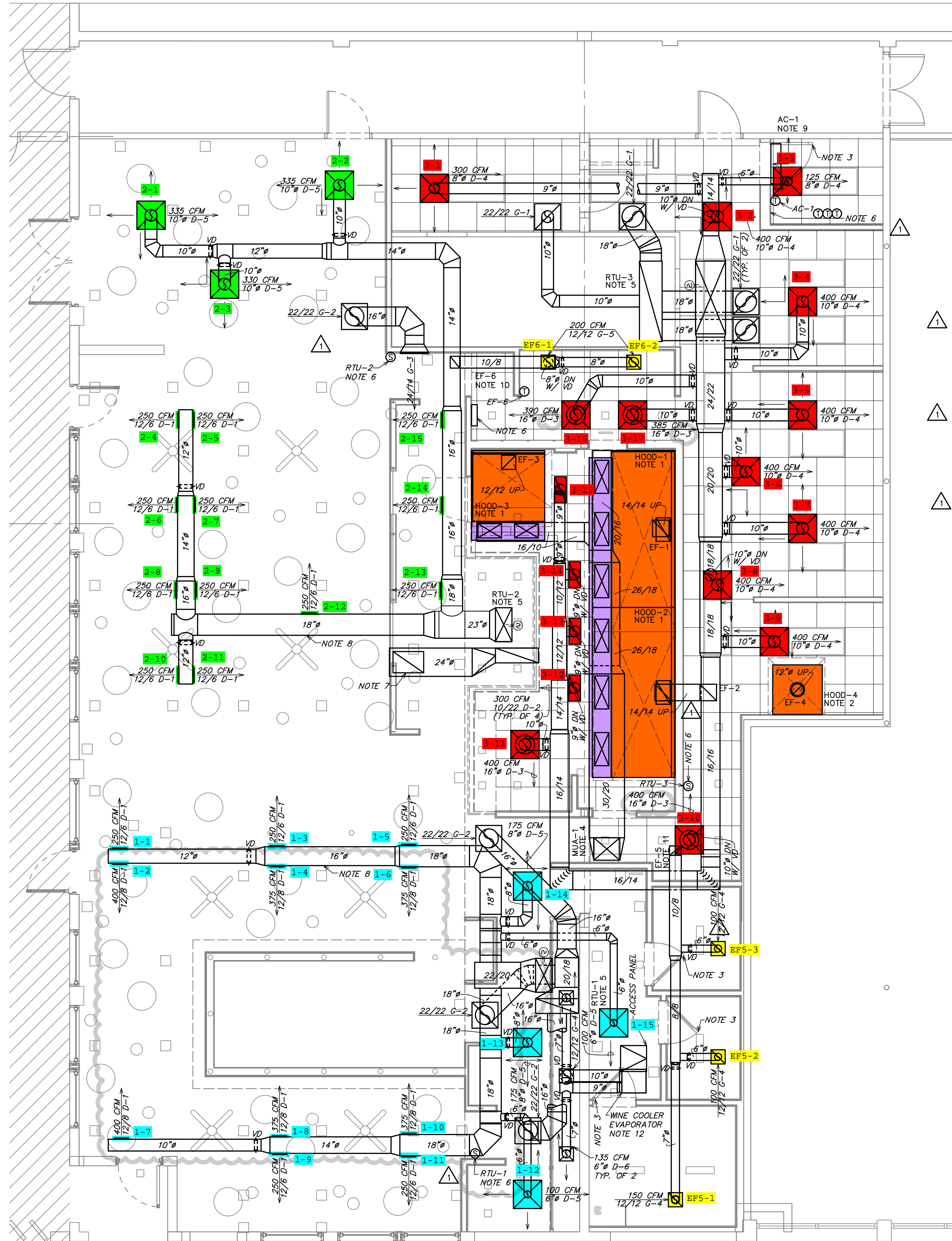


CODE OF MIAMI-DADE COUNTY, FLORIDA CHAPTER 8 SEC. 8-10. PERMITS		
HVAC DESIGN REQUIREMENTS		
HVAC DESIGN REQUIRES	YES	NO
DUCT SMOKE DETECTOR	Y	
FIRE DAMPER(S)		N
SMOKE DAMPER(S)		N
FIRE RATED ENCLOSURE		N
FIRE RATED ROOF/FLOOR ASSEMBLY		N
FIRE STOPPING		N
SMOKE CONTROL		N



- GENERAL NOTES:**
- NEW CAPTIVE GREASE EXHAUST HOOD TO BE PROVIDED BY OWNER FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. SEE CAPTIVE SHEETS M-40 THROUGH M-46 FOR ADDITIONAL INFORMATION. BALANCE HOOD MAKE-UP AIR AND EXHAUST COLLARS AS NOTED ON THE HOOD SCHEDULE ON SHEET M-20. PROVIDE FULL SIZE MAKE-UP AIR DUCT FROM COLLAR TO MAKE-UP AIR MAIN DUCT. TRANSITION FROM HOOD EXHAUST COLLAR AND EXTEND KITCHEN HOOD GREASE EXHAUST DUCTWORK UP TO ROOF. GREASE DUCT SHALL BE WRAPPED WITH TWO (2) LAYERS OF THERMAL CERAMICS FAST WRAP XL, 1 1/2" THICK WITH 1" PERIMETER AND LONGITUDINAL OVERLAPS OR EQUIVALENT U.L. LISTED GREASE DUCT WRAP FOR ZERO CLEARANCE TO COMBUSTIBLES. REFER TO DETAIL ON SHEET M201 FOR ADDITIONAL INFORMATION. PROVIDE DUCT WITH CLEANOUTS AS REQUIRED BY CODE.
 - NEW CAPTIVE DISH EXHAUST HOOD TO BE PROVIDED BY OWNER FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. SEE CAPTIVE SHEETS M-40 THROUGH M-46 FOR ADDITIONAL INFORMATION. BALANCE HOOD EXHAUST COLLAR AS NOTED ON THE HOOD SCHEDULE ON SHEET M-20.
 - CONTRACTOR SHALL UNDERCUT DOOR 1".
 - PROVIDE FULL SIZE MAKE-UP AIR DUCT DROP FROM MAKE-UP AIR UNIT ON ROOF. COORDINATE DUCT DROP WITH EXISTING STRUCTURE. DUCT SMOKE DETECTOR ON SUPPLY SIDE DUCT AND SHUTDOWN RELAY SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. ALL WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.
 - PROVIDE NEW FULLY DIGITAL 7 DAY PROGRAMMABLE TYPE THERMOSTAT WITH REMOTE SENSING CAPABILITIES, AUTO CHANGE OVER AND AUTO SET BACK. MOUNT THERMOSTAT AT 48" ABOVE FINISHED FLOOR. THERMOSTATS SERVING THE SAME TEMPERATURE ZONE SHALL BE INTERLOCKED TO PREVENT SIMULTANEOUS HEATING AND COOLING. PROVIDE REMOTE TEMPERATURE SENSORS AS INDICATED ON PLAN. COORDINATE LOCATION WITH WALL GRAPHICS LAYOUT.
 - OPEN END 26/18 RETURN AIR DUCT IN TOP OF DUCT. PROVIDE OPENING WITH 1/4" MESH GALVANIZED SCREEN.
 - ALL SUPPLY AND UNTEMPERED OUTDOOR AIR DUCTWORK VISIBLE TO THE PUBLIC SHALL BE INTERNALLY LINED AND PAINTED TO MATCH THE SURROUNDING AREA. DUCT WRAP INSULATION IS NOT PERMITTED IN THESE AREAS. EXPOSED SPIRAL DUCT TO BE GALVANIZED FINISH, FREE FROM SCRATCHES, DENTS OR BLEMISHES AND PAINTED TO MATCH THE SURROUNDING AREA. DUCT SHALL BE INTERNALLY LINED AND SEALED WITH DUCT SEALER COMPLETELY CONCEALED WITHIN THE DUCT JOINT. NO EXPOSED SEALER OR TAPE WILL BE ACCEPTED. ALL EXPOSED DUCTWORK SHALL BE INSTALLED TIGHT TO THE BOTTOM OF THE STRUCTURE.
 - PROVIDE NEW DUCTLESS SPLIT SYSTEM AS NOTED ON PLANS AND AS SCHEDULED ON SHEET M2.0. PROVIDE REFRIGERANT LINES FROM COND-1 TO AC-1. LINES SHALL BE SIZED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. PROVIDE ALL ACCESSORIES AS REQUIRED BY MANUFACTURER FOR COMPLETE WORKING SYSTEM, INCLUDING AT ACCESSORIES ASSOCIATED WITH LONG LENGTH APPLICATIONS WHERE APPLICABLE. INSTALL AND MAINTAIN ALL CLEARANCES PER MANUFACTURER'S INSTRUCTIONS.
 - PROVIDE 10/8 EXHAUST AIR DUCT UP TO EF-6 ON ROOF FOR ICE MACHINE HEAT EXHAUST. PROVIDE FAN WITH THERMOSTAT CONTROL.
 - PROVIDE 10/8 EXHAUST AIR DUCT UP TO EF-5 ON ROOF FOR RESTROOM EXHAUST.
 - PROVIDE NEW WHISPERCOOL PLATINUM 8000 EVAPORATOR AND CONDENSING UNIT AS SHOWN ON PLANS. PROVIDE REFRIGERANT LINES FROM CONDENSING UNIT TO EVAPORATOR. LINES SHALL BE SIZED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. PROVIDE ALL ACCESSORIES AS REQUIRED BY MANUFACTURER FOR COMPLETE WORKING SYSTEM, INCLUDING AT ACCESSORIES ASSOCIATED WITH LONG LENGTH APPLICATIONS WHERE APPLICABLE. INSTALL AND MAINTAIN ALL CLEARANCES PER MANUFACTURER'S INSTRUCTIONS. PROVIDE EVAPORATOR WITH AUXILIARY DRAIN PAN, DUCTED ACCESSORY KIT, AND CONDENSATE PUMP KIT. PROVIDE CONDENSING UNIT WITH EXTERIOR HOUSING ACCESSORY.

- EXISTING CONDITIONS ARE BASED ON RECORD DRAWINGS PROVIDED BY THE OWNER AND/OR LIMITED FIELD VERIFICATION BY OTHERS. CONTRACTOR SHALL ADJUST TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE PROJECT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY EXTRAS DUE TO THE CONTRACTOR'S FAILURE TO VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER FOR RESOLUTION.
- ALL CONTRACTORS SHALL REVIEW A COMPLETE SET OF CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH DEMOLITION WORK PRIOR TO BIDDING AND START OF WORK. CONTRACTOR IS RESPONSIBLE TO DEMOLISH ALL EXISTING AS REQUIRED FOR INSTALLATION/CONSTRUCTION OF NEW WORK.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE GOVERNMENT AND LOCAL CODES.
- MECHANICAL CONTRACTOR SHALL FIELD COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL POWER REQUIREMENTS.
- ALL CONTRACTORS SHALL REVIEW A COMPLETE SET OF CONSTRUCTION DOCUMENTS AND COOPERATE WITH THE OTHER TRADES SO THAT THE INSTALLATION OF ALL EQUIPMENT MAY BE PROPERLY COORDINATED.
- ALL EQUIPMENT FURNISHED SHALL FIT THE SPACE AVAILABLE WITH CONNECTIONS IN THE REQUIRED LOCATIONS AND WITH ADEQUATE SPACE FOR OPERATING AND SERVICING. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATE THE INTENT OF THE INSTALLATION WHILE THE SPECIFICATIONS AND EQUIPMENT LIST DENOTE THE TYPE AND QUALITY OF MATERIAL AND WORKMANSHIP TO BE USED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. WHERE A CONFLICT EXISTS BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE HIGHER AND/OR MORE COSTLY STANDARD WILL APPLY. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER WHOSE DECISION SHALL BE FINAL. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY IN THIS REGARD ON BEHALF OF THE CONTRACTOR AFTER CHANGE OF THE CONTRACT DOCUMENTS.
- COORDINATE DUCT ROUTING AND HEIGHTS WITH GENERAL CONTRACTOR. VERIFY ALL CLEARANCES BEFORE STARTING WORK.
- CONTRACTOR SHALL INSTALL ALL PIPING, DUCTWORK AND EQUIPMENT AS REQUIRED TO PROTECT THE STRUCTURE. AVOID OBSTRUCTIONS. PRESERVE CEILING HEIGHTS AND HEADROOM AND MAKE ALL EQUIPMENT REQUIRING MAINTENANCE OR REPAIR ACCESSIBLE.
- DUCT CONNECTIONS TO HVAC EQUIPMENT MUST BE MADE WITH FLEXIBLE CONNECTORS.
- DO NOT ATTACH ANYTHING TO DECK ABOVE. ATTACH TO STRUCTURE (i.e., BEAMS, JOISTS) ONLY. DUCT HANGERS SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODE. ALL CONNECTIONS TO JOISTS SHALL BE AT THE TOP CORNER.
- ALL DUCT DIMENSIONS INDICATED ARE CLEAR INSIDE DIMENSIONS. ALL SUPPLY AND UNTEMPERED OUTDOOR AIR DUCTWORK SHALL BE LINED WITH 1" ACOUSTICAL DUCT LINER OR WRAPPED WITH 1-1/2" THICK FIRE RETARDANT FIBERGLASS WITH A REINFORCED ALUMINUM FOIL JACKET AND SHALL BE APPROVED FOR USE BY SMOKE TEST AND NAIMA. RETURN AIR TRANSFER DUCTS AND RETURN DUCTWORK WITHIN 10 FEET OF THE UNIT FAN SHALL BE LINED WITH 1" ACOUSTICAL DUCT LINER.
- ALL SUPPLY AND UNTEMPERED OUTDOOR AIR DUCTWORK VISIBLE TO THE PUBLIC SHALL BE INTERNALLY LINED AND PAINTED TO MATCH THE SURROUNDING AREA. DUCT WRAP INSULATION IS NOT PERMITTED IN THESE AREAS.
- EXPOSED SPIRAL DUCT TO BE GALVANIZED FINISH, FREE FROM SCRATCHES, DENTS OR BLEMISHES AND PAINTED TO MATCH THE SURROUNDING AREA. DUCT SHALL BE INTERNALLY LINED AND SEALED WITH DUCT SEALER COMPLETELY CONCEALED WITHIN THE DUCT JOINT. NO EXPOSED SEALER OR TAPE WILL BE ACCEPTED. ALL EXPOSED DUCTWORK SHALL BE INSTALLED TIGHT TO THE BOTTOM OF THE STRUCTURE.
- AT THE START OF CONSTRUCTION, THE MECHANICAL CONTRACTOR SHALL INSPECT AND RUN TEST ALL EXISTING HVAC UNITS DESIGNATED FOR REUSE. CONTRACTOR SHALL INFORM THE ENGINEER OF ANY NECESSARY REPAIRS FOR APPROVAL IN A TIMELY MANNER, AS TO NOT DELAY THE PROJECT OPENING DATE.
- PROVIDE REMOTE VOLUME DAMPER CONTROL MANUFACTURED BY YOUNG REGULATOR OR UNITED CHECKER FOR DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS. LOCATE CONTROLLER ABOVE ACCESSIBLE CEILING LOCATION.
- REFRIGERANT PIPING SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL ACCESSORIES AS REQUIRED BY MANUFACTURER FOR COMPLETE WORKING SYSTEM, INCLUDING ANY ACCESSORIES ASSOCIATED WITH LONG LENGTH APPLICATIONS WHERE APPLICABLE.
- TENANT'S CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIELD VERIFICATION OF ALL UTILITY RISERS AND/OR OTHER IMPROVEMENTS LOCATED ON THE PREMISES PRIOR TO BIDDING. TENANT'S CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL COSTS RELATING TO THE RELOCATION OF, DAMAGE TO, REPAIR OF ANY EXISTING UTILITY RISERS AND/OR IMPROVEMENTS WHICH ARE DAMAGED AS A RESULT OF TENANT'S WORK IN OR AROUND THE PREMISES.
- ALL ROOFING WORK SHALL BE PERFORMED BY LANDLORD'S APPROVED ROOFING CONTRACTOR AT TENANT'S EXPENSE, IF REQUIRED IN LEASE OR TENANT CRITERIA MANUAL.
- ROOF MOUNTED EQUIPMENT SHALL BE LABELED WITH THE TENANT NAME AND SPACE NUMBER WITH 3" HIGH WEATHER PROOF LETTERS.
- ALL GREASE EXHAUST DUCTWORK SHALL BE PROVIDED WITH 3" FOIL FACED THERMAL-CERAMIC INSULATION FOR GREASE DUCTS. INSULATION SHALL MEET NFPA 96 AND ASTM E 2336 REQUIREMENTS.
- GREASE DUCT LEAKAGE TESTING MUST BE PERFORMED PRIOR TO CONCEALMENT OF THE DUCTWORK.
- MECHANICAL CONTRACTOR SHALL PROVIDE TENANT WITH A WRITTEN ONE (1) YEAR MANUFACTURER'S WARRANTY ON ALL HVAC EQUIPMENT PROVIDED AND / OR INSTALLED. THE WARRANTY SHALL INCLUDE ALL LABOR, MATERIALS AND THREE (3) ROUTINE SERVICES INCLUDING FILTER CHANGES DURING A ONE (1) YEAR PERIOD.
- AT THE COMPLETION OF CONSTRUCTION AN NEBB, AABC OR TABB CERTIFIED AIR BALANCE REPORT SHALL BE SUBMITTED TO THE ENGINEER AND LANDLORD. THE BALANCING MUST BE COMPLETED BY AN INDEPENDENT, THIRD PARTY CONTRACTOR WITH NO TIES TO THE INSTALLING CONTRACTORS.

1 MEP ROOF PLAN
1/4" = 1'-0"

Status	Date
PERMIT DRAWINGS	10/31/20
REVISION 1	07/16/20
REVISION 2	06/06/20

DATE: 03/05/2020 CAD#: 28403

SEAL

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INTERIOR ALTERATIONS FOR:
BARCELONA WYNWOOD, LLC.
310 NW 25TH STREET
MIAMI, FL 33127

MECHANICAL FLOOR PLAN

PMP	Drawn
GRS	Checked
10.31.2019	Date
	Scale
AS NOTED	Job Number
2019.034.00	Sheet

SYMBOLS			
HEATING - VENTILATING - AIR CONDITIONING			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	STEAM (LOW PRESSURE)		AUTOMATIC CONTROL VALVE
	STEAM (HIGH PRESSURE)		PRESSURE REGULATING VALVE (PRV)
	CONDENSATE (MEDIUM PRESSURE)		SAFETY RELIEF VALVE
	CONDENSATE (HIGH PRESSURE)		BLOW OFF VALVE
	HOT WATER SUPPLY (HEATING)		F AND T TRAP (CAP. #/HR)
	HOT WATER RETURN (HEATING)		THERMOSTATIC TRAP
	ETHYLENE GLYCOL SUPPLY		STATIC PRESSURE
	ETHYLENE GLYCOL RETURN		CIRCUIT SETTER FLOW CONTROL VALVE
	CHILLED WATER SUPPLY		AIR BLEEDER VALVE (RADIANT PANEL)
	CHILLED WATER RETURN		AIR ELIMINATOR
	CONDENSATE (LOW PRESSURE)		AUTOMATIC BALANCING VALVE
	HUMIDIFICATION LINE		SOLENOID VALVE (REFRIGERANT)
	FUEL OIL SUPPLY		THERMOSTATIC EXPANSION VALVE (REFR)
	FUEL OIL RETURN		BACK PRESSURE VALVE
	FUEL OIL VENT		SIGHT GLASS
	GAS LINE		ROUND DUCT RISER
	REFRIGERANT LIQUID LINE		FAN COIL UNIT AND MARK
	REFRIGERANT SUCTION LINE		UNIT HEATER-PROPELLER TYPE & MARK
	REFRIGERANT HOT GAS DISCHARGE LINE		CABINET UNIT HEATER & MARK
	CONDENSER WATER		FIN TUBE, MARK AND CAPACITY
	CONDENSER WATER RETURN		CONVECTOR AND MARK
	BOILER BLOW OFF		UNIT VENTILATOR AND MARK
	EXHAUST STEAM		EXHAUST STACK AND MARK
	CONCENTRIC REDUCER		ROUND DUCT
	ECCENTRIC REDUCER		CANVAS CONNECTION
	UNION		VOLUME DAMPER (ELEV AND PLAN)
	STRAINER		TURNING VANES
	EXPANSION JOINT		EXTRACTOR
	THERMOMETER		GRAVITY DAMPER
	PRESSURE GAGE		MOTORIZED DAMPER
			FIRE DAMPER
			SMOKE DAMPER
			FIRE AND SMOKE DAMPER
			BASEBOARD DIFFUSER
			HEATING RISER NUMBER
			EXHAUST FAN RISER NUMBER
			BASEBOARD RADIATION
			REMOTE SENSOR
			THERMOSTAT

KITCHEN EQUIPMENT LIST	
CONVECTION OVEN, ELECTRIC	
UNDERCOUNTER REFRIGERATOR	
SINGLE COFFEE BREWER	
ESPRESSO MACHINE	
JUICER	
CHARCOAL OVEN x2	
EXHAUST VENTILATOR	
FIRE SUPPRESSION SYSTEM	
HD RANGE, 36" 4 OPEN BURNERS	
EXHAUST VENTILATOR	
FIRE SUPPRESSION SYSTEM	
CONVECTION OVEN, GAS	
HD RANGE, 36" 4 OPEN BURNERS	
HOT FOOD WELL UNIT, DROP-IN, ELECTRIC	
SANDWICH / SALAD PREPARATION REFRIGERATOR	
EQUIPMENT STAND, REFRIGERATED BASE	
HD RANGE, 24" MANUAL GRIDDLE	
GAS FLOOR FRYER x2	
FOOD SLICER, ELECTRIC	
SANDWICH / SALAD PREPARATION REFRIGERATOR x2	
UNDERCOUNTER REFRIGERATOR	
MICROWAVE OVEN x2	
ICE CREAM DIPPING CABINET	
SANDWICH / SALAD PREPARATION REFRIGERATOR	
UNDERCOUNTER REFRIGERATOR	
HEAT LAMP x3	
ICE MAKER, CUBE-STYLE, x4	
REFRIGERATED WORK TOP x2	
REACH-IN REFRIGERATOR	
REACH-IN FREEZER	
PLANETARY MIXER	
DISHMACHINE	
CONDENSATE HOOD	
DISHWASHER, UNDERCOUNTER	

② KITCHEN EQUIPMENT
SCALE = NONE

CODE: 2017 FLORIDA MECHANICAL CODE

SYSTEM 1		TABLE 403.3.1.1		TABLE 403.3.1.1		TABLE 403.3.1.1		TABLE 403.3.1.1.2		TABLE 403.3.1.1.2.3.2					
ROOM #	NAME	AREA (FT ²)	PEOPLE OA (CFM/PEP)	AREA OA (CFM/FT ²)	OCCUPANT DENSITY (#/1000 FT ²)	P2 (#)	Eq/PA	Eq/NA	Vbz (CFM)	Vbz (CFM)	Ypax (CFM)	Ypmin (CFM)	Ev (CFM)		
1	ENTRY	29		0.0	0.0	0	0	2	2	0.80	2	100	0.022	1.00	
2	HIGH TOP SEATING 1	497		7.5	0.18	70	40	300	89	0.80	487	1480	0.328	0.82	
3	SERVICE AREA	231		0.0	0.00	0	2	0	0	0.80	0	140	0.050	1.00	
4	HIGH TOP COUNTER	202		7.5	0.18	100	2	15	38	0.80	64	310	0.207	0.94	
5	DINING 1	953		7.5	0.18	70	38	285	172	0.80	871	1645	0.347	0.80	
6	DINING 2	327		7.5	0.18	70	24	180	59	0.80	299	735	0.458	0.74	
7	HALL 2	39		0.0	0.00	0	0	0	0	0.80	7	45	0.150	1.00	
8	EXPO	184		0.0	0.00	0	2	0	0	0.80	0	1145	0.000	1.00	
9	KITCHEN	184		0.0	0.00	0	3	0	0	0.80	0	3040	0.000	1.00	
10	PREP KITCHEN	359		0.0	0.00	0	4	0	0	0.80	0	4010	0.000	1.00	
11	STORAGE	135		0.0	0.12	0	0	0	16	0.80	20	85	0.238	0.91	
12	OFFICE	48		5.0	0.06	5	1	5	3	0.80	10	120	0.050	1.00	
13	SERVICE ENTRY	79		0.0	0.00	0	0	0	5	0.80	6	50	0.119	1.00	
14	LIQUOR STORAGE	88		0.0	0.12	0	0	0	11	0.80	13	55	0.240	0.91	
15	BEER COOLER	103		0.0	0.00	0	0	0	0	0.80	0	65	0.000	1.00	
16	FOOD COOLER	56		0.0	0.00	0	0	0	0	0.80	0	35	0.000	1.00	
17	DISH DROP-OFF	71		0.0	0.00	0	1	0	0	0.80	0	500	0.000	1.00	
18	HALL 1	73		0.0	0.00	0	0	0	4	0.80	5	45	0.122	1.00	
19	WOMENS H.C. RESTROOM	44		0.0	0.00	0	0	0	0	0.80	0	25	0.000	1.00	
20	WOMENS	37		0.0	0.00	0	0	0	0	0.80	0	25	0.000	1.00	
21	MENS RESTROOM	37		0.0	0.00	0	0	0	0	0.80	0	25	0.000	1.00	
22	SERVICE CORRIDOR	369		0.0	0.00	0	0	0	22	0.80	28	355	0.159	1.00	
		4,242							117	785	424	1209			
											1512	13955	13955	0.450	0.74

OUTDOOR AIR CALCULATIONS PER EQUATION 4-1:

SYMBOL	VALUE	DESCRIPTION
P1 =	117	SYSTEM POPULATION
SP1 =	117	ZONE POPULATION
D =	1.00	OCCUPANT DIVERSITY
Vbz =	1209	UNCORRECTED OUTDOOR AIR INTAKE
Zp (max) =	0.408	ZONE PRIMARY OUTDOOR AIR FRACTION (MAXIMUM)
Ev =	0.74	SYSTEM VENTILATION EFFICIENCY
SP1p =	14300	ZONE PRIMARY AIRFLOW
Vbz =	1,626	CODE REQUIRED OUTDOOR AIRFLOW RATE, CFM
Vbz =	1,630	DESIGN OUTDOOR AIRFLOW RATE, CFM

③ VENTILATION CALCULATIONS
SCALE = NONE

ROOF TOP UNITS

MARK	CLG. CAP. (MBH)		COMP. KW	ELECT. HTG CAP.		CFM	EXT. S.P.	FAN BHP	ELECTRICAL			WEIGHT (LBS)	SEER/EER	REF. TYPE	CARRIER MODEL NUMBER	
	SENS.	TOTAL		NON TONS	KW				MBH	VOLTS	PH					MCA
RTU-1	88.7	117.54	10.0	8.93	7.8	26.6	4000	0.75	2.06	208	3	54.0	60	1495	-/12.0R410A	50HCAE11
RTU-2	88.7	117.54	10.0	8.93	7.8	26.6	4000	0.75	2.06	208	3	54.0	60	1495	-/12.0R410A	50HCAE11
RTU-3	133.7	177.56	15.0	12.32	37.6	128.3	6000	0.60	2.09	208	3	78.6	90	2443	-/12.2R410A	50HCAE17

COOLING CAPACITIES BASED ON ARI STANDARD 210/240 OR 340/360: 80° F DB/ 67° F WB INDOOR ENTERING AIR TEMPERATURE, 95° F DB AIR ENTERING OUTDOOR FAN. SCHEDULED UNIT CFM MAY DIFFER FROM ARI STANDARD CFM.

- NOTES:
1. PROVIDE CORROSION PROTECTION - PHENOLIC EPOXY COATING, FACTORY APPLIED TO CONDENSER AND EVAPORATOR COILS.
 2. PROVIDE WITH FACTORY INSTALLED DISCONNECT AND UNPOWERED CONVENIENCE OUTLET.
 3. PROVIDE WITH 14" HEIGHT ROOF CURB.
 4. PROVIDE WITH TWO POSITION DAMPER.
 5. PROVIDE WITH CONDENSER COIL HALL GUARD.
 6. PROVIDE FIELD INSTALLED SUPPLY DUCT SMOKE DETECTOR.
 7. UNITS WITH COOLING CAPACITY GREATER THAN OR EQUAL TO 65 MBH SHALL HAVE MULTI-STAGE CAPABILITY PER APPLICABLE ENERGY CODE.
 8. RTU-1 AND RTU-2 SHALL BE HORIZONTAL DISCHARGE, RTU-3 SHALL BE VERTICAL DISCHARGE.

9. CONTACT CARRIER CORPORATION FOR PROPOSALS:
BOB ECKWEILER
STRATEGIC ACCOUNTS MANAGER
CARRIER RETAIL STRATEGIC ACCOUNTS
EMAIL: BOB.ECKWEILER@CARRIER.UTC.COM
PHONE: (973) 222-6742

10. PROVIDE WATER LEVEL MONITORING DEVICE IN DRAIN PAN TO SHUT OFF UNIT IF THE DRAIN LINE BECOMES RESTRICTED.
11. PROVIDE WITH HUMIDIFIER DEHUMIDIFICATION CONTROL AND REMOTE HUMIDITY SENSORS.

EXHAUST FANS

MARK	LOCATION	SERVICE	CFM	EXT. S.P. (N.W.G.)	SONES	MOTOR DATA			RPM	MFR.	REMARKS	
						HP	VOLTS	PH				
EF-5	CEILING	RESTROOMS	350	0.5	8.7	1/10	115	1	60	1725	GREENHECK	G-080-VG [1-3]
EF-6	CEILING	ICE MACHINE	400	0.5	7.0	1/15	115	1	60	1492	GREENHECK	G-090-D [1-4]

- NOTES:
1. GREENHECK IS THE BASE OF DESIGN. COOK, PENN, AND CAPTIVEAIRE ARE EQUAL. NO EXCEPTIONS.
 2. PROVIDE SOLID STATE SPEED CONTROL.
 3. PROVIDE MOTORIZED BACKDRAFT DAMPER.
 4. PROVIDE WITH THERMOSTAT AND THERMOSTAT CONTROL.

DIFFUSERS, GRILLES AND REGISTERS

MARK	SERVICE	LOCATION	CLG. TYPE	MANUFAC.	CATALOG NUMBER	REMARKS
D-2	SUPPLY	CEILING	AC TILE	TITUS	PAR X 24x12 3 26 AG-75 [3,4]	SEE PLAN FOR NECK SIZE
D-3	SUPPLY	CEILING	AC TILE	TITUS	PAR X 24x24 3 26 AG-75 [3,4]	SEE PLAN FOR NECK SIZE
D-4	SUPPLY	CEILING	AC TILE	TITUS	TMSA X 24x24 3 26 AG-75 [3-5]	SEE PLAN FOR NECK SIZE
D-5	SUPPLY	CEILING	GYP. BD.	TITUS	OMNI X 24x24 3 26 AG-75 [2-5]	SEE PLAN FOR NECK SIZE
D-6	SUPPLY	CEILING	GYP. BD.	TITUS	OMNI X 12x12 3 26 AG-75 [2-6]	SEE PLAN FOR NECK SIZE
G-1	RETURN	CEILING	AC TILE	TITUS	50F X X 3 26 [1,3]	SEE PLAN FOR SIZE
G-2	RETURN	CEILING	GYP. BD.	TITUS	50F X X 1 26 [1,2,3]	SEE PLAN FOR SIZE
G-3	RETURN/TRANS.	WALL	NA	TITUS	350RL X X 1 26 [3]	SEE PLAN FOR SIZE
G-4	VARIES	CEILING	GYP. BD.	TITUS	50F X X 1 26 [1,2,3]	SEE PLAN FOR SIZE
G-5	EXHAUST	CEILING	AC TILE	TITUS	50F X X 1 26 [1,2,3]	SEE PLAN FOR SIZE

- NOTES:
1. WITH 1/2" x 1/2" x 1" CORE
 2. PROVIDE WITH TITUS RAPID MOUNT FRAME MODEL TRM.
 3. COORDINATE FINAL FINISH/COLOR OF ALL DIFFUSERS/GRILLES WITH ARCHITECT.
 4. ALL SUPPLY DIFFUSERS AND GRILLES ARE TO BE ALUMINUM.
 5. PROVIDE WITH INSULATED BLOW CAP.
 6. PROVIDE WITH DIRECTIONAL BLOW CLIPS TO MATCH PLAN

AIR BALANCE SCHEDULE

SUPPLY AIR UNIT	OUTSIDE AIRFLOW (CFM)	RETURN AIRFLOW (CFM)	SUPPLY AIRFLOW (CFM)	OA/SA %	EXHAUST AIR UNIT	EXHAUST AIRFLOW (CFM)	REMARKS
RTU-1	1000	3000	4000	25.0	EF-1	-25.30	
RTU-2	1000	3000	4000	25.0	EF-2	-2760	
RTU-3	1500	4500	6000	25.0	EF-3	-1779	
MAU-1	5828	0	5828	100.0	EF-4	-525	
					EF-5	-350	
					EF-6	-400	
					EF-7	-200	
TOTAL	9328	10500	19828	47.04	TOTAL	-8544	
					RESULTING BUILDING PRESSURIZATION	+784 CFM	
					PRESSURIZATION PERCENTAGE	+3.95	

NOTES: KITCHEN IS NEGATIVE RELATIVE TO DINING AREA

AIR CONDITIONING UNITS

MARK	COOLING CAP. (MBH)		HEAT CAP. (MBH)	CFM	EXT. SP (IN H2O)	FAN HP	ELECTRICAL			REF. TYPE	CARRIER MODEL NUMBER	
	TOTAL	SENSIBLE					VOLTS	PH	MCA			
AC-1	18.0	-	-	420	-	0.037	208	1	0.4	15	R410A	40MHH18---3

- NOTES:
1. PROVIDE CONDENSATE PUMP.

AIR COOLED CONDENSING UNITS

MARK	LOCATION	SERVES	NOMINAL COOL. CAP. TONS	SUCTION TEMP. °F	AMB. ENT. AIR °F	ELECTRICAL DATA			REF. TYPE	MANUFAC.	MODEL NUMBER	
						VOLTS	PH	MCA				
COND-1	ROOF	AC-1	1.5	45	95	208	1	11.0	15	R410A	CARRIER	38MHR18A---3

- NOTES:
1. PROVIDE LOW AMBIENT CONTROL.
 2. PROVIDE HALL GUARD.
 3. PROVIDE WITH ALUMINUM HURRICANE RATED STAND FOR MOUNTING TO THE ROOF.

④ HVAC SCHEDULES
SCALE = NONE

LEGEND	
	EXISTING
	NEW WORK
	NEW TO EXISTING CONNECTION



Status	Date
PERMIT DRAWINGS	

SECTION 230000 - HVAC GENERAL CONDITIONS

- 1.01 APPLICABILITY
1.02 DEFINITIONS
1.03 CODES AND STANDARDS
1.04 PERMITS AND FEES
1.05 CONTRACT DRAWINGS
1.06 EXISTING CONDITIONS
1.07 SUBMITTALS

- Installation, Verify adequate clearance with structure, light fixtures, and ceiling heights.
3.03 INTERLACE WITH OTHER PRODUCTS
3.04 FIELD QUALITY CONTROL
3.05 CLEANING AND REPAIR
3.06 PROJECT CLOSURE

END OF SECTION

SECTION 230501 - MECHANICAL DEMOLITION

- 1.01 SECTION INCLUDES
1.02 MATERIALS AND EQUIPMENT
1.03 EXAMINATION
1.04 PREPARATION
1.05 SCOPE
1.06 MINIMUM DATA TO BE REPORTED
1.07 CLEANING AND REPAIR
1.08 DEMOLITION AND EXTENSION OF EXISTING MECHANICAL WORK

END OF SECTION

SECTION 230548 - VIBRATION AND SEISMIC CONTROLS FOR HVAC PIPING AND EQUIPMENT

- 1.01 SECTION INCLUDES
1.02 SUBMITTALS
1.03 MANUFACTURERS
1.04 VIBRATION ISOLATORS
1.05 DEMOLITION AND EXTENSION OF EXISTING MECHANICAL WORK

END OF SECTION

SECTION 230593 - TESTING, ADJUSTING, AND BALANCING FOR HVAC

- 1.01 SECTION INCLUDES
1.02 EXAMINATION
1.03 INSTALLATION

- adjusting, and balancing of systems and equipment to achieve specified performance.
1.03 WARRANTY
1.04 PERMITS AND FEES
1.05 CONTRACT DRAWINGS

END OF SECTION

SECTION 230713 - GREASE DUCT FIREPROOFING

- 1.01 SECTION INCLUDES
1.02 SUBMITTALS
1.03 EXAMINATION
1.04 PREPARATION
1.05 INSTALLATION
1.06 PERFORMANCE REQUIREMENTS
1.07 FIELD CONDITIONS

END OF SECTION

SECTION 230715 - DUCT INSULATION

- 1.01 SECTION INCLUDES
1.02 PERFORMANCE REQUIREMENTS
1.03 SUBMITTALS
1.04 REGULATORY REQUIREMENTS
1.05 FIELD CONDITIONS

END OF SECTION

- 1. Secure insulation with vapor barrier with wires and seal jacket joints with vapor barrier adhesive or tape to match jacket.
1.03 EXAMINATION
1.04 PREPARATION
1.05 INSTALLATION
1.06 PERFORMANCE REQUIREMENTS
1.07 FIELD CONDITIONS

END OF SECTION

SECTION 23100 - HVAC DUCTS AND CASINGS

- 1.01 SECTION INCLUDES
1.02 PERFORMANCE REQUIREMENTS
1.03 SUBMITTALS
1.04 REGULATORY REQUIREMENTS
1.05 FIELD CONDITIONS

END OF SECTION

Table with columns: Status, Date. Rows: PERMIT DRAWINGS, REVISION 1, REVISION 2.

Table with columns: SEAL, Date, Code. Row: 03/05/2020, 28403.

- 1.01 SECTION INCLUDES
1.02 SUBMITTALS
1.03 EXAMINATION
1.04 PREPARATION
1.05 INSTALLATION
1.06 PERFORMANCE REQUIREMENTS
1.07 FIELD CONDITIONS

END OF SECTION

SECTION 23100 - HVAC DUCTS AND CASINGS

- 1.01 SECTION INCLUDES
1.02 PERFORMANCE REQUIREMENTS
1.03 SUBMITTALS
1.04 REGULATORY REQUIREMENTS
1.05 FIELD CONDITIONS

END OF SECTION

SECTION 23100 - HVAC DUCTS AND CASINGS

- 1.01 SECTION INCLUDES
1.02 PERFORMANCE REQUIREMENTS
1.03 SUBMITTALS
1.04 REGULATORY REQUIREMENTS
1.05 FIELD CONDITIONS

END OF SECTION

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- 1.01 SECTION INCLUDES
1.02 SUBMITTALS
1.03 EXAMINATION
1.04 PREPARATION
1.05 INSTALLATION
1.06 PERFORMANCE REQUIREMENTS
1.07 FIELD CONDITIONS

END OF SECTION

SECTION 23100 - HVAC DUCTS AND CASINGS

- 1.01 SECTION INCLUDES
1.02 PERFORMANCE REQUIREMENTS
1.03 SUBMITTALS
1.04 REGULATORY REQUIREMENTS
1.05 FIELD CONDITIONS

END OF SECTION

SECTION 23100 - HVAC DUCTS AND CASINGS

- 1.01 SECTION INCLUDES
1.02 PERFORMANCE REQUIREMENTS
1.03 SUBMITTALS
1.04 REGULATORY REQUIREMENTS
1.05 FIELD CONDITIONS

END OF SECTION

SECTION 23100 - HVAC DUCTS AND CASINGS

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