

NOTE: MECHANICAL CONTRACTOR SHALL REFER TO DRAWING M1.1 FOR LABELING OF EQUIPMENT PROCEDURE.

NOTE: MECHANICAL CONTRACTOR SHALL REFER TO THE SIEMENS EMS DRAWING SET (EMS-1 AND EMS-2) FOR COMPLETE INTERFACE REQUIREMENTS.

NOTE: MECHANICAL CONTRACTOR SHALL ENSURE ALL NEW EXPOSED DUCTWORK IS SEALED CLEANLY IN THE EVENT IT DOES NOT RECEIVE A FINAL PAINTED FINISH. COORDINATE WORK WITH GENERAL CONTRACTOR AND HARBOR FREIGHT TOOLS PROJECT MANAGER.

NOTE: MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL BURGLAR BARS IN THE DUCT DROPS OF THE NEW ROOFTOP UNITS.

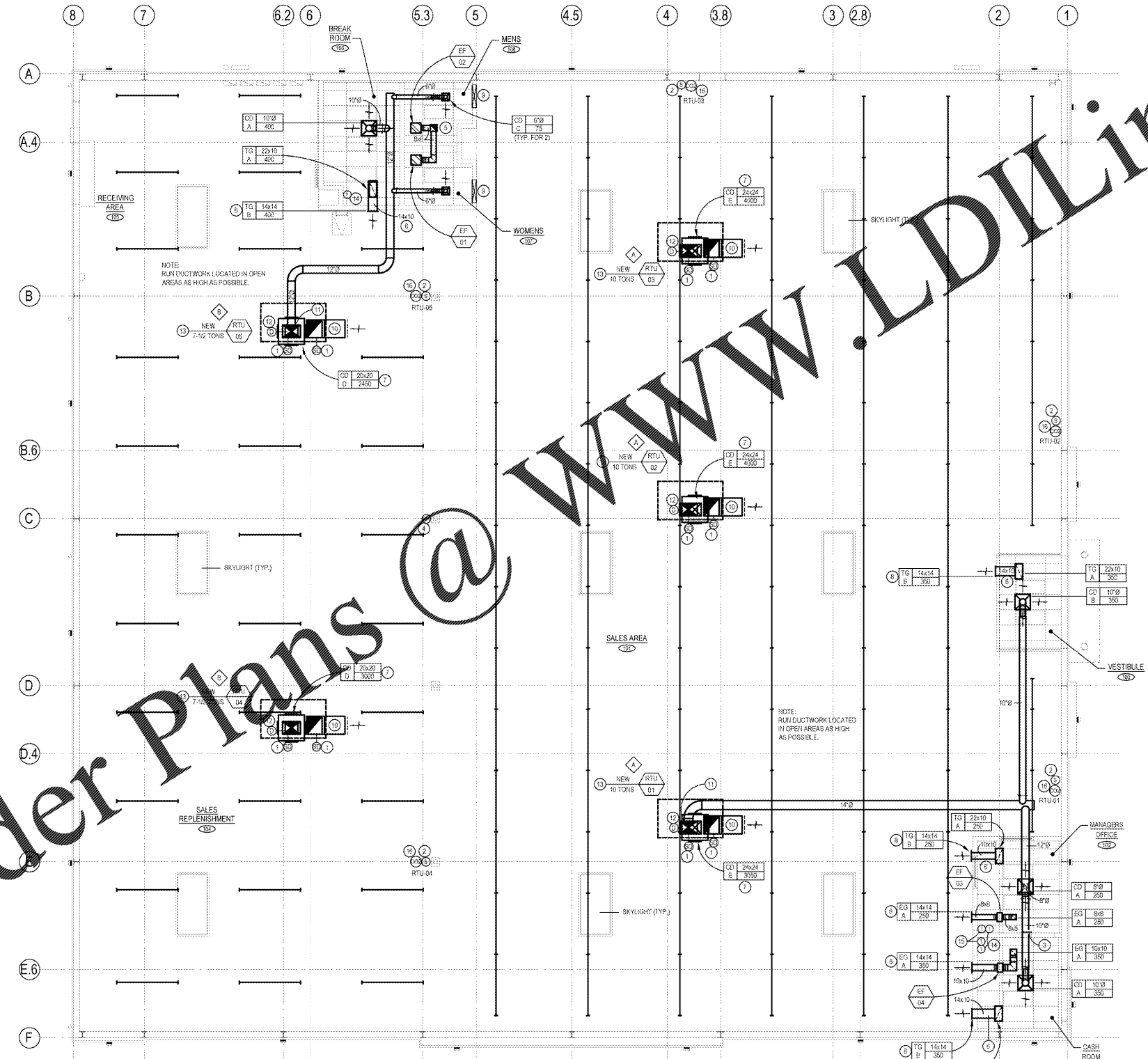
NOTE: MECHANICAL CONTRACTOR SHALL LEAVE ROOFTOP UNITS IN WIRED THERMOSTAT MODE UNTIL COMMISSIONING.

- MECHANICAL EQUIPMENT TAG NOTES:**
- MECHANICAL CONTRACTOR SHALL INSTALL NEW ROOFTOP UNIT ON EXISTING ROOF CURB PROVIDED BY PEMB MANUFACTURER. PROVIDE NEW ROOF OPENINGS AS NECESSARY TO ACCOMMODATE NEW ROOFTOP UNIT. REFER TO ROOFTOP UNIT SCHEDULE ON DWG. M1.1 FOR ADDITIONAL INFORMATION. THE WEIGHT OF THE NEW ROOFTOP UNIT IS 1400 LBS.
 - MECHANICAL CONTRACTOR SHALL INSTALL NEW ROOFTOP UNIT ON EXISTING ROOF CURB PROVIDED BY PEMB MANUFACTURER. PROVIDE NEW ROOF OPENINGS AS NECESSARY TO ACCOMMODATE NEW ROOFTOP UNIT. REFER TO ROOFTOP UNIT SCHEDULE ON DWG. M1.1 FOR ADDITIONAL INFORMATION. THE WEIGHT OF THE NEW ROOFTOP UNIT IS 1350 LBS.

- MECHANICAL GENERAL NOTES:**
- THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE. THE MECHANICAL CONTRACTOR SHALL INCLUDE ALL NEEDED OFFSETS, CHANGES IN DIRECTION, TRANSITIONS, ETC. NEEDED FOR COMPLETE AND OPERATIONAL SYSTEMS.
 - PERFORM ALL WORK IN ACCORDANCE WITH THE RULES & REGULATIONS OF THE APPROPRIATE STATE AND LOCAL BUILDING CODES AND SUBTILES.
 - QUESTIONS REGARDING THESE DRAWINGS SHALL BE ADDRESSED TO THE ENGINEER PRIOR TO THE AWARDED OF THE CONTRACT. OTHERWISE THE ENGINEER'S INTERPRETATION OF THE MEANING AND INTENT OF THE DRAWINGS SHALL BE FINAL.
 - IF CONFLICTS EXIST, PRIORITY OF LOCATION IN REFLECTED CEILING GRID SHALL BE AS FOLLOWS FROM HIGH TO LOW: SPRINKLER, MECHANICAL, LIGHTS, AND FIRE ALARM DEVICES (AS APPLICABLE).
 - SENSORS AS MANUFACTURED BY SIEMENS. MECHANICAL CONTRACTOR SHALL LABEL EACH SENSOR APPROPRIATELY TO THE CORRESPONDING ROOFTOP UNIT IT SERVES. MICROPAD SHALL BE LOCATED IN THE MANAGER'S OFFICE. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR.
 - MECHANICAL CONTRACTOR SHALL PROVIDE AN AIR BALANCE REPORT TO VERIFY THAT THE HVAC EQUIPMENT IS FULLY OPERATIONAL. AIR BALANCE REPORT SHALL BE PREPARED BY A THIRD PARTY HIRED BY THE GENERAL CONTRACTOR. PAYMENT OF ALL COSTS FOR TESTING SHALL BE MADE BY THE MECHANICAL CONTRACTOR. TURN OVER AIR BALANCE REPORT TO HARBOR FREIGHT TOOLS' GENERAL CONTRACTOR FOR DISTRIBUTION. REFER TO MECHANICAL SPECIFICATIONS ON DWG. M1.3 FOR ADDITIONAL INFORMATION REGARDING TESTING AND BALANCING.

- MECHANICAL GENERAL NOTES (CONTINUED):**
- MECHANICAL CONTRACTOR ENSURE THERE ARE FILTERS IN ALL ROOFTOP UNITS DURING CONSTRUCTION AND SHALL INSTALL NEW FILTERS DURING CONSTRUCTION AND REPLACE ALL FILTERS PRIOR TO TURNOVER AND DATE ALL FILTERS WITH INSTALL DATE.
 - MECHANICAL CONTRACTOR SHALL RUN ALL DUCTWORK AS HIGH AS POSSIBLE. MINIMUM OF 12'-6" A.F.F.
 - MECHANICAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF SPACE TEMPERATURE SENSORS, RELATIVE HUMIDITY SENSOR AND CARBON DIOXIDE SENSORS WITH SALES FLOOR FIXTURES AND GENERAL CONTRACTOR PRIOR TO INSTALLING SENSORS.
 - THE MECHANICAL CONTRACTOR SHALL BE ON SITE AS THE EMS COMMISSIONING IS BEING PERFORMED TO ENSURE ALL THE REQUIREMENTS ARE RESPONDED TO IF NOT PERFORMING CORRECTLY.
 - DUCTWORK AND PIPING TO BE SUPPORTED PER SMACNA SEISMIC RESTRAINT MANUAL AND ALSO THE FEDERAL EMERGENCY MANAGEMENT AGENCY "INSTALLING SEISMIC RESTRAINTS FOR DUCT AND PIPE" AND PER TENNESSEE BUILDING CODE.

MECHANICAL LEGEND	
SYMBOL	DESCRIPTION
SA	SUPPLY AIR
EA	EXHAUST AIR
EF	EXHAUST FAN
EG	EXHAUST GRILLE
CD	CEILING DIFFUSER
OA	OUTSIDE AIR
RA	RETURN AIR
TG	TRANSFER GRILLE
RTU	ROOFTOP UNIT
AFE	ABOVE FINISH FLOOR
MC	MECHANICAL CONTRACTOR
PC	PLUMBING CONTRACTOR
EC	ELECTRICAL CONTRACTOR
GC	GENERAL CONTRACTOR
D	DUCT
TS	DUCT TEMPERATURE SENSOR
TH	THERMOSTAT (MTD, 4" AFF)
SS	SPACE TEMPERATURE SENSOR (AS NOTED)
SD	SMOKE DETECTOR
RH	RELATIVE HUMIDITY
FD	FLEXIBLE DUCT (8'-0" MAX. LENGTH)
FC	FLEXIBLE DUCT CONNECTOR
MD	MANUAL VOLUME DAMPER
EV	ELBOW W/ DEL. THICKNESS TURNING VANES
FR	FRESH RETURN/EXHAUST AIR DUCT
SAD	SUPPLY AIR DUCT
E.S.P.	EXTERNAL STATIC PRESSURE



- MECHANICAL PLAN TAG NOTES:**
- LENOVOX SHALL FURNISH AND INSTALL SMOKE DETECTORS IN THE SUPPLY AND RETURN AIR DUCTS. MECHANICAL CONTRACTOR SHALL FURNISH, INSTALL AND WIRE REMOTE TEST STATION WITH AUDIO VISUAL ALARM SYSTEM SENSOR MODEL RTS-ADS NEXT TO THE PHONE BOARD OR AT A LOCATION APPROVED BY THE AUTHORITY HAVING JURISDICTION. MECHANICAL CONTRACTOR SHALL PROVIDE CONTROL WIRING TO RTU AND INTERLOCK WIRING TO OTHER DETECTOR DETECTORS (AS REQUIRED) FOR GLOBAL SHUT DOWN. MECHANICAL CONTRACTOR SHALL WIRE DETECTORS TO FIRE ALARM SYSTEM (IF REQUIRED). SEE DUCT DETECTOR DETAIL ON DRAWING M1.2 FOR WIRING.
 - SPACE TEMPERATURE SENSOR MOUNTED ON WALL OR COLUMN AT 7'-0" A.F.F. NOTE: SENSORS OCCURRING ON OUTSIDE WALLS SHALL BE INSTALLED ON INSULATED BACKER BOARD.
 - EMS MICROPAD. COORDINATE WITH ELECTRICAL CONTRACTOR AND EMS DRAWINGS FOR MORE INFORMATION.
 - RELATIVE HUMIDITY SENSOR MOUNTED ON COLUMN AT 7'-0" A.F.F. NOTE: REFER TO SIEMENS EMS DRAWINGS SET FOR ADDITIONAL INFORMATION.
 - 8x8 EXHAUST AIR DUCT RISER THRU ROOF IN PRE-FAB INSULATED ROOF CURB TO SOOSIENKA WITH BRIDGESEAL. COORDINATE ROOF OPENING AND ROOMS REPAIR WITH LANLORD AND LANDLORD'S ROOFING CONTRACTOR.
 - MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL TRANSFER AIR DUCT WITH 1" THICK ACOUSTIC LINING.
 - MECHANICAL CONTRACTOR SHALL TRANSITION SUPPLY AIR DUCT IN DROP AND CONNECT TO DROP DIFFUSER SYSTEM. MOUNT DROP DIFFUSER SYSTEM AS HIGH AS POSSIBLE. REFER TO RTU SENSOR BOX DIFFUSER DETAIL ON DWG. M1.2 FOR ADDITIONAL INFORMATION. OFFSET DROP DIFFUSER SYSTEM AS NECESSARY TO AVOID LIGHTS.
 - MOUNT TRANSFER AIR AND/OR EXHAUST AIR GRILLE ON WALL AS HIGH AS POSSIBLE. APPROXIMATELY 2 FEET BELOW STRUCTURE. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL 14"x14"x12" PLENUM BOX BEHIND GRILLE. MECHANICAL CONTRACTOR SHALL EXTEND AND CONNECT TRANSFER OR EXHAUST AIR DUCT INTO BACK OF PLENUM BOX.
 - 1" TOTAL FREE AREA BETWEEN FLOORING AND BOTTOM OF DOOR. UNDERCUT DOOR BY GENERAL CONTRACTOR.
 - EXTEND RETURN AIR DUCT, FULL SIZE, WITH ELBOW AS HIGH AS POSSIBLE. REFER TO RTU DROP BOX DIFFUSER DETAIL ON DWG. M1.2. COVER RETURN AIR DUCT OPENING WITH 1" WIRE MESH SCREEN. FURNISH AND INSTALL RETURN AIR DUCT WITH 1" THICK ACOUSTIC LINING.
 - EXTEND AND CORRECT NEW SUPPLY AIR BRANCH DUCT. SEE AS INDICATED ON PLAN. RTU SUPPLY AIR DUCT MAIN PRIOR TO CONDENSING DIFFUSER. INSTALL OPPOSED BLADE DAMPER BETWEEN BRANCH SUPPLY AIR DUCT TAKE-OFF AND DROP BOX DIFFUSER.
 - DUCT TEMPERATURE SENSOR MOUNTED IN BOTTOM OF MAIN SUPPLY AIR DUCT. REFER TO THE SIEMENS EMS DRAWING SET (EMS-1 AND EMS-2) FOR MORE INFORMATION.
 - ROOFTOP UNIT DIGITAL ZONE CONTROLLER. REFER TO THE SIEMENS EMS DRAWING SET (EMS-1 AND EMS-2) FOR MORE INFORMATION.
 - THERMOSTAT MOUNTED ON WALL AT 4'-0" A.F.F. TO CONTROL DIFFUSER.
 - THERMOSTAT MOUNTED ON WALL AT 4'-0" A.F.F. TO EXHAUST FAN.
 - CARBON DIOXIDE SENSOR MOUNTED ON WALL OR COLUMN AT 7'-0" A.F.F. REFER TO THE SIEMENS EMS DRAWING SET (EMS-1 AND EMS-2) FOR MORE INFORMATION.

NOTE: EMS MICROPAD LOCATED IN MANAGER'S OFFICE. REFER TO MECHANICAL GENERAL NOTE #8 ON THIS DWG. FOR ADDITIONAL INFORMATION.

NOTE: MECHANICAL CONTRACTOR SHALL MOUNT EXHAUST FANS (EF-03 AND EF-04) 5 TO 10 FEET ABOVE FINISHED FLOOR WITH ALL THREADED RODS AND VIBRATION ISOLATORS LOCATED ABOVE OFFICE CEILING. PROVIDE FLEXIBLE CONNECTIONS AT THE INLET AND OUTLET OF THE EXHAUST FAN TRANSITION INLET AND OUTLET OF EXHAUST FAN CONNECTIONS TO RECTANGULAR AIR DUCT AS INDICATED ON THE MECHANICAL PLAN. PROVIDE A MINIMUM OF 18" OF EXHAUST DUCTWORK AT THE INLET AND OUTLET OF THE EXHAUST FAN. EXHAUST AIR DUCT TO TERMINATE AT FACE OF OFFICE WALL WITH NEW EXHAUST GRILLE W/ FLUSH TO WALL. GRILLE TO BE LOCATED 2 FEET BELOW STRUCTURE. THERMOSTATS CONTROLLING THE EXHAUST FANS SHALL BE LOCATED BEHIND THE DOORS AND THE POWER AND SPEED CONTROL SWITCH ASSOCIATED WITH THE FAN SHALL BE LOCATED ABOVE THE CEILING APPROXIMATELY 10' AWAY FROM THE INSIDE WALL. THE EXHAUST FANS SHALL BE LOCATED 1 FOOT ABOVE THE CEILING OVER THE ENTRY DOOR INTO THE ROOM FOR EASE OF MAINTENANCE. NOTE: GRILLES TO BE CENTERED OVER THE DOORS WHEN POSSIBLE. ALL GRILLES TO BE AT THE SAME ELEVATION.

TONNAGE BREAKDOWN	
TOTAL TONNAGE	45
TOTAL INTERIOR SQUARE FOOTAGE	16,499
SQUARE FOOT/TON	367

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

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CLEVELAND, TN 37312

REVISIONS	
#	DATE

MECHANICAL PLAN
DATE 06/02/20
JOB NO. 19155
M1.0
SHEET NO.