

**GENERAL NOTES**

1. DO NOT SCALE DRAWINGS. FIGURED DIMENSIONS ONLY TO BE USED.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.
3. ALL WORK DESCRIBED UNDER THIS CONTRACT TO COMPLY WITH THE MOST CURRENT EDITION OF THE ONTARIO BUILDING CODE, AND/OR NATIONAL AND/OR OTHER CODES APPLICABLE THEREAS.



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**ISSUE RECORD**

No	DATE	REVISION
1	13-06-2016	ISSUED FOR CLIENT REVIEW
2	28-09-2016	ISSUED FOR BUILDING PERMIT
3	27-06-2019	ISSUED FOR TENDER
4	8-11-2019	ISSUED FOR CONSTRUCTION
5	14-02-2020	ISSUED FOR CONSTRUCTION

CLIENT:	ACTUAL PROJECT NORTH	PROPOSED PROJECT NORTH
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**PROJECT TITLE:**  
228 HUNTMAR DRIVE  
HUNTMAR/PALLADIUM DR. ENTERPRISE  
MECHANICAL  
HVA/C DISTRIBUTION

DRAWN BY	JOB NO.	DRAWING NO.
S.J.S.		
CHECKED BY	15-610	M-2
AS NOTED	J.C.J.	

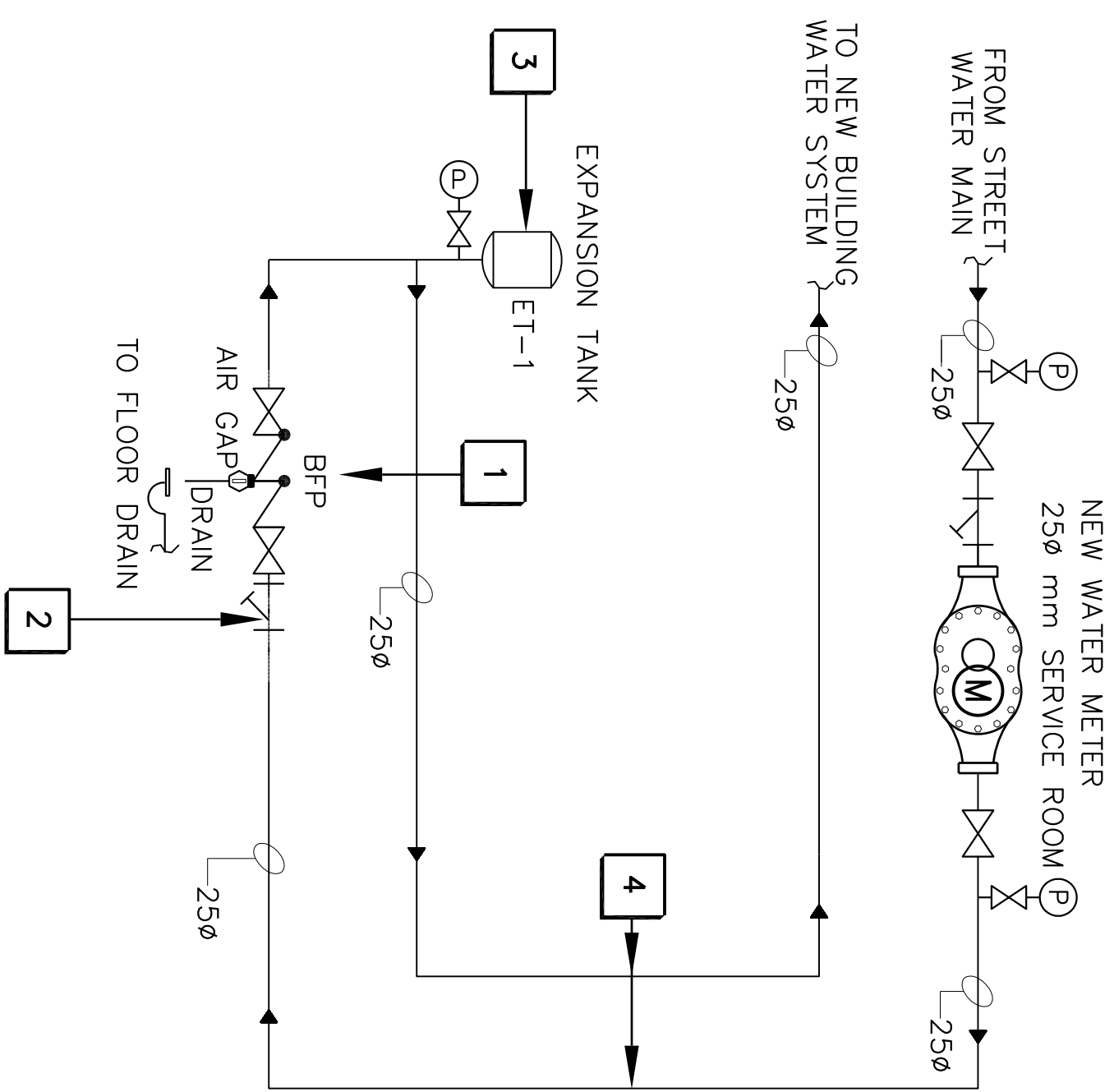
**MECHANICAL**

**HVAC DRAWING NOTES:**

1. PROVIDE NEW ROOF TOP GAS FIRED HVAC UNIT SCHEDULE BELOW.
2. PROVIDE RETURN AIR CEILING MOUNTED LINED DUCT.
3. GRATE ALUMINUM RETURN AIR DIFFUSERS, TWO SIZES: 24"x24" AND 24"x12" (TYPICAL AS SHOWN).
4. MAIN SUPPLY AIR DUCTWORK MOUNTED IN THE CEILING PROVIDE AS PER RELATED "DUCT HANGERS AND SUPPORTS AS PER 'SIAMON' REQUIREMENTS. ALL SUPPLY DUCTWORK TO BE ACOUSTICALLY INSULATED.
5. PROVIDE ALL BRANCH ROUND RIGID SPIRAL DUCTS C/W BALANCING DAMPERS, SIZES AS SHOWN. (TYPICAL FOR ALL).
6. PROVIDE 24"x24" CEILING MOUNTED SUPPLY AIR DIFFUSERS, 4-WAY, ALUMINUM CONSTRUCTION, AIR FLOW AND NECK SIZE AS SHOWN (TYPICAL FOR ALL).
7. PROVIDE WALL MOUNTED 7-DAY PROGRAMMABLE HEAT/COOL THERMOSTAT.
8. PROVIDE WASHROOM CEILING MOUNTED "EF-1" EXHAUST FAN. FOR DETAILS AND SPECIFICATIONS REFER TO SCHEDULE BELOW. PROVIDE ON-OFF WALL SWITCH FOR CONTROLS.
9. PROVIDE ROUND RIGID SPIRAL DUCTWORK 6" C/W 1" THICK THERMAL INSULATION AND CANVAS.
10. EXHAUST AIR DUCT WALL CAP C/W PROVIDE DRAIN AND BIRD SCREEN.
11. PROVIDE NEW 1.25" GAS PIPING "1" P" TO ROOF SERVING NEW ROOF TOP HVAC UNIT AS PER NATURAL GAS CODE.
12. PROVIDE NEW 1.25" GAS SERVING NEW INFRARED HEATERS. PIPE RUN AT CEILING JOINT SPACE. PROVIDE ALL PIPING HANGERS AND SUPPORTS AS PER NATURAL GAS CODE.
13. PROVIDE GAS FIRED INFRARED DUAL STAGE LOW INTENSITY HEATERS, EQUAL TO "SCHWANK" SERIES STW-J280, CAPACITY 80MBH, MOUNTED AT 11' FET. AIR: PROVIDE WALL THERMOSTAT. SUPPLY AIR: PROVIDE ACTUATOR VALVES. SUPPORTS AS PER NATURAL GAS CODE.
14. PROVIDE 4" INFRARED TUBING C/W AIR INTAKE AND BIRD SCREEN, INSTALLED AT HIGH CEILING HEIGHT.
15. PROVIDE WALL MOUNTED WATERPROOF THERMOSTAT OPERATING HEATERS AND ON-OFF WALL SWITCH FOR EXHAUST FAN (TYPICAL OF 2).
16. PROVIDE NEW CABINET EXHAUST FANS "EF-2" AND "EF-3" MOUNTED AT CEILING JOINT SPACE. FOR DETAILS AND SPECIFICATIONS REFER TO SCHEDULE BELOW (TYPICAL OF 2). CONTROL BY CO2 SENSOR. FAN TO BE INTERLOCKED WITH FRESH AIR IN TAKE MOTORIZED DAMPER.
17. PROVIDE 4" INFRARED TUBING C/W FLUE BT-NET TERMINATION (TYPICAL OF 2) AT HIGH CEILING HEIGHT. PROVIDE AS PER MANUFACTURER'S INSTRUCTIONS.
18. PROVIDE 18"x6" DUCTWORK C/W 1" THICK THERMAL INSULATION AND CANVAS. PROVIDE EXHAUST AIR DUCT WALL CAP C/W GRAVITY DAMPER AND BIRD SCREEN (TYPICAL OF 2).
19. PROVIDE EXTERIOR WEATHER PROOF AIR INTAKE LOUVER SIZE 20"x16" EXTRUDED ALUMINUM EQUAL TO "CARNES" MODEL FKAA FLANGE FRAME C/W 120V, 14" MOTORIZED DAMPER (TYPICAL OF 2).

**REDUCED PRESSURE ZONE ASSEMBLY - PIPING DIAGRAM**

N.I.S.



**DRAWING NOTES:**

1. SUPPLY AND INSTALL NEW 25mm WATER METER C/W REDUCED PRESSURE ZONE ASSEMBLY TO PREVENT DOMESTIC WATER BACK FLOW FOR NON-HEALTH HAZARD POLLUTANTS - "WATTS" SERIES 009 SIZE 25mm DIAMETER, 304 SCHEDULE 40 STAINLESS STEEL, 175 PSI MAXIMUM WORKING PRESSURE.
2. SUPPLY AND INSTALL 25mm BRONZE "WYE" TYPE PATTERNS STRAINER 45 DEG. SERIES 745, 25mm DIAMETER.
3. PROVIDE NEW WATER EXPANSION TANK "WATTS-PL1-5" 21 GALLON CAPACITY USE FOR POUABLE WATER SYSTEMS.
4. PROVIDE NEW 25mm WATER PIPING TO BE THERMALLY INSULATED WITH 1/2" THICK THERMAL RIGID INSULATION.

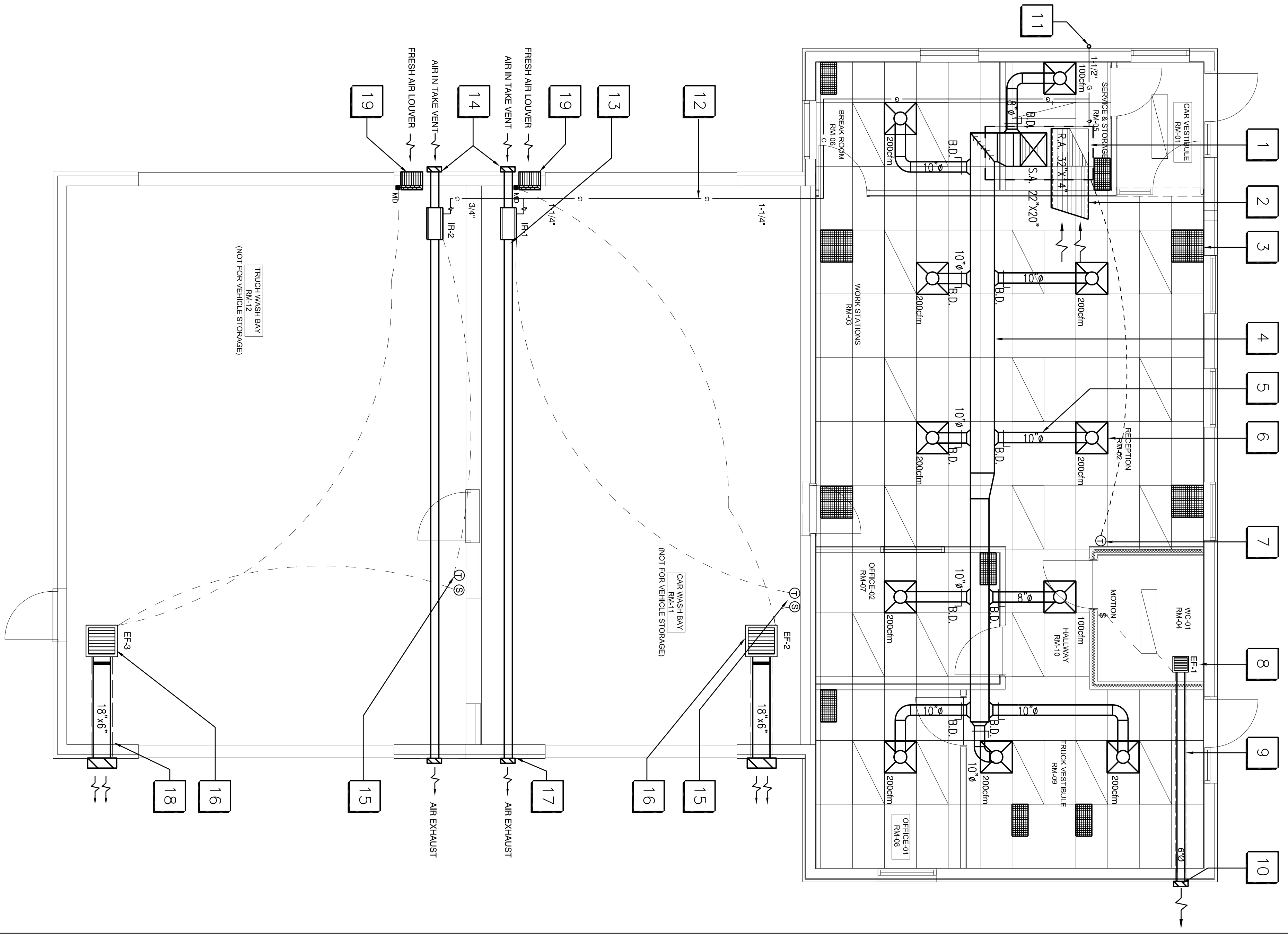
**ROOF TOP UNIT SCHEDULE**

UNIT REF.	AREA SERVED	MANUF.	MODEL NO.	COOLING		GAS HEATING		SUPPLY FAN	FRESH AIR	MIN. HP	V-B-Hz	REMARKS	
				TOTAL TONS	SEAS. WSH	INPUT WSH	OUTPUT WSH						CFM
AC-1	4	OTFOS/WSH	LENKOK	0424RHJ3J	48	45.2	125	92	2000	1.3"	1/2	200	600-3-60 ECONOMIZER SEISMIC DESIGN ROOF CURB UNIT SIZE: 87" x 48" WEIGHT: 750 LBS

- NOTES:  
1. MOTORS TO BE PREMIUM EFFICIENCY TYPE.  
2. COMPLETE WITH VIBRATION ISOLATIONS.  
3. CO-ORDINATE WITH ELECTRICAL TRADE.  
4. 7 DAY PROGRAMMABLE HEAT/COOL THERMOSTAT.  
5. UNIT C/W WEATHER PROOF DISCONNECT SWITCH.

**EXHAUST FAN SCHEDULE**

TAG NO.	MANUFACTURER & MODEL	AIRFLOW		ELECTRICAL		SONES	OPTIONS
		POWER	V/PH/Hz	W	HP		
EF-1	CARNES VCDB-08	75 CFM @ 63 Po	146W	115/1/60	1.9		CEILING FAN, METAL GRILLE, WALL SWITCH
EF-2	CARNES VCDB-95	880 CFM @ 63 Po	250W	115/1/60	2.5		CABINET FAN, METAL GRILLE, VAR. SPEED SWITCH
EF-3	CARNES VCDB-95	880 CFM @ 63 Po	250W	115/1/60	2.5		CABINET FAN, METAL GRILLE, VAR. SPEED SWITCH



**MECHANICAL CEILING PLAN**

SCALE: 1 : 50

M-2