ADDENDUM NO. 04

The following changes to the tender documents are effective immediately and will form part of the contract documents:

Drawings, Detail Sheets and Specification Sections issued as part of this Addendum:

Full Size Drawings:
None.

Partial Drawing Revisions:
None.

Specifications:
None.

DRAWINGS

1. A102 – BASEMENT FLOOR PLAN – LAB; A103 - BASEMENT FLOOR PLAN – SERVICE; A111 – MAIN FLOOR PLAN – LAB; A112 – MAIN FLOOR PLAN – OFFICE & MAIN ENTRY; A122 – SECOND FLOOR PLAN – OFFICE; & A132 – THIRD FLOOR PLAN OFFICE

.1 Add General Note 3 to all of the above noted drawings, as follows:

.3 "Provide concrete infill to existing concrete topping of all floors at locations where existing partitions have been removed. Floor infill to be flush with existing floors each side of the removed partition; allow for grinding and patching of existing concrete topping where required."

2. A122 – SECOND FLOOR PLAN - OFFICE

.1 Add a pipe chase shaft at Gridlines LB2/3 approximately 900mm x 900mm in size; Wall Type S1-92 with gypsum board finish to 100mm above the ceiling finish. Firestop all piping penetrations at all floor levels.

3. A311 – EXISTING WALL SECTIONS - RENOVATION

.1 Wall Section 3/A301/A311; add floor infill of existing shaft openings on the Fourth Floor same as shaft opening infill as indicated for the Third and Second Floors on the same section. Shaft infill to be as per Detail 7/A313 and as per the Structural Drawings.

.2 For extent of shaft openings to be infilled on the Second, Third, and Fourth Floors; refer to Sheet A142 which indicates the 17 different shaft openings to be infilled on each of the 3 floor levels (total of 51 shaft openings of various sizes).

4. AQ402 – BASEMENT FLOOR BENCHING & EQUIPMENT PLAN LAB

.1 Provide TFO# style lab casework frames at locations of columns and pilasters to allow the counters to be cut around protruding wall elements. Refer to lab casework schedule A600 for bench frame types.

.2 Omit upper shelves SF3 at locations where they conflict with columns and pilasters.

.3 Dashed lines indicating upper shelving are shown in rooms 080, 084, 086, 088 and 154. Provide SH3 shelving for these locations.

.4 In southeast corner of room 077 (NIR Suite), the dashed undercounter storage unit is to be an MC2 unit, similar to the one adjacent to it.

.5 On east wall of room 078 (Crossing/Sprouting Lab), provide SU3-SK3 sink unit in lieu of SU2-SK3 unit.

.6 On east wall of room 086 (Extraction Lab), construct SU3 cabinet adjacent to SU3-SK4 sink unit as indicated on interior elevation 15/A450.

.7 On east wall of room 097 (Soil Physics Lab), construct SU2 cabinet adjacent to SU3-SK4 sink unit as indicated on interior elevation 26/A450.

5. AQ411 – MAIN FLOOR BENCHING & EQUIPMENT PLAN LAB

.1 Provide TFO# style frames at locations of columns and pilasters to allow the counters to be cut around protruding wall elements. Refer to lab casework schedule A600 for bench frame types.

.2 Omit upper shelves SF3 at locations where they conflict with columns and pilasters.

.3 Dashed lines indicating upper shelving are shown in room 154. Provide SH3 shelving for these locations.

.4 Revise Keynote #1 to read “Casework Privacy/Dust Panel constructed of double walled polycarbonate to U/S of ceiling, for entire length of benching. Refer to Interior Elevation 19/A452 for typical orientation. Secure panels to bench framework. Clip panels to ACT suspension system for stabilization.”

.5 In east wall of room 133 (Microbiology Lab), omit tag TF01, casework unit should be TF1A and is currently double tagged.

6. A450 – INTERIOR ELEVATIONS BASEMENT

.1 Interior elevation 11 (078 Crossing/Sprouting Lab – East), provide SU3-SK3 sink unit in lieu of the sink unit shown.

.2 Interior elevation 27 (097 Soil Physics Lab – West), provide BC1 cabinet unit adjacent to sink unit to match tags on floor plan AQ402.

7. MV121 – SECOND FLOOR PENTHOUSE VENTILATION PLAN

.1 Keynote 16 identifies a Herbarium Climate Control Module. The Contractor is to provide an air handling unit capable of delivering precisely conditioned air to the Herbarium room located in the basement. The volume of air required is 226 L/s continuous and the air is to be 20°C with a relative humidity of 40% year round. Some temperature adjustment, +/- 3°C, is required to accommodate seasonal environmental loads.

.2 The unit is to be complete with a humidifier operating on treated/softened water. The humidity generator may be integral to the unit or stand alone.

.3 Heating and cooling is by hydronic coils. Connections are identified on drawing MH121.

8. MV141 – FOURTH FLOOR VENTILATION PLAN

.1 Add Keynote 17. Keynote 17 to read “Refer to drawings MH112, MH122 and MH132 for continuation.

9. M601 – MECHANICAL SCHEDULE

.1 Refer to the Air Handling Unit Schedule. Delete AH-MECH-1.

10. MM110 – MAINTENANCE SHOP MAIN FLOOR MECHANICAL

.1 Add the following detail information regarding the radiant tube heaters.

.1 Provide CSA and CGA approved positive pressure two stage series gas fired infra-red tube heaters.

.2 Fail-safe design to shut off supply of fuel in following situations:

.1 Blower motor failure.

.2 Main flame failure.

.3 Inadequate inlet air.

.4 Excessive flue back pressure.

.3 Combustion air terminal suitable for connection of outside air duct.

.4 Electrical control system isolated from combustion air system.

.5 Combustion process operational status [indicator lights] [or] [and] [observation windows].

.6 Pre-wired burner control system with electric ignition.

.7 Suitable for operation with 120 V AC, single phase, 60 Hz electrical service.

.8 Enamel-finished steel enclosure complete with removable access panels.

.9 Heating output capacity compatible with associated downstream radiant tube.

.10 Centrifugal, direct-drive blower with adequate air flow capacity to accommodate ducted inlet and exhaust air requirements.

.11 Heat exchanger to consist of radiant piping with following features:

.1 Removable, heat and corrosion resistant joint connections designed to accommodate system expansion/contraction.

.2 Length compatible with upstream burner output capacity.

.12 Reflectors to include following features:

.1 Polished aluminum construction complete with corrugations and configuration to maximize radiant heat directed toward floor.

.2 Standard lengths to facilitate installation complete with overlaps at joints to accommodate expansion and contraction.

.3 Hangers/supports at spacing recommended by system manufacturer to maintain maximum reflector efficiency.

.13 Outside air supply to include following features:

.1 Ducted outside air supply to each burner to provide sealed combustion system.

.2 Insulation and vapour retarder on duct to prevent condensation.

.3 Duct size to ensure adequate air supply to each burner.

.4 Exterior air inlet terminal complete with bird screen and weatherproof hood.

.5 Flexible duct connector adjacent to burner complete with removable joint clamp at burner.

.14 24 V 2 stage heating thermostat control of burners complete with radiant heat shields.

.15 Units are to have the following Input capacities (High kW/Low kW);

RTH-1 32/22

RTH-2 32/22

RTH-3 51/37

RTH-4 51/37

.2 Add the following detail information regarding the gas fired unit heaters;

.1 Provide CSA and CGA approved separated combustion, low static commercial/industrial unit heaters.

.2 The unit shall have a factory-installed power venter device to draw combustion air from outside of the building. The combustion air supply pipe and flue exhaust pipe shall be run in parallel from the heater to a factory supplied concentric adapter assembly, which allows for a single wall or roof penetration.

.3 Units will be equipped with a built-in disconnect switch.

.4 Units shall be designed for use with natural gas and have the following heat output;

GUH-1 60 kW
GUH-2 15 kW
GUH-3 18 kW
GUH-4 18 kW
GUH-5 60 kW
GUH-6 36 kW
GUH-7 15 kW
GUH-8 7 kW
GUH-9 60 kW
GUH-10 18 kW
GUH-11 15 kW

11. EP103 – PENTHOUSE POWER PLAN – LAB WING

.1 Revise Panel identified as “NP2EA” located on north wall of electrical room 234 to read as Panel “SD-P2EA”.

12. EP106 – PENTHOUSE FLOOR POWER PLAN – OFFICE WING

.1 Add Panel “MP6NB” located adjacent to lighting control panel “RPPB” as identified in Addendum #3.

.2 Provide 21mm thick plywood backboard to wall for all new panel board mounting.

.3 Confirm final mounting location of all new panels in penthouse with Departmental Representative prior to roughing in.

SPECIFICATIONS

1. SECTION 11 06 00 – EQUIPMENT SCHEDULE

.1 Disregard preliminary dimensions shown in the equipment list for fume hoods, as actual sizes will be determined during final product selection by the Departmental Representative. Similarly, plumbing and gas connections should be provided to fume hoods per mechanical drawings and specifications.

2. SECTION 12 35 53 – STEEL LABORATORY CASEWORK

.1 Article 2.4.5.5; Delete the sentence “Provide docking clips on underside of counter for fastening mobile units.”

3. SECTION 27 11 00 – COMMUNICATIONS EQUIPMENT ROOMS FITTINGS

.1 Sentence 2.2.2.8; Delete the word “category 6” and replace it with “category 5e”.

.2 Sentence 3.2.2; Communications Cabinets, Rack Frames and Enclosures – Revise to read: “Provide 1 x 2-post rack per telecom room. Provide 1 x 2-post rack, 1 x 4post rack and 1 x 4-post Server equipment rack in the main telecom room. Provide 1 x 4 post Server rack in the IT room.”

4. SECTION 27 16 00 – COMMUNICATIONS CONNECTING CORDS, DEVICES AND ADAPTERS

.1 Sentence 2.2.2; Fibre Optic Patch Cables – Revise to read as “LC-to LC connector 3000mm length minimum, longer may be required for patch panel to active device or equipment connector.”

.2 Sentence 2.2.3; Delete the word “category 6” and replace it with “category 5e”.

.3 Sentence 2.3.3; Delete the word “category 6” and replace it with “category 5e”.

.4 Sentence 3.1.11 General installation requirements - Add: “Provide 72 LC to LC multi-mode fibre optic patch cord.”

5. SECTION 28 13 23 – ACCESS CONTROL REMOTE DEVICES

.1 Sentence 2.1.6; Delete the word “category 6” and replace it with “category 5e”.

END OF ADDENDUM