

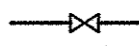
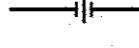
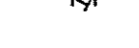
GENERAL NOTES:

- CONTRACTOR TO CONFIRM AND VERIFY EXISTING CONDITION, LOCATIONS, SIZES OF ALL MECHANICAL, ELECTRICAL AND GENERAL CONTRACT WORK.
- LEGALLY DISPOSE OF ALL DEMOLISHED AND UNUSED MATERIALS SUCH AS DUCTWORK, PIPING, EQUIPMENT, ETC. ACCORDING TO MUNICIPALITY REQUIREMENTS. TURN OVER ANY RE-USEABLE MATERIALS AT OWNER'S DISCRETION AND DECISION.
- REMOVE AND RECONNECT ANY EXISTING PIPING, EQUIPMENT, ELECTRICAL CONTROLS, ETC. TO COMPLETE NEW WORK.
- INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURE'S INSTALLATION INSTRUCTIONS. INSTALL UNITS PLUMB AND LEVEL, FIRMLY ANCHORED IN LOCATIONS INDICATED AND MAINTAIN MANUFACTURE'S RECOMMENDED CLEARANCES.
- CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
- PROVIDE CORING, SCANNING, CUTTING AND PATCHING TO PERFORM WORK. PATCH AND MAKE GOOD ALL WORK.
- THE DRAWINGS INDICATE THE GENERAL ROUTING OF THE SYSTEMS AND ARE DIAGRAMMATIC IN NATURE. THEY ESTABLISH SCOPE, MATERIAL AND INSTALLATION QUALITY AND ARE NOT DETAILED INSTALLATION INSTRUCTIONS. THE EXACT ROUTING OF ALL PIPING SYSTEMS IS TO BE COORDINATED ON SITE TO AVOID CONFLICTS WITH THE WORK OF OTHER DISCIPLINES.

DRAWING LIST

NUMBER	DESCRIPTION
M1.0	MECHANICAL LEGENDS, AND NOTES
M1.1	PENTHOUSE MECHANICAL ROOM - EXISTING AND DEMOLITION PLAN
M1.2	PENTHOUSE MECHANICAL ROOM - NEW PLAN
M2.1	MECHANICAL DETAILS
M3.1	MECHANICAL SCHEDULES

MECHANICAL LEGEND

—————CWS—————	CHILLED WATER SUPPLY
—————CWR—————	CHILLED WATER RETURN
—————HWS—————	HOT WATER HEATING SUPPLY
—————HWR—————	HOT WATER HEATING RETURN
—————D—————	DRAIN LINE
—————SS—————	STEAM SUPPLY
—————DI—————	D.I. WATER SUPPLY
=====HWS=====	EXISTING HOT WATER HEATING SUPPLY
=====HWR=====	EXISTING HOT WATER HEATING RETURN
=====CHWS=====	EXISTING CHILLED WATER SUPPLY
=====CHWR=====	EXISTING CHILLED WATER RETURN
=====GS=====	EXISTING GLYCOL SUPPLY
=====GR=====	EXISTING GLYCOL RETURN
=====CWS=====	EXISTING CONDENSER WATER SUPPLY
=====CWR=====	EXISTING CONDENSER WATER RETURN
=====DI=====	EXISTING DE-IONIZED WATER
-----x-----	REMOVE OR ABANDON EXISTING PIPING
	GATE VALVE
	UNION
	STRAINER
AHU	AIR HANDLING UNIT
CT	COOLING TOWER
DL	DE-IONIZED WATER
DT	DIAPHRAGM TANK
H	HUMIDIFIER
P	PUMP



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revisions		date

A	A detail no. no. du detail	A
B	B location drawing no. sur dessin no.	B
C	C drawing no. dessin no.	C

project project

CFIA
BURNABY LAB
AHU-301 REPLACEMENT

3155 WILLINGDON GREEN, BURNABY, B.C

drawing dessin

**MECHANICAL LEGENDS,
AND NOTES**

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reviewed MLG examine

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approved SC approuve

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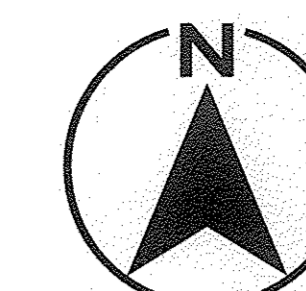
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project number no. du projet

161-06914-00

drawing no. no. du dessin

M1.0



HVAC KEYNOTES:

- 1 EXIST. REMOVEABLE EXTERIOR WALL PANELS TO BE REMOVED TO ALLOW REMOVAL OF EXIST. AHU UNIT AND INSTALLATION OF NEW AIR HANDLING UNIT. SEE PHOTO 1. EXTERIOR WALL PANELS TO BE REINSTALLED AS PER ORIGINAL INSTALLATION AFTER NEW AIR HANDLING UNIT IS IN PLACE. PROVIDE NEW POLYURETHANE CAULKING AT JOINTS TO MATCH EXISTING CAULKING. SEE DETAIL.
- 2 EXIST. DRYWALL, FRAMING MEMBERS, PLYWOOD SHEATHING/GWB, AND INSULATION TO BE REMOVED FOR AHU REMOVAL AND NEW AHU INSTALLATION. DRYWALL, PLYWOOD SHEATHING/GWB, FRAMING MEMBERS, AND INSULATION TO BE REPLACED AFTER AHU-301 INSTALLATION. REPLACE DAMAGED MATERIALS. SEE DETAIL.
- 3 REMOVE EXIST. GAS PRV VENT. MAKE GOOD OF EXIST. EXTERIOR WALL OPENING. PROVIDE A S.S. COVER PLATE, APPROX. 300X300 SQUARE, CAULK ALL AROUND WITH PAINTABLE AND WATER PROOF SEALANT. PAINT TO MATCH EXIST. COLOR. SEE PHOTO 1.
- 4 DISCONNECT EXIST. PHOTOCELL TO ALLOW REMOVAL OF PANEL. RECONNECT AFTER PANEL IS REPLACED. SEE PHOTO 1.
- 5 REMOVE EXIST. GLYCOL SUPPLY AND RETURN PIPE TO EXIST. HEAT RECOVERY COIL. CAP UNUSED PIPE AT COIL LEVEL.
- 6 REMOVE EXIST. GLYCOL RETURN PIPE. SEE PHOTO 2 & 3.
- 7 REMOVE EXIST. GLYCOL SUPPLY PIPE. SEE PHOTO 3.
- 8 REMOVE EXIST. GLYCOL PUMP, ASSOCIATED PIPING, AND WIRING. SEE PHOTO 3.
- 9 REMOVE EXIST. GLYCOL TANK, HEAT RECOVERY EXPANSION TANK ET-302, AND ASSOCIATED PIPING. SEE PHOTO 3.
- 10 EXIST. 75Ø CHWS & CHWR VERTICAL PIPE TO REMAIN.
- 11 PROVIDE TEMPORARY CAP. SEE PHOTO 3.
- 12 REMOVE EXIST. HOT WATER HEATING SUPPLY AND RETURN VERTICAL PIPE AND TEMPORARY CAP AT HIGH LEVEL. SEE PHOTO 2.
- 13 EXIST. WATER PIPE DOWN C/W PRIMER TRAP TO FLOOR DRAIN TO REMAIN. SEE PHOTO 2.
- 14 PROVIDE PERMANENT CAP. SEE PHOTO 2.
- 15 REMOVE EXIST. WATER PIPE TO UNIT AND CAP.
- 16 EXIST. CONDENSER WATER SUPPLY AT HIGH LEVEL TO REMAIN.
- 17 EXIST. 2 - 25Ø DRAIN TO FLOOR DRAIN AT FLOOR LEVEL TO REMAIN. SEE PHOTO 2.
- 18 EXIST. AHU-301 TO BE DISCONNECTED AND REMOVED. SEE PHOTO 2.
- 19 EXIST. SUPPLY AIR DUCT FROM BELOW TO REMAIN. DISCONNECT FROM EXIST. UNIT. EXACT LOCATION TO BE DETERMINED ON SITE.
- 20 EXIST. FRESH AIR DUCT FROM BELOW TO REMAIN. DISCONNECT FROM EXIST. UNIT. EXACT LOCATION TO BE DETERMINED ON SITE.
- 21 EXIST. CONDENSER WATER RETURN TO REMAIN.
- 22 REMOVE EXIST. 75Ø CHWS/R LINES. SEE PHOTO 2 & 3.
- 23 EXIST. HWS/R TO REMAIN.
- 24 ABANDONED PUMP TO BE TURNED OVER TO OWNER. SEE PHOTO 2.
- 25 REMOVE EXIST. 3-WAY VALVE.
- 26 REMOVE EXIST. PUMP P-311.
- 27 EXISTING FIRE DAMPER IN FLOOR TO REMAIN.



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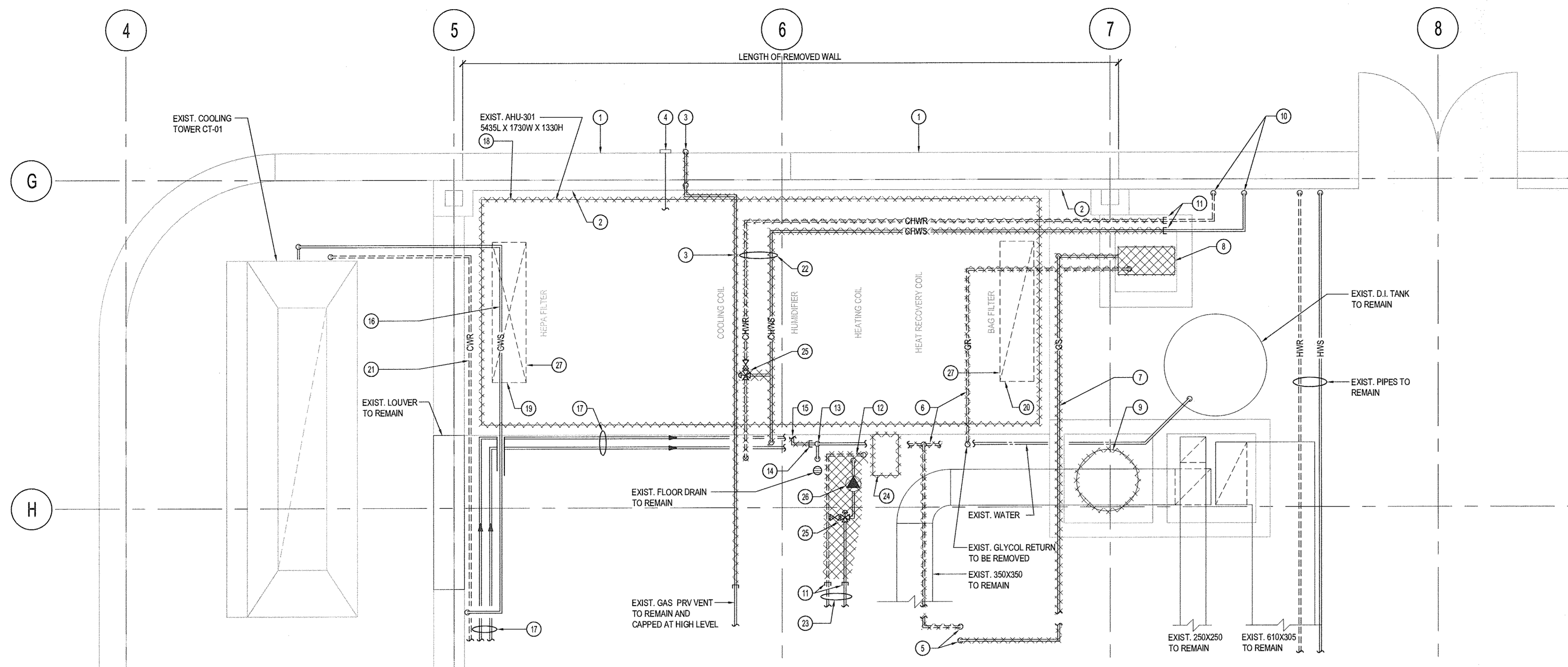
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CFIA
BURNABY LAB
AHU-301 REPLACEMENT
3155 WILLINGDON GREEN, BURNABY, B.C.

drawing **PENTHOUSE MECHANICAL ROOM - EXISTING AND DEMOLITION PLAN** dessin

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Tender - Soumission
PWC Project Manager Administrateur de projets TPC
project number no. du projet
161-06914-00
drawing no. no. du dessin

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PENTHOUSE MECHANICAL ROOM - EXISTING AND DEMOLITION PLAN
SCALE: 1:25

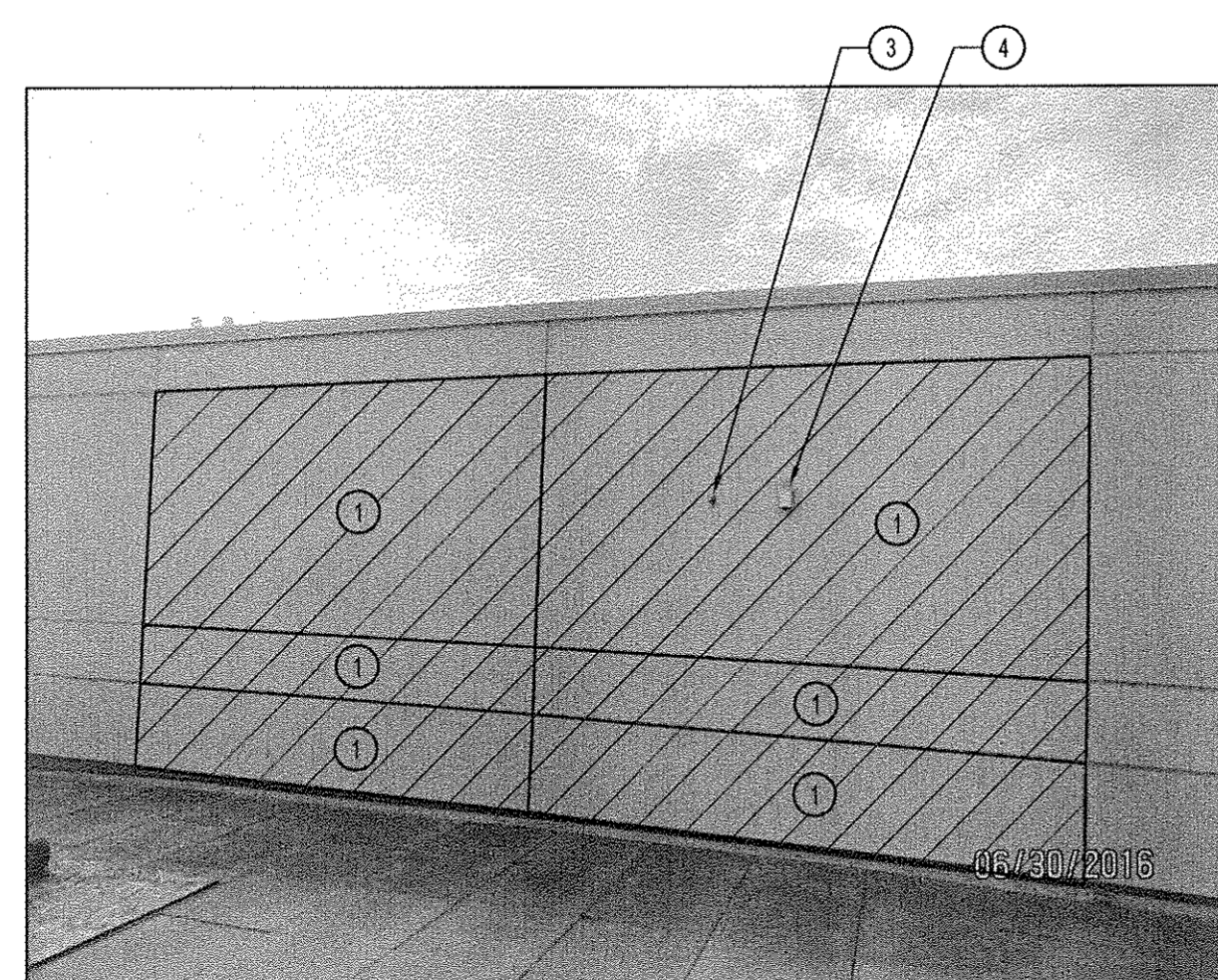


PHOTO #1: EXTERIOR WALL PANEL
NTS

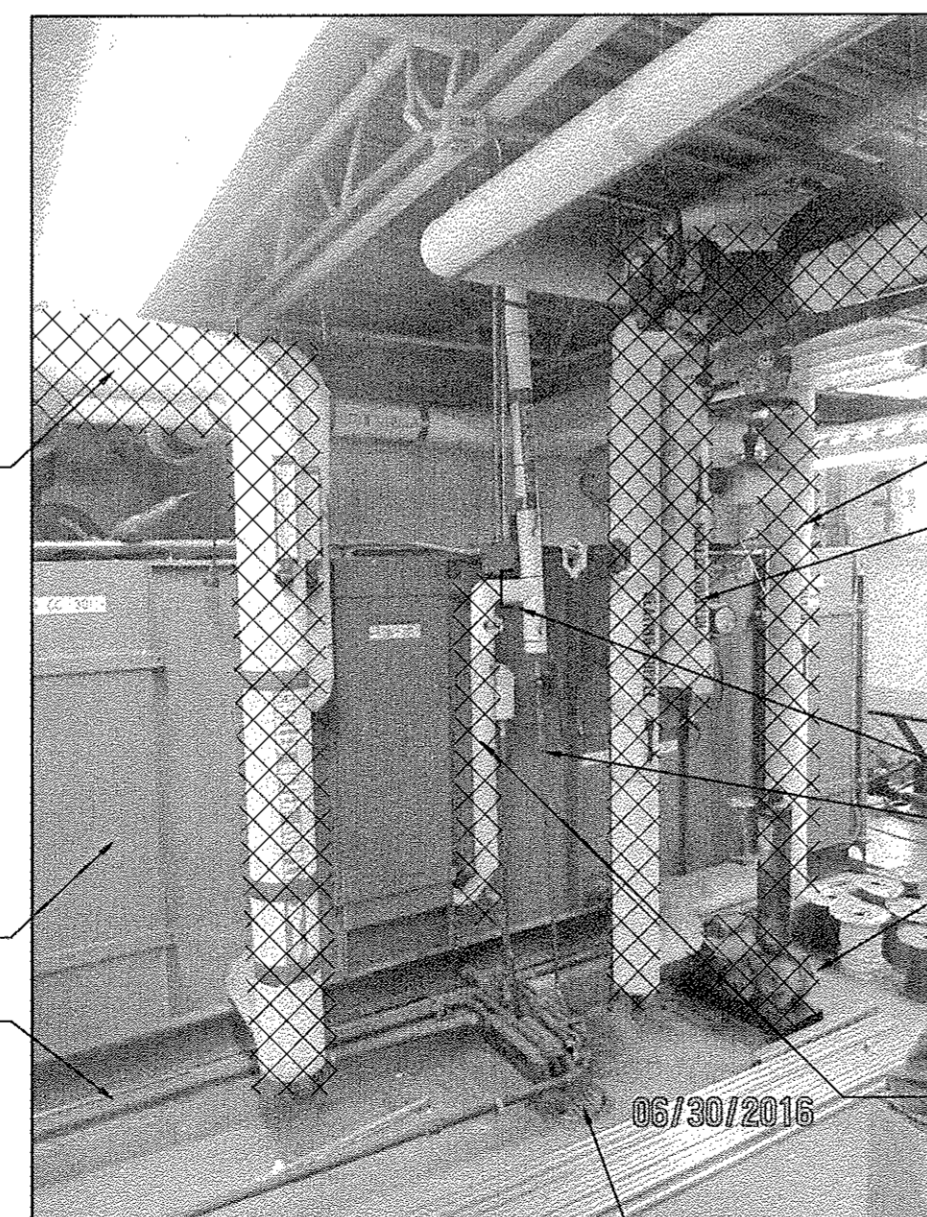


PHOTO #2: LOOKING NORTH VIEWING EXIST. AHU-301
NTS

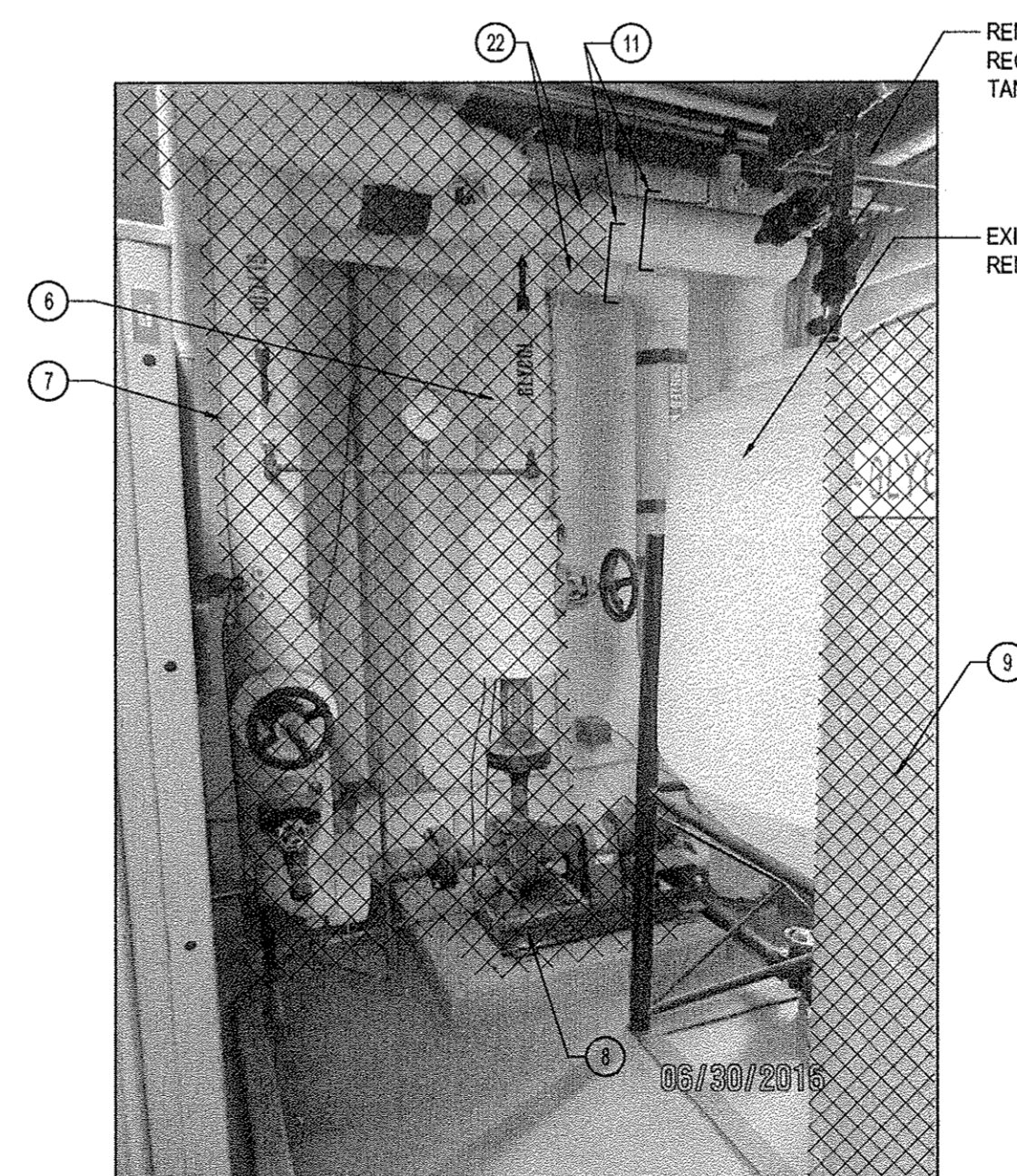
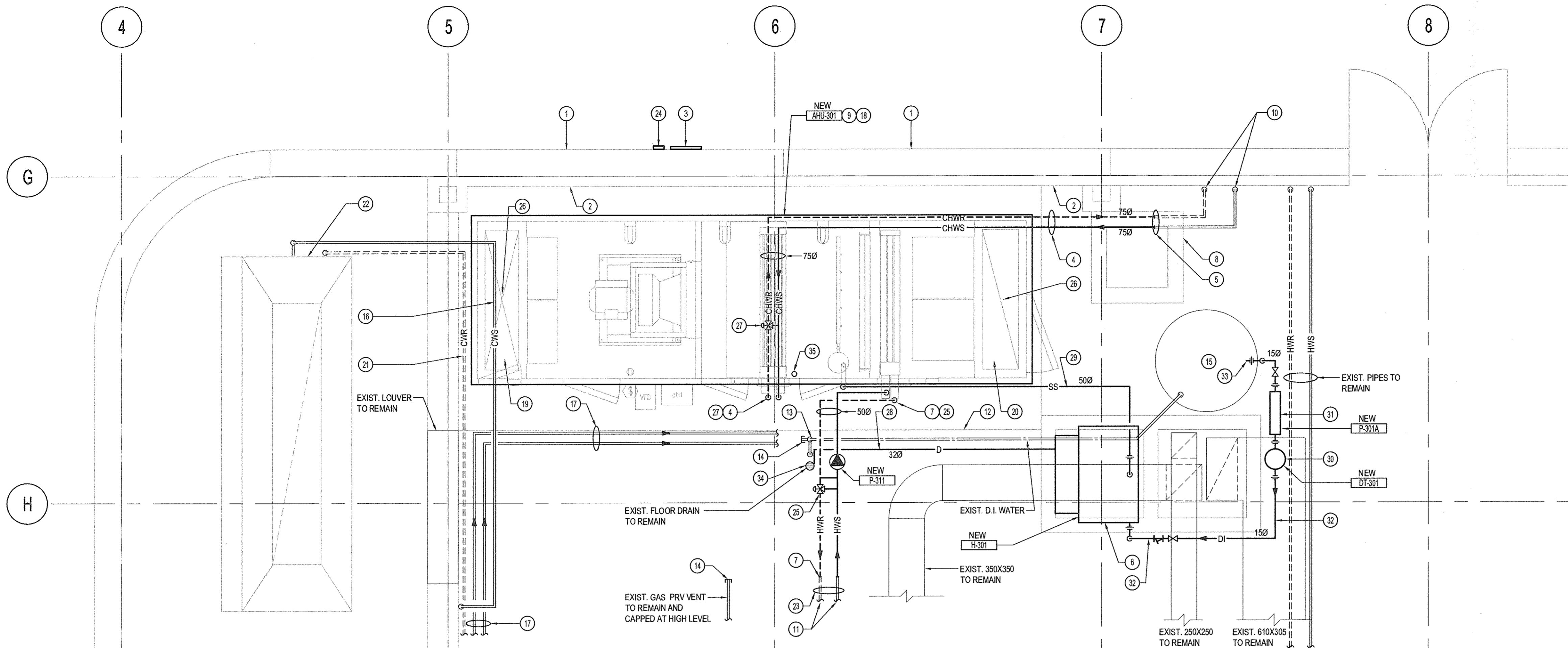
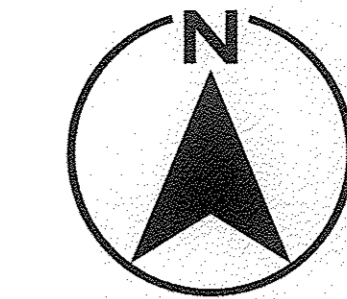


PHOTO #3: VIEWING GLYCOL PUMP
NTS



PENTHOUSE MECHANICAL ROOM - NEW PLAN
SCALE: 1/25



HVAC KEYNOTES:

- 1 EXTERIOR WALL PANELS TO BE REINSTALLED AS PER ORIGINAL INSTALLATION AFTER NEW AIR HANDLING UNIT IS IN PLACED. PROVIDE NEW POLYURETHANE CAULKING AT JOINTS TO MATCH EXISTING CAULKING. SEE DETAIL. 5
M2.1
- 2 PROVIDE NEW 90mm BATT FIBREGLASS INSULATION C/W NEW VAPOUR BARRIER. PROVIDE NEW PLYWOOD, SHEATHING, AND NEW DRYWALL TO MATCH EXISTING INSTALLATION AND PAINT COLOR. REINSTALL FRAMING MEMBERS AND CLIPS TO SUPPORT PANELS AND DRYWALL. SEE DETAIL. 5
M2.1
- 3 PROVIDE A S.S. COVER PLATE TO COVER WALL OPENINGS, APPROX. 300X300 SQUARE. CAULK ALL AROUND WITH PAINTABLE AND WATER PROOF SEALANT. PAINT TO MATCH EXIST. COLOR.
- 4 PROVIDE NEW 75Ø CHWS & CHWR. PIPES C/W INSULATION TO NEW UNIT.
- 5 REMOVE EXIST. TEMPORARY CAP AND RECONNECT TO NEW PIPE.
- 6 NEW HUMIDIFIER H-301 UNIT LOCATION. SEE DETAIL. 3
M2.1
- 7 PROVIDE NEW HWS & HWR PIPES C/W INSULATION AND CONNECT TO NEW UNIT HEATING COIL.
- 8 EXIST. HOUSEKEEPING PAD.
- 9 FOR AHU-301, SEE DETAIL. 4
M2.1
- 10 EXIST. 75Ø CHWS & CHWR VERTICAL PIPE TO REMAIN.
- 11 FROM EXIST. BOILER SYSTEM.
- 12 EDGE OF EXISTING HOUSEKEEPING PAD.
- 13 EXIST. WATER PIPE C/W PRIMER TRAP DOWN TO FLOOR DRAIN TO REMAIN.
- 14 PROVIDE PERMANENT CAP.
- 15 EXIST. D.I. TANK TO REMAIN.
- 16 EXIST. CONDENSER WATER SUPPLY AT HIGH LEVEL TO REMAIN.
- 17 EXIST. 2 - 25Ø DRAIN TO FLOOR DRAIN AT FLOOR LEVEL TO REMAIN.
- 18 NEW AHU-301 LOCATION.
- 19 EXIST. SUPPLY AIR DUCT FROM BELOW TO RECONNECT TO NEW UNIT. EXACT LOCATION TO BE DETERMINED ON SITE.
- 20 EXIST. FRESH AIR DUCT FROM BELOW TO RECONNECT TO NEW UNIT. EXACT LOCATION TO BE DETERMINED ON SITE.
- 21 EXIST. CONDENSER WATER RETURN TO REMAIN.
- 22 EXIST. COOLING TOWER CT-01 TO REMAIN.
- 23 EXIST. HWS/R TO REMAIN.
- 24 RECONNECT EXIST. PHOTOCELL.
- 25 FOR HEATING HOT WATER COIL PIPING, REFER TO DETAIL. 1
M2.1
- 26 PROVIDE SAFETY GRATING OVER FLOOR OPENING.
- 27 FOR CHILLED WATER COIL PIPING, REFER TO DETAIL. 2
M2.1
- 28 32mm DRAIN LINE FROM HUMIDIFIER, REFER TO DETAIL. 3
M2.1
- 29 50mm STAINLESS STEEL PIPING WITH 25mm INSULATION. RUN AT CEILING LEVEL TO STEAM GRID HUMIDIFIER IN AHU-301. SLOPE HORIZONTAL PIPING AT 1% BACK TO HUMIDIFIER.
- 30 DIAPHRAGM TANK DT-301 AT GROUND LEVEL.
- 31 CONSTANT PRESSURE PUMP P-301A AT GROUND LEVEL.
- 32 15mm STAINLESS STEEL WATER LINE AT CEILING LEVEL.
- 33 CONNECT 15mm D.I. WATER LINE TO EXISTING D.I. WATER SUPPLY LINE UNDER D.I. TANK.
- 34 PROVIDE DRAIN LINES FROM UNIT TO FLOOR DRAIN. THIS INCLUDES DRAIN LINES FROM HUMIDIFIER SECTION, COIL SECTIONS, FAN SECTION, ETC.
- 35 PROVIDE 10mm WATER LINE TO HUMIDIFIER DRAIN COOLER.



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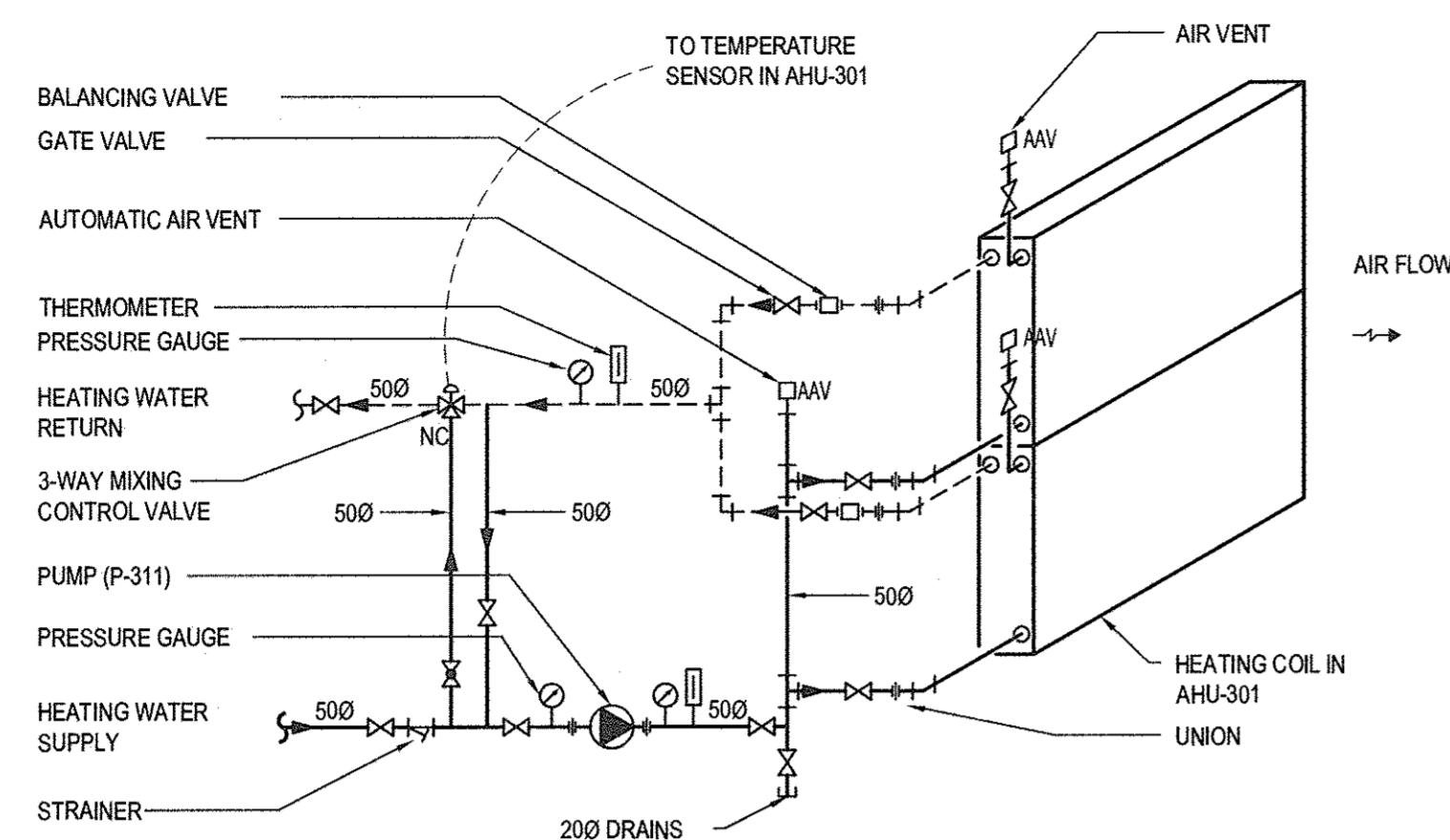
Stuart Caldwell
S. CALDWELL
29/7/16

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P1	ISSUED FOR CLIENT REVIEW	07/25/16

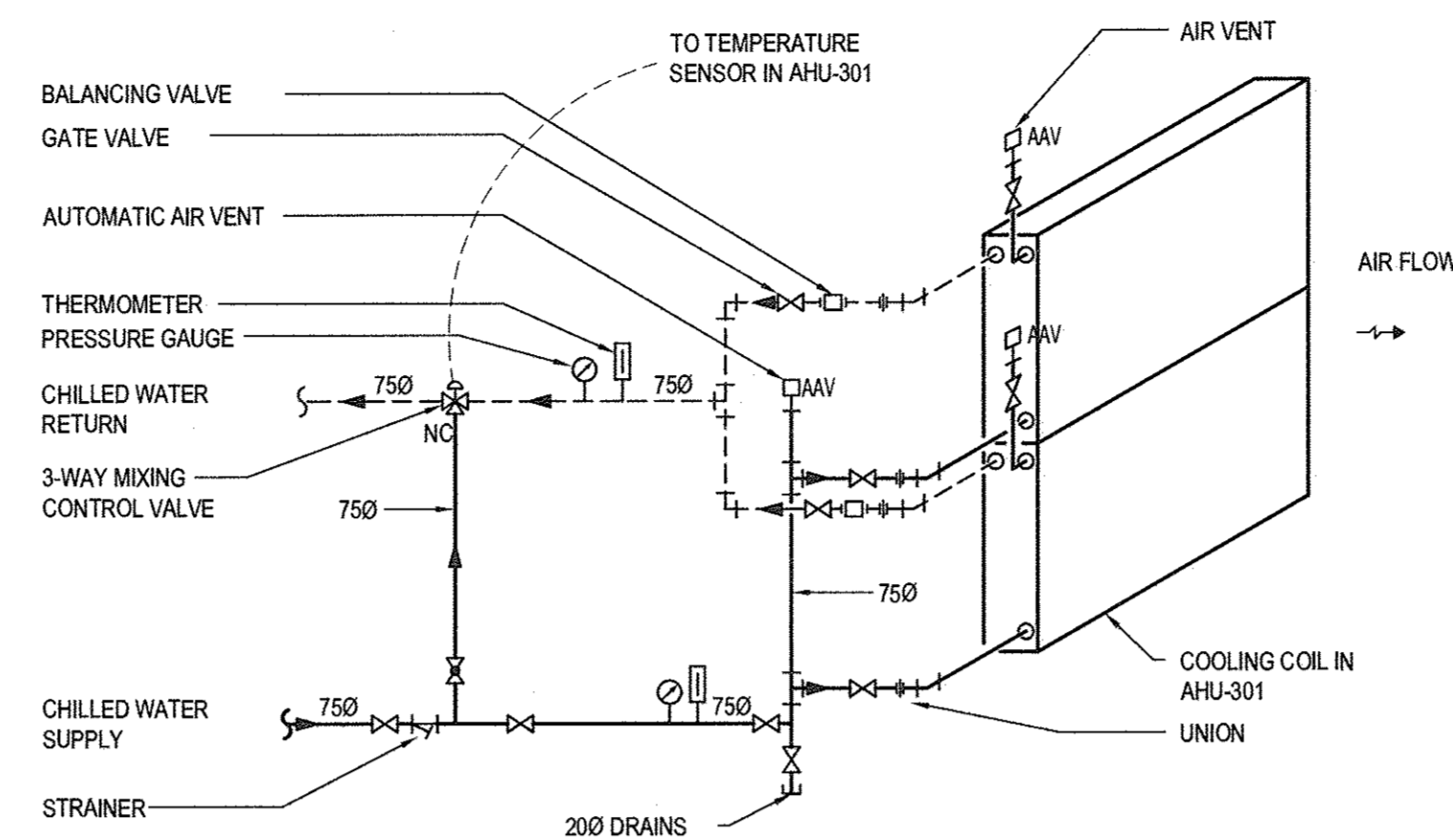
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project **CFIA** projet
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AHU-301 REPLACEMENT
3155 WILLINGDON GREEN, BURNABY, B.C.
drawing **PENTHOUSE MECHANICAL ROOM - NEW PLAN** dessin

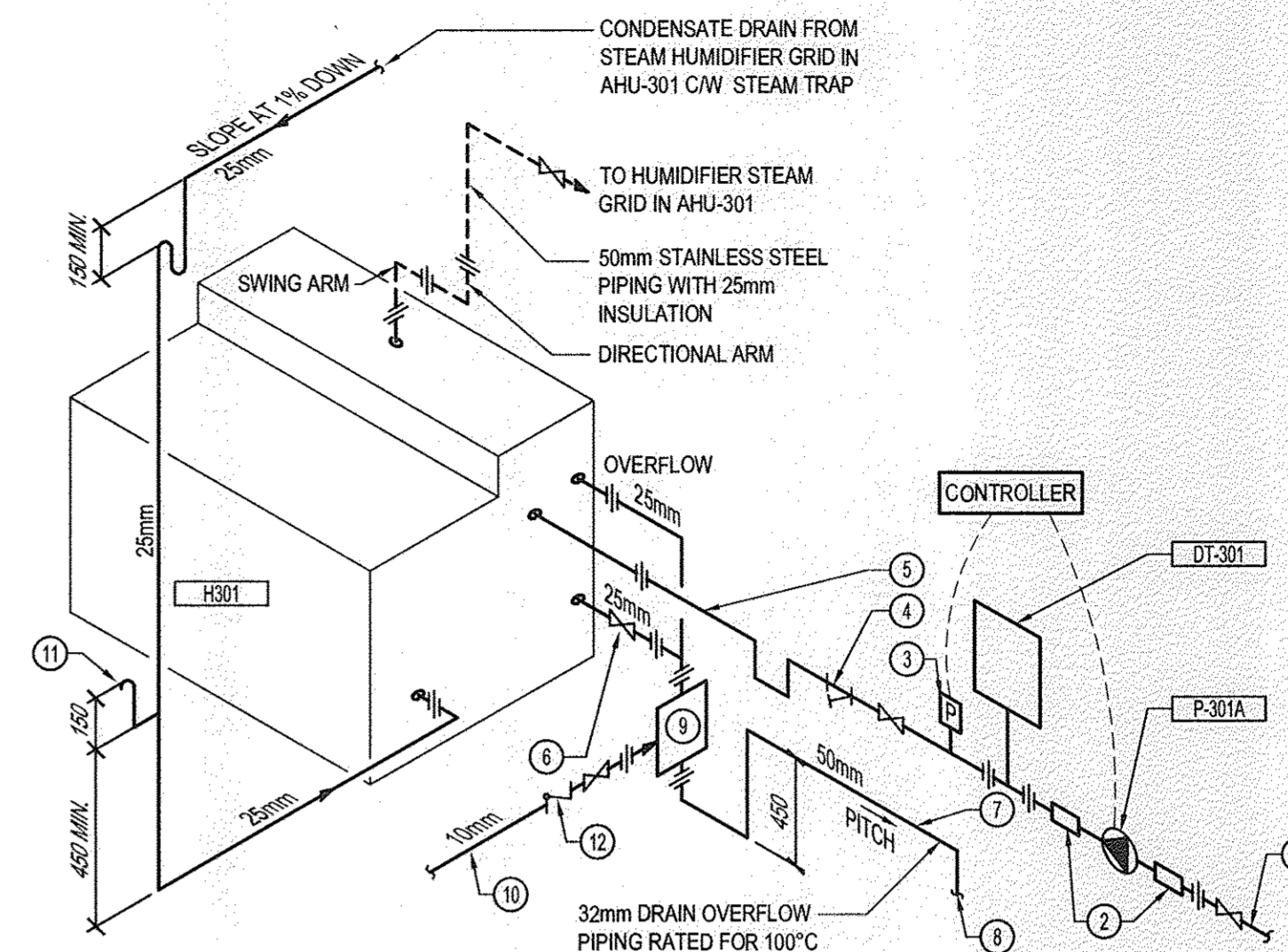
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PWC Project Manager	Administrateur de projets TPC	
project number	no. du projet	
	161-06914-00	
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	M1.2	



1 DETAIL HEATING HOT WATER COIL PIPING
 M1.2 N.T.S.

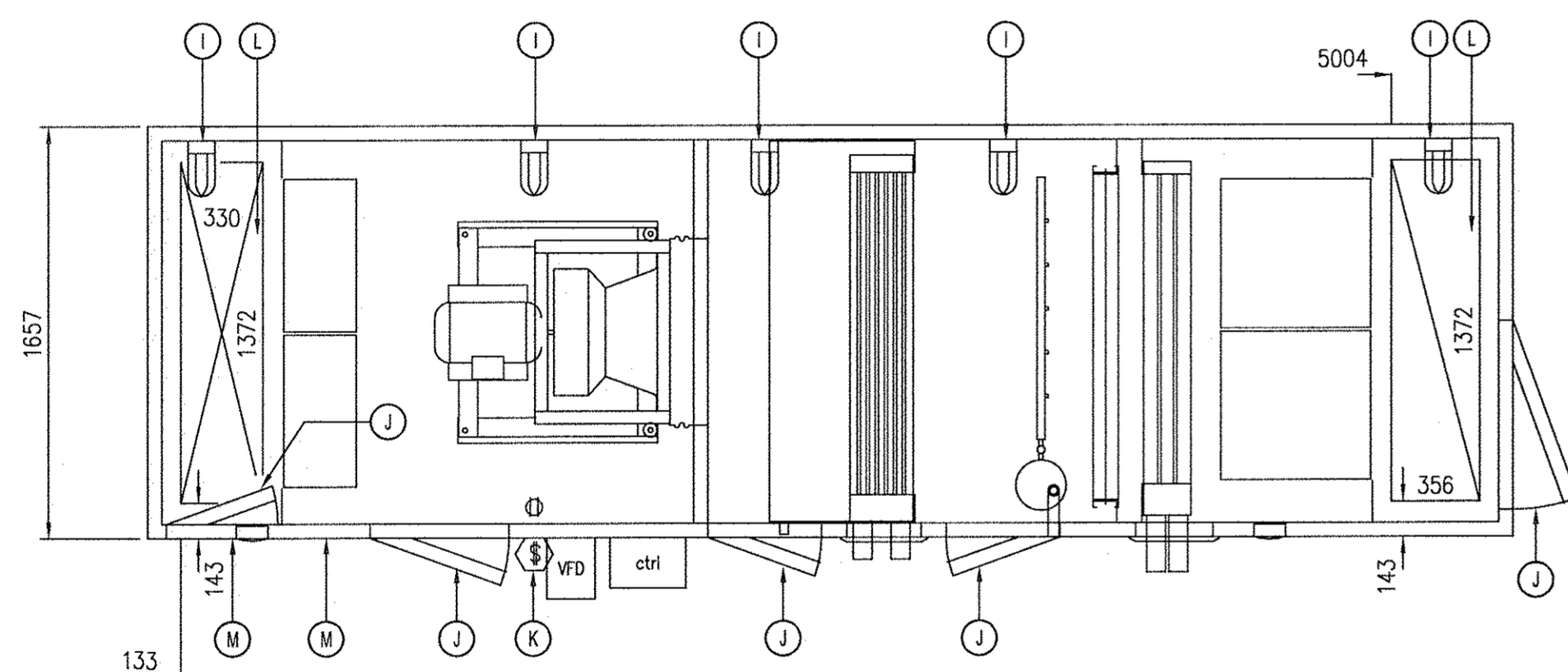


2 DETAIL COOLING COIL PIPING
 M1.2 N.T.S.

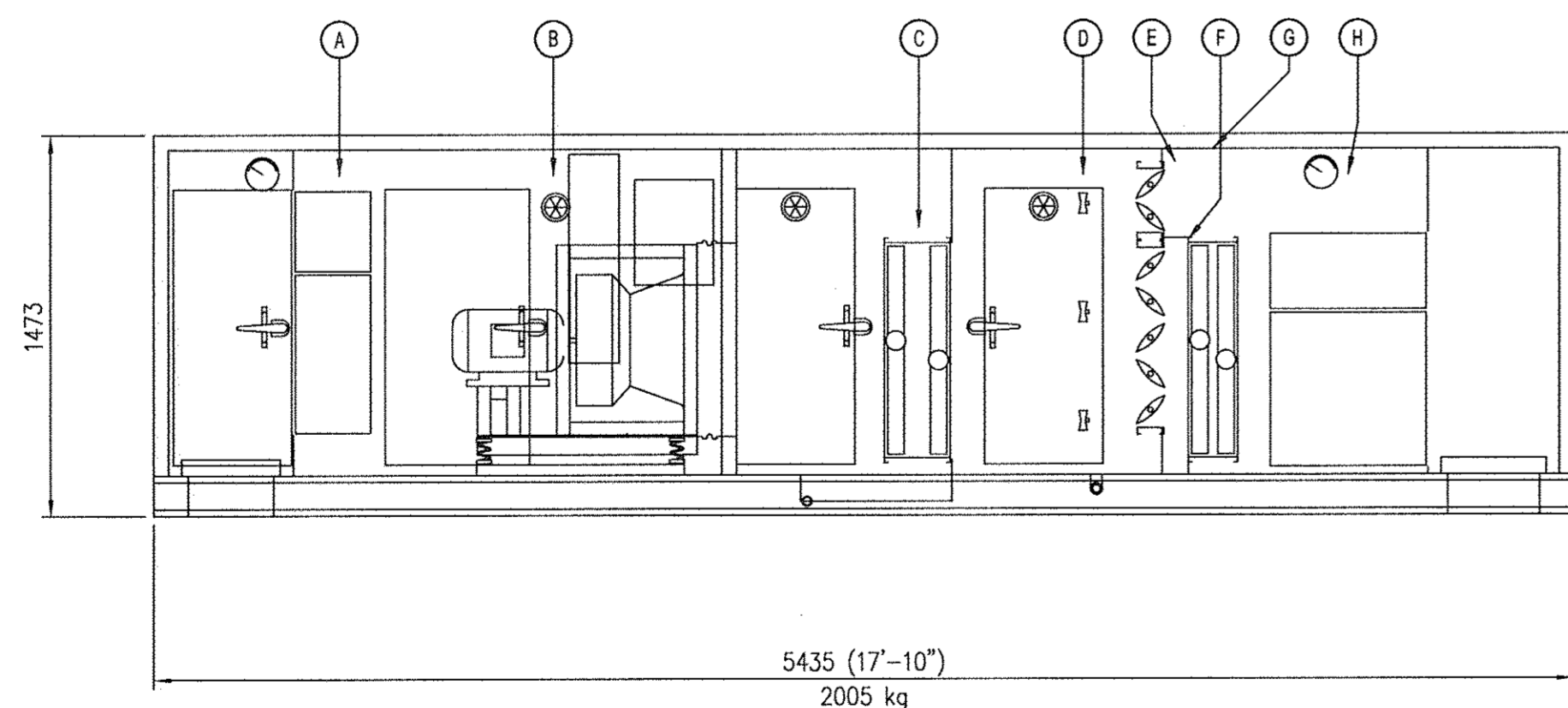


- ① 15mm STAINLESS STEEL LINE TO D.I. WATER RETURN LINE.
- ② FLEX CONNECTOR.
- ③ PRESSURE SENSOR.
- ④ STRAINER.
- ⑤ 15mm STAINLESS STEEL WATER SUPPLY LINE, WATER PRESSURE 25 TO 80 PSI (172 TO 552 kPa).
- ⑥ DRAIN VALVE.
- ⑦ FLOW LINE OF DRAIN PIPING AFTER WATER SEAL MUST BE BELOW DRAIN VALVE TO ENSURE HUMIDIFIER DRAINS CORRECTLY.
- ⑧ TO DRAIN WITH 25mm AIR GAP.
- ⑨ DRAIN COOLER.
- ⑩ 10mm COLD WATER LINE
- ⑪ AIR VENT
- ⑫ DOUBLE CHECK VALVE BACKFLOW PREVENTER ASSEMBLY

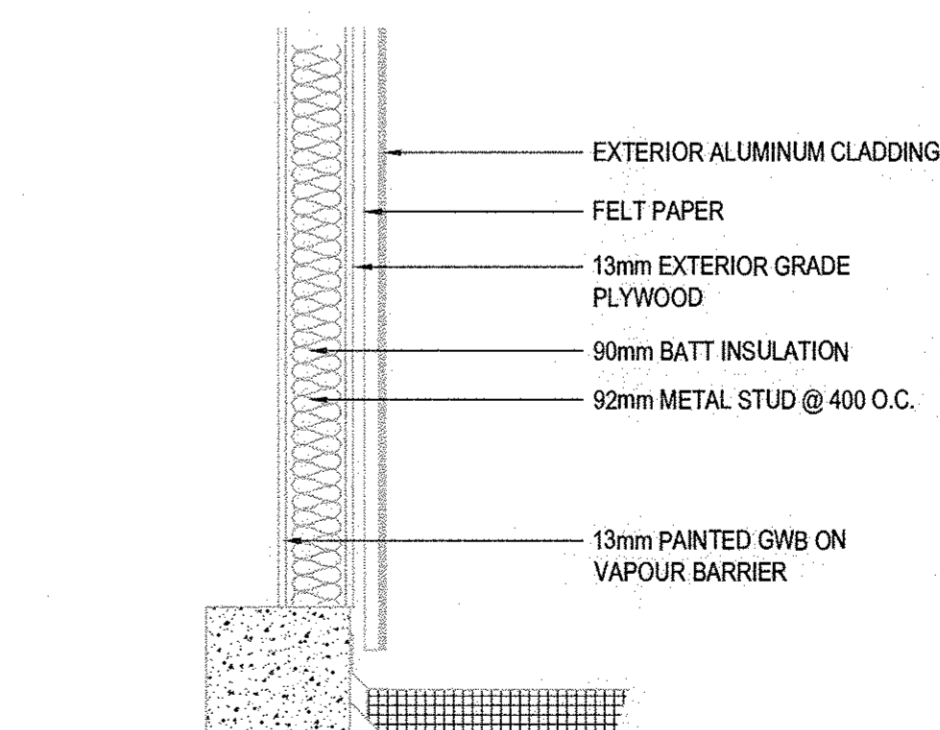
3 DETAIL HUMIDIFIER PIPING
 M1.2 N.T.S.



- A HEPA FILTERS
- B SUPPLY FAN
- C COOLING COIL
- D HUMIDIFIER
- E BYPASS DAMPER
- F FACE DAMPER
- G HEATING COIL
- H FILTERS
- I MARINE LIGHTS (TYP. OF 5)
- J ACCESS DOOR C/W SAFETY LATCH
- K LIGHT SWITCH
- L SAFETY GRATING OVER FLOOR OPENING
- M 25mm PROBE CONNECTION FOR HEPA FILTER TESTING



4 DETAIL AIR HANDLING UNIT AHU-301
 M1.2 N.T.S.



5 DETAIL PENTHOUSE WALL SECTION
 M1.2 N.T.S.

E. GALDWELL
 09/15/16

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 3155 WILLINGDON GREEN, BURNABY, B.C.
 drawing **MECHANICAL DETAILS** dessin

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approved	SC	approuvé
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AIR HANDLING UNIT																																							
TAG NO.	LOCATION	WEIGHT KG	SUPPLY AIR FAN										COOLING COIL										HEATING COIL																
			ls (CFM)	ESP (Pa)	TSP (Pa)	FAN MODEL	FAN TYPE	FAN ARR	FAN SIZE	FAN RPM	MOTOR KW	MOTOR ELECTRIC	TOTAL KW	SENSIBLE KW	FACE VEL. m/s	APO Pa	E.O.B. °C (°F)	E.W.B. °C (°F)	L.O.B. °C (°F)	L.W.B. °C (°F)	FLUID TYPE	E.W.T. °C (°F)	L.W.T. °C (°F)	FLOW ls (GPM)	WFO m	ROWS	QTY @ SIZE	TOTAL KW	FACE VEL. m/s	APO Pa	E.O.B. °C (°F)	L.W.B. °C (°F)	FLUID TYPE	E.W.T. °C (°F)	L.W.T. °C (°F)	FLOW ls (GPM)	WFO m	ROWS	QTY @ SIZE
AHU-301	PENTHOUSE MECH. RM.	1940	2880 (4000)	400	1305	EPQN SW	PLENUM	4	20 in.	2221	7.46	575/360	48.79	42.65	2.68	136	25 (77)	17.2 (83)	12.9 (55)	12 (53.6)	WATER	6.1 (43)	12.5 (54.5)	1.84 (29.2)	1.6	4	1 @ 838X1295	129	2.76	47	-9 (15.8)	28.2 (82.8)	WATER	82 (180)	59 (138.2)	1.36 (21.6)	4.8	2	1 @ 838X1245

AIR HANDLING UNIT																											
TAG NO.	LOCATION	HEPA FILTERS					FINAL FILTERS				BYPASS DAMPER				FACE DAMPER				HUMIDIFIER MANIFOLD			ELECTRICAL			ACCESSORIES		
		AIR FLOW ls (CFM)	FACE VEL. m/s	SIZE mm	EFFICIENCY	MODEL	MAX. PRESSURE OROP	TYPE	FACE VEL. m/s	SIZE mm	TYPE	SIZE mm	AIR FLOW ls	MODEL	TYPE	SIZE mm	AIR FLOW ls	MODEL	CAPACITY lbs/hr	DISPERSION TUBES	VOLTAGE	MCA AMPS	MOP AMPS				
AHU-301	PENTHOUSE MECH. RM.	2880 (4000)	2.61	2 @ 610X610X305 2 @ 610X305X305	99.97% @ 0.3 MICRON/EST TYPE A	FARR XH ABSOLUTE	1.35" W.G.	610 mm DYNAMIC V8	2.61	2 @ 610X610 2 @ 610X305	OPPOSED BLADE	1372X305	2880	TAMCO 1000	OPPOSED BLADE	1372X762	2880	TAMCO 1000	213.8	3	575/3/60	14	20	<ol style="list-style-type: none"> FAN INLET AND OUTLET SCREEN FAN BELT GUARD HIGH EFFICIENCY MOTORS FAN VSD DISCONNECT SWITCHES MAGNETIC STARTERS AIR MONITOR PROBES FOR HEPA FILTER SECTION MARINE LIGHTS AND LIGHT SWITCH FLOOR GRATING FOR S.A. AND F.A. FLOOR OPENINGS. INTEGRAL CONTROLS AND CONTROL PANEL SINGLE SOURCE POWER SUPPLY SEPARATE POWER SOURCE FOR MARINE LIGHTS. 			

PUMPS					
TAG NO.	SERVICE	FLOW ls (GPM)	HEAD FT	ELECTRICAL (V/Hz/PH)	ACCESSORIES
P-301A	D.I. WATER TO H-301	0.95 (15)	288	115/60/1 (9.2 AMP/PS)	1 TO 4
P-311	AHU-301 HEATING COIL	1.36 (21.6)	25	208/60/1 (4.6 AMP/PS)	5
ACCESSORIES:					
<ol style="list-style-type: none"> CONTROLLER & PRESSURE SENSOR CONTROLLER PRESSURE SENSOR DIAPHRAGM TANK DUAL HEAD 					

HUMIDIFIER						
TAG NO.	SERVICE	CAPACITY (lbs/hr)	ELECTRICAL			ACCESSORIES
			KW	AMPS	VOLTAGE	
H-301	AHU-301	213.8	75	72.2	600/3/60	1 TO 6
ACCESSORIES:						
<ol style="list-style-type: none"> RO / DI OPTION MOUNTING LEGS CONTROL CABINET FACTORY MOUNTED ON HUMIDIFIER CABINET INSULATION CABINET DOOR INTERLOCK SWITCH DRAIN COOLER 						
NOTES:						
HUMIDIFIER DIMENSIONS: LENGTH = 945mm WIDTH = 558mm HEIGHT = 480mm CONTROL PANEL DIMENSIONS: LENGTH = 914mm WIDTH = 762mm DEPTH = 229mm						

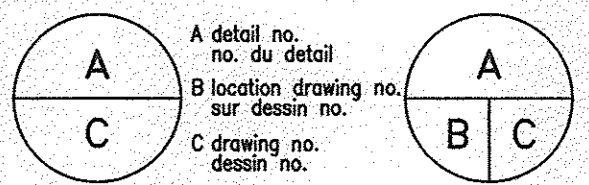
DIAPHRAGM TANK		
TAG NO.	SERVICE	CAPACITIES (GAL)
DT-301	P-301A	2



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 drawing **MECHANICAL SCHEDULES** dessin

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drawn	ML	dessiné
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PWC Project Manager	Administrateur de projets TPC	
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	161-06914-00	
drawing no.	no. du dessin	
	M3.1	



SEP 15 2016

INCOMING SECTION	EF-6	CPIC
EF-1	EF-7	UNKNOWN
EF-2	EF-8	SPARE
EF-3	EF-9	SPARE
EF-5A	EF-10	SPACE
EF-B	DRP	SPACE

1 MCC 1C EXISTING ELEVATION
N.T.S.

INCOMING SECTION	EF-6	CPIC
EF-1	EF-7	UNKNOWN
EF-2	EF-8	SPARE
EF-3	EF-9	SPARE
EF-5A	EF-10	P-301 (NEW)
EF-B	DRP	SPACE

2 MCC 1C NEW ELEVATION
N.T.S.

KEY NOTES:

- 1 PROVIDE SIZE 1 FVNR STARTER AND DOOR.
- 2 PROVIDE CIRCUIT BREAKER AND DOOR WITH RATING AS SHOWN ON MECHANICAL EQUIPMENT SCHEDULE.
- 3 PROVIDE DOOR.

DRAWING LIST	
NO.	NAME
E1.0	ELECTRICAL LEGENDS AND NOTES
E1.1	PENTHOUSE MECHANICAL ROOM - ELECTRICAL EXISTING AND DEMOLITION LAYOUT
E1.2	PENTHOUSE MECHANICAL ROOM - ELECTRICAL NEW LAYOUT

POWER RECEPTACLES, MOTORS, CONTROLS	
SYMBOL	DESCRIPTION
	MOTOR CONNECTION
	DISCONNECT SWITCH
	EQUIPMENT TAG
	PANEL DESIGNATION

GENERAL ABBREVIATIONS	
	DESCRIPTION
E	INDICATES EXISTING TO REMAIN
RE	INDICATES EXISTING IN RELOCATED POSITION
ER	INDICATES EXISTING TO BE REPLACED WITH NEW
R	INDICATES EXISTING DEVICE TO BE REMOVED
RR	INDICATES EXISTING DEVICE TO BE RELOCATED

MAIN BREAKER 200A	P-302
	P-310 (TO BE REMOVED)
	H-311 (TO BE REMOVED)
AH-301 (TO BE REMOVED)	P-303 (WILL BE REMOVED BY OTHERS)
CT-301	P-304 (WILL BE REMOVED BY OTHERS)
CT-301 3KW HEATER	P-305 (WILL BE REMOVED BY OTHERS)
CT-302	UNKNOWN
CT-302 3KW HEATER	P-308
P-301	A/C CIRCULATION PUMP

3 MCC 3A EXISTING ELEVATION
N.T.S.

MAIN BREAKER 200A	P-302
	H-301 (NEW)
AH-301 (NEW)	
CT-301	SPACE
CT-301 3KW HEATER	
CT-302	UNKNOWN
CT-302 3KW HEATER	P-308
P-301	A/C CIRCULATION PUMP

4 MCC 3A NEW ELEVATION
N.T.S.

MECHANICAL EQUIPMENT SCHEDULE												
EQUIPMENT	DESCRIPTION	LOCATION	VOLT	PH	LOAD	WIRE AND CONDUIT	BREAKER SIZE	PANEL	STARTER	DISC. SW.	CONTROL	COMMENTS
AHU-301	AIR HANDLING UNIT	PENTHOUSE MECHANICAL ROOM	600 V	3	14 MCA	21mmC-3#12 AWG +G	20 A	MCC 3A	-	E	M	
AHU-301 (LTG)	AIR HANDLING UNIT LIGHTING	PENTHOUSE MECHANICAL ROOM	120 V	1	1A	21mmC-2#12 AWG +G	15 A	CPIC	-	-	M	
H-301	HUMIDIFIER	PENTHOUSE MECHANICAL ROOM	600 V	3	75 KW	41mmC-3#4 AWG +G	90 A	MCC 3A	-	E	M	
P-301A	PUMP	PENTHOUSE MECHANICAL ROOM	120 V	1	9.2 A	21mmC-2#12 AWG +G	15 A	CPIC	-	E	M	
P-301	PUMP	PENTHOUSE MECHANICAL ROOM	208 V	1	4.8 A	21mmC-2#12 AWG +G	15 A	MCC 1C	E	E	M	

PANEL: CPIC
LOCATION: PENTHOUSE MECH RM. VOLTS: 120/208V Wye A.I.C. RATING: 18KA
SUPPLY FROM: MCC 1C PHASES: 3 MAINS TYPE: 60A, 30, 4W, Copper
MOUNTING: SURFACE WIRES: 4 MAIN CIRCUIT BREAKER: 60A
ENCLOSURE: Type 1

NOTES: 1. CIRCUIT NUMBER ARE SHOWN AS REFERENCE ONLY. IF A SPECIFIED CIRCUIT IS BEING USED BY EXISTING DEVICES, FEED THE CIRCUIT FROM NEXT AVAILABLE CIRCUIT AS REQUIRED. CHANGES TO BE RECORDED ON PANELBOARD SCHEDULES.
2. NEW CIRCUIT BREAKERS A.I.C. RATING TO MATCH EXISTING PANEL A.I.C. RATING.

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	
1	EXISTING	15 A	1	- VA	- VA		1	15 A	CONDUCTIVITY CONTROL	2	
3	P-301A (NEW)	15 A	1		1104 VA	- VA	1	15 A	COOLING TOWER CONTROL	4	
5	AHU-301 LTG (NEW)	15 A	1	- VA	- VA	120 VA	- VA	1	15 A	BOILER CONTROL	6
7										8	
9	BOILER #1	20 A	3	- VA	- VA	- VA	- VA	3	20 A	BOILER #2	10
11										12	
13	SPACE	-A	1	- VA	- VA					14	
15	EXISTING	50 A	2		- VA	- VA		3	20 A	BOILER #3	16
17										18	
Partial Load:				- VA	- VA	- VA					

A	ISSUED FOR TENDER	09/15/16
-	ISSUED FOR CLIENT REVIEW	08/18/16

revisions	date
A	A detail no. no. du detail
B	B location drawing no. sur dessin no.
C	C drawing no. dessin no.

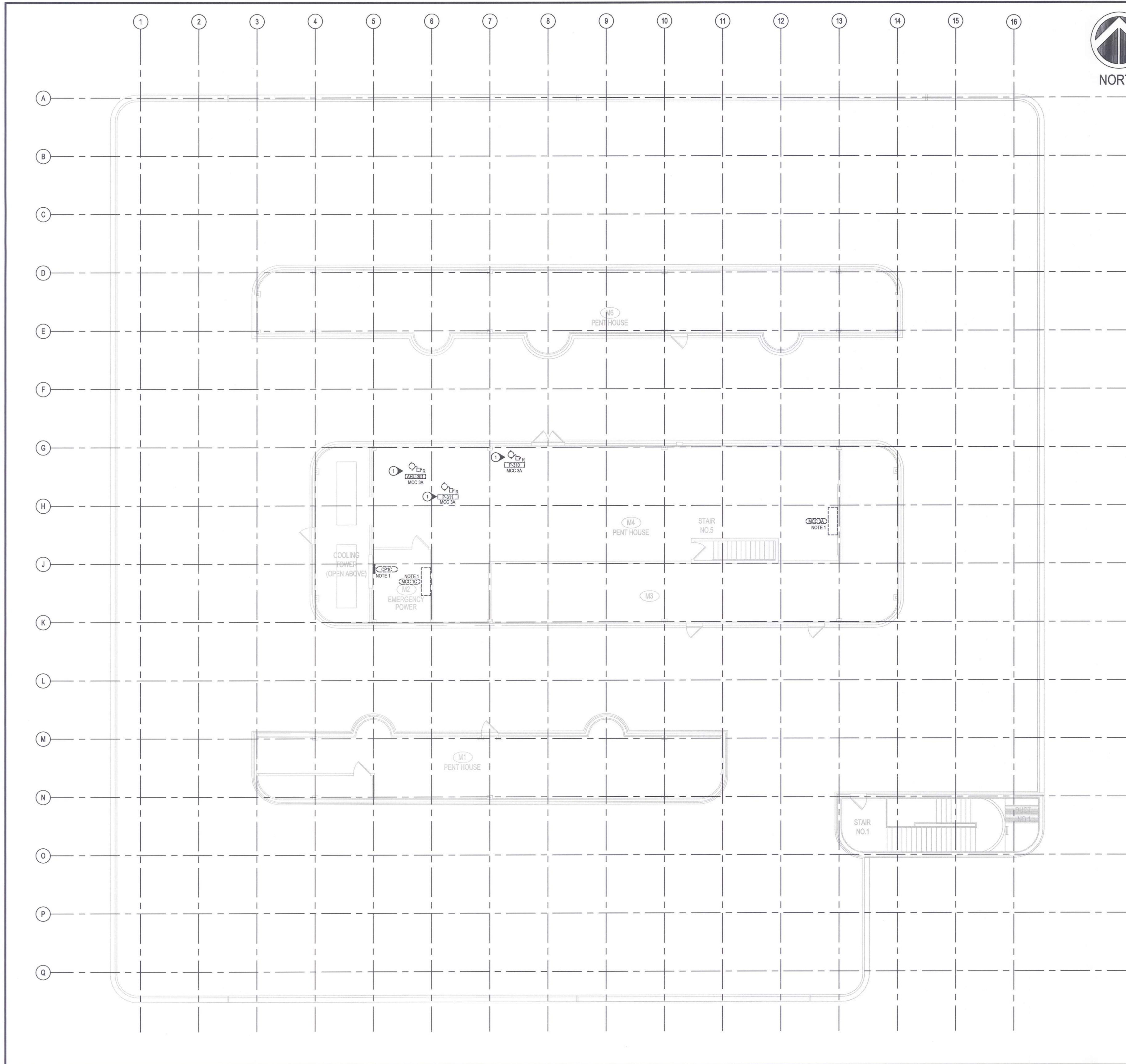
project project

CFIA
BURNABY LAB
AHU-301 REPLACEMENT
3155 WILLINGDON GREEN, BURNABY, B.C.

drawing dessin

ELECTRICAL LEGENDS AND NOTES

designed	GY	concu
date	-	
drawn	GY	dessine
date	-	
reviewed	-	examine
date	-	
approved	-	approuve
date	-	
Tender	-	Soumission
PWC Project Manager	Administrateur de projets TPC	
project number	no. du projet	
	161-06914-00	
drawing no.	no. du dessin	
	E1.0	



GENERAL NOTES:

1. REFER TO DRAWING E1.0 FOR MCC ELEVATIONS AND PANEL SCHEDULE.
2. REFER TO DRAWING E1.0 FOR ABBREVIATIONS.

KEY NOTES:

1. REMOVE EXISTING EQUIPMENT ALONG WITH ASSOCIATED RACEWAYS AND WIRING BACK TO SOURCE.

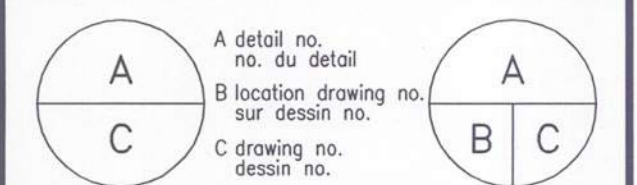


200-1985, BROADWAY W
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project **CFIA** projet

**BURNABY LAB
AHU-301 REPLACEMENT**

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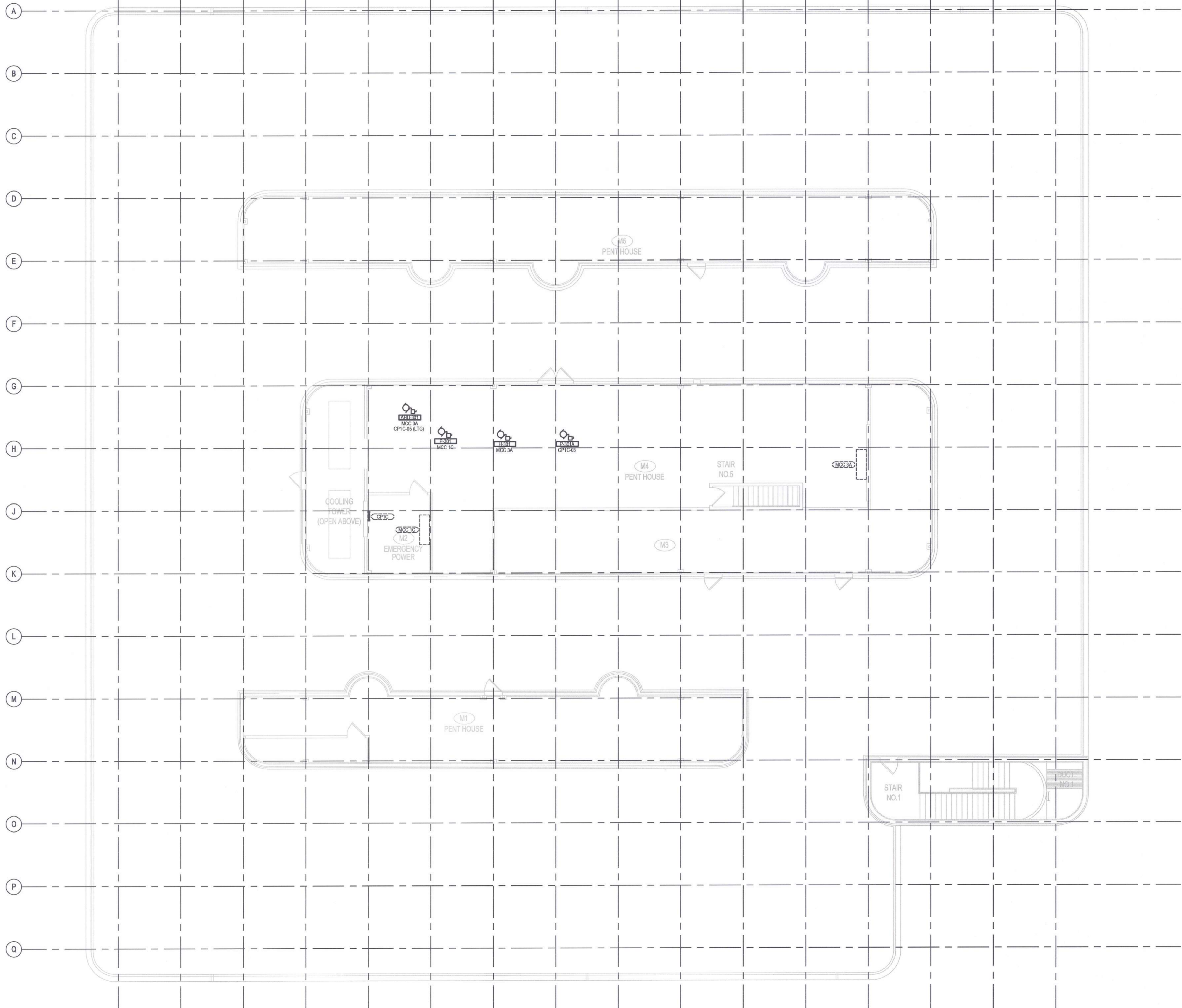
**PENTHOUSE MECHANICAL
ROOM - ELECTRICAL
EXISTING AND
DEMOLITION LAYOUT**

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date	-	
reviewed	-	examiné
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approved	-	approuvé
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Tender	-	Soumission
PWC Project Manager	Administrateur de projets TPC	
project number	no. du projet	
	161-06914-00	
drawing no.	no. du dessin	
	E1.1	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16



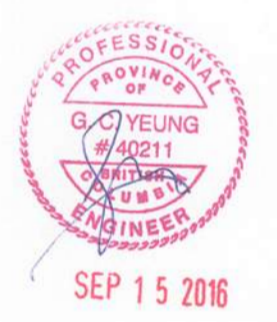
NORTH



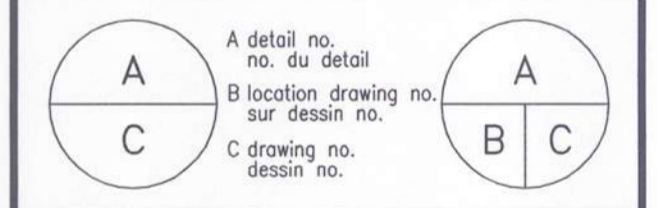
- GENERAL NOTES:
- REFER TO DRAWING E1.0 FOR MCC ELEVATIONS.
 - REFER TO DRAWING E1.0 FOR PANEL SCHEDULE.
 - REFER TO DRAWING E1.0 FOR RACEWAYS AND CONDUCTORS SIZE FOR MECHANICAL EQUIPMENT.



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drawing **PENTHOUSE MECHANICAL ROOM - ELECTRICAL NEW LAYOUT** dessin

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drawn	GY	dessiné
date	-	
reviewed	-	examiné
date	-	
approved	-	approuvé
date	-	
Tender	-	Soumission
PWC Project Manager	Administrateur de projets TPC	
project number	no. du projet	
	161-06914-00	
drawing no.	no. du dessin	
	E1.2	