

ENERGY RECOVERY UNIT																
MARK	SERVICE	SEASON	SUPPLY					EXHAUST					HEATING CAP.		MODEL	NOTES
			NET CFM	ESP (IN. W.C.)	MAX. H.P.	EAT (°F DB/WB)	LAT (°F DB/WB)	NET CFM	ESP (IN. W.C.)	MAX. H.P.	EAT (°F DB/WB)	LAT (°F DB/WB)	INPUT MTUB	OUTPUT MTUB		
ERU-3	CORRIDORS	SUMMER	2310	0.75	3	86/71	55/53.85	2100	0.75	3	75/64	83.1/69.15	250	200	TRANE CSAA	① ② ③ ④ ⑤ ⑥
		WINTER				-3/-4.3	70				70/53	70/53				

- NOTES:
- 55/53.09 °F DISCHARGE AIR TEMPERATURE.
 - UNIT IS TO BE SUSPENDED W/ STRUCTURE THREADED RODS.
 - FANS TO SHUT DOWN UPON ACTIVATION OF FIRE ALARM SAFETY SYSTEM.
 - INSTALLED WEIGHT 2800 LBS.
 - MERV 8 FOR SUPPLY & MERV 5 FOR EXHAUST.
 - BURNER TURN DOWN RATIO SHALL BE 10:1.

SPLIT SYSTEM COOLING UNIT														
MARK	SERVICE	CFM	OA CFM	ESP IN. W.C.	MAX. H.P.	COOLING CAPACITY			HEATING CAP.		OUTDOOR UNIT SEER	EQUIPMENT MODEL #		NOTES
						TOTAL (MBTUH)	SENSIBLE (MBTUH)	EAT (°F DB/WB)	KW	STEP		OUTDOOR UNIT	FAN COIL UNIT	
FCU-1	ELEV. EQUIPMENT	800	-	0.25	1/4	24.5	17.4	80/67	-	-	13	TRANE 4TR	TRANE TEB	① ③ ④
ACU-3	CORRIDOR	-	-	-	-	105	73	83/68	-	-	13	TRANE TWE	-	① ② ③

- NOTES:
- FOR REFRIGERANT LINE LENGTHS OVER 50 FEET, NOMINAL COOLING CAPACITY LOSSES SHALL NOT EXCEED 10% OF THE TOTAL COOLING CAPACITY. USE ONLY LONG RADIUS ELBOWS AND FITTINGS. REFER TO MANUFACTURERS PUBLISHED DATA FOR REFRIGERANT LINE SIZES, MAXIMUM LINE LENGTHS AND MAXIMUM ELEVATION CHANGES. MANUFACTURER TO FIELD INSPECT REFRIGERANT LINES PRIOR TO COVER UP. LETTER SHALL BE PROVIDED STATING THAT INSTALL MEETS MANUFACTURER RECOMMENDATIONS.
 - THIS EXTERNAL STATIC PRESSURE IS FOR THE ENTIRE FAN COIL UNIT ASSEMBLY (WET COIL, CASING, CLEAN FILTERS AND HEATER LOSSES ARE NOT INCLUDED IN THIS EXTERNAL STATIC PRESSURE).
 - COOLING CAPACITY AT 95°F OUTDOOR EAT.
 - W/ HEAD PRESSURE CONTROL. PROVIDE LOW AMBIENT CONTROLS TO 0°F.

THRU-WALL HEAT PUMPS												
MARK	SERVICE	OA CFM	COOLING CAPACITY				HEATING CAPACITY				MODEL	NOTES
			SENSIBLE (MBTUH)	TOTAL (MBTUH)	EAT (°F DB/WB)	EER	KW	STEPS	EAT (°F)			
TWU-A	GUEST ROOMS	0	7475	11500	80/67	11.2	3.9	-	70	TRANE PTH	① ②	

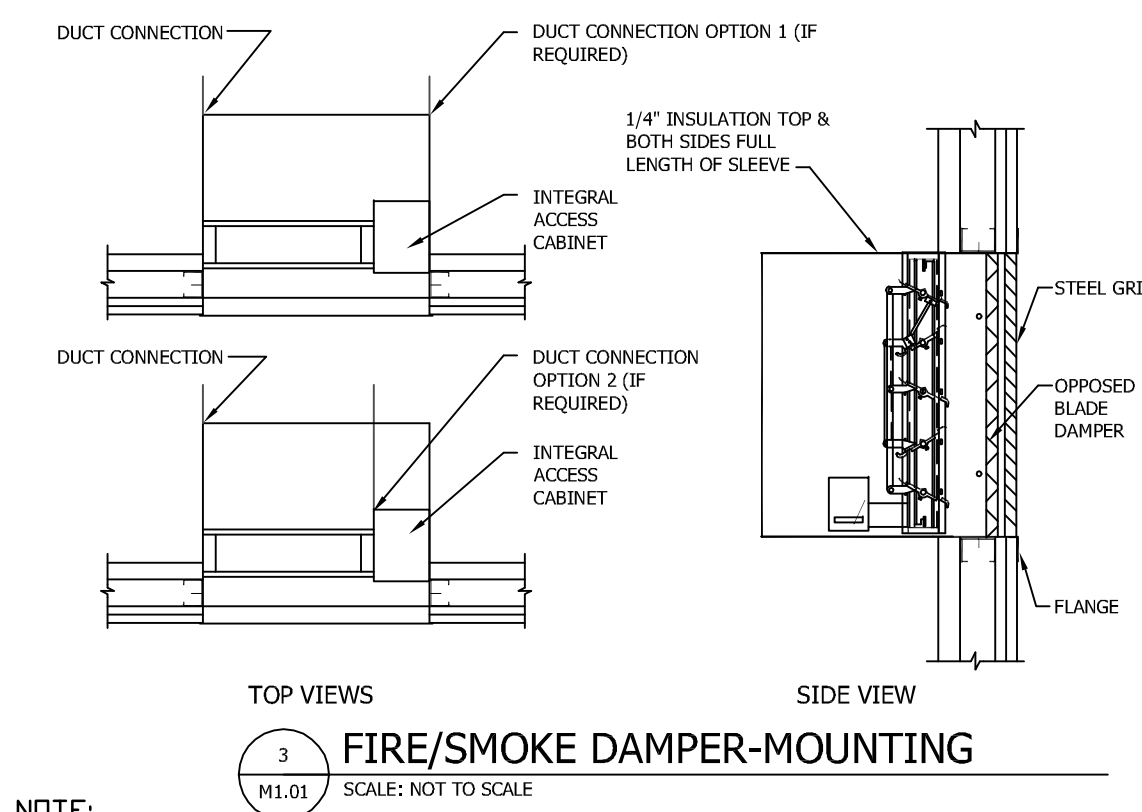
- NOTES:
- FURNISH WITH AUXILIARY DRAIN KIT, REMOTE THERMOSTAT & WITHOUT LOUVER
 - PROVIDE ELECTRICAL SUBBASE WITH FUSED DISCONNECT FOR PERMANENT CONNECTION

ELECTRIC WALL HEATER									
MARK	SERVICE	TYPE	CFM	Δ P (IN.)	BLOWER H.P.	K.W.	STEPS	MODEL	NOTES
EWH-5	STAIRS	WALL HEATER	-	-	-	5	-	MARKEL	①

- NOTES:
- PROVIDE INTEGRATED THERMOSTAT.

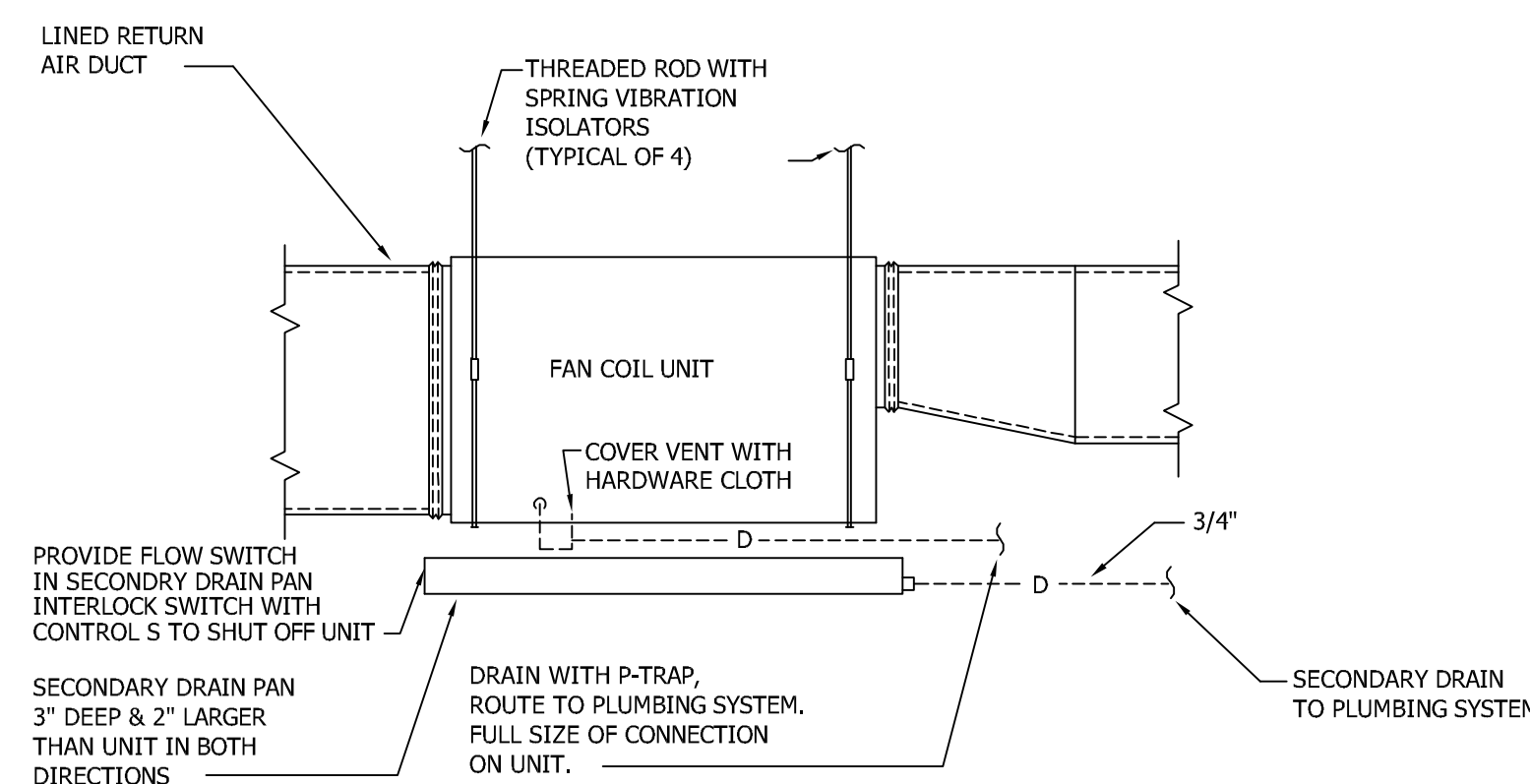
HVAC ABBREVIATION			
AAV	AUTOMATIC AIR VENT	HWS	HOT WATER SUPPLY
AC	ABOVE CEILING	IN	INCH
AD	ACCESS DOOR	KW	KILOWATT
ADJ	ADJUSTABLE	L&S	LOUVER & SCREEN
AHU	AIR HANDLING UNIT	LAT	LEAVING AIR TEMPERATURE
BD	BACKDRAFT DAMPER	LBG	LINEAR BAR GRILLE
BOH	BACK OF HOUSE	LBS	POUNDS
BTUH	BRITISH THERMAL UNIT	LD	LINEAR DIFFUSER
C	CHILLER	LRAG	LINEAR RETURN AIR GRILLE
CAP	CAPACITY	LWT	LEAVING WATER TEMPERATURE
CBCR	CURVED BLADE CEILING REGISTER	MAU	MAKE-UP AIR UNIT
CD	CEILING DIFFUSER	MAX	MAXIMUM
CFM	CUBIC FEET PER MINUTE	MBH	1000 BTUH
CHP	CHILLED WATER PUMP	MD	MANUAL DAMPER
CHR	CHILLED WATER RETURN	MOD	MOTOR OPERATED DAMPER
CHS	CHILLED WATER SUPPLY	NC	NORMALLY CLOSED
CO	CLEAN OUT	NO	NORMALLY OPEN
COND	CONDENSATE	NOM	NOMINAL
CP	CONDENSER WATER PUMP	NPSHA	NET POSITIVE SUCTION HEAD AVAIL.
CPU	CONDENSATE PUMPING UNIT	OA	OUTSIDE AIR
CR	CONDENSER WATER RETURN	OBD	OPPOSED BLADE DAMPER
CS	CONDENSER WATER SUPPLY	PH	PHASE
CU	CONDENSING UNIT	PIU	POWER INDUCTION UNIT
D	DRAIN	PSIG	POUNDS PER SQ. IN. WG.
DB	DRY BULB	RA	RETURN AIR
DG	DOOR GRILLE	RAG	RETURN AIR GRILLE
DN	DOWN	RAD	RETURN AIR DUCT
DXC	DIRECT EXPANSION COIL	RAR	RETURN AIR REGISTER
E	EXPANSION LINE	RL	REFRIGERANT LIQUID
EA	EACH	RS	REFRIGERANT SUCTION
EAT	ENTERING AIR TEMPERATURE	RTU	ROOF TOP UNIT
EF	EXHAUST FAN	RPM	REVOLUTIONS PER MINUTE
EG	EXHAUST GRILLE	SA	STATIC PRESSURE
ER	EXHAUST REGISTER	SD	SLOT DIFFUSER
ESP	EXTERNAL STATIC PRESSURE	SG	SUPPLY GRILLE
EW	ELECTRIC WALL HEATER	SSR	SIDEWALL SUPPLY REGISTER
EWT	ENTERING WATER TEMPERATURE	SRAG	SIDEWALL RETURN AIR GRILLE
FCU	FAN COIL UNIT	SP	STATIC PRESSURE
FD	FIRE DAMPER	SQ	SQUARE
FOD	FACE OPERATED DAMPER	TG	TRANSFER GRILLE
FR	FLOOR REGISTER	TWR	TEMPERED WATER RETURN
FSD	FIRE/SMOKE DAMPER	TWS	TEMPERED WATER SUPPLY
FT	FEET	TYP	TYPICAL
GF	GAS FURNACE	UC	UNDERCUT
GPM	GALLONS PER MINUTE	UH	UNIT HEATER
HP	HORSEPOWER	UNO	UNLESS NOTED OTHERWISE
HPU	HEAT PUMP UNIT	VAV	VARIABLE AIR VOLUME
HWH	HOT WATER DUCT HEATER	WB	WET BULB
HWR	HOT WATER RETURN	WG	WATER GAUGE

LEGEND			
	THERMOMETER		FLEXIBLE PIPE CONNECTION
	GATE VALVE		PETEE'S PLUG
	GLOBE VALVE		THERMOSTAT
	BALANCING VALVE		HUMIDISTAT
	CHECK VALVE		SMOKE DETECTOR
	BUTTERFLY VALVE		TEMPERATURE SENSOR
	UNION		MANUAL DAMPER
	3-WAY CONTROL VALVE		DUCT RISE
	2-WAY CONTROL VALVE		DUCT DROP
	RELIEF VALVE		VERTICAL FIRE DAMPER
	STRAINER		HORIZONTAL FIRE DAMPER
	AUTOMATIC AIR VENT		MOTOR OPERATED DAMPER, FIRE AND/OR SMOKE DET. ACTIVATED
	MANUAL AIR VENT		MOTOR OPERATED DAMPER
	PIPE GUIDE		BACKDRAFT DAMPER
	PIPE ANCHOR		LINED DUCT
	PRESSURE GAUGE		
	GAUGE COCK		
	PRESSURE REDUCING VALVE		
	TEST WELL		
	TRIPLE DUTY VALVE (SHUT-OFF, CHECK, BALANCING)		
	SUCCION DIFFUSER		

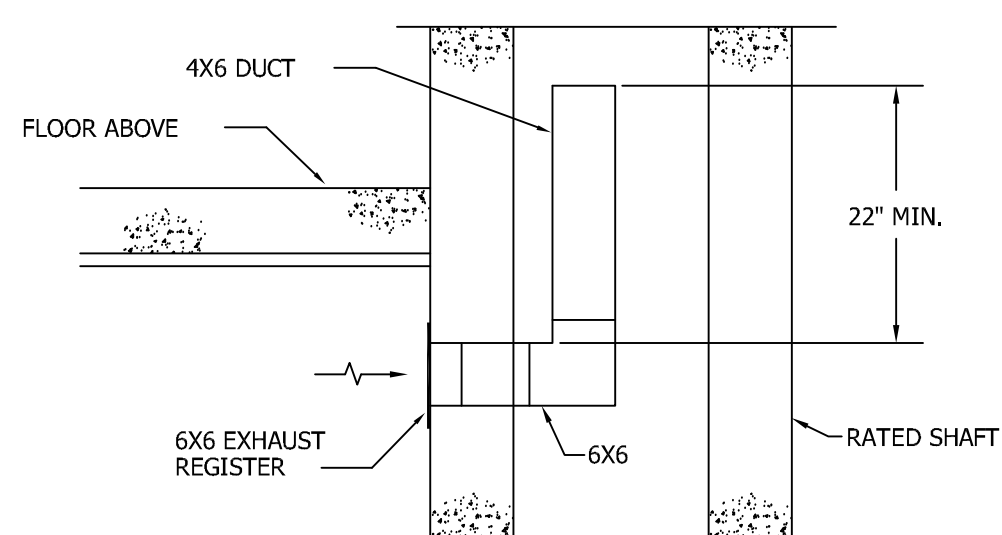


3 FIRE/SMOKE DAMPER-MOUNTING
SCALE: NOT TO SCALE

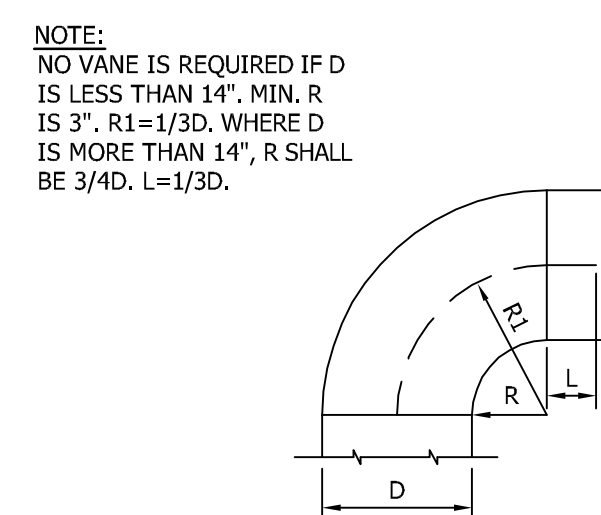
- NOTE:
- SIDE WALL FIRE SMOKE DAMPERS SHALL BE BODA AND UL APPROVED. DAMPER SHALL HAVE ACCESS TO ACTUATOR THRU FRONT MOUNTED REGISTER. REGISTER SIZES SHOWN ON PLANS ARE THE EFFECTIVE REGISTER SIZE. COORDINATE ELECTRICAL REQUIREMENT W/ REVIEWED FIRE ALARM SUBMITTAL. DAMPER SHALL BE RUSKIN MODEL FSD60FA OR APPROVED EQUAL.
 - FIRE SMOKE DAMPERS (NC) SHALL CLOSE UPON ACTIVATION OF THE FIRE ALARM SAFETY SYSTEM OR UPON POWER FAILURE. THE DAMPER SHALL AUTOMATICALLY RESET TO AN OPEN POSITION AFTER DEACTIVATION OF THE FIRE ALARM SAFETY SYSTEM.



4 TYPICAL HORIZONTAL FAN COIL UNIT DETAIL
SCALE: NOT TO SCALE



1 TYPICAL SUB-DUCT
SCALE: NOT TO SCALE



2 RADIUS ELBOW
SCALE: NOT TO SCALE

- ### GENERAL NOTES
- LINE SUPPLY AND RETURN AIR DUCTWORK THROUGH FIRST TRANSITION, ELBOW OR FIRST TEN FEET OF EACH UNIT, WHICHEVER IS GREATEST.
 - DUCT SIZES ARE SHOWN AS INSIDE CLEAR DIMENSIONS. WHERE INTERNAL LINING IS CALLED FOR, DIMENSIONS SHALL BE INCREASED BY THE THICKNESS OF THE LINING.
 - BRANCH ROUND DUCTWORK TAPS LOCATED ABOVE ACCESSIBLE CEILING AND SERVING ONLY ONE DIFFUSER SHALL HAVE SPIN-IN WITH SCOOP.
 - BRANCH ROUND DUCTWORK LOCATED ABOVE INACCESSIBLE CEILING OR SERVING MORE THAN ONE DIFFUSER SHALL HAVE MANUAL DAMPER OMITTED AND HAVE FACE OPERATED DAMPER IN EACH DIFFUSER UNLESS NOTED OTHERWISE.
 - REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED EQUIPMENT. IF AN ITEM IS NOT SHOWN ON THE R.C.P. PREPARE A DRAWING AND SUBMIT TO THE ARCHITECT FOR APPROVAL.
 - ALL LAY-IN DIFFUSERS SHALL HAVE FOUR-WAY BLOW UNLESS NOTED OTHERWISE.
 - MOUNTING FRAME OF CEILING MOUNTED AIR DISTRIBUTION DEVICES SHALL BE COMPATIBLE WITH CEILING TYPE. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPE.
 - FLEXIBLE DUCT RUNOUTS TO DIFFUSERS SHALL BE INSTALLED FREE OF KINKS AND SAGS. ALL DIFFUSER RUNOUTS SHALL BE SIZED TO MATCH THE INLET OF THE DIFFUSER SERVED.
 - COORDINATE ALL ROOF AND SLAB PENETRATIONS WITH STRUCTURAL ENGINEER.
 - TRANSITION RECTANGULAR DUCTWORK ON THE BOTTOM AND THE SIDES. MAINTAIN DUCTWORK LEVEL AND AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE.
 - ALL DUCT CHANGES FROM SQUARE TO ROUND SHALL BE SMOOTH TRANSITIONS. SPIN-INS AT THE END OF CAPPED DUCTS ARE NOT ACCEPTABLE.
 - PORTIONS OF DUCTWORK OR PIPING VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
 - CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
 - MOUNT THERMOSTATS WHERE INDICATED ON PLANS 48\"/>

PROJECT
PORTLAND HILTON GARDEN INN ADDITION
LOCATION
PORTLAND
145 JETPORT BLVD
PORTLAND, MAINE 04102
ARCHITECT
hc
hogan camps architecture
1425 DUTCH VALLEY PL STUDIO B ATLANTA GA 30324
404 685 8888 V 404 685 8878 F WWW.HCARCH.NET
STAMP

ISSUED FOR: _____ DATE: _____
REVIEW
PRICING JULY 20 2012
PERMITTING JAN. 30 2013
CONSTRUCTION
REVISIONS
JOB NO.
0479.000
DRAWING TITLE
DETAILS & SCHEULES - HVAC
SHEET NO.
M1.01
THIS DRAWING IS THE PROPERTY OF THE SAFAIE LANDRY PARTNERSHIP, INC. AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT WRITTEN PERMISSION. IT SHALL BE LIMITED FOR USE BY THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN.
SL PROJECT# 120503
THE SAFAIE LANDRY PARTNERSHIP, INC.
630 Amherst Court • Norcross, Georgia 30092