PART 1 - GENERAL

1.01 SECTION INCLUDES

Electrical In-Floor Duct System

1.02 RELATED SECTIONS

1. Section 26 05 19 Building Wire and Cable
2. Section 26 05 53 Electrical Identification
3. Section 26 27 26 Wiring Devices
4. Section 27 10 00 Structured Cabling

1.03 SPECIAL MANUFACTURER’S REQUIREMENTS

A. The Manufacturer shall provide on-site services to the Installing Contractor. The on-site services shall include; but not be limited to:

1) Provide field instruction and supervision to the Installing Contractor at the start of construction.

2) Provide a written statement to the Engineer asserting that the Contractor has been instructed on the proper installation techniques for the product, to include a written statement that the Manufacturer has observed the Installing Contractor complete a sufficient amount of the project to be qualified to install the product.

3) Provide additional field supervision to the Installer to reasonably ensure proper installation.

4) Provide a survey of the installation after the concrete has been poured and prior to the removal of mud caps. Verify the final installation is consistent with the manufacturer’s standards. Provide instruction to the Installer on the proper installation of the wiring device configurations.

B. Coordinate duct wiring and termination requirements with trades responsible for wire/cabling and device installation.

1.04 SUBMITTALS

A. Submit under provisions of Division 01.

B. Shop Drawings: Indicate layout, insert spacing and height, locations of fittings and accessories, and overall dimensions. Submit actual cover plates of color intended for use (2 samples of each type).

C. Product Data: Provide data showing component details, dimensions, and finishes.

D. Manufacturer's Instructions: Indicate application conditions and limitations of use. Include instructions for storage, handling, protection, examination, preparation, installation, and storing of product.

E. Clearly identify UL accepted assembly configurations relevant to intended applications. Show any fire separation barrier details required to maintain fire separation ratings relevant to the installation.

1.05 PROJECT RECORD DOCUMENTS

A. Submit under provisions of Division 01.

B. Record actual locations of ducts, service fittings, and junction boxes.

1.06 INSTALLATION AND MAINTENANCE DATA

A. Submit under provisions of Division 01.

B. Maintenance Data: Instructions for locating inserts and installing afterset inserts.

C. Product literature showing all compatible product line offerings for future use by

Owner.

1.07 QUALIFICATIONS

Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three (3) years documented experience.

1.08 REGULATORY REQUIREMENTS

A. Conform to requirements of ANSI/NFPA 70.

B. Furnish products listed and classified by Underwriters Laboratories, Inc., testing firm acceptable to Authority Having Jurisdiction, as suitable for purpose specified and shown.

1.09 FIELD MEASUREMENTS

Verify that field measurements are indicated on shop drawings.

1.10 EXTRA MATERIALS

A. Furnish under provisions of Division 1. To be sent to job site and stored along with primary runs of duct so as to be available for use during construction, if needed.

B. Provide twenty (20) preset inserts (includes mud caps).

C. Provide two (2) of any special tools required to locate preset inserts.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

1. Walker, Walkerduct Infloor Duct and Accessories, Source II (Basis of Design)
2. Substitutions: Under provisions of Division 01

2.02 ELECTRICAL IN-FLOOR DUCT SYSTEM

A. Description: Zinc coated, galvanized steel duct with corrosion-resistant finish.

B. Type: Electrical In-Floor Duct System with flush to concrete floor configuration. Walkerduct Source II, No. 2 ducts. All punched duct openings provided shall be provided with 520 presets with mud caps at intervals called for in the drawings.

C. Factory Fabricated Duct Openings: Duct openings shall be factory punched. Provide fabricated openings at even spacing as required by drawings.

D. Adjustable Duct Supports: Provide adjustable height dual duct supports with leveling screws. Duct supports shall have a securing mechanism to hold duct runs in place during subsequent concrete pours. Provide quantity at intervals to meet manufacturer’s requirements.

E. Carpet and Cover Plates: Provide brass carpet plates and matching cover plates as required. Cover plates shall be Type 829S (telephone/data), Type 828R (power), or Type S24 brass carpet flange for flexible connections to furniture as indicated.

F. Fittings and Accessories: Provide all coupling sleeves, adapters, elbows, sweeps, etc., to result in a finished installation.

G. Grounding: Provide grounding lugs for equipment ground protection to include all couplings and specialty components.

H. Blank Inserts: Provide matching blank inserts/cover plates for any unused ports.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install products in accordance with manufacturer's instructions.

B. Provide expansion fittings with suitable bonding jumper where duct crosses building expansion joints as required by the manufacturer.

C. Level cover plates flush with finished floor materials.

D. Place rectangular plates square with wall lines.

E. Securely hold ducts and duct supports in place during installation to avoid floating or other movement using provided holes in duct support feet. Firmly attach to slab prior to pouring cover concrete.

F. Close unused duct or conduit entrances. Seal all duct terminations and junctions per manufacturer’s recommendations.

G. Ground and bond duct.

H. Locate ducts as indicated on drawings.

I. Place circuit number and panel source markings on the inside of cover plate of each junction box and activated port.

J. Support Couplers and Supports: Join duct lengths using combination support couplers where practical. Provide additional supports at intervals of not over 5 feet, within 30 inches each side of junction boxes and terminations.

K. Install insert within 12 inches of edge of junction box. Align inserts on same centers for all services.

L. Floor Cuts and Forming: To be provided by others. Coordinate requirements prior to bid.

M. Clean ducts and fittings of debris and dust before installing wire and cable.

3.02 CLEANING

Clean finished surfaces in accordance with manufacturer's instructions.

3.03 PROTECTION

A. Protect finished installation.

B. Protect boxes, covers, and rings from distortion and finish damage.

C. Replace boxes, covers, and rings marred during construction.

**END OF SECTION**