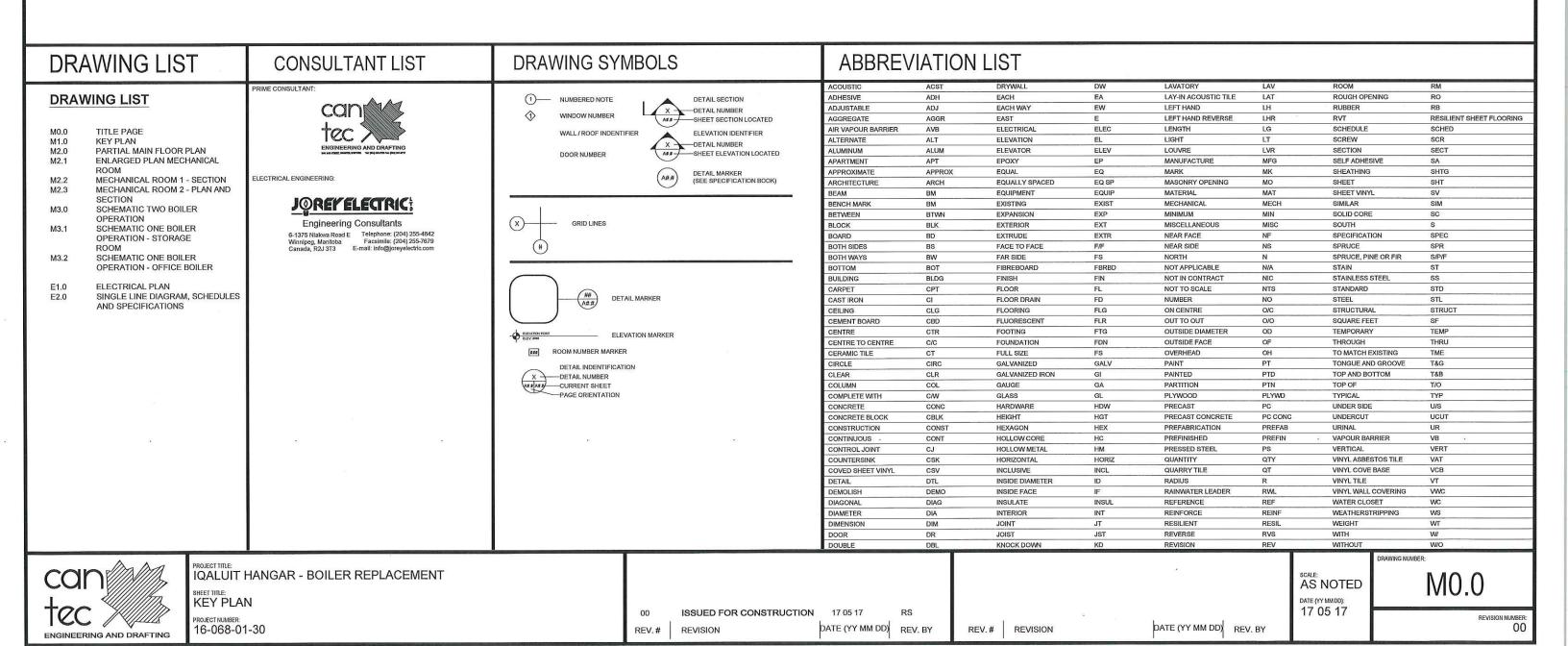
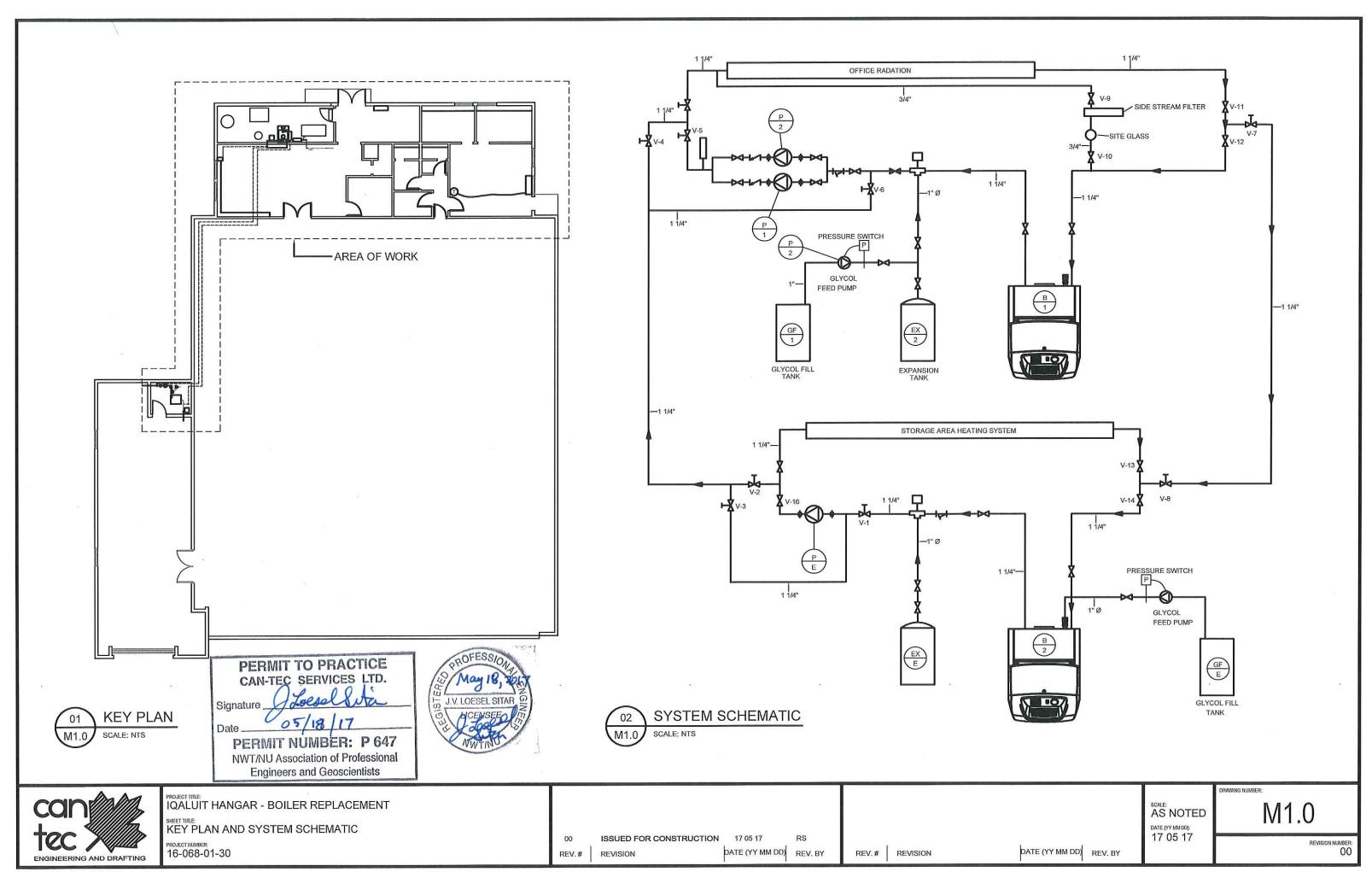
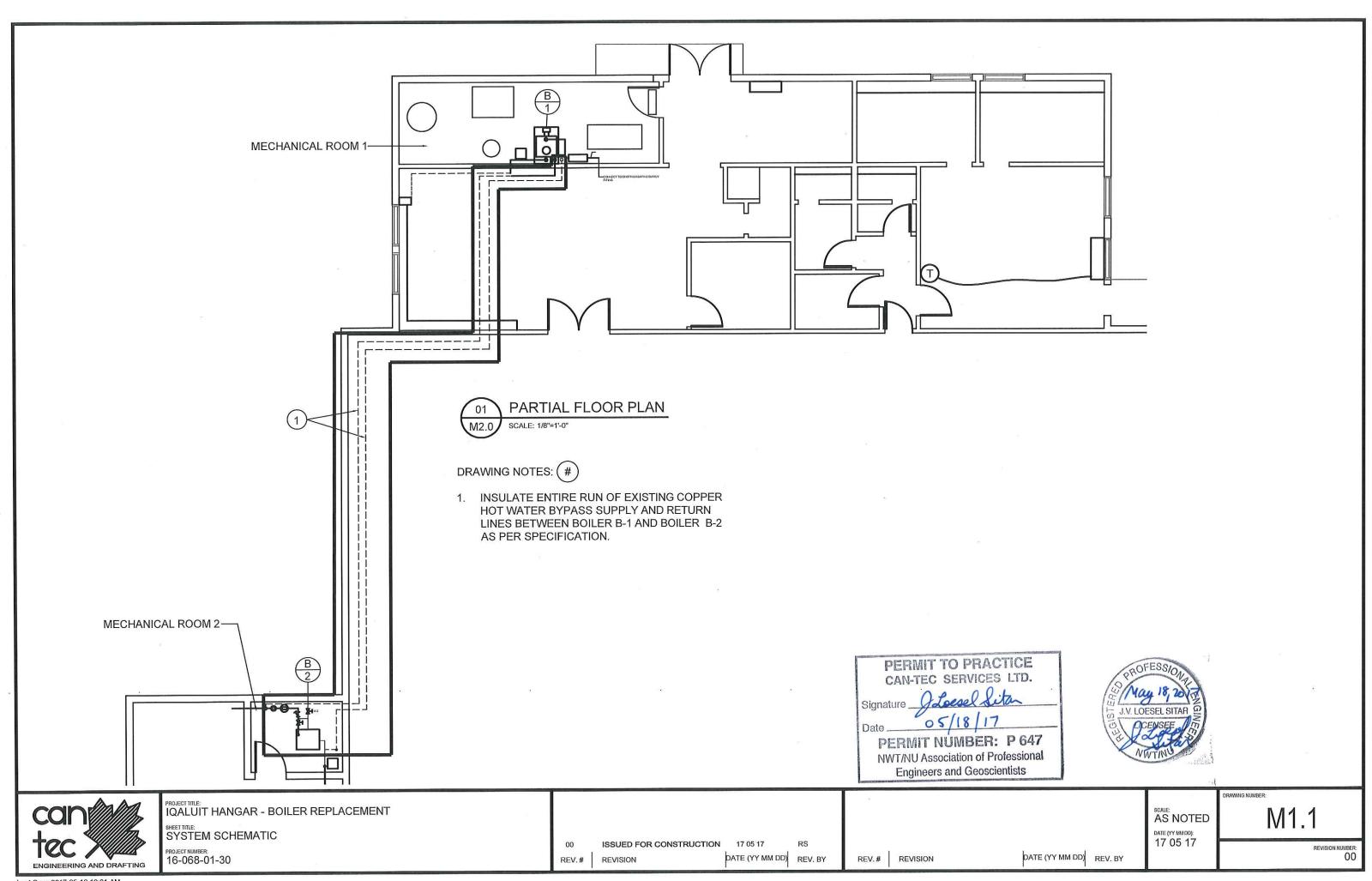
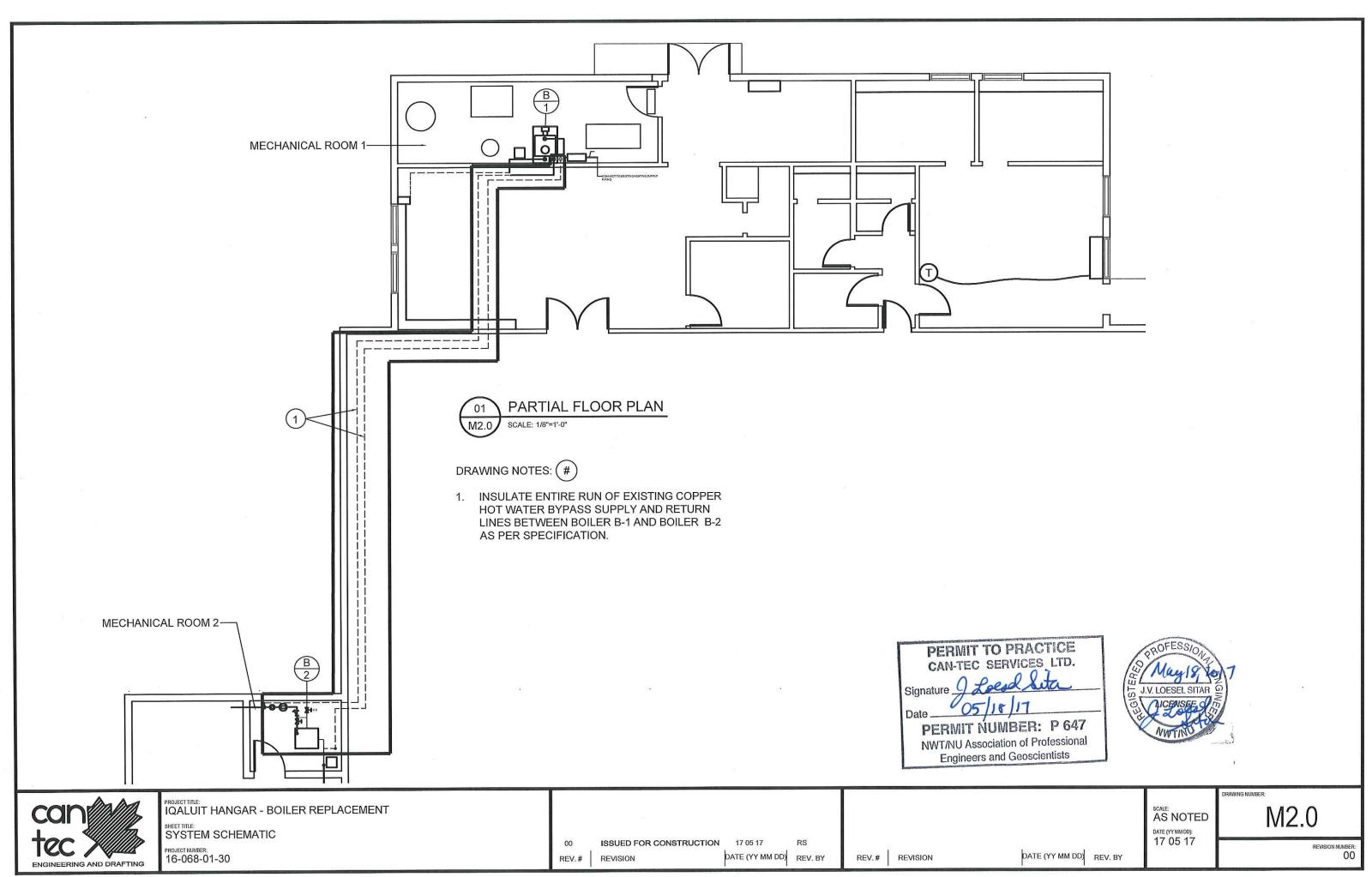
IQALUIT HANGAR BOILER REPLACEMENT IQALUIT, NUNAVUT CONSTRUCTION



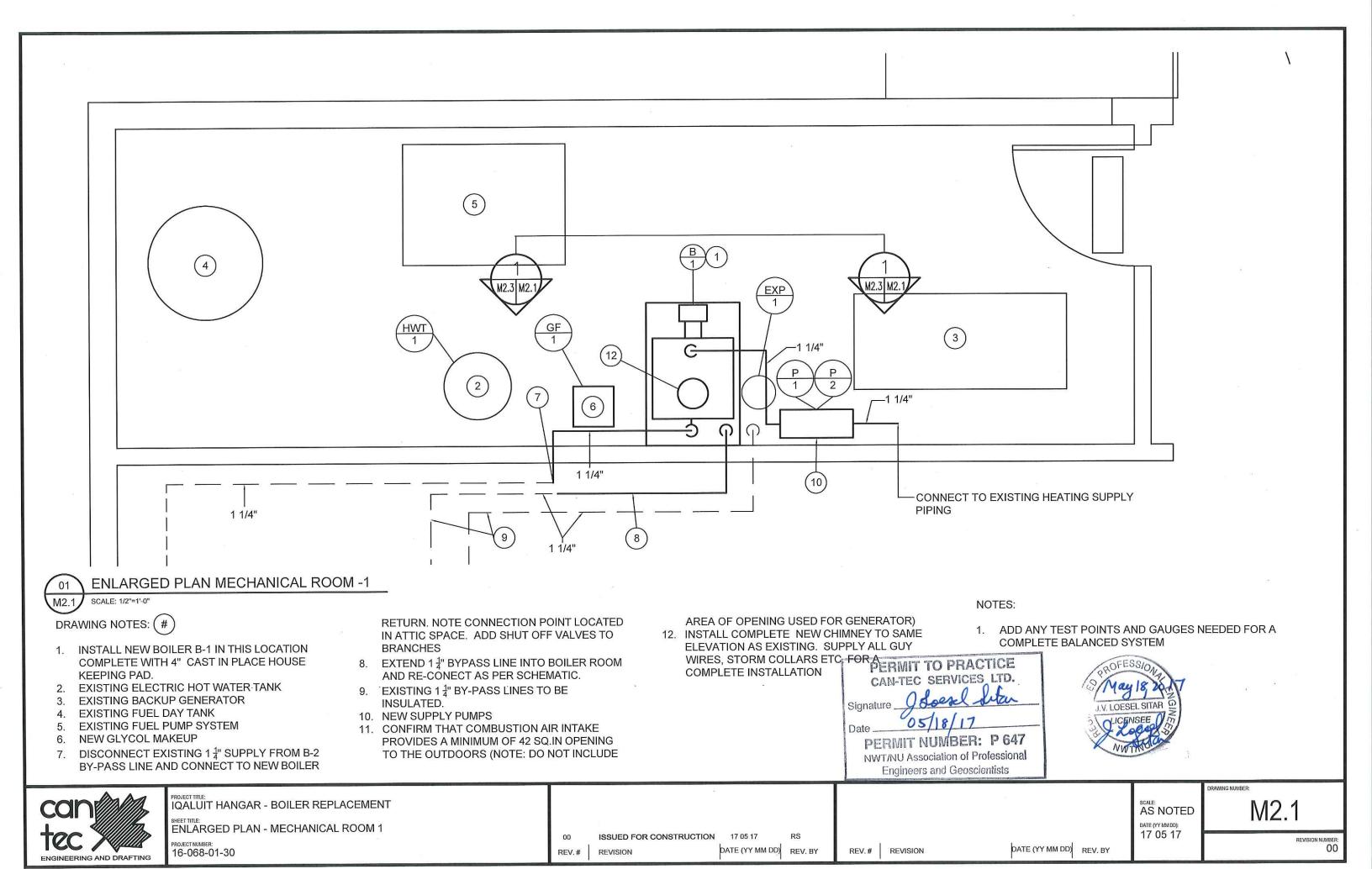


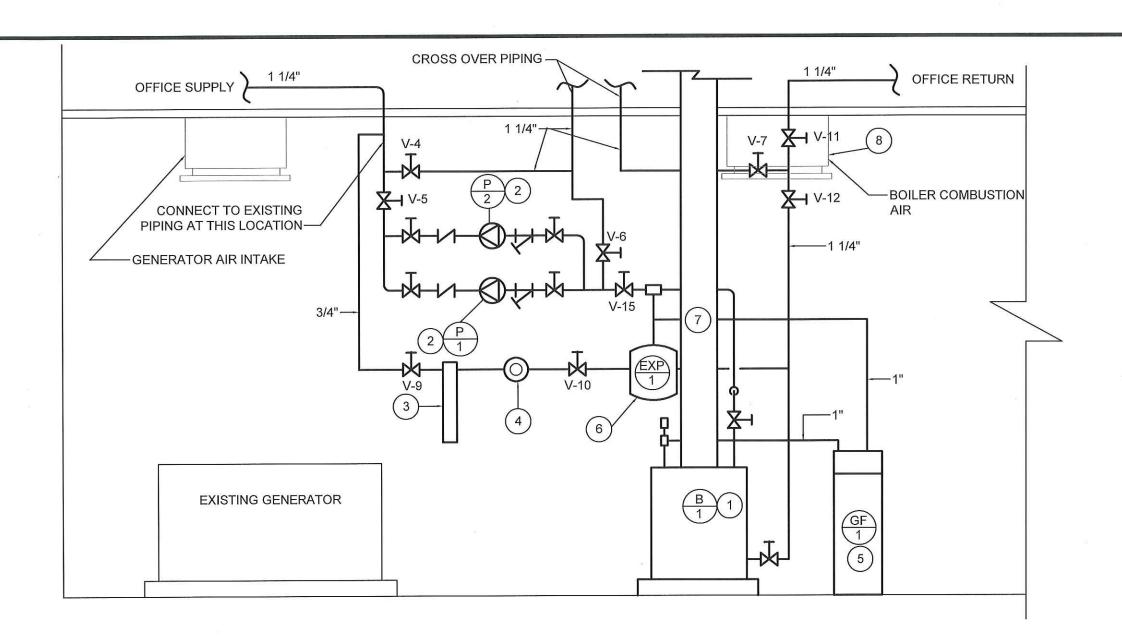


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M2.2

SECTION 1 - MECHANICAL ROOM 1

SCALE: 1/2"=1'-0"

DRAWING NOTES: (#)

- 1. INSTALL NEW BOILER B-1 IN THIS LOCATION COMPLETE WITH 4" CAST IN PLACE HOUSE KEEPING PAD.
- 2. NEW SUPPLY PUMPS
- SIDE STREAM FILTER
- SIGHT GLASS
- NEW GLYCOL FEED TANK
- 6. NEW EXPANSION TANK
- 7. NEW CHIMNEY AND BREECHING HEIGHT TO MATCH EXISTING.

8. CONFIRM COMBUSTION AIR FOR BOILER IS MINIMUM 42 SQ.IN.

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IQALUIT HANGAR - BOILER REPLACEMENT

MECHANICAL ROOM 1 - SECTION 1

PROJECT NUMBER 16-068-01-30

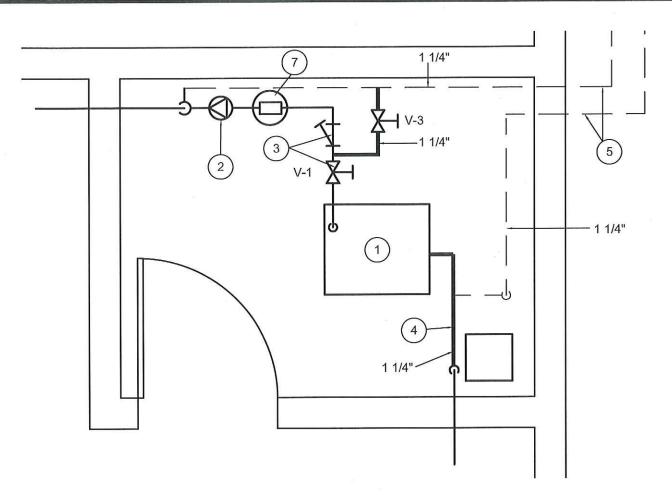
ISSUED FOR CONSTRUCTION 17 05 17 REV.# REVISION

DATE (YY MM DD) REV. BY

REV.# REVISION

DATE (YY MM DD): 17 05 17 DATE (YY MM DD) REV. BY

SCALE: AS NOTED M2.2



REMOVE EXISTING COPPER PIPING AND RE-INSTALL 1 ½" SCHEDULE 40 PIPE





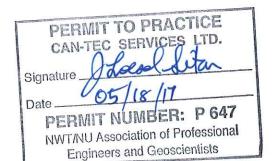
V-8 V-13 V-14 (8)

> **DETAIL 2 RETURN LINES** SCALE: NTS

MECHANICAL ROOM 2 PLAN VIEW M2.3 SCALE: 1/2"=1'-0"

DRAWING NOTES: (#)

- 1. EXISTING BOILER
- **EXISTING PUMP**
- EXISTING VALVE AND STRAINER
- REMOVE SECTION OF 1 4" COPPER PIPING AND INSTALL NEW 1 $\frac{1}{2}$ " SCHEDULE 40 PIPE TO BOILER. ADD EXTRA VALVES AS PER SCHEMATIC M3.0
- 5. INSULATE 1 ¹/₄" COPPER CROSS OVER LINES AS PER SPECIFICATION. FIRE CAULK AT MECHANICAL ROOM WALLS.
- INSTALL NEW VALVE V-14 BELOW TEE. SEE DETAIL 02 SHEET M2.3
- EXISTING AIR SEPARATOR AND EXPANSION **TANK**
- INSTALL NEW VALVE V-13 AND V-14 INTO NEW SCHEDULE 40 STEEL RETURN LINE. SEE DETAIL 3 SHEET M2.3



J.V. LOESEL SITAR

DETAIL 1 SUPPLY LINES

SCALE: NTS

ENGINEERING AND DRAFTING

IQALUIT HANGAR - BOILER REPLACEMENT MECHANICAL ROOM 2 - PLAN AND DETAILS PROJECT NUMBER: 16-068-01-30

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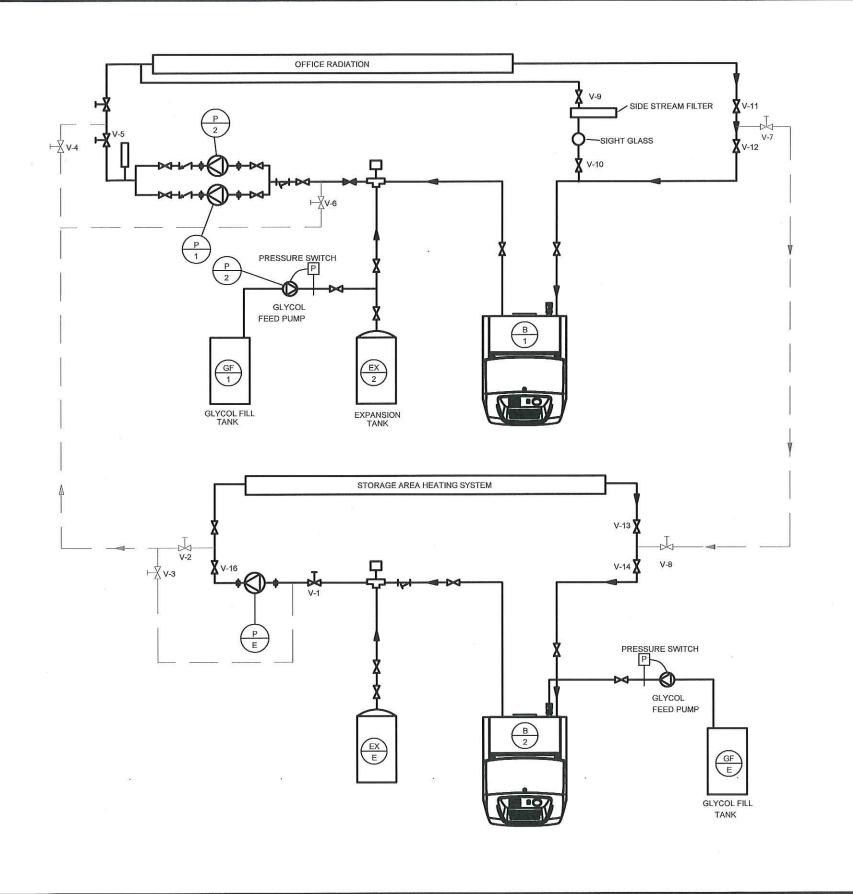
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DATE (YY MM DD):

17 05 17

M2.3



LEGEND OPERATING LINES NON-OPERATING LINES

ONE BOILER OPERATION HANGAR BOILER ONLY

1. CLOSED VALVES:

1.1. V-2

1.2. V-3

V-4 1.3.

V-6 1.4.

V-7 1.5.

1.6. V-8

2. NORMALLY OPEN VALVES

2.1. V-11

2.2. V-12

2.3. V-13

2.4. V-1 2.5. V-16

2.6. V-9

2.7. V-10

2.8. V-5

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PROJECT NUMBER: 16-068-01-30

IQALUIT HANGAR - BOILER REPLACEMENT SCHEMATIC 1 - NORMAL TWO BOILER OPERATION

REV.#

ISSUED FOR CONSTRUCTION 17 05 17 REVISION

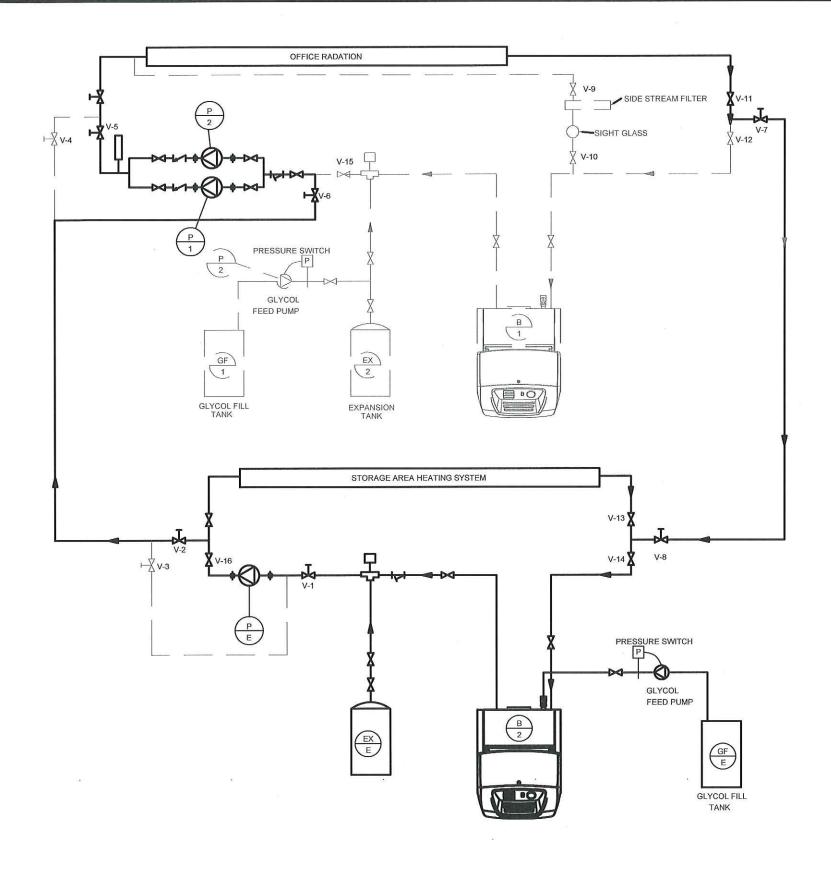
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REV.# REVISION

DATE (YY MM DD) REV. BY

AS NOTED DATE (YY MM DD): 17 05 17

M3.0



LEGEND	
OPERATING LINES	
NON-OPERATING LINES	

ONE BOILER OPERATION HANGAR BOILER ONLY

1. CLOSED VALVES:

V-3 1.1.

1.2. V-4

1.3. V-9

1.4. V-10 V-12 1.5.

1.6. V-15

2. NORMALLY OPEN VALVES

2.1. V-2

2.2. V-6

2.3. V-7

2.4. V-8 2.5. V-5

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IQALUIT HANGAR - BOILER REPLACEMENT SCHEMATIC - ONE BOILER OPERATION - HANGAR BOILER ONLY PROJECT NUMBER: 16-068-01-30

REV.#

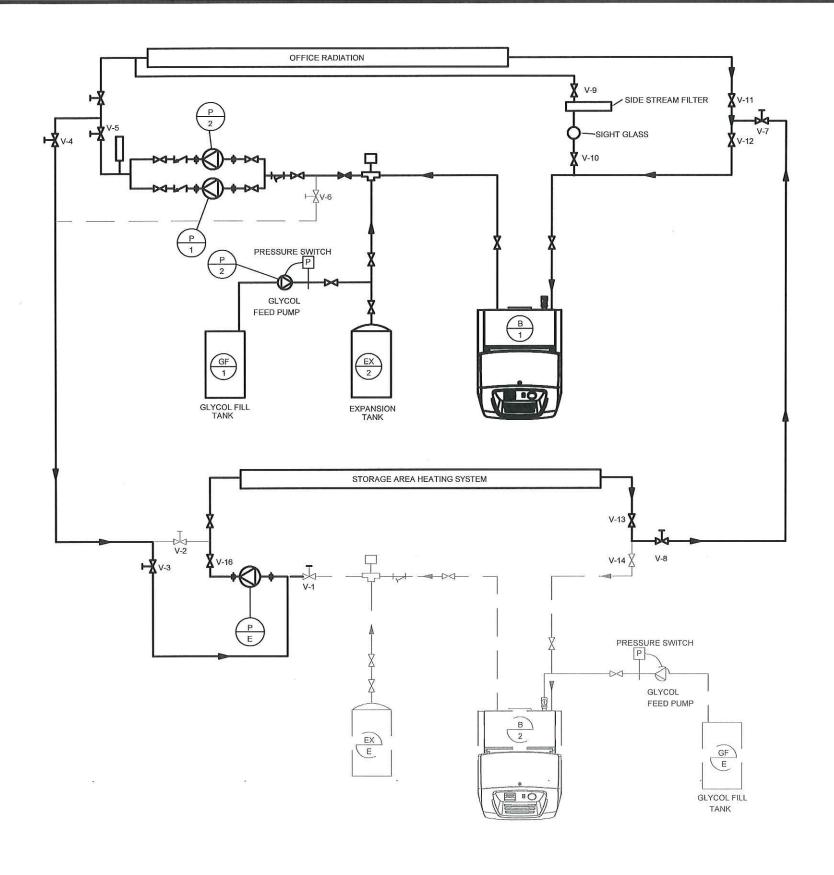
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REV.# REVISION

AS NOTED DATE (YY MM DD): 17 05 17 DATE (YY MM DD) REV. BY

M3.1



LEGEND	
OPERATING LINES	
NON-OPERATING LINES	

ONE BOILER OPERATION OFFICE BOILER ONLY

CLOSE VALVES:

1.1. V-1

1.2. V-2

1.3. V-6 1.4. V-14

2. NORMALLY OPEN VALVES

2.1. V-2

2.2. V-3

2.3. V-7

2.4. V-8

2.5. V-5

PERMIT TO PRACTICE CAN-TEC SERVICES LTD.

Signature ____

Date -

PERMIT NUMBER: P 647

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IQALUIT HANGAR - BOILER REPLACEMENT

SCHEMATIC - ONE BOILER OPERATION - OFFICE BOILER ONLY

PROJECT NUMBER: 16-068-01-30 00 ISSUED F
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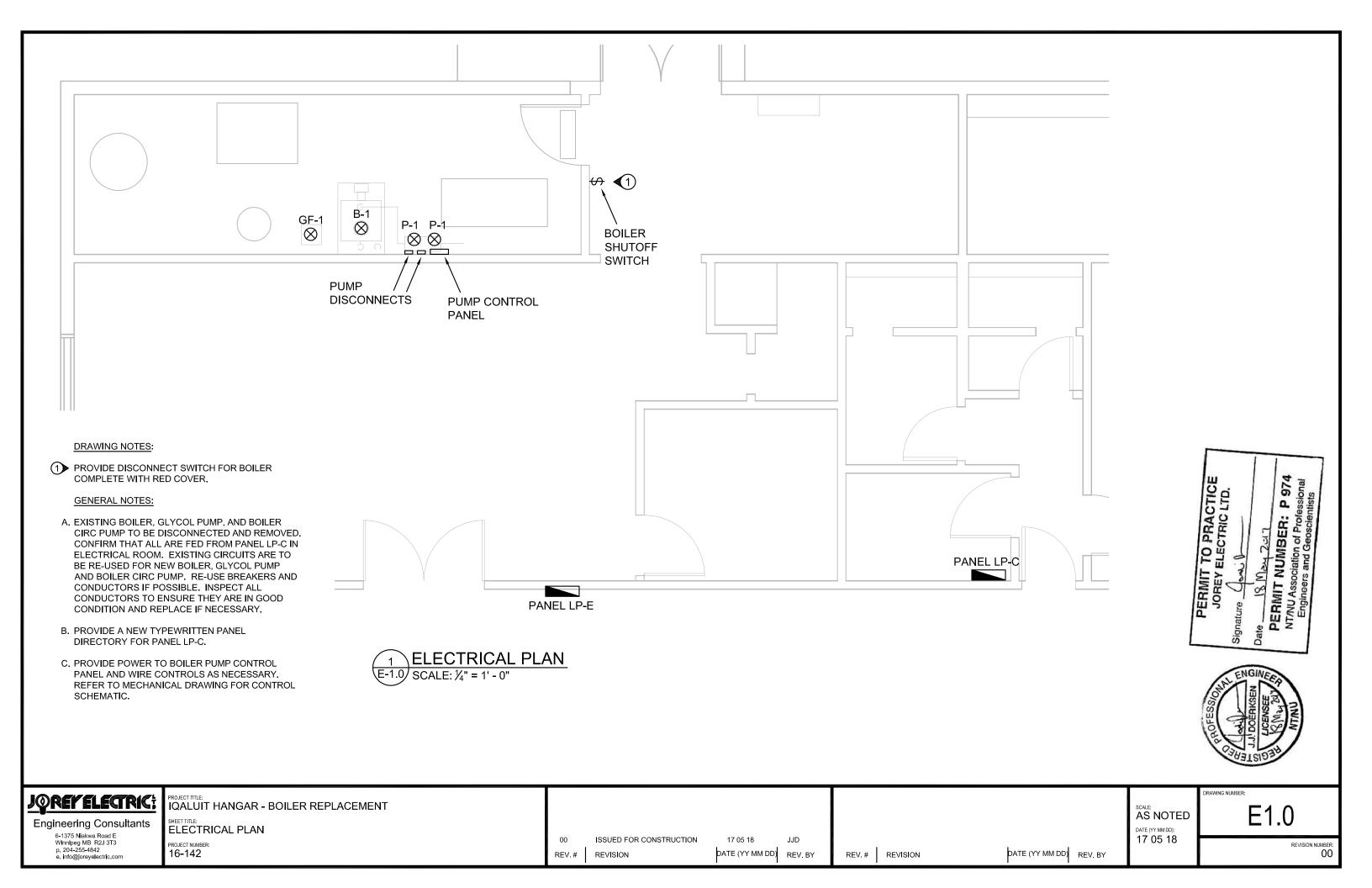
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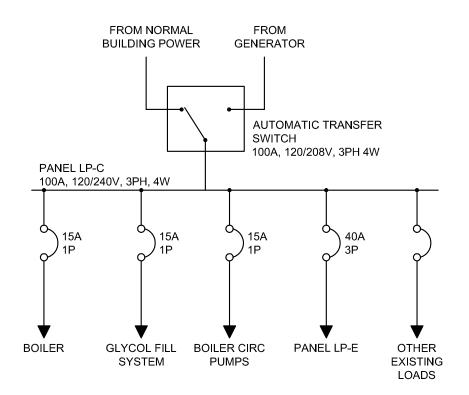
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DATE (YY MM DD): 17 05 17

M3.2



EXISTING PARTIAL SINGLE LINE DIAGRAM



SYMBOL SCHEDULE				
\$	SWITCH			
\otimes	ELECTRICAL CONNECTION			

ELECTRICAL SPECIFICATIONS:

SUPPLY ALL LABOUR, EQUIPMENT & MATERIALS NECESSARY AND REASONABLY IMPLIED FOR THE COMPLETE INSTALLATION OF THE ELECTRICAL WORK AS SHOWN ON THE PLANS AND/OR SPECIFIED.

DETERMINE WHETHER THE ELECTRICAL CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE HVAC CONTROLS.

2. CODES, PERMITS, AND FEES

ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE CANADIAN ELECTRICAL CODE, PROVINCIAL, MUNICIPAL, AND OTHER CODES, RULES AND REGULATIONS. OBTAIN AND PAY FOR ALL PERMITS AND LICENSES REQUIRED TO EXECUTE THE WORK.

3. VERIFICATION

THE ELECTRICAL CONTRACTOR SHALL CAREFULLY EXAMINE ALL DRAWINGS AND SPECIFICATIONS RELATING TO THE WORK TO BE CERTAIN THAT THE WORK UNDER THIS CONTRACT CAN BE SATISFACTORILY CARRIED OUT. PRIOR TO THE SUBMISSION OF TENDER, THE CONTRACTOR SHALL REPORT AT ONCE TO THE ENGINEER, ANY DEFECT, DISCREPANCY, OMISSION, OR INTERFERENCE AFFECTING THE WORK OF THIS SECTION OR THE GUARANTEE OF THE SAME. REFER TO MECHANICAL DRAWINGS FOR CONTROL WIRING AND EQUIPMENT LOCATIONS.

4. MATERIALS

ALL MATERIALS SUPPLIED SHALL BE NEW (OR AS NOTED) AND OF THE QUALITY INDICATED IN THE SPECIFICATIONS AND SHALL CONFORM TO THE STANDARDS OF THE C.S.A. IN THE EVENT THAT A MATERIAL SPECIFIED DOES NOT BEAR C.S.A. OR EQUIVALENT APPROVAL, THE CONTRACTOR IS TO OBTAIN THE APPROVAL OF THE LOCAL INSPECTION AUTHORITY AND MAKE ANY MODIFICATIONS REQUIRED AT NO ADDITIONAL EXPENSE TO THE OWNER.

EQUIPMENT AND MATERIAL SHALL BE INSTALLED AS SPECIFIED. REQUESTS FOR EQUAL STATUS SHALL BE SUBMITTED TO THE ENGINEER 7 DAYS PRIOR TO CLOSE OF TENDER.

6. WORKMANSHIP

FOLLOW EXISTING WIRING METHODS AND STANDARDS. ALL WORK TO BE DONE IN A NEAT AND PROFESSIONAL MANNER. CABLE AND CONDUIT RUNS TO BE RUN PARALLEL TO BUILDING LINES. WALL DEVICES AND EQUIPMENT TO BE INSTALLED SQUARE AND PLUMB. CEILING DEVICES AND LIGHTS TO BE CENTERED OF SPACE AND IN LINE UNLESS SHOWN OTHERWISE ON DRAWINGS. EXPOSED WIRING SHALL BE RUN IN CONDUIT, WITH AC90 DROPS FOR FLEXIBLE CONNECTIONS.

7. DEVICES AND WIRING

ALL CONDUCTORS TO BE COPPER UNLESS SPECIFIED OTHERWISE AND OF A MINIMUM SIZE OF #12 AWG. ALL CONDUCTORS TO BE SIZED TO KEEP VOLTAGE DROP WITHIN ALLOWABLE LIMITS. ALL WIRE RUN IN RETURN AIR SPACES SHALL BE FT6 RATED.

CIRCUIT INFORMATION AND DIRECTORIES ON THESE DRAWINGS SHOW A SUGGESTED LAYOUT OF CIRCUITS, THOUGH THEIR PRIMARY PURPOSE IS FOR DEPICTING CIRCUITS REQUIRED ON EACH PANEL, AND CIRCUIT LOADING. ADAPT CIRCUITRY IN THE FIELD TO ENSURE AN EFFICIENT INSTALLATION, GIVING ATTENTION TO PROPER BALANCING OF PHASES. CIRCUITS SHARING A NEUTRAL SHALL BE FED FROM ADJACENT BREAKERS. PROVIDE TYPE-WRITTEN DIRECTORIES FOR PANELS. DISTRIBUTION EQUIPMENT TO BE PROVIDED WITH RAIN HOODS IN A SPRINKLED AREA.

WARRANTY

THE ELECTRICAL CONTRACTOR SHALL WARRANTY THE SATISFACTORY OPERATION OF ALL WORK AND MATERIALS INCLUDED AND INSTALLED UNDER THIS SECTION OF THE SPECIFICATION FOR A PERIOD OF ONE YEAR AFTER THE FINAL ACCEPTANCE OF THE COMPLETE BUILDING.

9. AS-BUILT DRAWINGS

SUBMIT ONE SET OF CORRECTED 'AS-BUILT' DRAWINGS OR CORRECTED DRAWINGS IN DWG FORMAT TO THE OWNER. CONFIRM REQUIREMENTS PRIOR TO COMPLETION.

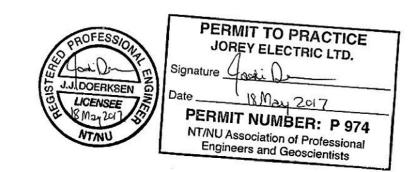
UPON COMPLETION AND BEFORE FINAL PAYMENT IS MADE, PRESENT TO THE ENGINEER A CERTIFICATE OF APPROVAL OR VERIFICATION FOR ALL ELECTRICAL WORK FROM THE INSPECTION DEPARTMENT HAVING JURISDICTION.

EQUIPMENT SCHEDULE

NUMBER	DESCRIPTION	KW/HP/A	VOLTS/PH	BREAKER	CONDUCTOR	LOCATION	NOTES
B-1	GAS FIRED BOILER	FRACTIONAL	120V/1PH	15A/1P	2 #12	BOILER ROOM	PROVIDE NEW SHUT-OFF SWITCH IF NONE EXISTING
GF-1	GLYCOL FILL SYSTEM	FRACTIONAL	120V/1PH	15A/1P	2 #12	BOILER ROOM	
P-1	BOILER CIRC PUMPS	1.3A	120V/1PH	15A/1P	2 #12	BOILER ROOM	PROVIDE ONE CIRCUIT TO CONTROL PANEL FOR BOTH PUMPS

MATCH BREAKER AND WIRE SIZES TO ACTUAL NAMEPLATE RATINGS OF EQUIPMENT PROVIDE LOCAL DISCONNECTS TO CODE

REFER TO MECHANICAL DRAWINGS FOR CONTROLS



JOREY ELECTRIC

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IQALUIT HANGAR - BOILER REPLACEMENT

SINGLE LINE DIAGRAM, SCHEDULES & SPECIFICATIONS

PROJECT NUMBER: 16-142

ISSUED FOR CONSTRUCTION REVISION

17 05 18 DATE (YY MM DD) REV. BY

DATE (YY MM DD) REV. BY REVISION

AS NOTED DATE (YY MM DD): 17 05 18

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