

MECHANICAL SPECIFICATIONS

SCOPE: THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE DRAWINGS AND SPECIFICATIONS BEFORE SUBMITTING A PROPOSAL. ALL WORK SHALL BE IN ACCORDANCE WITH THE FLORIDA BUILDING CODES FIFTH EDITION (2014), WITH ALL AMENDMENTS, AND LOCAL CODES AND ORDINANCES. INSTALLATION SHALL COMPLY WITH THE CODE REFERENCED STANDARDS SET BY NFPA, ASHRAE, ASPE, SMACNA, NEE AND UL. THE SYSTEMS, EQUIPMENT, DEVICES AND ACCESSORIES SHALL BE INSTALLED, FINISHED, TESTED AND ADJUSTED FOR CONTINUOUS AND PROPER OPERATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS WORK FITTING IN PLACE AND SHALL COORDINATE WITH OTHER TRADES TO AVOID INTERFERENCE WITH THEIR WORK. THE INFORMATION GIVEN HEREIN AND ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED, BUT ITS EXTREME ACCURACY IS NOT GUARANTEED. THE DRAWINGS ARE DIAGRAMMATIC, INTENDED TO SHOW GENERAL ARRANGEMENT, CAPACITY AND LOCATION OF VARIOUS COMPONENTS, EQUIPMENTS, AND DEVICES. IF WORK IS REQUIRED IN A MANNER TO MAKE IT IMPOSSIBLE TO PRODUCE FIRST CLASS WORK, OR SHOULD DISCREPANCIES APPEAR AMONG THE CONTRACT DOCUMENTS, OR BETWEEN THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S RECOMMENDATIONS, THE CONTRACTOR SHALL REQUEST INTERPRETATION BEFORE PROCEEDING WITH WORK. CONTRACTOR SHALL FURNISH AND INSTALL ALL MINOR ITEMS WHICH ARE OBVIOUSLY AND REASONABLY NECESSARY TO COMPLETE THE INSTALLATION WHETHER OR NOT SPECIFIED IN THE DOCUMENTS.

REQUIRED COORDINATION: ALL WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN DUCTS AND PIPING (INCLUDING DIVIDED DUCTS) AND TRANSITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

CONSTRUCTION PLANS: IN GENERAL, PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED.

REQUIRED ACCESS: CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT AND DEVICES THAT REQUIRE REPLACEMENT, SERVICING, ADJUSTING OR MAINTENANCE SHALL BE LOCATED TO ALLOW EASY ACCESS AND SPACE FOR REMOVAL OF INTERNAL ASSEMBLIES, IF REQUIRED. CONTRACTOR SHALL PROVIDE ACCESS PANELS WHERE REQUIRED TO ALLOW ACCESS, EVEN IF NOT INDICATED ON THE DRAWINGS AT NO ADDITIONAL COST TO OWNER.

WIND RESISTANCE: ALL EQUIPMENT, APPLIANCE AND SUPPORTS LOCATED EXTERIOR OF THE FACILITY SHALL BE INSTALLED TO RESIST WIND LOADS AS DETAILED IN THE BUILDING CODE.

CUTTING AND PATCHING: ALL OPENINGS AROUND DUCT OR PIPE PENETRATIONS THROUGH SMOKE OR FIRE RATED FLOORS, CEILINGS OR WALLS SHALL BE SEALED AIRTIGHT WITH MATERIALS HAVING A RATING EQUAL TO THE MATERIAL OF THE WALL, CEILING OR FLOOR PENETRATED.

EQUIPMENT TAGS: ALL EQUIPMENT WILL HAVE A PERMANENTLY FIXED ENGRAVE PHENOLIC LABEL CORRESPONDING TO THE EQUIPMENT TAG ON THE ENGINEER'S DRAWINGS.

FIRESTOPPING: UL APPROVED MATERIALS AND METHODS SHALL PROTECT THE PENETRATIONS OF FIRE AND/OR SMOKE RATED WALLS, CEILINGS OR FLOORS. THE RATING OF THE FIRESTOPPING SHALL EQUAL THE RATING OF THE RATED ASSEMBLY. ALL INSULATION SHALL HAVE COMPOSITE FIRE AND SMOKE HAZARD RATINGS AS TESTED BY PROCEDURE ASTM E-84, NFPA-225, UL-723 NOT EXCEEDING:

FLAME SPREAD 25
SMOKE DEVELOPED 50
FUEL DISTRIBUTED 50

ACCESSORIES SUCH AS ADHESIVE, MASTIC, CEMENTS AND TAPES SHALL HAVE THE SAME COMPONENT RATING AS LISTED ABOVE.

START-UP: CONTRACTOR SHALL STARTUP ALL EQUIPMENT AND FOLLOW THE MANUFACTURER'S START-UP PROCEDURES.

OPERATING AND MAINTENANCE DATA: SUBMIT THREE COPIES OF MANUFACTURER'S OPERATING AND MAINTENANCE INSTRUCTIONS AND SPARE PARTS LIST FOR EACH PIECE OF EQUIPMENT.

CONDENSATE DRAIN PIPING: CONDENSATE DRAIN PIPING SHALL BE PVC TYPE DWV. DRAINS SHALL BE PITCHED NOT LESS THAN 1" IN 10'. RUNS SHALL BE AS SHORT AS POSSIBLE WITHOUT ANY DIPS TO TRAP WATER AND INTERFERE WITH PROPER DRAINAGE. PROVIDE TRAPS AND CLEANOUTS AT DRAIN PAN CONNECTIONS. RUN CONDENSATE DRAIN PER PLANS. INSULATE WITH 1" ARMAFLEX.

REFRIGERANT PIPING: SHALL BE ACR TUBING, DRIED AND SEALED, HARD TEMPER COPPER WITH WROUGHT COPPER BRAZED JOINTS. ASTM-B88. COORDINATE AND VERIFY PROPER REFRIGERANT PIPE SIZES AND CHARGES WITH EQUIPMENT MANUFACTURER PRIOR TO ANY INSTALLATION. INSULATE SUCTION LINE WITH 1" ARMAFLEX. WRAP INSULATION ON ROOF WITH ARMACELL # ARMACHECK 350 SILVER TAPE.

DIMENSIONAL DATA: ALL DUCTWORK DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.

SUPPLEMENTARY SUPPORTS: CONTRACTOR SHALL PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUSPEND MECHANICAL EQUIPMENT AND MATERIALS, IN ORDER TO PROVIDE A "VIBRATION-FREE" RIGID INSTALLATION.

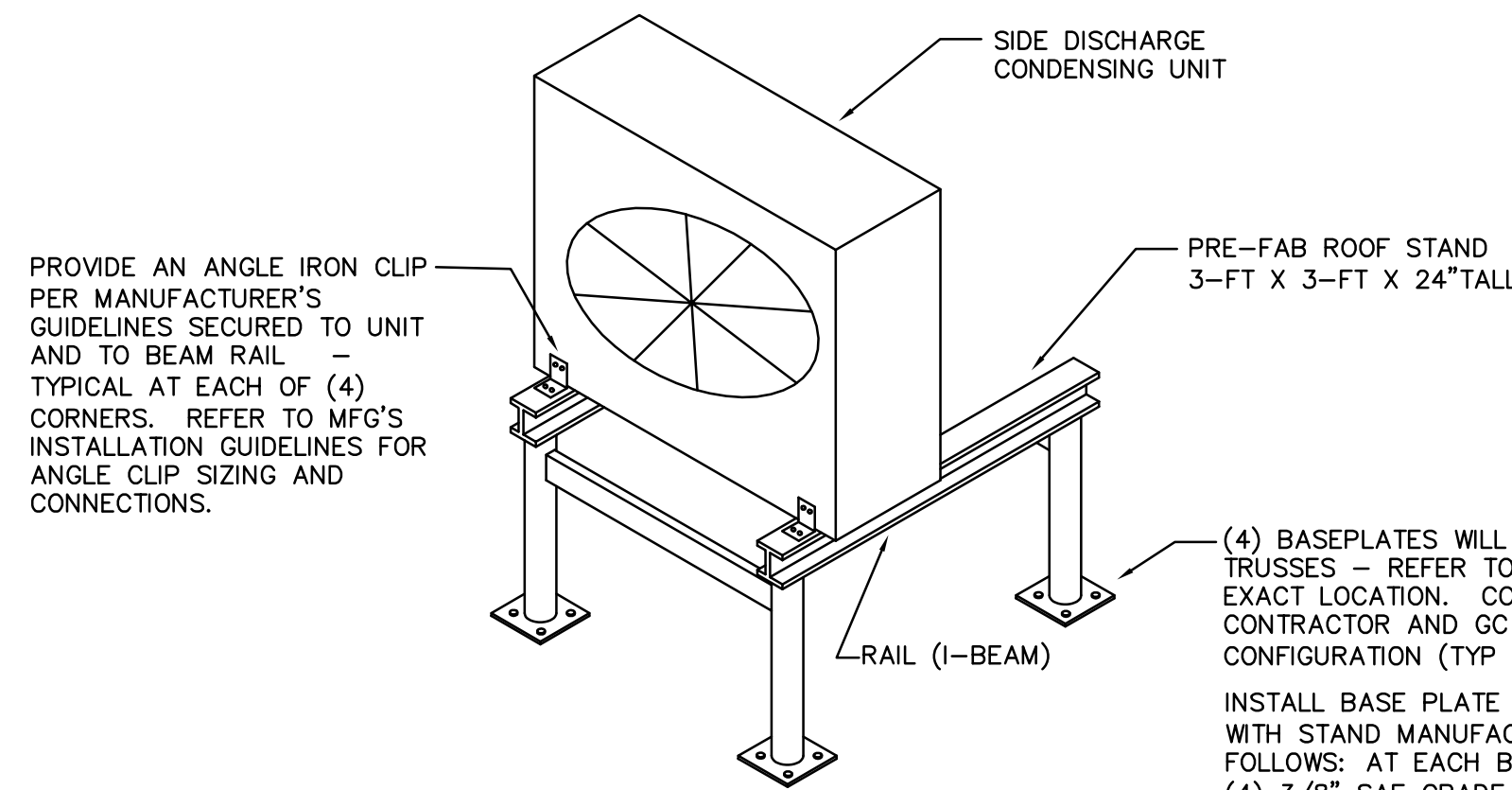
CONTROLS: PROVIDE CONTROLS COMPLETE TO SUIT THE EQUIPMENT PROVIDED AND TO ACCOMPLISH THE SEQUENCE OF OPERATION AS REQUIRED BY PLANS AND SYSTEMS. LOCATE THERMOSTATS 48" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED. THERMOSTATIC CONTROLS SHALL BE PROGRAMMABLE TO INCLUDE ALL ITEMS REQUIRED BY FBC-ENERGY CODE FIFTH EDITION AND SHALL HAVE LOCKOUT FUNCTION WITH PASSWORD.

TESTING AND BALANCING: THE CONTRACTOR SHALL ENSURE THAT ALL DEVICES AND SYSTEMS ARE COMPLETE, TESTED AND BALANCED, AND READY FOR OPERATION WHEN THE FACILITY IS HANDED OVER THE OWNER. THE AIR CONDITIONING SYSTEM SHALL BE TESTED IN ACCORDANCE WITH AABC OR NEBB. WRITTEN REPORT SHALL BE SUBMITTED TO MECHANICAL ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL RECTIFY DISCREPANCIES BETWEEN THE ACTUAL INSTALLATION AND CONTRACT DOCUMENTS WHEN IN THE OPINION OF THE T&B AGENCY OR THE ARCHITECT THE DISCREPANCIES WILL AFFECT SYSTEM BALANCE AND PERFORMANCE.

SUBMITTALS REQUIRED:
SUBMIT SHOP DRAWINGS FOR ALL MATERIALS, EQUIPMENT, AND SYSTEMS REQUIRED BY THESE DOCUMENTS (SEE ARCH. PLANS/SPECS FOR SPECIFIC FORMATTING), INCLUDING:
SPLIT SYSTEM
TEST/BALANCE REPORT
THERMOSTATS & CONTROLS

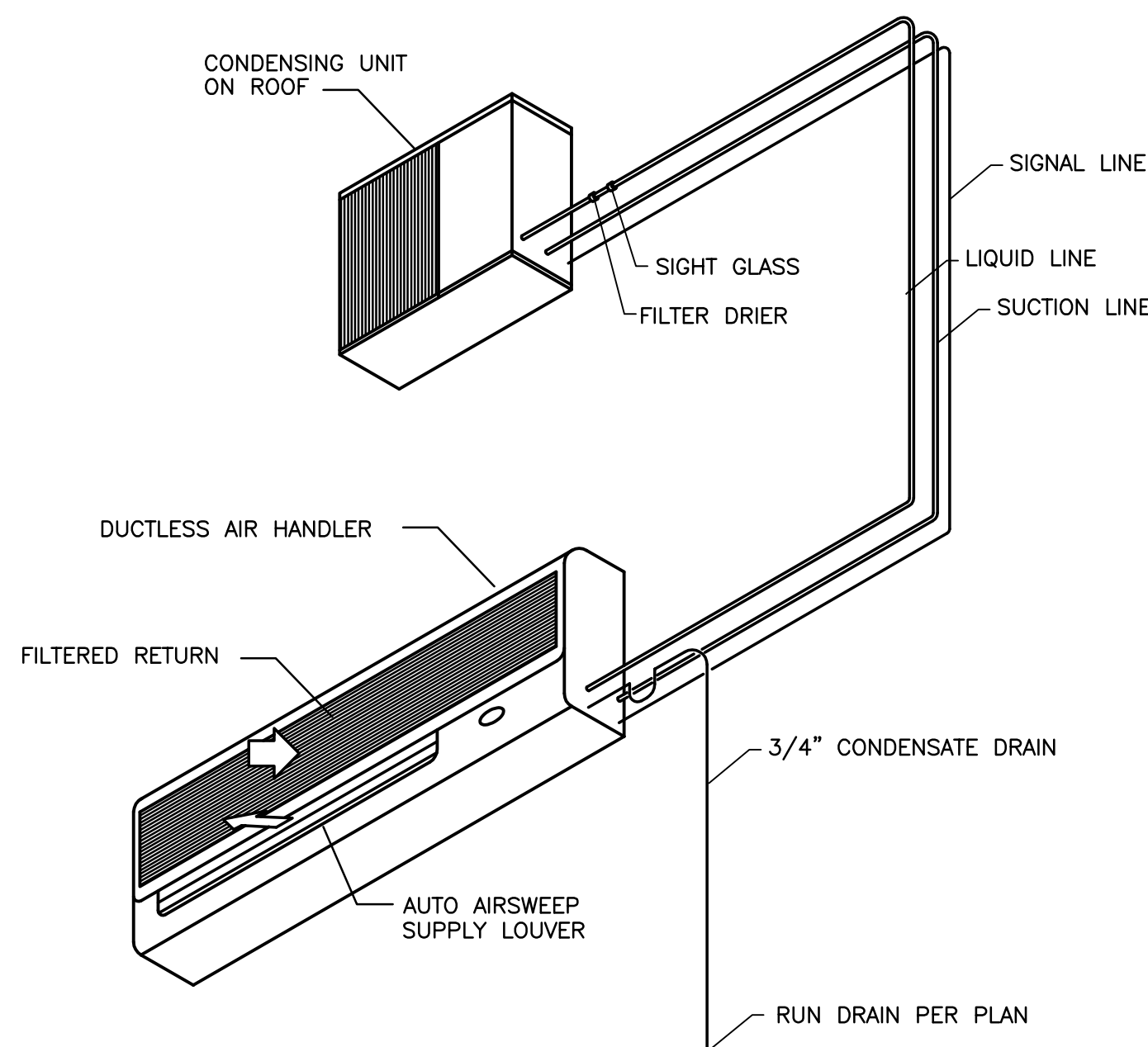
SUBSTITUTIONS: CONTRACTOR SHALL PAY FOR ANY AND ALL ADDED COSTS ASSOCIATED WITH ANY SUBSTITUTION, INCLUDING SUBSTITUTIONS THAT REQUIRE CHANGES TO THE OTHER BUILDING COMPONENTS, SUCH AS ELECTRICAL, STRUCTURAL REINFORCING, CEILINGS, WALLS, ROOFS, ETC. THIS WILL INCLUDE ANY ENGINEERING/ARCHITECTURAL RE-DESIGN COSTS AS A RESULT OF SAID SUBSTITUTION. THESE COSTS SHALL NOT BE BORNE BY THE OWNER, ARCHITECT, NOR ENGINEER, REGARDLESS OF ACCEPTABILITY OF SUBSTITUTION. ENGINEER RESERVES THE RIGHT TO ACCEPT OR DENY ANY SUBSTITUTION THAT HE DOES NOT DEEM TO BE EQUIVALENT, AND CONTRACTOR SHALL PROVIDE SPECIFIED OR EQUIVALENT MATERIALS/EQUIPMENT AT NO ADDITIONAL COST TO OWNER, SHOULD A SUBSTITUTION BE DENIED.

GUARANTEE: THE ONE-YEAR GUARANTEE PERIOD SHALL NOT START UNTIL THE PROJECT IS FULLY COMPLETED AND THE CONTRACTOR HAS RECEIVED THE FINAL PAYMENT. ALL NEW EQUIPMENT AND ALL WORK SHALL BE FULLY GUARANTEED, PARTS AND LABOR, FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR ONE YEAR FROM THE DATE OF THE FINAL PAYMENT, AT NO ADDITIONAL COST TO OWNER. REPAIRS MADE DURING THIS PERIOD MUST BE FULLY GUARANTEED FROM DEFECTS IN MATERIAL AND WORKMANSHIP AT NO EXPENSE TO THE OWNER, FOR AN ADDITIONAL ONE YEAR PERIOD FROM THE DATE OF REPAIRS AT NO ADDITIONAL COST TO OWNER. IN ADDITION, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO THE BUILDING, AND ITS CONTENTS OR OTHER EQUIPMENT, CAUSED BY DEFECTS OR IMPROPER INSTALLATION OF EQUIPMENT OR MATERIAL INSTALLED. ALL NEW HVAC UNITS SHALL INCLUDE 5-YEAR WARRANTY ON COMPRESSORS AND 1-YEAR WARRANTY ON ALL OTHER PARTS AND LABOR FOR UNIT.

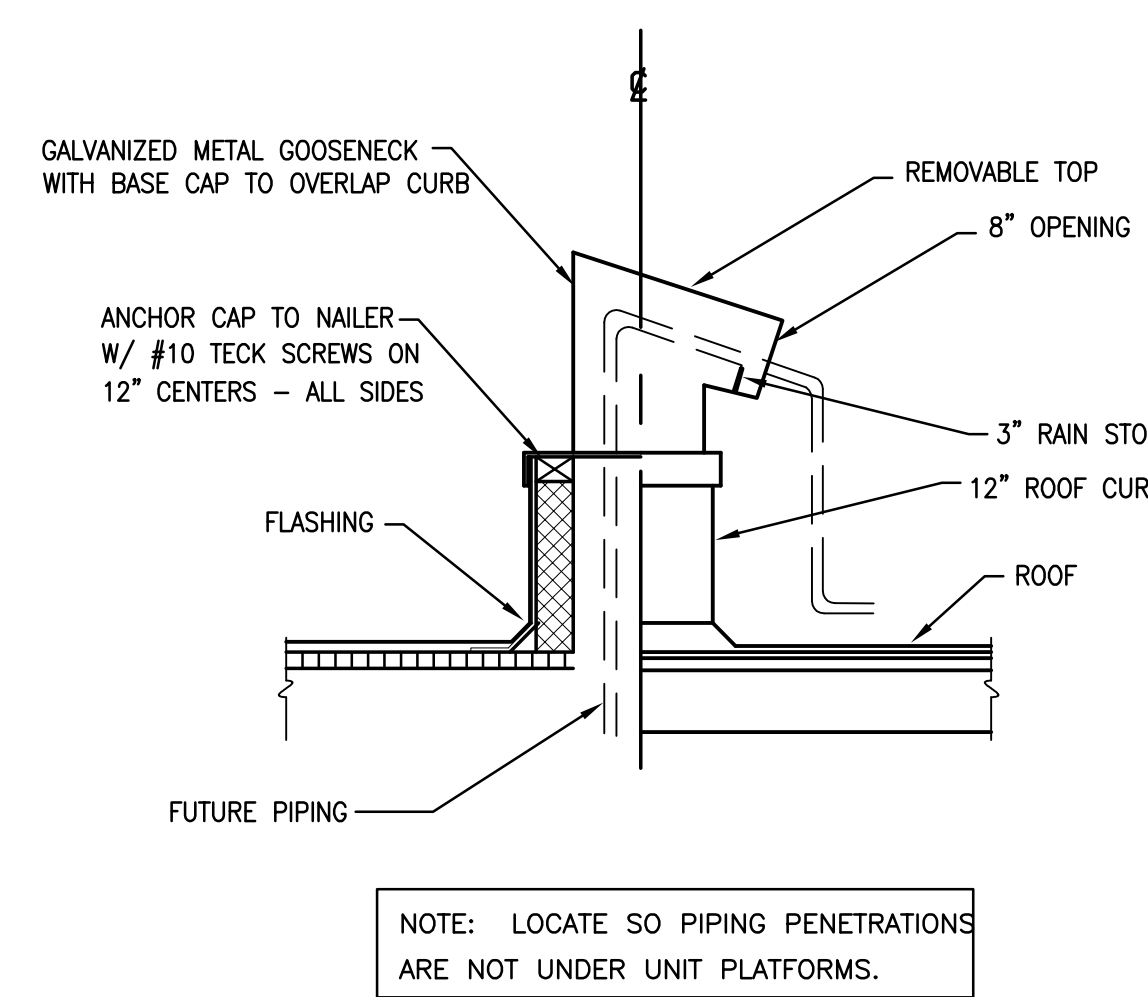


CONDENSER ROOF STAND DETAIL
SCALE: NONE

MIAMI TECH IS BASIS OF DESIGN (FLPROD.APPROVAL # FL8216-R4)
STAND SHALL BE FLORIDA PRODUCT APPROVED FOR 170-MPH+ WIND LOADING & LOCAL WIND LOADING PER CODE.
COORDINATE WITH ROOFING CONTRACTOR AND GC ON EXACT UNIT CONFIGURATION TO SUIT FIELD CONDITIONS (TYP EACH BASEPLATE) INSTALL ANCHORS IN ACCORDANCE WITH STAND MANUFACTURER'S GUIDELINES. IF REQUIRED, CONTRACTOR SHALL PROVIDE ADDITIONAL STEEL ANGLE SUPPORTS REQUIRED TO SPAN JOISTS AT NO ADDITIONAL COST.



DUCTLESS SPLIT SYSTEM DETAIL
SCALE: NONE



ROOF PIPE CURB DETAIL
SCALE: NONE

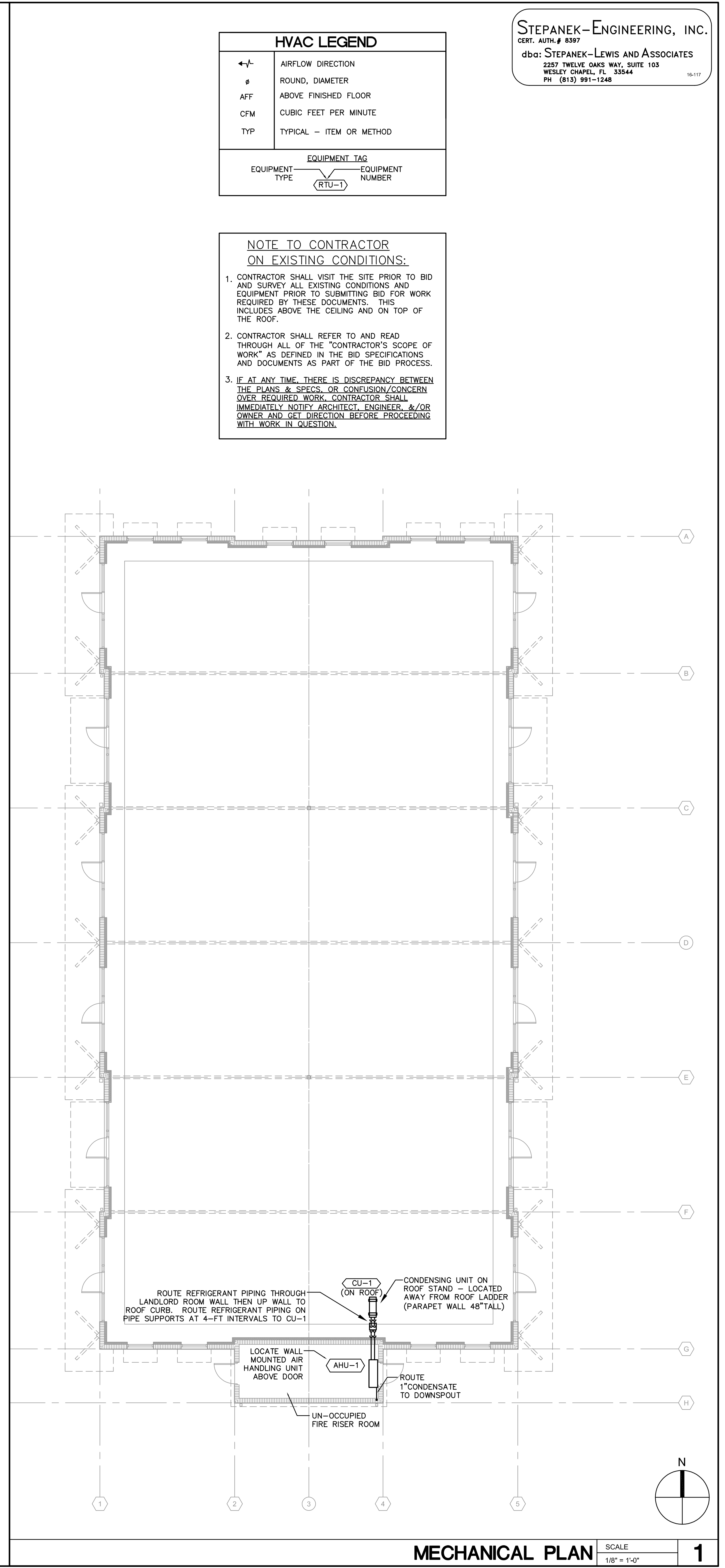
COOLING ONLY DUCTLESS SPLIT SYSTEM UNIT (INVERTER DRIVEN) SCHEDULE																						
GENERAL MARK	CAPACITY COOLING (BTU/H)			ELECTRIC SERVICE	CU (OUTDOOR UNIT)					AHU (INDOOR UNIT)		SYSTEM	WGT (LBS)	SEER	NOTES							
	TOTAL	SENSIBLE	TONS		#	RLA	LRA	#	FLA	MCA	MOCF					FLA	MCA	AMBIENT	FILTER	MFG.		
AHU-1 / CU-1	11,500	8,100	1.0	208V/1PH	1	6.6	8.2	1	0.35	13.0	15	0.33	1.0	95°F	30% EFF.	MITSUBISHI	PKA-A12HA	PUY-A12NHA3	90	29	15.2	①②③④⑤

- NOTES:
 ① PROVIDE REFRIGERANT LINE SETS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SIZING REQUIREMENTS.
 ② PROVIDE WITH TXV-VALVE, SIGHT GLASS, FILTER DRIER, LOW-AMBIENT COOLING OPTION, & 5-MINUTE ANTI-CYCLE TIMER.
 ③ SINGLE POINT POWER TO CONDENSING UNIT (CU) WITH INDOOR AIR HANDLER UNIT (AHU) POWERED FROM CU. DISCONNECTS FOR BOTH AHU & CU TO BE PROVIDED BY ELECTRICIAN (DIVISION 16).
 ④ AIR CONDITIONING CONDENSING UNIT SHALL HAVE INVERTER DUTY (DRIVEN) COMPRESSOR.
 ⑤ PROVIDE COOLING ONLY AIR HANDLER WITH WALL MOUNT BRACKET, LOW AMBIENT COOLING, UNIT-MOUNTED THERMOSTAT, AUTO-RESTART ON LOSS OF POWER, MFG'S INTERGRAL CONDENSATE PUMP, AND OVERFLOW SAFETY SWITCH.

HVAC LEGEND	
↔	AIRFLOW DIRECTION
φ	ROUND, DIAMETER
AFF	ABOVE FINISHED FLOOR
CFM	CUBIC FEET PER MINUTE
TYP	TYPICAL - ITEM OR METHOD
EQUIPMENT TAG	
EQUIPMENT TYPE	EQUIPMENT NUMBER
	RTU-1

NOTE TO CONTRACTOR ON EXISTING CONDITIONS:

- CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID AND SURVEY ALL EXISTING CONDITIONS AND EQUIPMENT PRIOR TO SUBMITTING BID FOR WORK REQUIRED BY THESE DOCUMENTS. THIS INCLUDES ABOVE THE CEILING AND ON TOP OF THE ROOF.
- CONTRACTOR SHALL REFER TO AND READ THROUGH ALL OF THE "CONTRACTOR'S SCOPE OF WORK" AS DEFINED IN THE BID SPECIFICATIONS AND DOCUMENTS AS PART OF THE BID PROCESS.
- IF AT ANY TIME THERE IS DISCREPANCY BETWEEN THE PLANS & SPECS, OR CONFUSION/CONCERN OVER REQUIRED WORK, CONTRACTOR SHALL IMMEDIATELY NOTIFY ARCHITECT, ENGINEER, &/OR OWNER AND GET DIRECTION BEFORE PROCEEDING WITH WORK IN QUESTION.



MECHANICAL PLAN
SCALE 1/8" = 1'-0" 1

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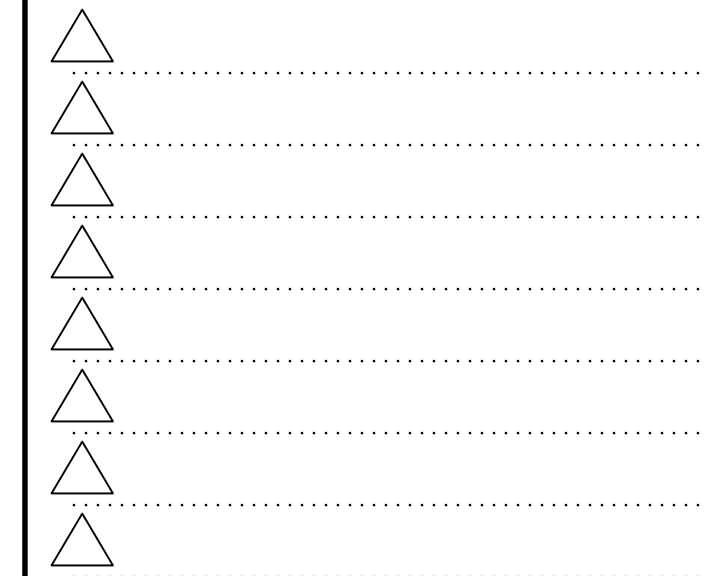
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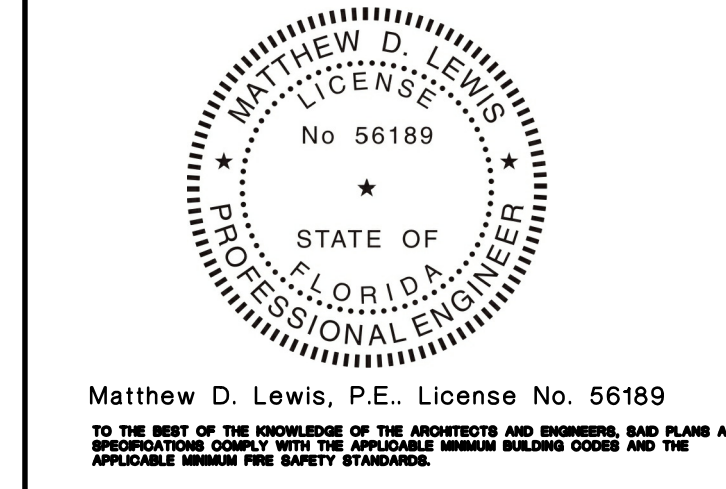


WESTLAKE AUXILIARY SALES CENTER
CITY OF WESTLAKE
PALM BEACH COUNTY, FLORIDA

ISSUE DATE: - 09-30-16
ISSUED FOR:
PERMIT - BUILDING SHELL ONLY
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STATE REGISTRATIONS
FL 56189



WESTLAKE AUXILIARY SALES CENTER
PROJECT NAME
MECHANICAL CEILING & ROOF PLANS
SHEET NAME
PROJECT NUMBER: 2016.082
DRAWN BY: TJ CHECKED BY: ML
SCALE: AS SHOWN
M1.01
SHEET NUMBER