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EXHAUST FAN SCHEDULE										
SYMBOL	MFR	MODEL	CFM	ST PR (IWG)	DRIVE	FAN RPM	MOTOR		VOLTS/PHASE	CONTROL
							WATTS/AMPS			
EF-1,2	GREENHECK	SP-B150	150	0.125	DIRECT	1050	128 W		115-1	BUILDING AUTOMATION SYSTEM
EF-3	GREENHECK	SP-B80	75	0.125	DIRECT	900	19 W		115-1	BUILDING AUTOMATION SYSTEM
EF-3	GREENHECK	CSP-A700	500	0.25	DIRECT	1100	339 W		115-1	TIME CLOCK

NOTES:

1. PROVIDE ALL EXHAUST FANS WITH AN INTEGRAL DISCONNECT SWITCH.

DIFFUSER, REGISTER, AND GRILLE SCHEDULE													
MARK	MFR	MODEL	TYPE	USE			MTG	PANEL SIZE	NECK SIZE	MAX CFM	DAMPER	FINISH	PATTERN
				SPLY	RET	EXH							
A	TITUS	TMS-AA	FLUSH FACE DIFFUSER	X			CEILING	12X12	6"RD	80	--	WHITE	4-WAY BLOW
B	TITUS	TMS-AA	FLUSH FACE DIFFUSER	X			CEILING	24X24	6"RD	100	--	WHITE	4-WAY BLOW
C	TITUS	TMS-AA	FLUSH FACE DIFFUSER	X			CEILING	24X24	8"RD	175	--	WHITE	4-WAY BLOW
D	TITUS	TMS-AA	FLUSH FACE DIFFUSER	X			CEILING	24X24	10"RD	275	--	WHITE	4-WAY BLOW
E	TITUS	TMS-AA	FLUSH FACE DIFFUSER	X			CEILING	24X24	12"RD	400	--	WHITE	4-WAY BLOW
F	TITUS	300FL	SIDEWALL GRILLE	X			WALL	26X14	24X12	900	--	WHITE	--
G	TITUS	300FL	SIDEWALL GRILLE	X			WALL	38X12	36X10	1100	--	WHITE	--
1	TITUS	PAR-AA	FLUSH FACE DIFFUSER		X		CEILING	12X12	6"RD	80	--	WHITE	--
2	TITUS	PAR-AA	FLUSH FACE DIFFUSER		X		CEILING	24X24	10"RD	275	--	WHITE	--
3	TITUS	PAR-AA	FLUSH FACE DIFFUSER		X		CEILING	24X24	12"RD	400	--	WHITE	--
4	TITUS	PAR-AA	FLUSH FACE DIFFUSER		X		CEILING	24X24	16"RD	700	--	WHITE	--
5	TITUS	350FL	SIDEWALL GRILLE		X		WALL	50X38	48X36	6900	--	WHITE	--
5	TITUS	PDR	EXHAUST			X	CEILING	24X24	12X10	500	--	WHITE	--

CHART OF NECK SIZES (FOR DIFFUSERS & GRILLES)

CFM	DIA
0-44	4"
45-100	6"
101-175	8"
176-275	10"
274-400	12"
401-600	14"

MECHANICAL LEGEND

AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
BAS	BUILDING AUTOMATION SYSTEM
CFM	CUBIC FEET PER MINUTE
CU	CONDENSING UNIT
DN	DOWN
EA	EXHAUST AIR
EF	EXHAUST FAN
HP	HEAT PUMP
OA	OUTDOOR AIR
OAU	OUTDOOR AIR UNIT
OBDD	OPPOSED BLADE BALANCING DAMPER
RA	RETURN AIR
SA	SUPPLY AIR
TYP	TYPICAL
UH	UNIT HEATER
---	CONDENSATE LINE, CD
---	REFRIGERANT LINES, R
[Symbol]	REMOTE TEMPERATURE SENSOR TIE INTO CENTRAL BAS
[Symbol]	REMOTE HUMIDITY SENSOR TIE INTO CENTRAL BAS
[Symbol]	REMOTE CARBON DIOXIDE SENSOR TIE INTO CENTRAL BAS
[Symbol]	SIDEWALL SPIN-IN DAMPER
[Symbol]	MANUAL VOLUME DAMPER
[Symbol]	MOTORIZED VOLUME DAMPER
[Symbol]	DIRECTION OF AIRFLOW
[Symbol]	TOP: DIFFUSER TAG (SEE SCHEDULE) BOTTOM: AIRFLOW (CFM)

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SPLIT SYSTEM HEAT PUMP SCHEDULE															
SYMBOL	INDOOR SECTION				COOLING CAPACITY @95°F (MBTUH)			HEATING SECTION			SYS. VOLTS	MCA	MOCP	FILTER	DESIGN BASIS
	TOTAL CFM	O.A. CFM	AIR ENTR.	E.S.P. I.W.G.	TOTAL	SENS.	SEER	TYPE	CAP.	STAGES					
AHU-1,2	2000	-	75.0DB/64.0WB	1.0	-	-	-	ELEC	11.25 KW	1	208/3/60	45.0	50	MERV-8	DAIKIN
HP-1,2	-	-	-	-	56.5	-	13.0	R410	59.0 MBH	-	208/3/60	21.5	35	-	DAIKIN
AHU-3	1000	120	78.0DB/66.0WB	0.5	-	-	-	ELEC	7.5 KW	1	208/1/60	49.0	50	MERV-8	DAIKIN
HP-3	-	-	-	-	27.8	-	14.0	R410	27.4 MBH	-	208/1/60	18.7	30	-	DAIKIN
AHU-4	1200	144	78.0DB/66.0WB	0.5	-	-	-	ELEC	7.5 KW	1	208/1/60	49.0	50	MERV-8	DAIKIN
HP-4	-	-	-	-	34.6	-	14.0	R410	32.8 MBH	-	208/1/60	20.2	35	-	DAIKIN

NOTES:

1. PROVIDE WITH SINGLE POINT POWER CONNECTION.
2. (S)EER REQUIREMENTS ARE MINIMUM ARI STANDARDS AND SHALL INCLUDE FAN MOTOR HEAT ADDITION.
3. FAN SECTIONS SHALL BE FACTORY PROVIDED WITH INTERNAL VIBRATION ISOLATION.
4. INSTALL PVC DRIP PAN LINES FROM AHU PIPED TO EXTERIOR.
5. PROVIDE ALL REFRIGERANT TUBING, ACCESSORIES AND EQUIPMENT FOR A COMPLETE SYSTEM.
6. UNITS SHALL BE CONTROLLED BY FIELD MOUNTED DDC CONTROLLER THROUGH CENTRAL BUILDING AUTOMATION SYSTEM (BAS).
7. PROVIDE SHOP DRAWINGS PREPARED BY MANUFACTURER TO INCLUDE CONTROL WIRING DIAGRAM, DAMPER WIRING DIAGRAM AND REFRIGERANT PIPING DIAGRAM. DIAGRAMS SHALL INCLUDE SIZING AND ESTIMATED LENGTHS.

OUTDOOR AIR UNIT SCHEDULE																			
SYMBOL	INDOOR SECTION				COOLING CAPACITY @95°F (MBTUH)		HEATING CAPACITY @45°F (MBTUH)		AUXILIARY HEATING CAP.		HOT GAS REHEAT SECTION			SYS. VOLTS	MCA	MOCP	FILTER	DESIGN BASIS	
	TOTAL CFM	O.A. CFM	AIR ENTR.	E.S.P. I.W.G.	TOTAL	SENS.	TYPE	CAP.	TYPE	CAP.	EAT °F	LAT °F	CAPACITY [MBH]						
OAU-1	1000	1000	95.0DB/78.0WB	1.0	79.9	-	-	R410	75.9 MBH	ELEC	16 KW	53.1	72.0	20.8	208/3/60	59.3	60	MERV-11	ABOVEAIR
CU-1	-	-	-	-	-	-	-	-	-	-	-	-	-	208/1/60	4.5	15	-	-	ABOVEAIR

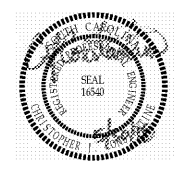
NOTES:

1. PROVIDE WITH SINGLE POINT POWER CONNECTION.
2. FAN SECTIONS SHALL BE FACTORY PROVIDED WITH INTERNAL VIBRATION ISOLATION.
3. INSTALL PVC DRIP PAN LINES FROM OAU PIPED TO EXTERIOR.
4. PROVIDE FACTORY APPLIED COIL CORROSION COATING WHICH IS CAPABLE OF WITHSTANDING GREATER THAN 6,000 HOURS OF THE ASTM B117 SALT SPRAY TEST.
5. AUXILIARY HEATER SHALL BE ELECTRIC WITH SCR CONTROL.
6. PROVIDE HOT GAS REHEAT CAPABILITIES.
7. PROVIDE OAU-1 90° LEFT-TO-RIGHT FRONT DISCHARGE (LRFD) HORIZONTAL CONFIGURATION.
8. PROVIDE UNIT WITH CONDENSATE REMOVAL PUMP. COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICIAN.
9. UNIT SHALL BE CONTROLLED BY FIELD MOUNTED DDC CONTROLLER THROUGH CENTRAL BUILDING AUTOMATION SYSTEM (BAS).

VENTILATION CALCULATION (PER 2015 SCMC 403.1 & TABLE 403.3)

SYSTEM ID	ROOM TYPE	ROOM AREA (SQ. FT.)	OCCUPANCY CATEGORY	OCCUPANCY SUB-CATEGORY	OCCUPANCY DENSITY #/1000 SQ.FT.	OCCUPANCY COUNT (PER IMC)	OCCUPANCY COUNT (ACTUAL PER OWNER)	OUTSIDE AIR CFM/PERSON	OUTSIDE AIR CFM/SQ.FT.	REQUIRED OUTSIDE AIR CFM(TOTAL)	ZONE AIR DISTRIBUTION EFFECTIVENESS	CORRECTED OUTSIDE AIR CFM (PRESCRIPTIVE)	ACTUAL OUTSIDE AIR CFM SUPPLIED	EXHAUST AIR FLOW RATE CFM/SQ.FT. OR CFM/FIXTURE	REQUIRED EXHAUST AIR CFM(TOTAL)	ACTUAL EXHAUSTED AIR CFM	NOTES
OAU-1	MULTIPURPOSE ROOM	130	HOTELS, MOTELS, RESORTS & DORMS	MULTIPURPOSE ASSEMBLY	120	136	60	5.0	0.06	368	0.8	460	500	-	-	-	
OAU-1	MULTIPURPOSE ROOM	113	HOTELS, MOTELS, RESORTS & DORMS	MULTIPURPOSE ASSEMBLY	120	136	60	5.0	0.06	368	0.8	460	500	-	-	-	
AHU-3	OFFICE	105	OFFICE BUILDINGS	OFFICE	5	1	1	5.0	0.06	11	0.8	14	20	-	-	-	
AHU-3	STORAGE	370	GENERAL	STORAGE	-	-	-	-	0.12	44	0.8	55	55	-	-	-	
AHU-3	CATERING KITCHEN	345	OFFICE BUILDINGS	OFFICE	5	2	3	5.0	0.06	36	0.8	45	45	-	-	-	
AHU-4	CORRIDOR	135	GENERAL	CORRIDOR	-	-	-	-	0.06	8	0.8	10	14	-	-	-	
AHU-4	TRAINING ROOM	360	SPORTS AND ENTERTAINMENT	WEIGHT ROOM	10	4	4	20	0.06	102	0.8	127	130	-	-	-	
EF-1	RESTROOM	170	PUBLIC SPACES	TOILET ROOMS - PUBLIC	-	-	-	-	-	-	-	-	-	50	150	150	RATES ARE PER FIXTURE
EF-2	RESTROOM	145	PUBLIC SPACES	TOILET ROOMS - PUBLIC	-	-	-	-	-	-	-	-	-	50	150	150	RATES ARE PER FIXTURE

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Revisions	
Rev. No.	Rev. Date

DRAWN BY: TJR
CHECKED BY: CJC
DATE: 06.01.2018

COAST PROJECT NO: 17-069

MECHANICAL SCHEDULES

1.M401

BID DOCUMENTS