

5. SYSTEM FACILITIES

5.1. *Cable System Characteristics:* The Cable System shall have at least the following characteristics:

5.1.1. Designed with an initial analog passband of 860 MHz.

5.1.2. Designed to be an active two-way plant for subscriber interaction, if any, required for selection or use of Cable Service.

5.1.3. Modern design when built, utilizing an architecture that will permit additional improvements necessary for high quality and reliable service throughout the Franchise Term. The FTTP Network shall utilize the ITU G.983 Passive Optical Network standard and have no active elements so as to make it more reliable.

5.1.4. Protection against outages due to power failures, so that back-up power is available at a minimum for at least 24 hours at each headend, and conforming to industry standards, but in no event rated for less than four hours, at each power supply site.

5.1.5. Facilities and equipment of good and durable quality, generally used in high-quality, reliable, systems of similar design.

5.1.6. Facilities and equipment sufficient to cure violations of any applicable FCC technical standards and to ensure that the Cable System remains in compliance with the standards specified in subsection 5.1.18.

5.1.7. Facilities and equipment as necessary to maintain, operate, and evaluate the Cable System to comply with any applicable FCC technical standards, as such standards may be amended from time to time.

5.1.8. All facilities and equipment designed to be capable of continuous twenty-four (24) hour daily operation in accordance with applicable FCC standards except as caused by a Force Majeure event.

5.1.9. All facilities and equipment designed, built and operated in such a manner as to comply with all applicable FCC requirements regarding (i) consumer electronic equipment and (ii) interference with the reception of off-the-air signals by a subscriber.

5.1.10. All facilities and equipment designed, built and operated in such a manner as to protect the safety of the Cable System workers and the public.

5.1.11. Sufficient trucks, tools, testing equipment, monitoring devices and other equipment and facilities and trained and skilled personnel required to enable the Franchisee to substantially comply with applicable law, including applicable customer service standards and including requirements for responding to system outages.

5.1.12. All facilities and equipment required to properly test the Cable System and conduct an ongoing and active program of preventive maintenance and quality control and to be able to quickly respond to customer complaints and resolve system problems.

5.1.13. Design capable of interconnecting with other cable systems in the Franchise Area as set forth in Section 5.3 of this Agreement.

5.1.14. If applicable, antenna supporting structures (towers) designed in accordance with the Virginia Uniform Statewide Building Code, as amended, painted, lighted, erected and maintained in accordance with all applicable rules and regulations of the Federal Aviation Administration, the Federal Communications Commission, and all other applicable codes and regulations.

5.1.15. Facilities and equipment at the headend shall allow the Franchisee to transmit or cablecast signals in substantially the form received, without substantial alteration or deterioration. For example, the headend should include equipment that will transmit color video signals received at the headend in color, stereo audio signals received at the headend in stereo, and a signal received with a secondary audio track with both audio tracks. Similarly, all closed-captioned programming retransmitted over the Cable System shall include the closed-captioned signal in a manner that renders that signal available to Subscriber equipment used to decode the captioning.

5.1.16. Shall transmit in high definition any signal, which is received in high definition format.

5.1.17. Shall provide adequate security provisions in its Subscriber site equipment to permit parental control over the use of Cable Services on the System. Such equipment will at a minimum offer as an option that a Person ordering programming must provide a personal identification number or other means provided by the Franchisee only to a Subscriber. Provided, however, that the Franchisee shall bear no responsibility for the exercise of parental controls and shall incur no liability for any Subscriber's or viewer's exercise or failure to exercise such controls.

5.1.18. The Cable System must conform to or exceed all applicable FCC technical performance standards, as amended from time to time, and any other future applicable technical performance standards, which the County is permitted by a change in law to enforce, and shall substantially conform in all material respects to applicable sections of the following standards and regulations to the extent such standards and regulations remain in effect and are consistent with accepted industry procedures:

5.1.18.1. Occupational Safety and Health Administration (OSHA) Safety and Health Standards;

5.1.18.2. National Electrical Code;

5.1.18.3. National Electrical Safety Code (NESC);

5.1.18.4. Obstruction Marking and Lighting, AC 70/7460 i.e., Federal Aviation Administration;

5.1.18.5. Constructing, Marking and Lighting of Antenna Structures, Federal Communications Commission Rules, Part 17; and

5.1.18.6. The Uniform Statewide Building Code.

5.2. The FTTP Network shall have at least the following characteristics:

5.2.1. FTTP Network fiber shall be initially designed utilizing splitters of no greater than thirty-two (32) homes per splitter. The FTTP Network shall be pass-through or passive.

5.2.2. Status monitoring capability shall be a feature of the electronics at the customer premises in the FTTP Network. The FTTP Network shall deliver fiber to an Optical Network Terminal (“ONT”) at the Subscriber’s premises. The ONT shall automatically measure optical signal levels (and other distortion measurements) at the Subscriber’s premises.

5.3. *Interconnection:*

5.3.1. The Franchisee shall design its Cable System so that it may be interconnected with other cable systems in the Franchise Area at suitable locations as determined by the Franchisee. Interconnection of systems may be made by direct cable connection, microwave link, satellite, or other appropriate methods.

5.3.2. At the request of the Communications Administrator, the Franchisee shall, to the extent permitted by applicable law and its contractual obligations to third parties, use every reasonable effort to negotiate an interconnection agreement with any other franchised cable system in the County for the PEG channels on the Cable System.

5.3.3. The Franchisee shall notify the County prior to any interconnection of the Cable System.

5.3.4. The Franchisee shall in good faith cooperate with the County in implementing interconnection of the PEG Cable Service with communications systems beyond the boundaries of the County.

5.4. *Emergency Alert System:*

5.4.1. The Franchisee shall install and thereafter maintain for use by the County an Emergency Alert System (“EAS”).

5.4.2. This EAS shall at all times be operated in compliance with FCC requirements. Subject to the foregoing, the EAS shall be remotely activated by telephone and shall allow a representative of the County to override the audio and video on all Channels on the Cable System so long as it is consistent with Franchisee’s contractual commitments, without the

assistance of the Franchisee, for emergency broadcasts from a location designated by the County in the event of a civil emergency or for reasonable tests.

5.4.3. The County shall coordinate with and provide reasonable notice to the Franchisee prior to any test use of the EAS. The Franchisee shall cooperate with the County in any such test to the maximum extent feasible.

5.4.4. Each party shall be responsible for its own actions and for any claim arising out of its actions with respect to activation of the EAS.

5.4.5. The County shall permit only appropriately trained and authorized Persons to operate the EAS equipment and shall take reasonable precautions to prevent any use of the Cable System in any manner that results in inappropriate use thereof.

5.5. *Home Wiring:* The Franchisee shall comply with all applicable FCC requirements, including any notice requirements, with respect to home wiring. Prior to a Subscriber's termination of Cable Service, the Franchisee will not restrict the ability of the Subscriber to remove, replace, rearrange or maintain any cable wiring located within the interior space of the Subscriber's dwelling unit, so long as such actions are consistent with FCC standards. The Franchisee may require a reasonable indemnity and release of liability in favor of the Franchisee from a Subscriber for wiring that is installed by such Subscriber.