

MECHANICAL NOTE BY SYMBOL:

- 1 PROVIDE/INSTALL 6"Ø WALL EXHAUST CAP/HOODED WALL VENT (BY FAMCO OR APPROVED EQUAL) WITH INSECT SCREEN (BACKDRAFT DAMPER AT FAN). PAINT TO MATCH EXTERIOR BUILDING COLOR. MOUNT/HOLD BOTTOM OF EXHAUST CAP HIGH AS POSSIBLE ABOVE CEILING ELEVATION (BOTTOM AT 11'-6" MINIMUM). FIELD COORDINATE AS REQUIRED. MAINTAIN A MINIMUM OF 10'-0" FROM ANY/ALL BUILDING OPENINGS AND OUTSIDE AIR INTAKES AND/OR 3'-0" ABOVE ANY/ALL BUILDING OPENINGS AND OUTSIDE AIR INTAKES WITHIN 10'-0"
- 2 PROVIDE/INSTALL 8"Ø WALL EXHAUST CAP/HOODED WALL VENT (BY FAMCO OR APPROVED EQUAL) WITH INSECT SCREEN (BACKDRAFT DAMPER AT FAN). PAINT TO MATCH EXTERIOR BUILDING COLOR. MOUNT/HOLD BOTTOM OF EXHAUST CAP HIGH AS POSSIBLE ABOVE CEILING ELEVATION (BOTTOM AT 11'-6" MINIMUM). FIELD COORDINATE AS REQUIRED. MAINTAIN A MINIMUM OF 10'-0" FROM ANY/ALL BUILDING OPENINGS AND OUTSIDE AIR INTAKES AND/OR 3'-0" ABOVE ANY/ALL BUILDING OPENINGS AND OUTSIDE AIR INTAKES WITHIN 10'-0"
- 3 FOR DUCTWORK AND AIR DEVICE LAYOUT OF AIR HANDLING UNITS SEE SHEET M1.1.
- 4 FOR DUCTWORK AND AIR DEVICE LAYOUT OF AIR HANDLING UNITS SEE SHEET M1.2.
- 5 REFER TO SHEETS M1.1 & M1.2 FOR OUTSIDE AIR INTAKE LOUVER SIZES, MAINTAIN A MINIMUM OF 10'-0" HORIZONTAL DISTANCE FROM ANY/ALL WALL EXHAUST CAPS.

CONTRACTOR NOTES

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ARCHITECT, LANDLORD OR TENANT OF ANY DISCREPANCIES ENCOUNTERED ON THE PLANS OR IN EXISTING SITE CONDITIONS PRIOR TO SUBMISSION OF BID. BIDDERS ARE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND SATISFY THEMSELVES AS TO THE NATURE AND SCOPE OF THE WORK. THE BASE BID SHALL REFLECT MODIFICATIONS TO SYSTEMS AND DEVICES AS REQUIRED BY STATE, LOCAL AND FEDERAL CODES WHETHER INDICATED OR NOT ON CONTRACT DOCUMENTS. THE SUBMISSIONS OF A BID WILL BE EVIDENCE THAT SUCH AN EXAMINATION AND COMPLIANCE WITH GOVERNING CODES/REQUIREMENTS HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED, OR FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORSEEN HAD AN EXAMINATION AND CODE/REQUIREMENTS REVIEW BEEN MADE, WILL NOT BE ALLOWED.

MECHANICAL FLOOR PLAN - EXHAUST
SCALE: 1/8" = 1'-0"
22078

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PROJECT
CENTER FOR THE
RECOVERY OF EXPLOITED
AND MISSING PERSON
(C.R.E.M.P.)

15-25-18-0000-00300-0000

SEAL

RONALD R. RENNA
FL PE#56067

REVISIONS

NO.	DESCRIPTION	DATE

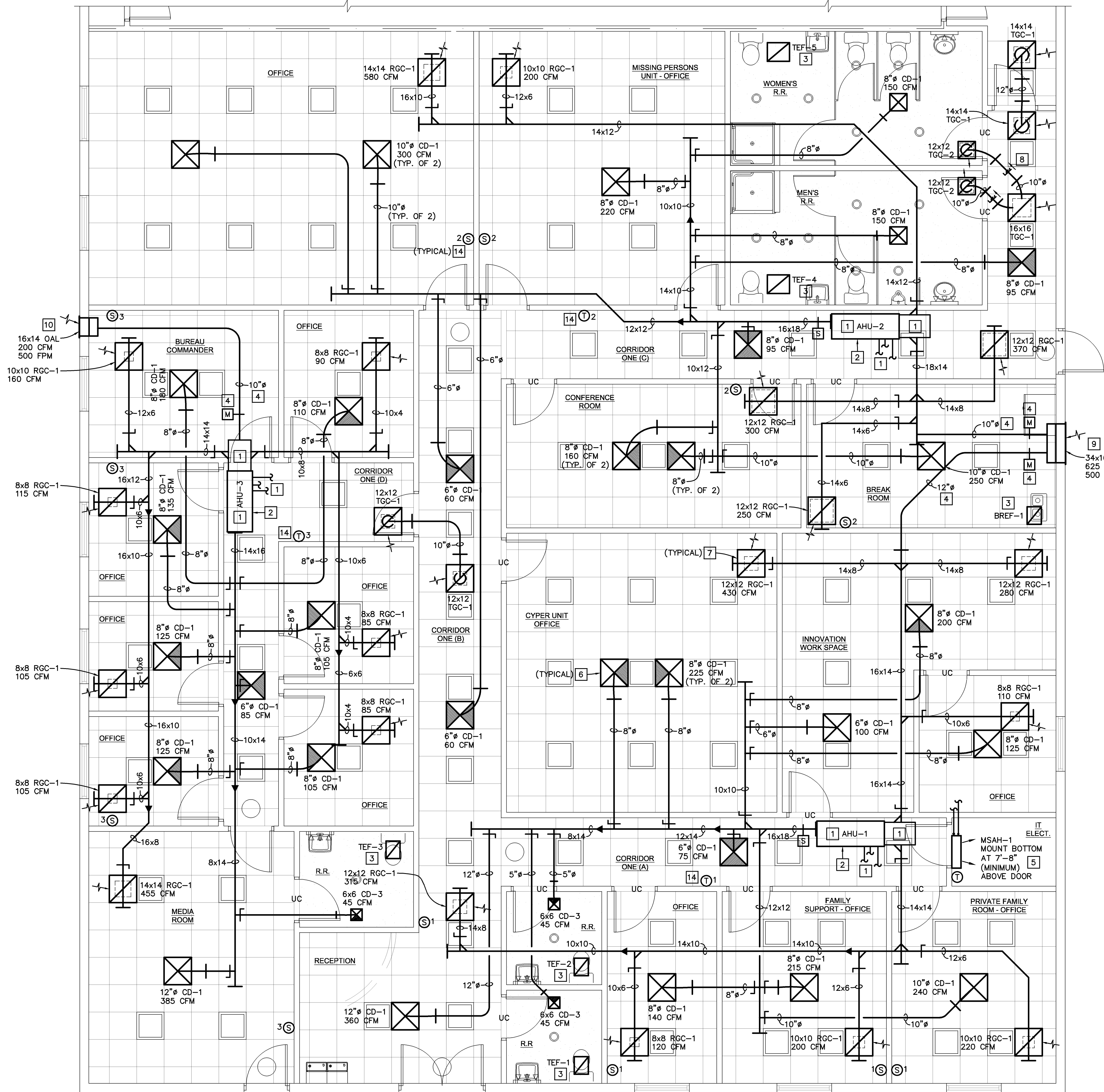
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PRINT DATE: 10/19/2020

PROJECT NUMBER
G22-0000-002
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SHEET TITLE
MECHANICAL
FLOOR PLAN

SHEET NUMBER
M1.0

NEW CONSTRUCTION



ENLARGED PARTIAL MECHANICAL FLOOR PLAN – AIR CONDITIONING
SCALE: 1/4" = 1'-0"

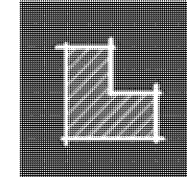
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MECHANICAL NOTE BY SYMBOL: (SHEETS M1.1 & M1.2)

- AIR HANDLER IS MOUNTED/HUNG HORIZONTALLY ABOVE CEILING AND SHALL HAVE A SECONDARY DRAIN PAN WITH A UL-508 LISTED CONDENSATE FLOAT SWITCH/SENSOR IN THE SECONDARY DRAIN PAN WIRED TO SHUT DOWN SYSTEM UPON DETECTION OF WATER IN OVER FLOW PAN. RETURN AIR PLENUM TO BE FULL SIZE OF AHU RETURN AIR OPENING. ROUTE REFRIGERANT LINE SET AND 3/4" (INDEPENDENT) PUMPED CONDENSATE DRAIN LINE TO EXTERIOR WALL AT CONDENSING UNIT LOCATIONS, REFER TO SHEET M1.2.
- FRONT/ACCESS SIDE OF HORIZONTALLY MOUNTED AIR HANDLER, MAINTAIN MANUFACTURERS/CODE REQUIRED SERVICE AREA CLEARANCES, 36" MINIMUM CODE REQUIRED CLEARANCE OBTAINED THRU LAY-IN CEILING TILES. CONVERT AIR HANDLER FOR ACCESS SIDE SHOWN ON MECHANICAL FLOOR PLANS AS/IF REQUIRED.
- SEE SHEET M1.0 FOR TOILET, BREAK ROOM AND MOP SINK EXHAUST LAY-OUT AND TERMINATION.
- GALVANIZED SHEETMETAL OUTSIDE AIR DUCTWORK ROUTED FROM OUTSIDE AIR INTAKE LOUVER TO RETURN AIR DUCTWORK. PROVIDE/INSTALL LOW VOLTAGE CONTROLLED, 2 POSITION MOTORIZED OUTSIDE AIR DAMPER IN OUTSIDE AIR DUCTWORK FROM OUTSIDE AIR INTAKE LOUVER. INSTALL MOTORIZED DAMPER AT AN ACCESSIBLE LOCATION FOR SERVICING/REPLACEMENT. SEE DETAIL SHEET FOR FURTHER INFORMATION.
- MAINTAIN FACTORY RECOMMENDED SERVICE AREA CLEARANCES FOR MSAH-1, ROUTE REFRIGERANT LINE SET AND 3/4" (INDEPENDENT) PUMPED CONDENSATE DRAIN LINE TO EXTERIOR WALL AT CONDENSING UNIT LOCATIONS, REFER TO SHEET M1.2. AIR HANDLER SHALL HAVE A DRAIN LINE FLOAT SWITCH (CODE REQUIRED) WIRED TO SHUT DOWN AIR HANDLER WHEN/IF PRIMARY DRAIN LINE BECOMES CLOGGED. REFER TO MECHANICAL SCHEDULE SHEETS FOR FURTHER INFORMATION.
- SUPPLY AIR DEVICE BLOW PATTERNS TO BE AS SHOWN ON MECHANICAL FLOOR PLANS, REFER TO MECHANICAL LEGEND.
- AIM OPENINGS OF RETURN AIR DEVICES TOWARD THE NEAREST ADJACENT WALL SO THE RETURN PLENUM IS NOT EASILY VISIBLE THRU THE AIR DEVICE.
- PROVIDE/INSTALL ZERO LEAKAGE BACKDRAFT DAMPER IN TRANSFER AIR DUCTWORK TO PREVENT ODOR MIGRATION FROM RESTROOM INTO HALLWAY (TYPICAL OF BOTH RESTROOMS).
- OUTSIDE AIR LOUVER (OAL): GREENHECK MODEL EHH-601D HAS A FREE AREA OF 1.25 SQ.FT., FLORIDA PRODUCT APPROVAL NUMBER FL10088.1 AND MIAMI-DADE NOA NUMBER 17-0919.05. LOUVER IS ALUMINUM HORIZONTAL BLADE WITH 6" FRAME (VERIFY DEPTH AVAILABILITIES W/MANUFACTURER). INSTALL 8" DEEP (MINIMUM) FULL SIZE PLENUM BOX AT BACK OF LOUVER, EXTERNALLY INSULATE BACK OF LOUVER/PLENUM BOX AND OUTSIDE AIR DUCTWORK. PROVIDE/INSTALL LOUVERS WITH FACTORY INSECT SCREEN, WALL SLEEVE AND DRAIN BLADE(S), FINAL FACTORY FINISH/COLOR OF LOUVERS BY ARCHITECTURAL, COORDINATE WITH ARCHITECT/OWNER AS REQUIRED. HOLD BOTTOM OF LOUVER HIGH AS POSSIBLE (MINIMUM 10'-6" ABOVE FINISHED FLOOR), FIELD COORDINATE EXACT LOCATION AS REQUIRED.
- OUTSIDE AIR LOUVER (OAL): GREENHECK MODEL EHH-601D HAS A FREE AREA OF 0.40 SQ.FT., FLORIDA PRODUCT APPROVAL NUMBER FL10088.1 AND MIAMI-DADE NOA NUMBER 17-0919.05. LOUVER IS ALUMINUM HORIZONTAL BLADE WITH 6" FRAME (VERIFY DEPTH AVAILABILITIES W/MANUFACTURER). INSTALL 8" DEEP (MINIMUM) FULL SIZE PLENUM BOX AT BACK OF LOUVER, EXTERNALLY INSULATE BACK OF LOUVER/PLENUM BOX AND OUTSIDE AIR DUCTWORK. PROVIDE/INSTALL LOUVERS WITH FACTORY INSECT SCREEN, WALL SLEEVE AND DRAIN BLADE(S), FINAL FACTORY FINISH/COLOR OF LOUVERS BY ARCHITECTURAL, COORDINATE WITH ARCHITECT/OWNER AS REQUIRED. HOLD BOTTOM OF LOUVER HIGH AS POSSIBLE (MINIMUM 10'-6" ABOVE FINISHED FLOOR), FIELD COORDINATE EXACT LOCATION AS REQUIRED, LOUVERS SHALL BE INSTALLED AT SIMILAR ELEVATION FOR BUILDING ESTHETICS.
- OUTSIDE AIR LOUVER (OAL): GREENHECK MODEL EHH-601D HAS A FREE AREA OF 0.25 SQ.FT., FLORIDA PRODUCT APPROVAL NUMBER FL10088.1 AND MIAMI-DADE NOA NUMBER 17-0919.05. LOUVER IS ALUMINUM HORIZONTAL BLADE WITH 6" FRAME (VERIFY DEPTH AVAILABILITIES W/MANUFACTURER). INSTALL 20" DEEP (MINIMUM) FULL SIZE PLENUM BOX AT BACK OF LOUVER, EXTERNALLY INSULATE BACK OF LOUVER/PLENUM BOX AND OUTSIDE AIR DUCTWORK. PROVIDE/INSTALL LOUVERS WITH FACTORY INSECT SCREEN, WALL SLEEVE AND DRAIN BLADE(S), FINAL FACTORY FINISH/COLOR OF LOUVERS BY ARCHITECTURAL, COORDINATE WITH ARCHITECT/OWNER AS REQUIRED. HOLD BOTTOM OF LOUVER HIGH AS POSSIBLE (MINIMUM 10'-6" ABOVE FINISHED FLOOR), FIELD COORDINATE EXACT LOCATION AS REQUIRED, LOUVERS SHALL BE INSTALLED AT SIMILAR ELEVATION FOR BUILDING ESTHETICS.
- OUTSIDE AIR LOUVER (OAL): GREENHECK MODEL EHH-601D HAS A FREE AREA OF 1.25 SQ.FT., FLORIDA PRODUCT APPROVAL NUMBER FL10088.1 AND MIAMI-DADE NOA NUMBER 17-0919.05. LOUVER IS ALUMINUM HORIZONTAL BLADE WITH 6" FRAME (VERIFY DEPTH AVAILABILITIES W/MANUFACTURER). INSTALL 8" DEEP (MINIMUM) FULL SIZE PLENUM BOX AT BACK OF LOUVER, EXTERNALLY INSULATE BACK OF LOUVER/PLENUM BOX AND OUTSIDE AIR DUCTWORK. PROVIDE/INSTALL LOUVERS WITH FACTORY INSECT SCREEN, WALL SLEEVE AND DRAIN BLADE(S), FINAL FACTORY FINISH/COLOR OF LOUVERS BY ARCHITECTURAL, COORDINATE WITH ARCHITECT/OWNER AS REQUIRED. HOLD BOTTOM OF LOUVER HIGH AS POSSIBLE (MINIMUM 10'-6" ABOVE FINISHED FLOOR), FIELD COORDINATE EXACT LOCATION AS REQUIRED, LOUVERS SHALL BE INSTALLED AT SIMILAR ELEVATION FOR BUILDING ESTHETICS.
- OUTSIDE AIR LOUVER (OAL): GREENHECK MODEL EHH-601D HAS A FREE AREA OF 0.60 SQ.FT., FLORIDA PRODUCT APPROVAL NUMBER FL10088.1 AND MIAMI-DADE NOA NUMBER 17-0919.05. LOUVER IS ALUMINUM HORIZONTAL BLADE WITH 6" FRAME (VERIFY DEPTH AVAILABILITIES W/MANUFACTURER). INSTALL 8" DEEP (MINIMUM) FULL SIZE PLENUM BOX AT BACK OF LOUVER, EXTERNALLY INSULATE BACK OF LOUVER/PLENUM BOX AND OUTSIDE AIR DUCTWORK. PROVIDE/INSTALL LOUVERS WITH FACTORY INSECT SCREEN, WALL SLEEVE AND DRAIN BLADE(S), FINAL FACTORY FINISH/COLOR OF LOUVERS BY ARCHITECTURAL, COORDINATE WITH ARCHITECT/OWNER AS REQUIRED. HOLD BOTTOM OF LOUVER HIGH AS POSSIBLE (MINIMUM 10'-6" ABOVE FINISHED FLOOR), FIELD COORDINATE EXACT LOCATION AS REQUIRED, LOUVERS SHALL BE INSTALLED AT SIMILAR ELEVATION FOR BUILDING ESTHETICS.
- PROPOSED LOCATION FOR AHU/CU CONTROLLING THERMOSTAT, PROVIDE INSTALL SMOKE DETECTOR TEST/RESET STATION ABOVE THERMOSTAT (WHEN APPLICABLE/REQUIRED), FINAL LOCATION OF THERMOSTAT AND REMOTE TEMPERATURE SENSORS (WHEN APPLICABLE/REQUIRED) BY OWNER/TENANT OR THEIR FIELD REPRESENTATIVE.
- WALL BRACKET/HOLD BOTTOM OF MSCU-1 AT 72" (MINIMUM) ABOVE FINISHED GRADE, DO NOT DIRECT DISCHARGE AIR FROM MSCU-1 INTO SPLIT SYSTEM CONDENSING UNITS.
- REFRIGERANT PIPING/LINE SETS (ALL UNITS) PVC SLEEVED THRU EXTERIOR WALL, FLASH AND SEAL/FOAM FILL WALL PENETRATIONS WEATHER TIGHT. ROUTE REFRIGERANT PIPING OVER TO MATCHING CONDENSING UNITS. PROVIDE MULTIPLE PENETRATIONS/SLEEVES AS/IF REQUIRED. PROVIDE SHEETMETAL COVER OVER REFRIGERANT PIPING & CONDENSATE DRAIN LINES, FASTEN SHEETMETAL COVER TO WALL AND SEAL/FOAM FILL ALL OPENINGS WEATHER TIGHT, PAINT COVER TO MATCH EXTERIOR BUILDING COLOR, COORDINATE WITH ARCHITECTURAL AS REQUIRED.
- INDEPENDENT CONDENSATE DRAIN LINES (ALL UNITS) PVC SLEEVED THRU EXTERIOR WALL, FLASH AND SEAL/FOAM FILL WALL PENETRATIONS WEATHER TIGHT, PROVIDE 45 DEG. FITTINGS FOR CONDENSATE DRAIN LINES (90 DEG. FITTINGS ARE NOT PERMITTED), TURN INDEPENDENT DRAIN LINES DOWN AND SPILL CONDENSATE 6" ABOVE GRADE ON LANDSCAPING/SPLASH BLOCK (INDIRECT WASTE). PROVIDE MULTIPLE PENETRATIONS/SLEEVES AS/IF REQUIRED.
- REFRIGERANT PIPING/LINE SETS AND INDEPENDENT PUMPED CONDENSATE DRAIN LINES ABOVE CEILING FROM AIR HANDLING UNITS.
- FIRE RATED WALL, METAL SLEEVE AND FIRE CAULK ANY/ALL REFRIGERATION PIPING ROUTED THRU FIRE RATED WALLS, MAINTAIN RATED WALL INTEGRITY PER CODE.

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PROJECT
**CENTER FOR THE
RECOVERY OF EXPLOITED
AND MISSING PERSON
(C.R.E.M.P.)**

15-25-18-0000-00300-0000

SEAL

RONALD R. RENNA
FL PE#56067

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: XX/XX/2022

REVIEWED BY: RR

DRAWN BY: JK

DESIGNED BY: JK

PRINT DATE: 10/19/2020

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G22-0000-002

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SHEET TITLE

**ENLARGED
MECHANICAL
FLOOR PLAN**

SHEET NUMBER

M1.1

NEW CONSTRUCTION

PRELIMINARY, NOT FOR CONSTRUCTION



L1302130000320
L1302130000317

PROJECT
CENTER FOR THE
RECOVERY OF EXPLOITED
AND MISSING PERSON
(C.R.E.M.P.)

15-25-18-0000-00300-0000

SEAL

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REVISIONS

[illegible]

DATE ISSUED: XX/XX/2022

REVIEWED BY: RR

DRAWN BY: JK

DESIGNED BY: JK

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PROJECT NUMBER	G22-0000-002
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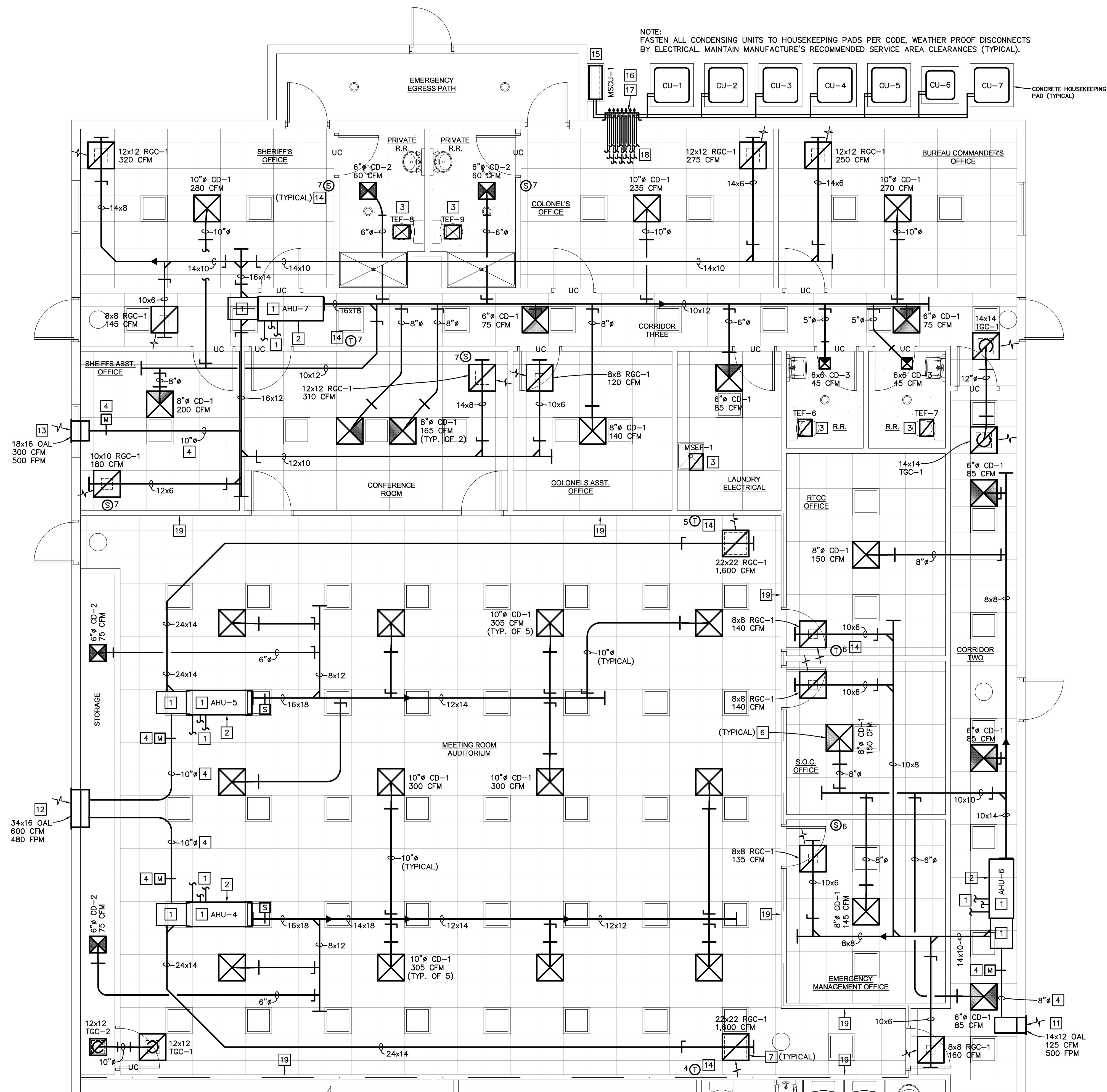
SHEET TITLE

ENLARGED MECHANICAL FLOOR PLAN

SHEET NUMBER

M1.2

NEW CONSTRUCTION



MECHANICAL NOTE BY SYMBOL:

REFER TO SHEET M1.1 FOR MECHANICAL NOTE BY SYMBOL

ENLARGED PARTIAL MECHANICAL FLOOR PLAN – AIR CONDITIONING

0 1 2 4 6 8 FEET
SCALE: 1/4" = 1'-0"

22078



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MINI-SPLIT SYSTEM A/C SCHEDULE (HEAT PUMP)				
AIR HANDLER DATA				
TAG	—	MSAH-1		
NOMINAL TONNAGE	TONS	3/4		
TOTAL CAPACITY	BTUH	9,000		
SENSIBLE CAPACITY	BTUH	6,000		
FAN SPEED	—	MED. HIGH		
SUPPLY AIR	CFM	230		
T*STAT SETTING (COOL/HEAT)	F°/F°	78/60		
VOLTAGE	V/ø	208/230/1		
POWER SUPPLY	—	POWERED BY CU		
MCA	AMPS	0.25		
FILTER TYPE	—	CLEANABLE		
UNIT WEIGHT	LBS	25		
HEAT RATED CAPACITY @ 5° F.	BTUH	6,070		
HSPF	-	10.0		
MANUFACTURER	—	CARRIER		
MODEL NO.	—	40MHHQ09		
NOTES	④	①②③		
CONDENSING UNIT DATA				
TAG	—	MSCU-1		
OUTDOOR TEMPERATURE	F°	95		
VOLTAGE	V/ø	208/230/1		
UNIT WEIGHT	LBS	65		
SEER/EER @ ARI CONDITIONS	—	18.5/11.2		
REFRIGERANT TYPE	—	R410A		
FACTORY REFRIG. CHARGE	LBS	1.76		
TOTAL REFRIGERANT LINE LENGTH	—	82 FEET		
REFRIGERANT LINE LIFT	—	33 FEET		
REFRIG. LINE SIZE (O.D.)	LIQUID—SUCTION	1/4"—3/8"		
ELECTRICAL	MCA/MOCP	8.0/15.0		
MANUFACTURER	—	CARRIER		
MODEL NO.	—	38MHRBQ09		
NOTES	④	④⑤⑥		
① PROVIDE/INSTALL WITH PROGRAMMABLE THERMOSTAT (COOLING ONLY, HEAT NOT REQUIRED), WALL BRACKETS, INTAKE GRILLE WITH FILTER AND SINGLE POINT ELECTRICAL CONNECTION.				CARRIER OR APPROVED EQUAL
② PROVIDE/INSTALL WITH CONDENSATE PUMP AND CONDENSATE OVER FLOW SAFETY DEVICE/SENSOR. ROUTE COPPER CONDENSATE DRAIN PIPING INSIDE BUILDING. PVC IS PERMITTED OUTSIDE OF BUILDING, INSULATE PER CODE. PROVIDE UV PROTECTION FOR PIPE INSULATION EXPOSED TO SUNLIGHT.				
③ DISCONNECT PROVIDED/WIRED BY ELECTRICAL.				
④ INSTALL/BRACKET CONDENSING UNIT TO WALL, PER CODE, COORDINATE WITH FLOOR PLAN.				
⑤ PROVIDE/INSTALL WITH FACTORY NON-FUSED DISCONNECT SWITCH.				
⑥ PROVIDE/INSTALL WIRING CABLE BETWEEN UNITS, REFRIGERANT PIPING AND ALL REQUIRED ACCESSORIES, COORDINATE WITH MANUFACTURER AS REQUIRED.				

MINI-SPLIT HEAT PUMP SYSTEM CONTROL SEQUENCE OF OPERATION
THE MSAH/MSCU SHALL BE STARTED AND STOPPED FROM A ROOM THERMOSTAT. ON A CALL FOR COOLING, THE THERMOSTAT SHALL ENERGIZE THE COMPRESSOR TO MAINTAIN SET POINT. (HEATING NOT REQUIRED). THE EVAPORATOR FAN SHALL CYCLE WITH THE CONDENSING UNIT AS REQUIRED.

SPLIT SYSTEM A/C SCHEDULE (HORIZONTAL CONFIGURATION)										DESIGN BASED ON CARRIER
AIR HANDLING UNIT DATA										
TAG	—	AHU-1	AHU-2	AHU-3	AHU-4	AHU-5	AHU-6	AHU-7		
NOMINAL TONNAGE (AHU/CU)	TONS	5.0/5.0	5.0/5.0	4.0/4.0	5.0/5.0	5.0/5.0	2.0/2.0	5.0/5.0		
TOTAL CAPACITY	BTUH	58,000	58,000	45,000	58,000	58,000	23,000	58,000		
SENSIBLE CAPACITY	BTUH	43,000	42,000	31,000	42,000	42,000	15,000	42,000		
FAN SPEED	—	---	---	---	---	---	---	---		
SUPPLY AIR	CFM	2,000	2,000	1,400	1,900	1,900	700	1,900		
OUTSIDE AIR	CFM	325	300	200	300	300	125	300		
ENTERING AIR TEMP. (DB/WB)	F/F	80/67	80/67	80/67	80/67	80/67	80/67	80/67		
LEAVING AIR TEMP. (DB/WB)	F/F	59/58	59/58	59/57	59/58	59/58	59/57	59/58		
EXT. STATIC PRESSURE	IN. H ₂ O	0.50	0.60	0.60	0.50	0.50	0.50	0.60		
MOTOR	H.P.	3/4	3/4	3/4	3/4	3/4	1/2	3/4		
POWER	VOLT/PH	208/3	208/3	208/3	208/3	208/3	208/1	208/3		
ELECTRICAL	MCA/MOCP	47.7/50.0	47.7/50.0	47.7/50.0	47.7/50.0	47.7/50.0	53.8/60.0	47.7/50.0		
FILTER TYPE	—	1"-30%	1"-30%	1"-30%	1"-30%	1"-30%	1"-30%	1"-30%		
UNIT WEIGHT	LBS	207	207	207	207	207	135	207		
ELECTRIC HEAT @ 208 VOLT	KW	(3 PH) 11.3	(3 PH) 11.3	(3 PH) 11.3	(3 PH) 11.3	(3 PH) 11.3	7.5	(3 PH) 11.3		
MANUFACTURER	—	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER		
MODEL NO.	—	FV4CNB006	FV4CNB006	FV4CNB006	FV4CNB006	FV4CNB006	FV4CNF002	FV4CNB006		
NOTES	④	②④⑤⑦	②④⑤⑦	②④⑤⑧	①④⑤⑥	①④⑤⑥	③④⑤⑧	②④⑤⑧		
CONDENSING UNIT DATA										
TAG	—	CU-1	CU-2	CU-3	CU-4	CU-5	CU-6	CU-7		
OUTDOOR TEMP. (DB/WB)	F/F	95/80	95/80	95/80	95/80	95/80	95/80	95/80		
POWER	VOLT/PH	208/3	208/3	208/3	208/3	208/3	208/1	208/3		
ELECTRICAL	MCA/MOCP	21.4/30.0	21.4/30.0	17.8/30.0	21.4/30.0	21.4/30.0	12.2/20.0	21.4/30.0		
UNIT WEIGHT	LBS	198	198	186	198	198	125	198		
SEER/EER @ ARI CONDITIONS	—	13.5/11.5	13.5/11.5	14.5/12.0	13.5/11.5	13.5/11.5	16.5/13.5	13.5/11.5		
MANUFACTURER	—	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER		
MODEL NO.	—	24ABB360	24ABB360	24ABB348	24ABB360	24ABB360	24SCA524	24ABB360		
NOTES	④	⑦⑧⑨⑩⑪	⑦⑧⑨⑩⑪	⑦⑧⑨⑩⑪	⑦⑧⑨⑩⑪	⑦⑧⑨⑩⑪	⑦⑧⑨⑩⑪	⑦⑧⑨⑩⑪		
① PROVIDE/INSTALL FACTORY PROGRAMMABLE THERMOSTAT (THERMOSTAT SHALL SENSE SPACE TEMPERATURE). PROVIDE/INSTALL LOCK BOX AS/IF OWNER DIRECTED, VERIFY REQUIREMENTS/LOCATIONS PRIOR TO INSTALLATION.										
② PROVIDE/INSTALL FACTORY PROGRAMMABLE THERMOSTAT (THERMOSTAT SHALL NOT SENSE SPACE TEMPERATURE). PROVIDE/INSTALL (4) FACTORY WALL MOUNTED REMOTE AVERAGING TEMPERATURE SENSORS (SYSTEM SHALL AVERAGE SPACE TEMPERATURE OF FOUR ROOMS).										
③ PROVIDE/INSTALL FACTORY PROGRAMMABLE THERMOSTAT (THERMOSTAT SHALL ALSO SENSE SPACE TEMPERATURE). PROVIDE/INSTALL (1) FACTORY WALL MOUNTED REMOTE AVERAGING TEMPERATURE SENSOR (SYSTEM SHALL AVERAGE SPACE TEMPERATURE OF TWO ROOMS).										
④ PROVIDE/INSTALL WITH FACTORY DISCONNECT SWITCH AND SINGLE POINT ELECTRICAL CONNECTION. (PROVIDE AHU-1, 2, 3, 4, 5 & 7 WITH 3 PHASE HEAT KIT/SINGLE POINT CONNECTION).										
⑤ PROVIDE/INSTALL SECONDARY DRAIN PAN W/FLOAT SWITCH AND/OR CODE APPROVED CONDENSATE OVER-FLOW SENSOR/SAFETY SWITCH AND LOW VOLTAGE CONTROLLED MOTORIZED OUTSIDE AIR DAMPER (DAMPER BY YOUNG REGULATOR CO. OR CODE APPROVED EQUAL).										
⑥ PROVIDE/INSTALL DUCT SMOKE DETECTORS (W/TEST RESET STATION) IN THE SUPPLY AIR STREAM PER CODE REQUIREMENT OF MULTIPLE UNITS SHARING A COMMON PLENUM WITH A COMBINED SUPPLY AIR CFM GREATER THAN 2,000 CFM										
⑦ PROVIDE/INSTALL DUCT SMOKE DETECTORS (W/TEST RESET STATION) IN THE SUPPLY AIR STREAM PER CODE REQUIREMENT OF SUPPLY AIR CFM GREATER THAN 2,000 CFM.										
⑧ SMOKE DETECTORS ARE NOT REQUIRED IN THE SUPPLY AIR STREAM IF SUPPLY AIR CFM IS LESS THAN 2,000 CFM, IF AFTER FINAL AIR BALANCE THE SYSTEM HAS SUPPLY AIR CFM GREATER THAN 2,000 CFM THE MECHANICAL INSTALLER WILL BE RESPONSIBLE TO PROVIDE/INSTALL DUCT SMOKE DETECTORS (W/TEST RESET STATION) IN THE SUPPLY AIR STREAM PER CODE REQUIREMENT OF SUPPLY AIR CFM GREATER THAN 2,000 CFM										
⑨ PROVIDE WITH LOW AMBIENT ACCESSORIES/OPERATION AND HAIL GUARDS AS/IF REQUIRED.										
⑩ WEATHER TIGHT CONDENSING UNIT DISCONNECT SWITCH PROVIDED AND WIRED BY ELECTRICAL.										
⑪ FASTEN CONDENSING UNIT TO CONCRETE HOUSE KEEPING PAD, PER CODE/AS REQUIRED. COORDINATE QUANTITIES OF REFRIGERANT LINES SETS AND LONG LENGTH REFRIGERANT PIPING SIZES WITH MANUFACTURER.										
⑫ PROVIDE WITH FACTORY CONDENSING UNIT CABINET & COIL SALT WATER PROTECTION/COATING WHEN CONDENSING UNITS ARE INSTALLED WITHIN 5 MILES OR LESS FROM BODIES OF SALT WATER.										
⑬ PROVIDE/INSTALL RAWAL VALVES ON ALL SPLIT SYSTEMS, COORDINATE INSTALLATION OF RAWAL VALVES WITH AC MANUFACTURER TO AVOID WARRANTY ISSUES.										

A/C EQUIPMENT CAPACITY NOTE:

PER FBC E-403.2.2 (EXCEPTION 2) MULTIPLE UNITS OF THE SAME EQUIPMENT TYPE WITH COMBINED CAPACITIES EXCEEDING THE DESIGN LOAD ARE PROVIDED WITH CONTROLS THAT HAVE THE CAPABILITY TO SEQUENCE THE OPERATION OF EACH UNIT BASED ON LOAD.

SPLIT SYSTEM GENERAL NOTE:

PROVIDE LAMINATED BAKELITE NAME PLATE (AHU-1, CU-1, ETC.) FOR EACH AHU/CU. LOCATE NEXT TO UNIT NAME PLATE. PROVIDE UV PROTECTION FOR OUTDOOR EQUIPMENT LABELS AS/IF REQUIRED.

SPLIT SYSTEM CONDENSATE PUMP:

PROVIDE/INSTALL CONDENSATE PUMP, DAYTON (OR APPROVED EQUAL) GRAINGER ITEM NO. 2P350, 120 VOLT, 1/50 H.P., 1.0 AMPS, 1/2 GALLON RESERVOIR, 18 GPH @ 12' OF HEAD, SET IN SECONDARY DRAIN PAN.

AHU/CU CONTROL SEQUENCE OF OPERATION (AHU-1, 2, 3 & 7)

THE AHU/CU SHALL BE STARTED AND STOPPED FROM A PROGRAMMABLE ROOM THERMOSTAT (THERMOSTAT SHALL NOT SENSE SPACE TEMPERATURE) WITH (4) REMOTE AVERAGING TEMPERATURE SENSORS. ON A CALL FOR COOLING, THE THERMOSTAT (RECEIVING SPACE TEMPERATURE FROM THE REMOTE AVERAGING SENSORS) SHALL ENERGIZE THE COMPRESSOR(S) IN STAGE(S) TO MAINTAIN SET POINT. ON A CALL FOR HEATING, THE THERMOSTAT (RECEIVING SPACE TEMPERATURE FROM THE REMOTE AVERAGING SENSORS) SHALL ENERGIZE THE AIR HANDLING UNIT ELECTRIC HEAT IN STAGE(S) TO MAINTAIN SET POINT. THE AHU FAN MOTOR SHALL CONTINUOUSLY RUN DURING OCCUPIED PERIODS. THE (2) POSITION LOW VOLTAGE CONTROLLED MOTORIZED OUTSIDE AIR DAMPER SHALL OPEN TO SCHEDULED OUTSIDE AIR SETTING WHEN AHU FAN MOTOR IS ENERGIZED (COOLING OR HEATING MODE). THE (2) POSITION LOW VOLTAGE CONTROLLED MOTORIZED DAMPER, SHALL FULLY CLOSE WHEN AHU FAN MOTOR IS DE-ENERGIZED. PLACE/INSTALL MOTORIZED DAMPER IN AN ACCESSIBLE LOCATION FOR SERVICE/REPLACEMENT.

AHU/CU CONTROL SEQUENCE OF OPERATION (AHU-4 & 5)

THE AHU/CU SHALL BE STARTED AND STOPPED FROM A PROGRAMMABLE ROOM THERMOSTAT. ON A CALL FOR COOLING, THE THERMOSTAT SHALL ENERGIZE THE COMPRESSOR(S) IN STAGE(S) TO MAINTAIN SET POINT. ON A CALL FOR HEATING, THE THERMOSTAT SHALL ENERGIZE THE ELECTRIC HEAT IN STAGE(S) TO MAINTAIN SET POINT. THE AHU FAN MOTOR SHALL CONTINUOUSLY RUN DURING OCCUPIED PERIODS. THE (2) POSITION LOW VOLTAGE CONTROLLED MOTORIZED OUTSIDE AIR DAMPER SHALL OPEN TO SCHEDULED OUTSIDE AIR SETTING WHEN AHU FAN MOTOR IS ENERGIZED (COOLING OR HEATING MODE). THE (2) POSITION LOW VOLTAGE CONTROLLED MOTORIZED DAMPER, SHALL FULLY CLOSE WHEN AHU FAN MOTOR IS DE-ENERGIZED. PLACE/INSTALL MOTORIZED DAMPER IN AN ACCESSIBLE LOCATION FOR SERVICE/REPLACEMENT.

AHU/CU CONTROL SEQUENCE OF OPERATION (AHU-6)

THE AHU/CU SHALL BE STARTED AND STOPPED FROM A PROGRAMMABLE ROOM THERMOSTAT (THERMOSTAT SHALL ALSO SENSE SPACE TEMPERATURE) WITH (1) REMOTE AVERAGING TEMPERATURE SENSOR. ON A CALL FOR COOLING, THE THERMOSTAT (RECEIVING SPACE TEMPERATURE FROM THE REMOTE AVERAGING SENSOR AND THE THERMOSTAT) SHALL ENERGIZE THE COMPRESSOR(S) IN STAGE(S) TO MAINTAIN SET POINT. ON A CALL FOR HEATING, THE THERMOSTAT (RECEIVING SPACE TEMPERATURE FROM THE REMOTE AVERAGING SENSOR AND THE THERMOSTAT) SHALL ENERGIZE THE AIR HANDLING UNIT ELECTRIC HEAT IN STAGE(S) TO MAINTAIN SET POINT. THE AHU FAN MOTOR SHALL CONTINUOUSLY RUN DURING OCCUPIED PERIODS. THE (2) POSITION LOW VOLTAGE CONTROLLED MOTORIZED OUTSIDE AIR DAMPER SHALL OPEN TO SCHEDULED OUTSIDE AIR SETTING WHEN AHU FAN MOTOR IS ENERGIZED (COOLING OR HEATING MODE). THE (2) POSITION LOW VOLTAGE CONTROLLED MOTORIZED DAMPER, SHALL FULLY CLOSE WHEN AHU FAN MOTOR IS DE-ENERGIZED. PLACE/INSTALL MOTORIZED DAMPER IN AN ACCESSIBLE LOCATION FOR SERVICE/REPLACEMENT.

• LOCATIONS OF DUCT MOUNTED SMOKE DETECTORS SHOWN ON THE DRAWINGS ARE REFERENCE LOCATIONS ONLY. THE FINAL PLACEMENT OF THE DETECTOR IN THE DUCTWORK SHALL MEET THE REQUIREMENTS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE A PRESSURE DIFFERENTIAL TEST AND THE MANUFACTURER'S TEST KIT. A COPY OF ALL TEST DATA WILL BE MADE AVAILABLE AT THE FINAL INSPECTION. PROVIDE READILY ACCESSIBLE DUCT ACCESS DOOR FOR INSPECTING AND SERVICING THE DETECTOR. THE ACTUATION OF A SMOKE DETECTOR SHALL ACTIVATE A VISIBLE AND AUDIBLE SUPERVISORY SIGNAL AT AN APPROVED LOCATION AND SHALL BE IDENTIFIED AS AIR DUCT DETECTOR TROUBLE. LOW VOLTAGE DETECTORS, VISIBLE AND AUDIBLE SIGNAL DEVICE(S) ARE FURNISHED, WIRED AND INSTALLED IN THE DUCTWORK BY THE MECHANICAL CONTRACTOR.

• (IF NOT FACTORY ITEMS) DUCT SMOKE DETECTOR(S) AND REMOTE TEST STATION WITH KEY LOCK TO BE: DH100ACDP - PHOTOELECTRONIC DUCT SMOKE DETECTOR WITH VISIBLE/AUDIBLE ALARM WALL MOUNTED AND LABELED FOR UNIT SERVED.
SYSTEM SENSOR
3825 OHIO AVE.
ST. CHARLES, IL 60174
PH. 1-800-736-7672

EXHAUST FAN SCHEDULE												DESIGN BASED ON GREENHECK	
TAG	—	TEF-1	TEF-2	TEF-3	TEF-4	TEF-5	TEF-6	TEF-7	TEF-8	TEF-9	MSEF-1	BREF-1	
SERVICE	—	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	
AIR QUANTITY	CFM	100	100	110	300	300	80	80	140	140	100	75	
EXT. STATIC PRESS.	IN. H ₂ O	0.375	0.375	0.375	0.375	0.375	0.35	0.35	0.35	0.35	0.375	0.375	
FAN TYPE	—	CEILING	CEILING	CEILING	CEILING	CEILING	CEILING	CEILING	CEILING	CEILING	CEILING	CEILING	
DRIVE	—	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	
DUCT OUTLET SIZE	—	6"ø	6"ø	6"ø	8"x8"	8"x8"	6"ø	6"ø	8"x6"	8"x6"	6"ø	6"ø	
SONES	—	1.5	1.5	1.5	2.5	2.5	1.0	1.0	1.3	1.3	1.5	1.0	
MOTOR	—	128 WATTS	128 WATTS	128 WATTS	224 WATTS	224 WATTS	80 WATTS	80 WATTS	37 WATTS	37 WATTS	128 WATTS	80 WATTS	
FAN SPEED	RPM	751	751	796	950	950	807	807	1,319	1,319	751	768	
UNIT WEIGHT	LBS	12	12	12	33	33	12	12	18	18	12	12	
POWER	V/ø	115/1	115/1	115/1	115/1	115/1	115/1	115/1	115/1	115/1	115/1	115/1	
CONTROL	—	INTERLOCK W/ R.R. LIGHTING	INTERLOCK W/ R.R. LIGHTING	INTERLOCK W/ R.R. LIGHTING	INTERLOCK W/ R.R. LIGHTING	INTERLOCK W/ R.R. LIGHTING	INTERLOCK W/ R.R. LIGHTING	INTERLOCK W/ R.R. LIGHTING	INTERLOCK W/ R.R. LIGHTING	INTERLOCK W/ R.R. LIGHTING	INTERLOCK W/ R.R. LIGHTING	INTERLOCK W/ R.R. LIGHTING	
AREA SERVED	—	TOILET ROOM	TOILET ROOM	TOILET ROOM	TOILET ROOM	TOILET ROOM	TOILET ROOM	TOILET ROOM	TOILET ROOM	TOILET ROOM	UTILITY ROOM	BREAK ROOM	
MANUFACTURER	—	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	
MODEL	—	SP-B150	SP-B150	SP-B150	SP-A510	SP-A510	SP-B110	SP-B110	SP-A190	SP-A190	SP-B110	SP-B110	
NOTES	(#)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)(4)	
(1) CEILING MOUNTED EXHAUST FAN TO BE INSTALLED WITH FACTORY PLUG-IN DISCONNECT LOCATED IN FAN HOUSING, BACKDRAFT DAMPER, INTAKE GRILLE, HANGING VIBRATION ISOLATION AND WALL EXHAUST CAP/HOODED WALL VENT WITH FACTORY INTEGRAL INSECT SCREEN (FAMCO OR APPROVED EQUAL), SEE MECHANICAL FLOOR PLAN FOR SIZES AND QUANTITIES.													
(2) INSTALL WITH FACTORY FAN SPEED CONTROLLER LOCATED IN FAN HOUSING.													
(3) MOTOR WITH THERMAL OVERLOAD.													
(4) PROVIDE IN-WALL 15/30/60 MINUTE, 2/4 HOUR (EQUAL TO "INTERMATIC" OR CODE APPROVED EQUAL) COUNTDOWN TIMER TO ELECTRICAL FOR INSTALLATION, FINAL LOCATION BY ARCHITECTURAL/OWNER, COORDINATE AS REQUIRED. LABEL SWITCH PLATE TO SAY "EXHAUST FAN".													

AIR DEVICE SCHEDULE						DESIGN BASED ON TITUS	
MARK	TYPE	MATERIAL	FINISH	ACCESSORIES	MANUFACTURER MODEL #	MODULE SIZE CEILING TYPE	REMARKS
CD-1	CEILING DIFFUSER	ALUMINUM	COORDINATE W/ARCHITECTURAL	---	TITUS TDC-AA	18x18 DIM. "A" 24x24 LAY-IN	(6)(8)
CD-2	CEILING DIFFUSER	ALUMINUM	COORDINATE W/ARCHITECTURAL	OPPOSED BLADE DAMPER	TITUS TDC-AA	SEE FLOOR PLAN GYP. BOARD	(6)(8)
CD-3	CEILING DIFFUSER	ALUMINUM	COORDINATE W/ARCHITECTURAL	OPPOSED BLADE DAMPER	TITUS 250-AA	SEE FLOOR PLAN GYP. BOARD	(6)(8)
TGC-1	TRANSFER GRILLE	ALUMINUM	COORDINATE W/ARCHITECTURAL	---	TITUS 350FL	SEE FLOOR PLAN 24x24 LAY-IN	(6)(3)
TGC-2	TRANSFER GRILLE	ALUMINUM	COORDINATE W/ARCHITECTURAL	---	TITUS 350FL	SEE FLOOR PLAN GYP. BOARD	(6)(3)
RGC-1	RETURN GRILLE	ALUMINUM	COORDINATE W/ARCHITECTURAL	---	TITUS 350FL	SEE FLOOR PLAN 24x24 LAY-IN	(6)(3)
RGC-2	RETURN GRILLE	ALUMINUM	COORDINATE W/ARCHITECTURAL	---	TITUS 350FL	SEE FLOOR PLAN GYP. BOARD	(6)(3)
NOTES/REMARKS: 1. COORDINATE FRAME & BORDER TYPE WITH CEILING AND/OR WALL TYPE. REFER TO ARCHITECTURAL PLANS. 2. NECK SIZES AND CFM QUANTITIES SHOWN ON MECHANICAL FLOOR PLANS. 3. ALL 350FL AIR DEVICE OPENINGS SHALL BE AIMED TOWARD THE NEAREST ADJACENT WALL, CEILING/ROOF OR FLOOR SO THAT THE RETURN AIR PLENUM CAN NOT BE EASILY SEEN INTO. 4. ALL DUCT REGISTERS, GRILLES AND DIFFUSERS SHALL HAVE A MINIMUM FLAME SPREAD RATING OF NOT OVER 25 AND A MINIMUM SMOKE DEVELOPED RATING OF NOT OVER 50. 5. PROVIDE SQUARE TO ROUND TRANSITIONS AND REDUCERS AS/IF REQUIRED. 6. COORDINATE/VERIFY FINAL AIR DEVICE FINISHES WITH ARCHITECTURAL PLANS. 7. SEE MECHANICAL FLOOR PLAN FOR BLOW PATTERN.							

SYMBOL	MECHANICAL LEGEND
	NEW DUCTWORK, PIPING, OR EQUIPMENT
	SUPPLY OR OUTSIDE AIR DUCT SECTION
	RETURN OR EXHAUST DUCT SECTION
	FLEXIBLE DUCT
	DUCTWORK TRANSITION
	MANUAL AIR VOLUME CONTROL DAMPER
	SUPPLY AIR DEVICE. CLEAR TRIANGLE SIDES INDICATE AIR FLOW PATTERN
	RETURN, TRANSFER OR EXHAUST AIR DEVICE
	MOTORIZED DAMPER (LOW VOLTAGE CONTROLLED)
	SMOKE DETECTOR
	WALL MOUNTED THERMOSTAT
	WALL MOUNTED REMOTE TEMPERATURE SENSOR
AHU/CU	AIR HANDLING UNIT/CONDENSING UNIT
MSAH/MSCU	MINI-SPLIT AIR HANDLER/MINI-SPLI CONDENSING UNIT
TEF	TOILET EXHAUST FAN
MSEF	MOP SINK EXHAUST FAN
BREF	BREAK ROOM EXHAUST FAN
CD	CEILING DIFFUSER
RGC	RETURN GRILLE AT CEILING
TGC	TRANSFER GRILLE AT CEILING
IFM	INDOOR FAN MOTOR
OAL	OUTSIDE AIR LOUVER
CFM	CUBIC FEET PER MINUTE
FFM	FEET PER MINUTE
S.A.	SUPPLY AIR
R.A.	RETURN AIR
UC	UNDERCUT DOOR 1" FOR MAKE-UP AIR

MECHANICAL GENERAL NOTES:

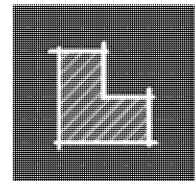
- IN GENERAL, PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED.
- INTENT OF THESE NOTES AND MECHANICAL NOTES ON DRAWINGS IS TO CLARIFY THE SCOPE OF WORK AND ALERT CONTRACTOR OF EXISTING CONDITIONS. CONTRACTOR TO VISIT SITE AND VERIFY ALL CLEARANCES BEFORE FABRICATION OF DUCTWORK AND PROVIDE ADDITIONAL OFFSET AND/OR CHANGES IN DUCT SIZES TO MEET FIELD CONDITIONS AND COORDINATE WITH ELECTRICAL, PLUMBING AND FIRE PROTECTION SUBCONTRACTOR (IF APPLICABLE) BEFORE ANY CONSTRUCTION WORK.
- ALL NEW EQUIPMENT SHALL BE U.L. LISTED AND A.R.I. CERTIFIED. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH DISCONNECT SWITCHES AT EACH PIECE OF EQUIPMENT. COORDINATE SWITCH REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR. IT IS THIS CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL ELECTRICAL REQUIREMENTS.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL TRADES INSTALLATION SCHEDULES. FIXED WORK SUCH AS DUCTWORK AND PLUMBING SHALL BE INSTALLED PRIOR TO ANY TRADE WORK THAT CAN BE EASILY RELOCATED OR OFFSET SUCH AS ELECTRICAL CONDUITS, SMALL WATER LINES ETC.
- UNLESS OTHERWISE NOTED, INSTALL DUCTWORK AS HIGH AS POSSIBLE, TIGHT TO BOTTOM OF STRUCTURE. INSTALL DUCT ELEVATION WITH WATER PIPING, SANITARY DRAINS AND MAJOR ELECTRICAL CONDUITS.
- CONTRACTOR SHALL PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUSPEND MECHANICAL EQUIPMENT AND MATERIALS.
- ALL MECHANICAL WORK SHALL MEET ALL THE REQUIREMENTS OF BUT NOT LIMITED TO THE "2020 FLORIDA MECHANICAL BUILDING CODE" (SEVENTH EDITION).
- DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS. INTERNAL INSULATION (WHERE USED) HAS NOT BEEN ACCOUNTED FOR.
- DUCTWORK, DIFFUSERS, REGISTERS, GRILLES, AND OTHER ITEMS OF THE AIR HANDLING SYSTEM SHALL NOT BE SUPPORTED BY THE CEILING OR CEILING SUSPENSION SYSTEM.
- ALL WALL MOUNTED THERMOSTATS AND/OR TEMPERATURE SENSORS SHALL BE INSTALLED AT AN ELEVATION OF 48" 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 NEAT APPEARANCE. FINAL LOCATION OF THERMOSTAT SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT/ENGINEER OR THEIR REPRESENTATIVE IN THE FIELD.
- ALL SUPPLY AIR DIFFUSERS SHALL BE 4-WAY THROW UNLESS OTHERWISE NOTED (SEE MECHANICAL LEGEND).
- COORDINATE DUCTWORK/AIR DEVICE LOCATIONS WITH LIGHTING FIXTURES, SPEAKERS AND FIRE SPRINKLER HEADS (WHERE APPLICABLE).
- PROVIDE A TRAP IN ALL CONDENSATE PIPING AT THE AIR HANDLING UNIT. CONDENSATE PIPING TO BE COPPER IN BUILDING AND SCHEDULE 40 PVC EXPOSED OUTSIDE OF BUILDING. INSULATE ALL CONDENSATE DRAIN LINES ABOVE FINISHED GRADE WITH ARMAFLEX INSULATION (THICKNESS PER CODE), PROVIDE UV PROTECTION FOR OUTDOOR PIPING AS REQUIRED.
- ALL CONDENSATE DRAIN PIPING SHALL BE PROPERLY SUPPORTED, PER FLORIDA MECHANICAL CODE.
- REGARDLESS OF HVAC SCHEDULES, THE MECHANICAL CONTRACTOR TO VERIFY VOLTAGE WITH ELECTRICAL BEFORE ORDERING EQUIPMENT.
- SUPPLY, RETURN AND TRANSFER AIR DUCTWORK SHALL BE EXTERNALLY INSULATED SHEET METAL CONSTRUCTION IN ACCORDANCE WITH LATEST SMACNA STANDARDS. INSULATION SHALL BE 1-1/2" FOLDED FIBERGLASS DUCT WRAP WITH AN INSTALLED MINIMUM THERMAL RESISTANCE (R) VALUE OF 6.0. ALL JOINTS SHALL BE SECURELY TAPED WITH 3" WIDE GLASS FABRIC TAPE WITH FOSTER 30/35 MASTIC OR EQUAL.
- TURNING VANES SHALL BE PROVIDED IN ALL SHEETMETAL SUPPLY DUCT RECTANGULAR ELBOWS WITH ANGLES BETWEEN 15 DEGREES AND LESS THAN 90 DEGREES PER FIG. 2-5 OF THE SMACNA MANUAL.
- FLEXIBLE AND RIGID ROUND DUCT TAKE-OFFS FOR DIFFUSERS SHALL BE THE SAME SIZE AS DIFFUSER NECK/AS SHOWN ON MECHANICAL FLOOR PLANS. MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 8'-0". INSULATE ALL RIGID ROUND DUCTS WITH 1-1/2" FOLDED FIBERGLASS DUCT WRAP. DUCT WRAP TO HAVE AN INSTALLED MINIMUM THERMAL RESISTANCE (R) VALUE OF 6.0.
- FLEXIBLE DUCTS: EITHER SPIRAL ROUND SPRING STEEL WITH FLAMEPROOF VINYL SHEATHING, OR CORRUGATED ALUMINUM; COMPLY WITH UL 181. PROVIDE 1-1/2" THICK CONTINUOUS FLEXIBLE FIBERGLASS SHEATH WITH VINYL VAPOR BARRIER JACKET. FLEX TO HAVE AN INSTALLED MINIMUM THERMAL RESISTANCE (R) VALUE OF 6.0.
- ALL OUTSIDE AIR DUCTWORK SHALL BE EXTERNALLY INSULATED GALVANIZED SHEETMETAL CONSTRUCTION IN ACCORDANCE WITH LATEST SMACNA STANDARDS. ALL JOINTS SHALL BE SECURELY TAPED WITH 3" WIDE GLASS FABRIC TAPE WITH FOSTER 30/35 MASTIC OR EQUAL. EXTERNALLY INSULATE THE BACK SIDE OF OUTSIDE AIR INTAKE LOUVERS AND ALL OUTSIDE AIR DUCTWORK (R4 MINIMUM).
- ALL EXHAUST AIR DUCTWORK SHALL BE GALVANIZED SHEETMETAL CONSTRUCTION IN ACCORDANCE WITH LATEST SMACNA STANDARDS. ALL JOINTS SHALL BE SECURELY TAPED WITH 3" WIDE GLASS FABRIC TAPE WITH FOSTER 30/35 MASTIC OR EQUAL. EXTERNALLY INSULATE ALL EXHAUST AIR DUCTWORK (R4 MINIMUM).
- AIR HANDLING UNITS OUTSIDE AIR INTAKES SHALL MAINTAIN A HORIZONTAL MINIMUM DISTANCE OF 10'-0" FROM ANY HAZARDOUS OR NOXIOUS SOURCES OF CONTAMINANTS INCLUDING, BUT NOT LIMITED TO, PLUMBING VENTS AND EXHAUST OUTLETS.
- PROVIDE ALL AIR HANDLING UNITS WITH MANUFACTURER'S RECOMMENDED SERVICE AREA CLEARANCES.
- ALL MECHANICAL EQUIPMENT CONTROL WIRING TO BE ROUTED IN CONDUIT.
- GUARANTEE, FOR ONE YEAR AFTER DATE OF ACCEPTANCE BY THE OWNER, ALL EQUIPMENT, MATERIALS AND WORKMANSHIP TO BE FREE FROM DEFECT.
- PROVIDE MOTORIZED DAMPERS (LOW VOLTAGE CONTROLLED) IN ALL OUTSIDE AIR INTAKE DUCTS.
- IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO INSTALL THE HEATING, VENTILATION AND AIR CONDITIONING SYSTEM SO AS TO INSURE QUIET OPERATION. NO VIBRATION OR SOUND SHALL BE TRANSMITTED TO THE BUILDING, STRUCTURE, OR OCCUPIED AREAS. THE DECISION OF THE ENGINEER AS TO THE QUIETNESS OF THE SYSTEM AND EQUIPMENT SHALL BE FINAL. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO CORRECT OR REPLACE ANY NOISY SYSTEM OR EQUIPMENT AS REQUIRED.
- ALL MATERIAL SHALL BE OF APPROVED QUALITY AND THE WORK SHALL BE DONE IN A THOROUGH AND WORKMANLIKE MANNER. THE WORK, MATERIALS AND TESTS SHALL BE IN ACCORDANCE WITH THE FLORIDA MECHANICAL CODE INCLUDING ANY/ALL CURRENT AMENDMENTS.
- THE MECHANICAL CONTRACTOR SHALL ARRANGE TO PAY FOR ALL NECESSARY PERMITS, LICENSES AND INSPECTIONS AS REQUIRED BY THE BUILDING DEPARTMENT.
- THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL MINOR ITEMS WHICH ARE OBVIOUSLY AND REASONABLY NECESSARY TO COMPLETE THE INSTALLATION WHETHER OR NOT SPECIFIED AS SHOWN ON THE PLANS.
- PROVIDE NEW THROWAWAY FILTER OR CLEANED PERMANENT FILTER INSTALLATION IMMEDIATELY PRIOR TO TESTING, ADJUSTING AND BALANCING.
- INSTALL AND ADJUST SUPPLY AIR DIFFUSERS AND GRILLES TO AVOID LIGHT FIXTURES STRIATION AND COLD SPOTS FROM AIRFLOW AS/IF REQUIRED.
- PROVIDE A/C EQUIPMENT WITH FACTORY CONDENSER COIL COASTAL CORROSION COATING/SALT WATER PROTECTION WHEN EQUIPMENT INSTALLATION LOCATION IS WITHIN 5 MILES OR LESS FROM SALT WATER. VERIFY PRIOR TO ORDERING EQUIPMENT.
- PROVIDE ADDITIONAL DUCTWORK AND PIPING SUPPORTS ON BOTH SIDES AND WITHIN 18" OF FIRE RATED WALL. DUCTWORK OR PIPING SHALL NOT BE SUPPORTED FROM ANY FIRE RATED WALL.
- FOR DUCTWORK PENETRATING ONE HOUR FIRE RATED WALL, THE ENTIRE DUCT SYSTEM, TO BE CONSTRUCTED PER SMACNA STANDARDS WITH A MINIMUM OF 26 GA. STEEL DUCT AND SHALL CONTINUE IN THE HORIZONTAL DIRECTION WITHOUT ANY GRILLE OR OPENING FOR NOT LESS THAN 5'-0" FROM THE WALL AND DUCT SHALL NOT EXCEED SQUARE INCH REQUIREMENTS OF LOCAL CODE, OTHERWISE A FIRE DAMPER SHALL BE PROVIDED.
- PROVIDE A 4" HIGH CONCRETE HOUSEKEEPING PAD UNDER ALL MECHANICAL EQUIPMENT, UNLESS OTHERWISE NOTED. PADS SHALL BE 4" LARGER THAN THE EQUIPMENT ON ALL SIDES.

MINIMUM CODE REQUIRED OUTSIDE/EXHAUST AIR VENTILATION RATES												PER FLORIDA MECHANICAL CODE		
OCCUPANCY CATEGORY	DEFAULT OCCUPANT DENSITY P/1,000 S.F.	SERVED BY HVAC SYSTEM	NET	AREA	CODE REQ'D OA	NUMBER	PEOPLE	CODE REQ'D OA	ZONE AIR DISTRIBUTION EFFECTIVENESS	TOTAL OA	MINIMUM EXHAUST			
			AREA	Outdoor	Based on	PEOPLE	Outdoor	Based on	Required by	Required by				
			S.F.	AIR RATE R _a	Floor Area	Person(s)	AIR RATE R _p	People			Code	Code		
				CFM/S.F.	CFM		CFM/PERSON	CFM				CFM		
Reception Area	COUNT	AHU/CU-1	160	0.06	10	+	5	5	25	/	0.8	=	44	N/A
Office Space	COUNT	AHU/CU-1	1,540	0.06	93	+	20	5	100	/	0.8	=	242	N/A
Corridor One(A)	N/A	AHU/CU-1	180	0.12	22	+	0	N/A	0	/	0.8	=	28	N/A
Toilet Room	N/A	TEF-1	45	N/A	0	+	0	N/A	0	/	N/A	=	0	(1)WC = 70
Toilet Room	N/A	TEF-2	45	N/A	0	+	0	N/A	0	/	N/A	=	0	(1)WC = 70
TOTAL REQUIRED										=	314	140		
Office Space	COUNT	AHU/CU-2	1,310	0.06	79	+	12	5	60	/	0.8	=	174	N/A
Corridor One(B)	N/A	AHU/CU-2	245	0.12	30	+	0	N/A	0	/	0.8	=	38	N/A
Corridor One(C)	N/A	AHU/CU-2	265	0.12	32	+	0	N/A	0	/	0.8	=	40	N/A
Women's Toilet Room	N/A	TEF-4	170	N/A	0	+	0	N/A	0	/	N/A	=	0	(1)SH & (3)WC = 260
Men's Toilet Room	N/A	TEF-5	170	N/A	0	+	0	N/A	0	/	N/A	=	0	(1)SH, (1)UR & (2)WC = 260
TOTAL REQUIRED										=	252	520		
Office Space	COUNT	AHU/CU-3	895	0.06	54	+	10	5	50	/	0.8	=	130	N/A
Corridor One(D)	N/A	AHU/CU-3	160	0.12	20	+	0	N/A	0	/	0.8	=	25	N/A
Toilet Room	N/A	TEF-3	55	N/A	0	+	0	N/A	0	/	N/A	=	0	(1)WC = 70
TOTAL REQUIRED										=	155	70		
Office Space	COUNT	AHU/CU-4 & 5	2,155	0.06	130	+	65	5	325	/	0.8	=	569	N/A
Storage	N/A	AHU/CU-4 & 5	95	0.12	12	+	0	N/A	0	/	0.8	=	15	N/A
TOTAL REQUIRED										=	584	0		
Office Space	COUNT	AHU/CU-6	480	0.06	29	+	6	5	30	/	0.8	=	74	N/A
Corridor Two	N/A	AHU/CU-6	290	0.12	35	+	0	N/A	0	/	0.8	=	44	N/A
TOTAL REQUIRED										=	118	0		
Office Space	COUNT	AHU/CU-7	1,200	0.06	72	+	10	5	50	/	0.8	=	153	N/A
Corridor Three	N/A	AHU/CU-7	290	0.12	35	+	0	N/A	0	/	0.8	=	44	N/A
Mop Sink	N/A	MSEF-1	35	N/A	0	+	0	N/A	0	/	N/A	=	0	35 SQ.FT. x 2.0 CFM = 70
Toilet Room	N/A	TEF-6	40	N/A	0	+	0	N/A	0	/	N/A	=	0	(1)WC = 70
Toilet Room	N/A	TEF-7	40	N/A	0	+	0	N/A	0	/	N/A	=	0	(1)WC = 70
Toilet Room	N/A	TEF-8	70	N/A	0	+	0	N/A	0	/	N/A	=	0	(1)SH & (1)WC = 120
Toilet Room	N/A	TEF-9	70	N/A	0	+	0	N/A	0	/	N/A	=	0	(1)SH & (1)WC = 120
TOTAL REQUIRED										=	197	450		
NOTES: 1. OCCUPANCY ("COUNT") SHOWN ABOVE IS DERIVED FROM SEATING COUNT/ANTICIPATED OCCUPANCY LOAD AND WHEN USED IT IS PROVIDED AS AN EXCEPTION TO THE DEFAULT OCCUPANT DENSITY (PEOPLE/1,000 SQ. FT.). 2. SQUARE FOOTAGES SHOWN ABOVE ARE "BREATHING ZONES" AS DEFINED IN THE FLORIDA MECHANICAL CODE. 3. ZONE AIR DISTRIBUTION EFFECTIVENESS FOR SPACES LISTED ABOVE CALCULATED AT 0.8 PER FMC TABLE 403.3.1.1.2, CEILING SUPPLY OF WARM AIR AND CEILING RETURN.										CODE REQUIRED EXHAUST: ★ WATER CLOSET=70 CFM PER FIXTURE ★★ URINAL=70 CFM PER FIXTURE *** SHOWER HEAD=50 CFM PER FIXTURE		ABBREVIATIONS: N/A = NOT APPLICABLE ★ WC = WATER CLOSET ★★ UR = URINAL *** SH = SHOWER HEAD		

AIR PRESSURIZATION CALCULATION			
OUTSIDE AIR INTO SPACE		EXHAUST AIR OUT OF SPACE	
SOURCE	CFM	SOURCE	CFM
AHU/CU-1	325	TEF-1 & 2 (TOILET EXHAUST)	200
AHU/CU-2	300	TEF-3 (TOILET EXHAUST)	110
AHU/CU-3	200	TEF-4 & 5 (TOILET EXHAUST)	600
AHU/CU-4	300	TEF-6 & 7 (TOILET EXHAUST)	160
AHU/CU-5	300	TEF-8 & 9 (TOILET EXHAUST)	280
AHU/CU-6	125	MSEF-1 (MOP SINK EXHAUST)	100
AHU/CU-7	300	BREF-1 (BREAK ROOM EXHAUST)	75
TOTAL OUTSIDE AIR	1,850	TOTAL EXHAUST AIR	1,525
TOTAL OUTSIDE AIR INTO SPACE		1,850 CFM	
TOTAL EXHAUST AIR OUT OF SPACE		- 1,525 CFM	
		325 CFM POSITIVE PRESSURE	

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OWNER

PASCO COUNTY
SHERIFF DEPARTMENT

7220 OSTEEN ROAD
NEW PORT RICHEY, FL 34653

PROJECT
CENTER FOR THE
RECOVERY OF EXPLOITED
AND MISSING PERSON
(C.R.E.M.P.)

15-25-18-0000-00300-0000

SEAL

RONALD R. RENNA
FL PE#56067

REVISIONS

[illegible]

DATE ISSUED: XX/XX/2022

REVIEWED BY: RR

DRAWN BY: JK

DESIGNED BY: JK

PRINT DATE: 10/19/2020

PROJECT NUMBER

G22-0000-002

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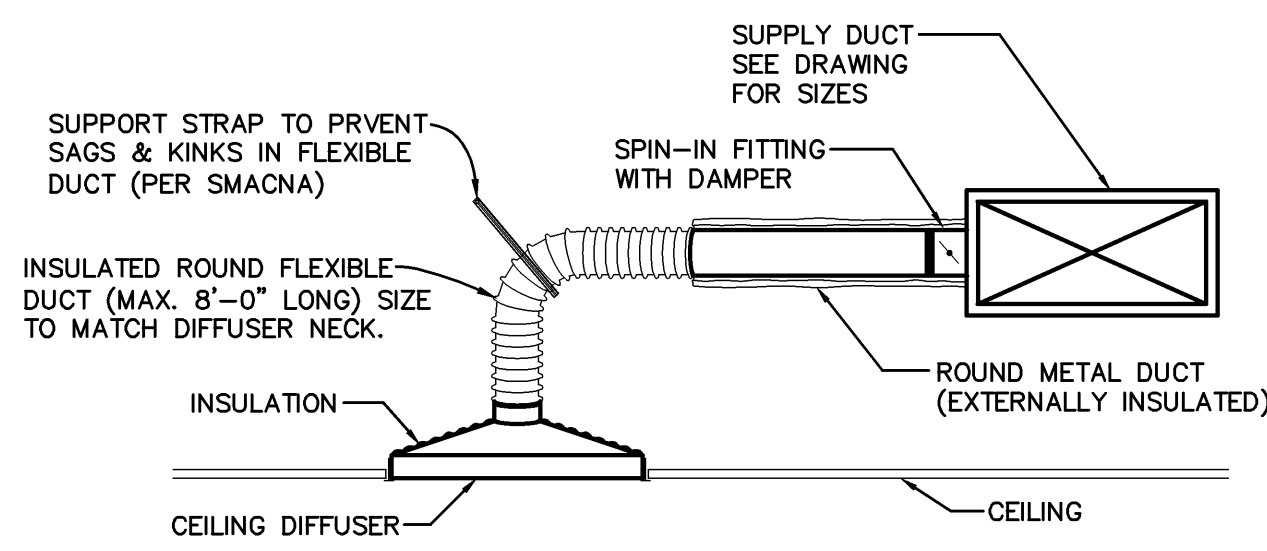
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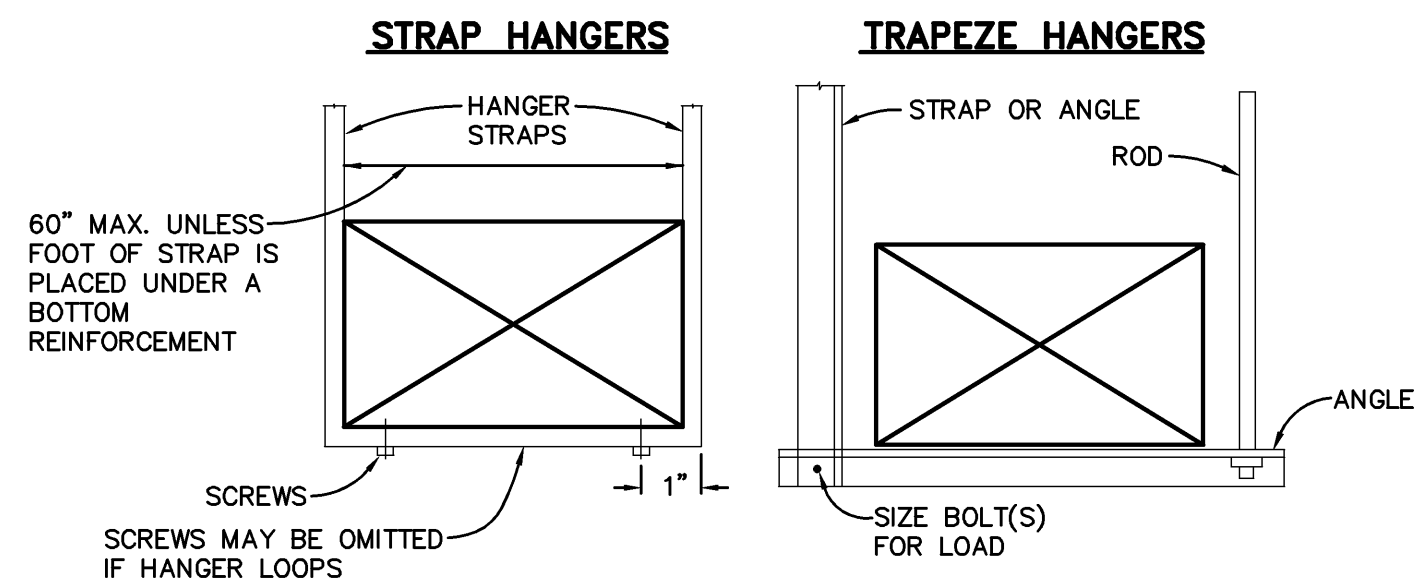
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NEW CONSTRUCTION

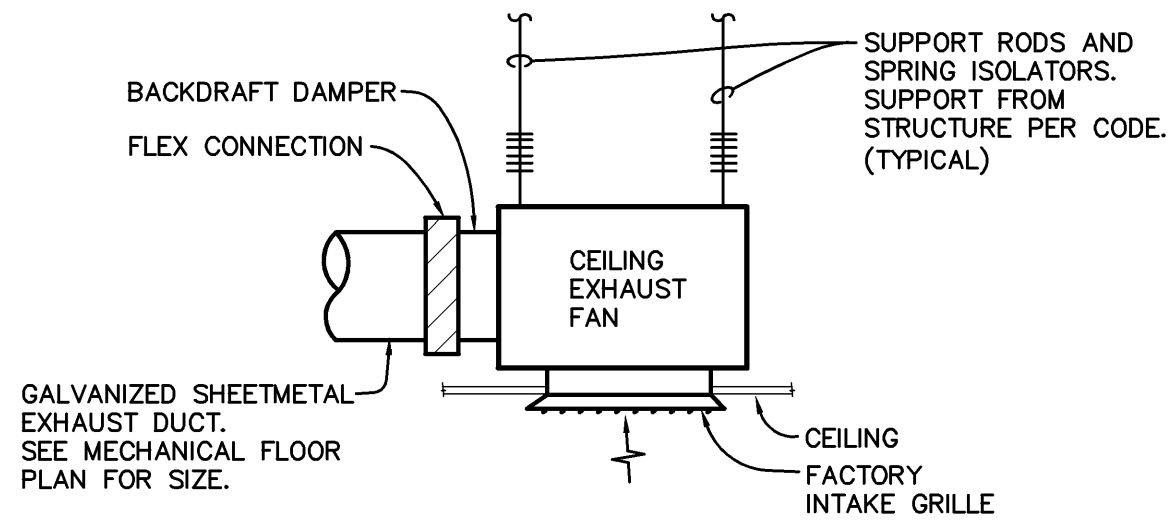
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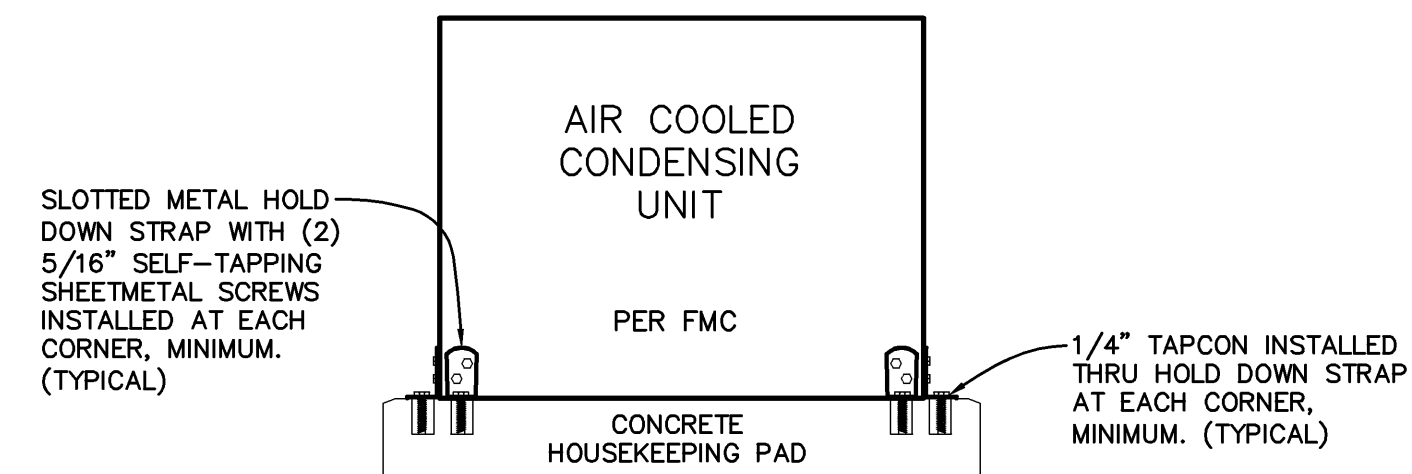
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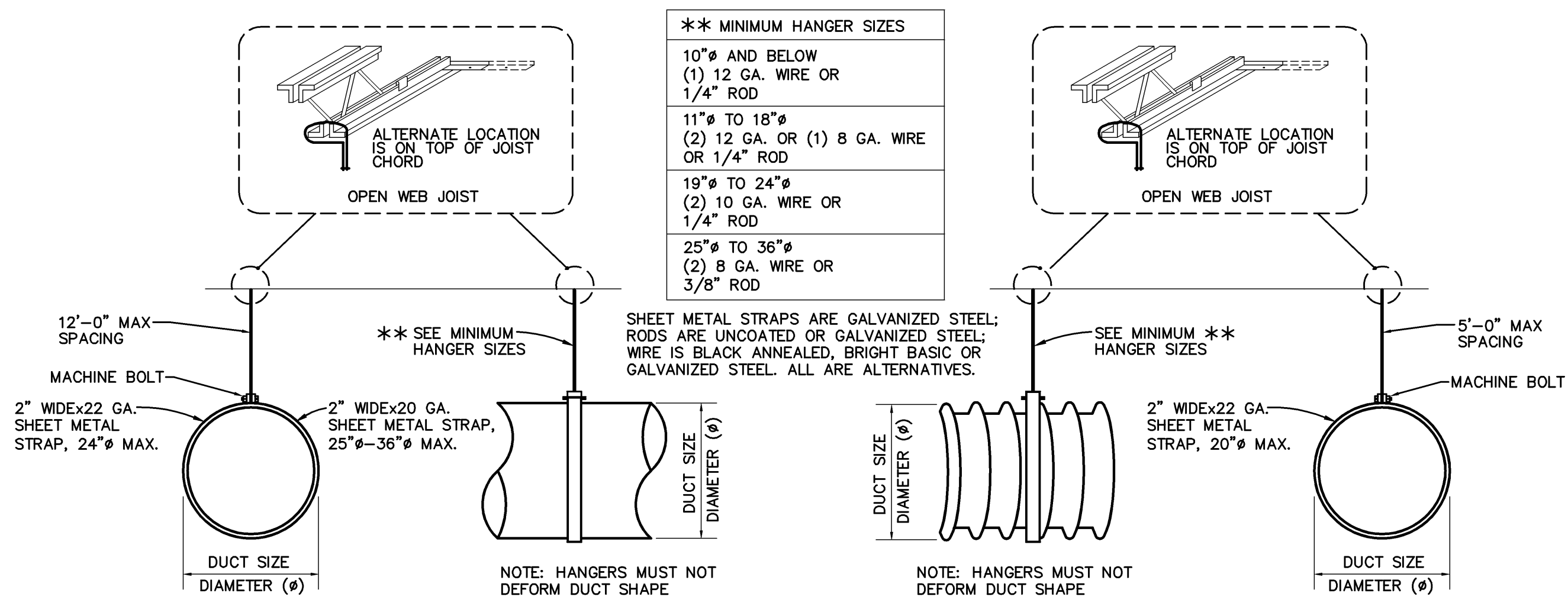
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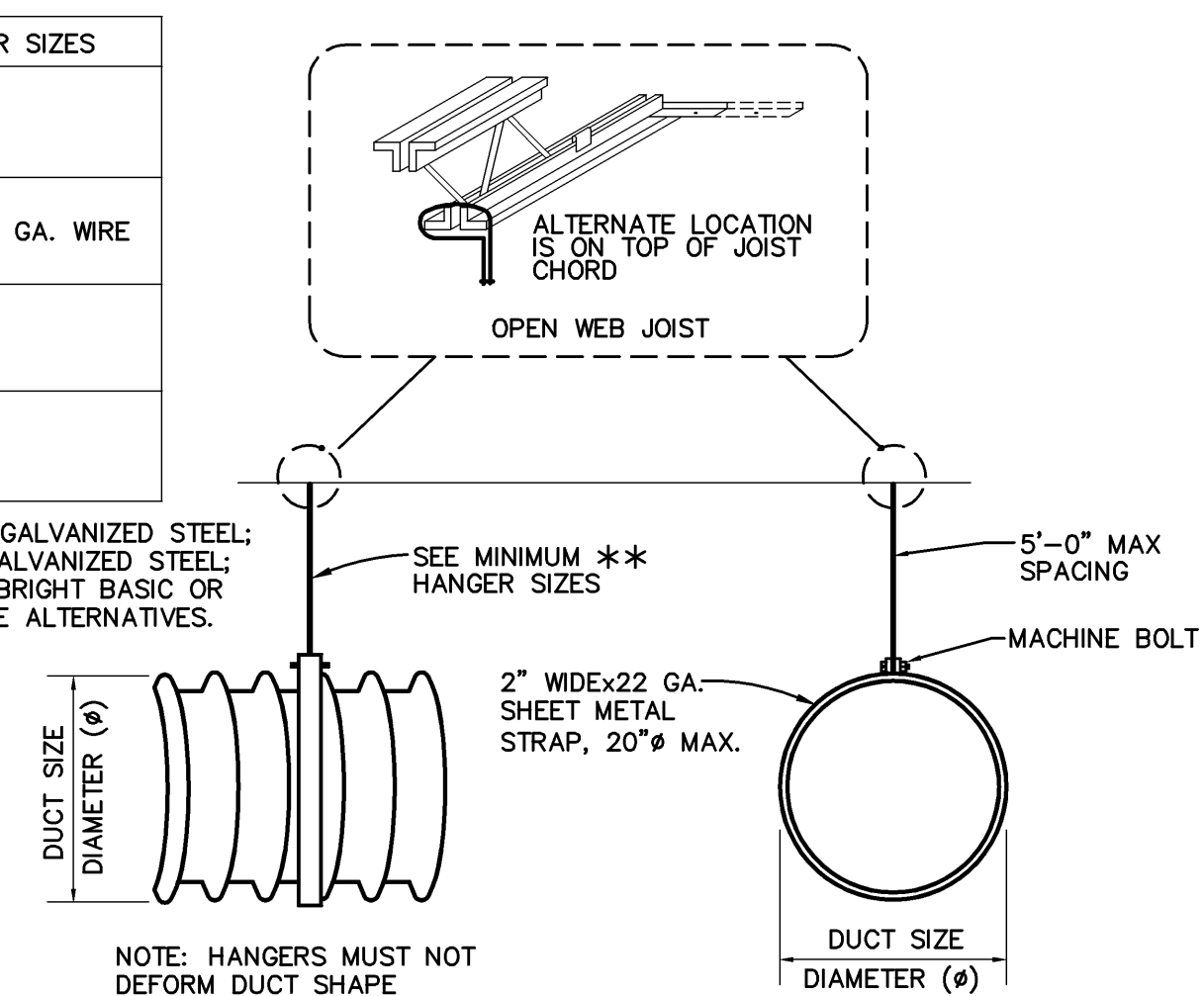
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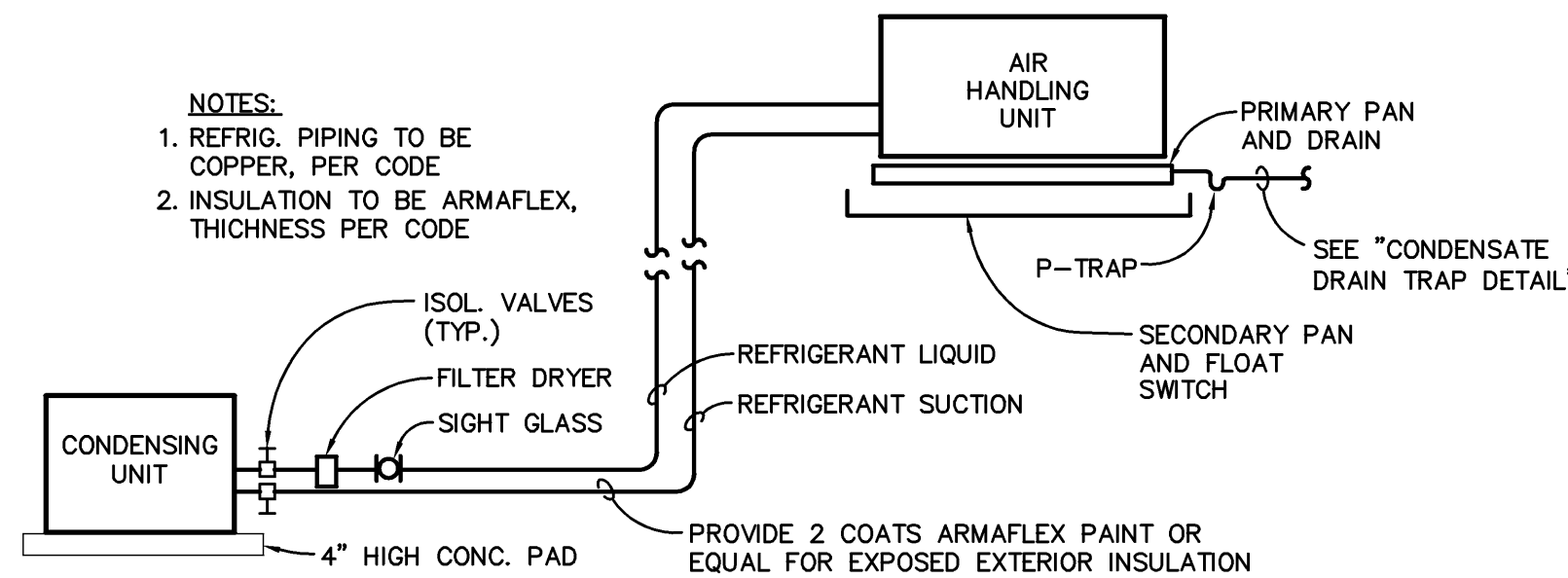
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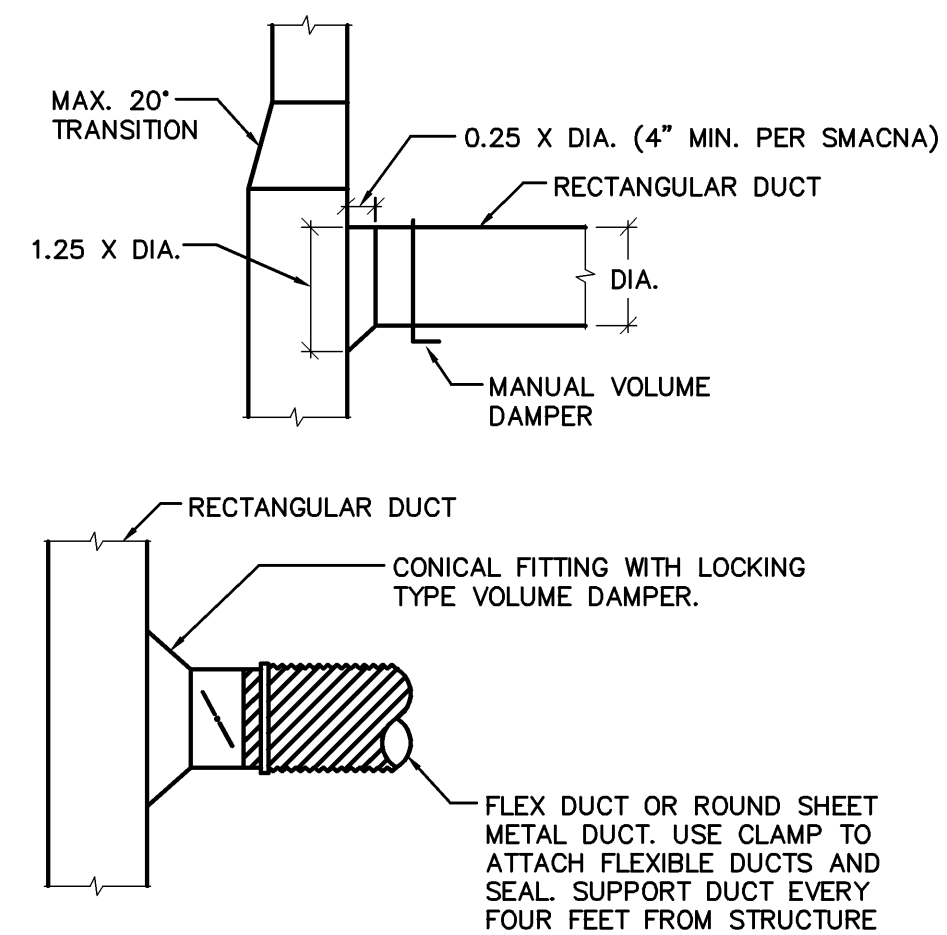
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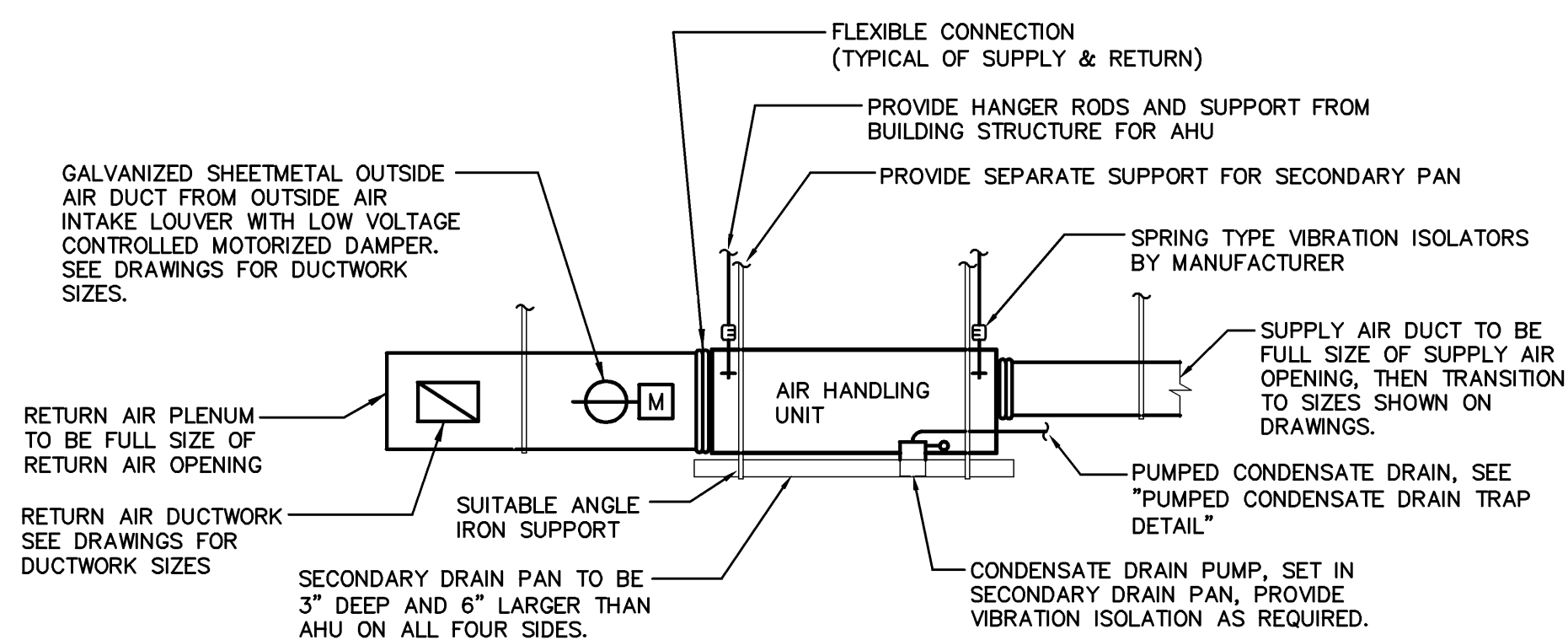
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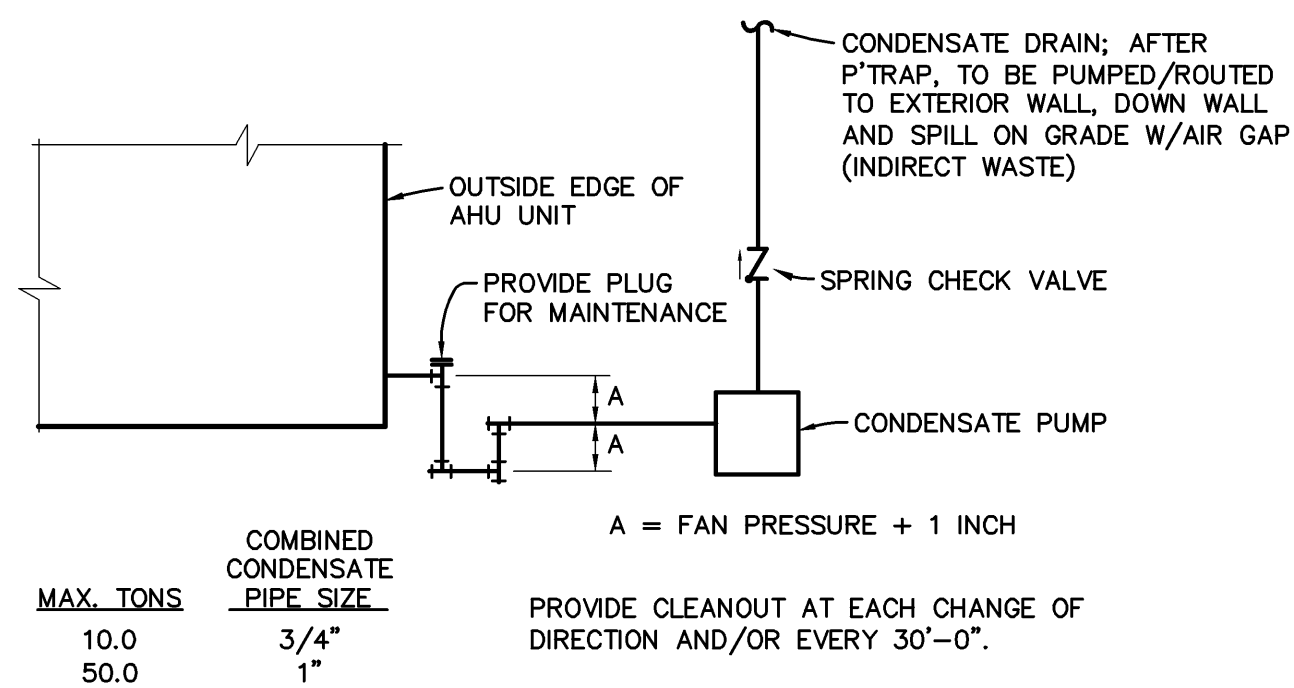
SPLIT 'DX' UNIT PIPING DIAGRAM
NO SCALE



BRANCH DUCT DETAILS
NO SCALE



AIR HANDLING UNIT MOUNTING DETAIL
NO SCALE



PUMPED CONDENSATE DRAIN TRAP DETAIL
NOT TO SCALE

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