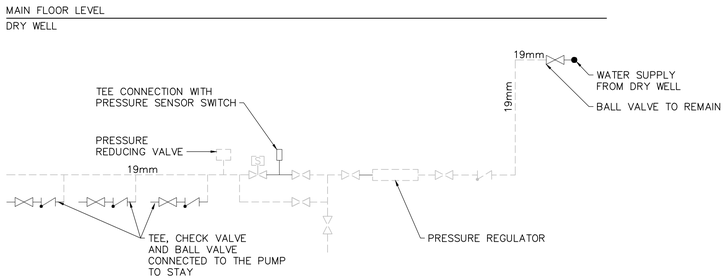
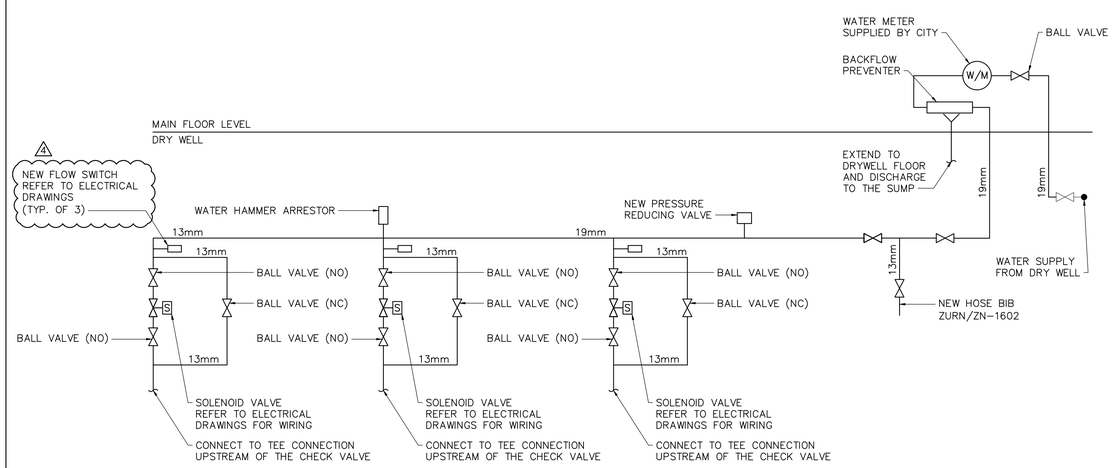


SEAL WATER DEMOLITION SCHEMATIC DIAGRAM

SCALE: N.T.S.

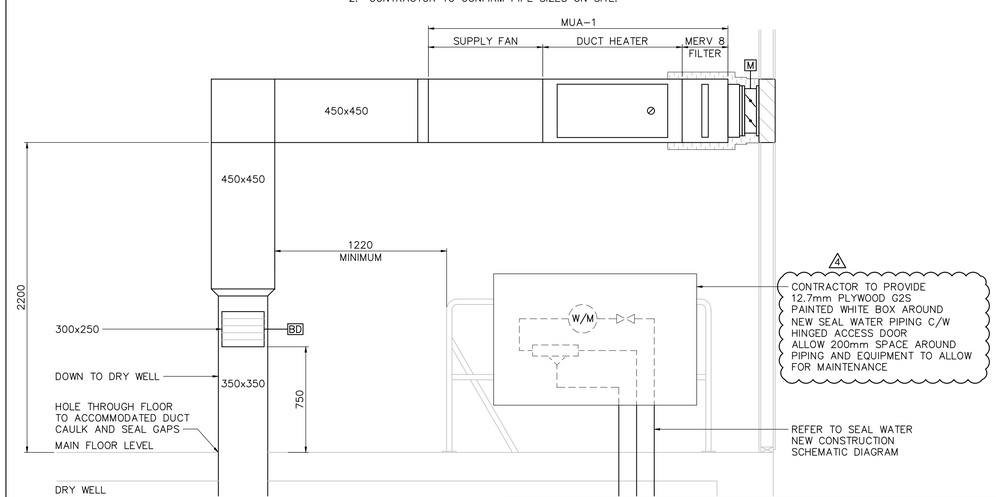
NOTES:
1. ALL PIPING, FITTINGS AND VALVES TO BE DEMOLISHED EXCEPT AS INDICATED.
2. CONTRACTOR TO CONFIRM PIPE SIZES ON SITE.



SEAL WATER NEW CONSTRUCTION SCHEMATIC DIAGRAM

SCALE: N.T.S.

NOTES:
1. ALL VALVES AND PIPING TO BE SUPPORTED OFF WALL EXCEPT AS INDICATED.
2. CONTRACTOR TO CONFIRM PIPE SIZES ON SITE.



1 SECTION
M0001|M0002 SCALE: 1:20

MAKE UP AIR UNIT EQUIPMENT LIST

ITEM No.	DESCRIPTION	AREA SERVED	MANUFACTURER	MODEL	AIR FLOW L/S (CFM)	ESP Pa (in.wc)	DUCT HEATER				MOTOR			FILTER	NOTES
							CAPACITY KW (BTUH)	ELECTRICAL	ENTERING DRY BULB (F)	LEAVING AIR (F)	POWER KW (HP)	RPM	ELECTRICAL		
MUA-1	MAKE UP AIR UNIT	MAIN FLOOR AND DRY WELL	GREENHECK	MSCF-30-BI-5	708 (1500)	125 (0.5)	37 (126,361)	600V/3 Ph/60 Hz	-30	47	0.3 (0.4)	1462	208V/3 Ph/60 Hz	MERV 8	1,2,3,4

NOTES:
1. PROVIDE INLET PLENUM WITH SCR CONTROLLER, ADJUSTABLE AIRFLOW SWITCH, MAGNETIC CONTACTOR, CONTROL FUSE, DISCONNECT SWITCH, VIBRATION ISOLATOR.
2. HEATING COIL CONNECTION ON LEFT SIDE VIEWING INLET.
3. PROVIDE WITH MOTORIZED INLET DAMPER MD-1, DRIVE LEFT SIDE.
4. PROVIDE WITH DIRTY FILTER SWITCH.
5. TWO SPEED CONTROL TO PROVIDE 100% CFM (HIGH SPEED AND 50% CFM (LOW SPEED).

FAN EQUIPMENT LIST

ITEM No.	DESCRIPTION	MANUFACTURER	MODEL	FLOW RATE L/S (CFM)	ESP Pa (in. w.g.)	ELECTRICAL	FAN RPM	MOTOR Kw (HP)	FILTER	NOTES
SF-1	TUBE AXIAL INLINE FAN	GREENHECK	TBI-CA-3H30-15	3465 (7342)	155 (0.625)	208V/1 Ph/60 Hz	1159	1.11 (1.5)	MERV 8 DAFCO AEROSTAR SERIES 400 SC	1,2,3
EF-1	EXPLOSION PROOF WALL EXHAUST FAN	CANARM HVAC	SD10-XPF	250 (530)	25 (0.1)	115V/1 Ph/60 Hz	1625	0.246 (0.33)		4
EF-2	SIDE WALL DIRECT DRIVE EXHAUST FAN	GREENHECK	SE1-8-440-VG	47 (100)	50 (0.2)	115V/1 Ph/60 Hz	1292	0.044 (1/15)		1,5,7
EF-3	CENTRIFUGAL DIRECT DRIVE EXHAUST FAN	GREENHECK	USFD-108-BI	277.5 (588)	74 (0.3)	115V/1 Ph/60 Hz	1242	0.186 (0.25)		1,6,7

NOTES:
1. VFD-RATED MOTOR.
2. PROVIDE WITH BELT GUARDS, MOTOR COVER, INSPECTION DOOR, INLET AND OUTLET GUARDS, CLOSE-ON-RISE-COOLING THERMOSTAT, VIBRATION ISOLOATORS AND MOUNTING BRACKETS TO HANG FAN TIGHT TO CEILING.
3. 4x450x750x100 THK. MERV 8 FILTERS. CONSTRUCT FILTER RACK TO ALLOW FILTERS TO BE INSTALLED FROM BOTTOM OF DUCT.
4. COMPLETE WITH ALUMINUM LOUVER SHUTTER.
5. COMPLETE WITH WALL HOUSING, INLET SCREEN.
6. COMPLETE WITH VARI-GREEN MOTOR AND VIBRATION ISOLATORS.
7. TWO SPEED CONTROL TO PROVIDE 100% CFM (HIGH SPEED AND 50% CFM (LOW SPEED).

LOUVER EQUIPMENT LIST

ITEM No.	DESCRIPTION	MANUFACTURER	MODEL	SIZE (mm) W	SIZE (mm) H	AIRFLOW L/S (CFM)	MOTORIZED DAMPER TAG	ACCESSORIES	NOTES
LV-1	SUPPLY WALL MOUNTED ALUMINUM DRAINABLE LOUVER	EH PRICE	DE635	900	450	708 (1500)	MD-1	FORMED METAL SECURITY LOUVER, 16 GA. C/W BIRD SCREEN	1
LV-2	SUPPLY WALL MOUNTED ALUMINUM DRAINABLE LOUVER	EH PRICE	DE635	900	1500	3465 (7342)	MD-2	FORMED METAL SECURITY LOUVER, 16 GA. C/W BIRD SCREEN	1
LV-3	EXHAUST WALL MOUNTED ALUMINUM DRAINABLE LOUVER	EH PRICE	DE635	300	300	47 (100)	MD-3	FORMED METAL SECURITY LOUVER, 16 GA. C/W BIRD SCREEN	1
LV-4	EXHAUST WALL MOUNTED ALUMINUM DRAINABLE LOUVER	EH PRICE	DE635	1200	750	1732.5 (3671)	MD-4	FORMED METAL SECURITY LOUVER, 16 GA. C/W BIRD SCREEN	1
LV-5	EXHAUST WALL MOUNTED ALUMINUM DRAINABLE LOUVER	EH PRICE	DE635	1200	750	1732.5 (3671)	MD-5	FORMED METAL SECURITY LOUVER, 16 GA. C/W BIRD SCREEN	1
LV-6	EXHAUST WALL MOUNTED ALUMINUM DRAINABLE LOUVER	EH PRICE	DE635	900	300	277 (588)	–	FORMED METAL SECURITY LOUVER, 16 GA. C/W BIRD SCREEN	1
LV-7	EXHAUST WALL MOUNTED ALUMINUM DRAINABLE LOUVER	EH PRICE	DE635	300	300	150	–	FORMED METAL SECURITY LOUVER, 16 GA. C/W BIRD SCREEN	2
LV-8	EXHAUST WALL MOUNTED ALUMINUM DRAINABLE LOUVER	EH PRICE	DE635	300	300	150	–	FORMED METAL SECURITY LOUVER, 16 GA. C/W BIRD SCREEN	1

NOTES:
1. MOUNT LOUVERS IN WALL AT HIGH LEVEL.
2. MOUNT LOUVER IN WALL AT 1000 MM ABOVE FLOOR LEVEL.

MOTORIZED DAMPER EQUIPMENT LIST

ITEM No.	DESCRIPTION	MANUFACTURER	MODEL	SIZE	ELECTRICAL	ACCESSORIES
MD-1	MOTORIZED INSULATED DAMPER (SPRING CLOSED 2 POSITION, FAIL CLOSE) W/ BELIMO ACTUATOR	TAMCO	9000BF	TO MATCH LOUVER	120V/1 Ph/60 Hz	THERMALLY BROKEN BLADES, SEVERE COLD OPTION
MD-2	MOTORIZED INSULATED DAMPER (SPRING CLOSED 2 POSITION, FAIL CLOSE) W/ BELIMO ACTUATOR	TAMCO	9000BF	TO MATCH LOUVER	120V/1 Ph/60 Hz	THERMALLY BROKEN BLADES, SEVERE COLD OPTION
MD-3	MOTORIZED INSULATED DAMPER (SPRING CLOSED 2 POSITION, FAIL CLOSE) W/ BELIMO ACTUATOR	TAMCO	9000BF	TO MATCH LOUVER	120V/1 Ph/60 Hz	THERMALLY BROKEN BLADES, SEVERE COLD OPTION
MD-4	MOTORIZED INSULATED DAMPER (SPRING CLOSED 2 POSITION, FAIL CLOSE) W/ BELIMO ACTUATOR	TAMCO	9000BF	TO MATCH LOUVER	120V/1 Ph/60 Hz	THERMALLY BROKEN BLADES, SEVERE COLD OPTION
MD-5	MOTORIZED INSULATED DAMPER (SPRING CLOSED 2 POSITION, FAIL CLOSE) W/ BELIMO ACTUATOR	TAMCO	9000BF	TO MATCH LOUVER	120V/1 Ph/60 Hz	THERMALLY BROKEN BLADES, SEVERE COLD OPTION

UNIT HEATER EQUIPMENT LIST

ITEM No.	DESCRIPTION	AREA SERVED	MANUFACTURER	MODEL	CAPACITY KW (BTUH)	TEMP SET POINT C(F)	ELECTRICAL	NOTES
UH-1	ELECTRIC UNIT HEATER	MAIN FLOOR	OUELLET	OWD05038	5 (17060)	10 (50)	600V/3 Ph/60 Hz	1,2
UH-2	ELECTRIC UNIT HEATER	DRY WELL	OUELLET	OWD05038	5 (17060)	10 (50)	600V/3 Ph/60 Hz	1,2

NOTES:
1. C/W WALL MOUNTED THERMOSTAT AND MOUNTING BRACKETS.
2. CORROSION RESISTANT/WASHDOWN TYPE.

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Neegan Burnside Ltd.
No. 3051

WARNING

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.

2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.

SEE PROVINCIAL REGULATION 210/72 FOR DETAILS

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE — DATE

NOTE:

LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

B.M.
ELEV.

CONSTRUCTION COMPLETION DATE: YYYY MM DD

NO.	REVISIONS	DATE	BY
4	ISSUED FOR ADDENDUM # 2	2019 06 21	CT
3	ISSUED FOR TENDER	2019 05 31	CT
2	ISSUED FOR 99% REVIEW	2019 05 09	CT
1	ISSUED FOR 66% REVIEW	2019 04 17	CT

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fax (204) 949-7111
web www.neeganburnside.com

DESIGNED BY	AA	CHECKED BY	AA
DRAWN BY	CT	APPROVED BY	
SCALE: HORIZONTAL / VERTICAL	AS NOTED	RELEASED FOR CONSTRUCTION	
DATE	2019 06 24	DATE	

PLOT DATE: 2019 06 24

ENGINEER'S SEAL

CONSULTANT DRAWING NUMBER
M-02

TENDER No. : 269-2019
CONTRACT NUMBER: X

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

MISSION FPS UPGRADES

MECHANICAL
DETAILS, SECTION AND SCHEDULES

SHEET OF

CITY DRAWING NUMBER
1-0163F-M0002-001

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