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Revision/ Révision	Description/Description	Date/Date

Client/client

PUBLIC WORKS
AND GOVERNMENT SERVICES
CANADA

100-167 LOMBARD AVENUE
WINNIPEG MB R3C 2Z1

Project title/Titre du projet
**REPLACEMENT OF AIR HANDLING UNITS
OSBORNE CORRECTIONAL COMMUNITY CENTRE
1048 MAIN STREET, WINNIPEG, MB**

Approved by/Approuvé par
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Designed by/Concept par
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TIM LODGE

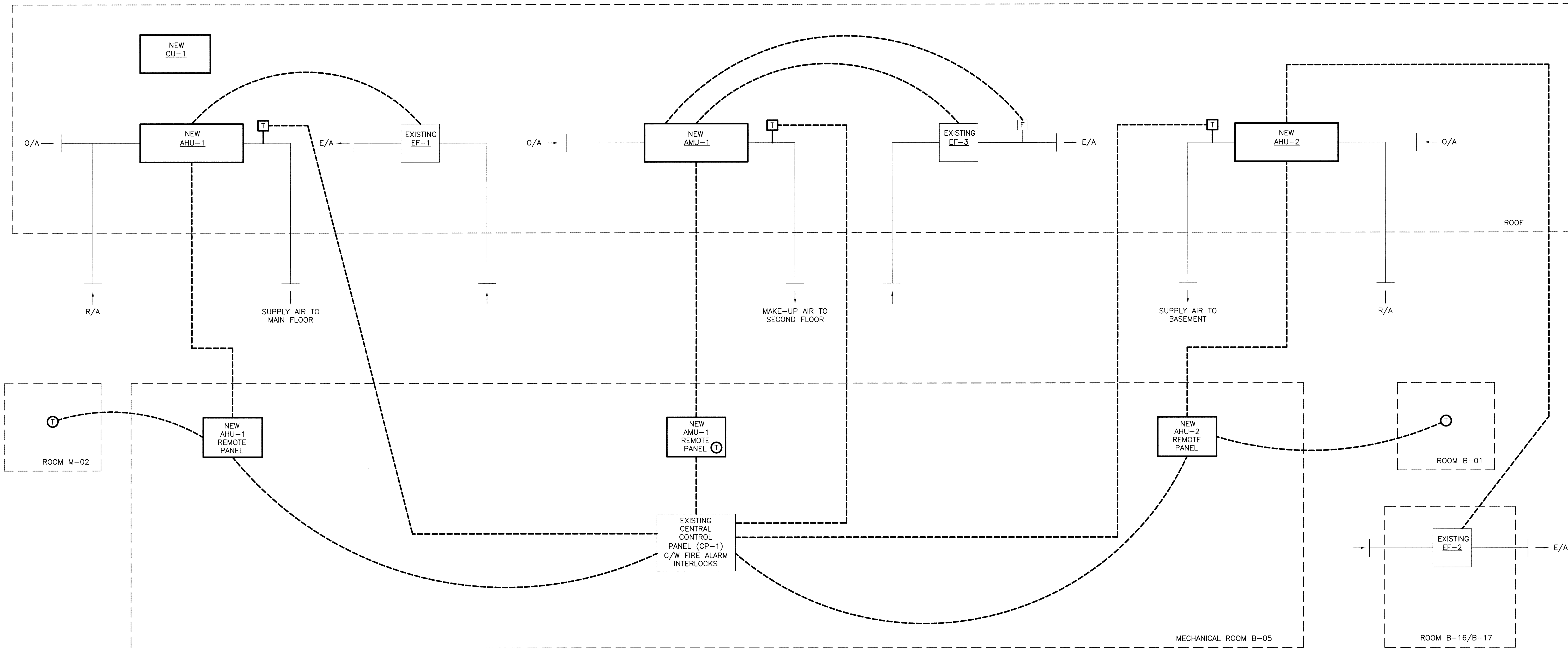
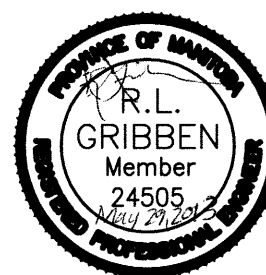
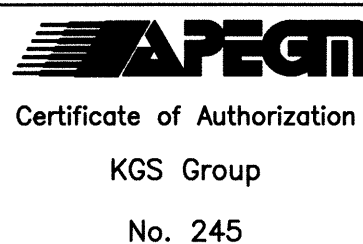
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Client/client

Drawing title/Titre du dessin

MECHANICAL
CONTROLS SCHEMATIC

Project No./No. du projet R.058521.001	Sheet/Feuille H02 OF 03	Revision no./ La Révision no. 0
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1 HVAC CONTROLS SCHEMATIC
SCALE: N.T.S.

SCOPE OF WORK:

- CONTROLS CONTRACTOR SHALL REMOVE ALL CONTROLS ASSOCIATED WITH EXISTING AIR HANDLING UNITS (AHU-1 & AHU-2) AND AIR MAKE-UP UNIT (AMU-1) AND REPLACE WITH NEW WIRING SO NEW ROOFTOP UNITS FUNCTION TO MATCH EXISTING CONTROLS SEQUENCE. CENTRAL CONTROL PANEL (CP-1) TO REMAIN.
- SCOPE OF WORK INCLUDES THE SUPPLY, INSTALLATION, COMMISSIONING AND TRAINING TO TIE-IN NEW EQUIPMENT AND MAINTAIN EXISTING CONTROLS SEQUENCE OF OPERATION FOR THE FOLLOWING:
 - NEW AHU-1 INTERLOCKED WITH EXISTING EF-1
 - NEW AHU-2 INTERLOCKED WITH EXISTING EF-2
 - NEW AMU-1 INTERLOCKED WITH EXISTING EF-3
- ALL CONTROL WIRING SHALL BE NEW AND INSTALLED IN ACCORDANCE WITH DIVISION 26 WIRING METHODS AND STANDARDS.
- COORDINATE INSTALLATION OF CONTROLS WIRING WITH ELECTRICAL CONTRACTOR. ELECTRICAL TO PROVIDE CONDUIT RUNS.
- PROVIDE TRAINING FOR THE DEPARTMENTAL REPRESENTATIVE REGARDING OPERATION OF ALL CONTROLS.

EXISTING SEQUENCE OF OPERATION TO BE MAINTAINED:

- AHU-1 CONTROL:**
 - THE FAN SYSTEM (AHU-1 AND EF-1) OPERATES ON AN OCCUPIED/UNOCCUPIED SCHEDULE AS PROGRAMMED AT THERMOSTAT. (NEW)
 - SHOULD THE SUPPLY AIR TEMPERATURE DROP BELOW THE MANUAL TEMPERATURE RESET SETTING THE UNIT WILL BE DE-ENERGIZED.
 - AN AUDIBLE AND VISUAL ALARM WILL BE ENERGIZED AT CENTRAL CONTROL PANEL CP1. (EXISTING)
 - VISUAL ALARM WILL REMAIN ON UNTIL THE LOW LIMIT CONDITION IS CORRECTED, AND LOW LIMIT CONTROL IS MANUALLY RESET.
 - THE FAN SYSTEM SHALL BE TIED INTO THE FIRE ALARM SYSTEM TO SHUTDOWN UPON FIRE ALARM.
- AHU-2 CONTROL:**
 - THE FAN SYSTEM (AHU-2 AND EF-2) OPERATES ON AN OCCUPIED/UNOCCUPIED SCHEDULE AS PROGRAMMED AT THERMOSTAT. (NEW)
 - SHOULD THE SUPPLY AIR TEMPERATURE DROP BELOW THE MANUAL TEMPERATURE RESET SETTING THE UNIT WILL BE DE-ENERGIZED.
 - AN AUDIBLE AND VISUAL ALARM WILL BE ENERGIZED AT CENTRAL CONTROL PANEL CP1. (EXISTING)
 - VISUAL ALARM WILL REMAIN ON UNTIL THE LOW LIMIT CONDITION IS CORRECTED, AND LOW LIMIT CONTROL IS MANUALLY RESET.
 - THE FAN SYSTEM SHALL BE TIED INTO THE FIRE ALARM SYSTEM TO SHUTDOWN UPON FIRE ALARM.
- AMU-1 CONTROL:**
 - THE FAN SYSTEM (AMU-1 AND EF-3) OPERATES CONTINUOUSLY VIA THE PACKAGED MAKE-UP AIR UNIT CONTROL SYSTEM. (NEW)
 - AMU-1 IS INTERLOCKED TO EF-3 SO THAT IT WILL NOT ENERGIZE UNLESS THE EXHAUST FAN (EF-3) IS CONFIRMED "ON" VIA THE AIR PROVING SWITCH.
 - SHOULD THE SUPPLY AIR TEMPERATURE DROP BELOW THE MANUAL TEMPERATURE RESET SETTING THE UNIT WILL BE DE-ENERGIZED.
 - AN AUDIBLE AND VISUAL ALARM WILL BE ENERGIZED AT CENTRAL CONTROL PANEL CP1. (EXISTING)
 - VISUAL ALARM WILL REMAIN ON UNTIL THE LOW LIMIT CONDITION IS CORRECTED, AND LOW LIMIT CONTROL IS MANUALLY RESET.
 - RESET OF THE UNIT IS PERFORMED BY TURNING THE SYSTEM "ON/OFF" SWITCH LOCATED AT AMU-1 REMOTE PANEL TO THE "OFF" POSITION, THEN BACK TO THE "ON" POSITION.
 - THE FAN SYSTEM SHALL BE TIED INTO THE FIRE ALARM SYSTEM TO SHUTDOWN UPON FIRE ALARM.

LEGEND:

	EXISTING EQUIPMENT/CONTROLS TO BE REPLACED
	EXISTING EQUIPMENT/CONTROLS TO REMAIN
	CONTROL WIRING TO BE REPLACED
E/A	EXHAUST AIR
O/A	OUTDOOR AIR
R/A	RETURN AIR
AHU	AIR HANDLING UNIT
AMU	AIR MAKE-UP UNIT
T	MANUAL TEMPERATURE RESET (LOW LIMIT)
Ⓟ	THERMOSTAT
F	AIR PROVING SWITCH