



**SPECIAL PROVISIONS
FOR
JCN FACILITIES**

**Linn County
TAP-U-1187(801)--8I-57**

**Effective Date
August 18, 2026**

THE STANDARD SPECIFICATIONS, SERIES 2023, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

236076.01 DESCRIPTION.

- A.** Includes the furnishing of all material and equipment necessary to relocate the City's Joint Communication Network (JCN) facilities.
- B. Section Includes.**
 - 1. Handholes
 - 2. Conduit
 - 3. Relocation of Handhole

236076.02 MATERIALS.

- A. Handholes.**
 - 1. Polymer Concrete Handhole and Cover.**
 - a. Polymer concrete D handhole from Martin Enterprises, model 304836PC-GBLS, or approved equal.
 - b. Size shall be 30 inch by 48 inch by 36 inch, unless otherwise noted.
 - c. Ensure the handhole and cover has a minimum ANSI/SCTE 77 Tier 15 rating when placed in a grass area or pedestrian walkway or a minimum Tier 22 rating when placed in a driveway, parking lot, or off-roadway application subject to occasional non-deliberate heavy vehicular traffic. Ensure cover has a skid resistant surface meeting PROWAG requirements with stainless steel bolts meeting manufacturer's requirements. Ensure cover fits handhole to meet PROWAG vertical surface discontinuity requirements when placed in pedestrian walkways.
 - 2. Sealing Compound.**

- a. Polyurethane; BASF Sonolastic NP1, Bostik Chem-Calk 915, Tremco Vulkem 116 or approved equal.
- b. Compound shall be readily workable soft plastic. It shall be workable at temperatures as low as 30°F, and shall not melt or run at temperatures as high as 300°F.

3. Granular Base.

Comply with the following gradations; however, the Engineer may authorize a change in gradation, subject to materials available locally at the time of construction.

Table SP-236076.02-1: Granular Subbase

Sieve	Percent passing
2 inch	100
1 ½ inch	80 to 90
1 inch	15 to 20
¾ inch	0 to 0.5

B. Plastic Conduit and Fittings.

1. Conduit.

- a. HDPE, Schedule 40, SDR 13.5 made with Prime Resins.
- b. Diameter shall be 2 inch, unless otherwise noted.
- c. Comply with ASTM F2160.
- d. Conduit shall be tested in accordance with ASTM D2122.
- e. Conduit shall not fail when tested at the low-temperature conditions of -4°F as specified in ASTM F2160 and using the test apparatus as described in Test Method ASTM D2444.
- f. Minimum elongation at break shall be 400% when tested according to Test Method D638.
- g. Use orange colored conduit with no stripe for JCN.
- h. Use orange colored conduit with black stripe for UPN.
- i. Continuous reel or straight pieces to minimize splicing.
- j. For dissimilar conduit connections, provide an adhesive compatible with both materials.

2. Split Conduit.

- a. PVC, Schedule 40
- b. Self-locking
- c. Manufactured in accordance with NEMA TC-2

3. Couplings.

- a. Comply with ASTM F2176.
- b. Couplings shall not fail when tested at the low-temperature conditions of -4°F as specified in ASTM F2160 and using the test apparatus as described in Test Method ASTM D2444.
- c. The manufacturer of couplings shall be in accordance with good commercial practice, uniform in color and free of visual defects such as burns, cracks, holes, foreign materials or voids so as to produce fittings meeting the requirements of ASTM F2176.
- d. The coupling/conduit joint shall be fail by leakage when subjected to sustained internal and sustained external pressure testing as noted in ASTM F2176.
- e. The coupling/conduit joint assemblies shall comply with tensile loading requirements and shall not fail by pullout when loaded to axial tensile load requirements as specified in ASTM F2176.
- f. Furnish weatherproof fittings of identical or compatible material to the conduit. Use standard factory elbows, couplings, and other fittings.
- g. Use compression couplings for connections between existing and proposed/existing conduits.
 - 1) Couplings shall be sized for use with 2 inch HDPE conduits.
 - 2) Coupling length shall be 6 inch with three bolts or 8 inch with four bolts, as directed by the Engineer.

- 3) Coupler bolts shall be 1/2 inch by 1 3/4 inch.
- 4) Coupler shall have a 0.052 inch shell and sleeve thickness and 0.062 inch gasket thickness.
- h. Use Push-Lock couplings for connections between proposed conduits.
 - 1) Couplings shall be sized for use with 2 inch HDPE conduits and non-metallic.
 - 2) Coupling length shall be no less than 7 inch.
 - 3) Coupling Tensile Pullout (pounds) shall be between 2000 and 2400.
 - 4) Coupling shall include a pre-lubricated O-ring that creates both water and air tight seal.
 - 5) Coupling shall be re-enterable.
- 4. **Tracer Wire:** Comply with No. 10 AWG, single conductor, stranded copper, type thermoplastic heat and water resistant, nylon-coated (THWN), with UL approval, and an orange colored jacket.

236076.03 CONSTRUCTION.

A. Handhole Installation.

- 1. **General:** Vaults shall be installed in a neat and workmanlike manner. Damaged vaults will not be accepted. JCN staff shall be contacted within 10 business days of final handhole install to verify the location and workmanship of the conduit.
- 2. **Locations:** Do not construct in ditch bottoms, low areas where ponding of water may occur, or where they will be subject to normal vehicular traffic.
- 3. **Excavation:** Excavate as necessary to accommodate the handhole and granular base.
- 4. **Granular Base:** Install 8 inch thick granular base extending a minimum of 6 inches beyond the outside walls of the handhole.
- 5. **Placement.**
 - a. Do not place handholes in paved areas without Engineer's approval.
 - b. In paved areas, install the handhole at an elevation so the casting is level and flush with the pavement. In unpaved areas, install the handhole approximately 1 inch above the final grade.
 - c. Verify ring placement. Invert rings when installed in paved areas.
- 6. **Conduit.**
All conduits shall enter the handhole at a depth of 12 inches from the bottom of the handhole unless otherwise specified. Any deviations from this requirement shall be approved by the Engineer.
- 7. **Backfill.**
Place Suitable backfill material according to Section 2552 of the Standard Specifications.
- 8. **Casting.**
Place the casting on the handhole. Ensure the final elevation meets the handhole placement requirements.

B. Conduit Installation

- 1. **General.**
 - a. Place conduit to a minimum depth of 30 inches and a maximum depth of 60 inches below the gutterline. When conduit is placed behind the curb, place to a minimum depth of 24

inches and a maximum depth of 48 inches below top of curb except as noted on the plans.

- b. Change direction at handholes or by bending, such that the conduit will not be damaged its internal diameter changed. Ensure bends are uniform in curvature and the inside radius of curvature of any bend is no less than six times the internal diameter of the conduit.
- c. On the exposed ends of conduit, place bell-end fittings prior to installing cable. Extend all conduits a minimum of 2 inches and a maximum of 4 inches above the finished surface of any foundation, footing, or structural base.
- d. Pack conduit ends with a conduit sealing compound.
- e. Following installation, couplings used shall be wrapped with compression seal tape.
- f. All conduit and fittings shall be free from burrs and rough places and all conduit runs shall be cleaned, swabbed and reamed after installation.
- g. JCN staff shall be contacted within 10 business days of final conduit install to verify the location and workmanship of the conduit. JCN staff will verify the pull line can be stretched between handholes.

2. Trenched Installation.

- a. Place backfill in layers not to exceed 12 inches in depth with each layer thoroughly compacted before the next layer is placed. Ensure backfill material is free of cinders, broken concrete, or other hard or abrasive materials.
- b. Remove all surplus material from the public right-of-way as soon as possible.

3. Trenchless Installation.

- a. When placing conduit under pavements, use the trenchless installation methods described in Article 2553 of the Standard Specifications.
- b. If trenchless methods that compact soils in the bore path are used, provide sufficient cover to prevent heaving of overlying paved surfaces.
- c. Do not allow pits for boring to be closer than 2 feet to the back of curb, unless otherwise specified in the contract documents.

C. Wiring and Cable Installation.

Install a tracer wire in all conduits. Use a silicon-filled wire nut to splice the tracer wire in each handhole to form a continuous run.

236076.04 METHOD OF MEASUREMENT.

A. Conduit, Trenched.

Each type and size of conduit installed in an open trench will be measured in linear feet along the centerline of the pipe, including the length through the couplings.

B. Handhole.

Handholes will be measured by count for each type and size furnished and installed.

C. Relocation of Handhole.

Handholes will be measured by count for each handhole relocated.

236076.05 BASIS OF PAYMENT.

A. Conduit, Trenched.

- 1. Payment will be made at the contract unit price per linear foot for each type and size of conduit.
- 2. Unit price includes, but is not limited to, trench excavation; dewatering; furnishing and installing conduit, tracer wire and couplings; and furnishing, placing, and compacting bedding

and backfill material.

B. Handhole.

1. Payment will be made at the contract unit price for each type and size of handhole furnished and installed.
2. Unit price includes, but is not limited to, all materials, equipment, excavation, and installation of the handholes.

C. Relocation of Handhole.

1. Payment will be made at the contract unit price for each handhole relocated.
2. Unit price includes, but is not limited to, removal of handhole, excavation necessary by the means necessary for the relocation of the handhole to the desired location, modification of and/or connection to conduit, supply and placement of fill/soil of like material adjacent to the handhole to set the handhole to the desired elevation, protection of existing conduit and/or cables, wires lines connected to and/or passing through the handhole, disposal of excavated material, placement of topsoil adjacent to handhole and seeding as necessary.