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6 SITE DEVELOPMENT PLANS

(7/20/93)
(6/15/04)

6-A INTENT

The purpose of these requirements is to promote the orderly development of certain activities in the County and to insure that such activities are developed in a manner harmonious with surrounding properties and in the interest of public health, safety, and welfare. The site plan shall be used to review:

1. a project's compatibility with its environment,
2. the ability of proposed traffic circulation systems to provide for safe and convenient movement of vehicles and pedestrians,
3. the quantity, quality, utility, and type of the project's community facilities, and
4. the location and adequacy of the provision for drainage and utilities.

6-B WHEN REQUIRED

6-B-1 (7/17/12) A site plan shall be submitted in accordance with this article for all proposed buildings, structures, or uses, except:

a. Single family detached dwellings
b. Small wind turbines subject to the following requirements:
   (1) Single structures greater than 100 feet in height; or
   (2) Less than three wind turbine structures 100 feet or less
c. Agricultural buildings.

6-B-2 A site plan shall be submitted when a change of use of an existing structure requires additional parking or other significant external improvements.

6-B-3 (2/19/08) A site plan shall be submitted when a change of use of an existing structure requires conformance to current site plan requirements such as parking, landscaping, signage, lighting, storm water control, etc.

6-C WAIVER OF REQUIREMENTS

6-C-1 Any requirement of this Section may be waived by the Agent where the waiver is not inconsistent with this Section, and the applicant establishes that an undue hardship would result from a strict enforcement of this Section, or that the requirement is unreasonable.

6-C-2 The Agent may waive the requirements for site plan review for additions to buildings, structures, and uses, if in his/her opinion; such addition does not substantially affect the intent of this Section.

6-D ADMINISTRATION

6-D-1 (2/21/90) The Berryville Area Development Authority (BADA) is the administrative body for property within Annexation Area "B" (as defined in the County/ Town Annexation Agreement of 1988) which is the subject of the application and for which no final Certificate of Occupancy has been granted.

6-D-2 In all other areas of the County, the Clarke County Planning Commission as the administrative body.

6-D-3 The Planning Commission and BADA may accept comments from the County of Clarke, Town of Berryville, and other applicable public agencies when reviewing site plans.

6-D-4 Agent
The Planning Commission may act through the Clarke County planning staff, and the BADA through the Clarke County planning staff or the Berryville planning staff (the "Agent"), to the extent the Administrative Bodies find it appropriate for the administration of this Section. However, no Agent may act for the Administrative Bodies in approving, conditionally approving, or denying any site plan. The Agent shall be responsible for the processing of site development plan applications, subject to the procedures provided herein.

6-D-5 Inspection
All government officers and employees responsible for the enforcement of this Section shall have the right to enter upon any property at all reasonable times during the period of construction for the purpose of making inspections for compliance with this Section. It shall be the responsibility of the developer to notify the Agent when each stage of the development is ready for inspection for compliance with the site plan as approved by the Administrative Body. The developer shall make one set of the approved site plan available at the site at all times during construction.

6-E PROCEDURES

6-E-1 Pre-Application Conference Requirement

(11/18/14) No less than seven (7) days prior to filing an application, a pre-application conference shall be held between the Applicant and the Agent. The Applicant shall provide for review a conceptual or draft site plan showing the subject property, general site layout, and main elements to be proposed as part of this application. The draft site plan and any additional materials provided by Applicant shall be retained by the Agent as the initial public record for the application.

6-E-2 Application

6-E-2-a (3/20/90) (10/18/11) Application for approval of a site development plan shall be made by submitting an application form, paper copies of the site plan, a digital or electronic copy of the site plan (Portable Document Format) (PDF), digital files (as described below) and the applicable fee, to the Agent.

1. A total of 21 paper copies shall be submitted, 15 copies on 11 by 17 inch paper and six copies on 24 by 36 inch paper.
2. The digital files shall be provided in one of the following formats:
   DXF (AutoCAD ASCII Drawing Exchange File)
   ArcGIS shapefile
   ArcGis Personal geodatabase
3. The digital files shall provide individual layers for the following features:
   Site boundary
   Parcel lot lines

Lot numbers
Tax Map numbers
Streets and Roads
Road Right of Ways
Road names
Building footprints
Utilities and Lines
Easements

4. The digital files shall be submitted in the following projection:

Projected Coordinate System:	NAD 1983 State Plane Virginia North FIPS 4501 Feet
Projection:	Lambert Conformal Conic
False Easting:	11482916.66666666
False Northing:	6561666.66666667
Central Meridian:	-78.50000000
Standard Parallel:	1:38.03333333
Standard Parallel:	2:39.20000000
Latitude Of Origin:	37.66666667
Linear Unit:	Foot US
Geographic Coordinate System:	GCS North American 1983
Datum:	D North American 1983
Prime Meridian:	Greenwich
Angular Unit:	Degree

A minimum of two property corners shall be identified by xy coordinates in order to "tie to" existing GIS layers.
A Statement indicating the source of the northern meridian and amount of declination used

5. The Zoning Administrator may modify the number and size of paper copies or digital copies and may modify the format and features for such digital information based on unique circumstances.

6-E-2-b (11/18/14) The agent may require such other information to be submitted as the Agent deems necessary for a proper and intelligent consideration of the application. The Agent may also establish regular filing deadlines to ensure that there is sufficient time to evaluate the application prior to the Administrative Body's initial review.

6-E-2-c (11/18/14) The Agent shall determine when the application is complete. After receipt of a complete application, the Agent shall refer the matter to the Administrative Body for initial review at its next regular meeting.

6-E-2-d The Agent shall forward copies of the site plan for all applicable agencies and officials for written comments and recommendations. After receiving such comments and recommendations, the Agent shall prepare a report for the Administrative Body.

6-E-2-e The site plan and accompanying materials shall be available for public review in the Clarke County Planning Department

6-E-2-f In addition to the fee set by the Board of Supervisors, the Board may require the applicant to bear the costs of any extraordinary professional services employed by the Administrative Body in reviewing the site plan.

6-E-3 Action on Site Plan Application

6-E-3-a Time Period
(11/18/14)

After receiving a complete application from the Agent, the Administrative Body shall initially review the application at the next regular monthly meeting. Within 60 days of this first meeting, the Administrative Body shall act to approve, approve with conditions, or disapprove the site plan.

6-E-3-b Public Notice and Hearings
(11/18/14)

1. The Administrative Body shall provide public notice and hold public hearings on the site plan application, in accordance with the requirements of Section 10-E of this ordinance.

2. Deadlines for Applicant Submission of Materials Prior to Public Hearing. Following the filing of a complete application, the Applicant shall provide any new or revised materials demonstrating compliance with required technical elements no less than 14 days prior to the first Public Hearing and no less than 10 days prior to any continued Public Hearing. Required technical elements include any regulations governing site development such as lot dimensions and plan submission requirements. Any new or revised materials provided after the deadlines referenced above shall be not considered by the Commission at the scheduled meeting.

6-E-3-c Action by the Administrative Body

(11/18/14)

1. The Administrative Body shall approve the site plan if it finds that the plan meets the requirements of this Ordinance, the Clarke County Code, the Code of Virginia, and the intent of the Clarke County Comprehensive Plan and/or its Berryville Area Plan component.

2. The Administrative Body may condition approval of the site plan upon the applicant making certain changes or modifications to the plan, said conditions to be stated in writing by the Administrative Body.

3. If the Administrative Body disapproves a site plan, it shall state in writing the reasons for such denial in a separate document or on the plan itself. The reason for disapproval shall identify deficiencies in the plan that caused the disapproval, and shall identify, to the extent practicable, modifications or corrections that will permit approval of the site plan.

6-E-3-d Appeals

Any applicant may appeal the decision of the Administrative Body by filing within 30 days of the decision of the Administrative Body an appeal in writing to the Board of Supervisors of Clarke County, Virginia.

6-E-3-e Site Plans Submitted with Special Use Permit Applications
(6/19/90)

Where a site plan is submitted with a Special Use Permit application as required in Section 5 of this Ordinance, the action of the Administrative Body shall be in the form of a recommendation to the Board of Supervisors. The Board shall then consider the site plan in conjunction with the Special Use Permit request, as outlined in Section 5.

6-E-4 Compliance with Conditions

(2/17/09) (10/18/11) A Site Plan shall become null and void if it is not submitted, in a form complying with all conditions established by the Planning Commission or Board of Supervisors, to the Planning Commission or Board of Supervisors Chair and Zoning Administrator for signature within six months from the date of approval by the Planning Commission or Board of Supervisors. The Planning Commission or Board of Supervisors may extend this time limit upon written request of the property owner. Such submittal shall include six copies on 24 by 36 inch paper, a digital or electronic copy of the site plan (Portable Document Format (PDF), digital files (see section 6-E-2-a-2 thru 5 for format, features, and projection). The Zoning Administrator may modify the number of paper copies or digital copies and may modify the format and features for such digital information based on unique circumstances.

6-E-5 Approval Expiration

(2/17/09) Unless a final Certificate of Occupancy has been issued for the structures shown on the Site Plan, an approved final Site Plan shall no longer be valid after five years from the date the Planning Commission or Board of Supervisors Chair sign a final version of the Site Plan that complies with any conditions set by the Planning Commission or Board of Supervisors in its approval action. Upon application of the developer, filed before expiration of a final Site Plan, the Planning Commission or Board of Supervisors may grant one or more extensions of such approval for additional periods as the Commission or Board, at the time the extension is granted, determines to be reasonable. Such extensions shall take into consideration:

1. whether a building permit has been issued,
2. whether substantial construction work has been completed,
3. the size and phasing of the proposed development, and
4. the laws, ordinances, and regulations in effect at the time of the request for an extension.

6-F SPECIFICATIONS

Every site plan shall be prepared in accordance with the following specifications:

6-F-1 The scale shall be one inch equals not more than 50 feet.

6-F-2 All site plans shall be submitted on 24 by 36 inch sheets.

6-F-3 If the site plan is on more than one sheet, match lines shall clearly indicate where the sheets join.

6-F-4 Horizontal dimensions shall be in feet and decimals of feet to the nearest 1/100 of a foot.

6-G CONTENTS

The site plan, or any portion thereof involving engineering, urban planning, landscape architecture, architecture or land surveying shall be prepared by qualified persons. Site plans shall be certified by seal and signature of an architect, engineer, or land surveyor licensed to practice by the Commonwealth of Virginia within the limits of their respective licenses. The site plan shall contain the following information, as applicable:

6-G-1 The proposed title of the project and the name of the engineer, architect, landscape architect or surveyor; the name of the developer; name and address of the property owner.

6-G-2 A signature area for approvals by the chairman of the Administrative Body and the Agent.

6-G-3 Signature of the property owner.

6-G-4 North point, scale, and date.

6-G-5 Vicinity map at a scale of one inch equals not more than 2,000 feet, showing the location of the project in relation to state roads and other prominent features.

6-G-6 Existing zoning and zoning district boundaries for the property in question, and on immediately surrounding properties.

6-G-7 The present owner and use of all properties contiguous or directly across any street.

6-G-8 The boundaries of the property involved by bearings and distances, certified by a land surveyor licensed to practice in the Commonwealth of Virginia.

6-G-9 All existing property lines, existing streets, buildings, watercourses, waterways, lakes, and other existing physical features on or adjoining the property. Size and height of existing buildings on the property should be shown. Features on adjoining properties need only be shown in approximate scale and proportion.

6-G-10 Topography of the project area with contour intervals of two feet or less

6-G-11 Location and sizes of sanitary and storm sewers, gas lines, water lines, culverts, fire hydrants, and other above-ground or underground structures in or affecting the project, including existing and proposed facilities, and easements for these facilities.

6-G-12 The location, dimensions, name, and construction details (including typical sections) of proposed streets, alleys, driveways, and the location, type, and size of ingress and egress to the site. When proposed streets intersect with existing streets, both edges of existing pavement or curb and gutter must be indicated for a minimum of 50 feet or the length of connections, whichever is greater.

6-G-13 The location of all off-street parking, loading spaces, and walkways, indicating types of surfacing, size and angle of stalls, width of aisles, and a schedule showing the number of parking spaces.

6-G-14 The location, height, type, and material of all fences, walls, screen planting, and landscaping details of all buildings and grounds, and the location, height, and character of all outdoor lighting systems.

6-G-15 The location of all proposed buildings and structures, primary and accessory; number of stories and height; proposed general use of each structure; and the number, size, and type of dwelling units, where applicable.

6-G-16 (01/17/17) For projects located in the Berryville Annexation Area, provision for the adequate disposition of natural and storm water indicating the location, sizes, types, and grades of ditches, catch basins, detention ponds (showing 10-year and 100-year elevations), and pipes and connections to existing drainage systems. Plans shall be in accordance with the Berryville Stormwater System Master Plan.

6-G-17 Provisions, plans and schedule for the adequate control of erosion and sediment, in accordance with the Clarke County Erosion and Sediment Control Ordinance.

6-G-18 Proposed finished grading by contour, supplemented where necessary by spot elevations.

6-G-19 Flood plain studies as required by the Agent.

6-G-20 The location, size, height, materials used, orientation, and illumination of proposed signs.

6-G-21 The location, dimensions and total area of proposed recreation, open space, and required amenities and improvements.

6-G-22 The location of all wooded areas on the site, including all individual large or medium canopy trees (see section 6-H-10-g) with a diameter of eight inches or more (measured 4½ feet above the ground) and all small canopy trees (see section 6-H-10-g) with a diameter four inches or greater (measured 4½ feet above the ground) that are located within the areas proposed for clearing and within 20 feet of the proposed limit of clearing. The site plan shall provide an indication of which trees are to be retained and which are to be removed.

6-G-23 A landscape plan (same scale as site plan), meeting the minimum landscape design standards described below.

6-G-24 Development sequence for phased construction, if applicable.

6-G-25 Building restriction lines.

6-G-26 Distance to nearest school or school site.

6-G-27 Elevation plans for all exterior facades of proposed structures, showing design features and indicating materials and colors to be used.

6-G-28 Source of title of the owner of record, including deed book and page reference of the last instrument in the chain of title.

6-G-29 Total site acreage; acreage of individual lots and street rights-of-way.

6-G-30 Location and acreage to the nearest 0.1 acre of critical environmental areas, including the following: slopes between 15%-25%; slopes greater than 25%; rock outcroppings; sinkholes; floodplains and flood plain soils; current drainage channels; bodies of water; stormwater management facilities; utilities; other sensitive areas defined by the Agent. The Agent may require that a geotechnical report be submitted where warranted by soil or water conditions.

6-G-31 (1/20/09) If explosives are proposed to be used in conjunction with development shown on a site plan, a Blasting Plan shall be provided per Clarke County Code Chapter 86, Explosives, approved by the Board of Septic and Well Appeals.

6-G-32 Floor area ratio (FAR) and impervious surface coverage for all structures on the property.

6-G-33 Maximum number of employees anticipated, if industrial, commercial, or office; net density of dwelling units, if residential.

6-G-34 Anticipated daily and peak water demand and sewage flows for the site.

6-G-35 (6/15/04) Anticipated daily vehicle trips generated by the site development based upon data found in Trip Generation, by the Institute for Transportation Engineers, latest edition; capacity of existing and proposed streets; sight distances for all intersections based on Virginia Department of Transportation (VDOT), "Road Design Manual and Minimum Standard of Entrances" to state highways, latest edition; proposed improvements within existing street rights-of-way; and, further traffic studies as required by the Agent. If additional traffic studies are required, the applicant shall use the applicable criteria and methodologies found in the VDOT Design Manual, latest edition. The Agent may assign all or a part of the VDOT "Guidelines for a Traffic Impact Study" depending on the type, size, and location of the development.

6-G-36 A copy of all proposed homeowners' association bylaws, and other covenants or maintenance documents where common ownership is anticipated.

6-G-37 A copy of rezoning proffers, Special Use Permit conditions or variances granted for the property shall be submitted with the site plan.

6-G-38 Bond estimates for all required improvements.

6-G-39 Any necessary notes required by the Agent to explain the purpose of specific items on the plan.

6-G-40 Additional information as deemed necessary by the Administrative Body or the Agent.

6-H IMPROVEMENTS AND MINIMUM STANDARDS

(6/15/04)
(8/17/10)

To further the intent of this Section and to protect public safety and general welfare, no site plan shall be approved until the Administrative Body is assured that improvements will be made which meet the following minimum standards:

6-H-1 Streets and Rights-of-Way

(6/15/04) A traffic impact study is required when the proposed new development will generate traffic in excess of 1000 vehicles per day. If the proposed development generates less than 1000 vehicles per day, but the nearest intersection is known to be near its design capacity, or there is a high accident rate as determined by the Planning Commission, a traffic impact study may be required. The parameters of the traffic impact study will be decided by the Planning Commission, however, the methodology for preparing the study will be that found in the VDOT Design Manual.

6-H-1-a Streets, driveways, access roads and rights-of-way shall be constructed and dedicated, and existing streets widened and improved as necessary, when the need for such streets and improvements is generated by the proposed development, or is indicated in the Clarke County Comprehensive Plan and/or its Berryville Area Plan component.

6-H-1-b All street construction standards and geometric design standards shall be in accord with the standards of the Clarke County Subdivision Ordinance, the Virginia Department of Transportation, or other standards provided by the County of Clarke. However, the Authority or the Agent may modify standards for local, collector, and minor loop streets provided that off-street parking sufficient to accommodate required parking ratios are provided to complement the street system, and approval of the modifications is obtained from the Virginia Department of Transportation, where applicable.

6-H-1-c (6/15/04) All development must have direct access to public dedicated and State maintained roads. Lots, with less than 70 feet of frontage, shall not have a permanent single separate access to any primary road unless the physiography, shape or size of the tract precludes other methods of access. Common (joint) access shall be used where available. The site design of new commercial/industrial development, accessed by a primary highway shall include interconnection and shared driveways with adjoining commercial/industrial property (vacant or developed) and, if conditions warrant, frontage roads.

The Planning Commission may allow temporary access points if phased development is occurring, as long as a plan is approved that guarantees the new commercial/industrial development shall design site access so that interconnection with an adjoining property, shared driveways, or a frontage road can be incorporated into the design. Except where impractical by reason of topography hardship, the area between the frontage road and the primary highway shall be sufficient to provide area for scenic planting and screening. The dimension of the area between the frontage road and the primary highway shall be determined after due consideration of traffic safety requirements. Driveway spacing and corner clearance with public highways (the distance from the nearest driveway travel lane centerline to the nearest street corner right-of-way) shall be:

Roadway	Driveway Spacing/Corner Clearance
Frontage	100 feet
Secondary	600 feet
Primary	600 feet where there is no median opening
	1000 feet where there is a median opening

6-H-1-d Where traffic generated from an entire development exceeds 2,000 vehicle trips per day, such development shall provide connectors to existing public roads at two or more locations. Where only one connection is physically achievable, the connecting portion of the entrance road must be a four-lane divided road extending not less than 250 feet into the development. No internal vehicular connection shall be permitted on this entrance section.

6-H-1-e Streets and rights-of-way shall permit access to adjoining properties in conformance with the Clarke County Comprehensive Plan, the Berryville Area Plan, and to the satisfaction of the Administrative Body or the Agent.

6-H-1-f On-site travel ways shall be designed with the following standards:
(6/15/04) Turn Radius: Minimum turn radii shall be 25 feet (increased radii to be provided if site is to be used by large truck traffic);
Driveway Width: Maximum driveway width: 14 feet per lane if one-way in and one-way out; 11 feet per lane for multi-lane entrance/exit;
Driveway Throat Length: To be determined on a case by case basis; desired length will depend on vehicle peak hour demand and resultant expected queuing needs;
Right/Left Lanes: Required when right/left turn volume into or from the subject site exceeds 300 vehicles per lane; and
Taper Lane: The Planning Commission may require an on-site right turn taper when right turn traffic volumes are less than 300 vehicles per hour.

6-H-2 Cul-de-Sacs
Cul-de-sacs shall be designed and constructed in accordance with the street standards of the Clarke County Subdivision Ordinance, or with other standards provided by the County of Clarke. Cul-de-sacs may not be used as parking areas.

6-H-3 Parking
Parking bays shall be constructed to standards compatible with those of the adjoining public street, and shall be provided in quantity according to the schedule set forth in this Ordinance. Off-street parking spaces shall be accessed via private travel ways, and not directly accessed from public rights-of-way.

6-H-4 Sidewalks, Paths, and Walkways
(6/15/04) Sidewalks, paths, and/or walkways shall be provided to enable the public to walk safely and conveniently from one building to another on the site, to and from adjacent sites, and to and from sidewalks in the public right-of-way. The construction material to be used must meet the approval of the Administrative Body or the Agent. Where the Clarke County Comprehensive Plan designates a trail system and that system traverses commercial/industrial sites, the site plan shall incorporate the trail system into the design. All such sidewalks, paths, and walkways shall comply with the standards of the Americans with Disabilities Act.

6-H-5 Curb and Gutter
(8/17/10) Curb and gutter (CG-6 or approved equivalent) shall be required on all new public streets in the Highway Commercial (CH) Zoning District. The Administrative Body may require curb and gutter on off-street parking areas, service drives, private streets and around medians, where warranted by conditions. Upon recommendation from the Virginia Department of Transportation, the Administrative Body may waive the requirement for curb and gutter when in keeping with existing conditions on adjacent sites, and when safe travel and adequate stormwater management can be assured without curb and gutter. In the AOC, FOC, Rural Residential (RR) and Neighborhood Commercial (CN) Zoning Districts curb and gutter shall not be required unless site conditions warrant.

6-H-6 Utilities and Utility Easements
All utilities necessary to serve the proposed development shall be installed by the developer, and shall be installed underground in accordance with the appropriate facilities plans; provided however, that:

6-H-6-a Equipment such electric distribution transformers, switch gear, meter pedestals and telephone pedestals, which are normally installed aboveground, may continue to be so installed;

6-H-6-b Meters, connections, and similar equipment normally attached to outside walls, may be so installed;

6-H-6-c Dedications of right-of-way easements shall be made for all utilities and facilities that are intended to be publicly maintained. Easements shall be clearly defined for the purposes intended. Minimum easement widths shall be as specified by the Administrative Body, the Agent, or utility company.

6-H-7 Water and Sewer Systems

All water distribution and sewer collection systems shall be designed to accommodate normal and peak demand loads. All such systems shall be designed to meet or exceed the specifications of the Berryville Area Water and Sewerage Program. Regulations of the Virginia Department of Health and other state agencies shall also be met, as applicable.

6-H-8 Site Development Plans; Improvements and Minimum Standards; Stormwater Management
(01/17/17)

6-H-8-a (11/21/00) (8/17/10) (01/17/17) Stormwater management facilities shall be provided in conjunction with land development activities, which require the submission of a Site Plan. All stormwater management facilities shall comply with State stormwater management regulations. A copy of the permit or approval letter from the State stormwater management program authority shall be provided as a condition of final site plan approval.

6-H-9 Soil Suitability

The U.S. Department of Agriculture, Soil Conservation Service, shall be referred to for commenting on the suitability of soils for intended development, and on any special measures that are recommended for development on a certain soil classification. The applicant shall provide a generalized mapping of on-site soils and their engineering characteristics.

6-H-10 Landscaping Design Standards

6-H-10-a (10/25/99) Purpose and Intent

The purpose of this article is to:

1. Provide for the protection of ground water, improve air quality and stormwater management through the mitigating effects of trees;
2. Preserve property values and retain the character of an area in a way that is conducive to economic development;
3. Make incompatible land uses less disagreeable by requiring screening in order to minimize the harmful impact of noise, dust and vehicle headlight glare.
4. Require landscaping of parking lots to reduce the harmful effects of wind, heat, noise and vehicle headlight glare;
5. Improve the aesthetic appearance of commercial, industrial and residential areas to help create an attractive and harmonious community;
6. Provide for site development protecting the health safety and welfare of the public and in conformance with zoning regulations as allowed in §15.2-2283 & 15.2-2286 of the Code of Virginia; and

7. Provide for preservation, planting, and replacement of trees in the development process to meet the objectives of §15.2-960 & 961 of the Code of Virginia, as amended.

6-H-10-b Existing Trees

1. Existing trees, with the following characteristics, should be preserved, but may be replaced as noted in section 3 below;
   a. have a diameter of eight inches or greater (measured 4.5 feet above the ground) if large or medium canopy trees(see section 6-H-10-g);
   b. have a diameter of four inches or greater (measured 4.5 feet above the ground) if small canopy trees;
   c. be a native species;
   d. be in a healthy condition; and
   e. be located on the subject property within two years before site plan application.
2. Preservation shall be accomplished by maintaining current grade and installing a temporary four-foot high fence during site disturbance for the circular area centered on the tree with a diameter 1.5 times the canopy spread.
3. Replacement trees may be shown on the site plan for existing trees, as described above. Replacement trees shall be Large Canopy or Medium Canopy trees and meet the specifications of Section 6-H-10-g below. The total caliper of replacement trees shall equal or exceed the total caliper of existing trees being removed up to a maximum of four replacement trees per acre of the subject property. Existing or replacement trees shall not be considered buffer or parking trees.

6-H-10-c Buffer-areas

Buffer-areas provide for plant material screening between adjacent land uses and along public rights of way. The buffer-areas are required to run the length of adjacent property boundaries and public rights of way. Buffer-areas shall not be used for buildings, the storage of materials, or vehicular parking. Except for mulched areas adjacent to plant material, buffer-areas shall have a living ground cover.

1. The minimum Buffer-area widths are provided in the matrix below:

Proposed Use **Existing Zoning**

	Resid., AOC or FOC	**Commercial & Institutional**	**Industrial**	**Public ROW**
Residential	N/A	25 feet	25 feet	10 feet
Commercial & Institutional	25 feet	N/A	10 feet	10 feet
Industrial	25 feet	10 feet	N/A	10 feet
Public ROW	10 feet	10 feet	10 feet	N/A

2. Screening
   a. Quantity: Plant material is required per square foot of buffer-area as listed below:

	Buffer areas less than 25 feet wide	Buffer areas 25 feet and wider
Large Canopy Tree	1/500 square feet and	1/750 square feet or

Medium Canopy Tree	(none required)	1/750 square feet or
Small Canopy Tree	1/1000 square feet and	1/750 square feet and
Evergreen Tree	1/500 square feet and	1/250 square feet and
Shrub	1/50 square feet	1/50 square feet

b. Utility Lines: Small Canopy Trees shall be substituted for Large Canopy Trees where buffer-areas are under and parallel to overhead utility lines. In other buffer-areas, Small Canopy Trees should be used whenever trees are placed under overhead utility lines.

c. Screening of Parking Areas: Shrubs should be placed to screen parking areas from public rights of way.

d. Commercial or Industrial Buffer-areas: Based on site characteristics, buffer-areas for commercial or industrial uses adjacent to Residential, AOC or FOC zoning districts may be required to include fences or walls with a minimum height of six feet.

e. Screening of Outdoor Storage Areas: All outdoor storage areas shall be screened from all public streets and adjacent properties. Screening shall be comprised of fences or walls with a minimum height of six feet.

f. Fence and Wall Materials: Fences and walls used for screening shall be solid and should be the same material as the primary site structure. Use of chain link, plastic, fiberglass, and plywood is discouraged.

g. Additional Plant Material: Wherever possible, installation of additional plant material, including annuals and perennials, is encouraged to maximize the attractiveness and value of a property.

6-H-10-d Parking Trees

Trees shall be provided in parking areas, in addition to required buffer-area trees. The requirements of this section shall apply to the construction or enlargement of any parking lot containing eight or more spaces.

1. One large canopy tree or two medium canopy trees are required for every eight parking spaces.
2. A landscape island for each large canopy tree or two medium canopy trees shall be not less than three hundred square feet of permeable, unpaved area, and have a minimum width of nine feet.
3. Landscape areas within the parking lot shall be reasonably dispersed throughout the parking lot.
4. Except for mulched areas adjacent to plant material, landscape islands shall have a living ground cover.

6-H-10-e Plant Material Type and Location Specifications
(1/20/09)

1. Schedule: All plans shall contain a schedule of plants proposed, indicating the number proposed, caliper or gallon size, and both common and botanical names.
2. Condition: All plant material shall comply with the American Standard for Nursery Stock (ANSI Z60.1-1996). All plants shall be well formed, vigorous, healthy and free of disease, sunscald, windburn and insects or their eggs.
3. Diversity: No single species of tree or shrub shall comprise more than 1/3 of the total number of trees or shrubs to be planted.
4. Sight Distance: No tree, shrub, hedge or existing vegetation shall be planted or

maintained in a way that interferes with prescribed sight distances.

5. Size:

Minimum Caliper/Size	
a. Large Canopy Tree	Two inch caliper
b. Medium Canopy Tree	Two inch caliper
c. Evergreen Tree	Six feet tall
d. Small Canopy Tree	Six feet tall
e. All Shrubs	Eighteen inches tall

Caliper is measured six inches above the soil on trees up to three inches in caliper, and twelve inches above the soil on trees greater than three inches in caliper.

6. Planting: All plant material shall be installed in accordance with good trade practices. Trees shall be planted at least ten feet apart. The Standardized Landscape Specifications for the Commonwealth of Virginia will serve as the basis for minimum acceptable plant installations (Plates 1 and 2). The Zoning Administrator or designee shall be notified seventy-two hours prior to plant installation. The Zoning Administrator will schedule a site visit to inspect all plant material to confirm minimum standards. Upon inspection the Zoning Administrator may reject any plant material due to non-conformance.

7. Selection: Disturbed areas not covered by paving, stone, or other solid materials shall be revegetated with plant species that are compatible with the natural vegetation and tree cover and that have low water and nutrient requirements. Xeriscape practices (use of native plant materials and landscape materials that have low water and nutrient requirements) is encouraged. The landscape plan shall state the degree to which xeriscape practices are being applied. All trees and shrubs will be based on their listing in the Manual of Woody Landscape Plants, fifth edition.

   a. Large Canopy Trees shall:
      (1) have a mature height over forty-five feet as described in the Manual of Woody Landscape Plants;
      (2) be native to the region, if possible; non-native species are allowed if they will grow in this region's environmental conditions and are non-invasive;
      (3) be typical of, but not limited to Maples or Oaks;
      (4) not include: Female Ginkgo (Ginkgo biloba), Poplar (Poplus spp.), Silver Maple (Acer saccharinum), Tree of Heaven (Ailanthus altissima) or Black Locust (Robinia pseudoacacia).

   b. Medium Canopy Trees shall:
      (1) have a mature height between thirty and forty-five feet, with a spread of thirty feet as described in the Manual of Woody Landscape Plants;
      (2) be native to the region, if possible; non-native species are allowed if they will grow in this region's environmental conditions and are non-invasive;
      (3) be typical of, but not limited to Honeylocusts (Gleditsia triacanthos),Blackgums (Nyssa sylvatica) or American Hophornbeams (Ostrya virginiana)

   c. Small Canopy Trees shall:
      (1) have a mature height up to thirty feet, with an equal spread as described in the Manual of Woody Landscape Plants;
      (2) be native to the region, if possible; non-native species are allowed if they will grow in this region's environmental conditions and are non-invasive;
      (3) be typical of, but not limited to Flowering Crabapple (Malus sp.) or Redbud

(Cercis canadensis);

(4) not include Bradford Pear (Pyrus calleryana).

d. Evergreen Trees shall:

(1) have a mature height of at least ten feet as described in the Manual of Woody Landscape Plants;

(2) be native to the region, if possible; non-native species are allowed if they will grow in this region's environmental conditions and are non-invasive;

(3) be typical of, but not limited to American Arborvitae (Thujaoccidentalis), American Holly (Ilex opaca), or upright Juniper(Juniperus sp.).

e. Shrubs shall:

(1) include evergreen varieties for at least 50% of the shrubs planted;

(2) have a mature height of at least three feet as described in the Manual of Woody Landscape Plants;

(3) be native to the region, if possible; non-native species are allowed if they will grow in this region's environmental conditions and are non-invasive;

(4) be typical of, but not limited to Inkberry (Ilex glabra), Sweetshrub (Claycanthis floridus), Juniper (Juniperus sp.), and Cherrylaurel (Prunus caroliniana).

6-H-10-f Enforcement

The enforcement of this Ordinance shall be the responsibility of the Zoning Administrator or designee. The final Certificate of Occupancy shall not be signed until all trees, shrubs and screening material required by this Ordinance are installed and verified by the Zoning Administrator.

6-H-10-g (1/20/09) Maintenance Standards

The owner or their agent shall be responsible for the general maintenance of all landscape areas as defined as such areas as parking lot landscape islands, screening and street trees.

1. These areas shall be annually mulched to prevent weed growth and to retain soil moisture.
2. Plant material shall be pruned to maintain healthy and vigorous growth. All pruning shall be performed in accordance with American National Standards Institute ANSI A300-1995, Tree, Shrub and Other Woody Plant Maintenance-Standard Practices, such that no trees are topped or large stub cuts are made.
3. All turf areas shall be mowed.
4. Watering shall be carried out as part of the initial installation of plant material to prevent plant loss. Public water or groundwater should not be used to water plant material more than one year after its installation. Permanent irrigation facilities may be installed, however rain catchment systems are strongly encouraged as the water source. Such a rain catchment system shall be adequately sized to provide the amount of water likely to be used (a function of site design and the projected length of time without rain).
5. The property owner or their agent shall maintain any plant material required by this Ordinance and any plant material that dies must be replaced in kind or with a suitable substitute as granted by Zoning Administrator. Preserved existing trees, that subsequently die, shall be replaced by new trees (as specified in the Existing Trees section 6-H-10-b).

6-H-10-h Protection of Public Trees

All publicly owned property that contains trees shall be protected from construction of any building, structure, or street work by maintaining current grade and installing a four foot high fence during site disturbance for the circular area centered on the tree with a diameter 1.5 times the canopy spread. Public trees that die because they were not protected from construction shall be replaced by the property owner with trees similar in size, variety, and location approved by the Zoning Administrator.

6-H-11 Outdoor Lighting Standards

(8/15/06)
(3/16/10)

The purpose and intent of this section is to establish outdoor lighting standards that reduce the impacts of glare, light trespass, and over-lighting, promote safety and security and encourage energy conservation.

6-H-11-a General Outdoor Lighting Standards

(8/15/06)
(3/16/10)
(3/15/16)

1. Requirements for lighting fixtures; maximum installation height.
   a. All exterior light fixtures shall be a full cut-off type. Such light fixtures shall have flat cut-off lenses. The lenses of lights mounted into eaves or canopies shall be mounted so as to be flush or recessed. The direct light from exterior light fixture elements shall not be visible off the subject property.
   b. No exterior light fixture shall be installed at a height greater than 25 feet above finished grade as measured from the bottom of the fixture.
   c. This section shall not apply to the installation of public outdoor recreational lighting as set forth in Subsection 6 below.
2. Flashing, revolving, intermittent, or high intensity beams used for exterior lighting shall be prohibited.
3. Up-cast Lighting used to illuminate flags, signs, landscaping, buildings, or other objects and structures shall have directional control shields to prevent stray lighting and to ensure that no light source is visible from or causes glare on public right-of-ways or adjacent properties and shall be limited to 150 watts or less standard incandescent light elements or equivalent brightness (defined as 2500 lumens).
4. All exterior lighting shall be oriented not to direct glare or excessive illumination on streets in a manner that may distract or interfere with the vision of drivers on such roads and streets.
5. All canopy lighting shall be recessed and flush mounted. That portion of the canopy façade not included in the sign area shall not be illuminated.
6. Public outdoor recreational facility lighting.
   a. In addition to the general requirements of Subsection 7 below, photometric plans for public outdoor recreational facility lighting shall conform to the requirements set forth in the most current edition of the Illuminating Engineering Society of North America (IESNA) RP-6 Recommended Practice for Sports and Recreational Area Lighting and the IESNA Lighting Handbook. Appropriate lighting criteria shall be selected based on the class of play of the facility and participants as defined by the IESNA.
   b. For the purposes of this subsection, poles for the mounting of lighting fixtures shall be exempt from minimum setback requirements.
   c. Event hours – All events shall be scheduled so as to complete all activity before or as near to 11:00 p.m. as practical, but under no circumstances shall any

illumination of the playing field, court, or track be permitted after 11:00 p.m. except to conclude an event that was reasonably scheduled to conclude prior to 11:00 p.m.

d. Lighting fixtures shall be installed to meet the criteria of a full cutoff fixture and shall include internal and/or external glare-control louvers.

e. Initial lighting levels shall not exceed the target levels specified by the IESNA by more than 30% to account for light loss factors such as lamp lumen depreciation and luminaire dirt depreciation.

7. Photometric Plan Requirements

a. A photometric lighting plan shall be submitted and approved in conjunction with any required site plan. The photometric lighting plan shall be certified by the National Council on Qualifications for the Lighting Professions (NCQLP), or a licensed professional engineer, or architect.

b. All such plans shall include the following:

(1) Plans indicating the location on the premises of all lighting fixtures, both proposed and existing on the site, including a schematic layout of proposed outdoor lighting fixture locations that demonstrate adequate intensities and uniformity, and light coverage resulting from the proposed light layout.

(2) Description of all lighting fixtures, both proposed and existing, which shall include but are not limited to catalog cuts and illustrations by manufactures that describes the equipment, including lamp types, wattage and initial lumen outputs, glare control devices, lamps, proposed placement of all fixtures, including engineering detail of fixtures, manufacturer, model and installation of same.

(3) Photometric data, such as that furnished by manufacturers, or similar, showing the angle cut-off light emissions and glare control devices.

(4) Lighting levels for exterior lighting, except for public outdoor recreational facility lighting described in Subsection 6, shall not exceed the following standards:

a. 2.5 foot-candles for parking lots;

b. 5 foot-candles at entrances from local rural/urban road entrances;

c. 10 foot-candles along fronts of buildings, at loading docks, and at entrances from primary highways and rural/urban arterials and collectors;

d. A uniformity ratio of 4:1 shall be provided across all parking lots, travelways, and private/public streets and roads. The project site shall be modeled with all lighting (building, canopy, parking, etc.) in operation.

e. Lighting levels shall not exceed 0.2 foot-candles at any common property line.

f. The first three measurements shall be made at the ground surface. The fourth measurement shall be made on a vertical face with the property line at five feet above the ground.

c. Field verification of installation required. Upon completion of lighting installation, the applicant shall provide written certification that the lighting is installed and operates in conformance with the approved photometric plan and the provisions of this ordinance.

8. Lighting Definitions
    a. Candela – The system of luminous intensity. One candela is one lumen per candle (steradian).
    b. Foot-Candle – A measure of light falling on a surface. One foot-candle is equal to the amount of light generated by one candle shining on one square foot surface located one foot away. Foot-candle measurements shall be made with a photometric light meter with a specified horizontal orientation.
    c. Foot-Candle (Average Maintained) – The average of a number of points of foot-candle calculations or foot-candle readings in a given area which have been adjusted to account for maintenance which includes luminaire dirt depreciation and lamp lumen depreciation.
    d. Glare – The sensation produced a bright source within the visual field that is sufficiently brighter than the level to which the eyes are adapted to cause annoyance, discomfort, or loss in visual performance and visibility. The magnitude of glare depends on such factors as the size, position, brightness of the source, and on the brightness level to which the eyes are adapted.
    e. Lighting Fixture – A complete lighting unit consisting of the lamp, lens, optical reflector, housing and electrical components necessary for ignition and control of the lamp, which may include ballast started and/or photo control.
    f. Lighting fixture, full cut-off – A lighting fixture from which a luminaire has zero candela intensity occurring at or above an angle of 90% above nadir.
    g. Light fixture, recessed canopy – An outdoor lighting fixture recessed into a canopy ceiling so that the light source is either completely flush or recessed within the underside of the canopy.
    h. Light Trespass – Unwanted light going beyond the property line and spilling over onto the adjacent or neighboring property. It can also represent the direct light (glare) that reduces a person's vision or ability to see.
    i. Luminaire – A complete lighting unit consisting of a lamp or lamps and the parts designed to distribute the light, to position and protect the lamp(s), and to connect the lamp(s) to the power supply.
    j. Nadir – The angle pointing directly downward from the luminaire.
    k. Public outdoor recreational facility lighting – Lighting fixtures and mounting structures designed to provide permanent outdoor lighting for public recreational and athletic fields and facilities, owned and/or operated by a unit of Federal, State, or local government or by the Clarke County Public Schools.

6-H-12 Design Standards for Wireless Communication Facilities (WCFs)

6-H-12-a Design Standards

(11/20/01)
(11/18/03)
(07/21/15)
(6/20/17)

1. All WCFs shall be a monopole or stealth design.

2. Prohibition on lighted WCF.
   A WCF shall not trigger a requirement, public or private, that it be lighted nor shall it be lighted on a voluntary basis.

3. Height requirements.
   a. The maximum height for a Class 1 WCF shall be fifty (50) feet including any attachments.
   b. The maximum height of a Class 2 WCF shall be eighty (80) feet including any attachments.
   c. The maximum height of a Class 3 WCF shall be one hundred and twenty (120) feet including any attachments.
   d. The maximum height of a Class 4 WCF shall be one hundred and ninety nine (199) feet including any attachments.
   e. Class 5 WCFs shall conform to all Federal codes regulating amateur radio Licenses.
   f. Determination of height shall include any attachments to the WCF. Lightning rods shall be exempt from the maximum height calculation.

4. Aesthetic requirements. WCFs shall meet the following aesthetic requirements:
   a. The visual impact of a WCF shall blend with the natural and built environment of the surrounding area using mitigation measures such as: architecture, color, innovative design, landscaping, setbacks greater than the minimum required, materials, siting, topography, and visual screening. The number of existing readily apparent Class 2, 3, and 4 WCFs in an area shall also be considered when determining visual impact of a new WCF. Class 3 or 4 WCFs shall not exceed the maximum height of the tree canopy on the topographic crest of the Blue Ridge Mountains.

      Administrative Review of the site development plan, including third-party engineering review, will determine if stealth technology shall be used and what type of stealth technology is required if the WCF design and placement is determined not to meet the objective stated within this Ordinance.

   b. The design of buildings and related structures within the WCF compound area shall, to the extent possible, use materials and colors that will blend into the natural setting and surrounding trees. Security fencing shall be six (6) feet tall, and dark green or black in color made of chain link.
   c. If various antennas, cables and electronics are installed on a structure other than another WCF (i.e., water tower, light pole, rooftop, sign or silo), the antenna and supporting electrical and mechanical equipment must be of a neutral color that is identical to, or closely compatible with, the color of the supporting structure so as to make the antenna and related equipment as visually unobtrusive as possible.

d. Stealth Technology. Stealth technology may be used on WCFs as set forth below. Because of the agrarian nature and beauty of the County, the silo structure will be the highest valued stealth technology. This technology of silo stealth structures should blend harmoniously with the existing farm structures.

(1) The design standards for the "Silo" stealth structure shall be:

(a) All equipment except for local commercial power service shall be placed inside of the silo. This provision shall not apply to the co-location of antennas on existing silos.

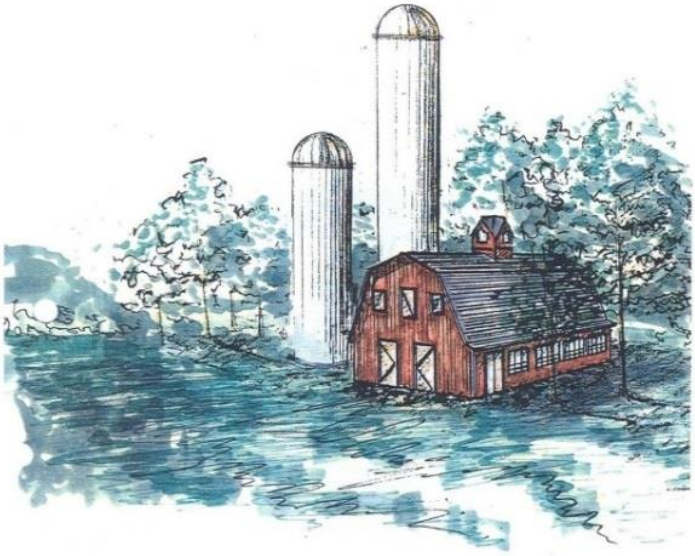
(b) The silo shall not exceed eighty (80) feet at ground level (AGL).

(c) The silo shall match any existing silo on the property in architectural design and colors.

(d) Silo compounds must match existing fencing located on the agricultural property.

(e) Renderings prepared by a licensed landscape architect shall be provided for all stealth silo applications.

(f) The WCF shall be a Class 1 or Class 2.



Examples of well-designed stealth silo WCF's

(2) The design standards for the bell tower stealth structure shall be:
   (a) All bell tower stealth WCFs shall match architecturally to the existing building's architecture.
   (b) All bell tower stealth WCFs shall be no more than a 2:1 ratio from height of the bell tower to roof line of existing structure not to exceed fifty (50) feet AGL.
   (c) All bell tower stealth WCFs shall be located within twenty (20) feet of the existing match structure.
   (d) Renderings prepared by a licensed landscape architect shall be provided for all bell tower stealth structure applications.
   (e) The WCF shall be a Class 1.

Example of a well-designed bell tower WCF

(3) The design standards for a tree stealth structure shall be:

(a) Must not be higher than twenty (20) feet above the existing tree line measured from trees within a 200 foot radius of the proposed site.

(b) The tree structure must be designed to resemble an evergreen species native to Clarke County.

(c) The tree structure must have textured bark, branches and foliage that encapsulate the cable, electronics and antennas.

(d) The colors of the tree structure must blend with existing trees of that species and variety.

(e) The structure must meet all design standards for stability and must be maintained for accuracy of the colors and foliage.

(f) Renderings prepared by a licensed landscape architect shall be provided for all tree stealth structure applications.

(g) The WCF shall be a Class 1 or 2. May be a Class 3 WCF depending upon topography of site and surrounding properties and the height of surrounding tree coverage.

Example of a well-designed tree WCF

(4) The Design standards for the flag pole stealth structure shall be:

(a) All antennas, cables, electronics and devices must fit within the designed enclosure of the flag pole.

(b) The flag pole shall be used as a flag pole and fly a flag accordingly. If the flag is flown at night adequate lighting shall be installed.

(c) The flag pole shall not have reflective paint.

(d) Renderings prepared by a licensed landscape architect shall be provided for all flag pole stealth structure applications.

(e) The WCF shall be a Class 1.

Example of a well-designed flag pole WCF

5. Setbacks and Buffering

a. Setback requirements from property lines and structures.
Class, 1, 2, 3, and 4 WCF's shall be set back from all property lines and structures a distance equivalent to the WCF's fall zone, or the WCF's fall zone and required perimeter buffer area, whichever distance is greater. The WCFs designed fall zone shall be described in the applicant's site development plan. For parcels located adjacent to the Appalachian National Scenic Trail Corridor, WCFs shall be set back a minimum of 400 feet from the footprint of the Appalachian Trail.

b. Setback requirements for buildings and support equipment.
For any building or structure associated with a WCF and inclusive of required perimeter buffer areas per subsection (d), the minimum setback from any property line abutting a public road or shared private access easement right of way shall be fifty (50) feet and in all other instances shall be no less than twenty-five (25) feet. No setback shall be required for private access easements or portions thereof designed exclusively to provide ingress and egress from the WCF compound to a public road.

c. Method for measuring setback distances.
Setbacks shall be measured from the closest structural member on the WCF. Guy lines shall be exempt from the minimum setback requirements in side and rear yards for the respective zoning district but shall comply with the front yard setback requirements.

d. Perimeter buffer.
Class 3 and 4 WCFs shall be located in a wooded area of dense tree cover referred to as the perimeter buffer. The perimeter buffer shall have a minimum depth of 50 feet from the compound fencing as a radius around the perimeter of the area to be cleared for the WCF. All trees within the perimeter buffer for the Class 3 or 4 WCF must be retained, unless specifically approved for removal on the site development plan. Within 25 feet of the compound fencing, the perimeter buffer shall be supplemented with evergreen trees planted in a double-staggered row and shrubs as necessary to effectively screen the compound and WCF structure base from view. The Planning Commission may request additional planting within the remaining 25 feet of the perimeter buffer on a case-by case basis to ensure effective and appropriate screening. All vegetation within the perimeter buffer shall be maintained throughout the lifespan of the WCF.

e. Setbacks for co-location on other support structure.
For co-location of antennas and equipment on a support structure other than a WCF (e.g., building, water tower, silo), the governing setbacks shall be the support structure's current setback requirements as enumerated in the Ordinance.

6. Other Design Requirements
   a. Compound design requirements.
      The area to be cleared for the compound containing a Class 1, 2, 3 or 4 WCF and support facilities shall be the minimum necessary to accommodate the facilities and shall not exceed 2,500 square feet. The driveways accessing the compound shall be gated.

   b. Design requirements for buildings and support equipment.
      (1) Equipment cabinets shall not be more than twelve (12) feet in height. Structures designed to house equipment shall not exceed the maximum building height for the zoning district in which the subject property is located.

      (2) If the equipment cabinet or structure is located on the roof of a building, the area of the equipment structure and related equipment shall not occupy more than 25% of the roof area. The equipment cabinet or structure and related equipment shall also be completely screened from view on all sides of the building.

      (3) Equipment cabinets or structures shall comply with all applicable building codes.

   c. Advertisement signs are prohibited. Signs compliant to FCC requirements containing ownership, operational, and name plate data shall be allowed.

   d. All WCFs shall have appropriate FCC signage and contact information for emergency communications.

6-H-12-b Application Requirements

1. Requirements for Class 1 and Class 2 WCF applications. Applicants requesting approval of a Class 1 or Class 2 WCFs shall submit the following information to the Zoning Administrator for review:
   a. A site development plan consisting of a scaled plan and a scaled elevation view and other supporting drawings, calculations, and other documentation, signed and sealed by a licensed Professional Engineer, Surveyor, Landscape Architect or Architect, showing the following information:
      (1) Legal description of subject property and proposed lease area (if applicable)
      (2) Design and height of the proposed WCF
      (3) Proposed means of access from the public road to the WCF site
      (4) Setbacks from the property lines, existing structures on the subject property, and existing private access easements
      (5) Distances to uses and structures on adjacent properties
      (6) Elevation of the proposed WCF site and surrounding topography
      (7) Location of all improvement s including but not limited to compound location, equipment cabinets, structures, fencing, and signage
      (8) Existing tree coverage and vegetation
      (9) Zoning of subject property and adjacent properties
      (10) General location of all residences and structures within two-thousand (2,000) feet of the proposed WCF

(11) Any other information deemed by the Zoning Administrator to be necessary to assess compliance with this ordinance

b. A cover letter that outlines what the applicant is proposing to do on-site.

c. Any fees associated with the review of the application by the county and/or its consultant shall be paid by the applicant at submittal.

d. Structural engineering documentation shall be provided demonstrating compliance with all applicable building codes and regulations. A diagram and statement certified and sealed by a licensed structural engineer shall also be provided that describes the fall zone for the proposed WCF.

e. The Zoning Administrator may request additional information if needed while reviewing an application for administrative approval. Failure to provide the requested information shall result in the denial of the application.

f. A Karst plan per §6-H-15 shall be provided.

g. A statement justifying the need for the project by a licensed telecommunications provider. In the event that none of the applicants are a telecommunications provider, a letter of intent from a licensed telecommunications provider to operate on the proposed WCF upon its completion shall be provided. This statement shall include the following:

(1) A description of how the location of the proposed WCF is consistent with the guidance provided in the County's Telecommunications Engineering Study.

(2) The unsuitability of the use of existing WCFs, other structures or alternative technology not requiring the use of WCFs or structures to provide the services under consideration.

(3) A map depicting all co-location candidates in the search area, along with the RF analysis documentation as to their suitability. These include propagation modeling for the network before the applicant's request and after if approved.

h. A description of compliance with all applicable Federal, State, or local laws including the following actual documents addressing the historic site impact review Section 106 Historical Review portion of the approved National Environmental Policy Act (NEPA) statement, and the TOWAIR determination results for FAA registration.

i. A landscape plan showing specific landscape materials including proposed plantings to comply with perimeter buffer requirements.

j. If required, a method of security fencing (no less than six (6) feet in height) with anti-climbing device and finished color and, if applicable, the method of camouflage and illumination.

k. At least 2 (two) actual photographs of the site that include simulated photographic images of the proposed WCF at the proposed construction height and at a height 10% greater than the proposed construction height to simulate future co-location. The photographs with the simulated image shall illustrate how the facility will look from adjacent roadways, nearby residential areas, or public buildings such as a school, church, etc. The Zoning Administrator reserves the right to select the location for the photographic images and require additional images. The applicant at the Zoning Administrator's request shall conduct a balloon test to demonstrate the height of a proposed WCF with a potential 10% increase to simulate future co-location and provide adjoining property owners with a 48-hour notice of the test.

l. The applicant shall identify the type of construction of the existing WCF(s) and the owner/operator of the existing WCF(s), if known.
m. A statement by the applicant as to whether construction of the WCF will accommodate co-location of antennas including the number and dimensions of available co-location positions.
n. Identification of the entities providing the backhaul network for the WCF(s) described in the application and other cellular sites owned or operated by the applicant in the County.
o. A description, including mapping at an appropriate scale, of the search area and coverage objective. A figure depicting the radio frequency coverage (or propagation map) of the proposed facility and all nearby facilities shall also be provided. Propagation maps shall show a minimum of three (3) signal intensities in milliwatts.
p. A cost estimate for removal of the WCF and facilities from the site.
q. An application for a site development plan review shall be signed by the owner(s) of the property on which the WCF is to be sited and by the telecommunications provider or developer of the WCF site.

2. Requirements for Class 3 and 4 WCF applications. In addition to the application requirements for Class 1 and Class 2 WCF applications, applicants requesting a Special Use Permit to construct a new Class 3 or 4 WCF shall submit the following information to the Zoning Administrator for review and action by the Planning Commission and Board of Supervisors:

a. Applications for new proposed Class 3 WCFs shall depict a location that is consistent with the guidance regarding the Permitted Commercial Tower Development Areas (PCTDA) depicted in the County's Telecommunications Infrastructure and Broadband Study.
b. Applications for new proposed Class 4 WCFs shall demonstrate the following:
   (1) A location that is consistent with the guidance regarding the Permitted Commercial Tower Development Areas (PCTDA) depicted in the County's Telecommunications Infrastructure and Broadband Study.
   (2) In order to justify a maximum height in excess of 120 feet, the applicant shall demonstrate one or more of the following conditions:
      a. The proposed site would provide a demonstrable coverage improvement over a Class 3 tower height and would be consistent with the guidance regarding the County's coverage goals in the Telecommunications Infrastructure and Broadband Study.
      b. Need to ensure proper connectivity for microwave "point to point" systems. A Path Study and evidence of rejection from fiber optic providers shall be submitted with the application.
      c. Proposed WCF is required by the property owner to be located in an area with a lower elevation in relation to the overall elevation of the subject property. Setback calculations with ground elevation profile diagrams and property owner requirements shall be submitted with the application.

c. An application for a Special Use Permit and site development plan review shall be signed by the owner(s) of the property on which the WCF is to be sited and by the telecommunications provider or developer of the WCF site.
d. At time of submission of a special use permit and site development plan application, the applicant shall document that a new WCF is required because there is no existing structure of sufficient height within the Applicant's search ring available for possible co-location, and set forth its reasons for selecting the site proposed. After a public hearing on an application, an applicant may be requested to consider alternate sites that in the opinion of the reviewing body will better comply with the objectives and regulations for siting of new WCFs.
e. Verifiable evidence shall be provided in writing showing the lack of antenna space on existing towers, building, or other structures suitable for antenna location, or evidence of the unsuitability of existing tower locations for co-location.

3. Requirements for amateur radio antennas (Class 5 WCFs).

a. A site development plan to be reviewed and acted upon administratively by the Zoning Administrator shall be provided for all Class 5 WCFs. The site development plan shall depict the antenna design, height, and setbacks from property lines, public rights of way, private access easements, and existing structures on the subject property.
b. Maximum height. The maximum height of a Class 5 WCF shall be the lowest height limitation permitted by Code of Virginia §15.2-2293.1.
c. Setback requirements. Class 5 WCFs shall be set back a minimum distance of 100% of the antenna's height from all property lines and private access easements.

4. Requirements for co-location applications.
a. This section shall apply to all applications to co-locate new antennas and required support equipment on existing WCFs and structures, including the installation of distributed antennas systems (DAS).
b. A site development plan consisting of a scaled plan and a scaled elevation view and other supporting drawings, calculations, and other documentation, signed and sealed by a licensed Professional Engineer, Surveyor, Landscape Architect or Architect, shall be provided by the Applicant showing the following information:

(1) Legal description of subject property and proposed lease area (if applicable)
(2) Sketch showing the existing WCF or structure, the dimensions and location of the antenna and equipment to be co-located, and the proposed change in the height of the structure as a result of the co-location if applicable.
(3) Sketch showing dimensions and location of all proposed equipment, cabinets, and structures to be added to the WCF compound. For co-location on structures other than a WCF, setback distances from property lines and adjacent structures shall be shown.
(4) All proposed changes to existing landscaping, buffering, fencing, signage, and other material site features.
(5) Any other information deemed by the Zoning Administrator to be necessary to assess compliance with this ordinance

c. Co-location applications shall be signed by the property owner or by the owner or lessee of the WCF or structure.

d. Applications to co-locate a new antenna and equipment on an existing WCF shall be considered an amendment of the existing site development plan for the WCF and shall be acted upon administratively by the Zoning Administrator. For co-location on Class 3 or Class 4 WCFs, such applications shall demonstrate compliance with any special conditions imposed in conjunction with the special use permit.

5. Requirements for applications to upgrade/maintain existing equipment.

a. This section shall apply to all applications to upgrade, change, modify, or maintain existing equipment on a WCF or a structure containing antennas for telecommunications. This section shall also apply to applications to upgrade, change, modify, or maintain structural elements of existing WCFs or structures containing antennas for telecommunications.

b. A site development plan consisting of a scaled plan and a scaled elevation view and other supporting drawings, calculations, and other documentation, signed and sealed by a licensed Professional Engineer, Surveyor, Landscape Architect or Architect, shall be provided by the Applicant showing the following information:

(1) Legal description of subject property and proposed lease area (if applicable)

(2) Sketch showing dimensions and location of all proposed equipment, cabinets, and structures to be added, changed, or otherwise altered and their position on the WCF compound. For changes to existing equipment on structures other than a WCF, changes to setback distances from property lines and adjacent structures shall be shown.

(3) All proposed changes to existing landscaping, buffering, fencing, signage, and other material site features.

(4) Any other information deemed by the Zoning Administrator to be necessary to assess compliance with this ordinance

c. Applications to upgrade/maintain existing equipment shall be signed by the property owner or by the owner or lessee of the WCF or structure.

d. Aplications to replace equipment on an existing WCF shall be considered an amendment of the existing site plan for the WCF and shall be acted upon administratively by the Zoning Administrator. For co-location on Class 3 or Class 4 WCFs, such applications shall demonstrate compliance with any special conditions imposed in conjunction with the special use permit.

6-H-12-c (07/21/15) (6/20/17) Inactive WCFs; Removal Bond Required

1. Inactive WCFs. The owner of an inactive WCF shall dismantle the support structure, antennas, and all associated structures if no functioning WCF is operated for a continuous period of six (6) months, and restore the site as nearly as possible to preexisting site conditions. The owner of the WCF shall remove the same within ninety (90) days of receipt of notice from the County notifying the owner of the inactive WCF. If there are two or more users of a single WCF, then this provision shall not become effective until all users cease using the WCF.

2. Annual user reports. The owner of a class 1, 2, 3 or Class 4 WCF shall provide, by July 1 annually to the Zoning Administrator, an inventory of all active and inactive users on the WCF.
3. A bond or letter of credit shall be posted at the time of WCF approval, in the event the County must remove the WCF upon abandonment. This bond or letter of credit shall be equal to the cost to remove the WCF, all WCF and fence footers, underground cables, and support buildings, plus 25%. The bond or letter of credit shall remain in effect for the life of the WCF.

6-H-12-d Third-Party Engineering Review
(6/20/17) The County reserves the right to employ the services of a third-party wireless telecommunications engineer or consultant to review all WCF applications. All applicable costs for the third-party review shall be the responsibility of the applicant.

6-H-12-e Engineering Information Provided by Applicant
(6/20/17) Any information of an engineering nature that the applicant submits, whether civil, mechanical, or electrical, shall be certified by a licensed professional engineer.

REVIEW PROCEDURES BY CLASS

Class	Approval Authority	Review Process
Co-location*	Zoning Administrator/ By-right	1. Pre-application meeting held with Zoning Administrator, who determines whether engineering review will be required as well as whether any Article 6 requirements may be waived. 2. Site Development Plan application filed with Zoning Administrator. 3. Zoning Administrator acts on application within 60 days.
1 (50' max)	Zoning Administrator/ By-right	1. Pre-application meeting held with Zoning Administrator, who determines whether engineering review will be required as well as whether any Article 6 requirements may be waived. 2. Site Development Plan application filed with Zoning Administrator. 3. Zoning Administrator acts on application within 60 days.
2 (80' max)	Planning Commission/ By-right	1. Site Development Plan application filed with Zoning Administrator following required pre-application meeting. 2. Application is routed to Planning Commission's Plans Review Committee, engineering consultant, Karst engineer, and other applicable agencies for review. 3. Application forwarded to Planning Commission to schedule/hold public hearing once all reviewers have commented. 4. Planning Commission acts on application within 60 days.
3 (120' max)	Board of Supervisors with Planning Commission review/ Special Use	1. Special use permit and site development plan applications filed with Zoning Administrator following required pre-application meeting. 2. Application is routed to the engineering consultant, to the Planning Commission's Plans Review Committee, Karst engineer, and other applicable agencies for review. 3. Application forwarded to Planning Commission to schedule/hold public hearing once all reviewers have commented. 4. Planning Commission makes formal recommendation on application. 5. Application forwarded to Board of Supervisors to schedule/hold public hearing. 6. Board of Supervisors takes formal action on special use permit/site plan application.
4 (199' max)	Board of Supervisors with Planning Commission review/ Special Use	1. Special use permit and site development plan applications filed with Zoning Administrator following required pre-application meeting. 2. Application is routed to the engineering consultant, to the Planning Commission's Plans Review Committee, Karst engineer, and other applicable agencies for review. 3. Application forwarded to Planning Commission to schedule/hold public hearing once all reviewers have commented. 4. Planning Commission makes formal recommendation on application. 5. Application forwarded to Board of Supervisors to schedule/hold public hearing. 6. Board of Supervisors takes formal action on special use permit/site plan application.
5 (amateur radio)	Zoning Administrator/ By-right	1. Pre-application meeting held with Zoning Administrator, who determines whether engineering review will be required as well as whether any Article 6 requirements may be waived. 2. Site Development Plan application filed with Zoning Administrator. 3. Zoning Administrator acts on application within 60 days.

*Review procedure is the same for new distributed antenna systems (DAS) and upgrades/equipment maintenance on an existing WCF

6-H-13 Erosion and Sediment Control

An erosion and sediment control plan for the entire disturbed area of a development shall be prepared in accordance with the Clarke County Erosion and Sediment Control Ordinance, and must receive the approval by the Zoning Administrator/Code Enforcement Officer or the Plan Approving Authority as designated by the county.

6-H-14 Explosives

(1/20/09) If explosives are to be used in conjunction with the development of the site, the following note shall be included: "Explosives used in conjunction with the development of this property shall be done in accord with a Blasting Plan (per Clarke County Code Chapter 86, Explosives) approved by the Board of Septic and Well Appeals." If explosives are not to be used, the following note shall be included: "No explosives will be used in conjunction with the development of this property."

6-H-15 Sinkhole and Karst Features

6-H-15-a Purpose and Intent

(2/17/04) This section is to establish review procedures, use limitations, design standards, and performance standards applicable to land development activities that encompass or affect sinkholes or other karst features. The intent of this section is to protect the public health, safety and welfare by requiring the development and use of karst areas to proceed in a manner that promotes safe and appropriate construction and storm water management.

6-H-15-b Definitions

1. Geotechnical Engineer (GE): a Virginia Registered Professional Engineer engaged in the practice of geotechnical engineering or a Virginia-Registered Professional Geologist who is engaged in the practice of engineering geology.
2. Karst Feature: Karst topography is a landscape created by groundwater dissolving sedimentary rock such as limestone. Karst features include sinkholes, fissures enlarged by dissolution, and caves.

6-H-15-c Site Review:

Investigation by Geotechnical Engineer

Whenever an application is filed for development, the applicant will hire a Geotechnical Engineer (GE) to undertake an inspection of the subject area. The GE shall review available geologic and engineering date and air-photographs relevant to the site and shall make on-site observations, photographs, and measurements as appropriate. The GE shall provide written summary of the initial findings along with a recommendation to perform Fracture Trace Analysis, Electrical Resistivity, Cone Sounding, Core Samples, Microgravity, and/or other geophysical or intrusive studies as appropriate to determine if the action requested may have a negative impact. The examination for karst features by the engineer shall take place prior to any public hearing process applicable to the parcel in question. The engineer will report to the zoning administrator any findings as to whether there may be significant karst features that apply to the site.

1. No Evidence of Karst Features
   If the engineer finds that the site has no evidence of karst features, they shall so indicate in a written report provided to the reviewing body.

2. Evidence of Karst Features
   In cases where the engineer finds evidence that karst features do exist, and which would be impacted by development, electrical resistivity testing, core drilling or microgravity tests, shall be required within a 100 foot radius for all locations on the property where karst features were identified and along any linear trend of at least three or more features. For sinkholes the 100 foot radius shall be measured from the discernable edge. At the conclusion of the tests the applicant shall submit a karst review plan to the Zoning Administrator and follow specific development procedures.
3. The presence of karst features on the site that are not impacted.
   At the discretion of the Zoning Administrator, the karst plan may be simplified if the environmental constraint found to be present on the site is not impacted by the proposed site development.

6-H-15-d Karst Plan

A karst plan shall be developed for the property identified as having evidence of karst features (i.e., sites upon which sinkholes are fully or partially located and/or which drain to sinkholes). The burden of proof for establishing that there will be no significant impacts shall rest with the applicant. A karst plan shall include the following:

1. An engineering audit that identifies and maps karst features and the limitations that such features impose on site development. The audit shall include:
   a. The physical location and limits of the area of the sinkhole depression as determined by field survey, the "Soil Survey of Clarke County" (1982), or the "Map of Selected Hydrogeologic Components or Clarke County, Virginia" (1990), or other reliable sources as may be approved by the Administrator;
   b. locations of other karst features (fissures enlarged by dissolution and caves);
   c. topographic contours at maximum intervals of two feet, and spot elevations sufficient to determine low points and discernable edges; and
   d. setback distances of 25 feet and 100 feet from the discernable edge of each feature.
2. For structures proposed between 25 and 100 feet of the discernable edge of sinkholes or other karst features, engineering that ensures structural stability.

6-H-15-e Site Development Plans; Sinkhole and Karst Features; Requirements and Restrictions
(8/17/10)
(01/17/17)

1. As identified in Section 6-H-15-d, no construction or land disturbance shall occur within a minimum buffer distance of 25 feet from the discernable edge of a sinkhole or other karst feature. Vegetation in the buffer area shall not be altered from predevelopment conditions. While vegetation should not be removed so as to disturb the soil, invasive species identified by the Virginia Department of Conservation and Recreation or dead plant material may be removed with the approval of the Zoning Administrator. Fertilizers, herbicides, and pesticides shall not be applied within the buffer area.
2. No construction shall take place between 25 and 100 feet of the discernable edge of a sinkhole or other karst feature unless a geological and geophysical survey (as described in Section 6-H-14-d) indicates that such construction or earth disturbance is appropriate.

3. Sinkholes or karst features identified during construction shall be mitigated as described in the Virginia Department of Transportation's Location and Design Division Instructional and Informational Memorandum 228 (IIM-LD- 228), or other applicable standard as recommended by a GE.
4. Stormwater management facilities shall comply with State stormwater management regulations for Karst Terrain.
5. Underground utilities located within 100 feet of karst features shall be laid out so that they do not intersect those features. Along all such underground utilities, a dike of clay or other suitable material shall be constructed across the trench of the transmission lines and pipelines at intervals of 20 feet or less, or as directed by a GE.
6. For any tests requiring boreholes, such as air track drilling, the boreholes must be grouted upon completion. Grouting should be done with a mixture of 50% bentonite and 50% portland cement.
7. If air track drilling is used to determine the depth of overburden and continuity of bedrock, then these operations must be monitored full time by a GE to confirm the findings of the driller.
8. Geotechnical studies shall be conducted at each proposed structure site before issuance of a building permit to determine the existence of karst features. If karst features are found, remediation shall be done to protect the health, safety, and welfare of occupants of the structure.
9. Storage tanks shall have impervious secondary containment. Underground fuel storage tanks shall have interstitial monitoring of tanks and piping systems.
10. Where applicable, the following Consumer Disclosure Statement that provides information on what review occurred and what was discovered shall be included in the Deed of Dedication:
    This property is located in an area identified as having karst features. Karst features are created by groundwater dissolving sedimentary rock such as limestone. Features include sinkholes, fissures enlarged by dissolution, and caves. Geologic tests were conducted and one or more of these features were identified on this property. Karst features are unstable and collapse may occur. Measures have been taken to ensure structural stability in this area; however, karst areas are dynamic and geologic changes may cause future structural instability. Fertilizers, herbicides, and pesticides shall not be applied within designated buffer areas.
11. Measures to permanently protect karst features shall be identified on the site plan. These measures may include fencing and/or signage.

6-H-16 Miscellaneous Design Criteria

All other criteria and specifications shall be in accordance with County standards, where provided. Where County standards are not provided, the Administrative Body shall provide those standards or shall rule upon the standards proposed by the developer.

6-I CONSTRUCTION AND BONDING

6-I-1 No site improvement activities may occur unless all of the following have been met:

6-I-1-a Approval of final site plan and erosion and sediment control plan.

6-I-1-b Approval of erosion and sediment control bond, and installation of erosion and sediment control measures.

6-I-1-c Posting of construction bond.

6-I-2 All improvements required by this Section shall be installed at the cost of the developer, except where cost sharing or reimbursement agreements between the County and the applicant are appropriate; the same to be recognized by formal written approval prior to site plan approval.

6-I-3 The approval of a site plan and/or the installation of improvements shall not obligate the County to accept the improvements for maintenance, repair, or operation. Acceptance shall be subject to County and/or State regulations, where applicable, and dependent on the satisfactory nature of the improvements.

6-I-4 The applicant is required to post a bond or other acceptable surety covering the construction and satisfactory completion of all required on-site and off-site public improvements.

6-J REVISIONS

The Agent may administratively approve changes to an approved site plan which the Agent determines are minor revisions, complying with all provisions of this Section and having no additional adverse impact on public facilities or adjacent properties. Major revisions are permitted with approval by the Administrative Body.

6-K TERMINATION AND EXTENSION

An approved site plan shall expire and become null and void if a building permit for approved development is not issued within five years from the date of site plan approval. The Administrative Body or the Agent may grant a one year extension upon written request.

6-L BUILDING PERMITS

For all properties and uses subject to this Section, no building permit shall be issued to construct or alter any structure, or authorization granted to improve land, until a site plan has been approved.