



1. EXAMINE THE COMPLETE SET OF CONTRACT DOCUMENTS TO ENSURE THAT THE WORK CAN BE CARRIED OUT WITHOUT SIGNIFICANT CHANGES TO THE INTENT OF THE DOCUMENTS. THE FUTURE ALLOWANCE SHALL BE MADE FOR CHANGES UNLESS THE DEPARTMENTAL REPRESENTATIVE HAS BEEN NOTIFIED IN WRITING OF ANY DISCREPANCIES OR INTERFERENCES, PRIOR TO THE CLOSING OF THE TENDER. REFER TO SPECIFICATION APPENDICES FOR ADDITIONAL INFORMATION REGARDING THE CONTROLS.
2. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS, CONNECTIONS, SIZES, INVERTS, ETC. PRIOR TO COMMENCEMENT OF WORK.
3. AN ABC CERTIFIED (OR EQUIVALENT) BALANCE CONTRACTOR SHALL REBALANCE ALL OF THE AIR AND HYDRONIC SYSTEM FLOWS TO PROVIDE THE REQUIRED AIRFLOWS & FLUID FLOWS. NOTE THAT SOME AIRFLOWS/REBALANCE FLOWS MAY NOT SHOWN ON THE DRAWINGS BUT ARE SHOWN IN THE ORIGINAL 2002 BALANCE REPORT WHICH IS IN SPECIFICATION APPENDIX "E" THE ORIGINAL 2002 BALANCE REPORT ALSO SHOWS FLUID FLOW REBALANCE ALL INLETS, OUTLETS, DIFFUSERS, GRILLES, HYDRONIC FLUID FLOWS, ETC. TO THE DESIGN FLOWS SHOWN IN THE ORIGINAL 2002 BALANCE REPORT.
4. NEW THERMOSTATS CONNECTED TO THE BUILDING AUTOMATION SYSTEM SHALL BE PROVIDED WITH SETTABLE LOGIC/CODES (ADJUSTABLE) TO PREVENT TAMPERING BY UNAUTHORIZED PEOPLE.
5. THE CONTRACTOR SHALL EMPLOY SKILLED ARCHITECTURAL SUB-CONTRACTORS FOR ALL CUTTING AND PATCHING.
6. IT IS CRITICAL THAT THE CONTRACTOR MAINTAINS THE EXISTING OPERATING AND MAINTENANCE ACCESS OPERATIONAL DURING THE UPGRADE TO THE CONTROL SYSTEMS. REFER TO THE SPECIFICATION FOR PROPOSED PHASING.
7. ALL EXISTING BRANCH TAKEOFFS ON THE EXISTING HEATING PIPING LAYOUT PLAN ARE 19mm UNLESS NOTED OTHERWISE.
8. NOTE THAT EXISTING EQUIPMENT TO REMAIN AND BE REUSED IS SHOWN WITH A LIGHT GRAYSCALE LINE WHILE NEW AND REFURBISHED EQUIPMENT IS SHOWN WITH A "NORMAL" GRAYSCALE LINE.
9. NOTE THAT THE EXISTING CEILING SPACES ARE USED AS RETURN AIR PLENUMS AND THE WIRING NEEDS TO BE PLENUM RATED TO THE LATEST EDITION OF THE BUILDING/ELECTRICAL CODES. EXISTING THERMOSTATS ARE INSTALLED WITH A 1/2" AIRWAY AND RUBBED UP/DOWN INTO THE CEILING SPACE AND THEN PLENUM RATED CABLE IS USED TO CONNECT TO THE LOW PRESSURE BY-PASS BOX'S CONTROL PANEL. EXISTING RETURN AIR PLenums MUST BE REUSED TO BE REMOVED. NEW COMPLIANT WIRING IS PERMITTED TO BE INSTALLED IN A SIMILAR FASHION.
10. THE NEW NETWORK COMMUNICATION CABLE SERVING THE NEW CONTROL SYSTEM SHALL BE A DIFFERENT COLOUR FROM THE EXISTING CABLE. THE NEW CABLE (BLUE) AND IT SHALL BE LABELED. IT SHALL BE INSTALLED EXPOSED IN THE CEILING SPACE AND PROPERLY SUPPORTED AT REGULAR INTERVALS.
11. NOTE THAT ALL CONDUIT, WIRING, DEVICES, EQUIPMENT AND CABLES SHALL BE LABELED AS PART OF THIS PROJECT SHALL BE REMOVED.

- 1 EXISTING EQUIPMENT (FANS, HEATERS, PIPING, DUCTWORK, ETC.) SHOWN WITH A "LIGHT GRAYSCALE LINE" TO REMAIN. TYPICAL.
- 2 APPROXIMATE LOCATION OF EXISTING HYDRONIC HEATING SYSTEM CONTROL VALVE. REPLACE EXISTING HYDRONIC HEATING SYSTEM CONTROL VALVE WITH NEW HYDRONIC HEATING SYSTEM CONTROL VALVE. REBALANCE GLYCOL FLOW. TYPICAL.
- 3 APPROXIMATE LOCATION OF EXISTING HYDRONIC FORCE FLOW HEATER. REPLACE EXISTING LINE VOLTAGE HYDRONIC FORCE FLOW HEATER CONTROLS WITH NEW LINE VOLTAGE HYDRONIC FORCE FLOW HEATER CONTROLS. TYPICAL.
- 4 APPROXIMATE LOCATION OF EXISTING THERMOSTAT (COMPLETE WITH LOCKABLE THERMOSTAT GUARD) WIRED TO CONTROL THE EXISTING EQUIPMENT. REMOVE EXISTING THERMOSTAT, THERMOSTAT GUARD AND THE ASSOCIATED HYDRONIC HEATING SYSTEM CONTROL VALVES. REPLACE THEM WITH NEW HYDRONIC HEATING SYSTEM CONTROL VALVES AND A NEW THERMOSTAT THAT IS CONNECTED TO THE NEW BUILDING AUTOMATION SYSTEM AND ABLE TO BE CONTROLLED/MONITORED THRU IT. WIRE NEW THERMOSTAT TO CONTROL THE SAME EQUIPMENT AS WAS PREVIOUSLY BY THE EXISTING THERMOSTAT. PROVIDE NEW THERMOSTATS COMPLETE WITH A USER SETTABLE LOCKOUT CODE. TYPICAL.
- 5 REFER TO THE BASEMENT FLOOR PLAN FOR THE APPROXIMATE LOCATION OF THE LOW PRESSURE BYPASS BOX THAT IS CONTROLLED BY THIS THERMOSTAT. REMOVE THE EXISTING ANALOG CONTROLS SERVING THE EXISTING LOW PRESSURE BYPASS BOX AND REPLACE THEM WITH NEW DIGITAL CONTROLS THAT ARE CONNECTED TO THE NEW BUILDING AUTOMATION SYSTEM AND ABLE TO BE CONTROLLED/MONITORED THRU IT. REBALANCE AIR FLOWS. TYPICAL.
- 6 APPROXIMATE LOCATION OF EXISTING CONDENSING UNIT SERVING AHU-1-E.X.
- 7 APPROXIMATE LOCATION OF THE EXISTING OUTDOOR AIR TEMPERATURE CONTROLS SERVING THE EXISTING CONTROLS. THE CONTROLLERS ARE LOCATED BEHIND THE EXISTING LOUVERS IN THE EXISTING OUTDOOR AIR INTAKE. REMOVE THE EXISTING CONTROLS FOR THE NEW OUTDOOR AIR TEMPERATURE, HUMIDITY & CO2 SENSORS.
- 8 APPROXIMATE LOCATION OF EXISTING THERMOSTAT WIRED TO CONTROL THE FORCE FLOW HEATER. REMOVE EXISTING THERMOSTAT AND REPLACE WITH NEW LINE VOLTAGE THERMOSTAT. WIRE THERMOSTAT TO THE FORCE FLOW HEATER, PROVIDE C/W THERMOSTAT GUARD, REFER TO DETAIL.

<div>Parks Canada</div>	
Project	Project
Churchill, Manitoba 1 Mantayo Seepée Meskanow	
Visitor Reception Centre CONTROL SYSTEMS UPGRADES	
Designed by <b>MAN</b>	Conçu par
Drawn by <b>JRR</b>	Dessiné par
Approved by <b>MAN</b>	Approuvé par
PWOSC Project Manager <b>CHRISTINA KOVACS</b>	Administrateur de Projet TPSGC
Drawing title	Titre du dessin

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
<b>R.081709.001</b>	<b>M2.2</b>	<b>0</b>