

BASIC MECHANICAL MATERIALS AND METHODS

PART 1 GENERAL

1.01 SCOPE

- A. ALL SYSTEM AND DESIGNS SHALL BE IN COMPLIANCE WITH THE FOLLOWING CODES AND STANDARDS. THE MOST CURRENT EDITION SHALL BE USED FOR ALL CODES OR STANDARDS. IF A CONFLICT ARISES BETWEEN CODES OR STANDARDS, THE MORE STRINGENT CODE OR STANDARD SHALL BE USED.
1. DEPARTMENT OF LABOR AND INDUSTRY
2. NFPA 101 LIFE SAFETY CODE
3. INTERNATIONAL PLUMBING CODE
4. INTERNATIONAL MECHANICAL CODE
5. NFPA 99
6. NFPA 54
7. NATIONAL ELECTRICAL CODE
8. APPLICABLE ASHRAE STANDARDS
9. SMACNA
10. ASME
11. INTERNATIONAL BUILDING CODE
12. INTERNATIONAL ENERGY CODE

CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIAL AND LABOR REQUIRED FOR THE DRAINING AND FILLING OF EXISTING PIPING SYSTEMS IN ORDER TO FACILITATE RENOVATED SPACES. ALL PIPING SYSTEMS SHALL NOT BE DRAINED OR FILLED WITHOUT WRITTEN AND VISUAL AUTHORIZATION FROM THE ON-SITE FACILITY MAINTENANCE PERSONNEL. THIS FACILITY MAINTENANCE PERSONNEL WILL PERFORM ANY SYSTEM OUTAGE OR START UP REQUIRED AS PART OF CONTRACTORS DRAINING OR FILLING WORK.

C. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS, TESTS AND INSPECTION AS REQUIRED.
D. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING FOR REMOVAL OR INSTALLATION OF ITEMS INDICATED ON THESE CONTRACT DOCUMENTS.

E. THIS CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE ALL OF THIS WORK, MATERIALS, AND/OR EQUIPMENT THAT IS LIABLE TO BE DAMAGED DURING THE CONSTRUCTION PERIOD. ALL OPENINGS INTO ANY DUCTS OR EQUIPMENT SHALL BE SECURELY CLOSED SO AS TO PREVENT ANY OBSTRUCTION GETTING INTO THE SYSTEMS OR THE EQUIPMENT.

F. THIS CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE THAT IS DUE TO HIS FAILURE TO PROPERLY PROTECT EQUIPMENT AND DUCT OPENINGS DURING CONSTRUCTION AND THE GUARANTEE PERIOD. PROVIDE ALL WARRANTIES, OPERATIONS AND MAINTENANCE MANUALS TO OWNER NECESSARY TO ACCOMMODATE THE PROPOSED EQUIPMENT. IF MODIFICATION CANNOT BE MADE, THIS WILL BE SUFFICIENT REASON TO REJECT THE PROPOSED ITEMS.

H. ALL LAYOUTS SHOWN ARE DIAGRAMMATIC (ADJUST AS REQUIRE TO WORK WITH FIELD CONDITIONS). PROVIDE DETAILED SHOP DRAWINGS OF DUCTWORK SIZES AND VELOCITIES PRIOR TO PRODUCTION.

I. THE LOCAL AUTHORITY HAVING JURISDICTION SHALL VERIFY MANUFACTURERS INSTALLATION INSTRUCTIONS ARE ON SITE AND AVAILABLE DURING ALL INSPECTIONS.

1.02 RECORD DRAWING REQUIREMENTS

A. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL FURNISH THE BLOOMSBURG UNIVERSITY PROJECT MANAGER RED LINE PRINTS CONTAINING ALL NECESSARY INFORMATION REQUIRED TO COMPLETE RECORD DRAWINGS.

1.03 COORDINATION

A. ACCESS PANELS OR DOORS: PANELS OR DOORS SHALL BE PROVIDED FOR ACCESS TO VALVES OR OTHER EQUIPMENT REQUIRING PERIODIC EXAMINATION ABOVE GYPSUM BOARD SUSPENDED CEILINGS. THE PANELS SHALL BE A MINIMUM SIZE OF 18 IN. X 18 IN.

1.04 CONTRACTOR PROJECT RESPONSIBILITIES

A. CONTRACTOR SHALL FOLLOW THE FOLLOWING GUIDELINES DURING CONSTRUCTION PROCESS:
1. SIX COPIES OF COMPLETE OPERATION AND MAINTENANCE MANUALS SHALL BE PROVIDED BY THE INSTALLING CONTRACTOR AS PART OF PROJECT CLOSEOUT. MANUALS SHALL INCLUDE COPIES OF ALL APPROVED SHOP DRAWINGS, AS-BUILT CONTROL DRAWINGS, AND BALANCING REPORT.

2. STANDARD WARRANTY IS ONE YEAR, PARTS AND LABOR. ALL WORK UNDER THIS SPECIFICATION SHALL BE GUARANTEED FREE OF DEFECTS IN MATERIAL, DESIGN, OR WORKMANSHIP FOR A PERIOD OF (1) YEAR FROM DATE OF FINAL ACCEPTANCE OF THE WORK. ANY DEFECTS IN THE WORK DEVELOPING DURING THIS PERIOD SHALL BE REMEDIED WITHOUT COST TO THE OWNER.

3. CONTRACTOR TO NOTIFY THE PROJECT MANAGER OF ANY ISSUES, PROBLEMS, OR DISCREPANCIES ARISING FROM THESE PLANS PRIOR TO FABRICATION AND INSTALLATION.

1.05 CONTRACTOR FURNISHED ITEMS AND SERVICES

A. CONTRACTOR SHALL OBTAIN AND PAY FOR TESTING AND BALANCING OF AIR AND WATER SYSTEMS AS REQUIRED. THE CONTRACTOR SHALL COORDINATE TO ALLOW TIME FOR THIS WORK TO BE PERFORMED AT THE APPROPRIATE TIME. THE LOCAL AUTHORITY HAVING JURISDICTION SHALL VERIFY UPON COMPLETION OF WORK, THE SYSTEM IS BALANCED WITH A COMPLETE TEST AND BALANCE REPORT MADE AVAILABLE AT TIME OF INSPECTION.

B. CONTRACTOR SHALL PROVIDE ALL CONTROL WIRING REQUIRED FOR EQUIPMENT PROVIDED OR RELOCATED UNDER THIS CONTRACT.

PART 2 MATERIALS

2.01 MECHANICAL IDENTIFICATION

A. PLASTIC EQUIPMENT MARKERS
1. GENERAL: PROVIDE LAMINATED PLASTIC EQUIPMENT MARKERS FOR ALL ITEMS OF MECHANICAL EQUIPMENT NOT FURNISHED WITH VALVE TAGS OR FIELD PAINTED STENCILED IDENTIFICATION.

B. WHERE APPLICABLE MATERIALS AND EQUIPMENT SHALL BEAR STAMPS OR SEALS OF NFC, NBFU, ASME, NEMA AND ANY OTHER INDUSTRY REGULATIONS AGENCIES, IF ANY OF THE WORK SHOWN OR SPECIFIED SHOWN, CONFLICT WITH CODES OR REGULATIONS THE CONTRACTOR SHALL MAKE NECESSARY CHANGES WITHOUT ADDITIONAL COST TO THE OWNER.

2.02 VIBRATION ISOLATION

A. MANUFACTURERS
1. AVAILABLE MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, MANUFACTURERS OFFERING PRODUCTS WHICH MAY BE INCORPORATED IN THE WORK, INCLUDE THE FOLLOWING:
a. MASON
b. VIBRATION ELIMINATOR COMPANY
c. KORFUND
d. VIBRATION MOUNTINGS & CONTROL, INC.

B. PROVIDE FLEXIBLE CONNECTORS ON DUCTWORK AT INLET AND OUTLET TO ALL AIR MOVING EQUIPMENT.

C. IN ADDITION, PROVIDE ISOLATION ON HANGERS FOR PIPING AND DUCTWORK CONNECTED TO ISOLATED EQUIPMENT FOR THE FIRST FIFTY FEET AWAY FROM THE EQUIPMENT.

D. INSTALL VIBRATION ISOLATION IN ACCORDANCE TO REQUIREMENTS SET FORTH IN THE INTERNATIONAL BUILDING CODE (IBC).

E. CONTRACTOR SHALL FURNISH AND INSTALL MISCELLANEOUS STEEL AS REQUIRED FOR EQUIPMENT SUPPORTS, BRACING, HANGERS, FRAMING FOR EQUIPMENT, AND ALL STEEL ITEMS NEEDED FOR THE COMPLETION OF THE WORK.

PART 3 EXECUTION

3.01 ACCESSIBILITY

A. CLEARANCE SHALL BE PROVIDED AROUND MACHINES AND EQUIPMENT TO REMOVE PARTS FOR REPAIR OR REPLACEMENT.

HEATING, VENTILATING AND AIR CONDITIONING

PART 1 GENERAL

NOT USED

PART 2 MATERIALS

2.01 PIPE INSULATION

A. FLEXIBLE ELASTOMERIC INSULATION: CLOSED-CELL, SPONGE- OR EXPANDED-RUBBER MATERIALS. COMPLY WITH ASTM C 534, TYPE I FOR TUBULAR MATERIALS.

Table with 3 columns: SERVICE, PIPE SIZE INCH, THICKNESS INCH. Row 1: REFRIGERANT L/S, ALL, 1-1/2"

2.02 PIPING MATERIALS

1. COPPER, TYPE L, CONFORMING TO ASTM B 88.

PART 3 EXECUTION

3.01 EXECUTION

A. PIPING INSULATION

1. PROVIDE A THERMAL BREAK (RIGID INSULATION INSERTS), CALCIUM SILICATE OR FOAM GLASS BETWEEN PIPE AND HANGERS. DO NOT USE WOOD. PROVIDE A GALVANIZED STEEL SLEEVE BETWEEN HANGER AND OUTSIDE OF INSULATION JACKET.

2. APPLY INSULATION OVER FITTINGS, VALVES, AND SPECIALTIES, WITH CONTINUOUS THERMAL AND VAPOR-RETARDER INTEGRITY.

B. ALL SYSTEMS SHALL BE IN COMPLIANCE WITH THE FOLLOWING GENERAL REQUIREMENTS.

1. REMOVE SCALE, SLAG, DIRT, AND DEBRIS FROM INSIDE AND OUTSIDE OF PIPE AND FITTINGS BEFORE ASSEMBLY.

AIR DISTRIBUTION SYSTEMS

PART 1 GENERAL

1.01 SCOPE

A. THIS SECTION ADDRESSES AIR DISTRIBUTION, EXHAUST FOR NEW AND RENOVATED SYSTEMS.

PART 2 MATERIALS

2.01 DUCTWORK

GENERALLY, USE GALVANIZED SHEET METAL DUCTWORK. CONSTRUCTION IS TO BE PER SMACNA STANDARD.

A. SUPPORT

1. DUCTWORK AND RELATED EQUIPMENT SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE AND SHALL BE ISOLATED FROM VIBRATION.

B. SEALING

1. ALL DUCTWORK SHALL BE SPECIFIED TO BE SEALED USING MINERAL IMPREGNATED WOVEN FIBER TAPE OR OTHER SEALER OF EQUIVALENT EFFECTIVENESS, AND ALL SEAMS AND JOINTS SHALL BE SEALED, INCLUDING LONGITUDINAL SEAMS.

C. DAMPERS

1. PROVIDE MANUAL VOLUME DAMPERS IN EVERY AIR DISTRIBUTION DEVICE BRANCH DUCT AND WHERE IT IS NECESSARY TO OBTAIN PROPER CONTROL, BALANCING, AND DISTRIBUTION.

2. LOCATE FIRE DAMPERS (DYNAMIC) IN ACCORDANCE WITH NFPA; REFER TO LOCAL FIRE CODES FOR USE, LOCATION, AND CONSTRUCTION. SHOW FIRE DAMPERS ON DRAWINGS, WITH ACCESS DOORS. THE LOCAL AUTHORITY HAVING JURISDICTION SHALL VERIFY FIRE DAMPER ACCESS DOORS ARE CLEARLY LABELED WITH LETTERING NOT LESS THAN ONE HALF-INCH (5") IN HEIGHT.

D. MEDIUM AND LOW PRESSURE DUCTWORK, 4" CLASS AND UNDER

1. RECTANGULAR, RECTANGULAR DUCTWORK SHALL BE FABRICATED IN ACCORDANCE WITH SMACNA USING APPROPRIATE GAUGES. MINIMUM 2" PRESSURE GLASS CONSTRUCTION SHALL BE USED.

2. ALL FITTINGS ON DUCTWORK (ON ALL SYSTEMS - SUPPLY, MAKE-UP, RETURN, EXHAUST) SHALL BE SEALED.

PART 3 EXECUTION

3.01 DUCTWORK

A. TRANSITIONS

1. WHERE DUCTS ARE CONNECTED TO EQUIPMENT FITTINGS, TRANSITION SHOULD BE SMOOTH, WITH A TRANSITION NO GREATER THAN 15 DEGREES ON THE UPSTREAM SIDE AND LESS THAN 30 DEGREES ON THE DOWNSTREAM SIDE. AVOID TRANSITIONS IN ELBOWS.

B. ACCESS DOORS OR PANELS

1. PROVIDE ACCESS DOORS OR PANELS NO SMALLER THAN 18" X 18" IN DUCTWORK FOR MAINTENANCE, INSPECTION, AND SERVICE FOR:

a. HEATING COILS

b. FIRE AND SMOKE DAMPERS

c. CONTROLS (DAMPERS, SWITCHES, RELAYS, SENSING DEVICES, ETC.)

C. TESTING

1. ALL NEW DUCTWORK INCLUDING LOW PRESSURE DUCT OVER 15 FEET IN LENGTH SHALL BE LEAK TESTED USING THE METHOD PRESCRIBED BY AABC STANDARDS.

MECHANICAL GENERAL NOTES (APPLY TO ALL DRAWINGS)

- 1. ALL WORK AND EQUIPMENT SHALL COMPLY WITH ALL APPLICABLE LAWS, CODES, AND REQUIREMENTS, OF ALL AUTHORITIES HAVING JURISDICTION, INCLUDING BUT NOT LIMITED TO THE INTERNATIONAL MECHANICAL CODE, THE INTERNATIONAL PLUMBING CODE, THE INTERNATIONAL ENERGY CODE, THE LOCAL FIRE MARSHAL, UNDERWRITERS LABORATORY, IRI, FM, OSHA, AND THE NATIONAL ELECTRICAL CODE. MODIFICATIONS REQUIRED BY THE ABOVE AUTHORITIES IN ORDER TO BRING THE PROJECT INTO CODE COMPLIANCE SHALL BE MADE AT NO ADDITIONAL COST TO OWNER. IF CONTRACT DOCUMENTS ARE MORE STRINGENT THAN CODE REQUIREMENTS, THE CONTRACT DOCUMENTS SHALL GOVERN.
2. ALL SPECIFICATIONS AND DRAWINGS ARE COMPLIMENTARY AND MUST BE USED IN COMBINATION TO OBTAIN COMPLETE CONSTRUCTION INFORMATION. ANY CONFLICTING INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER, AND WORK SHALL CEASE ON THAT PORTION OF THE PROJECT UNTIL CLARIFICATIONS ARE ISSUED.
3. CONTRACTOR SHALL CONFIRM THE REQUIREMENTS FOR PREMIUM TIME OR SPECIAL PROCEDURES WITH THE OWNER. CONTRACT SHALL INCLUDE LONG LEAD EQUIPMENT SUBMITTALS WITH BID PROPOSALS.
4. CONTRACTOR SHALL COORDINATE, PREPARE AND SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND ENGINEER FOR APPROVAL. SHOP DRAWINGS TO BE SUBMITTED INCLUDE: SHEET METAL, DIFFUSERS, GRILLES, REGISTERS, FIRE DAMPERS, AND ALL EQUIPMENT. SHEET METAL SHOP DRAWINGS SHALL BE COORDINATED AND SHOW DUCT ELEVATIONS, INCLUDE RISES, DROPS, AND OFFSETS TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM. AREAS OF POTENTIAL CONFLICT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION.
5. A SET OF MEP RECORD/COORDINATION DRAWINGS SHALL BE MAINTAINED BY THE CONTRACTOR AT THE JOB SITE. ACTUAL LOCATIONS OF ALL EQUIPMENT, PIPING, DUCTWORK AND ALL OTHER ITEMS INCLUDED IN THIS CONTRACT, AND ALL DEVIATIONS OF THE WORK FROM THAT SHOWN ON THE CONTRACT DOCUMENTS SHALL BE MARKED ON THE RECORD/COORDINATION DRAWINGS. EACH TRADE SHALL REVIEW THE COORDINATION DRAWINGS AND RESOLVE ANY POTENTIAL CONFLICTS WITH OTHER TRADES PRIOR TO INSTALLING ANY PORTION OF THEIR WORK.
6. WORK SHALL BE EXECUTED IN A GOOD WORKMANLIKE MANNER USING MECHANICS IN THEIR RESPECTIVE TRADES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING THE WORK UNDER THIS CONTRACT. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL DELIVER COMPLETE AND FUNCTIONAL SYSTEMS AS ENCOMPASSED BY THE CONTRACT. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND CODE REQUIREMENTS.
7. WHEREVER FIRE RATED ASSEMBLIES ARE PENETRATED FOR WIRE, DUCT OR PIPE PASSAGE, SEAL AROUND PASSAGES WITH CODE APPROVED, LABORATORY TESTED AND LABELED SEALANT OF FIRE RESISTANCE RATING NOT LESS THAN THAT OF PENETRATED ASSEMBLY THAT WILL PREVENT PASSAGE OF FIRE AND SMOKE. INSTALL APPROPRIATELY RATED FIRE, SMOKE OR COMBINATION DAMPERS IN ALL DUCT THAT PENETRATES RATED ASSEMBLIES WHETHER SHOWN OR NOT. DRAWING SYMBOLS ARE USED AS AN AID, NOT A NUMBER OF PIECES OF EQUIPMENT.
8. WIRING OF ALL MOTORIZED OPERATORS AND THERMOSTATS, REGARDLESS OF VOLTAGE ARE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.
9. CONTRACTOR SHALL MAKE ALL FINAL EQUIPMENT CONNECTIONS AND PROVIDE THE NECESSARY ADAPTERS, FITTINGS, VALVES, AND DEVICES FOR A COMPLETE OPERABLE SYSTEM. COORDINATE REQUIREMENT FOR PROVISION OF CONTRACTORS, AND CONTROL WIRING FOR PROPER FUNCTIONING SYSTEM WITH ELECTRICAL CONTRACTOR. MOTOR STARTERS, AND DISCONNECTS ARE TO BE PROVIDED BY THIS CONTRACTOR FOR INSTALLATION BY OTHERS.
10. CLEAN ALL MECHANICAL EQUIPMENT AND DUCTWORK OF ALL CONSTRUCTION DUST AT PROJECT COMPLETION. REPLACE ALL FILTERS PRIOR TO AIR BALANCING. PROVIDE ONE SPARE SET OF FILTERS FOR EACH PIECE OF EQUIPMENT TO OWNER. NEWLY INSTALLED HVAC EQUIPMENT SHALL NOT BE USED AT ANY TIME FOR TEMPORARY CONDITIONING OF THE SPACE DURING CONSTRUCTION.
11. COORDINATE INSTALLATION OF NEW WORK WITH ARCHITECTURAL PLANS, STRUCTURAL PLANS, AND LIGHTING PLANS. CONTRACTOR SHALL TAKE ALL INTERFERENCES INTO CONSIDERATION. PROVIDE ALL NECESSARY OFFSETS OR TRANSITIONS WITH EQUIVALENT AREAS TO MATCH SIZES AS INDICATED ON DRAWINGS.
12. HEATING CONTRACTOR (H.C.) AND MECHANICAL CONTRACTOR (M.C.) TERMINOLOGY IS INTERCHANGEABLE.
13. DO NOT INSTALL ANY MECHANICAL WORK ABOVE ELECTRICAL PANELS.
14. ALL DIMENSIONS AND PIPE SIZES ARE IN INCHES UNLESS NOTED OTHERWISE.
15. SLEEVE AND SEAL ALL PIPE, OR DUCT PENETRATIONS OF WALLS AND FLOORS. PACK VOID BETWEEN PIPE, OR DUCT AND SLEEVE WITH INSULATION IN NON-RATED WALLS AND FLOORS. PACK VOID BETWEEN PIPE, OR DUCT AND SLEEVE WITH INSULATION IN FIRE-RATED WALLS AND FLOORS. APPLY INTUMESCENT FIRE SAFING COMPOUND AT PENETRATION, MAINTAINING INTEGRITY AND RATING OF FIRE SEPARATION. SLEEVES THROUGH FLOORS SHALL EXTEND 2' ABOVE FLOOR, BE GROUTED INTO PLACE AND WATERPROOFED. PIPING THROUGH EXTERIOR WALLS SHALL BE SLEEVED AND SEALED WEATHER TIGHT.
16. M.C. SHALL FURNISH AND INSTALL IDENTIFICATION TAGS FOR ALL H.V.A.C. EQUIPMENT. TAGS SHALL BE RIVETED TO ASSOCIATED PIECE OF EQUIPMENT. TAGS SHALL BE CLEAR WITH BLACK LETTERING THAT IDENTIFIES UNIT VALVE SERVICES. TAGS SHALL BE TRANSPARENT TO BLEND IN WITH CEILING TILE. M.C. SHALL CONSULT WITH OWNER TO SHOW SAMPLE TAGS BEFORE PURCHASING TAGS.
17. FURNISH AND INSTALL ALL EQUIPMENT ELECTRICAL DISCONNECTS UNLESS INDICATED OTHERWISE. DISCONNECTS SHALL BE PROVIDED BY EQUIPMENT MANUFACTURER.

Table with 7 columns: SYMBOL, MFG, MODEL, MBH, KW, AMPS, V/PH, REMARKS. Row 1: EWH-1, QMARK, CWH1101DSAF, 3.41, 1.0, 8.4, 120/1/60, 1

REMARKS:
1. PROVIDE WITH ACCESSORY SURFACE MOUNTING FRAME.

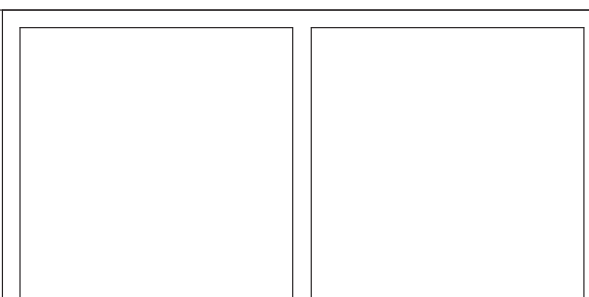
Table with 10 columns: SYMBOL, TYPE, MFG, MODEL, CFM, ESP, FAN RPM, MOTOR - HP/WATTS (W), ELECTRICAL DATA (V/PH, ACC, MOTION SENSOR), WEIGHT (LBS), REMARKS. Row 1: EF-1, CABINET, GREENHECK, SP-80-VG, 75, 0.375, 935, (6), 120/1/60, ACC, MOTION SENSOR, 20, 1,2

REMARKS:
1. PROVIDE WITH FACTORY DISCONNECT SWITCH AND ACCESSORY MOTION SENSOR.
2. PROVIDE WITH ACCESSORY WALL CAP AND BACKDRAFT DAMPER.

Table with 13 columns: INDOOR UNIT SYMBOL, MFG, MODEL, SUPPLY FAN AIR FLOW, FLA, OUTDOOR UNIT SYMBOL, COOL. HEAT (MBH), NOM. TONS, SEER, REFRIG. TYPE, MCA, ELECTRICAL DATA (KW, MOP, V/PH), WEIGHT (LBS.), REMARKS. Rows 1-4: MS1-1, MS1-2, MS1-3, MS1-4

REMARKS:
1. PROVIDE UNIT WITH LOW AMBIENT KIT AND WIND BAFFLE.
2. SINGLE POINT POWER CONNECTION TO OUTDOOR UNIT. EC TO PROVIDE DISCONNECT SWITCH FOR OUTDOOR AND INDOOR UNIT. EC TO PROVIDE CONDUIT AND WIRE FROM OUTDOOR UNIT TO INDOOR UNIT.
3. PROVIDE UNIT WITH ACCESSORY MINI CONDENSATE PUMP.
4. OUTDOOR UNIT MOUNTED ON EXISTING STRUCTURE.

100% CONSTRUCTION DOCUMENTS

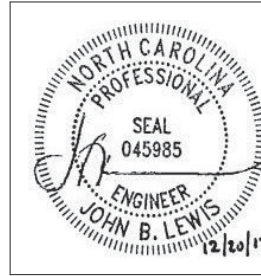


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REVISIONS

Table with 4 columns: NO, REV, DATE, NAME, DESCRIPTION OF CHANGES

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SCHEDULES, NOTES, AND SPECIFICATIONS
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M0.1
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