

	SUPPLY AIR DIFFUSER
	RETURN AIR DIFFUSER
	EXHAUST AIR DIFFUSER
	DIRECTIONAL AIR FLOW
	MANUAL VOLUME DAMPER
	SUPPLY AIR DUCT UP & DOWN
	RETURN AIR DUCT UP & DOWN
	EXHAUST OR OUTSIDE AIR DUCT UP & DOWN
	SUPPLY AIR DUCT UP & DOWN
	RETURN AIR DUCT UP & DOWN
	EXHAUST OR OUTSIDE AIR DUCT UP & DOWN
	VAV TERMINAL UNIT W/ REHEAT COIL
(D)	DEMOLISH
(E)	EXISTING
	CONNECT TO EXISTING
T F-?	THERMOSTAT
S	TEMPERATURE SENSOR
?	NOTE
XX ?	EQUIPMENT DESIGNATOR
	GATE VALVE
	CHECK VALVE
	BALANCING VALVE
	THERMOMETER
	DIRECTION OF FLOW
	PUMP
	STRAINER
	PRESSURE GAUGE
T	PETE'S PLUG
	DOUBLE CHECK ASSEMBLY
	PRESSURE REDUCING VALVE
	UNION
	2-WAY CONTROL VALVE
	3-WAY CONTROL VALVE
	CAP
	MOTORIZED DAMPER
	BALL SHUT OFF VALVE
	FIRE DAMPER
	FIRE / SMOKE DAMPER
	SMOKE DAMPER
AHU	AIR HANDLING UNIT
B.D.	BOTTOM OF DUCT
BHP	BRAKE HORSEPOWER
BOG	BOTTOM OF GRILLE
BTU	BRITISH THERMAL UNITS
CFM	CUBIC FEET PER MINUTE
CONN.	CONNECTION
CONT.	CONTINUATION
CW	DOMESTIC COLD WATER
DB	DRY BULB
DIA.	DIAMETER
DIST.	DISTRIBUTION
EXH	EXHAUST AIR
EDB	ENTERING DRY BULB TEMPERATURE
EWB	ENTERING WET BULB TEMPERATURE
EWI	ENTERING WATER TEMPERATURE
FF	FINISH FLOOR
FIXT.	FIXTURE
F.O.B.	FLAT ON BOTTOM
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FT.	FEET / FOOT
GA.	GAUGE
GEXH	GREASE EXHAUST AIR DUCT
GPM	GALLONS PER MINUTE
H	HEIGHT
HP	HORSEPOWER
I.D.	INSIDE DIAMETER
IN.	INCHES
L	LENGTH
LBS.	POUNDS
LDB	LEAVING DRY BULB
LWB	LEAVING WET BULB
LWT	LEAVING WATER TEMPERATURE
MA	MAKE UP AIR
MAX.	MAXIMUM
MBH	THOUSANDS OF BTUS PER HOUR
MD	MOTORIZED DAMPER
MIN.	MINIMUM
MVD	MANUAL VOLUME DAMPER
NC	NOISE CRITERIA
N.C.	NORMALLY CLOSED
N.I.M.	NOT IN MECHANICAL
NO.	NUMBER
N.O.	NORMALLY OPEN
O.A.	OUTSIDE AIR
P	PERSON
PSI	POUNDS PER SQUARE INCH
P/T	PRESSURE / TEMPERATURE
R.A.	RETURN AIR
RECT.	RECTANGULAR
REQ'D	REQUIRED
S.A.	SUPPLY AIR
S.P.	STATIC PRESSURE
SQ.	SQUARE
TEMP.	TEMPERATURE
TYP.	TYPICAL
VAV	VARIABLE AIR VOLUME
W	WIDTH
WB	WET BULB
WPD	WATER PRESSURE DROP
ø	DIAMETER
HWS	(HWS) HEATING WATER SUPPLY
HWR	(HWR) HEATING WATER RETURN
HWRR	(HWRR) HEATING WATER REVERSE RETURN
CHS	(CHS) CHILLED WATER SUPPLY
CHR	(CHR) CHILLED WATER RETURN
PC	PUMPED CONDENSATE
S	(HPS) HIGH PRESSURE STEAM
-/-	(HT) HEAT TRACED DOMESTIC HOT WATER

BOTTOM DUCT

TOP DUCT

DUCT CROSSING

TURNING VANES IN ALL SQUARE ELBOWS AND TEES

LINED DUCTWORK

DOUBLE WALL DUCT

RECT. TO RECT.

RECT. TO ROUND

TRANSITIONS

SPECIFICATION REFERENCE
 SA = SUPPLY DIFFUSER
 RA = MATCHED RETURN
 EXH = EXH GRILLE

15° < α < 90°
 SMOOTH RADIUS ELBOW, W/O VANES
 R/W = 1.0

α ≤ 15°
 MITERED ELBOW

ELBOWS

ROUND OR RECTANGULAR MAIN

ROUND DUCT W/ CONICAL FITTING

ROUND DUCT TEE

NECK SIZE

BALANCED AIRFLOW, CFM

SIDEWALL DIFFUSER
 SEE PLANS

SOFFIT WALL

8" SA/RA - ROUND SA/RA DUCT
 TRANSITION FROM
 RECTANGULAR TO ROUND
 (MIN. CROSS-SECTIONAL
 AREA TO MATCH ROUND)

MANUAL VOLUME DAMPER;
 LOCATE BY MAIN DUCT IN
 ACCESSIBLE LOCATION

ROUND DUCT TRANSITION W/
 SPIN-IN FITTING OFF TOP OF
 RECTANGULAR MAIN

8X8 SA
200 CFM

RETURN AIR CEILING
 DIFFUSER PRICE PDDR
 OR APPROVED EQUAL

ARROWS INDICATE
 DIRECTION OF AIR FLOW

SUPPLY AIR CEILING
 DIFFUSER
 PRICE SMCD OR
 APPROVED EQUAL
 BRANCH DUCT

SPIN-IN FITTING WHERE
 APPLICABLE, GENFLEX
 SM-1DEL (WITH DAMPER
 AND 45° EXTRACTOR) OR
 APPROVED EQUAL.

10X6 SA (W" x "H")
SA MAIN DUCT

AIR TERMINALS

MARK NUMBER		RTU 1	RTU 2	RTU 3	RTU 4
SYSTEM		DRY GOODS AND RESTROOMS	GAMING	DINING	KITCHEN
TYPE					
FAN SECTION	TOTAL CFM	4,865	4,400	2,400	2,000
	MIN. OSA (CFM)	1,740	1,755	1020	185
	EXTERNAL S.P., "H2O (EXCL. FILTER)	1.0	1.0	1.0	1.0
	RPM				
	BHP				
POWER EXH. FAN		YES	YES	YES	YES
POWER EXH. FAN TYPE		PROPELLER	PROPELLER	PROPELLER	PROPELLER
MODULATING ECONOMIZER CONTROLS		NO	YES	YES	NO
ECONOMIZER 100%		YES	YES	YES	YES
FILTER TYPE		30%	30%	30%	30%
HEATING					
	GAS HEATING INPUT, MBH	336/268	202/161	126/88	97/69
	HEATING STAGES	2	2	2	2
	THERMAL EFFICIENCY, %	81	81	82	82
COOLING					
	NOMINAL CAPACITY (TONS)	15	12.5	6	5
	STAGES	2	2	1	1
	NET TOTAL/SENSIBLE COOLING(MBH)				
	ENT. EVAP AIR TEMP (DB/WB.)				
	AMBIENT AIR (°F)	95	95	95	95
	IEER	13.9	13.0	13.0	15.2 SEER
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A	
DESIGN WEIGHT WITH CURB (LBS.)		2,635	1,935	1,110	835
SMOKE DETECTOR IN RETURN DUCT		YES	YES	YES	YES
REMOTE CO2 SENSOR		NO	YES	YES	NO
FLUE DEFLECTOR		YES	YES	YES	YES
VIBRATION ISOLATION CURB		YES	YES	NO	NO
BASIS OF DESIGN IS CARRIER 48HC		17B	14B	07B	06B

NOTES:
1. CONTROLS SHALL BE PACKAGED THERMOSTATS;

TYPE	DUCTED	DUCTED	DUCTED
SYSTEM	BANQUET	COUNTING & OFFICE	OFFICES
INDOOR UNIT MARK NUMBER	IHP 1	IHP 2	IHP 3
OUTDOOR UNIT MARK NUMBER	OHP 1	OHP 2	OHP 3
NOMINAL CAPACITY (TON)	1.5	1.5	1.5
OUTSIDE AIR CFM	170	170	170
NOMINAL COOLING CAPACITY, BTUH	18,000	18,000	18,000
NOMINAL HEATING CAPACITY, BTUH	20,000	20,000	20,000
DRY AIRFLOW (LOW/MED/HIGH)	529/582/635	529/582/635	529/582/635
CONDENSATE PUMP	YES	YES	YES
REFRIGERANT TYPE	R-410A	R-410A	R-410A
SEER	17.5	17.5	17.5
HSPF	10.6	10.6	10.6
MAX PIPING LENGTH (FT.)	164	164	164
MAX PIPING ELEV. CHANGE (FT.)	98	98	98
INDOOR UNIT DESIGN WT.	80	80	80
OUTDOOR UNIT DESIGN WT.	150	150	150
OUTDOOR UNIT MOUNTING KIT	WALL	WALL	WALL
BASIS OF DESIGN: DAIKIN	RZQ18PVJ9/FBQ18PVJU	RZQ18PVJ9/FBQ18PVJU	RZQ18PVJ9/FBQ18PVJU

GENERAL NOTES FOR OHP-1, OHP-2 AND OHP-3:
1. PROVIDE OUTDOOR HEAT PUMP WITH CRANKCASE HEATER, TXV, LOW AMBIENT CONTROL, WINTER START CONTROL, HI-LOW PRESSURE SWITCH, WIND BAFFLE AND ISOLATION RELAY.
2. PROVIDE WIRELESS WALL MOUNTED THERMOSTAT.

MARK NUMBER	EF 1	EF 2 *	EF 3
DESIGN ELEVATION, FEET	3,200	3,200	3,200
TYPE	ROOF	ROOF	CEILING
SYSTEM	RESTROOMS	TYPE I HOOD	RESTROOM 129
CFM	1,475		100
TOTAL S.P. (IN H2O)	0.5		0.3
DRIVE	DIRECT		DIRECT
SOLID STATE SPEED CONTROL	YES		YES
FAN RPM	1,443		704
MOTOR HP	1/2		48W
CONTROLLED BY	CONTINUOUS	SWITCH	LIGHT SWITCH
INTERLOCK WITH	RTU-1	---	---
WHEEL TYPE	B.I.	B.I.	F.C.
MOTORIZED DAMPER	YES	N/A	BACKDRAFT ONLY
ISOLATION	YES	YES	YES
DESIGN WEIGHT (LBS)	51		21
MOUNTING	ROOF CURB	ROOF CURB	CEILING
MAX. SONES	12.8		2
DISCHARGE/CONFIGURATION	DOWNBLAST/ROOF	UPBLAST	WALL LOUVER
MOTOR OUT OF AIR STREAM	YES	YES	NO
BASIS OF DESIGN: GREENHECK	G		SP

* - PROVIDE ALUMINUM SCROLL HOUSING AND INLET CONE. WHEEL SHALL BE ALUMINUM CONSTRUCTION.

TYPE	DUCT FREE SPLIT SYSTEM
SYSTEM	MDF B122
INDOOR UNIT MARK NUMBER	
OUTDOOR UNIT MARK NUMBER	
TYPE (INDOOR UNIT)	WALL MOUNT
NOMINAL CAPACITY (TON)	2.0
NOMINAL COOLING CAPACITY, BTU/H	22,000
REFRIGERANT TYPE	R410A
DRY AIRFLOW (LOW/MED/HIGH)	420/604/745
SEER	15.0
MAX PIPING LENGTH (FT.)	98.4
MAX PIPING ELEV. CHANGE	65.6
CONDENSATE PUMP "LITTLE GIANT"	YES
INDOOR UNIT DESIGN WEIGHT, LBS	26
OUTDOOR UNIT DESIGN WEIGHT, LBS	97
OUTDOOR UNIT MOUNTING KIT	WALL MOUNT
BASIS OF DESIGN: DAIKIN	FTX024NMVU/RX024NMVU

NOTE:

1. PROVIDE OAC-1 WITH CRANKCASE HEATER, TXV, LOW AMBIENT CONTROL, WINTER START CONTROL, HI-LOW PRESSURE SWITCH, WIND BAFFLE AND ISOLATION RELAY.
2. PROVIDE WALL MOUNTED THERMOSTAT.

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PRELIMINARY NOT FOR CONSTRUCTION

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Project Number	1519
Date	JUNE 21, 2016
Drawn By	TB
Checked By	JVB

MECHANICAL LEGEND SCHEDULES & DETAILS

M6.00