

Town of Castle Rock, Douglas County, Colorado

Project: COCR041 – Dry Utility / Fiber Optic Construction

1. Project Overview

This permit application covers the installation of new underground fiber-optic infrastructure within the Town of Castle Rock, Douglas County, Colorado. The proposed work is part of a Fiber-to-the-Home (FTTH) network expansion intended to enhance broadband service availability throughout the project area.

The project is located within multiple sections of Township 8 South, Range 66 West, including portions of Sections 5, 6, and 7, as shown on the approved plan sheets. All construction activities will occur within public right-of-way and/or existing utility easements owned or approved by the Town of Castle Rock.

2. Project Scope and Work Description

The project consists of approximately **29,041 linear feet** of new underground fiber-optic facilities. Major elements of work include:

- Installation of HDPE conduit for fiber-optic cable.
- Directional boring as the primary installation method to minimize surface disturbance, with open-trench excavation used only where boring is not feasible or permitted.
- Placement of handholes, vaults, pull boxes, and terminal boxes as shown on the construction plans.
- Installation of fiber-optic cable following successful conduit placement and verification.
- Installation of tracer wire to maintain long-term locatability of underground facilities.
- Full restoration of disturbed areas in accordance with Town of Castle Rock standards and specifications.

All work will be coordinated to minimize disruption to vehicular traffic, pedestrians, residents, and adjacent utilities.

3. Traffic Control and Right-of-Way Impacts

Traffic control will be implemented in compliance with the **Manual on Uniform Traffic Control Devices (MUTCD)** and all applicable Town, County, and State requirements.

- Typical Traffic Control Plans (TCPs) included in the plan set will be used to address standard lane closures, shoulder work, sidewalk impacts, and short-duration construction activities.
- Traffic control devices will be installed, maintained, and removed by the contractor as required for each work area.
- Pedestrian access will be maintained at all times or safely detoured in accordance with ADA requirements.
- Any work affecting Town or CDOT facilities will be coordinated with the appropriate authority and permitted accordingly.

4. Existing Utilities and Coordination

Existing utilities shown on the plans are based on available records and field information and include water, sanitary sewer, storm sewer, electric, gas, and communications infrastructure.

Prior to construction:

- The contractor shall contact **Colorado 811** a minimum of 72 hours before excavation.
- All utility crossings and potential conflicts shall be pothole-verified prior to boring or excavation.
- Vertical and horizontal clearances shall meet Town of Castle Rock and individual utility provider standards.
- Any discrepancies or conflicts encountered in the field shall be reported to the project engineer and the Town before proceeding.

The contractor shall be responsible for protecting all existing utilities during construction and coordinating relocations if required.

5. Construction Standards and Requirements

All construction activities shall conform to the following:

- Town of Castle Rock Municipal Code and Technical Manuals
- Town of Castle Rock Dry Utility / Fiber Optic Construction Standards
- MUTCD requirements for traffic control
- OSHA safety and excavation standards

- Colorado 811 excavation laws
- Applicable ADA and stormwater regulations

Construction sequencing shall be planned to minimize conflicts with existing utilities and adjacent infrastructure.

6. Materials and Installation Methods

Materials shall comply with the **Proposed Material List** included in the plan set and may include:

- HDPE conduit
- Fiber-optic cable
- Handholes, vaults, and terminal boxes
- Pull tape and tracer wire
- Approved backfill and restoration materials

Installation activities generally include:

1. Utility locating and potholing
2. Directional boring or trench excavation
3. Placement of conduit and structures
4. Installation and labeling of fiber-optic cable
5. Testing and verification of installed facilities
6. Surface restoration

7. Restoration

All disturbed areas, including pavement, curb and gutter, sidewalk, landscaping, and other surface improvements, shall be restored to **equal or better condition** than existed prior to construction. Restoration shall follow Town of Castle Rock standards and be subject to inspection and approval.

8. Final Documentation and Acceptance

Upon completion of construction, the contractor shall provide:

- Complete as-built drawings showing final horizontal and vertical alignment

- Fiber testing documentation (including continuity and loss testing)
- Confirmation of restoration completion
- Compliance documentation verifying construction was performed per approved plans and permits

Final acceptance of the work will be granted after successful inspection and approval by the Town of Castle Rock.