

SUBMITTALS AND SUBSTITUTIONS

1. CONTRACTOR SHALL SUBMIT THE FOLLOWING EQUIPMENT FOR REVIEW PRIOR TO ORDERING AND INSTALLING:
 - A. ROOFTOP UNITS
 - B. AIR HANDLING UNITS AND AIR COOLED CONDENSERS
 - C. DIFFUSERS AND REGISTERS
 - D. EXHAUST FANS AND MAKEUP AIR FANS
 - E. DUCT WORK
 - F. DUCT CONNECTION STANDARDS
2. PROCESSING TIME: ALLOW 10 WORKING DAYS FOR REVIEW OF EACH SUBMITTAL. ALLOW ADDITIONAL TIME IF COORDINATION WITH SUCCESSFUL SUBMITTALS IS REQUIRED. ENGINEER WILL ADVISE CONTRACTOR WHEN A SUBMITTAL BEING PROCESSED MUST BE DELAYED FOR COORDINATION.
3. SUBMITTALS: PLACE A PERMANENT LABEL OR TITLE BLOCK ON EACH SUBMITTAL ITEM FOR IDENTIFICATION. INDICATE NAME OF FIRM OR ENTITY THAT PREPARED EACH SUBMITTAL ON LABEL OR TITLE BLOCK. PROVIDE A SPACE BESIDE TITLE BLOCK TO RECORD CONTRACTOR'S REVIEW AND APPROVAL MARKINGS AND ACTION TAKEN BY ENGINEER. INCLUDE THE FOLLOWING INFORMATION FOR PROCESSING AND RECORDING ACTION TAKEN:
 - A. PROJECT NAME
 - B. DATE
 - C. NAME OF ENGINEER
 - D. NAME OF CONTRACTOR
 - E. NAME OF SUBCONTRACTOR
 - F. NAME OF SUPPLIER
 - G. NAME OF MANUFACTURER
 - H. DRAWING NUMBER AND DETAIL REFERENCES, AS APPROPRIATE
 - I. LOCATION WHERE PRODUCT IS TO BE INSTALLED, AS APPROPRIATE
4. SUBMIT ELECTRONIC SUBMITTALS VIA EMAIL AS PDF ELECTRONIC FILES.
5. PAPER SUBMITTALS: SUBMIT THREE PAPER COPIES OF EACH SUBMITTAL UNLESS OTHER WISE INDICATED. ENGINEER WILL RETURN TWO COPIES.
6. COLLECT SUBMITTAL DATE INFORMATION INTO A SINGLE SUBMITTAL FOR EACH ELEMENT OF CONSTRUCTION AND TYPE OF PRODUCT OR EQUIPMENT. MARK EACH COPY OF EACH SUBMITTAL TO SHOW WHICH PRODUCTS AND OPTIONS ARE APPLICABLE. INCLUDE THE FOLLOWING INFORMATION, AS APPLICABLE:
 - A. MANUFACTURER'S CATALOG CUTS
 - B. MANUFACTURER'S PRODUCT SPECIFICATIONS
 - C. STATEMENT OF COMPLIANCE WITH SPECIFIED REFERENCED STANDARDS
 - D. NOTATION OF COORDINATION REQUIREMENTS
 - E. WIRING DIAGRAMS SHOWING FACTORY-INSTALLED WIRING
 - F. PRINTED PERFORMANCE CURVES
 - G. OPERATIONAL RANGE DIAGRAMS
 - H. CLEARANCES REQUIRED TO OTHER CONSTRUCTION, IF NOT INDICATED ON ACCOMPANYING SHOP DRAWINGS
7. CONTRACTOR SHALL REVIEW EACH SUBMITTAL AND CHECK FOR COORDINATION WITH OTHER WORK OF THE CONTRACT AND FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. NOTE CORRECTIONS AND FIELD DIMENSIONS. MARK WITH APPROVAL STAMP. BEFORE SUBMITTING TO REVIEW, APPROVAL STAMP: STAMP SHALL STATE THAT SUBMITTAL HAS BEEN REVIEWED, CHECKED, AND APPROVED FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS AND INITIALED AND DATED BY CONTRACTOR.
8. ENGINEER WILL REVIEW EACH SUBMITTAL. MAKE MARKS TO INDICATE CORRECTIONS OR REVISIONS REQUIRED. AND RETURN IT. ENGINEER WILL STAMP EACH SUBMITTAL WITH AN ACTION STAMP AND WILL MARK STAMP APPROPRIATELY TO INDICATE ACTION.
9. ENGINEER WILL NOT REVIEW SUBMITTALS THAT DO NOT BEAR CONTRACTOR'S APPROVAL STAMP AND INITIALS AND WILL RETURN THEM WITHOUT ACTION. INCOMPLETE SUBMITTALS ARE UNACCEPTABLE, WILL BE CONSIDERED NONRESPONSIVE, AND WILL BE RETURNED FOR RESUBMITTAL WITHOUT REVIEW. SUBMITTALS NOT REQUIRED BY THE CONTRACT DOCUMENTS MAY NOT BE REVIEWED AND MAY BE DISCARDED.
10. SUBSTITUTIONS
 - A. SUBSTITUTION OFFERS OWNER A SUBSTANTIAL ADVANTAGE IN COST, TIME, ENERGY CONSERVATION, OR OTHER CONSIDERATIONS
 - B. SUBSTITUTION DOES NOT REQUIRE EXTENSIVE REVISIONS TO THE CONTRACT DOCUMENTS. CONTRACTOR SHALL SUPPLEMENTARY OFFER FOR ANY REVISION AND EVALUATION SERVICES INCLUDING CHANGES REQUIRED BY AUTHORITY HAVING JURISDICTION
 - C. SUBSTITUTION WILL NOT ADVERSELY AFFECT CONSTRUCTION SCHEDULE
 - D. SUBSTITUTION HAS RECEIVED NECESSARY APPROVALS OF AUTHORITIES HAVING JURISDICTION
 - E. SUBSTITUTION HAS BEEN COORDINATED WITH OTHER PORTIONS OF THE WORK
 - F. SUBSTITUTION PROVIDES SPECIFIED WARRANTY
 - G. SUBSTITUTION HAS BEEN COORDINATED WITH OTHER PORTIONS OF THE WORK, AND IS ACCEPTABLE TO ALL CONTRACTORS INVOLVED
 - H. CONTRACTOR SHALL ASSUME ANY ADDITIONAL CONSTRUCTION COSTS AS A RESULT OF THE SUBSTITUTION

TESTING AND BALANCING NOTES

1. CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE THIRD PARTY TESTING, ADJUSTING AND BALANCING FOR THIS PROJECT. TESTING, ADJUSTING AND BALANCING SHALL BE DONE IN ACCORDANCE WITH THESE NOTES.
2. THE FOLLOWING MECHANICAL (HVAC) SYSTEMS SHALL BE TESTED, ADJUSTED AND BALANCED:
 - A. ROOFTOP AIR CONDITIONING UNITS AND RELATED SUPPLY AND RETURN DUCTWORK, INCLUDING ALL AIR INLETS AND OUTLETS AND ROOFTOP UNIT OUTSIDE AIR.
 - B. AIR HANDLING UNITS AND RELATED SUPPLY AND RETURN DUCTWORK, INCLUDING ALL AIR INLETS AND OUTLETS AND AIR HANDLING UNIT OUTSIDE AIR.
 - C. EXHAUST FANS.
 - D. ROOFTOP AIR CONDITIONING UNIT SERVING FLORIDA ROOM - COMPRESSOR SHUT DOWN, GARAGE DOORS IN FLORIDA ROOM ARE EQUIPPED WITH MAGNETIC SENSORS; UPON ACTIVATION OF ANY SENSOR, ASSOCIATED FLORIDA ROOM RTU COMPRESSORS ARE TO SHUTDOWN.
 - E. COMMERCIAL KITCHEN HOODS, COMMERCIAL KITCHEN HOOD EXHAUST FANS, COMMERCIAL KITCHEN HOOD MAKEUP AIR FANS.
 - F. PROVIDE A COMMERCIAL KITCHEN HOOD PERFORMANCE TEST AND CAPTURE AND CONTAMINANT TEST. PERFORM THESE TESTS PER SECTION 507.6 & 507.6.1 OF THE FLORIDA BUILDING CODE SEVENTH EDITION 2020: MECHANICAL.
3. PRIOR TO COMMENCING ANY WORK, REVIEW CONTRACT DOCUMENTS, TESTING, ADJUSTING AND BALANCING STRATEGIES AND STEP-BY-STEP PROCEDURES.
4. CONTRACTOR PROVIDING TESTING, ADJUSTING AND BALANCING SHALL BE CERTIFIED BY EITHER AABC OR NEBB.
5. TESTING, ADJUSTING AND BALANCING REPORT FORMS SHALL BE STANDARD FORMS FROM EITHER AABC OR NEBB.
6. CONTRACTOR SHALL COORDINATE THE EFFORTS OF FACTORY-AUTHORIZED SERVICE REPRESENTATIVES FOR SYSTEMS AND EQUIPMENT. HVAC CONTROLS INSTALLERS, AND OTHER MECHANICS TO OPERATE HVAC SYSTEMS AND EQUIPMENT TO SUPPORT AND ASSIST THE TESTING, ADJUSTING AND BALANCING ACTIVITIES.
7. CONTRACTOR SHALL VERIFY QUANTITIES AND LOCATIONS OF BALANCING DEVICES. CONTRACTOR SHALL VERIFY THAT THESE BALANCING DEVICES ARE ACCESSIBLE AND APPROPRIATE FOR BALANCING AND FOR EFFICIENT SYSTEM EQUIPMENT OPERATION PRIOR TO COMMENCEMENT OF WORK.
8. CONTRACTOR SHALL PERFORM TESTING AND BALANCING PROCEDURES IN EACH AIR AND WATER SYSTEM.
9. HVAC SYSTEM AIR AND WATER FLOW RATES SHALL BE WITHIN THE FOLLOWING TOLERANCES:
 - A. SUPPLY: PLUS 5 TO PLUS 10 PERCENT
 - B. RETURN: PLUS 5 TO PLUS 10 PERCENT
 - C. EXHAUST FANS PLUS 5 TO PLUS 10 PERCENT
 - D. EQUIPMENT WITH FANS PLUS 5 TO PLUS 10 PERCENT
 - E. AIR OUTLETS AND INLETS: 0 TO MINUS 10 PERCENT
 - F. DOMESTIC HOT WATER RECIRCULATING FLOW RATE: 0 TO MINUS 10 PERCENT.
10. FINAL BALANCING REPORT SHALL INCLUDE THE FOLLOWING:
 - A. TEST CONDITIONS FOR FANS AND PUMPS
 - B. SYSTEMS DIAGRAMS
 - C. AIR CONDITIONING UNIT TEST REPORTS
 - D. APPARATUS COIL TEST REPORTS
 - E. GAS-FIRED HEAT APPARATUS TEST REPORTS
 - F. ELECTRICAL COIL TEST REPORTS
 - G. FAN TEST REPORTS
 - H. DUCT TRANSVERSE REPORTS
 - I. AIR-TERMINAL DEVICE REPORTS
 - J. SYSTEM COIL REPORTS
 - K. PUMP TEST REPORTS
11. ADDITIONAL TESTING AND BALANCING SHALL BE MADE AS DIRECTED BY THE DESIGN ENGINEER TO CORRECT UNUSUAL CONDITIONS. ADDITIONAL TESTING WILL NOT EXCEED THREE DAYS DURING THE FIRST SIX MONTHS OF OPERATION.
12. IF INITIAL TESTING AND BALANCING PROCEDURES WERE NOT PERFORMED DURING THE NEAR-PEAK SUMMER AND WINTER CONDITIONS, PERFORM ADDITIONAL TESTING, ADJUSTING DURING NEAR-PEAK SUMMER AND WINTER CONDITIONS.
13. CONTRACTOR TO MARK FINAL DAMPER POSITIONS ON ALL EQUIPMENT AND BALANCING DEVICES HANDLING OUTDOOR AIR OR EXHAUST.
14. CONTRACTOR TO PROVIDE THREE (3) COPIES OF THE TESTING, ADJUSTING AND BALANCING REPORT TO ENGINEER AND A/HJ FOR REVIEW PRIOR TO FINAL INSPECTION.

MECHANICAL GENERAL NOTES

1.	ALL MECHANICAL WORK SHALL MEET ALL THE REQUIREMENTS OF THE <u>FLORIDA BUILDING CODE SEVENTH EDITION 2020 - MECHANICAL</u> .	18.	FLEXIBLE AND RIGID ROOF DUCT TAKE-OFFS FOR DIFFUSERS SHALL BE THE SAME SIZE AS DIFFUSER NECK. MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 6'-0". FLEXIBLE DUCT SHALL BE THERMAX TYPE M4C OR EQUAL. FLEXIBLE DUCT SHALL BE INSULATED FIBERGLASS, R4, CLASS 1, UL181 LISTED AND COMPLY WITH NFPA 90A AND NFPA 90B.
2.	CONTRACTOR TO VISIT SITE AND VERIFY ALL CLEARANCES BEFORE FABRICATION OF DUCTWORK AND PROVIDE ADDITIONAL OFFSET AND/OR CHANGES IN DUCT SIZES TO MEET FIELD CONDITIONS AND COORDINATE WITH ELECTRICAL, PLUMBING AND FIRE PROTECTION SUBCONTRACTOR BEFORE ANY CONSTRUCTION WORK.	19.	ALL WALL MOUNTED THERMOSTATS AND HUMIDISTATS SHALL BE INSTALLED AT AN ELEVATION OF 5'4" ABOVE FINISHED FLOOR TO THE TOP UNLESS OTHERWISE NOTED ON DRAWINGS. LOCATION OF THE WALL MOUNTED THERMOSTAT SHALL BE COORDINATED WITH OTHER TRADES FOR A MEAT APPEARANCE. FINAL LOCATION OF THERMOSTAT SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER OR HIS REPRESENTATIVE IN THE FIELD.
3.	PROVIDE EQUIPMENT GUARDS AT ALL EQUIPMENT WITHIN 10 FEET OF A ROOF EDGE OR OPEN SIDE OF WALKING SURFACE THAT IS OVER 30' ABOVE FLOOR GRADE.	20.	PROVIDE FLEXIBLE NEOPRENE DUCT CONNECTORS ON THE DISCHARGE AND ENTERING SIDES OF ROOFTOP UNITS, AIR HANDLING UNITS, FANS AND OTHER VIBRATING EQUIPMENT TO WHICH DUCTWORK IS ATTACHED.
4.	OUTSIDE AIR INTAKES (ROOF TOP UNITS, GRAVITY ROOF VENTS, LOUVERS) SHALL MAINTAIN A MINIMUM OF 10'-0" FROM ANY EXHAUST OUTLET OR SANITARY VENT.	21.	PROVIDE ACCESS DOORS IN HARD CEILINGS OR WALLS REQUIRING ACCESS TO VALVES, FIRE DAMPERS, BALANCING DAMPERS, VOLUME DAMPERS OR OTHER PARTS OF THE SYSTEM WHICH REQUIRE OPERATION OR MAINTENANCE AND ARE LOCATED AT INACCESSIBLE AREAS. MAKE: MILCOR MODEL # FOR CEILING LOCATION, MILCOR MODEL # FOR WALL LOCATION. INSTALL FOR DOWNWARD OPENING IN CEILING LOCATIONS.
5.	PROVIDE ALL MECHANICAL EQUIPMENT WITH MANUFACTURER'S RECOMMENDED SERVICE AREA CLEARANCES.	22.	COORDINATION: CONTRACTOR SHALL COORDINATE ITS CONSTRUCTION OPERATIONS WITH THOSE OF OTHER CONTRACTORS AND ENTITIES TO ENSURE EFFICIENT AND ORDERLY INSTALLATION OF EACH PART OF THE WORK. CONTRACTOR SHALL COORDINATE ITS OPERATIONS WITH OTHER CONTRACTORS OPERATIONS, THAT DEPEND ON EACH OTHER FOR PROPER INSTALLATION, CONNECTION AND OPERATION.
6.	ALL ROOF TOP UNITS SHALL BE CONSTRUCTED AND INSTALLED TO WITHSTAND LOCAL WIND LOAD DESIGN.	23.	REFER TO ARCHITECTURAL DRAWINGS FOR ALL RELATED CONSTRUCTION DETAILS AS APPLICABLE TO THE HVAC SYSTEM. CHASE AND WALL PENETRATIONS INTENDED FOR DUCTWORK AND PIPING SHALL BE VERIFIED WITH ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION.
7.	DUCT SMOKE DETECTORS SHALL BE FURNISHED BY THE FIRE ALARM CONTRACTOR, INSTALLED IN DUCT BY THE MECHANICAL CONTRACTOR AND WIRED BY THE FIRE ALARM CONTRACTOR. SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72, NATIONAL FIRE ALARM CODE; NFPA 90A, STANDARD FOR INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS; FLORIDA BUILDING CODE SEVENTH EDITION 2020 - MECHANICAL, AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE LOCATION OF SMOKE DETECTORS WITH FIRE ALARM CONTRACTOR. PROVIDE A VISIBLE/audible NOTIFICATION PANEL, MAKE: SYSTEM SENSOR RTS OR EQUAL, COMPLY WITH BUILDING FIRE ALARM SYSTEM. PROVIDE REMOTE TEST SWITCHES WITH LABELS IN EASILY VISIBLE AND ACCESSIBLE LOCATION.	24.	MECHANICAL EQUIPMENT, DUCTWORK AND PIPING IS SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK AND PIPING LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENT AS REQUIRED TO FIT THE DUCTWORK AND PIPING WITHIN THE AVAILABLE SPACE. FIELD VERIFY FINAL LOCATIONS TO INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.
8.	PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED.	25.	WHEN THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS NOT CLEAR, OR IS CAPABLE OF MORE THAN ONE INTERPRETATION, SUCH MATTERS WILL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER IN WRITING BEFORE THE SUBMISSION OF BIDS. THE ARCHITECT/ENGINEER SHALL MAKE CORRECTION OR EXPLANATION IN WRITING.
9.	PROVIDE EXTERNAL DUCT INSULATION FOR SUPPLY, RETURN AND OUTSIDE AIR DUCTWORK. DUCTWORK INSULATION SHALL BE FOIL FACED FIBERGLASS DUCT WRAP WITH A MINIMUM THERMAL RESISTANCE (R) OF 6.0. INSULATION SHALL HAVE VAPOR BARRIER. INSTALL PER MFR. REQUIREMENTS.	26.	PLANS AND SPECIFICATIONS ARE INTENDED AS A GENERAL DESCRIPTION OF THE WORK TO BE PERFORMED. ALL ITEMS NOT SPECIFICALLY MENTIONED OR SHOWN, BUT NECESSARY FOR THE COMPLETION OF THE INSTALLATION, SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. THIS CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH THE MECHANICAL, ARCHITECTURAL, STRUCTURAL AND ELECTRICAL PLANS BEFORE SUBMITTING HIS FINAL BID. NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO A CONTRACTOR'S FAILURE TO FAMILIARIZE HIMSELF WITH THE PLANS.
11.	COORDINATE CEILING MOUNTED DIFFUSERS, REGISTERS, AND GRILLES AND OTHER CEILING MOUNTED EQUIPMENT WITH OTHER CEILING MOUNTED EQUIPMENT. USE REFLECTED CEILING PLAN.	27.	CONTRACTOR SHALL ENGAGE A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE FOR START-UP TO INSPECT, TEST AND ADJUST FIELD-ASSEMBLED COMPONENTS AND EQUIPMENT INSTALLATION, INCLUDING CONNECTIONS AND RETEST THE FOLLOWING FIELD TESTS AND INSPECTIONS:
12.	DUCTWORK, DIFFUSERS, REGISTERS, GRILLES, AND OTHER ITEMS OF THE AIR HANDLING SYSTEM SHALL NOT BE SUPPORTED BY THE CEILING OR CEILING SUSPENSION SYSTEM	1.	LEAK TEST: AFTER INSTALLATION, CHARGE SYSTEM AND TEST FOR LEAKS. REPAIR LEAKS AND RETEST UNTIL NO LEAKS EXIST.
13.	CONTRACTOR TO PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUSPEND MECHANICAL EQUIPMENT & MATERIALS. INSTALLATION OF EQUIPMENT SHALL COMPLY WITH MANUFACTURER'S SPECIFICATIONS AND CLEARANCE REQUIREMENTS FOR SERVICES OF EQUIPMENT	2.	OPERATIONAL TEST: AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, START UNITS TO CONFIRM PROPER MOTOR ROTATION AND UNIT OPERATION.
14.	VERIFY VOLTAGE REQUIREMENTS WITH ELECTRICAL CONTRACTOR BEFORE ORDERING EQUIPMENT.	3.	TEST AND ADJUST CONTROLS AND SAFETIES. REPLACE DAMAGED AND MALFUNCTIONING CONTROLS AND EQUIPMENT.
15.	PROVIDE A TRAP IN ALL CONDENSATE PIPING SERVING AIR HANDLING UNITS AND ROOF TOP UNITS. SLOPE CONDENSATE LINE 1/8" PER FOOT. ALL CONDENSATE DRAIN PIPING SHALL BE PROPERLY SUPPORTED.	4.	REPORT TESTING RESULTS IN WRITTEN REPORT.
16.	GARANTEE: FOR ONE YEAR AFTER DATE OF ACCEPTANCE BY THE OWNER, ALL EQUIPMENT, MATERIALS AND WORKMANSHIP TO BE FREE FROM DEFECT.		
17.	DO NOT CUT STRUCTURAL MEMBERS WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.		

MARK	AREA SERVED	NOMINAL TONS	FAN				GAS HEAT		UNIT POWER			WEIGHT (LBS)	COOLING CAPACITY				SEER [EER]	EQUAL TO		NOTES
			CFM	O/A	E.S.P. (IN.)	BHP	INPUT MBH	OUTPUT MBH	V/O	MCA	MCCP		TC (MBH)	SC (MBH)	AMBIENT DB°F/WB°F	ENTERING DB°F/WB°F		MFG.	MODEL	
RTU-1	KITCHEN	12.5	5,000	1,250	0.8	2.39	180.0	146.0	208/30	60	70	2,000	151.5	118.5	95.0/80.0	80.0/67.0	[12.2]	CARRIER	48HCED14	1-15
RTU-2	MAIN DINING	15	6,000	1,500	0.8	2.70	310.0	251.0	208/30	71.4	90	2,700	183.4	138.5	95.0/80.0	77.2/68.4	[12.0]	CARRIER	48HCED17	1-15
RTU-3	BAR DINING	15	6,000	1,500	0.8	2.70	310.0	251.0	208/30	71.4	90	2,700	183.4	138.5	95.0/80.0	77.2/68.4	[12.0]	CARRIER	48HCED17	1-15
RTU-4	FLORIDA RM	15	6,000	1,500	0.8	2.70	310.0	251.0	208/30	71.4	90	2,700	183.4	138.5	95.0/80.0	77.2/68.4	[12.0]	CARRIER	48HCED17	1-16

NOTES:

- REFER TO CONTROL SYSTEM NOTES FOR CONTROL COMPONENTS REQUIREMENTS.
- PROVIDE 5 MINUTE ANTI-SHORT CYCLE TIMER.
- PROVIDE THRU THE BASE ELECTRICAL AND SINGLE POINT CONNECTION.
- PROVIDE WITH FACTORY FILTERS.
- PROVIDE WITH FACTORY ROOF CURB.
- PROVIDE UN-POWERED CONVENIENCE OUTLET.
- PROVIDE WITH FACTORY INSTALLED DISCONNECT.
- PROVIDE WITH UNIT MAIL GUARD.
- PROVIDE WITH MOTORIZED DAMPER AND OUTSIDE AIR INTAKE HOOD.
- PROVIDE AUTOMATIC PROGRAMMABLE THERMOSTAT.
- PROVIDE MANUFACTURER'S MOTOR AND DRIVE PACKAGES AS REQUIRED TO MEET SCHEDULED AIR CAPACITIES AND PRESSURE DROP.
- PROVIDE WEATHER PROOF RTU LABELING.
- PROVIDE WITH FACTORY INSTALLED AIR-SIDE TEMPERATURE ECONOMIZER.
- PROVIDE TEMPERATURE ADJUSTMENT PANELS AND REMOTE SENSORS PER MANUFACTURER RECOMMENDATIONS.
- PROVIDE WATER LEVEL MONITORING DEVICE.
- INTERLOCK RTU COMPRESSORS WITH GARAGE DOOR SENSORS FOR OPEN-AIR SHUT-OFF. SEE ELECTRICAL PLANS.

DUCTLESS SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE																						
MARK	AREA SERVED	NOMINAL TONS	INDOOR UNIT										CAPACITY		OUTDOOR UNIT					EQUAL TO		
			FAN							MCA	MOCP	WEIGHT (LBS)			VIB	MCA	MOCP	WEIGHT (LBS)	SEER	MFG.	MODEL	NOTES
			CFM	O/A	E.S.P. (IN)	AMPS	VIB	W														
AC-1, CU-1	OFFICE	1.0	340	0	0	0.28	208/1	20	0.2	-	36	12,000	12,000	208/1	9	15	92	19.5	CARRIER	38MACB12R-3 40MBCQ12-3	SEE NOTES	
NOTES: 1. PROVIDE UNITS WITH FACTORY THERMOSTAT, SINGLE POINT ELECTRICAL CONNECTION. 2. PROVIDE 5 MINUTE ANTI CYCLE TIMER. 3. INSTALL PER MANUFACTURERS RECOMMENDATIONS. 4. PROVIDE UNIT WITH HAL GUARD. 5. PROVIDE REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATIONS. 6. PROVIDE WITH CONDENSATE PUMP.																						

FAN SCHEDULE													
MARK	SERVICE	TYPE	CFM	EXT. STATIC PRESSURE (IN. WATER)	FAN TYPE	DRIVE	SONES	WATTS	RPM	V/Ø	MANUFACTURER	MODEL	NOTES
EF-6	RESTROOMS	EXHAUST	500	0.250	ROOF	DIRECT	5.4	76	1307	120/1	COOK	100-ACED	1,2,6
EF-7	MOP SINK	EXHAUST	100	0.375	CEILING	DIRECT	2.5	88.9	1075	120/1	COOK	GC-148	3,4
EF-8	ELECTRICAL Rm	EXHAUST	400	0.125	ROOF	DIRECT	2.8	23	889	120/1	COOK	101-ACED	1,5,6

NOTES:

- PROVIDE FAN WITH VIBRATION ISOLATOR KIT, ROOF CURBS AND DISCONNECT.
- PROVIDE CONTROL BY TIME CLOCK, COORDINATE WITH ELECTRICAL FOR LOCATION.
- PROVIDE CONTROL BY MANUAL WALL SWITCH, COORDINATE WITH ELECTRICAL FOR LOCATION.
- COORDINATE WITH MANUFACTURERS RECOMMENDED GOODSENK.
- PROVIDE CONTROL BY THERMOSTAT, COORDINATE LOCATION WITH ELECTRICAL AND SETTINGS WITH OWNER.
- PROVIDE MOTORIZED DAMPER WITH SINGLE PHASE, VOLTAGE TO MATCH FAN.

OUTSIDE AIR CALCULATION									
AREA SERVED	AREA (SQFT)	PEOPLE / 1,000 (SQFT)	# PEOPLE	CFM/ PERSON	PEOPLE OUTSIDE AIR (CFM)	CFM /SQFT	SQ.FT. OUTSIDE AIR (CFM)	TOTAL CFM CALCULATED	CFM SUPPLIED
MAIN DINING	2986	-	170	7.5	1275	0.18	537	1812	3000
FLORIDA DINING	1221	-	75	7.5	563	0.18	220	783	1500
KITCHEN	1113	-	-	-	-	0.70	779	779	1250

PER TABLE 403.3.1.1 - FLORIDA BUILDING CODE 2020 - MECHANICAL BALANCE TO OUTSIDE QUANTITIES AIR SHOWN.

AIR CURTAIN SCHEDULE							
MARK	CFM	MAX VELOCITY (FPM)	MOTOR HP	WEIGHT (LBS)	VOLTS/Ø	CONTROL	BASIS OF DESIGN
FF-1	1,882	3815	1 @ 3/4	53	208/1	PLUNGER STYLE SWITCH	BERNER SHC07-1048A

DRAWING INDEX	
SHEET NUMBER	TITLE
M001	Mechanical General Information
M101	Mechanical Floor Plan
M141	Mechanical Roof Plan
M301	Mechanical Sections
M501	Mechanical Details

SYMBOL	DESCRIPTION
	NEW DUCT WORK
	FLEXIBLE DUCT
	SUPPLY AIR DUCT WORK UP THRU PLAN
	RETURN AIR OR EXHAUST DUCT WORK UP THRU PLAN
	DUCT WORK TRANSITION
	90° ELBOW WITH TURNING VANES
	MANUAL AIR VOLUME CONTROL DAMPER
	SUPPLY AIR DEVICE
	RETURN AIR DEVICE
	EXHAUST AIR DEVICE
	WALL MOUNTED THERMOSTAT
	DUCT SMOKE DETECTOR
A-100	DIFFUSER DEVICE TYPE - AIR QUANTITY
RTU-10	EQUIPMENT DESIGNATION TAG
	REFRIGERATION PIPING
	CONDENSATE PIPING
	FIRE DAMPER

DUCT CONSTRUCTION NOTES

1. SUPPLY AIR, RETURN AIR, OUTSIDE AIR, AND EXHAUST AIR DUCTWORK SHALL BE GALVANIZED SHEET METAL, EXCEPT WHERE INDICATED. METALLIC DUCTS SHALL BE CONSTRUCTED AND INSTALLED PER THE **FLORIDA BUILDING CODE SEVENTH EDITION 2009 MECHANICAL** AND THE 2009 EDITION OF THE **SAMCA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE MANUAL**.
2. METAL DUCT STATIC PRESSURE CLASSIFICATION:

SUPPLY AIR DUCT: 2" W.G.
RETURN AIR DUCT: 2" W.G. (NEGATIVE)
EXHAUST AIR DUCT: 2" W.G. (NEGATIVE)
3. SEAL ALL TRANSVERSE JOINTS AND LONGITUDINAL SEAMS PER THE FLORIDA BUILDING CODE SEVENTH EDITION 2020, 2009 CONSERVATION TABLE C403.2.9.2 AND THE LATEST EDITION OF SAMCA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE.
4. CROSS-BREAK DUCT SURFACES 19" THROUGH 60" USE ANGLE REINFORCING FOR DUCT SIZES OVER 60".
5. ALL METAL LONGITUDINAL SEAMS SHALL BE PITTSBURGH OR OTHER SAMCA LISTED SEAMS. DO NOT USE BUTTUP PUNCH SPANNAL SEAMS.
6. SUSPEND METAL DUCTWORK NOT EXCEEDING 36" LONGEST SIDE, AT EVERY JOINT (NOT TO EXCEED 19'-0") USING 1/4" 18 GA GALVANIZED STRAPS ATTACHED TO BOTTOM AND SIDE OF DUCT.
7. SUSPEND METAL DUCTWORK, EXCEEDING 36" LONGEST SIDE, AT MAXIMUM 8'-0" INTERVALS USING ANGLES AND RODS.
8. SUPPORT DUCTWORK AND EQUIPMENT FROM STRUCTURAL MEMBER ATTACHMENT TO ROOF DECK IS NOT ACCEPTABLE.
9. DUCT SIZES MUST BE VERIFIED FOR CLEARANCES AT THE JOB SITE PRIOR TO FABRICATION. DIMENSIONS MAY BE CHANGED TO ACCOMMODATE CONSTRUCTION. SUBMIT ALL MODIFICATION TO DESIGN ENGINEER FOR APPROVAL.
10. DUCT TRANSITIONS SHALL BE CONSTRUCTED WITH SLOPE OF 1/4".
11. TURNING VANES SHALL BE PROVIDED IN ALL SUPPLY DUCT RECTANGULAR ELBOWS WITH ANGLES BETWEEN 15 DEGREES AND LESS THAN 90 DEGREES PER THE SAMCA HVAC DUCT CONSTRUCTION STANDARDS MANUAL.
12. DUCT DIMENSIONS SHOWN ON DRAWING ARE CLEAR INSIDE DIMENSIONS. WHERE DUCT LINE IS SHOWN INCREASE METAL DUCT SIZE TO ALLOW FOR DUCT THICKNESS.
13. UNLESS OTHERWISE NOTED, INSTALL DUCTWORK AS HIGH AS POSSIBLE, TIGHT TO BOTTOM OF STRUCTURE. COORDINATE DUCT ELEVATION WITH STORM LEADERS, WATER PIPING, SANITARY DRAINS, MAJOR ELECTRICAL, CONTROL, LIGHTING FIXTURES, ETC.

TAG	MTG./CAT. #	TYPE	NECK	FRAME	FINISH	NOTES
A	PRICE - ASCD	CD	SEE PLANS	12 x 12		
A1			SEE PLANS	24 x 24	MATCH TO CEILING	1,2,3,4,5
A	PRICE - LFD	CD	12"Ø	SEE PLANS	MATCH TO CEILING	1,2,9,10,11
B	PRICE - 80	RAR	22 x 22 (MAX 1280 CFM)	24 x 24	MATCH TO CEILING	1,2,4
C	PRICE - 630	EARAR	SEE PLANS	SEE PLANS	MATCH TO CEILING	1,2,4
D	PRICE - 620	SAR	SEE PLANS	SEE PLANS	MATCH TO CEILING	1,2,4
E	PRICE - SDGE	SAR	SEE PLANS	14x8		1,2,11,6
F	PRICE - JS210	CD	SEE PLANS	48"	MATCH TO CEILING	1,2,7,8

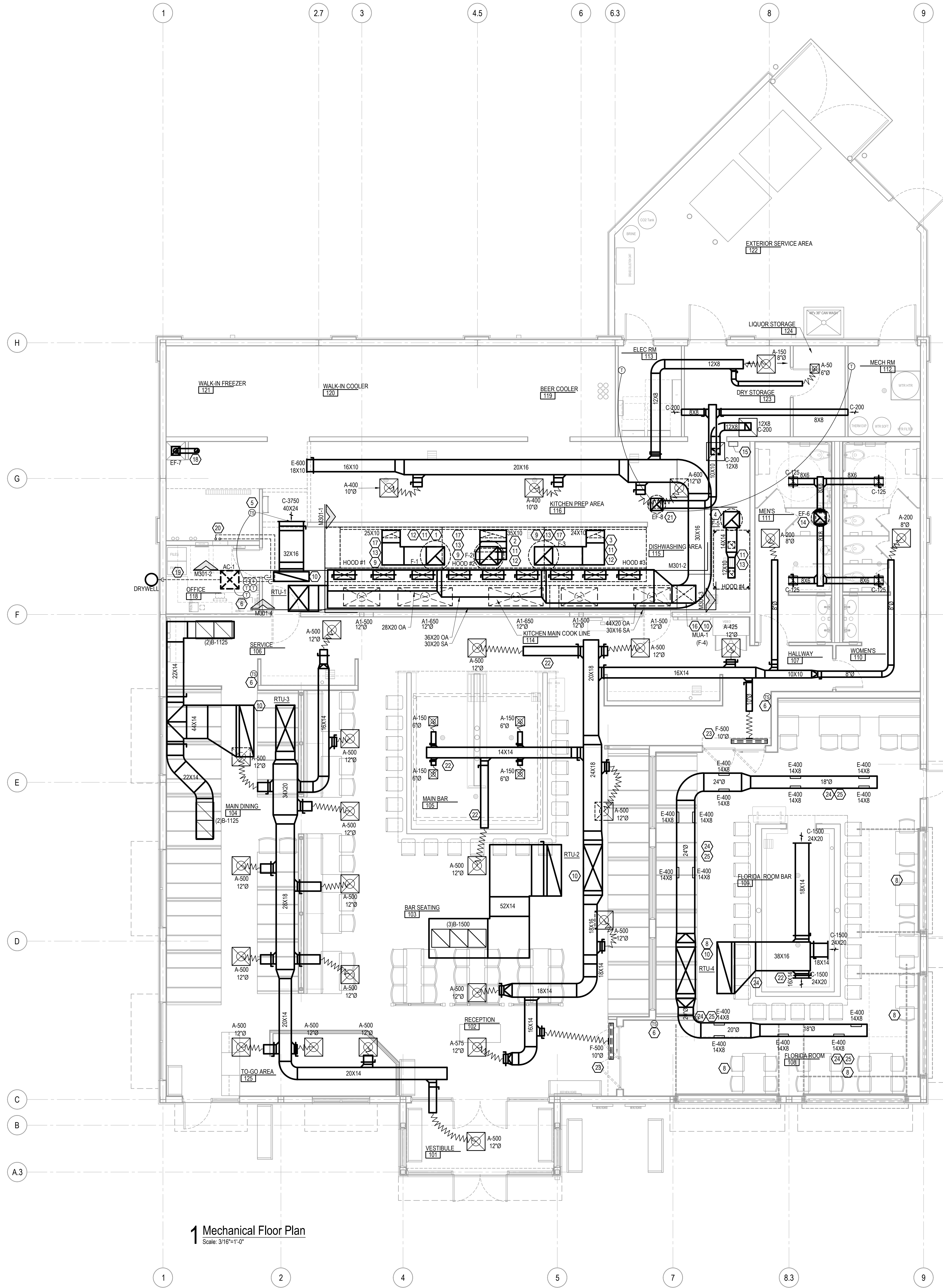
DECEY TYPE LEGEND:
 CD = CEILING DIFFUSER
 RAR = RETURN AIR REGISTER
 EAR = EXHAUST AIR REGISTER
 SAR = SUPPLY AIR REGISTER

NOTES:

1. PROVIDE CEILING DEVICES WITH PROPER FRAME STYLE TO MATCH CEILING TYPE AS CALLED FOR BY ARCHITECT.
2. DEVICES SHALL BE PROVIDED WITH FACTORY FINISH.
3. CEILING DIFFUSERS SHALL BE 4-WAY FLOW UNLESS NOTED OTHERWISE OR SHOWN ON PLANS WITH DIRECTIONAL ARROW(S).
4. IF NECESSARY, PROVIDE TOP HAT FOR GRILLES REGISTERS AND DIFFUSERS.
5. PROVIDE EQUALIZING GRID (PRICE MODEL FR) FOR DIFFUSERS TAPPED DIRECTLY FROM BOTTOM OF DUCT. PROVIDE OPPOSED BLADE DAMPER.
6. PROVIDE FACTORY INSTALLED AIR SCOOP.
7. PROVIDE (1) INSULATED PLENUM (1/2" Ø) INLET.
8. PROVIDE (1) SINGLE SLOT DIFFUSER WITH VERTICAL, THROW PATTERN.
9. PROVIDE ALUMINUM FACE AND STEEL PLenum CONSTRUCTION.
10. PROVIDE FACTORY 1/2" FOIL-BACKED FIBERGLASS INSULATION.
11. PROVIDE INTEGRAL FACTORY DAMPER.

THE DESIGN COMPLIES WITH SECTION C401.2 APPLICATION ITEM 3:

THE REQUIREMENTS OF SECTION C402.5, C403.2, C404, C405.2, C405.3, C405.5, C405.6 AND C407. THE BUILDING ENERGY COST SHALL BE EQUAL TO OR LESS THAN 85 PERCENT OF THE STANDARD REFERENCE DESIGN BUILDING.



1 Mechanical Floor Plan
Scale: 3/16"=1'-0"

KITCHEN HOOD EXHAUST DUCT FIRE BARRIER DUCT WRAP SPECIFICATION

FIRE BARRIER DUCT WRAP SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE 2020 - MECHANICAL. FIRE BARRIER DUCT WRAP SHALL BE 2 HOUR RATED AND TESTED IN ACCORDANCE WITH ASTM E 814. SURFACE BURNING CHARACTERISTICS SHALL MEET ASTM E84. FOIL ENCAPSULATED BLANKET AND BLANKET SHALL HAVE A FLAME SPREAD AND SMOKE DEVELOPED RATING OF 0. MAKE 3M FIRE BARRIER DUCT WRAP 15A.

HOOD INTERLOCK OPERATION NOTE

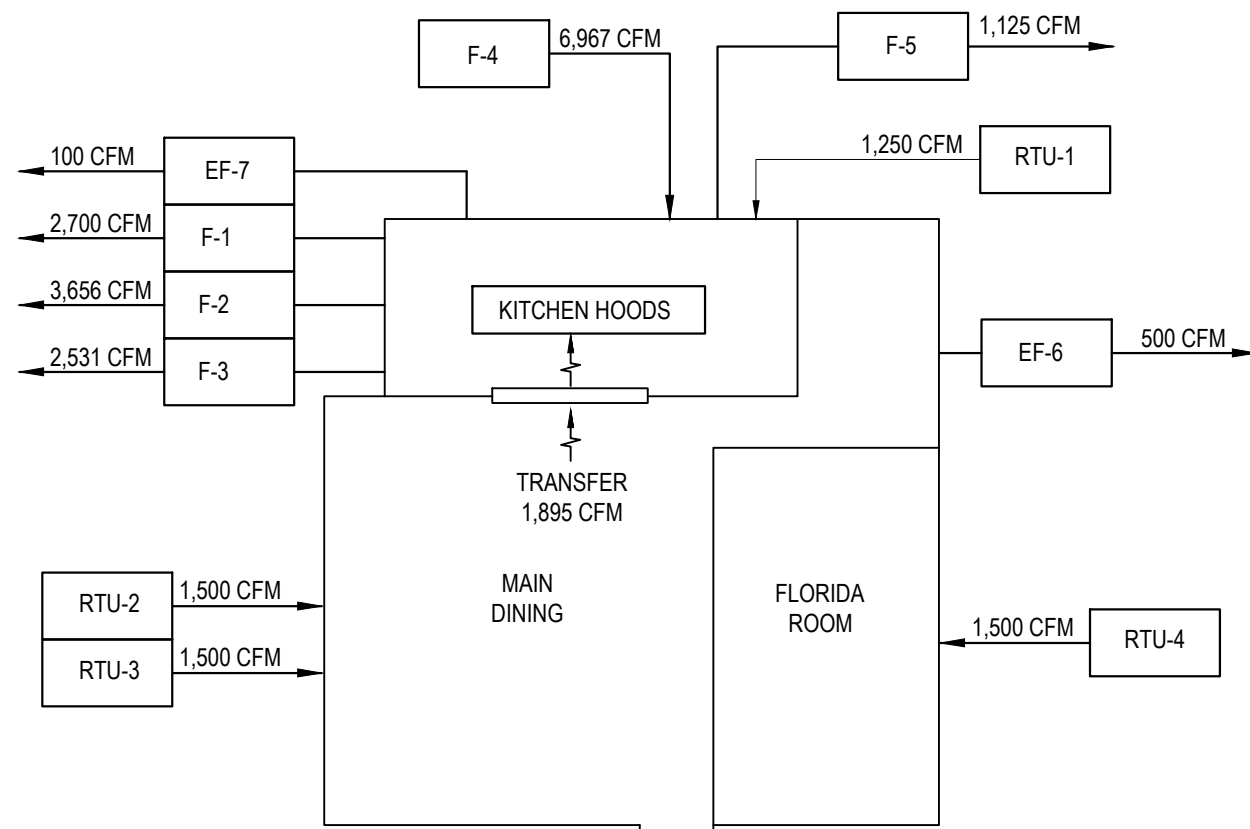
HOOD OPERATION PER FLORIDA BUILDING CODE 2020 - MECHANICAL. HOODS HAVE BEEN DESIGNED AND SHALL BE INSTALLED TO AUTOMATICALLY ACTIVATE THE EXHAUST FAN WHENEVER COOKING OPERATIONS OCCUR. THE ACTIVATION OF THE EXHAUST FAN SHALL OCCUR THROUGH AN INTERLOCK WITH THE COOKING APPLIANCES, BY MEANS OF INTERLOCKING COOKING EQUIPMENT GAS VALVE WITH EXHAUST FAN SWITCH.

GARAGE DOOR INTERLOCK OPERATION NOTE

RTU-4 OPERATION PER FLORIDA BUILDING CODE 2020 - ENERGY CONSERVATION. THE FLORIDA ROOM HAS BEEN DESIGNED AND SHALL BE INSTALLED TO AUTOMATICALLY DEACTIVATE THE RTU-4 COMPRESSORS WHENEVER ANY FLORIDA ROOM GARAGE DOOR IS OPENED. THE DEACTIVATION OF THE COMPRESSORS SHALL OCCUR THROUGH AN INTERLOCK WITH THE MAGNETIC DOOR SENSORS. RTU-4 SUPPLY FAN SHALL REMAIN ACTIVATED WHEN GARAGE DOORS ARE OPENED. WHEN GARAGE DOORS ARE CLOSED THE COMPRESSORS SHALL ACTIVATE AND OPERATE NORMALLY.

MECHANICAL KEY PLAN NOTES:

- 25X10 EXHAUST DUCT UP TO CAPTIVE AIR FAN F-1. DUCT TO EXHAUST FAN TO BE SIZE OF FAN OPENING.
- 35X10 EXHAUST DUCT UP TO CAPTIVE AIR FAN F-2. DUCT TO EXHAUST FAN TO BE SIZE OF FAN OPENING.
- 24X10 EXHAUST DUCT UP TO CAPTIVE AIR FAN F-3. DUCT TO EXHAUST FAN TO BE SIZE OF FAN OPENING.
- 18X18 316 STAINLESS STEEL EXHAUST DUCT UP TO CAPTIVE AIR FAN F-4. DUCT TO EXHAUST FAN TO BE SIZE OF FAN OPENING.
- LOCATE TEMPERATURE SENSOR BELOW RETURN GRILLE. LOCATE TEMPERATURE ADJUSTMENT PANEL IN OFFICE. COORDINATE LOCATIONS WITH GENERAL CONTRACTOR.
- LOCATE TEMPERATURE SENSORS FOR RTUS AT LOCATIONS SHOWN. TEMPERATURE ADJUSTMENT PANELS LOCATED IN MANAGERS OFFICE. COORDINATE LOCATION OF BOTH WITH THE GENERAL CONTRACTOR.
- PROVIDE UNIT WITH CONDENSATE PUMP. RUN 3/4" CONDENSATE LINE TO HUB DRAIN.
- INTERLOCK RTU COMPRESSORS WITH GARAGE DOOR SENSORS FOR OPEN-DOOR COMPRESSOR SHUT-OFF. COORDINATE WITH ELECTRICAL.
- GREASE ACCESS DOOR (TYPICAL).
- DUCT MOUNTED SMOKE DETECTORS FURNISHED BY FIRE ALARM CONTRACTOR. COORDINATE LOCATION WITH FIRE ALARM CONTRACTOR. PROVIDE REMOTE TEST SWITCH WITH LABEL IN AN EASILY VISIBLE AND ACCESSIBLE LOCATION.
- KITCHEN HOODS FURNISHED BY OWNERS HOOD SUPPLIER. CAPTIVE AIR, AND INSTALLED BY G.C. REFER TO SHEETS FOOD SERVICE FOR CAPTIVE AIR DRAWINGS.
- CONNECT SUPPLY DUCT DOWN TO KITCHEN HOOD (TYPICAL).
- CONNECT EXHAUST DUCT DOWN TO KITCHEN HOOD (TYPICAL).
- 12X12 EXHAUST AIR DUCT UP TO EF-6 ON ROOF. DUCT TO EXHAUST FAN TO BE SIZE OF FAN OPENING.
- MANUAL PULL STATION FOR HOODS. MOUNT NO LOWER THAN 42" A.F.F. AND NO HIGHER THAN 48" A.F.F.
- SUPPLY DUCT UP TO CAPTIVE AIR MUA-1 (F-4) ON ROOF. DUCT TO MAKE-UP AIR UNIT TO BE SIZE OF UNIT OPENING. SEE FOOD SERVICE DRAWINGS FOR HOOD PLANS.
- PROVIDE 16 GA CONTINUOUSLY WELDED LIQUID TIGHT EXHAUST DUCT WITH MINIMUM 2 HOUR U.L. LISTED FIRE RATED BLANKET WRAP UP TO EXHAUST FAN ON ROOF. OFFSET DUCT WITH 45° OFFSETS AS NEEDED. TRANSITION TO HOOD AND FAN CONNECTIONS AS REQUIRED. EXHAUST DUCT CONSTRUCTION AND INSTALLATION TO BE IN COMPLIANCE WITH THE 2012 INTERNATIONAL BUILDING CODE AND NFPA.
- EF-7 CEILING MOUNTED EXHAUST FAN FOR MOP-SINK. TERMINATE 6"Ø EXHAUST DUCT WITH MANUFACTURER RECOMMENDED ROOFTOP GOOSENECK VENT.
- PROVIDE UNIT WITH CONDENSATE PUMP. RUN 3/4" CONDENSATE LINE TO TERMINATE AT EXTERIOR IN DRYWELL.
- ROUTE REFRIGERANT SUPPLY & SUCTION LINES UP TO CONDENSER LOCATED ON ROOF.
- 10X10 EXHAUST DUCT UP TO EF-8 ON ROOF. DUCT TO EXHAUST FAN TO BE SIZE OF FAN OPENING. PROVIDE WALL MOUNTED THERMOSTAT.
- COORDINATE ROUTING OF DUCTWORK WITH CEILING CLOUD SUPPORTS.
- LOCATE LINEAR DIFFUSER IN WALL SOFFIT DIRECTLY ABOVE SLIDING DOOR. PROVIDE FULL SIZE, EXTENDED, INSULATED PLENUM BOX TO ABOVE CEILING TO ALLOW FOR SIDE CONNECTION OF SUPPLY DUCT.
- PROVIDE INTERNAL INSULATION FOR DUCTWORK.
- INSTALL DUCT MOUNTED SUPPLY DIFFUSERS AT THE 4 AND 8 O'CLOCK POSITION.



Air Balance Diagram
Scale: NTS

KITCHEN AIR BALANCE

HOOD-1 EXHAUST (F-1)	2,700 CFM
HOOD-2 EXHAUST (F-2)	3,656 CFM
HOOD-3 EXHAUST (F-3)	2,531 CFM
DWH EXHAUST (F-4)	1,125 CFM
EF-1 MOP-SINK	100 CFM
TOTAL EXHAUST	10,112 CFM
RTU-1	1,250 CFM
MAKE-UP AIR (F-4)	6,967 CFM
NEGATIVE	1,895 CFM
TRANSFER AIR	1,895 CFM

BUILDING AIR BALANCE

MAKE-UP AIR (F-5)	6,967 CFM
RTU-1	1,250 CFM
RTU-2	1,500 CFM
RTU-3	1,500 CFM
RTU-4	1,500 CFM
TOTAL OA	12,717 CFM
HOOD-1 EXHAUST (F-1)	2,700 CFM
HOOD-2 EXHAUST (F-2)	3,656 CFM
HOOD-3 EXHAUST (F-3)	2,531 CFM
DWH EXHAUST (F-4)	1,125 CFM
RESTROOM (EF-6)	500 CFM
MOP SINK (EF-7)	100 CFM
TOTAL EXHAUST	10,612 CFM

TOTAL OA 12,717 CFM
TOTAL EXHAUST 10,612 CFM
2,105 CFM

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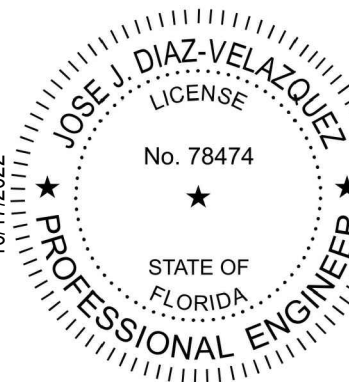
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CLIENT NAME
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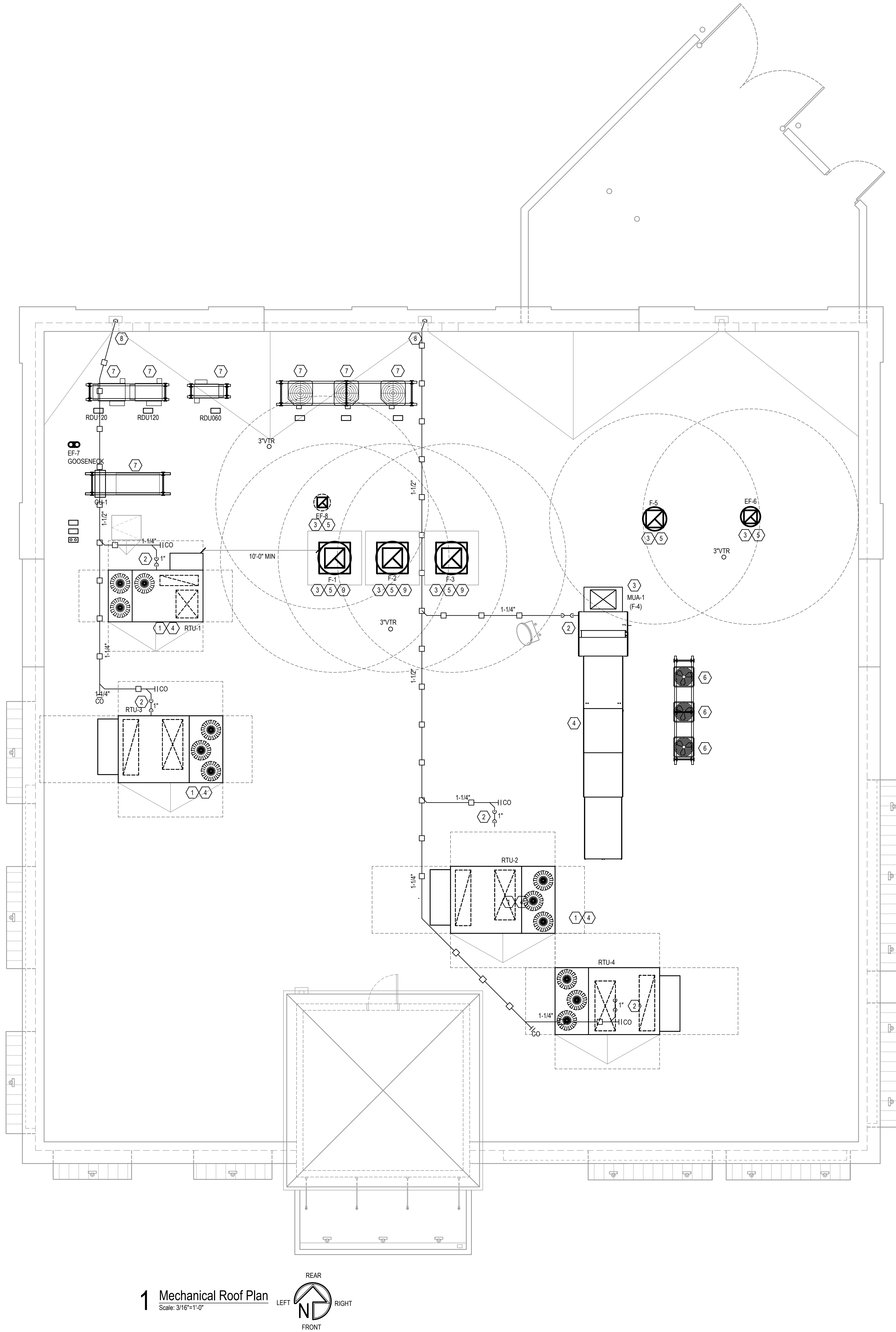
PROJECT NAME
Miller's Ale House - PSL West
1775 St. Lucie West Blvd.
Port St. Lucie, FL 34986

SHEET TITLE
Mechanical Floor Plan



PROJECT NO.	2210786
DATE	10/17/2022
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CHECKED	RR
IN CHARGE	RR

M101



- MECHANICAL PLAN KEY NOTES:**
- COORDINATE EXACT LOCATION OF MECHANICAL UNITS WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS. REFER TO STRUCTURAL DRAWINGS FOR RTU INSTALLATION. COORDINATE WITH MANUFACTURERS' RECOMMENDATIONS.
 - CONDENSATE PIPING WITH 1" AIR GAP. REFER TO CONDENSATE TRAP DETAIL ON MECHANICAL DETAIL SHEET FOR PIPE SIZE AND INSTALLATION.
 - COORDINATE EXACT LOCATION OF SUPPLY AND EXHAUST FANS WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS. SEE SHEET M001 FOR ALL OTHER MECHANICAL EQUIPMENT SCHEDULES.
 - REFER TO PLUMBING DRAWINGS FOR GAS PIPING SIZING AND INSTALLATION REQUIREMENTS.
 - ALL EXHAUST AIR TO MAINTAIN 10'-0" DISTANCE AWAY FROM AIR INTAKE.
 - MUA-1 REMOTE MOUNTED CONDENSING UNITS ON EQUIPMENT RACK. COORDINATE LOCATION TO NOT OBSTRUCT MUA-1 ACCESS OR SATELLITE RECEPTION.
 - REFRIGERATION EQUIPMENT ON ROOF SHOWN FOR COORDINATION ONLY. EQUIPMENT BY OTHERS.
 - TERMINATE 2" CONDENSATE AT STORM DOWNSPOUT.
 - PROVIDE 36"X36" GREASE GUARDS. ROOFTOP SOLUTIONS MODEL XD 66 OR EQUIVALENT.

1 Mechanical Roof Plan
Scale: 3/16"=1'-0"
REAR
LEFT
RIGHT
FRONT

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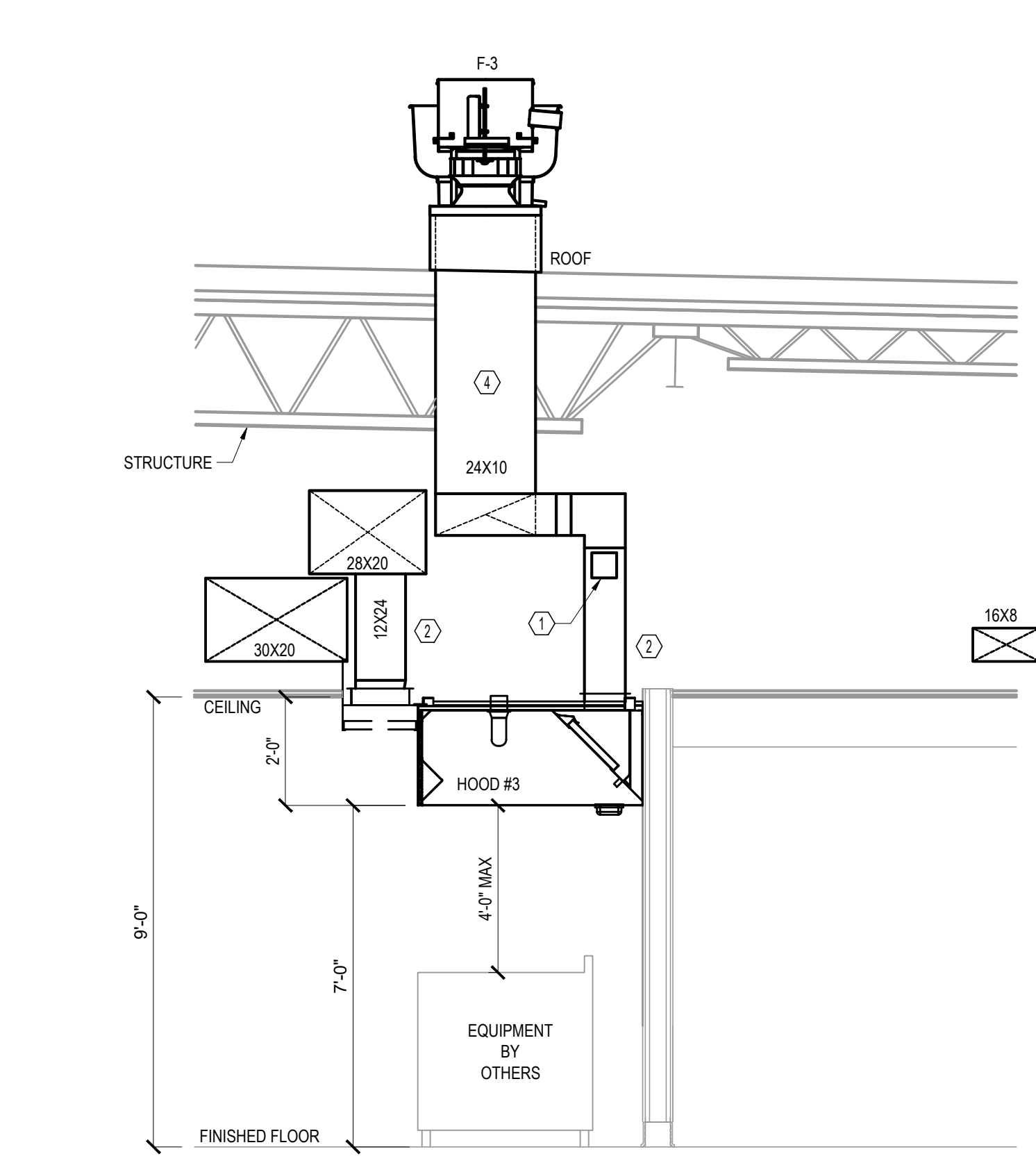
SHEET TITLE
Mechanical Roof Plan

10/17/2022
JOSE J. DIAZ-VELAZQUEZ
No. 78474
STATE OF FLORIDA
PROFESSIONAL ENGINEER

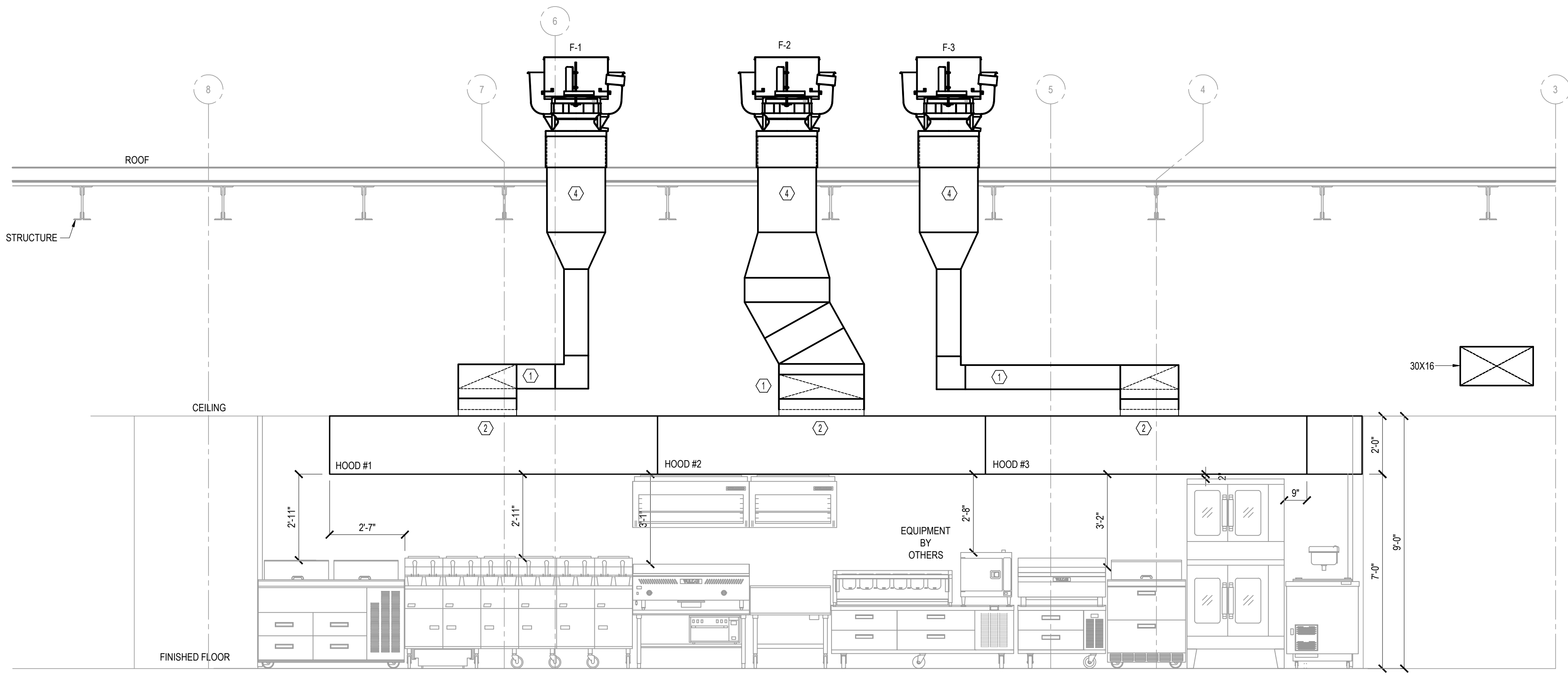
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CHECKED	JJD

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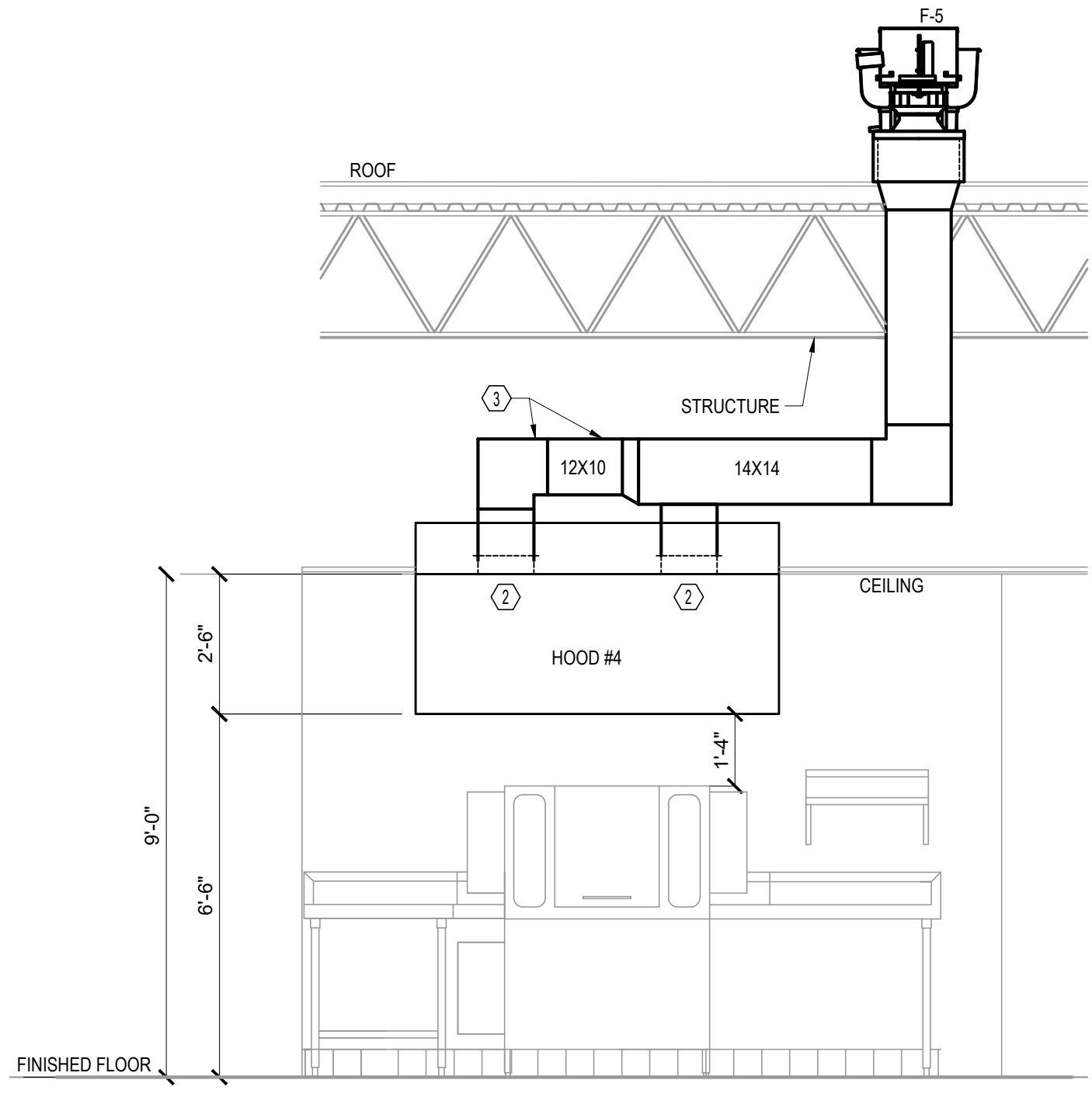
1 Hood Section - Side Elevation
Scale: 3/8" = 1' - 0"



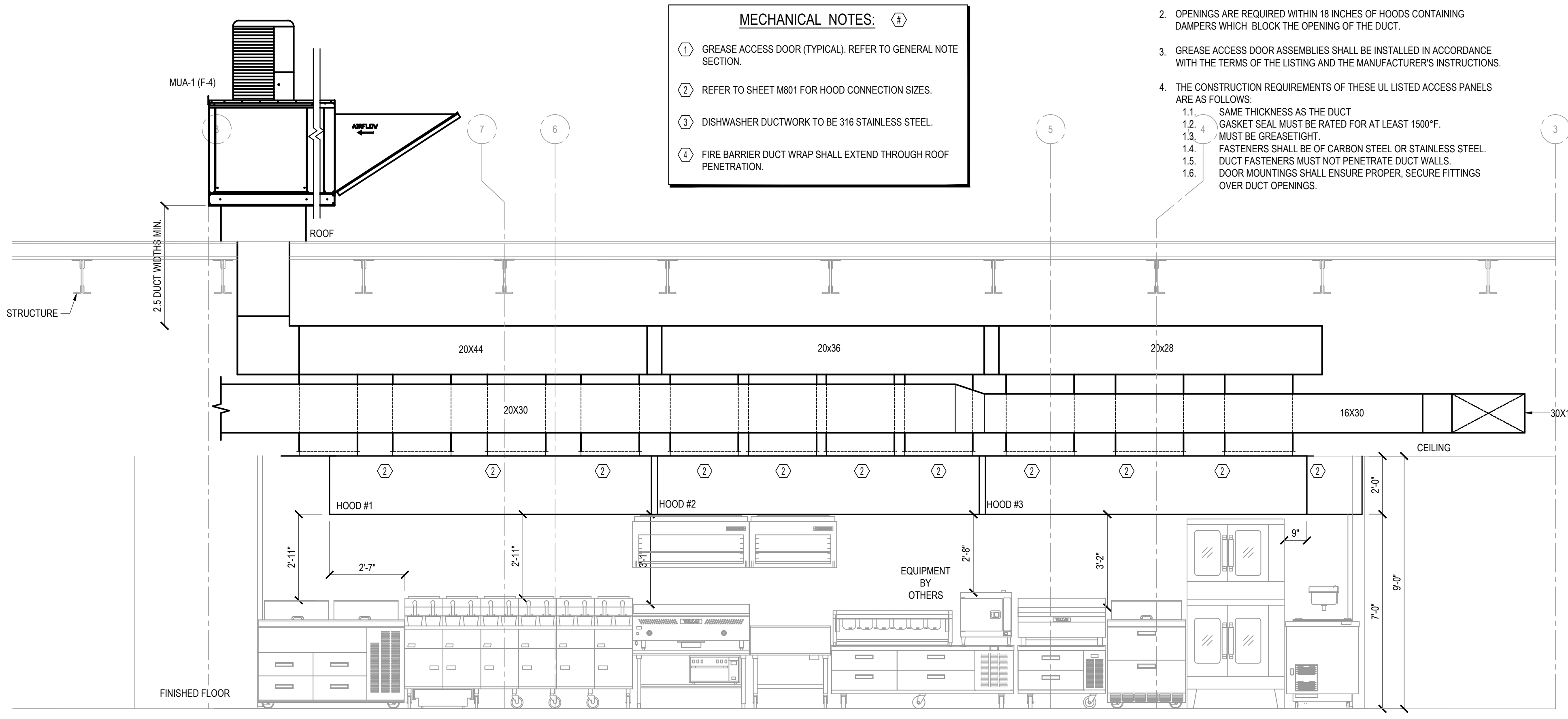
2 Hood Section Front View - Exhaust
Scale: 3/8" = 1' - 0"

GENERAL NOTES:

- ALL INTERIOR SURFACES OF THE EXHAUST SYSTEM SHALL BE REASONABLY ACCESSIBLE FOR CLEANING AND INSPECTION PURPOSES. ACCESS OPENINGS ARE REQUIRED EVERY 12 FEET AND AT EVERY CHANGE IN DIRECTION OF HORIZONTAL DUCTWORK, UNLESS THE DUCT IS LARGE ENOUGH FOR PERSONAL ENTRY.
- OPENINGS ARE REQUIRED WITHIN 18 INCHES OF HOODS CONTAINING DAMPERS WHICH BLOCK THE OPENING OF THE DUCT.
- GREASE ACCESS DOOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE TERMS OF THE LISTING AND THE MANUFACTURER'S INSTRUCTIONS.
- THE CONSTRUCTION REQUIREMENTS OF THESE UL LISTED ACCESS PANELS ARE AS FOLLOWS:
 - SAME THICKNESS AS THE DUCT
 - GASKET SEAL MUST BE RATED FOR AT LEAST 1500°F.
 - MUST BE GREASETIGHT.
 - FASTENERS SHALL BE OF CARBON STEEL OR STAINLESS STEEL.
 - DUCT FASTENERS MUST NOT PENETRATE DUCT WALLS.
 - DOOR MOUNTINGS SHALL ENSURE PROPER, SECURE FITTINGS OVER DUCT OPENINGS.



3 Hood Section Front View - Dishwasher Exhaust
Scale: 3/8" = 1' - 0"



4 Hood Section Front View - Make Up Air
Scale: 3/8" = 1' - 0"

MECHANICAL NOTES:

- GREASE ACCESS DOOR (TYPICAL). REFER TO GENERAL NOTE SECTION.
- REFER TO SHEET M801 FOR HOOD CONNECTION SIZES.
- DISHWASHER DUCTWORK TO BE 316 STAINLESS STEEL.
- FIRE BARRIER DUCT WRAP SHALL EXTEND THROUGH ROOF PENETRATION.

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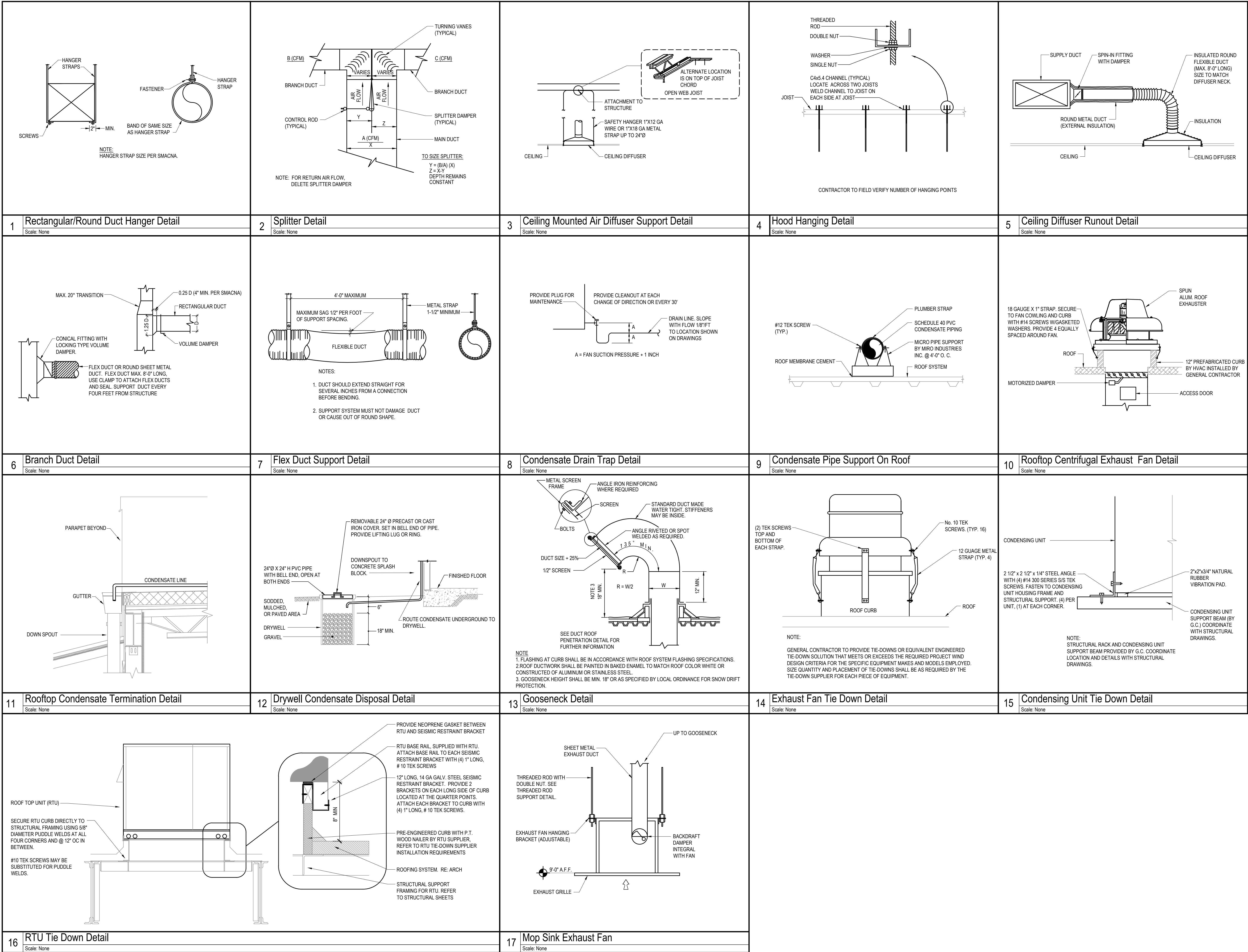
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