational Health and Safety Regulation and hazardous waste disposed of in accordance with the Environmental Management Act. If the City's Hazardous Materials Team determines consulting services are required to oversee the project, the City will retain a pre-qualified hazardous materials consultant. A completion report including all disposal documentation will be completed by the consultant and provided to the City's Hazardous Materials Team upon project completion.

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "C" (PART C - FORM OF TENDER)**

PRE-QUALIFIED ABATEMENT CONTRACTORS LIST (Alphabetical Order)

No.	Company	Key Contact	Email	Phone
1	Actes Environmental Limited	Michael Fleming	michael@actesenvironmental.com	604-990-4258
2	Enviro-Vac Limited	Chris Mitsche	chris@envirovac.com	888-296-2499 604-992-8514
3	Nucor Environmental Solutions Limited	Jim Dumelie	jimd@nucorenv.ca	604-521-2214
4	Phoenix Enterprises Limited	Richard Purdy	rpurdy@pelsurrey.com	604-594-0224
5	Pro Active Hazmat Environmental Limited	Sheldon White	sheldonw@proactivehazmat.com	778-298-2268 778-887-3545
6	Quantum Murray LP	Stephen Hibbert	stephen.hibbert@qmenv.com	604-219-4192 604-364-8047

2.0 SUPPLIERS

The Tenderer intends to use the following suppliers and manufacturers for work as per specifications.

Supplier	Manufacturer	Supplier Address	Item

Additional pages may be attached to this page. Each such additional page is to be clearly marked "ITT No. PS20180882, FORM OF TENDER – SCHEDULE C", and is to be signed by the Tenderer.

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "D" (PART C - FORM OF TENDER)**

SCHEDULE "D"

TENDERER'S EXPERIENCE WITH RELATED WORK

Tenderers should confirm that they and their proposed subcontractors have the required experience to perform the Work. Each Tenderer should submit information concerning a minimum of 3 (THREE) completed projects (similar in scope and size to the Work or to any particular subset of the Work in respect of which separate offers are requested in Section 1.0 of the Form of Tender, if applicable), for each of itself and its proposed subcontractors, including the following information:

Reference #1

Description of Project: _____

Location of Project: _____

Contract Value: \$ _____ (Cdn. Dollars)

Start and Completion Dates: _____

Completed on Schedule? Yes No (Circle Correct Response)

Name of Contract City: _____

Name of Project Reference: _____

Current Telephone Number and E-mail of Project Reference:

Names of Key Personnel and Subcontractors:

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "D" (PART C - FORM OF TENDER)**

Reference #2

Description of Project: _____

Location of Project: _____

Contract Value: \$ _____ (Cdn. Dollars)

Start and Completion Dates: _____

Completed on Schedule? Yes No (Circle Correct Response)

Name of Contract City: _____

Name of Project Reference: _____

Current Telephone Number and E-mail of Project Reference:

Names of Key Personnel and Subcontractors:

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "D" (PART C - FORM OF TENDER)**

Reference #3

Description of Project: _____

Location of Project: _____

Contract Value: \$ _____ (Cdn. Dollars)

Start and Completion Dates: _____

Completed on Schedule? Yes No (Circle Correct Response)

Name of Contract City: _____

Name of Project Reference: _____

Current Telephone Number and E-mail of Project Reference:

Names of Key Personnel and Subcontractors:

Additional pages may be attached to this page. Each such additional page is to be clearly marked "ITT No. PS20180882, FORM OF TENDER – SCHEDULE D", and is to be signed by the Tenderer.

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "E" (PART C - FORM OF TENDER)**

SCHEDULE "E"

FORCE ACCOUNT LABOUR & EQUIPMENT RATES

Tenderers should complete the following tables setting out the all-inclusive hourly rates for all applicable types of equipment as well as the all-inclusive hourly rates for all applicable categories of labour, which rates will then apply pursuant to any Contract.

TABLE 1 - SCHEDULE OF LABOUR RATES

Job Classification	Regular Rate	Overtime Rate
	\$	\$
	\$	\$
	\$	\$
	\$	\$
	\$	\$
	\$	\$

TABLE 2 – SCHEDULE OF EQUIPMENT RATES

No.	Equipment Description	Hourly Rate	No. of Hours	Overhead and Profit	Total Price
		\$		\$	\$
		\$		\$	\$
		\$		\$	\$
		\$		\$	\$
		\$		\$	\$

Labour and equipment rates must be inclusive of all taxes except for GST, and all assessments, benefits, small tools, overhead and profits.

Additional pages may be attached to this page. Each such additional page is to be clearly marked "ITT No. PS20180882, FORM OF TENDER – SCHEDULE E", and is to be signed by the Tenderer.

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "F" (PART C - FORM OF TENDER)**

SCHEDULE "F"

FORM OF CONSENT OF SURETY

PROJECT: _____

Should it be required, we the undersigned Surety Company do hereby undertake to become bound as a surety in an approved Contract Performance Bond and Labour and Material Payment Bond, each in the amount of fifty percent (50%) of the awarded Contract Price for the fulfillment of a Contract, which may be awarded to _____ at the Tender Price (or another offered price) set forth in the attached Tender, which Performance Bond and Labour and Material Payment Bond we understand are to conform to the applicable CCDC forms and be filed with the City within 10 Working Days of receipt of Notice of Award of a Contract, unless otherwise directed by the City.

We hereby further declare that the undersigned Surety Company is legally entitled to do business in the Province of British Columbia and that it has a net worth over and above its present liabilities and the amounts herein set forth.

The Common Seal of _____
was hereto affixed in the presence of:

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION – NEW CONTINENTAL
SCHEDULE “G” (PART C - FORM OF TENDER)**

SCHEDULE “G”

SUSTAINABILITY

1. Please list any products or services contemplated in the Tender that are toxic or hazardous to the environment or humans and complete the following table in relation thereto.

Item	Description of Toxin / Hazard	Substantiation for Use	Mitigation strategy to reduce the effect of the Toxin / Hazard

2. Please identify the Tenderer’s standard practices for disposal of obsolete or expired products or equipment.

Item	Type of Product/Equipment	Disposal Method

3. Please identify the Tenderer’s current or proposed solutions to address and reduce carbon emissions.

Item	Carbon Emission Risk	Solution to Reduce Carbon Emissions

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "H" (PART C - FORM OF TENDER)**

SCHEDULE "H"

CERTIFICATES OF INSURANCE

(TO BE COMPLETED IF AWARDED THE CONTRACT)

GENERAL CERTIFICATE OF INSURANCE

Section 8 b) – City staff to select the required # of days Written Notice before sending the certificate out for completion
 Section 2 through 8 – to be completed and executed by the Insurer or its Authorized Representative

1. **THIS CERTIFICATE IS ISSUED TO:** City of Vancouver, 453 W 12th Avenue, Vancouver, BC, V5Y 1V4
and certifies that the insurance policies as listed herein have been issued to the Named Insured(s) and are in full force and effect as of the effective date of the agreement described below.
2. **NAMED INSURED:** *[must be the same name as the Permittee/Licensee or Party(ies) to Contract and is/are either an individual(s) or a legally incorporated company(ies)]*

MAILING ADDRESS: _____

LOCATION ADDRESS: _____

DESCRIPTION OF OPERATION, CONTRACT, AGREEMENT, LEASE, PERMIT OR LICENSE: _____

3. **PROPERTY INSURANCE** naming the City of Vancouver as a Named Insured and/or Loss Payee with respect to its interests and shall contain a waiver clause in favour of the City of Vancouver.
(All Risks Coverage including Earthquake and Flood)

INSURER: _____ TYPE OF COVERAGE: _____ POLICY NUMBER: _____ POLICY PERIOD: From _____ to _____	INSURED VALUES: (Replacement Cost) Building and Tenants' Improvements: \$ _____ Contents and Equipment: \$ _____ Deductible Per Loss: \$ _____
---	--

4. **COMMERCIAL GENERAL LIABILITY INSURANCE (Occurrence Form)**
 Including the following extensions:

<input checked="" type="checkbox"/> Personal Injury <input checked="" type="checkbox"/> Products and Completed Operations <input checked="" type="checkbox"/> Cross Liability or Severability of Interest <input checked="" type="checkbox"/> Employees as Additional Insureds <input checked="" type="checkbox"/> Blanket Contractual Liability <input checked="" type="checkbox"/> Non-Owned Auto Liability INSURER: _____ POLICY NUMBER: _____ POLICY PERIOD: From _____ to _____	LIMITS OF LIABILITY: (Bodily Injury and Property Damage Inclusive) Per Occurrence: \$ _____ Aggregate: \$ _____ All Risk Tenants' Legal Liability: \$ _____ Deductible Per Occurrence: \$ _____
---	--

5. **AUTOMOBILE LIABILITY INSURANCE** for operation of owned and/or leased vehicles

INSURER: _____ POLICY NUMBER: _____ POLICY PERIOD: From _____ to _____	LIMITS OF LIABILITY: Combined Single Limit: \$ _____ <i>If vehicles are insured by ICBC, complete and provide Form APV-47.</i>
---	---

6. **UMBRELLA OR** **EXCESS LIABILITY INSURANCE**

INSURER: _____ POLICY NUMBER: _____ POLICY PERIOD: From _____ to _____	LIMITS OF LIABILITY: (Bodily Injury and Property Damage Inclusive) Per Occurrence: \$ _____ Aggregate: \$ _____ Self-Insured Retention: \$ _____
---	--

7. **OTHER INSURANCE** (e.g. Boiler & Machinery, Business Interruption, Crime, etc.) – Please specify Name of Insurer(s), Policy Number, Policy Period, and Limit

8. **POLICY PROVISIONS:**
Where required by the governing contract, agreement, lease, permit or license, it is understood and agreed that:
 - a) *The City of Vancouver, its officials, officers, employees, servants and agents have been added as Additional Insureds with respect to liability arising out of the operation of the Named Insured pursuant to the governing contract, agreement, lease, permit or license;*
 - b) *SIXTY (60) days written notice of cancellation or material change resulting in reduction of coverage with respect to any of the policies listed herein, either in part or in whole, will be given by the Insurer(s) to the Holder of this Certificate; the exception is cancellation for non-payment of premiums in which case the applicable statutory conditions will apply;*
 - c) *The insurance policy (policies) listed herein shall be primary with respect to all claims arising out of the operation of the Named Insured. Any insurance or self-insurance maintained by the City of Vancouver shall be in excess of this insurance and shall not contribute to it.*

SIGNED BY THE INSURER OR ITS AUTHORIZED REPRESENTATIVE _____

PRINT NAME OF INSURER OR ITS AUTHORIZED REPRESENTATIVE, ADDRESS AND PHONE NUMBER _____ **Dated:** _____



PROFESSIONAL LIABILITY INSURANCE CERTIFICATE

Section 4 – City staff to select the required # of days Written Notice before sending out for completion
Section 2, 3 & 4– to be completed and executed by the Insurer or its Authorized Representative

1. **THIS CERTIFICATE IS ISSUED TO:** City of Vancouver, 453 W 12th Avenue, Vancouver, BC, V5Y 1V4
and certifies that the insurance policy as listed herein has been issued to the Named Insured(s) and is in full force and effect as of the effective date of the agreement described below.
2. **NAMED INSURED:** *[must be the same name as the Permittee/Licensee or Party(ies) to Contract and is/are either an individual(s) or a legally incorporated company(ies)]*

MAILING ADDRESS:

LOCATION ADDRESS:

DESCRIPTION OF OPERATION/CONTRACT:

3. PROFESSIONAL LIABILITY INSURANCE

LIMITS OF LIABILITY:

INSURER: _____	Per occurrence/claim:	\$ _____
POLICY NUMBER: _____	Aggregate:	\$ _____
POLICY PERIOD: From _____ to _____	Deductible per occurrence/claim:	\$ _____

If the policy is in a "CLAIMS MADE" form, please specify the applicable Retroactive Date: _____

4. POLICY PROVISIONS:

Where required by the governing contract, agreement, permit or license, it is understood and agreed that SIXTY (60) days written notice of cancellation or material change resulting in reduction of coverage with respect to the policy listed herein, either in part or in whole, will be given by the Insurer to the Holder of this Certificate. The exception is cancellation for non-payment of premiums in which case the applicable statutory conditions will apply.

SIGNED BY THE INSURER OR ITS AUTHORIZED REPRESENTATIVE

PRINT NAME OF INSURER OR ITS AUTHORIZED REPRESENTATIVE, ADDRESS AND PHONE NUMBER _____ Dated: _____

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "I" (PART C - FORM OF TENDER)**

SCHEDULE "I"

CERTIFICATE OF EXISTING INSURANCE

(TO BE COMPLETED AND SUBMITTED WITH TENDER)



CERTIFICATE OF EXISTING INSURANCE
TO BE COMPLETED AND APPENDED TO THE PROPOSAL/TENDER

Section 2 through 8 – to be completed and executed by the Insurer or its Authorized Representative

1. THIS CERTIFICATE IS ISSUED TO: City of Vancouver, 453 W 12th Avenue, Vancouver, BC, V5Y 1V4
and certifies that the insurance policy (policies) as listed herein has/have been issued to the Named Insured and is/are in full force and effect.

2. NAMED INSURED (must be the same name as the proponent/bidder and is either an individual or a legally incorporated company)

BUSINESS TRADE NAME or DOING BUSINESS AS

BUSINESS ADDRESS

DESCRIPTION OF OPERATION

3. PROPERTY INSURANCE (All Risks Coverage including Earthquake and Flood)

INSURER Insured Values (Replacement Cost) -
TYPE OF COVERAGE Building and Tenants' Improvements \$
POLICY NUMBER Contents and Equipment \$
POLICY PERIOD From to Deductible Per Loss \$

4. COMMERCIAL GENERAL LIABILITY INSURANCE (Occurrence Form)

Including the following extensions: INSURER
Personal Injury POLICY NUMBER
Property Damage including Loss of Use POLICY PERIOD From to
Products and Completed Operations Limits of Liability (Bodily Injury and Property Damage Inclusive) -
Cross Liability or Severability of Interest Per Occurrence \$
Employees as Additional Insureds Aggregate \$
Blanket Contractual Liability All Risk Tenants' Legal Liability \$
Non-Owned Auto Liability Deductible Per Occurrence \$

5. AUTOMOBILE LIABILITY INSURANCE for operation of owned and/or leased vehicles

INSURER Limits of Liability -
POLICY NUMBER Combined Single Limit \$
POLICY PERIOD From to If vehicles are insured by ICBC, complete and provide Form APV-47.

6. UMBRELLA OR EXCESS LIABILITY INSURANCE Limits of Liability (Bodily Injury and Property Damage Inclusive) -

INSURER Per Occurrence \$
POLICY NUMBER Aggregate \$
POLICY PERIOD From to Self-Insured Retention \$

7. PROFESSIONAL LIABILITY INSURANCE

INSURER Limits of Liability
POLICY NUMBER Per Occurrence/Claim \$
POLICY PERIOD From to Aggregate \$
Deductible Per Occurrence/Claim \$

If the policy is in a "CLAIMS MADE" form, please specify the applicable Retroactive Date:

8. OTHER INSURANCE

TYPE OF INSURANCE Limits of Liability
INSURER Per Occurrence \$
POLICY NUMBER Aggregate \$
POLICY PERIOD From to Deductible Per Loss \$
TYPE OF INSURANCE Limits of Liability
INSURER Per Occurrence \$
POLICY NUMBER Aggregate \$
POLICY PERIOD From to Deductible Per Loss \$

SIGNED BY THE INSURER OR ITS AUTHORIZED REPRESENTATIVE

PRINT NAME OF INSURER OR ITS AUTHORIZED REPRESENTATIVE, ADDRESS AND PHONE NUMBER Dated

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "J" (PART C - FORM OF TENDER)**

**SCHEDULE "J"
UNDERTAKING OF INSURANCE**

To: City of Vancouver

**Re: ITT PS20180882 - CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION – NEW
CONTINENTAL**

Dear Sirs:

We, the undersigned have completed, signed and attached the "Certificate of Existing Insurance" enclosed with this undertaking and now also do hereby undertake and agree that if _____ (the "**Tenderer**") is awarded a Contract, we will insure the Contractor in accordance with the requirements of the Contract, the form of which is included in the Tender Documents and will form part of the Contract Documents.

Dated at _____, British Columbia, this _____ day of _____ 20_____.

By: _____

Title: _____

Full Corporate Name of Insurer:

The "Certificate of Existing Insurance" provided with the ITT should be completed and signed and enclosed with this schedule, both of which are to be signed by the Insurance Company or an authorized broker on behalf of the Insurance Company. A SEPARATE FORM (AND CERTIFICATE OF EXISTING INSURANCE) SHOULD BE SIGNED FOR EACH POLICY IF THE TENDERER HAS MORE THAN ONE INSURER OR BROKER FOR ITS POLICIES.

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "K" (PART C - FORM OF TENDER)**

SCHEDULE "K"

DECLARATION OF SUPPLIER CODE OF CONDUCT COMPLIANCE

Purpose: All proposed suppliers are to complete and submit this form to certify compliance with the supplier performance standards set out in the Supplier Code of Conduct.

The City of Vancouver expects each supplier of goods and services to the City to comply with the supplier performance standards set out in the City's Supplier Code of Conduct (SCC) <http://vancouver.ca/policy_pdf/AF01401P1.pdf>. The SCC defines minimum labour and environmental standards for City suppliers and their subcontractors.

Suppliers are expected to comply with the aforementioned standards upon submitting a tender, proposal, application, expression of interest or quotation to the City, or have a plan in place to comply within a specific period of time. The City reserves the right to determine an appropriate timeframe in which suppliers must come into compliance with these standards. To give effect to these requirements, an authorised signatory of each proposed vendor must complete the following declaration and include this declaration with its submission:

As an authorised signatory of _____ (*vendor name*), I declare that I have reviewed the SCC and to the best of my knowledge, _____ (*vendor name*) and its proposed subcontractors have not been and are not currently in violation of the SCC or convicted of an offence under national and other applicable laws referred to in the SCC, other than as noted in the table below (*include all violations/convictions that have occurred in the past three years as well as plans for corrective action*).

Section of SCC / title of law	Date of violation /conviction	Description of violation / conviction	Regulatory / adjudication body and document file number	Corrective action plan

I understand that a false declaration and/or lack of a corrective action plan may result in no further consideration being given to the submission of _____ (*vendor name*).

Signature: _____

Name and Title: _____

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "L" (PART C - FORM OF TENDER)**

SCHEDULE "L"

CONFLICT OF INTEREST DECLARATION

NO CONFLICT OF INTEREST / NO COLLUSION / NO LOBBYING

Declaration as to no Conflict of Interest in ITT

- (a) The Tenderer confirms and warrants that there is no officer, director, shareholder, partner, employee or contractor of the Tenderer or of any of its proposed subcontractors, or any other person related to the Tenderer's or any proposed subcontractor's organization (a "person having an interest") or any spouse, business associate, friend or relative of a person having an interest who is:
- a. an official or employee of the City; or
 - b. related to or has any business or family relationship with an elected official or employee of the City,
- in each case, such that there could be any conflict of interest or any appearance of conflict of interest in the evaluation or consideration of the Tender by the City, and, in each case, except as set out, in all material detail in the section titled "Disclosure" in this Schedule "L".
- (b) The Tenderer confirms and warrants that there is no person having an interest (as defined above) who is a former official, former employee or former contractor of the City and who has non-public information relevant to the ITT obtained during his or her employment or engagement by the City, except as set out, in all material detail, in the section titled "Disclosure" in this Schedule "L".

Declaration as to No Conflict of Interest Respecting Proposed Supply

The Tenderer confirms and warrants that neither the Tenderer nor any of its proposed subcontractors is currently engaged in supplying (or is proposing to supply) goods or services to a third party such that entering into an agreement with the City in relation to the subject matter of the ITT would create a conflict of interest or the appearance of a conflict of interest between the Tenderer's duties to the City and the Tenderer's or its subcontractors' duties to such third party, except as set out, in all material detail, in the section titled "Disclosure" in this Schedule "L".

Declaration as to No Collusion

The Tenderer confirms and warrants that:

- (a) the Tenderer is not competing within the ITT with any entity with which it is legally or financially associated or affiliated; and
- (b) the Tenderer is not cooperating in any manner in relation to the ITT with any other tenderer responding to the ITT,

in each case, except as set out, in all material detail, in the section titled "Disclosure" in this Schedule "L".

Declaration as to Lobbying

The Tenderer confirms and warrants that:

- (a) neither it nor any officer, director, shareholder, partner, employee or agent of the Tenderer or any of its proposed subcontractors is registered as a lobbyist under any lobbyist legislation in any jurisdiction in Canada or in the United States of America; and
- (b) neither it nor any officer, director, shareholder, partner, employee or agent of the Tenderer or any of its proposed subcontractors has engaged in any form of political or

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE "L" (PART C - FORM OF TENDER)**

other lobbying whatsoever with respect to the Tender or sought, other than through the submission of the Tender, to influence the outcome of the ITT,

in each case, except as set out, in all material detail, in the section titled "Disclosure" in this Schedule "L".

Disclosure [Add disclosure here.]

(NOTE: The City will evaluate each matter disclosed to determine whether and to what extent the Tenderer can be given consideration in the ITT in light of the particular matter.)

THE TENDERER HAS EXECUTED AND DELIVERED THIS DECLARATION AS AN INTEGRAL PART OF ITS TENDER IN THE MANNER AND SPACE SET OUT BELOW:

Signature of Authorized Signatory for the Tenderer

Date

Name and Title

Signature of Authorized Signatory for the Tenderer

Date

Name and Title

INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
TITLE PAGE (PART D --FORM OF AGREEMENT)



INVITATION TO TENDER ("ITT") NO. PS20180882
PROVISION OF CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION – HERITAGE HALL

CONSTRUCTION AGREEMENT

between

[CONTRACTOR NAME]

and

CITY OF VANCOUVER

[DATE]

For the purposes of this ITT, the Agreement is attached to allow Tenderers to review and comment. Comments/Deviations after the bid closes may not be entertained.

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
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**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
PART D – FORM OF AGREEMENT**

CONSTRUCTION AGREEMENT

THIS CONSTRUCTION AGREEMENT (the “**Agreement**”) dated for reference **[insert date]** is entered into

BETWEEN:

CITY OF VANCOUVER
453 West 12th Avenue
Vancouver, British Columbia V5Y 1V4

(the “**City**”)

OF THE FIRST PART

AND:

[INSERT NAME OF CONTRACTOR]
[insert address]
[insert address]

(the “**Contractor**”)

OF THE SECOND PART

BACKGROUND

- A. By way of an Invitation to Tender for **PS20180882 – Contractor Services for Elevator Modernization – New Continental**, the City requested tenders from general contractors to perform the Work.
- B. In response to the Invitation to Tender, the Contractor submitted a tender dated **[insert date]**.
- C. After evaluating the tenders and obtaining necessary approvals, the City issued a Notice of Award to the Contractor, thereby creating this Contract with the Contractor for the Work based on the Contractor’s tender.

THE CITY AND THE CONTRACTOR NOW AGREE AS FOLLOWS:

ARTICLE A-1 THE WORK

The Contractor shall:

- 1.1 perform the Work required by the Contract Documents for the services of two (2) elevator contractor for the modernization of the elevator at 1067 Seymour Street in Vancouver, British Columbia (which is the Place of the Work), in respect of which Work, Vertech Elevator Services Inc. is acting as, and is, the Consultant;
- 1.2 do and fulfill everything indicated by the Contract Documents; and
- 1.3 commence the Work by the **[day]** day of **[month]**, **[year]** and, subject to adjustment to the Contract Time as provided for in the Contract Documents, attain Substantial Completion of the

INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
PART D – FORM OF AGREEMENT

Project, as certified by the Consultant, by the [day] day of [month], [year], in accordance with the Project Schedule, included as a schedule to this Agreement.

ARTICLE A-2 AGREEMENTS AND AMENDMENTS

- 2.1 The Contract supersedes all prior negotiations, representations, or agreements, either written or oral, relating in any manner to the Work, including the tender documents that are not expressly listed in Article A-3 of this Agreement.
- 2.2 The Contract may be amended only as provided in the Contract Documents.

ARTICLE A-3 CONTRACT DOCUMENTS

- 3.1 The following are the Contract Documents referred to in Article A-1 of this Agreement, whether or not attached to this Agreement:
- (a) this Agreement;
 - (b) the “Definitions” and “General Conditions of Stipulated Price Contract” contained within standard construction document CCDC 2 – Stipulated Price Contract, 2008 edition, not attached but incorporated by reference;
 - (c) the following schedules to this Agreement:
 - (i) Schedule 1 – Supplementary General Conditions (the “Supplementary General Conditions”)
 - (ii) Schedule 2 – List of Specifications and Drawings (the listed Specifications and Drawings are incorporated by reference);
 - (iii) Schedule 3 - Schedule of Prices (the “Schedule of Prices”);
 - (iv) Schedule 4 - Subcontractors and Suppliers;
 - (v) Schedule 5 – Project Schedule (the “Project Schedule”);
 - (vi) Schedule 6 – Performance and Labour and Material Payments Bonds;
 - (vii) Schedule 7 – Insurance Certificate;
 - (viii) Schedule 8 – City Pre-Contract Hazard Assessment Form
 - (ix) Schedule 9 – Contractor Pre-Contract Hazard Assessment Form
 - (x) Schedule 10 – Force Account Labour and Construction Equipment Rates (the “Schedule of Force Account Labour and Construction Equipment Rates”);
 - (xi) **[insert any other Schedules such as Special Conditions and, if Special Conditions, follow with a definition: “(the “Special Conditions”)”];**
 - (d) the Form of Tender submitted by the Contractor, dated [insert], titled [insert] (incorporated by reference) (the “**Form of Tender**”);
 - (e) **[the traffic management plan provided by the Contractor to the City (incorporated by reference)];**

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- (f) **[the Place of the Work-specific safety and health plan provided by the Contractor to the City (incorporated by reference)]**
- (g) **[insert any other relevant documents to be incorporated by reference].**

3.2 Capitalized terms used in the Contract Documents will have the meanings ascribed to such terms in the Contract Documents.

ARTICLE A-4 CONTRACT PRICE

- 4.1 The Contract Price to do, perform and supply all the Work in accordance with, and perform all the obligations specified by, the Contract Documents is **[insert price without GST]**, plus GST of **[insert amount]**, for a total Contract Price of **[insert total amount, including GST]**.
- 4.2 The Contract Price is inclusive of GST, PST and all other taxes, and all duties assessments, charges and fees, permit and inspection costs, and WorkSafeBC assessments relating to the Work. For the avoidance of doubt, the Contract Price includes, without limitation, all PST on materials, other Products and Construction Equipment.
- 4.3 The PST, GST and other taxes, duties, assessments, charges and fees included in the Contract Price will be remitted by the Contractor to the applicable authorities as and when the City pays the Contract Price to the Contractor or as earlier required by applicable law.
- 4.4 All amounts are in Canadian dollars.
- 4.5 The Contract Price shall be subject to adjustments as provided for in the Contract Documents.
- 4.6 For purposes of the Contract Documents, “**GST**” means the tax payable and imposed pursuant to Part IX of the *Excise Tax Act* (Canada), as amended or replaced from time to time, and “**PST**” means the provincial sales tax payable and imposed pursuant to the *Provincial Sales Tax Act* (British Columbia), as amended or replaced from time to time.

ARTICLE A-5 PAYMENT

- 5.1 Subject to the terms and conditions of the Contract Documents, the City will pay the Contract Price to the Contractor in consideration of the performance of the Work.
- 5.2 The payment for any Work under this Contract made to the Contractor by the City will not be construed as an acceptance of any Work being in accordance with the Contract Documents.
- 5.3 Should either party fail to make payments as they become due under the terms of the Contract Documents, interest at the Bank Rate plus two percent (2%) per annum on such unpaid amounts will also become due and payable until payment. Such interest will be compounded on a monthly basis. The “Bank Rate” for these purposes is the rate established by the Bank of Canada from time to time as the minimum rate at which the Bank of Canada makes short term advances to Canadian chartered banks.

ARTICLE A-6 RECEIPT OF AND ADDRESSES FOR NOTICES

- 6.1 Except as otherwise expressly provided in the Contract Documents, communications between the parties hereto or between them and the Consultant will be in writing and may be delivered by hand or sent by electronic transmission or by courier or registered mail:
 - (i) to the City at:

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City of Vancouver

453 West 12th Avenue
Vancouver, British Columbia V5Y 1V4

Attention: [insert name]
[insert title]

Fax No.: [insert]
Email: [insert];

(i) to the Contractor at:

CONTRACTOR

ADDRESS
ADDRESS

Attention: [insert name]
[insert title]

Fax No.: [insert]
Email: [insert]; or

(ii) to the Consultant at:

VERTECH Elevator Services Inc.

723 – 602 W. Hastings Street
Vancouver, British Columbia V6B 1P2

Attention: [insert name]
[insert title]

Fax No.: [insert]
Email: [insert];

or to such other person or address of which one party may advise the others in writing from time to time or at any time, and each such communication will be deemed to be received by the recipient:

- (A) on the date of delivery, if delivered by hand: to the individual, if the recipient is an individual; to a partner, if the recipient is a partnership; or to an officer of the corporation, if the recipient is a corporation; or
- (B) on the day following transmission, if sent by electronic transmission and confirmed by documentation of successful transmission or receipt of an email reply effectively acknowledging delivery; or
- (C) one Working Day after the date of confirmed delivery, if sent by courier or registered mail.

ARTICLE A-7 LAW OF CONTRACT

The laws of British Columbia will apply to and govern the Contract Documents and the courts of British Columbia will have jurisdiction over all disputes not resolved by mediation or arbitration.

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ARTICLE A-8 SUCCESSORS AND ASSIGNS

The Contract shall enure to the benefit of and be binding upon the City and Contractor and their respective successors and permitted assigns.

ARTICLE A-9 TIME OF THE ESSENCE

All time limits stated in this Contract are of the essence of the Contract.

IN WITNESS WHEREOF the parties hereto have executed this Agreement on the date first herein above written.

CITY OF VANCOUVER

by its authorized signatories:

Signature: _____

Name: _____

Title: _____

Signature: _____

Name: _____

Title: _____

[INSERT NAME OF CONTRACTOR]

by its authorized signatories:

Signature: _____

Name: _____

Title: _____

Signature: _____

Name: _____

Title: _____

Proof of authority in the form of a certified copy of a resolution naming the person or persons in question as authorized to sign the Agreement for and on behalf of the corporation or partnership, who are parties to this Agreement, shall be attached.

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**SCHEDULE 1
SUPPLEMENTARY GENERAL CONDITIONS**

(SUPPLEMENTARY GENERAL CONDITIONS ARE MODIFICATIONS TO CCDC 2 -2008)

INTRODUCTION

- 1.1.1 These Supplementary General Conditions amend the “Definitions” and the “General Conditions of the Stipulated Price Contract” contained within standard construction document CCDC 2 – Stipulated Price Contract, 2008 edition (“**CCDC 2**”), available for download at <http://www.ccdc.org/downloads/index.html>. Any reference in the Contract Documents to “General Conditions” or “GC” means the General Conditions contained in CCDC 2 as amended by these Supplementary General Conditions. Whenever there is a conflict between these Supplementary General Conditions and the other Contract Documents or wherever the Contract Documents are silent and these Supplementary General Conditions speak to a particular issue or matter, the provisions of these Supplementary General Conditions shall take precedence.
- 1.1.2 Unless the context dictates otherwise and to the extent not otherwise defined in the Contract Documents, capitalized terms used in these Supplementary General Conditions have the meanings given thereto in CCDC 2.
- 1.1.3 To the extent that the *Lien Act* (as defined below) expressly forbids parties from contracting out of all or some of the provisions of the *Lien Act* then, to the extent that those provisions of the *Lien Act* apply, such provisions of the *Lien Act* shall take precedence over any provision of the Contract Documents that is determined to contradict or contravene such provisions of the *Lien Act*, but only to the extent of such contradiction or contravention.

AMENDMENTS TO THE DEFINITIONS

The following amendments are made to the “Definitions” in CCDC 2:

Add the following at the end of paragraph 5 (the definition of “**Contract**”):

The Contract supersedes all prior negotiations, representations or agreements, either written or oral, except to the extent included in the Contract Documents or expressly incorporated by reference into the Contract by an actual reference to the same in Article A-3 of the Agreement – CONTRACT DOCUMENTS.

Delete paragraph 6 and replace with the following:

6. Contract Documents

The Contract Documents consist of those documents listed in Article A-3 of the Agreement - CONTRACT DOCUMENTS, those documents expressly incorporated by reference into the Contract by an actual reference to the same in Article A-3 of the Agreement – CONTRACT DOCUMENTS, and amendments agreed upon in writing between the parties together with all other documents, schedules and additions mutually agreed to or settled by the parties from time to time in respect of the Contract.

Delete the definition of Owner at paragraph 12 and replace with the following:

“Owner” or “City”

“Owner” and “City” each mean the entity identified as the “City” in the Agreement (represented as stated therein or otherwise) or the City’s authorized agent or representative, as designated to the Contractor in writing. However, “Owner” and “City” each expressly do not include the Consultant

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and expressly do not include the City of Vancouver acting in its capacity as a municipal regulatory authority.

Delete the definition of Substantial Performance of the Work at paragraph 20 and replace with the following:

20. Substantial Performance of the Work

Substantial Performance of the Work shall have the same meaning as “substantial performance” of the Agreement, as determined under Section 1(2) of the *Lien Act*.

Delete the definition of Work at paragraph 25 and replace it with the following:

25. Work

Work means the total construction and related services required by the Contract Documents or properly inferable therefrom.

Add the following definitions:

27. Applicable Laws

Applicable Laws means all applicable federal, provincial and municipal laws, bylaws, codes, rules, regulations, policies and requirements applicable to the Work and the Project.

28. Certificate of Completion

Certificate of Completion means the certificate under section 7 of the *Lien Act* stating that work under a contract or subcontract has been completed and includes an order made under section 7(5) of the *Lien Act*.

29. Cost Plus Work

Cost Plus Work means Work that is described or designated as cost-plus work in the Contract Documents.

30. Environmental Law

Environmental Law means any applicable law relating to the protection of the environment or occupational health and safety including those pertaining to (a) reporting, licensing, permitting, investigating, remediating and cleaning up in connection with any presence or release, or the threat of the same, of Hazardous Substances, and (b) the generation, manufacture, processing, distribution, use, re-use, treatment, storage, disposal, transport, labelling, handling and the like of Hazardous Substances.

31. Final Certificate for Payment

Final Certificate for Payment means the certificate issued on Total Performance of the Work.

32. Hazardous Substance

Hazardous Substance means any contaminant, waste, hazardous substance, hazardous waste, or dangerous goods in such quantities and concentrations as contravene applicable limitations under Environmental Law and that may impair the environment, injure or damage property or plant or animal life or harm or impair the health of any individual.

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33. Holdback

Holdback means a holdback required by the *Lien Act*.

34. Lien or Liens

Lien or Liens means a lien under the *Lien Act*.

35. Lien Act

Lien Act means the *Builders Lien Act* (British Columbia) and any additional successor or replacement legislation which may be passed that is applicable to the Place of the Work.

36. Lump Sum Work

Lump Sum Work means Work that is described or designated as lump sum work in the Contract Documents or Work that is not so described or designated but is also not Unit Price Work or Cost Plus Work.

37. Site Labour Disturbance

Site Labour Disturbance means any strike, lock-out or labour disturbance, including those resulting from any jurisdictional or non-affiliation issues, involving employees, whether or not members of a trade union, of the Contractor, any Subcontractor, any Supplier, or any of their respective subcontractors of any tier, which delays or in any way adversely affects the performance and completion of Work at the Place of the Work.

38. Total Performance of the Work

Total Performance of the Work means the entire Work has been satisfactorily performed and is so certified by the Consultant.

39. Trade Union Council

Trade Union Council means a council or association of trade unions of which employees of the Contractor or a Subcontractor are members

40. Unit Price Work

Unit Price Work means Work that is described or designated as unit price work in the Contract Documents.

41. WorkSafeBC Rules

WorkSafeBC Rules means the *Workers Compensation Act* (British Columbia) and the regulations thereunder, including without limitation the *WorkSafeBC Occupational Health and Safety Regulation* (British Columbia), and all amendments made to such act and regulations and in force from time to time, and any statute or regulation that may be passed which supplements or supersedes such regulations.

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ALTERATION OF GENERAL CONDITIONS AND ADDITIONAL CONDITIONS

The following amendments are made to the “General Conditions of the Stipulated Price Contract” in CCDC 2:

GC1.1 CONTRACT DOCUMENTS

GC1.1.7.1 is deleted in its entirety and replaced as follows:

- .1 The order of priority of documents, from highest to lowest, shall be:
- the Agreement between the City and the Contractor (excluding its schedules);
 - these Supplementary General Conditions;
 - the Definitions from CCDC 2;
 - the General Conditions from CCDC 2;
 - the Specifications;
 - the Drawings;
 - the other schedules to the Agreement between the City and the Contractor;
 - the other Contract Documents (except for the below document); and
 - the Form of Tender.

GC1.5 ADVERTISING

GC1.5 is added as follows:

GC1.5 ADVERTISING

- 1.5.1 The Contractor will obtain the City’s prior written approval for any public advertising, press release or other general publicity matter, in which the name, logo, official marks or trademarks of the City or any related person are mentioned or used or in which words are used from which any connection with the City may be inferred. The Contractor will not allow or permit any public ceremony in connection with the Work without the permission of the City provided in writing. The Contractor will not erect or permit the erection of any sign or advertising without the prior written approval of the City.

GC2.2 ROLE OF THE CONSULTANT

GC2.2.5 is deleted in its entirety and replaced with the following:

- 2.2.5 The Consultant will be the “payment certifier” pursuant to the *Lien Act*. Based on the Consultant’s observations and evaluation of the Contractor’s applications for payment for Work and the Consultant’s review of the status of the Work, including as against the Project Schedule, the Consultant will issue certificates of payment and will issue each Certificate of Completion and the Final Certificate for Payment.

GC2.2.19 is added as follows:

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2.2.19 Notwithstanding GC2.2.13, the Contractor shall be responsible for requesting any required instructions or clarifications from the Consultant which are needed for the performance of the Work and shall request such instructions or clarifications in time to avoid any delay of the Work.

GC2.2.20 is added as follows:

2.2.20 Nothing in GC2.2 shall derogate from or affect the terms and provisions of any contractual or other legal relations between the City and the Consultant, and such contractual and other legal relations shall in all cases take precedence over GC2.2 in the event of a conflict.

GC2.3 REVIEW AND INSPECTION OF THE WORK

GC2.3.1 is amended by deleting the first sentence of the paragraph and replacing it with the following:

The City and the Consultant and their authorized representatives shall have access to the Work at all times.

GC2.3.2 is amended by deleting the first sentence of the paragraph and replacing it with the following:

If work is designated for review, tests, inspections or approvals in the Contract Documents, or by the Consultant's instructions, or by the laws or ordinances of the Place of the Work, the Contractor shall give the Consultant reasonable notification of when the work will be ready for review and inspection.

GC2.3.4 is deleted in its entirety and replaced with the following:

2.3.4 If the Contractor covers, or permits to be covered, work that has been designated for review, tests, inspections or approvals before such review, tests, inspections or approvals are made, given or completed, the Contractor shall, if so directed, uncover such work, have the reviews, tests, inspections or approvals satisfactorily completed, and make good covering work at the Contractor's expense.

GC2.3.8 is added as follows:

2.3.8 The Consultant may:

- .1 review and monitor the Contractor's performance of any aspects of the Work for conformance with the requirements of the Contract, including review and monitor the following:
 - (a) the Contractor's submittals; and
 - (b) any and all construction activities; and
- .2 perform or arrange for the performance of any tests, checks, and inspections of the Work as the City may reasonably request whether or not specifically required by the Contract Documents.

Should the Consultant be required to make more than one review of rejected work or should the Consultant perform additional reviews due to failure of the Work to comply with the status of completion asserted by the Contractor in an application, the Contractor is required to compensate the City for such additional Consultant services including expenses incurred. Adjustment for such compensation should be made as outlined under PART 6 - CHANGES IN THE WORK.

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GC2.3.9 is added as follows:

- 2.3.9 Review, monitoring and/or approval by the Consultant or City of the Contractor's performance of the Contract shall not relieve the Contractor of its sole responsibility and liability for the proper performance of the Contract strictly in accordance with its terms.

GC2.3.10 is added as follows:

- 2.3.10 Acceptance of the Work by the City does not free the Contractor from its obligation to correct deficiencies as provided in GC2.4 – DEFECTIVE WORK, which are not identified at the time of drawing up the deficiency list or are hidden deficiencies.

GC2.4 DEFECTIVE WORK

GC2.4.1 is amended by adding the following to the end of the paragraph:

In the event that work or materials are found to be condemned, then if the Contractor does not remove such condemned materials or work within the time fixed by written notice, the City may remove them and may store such materials at the expense of the Contractor. If the Contractor does not pay the expense of such removal within five (5) calendar days thereafter, the City may, upon ten (10) days written notice sell such materials with the proceeds thereof, if any, after deducting all the costs and expenses that should have been borne by the Contractor, being returned to the Contractor.

GC2.4.3 is deleted in its entirety and replaced with the following:

- 2.4.3. If in the opinion of the Consultant it is not expedient to correct defective work or work not performed as provided in the Contract Documents, the City may deduct from the amount otherwise due to the Contractor the difference in value between the work as performed and that called for by the Contract Documents or, at the option of the City, the cost or value of such work as would have been necessary to correct such non-compliance with the Contract Documents. If the City and the Contractor do not agree on the difference in value, they shall refer the matter to the Consultant for a determination.

GC3.1 CONTROL OF THE WORK

GC3.1.3 is added as follows:

- 3.1.3 The Contractor shall, and shall ensure that each Subcontractor shall, employ competent and skilled workmen and apprentices and employ proper equipment in good condition. The Contractor shall have complete control over its employees and Subcontractors and shall enforce discipline and order among its employees and assure discipline and order by its Subcontractors including, in all cases, without limiting the foregoing, compliance with and enforcement of WorkSafeBC Rules.

GC3.1.4 is added as follows:

- 3.1.4 The Contractor shall be familiar with, and its performance of this Contract shall be governed by and comply with, all Applicable Laws and applicable permits which exist at present or which may be respectively enacted or obtained after the date hereof by or from bodies or tribunals having jurisdiction or authority over the Work.

GC3.2 CONSTRUCTION BY OWNER OR OTHER CONTRACTORS

GC3.2.2 is amended by deleting the first sentence and replacing it with the following:

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When separate contracts are awarded for other parts of the Project, or when work is performed by the City's own forces, the Contractor shall:

GC3.2.2.3 is deleted in its entirety.

GC3.2.2.4 is deleted in its entirety.

GC3.2.3.3 is amended by adding the following to the end of the paragraph:

Failure by the Contractor to so report shall invalidate any claims against the City by reason of the deficiencies of the other contractors' or the City's own forces' work, except those of which the Contractor was not reasonably aware.

GC3.2.7 is added as follows:

3.2.7 The Contractor acknowledges that the Place of the Work generally and portions of the Project will continue to be used by the City and others as described in the Contract Documents. The Contractor will work simultaneously and harmoniously with others using the Place of the Work and use all efforts not to interfere with or delay others.

GC3.5 CONSTRUCTION SCHEDULE

GC3.5.1.1 is deleted in its entirety and replaced with the following:

.1 if the City states in writing that the Contractor has not yet done so to the City's satisfaction, prepare and submit to the City and the Consultant a construction schedule that indicates the timing of the major activities of the Work and provides sufficient detail of the critical events and their inter-relationship to demonstrate the Work will be performed in conformity with the Contract Time, which such construction schedule will, if agreed to by the City, thereafter be deemed to supersede the schedule included in Schedule 5 of the Agreement as the "Project Schedule";

GC3.5.1.3 is amended by adding the following to the end:

... indicating the results expected from the resulting change in schedule.

GC3.5.2 is added as follows:

3.5.2 The Contractor will regularly monitor the progress of the Work and advise the City and the Consultant of any revisions to, or any slippage in, the construction schedule.

GC3.5.3 is added as follows:

3.5.3 The Contractor will submit to the Consultant and the City monthly updates and provide comments on adherence to the construction schedule and details of any remedial actions being undertaken to improve schedule slippages.

GC3.5.4 is added as follows:

3.5.4 If the construction schedule is not adhered to, the Contractor will use all reasonable means to accelerate the Work, without additional compensation, to comply with the construction schedule. For the avoidance of doubt, references in the Contract Documents to the "construction schedule" will be deemed to be references to the "Project Schedule" unless the context requires otherwise.

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GC3.6 SUPERVISION

GC3.6.3 is added as follows:

- 3.6.3 Any superintendent or foreman whose work is unsatisfactory to the Consultant, or to whom the Consultant may have any reasonable objection, shall be dismissed from the Work upon written notice of the Consultant. No superintendents or foremen will be substituted or replaced, except at the request or with the written consent of the City, or as a result of any such employee's voluntary termination of employment or incapacity and any replacement will have comparable or superior qualifications and experience.

GC3.7 SUBCONTRACTORS AND SUPPLIERS

GC3.7.2 is deleted in its entirety and replaced as follows:

- 3.7.2 No Subcontractor or Supplier listed in Schedule 4 (if any) shall be replaced without the written consent of the City, which consent shall not be unreasonably withheld.

GC3.7.7 is added as follows:

- 3.7.7 In every subcontract the Contractor shall specify that the Consultant shall be the person responsible for payment certification under that subcontract for the purposes of the *Lien Act*. With every request to the Consultant for a determination whether a subcontract has been completed, the Contractor shall furnish a detailed description of the scope of work covered by the subcontract and a complete reconciliation of the subcontract account. In this GC3.7.7, the word "subcontract" shall have the meaning it has when used in the *Lien Act*.

GC3.8 LABOUR AND PRODUCTS

GC3.8 is deleted in its entirety and replaced with the following:

GC 3.8 LABOUR AND PRODUCTS

3.8.1 *Unions and Wages*

(a) *Open Site*

The Place of the Work and adjacent work areas associated with the Project are, or are part of, an "open site" and the Work will be performed on a "no strike/no lockout" basis. Accordingly, the Contractor and its Subcontractors, as well as the City and other contractors, may employ labourers at the Place of the Work who are members of a trade union, including a trade union affiliated with a Trade Union Council or who are members of another trade union, or who are not members of a trade union.

(b) *Labour Disruptions*

The Contractor will use its best commercial efforts to ensure that no Site Labour Disturbance shall occur and the Contractor:

- (i) will only retain Subcontractors for the Work whose employees are either:
- (1) certified in British Columbia to be represented by a trade union and subject to a collective agreement which does not expire until after the expected date of Total Performance of the Work; or

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(2) not certified to be represented by a trade union; and

will require such Subcontractors to only retain subcontractors and suppliers whose employees are either certified in British Columbia to be represented by a trade union and subject to a collective agreement which does not expire until after the expected date of Total Performance of the Work or not certified to be represented by a trade union; and

(ii) represents and warrants that, with respect to any employees of the Contractor who may work at or near the Place of the Work and who are certified in British Columbia to be represented by a trade union and subject to a collective agreement, such collective agreement to which such employees are subject does not expire until after the expected date of Total Performance of the Work;

but if any Site Labour Disturbance occurs and does or may adversely impact the City, the Work or the Contract Time, the Contractor will use its best commercial efforts to ensure that the length and extent of such impact is minimized (including without limitation by cooperating with the City in any measures it may take to ameliorate such impact) and the Contractor will be liable to the City for any such impact.

(c) *Required for Union Contractors*

Without limiting the generality of Section (b) above, if the Contractor, or any Subcontractor, proposes to employ labourers at the Place of the Work who are members of a trade union, including a trade union that is affiliated with a Trade Union Council authorized to bind its member trade unions, then the Contractor must first submit to the Consultant:

(i) a waiver of all non-affiliation or reservations rights under applicable collective agreements, including renewals or replacements thereof, effective for the duration of the Contract and executed by the Trade Union Council on behalf of all trades, or executed by the particular trade unions whose members will be so employed; and

(ii) an agreement that there will be no Site Labour Disturbance at or affecting the Place of the Work and/or the progress of the Work, effective for the duration of the Contract, and executed by the Trade Union Council on behalf of all trades, or executed by the particular trade unions whose members will be so employed.

(d) *Fair Wages*

The Contractor shall pay or cause to be paid to every person employed on the Work not less than the wages or remuneration generally accepted as current at that time.

3.8.2 The Contractor shall provide and pay for labour, Products, tools, Construction Equipment, water, heat, light, power, transportation, and other facilities and services necessary for the performance of the Work in accordance with the Contract.

3.8.3 Unless otherwise specified in the Contract Documents, Products provided shall be new. Products which are not specified shall be of a quality consistent with those specified and their use acceptable to the Consultant. All Products supplied by the Contractor must at all times contain 0.00% asbestos. Should any Product be found to contain more than 0.00% asbestos, the Contractor will promptly abate and remove all Products containing asbestos at its sole cost.

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- 3.8.4 The Contractor shall maintain good order and discipline among the Contractor's employees engaged on the Work and shall not employ on the Work anyone not skilled in the tasks assigned. The City shall have the right, by written notification to the Contractor, to require the removal from the Project of any employee of the Contractor or a Subcontractor or employee of a Subcontractor of the Contractor who is incompetent, untrained, acts in an unsafe manner, is disorderly or is otherwise unsatisfactory, or who causes a breach of the terms of this Contract. Any such employee or Subcontractor shall be immediately removed from the Place of the Work by the Contractor and shall not be employed again on the Project without the prior written approval of the City.
- 3.8.5 All materials shall be delivered, stored, handled and applied in strict accordance with the manufacturer's instructions, and shall be delivered with type, grade and brand name clearly identifiable and with seals intact.

GC3.9 DOCUMENTS AT THE SITE/DAILY RECORD

GC3.9.1 is deleted in its entirety and replaced with the following:

- 3.9.1 The Contractor shall keep one copy (as opposed to the originally executed set) of all Contract Documents, Shop Drawings, Change Orders, Change Directives, the diary record required by GC3.9.2 below, submittals, reports, and records of meetings at the Place of the Work, in good order, properly indexed, and available at all regular working hours on Working Days to the City and the Consultant.

GC3.9.2 is added as follows:

- 3.9.2 The Contractor shall, from the date of commencement of the Work, maintain a careful diary record of the progress of the Work. This record shall be open to the Consultant's inspection at all reasonable times and delivered to the Consultant on completion of the Work. The diary shall detail:
- .1 daily weather conditions;
 - .2 the commencement, progress and completion of various portions of the work;
 - .3 the dates of all meetings and their purposes; and
 - .4 the dates of visits or inspections by government authorities, inspectors, utility companies, etc.

GC3.10 SHOP DRAWINGS

GC3.10.2 is amended by adding the following to the end:

... or as the Consultant may reasonably request.

GC3.10.13 is added as follows:

- 3.10.13 The Contractor represents and warrants that it has reviewed all Contract Documents and inspected and examined the Place of the Work and the Project to the extent it considers necessary and in accordance with prudent practice and satisfied itself as to the nature and extent of the conditions, including the physical and climatic conditions which may be encountered in the performance of the Work and to the extent possible to establish the state and quality of the existing construction. The Contractor further acknowledges that it will be required to share the Place of the Work with the City and others, all as described in the Contract Documents.

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GC3.12 CUTTING AND REMEDIAL WORK

GC3.12.3 is amended by adding the following to the end:

... unless the City elects to do the work or retain other contractors, after having given the Contractor written notice of the work to be performed. Such work shall be performed in accordance with GC3.2.

GC4.1 CASH ALLOWANCES

GC4.1.1 is deleted in its entirety and replaced as follows:

4.1.1 The Contract Price includes the cash allowances, if any, stated in the Contract Documents. Except to the extent specifically described in the Contract Documents, such cash allowances:

- (a) will cover the net out-of-pocket cost of the Contractor for services, products, construction machinery and equipment, freight, unloading, handling, storage, installation and other authorized expenses incurred in performing the work stipulated under the cash allowances, but
- (b) will not cover labour or installation, unless (and then only to the extent):
 - (i) specifically stated in the Contract Documents as being included in the cash allowance, or
 - (ii) specifically designated as an itemized or separate price for purposes of the cash allowance,

and otherwise will be deemed to be included in the Contract Price (ex-cash allowances).

GC4.1.2 is deleted in its entirety and replaced as follows:

4.1.2 The Contract Price (ex-cash allowances), and not the cash allowances, includes the Contractor's and Subcontractors' overhead and profit in respect of such cash allowances. Unless noted otherwise in the Contract Documents, none of the work included in the Drawings and Specifications is intended to be paid for by the cash allowances. The cash allowances are for the City's use, at the City's sole discretion.

GC4.1.3 is amended by adding the following to the end of the paragraph:

The Consultant may require that cash allowance Work proceed only after competitive tenders or proposals are sought and received by the Contractor for all or any part of such Work. The Contractor shall provide full disclosure to the Consultant of all such tenders or proposals. The Contractor shall not accept any such tenders or proposals without the prior consent of the Consultant. The Contractor shall maintain at the Place of the Work, or such other location as the Consultant may approve, accurate and complete records and accounts documenting all costs incurred under cash allowances. These records and accounts shall be available for inspection by the Consultant and the City at all reasonable times, and the Consultant and the City may take copies thereof.

GC5.1 FINANCING INFORMATION REQUIRED OF THE OWNER

GC5.1 is deleted in its entirety and replaced with the following:

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GC5.1 GENERAL FINANCIAL/PAYMENT PROVISIONS

- 5.1.1 The City shall, at the request of the Contractor, before signing the Contract, and promptly from time to time thereafter, furnish to the Contractor reasonable evidence that financial arrangements have been made to fulfill the City's obligations under the Contract. The Contractor now acknowledges that the City's financial statements as published pursuant to the *Financial Information Act* (British Columbia) constitute full satisfaction of this requirement and satisfactory evidence of the City's ability to fulfill its obligations under this Contract.
- 5.1.2 The City shall give the Contractor Notice in Writing of any material change in the City's financial arrangements to fulfill the City's obligations under the Contract during the performance of the Contract.
- 5.1.3 The City shall pay to the Contractor for the proper and timely performance and completion of the Work the Contract Price, consisting of:
- (i) if all or part of the Work is described or designated as Unit Price Work in the Schedule of Prices, the product of each unit price stated in the Schedule of Prices, multiplied by the quantity of each corresponding item of Work necessary for the proper performance and completion of the Work (and if such quantity differs from the quantity expressed in the Contract Documents and such difference is approved in writing by the City, the Contract Price expressed in ARTICLE A-4 of the Agreement shall be deemed to be adjusted to coincide with the approved quantity);
 - (ii) if all or part of the Work is Lump Sum Work, the aggregate of lump sum prices stated in the Schedule of Prices;
 - (iii) the aggregate of all cash allowances, if any, specified in Schedule 3 of the Agreement; and
 - (iv) if all or part of the Work is described or designated as Cost Plus Work, the cost reasonably and necessarily incurred by the Contractor in performing and completing such Work, such cost to be determined in accordance with GC5.1A.3, plus a percentage or fixed fee, as stated in GC5.1A.3.
- 5.1.4 The Contract Price is subject to adjustment only in accordance with the Contract Documents.
- 5.1.5 The Contract Price is expressed and payable in Canadian dollars.
- 5.1.6 Subject to the provisions of the Contract Documents and in accordance with the *Lien Act* in respect of Holdbacks, the City shall:
- .1 make progress payments to the Contractor on account of the Contract Price monthly when due, based on:
 - (i) the value of the Work completed and Products and materials incorporated into the Work as certified by the Consultant, and
 - (ii) Products and materials delivered to the Place of the Work but not yet incorporated into the Work, as agreed to by the City;

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- .2 upon issuance of a Certificate of Completion in respect of a subcontract to which the Contractor is a party, and where fifty-five (55) calendar days have elapsed since the issuance of the Certificate of Completion without any Liens having been filed which arose under the subcontract, pay the Holdback to the Contractor in respect of the subcontract;
 - .3 upon issuance of the Certificate of Completion (in respect of Substantial Performance of the Work), and where fifty-five (55) calendar days have elapsed since the issuance of the Certificate of Completion without any Liens or other liens having arisen with respect to this Contract, pay the balance of the Holdback to the Contractor in respect of this Contract;
 - .4 upon issuance of the Final Certificate for Payment (in respect of Total Performance of the Work), and provided no Liens or other liens have arisen in respect of this Contract, pay the balance of the Contract Price to the Contractor.
- 5.1.7 If either party fails to pay when due an amount owing to the other under this Contract, that amount will bear interest at the Bank Rate plus two percent (2%), calculated daily from the due date to the date of payment. For this purpose, the "Bank Rate" means the rate of interest established from time to time by the Bank of Canada as the minimum rate at which the Bank of Canada advances short term loans to Canadian chartered banks.
- 5.1.8 If the Work suffers any loss or damage, as a result of which an amount is paid under any policy of insurance provided by the City under the Contract, then such amount shall be paid to the City and advanced to the Contractor in monthly progress payments as the Contractor performs and completes repair or restoration Work in respect of such loss or damage.

GC5.1A BASIS OF PAYMENT:

5.1A.1 *Basis of Payment for Unit Price Work*

- .1 *Unit Price Work:* Payment for Unit Price Work, if any, shall be based on the unit prices set out in the Schedule of Prices.
- .2 *Measurement:* The Contractor shall measure the Work and the Consultant will verify such measurements to determine payment to the Contractor in accordance with the measurement provisions of the Contract Documents.

5.1A.2 *Basis of Payment for Lump Sum Work*

- .1 *Lump Sum Work:* Payment for Lump Sum Work, if any, shall be based on the lump sum prices set out in the Schedule of Prices.

5.1A.3 *Basis of Payment for Cost Plus Work*

- .1 *Cost Plus Work:* Payment for Cost Plus Work, if any, shall be based on the cost of such Work, as provided in GC5.1A.3.2, plus a fixed fee or percentage fee calculated as a percentage of the cost of such Work, for the Contractor's overhead and profit, except as stated in GC5.1A.4 or GC6.3.6. The fixed fee or percentage fee shall be as provided in the Schedule of Prices (or, if not so specified, as agreed between the City and the Contractor in writing), except as stated in GC5.1A.4.

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- .2 *Cost of the Work:* The cost of Cost Plus Work, except as otherwise specified in the Contract Documents or agreed in writing between the City and the Contractor, shall be at rates prevailing in the locality of the Place of the Work and shall include the following cost elements as applicable to such Work:
- (i) wages and benefits paid for labour in the direct employ of the Contractor under applicable collective bargaining agreements, or under a salary or wage schedule agreed upon by the Consultant and the Contractor;
 - (ii) salaries, wages, and benefits of the Contractor's personnel, when stationed at the field office, in whatever capacity employed; or personnel at shops or on the road, engaged in expediting the production or transportation of materials or equipment;
 - (iii) contributions, assessments, or taxes incurred for such items as employment insurance, provincial or territorial health insurance, workers' compensation, and Canada Pension Plan, insofar as such cost is based on wages, salaries, or other remuneration paid to employees of the Contractor and included in the cost of the Work as provided in paragraphs (i) and (ii);
 - (iv) travel and subsistence expenses of the Contractor's personnel described in paragraphs (i) and (ii), to be included only with the prior approval of the City;
 - (v) the cost of all Products, including the cost of transportation thereof;
 - (vi) the cost of Construction Equipment, Temporary Work, and hand tools not owned by the workers, including transportation, and maintenance thereof, which are consumed in the performance of the Work, at cost less salvage value on such items used but not consumed, which remain the property of the Contractor;
 - (vii) the cost of all tools and Construction Equipment, exclusive of hand tools used in the performance of the Work, whether rented from or provided by the Contractor or others, including installation, minor repairs and replacements, dismantling, removal, transportation and delivery cost thereof;
 - (viii) deposits lost;
 - (ix) the amounts of all subcontracts;
 - (x) the cost of quality assurance such as independent inspection and testing services;
 - (xi) charges levied by authorities having jurisdiction at the Place of the Work;
 - (xii) any adjustment in premiums for all bonds and insurance which the Contractor is required by the Contract Documents to purchase and maintain;
 - (xiii) any adjustment in value-added taxes (not including taxes on income or capital), for which the Contractor is liable;

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- (xiv) charges for long distance telephone and facsimile communications, courier services, expressage, and petty items incurred in relation to the performance of the Work;
 - (xv) the cost of removal and disposal of waste products and debris; and
 - (xvi) cost incurred due to emergencies affecting the safety of persons or property.
- .3 *Approval Required:* The Contractor shall obtain the Consultant's approval prior to subcontracting or entering into other agreements for Cost Plus Work.
- .4 *Rejection of Costs:* The Consultant may refuse to certify payment for all or part of the cost of any item under any cost element, where the item in question was unsuitable or unnecessary, or the cost was otherwise improperly incurred in the performance of the Work.
- .5 *Records:* The Contractor shall keep full and detailed accounts and records necessary for the documentation of the cost of Cost Plus Work and shall provide the Consultant with copies thereof when requested.
- .6 *Access to Records:* the City and the Consultant shall be afforded reasonable access to all of the Contractor's books, records, correspondence, instructions, drawings, receipts, vouchers, and memoranda related to the cost of Cost Plus Work and for this purpose the Contractor shall preserve such records for a period of one (1) year after the date of Substantial Performance of the Work.

5.1A.4 *Cost Plus Contract Rates and Mark Ups*

Notwithstanding any other provision hereof, when Cost Plus Work is performed then:

- (i) the costs of labour will be determined by the labour rates specified in the schedules to the Agreement, including the Schedule of Force Account Labour and Construction Equipment Rates, if any, in each case without any mark-up unless otherwise specified therein; and
- (ii) the costs of Construction Equipment will be determined by the construction equipment rates specified in the schedules to the Agreement, including the Schedule of Force Account Labour and Construction Equipment Rates, if any, in each case without mark-up unless otherwise specified therein.

GC5.2 APPLICATIONS FOR PROGRESS PAYMENT

GC5.2 is deleted in its entirety and replaced with the following:

GC5.2 APPLICATIONS FOR PROGRESS PAYMENT

- 5.2.1 Applications for payment shall be submitted to the Consultant on or before the last day of each calendar month, dated as of the last day of the month, and be in respect of the Work completed prior to the application being signed (the "**payment period**").
- 5.2.2 The amount claimed shall be the value, proportionate to the amount of the Contract, of Work performed and Products delivered to the Place of the Work as of the last day of the payment period.

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- 5.2.3 The Contractor shall submit to the Consultant at least fifteen (15) calendar days before the first application for payment, a schedule of values for the parts of the Work, aggregating the total amount of the Contract Price, so as to facilitate evaluation of applications for payment. A second schedule, stating the anticipated monthly progress payments, is to be submitted upon request.
- 5.2.4 The schedule of values shall be made out in such form and supported by such evidence as the Consultant may reasonably direct and when accepted by the Consultant, shall be used as the basis for applications for payment, unless it is found to be in error.
- 5.2.5 When making an application for payment, the Contractor shall submit a statement based upon the schedule of values. Claims for Products delivered to the Place of the Work but not yet incorporated into the Work shall be supported by such evidence as the Consultant may reasonably require to establish the ownership, value and delivery of the Products. The City has the right to refuse payment for Products delivered to the Place of the Work but not incorporated in the Work. The Contractor shall obtain the City's permission prior to invoicing for such Products.
- 5.2.6 Each application for payment shall:
- .1 be in such form and detail as the Consultant shall require and submitted consistently in such form and detail unless otherwise advised by the Consultant and clearly show:
 - (D) the Contractor's full name, address and telephone number;
 - (E) the City's purchase order number;
 - (F) the name of the City's project manager;
 - (G) the application for payment number and date; and
 - (H) the Contractor's PST and GST registration number(s);
 - .2 be attached to a statement or statutory declaration sworn by an officer of the Contractor, which attests to the accuracy and completeness of the information contained therein, and for each application following the first application also include in addition to the foregoing and not in lieu of the same, a current CCDC 9A Statutory Declaration of Progress Payment Distribution by Contractor, which shall be completed and sworn before a Notary Public or Commissioner for Oaths for the Province of British Columbia;
 - .3 relate the Work for which payment is claimed to the Project Schedule and the schedule of values provided and provide such back-up invoices and other materials as may be reasonably necessary for the Consultant to review such application;
 - .4 be accompanied by a sworn declaration that there are no Liens or other liens relating to the Contractor, the Work or the Products registered against the City, the Project or the Place of the Work or the City's interest therein or against the Holdback;
 - .5 attach the documents required under GC9.4 demonstrating compliance by the Contractor and each Subcontractor with WorkSafeBC Rules;

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- .6 attach the monthly update contemplated by GC3.5.3; and
 - .7 provide a comprehensive list of items which remain to be completed and any defective items which remain to be corrected and the Contractor's estimate of the costs and time to complete or correct such items.
- 5.2.7 The Contractor shall deliver a complete application as provided in GC5.2.6 and if such application is not complete, the Consultant may reject all or the applicable portions of the same by promptly (and in any event within five (5) calendar days of its receipt) notifying the Contractor of the deficiencies in the application. The Contractor will promptly supply to the Consultant such further certification or information as may be necessary to remedy the deficiencies in the application.
- 5.2.8 An application for payment shall be deemed to be received by the Consultant only if and when submitted in full conformity with GC5.2.6.

GC5.3 PROGRESS PAYMENT

GC5.3.1.2 is amended by adding the following before the last sentence of the paragraph:

If, after a certificate for payment has been issued to the City (and prior to payment by the City), the Consultant determines on the basis of new information that the amount certified for payment is incorrectly high or low relative to the Work being certified, then the Consultant shall issue a revised certificate.

GC5.3.1.3 is amended by deleting the words "Article A-5 of the Agreement – PAYMENT" and replacing with "this GC5 and the *Lien Act*".

GC5.3.2 is added as follows:

- 5.3.2 Subject to the provisions of the *Lien Act*, the City may retain a deficiency holdback from progress payments prior to Substantial Performance of the Work to ensure that sufficient money is withheld to fund any agreed deficiency holdback at Substantial Performance of the Work

GC5.4 SUBSTANTIAL PERFORMANCE OF THE WORK

GC5.4 is deleted in its entirety and replaced with the following:

GC5.4 SUBSTANTIAL PERFORMANCE OF THE WORK/CERTIFICATE OF COMPLETION

- 5.4.1 When the Contractor considers that Substantial Performance of the Work has been achieved, or if permitted by the *Lien Act* the Contractor wishes to apply for a Certificate of Completion with respect to a subcontract with a Subcontractor, the Contractor shall, within one Working Day, deliver to the Consultant and to the City an application for a Certificate of Completion (a "**Completion Certificate Application**") in conformity with GC5.4.4.
- 5.4.2 The Consultant will review the Work to verify the validity of the application and shall promptly, and in any event, no later than ten (10) calendar days after receipt of the Contractor's application:
 - .1 advise the Contractor in writing that the Work or the designated portion of the Work is not "completed" (as that term is used in the *Lien Act*) and give reasons why, or

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- .2 prepare a Certificate of Completion in respect of the Work or subcontract stating on the certificate the date of issuance in accordance with the *Lien Act* and issue a copy of that certificate to each of the City and the Contractor.
- 5.4.3 Immediately following the issuance of the Certificate of Completion for all of the Work, the Contractor, in consultation with the Consultant, shall establish a reasonable date for Total Performance of the Work (which date will be deemed to be the date for the same set out in the Project Schedule if such date is specified).
- 5.4.4 Each Completion Certificate Application referred to in GC5.4.1 shall also contain an application for payment and shall consist of the following:
 - .1 a cover letter stating that the submittal is an application for a Certificate of Completion as well as an application for payment, and clearly identifying the Work or subcontract for which the Certificate of Completion is being sought;
 - .2 all of the certifications and information required on an application for payment, as set out in GC5.2.6;
 - .3 with respect to the Work or subcontract, as applicable, all deliverables, including copies of all manufacturer's warranties, called for in the Contract Documents which are or should be available at the time of the Completion Certificate Application, including, without limitation and by way of example only, all operation manuals, service manuals, warranty certificates, maintenance contracts, service contracts, software licences, inspection reports, and other applicable manuals, contracts, certificates, guarantees and warranties.
- 5.4.5 Failure to specify an incomplete or defective item on a Completion Certificate Application or the Consultant's issuance of a Certificate of Completion or certificate of payment in respect of the same does not alter the responsibility of the Contractor to complete the Contract.
- 5.4.6 Subject to the requirements of the *Lien Act* relative to the date of issuance by the Consultant of the Certificate of Completion of the Work pursuant to GC5.4.2.2:
 - .1 the Consultant shall issue to the City and copy to the Contractor a certificate of payment for an amount equal to the Contract Price less:
 - (i) three times the value of any deficiencies shown on the comprehensive list of items to be completed or corrected, as determined by the Consultant,
 - (ii) the value of incomplete work as determined by the Consultant, and
 - (iii) the amounts of all previous certificates of payment;
 - .2 the City shall then make payment to the Contractor in accordance with the provisions of GC5.3.1.3 provided always that a Completion Certificate Application shall be deemed received only if and when submitted in accordance with GC5.2.6 as well as GC5.4.4; and
 - .3 for the avoidance of doubt, this GC5.4.6 does not create an obligation to avoid retaining, or to release, any Holdback.

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GC5.5 PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK

GC5.5 is deleted in its entirety and replaced with the following:

GC5.5 PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK

5.5.1 After the issuance of the Certificate of Completion evidencing Substantial Performance of the Work, the Contractor shall:

- .1 submit an application for payment of the Holdback,
- .2 submit a current CCDC 9A Statutory Declaration of Progress Distribution by Contractor, as well as a current CCDC 9B Statutory Declaration of Progress Distribution by Subcontractor from each of the Subcontractors, which in every case shall be fully and properly completed and sworn before a Notary Public or Commissioner for Oaths for the Province of British Columbia;
- .3 verify that there are no Liens or other liens relating to the Contractor, the Work or the Products registered against the City, the Project or the Place of the Work or the City's interest therein or against the Holdback, and swear and submit to the Consultant a written declaration that there are no such Liens or other liens;
- .4 attach the documents required under GC9.4 demonstrating compliance by the Contractor and each Subcontractor with WorkSafeBC Rules; and
- .5 attach copies of a current title search of the Place of the Work confirming that no Liens have been registered prior to the time the release of the Holdback is due.

5.5.2 After the receipt of and approval of the application documents described in GC5.5.1, the Consultant will issue a certificate for payment of the Holdback (less any previous releases of the Holdback on account of subcontract Certificates of Completion).

5.5.3 The Contractor now acknowledges that the City is exempt under the regulations of the *Lien Act* from the requirement to keep the Holdback in a separate holdback account.

5.5.4 The Holdback is due and payable as set out in GC5.1.6.3. The City may retain out of the Holdback any sums required by law to satisfy any Liens arising under the Contract or any subcontract or, if permitted by the *Lien Act*, claims against the Contractor.

GC5.6 PROGRESSIVE RELEASE OF HOLDBACK

GC5.6.1 is deleted in its entirety and replaced with the following:

5.6.1 Any portion of the Holdback in respect of a Subcontractor or Supplier subcontract is due and payable as set out in GC5.1.6.3. The City may retain out of the subcontract portion of the Holdback any sums required by law to satisfy any Liens arising in connection therewith or, if permitted by the *Lien Act*, other claims.

GC5.6.2 is deleted in its entirety.

GC5.6.3 is amended by deleting the words "final certificate for payment" and replacing with "Final Certificate for Payment".

GC5.7 FINAL PAYMENT

GC5.7.1 is deleted in its entirety and replaced as follows:

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- 5.7.1 When the Contractor considers that Total Performance of the Work has been achieved, the Contractor shall submit its final application for payment. The application for payment on attaining Total Performance of the Work shall consist of the following:
- .1 all of the certifications and information required on an application for payment as set out in GC5.2.6, all appropriately amended to clearly confirm that the Work is fully completed, all Products have been delivered, and all Lien periods have expired with no Liens or other liens having been filed;
 - .2 a current CCDC 9A Statutory Declaration of Progress Distribution by Contractor, as well as a current CCDC 9B Statutory Declaration of Progress Distribution by Subcontractor from each of the Subcontractors, which in every case shall be fully and properly completed and sworn before a Notary Public or Commissioner for Oaths for the Province of British Columbia;
 - .3 copies of a current title search of the Place of the Work confirming that no Liens have been registered as at the date of application for Final Certificate for Payment; and
 - .4 all deliverables called for in the Contract Documents which were not delivered at the time of Substantial Performance of the Work.

GC5.7.3 is amended by deleting the words “final certificate for payment” and replacing with “Final Certificate for Payment”.

GC5.7.4 is deleted in its entirety and replaced as follows:

- 5.7.4 Subject to paragraph 9.4.1 of GC9.4 – CONSTRUCTION SAFETY & WORKPLACEBC RULES, and the *Lien Act*, the City shall, no later than twenty-one (21) calendar days after the issuance of a Final Certificate for Payment, pay the Contractor as provided in GC5.1.6.4

GC6.1 OWNER’S RIGHT TO MAKE CHANGES

GC6.1.3 is added as follows:

- 6.1.3 Change Orders, contemplated Change Orders, and Change Directives shall be on printed forms supplied by the City or Consultant and may include:
- .1 job site instructions or site memo forms, for immediate authorization at the Place of the Work in order not to delay the performance of the Work and for changes of a minor nature with no price variation, which shall be issued on site on the signature of the Consultant only;
 - .2 contemplated Change Orders issued by the Consultant for purposes of the Contractor’s response to a proposed method of adjustment and extent of adjustment to the Contract Price or Contract Time, which shall be signed by the Consultant only;
 - .3 Change Orders authorizing the Contractor to proceed with the Work as set out by the Consultant and Contractor in a contemplated Change Order, which shall be signed by the City and the Contractor.

GC6.1.4 is added as follows:

- 6.1.4 *Basis of Payment for Changes on Cost Plus Basis*

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- .1 *Work Done on Cost Plus Basis:* The cost of Work done under a Change Directive or Change Order on a cost-plus basis, except as otherwise specified in the Contract Documents or agreed in writing between the City and the Contractor, shall be at rates prevailing in the locality of the Place of the Work and, subject to GC6.1.6, shall include the cost elements set out in GC5.1A.3(i) through (xvi) as applicable to such Work.
- .2 *Approval Required:* The Contractor shall obtain the Consultant's approval prior to subcontracting or entering into other agreements for Work done under a Change Directive or Change Order on a cost-plus basis.
- .3 *Rejection of Costs:* The Consultant may refuse to certify payment for all or part of the cost of any item under any cost element, where the item in question was unsuitable or unnecessary, or the cost was otherwise improperly incurred in the performance of the Work.
- .4 *Records:* The Contractor shall keep full and detailed accounts and records necessary for the documentation of the cost of Work done under a Change Directive or Change Order on a cost-plus basis, and shall provide the Consultant with copies thereof when requested.
- .5 *Access to Records:* the City and the Consultant shall be afforded reasonable access to all of the Contractor's books, records, correspondence, instructions, drawings, receipts, vouchers, and memoranda related to the cost of Work done under a Change Directive or Change Order on a cost-plus basis, and for this purpose the Contractor shall preserve such records for a period of one (1) year after the date of Substantial Performance of the Work.
- .6 Notwithstanding any other provision hereof, when a change in the Work is valued on a cost-plus basis, then:
 - (i) the costs of labour will be determined by the labour rates specified in the schedules to the Agreement, including the Schedule of Force Account Labour and Construction Equipment Rates, if any, in each case without any mark up unless otherwise specified therein;
 - (ii) the costs of Construction Equipment will be determined by the construction equipment rates specified in the schedules to the Agreement, including the Schedule of Force Account Labour and Construction Equipment Rates, if any, in each case without mark up unless otherwise specified therein; and
 - (iii) for further certainty, to the extent that any changes involve changes in the quantities of Unit Price Work such changes will be determined solely by the unit prices, without mark-up, unless otherwise specified in the schedules to the Agreement.

GC6.1.5 is added as follows:

6.1.5 Valuation and Marks ups for all Change Orders and Change Directives

The following terms and conditions will apply to any quotation for a Change Order prepared by the Contractor pursuant to GC 6.2 - *CHANGE ORDER*, and will also apply to any Change Directive issued pursuant to GC 6.3 - *CHANGE DIRECTIVE*:

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- .1 The valuation for all (except previously agreed separate prices and unit prices) Work done under a Change Directive or Change Order which result in an increase in the Contract Price, whether valued as a lump sum or on a cost-plus basis, will be based on the actual direct unavoidable costs incurred by the Contractor and will be deemed to include all amounts on account of overhead, profit, administrative, and any other indirect expenses or allowances except as follows:
 - .1 The Contractor will receive combined overhead and profit equal to ten percent (10%) of the direct unavoidable costs incurred by the Contractor's use of his own forces;
 - .2 The Contractor will receive five percent (5%) combined overhead and profit on the amounts paid by the Contractor to any Subcontractor or Suppliers as a direct result of the Change Order or Change Directive (provided always that the Subcontract contains the same limitations on Change Orders and Change Directives as this Contract).
 - .3 The Subcontractor will receive combined overhead and profit of ten percent (10%) on account of the direct unavoidable costs incurred by the Subcontractor as direct result of the Change Order or Change Directive, and
 - .4 The Supplier will receive no overhead, profit or other markup on account of the Change Order or Change Directive.
- .2 The valuation for all (except previously agreed separate price and unit rates) changes in the Work which result in a decrease in the Contract Price will be based on the actual savings in all costs to the Contractor, Subcontractor and Suppliers, exclusive of markups or deductions for overhead, profit, administrative or any other indirect costs not causally related to the Change Order or Change Directive.
- .3 If a change in the Work results in both expenditures and savings, any overhead or profit that is otherwise payable by the City shall be payable only on the net increase in expenditures, if any, with respect to that change in the Work.
- .4 The Contractor will only enter into Subcontracts with Subcontractors and Suppliers which obligate each Subcontractor and Supplier to comply with the provisions of this Part 6 - CHANGES IN THE WORK.
- .5 Upon the request of the Consultant, the Contractor will promptly deliver all supporting documentation including labour, Products, services, Subcontract breakdowns and all other documentation in order to substantiate any Change Order quotation or change in the Contract Price pursuant to a Change Directive.
- .6 The Contractor will be responsible for having time sheets covering all personnel respecting any Change Order or Change Directive checked and approved daily by the Consultant, and claims for reimbursement of any extra wages, salaries or other expenses relating to such personnel will only be accepted when properly supported by such signed time sheets.
- .7 All costs and expenses incurred by the Contractor and any Subcontractor or Suppliers in preparing any requested Change Order quotation or submitting, substantiating or otherwise administering a claim pursuant to a Change Order or

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Change Directive will be the responsibility of the Contractor and may not be included in any adjustment to the Contract Price.

GC6.1.6 is added as follows:

6.1.6 *Cost Plus Maximum under Change Order*

When a change in Work is valued on a cost-plus basis, the City may require that the aggregate amount incurred under the corresponding Change Directive shall not exceed a maximum amount acceptable to the City, acting reasonably, and specified in the Change Directive, as such amount may be revised from time to time by subsequent written authorization of the City. The Contractor shall not be entitled to payment in excess of such applicable maximum amount in respect of any such Change Directive.

GC6.3 CHANGE DIRECTIVE

GC6.3.3 is deleted in its entirety.

GC6.3.5 is deleted in its entirety.

GC6.3.6 is deleted in its entirety.

GC6.3.7 is deleted in its entirety.

GC6.3.8 is deleted in its entirety.

GC6.3.9 is deleted in its entirety.

GC6.3.10 is deleted in its entirety.

GC6.4 CONCEALED OR UNKNOWN CONDITIONS

GC6.4.1 is deleted in its entirety and replaced as follows:

6.4.1 If the Contractor discovers conditions at the Place of the Work which: (i) are subsurface or otherwise concealed physical conditions which existed before the commencement of the Work; (ii) could not reasonably have been discovered by proper investigation by the Contractor under GC3.10.13; and (iii) differ materially from those disclosed in the Contract Documents, including any geotechnical report, environmental assessment, or other report included or referenced in the Contract Documents or provided or made known to the Contractor before the commencement of the Work, then the Contractor shall give Notice in Writing to the Consultant of such conditions before they are disturbed and in no event later than five (5) Working Days after first observance of the conditions.

GC6.4.1A is added as follows:

6.4.1A The Contractor must give notice under GC6.4.1 within five (5) Working Days after discovery of the conditions or the time when the Contractor by reasonable diligence could have discovered the conditions, failing which the Contractor may not make or enforce any claim against the City, whether for a change in the Contract Price or other compensation or for an extension of the Contract Time arising from those conditions.

GC6.4.2 is amended by deleting the words "If the finding is that the conditions differ materially and this would cause" and replacing with "If the requirements of GC6.4.1 and GC6.4.1A are satisfied and the relevant conditions would cause".

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GC6.4.3 is amended by deleting the words “the conditions at the Place of Work are not materially different” and replacing with “the requirements of GC6.4.1 and GC6.4.1A are not satisfied”.

GC6.4.4 is deleted in its entirety and replaced as follows:

- 6.4.4 If such concealed or unknown conditions relate to Hazardous Substances, artefacts and fossils, or mould, the parties will be governed by the provisions of GC9.2 – TOXIC AND HAZARDOUS SUBSTANCES, GC9.3 – ARTIFACTS AND FOSSILS and GC9.5 – MOULD.

GC7.1 OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK OR TERMINATE THE CONTRACT

GC7.1.5.2 is amended by deleting the words “final certificate for payment” and replacing with “Final Certificate for Payment”.

GC7.1.7 is added as follows:

- 7.1.7 The City may terminate the Contract at any time for the convenience of the City by notice given to the Contractor. If the Contract is terminated under this GC7.1.7, then:
- (a) the Contractor shall suspend performance of the Work and shall not incur further cost or expense in relation to the Work, except (i) as necessary to protect the Work and the safety of persons, or (ii) as authorized or directed in writing by the City;
 - (b) the Contractor shall remove from the Place of the Work its personnel and all Construction Equipment and other material that is owned or leased by the Contractor, except as otherwise required to comply with GC7.1.7(a)(i) and (ii); and
 - (c) the City shall pay the Contractor for all Work performed, including the cost of complying with GC7.1.7(a)(i) and (ii), in accordance with the terms and conditions of payment set out in the Contract, together with the documented and reasonable cost of terminating subcontracts with Subcontractors and Suppliers and demobilizing the Contractor's personnel and Construction Equipment, all as certified by the Consultant, and upon such payment being made, the Contractor shall have no further or other claim against the City for, or in connection with, termination of the Contract.

GC7.2 CONTRACTOR'S RIGHT TO SUSPEND THE WORK OR TERMINATE CONTRACT

GC7.2.2 is amended by replacing the number “20” where it appears in the first sentence with the number “30”.

GC7.2.3 is amended by adding the following to the beginning of the first sentence:

If the default cannot be corrected in five (5) Working Days or in such other time as may be subsequently agreed in writing by the parties,

GC7.2.3.1 is deleted in its entirety.

GC7.2.3.4 is deleted in its entirety and replaced with the following:

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- .4 the City violates the requirements of the Contract to a substantial degree and the Consultant, except for GC5.1- GENERAL FINANCIAL/PAYMENT PROVISIONS, confirms by written statement to the Contractor that sufficient cause exists.

GC7.2.4 is amended by revising the second line to read:

...corrected within fourteen (14) Working Days following the receipt of the Notice in Writing, the Contractor may, without prejudice to any ...

GC 8.2 NEGOTIATION, MEDIATION AND ARBITRATION

GC8.2.1.1 is deleted in its entirety and replaced as follows:

- .1 within thirty (30) Working Days after the Contract was awarded, or

GC8.2.1.2 is deleted in its entirety and replaced as follows:

- .2 if the parties neglected to make an appointment within the thirty (30) Working Days, within twenty (20) Working Days after either party by Notice in Writing requests that the Project Mediator be appointed.

GC8.2.3 is amended by adding the following to the end:

However, the City and the Contractor nonetheless irrevocably and unconditionally attorn to the jurisdiction of the courts of British Columbia, and courts to which appeals therefrom may be taken, in respect of any dispute or claim arising under or relating to the Contract. The City and the Contractor acknowledge and agree that such courts have jurisdiction, but not necessarily exclusive jurisdiction in respect of any such dispute or claim. If a dispute arises under or in relation to this Contract, and the dispute cannot be resolved by the City's project manager and the Contractor's principal representative at the Place of the Work within three (3) Working Days after the dispute arises, or the City's project manager is not authorized to resolve the dispute, then:

- (a) the dispute will be referred to the City's Director of Facilities and the Contractor's project manager for resolution, and if they cannot resolve the dispute within three (3) Working Days after referral to them, then
- (b) the dispute will be referred to a senior executive of the City designated by it and a senior executive of the Contractor designated by it, for resolution, and if they cannot resolve the dispute within three (3) Working Days after referral to them, then
- (c) either party may take such further legal proceedings as they consider necessary for the resolution of the dispute either concurrently with or in lieu of the process outlined in GC8.2.4 to GC8.2.9.

GC8.2.4 is amended by revising the second line to read:

...the parties may request the Project Mediator...

GC8.2.6 is amended by revising the second line to read:

...either party may request referral of the dispute...

GC8.2.7 is deleted in its entirety and replaced as follows:

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- 8.2.7 If a Notice in Writing is not given under paragraph 8.2.6 within the required time or the other party does not reply and agree to binding arbitration, the parties may refer the unresolved dispute to the courts or to any other form of dispute resolution, including arbitration, which they have agreed to use.

GC8.2.9 is added as follows:

- 8.2.9 Where references are made in the Contract Documents to “the time of bid closing”, it is intended by the parties that this shall mean the effective date of the contract.

GC9.1 PROTECTION OF WORK AND PROPERTY

GC9.1.1 is deleted in its entirety and replaced with the following:

- 9.1.1 The Contractor shall protect the Work, Products delivered to the Place of the Work, the City’s property and property on or adjacent to the Place of the Work from theft and damage which may arise as the result of the Contractor’s operations under the Contract, and shall be responsible for such theft and damage, except theft and damage which occurs as the result of:

- .1 errors in the Contract Documents;
- .2 acts or omissions by the City, other contractors, or their agents and employees.

GC9.1.4 is amended by revising the first line to read:

Should damage occur to the Work, Products delivered to the Place of the Work, the City’s property or property on or adjacent to the Place of the Work, for which the Contractor is not responsible, as provided in paragraph...

GC9.1.5 is added as follows:

- 9.1.5 The Contractor is responsible for protection of the Work during shutdown, including shutdowns caused by strikes.

GC9.2 TOXIC AND HAZARDOUS SUBSTANCES

GC9.2.1 is deleted in its entirety and replaced with the following:

- 9.2.1 For the purposes of the Contract, the City shall be deemed to have control and management of the Place of the Work with respect to the condition of the Place of the Work prior to the commencement of the Work in relation to applicable Environmental Law and the presence of any Hazardous Substances.

GC9.2.2 is deleted in its entirety and replaced with the following:

- 9.2.2 Prior to the Contractor commencing the Work, the City shall:
- .1 take reasonable steps to determine whether the Place of the Work contains any Hazardous Substances and, if so, whether the condition of the Place of the Work is in compliance with applicable Environmental Law; and
 - .2 provide the Consultant and the Contractor with a written list of any such Hazardous Substances that the City knows to exist on, and their locations within, the Place of the Work.

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GC9.2.3 is deleted in its entirety and replaced with the following:

- 9.2.3 Unless the Contract expressly provides otherwise, the City shall be responsible for taking such steps as may be necessary, in accordance with applicable Environmental Law to dispose of, store or otherwise deal with Hazardous Substances so as to cause the Place of the Work to comply with the requirements of applicable Environmental Law before the Contractor commences the Work.

GC9.2.4 is deleted in its entirety and replaced with the following:

- 9.2.4 Except as previously disclosed in writing by the City or as otherwise known by the Contractor, if the Contractor:

- .1 encounters Hazardous Substances at the Place of the Work; or
- .2 has reasonable grounds to believe that Hazardous Substances are present at the Place of the Work which were not brought to the Place of the Work by the Contractor or anyone for whom the Contractor is responsible or which were disclosed but have not been dealt with as required under paragraph 9.2.3,

the Contractor shall:

- (a) take reasonable steps, including stopping the Work, to ensure that no person's exposure to any Hazardous Substance at the Place of the Work exceeds any levels contrary to the requirements of applicable Environmental Law, and
- (b) immediately report the circumstances to the Consultant and the City by Notice in Writing.

GC9.2.5 is deleted in its entirety and replaced with the following:

- 9.2.5 If the City and the Contractor, acting reasonably, fail to agree on whether the condition of the Place of the Work is in compliance with applicable Environmental Law prior to the commencement of the Work or whether Hazardous Substances were brought onto the Place of the Work by the Contractor or anyone for whom the Contractor is responsible, or whether the Contractor or anyone for whom the Contractor is responsible caused the release of Hazardous Substances at the Place of the Work, the City shall retain an independent qualified expert to investigate and report on the subject of the dispute. Subject to paragraph 9.2.6, the City shall pay for the cost of the expert's investigation and report. The City will provide a copy of the expert's report to the Contractor.

GC9.2.6 is deleted in its entirety and replaced with the following:

- 9.2.6 If the expert's report under paragraph 9.2.5 determines that the Place of the Work was in compliance with applicable Environmental Law prior to the commencement of the Work or that Hazardous Substances were brought onto the Place of the Work by the Contractor or any for whom the Contractor is responsible, or that the Contractor or anyone for whom the Contractor is responsible caused the release of a Hazardous Substance at the Place of the Work, the Contractor shall pay for the cost of the expert's investigation and report.

GC9.2.7 is deleted in its entirety and replaced with the following:

- 9.2.7 If the City and the Contractor agree, or if the expert's report under paragraph 9.2.5 concludes, that the Contractor or anyone for whom the Contractor is responsible brought

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a Hazardous Substance onto, or caused the release of a Hazardous Substance on, the Place of the Work, the Contractor shall promptly at the Contractor's expense:

- .1 take such steps as are necessary to safely and in compliance with Environmental Law remove, transport and dispose of such Hazardous Substance and to remediate the Place of the Work to such extent as is required to cause the Place of the Work to comply with all applicable Environmental Law;
- .2 make good any damage to the Work, the City's property and any property affected by any migration of the Hazardous Substance as provided in paragraph 9.1.3 of GC9.1 – PROTECTION OF WORK AND PROPERTY;
- .3 reimburse the City for all resultant costs and expenses reasonably incurred by the City; and
- .4 indemnify the City as required by GC12.1 – INDEMNIFICATION

GC9.2.8 is deleted in its entirety and replaced with the following:

9.2.8 If the City and the Contractor agree, or if the expert's report under paragraph 9.2.5 concludes, that neither the Contractor nor anyone for whom the Contractor is responsible is responsible for bringing a Hazardous Substance onto, or for causing the release of a Hazardous Substance on, the Place of the Work, the City shall promptly at the City's expense:

- .1 take such steps as are necessary to safely and in compliance with Environmental Law remove, transport and dispose of such Hazardous Substance and to remediate the Place of the Work to such extent as is required to cause the Place of the Work to comply with all applicable Environmental Law;
- .2 reimburse the Contractor for all resultant costs and expenses reasonably incurred by the Contractor;
- .3 extend the Contract time for such reasonable time as the Consultant may recommend in consultation with the Contractor and the expert referred to in paragraph 9.2.5 and reimburse the Contractor for costs reasonably incurred as a result of the delay, and
- .4 indemnify the Contractor as required by GC12.1 – INDEMNIFICATION.

GC9.2.9 is amended by deleting the words "Part 8 of the General Conditions – Dispute Resolution" from the second line and replacing with "Part 8 – DISPUTE RESOLUTION".

GC9.2.10 is added as follows:

9.2.10 The Contractor shall, and shall ensure that anyone for whom the Contractor is responsible shall, at all times comply with all applicable Environmental Law and ensure that all Work is conducted in compliance with all applicable Environmental Law.

GC 9.3 ARTIFACTS AND FOSSILS

GC9.3.1 is deleted in its entirety and replaced with the following:

9.3.1 If the Contractor or anyone for whom the Contractor is responsible discovers fossils coins, articles of value or antiquity, structures and other remains or things of scientific, cultural or historical interest at the Place of the Work (in GC9.3 called, "**Historical**

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Items”), the Contractor shall immediately give Notice in Writing thereof to the City and the Consultant. As between the City and the Contractor, all Historical Items shall be, and shall be deemed to be, the absolute property of the City, and the Contractor hereby irrevocably waives and disclaims any right, title or interest therein.

GC9.3.2 is deleted in its entirety and replaced with the following:

- 9.3.2 The Contractor shall take all reasonable precautions, and shall comply with all reasonable directions from the Consultant, to prevent removal or damage to Historical Items as identified in paragraph 9.3.1 or as otherwise known to be present at the Place of the Work.

GC9.3.3 is deleted in its entirety and replaced with the following:

- 9.3.3 The Consultant will investigate the impact on the Work of the discovery of any Historical Item identified in paragraph 9.3.1. If conditions are found that would cause an increase or decrease in the Contractor’s cost or time to perform the Work, the Consultant, with the City’s approval, will issue appropriate instructions for a change in the Work as provided in GC6.2 –CHANGE ORDER or GC6.3 – CHANGE DIRECTIVE.

GC9.4 CONSTRUCTION SAFETY

The above heading for GC9.4 is amended by adding “&WORKSAFEBC RULES” to the end.

GC9.4.2 is added as follows:

- 9.4.2 Unless otherwise specified in the Contract Documents or notified to the contrary by the Consultant, the Contractor is the “prime contractor” for the purpose of the WorkSafeBC Rules, notwithstanding that the City, the Consultant or another contractor may provide from time to time some of the services normally provided by such a “prime contractor”.

GC9.4.3 is added as follows

- 9.4.3 If the Contractor is the “prime contractor”, the Contractor shall:
- .1 *Compliance with Law:* comply with all Applicable Laws, and all reasonable rules established by the City of which the Contractor is given timely notice through the Consultant, relative to occupational health and safety;
 - .2 *Safety Programs:* initiate, maintain and supervise all safety programs and measures in connection with the performance of the Work, which program shall respond fully to the requirements of all Applicable Laws relative to occupational health and safety, all to the satisfaction of the Consultant;
 - .3 *Site Meetings:* conduct regular safety meetings at the Place of the Work, no less frequently than weekly, record minutes of such meetings and give copies of such minutes to the Consultant on a weekly basis;
 - .4 *Safety Equipment:* supply and maintain at the Place of the Work all safety equipment necessary to protect workers and others from accident or injury; and
 - .5 *First Aid:* supply and maintain at the Place of the Work all personnel, equipment and supplies necessary for the provision of appropriate first-aid to any worker or person suffering an accident or injury at or about the Place of the Work, and establish an emergency procedure for prompt removal of any such person from the Place of the Work to a hospital, clinic or medical office for further treatment.

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- .6 *Notice of Project:* prior to commencement of construction:
- (a) complete and file a “Notice of Project” with the WorkSafeBC in compliance with Section 20.2 of the *Occupational Health and Safety Regulation*;
 - (b) post the Notice of Project at the Place of the Work, and
 - (c) provide a copy of the Notice of Project to the City and confirm in writing that the Notice of Project has been posted at the Place of the Work.

GC9.4.4 is added as follows

9.4.4 If, or for so long as the Contractor is not the “prime contractor”, the Contractor shall:

- .1 *Compliance with Law:* comply with all Applicable Laws, and all reasonable rules established by the City of which the Contractor is given timely notice through the Consultant, relative to occupational health and safety;
- .2 *Compliance with Directions:* comply with all reasonable directions issued by the “prime contractor” regarding compliance with Applicable Laws, and rules established by the City, relative to occupational health and safety; and
- .3 *Site Safety Meetings:* attend all Place of the Work safety meetings convened by the “prime contractor”.

GC9.4.5 is added as follows

9.4.5 Whether or not the Contractor is the “prime contractor”, it shall:

- .1 *Reporting:* report immediately to the “prime contractor” (if not the Contractor) and the Consultant all accidents and injuries of any kind or severity occurring on or about the Place of the Work and involving employees of the Contractor or any Subcontractor, or any other person of which the Contractor is aware, and arising out of or in connection with the Work;
- .2 *Written Confirmation:* confirm in writing each report made under subparagraph (a); and
- .3 *City Policy:* respect and adhere to City’s safety and training policies relative to the Place of the Work and the Work.

GC9.4.6 is added as follows

9.4.6 If the Consultant determines that the Contractor is not in compliance with its obligations as “prime contractor”, if applicable, the City may, but is not obliged to, provide some or all of the services required to discharge those obligations. All costs incurred by the City in providing such services shall be paid by the Contractor to the City, and may be deducted from any amount then or thereafter becoming due to the Contractor under the Contract.

GC9.4.7 is added as follows:

9.4.7 The Contractor shall indemnify and save harmless the City from any and all damages, liabilities, cost, fines, penalties, fees and expenses whatsoever including, without limitation, legal fees, charges and disbursements as between a solicitor and his own client, related to or arising out of the assignment to the Contractor, and the Contractor’s

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assumption, of the responsibilities, obligations and liabilities of the “prime contractor” under the WorkSafeBC Rules with respect to the Place of the Work.

GC9.4.8 is added as follows:

- 9.4.8 The Contractor agrees that it shall at its own expense procure and carry or cause to be procured and carried and paid for, full WorkSafeBC coverage for itself and all workers, employees, servants and others engaged in or upon any work or service which is the subject of this Contract.

GC9.4.9 is added as follows:

- 9.4.9 The Contractor agrees that the City has the unfettered right to set off the amount of the unpaid premiums and assessments for such WorkSafeBC coverage against any monies owing by the City to the Contractor. The City shall have the right to withhold payment under this Contract until the WorkSafeBC premiums, assessments or penalties in respect of work done or service performed in fulfilling this Contract had been paid in full.

GC9.4.10 is added as follows:

- 9.4.10 Promptly upon execution of this Agreement, the Contractor will provide the City with the Contractor’s and all Subcontractors’ WorkSafeBC registration numbers.

GC9.4.11 is added as follows:

- 9.4.11 Promptly upon execution of this Agreement, and concurrently with making any application for payment under this Contract, the Contractor will provide the City with written confirmation that the Contractor and all Subcontractors are registered in good standing with WorkSafeBC and that all assessments have been paid to the then current date.

GC9.4.12 is added as follows:

- 9.4.12 The Contractor may or may not have received, as part of the Contract Documents, a “Pre-Contract Hazard Assessment” prepared by or for the City pursuant to the City’s statutory obligations under the WorkSafeBC Rules (Section 119 of the *Workers’ Compensation Act*) as an “owner of a workplace”. Despite the City’s statutory obligations, the Contractor now acknowledges and agrees that the Contractor may not rely on the “Pre-Contract Hazard Assessment” and now agrees to assume by the terms of this Contract full responsibility for carrying out the City’s obligations under Section 119 of the *Workers’ Compensation Act*, including without limitation and by way of example only, conducting all due diligence inquiries of all applicable City staff and departments in order to ascertain what, if any, information is known or has been recorded by City staff about the Place of the Work that is necessary to identify and eliminate or control hazards to the health or safety of persons at the Place of the Work. The City now agrees to make all reasonable efforts to assist the Contractor in obtaining timely access to City staff and City records for this purpose.

GC9.4.13 is added as follows:

- 9.4.13 The Contractor will indemnify the City and hold harmless the City from all manner of claims, demands, costs, losses, penalties and proceedings arising out of or in any way related to:
- .1 unpaid WorkSafeBC assessments of the Contractor or any other employer for whom the Contractor is responsible under this Contract;

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- .2 the acts or omissions of any person engaged directly or indirectly by the Contractor in the performance of this Contract, or for whom the Contractor is liable pursuant to the Contractor's obligations as the "prime contractor", and which acts or omissions are or are alleged by WorkSafeBC to constitute a breach of the WorkSafeBC Rules or other failure to observe safety rules, regulations and practices of WorkSafeBC, including any and all fines and penalties levied by WorkSafeBC; or
- .3 any breach of the Contractor's obligations under Clause GC9.1.

GC9.4.14 is added as follows:

- 9.4.14 The Contractor agrees to retain a full-time construction safety officer whenever required by the then-current Vancouver Building By-law. The construction safety officer shall bear written proof of qualification satisfactory to the City of Vancouver's Director of Permits and Licenses.

GC9.5 MOULD

GC9.5.1 is deleted in its entirety and replaced with the following:

- 9.5.1 If the Contractor or the City observes or reasonably suspects the presence of mould at the Place of the Work of the nature and quantity such that special handling and precautions are required under Environmental Law or that otherwise may reasonably present a hazard to the health and safety of persons, the remediation of which has not been separately arranged by the City or is not expressly part of the Work,
 - .1 the observing party shall promptly report the circumstances to the other party by Notice in Writing;
 - .2 the Contractor shall promptly take all reasonable steps, including stopping all or such portions of the Work as may be necessary to ensure that no person suffers injury, sickness or death and that no property is damaged as a result of exposure to or the presence of the mould; and
 - .3 if the City and the Contractor do not agree on whether any mould discovered is of the nature and quantity such that special handling and precautions are required under Environmental Law, or whether such mould may otherwise reasonably present a hazard to the health and safety of persons, or with respect to what steps are appropriate to be taken to deal with the mould, or as to the cause of the presence of the mould, the City shall retain an independent qualified expert to investigate and report on the subject of the dispute. Subject to paragraph 9.5.2, the City shall pay for the cost of the expert's investigation and report. The City will provide a copy of the expert's report to the Contractor.

GC9.5.2 is deleted in its entirety and replaced with the following:

- 9.5.2 If the expert's report under paragraph 9.5.1.3 determines that the mould does not require special handling and precautions in compliance with Environmental Law or does not otherwise reasonably present a hazard to the health and safety of persons, the Contractor will pay for the cost of the expert's investigation and report. If the expert's report under paragraph 9.5.1.3 determines that the mould was caused as the result of the acts or omissions of the Contractor or anyone for whom the Contractor is responsible, the Contractor shall promptly, at the Contractor's expense:

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- .1 take such steps as are necessary to safely and in compliance with Environmental Law remove, transport and dispose of such mould and to remediate the Place of the Work to such extent as is required to cause the Place of the Work to comply with all applicable Environmental Law;
- .2 make good any damage to the Work, the City's property and any property affected by the mould as provided in paragraph 9.1.3 of GC9.1 – PROTECTION OF WORK AND PROPERTY;
- .3 reimburse the City for all resultant costs and expenses reasonably incurred by the City; and
- .4 indemnify the City as required by GC12.1 – INDEMNIFICATION.

GC9.5.3 is deleted in its entirety and replaced with the following:

- 9.5.3 If the City and the Contractor agree, or if the expert's report under paragraph 9.5.1.3 concludes, that the presence of mould at the Place of the Work requires special handling or precautions under Environmental Law or otherwise presents a hazard to the health or safety of persons, and that the Contractor or anyone for whom the Contractor is responsible is not responsible for the presence of such mould, the City shall promptly at the City's expense:
- .1 take such steps as are necessary to safely and in compliance with Environmental Law remove, transport and dispose of such mould and to remediate the Place of the Work to such extent as is required to cause the Place of the Work to comply with all applicable Environmental Law;
 - .2 reimburse the Contractor for the cost of taking the steps under paragraph 9.5.1.2 and making good any damage to the Work as provided in paragraph 9.1.4 of GC9.1 - PROTECTION OF WORK AND PROPERTY; and
 - .3 extend the Contract Time for such reasonable time as the Consultant may recommend in consultation with the Contractor and the expert referred to in paragraph 9.5.1.3 and reimburse the Contractor for reasonable costs incurred as a result of the delay.

GC10.1 TAXES AND DUTIES

GC10.1.1 is deleted in its entirety and replaced as follows:

- 10.1.1 The Contractor shall allow for the payment by the Contractor out of the Contract Price of all PST, GST and other federal, provincial and municipal taxes, rates, levies, assessments and duties, both refundable and non-refundable, and all deposits, (temporary crossings, excavations, etc.). The Contractor agrees to indemnify and save harmless at all times the City from and against all claims which may be made with respect thereto.

GC10.1.2 is amended by revising the first line to read:

...due to changes in such included taxes, duties and rebates after the time...

GC10.1.3 is added as follows:

- 10.1.3 Where an exemption or recovery of government sales taxes, customs duties or excise taxes is applicable to the Contract, the Contractor shall submit for the City's review the

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exemption or recovery application and the supporting invoices of the actual quantities of materials incorporated in the Work prior to applying for the rebate. The City will then issue a certificate verifying the application.

GC10.1.4 is added as follows:

10.1.4 Notwithstanding any other provision to the contrary, if the City determines that it is necessary to satisfy its obligations under any Applicable Law relating to taxes, the City may:

- .1 withhold an amount from a payment made to the Contractor hereunder; and
- .2 pay the withheld amount directly to the competent government authority,

in which case the amount so withheld and paid by the City to the relevant competent government authority shall be deemed to have been paid to the Contractor on the date on which the remainder of the payment to which it relates was paid to the Contractor, and the Contractor agrees and acknowledges that it shall have no claim against the City for such amount withheld and paid to the competent government authority.

GC10.2 LAWS, NOTICES, PERMITS AND FEES

GC10.2.2 is deleted in its entirety and replaced as follows:

10.2.2 The Contractor shall, except as set out below in this GC10.2.2 and unless otherwise specified in the Contract Documents, obtain and maintain all permits, licences, and certificates and pay all fees required for the performance of the Work, and obtain all necessary access and storage rights for areas outside of the Place of the Work (including without limitation and by way of example only, parking for its workers, the swing arc of any construction crane required for the Work, or storage space for materials) but this shall not include the obligation to obtain easements or other access rights over the actual Place of the Work.

GC10.2.3 deleted in its entirety and replaced as follows:

10.2.3 The Contractor shall be responsible for the procurement of permits, licences, inspections, and certificates, which are necessary for the performance of the Work and customarily obtained by contractors in the jurisdiction of the Place of the Work after the issuance of the building permit. The Contract Price includes the cost of all permits, licences, inspections and certificates and their procurement. The Contractor will arrange for all inspections and testing required by such permits. The Contractor shall provide to the Consultant copies of all permits and inspection reports from the various authorities as soon as they are received.

GC10.2.5 is amended by revising the first sentence to read:

10.2.5 The Contractor shall be responsible to provide reasonable verification that the Contract Documents are in compliance...

GC10.4 WORKERS' COMPENSATION

GC10.4 is deleted in its entirety.

GC10.5 LIVING WAGE

GC10.5 is added as follows:

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GC10.5 LIVING WAGE

10.5.1 For the purposes of this GC10.5, the following terms shall have the following meanings:

- (a) **“Living Wage”** means the hourly wage established by the Living Wage Certifier from time to time during the Term, which includes: (i) direct wages; and (ii) the value of any non-mandatory benefits such as paid sick leave, employer-paid Medical Services Plan premiums and extended health benefits;
- (b) **“Living Wage Certifier”** means the Living Wage for Families Campaign, any successor entity, or, in the event the Living Wage for Families Campaign ceases to carry on operations, such other living wage certification entity designated by the City to the Contractor in writing;
- (c) **“Living Wage Employee”** means any and all employees of the Contractor and all Subcontractors of the Contractor that perform any part of the Work on a property owned by or leased to the City, including all streets, sidewalks and other public rights of way, for at least one consecutive hour, but excluding Students, volunteers and employees of Social Enterprises;
- (d) **“Social Enterprise”** means a business that: (i) is owned by a non-profit organization or community services co-operative; (ii) is directly involved in the production and/or selling of goods and services for the combined purpose of generating income and achieving social, cultural, and/or environmental aims; and (iii) has a defined social and/or environmental mandate.
- (e) **“Student”** means an individual who is enrolled in a school, college, university or other educational institution and is employed by the Contractor or a Subcontractor, as the case may be, to obtain practical workplace experience as a requirement of or credit for their education;

10.5.2 Notwithstanding any other provision of any Contract Document but subject to GC 10.5.3, the Contractor shall pay all Living Wage Employees not less than the Living Wage.

10.5.3 Notwithstanding GC 10.5.2, the Contractor has up to 6 months from the date on which any increase in the Living Wage is published by the Living Wage Certifier to increase wages for all Living Wage Employees such that all Living Wage Employees continue to be paid not less than the Living Wage.

10.5.4 The Contractor shall ensure that the requirements of GC 10.5.2 apply to all Subcontractors.

10.5.5 A breach by the Contractor of its obligations pursuant to GC 10.5.2 and 10.5.4 shall be deemed to constitute a failure by the Contractor to comply with the requirements of the Contract to a substantial degree and shall entitle the City to terminate the Contract in accordance with GC 7.1.2.

10.5.6 The Contractor shall maintain up-to-date records and accounts which clearly document its satisfaction of the requirements of this GC 10.5 and shall make the same available to the City upon request. The City may request copies of all such records and accounts which shall be provided to the City by the Contractor (subject to reimbursement of the Contractor's reasonable copying costs and any other direct costs and expenses, if any) at any time prior to the expiry of 365 days after Total Completion of the Work or earlier termination of this Agreement. Any records and accounts provided by the Contractor in

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accordance with this Section 10.5.5 shall be treated by the City as confidential information.

10.5.7 The Contractor shall, at the direction of the City, post signs at Places of Work that are owned by or leased to the City, including all streets, sidewalks and other public rights of way, informing Living Wage Employees of the obligations of the Contractor and Subcontractor pursuant to this GC 10.5 and providing contact information to report any breaches thereof. The City shall supply the Contractor with all such signs and the Contractor shall return all such signs upon completion of the Work or otherwise at the request of the City.

10.5.8 The Contractor shall prepare and submit to the City in a format reasonably acceptable to the City before January 31 of each calendar year of the term or, for each partial calendar year of the term, within 30 days of the expiry of the term a living wage report setting out:

- (a) the number of Living Wage Employees of the Contractor and each Subcontractor who were paid a Living Wage pursuant to this Section 3.12 during the previous calendar year or portion thereof that would not have received a Living Wage for substantially similar work but for the obligations of the Contractor pursuant to this GC10.5; and
- (b) the total incremental costs incurred by the Contractor, including any amounts paid to Subcontractors, in order to fulfill its obligations pursuant to this GC10.5 to pay a Living Wage to the Living Wage Employees described in GC10.5.8(a).

GC11.1 INSURANCE

GC11.1 is deleted in its entirety and replaced as follows:

GC11.1 GENERAL INSURANCE REQUIREMENTS

11.1.1 The Contractor and Subcontractors shall be required to file with the City on or prior to the date of this Agreement (or at such later time as they become Subcontractors), "Certificates of Insurance" in the form required by the City, and where required by the City's Director of Risk Management, certified copies of all insurance policies and endorsements evidencing the placement and endorsement of insurance in accordance with this GC11.1 and GC11.2.

11.1.2 The Contractor and Subcontractors shall be required to file evidence of renewal of the insurance policies required under this GC11.1 and GC11.2 with the City at least fifteen (15) calendar days prior to their expiry.

11.1.3 In addition to the specific requirements set out below, all policies of insurance shall:

- .1 be endorsed so as to provide for sixty (60) calendar days' prior notice to the City of cancellation, lapse or material change;
- .2 if they are for property insurance (as opposed to liability) insurance, contain a waiver of subrogation in favour of the City Insurance Group (as defined below) and all employees and agents of the City Insurance Group;
- .3 specifically name the City of Vancouver, the Consultant and their officials, officers, employees, agents and consultants engaged on the Project as additional insureds (collectively referred to as the "**City Insurance Group**");

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- .4 be issued by a company or companies authorized to issue insurance policies in British Columbia; and
- .5 be issued on a policy form acceptable to the City's Director of Risk Management.

11.1.4 Unless otherwise specified, insurance shall be continuously maintained from a date not later than the date hereof, through to the date on which both the Certificate of Completion has been issued for the Work and an occupancy permit, if required, has been issued for the Place of the Work.

GC11.2 CONTRACT SECURITY

GC11.2 is deleted in its entirety and replaced with the following:

GC 11.2 SPECIFIC INSURANCE COVERAGE

11.2.1 Without restricting the generality of GC12.1 – INDEMNIFICATION, and despite the limits of liability set out in GC12.1 – INDEMNIFICATION, the Contractor and Subcontractors, at their expense, shall retain the following types of insurance:

(a) *Commercial General Liability Insurance:*

Commercial General liability insurance protecting the City Insurance Group, the Contractor, and their respective subcontractors, agents and employees against damages arising from personal injury (including death) and claims for property damage which may arise out of the operations of the Contractor, its Subcontractors, or their respective agents or employees in connection with the Work.

The policy shall be placed prior to commencement of the Work and shall specifically cover liability arising out of the performance of this Contract and shall cover all liability assumed by the Contractor under any contract or agreement, including the indemnity provisions of this Contract. The policy shall be maintained continuously throughout the entire term of the contract through to the date on which both the Certificate of Completion has been issued for the Work and an occupancy permit, if required, has been issued for the Place of the Work, and thereafter, in the case of completed operations coverage for a further period of twenty-four (24) months, and the policy shall provide:

1. broad-form property damage and completed operations coverage;
2. personal injury coverage;
3. blanket contractual liability coverage;
5. contingent employer's liability coverage; and
6. non-owned automobile liability coverage,

and where such further risk exists, the following extensions of coverage shall be included:

1. coverage for shoring, blasting, excavating, underpinning, demolition, removal, pile-driving and grading, as applicable;
2. coverage for hoist liability;

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3. coverage for operation of attached machinery; and
4. contractor's pollution liability coverage, including coverage for asbestos, mould or other hazardous substances.

This insurance shall be for an amount of not less than five million dollars (\$5,000,000) per occurrence, and shall include a standard form of severability of interests and cross-liability clause. The deductible per occurrence shall not exceed ten thousand dollars (\$10,000) and the Contractor shall be liable for all deductible amounts.

(b) *Property & Mechanical and Electrical Breakdown Insurance:*

- (1) All-risks course-of-construction property insurance in the joint names of the Contractor and the City Insurance Group, covering the Work and all property of every description to be used in the performance of the Work. This insurance shall be primary, and be of an amount of not less than the Contract Price. The deductible per occurrence shall not exceed ten thousand dollars (\$10,000); and
- (2) Mechanical and electrical breakdown insurance insuring the interests of the Contractor and the City Insurance Group for not less than the Contract Price.

The following conditions will apply to the property and mechanical and electrical breakdown insurance:

- (A) Where the City wishes to use or occupy part or all of the Work prior to Total Performance of the Work, it shall give written notice to the Contractor pursuant to GC13 - Occupancy and if requested the Contractor shall promptly notify the City in writing of the additional premium cost, if any, to maintain property and boiler insurance, which shall be at the City's expense.
- (B) If, because of such use or occupancy, the Contractor is not requested to or is requested to but is unable to provide coverage, the City upon written notice from the Contractor and prior to such use or occupancy shall provide, maintain and pay for property and mechanical and electrical breakdown insurance insuring the full value of the Work, as in subparagraphs (1) and (2), including coverage for such use or occupancy and shall provide the Contractor with proof of such insurance. The Contractor shall refund to the City the unearned premiums applicable to the Contractor's policies upon termination of coverage.
- (C) The policy shall provide that, in the event of loss or damage, payment shall be made to the City. Loss or damage shall not affect the rights and obligations of either party under the Contract.
- (D) The Contractor shall be entitled to receive from the City, in addition to the amount due under the Contract, the amount at which the City's interest in restoration of the Work has been appraised, such amount to be paid as the restoration of the Work proceeds and in accordance with the requirements of GC5.3 - APPLICATIONS FOR PAYMENT and GC5.4 – PROGRESS PAYMENTS. In addition the Contractor shall be entitled to

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receive from the payments made by the insurer the amount of the Contractor's interest in the restoration of the Work.

- (E) The Contractor shall be responsible for payment of all deductible amounts.
- (F) In the event of loss or damage to the Work arising from the work or act of the City or another Contractor, then the City shall pay the Contractor the cost of restoring the Work as the restoration of the Work proceeds and in accordance with the requirements of GC5.3 - APPLICATIONS FOR PAYMENT and GC5.4 – PROGRESS PAYMENTS.
- (c) *All-Risk Contractor's Equipment Insurance* covering all equipment owned or rented by the Contractor and its agents or employees against all risks of loss or damage with coverage sufficient to allow for immediate replacement.
- (d) *Automobile Liability Insurance* to be carried at all times on all licensed vehicles owned by or leased to the Contractor, protecting against damages arising from bodily injury (including death), and from claims for property damage arising from the operations of the Contractor, its agents or employees. This insurance shall be for a minimum amount of five million dollars (\$5,000,000) inclusive per accident.

Where, in the City's opinion, pertinent risk exists, the Contractor is also required to carry the following coverage:

- (e) *Hull & Machinery Insurance* in the amount not less than the full value of the vessel, barge or equipment with a deductible of no more than ten thousand dollars (\$10,000) protecting the Contractor and its Subcontractors from all claims for loss or damage to any vessel, barge or equipment arising out of ownership or operation of the Contractor or its Subcontractors.
- (f) *Protection & Indemnity Insurance* including City's legal liability insurance to cover all claims for bodily injury including death, property damage or loss arising out of the activities conducted by the Contractor, any Subcontractor, or their respective employees or agents in an amount no less than five million dollars (\$5,000,000) per occurrence and a deductible of not more than ten thousand dollars (\$10,000).

11.2.2 If the Contractor or a Subcontractor fails to provide evidence of the required insurance under this GC11 as and when required by the Contract Documents, then the City shall have the right to obtain the insurance and then give evidence of the same to the Contractor and Consultant, and the cost of doing so will then be payable by the Contractor to the City or at the City's option may be deducted from the Contract Price by Change Directive.

GC11.3 CONTRACT SECURITY

GC11.3 is added as follows:

GC11.3 CONTRACT SECURITY

11.3.1 The Contractor shall pay for and deliver to the City, on or prior to the date of this Agreement, a performance bond and a labour and material payment bond, which shall each be for fifty percent (50%) of the Contract Price and shall include provision for, without limitation:

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1. payment of any Consultant's and legal expenses incurred by the City in determining the extent of the Work executed and Work still to be executed, and any additional Work required as a result of the interruption of the Work,
2. payment of additional expenses caused to the City for watchmen's services, light, heat, power, etc. incurred by the City during the period between the Contractor's default under the Contract and the commencement of a new contract,
3. extended guarantee periods, corrections after final payment, and warranty obligations, and
4. coverage of the faithful performance of all terms and conditions of the Contract Documents including all additions and revisions thereto permitted under the Contract.

11.3.2 Such bonds shall be issued by a duly licensed surety company authorized to transact the business of a surety in British Columbia and the bonds shall be maintained in good standing until the issuance of the Final Certificate for Payment and the expiry of the warranty. Subject to the requirements of this GC11.3, the bonds shall be in accordance with the latest edition of the CCDC approved bond forms.

11.3.3 The Contractor will give the City Notice in Writing of any material change in the surety within five (5) calendar days of the occurrence.

GC12.1 INDEMNIFICATION

GC12.1.1 is deleted in its entirety and replaced as follows:

12.1.1 The Contractor now indemnifies and shall defend, indemnify and hold harmless the City, the Consultant, the project manager and their respective directors, officers, employees, agents, consultants or advisors (collectively, the "Indemnitees") from and against all claims, demands, losses, costs, damages, actions, suits or proceedings ("Liability"), whether founded in equity or at law including contract, tort or statute and howsoever caused, arising from or in any way connected with (A) any wrongful or negligent act, error or omission of, or defective goods supplied by, the Contractor, Subcontractors, Suppliers or their respective employees or agents when attending the Place of the Work or in the performance of the Work, in each case whether or not any one or more of the Indemnitees are contributorily negligent, and (B) any claim made under the Lien Act by a Subcontractor, or a "subcontractor" as defined in the Lien Act. Expressly excluded from this indemnity is any Liability caused solely and directly by the wrongful act or negligence of an Indemnitee.

GC12.1.2 is deleted in its entirety and replaced as follows:

12.1.2 The obligation of the Contractor to indemnify the Indemnitees shall be limited to the greater of the Contract Price or five million dollars (\$5,000,000) but in no event shall the sum be greater than twenty million dollars (\$20,000,000). However, despite any other term of this Contract, in no event will this limitation apply in any way to reduce or limit the indemnity or recovery by either party under any insurance policy or bond required by the Contract Documents and in no event will this limit apply to the Contractor's or the City's obligations to indemnify under GC9.2 – TOXIC AND HAZARDOUS SUBSTANCES, GC9.4 CONSTRUCTION SAFETY & WORKSAFE BC RULES, GC9.5 –MOULD and GC10.3 – PATENT FEES.

GC12.1.3 is deleted in its entirety and replaced as follows:

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12.1.3 The obligation of the Contractor to indemnify the Indemnitees hereunder shall be inclusive of interest and all legal costs.

GC12.1.4 is deleted in its entirety and replaced as follows:

12.1.4 The City and the Contractor shall indemnify and hold harmless the other from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of their obligations described in GC9.2 – TOXIC AND HAZARDOUS SUBSTANCES, GC9.4 CONSTRUCTION SAFETY & WORKSAFE BC RULES, GC9.5 –MOULD and GC10.3 – PATENT FEES

GC12.1.5 is deleted in its entirety.

GC12.1.6 is deleted in its entirety and replaced as follows:

12.1.6 In respect of any claim for indemnity or to be held harmless by the City or the Contractor, Notice in Writing of such claim shall be given within a reasonable time after the facts upon which such claim is based became known;

GC12.1.7 is added as follows:

12.1.7 In the event of any Liability being alleged against or claimed from an Indemnitee in respect of which an indemnity is required to be provided by the Contractor pursuant to GC12.1.1, the following provisions shall apply:

- (a) subject to GC12.1.7(b), GC12.1.7(c) and GC12.1.7(d), where it appears that the Indemnitee is or may be entitled to indemnification from the Contractor in respect of all (but not part only) of the liability arising out of a claim, such person entitled to indemnification may at its sole election and subject to:
 - (i) approval by any relevant insurers (without prejudice to GC12.1.7(e); and
 - (ii) the Contractor providing the Indemnitee with a secured indemnity to its reasonable satisfaction against all costs and expenses (including legal expenses) that it may incur by reason of such action,

permit or require the Contractor to dispute the claim on behalf of the Indemnitee at the Contractor's own expense and take conduct of any defence, dispute, compromise, or appeal of the claim and of any incidental negotiations; provided that the Indemnitee shall give the Contractor (provided at the Contractor's cost) all reasonable cooperation, access and assistance for the purposes of considering and resisting such claim;
- (b) with respect to any claim conducted by the Contractor pursuant to GC12.1.7(a)
 - (i) the Contractor shall keep the Indemnitee fully informed and consult with it about material elements of the conduct of the claim;
 - (ii) the Contractor shall not bring the name of the Indemnitee into disrepute; and
 - (iii) the Contractor shall not pay or settle such claims without the prior consent of the Indemnitee, such consent not to be unreasonably withheld or delayed;

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- (c) a Indemnatee shall be free to pay or settle any claim on such terms as it thinks fit (and without prejudice to its rights and remedies under the Contract Documents) if:
 - (i) the Contractor is not entitled to, or is not permitted or instructed, take conduct of the claim in accordance with GC12.1.7(a); or
 - (ii) the Contractor fails to comply in any material respect with the provisions of GC12.1.7(e) or GC12.1.7(b);
- (d) the Indemnatee entitled to indemnification pursuant to GC12.1.1 shall be free at any time to give notice to the Contractor that it is retaining or taking over (as the case may be) the conduct of any defence, dispute, compromise or appeal of any claim (or of any incidental negotiations) to which GC12.1.7(a) applies. On receipt of such notice the Contractor shall promptly take all steps necessary to transfer the conduct of such claim to the Indemnatee, and shall provide to the Indemnatee all reasonable co-operation, access and assistance for the purposes of considering and resisting such claim; and
- (e) the Contractor shall inform the Indemnatee of the requirements of any insurer who may have an obligation to provide an indemnity in respect of any liability arising under this Agreement and in relation to such the Indemnatee shall issue instructions accordingly.

GC12.2 WAIVER OF CLAIMS

GC12.2.1 is deleted in its entirety and replaced as follows:

12.2.1. *Waiver of Claims by City.* As of the date of the Final Certificate for Payment, the City expressly waives and releases the Contractor from all claims against the Contractor including without limitation those that might arise from the negligence or breach of Contract by the Contractor except one or more of the following:

- .1 those made in writing prior to the date of the Final Certificate for Payment and still unsettled;
- .2 those arising from the provisions of GC12.1 - INDEMNIFICATION or GC12.3 - WARRANTY;
- .3 those arising from the provisions of GC9.2 - TOXIC AND HAZARDOUS SUBSTANCES, GC9.4 CONSTRUCTION SAFETY & WORKSAFE BC RULES, GC9.5 –MOULD and GC10.3 – PATENT FEES and those arising from the Contractor bringing or introducing any toxic or hazardous substances and materials to the Place of the Work after the Contractor commences the Work; and
- .4 those arising from the Contractor's actions, errors, omissions or negligence which result in delays or substantial defects or deficiencies in the Work. "Substantial defects or deficiencies" means those defects or deficiencies in the Work which affect the Work to such an extent or in such a manner that all or any part of the Work is unfit for the purpose intended by the Contract Documents.

GC12.2.2 is deleted in its entirety and replaced as follows:

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12.2.2 *Waiver of Claims by Contractor.* As of the date of the Final Certificate for Payment, the Contractor expressly waives and releases the City from all claims against the City including without limitation those that might arise from the negligence or breach of Contract by the City except:

- .1 those made in writing prior to the Contractor's application for Final Payment and still unsettled; and
- .2 those arising from the provisions of GC9.2 - TOXIC AND HAZARDOUS SUBSTANCES or GC10.3 - PATENT FEES.

GC12.2.3 is deleted in its entirety and replaced as follows:

12.2.3 GC12.2 - WAIVER OF CLAIMS shall take precedence over the provisions of paragraph 1.3.1 of GC1.3 - RIGHTS AND REMEDIES.

GC 12.2.4 is deleted in its entirety and replaced as follows:

12.2.4 The City waives and releases the Contractor from all claims referred to in paragraph 12.2.1.4 except claims for which Notice in Writing of claim has been received by the Contractor from the City within a period of six (6) years from the date of Substantial Performance of the Work.

GC12.2.5 is deleted in its entirety.

GC12.2.6 is deleted in its entirety.

GC12.2.7 is deleted in its entirety.

GC12.2.8 is deleted in its entirety.

GC12.2.9 is deleted in its entirety.

GC12.2.10 is deleted in its entirety.

GC12.3 WARRANTY

GC12.3.1 is deleted in its entirety and replaced as follows:

12.3.1 The Contractor shall perform the Work in a good and workmanlike manner.

GC12.3.2 is deleted in its entirety and replaced as follows:

12.3.2 The Contractor now warrants that the Work (and all Products) will be free from all defects arising from faulty construction, manufacturing, installation, materials, equipment or workmanship in any part of the Work (or Products) for a period of one (1) year commencing on the issuance of the Certificate of Completion for the Work, and with respect to any Work or Products warranted by a Subcontractor or Supplier for a period of longer than one (1) year after the issuance of the Certificate of Completion, the Contractor now warrants that it has fully and effectively assigned such warranty to the City and that the City may enforce the same to the same extent and in the same manner as if the warranty had been issued directly to the City by that Subcontractor or Supplier.

GC12.3.3 is deleted in its entirety and replaced as follows:

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12.3.3 For the purposes of this GC12.3, the phrase, “defects arising from faulty construction, manufacturing, installation, materials, equipment or workmanship in any part of the Work (or Products)”

- (a) expressly excludes any and all defects arising from or contributed to by the acts or omissions of the Consultant in the design and specification of the Work as set out in the Drawings, Specifications, or other written instructions or directives issued by the Consultant under this Contract, but only to the extent of the Consultant’s defective design or specification, and
- (b) expressly includes all defects or deficiencies that arise even if the Work is carried out in a good and workmanlike manner.

GC12.3.4 is deleted in its entirety and replaced as follows:

12.3.4 During the warranty period, the Contractor will promptly repair and correct all defects at no cost to the City. If the Contractor fails to repair or correct any defect during the warranty period within ten (10) calendar days of written notice of its existence, the City may but is not obligated to make the repairs or corrections itself and the actual out-of-pocket costs of such repairs or corrections made by the City will be payable by the Contractor to the City within seven (7) calendar days of receiving an invoice from the City for same. In the event of an emergency where, in the opinion of the City, delay could cause serious loss or damage, or inconvenience to the public, the repairs or corrections may be made without prior notice being sent to the Contractor.

GC12.3.5 is deleted in its entirety and replaced as follows:

12.3.5 Where, pursuant to GC13.1 - Occupancy, the City commences the use of the Work and Products for their intended purposes prior to the issuance of the Certificate of Completion for the Work, the warranty period will be deemed to commence from the issuance date despite such prior use.

GC12.3.6 is deleted in its entirety and replaced as follows:

12.3.6 Issuance of the Certificate of Total Performance of the Work will not extinguish any of the Contractor’s obligations under this Contract and the Contractor will remain liable to perform and complete all Work and carry out all obligations required under this Contract

GC13.1 OCCUPANCY

GC13.1 is added as follows:

GC13.1 OCCUPANCY

13.1.1 The City reserves the right to take possession of and use any completed or partially completed portion of the Work, regardless of the time of completion of the Work, providing it does not interfere with the Contractor's Work, as determined by the Consultant.

13.1.2 Such taking possession or use of such Work or part thereof as described in GC13.1.1 shall not be construed as final acceptance of the Work or any part thereof, or an acknowledgement of fulfillment of the Contract.

END OF SUPPLEMENTARY GENERAL CONDITIONS

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SCHEDULE 2 (PART D – FORM OF AGREEMENT)**

**SCHEDULE 2
LIST OF SPECIFICATIONS AND DRAWINGS**

The following is the list of Specifications and Drawings referred to in Article A-3:

TO BE COMPLETED BASED UPON AWARD

All are incorporated by reference in the form made available by the City during the ITT.

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SCHEDULE 3 (PART D – FORM OF AGREEMENT)**

**SCHEDULE 3
SCHEDULE OF PRICES**

TO BE COMPLETED BASED UPON SUCCESSFUL TENDERER'S FORM OF TENDER

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SCHEDULE 4 (PART D – FORM OF AGREEMENT)**

**SCHEDULE 4
SUBCONTRACTORS AND SUPPLIERS**

TO BE COMPLETED BASED UPON SUCCESSFUL TENDERER'S FORM OF TENDER

The following are Subcontractors that the Contractor will use for the Work:

Subcontractor	Address	Division/Section Of Work

The following are Suppliers that the Contractor will use for the Work:

Supplier	Manufacturer	Address	Item

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SCHEDULE 5 (PART D – FORM OF AGREEMENT)**

**SCHEDULE 5
PROJECT SCHEDULE**

TO BE COMPLETED BASED UPON SUCCESSFUL TENDERER'S FORM OF TENDER

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SCHEDULE 6 (PART D – FORM OF AGREEMENT)**

**SCHEDULE 6
PERFORMANCE AND LABOUR AND MATERIAL PAYMENT BONDS
TO BE COMPLETED BASED UPON SUCCESSFUL TENDERER'S FORM OF TENDER
(SEE ATTACHED)**

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE 7 (PART D – FORM OF AGREEMENT)**

**SCHEDULE 7
INSURANCE CERTIFICATES**

TO BE COMPLETED BASED UPON SUCCESSFUL TENDERER'S FORM OF TENDER

(SEE ATTACHED)

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE 8 (PART D – FORM OF AGREEMENT)**

**SCHEDULE 8
CITY PRE-CONTRACT HAZARD ASSESSMENT FORM**

Contract Title Contractor Services for Elevator Modernization - New Continental

PROJECT MANAGER (City employee) Morris Pontellini

Contract NAME & # (IF KNOWN) PS20180882

Purpose

This document shall be completed by the project manager, who shall list all the **known** worksite hazards and all the **existing** work process hazards that will be associated with the upcoming contract. The completed document shall then be provided to all potential contractors, as part of the tender package, so the project can be bid appropriately based on the known worksite hazards.

Definitions

Project Manager – the City employee designated to be the liaison with the contractor for the purpose of managing, overseeing, coordinating or in any other way administering the contract.

Instructions for Completion

The document must be completed in full. Choices for each entry are:

Y – Yes - the known worksite hazard or existing work process hazard does exist

N – No - the known worksite hazard or existing work process hazard does not exist*

NA – Not Applicable - worksite hazard or existing work process is not applicable for this contract type

TBD - a third party (environmental consultant) will address the issue (primarily for a hazardous materials assessment)

*based on reasonable estimation from all input by persons with expertise or relevant knowledge and understanding

Information from Hazardous Materials Assessments Provided by a Third Party

A hazardous materials assessment may be completed prior to the Project Manager completing the Owners List of Known Workplace Hazards. Any such assessment should be referenced by the Project Manager in this document and provided with the tender package. Hazardous materials may include asbestos, lead, crystalline silica, ammonia, PCB's, CFC's, moulds, mercury, ozone depleting substances (ODS), radioactive substances.

Assistance in Completing this Document

If you have questions while completing this document, or are unsure if the listed hazards apply, please seek assistance from Health and Safety (604.871.6078 or healthandsafety@vancouver.ca).

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HAZARD OR ISSUE	Project Manager
1 ASBESTOS-CONTAINING MATERIALS - disturbance or penetrations of flooring, walls, ceiling tiles, pipe lagging, ac pipe, transite siding, particularly in older facilities; e.g., furniture/fixture installation, carpeting/flooring services, and boiler repair/tune-up services.	Yes (Y), No (N) or Not Applicable (NA)
a) Asbestos containing materials (ACM) will be encountered	N
b) A hazardous materials assessment for asbestos is provided in the tender package	N
c) A hazardous materials assessment for asbestos is the responsibility of the contractor	N

2 LEAD-CONTAINING MATERIALS - disturbance of lead-based paint, particularly in older facilities. Also present in certain electrical circuitry and metal alloys; .e.g., overhead bridge crane maintenance/repair, high-voltage cable splicing services, boiler repair/tune-up services, fixture installation services, and chiller maintenance/repair services.	Yes (Y), No (N) or Not Applicable (NA)
a) Inorganic lead-containing materials may be encountered (Grey paint on machine equipment contains lead.)	Y
b) A hazardous materials assessment for lead is provided in the tender package	Y
c) A hazardous materials assessment for lead is the responsibility of the contractor	Y

3 OTHER HAZARDOUS MATERIALS - may include ammonia, PCBs, CFCs, moulds, mercury, ozone depleting substances (ODS), radioactive substances, sewage, unknown contaminated materials, other: (list other here) _____	Yes (Y), No (N) or Not Applicable (NA)
a) A hazardous materials assessment for ammonia is provided in the tender package	N
b) A hazardous materials assessment for (list the specific hazardous material) will be provided in the tender package	N
c) A hazardous materials assessment for (list the specific hazardous materials) will be the contractors responsibility	N

4 CONFINED SPACES - working in vaults, chambers, pits, tanks, etc.; e.g., construction, inspection and testing services, water/fuel storage tank clean-out services, and utility corrosion inspection services.	Yes (Y) No (N) or Not Applicable (NA)
a) A hazard assessment (for entry and inspection only) from the City of Vancouver is provided in the tender package	N
b) The City of Vancouver shall provide procedures to isolate adjacent piping, or to lock out equipment (complicated systems only)	N

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c) The contractor shall be responsible for isolation and lockout procedures in the confined space	Y
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5 LOCK OUT - industrial equipment maintenance, power machinery repair services, pump maintenance/repair services, mechanical refrigeration systems, elevator repair, overhead bridge crane maintenance/repair services, cathodic protection services, hydraulic test systems repair/service, and air compressor rebuilding services.	Yes (Y) No (N) or Not Applicable (NA)
a) Lockout will be required to isolate or prevent the unexpected release of energy (electrical, mechanical, hydraulic, chemical, thermal, kinetic, gravitational, pneumatic)	Y
b) Work will be performed on or near energized equipment, lines, or circuits	Y

If yes to a) or b) describe:

ISOLATION OF ELECTRICAL/HYDRAULIC AND MECHANICAL SYSTEMS IS REQUIRED.

6 FALL PROTECTION - tree pruning, window and ledge cleaning, window replacement, overhead bridge crane maintenance/repair services, roll-up door replacement, tent installation, awning/canopy installation, overhead air exchange installation, construction inspection and testing services.	Yes (Y) No (N) or Not Applicable (NA)
a) Workers will be exposed to a potential fall in excess of 3 m (10 feet), or to a fall of less than 3 m which would likely result in a serious injury (ex. impalement on rebar)	Y
b) Scaffolding or ladders will be required to be secured to a building or structure	N

7 OVERHEAD AND UNDERGROUND UTILITIES - tree pruning services, tree removal, utility relocation or replacement, underground utility identification (digging with powered equipment), concrete sawing services, pole painting	Yes (Y) No (N) or Not Applicable (NA)
a) There will be electrical hazards associated with overhead power lines such as limits of approach and contact	N
b) Necessary assurances (in writing) have (or will be) obtained by the City, through the utility company, for any work where minimum limits of approach cannot be maintained (provide documentation and review at pre job meeting with the successful contractor candidate)	NA
c) Necessary assurances must be obtained (in writing) by the successful contractor, through the utility company, for any work where minimum limits of approach will not be able to be maintained	NA
d) Underground or hidden utilities are located on the job site. Any excavation or drilling work in proximity to an underground utility service must be undertaken in conformity with the requirements of the owner of that utility service	NA

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If yes to c), and the specific physical locations where minimum limits of approach will not be able to be maintained are known, how will this information be provided to the contractor?

8 CONSTRUCTION, EXCAVATION, SHORING AND DEMOLITION	Yes (Y) No (N) or Not Applicable (NA)
a) As Prime Contractor, the City of Vancouver project manager will submit the Notice of Project	NA
b) Workers will be required to enter an excavation over 1.2m (4 ft) in depth	NA

9 CHEMICALS, SOLVENTS, FUMES, VAPORS, AND/OR DUSTS (existing work processes or known worksite hazard only) – ice rinks, swimming pools, cleaning solvents, adhesives, paints, coatings, binders; e.g., storage tank clean-out services, countertop installation (epoxies), and flooring	Yes (Y) No (N) or Not Applicable (NA)
a) The worksite has chemicals solvents, fumes, vapors or dusts that may affect the contractor	NA
b) Material Safety Data Sheets for chemicals currently in use at the worksite will be available, on request, to the contractor	Y

If yes to a), list the work processes and/or chemicals in use:

10 NOISE – (existing work processes only)	Yes (Y) No (N) or Not Applicable (NA)
a) Employees will be exposed to noise levels above 85dbA	NA

OTHER HAZARDS (NOT IDENTIFIED ABOVE)
a) Needles in pit have been recorded.
b)
c)

KNOWN WORKPLACE HAZARDS LIST COMPLETED BY	
Project Manager Name (print): Morris Pontellini	
Project Manager Signature:	Date: May 11/18
Title: Project Coordinator	Phone: 604- 871-6962

**INVITATION TO TENDER NO. PS20180882
CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE 9 (PART D – FORM OF AGREEMENT)**

**SCHEDULE 9
CONTRACTOR PRE-CONTRACT HAZARD ASSESSMENT FORM**

TO BE COMPLETED BASED UPON SUCCESSFUL TENDERER'S FORM OF TENDER

CONTRACT TITLE _____

PROJECT MANAGER (CITY EMPLOYEE) _____

CONTRACTOR REPRESENTATIVE _____

CONTRACT NAME & # _____

Purpose

This document shall be completed by the contractor awarded the contract, who shall identify all the **known and potential work process hazards** associated with the contract. The contractor, who is responsible for all identified actions, shall provide a completed Contractors Pre-Work Hazard Identification (CHI) document to the Project Manager (City employee) for review and consultation before the contract work begins.

Reference Material

In order to complete this document, the contractor should reference a completed copy of the **List of Known Workplace Hazards**, initially provided with the tender package. The contractor is also responsible to reference any **Hazardous Materials Assessments**, provided by the City with the tender package, and possibly referenced in the List of Known Workplace Hazards document.

Instructions for Completion

The document must be completed in full. Choices for each entry are:

Y – Yes – this work process or worksite hazard will exist for this contract and are the responsibility of the contractor

N – No – Even though the work process or worksite hazard will exist, it will not be the responsibility of the contractor

NA – Not Applicable - the work process or worksite hazard is not applicable for this contract

TBD - a third party (environmental consultant) will address the issue (primarily for a hazardous materials assessment)

Each grouping of safety hazards or issues in this document (bold text, capitalized) may list some examples of work tasks where this hazard may be encountered. These examples are not conclusive; there may be other examples of work tasks that create this hazard or issue.

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CONTRACTOR SERVICES FOR ELEVATOR MODERNIZATION - NEW CONTINENTAL
SCHEDULE 9 (PART D – FORM OF AGREEMENT)**

Documentation and Training Requirements

During the contract term, the contractor may be requested by the City of Vancouver, and shall provide documented evidence for items identified with a (D) in this document.

The summary table at the end of the document provides all potentially required documentation, and if applicable, the WCB OHS Regulation reference.

For any identified hazard marked with a (T), the contractor is responsible to train their employees.

HAZARDOUS MATERIALS

The contractor is responsible for providing additional information on hazardous materials which may be encountered as part of the work process, yet not identified in the List of Known Workplace Hazards.

HAZARD OR ISSUE	Contractor Confirmation
1. ASBESTOS-CONTAINING MATERIALS - disturbance or penetrations of flooring, walls, ceiling tiles, pipe lagging, ac pipe, transite siding, particularly in older facilities; e.g., furniture/fixture installation, carpeting/flooring services, and boiler repair/tune-up services.	Yes (Y) No (N) Not Applicable (NA) or To Be Determined (TBD)
a) We have reviewed the hazardous materials assessment for asbestos provided by the City of Vancouver (or third party) in the tender package	Y N NA TBD
b) We will provide a written hazardous materials assessment for asbestos	Y N NA TBD
c) We have a written Asbestos Program (D)	Y N NA
d) As Prime Contractor, we will submit a Notice of Project Asbestos(NOP-A) to WorksafeBC at least 24 hours in advance of the project startup	Y N NA

2. LEAD-CONTAINING MATERIALS - disturbance of lead-based paint, particularly in older facilities. Also present in certain electrical circuitry and metal alloys; .e.g., overhead bridge crane maintenance/repair, high-voltage cable splicing services, boiler repair/tune-up services, fixture installation services, and chiller maintenance/repair services.	Yes (Y) No (N) or Not Applicable (NA)
a) We have reviewed the hazardous materials assessment for lead provided by the City of Vancouver (or third party) in the tender package	Y N NA TBD
b) We will provide a written hazardous materials assessment for lead	Y N NA TBD
c) We have a written exposure control program for Lead (D)	Y N NA

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3. OTHER HAZARDOUS MATERIALS - may include PCBs, CFCs, molds, mercury, ozone depleting substances (ODS), radioactive substances, sewage and unidentified contaminated hazardous materials, other: (list other here) _____	Yes (Y) No (N) or Not Applicable (NA)
a) We have reviewed the hazardous materials assessment for (insert hazardous material type here) provided by the City of Vancouver, or a third party, in the tender package	Y N NA TBD
b) We have reviewed the hazardous materials assessment for (insert hazardous material type here) provided by the City of Vancouver, or a third party, in the tender package	Y N NA TBD
c) We will provide a hazardous materials assessment for (insert hazardous material type here)	Y N NA TBD
d) We will provide a hazardous materials assessment for (insert hazardous material type here)	Y N NA TBD

4. CONFINED SPACES - working in vaults, chambers, pits, tanks, etc.; e.g., construction, inspection and testing services, water/fuel storage tank clean-out services, and utility corrosion inspection services.	Yes (Y) No (N) or Not Applicable (NA)
a) We have reviewed the confined space hazard assessment provided by the City of Vancouver in the tender package	Y N NA TBD
b) We have a written confined space entry program (D)	Y N NA
c) Our employees have received confined space training (T)	Y N NA
d) We shall complete a confined space hazard assessment specific to the work to be performed (D)	Y N NA
e) We shall develop site specific written safe operating procedures (including evacuation and rescue components) prior to starting work (D)	Y N NA
f) We shall identify and record isolation points (D)	Y N NA
g) We will develop alternate procedures (as per WCB OHS Regulation # 9.22) to be used to isolate adjacent piping containing harmful substances (D)	Y N NA
h) We will provide for the services of rescue persons	Y N NA

If yes to g), provide brief description:

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5. LOCK OUT - industrial equipment maintenance, power machinery repair services, pump maintenance/repair services, mechanical refrigeration systems, elevator repair, overhead bridge crane maintenance/repair services, cathodic protection services, hydraulic test systems repair/service, and air compressor rebuilding services.	Yes (Y) No (N) or Not Applicable (NA)
a) We will be required to lock out in order to isolate or prevent the unexpected release of energy (electrical, mechanical, hydraulic, chemical, thermal, kinetic, gravitational, pneumatic)	Y N NA
b) We will perform work on, or near, energized equipment, lines or circuits	Y N NA

Note: If yes to a) or b) above, no work may be performed until reviewed by City of Vancouver project manager or project manager designate.

If yes to a) or b) describe:

6A. FALL PROTECTION - tree pruning, window and ledge cleaning, window replacement, overhead bridge crane maintenance/repair services, roll-up door replacement, tent installation, awning/canopy installation, overhead air exchange installation, construction inspection and testing services.	Yes (Y) No (N) or Not Applicable (NA)
a) Our employees will be exposed to a potential fall in excess of 3 m (10 feet), or to a fall of less than 3 m which would likely result in a serious injury (ex. impalement on rebar)	Y N NA
b) We will produce a written Fall Protection Plan for work that will occur more than 25 feet above grade, or, if written procedures (control zone) are to be used as the means of fall protection (D)	Y N NA
c) Our employees who will be required to use fall protection have received training (T)	Y N NA

If yes to a), describe:

6B. SCAFFOLDING AND LADDERS - window replacement or cleaning, tree pruning, roll-up door replacement, tent installation, and awning/canopy installation.	Yes (Y) No (N) or Not Applicable (NA)
a) Our employees will use scaffolding or ladders for access to the work	Y N NA
b) The scaffolding or ladders will be exposed to wet and/or slippery conditions	Y N NA
c) We will ensure scaffolding or ladders are secured before accessing the worksite	Y N NA
d) Scaffolding will be erected and dismantled only by qualified workers	Y N NA

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7. OVERHEAD POWER LINES AND UNDERGROUND UTILITIES - tree pruning services, tree removal, utility relocation or replacement, underground utility identification services, concrete sawing services, pole painting	Yes (Y) No (N) or Not Applicable (NA)
a) There are electrical hazards associated with overhead power lines such as limits of approach and contact	Y N NA
b) We will obtain necessary assurances, in writing, through the utility company, for any work where minimum limits of approach cannot be maintained	Y N NA
c) Underground or hidden utilities may be on the job site and we shall contact the Project Manager and BC OneCall at least four business days prior to the start of any excavation work	Y N NA
d) In the event of an inadvertent utility strike, we will have a written procedure for immediate notification of both the utility company and WorkSafeBC (D)	Y N NA

8. CONSTRUCTION, EXCAVATION, SHORING AND DEMOLITION	Yes (Y) No (N) or Not Applicable (NA)
a) As Prime Contractor, we will submit a Notice of Project (NOP) to WorksafeBC at least 24 hours in advance of the project startup date	Y N NA
b) Workers may be required to enter an excavation over 1.2m (4 ft) in depth	Y N NA
c) We will develop site specific written safe operating procedures, including evacuation and rescue components, prior to starting any excavation work (D)	Y N NA
d) Shoring will be installed in accordance with Part 20 of the WorkSafeBC OH&S Regulation	Y N NA
e) We will provide safe means of entry and exit for excavations	Y N NA
f) We will provide for the services of rescue persons and equipment (excavation rescue)	Y N NA
g) We will develop a demolition/salvage plan (D)	Y N NA
h) We will evaluate the demolition materials for reuse or recycling	Y N NA
i) We will protect passers-by from potential hazards	Y N NA

9. CHEMICALS, SOLVENTS, FUMES, VAPORS, AND DUSTS - cleaning solvents, adhesives, paints, coatings, binders; e.g., storage tank clean-out services, countertop installation (epoxies), and flooring	Yes (Y) No (N) or Not Applicable (NA)
a) We will complete a hazard assessment for chemicals we will use in our work, and if chemicals already exist at the workplace, our assessment will identify possible results of any reactions between our chemicals and those of the City's operations	Y N NA

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10. NOISE AND VIBRATION - includes installations and heavy equipment operation. Noise examples for 85 – 90 dbA (at noise source) include forklift, smoke alarm, table saw. Whole body vibration examples include truck or equipment operator and jackhammer operation	Yes (Y) No (N) or Not Applicable (NA)
a) Our employees will be exposed to noise levels above 85dbA	Y N NA
b) We have a written hearing conservation program (D)	Y N NA
c) Our employees will be exposed to excessive levels of whole body vibration (WBV)	Y N NA

11. OCCUPATIONAL HEALTH AND SAFETY PROGRAM	Yes (Y) No (N) or Not Applicable (NA)
a) We have a written Safety Program (D)	Y N NA
b) We will make regular inspections of all workplaces	Y N NA
c) We will immediately investigate any reported unsafe conditions and correct as required	Y N NA
d) We will investigate all incidents and provide written incident reports to the Project Manager	Y N NA
e) We will develop a written plan (D) identifying how risk to the public and workers will be minimized (may include the use of barriers and safe entry/exit points from the worksite)	Y N NA

12. FIRST AID	Yes (Y) No (N) or Not Applicable (NA)
a) First aid equipment, supplies, facilities and services will be readily accessible during working hours	Y N NA
b) We will complete a first aid assessment (D)	Y N NA
c) We will post site drawings and signs indicating the location of, and how to summon, first aid	Y N NA
d) We will develop an effective means of communication between the first aid attendant and the work areas	Y N NA

13. FIRE PROTECTION - solvents, fuels, soldering, torch cutting, or heating devices; e.g., gasoline and diesel fuel delivery services, flooring services, fire suppression service, and water pipe repair services	Yes (Y) No (N) or Not Applicable (NA)
a) We will weld, solder, or cut with a torch	Y N NA

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b) We will use or store flammable/combustible liquids	Y N NA
c) We will use temporary heating devices	Y N NA
d) We will provide water and/or fire extinguishers on the job site	Y N NA

14. PERSONAL PROTECTIVE EQUIPMENT (PPE)	Yes (Y) No (N) or Not Applicable (NA)
a) We will ensure our workers have appropriate personal protective clothing and equipment (e.g., safety footwear, hi-vis vests, hardhats, eye protection, face protection, hearing protection, chemical gloves/clothing)	Y N NA
b) We have a written PPE program (D)	Y N NA

15. RESPIRATORY PROTECTION	Yes (Y) No (N) or Not Applicable (NA)
a) The work will involve materials or processes requiring respiratory protection	Y N NA
b) We have a written respiratory protection program (D)	Y N NA

16. TOOLS MACHINERY AND EQUIPMENT	Yes (Y) No (N) or Not Applicable (NA)
a) We will use powder-actuated tools.	Y N NA
b) Our employees who operate equipment have been trained and are qualified in use of that equipment. (T)	Y N NA

If yes to a), describe:

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17. CRANES, FORKLIFTS, AND MANLIFTS - heavy or oversized goods delivery, tree pruning, overhead bridge crane maintenance/repair, and roll-up door replacement.	Yes (Y) No (N) or Not Applicable (NA)
a) We will use a crane, forklift, manlift or other lifting equipment	Y N NA
b) Our lifting and rigging equipment is certified where applicable, and inspected on a regular basis	Y N NA
c) Our operators shall have a valid operators certificate (mobile crane or tower crane) or have received training (boom lift, scissor lift or forklift) (T)	Y N NA
d) Only lifting attachments approved for use by the forklift manufacturer will be used	Y N NA

18. RIGGING	Yes (Y) No (N) or Not Applicable (NA)
a) We will lift or sling loads overhead	Y N NA
b) We will inspect ropes, hooks and slings before use on each shift	Y N NA

19. MOTOR VEHICLES AND HEAVY EQUIPMENT - goods delivery, personnel transportation services, trailer relocation services, oil/water pumpout and recycling services, asphalt grinding and asphalt sealing services, weed/brush abatement and mowing services, landscape hydroseed services, tree stump grinding, and concrete sawing and removal	Yes (Y) No (N) or Not Applicable (NA)
a) We will use motor vehicles or heavy equipment at the work location	Y N NA
b) All operators have a valid provincial driver's license	Y N NA
c) We will inspect vehicles, including safety features (e.g., ROPS)	Y N NA

20. TRAFFIC CONTROL	Yes (Y) No (N) or Not Applicable (NA)
a) There will be uncontrolled movement of vehicular traffic at the worksite	Y N NA
b) We will develop a written traffic control plan (D)	Y N NA
c) We will put in place any required traffic control devices	Y N NA
d) The traffic control devices conform to the Ministry of Transportation and Infrastructure (MoTI) "Traffic Control Manual for Work on Roadways"	Y N NA
e) We will provide Traffic Control Persons (TCP's) as required by law	Y N NA

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21. CRYSTALLINE SILICA DUST	Yes (Y) No (N) or Not Applicable (NA)
a) Our work will involve jackhammering, rotohammering, drilling, grinding or other disturbance of concrete or stone, creating potential exposure to silica dust	Y N NA

22. Additional Concerns	Yes (Y) No (N) or Not Applicable (NA)
We foresee additional health and safety concerns associated with the work	Y N NA

If yes, describe:

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____

Describe the control measures each of the concerns listed above:

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____

PRE CONTRACT HAZARD ASSESSMENT COMPLETED BY	
Contractor's Representative Name (print):	
Contractor's Representative Signature:	Date:
Title:	Phone:

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CONTRACTOR'S DESIGNATE RESPONSIBLE FOR ONSITE SAFETY	
Name (print):	
Title:	Phone:

SUMMARY OF DOCUMENTATION (D) TO BE PROVIDED BY THE CONTRACTOR upon request by the City of Vancouver (documentation required as per Workers Compensation Board Occupational Health and Safety (WCB OHS) Regulation, the Workers' Compensation Act (WCA) or the City of Vancouver)	Yes (Y) or Not Applicable (NA)
a) Safety Program (WCB OHS Regulation Parts 3.1-3.3)	
b) Asbestos Exposure Control Plan (WCB OHS Regulation Part 6.3)	
c) Lead (Pb) Exposure Control Plan (WCB OHS Regulation Part 6.60)	
d) Respiratory Protection Program (WCB OHS Regulation Part 8.5)	
e) Confined Space Entry Program (WCB OHS Regulation Parts 9.5 and 9.6)	
f) Plan for minimizing risk to public and to workers (City of Vancouver)	
g) kPersonal Protective Equipment (PPE) Program (WCB OHS Regulation Part 8.5)	
h) Hearing Conservation Program (WCB OHS Regulation Part 7.5)	
i) Confined Space Hazard Assessment (WCB OHS Regulation Part 9.9)	
j) Work Procedure, including evacuation and rescue, for confined space (WCB OHS Regulation Part 9.10 and 9.11)	
k) Identification of Isolation Points (confined space) (WCB OHS Regulation Part 9.19)	
l) Alternate procedures to isolate adjacent piping (confined space) (WCB OHS Regulation Part 9.22)	
m) Fall Protection Plan (WCB OHS Regulation Part 11.3)	
n) Traffic Control Plan (Ministry of Transportation and Infrastructure (MOTI) manual, as referenced in WCB OHS Regulation Part 18.3)	
o) In the event of a utility strike, a written procedure for notification of Utility Provider (WCB OHS Regulation Part 4.18) and WorksafeBC (Workers' Compensation Act Part 3, Division 10, Sec. 172 (1)(c))	
p) Work Procedure (including evacuation and rescue) for excavations (City of Vancouver)	

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q) Demolition/Salvage Plan (City of Vancouver in reference to WCB OHS Regulation Part 20.112)	
r) First Aid Assessment (WCB OHS Regulation Part 3.16 (2))	

SUMMARY OF TRAINING REQUIREMENTS (T) OF CONTRACTOR EMPLOYEES (for any persons completing this type of work throughout the duration of the contract)	Yes (Y) or Not Applicable (NA)
a) Confined Space Entry (WCB OHS Regulation Part 9.8)	
b) Fall Protection (WCB OHS Regulation Part 11.2 (6))	
c) Equipment Operation (WCB OHS Regulation Part 4.3 (1) (b)(i) (ii))	
d) Mobile Equipment (ex. boom lift, scissor lift, forklift) (WCB OHS Regulation Part 16.4)	

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SCHEDULE 10 (PART D – FORM OF AGREEMENT)**

**SCHEDULE 10
FORCE ACCOUNT LABOUR AND CONSTRUCTION EQUIPMENT RATES
TO BE COMPLETED BASED UPON SUCCESSFUL TENDERER'S FORM OF TENDER**