

Town of Castle Rock – COCR035

Dry Utility / Fiber Optic Improvements

This project consists of the installation of underground fiber optic infrastructure for Metronet within the Town of Castle Rock, Douglas County, Colorado. The work supports expansion of fiber service throughout multiple residential corridors and is designed in accordance with Town of Castle Rock standards and applicable state and federal regulations.

Project Scope

The proposed improvements include approximately **24,640 linear feet of underground fiber optic conduit and cable** within existing public rights-of-way and recorded utility easements. Construction will occur along and adjacent to the following streets and areas, including but not limited to:

- Candleglow Street
- Exquisite Street
- Coachine Road
- Dawn Glow Way
- Gossamer Way
- Freedom Way
- Glorious Place
- Starry Night Loop
- Hourglass Avenue
- Morning View Lane
- First Light Drive
- Sky Church Drive
- Foothills Drive
- Raindrop Way
- Timeless Drive

Fiber infrastructure will be installed primarily via **directional boring** methods to minimize surface disturbance. Open trenching will be used only where necessary for handhole, vault, or terminal box installation.

Construction Methods

- **Bore and Place:**

Directional boring will be used for the majority of the alignment, installing **1.25-inch conduit** at minimum depths of **24 inches** and **36 inches**, depending on location and crossing requirements. Certain crossings require increased depth as noted in the plan profiles.

- **Utility Placement:**

Fiber conduit will terminate at a combination of:

- Large, Medium, and Small Handholes (LHH, MHH, SHH)
- Fiber Pull Boxes (FP)
- Terminal Boxes (TB)

Structures include sizes such as 30"x48"x24", 24"x36"x18", 17"x30"x18", 13"x24"x15", and 11"x11"x12", installed per Metronet and Town standards.

- **Potholing & Utility Verification:**

All existing utilities are shown based on record information. Prior to boring, the contractor will:

- Contact **811** for utility locates
- Pothole all water services (on the customer side of the meter pit)
- Verify depth and location of all utility crossings
Plans will be revised and resubmitted if field-verified conditions differ from design assumptions.

Traffic, Safety, and Access

- Traffic and pedestrian control will comply with the **Manual on Uniform Traffic Control Devices (MUTCD)**.
- Emergency vehicle access will be maintained at all times.
- Fire hydrants and fire lanes will remain unobstructed.
- All construction activities will follow **OSHA safety requirements**.

- No Sunday or holiday construction is permitted unless approved by the Town.

Environmental & Site Controls

- Temporary erosion and sediment control (TESC) measures will be installed prior to earth disturbance.
- Dust control measures will be implemented throughout construction.
- Stormwater regulations and permit requirements under the Colorado Construction General Permit will be followed.
- Disturbed areas will be restored to equal or better condition, including full-panel replacement of pavement, curb, gutter, and sidewalk where impacted.

Survey & Floodplain Considerations

- Elevations and contours are based on **NGS Station MAAG (AA3423)**.
- Portions of the project are located within **Zone X and Shaded Zone X flood areas** as identified on FEMA FIRM Map 08035C0169G and LOMR Case No. 23-08-0509P.
- All work within these areas will comply with applicable floodplain regulations.

Coordination & Inspection

- The contractor will coordinate with all utility providers including Castle Rock Water, CORE Electric, Black Hills Energy, Comcast, and Lumen Technologies.
- All work is subject to inspection and approval by the **Town of Castle Rock Construction Inspector**.
- Approved plans, permits, and specifications will be maintained on site at all times.
- As-built drawings will be recorded accurately throughout construction and submitted upon completion.

Restoration

- Landscaping will be repaired or replaced as required by Town standards.
- No slopes steeper than 3:1 will be created or modified.
- Native seeding and erosion control will be implemented where applicable.
- A standard repair cost of **\$200 per pothole** applies within both right-of-way and private property areas.

