

Parkin Architects Limited
20 James Street, Suite 200
Ottawa, Ontario, K2P0T6

Tel: (613) 739-7700; Fax: (613) 739-7780

1.1 ADDENDUM

.1 INTENT

- .1 This Addendum is issued during Bidding and shall form part of Bidding and Contract Documents for above Project.
- .2 Except as otherwise specified herein, work required by this Addendum shall be in accordance with specifications dated April 07, 2015 and Drawings accompanying same and previously issued Addenda (if any).

1.2 ARCHITECTURAL – SPECIFICATIONS- DIVISIONS 1 TO 33 INCLUSIVE

.1 DOCUMENT 07 13 53, ELASTOMETRIC SHEET WATERPROOFING– VOLUME 1

- .1 Add new Subparagraph 2.1.1.6 as follows:

- .6 W.R Meadows; www.wrmeadows.com

- .2 Add new Subparagraph 2.3.1.5 as follows:

- .5 “Mel-Rol” and “Mel-Prime” by W.R Meadows

.2 DOCUMENT 07 61 13, STANDING SEAM SHEET METAL ROOFING – VOLUME 1

- .1 Add alternate manufacturer and product in Materials Subsection 2.3.5. as follows:

- .1 Securock Brand Glass-Mat Roof Board, by CGC.

.3 DOCUMENT 10 51 10, EVIDENCE AND GUN LOCKERS – VOLUME 2

- .1 Delete Summary Article 1.2.1.2. ‘evidence locker’ in its entirety and re-number the following articles as follows:

- .1 Re-number Summary Article 1.2.1.2 to gun lockers.

- .2 Re-number Summary Article 1.2.1.3 to metal trims, end gables, filler panels.

- .3 Re-number Summary Article 1.2.1.4 to metal bases.

- .4 Re-number Summary Article 1.2.1.5 to screws, bolts and other items to bolt lockers together and to secure same to structure.

- .2 Delete Manufactured Units Subsection 2.4.2. ‘Evidence Lockers’ in its entirety and re-number the following Subsection to 2.4.2. ‘Gun Lockers’

.4 DOCUMENT 10 95 00, MISCELLANEOUS SPECIALTIES – VOLUME 2

- .1 Add alternate manufacturer and product in Manufactured Units Sentence 2.2.2.1.1. as follows:

- .1 Sure-Grip EX Flammables Safety Cabinet Model No. 894520- Yellow by Justrite Manufacturing.

1.3 STRUCTURAL

- .1 N/A

1.4 MECHANICAL – SPECIFICATIONS- DIVISIONS 1 TO 33 INCLUSIVE

.1 DOCUMENT 23 11 13, FACILITY FUEL OIL PIPING – VOLUME 2

.1 Delete 2.8 FUEL OIL TRANSFER PUMPS as follows:

- .1 Two positive displacement self-priming, rotary gear type, direct driven from TEFC motor, mounted on common base. Complete with mechanical seal, permanently sealed ball bearings, relief valve, compound gauge on inlet, pressure gauge on discharge.
- .2 Capacity:
 - .1 Pumped fluid: number 2 fuel oil.
 - .2 Flow rate: as indicated.
 - .3 Motor: as indicated.

.2 Add 2.8 FUEL OIL ANTI SYPHON VALVE as follows:

- .1 NPS 2 and under – 2-way normally closed, hung piston, 105psid, Viton seal, 304 stainless steel, 140 micron filter, CSA certified, 24 volt, continuous duty class H coil, explosion proof coil enclosure.

1.5 MECHANICAL – DRAWINGS

.1 DRAWING NO. M100

.1 Mechanical Consultant has modified Drawing No. M100 as follows by attached Sheet Number: M100, dated July 10, 2015 and forms part of this Addendum.

.2 DRAWING NO. M101

.1 Mechanical Consultant has modified Drawing No. M101 as follows by attached Sheet Number: M101, dated July 10, 2015 and forms part of this Addendum.

.3 DRAWING NO. M102

.1 Mechanical Consultant has modified Drawing No. M102 as follows by attached Sheet Number: M102, dated July 10, 2015 and forms part of this Addendum.

.4 DRAWING NO. M103

.1 Mechanical Consultant has modified Drawing No. M103 as follows by attached Sheet Number: M103, dated July 10, 2015 and forms part of this Addendum.

.5 DRAWING NO. M105

.1 Mechanical Consultant has modified Drawing No. M105 as follows by attached Sheet Number: M105, dated July 10, 2015 and forms part of this Addendum.

.6 DRAWING NO. M106

.1 Mechanical Consultant has modified Drawing No. M106 as follows by attached Sheet Number: M106, dated July 10, 2015 and forms part of this Addendum.

.7 DRAWING NO. M107

.1 Mechanical Consultant has modified Drawing No. M107 as follows by attached Sheet Number: M107, dated July 10, 2015 and forms part of this Addendum.

.8 DRAWING NO. M600

.1 Mechanical Consultant has modified Drawing No. M600 as follows by attached Sheet Number: M600, dated July 10, 2015 and forms part of this Addendum.

1.6 ELECTRICAL

.1 DRAWING NO. E002

- .1 Electrical Consultant has modified Drawing No. E002 as follows by attached Sheet Number: SK-E1, dated July 10, 2015 and forms part of this Addendum.
- .2 Electrical Consultant has modified Drawing No. E002 as follows by attached Sheet Number: SK-E2, dated July 10, 2015 and forms part of this Addendum.

List of Attachments:

PDF Files

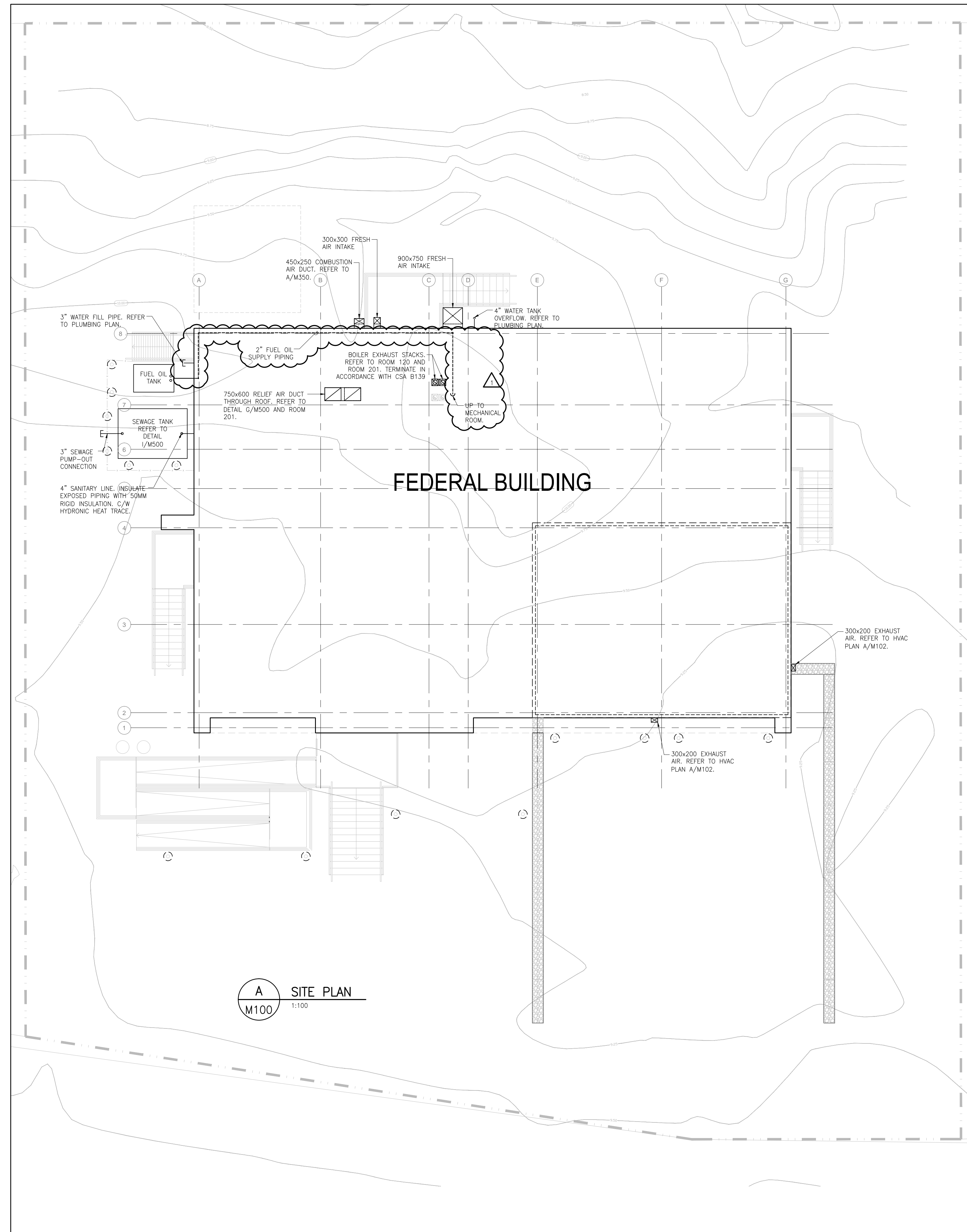
Mechanical Drawings

8 Pages

Electrical Drawings

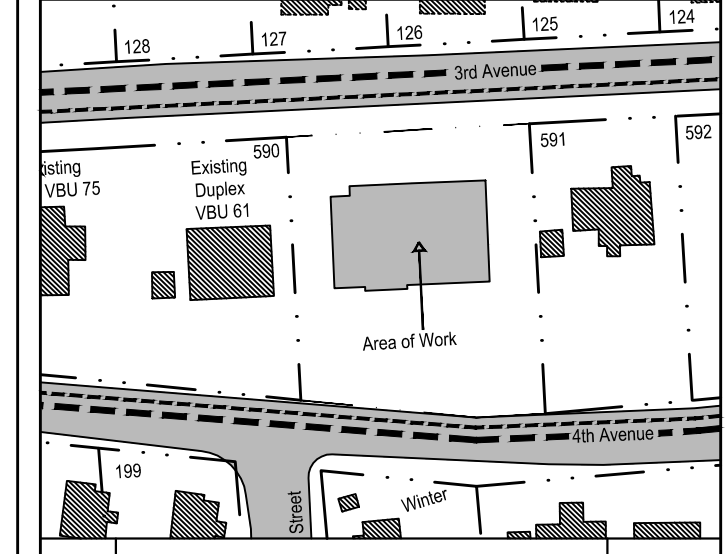
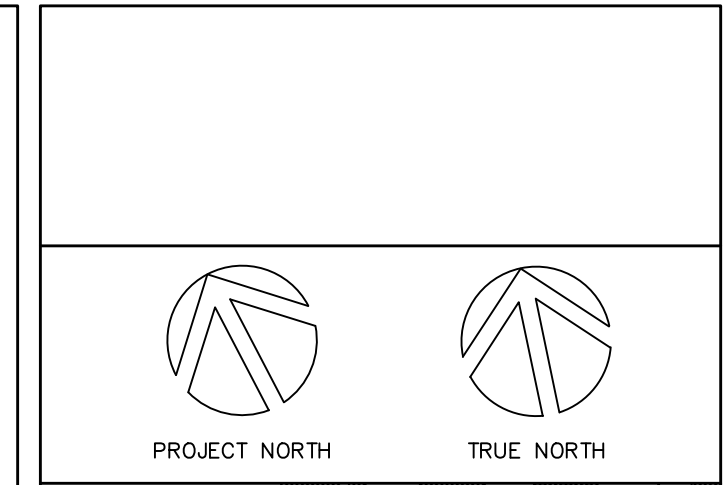
2 Pages

END OF ADDENDUM



A SITE PLAN
M100 1:100

PERMIT TO PRACTICE
ACCUTECH ENGINEERING INC.
Signature: *[Signature]*
Date: APR 07 2015
PERMIT NUMBER: P 421
The Association of Professional Engineers,
Geologists and Geophysicists of the NWT/NLU



No.	Description	Date
1	ISSUED WITH ADDENDUM	07-10-2015
0	ISSUED FOR TENDER	04-07-2015

Revisions:

All measurements are to be checked and verified on site by the contractor before proceeding with the work.
Do not scale the drawings.

Prime Consultant:

20 James Street, Suite 200, Ottawa, Canada K2P 0T6 613-739-7700

Sub Consultant:

1349 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3
phone 204.944.1555 fax 204.944.1444
www.accutechinc.ca

A.G. Engineering
Electrical Engineers
1115 6th St. W. Suite 202
Winnipeg, MB R2C 1S5
Phone: (204) 522-2854
Cell: (204) 522-2854
Fax: (204) 522-2855
AEC Project# 1315-13-009

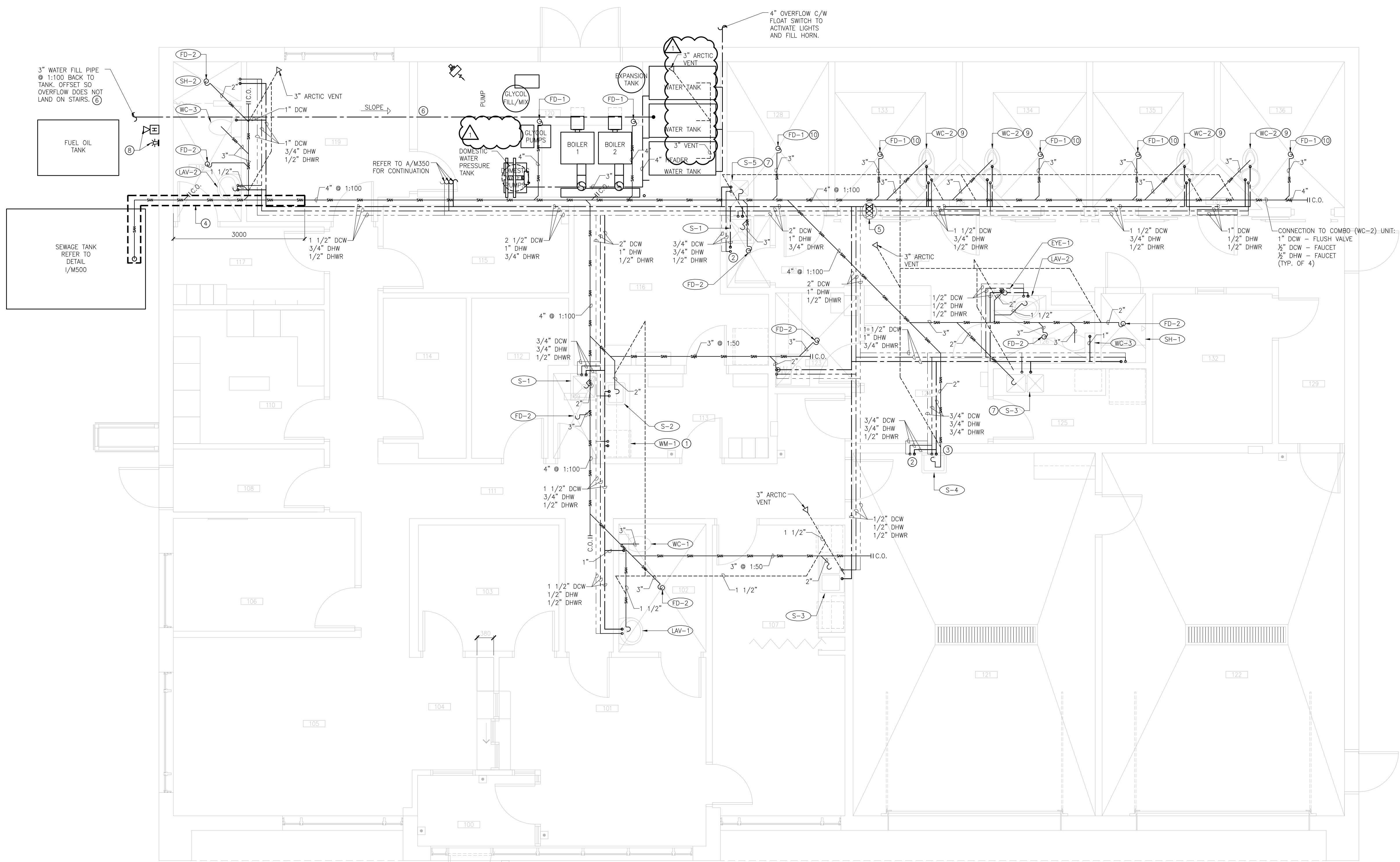
Project:
FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV	Date: 04-07-2015
Checked By: BKW	Scale: 1:100

Sheet Title:
SITE PLAN

Sheet Number:
M100

FILENAME: W:\V256 - Region Architects\01-Archi RCMP Station\Drawings\Current\M100 Site Plan.dwg
PLOTDATE: Jul 10, 2015 - 10:28am



A MAIN FLOOR PLUMBING PLAN
M101 1:50

CONSTRUCTION KEYNOTES

- ① PROVIDE WASHING MACHINE ISOLATION VALVES AND 1 1/2" STANDPIPE IN ACCORDANCE WITH CANADIAN PLUMBING CODE.
- ② SUPPLY STRAHMAN (OR EQUAL) M-200TS THERMOSTATICALLY CONTROLLED MIXING UNIT C/W 15M LONG PREMIUM HOSE AND HYDRO-PRO NOZZLE. 3/4" DCW AND DHW CONNECTIONS. TYP. OF 2.
- ③ BACKFLOW PREVENTER REQUIRED.
- ④ INSULATE AND HEAT TRACE SANITARY PIPING WITHIN 3M OF OUTSIDE WALL. HEAT TRACE SEWAGE HOLDING TANK.
- ⑤ PROVIDE ISOLATION VALVES FOR PIPING TO CELLS. PROVIDE HIGH SECURITY LOCKABLE ACCESS PANEL IN CEILING OF ROOM 130.
- ⑥ RUN PIPE ABOVE CEILING OF ROOMS 118, 119, 120. INSULATE PIPE ALONG ENTIRE LENGTH WITH 50MM THICK RIGID FIBER GLASS AND REINFORCED JACKET.
- ⑦ CUSTOM STAINLESS STEEL COUNTER WITH INTEGRATED SINKS. REFER TO ARCHITECTURAL DRAWINGS.
- ⑧ WATER TANK "FULL" AND "EMPTY" HORN AND LIGHTS AT THIS LOCATION INSIDE VANDAL RESISTANT ENCLOSURE. REFER TO C/M600 FOR CONTROL STRATEGY.
- ⑨ PROVIDE MOTORIZED BALL VALVE TO ALLOW FOR REMOTE SHUTOFF OF WATER. LOCATE CONTROL SWITCH AT ROOM 124.
- ⑩ FD-1 FLOOR DRAINS IN ROOMS 126, 133, 134, 135 AND 136. SECURITY SCREWS TO BE MOUNTED USING LOCTITE LIQUID THREAD LOCKERS, SERIES 262, MIL-SPEC. S-46163A TYPE II, GRADE 0.

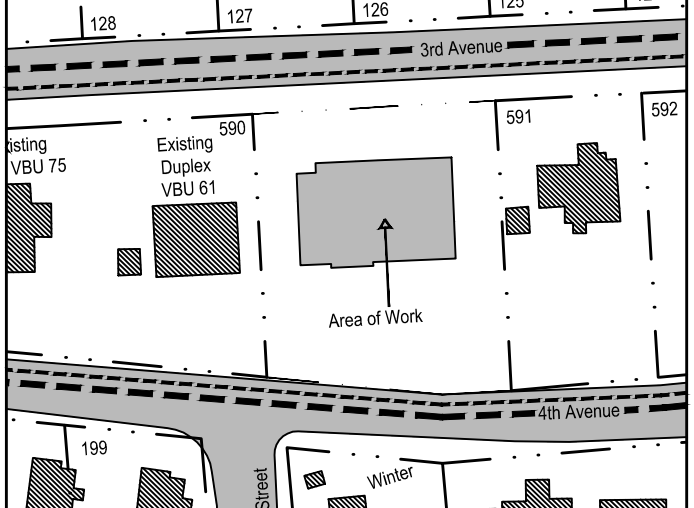
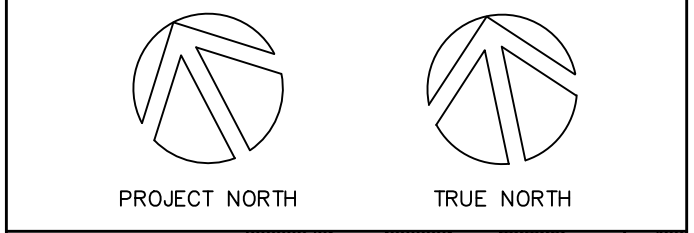
GENERAL NOTES

1. ALL PLUMBING WORK TO BE IN ACCORDANCE WITH NATIONAL PLUMBING CODE OF CANADA.
2. INSTALL ALL DRAINAGE PIPING IN ROOMS 001, 002, 003, 004, 005.
3. INSTALL ALL WATER DISTRIBUTION AND VENT PIPING IN THE CEILING SPACE, PROVIDE DROPS TO FIXTURES INSIDE WALL CAVITIES.

LEGEND

- XX-# FIXTURE TAG
- I.C.O. CLEAN OUT
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- DOMESTIC HOT WATER RETURN
- S--- SANITARY LINE
- - - - - VENTILATION PIPE

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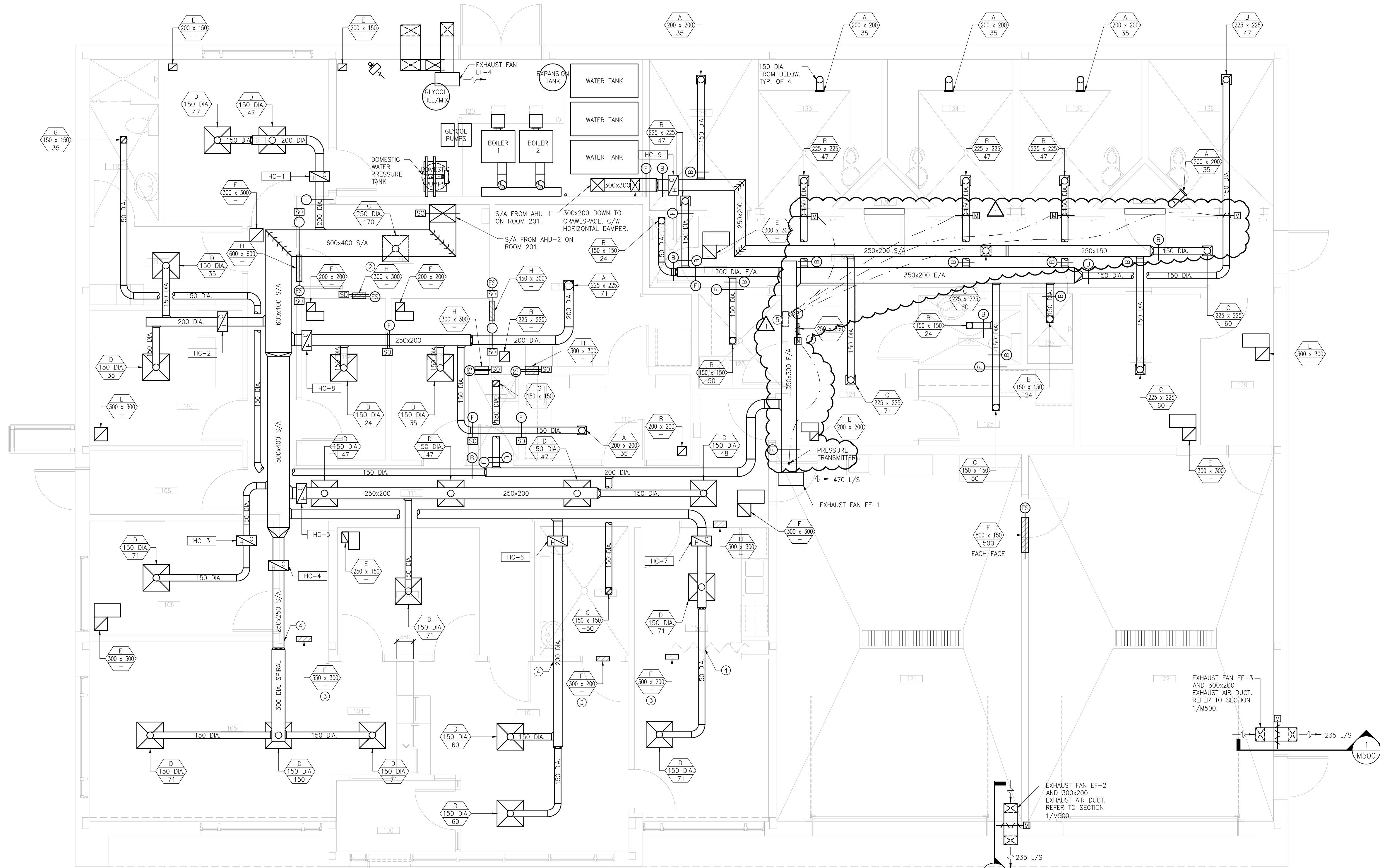
Sub Consultant:

Accutech Engineering Inc.
Tomorrow's Technology Today
1349 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3
phone 204.944.1555 fax 204.944.1444
www.accutechng.ca

AGE A.G. Engineering
Electrical Engineers
1115 Elm Street, Winnipeg, Manitoba, Canada R2J 0H3
Phone: (204) 522-2684
Cell: (204) 522-2684
Fax: (204) 522-2684
AGE Project# 1115-10-009

Project:
**FEDERAL BUILDING
ARVIAT, NUNAVUT**

Drawn By: VCV	Date: 04-07-2015
Checked By: BKW	Scale: 1:50
Sheet Title: MAIN FLOOR PLUMBING PLAN	
Sheet Number: M101	



A MAIN FLOOR HVAC PLAN
M102 1:50

CONSTRUCTION KEYNOTES

- ① BALANCE EXHAUST IN CEILING SPACE AS NOTED ON M103.
- ② TRANSFER DUCT IN CEILING SPACE.
- ③ PROVIDE TRANSFER GRILLE ON EXPOSED SIDE OF OPENING.
- ④ TRANSITION TO SPIRAL DUCTWORK IN AREAS WITH WOOD SLAT CEILINGS.
- ⑤ LOCATION FOR ROOM 133,134,135 AND 136 AIRFLOW CONTROL SWITCHES (4 TOTAL, ONE PER ROOM). ACTIVATION OF SWITCHES TO OPEN SUPPLY AIR AND EXHAUST AIR DAMPERS ASSOCIATED WITH SPECIFIC ROOM. LABEL SWITCHES.

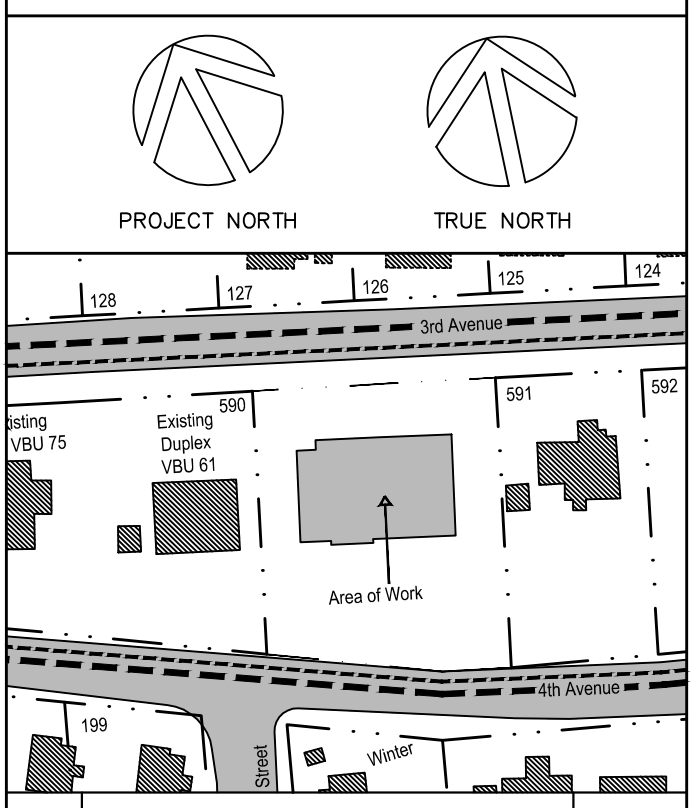
SECURITY GRILLE NOTES

1. DURING INSTALLATION, USE HIGH YIELD GROUT TO FILL ANY SPACE BETWEEN THE BACK OF THE FACE PLATE AND THE MOUNTING SURFACE.
2. WHEN GRILLES ARE INSTALLED ON CELL CEILINGS, LOCATE GRILLES SO THAT THE DETAINEES CAN NOT REACH THEM WHILE STANDING ON BUNKS, TOILET OR SINK.
3. SPANNER TOOLS FOR THE INSTALLATION/REMOVAL OF FLATHEAD STEEL SPANNER SCREWS MAYBE PURCHASED FROM EITHER THE ORIGINATING COMPANY OR MANUFACTURED LOCALLY, WHICHEVER IS MORE ECONOMICAL/PRACTICABLE.
4. ALL GRILLES MUST BE STAMPED WITH MANUFACTURERS AND MODEL NUMBER ON THE FACEPLATE OF THE GRILLE.

LEGEND

- GRILLE TAG
SEE M610 FOR SIZE(MM)
AIR FLOW
- EQUIPMENT TAG
- HEATING COIL
- BALANCING DAMPER
- FIRE DAMPER
- FIRE SMOKE DAMPER
- THERMAL MOTORIZED DAMPER
- SECURITY DUCT OPENING
- SECURITY OPENING
- ACOUSTIC ELBOW

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ARCHITECTS LIMITED

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Phone: (204) 522-2854
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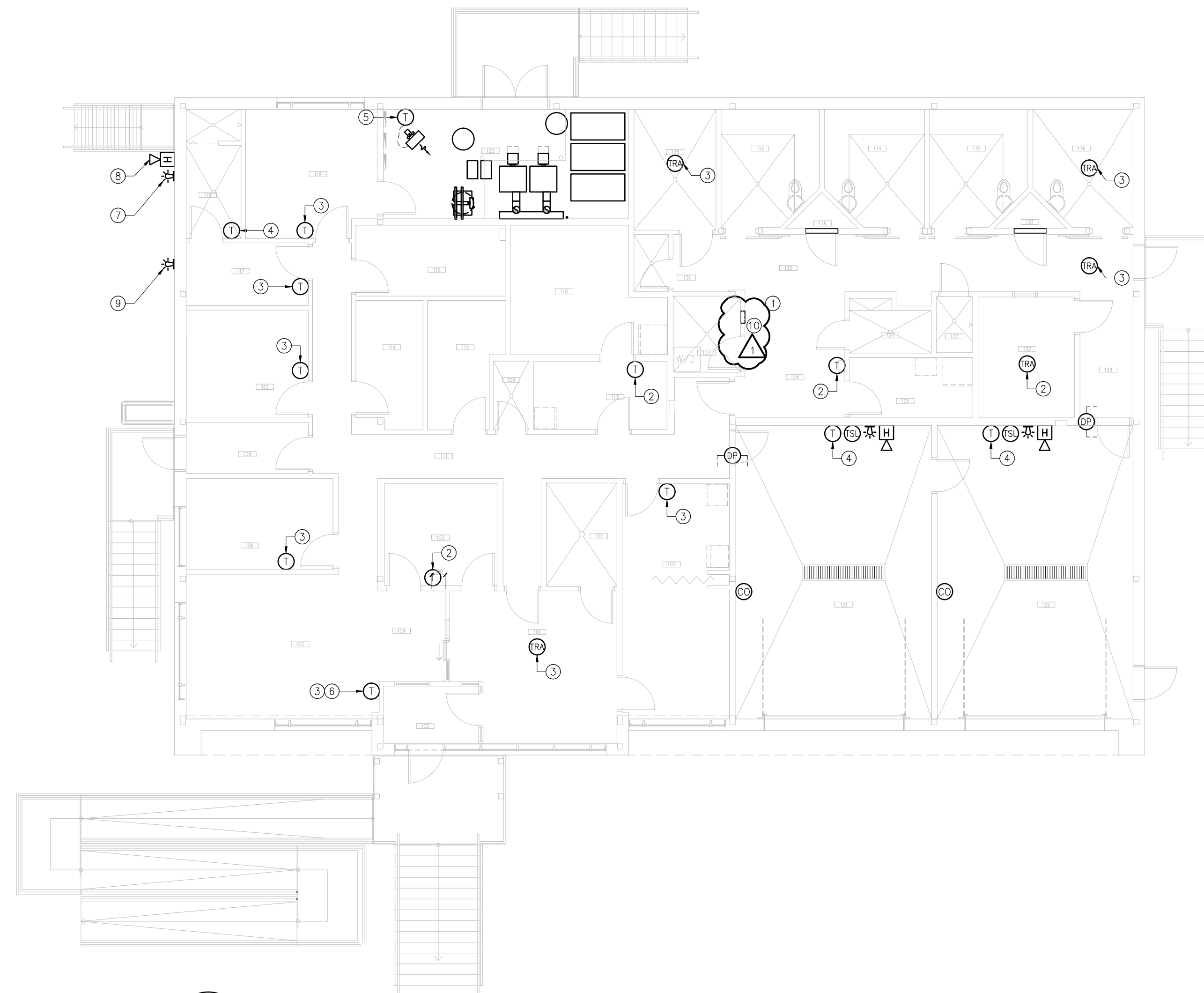
Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV Date: 04-07-2015
Checked By: BKW Scale: 1:50

Sheet Title:
MAIN FLOOR HVAC PLAN

Sheet Number:
M102



A MAIN FLOOR CONTROLS PLAN
M103 1:100

CONSTRUCTION KEYNOTES

- 1 PROVIDE ALL TEMPERATURE CONTROLS FOR EACH SECURE AREA AT THIS LOCATION. USE RETURN AIR TEMP FOR ZONE TEMPERATURE CONTROL. DISPLAY ALL LOW TEMPERATURE ALARMS AT THIS LOCATION.
- 2 TO ZONE RE-HEAT COIL IN VENTILATION SYSTEM.
- 3 TO ZONE RE-HEAT COIL PLUS IN-FLOOR HEAT CONTROL VALVE.
- 4 TO IN-FLOOR HEAT CONTROL VALVE
- 5 UNIT HEATER THERMOSTAT. GLYCOL FLOW TO BE CONTINUOUS. CYCLE UNIT HEATER FAN BASED ON THERMOSTAT DEMAND FOR HEAT.
- 6 PROVIDE A MANUAL OVERRIDE BUTTON TO TURN AHU ON INTO "OCCUPIED" MODE FOR 30 MINUTES (ADJUSTABLE) IF THE SYSTEM IS IN "UN-OCCUPIED" MODE.
- 7 EMPTY WATER TANK ILLUMINATION SWITCH.
- 8 FULL WATER TANK STROBE.
- 9 FULL SEWAGE TANK ALERT.
- 10 LOCATION FOR ROOM 133,134,135 AND 136 AIRFLOW CONTROL SWITCHES (4 TOTAL, ONE PER ROOM). ACTIVATION OF SWITCHES TO OPEN SUPPLY AIR AND AIR EXHAUST DAMPERS ASSOCIATED WITH SPECIFIC ROOM LABEL SWITCHES.

LEGEND

- DP DIFFERENTIAL PRESSURE
- 1 LOCAL THERMOSTAT
- 2 LOW TEMPERATURE SWITCH
- 3 RETURN AIR TEMPERATURE SENSOR
- 4 CARBON MONOXIDE DETECTOR
- 5 ALARM HORN/SIREN
- 6 STROBE

CONTROL STRATEGY – GARAGES

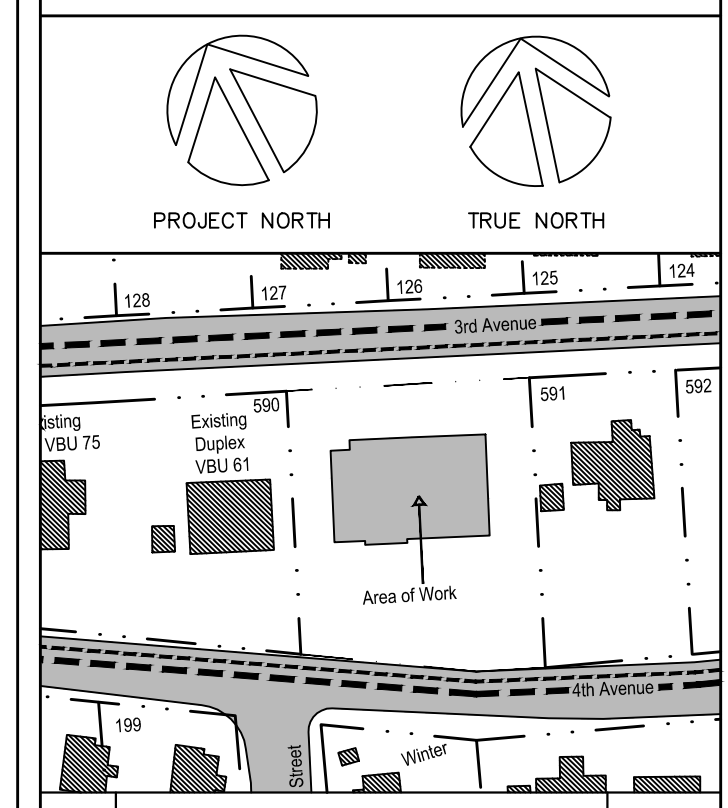
1. GENERAL OPERATING NOTES:
 - a. THE CONTROL SYSTEM IS TO FAIL SAFE.
2. VENTILATION CONTROL STRATEGY:
 - a. INTERLOCK THE OPERATION OF THE GARAGE VENTILATION EXHAUST FAN WITH AHU-2 (SECURE AREA MUA UNIT).
 - b. THE EXHAUST AIR FAN IS TO MATCH EXHAUST AIR VOLUME TO THE SUPPLY TO MAINTAIN EACH OF ROOMS 121, 122 AT A SLIGHTLY NEGATIVE PRESSURE RELATIVE TO EACH OF THE TWO OCCUPIED SPACES. THE EXHAUST FAN AND RETURN AIR FROM SECURE CEILING IS TO BE BALANCED BASED ON THE DIFFERENTIAL PRESSURE SIGNAL BETWEEN THE SECURE AND NON-SECURE AREA, AND NON-SECURE AND ROOM 121.
 - c. ON SENSING A HIGH CO LEVEL WITHIN THE SPACE, OPERATE THE RETURN AIR FAN AT 100% SPEED. ENUNCIATE A LOCAL ALARM, STROBE AND SIREN ON HIGH CO LEVEL.
3. FREEZE PROTECTION:
 - a. PROVIDE AN INDEPENDENT LOW TEMPERATURE SWITCH IN EACH OF THE ROOMS 121, 122 MOUNTED IN A SECURE ENCLOSURE NO HIGHER THAN 1M ABOVE FINISHED FLOOR.
 - b. ON SENSING A LOW TEMPERATURE (LESS THAN +5°C FOR MORE THAN 30 MINUTES, (ADJUSTABLE), INITIATE A DIAL-OUT FROM THE CONTROL SYSTEM.

CONTROL STRATEGY – VENTILATION

- ROOM AND ZONE CONTROL STRATEGY**
- GENERAL OPERATING NOTE: THE CONTROL SYSTEM IS TO FAIL SAFE
1. ROOM AND ZONE CONTROL STRATEGY – GENERAL NOTES
 - 1.1. THE VENTILATION SYSTEM IS A CONSTANT VOLUME SYSTEM. FOR OCCUPANT COMFORT, THE PRIMARY SOURCE OF HEAT IS THE IN-FLOOR HEATING SYSTEM. THE VENTILATION SYSTEM IS INTENDED TO PROVIDE FRESH AIR TO THE SPACES AND GENERAL AIR CIRCULATION. IN THE EVENT OF AN AIR-SYSTEM FAILURE, THE IN-FLOOR HEAT IS DESIGNED TO PROVIDE THE REQUIRED AMOUNT OF HEAT TO THE SPACE TO MAINTAIN A COMFORTABLE TEMPERATURE.
 - 1.2. PROVIDE A TEMPERATURE SENSOR MOUNTED IN THE RETURN AIR DUCT (SECURE) OR ROOM (NON-SECURE). SETPOINT CONTROL PROVIDED AS INDICATED.
 - 1.3. THE DEADBAND FOR ALL ROOM THERMOSTATS IS TO CONSIDER THE THERMAL MASS AND RESPONSE TIME OF THE IN-FLOOR HEAT. SET ALL CONTROLS ACCORDINGLY.
 - 1.4. THE VENTILATION IN THE SECURE AREA IS TO OPERATE CONTINUOUSLY. THE VENTILATION IN THE NON-SECURE SIDE IS TO OPERATE ONLY DURING OCCUPIED HOURS OR IF ANY OF THE ROOM TEMPERATURES FALL BELOW THE ALARM LIMIT.
 - 1.4.1. IF ANY OF THE ROOM TEMPERATURES FALL BELOW THE ALARM LIMIT DURING UN-OCCUPIED HOURS, THE AIR HANDLING UNIT IS TO START AND OPERATE ON 100% RETURN AIR. MODULATE THE CONTROL VALVE ON THE AHU HEATING COIL AND RE-HEAT COIL TO INCREASE THE ROOM TEMPERATURE TO SETPOINT. INITIATE A DIAL-OUT TO A PRE-PROGRAMMED TELEPHONE OR SATELLITE PHONE.
 - 1.4.2. ENUNCIATE AND INDICATE ALL LOW TEMPERATURE ALARMS AT THE CONTROL PANEL LOCATED IN ROOM 124 OF THE SECURE SIDE OF THE BUILDING.
 - 1.4.3. ROOM 133, 134, 135, 136 ARE TO BE REMOTELY CONTROLLED BY MANUAL SWITCH AT WORK STATION IN ROOM 130 (ONE PER ROOM). LOCATION SHOWN ON DRAWING. SEE KEYNOTE 10/M103.
 - 1.4.3.1. S/A AND E/A DAMPERS FOR EACH ROOM TO BE INTERLOCKED TO ALLOW E/A AND S/A AIR TO BE REMOTELY CONTROLLED IN UNISON. POSITION FOR S/A AND E/A DAMPERS TO BE NORMALLY CLOSED.
 - 1.4.3.2. MOTORIZED DAMPER IN 350x300 E/A DUCT TO MODULATE IN ORDER TO PROVIDE 470 L/S CONTINUOUS AIR TO E-1. TO BE CONTROLLED BY PRESSURE TRANSMITTER AT FAN INLET. DAMPER TO BE NORMALLY OPEN.
 - 1.5. PROVIDE FOR NIGHT SET BACK WITH INDIVIDUAL SCHEDULES AND SETPOINTS FOR EACH ZONE; FOR SCHEDULE AND TEMPERATURE SETPOINTS.
 - 1.5.1. LOW TEMPERATURE ALERT – SHOULD THE SPACE TEMPERATURE FALL TO A PRE-SET VALUE FOR GREATER THAN 15 MINUTES (ADJUSTABLE), ALARM THE OPERATOR AND ALL SYSTEMS ARE TO GO TO 100% RETURN AIR AND FULL HEAT.
 - 1.5.2. HIGH TEMPERATURE ALERT – SHOULD THE SPACE TEMPERATURE RISE TO GREATER THAN 10°C ABOVE SETPOINT FOR MORE THAN 30 MINUTES (ADJUSTABLE), ALARM THE OPERATOR.
2. CONTROL STRATEGY "A" – SPACES WITH IN-FLOOR HEAT AND RE-HEAT COIL ON THE VENTILATION SYSTEM.
 - 2.1. PROVIDE A SINGLE ROOM THERMOSTAT TO CONTROL IN-FLOOR HEAT AND THE VENTILATION SYSTEM RE-HEAT COIL. LOCATE THE ROOM TEMPERATURE SENSOR AS NOTED ON THE PLANS WITH LOCAL OR REMOTE ADJUSTMENT OF THE TEMPERATURE.
 - 2.2. CYCLE THE CONTROL VALVE ON THE RE-HEAT COIL, TO MAINTAIN A PRE-SET LEAVING AIR TEMPERATURE (APPROXIMATELY 3°C WARMER THAN THE ROOM SETPOINT, ADJUSTABLE FOR INDIVIDUAL SPACES). A TEMPERATURE SENSOR IS REQUIRED ON THE SUPPLY AIR TO THE SPACE. THIS IS TO PREVENT THE FEELING OF COLD AIR BLOWING FROM THE GRILLES.
 - 2.3. CYCLE THE IN-FLOOR HEAT CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE.
 - 2.4. ON A FALL IN THE SPACE TEMPERATURE WITH THE IN-FLOOR HEAT ENERGIZED, CYCLE THE CONTROL VALVE ON THE RE-HEAT COIL TO MAINTAIN THE THERMOSTAT SETPOINT.
3. CONTROL STRATEGY "B": ROOMS 133,134,135,136
 - 3.1. CONTROL STRATEGY TYPE "A" (AS NOTED ABOVE) WITH THE FOLLOWING MODIFICATIONS:
 - 3.2. TEMPERATURE SETPOINTS CONTROLLED THROUGH THE CONTROL STATION LOCATED IN ROOM 124.
4. CONTROL STRATEGY "C": FOR SPACES WHERE ONE RE-HEAT SERVES MULTIPLE ROOMS; AND THERE IS NO IN-FLOOR HEAT.
 - 4.1. PROVIDE A ROOM THERMOSTAT (LOCATION AS NOTED ON THE DESIGN DRAWINGS) WITH LOCAL SETPOINTS.
 - 4.2. UN-OCCUPIED TIME – SPACE TEMPERATURE BELOW SETPOINT – START THE AIR HANDLING UNIT USING 100% RETURN AIR. CYCLE THE CONTROL VALVES ON THE HEATING AND RE-HEAT COIL TO ACHIEVE ROOM SETPOINT.
 - 4.2.1. LOW-LOW TEMPERATURE ALARM – CYCLE THE CONTROL VALVE ON THE RE-HEAT COIL TO ACHIEVE SETPOINT. ENUNCIATE AN ALARM IN ROOM 124.
 - 4.3. OCCUPIED TIME – CYCLE THE CONTROL VALVE ON THE RE-HEAT COIL TO ACHIEVE ROOM THERMOSTAT SETPOINT.
5. IN-FLOOR HEATING TEMPERATURE CONTROL
 - 5.1. PROVIDE FOR AMBIENT TEMPERATURE SETBACK CONTROL OF THE IN-FLOOR HEATING LOOPS (2). WHEN AMBIENT TEMPERATURE RISES, THE GLYCOL TEMPERATURE IS TO BE LOWER. WHEN AMBIENT TEMPERATURE FALLS, THE GLYCOL TEMPERATURE IS TO BE HIGHER. THE MINIMUM AND MAXIMUM GLYCOL TEMPERATURES ARE NOTED ON THE DESIGN DRAWINGS AND SUBJECT TO CHANGE BASED ON THE FLOORING MANUFACTURER RECOMMENDATIONS.

CONTROL STRATEGY "B": ROOMS 133,134,135,136

- 3.1. CONTROL STRATEGY TYPE "A" (AS NOTED ABOVE) WITH THE FOLLOWING MODIFICATIONS:
 - 3.2. TEMPERATURE SETPOINTS CONTROLLED THROUGH THE CONTROL STATION LOCATED IN ROOM 124.



No.	Description	Date
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1114 6th Street, Winnipeg, MB R2E 2B6
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AEC Project: 015-10-000

Project:

**FEDERAL BUILDING
ARVIAT, NUNAVUT**

Drawn By:
VCV

Date:
04-07-2015

Checked By:
BKW

Scale:
1:100

**PERMIT TO PRACTICE
ACCUTECH ENGINEERING INC.**

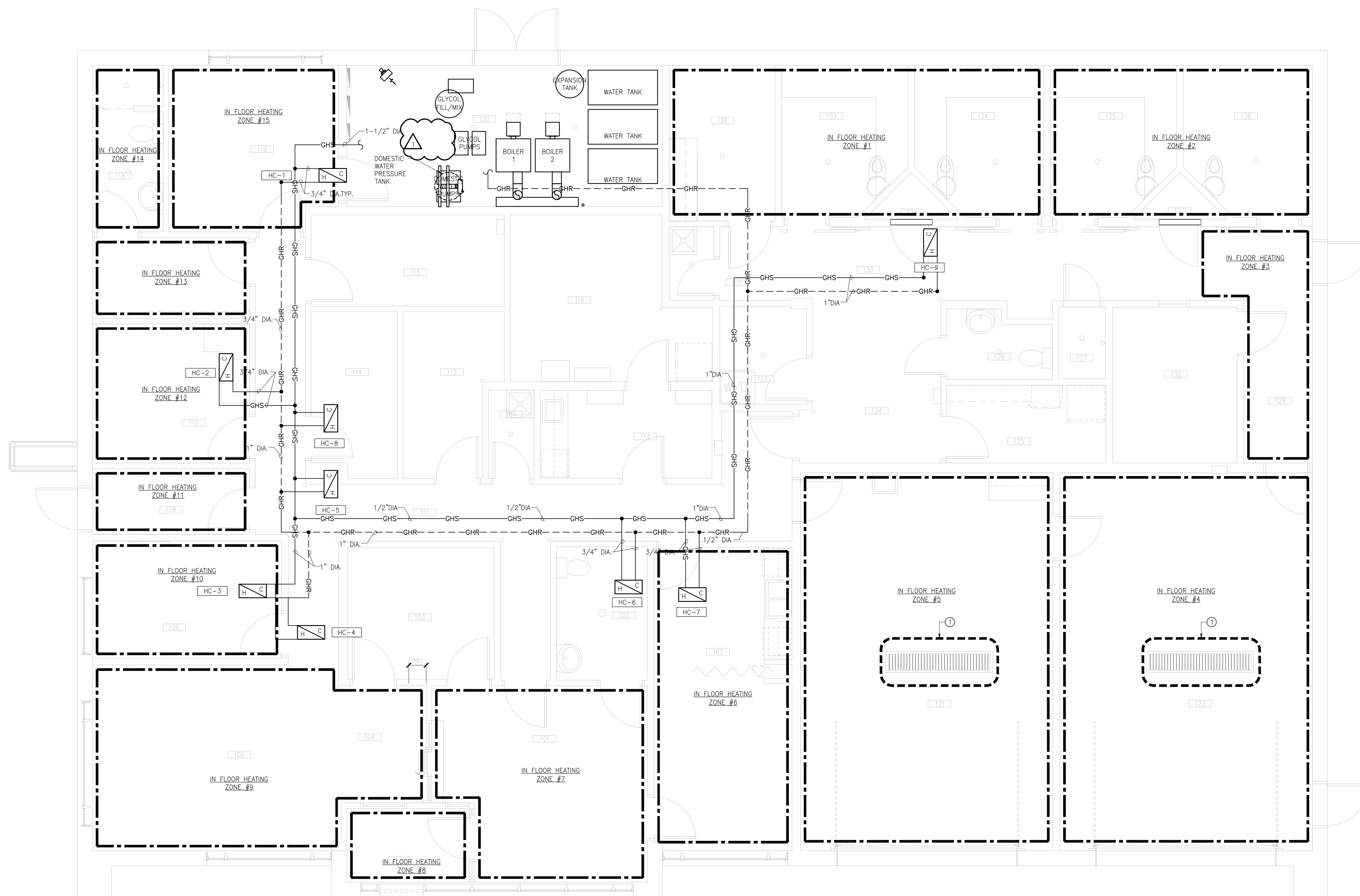
Signature: *[Signature]*

Date: APR 07 2015

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Sheet Title:
MAIN FLOOR CONTROLS PLAN

Sheet Number:
M103



A MAIN FLOOR HEATING PLAN
M105 1:50

CONSTRUCTION KEYNOTES

- ① ROUTE IN-FLOOR HEATING TUBING TO GO AROUND TRENCH IN ROOMS 121, 122.

GENERAL NOTES

- REFER TO B/M601 FOR PIPING DETAILS AT RE-HEAT COIL.
- REFER TO E/M601 FOR PIPING DETAILS AT IN-FLOOR HEATING MANIFOLDS.
- DETAILED DESIGN OF IN-FLOOR HEATING LAYOUT, DESIGN AND CALCULATIONS, BY THE MANUFACTURER'S REP. SUBMIT DETAILED SHOP DRAWINGS FOR ALL IN-FLOOR HEATING SYSTEMS. USE PEX PIPING WITH OXYGEN DIFFUSION BARRIER SUITABLE PROVEN FOR INTENDED USE.

LEGEND

- UH-# UNIT HEATER NUMBER
LPM DESIGN FLOW (LPM)
- ID # EQUIPMENT TAG
- ID-# HEATING COIL TAG
- H C HEATING COIL
- GHS GLYCOL HEATING SUPPLY
- CHR GLYCOL HEATING RETURN

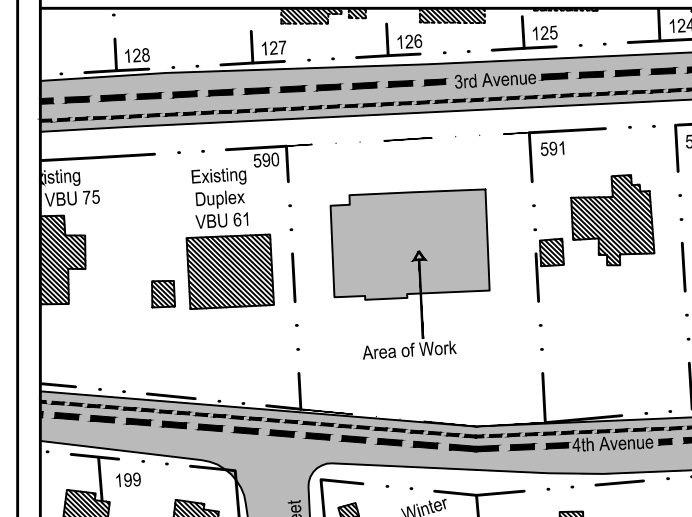
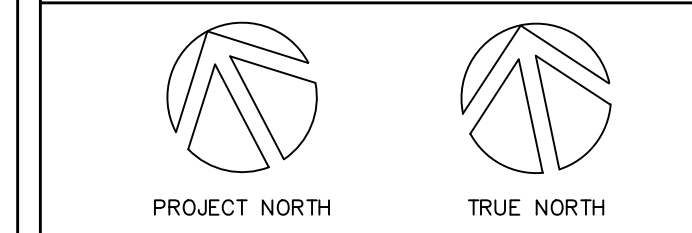
IN FLOOR HEATING ZONES SCHEDULE:

ZONE #	LOCATION	FLOORING	HEAT LOSS (BTU/hr)	WATER SWT (Deg F)	5/8" PEX TUBING SPACING	IN FLOOR FLOW (USgpm)
1	ROOMS 128, 133, 134, 138	CONCRETE	5,900	90	6"	1.50
2	ROOMS 135, 136, 137	CONCRETE	5,500	90	6"	1.50
3	ROOM 129	CONCRETE	4,500	90	6"	1.50
4	ROOM 122	CONCRETE	20,000	110	6"	5.00
5	ROOM 121	CONCRETE	20,000	110	6"	5.00
6	ROOM 107	VINYL	4,500	90	6"	1.5
7	ROOM 101	VINYL	9,000	90	6"	2.00
8	ROOM 100	VINYL	3,000	90	6"	1.00
9	ROOM 104, 105	VINYL	10,000	90	6"	2.00
10	ROOM 106	VINYL	2,500	90	6"	1.00
11	ROOM 108	VINYL	2,000	90	6"	1.00
12	ROOM 110	VINYL	1,800	90	6"	1.0
13	ROOM 117	VINYL	1,800	90	6"	1.00
14	ROOM 118	VINYL	2,000	90	6"	1.00
15	ROOM 119	VINYL	4,000	90	6"	1.5

MAX. PRESSURE DROP THROUGH IN-FLOOR HEATING LOOPS 7' W.C. THROUGH ANY 1 ZONE.
MAX. PRESSURE DROP THROUGH CONTROL VALVE 5' W.C.

PERMIT TO PRACTICE
ACCUTECH ENGINEERING INC.
Signature: *[Signature]*
Date: APR 07 2015

PERMIT NUMBER: P 421
The Association of Professional Engineers, Geologists and Geophysicists of the NWT/NTJ

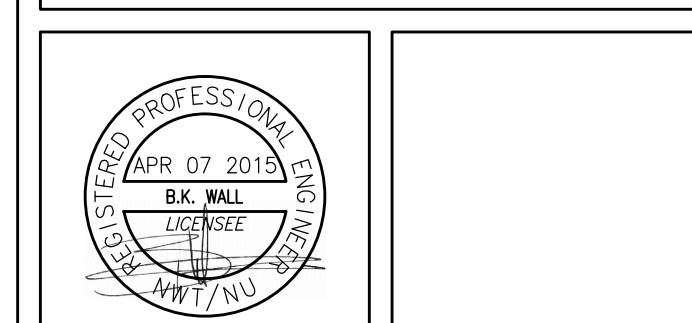


No.	Description	Date
1	ISSUED WITH ADDENDUM	07-10-2015
0	ISSUED FOR TENDER	04-07-2015

Revisions:
All measurements are to be checked and verified on site by the contractor before proceeding with the work.
Do not scale the drawings.

Prime Consultant:

20 James Street, Suite 200, Ottawa, Canada K2P 0T6 613.739-7700



Sub Consultant:

1349 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3
phone 204.944.1555 fax 204.944.1444
www.accutechng.ca

1115 East Nelson Avenue, 2nd Floor
Winnipeg, MB R2L 0S5
Phone: (204) 522-2854
Cell: (204) 522-2854
Fax: (204) 522-2854
AEG Program: 015-10-009

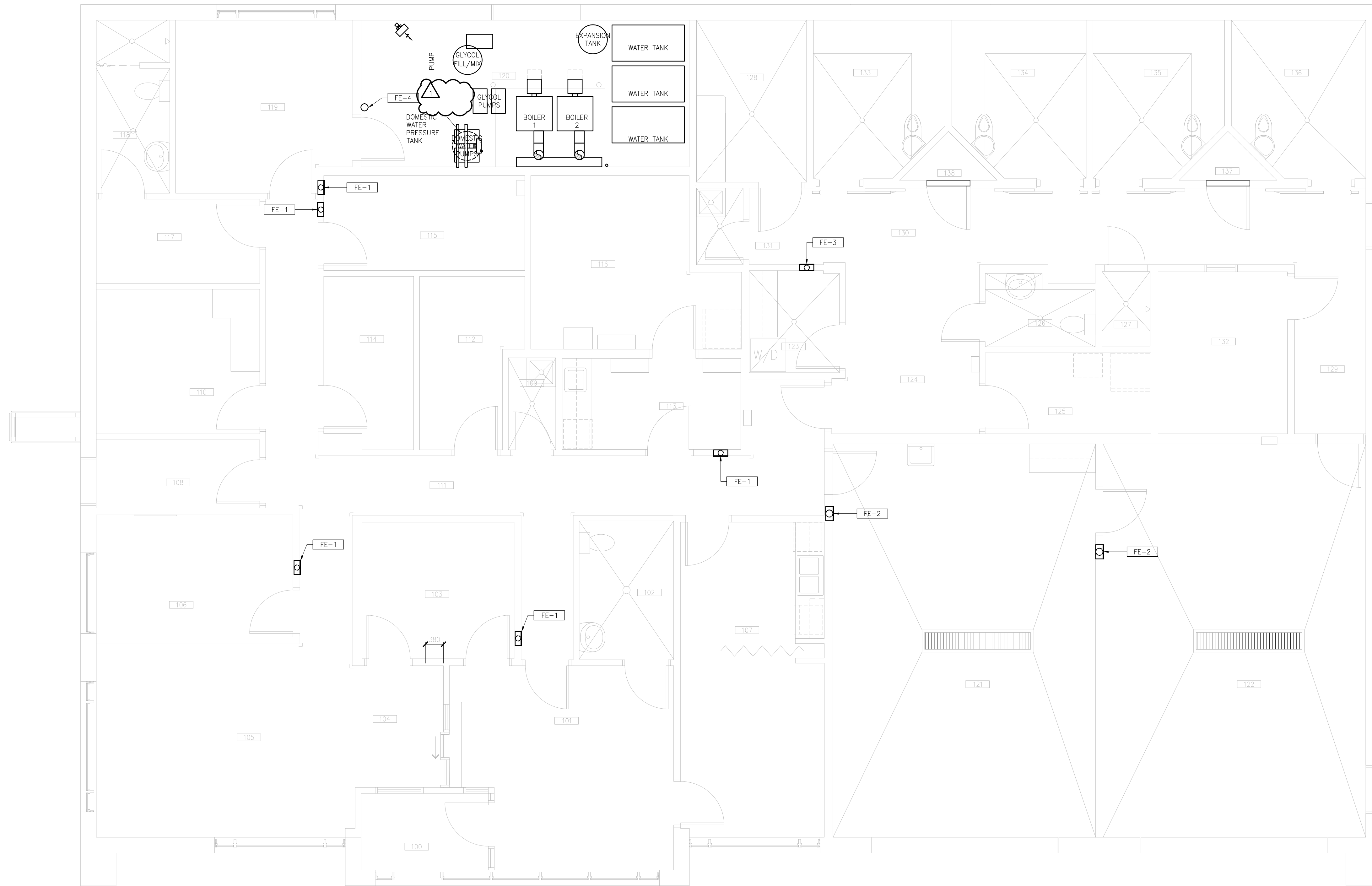
Project:
FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV Date: 04-07-2015
Checked By: BKW Scale: 1:50

Sheet Title:
MAIN FLOOR HEATING PLAN

Sheet Number:
M105

FILENAME: \\N:\VCS - Design Architects\01-Archi\RCMP Station\Drawings\Current\M105 Main Floor Heating Plan.dwg
PLOTDATE: Jul 10, 2015 - 10:45am



A FIRE PROTECTION PLAN
M106 1:50

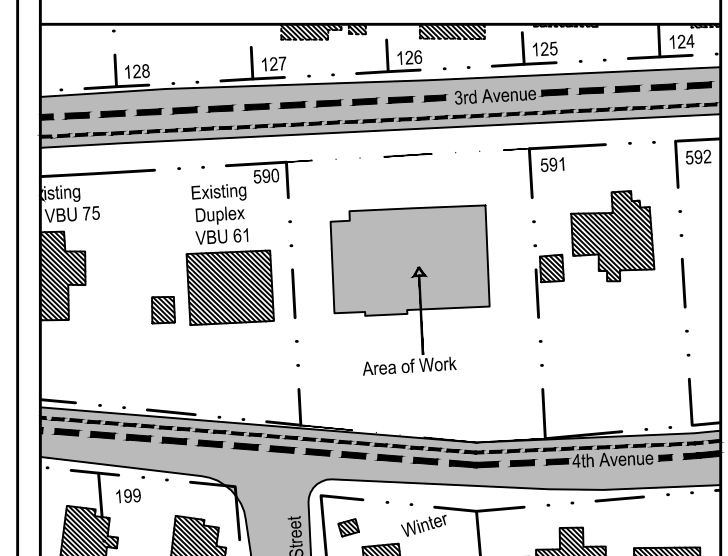
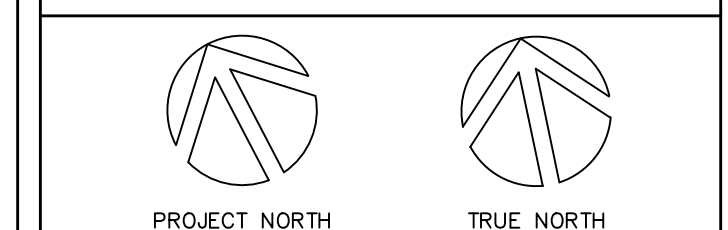
LEGEND

- FE-1 2.2kg. MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHER, TYPE 3A40BC, C/W NATIONAL FIRE EQUIPMENT 102RS SEMI-RECESSED CABINET.
- FE-2 4.5kg. MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHER, TYPE 4A60BC, C/W NATIONAL FIRE EQUIPMENT CE-950-FR FIRE RATED CABINET, CABINET TURN BACK TO SUIT WALL DEPTH.
- FE-3 4.5kg. MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHER RATING, TYPE 4A60BC, MOUNTED IN RECESSED ENCLOSURE CE-950-3-NS MEDIUM SECURITY CONSTRUCTED OF 1.8 GA TUB AND 12GA FULL METAL STEEL DOOR AND TRIM WITH CABINET HINGES AND SECURITY CYLINDER LOCK, CYLINDER TO MATCH SECURITY HARDWARE. CABINET FINISH: BAKED ENAMEL.
- FE-4 4.5kg. MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHER RATING, TYPE 4A60BC, MOUNTED ON EXPOSED WALL.

GENERAL NOTES

1. THIS BUILDING HAS NO SPRINKLER SYSTEM REQUIREMENTS.

PERMIT TO PRACTICE
ACCUTECH ENGINEERING INC.
Signature: *[Signature]*
Date: APR 07 2015
PERMIT NUMBER: P 421
The Association of Professional Engineers,
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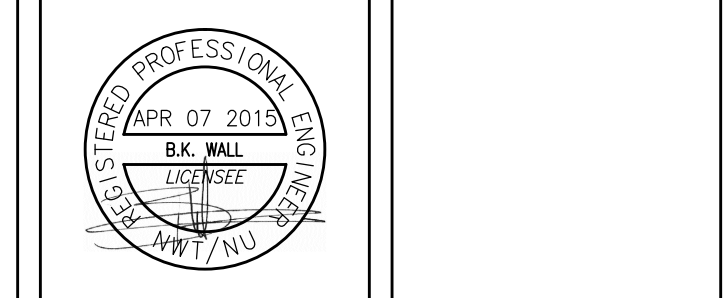


1	ISSUED WITH ADDENDUM	07-10-2015
0	ISSUED FOR TENDER	04-07-2015
No.	Description	Date

Revisions:
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Prime Consultant:

20 James Street, Suite 200, Ottawa, Canada K2P 0T6 613.739-7700



Sub Consultant:

Accutech Engineering Inc.
Tomorrow's Technology Today
1349 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3
phone 204.944.1555 fax 204.944.1444
www.accutecheng.ca

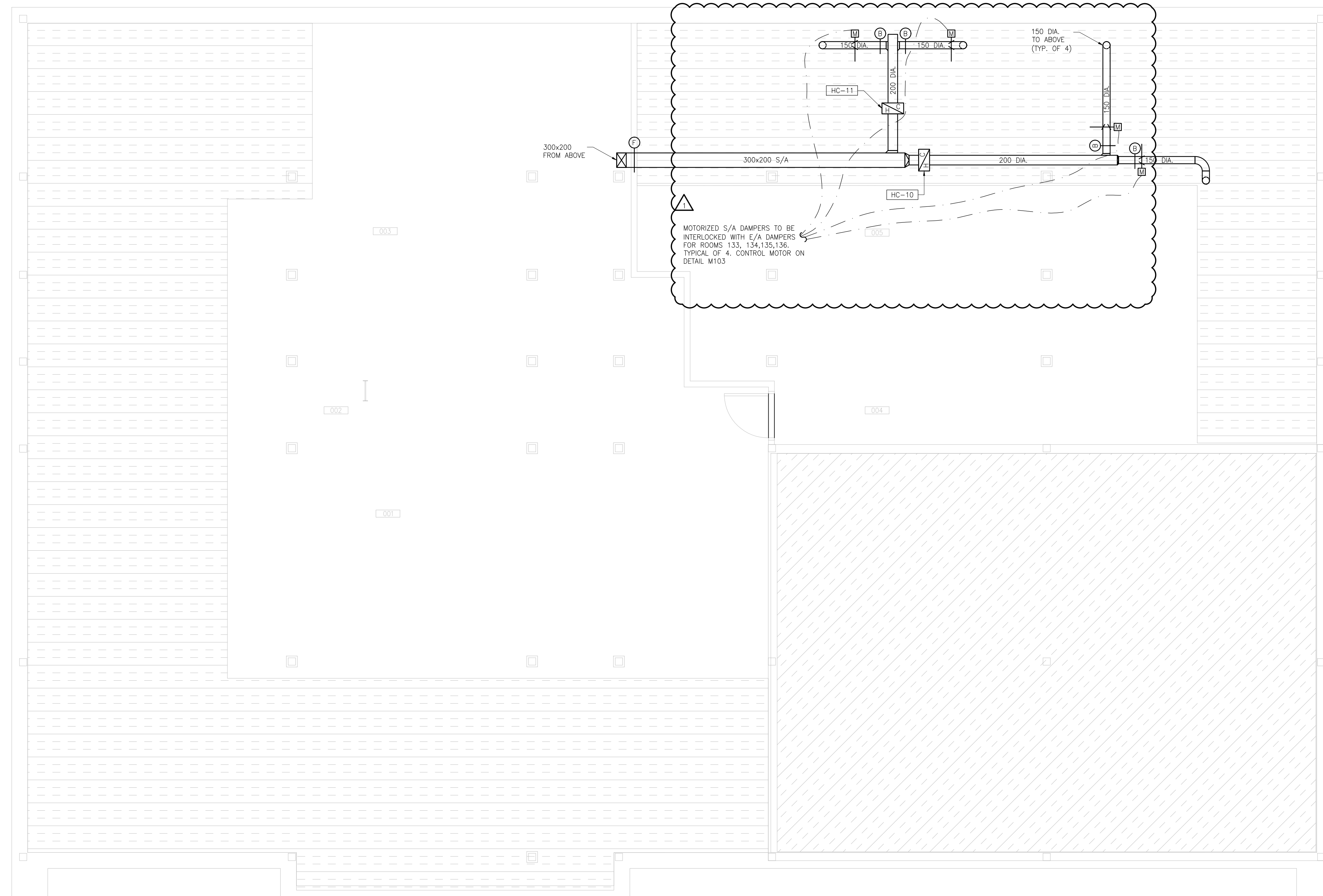
AGE A.G. Engineering
Electrical Engineers
1115 East Warden Avenue, 2nd Floor
Winnipeg, MB R2H 0S5
Phone: (877) 522-2854
Cell: (877) 522-2854
Fax: (877) 522-2854
AGE Project# 1151-10-009

Project:
**FEDERAL BUILDING
ARVIAT, NUNAVUT**

Drawn By: VCV	Date: 04-07-2015
Checked By: BKW	Scale: 1:50

Sheet Title:
FIRE PROTECTION PLAN

Sheet Number:
M106

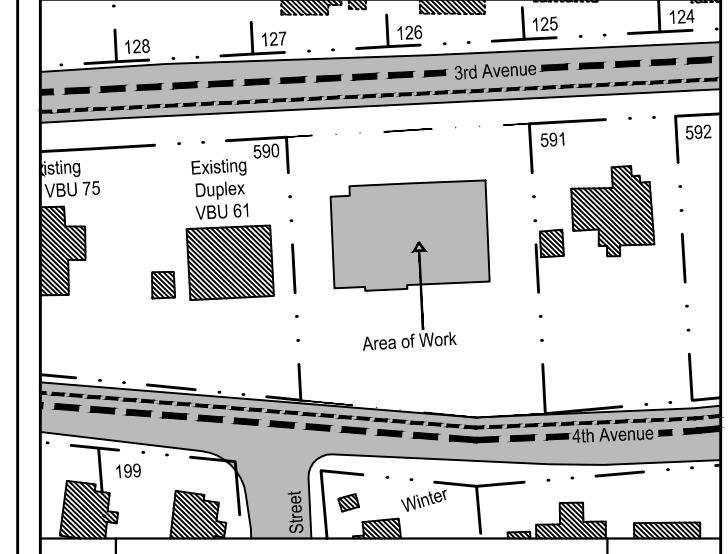
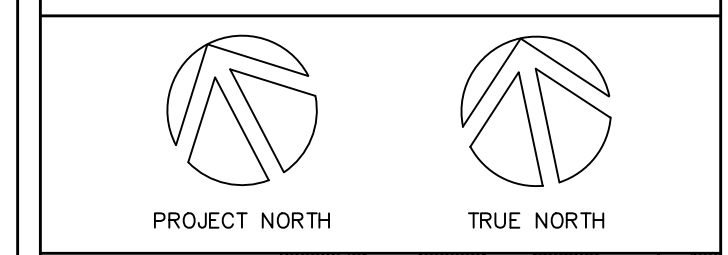


A
M107
CRAWLSPACE HVAC PLAN
1:50

LEGEND

- GRILLE TAG
SEE M610 FOR SIZE(MM)
AIR FLOW
- EQUIPMENT TAG
- HEATING COIL
- BALANCING DAMPER
- FIRE DAMPER
- FIRE SMOKE DAMPER
- THERMAL MOTORIZED DAMPER
- SECURITY DUCT OPENING
- SECURITY OPENING
- ACOUSTIC ELBOW

PERMIT TO PRACTICE
ACCUTECH ENGINEERING INC.
Signature: *[Signature]*
Date: APR 07 2015
PERMIT NUMBER: P 421
The Association of Professional Engineers,
Geologists and Geophysicists of the NWT/NLU

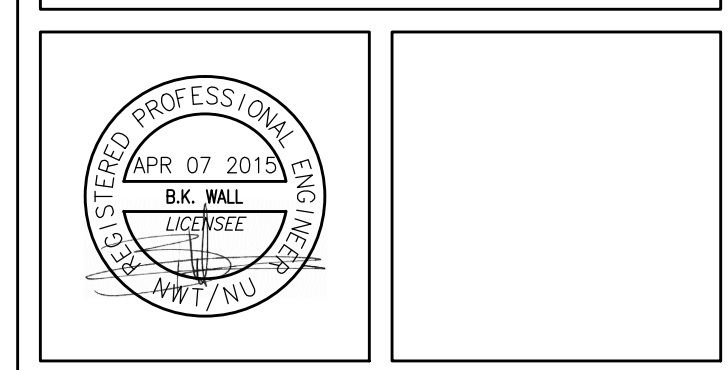


1	ISSUED WITH ADDENDUM	07-10-2015
0	ISSUED FOR TENDER	04-07-2015
No.	Description	Date

Revisions:
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Prime Consultant:

20 James Street, Suite 200, Ottawa, Canada K2P 0T6 613.739-7700



Sub Consultant:

1349 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3
phone 204.944.1555 fax 204.944.1444
www.accutechinc.ca

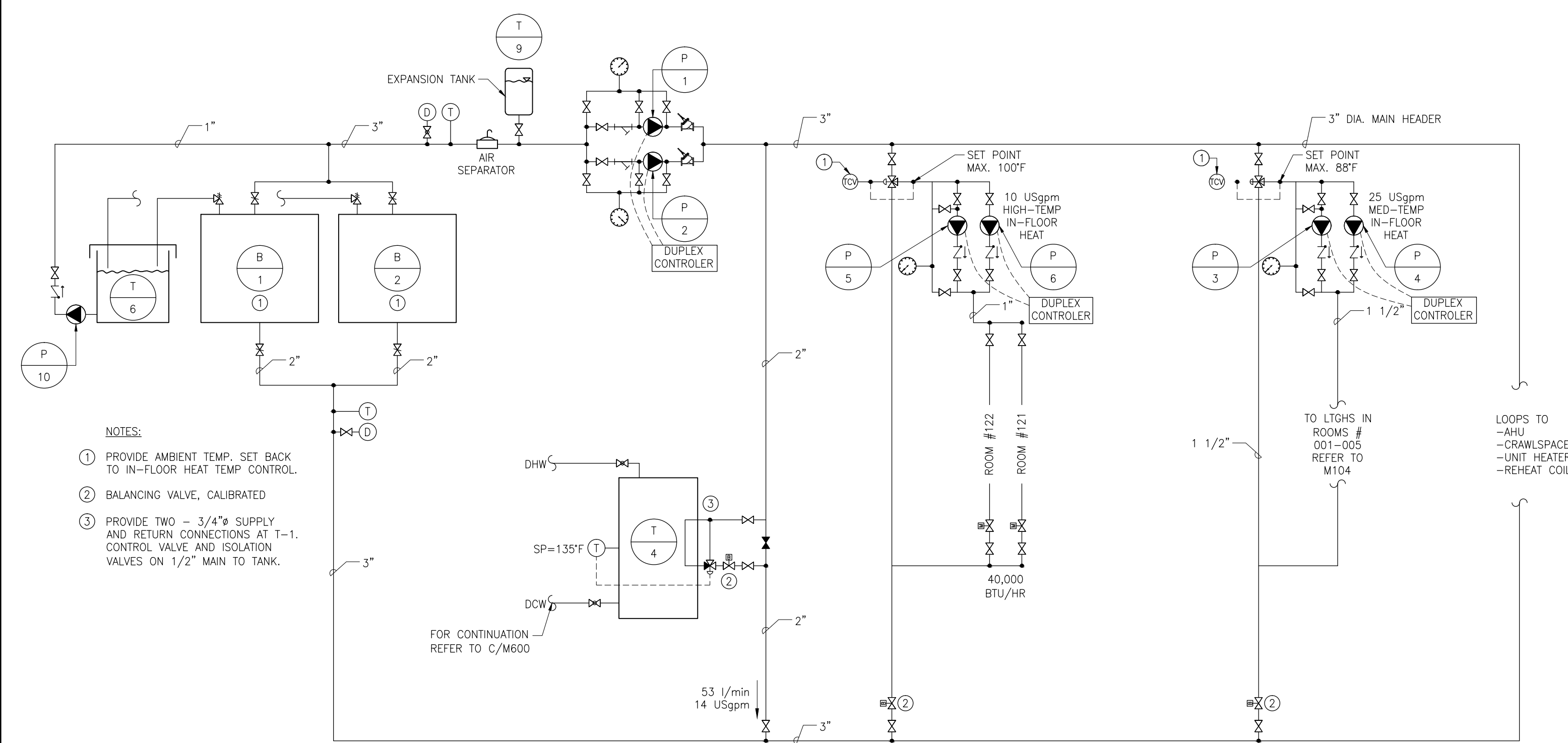
1115 6th Avenue, 2nd Floor
Winnipeg, MB R2G 0S5
Phone: (204) 522-2854
Cell: (204) 522-2854
Fax: (204) 522-2855
A.E. Program: 015-1-0-009

Project:
**FEDERAL BUILDING
ARVIAT, NUNAVUT**

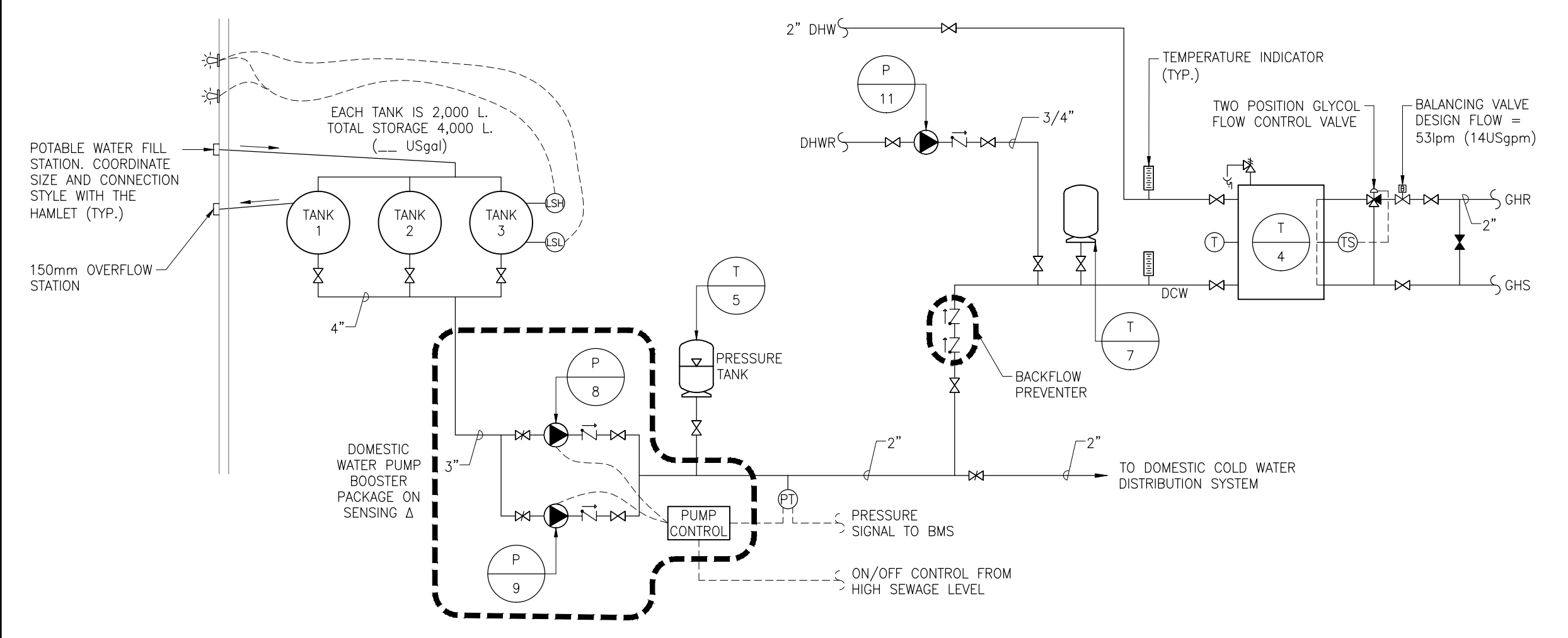
Drawn By: VCV	Date: 04-07-2015
Checked By: BKW	Scale: 1:50

Sheet Title:
CRAWLSPACE HVAC PLAN

Sheet Number:
M107



A GLYCOL HEATING SCHEMATIC
M600 NTS

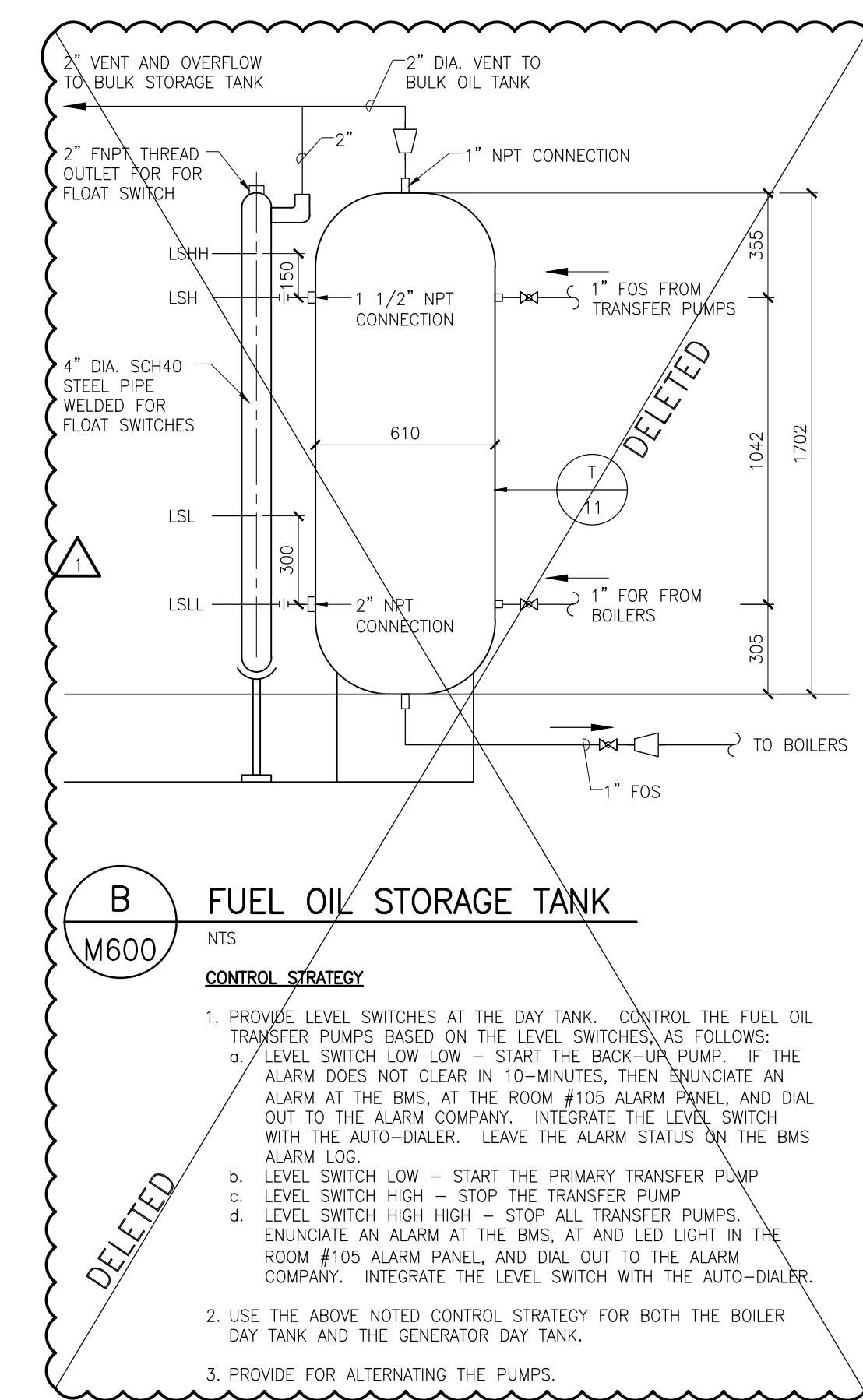


C DOMESTIC WATER FLOW DIAGRAM
M600 NTS

- CONTROL STRATEGY**
- ON LOW WATER LEVEL IN THE STORAGE TANKS (T-1, T-2 & T-3), ILLUMINATE A RED LED LIGHT ON THE BUILDING EXTERIOR. PROVIDE SIGNAGE AT LIGHT. INITIATE AN ALARM IN AREA #124. SHUT OFF THE DOMESTIC WATER PUMPS P-8 AND P-9. PROVIDE A RED ALARM LIGHT ON THE CONTROL PANEL IN AREA #124.
 - MODULATE THE SPEED OF PUMPS P-8 AND P-9 TO MAINTAIN THE DISCHARGE PRESSURE USING VFD'S AT THE PUMPS. INITIAL SETPOINT FOR THE WATER PRESSURE IS 345-KPA (50-PSIG). CYCLE WHICH OF THE TWO PUMPS IS THE LEAD TO MAINTAIN EQUAL WEAR ON THE PUMPS AND PREVENT SHORT-CYCLING. MINIMUM PUMP SPEED IS 30%. THE PRESSURES ARE TO BE ADJUSTABLE.
ON LOW WATER USE AND DURING OFF-HOURS, TURN THE PUMPS OFF. RE-START THE PUMPS BASED ON PRESSURE SETTINGS IN THE TRANSMITTER. PROVIDE A DEAD-BAND WHEN WATER WILL BE SUPPLIED BY THE DIAPHRAGM TANKS.
 - CONTROL THE DOMESTIC HOT WATER BASED ON THE TEMPERATURE WITHIN THE DOMESTIC HOT WATER STORAGE TANKS. ON LOW TEMPERATURE, OPEN GLYCOL CONTROL VALVE. WHEN DOMESTIC HOT WATER REACHES SETPOINT, CLOSE GLYCOL CONTROL VALVE. USE SLOW OPENING/CLOSING VALVES FOR THIS SERVICE.
 - ALARM ON HIGH DHW STORAGE TEMP. SETPOINT OF ALARM IS 60°C (140°F)
 - ALARM ON LOW DHW STORAGE TEMP. SETPOINT OF ALARM IS 40°C
 - ON HIGH SEWAGE LEVEL IN TANKS T-8, SHUT OFF P-8 AND P-9. INITIATE ALARM AT BMS HEAD END AND AREA #105 ALARM PANEL.
 - ON SENSING A HIGH LEVEL IN DOMESTIC WATER TANKS, INITIATE FLASHING STROBE AND ALARM SIREN AT FILL CONNECTION.

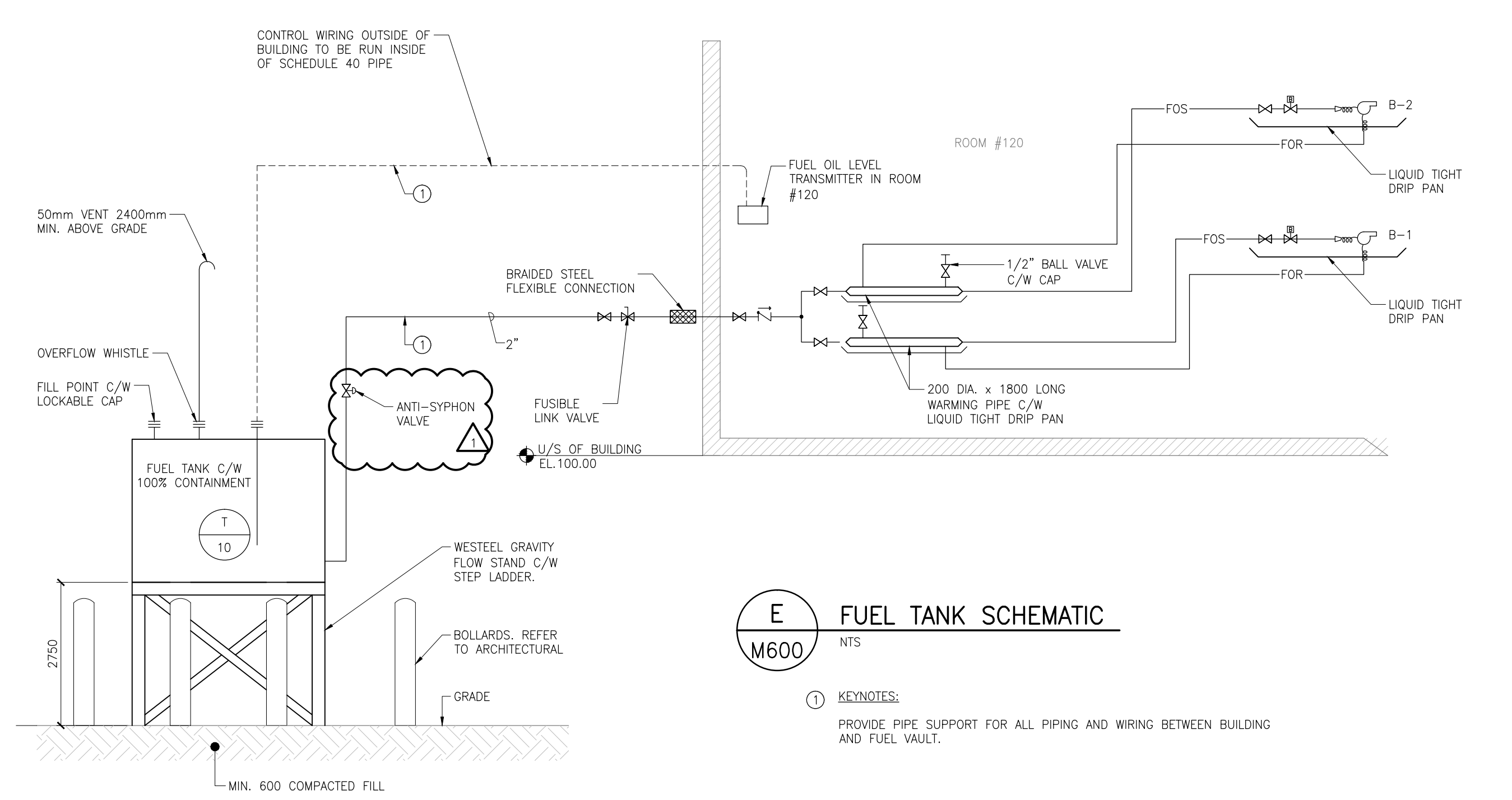
HYDRONIC HEATING SYSTEM CONTROL STRATEGY

- BOILER CONTROL**
 - CONTROL BOILERS BASED ON INTERNAL CONTROLS.
 - PROVIDE FOR LEAD/LAG CONTROL OF BOILERS.
 - CONTROL BOILERS BASED ON LEAVING WATER TEMPERATURE. PROVIDE FOR OUTDOOR RESET OF BOILER LEAVING WATER TEMPERATURE. PROVIDE FOR DISABLING THE OUTDOOR RESET IN THE FUTURE, SHOULD THE BUILDING OPERATORS CHOOSE SO.
 - PROVIDE THE FOLLOWING INDICATING POINTS:
 - BOILER LEAVING WATER TEMPERATURE
 - BOILER ENTERING WATER TEMPERATURE
 - PRESSURE AT DISCHARGE OF BOILERS
 - STATUS OF EACH BOILER AND PERCENT FIRING
 - FLUE GAS(STACK) TEMPERATURE
 - STATUS OF LEVEL SWITCHES IN THE FUEL OIL DAY TANK.
- PUMP CONTROL**
 - PUMPS P-1 OR P-2 ARE TO RUN CONTINUOUSLY AT A CONSTANT SPEED. THE SYSTEM IS DESIGNED SO THAT ONLY ONE OF THE TWO PUMPS OPERATES AT ANY GIVEN TIME.
 - SHOULD THE RUNNING PUMP STOP, AUTOMATICALLY START THE BACK-UP PUMP. ALLOW FOR AUTOMATICALLY ALTERNATING LEAD PUMP. PROVIDE HOUR METER ON THE PUMP CONTROL PANEL.
 - LOCALLY INDICATE THE STATUS OF THE PUMPS AND DISCHARGE PRESSURE.
 - PUMPS P-3 OR P-4, PUMPS ARE TO RUN CONTINUOUSLY. THE SYSTEM IS DESIGNED SO THAT ONLY ONE OF THE TWO PUMPS OPERATES AT ANY GIVEN TIME.
 - SHOULD THE RUNNING PUMP STOP, AUTOMATICALLY START THE BACK-UP. ALLOW FOR AUTOMATICALLY ALTERNATING LEAD PUMP. PROVIDE HOUR METER ON THE PUMP CONTROL PANEL.
 - INDICATE THE STATUS OF THE PUMPS(RUNNING OR STOPPED), STATUS OF P-3 AND P-4 (ON/OFF) AND SUPPLY WATER TEMPERATURE FROM P-3 AND P-4. LOOP RETURN WATER TEMPERATURE FOR THE LOOP AND PUMP DISCHARGE PRESSURE.
 - PUMPS P-5 OR P-6, PUMPS ARE TO RUN CONTINUOUSLY. THE SYSTEM IS DESIGNED SO THAT ONLY ONE OF THE TWO PUMPS OPERATES AT ANY GIVEN TIME.
 - SHOULD THE RUNNING PUMP STOP, AUTOMATICALLY START THE BACK-UP PUMP. ALLOW FOR AUTOMATICALLY ALTERNATING LEAD PUMP. PROVIDE HOUR METER ON THE PUMP CONTROL PANEL.
 - INDICATE THE STATUS OF THE PUMPS(RUNNING OR STOPPED), AND LOOP RETURN WATER TEMPERATURE FOR THE LOOP AND PUMP DISCHARGE PRESSURE.
- DOMESTIC HOT WATER CONTROL**
 - HEATING IS PROVIDED BY BOILER WATER THROUGH A THREE WAY CONTROL VALVE. CONTROL THE THREE-WAY CONTROL VALVE BASED ON THE LEAVING WATER TEMPERATURE OF THE DOMESTIC HOT WATER HEATER. PROVIDE ON/OFF CONTROL OF THE THREE WAY VALVES. USE SLOW OPENING/ CLOSING VALVES TO PREVENT WATER HAMMER IN THE GLYCOL LOOP.
 - THE DOMESTIC HOT WATER RE-CIRCULATION PUMP IS TO OPERATE CONTINUOUSLY.
 - LOCALLY INDICATE:
 - STATUS OF THE THREE-WAY CONTROL VALVES(OPEN OR CLOSED).
 - DOMESTIC HOT WATER SUPPLY TEMPERATURE
 - STATUS OF PUMP P-13 (ON/OFF).



B FUEL OIL STORAGE TANK
M600 NTS

- CONTROL STRATEGY**
- PROVIDE LEVEL SWITCHES AT THE DAY TANK. CONTROL THE FUEL OIL TRANSFER PUMPS BASED ON THE LEVEL SWITCHES, AS FOLLOWS:
 - LEVEL SWITCH LOW LOW - START THE BACK-UP PUMP. IF THE ALARM DOES NOT CLEAR IN 10-MINUTES, THEN ENUNCIATE AN ALARM AT THE BMS, AT THE ROOM #105 ALARM PANEL, AND DIAL OUT TO THE ALARM COMPANY. INTEGRATE THE LEVEL SWITCH WITH THE AUTO-DIALER. LEAVE THE ALARM STATUS ON THE BMS ALARM LOG.
 - LEVEL SWITCH LOW - START THE PRIMARY TRANSFER PUMP
 - LEVEL SWITCH HIGH - STOP THE TRANSFER PUMP
 - LEVEL SWITCH HIGH HIGH - STOP ALL TRANSFER PUMPS. ENUNCIATE AN ALARM AT THE BMS, AT AND LED LIGHT IN THE ROOM #105 ALARM PANEL, AND DIAL OUT TO THE ALARM COMPANY. INTEGRATE THE LEVEL SWITCH WITH THE AUTO-DIALER.
 - USE THE ABOVE NOTED CONTROL STRATEGY FOR BOTH THE BOILER DAY TANK AND THE GENERATOR DAY TANK.
 - PROVIDE FOR ALTERNATING THE PUMPS.



E FUEL TANK SCHEMATIC
M600 NTS

- KEYNOTES:**
- PROVIDE PIPE SUPPORT FOR ALL PIPING AND WIRING BETWEEN BUILDING AND FUEL VAULT.

PROJECT NORTH TRUE NORTH

Area of Work

1	ISSUED WITH ADDENDUM	07-10-2015
0	ISSUED FOR TENDER	04-07-2015
No.	Description	Date

Revisions:

All measurements are to be checked and verified on site by the contractor before proceeding with the work.
Do not scale the drawings.

Prime Consultant:

PARKIN
ARCHITECTS LIMITED

20 James Street, Suite 200, Ottawa, Canada K2P 0T6 613.739-7700

REGISTERED PROFESSIONAL ENGINEER
B.K. HILL
No. 14332
NW7/NU

Sub Consultant:

Accutech Engineering Inc.
Tomorrow's Technology Today

1349 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3
phone 204.944.1555 fax 204.944.1444
www.accutech.ca

A.G. Engineering
Electrical Engineers

1114 6th Street, Winnipeg, Manitoba, Canada R2J 0H3
Phone: (204) 944-1555
Fax: (204) 944-1444
Cell: (204) 944-1555
AEC Project: 015-10-000

Project:

FEDERAL BUILDING
ARVIAT, NUNAVUT

Drawn By: VCV	Date: 04-07-2015
Checked By: BKW	Scale: AS NOTED

Sheet Title:
MECHANICAL SCHEMATICS

Sheet Number:
M600

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ACCUTECH ENGINEERING INC.

Signature:

Date: APR 07 2015



PERMIT NUMBER: P 421
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FILENAME: W:\M600 - Fedon Architects\01-Archi\RCMP Station\Drawings\Current\M600 Mechanical Schematics.dwg
PLOTDATE: Jul 10, 2015 - 10:51am

MECHANICAL EQUIPMENT SCHEDULE

No.	DESCRIPTION	ROOM #	ELECTRICAL NOTES	BRANCH WIRING	BREAKER SIZE	CIRCUIT NUMBER	TOTAL VA	REMARKS
→ REVISÉ	AHU1 AHU-001	201	3HP, 208V, 3Ø	3c#10 AWG IN EMT	3P-30	M-1/3/5	4000 VA	DISCONNECT REQUIRED & STARTER
→ REVISÉ	AHU2 AHU-002	201	1HP, 208V, 3Ø	3c#12 AWG IN EMT	3P-15A	M-7/9/11	1500 VA	DISCONNECT REQUIRED & STARTER
→ REVISÉ	B-1 BOILER B-1	120	1/8HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-1	500 VA	DISCONNECT REQUIRED
→ REVISÉ	B-2 BOILER B-2	120	1/8HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-3	500 VA	DISCONNECT REQUIRED
→ REVISÉ	P1/2 BOILER PUMPS P1/P2	120	2HP, 240V, 1Ø	3c#8 AWG IN EMT	2P-30A	E-5/7	8160 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED
→ REVISÉ	P3/4 GLYCOL PUMPS P3/P4	003	1/6HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	E-15/17	385 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED
→ REVISÉ	P5/6 GLYCOL PUMPS P5/P6	003	1/6HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-11	1176 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED
→ REVISÉ	P7 AHU-2 CIRC PUMP P-7	201	1/6 HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	M-13	400 VA	DISCONNECT REQUIRED, INTERLOCK WITH MUA UNIT, RUNS CONTINUOUSLY
→ REVISÉ	P8 DOMESTIC WATER CIRC P-8	120	1-1/2HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-20A	M-17/19	2100 VA	DISCONNECT REQUIRED & STARTER
→ REVISÉ	P9 DOMESTIC WATER CIRC P-9	120	1-1/2HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-20A	M-2/4	2100 VA	DISCONNECT REQUIRED & STARTER
→ REVISÉ	-- ITEM DELETED							
→ REVISÉ	P-10 GLYCOL MAKE-UP PUMP PACKAGE	120	0.7HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	M-15	500 VA	DEDICATED RECEPTACLE REQUIRED
→ REVISÉ	P-11 DOM HOT WATER RETURN CIRC PUMP	120	1/6 HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	M-21	500 VA	DISCONNECT REQUIRED & STARTER
→ REVISÉ	EF-1 EXHAUST FAN EF-1	121	0.27HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	M-8/10	120 VA	DISCONNECT REQUIRED
→ REVISÉ	EF-2 EXHAUST FAN EF-2	121	1/6 HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	M-12/14	500 VA	DISCONNECT REQUIRED
→ REVISÉ	EF-3 EXHAUST FAN EF-3	122	1/6 HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	M-16/18	500 VA	DISCONNECT REQUIRED
→ REVISÉ	EF-4 EXHAUST FAN EF-4	120	1/6 HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	M-20/22	500 VA	DISCONNECT REQUIRED
	UH-1 CRAWLSPACE UNIT HEATERS (6 TOTAL)	003	1/20HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-13	200 VA	DISCONNECT REQUIRED
	UH-2 BOILER ROOM UNIT HEATER	003	120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-13	200 VA	DISCONNECT REQUIRED

MOTOR CONNECTIONS:
FOR ALL MOTOR CONNECTIONS,
CHANGE FROM EMT TO TO LIQUIDTIGHT
AT MOTOR FOR FINAL CONNECTION.

1	ISSUED FOR ADDENDUM #1	GAP	JULY 10/15	 A.G. Engineering Thunder Bay Inc. 1111 E. Victoria Ave., 2nd Flr Thunder Bay, ON, P7C 1B7 Phone : (807) 622-3654 Fax: (807) 622-3633	PROJECT TITLE	DWG SCALE: AS NOTED	PLOT SCALE: FULL
	No.	DESCRIPTION	BY		DATE	THE GOVERNMENT OF NUNAVUT FEDERAL BUILDING, ARVIAT, NUNAVUT	DATE ISSUED: JULY 2015
					DRAWING TITLE	PROJECT No. E121-14-011	APPROVED BY: AG
					REVISED MECHANICAL SCHEDULE	DWG No. SK-E1	REV. 

ESSENTIAL LOADS ELECTRICAL PANEL 'E'

CCT. No.	CIRCUIT USE	BREAKER		VOLTS	VA		WIRE AND CONDUIT SIZE	CCT. No.	CIRCUIT USE	BREAKER		VOLTS	VA		WIRE AND CONDUIT SIZE
		SIZE	POLES		L1	L2				SIZE	POLES		L1	L2	
1	(B-1) BOILER B-1	15A	1	120	500		AS NOTED	2	LIGHTING - CELLS 135, 136	15A	1	120	150		2c#12 IN EMT
3	(B-2) BOILER B-2	15A	1	120		500	AS NOTED	4	FIRE ALARM PANEL	15A	1	120		150	2c#12 IN EMT
5	(P1/2) BOILER PUMPS P1/P2	30A	2	240	4080		AS NOTED	6	EVIDENCE FRIDGE RECEPTACLES - ROOMS 113, 116	15A	1	120	600		2c#12 IN EMT
7						4080					8	QUAD 20A RECEPTACLES - LAN ROOM 115	20A	1	120
9	SPARE	15A	1	120			AS NOTED	10	QUAD 20A RECEPTACLES - LAN ROOM 115	20A	1	120	750		2c#12 IN EMT
11	(P5/6) GLYCOL PUMPS P5/P6	15A	1	120		1176	AS NOTED	12	RECEPTACLES - ROOM 105, 124	15A	1	120		360	2c#12 IN EMT
13	(UH-1) CRAWLSPACE UNIT HEATERS (6 TOTAL)	15A	1	120	200		AS NOTED	14	(UH-2) BOLIER ROOM UNIT HEATER	15A	1	120	200		AS NOTED
15	(P3/4) GLYCOL PUMPS P3/P4	15A	2	240		193	AS NOTED	16	SMOKE DAMPERS	15A	1	120		250	2c#12 IN EMT
17						193					18				
19								20							
21								22							
23								24							

VOLTAGE: 120/240VAC MAINS: 100A PHASE: 1 FED FROM: AS INDICATED
 MAIN BREAKER: MLO BREAKER I.C.: 10KA WIRE: 3 LOCATION: AS SHOWN
 MOUNTING: SURFACE FEEDER: AS INDICATED

MECHANICAL EQUIPMENT ELECTRICAL PANEL 'M'

CCT. No.	CIRCUIT USE	BREAKER		VOLTS	VA			WIRE AND CONDUIT SIZE	CCT. No.	CIRCUIT USE	BREAKER		VOLTS	VA			WIRE AND CONDUIT SIZE		
		SIZE	POLES		Aø	Bø	Cø				SIZE	POLES		Aø	Bø	Cø			
1	(AHU1) AHU-001	30A	3	208	1333			AS NOTED	2	(P9) DOMESTIC WATER CIRC P-9	15A	2	208	1050			AS NOTED		
3						1333					4					1050			
5									1333			6							
7	(AHU2) AHU-002	15A	3	208	500			AS NOTED	8	(EF-1) EXHAUST FAN EF-1	15A	2	208	60			AS NOTED		
9						500					10					60			
11									500			12	(EF-2) EXHAUST FAN EF-2	15A	2	208			
13	(P7) MUA CIRC PUMP P-7	15A	1	120	500			AS NOTED	14	(EF-3) EXHAUST FAN EF-3	15A	2	208	250			AS NOTED		
15	(P-10) GLYCOL MAKE-UP PUMP PACKAGE	15A	1	120		500		AS NOTED	16	(EF-4) EXHAUST FAN EF-4	15A	2	208		250				
17	(P8) DOMESTIC WATER CIRC P-8	15A	2	208			1050	AS NOTED	18						250				
19						1050					20						250		
21	(P-11) DOM HOT WATER RETURN CIRC PUMP	15A	1	120		500		AS NOTED	22					250					
23									24							700	3c#12 AWG IN EMT		
25									26	OVERHEAD DOOR MOTOR	15A	3	208	700					
27									28						700				
29									30							700	3c#12 AWG IN EMT		
31									32	OVERHEAD DOOR MOTOR	15A	3	208	700					
33									34						700				
35									36										

VOLTAGE: 120/208VAC MAINS: 100A PHASE: 3 FED FROM: AS INDICATED
 MAIN BREAKER: MLO BREAKER I.C.: 10KA WIRE: 4 LOCATION: AS SHOWN
 MOUNTING: SURFACE FEEDER: AS INDICATED

1	ISSUED FOR ADDENDUM #1	GAP	JULY 10/15
No.	DESCRIPTION	BY	DATE



A.G. Engineering
 Thunder Bay Inc.
 1111 E. Victoria Ave., 2nd Flr
 Thunder Bay, ON, P7C 1B7
 Phone : (807) 622-3654
 Fax: (807) 622-3633

PROJECT TITLE
**THE GOVERNMENT OF NUNAVUT
 FEDERAL BUILDING, ARVIAT, NUNAVUT**

DRAWING TITLE
REVISED PANEL SCHEDULES

DWG SCALE: **AS NOTED** PLOT SCALE: **FULL**
 DATE ISSUED: **JULY 2015** DRAWN BY: **GAP**
 PROJECT No. **E121-14-011** APPROVED BY: **AG**
 DWG No. **SK-E2** REV.