

Project Description Statement:

Hartington Telecommunications Co., Inc. (Hartelco) proposes to build fiber past every location within the Proposed Service Area. The North Star project will consist of a Middle-mile portion to get to the Proposed Service Area. The middle-mile routes are shown in red and the Proposed Service Area routes are shown in blue. See project design map M_2. All fiber cable will be buried. In the cabin areas the fiber cable will be placed in duct. In the rural areas the fiber cable along the county roads and highways will be direct buried.

The provided design map identifies the potential corridors for the proposed construction of the fiber optic facilities. Fiber optic cable construction shall primarily occur on previously disturbed public right-of-way. The fiber optic cable will be knifed into the soil at an approximate depth of 42 inches or with a directional boring machine. All streams and wetland areas will be directional bored to avoid impacting those types of environments. Maintenance will be performed by the Hartelco staff.

The proposed North Star Project consists of 28.5 miles of direct buried fiber cable, of which 12.0 miles is Middle-mile cable, 0.9 miles of mainline duct, and if all 118 subscriber locations take service will include approximately 4.4 miles of fiber drop cable.

The proposed project will consist of one (1) Electronics cabinet that will house the DZS Optical line terminal (OLT). The OLT will consist of the a DZS MXK F219 OLT with Active Ethernet line cards. The Active Ethernet line cards will be used to provide Giga-bit capable broadband service to each location that takes service. At each location that takes service, Hartelco will deploy an Indoor Optical Node Terminal (ONT) and a wireless access point CPE. Hartelco will be purchasing an additional Testing/Analytics System from DZS. The system will provide additional monitoring and performance testing capabilities that will be used to verify broadband speeds. The new OLT will have 10Gps link back to Hartelco's central office.

Given the number of construction miles, Hartelco does not foresee the mainline construction taking more than 55 calendar day (14 weather shutdown days included) to complete. Depending upon the number of locations that take service, the deployment of ONTs and CPEs will be completed soon after the mainline construction is completed. Given the relative short construction period, Hartelco has budgeted almost a full year of delay into the schedule waiting for material delivery. Even with the 1-year delay the project will be completed in the 18-month time period allotted. Hartelco believes the 1-year delay is sufficient and is what we are currently seeing fiber cable lead times. See the provided construction schedule M_3.