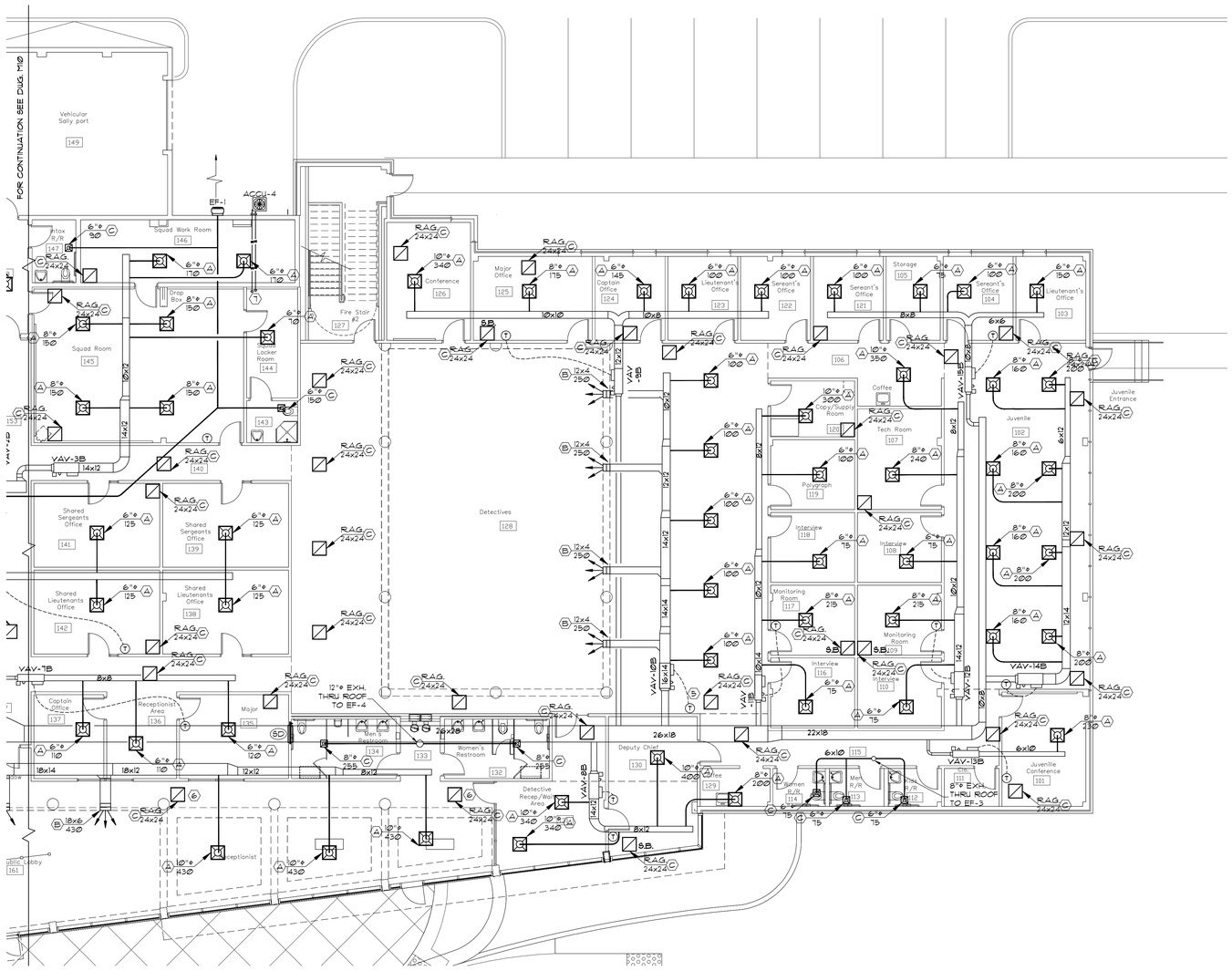

1 1ST FLOOR HVAC PLAN

1/8" = 1'-0"

GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL AND PLUMBING DRAWINGS FOR THIS PROJECT.

SPECIFIC NOTES ARE ENCLOSED WITH HEXAGON (*) ON DRAWING M10

SCOPE:

PROVIDE ALL MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO INSTALL AND MAKE READY FOR OWNER'S USE A COMPLETE SYSTEM OF HEATING, VENTILATION, AND AIR CONDITIONING FOR THE PROPOSED BUILDING AS SHOWN ON THE DRAWINGS AND CALLED FOR IN THESE SPECIFICATIONS.

VISIT THE SITE TO OBTAIN DIMENSIONS, EXISTING EQUIPMENT LAYOUTS AND LOCATIONS AND EXISTING CONSTRUCTION DETAILS NOT SHOWN ON THESE DRAWINGS.

BIDDERS RESPONSIBILITY:

EXAMINE THE DRAWINGS AND SPECIFICATIONS AND VISIT THE WORK SITE, BECOME FAMILIAR WITH THE CHARACTER OF THE WORK, THE COORDINATION WITH OTHER TRADES REQUIRED, AND ANY OTHER CONDITIONS THAT AFFECT THE COMPLETION OF THIS WORK.

PERMITS, CODES AND LAWS:

APPLY FOR ALL PERMITS AND PAY ALL FEES.

ALL WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING RULES AND REGULATIONS:

LATEST EDITIONS OF THE LOCAL, STATE, AND FEDERAL CODES.
UNDERWRITER'S LABORATORIES, INC.
NATIONAL FIRE PROTECTION ASSOCIATION
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

WHERE ANY OF THE ABOVE ARE AT VARIANCE WITH THE DRAWINGS AND SPECIFICATIONS, THEIR REQUIREMENTS SHALL TAKE PRECEDENCE AND ANY COST NECESSARY TO MEET THESE, SHALL BE INCLUDED IN THE BID PRICE.

MECHANICAL PLANS:

THE MECHANICAL PLANS ARE DIAGRAMMATIC AND BASED ON ONE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT. VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO BE USED.

INSTALLATION SHALL BE WITHIN THE LIMITATIONS IMPOSED BY THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND PLUMBING REQUIREMENTS WITH ADEQUATE SPACE FOR MAINTENANCE.

QUESTIONS AND CLARIFICATIONS OF BID DOCUMENTS:

BIDDERS SHALL NOT RELY ON ANY VERBAL CLARIFICATION OF THE DRAWINGS OR SPECIFICATIONS. ANY QUESTIONS OR CLARIFICATIONS SHALL BE REFERRED TO THE ENGINEER.

GUARANTEES:

ALL EQUIPMENT, MATERIALS, AND WORKMANSHIP SHALL BE GUARANTEED IN WRITING FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. SPECIAL WARRANTIES MAY BE CALLED FOR UNDER OTHER SECTIONS. WARRANTIES SHALL BE IN WRITING AND SHALL INCLUDE WRITTEN COPIES OF FACTORY WARRANTIES WITH EXPIRATION DATES ON ITEMS OF EQUIPMENT WHERE THE WARRANTY DATE MIGHT DIFFER FROM THE FINAL ACCEPTANCE DATE. WARRANTY CERTIFICATE SHALL CONTAIN THE MODEL NO., SERIAL NO., AND OWNER'S NAME. THERE SHALL BE A CERTIFICATE FOR EACH PIECE OF EQUIPMENT. ALL AIR CONDITIONING COMPRESSORS REQUIRE A FIVE-YEAR PARTS AND LABOR WARRANTY.

COMPLETE SYSTEM:

ALL PRODUCTS, MATERIALS AND ACCESSORIES SHALL BE FURNISHED AND INSTALLED AS REQUIRED FOR A COMPLETE SYSTEM READY FOR OWNER'S BENEFICIAL USE.

WORKMANSHIP:

ALL WORK SHALL BE PERFORMED BY COMPETENT MECHANICS USING PROPER TOOLS AND EQUIPMENT TO PRODUCE FIRST QUALITY WORK. ALL WORK SHALL BE NEATLY INSTALLED, ACCESSIBLE FOR MAINTENANCE, AND COMPLETE WITH ALL ACCESSORIES REQUIRED.

ACCESSIBILITY:

ALL EQUIPMENT SHALL BE INSTALLED SO THAT ALL COMPONENTS REQUIRING ACCESS (SUCH AS, DRAIN PANS, DRAINS, FIRE DAMPER, CONTROL DAMPERS, CONTROL OPERATORS, MOTORS AND DRIVES, ETC.) ARE SO LOCATED AND INSTALLED THAT THEY MAY BE SERVICED, RESET, REPLACED OR RECALIBRATED, ETC. BY SERVICE PEOPLE WITH NORMAL SERVICE TOOLS AND EQUIPMENT. IF ANY EQUIPMENT OR COMPONENTS ARE SHOWN IN SUCH A POSITION THAT THIS CONTRACTOR CANNOT COMPLY WITH THE ABOVE, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IN WRITING AND A DECISION REQUESTED.

WORK BY OTHER TRADES:

FURNISH ALL SLEEVE FRAMES INCLUDING FRAMING BETWEEN JOIST (UNLESS SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS) ACCESS DOORS, PREFABRICATED CURBS, ROOF FLASHING, COUNTER FLASHING, AND OTHER ACCESSORIES NECESSARY FOR A COMPLETE INSTALLATION.

INSTALL ALL MOTORS AND FURNISH THE STARTING EQUIPMENT TO DIVISION 16000 FOR INSTALLATION. CONTROL WIRING, INCLUDING CONDUIT, SWITCHES, THERMOSTATS, INTERLOCKS, ETC. SHALL BE FURNISHED BY DIVISION 15000 UNLESS SPECIFICALLY SHOWN ON THE ELECTRICAL DRAWINGS. SEE THAT THE ELECTRICAL EQUIPMENT MOUNTED ON THE MECHANICAL EQUIPMENT DOES NOT BLOCK ACCESS TO SERVICE AREAS OF THE MECHANICAL EQUIPMENT (SUCH AS DISCONNECT SWITCHES MOUNTED ON THE EQUIPMENT.) DOOR GRILLES SHALL BE FURNISHED BY DIVISION 15 CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR.

FOUNDATIONS AND SPECIAL SUPPORTS:

FURNISH AND INSTALL ALL SPECIAL FOUNDATIONS AND SUPPORTS REQUIRED FOR EQUIPMENT INSTALLED UNDER THIS SECTION, UNLESS THEY ARE A PART OF THE BUILDING STRUCTURE AND ARE SHOWN IN OTHER SECTIONS.

NOISE AND VIBRATION:

INSTALL VIBRATION ISOLATORS, FLEXIBLE CONNECTORS, EXPANSION JOINTS, AND OTHER SAFETY MEASURES TO PREVENT NOISE AND VIBRATION BEING TRANSMITTED TO OCCUPIED AREAS.

EQUIPMENT SHALL BE SELECTED TO OPERATE WITHIN THE NOISE LEVEL RECOMMENDED FOR THE PARTICULAR TYPE INSTALLATION RELATIVE TO ITS LOCATION.

AFTER INSTALLATION, MAKE PROPER ADJUSTMENTS TO ELIMINATE EXCESSIVE NOISE AND VIBRATION.

CLEANING AND PAINTING:

THOROUGHLY CLEAN ALL EQUIPMENT AND REMOVE ALL TRASH, CARTONS, ETC. MAKE ANY NECESSARY CORRECTIONS OR REPAIR/REPLACE ANY DAMAGED MATERIALS OR EQUIPMENT. LEAVE THE ENTIRE SYSTEM IN A THOROUGHLY CLEAN AND ORDERLY MANNER.

ANY FINISHED SURFACES THAT HAVE BEEN SCRATCHED OR DISCOLORED SHALL BE TOUCHED-UP OR REPAINTED BREAK TO BREAK WITH PAINT TO MATCH THE ORIGINAL COLOR.

ALL METAL ITEMS SUBJECT TO RUSTING, INSIDE OR EXPOSED TO WEATHER SHALL BE GIVEN ONE COAT OF PROPER TYPE RUST PREVENTATIVE PRIMER AS SOON AS INSTALLED. IF FINAL PAINT FINISH IS NOT SPECIFIED IN OTHER SECTION, THEN THIS CONTRACTOR SHALL APPLY TWO FINISH COATS WITH COLOR TO BE SELECTED BY THE ENGINEER.

AS-BUILT DRAWINGS:

MAINTAIN DAILY UPDATED DRAWINGS SHOWING DEVIATIONS FROM CONTRACT DOCUMENTS. AT THE END OF THE PROJECT, PROFESSIONALLY PREPARE AS-BUILT DRAWINGS AND SUBMIT THREE COPIES AND ONE REPRODUCIBLE.

IN GENERAL, PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED. CONTRACTOR SHALL DETERMINE BEST DUCT AND PIPE RUNS, EQUIPMENT LOCATIONS, ETC.

ROUTE ALL PIPING AND DUCTWORK, ETC., AS REQUIRED TO FIT AROUND THE STRUCTURE, SUCH AS BEAMS, JOISTS, COLUMNS, ETC. DO NOT ROUTE PIPING THROUGH THE STRUCTURE.

COORDINATE EXACT LOCATIONS AND PLACEMENT, AND ADJUST AS REQUIRED, OF ALL DRAINS, CLEANOUTS, PIPING, DUCTWORK, EQUIPMENT, ETC., WITH THE ARCHITECT PRIOR TO ROUGH-IN. PROVIDE CLEANOUTS PER 2006 U.P.C

SEE THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ROOF AND WALL PENETRATIONS. COORDINATE THE EXACT SIZE AND LOCATION WITH THE OTHER TRADES.

PROVIDE SMOKE DETECTORS AS REQUIRED BY NFPA 90A FOR ALL AHU'S COORDINATE EXACT SMOKE DETECTOR LOCATIONS WITH THE OTHER DIVISIONS OF THE WORK.

UPON COMPLETION OF THE INSTALLATION, BUT NOT BEFORE ACCEPTANCE, THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, PIPING, DUCTWORK, INSULATION JACKETS, ETC., REMOVING ALL STICKERS, LABELS MARKING, URITING, FABRICATION MARKINGS, IDENTIFICATION, ADHESIVE, SEALER, GLUE, RUST, CORROSION, ETC., FROM THEIR EXTERIOR SURFACES.

TOUCH UP PAINTED SURFACES OR REPAINT THE ENTIRE PAINTED SURFACE IF TOUCH UP IS UNACCEPTABLE. SEE ARCHITECTURAL PAINTING SPECIFICATIONS.

THE CLEANLINESS AND PAINTING ACCEPTABILITY IS AT THE SOLE DISCRETION OF THE ARCHITECT AND MAY REQUIRE ADDITIONAL CLEANING AND COATS OF PAINT BEFORE ANY SURFACE IS ACCEPTED.

INSTALL ALL DUCTWORK, DAMPERS, AND APPURTENANCES TO SMACNA AND ASHRAE STANDARDS.

FOR ROUND DUCT TAKE-OFFS AT RECTANGULAR DUCTWORK, USE SIDE TAKEOFF FITTINGS. FITTINGS SHALL HAVE SMACNA 45 DEGREE BRANCH TAKEOFF ENTRANCE, ALLOW MOUNTING TO RECTANGULAR DUCT THE SAME HEIGHT AS THE ROUND DUCT CONNECTION AND HAVE MOUNTING FLANGE. PROVIDE MANUAL DAMPERS WITH 2 INCH INSULATION BUILD OUT AND LOCKING QUADRANT FOR DIFFUSER TAKEOFFS. FLEXMASTER "STOCO" OR "STOCO" WITH MANUAL DAMPER WITH "BO3" INSULATION BUILD OUT AND LOCKING QUADRANT. DO NOT USE SPIN-INS.

AT ALL TURNS IN DIRECTION OF 45 DEGREES OR MORE FURNISH AND INSTALL TURNING VANES. TURNING VANES SHALL BE SINGLE THICKNESS TYPE INSTALLED PER SMACNA REQUIREMENTS.

AT ALL MAIN DUCT TAPS OR RUN-OUTS PROVIDE 45 DEGREE TAPS AS DETAILED BY SMACNA STANDARDS WITH A MANUAL DAMPER WITH 2 INCH INSULATION BUILD OUT AND LOCKING QUADRANT.

SEAL ALL INTERIOR DUCTWORK WITH HIGH PRESSURE DUCT SEALER, HARDCAST "IRON-GRIP 601". APPLY THE SEALER TO THE INTERIOR OF THE JOINTS, SEAMS, ETC. ONLY, AS THE DUCT IS ASSEMBLED OR USE FLANGE JOINTS.

WHERE SHOWN ON THE DRAWINGS, PROVIDE FLEXIBLE DUCT RUNOUTS FROM THE DIFFUSER ELBOW A MAXIMUM OF 6 FEET EXTENDED LENGTH WITH A MAXIMUM OF 120 DEGREES OF BENDS. FOR THE REST OF THE RUNOUT, USE GALVANIZED STEEL DUCT.

THE FLEXIBLE DUCT SHALL HAVE AN INNER DUCT OF ALUMINUM AND FIBERGLASS REINFORCED WITH METAL HELIX AND A FIRE RETARDANT OUTER JACKET OF REINFORCED ALUMINUM, AND 1 INCH THICK FIBERGLASS INSULATION.

ACOUSTICALLY AND THERMALLY WRAP ALL RECTANGULAR SUPPLY, O.A., AND RETURN DUCT AND PLENUMS WITH 1 1/2" THICK, 1 1/2 PCF FIBERGLASS DUCT WRAP, APPLIED PER THE MANUFACTURER'S AND NAIMA REQUIREMENTS.

ALL ROUND AND EXHAUST DUCT SHALL BE WRAPPED WITH 2" THICK 3/4 PCF FIBER GLASS WITH ALUMINUM SERVICE JACKET.

PROVIDE FIRE DAMPERS, WHETHER SHOWN OR NOT, AT ALL DUCT PENETRATIONS OF FIRE RATED PARTITIONS, WALLS, ETC.

ALL FIRE DAMPERS SHALL BE DYNAMIC CURTAIN TYPE. FIRE DAMPERS IN SUPPLY DUCTS SHALL BE TYPE "B" WITH THE DAMPER STORED OUT OF THE AIR STREAM. ALL OTHER APPLICATIONS SHALL BE TYPE "A", WITH THE DAMPER STORED IN THE AIR STREAM. PROVIDE INTEGRAL 12" SLEEVES FOR ALL FIRE DAMPERS, EXCEPT THOSE DIRECTLY BEHIND RA. GRILLES. PROVIDE SQUARE TO ROUND SLEEVES FOR ROUND DUCT FIRE WALL PENETRATIONS. ALL FIRE DAMPERS SHALL BE UL 555 RATED, LATEST EDITION, WITH 212° F. FUSIBLE LINKS. INSTALL ALL FIRE DAMPERS PER N.F.P.A. AND SMACNA STANDARDS. ALL FIRE DAMPERS SHALL BE GREENHECK MODEL "DFD150" OR EQUAL.

PROVIDE MANUAL BALANCING DAMPERS, GREENHECK MODELS "MDB10, MDB15, OR MDB" OR EQUAL, WITH LOCKING QUADRANT AND EXTENDED INSULATION STANDOFF.

PROVIDE ACCESS PANELS FOR ALL DUCT MOUNTED DAMPERS. ACCESS PANELS SHALL BE 18" X 18" OR LARGEST DUCT WILL ALLOW. INSTALL THE ACCESS PANEL, IF POSSIBLE, UP STREAM OF THE DAMPER AND READILY ACCESSIBLE THROUGH THE CEILING. ACCESS PANELS SHALL BE DOUBLE WALL INSULATED, HINGED WITH TWO (2) CAM LOCKS, GREENHECK MODEL "HAD10", OR EQUAL.

RUN ALL PIPE SQUARE TO BUILDING LINES WHEREVER POSSIBLE. FIELD ROUTE PIPING IN ORDER TO PROVIDE FOR EASE OF ACCESS TO VALVES AND OTHER APPURTENANCES.

PROVIDE TYPE L, DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS AND SILVER SOLDER JOINTS FOR CONDENSATE DRAIN PIPING. COPPER TUBING SHALL BE CLEANED AND SHINED BEFORE BRAZING.

PRIOR TO COMMENCING WORK ON THIS PROJECT, CONTRACTOR SHALL VERIFY LOCATION, PLUMBING INVERTS, SIZE AND CONDITION OF EXISTING UTILITIES. SHOULD CONDITIONS EXIST OTHER THAN THOSE INDICATED WHICH COULD ALTER THE DESIGN INDICATED, CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY FOR RESOLUTION BEFORE PROCEEDING.

CONTRACTOR SHALL OBTAIN ALL PERMITS AND APPROVALS FROM CITY, STATE, AND HEALTH DEPTS. PERFORM THE WORK IN COMPLIANCE WITH SAME.

UNDER NO CIRCUMSTANCES SHALL PIPING BE INSTALLED UNDER THE FOUNDATION FOOTING AT ANY DEPTH. ROUTE ALL PIPING A MINIMUM OF 12 INCHES HORIZONTALLY AROUND THE FOUNDATION FOOTPRINT. PROVIDE ALL NECESSARY COORDINATION, LABOR, AND MATERIALS WITH ALL OTHER TRADES, DIVISIONS OF THE WORK, AND PROJECT SCHEDULING.

SLOPE ALL WASTE AND RAIN LEADER LINES 4" IN DIAMETER OR GREATER A MIN. OF 1/8" PER FOOT. ALL OTHER WASTE AND DRAIN SHALL BE SLOPED A MIN. OF 1/4" PER FOOT.

PROVIDE "SWING JOINTS", EXPANDABLE OR FLEXIBLE CONNECTIONS, ETC. WHERE ANY PIPING ENTERS OR LEAVES THE BUILDING. THESE CONNECTIONS SHALL ALLOW BUILDING, MOVEMENT, AND/OR GROUND SUBSIDENCE. USE COMMERCIALLY AVAILABLE "CONNECTIONS" OR FABRICATE THEM USING GOOD CONSTRUCTION PRACTICES. SUBMIT SHOP DRAWINGS FOR REVIEW.

SUPPORT ALL PIPING BELOW THE BUILDING, SIDEWALKS, ETC WITH 3/8 INCH 316 STAINLESS STEEL RODS EMBEDDED IN THE CONCRETE ABOVE AND WIRED TO THE STEEL REINFORCING. TWIST THE RODS AROUND THE PIPING WITH THREE COMPLETE TURNS AROUND THE VERTICAL ROD. PROVIDE 1 FOOT LONG SCHEDULE 40 PVC SADDLES FOR ALL COPPER AND PVC UNDERGROUND PIPING. THE SADDLES SHALL BE THE SAME DIAMETER AS THE PIPE. PROVIDE SUPPORTS AT EACH CHANGE OF DIRECTION, ALL SIDES OF A FITTING, AND 4 EE ON CENTER.

CONCEAL ALL PIPING UNLESS SPECIFICALLY SHOWN OTHERWISE.

SET TOP OF HUB DRAINS 2" ABOVE THE TOP OF CONCRETE SLAB.

COLD WATER PIPING OUTSIDE OF BUILDING ABOVE 2" SHALL BE TYPE "K" COPPER WITH WROUGHT COPPER FITTINGS. SOLDER JOINTS WITH AT LEAST 6% SILVER BEARING SOLDER. COLD WATER PIPING 2" AND BELOW THAT IS UNDERGROUND IS TO BE SOFT TEMPER TYPE K WITH NO JOINTS.

HOT AND COLD WATER PIPING INSIDE OF BUILDING SHALL BE TYPE "L" COPPER WITH APPROVED CAST BRASS OR WROUGHT COPPER SOLDER JOINT FITTINGS. SOLDER USED ON ALL WATER PIPE ABOVE 2" SHALL BE AT LEAST 6% SILVER BEARING SOLDER.

SOIL, WASTE, AND VENT PIPE SHALL BE TYPE DWV CAST IRON PIPE WITH APPROVED NO HUB FITTINGS.

UNLESS PROVIDED UNDER ANOTHER DIVISION OF THE WORK, FIRE STOP ALL PIPING AND DUCTWORK PENETRATIONS IN ALL RATED WALLS, FLOORS, CEILINGS, ETC. IN ACCORDANCE WITH N.F.P.A., AND ALL LOCAL, STATE, AND NATIONAL CODES.

TEST THE ENTIRE SEWER SYSTEM BEFORE ANY BACK FILLING UNDER A 10 FOOT WATER COLUMN FOR 12 HOURS MINIMUM. SIMILARLY TEST ABOVE GROUND SEWER PIPING AS LARGE SECTIONS ARE INSTALLED.

HYDROSTATICALLY PRESSURE TEST ALL WATER PIPING BEFORE COVERING UP, FOR A PERIOD OF NOT LESS THAN 6 HOURS. MAINTAIN TEST PRESSURE DURING CONCRETE POUR.

EDA Project 9173

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Revisions:

ST. TAMMANY PARISH SHERIFF'S OFFICE

BROWNSWITCH ROAD
SLIDELL, LOUISIANA

CONSTRUCTION DOCUMENTS

HVAC PLAN
1ST FLOOR

Sheet Number:
M-1.1