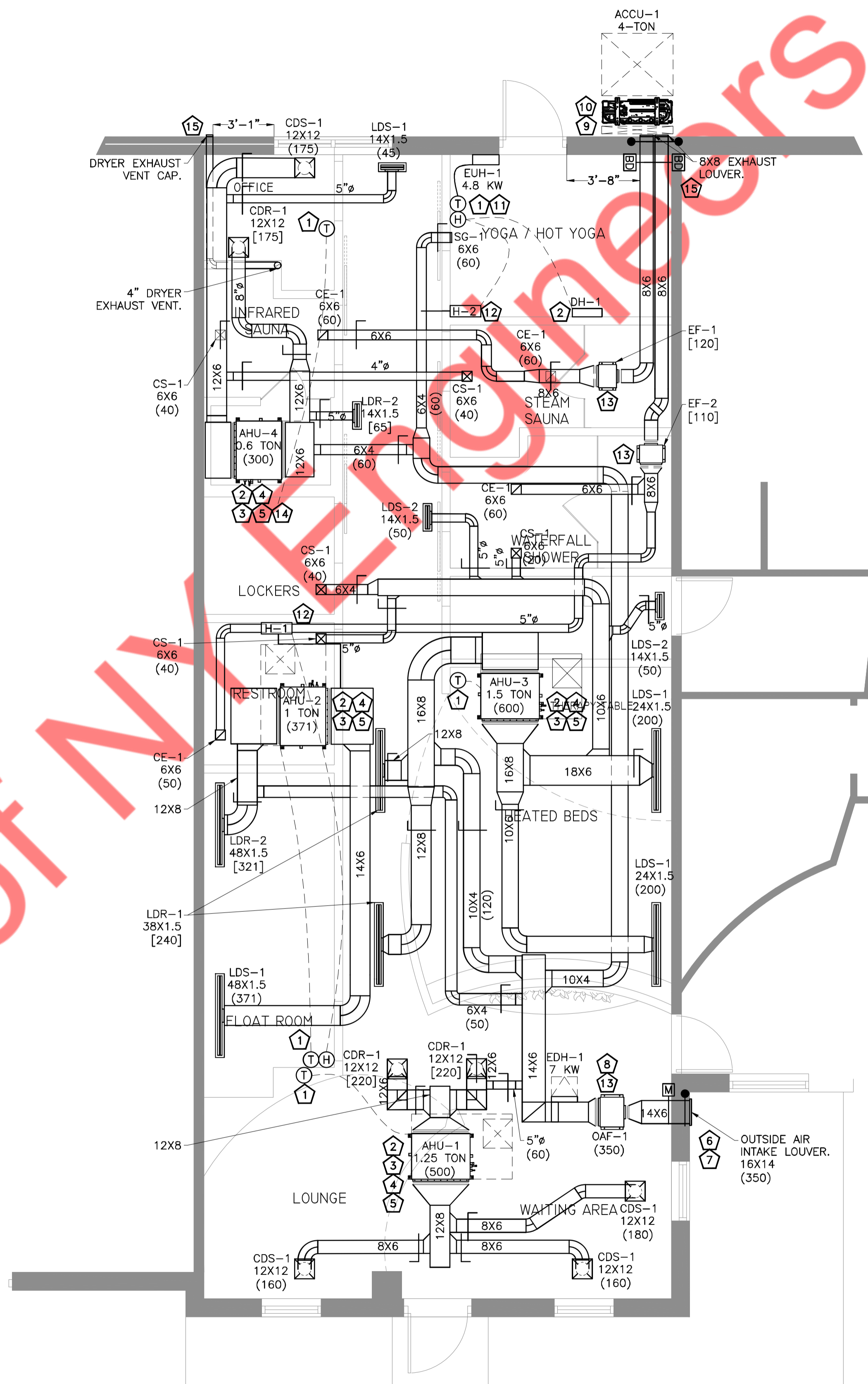


MECHANICAL GENERAL NOTES

- A. CONTRACTOR SHALL BALANCE EACH DEVICE WITH THE CFM SHOWN ON PLAN.
- B. NEW DUCTWORK SHOWN ON PLAN ARE SCHEMATIC ONLY. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR PIPING AND DUCTWORK ROUTING, OFFSET AND RUN PIPING, DUCTWORK INSIDE THE STRUCTURE IF REQUIRED, PROVIDE ANY EXTRA PIPING, DUCTWORK, FITTINGS, INSULATIONS AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATION.
- C. COORDINATE LOCATIONS AND SIZES OF ROOF OPENINGS WITH OWNER AND STRUCTURAL ENGINEERS.
- D. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED. PROVIDE ANY EXTRA PIPING, DUCTWORK, FITTINGS, INSULATIONS AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATION.
- E. DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
- F. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- G. CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.
- H. COORDINATE WITH ALL TRADES FOR MATERIALS IN RATED AND PLENUM SPACES.
- I. MOUNT DUCTWORK AS HIGH AS POSSIBLE.
- J. TEST AND BALANCE AIR SYSTEMS. PROVIDE REPORT TO G.C AND OWNER.
- K. NEW DUCTWORK IN CONCEALED AREAS MAY BE RECTANGULAR WITH EQUIVALENT CROSS SECTIONAL FLOW AREA.
- L. PROVIDE R-12 INSULATION FOR OAF DUCT AND R-6 INSULATION FOR SUPPLY AND RETURN DUCT.
- M. PROVIDE 1" CONDENSATE DRAIN FOR ALL AHU'S.
- N. PROVIDE 1.5" INSULATION TO REFRIGERANT PIPING.
- O. PROVIDE CHORD OPERATED DAMPERS IN INACCESSIBLE CEILING.
- P. PROVIDE FIRE DAMPER IF ANY DUCT CROSSING RATED WALL/ROOF.
- Q. PROVIDE ACCESS DOOR IN INACCESSIBLE CEILING. COORDINATE WITH ARCHITECTURE.
- R. PROVIDE ACCESS PANELS FOR EXHAUST FANS AS PER MANUFACTURERS RECOMMENDATIONS.
- S. RUN ALL DUCTWORK IN THE ATTIC. PROVIDE FIRE DAMPER IF ANY DUCT CROSSING ANY FIRE RATED WALL OR CEILING.
- T. ARCHITECT TO PROVIDE ACCESS TO ATTIC FOR THE EQUIPMENT SERVICE.

MECHANICAL PLAN KEY NOTES:

- ① LOCATION OF DIGITAL THERMOSTAT/HUMIDITY CONTROL. INSTALL AND WIRE NEW 7-DAY PROGRAMMABLE THERMOSTAT. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. PROVIDE LOCKABLE COVER.
- ② CONNECT 1" CD TO NEAREST SINK/LAV WITH AIR GAP FITTING. INSTALL CONDENSATE DRAIN WITH 1/4" SLOPE. SLOPE SHALL BE TOWARDS SINK. PROVIDE 1" INSULATION TO CONDENSATE DRAIN.
- ③ PROVIDE SECONDARY DRIP PAN UNDER AC UNIT WITH WATER LEAKAGE SENSOR AND ALARM TO SHUT DOWN THE UNIT.
- ④ EXTEND FULL SIZE SUPPLY & RETURN DUCTWORK FROM AC UNITS TO SPACE. EXTEND AS SHOWN. ACOUSTICALLY LINE THE FIRST 10'-0" OF BOTH SUPPLY AND RETURN MAIN DUCTS.
- ⑤ PROVIDE REMOTE TEMP SENSOR MOUNTED IN RETURN DUCT AND WIRE BACK TO T-STAT.
- ⑥ MD TO INTERLOCK RESPECTIVE AHU/FAN UNIT.
- ⑦ TERMINATE OUTSIDE AIR INTAKE DUCT AT SIDE WALL. MAINTAIN 10 FEET FROM ANY EXHAUST.
- ⑧ PROVIDE MERV-12 FILTER TO OAF-1 FAN.
- ⑨ CONTRACTOR TO FIELD VERIFY THE LOCATION OF NEW OUTDOOR UNIT. INSTALL OUTDOOR UNIT AS PER MANUFACTURERS RECOMMENDATIONS. CONTRACTOR TO PROVIDE FENCING AROUND THE UNIT.
- ⑩ CONTRACTOR TO INSTALL REFRIGERANT PIPING BETWEEN OUTDOOR AND INDOOR UNIT AS PER MANUFACTURERS RECOMMENDATIONS. PROVIDE WEATHER COATING FOR EXTERIOR PIPING.
- ⑪ SET THERMOSTAT TEMPERATURE TO 95° F.
- ⑫ COORDINATE WITH PLUMBING ENGINEER FOR WATER REQUIREMENT.
- ⑬ CONTRACTOR TO INSTALL FANS IN THE ATTIC.
- ⑭ CONTRACTOR TO PROVIDE SIDE WALL AND CEILING ACCESS DOOR FOR SERVICE.
- ⑮ TERMINATE EXHAUST 3 FEET FROM ANY OPERABLE OPENING AND 10 FEET FROM ANY OUTSIDE AIR INTAKE OPENING.



AIR CONDITIONER SCHEDULES (INDOOR VRF)														BASIS OF DESIGN: TRANE-MITSUBISHI							
UNIT TAG	LOCATION	AREA SERVED	TYPE	CAP. (TON)	COOLING MBH	HEATING MBH	TOTAL SUPPLY AIR CFM	OUTSIDE AIR CFM	MAX. ESP. (IN. WG)	MAX. SOUND PRESS. (DBA)	ELECTRICAL DATA			DIMENSIONS (HXWXD) (IN.)			PIPE SIZE			WEIGHT (LBS.)	MODEL NO.
											PH/VOLT/Hz	MCA (A)	MOCOP (A)	LxWxD	LIQ.	SUCTION	DRAIN (ID)				
AHU-1	SEE PLAN	SEE PLAN	CEILING MOUNTED	1.25	15	17	500	60	0.6	34	1/208-230/60	2.88	15	36X29X10	1/4	1/2	1-1/4	58	TPEFYP015MA144A		
AHU-2	SEE PLAN	SEE PLAN	CEILING MOUNTED	1.0	12	13.5	371	50	0.6	34	1/208-230/60	2.13	15	28X28X10	1/4	1/2	1-1/4	47	TPEFYP012MA144A		
AHU-3	SEE PLAN	SEE PLAN	CEILING MOUNTED	1.5	18	20	600	120	0.6	37	1/208-230/60	2.94	15	36x29x10	1/4	1/2	1-1/4	58	TPEFYP018MA144A		
AHU-4	SEE PLAN	SEE PLAN	CEILING MOUNTED	0.6	8	9	300	60	0.6	30	1/208-230/60	1.75	15	28X28X10	1/4	1/2	1-1/4	47	TPEFYP008MA144A		

NOTES:
1) SUPPLY AIR CFM BASED ON HIGH SPEED.
2) REFRIGERANT R410A SHALL BE PROVIDED.
3) PROVIDE MOUNTING BRACKETS AND ALL ASSOCIATED ACCESSORIES.
4) ALL REFRIGERANT PIPING TO BE SIZED PER MANUFACTURERS RECOMMENDATIONS.
5) PROVIDE MERV 12 FILTER ON ALL RETURNS TO UNIT.
6) INDOOR UNIT ACCESS PANEL FIELD-PROVIDED.
7) PROVIDE SECONDARY DRAIN PAN AND WATER LEAK SENSOR.
8) CONTRACTOR SHALL PROVIDE A LONG LINE SET FOR REFRIGERANT PIPING IN THE EVENT THAT TOTAL REFRIGERANT LENGTH EXCEEDS THE MANUFACTURER'S STANDARD RECOMMENDED LENGTH.

AIR CONDITIONER SCHEDULES (OUTDOOR UNIT)															BASIS OF DESIGN: TRANE-MITSUBISHI			
UNIT TAG	LOCATION	INDOOR UNITS SERVED	CAP.TR	COOLING MBH	HEATING MBH	UNIT DIMENSIONS(IN.) (HXWXL)	WEIGHT (LBS)	PIPING DIMENSION			ELECTRICAL			SOUND LEVEL (Dba)	EER	SEER	COP	MODEL
								LIQUID HI PRESSURE	GAS LOW PRESSURE	(V/Hz/Ph)	MCA	MOP						
ACCU-1	SEE PLAN	AHU-1,2,3,4	4	48	54	53X42X14	278	3/8"	5/8"	208/60/1	36	44	54	11.3	15.5	3.3	TUMYH0481AK41NA	

NOTES:
1. UNIT SHALL HAVE TEN YEAR EXTENDED WARRANTY FOR COMPRESSORS/PARTS.
2. PROVIDE LOW AMBIENT CONTROL FOR CONDENSING UNIT OPERATION DOWN TO -4°F.
3. PROVIDE COMPRESSOR CYCLE PROTECTOR.
4. INSTALL CONDENSER AS PER MANUFACTURERS RECOMMENDATIONS.
5. CONTRACTOR SHALL PROVIDE A LONG LINE SET FOR REFRIGERANT PIPING IN THE EVENT THAT TOTAL REFRIGERANT LENGTH EXCEEDS THE MANUFACTURER'S STANDARD RECOMMENDED LENGTH.

FANS SCHEDULE											
MARK	TYPE	SERVICE	MODEL	CFM	ESP (IN W.G)	ELEC (V/Hz/Ph.)	MOTOR POWER (W)	FAN SPEED(RPM)	INLET dBA (dBA)	WEIGHT (LBS)	MAKE
EF-1	INLINE FAN	SEE PLAN	CSP-A190	120	0.5	115/60/1	46	1400	41	16	GREENHECK
EF-2	INLINE FAN	SEE PLAN	CSP-A190	120	0.5	115/60/1	46	1400	41	16	GREENHECK
OAF-1	INLINE FAN	SEE PLAN	CSP-A510-VG	350	0.75	115/60/1	111	1382	36	36	GREENHECK

NOTES:
1) PROVIDE WALL SWITCH WHEREVER SHOWN ON PLANS AND COORDINATE HEIGHT WITH THE OWNER AND ARCHITECT.
2) ALL DIRECT DRIVE FANS SHALL BE FURNISHED WITH VARI-GREEN MOTOR CONTROL.
3) FAN SPEED SHALL BE EASILY FIELD ADJUSTABLE.
4) REFER TO DETAILS, FAN SHALL BE MOUNTED W/SUPPORT FRAMING BY OTHERS.
5) PROVIDE MOTOR STARTERS, DISCONNECTS WITH NEMA-3R (IF NOT FACTORY PROVIDED). ALL EQUIPMENT NORMAL POWER WIRING BY ELECTRICAL CONTRACTOR. COORDINATE
6) COORDINATE WITH ARCH./G.C. ACCESS DOORS FOR SERVICING ALL FANS WITHIN CEILINGS.
7) PROVIDE MERV-12 FILTER TO OUTSIDE AIR INTAKE FAN.
8) PROVIDE TIME CLOCK.

HUMIDIFIER SCHEDULE							
UNIT #	TYPE	SERVING	ELECTRICAL	STEAM (LBS/HR)	BASIS OF DESIGN		NOTES
					MFR	MODEL	
H-1	DUCTED	AHU-2	208 VAC, 60 Hz, 15.9 A	8.7	NORTEC	RH-2	TO BE INSTALLED WITH LOW SAM-E WAND FOR RAPID STEAM DISTRIBUTION
H-2	DUCTED	OAF-1	208 VAC, 60 Hz, 15.9 A	8.7	NORTEC	RH-2	TO BE INSTALLED WITH LOW SAM-E WAND FOR RAPID STEAM DISTRIBUTION

NOTES :-
1) HUMIDIFIER TO BE PROVIDED WITH DRAIN PAN AND DRAIN.
2) HUMIDIFIER TO BE PROVIDED WITH SECONDARY DRAIN PANS WITH FLOAT SWITCH TO TURN THEM OFF IN CASE OF LEAKAGE.
3) HUMIDIFIER TO INCLUDE AIR PROVIDING SWITCH MODULATING CONTROL AND HIGH LIMIT DUCT SENSOR.
4) HUMIDIFIER TO BE CONNECTED TO THE CORRESPONDING AIR HANDLER TO ENGAGE THE FAN ON A CALL FOR HUMIDIFICATION.

DEHUMIDIFIER SCHEDULE									
UNIT #	LOCATION	TYPE	ELECTRICAL DATA				CAP. (PINTS/DAY)	BASIS OF DESIGN	
			VOLTAGE	PHASE	POWER (W)	CURRENT (A)		MFR	MODEL
DH-1	HOT YOGA ROOM	WALL MOUNTED	120	1	324	2.8	33	SANTA-FE	ULTRAMD33

NOTES :-
1) DEHUMIDIFIER CONTROLS PROVIDED WITH UNIT.
2) CONTRACTOR MUST PROVIDE SECONDARY DRAIN PAN.
3) DEHUMIDISTAT TO BE LOCATED IN THE SPACE OR IN THE RETURN GRILLE CLOSE TO THE RETURN AIR OPENING.

ELECTRIC UNIT HEATERS SCHEDULE									
UNIT TAG	SERVING	TYPE	KW	BTU/HR	ELECTRIC DATA	AMPS	DIMENSIONS (WXHXD)	MODEL NO.	MAKE
EUH-1	SEE PLAN	WALL MOUNTED	4.8	16,378	208/1/60	23.1	15-13/16"X19-1/4"X6"	SSAR4808	QMARK

NOTES FOR HEATER
1) PROVIDE DISCONNECTION SWITCH.
2) "HEATER ON" PILOT LIGHT.
3) THREE-POSITION SELECTOR SWITCH (HEATER-STANDBY-FAN)
4) BUILT-IN THERMOSTAT 40F TO 85 F RANGE.
5) ALL UNIT HEATERS SHALL BE INSTALLED IN ACCORDANCE WITH THE LISTING AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.

VENTILATION CALCULATIONS													
SL NO.	ROOM TYPE	AREA	NUMBER OF PEOPLE AS PER IMC 2018	NUMBER OF PEOPLE/1000sq.ft AS PER 2018 IMC	NUMBER OF PEOPLE AS PER 2018 IMC	FINAL PEOPLE NO.	MIN OUTSIDE AIR AS PER 2018 IMC			REQ.VENT CFM	PROVIDED. OAI	PROVIDED EXHAUST (CFM)	
							CFM/PEOPLE	CFM/SQ.FT	ACH				
001	YOGA/HOT YOGA	91	0	7	1	2	20	0.18	0	56		0	
002	STEAM SAUNA	35	0	0	0	0	0	0.18	10			0	
003	WATERFALL SHOWER	48	0	0	0	0	0	0	0	0		60	
004	CORRIDOR-1	175	0	0	0	0	0	0.06	0	3		0	
005	THERAPY AREA	335	0	0	3	0	0	0	2	50		0	
006	WAITING AREA	268	0	50	13	5	7.5	0.06	0	54		0	
007	FLOAT ROOM	98	0	0	0	1	0	0	2	33	350	0	
008	REST ROOM	47	0	0	0	0	0	0	0	0		50	
009	SHOWER	47	0	0	0	0	0	0	0	0		60	
010	LOCKER ROOM	39	0	0	0	0	0	0.25	10	65		0	
011	INFRARED SAUNA	39	0	0	0	0	0	0.18	10	65		60	
012	OFFICE	40	0	5	0	1	5	0.06	0	7		0	
TOTAL											333	350	230

AIR TERMINAL SCHEDULE						BASIS OF DESIGN: TITUS	
TAG	TYPE	CFM RANGE	DEFLECTION (DEGREE)	DIMENSION(IN)	AIR FLOW CFM/FT.	MODEL NO.	MAX NC dBA
LDS-1	SUPPLY (HIGH THROW)	SEE PLAN	0	-	95	FL-20 (2 SLOT)	12
LDS-2	SUPPLY (HIGH THROW)	SEE PLAN	0	-	45	FL-15 (1 SLOT)	14
LDR-2	RETURN	SEE PLAN	0	-	130	FL-20 (2 SLOT)	22
LDR-2	RETURN	SEE PLAN	0	-	45	FL-15 (1 SLOT)	14
CS-1	SUPPLY	0-95	0	6X6	-	300FL	-
SG-1	SUPPLY	0-95	0	6X6	-	300FL	-
CE-1	RETURN	0-95	0	6X6	-	350RL	-

NOTES FOR DIFFUSERS
1. ALL GRILLES : CONTRACTOR SHALL COORDINATE WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS TO ENSURE PROPER AIR DEVICE BORDER
2. COORDINATE COLOR/FINISH WITH ARCHITECT.

AIR BALANCE					
UNIT	AREA SERVED	SUPPLY AIR	OUTSIDE AIR	RETURN AIR	EXHAUST AIR
AHU-1	SEE PLAN	500 CFM	60 CFM	440 CFM	-
AHU-2	SEE PLAN	371 CFM	50 CFM	321 CFM	-
AHU-3	SEE PLAN	600 CFM	120 CFM	480 CFM	-
AHU-4	SEE PLAN	300 CFM	60 CFM	240 CFM	-
OAF-1	SEE PLAN	-	60 CFM	-	-
EF-1	SEE PLAN	-	-	-	120 CFM
EF-2	SEE PLAN	-	-	-	110 CFM
TOTAL:		1771 CFM	350 CFM	1481 CFM	230 CFM
BUILDING PRESSURE:				120 CFM	POSITIVE

NOTES:
1. CONTRACTOR TO ADJUST MOTORIZED DAMPER ON FRESH AIR TAP TO PROVIDE OUTSIDE AIR AS MENTIONED IN ABOVE TABLE.