












OAD	OUTSIDE AIR DUCT	MAU-1	MAKE-UP AIR UNIT
AHU-1	AIR HANDLER UNIT	RA	RETURN AIR
CU-1	CONDENSING UNIT	RAD	RETURN AIR DUCT
DX	DIRECT EXPANSION	SA	SUPPLY AIR
ESP	EXTERNAL STATIC PRESSURE	SAD	SUPPLY AIR DUCT
LAT	LEAVING AIR TEMPERATURE	TAD	TRANSFER AIR DUCT
EAT	ENTERING AIR TEMPERATURE	AFF	ABOVE FINISHED FLOOR
EF-1	EXHAUST FAN	CFM	CUBIC FEET PER MINUTE
DN	DOWN	TYP	TYPICAL
OSA	OUTSIDE AIR	8ø	ROUND DUCTWORK
EAD	EXHAUST AIR DUCT	10x6	RECTANGULAR DUCT (WIDTHxDEPTH)
H-1	KITCHEN EXHAUST HOOD	KEF-1	KITCHEN EXHAUST FAN

1 ABBREVIATIONS - MECHANICAL
NOT TO SCALE

-  CEILING MOUNTED EXHAUST FAN
-  SUPPLY DUCT IN SECTION
-  RETURN DUCT IN SECTION
-  EXHAUST DUCT IN SECTION
-  VOLUME DAMPER
-  TURNING VANES
-  SUPPLY DIFFUSER
-  DIFFUSER CFM AND TYPE
500
-  RETURN/EXHAUST AIR DEVICE
-  AIRFLOW DIRECTION
-  THERMOSTAT

2 SYMBOLS - MECHANICAL
NOT TO SCALE

- FURNISH AND INSTALL ALL NECESSARY LABOR AND MATERIALS FOR A COMPLETE SYSTEM. ANY APPLIANCES OR MATERIALS OBVIOUSLY A PART OF THE SYSTEM AND NECESSARY FOR ITS PROPER OPERATION, ALTHOUGH NOT SPECIFICALLY MENTIONED HEREIN, SHALL BE FURNISHED AND INSTALLED AS IF CALLED FOR IN DETAIL.
- WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL CODES.
- ATTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES.
- DRAWINGS ARE GENERALLY DIAGRAMMATIC AND DO NOT NECESSARILY SHOW FITTING AND DETAIL. INSTALL DUCTS, EQUIPMENT, PIPING, ETC., IN A NEAT WORKMANLIKE MANNER, AND IN ACCORDANCE WITH GOOD PRACTICE FOR A COMPLETE WORKABLE INSTALLATION. AVOID CONFLICT WITH OTHER WORK; MAKE ADEQUATE PROVISIONS FOR PREVENTING NOISE AND VIBRATION; ARRANGE EQUIPMENT INTO THE AVAILABLE SPACE IN A MANNER TO MAKE ALL WORKING PARTS ACCESSIBLE FOR MAINTENANCE AND SERVICE.
- MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED AGAINST DEFECTS FOR ONE YEAR.
- PROTECT ALL MATERIALS AND EQUIPMENT FROM DAMAGE.
- CONSTRUCT AIR DUCTS IN ACCORDANCE WITH SMACNA DUCT MANUALS LATEST EDITION.
- HVAC WORK INDICATED DIAGRAMMATICALLY, EXACT LOCATION OF ALL COMPONENTS ARE TO BE DETERMINED IN THE FIELD AND BY THE ACTUAL BUILDING CONDITIONS.
- ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES BEFORE ANY INSTALLATION IS MADE.
- ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH STATE CODES, MANUFACTURER'S APPROVED PUBLISHED LITERATURE, AND AUTHORITIES HAVING JURISDICTION. A COPY OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE LOCATED ON THE JOB SITE AT ALL TIMES.
- INSTALLATION OF ALL EQUIPMENT SHALL PERMIT ACCESSIBILITY FOR SERVICE AND/OR REPLACEMENT. A PERMANENT MEANS OF ACCESS IS REQUIRED FOR EQUIPMENT INSTALLED ON ROOFS OR ELEVATED STRUCTURES EXCEEDING 18'-0".
- COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE ORDERING.
- FLEXIBLE DUCT RUNOUTS TO CEILING DIFFUSERS SHALL BE INSTALLED FREE OF KINKS AND SAGS. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 3'-0".
- COMPLETION AND TESTS SHALL INCLUDE CLEANING AND LUBRICATION OF ALL EQUIPMENT, AND ADJUSTMENTS FOR PROPER OPERATION. ADJUST DAMPERS, REGISTERS AND DIFFUSERS FOR PROPER AIR DISTRIBUTION. CHECK SYSTEM UNDER ACTUAL OPERATING CONDITIONS AND MAKE ADJUSTMENTS FOR A UNIFORM TEMPERATURE THROUGH THE CONDITIONED SPACE.
- LOCATIONS SHOWN FOR EQUIPMENT ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL COORDINATE WITH THE FIELD CONDITIONS FOR THE EXACT LOCATION AND MODIFY DUCTS/PIPES ACCORDINGLY.
- CONTRACTOR SHALL FIELD VERIFY AVAILABLE SPACE FOR DUCTWORK BEFORE FABRICATING. CONTRACTOR SHALL MODIFY DUCTWORK TO FIT AVAILABLE FIELD CONDITIONS.
- SIZE REFRIGERANT PIPING PER MANUFACTURERS RECOMMENDATIONS FOR ACTUAL LINE LENGTHS AND VERTICAL LIFT REQUIRED.
- ALL EXTERIOR WALL AND ROOF PENETRATIONS SHALL BE SEALED WATERPROOF.
- PROVIDE FIRESTOP WHERE PIPES, CONDUITS, BUS DUCTS, WIRES, DUCTS, AND SIMILAR BUILDING SERVICE EQUIPMENT PENETRATING RATED FLOORS AND WALLS.
- ALL CLEANING EQUIPMENT SHALL BE INSTALLED IN SUCH A WAY THAT LIGHTS, PIPING AND DUCTWORK DO NOT BLOCK ACCESS TO UNITS AND RELATED ACCESSORIES.
- DUCT SIZES SHOWN ARE NET INSIDE CLEAR DIMENSIONS.
- PROVIDE VOLUME DAMPERS AT EACH BRANCH TAKEOFF AND IN SUCH OTHER LOCATIONS WHERE REQUIRED TO PROPERLY BALANCE THE SYSTEM.
- PROVIDE INSTRUMENT TEST HOLES WITH CAPS IN AIR DISTRIBUTION SYSTEMS WHEREVER VOLUME DAMPER ARE SHOWN.
- ALL MISCELLANEOUS STRUCTURAL SUPPORTS REQUIRED FOR HVAC EQUIPMENT INSTALLATIONS SHALL BE PROVIDED BY HVAC CONTRACTOR.
- ALL TRANSFER DUCT SHALL BE INTERNALLY LINED.
- ALL THE MITERED ELBOWS SHALL BE PROVIDED WITH TURNING VANES. ALL THE ROUND ELBOWS SHALL A CENTER TO FACE OF 1.5 X THE DUCT WIDTH.
- CONTRACTOR SHALL FURNISH TESTING & BALANCING REPORT TO ENGINEER & OWNER PRIOR TO FINAL INSPECTION TO VERIFY REQUIRED PERFORMANCE HAS ACHIEVED.
- ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN FURRED CHASES OR SUSPENDED CEILINGS UNLESS OTHERWISE NOTED.
- ACCESS PANELS IN SUSPENDED CEILINGS ARE REQUIRED FOR ALL VALVES, DAMPERS, CONTROLS, ETC., AND SHALL BE FURNISHED UNDER ARCHITECTURAL SPECIFICATIONS.

3 SPECIFICATIONS - MECHANICAL
NOT TO SCALE

- DUCTWORK AND RELATED SHEET METAL WORK:
 - CLASSIFICATION: LOW PRESSURE DUCTWORK SHALL BE LIMITED TO SYSTEMS OPERATING AT STATIC PRESSURES OF TWO INCHES OF WATER OR LESS AND HIGH PRESSURE DUCTWORK SHALL BE SYSTEMS OPERATING ABOVE TWO INCHES WATER COLUMN.
 - MATERIALS: MATERIALS SHALL COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE" FOR ACCEPTABLE MATERIALS, MATERIAL THICKNESS, AND DUCT CONSTRUCTION METHODS UNLESS OTHERWISE INDICATED. SHEET METAL MATERIALS SHALL BE FREE OF PITTING, SEAM MARKS, ROLLER MARKS, STAINS, DISCOLORATIONS, AND OTHER IMPERFECTIONS. THE GALVANIZED SHEET COATING SHALL BE 860 (Z180) CONFORMING TO ASTM A 653/A 653M. HIGH PRESSURE ROUND DUCTS SHALL BE MACHINE LUBRICATED SPIRAL LOCK SEAM TYPE. ROUND FITTINGS AND ROUND SPIRAL DUCT SHALL BE AS MANUFACTURED BY SHEET METAL CONNECTORS, INC.; LINDAB, INC.; SPIRAL MANUFACTURING COMPANY, INC; OR EQUAL. GASKETS FOR HIGH PRESSURE DUCTS SHALL BE 3M TYPE 1202 OR EQUAL REINFORCED SYNTHETIC RUBBER SEALANT TYPE NOT LESS THAN 1/4" INCH THICK (3/8" W/IDE); LIQUID DUCT SEALANT SHALL BE BRUSH OR GUN GRADE AND SHALL REMAINS FLEXIBLE AFTER AIR CURING. 3M TYPE 800 OR EQUAL.
 - CONSTRUCTION: CONSTRUCT DUCTWORK (EXCEPT FLEXIBLE DUCTING) WITH CAREFUL, NEAT, AND ACCURATE WORKMANSHIP, AND AIRTIGHT JOINTS AND SEAMS. CONSTRUCT DUCTWORK AND INSTALL IN ACCORDANCE WITH LATEST EDITIONS OF SMACNA'S "LOW VELOCITY DUCT CONSTRUCTION STANDARDS" OR AS APPLICABLE TO CLASSIFICATION OF DUCTWORK INVOLVED, INCLUDING ALL APPLICABLE RECOMMENDATIONS OF THESE STANDARDS.
 - ALL DUCTWORK SHALL BE INSULATED EXTERNALLY WITH TWO INCH FLEXIBLE FIBERGLASS DUCT WRAP. INSULATION SHALL COMPLY WITH ANSI/ASTM C82; COMMERCIAL GRADE; 'K' VALUE OF 0.29 AT 75 °F. PROVIDE A 0.002 INCH FOIL SCRIM FACING FOR DUCTWORK INSULATION. SECURE INSULATION WITH VAPOR BARRIER WITH WIRES AND SEAL JACKET JOINTS WITH VAPOR BARRIER ADHESIVE OR TAPE TO MATCH JACKET. SECURE INSULATION WITHOUT VAPOR BARRIER WITH STAPLES, TAPE, OR WIRES. RETURN AIR DUCTS SHALL BE INSULATED W/ 1" ACOUSTICAL DUCT LINER, 1.5 PCF MIN. DENSITY.
 - GAS PIPING - STEEL PIPE: ASTM A 53/A 53M, BLACK STEEL, SCHEDULE 40, TYPE E OR S, GRADE B.
 - MALLEABLE-IRON THREADED FITTINGS: ASME B16.3, CLASS 150, STANDARD PATTERN.
 - WROUGHT-STEEL WELDING FITTINGS: ASTM A 234/A 234M FOR BUTT WELDING AND SOCKET WELDING.
 - UNIONS: ASME B16.39, CLASS 150, MALLEABLE IRON WITH BRASS-TO-IRON SEAT, GROUND JOINT, AND THREADED ENDS.
 - PIPING 3/4" TO 2" FOR SYSTEMS WITH OPERATING PRESSURE OF 2 PSIG OR LESS SHALL HAVE THREADED JOINTS. PIPING OVER 2" WITH AN OPERATING PRESSURE OF 2 PSIG OR LESS SHALL HAVE WELDED JOINTS. ALL PIPING WITH AN OPERATING PRESSURE OVER 2 PSIG SHALL BE WELDED.
 - PROVIDE ONE 12"x12" TAD FOR EVERY 400 CFM AS REQUIRED FOR RA PATH BACK TO UNIT IN ROOMS WHERE WALLS GO TO DECK.



STORE #6679

6808 SIEGEN LANE
BATON ROUGE, LA 70809

PROJ. NO.: 1722
DATE: 01/22/2018

SHEET TITLE:
ABBREVIATIONS,
SPECIFICATIONS, AND
SYMBOLS -
MECHANICAL

DRAWING SHEET IS FULL SIZE AT 22" x 34"
REDUCED 11" x 17" SHEET IS HALF SIZE

SHEET NO.: M0.01

Order Plans @