

HVAC SPECIFICATIONS
DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 1 SPECIFICATION SECTIONS APPLY TO THIS SECTION.

ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE 2015 INTERNATIONAL MECHANICAL CODE WITH LOCAL AMENDMENTS.

HVAC WORK SHALL BE AS INDICATED ON THE PLANS AND AS HEREIN SPECIFIED. THE WORK SHALL CONSIST OF PROVIDING COMPLETE OPERATIONAL HVAC SYSTEMS AS INDICATED ON THE DRAWINGS. THE SYSTEM SHALL BE TESTED AND BALANCED. CAPACITIES SHALL BE AS SHOWN ON THE DRAWINGS. ADJUSTMENTS AS REQUIRED SHALL BE MADE BY THE CONTRACTOR TO INSTALL THE WORK WITHIN THE INTENT OF THE DRAWINGS AND SPECIFICATIONS AND TO PROVIDE AN ACCEPTABLE SYSTEM IN ACCORDANCE WITH STATE CODES, LOCAL CODES, ASHRAE, AND SMACNA RECOMMENDATIONS.

WHENEVER A MATERIAL, ARTICLE, OR PIECE OF EQUIPMENT IS IDENTIFIED ON THE DRAWINGS BY REFERENCE TO MANUFACTURER'S OR VENDORS NAMES, TRADE NAMES, CATALOG NUMBERS, OR THE LIKE, IT IS SO IDENTIFIED FOR THE PURPOSE OF ESTABLISHING A STANDARD, AND ANY MATERIAL, ARTICLE, OR PIECE OF EQUIPMENT OF OTHER MANUFACTURER'S OR VENDORS WHICH WILL PERFORM ADEQUATELY THE DUTIES IMPOSED BY THE GENERAL DESIGN WILL BE CONSIDERED EQUALLY ACCEPTABLE PROVIDED THE MATERIAL, ARTICLE, OR PIECE OF EQUIPMENT SO PROPOSED IS OF EQUAL SUBSTANCE, APPEARANCE, AND FUNCTION.

DUCTWORK:
DUCTWORK SHALL BE GALVANIZED SHEET METAL FABRICATED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA RECOMMENDATIONS. ALL SQUARE ELBOWS SHALL INCLUDE SINGLE THICKNESS TURNING VANES. FIBERGLASS DUCTBOARD SHALL NOT BE USED AND WILL NOT BE ACCEPTED.

DUCTWORK SHALL BE INSULATED AS FOLLOWS:
EXTERIOR RECTANGULAR DUCTWORK
ALL EXTERIOR SUPPLY AND RETURN DUCTWORK SHALL BE INTERNALLY LINED (USE CERTAINTED-150 2" LINER WITH R-VALUE OF 8) TO 12" MINIMUM INSIDE.

INTERIOR RECTANGULAR DUCTWORK (EXPOSED IN THE SALES SUPPORT AREA)
ALL INTERIOR RECTANGULAR SUPPLY AND RETURN DUCTWORK EXPOSED IN THE SALES SUPPORT AREA SHALL BE PROVIDED WITH 1" LINER.

INTERIOR RECTANGULAR DUCTWORK (EXPOSED IN SALES AREA)
THE FIRST 4' OF INTERIOR RECTANGULAR SUPPLY AND RETURN DUCTWORK EXPOSED IN THE SALES AREA SHALL BE PROVIDED WITH 1" LINER.

INTERIOR SPIRAL DUCTWORK EXPOSED IN THE SALES AREA
INTERIOR SPIRAL DUCTWORK EXPOSED IN THE SALES AREA IS NOT REQUIRED TO BE INSULATED SINCE IT IS RUN IN A CONDITIONED AREA.

ALL CONCEALED DUCTWORK (RECTANGULAR OR SPIRAL)
ALL CONCEALED DUCTWORK (RECTANGULAR OR SPIRAL) RUN ABOVE THE CEILING SHALL BE WRAPPED WITH 2" FIBERGLASS INSULATION.

INTERNAL INSULATION SHALL BE MINIMUM 1" THICK 1-1/2" PCF FIBERGLASS, NEOPRENE COATED, AND ADHERED WITH AN APPROVED ADHESIVE WITH 100% COVERAGE AND STICK CLIPS ON 12" CENTERS. INTERNALLY LINED INSULATION SHALL MEET BACTERIOLOGICAL STANDARD ASTM C 665. SHEET METAL SIZES SHALL BE INCREASED ACCORDINGLY TO ALLOW FOR DUCT LINER.

ALL TAKE-OFF FITTINGS SHALL HAVE EXTRACTORS AND DAMPERS. STAINLESS STEEL CLAMPS SHALL BE USED FOR ALL FLEXIBLE CONNECTIONS. FLEXIBLE DUCTWORK SHALL BE EXTERNALLY INSULATED AND CONFORM TO UL 181.

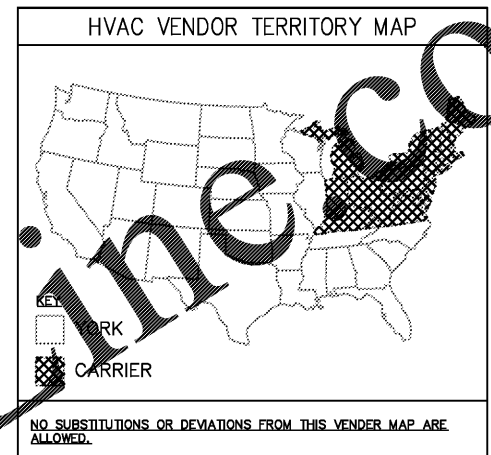
EQUIPMENT:
ALL AIR HANDLING EQUIPMENT, DIFFUSERS, GRILLES, REGISTERS, FANS, REFRIGERATION UNITS, ETC. SHALL BE PROVIDED AS SCHEDULED ON THE DRAWINGS. CONTROLS SHALL BE PROVIDED AS REQUIRED AND DESCRIBED ON THE DRAWINGS AND IN COMPLIANCE WITH LOCAL ENERGY CODES. ETC. CONTROL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH NEC REQUIREMENTS. ALL RELAYS, INTERLOCKS, ETC. SHALL BE PROVIDED AS REQUIRED. POWER WIRING SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UP TO AND INCLUDING FINAL CONNECTION. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL STARTERS, DISCONNECTS, AND OTHER DEVICES AS REQUIRED BY CODE UNLESS INDICATED TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL MOUNT ALL DEVICES, ETC., AND THE ELECTRICAL CONTRACTOR SHALL WIRE THROUGH THEM AS REQUIRED. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NEC. REFRIGERANT PIPING WHERE REQUIRED SHALL BE OF THE PRECHARGED TYPE AS SUPPLIED BY THE REFRIGERATION EQUIPMENT MANUFACTURER, PROPERLY SIZED AND INSULATED OR FIELD FABRICATED AT THE CONTRACTOR'S OPTION. FIELD FABRICATED REFRIGERANT PIPING SHALL BE TYPE "L" A.R.I. COPPER, SOLDERED WITH 95/5 SOLDER, INSULATED WITH 1" ARMAFLEX AND WEATHERPROOFED. PIPING SHALL BE ARRANGED AND PIPED IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND SHALL INCLUDE SIGHT GLASSES, SERVICE VALVES, AND FILTER DRYERS WITH BY-PASS WHEN INDICATED OR AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER FOR PROPER EQUIPMENT OPERATION. ALL PIPING ARRANGEMENTS SHALL BE APPROVED BY BOTH THE EQUIPMENT MANUFACTURER AND THE ENGINEER PRIOR TO INSTALLATION.

THE CONTRACTOR SHALL TEST ALL DUCT AND PIPING SYSTEMS FOR LEAKAGE, BALANCE AIR AS INDICATED, CHARGE REFRIGERATION EQUIPMENT, PROVIDE CLEAN FILTERS, START SYSTEMS, AND INSTRUCT THE OWNER IN OPERATION OF THE SYSTEM AFTER ALL TEST AND BALANCING HAS BEEN ACCOMPLISHED. ALL LEAKS OBSERVED IN THE SYSTEM SHALL BE REPAIRED BY EITHER REPLACING OR REPAIRING THE DEFECTIVE MATERIAL OR EQUIPMENT IN A MANNER APPROVED BY THE ENGINEER. THE ENTIRE HVAC SYSTEM SHALL BE UNCONDITIONALLY GUARANTEED FOR ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER. ALL DEFECTIVE EQUIPMENT AND/OR MATERIAL SHALL BE REPLACED AT NO EXPENSE TO THE OWNER. ALL REFRIGERATION COMPRESSORS SHALL HAVE AN EXTENDED WARRANTY OF FOUR ADDITIONAL YEARS. ALL GUARANTEES SHALL BE WRITTEN, DATED, AND FORWARDED TO THE OWNER. EQUIPMENT SHALL BE PROVIDED WITH ISOLATORS, FLEXIBLE CONNECTORS AT EQUIPMENT CONNECTIONS AND INSULATED DRAIN LINES PIPED TO FLOOR DRAINS, HUB DRAINS, OR OTHER APPROVED DRAIN POINTS.

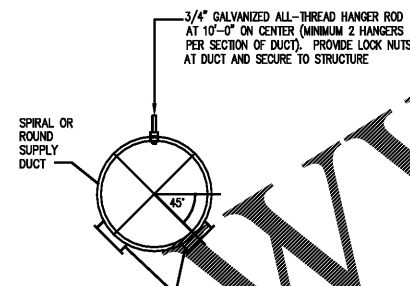
GAS PIPING:
PIPE AND FITTINGS SHALL BE BLACK STEEL WITH MALLEABLE IRON FITTINGS UP THROUGH 2" I.P.S. AND STEEL WELDING FITTINGS 2-1/2" I.P.S. AND ABOVE. DIELECTRIC COUPLINGS OR UNIONS SHALL BE UTILIZED WHEN PIPING OF DISSIMILAR METAL IS CONNECTED.

GAS PIPING SYSTEM SHALL BE INSTALLED TO THE REQUIREMENTS OF THE AGA PAMPHLET "INSTALLATION OF GAS APPLIANCES AND GAS PIPING" AND NFPA STANDARD NO. 54. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND PAY ALL FEES WITH THE "LOCAL" GAS COMPANY FOR THE INSTALLATION OF THE GAS METER, GAS SERVICE, AND ITS ACCESSORIES.

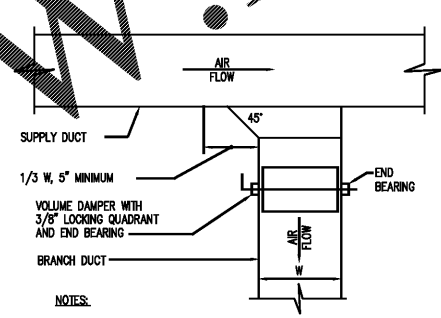
GAS PIPING SHALL BE TESTED IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN NFPA NO. 54. ANY OTHER TESTS AS REQUIRED BY THE LOCAL BUILDING INSPECTION DEPARTMENT OR GAS COMPANY SHALL ALSO BE PERFORMED. PAINT GAS PIPING WITH RUST RESISTANT PAINT.



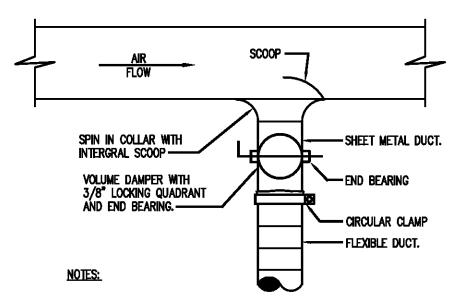
8 HVAC VENDOR TERRITORY MAP
NTS



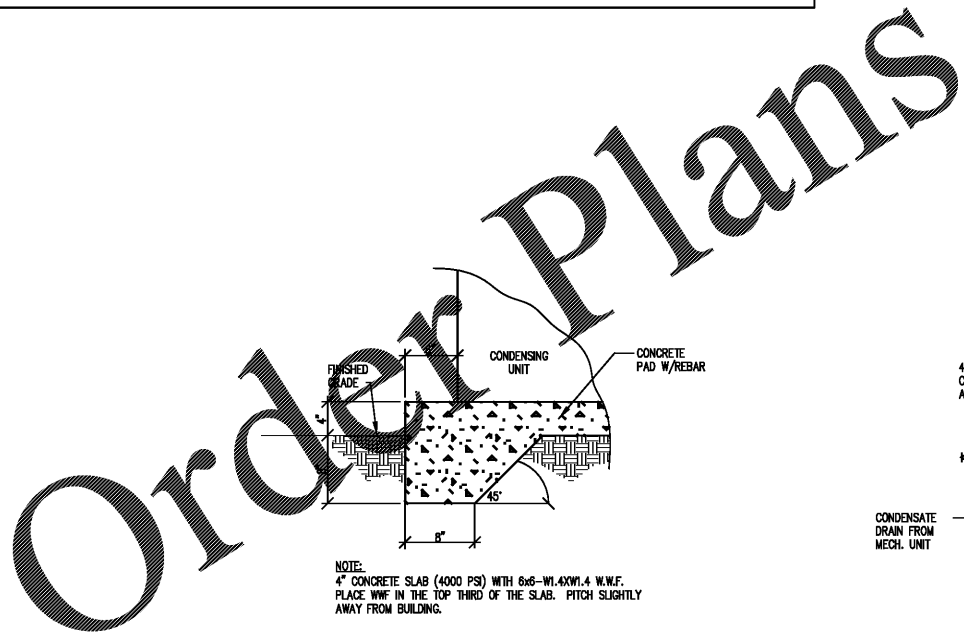
7 SPIRAL OR ROUND DUCT DETAIL
NTS



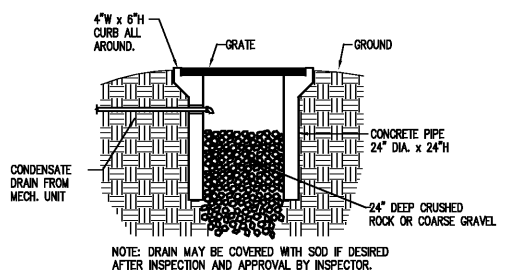
6 BRANCH TAKEOFF
NTS



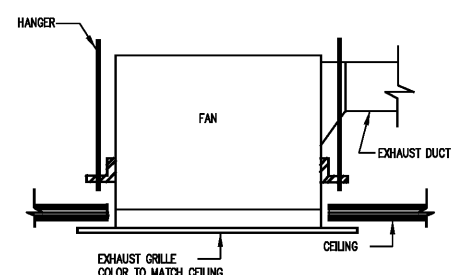
5 BRANCH TAKEOFF TO SINGLE OUTLET
NTS



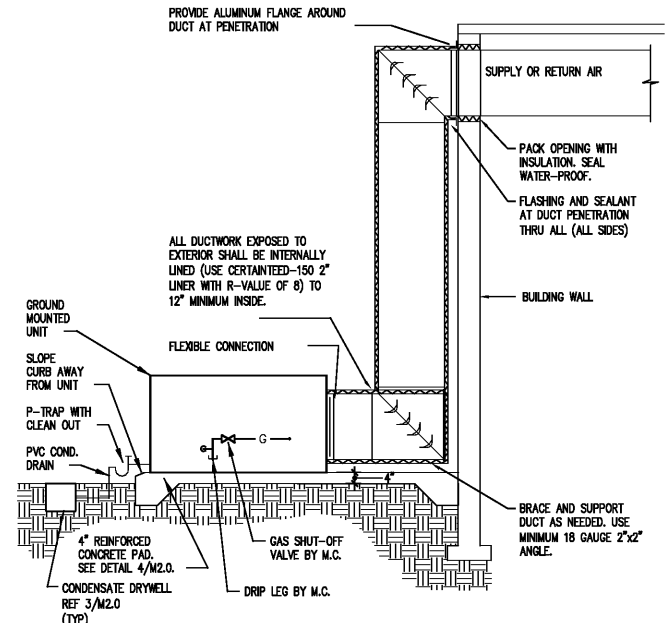
4 CONDENSATE UNIT PAD DETAIL
NTS



3 CONDENSATE DRY WELL
NTS



2 EXHAUST FAN
NTS



1 GROUND MOUNTED PACKAGED UNIT
NTS

pb2
architecture
+ engineering

100
Arkansas 27258
479.636.3545
479.636.1209

Engineer of Record
Joshua D. McColl, P.E.
South Carolina License No. 33036
COA Number: 4672

STIPULATION FOR REUSE
THIS DRAWING WAS PREPARED FOR THE PROJECT IDENTIFIED ABOVE. IT IS NOT TO BE REUSED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF pb2 ARCHITECTURE + ENGINEERING. ANY REUSE OF THIS DRAWING FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF pb2 ARCHITECTURE + ENGINEERING IS UNLAWFUL AND MAY BE CONSIDERED A VIOLATION OF THE LAW.

FAMILY DOLLAR STORE

1145 WHITE HORSE RD.
GREENVILLE, SOUTH CAROLINA

JOB NUMBER: 2017.0123

ISSUE BLOCK

CHECKED BY: TES
DRAWN BY: BEH
PROTO CYCLE: 2016-01
DOCUMENT DATE: 06.22.17



MECHANICAL DETAILS

SHEET: M2

PRINTED: 6/22/2017 5:18 PM BY: Travis Spikes LAST SAVED: 2/20/2017 10:26 AM BY: Brandon Hampton
c:\family_dollar\2017.0123_greenville.sc - white horse - durham_drawings\mep_mech\mch\mch20.dwg

Order Plans