Halton District School Board **Addendum No. 1**

22-079 HVAC & Control Upgrades – Montclair PS

The following, issued by the Halton District School Board March 10, 2022, shall be incorporated in the specifications and shall form part of the proposal document for the above.

The closing date for the following RFT has been changed to Monday March 28th, 2022.

See attached addendum #1prepared by the Architect

RECEIPT OF ADDENDA MUST BE ACKNOWLEDGED ON THE FORM OF TENDER.

PAGE 1 OF 9

ADDENDUM

Unit 100 – 706 Euclid Avenue, Toronto, Ontario, Canada M6G 2T9
Fax: (416) 591-1010 Telephone: (416) 591-6575

PROJECT: Montclair Public School HVAC & Control Upgrade
1285 Montclair Dr, Oakville, ON L6H 1Z3

PROJECT NO.: 20144

DATE: March 08, 2022

ADDENDUM NO.: 1

THE FOLLOWING ADDITIONS, DELETIONS, AND AMENDMENTS ARE HEREBY MADE PART OF THE DRAWINGS AND SPECIFICATIONS FOR THE ABOVE PROJECT:

ITEM 1: MECHANICAL AND ELECTRICAL ADDENDUM NO. 1
REFERENCE: Mechanical and Electrical Addendum No. 1 dated March 8, 2022 (attached).

Description: Refer to Mechanical and Electrical Addendum No. 1 dated March 8, 2022 (attached).

Wesley K. Lim
WK Lim Architect Inc.
WKL/mm

END OF ADDENDUM NO. 1

c.c. Ms. Jennifer Norman - Halton District School Board

ADDENDUM

Moon-Matz Ltd.
Consulting Engineers

Head Office: 2902 South Sheridan Way, Suite 300, Oakville, Ontario L6J 7L6 Tel:(905) 274-7556 Fax:(905) 274-5382

To: **Halton District School Board**
2050 Guelph Line
Burlington, ON L7P 5A8

Ref. No.: **6239**

Date: **Match 8, 2022**

ADDENDUM NO. 1

Attn: **Wayne Hartwell.**

From: **Teka Bahta, P.Eng.**

Re: **MONTCLAIR PS – HVAC AND CONTROLS UPGRADES**
PROJECT #: 22-079 - 1285 MONTCLAIR DRIVE, OAKVILLE, ON.; L6H 1Z3

This addendum refers to additions, deletions, modifications and clarifications which hereby become an integral part of the original RFQ Documents and shall be read in conjunction with the same.

No consideration will be allowed for extras to the RFQ due to the contractors, or sub-contractors, not being familiar with this Addendum. Acknowledgment of receipt of this Addendum is to be given in the space provided in the RFQ document.

DESCRIPTION:

Q1. Drawing E-5 Note#2: Confirm if electrical needs to supply and install a new starter for AHU-2? Mechanical Schedule doesn't show any starter requirement for AHU-2. Provide specifications if required. Provide approximate distance from starter to AHU-2?

A1: Provide starter. Refer to attached specification. Approximate distance 30m.

Q2. Confirm electrical contractor needs to supply and install a 30A weatherproof disconnect switch for AHU-2?

A2: Yes

Q3. It is assumed that AHU-1, 3, 4 doesn't need a field disconnect switch. Please confirm.

A3: Provide combination magnetic starter for AHU-1, 3 & 4 as detailed on E6.

Q4. New starter for AHU-3 will be supplied by mechanical and installed by electrical trade. – Please confirm.

A4: Refer to A#3 above.

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Q5. Do we need to supply and install local disconnect switch for RF1 and RF-2? mechanical schedule says its required but electrical layout doesn't show one.

A5: Yes

Q6. Drawing E-3: Note#2: Please elaborate electrical scope for Louvers and HVAC-1. Are we disconnecting existing power to Louvers and HVAC-1 and reconnecting? Please clarify what's the work involved?

A6: Reuse and modify existing louver circuits to feed new louvers. Splice and extend existing circuits complete with new wires and conduit as required.

Q7. Drawing E-4 - Layout doesn't show starter for EF-8. Please confirm EF-8 starter location.

A8: Install starter in boiler room adjacent to BAS panel.

Q9. Drawing E-5 shows 6 exhaust fans which are replacing existing one's. Are we installing new conduit and wire for these exhaust fans? Or are we reusing existing circuits for the old fans.

A9: Reuse and modify existing circuits to feed new units. Splice and extend existing circuits complete with new wires and conduit as required.

Q10. Drawing E-4 shows location of new exhaust fan EF-7 replacing existing exhaust fan307. Please provide location of existing starter and new starter for EF-7.

A10. Install new starter in staff room. Reuse and modify existing circuits to feed new unit. Splice and extend existing circuits complete with new wires and conduit as required

Q11. Please provide location of existing starter and new starter for EF-8.

A11: Refer to A8 above

Q12. Please provide approximate distance between DP-1 and AHU-4

A12: Approximate distance 40m

Q13. Provide name plate photo of existing panel DP-1

A14. DP-1 is 600A 347/600V. 3PH, 4W Type: CDP GE Panelboard

END OF ADDENDUM

1. General

(a) Related Work

(i)	Shop Drawings and Other Submittals	Section 01300
(ii)	Electrical General Provisions	Section 16010
(iii)	Motor Control Centre	Section 16420

(b) Shop Drawings And Product Data

(i) Submit Shop Drawings and product data in accordance with Section 01300 Shop Drawings and Other Submittals.

2. Products

(a) Control Panels

(i) Control Panels: Factory wired, including, relays, operator pilot device, nameplates, terminal blocks and interconnecting wiring.

(ii) EEMAC Type 1A (gasketed), code gauge galvanized sheet steel with hinged doors and 3 point locking latches.

(iii) Enclosure complete with back panel for component mounting. Furnish enclosure with 30% spare space.

(iv) Panel wiring to terminate at terminal blocks located near top or bottom of panel to suit incoming conduit.

(v) Use plastic ducts for internal wiring with wires tagged at each point of connection or termination. Wire numbers as indicated on wiring diagrams, numbers not to be duplicated.

(vi) Identify internally mounted equipment. Arrange equipment in panel for ease of maintenance.

(vii) Identify control wiring terminating at terminal strip with sleeve markers.

(viii) Furnish main disconnect switch for each control panel. Disconnect switch to be operated by a flange mounted operator capable of being locked out for ease of maintenance.

(b) Control Relays

(i) Furnish general purpose (industrial grade) control relays with a minimum of four (4) contacts and a maximum of eight (8) contacts. Each relay to have a minimum of one (1) unused normally open and one (1) normally closed or one (1) convertible pole.

(ii) Furnish magnetic type control relays, voltage rating and current carrying capacity of contracts adequate for the maximum load condition and electrical characteristics of the current.

(iii) Acceptable manufacturers: Allen-Bradley, Square D, Eaton or approved

equivalent.

(iv) Furnish totally enclosed plug-in type relay with 4 form-C contacts. Operating coil to suit required voltage. Furnish relays complete with mounting socket.

(v) Acceptable manufacturers: Allen-Bradley, Square D, Eaton or approved equivalent.

(c) Operator Pilot Devices

(i) Furnish standard (heavy) duty operator devices.

(ii) Furnish operator devices complete with manufacturer's standard engraved legend plates.

(iii) Contact blocks

(A) Quick make - quick brake, one (1) NO and one (1) NC minimum.

(B) Rating continuous 10A, 600V AC and DC.

(iv) Operators

(A) Pushbuttons : flush (extended) head
colour : green (black) - start
red (black) - stop
black - other

(B) Emergency stop: mushroom head, colour red, push/pull (twist) motion.

(C) Selector switches: standard operator (knob lever) (cylinder lock), 2-position, 3-position.

(v) Pilot lights

(A) Push to test transformer (full voltage) type.

(B) Lens colour:

running	-red (green)
stopped	-green (red)
alarm/malfunction	-amber
on	-white or (clear)

(vi) Acceptable manufacturers: Allen Bradley type 800T, Square D Class 9001 type K or approved equivalent.

(d) Manual Motor Starters

(i) Single and 3 phase manual motor starters of size, type and rating as indicated or to suit motors.

(ii) Enclosure: EEMAC Type 12 code gauge galvanized steel for indoor, dry applications.

(iii) One overload relay in each phase, manual reset, trip free, trip indicating handle.

(iv) Heavy duty type single phase toggle switch, quick-make quick-break switching mechanism.

(v) Pilot light (standard): heavy duty type.

(vi) Provision for padlocking in OFF position.

(vii) Acceptable Manufacturers: Allen-Bradley, Square D, Siemens, Eaton or approved equivalent.

(e) Magnetic Motor Starters

(i) Combination magnetic motor starters type as follows:

(A) Full voltage non-reversing (FVNR), single speed.

(ii) Rating: to suit motor size, but not smaller than size-1.

(iii) Motor overload relay in each phase manually reset from outside the enclosure. Sized to suit motor HP (KW) and speed, load conditions and ambient temperature.

(iv) Enclosure: EEMAC Type 12 code gauge galvanized steel for indoor dry locations.

(v) Internally mounted fused disconnect switch to CSA C22.2 No. 4-M. switch quick-make quick-break with arc chutes, mechanism, buswork and assembly braced for 100,000 AIC symmetrical. Operating lever on outside of enclosure and provision for locking in off position with minimum 3 padlocks.

(vi) Door mounted accessories:

(A) Pushbuttons, selector switches as required, heavy duty type.

(B) Pilot lights: heavy duty press to test type.

(vii) Control transformer: single phase, double wound with fused 120V secondary, sized to suit control circuit load plus 20% spare, and installed within starter enclosure. For low voltage furnish fused on one side and grounded on other side.

(viii) Auxiliary contacts: as required plus minimum 1 spare NC, 1 spare NO.

(ix) Wiring diagram and schematic diagram inside starter in a visible location.

(x) Inside starter, identify each wire and terminal for external connections, with permanent number marker identical to diagram.

(xi) Where control voltage from source external to starter is indicated:

(A) Furnish terminals, covered with hard insulating guard.

(B) Apply lamicoid warning plate on the outside of starter cover describing source of outside control power.

(xii) Acceptable Manufacturers: Allen-Bradley, Square D, Siemens, Eaton or approved equivalent.

(f) Variable Frequency Drives (VFD)

(i) For VFD specifications refer to section Motor Control Centre Section 16420.

(g) Temperature Controller

(i) Supply and install temperature controllers as indicated on the drawings.

(ii) Enclosure shall be NEMA 4X

(iii) Application: ON/OFF or analog controller for applications where electronic accuracy and remote sensing of temperature is required.

(iv) Relay outputs: 4SPDT.

(v) Sensor inputs: two (2)

(vi) Voltage: 120VAC

(vii) Temperature controller shall be manufactured by Honeywell model T775B2024 or approved equivalent c/w indoor and outdoor sensors as indicated on the drawings. Sensors shall be Honeywell T775-SEN-WR or approved equivalent.

(h) CO Detection Alarm Strobe

(i) The flashing beacon light with warning horn shall be c/w a wall mounting self contained base, horn rated at 72dB at 3m. The flashing light with warning horn (flash rate 60 FPM) shall be GE Security (Edwards) model 51CR-N5-40WH or approved equal. The alarm signal strobes installed in hazardous areas shall be shall be explosion proof type.

(i) Equipment Identification

(i) Provide equipment identification in accordance with Section 16010 Electrical General Provisions.

(j) Nameplates

(i) Identify electrical equipment with nameplates as follows: Lamicoid 3 mm thick plastic engraving sheet, black face, white core (red face with white core for fire alarm and emergency), mechanically attached with self tapping screws.

(A) Nameplate Size 4

3. <u>Execution</u>

(a) Control Panels

(i) Panel Wiring: Install panel wiring conforming to applicable codes.

(ii) Arrange internal components so not to interfere with service or maintenance of any equipment or components.

(iii) Route wiring to permit future installation and easy access to equipment for maintenance and adjustment.

(iv) Install wiring neatly arranged in properly supported bundles from front and rear

of panel mounted equipment to conveniently located terminal blocks for each panel section.

(b) Motor Control Equipment

(i) Secure equipment plumb true and square to equipment structure.

(ii) Leave slack in cables to avoid stress on connections.

(iii) Check nameplate rating of motor to select overload relays.

(iv) Check operation of starters and correct motor rotation. Coordinate with Division 15

(v) Furnish plastic covers to exclude dirt and dust until starters are energized.

(vi) Comply with manufacturer's instructions and lubricate moving parts where required.

END OF SECTION