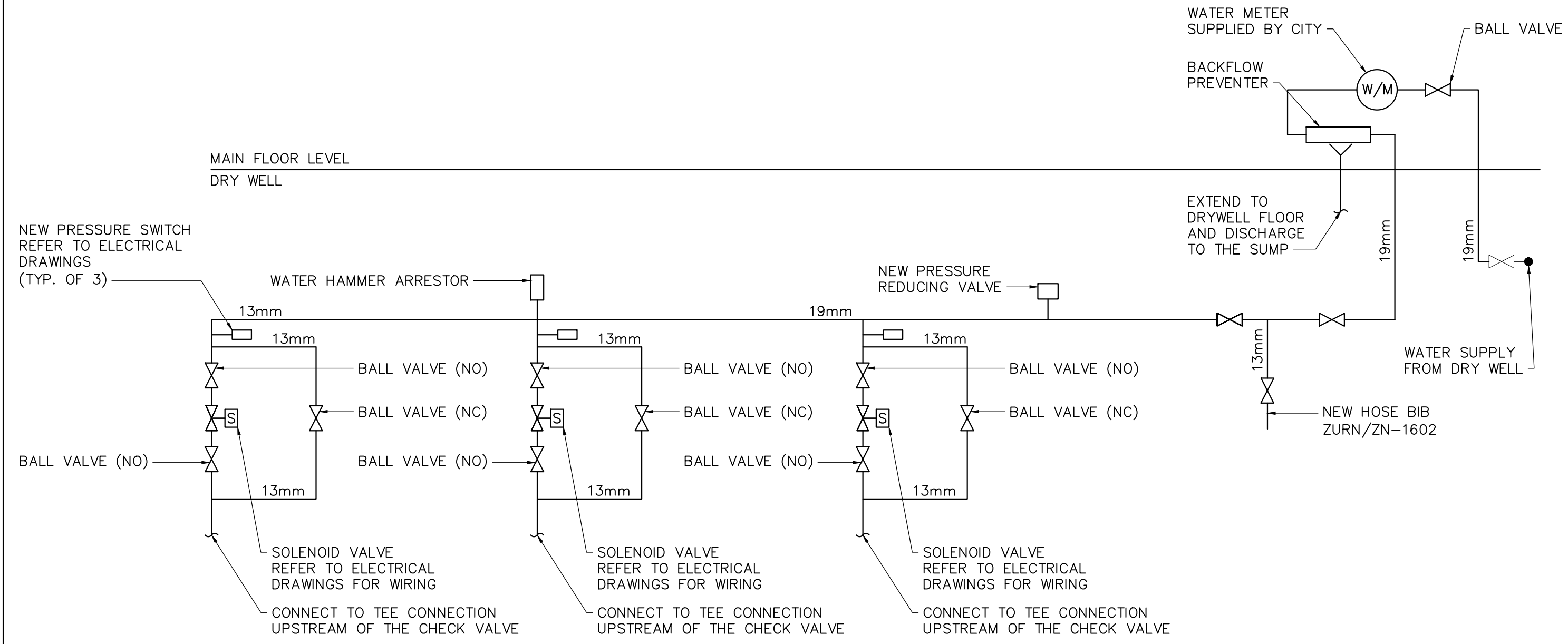


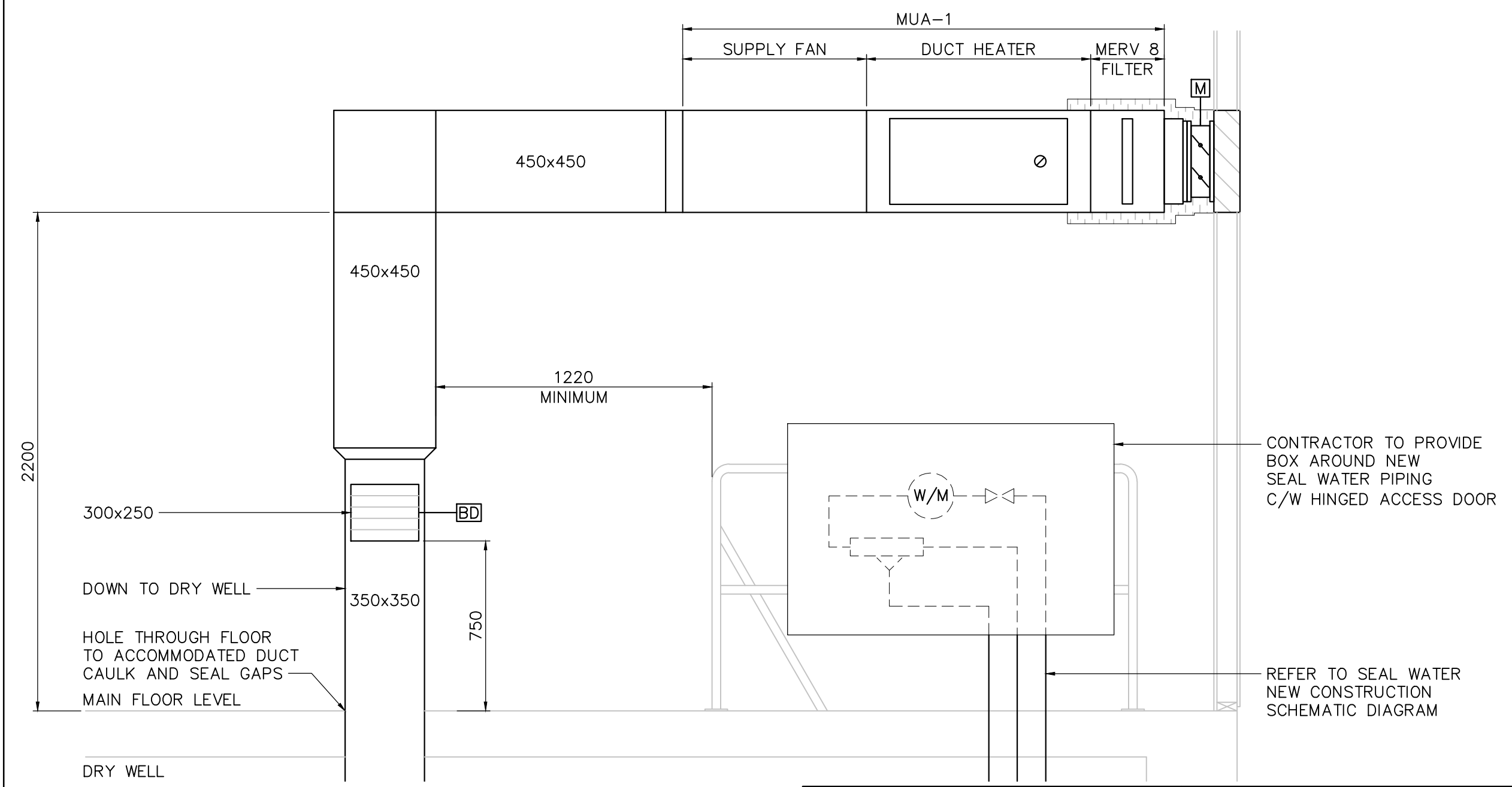
SEAL WATER DEMOLITION SCHEMATIC DIAGRAM  
SCALE: N.T.S.

- 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.



SECTION 1  
M0001/M0002 SCALE: 1:20

METRIC  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



**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	
DESIGNED BY	AA
CHECKED BY	AA
DRAWN BY	CT
APPROVED BY	
SCALE: AS NOTED	
RELEASED FOR CONSTRUCTION	
DATE	2019 05 30
PLOT DATE:	2019 05 30

**NEEGAN BURNSIDE**  
Neegan Burnside Limited  
307 Commerce Drive  
Winnipeg, Manitoba, R3P 1B3  
Telephone (204) 949-7110  
Fax (204) 949-7111  
Web www.neeganburnside.com

ENGINEER'S SEAL  
CONSULTANT DRAWING NUMBER  
**M-02**

**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**

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).

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-XP	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 ISOLATORS 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).

ITEM No.	DESCRIPTION	MANUFACTURER	MODEL	SIZE (mm)		AIRFLOW L/S (CFM)	MOTORIZED DAMPER TAG	ACCESSORIES	NOTES
				W	H				
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.

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

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.