



GENERAL NOTES:

- 1. THE SYSTEM DESIGN IS BASED ON THE LATEST EDITION OF THE OHIO MECHANICAL CODE INCLUDING ALL AMENDMENTS THROUGH THE DATE OF DRAWING ISSUE.
- 2. COORDINATE EXACT LOCATION OF GRILLES AND DUCTS WITH ARCHITECTURAL DRAWINGS.
- 3. THE EXISTING AND DEMOLITION DRAWINGS HAVE BEEN GENERATED BASED ON RECORD DRAWINGS AND LIMITED FIELD INVESTIGATIONS. ALL EXISTING WORK MUST BE FIELD VERIFIED PRIOR TO BEGINNING CONSTRUCTION. FIELD VERIFY EXACT SIZES AND LOCATIONS OF ALL EXISTING EQUIPMENT, DUCTWORK AND PIPING BEFORE GENERATING COORDINATION DRAWINGS.
- 4. COORDINATE THE EXACT AREA OF CEILING REMOVAL NECESSARY FOR ALL WORK. THE CEILING REMOVAL SHALL BE BY THE GENERAL TRADES CONTRACTOR AT THE HVAC CONTRACTOR'S EXPENSE.
- 5. COORDINATE ALL CONSTRUCTION ACTIVITIES AND REQUIRED PHASING THAT MAY AFFECT NORMAL BUILDING OPERATIONS WITH THE OWNER'S REPRESENTATIVE. IT WILL BE NECESSARY FOR SOME WORK INDICATED ON THIS PLAN TO BE PERFORMED OUT OF PHASE AND/OR DURING NIGHTS OR WEEKENDS.
- 6. ALL NEW WORK SHALL BE SUPPORTED BY NEW HANGERS AND SUPPORTS, FULLY INDEPENDENT OF EXISTING HANGERS. THE USE OF EXISTING HANGERS FOR NEW WORK IS PROHIBITED.

CODED NOTES:

- 1. INSTALL GRILLE 12 INCHES ABOVE FINISHED FLOOR. ORIENT BLADES DOWN TO PREVENT VIEW INTO TRANSFER DUCT. LOCATION SHOWN IS APPROXIMATE. COORDINATE LOCATION WITH EXISTING DUCTWORK AND CONDUITS IN THE MECHANICAL ROOM.
- 2. INSTALL TWO ELBOWS IN TRANSFER DUCT . TERMINALTE A MINIMUM OF 12 INCHES FROM INSIDE MECHANICAL ROOM WALL. CONSTRUCT DUCT WITH G-90 GALVANIZED STEEL CONFORMING TO ASTM A653/A653M AND A924/A924M STANDARDS. MINIMUM 24 GAUGE. LINE TRANSFER DUCT WITH SEMI-RIGID FIBERGLASS DUCT LINER WITH A FLAME SPREAD RATING NOT TO EXCEED 25 AND A SMOKE DEVELOPED RATING NOT TO EXCEED 50.
- 3. EXISTING VRF FAN COIL TO REMAIN.
- 4. EXISTING THERMOSTAT TO REMAIN.
- 5. EXISTING DUCT TO REMAIN.
- 6. EXISTING AIR DEVICE TO REMAIN.

AIR DEVICES:

R1 - TITUS 33RL OR EQUAL BY PRICE OR KRUEGER. 1/2" BLADE SPACING, 38 DEG DEFLECTION, BLADES PARALLEL TO LONG DIMENSION, HEAVY DUTY STEEL, #26 WHITE, SURFACE MOUNT BORDER.

COLUMBUS METROPOLITAN LIBRARY

NORTHSIDE BRANCH RENOVATIONS

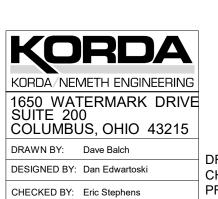
1423 N HIGH STREET COLUMBUS, OH 43201



172 E. STATE ST, SUITE 600 COLUMBUS, OH 43215 PHONE: (614) 942-1050 INFO@WEARETRIAD.COM

OWNER REVIEW 01/13/2023

REVISIONS: # DATE DESCRIPTION



DRAWN BY: Dave Balch
CHECKED BY: Eric Stephens
PROJECT NUMBER: 2128 PROJECT NUMBER: 2022-0348

HVAC PLANS AND SECTIONS

GENERAL NOTES

- 1. EXISTING TO REMAIN DEVICES ARE ONLY SHOWN WHERE RELEVANT TO NEW ELECTRICAL SCOPE.
- 2. ALL NEW DEVICE LOCATIONS, INCLUDING ELEVATION, IS TO BE COORDINATED WITH THE ARCHITECT AND OWNER PRIOR TO INSTALL.
- 3. ALL NEW RECEPTACLES ARE TO BE TAMPER RESISTANT.
- 4. ALL NEW EQUIPMENT / DEVICES DESIGNATED TO TIE INTO EXISTING SYSTEMS SHALL BE BY THE SAME MANUFACTURER AS SIMILAR EXISTING DEVICES.

CODED NOTES

- REMOVE EXISTING CAMERA AND TURN OVER TO OWNER.
- PROVIDE NEW CARD READER, ELECTRIC STRIKE, AND POWER SUPPLY AT NEW DOOR AND TIE INTO EXISTING BUILDING ACCESS CONTROL SYSTEM. COORDINATE DOOR HARDWARE AND DEVICE LOCATIONS WITH ARCHITECT / OWNER.
- PROVIDE NEW FIRE ALARM HORN / STROBE DEVICE ON NEW WALL. MANUFACTURER TO MATCH EXISTING THROUGHOUT BUILDING. TIE INTO EXISTING FIRE ALARM SYSTEM.
- 4. PROVIDE THREE (3) NEW TAMPER RESISTANT RECEPTACLES AT SAME ELEVATION AS OTHER OUTLETS EXISTING ON WALL AND TIE INTO THE EXISTING CIRCUIT AS SHOWN. COORDINATE EXACT LOCATIONS WITH ARCHITECT / OWNER.
- 5. RELOCATE POE BLIONE TO EXTERIOR FACADE.
 COORDIN Not in scope PLACEMENT WITH
 OWNER.
- 6. REMOVE<mark>Not in scope

 BLANK COVERFLATE.

 ID CABLE AND ADD</mark>

COLUMBUS METROPOLITAN LIBRARY

NORTHSIDE BRANCH RENOVATIONS

1423 N HIGH STREET COLUMBUS, OH 43201



172 E. STATE ST, SUITE 600 COLUMBUS, OH 43215 PHONE: (614) 942-1050 INFO@WEARETRIAD.COM

OWNER RE 01/13/2023

REVISIONS:

DATE DESCRIPTION

KORDA/NEMETH ENGINEERING
1650 WATERMARK DRIVE
SUITE 200
COLUMBUS, OHIO 43215
DRAWN BY: Garrett W. Strauss
DESIGNED BY: Prairie S. Gallina
CHECKED BY: Checker

PROJECT NUMBER: 2022-0348

DRAWN BY: Garrett W. Strauss
CHECKED BY: Checker
PROJECT NUMBER: XXXX

ROBERT JONES E-84916

E-84916

H-100

E-100

- B. The Contractor is responsible for becoming thoroughly familiar with all Drawings and Specifications prior to bidding so that all conditions of work are clear with regard to electrical requirements of equipment, mounting conditions, etc. Contractor shall study reflected ceiling plans, elevations, and details, etc.
- C. Provide quality work conforming to the best accepted practices and standards of the trade. Further definition of quality is given by reference to various laws, codes, standards, and regulations.
- D. Material and equipment installed under this Contract shall be new, undeteriorated, and of a quality not less than the minimum specified. All equipment and conductors shall be certified, listed and labeled by UL. If UL does not certify an associated piece of equipment, then certification by another nationally recognized testing laboratory such as ETL shall be permissible. If equipment or conductors are of a type that no testing lab lists or labels, then a safety evaluation must be performed at the supplier's expense by the inspecting authority or another Federal, State or municipal agency.
- E. The latest adopted editions of the following Codes also apply to this work: National Electrical Code, NEC and the National Fire Protection Association Codes, NFPA.
- F. Unless otherwise required in General or Special Conditions, Contractor shall perform all cutting and patching required for his/her own work. Work must be accomplished in a neat and workmanlike manner, acceptable to the Architect.
- G. Patching shall match adjacent materials and shall be accomplished only by tradesmen skilled in the respective craft required. Materials and equipment used in the patching work shall comply with requirements of those Sections of the Specifications relating to material to be used in new construction.
- H. The Contract Documents, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction may require portions of the work to be inspected, tested, or approved. These services shall be performed by approved agencies.
- I. The Contractor shall warrant all work for a period of one (1) year from date of contract completion against defects in materials, equipment, and workmanship. The Contractor will be required to make all repairs or changes which, in the opinion of the Owner, are necessary as the result of defective materials, equipment, or workmanship. The Contractor shall, promptly upon receipt of notice from the owner, and without expense to the owner, replace all defective work with suitable materials and equipment

SECTION 26 05 10 WIRE AND CABLE

- A. Furnish and install all electrical conductors for feeder and branch circuit wiring and control wiring. Refer to other Division 26/27/28 specification sections for additional wiring requirements.
- B. Wire and cable furnished shall be in accordance with the following standards where applicable: UL Standard 44 for rubber insulated wires and cables, UL Standard 83 for thermoplastic insulated wires and cables. Wire and cable shall be in accordance with applicable NEC Articles. Wire and cable shall be identified by surface markings indicating manufacturer, size, metal type, voltage rating, UL listing and cable type.
- C. All indoor wire shall be Type "THHN/THWN" single conductor annealed uncoated copper with PVC insulation and nylon jacket. Insulation shall be heat and moisture resistant with light stabilized jacket. Wire shall be rated 600 volt, 90 degree C in dry locations, 75 degree C in wet locations. Conductors No. 10 AWG and smaller may be solid; No. 8 AWG and larger shall be stranded. All branch circuits, feeders and control wiring shall be type "THHN/THWN."
- D. Unless otherwise noted, minimum wire size for lighting and power branch circuits shall be No. 12 AWG and for control and auxiliary systems No. 14 AWG. Wire size for branch circuit homeruns shall be as indicated in the panelboard schedules. Remainder of branch circuit shall be No. 12 AWG, unless noted otherwise.

SECTION 26 05 26 GROUNDING

- A. Furnish and install a complete grounding system as shown on the Drawings and specified herein. Provide all accessories as necessary for a complete system. All components of the electrical system shall be grounded and bonded including: raceways, enclosures, receptacles, motors, controllers, panelboards, contactors, lighting fixtures, emergency generators, transfer switches, telephone systems, and all other electrical components and subsystems.
- B. All equipment shall be UL listed and labeled and in accordance with applicable NEMA and ANSI Standards and NEC Article 250.
- C. Enclosure and Equipment Grounding
- 1. Metal enclosures or raceways for conductors or equipment shall be grounded. 2. Exposed noncurrent-carrying metal parts of fixed equipment likely to become energized
- shall be grounded. 3. Exposed noncurrent-carrying metal parts of switchboard frames and structures, motor frames, enclosures for motor controllers, and lighting fixtures shall be grounded.
- D. Provide separate green insulated equipment grounding conductors for all feeders and
- E. Bonding shall be provided and conform to all requirements of NEC Article 250 V and VII.

SECTION 26 05 33 CONDUIT AND FITTINGS

- A. Provide complete grounded conduit systems for all electrical conductors. All conduits shown on the Drawings shall meet NEC fill requirements for the conductors enclosed. Conduit raceway systems shall be made mechanically tight and electrically continuous throughout. All metal raceway systems shall be grounded.
- B. Electrical Metallic Tubing (EMT) shall be zinc galvanized (min. .0008 in thick) inside and out, with circular cross section, uniform wall thickness and continuously welded seams. EMT shall be furnished in ten foot standard lengths.
- C. All conduit shall be rigid metal conduit, unless noted otherwise below, minimum 3/4 inch trade size. EMT may be used as follows: In interior partitions inside building, above suspended ceilings inside building, and exposed above 9' A.F.F. inside building in unfinished areas. EMT is prohibited in all other applications.
- D. All conduit and EMT fittings shall be galvanized malleable iron or steel. Connectors and couplings shall be threaded or compression type, concrete tight. Conduit bodies shall be malleable iron, threaded for heavywall conduit and compression type for EMT, with cadmium finish and cadmium plated sheet steel covers.
- E. Conduit support fastenings shall be by: Wood screws to wood, toggle bolts in hollow concrete masonry units, expansion bolts in concrete or brick, machine screws, welded threaded studs on steel work, nail-type nylon anchors or threaded studs driven by a powder charge and provided with lock washers and nuts for concrete, brick or steel work. Conduit shall not be supported using wire or nylon ties.
- F. In areas without ceilings, conduits shall be run as high as possible attached to roof deck or floor deck above, or bottom of structure. Conduits shall be run next to walls as inconspicuously as possible. Conduit shall be independently supported from elements of the building and shall not rest on, nor be supported from suspended ceilings. Boxes shall be fastened to structure independently from conduit system.
- G. Install insulated throat fittings on all EMT conduit ends. Fasten conduit to boxes and cabinets using locknuts. Provide two locknuts where required by the NEC, where insulating bushings are used and where bushings cannot be brought in to firm
- H. Maintain minimum clearances of 6 inches from parallel hot water piping and 4 inches from crossovers. Provide conduit sleeves, seals and firestops in accordance with Section 26 00 55, "Sleeves, Seals and Firestops." Provide expansion joints in conduits run on roofs and exterior to building above grade and proper roof flashing and sealing when penetrating roofs. All conduits in hazardous locations shall be sealed in accordance with NEC Articles 500, 501, 502, and 503.

SECTION 26 05 34 OUTLET BOXES

- A. Outlets shall be provided for devices, systems equipment connections, special outlets, and as otherwise required. Outlet boxes shall be of sufficient size to provide free space for all conductors enclosed in the box. Boxes shall be not less than the minimum size required by NEC Article 314 for the number and size of conductors contained within. All equipment shall be UL listed and labeled and in accordance with applicable NEMA and ANSI Standards
- B. Interior Outlet Boxes: Provide galvanized flat rolled sheet steel interior outlet wiring boxes, of types, shapes and sizes, including box depths, to suit each respective location and installation; construct with stamped knockouts in back and sides, and with threaded screw holes with corrosion-resistant screws for securing box covers and wiring devices. Through wall boxes shall not be used.
- C. All boxes shall be rigidly supported from building structure independent of the conduit system. Framing members of suspended ceiling systems shall not be permitted as a support. Flush boxes shall finish within 1/4 inch of surface of non-combustible materials. Boxes shall not project beyond finished surfaces.

SECTION 26 27 26 WIRING DEVICES AND PLATES

- A. All convenience and power receptacles shall conform to NEMA Heavy Duty Standards and shall be specification grade, tamper-resistant, grounding type. Convenience duplex receptacles shall be 20 ampere, 125 volt, back and side wired, 3 wire grounding, UL listed as complying with the requirements of NEC Article 250.146, Exception #2, and NEMA 5-20R configuration.
- B. Convenience receptacles shall be white.
- C. Plates for flush devices in interior partitions shall be stainless steel. Plates for flush devices on concrete block walls shall match others but be "Jumbo" plates. Plates for voice/data communication boxes shall match wiring device plates in material, and be as specified in Section 27 05 29, "Voice/Data Communication Raceway System." Plates for devices in surface fittings shall be cadmium plated steel surface covers. Covers shall fit without overlap and have round corners. Plates for future system outlets shall be blank plates matching device plates in quality and finish.
- D. Install wiring devices as indicated, in compliance with the manufacturer's written instructions, applicable requirements of NEC and NECA's "Standard of Installation," and in accordance with recognized industry practices to fulfill project requirements. Delay installation of wiring devices and wall plates until after painting work is completed. Wiring devices may be installed prior to painting where protective plastic covers are used.
- E. Provide electrically continuous, tight grounding connections for wiring devices, as required by NEC Article 250.146. Install device plates on all devices. Devices shown grouped on the Drawings shall be ganged together.
- F. Wiring devices and plates shall be furnished by one of the manufacturers listed. No mixing of manufacturer's products shall be permitted unless otherwise noted herein or on the Drawings.
- Manufacturers for Wiring devices and plates shall be: Legrand, Hubbell, Leviton
- Manufacturers for Plates shall be: Legrand and Leviton

SECTION 28 31 10 FIRE ALARM SYSTEM

- A. Furnish and install all equipment and accessories for a complete local, manually and automatically actuated, electrically operated, device annunciated, double supervised, non-coded 24 volt DC fire alarm system as described herein and as
- B. Fire alarm installation shall conform to the requirements of the NFPA 101, Life Safety Code, the Ohio Building Code, and Local Code and Building Authority requirements. All equipment shall be UL listed and labeled, and in accordance with applicable NEMA and ANSI Standards. All devices and installation shall be in accordance with the Americans with Disabilities Act.
- C. Operation of any manual pull station or the actuation of any automatic device shall cause immediate and continuous operation of fire alarm signal and alarm indication at the control panel and remote annunciators until the actuated device is restored to normal and the control panel is manually reset.
- D. Visual devices (strobes) shall be 15/75 or 110 candela, 24 VDC, xenon flash unit, white semi-flush base assembly stating "FIRE", clear tamper resistant lexan lens. Combination audible/visual devices (horns) shall have 15/75 or 110 candela 24 VDC xenon flash unit, clear tamper resistant lexan lens, 24 VDC, white semi-flush base assembly stating "FIRE", minimum 95 dB (at 10 ft.) electronic horn. Provide synchronizing flash rate module on each annunciation device circuit.
- E. Audible/visual devices installed on the exterior of building or in high humidity areas shall be electro mechanical and have weatherproof gasketing. Provide synchronizing flash rate module on each annunciation device circuit.
- F. Programming shall be done by the manufacturer's authorized representative. Electrical Contractor shall include in the bid sufficient funds to cover two visits of 8 hours duration for programming changes, to be done at the completion of the project after final acceptance test.
- G. Visual device types shall be located as follows: Corridors and rooms<400 SF -15/75 cd, other spaces - 110 cd.
- H. Follow manufacturers written instructions regarding mounting, wiring, and testing the fire alarm system. Installers shall be certified for fire alarm work by State
- I. All wiring shall be in conduit and independent of all other systems. Paint all junction boxes with red paint and label "Fire Alarm".

Manufacturers shall match existing manufacturer of similar devices throughout building.

COLUMBUS METROPOLITAN

NORTHSIDE BRANCH RENOVATIONS

1423 N HIGH STREET COLUMBUS, OH 43201

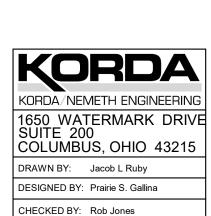


172 E. STATE ST, SUITE 600 COLUMBUS, OH 43215 PHONE: (614) 942-1050 INFO@WEARETRIAD.COM

OWNER REVIEW 01/13/2023

LIBRARY

REVISIONS: # DATE DESCRIPTION



PROJECT NUMBER: 2022-0348

