

ÉCH : NONE

ROOM SENSOR SP1:

- INSTALL A ROOM TEMPERATURE SENSOR (SP1) (SEE PLAN VIEW FOR LOCATION).
- CONNECT ROOM TEMPERATURE SENSOR (SP1) TO THE THREE EXISTING CONTROL PANELS FOR THE THREE EXISTING WALL MOUNTED HEAT PUMPS (T-A6-01, T-A6-02 AND T-A6-23).
- REDO THE SCHEMATIC DIAGRAM.
- UPON REQUESTING AIR-CONDITIONING OR HEAT, CENTRAL COMMAND MUST START ALL THREE HEAT PUMPS AT THE SAME TIME (T-A6-01, T-A6-02 AND T-A6-23).

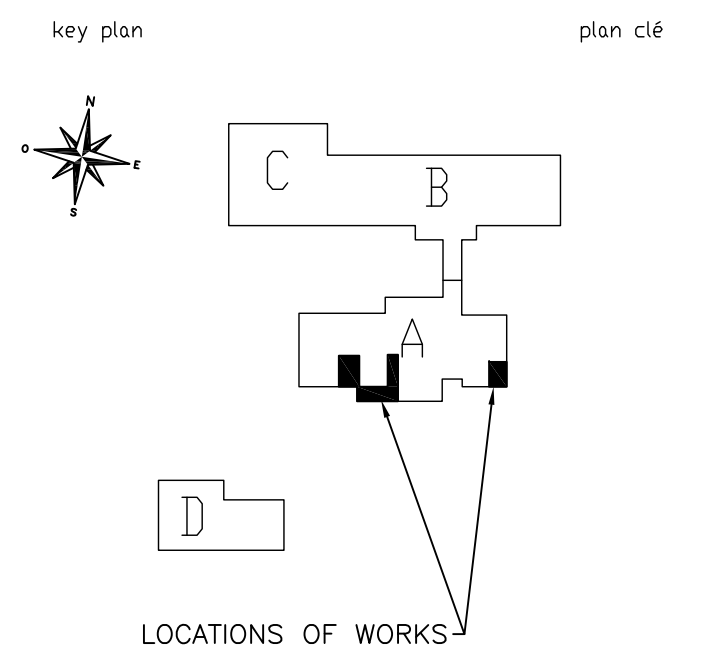
ROOM SENSOR SP2:

- INSTALL A ROOM TEMPERATURE SENSOR (SP2) (SEE PLAN VIEW FOR LOCATION).
- CONNECT ROOM TEMPERATURE SENSOR (SP2) TO THE FIVE EXISTING CONTROL PANELS FOR THE FIVE EXISTING WALL MOUNTED HEAT PUMPS T-A6-25, T-A6-18, T-A6-17, T-A6-16 AND T-A6-15.
- REDO THE SCHEMATIC DIAGRAM.

- UPON REQUESTING AIR-CONDITIONING OR HEAT, CENTRAL COMMAND MUST START ALL FIVE HEAT PUMPS AT THE SAME TIME (T-A6-25, T-A6-18, T-A6-17, T-A6-16 AND T-A6-15).

ROOM SENSOR SP3:

- INSTALL A ROOM TEMPERATURE SENSOR (SP3) (SEE PLAN VIEW FOR LOCATION).
- CONNECT ROOM TEMPERATURE SENSOR (SP3) TO THE FOUR EXISTING CONTROL PANELS FOR THE FOUR EXISTING WALL MOUNTED HEAT PUMPS T-A6-14, T-A6-24, T-A6-13 AND T-A6-12.
- REDO THE SCHEMATIC DIAGRAM.
- UPON REQUESTING AIR-CONDITIONING OR HEAT, CENTRAL COMMAND MUST START ALL FOUR HEAT PUMPS AT THE SAME TIME (T-A6-14, T-A6-24, T-A6-13 AND T-A6-12).



Toute modification doit être rapportée à:
All modification must be reported to:

**Biens Immobiliers, Environnement,
Sécurité et Santé**
104, Dalousie, Québec, Qc G1K 7Y7

Dossier:

MONT-JOLI
MAURICE-LAMONTAGNE BUILDING
RENOVATION GIST/SPC

Dessin:
Drawing:

MECHANICAL
CONTROLS
DETAILS AND SEQUENCE OF OPERATIONS

| | | |
|-------------------------------|----------------------------|------------|
| Conçu par: Designed by: | | Date |
| Jessy Devin | | 2018-05-08 |
| Dessiné par: Drawn by: | | Date |
| Jessy Devin | | 2018-05-08 |
| Vérifié par: Verified by: | | Date |
| Guy Villeneuve, ing. | | 2018-05-08 |
| Approuvé par: Approved by: | | Date |
| Guy Villeneuve, ing. | | 2018-05-08 |
| No. dossier: File no.: | Échelle: Scale: | |
| F3677-170169 | Indicated | |
| No. dessin: Drawing no.: | No. feuille: Sheet no.: | |

M23 OF 24

SYSTEM OFF:

- HEAT PUMP IS NOT IN OPERATION

SYSTEM ON:

- CENTRAL COMMAND ALLOWS THE SYSTEM TO FUNCTION ACCORDING TO THE ESTABLISHED SCHEDULE.
- THE TEMPERATURE SENSOR IN THE RETURN DUCT (TG1) MEASURES THE AVERAGE ROOM TEMPERATURE.
- THE HEAT PUMP VENTILATOR CONTINUALLY OPERATES AT LOW AIR FLOW MINIMUM SETPOINT.
- THE ROOM'S THERMOSTAT (TP) CONTROLS THE HEAT PUMP.
- THE TEMPERATURE SENSOR (TG2) MONITORS AIR SUPPLY TEMPERATURE AND LIMITS HIGH AND LOW TEMPERATURES IN AIR SUPPLY.
- THE AIRFLOW SENSOR INDICATES CENTRAL COMMAND'S AIRFLOW (AIRFLOW READING ONLY).
- THE DUCT TEMPERATURE SENSOR (TG2) MONITORS THE TEMPERATURE OF THE AIR SUPPLY TO THE DIFFUSERS.

REQUESTING AIR-CONDITIONING:

- CENTRAL COMMAND ALLOWS THE SYSTEM TO OPERATE ACCORDING TO THE ESTABLISHED SCHEDULE.
- THE ROOM'S THERMOSTAT (TP) CONTROLS THE HEAT PUMP. CENTRAL COMMAND SENDS A SIGNAL TO THE HEAT PUMP'S TERMINAL BLOCK TO SET THE POSITION OF THE REVERSIBLE VALVE TO "COOL".
- CENTRAL COMMAND SENDS A SIGNAL TO THE HEAT PUMP'S TERMINAL BLOCK TO START THE FIRST STAGE OF AIR-CONDITIONING (Y1).
- THE COMPRESSOR TURNS ON.
- IF THE TEMPERATURE IN THE ROOM DOES NOT GO DOWN AFTER 5 MINUTES, CENTRAL COMMAND STARTS THE SECOND STAGE OF AIR-CONDITIONING (Y2).

REQUESTING HEAT:

- CENTRAL COMMAND ALLOWS THE SYSTEM TO OPERATE ACCORDING TO THE ESTABLISHED SCHEDULE.
- THE ROOM'S THERMOSTAT (T1) OPERATES THE HEAT PUMP. CENTRAL COMMAND SENDS A SIGNAL TO THE HEAT PUMP'S TERMINAL BLOCK TO SET THE POSITION OF THE REVERSIBLE VALVE TO "HEAT".
- CENTRAL COMMAND SENDS A SIGNAL TO THE HEAT PUMP'S TERMINAL BLOCK TO START THE FIRST STAGE OF HEATING (Y1).
- THE COMPRESSOR TURNS ON.
- IF THE TEMPERATURE IN THE ROOM DOES NOT GO UP AFTER 3 MINUTES, CENTRAL COMMAND STARTS THE SECOND STAGE OF HEATING (Y2).

ALARM:

- UNINTENDED STOPPING OF THE HEAT PUMP.
- LOW/HIGH TEMPERATURE OF AIR SUPPLY.
- LOW TEMPERATURE OF AIR SUPPLY (4°C).
- HIGH ROOM TEMPERATURE.

FIRE ALARM:

- THE HEAT PUMP SHUTS OFF IF THE FIRE ALARM CONTROL PANEL SENDS IT A SIGNAL.



ÉCH : NONE

FOR QUOTATION
THESE DOCUMENTS MUST NOT BE USED
FOR CONSTRUCTION (OR FABRICATION).