

CERTIFICATION
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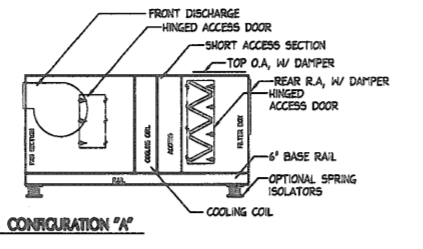
TITLE
Mechanical Schedules
Details & Ex. Mezz
Mechanical Plan
SHEET

M4.1

HVAC-4 UNIT SCHEDULE

ITEM	MANUFACTURER	MFR MODEL	CONFRG	HP	MAX BHP	ELECTRICAL	TOTAL CFM	OA CFM	TOTAL STATIC	EXTERNAL STATIC	TOTAL SENS 1 ST	COOLING COIL	EDR/WS	LD/WH/ST	FF	MAX FV	NUMBER OF ZONES	MAX LENGTH	MAX HEIGHT	MAX WIDTH	NOTES
HVAC-4	TRANE	TC2B-30B	A	5	15.6	460/3/60	13,692	1000	3.64"	2.9"	430	355.4	1.87	1.97	101	45% FFV	1	12'	63"	48"	1-14

- NOTES
- MIDRIFE FILTER STATIC PRESSURES INCLUDED IN TSP. 4" →→ FARR 30/30
 - INTERVAL PERFORMED FAN SECTION
 - UNITS TO BE STATICALLY AND DYNAMICALLY BALANCED FOR VFD
 - ACCESS DOORS ON FAN SECTION AND FILTER BOX
 - ULTRA LOW LEAK DAMPERS ON MIXING BOX
 - 1.5 INCH DRIP PAN ON FAN
 - FREQUENT EFFICIENCY INVERTER DUTY MOTOR NOISE FILTER FOR VFD DUTY
 - SINGLE POINT COIL CONNECTIONS
 - UNIT SHALL HAVE 6" BASE RAIL
 - FILTER MIXING BOX SHALL HAVE 2" DEEP FARR 30/30 1/4" FILTERS
 - INCLUDE ADDITIONAL SET OF FILTERS
 - 56 1/2" DRIP PAN
 - UNITS TO HAVE 2" DUAL WALL PERFORATED COIL AND FAN SECTIONS, ALL OTHER SECTIONS TO BE DUAL WALL SOLID INTERIOR SECTIONS
 - INTERMITTENT 4 CIRCUIT COILS SET FOR VAV.



DIFFUSER, EXHAUST, RETURN & LOUVER SCHEDULE

ITEM	MANUFACTURER	MFR MODEL	FACE SIZE	INLET	MATERIAL	COLOR	PATTERN	NOTES
'A'	TUTTLE & BAILEY	SA-084-LT	24"/24"	8" DIA	STEEL	WHITE	4 MAY	LAY-IN LOUVER FACE
'B'	TUTTLE & BAILEY	SA-084-LT	24"/24"	10" DIA	STEEL	WHITE	4 MAY	LAY-IN LOUVER FACE
'C'	TUTTLE & BAILEY	SA-082-SF	12"/12"	6" DIA	STEEL	WHITE	4 MAY	SURFACE MTD. LOUVER FACE
'D'	TUTTLE & BAILEY	TS4-108-SF-20	18"/8"	18"/8"	STEEL	CUSTOM	2 MAY(ADJ)	SURFACE MTD SIDEWALL, 45 DEG ADJ LOUVERS
'E'	TUTTLE & BAILEY	TS4-108-SF-20	18"/8"	18"/8"	STEEL	CUSTOM	2 MAY(ADJ)	SURFACE MTD SIDEWALL, 45 DEG ADJ LOUVERS
'F'	TUTTLE & BAILEY	SA-084-SF	24"/24"	8" DIA	STEEL	WHITE	4 MAY	LOUVER FACE, SURFACE MOUNT
'RG-1'	TUTTLE & BAILEY	CR-500-2/24	24"/24"	24"/24"	ALUMINUM	WHITE	RETURN	1/24/24/2 EGGRATE GRID, LAY-IN CLG
'RG-2'	TUTTLE & BAILEY	CR-500-2/22	12"/12"	12"/12"	ALUMINUM	WHITE	RETURN	1/24/24/2 EGGRATE GRID, SURFACE MTD
'TG-1'	TUTTLE & BAILEY	DOR-22/4	28"/18"	28"/18"	ALUMINUM	CUSTOM	RETURN	SURFACE MTD SIDEWALL, 45 DEG ADJ LOUVERS
'EG-1'	TUTTLE & BAILEY	CR-500-2/22	12"/12"	12"/12"	ALUMINUM	WHITE	EXHAUST	1/24/24/2 EGGRATE GRID, LAY-IN CLG
'EG-2'	TUTTLE & BAILEY	DOR-1006	24"/20"	24"/20"	ALUMINUM	WHITE	EXHAUST	SURFACE MTD SIDEWALL, 45 DEG ADJ LOUVERS
OA-1	AMERICAN HAWKING	LE-21	66"/108"	66"/108"	ALUMINUM	CUSTOM	INTAKE	23.5 SQ FT MINIMUM FREE AREA, ENAMEL FINISH, W/BIRDSCREEN, FLANGE FRAME, ANGLED TOP (SEE ELEVATIONS ON SHEET A4.1 FOR EXACT SHAPE)
OA-2	AMERICAN HAWKING	LE-21	30"/142"	30"/142"	ALUMINUM	CUSTOM	INTAKE	4.2 SQ FT MINIMUM FREE AREA, ENAMEL FINISH, W/BIRDSCREEN, CHANNEL FRAME, PROVIDE CONTROL DAMPER EQUAL TO RUSKIN CD60 30"/42" WITH 120V CONTROL MOTOR, OPEN WITH EF-2 OPERATION
RAL-1	AMERICAN HAWKING	LE-21	66"/108"	66"/108"	ALUMINUM	CUSTOM	RELIEF	23.5 SQ FT MINIMUM FREE AREA, ENAMEL FINISH, W/BIRDSCREEN, FLANGE FRAME, ANGLED TOP (SEE ELEVATIONS ON SHEET A4.1 FOR EXACT SHAPE)
RAL-2	AMERICAN HAWKING	LE-21	30"/142"	30"/142"	ALUMINUM	CUSTOM	RELIEF	4.2 SQ FT MINIMUM FREE AREA, ENAMEL FINISH, W/BIRDSCREEN, CHANNEL FRAME, PROVIDE BDD EQUAL TO RUSKIN CD60, 30"/42"
CAL-1	AMERICAN HAWKING	LE-21	30"/18"	30"/18"	ALUMINUM	BRONZE	INTAKE	1.5 SQ FT MINIMUM FREE AREA, ENAMEL FINISH, W/BIRDSCREEN, CHANNEL FRAME
EAL-1	AMERICAN HAWKING	LE-21	30"/18"	30"/18"	ALUMINUM	BRONZE	EXHAUST	1.5 SQ FT MINIMUM FREE AREA, ENAMEL FINISH, W/BIRDSCREEN, CHANNEL FRAME
EAL-2	AMERICAN HAWKING	LE-21	16"/8"	16"/8"	ALUMINUM	CUSTOM	EXHAUST	0.5 SQ FT MINIMUM FREE AREA, ENAMEL FINISH, W/BIRDSCREEN, CHANNEL FRAME
EAL-3	AMERICAN HAWKING	LE-21	16"/8"	16"/8"	ALUMINUM	CUSTOM	EXHAUST	0.5 SQ FT MINIMUM FREE AREA, ENAMEL FINISH, W/BIRDSCREEN, CHANNEL FRAME

KITCHEN HOOD SCHEDULE

ITEM	MANUFACTURER	MFR MODEL	ELECTRICAL	MIN CFM	SIZE	NOTES
HOOD-1, 2	BROAN	883604	120/1/60	360	36" WIDE	1-13

- NOTES
- WITH (2) 75 WATT LAMPS
 - WITH VARIABLE SPEED FAN
 - WITH OUTDOOR DUCT CONNECTION
 - CLEANABLE FILTER
 - STAINLESS STEEL FINISH

CONDENSING UNIT SCHEDULE

ITEM	MANUFACTURER	MFR MODEL	ELECTRICAL	MIN FR	MBH TOTAL	NOTES
ACC-4	TRANE	RAUCC4004B	460/3/60	1.5	400	1-13

- NOTES
- 5 YEAR COMPRESSOR PARTS WARRANTY
 - SERVICE VALVES ON ALL REFR. LINES
 - AMBIENT OPERATION, TO 40 DEG F OUTDOOR TEMP
 - NON-FUSED UNIT DISCONNECT
 - SINGLE POINT CONNECTION
 - DUAL CIRCUIT, 4 STAGES MINIMUM
 - SCROLL COMPRESSORS, CONDENSER COIL GUARDS,
 - VAV CONTROL CIRCUIT WITH DISCHARGE AIR CONTROL INCLUDES MINIMUM ON/OFF TIMERS & "FRAN FROSTAT"
 - APACITY 64 AHPS
 - MAX OVERCURRENT PROTECTION: 100 AMP
 - LIQUID LINE FILTER DRYER
 - LOOSE SUCTON LINE FILTERS (2) AND
 - LOOSE SOLENOID VALVES AND MOISTURE/LIQUID INDICATORS
 - HEIGHT 3000" MAX

HYDRONIC CABINET AND UNIT HEATER SCHEDULE

ITEM	MANUFACTURER	MFR MODEL	CFM	MBH	HEAD FT)	AIRFLOW	ELECTRICAL	HP	NOTES
CH-1, 2	TRANE	FFBS-060-1-EE0	1.6	29.8	2.8	350 @ 0'	20/1/60	1/8	VERTICAL WALL MOUNTED, W/ 1" PLEATED FILTERS, MANUAL AIR VENT, TOP BAR GRILL, BRONZE FINISH, UNIT MOUNTED DISCONNECT, UNIT MOUNTED THERMOSTAT, BOTTOM INLET, 3 ROW COIL, 2 WAY CONTROL VALVE W/ BALL VALVE ISOLATION & AUTOMATIC FLOW CONTROL VALVE
UH-1	TRANE	UHS4-2042	5.67	95	1.5	162	120/1/60	1/8	HORIZONTAL UNIT HEATER, WALL MOUNTED REMOTE THERMOSTAT, MANUAL AIR VENT, RUBBER ISOLATORS

PUMP SCHEDULE

ITEM	MANUFACTURER	MFR MODEL	HP	CFM	HEAD FT)	ELECTRICAL	BRM	NOTES
P-1, 2 & 3	EXISTING							
P-4, P-5	BELL & GOSSETT	631-1-1/4BC	2	50	70'	460/3/60	3600	NON-OVERLOADING, BASE MOUNTED, HIGH EFFICIENCY MOTOR, DEAD HEAD SHALL BE A MINIMUM OF 10% OF OPERATING POINT

FIN-TUBE HEATING SCHEDULE

ITEM	MANUFACTURER	MFR MODEL	BLUFT	FF	TUBE DIA	RINS	TUBS	INSTALLED HEIGHT	COLOR	AVG WATER TEMP	EAT	NOTES
FT-1	TRANE	MTA	800	50	3/4"	3"x3"	1	7'	CUSTOM	170 DEGREES	65	WALL MOUNTED, TOP OUTLET, EXTRUDED TOP GRILL, BOTTOM INLET, 5.5" DEEP, W/ BDD CAPS, W/VALVE ACCESS DOOR, ROUTE ELEMENT TO WITHIN 12" OF EACH END, USE ARCHITECT PLANS FOR DIMENSIONS OF EACH ENCLOSURE, PROVIDE ADDITIONAL PIPE HANGERS FOR ROUTING BARE COPPER BELOW ENCLOSURE.
FT-2	TRANE	ESA-14	590	50	3/4"	3"x3"	1	9'	CUSTOM	170 DEGREES	65	FEDISTAL MOUNT, TOP OUTLET, EXTRUDED TOP GRILL, BOTTOM INLET, 5.5" DEEP, W/ BDD CAPS, W/REBREST MOUNT, ROUTE ELEMENT TO WITHIN 12" OF EACH END, USE ARCHITECT PLANS FOR DIMENSIONS OF EACH ENCLOSURE.

EXHAUST FAN SCHEDULE

ITEM	MANUFACTURER	MFR MODEL	CFM	TSP	ELECTRICAL	HP	NOTES
EF-1	ACME	XD16/66	2930	0.5'	115/60/1	1/2	INLINE, W/BDD, PREHIESED SPEED CONTROL AND DISCONNECT, TCC TO CONNECT INTO CONTROL TO CYCLE FAN ON RA STAT AND OPEN AIR INTAKE DAMPER
EF-2	ACME	XD120/4-L	1375	0.625'	115/60/1	1/3	INLINE, W/BDD, PREHIESED SPEED CONTROL AND DISCONNECT, TCC TO CONNECT INTO DDC CONTROL PANEL FOR OCCUPIED SCHEDULE

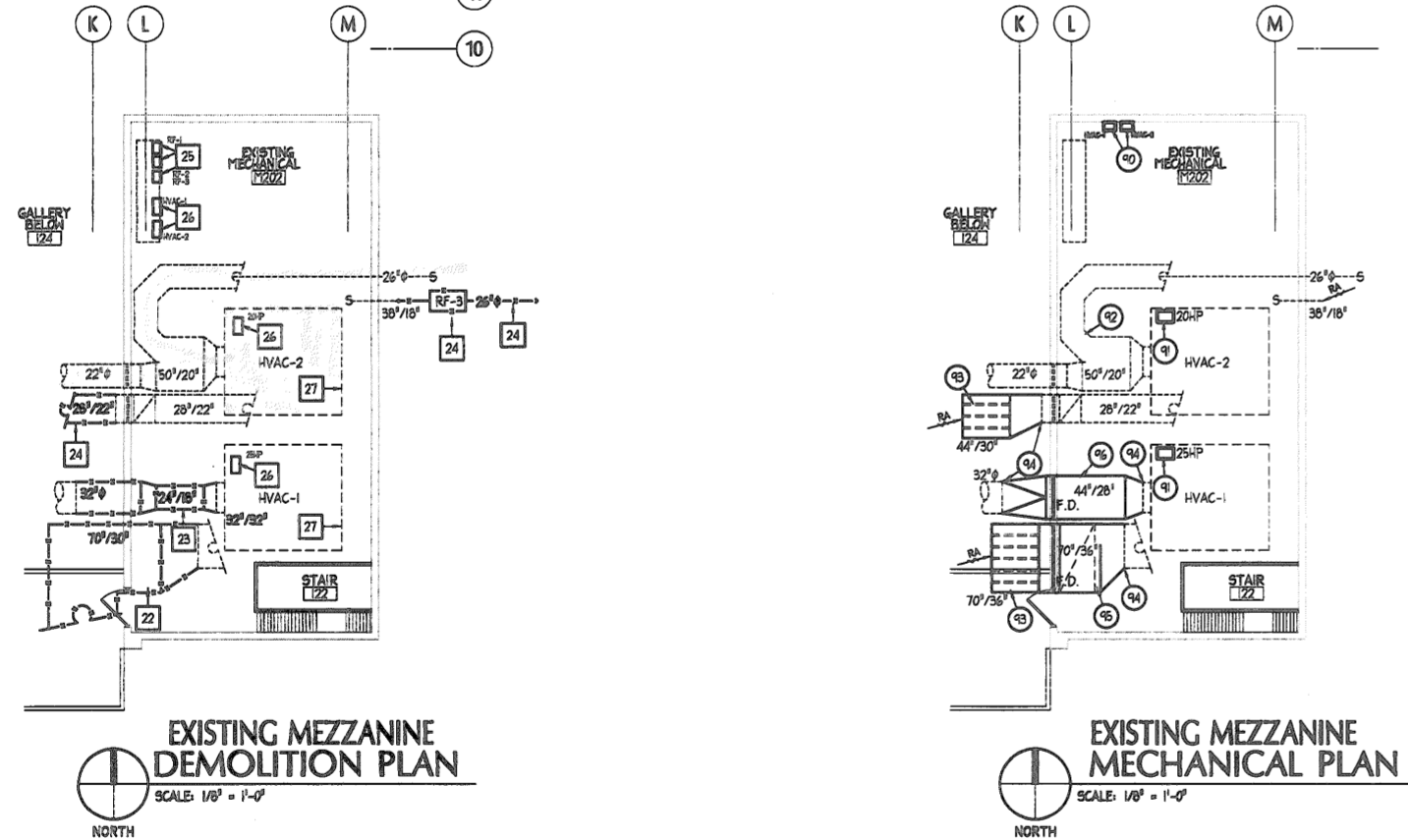
TERMINAL BOX SCHEDULE

BOX #	MFR	MFR MODEL	LOW PROFILE	MAX HEIGHT	INLET	OUTLET	HEATING MBH	COIL ROWS	CFM	FAN	PRIMARY AIR	NOTES	
TB4-1	TRANE	VPNF-10-04T	YES	10"	12" DIA	14"/16"	41.8	2	3.0	1200	1/3	240	1500
TB4-2	TRANE	VPNF-14-04T	YES	10"	14" DIA	14"/16"	70.2	2	4.0	1400	1/2	320	2100
TB4-3	TRANE	VPNF-12-04T	YES	10"	12" DIA	14"/16"	61.8	2	3.0	1200	1/3	240	1600
TB4-4	TRANE	VPNF-08-02	YES	16"	8" DIA	14"/14"	21.3	1	2.0	500	1/8	100	700
TB4-5	TRANE	VPNF-08-02	YES	16"	8" DIA	14"/14"	21.3	1	2.0	500	1/8	100	700
TB4-6	TRANE	VPNF-14-04T	YES	10"	14" DIA	14"/16"	70.2	2	4.0	1400	1/2	320	2100
TB4-7	TRANE	VPNF-10-04T	YES	10"	10" DIA	14"/16"	48.1	2	2.0	900	1/3	150	1100
TB4-8	TRANE	VPNF-12-04T	YES	10"	12" DIA	14"/16"	61.8	2	3.0	1200	1/3	240	1600
TB4-9	TRANE	VPNF-10-04T	YES	10"	10" DIA	14"/16"	48.1	2	2.0	900	1/3	150	1100
TB4-10	TRANE	VPNF-10-04T	YES	10"	10" DIA	14"/16"	48.1	2	2.0	900	1/3	150	1100
TB4-11	TRANE	VPNF-08-02	YES	16"	8" DIA	14"/14"	21.3	1	2.0	500	1/8	100	700
TB4-12	TRANE	VPNF-08-02	YES	16"	8" DIA	14"/14"	21.3	1	2.0	500	1/8	100	700
TB4-13	TRANE	VPNF-10-04T	YES	10"	10" DIA	14"/16"	48.1	2	2.0	900	1/3	150	1100
TB1-15	TRANE	VCFN-16-18W	NO	20"	16" DIA	24"/20"	76.0	1	4.0	N/A	N/A	420	3020

BOILER SCHEDULE

TAG	MFR	MODEL	ELECTRIC	RA	GAS INPUT	MBH	FLUE DIA	INTAKE DIA	WATER CONNECTIONS	MIN FLOW RATE @ PSI	MAX FLOW RATE @ PSI	GAS PRESSURE	BOILER TYPE	W/BOILER PUMP	W/BOILER RELIEF	NOTES
B-1, B-2	LOCHNVAR	3BN-300	115/1/60	5.3	300 MBH	252 MBH	8" @ 0'	8"	(2) @ 2"	12 GPM @ 6.5'	60 GPM @ 84'	4.7"-10.5"	COPPER-FIN	YES	YES	1-15

- NOTES
- SEALED COMBUSTION UNIT
 - STAINLESS STEEL BURNERS, HIGH/LOW FIRE
 - HOT SURFACE IGNITION
 - HIGH LIMIT TEMP CUTOUT (MANUAL RESET)
 - LOW WATER CUTOUT
 - 30 PSIG RELIEF VALVE
 - PUMP DELAY RELAY
 - FLOW SWITCH
 - INDOOR OUTDOOR CONTROL
 - PREPARED WITH INLINE PUMP
 - T-P GAUGE & FLAME OBSERVATION PORT
 - CONTROL TERMINATION STRIP
 - 3" @ 18" PH SAFETY CONTROLS
 - 10 YEAR HEAT EXCHANGER WARRANTY
 - 10 YEAR BURNER WARRANTY



CONSTRUCTION PLAN NOTES

- SEE TCC SPEC FOR NEW VFD FOR HVAC-1 & 2. EC TO MOUNT THESE UNITS, TCC SHALL CONTROL UNITS PER SPECS.
- TCC TO FURNISH NEW MOTORS FOR THESE HVAC UNITS PER THE SPECIFICATIONS AS A PACKAGE WITH THE FREQUENCY DRIVES.
- EXISTING DUCTWORK TO REMAIN OPERATIONAL.
- INSTALL SOUND TRAPS PER THE DETAIL ON M4.2. SIZE THE TRAPS PER THESE PLANS, TYPICAL.
- CONNECT INTO THE EXISTING DUCTWORK AT THIS APPROXIMATE LOCATION. THIS CONTRACTOR SHALL HAVE THE OPENINGS REFRAMED TO ALLOW LARGER DUCTWORK ROUTED THRU THE EXISTING WALL. TYPICAL.
- OFFSET AS REQUIRED TO MAINTAIN HEAD CLEARANCES.
- THIS DUCT SHALL BE FABRICATED WITH STANDING SEAMS AT EACH 90° SECTION TO ALLOW A SHEET OF PLYWOOD TO SET ON DUCTWORK AND SUPPORT SERVICE PERSONEL CLIMBING ON TOP OF THE DUCT WITHOUT DAMAGE.
- THE CONTRACTOR SHALL CAREFULLY REMOVE THE SHOWN RETURN DUCTWORK AND FIRE DAMPER AT THE WALL OF THE MECHANICAL ROOM. CAREFULLY CUT AWAY WALL TO ALLOW AN INCREASE IN THE RETURN AIR OPENING PER THE CONSTRUCTION PLANS.
- THE CONTRACTOR SHALL CAREFULLY REMOVE THE SHOWN SUPPLY DUCTWORK AND FIRE DAMPER AT THE WALL OF THE MECHANICAL ROOM. CAREFULLY CUT AWAY WALL TO ALLOW AN INCREASE IN THE SUPPLY AIR OPENING AND A SMOOTHER TRANSITION IN THE PENTHOUSE MECHANICAL ROOM PER THE CONSTRUCTION PLANS.
- SEE SHEET M1.1 FOR DUCTWORK TO BE REMOVED.
- ELECTRICAL CONTRACTOR SHALL REMOVE THE EXISTING FREQUENCY DRIVES FOR THE REMOVED RETURN FANS. TCC TO REMOVE THE POINTS FOR THESE DRIVES FROM THE CONTROL SEQUENCES.
- ELECTRICAL CONTRACTOR SHALL REMOVE THE EXISTING FREQUENCY DRIVES AND MOTORS FOR THE TWO HVAC UNITS. PREPARE FOR NEW VFD AND NEW MOTORS.
- EXISTING HVAC UNITS TO REMAIN.