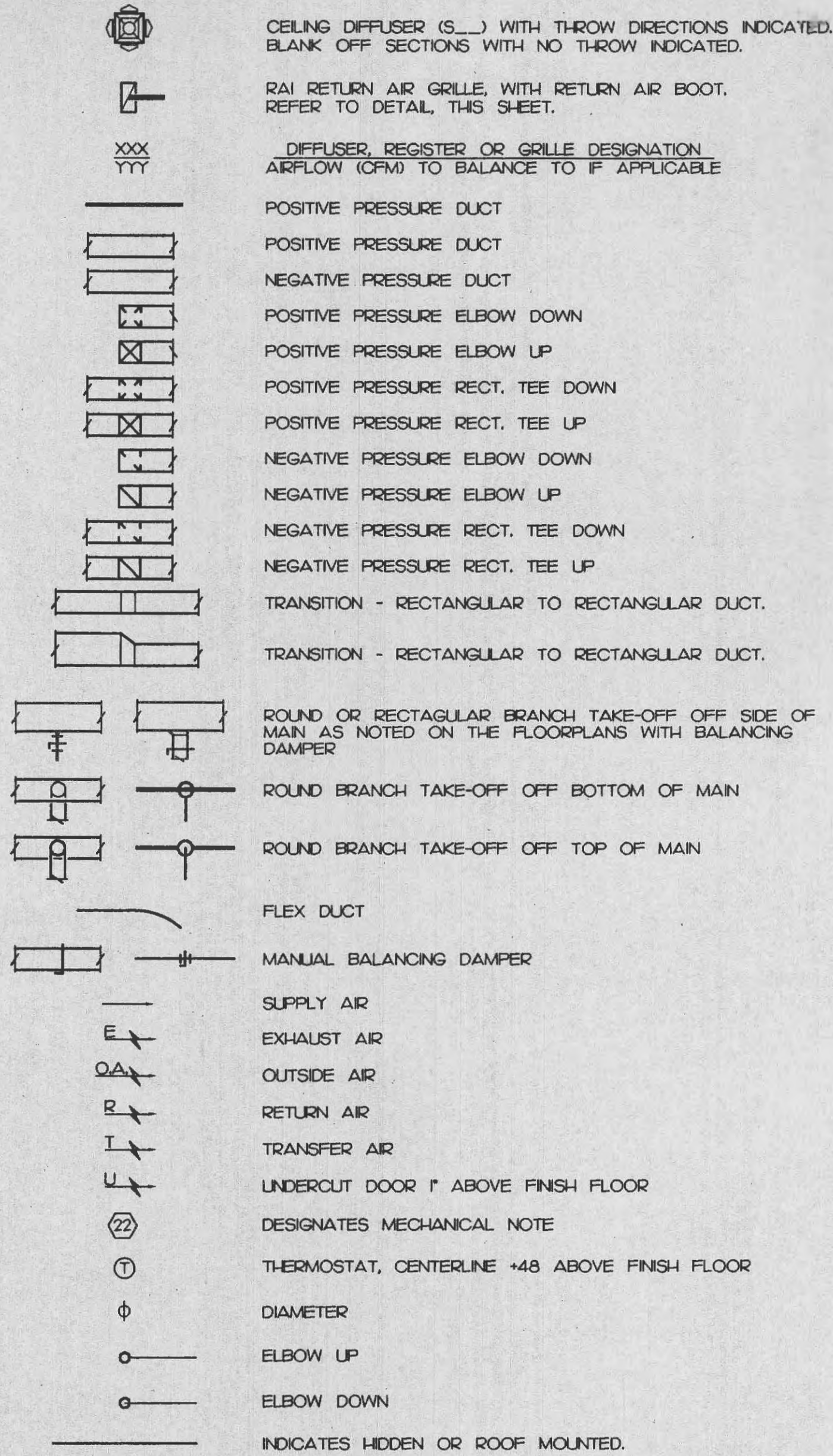
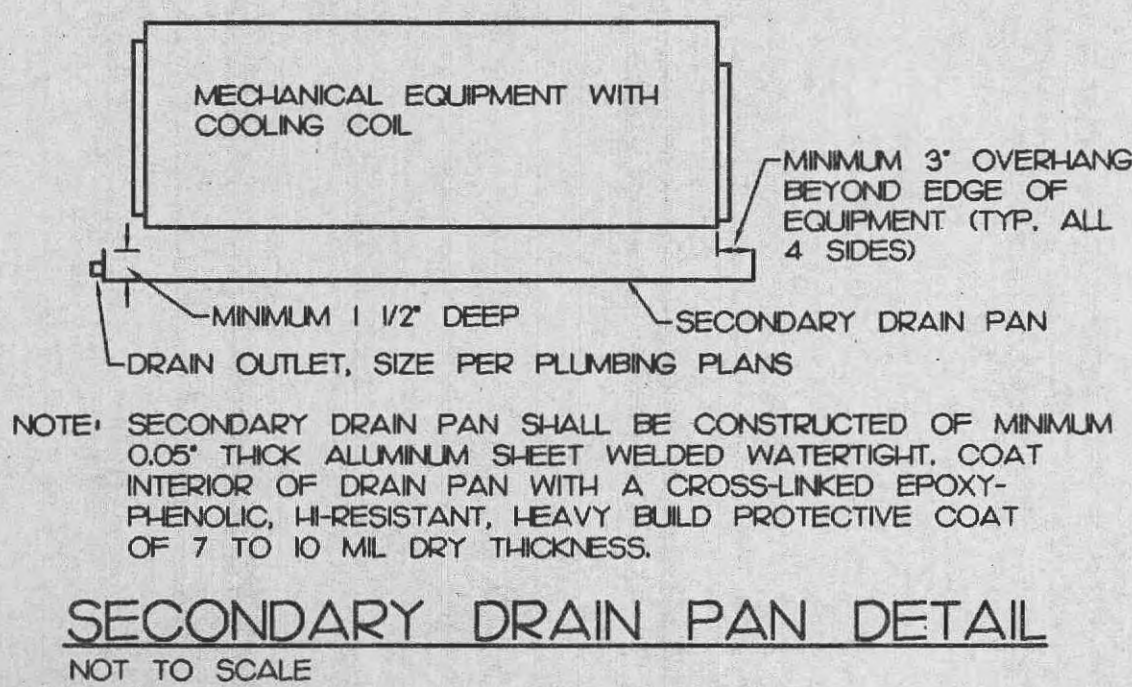
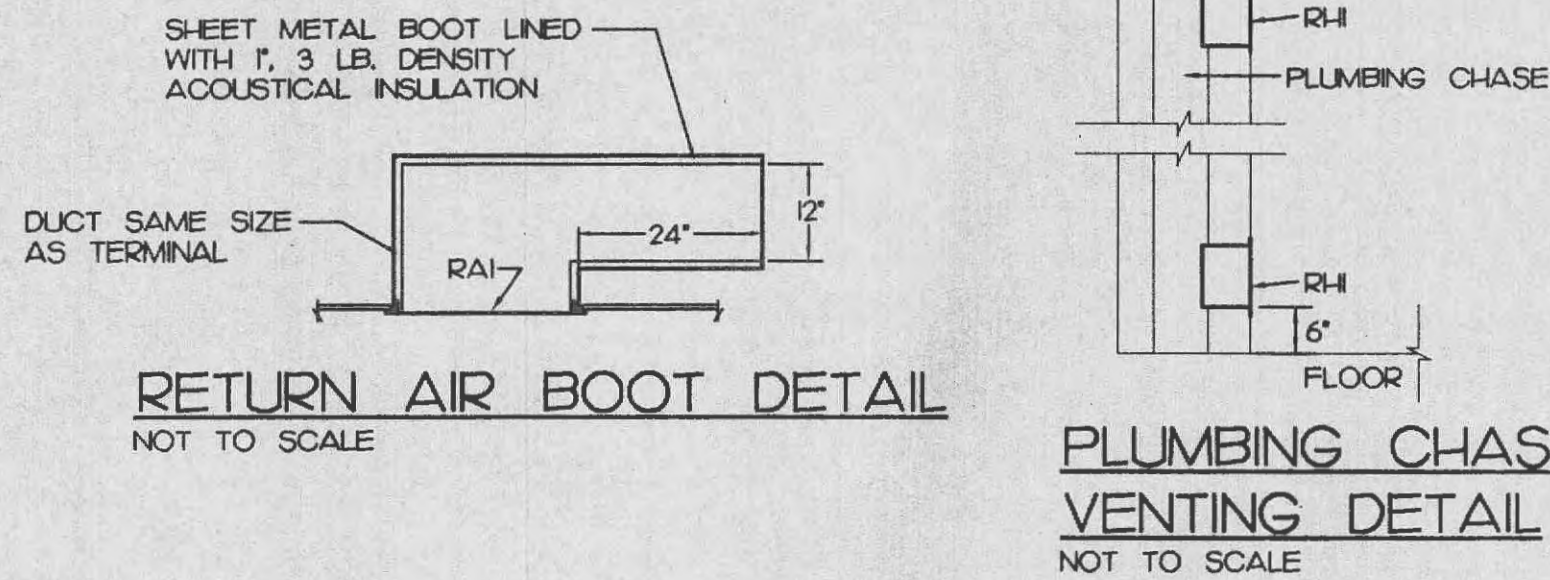
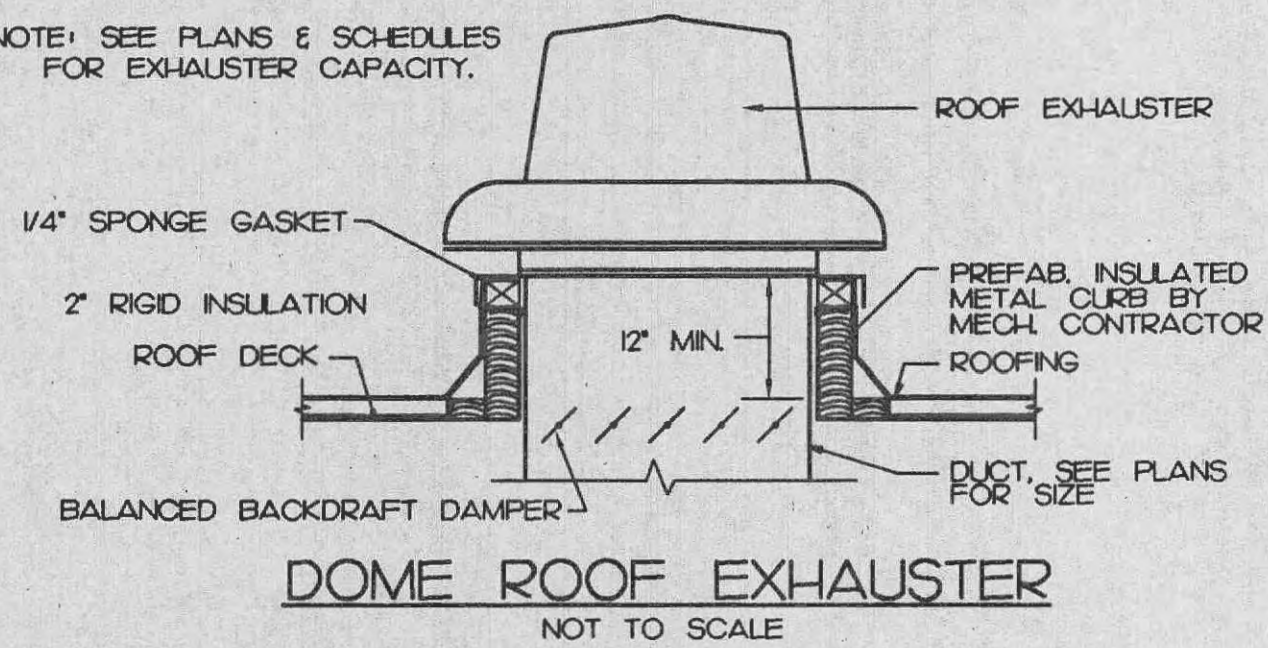


MECHANICAL SYMBOLS:



NOTE: SEE PLANS & SCHEDULES FOR EXHAUSTER CAPACITY.



ELECTRIC CABINET HEATER SCHEDULE

UNIT DESIGN.	SUPPLY FAN (1)		ELECTRIC HEAT (2)		UNIT REQUIREMENTS	
	AIRFLOW (CFM)	HEAT OUTPUT (KW)	HEAT OUTPUT (BTU-H)	NO. OF FIN TUBE ELEMENTS	ELECTRICAL (VOLTS/PH)	REMARKS
CH1	500	8.0	27,300	4	208/3	3, 4, 5
CH-2	500	8.0	27,300	4	208/3	3, 4, 5
CH-3A	500	12.0	41,000	6	208/3	3, 4, 5
CH-3B	500	12.0	41,000	6	208/3	3, 4, 5
CH-4	500	8.0	27,300	4	208/3	3, 4, 5

NOTES:

- TWO SPEED FAN, CFM LISTED IS FOR FAN AT HIGH SPEED.
- HEAT OUTPUT LISTED IS FOR FAN AT HIGH SPEED, ALL STAGES (FINNED TUBE HEATING ELEMENTS) OPERATING.
- RECESSED, 48"x24", CEILING MOUNTED CONFIGURATION.
- ELECTRIC CABINET HEATER AND ASSOCIATED CONTROLS FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, REFER TO ELECTRICAL DRAWINGS.
- FURNISH WITH REMOTE, WALL-MOUNTED THERMOSTAT.

ELECTRIC UNIT HEATER SCHEDULE

UNIT DESIGN.	SUPPLY FAN		ELECTRIC HEAT		UNIT REQUIREMENTS	
	AIRFLOW (CFM)	HEAT OUTPUT (KW)	HEAT OUTPUT (BTU-H)	# STAGES	ELECTRICAL (VOLTS/PH)	REMARKS
UH-1	650	10.0	34,100	1	480/3	1, 3
UH-2	350	5.0	17,060	1	480/3	1, 3
UH-3A	650	7.5	25,600	1	480/3	1, 2
UH-3B	650	7.5	25,600	1	480/3	1, 2
UH-4A	350	5.0	17,060	1	480/3	1, 3
UH-4B	350	5.0	17,060	1	480/3	1, 3
UH-4C	350	5.0	17,060	1	480/3	1, 3
UH-5A	650	7.5	25,600	1	480/3	1, 3
UH-5B	650	7.5	25,600	1	480/3	1, 3
UH-6	650	7.5	25,600	1	480/3	1, 3, 4

NOTES:

- ELECTRIC UNIT HEATER AND ASSOCIATED CONTROLS FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, REFER TO ELECTRICAL DRAWINGS.
- FURNISH WITH REMOTE LOCATED THERMOSTAT AND REMOTE LOCATED SUMMER FAN SWITCH. THERMOSTAT AND FAN SWITCH SHALL CONTROL BOTH UH-3A AND UH-3B.
- FURNISH WITH INTEGRAL THERMOSTAT.
- FURNISH WITH INTEGRAL SUMMER FAN SWITCH.

CONDENSING UNIT SCHEDULE

UNIT DESIGNATION	UNIT REQUIREMENTS	REFRIGERANT REQUIREMENTS		REMARKS
		ELECTRICAL (VOLTS/PH)	REFRIGERANT TYPE	
C-1	480/3	R-22	13.0 LB	1, 2, 3
C-2	480/3	R-22	15.6 LB	1, 2, 3

NOTES:

- COOLING BASED ON 105°F AMBIENT TEMPERATURE.
- MECHANICAL CONTRACTOR SHALL COORDINATE ALL PHYSICAL DIMENSIONS WITH THE GENERAL CONTRACTOR AND COORDINATE ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
- UNIT SHALL BE CAPABLE OF PROVIDING COOLING REQUIREMENTS AS SCHEDULED UNDER ASSOCIATED AIR HANDLER.

RETURN GRILLE SCHEDULE

UNIT DESIGNATION	NECK SIZE	MODULE SIZE	MAX. FLOW RATE (CFM)	MAX. SP. DROP (IN. W.G.)	MAX. NC LEVEL
RAI	22"x10"	24"x12"	100	.10	30

TRANSFER GRILLE SCHEDULE

UNIT DESIGNATION	NOMINAL DUCT SIZE	CORE AREA (SQ. FT.)	FLOW RATE (CFM)	MAX. SP. DROP (IN. W.G.)	MAX. NC LEVEL
RH-1	16"x8"	0.72	---	---	---

FAN SCHEDULE

UNIT DESIGNATION	EXHAUST AIRFLOW (CFM)	ESTM. S.P. PRE-DROP (IN. W.G.)	ESTM. MOTOR HP. (WATTS)	MAXIMUM SONES	VOLTS/PHASE	NOTES
F-1	1,800	0.50	1/4	11.4	15/1	1, 3
F-2	2,350	0.50	1/2	14.0	15/1	1, 3
F-3	1,720	0.50	1/3	11.3	15/1	1, 3
F-4	1,460	0.50	1/4	10.6	15/1	1, 3
F-5	90	0.10	(40)	3.1	15/1	4, 3
F-6	98	0.25	(80)	2.3	15/1	5, 3
F-7A	180	0.10	(80)	5.0	15/1	2
F-7B	180	0.10	(80)	5.0	15/1	2
F-8	1,620	0.25	(550)	6.4	15/1	6

NOTES:

- CENTRIFUGAL ROOF EXHAUST FAN, DIRECT DRIVE, WITH SPEED CONTROL.
- SIDEWALL VENTILATOR WITH INTEGRAL BACKDRAFT DAMPER.
- CONTROL SHALL BE AS INDICATED ON THE ELECTRICAL DRAWINGS.
- CEILING EXHAUST FAN, WALL MOUNTED WITH FILTER AND HOODED WALL CAP.
- CEILING EXHAUST FAN WITH CEILING GRILLE.
- IN-LINE CABINET FAN, DIRECT DRIVE PROVIDE THERMOSTAT (FAN ON AT 90 DEGREES F. ROOM TEMPERATURE).

ELECTRIC WALL HEATER SCHEDULE

UNIT DESIGN.	SUPPLY FAN		ELECTRIC HEAT		UNIT REQUIREMENTS	
	AIRFLOW (CFM)	HEAT OUTPUT (KW)	HEAT OUTPUT (BTU-H)	# STAGES	ELECTRICAL (VOLTS/PH)	REMARKS
WH-1	100	2.0	6,840	1	277/1	1, 2

NOTES:

- ELECTRIC WALL HEATER AND ASSOCIATED CONTROLS FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, REFER TO ELECTRICAL DRAWINGS.
- FURNISH WITH INTEGRAL THERMOSTAT.

ELEC. BASEBOARD HEATER SCHEDULE

UNIT DESIGN.	ELECTRIC HEAT			UNIT REQUIREMENTS	
	HEAT OUTPUT (KW)	HEAT OUTPUT (BTU-H)	WATT DENSITY (W/FT)	LENGTH (INCHES)	ELECTRICAL (VOLTS/PH)
BB-1A	25	8,530	250	120	277/1
BB-1B	0.75	2,560	250	36	277/1

NOTES:

- ELECTRIC WALL HEATER AND ASSOCIATED CONTROLS FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, REFER TO ELECTRICAL DRAWINGS.
- INTEGRAL THERMOSTAT.

AIR HANDLER SCHEDULE

UNIT DESIGNATION (2)	SUPPLY AIR FAN (1)			EVAPORATOR COIL				UNIT REQUIREMENTS		ELEC. HEAT (3)		REMARKS	
	AIRFLOW (CFM)	ESTM. S.P. (\" SP.)	ESTM. HP.	MIN. FACE AREA (SQ. FT.)	E.A.T. DB/WB	TOTAL (MBH)	SENS. (MBH)	ELECTRICAL (VOLTS/PH)	OUTDOOR AIR (CFM)	KW	STAGES	ASSOCIATED COND. UNIT	NOTES
AHU-1	2,000	0.9	1.0	5.0	83/67	63.8	47.6	480/3	5.0	24.9	2	C-1	4
AHU-2	2,700	0.9	1.5	8.1	78/65	80.8	64.4	480/3	8.1	24.9	2	C-2	4

NOTES:

- EXTERNAL STATIC PRESSURE INCLUDES SHEETMETAL WORK AND ELECTRIC HEATER ONLY. TOTAL STATIC PRESSURE SHALL INCLUDE EXTERNAL SP. PLUS ALL UNIT COMPONENTS, INCLUDING WET COILS AND CLEAN FILTERS.
- MECHANICAL CONTRACTOR SHALL COORDINATE ALL PHYSICAL DIMENSIONS WITH THE GENERAL CONTRACTOR AND COORDINATE ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
- FULLY ENCASED ELECTRIC RESISTANCE HEATING MODULE INSTALLED DIRECTLY ON AHU DISCHARGE.
- PROVIDE SECONDARY DRAIN PAN PER DETAIL AND THERMOSTAT.

DUCTLESS AIR CONDITIONING UNIT SCHEDULE

UNIT DESIGNATION (6)	SUPPLY AIR FAN (3)		EVAPORATOR COIL (1)		UNIT REQUIREMENTS		REMARKS
	AIRFLOW (CFM)	TOTAL (BTU-H)	E.A.T. DB/WB	ELECTRICAL (VOLTS/PH)	(5)		
AC-1A/B	1,270	34,900	80/67	15/1	208/1	2, 6	

NOTES:

- COOLING BASED ON 105°F AMBIENT TEMPERATURE.
- MECHANICAL CONTRACTOR SHALL COORDINATE ALL PHYSICAL DIMENSIONS WITH THE GENERAL CONTRACTOR AND COORDINATE ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
- AIRFLOW BASED ON DRY COIL AT HIGH FAN SPEED.
- OUTDOOR CONDENSING UNIT.
- INDOOR EVAPORATING UNIT, MOUNT BOTTOM OF UNIT 9'-0" AFF.
- AC-1A IS INDOOR EVAPORATOR UNIT. AC-1B IS OUTDOOR CONDENSING UNIT.
- PROVIDE THERMOSTAT.

EXHAUST REGISTER SCHEDULE

UNIT DESIGNATION	NOMINAL DUCT SIZE	CORE AREA (SQ. FT.)	FLOW RATE (CFM)	MAX. SP. DROP (IN. W.G.)	MAX. NC LEVEL
ECI	12"x0"	0.72	430	0.075	28

NOTES:

- NC VALUES INCLUDE BALANCING DAMPER.

EXHAUST GRILLE SCHEDULE

UNIT DESIGNATION	NECK SIZE	MODULE SIZE	MAX. FLOW RATE (CFM)	MAX. SP. DROP (IN. W.G.)	MAX. NC LEVEL
EAI	12"	24"x24"	510	0.15	28

SQUARE CEILING DIFFUSER SCHEDULE

UNIT DESIGNATION	NECK SIZE (IN. Ø)	MODULE SIZE	LOUVER FACE AREA	MAX. FLOW RATE (CFM)	MAX. SP. DROP (IN. W.G.)	MAX. NC LEVEL
SAB	8	24"x24"	12"x12"	200	0.1	15
SA10	10	24"x24"	12"x12"	360	0.1	24
SA12	12	24"x24"	15"x15"	590	0.1	28
SB6	6	12"x12"	6"x6"	95	0.1	12
SS6 (1)	6	24"x24"	---	110	0.05	20

NOTES: 1. SELF-CONTAINED, THERMALLY POWERED VAV DIFFUSER

GRILLE, REGISTER, & DIFFUSER GENERAL NOTES:

- NC VALUES ARE BASED ON A ROOM ABSORPTION OF 10 DB, RE 10E-12 WATTS.

GENERAL NOTES:

- REFER TO ARCHITECTURAL FLOOR PLANS FOR ALL ROOM NUMBERS NOT INDICATED.
- REFER TO ARCHITECTURAL CEILING PLANS AND ELEVATIONS FOR EXACT LOCATION OF ALL DIFFUSERS, REGISTERS, AND GRILLES.
- EXTREME CARE SHALL BE TAKEN IN COORDINATING ALL WORK WITH ALL OTHER PROVIDERS.
- VERIFY THAT THE LOCATION OF ALL MECHANICAL EQUIPMENT INCLUDING THERMOSTATS, SWITCHES, ETC. DO NOT CONFLICT WITH ARCHITECTURAL EQUIPMENT, INCLUDING CHALKBOARDS, TACKBOARDS, ETC.
- DUCTS SHALL BE LOCATED AS CLOSE TO STRUCTURE AS POSSIBLE. REDUCTIONS IN A DUCTS DEPTH SHALL KEEP THE DUCTS AS CLOSE TO STRUCTURE AS POSSIBLE.
- MAIN DUCT SIZES SHOWN START AT LAST UPSTREAM BRANCH TAKE-OFF AND CONTINUE UNTIL NEW DUCT SIZE IS SHOWN, UNLESS SPECIFICALLY NOTED ON THE DRAWING.
- ROUND AND FLEX DUCT DIRECTLY SERVING DIFFUSER SHALL BE OF THE SAME SIZE AS THE DIFFUSER NECK, UNLESS NOTED OTHERWISE ON DRAWINGS.
- INTAKE AND DISCHARGE DUCTS FOR ALL FANS ARE A MINIMUM OF THE CONNECTIONS TO THE FANS.
- DIAGRAMMATIC DUCT LAYOUTS ARE SHOWN ON THE DRAWING. DUCTS SHALL BE INSTALLED WITH REGARD TO STRUCTURAL FEATURES, PIPING, LIGHTS, AND OTHER DUCTWORK. ADDITIONAL DROPS, RISERS, SWINGS, ETC. SHALL BE PROVIDED WHERE NECESSARY.
- PROVIDE ACCESS DOORS IN DUCTS AS REQUIRED TO ADJUST EQUIPMENT.
- PROVIDE ACCESS DOORS IN WALLS AND CEILINGS AS REQUIRED TO PROVIDE MAINTENANCE ACCESS TO EQUIPMENT OR TO ALLOW ACCESS TO BALANCING DAMPERS. DOORS SHALL BE OF ADEQUATE SIZE TO ALLOW REMOVAL OF EQUIPMENT BEHIND NON-REMOVABLE CEILING OR WALLS.
- DUCTS SERVING WALL DIFFUSERS, REGISTER, OR GRILLES SHALL BE THE SAME SIZE AS THE RESPECTIVE DIFFUSER, REGISTER, OR GRILLE UNLESS NOTED OTHERWISE.
- AIR HANDLING UNITS (ALL) AND FANS (E) IN CEILING PLENUM SHALL BE MOUNTED NO HIGHER THAN 24" ABOVE FINISHED CEILING.

HOK

SPORT

HELLMUTH OBATA & KASSABAUM, INC.
Architecture, Engineering, Planning,
Interiors, Facility Programming
323 West 8th Street, Suite 700
Kansas City, Missouri 64105

STRUCTURAL ENGINEER
Kear County Codes Association
801 Walnut - Suite 302
Kansas City, Missouri 64105

MECHANICAL/ELECTRICAL/PLUMBING
Hobbs & Associates
9501 43rd Street - Suite 214
Raytown, Missouri 64133

CIVIL ENGINEER
George Butler Associates, Inc.
223 South Main Street - Suite 200
O'Fallon, Missouri 63366-2892

T. R. HUGHES BALLPARK
AT THE OZZIE SMITH SPORTS COMPLEX

for the River City Rascals
O'FALLON, MO.

PACKAGE REVISIONS	NO.	DATE	DESCRIPTION

PROJECT NO. 07-0761-00 ISSUED BY: HOK SPORT
DRAWN BY: BSD REVIEWED BY: GOK
ISSUED: 7-7-98
SHEET TITLE

MECHANICAL SYMBOLS AND SCHEDULES

CATEGORY - SUB-CATEGORY - SHEET
M.1