

EXHIBIT C

Description of Proposed Plant, Equipment, and Facilities

Thacker Grigsby Telephone Company, Inc. intends to build the ReConnect 3 award area, which includes roughly 1,841 potential broadband subscribers, via aerial fiber optic plant. This aerial plant will be installed on existing aerial utility lines already in the area. As part of the design and implementation of the project, Thacker Grigsby will work with the local utility pole owners to negotiate pole attachment agreements and permissions.

The proposed FTTP network will be 100% owned by Thacker-Grigsby and it will leverage a “home run” FTTP OSP architecture to provide dedicated fiber from the Optical Line Terminal (OLT) to the subscriber. The OSP architecture will utilize a number of 32-way optical splitters at the OLT sites and a dedicated fiber will be provided from the output of the splitter to a subscriber’s premise. The dedicated fiber from the location of the electronics to the premise allows Thacker-Grigsby flexibility in the technology it can deploy as broadband demand grows.

For the purpose of this build, Thacker-Grigsby intends to deploy XGS-PON electronics standardized by the International Telecommunications Union for the OLT portion of the network. This technology will be implemented via Calix FTTP electronics, specifically the E7-2 series. XGS-PON is able to provide speeds up to 10 Gbps downstream and 10 Gbps between the OLT and Calix Optical Network Terminal (ONT) upstream per 32 subscribers. In the XGS-PON configurations, subscribers that reside on the same OLT port share this upstream and downstream bandwidth.

E7-2 Ethernet Modular Access System - The E7-2 - is a modular two-slot, 1RU chassis with a 100 Gbps non-blocking backplane that delivers any mix of GPON, Active Ethernet or XGS-PON services. The E7-2 can deliver any number of native Ethernet services, including advanced business and residential services, as is planned with the awarded area. Multiple E7-2 chassis can be configured in a modular configuration allowing for centralized database and software management, and network scaling. Up to ten E7-2 shelves can operate as a single modular chassis (MC) system. The E7-2 system supports industry standard pluggable modules for all services and network interfaces, including ITU G.984 compliant GPON, SFP GE, XFP 10GE ports, and SFP+ 10GE ports.

Thacker Grigsby will utilize their extensive existing backbone network to provide internet and voice services to the project area via new uplinks to their core data routing network and voice switching network. At the core of the backbone network, Thacker-Grigsby has deployed a pair of Juniper MX 960 routers that interconnect with the public Internet via redundant and diverse 100G connections. These connections peer to Chicago and Ashburn respectively and are configured in an active setup. Thacker-Grigsby has collocated Juniper equipment at each of these upstream sites. The Juniper MX 960 routers handle all L3 services, BGP peering, etc. BGP is the overlay protocol that connects all the edge and core routers together. From the main traffic aggregation points, Thacker-Grigsby has subtending, ERPS rings utilizing the Calix Access platform. These subtending rings are 10 Gbps today.

Voice Services Voice standards such as H.248 and SIP are used to communicate between the Thacker Grigsby softswitch and the endpoint location. Thacker-Grigsby provides QoS for voice services from the ONT all the way back to the core network where it is handed off to the Public Switched Telephone Network (PSTN) via a Ribbon C15. Quality of Service (QoS) for end-to-end voice subscribers is ensured by affording voice traffic a higher priority by utilizing Differentiated Services Code Point (DSCP) headers with express porting bits. Voice data is segmented by VLAN framework to prioritize the voice traffic to the

Session Border Controller (SBC). From there, traffic is connected to the Ribbon C15 via a TDM trunk or SIP trunks for 911 and long-distance services. The voice services will be internally provided with an existing, redundantly configured Ribbon C15 Class 4/5 softswitch, CODYKYXADS1, at the Cody, KY central office. In addition to the Ribbon C15 Class 5 switching functions, the softswitch also serves as a Class 4 Tandem, CODYKYXA00T. Connectivity to the PSTN is accomplished via the CODYKYXADS1 and CODYKYXA00T Ribbon C15. All call types are supported with these PSTN interconnections to the Ribbon Class 4/5 softswitch in Cody, KY, including E911, Local, EAS, Long Distance, and International. To facilitate these different call types, Thacker-Grigsby has worked with other regional carriers such as Bellsouth Telecom, Windstream, Leslie County Telephone, Gearheart Communications, and others to establish the required interconnection facilities. The SIP traffic is then handed off to the redundant Ethernet transport network back to the Juniper MX960 in Hindman. From there it is handed to the respective access equipment (Calix), and ultimately, the ONT at the customer premise.

Thacker-Grigsby's Ribbon C15 includes functionality such as integrated session border controllers, port modules (media gateways), call agents, and application servers. Currently, Thacker-Grigsby's Ribbon C15 supports about 6,000 phone lines and is licensed for 8,000. The Ribbon C15 is scalable via license upgrades to support 75,000 simultaneous calls. These expansion capabilities allow for ample growth of the voice system to support the existing operations and future awarded areas. Thacker-Grigsby interconnects to E911 emergency services and long-distance services by means of additional diverse SIP trunks directly to Inteliquent SIP trunks in Chicago, IL and Atlanta, GA.

In addition to the requisite electronics equipment and outside plant that will need to be implemented and constructed as part of the project, it is also proposed that 6 new structures will be constructed within the awarded area to house electronic equipment (OLT's, data routers, etc.) and act as the central routing points for all outside plant fiber optic cable. These structures, or huts, will be placed strategically within the project area in both Breathitt and Leslie counties. The locations for the 1 hut in Breathitt County and the 5 huts in Leslie County have been tentatively determined based on the ITU-T G.9807.1 standard that calls for the maximum distance between and XGS-PON OLT and ONT to be 20 kilometers.