



BOONE COUNTY, MISSOURI

Request for Bid #: 35-18JUL19 – Construction of Boone County Support Services Building

ADDENDUM #3 - Issued July 15, 2019

This addendum is issued in accordance with the Request for Bid and is hereby incorporated into and made a part of the Request for Bid Documents. Offerors are reminded that receipt of this addendum should be acknowledged and submitted with Offeror's Bid Response.

Specifications for the above noted Request for Bid and the work covered thereby are herein modified as follows, and except as set forth herein, otherwise remain unchanged and in full force and effect.

Questions:

1. Question: The walls shown to receive the MDO are taller than the specified 8'. Do you want the additional panels to abut, or do you want to add an aluminum T Molding horizontally? Please advise.

Answer: All plywood is to be installed with the vertical dimension of 8 feet. It is intended that all joints in plywood sheathing be covered with the tee molding. This means that any horizontal joints will also be covered. A continuous horizontal joint will be established at 8'-0" off of the finished floor and covered with the specified molding.

Architectural Specifications:

1. SECTION 06 4201 INTERIOR WOOD PANELS
 - 2.01 INTERIOR BOARD SIDING-MDO Plywood has been eliminated. Eliminate the references in item A and B in this section and replace with the following:
 - 2.01 INTERIOR BOARD SIDING**
 - A. Plywood Sheathing: PS 1 veneer plywood; APA Rated Sheathing, 4' x 8' sheets; 5/8" thickness; Interior grade; 1 A interior veneer appearance grade; sanded.
 - B. See Section 06 1500 Wood Decking for specification of Fire-Retardant Treatment and fastening requirements.

2. SECTION 13 3419 METAL BUILDING SYSTEMS

2.01 APPROVED EQUALS PER SUBSTITUTION REQUESTS

- Nucor
- Mesco
- Pinnacle Structures

MEP Specifications:

1. Ref. Drawing E2.3 – Fire Alarm Specifications, Part 2, Section 2.02 – 4., 5., 6., 8., 9 – Eliminate the requirement for Evacuation Alarm, Voice Notification, General Evac. Zones, and Fire Command Center. Provide the devices as indicated on the drawings with a FACP with a dialer as indicated.
2. Ref. Drawing FA1.1 Part 2, 2.01, A., 1. 1 –Novec 1230 shall be utilized as the extinguishing agent.
3. Ref Drawing FA1.1 Part 2, Section 2.01 – SEVO Systems, Inc. and Kidde-Fenwal, Inc. shall be added as approved manufacturers.
4. Ref. Drawing FA1.1, Part 2, Section 2.07 – The detector manufacturer shall be the same as the suppression system manufacturer.
5. The Acuity lighting package with Lithonia lights and N-Light controls is approved as an alternate supplier for the light fixtures and lighting controls.
6. York Affinity Series heat pump units Model ZYV paired with York Model YP9C gas furnaces, and York S1-THXU280W communicating touchscreen thermostats are approved as an equal to the specified Carrier split systems.
7. See the attached General Mechanical, Electrical and Plumbing Specifications (Pages 1-8) attached to be included for the project.

Drawings:

1. Drawing A601: The flooring type on the Room Finish Schedule for Room 102 Tech Office Evac Dispatch should be changed to be listed as carpet tile as indicated in the specifications.
2. Drawing ME1: See attached revised drawing ME1 for clarifications on fiber routing. The Lengths assumed for fiber routing from the external boxes to the East side of the building depicted on the drawings are as follows: 200 feet from the external pull box labeled on drawings to the Secure Server Data Room and 75 feet from the external pull box labeled on the drawings to the Radio Room. Should there remain excess fiber following these quantities then excess fiber will be left in the form of a service loop.
3. Drawing M4.1: Furnaces F-2, F-3, and F-4 are utilized in a downflow configuration.

By: Melinda B. Bobbitt
Melinda Bobbitt, CPPO, CPPB
Director of Purchasing

OFFEROR has examined **Addendum #3** to Request for Proposal# **35-18JUL19 – Construction of Boone County Support Services Building** receipt of which is hereby acknowledged:

Company Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

E-mail: _____

Authorized Representative Signature: _____ Date: _____

Authorized Representative Printed Name: _____

GENERAL MECHANICAL, ELECTRICAL, AND PLUMBING SPECIFICATIONS

DIVISION 22 & 23

SECTION 220000 & 230000: GENERAL MECHANICAL REQUIREMENTS

PART I - GENERAL:

1. THE GENERAL CONDITIONS OF THE CONTRACTS, CURRENT EDITION PUBLISHED IN STANDARD FORM BY AMERICAN INSTITUTE OF ARCHITECTS, SHALL BE PART OF THIS CONTRACT.
2. THE ARTICLES CONTAINED IN THIS DIVISION AND THE ARCHITECTURAL SPECIFICATIONS MAY AMEND, MODIFY, SUPERSEDE, VOID OR SUPPLEMENT THE ARTICLES OF THE GENERAL CONDITIONS NOTED IN PARAGRAPH (1) ABOVE, AND SHALL TAKE PRECEDENCE OVER THE PROVISIONS OF THE GENERAL CONDITIONS IN (1).
3. REFER TO THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS WHICH ARE HEREBY MADE PART OF THE CONTRACT.
4. PROVIDE ALL WORK AND MATERIALS AS REQUIRED HEREIN AND ON THE DRAWINGS IN FULL ACCORDANCE WITH NATIONAL, STATE, AND LOCAL CODES, ORDINANCES AND/OR REGULATIONS HAVING JURISDICTION OVER THIS WORK.
5. THE CONTRACTOR SHALL TAKE OUT ALL NECESSARY PERMITS, LICENSES AND CERTIFICATES AND PAY ALL FEES CONNECTED THEREWITH.
6. CONTRACTOR SHALL INCLUDE ALL TAP FEES AND OTHER UTILITY INSTALLATION COSTS REQUIRED TO BRING UTILITIES TO THE BUILDING
7. BIDDERS SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH ALL CONDITIONS SURROUNDING THE WORK SO THAT ANY DISCREPANCIES BETWEEN THE PLANS AND THE SITE ARE INCLUDED IN THE BID.
8. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW APPROXIMATE LOCATIONS UNLESS SPECIFICALLY DIMENSIONED. COORDINATE ALL PIPING RUNS WITH THE WORK OF OTHER CONTRACTORS.
9. ALL WORK SHALL BE COORDINATED WITH WORK OF OTHER TRADES PRIOR TO INSTALLATION TO AVOID INTERFERENCES. SUBMISSION OF SHOP DRAWINGS WITH THE COMMENCEMENT OF THE INSTALLATION WORK IMPLIES THAT THIS SATISFACTORY COORDINATION HAS TAKEN PLACE. THEREAFTER, ANY COSTS FOR MODIFICATION DUE TO INTERFERENCES SHALL BE BORNE BY THE CONTRACTOR.
10. SUBMIT SHOP DRAWINGS FOR SUCH EQUIPMENT AND MATERIAL AS THE ENGINEER MAY REQUIRE FOR HIS REVIEW. ENGINEER'S REVIEW MUST TAKE PLACE BEFORE CONSTRUCTION BEGINS.
11. CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTIONS IN WRITING TO THE ENGINEER.
12. "RECORD" DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR IF INSTALLATION DEVIATES FROM THE ORIGINAL LAYOUT.
13. THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR A PERIOD OF (1) YEAR AFTER THE FINAL ACCEPTANCE BY THE ARCHITECT, AND HE SHALL REPLACE AT HIS OWN COST ANY DEFECTIVE MATERIALS, EQUIPMENT OR WORKMANSHIP WHICH SHALL PROVE TO BE DEFECTIVE WITHIN THE GUARANTEED PERIOD.
14. THE CONTRACTOR SHALL MAINTAIN A CAREFUL AND COMPLETE RECORD OF ALL ITEMS INSTALLED INCLUDING EXACT SIZES AND LOCATIONS AND UPON COMPLETION OF HIS WORK TURN OVER TO THE OWNER, A COMPLETE SET OF "AS-BUILT" REPRODUCIBLE DRAWINGS OF HIS WORK.
15. THIS CONTRACTOR SHALL DO ALL CUTTING AND PATCHING REQUIRED TO INSTALL ANY PORTION OF THIS WORK. PATCH WITH NEW MATERIALS OF THE SAME TYPE THAT WAS REMOVED. REFINISH PATCHED SURFACE TO MATCH EXISTING ADJACENT SURFACES.
16. THE ENTIRE INSTALLATION SHALL BE PERFORMED BY LICENSED CONTRACTORS.

17. VERIFY FINAL LOCATIONS FOR ROUGH-INS WITH FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED.
18. REFER TO EQUIPMENT SPECIFICATIONS FOR ROUGH-IN REQUIREMENTS.
19. COORDINATE MECHANICAL SYSTEMS, EQUIPMENT, AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS.
20. VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS.
21. ARRANGE FOR CHASES, SLOTS, AND OPENINGS IN OTHER BUILDING COMPONENTS DURING PROGRESS OF CONSTRUCTION, TO ALLOW FOR MECHANICAL INSTALLATIONS.
22. COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SLEEVES TO BE SET IN POURED-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED.
23. SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATIONS OF MECHANICAL MATERIALS AND EQUIPMENT FOR EFFICIENT FLOW OF THE WORK. GIVE PARTICULAR ATTENTION TO LARGE EQUIPMENT REQUIRING POSITIONING PRIOR TO CLOSING IN THE BUILDING.

PART II - MATERIALS - NOT APPLICABLE:

PART III - EXECUTION:

1. WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.
2. INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, WHERE INSTALLED EXPOSED IN FINISHED SPACES.
3. INSTALL MECHANICAL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS. EXTEND GREASE FITTINGS TO AN ACCESSIBLE LOCATION.
4. INSTALL ACCESS PANEL OR DOORS WHERE UNITS ARE CONCEALED BEHIND FINISHED SURFACES.
5. INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT GIVING RIGHT-OF-WAY PRIORITY TO SYSTEMS REQUIRED TO BE INSTALLED AT A SPECIFIED SLOPE.
6. AT THE COMPLETION OF THE WORK, THIS CONTRACTOR SHALL REMOVE ALL RUBBISH, DIRT AND STAINS CAUSED BY HIS WORK AND SHALL THOROUGHLY CLEAN ALL EQUIPMENT, FIXTURES, PIPING, ETC.
7. TOUCH UP OR REFINISH THE FACTORY FINISH OR EQUIPMENT MARRED DURING SHIPMENT OR INSTALLATION.

SECTION 220100: PLUMBING

PART I - GENERAL:

1. UNLESS NOTED OTHERWISE, THIS CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT FOR THE INSTALLATION OF A COMPLETE OPERATING PLUMBING SYSTEM INCLUDING: HOT AND COLD WATER SYSTEMS, CONNECTION TO SANITARY SEWER SYSTEMS, PLUMBING FIXTURES, MISCELLANEOUS PLUMBING AND INSULATION.
2. THIS CONTRACTOR SHALL DO ALL CUTTING AND PATCHING REQUIRED TO INSTALL ANY PORTION OF THIS WORK. PATCH NEW MATERIALS OF THE SAME TYPE THAT WAS REMOVED. REFINISH PATCHED SURFACE TO MATCH EXISTING ADJACENT SURFACES.
3. ALL EXISTING WASTE, VENT, AND WATER PIPING IN WALLS TO BE DEMOLISHED, AS SHOWN ON PLUMBING PLANS, SHALL BE REMOVED WHETHER OR NOT SPECIFICALLY SHOWN. PIPING SHALL BE REMOVED BACK TO THE NEAREST REMAINING MAIN OR VALVE AND CAPPED, UNLESS OTHERWISE NOTED ON DRAWINGS. WHERE PIPES TO BE REMOVED PENETRATE FLOORS, WALLS OR OTHER FINISHED SURFACES, THEY SHALL BE REMOVED PAST THE FINISHED SURFACES TO ALLOW FOR PATCHING THE SURFACE ON BOTH SIDES (IF APPLICABLE).

PART II - MATERIALS:

1. UNDERGROUND SANITARY SEWER AND STORM DRAIN PIPING: PVC PLASTIC DWV PIPE, PVC SOCKET-TYPE DRAIN, WASTE AND VENT PIPE PATTERN FITTINGS WITH SOLVENT-CEMENTED JOINTS.
2. ABOVE GROUND SANITARY SEWER, STORM DRAIN AND VENT PIPING: PVC PLASTIC DWV PIPE, PVC SOCKET-TYPE DRAIN, WASTE AND VENT PIPE PATTERN FITTINGS WITH SOLVENT-CEMENTED JOINTS. INSULATE STORM DRAIN WITH $\frac{1}{2}$ " CELLULAR FOAM INSULATION.
3. UNDERGROUND WATER PIPING $2\frac{1}{2}$ " AND LARGER: SCHEDULE 40 PVC PLASTIC WATER PIPE AND FITTINGS WITH SOLVENT CEMENTED JOINTS.
4. UNDERGROUND WATER PIPING 2" AND SMALLER: TYPE "K" SOFT COPPER TUBE, CAST-COPPER ALLOY SOLDER-JOINT PRESSURE FITTINGS AND SOLDERED JOINTS WITH ALLOY Sn95 SOLDER.
5. ABOVE GROUND WATER PIPING $2\frac{1}{2}$ " AND LARGER: FLANGED DUCTILE-IRON PIPE, FLANGED DUCTILE-IRON OR GRAY-IRON FITTINGS AND FLANGED JOINTS.
6. ABOVE GROUND WATER PIPING, 2" AND SMALLER: TYPE "L" HARD COPPER TUBE WITH WROUGHT COPPER OR CAST-COPPER FITTINGS AND SOLDERED JOINTS WITH ALLOY Sn95 SOLDER.
7. GAS PIPING: ASTM A53, TYPE E, ELECTRIC-RESISTANCE WELDED OR TYPE S, SEAMLESS, GRADE B, SCHEDULE 40 BLACK STEEL. ASME B16.3 CLASS 150 MALLEABLE IRON FITTINGS, STANDARD PATTERN WITH THREADS CONFORMING TO ASME B1.20.1
8. INSULATE DOMESTIC HOT AND COLD WATER PIPING WITH 1" FIBERGLASS WITH ALL-PURPOSE JACKET; SEAL ALL JOINTS. INSULATE FITTINGS WITH MITERED SEGMENTS AND VAPOR SEALS. INSULATE HOT AND COLD WATER AND DRAINAGE PIPES ON PLUMBING FIXTURES DESIGNATED AT HANDICAPPED WITH PRE-FORMED INSULATION KITS AS INDICATED.
9. PLUMBING FIXTURES: REFER TO PLUMBING FIXTURE SCHEDULE ON DRAWINGS FOR LIST OF PLUMBING FIXTURES.
10. MEDICAL GAS AND REFRIGERANT PIPING: ASTM B88, "ACR" HARD-DRAWN TEMPERED COPPER TUBE, CLEANED FOR MEDICAL GAS USE, PURGED, AND WITH ENDS SEALED. ASME B16.22, WROUGHT-COPPER FITTINGS WITH BRAZED SOLDER-JOINTS. AWS A5.8 COPPER-PHOSPHORUS BRAZING FILLER MATERIALS. INSULATE REFRIGERANT SUCTION LINE WITH $\frac{1}{2}$ " THICK CELLULAR FOAM INSULATION.
11. SPRINKLER PIPING: ASTM A120 SEAMLESS BLACK STEEL PIPE. ANSI B16.4, CLASS 125 THREADED CAST-IRON FITTINGS. PIPING AND INSTALLATION TO COMFORM WITH REQUIREMENTS OF NFPA13.

PART III - EXECUTION:

1. TEST ALL PLUMBING PIPES AS REQUIRED BY STATE, CITY OF LOCAL CODES AND ORDINANCES.
2. DISINFECT THE ENTIRE WATER SUPPLY SYSTEM, FILLING WITH A SOLUTION OF 50 PPM CHLORINE AND ALLOW TO STAND FOR A MINIMUM OF 6 HOURS BEFORE FLUSHING AND RETURNING TO SERVICE.

SECTION 230100: HVAC EQUIPMENT AND SYSTEMS

PART I - GENERAL:

1. UNLESS NOTED OTHERWISE, THIS CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT FOR THE INSTALLATION OF A COMPLETE AND ACCEPTABLE OPERATING HEATING AND AIR CONDITIONING SYSTEM.
2. HVAC CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMISSION OF BID AND FULLY ACQUAINT HIMSELF WITH ALL OF THE EXISTING CONDITIONS RELATED TO HIS WORK AND SHALL INCLUDE (UNLESS NOTED OTHERWISE) IN HIS BASE BID ALL WORK REQUIRED DUE TO CONFLICTS AND/OR DISCREPANCIES BETWEEN THE DRAWINGS AND THE FIELD CONDITIONS TO ACHIEVE INTENDED DESIGN.
3. THIS CONTRACTOR SHALL DO ALL CUTTING AND PATCHING REQUIRED TO INSTALL ANY PORTION OF THIS WORK. PATCH NEW MATERIALS OF THE SAME TYPE THAT WAS REMOVED. REFINISH PATCHED SURFACE TO MATCH EXISTING ADJACENT SURFACES.
4. DUCTWORK SHOWN ON PLANS TO BE DEMOLISHED SHALL BE REMOVED AND DISPOSED OF. DUCTWORK SHALL BE REMOVED BACK TO MAIN TRUNK, UNLESS OTHERWISE NOTED ON DRAWINGS. DUCT TAPS TO TRUNK DUCTS SHALL BE CAPPED WITH SHEET METAL CAPS AND SEALED. WHERE DUCTS TO BE REMOVED PENETRATE FLOORS, WALLS OR OTHER FINISHED SURFACES, THEY SHALL BE REMOVED PAST THE FINISHED SURFACES TO ALLOW FOR PATCHING THE SURFACE ON BOTH SIDES (IF APPLICABLE).
5. PROVIDE THE FOLLOWING EQUIPMENT WITH WARRANTIES IN ADDITION TO THE GENERAL ONE-YEAR WARRANTY PROVIDED IN SECTION 220000 & 230000.

AIR CONDITIONING COMPRESSORS: 5 YEARS

HEAT EXCHANGERS: 25 YEARS

WATER HEATER TANKS: 10 YEARS

PART II - MATERIALS:

1. DUCTWORK: CONSTRUCT ALL DUCTS OF THE GAUGE SHEET METAL FOR INDICATED SIZES IN ACCORDANCE WITH APPROPRIATE SMACNA STANDARDS. EXTEND DUCTWORK SUBSTANTIALLY AS SHOWN ON THESE DRAWINGS. PROVIDE TURNING VANES IN ALL ELBOWS. INSTALL ADJUSTABLE QUADRANT DAMPERS IN ALL BRANCH DUCTS. SEAL ALL DUCTWORK IN ACCORDANCE WITH SMACNA STANDARDS. BETWEEN 1" AND 2" W.G. - SEAL CLASS "B" ; LESS THAN 1" - SEAL CLASS "C". FLEXIBLE DUCTS USED FOR RUN-OUTS TO DIFFUSER, WHERE INDICATED, SHALL NOT EXCEED 6'-0" IN LENGTH.
2. DUCTWORK INSULATION: SUPPLY, RETURN, OUTSIDE (FRESH) AND EXHAUST AIR DUCTWORK SHALL BE LINED WITH 2 PCF DENSITY, 1/2" GLASS FIBER FLEXIBLE DUCT LINER WITH BLACK MAT FACING, UNLESS OTHERWISE INDICATED. DUCT SIZES SHOWN ON THE DRAWINGS ARE SHEET METAL SIZES, AN ALLOWANCE HAS BEEN MADE FOR LINER THICKNESS.
3. PROVIDE AND INSTALL THE AIR OUTLET DEVICES INDICATED ON THE PLANS, DIFFUSER, REGISTER AND GRILLE COLOR TO MATCH THAT OF THE CEILING GRID. REFER TO DIFFUSER, REGISTER, AND GRILLE SCHEDULE AND PLANS FOR SIZES, MANUFACTURER, MODEL # AND CFM REQUIREMENTS.
4. FURNISH AND INSTALL EXHAUST FANS OF THE TYPE SCHEDULED AND WHERE INDICATED ON THE PLANS. REFER TO EXHAUST FAN SCHEDULE FOR SPECIFICATIONS.

PART III - EXECUTION:

1. WHEN THE WORK HAS BEEN COMPLETED, BALANCE THE AIR DELIVERIES FROM EACH DIFFUSER AND REGISTER IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE DIFFUSER MANUFACTURER, SETTING DAMPERS, CONTROLS AND/OR OTHER VOLUME CONTROL DEVICE IN SUCH A MANNER AS TO PRODUCE THE AIR VOLUME DELIVERIES SHOWN ON THE DRAWINGS.

SECTION 230200: CONTROLS

PART I - GENERAL:

1. ALL CONTROL AND INTERLOCK WIRING SHALL BE DONE BY HVAC CONTRACTOR. PROVIDE WIRING DIAGRAM AND SUBMIT TO ENGINEER FOR APPROVAL.

PART II - MATERIALS:

1. CONTRACTOR SHALL PROVIDE AND INSTALL ELECTRONIC, PROGRAMMABLE THERMOSTATS WHERE INDICATED ON THE PLANS.

2. WHERE INDICATED, PROVIDE SMOKE DETECTOR WIRED TO AUTOMATICALLY SHUT DOWN THE UNIT WHEN ACTIVATED. INSTALL THE RETURN AIR DUCT IN ACCORDANCE WITH LOCAL CODE.

PART III - EXECUTION:

1. CONTRACTOR SHALL SET PROGRAMMABLE THERMOSTATS TO OPERATE IN DAY HEATING AND COOLING AND NIGHT SETBACK MODES. CONTRACTOR SHALL VERIFY THAT FRESH BATTERIES ARE PROVIDED AND INSTALLED.

2. AFTER COMPLETION OF THE CONTROL SYSTEM INSTALLATION, THE CONTRACTOR SHALL REGULATE AND ADJUST ALL THERMOSTATS, DAMPER MOTORS, ETC. AND PLACE IN COMPLETE OPERATING CONDITION. COMPLETE OPERATING INSTRUCTIONS SHALL BE GIVEN TO THE OWNER'S REPRESENTATIVE. THESE INSTRUCTIONS SHALL TAKE PLACE AFTER ALL SYSTEMS HAVE BEEN CHECKED OUT AND ARE PROPERLY OPERATING.

DIVISION 26:

SECTION 260000: GENERAL ELECTRICAL REQUIREMENTS

PART I - GENERAL:

1. THE GENERAL CONDITIONS OF THE CONTRACTS, CURRENT EDITION PUBLISHED IN STANDARD FORM BY AMERICAN INSTITUTE OF ARCHITECTS, SHALL BE PART OF THIS CONTRACT.

2. THE ARTICLES CONTAINED IN THIS DIVISION AND THE ARCHITECTURAL SPECIFICATIONS MAY AMEND, MODIFY, SUPERSEDE, VOID OR SUPPLEMENT THE ARTICLES OF THE GENERAL CONDITIONS NOTED IN PARAGRAPH (1) ABOVE, AND SHALL TAKE PRECEDENCE OVER THE PROVISIONS OF THE GENERAL CONDITIONS IN (1).

3. REFER TO THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS WHICH ARE HEREBY MADE PART OF THE CONTRACT.

4. PROVIDE ALL WORK AND MATERIALS AS REQUIRED HEREIN AND ON THE DRAWINGS IN FULL ACCORDANCE WITH NATIONAL, STATE, AND LOCAL CODES, ORDINANCES AND/OR REGULATIONS HAVING JURISDICTION OVER THIS WORK.

5. THE CONTRACTOR SHALL TAKE OUT ALL NECESSARY PERMITS, LICENSES AND CERTIFICATES AND PAY ALL FEES CONNECTED THEREWITH.

6. CONTRACTOR SHALL INCLUDE ALL TAP FEES AND OTHER UTILITY INSTALLATION COSTS REQUIRED TO BRING UTILITIES TO THE BUILDING

7. BIDDERS SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH ALL CONDITIONS SURROUNDING THE WORK SO THAT ANY DISCREPANCIES BETWEEN THE PLANS AND THE SITE ARE INCLUDED IN THE BID.

8. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW APPROXIMATE LOCATIONS UNLESS SPECIFICALLY DIMENSIONED. COORDINATE ALL PIPING RUNS WITH THE WORK OF OTHER CONTRACTORS.

9. ALL WORK SHALL BE COORDINATED WITH WORK OF OTHER TRADES PRIOR TO INSTALLATION TO AVOID INTERFERENCES. SUBMISSION OF SHOP DRAWINGS WITH THE COMMENCEMENT OF THE INSTALLATION WORK IMPLIES THAT THIS SATISFACTORY COORDINATION HAS TAKEN PLACE. THEREAFTER, ANY COSTS FOR MODIFICATION DUE TO INTERFERENCES SHALL BE BORNE BY THE CONTRACTOR.
10. SUBMIT SHOP DRAWINGS FOR SUCH EQUIPMENT AND MATERIAL AS THE ENGINEER MAY REQUIRE FOR HIS REVIEW. ENGINEER'S REVIEW MUST TAKE PLACE BEFORE CONSTRUCTION BEGINS.
11. CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTIONS IN WRITING TO THE ENGINEER.
12. "RECORD" DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR IF INSTALLATION DEVIATES FROM THE ORIGINAL LAYOUT.
13. THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR A PERIOD OF (1) YEAR AFTER THE FINAL ACCEPTANCE BY THE ARCHITECT, AND HE SHALL REPLACE AT HIS OWN COST ANY DEFECTIVE MATERIALS, EQUIPMENT OR WORKMANSHIP WHICH SHALL PROVE TO BE DEFECTIVE WITHIN THE GUARANTEED PERIOD.
14. THE CONTRACTOR SHALL MAINTAIN A CAREFUL AND COMPLETE RECORD OF ALL ITEMS INSTALLED INCLUDING EXACT SIZES AND LOCATIONS AND UPON COMPLETION OF HIS WORK TURN OVER TO THE OWNER, A COMPLETE SET OF "AS-BUILT" REPRODUCIBLE DRAWINGS ON MYLAR OF HIS WORK.
14. THIS CONTRACTOR SHALL DO ALL CUTTING AND PATCHING REQUIRED TO INSTALL ANY PORTION OF THIS WORK. PATCH WITH NEW MATERIALS OF THE SAME TYPE THAT WAS REMOVED. REFINISH PATCHED SURFACE TO MATCH EXISTING ADJACENT SURFACES.
16. THE ENTIRE INSTALLATION SHALL BE PERFORMED BY LICENSED CONTRACTORS.
17. NO INTERRUPTION OF BUILDING FUNCTIONS OR ELECTRIC SERVICE SHALL BE PERMITTED WITHOUT APPROVAL OF THE OWNER.
18. ELECTRICAL WORK SHALL NOT INTERFERE WITH CLEARANCES REQUIRED FOR GENERAL AND MECHANICAL CONSTRUCTION. SHOULD ELECTRICAL WORK BE INSTALLED AND THAT WORK INTERFERES WITH THE WORK OF THE OTHER CONTRACTORS, SUCH WORK SHALL BE CHANGED AT NO ADDITIONAL COST TO THE OWNER.
19. VERIFY FINAL LOCATIONS FOR ROUGH-INS WITH FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED.
20. REFER TO EQUIPMENT SPECIFICATIONS FOR ROUGH-IN REQUIREMENTS.
21. COORDINATE ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS.
22. VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS.
23. ARRANGE FOR CHASES, SLOTS, AND OPENINGS IN OTHER BUILDING COMPONENTS DURING PROGRESS OF CONSTRUCTION, TO ALLOW FOR ELECTRICAL INSTALLATIONS.
24. COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SLEEVES TO BE SET IN POURED-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED.
25. SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATIONS OF ELECTRICAL MATERIALS AND EQUIPMENT FOR EFFICIENT FLOW OF THE WORK. GIVE PARTICULAR ATTENTION TO LARGE EQUIPMENT REQUIRING POSITIONING PRIOR TO CLOSING IN THE BUILDING.
26. WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.
27. COORDINATE CONNECTION OF ELECTRICAL SYSTEMS WITH EXTERIOR UNDERGROUND AND OVERHEAD UTILITIES AND SERVICES. COMPLY WITH REQUIREMENTS OF GOVERNING REGULATIONS, FRANCHISED SERVICE COMPANIES, AND CONTROLLING AGENCIES. PROVIDE REQUIRED CONNECTION FOR EACH SERVICE.
28. ALL EXISTING ELECTRICAL EQUIPMENT, DEVICES, WIRE AND/OR CONDUIT IN WALLS TO BE DEMOLISHED, AS SHOWN ON ARCHITECTURAL PLANS, SHALL BE REMOVED WHETHER OR NOT SPECIFICALLY SHOWN. CONDUIT AND WIRING SHALL BE REMOVED BACK TO THE NEAREST REMAINING JUNCTION BOX OR PANEL. KEEP EXISTING CIRCUITS IN OPERATION WHERE POSSIBLE.

PART II - MATERIALS - NOT APPLICABLE:

PART III - EXECUTION: 1. INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT TO CONFORM WITH APPROVED SUBMITTAL DATA, INCLUDING COORDINATION DRAWINGS, TO GREATEST EXTENT POSSIBLE. CONFORM TO ARRANGEMENTS INDICATED BY THE CONTRACT DOCUMENTS, RECOGNIZING THAT PORTIONS OF THE WORK ARE SHOWN ONLY IN DIAGRAMMATIC FORM. WHERE COORDINATION REQUIREMENTS CONFLICT WITH INDIVIDUAL SYSTEM REQUIREMENTS, REFER CONFLICT TO THE ARCHITECT.

2. INSTALL SYSTEMS, MATERIALS AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, WHERE INSTALLED EXPOSED IN FINISHED SPACES.

3. INSTALL ELECTRICAL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING AND MINIMUM INTERFERENCE WITH OTHER INSTALLATIONS.

4. INSTALL ACCESS PANEL OR DOORS WHERE UNITS ARE CONCEALED BEHIND FINISHED SURFACES.

5. INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT GIVING RIGHT-OF-WAY PRIORITY TO SYSTEMS REQUIRED TO BE INSTALLED AT A SPECIFIED SLOPE.

6. AT THE COMPLETION OF THE WORK, THIS CONTRACTOR SHALL REMOVE ALL RUBBISH, DIRT AND STAINS CAUSED BY HIS WORK AND SHALL THOROUGHLY CLEAN ALL EQUIPMENT, FIXTURES, PIPING, ETC.

7. TOUCH UP OR REFINISH THE FACTORY FINISH OR EQUIPMENT MARRED DURING SHIPMENT OR INSTALLATION.

SECTION 260100: ELECTRICAL EQUIPMENT AND MATERIALS

PART I - GENERAL - NOT APPLICABLE:

PART II - MATERIALS:

1. ALL ELECTRICAL EQUIPMENT SHALL BE SPECIFICATION GRADE AND UL APPROVED UNLESS SPECIFIED OTHERWISE.

2. WIRING DEVICES SHALL MEET NEMA PERFORMANCE STANDARDS WD-2 AND WD-6, ANSI AND UL 498 AND COMPLY WITH FEDERAL SPECIFICATION WC-596. MINIMUM SIZE OF OUTLET BOXES SHALL BE 4" TRADE.

3. ALL CONDUCTORS SHALL BE COPPER, 600-VOLT, THHN; #12 MINIMUM SIZE. ALUMINUM WIRE SHALL NOT BE PERMITTED.

4. CONDUIT AND TUBING:

RIGID STEEL CONDUIT: ANSI C80.1.

ELECTRICAL METALLIC TUBING AND FITTINGS: ANSI C80.3 WITH SET-SCREW OR COMPRESSION-TYPE FITTINGS.

FLEXIBLE METAL CONDUIT: ZINC-COATED STEEL.

LIQUIDTIGHT FLEXIBLE METAL CONDUIT: FLEXIBLE STEEL CONDUIT WITH PVC JACKET.

FITTINGS: NEMA FB 1, COMPATIBLE WITH CONDUIT/TUBING MATERIALS.

ELECTRICAL NONMETALLIC TUBING (ENT): NEMA TC 13.

RIGID NONMETALLIC CONDUIT (RNC): NEMA TC 2, SCHEDULE 40 PVC.

PVC CONDUIT AND TUBING FITTINGS: NEMA TC 3; MATCH TO CONDUIT OR CONDUIT/TUBING TYPE AND MATERIAL.

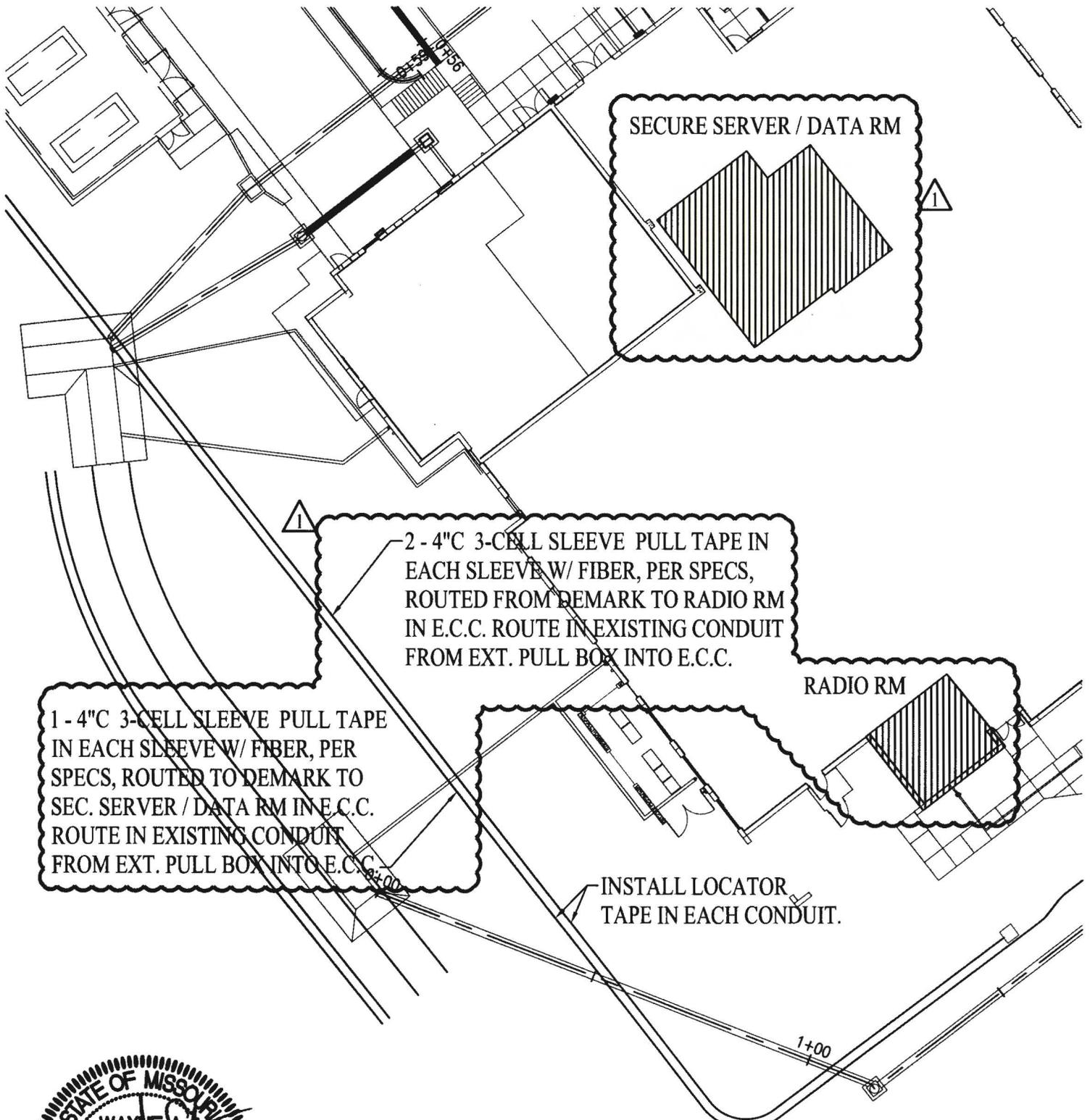
5. PANELBOARDS SHALL HAVE BUS RATING AND A.I.C. RATING GREATER THAN FAULT CURRENT VALUE AT POINT OF APPLICATION.

6. CIRCUIT BREAKERS USED FOR LIGHT SWITCHING SHALL BE UL LISTED "SWITCHING DUTY BREAKERS".

7. SWITCHES AND RECEPTACLES SHALL BE HUBBELL, LEVITON OR EAGLE WITH HUBBELL NUMBERS USED TO SPECIFY TYPES REQUIRED. SWITCHES SHALL BE IVORY COLOR, 20 AMP 120/277 VOLT A.C. RATED-SINGLE POLE SWITCHES SHALL BE #1221 AND 3-WAY SWITCHES SHALL BE #1223. RECEPTACLES SHALL BE IVORY COLOR 20 AMP GROUNDING TYPE #5362. WALL PLATES SHALL BE IVORY COLORED. (UNLESS OTHERWISE NOTED.)
8. FUSES SHALL BE BUSSMAN "LOW-PEAK" DUAL ELEMENT, CLASS RK1.
9. LIGHT FIXTURES: REFER TO LIGHT FIXTURE SCHEDULE FOR LIST OF LIGHT FIXTURES.

PART III - EXECUTION:

1. GROUNDING SHALL COMPLY WITH THE CODE AND REQUIREMENTS OF THE POWER COMPANY SERVING.
2. ALL ITEMS OF ELECTRICAL EQUIPMENT ASSOCIATED WITH THE CONTROL OF ELECTRICAL APPARATUS SHALL BE IDENTIFIED WITH ENGRAVED PHENOLIC NAMEPLATES.
3. AT THE COMPLETION OF THE WORK, THIS CONTRACTOR SHALL REMOVE ALL RUBBISH, DIRT AND STAINS CAUSED BY HIS WORK AND SHALL THOROUGHLY CLEAN ALL EQUIPMENT, FIXTURES, PIPING, ETC.
4. ALL 120V 20A LIGHTING AND RECEPTACLE CIRCUITS REQUIRING MORE THAN 100' OF CONDUCTORS (ONE-WAY) SHALL BE #10 CONDUCTORS.
5. ALL ELECTRICAL WIRING MUST BE RUN IN CONDUIT APPLIED AS FOLLOWS:
 - A. MINIMUM CONDUIT SIZE: 1/2"
 - B. UNDERGROUND: RIGID NON-METALLIC CONDUIT AND FITTINGS.
 - C. EXTERIOR AND INTERIOR WHERE EXPOSED TO DAMAGE: RIGID METALLIC CONDUIT AND FITTINGS.
 - D. INTERIOR EXCEPT AS OTHERWISE NOTED: ELECTRICAL METALLIC TUBING AND FITTINGS.
 - E. EXTERIOR CONNECTION TO VIBRATING EQUIPMENT: LIQUIDTIGHT FLEXIBLE METAL CONDUIT AND FITTINGS.
 - F. INTERIOR CONNECTION TO VIBRATING EQUIPMENT AND LIGHT FIXTURES: FLEXIBLE METAL CONDUIT AND FITTINGS.
6. NO CONDUITS ARE TO BE RUN IN OR SUPPORTED BY DUCTWORK. A PULL WIRE SHALL BE INSTALLED IN ALL EMPTY CONDUITS.
7. ALL CONDUITS THROUGH ROOF SHALL PENETRATE ROOF USING PROPER APPROVED ROOF FLASHING.
8. FLEXIBLE CONDUIT CAN ONLY BE USED FOR SHORT FINAL CONNECTIONS TO INTERIOR LIGHTING FIXTURES AND EQUIPMENT.
9. ALL ELECTRICAL EQUIPMENT AND CONDUIT EXPOSED TO WEATHER SHALL BE WEATHERPROOF.
10. PROVIDE TYPEWRITTEN INDEX CARDS FOR ALL PANELS.
11. PROVIDE ALL ELECTRICAL PANELS, DISCONNECT SWITCHES AND TIME CLOCKS WITH 1/2" LAMINATED PLASTIC NAMEPLATE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY BALANCING ALL BRANCH CIRCUITS AMONG THE PHASES OF THE SYSTEM.
13. TELEPHONE AND DATA OUTLETS SHALL INCLUDE SINGLE-GANG BOX WITH 3/4" EMPTY CONDUIT ROUTED TO ABOVE ACCESSIBLE CEILING. FACE PLATES, WIRING AND CONNECTIONS BY OTHERS
14. BEFORE COVERING OR CONCEALMENT, THE CONTRACTOR SHALL TEST HIS WIRING SYSTEMS AS REQUIRED BY APPLICABLE CODES OR REGULATIONS OR WHERE NONE SUCH EXIST, AS REQUIRED BY THE ARCHITECT.
15. INSTALL DEVICES AT THE FOLLOWING CENTER LINE HEIGHTS UNLESS OTHERWISE INDICATED:
RECEPTACLES - 18" A.F.F.
SWITCHES - 48" A.F.F.
WALL PHONES - 60" A.F.F.
PHONE/DATA - 18" A.F.F.
DEVICES ABOVE COUNTERTOPS - 6" ABOVE COUNTERTOP OR AS OTHERWISE INDICATED.



SECURE SERVER / DATA RM

2 - 4" C 3-CELL SLEEVE PULL TAPE IN EACH SLEEVE W/ FIBER, PER SPECS, ROUTED FROM DEMARK TO RADIO RM IN E.C.C. ROUTE IN EXISTING CONDUIT FROM EXT. PULL BOX INTO E.C.C.

1 - 4" C 3-CELL SLEEVE PULL TAPE IN EACH SLEEVE W/ FIBER, PER SPECS, ROUTED TO DEMARK TO SEC. SERVER / DATA RM IN E.C.C. ROUTE IN EXISTING CONDUIT FROM EXT. PULL BOX INTO E.C.C.

RADIO RM

INSTALL LOCATOR TAPE IN EACH CONDUIT.



EXPIRES 12-31-19



01 SITE PLAN

SCALE: 1"=30'-0"

MMEA
ENGINEERS

MID MO ENGINEERING ALLIANCE, INC.
200 SHILOH CREEK
JEFFERSON CITY, MISSOURI 65117
Phone: 650-889-8889

REV NO.  1

DATE/REASON:
7/11/19
ADDENDUM #1

**BOONE COUNTY, MISSOURI
SUPPORT SERVICES BUILDINGS**

ECC/BCSD CAMPUS
2145/2111 EAST COUNTY DRIVE

DATE ISSUED:
06-03-19

 **ME1-1**

PROJECT NO.
18003