

GENERAL NOTES:

- CONDUIT AND CABLING PENETRATIONS THROUGH FIRE RATED SEPARATIONS ARE TO BE FIRE AND SMOKE SEALED TO MAINTAIN FIRE RATING OF THE SEPARATION THROUGH WHICH THEY PASS. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF FIRE RATED SEPARATIONS AND COORDINATE ELECTRICAL PENETRATIONS ON SITE.
 - EXPOSED ELECTRICAL CONDUIT BOXES AND SUPPORTS IN FINISHED AREAS ARE TO BE PAINTED THE COLOUR OF ADJACENT FINISHED SURFACE. COORDINATE EXACT COLOUR AND ASSOCIATED PAINTING WITH GENERAL CONTRACTOR ON SITE.
 - THE ELECTRICAL DRAWINGS HAVE BEEN MADE AS ACCURATELY AS POSSIBLE TO INDICATE EXISTING CONDITIONS. EXACT SITE CONDITIONS TO BE VERIFIED ON SITE AND ANY DISCREPANCIES REPORTED TO THE DEPARTMENTAL REPRESENTATIVE PRIOR TO PROCEEDING WITH THE WORK.
 - ELECTRICAL WORK IS TO BE COMPLETED IN TWO (2) SEPARATE PHASES. THE FIRST PHASE IS TO GENERALLY INCLUDE ALL DEMOLITION WORK, INSTALLATION AND COMMISSIONING OF SOLAR SYSTEM, LIGHTING CONTROL UPGRADES AND MODIFICATIONS TO ELECTRICAL DISTRIBUTION SYSTEM INCLUDING PANELBOARD 'A' UPGRADES AND SERVICE MODIFICATIONS. SECOND PHASE UPGRADES AND SERVICE MODIFICATIONS. SECOND PHASE UPGRADES INCLUDES THE ELECTRICAL CONNECTION OF NEW MECHANICAL SYSTEMS AND CONSTRUCTION OF THE PELLET SHED.
- NOTES:
- TRACE OUT, DISCONNECT AND REMOVE ALL ELECTRICAL BACK TO SOURCE THAT IS ASSOCIATED WITH EXISTING OUTDOOR CONDENSER UNIT. COORDINATE WITH GENERAL CONTRACTOR THE REPAIR OF ASSOCIATED EXTERIOR ELECTRICAL PENETRATIONS.
 - TRACE OUT, DISCONNECT AND REMOVE ALL ELECTRICAL BACK TO SOURCE THAT IS ASSOCIATED WITH EXISTING DOMESTIC ELECTRIC HOT WATER HEATER.
 - TRACE OUT, DISCONNECT AND REMOVE ALL ELECTRICAL BACK TO SOURCE THAT IS ASSOCIATED WITH EXISTING HRV UNIT.
 - TRACE OUT, DISCONNECT AND REMOVE ALL ELECTRICAL BACK TO SOURCE THAT IS ASSOCIATED WITH EXISTING FORCED AIR FURNACE.
 - TRACE OUT, DISCONNECT AND REMOVE ALL ELECTRICAL BACK TO SOURCE THAT IS ASSOCIATED WITH THE EXISTING FUEL MONITORING SYSTEM INCLUDING BUT NOT LIMITED TO THE HMI UNIT, EXTERIOR NOTIFICATION APPLIANCE AND AUTODIALER. COORDINATE WITH GENERAL CONTRACTOR THE REPAIR OF EXTERIOR PENETRATIONS. EXISTING OBSOLETE UNDERGROUND ELECTRICAL ASSOCIATED WITH FUEL TANK SENSORS TO BE CUT BACK BELOW GRADE. TURN OVER HMI TO DEPARTMENTAL REPRESENTATIVE.
 - TRACE OUT, DISCONNECT AND REMOVE EXISTING LIGHT SWITCH, CAP BRANCH CIRCUIT IN EXISTING RECESSED OUTLET BOX FOR FUTURE USE.
 - EXISTING WALL MOUNTED COMMUNICATIONS BACKBOARD PATCH PANELS, TELECOMMUNICATIONS GROUND BUS, BUILDING ENTRANCE PROTECTORS AND SSC FIREWALL TO BE MAINTAINED. CONNECT NEW SOLAR ARRAY INVERTERS AND BUILDING MANAGEMENT SYSTEM CONTROLLER UPSTREAM FROM EXISTING SSC FIREWALL TO NEW MANAGED NETWORK SWITCH USING CAT 6 CABLE IN 16mmC. THESE TWO (2) NEW NETWORKS ARE TO BE COMPLETELY SEPARATE AND INDEPENDENT FROM THE EXISTING SSC INFRASTRUCTURE AND DFO NETWORK. COORDINATE WITH THE UTILITY AND PROVIDE ALL MATERIALS AND PROGRAMMING AS REQUIRED FOR REMOTE MONITORING OF THESE TWO (2) NEW INDEPENDENT NETWORKS. NEW SOLAR ARRAY NETWORK SWITCH TO BE WALL MOUNTED TO EXISTING PLYWOOD BACKBOARD AND CONNECTED TO UTILITY MODEM.
 - INSTALL NEW WALL MOUNTED PIR OCCUPANCY SWITCH IN EXISTING RECESSED OUTLET BOX AND CONNECT TO EXISTING CAPPED LIGHTING BRANCH CIRCUIT.
 - TRACE OUT, DISCONNECT AND REMOVE ALL ELECTRICAL BACK TO SOURCE THAT IS ASSOCIATED WITH EXISTING INDOOR AC EVAPORATOR HEADS AND ASSOCIATED RECESSED LOW VOLTAGE THERMOSTATS. COORDINATE WITH GENERAL CONTRACTOR ALL PATCHING AND PAINTING OF GYPSUM WALLS AS REQUIRED.
 - TRACE OUT, DISCONNECT AND REMOVE EXISTING SQUARE-D RECESS MOUNTED, 240V, 200A MB, SINGLE PHASE, 3 WIRE, 40 CIRCUIT SERVICE RATED PANELBOARD WITH A NEW 240V, 200A MB, SINGLE PHASE, 3 WIRE SERVICE RATED 54 CIRCUIT, SURFACE MOUNTED PANELBOARD C/W ALL NEW BRANCH CIRCUIT BREAKERS AS INDICATED IN THE PANEL SCHEDULE LOCATED ON DRAWING E3. NEATLY COIL, CAP AND IDENTIFY EXISTING BRANCH CIRCUITS FOR RECONNECTION TO NEW PANELBOARD. COORDINATE REMOVAL OF PLYWOOD CABINET AROUND EXISTING PANELBOARD WITH GENERAL CONTRACTOR. COORDINATE TEMPORARY POWER SHUTDOWN OF THE ENTIRE BUILDING WITH THE DEPARTMENTAL REPRESENTATIVE AND POWER UTILITY. RECONNECT EXISTING MAIN GROUND TO NEW PANELBOARD AND TEST IMPEDANCE TO GROUND.
 - ROUTE UNDERGROUND ELECTRICAL UP EXTERIOR FACADE TO APPROXIMATELY 900mm ABOVE GRADE AND THEN ELBOW INTO MECH/ELEC ROOM 104. PROVIDE EXPANSION SLEEVES ON EXTERIOR EXPOSED CONDUIT. COORDINATE EXACT LOCATION OF EXTERIOR FACADE PENETRATIONS WITH DEPARTMENTAL REPRESENTATIVE AND SEAL WITH LOW VOC MASTIC COMPOUND.
 - SOLAR INVERTERS ARE TO BE WALL MOUNTED AND CONNECTED TO TWO (2) ARRAYS EACH WITH 4#8 IN 27mmC (DC INPUT) AND 2#6, 1#8 BOND IN 27mmC (AC OUTPUT) TO 50A/2P CIRCUIT BREAKERS IN PANELBOARD 'A'.
 - EXISTING SHELF MOUNTED CCTV NVR AND MONITOR TO BE MAINTAINED IN-SITU.
 - INSTALL A LAMINATED POWER SINGLE LINE DIAGRAM ON WALL ADJACENT TO MAIN DISCONNECT SWITCH CLEARLY INDICATING INTERCONNECTION DISTRIBUTION TO SOLAR ARRAYS.
 - INSTALL A SINGLE POLE EMERGENCY SHUTDOWN SWITCH, IN A RECESSED BOX OUTSIDE OF THE BOILER ROOM, WIRE USING 2#14 + BOND AC90 CABLE TO THE SHUTDOWN CONTACTS ON THE BOILER. COORDINATE WITH GENERAL CONTRACTOR FOR ALL PATCHING AND PAINTING REQUIRED.
 - ROUTE 2c#8 TECK FROM CONDENSER THROUGH EXTERIOR FACADE ADJACENT TO MECHANICAL LINESET. SEAL EXTERIOR PENETRATION WITH LOW VOC MASTIC COMPOUND. CONTROLS WIRING TO INTERIOR FAN COIL BY DIVISION 25.
 - SUPPLY AND INSTALL ONE (1) NEW 15A/2P CIRCUIT BREAKER FOR 'DHW-2', TWO (2) NEW 15A/1P FOR ELECTRIC HEAT TRACE AND ONE (1) NEW 15A/1P CIRCUIT BREAKER FOR 'P-2' IN POSITIONS 31 TO 35 OF EXISTING 225A MLO, 120/240V, 1Ø, 3W EATON PRL1Ø SERIES PANELBOARD 'B'.
 - INSTALL 5m/FT 120V SELF REGULATING HEAT TRACE ON THE FIVE (5) MECHANICAL LINES RUNNING THROUGH THE UNHEATED ATTIC SPACE IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS. INSTALL POWER CONNECTION UNIT AND HEAT TRACE CONTROLLERS AT 1220mm AFF ADJACENT TO PANELBOARD 'B' IN GARAGE. HEAT TRACE, CONNECTION KITS, CONTROLLERS ATTACHMENT TAPE TO BE PROVIDED BY THE MECHANICAL CONTRACTOR AND INSTALLED AND CONNECTED BY THE ELECTRICAL CONTRACTOR. REFER TO MECHANICAL DETAIL 4/H3 FOR ADDITIONAL INFORMATION ON ROUTING OF MECHANICAL LINES TO BE TRACED.

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PERMIT HOLDER
This Permit Allows
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To practice Professional Engineering
in Newfoundland and Labrador.
Permit No. as issued by PEGWLN.0503
which is valid for the year 2020.



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