



AGENDA
Jefferson County Planning Commission
Tuesday, June 23, 2020, 7:00 PM

****Planning Commission meetings are being held via ZOOM until further notice. Please see below:**

All Citizens that desire to speak must sign-in prior to the Agenda Item being addressed.

This meeting will NOT be a LIVE broadcast on our website. Instead, it will be accessible live through ZOOM Meeting. If you wish to participate in Citizen's Communication, please type your name and address in the chat function at the start of the meeting.

****ZOOM Meeting Information:**

Topic: Planning Commission Meeting
Time: Jun 23, 2020 07:00 PM Eastern Time (US and Canada)
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1. Meeting Minutes: June 2 and June 23, 2020 will be reviewed for approval at the July 14, 2020 Meeting.
2. Citizen Communications: If you wish to comment, please sign-in to speak for issues that are not on the agenda or items that are not open for public comment. Items not open for public comment will be so noted.

There is no public comment for the following items.

3. **Discussion and Possible Action, including review of public comments submitted through 06-16-20**, regarding proposed text amendment to the Jefferson County Zoning and Land Development Ordinance, File #ZTA19-03. The text amendment, in accordance with WV Code 8A and Article 12 of the Zoning Ordinance, proposes revisions to allow Solar Energy Facilities to process as a Principal Permitted Use in the following Zoning Districts: General Commercial, Highway Commercial, Light Industrial, Major Industrial, Rural, Residential-Light Industrial-Commercial, and Industrial Commercial. The text amendment includes proposed revisions to Article 2 Definitions; Article 8 Supplemental Use Regulations (creation of Section 8.20 Solar Energy Facilities); and Appendix C Principal Permitted and Conditional Uses Table.
4. **Public Workshop:** Regarding the ongoing reorganization and revisions to the Jefferson County Subdivision and Land Development Regulations (to be renamed the Jefferson County Subdivision and Land Development Ordinance) being prepared under contract with Greenway Engineering. The purpose of the Workshop is to provide an overview of the status of Phase 1 of the reorganization of this document. Phase 1 involved reorganization only with no edits or revisions to the text, other than the incorporation of the Improvement Location Permit Ordinance into Article V as required by State Code. The text has been reorganized to better reflect the current review process of both subdivisions (Article III) and site development (Article IV) with all review standards and plan requirements incorporated into the corresponding sections of the ordinance.



JEFFERSON COUNTY, WEST VIRGINIA

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MEMO

TO: Planning Commission

FROM: Alexandra Beaulieu, Zoning Administrator

DATE: June 16, 2020

RE: ZTA19-03, Solar Energy Facilities – June 23, 2020 Meeting

On December 10, 2019, the Planning Commission made a motion to accept into their work plan to consider developing provisions to allow solar energy facilities.

On February 11, 2020, the Planning Commission appointed a subcommittee comprised of Mike Shepp, Wade Louthan, and Ron Thomas. The Planning Commission directed the subcommittee to work with consultants Sam Gulland from Torch Clean Energy, and Paul Raco, local land use consultant, and Staff to draft a text amendment to allow solar energy facilities as a Principal Permitted Use. The Planning Commission specifically directed the committee to develop requirements to allow the land use to process as a Principal Permitted Use and to include site development standards to address fencing, screening, and decommissioning of solar energy facilities.

On May 5, 2020, Staff provided an overview of the proposed amendment drafted by the subcommittee as well as an overview of research from the Engineering Department regarding Stormwater Management and bonding requirements. The Planning Commission scheduled a Public Hearing for June 2, 2020.

On June 2, 2020 the Planning Commission held a public hearing and voted to keep the public comment period open for two weeks (through June 16) to allow for additional written comments to be submitted for consideration with the intent to review all comments during the June 23 meeting.

Attached to this memo is a comments matrix summarizing the comments received with a general response from Staff. The Planning Commission's role is to determine whether the proposed text amendment is consistent with the adopted Comprehensive Plan and to make a recommendation to the County Commission.

Once the County Commission is in receipt of the text amendment, they will schedule a public hearing to receive additional public input before taking final action on the proposed text amendment.

This Zoning Ordinance Text Amendment proposes revisions to Article 2, Section 2.2, Terms Defined; Article 8, Supplement Use Regulations, [creation of new Section 8.20, Solar Energy Facilities]; and Appendix C, Principal Permitted and Conditional Uses Table.

Attachments:

- Comment Matrix summarizing public comments submitted through June 16, 2020
- Excerpts from Envision Jefferson 2035 Comprehensive Plan RE: Alternative / Renewable Energy
- ZTA19-03, Solar Energy Facilities DRAFT
- 04-22-2020, Engineering Memo, includes recommended revisions to Stormwater Management Ordinance (for reference only; amendments to SWM Ord are subject to CC review and approval).

**Proposed Zoning Ordinance text amendment ZTA19-03
Solar Energy Facilities**

**Public Comments Received during 06-02-20 Planning Commission Public Hearing through the Public Comment Period which closed on 06-16-20
For review during June 23, 2020 PC Meeting**

#	Public Comment	Staff Response
1.	<p>W. Va. Code 24-2-1o(b) – definition of eligible site:</p> <p>“Eligible Sites” are defined as “any site in this state that has been previously used in electric generation, industrial, manufacturing or mining operations, including, but not limited to, closed landfills, hazardous waste sites, former industrial sites, and former mining sites.” Only if none of these are available may other sites be considered. We have plenty of the types of sites specifically enumerated above in this County.</p>	<p>In Dec. 2019, Staff contacted the PSC for information on solar facilities. The contact in the legal division advised that they do not address local land use matters and that each jurisdiction is responsible for developing their own requirements as to how to process such projects.</p> <p>SB 583 went into effect in June of this year. Staff’s understanding of this bill was that it was specific to utility owned solar facilities, not privately owned solar facilities. Additionally, Staff’s understanding was that the new code encouraged locating to eligible sites as defined, but not as a prohibition to other locations. Staff reached out to the PSC to gain some insight and they directed Staff to review the rules associated with SB 583, specifically GO 263, which addresses non-utility solar facilities.</p> <p>Staff does not read this new section of State Code as prohibiting solar facilities from locating on other lands; however, Staff defers to Legal for input. Ultimately, the PSC has the final approval of a location (siting certificate). If local regulations allow solar projects in a location that the State does not allow, the State would override local rules.</p>
2.	<p>Section 4B.8 Maintenance & Removal Bonds (existing section in Zoning Ordinance)</p>	<p>Article 4B of the Zoning Ordinance pertains to Telecommunication Towers. To date, the County has not processed applications for new towers; therefore, the County has not processed any Maintenance & Removal Bonds as described in the referenced section.</p> <p>If Legal determines that State Code does not enable the County to require such bonds, then Article 4B will need to be amended to reflect this decision.</p>
3.	<p>Stormwater Management Ordinance refers to land use as “Solar Farms” and should be changed to “Solar Energy Facility”.</p>	<p>This has been revised.</p>

#	Public Comment	Staff Response
4.	General concern for loss of agricultural land.	<p>The agricultural community continues to seek alternative endeavors to diversify their operations to maintain income. The proposed text amendment encourages collocation of agricultural activities in conjunction with solar facilities (Sec. 8.20.C.9).</p> <p>It is more feasible for a site which has been developed with solar panels to be returned to its original condition for future farming than it is if the property is developed for a residential subdivision or for a commercial land use.</p> <p>The proposed text amendment requires ground cover comprised of natural vegetation, with a recommendation to utilize native or naturalized perennial vegetation (Sec. 8.20.C.8). This should help maintain soil quality.</p> <p>While the draft amendment provides provisions to allow solar facilities to process in the Rural zoning district, there are no provisions which diminish the right to continue farming and there isn't a preference in the amendment that these types of facilities locate to the Rural district. Solar facilities are permitted by right in the commercial districts as well. The expectation would be that if the property owner of an agricultural operation wants to continue the agricultural operation, then the property would not be developed for solar or any other non-agricultural land use. If the property owner is seeking another option to move away from an agricultural option, solar energy facilities would provide an alternative to residential development, or another commercial endeavor. It would seem that solar energy facilities may have a lesser impact on the County than a residential development or commercial development, particularly with the expectation that should a facility be decommissioned, the land could then be returned to its original conditional to reestablish an agricultural use.</p> <p>The Planning Commission directed the subcommittee to draft a text amendment that would allow solar energy facilities to process as a Principal Permitted Use (i.e. by right) and to address site development standards such as fencing, screening, and decommissioning. The Planning Commission can revise to include additional requirements, if they deem appropriate.</p>

#	Public Comment	Staff Response
5.	Concerns for environmental impact of solar facilities.	<p>The Planning Commission asked several questions pertaining to the environmental impact between the December 2019 and February 2020 meetings. The information presented indicated that environmental impact from solar energy facilities is minimal.</p> <p>It should be noted that no land use is without environmental impact, including residential development and agricultural operations. The Department of Environmental Protection is largely responsible for reviewing environmental impact of a proposed development and has their own regulations a project is subject to complying with for approval.</p> <p>The Planning Commission should evaluate the type of impact solar facilities may have and how those impacts can be mitigated (i.e. vegetative buffers, ground cover, etc.).</p> <p>Compliance with Section 8.9 is required, similar to any other non-residential land use. This section addresses noise, odor, smoke, ambient air quality, vibration, glare and heat, toxic matter, and fire hazards.</p> <p>The proposed text requires solvent’s necessary for cleaning solar panels to be biodegradable (Sec. 8.20.C.4).</p> <p>Solar facilities do not emit odors. Noise is minimal, produced primarily from generators. The glare is minimal and the proposed amendment requires that “antireflective glass that is designed to absorb rather than reflect light” be utilized (Sec. 8.20.C.7).</p>
6.	Proposed setbacks are excessive.	<p>During their December 2019 and February 2020 meetings, the Planning Commission expressed concerns with regard to the aesthetics of these types of projects. The proposed setbacks are slightly above what is required for a commercial project in the rural district (75’, when adjacent to a residence) but less than what is required for an industrial use (200’, when adjacent to a residence). Based on research, it does not appear that a 100’ setback for this type of land use is excessive.</p> <p>The intent was to provide a larger setback to provide a visual barrier.</p>
7.	Proposed setbacks are insufficient.	<p>The proposed setbacks exceed what is required for a commercial project in the Rural zoning district (75’, when adjacent to a residence [25’ if there is no residence]).</p> <p>The intent was to provide a visual barrier through a larger setback (similar to the distance requirements found in Section 4.6).</p>

#	Public Comment	Staff Response
8.	Solar energy facilities should be permitted within the Residential Growth zoning district. Solar facilities have less impact on resources than residential development and there should be more options for property owners in the RG district than just residential development.	<p>The original proposal was to allow these types of facilities in the Rural zoning district; however, Staff advised that the use should be permitted in the commercial districts as well, so as to not inadvertently prohibit this type of project from locating in a commercial district.</p> <p>This is a decision for the Planning Commission.</p>
9.	The proposed text amendment is not consistent with the Comprehensive Plan.	<p>It is the Planning Commission's role to determine whether a proposed text amendment is consistent with the adopted Comprehensive Plan and to make a recommendation to the County Commission. There are several references throughout the Plan which support renewable energy.</p> <p>The County Commission has the final authority to make land use decisions.</p>
10.	The text amendment was drafted during secret meetings with industry representatives.	<p>An industry representative, Sam Gulland, presented the petition on behalf of the Jefferson County landowner, Stanley Dunn, in December 2019. In February 2020, the Planning Commission appointed a subcommittee to work with Sam Gulland on revising the draft to create provisions to allow the use to process as a Principal Permitted Use. The Planning Commission also requested that the subcommittee include local Land Use Consultant Paul Raco and requested that a Staff member be present to facilitate the meetings (Alex Beaulieu).</p> <p>There were no secret meetings or negotiations occurring. The draft reflects exactly what the Planning Commission directed the subcommittee and participants to draft. There were no votes taken during such meetings; no official decisions were made. The purpose of the subcommittee was to revise the original submission to reflect the directives of the Planning Commission and create a working draft to be presented to the Planning Commission and the public for review.</p> <p>Planning Commission meetings are recorded and the recordings are archived online. The minutes are also available online. The Planning Commission's directions were clear and concise and the revised draft submitted did not take any liberties beyond that direction. Please refer to the records pertaining to December 2019 and February 2020 for Planning Commission discussion and direction.</p>

Urban Level Development Recommendations (Goal 1)	
1.	Recognize the existing vested rights, development entitlements, and permitted density levels on properties in Jefferson County.
	a. No property’s zoning status will be changed as part of this Plan.
2.	Recognize that the County Commission has the authority to make land use decisions including Zoning Map Amendments based upon the finding of consistency with the Future Land Use Guide and the recommendations of this Plan; the County Commission may determine that petitions or decisions for zoning map amendments are consistent with the Comprehensive Plan if any of the following conditions are met after the entire Plan is taken into consideration:
	a. Economic Well-Being of the County; or
	b. Error or Under Scrutinized Property on the Future Land Use Guide; or
	c. Change in Neighborhood; or
	d. Any Other Circumstance that the Governing Body determines should have been considered when drafting the Future Land Use Guide; and/or
	e. Environmental impacts are considered.
3.	Identify opportunities for small area plans and involve key stakeholders.
4.	In coordination with the Jefferson County Development Authority, utility providers, and other agencies, extend natural gas services and alternative energy sources into Jefferson County and encourage the extension of these services into new subdivisions to provide access to alternatives for heating and cooking uses.
5.	Create urban level land uses within the municipalities, UGBs, PGAs, or Villages through rezoning that is consistent with the Plan recommendations.
	a. Direct new urban level residential developments to locate in preferred areas within the municipalities, UGBs, PGAs, or Villages where water and sewer services are available.
	b. Reduce application fees for urban level development located within the areas desired for urban future growth.
	c. Establish a greater variety of zoning district options (in commercial, residential, and mixed-use zoning categories) that adhere to predictability of land use options and outcomes based on the Plan recommendations.
	d. Consider the utilization of alternatives to use-separated (Euclidean) zoning within the UGB and PGA, such as the SmartCode adopted by the City of Ranson or performance based zoning to achieve the desired land used goals.
	e. Update the County’s zoning regulations in a way that balances flexibility of use for property owners and developers while preserving the quality of life for residents.

2.D. Infrastructure

Having adequate and quality infrastructure in Jefferson County is beneficial to residents, businesses, and the County’s economy. Planning for the types of infrastructure needed and its location requires coordination with different entities that provide these services. The planning and coordination of where services are to be located maximizes efficiencies of these systems.

This Plan encourages infrastructure to be located in municipalities, Urban Growth Boundaries, Preferred Growth Areas, and Villages in a cost effective manner. In many places in rural areas, on-site private well and septic systems will be used.

Major Elements within Section 2.D. Infrastructure
Water and sewer
Stormwater
Alternative energy
Natural gas services
High-speed internet and advanced technology communications services

Water and Sewer Systems

Urban level development, which requires the provision of water and sewer systems, is defined as where more intense levels of residential, commercial, and industrial development activity occur. In West Virginia, by law, water and sewer providers are required to provide water and/or sewer service anywhere in a community so long as a developer pays to provide the initial infrastructure that would support the service(s). As a result, land use planning in West Virginia has to take a pro-active role in defining where urban level amenities and development will occur.

In order to take a pro-active role, it is the recommendation of this Plan to encourage the provision of infrastructure that allows for a higher level of development inside of the following areas: municipalities, Urban Growth Boundaries, Preferred Growth Areas, and Villages. In the rural area, it is anticipated that on-site private well and septic systems are to be utilized. In order for Jefferson County to retain its rural character and agricultural base, the expansion of water and sewer service into rural areas not designated as growth areas should not occur.

In the County’s village areas, development and revitalization is limited by a lack of existing water and sewer infrastructure that would support village-level development. In these areas, minimum lot size requirements tied to well and septic spacing have played a factor in limiting redevelopment or reuse of existing buildings within village centers. If Jefferson County is to reinvigorate its villages, infrastructure improvements would need to be in place to serve the village areas. A specific component of this would be the provision of village scaled water and sewer facilities that would alleviate the need for individual property owners to locate a well and septic tank on small village

development efforts have benefited from a number of public and quasi-public projects and efforts, including, but not limited to:

- Infrastructure improvements that have taken place in recent years (particularly the construction of WV 9 as a four-lane roadway through Jefferson County);
- An increased federal presence within Jefferson County;
- The continued expansion of Shepherd University in Shepherdstown and the relocation of the American Public University System’s headquarters in the Charles Town/Ranson area;
- The increased utilization of telecommuting as a viable employee option by national and regional businesses and federal government offices; and
- The expansion of a business park that has the necessary infrastructure in place for each lot which results in ready-to-build parcels.

Despite those gains, the lack of high paying jobs for Jefferson County’s skilled workforce requires approximately 36% of all employed individuals to commute to employment centers with higher wages located closer to Washington, D.C. or Baltimore, MD.

At the same time and paralleling a national trend, Jefferson County has lost some manufacturing and warehousing facilities. The loss of these employers has resulted in several vacant or underutilized structures, as well as unemployed workers. A number of these vacant facilities are within the Charles Town/Ranson urbanized area, and provide opportunities for redevelopment. Some of these facilities have been reused for other purposes, particularly by American Public University System (APUS) and the City of Ranson. APUS’s efforts have enhanced the economic revitalization process by purchasing and renovating 12 structures in Charles Town and Ranson as well as constructing a multi-story administrative building and related parking with a large array of solar panels. As part of this renovation and redevelopment activity, APUS has utilized several brownfield sites on the Charles Town/Ranson border.

With Jefferson County’s proximity to Washington, D.C. and Baltimore, MD and with the existing economic cluster of federal agencies, the County has the opportunity to attract additional federal facilities.

To support the success of future economic growth, there are a number of proposed improvements to the County’s public infrastructure that are expected to take place in the coming years. These include:

Major Public Infrastructure Projects that are Proposed
The widening and realignment of US 340 from Charles Town to the Virginia line near Berryville
The potential for improving natural gas and alternative energy facilities in the Eastern Panhandle and extending natural gas services into Jefferson County
Improvements to the County’s telecommunications network, particularly wireless technology and any advanced technologies

may not meet current standards, to be upgraded or maintained. Recently, the County adopted a new stand-alone Stormwater Management Ordinance that includes additional standards related to water quality and includes provisions for low impact design stormwater provisions such as rain gardens, bio-swales, permeable pavers, and permeable asphalt. These new standards help to minimize the impact of sediment and certain identified nutrients as required by the Chesapeake Bay Program.

In addition to land development activities, the following point and non-point source activities impact the water quality in waterways due to stormwater run-off:

Point and non-point source pollution
Over-fertilization and the use of chemicals to maintain lawns by homeowners
Use of salt and chemicals on roads in winter weather by the State Division of Highways
The fertilizers used to grow crops
Industrial emissions
Waste products (rubber, gasoline, and various other fluids) associated with auto use
Animal husbandry activities

The effect of stormwater run-off on the local waterways, particularly the Shenandoah and Potomac Rivers, has a significant impact on our local and regional recreational and heritage tourism, as well as drinking water quality. There are a number of watershed protection groups in the County that are actively seeking to improve the quality of the surface and groundwater within particular watersheds. These groups have made efforts to clean-up the waters and restore aquatic life to Jefferson County waterways. Such efforts have included, river clean ups, water monitoring, septic tank pumping and repair reimbursement programs, fencing of livestock to keep them out of streams, tree plantings, and outreach to residents and businesses to educate them about how to combat pollution. These efforts will ensure that high quality of water in Jefferson County continues.

Alternative Energy

It is widely recognized that many of the resources that we rely on to heat, cool, and light homes, power electronics, provide transportation fuel, and other daily needs are finite. Consequently, there has been an increasing need to assess the viability of alternative and renewable energy sources that may assist in maintaining the quality of life of Jefferson County's residents and businesses. In 2009, West Virginia adopted an Alternative and Renewable Energy Portfolio Standard that requires investor-owned electric utilities (such as Potomac Edison) with more than 30,000 residential customers to supply 25% of retail sales from eligible alternative and renewable energy resources by 2025.

Alternative and renewable energy sources are available, ranging from hydro (water), solar, and wind power to the use of various biofuels (algae, biomass, wood pulp, and other waste products), and plant crops (corn and switchgrass) that might be used to

complement or replace existing power sources. Another alternative energy source that may be applicable for the heating and cooling of buildings is the use of geothermal systems (drawing up groundwater and circulating it through pipes embedded in a building's walls).

There are efforts underway at the local and state level to encourage the conservation of energy and the utilization of alternative energy sources. The most notable of these are the projects that have been incorporated into the expansion of the American Public University System (APUS) in Charles Town and Ranson. These projects include the use of solar collectors that also serve as cover for parked cars, the installation of several electric car charging stations, and the utilization of building improvements and materials that limit the use of energy needed for heating, cooling, and lighting. The improvements undertaken by APUS can serve as a role model to new development in Jefferson County and to the redevelopment of existing structures and sites.

Several large-scale alternative and renewable energy projects have taken place in the County. Concern has been expressed that legislation prohibiting Cooperatives or Communities to create a solar panel system that would feed multiple houses is impacting the expansion and viability of implementing other solar projects in the County. As the cost of improvements decreases and the efficiency of various renewable energy materials improves, the reliance on current energy sources will be reduced as more families and businesses adopt these improvements.

Natural Gas Services

Jefferson County regional economic development officials and businesses identified the need for natural gas services to homes and businesses. At present the only area of the County served by natural gas lines is the former Kodak/3M plant in Middleway; however, the potential exists for the expansion of service capacity in the Eastern Panhandle and the extension of natural gas lines from the Berkeley/Jefferson County line along WV Route 9 to various parts of the County. The extension of natural gas into Jefferson County would aid County economic development efforts while providing an alternative to electricity for residential and commercial purposes.

One of the reasons this improvement is needed is because an increasing number of businesses are using natural gas in their manufacturing process, due to the lower costs and the cleaner emissions that result from its use. Natural gas, in a compressed or liquefied form, can also be used to fuel cars and buses. While natural gas has been primarily used as a fuel source for local and regional bus services in the US, it can also serve as a fuel source for both privately owned and County owned vehicles.

High-Speed Internet and Advanced Technology Communication Services

Over the last two decades, people have increasingly taken for granted the ability to be connected to the world via the internet. Internet uses include a variety of communication and media modes, conducting business, shopping for goods, staying abreast of local, national and world events, and have a plethora of entertainment

	<p>c. Collaborate with local public utility providers to identify and provide incentives that would encourage property owners to transition from well and septic to a centralized system where and when needed to address public health issues.</p>
	<p>d. Find funding mechanisms to defray the costs of providing public utilities in areas where the provision of these utilities is necessary based on declining public health or environmental concerns.</p>
6.	<p>Coordinate with Region 9 and the County’s public service providers to identify and seek additional funding sources that would aid in the construction of needed capital facilities and for the upgrading of existing facilities to meet newer federal standards.</p>
	<p>a. Continue to monitor and participate in planning efforts related to the implementation of the Chesapeake Bay Watershed Improvement Plan.</p>
	<p>b. Assess and evaluate the County’s stormwater planning documents as best management practices in the field evolve.</p>
7.	<p>Identify ways that utility services can be regularly upgraded to meet the highest level of service and technology through coordination with local water, sewer, electric, gas, and telecommunications utility and service providers.</p>
	<p>a. Require all local electric, cable, and other utility providers to bury existing and new lines (serving new development) as a part of the regular maintenance and upgrading of their facilities.</p>
8.	<p>Encourage public entities to utilize alternative and renewable energy sources for a variety of energy needs.</p>
	<p>a. Enable the construction of renewable energy generation facilities by residents and businesses.</p>
	<p>b. Encourage County businesses and service stations to provide electric vehicle recharging stations within Jefferson County as soon as possible and use distinctive signage to guide residents and visitors to the charging stations.</p>
	<p>c. Develop regulations to enable cooperatives or communities to create a solar panel system that would feed multiple houses in the County.</p>
9.	<p>Collaborate with local economic development agencies and Information Technology (IT) providers to ensure that the current and future needs of small businesses within Jefferson County are met.</p>
	<p>a. Ensure that all areas of Jefferson County are served by high speed wireline and/or wireless services and other advanced technologies.</p>
	<p>b. Encourage private sector investment to improve wireless internet service availability in Jefferson County and the Eastern Panhandle.</p>
	<p>c. Ensure that, as next-generation wireless and cellular services are implemented, Jefferson County collaborates with providers, including any necessary regulatory changes, to ensure that providers are able to provide these services at the same time as other communities in the Washington, D.C. and Baltimore, MD Metropolitan Areas.</p>

13.	Explore options to develop and implement a tax credit for those improving and investing in designated historic structures while maintaining the historic character of the structures.
14.	Consider implementation of alternative energy systems as they become more efficient and cost effective in facilities owned and maintained by the County or other public entities.
15.	Create and provide a series of tax credits based on state and federal government programs for homeowners and businesses that implement sustainable improvements for their homes and/or businesses that would result in long-term energy and cost savings.

Goal #10: Maintain and Enhance Community Services and Infrastructure Capacity for Water, Sanitary Sewer, Storm Sewer, and Other Utilities; and Enable the Provision of Orderly and Efficient Services and Advanced Technologies.

- Objective #1:** In coordination with public and private service providers serving Jefferson County, create a public service plan for the County that identifies specific standards (based on state and nationally accepted standards for communities), the applicability of enhancements to existing facilities, and potential locations of future infrastructure improvements.
- Objective #2:** Continue to coordinate between county and regional/state agencies in relation to information and activities related to meeting Chesapeake Bay Watershed Implementation Plan (WIP) goals.
- Objective #3:** Create and implement a means to require shared infrastructure between existing and proposed development.
- Objective #4:** Require that new utility facilities and/or extensions are located within Urban Growth Boundaries (UGBs), Preferred Growth Areas (PGAs), or Villages.
- Objective #5:** Identify and implement ways to provide utility services within and immediately adjoining Village areas.
- Objective #6:** Provide mechanisms to ensure that existing utility systems are upgraded to meet the needs of the residents and businesses throughout the County.
- Objective #7:** Private water and wastewater plants shall meet material and design standards set by local publicly owned service providers.
- Objective #8:** Work with appropriate local agencies and regional providers to extend natural gas services into Jefferson County.
- Objective #9:** Encourage the creation of and use of a variety of energy sources (including renewable energy) within Jefferson County in ways that respect the character of the County.
- Objective #10:** Adhere to the regulations included as part of the Jefferson County Stormwater Ordinance.
- Objective #11:** For water and sewer utilities to serve new developments and in areas currently not served by water and sewer where services have been deemed necessary by local or state health officials, allocate costs equitably so that new development or the development being served is responsible for the infrastructure cost, rather than existing ratepayers.

pressing, and tailoring; massage therapy provided by licensed massage practitioner; photographic studios; psychic readers; real estate; self-service laundromat; shoe repair; spas; tanning salons; travel agencies; video rental stores and other similar establishments.

Photovoltaic Technology Materials and devices that absorb sunlight and convert it directly into electricity.

Plat²³ A scaled, graphic drawing of a land subdivision project prepared according to the provisions of the Subdivision and Land Development Regulations and this Ordinance. A plat depicts the design and layout of a project as well as the location of existing and proposed property boundaries and easements. A plat also includes all terms, conditions and performance requirements established prior to the approval of a subdivision.

Preliminary Plat²³ A professionally prepared drawing of a proposed subdivision which is not a record plat but which contains detailed information concerning the proposed development, and is prepared according to the provisions of the Subdivision and Land Development Regulations and this Ordinance.

Preschool²³ Use of a site for the provision of pre-elementary educational services on a scheduled basis to children through kindergarten. If the West Virginia Department of Education establishes requirements for a preschool, the land use shall meet these requirements.

Preservation of a Historic Site³⁵ The act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction.

Primary Public Safety Provider²² An FCC licensed governmental user that uses wireless telecommunication facilities to provide primary communications for law enforcement, fire, ambulance or related emergency services. Primary Public Service Provider does not include Commercial Wireless Service Providers, or Competitive Local Exchange Carriers (CLEC), who provide telecommunication services on a commercial basis to Primary Public Service Providers, or who deliver emergency calls or messages from its customers to a Public Safety Answering Point (PSAP).

Principal Permitted Use^{23, 31, 32} Any use included on the Principal Permitted and Conditional Uses Table (Appendix C) which is or may be lawfully established in a particular district, approved by the Office of Planning and Zoning without requirement of approval by a board or commission, provided the use conforms with all applicable requirements of this Ordinance. Such use does not include Conditional Uses as defined in this Ordinance.

Principal Use²³ The primary or predominant use of any site.

Printing and Publishing²⁷ A printing operation of an industrial scale, involving a process that is considered printing, imprinting, reproducing, or duplicating images and using printing methods including but not limited to offset printing,

Soil Value	A relative numeric value assigned to soil groups based on the group's potential for agricultural production.
<u>Solar Decommissioning Plan</u>	<u>A plan certified by a West Virginia Licensed Professional Engineer that outlines the removal and proper disposal of the components of the Solar Energy Facilities and property restoration; including, the timeline for the removal at the end of the lease and/or when production of electricity ceases, the estimated cost of the removal, the estimated salvage value of the material, equipment, devices, etc., and the reasonable restoration of the real property upon which such Solar Energy Facilities are located, including soil stabilization an re-vegetation of the ground cover of the property which may be disturbed due to the location, installation, or removal of such facilities. The Plan may also include a list of specific items that are requested to remain on site for the benefit of the property owner.</u>
<u>Solar Energy Facility</u>	<u>A facility that generates electricity from sunlight by utilization of photovoltaic (PV) technology and distributes the generated electrical power. On-site components of the facility may include solar panels and other accessory components including, without limitation, Essential Utility Equipment, transformers, inverters, cabling, electrical lines, substations, and other improvements necessary to support generation, collection, storage, and transmission of electrical power.</u>
Special Event ³⁹	A gathering of individuals for the common purpose of attending a celebration, ceremony, reception, or similar activity for the benefit of someone other than the property owner. Private parties, gatherings, and similar activities that are not subject to a use agreement between a private individual or group and the property owner are not defined as a special event.
Special Event Facility ³⁹	A facility where special events are permitted to occur. Special event facilities are subject to a use agreement between a private group or individual and the facility owner. The facility owner may or may not charge a rental fee for the use of the facility. Facilities may operate entirely within a structure, entirely outside of a structure, or both inside and outside a structure.
Special Event Facility, Agricultural ³⁹	A Special Event Facility located on a parcel which the Assessor's Office has classified as "farm use".
Species, Rare or Endangered	Any species listed with the West Virginia Department of Natural Resources Heritage Program Species List or by the U.S. Department of the Interior, Department of Fish and Wildlife Management.

B. Setback Standards to operate a Nature Center and Preserve:

Enclosed structures over 250 square feet that are solely for the purpose of housing animals shall be setback 50 feet.

All structures and motorized trails shall meet commercial setbacks of 25 feet with the exception that accessory structures under 250 square feet that are associated with the maintenance of the land use shall be setback ten feet.

All non-motorized trails and non-amplified outdoor activity areas shall meet a minimum ten foot setback. Motorized vehicles associated with the maintenance of the land use are permitted within the non-motorized trails.

C. Landscaping Standards to operate a Nature Center and Preserve:

In lieu of this Ordinance's landscaping standards, a ten foot woodland preservation buffer shall be required along the perimeter of the land use. This ten foot buffer is not required along the interior property lines of the land use. There shall be no clearing or cutting within the buffer with the exception of removing dead, dying, and/or diseased trees. The woodland preservation buffer may be used for passive recreation such as pedestrian, bike, or equestrian trails provided that:

1. No trees, shrubs, hedges, or walls are removed.
2. Not more than 20% of the width of the buffer is impervious surface.
3. The total width of the buffer area is maintained.

D. Noise Standards to operate a Nature Center and Preserve:

This land use is restricted to the noise standards of Section 8.9A.1 of this Ordinance. The Residential Growth District measurement shall apply when the use is adjacent to a lot that contains a residence, or is zoned Rural or Residential Growth.

Section 8.19 Crematorium³⁷

A. Crematorium, Livestock

A Livestock Crematorium shall process as a Conditional Use Permit in all zoning districts other than Rural, unless such use is determined by the Zoning Administrator to be accessory to an active agricultural use.

B. Crematorium, Pet

A Pet Crematorium shall process as a Principal Permitted or Conditional Use in zones as designated in Appendix C. In the Rural Zoning District, a Pet Crematorium may process utilizing the Site Plan Exemption for the Rural District.

Section 8.20 Solar Energy Facilities

Solar Energy Facilities are permitted as indicated in Appendix C.

A. Application

1. A Pre-Proposal Conference is recommended, pursuant to the Jefferson County Subdivision and Land Development Regulations.

2. A Concept Plan, pursuant to the Minor Site Development Concept Plan standards established in the Jefferson County Subdivision and Land Development Regulations is required; except that after the Planning Commission direction is given, the next steps are Application for a Zoning Certificate and Building Permits, including submission of final Decommissioning Plan. In addition to the Concept Plan requirements outlined in the Subdivision Regulations, the Concept Plan shall also include the following standards:

(a) Property or Properties Location

(b) Access Points;

(c) Anticipated location of all proposed components of the Solar Energy Facility; and

(d) Landscaping, Buffering, Ground Cover Plan, and Fencing.

Each proposed solar panel is not required to be located on the Plan, if compliance with setbacks can be established by what is depicted on the Plan.

If the project is to be completed in phases, the Concept Plan shall reflect phasing of the project.

3. A Zoning Certificate based on an approved Concept Plan is required prior to initiating any use regarding Solar Energy Facilities.

(a) In addition to the standards found in Section 8.20, any Zoning Certificate regarding Solar Energy Facilities shall be issued conditioned on all other State Regulations and approvals being granted, including, but not limited to, the WV Public Service Commission, WVDEP applicable NPDES Permits, Fire Marshal Approval, Building Permits through the Department of Engineering, Planning, and Zoning, and approval of the Stormwater Management Report pursuant to the Jefferson County Stormwater Management Ordinance.

B. Standards

1. Multiple adjacent properties under the same ownership or lease by the same company shall be considered one property for the purpose of these regulations. Internal boundary lines on adjacent properties under the same ownership or lease by the same company are not subject to the setbacks or buffer requirements provided below.

2. Setbacks

a. Solar Panels

i. Front, Side, and Rear Setbacks shall be 100 feet from all external/perimeter property lines and from the edge of the State ROW or Easement of any State Road.

ii. Solar panels and accessory components may be located on a common side or rear lot line of contiguous property owned by the same entity.

b. Accessory components, excluding solar panels.

i. Front, side, and rear setbacks shall be 25' from all external/perimeter property lines and from the edge of the State ROW or Easement of any State Road.

3. Buffering, Landscaping, Security, and Access

a. Solar Panels that are located within 200 feet of any residence, Category 1 Historic Resource, Institution for Human Care, Church, or similar use or structure as determined by the Zoning Administrator, shall provide a 20 foot wide buffer along common property lines. The buffer shall be provided anywhere within the 200 foot radius from

the structures/uses herein and is not required to be provided along the entire length of the common property line.

- b. The buffer screen may be either vegetative or opaque fencing and may be placed anywhere within the buffer area. No structures, materials, or vehicular parking shall be permitted within the side and rear yard buffers. Existing, natural vegetation may be used in lieu of a planted buffer if documentation is submitted to the Zoning Administrator verifying how the existing natural vegetation complies with the required buffer standard.
- c. Accessory Components (excluding solar panels) that are located within 200 feet of any residence, Category 1 Historic Resource, Institution for Human Care, Church, or similar use as determined by the Zoning Administrator, shall comply with the commercial provisions of Section 4.11, with the exception that the Zoning Administrator can allow the use of existing, natural vegetation as appropriate to achieve the intent of the required buffering. The buffer shall be provided anywhere within the 200 foot radius from the structures/uses herein and is not required to be provided along the entire length of the common property line.
- d. A security fence with secured gates shall be erected around the operating areas of the Solar Energy Facility with a minimum height of 6 feet and a maximum height of 10 feet.
 - i. Arrangements shall be made with the appropriate Fire Department for Access. A letter documenting approval of access from the Fire Department shall be provided with the Zoning Certificate application. The Fire Department shall respond within 15 days of the date of the letter. If no response is provided, the Fire Department shall be deemed by this Ordinance to have approved the access.
 - ii. Upon three business days notice by the Department of Engineering, Planning, and Zoning, access shall be provided to Staff.

4. Stormwater Management

Stormwater Management shall be required in accordance with the Jefferson County Stormwater Management Ordinance. Solar Energy Facilities may be exempt from providing stormwater management if the conditions for granting exemption under Article I.D.2.h of the Stormwater Management Ordinance are satisfied.

5. Decommissioning Plan

- a. A general outline of the decommissioning of the Solar Energy Facility shall be included with the Concept Plan. This outline shall include a general discussion on the timeline of the lease or operating plan and a general plan for removal of the Solar Energy Facility. A full Solar Decommissioning Plan is not required until submission of the Zoning Certificate application for the Facility.
- b. A Solar Decommissioning Plan shall be presented to and approved by the Zoning Administrator prior to the issuance of the Zoning Certificate for Solar Energy Facilities. Either the Zoning Administrator or the Applicant may request that the Planning Commission approve or disapprove any component of the Plan.
- c. Prior to issuance of any Solar Energy Facility Building Permit, an affidavit shall be submitted from the Property Owner which acknowledges that the Solar Energy Facility Decommissioning Plan is the Property Owner's responsibility.

- d. Staff shall be notified by certified mail at least 60 days in advance of the intended decommissioning of the Solar Energy Facility. Staff will place the notice on the next regularly scheduled Planning Commission meeting under “non-actionable correspondence”.
- e. Failure of the Lessee or Property Owner to meet and/or comply with the Solar Decommissioning Plan may result in the County pursuing legal action pursuant to Section 3 of this Ordinance, including legal action to have the Solar Energy Facility, or portions thereof as applicable, removed at the Property Owner’s expense. The County may seek to recover its costs, legal fees, and legal expenses incurred to have the facility decommissioned in compliance with the Solar Decommissioning Plan.

C. General Requirements

1. Design, construction, and installation of the Solar Energy Facility shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM) or other similar certifying organizations and shall comply with the West Virginia Fire and Building Codes, including compliance with the Jefferson County Building Code.
2. Prior to commencing the transmission of electricity, the Solar Energy Facility shall provide documentation evidencing an interconnection agreement or similar agreement with the applicable public utility or approved entity in accordance with applicable law.
3. Generation of electrical power shall be limited to photovoltaic panels, provided that any on-site buildings may utilize integrated photovoltaic building materials.
4. Solvents necessary for the cleaning of the Solar Panels shall be biodegradable.
5. Internal wiring, excluding that which is on or between the Solar Arrays, connected to substations or between Solar Panels, shall be located underground, accept where necessary to mitigate impact to environmental and/or terrain features.
6. Onsite lighting shall be minimum necessary for security and onsite management and maintenance and shall comply with the standards outlined in the Subdivision Regulations.
7. Photovoltaic Panels shall use antireflective glass that is designed to absorb rather than reflect light.
8. Ground Cover comprised of natural vegetation is required. Ground cover that uses native or naturalized perennial vegetation and that provides foraging habitat that is beneficial for songbirds, gamebirds and pollinators is encouraged but not required.
9. Collocation of other agricultural activities such as small market hand-picked crops, grazing and apiary activities are permitted and encouraged.
10. No signage or advertising is permitted on the Solar Energy Facilities other than an identifying sign at the entrance of the Facility that shall be approved by the Zoning Administrator in accordance with Article 10. All other signage must be approved by Special Exception by the Board of Zoning Appeals.
11. Solar Energy Facilities shall comply with Article 8, Section 8.9 of this Ordinance.
12. The Solar Energy Facility Use is not considered abandoned until such time it is Decommissioned.
13. Damaged or unusable panels shall be removed within 60 days from discover of damage; provided, however, longer periods may be approved by the County Engineer due to extenuating circumstances.

Land Use	NC	GC	HC	LI	MI	PND ¹	OC	R	RG	RLIC	IC	V	Additional Standards
Commercial Uses continued													Sec. 8.9
Restaurant	P	P	P	P	CU	P	P	CU	CU	P	P	CU	
Retail Sales Limited	P	P	P	P	NP	P	P	CU	CU	P	P	CU	
Retail Sales and Services, General	NP	P	P	P	NP	P	NP	CU	CU	P	P	CU	
Retail Store, Large	NP	CU	P	CU	NP	CU	NP	CU	CU	CU	CU	CU	
Shipping and Mailing Services	P	P	P	P	CU	P	P	CU	CU	P	P	CU	
<u>Solar Energy Facility</u>	<u>NP</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>NP</u>	<u>NP</u>	<u>P</u>	<u>NP</u>	<u>P</u>	<u>P</u>	<u>NP</u>	<u>Sec. 8.20</u>
Special Event Facility	P	P	P	P	NP	P	P	CU	CU	P	P	CU	Sec. 8.14
Storage, Commercial	NP	P	P	P	CU	P	NP	CU	CU	P	P	CU	
Veterinary Services	P	P	P	P	CU	P	P	P	CU	P	P	CU	
Wireless Telecommunications Facilities	P	P	P	P	P	P	P	P	P	P	P	P	Art. 4B
Agricultural Uses*													
Agricultural Uses, as defined in Article 2	P	P	P	P	P	P	P	P	P	P	P	P	
Agricultural Repair Center	NP	P	P	P	P	P	P	P	CU	P	P	NP	
Agricultural Tourism	P	P	P	P	P	P	P	P	P	P	P	P	
Crematorium, Livestock ³⁷	CU	CU	CU	CU	CU	CU	CU	P	CU	CU	CU	CU	Sec. 8.19
Farm Brewery	P	P	P	P	P	P	P	P	P	P	P	P	Sec. 8.5
Farm Winery or Distillery	P	P	P	P	P	P	P	P	P	P	P	P	Sec. 8.5
Farm Market	P	P	P	P	P	P	P	P	P	P	P	P	Sec. 8.6
Farm Vacation Enterprise	P	P	P	P	P	P	P	P	P	P	P	P	
Farmer's Market	P	P	P	NP	NP	P	NP	P	CU	P	NP	CU	Sec. 8.6
Feed and/or Farm Supply Center	CU	P	P	P	P	P	P	P	CU	P	P	NP	
Horticultural Nurseries and Commercial Greenhouses	P	P	P	P	P	P	P	P	CU	P	P	NP	
Landscaping Business	P	P	P	P	P	P	P	P	CU	P	P	NP	
Rental of Existing Farm Building for Commercial Storage	NP	P	P	P	P	P	P	P	CU	P	P	NP	
Structure must have existed for 5 years													
Special Event Facility, Agricultural	P	P	P	P	P	P	P	P	P	P	P	P	Sec. 8.14
Accessory Uses													
Accessory Uses	P	P	P	P	P	P	P	P	P	P	P	P	

- | | | | |
|-----|----------------------------------|------|--|
| NC | Neighborhood Commercial | OC | Office / Commercial Mixed-Use |
| GC | General Commercial | R | Rural |
| HC | Highway Commercial | RG | Residential Growth District |
| LI | Light Industrial | RLIC | Residential-Light Industrial-Commercial District |
| MI | Major Industrial | IC | Industrial-Commercial District |
| PND | Planned Neighborhood Development | V | Village District |

P Permitted Uses

NP Not Permitted Uses

CU Conditional Uses (subject to requirements of district and/or other requirements of this Ordinance)

** Accessory Use to a planned residential community, if permitted pursuant to Section 5.4 and processed as a CU

¹ The Planning Commission may amend the permitted uses for a development in the PND District per Article 5.

² Approval process is per the Salvage Yard Ordinance.

The following memo was prepared by the Office of Engineering. The information pertains to their research regarding stormwater management and bonding for solar energy facilities.

The following memo is for informational purposes only.

A redline revision to the Stormwater Management Ordinance does not require action by the Planning Commission. A text amendment to the Stormwater Management Ordinance requires action by the County Commission and should be coordinated with the Solar Energy Facilities Zoning Ordinance Text Amendment (ZTA19-03).

MEMORANDUM

Jefferson County, West Virginia
Engineering, Planning & Zoning Department

TO: Mike Shepp, Planning Commission President
Alex Beaulieu, Zoning Administrator
Jennie Brockman, County Planner

FROM: Roger Goodwin, P.E., Director & Chief County Engineer
Jonathan Saunders, P.E, County Engineer
Joe Kent, Land Development Inspector

DATE: April 22, 2020

SUBJECT: Zoning Ordinance Amendments Project
Solar Farms - Stormwater Management & Bonding
SWM Text Revised Per 4/22/2020 Conference Call

This memorandum is the Office of Engineering's response to the proposed Zoning Ordinance amendment addressing requirements for solar farms, that we discussed during a conference call on Thursday, April 9th. We address the following two issues:

- Stormwater Management and Erosion & Sediment Control requirements; and
- Proposed requirement for a 30-year Decommissioning Bond.

1. Stormwater Management and Sediment & Erosion Control:

- A. It is our understanding that the intent of the proposed amendment to the Zoning Ordinance for Solar Farms is to eliminate the need to process a Site Plan and eliminate the requirement for stormwater management control. However, the intent is to require temporary construction sediment and erosion (S&E) control under the West Virginia Department of Environmental Protection's construction stormwater NPDES permitting requirements.
- B. We researched information on the impact of solar farms on stormwater runoff (pre-development conditions vs. post-development conditions) and best management practices for controlling storm water runoff and erosion. This includes the following attached information:

- “Hydrologic Response of Solar Farms”, in the May 2013 ASCE Journal of Hydrologic Engineering; which looked at all the factors and conditions affecting stormwater runoff.
- “A Rainy Day at a Solar Farm”, Kennedy Jenks consulting; which summarizes stormwater impacts and stormwater management practices in several states.
- “Permitting for Solar Panel Farms – Frequently Asked Questions”, January 2, 2019, Pennsylvania Department of Environmental Protection; which provides conditions for exemption from traditional stormwater management control requirements.

- C. Based on our findings, there can be a significant increase in stormwater runoff from solar farms. However, if solar farms can meet certain conditions as discussed in the study, and as adopted by the state of Pennsylvania, the post-development runoff versus pre-development runoff will be insignificant and no traditional stormwater management control facilities will be needed.

Therefore, we propose similar relatively simple conditions for solar farms, which if met, will exempt solar farms from having to provide traditional stormwater management control. These conditions are outlined in the attached proposed amendment to the Stormwater Management Ordinance, in Article 1, Section D(2)(h). By meeting these conditions, a solar farm will be exempt from providing traditional stormwater management control.

We believe all stormwater management requirements should be contained in the Stormwater Management Ordinance, not spread out across numerous unrelated ordinances. It is the logical place for these requirements and keeps the ordinances user friendly. Therefore, we recommend that the Zoning Ordinance reference the Stormwater Management Ordinance for solar farm requirements and that the conditions granting an exception be placed in the Stormwater Management Ordinance. Jonathan Saunders, county engineer, drafted language for the reference in the Zoning Ordinance (see attached).

In Summary, the ASCE hydrologic study indicates that stormwater runoff from solar farms can be significant. However, the hydrologic study, and stormwater management practices adopted by the by other jurisdictions, indicate that solar farms can be exempt from providing traditional stormwater management facilities if the conditions proposed in the Jefferson County Stormwater Ordinance are

satisfied. These proposed conditions require low-impact methods for reducing post-construction runoff volumes and velocities.

If the Planning Commission agrees, then staff will prepare a county commission agenda item request for this purpose; and coordinate simultaneous approval of it with approval of the Zoning Ordinance amendment related to solar farm utilities.

2. 30-Year Decommissioning Bond:

With regard to the proposed requirement for a 30-year decommissioning bond, we offer the following comments:

- A. West Virginia State Code, Chapter 8A, Article 6-1, Bond Requirements, addresses bonding requirements for land development projects. It says:

ARTICLE 6. METHODS OF SECURITY.

§8A-6-1. Bond requirements.

(a) If a bond is used as an acceptable method of security for infrastructure construction, then it shall meet the following requirements:

- (1) Be in an amount to cover the infrastructure construction, as determined by the governing body;*
- (2) Be payable to the governing body;*
- (3) Have adequate surety and be satisfactory to the governing body;*
- (4) Specify the time for the completion of the infrastructure construction; and*
- (5) Specify the date and/or condition for when the bond will be released.*

(b) The money from the bond shall only be used by the governing body to which the bond is payable, for the completion of the infrastructure construction, when the infrastructure construction is not completed as approved at the issuance of the bond.

In accordance with state code, the County Commission has a bonding policy which requires that the developer enter into an agreement with the County Commission to complete the site improvements (infrastructure) as required under a preliminary plat or site plan approval. The developer is required to post a bond/surety in the amount of 115% of the estimated cost to complete all the site improvements. The developer gets a limited amount of time to complete the site improvements. Upon satisfactory completion of all the site improvements, the bond is released. Upon release of the bond/surety, there are no further obligations between the County Commission and the developer.

The purpose of the bond authorized under Chapter 8A, Article 6-1, is for completion of site improvements. The proposed 30-year decommissioning bond is for the post-construction purpose of ensuring that the site is properly decommissioned upon cessation of operation of the solar farm. Which could extend as far out as 30-years.

It is our belief that the county does not have the authority under Chapter 8A, Article 6-1, to require a bond for the purpose of ensuring the proper decommissioning of a solar farm post-construction; which would typically occur decades later. However, we will defer to the Planning Commission's attorney for guidance on this matter.

B. We also discussed the need for a 30-year decommissioning bond and how difficult it will be to manage over a 30-year time period. We believe that holding and tracking a bond for 30 years will be difficult and impractical. Instead, we propose another option based on these two ownership scenarios:

- Solar Farm Utility owns the land; and
- Solar Farm Utility leases the land.

In the first scenario, the ordinance could require that, upon cessation of operations, the solar farm be decommissioned by fully dismantling and removing all the equipment and facilities from the site and disposing of it in a legal manner. If the utility fails to do so, it will be in violation of the ordinance and the county pursues enforcement under the ordinance, which could involve seeking an injunction and order in circuit court to enforce proper decommissioning and possibly imposing fines on the utility. You could borrow language from the Property Safety Enforcement Ordinance on how the enforcement process will work.

Whenever there is a violation of county land development ordinances and building codes, the county has always held the property owner to be the one in violation; not the developer or builder/contractor. In the second scenario, it seems the intent of the 30-year decommissioning bond is to protect the owner from the utility failing to properly decommission the solar farm upon cessation of operations and/or termination of the lease. If the utility abandoned the solar farm facility in place, this again would be a violation of the ordinance. However, the owner will be responsible for seeing that the utility properly decommissions the solar farm. If not, then the county will pursue enforcement under the ordinance, which could

involve seeking an injunction and order in circuit court to enforce proper decommissioning by the property owner and possibly imposing fines.

Therefore, under the second scenario, it seems to us that the property owner needs to enter into a lease agreement that includes terms and conditions for the proper decommissioning of the solar farm. The property owner should be the one to require and hold a decommissioning bond or form of surety from the utility to ensure there is incentive for the utility to properly decommission the solar farm; which will be by demolishing it and disposing of it in a legal manner. It seems to us that in this scenario, it is a contractual civil matter between the property owner and the solar farm utility.

In summary, we believe that it will be difficult for the County Commission and staff to manage and track a bond over a 30-year time period. Putting language in the ordinance giving the county the ability to enforce decommissioning is an alternative to requiring a decommissioning bond. If the solar farm utility leases the property, then the property owner can enter into a lease agreement with the utility that requires the utility post a bond/surety with the property owner as incentive for proper decommissioning. In addition, we are not sure the county has the authority to require a decommissioning bond anyway. However, the property owner could require a bond/surety in the lease agreement. We will defer to the Planning Commission's attorney for guidance on this matter.

Jefferson County, WV

**Stormwater Management Ordinance
Department of Engineering**

AUGUST, 2013

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ARTICLE I GENERAL PROVISIONS

A. STATUTORY AUTHORITY

- (1) Short Title
 - (a) This Ordinance and Ordinances supplemental or amendatory thereto shall be known and may be cited as the “Stormwater Management Ordinance of Jefferson County” and hereinafter referred to as the “Ordinance.”
 - (b) EFFECTIVE DATE:
- (2) The provisions of this Ordinance are enacted pursuant to West Virginia Code:
 - Chapter 7, County Commissions and Officers, Article 1, “County Commissions Generally”
 - Chapter 8A, Land Use Planning, Article 4, “Subdivision and Land Development Ordinance”
 - Chapter 8A, Land Use Planning, Article 5, “Subdivision or Land Development”
 - Chapter 22, Environmental Resources, Article 11, “Water Pollution Control Act”
 - Chapter 22, Environmental Resources, Article 12, “Ground Water Protection Act”
- (3) The provisions of this Ordinance are also enacted pursuant to the Chesapeake Bay Restoration Act of 2000.

B. PURPOSE AND OBJECTIVES

This Ordinance has the following purpose:

- (1) Protect, maintain, and enhance the environment of Jefferson County and the public health, safety, and general welfare of the citizens of Jefferson County by controlling discharges of pollutants to Jefferson County’s stormwater system, and maintain and improve the quality of the receiving waters into which all stormwater flows, including, without limitation, lakes, rivers, streams, ponds, wetlands, and groundwater of the community
- (2) Enable Jefferson County to comply with the West Virginia Department of Environmental Protection (WVDEP)-administered National Pollutant Discharge Elimination System (NPDES) stormwater permit program and applicable regulations (40 CFR, §122.26) for stormwater discharges
- (3) Enable Jefferson County to comply with the Environmental Protection Agency’s (EPA) Total Maximum Daily Loads (TMDLs) Water Quality Standards established for the Potomac River Basin
- (4) Enable Jefferson County to comply with the West Virginia Water Pollution Control Act, West Virginia Code, Chapter 22, Article 11

- (5) Allow Jefferson County to exercise the powers granted in West Virginia Code §8A-4, Article 4, “Subdivision and Land Development”, Article 5, “Subdivision or Land Development,” and §22, Article 12, “Ground Water Protection Act,” which provide, among other powers that counties have with respect to stormwater systems and stormwater management programs, the power by ordinance or resolution, as the case may require, and by appropriate action based thereon to do the following:
 - (a) Establish standards for setback requirements, Lot sizes, streets, sidewalks, walkways, parking, easements, rights-of-way, drainage, utilities, infrastructure, curbs, gutters, street lights, fire hydrants, stormwater management, and water and wastewater facilities
 - (b) Adopt any rules and regulations deemed necessary to accomplish the purposes of this Ordinance, including the adoption of a system of fees for services and permits
 - (c) Establish standards to regulate the quantity of stormwater discharged and to regulate stormwater contaminants that may be necessary to protect water quality
 - (d) Establish standards for flood-prone or subsidence areas
 - (e) Review and approve plans and plats for stormwater management in proposed residential and nonresidential subdivisions as applicable under Subsection D below
 - (f) Issue permits for stormwater discharges, or for the construction, alteration, extension, or repair of stormwater facilities
 - (g) Suspend or revoke permits when it is determined that the permittee has violated any applicable ordinance, resolution, or condition of the permit
 - (h) Ensure that required improvements are installed and not avoided by a series of minor subdivisions or land developments
 - (i) Define control measures for drainage, erosion, and sediment

C. ADMINISTERING ENTITY

- (1) Pursuant to West Virginia Code §7, Article 1, “County Commissions Generally,” any county commission in the State of West Virginia is hereby authorized and empowered to own, acquire, construct, equip, operate, and maintain within the respective county a stormwater system, stormwater works, and stormwater management program as defined herein.
- (2) Jefferson County is the entity responsible for administering the provisions of this Ordinance.

D. APPLICABILITY

- (1) This Ordinance shall be applicable to all activities as defined herein. A Stormwater Management Plan for any new development or redevelopment shall be required as described below. In addition to Stormwater Quantity and Quality Control Plans, stormwater Runoff conveyance systems, Erosion and Sediment Control Plans, and stormwater management facilities' maintenance requirements must be included in all Stormwater Management Plans. Stormwater management quantity and quality control shall be applicable as follows:
- (a) Quantity control criteria for newly developed impervious surfaces and/or changes in land cover shall apply to
 - (i) Minor Site Developments, as defined by the Jefferson County Subdivision and Land Development Regulations, requiring a Limited Site Plan, and
 - (ii) Rural Site Plans, and
 - (iii) Any Site Development requiring a Full Site Plan, and
 - (iv) Any Major residential or commercial subdivision requiring a Preliminary Plat.
 - (b) In addition to the quantity control requirements noted above, Quality control criteria for newly developed impervious surfaces shall apply to
 - (i) Rural Site Plans involving the Development of 5,000 square feet or more of impervious surface or resulting in more than one acre of land disturbance, and
 - (ii) Any Site Development requiring a Full Site Plan, and
 - (iii) Any Major residential or commercial subdivision requiring a Preliminary Plat.
- (2) The following activities are exempt from this Ordinance:
- (a) Any emergency activity that is immediately necessary for the protection of life, property, or natural resources
 - (b) Projects that do not require Site Plans or Preliminary Plat Plans. This includes Minor Subdivisions as defined under the Subdivision and Land Development Ordinance.
 - (c) The construction of single-family or duplex residential structures or additions or modifications to existing single-family or duplex residential structures

- (i) However, despite the exemption, minimal Erosion and Sediment control measures shall be required and include the following:
1. Installation and maintenance of a stone construction entrance during the entire construction phase to reduce the transport of sediment from the site by vehicles and equipment leaving the site, and
 2. Installation of a Silt Fence during the entire construction phase to control erosion and sediment runoff from the Site, and
 3. All disturbed areas on the Site shall be stabilized, within seven days of final grading or becoming inactive for more than 30 days, with permanent vegetation or protective ground cover suitable for the time of year.
- (ii) The Erosion and Sediment control measures shall be constructed and installed according to the details and specifications as established by the Chief County Engineer.
- (iii) The minimal stone construction entrance and Silt Fence shall be in place at the time of the footer inspection. Failure to meet minimal requirements will result in a failed footer inspection under the building code.

The final grading and stabilization of the Site shall be complete at the time of final inspection. Failure to meet this requirement will result in a failed final inspection and withholding of the Use and Occupancy Certificate issued under the building code.

- (d) Any logging or Agricultural Activity that is consistent with an approved farm conservation plan or a timber management plan prepared or approved by the Eastern Panhandle Conservation District.
- (e) Repairs to any Stormwater Management Facility.
- (f) Subdivision Plats or Site Plans approved before the adoption date of this Ordinance. However, any and all Subdivision Plats and Site Plans approved prior to the adoption of this Ordinance shall still be required to meet the stormwater management requirements in effect at the time of their approval and under which they were approved.
- (g) Any vested development that has an active application or submittal at the time of adoption of this ordinance and meets at least one of the following criteria, is exempt from this ordinance.
- An approved master planned development with a current CIS that has submitted at least the first phase of a multi-phased master planned development, or
 - Any site plan within an approved non-residential subdivision that has existing central water quantity control structures shall be required to

provide stormwater management controls under the regulations, conditions and terms in effect at the time of the original approval.

However, if, after the adoption of this ordinance, there is any physical expansion to said exclusion listed above, this ordinance shall apply to the expanded area only.

(06/16/2020 Revision – “Solar Energy Facility” name change)

(h) Solar Energy Facilities (commonly referred to as “Solar Farms”), provided all of the following conditions are met:

- Earth disturbance and grading activities shall be minimized and natural vegetative cover shall be preserved and/or restored.
- Vegetative cover shall have 90% or better uniform coverage and shall not be subject to chemical fertilization and herbicides/pesticides. A meadow condition is preferable, particularly for slopes between 5 and 10%. Mowed areas should be kept to a minimum of 4”.

Individual Photo Voltaic (PV) modules within an array shall be arranged in a fashion that allows the passage of runoff underneath each module. The PV modules shall be arranged to allow the growth of vegetation beneath the PV modules and between the rows of PV arrays.

If the width of the vegetative strip between rows of PV arrays is not a minimum of twelve feet (i.e. there is inadequate vegetated spacing between modules), then stormwater BMPs such as infiltration trenches (min. 12” wide by 12” deep) or infiltration berms shall be installed down gradient between each row.

- Ground-mounted solar PV modules shall be supported with structures/foundations occupying a maximum of 5% of the total project area. (not the parcel area, but that area within the boundary of the 100’ setback/buffer surrounding the solar energy facility equipment) This area shall be delineated, and dimensioned on the Concept Plan, along with a note of the total area and a calculation of the percent of impervious area occupied by the support structures/foundation.
- Solar PV modules shall be situated on mild slopes (10% max). If greater than 10% slopes are proposed, then stormwater BMPs such as infiltration trenches (min. 12” wide by 12” deep) or infiltration berms shall be installed down gradient between each row of PV arrays, in addition to providing the minimum 12-foot spacing between the rows of PV arrays.
- The lowest vertical clearance of the solar PV array shall be at an elevation of 10 feet or less from the ground, but is also at an adequate height to promote vegetative growth below the PV array.

- No erosion or transport of sediments shall be allowed. An Erosion and Sediment Control Plan shall be submitted as part of the Stormwater Report. Permanent Erosion and Sediment Control shall be provided to address the potential for erosion at the drip edge of solar panels. In addition, the West Virginia Department of Environmental Protection's temporary construction stormwater NPDES permit shall be submitted along with the Stormwater Report.

The developer shall submit documentation in the form of a Stormwater Report, which demonstrates all of the above conditions are satisfied, to the Jefferson County Engineer for review and approval. At the time of submission, the developer shall pay a non-refundable review fee in accordance with the established fee schedule. The Stormwater Report shall be prepared, signed, and sealed, by a professional engineer registered to practice in the State of West Virginia. The Stormwater Report shall be approved prior to the issuance of the building permit.

If all the above conditions cannot be met, then the project shall fall under the jurisdiction of this Ordinance and stormwater quantity and quality control shall be provided.

For the life of the project, the Jefferson County Engineering staff shall have the authority to visit the site, with 72-hours' notice, to determine if the above conditions are being maintained.

Failure to perpetually maintain and meet the conditions for this exemption shall be a violation of this Ordinance and enforceable under the law.

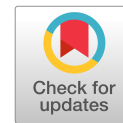
- (3) Compatibility with Other Permits and Ordinance Requirements
 - (a) Compliance with the requirements herein does not create exclusion to permitting requirements from the WVDEP, the U.S. Army Corps of Engineers, or any other agency or reviewing body that has jurisdiction over the proposed project area.
 - (b) Whenever this Ordinance imposes a conflicting restriction regarding stormwater regulation, the provisions of the more restrictive ordinance shall control.

E. SEVERABILITY

If any section, clause, sentence, part, or provision hereof shall be held to be invalid, or unconstitutional, by any court of competent jurisdiction, such decision of the court shall not affect or impair the remaining sections, clauses, sentences, parts, or provisions of this Ordinance.

F. INCORPORATION BY REFERENCE

- (1) For the purposes of this Ordinance, Jefferson County has adopted by reference the following published standards:



Hydrologic Response of Solar Farms

Lauren M. Cook, S.M.ASCE¹; and Richard H. McCuen, M.ASCE²

Abstract: Because of the benefits of solar energy, the number of solar farms is increasing; however, their hydrologic impacts have not been studied. The goal of this study was to determine the hydrologic effects of solar farms and examine whether or not storm-water management is needed to control runoff volumes and rates. A model of a solar farm was used to simulate runoff for two conditions: the pre- and postpaneled conditions. Using sensitivity analyses, modeling showed that the solar panels themselves did not have a significant effect on the runoff volumes, peaks, or times to peak. However, if the ground cover under the panels is gravel or bare ground, owing to design decisions or lack of maintenance, the peak discharge may increase significantly with storm-water management needed. In addition, the kinetic energy of the flow that drains from the panels was found to be greater than that of the rainfall, which could cause erosion at the base of the panels. Thus, it is recommended that the grass beneath the panels be well maintained or that a buffer strip be placed after the most downgradient row of panels. This study, along with design recommendations, can be used as a guide for the future design of solar farms. DOI: 10.1061/(ASCE)HE.1943-5584.0000530. © 2013 American Society of Civil Engineers.

CE Database subject headings: Hydrology; Land use; Solar power; Floods; Surface water; Runoff; Stormwater management.

Author keywords: Hydrology; Land use change; Solar energy; Flooding; Surface water runoff; Storm-water management.

Introduction

Storm-water management practices are generally implemented to reverse the effects of land-cover changes that cause increases in volumes and rates of runoff. This is a concern posed for new types of land-cover change such as the solar farm. Solar energy is a renewable energy source that is expected to increase in importance in the near future. Because solar farms require considerable land, it is necessary to understand the design of solar farms and their potential effect on erosion rates and storm runoff, especially the impact on offsite properties and receiving streams. These farms can vary in size from 8 ha (20 acres) in residential areas to 250 ha (600 acres) in areas where land is abundant.

The solar panels are impervious to rain water; however, they are mounted on metal rods and placed over pervious land. In some cases, the area below the panel is paved or covered with gravel. Service roads are generally located between rows of panels. Although some panels are stationary, others are designed to move so that the angle of the panel varies with the angle of the sun. The angle can range, depending on the latitude, from 22° during the summer months to 74° during the winter months. In addition, the angle and direction can also change throughout the day. The issue posed is whether or not these rows of impervious panels will change the runoff characteristics of the site, specifically increase runoff volumes or peak discharge rates. If the increases are hydrologically significant, storm-water management facilities may be needed. Additionally, it is possible that the velocity of water

draining from the edge of the panels is sufficient to cause erosion of the soil below the panels, especially where the maintenance roadways are bare ground.

The outcome of this study provides guidance for assessing the hydrologic effects of solar farms, which is important to those who plan, design, and install arrays of solar panels. Those who design solar farms may need to provide for storm-water management. This study investigated the hydrologic effects of solar farms, assessed whether or not storm-water management might be needed, and if the velocity of the runoff from the panels could be sufficient to cause erosion of the soil below the panels.

Model Development

Solar farms are generally designed to maximize the amount of energy produced per unit of land area, while still allowing space for maintenance. The hydrologic response of solar farms is not usually considered in design. Typically, the panels will be arrayed in long rows with separations between the rows to allow for maintenance vehicles. To model a typical layout, a unit width of one panel was assumed, with the length of the downgradient strip depending on the size of the farm. For example, a solar farm with 30 rows of 200 panels each could be modeled as a strip of 30 panels with space between the panels for maintenance vehicles. Rainwater that drains from the upper panel onto the ground will flow over the land under the 29 panels on the downgradient strip. Depending on the land cover, infiltration losses would be expected as the runoff flows to the bottom of the slope.

To determine the effects that the solar panels have on runoff characteristics, a model of a solar farm was developed. Runoff in the form of sheet flow without the addition of the solar panels served as the prepaneled condition. The paneled condition assumed a downgradient series of cells with one solar panel per ground cell. Each cell was separated into three sections: wet, dry, and spacer.

The dry section is that portion directly underneath the solar panel, unexposed directly to the rainfall. As the angle of the panel from the horizontal increases, more of the rain will fall directly onto

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the ground; this section of the cell is referred to as the wet section. The spacer section is the area between the rows of panels used by maintenance vehicles. Fig. 1 is an image of two solar panels and the spacer section allotted for maintenance vehicles. Fig. 2 is a schematic of the wet, dry, and spacer sections with their respective dimensions. In Fig. 1, tracks from the vehicles are visible on what is modeled within as the spacer section. When the solar panel is horizontal, then the length longitudinal to the direction that runoff will occur is the length of the dry and wet sections combined. Runoff from a dry section drains onto the downgradient spacer section. Runoff from the spacer section flows to the wet section of the next downgradient cell. Water that drains from a solar panel falls directly onto the spacer section of that cell.

The length of the spacer section is constant. During a storm event, the loss rate was assumed constant for the 24-h storm because a wet antecedent condition was assumed. The lengths of the wet and dry sections changed depending on the angle of the solar panel. The total length of the wet and dry sections was set



Fig. 1. Maintenance or “spacer” section between two rows of solar panels (photo by John E. Showler, reprinted with permission)

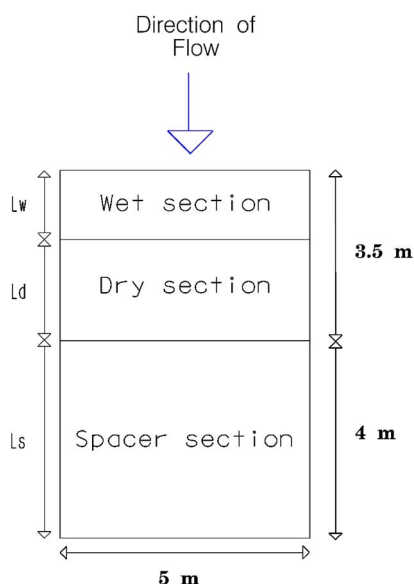


Fig. 2. Wet, dry, and spacer sections of a single cell with lengths L_w , L_d , and L_s with the solar panel covering the dry section

equal to the length of one horizontal solar panel, which was assumed to be 3.5 m. When a solar panel is horizontal, the dry section length would equal 3.5 m and the wet section length would be zero. In the paneled condition, the dry section does not receive direct rainfall because the rain first falls onto the solar panel then drains onto the spacer section. However, the dry section does infiltrate some of the runoff that comes from the upgradient wet section. The wet section was modeled similar to the spacer section with rain falling directly onto the section and assuming a constant loss rate.

For the presolar panel condition, the spacer and wet sections are modeled the same as in the paneled condition; however, the cell does not include a dry section. In the prepaneled condition, rain falls directly onto the entire cell. When modeling the prepaneled condition, all cells receive rainfall at the same rate and are subject to losses. All other conditions were assumed to remain the same such that the prepaneled and paneled conditions can be compared.

Rainfall was modeled after a natural resources conservation service (NRCS) Type II Storm (McCuen 2005) because it is an accurate representation of actual storms of varying characteristics that are imbedded in intensity-duration-frequency (IDF) curves. For each duration of interest, a dimensionless hyetograph was developed using a time increment of 12 s over the duration of the storm (see Fig. 3). The depth of rainfall that corresponds to each storm magnitude was then multiplied by the dimensionless hyetograph. For a 2-h storm duration, depths of 40.6, 76.2, and 101.6 mm were used for the 2-, 25-, and 100-year events. The 2- and 6-h duration hyetographs were developed using the center portion of the 24-h storm, with the rainfall depths established with the Baltimore IDF curve. The corresponding depths for a 6-h duration were 53.3, 106.7, and 132.1 mm, respectively. These magnitudes were chosen to give a range of storm conditions.

During each time increment, the depth of rain is multiplied by the cell area to determine the volume of rain added to each section of each cell. This volume becomes the storage in each cell. Depending on the soil group, a constant volume of losses was subtracted from the storage. The runoff velocity from a solar panel was calculated using Manning’s equation, with the hydraulic radius for sheet flow assumed to equal the depth of the storage on the panel (Bedient and Huber 2002). Similar assumptions were made to compute the velocities in each section of the surface sections.

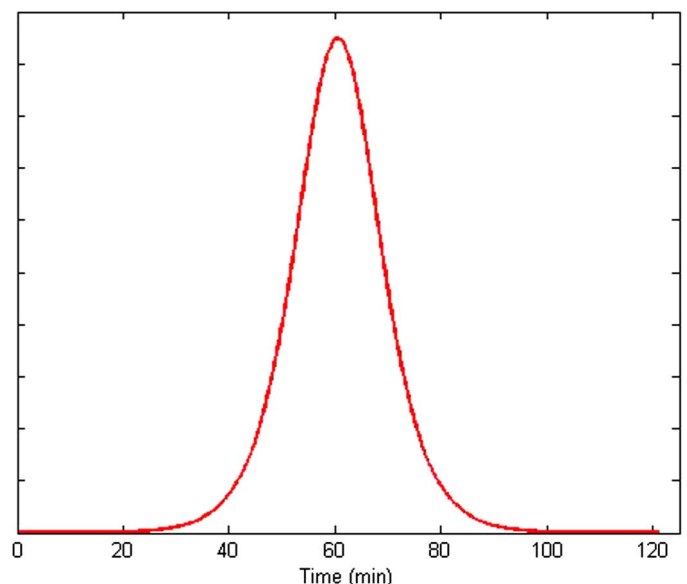


Fig. 3. Dimensionless hyetograph of 2-h Type II storm

Runoff from one section to the next and then to the next downgradient cell was routed using the continuity of mass. The routing coefficient depended on the depth of flow in storage and the velocity of runoff. Flow was routed from the wet section to the dry section to the spacer section, with flow from the spacer section draining to the wet section of the next cell. Flow from the most downgradient cell was assumed to be the outflow. Discharge rates and volumes from the most downgradient cell were used for comparisons between the prepaneled and paneled conditions.

Alternative Model Scenarios

To assess the effects of the different variables, a section of 30 cells, each with a solar panel, was assumed for the base model. Each cell was separated individually into wet, dry, and spacer sections. The area had a total ground length of 225 m with a ground slope of 1% and width of 5 m, which was the width of an average solar panel. The roughness coefficient (Engman 1986) for the silicon solar panel was assumed to be that of glass, 0.01. Roughness coefficients of 0.15 for grass and 0.02 for bare ground were also assumed. Loss rates of 0.5715 cm/h (0.225 in./h) and 0.254 cm/h (0.1 in./h) for B and C soils, respectively, were assumed.

The prepaneled condition using the 2-h, 25-year rainfall was assumed for the base condition, with each cell assumed to have a good grass cover condition. All other analyses were made assuming a paneled condition. For most scenarios, the runoff volumes and peak discharge rates from the paneled model were not significantly greater than those for the prepaneled condition. Over a total length of 225 m with 30 solar panels, the runoff increased by 0.26 m³, which was a difference of only 0.35%. The slight increase in runoff volume reflects the slightly higher velocities for the paneled condition. The peak discharge increased by 0.0013 m³, a change of only 0.31%. The time to peak was delayed by one time increment, i.e., 12 s. Inclusion of the panels did not have a significant hydrologic impact.

Storm Magnitude

The effect of storm magnitude was investigated by changing the magnitude from a 25-year storm to a 2-year storm. For the 2-year storm, the rainfall and runoff volumes decreased by approximately 50%. However, the runoff from the paneled watershed condition increased compared to the prepaneled condition by approximately the same volume as for the 25-year analysis, 0.26 m³. This increase represents only a 0.78% increase in volume. The peak discharge and the time to peak did not change significantly. These results reflect runoff from a good grass cover condition and indicated that the general conclusion of very minimal impacts was the same for different storm magnitudes.

Ground Slope

The effect of the downgradient ground slope of the solar farm was also examined. The angle of the solar panels would influence the velocity of flows from the panels. As the ground slope was increased, the velocity of flow over the ground surface would be closer to that on the panels. This could cause an overall increase in discharge rates. The ground slope was changed from 1 to 5%, with all other conditions remaining the same as the base conditions.

With the steeper incline, the volume of losses decreased from that for the 1% slope, which is to be expected because the faster velocity of the runoff would provide less opportunity for infiltration. However, between the prepaneled and paneled conditions, the increase in runoff volume was less than 1%. The peak discharge

and the time to peak did not change. Therefore, the greater ground slope did not significantly influence the response of the solar farm.

Soil Type

The effect of soil type on the runoff was also examined. The soil group was changed from B soil to C soil by varying the loss rate. As expected, owing to the higher loss rate for the C soil, the depths of runoff increased by approximately 7.5% with the C soil when compared with the volume for B soils. However, the runoff volume for the C soil condition only increased by 0.17% from the prepaneled condition to the paneled condition. In comparison with the B soil, a difference of 0.35% in volume resulted between the two conditions. Therefore, the soil group influenced the actual volumes and rates, but not the relative effect of the paneled condition when compared to the prepaneled condition.

Panel Angle

Because runoff velocities increase with slope, the effect of the angle of the solar panel on the hydrologic response was examined. Analyses were made for angles of 30° and 70° to test an average range from winter to summer. The hydrologic response for these angles was compared to that of the base condition angle of 45°. The other site conditions remained the same. The analyses showed that the angle of the panel had only a slight effect on runoff volumes and discharge rates. The lower angle of 30° was associated with an increased runoff volume, whereas the runoff volume decreased for the steeper angle of 70° when compared with the base condition of 45°. However, the differences (~0.5%) were very slight. Nevertheless, these results indicate that, when the solar panel was closer to horizontal, i.e., at a lower angle, a larger difference in runoff volume occurred between the prepaneled and paneled conditions. These differences in the response result are from differences in loss rates.

The peak discharge was also lower at the lower angle. At an angle of 30°, the peak discharge was slightly lower than at the higher angle of 70°. For the 2-h storm duration, the time to peak of the 30° angle was 2 min delayed from the time to peak of when the panel was positioned at a 70° angle, which reflects the longer travel times across the solar panels.

Storm Duration

To assess the effect of storm duration, analyses were made for 6-h storms, testing magnitudes for 2-, 25-, and 100-year return periods, with the results compared with those for the 2-h rainfall events. The longer storm duration was tested to determine whether a longer duration storm would produce a different ratio of increase in runoff between the prepaneled and paneled conditions. When compared to runoff volumes from the 2-h storm, those for the 6-h storm were 34% greater in both the paneled and prepaneled cases. However, when comparing the prepaneled to the paneled condition, the increase in the runoff volume with the 6-h storm was less than 1% regardless of the return period. The peak discharge and the time-to-peak did not differ significantly between the two conditions. The trends in the hydrologic response of the solar farm did not vary with storm duration.

Ground Cover

The ground cover under the panels was assumed to be a native grass that received little maintenance. For some solar farms, the area beneath the panel is covered in gravel or partially paved because the panels prevent the grass from receiving sunlight. Depending on the

volume of traffic, the spacer cell could be grass, patches of grass, or bare ground. Thus, it was necessary to determine whether or not these alternative ground-cover conditions would affect the runoff characteristics. This was accomplished by changing the Manning's n for the ground beneath the panels. The value of n under the panels, i.e., the dry section, was set to 0.015 for gravel, with the value for the spacer or maintenance section set to 0.02, i.e., bare ground. These can be compared to the base condition of a native grass ($n = 0.15$). A good cover should promote losses and delay the runoff.

For the smoother surfaces, the velocity of the runoff increased and the losses decreased, which resulted in increasing runoff volumes. This occurred both when the ground cover under the panels was changed to gravel and when the cover in the spacer section was changed to bare ground. Owing to the higher velocities of the flow, runoff rates from the cells increased significantly such that it was necessary to reduce the computational time increment. Fig. 4(a) shows the hydrograph from a 30-panel area with a time increment of 12 s. With a time increment of 12 s, the water in each cell is discharged at the end of every time increment, which results in no attenuation of the flow; thus, the undulations shown in Fig. 4(a) result. The time increment was reduced to 3 s for the 2-h storm, which resulted in watershed smoothing and a rational hydrograph shape [Fig. 4(b)]. The results showed that the storm runoff

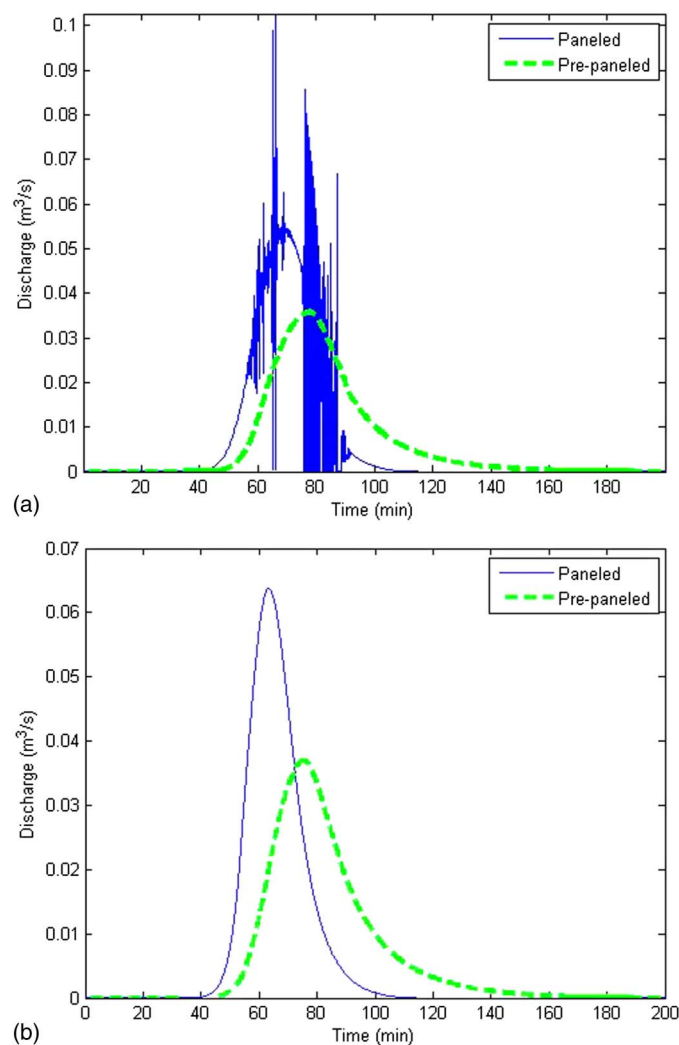


Fig. 4. Hydrograph with time increment of (a) 12 s; (b) 3 s with Manning's n for bare ground

increased by 7% from the grass-covered scenario to the scenario with gravel under the panel. The peak discharge increased by 73% for the gravel ground cover when compared with the grass cover without the panels. The time to peak was 10 min less with the gravel than with the grass, which reflects the effect of differences in surface roughness and the resulting velocities.

If maintenance vehicles used the spacer section regularly and the grass cover was not adequately maintained, the soil in the spacer section would be compacted and potentially the runoff volumes and rates would increase. Grass that is not maintained has the potential to become patchy and turn to bare ground. The grass under the panel may not get enough sunlight and die. Fig. 1 shows the result of the maintenance trucks frequently driving in the spacer section, which diminished the grass cover.

The effect of the lack of solar farm maintenance on runoff characteristics was modeled by changing the Manning's n to a value of 0.02 for bare ground. In this scenario, the roughness coefficient for the ground under the panels, i.e., the dry section, as well as in the spacer cell was changed from grass covered to bare ground ($n = 0.02$). The effects were nearly identical to that of the gravel. The runoff volume increased by 7% from the grass-covered to the bare-ground condition. The peak discharge increased by 72% when compared with the grass-covered condition. The runoff for the bare-ground condition also resulted in an earlier time to peak by approximately 10 min. Two other conditions were also modeled, showing similar results. In the first scenario, gravel was placed directly under the panel, and healthy grass was placed in the spacer section, which mimics a possible design decision. Under these conditions, the peak discharge increased by 42%, and the volume of runoff increased by 4%, which suggests that storm-water management would be necessary if gravel is placed anywhere.

Fig. 5 shows two solar panels from a solar farm in New Jersey. The bare ground between the panels can cause increased runoff rates and reductions in time of concentration, both of which could necessitate storm-water management. The final condition modeled involved the assumption of healthy grass beneath the panels and bare ground in the spacer section, which would simulate the condition of unmaintained grass resulting from vehicles that drive over the spacer section. Because the spacer section is 53% of the cell, the change in land cover to bare ground would reduce losses and decrease runoff travel times, which would cause runoff to amass as it



Fig. 5. Site showing the initiation of bare ground below the panels, which increases the potential for erosion (photo by John Showler, reprinted with permission)

moves downgradient. With the spacer section as bare ground, the peak discharge increased by 100%, which reflected the increases in volume and decrease in timing. These results illustrate the need for maintenance of the grass below and between the panels.

Design Suggestions

With well-maintained grass underneath the panels, the solar panels themselves do not have much effect on total volumes of the runoff or peak discharge rates. Although the panels are impervious, the rainwater that drains from the panels appears as runoff over the downgradient cells. Some of the runoff infiltrates. If the grass cover of a solar farm is not maintained, it can deteriorate either because of a lack of sunlight or maintenance vehicle traffic. In this case, the runoff characteristics can change significantly with both runoff rates and volumes increasing by significant amounts. In addition, if gravel or pavement is placed underneath the panels, this can also contribute to a significant increase in the hydrologic response.

If bare ground is foreseen to be a problem or gravel is to be placed under the panels to prevent erosion, it is necessary to counteract the excess runoff using some form of storm-water management. A simple practice that can be implemented is a buffer strip (Dabney et al. 2006) at the downgradient end of the solar farm. The buffer strip length must be sufficient to return the runoff characteristics with the panels to those of runoff experienced before the gravel and panels were installed. Alternatively, a detention basin can be installed.

A buffer strip was modeled along with the panels. For approximately every 200 m of panels, or 29 cells, the buffer must be 5 cells long (or 35 m) to reduce the runoff volume to that which occurred before the panels were added. Even if a gravel base is not placed under the panels, the inclusion of a buffer strip may be a good practice when grass maintenance is not a top funding priority. Fig. 6 shows the peak discharge from the graveled surface versus the length of the buffer needed to keep the discharge to prepaneled peak rate.

Water draining from a solar panel can increase the potential for erosion of the spacer section. If the spacer section is bare ground, the high kinetic energy of water draining from the panel can cause soil detachment and transport (Garde and Raju 1977; Beuselinck et al. 2002). The amount and risk of erosion was modeled using the velocity of water coming off a solar panel compared with the velocity and intensity of the rainwater. The velocity of panel

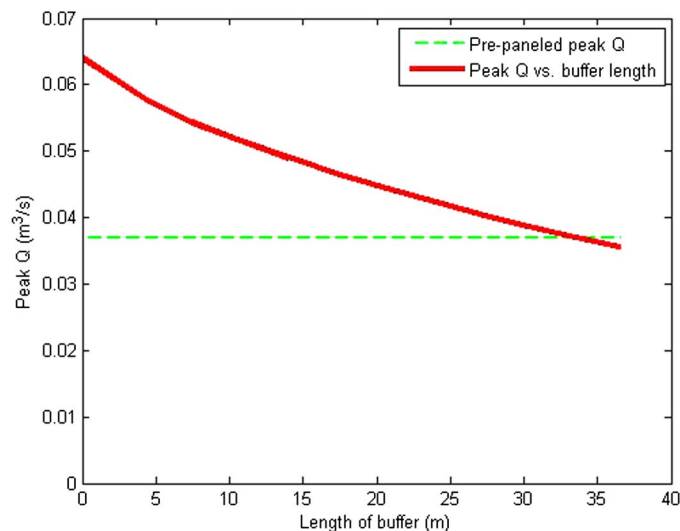


Fig. 6. Peak discharge over gravel compared with buffer length

runoff was calculated using Manning's equation, and the velocity of falling rainwater was calculated using the following:

$$V_t = 120 d_r^{0.35} \quad (1)$$

where d_r = diameter of a raindrop, assumed to be 1 mm. The relationship between kinetic energy and rainfall intensity is

$$K_e = 916 + 330 \log_{10} i \quad (2)$$

where i = rainfall intensity (in./h) and K_e = kinetic energy (ft-tons per ac-in. of rain) of rain falling onto the wet section and the panel, as well as the water flowing off of the end of the panel (Wischmeier and Smith 1978). The kinetic energy (Salles et al. 2002) of the rainfall was greater than that coming off the panel, but the area under the panel (i.e., the product of the length, width, and cosine of the panel angle) is greater than the area under the edge of the panel where the water drains from the panel onto the ground. Thus, dividing the kinetic energy by the respective areas gives a more accurate representation of the kinetic energy experienced by the soil. The energy of the water draining from the panel onto the ground can be nearly 10 times greater than the rain itself falling onto the ground area. If the solar panel runoff falls onto an unsealed soil, considerable detachment can result (Motha et al. 2004). Thus, because of the increased kinetic energy, it is possible that the soil is much more prone to erosion with the panels than without. Where panels are installed, methods of erosion control should be included in the design.

Conclusions

Solar farms are the energy generators of the future; thus, it is important to determine the environmental and hydrologic effects of these farms, both existing and proposed. A model was created to simulate storm-water runoff over a land surface without panels and then with solar panels added. Various sensitivity analyses were conducted including changing the storm duration and volume, soil type, ground slope, panel angle, and ground cover to determine the effect that each of these factors would have on the volumes and peak discharge rates of the runoff.

The addition of solar panels over a grassy field does not have much of an effect on the volume of runoff, the peak discharge, nor the time to peak. With each analysis, the runoff volume increased slightly but not enough to require storm-water management facilities. However, when the land-cover type was changed under the panels, the hydrologic response changed significantly. When gravel or pavement was placed under the panels, with the spacer section left as patchy grass or bare ground, the volume of the runoff increased significantly and the peak discharge increased by approximately 100%. This was also the result when the entire cell was assumed to be bare ground.

The potential for erosion of the soil at the base of the solar panels was also studied. It was determined that the kinetic energy of the water draining from the solar panel could be as much as 10 times greater than that of rainfall. Thus, because the energy of the water draining from the panels is much higher, it is very possible that soil below the base of the solar panel could erode owing to the concentrated flow of water off the panel, especially if there is bare ground in the spacer section of the cell. If necessary, erosion control methods should be used.

Bare ground beneath the panels and in the spacer section is a realistic possibility (see Figs. 1 and 5). Thus, a good, well-maintained grass cover beneath the panels and in the spacer section is highly recommended. If gravel, pavement, or bare ground is

deemed unavoidable below the panels or in the spacer section, it may necessary to add a buffer section to control the excess runoff volume and ensure adequate losses. If these simple measures are taken, solar farms will not have an adverse hydrologic impact from excess runoff or contribute eroded soil particles to receiving streams and waterways.

Acknowledgments

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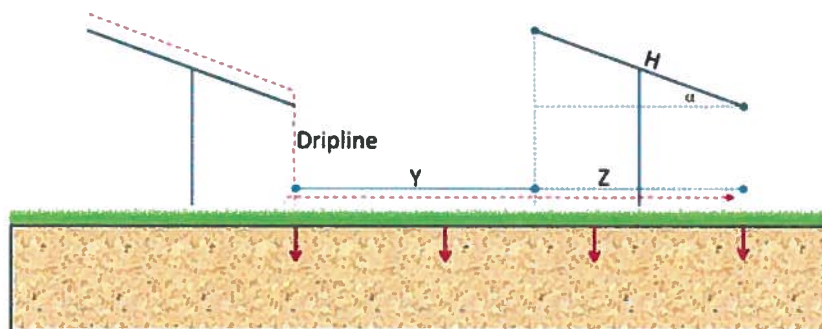
A Rainy Day at a Solar Farm

BY KENNEDY JENKS

Elevated ground-mount solar photovoltaic (PV) facilities present a unique situation for stormwater management because they usually involve an impervious surface elevated above a pervious vegetated surface. In this blog post, we will discuss the unique hydrologic processes at these solar PV facilities and the associated stormwater permitting requirements in various states across the country.

Hydrologic Processes at Solar PV Facilities

Stormwater runoff from solar PV facilities is generated primarily from rain that falls on access roads, inverter pads, and solar PV panels themselves. Water that falls on solar PV panels runs down the panel to the dripline, and eventually falls to the underlying surface, potentially causing localized erosion and/or scour. The primary factors that influence the potential for erosion and/or scour are shown on Figure 1. Some of the water falling on solar PV panels will infiltrate and some may run-off downslope and eventually to a collection basin or off site. [1]



---> Water flow path

Y = Pervious length between panels in adjacent rows

Z = Average horizontal distance below panel

H = Length of panel

α = angle of solar panel from horizontal

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There is some debate as to whether the solar PV panels themselves have a significant effect on runoff volumes, peak runoff or times to peak runoff. A 2011 study published by the American Society of Civil Engineers [2] found that solar PV panels themselves do not have a significant effect on these key stormwater characteristics. The study notes, however, that if the ground cover under the panels is gravel or bare ground, resulting from design decisions or lack of maintenance, the peak discharge may increase significantly. In addition, the study found that the kinetic energy of the sheetflow from the panels was greater than that of the rainfall, which could cause erosion at the base of the panels.

For more detailed information, the reader is directed to the Minnesota Pollution Control Agency's calculator ([link](#)) with detailed instructions for project proponents to estimate the hydrologic impacts of installing solar PV panels [1].

Approaches to Stormwater Permitting at Solar PV Facilities

Based on a brief internet search conducted in July 2017, the following state stormwater regulatory agencies have developed guidance or specific requirements for stormwater management at solar PV facilities. Most agencies do not count panels as impervious cover, reasoning that runoff can flow beneath the panel and infiltrate into the ground the same as it did before the panel was installed above it.

Maryland

Maryland's Department of the Environment guidance states that for the purposes of issuing a stormwater permit for a solar project, calculations relating to the impervious surface of the project must include only the foundation or base supporting the solar PV panel [3].

Maryland guidance further suggests that developers consider the following factors [4]:

- Vegetated area receiving runoff must be equal to or greater in length than the disconnected surface (e.g., width of the row of solar PV panels)
- Runoff must sheetflow onto and across vegetated areas to maintain the disconnection
- Disconnections should be located on gradual slopes ($\leq 5\%$) to maintain sheetflow. Level spreaders, terraces, or berms may be used to maintain sheetflow conditions if the average slope is steeper than 5%. However, installations on slopes greater than 10% will require an engineered plan that ensures adequate treatment and the safe and non-erosive conveyance of runoff to the property line or downstream stormwater management practice.
- Construction vehicles and equipment should avoid areas used for disconnection during installation of the solar PV panels.
- Groundcover vegetation must be maintained in good condition in those areas receiving disconnected runoff. Areas receiving runoff should be protected from future compaction.

New Jersey

The New Jersey Department of Environmental Protection exempts solar PV panels in calculations of impervious cover for the purposes of stormwater permitting. [5]

Massachusetts

The Massachusetts Department of Environmental Protection has indicated that solar PV panels should not be considered

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Pennsylvania

The Pennsylvania Department of Environmental Protection considers solar PV panels to be pervious cover and does not require additional Post Construction Stormwater BMPs, [provided the following guidelines are followed \[7\]](#):

- Earth disturbance and grading activities must be minimized and natural vegetal cover must be preserved and/or restored.
- Vegetal cover must have 90% or better uniform coverage and must not be subject to chemical fertilization and herbicides/pesticides. A meadow condition is preferable, particularly for slopes between 5 and 10%. Mowed areas, where approvable, should be kept to a minimum of 4”.
- Individual PV panels within an array must be arranged in a fashion that allows the passage of runoff between each module. If the width of the module exceeds 3 feet (i.e. there is inadequate spacing between modules), then BMPs such as infiltration trenches (min. 12” wide by 12” deep) or infiltration berms must be installed downgradient between each row. The panels must be arranged to allow the growth of vegetation beneath and between arrays.
- Ground-mounted solar PV panels must be supported with structures/foundations occupying a maximum of 5% of the total project area.
- Solar PV panels must be situated on mild slopes (10% max). If larger than 10% slopes are proposed, then BMPs such as infiltration trenches (min. 12” wide by 12” deep) or infiltration berms shall be installed downgradient between each row.
- The lowest vertical clearance of the solar PV array must be at an elevation of 10 feet or less from the ground, but is also at an adequate height to promote vegetative growth below the array.

North Carolina

North Carolina allows solar PV panels to be considered pervious if they are configured to promote sheetflow of stormwater from the panels and natural infiltration of stormwater into the ground beneath the panels. Other structures associated with the solar PV facility such as buildings, entrance roads, transformers, and footings are still considered impervious. [\[9\]](#)

Minnesota

The Minnesota Pollution Control Agency (MPCA) allows for the use of a volume credit for solar PV facilities that are vegetated beneath and between panels. This excludes sites that have rock bases [\[8\]](#). The water quality volume calculation may be completed using the disconnected impervious credit method shown in the Solar Panel Calculator on the MPCA's webpage ([link](#)). The disconnected impervious credit method uses an Excel spreadsheet to calculate 1) the total water volume required credited and 2) the remaining water quality volume to be treated. Depending on site-specific conditions, solar PV facilities can expect a 50% – 85% reduction of required water quality volume. The remainder of the required water quality volume must be treated on site. [\[8\]](#)

Conclusions

Irrespective of state-specific permitting approaches, elevated ground-mount solar PV arrays may have the potential to alter the volume, velocity, and discharge pattern of stormwater runoff at a site during and after construction. According to MPCA, sites can expect a 15 – 50% increase in volume due to the installation of solar PV panels. Additionally, a solar PV

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Conclusions

Irrespective of state-specific permitting approaches, elevated ground-mount solar PV arrays may have the potential to alter the volume, velocity, and discharge pattern of stormwater runoff at a site during and after construction. According to MPCA, sites can expect a 15 – 50% increase in volume due to the installation of solar PV panels. Additionally, a solar PV development site stripped of vegetation may result in erosive stormwater flows. Project proponents are advised to carefully consider the impacts of this additional runoff on their operations and overall compliance with environmental regulations.

KJ's Stormwater Community of Practice has assisted a number of solar industry clients with the complex world of stormwater management. We are well versed in state-specific requirements and guidance for permitting, and proficient in the development of hydrologic and hydraulic models that can be used to design effective stormwater management strategies. We also have experience in erosion and sedimentation controls during solar PV construction activities and in site-stabilization/restoration after construction activities are completed. Contact us for more information on how we can help you handle a rainy day at your solar PV facility.

If you are interested in more information on Kennedy Jenks, don't forget to [subscribe to our blog!](#)



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Chapter 102 Permitting for Solar Panel Farms

Frequently Asked Questions (FAQ) January 2, 2019

Background

With renewed interest in development of clean, renewable energy in Pennsylvania, the development of solar photovoltaic installations is increasing in the state. This FAQ document was developed to clarify the Department of Environmental Protection's (DEP's) interpretations concerning applicability and implementation of National Pollution Discharge Elimination System (NPDES) permits for stormwater discharges associated with construction activities, including erosion and sediment control (E&S) and post-construction stormwater management (PCSM) for solar panel farms. This document refers to a solar panel farm as a large-scale application of solar panels to generate electricity.

Nothing in this document affects regulatory requirements. The interpretations herein are not an adjudication or a regulation. There is no intent on the part of DEP to give the interpretations in this document that weight or deference. This document provides a framework within which DEP and delegated county conservation districts (CCDs) will exercise administrative discretion in the future. DEP reserves the discretion to deviate from the interpretations in this document if circumstances warrant.

For additional information on solar energy use the following link:

<http://www.dep.pa.gov/Citizens/Energy/Renewables/Pages/Solar.aspx>

FAQ #1: Is NPDES permit coverage required for the development of a solar panel farm?

If the earth disturbance associated with the construction of a solar panel farm will be at least 1 acre, NPDES permit coverage is required (see 25 Pa. Code § 102.5(a)).

FAQ #2: What earth disturbance is associated with development of a solar panel farm?

Earth disturbance activities necessary to construct solar panel farms will vary depending on the topography, slopes, and soils of the proposed location of the solar panel farm, the layout of the solar arrays, and whether the arrays are fixed panel or dual tracking. In some instances, significant grading, including clearing and grubbing, of the site may be necessary. In other cases, minimal disturbance may be necessary to excavate the site to provide level ground for the installation of

the solar modules. The total earth disturbance of the project would be the cumulative impacts of the earth disturbances associated with the installation of the support/mounting structures for each module, as well as any associated access roads and support building(s).

FAQ #3: What E&S BMPs are necessary for the installation of a solar panel farm?

A person proposing earth disturbance for the development of a solar panel farm must utilize appropriate E&S best management practices (BMPs) applicable to the size and scope of the proposed project. Acceptable E&S BMPs can be found in the *Erosion and Sediment Pollution Control Program Manual*, Department of Environmental Protection, No. 363-213-008. Persons proposing solar panel farms should minimize the extent and duration of the earth disturbance activity, maximize protection of the existing drainage features and vegetation, avoid soil compaction, and utilize any other measures or controls to prevent or minimize the generation of increased stormwater runoff.

FAQ #4: What are the PCSM requirements for a fixed-panel unit?

Many projects use mounting structures where the solar modules are mounted at a fixed inclination calculated to provide the optimum annual output profile. The modules are normally oriented towards the Equator, at a tilt angle slightly less than the latitude of the site. In some cases, depending on local climatic and topographical conditions or electricity pricing regimes, different tilt angles can be used, or the arrays might be offset from the normal East-West axis to favor morning or evening output.

All construction projects need to have some consideration of the impact that their project will have on stormwater runoff. With some solar panel farm projects these impacts will be minimal and may not require a detailed stormwater analysis to be completed. If the following conditions are met, then the project area of a fixed photovoltaic solar panel farm project can be considered pervious cover, a detailed stormwater analysis is not needed, and PCSM BMPs are not necessary:

1. Projects where earth disturbance and grading activities are minimized and where natural vegetative cover is preserved and/or restored. The utilization of low impact construction techniques must be used. Refer to BMP 5.6.1: Minimize Total Disturbed Area – Grading, BMP 5.6.2: Minimize Soil Compaction in Disturbed Areas, and BMP 5.6.3: Re-Vegetate and Re-forest Disturbed Areas, Using Native Species from the *PA Stormwater Best Management Practices Manual*, Department of Environmental Protection, No. 363-0300-002, (December 30, 2006).
2. The vegetative cover must have a minimum uniform 90% perennial vegetative cover with a density capable of resisting accelerated erosion and sedimentation. The 90% standard exceeds the 70% standard as in 25 Pa. Code § 102.22(a)(i), as the vegetation may be typically the primary and only BMP used for solar panel farms.
 - (a) A meadow condition is preferable especially for projects located on slopes between 5-10%.
 - (b) If areas under the solar panels must be mowed, then the vegetative cover should not be cut to less than 4 inches in height.

(c) Vegetated areas will not be subject to chemical fertilization or herbicide/pesticides application, except for those applications necessary to establish the vegetative cover and in accordance with an approved E&S Plan.

3. The individual photovoltaic panels within an “array” are arranged in a fashion that:
 - (a) Allows the passage of runoff between each module, thereby minimizing the creation of concentrated runoff.
 - (b) Allows for the growth of vegetation beneath the panel and between “arrays.”
4. Ground mounted solar panels that are supported with structures/foundations require little earth disturbance for their installation/construction. Unless evidence is provided to the contrary, it will be assumed that for these ground mounted solar panels themselves (not including access drive, etc.) will disturb 5% of the total project area.
5. Solar panels must be situated on slopes of 10% or less.
6. The lowest vertical clearance of the solar “array” should be 10 feet or less from the surface of the ground but must be of adequate height to promote vegetative growth below the “array.” Limiting the height of the solar “array” will minimize the potential for accelerate erosion to occur along the drip line of the solar “array”.

Meeting these conditions will minimize the potential for accelerated erosion (by creating a stable flow condition under and around the solar panels) and provide for an uninterrupted hydrologic cycle (by creating pervious cover under the solar panels).

FAQ #5: What if I cannot meet the conditions outlined above as part of my project for PCSM planning?

If you cannot meet all the conditions listed above to have the project treated as pervious cover, the person proposing the earth disturbance activity will need to complete an analysis of how the proposed solar panel farm project will impact the amount and quality of stormwater runoff from the site, to determine the need for PCSM BMPs. The goal of stormwater management is to replicate the pre-development stormwater runoff condition after the construction project is finished. Post-development runoff conditions will dictate how much of a stormwater analysis must be provided for the project.

FAQ #6: Is there a difference for the PCSM requirements for a tracked-panel unit?

To maximize the intensity of incoming direct radiation, solar panels should be orientated normal to the sun's rays. To achieve this, arrays can be designed using two-axis trackers, capable of tracking the sun in its daily orbit across the sky, and as its elevation changes throughout the year. These arrays need to be spaced out to reduce inter-shading as the sun moves and the array orientations change, so they may need more land area. They also require more complex mechanisms to maintain the array surface at the required angle. This increase land area may result in additional earth disturbance for the project. However, the same PCSM requirements

addressed for fixed panel units as outlined in FAQ #4, Items 1-6 would need to be addressed for tracked panel units as well. If the project area meets all 6 conditions as outlined in FAQ #4, then the project area of a tracked, two-axis photovoltaic solar panel farm would be considered pervious cover and will not require any additional PCSM BMPs.

FAQ #7: What if I proposed the use of gravel rather than vegetative cover under the solar panels?

The use of gravel under the solar panels is permissible; however, the use of gravel would not be considered pervious cover. PCSM is required for the use of the gravel under the solar panels, and the person proposing the project will need to provide a stormwater analysis in accordance with 25 Pa. Code §§ 102.8(g)(2) & 102.8(g)(3).

When calculating the stormwater analysis, projects that are utilizing a minimum of a 6-inch layer of clean, washed and uniformly graded gravel may utilize the void space as storage for stormwater purposes if the project site (e.g., slopes exceeding 10% are not applicable) and the underlying soil conditions allow for it. Sand layers (or another filter media, as approved by DEP) may be introduced into the stormwater design to help address water quality issues.

FAQ #8: What are the PCSM requirements for roadways and support buildings associated with the development of the solar panel farm?

All impervious areas associated with roadways and support buildings will need to follow normal protocols when performing the PCSM stormwater analysis.

FAQ #9: Are there any additional requirements if I need to re-grade the entire area?

Projects that are unable to minimize earth disturbance or grading activities should employ soil/landscape restoration and soil amendments in accordance with the recommendations of the *PA Stormwater BMP Manual*, BMP 6.7.1: Landscape Restoration and BMP 6.7.3: Soil Amendment and Restoration.

FAQ #10: If the width of my solar panels modules will exceed 3 feet are additional BMPs or design considerations necessary?

Yes, if the solar panels are too large, then an adequate vegetative cover may not be able to be established and maintained. Additional BMPs such as infiltration trenches or infiltration berms should be installed downgradient between each row (even if the conditions in FAQ #4 are met). See *PA Stormwater BMP Manual*, BMP 6.4.4: Infiltration Trench and BMP 6.4.10: Infiltration Berm and Retentive Grading for additional guidance.

FAQ #11: If the placement of the support structure/foundations result in these structures occupying more than 5% of the total project area, how is the PCSM stormwater analysis addressed?

Since greater than 5% of the total project area is occupied by the support structure/foundations, the impervious area is increased and the project cannot be treated as pervious cover. You will need to provide an analysis of the impact this will have on the amount and quality of stormwater runoff from the site. Additional drainage conveyances and PCSM BMPs will need to be used to address stormwater issues.

FAQ #12: The slope of my solar panel farm project is greater than 10%, are additional BMPs or design considerations necessary?

Yes, where the slope exceeds 10% additional BMPs such as infiltration trenches or infiltration berms should be installed downgradient between each row. See *PA Stormwater BMP Manual*, BMP 6.4.4: Infiltration Trench and BMP 6.4.10: Infiltration Berm and Retentive Grading for additional guidance.

FAQ #13: The elevation of my solar panels will be greater than 10 feet in height, are additional BMPs and design consideration necessary?

Yes, if the height of the solar panels exceeds 10 feet maximum additional controls are necessary to prevent and minimize accelerated erosion and scour along the drip line or provide some type of energy dissipation controls.

FAQ #14: Can agricultural crops be grown underneath the solar panels?

Yes, “agrivoltaics,” the co-development of the same area of land for both solar photovoltaic power and conventional agriculture, may be used provided that:

1. Only shade tolerant crops may be used.
2. Crops must be no tilled in. Moldboard Plowing is not permitted.
3. A written erosion and sediment control plan must be developed for agricultural plowing or tilling activities or a portion of the overall farm conservation plan must identify BMPs used, in accordance with the requirements of Chapter 102.4(a) for the field(s) where the solar panel farm is located.
4. Any cutting or mowing of the agricultural crop is limited to a height of no less than 4 inches minimum.
5. Application of chemical fertilization or herbicides/pesticides is limited to the agronomic needs to the crop(s).

6. Additional BMPs may be used depending on site conditions, slopes and soil types.
7. The height of the solar panels from the ground will likely exceed 10 feet to allow for farm machinery to access the area, if so additional controls to address erosion and scour along the dripline and provide energy dissipation may be necessary.

Newest Comments
Received for Item #3 -
ZTA19-03

My name is Gavin Perry, my family and I have lived in Jefferson County since 1975. I am a retired Architect, LEED Accredited Professional and a member of the Jefferson County Farmland Protection Board and the West Virginia's for Sustainable Development Board. The opinions below are my own and do not reflect the opinions of any organization.

My objections to the proposed solar facility is that it will be built on farmland. I fully support solar energy, being a LEED AP, but not at the expense of taking good farmland out of production. Solar facilities should be on the roofs of buildings; unused quarry or mine sites; on impervious areas, such as parking spaces and garages; and on unproductive farmland. For example the Rockwool factory has 500,000 square foot of roof area and large parking areas on which solar panels could be placed to provide power to electric arc furnaces and eliminate the need for coal powered furnaces.

We need both solar energy and productive farmland and can have both if we act intelligently.

The Jefferson County, WV Envision Jefferson Comprehensive Plan, January 2015 states, "One goal of this Plan is to maintain productive farmland soils and the rural character and economy of the County by reducing the conversion of farmland to non-agricultural based uses."

Thank you for your consideration of my opinion. Please acknowledge receipt of the email.

G. A. Perry, Architect, LEED AP.

From
Nicola Bastian
Millville WV 25432
nicolabastian@yahoo.de
304 535 6907

To whom it may concern,

I am writing today to urge our Jefferson County officials and residents to consider to find answers to following questions regarding Solar Farming before committing to re-zone and permit big size solar farming .

- 1) How does the input in earth's resources , labor, energy foot print, and distruction of land per KWH of current produced compare with other forms of energy production, including the resources needed for energy storage batteries?
(My efforts so far to research this issue, finding engeneers contacting the US Energy Information Agency, speaking with CEOs of Solar Companies have been inconclusive)
- 2) What is the environmental impact of de-installing such facilities , including the disposal of batteries and cleaning up possible contamination by damaged solar cells ?
- 3) Is there appropriate bonding issued so the companies can be held responsible for any clean-up/ environmental damage?
- 4) Has the issue of water runoff/stormwater in our karst topography been given in depth consideration and study?

Wheras I am a big proponent of alternative energy, some of these questions have nagged me for decades. After seeing Michael Moore's newest film ,Planet of Humans' (on you Tube) i am even more hesitant to fully support the installing of big solar farms. While Moore's film may contain dramatic exaggerations, the questions he seeks to answer are very valid .

I support whole heartedly do have alternatives for farmers to make a living . That is an issue we all should address before we commit to further reduce land available for food production, especially in times when it seems more important then ever to have food growing closer to whom then is now being practiced.

Public officials may be able to get a response from engeneers and/or the Energy Information Agency. I pray this matter will be tabled until the questions can be fully answered and the impact understood.

Thank you for your consideration.

Questions?

Please contact
nicolabastian@yahoo.de

June 16, 2020

Alexandra Beaulieu
Zoning Administrator
Jefferson County, WV

Re: ZTA19-03, Solar Energy Facilities

Following are some comments to the proposed Solar Energy Facilities in Jefferson County

1. I do not find this proposal compliant with the goal of the Jefferson County Comprehensive Plan “to maintain productive farmland soils and the rural character and economy of the County by reducing the conversion of farmland to non-agricultural based uses.
2. While I do not oppose Solar Energy and understand benefits of using Solar Energy I do not think an industrial operation permitted use in Rural zoned land is appropriate and needs further study.
3. The COVID 19 Pandemic has brought to the forefront how important it is for a Community to have access to locally sourced food. In Jefferson County there is tremendous stress on loss of farmland for housing developments. The loss of valuable farmland for conversion to Solar Energy Facilities will further increase the loss of fertile farmland.
4. A 20ft. wide buffer along common property lines is minimal and should be expanded.
5. I do not see a County master plan for number, amount, location, effectiveness of Solar Energy Facilities. This proposal seems to be too unstructured and allows anyone to place a Solar Energy Facilities on their land regardless of impact to the surrounding area and electrical capacity gain versus loss of agricultural land.
6. The County will need to create a new division to oversee design, construction, installation and decommissioning, as well as oversee possible loss of trees for installation, roads, etc and oversee required natural vegetation at the facility.
7. Decommissioning of the Facility may involve mitigation of metals and other contaminants on the land. Is the County going to cover the cost of mitigation if the landowner does not properly decommission the land at the Facility. We have seen this issue in WV with failure by Companies in reclamation of land that has been used for mining.
8. There should be no exemption to stormwater management. Stormwater management and runoff into the local streams and Shenandoah River is an ever growing impact to the health of our natural waterways. The increase in water flow with continued addition of stormwater runoff from developments and expansion of CTUB has dramatically changed the water flow along Evitts Run with negative impact to adjacent land at times of increased waterflow.
9. I believe there should be further study and community input regarding Solar Energy Facilities being a permitted use in Rural zoned land.

Thank you,

Robin Huyett Thomas
534 S. Samuel St./165 Sesame St.

Charles Town, WV

From: [Elizabeth Wheeler](#)
To: [Planning Department](#)
Subject: ZTA19-03, Draft Zoning Ordinance Amendment RE: Solar Energy Facilities
Date: Tuesday, June 16, 2020 7:46:47 PM

To the Planning and Zoning Department re: ZTA19-03, Draft Zoning Ordinance Amendment
RE: Solar Energy Facilities

As a resident of Jefferson County and proponent of the protection of our county's rural historic agricultural lands, I wish to express my concerns regarding the proposed zoning ordinance amendment that would allow the construction of solar energy facilities on rural lands without the requirement of the CUP process or a clear and effective bonding requirement to address eventual decommission of such installations. As a county and as a society we must steward our resources for future generations, especially our productive farmland which we are losing at an increasing rate - forever. Allowing the construction of large scale solar facilities on rural lands without requiring the careful evaluation of a conditional use permitting process invites difficult and costly consequences to county residents. 25 or 30 years down the road residents may shoulder the burden of legal enforcement of provisions against utilities and landowners who are no longer involved. Good farmland will be lost. Solar facilities should be integrated into existing urban infrastructure - we have rooftops and parking lots aplenty that can integrate solar collectors, closer to the consumers.

Elizabeth Wheeler P.O. Box 1084 Shepherdstown, WV 25443 Tel: 304-876-6638 Cell: 304-283-3129

SECRET MEETING/UNLAWFUL ACTS

In February of this year three members of the Jefferson County Planning Commission and staff held a meeting, from which the public was barred, with a local lobbyist and an out of state developer of commercial solar facilities controlled by a New York Investment fund. After this meeting and three other secret meetings this group of three adopted an amendment to the County Zoning Ordinance which allows Commercial solar energy facilities in more than 75% of the county as a principal use. Meaning you can not oppose it. There are no notes or recordings of the meetings. The staff has refused to voluntarily release the documents or other writings the group reviewed. These secret meetings violated the state open meeting law and the county's policy on open meetings.

A commercial solar energy facility can include solar panels, transformers, storage batteries, generators, substations, reflecting mirrors and security fences. The draft has no density or height limits.

State law mandates an amendment MUST be consistent with the adopted comprehensive plan. In a memo dated July 9, 2019 the County Zoning Administrator advised each member of the Planning Commission that the County Comprehensive Plan would allow non-agricultural commercial use by the Conditional Use Permit process in the Rural Zone. A solar energy facility is a commercial activity and must process as a conditional use and not a principal use as in the drafted amendment. Accordingly the amendment VIOLATES state law.

The farmer's letter requested a text change in the zoning ordinance and a conditional use for a solar facility in the Rural Zone. What happened? Why hold secret meetings? Why knowingly draft an amendment which violates state law? Will the Commission adopt an unlawful amendment? The Jefferson County Planning Commission meets June 23, 2020 at 7:00 o'clock p.m. Will there be answers?

Doug Rockwell

Comments received
after the 5-26-20
deadline for the 6-2-20
Packet. These items
were provided to the
Planning Commission
via e-mail, prior to the
6-2-20 meeting.

Re: ZTA 19-03

Please include in Packet
to the Planning Commission the
enclosed 4 pages.

Thanks,

Doug Rockwell
5/28/20

Section 8.20.B.2

§. Rural District

- i. A solar energy facility shall be a minimum of 200 feet from the State ROW or easement of any State Road. Where not in conflict herewith, subsections a and b above shall apply.

Rockwell
6-2-20



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≡ MENU

CHAPTER 8A. LAND USE PLANNING.

CHAPTER 8A. LAND USE PLANNING.

Article 6

All Articles

Article 8

ARTICLE 7. ZONING ORDINANCE.

§8A-7-8. Amendments to the zoning ordinance by the governing body.



(a) Before amending the zoning ordinance, the governing body with the advice of the planning commission, must find that the amendment is consistent with the adopted comprehensive plan. If the amendment is inconsistent, then the governing body with the advice of the planning commission, must find that there have been major changes of an economic, physical or social nature within the area involved which were not anticipated when the comprehensive plan was adopted and those changes have substantially altered the basic characteristics of the area.

(b) When a proposed amendment to the zoning ordinance involves a change in the zoning map classification of any parcel of land, or a change to the applicable zoning ordinance text regulations that changes the allowed dwelling unit density of any parcel of land, the governing body shall, at least thirty days prior to the enactment of the proposed amendment if there is not an election, or at least thirty days prior to an election on the proposed amendment to the zoning ordinance:

(1) Give written notice by certified mail to the landowner(s) whose property is directly involved in the proposed amendment to the zoning ordinance; and

(2) Publish notice of the proposed amendment to the zoning ordinance in a local newspaper of general circulation in the area affected by the zoning ordinance, as a Class II-0 legal advertisement, in accordance with the provisions of article three, chapter fifty-nine of this code.

Previous §8A-7-7. Election on a zoning ordinance.

§8A-7-8. Amendments to the zoning ordinance by the governing body.

Next §8A-7-8a. Requirements for adopting an amendment to the zoning ordinance.



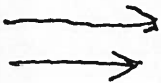
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Rockwell
6-2-20

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Agricultural and Rural Economy Recommendations (Goal 8)	
1.	Support West Virginia's and Jefferson County's "Right to Farm" policies which protect the rights of existing and future farms and farmers by developing zoning standards, other legislation, and educational programs designed to reduce potential conflicts arising from the proximity of agriculture to residential development (State Code § 19-19; Section 4.5 of the County's Zoning Ordinance).
	a. Identify and utilize a wider variety of funding sources that could serve to expand the County's farmland protection program.
	b. Create an educational pamphlet informing developers, realtors, and potential homeowners of the offsite impacts of living adjacent to farming activities.
2.	Enact Zoning Ordinance provisions to reduce the intensity of residential development in the Rural zone, other than by clustering, thereby protecting and increasing the investment potential and attractiveness of the agricultural lands for families, entrepreneurs, and businesses.
	a. Decrease the problems of rural traffic volume and the need for additional costly public infrastructure services in rural areas while conserving areas of the Rural zone for agricultural uses and the rural economy through support for rural cluster development vs large subdivisions of new home growth.
3.	Support the rural economy by amending the Subdivision Regulations to establish rural business site plan standards to include:
	a. performance criteria, including compatible size, scale, use, intensity, traffic capacity limits, employee limits, site design standards (i.e. buffering, siting), and standards that protect public health, safety, and welfare; and
	b. the adaptive reuse of existing historic and agricultural structures.
4.	Collaborate with the County's agricultural community to assess the current land use regulations and determine what opportunities for agriculture might currently exist and what additional opportunities might be able to succeed in Jefferson County.
5.	Amend the Zoning and Land Development Ordinance to permit additional non-residential rurally compatible uses.
	a. Incorporate into the zoning provisions innovative agricultural uses including the creation of standards which permit flexibility in the sale of farm products and related auxiliary products.
	b. Amend local land use regulations to permit non-agriculturally related commercial uses by the <u>Conditional Use Permit (CUP) process</u> in the Rural zone if the use is agriculturally and rurally compatible in scale and intensity, poses no threat to public health, safety, and welfare, and if the use helps to preserve farmland and open space and continue agricultural operations.



7. Fencing

Towers, equipment enclosures and other improvements shall be enclosed within a security fence consisting of chain link fencing at least eight (8) feet in height. The Planning Commission may require as a condition of approval that the fencing be screened by a landscaped buffer of at least 10 feet in width planted along the entire exterior perimeter of the fence. Such a buffer must contain at least one row of native vegetation and form a continuous screen at least 6 feet in height at planting. All buffer yards shall be maintained by the property owner. It will be the responsibility of the property owner to maintain the buffer yard and to replace any trees or shrubs that die.

The Planning Commission may waive or modify the fencing requirement upon a determination that doing so will enhance the overall appearance of the facility without any compromise in safety or security.

8. Tower Color

Towers shall have a flat gray or galvanized finish unless the Planning Commission determines that another color scheme would be a preferable alternative to address visual mitigation and such scheme is consistent with FCC and FAA standards for antenna structure marking.

Section 4B.8 Maintenance & Removal Bonds

Prior to issuance of a Zoning Certificate, each applicant for a Facility shall be required to execute a standard Maintenance / Removal agreement binding the applicant and its successors and assigns to properly maintain the exterior appearance of, and to ultimately remove such facilities, upon abandonment or cessation of operations. The applicant shall be required to post a bond for this purpose in accordance with the Department of Planning & Zoning schedule of fees and charges. The applicant shall be required to continue such bond or other security until such time as the facility has been removed and all other requirements of the Maintenance/Removal agreement have been satisfied. Private business users operating a single Facility at their principal place of business and Governmental Users are exempt from this bond requirement.

Section 4B.9 Abandonment & Removal

- A. Any Facility or Support Structure that is not operated for a period of twelve (12) consecutive months may be referred to the Property Safety Enforcement Agency Board for a determination of the structural soundness of the Facility or Structure.
- B. If a structure is determined to be unsound, it will be considered abandoned.
- C. The owner or operator of any Facility or Support Structure shall remove the Facility pursuant to the requirements of the Jefferson County Property Safety Ordinance.

Rockwell
6-2-20

May 27, 2020

RECEIVED

MAY 28 2020

**JEFFERSON COUNTY PLANNING
ZONING & ENGINEERING**

From: Robert D. Aitcheson

To: Jefferson County Planning Commission

Re: ZTA 19-03 Solar Energy Facilities

The trade association for the solar energy industry in Washington, D.C., distinguishes between “community” solar facilities, such as the one at Double Toll Gates on Rt. 522 in Clarke County, VA, and the massive “industrial” solar facilities such as the one shown in Exhibit A from the Saving Greene website. To be clear, the proposed text amendment contemplates **industrial** solar facilities only. I **oppose** approval of the proposed text amendment and **oppose** industrial solar facilities in the Rural Zoning Districts of Jefferson County for the following reasons:

1. Allowing industrial solar facilities in Rural Zoning Districts violates West Virginia public policy. See W. Va. Code 24-2-10(b) definition of “Eligible site”.

“Eligible sites” are defined as “any site in this state that has been previously used in electric generation, industrial, manufacturing or mining operations, including, but not limited to, closed landfills, hazardous waste sites, former industrial sites, and former mining sites”. Only if none of these are available may other sites be considered. We have plenty of the types of sites specifically enumerated above in this County.

2. Allowing industrial solar facilities in Rural Zoning Districts is contrary to the Jefferson County Comprehensive Plan and, therefore, in violation of W. Va. Code 8A-7-8(a).

W. Va. Code 8A-7-8(a) states in relevant part:

- (a) Before amending a zoning ordinance, the governing body with the advice of the Planning Commission, **must find** that the amendment is consistent with the adopted comprehensive plan...(emphasis added)

The comprehensive plan adopted by this County requires that the rural and agricultural character of the County be preserved and that land uses inconsistent with that goal not be allowed. See Exhibit B attached hereto in furtherance thereof.

3. Designating industrial solar facilities in Rural Zoning Districts as a principal permitted use (PPU) while requiring a special event facility to secure a conditional use permit (CUP) for a one day event such as a wedding, is inconsistent and further, industrial

solar facilities are not compatible with non-residential rural areas.

There can be no rational justification for this inconsistency when a CUP is required for a one day event, but not for a 25-30 year long project. Also, the comprehensive plan requires it. See Exhibit B **again**. Finally, virtually all of the nearby jurisdictions that have dealt with this issue require a CUP.

4. Pollution of our groundwater through the porous limestone substrate by runoff, leaching contamination by toxic chemicals in industrial solar panels threatens the health of all Jefferson County residents.

The County Engineer, in his report to this Commission of April 22, 2020, acknowledged this problem. It is not “clean” energy. Here is a sampling of the toxic chemicals found in industrial solar panels:

“...cadmium telluride, copper indium selenide, cadmium gallium (di) selenide, copper indium gallium (di) selenide, hexafluoroethane, lead and polyvinyl flouride, silicon tetrachloride, a by-product of producing crystalline silicon, is highly toxic”. Cancer biologist David H. Nguyen, Ph.D., as quoted in “Solar Panels Produce Tons of Toxic Waste - Literally”, Wirtz, p. 3 (November 18, 2019).

There are NO requirements for remediation and any other efforts to protect our drinking water from contamination.

5. The failure to recommend that a surety bond be required of the landowner, developer and operator to cover all costs of remediation of toxic spills, decommissioning and reclamation of the land of abandoned sites, will leave Jefferson County taxpayers to bear those costs, along with the prospect of many years of litigation in an effort to obtain reimbursement.

The reference by the County Engineer to the subdivision ordinance in his discussion of bonding is inapposite. Clearly, the County Commission has the authority to impose the requirement of a surety bond to remain in effect for the life of the project. See, for example, Zoning Ordinance, Section 4B.8 Maintenance and Removal Bonds, attached hereto as Exhibit C. If the County Commission has the authority to impose such a bond for cell phone towers, it certainly does for industrial solar facilities as well.

Disposal of the tons of toxic waste left at the time of decommissioning of an abandoned site mandates the necessity of a surety bond. See “Are We Headed for a Solar Waste Crisis?”, Desai & Nelson (June 21, 2017) in which the organization Environment Progress found that “Solar panels create 300 times more toxic waste per unit of energy than do nuclear power plants.” See pp 2 and 3 of this article for a more detailed discussion of their findings as to comparative amounts of toxic waste and carcinogenic substances emitted.

To fail to recommend the requirement of a surety bond leaves the County to the difficult, if not impossible, task to recoup its costs with respect to abandoned facilities after out-of-state investors and firms have taken their tax credits and profits and disappeared. The prospect of years of litigation to try to recover those costs only enriches the lawyers and adds insult to injury.

6. The paltry setback and screening requirements and compounding those problems by allowing a zoning administrator to waive the requirements, all FAIL to protect adjoining and nearby property owners.

The setback requirement should be 200 feet from any state or county right of way or adjoining property boundaries. Screening should require a minimum of 10 feet tall opaque fencing and vegetation. These requirements should not be waivable.

7. The preparation of the draft ordinance in hours of SECRET subcommittee meetings with industry representatives to the exclusion of concerned citizens and then allotting citizens 3 or 5 minutes in the public hearing to address issues of concern, is an abrogation of your duty to the citizens of Jefferson County.

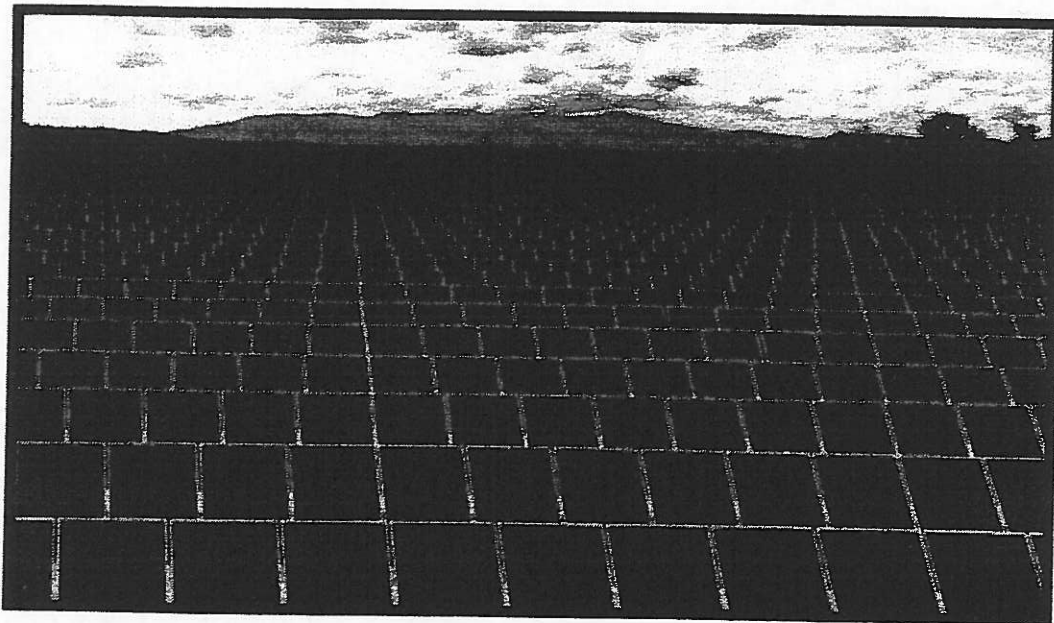
Exhibit D sets forth the early clandestine efforts of political operatives, profiteers and environmental virtue signalers to violate West Virginia law and perpetrate a fraud on County citizens. Refusal to allow concerned citizens to participate meaningfully in this process is but another example of such an abuse of power as resulted in Ranson ending up with Rockwool. You ought to be ashamed but I know you're not!



Robert D. Aitchison



Home About Projects Events News Get Involved

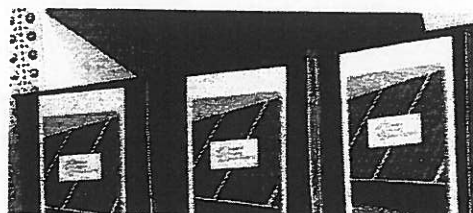


CITIZENS FOR SENSIBLE SOLAR



Exhibit A

**Solar Siting is in the News with
the latest New York State
Budget and the New**



Agricultural and Rural Economy Recommendations (Goal 8)	
1.	Support West Virginia's and Jefferson County's "Right to Farm" policies which protect the rights of existing and future farms and farmers by developing zoning standards, other legislation, and educational programs designed to reduce potential conflicts arising from the proximity of agriculture to residential development (State Code § 19-19, Section 4.5 of the County's Zoning Ordinance)
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	a. Decrease the problems of rural traffic volume and the need for additional costly public infrastructure services in rural areas while conserving areas of the Rural Zone for agricultural uses and the rural economy through support for rural cluster development vs large subdivisions of new home growth.
3.	Support the rural economy by amending the Subdivision Regulations to establish rural business site plan standards to include:
	a. performance criteria, including compatible size, scale, use, intensity, traffic capacity limits, employee limits, site design standards (i.e. buffering, siting), and standards that protect public health, safety, and welfare; and
	b. the adaptive reuse of existing historic and agricultural structures.
4.	Collaborate with the County's agricultural community to assess the current land use regulations and determine what opportunities for agriculture might currently exist and what additional opportunities might be able to succeed in Jefferson County.
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	a. Incorporate into the zoning provisions innovative agricultural uses including the creation of standards which permit flexibility in the sale of farm products and related auxiliary products.
	b. Amend local land use regulations to permit non-agriculturally related commercial uses by the Conditional Use Permit (CUP) process in the Rural zone if the use is agriculturally and rurally compatible in scale and intensity, poses no threat to public health, safety and welfare and if the use helps to preserve farmland and open space and continue agricultural operations.

Exhibit B

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Towers, equipment enclosures and other improvements shall be enclosed within a security fence consisting of chain link fencing at least eight (8) feet in height. The Planning Commission may require as a condition of approval that the fencing be screened by a landscaped buffer of at least 10 feet in width planted along the entire exterior perimeter of the fence. Such a buffer must contain at least one row of native vegetation and form a continuous screen at least 6 feet in height at planting. All buffer yards shall be maintained by the property owner. It will be the responsibility of the property owner to maintain the buffer yard and to replace any trees or shrubs that die.

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- C. The owner or operator of any Facility or Support Structure shall remove the Facility pursuant to the requirements of the Jefferson County Property Safety Ordinance.

Exhibit C

Secret Text Amendment to the Jefferson County Zoning Ordinance (Solar)

From: Bob Aitcheson (bob.aitch46@gmail.com)

To: ncochran@jcpawv.org

Date: Wednesday, April 22, 2020, 01:50 PM EDT

Nathan:

In early March 2020, I received information about a very concerning secret effort by certain members of the Planning Commission, in concert with a Colorado developer, to concoct an amendment to our Zoning Ordinance reference solar facilities in rural districts of our County. I learned that an unnoticed, secret & private SECOND meeting of a 3 Commissioner subcommittee charged with drafting an ordinance with only representatives of the developer likely present AND EXCLUDING ANY OTHER CONCERNED CITIZENS OF THE COUNTY, was to take place on Friday, March 27 at 3pm. When I tried to find out whether the meeting was cancelled (because of the virus, etc) & rescheduled, the new time, location, etc, I was denied that information.

In fact, I was told that Mike Shepp, President of the Planning Commission, responded to my inquiry saying "... that the drafting of an amendment is PROTECTED AS A DRAFT UNTIL SUBMITTED TO THE Planning Commission AS A PUBLIC DOCUMENT BECAUSE THE SUBCOMMITTEE MEETINGS DO NOT MEET THE DEFINITION OF 'meeting' within the Open Meetings Act...". Evidently, someone forgot to check the written public policy of the Jefferson County Commission that EVEN WORK SESSIONS ARE TO BE NOTICED & OPEN TO THE PUBLIC even though there are no votes taken & the public does not participate in the meeting!

My concerns are:

- 1) According to a fair reading of prior minutes, these secret meetings are held with at least one proponent of the ordinance present & having input, but NO concerned citizens of the County are allowed.
- 2) Recently, staff advised that the citizens of our County would not be allowed to see the proposed ordinance until it is sent to the Planning Commission for action in the packet for the meeting at which it is to be acted upon.
- 3) Recently, upon request of concerned citizens to meet with the President of the Planning Commission concerning fashioning a text amendment consistent with the Comprehensive Plan, state law & the protection of other residents of our County, the response was that it would be improper to engage in ex parte communications! This, of course, is notwithstanding the multiple, frequent input from the developer & a member of the Commission who is a commercial real estate agent with an unusually keen personal interest in seeing these blights on our landscape move forward unregulated in any meaningful way!
- 4) A recent article in the Spirit concerning this matter entitled "A Bright Idea", obviously propoganda from various proponents, contained, a misleading statement that these are to be solar "farms" when they're not farms at all. They are "facilities". If you've ever seen one, you would know they aren't 'farms'.
- 5) Once the ordinance is submitted to the Commission, you know as well as I do that citizens, with little time to evaluate it, concerned citizens will be the victims of a sham hearing as the self- interested on the Commission take the lead in ramming it thru.

Finally, I ask the question: WHAT IS IT THAT THOSE IN THESE SECRET MEETINGS ARE TRYING TO DO TO THIS COUNTY ie MY NEIGHBORS & ME, THAT THEY MUST BE "PROTECTED" FROM PUBLIC SCRUTINY? For what, to destroy agricultural land to provide electricity to Northern Virginia & line the pockets of crooked political operatives? It is an outrage that unelected bureaucrats think they have the power to put their interests above that of the citizens of Jefferson County to the detriment of many! This is exactly how they ended up poisoning this County with ROCKWOOL!!!

Awaiting your prompt reply, I am,
Very truly yours,

Robert D. Aitcheson,

Exhibit D

May 27, 2020

RECEIVED

MAY 28 2020

From: Robert D. Aitcheson, WVSB #90 (inactive)

JEFFERSON COUNTY PLANNING
ZONING & ENGINEERING

To: Jefferson County WV Planning Commission

Re: Member Stephen Stolipher; Failure to Recuse Himself from Solar Facility
Text Amendment Discussion, Vote, etc.

The Planning Commission must REQUIRE Stephen Stolipher to recuse and disqualify himself from ANY vote, discussion, participation or other activity regarding the proposed solar facility text amendment because W.Va. Code 6B-2-5(b)(1) and separately W.Va. Code 8A-2-4(e) & (f) mandate such recusal and because the “class exception” under W.Va. Code 6B-2-5(j)(2)(A) of the Ethics Act is NOT available to Mr. Stolipher as a defense to his disqualification, more particularly as follows:

1. W. Va. Code 8A-2-4(e) & (f) require that a Planning Commission (hereinafter “PC”) member recuse himself or herself from any vote, discussion or other activity regarding “the conflicting issue” if the member is pecuniarily interested in the matter.

2. Separately, the W. Va. Code 6B-2-5(b)(1) of the Ethics Act PROHIBITS a PC member from “knowingly and intentionally” using “his or her office or the prestige of his or her office for his or her own private gain...”.

3. FACTS:

(a) Mr. Stolipher is a commercial real estate agent with Oakcrest Realty. As such, he is believed to have contracts pending for the sale or lease of land in Jefferson County, WV with HORUS Renewables Corp. of Sacramento, California as prospective purchaser or lessor. At least three of those contracts are believed to be for Thorn Hill Subdivision (172 acres) at the corner of Route 115 and Kabletown Road, Highland Farm (123 acres) and another separate 100+ acre parcel.

(b) If said contracts are closed, Mr. Stolipher stands to receive a monetary commission or finder’s fee from each such transaction.

(c) The contracts with Horus Renewables Corp. are believed to be for the purpose of establishing solar facilities on said properties and are believed to be in some way dependent on the actions of this PC and the County Commission on the subject text amendment.

4. The class exception under W. Va. Code 6B-2-5(j)(2)(A) incorrectly relied upon by Mr. Stolipher as a defense to his recusal, is not available to him in this circumstance because:

(a) The essential requirement to relieve a member of the requirement of recusal is that the member not be uniquely affected, but be “a member of and to no greater extent than any other member of a profession,...consisting of not fewer than five similarly situated persons or businesses;...”

“If, on some occasion, a Planning Commission member would be uniquely affected, he or she must fully recuse him or herself from the matters before the Planning Commission and the subcommittee in accordance with W. Va. Code 6B-2-5(j)(3)”....(emphasis in original) Advisory Opinion 2017-19 (West Virginia Ethics Commission).

5. Mr. Stolipher is “uniquely affected” and “pecuniarily interested” because he stands to benefit directly and financially in specific, unique transactions depending upon the actions of this Commission and the County Commission thereafter. And it is well known that the County Commission generally accepts the recommendations of the Planning Commission as presented.



Robert D. Aitcheson
Resident and Citizen of Jefferson County,
W. Va. since April, 1979

BEFORE THE PLANNING COMMISSION OF JEFFERSON COUNTY,
WEST VIRGINIA

RECEIVED

MAY 28 2020

In re: ZTA 19-03, Solar Energy Facilities

JEFFERSON COUNTY PLANNING
ZONING & ENGINEERING

ROBERT D. AITCHESON'S MOTION TO RECUSE STEPHEN STOLIPHER,
PLANNING COMMISSION MEMBER

COMES NOW, Robert D. Aitcheson, a resident and citizen of the Rural Zoning District, Jefferson County, West Virginia, and moves the Planning Commission to disqualify and recuse Stephen Stolipher, Planning Commission member, from ANY vote, discussion, participation or other activity regarding the above-referenced ZTA 19-03, Solar Energy Facilities, for the following reasons:

1. Movant is reliably informed and therefore states upon information and belief that Mr. Stolipher is pecuniarily interested, directly and/or indirectly, in the subject matter of ZTA 19-03 and the approval by this Commission of the draft text amendment prepared at the request of the Subcommittee of this Commission and representatives of one or more solar facilities developers.
2. Upon information and belief, Mr. Stolipher is a commercial real estate agent and has several contracts pending in Jefferson County, West Virginia, for one or more renewable energy developers that stand to also benefit pecuniarily from the approval by this Commission of said draft text amendment.
3. W.Va. Code Section 8A-2-4(e) states in part that:

“...This member must recuse himself or herself from ANY vote, discussion, participation or other activity regarding the conflicting issue.” (emphasis added)

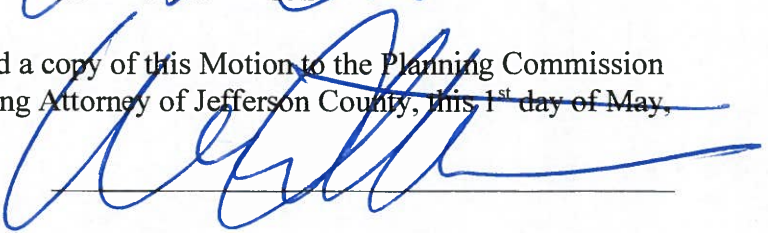
And this provision requires his said disqualification should he fail to do so. In that it appears Mr. Stolipher has, upon information and belief, failed to timely recuse himself in this matter, he must be required to disclose, on the record and under oath, all of his activities, directly or indirectly, to influence the votes of other members of this Commission on the proposed text amendment in ZTA 19-03.

Dated this 1st day of May, 2020.



Robert D. Aitcheson

I certify that I have hand delivered a copy of this Motion to the Planning Commission and Nathan Cochran, Assistant Prosecuting Attorney of Jefferson County, this 1st day of May, 2020.



From: [Bob Aitcheson](#)
To: [Planning Department](#)
Subject: Correction to my memo re: ZTA 19-03 Solar Energy Facilities
Date: Monday, June 1, 2020 10:18:37 AM

Hi Rachel,

Following up our phone conversation this morning, there is a correction to item no. 1, the citation to the new statute:

Where it says in bold “ See W. Va. Code 24-2-10(b)” it should read “See W. Va. Code 24-2-1o(b)”. The “zero” should be the letter “lower case o”.

Thank you for including this correction with my memo tomorrow.

All the best,
Bob Aitcheson

Sent from my iPhone

**Lyle C. Tabb, III
1040 Old Leetown Pike
Kearneysville, WV 25430
304-725-4325 cam.tabb@gmail.com**

Public Hearing Comments: #4 agenda item, June 2, 2020 #ZTA19-03

I have numerous concerns with the Solar Energy Facilities amendments as written. I am not opposed to solar energy on existing buildings, new buildings or partial tracts. I am very concerned that large swaths of prime farmland could be covered with solar panels under this proposal as written.

I hope that the virtual meetings and chaos of Covid19 will not minimize the due diligence of the Planning Commission and public vetting process.

As a previous Planning Commission member for over 10 years, I was shocked to learn that the subcommittee was directed to work with consultants, Sam Gulland with Clean Torch Energy and Paul Raco, local land use consultant who was the Planning Director when I served on the Planning Commission.

Both of these individuals have a vested interest in minimizing requirements as much as possible and constitute a direct conflict of interest relative to these amendments.

My specific comments are as follows:

#1 -p. 196 of 256, objective #9

Energy sources within Jefferson County that respects the character of the County. A large solar facility would only enhance Northern Va. power supply, not eastern WV plus would not respect the character of the County.

#2 -For reference on p. 33 of 137 under Definitions:

“For Principal Permitted Use, if approved by the office of Planning and Zoning without requirement of approval by a board or commission, provided the use conforms with all applicable requirements of this ordinance.”

This means that the Palling Commission and/or citizens would not have the opportunity to address a project since many of the requirements are being relaxed in the ordinance.

Lyle C. Tabb, III
1040 Old Leetown Pike
Kearneysville, WV 25430
304-725-4325 cam.tabb@gmail.com

#3 -p. 108 of 137, section 8.20 A2

This part has been gutted of commercial development criteria to the point of being useless to citizen comment.

#4 -p. 108 of 137, B standards

1. This section undermines all of the past and present requirement to develop a property and leaves a neighboring property owner looking at what could be a vast sea of solar panels with no break even as property ownership changes from one property line to another. The Comprehensive plan states numerous times the importance of open space and maintaining the character of the County. These amendments are contrary to that vision.

#5 -B, 3a Buffering

Buffer should extend along the entire length of the property line.

#6 -B4, Storm Water Management

This is a commercial development and should be policed as one (refer to p. 137 of 137, Appendix C, Solar Energy Facility is commercial).

#7 -5a.

A full decommissioning plan should be required with the Concept Plan to ensure proper review by the Planning Commission and the public.

#8 -5b.

Again this approach minimizes scrutiny and limits the possibility of public comment.

Lyle C. Tabb, III
1040 Old Leetown Pike
Kearneysville, WV 25430
304-725-4325 cam.tabb@gmail.com

#9 -5 c, d & e

These sections should spell out the Bond requirement and how the Bond would be used for decommissioning the facility.

The office of Engineering staff report uses Chapter 8A, Article 6-1, Bond Requirements, as the basis for their believe that the County does not have authority to require a Bond but this is for construction, not clean up/decommissioning. The County does in fact have a provision in the ordinance to deal with decommissioning.

I direct your attention to Section 4B.8 Maintenance and Removal Bonds:

“Section 4B.8 Maintenance & Removal Bonds Prior to issuance of a Zoning Certificate, each applicant for a Facility shall be required to execute a standard Maintenance / Removal agreement binding the applicant and its successors and assigns to properly maintain the exterior appearance of, and to ultimately remove such facilities, upon abandonment or cessation of operations. The applicant shall be required to post a bond for this purpose in accordance with the Department of Planning & Zoning schedule of fees and charges. The applicant shall be required to continue such bond or other security until such time as the facility has been removed and all other requirements of the Maintenance/Removal agreement have been satisfied. Private business users operating a single Facility at their principal place of business and Governmental Users are exempt from this bond requirement.”

I believe that having the facility Bond in place protects the interest of the County and its Citizens as it would minimize the courts actions in which sometimes no one wins and the tax payers are left footing the bill.

#10 -8.20, C, 9

This is ridiculous to consider with liability concerns to Lesse, Property Owner and safety of equipment.

#11 -2h Stormwater Management Ordinance

Lyle C. Tabb, III
1040 Old Leetown Pike
Kearneysville, WV 25430
304-725-4325 cam.tabb@gmail.com

H. Solar Farms – these facilities would no longer be farms and this should be labelled as Solar Energy Facility.

From: [Joyce Rawn](#)
To: [Planning Department](#)
Cc: [Joyce Rawn](#); [Terry Rawn](#)
Subject: ZTA19-03, Draft Zoning Ordinance Amendment RE: solar Energy Facilities
Date: Sunday, May 31, 2020 9:23:02 PM

Dear Planning Commission Members,

I am a Jefferson County farmland owner and am against the proposed ordinances and text amendments for Solar Energy Facilities. I also would like Planning Commission member, Steve Stolipher, to recuse himself from voting on the proposed text amendment. His occupation as a commercial realtor should disqualify him. The proposed zoning ordinance amendment would benefit he and his business.

Jefferson County, West Virginia has the most productive farmland and rural economy in our state and that should be promoted by every proposal voted on by the Planning Commission. Our county is also privileged to have historic attractions that draw visitors from metropolitan Washington and Baltimore who enjoy the lovely vistas unmarred by commercial solar facilities. The Planning Commission should not allow easy access for Solar facilities in our county.

Solar facilities will add no value to Jefferson County. They are ugly and take productive farm land out of use indefinitely. There only value is monetary to those who directly benefit: the realtor, landowner and the Solar company. In addition the long term cost of toxic residue cleanup can be left for the local taxpayers.

My understanding is there has been significant discussion and meetings involving the Planning Commission over the proposed zoning ordinance amendment for solar facilities. My hope is that these were conducted in a fair and legal manner so that the interests of the residents and landowners of Jefferson County are being served by the committee members. I am not in favor of the Zoning Amendment ZTA19-03 RE: Solar Energy Facilities.

Sincerely,

Joy Rawn
Stiles Family Partnership Three LLP



Attention: Alex Beaulieu

Re: Section 8.20 Solar Energy Facilities

Alex,

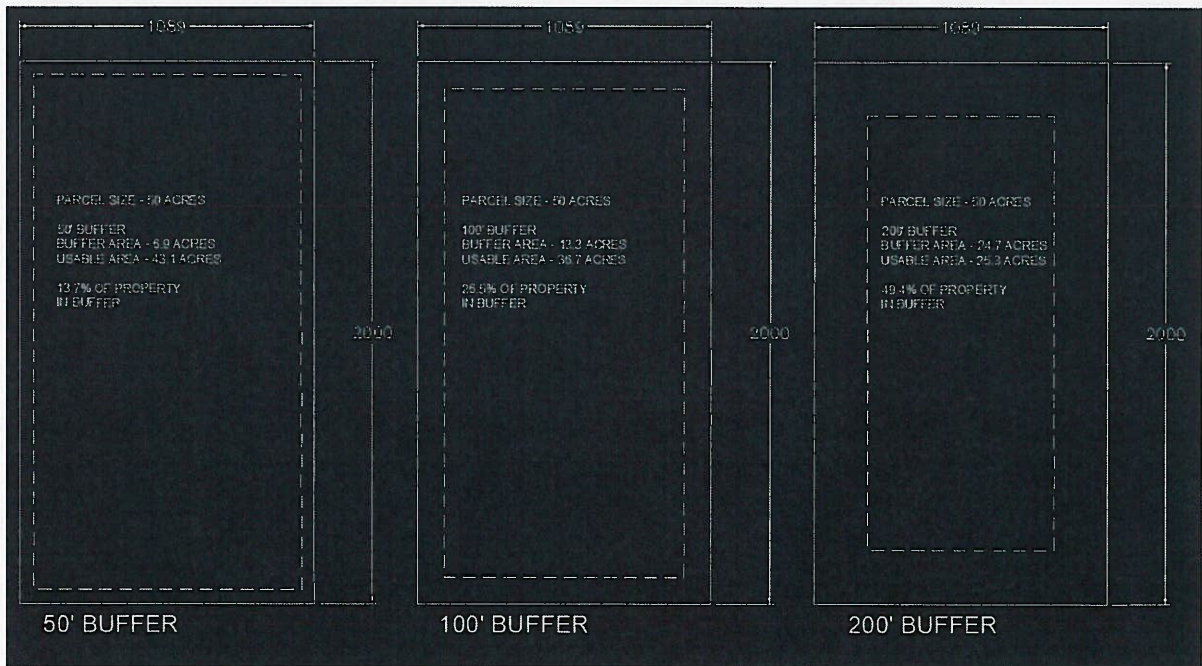
Please accept my comments on the Solar Energy Facility zoning test amendment.

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1. Setbacks – the purpose of a setback is to protect the public and adjacent lands while providing for efficient use of a property. The proposed setback of 100' is excessive for a use that does not generate noise, traffic, light pollution, air pollution. Any visual impact is fully mitigated by the vegetative buffer required under B.3.b. Not other use except for industrial has a greater setback, in fact a gas station could be placed next to a subdivision with only a 25' setback.
 - a. A 100' setback reduces the usable area by 26.5% (see exhibit below)
 - b. A larger buffer has a negative impact on farmland in Jefferson County, requiring more land to achieve the same energy yield. If 250 acres of solar is developed in the county it will result in an additional 50 acres of farmland being taken out of production. Both farmland and sustainable energy are important and the best balance needs to be achieved.



- c. The 100' setback does serve a purpose on land developed or zoned residential, it does not serve a purpose against farmland, commercial land or roads.
- d. The following setbacks are suggested:
 - i. 50' setback from roads
 - ii. 100' setback from the following districts – V, RG, PND
 - iii. 100' setback from existing homes or dwellings, setback measured from the structure not the property line.
 - iv. 25' setback from the following districts – IC, RLIC, R, NC, GC, HC, LI, MI, OC

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2. Buffering – B.3.a “structures, materials” provide a definition of what a structure is and what materials are.
3. Buffering – permit a 6’ berm in lieu of an opaque fence.
4. Land Use Table – sustainable energy should be a cornerstone of Jefferson County’s development objectives. As such it should be permitted on all undeveloped agricultural lands, including those zoned residential growth. To protect the residents of Jefferson County the following restriction would be applied to solar facilities within the RG zone;
 - a. All residential development will be prohibited until such point as the facility is fully decommissioned.
 - i. A solar facility has considerably less impact on Jefferson County resources (schools, roads, policing, fire, etc.) than a residential development. These facilities should be permitted and will help provide an alternate use for land owners whose only option is subdivision development.

I appreciate the opportunity to submit these comments and look forward to the public hearing.

Regards,

Mark Dyck

**SUBDIVISION AND LAND DEVELOPMENT ORDINANCE
JEFFERSON COUNTY, WV**

**Draft Table of Contents:
May 19, 2020**

***Reference Key*:**

- Subdivision Ordinance Existing Code References and Definitions
- Appendix A Existing Code References
- Appendix B Existing Code References
- ILP Code References and Definitions
- Cross References to be updated in Subdivision and Land Development Ordinance
- Zoning Ordinance References (Definitions)
- Duplicated Language

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**SUBDIVISION AND LAND DEVELOPMENT ORDINANCE
JEFFERSON COUNTY, WV**

**DRAFT REORGANIZATION:
May 19, 2020**

***Reference Key*:**

- Subdivision Ordinance Existing Code References and Definitions
- Appendix A Existing Code References
- Appendix B Existing Code References
- ILP Code References and Definitions
- Cross Reference to be updated in Subdivision and Land Development Ordinance
- Zoning Ordinance References (Definitions)
- Duplicate language is shown in Purple.
- Outdated language for removal is shown as ~~strike through~~.
- Any outdated information that is proposed to be replaced with current is shown as underlined.

Document Formatting:

- **ARTICLES: ALL CAPS BOLD**
- **Sections: Bold**
- Subsections: Underlined

ARTICLE I: GENERAL PROVISIONS

Section 100: Purpose (20.101)

The purpose of the subdivision and land development regulations is to facilitate the County Government's review of proposals for development of land either by subdivision plat or site plan, to ensure that proposed subdivision plats or site plans meet the standards of the Jefferson County Zoning Ordinance and satisfy the legal requirements of the State and County for the subdivision and development of land, and to promote efficient and attractive development in a manner that reduces off-site impacts. These regulations are also designed to assure proposed development is, or will be, adequately supported by infrastructure including roads, road access, sewer and/or water facilities, stormwater management facilities and private and public utilities. These regulations also establish a review and approval process for subdivision plats and site plans, provide guidance for the preparation of subdivision plats and site plans and inform citizens of the standards that must be met for approval.

Section 101: Amendment References/Effective Date (pg.i)

This document contains additions and amendments approved by the Jefferson County Commission on the following dates. These changes are noted throughout this document with the corresponding number given to the effective date on this page.

- This document was adopted October 9, 2008 and effective November 1, 2008.
 - A comprehensive reorganization and related policy-neutral amendments were approved August 19, 2010 which are not individually noted throughout this document.
- (1) Amended by act of the County Commission, Effective April 28, 2011
 - (2) Amended by act of the County Commission, Effective November 3, 2011
 - (3) Amended by act of the County Commission, Effective January 19, 2012
 - (4) Amended by act of the County Commission, Effective January 1, 2014
 - (5) Amended by act of the County Commission, Effective May 1, 2015
 - (6) Amended by act of the County Commission, Effective January 1, 2016
 - (7) Amended by act of the County Commission, Effective September 29, 2016 (STA15-04)
 - (8) Amended by act of the County Commission, Effective February 1, 2018 (STA16-01)
 - (9) Scrivener's Error Corrected April 24, 2018 (Correction of numbering errors)

Section 102: Authority and Jurisdiction (20.100)102(a): Authority

These Regulations are adopted pursuant to the authority granted by the Constitution and laws of West Virginia including, but not limited to, that contained in Chapter 8A, *Land Use Planning*, of the West Virginia Code.

102(b): Jurisdiction

Except as provided herein, all subdivision of land, all re-subdivision of land, all site development, and all land clearing except for agricultural purposes, within the unincorporated area of the County shall meet the standards of these Regulations and other County ordinances that control use (see Zoning Ordinance).

Section 103: Applicability (20.102)103(a): General

All subdivisions, site plans, lot mergers, vacating of streets, right-of-ways, easements of access or for utilities or drainage shall be subject to the provisions of these Regulations. No recordation of such documents with the County Clerk shall be permitted until such documents have been reviewed and approved in accordance with these Regulations.

103(b): Approval Required

Before development of the land is commenced, subdivision plats and site plans must be approved by the Planning Commission, recorded, and surety posted for required improvements in accordance with these Regulations and the Comprehensive Plan.

Section 104: Vested Property Rights (20.105)104(a): Vested Property Right Defined

A vested property right is a right to undertake and complete the site development. The right is established when the Community Impact Statement (CIS, under the 1979 Subdivision Ordinance) or the Concept Plan (under these Regulations) is approved by the Planning Commission and is only applicable under the terms and conditions of the approved CIS or Concept Plan. Application of vesting a minor plat or minor site plan shall occur after the first review comments have been returned to the applicant, at which point the application is considered “approved with conditions”.

104(b): Forfeiture

Failure to abide by the terms and conditions of the approved CIS and/or Concept Plan will result in forfeiture of the right.

104(c): Vesting Period

1. The vesting period for an approved preliminary plat or major site plan which creates the vested property right is five years from the approval of the plat or site plan by the Planning Commission.
2. Without limiting the time when rights might otherwise vest, a landowner's rights vest in a land use or development plan and cannot be affected by a subsequent amendment to a zoning ordinance or action by the Planning Commission when the landowner:
3. Obtains or is the beneficiary of a significant affirmative governmental act, which remains in effect allowing development of a specific project;

4. Relies in good faith on the significant affirmative governmental act; and
5. Incurs extensive obligations or substantial expenses in diligent pursuit of the specific project in reliance on the significant affirmative governmental act.

104(d): Automatic Extension

1. All requirements, for the vesting of property rights contained in an ordinance enacted pursuant to WV Code Section 8A-4-2 that require the performance of any action within a certain time period for any subdivision or land development plan or plat valid under West Virginia law and outstanding as of January 1, 2010, shall be extended as provided in a resolution passed by the County Commission. The provisions of this subsection also apply to any requirement that a use authorized pursuant to a special exception, special use permit, conditional use permit or other agreement or zoning action be terminated or ended by a certain date or within a certain number of years.⁸
2. Any subdivision or land development plan or plat, whether recorded or not yet recorded, valid under West Virginia law and outstanding as of January 1, 2010, shall be extended as provided in a resolution passed by the County Commission. Any other plan or permit associated with the subdivision or land development plan or plat shall also be extended for the same time period. *Provided, that* the land development plan or plat has received at least preliminary approval by the Planning Commission or County Commission by March 1, 2010.⁸

Section 105: Exceptions (20.104)

105(a): General

There shall be no exception from these Regulations for activities that involve the creation of lots, revision of lot lines that affect other properties other than the otherwise exempted uses, the creation or abandonment of roads, the provision of access to exterior roads, the vacating of public road right-of-ways, or the creation or abandonment of other easements, unless provided for in Section 20.107, *Conservation Easements*, or in subsection “C” below.

105(b): Public Schools

By Statute, public schools are exempt from these Regulations, but are encouraged to voluntarily conform.

105(c): Public Utilities

Public utilities and private utility firms, including wastewater treatment and water supply facilities, regulated by the West Virginia Public Services Commission, shall also be required to conform to the standards of these Regulations; however, easements for public utilities and private utility firms, including wastewater treatment and water supply facilities, shall be exempt from this requirement, unless otherwise required as a part of a subdivision plat and/or site plan.

105(d): Land Owned by Government Entities

Land owned by the Federal Government, State Government, or Municipal Government is exempt from the provisions of these Regulations. The County government has placed its own uses under the jurisdiction of these Regulations.

Section 106: Covenants and Deeds (21.400)

Covenants shall be provided by the landowner to cover the operation and maintenance of a subdivision or site development. If there are associations, the covenants shall either contain all the needed rules for the association or reference a document that does. If lots or condominium ownership is contemplated, deeds for each property are required. The County shall review these documents to ensure they do not conflict with County laws. If the covenants or deeds do not conflict with County laws, they should be approved. The County in no way waives its rights to enforce violations of law later learned of or determined to exist. County approval in no way indicates County assistance in enforcing these covenants, which the County will not do. Covenants and deed restrictions shall also serve as a means of limiting further development of lands set aside as open space to satisfy the cluster and planned development requirements or standards identified in the Zoning Ordinance.

Section 107: Private Restrictions and Easements (20.103)**107(a): Private Restrictions (20.103)**

The provisions of this Division are not intended to replace any deed restriction, covenant, easement, or any other private agreement regarding a parcel of land. All such restrictions shall be enforced by the parties to the restriction. The County shall not enforce or become involved in the enforcement of such private restrictions, and, in the review of development proposals, the County will apply only its regulations to evaluate the proposal. All subdividers shall submit the proposed private restrictions to the County with or before submitting the final plat or site plan. Covenants shall be consistent with the requirements of the County Zoning Ordinance and these Subdivision Regulations.

ARTICLE II: ADMINISTRATION AND ENFORCEMENT

Section 200: Purpose (23.100)

The purpose of this Article is to define the role of boards and agencies involved in the subdivision plat and site plan approval process. Participants include the County Commission, Planning Commission, Department staff, WVDOH, and other agencies responsible for the provision of public services.

Section 201: Administration (23.200)

201(a): Discretion

The administration of these Subdivision and Land Development Regulations provides for discretion only where specifically authorized. While West Virginia law requires a public hearing for land use proposals, there is no discretion in the review and approval process outside of the requirements of the Zoning Ordinance or the Subdivision and Land Development Regulations. A proposed plat or plan that meets the ordinance and regulatory standards must be approved. Only when there are specific findings that the application does not meet the standards of the ordinance or the regulations, is denial possible.

201(b): Relationship to Zoning Ordinance

Both subdivision and site development approval are the points at which two separate regulations must be enforced: The Zoning Ordinance and the Subdivision and Land Development Regulations. As a result, different agencies have responsibilities to review the subdivision or site development at the same time.

201(c): Administration

This Division specifically identifies the administrative bodies that are charged with making a determination of compliance. It is possible to improve the design of a development during the review process, and that is an important factor in the quality of the County's community character. Concerns about quality are addressed by conditional approvals, not denial.

Section 202: Administrative Bodies (Article 23)

202(a): County Commission (23.201)

The County Commission is responsible for setting in place a means of administering these Subdivision and Land Development Regulations and ensuring enforcement of the County's Zoning Ordinance. As such it has the following powers and duties:

1. Adoption and Amendments

As specified in Chapter 8A of the West Virginia Code, the County Commission has sole responsibility for the adoption and amendment of the subdivision and site development regulations. It is advised in these matters by staff and the Planning Commission.

2. Appointment of the Planning Commission

In accordance with W.Va. Code §8A-2-1, the County Commission shall appoint members of the Planning Commission.

3. Planning Staff

In order to administer and enforce these Regulations, the County Commission shall fund and hire staff, which shall also serve as the staff of the Planning Commission.

4. Removal of Planning Commission Members

Members of the Planning Commission may be removed in accordance with Chapter 6, Article 6 of the West Virginia Code, or in accordance with any procedures which may have been established by the County Commission pursuant to W.Va. Code §8A-2-5(k).

202(b): Planning Commission (23.300)

The County Planning Commission shall be the agency overseeing the review of subdivisions and site development. This is a function that grants limited authority for the approval. The duties are identified in W.Va. Code §8A-2-11 and the Planning Commission By-Laws.

202(c): Department of Engineering, Planning, and Zoning (23.202)

The Department of Engineering, Planning, and Zoning is the County's lead in ensuring that all regulations are met in the review of subdivision plats and site plans. They are specifically charged with the following review responsibilities:

1. Zoning Compliance (23.202(a))

The Department shall review all plat or site plan applications for zoning compliance. They shall provide the Planning Commission with a written opinion as to whether the plat or site plan complies with the Zoning Ordinance. If the staff determines that waivers are appropriate, staff shall recommend approval of these waivers to the Planning Commission.

2. Subdivision and Site Development 23.202(b)

Staff shall be responsible for the following:

- a) Reviewing and approving applications for minor subdivisions.
- b) Reviewing and approving applications for minor site plans.
- c) Conducting pre-application and pre-proposal conferences or reviews with developers.
- d) Conducting submission review in accordance with Section 24.110, *Major Subdivision Concept Plan – Submission and Completeness Review*, and Section 24.113, *Major Subdivision Preliminary Plat – Submission and Completeness Review*. The Planning Commission must vote on this, but the Department shall ensure that applications are complete before sending them to the Planning Commission. A developer may request it be submitted to the Planning Commission even if the Department determines that it is an incomplete application.
- e) Make professional recommendations on the adequacy of submitted major subdivision plats and major site plans including all design, engineering, and landscape elements.
- f) Ensure written communication to the applicant of the status of the project.
- g) Collect input from all other agencies involved in the review process.

- h) Ensure public notice is provided by appropriate means for all forms of action that require notice.
3. Stormwater Management (Division 4)
All requirements and processes for Stormwater Management and Erosion & Sediment Control for Jefferson County are contained within the Jefferson County Stormwater Management Ordinance. Development within the County, meeting the criteria described in the Stormwater Management and Erosion & Sediment Control, must conform to the standards set therein.
 4. Flood Plain Compliance: Certification of Compliance with Flood and Subsidence Regulations (22.600)
Staff shall verify that the proposed subdivision plat or site plan complies with the Jefferson County Floodplain management ordinance.
 5. Staff Reports 23.202(c)
The Department shall provide a staff report to the Planning Commission. Such report shall accompany concept plans, preliminary plats, final plats, and major site plan submissions. The report shall indicate one of the following:
 - a) Approval. If the plat or plan meets all requirements of applicable County ordinances or codes, the staff report shall recommend approval.
 - b) Denial. If the plat or plan fails to meet the requirements of any applicable County ordinance or code, the staff report shall recommend denial except as provided in 3 below.
 - c) Approval with Conditions. The Department may recommend approval with conditions if there are easily changed elements of the plat or plan or minor nonconformities that can be corrected.
 - d) Hold. The Department may hold the application for up for 45 days for additional information necessary to make a determination.
 6. Annual Report 23.202(d)
At least annually, the Planning Commission shall report to the County Commission any area where it believes the Subdivision and Land Development Regulations or the Zoning Ordinance could be improved to facilitate quality development in the county or eliminate a problem area to provide for quality development in the County. This is an advisory report.

Section 203: ~~County Agencies~~ Outside Agencies (23.203)

The following Outside Agencies ~~Jefferson County agencies~~ are involved or may be involved in the subdivision and site development review process.

203(a): On-Site Water Supply and Sanitary Waste Disposal

The Jefferson County Health Department and West Virginia Department of Health shall be responsible for the review of any on-site water supply or sanitary waste disposal for the proposed development. Approval needed at Preliminary Plat stage.

203(b): Centralized Water Supply/Distribution and Sewage Collection/Treatment

The ~~Local Public Service District Jefferson County Public Service District~~ or other applicable local agency supplying centralized utilities, West Virginia Health Department, and WVDEP shall be responsible for the review and approval for any centralized sewer and water supply intended to serve the proposed development. Approval needed at Preliminary Plat stage.

203(c): Jefferson County Historical Landmarks Commission

This body shall submit a report and findings on whether historical resources exist on the site of the proposed subdivision of site development. If there are, they shall submit findings on whether the proposal meets the requirement of zoning with respect to such structures or places at Concept Plan stage.

203(d): Jefferson County Parks and Recreation Department

This body shall determine the adequacy of park, recreation, and trail facilities intended to serve a proposed residential development at Concept Plan stage. This is a courtesy review for park planning purposes.

203(e): Jefferson County GIS/Addressing Office

This body shall verify adequacy of proposed addresses, road names, and names of subdivisions in accordance with Jefferson County E 9-1-1 Addressing Ordinance. Approval needed at either Concept Plan or Preliminary Plat stage.

203(f): Jefferson County Office of Engineering

This body shall review and either approve or deny the Stormwater Management Plan relating to stormwater management.

Section 204: Other Agencies (23.204)

The following are the responsibilities of other agencies:

204(a): West Virginia Division of Highways

WVDOH is responsible for reviewing the site access and potential improvements to public roads at Preliminary Plat stage.

204(b): Jefferson County Schools

The Board of Education should determine the adequacy of school facilities intended to serve a proposed residential development at Concept Plan stage. This is a courtesy review for school planning purposes.

204 (c): Emergency Services

Fire, police, and EMS providers should determine the adequacy of emergency response and lifesaving services provided to their respective service area if potentially affected by a proposed subdivision or development project at Concept Plan stage.

204(d): WVDEP

DEP approval for NPDES, SWPPP, GPP, and other applicable approvals (if required) are needed prior to Preliminary Plat approval.

Section 205: Waivers (24.300)

Waivers from the minimum standards in these Regulations may be granted by the Planning Commission only when the Planning Commission finds that granting a waiver will be consistent with all of the following criteria: (1) that the design of the project will provide public benefit in the form of reduction in County maintenance costs, greater open space, parkland consistent with the County parks plan, or benefits of a similar nature; (2) that the waiver, if granted, will not adversely affect the public health, safety or welfare, or the rights of adjacent property owners or residents; (3) that the waiver, if granted, will be in keeping with the intent and purpose of these Regulations; and (4) that the waiver if granted will result in a project of better quality and/or character. Process and procedural waivers shall be reviewed and found consistent with the above criteria prior to approval.

- A. Applicant. An application for a waiver may be made by anyone with a financial interest in a property. The owner is responsible for providing all information and justification for the waiver request.
- B. Application. An application for a waiver shall be filed with the Planning Commission. An application for the waiver shall be submitted, along with the required fee, on the appropriate form. In addition to that basic information, the following information shall be submitted to support the application:
 1. Plat or plan of the property depicting parcel information, proposed layout, and, where applicable, all proposed modifications.
 2. A description of the physical features of the property, total acreage, present use, the use of the property at the time of the adoption of these Regulations, and any known prior uses;
 3. A description of the specific portions of these Regulations for which relief is being sought;
 4. A narrative describing how the proposed waiver will improve the public benefits.; and
 5. An accurate list of all properties and owners' addresses adjoining the subject property.
- C. Public Notice. The applicant shall post the property fourteen (14) days prior to the scheduled meeting. The adjoining property owners shall be noticed by staff via mailed letter fourteen (14) days prior to the scheduled meeting.
- D. Action. The Planning Commission shall make a decision within 30 days of the receipt of the request for waiver.
- E. Conditions of Approval. In granting a waiver, the Planning Commission may prescribe any conditions and safeguards that it finds are appropriate and in conformity with these Regulations.
- F. All waivers and/or conditions of approval associated with the waiver shall be documented on all subsequent plats or plans.

Section 206: Appeals (24.400)

An appeal of a decision of the Planning Commission or staff regarding subdivision or site development decisions shall be taken directly to Circuit Court of Jefferson County, West Virginia, pursuant to W.Va. Code §8A-5-10 and §8A-9-1, et seq.

Section 207: Enforcement and Penalties (25.100)**207(a): Authority (25.101)**

The planning commission, governing body, ordinance compliance officer, or any authorized employee or agent may enforce these Regulations in the manner provided for in this section and by applicable law, including but not limited to W.Va. Code § 8A-6-3 and W.Va. Code § 8A-10-1, *et seq.*

207(b): Procedure (25.102)

Upon learning of a potential violation of these Regulations, the ordinance compliance officer or staff shall investigate to determine whether a violation has occurred.

When it appears after investigation that a violation of these Regulations has occurred, the ordinance compliance officer or staff shall notify the violator by means of a written violation notice. The violation notice shall specify the nature of the violation and request that the violation cease within fifteen (15) days from the date appearing on the notice. Failure to terminate the violation within this time period shall be cause for the planning commission, governing body, ordinance compliance officer, or other authorized employee or agent to:

1. Seek an injunction in the Circuit Court of Jefferson County to restrain the violator from continuing the violation, including but not limited to requests for the removal of structures or land uses from the property involved; and
2. Seek a misdemeanor conviction in magistrate court or circuit court.

207(c): Penalties (25.103)

Any person who violates any provision of these Regulations shall be guilty of a misdemeanor and, upon conviction, shall be fined not less than fifty dollars nor more than five hundred dollars. Each day during which any violation of these Regulations occurs shall constitute a separate offense.

ARTICLE III: SUBDIVISION DETERMINATION, REVIEW PROCESS, AND DESIGN STANDARDS

Section 300: Processing of Applications (24.100)

The review and approval process of subdivision plats and site developments plans is different for major and minor subdivisions and major and minor site developments.

Section 301: Types of Development (20.200)(20.201)

Unless explicitly stated within the individual sections listed in this Division, all requirements of these Regulations apply to each of the types of development listed below. Appendix A and Appendix B are included as requirements. Each development type shall comply with the requirements of the zone district in which it is located and may be limited by that zone's restrictions. Residue parcels from which development rights have been utilized prior to the effective date of these Regulations shall remain as residue parcels. Such parcels shall be limited to the number of development rights to which the parcel was entitled prior to the effective date of these Regulations. Excluded are developments for the purpose of extraction or harvesting of resources and for roads on agricultural land for the purpose of conducting the agricultural operation.⁸

Section 302: Application and Approval Process (24.101)

Section 303: Application Fees (24.102)

Fees shall be charged for applications pursuant to these Regulations as provided in a Schedule of Fees established by the County Commission, which may be revised from time to time. Such fees shall be proportioned to the cost of processing, reviewing and verifying, and approving proposed subdivision plans or site plans for development.

Section 304: Pre-Proposal Conference (24.103)

For all major subdivisions and site developments, a pre-proposal conference (PPC) is optional, but highly recommended. A PPC is an informal meeting where the applicant can talk to County staff, ask questions, and get direction on preparing the plat or plan in accordance with County regulations.

304(a): Submission

A brief form that identifies the property, describes the proposal, and a sketch plan are required. If there is a preliminary concept plan, it is strongly recommended that it also be submitted at this time as this will allow discussion at a more detailed level. Applicants who wish to have a pre-proposal review of a proposed Minor Subdivision and who submit the brief form with an eligibility checklist and sketch plan, shall waive the PPC unless specifically requested.

304(b): Scheduling

Staff shall schedule the PPC and hold it within fifteen days from receipt of the form and sketch plan submittal.

304(c): Discussion Items

1. Concept plans and ideas regarding land use, street and lot arrangements, and tentative lot sizes.
2. Tentative proposals regarding water supply, sewage disposal, surface drainage, highway access and street improvements, and public recreational facilities.
3. Presentation of tentative density calculations based on the zoning district in which it will be located.
4. Identification of potential environmental constraints and tentative mitigation measures, as required in the Zoning Ordinance and these **Regulations**.
5. Anticipated timing of proposed subdivision or development project.

304(d): Conference

The conference shall involve an informal presentation by the applicant as to the proposal. Department staff will respond to this and make any recommendations or comments that are possible with the level of detail that is submitted. Concept plan application forms will be provided by staff. A question and answer period on the submittal will follow to best inform the applicant of the process and requirements of the application.

304(e): Sketch Plan (1.1)

The Sketch Plan submitted for review at the Pre-application Conference or Review shall be on white paper and shall show in simple form the proposed layout of lots, parking areas, recreation areas, roads, building areas and other features in relation to each other and to the tract boundary. Significant natural and topographic features such as woods, watercourses, floodplain, floodway, hillsides, prominent rock outcroppings, sinkholes and quarries shall be indicated.

The Sketch Plan shall be accompanied by a tract location map and a tentative list of restrictive covenants and conditions or a tentative statement of project objectives, rules and regulations.

304(f): Conference Memorandum or Review Checklist

Within ten days, after the PPC is held, the Department shall prepare a memorandum that identifies the proposal and indicates any specific guidance given to the developer. It shall be sent to the applicant and Planning Commission. After review of any minor subdivision which utilizes the eligibility checklist, the checklist shall be returned to the applicant with a stamp of approval or disapproval. Said approval shall be applicable for a period of two years, with the provision that any amendments to these **Regulations** or the Zoning Ordinance in the second year shall control. If any zoning changes have been presented in a public hearing prior to the approval of an eligibility checklist, then meeting the amended zoning requirements, if adopted, shall be a condition of the approval.

304(g): Effect

The PPC is an informational meeting and has no effect other than information being exchanged. Staff approval of an eligibility checklist permits the applicant to proceed to Final Plat submission.

Section 305: Zoning Review (20.301)

- A. General. A zoning review shall be conducted concurrently with the review of an application for a subdivision plat or site plan. A review shall be provided at each phase of the process. Subdivision plats or site plans that do not meet the zoning standards shall not be approved. Conversely, no subdivision plat shall be denied on the basis of zoning if the Zoning Administrator has decided (or the Board of Zoning Appeals has decided on appeal) that the proposed development complies with the Zoning Ordinance.
- B. Responsibility. The zoning review is a function of Staff under provisions of the Zoning Ordinance. Any appeal of Staff's decision shall be heard by the Board of Zoning Appeals.
- C. Report to Planning Commission. Staff shall submit a report to the Planning Commission along with the agenda for each meeting at which a subdivision plat or site plan is to be discussed. The report shall contain a final decision as to whether the subdivision plat or site plan meets the standards of the Zoning Ordinance.

Section 306: Minor Subdivisions (20.201)

Minor subdivisions are those that do not require the development of new off-tract infrastructure, the extension of existing off-tract infrastructure, or the creation of common areas, and result in the creation of five (5) residential lots or less, or two (2) nonresidential lots or less, including the parent parcel or residue, from contiguously owned parcels of record. Such subdivisions are approved by the staff. Further subdivision of a parent parcel beyond the maximum lots allowed to be created via the minor process after October 5, 1988 shall be classified as a Major subdivision and processed accordingly, unless a waiver is applied for and approved by the Planning Commission. A list of all deed transfers since October 5, 1988 shall be submitted with each plat.⁸

306(a): Residential

All minor residential subdivisions shall conform with the following:

1. A minor residential subdivision divides the property into lots and a residue parcel. The subdivision of the lots creates the residue parcel out of the original parcel.
2. All lots, regardless of the zoning district, shall have motor vehicle access via a 50' access easement, provided that the access easement serves no more than 5 lots to either:
 - a. A WV DOH road right-of-way or easement; or
 - b. A road in a major subdivision that meets county roadway design standards (Table 2.2-1)

However, in the Rural District, lots having a minimum road frontage of 200 feet may have a single access onto an existing WV DOH right-of way or easement or a road in a major subdivision that meets county roadway design standards (Table 2.2-1). Shared driveway access on the adjoining property lines may be required if the distance between the driveways is less than 200 feet
3. Potable water and sanitary sewer service shall be provided according to the requirements of Appendix B, *Engineering Standards*. All submissions shall provide a plat approved by the Department of Health or letters of water and sewer availability, as applicable.

306(b): Family Transfers

When family transfers are provided for in a specific zoning district, such transfers shall conform with the following:

1. The Deed shall identify the relationship between the grantor and grantee; and document that the recipient has not yet received a previous family transfer.
2. State in the deed and on the plat:

“The lot transferred is to be used for a single-family residence only as long as the lot is not further subdivided. Any further subdivision of the lot shall dissolve the single-family restriction and will place development of the lot under the County land development laws in effect at that time. This lot cannot be transferred again for at least five (5) years; except as another family transfer of land. Any transferal of this lot within the five (5) year period shall place this lot in violation of the Jefferson County Subdivision and Land Development Regulations.”
3. All lots shall have motor vehicle access via a 50’ access easement, provided that the access easement serves no more than twelve (12) family transfer lots, to either:
 - a. A WV DOH right-of way or easement; or
 - b. A road in a major subdivision that meets county roadway design standards (Table 2.2-1)

However, lots having a minimum road frontage of 200 feet may have single access on an existing WV DOH right-of-way or easement or a road in a major subdivision that meets county roadway design standards (Table 2.2-1). Shared driveway access on the adjoining lines may be required if the distance between the driveways is less than 200 feet.
4. Potable water and sanitary sewer service shall be provided according to the requirements of Appendix B, *Engineering Standards*. All submissions shall provide a plat approved by the Department of Health or letters of water and sewer availability, as applicable.
5. As used in this subsection, the word “transfer”, as it relates to the five-year provision, shall not include:
 - a. Deeds to Trustees to secure a debt, except that no foreclosure can be had there-under except at public auction and this provision must appear in the deed of trust;
 - b. Judicial sales or tax sales;
 - c. Mortgages;
 - d. Deeds of partition under or pursuant to an order of Court;
 - e. Real estate transferred by will or intestacy.
 - f. Each individual eligible to receive a family transfer as defined in the Jefferson County Zoning and Land Development Ordinance shall receive only one such exempt lot within the County after July 19, 1979.
 - g. Parents who are married are entitled to only one such family transfer parcel.

306(c): Non-Residential

The re-subdividing of a lot located in an approved industrial park or existing major non-residential subdivision shall be permitted to follow the minor non-residential subdivision process. When a non-residential land use is permitted in the Rural Zoning District, such site development may utilize the minor non-residential subdivision provisions provided only one parcel is being subdivided off and only one use will be established on the lot. Additionally, any commercially zoned property may have a one-time exemption to divide off one lot utilizing the minor non-residential provisions providing that no off-site utilities are required and future connections to adjacent lots are provided. All minor non-residential subdivisions shall contain, but are not limited to, the following criteria:⁸

1. Lots. A minor non-residential subdivision divides the property into more than one lot.
2. Access. All lots shall front on an existing internal subdivision road built to county grade road standards and having a minimum right-of-way width of 50 feet. Lots having direct access to a state road are not permitted to process as a minor, except for those proposals utilizing the non-residential permitted uses in the Rural District.
3. Water/Well or Sewer/Septic. Potable water and sewer shall be provided according to the requirements of Appendix B, *Engineering Standards*. All submissions shall provide a plat approved by the Department of Health.
4. Where, in the judgment of staff, a residential or non-residential proposal does not comply with the minor subdivision requirements and/or the intent of these Regulations, the proposed subdivision shall be classified as a major subdivision. The reason for such a determination shall be provided to the applicant in writing. The determination may be appealed to the Planning Commission for consideration and classification.

306(d): Adjustment of Lot Boundaries/Merger Plat-Process (20.106)

Elimination of lot line between two or more contiguous lots under the same ownership may process via a Deed only.

All other adjustments of boundary lines require submission and approval of a Merger Plat and shall be subject to the requirements of Appendix A Section 1.4 of these Regulations, Subsections 1 – 8, 12, 13, 14, 16, 18, 19, 26 and 31 and shall be prepared on either a Legal Size or an 18" x 24" sheet.⁹

Boundary line adjustments shall only require field surveying of any newly created line. If the entirety of both lots cannot be shown at the scale of the plat, provide an inset map that depicts the total boundary of both parcels at a scale acceptable to staff. Source documentation for the unsurveyed lines shall be noted on the plat; provided however, that any provision of the WV Code shall prevail. Any newly created line shall be referenced by a tie line into an existing monument of the parent tract or parcel. The adjustment of boundary lines or the consolidation of lots or portions of lots for the purpose of increasing land area or adjusting shape shall be approved, provided that the following criteria are met:

1. Access to all lots included on this plat is not adversely affected and is depicted on the plat;
2. No new lot is created;

3. The remaining area of the lot from which the land is taken, satisfies requirements for minimum lot size in the zone district in which it is located. Lot boundary adjustments between non-conforming lots shall be exempt from the minimum lot size criteria unless the lot(s) is (are) rendered unbuildable.
4. The following note shall be included on this plat and in the deed:

“The land(s) hereby conveyed is (are) adjacent to and contiguous with that certain parcel of land which is owned by the grantees herein, having been conveyed to them by deed of record in the Clerk’s Office of Jefferson County in Deed Book ____, Page ____, and this conveyance is made for the purpose of adjusting the boundary line(s) of said presently owned land(s) of the grantees.”

5. Provide acreage table on plat showing beginning acreages, the merged acreages and the final/net acreages for each lot in the following format:

Acreage Table		
	Parcel A	Parcel B
Existing	___ AC	___ AC
Merger	+ ___ AC	- ___ AC
Final Area	___ AC	___ AC

6. If the merger is occurring within a previously approved subdivision, a note which references the original plat stating “See PB ____ (Plat Book) PG ____ (Page Number), for subdivision notes and restrictions” shall be added.
7. New lot lines do not create any setback violations. A note shall be added to the plat to this effect or front, rear and side setbacks shall be designated on the Plat with any existing structures.
8. A deed shall be required to be recorded with the plat and shall include the Plat Book and Page Number of the recorded plat and the note from 20.106(D) above.

306(e): Conservation Easement Process (20.107)

All easements created and approved by the Jefferson County Farmland Protection Board, or any other land, viewshed, wildlife, water, or historic conservation agency or group, for the purpose of preservation shall process a deed with a corresponding exhibit detailing the boundary of the conservation area through the Office of Planning and Zoning prior to recordation. The extinguishment and retention of any development rights shall be detailed in the deed and on the exhibit.

Section 307: Application and Determination

307(a): Minor Subdivision Plat Application-Determination (24.104)

1. General. An applicant for a minor subdivision plat shall be subject to the procedures of this Section upon submittal of a final plat application and the corresponding fees to the Planning Commission. All minor subdivision plats shall follow the final plat standards in Appendix A, Plan & Plat Standards.

2. **Application Meeting.** Within seven days after the submission of the final plat, the applicant and the staff shall meet to discuss the proposed subdivision and the criteria used to classify the proposal as minor. The applicant may choose to waive this meeting but shall do so upon submission.
3. **Site Inspection.** The staff shall make a site inspection of the proposed subdivision.
4. **Determination.** Within ten days after the submission of the subdivision final plat, the staff shall notify the applicant in writing that the proposed subdivision has or has not been classified as a minor subdivision.
5. **Approval.** Within ten days after the subdivision has been classified a minor subdivision, the staff shall approve, approve with conditions, or deny the plat. If the plat has been approved with conditions, the applicant shall be notified in writing of the conditions. The plat shall not be considered approved until all conditions are met and documented by staff.
6. **Recordation.** The applicant shall have 60 days after approval to file and record the final plat, together with any deed restrictions/covenants as may be required, in accordance with W.Va. Code §39-1-13. The approval shall become void if it is not filed within the 60 day period. The following documents shall be submitted to the Office of Planning and Zoning:
 - a. One (1) Mylar copy of the Final Plat suitable for recordation and acceptable to the Clerk of Jefferson County;
 - b. Three (3) paper copies of the Final Plat;
 - c. One (1) digital copy of the Final Plat compatible with the Jefferson County GIS, as specified by the Jefferson County GIS requirements; and
 - d. One (1) digital copy of any deed restrictions/covenants in a form suitable to the Department.

Section 308: Major Subdivisions (20.202)

A major subdivision, whether residential or non-residential, is any subdivision of land that requires the development of streets (public or private) or easements of access to the lots, or common area and/or includes the creation of more than five residential lots or more than two non-residential lots and/or requires the development of new off-tract infrastructure or the extension of existing off-tract infrastructure. (See definition of "Major Subdivision.") A subdivision may be classified as major if in the judgment of staff, a proposal does not comply with the minor subdivision requirements and/or the intent of these Regulations. The reason for such a determination shall be provided to the applicant in writing. The determination may be appealed to the Planning Commission for consideration and classification.⁸

308 (a): Concept Plan (1.2)

For subdivisions and site development projects, the Concept Plan submitted shall be on white paper and shall show in simple form the proposed layout of lots, parking areas, recreation areas, roads, building areas and other features in relation to each other and to the tract boundary. The Concept Plan shall be at a scale acceptable to the Engineer. Contour lines as shown on the appropriate

U.S.G.S. Topographic Quadrangle map should be transferred to the Concept Plan. Natural features such as woods, watercourses, hillsides, prominent rock outcroppings, sinkholes and quarries should be highlighted.

The Concept Plan shall be accompanied by a tract location map and a tentative list of restrictive covenants and conditions or a tentative statement of project objectives, rules and regulations.

3.8 (b): Major Subdivision Concept Plan-Submission and Completeness Review (24.110)

1. Submission. The submission of a concept plan is a required step for major subdivisions. The Department shall have 45 days to complete the sufficiency and completeness review. At the time of submission, Concept Plan shall be placed on the first regularly scheduled Planning Commission meeting after the 45-day review period for the public workshop. Within the 45 days, the Department shall have ten (10) days to review the submission and determine whether it is sufficient in that it includes all of the items listed below. If the submission is insufficient, it shall be returned to the applicant. In order to keep on the proposed schedule, the applicant shall resubmit a sufficient application within 10 days after being notified of insufficiency. For the review to be complete within 45 days and remain on the scheduled Planning Commission meeting, all reviewing material, including outside agency reviews, shall be returned to the Office of Planning and Zoning at least 14 days prior to the scheduled Planning Commission workshop.
2. Submission Contents (Requirements). The submission shall contain the following elements in the number of copies indicated by staff:
 - a. General location. A map or aerial photograph showing an area of 500 feet around the property. Zoning boundaries shall be located on this document.
 - b. Concept Plan. A Concept Plan shall be submitted in accordance with the content and formatting guidelines provided in Appendix A, Plan & Plat Standards. Show or note if all features are addressed.
 - c. Zoning Information. This shall include:
 1. Determination of the zoning district in which the proposed subdivision or development project is situated.
 2. Density calculations.
 3. Site resource map.
 - d. Proposal Description. This shall be a written description of the proposal with general identification of the number of dwelling units or floor area proposed, commentary, zoning, and development option selected if the development is residential.
 - e. Traffic Impact Data. This shall include:
 1. Average Daily Trip figures for the adjoining or accessible State road.
 2. Trip generation figures based on the following table:

USE	PEAK HOUR	AVERAGE DAILY
Single family	0.8	8.0 per d.u.
Detached	0.7	6.0 per d.u.
Townhouse	0.6	7.0 per d.u.
Mobile Home	0.6	5.0 per d.u.

3. Nearest key intersection that will serve the proposed project. A “key intersection” is defined as any intersection with a primary or secondary highway as classified by the current Comprehensive Plan.
 4. “Highway Problem Areas” according to the current Comprehensive Plan that falls within a one-mile radius of the project.
 5. In the event trip generation in the peak hour exceeds 100 or the limitation designated in the most current DOH Traffic Engineering Directive, a traffic study may be required which includes generators, etc. or unless the West Virginia Division of Highways has created an agreement with the applicant to provide site access improvements that are typically required by a traffic study, the traffic study shall not be required. This type of study should be performed by a traffic engineering consultant. The effect of phasing the subdivision shall be cumulative. The traffic study or a letter from the West Virginia Division of Highways outlining proposed improvements shall be received prior to the preliminary plat approval.⁴
- f. Agency Reviews. The reviewing agencies may conduct reviews of the proposed concept plan. Agency comments, if responding, shall be received by the Department fourteen (14) days prior to the scheduled public workshop. The applicant shall distribute the concept plan to all reviewing agencies no later than 7 days after review. Reviewing agencies are found in Sections 23.203 and 23.204. Applicant shall provide a copy of the letter sent to outside agencies to the Office of Planning and Zoning within seven (7) days of the submission of Concept Plan. If any review agency fails to respond, they shall be deemed by these Regulations to have approved the plan.
 - g. Adjoining Property. The applicant must provide an accurate list of all properties and owners’ addresses adjoining the subject property. The adjoining and Homeowner’s Associations shall be notified by staff of the date of the workshop.
 - h. Other Data. Any other data or information the applicant believes will assist in the review.
 - i. Other Reviews. Any other staff or agency reviews of the plans.
3. Review Content. The Department and agency reviews shall address the areas indicated in **D through G** below and any other areas of concern to the agencies.
 4. Department. The Department review shall include the following:

- a. Whether the density, use, and plan meet the requirements of the Zoning Ordinance and any other zoning issues that can be identified at the concept plan submission. (Landscaping, for instance, is not generally available at this stage). Staff shall identify conditions that would enable the plan to meet the standards. It shall also identify any other zoning issues the developer shall address in a preliminary plat submittal.
 - b. Staff opinion as to whether the plan meets the site development planning or subdivision criteria of these Regulations. The Department shall review the concept plan for modifications that would improve the plan.
5. WVDOP. The WVDOP approval is necessary prior to preliminary plat approval. The County defers to the WVDOP requirements and approval.
 6. Traffic Impact. The WVDOP shall determine whether a traffic impact study will be required during the preliminary plat stage.
 7. Public Services. The review shall indicate whether there are existing water and sewer systems in place that can handle the development. If not, the review shall indicate the type or extent of a system that shall be proposed by the developer to best meet the County's needs in that area of the County.
 8. Recommended Conditions. All reviews shall contain recommended conditions for moving forward to a preliminary plat or reasons why the plat should be denied.
 9. Approval. Unless there are reviews indicating that the development cannot conform to the Zoning Ordinance, be serviced by public services, or provide its own utilities, or other factors that make the development impossible, Planning Staff shall accept or deny the concept plan as complete.
 10. Effect. At the time of submission, the concept plan shall be placed on the 1st regularly scheduled Planning Commission meeting after the 45 day review period for the public workshop. Staff shall advertise the public workshop in the local newspaper one time at least twenty-one (21) days in advance of the meeting and send notice by mail to the adjoining property owners at least fourteen (14) days prior to the meeting. The applicant shall post notice on the property at least fourteen (14) days in advance of the meeting.

308(c): Major Subdivision Concept Plan-Public Workshop (24.111)

At the scheduled Planning Commission meeting, the Planning Commission shall hold a public workshop to take public comments, concerns, and inputs on the proposed concept plan. This workshop is intended to provide the developer and the Planning Commission with said public input.

1. Plan Presentation. The developer shall make a short presentation of the plan.

2. Agency Comments. The staff shall briefly outline agency comments. The Office of Planning and Zoning shall specifically address whether the project can meet the standards of the Zoning Ordinance.
3. Public Comment. The public will be invited to comment. The Planning Commission shall direct participants to briefly cite concerns or ask questions of the Planning Commission or applicant. The intent of this procedure, like the Department comments, is to inform the developer and Planning Commission with regard to issues that should be addressed in the preliminary plat and report such transportation or engineering matters.

308(d)Major Subdivision Concept Plan-Direction (24.112)

After the close of the public workshop or at any public meeting within 14 days thereafter, the Planning Commission shall provide direction on the concept plan. If the Planning Commission decides to postpone action for 14 days, the workshop shall be closed for public comment; however, the applicant or designated representative will be permitted to interact with the Planning Commission at that meeting to answer questions raised during the public comment at the workshop.

1. Direction. The Planning Commission shall direct the preparation of a preliminary plat subject to conditions to be addressed in the preliminary plat application. The purpose of this review is to guide the developer so that when the preliminary plat application is formally reviewed by the staff, there should not be a whole range of issues being raised for the first time. The developer shall cite conditions and demonstrate that they have been met or otherwise addressed.
2. Conditions. In the direction, it is anticipated that there will be numerous conditions from the Department, agencies, and public comment. There may well be public comment that seeks to lower density of the project below that permitted by the Zoning Ordinance, or to deny the project because of concerns outside the scope of the zoning or subdivision regulations. The applicant may make proffers to address these concerns, but the Planning Commission may not use them as conditions unless they are proffered by the applicant.
3. Effect. The direction is to the developer to proceed to prepare a preliminary plat (Section 24.113). The direction received in the Concept Plan Public Workshop shall be applicable for a period of two years, with the provision that any amendments to these Regulations or the Zoning Ordinance in the second year shall control. If any zoning changes have been presented in a public hearing prior to the decision on the concept plan direction, and then meeting the amended zoning requirements, if adopted, shall be a condition of the direction.

Section 309: Major Subdivision Preliminary Plat

309(a): Major Subdivision Preliminary Plat-Application Submission and Completeness Review (24.113)

The submission of a preliminary plat application is a required step for major subdivisions. The Department shall have 45 days to complete the sufficiency and completeness review unless the applicant chooses to waive the 45 day period. Within the 45 days, the Department shall have ten (10)

days to review the submission and determine whether it is sufficient (at least 70% of the required elements are addressed) in that it includes all of the items listed below. If the submission is insufficient, it shall be returned to the applicant. The 45 day period shall restart when the applicant resubmits. After staff concludes completeness review, staff shall place the preliminary plat and application on the next regularly scheduled Planning Commission agenda for a vote to accept or deny the application as complete. In order for the preliminary plat to remain on the scheduled Planning Commission meeting, all reviewing material, including outside agency reviews, shall be returned to the Office of Planning and Zoning at least 14 days prior to the scheduled Planning Commission.

1. Submission. The applicant is responsible for submitting an application and all supporting documents to the Department and reviewing agencies. It shall be accompanied by the fee for preliminary plat review.
2. Submission of Contents. The submission shall contain the following elements in the number of copies indicated:
 - a. Preliminary Plat. A preliminary plat application shall be submitted in accordance with the content and formatting guidelines provided in *Appendix A, Plan & Plat Standards*.
 - b. Density Calculation and Site Resource Map. This map shall have the preliminary plat on it and shall identify the total area of each resource present, the amount protected and a summary table showing that the resource protection standards are met.
 - c. General Location. A map or aerial photograph showing an area of 500 feet around the property. Zoning boundaries shall be located on this document.
 - d. Preliminary Engineering Plans. An engineering plan shall be submitted in accordance with the content and formatting guidelines provided by the County Engineer.⁶
 - e. Preliminary Landscape Plans. A landscape plan shall be submitted in accordance with the content and formatting guidelines provided by the Department.
 - f. Transportation Impact Study. If required, TIS and materials agreed to at the Concept Plan direction shall be submitted prior to final preliminary plat approval by staff. This element is not required for completeness review.
 - g. Well and Septic Systems. Where applicable, preliminary plats shall include well and septic provisions and all appropriate Jefferson County Health Department approvals. This element is not required for completeness review. However, final Health Department (State and Local) approval is necessary prior to final Preliminary Plat approval by Staff.
 - h. Feasibility of Water and Sewer Systems. Where applicable, preliminary plats shall include connections to existing water and sewer systems or provisions for these systems and for oversizing to serve additional properties. This shall include comments or material from the Jefferson County Public Service District regarding

the impact study and any responses from the developer's engineers. Capacity letters are required at completeness stage, but final approvals are necessary prior to final Preliminary Plat approval by Staff.

- i. **Special Engineering.** Special engineering studies are required if the site is in or partially in areas designated as high vulnerability areas. If other natural resources have specific resource protection standards contained in the Zoning Ordinance, a preliminary engineering assessment shall be provided regarding how those standards can be met.
 - j. **Historic Resource Preservation.** A Phase I archaeological study is required. A historic resources impact study shall also be included.
 - k. **Proposal Description.** This shall be a written description of the proposal with general identification of the number of dwelling units or floor area proposed, commentary, zoning, and development option selected if the development is residential.
 - l. **Stormwater Management Plan and Narrative.** A Stormwater Management Plan, as described in the Jefferson County Stormwater Management Ordinance, must be submitted as part of the preliminary plat to be reviewed by the Office of Engineering. This is a required element in the first submission, or the submission will automatically be determined as incomplete.⁴
 - m. **Identified Concerns.** A report demonstrating how specific conditions identified in the concept plan evaluation and direction received from the Concept Plan public workshop have been addressed on the preliminary plat or will be addressed on the final plat documents.
 - n. **Names.** Name of applicant and of consulting firms, addresses, phone, e-mail, and person(s) to whom correspondence shall be addressed.
 - o. **Other Data.** Any other data the applicant believes will assist in the review. If there are proffers being offered, they shall be included here.
 - p. **Other Agency Reviews.** Agency reviews as to the technical, engineering, zoning, landscaping, impact fee, and other agency reports, comments, and recommendations.
3. **Review Content.** The Department and agency reviews shall address the areas indicated in paragraphs **D to F below** and any other areas of concern to the agencies.
 4. **Department Review.** The Department review shall include the following:
 - a. Whether the density, use, and plan meet the requirements of the Zoning Ordinance and any other zoning issues that can be identified at the preliminary plan submission. Staff shall identify conditions that must be adjusted if they would enable the plan to conform to Zoning and Subdivision Ordinance standards.
 - b. Staff shall provide a written opinion as to whether the preliminary subdivision plat meets the site planning criteria specified in **Articles 21 and 22 of these Regulations.**

In reviewing the submitted application, the Department shall determine whether the concept plan was fulfilled.

5. WVDOH. The WVDOH approval is required prior to final Preliminary Plat approval by Staff.
6. Public Services. The review shall indicate whether the preliminary engineering indicates that water and sewer can adequately be provided for the project and if a new system is provided, whether the proposal is sufficient to handle other development in the area. The Public Service District shall make recommendations for oversizing and methods to recapture costs.
7. Recommended Conditions. All reviews shall contain recommended final engineering standards that shall be met to deal with specific issues or conditions that need to be addressed in final engineering, plat, landscape plan, or other documents.
8. Approval. If the preliminary plat and application is incomplete, or the development cannot conform to the Zoning Ordinance, be serviced by public services or on-site utilities, or is otherwise impossible, the Planning Commission shall deny the same; otherwise, the Planning Commission shall find it complete and accept it. The Planning Commission may also accept the Preliminary Plat and application with the condition that the remaining items identified as necessary by these Regulations be completed prior to final Preliminary Plat approval.
9. Effect. After staff concludes the completeness review, staff shall place the preliminary plat on the next regularly scheduled Planning Commission agenda for a vote to accept or deny the application as complete. If the application is found complete or essentially complete, the Planning Commission shall schedule a public hearing within 45 days in accordance with Section 24.114, Major Subdivision Preliminary Plat - Public Hearing. If the application is incomplete, the applicant shall be notified in writing stating the reasons for denial.

309(b) Preliminary Plat or Site Plan (1.3)

1. Plan Requirements. The Preliminary Plat and/or Site Plan shall be drawn or reproduced on paper at a scale of one inch (1") equals one hundred feet (100') or larger. The plat or plan shall be twenty-four inches (24") by thirty-six inches (36") in size. More than one sheet may be used provided all sheets are referenced by a sheet index on the cover sheet. The plat or plan shall be signed and sealed by a licensed professional engineer or surveyor in accordance with the West Virginia law. (Note: Final Plat size is 18" x 24")

Plats or plans are required to include Stormwater Management Plans as required and described in the Jefferson County Stormwater Management Ordinance.

The Preliminary Plat or the Site Plan is essentially the construction drawings for the subdivision or site development project. The Preliminary Plat or Site Plan shall show or be accompanied by:

- a. A ½ inch border along all sides except the left side (a 24" side) which shall have a 1-3/4 inch border to allow for a binder. All text and symbols shall be a minimum 1/10 of an inch tall on paper.

- b. A title block in the lower right corner to include:
 - i. The Official name of the subdivision or site development.
The names: “Jefferson County, West Virginia.”
Tax District, Tax Map Number and Parcel Number.
Deed book number and page number.
Property Owner’s name, address and telephone number.
Developer’s name, address and telephone number.
Engineer and Surveyor of record’s signature, seal, name, address & telephone number.
Sheet index on cover sheet if more than one sheet.

c. Tic Marks/SPCS WV North NAD83

d. North arrow, graphic scale and date.

e. A small scale inset map showing the location of the subdivision or site development in the County. The map shall be at 1” = 2000’ scale, or other scale approved by the County Engineer.

f. If applicable, a small scale inset map showing the location of the subdivision section relative to other sections of the same subdivision.

g. For Preliminary Plats the subdivision perimeter boundary shall be described by bearings and distances. The perimeter boundary shall be established by a network of traverse control having a relative error of closure of 1:7500 or better.

For Site Plans, the lot boundary shall be described by bearings and distances. The source of said boundary description shall be noted on the site plan and either a copy of the recorded plat that created the lot, or a certification by a licensed surveyor that a traverse meeting error of closure of 1:7500 or better is provided.

If the survey is based on global positioning system measurements, the relative positional accuracy of the survey measurements shall not be less than that which is specified.

h. Lot boundary lines drawn to scale and dimensioned.

i. A number to identify each lot and numbered in logical order

j. A key to all symbols. (Identify monuments and markers according to type and whether “found”, “set”, or “to be set”).

k. Existing easements and right-of-ways accurately identified, located, dimensioned and drawn to scale. Provide reference to deed book and page and/or plat book and page whichever applies.

l. Proposed easements and right-of-ways (roads, sidewalks, drainage, utilities, etc.) identified, located, dimensioned and drawn to scale. Roads shall be named. Road names shall be approved by the Jefferson County GIS/Addressing Office.

Where the adjoining State Road has a right-of-way of less than 50 feet wide, either a fee simple dedication or a road improvement easement will be provided which is a minimum of 25 feet wide measured from the existing centerline of the State road right-

- of-way.
- m. Future easements and right-of-ways that may serve at a future date to connect with adjoining properties.
 - n. Identification of all current adjoining properties by ownership, tax district, tax map number, and parcel number, deed book reference, zoning district, and use. Departure lines for adjoining properties shall be shown on the plat or plan.
 - o. Contour lines with minimum vertical intervals of two feet (2') shall be required. Source of contour line information shall be stated on the plat or plan reflecting the condition at time of submission. Greater contour intervals may be acceptable by the County Engineer, if compatible with surface topography. (Interpolation of U.S.G.S. contour information is not acceptable.)
 - p. The location and elevation of benchmarks used in the survey, if applicable.
 - q. Show existing conditions on its own separate sheet.
 - r. Show existing physical features including: woods, watercourses, prominent rock outcroppings, sink holes, quarries, culverts, bridges, drains, buildings, sewer lines, water mains, fire hydrants, power lines, and telephone lines. Show locations and associated topography of any off-site man-made structure which is located up to 200 feet downstream from any drainage pipe or stormwater management facility outfall. Where access to off-site property is not allowed, then show the general location of any man-made structure on the plan. Show the limits of the 100-year floodplain and any delineated wetlands.
 - s. Show adjoining roads including the right-of-way widths, road pavement widths, road names and route numbers.
 - t. A tentative list of restrictive covenants. (This is not needed for site plans.)
 - u. Reservations of land for public or semi-public use.
 - v. Surface drainage plan and erosion control methods, including flow computations, direction of flow, culverts, bulkheads, inlets, and other related improvements to be installed. Materials and dimensions of all improvements and description of vegetative or other stabilizing materials intended for all exposed areas.
 - w. Complete design and construction plans, profiles and engineering specifications for proposed water treatment and distribution facilities and proposed sewage collection and treatment facilities to be installed.
 - x. Note on the plat or plan, the West Virginia Division of Highways entrance permit number and provide a copy of the entrance permit.
 - y. Note on the plat or plan, the West Virginia Bureau of Health and/or Jefferson County Health Department permit numbers for water/well and septic/sanitary sewer systems; and provide a copy of the approved plans and permits.
 - z. Demonstrate that appropriate agreements between the Jefferson County Public Service District and the developer are in place, if applicable.
 - aa. Note on the plat or plan, the West Virginia Department of Environmental Protection

- (DEP) permit numbers for all DEP approvals required for the project.
- bb. Evidence that the West Virginia Public Service Commission has been notified in writing of intentions to construct and operate water/sewer systems, if applicable.
 - cc. Complete design and construction plans, profiles, cross-sections and engineering specifications for roads, sidewalks, curbs and gutters to be installed.
 - dd. Description of soils and subsurface geology and hydrology.
 - ee. Show building setback lines and note the minimum building setbacks on the plat or plan.
 - ff. In the Rural District, all plats and plans shall provide a density calculation and a notation that contains one of the following statements:
 - i. “This subdivision, together with past subdivision of this property, has utilized all development potential or lots to which the ____ acre parent parcel is entitled under the terms of the Jefferson County Subdivision Regulations. No additional lots will be permitted subsequent to the approval of this plat of subdivision unless or until such time as the property may be rezoned or amendments to the County development regulations may permit additional subdivision.”
 - ii. “To date, this subdivision, together with all past subdivisions of this property, has utilized ____ development rights to which the ____ acre parent parcel is entitled to ____ under the terms of the Jefferson County Subdivision Regulations. ____ additional lots will be permitted subsequent to the approval of this plat of subdivision unless or until such time as the property may be rezoned or amendments to the County development regulations may permit additional subdivision.”
 - gg. A Statement of Acceptance placed on the preliminary plat or site plan cover sheet, signed and dated by the developer/subdivider. The Statement shall read:

“The developer, in signing this plat, agrees to abide by all conditions, terms and specifications provided hereon; and to complete all the improvements required by the preliminary plat or site plan.”
 - hh. Provide a Signature Block on the cover sheet for the County Engineer and the County Planner approvals. The signature bock shall read as follows:

Jefferson County, West Virginia	
<input type="checkbox"/> PRELIMINARY PLAT APPROVAL	
<input type="checkbox"/> SITE PLAN APPROVAL	
BY _____	_____
County Engineer	Date
BY _____	_____
County Planner	Date

2. Jefferson County Construction Notes. In addition to the general construction notes provided by the engineer of record, the following table of construction notes and milestone inspections shall be placed on the plat or plan cover sheet:

Jefferson County CONSTRUCTION NOTES (Table 1.2-1)	
1.	Erosion & Sediment Control Measures shall be in place and inspected prior to performing any significant earth disturbing activities and site grading.
2.	Earth Work shall be compacted to the percentages of maximum dry density in accordance with AASHTO T99C, as shown below: a. Roadways..... 98% b. Parking Lots for heavy trucks..... 98% c. Parking Lots for passenger vehicles..... 95% d. Utility line trenches..... 98% e. Building Pads.....100% The above compaction requirements shall be certified by a professional engineer or a soils technician under the direction of a professional engineer, and acceptable to the County Engineer.
3.	Changes and revisions to the construction plans and specifications shall not be made unless first submitted in writing and approved by the County Engineer and any other agencies, as deemed appropriate.
4.	Work zone temporary traffic control along a public road shall be in accordance with West Virginia Division of Highway requirements and approval.
5.	Seventy-two (72) hours prior to excavation in public right-of-ways or in areas served by underground utilities, call MISS UTILITY 1-800-245-4848.

Jefferson County SITE WORK MILESTONE INSPECTIONS	
The developer shall request County Engineer inspections minimum of 48 hours in advance (Call 304-728-3228). Inspections shall be requested according to the Table of Milestones shown below:	
1.	Installation of Sediment & Erosion Control Devices prior to beginning site grading.
2.	Roadway and/or parking lot subgrade proof roll prior to placing stone base.
3.	Roadway and/or parking lot stone base depth check prior to placing asphalt or concrete pavement.
4.	Water system and Sanitary sewer system inspection and approval by the public service district/utility prior to backfilling of trenches.
5.	Final inspection including but not limited to: seeding & mulching, roadway & parking lot paving, sidewalks, storm drainage and stormwater management systems, traffic control signs & pavement markings, landscaping, etc.
Note: The County Engineer may accept “third-party” inspection and certification reports in place of inspections performed by the Office of Engineering, upon prior approval. Third-party inspection reports shall be submitted in the format specified by the County Engineer.	

- Jefferson County Waiver and Variance Chart. The following table listing waivers approved by the Jefferson County Planning Commission and variances approved by the Jefferson County Board of Zoning Appeals shall be placed on the Preliminary Plat, Site Plan or Final Plat cover sheet, as applicable. If no waivers or variances are granted, then a statement of “None granted,” shall be placed in the table:

Jefferson County – Complete List of Waivers/Variances (Table 1.2-2)			
Ordinance	Section of Ordinance	Description of Waiver or Variance	Date Granted

The Preliminary Plat and/or Site Plan shall be sealed, signed and dated by the Engineer of Record and the Surveyor of Record, as may be applicable, in accordance with state law.

- Plan and Plat Changes. In the event conditions are encountered during construction which make the approved Preliminary Plat and/or Site Plan impractical or excessively costly, field changes may be proposed in writing, by the developer through the developer’s design consultant, to the County Engineer. The County Engineer will review the proposed changes to determine whether or not the change is major and subject to Planning Commission action. In either case, the Engineer and staff will determine the technical acceptability of

the proposed changes. Where said changes are minor, technically acceptable and in accord with the Ordinances the Engineer and staff may grant a field change. Modified plans, with changes shown as "redline revisions," shall be signed and sealed by the engineer or surveyor of record, as applicable, and filed with the Planning Commission office.

309 (c): Mapping and Monuments (21.500)

All preliminary plats shall identify the following:

1. The location of monuments and markers according to type and whether "found," "set," or "to be set." A key to all symbols referencing such markers shall be provided.
2. The location of benchmarks used in the survey, if available.
3. The location and description of permanent concrete control monuments acceptable to the County Engineer. (The Engineer shall be provided with a plan of projected permanent concrete monumentation. Where possible, permanent concrete monuments shall be intervisible; at least 750 feet apart; away from future roadwork; and, at least 2 per section or block.)
4. Lot boundary lines with distances. Lot boundaries shall be established by a network of traverse control having a relative error of closure of 1:7500 or better.
5. A number to identify each lot.
6. Tic marks in State Plane Coordinate System, WV North NAD83.

If the survey is based on global positioning system measurements, the relative positional accuracy of the survey measurements shall not be less than that which is specified in D above.

When the standards for mapping and monuments contained in this Division conflict with the standards in Appendix B, *Engineering Standards*, the provisions of Appendix B shall prevail.

309(d): Major Subdivision Preliminary Plat-Public Hearing (24.114)

Within 45 days of accepting an application as complete or essentially complete, the Planning Commission shall conduct a public hearing to receive public comments, concerns, and inputs on the proposed preliminary subdivision plat. The public notice of the public hearing shall be advertised in a local newspaper of general circulation in the area at least twenty-one (21) days prior to the public hearing. The applicant shall post notice on the site at least fourteen (14) days prior to the public hearing. The scope of this public hearing shall be limited to whether the application meets the requirements of these Regulations and the Zoning Ordinance.

309(e): Major Subdivision Preliminary Plat-Approval (24.115)

After the close of the public hearing or at any meeting within 14 days thereafter, the Planning Commission shall (1) approve the application, (2) approve the application with conditions, (3) deny the application, or (4) hold the application for up for 45 days for additional information. If the application is to be held for the additional time, a date certain for re-opening the public hearing must be set by the Planning Commission simultaneously with the vote to hold. Additional legal advertisement is not required.

1. Approval. The Planning Commission shall review the recommendations and opinions of the reviewing agencies, the staff's decision regarding compliance with the Zoning Ordinance, and the testimony of the public and render its decision. The Planning Commission may approve the plan if it meets the standards of the land use ordinances, deny the plan if it does not meet the standards of the land use ordinances, or approve the plan with conditions to complete any remaining items. In the event that the Preliminary

Plat is approved with conditions to complete any remaining items, unless otherwise directed by the Planning Commission, Staff shall have the authority to grant final approval of the Preliminary Plat once the conditions are met. Also, if the Planning Commission conditionally approves the Preliminary Plat, then the applicant shall be required to submit a notarized document expressly and explicitly waiving the 45 day time requirement for the Planning Commission and/or Staff to act. If the applicant is unwilling to provide such document, then the Planning Commission shall proceed in the final consideration of the Preliminary Plat. In making the decision, the following rules apply:

- a. **Zoning.** The preliminary plat application must be denied on zoning grounds if the staff's decision is that the proposed project does not comply with the Zoning Ordinance. If staff indicates it can meet zoning with a specific condition, these conditions shall be required by the Planning Commission. The Planning Commission cannot deny an application on the basis of zoning if the staff's decision is that the application complies with the Zoning Ordinance.
- b. **Impact Fees.** The County has adopted impact fee requirements that apply to parks and recreation, schools, law enforcement, fire protection, and emergency services. All fees are collected from individual landowners or builders in conjunction with the building permit process. For this reason, the preliminary plat application cannot be denied on the grounds of adverse impact on these services.
- c. **Roads.** The Planning Commission shall defer to the WVDOH on final requirements and approvals for improvements to the public roads. Staff, applicant, and WVDOH are encouraged to work together for an acceptable final approval by WVDOH.
- d. **Sewer and Water Systems.** All sewer and water systems, whether privately owned or publicly owned shall be permitted only on the recommendation of the Jefferson County Public Service District (JCPSD), and/or the City of Charles Town or private utilities, depending on the service area within which they are proposed. The Planning Commission shall not make a decision contrary to the agency provider recommendation unless there is compelling professional evidence that its recommendation is in error.
- e. **On-Site Water Supplies and Sanitary Waste Disposal.** The Jefferson County Health Department shall make a determination regarding the feasibility of on-site wells and septic tanks (or other means of on-site disposal), where applicable.
- f. **Engineering and Landscaping.** The plan being reviewed consists of substantial sediment and erosion control, stormwater management and sewer or water system engineering, landscaping, and site development plan. There will be adjustments in additional work that needs to be done for final engineering, landscaping, and site development plan. The preliminary plat application cannot be denied based on engineering considerations that have not been addressed at this stage of the proceedings. The Planning Commission and County Engineer may attach conditions to ensure that specific issues are addressed.

- g. Open Space. Open space to be provided to satisfy the requirements of the Zoning Ordinance shall be identified on the preliminary plat. Covenants and deed restrictions applicable to such open space to assure its retention shall be submitted and approved.
2. Conditions. It is anticipated that there will be conditions for slight site adjustments and many conditions from the Department and agencies on engineering and landscaping that must be met in the preparation of the final plat, final engineering, and final landscaping. In addition, there will be conditions on surety, payment of impact fees, and any proffers made by the developer and accepted by the Planning Commission or agency benefiting from the proffer. In no event shall a condition require the developer to reduce the density below the requirements of the Zoning Ordinance or what is shown on the proposal unless the reduction is proffered by the applicant.
3. Effect. The approval of the preliminary plat, with or without conditions, allows the applicant to proceed to prepare a final plat, final engineering, and final landscape plan. The approval shall be good for a period of five years, with the provision that any zoning changes that have been advertised for public hearing prior to the date of approval may be made a condition of approval if adopted prior to submission of final plat including all engineering and landscaping.

Section 310: Major Subdivision Final Plat

310(a): Major Subdivision Final Plat-Application-Submission and Completeness Review (24.116)

The submission of a final recordable plat, bonding estimate, and application is a required step for all subdivisions. The Department shall have 45 days to complete the sufficiency and completeness review. Within the 45 days, the Department shall have ten (10) days to review the submission and determine whether it is sufficient in that it includes all of the items listed below. If the submission is insufficient, it shall be returned to the applicant. Approval of the Final Plat shall be administrative, pursuant to Section 24.116E.

1. Submission. The applicant is responsible for submitting an application and all supporting documents to the Office of Planning and Zoning. It shall be accompanied by the fee for final plat review.
2. Submission Contents. The submission shall contain the following elements in the number of copies indicated:
 - a. Final Plat. The final plat shall be submitted in accordance with the content and formatting guidelines provided in Appendix A, *Plan & Plat Standards*.
 - b. Density Calculation. The final recordable plat shall include a current density calculation note or table.
 - c. General Location Map. A map or aerial photograph showing an area of 500 feet around the property. Zoning boundaries shall be located on this document.

- d. On-Site Sewer and Water. If on-site waste disposal and water supply are provided, their location on the site shall be indicated.
 - e. Open Space. Open space to be provided to satisfy the requirements of the Zoning Ordinance shall be identified on the final plat. Covenants and deed restrictions applicable to such open space to assure its retention shall be submitted and approved for recordation.
 - f. Surety. Cost estimates for all improvements and proof of surety. See **Section 24.503, *Amount of Surety***.
 - g. Names. Name of applicant and of consulting firms, addresses, phone numbers, e-mail addresses, and person(s) to whom correspondence shall be addressed.
3. Endorsements on Final Plats. The following certificates shall be placed on all final plats:
- a. Surveyor. Certificate of accuracy and mapping by professional licensed surveyor signed and sealed.
 - b. Owners. Certificate of ownership and dedication signed and notarized, including all individuals, partnerships, and corporations, and lenders with financial security interests.
4. Additional Information. The Department shall:
- a. Review and approve all matters under its jurisdiction.
 - b. Issue a zoning compliance letter.
 - c. Certify that all proffers have been satisfied.
5. Approval. Based on the Planning Commission's approval or conditional approval of the final Preliminary Plat, the approval of the final recording plat shall be an administrative function of Staff unless there is a disagreement between Staff and the applicant. Staff or applicant can request that the final recording document be addressed by the Planning Commission by having the matter placed on the next available meeting agenda.

310(b): Major Subdivision Final Plat-Approval (24.117)

1. Approval. If the final plat application is consistent with the preliminary plat application and meets all other requirements of these **Regulations** and the Zoning Ordinance, the County Planner shall approve the subdivision application.
2. Denial. Denial can only be done on the following basis:
 - a. The plat (plan) is inconsistent with the approved preliminary plat or conditions of said approval.

- b. Failure to provide approved surety.
- 3. Plat Signing. The County Planner or their representative shall sign the plat.
- 4. Effect and Vesting. The approval of the final plat application and signing of the plat makes the document recordable.

310(c): Major Subdivision Final Plat-Recording (24.118)

The applicant shall have 180 days after approval to file and record the final plat for lots to be recorded, together with any deed restrictions as may be required, in accordance with W.Va. Code §39-1-13. The approval shall become void if it is not recorded within the 180 day period. The Planning Commission may grant a waiver to this provision pursuant to the waiver process. The following documents shall be submitted to the Office of Planning and Zoning:

- 1. One (1) Mylar copy of the Final Plat suitable for recordation and acceptable to the Clerk of Jefferson County;
- 2. Three (3) paper copies of the Final Plat;
- 3. One (1) digital copy of the Final Plat compatible with the Jefferson County GIS, as specified by the Jefferson County GIS Office-requirements; and
- 4. One (1) digital and one (1) paper copy of any deed restrictions/covenants in a form suitable to the Department.

310(d): Final Plat (1.4)

- 1. Plat Requirements. The Final Plat shall be drawn or reproduced on Mylar for recordation. The plat shall be drawn at a scale of one inch (1") equals one hundred feet (100') or larger and shall be eighteen inches (18") by twenty-four (24") in size. More than one sheet may be used provided all sheets are indexed on the cover sheet.

The Final Plat is the plat for recordation of the lots created by the subdivision. The Final Plat shall show or be accompanied by:

- a. A ½ inch border along all sides except the left side (an 18" side) which shall have a 1-3/4 inch border for binding; however, a ½" border can be used for the cover page. All text and symbols shall be a minimum of 1/10 of an inch tall on paper.
- b. A title block in the lower right corner to include:
 - i. The Official name of the subdivision by which it is to be recorded.
 - ii. The names: "Jefferson County, West Virginia."
 - iii. Tax District, Tax Map Number and Parcel Number.
 - iv. Deed book number and page number.
 - v. Property Owner's name, address and telephone number.
 - vi. Developer's name, address and telephone number.
 - vii. Engineer and Surveyor of record's name, address and telephone number.
 - viii. Sheet index on cover sheet if more than one sheet.
 - ix. State the year of the Zoning Ordinance and Subdivision Regulations and the

amendment date that applies to the project.

- c. Tic Marks/SPCS WV North NAD83.
- d. North arrow, graphic scale and date.
- e. A small scale inset map showing the location of the subdivision in the County. The map shall be 1" = 2,000' scale, or other scale approved by the County Engineer.
- f. If applicable, a small scale inset map showing the general location of the subdivision section relative to other sections of the same subdivision.
- g. For the Final Plat, the subdivision perimeter boundary described by bearings and distances. The perimeter boundary shall be established by a network of traverse control having a relative error of closure of 1:7500 or better and a note to this effect and shall be placed on the plat. All perimeter corners shall be permanently marked and in place.

If the survey is based on global positioning system measurements, the relative positional accuracy of the survey measurements shall not be less than that which is specified above.

- h. Lot boundary lines drawn to scale, dimensioned and described by bearings and distances. Lot boundaries shall be established by a network of traverse control having a relative error of closure of 1:7500 or better.
- i. Show the location and description lot markers and permanent concrete control monuments. The lot markers and permanent concrete control monuments shall be in accordance with state law. Where possible, permanent concrete monuments should be intervisible; at least 750 feet apart; away from future roadwork; and at least 2 per section or block.
- j. Show and label the building setback lines on the plat.
- k. A number to identify each lot and numbered in logical order.
- l. A key to all symbols. (Identify monuments and markers according to type and whether "found", "set", or "to be set").
- m. Existing easements and right-of-ways accurately identified, located, dimensioned and drawn to scale. Provide reference to deed book and page and/or plat book and page whichever applies.
- n. Proposed easements and right-of-ways (roads, sidewalks, drainage, utilities, etc.) identified, located, dimensioned and drawn to scale. Roads shall be named. Road names shall be approved by the Jefferson County GIS/Addressing Office.
- o. Future easements and right-of-ways that may serve at a future date to connect with adjoining properties.
- p. Identification of all current adjoining properties (including properties across any road, right-of-way, or easement) by ownership, tax district, tax map, number, parcel number, and deed book and page reference. Departure lines for adjoining properties shall be shown on the plat.
- q. Show and identify reservations of land for public or semi-public use, if required.

- r. Label and show existing adjoining roads including the right-of-ways widths, road names and route numbers.
- s. Delineate the approximate 100-Year Floodplain and state flood plain zone and firm map number. Show any delineated wetlands that are located on or adjacent to the subdivision or site plan and reference the source of wetland degradation.
- t. Area of each lot to the nearest 0.01 acre or to the nearest 100 square feet.
- u. Curve data – radius, delta, arc, tangent, chord and chord bearing.
- v. A computation of the total tract area and a computation of the land area included in the right-of-ways.

w. Descriptive lines existing:

Tract boundary - heavy dashed and two dotted lines

Property lines of adjacent tracts – light dashed and two dotted lines

Right-of-ways - light solid lines and two dashes

Restriction lines - light dashed lines

Easements and other reserved areas - light dotted lines

Descriptive lines are to be clearly defined in the legend.

Descriptive lines proposed:

Lot boundaries - heavy solid lines

Right-of-ways - heavy solid lines and two dash lines

Restriction lines - heavy dashed lines

Easements and other reserved areas - heavy dotted lines

Descriptive lines are to be clearly defined in the legend.

(NOTE: Descriptive lines outside the tract boundary are useful for purposes of tract location and orientation. However, such outside lines are not within the scope of the subdivision being platted and should not be given dimensions which might confuse existing descriptions on record).

x. A notation that states:

“The Seller of any lot within this subdivision shall provide the Buyer with a reasonable opportunity, before settlement, to determine that the lot is suitable for the construction of a septic disposal system. If, before settlement, the Buyer is denied a septic system construction permit by the Jefferson County Health Department, the Buyer may refuse to purchase the lot without penalty.”

y. For major subdivisions, a Statement of Acceptance placed on the plat cover sheet, signed and dated by the developer/subdivider. The Statement shall read:

“The developer, in signing this plat, agrees to abide by all conditions, terms and specifications provided hereon; and to complete all the improvements required by the preliminary plat.”

For minor subdivisions, a Statement of Acceptance placed on the plat cover sheet, signed and dated by the developer/subdivider/owner. The Statement shall read:

“The developer, in signing this plat, agrees to abide by all conditions, terms and specifications provided hereon.”

- z. Certification of the Surveyor of Record as to the preparation and accuracy of the plat, along with the Surveyor of Record’s professional seal and signature.
- aa. Note on the plat, the West Virginia Division of Highways (WVDOH) entrance permit number and provide a copy of the approved entrance permit. If a previously approved WV DOH permit exists, provide a copy of the updated WV DOH approval letter and the existing permit and state on the cover sheet the existing permit number and the date of the approval letter.
- bb. Note on the plat, the West Virginia Bureau of Health and/or Jefferson County Health Department permit numbers for water/well and septic/sanitary sewer systems; and provide a copy of the approved plans and permits.
- cc. Such other conditions, certificates, affidavits, endorsements, dedications or agreements as may be deemed necessary by the Planning Commission.
- dd. A final list of restrictive covenants and/or the declaration in accordance with the West Virginia Uniform Common Interest Ownership Act shall be submitted with the Final Plat. However, they shall not become part of the Final Plat.
- ee. Signature block placed on the plat cover sheet for the signature of the County Planner and the affixing of the Planning Commission’s seal.
- ff. Provide a list of waivers on the Final Plat cover sheet in accordance with [Appendix A, Section 1.3.A.32](#)
- gg. Where the adjoining State Road has a right-of-way of less than 50 feet wide, either a fee simple dedication or a road improvement easement will be provided which is a minimum of 25 feet wide measured from the existing centerline of the State road right-of-way.
- hh. A note shall be added to the plat detailing the road and common land maintenance agreement for the proposed subdivision. Such note shall state the road and common land is privately held and shall detail the manner in which the cost and expense of maintaining the private road easement, including snow removal, shall be shared among the lot owners and shall note that this is not a public responsibility nor the responsibility of Jefferson County, WV.
- ii. Add the following note to Minor Plats:

“The Jefferson County E911 Addressing Ordinance states that any easement or right-of-way legally accessed by 3 or more addressable structures (not lots) shall be named. The GIS/Addressing Office shall coordinate and oversee the naming of the common easement or right-of-way upon construction of the 3rd addressable structure that accesses the previously unnamed easement or right-if-way.”
- jj. Add a note that states:

“All residential and non-residential building lots shall have stabilized construction entrances installed prior to beginning construction on the lot.”

310(e): Recordation of Final Plats for Minor or Major Subdivisions (1.5)

The applicant shall record the Final Plat in accordance with W.Va. Code § 39-1-13 and Section 24.104 of these Regulations for Minor Subdivisions and 24.118 of these Regulations for Major Subdivisions. The approval shall be become void if the time frames in these Sections are not complied with.

Section 311: Construction Plans and Specifications (1.3)

All construction plans and specifications submitted shall be acceptable to the County Engineer and shall be used to evaluate progress during construction. The Chief County Engineer shall have the authority to establish standard construction details and specifications.

Changes or revisions in construction plans and specifications shall not be made unless first approved by the County Engineer and/or other agencies, as applicable.

Minor changes may be submitted as marked-up “redline revisions” to the construction plans and specifications, and shall be signed, sealed and dated by the engineer or surveyor of record, as applicable. Changes are to be shown in red or with a red bubble cloud around all changes. This cloud may be placed by hand by the applicant.⁴

“As built” plans, specifications and/or third-party engineer/surveyor certifications shall be submitted if requested by the County Engineer to verify the work is installed in accordance with the approved plans and specifications. As-built plans and letters of certification shall be in a format acceptable to the County Engineer. All as-built data shall be shown in red or highlighted with a red bubble cloud. This cloud may be placed by hand by the applicant.⁴

Section 312: Construction Practices (1.4)

All subdivision improvements including roads, curbs, sidewalks, parks, drainage, water systems, sewer systems, and appurtenant structures and buildings shall be constructed in a workmanlike manner and true to line and grade shown on the plans.

Completed improvements shall present a finished appearance as determined by the County Engineer. All disturbed and/or excavated areas shall be adequately compacted and finish/fine graded and properly stabilized. Roads, sidewalks and curbs shall be laid at a uniform width and depth and shall have clean, tooled edges. Parking areas shall also be smooth, compacted and clean at the edges. Roads, sidewalks and parking areas shall have a surface that is of a uniform material and texture. Finished surfaces that display any patchwork or repairs shall be resurfaced if so directed by the County Engineer. Any patchwork or repairs shall be performed in a manner acceptable to the County Engineer.

Appurtenant buildings and structures such as water and wastewater shall be complete and finished on the exterior with site grading and stabilization complete. All fences shall be erected vertically and shall not sag or bow. Protective fences (e.g. around water and sewage treatment plants) shall be chain link. All components shall be properly leveled and shall be housed in finished enclosures acceptable to the County Engineer.

Drainage culvert inlets and outlets shall not be ragged, bent or crushed. Catch basins, grates, bulkheads, energy dissipaters, riprap linings and other similar drainage accessories shall be constructed in a manner acceptable to the County Engineer.

All work shall be properly installed, protected and/or maintained until completion of the project. Safe practices shall be used during all phases of construction to prevent off-site property damage resulting from construction operations.

Section 313: General Review Standards & Plan Requirements (20.300)

Two types of review occur when a subdivision plat or site plan is proposed, a zoning review and a review of the actual subdivision plat or site plan. Section 20.301 covers the zoning review. Sections 20.302 and 20.303 cover the subdivision plat and site plan review.

Section 314: Subdivision Plat Review Standards

314(a): Subdivision Plat General Review Standards (20.302)

1. General (20.302(a)). This section sets forth the design review criteria and the body charged with making the determination. Stormwater Management Plans may be required for inclusion based upon applicability standards defined in the Jefferson County Stormwater Management Ordinance. In conducting a review, the staff shall make a report and recommendations on design, and the Planning Commission shall make a decision, based on the following:
 - a. The staff shall advise whether the minimum standards are met.
 - b. The Planning Commission may
 - i. Require adjustment to the lot and street layout to better achieve the level of protection by maintaining linked open space.
 - ii. Adjust the location of the open space to protect areas of the resource that are most valuable or of highest quality. The location may also be adjusted to protect water quality by better buffering streams or water bodies.
2. Natural Resources (20.302(b)). The subdivision plat works with the natural conditions of the property so as to minimize destruction of the natural resources (including but not limited to floodplains, hillsides, wetland, sinkholes; See environmental protection standards in the Zoning Ordinance). The subdivision plat protects the site's natural resources as required by the Zoning Ordinance and these Regulations.
 - a. The staff shall advise whether the minimum standards are met.
 - b. The Planning Commission may
 - i. Require adjustment to the lot and street layout to better achieve the level of protection by maintaining linked open space.
 - ii. Adjust the location of the open space to protect areas of the resource that are most valuable or of highest quality. The location may also be adjusted to protect water quality by better buffering streams or water bodies.
3. Adjoining Properties (20.302(c)). The subdivision plat promotes the best design for the use of the property in relation to the development's function and nearby existing or-in-process developments.
 - a. Staff shall advise whether the minimum bufferyard standards of the Zoning Ordinance are met.
 - b. During the concept plan stage, the Planning Commission and/or staff may review:
 - i. The lot layout to see if an alternative layout would provide greater compatibility by increasing the distance of some portion of development from neighbors where feasible.

- ii. The distribution of plant material within a bufferyard, and whether an alternative distribution would better protect a specific area.
 - iii. Determine if it is generally desirable that one on-site resource be protected at a greater level than another on-site resource due to the unique conditions of the property. The Planning Commission may recommend the developer seek a waiver of the resource protection standards in order to provide greater protection for the identified on-site resource.
4. Drainage **(20.302(d))**. The drainage shall be efficiently and unobtrusively integrated into the design and shall avoid off-site impacts. The standards for stormwater management are described in the Jefferson County Stormwater Management Ordinance. The County Engineer shall be responsible for advising whether the plan and drainage facilities meet the required standards. The Planning Commission may seek to use natural surface drainage or encourage the use of low impact development techniques (see Jefferson County Stormwater Management Ordinance) wherever possible.
5. Streets **(20.302(e))**. All street and circulation patterns shall provide for the safe, efficient, and convenient movement of vehicular and pedestrian traffic. Within the context of overall community development, the internal circulation system should promote and encourage the increased use of pedestrian and bicycle movement among residential areas, local shopping, schools, and other areas. Road connections shall be made to existing subdivisions or stub streets to avoid external vehicle trips.
 - a. The West Virginia Division of Highways (WVDOH) is responsible for all roads, except those intended to remain private and/or maintained by a Homeowner's Association. WVDOH shall determine the safety of the roads, access locations, and off-site improvements. Staff shall coordinate with the WVDOH to make all determinations of safety. Likewise, the capacity of the adjoining roads is a technical issue to be determined by WVDOH. At the approval of concept plans, the Planning Commission may require the developer to work with WVDOH to specifically address off-site or capacity issues or concerns.
 - b. The Planning Commission and staff shall review the pattern of streets and blocks to advise if the design promotes pedestrian and bicycle movement, calms traffic in appropriate locations, and provides for connections to existing subdivisions or stub streets or accommodates future connections to future subdivisions to avoid unnecessary external vehicle trips.
 - c. Connectivity is intended to ensure an adequate movement of traffic within superblocks, provide multiple means or routes of emergency access, and reduce loadings on arterial or collector roads that bound the superblock. The Planning Commission and staff shall work with the County Engineer with regard to the safety and desirability of connections between subdivisions and/or to existing stubs.
 - d. Where a superblock or area currently has no internal streets, the Planning Commission shall work with the developer and the staff to develop a sound approach to connectivity within the superblock being developed by recommending a superblock street pattern to guide future development.

6. Utilities (20.302(g)). Provisions for adequate sewer and water.
 - a. The determinations of adequacy or availability shall be made by the Planning Commission after consultation with appropriate agencies responsible for providing water and wastewater treatment for the area in which the proposed subdivision or development project is located.
 - b. The Planning Commission may request that specific problems be considered and addressed by the agencies in the recommendations of the concept plan.
7. Public Improvement (20.302 (h)). Facilitate the conformance of subdivision plats with the public improvement plans of the County, such as the proper provision of open space for recreation and other public facilities and the convenient and proper location of sites for public and community facilities and various land uses. This shall be the responsibility of staff.
8. Lots (20.302(i)). The subdivision plat shall provide for well-proportioned and oriented lots that relate properly to the roads and open space. An awkward and irrational pattern of lots and individual lot shapes and excessive number of panhandle lots shall be avoided (See Section 21.302, *Flag Lots*). The Planning Commission may require a different lotting pattern if they determine lot shapes or pattern of lots can be improved to support their future development.
9. Landscaping (20.302(i)). The subdivision landscaping layout shall promote the zoning classification's qualities and character and meet or exceed the landscaping standards of the Zoning Ordinance. Landscaping shall be located to achieve the screening objectives and, where possible, enhance open space objectives beyond the minimum requirements.
 - a. The staff shall advise whether the zoning standards are met.
 - b. The Planning Commission shall work to ensure that required landscaping is located to best achieve the screening, protection, and overall character to enhance the value of the property. It may authorize moving plant material around, but not require more plant material than required by zoning.
10. Density (20.302k). In reviewing a subdivision plat pursuant to A through I above, no requirement shall lower the density or floor area except as provided in 1 to 3 below. The review of subdivision plat is ministerial. There is no discretion to alter density downward if the plan meets all zoning standards. The preliminary or concept plan reviews are intended to encourage or require plan modifications that improve design. The Zoning Ordinance sets the maximum density and includes the environmental regulations to ensure that a site is not over-developed based on its unique conditions. The design review shall focus on revising the subdivision plat by *altering* roads, lots, landscaping, or other plat elements, but not by *altering* development intensity unless it exceeds zoning ordinance standards as indicated by the staff review.
 - a. A subdivision plat may be denied based on density when it exceeds that permitted by the Zoning Ordinance as indicated by the staff report and the developer is unwilling to accept modifications to bring it into conformance.

- b. A denial is also possible where the Planning Commission determines that public or community sewer and/or water facilities are required and the agencies responsible for water and sewer find that these services cannot be provided by the developer or another provider in accordance with acceptable standards.
- c. The Planning Commission may impose conditions for a lower density when proffered by the developer.
- d. The Zoning Ordinance and these subdivision and land development regulations provide flexibility and incentives for good design as well as ways to waive specific standards in certain circumstances. The Planning Commission's role is to work with the developer to achieve the best plan for the property at the densities that are permitted by the Zoning Ordinance.

3.14(b): Block Design Standards (21.101)

1. Blocks. If a modification is made pursuant to the standards in A above, the blocks shall not exceed:
 - a. Nine lots in length on one side of the street for single family lots: and
 - b. Eighteen lots in length on one side of the street for attached residential units.
2. Block Length. The *blocks* shall not, in most instances, exceed six lots in length on one side of the street. For attached units, that shall not exceed 12 lots. The length, width, and shape of blocks shall be determined with due regard to the provision of adequate sites for *buildings* of the type proposed, zoning requirements, fire *access*, emergency service, and police protection. Blocks may be longer in rural subdivisions due to topographic constraints and/or the total number of lots in the subdivision does not exceed 9 and the lots are over $\frac{3}{4}$ acre in land area each.
3. Block Width. Blocks should be such width as will provide two tiers of lots, except where reverse frontage lots are located along an *arterial* or collector street or where such an arrangement is prevented by the size or other inherent site conditions of the property, as determined by Staff.
4. Relations to Arterials and Collectors. Where possible, blocks shall be laid out to have their short length *abutting arterials, collectors*, or the development's major road.
5. Nonresidential Blocks. Blocks for commercial, industrial and other non-residential use areas may vary from the elements of design contained in this Section if the nature of the use requires other treatment. In such cases, safe and convenient *access* to the street system shall be required. Space for off-street parking may also require similar *access* for employees and customers. Extension of streets and utilities shall be provided, as necessary.
6. Grid Layout. A grid or other formal system is desirable, in which open spaces are integrated into the block design. Exceptions may be made for hillsides, green spaces along drainage or stream channels, or where other natural resources make a grid difficult or cost prohibitive. *Alleys* are considered desirable where lot sizes are less than 10,000 square feet in area.

3.14(c): Lots (21.103)

Design standards for lots in subdivisions shall be as follows:

1. **Required Frontage.** Every lot shall have frontage along the right-of-way lines of a street, except as expressly permitted by Sections 21.301, *Road Frontage*; 21.302, *Flag Lots*; and 21.303, *Lot Shapes*.
2. **Double Frontage Lots.** Double *frontage* residential lots should be avoided. It is preferable only along *arterials* or collectors where the short end of blocks cannot be used because of the proximity to two intersecting arterials or *collectors*. It is preferable to align *blocks* with perpendicular *local streets* so as to have side lot lines adjoining the main road. Only where all the preferred orientations are impractical or where large *bufferyards* set the lots an adequate distance from the road may double frontages be considered for *approval*. Lots with double frontages shall be required to have driveway access from the internal or minor subdivision street, and the plat shall bear a notation disallowing *access* onto major roadways. Residential lots fronting on collectors or arterials shall be prohibited unless served with *alleys* and off-street parking accessed from side streets.
3. **Side Lot Lines.** Sidelines of a lot shall be set approximately at right angles or radial to street right-of-way lines; rear lines shall be approximately parallel to *street lines*. Different lot shapes may be permitted if necessary or desirable to relate *building* sites to the terrain or open space or if they provide better site utilization and building relationships.
4. **Access to existing roads.** In all districts where the subdivision for residential use is to occur, lots shall only have access via internal subdivision roads, except for Rural lots as provided in Section 20.201, *Minor Subdivisions*. Lots shall take *access* to stub streets with side lot lines paralleling the public road, rather than stripping the frontage. Use of a frontage road to circumvent the intent of this provision shall be prohibited.
5. **Lot arrangement.** The arrangement of lots shall preserve and be sensitive to the natural features of the property. Alternative development options, such as cluster or planned developments, provide the design flexibility needed to reduce the intrusion of lot areas into floodplains and other natural resources.
6. **Non-residential Lots.** Non-residential lots shall be designed to prevent any visually unattractive facility (such as loading platforms, material or refuse storage areas, mechanical equipment, and supply areas) from facing major streets or residential neighborhoods. Alley access or screening walls shall be utilized to shield visually unattractive facilities.
7. **Driveway Access for Corner Lots.** Corner lots located at the intersection of major and minor streets shall have driveway access from the minor street, if possible. Driveways shall be located as far from the street intersection as practicable and shall not be permitted within the *sight distance triangle*.

8. Corner Lot Line Radius. The corner of corner lots shall be designed and platted as a curve having a radius that is parallel to the radius of the adjacent street pavement and/or curb and gutter.
9. Minimum Lot Dimensions. Refer to the Zoning Ordinance for the specific zone district in which the parcel is located for all required minimum lot dimensions.

314(d): Lot Width and Frontage (21.104)

Lot widths shall meet the required minimums for the specific zone district in which the parcel is located that are measured at the setback lines. Frontage is measured along the street property line. The following guidelines govern lot configuration:

1. Frontage. The minimum frontage shall be the minimum lot width for the Zoning District or 80 feet, whichever is less. Flag lots and lots on cul-de-sacs may be permitted to have a minimum frontage of 24 feet based on design and engineering approval.
2. Lot Shape. In general, lots should be roughly rectangular:
 - a. Where a grid street system exists, the lots should be as close to rectangular as practicable, with the narrow side fronting the local street, as feasible. The ratio between lot depth and lot width shall not exceed 3:1. Depth to width ratios for corner lots will be based on which lot boundary is designated as the rear line. The frontage is opposite the rear line. The frontage opposite the rear line will be defined as width.
 - b. In curvilinear street patterns, irregular lot shapes will result. The minimum lot width must be maintained between the front and rear yard setback lines; therefore, the lot width may not be narrower than the minimum at any point within the building envelope. The applicant may define *building envelopes* more restrictively than minimum yard setbacks on the *final plat*.
 - c. Where lots exceed two acres, the need for rectilinear lot shapes decreases and, provided the provisions of 2 above are met, more irregular lots may be approved where it protects natural features or resources or where it makes the lotting more efficient.
 - d. Acute lot corners shall have angles of no less than sixty (60) degrees. Lot corners of less than sixty (60) degrees may be accepted by the County Engineer for lots along road turnarounds.
3. Difficult Properties. Where topography, natural resources, or property shape make normal lot configurations difficult, common drives, *panhandle lots*, or shared easements may be considered to provide access in those situations. They shall not be used simply to avoid more streets.

314(e): Local Circulation Plans (22.202)

1. General. To enhance connectivity within superblocks, to provide a choice of travel routes, to reduce traffic conflicts and vehicle miles traveled, and to promote coordination among

property owners with respect to the ultimate development and alignment of collector and minor streets, the County shall develop a Local Circulation Plan when development occurs in an area for which plans for local circulation have not yet been developed. The area that is subject to the plan shall be bounded on all sides by arterial or collector streets (a "superblock"), waterways, stream systems or other similar boundaries.

2. **Content.** The Local Circulation Plan shall identify desired collectors or streets within a superblock, areas for marginal access or reverse frontage roads, and preferred intersection locations. The Local Circulation Plan shall be based on policies of the Comprehensive Plan, property maps, zoning, and topographic and alignment information. At such time as the Comprehensive Plan and transportation system plan may be revised or updated, the Local Circulation Plan shall be based on, and consistent with, such plans.
3. **Criteria.** The following criteria shall be used in developing the Local Circulation Plan:
 - a. Collector streets shall serve only the superblock and not provide alternative or cut-through routes for regional or County-wide traffic. Where superblocks are too large, new collector alignments may be designated. Where new collectors are designated, they shall be extensions of existing collectors or be designed to be extended through several superblocks.
 - b. Where possible, collectors shall be located:
 - i. on the superblock's largest parcels; or
 - ii. along parcels where the cost can be distributed among several landowners.
 - c. Parallel access shall be used where providing individual access to small parcels would create adverse safety conditions due to frequent access on arterial or collector roadways.
 - d. The plan shall be sensitive to natural resources and topography.
4. **Effect.** Subdivision street design and layout shall be consistent with the Local Circulation Plan in terms of the degree of access to adjoining property and existing streets.

314(f): Block Length (21.305)

The maximum length of blocks is set to provide connectivity between adjoining parcels as they develop separately over time. There are conditions that can exist that warrant longer lengths. Such conditions should be addressed by requesting a waiver from these requirements.

Any request for a waiver of the lengths shall meet the criteria below. Maximums shall not exceed those in **A and B below**, as measured on both sides of the street.

1. **Criteria.** The following criteria shall be met in granting a waiver:
2. **Existing Stubs.** If the neighboring property has provided a stub to the subject property, the connection shall be made unless there is a high-quality wetland that would have to be destroyed to make the connection.

3. Natural Resources. A connection would result in protected resources being destroyed.

314(g): Streets (21.102)

Streets shall be laid out to create *blocks* or, in limited conditions, *cul-de-sacs*. Within any *superblock* created by *arterials* or *collectors*, the objective is to provide an interconnected network of streets so that people may reach other locations within the superblock without having to access arterial or collector streets.

1. Access to Public Highways. Any proposed subdivision that is not adjacent to a public highway shall be connected to a public highway by a right-of-way(s) and road(s) that meet the standards required for right-of-ways and roads within the proposed subdivision. This provision may require upgrading of right-of-ways and roads that are not owned by the subdivider and that were platted and recorded prior to the date the subdivider filed a subdivision application.
2. Connections to Stub Streets. Where a stub street has been provided or the right-of-way is provided on an adjoining parcel or subdivision, the developer shall connect. The only exception to this shall be where commercial, industrial or other non-residential use takes access through a residential subdivision or development to a local street.
3. Access. All subdivision plats that contain more than 30 lots shall have a minimum of two access points from existing roads. Where possible, spacing between points of access shall be a minimum of 300 feet. Where possible, all subdivisions shall connect so that developments are not *cul-de-sacs* with only one access to an existing road. The use of *cul-de-sacs* shall be limited to places where natural resources, such as streams, hillsides, *floodplains*, or *open space*, make normal blocks inefficient, environmentally damaging, or prohibitively expensive.
 - a. Where the frontage on existing roads does not permit two entrances to be adequately spaced, the subdivision shall provide for connections to adjoining existing stub streets or to adjoining vacant parcels to all sides;
 - b. Where the connection is to an arterial or collector, and where access controls are in place to increase spacing, the second access may be skipped where a stub street on an adjoining property provides the access; or
 - c. Where the single access is no more than one lot long before splitting into an internal system of connected streets, a street with a parkway may be used.
4. Future Connections. Where the adjoining land is vacant, the subdivision shall provide stub streets to the property line. Connections shall be made to all properties that are not vacant or have stub streets in place. The access shall be to properties on all sides. In larger subdivisions, not all streets need to be extended. The skipping of block extensions shall not exceed three block lengths or result in no connection being made to an adjoining parcel.

5. Street Patterns. The design of the street system near intersections of collectors or *arterials* should be designed so as to discourage or make difficult short-cutting through a residential area.

314(h): Street Design (2.2)

1. Construction Plans. The Preliminary Plat or Site Plan shall include roadway plan and profile sheets with scale 1"=50' horizontal and 1"=5' vertical.

The plan and profiles shall include complete roadway horizontal and vertical alignment information and accurate dimensions locating the roadway, drainage structures, ditches and other incidental construction, and show existing and finished grades/contours.

Finished grade elevations shall be shown every 50' on the profiles, as well as the station and elevations for PVC, PVI and PVT. Drainage Pipes shall be shown on the profiles with inlet and outlet invert elevation information.

Roadway storm sewers and culverts shall be designed in accordance with the stormwater management regulations.

2. Specifications. Specifications for road improvements shall be the latest edition of the West Virginia Division of Highways "Standard Specifications for Roads & Bridges."

3. Geometric & Pavement Design

- a. Geometric and pavement design shall be in accordance with **Table 2.2-1, Roadway Design Standards**; and standard details established by the Chief County Engineer. Items not covered in the standards and details shall be in accordance with West Virginia Division of Highways standards or the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets, as deemed applicable by the Chief County Engineer.

- b. Subdivision roadways shall be as follows:

- i. Residential Subdivision with a maximum of 12 lots:

A residential subdivision with a maximum of 12 lots may have gravel roads as specified in **Table 2.2-1, Roadway Design Standards**.

Gravel roads shall be constructed on a compacted subgrade free of organic matter. The subgrade over which gravel is placed must be compacted for the top 12" to 98% of maximum density as determined using AASHTO T99C. The engineer may require compaction testing certified by an independent registered civil engineer. Such testing shall be performed at the developer's expense.

Gravel shall be a well-graded crushed stone aggregate such as 3/4 inch crush-of-run which shall be placed and rolled in a moist condition so that fines remain mixed with the more coarse material. Gravel roads shall measure a minimum of 6 inches thick after rolling. The gravel surface shall be smooth, uniform and tightly packed.

In the event that acceptable subgrade compaction cannot be achieved, additional lifts of larger sized stone may be placed prior to placement of the final 6" depth of 3/4" stone

ii. Residential Subdivision with more than 12 lots:

A residential subdivision with a more than 12 lots shall have bituminous asphalt paved roads designed in accordance with Table 2.2-1, Roadway Design Standards. Asphalt roads shall be placed on subgrade that is compacted to 98% of maximum density per AASHTO T99C. Asphalt shall be applied to the prepared gravel base surface following the application of a liquid asphalt prime coat. Asphalt shall consist of a plant mixed bituminous material rolled smooth to a depth per the standard details and pavement sections established by the Chief County Engineer. The asphalt surface shall be smooth, seamless and of a uniform texture. Asphalt material shall comply with the minimum specifications required by the West Virginia Division of Highways for public roads. (Concrete roads may be substituted for asphalt roads provided the concrete roads equal or exceed asphalt roads in longevity and performance, as determined by the Chief County Engineer).

Aggregate base shall be compacted to 95% of maximum density per AASHTO T99C. The gravel base course shall extend laterally to daylight in the shoulder or in-slope of the ditch to ensure adequate drainage of the pavement base and subgrade.

The roadway pavement section shall be in accordance with standard details established by the Chief County Engineer; or may be designed specifically for a single project or parts thereof based on soil CBR test results and acceptable engineering design methodology. However, the minimum pavement section shall be as shown in the standard details. Said designs shall be sealed and signed by a licensed professional engineer.

iii. Non-Residential (Commercial/Industrial/Institutional) Subdivision:

A non-residential (Commercial/Industrial/Institutional) subdivision shall have bituminous asphalt paved roads designed in accordance with Table 2.2-1, Roadway Design Standards, and the standard details and pavement sections established by the Chief County Engineer.

Non-Residential subdivisions (closed section road) shall have sidewalks along one side of the street and around the cul-de-sac. Sidewalks shall be no closer than one foot from the property line or four feet from the curb face or edge of roadway; and be constructed in accordance with Section 2.2.K.3, Sidewalks & Paths.

4. Cut and Fill Slopes. Fill slopes shall not exceed (3:1) 3' horizontal to 1' vertical slope. Fill sections need not have ditches unless the fill slope exceeds six feet in height.

Cut slopes shall not exceed (2:1) 2' horizontal to 1' vertical slope.

Open ditches shall not be flatter than 1.5 percent; however, a minimum of 0.5% vertical grade may be used for trapezoidal roadway ditch lines with minimum bottom width of 2 feet.

5. Ditch Line Stabilization. Roadway drainage ditch lines shall be stabilized (i.e., rip-rap, sod, erosion control matting, etc.) in accordance with the Stormwater Management Regulations.
6. Drainage Culvert Pipes. Driveway culvert pipes or paved driveway swales (where allowed in lieu of driveway culvert pipes) shall be sized to carry the ten-year 24-hour storm event ditch flows. However, the minimum size shall be 15 inch diameter or an equivalent elliptical pipe size. The pipe shall be corrugated metal or concrete pipe. A table of lot number and driveway culvert sizes shall be specified on the preliminary plat and the final plat.

Roadway culvert pipes shall be sized for the ten-year 24-hour storm event in accordance with the stormwater management regulations. However, roadway culvert pipes shall be a minimum 15 inch diameter corrugated metal or concrete pipe.

Roadway culvert pipes and storm drain outfalls shall have outfall protection designed in accordance with the stormwater management regulations.

7. Dead End Street Cul-de-Sacs. Dead-end subdivision streets and right-of-ways shall terminate in turnarounds according to the following:

Subdivision road cul-de-sac:

Diameter of turnaround right-of-way	120	feet
Diameter of road pavement in turnaround	100	feet
Width of shoulder	3	feet
R.O.W. fillet radius	30	feet

Circular cul-de-sac may be landscaped in the center with trees, shrubs or other suitable vegetation. The maximum allowable radius for the landscaped center island is 20' with a minimum pavement width of 30'.

A 'tee' (hammerhead) or a 'y' turnaround may be used when a dead-end subdivision road and right-of-way serve no more than twelve (12) single-family lots or dwelling units. The right-of-way shall be adequate to contain the turnaround, shoulder and ditch lines.

Cul-de-sac and turnaround dimensions shall be consistent with the standard details established by the Chief County Engineer.

8. Road Right-of-Way
Residential subdivision road right-of-way shall be a minimum of 50 feet in width.

Non-residential subdivision road right-of-way shall be a minimum of 60 feet in width.

Greater right-of-way widths may be required by the County Engineer where deemed necessary to contain the roadway, drainage ditches, ditch line return slope, fill embankment, street trees and roadway appurtenances within the road right-of-way. Cut and fill slopes may extend beyond the right-of-ways if a revertible slope easement is provided and the top of cut slope is 25 feet away from any septic drain field or septic reserve area.

The centerline of the roadway section shall be congruous with the center of the right-of-way unless an off-set of the centerline is approved by the County Engineer for justifiable reasons.

314(i): Intersections (21.306)

Intersections may be permitted closer than the 300 foot centerline distances where:

1. Shallow Block Depth. The depth of a block is less than these distances. An exception shall be granted unless a reasonable alternative street configuration exists which will provide the needed separation; or
2. Topography. Topographic, natural resource, or ownership problems make providing the separation impractical or undesirable; or
3. Safety. A narrower distance may be permitted where the Planning Commission finds the shorter distance results in safer conditions based on sight distances.

9. Intersection Design

a. Sight Distances at Intersections.

Sight distances at intersections should be regulated to allow approaching drivers' sufficient time to stop. Each vehicle should be visible to the other driver when each vehicle is located on the street centerline and at a specified distance from the point of intersection of the street centerlines. Clear sight triangles should be provided at all intersections and no building, structure, grade, or planting higher than two and one-half (2 ½) feet above the centerline of the street should be permitted within such sight triangles. For intersections of either residential or non-residential (i.e., commercial or industrial) subdivision roads with state highways, sight distance shall be as required by the West Virginia Division of Highways. Otherwise, sight distance triangles shall be provided in accordance with the AASHTO's "A Policy on Geometric Design of Highways and Streets," latest edition.⁴

b. Horizontal Alignment at Intersections

- i. The preferred angle of intersection for intersecting streets is 90 degrees. The minimum angle is 60 degrees. Any change in street alignment on the side street to meet this requirement should occur no less than one hundred (100) feet from the intersection of the two streets. The point of curve for a horizontal curve on the side street shall be no closer than fifty (50) feet from the intersection of the two streets.
- ii. Multiple intersections involving junctions of more than two (2) streets, is not allowed.

- iii. Two (2) streets intersecting the same street from opposite sides should intersect this same street directly opposite one another; or the streets shall be off-set a minimum of one hundred fifty (150) feet between their centerlines.
 - iv. Minimum curb radii at street intersections should be:

Residential Subdivision	Thirty (30) feet.
Non-residential Subdivision	Thirty-five (35) feet
10. Traffic Barriers. Guardrail is not used extensively on subdivision streets except where there is a significant risk to motorists or pedestrians, such as along sections of roadway with steep foreslopes. Guardrails and other traffic barriers should be designed in accordance with, and installed where warranted by, the latest edition of the AASHTO Roadside Design Guide, or other acceptable policy.
11. Curbs, Gutters, and Sidewalks
- a. Where Required.
 - i. Roadway curbs, gutters and sidewalks shall be required in residential conventional subdivisions where net residential density is equal to or greater than three dwelling units per acre of land and/or when lot frontages are 80 feet or less.
 - ii. Roadway curbs, gutters, and sidewalks shall be required in non-residential (i.e., commercial, industrial, etc.) conventional subdivisions unless exempt by the Planning Commission because of low traffic and pedestrian flows.
 - b. Roadway Curbs & Gutter.
 - i. Road curbs shall be constructed of grade A (3,000 lb.) concrete to a height of no less than 6 inches above the finished road surface. The base of curbs shall be a minimum of 7-3/8 inches measured in cross-section. Curb sides may be sloped inward to join a rounded edge having a radius of one and one-half (1-1/2) inches or more. Alternative designs may be approved by the County Engineer.
 - ii. Drainage gutters shall be provided at the curb and road surface interface. Gutters shall be designed to carry peak water flows expected from a 10 year frequency storm occurring over the entire contributing watershed. Storm drain inlets in residential closed-section roads shall have bicycle-safe grates.
 - c. Sidewalks & Paths.
 - i. Sidewalks shall be constructed of Portland cement concrete with a minimum depth of four inches except under driveways a minimum depth of 6 inches shall be used. Sidewalks shall be four feet wide and placed on a suitable base approved by the County Engineer. Sidewalks shall be constructed with equally spaced crack control joints and expansion joints; and the sidewalk surface shall have a light broom finish. Sidewalks shall have a 1/4" per foot cross slope. Grades on sidewalks shall not exceed (20:1) 20' horizontal to 1' vertical.
 - ii. Handicapped accessible walkways, stairs and ramps shall be designed and constructed in accordance with the requirements of the Americans with Disabilities Act, "ADA Standards for Accessible Design (28 CFR, Part 36)."

- iii. Hiking and biking paths are not required; however, if the developer proposes to install a path, the engineer of record shall show the location of the path and easement on the plan and shall provide construction details and material specifications. Where the path crosses a roadway ditch line, a minimum 15 inch diameter drainage culvert shall be installed in the ditch line.
12. Upgrading Existing Subdivision Roads. The subdivision of lots along any existing subdivision roadway that currently serves twelve (12) or more lots, and where the existing roadway is not a public roadway, shall require the existing roadway to be upgraded to the asphalt roadway standards. The road shall be upgraded from the location of the subdivision lots to the intersection with the public road.

The creation of a new subdivision with a road that enters upon another existing subdivision road that serves twelve (12) or more lots, and where the existing subdivision road is not a public roadway, shall require the existing subdivision roadway to be upgraded to the asphalt roadway standards. The existing subdivision road shall be upgraded from the entrance of the new subdivision to the public road.

13. Street Name and Traffic Control Devices. All subdivision roads shall be clearly identified by permanent road name signs, in accordance with the Jefferson County E-9-1-1 Addressing Ordinance.

Stop signs shall be provided at all intersections and where a subdivision road meets a state highway.

Speed limit signs (preferably with speed limits of twenty-five (25) miles per hour or less) shall also be provided at each subdivision entrance road and other locations where deemed appropriate by the County Engineer.

Pavement markings for traffic control (i.e., centerline stripes, stop bars, speed hump delineation, directional arrows, cross-walks, etc.) shall be provided where deemed appropriate by the County Engineer.

Traffic control signs (i.e., “No Left Turn,” “One Way,” etc.) shall be provided where necessary to provide safe traffic control for subdivisions and site development projects as determined appropriate by the County Engineer.

All traffic control signs and pavement markings shall be installed in accordance with the latest edition of the U.S. Department of Transportation - Manual of Uniform Traffic Control Devices (MUTCD) and the Standard Highway Signs (SHS) manual. Traffic control sign and pavement marking details and specifications shall be provided on the Preliminary Plat and/or Site Plan.

314(j): Subdivision and Site Development Access Management (2.3)

1. Subdivision Access to Public Roads
 - a. Subdivision roads shall be coordinated with existing or proposed public roads.

Generally, individual lots shall not have direct access to public roads. Lots must be served by internal subdivision roads unless otherwise approved by the Planning Commission. Subdivision road entrances onto public roads must be acceptable to the Planning Commission and to the West Virginia Division of Highways as to: location, number of entrances, drainage provisions, traffic safety, traffic control devices and general entrance design.

- b. Non-Residential subdivision entrance access to public roads shall be designed to minimize traffic conflicts in accordance with guidelines of the latest edition of the Transportation Research Board's Access Management Manual; or as determined by the County Engineer.

Generally, a subdivision entrance shall be spaced a minimum of 200' from the intersection of two public roads.

- c. Generally, a subdivision shall be served by at least two entrances. The entrances shall be offset a minimum of 300' centerline to centerline.

For a residential subdivision, a single entrance may be used under the following conditions:

Maximum Number of Lots	Single Entrance Road Width
12	22' entire length
13 to 30	24' entire length

Residential subdivisions with more than 30 lots shall have two entrances.

- d. Where a subdivision road slopes toward a public highway, the entrance slope may not exceed a three percent (3%) grade for at least 100 linear feet into the subdivision.

Where a subdivision entrance slopes away from a public highway, the entrance slope may not exceed a five percent (5%) slope for at least 100 linear feet into the subdivision.

- e. Residential & Non-Residential Subdivision boulevard type entrances used at the point of connection of a subdivision road to the public highway shall be designed as follows:
 - i. Raised median minimum 4' wide with concrete curb.
 - ii. Single lane width of a minimum of 13' and maximum of 17'.
 - iii. The single lane width shall extend a minimum of 50' beyond the termination of the median; at which point a pavement edge transition taper of 10:1 to a two-way street pavement width shall begin.

- f. Non-Residential subdivisions shall have a concrete entrance apron, as follows:

Full width of the subdivision road pavement x 25' long x 6" depth with WWF Reinforced 3,000 psi Portland cement concrete. The apron shall be designed to carry the loads imposed by the anticipated vehicular traffic.

- g. Minimum curb radii at the subdivision entrance should be as follows:

Residential Subdivision	Thirty (30) feet.
Non-Residential Subdivision	Thirty-five (35) feet.

2. Site Development Access to Public Roads

- a. Site development access driveways shall be coordinated with existing subdivision streets or public roads. Generally, individual lots within a subdivision shall not have direct access to public roads unless approved by the Planning Commission. Site development access onto public roads must be acceptable to the Planning Commission and to the West Virginia Division of Highways as to: location, number of entrances, drainage provisions, traffic safety, traffic control devices and general entrance design.
- b. Site development site entrance drives and site access shall be designed to minimize traffic conflicts in accordance with guidelines of the latest edition of the Transportation Research Board's Access Management Manual; or as determined by the County Engineer.
- c. Entrance width limits are as follows:⁴

Minimum one-way	13'
Maximum one-way	17'
Minimum two-way	24'
Maximum two-way	35'

Length of entrance shall be a minimum of 50' long from the existing edge of pavement of the access road before beginning a 1 to 15 taper from the edge of pavement to desired width.⁴

- d. Site development entrance access drives shall be spaced as follows:
 - i. A minimum of 75' centerline to centerline; and
 - ii. A minimum of 75' from the centerline of an internal subdivision road intersection; and
 - iii. A minimum of 150' from the intersection of a non-residential subdivision entrance road or public highway with another public highway.
- e. Site development access drives to subdivision streets and public roads shall have a concrete entrance apron, as follows:

Full width of the driveway x 25' long x 6" depth with WWF Reinforced 3,000 psi Portland Cement Concrete and 4" of base stone. The apron shall be designed to carry the loads imposed by the anticipated vehicular traffic.⁴
- f. Minimum fillet radii at the site development access drive intersection with the subdivision street or public highway should be thirty five (35 feet).⁴

3. Improvements to State Highways. The minimum criteria for installation of site access improvements to State Highways shall be as listed below. In the event the West Virginia Division of Highways will not permit such improvements, and is stated accordingly in writing, the decision of the Division of Highways will prevail.

- a. Traffic signals may be required when warranted in accordance with Part IV of the Manual on Uniform Traffic Control Devices; and shall be installed, if warranted by the

- West Virginia Division of Highways (WVDOH). If a traffic signal is needed, then installation normally will be at the developer's expense. The developer is responsible for coordinating the design and installation with West Virginia Division of Highways.
- b. Left turn lanes may be required on all divided highways and on two-lane two-way State Routes having a two-way peak hour volume of 600 or more or an ADT of 6000 or more and a potential peak hour left turning movement into the development of 50 or more. Other factors, such as approach sight distances, may dictate installation where volumes are lower. The turn lane vehicle queue length and design shall be in accordance with the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets and shall be approved by the West Virginia Division of Highways. The left turn lane shall be installed by the developer only if warranted by the West Virginia Division of Highways.
 - c. Deceleration lanes shall be provided on Primary and Secondary Routes where the operating speed on the State Highway is 45 miles per hour or greater. The deceleration lane design shall be in accordance with the latest edition of the AASHTO Policy on Geometric Design of Highways and Streets and/or the requirements of the WVDOH. The deceleration lane shall be installed by the developer only if warranted by the West Virginia Division of Highways.
 - d. Acceleration lanes shall be provided where peak hour two-way volumes on two-lane two-way State Highways are 600 or greater. The length of the lanes will be a function of operating speed. Operating speed is the highest overall speed at which a driver can travel on a given highway under favorable, prevailing conditions without exceeding a safe speed based on design speed. The acceleration lane design shall be in accordance with the latest edition of the AASHTO Policy on Geometric Design of Highways and Streets and/or WVDOH requirements. The acceleration lane shall be installed by the developer only if warranted by the West Virginia Division of Highways.
 - e. Acceleration lanes shall be provided where peak hour two-way volumes on two-lane two-way State Highways are 600 or greater. The length of the lanes will be a function of operating speed. Operating speed is the highest overall speed at which a driver can travel on a given highway under favorable, prevailing conditions without exceeding a safe speed based on design speed. The acceleration lane design shall be in accordance with the latest edition of the AASHTO Policy on Geometric Design of Highways and Streets and/or WVDOH requirements. The acceleration lane shall be installed by the developer only if warranted by the West Virginia Division of Highways.
 - f. The need for reconstruction of vertical or horizontal alignments to improve site access and sight distance shall be determined based on the design speed of the road as addressed in the latest edition of the AASHTO Policy on Geometric Design of Highways and Streets and/or requirements of the WVDOH. The roadway improvements shall be installed by the developer only if warranted by the West Virginia Division of Highways.
 - g. Shoulder widening shall be provided as follows:
 - i. Secondary Routes – Minimum eight (8) feet wide, paved to WVDOH specifications

- extending across the front of the property or a distance of six hundred feet, whichever is less.
- ii. Local Service Routes with current ADT of 2000 or greater or projected year 2000 ADT of 2500 or greater – Same as Secondary Routes.
 - iii. Local Service Routes with current ADT from 1200 to 1999 or projected year 2000 ADT from 1500 to 2499 – Minimum six (6) feet wide, paved to WVDOH specifications extending across the front of the property or a distance of four hundred feet, whichever is less.
 - iv. All other Local Service Routes – Minimum three (3) feet wide gravel with a 4:1 slope into a one (1) foot deep ditch and out with a 2:1 side slope.
 - v. Safety improvements such as signing and delineation at locations on the State Road adjacent to a development may be required. Said improvements must be based on either (1) a proven significant accident record or (2) an existing condition which the addition of the subject development would exacerbate actual accident experience.

Shoulder widening improvements shall be installed by the developer unless the WVDOH determines the improvements are not warranted.

314(k): Subdivision Road and Common Area Ownership & Maintenance (2.4)

A Homeowner's Association or Business Owner's Association must be established without delay as soon as 50% of properties are sold. Membership in the association is mandatory for all property owners within the subdivision. The developers shall dedicate all common lands (SWM Basin, roads, right-of-ways, etc.) to the Association. A note to this effect is required on the Site Plan or Final Plat.

A Common Interest Ownership Agreement must be established to provide for the maintenance of commonly owned land, including, but not limited to the private road system within the subdivision. This Common Interest Ownership Agreement must be developed in accordance with the Uniform Common Interest Ownership Act of West Virginia.

314(l): Roadway Design Standards (Table 2.2-1)

Table 2.2-1 Roadway Design Standards⁴				
	Residential Local Street Maximum 12 Lot Subdivision	Residential Local Street (Max. 25 lots or units)	Residential Collector Street (Greater than 25 lots or units)	Non- Residential/ Industrial & Commercial Street
ADT	N/A	< or = to 200	>200	N/A
Minimum Turn Lane Width		-	12'	12'
Minimum Horizontal Curve Radius	100'	100'	150'	300'
Minimum Turning Flare Radius at pavement edge	30'	30'	30'	35'
Stopping sight distance	100'	100'	175'	235'
Minimum Road Grade	1.5%	1.5%	1.5%	0.5% w/C&G
	Minimum Road Grade may be 0.50% if 1-1/2' deep x 2' wide flat bottom trapezoidal road drainage ditch provided.			
Maximum Road Grade	10%	9.0%	9.0%	9.0%
Maximum Internal Subdivision Intersection Approach Grade	8%	8%	6%	6%
Pavement Width	20'	20'	22'	26'
Pavement Surface Type	6" Depth Crusher Run Stone	Bituminous Asphalt (per std. detail)	Bituminous Asphalt (per std. detail)	Bituminous Asphalt (per std. detail)
Pavement cross slope	3/8" per ft.	3/8" per ft.	3/8" per ft.	3/8" per ft.
Shoulder Width	3'	3'	3'	4'
Shoulder Type	Crusher Run Stone	Crusher Run Stone	Crusher Run Stone	-
Shoulder cross slope	3/4" per ft.	3/4" per ft.	3/4" per ft.	-
Ditch depth	1.5'	1.5'	1.5'	-
Ditch slope in:	4:1	4:1	4:1	-
Ditch slope out:	2:1	2:1	2:1	-
Ditch Line Treatment	Per Stormwater Management Regulations			-
Minimum Road R.O.W. Width	50'	50'	50'	60'
Minimum Cul-de-sac R.O.W. Radius	-	60'	60'	60'
Cul-de-sac pavement radius	-	50'	50'	50'
Cul-de-sac R.O.W. Fillet Radius		25'	25'	30'

Hammer Head or “Y” Turnaround Allowed	Yes (see std. detail)	No	No	No
Subdivision Roadway Entrance Apron (from edge of existing road).	20’x25’x2-1/2” Bituminous Asphalt Surface	-	-	25’x6” WWF Reinforced 3,000 psi Portland Cement Conc.
Sidewalk	-	-	-	Minimum 4’ width; no closer than 1’ from P/L or 4’ from curb or edge of roadway.

314(m): Off-Street Parking Standards (2.5)

Off-street parking facilities may be parking lots, parking bays, or other types approved by the County Engineer. Parking facilities shall be designed in accordance with the design standards and details established by the County Engineer.

The number of parking spaces shall be as required by the Zoning Ordinance.

All parking lots and parking bays (except for parallel parking along a townhouse/condominium complex street) shall be physically separated from the street and confined by curbing, unless other suitable design is approved by the County Engineer.

Any curb lines in parking areas shall have a minimum radius of curvature of five (5) feet.⁴

The layout of parking areas shall permit safe and efficient internal circulation in accordance with generally accepted engineering principles and practices.

All dead-end parking areas shall be designed to provide sufficient back-up area for the end stalls of the parking area; and to allow turn-around of cars without having to back out of parking bays.

Handicapped parking spaces and access ramps shall be provided, designed, located and delineated in accordance with the latest edition of the Americans with Disabilities Act, ADA Standards for Accessible Design (28 CFR, Part 36). Calculations showing the required number of handicapped parking spaces shall be provided on the site plan; and details and dimensions shall be provided for the access ramps, parking spaces, pavement markings and signs, etc.

Parking area and drive aisle grades shall be as follows:

- Maximum 6.5%
- Minimum 0.5%

Parking area access driveways and entrances leading from the public road or subdivision street, and also the parking area internal access drives connecting physically separated parking bays, shall not exceed an 8% grade.

The maximum embankment cut or fill-grade inside and/or adjacent to parking areas shall not exceed (3:1) 3’ horizontal to 1’ vertical slope. The County Engineer may accept steeper embankment slopes up to (2:1) 2’ horizontal to 1’ vertical upon review and approval by a geotechnical engineer.

A minimum three foot wide strip, not to exceed (5%) five percent slope, shall be provided between parking areas, sidewalks, and parking area access drives, and the toe or top of any embankment slope.

When retaining walls are used, they shall be designed and certified by a Professional Engineer licensed in West Virginia. The construction details and specifications shall be shown on the site plan.

There shall be a minimum 10' median between the end of a row of parking spaces and any parking area access drive in order to provide for adequate sight distance.

All cart storage areas, parking area internal pedestrian pathways, parking spaces, directional arrows, fire lanes, and handicapped parking symbols, etc., shall be shown on the preliminary plan and delineated on the pavement with traffic grade paint.

All parking areas shall be bituminous asphalt or concrete paved. Paving sections shall be as established by the County Engineer.

Parking area dimensions shall be no less than those listed in [Table 2.5-1](#), as follows:

Parking (Table 2.5-1)				
Parking Angle	Stall Width	Stall Depth	Drive Aisle One-Way	Drive Aisle Two-Way
90	9'	20'	24'	24'
60	9'	22'	18'	24'
45	9'	21'	14'	24'
Parallel	9'	22'	12'	24'

The County Engineer may establish standard details as deemed necessary to depict and convey the parking requirements.

314(n): Street and Parking Area-Outside Lighting (2.6)

Street lighting is typically required in concentrated areas of pedestrians or vehicles. Areas of potential need for lighting for the safety of pedestrians and motorists include but are not limited to: schools, hospitals, churches, shopping centers, restaurants, recreation centers, self-storage centers, convenience/retail stores, industrial complex, apartment and townhouse complexes, parking lots and street intersections. Street lighting shall be provided as required by the Zoning Ordinance and [Section 22.209, Street Lighting](#).

Whenever street or other outside lighting is required, the minimum lighting intensity shall be in accordance with the latest edition of the American National Standard Practice for Roadway Lighting, Illuminating Engineering Society, American National Standards Institute.

Light poles installed in a parking area shall be installed on a 30" high structural base (i.e., reinforced concrete pier) to protect them from vehicle damage.

Lighting shall be shielded and directed down to prevent glare and to minimize light trespass. The location, specifications and construction details for outside lighting shall be provided on the preliminary plat.

314(o): Speed Humps (2.7)

In subdivisions and site development projects, if roadway or access drive traffic calming speed bumps are proposed, they shall be designed, installed and delineated in accordance with the latest edition of the Institute of Transportation Engineers Guidelines For The Design And Application Of Speed Humps. Construction details shall be provided on the Preliminary Plat and/or Site Plan.

314(p): Classification of Streets and Highways (22.203)

Streets and highways shall be classified as arterial or collector according to their intended function, consistent with the West Virginia Division of Highways (WVDOH) classification system and any County-adopted thoroughfare plan, as amended from time to time.

Road classifications shall anticipate long-term growth prospects, so their functional capacity is not undersized in the early development stages.

Other classifications shall be in accordance with the Local Circulation Plan, developed in accordance with Section 22.202, Local Circulation Plans.

314(q): Residential Streets (22.204)

1. General. Roads to be accepted as State maintained roads shall meet the requirements of WVDOH.
2. Rural. Roads in the Rural District shall be rural roads with ditch drainage and shall adhere to the standards required in Appendix B, Engineering Standards, Division 2.0, Street & Parking Standards.
3. All other areas. In all other residential developments, applicability and requirements for curbs, right of ways, and pavement widths shall be in accordance with the provisions of Appendix B, Section 2.2.K, Curb, Gutters & Sidewalks. Width shall be measured from gutter pan to gutter pan.
4. Parkways. The subdivider may choose to use parkways or landscaped medians in residential streets, in which case the right-of-way shall be enlarged so that the parkway or median width is added to the right-of-way.
5. Natural Areas. In areas where resource protection is necessary or desired, narrower right-of-ways may be approved and drainage accomplished in a manner that provides for the minimum width, while accommodating the stormwater movement. The County Engineer or a designee shall assist in developing a cross-section that minimizes environmental impact.

314(r): Cul-de-sacs (22.206)

1. General. Cul-de-sac streets shall be carefully managed to ensure they are not over-used. Connectivity is preferred.
2. Where permitted. Cul-de-sac streets may be used if:
 - a. Natural resources, such as topography, floodplains, open space, or stream systems make standard blocks inefficient;

- b. Cul-de-sac streets serve no more than 24 lots or are no more than 800 feet in length, whichever results in a shorter street segment; and
 - c. The pedestrian circulation system provides for direct, non-vehicular access between cul-de-sac ends where:
 - i. Two lots or fewer are situated between them; and
 - ii. The distance between them, measured along street centerlines, is more than 650 feet.
3. Dimension Standards. All cul-de-sacs shall be designed to permit vehicles to turn around without backing, except as may be provided for in Appendix B, Section 2.2, *Streets*. Cul-de-sac standards are listed in *Appendix B, Engineering Standards, Table 2.2-1, Roadway Design Standards*.

314(s): Private Roads (22.207)

Private roads shall be permitted in accordance with this Section.

- 1. Private Roads. Private Roads may be developed if all of the following are demonstrated:
 - a. A homeowner's association is created that will be responsible for the ownership and maintenance of the road.
 - b. The plat and all lot plans in the subdivision contain a note that indicates that the County shall not take ownership or be responsible for maintenance of private roads.
- 2. Gated Communities. No gated communities shall be permitted.

314(t): Sidewalks (22.208)

- 1. Location of sidewalks. Sidewalks shall be provided along at least one side of streets in all zone districts. In the Rural District when residential density in the proposed development is less than three (3) units per acre and/or when lot frontage is greater than 80 feet, sidewalks are not required. Sidewalks shall be located within townhouse or multi-family residential developments and any non-residential subdivisions and/or site plans. Sidewalks shall be located in the platted street right-of-way, a minimum of one foot from the property line. Walks shall also be installed in pedestrian easements as may be required by the Planning Commission.⁴
- 2. Modification of sidewalk requirements. Sidewalk requirements may be altered or waived if a pedestrian circulation plan that provides equal or greater pedestrian circulation is submitted to and approved by the Planning Commission. These trade-offs may be permitted:
 - a. In developments located in the Residential-Light Industrial-Commercial (R-LI-C), Village (V) and Residential Growth (RG) Districts where lots are greater than one-quarter (1/4) acre in land area to allow off-street trails in lieu of sidewalks, thereby meeting the needs of walkers and cyclists; or

- b. In order to implement the County's Parks and Recreation Master Plan, as set out in sub-section D, below.
3. Completion of sidewalk networks within the subdivision or development. In general, sidewalks shall be constructed concurrent with street construction, with special provisions to protect their condition and integrity during the process of building construction. However, this requirement may be waived at the discretion of the Planning Commission if reasonable assurances are provided that:
 - a. Sidewalk segments across individual lots will be constructed after buildings are constructed on the individual lots, but before they are occupied; and
 - b. The timing and phasing of development will result in the completion of the sidewalks on each street segment prior to release of any required construction bond amount for such improvement. Sidewalks shall be installed along street corridors on a priority basis in areas where they are not currently available.
4. Trails and bikeways
 - a. On-street bikeways and off-street bicycling and jogging trails shall be developed in accordance with the County's Parks and Recreation Master Plan to link major attractions and destinations throughout the community, including neighborhoods, parks, schools, churches, public libraries, community centers, major employment centers, and shopping areas.
 - b. Stream corridors present opportunities for future off-street bicycle and pedestrian trails to connect with existing or new sidewalks and as means of extending the County's trail system and shall be considered for trail system development in all subdivisions where such opportunities are presented.
 - c. In all major subdivisions, a dedicated detached trail or bikeway shall be provided along the public right-of-way for the entire width of the property. This trail or bikeway would be required to be constructed once the County trail plan is established

314(u): Street and Road Design Standards (22.210)

When the standards for streets and roads contained in Division 22.200, *Streets*, conflict with the engineering standards in Appendix B, *Engineering Standards*, the provisions of Appendix B shall prevail.

Section 315: Street Lighting (22.209)

The developer of any subdivision shall be required to install street lighting when lots are less than 15,000 square feet according to the following standards:

315(a): Underground Wires

Street lighting shall be via underground distribution.

315(b): Residential Streets

The placement of street lighting fixtures on residential streets shall be at 400 to 600 foot intervals unless:

1. The roadway length is less than 400 feet, but more than 200 feet, in which case a street light will be provided at the end of the street; or
2. The roadway length is less than 200 feet, a street light is placed at the intersection, no natural features interfere with the light, and no street light will be placed at the end of the roadway.

315(c): Non-Residential Streets

The placement of street lighting along non-residential streets shall be in accordance with the latest revision of the Illuminating Engineering Society's "American National Standard for Roadway Lighting."

315(d): Intersections

A street light shall be provided at all street intersections.

315(e): Maximum Pole Height

1. Residential Streets: 15 feet.
2. Thoroughfares: 30 feet, unless the spillover from the fixture will cause *glare* in a residential area, in which case the maximum height shall be 25 feet.

315(f): Illumination Standards

Street illumination shall satisfy the requirements of the Zoning Ordinance.

315(g): Other Designs

A developer or Homeowner's Association (HOA) may request non-standard street lighting within a development provided:

1. Street light fixture types and locations are approved by the Planning Commission;
2. Regardless of the nature and type of street lighting constructed, the developer and/or HOA is solely responsible for all installation, operating and maintenance costs associated with non-standard street lights.
3. The developer and/or HOA will be solely responsible for any costs associated with removal of non-standard street lights and any costs associated with installing standard street lights if the lighting is converted in the future.
4. The developer includes all responsibilities of the HOA pertaining to street lighting in the development covenants. The developer shall inform all purchasers of property in the development of these same responsibilities.
5. Non-standard lighting shall not be used on thoroughfares.
6. Developers of private streets shall be required to install private street lighting in accordance with this subsection.

Section 316: Requirements for Parkland (21.105)

This Section is designed to satisfy needs for park facilities in future neighborhoods.

316(a): Visual Access

Visual access to parkland shall be encouraged from both lots and streets.

316(b): Greenways

Parkland shall be designed to provide greenways along drainage corridors, streams, or in accordance with a County trail plan. The landscaping along corridors shall be designed to enhance the filtering of surface and subsurface water flows. Trails shall provide access along the greenway and to the residents of the development.

316(c): Design Requirements

1. Parkland shall be integrated into the development design to bring significant open space to the maximum number of properties. Small, odd, left-over open space areas shall be avoided. Landscaping may be required to enhance the value of such spaces where they cannot be avoided, and staff may require the concentration of required plant material. The reservation of land for park and recreation purposes shall be in a suitable, convenient location and shall be of a size, dimension, topography, and character conducive to use as a park, playground, playfield, or similar use.
2. Land reserved for park and recreation purposes shall be reasonably level and dry and shall be maintained by the property owners' associations in a useable condition as part of an overall maintenance program for the subdivision. Land reserved for neighborhood park and recreation purposes shall be clearly identified on the final plat and shall be for the use and enjoyment of property owners within the subdivision. Land reserved for greenways and trails for public use shall be clearly identified on the Final Plat. The County Commission may accept donation of all or a portion of parkland, greenways, or trails for use by the public.
3. Open spaces/parkland shall be designed to provide areas of focus within the development. In the Rural District, such spaces shall be minimal unless a Conditional Use Permit (CUP) has been obtained. In the Residential-Light Industrial-Commercial and Residential Growth Districts, open spaces/parkland shall be provided in accordance with Table 21.105. Residential Land area is determined by adding the square footage of all proposed residential lots. Up to 60% of this requirement may be met with passive open space in the Residential-Light Industrial-Commercial and Residential Growth Districts. Landscaping and hardscapes that include furniture for pedestrians shall be installed to enhance the usefulness of these areas.

Table 21.105 Parkland Requirements for R-LI-C & RG Districts and Development in the Rural District with an approved CUP	
Density in Units per Acre of Residential Land Area	% of Land to be Reserved for Open Space
Less than 2 units per acre	No land required
2-4	4%
4-6	7%
6 to 10	10%
10+	15%

316(d): Overlapping Easements

Easements over environmentally sensitive resources shall not have other easements over the land that would result in the disturbance of the land, with the following exceptions:

1. Pedestrian access easements may be permitted anywhere.
2. In order to provide appropriate services, utility and drainage easements may be permitted along any side and rear lot lines of adjoining lots designated for development but shall be minimized in open space areas.

Section 317: Non-Residential Subdivision (9.0)-General (9.1)

Non-residential subdivisions shall be subject to all requirements of the Subdivision Regulations except for those requirements which are specifically intended for residences (e.g. Land for Parks and Schools) as determined by staff.

317(a): Non-Residential Streets (22.205)

The standards contained in Appendix B, Section 2.2, *Streets*, shall govern all non-residential street construction.

Section 318: Stormwater Management and Erosion and Sediment Control (4.0)-*Cross Reference with SWM Ordinance

Stormwater Management (Division 4)

All requirements and processes for Stormwater Management and Erosion & Sediment Control for Jefferson County are contained within the Jefferson County Stormwater Management Ordinance. Development within the County, meeting the criteria described in the Stormwater Management and Erosion & Sediment Control, must conform to the standards set therein.

Section 319: Grading Infrastructure and Grading Purpose (22.100)

The purpose of this Article is to ensure:

- The adequate provision of infrastructure, including streets, potable water, sewer, and fire protection to serve development;
- Well-designed and well-connected streets and sidewalks;
- Adequate lighting of public and private streets;

- Adequate and well-designed drainage and stormwater treatment systems to serve new development; and,
- The protection of environmental resources during site preparation for development, as well as during and after development.

319(a): Grading (22.500)

All activities addressing grading issues and erosion control shall be described in the Erosion and Sediment Control Plan required as Part of the Stormwater Management Plan in the Jefferson County Stormwater Management Ordinance.

319(b): Site Grading (22.501)

1. Protected Streams. Site grading shall be done in such a manner that the appropriate erosion control devices and techniques are used to protect water quality.
2. Prevent Erosion. The proper precautions shall be taken to minimize erosion of disturbed soil. Sediment control will be site specific and can include vehicle tracking controls; sod buffer strips around the lower perimeter of the land disturbance; sediment barriers, filters, dikes, traps, or sediment basins; or a combination of any or all of these measures.
3. Minimize Exposure. During the preliminary stages of development each site shall develop a plan to minimize soil exposure. If soils are exposed the proper seeding shall be placed down in the allotted time recommended under the Erosion and Sediment Control Plan as required in the Jefferson County Stormwater Management Ordinance.
4. Protect Aquifer. All precautions shall be taken in the prevention of aquifer contamination. Proper erosion precautions shall be in place as well as consideration of other possible forms of aquifer contamination.
5. Extension of Time Limits. Time may be extended as deemed necessary by the County Engineer in the event that adverse conditions prevent compliance with the stated time limitations for the completion of permanent or temporary structures.

319(c): Utilities and Water and Sanitary Sewer Systems (Division 3, Section 3.1, and 3.2)

1. Well & Septic Systems.
 - a. Individual well and/or septic systems, where allowed, shall be approved by the Jefferson County Health Department. A copy of the approved Health Department permit shall be submitted prior to approval of the Preliminary or Final Plat.
 - b. Location of the septic system percolation test holes and septic reserve area shall be shown on the Preliminary Plats and Final Plats. A 100' buffer separating any well from any septic reserve area and existing drain field shall be shown on the Preliminary Plats and Final Plats.
 - c. Effective as of March 1, 1989, in all subdivisions to be served by individual wells, all such wells shall be pressure grouted. A note shall be placed on all plats stating the following:

“Verification from a well driller that a pressure grouted well is drilled and is producing water at a quantity approved by the Jefferson County Health Department and/or the West Virginia Bureau of Health shall be submitted to the Planning Commission prior to the issuance of an Improvement Location Permit. Certification that the water is potable must be submitted to the Planning Commission Office within 6 months of the issuance of an Improvement Location Permit.”

- d. In subdivisions to be served by individual wells and/or septic systems a note shall be placed on the Final Plat alerting the public that:

“The Public Service District may require in the future each property owner to abandon existing well and septic systems and to connect to a centralized system when and if it becomes available.”

2. Central Water & Sanitary Sewer Systems.

- a. A centralized water system shall be required for all subdivisions taken from contiguously owned tracts of land which contain 100 or more lots or dwelling units. A centralized water system shall also be required for all subdivisions which create a total of 100 or more lots on a tract of land that was on record at the Clerk’s Office on October 6, 1988.

Subdivisions of greater than 150 dwelling units and that are required to have central water systems shall be equipped with fire hydrants. Fire hydrants shall meet the requirements herein specified for fire hydrant installation and operation.

Non-residential subdivisions shall be served by central water systems with fire hydrants sufficient to meet all requirements of the West Virginia State Fire Marshal’s regulations.

Subdivisions which contain 100 or more lots or dwelling units may request a variance from this provision. Any application for such variance shall include a hydrology study done by a “competent professional.”

- b. Water and sanitary sewer systems, water treatment plants, waste water treatment plants, storage tanks, etc., shall be designed and constructed according to the regulations of the West Virginia Bureau of Health, the West Virginia Department of Environmental Protection and federal regulations, as applicable.

A copy of the approved West Virginia Bureau of Health permit and a complete set of the approved plans shall be submitted prior to approval of the Preliminary Plat. The plans shall include the utility system plan, profiles, details, and specifications necessary for construction of the system.

For waste water treatment plants, a copy of the West Virginia Department of Environmental Protection’s waste load allocation and discharge permit shall be provided prior to approval of the Preliminary Plat.

- c. If a central water and/or sanitary sewer system is required, then the developer shall enter into a binding legal agreement with the appropriate Public Service District for the construction and operation of such systems. The terms and conditions of such agreement must be acceptable to the Public Service Commission and in compliance with all pertinent rules and regulations of the West Virginia Public Service

- Commission. Such construction and operation agreement shall be in full force and effect and guaranteed construction funding, in a form acceptable to the Planning Commission and the Jefferson County Commission, shall be committed prior to the sealing of the Final Plat by the Planning Commission.
- d. Where centralized water and/or a sanitary sewer system are provided in a subdivision, a note shall be placed on the Final Plat stating:

“Private wells and/or private septic systems for domestic use are prohibited when central water and/or sanitary sewer service is available.”
 - e. Where possible, water and sewer lines that are installed parallel to subdivision roads shall be laid within the road right-of-ways. Otherwise, utility easements shall be provided as deemed necessary to provide for access and maintenance. A note shall be placed on the Final Plat stating:

“A blanket easement is granted to the appropriate Public Service District in all road right-of-ways for construction and maintenance of water and sanitary sewer lines.”
 - f. A note shall be placed on the Preliminary Plats and Final Plats stating that:

“Service laterals to individual lots or sites shall be installed prior to construction of the finished road pavement surface.”
 - g. The installation of water and sanitary sewer utility lines and appurtenances shall be inspected and certified by the Public Service District that will own and operate the system. In the event the Public Service District is not able to perform the inspections, an independent professional engineer licensed in West Virginia shall inspect and certify that the system is installed in accordance with the approved plans and permits.
 - h. Fire hydrants shall be installed in subdivisions served by existing municipal water systems or subdivisions served by a central water system that has at least 60,000 gallons of storage capacity. The hydrant shall have a minimum flow rate of 500 gallons per minute (gpm) at a residual pressure of 20 pounds per square inch (psi).
 - i. Fire hydrants shall be installed at each street intersection with additional hydrants installed where necessary to provide fire hydrants at a maximum spacing interval of 500 feet or ISO standards, whichever is less. Fire hydrants shall be connected to water lines that are at least 6 inches in diameter. Fire hydrants shall have isolation valves and be designed to drain and prevent freezing.
 - j. Fire hydrant specifications and thread sizes shall be acceptable to the West Virginia State Fire Marshal and the Jefferson County Volunteer Fireman’s Association.
 - k. Subdivisions with central water systems that do not meet the standards required for the installation and operation of fire hydrants shall provide proper tap connections at the storage site to permit water draws by pumper or tank trucks.
 - l. Fire service, dry hydrants, and cisterns (underground water storage tanks), where installed, shall meet the specifications and standards as established by the Jefferson County Office of Emergency Management; and shall be acceptable to the Chief County Engineer.

Section 320: Easements**320(a): Private Restrictions and Easements (21.401)**

Design, signage, use, management, maintenance, and cost sharing may be prescribed or limited by private covenants, conditions, or restrictions, provided that such restrictions are not in violation of County law. For any subdivision or development that involves a shared access easement, no obstruction of the full use of the easement shall be permitted. A note to this effect shall be placed on the plat or plan.

320(b)Public Easements-General (21.402)

All easements for all public (water, sewer, stormwater management or storm drainage facilities) or public service type facilities (telephone, electric, gas, cable) that serve the subdivision or site development shall be set forth on the plat or in the deed. Such easements shall be located in street right-of-ways, *alleys*, or side or rear yards as determined by the County in accordance with the particular plans and layout of the utility or other service providing company. All easements shall provide for access without notification to the property owner for the maintenance, repair, or other work needed in the easement or to the facility in the easement. The following standards shall apply to easements:

1. Utility Easements. A utility easement shall be a minimum of 15 feet wide or a width acceptable to grantor and grantee. Easements that fall on shared side or rear lot lines, unless specifically authorized by the County, shall be of equal dimensions on both lots involved. Where attached housing types are involved and yards are enclosed or very narrow, easements shall be in front or rear yards.
2. Stormwater. All stormwater facilities shall be located on open space land, on easements on the lots, or on public rights of way. Easements shall run in favor of the homeowner's association, business owner's association and any of the public service providers using the easement. Drainage easements shall be provided on all lots to ensure that stormwater channels remain clear of development. Where attached housing types are involved and yards are enclosed or very narrow, drainage easements shall be placed on lots to convey *surface water* to storm sewers located on the street or to surface drainage channels located in easements or open spaces as topography and grading dictate. Easements shall be designed for a 10 year storm event and in no case shall be less than 15 feet wide.
3. Open Space Deed Restrictions and Covenants. Deed restrictions and covenants shall preserve open space, protect natural resources, and protect land held in common or used for recreation and/or open space. All areas subject to deed restrictions or covenants shall be restricted from further residential development and shall run in favor of all lot owners in the development or the homeowner's association.
4. Encroachments, Structures, and Landscaping. No permanent encroachments, structures, fences or landscaping shall be allowed to be located within any easement area. The homeowner's association, business owner's association and any of the public service providers shall have the right to remove any encroachment, structures, landscaping, fencing or any other improvements placed upon such public easements.

5. Maintenance Access Easements. These easements shall be a minimum 15 feet wide and are primarily intended to provide access to public utilities or drainage areas that need to be maintained regularly. They are not intended to be used as access to a lot or parcel. The exception to this would be to avoid landlocking a parcel that has no other means of access. Should the homeowner's association, business owner's association, any of the public service providers or other agency with facilities in the easement need to do work in an easement, an attempt shall be made to notify the resident and owner, if feasible. If time allows, the landowner shall be permitted to remove any structure or planting. However, since the work may involve an emergency, the homeowner's association, business owner's association, any of the public service providers or other contractor may do the work, including removal or destruction of structures or landscaping. The only obligation the contractors have is to restore the ground cover if that has been disturbed in the process of the work. Any other costs shall be borne by the landowner.

Section 321: Requirements for Townhomes (5.0)

321(a): Minimum Standards and Requirements (5.1)

The requirements and standards of Division 5.0 are minimal and are not intended to discourage the use of higher standards by developers who wish to achieve more desirable results. The Planning Commission may specify additional requirements where, owing to unique or unusual characteristics, the purposes of these Regulations can be better served.

The provisions of Division 5.0 are in addition to the requirements for subdivisions found in Appendix A, *Plan & Plat Standards*, and Appendix B, *Engineering Standards*. In the event of a conflict between a requirement of the Appendices and Division 5.0, then the requirement of Division 5.0 shall apply.

321(b): Plat/Plan Requirements (5.2)

In townhouse subdivisions, the developer shall submit the necessary Preliminary Plat and Final Plat in accordance with the procedures defined in these Regulations and the Uniform Common Interest Ownership Act (UCIOA), Chapter 36B of the West Virginia Code.

See Appendix A, *Plan & Plat Standards*, for general plan/plat requirements.

321(c): Design and Construction Requirements (5.3)

In addition to the requirements of Appendix B, *Engineering Standards*, the following requirements specific to townhouse subdivisions shall apply:

1. Roads and Right of Ways (Townhome Subdivisions)
 - a. Townhouse projects shall generally have two entrances and the access to public roads shall be in accordance with Appendix B, Section 2.3, *Subdivision and Site Development Access Management*.
 - b. Townhouse subdivision roads and rights-of-way that are designed as dead-end streets shall terminate in:
 - i. Parking areas with adequate turn-around area for emergency vehicles; or a
 - ii. Circular cul-de-sac turn-around with a minimum right-of-way diameter of 100', a pavement diameter of 80', and a fillet radius of 20'. Turnarounds shall be landscaped in the center with trees, shrubs or other suitable vegetation.

- c. Roadways/streets and rights-of-way shall be in accordance with **Appendix B, Section 2.2, Streets**. However, townhouse development roads shall be a closed section with a minimum of twenty-four (24) foot width for vehicular drives.
 - d. Townhouse units shall have a conveniently located minimum 1000 sq.-ft. (i.e., 10' x 100') bus/mail box cluster pull-off area. Such area shall be asphalt paved the same as the roadway pavement section.
2. Curbs, Gutters, Sidewalks, Specific to Townhouse Subdivisions
- a. Road and parking areas must utilize curb and gutter systems in coordination with LID and BMP practices to manage stormwater in all townhouse subdivisions.
 - b. Sidewalks shall be constructed in all townhouse subdivisions to provide for pedestrian movement from parking areas to building entrances and for pedestrian movement between buildings.

Sidewalks will be located at or near the edge of roadway or curb behind the planting strip and in front of all dwelling units. All other areas will have sidewalk on at least one side of the road. Sidewalks will be a minimum of four (4) feet wide.
Where a sidewalk is located outside of a road right-of-way, it shall be identified by a separate platted right-of-way.
 - c. Roadway curbs and gutter, and sidewalks shall be constructed in accordance with **Appendix B, Section 2.2.K, Curbs, Gutters & Sidewalks**.
 - d. Right-of-way will be located a minimum of one (1) foot in back of the sidewalk; and a minimum of three (3) feet from the back of the curb or edge of roadway, when curbs are not present, in areas where sidewalks are not required.
 - e. A minimum five (5) foot public access easement shall be provided between all buildings, as approved by the County Engineer and staff.
3. Storm Drainage and Erosion Control Specific to Townhouse Subdivisions
Storm water management, storm drainage and sediment and erosion control shall be provided in accordance with the Jefferson County Stormwater Management Ordinance.
4. Utilities
- a. Townhouse subdivisions shall have public/central water and sanitary sewer systems.
 - b. Fire hydrants shall be provided in all townhouse subdivisions in accordance with **Appendix B, Section 3.1.B.9 & 3.1.B.10**. However, fire hydrant spacing shall be a maximum of 500 feet, or pursuant to the rating agency (ISO), whichever is less.
 - c. All utilities shall be underground and provided in accordance **Appendix B, Division 3.0, Utilities and Water & Sanitary Sewer Systems**.
5. Streets and Parking Area Lighting. All townhouse subdivisions shall be furnished with outside lighting units to illuminate sidewalks, parking areas and roads. Lighting units shall be placed at intervals of 125 feet maximum; or as required by the Zoning Administrator.

Lighting shall be in accordance with the Zoning Ordinance and **Appendix B, Section 2.6, *Street and Parking Area – Outside Lighting***.

6. Lots and Setbacks. Townhouse lot and building standards shall be consistent with the requirements of the Zoning Ordinance. In addition:
 - a. No more than five (5) clusters of townhouses may be located on a dead-end drive.
 - b. A group/cluster of townhouses shall not contain more than six (6) units with a continuous front, or eight (8) units total in a building of any geometric configuration.
 - c. Minimum lot size shall be 1400 square feet.
 - d. Minimum area of the development including lots, green space, parking areas and roads shall be 3500 square feet per dwelling unit.
 - e. Minimum lot width will be fourteen (14) feet.
 - f. The required minimum building restriction lines will be as follows:

Front	25	feet
Side (confronting end units)	12	feet
Street side (abutting internal subdivision street)	15	feet
Street side (abutting right-of-way equal to or more than 40')	15	feet
Rear	20	feet

7. Screening. Street trees shall be planted along the townhouse subdivision streets. Installation of street trees shall comply with standard details as established by the Chief County Engineer.

Buffer screening will be provided between common areas and adjoining properties with single family detached residences, in accordance with the Zoning Ordinance.

A landscape plan shall be submitted, in accordance with the Zoning Ordinance, for all common areas.

All on-site utilities (i.e., waste water treatment plant, water treatment plant, pump station etc.) and trash dumpsters shall be effectively screened; as required by the Zoning Ordinance.

In the event of a conflict between the provisions of **Section 5.3 herein** and the Zoning Ordinance, the provisions of the Zoning Ordinance shall prevail.

8. Parkland. Parkland shall be provided as required by **Section 21.105, *Requirements for Parkland***, of the Subdivision Regulations.

9. Parking. The minimum number of spaces shall be two (2) per dwelling unit plus 1/4 space for every bedroom.

Fifty (50) percent of garage bays plus one driveway space for every lot may be counted toward meeting the total number of parking spaces required.

Parking shall be provided in accordance with **Appendix B, Section 2.5, *Off-Street Parking Standards***.

All parking spaces, except for driveway and garage parking spaces, shall be located within the road right-of-way.

Section 322: Requirements for Condominium Subdivisions (Residential and Non-Residential) (6.0)

322(a): Minimum Requirements and Standards (6.1)

The requirements and standards of Division 6.0 are minimal and are not intended to discourage the use of higher standards by developers who wish to achieve more desirable results. The Planning Commission may specify additional requirements where, owing to unique or unusual characteristics, the purposes of these Regulations can be better served.

The provisions of Division 6.0 are in addition to the requirements for major subdivisions found in Appendix A, *Plan & Plat Standards*, and Appendix B, *Engineering Standards*. In the event of a conflict between a requirement of the Appendices and Division 6.0, then the requirement of Division 6.0 shall apply.

322(b): Plat/Plan Requirements (6.2)

In condominium development, the developer shall submit the necessary Preliminary Plat and Final Plat in accordance with the procedures defined in these Regulations and the Uniform Common Interest Ownership Act (UCIOA), Chapter 36B of the West Virginia Code. In the event that a specific provision in the UCIOA is inconsistent with the requirements of a commercial, industrial, institutional, multi-family or non-residential project, that specific provision shall not apply.

See Appendix A, *Plan & Plat Standards*, for general plan/plat requirements. Additional plan/plat requirements specific to condominium projects are as follows:

Items specific to Condominium plats

1. A project that does not want to separate the building sites for trust, lease or sale shall not have to describe the site by metes and bounds.
2. Show a dimensioned and scaled outline of each site (building site) upon which a principal land use or a principal building is to be located. The position of each building must be referenced to a station along the centerline of an interior subdivision road right-of-way, or other horizontal control approved by the County Engineer.
3. Identify each building site as to approximate acreage, proposed use, size of building (sq. ft., height and no. of stories).
4. Show the number, location and layout of parking spaces, the location and dimensions of site access entrances and exits, and the location and dimensions of sidewalks.
5. A number to identify each building site.
6. The name and a survey or general schematic map of the entire common interest community.
7. The location and dimensions of common areas, open space or areas to remain undeveloped.
8. A legally sufficient description of any real estate subject to development rights, labeled to identify the rights applicable to each parcel.

9. The extent of any encroachments by or upon any portion of the common interest community.
10. To the extent feasible, a legally sufficient description of all easements serving or burdening any portion of the common interest community.
11. The location and dimensions of any vertical unit boundaries not shown or projected on plans recorded pursuant to subsection (d) of UCIOA and that unit's identifying number.
12. The location with reference to an established datum of any horizontal unit boundaries not shown or projected on plans recorded pursuant to subsection (d) of UCIOA and that unit's identifying number.
13. A legally sufficient description of any real estate in which the unit owners will own only an estate for years, labeled as "leasehold real estate."
14. The distance between noncontiguous parcels of real estate comprising the common interest community.
15. The location and dimensions of limited common elements, including porches, balconies and patios, other than parking spaces and the other limited common elements described in Sections 2-102(2) and (4) of Chapter 36B of the West Virginia Code.
16. In the case of real estate not subject to development rights, all other matters customarily shown on land surveys.
17. A plan/plat may also show the intended location and dimensions of any contemplated improvement to be constructed anywhere within the common interests community. Any contemplated improvement shown shall be labeled as "MUST BE BUILT" or "NEED NOT BE BUILT".
18. The location and dimensions of the vertical boundaries of each unit and that unit's identifying number.
19. Any horizontal unit boundaries, with reference to an established datum, and that unit's identifying number.
20. Any units in which the declarant has reserved the right to create additional units or common elements, identified appropriately.
21. Unless the declaration provides otherwise, the horizontal boundaries of part of a unit located outside a building have the same elevation as the horizontal boundaries of the inside part and need not be depicted on the plats and plans.
22. A final list of restrictive covenants and conditions including any special covenants and conditions requested by the Planning Commission or a final statement of project rules and regulations.
23. A final project development schedule (construction schedule) for all improvements to be installed on the tract.

322(c): Design and Construction Requirements (6.3)

In addition to the requirements of Appendix B, *Engineering Standards*, the following requirements specific to condominium subdivisions shall apply:

1. Roads and Right of Ways Specific to Condominium Subdivisions
 - a. Condominium projects shall generally have two entrances and the access to public roads shall be in accordance with Appendix B, Section 2.3, *Subdivision and Site Development Access Management*.
 - b. Condominium subdivision roads and rights-of-way that are designed as dead-end streets shall terminate in:
 - i. Parking areas with adequate turn-around area for emergency vehicles; or a
 - ii. Circular cul-de-sac turn-around with a minimum right-of-way diameter of 100', a pavement diameter of 80', and a fillet radius of 20'. Turnarounds may be landscaped in the center with trees, shrubs or other suitable vegetation.
 - c. Roadways/streets and rights-of-way shall be in accordance with Appendix B, Section 2.2, *Streets*. However, condominium development roads shall be a closed section with a minimum of twenty-four (24) foot width for vehicular drives.
 - d. When condominium units are proposed for residential use, a conveniently located minimum 1000 sq. ft. (i.e., 10' x 100') bus/mail box cluster pull-off area shall be provided. Such area shall be asphalt paved the same as the roadway pavement section.
2. Curbs, Gutters, Sidewalks, Specific to Condominium Subdivisions
 - a. Road and parking areas must utilize LID stormwater management practices or curb and gutter systems to manage stormwater in all condominium subdivisions.
 - b. Sidewalks shall be constructed in all condominium subdivisions to provide for pedestrian movement from parking areas to building entrances and for pedestrian movement between buildings. Sidewalks shall be a minimum 4 feet width.

Where a sidewalk is located outside of a road right-of-way, it shall be identified by a separate platted right-of-way.
 - c. Road curbs and gutter and sidewalks shall be constructed in accordance with Appendix B, Section 2.2.K, *Curbs, Gutters & Sidewalks*.
 - d. Right-of-way will be located a minimum of one (1) foot in back of the sidewalk; and a minimum of three (3) feet from the back of the curb or edge of the roadway, when curbs are not present, in areas where sidewalks are not required.
3. Storm Water Drainage and Erosion and Sediment Control Specific to Condominiums. Storm water management, storm drainage and sediment and erosion control shall be provided in accordance with the Jefferson County Stormwater Management Ordinance.
4. Utilities
Condominium projects shall have public/central water and sanitary sewer systems.

All utilities shall be underground and provided in accordance the *Appendix B, Division 3.0, Utilities and Water & Sanitary Sewer Systems.*

5. **Street & Parking Area Lighting.** All condominium subdivisions shall be furnished with lighting units to illuminate sidewalks, parking areas and roads. Lighting units shall be placed at intervals of 125 feet maximum; or as required by the Zoning Administrator. Lighting shall be in accordance with the Zoning Ordinance and *Appendix B, Section 2.6, Street and Parking Area – Outside Lighting.*
6. **Building Sites and Setbacks**
 - a. The ratio between building site depth and width shall not exceed 3:1. Building sites with long narrow extensions (pipestems) shall not be permitted even though average depth to width ratios may not exceed 3:1. For corner lots width will be measured parallel to the designated rear line.
 - b. Acute corners of building sites shall have angles of no less than sixty-degrees, unless otherwise approved by the Engineer due to site limitations or other design considerations.
 - c. Building site boundary lines shall not extend into road rights-of-way but shall be drawn to the edge of such road rights-of-way.
 - d. Every building site shall have a minimum road frontage (width) of 80 feet along a platted road right-of-way. Lesser widths may be accepted by the Engineer along road turnarounds.
 - e. Setbacks separating condominium buildings and adjoining properties shall comply with the Zoning Ordinance.
 - f. Minimum spacing between condominium buildings and adjoining properties shall comply with the Zoning Ordinance and the following standards:
 - i. Between two buildings containing multi-family residential units:
30 feet or the height of the taller of the two buildings, whichever is greater.
 - ii. Between two buildings containing one single family unit in each building:
17 feet.
 - iii. Between two buildings containing non-residential uses:
50' or the height of the taller of the two buildings, whichever is greater.
 - iv. Between a building containing non-residential uses and a building containing any residential use:
100 feet.
 - g. For buildings which are attached to each other by a common fire-rated party wall (e.g. townhouses or duplexes), the combined units shall be considered a “single building” for purposes of determining minimum spacing between buildings.
 - h. Lots and setbacks for Residential and Multi-family condominium subdivisions shall be in accordance with the Zoning Ordinance.

7. Parkland. For residential condominium subdivisions, parkland shall be provided as required by Section 21.105, *Requirements for Parkland*, of the Subdivision Regulations.

8. Parking

- a. Parking shall be provided in accordance with Appendix B, Section 2.5, *Off-Street Parking Standards*.
- b. All parking spaces, except for driveway and garage parking spaces, shall be located within the road right-of-way.
- c. Parking for non-residential condominium subdivisions shall be provided in accordance with the requirements of the Zoning Ordinance for the proposed use.

Parking for residential/multi-family condominium subdivisions shall be provided as follows:

Type of Dwelling Unit	Minimum Number of Parking Spaces per Dwelling Unit
Efficiency (no separate bedroom)	1.00
One Bedroom	1.25
Two Bedroom	1.50
Three Bedroom	2.00
Four-plexes	2.00

Not more than fifty percent of the total area of the minimum required side and rear yards shall be occupied by parking spaces, drives, access roads running between such spaces, turnarounds or other surfaces designed for vehicular use, and no parking spaces or vehicular uses, except entrance drives, shall be located within the minimum required front yard.

9. Surveys. Requirements for surveys shall be as required by State of West Virginia laws governing property surveys, and Appendix B, Section 1.2, *Surveys*. In the event of a conflict, State law shall prevail.

10. Construction Plans and Specifications. Construction plans and specifications shall be submitted in accordance with Appendix A, Section 1.3, *Preliminary Plat or Site Plan*; and Appendix B, Section 1.3, *Construction Plans and Specifications*.

11. Construction Practices. Construction practices shall be in accordance with Appendix B, Section 1.4, *Construction Practices*.

323(d): Self-Storage Condominium Subdivisions (6.4)

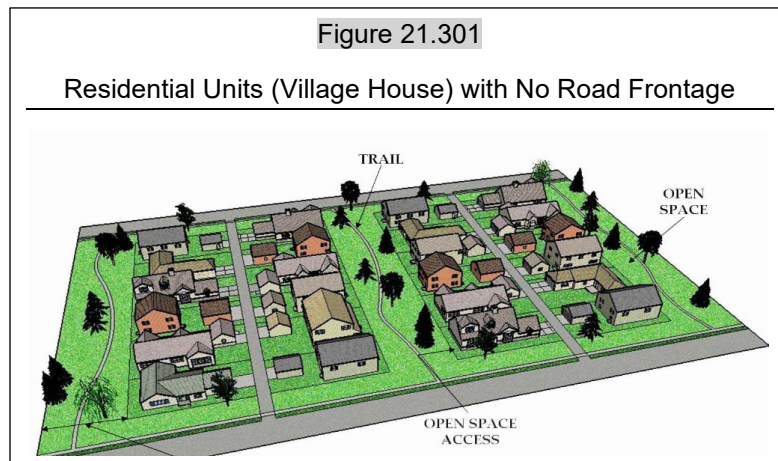
Self-storage (commonly referred to as mini-storage) projects that are developed with all units on one parcel, and where the units are for rent or lease, shall be processed as a non-residential Site Plan.

Section 323: Modification of Development Standards (21.300)

323(a): Road Frontage (21.301)

Under certain circumstances, townhouses or similar types of attached units are not required to front a street. All such units shall front an open space that meets the standards in Table 21.301, *Standards for Specific Residential Units with No Road Frontage*. The maximum distance such a unit may be away from a street depends on the distance between the lot and both the open space and an alley that provides the lots with on-site parking and emergency access. The distance requirements in Table 21.301 shall be doubled if a road or emergency access alley is available at both ends of the open space. Figure 21.301 illustrates the various conditions.

Maximum Distance from Street (ft)	
Open Access	Space Alley and Open Space Access
60	100
75	150
100	180
120	200

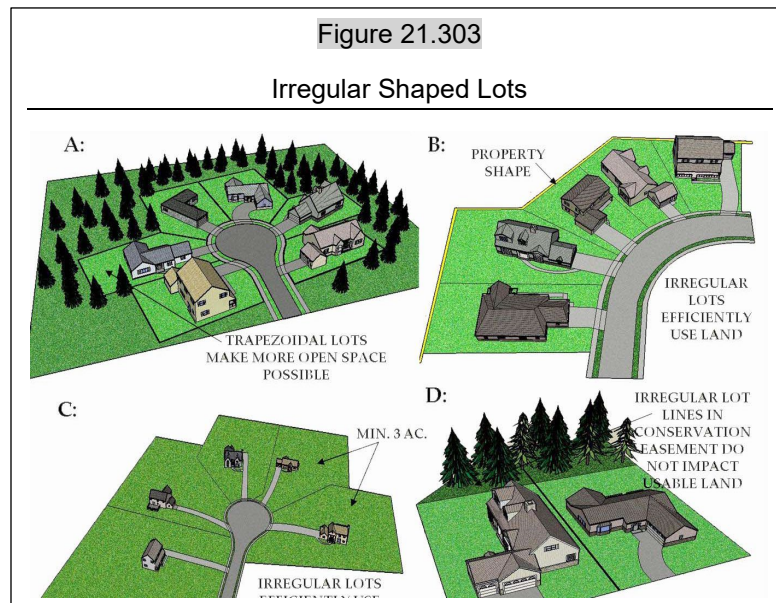


323(b): Lot Shapes (21.303)

Normally, lot shapes are rectangular or pie-shaped. This pattern works well in some cases; rectangular lots are important when lots are rather small since they provide a maximum building envelope. Pie-shaped lots can be inefficient. The most important element is that the lot contains a building construction envelope adequate for conventional house design. Lot shapes may be irregular under the following circumstances (See Figure 21.303, *Irregular Shaped Lots*):

1. Open Space. Where lots are surrounded by open space, those of approximately trapezoidal shape may be used to maximize the benefits of the open space and reduce road length. (Figure 21.303A)

2. Irregular Parent Tract. Where the property has a shape that makes it difficult to locate lots efficiently, the applicant shall be able to use irregular lot shapes, rather than waste land. (Figure 21.303B)
3. Large Lots. Where lots exceeding three acres are provided, the lot shape that provides efficient use of the land and minimum lot size may be used. (Figure 21.303C)
4. Open Space Subject to Deed Restrictions and Covenants. Portions of lots subject to deed restrictions and covenants to protect open space may have irregular shapes since they cannot be used for construction. (Figure 21.303D)
5. Construction Envelope. All lot sizes and shapes shall be reviewed to ensure that houses similar to those normally built in the district can be constructed with normal patios or decks within the building envelope.



323(c) Flag Lots (21.302)

Flag lots are generally prohibited because they increase the number of curb cuts on *arterial* or collector streets. However, conditions may exist where flag lots are reasonable and acceptable. These conditions are set forth below and illustrated in Figure 21.302, *Flag Lot Conditions*. If permitted, all flag lots shall allow access for public safety vehicles and providers of public utilities or related public services.

1. Irregular Parent Tract, Cul-De-Sac Not Feasible. If the property to be subdivided has very irregular boundaries and a narrow street and cul-de-sac are not feasible, a flag lot may be used to serve a single lot where lots are one acre or larger.
2. Resource Protection. In a resource protection area, where lots are one acre or larger, a flag lot may be used to reduce resource destruction which would have occurred by extending the cul-de-sac further into the sensitive area.

3. Avoidance of Access to Arterial. A flag lot shall be used to avoid lots taking access to arterial or collector streets, as long as the flag lot does not take access from the arterial or collector streets.
4. Minimum Access Width. The "flagpole" or "panhandle" portion of the lot shall be a minimum of 24 feet in width.
5. Shared Access. A combined curb cut for the flag lot and one or more lots may be required where the County believes such design will improve traffic safety.



323(d): Building Pads (21.304)

Where lots are greater than one acre in size and an applicant wants to locate buildings to create a more casual layout and eliminate buildings lining up along a street on the setback line, the preliminary plat shall propose building pads for each lot that are varied as to setbacks. The plan shall be approved if the following are met:

1. No Loss of Privacy. There is no loss of privacy with homes being located closer to each other than would be the case if the district setbacks were followed, unless there is a landscaped buffer provided that doubles the opacity that would be provided by adherence to the minimum district standards.
2. Environmentally Sensitive Locations. Pads are located to avoid impacts on resources or to provide a better view of protected resources or open space.
3. Landscaping. Landscaping is increased to materially enhance the character over that provided by the minimum standards.
4. Neighboring Property. Where side lot lines or rear lot lines abut an adjacent property of similar zoning, the minimum setbacks are maintained. Where the property line is an

existing residential street, the building pads may be used provided the reduction in front yards is not greater than ten percent and additional street trees or front yard landscaping is used. The Planning Commission may require building pads to be altered if it finds that they are so abruptly varied as to alter the character of the street.

Section 324: Amendments, Modification, and the Vacating of Subdivision Plats (24.202)

324(a): Amendment

The Planning Commission (or staff, in the case of a minor subdivision plat) may approve an amendment to a subdivision plat in the same manner as the plat was originally approved, provided:

1. All of the property that is affected by the amendment is under the ownership of the applicant;
2. The amendment will not affect the ownership or right of convenient access of persons owning other parts of the subdivision; and
3. The amendment complies with all of the standards of these Regulations, including verification of compliance with the Zoning Ordinance.

324(b): Minor Modification

The Zoning Administrator may authorize minor modifications to a plat if no lots have been sold as follows.

1. Design has not materially changed, in that:
 - a. The roadway patterns, including ingress-egress points, are not moved more than five feet (centerline) from their indicated location on the original plat, and are no closer to the rear or interior side property lines than shown on the original plat;
 - b. Parking areas are in the same general location and configuration;
 - c. The landscaped open space is in the same general location, is of the same or greater amount, and is configured in a manner that does not diminish a previously intended buffering effect;
 - d. The proposed perimeter walls and/or fences are in the same general location and of a comparable type and design as previously approved;
 - e. Recreational facilities, if shown on the plat, either remain the same or are converted from one recreational use to another;
 - f. If recreational facilities were not shown in the approved plat, they may be added, provided there is no increase in lot coverage or decrease in required open space and such facilities are located internally within the proposed development;
 - g. The proposed changes do not have the effect of creating any noncompliance or nonconformity with the strict application of the Zoning Ordinance that were not previously approved at public hearing, or of expanding the scope of existing variances such that they would differ to a greater degree from the strict application of the Zoning Ordinance;

2. If lots have been sold, the minor modification process shall only be used for the relocation of septic reserve locations on individual lots.

324(c): Vacating All or Part of Plat

The Planning Commission may vacate a subdivision plat either in whole or in part if it is demonstrated that:

1. The persons making application for vacating a property own the fee simple title to the whole tract, or the entirety of that part of the tract covered by the plat which is sought to be vacated;
2. Vacating the property will not affect the ownership or right of convenient access of persons owning other parts of the subdivision; and
3. All easement holders whose easements are indicated only on the plat (and not by separate recorded instrument) provide written consent to the vacating of the property.

324(d): Reformation of Approved Site Plans or Subdivision Plats to Correct Clerical or Scriveners's Errors (24.203)

1. Reformation by Application. The Zoning Administrator shall approve an application to reform a clerical or scrivener's error in a subdivision plat or site plan approval, including an error in an application or notice, which error causes the approval to not accurately reflect the approving body's intent, and where it is demonstrated that all of the following requirements are met:
 - a. The reformation does not include a change of judgment, policy, or prior intent of the approving body;
 - b. Prior to the conclusion of the public hearing at which the approval for which reformation is sought was taken (if a public hearing was required), the current applicant either did not know of the error, or knew of the error and made it known to the adopting board;
 - c. The reformation is essential to ensure that the approved subdivision plat or site plan reflects the intent of the approving body;
 - d. The record, including but not limited to the staff recommendation, minutes, and motion, evidences the clear intent of the approving body;
 - e. The substance of the decision of the approving body was evident at the time of the approval, and there was no intent to deceive the public or the approving body on the part of the current applicant at any time;
 - f. Failure to approve the reformation would lead to an unjust result;
 - g. The error in the prior approval did not mislead anyone in a way that would cause them to be prejudiced by the reformation; and
 - h. Any errors related to public notice did not affect the legal sufficiency of the required notice.

2. Reformation by Zoning Administrator. Notwithstanding the foregoing provisions, the Zoning Administrator, within 30 days of the approval of a subdivision plat or site plan, may reform a clerical or scrivener's error without public notice, if:
 - a. The error is not related to public notice, and
 - b. The error causes the approval as written to inaccurately reflect the clear decision of the approving body.
3. Relation Back. A reformed approval shall relate back to the original approval and the effective date of the corrected language shall be deemed to be the same as the effective date of the previous approval.

Section 325: Appeals (24.400)

An appeal of a decision of the Planning Commission or staff regarding subdivision or site development decisions shall be taken directly to Circuit Court of Jefferson County, West Virginia, pursuant to W.Va. Code §8A-5-10 and §8A-9-1, et seq.

ARTICLE IV: SITE DEVELOPMENT, REVIEW PROCESSES, AND DESIGN STANDARDS

Section 400: Processing of Applications (24.100)

The review and approval process of subdivision plats and site developments plans is different for major and minor subdivisions and major and minor site developments.

[Greenway: This is duplicate introduction language from Article 3, per staff request.]

Section 401: Types of Development (20.200)(20.201)

Unless explicitly stated within the individual sections listed in this Division, all requirements of these Regulations apply to each of the types of development listed below. Appendix A and Appendix B are included as requirements. Each development type shall comply with the requirements of the zone district in which it is located and may be limited by that zone's restrictions. Residue parcels from which development rights have been utilized prior to the effective date of these Regulations shall remain as residue parcels. Such parcels shall be limited to the number of development rights to which the parcel was entitled prior to the effective date of these Regulations. Excluded are developments for the purpose of extraction or harvesting of resources and for roads on agricultural land for the purpose of conducting the agricultural operation.⁸

Section 402: Application and Approval Process (24.101)

Section 403: Application Fees (24.103)

Fees shall be charged for applications pursuant to these Regulations as provided in a Schedule of Fees established by the County Commission, which may be revised from time to time. Such fees shall be proportioned to the cost of processing, reviewing and verifying, and approving proposed subdivision plans or site plans for development.

Section 404: Pre-Proposal Conference (24.103)

For all major subdivisions and site developments, a pre-proposal conference (PPC) is optional, but highly recommended. A PPC is an informal meeting where the applicant can talk to County staff, ask questions, and get direction on preparing the plat or plan in accordance with County regulations.

404(a): Submission

A brief form that identifies the property, describes the proposal, and a sketch plan are required. If there is a preliminary concept plan, it is strongly recommended that it also be submitted at this time as this will allow discussion at a more detailed level. Applicants who wish to have a pre-proposal review of a proposed Minor Subdivision and who submit the brief form with an eligibility checklist and sketch plan, shall waive the PPC unless specifically requested.

404(b): Scheduling

Staff shall schedule the PPC and hold it within fifteen days from receipt of the form and sketch plan submittal.

404(c): Discussion Items

12. Concept plans and ideas regarding land use, street and lot arrangements, and tentative lot sizes.
13. Tentative proposals regarding water supply, sewage disposal, surface drainage, highway access and street improvements, and public recreational facilities.
14. Presentation of tentative density calculations based on the zoning district in which it will be located.
15. Identification of potential environmental constraints and tentative mitigation measures, as required in the Zoning Ordinance and these **Regulations**.
16. Anticipated timing of proposed subdivision or development project.

404(d): Conference

The conference shall involve an informal presentation by the applicant as to the proposal. Department staff will respond to this and make any recommendations or comments that are possible with the level of detail that is submitted. Concept plan application forms will be provided by staff. A question and answer period on the submittal will follow to best inform the applicant of the process and requirements of the application.

404(e): Conference Memorandum or Review Checklist

Within ten days, after the PPC is held, the Department shall prepare a memorandum that identifies the proposal and indicates any specific guidance given to the developer. It shall be sent to the applicant and Planning Commission. After review of any minor subdivision which utilizes the eligibility checklist, the checklist shall be returned to the applicant with a stamp of approval or disapproval. Said approval shall be applicable for a period of two years, with the provision that any amendments to these **Regulations** or the Zoning Ordinance in the second year shall control. If any zoning changes have been presented in a public hearing prior to the approval of an eligibility checklist, then meeting the amended zoning requirements, if adopted, shall be a condition of the approval.

404(f): Effect

The PPC is an informational meeting and has no effect other than information being exchanged. Staff approval of an eligibility checklist permits the applicant to proceed to Final Plat submission.

404(g): Site Plan General Review Standards **(20.303)**

The site plan process occurs on existing lot(s) with no public roads being built but where private drives, circulation, and parking will be needed. Utility systems that the County will rely on to serve the new development and drainage are also required. Site plans create an area where people will live and work. Site plan review involves the technical and engineering aspects of the proposed site plan in order to ensure that a safe and efficient neighborhood is created. The design of the site is also important to ensure that the site plan achieves the intended results. This section sets forth the design review criteria and the body charged with making the determination Stormwater Management Plans may be required for inclusion based upon applicability standards defined in the Jefferson County Stormwater Management Ordinance. In conducting a review, the staff shall make a report and recommendations on design, and the Planning Commission shall make a decision, based on the following:

1. Natural Resources. The site plan works with the natural conditions of the property so as to minimize destruction of the natural resources and maximize the value of the lots for the developer and eventual residents or users. The site plan protects the site's natural resources as required by the Zoning Ordinance.
 - a. Staff shall advise whether the minimum standards are met.
 - b. The Planning Commission shall review:
 - i. The lot and internal circulation layout to better achieve the level of protection by maintaining linked open space.
 - ii. Adjust the location of the open space or landscaped surface area to protect areas of the resource that are most valuable or of highest quality. The location may also be adjusted to protect water quality by better buffering streams or water bodies.
 - iii. If it is generally desirable that one on-site resource be protected at a greater level than another on-site resource due to the unique conditions of the property, the Planning Commission may recommend the developer seek a waiver of the resource protection standards in order to provide greater protection for the identified on-site resource.
2. Adjoining Properties. The plan promotes the best design for the use of the property in relation to the development's function and nearby existing or in-process developments.
 - a. Staff shall advise whether the minimum bufferyard standards of the Zoning Ordinance are met.
 - b. During the concept plan stage, the Planning Commission may review as follows:
 - i. The site plan to see if an alternative layout would provide greater compatibility by increasing the distance of a development from neighbors where feasible.
 - ii. Where an alternative distribution of plant material within a bufferyard would better protect a specific area.
3. Drainage. The drainage shall be efficiently and unobtrusively integrated into the design and shall avoid off-site impacts. The standards for stormwater are described in the Jefferson County Stormwater Management Ordinance.
 - a. The County Engineer shall be responsible for advising whether the Stormwater Management Plan meets the required standards described in the Jefferson County Stormwater Management Ordinance.
 - b. The Planning Commission may seek to use natural surface drainage or encourage the use of Low Impact Development (LID) techniques (see the Jefferson County Stormwater Management Ordinance) wherever possible.
4. Internal Circulation. All internal roads or parking lots create a circulation pattern which shall provide for the safe, efficient, and convenient movement of vehicular and pedestrian traffic. Within the context of overall community development, the internal circulation system should promote and encourage the increased use of pedestrian and bicycle movement among residential, local shopping, schools, and other areas. Where adjoining

developments have stubbed streets the connections shall be made, and the Planning Commission shall require them.

5. Utilities. Adequate provisions are made for sewer and water.
 - a. The determinations of adequacy shall be made by the Planning Commission after consultation with appropriate agencies responsible for providing water and wastewater treatment for the area in which the proposed subdivision or development project is located.
 - b. The Planning Commission may request that specific problems be considered and addressed by the agencies in the recommendations of the concept plan.
6. Landscaping. The site plan landscaping layout shall promote the zoning classification's qualities and character and meet or exceed the landscaping standards of the Zoning Ordinance. Bufferyard landscaping shall be located to achieve the screening objectives and, where possible, enhance open space objectives beyond the minimum requirements.
 - a. The staff shall advise whether the zoning standards are met.
 - b. The Planning Commission shall work to ensure that required landscaping is located to best achieve the screening, protection, and overall character to enhance the value of the property. It may authorize moving plant material around, but not require more plant material than required by zoning.
7. Intensity. In reviewing a site plan pursuant to **A through G above**, no requirement shall lower the permitted floor area except as provided in 1 to 3 below. The review of site plans is ministerial. There is no discretion to alter density or intensity of development downward if the plan meets all zoning standards. The concept plan reviews are intended to encourage or require site plan modifications that improve design. The Zoning Ordinance sets the maximum intensity and includes the environmental regulations to ensure that a site is not over-developed based on its unique conditions. The design review shall focus on revising the site plan by altering building configuration, circulation and parking design, landscaping, or other site plan elements, but not by altering development intensity unless it exceeds Ordinance standards as indicated by the staff review.
 - a. A street extension planned in existing development runs through the property.
 - b. A denial is also possible where the Planning Commission determines that public or community sewer and/or water facilities are required and the agencies responsible for water and sewer find that these services cannot be provided by the developer or another provider.
 - c. The Planning Commission may impose conditions for a lower intensity when proffered by the developer.
 - d. The Zoning Ordinance provides flexibility and incentives for good design and provides for ways to waive specific standards in certain circumstances. The Planning Commission's role is to work with the developer to achieve the best site plan for the property at the densities or intensity of uses that are permitted by the Zoning Ordinance.

404(h): Site Development Classifications (20.203(b))

All Minor Site Developments shall be processed utilizing one of the following Site Plan Classifications. Unless explicitly stated within this Section, all requirements of these Regulations apply to each of the classifications below, including the requirements of Appendix A and Appendix B. Minor Site Development may require Stormwater Management Plans and stormwater management activities per the Jefferson County Stormwater Management Ordinance.

1. No Site Plan or Stormwater Management Plan. No site plan is required for additions to existing structures or structures ancillary to existing uses on a property, when:
 - a. The footprint of the addition or the new structure is less than 1,200 square feet; and
 - b. No additional parking is required per Zoning Ordinance standards; and
 - c. The disturbed area is no more than 5,000 square feet.

Note: Once the total of any additions or new structures processed under this provision since October 5, 1988 exceeds 1,200 square feet, it shall process as a Limited Site Plan or a Full Site Plan, as appropriate.

2. Limited Site Plan. A site plan limited to basic information needed to address (a) erosion and sediment control, (b) parking requirements for the expanded use, (c) stormwater management (quantity and quality) for the additional impervious area only, (d) handicapped access to the existing and proposed structures and (e) compliance with the Zoning Ordinance, may be used on sites where the structure is:
 - a. An addition to an existing structure, or, ancillary to an existing use; and
 - b. The footprint does not exceed 3,000 square feet or 35% of the existing structure, whichever is smaller.
 - c. For a home occupation or cottage industry, the limited site plan standards are applicable if a site plan is required pursuant to the Zoning Ordinance.²
3. Full Site Plan. Any development which does not meet all of the criteria for a limited site plan shall meet all the requirements of these Regulations.

404(i): Site Development Exception (20.203(c))

All non-residential agricultural uses or principal permitted uses in the Rural District that require the construction of a structure other than a residence or other than a structure for private agricultural use that is not intended for public use may utilize this Site Plan Exception. All Minor Site Developments in the Rural District shall be classified per Section 20.203.B⁴ and shall meet all requirements of the Site Plan Classification except for the following:

1. Parking Areas and Access Drives. Parking areas and access drives (except for the concrete apron) are not required to be asphalt or concrete paved but shall have at least 6" of stone/gravel and be graded in a manner that ensures water will not pool on the primary parking area. No curbs and gutters will be required provided the development conforms to the requirement of Section 2.

If the development is of a size or nature that requires the provision of handicapped parking spaces, such spaces shall be paved with asphalt or concrete and a similar paved surface accessing the front of the structure from the parking pad shall be required as detailed in Appendix B, Sec. 2.5(G), *Off Street Parking Standards*.

2. Rural Storm Drainage and Management. Development which is proposed in the Rural zoning district which wishes to take advantage of this Exception is required to utilize Low Impact Development (LID) techniques and provide stormwater management (quantity and quality) for the additional impervious area only.

Where, in the judgment of staff, a proposal does not meet the intent of this Exception or the intent of these Regulations, this Exception may not be utilized. The reason for such a determination shall be provided to the applicant in writing. The determination may be appealed to the Planning Commission for consideration and classification.

Section 405: Minor Site Development (20.203)

Minor Site Developments are those proposals that do not require the development of new off-tract infrastructure or the extension of existing off-tract infrastructure.

1. Minor Site Development Determination
 - a. Minor Site Developments are determined using the criteria in this Section. Existing single family structures used as a single family residence and existing agricultural structures are not included in the square footage computations below. Building(s), both new and additions to existing, where new structures or new additions to structures located on the parcel total less than 5,000 square feet gross floor area (GFA) on any site shall process administratively.
 - b. Building(s), both new and additions to existing, where all new structures or new additions to structures located on the parcel total more than 5,000 and less than 250,000 square feet gross floor area (GFA) on any site shall:
 - i. Process a concept plan with a public workshop and all remaining site plan review processes shall be administratively approved.
 - ii. In the event that any condition(s) placed upon a site plan during the concept plan public workshop that cannot be addressed or resolved administratively, such condition(s) placed upon the concept plan at the public workshop shall return to the Planning Commission for resolution.
 - c. Building(s), both new and additions to existing, regardless of size, when located in a business and/or industrial park on a lot within an approved major non-residential subdivision with master planned roads and stormwater. Section 20.203 Sub-Section (2) does not apply to this provision;
 - d. Apartment or multi-family development.
 - a. If apartment or multi-family development project proposes 10 units or more, applicant shall process a concept plan with a public workshop and all remaining site plan review processes shall be administratively approved.

- e. New wireless Telecommunication Facilities (Cell Towers) shall: Process a concept plan with a public workshop in accordance with Article 4B of the Jefferson County Zoning and Land Development Ordinance and all remaining site plan review processes shall be administratively approved.
- f. Campgrounds (See Appendix B, Division 8) shall process as a Minor Site Development: except that:
 - 1. Campgrounds proposing more than 10 sites shall process a concept plan with a public workshop in accordance with Article 4B of the Jefferson County Zoning and Land Development Ordinance and all remaining site plan review processes shall be administratively approved.

In the event that any condition(s) placed upon a site plan during the concept plan public workshop that cannot be addressed or resolved administratively, such condition(s) placed upon the concept plan at the public workshop shall return to the Planning Commission for resolution.

Section 406: Minor Site Development Application Review Processes

406(a): Minor Site Development Application-Determination (24.105)

1. General. An applicant for a minor site plan, who does not schedule a pre-proposal conference, shall be subject to the procedures of this Section upon submittal of a copy of a site plan application and the corresponding fees to the Planning Commission. All minor site plans shall follow the site plan standards in Appendix A, *Plan & Plat Standards*. If a pre-proposal conference is held, a determination can be made by Staff as to whether a Concept Plan is required and the applicant may proceed to Section 24.106.
2. Site Inspection. The staff shall make a site inspection of the site plan.
3. Determination. Within ten days after the submission of the site plan, the staff shall notify the applicant in writing that the proposed site plan has or has not been classified a minor site development. If the Staff determines that the Site Plan has been classified as a minor site development and requires a Concept Plan in accordance with Section 20.203, then the project shall proceed with Section 24.106, Minor Site Plan Concept Plan. All other Minor Site Plans (under 5,000 sq. ft. and in the Industrial/Business Park) shall proceed under this section.
4. Approval. Within ten days after the site plan has been classified as minor site plan, the staff shall approve, approve with conditions, or deny the site plan. If the Site Plan is approved with conditions or denied, then Staff may schedule a Staff Review Conference to discuss comments upon request by Staff or the applicant. The purpose of the Staff Review Conference is for Staff, applicant, and design consultant to exchange checklists, ideas, suggestions, and questions regarding the applicable Site Plan regulations as it related to the submitted Site Plan and support data.

(For minor site plan criteria see the definition, Site Plan, Minor and Sec. 20.203, Minor Site Development.)

406(b): Minor Site Development Concept Plan-Submission and Completeness Review (24.106)

The submission of a Concept Plan is a required step for Minor Site Plans determined in Section 24.105. The Department shall have 45 days to complete the sufficiency and completeness review. At the time of submission, the Concept Plan shall be placed on the first regularly scheduled Planning Commission meeting after the 45 day review period for the public workshop. Within the 45 days, the Department shall have ten (10) days to review the submission and determine whether it is sufficient in that it includes all of the items listed below. If the submission is insufficient, it shall be returned to the applicant. In order to keep on the proposed schedule, the applicant shall resubmit within ten (10) days after being notified of insufficiency. For the review to be complete within 45 days and remain on the scheduled Planning Commission meeting, all review material, including outside agency reviews, shall be returned to the Office of Planning and Zoning at least 14 days prior to the scheduled Planning Commission workshop.

1. Submission. The applicant is responsible for submitting an application and all supporting documents to the Office of Planning and Zoning. It shall be accompanied by the fee for Concept Plan review.
2. Submission Contents. The submission shall contain the following elements in the number of copies indicated by staff.
 - a. General location. A map or aerial photograph showing an area of 500 feet around the property. Zoning boundaries shall be located in this document.
 - b. Concept Plan. A Concept Plan shall be submitted in accordance with the content and formatting guidelines provided in Appendix A, *Plan & Plat Standards*. Show or note if all features are addressed.
 - c. Zoning Information. This shall include:
 - i. Determination of the zoning district in which the proposed Site Plan project is situated.
 - ii. Density calculations.
 - iii. Site resource map (see definition).
 - iv. Use designations for all adjoining and confronting parcels.
 - d. Proposed Description. This shall be a written description of the proposal with general identification of the number of dwelling units or floor area proposed, commentary, zoning, and development option selected if the development is multifamily residential.
 - e. Traffic Impact Data. This shall include:
 - i. ADT figures for the adjoining or accessible State road.
 - ii. Trip generation figures based on the following table:

USE	PEAK HOUR	AVERAGE DAILY
Townhouse	0.6	7.0 per d.u.
Mobile Home	0.6	5.0 per d.u.
Light Industrial	1.2	5.5 per 1,000 s.f.

Industrial Park	0.99	7.0 per 1,000 s.f.
Warehousing	1.63	4.9 per 1,000 s.f.
Mini-Warehousing	0.29	2.8 per 1,000 s.f.
Office	2.82	17.7 per 1,000 s.f.
Small Shopping Center	15.51	118.0 per 1,000 s.f.
Convenience Market	54.80	625/1,000 leasable s.f.

- iii. Nearest key intersection that will serve the proposed project. A “key intersection” is defined as any intersection with a primary or secondary highway as classified by the current Comprehensive Plan.
 - iv. “Highway Problem Areas” according to the current Comprehensive Plan that falls within a one-mile radius of the project.
 - v. If use is not listed in the table above, the most current edition of the Institute of Transportation Engineers Trip Generation Manual or Handbook shall be referenced to determine appropriate trip generation figures.
 - f. A traffic study may be required only at the request and direction of the West Virginia Division of Highways. Any required traffic study or a letter from the West Virginia Division of Highways outlining the proposed improvements shall be received with the first submission of the Site Plan.
 - g. Agency Reviews. The reviewing agencies shall conduct reviews of the proposed Concept plan. Agency comments shall be received by the Department 14 days prior to the scheduled public workshop. The applicant shall distribute the Concept Plan to all reviewing agencies no later than seven (7) days after the review. Reviewing agencies are found in Sections 23.203 and 23.204. Applicant shall provide a copy of letter sent to outside agencies to the Office of Planning and Zoning within seven (7) days of submission of Concept Plan. If any review agency fails to respond, they shall be deemed by these Regulations to have approved the Plan.
 - h. Other Data. Any other data or information the applicant believes will assist in the review.
 - i. Other Review. Any other Staff or agency reviews of the plans.
 - j. Adjoining Property. The applicant must provide an accurate list of all properties and owners’ addresses adjoining the subject property. The adjoining and Homeowners’ Association shall be notified by Staff of the date of the workshop.
3. Review Content. The Department and agency reviews shall address the areas indicated in **D through G below** and nay other areas of concern to the agencies.
4. Department. The Department review shall include the following:
- a. Whether the density, use, and plan meet the requirements of the Zoning Ordinance and any other zoning issues that can be identified at the Concept Plan submission. (Landscaping, for instance, is not generally available at this stage.) Staff shall identify

- conditions that would enable the plan to meet the standards. It shall also identify any other zoning issues the developer shall address in a Site Plan submittal.
- b. Staff opinion as to whether the plan meets the Site Plan criteria of these Regulations. The Department shall review the Concept Plan for modifications that would improve the plan.
5. WVDOH. WVDOH shall submit a letter to the Office of Planning and Zoning indicating issues and data requirements or notice that there are no issues or data requirements. If WVDOH determines that a traffic study needs to include more area than required by these Regulations or the Zoning Ordinance, it shall specify the expanded area. Any issues regarding sight distances, access location, road configuration, or off-site improvements shall be noted with recommendations or required changes. The purpose is to ensure that, at Preliminary Plat review, all transportation information is available so the agency does not have to seek additional data for a qualitative review.
 6. Traffic Impact. The review shall indicate whether a traffic impact study will be required based on analysis required in [Section 24.119.B.5.e](#).
 7. Public Services. The review shall indicate whether there are existing water and sewer systems in place that can handle the development. If not, the review shall indicate the type of extent of a system that shall be proposed by the developer to best meet the County's needs in that area of the County.
 8. Recommended Conditions. All reviews shall contain recommended conditions for moving forward to a Site Plan or reasons why the Plan shall be denied.
 9. Approval. Unless there are reviews indicating that the development cannot conform to the Zoning Ordinance, be serviced by public services, or provide its own utilities, or other factors that make the development impossible, Planning Staff shall accept or deny the Concept Plan as complete.
 10. Effect. At the time of submission, the Concept Plan shall be placed on the first regularly scheduled Planning Commission meeting after the 45 day review period for the public workshop. Staff shall advertise the public workshop in a local newspaper of general circulation in the area one time at least 21 days in advance of the meeting and send notice by mail to the adjoining property owners at least 14 days prior to the meeting. The applicant shall post notice on the property at least 14 days in advance of the meeting.

406(c): Minor Site Development Concept Plan-Workshop (24.107)

At the scheduled Planning Commission meeting, the Planning Commission shall hold a public workshop to take public comments, concerns, and input on the proposed Concept Plan. This workshop is intended to provide the developer and the Planning Commission with said public input.

1. Planning Presentation. The developer shall make a short presentation of the plan.
2. Agency Comments. The Staff shall briefly outline agency comments. The Office of Planning and Zoning shall specifically address whether the project can meet the standards of the Zoning Ordinance.
3. Public Comment. The public will be invited to comment. The Planning commission shall direct participants to briefly cite concerns or ask questions of the Planning Commission. The intent of this procedure, like the Department comments, is to inform the developer and Planning Commission with regard to issues that should be addressed in the Site Plan and report such transportation or engineering matters.

406(d): Minor Site Development Process After Concept Plan Direction (24.109)

1. Formal Plan Submission. An application, applicable fees, two copies of a Site Plan as outlined in Appendices A and B, two copies of Stormwater Management Calculations with Stormwater Narrative and all other applicable Site Plan support material can be submitted after the Concept Plan direction is given by the Planning Commission.
2. Required Elements. Within ten (10) days, Engineering Staff shall determine if the Site Plan is sufficient and support material contains at least 70 percent of the required elements of a Site Plan submission.
3. Timing. Within ten (10) days after the Site Plan has been deemed sufficient, Staff shall approve, approve with conditions, or deny the Site Plan. If the Site Plan is approved with conditions or denied, Staff will schedule a Staff Review Conference to discuss comments.
4. Staff Review Conference. If Site Plan is approved with conditions or denied, then staff will schedule a Staff Review Conference to discuss comments. The purpose of the Staff Review Conference is for Staff, applicant, and design consultant to exchange checklists, ideas, suggestions, and questions regarding the applicable Site Plan regulations as it relates to the submitted Site Plan and support data. Staff shall send out a notice through the County Alerts system noticing a Staff Review Conference will be held on the first available Staff Review Schedule, which is posted in the Office of Planning and Zoning. This Staff Review Conference shall be open to the public, but will be conducted only between Staff, applicant, and design consultant. The design consultant is required to attend, or the Staff Review Conference will be postponed to the next available Staff Review Conference meeting date.
5. Site Plan Approval. Once the Staff Review Conference is held, the Site Plan will be exchanged back and forth between the design consultant and Staff via the approved checklist process until such time that the Staff believes that the Site Plan and support data meets all applicable local and state regulations. Once the Staff determines that the Site Plan meets all such regulations, the Staff shall approve the Site Plan and allow the project to proceed to bond the project under the current Jefferson County Bonding Policy. All Health

Department, Highway Department, Public Service District, WVDEP, and other applicable State and local agency approvals shall be in place prior to Staff's approval.

6. Site Plan/Checklist Approval Process. Under Section D above, the applicant may at any time request to be on the Planning Commission agenda pursuant to current agenda rules, in order to request that the Planning Commission approve the Site Plan if the applicant believes that the Site Plan meets the Site Plan rules and regulations.

Section 407: Major Site Development Application Review Process

Section 408 Major Site Development (20.204) (20.300)

Major site developments are those proposals that require the development of new infrastructure or the extension of off-tract infrastructure or where the proposal does not meet the definition of a minor site development. This covers the development of one or more parcels of land where there is no subdivision into separate lots. If the development requires easements for drainage or other purposes, private roads, or parking, and access to public roads is involved that serve one or more land uses, it is a site development. Excluded are developments for the purpose of extraction or harvesting of resources and for roads on agricultural land for the purpose of conducting the agricultural operation. Re-subdivision or adjustments of lot lines are also excluded. Major site development shall adhere to Full Site Plan requirements in all proposals.³

408(a): Site Plan Concept Plan-Submission and Completeness Review (24.119)

The submission of a concept plan is a required step for major site plans. The Department shall have 45 days to complete the sufficiency and completeness review. At the time of submission, Concept Plan shall be placed on the first regularly scheduled Planning Commission meeting after the 45 day review period for the public workshop. Within the 45 days, the Department shall have ten (10) days to review the submission and determine whether it is sufficient in that it includes all of the items listed below. If the submission is insufficient, it shall be returned to the applicant. In order to keep on the proposed schedule, the applicant shall resubmit within 10 days after being notified of insufficiency. For the review to be complete within 45 days and remain on the scheduled Planning Commission meeting, all reviewing material, including outside agency reviews, shall be returned to the Office of Planning and Zoning at least 14 days prior to the scheduled Planning Commission workshop.

1. Submission. The applicant is responsible for submitting an application and all supporting documents to the Office of Planning and Zoning. It shall be accompanied by the fee for concept plan review.
2. Submission Contents. The submission shall contain the following elements in the number of copies indicated by staff.
 - a. General location. A map or aerial photograph showing an area of 500 feet around the property. Zoning boundaries shall be located on this document.
 - b. Concept Plan. A Concept Plan shall be submitted in accordance with the content and formatting guidelines provided in Appendix A, *Plan & Plat Standards*. Show or note if all features are addressed.

- c. Zoning Information. This shall include:
 - i. Determination of the zoning district in which the proposed site plan project is situated.
 - ii. Density calculations.
 - iii. Site resource map. (See definition)
 - iv. Use designations for all adjoining and confronting parcels.
- d. Proposal Description. This shall be a written description of the proposal with general identification of the number of dwelling units or floor area proposed, commentary, zoning, and development option selected if the development is multifamily residential.
- e. Traffic Impact Data. This shall include:
 - i. ADT figures for the adjoining or accessible State road.
 - ii. Trip generation figures based on the following table:

USE	PEAK HOUR	AVERAGE DAILY
Townhouse	0.6	7.0 per d.u.
Mobile Home	0.6	5.0 per d.u.
Light Industrial	1.2	5.5 per 1000 s.f.
Industrial Park	0.99	7.0 per 1000 s.f.
Warehousing	1.63	4.9 per 1000 s.f.
Mini-warehousing	0.29	2.8 per 1000 s.f.
Office	2.82	17.7 per 1000 s.f.
Small Shopping Center	15.51	118.0 per 1000 s.f.
Convenience Market	54.80	625/1000 leasable s.f.

- iii. Nearest key intersection that will serve the proposed project. A “key intersection” is defined as any intersection with a primary or secondary highway as classified by the current Comprehensive Plan.
 - iv. “Highway Problem Areas” according to the current Comprehensive Plan that falls within a one-mile radius of the project.
 - v. If a use is not listed in the table above, the most current edition of the Institute of Transportation Engineers Trip Generation Manual or Handbook shall be referenced to determine appropriate trip generation figures.
- f. In the event trip generation in the peak hour exceeds 100 or the limitation designated in the most current DOH Traffic Engineering Directive, a traffic study will be required which includes generators, etc. or unless the West Virginia Division of Highways has created an agreement with the applicant to provide site access improvements that are typically required by a traffic study, the traffic study shall not be required. This type of study should be performed by a traffic engineering consultant. The effect of phasing the subdivision shall be cumulative. The traffic study or a letter from the West Virginia Division of Highways outlining

- the proposed improvements shall be received with the first submission of the site plan.⁴
- g. Agency Reviews. The reviewing agencies shall conduct reviews of the proposed concept plan. Agency comments shall be received by the Department fourteen (14) days prior to the scheduled public workshop. The applicant shall distribute the concept plan to all reviewing agencies no later than 7 days after the review. Reviewing agencies are found in Sections 23.203 and 23.204. Applicant shall provide copy of letter sent to outside agencies to the Office of Planning and Zoning within seven (7) days of submission of Concept Plan. If any review agency failed to respond, they shall be deemed by these Regulations to have approved the plan.
 - h. Other Data. Any other data or information the applicant believes will assist in the review.
 - i. Other Reviews. Any other staff or agency reviews of the plans.
 - j. Adjoining Property. The applicant must provide an accurate list of all properties and owners' addresses adjoining the subject property. The adjoining and Homeowner's Associations shall be notified by staff of the date of the workshop.
3. Review Content. The Department and agency reviews shall address the areas indicated in D through G below and any other areas of concern to the agencies.
 4. Department. The Department review shall include the following:
 - a. Whether the density, use, and plan meet the requirements of the Zoning Ordinance and any other zoning issues that can be identified at the concept plan submission. (Landscaping, for instance, is not generally available at this stage). Staff shall identify conditions that would enable the plan to meet the standards. It shall also identify any other zoning issues the developer shall address in a site plan submittal.
 - b. Staff opinion as to whether the plan meets the site plan criteria of these Regulations. The Department shall review the concept plan for modifications that would improve the plan.
 5. WVDOH. WVDOH shall submit a letter to the Office of Planning and Zoning indicating issues and data requirements or notice that there are no issues or data requirements. If WVDOH determines that a traffic study needs to include more area than required by these Regulations or the Zoning Ordinance, it shall specify the expanded area. Any issues regarding sight distances, access location, road configuration, or off-site improvements shall be noted with recommendations or required changes. The purpose is to ensure that, at preliminary plat review, all transportation information is available, so the agency does not have to seek additional data for a qualitative review.
 6. Traffic Impact. The review shall indicate whether a traffic impact study will be required based on analysis required in 24.119.B.5.e.

7. **Public Services.** The review shall indicate whether there are existing water and sewer systems in place that can handle the development. If not, the review shall indicate the type or extent of a system that shall be proposed by the developer to best meet the County's needs in that area of the County.
8. **Recommended Conditions.** All reviews shall contain recommended conditions for moving forward to a site plan or reasons why the plan should be denied.
9. **Approval.** Unless there are reviews indicating that the development cannot conform to the Zoning Ordinance, be serviced by public services, or provide its own utilities, or other factors that make the development impossible, Planning Staff shall accept or deny the concept plan as complete.
10. **Effect.** At the time of submission, the concept plan shall be placed on the 1st regularly scheduled Planning Commission meeting after the 45 day review period for the public workshop. Staff shall advertise the public workshop in a local newspaper of general circulation in the area one time at least twenty-one (21) days in advance of the meeting and send notice by mail to the adjoining property owners at least fourteen (14) days prior to the meeting. The applicant shall post notice on the property at least fourteen (14) days in advance of the meeting.

408(b): Major Site Plan Concept Plan-Public Workshop (24.120)

At the scheduled Planning Commission meeting, the Planning Commission shall hold a public workshop to take public comments, concerns, and inputs on the proposed concept plan. This workshop is intended to provide the developer and the Planning Commission with said public input.

1. **Plan Presentation.** The developer shall make a short presentation of the plan.
2. **Agency Comments.** The staff shall briefly outline agency comments. The Office of Planning and Zoning shall specifically address whether the project can meet the standards of the Zoning Ordinance.
3. **Public Comment.** The public will be invited to comment. The Planning Commission shall direct participants to briefly cite concerns or ask questions of the Planning Commission. The intent of this procedure, like the Department comments, is to inform the developer and Planning Commission with regard to issues that should be addressed in the site plan and report such transportation or engineering matters.

Section 409: Major Site Development (20.204)

409(a): Major Site Plan Concept Plan-Direction (24.121)

After the close of the public workshop, the Planning Commission shall, during their regular meeting or at a specific public meeting within 14 days, provide direction on the concept plan. If

the Planning Commission decides to postpone action for 14 days, the workshop shall be closed for public comment; however the applicant or designated representative will be permitted to interact with the Planning Commission at that meeting to answer questions raised during the public comment at the workshop.

1. Direction. The Planning Commission shall direct the preparation of a site plan subject to conditions to be addressed in the site plan application. The purpose of this review is to guide the developer so that when the site plan application is formally reviewed by the staff, there should not be a whole range of issues being raised for the first time. The developer shall cite conditions and demonstrate that they have been met or otherwise addressed.
2. Conditions. In the direction, it is anticipated that there will be numerous conditions from the Department, agencies, and public comment. There may well be public comment that seeks to lower density of the project below that permitted by the Zoning Ordinance, or to deny the project because of concerns outside the scope of the zoning or subdivision regulations. The applicant may make proffers to address these concerns, but the Planning Commission may not use them as conditions, unless they are proffered by the applicant.
3. Effect. The direction is to the developer to proceed to prepare a site plan (Section 24.122, *Major Site Plan Application – Submission and Completeness Review*). The direction received in the Concept Plan Public Workshop shall be applicable for a period of two years, with the provision that any amendments to these Regulations or the Zoning Ordinance in the second year shall control. If any zoning changes have been presented in a public hearing prior to the decision on the concept plan direction, then meeting the amended zoning requirements, if adopted, shall be a condition of the direction.

409(b): Major Site Plan Application-Submission and Completeness Review (24.122)

The submission of a site plan application is a required step for all major site plans. The Department shall have 45 days to complete the sufficiency and completeness review. Within the 45 days, the Department shall have ten (10) days to review the submission and determine whether it is sufficient in that it includes all of the items listed below. If the submission is insufficient, it shall be returned to the applicant. The applicant shall resubmit a sufficient application within 10 days after being notified of insufficiency. In order for the review to be complete within 45 days and remain on the scheduled Planning Commission meeting, all reviewing material, including outside agency reviews, shall be returned to the Office of Planning and Zoning at least 14 days prior to the scheduled Planning Commission. After staff concludes completeness, staff shall place the site plan on the next regularly scheduled Planning Commission agenda for a vote to accept or deny the application as complete.

1. Submission. The applicant is responsible for submitting an application and all supporting documents to the Office of Planning and Zoning. It shall be accompanied by the fee for site plan review.
2. Submission of Contents. The submission shall contain the following elements in the number of copies indicated.

- a. Site Plan. The site plan shall be submitted in accordance with the content and formatting guidelines provided in *Appendix A, Plan & Plat Standards*.
- b. Density Calculation and Site Resource Map. This map shall have the site plan superimposed and shall identify the total area of each resource present, the amount protected, and a summary table showing that the resource protection standards are met.
- c. General Location Map. A map or aerial photograph showing an area of 500 feet around the property. Zoning boundaries shall be located on this document.
- d. Final Engineering Plans. The final engineering plan(s) shall be submitted in accordance with the content and formatting guidelines provided by the Office of Engineering. If preliminary engineering plans satisfy the requirements of the Office of Engineering and no modifications to the preliminary engineering plans are required, then preliminary plans previously approved shall be considered final plans.
- e. Final Landscape Plans. The final landscape plan shall be submitted in accordance with the content and formatting guidelines provided by the Office of Planning and Zoning.
- f. Transportation Impact Study and WVDOH Approvals. A transportation impact study shall be re-submitted only if there was a condition for revisions in the concept plan approval. WVDOH approvals shall be secured prior to final approval.
- g. Water and Sewer Services. This shall include a declaration of Public Service District's approval of plans, or approval by the appropriate service provider, and an agreement to operate the facility. This shall also include documents necessary for the transfer of ownership of the facility to the Public Service District or appropriate operating agency.
- h. On-Site Sewer and Water. If on-site waste disposal and water supply are provided, approval of the soils, design of the system and its location on the site shall be indicated.
- i. Special Engineering. Special engineering studies are required if the site is in or partially in areas designated as high vulnerability areas. All natural resources which have specific resource protection standards in the Zoning Ordinance or these Regulations, shall be complied with, and require final engineering approval.
- j. Open Space. Open space to be provided to satisfy the requirements of the Zoning Ordinance shall be identified on the site plan. Covenants and deed restrictions applicable to such open space to assure its retention shall be submitted and approved for recordation.
- k. Stormwater Management Plan. A Stormwater Management Plan, as described in the Jefferson County Stormwater Management Ordinance, must be submitted as part of the major site plan to be reviewed by the Office of Engineering.⁴
- l. Surety. Cost estimates for all improvements and proof of surety. *See Section 24.503, Amount of Surety*
- m. Other Agencies. Required agency sign offs that the site plan is approved by that agency. These agencies shall include the Jefferson County Health Department, West Virginia Division of Highways, West Virginia Department of Environmental Protection, the West Virginia Health Department, the Public Service District,

- appropriate utility service providers, Jefferson County GIS/Addressing Office, and other review agencies certifying that the application is consistent with approved site plans and meets all requirements of the applicable codes, ordinances, or standards or others when determined appropriate by County staff.
- n. Names. Name of applicant and of consulting firms, addresses, phone numbers, e-mail addresses, and person(s) to whom correspondence shall be addressed.
 - o. Additional Information. The Department shall:
 - i. Review and approve all matters under its jurisdiction.
 - ii. Issue a zoning compliance letter.
 - iii. Certify that all proffers have been satisfied.
3. Signature Blocks on Site Plans. The following certificates shall be placed on all site plans:
- a. Surveyor/Engineer. Certificate of accuracy and mapping by professional licensed surveyor/engineer signed and sealed.
 - b. Owners. Certificate of ownership and dedication signed and notarized, including all individuals, partnerships, corporations, and lenders with financial security interests.
 - c. County Staff. A signature block for the County Engineer and the County Planner approvals in accordance with Appendix A, *Plan & Plat Standards*.
4. Approval. If the site plan is incomplete, or the development cannot conform to the Zoning Ordinance, be serviced by public services or on-site utilities, the Planning Commission shall deny the same; otherwise, the Planning Commission shall find it complete and accept it.
5. Effect. Once the site plan is found complete, staff shall place the site plan on the next regularly scheduled Planning Commission agenda for a vote to accept or deny the application as complete. At the meeting where the application is found complete, the Planning Commission shall schedule a public hearing within 45 days and in accordance with Section 24.123. Upon determining the application is incomplete, the applicant shall be notified in writing stating the reasons for denial.

409(c): Major Site Plan Application-Public Hearing (24.123)

Within 45 days of accepting the application as complete, the Planning Commission shall conduct a public hearing to receive public comments, concerns, and inputs on the proposed site plan. The public notice of the public hearing shall be advertised in a local newspaper of general circulation in the area at least twenty-one (21) days prior to the public hearing. The applicant shall post notice on the site at least fourteen (14) days prior to the public hearing.

1. Subjects Covered. The scope of this public hearing shall be limited to whether the site plan application meets the requirements of these Regulations and the Zoning Ordinance.

2. Hearing Procedure. The hearing shall be conducted in accordance with the Bylaws of the Jefferson County Planning Commission.

409(d): Major Site Plan Application-Approval (24.124)

After the close of the public hearing or at any meeting within 14 days thereafter, the Planning commission shall (1) approve the application, (2) approve the application with conditions, (3) deny the application, or (4) hold the application for up to 45 days for additional information.

1. Approval. If the site plan application is consistent with the concept plan application and meets all other requirements of these Regulations and the Zoning Ordinance and has received sign-off from the agencies specified in Section 24.122(B)(13), *Other Agencies*, the Planning Commission shall approve the site-plan application.
2. Denial. Denial can only be done on the following basis:
 - a. The plan (plan, final engineering, or final landscaping) is inconsistent with the approved concept plan or conditions of said approval.
 - b. Failure to provide surety.
3. Site Plan Signing. The Planning Commission President shall authorize the signing of the plan.
4. Effect and Vesting. The approval and signing of the site plan allows the applicant to provide surety, if necessary, and begin construction.

Section 410: Site Plan Requirements (Division 10.0-10.11)

Section 411: General Review Standards (20.300)

Two types of review occur when a subdivision plat or site plan is proposed, a zoning review and a review of the actual subdivision plat or site plan. Section 20.301 covers the zoning review. Sections 20.302 and 20.303 cover the subdivision plat and site plan review.

411 (a): Zoning Review

General. A zoning review shall be conducted concurrently with the review of an application for a subdivision plat or site plan. A review shall be provided at each phase of the process. Subdivision plats or site plans that do not meet the zoning standards shall not be approved. Conversely, no subdivision plat shall be denied on the basis of zoning if the Zoning Administrator has decided (or the Board of Zoning Appeals has decided on appeal) that the proposed development complies with the Zoning Ordinance.

Responsibility. The zoning review is a function of Staff under provisions of the Zoning Ordinance. Any appeal of Staff's decision shall be heard by the Board of Zoning Appeals.

Report to Planning Commission. Staff shall submit a report to the Planning Commission along with the agenda for each meeting at which a subdivision plat or site plan is to be discussed. The report shall contain a final decision as to whether the subdivision plat or site plan meets the standards of the Zoning Ordinance.

411(b): Minimum Requirements and Standards

The requirements and standards of **Division 10.0** are minimal and are not intended to discourage the use of higher standards by developers who wish to achieve more desirable results. The Planning Commission may specify additional requirements where, owing to unique or unusual characteristics, the purposes of these Regulations can be better served.

The provisions of **Division 10.0** are in addition to the requirements for Site Plan projects found in **Appendix A** and **Appendix B**. In the event of a conflict between a requirement of the **Appendices** and **Division 10.0**, then the requirement of **Division 10.0** shall apply.

Conditions under which the site plan requirements may be waived or limited are cited in **Section 20.203, *Minor Site Development***.

411(c): General Information Required

All proposed site plans for Heavy Industrial Uses, as referenced in the Zoning Ordinance, on a parcel shall process through the major site plan process. Concept plan submissions shall include the following additional material:

1. Basic Information:
 - a. Solid and drainage characteristics
 - b. Existing natural or man-made features including vegetative cover, water bodies, quarries, and rock outcroppings
 - c. Existing and proposed covenants and restrictions
 - d. Intended earthwork that would alter the natural topography
 - e. Tentative development and construction schedule
 - f. Market surveys and feasibility studies
 - g. Anticipated project costs
 - h. Anticipated funding sources
2. Physical Impacts. A discussion of the relationship of the proposed project to the community (County) to include the following:
 - a. Earthwork: Will project strip entire site? Will blasting be extensive? Will the project be a borrow or a waste job? Will drainage be affected?
 - b. Wildlife populations and DNR endangered species check
 - c. Groundwater and surface water resources: Number of reported water contamination problems within 1000 feet, major surface water sensitive areas, i.e. wetlands, marshes and existing ponds, within one mile of the site. Describe the storm water management concept.
 - d. Compatibility of the project with the surrounding area in terms of land use and visual appearance

- e. Impact on sensitive natural areas such as sink holes, water recharge areas, stream and river banks, hillsides, forests, wetlands and water bodies will be described. A sink hole inventory check will be requested and obtained from the local office of the Natural Resources Conservation Service. The applicant will describe the condition of channel and banks of streams on property or within 500 feet of discharge point from property.
3. Social Impacts. A discussion of the relationship of the proposed project to the community (County) to include the following:
 - a. Demographic impact
 - b. Adequacy of health and emergency medical services
 - c. Adequacy of fire protection
 - d. Adequacy of police protection
 - e. Trash removal
 - f. Adequacy of electrical power service
 - g. Adequacy of telephone service
 - h. Sewer and water services
 - i. Relationship of the project to the Comprehensive Plan
 - j. Housing supply and demand
 - k. Proximity and relationship to known historic features
 4. Economic Impacts. A discussion of the relationship of the proposed project to the community (County) to include the following:
 - a. Property tax evaluation
 - b. Anticipated bank deposits and loans
 - c. Anticipated local spending (construction, retail, services, etc.)
 - d. Local employment implications
 - e. Expected changes in property values

In the event conditions are encountered during construction which make the approved Site Plan impractical or excessively costly, field changes may be proposed, in writing, by the developer - through the developer's design consultant - to the County Engineer. The County Engineer will review the proposed changes to determine whether or not the change is major and subject to Planning Commission action. In either case, the Engineer will determine the technical acceptability of the proposed changes. Where said changes are minor, technically acceptable and in accord with the intent of the Ordinances the Engineer may grant a field change. Modified plans will be signed by the appropriate professional and filed with the Planning Commission office.

411 (d): Site Access

Site Development access entrances, from either an internal subdivision road or a public road, shall be provided in accordance with Appendix B, Section 2.3.B, *Site Development Access to Public Roads*.

For Site Development projects with site access directly onto a public road (not onto an internal subdivision road) owned and maintained by the West Virginia Division of Highways, site access

improvements shall be provided in accordance with Appendix B, Section 2.3.C, *Improvements to State Highways*.

411 (e): Internal Vehicular Circulation & Parking

For Site Development projects, internal site vehicular circulation and parking (including handicapped parking) shall be provided in accordance with Appendix B, Section 2.5, *Off-Street Parking Standards*.

The number of parking spaces shall be as required by the Zoning Ordinance.

All parking aisle, parking space, parking stall dimensions, parking width, and off-street loading shall be provided as required by Appendix B, Division 2.0, *Street & Parking Standards*. All parking aisle, parking space and internal site driveway setbacks shall be shown on the site plan.

Shared use of parking spaces shall be permitted at the discretion of the staff. Proposals for shared use of parking spaces must be accompanied by a study and documentation of user hours to demonstrate compatibility of the proposal prepared in accordance with the Zoning Ordinance.

Internal site driveways, (does not include parking area drive aisles) such as those that:

1. Lead to parking areas; or are
2. Internal site driveways connecting separated parking bays; or
3. Provide vehicular access to loading docks, drive-in windows, etc., shall be designed to the following standards unless other design is justified by the design consultant and approved by the County Engineer:

Table 9.4-1	
Traffic Flow	Internal Site Driveways Width
Two –Way	22’ to 24’
One-Way	12’ to 14’
Drive-up Window	10’

Internal access driveways serving delivery truck-trailer or truck-semi-trailer combinations shall be designed for a vehicle with an inside tracking radius of 44'.

Loading spaces shall be designated for all building bay door openings 6' or greater in width. The loading spaces shall not conflict with internal site driveways and parking aisle access. The loading spaces shall not be counted toward satisfying the parking space requirements.

Drive-in service facilities and drive-up windows shall be located and provided with sufficient vehicle queue length such that waiting vehicles will not block internal vehicular circulation or external vehicular access to the site.

411(f): Parking Areas, Entrance and Internal Driveway Parking

Site Development parking lots, entrances and internal driveways for use by the public shall be bituminous asphalt or concrete paved. Paving sections shall be approved by the Engineer. The minimum acceptable bituminous asphalt paving section is as follows:

- 1 ½" Bituminous Concrete Surface Course
- 2 ½" Bituminous Concrete Base Course
- 9" Graded Aggregate Base Course (placed in 2 lifts)

Heavier pavement sections may be required by the County Engineer. The consulting engineer shall take into consideration the soil subgrade strength and load bearing capacity and the type of traffic loads anticipated in preparing the concrete or bituminous asphalt pavement section design.

411(g): Curbs, Gutters, and Sidewalks

Stormwater management using low impact development technology (LID) and landscaping or curb, and gutter systems as well as sidewalks shall be provided to support multi-family residential and non-residential subdivision/site development. On a case by case basis, the Office of Planning and Zoning will review alternatives to traditional sidewalks; such alternatives may include hard surface trails or meandering paths. Planning and Zoning Staff may allow a 10 foot pedestrian/bike easement(s) in-lieu of installation of a sidewalk, trail or path when in the judgment of Staff an easement(s) may be a preferred option. Where curbs and gutters are provided to convey stormwater from impervious areas to stormwater management facilities; they shall be in accordance with Appendix B, Section 2.2.K.2, *Roadway Curbs & Gutter*.

Internal site sidewalks and ramps shall be provided where necessary to convey pedestrian traffic from parking areas to buildings; and shall be in accordance with Appendix B, Section 2.2.K, *Curbs, Gutters, & Sidewalks*.

Sidewalks shall be provided where required to continue existing public sidewalks or where required to provide pedestrian conveyance between existing developments on either side of the proposed site.

411 (h): Site Grading

Site access entrance grades shall be in accordance with Appendix B, Section 2.3.B, *Site Development Access to Public Roads*.

Grades for parking areas and internal driveways shall be in accordance with Appendix B, Section 2.5, *Off-Street Parking Standards*.

Grades for sidewalks shall be in accordance with Appendix B, Section 2.2.K, *Curbs, Gutters & Sidewalks*.

A minimum three foot wide strip, not to exceed 3% grade, shall be provided between the edge of parking areas, internal driveways and/or sidewalks, and the toe or top of slopes that are steeper than a 4:1 slope.

When retaining walls are used, the design thereof shall be certified by a Licensed Professional Engineer licensed in the State of West Virginia. All construction details and specifications shall be provided on the Site Plan. The following note shall be placed on the Site Plan:

“Retaining walls 4 feet or greater in height require a building permit under the Jefferson County Building Code Enforcement Ordinance. The Owner/Developer is responsible for obtaining the permit.”

411(i): Utilities and Water, and Sanitary Sewer Systems

General. Utilities and water and sanitary sewer systems shall be provided in accordance with Appendix B, Division 3.0, *Utilities and Water & Sanitary Sewer Systems*.

Sanitary Sewer System. The following requirements specific to site plans shall apply:

1. Sanitary sewer connections will have a minimum grade of 2% for gravity flow, a minimum pipe size of 4 inches and will be a minimum of 100 feet from any water well. There is no minimum grade for a pump system.
2. A monitoring manhole will be set on the sewer connection line at the property line if, in the opinion of the local health officials, the proposed uses on the property could result, either by intent or accident, in the introduction of non-septic sewage, oils, chemicals, paint or petroleum products into the sanitary sewer system.
3. Sewer connection sizes will be justified by accompanying computations indicating the daily flow rate (gallons per day) for the proposed use and the minimum required pipe size. This information shall be shown on the land development site plan.

Water System. The following requirements specific to site plans shall apply:

1. Water supply demand computations shall be provided and shall be based on plumbing fixture-unit tables provided by the West Virginia Department of Health. The total daily demand flow rate (gallons per day) shall be shown on the site plan.
2. Where sprinkler systems are proposed, the water supply demand calculations shall demonstrate that an adequate supply of water is available for the sprinkler system.
3. In a non-residential or multi-family subdivision that does not have fire hydrant service installed but has adequate public water service available; the developer shall install a fire hydrant to serve the project site if a fire hydrant is not located within 1,000 feet of the site.

For a project located outside a non-residential or multi-family subdivision where it does not have fire hydrant service within 1,000 feet, but has adequate public water service available; the developer shall install a fire hydrant to serve the project site.

Calculations demonstrating adequate fire flow at the minimum residual pressure - as established by the West Virginia State Department of Health - shall be provided and shown on the site plan.

4. Fire hydrants shall be connected to water lines that are at least 6 inches in diameter. Fire hydrants shall have isolation valves and be designed to drain and prevent freezing.
5. Fire hydrant specifications and thread sizes shall be acceptable to the West Virginia Fire Marshal and the Jefferson County Volunteer Fireman's Association.
6. Fire hydrants set in the right-of-way shall be located two feet back of the sidewalk or in accordance with the standards of the controlling public service district.

Underground Utilities. All on-site utility service lines (e.g., electric, phone, cable, fiber optic, water, sewer, etc.) serving the Site Development project shall be underground.

411(j): Landscaping 20.303(f)

The site plan landscaping layout shall promote the zoning classification's qualities and character and meet or exceed the landscaping standards of the Zoning Ordinance. Bufferyard landscaping shall be located to achieve the screening objectives and, where possible, enhance open space objectives beyond the minimum requirements.

1. The staff shall advise whether the zoning standards are met.
2. The Planning Commission shall work to ensure that required landscaping is located to best achieve the screening, protection, and overall character to enhance the value of the property. It may authorize moving plant material around, but not require more plant material than required by zoning.

Section 412: Site Plan Requirements (10.0)**412(a): General Information and Requirements (10.2)**

All proposed site plans for Heavy Industrial Uses, as referenced in the Zoning Ordinance, on a parcel shall process through the major site plan process. Concept plan submissions shall include the following additional material:

1. Basic Information:
 - a. Solid and drainage characteristics
 - b. Existing natural or man-made features including vegetative cover, water bodies, quarries, and rock outcroppings
 - c. Existing and proposed covenants and restrictions
 - d. Intended earthwork that would alter the natural topography
 - e. Tentative development and construction schedule
 - f. Market surveys and feasibility studies
 - g. Anticipated project costs
 - h. Anticipated funding sources
2. Physical Impacts. A discussion of the relationship of the proposed project to the community (County) to include the following:
 - a. Earthwork: Will project strip entire site? Will blasting be extensive? Will the project be a borrow or a waste job? Will drainage be affected?
 - b. Wildlife populations and DNR endangered species check
 - c. Groundwater and surface water resources: Number of reported water contamination problems within 1000 feet, major surface water sensitive areas, i.e. wetlands, marshes and existing ponds, within one mile of the site. Describe the storm water management concept.
 - d. Compatibility of the project with the surrounding area in terms of land use and visual appearance
 - e. Impact on sensitive natural areas such as sink holes, water recharge areas, stream and river banks, hillsides, forests, wetlands and water bodies will be described. A sink hole inventory check will be requested and obtained from the local office of the Natural Resources Conservation Service. The applicant will describe the

condition of channel and banks of streams on property or within 500 feet of discharge point from property.

3. Social Impacts. A discussion of the relationship of the proposed project to the community (County) to include the following:
 - a. Demographic impact
 - b. Adequacy of health and emergency medical services
 - c. Adequacy of fire protection
 - d. Adequacy of police protection
 - e. Trash removal
 - f. Adequacy of electrical power service
 - g. Adequacy of telephone service
 - h. Sewer and water services
 - i. Relationship of the project to the Comprehensive Plan
 - j. Housing supply and demand
 - k. Proximity and relationship to known historic features
4. Economic Impacts. A discussion of the relationship of the proposed project to the community (County) to include the following:
 - a. Property tax evaluation
 - b. Anticipated bank deposits and loans
 - c. Anticipated local spending (construction, retail, services, etc.)
 - d. Local employment implications
 - e. Expected changes in property values

In the event conditions are encountered during construction which make the approved Site Plan impractical or excessively costly, field changes may be proposed, in writing, by the developer - through the developer's design consultant - to the County Engineer. The County Engineer will review the proposed changes to determine whether or not the change is major and subject to Planning Commission action. In either case, the Engineer will determine the technical acceptability of the proposed changes. Where said changes are minor, technically acceptable and in accord with the intent of the Ordinances the Engineer may grant a field change. Modified plans will be signed by the appropriate professional and filed with the Planning Commission office.

412(b): Site Access (10.3)

Site Development access entrances, from either an internal subdivision road or a public road, shall be provided in accordance with Appendix B, Section 2.3.B, *Site Development Access to Public Roads*.

For Site Development projects with site access directly onto a public road (not onto an internal subdivision road) owned and maintained by the West Virginia Division of Highways, site access improvements shall be provided in accordance with Appendix B, Section 2.3.C, *Improvements to State Highways*.

412(c): Internal Vehicular Circulation and Parking (10.4)

For Site Development projects, internal site vehicular circulation and parking (including handicapped parking) shall be provided in accordance with Appendix B, Section 2.5, *Off-Street Parking Standards*.

The number of parking spaces shall be as required by the Zoning Ordinance.

All parking aisle, parking space, parking stall dimensions, parking width, and off-street loading shall be provided as required by Appendix B, Division 2.0, *Street & Parking Standards*. All parking aisle, parking space and internal site driveway setbacks shall be shown on the site plan.

Shared use of parking spaces shall be permitted at the discretion of the staff. Proposals for shared use of parking spaces must be accompanied by a study and documentation of user hours to demonstrate compatibility of the proposal prepared in accordance with the Zoning Ordinance.

Internal site driveways, (does not include parking area drive aisles) such as those that:

1. Lead to parking areas; or are
2. Internal site driveways connecting separated parking bays; or
3. Provide vehicular access to loading docks, drive-in windows, etc., shall be designed to the following standards unless other design is justified by the design consultant and approved by the County Engineer:

Table 9.4-1	
Traffic Flow	Internal Site Driveways Width
Two –Way	22’ to 24’
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Drive-up Window	10’

Internal access driveways serving delivery truck-trailer or truck-semi-trailer combinations shall be designed for a vehicle with an inside tracking radius of 44'.

Loading spaces shall be designated for all building bay door openings 6' or greater in width. The loading spaces shall not conflict with internal site driveways and parking aisle access. The loading spaces shall not be counted toward satisfying the parking space requirements.

Drive-in service facilities and drive-up windows shall be located and provided with sufficient vehicle queue length such that waiting vehicles will not block internal vehicular circulation or external vehicular access to the site.

412(d): Parking Area, Entrance and Internal Driveway Paving (10.5)

Site Development parking lots, entrances and internal driveways for use by the public shall be bituminous asphalt or concrete paved. Paving sections shall be approved by the Engineer. The minimum acceptable bituminous asphalt paving section is as follows:

- 1 ½" Bituminous Concrete Surface Course
- 2 ½" Bituminous Concrete Base Course
- 9" Graded Aggregate Base Course (placed in 2 lifts)

Heavier pavement sections may be required by the County Engineer. The consulting engineer shall take into consideration the soil subgrade strength and load bearing capacity and the type of traffic loads anticipated in preparing the concrete or bituminous asphalt pavement section design.

412(e): Curbs, Gutters, and Sidewalks (10.6)

Stormwater management using low impact development technology (LID) and landscaping or curb, and gutter systems as well as sidewalks shall be provided to support multi-family residential and non-residential subdivision/site development. On a case by case basis, the Office of Planning and Zoning will review alternatives to traditional sidewalks; such alternatives may include hard surface trails or meandering paths. Planning and Zoning Staff may allow a 10 foot pedestrian/bike easement(s) in-lieu of installation of a sidewalk, trail or path when in the judgment of Staff an easement(s) may be a preferred option. Where curbs and gutters are provided to convey stormwater from impervious areas to stormwater management facilities; they shall be in accordance with Appendix B, Section 2.2.K.2, *Roadway Curbs & Gutter*.

Internal site sidewalks and ramps shall be provided where necessary to convey pedestrian traffic from parking areas to buildings; and shall be in accordance with Appendix B, Section 2.2.K, *Curbs, Gutters, & Sidewalks*.

Sidewalks shall be provided where required to continue existing public sidewalks or where required to provide pedestrian conveyance between existing developments on either side of the proposed site.

412(f): Site Grading (10.7)

Site access entrance grades shall be in accordance with Appendix B, Section 2.3.B, *Site Development Access to Public Roads*.

Grades for parking areas and internal driveways shall be in accordance with Appendix B, Section 2.5, *Off-Street Parking Standards*.

Grades for sidewalks shall be in accordance with Appendix B, Section 2.2.K, *Curbs, Gutters & Sidewalks*.

A minimum three-foot-wide strip, not to exceed 3% grade, shall be provided between the edge of parking areas, internal driveways and/or sidewalks, and the toe or top of slopes that are steeper than a 4:1 slope.

When retaining walls are used, the design thereof shall be certified by a Licensed Professional Engineer licensed in the State of West Virginia. All construction details and specifications shall be provided on the Site Plan. The following note shall be placed on the Site Plan:

“Retaining walls 4 feet or greater in height require a building permit under the Jefferson County Building Code Enforcement Ordinance. The Owner/Developer is responsible for obtaining the permit.”

412(g): Stormwater Management (10.9)

Storm water management, storm drainage and sediment and erosion control shall be provided in accordance with the Jefferson County Stormwater Management Ordinance.

Site Development project on-site stormwater runoff from impervious areas shall be contained for conveyance whenever concentrated flows exceed 2.5 cubic feet per second (cfs) during the ten-year event as determined using the Rational Method. Containment may be accomplished using either closed pipe or open channel systems. Open channel systems shall include pedestrian crossings spaced no further apart than 300 feet apart in areas where pedestrian traffic exists. With the approval of the County Engineer, bio-retention methods may be used to minimize the rate of flow.

Section 413: Utilities**413(a): Utilities and Water and Sanitary Sewer Systems (10.8)**

1. General. Utilities and water and sanitary sewer systems shall be provided in accordance with Appendix B, Division 3.0, *Utilities and Water & Sanitary Sewer Systems*.
2. Sanitary Sewer System. The following requirements specific to site plans shall apply:
 - A. Sanitary sewer connections will have a minimum grade of 2% for gravity flow, a minimum pipe size of 4 inches and will be a minimum of 100 feet from any water well. There is no minimum grade for a pump system.
 - B. A monitoring manhole will be set on the sewer connection line at the property line if, in the opinion of the local health officials, the proposed uses on the property could result, either by intent or accident, in the introduction of non-septic sewage, oils, chemicals, paint or petroleum products into the sanitary sewer system.
 - C. Sewer connection sizes will be justified by accompanying computations indicating the daily flow rate (gallons per day) for the proposed use and the minimum required pipe size. This information shall be shown on the land development site plan.
3. Water System. The following requirements specific to site plans shall apply:
 - A. Water supply demand computations shall be provided and shall be based on plumbing fixture-unit tables provided by the West Virginia Department of Health. The total daily demand flow rate (gallons per day) shall be shown on the site plan.
 - B. Where sprinkler systems are proposed, the water supply demand calculations shall demonstrate that an adequate supply of water is available for the sprinkler system.
 - C. In a non-residential or multi-family subdivision that does not have fire hydrant service installed but has adequate public water service available; the developer shall install a fire hydrant to serve the project site if a fire hydrant is not located within 1,000 feet of the site.
 - i. For a project located outside a non-residential or multi-family subdivision where it does not have fire hydrant service within 1,000 feet, but has adequate public water service available; the developer shall install a fire hydrant to serve the project site.
 - ii. Calculations demonstrating adequate fire flow at the minimum residual pressure - as established by the West Virginia State Department of Health - shall be provided and shown on the site plan.

- D. Fire hydrants shall be connected to water lines that are at least 6 inches in diameter. Fire hydrants shall have isolation valves and be designed to drain and prevent freezing.
 - E. Fire hydrant specifications and thread sizes shall be acceptable to the West Virginia Fire Marshal and the Jefferson County Volunteer Fireman's Association.
 - F. Fire hydrants set in the right-of-way shall be located two feet back of the sidewalk or in accordance with the standards of the controlling public service district.
4. Underground Utilities. All on-site utility service lines (e.g., electric, phone, cable, fiber optic, water, sewer, etc.) serving the Site Development project shall be underground.

Section 414: Landscaping, Screening, and Buffer Yard Requirements (10.10)

Screening in the form of either vegetation or opaque fencing shall be provided on all properties along property lines in accordance with the Zoning Ordinance.

Site Plans shall include a landscape plan meeting the requirements of the Zoning Ordinance

All parking lots shall contain landscaping equal to a minimum of five percent (5%) of the area of parking lots and on-site driveways. Parking lots that are designated exclusively for employees only or for large trucks or vehicles owned or leased by the user of the site need not contain the landscaping if they are screened from any exterior state route. Said landscaping shall be contained within a perimeter which includes the parking lots, the on-site driveways, all islands dividing or supporting parking aisles from each other and from on-site driveways and areas bounded on at least two sides by parking lot or on-site driveways. The perimeter on the exterior of the parking lot shall follow the back curb or edge of the parking spaces or the limit of a required buffer.

Opaque screen fences shall be a minimum of six (6) feet high. A sketch of the proposed screen will be submitted for approval with the site plan.

Other requirements are referenced in the Jefferson County Zoning Ordinance.

All on-site utilities and dumpsters shall be effectively screened.

Section 415: Signage (10.11)

Signage shall be in conformance with all existing Ordinances in Jefferson County and/or State and Federal Law.

Section 416: Construction Plans and Specifications (1.3)

All construction plans and specifications submitted shall be acceptable to the County Engineer and shall be used to evaluate progress during construction. The Chief County Engineer shall have the authority to establish standard construction details and specifications.

Changes or revisions in construction plans and specifications shall not be made unless first approved by the County Engineer and/or other agencies, as applicable.

Minor changes may be submitted as marked-up "redline revisions" to the construction plans and specifications, and shall be signed, sealed and dated by the engineer or surveyor of record, as applicable. Changes are to be shown in red or with a red bubble cloud around all changes. This cloud may be placed by hand by the applicant.⁴

As built” plans, specifications and/or third-party engineer/surveyor certifications shall be submitted if requested by the County Engineer to verify the work is installed in accordance with the approved plans and specifications. As-built plans and letters of certification shall be in a format acceptable to the County Engineer. All as-built data shall be shown in red or highlighted with a red bubble cloud. This cloud may be placed by hand by the applicant.⁴

Section 417: Construction Practices (1.4)

All subdivision improvements including roads, curbs, sidewalks, parks, drainage, water systems, sewer systems, and appurtenant structures and buildings shall be constructed in a workmanlike manner and true to line and grade shown on the plans.

Completed improvements shall present a finished appearance as determined by the County Engineer. All disturbed and/or excavated areas shall be adequately compacted and finish/fine graded and properly stabilized. Roads, sidewalks and curbs shall be laid at a uniform width and depth and shall have clean, tooled edges. Parking areas shall also be smooth, compacted and clean at the edges. Roads, sidewalks and parking areas shall have a surface that is of a uniform material and texture. Finished surfaces that display any patchwork or repairs shall be resurfaced if so directed by the County Engineer. Any patchwork or repairs shall be performed in a manner acceptable to the County Engineer.

Appurtenant buildings and structures such as water and wastewater shall be complete and finished on the exterior with site grading and stabilization complete. All fences shall be erected vertically and shall not sag or bow. Protective fences (e.g. around water and sewage treatment plants) shall be chain link. All components shall be properly leveled and shall be housed in finished enclosures acceptable to the County Engineer.

Drainage culvert inlets and outlets shall not be ragged, bent or crushed. Catch basins, grates, bulkheads, energy dissipaters, riprap linings and other similar drainage accessories shall be constructed in a manner acceptable to the County Engineer.

All work shall be properly installed, protected and/or maintained until completion of the project. Safe practices shall be used during all phases of construction to prevent off-site property damage resulting from construction operations.

Section 418: General Engineering Requirements (1.0-Appendix B)

Section 419: Minimum Engineering Requirements and Standards (1.1)

These requirements and standards are considered minimums and are not intended to discourage the use of higher standards by developers and subdividers who wish to achieve more desirable results. The Planning Commission may specify additional requirements where, owing to unique or unusual characteristics, the purposes of these Regulations can be better served.

These requirements and standards also apply to Condominium and Non-residential Subdivision and/or site development unless otherwise superseded by requirements and standards specific to those types of development.⁴

Section 420: Surveys (1.2)

The Preliminary Plat and Final Plat for a subdivision shall be prepared and certified as to preparation and accuracy by a West Virginia licensed surveyor or engineer.

Permanent monuments shall be of the type specified by the Rules and Regulations of the West Virginia Board of Professional Surveyors; W.Va. Code Sections 23-5-7 and 3-1-17; or a greater standard as specified by the County Engineer/staff.

All permanent lot corner markers not susceptible to destruction by subdivision improvements shall be in place prior to the conveyance of individual lots. All other lot corners shall be in place prior to the final release of the construction bond. Lot corners will consist of 36" long by 5/8" diameter sections of steel rod suitable for magnetic detection; and/or shall be in accordance with state law. Certification of such shall be provided by a West Virginia licensed land surveyor.

Bearings (or Azimuths) shall be dimensioned to the nearest 0.5 minute, distances to the nearest .01 foot and areas to the nearest .01 acre or 100 square feet.

New sections of any subdivision on record at the time these Regulations was adopted may use directional references that align with the directional references of the recorded subdivision.

Section 421: Public Easements-General (21.402)

All easements for all public (water, sewer, stormwater management or storm drainage facilities) or public service type facilities (telephone, electric, gas, cable) that serve the subdivision or site development shall be set forth on the plat or in the deed. Such easements shall be located in street right-of-ways, *alleys*, or side or rear yards as determined by the County in accordance with the particular plans and layout of the utility or other service providing company. All easements shall provide for access without notification to the property owner for the maintenance, repair, or other work needed in the easement or to the facility in the easement. The following standards shall apply to easements:

421(a): Utility Easements

A utility easement shall be a minimum of 15 feet wide or a width acceptable to grantor and grantee. Easements that fall on shared side or rear lot lines, unless specifically authorized by the County, shall be of equal dimensions on both lots involved. Where attached housing types are involved and yards are enclosed or very narrow, easements shall be in front or rear yards.

421(b): Stormwater

All stormwater facilities shall be located on open space land, on easements on the lots, or on public rights of way. Easements shall run in favor of the homeowner's association, business owner's association and any of the public service providers using the easement. Drainage easements shall be provided on all lots to ensure that stormwater channels remain clear of development. Where attached housing types are involved and yards are enclosed or very narrow, drainage easements shall be placed on lots to convey *surface water* to storm sewers located on the street or to surface drainage channels located in easements or open spaces as topography and grading dictate.

Easements shall be designed for a 10 year storm event and in no case shall be less than 15 feet wide.

421(c): Open Space Deed Restrictions and Covenants

Deed restrictions and covenants shall preserve open space, protect natural resources, and protect land held in common or used for recreation and/or open space. All areas subject to deed restrictions or covenants shall be restricted from further residential development and shall run in favor of all lot owners in the development or the homeowner's association.

421(d): Encroachments, Structures, and Landscaping

No permanent encroachments, structures, fences or landscaping shall be allowed to be located within any easement area. The homeowner's association, business owner's association and any of the public service providers shall have the right to remove any encroachment, structures, landscaping, fencing or any other improvements placed upon such public easements.

421(e): Maintenance Access Easements

These easements shall be a minimum 15 feet wide and are primarily intended to provide access to public utilities or drainage areas that need to be maintained regularly. They are not intended to be used as access to a lot or parcel. The exception to this would be to avoid landlocking a parcel that has no other means of access. Should the homeowner's association, business owner's association, any of the public service providers or other agency with facilities in the easement need to do work in an easement, an attempt shall be made to notify the resident and owner, if feasible. If time allows, the landowner shall be permitted to remove any structure or planting. However, since the work may involve an emergency, the homeowner's association, business owner's association, any of the public service providers or other contractor may do the work, including removal or destruction of structures or landscaping. The only obligation the contractors have is to restore the ground cover if that has been disturbed in the process of the work. Any other costs shall be borne by the landowner.

Section 422: Grading Infrastructure and Grading Purpose (22.100)

The purpose of this Article is to ensure:

- The adequate provision of infrastructure, including streets, potable water, sewer, and fire protection to serve development;
- Well-designed and well-connected streets and sidewalks;
- Adequate lighting of public and private streets;
- Adequate and well-designed drainage and stormwater treatment systems to serve new development; and,
- The protection of environmental resources during site preparation for development, as well as during and after development.

422(a): Grading (22.500)

All activities addressing grading issues and erosion control shall be described in the Erosion and Sediment Control Plan required as Part of the Stormwater Management Plan in the Jefferson County Stormwater Management Ordinance.

422(b): Site Grading (22.501)

6. Protected Streams. Site grading shall be done in such a manner that the appropriate erosion control devices and techniques are used to protect water quality.
7. Prevent Erosion. The proper precautions shall be taken to minimize erosion of disturbed soil. Sediment control will be site specific and can include vehicle tracking controls; sod buffer strips around the lower perimeter of the land disturbance; sediment barriers, filters, dikes, traps, or sediment basins; or a combination of any or all of these measures.
8. Minimize Exposure. During the preliminary stages of development each site shall develop a plan to minimize soil exposure. If soils are exposed the proper seeding shall be placed down in the allotted time recommended under the Erosion and Sediment Control Plan as required in the Jefferson County Stormwater Management Ordinance.
9. Protect Aquifer. All precautions shall be taken in the prevention of aquifer contamination. Proper erosion precautions shall be in place as well as consideration of other possible forms of aquifer contamination.
10. Extension of Time Limits. Time may be extended as deemed necessary by the County Engineer in the event that adverse conditions prevent compliance with the stated time limitations for the completion of permanent or temporary structures.

422(c): Residential Site Grading (22.502)

The development of residential areas shall follow these considerations and recommendations on limiting the loss of natural areas (i.e., trees, native or indigenous grasses, and other vegetation).

1. Mass Grading. Every step shall be taken to limit or avoid mass grading. Smaller graded areas help in reducing run-off, water quality impacts, and loss of natural areas.
2. Mass Cut and Fill. Cut-and-fill slopes shall be designed and constructed to minimize erosion. This requires consideration of the length and steepness of the slope, the soil type, upslope drainage area, groundwater conditions, and other applicable factors. Slopes that are found to be eroding excessively will require additional slope stabilization until the problem is corrected.

422(d): Non-Residential Site Grading (22.503)

Cut-and-fill slopes shall be designed and constructed to minimize erosion. This requires consideration of the length and steepness of the slope, the soil type, upslope drainage area, groundwater conditions, and other applicable factors. Slopes that are found to be eroding excessively will require additional slope stabilization until the problem is corrected. The following guidelines shall assist site planners and plan reviewers in developing an adequate design.

1. Soil Surface. Rough soil surfaces are preferred over smooth surfaces on slopes.
2. Temporary Slope. Diversion dikes can be constructed at the top of long steep slopes, or hill slopes that have an upslope tributary drainage area over five (5) acres. Diversion dikes or terraces may also be used to reduce slope length within the disturbed area.
3. Channels. Concentrated stormwater shall not be allowed to flow down cut or fill slopes unless contained within an adequately-sized temporary channel diversion, a permanent channel, or a temporary slope drain.
4. Seepage Planes. Wherever a slope face crosses a water seepage plane that endangers the stability of the slope, adequate drainage shall be provided.

422(e): Protection of Resources (22.504)

The protection of natural resources shall comply with all environmental protection requirements in the Zoning Ordinance and these Regulations. Before construction begins, these areas shall be protected from siltation. Staff shall inspect the proposed means of protection prior to permitting the construction to proceed.

1. Hillside Development
2. General. This section applies to all lands east of the Shenandoah River and all lands in natural conditions within 1000 feet of the Potomac and Shenandoah Rivers and Opequon Creek.

Hillsides with slopes of 10 percent or more are sensitive areas which are frequently not able to tolerate subdivision development as it is practiced on flatter land. The instability of such areas requires careful planning and design before development takes place. Natural slopes, trees, rock formations, and other features such as views can best be preserved if subdivision development is allowed to be flexible and creative. In general, the integrity and durability of a hillside is inversely related to the amount of construction activity (particularly earthwork) that takes place on the hillside.

3. Principles and Guidelines

Hillside subdivision proposals will be reviewed and considered on an individual, independent basis. The natural features of each hillside will determine final subdivision design configuration. The most informal development, consistent with principles of good access, proper drainage, and resource conservation, shall be considered.

Planning Commission review of hillside subdivision proposals shall be guided by the following considerations:

- a. Minimize the alteration of natural terrain and the removal of topsoil and vegetative cover.

- b. Allow flexibility in density, lot size, lot shape, and setback so that the more buildable areas of a hillside can be developed, and the less buildable areas left in a natural condition. Use of the cluster concept.
- c. Consider narrow rights-of-way and roads (possibly one-way roads with convenient pull-offs) so that earthwork may be minimized.
- d. Consider roadside parking bays.
- e. Design and construct roads that are parallel to contour lines; preferably design and construct roads on ridges and in valleys to minimize cuts and fill. Use retaining walls where possible to minimize cuts and fill.
- f. Consider lot layouts which minimize on-site (on-lot) grading and earthwork for access, parking and building construction.
- g. Design, engineer, and construct entrances to individual lots before lots are sold.
- h. Select building sites and areas for the construction of septic system drainfields before lots are sold.
- i. Include provisions within deeds of sale that require property owners to protect the hillside, woodland, etc. from destruction.

In the event a parcel subject to the provisions of this section has been cleared of trees or otherwise had its natural terrain altered beyond the percentages permitted in Table 22.504, no subdivision will be permitted until the original terrain has been restored and stabilized with healthy vegetation or until a period of five years has passed from the date that said alterations were documented and identified by the Planning Commission.

4. Natural Areas

Hillside subdivision developments shall include the retention of land in a natural, undisturbed condition. The following table shall be used to determine the area of land that must be maintained in a substantially natural condition (no clearing, cutting, filling):

Retention of Land in Hillside Development	
Weighted Average Slope of Land Percent	Percentage of Land To Be Maintained in a Natural Condition
Less 10	No land required
10 – 14.9	25%
15 – 19.9	40%
20 – 24.9	55%
25 – 29.9	70%
30 – 34.9	85%
35+	100

The weighted average slope shall be determined using the grid cell method or other method as approved by the County Engineer. A grid of cells each scaled at 200' x 200' shall be placed over the subdivision topographic map. Within each cell the average slope shall be determined by measurement using the longest line that can be drawn perpendicular to topographic contour lines passing through the cell. Measured slopes for the grids will be averaged to obtain the mean. If grids vary in size, the averaging will include weighting based on grid sizes.

5. Riparian Buffer

A riparian buffer is a transition zone between water and upland environments to protect the aquatic environment from pollution and sedimentation. It is measured from the top of the bank of the stream, or the wetland boundary. If wetlands or hillsides abut or are within the riparian buffer in 1 to 4 below, then they shall be included even when the distance exceeds the buffer in 1 to 4 below. The buffer width is as follows:

- a. Lakes and Ponds - 75 feet.
- b. Ephemeral Streams with stream channels - 50 feet (100 feet when located in the Elk Run and Elk Branch watersheds).
- c. Potomac River and Shenandoah Rivers – 300 feet (unless a greater standard is required by the Zoning Ordinance)
- d. Opequon Creek and Perennial Streams - 100 feet.
- e. Wetlands, Marl - 75 feet.
- f. Wetlands, Farmed - 10 feet.
- g. Wetlands - 50 feet.
- h. Hillsides 15 to 25 percent - to the top of the slope where it falls below 15 percent or 400 feet, whichever is less.
- i. Hillsides 25 percent or more - to the top of the slope where it falls below 15 percent or 600 feet, whichever is less.

This buffer may overlap the Hillside Development protection standards. Where conflicts with the Jefferson County Stormwater Management Ordinance exist, the requirements of this section shall take precedence.

422(f): Grading Design Standards (22.505)

When the standards for grading design contained in Division 22.500, *Grading*, conflict with the engineering standards in Appendix B, *Engineering Standards*, the provisions of Appendix B shall prevail.

Section 423: Utilities and Water and Sanitary Sewer Systems (3.0)

423(a): Utilities 20.303(e)

1. The determinations of adequacy shall be made by the Planning Commission after consultation with appropriate agencies responsible for providing water and wastewater treatment for the area in which the proposed subdivision or development project is located.
2. The Planning Commission may request that specific problems be considered and addressed by the agencies in the recommendations of the concept plan.

423(b): Utilities (3.2)

All utility transmission lines (e.g., electric, phone, cable, water, sewer, etc.) and service lines within the subdivision or site development project shall be underground.

423(c): Potable Water, Sewer, Fire Hydrants (22.300)

1. Potable Water and Sewer. Potable water service shall be provided according to the requirements of Appendix B, *Engineering Standards*.
2. Fire Hydrants. If public water service is provided, then fire hydrants shall be provided at each street intersection in accordance with all West Virginia Department of Environmental Protection, Bureau for Public Health regulations Appendix B, *Engineering Standards*.
3. Dry Hydrants. Where installed shall meet ISO standards as established by the Jefferson County Office of Emergency Services.

Section 424: Drainage

424(a): Drainage & Drainage Plans (22.400-22.401)

1. General. As a part of all site plans and preliminary plats, a drainage plan shall be prepared. These shall be part of the engineering drawings for the plat or plan.
2. Roof Drain Discharge Points. For all non-residential sites, the building structure roof drain discharge points shall be located so as to avoid icing of walkways, driveways, and building entrances. The location of roof drain discharge points shall be shown or noted on the preliminary plat and or site plan, as applicable.

424(b): Water Quality (22.402)

Water quality management measures shall be incorporated in all subdivision plats and site plans. Design and construction shall be performed in accordance with the Jefferson County Stormwater Management Ordinance. An applicant shall also apply for a construction stormwater NPDES permit from the West Virginia Department of Environmental Protection (WVDEP).

424(c): Drainage Systems Design (22.403)

Drainage system measures shall be incorporated in all subdivision plats and site plans. Design and construction shall be performed in accordance with the Jefferson County Stormwater Management Ordinance.

424(d): Surface Drainage Configurations (22.404)

Drainage swale grading and drainage swale details shall be provided on the preliminary plat and/or site plan, as applicable, in accordance with the Jefferson County Stormwater Management Ordinance.

424(e): Other Systems for Retention or Detention (22.405)

Low Impact Development (LID) techniques can be used to minimize the impact of impervious surfaces by reducing connected impervious surfaces to a minimum, thereby reducing the area and cost of mitigation techniques. These techniques are identified in the Jefferson County Stormwater Management Ordinance. Use of these techniques is encouraged and preferred to traditional stormwater management measures when feasible and approved by Jefferson County.

424 (f): Drainage Design Standards (22.406)

When the standards for drainage design contained in Division 22.400, *Drainage*, conflict with the engineering standards in the West Virginia Stormwater Management and Design Guidance Manual as referenced in the Jefferson County Stormwater Management Ordinance, the provisions of the West Virginia Stormwater Management and Design Guidance Manual shall prevail.

424(g): Certification of Compliance with Flood and Subsidence Regulations (22.600)

Staff shall verify that the proposed subdivision plat or site plan complies with the Jefferson County Floodplain management ordinance.

Section 425: Driveways and Site Access425(a): Site Plan Components (21.200)

Access and Interconnection (21.201). The provision of safe access to adjoining roads and interconnections between adjoining developments is important to a transportation system that works. Access to the State's roads is governed by WVDOH, which is responsible for the review of the site plan for access to the adjoining road network. It is the purpose of these Regulations to encourage connectivity between adjoining uses along arterial and collector roads to reduce the need for traffic to go onto major roads to reach nearby uses. The following governs the review of access and interconnection:

1. Access. The West Virginia Division of Highways (WVDOH) shall review all site plan applications and indicate whether it approves of the proposed access in terms of location and sight distances, acceleration and deceleration lanes, turn lanes, traffic signs and/or signals, and the capacity of the road to handle the proposed traffic.
2. Interconnection. The Department of Engineering, Planning, & Zoning shall review the site plans to ensure that, where interconnections can be made or where adjoining properties have provided for interconnections, the site plan makes the connections. Site plans may be required to be modified to make the connections or to ensure that the interconnections between a number of properties are made in a manner that facilitates movements between sites. The Department of Engineering, Planning, & Zoning shall review the layout and engineering of such linkages to ensure that they are feasible and safe.

3. Strip Development (21.201(C)). Strip development with each use having its own access to State roads is undesirable. In consultation with WVDOH, Staff, and the Planning Commission may require connected parking areas or even a parallel access way connecting a number of parcels. The minimum access standards shall be adhered to. Should the first parcel to develop not be at the best location for access to an area, the County and WVDOH may issue a temporary curb cut permit that allows the entrance to be located there, provided that there are connections to the adjoining properties and the landowner signs an agreement giving the WVDOH permission to close the curb cut, at the landowner's expense, once the property has access to a better curb cut location.

425(b): Internal Circulation 20.303(d)

All internal roads or parking lots create a circulation pattern which shall provide for the safe, efficient, and convenient movement of vehicular and pedestrian traffic. Within the context of overall community development, the internal circulation system should promote and encourage the increased use of pedestrian and bicycle movement among residential, local shopping, schools, and other areas. Where adjoining developments have stubbed streets the connections shall be made, and the Planning Commission shall require them.

425(c): Internal Circulation (21.202)

All site plans shall be reviewed for efficient internal circulation and safety. The Staff report shall recommend any changes. The internal circulation shall be such that it provides for smooth transit across the site for interconnecting traffic. The site plan shall be changed if the circulation pattern does not meet these criteria. Connectivity both for automobiles and pedestrians is important. Since most site plans are small to moderate sized commercial uses, this is a critical element. The following elements shall be the focus:

1. Connectivity. The parking lots of small commercial developments shall be designed to be connected allowing movement through several parcels without returning to the major roads. For larger developments, an access road connecting multiple parcels shall be designed to promote easy traffic movement without difficult turns or disorienting drivers.
2. Pedestrian Connectivity. Sidewalks shall be provided along the road or if a pedestrian path system can work for whole blocks it may be pulled back from the road. Connectivity from non-residential areas to adjoining residential areas shall be provided wherever there are stubs in existing development or where logical pedestrian development could be provided to vacant residential property.
3. Parking. All site plans shall have a provision that permits cross parking with neighboring uses unless demonstrated to be detrimental to the use. Signs that indicate parking exclusively for customers of the use only are prohibited. Staff parking signs can be used.
4. Temporary Access. Where parcels need access but currently cannot obtain adequate separation of roads and drives, the County shall permit access through a temporary

connection. These properties shall have connections to adjoining properties so that when correct access spacing can be achieved, the temporary access can be closed and landscaped. The closure shall be at the landowners cost.

425(d): Loading and Trash (21.203)

Loading and trash areas shall be located and designed for loading and trash collection to be done in an efficient manner that allows trucks easy movements for delivery or pickup. Trash areas shall be located and oriented so that they do not create a nuisance to adjoining owners or an unsightly view from public or private roads. Trash container areas shall be screened on three sides with the use of fencing and plant materials.

425(e): Pedestrian Circulation (21.204)

All proposed site plans shall provide a safe, efficient, and attractive pedestrian environment. The criteria for this include:

1. Access to Adjoining Property. The access to adjoining properties shall provide for continued pedestrian access to adjoining commercial properties. Where the adjoining use is residential, the connections shall be to any street's or stub street's sidewalks.
2. Crossings. Crossings of roads or drives shall be clearly identified and signed to provide safe pedestrian crossings. Landscaping shall not interfere with sight distances. Traffic calming measures shall be encouraged in any locations where pedestrian crossings are proposed.
3. Outdoor Dining. When restaurant sites are provided, the building should be designed to encourage outdoor dining.

Section 426: Access and Interconnection (21.201 A-C)

The provision of safe access to adjoining roads and interconnections between adjoining developments is important to a transportation system that works. Access to the State's roads is governed by WVDOH, which is responsible for the review of the site plan for access to the adjoining road network. It is the purpose of these Regulations to encourage connectivity between adjoining uses along arterial and collector roads to reduce the need for traffic to go onto major roads to reach nearby uses. The following governs the review of access and interconnection:

426(a): Access

The West Virginia Division of Highways (WVDOH) shall review all site plan applications and indicate whether it approves of the proposed access in terms of location and sight distances, acceleration and deceleration lanes, turn lanes, traffic signs and/or signals, and the capacity of the road to handle the proposed traffic.

426 (b): Interconnection

The Department of Engineering, Planning, & Zoning shall review the site plans to ensure that, where interconnections can be made or where adjoining properties have provided for interconnections, the site plan makes the connections. Site plans may be required to be modified to make the connections or to ensure that the interconnections between a number of properties are

made in a manner that facilitates movements between sites. The Department of Engineering, Planning, & Zoning shall review the layout and engineering of such linkages to ensure that they are feasible and safe.

Section 427: Street and Parking Standards & Access Management (2.0)

427(a): Purpose (2.1)

Any individual, developer, corporation or entity desiring to construct a road, street, or parking area within a subdivision or site development within Jefferson County, West Virginia shall follow these standards for the design and construction.

427(b): Street Design Objectives (22.200-22.201)

New streets shall be designed to achieve the following objectives:

1. Integration. Integrate into the existing street pattern so as to address the area's future circulation needs, as well as County-wide traffic patterns;
2. Safety. Provide a safe and convenient layout and design;
3. Character. Match and enhance the community character of the respective district(s); and
4. Natural features. Respect natural resources, topography, and drainage features.

Section 428: Requirements for Mobile/Manufactured Home Parks

428(a): Minimum Requirements and Standards (7.1)

The requirements and standards of Division 7.0 are minimal and are not intended to discourage the use of higher standards by developers who wish to achieve more desirable results. The Planning Commission may specify additional requirements where, owing to unique or unusual characteristics, the purposes of these Regulations can be better served.

Mobile/Manufactured home parks are subdivisions with special requirements of their own. The provisions of Division 7.0 are in addition to the requirements for subdivisions found in Appendix A and Appendix B. In the event of a conflict between a requirement of the Appendices and Division 7.0, then the requirement of Division 7.0 shall apply.

428(b): Mobile/Manufactured Home Park Requirements (7.2)

The following provisions supplement the provisions of the Jefferson County Zoning Ordinance. If any of these provisions or standards conflict with those contained in the Zoning Ordinance, the provisions contained within Division 7.0 shall apply.

The design, construction, installation, maintenance, and operation of a mobile/manufactured home park or a mobile/manufactured home park development shall comply with all applicable provisions of these Subdivision Regulations; and also comply with the mobile home regulations, minimum standards and engineering practices which are approved and acceptable to the West Virginia State Department of Health. All mobile/manufactured home parks shall be reviewed and approved by the West Virginia Department of Health for compliance with their regulations.

The area of each mobile/manufactured home site (building site) shall be a minimum of 4,000 square feet. Each mobile/manufactured home site shall have a minimum road frontage (width) of 40 feet along a platted road right-of-way.

Each mobile/manufactured home site shall provide an adequate stand for the placement of a mobile home unit.

Not more than one mobile/manufactured home unit shall be placed on or above a mobile/manufactured home site. The mobile/manufactured home structure shall be set on the site in accordance with the requirements of the Jefferson County Building Code Enforcement Ordinance and applicable State Codes. The more stringent requirement shall prevail.

All mobile/manufactured homes not set on permanent masonry or concrete foundation walls shall be skirted. Mobile homes shall be skirted with a uniform material; and an access door a minimum size of two feet by two feet shall be constructed in the skirting of each mobile home.

Mobile/manufactured homes and accessory buildings shall be set back a minimum of 20 feet from the front mobile/manufactured home-site lines and 10 feet from rear and side mobile/manufactured home-site lines. No mobile/manufactured home shall be located within a FEMA flood-hazard area.

Mobile homes, structures, and storage buildings, in a mobile/manufactured home park, shall be kept 25 feet back from all exterior property lines and right-of-way lines.

Convenient off-street parking (on each mobile home site or in designated parking areas) shall be provided at the rate of two spaces per mobile home site. Each space shall have a minimum dimension of 9 feet by 20 feet.⁴

Each mobile home stand shall be served by an individual sidewalk a minimum 2 feet in width. All walkways shall be constructed in accordance with Appendix B, Section 2.2.K.3, *Sidewalks & Paths*. Individual sidewalks shall connect with the common sidewalks in the mobile home park, or, to paved off-street parking spaces, or, to paved streets.

Each mobile home site shall provide serviceable connections for water supply, sewage disposal and electricity. Water and sewer connections shall comply with the minimum standards of the West Virginia Department of Health. Electrical connections shall comply with service provider requirements.

Each mobile home park shall be served by a central water supply system.

Each mobile home park shall be served by a central sewerage system. Septic systems are prohibited.

Section 429: Requirements for Campgrounds (8.0)

429(a): Minimum Requirements and Standards (8.1)

The requirements and standards of Division 8.0 are minimal and are not intended to discourage the use of higher standards by developers who wish to achieve more desirable results. The Planning Commission may specify additional requirements where, owing to unique or unusual characteristics, the purposes of these Regulations can be better served.

Campgrounds are developments with special requirements of their own. All campgrounds shall process as a Minor Site Plan. Campgrounds proposing more than ten (10) sites shall also process a Concept Plan. The provisions of Division 8.0 are in addition to the requirements for subdivisions found in Appendix A and Appendix B. In the event of a conflict between a requirement of the Appendices and Division 8.0, then the requirement of Division 8.0 shall apply.

429(b): Campground Requirements (8.2)

1. Supplemental Provisions

The following provisions supplement the provisions of the Jefferson County Zoning Ordinance.

Campground facilities benefit from flexible design criteria that allow them to preserve and integrate natural features into the site design. All campground facilities shall be designed in a manner which meets the following standards:

- a. Safe access and egress to state roads (WVDOH, Jefferson County Engineering)
- b. Stormwater quality and quantity control (Jefferson County Engineering)
- c. Erosion and sediment control (WVDEP, Jefferson County Engineering)
- d. Zoning Ordinance compliance (Jefferson County Planning and Engineering)
- e. Wells and drain fields (Jefferson County Health Department)
- f. Public water and sewer (Jefferson County Engineering, Jefferson County Public Service District, WV Health Department)

If any of these provisions or standards conflict with those contained in the Zoning Ordinance, the provisions contained within this section shall apply. West Virginia Regulations pertaining to Campgrounds apply to all facilities.

2. Dimensional Requirements

- a. Campgrounds shall be located on properties a minimum of 10 acres in size and shall meet the setback requirements in Section 8.17 of the Zoning Ordinance.
- b. The area of each campsite shall be a minimum of 1,200 square feet not to include road rights-of-way or road easements.
- c. Each campsite shall have a minimum road frontage (width) of 20 feet along a platted road easement, unless such sites are only accessible by foot.
- d. No more than 15 campsites per acre are permitted.
- e. All campsite pads shall be a minimum of 20 feet apart.
- f. Each campsite shall provide an adequate pad for the placement of a camping unit. A campsite pad shall be at least 15 feet by 25 feet in size, shall be flat, and shall not exceed a three percent slope in any direction. This requirement does not apply to cabins.
- g. No more than one camping unit shall be placed on or above a campsite.

3. Road and Access Requirements

Campground roads that serve less than 100 campsites shall meet the following standards:

- a. Existing roads may be used to access campsites without meeting road standards.
- b. May have asphalt or gravel surface.
- c. 12 foot width with three foot pull-off areas that allow larger vehicles to pass.
- d. Maximum slope 15%.

- e. Road section to be determined by a geotechnical engineer hired by the applicant. Alternatively, the applicant may choose to use standard Jefferson County sections.
- f. No ditches are required. All drainage from campground roads must be managed to prevent erosion.

Campground roads that serve more than 100 campsites shall meet the following standards:

- a. May have asphalt or gravel surface.
 - b. 15 foot minimum width.
 - c. Maximum slope 15%.
 - d. Paving section to be determined by a geotechnical engineer hired by the applicant. Alternatively, the applicant may choose to use standard Jefferson County sections.
 - e. No ditches are required, all drainage from campground roads must be managed to prevent erosion.
4. Parking Requirements
 - a. Campsites accessed by vehicles shall provide one level parking area at each site.
 - b. If parking is not provided at the campsite, one space per campsite shall be provided in a common parking area.
 - c. Public parking shall be provided at the campground office or facilities open to the public in sufficient quantity to serve the users.
 5. Sanitation
 - a. Sanitation facilities shall be provided as required by Jefferson County Health Department and WV State Regulations.
 - b. A campsite may contain any combination of water, sewerage, or electrical connections. If not provided at campsites, water and sewerage facilities must be provided at convenient comfort stations within 500 feet of all campsites.
 - c. Each campsite shall be provided with a sanitary, covered garbage can.
 - d. A campground shall provide at least one sanitary sewerage dump station for every forty (40) or fraction thereof trailer or recreational vehicle hookups, one water refill station, and one solid waste disposal collection facility.
 - e. As a minimum, design capacities for centralized water and sewerage systems shall be based on the total number of campsites proposed, plus capacity to accommodate any public buildings.
 6. Powerlines. All powerlines shall be placed underground in a campground. Overhead power lines may be permitted by the Planning Commission where such lines can be effectively screened from view by trees.
 7. Fire Pits. Fire pits (if provided) for campsite must be shown on the Site Plan. A detail of the fire pit must also be provided.
 8. Short Term Use. Camping associated with short term, temporary uses, approved by Jefferson County, are not subject to these regulations.

Section 430: Requirements for Communication Towers (11.0)

430(a): General (11.1)

The provisions of Division 11.0 are in addition to the requirements for Site Development projects found in Appendix A, *Plan & Plat Standards*, Appendix B, *Engineering Standards*, and the Zoning Ordinance. In the event of a conflict between a requirement of the Appendices and Division 11.0, then the requirement of Division 11.0 shall apply.

Any site developed for a communication tower shall require a Site Plan. Where the site is located on a lot to be created out of a subdivision of land, then processing through the appropriate subdivision process shall also be required.

430(b): Design and Construction Requirements (11.2)

1. Entrance.
 - a. The site access road running from the public road or subdivision street to the communications tower site, and which serves no other non-residential use and no more than three residences, may be as narrow as 12 feet in width. Otherwise, the site access road shall be in accordance with Appendix B, Section 2.2, *Streets*.
 - b. The site access road shall have an all-weather gravel surface at least six inches deep.
 - c. Connection of the site access road to the public road shall be in accordance with West Virginia Division of Highways requirements.
2. Parking. No delineated parking spaces need be shown on the Site Plan.
3. Landscaping and Screening and Other Site Amenities
 - a. Landscaping may be limited to perimeter vegetative screening suitable to the staff.
 - b. The site is exempt from providing sidewalks.
4. Stormwater Management and Erosion and Sediment Control. Stormwater management and erosion and sediment control shall be provided to control runoff from the access road and the tower site, in accordance with Jefferson County Stormwater Management Ordinance.
5. Lease Area. The lease area for the tower structure shall tie into an existing property monument with bearing and distances referencing two corner of the lease area.⁴

Section 431: Amendments and Modifications of Site Plans (24.200-24.201)**431 (a): General**

Site plans shall be amended or modified in the same manner as they were originally approved.

431(b): Substantial Compliance with Previous Approval

The Zoning Administrator shall approve an application to modify a site plan where it is demonstrated that the proposed modification or elimination will result in substantial compliance with the approved site plan, as demonstrated by all of the following:

1. Development density and intensity have not materially changed, in that:
 - a. The number of buildings is not increased by more than 5 percent;

- b. The number of stories is the same or fewer;
 - c. The height of the building(s) is the same or less;
 - d. The number of units is the same or fewer;
 - e. The lot coverage and floor area ratios are the same or less;
 - f. The number of bedrooms and corresponding parking spaces may be increased or decreased by as much as 5 percent, based on the entire plan, provided the plan complies with all other requirements of these Regulations and the Zoning Ordinance; and
 - g. Density or intensity (floor area ratio) may be transferred from one building to another or from one stage of development to another, provided that the total floor area ratio is not changed.
2. Design has not materially changed, in that:
- a. The roadway patterns, including ingress-egress points, are in the same general location as shown on the original plans, and are no closer to the rear or interior side property lines than shown on the original plans;
 - b. The parking area is in the same general location and configuration;
 - c. the building setbacks are the same or greater distance from perimeter property lines, except that the building setbacks for detached single family development, attached single family development, townhouse and cluster development may also be decreased, provided that such decrease is limited such that the resulting setback distance will be the greater of either
 - i. The underlying zoning district regulations, or
 - ii. Any condition or restrictive covenant regulating the setback for which a substantial compliance determination is sought;
 - d. The landscaped open space is in the same general location, is of the same or greater amount, and is configured in a manner that does not diminish a previously intended buffering effect;
 - e. The proposed perimeter walls and/or fences are in the same general location and of a comparable type and design as previously approved;
 - f. Elevations and renderings of buildings, if originally provided, have substantially similar architectural expressions as those shown on the approved plans;
 - g. Recreational facilities, if shown on approved plans, either remain the same or are converted from one recreational use to another;
 - h. If recreational facilities were not shown in the approved plans, they may be added, provided there is no increase in lot coverage or decrease in required open space and such facilities are located internally within the proposed development;
 - i. If a variance for signage has been granted, the proposed sign(s) are no greater in size and are placed in the same general location on the site as originally approved.

An entrance sign location may be moved the same proportional distance as a relocated entrance drive;

- j. The proposed changes do not have the effect of creating any noncompliance or nonconformity with the strict application of the Zoning Ordinance that were not previously approved at public hearing, or of expanding the scope of existing variances such that they would differ to a greater degree from the strict application of the Zoning Ordinance;
3. Additional outparcels may be added where:
 - a. There is no increase in the project's total floor area ratio or lot coverage;
 - b. There is no reduction in the total amount of landscaped open space; and
 - c. Addition of the outparcel does not result in noncompliance with any other provision of these Regulations or the Zoning Ordinance on any other portion of the subject property.
 4. Reductions in the number of parking spaces on the site are permitted if sufficient parking spaces are provided to satisfy the requirements of the Zoning Ordinance.

ARTICLE V: IMPROVEMENT LOCATION PERMIT

Section 500: Improvement Location Permit (24.505)

An improvement location permit and/or building permit is required prior to the erection, relocation, or alteration of a building or structure, prior to establishing a land use on a vacant lot or in a vacant building; prior to changing a land use existing on a lot or in a building to a different land use, and prior to any land altering activity in a flood prone area.

Administration of this Ordinance shall be delegated to an employee of the Jefferson County Planning Commission to be known as the Land Development Coordinator. The Land Development Coordinator shall be under the supervision of the Director of Planning and, where a Land Development Coordinator has not been appointed by the Planning Commission, the Director of Planning shall be designated as the Land Development Coordinator. It shall be the duty of the Land Development Coordinator to evaluate all Improvement Location Permit applications for conformance with applicable County land development laws:

- Subdivision Ordinance
- Zoning Ordinance
- Flood Plain Management Ordinance

* Except as elsewhere provided by this Ordinance, an approved Improvement Location Permit shall be required prior to the construction of a structure: and, prior to the placement, location or relocation of a mobile home on a parcel of land; prior to the alteration of a building or structure in a way which enlarges the exterior dimensions of such a building or structure; prior to establishing a Land use on a vacant lot or in a vacant building; prior to changing a land use existing on a lot or in a building to a different land use, and, prior to any land altering activity in a flood prone area.

Examples of buildings, building alterations, structures and land uses which do not require an Improvement Location Permit (outside of flood prone areas) are: uses of land for agriculture where no building or structure is required; addition of windows, doors and steps to a building; standard maintenance to a building such as plumbing, mortar and woodwork, painting, weatherproofing, and siding or roofing replacement; construction of a private driveway, patio, or walkway that is not enclosed or covered by a roof; construction of a fence not over six (5) feet tall or a clothesline; and, construction and location of local-serving essential utility equipment.

Any proposed building, building alteration, structure, or land use that does not conform with applicable County land development laws and/or West Virginia Department of Health regulations shall be denied an Improvement Location Permit.

Any application for a building, structure, or land use that requires an individual septic system and/or well must be accompanied by a Sewage Disposal Installation Permit and verification from the well driller that a pressure grouted well has been drilled and is producing water at a level acceptable to the local or State Health Department. Certification that this water is potable must be submitted within 6 months of the issuance of the Improvement Location Permit.

Any application for a single-family dwelling, multi-family dwelling, or commercial structure must be accompanied by verification that application has been made to the State Department of Highways for a Highway Entrance Permit.

Any application for the addition to or the construction of a commercial, industrial, or multi-family facility shall be accompanied by a full site plan, except as described in Sec. 20.203B of the Subdivision and Land Development Regulations.

* Any application for a sign permit may be approved by the staff if in conformance with all existing regulations.

500(a): General Authority (1.0)

By authority of the Code of West Virginia, Chapter 8, Article 24, and Chapter 7, Article 1, Section 3v, the County Commission of Jefferson County is empowered to adopt, administer and enforce such rules, procedures and ordinances as are necessary to effectuate the purposes of subdivision ordinances, zoning ordinances, and flood plain management ordinances. (Ref.: 8-24-1 * Lines 18-16; 8-24-3 * Lines 5-13; 8-24-36; 37; 7-1-3v-c-ii).

500(b): Purpose (1.1)

The purpose of this Ordinance is to establish a uniform permit procedure by which substantial improvements (new and additional) to unincorporated land in Jefferson County are brought to the attention of the Jefferson County Commission or its designated agents.

A sound knowledge of intended land development proposals and construction activity facilitates a more equitable and efficient application of the land development laws that have been or will be adopted by the County Commission.

Specifically, this Ordinance is intended to:

1. Assist the public to learn of and understand the land development laws of the County
2. Minimize land development and construction problems that occur in the absence of an awareness of the prevailing laws
3. Minimize hazards to life and property
4. Advise residents and property owners of land developments and improvements intended throughout the County
5. Minimize the public financial costs associated with the administration and enforcement of local and development laws.

500(c): Title (1.2)

This Ordinance shall be known, cited and referred to as the Jefferson County Improvement Location Permit Ordinance.

500(d): Application (2.0)

This Ordinance established by action of the Jefferson County Commission on November 20, 1975, shall take effect on the 20th day December 1975, and shall apply to all lands, buildings, properties and their uses within the unincorporated territory of Jefferson County.

500(e): Forms, Fees, Processing for ILP (4.1)

Application forms and such other material as may be necessary to administer the Improvement Location Permit Ordinance shall be prepared and distributed by the Planning Commission. The

application fees for Improvement Location Permits shall be set by the County Commission of Jefferson County, upon recommendation of the Planning Commission, as may be necessary from time to time in order to defray the cost of administering this Ordinance.

The processing of an application for an Improvement Location Permit shall not be unnecessarily cumbersome or long. Failure on the part of the Land Development Coordinator to issue or deny an Improvement Location Permit within ninety (90) days after receipt of a completed application shall result in the immediate issuance of an Improvement Location Permit. Routine applications that do not require public hearings or other governmental meetings shall be processed within twenty-one (21) days after receipt of a completed application. After the issuance of an Improvement Location Permit by the Land Development Coordinator, no changes of any kind shall be made to the application, permit or any of the plans, specifications or other documents submitted with the application, without the written consent or approval of the Land Development Coordinator.

The application shall contain a statement stipulating the method of drainage conveyance, i.e., culvert pipe, designed swale, etc., to be used to carry water across or under entrances. A drainage conveyance, either temporary or permanent, shall be installed prior to starting any other construction. The methods should comply with either the Subdivision Ordinance, an approved Preliminary Plat, a Jefferson County Standard Detail approved by the County Engineer or a special design submitted to and approved by the County Engineer. Non-compliance with this stipulation will constitute a violation of the Ordinance.

The application shall contain a statement stipulating that existing roads will be protected from damage due to heavy vehicles and from mud tracked from the site by construction traffic, and, that adjoining properties will be protected from erosion and sedimentation resulting from work on the applicant's site. As a minimum a stabilized construction entrance complying with Jefferson County Standard Detail SC10 will be used to protect roads. Methods of protecting adjoining properties will be selected based on the West Virginia Erosion and Sediment Control Handbook for Developing Areas or other standards acceptable to the County Engineer.

Work on the proposed construction shall begin within six (6) months after the date of issuance of the Improvement Location Permit or the permit shall expire unless a time extension is granted in writing, by the Land Development Coordinator. In the case of roadways, construction shall be considered started with the grading and removal of topsoil. Structure and building construction shall be considered started with the first placement of permanent construction on the site, such as the pouring of slabs or footings or any work beyond the stage of excavation. For a structure without basement or poured footings, the start of construction includes the first permanent framing or assembly of the structure or any part thereof on its pilings or foundation, or the affixing or any pre-fabricated structure or manufactured home to a permanent site. Permanent construction does not include Land clearing or filling.

In addition to an Improvement Location Permit, the Land Development Coordinator shall issue a placard which shall be displayed on the premises during the time construction is in progress. The placard shall show the number of the Improvement Location Permit and the date of its issuance. Placards shall be signed by the Land Development Coordinator.

During the construction period, the Land Development Coordinator or other authorized official may inspect the premises to determine that the work is progressing in compliance with the information provided on the Improvement Location Permit application, and with all applicable County land development laws. In the event the Land Development Coordinator determines that the work does not comply with the Improvement Location Permit application and all applicable land development laws, or that there has been a false statement or misrepresentation by the applicant, the enforcement procedures outlines in Section 4.2 shall be initiated.

^ (a) The record owner shall obtain the Improvement Location Permit.

500(f): Enforcement for ILP (4.2)

Enforcement of this Ordinance shall be the responsibility of the Land Development Coordinator, who shall make an initial interpretation that a violation has occurred. The Land Development Coordinator shall prepare a written Violation Notice and Directive to Cease and Desist and shall transmit such notice and directive to the person responsible for the violation. Failure to comply with a Directive to Cease and Desist shall be cause for the Planning Commission to declare the subject property, buildings and/or structures in violation. Upon such declaration, the Planning Commission shall instruct the Land Development Coordinator to request the assistance of the County Prosecuting Attorney and:

1. Seek an injunction in the Circuit Court of Jefferson County to restrain the responsible person from continuing the violation cited or seek an injunction requiring removal of structures or land uses from the property involved;

OR

2. Obtain a warrant for the arrest of the person responsible for the violation and seek conviction in the Magistrate Court of Jefferson County; or both a) and b).

500(g): Violation (4.3)

It shall be unlawful for any person, whether as owner, lessee, principal, agent, employee or otherwise, to violate or permit to be violated any provision of this Ordinance.

500(h): Penalty (4.4)

* Any person who violates any provision of this Ordinance shall be guilty of a misdemeanor and, upon conviction, shall be fined not less than one hundred dollars nor more than three hundred dollars. Each day during which any violation of this Ordinance continues shall constitute a separate offense.

Section 501: ILP-Appeal; Amendment; Conflict with Other Laws; Validity (Article 5)

501(a): Appeal (5.0)

An appeal regarding the administrative procedure exercised under the provisions of this Ordinance, shall be filed with the Jefferson County Commission.

An appeal regarding the substantive basis for the granting or denial of an Improvement Location Permit shall constitute an appeal from one or more of the land development laws enumerated in Section 4.0 of this Ordinance and shall be filed with the appropriate governmental body.

All appeals shall specify the grounds thereof and shall be filed with the appropriate governmental body within thirty (30) days after the date of the order, decision or procedure complained of.

501(b): Amendment (5.1)

By legislative procedure, the Jefferson County Commission may, from time to time, amend, supplement or change the provisions of this Ordinance.

501(c): Conflict with other laws (5.2)

Where the provisions of this Ordinance impose greater restrictions than those of any other ordinance or regulation, the provisions of this Ordinance shall be controlling. Where the provisions of any statute, other ordinance or regulation propose greater restrictions than this Ordinance, the provisions of such statute, ordinance or regulation shall be controlling.

501(d): Validity (5.3)

If any article, section, subsection, paragraph, clause or provision of this ordinance shall be declared by a court of competent jurisdiction to be invalid, such decisions shall not, affect the validity of this Ordinance as a whole or any other part thereof.

501(e): Building Codes (5.4)

If all requirements of the Jefferson County Building Code Ordinance are not met after the issuance of the Improvement Location Permit, the permit shall be revoked.

Section 502: Bonding for ILP (Article 6)

Bonding (6.0)

Any addition to, or construction of a commercial, industrial, or multi-family facility which has not been granted a variance for the site plan requirement cited in Section 4.0 and which has had the issuance of the permit approved by the Planning and Zoning Commission shall be issued the Improvement Location Permit provided the applicant secures a Construction Bond for completing the following elements of the improvements:

1. Erosion and sediment control;
2. Storm Water Management;
3. Road improvements not bonded by the West Virginia Department of Highways;
4. Screening and landscaping;
5. Off-site sewer and water extensions or modifications not bonded by the appropriate utility;
6. Entrance drainage; and
7. Traffic control devices not bonded by the West Virginia Department of Highways.

ARTICLE VI SURETY AND BONDING

Section 600: Surety (24.500)

All major subdivisions and all site developments shall be required to provide security that meets the approval of the Department, agencies responsible for accepting the improvements, and in accordance with the County Commission Bonding Policy. Surety is a financial guarantee that the improvements proposed in the subdivision or site development are made as planned if, for some reason, the developer fails to make the required improvements.

600(a): Improvements Requiring Surety (24.501)

- 1 Requirement. Each of the following elements or systems requires surety:
 - a) Clearing, Grading, and Site Preparation.
 - b) Stormwater Facilities.
 - c) Water and Sewer Utilities or facilities.
 - d) Streets, Sidewalks, Parking, Curbs, Street Drainage, and Lighting.
 - e) Landscaping and Recreation Facilities.
 - f) Other Utilities.
- 2 Exception. Utilities that install their own infrastructure (such as telephone, electric, gas, and cable companies) will not require surety.

600(b): Amount of Surety (24.503)

1. Cost Estimates. The developer shall submit cost estimates from the project engineer for the cost of such installation.
2. Review and Approval. Staff shall review the cost estimates and make upward adjustments if they find the cost estimates below those the County is currently experiencing.
3. Amount. The surety shall be in the amount of 115 percent of the approved estimate. This covers inflation, the cost of inspecting, and rebidding if the developer defaults and the County has to take over construction or construction supervision.

600(c): Funding of Improvements (24.504)

1. On-Site Infrastructure. All on-site infrastructure shall be provided by the developer.
2. Off-Site Infrastructure. Generally, off-site infrastructure that is necessitated by the development shall be funded by applicable impact fees or proffers (if proffers are made). The County may also approve developer construction of off-site infrastructure.

Section 601: Bonding (1.6)

All bonding and securities for such bonding (bonding shall be a minimum amount of 115% of the cost of all improvements) shall be submitted and approved during this time period. Satisfactory bonding and surety shall be submitted, approved and in place prior to recordation of the final plat. Bonding shall be provided in accordance with the County Commission of Jefferson County's bonding policy.

The developer/subdivider shall submit an itemized estimate of the costs for completing all improvements shown on the Preliminary Plat/Plan and/or Site Plan. The estimate shall be prepared by the engineer of record. The estimate shall be in a format specified by the Chief County Engineer.

For additional site work required due to plat or plan changes approved under Appendix A, Section 1.2.B, *Plat/Plan Changes*, additional bonding shall be provided as determined by the County Engineer.

ARTICLE VII: DEFINITIONS

Word Usage and Abbreviations

This Division's provisions and rules shall be observed and applied when interpreting these Regulations, except when the context clearly requires otherwise. Words used or defined in one tense or form shall include other tenses or forms.

- A. Words in the singular number shall include the plural number. Words in the plural number shall include the singular number.
- B. The masculine gender shall include the feminine. The feminine gender shall include the masculine.
- C. The word "shall" be mandatory.
- D. The word "may" be permissive.
- E. The word "person" includes individuals, partnerships, firms, corporations, associations, trusts, and any other similar entities or combination of individuals.
- F. The word "Attorney" shall mean the Office of the Prosecuting Attorney of Jefferson County or any individual attorney therein.
- G. The phrase "Board of Zoning Appeals" shall mean the Board of Zoning Appeals of Jefferson County. It may be abbreviated BZA.
- H. The phrase "Comprehensive Plan" shall mean the Comprehensive Plan of Jefferson County. It includes all adopted maps, charts, and explanatory materials and subsequent amendments.
- I. The word "Commissioners" shall mean the Jefferson County, County Commission.
- J. The word "County" shall mean Jefferson County, West Virginia.
- K. The word "Department" shall mean the Jefferson County Department of Engineering, Planning, and Zoning.⁷
- L. The phrase "Landmarks Commission" shall mean the Jefferson County Historic Landmarks Commission.
- M. The word "Owner" shall mean or include the person holding title to the property, lessees, occupant, or person in charge of the property for management or construction.
- N. The phrase "Planning Commission" shall mean the Jefferson County Planning Commission.
- O. The phrase "County Clerk" shall mean the Jefferson County Office of County Clerk.
- P. The phrase "Professional Engineer" shall mean an engineer licensed in the State of West Virginia.
- Q. The word "staff" shall mean the Jefferson County Department of Engineering, Planning, and Zoning, Zoning Administrator, and such other employees or consultants designated by the County Commission.
- R. The word "State" shall mean the State of West Virginia.

- S. The phrase “Department of Health” or “Health Department” shall mean the Jefferson County Health Department. Sec. 26.102 Abbreviations

The following abbreviations are used in these Regulations:

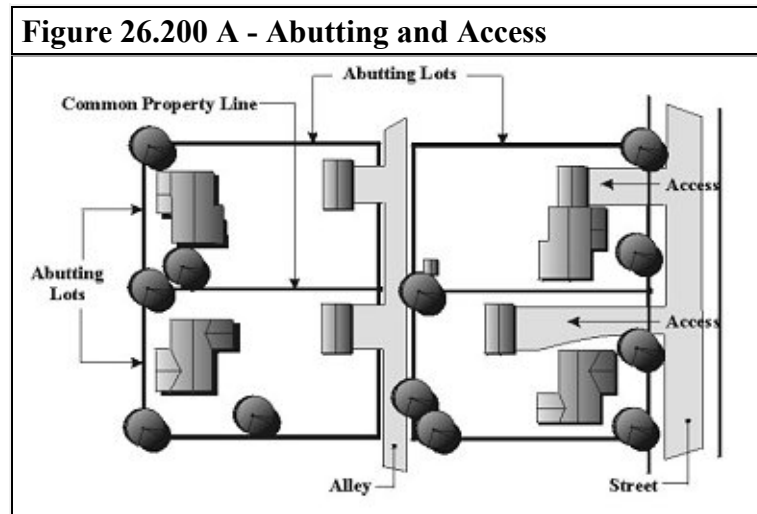
AASHTO	American Association of State Highway and Transportation Officials
ac.	Acre
DBH	diameter at breast height for a tree
du or dus	dwelling unit(s)
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
ft.	Feet
C&G	concrete and gravel
GD	gross density
GIS	Geographic Information Systems
LSR	landscape surface ratio
max.	Maximum
min.	Minimum
na.	not applicable
ND	net density
OSR	open space ratio
sf.	square feet
S.F.	single-family
SPCS	State Plane Coordinate System
SWM	stormwater management
USGS	United States Geological Survey

Definitions of Terminology

The following definitions describe the meaning of the terms used in these Regulations. Appendices may contain additional definitions which are specific to the particular appendix in which they are located.

Abutting

Two lots sharing the same or common property lines, including lots separated by an *alley*.

**Access**

An area designated as a way for vehicles to enter or leave a property or lot to a public or private street or *alley*. Access is intended to permit residents to bring their vehicles onto the property, to allow customers or tenants to park, and to provide for public access in emergencies. See Figure 27.301A, *Abutting and Access*.

That portion of a lot used for ingress/egress to an *abutting* lot and shown on a final plat by a recorded easement declaration. In no case shall a street right-of-way be construed to mean an easement.

Access Easement**Adequate Infrastructure**

This includes water, sewer, roads, parks and recreation, emergency services, and stormwater facilities. To be adequate, they shall meet all construction requirements of these Regulations and the County. In addition, the County shall require that there is adequate capacity where the connection is made to the system and in mains, interceptors, or other off-site facilities, including treatment facilities and storage facilities.

Administrator

Refers to the Planner or Zoning Administrator, designated by the County Commission, who shall enforce and interpret the provisions of these Regulations.

Agency

The governmental entity, department, office or administrative unit responsible for carrying out regulations.

Agriculture

The cultivation of plant crops or the raising of livestock. Agriculture is the organized use of land for the production of plant or animal food, fiber or landscape products. Beef and dairy farms, grain farms, orchards, plant nurseries, and tree farms are forms of agriculture.

Agricultural Use^{17, 21, 23}

The use of land for a bona-fide farming operation. This includes:

1. Commercial Agricultural Enterprise;
2. Agriculture, Ranching;
3. Aquaculture;
4. Apiculture;
5. Horticulture;
6. Viticulture;
7. Fish, meat, poultry and game birds processing, if fifty percent (50%) of the meat processed must be raised on the site farm of the processing facility for minimum periods of three (3) months for beef and pork and two (2) months for lamb and poultry;
8. Animal Husbandry; including, but not limited to, the care and raising of livestock, equine, and fur-bearing animals;
9. Poultry husbandry and the production of poultry, game birds and poultry products;
10. Dairy production and processing of dairy products;
11. Equestrian uses;
12. The production of field crops including but not limited to tobacco, fruits, vegetables, nursery stock, ornamental shrubs, ornamental trees, flowers, sod, mushrooms, timber, pasturage, Christmas trees, maple sap, woody biomass, compost;
13. Pick your own farm products;
14. Agricultural tourism;
15. Farm vacation enterprise;
16. Farm brewery and winery subject to the requirements for such a use in Article 8;
17. Rental of garden plots;
18. Community supported agriculture;
19. The warehousing; processing, value added, drying, storage, distribution and marketing of agricultural products when those activities are conducted in conjunction with, but are secondary to, husbandry or production;
20. Forestry

Alley

See *Street, Service*.

Appeal

A way to obtain review of a decision, determination, order, or act of staff or the Planning Commission pursuant to the terms of these Regulations.

Applicant

A person, firm, or governmental agency that executes the necessary forms to obtain approval or a permit for any zoning, subdivision, site development, building, land disturbance, or other activity regulated by these Regulations.

Application

The completed form or forms and all accompanying documents, exhibits, and fees required of an applicant by the applicable department, board, or commission of the county for development review, approval, or permitting purposes.

Approval

Approval shall mean final action granting an application given by the appropriate administrative body specified in Article 11, *Administrative Bodies*, as having final approval responsibility.

Area of Special Flood Hazard

The land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. The area may be designated as Zone A on the Flood Hazard Boundary Map (FHBM). After detailed rate making has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AE, AH, AO, A1-99, VO, V1-30, VE or V.

Arterial Street

See *Street, Arterial*.

Base Flood

The flood having a one percent chance of being equal to or exceeded in any given year.

Base Flood Elevation

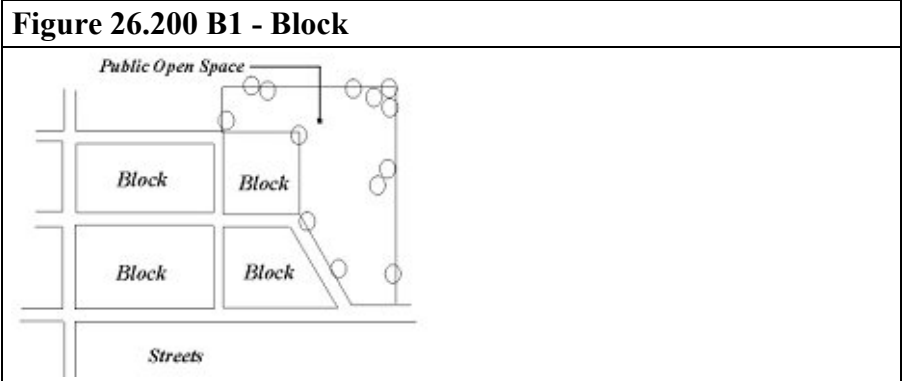
The elevation in Mean Sea Level of the Base Flood.

Best Management Practices

That combination of conservation measures, structures, vegetation, or management practices that reduces or avoids adverse impacts of development on an adjoining site's land, water, or waterways and water bodies.

Block

An area of land surrounded by streets or other transportation right-of-way's or by physical barriers such as water bodies or public open spaces. Blocks are normally divided into lots.

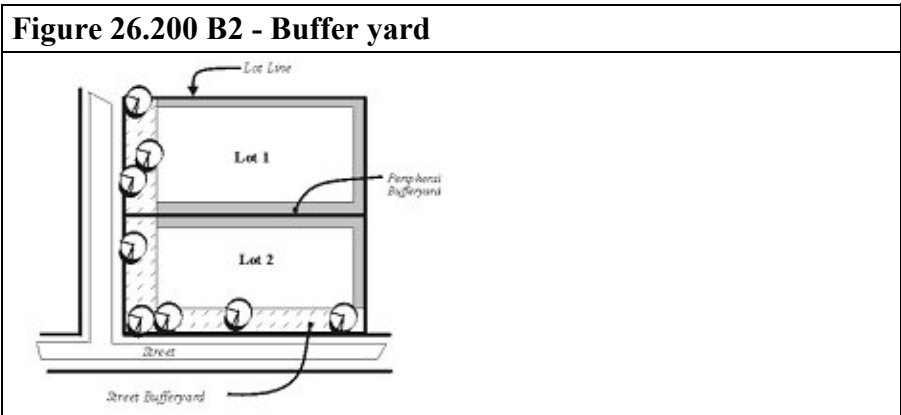


Buffer

A designated area between two uses or zoning districts deemed incompatible with each other, or along the perimeter of a natural feature to be protected from an incompatible use, or along the perimeter of that use, which will absorb or otherwise mitigate such incompatibility by some combination of construction design, vegetative plantings, fences, and/or maintenance practices which shall be permanently maintained.

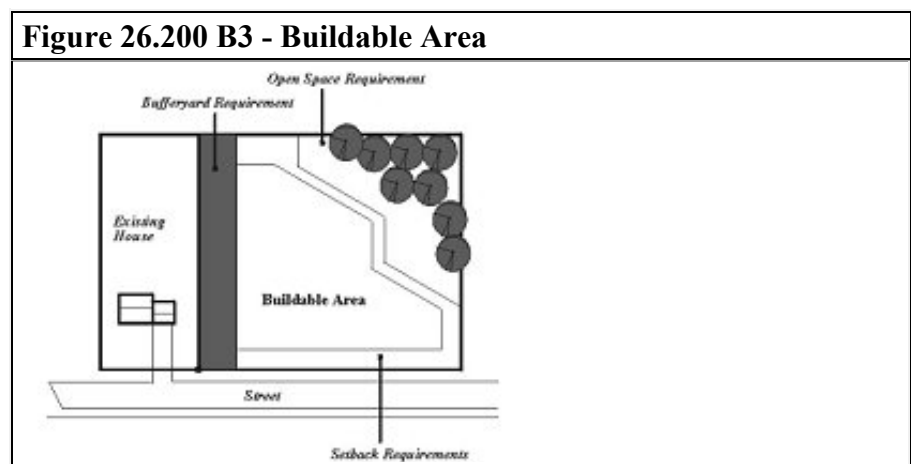
Bufferyard

A strip of land on the periphery of a property created to separate one type of land use or zoning district from another when they are incompatible or in conflict. Buffer yards include street buffer yards that protect the use from road related nuisances or that screen undesirable uses.



Buildable Area

The space remaining on a lot after the minimum open space or landscape surface requirements, *buffer yards*, and setbacks have been met. See *Net Buildable Site Area*.



Building

A structure built on a lot or parcel of land, having a roof, and intended to shelter people, animals, property, or business activity. Any structure used or intended to be used for supporting or sheltering any use or occupancy. The word "building" shall be construed as if followed by the words "or part or parts thereof and all equipment therein."

Building

Any structure which is permanently affixed to the land and has one or more floors and a roof. The term building shall include manufactured homes.

Business Owner's Association (BOA)

See *Homeowner's Association (HOA)*.

Calendar Day

Consecutive days including Saturday, Sunday, and holidays. See *Days*.

Campground^{27, 31}

An area or premises located on a single lot, operated as a commercial enterprise, generally providing space in the form of campsite pads for seasonal accommodations for transient occupancy or use by customers occupying camping units. A campground shall be designed for seasonal occupancy, as opposed to permanent year-round occupancy, and shall not be construed to mean a Mobile Home Park (as defined in this Ordinance). All campgrounds shall comply with the defined uses and regulations in Section 8.17 of this Ordinance and relevant sections of the Subdivision Regulations.

Centralized Sewer System

A sanitary sewage collection and treatment system in which sewage is carried from individual lots by a system of pipes to a central treatment and disposal system serving a community and owned and/or operated and maintained by a Public or Private Utility.

Certificate of Occupancy

A statement signed by the Building Official setting forth that a building, structure, or use legally complies with the Zoning Ordinance and the applicable Building Codes and that the building, structure, or use may be used for the purposes stated therein.

Child

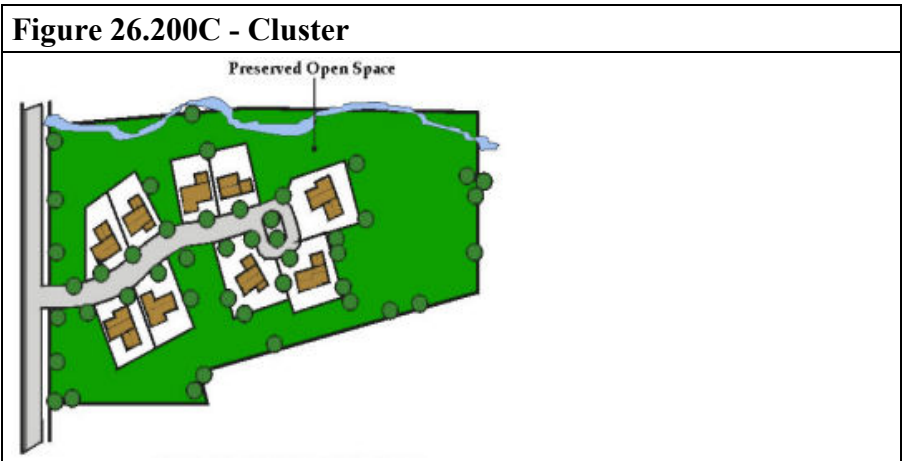
Any person who is a natural or legally defined offspring of the owner of a parcel of land.

Clean Fill

A non-decomposable, environmentally inert solid such as rock, soil, or gravel.

Cluster

A development pattern or design technique in which lots are grouped together, rather than spread evenly throughout a parcel as in conventional subdivision development. Cluster development allows the remaining land to be used for recreation, open space, and the preservation of natural or built resources.

**Collector Street**

See *Street, Collector*.

Collector, Residential

See *Street, Residential Collector*.

Commencement of Construction

Commencement of construction means that a building permit or other written permit required to be issued by the Building Official has been issued and work has commenced under such permit. This is recognizable upon an inspection of the property and which work is of a nature and character that reflects a good faith intention to continue the work until completion, such as the clearing of rights-of-way, rough-grading of the roadway, the installation of a drainage system or stormwater management facilities, and the placement and active maintenance of erosion and sediment control measures.

Community Sewer System

A sanitary sewage collection and treatment system in which sewage is carried from individual lots, by a system of pipes to a central treatment and disposal system generally serving a neighborhood and owned and/or operated and maintained by a Public or Private Utility as defined above.

Completeness Review

The completeness review determines not only whether the applicant has submitted all required information, but also includes the technical review of the material to determine whether the plan and infrastructure is properly designed and will function adequately. A submission requires roads, sewer, water, and zoning information that only a thorough review by agencies responsible for these items can determine whether the information is present and correct. The drawing, engineering and otherwise, must work when built

in the field on the conditions of the site. Agency reports on the plan are part of the required application to the Planning Commission. The developer's submission and agency review are essential to provide a complete application that can be reviewed by the Planning Commission and citizens.

Comprehensive Plan

A plan for physical development, including land use, adopted by a governing body, setting forth guidelines, goals and objectives for all activities that affect growth and development in the governing body's jurisdiction. (*Source Chapter 8A of the West Virginia Code.*)

Conservation

The planned management of a natural feature to prevent its exploitation, destruction, or neglect.

Conservation Area

An area designated on the site-plan, preliminary or final plat intended to preserve and protect natural resources or a public or private land use that preserves an area in a natural condition.

Conservation Easement

A conservation easement is a recorded document that restricts the use of land to uses that are compatible with environmental conservation, historic preservation, or open space preservation. Conservation easements do not involve transfer of fee simple title to the property to be conserved.

Construct or Construction

The erection of a new building, structure, or object upon a site.

Constructed Wetland

A low-lying area, artificially created by dredging, damming, or berming of earth for the retention of water and the establishment of a hydrophytic vegetative community.

Contiguous

Lots, parcels, municipal boundaries or county boundaries that are next to, abutting and having a boundary, or portion thereof, that is coterminous. Streets, highways, roads or other traffic or utility easements, streams, rivers, and other natural topography are not to be used to determine lots, parcels, municipal boundaries or county boundaries as contiguous. (*Source: Chapter 8A of the West Virginia Code*)

County Commission

The Jefferson County Commission, five Commissioners elected at-large.

Covenant or Restrictive Covenant

A restriction on the use of land set forth in a formal binding agreement. Restrictive covenants run with the land and are binding upon subsequent owners of the property.

Days

Refers to calendar days and, therefore, includes all days in a month, including weekends and holidays.

Dedication

The transfer of private property to public or common ownership, such as a Homeowner's Association, for a public purpose. The transfer may be in fee

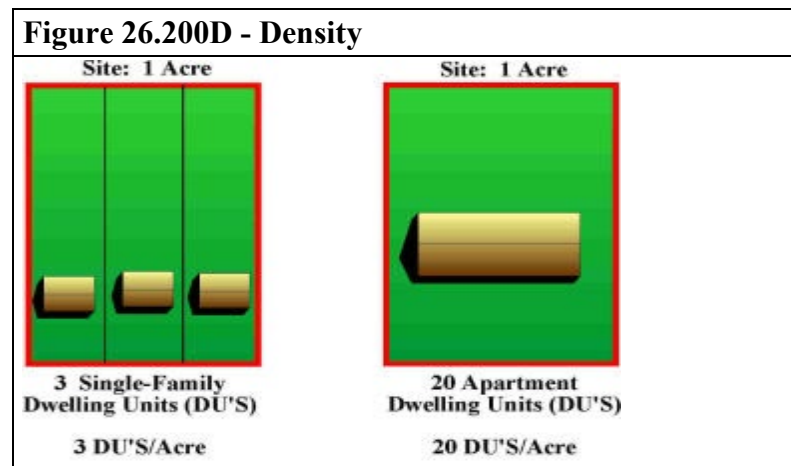
simple interest or less than fee simple interest, including easements. Dedication requires the acceptance of the interest to be complete.

Deed Restriction

A restriction placed within a deed that controls the use of the property. Deed restrictions travel with the deed, and therefore with the property, and cannot generally be removed by new owners.

Density

The average number of dwelling units allowed on an acre of land. It may also measure the families, housing units, or rental rooms. For example, the figure below shows two types of land uses on an acre of land. The first shows a density of three homes per acre. The second shows a density of 20 apartment units per acre.



Department

See Section 26.101, *Word Usage*.

Design Storm Frequencies

Time interval in years at which a storm occurrence has a chance to exceed or equal the storm of specific duration and intensity used in design of drainage facilities.

Detention/Retention Basin

A natural or man-made structure designed as a temporary holding basin for water. Water may be detained to minimize flooding downstream or retained to increase aquifer recharge.

Developer

A person seeking to build or develop as defined in these Regulations.

Development

Construction of a new building or other structures on a lot, the relocation of an existing building on another lot, or the use of open land for a new use. In addition, it also means any man-made change to improved or unimproved real estate, including, but not limited to, parking, fences, pools, signs, temporary uses, clearing of land, dredging, filling, grading, paving, or excavation.

Disposal Field	A system of open jointed or perforated pipes laid in the upper strata of the soil to distribute sewage effluent into the soil for absorption and vaporization.
Drainage	The process by which surface water (usually from rainfall) moves across the land surface. See Division 22.400, <i>Drainage</i> .
Drainage Areas	The delineated areas that currently contribute or are proposed to contribute runoff to a specific location or point.
Drainage Facility	Any system of artificially constructed drains, including open channels and separate stormwater sewers, used to convey stormwater, surface water, or groundwater, either continuously or intermittently, to natural water courses.
Drip-line	A generally circular line, the circumference of which is determined by the outer reaches of a tree's widest branching points.
Driveway	A private access way, primarily for vehicles, leading from a street to a parking or loading area.
Earthen Berm	A man-made mound of earth in excess of two feet in vertical height used to shield or buffer properties from adjoining uses, highways, or noise or to control the direction of surface water flow.
Easements	Any portion of a parcel, subject to an agreement between the property owner and another party, which grants the other party the right to make limited use of that portion of the property for a specified purpose. See <u><i>Conservation Easement</i></u> .
Elevation Certificate	A FEMA form to be completed by a professional engineer or surveyor to document the elevation of the lowest floor, including <i>basement</i> , of all new and substantially improved structures.
Eligibility Checklist	A form created by the department to assist applicants in determining if they are eligible for the minor subdivision process.
Endorsement	The signature of the County Planner appended to the final plat to signify approval thereof.
Engineer, Professional	An individual technically and legally qualified to practice the profession of civil engineering and who is registered to do so in the State of West Virginia.
Environmental Report	Any study, report, or application required by these Regulations, such as critical natural areas, floodplains, riparian buffers, hillsides, water resource protection areas, and wetlands.

- Environmentally Sensitive Area or Resource** Any land area containing (as an example) one, or more, of the following: (1) hillsides; (2) floodplain; (3) soils having high water tables; (4) highly erodible soils; (5) lands incapable of meeting minimum percolation standards; (6) former landfill or industrial waste areas; (7) stream corridors; (8) aquifer recharge or discharge areas; (9) wetlands; (10) scenic view corridors; (11) architectural areas of significant consequence or historic sites, districts, structures or trails; (12) mature stands of trees or vegetation; or any other area possessing environmental characteristics similar to those listed herein.
- Ephemeral Stream** A channel that holds water only during or immediately after periods of precipitation. See also *Intermittent Stream*.
- Erosion** The wearing away of soil or rock fragments by water, rain, wind, or earth gravity.
- Essential Access** An access that must cross a resource restricted area, such as a wetland or hillside, to reach an area of the site that is otherwise buildable and would result in damage to the restricted resource.
- Essential Utility Equipment** This term applies to underground or overhead electrical, gas, communications, and water and sewage systems, including pole structures, towers, wires, lines, mains, drains, sewers, conduits, cables, fire alarm boxes, public telephone stations, police call boxes, traffic signals, hydrants, regulating and measuring devices and the structures in which they are housed, and other similar equipment and accessories in connection therewith. This term does not apply to buildings, yards, stations, and structures used for storage, repair or processing of equipment or materials, and does not include buildings, yards, structures and stations for transforming, boosting, switching or pumping where such facilities are constructed above ground. Essential utility equipment is recognized in two categories; 1) local serving; and, 2) non-local or transmission through County. The second category may serve local users while remaining primarily a through County facility.
- Essential Utilities or Equipment**^{8, 9, 17, 21} Underground or overhead electrical, gas, communications not regulated by the federal communications commission, water and sewage systems, including pole structures, towers, wires, lines, mains, drains, sewers, conduits, cable, fire alarm boxes, traffic signals, hydrants, regulating and measuring devices and the structures in which they are housed, and other similar equipment accessories in connection therewith. Essential utility equipment is recognized in three categories:
- A. Local serving;
 - B. Nonlocal or transmission through county or municipality; and

- C. Water and sewer systems, the activities of which are regulate, in whole or in part, by one or more of the following state agencies:
1. Public Service Commission;
 2. Department of Environmental protection; or
 3. Department of Health and Human Resources.

Expressway

A limited access highway designed to carry regional traffic. All intersections shall be grade separated.

Filling

The depositing on land, whether submerged or not, of sand, gravel, earth, or other materials. Biodegradable materials and other materials subject to decomposition or significant settling (such as garbage and other organic matter) shall not be considered filling.

Flag Lot

See *Panhandle Lot* or Section 21.302, *Flag Lots*.

Flood or Flooding

A general and temporary condition of partial or complete inundation of normally dry land areas from:

- A. The overflow of inland and tidal waters.
- B. The unusual and rapid accumulation or runoff of surface waters from any source.

Flood Insurance Rate Map (FIRM)

An official map of a community on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Flood Insurance Study

The official report provided by the Federal Emergency Management Agency. The report contains flood profiles and water surface elevation of the base flood, as well as the Flood Boundary-Floodway Map.

Flood Proofing

Any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.

Flood Protection Elevation

An elevation established or defined in the Jefferson County Floodplain Management Ordinance.

Flood Protection System

Those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the areas within a community subject to a "special flood hazard" and the extent of the depths of associated

flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees, or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

Floodplain

A relatively flat or low-lying land area adjoining a river, stream, or watercourse which is subject to periodic partial or complete inundation. It includes:

- A. Those areas identified by the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM) as being subject to periodic inundation by a 100-year storm, including the floodway, flood fringe and areas for which no base flood elevations are available as depicted in the FEMA Flood Insurance Rate Maps for Jefferson County.
- B. Those lands where a detailed study has not been performed, but where a 100-year flood boundary has been approximated. All land subject to inundation by the 100-year flood shall be considered floodplain. The actual elevation shall be established after consideration of any flood elevation, flood line, or floodway data available from federal, state, local, or other sources. The approximate floodplain appears on flood insurance rate maps and flood boundary and floodway maps, where it may appear as Zone A.

Floodplain Administrator

A person accredited by the Board and assigned by the County to administer and implement laws and regulations relating to the management of the floodplains.

Floodplain or Flood-Prone Area

Any land area susceptible to being inundated by water from any source (see *Flood or Flooding*).

Flood-prone Area

Areas subject to the one hundred (100) year flood as determined by the Flood Insurance Study prepared by the Federal Insurance Administration for Jefferson County, dated April 25, 1980, as may be amended.

Floodplain Management

The operation of an overall program of corrective and preventive measures for reducing flood damage, including, but not limited to, emergency preparedness plans, flood control works, and floodplain management regulations.

Floodplain Management Regulations

The zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance, and erosion control ordinance), and other applications

thereof, which provide standards for the purpose of flood damage prevention and reduction.

Floodproofing

Any combination of structural and nonstructural additions, changes, or adjustments to properties and structures which reduce or eliminate flood damage to lands, water and sanitary facilities, structures, and contents of buildings.

Floodproofing Certificate

A FEMA form to be completed by a professional engineer or surveyor to certify that a floodproofed, nonresidential building has been constructed in accordance with NFIP requirements.

Floodway

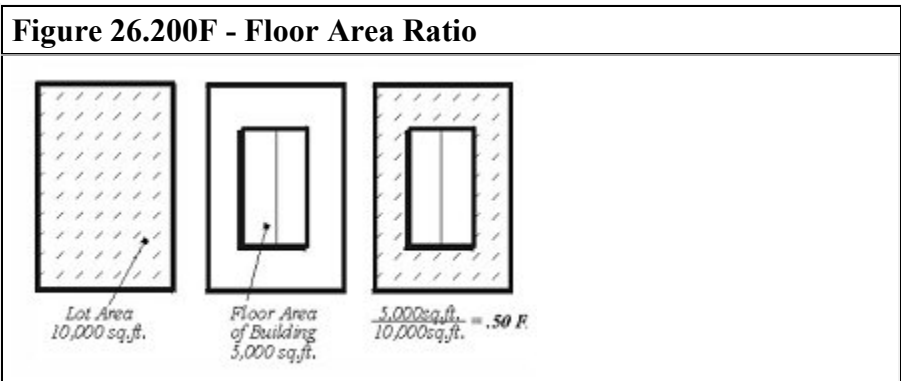
The portion of the floodplain where water velocities are high and most of the discharge the waters of the 100-year flood occurs as delineated on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM).

Floodway (Regulatory Floodway)

The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

Floor Area Ratio

A measure of the allowable size of floor area on a lot compared to the size of the lot. FAR gives developers flexibility in deciding whether to construct a low *building* covering most of the lot or a tall building covering only a small part of the lot, if the total allowable floor area coverage is not exceeded.



Freeboard

Vertical elevation between 100-year flood elevation level and the top of bank or grade.

Frontage

The horizontal distance between the side lot lines measured at the point where the side lot lines intersect the street right-of-way. On curvilinear streets, the arc between the side lot lines shall be considered the lot frontage.

Geographic Information System (GIS)	A computer mapping system that collects, stores, manipulates, analyzes, and displays digital geographic data.
Glare	Light emitting from a luminaire with an intensity great enough to reduce a viewer's ability to see and in extreme cases to cause momentary blindness.
Grade	The natural level of the ground adjoining the object whose height is to be measured. Where grade refers to a street or road, it is the existing grade at that point.
Grading	The excavating, filling (including hydraulic fill), or stockpiling of earth materials, or any combination thereof, including the land in its excavated or filled condition.
Gross Area	The total land and water surface area contained within the boundaries of a lot or tract.
Gross Floor Area²⁷	The sum of the total horizontal areas of every floor of every building on a lot. The measurement of gross floor area shall be computed as provided in the Jefferson County Subdivision and Land Development Regulations.
Groundwater	A portion of the subsurface water that occurs beneath the water table in soils and geologic formations that are fully saturated.
Highly Vulnerable Area	An area where the combination of soils, subsurface conditions, geologic features, hydrology, population density, and Source Water Protection Areas makes the aquifer and groundwater highly vulnerable to contamination.
Highway	Any road thoroughfare, street, <i>boulevard</i> , lane, court, trail way, right-of-way, or easement used for, or laid out and intended for, public passage of vehicles or persons.
Hillside	Land that has an average percent of slope equal to or exceeding 10 percent.
Historic District	A geographically definable area, designated as historic on a national, state or local register, possessing a significant concentration, linkage or continuity of sites, buildings, structures or objects united historically or aesthetically by plan or physical development.
Historic Resource	A site, structure, area, or district possessing historic importance as defined by the U.S. Department of Interior, West Virginia State Historic Preservation Office, Jefferson County Historic Landmarks Commission, or another governmental agency.
Historic Site	The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure whether standing, ruined or vanished, where the location itself possesses historical, cultural or archaeological value regardless of the value of any existing structure and designated as historic on

a national, state or local register, or individually listed on a local inventory of historic places. (*Source: Chapter 8A of the West Virginia Code*).

Historic Structure

Any structure that is:

- A. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
- D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 1. By an approved state program as determined by the Secretary of the Interior, or
 2. Directly by the Secretary of the Interior in states without approved programs.

Home Owner's Association (HOA) or Business Owner's Association (BOA)

An incorporated nonprofit organization operating under a recorded land agreement through which: (a) each lot owner is automatically a member; and (b) each lot is automatically subject to a proportionate share of the expense for the organization's activities, such as, but not limited to maintaining drives, streets, roads, and other common property. Homeowner's Associations and the Uniform Common Interest Ownership Act of West Virginia are interchangeable and reversible terms. The most recent Uniform Common Interest Ownership Act of West Virginia shall prevail.

Hydric Soils

Soils which, in their natural, undrained state, are wet frequently enough at or near the surface to periodically produce anaerobic conditions, thereby influencing plant species' composition and/or growth.

Hydrophytic Vegetation

Those plants which are adapted to life in saturated soil conditions.

Impervious Surfaces

Areas that do not allow significant amounts of water to penetrate.

Impervious Surface Ratio (ISR)

The proportion of a development that is impervious surface. It is determined by dividing the area in impervious surface by the base site area.

Improvement Location Permit

A permit which is required prior to the erection or relocation of a building or structure; prior to the alteration of a building or structure in a way which enlarges the exterior dimensions of such a building or structure; prior to establishing a land use on a vacant lot or in a vacant building; prior to changing a land use existing on a lot or in a building to a different land use; and, prior to any land altering activity in a flood prone area.

Improvement Location Permit

A permit which is required prior to the erection or relocation of a building or structure, prior to the alteration of a building or structure in a way which enlarges the exterior dimensions of such a building or structure; prior to establishing a land use on a vacant lot or in a vacant building; prior to changing a land use existing on a lot or in a building to a different land use; and, prior to any land altering activity in a flood prone area.

Examples of buildings, building alterations, structures and land uses which do not require an Improvement Location Permit are: use of land for agriculture where no building or structure is required; addition of windows, doors and steps to a building; standard maintenance to a building such as plumbing, mortar and woodwork, painting, weatherproofing, and siding or roofing replacement; construction of a private driveway, patio, or walkway that is not enclosed or covered by a roof; construction of a fence or clothesline; and, construction and location of local serving essential utility equipment.

Individual Sewer System

A wastewater system that only serves the lot on which the sewage is generated, with the effluent disposed on that lot.

Infiltration

The passage or movement of water through the soil profile.

Infrastructure

Facilities and services needed to sustain industrial, residential, commercial, and all other land-use activities, including water, sewer lines, and other utilities, stormwater systems, streets and roads, communications, and emergency or public facilities such as fire stations, parks, and similar facilities.

Intensity

A measure of the degree of perceived level of activity as it applies to parking needs, traffic patterns, visual magnitude, or altered character on a parcel of land. Intensity as used in these Regulations is typically measured by the number of square feet of development or Floor Area Ratio per acre by land use type with respect to non-residential land uses.

Intermittent Stream

A well-defined channel with banks and a bed within which concentrated water flows only part of the year and is dry other parts. See also *Ephemeral Stream*.

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. Karst features may be open or filled and may have standing water or stream flow. There may be one feature alone or in groups, usually trending in linear groups along fractures or fissures.
Land Altering Activities	Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.
Land Development	See <i>Major Site Plan</i> or <i>Minor Site Plan</i> .
Land Development Coordinator	A designated employee of the Planning Commission charged with the administration and enforcement of this Ordinance and other land development laws in Jefferson County.
Land Grading	See <i>Grading</i> .
Land, Improved	Vacant land that has been provided with power, water, sewage, streets and side-walks, and other infrastructure.
Landowner	The holder of legal title to the land as recorded by the County Recorder.
Landscape Architect	An individual registered by the State to practice the profession of landscape architecture.
Landscape Plan	A plan associated with a subdivision, site development, or parking facility plan indicating the placement of trees, shrubs, groundcover, and affiliated structures and improvements including specifications, species, quantities, and installation as prepared by an West Virginia registered Landscape Architect.
Landscaping	The design and installation of plant material such as lawns, groundcover, trees, bushes, etc., in formal, informal, or natural arrangements.
Level of Service (LOS)	A measure of traffic on a roadway segment or intersection being used during peak hours, as determined by the most current version of Report 209, the Highway Capacity Manual, prepared by the National Research Council's Transportation Research Board. Level of service is expressed on a scale of "A" to "F" with "A" indicating the best level of service and "F" indicating the worst. The definitions of levels of service "A" through "F" shall be those contained in the references cited in this definition.

Local Residential Access Street

A street that provides access to individual residential lots.

Local Street

See *Street, Local*.

Lot

A parcel of land whose boundaries have been established by a legal instrument such as a recorded deed, court order, or a recorded plat, which is recognized as a separate legal entity for purposes of transfer of title.

Lot

Any tract, parcel, plot, site or area of land which is identified by boundaries and which is able to be lawfully transferred from person to person. The formation and recordation of a lot must conform with applicable State and County regulations.

Lot Area

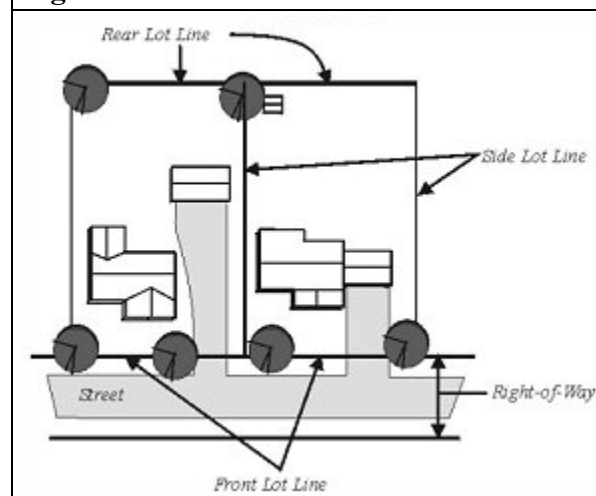
The area of a lot taken at its perimeter, exclusive of any portion within a public or private street right-of-way.

Lot Line

A line, including property line or a lease line, dividing one lot from another or from a street or other public place. There are basically four types of lot lines: front, rear, side, and street.

- A. **Front lot line.** The street lot line from which the unit takes access; or, where more than one street yard could safely provide this access, the street serving the smallest traffic volume.
- B. **Rear lot line.** The lot line opposite the front lot line.
- C. **Side lot line.** The lot line that runs generally perpendicular or at angles to the street or any line that is not a front, street, or rear lot line.
- D. **Street lot line.** Any lot line that is also a street right-of-way line.

Figure 26.200L1 - Lot Lines

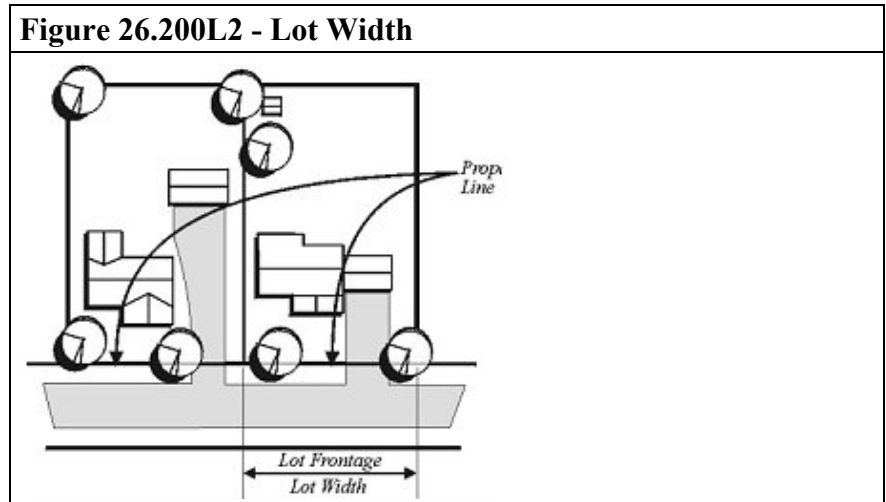


Lot, Panhandle

See *Panhandle Lot*.

Lot Width

The distance across the lot (side lot line to side lot line) at the minimum front setback line or at the midpoint of the buildable area, whichever is less. Lot width is also the measure of frontage for lots (see *Frontage*)



Maintenance Guarantee

A guarantee of facilities or work to ensure the correction of any failures of any improvements required pursuant to these Regulations or to maintain same.

Major Change

A change to the plan that increases density or floor area, decreases open space, buffer yards, or which alters the alignment or layout of streets by more than five feet. For conditional approvals granted prior to the effective date of these Regulations, any proposed use not contained in the original advertisement shall be considered a major change.

Major Site Plan

See *Site Plan, Major*.

Major Subdivision Plat

A plat that proposes subdivision of land, whether residential or non-residential, that requires the development of streets (public or private) or rights-of-way access to the lots, or common area and/or includes the creation of more than five lots that take access to an existing public street.

Manufactured Home

Housing built in a factory according to the federal manufactured home construction and safety standards effective June 15, 1976. (Source: *W.Va. Code §8A-1-2(r)*)

Manufactured Home

A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term “manufactured home” also includes park trailers, travel trailers, and other

similar vehicles when placed in flood prone areas for greater than 180 consecutive days.

Manufactured Housing^{23, 32}

A single family detached structure built in a factory according to Federal Manufactured Home Construction and Safety Standards, effective June 15, 1976. For the purpose of this Ordinance, a manufactured home shall be considered the same as any site-built, single-family detached dwelling.

Mean Sea Level

For purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929, or other datum to which base flood elevations shown on a community's flood Insurance Rate Map are referenced.

Mean Surface Water Elevation

The observed limit of dry weather flow elevation in a *watercourse* or mean high water level in tidal areas.

Minimize

To reduce to the smallest amount possible using Best Management Practices. "Minimize" shall not mean complete elimination but shall require that the most substantial efforts possible under the circumstances have been taken to reduce the adverse effect of the action required to be minimized. With respect to activities, the conduct of which is adverse to the conservation of the natural features of land, the requirement to "minimize" shall include, but not be limited to, the requirement that the placement of dwellings and other structures and the locations of roads, sedimentation and erosion control devices, and earthmoving activities shall be planned and designed so as to permit the adverse effect of the activity in question to be reduced to the smallest amount possible under the circumstances consistent with the otherwise permitted development.

Minor Change

A change to the plan that does not increase density or floor area, does not decrease open space, buffer yards, or parking, or does not *alter* the alignment or layout of streets by more than five feet.

Minor Site Plan

See *Site Plan, Minor*.

Minor Subdivision Plat

A plat that will not require the development of new off-tract infrastructure or the extension of existing off-tract infrastructure, that proposes subdivision of land into five or less lots including the parent parcel.

Mitigation

Any action taken to lessen the specified undesirable impacts of a proposed land use or land disturbance activity, including those which would adversely affect the health or longevity of a natural feature, pose a visual intrusion or conflict, or otherwise be deemed incompatible with surrounding properties.

Moderately Vulnerable Area

An area where the combination of soils, subsurface conditions, geologic features, hydrology, population density, and Source Water Protection Areas

makes the aquifer and groundwater moderately vulnerable to contamination. This area contains a lower intensity of the conditions found in a highly vulnerable area.

Monument

A stone or concrete boundary marker, as required by these Regulations, intended to fix the physical location of property lines.

National Geodetic Vertical Datum (NGVD)

Elevations referenced to mean sea level datum of the 1929 or 1988 U.S. Geological Survey.

Natural Areas

Natural areas are areas of private lots or public land that have been created, recreated, restored, or preserved with locally indigenous plant species and are being maintained through the encouragement of locally indigenous plant species and elimination of noxious weeds as determined by the West Virginia Code.

New Construction

For the purpose of determining insurance rates, structures for which the *start of construction* commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "*new construction*" means structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

New Manufactured Home Park or Subdivision

A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

Nonconforming Structure

A *building*, structure, or parts thereof lawfully existing at the time these Regulations or a subsequent amendment to these Regulations became effective which does not conform to the dimensional requirements of the district in which it is located.

Nonconforming Lot

A lot legally established prior to the effective date of these Regulations, which does not meet the standards of the district in which it is located. This can involve minimum area, buildable area, or dimensional requirements of the lot.

Nonconforming Use

A use of land or use of a *building* or structure lawfully existing at the time these Regulations or a subsequent amendment to these Regulations became effective which does not conform to the use requirements of the district in which it is located

Non-Delineated Floodplain

An area subject to a 100-year flood, adjacent to a watercourse that is identified by a blue line on the current United States Geological Survey

(USGS) topographic maps of the County or in the detailed maps of the Jefferson County Soil Survey for which FEMA has not delineated a floodplain.

**North American Datum
1983 (NAD83)**

The County's GIS data is mapped and stored according to this horizontal datum.

Occupancy

The use of land, buildings, or structures.

Open Space³²

Land area to be left undeveloped as part of a natural resource preservation, recreation, buffer yards, or other open space provision of the Subdivision Regulations. Open space excludes areas in lots, street right-of-way's, or parking. Private open space is designed and intended for common use and the enjoyment of the residents. Public open space is designed and intended for common use and the enjoyment of the residents of Jefferson County.

Open Space Ratio

The proportion of a development required to be left in open space. It is determined by dividing the area in open space by the base site area. When applied to resource protection, the open space ratio shall mean that percentage of the resource feature to be protected and/or preserved in the total land area in that resource.

Ornamental Planting Areas

Ornamental planting areas of private lots or public lands that are used for the growing of herbaceous or woody plantings for ornamental purposes. Determination of plant species that may be considered ornamental is to be made by a landscape architect. Ornamental planting areas shall be free of weeds.

Outfall Points

A specific location, as defined by local topography, where stormwater runoff exits a specific land area.

Outflow Hydrograph

Graphical representation of the runoff rate versus time for flow exiting a stormwater management facility.

Outparcel

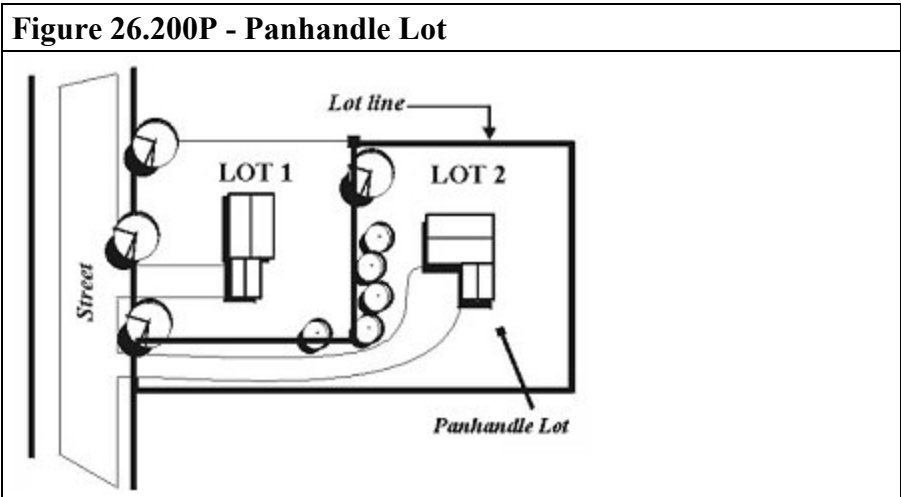
A lot used for drainage, detention, agriculture, or open space, with distinct boundaries, which shall not be used for residential or nonresidential uses, that is created in the process of subdivision.

Owner

See *Landowner*.

Panhandle Lot

A tract of land having insufficient lot width along a road or at the minimum setback line to meet zoning requirements, but with enough area to meet all lot requirements further back on the lot. Sometimes referred to as a flag lot.



Parcel

See *Lot*.

Parent

Any person who is a natural or legally defined parent of the owner of a parcel of land.

Park or Parkland

An area open to the general public and reserved for recreational, educational, or scenic purposes.

Paved Areas

See *Impervious Surfaces*.

Percolation Tests

See *Soil Borings and Percolation Tests*.

Perennial Stream

A channel with banks and a bed within which concentrated water flows year-round but may stop flowing during prolonged drought.

Performance Guarantee

See *Surety*.

Permit

Documents issued by the County or State allowing a person to begin an activity provided for in these Regulations or other codes, ordinances, and regulatory provisions adopted by the County Commission.

Pervious

A description of a surface that presents an opportunity for precipitation to infiltrate into the ground.

Petition

A request for text amendment or a map amendment made by a property owner, a subject property owner, or by a group of property owners acting as a private citizens' group.

Plan, Concept

An informal plan indicating salient existing features of a tract and its surroundings, including the general layout of a proposed subdivision or site development.

Planning Commission

See Division 23.300, *Planning Commission*.

Planning Commission

The Jefferson County Planning Commission. The Commission appointed by the Jefferson County Commission to promote the orderly development of the County.

- A. [AMENDED BY ACT OF THE COUNTY COMMISSION, EFFECTIVE OCTOBER 23, 2003]

Plans, Construction

The engineering drawings showing the construction details and the types of material for the physical structures and facilities (excluding dwelling units) and infrastructure to be installed in conjunction with the development of the project.

Plat

A document, prepared by a professional surveyor or licensed professional engineer, which delineates property lines and shows monuments and other landmarks for the purpose of identifying property.

Plat, Final

A complete subdivision plat for recordation, including all required supplementary data, which defines property lines, proposed streets and other improvements, and easements or a plan of private streets to be dedicated to public use.

Plat, Preliminary

A subdivision plat that includes the construction plans (as defined above) and all required supplementary data, showing the approximate proposed street and lot or site layout, or a plan of existing private streets to be dedicated to public use. A preliminary plat is required to be approved by the Planning Commission after a public hearing but precedes the processing of a final plat.

Plot

See *Lot*.

Primary Access

The way a property takes access to the public street system, ordinarily by a drive that intersects the street. Where there are several possible accesses, the one located or configured to have the most traffic is the primary access.

Private Utility

A privately-owned entity regulated by West Virginia Public Service Commission and West Virginia Department of Environmental Protection, providing utility service to the general public (e.g.: water, wastewater, gas, electric, telephone, solid waste and cable).

Proffer

A voluntary offer in writing, which may be made by the owner or contract purchaser, of reasonable conditions in support of an application for rezoning, subdivision or land development approval, made prior to a public hearing before the governing body or planning commission, in addition to the regulations provided for the zoning district or requirements for subdivision or development, provided that (1) the rezoning or subdivision itself gives rise to the need for the conditions; (2) the conditions have a reasonable relation to the rezoning or impacts associated with the proposed subdivision

or development; (3) all conditions are in conformity with the Jefferson County Comprehensive Plan.

Reasonable conditions may include the payment of cash for, any off-site road improvement or any off-site transportation improvement that is consistent with the comprehensive plan and/or incorporated into the capital improvements program, if nothing herein shall prevent a locality from accepting proffered conditions which are not normally included in a capital improvement program. For purposes of this section, "road improvement" includes construction of new roads or improvement or expansion of existing roads as required by applicable construction standards of the West Virginia Division of Highways to meet increased demand attributable to new development. For purposes of this section, "transportation improvement" means any real or personal property acquired, constructed, improved, or used for constructing, improving, or operating any (i) public mass transit system or (ii) highway, or portion or interchange thereof, including parking facilities located within a district created pursuant to this title. Such improvements shall include, without limitation, public mass transit systems, public highways, and all buildings, structures, approaches, and facilities thereof and appurtenances thereto, rights-of-way, bridges, tunnels, stations, terminals, and all related equipment and fixtures.

Property Line

See *Lot Line*.

Property Owner

A person or persons having an ownership interest in real property located within the geographic boundaries of Jefferson County, West Virginia.

Public Improvement

Any improvement, facility or service, together with customary improvements and appurtenances thereto, necessary to provide for public needs such as: streets, alleys, pedestrian walks or paths, storm sewers, stormwater management facilities, flood control improvements, water supply and distribution facilities, sanitary sewage disposal and treatment, and public utility and energy services.

Public Sewer System

A wastewater system serving two or more units that share common sewer lines and disposal facilities and owned and/or operated and maintained by a Public or Private Utility as defined above.

Public Utility

A publicly owned or privately-owned entity regulated by West Virginia Public Service Commission and West Virginia Department of Environmental Protection, providing utility service to the general public (e.g.: water, wastewater, gas, electric, telephone, solid waste and cable).

Public Water Supply Well

A well from which the water is used to serve a community water system.

Rational Method

An engineering method of predicting peak runoff rates.

Rear Yard	A yard extending the full width of the lot between the rear lot line and the parts of the principal building erected thereon. For a corner lot, the rear yard shall not extend beyond the building setback line on the side street.
Remedy a Violation	<p>A. To act to correct a violation. This could entail stopping or discontinuing an illegal use, tearing down or altering a structure, or seeking a variation or other action to make the use legal.</p> <p>B. Bring the violating structure or other development into compliance with state or local floodplain management regulations or move the use or demolish the structure.</p>
Required Street Yard	The street yard required by these Regulations that lies between the street and the setback line from any street - front, side, or rear.
Reserve Strip	A parcel of ground in separate ownership separating a street from other adjacent properties or from another street.
Reserved Land(s)	Lands generally set aside as farmlands to remain undeveloped unless and until such time as they may be rezoned.
Residential Collector Street	See <i>Street, Residential Collector</i> .
Resource	A natural area or physical feature that is protected.
Restoration	The reasonable rehabilitation of the affected land for useful purposes and the protection of the natural resources of the surrounding area, including surface water and groundwater.
Retaining Wall	A structure which holds an earthen embankment in place.
Reverse Frontage Lot	A lot extending between and having frontage on two generally parallel streets.
Right-of-Way	An area of land not on a lot that is dedicated for public or private use to accommodate a transportation system. In no case shall a right-of-way be construed to mean an easement.
Riparian Buffer	A transition zone between water and upland environments to protect the aquatic environment from pollution and sedimentation. It is measured from the top of the bank of the stream, or the wetland boundary. If wetlands or hillsides abut or are within the riparian buffer in A to D below, then they shall be included even when the distance exceeds the buffer in A to D below. The buffer width is as follows:

- A. Lakes and Ponds - 75 feet.
- B. Ephemeral Streams with stream channels - 50 feet (100 feet when located in the Elk Run and Elk Branch watersheds).
- C. Potomac River and Shenandoah Rivers - 300 feet (unless a greater standard is required by the Zoning Ordinance).
- D. Opequon Creek and Perennial Streams - 100 feet.
- E. Wetlands, Marl - 75 feet.
- F. Wetlands Farmed - 10 feet.
- G. Wetlands - 50 feet.
- H. Hillsides 15 to 25 percent - to the top of the slope where it falls below 15 percent or 400 feet, whichever is less.
- I. Hillsides 25 percent or more - to the top of the slope where it falls below 15 percent or 600 feet, whichever is less.

Road, Arterial

See *Street, Arterial*.

Road, Collector

See *Street, Collector*.

Road, Major Collector

See *Major Collector Street*.

Road, Minor Collector

See *Minor Collector Street*.

Roadway

The portion of a highway including the cart way and shoulders within a *right-of-way*.

Runoff

That portion of precipitation or snow melt that has not evaporated or infiltrated into the soil but flows on the land surface.

Sanitary Sewage

Any liquid discharge from a structure or animal containment area, except roof drains.

Sanitary Sewage Disposal, Community

A sanitary sewage collection system in which sewage is carried from individual lots, by a system of pipes, to a temporary central treatment and disposal plant, generally serving a neighborhood area.

Sanitary Sewage Disposal, On-lot

A system in which sanitary sewage and wastewater is collected from a single use or dwelling unit, by a system of pipes, and carried to a septic tank and tile disposal field located within the boundaries of an individual lot or any

other system approved by the West Virginia Health Department as an on-lot system.

**Sanitary Sewage Disposal,
Public**

A system in which sanitary sewage and wastewater is collected from multiple uses or dwelling units, by a system of pipes, and carried to a central disposal facility, generally serving a region.

Sanitary Sewer Line

A sanitary sewer collection system in which sewage is carried from individual lots, by a system of pipes, to a central treatment and disposal plant, or to other pipes that run to a central treatment and disposal plant.

Sanitary Sewer System

A central treatment and disposal plant and related systems and pipes including, but not limited to, sanitary sewer lines.

Scale

A measure of intensity that relates to the size (scale) of the use.

- A. **Uses.** Scale indicates traffic volumes associated with the use and, for some uses, the distance people will travel to the use. Location of uses may be regulated by their scale.
- B. **Design.** Design standards for non-residential uses are related to scale.

SCS Method

A method of estimating runoff and peak discharges in a watershed, including Technical Release 20 and Technical Release 55, promulgated by the U.S. Department of Agriculture.

Sediment

Soils or other surface materials transported and/or deposited by the action of wind, water, ice, or gravity as a product of erosion.

**Sediment and Erosion
Control Plan**

A plan for the control of soil erosion, and sedimentation, resulting from any land disturbing activity to be included as part of the Stormwater Management Plan.

Selective Cutting

The felling of certain, but not all, trees in an area for the purpose of:

- A. Removing dead, diseased, damaged, mature, or marketable timber;
- B. Improving the quality of a tree stand or species; or
- C. Meeting personal domestic needs.

Septic System, Individual

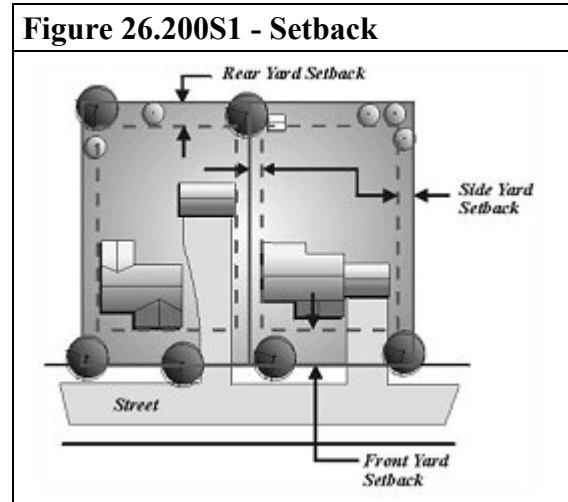
See *Sanitary Sewage Disposal, On-lot*.

Septic Tank

A multiple compartment, watertight receptacle which receives sewage from a building and is designed and constructed to permit settling of solids from the sewage, digestion of the organic matter, and discharge of the liquid portion into a disposal area.

Setback

A stated minimum distance on a lot as measured from a lot line.

**Shallow Bedrock**

This is an area where bedrock is within three feet of the surface, as determined by the general soil classifications found in Jefferson County. Any area where rock outcrops appears on the surface shall be considered shallow bedrock areas regardless of soil type, unless determined not to be shallow bedrock by a qualified geotechnical engineer or engineering geologist by means of soil test borings, test pits, air track drill probes, or applicable geophysical methods.

Sidewalk

A pedestrian way extending along, parallel to, and within an easement or the right-of-way of a public or private street.

Side Yard

A yard between the parts of the principal building and the adjacent side lot line and extending from the front yard to the rear yard.

Sign

A sign is any name, name plate, billboard, poster, panel, display, illustration, structure or device used for visual communication which is affixed, painted or represented directly or indirectly upon a building or other outdoor surface for the purpose of bringing the subject thereof to the attention of the public. A sign usually advertises a business, commodity, service or product or identifies a structure, place or land use. A sign is said to be "on-site" when it is situated on the same lot or tract of land to which the sign refers. A sign is "off-site" when it refers to a use, product, place, etc. existing away from the lot or tract of land on which the sign is located.

Sign, Animated

A sign with action or motion, flashing lights, or color change requiring electrical energy, electronic, or manufactured sources of supply, but not including wind actuated elements such as flags, banners, or pennants.

Sign, Billboard³⁶

A structure on which is portrayed information which directs attention to a business commodity, service or entertainment not necessarily related to the other uses permitted on the premises upon which the structure is located.

Sign, Attached Business³⁶

A sign attached to a building/structure which directs attention to a business or profession or to a commodity, service, or entertainment sold or offered upon the premises where the sign is located.

Sign, Electronic³⁶

A sign utilizing lights that change to form a static message or graphic wherein the sequence of messages and rate of change is electronically programmed.

Sign, Freestanding Business³⁶

A sign supported by a permanent structure, other than a building, that is affixed to the earth and placed on the same parcel of land on which the business commodity, service, or entertainment advertised by the sign is located.

Sign, Inflatable³⁶

Any display capable of being expanded by air or other gas and used on a temporary or permanent basis to advertise a product or event.

Sign, Off Premises³⁶

A sign structure which directs attention to a business, commodity, service, or entertainment not necessarily conducted, sold, or offered upon the premises where such sign is located.

Sign, Pylon³⁶

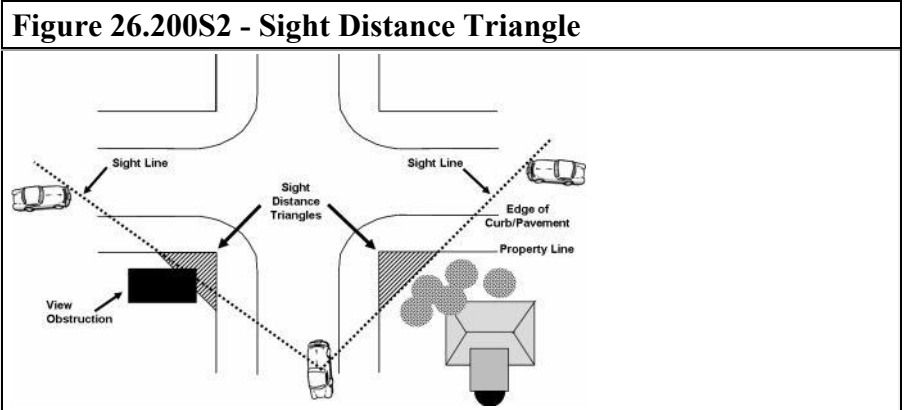
A sign which advertises more than one land use on the premises where the sign is located.

Sign, Vehicle

A sign or advertising device which is painted, mounted, affixed or otherwise attached to a vehicle or trailer, which is used for the purpose of providing advertisements of products and services or directing people to a business or service or other activity on or off the premises or public right-of-way where such vehicle sign is located. This does not include identification signs on vehicles which are moved regularly and used in the normal, day-to-day operation of the business.

Sight Distance Triangle

The triangular area formed by a diagonal line connecting two points located on intersecting street right-of-way lines, or a right-of-way line and the curb or edge of a driveway.



Sinkhole

A landform created by subsidence of soil, sediment, or rock as underlying strata are dissolved by groundwater. A sinkhole may form by collapse into subterranean voids created by dissolution of limestone or dolostone or by subsidence as these strata are dissolved. A sinkhole is a depressional surficial feature and is generally circular in plain view. The boundary of a sinkhole is five feet beyond the point where the depression returns to the surrounding grades. There are several types of sinkholes.

- A. **Open sinkholes.** These are open to the potentiometric surface (water table) so that water is at the surface at the bottom of the sinkhole for at least a portion of the year. These are either directly connected or most likely to be directly connected to the aquifer. Any sinkhole open to a known cave system is also an open sinkhole.
- B. **Sinkhole with stream inflow.** This is a place where streams disappear into an open sinkhole that is obvious, or voids, fractures, or other areas that allow the stream volume to flow underground. These are directly connected to the aquifer.
- C. **Large Sinkhole.** A depression that extends into the bedrock with a minimum opening into the bedrock of 20 feet diameter. A depressional area that is filled with soil does not count as a large sinkhole, even though there may be numerous filled sinkholes within it.
- D. **Filled sinkhole.** Any sinkhole not meeting definitions A through C above.

Sinkhole Buffer

An area immediately around open sinkholes, sinkholes with stream inflow, and large sinkholes extending outward for 100 feet. The sinkhole drainage area may be entirely within or partially within the sinkhole buffer. After thorough investigation and written recommendation by a qualified geoscientist, including, but not limited to, soil test borings, test pits, air-track

drill probe borings, and geophysics, the buffer may be reduced to 50 feet around portions of the sinkhole where so recommended.

Sinkhole Drainage Area

This is generally a depressional area that drains to one or more sinkholes. It may, in some cases, be a watershed leading to a sinkhole with stream inflow.

Site Development

The alteration of a parcel of land or its use that requires easements for drainage or other purposes, private roads, or parking and access to public roads involved that serve one or more land uses, where there is no subdivision into separate lots. See also *Site Plan*.

Site Plan

An engineered document depicting the site improvements proposed by a developer and required by the land development codes of Jefferson County. There are two types of detail levels, Limited and Full, depending on the complexity.

Site Plan, Major

A plan that follows the major site development process and proposes one or more of the following:

- A. A new public or private street or dedication to public use of an existing street;
- B. Building(s), both new and additions to existing, where new structures or new additions located on the parcel are equal to or total more than 250,000 square feet or more of GFA on any site;
 - except building(s), both new and additions to existing, regardless of size, when located in a business and/or industrial park on a lot within an approved major non-residential subdivision with master planned roads and stormwater;¹ or
- C. A heavy industrial use.

Existing single-family structures used as single-family structures and existing agricultural structures are not included in the square footage computations noted in this definition.

Site Plan, Minor

A plan that follows the minor site development process and that will not require the development of new infrastructure or the extension of existing off-tract infrastructure, that proposes one or more of the following:

- A. Building(s), both new and additions to existing, where new structures or new additions to structures located on the parcel total less than 5,000 square feet gross floor area (GFA) on any site shall process administratively.
- B. Building(s), both new and additions to existing, where new structures or new additions to structures located on the parcel total

more than 5,000 and less than 250,000 square feet gross floor area (GFA) on any site shall:

- Process a concept plan with a public workshop and all remaining site plan review processes shall be administratively approved.
 - If any condition(s) placed upon a site plan during the concept plan public workshop that cannot be addressed or resolved administratively, such condition(s) placed upon the concept plan at the public workshop shall return to the Planning Commission for resolution.
- C. Building(s), both new and additions to existing, regardless of size, when located in a business and/or industrial park on a lot within an approved major non-residential subdivision with master planned roads and stormwater. Sub-Section B of this definition does not apply to this provision;¹
- D. Apartment or multi-family development.
- If apartment or multi-family development proposes 10 units or more, applicant shall process a concept plan with a public workshop and all remaining site plan review processes shall be administratively approved.
 - If any condition(s) placed upon a site plan during the concept plan public workshop that cannot be addressed or resolved administratively, such condition(s) placed upon the concept plan at the public workshop shall return to the Planning Commission for resolution.

Minor Site Plans do not include the design, erection or addition to detached single family dwelling units when only one dwelling unit is located on an established lot. ³

Existing single-family structures used as single-family structures and existing agricultural structures are not included in the square footage computations noted in this definition. ³

Site Plan, Rural

A plan meeting the standards, content, submittal, and review requirements of a minor site plan with certain exceptions to allow for the preservation of the rural character of the County and the agricultural community.

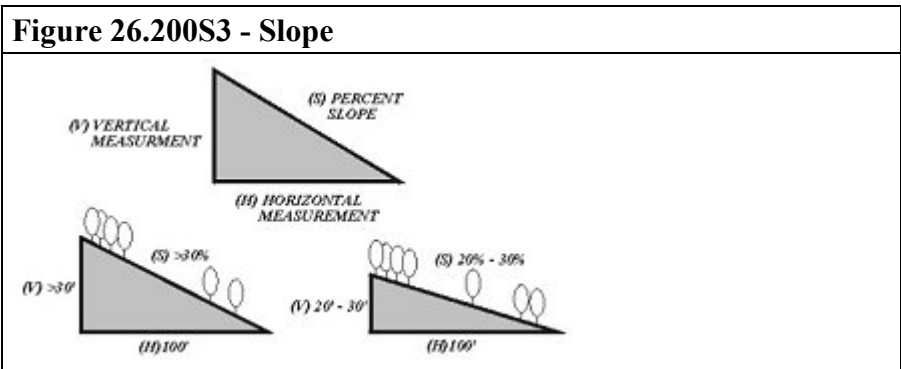
Site Resource Map

A map showing contour lines as depicted on the appropriate U.S.G.S. Topographic Quadrangle map and detailing all-natural features found on a parcel such as woods, watercourses, hillsides, prominent rock outcroppings, sink holes and quarries. This map shall provide a quick reference snapshot of slope delineations per Section 22.504, *Protection of*

Resources, and floodplain delineation per the Jefferson County Floodplain Ordinance.

Slope

The change in the vertical measurement divided by the change in the horizontal measurement. The figure is written as a ratio or a percentage.



Soil Borings and Percolation Tests

Field tests conducted and used in judging the suitability of soil for on-site, subsurface sewerage and seepage systems. The borings indicate the soil formations penetrated and groundwater conditions. The percolation tests give an indication of the absorptive capacity of the soil and provide a basis for the design of seepage facilities.

Stabilization

The prevention of soil erosion by surface runoff or wind through the establishment of vegetative or structural soil coverage measures. Examples include, but are not limited to, straw mulch with temporary or permanent vegetation, wood chips, and stone or gravel groundcover.

Start of Construction

See *Commencement of Construction*.

State Plane Coordinate Systems (SPCS)

The County's GIS data is mapped according to the West Virginia North State Plane Coordinate System.

Steep Slopes

See *Hillside*.

Stormwater Control and Conveyance Plan

The component of the Stormwater Management Plan which contains the details of the stormwater management facilities, Best Management Practices, and Low-Impact Development procedures required to manage stormwater on a development or redevelopment project.

Stormwater Management

The mitigation of the hydrologic impacts of lost natural runoff storage using constructed storage facilities.

- A. For water quantity control, a system of vegetative, structural, and other measures that may control the volume and rate of stormwater

runoff which may be caused by land disturbing activities or activities upon the land; and

- B. For water quality control, a system of vegetative, structural, and other measures that control adverse effects on water quality that may be caused by land disturbing activities or activities upon the land.

Stormwater Management Ordinance

References the Jefferson County Stormwater Management Ordinance which is a standalone document describing the stormwater management requirements for development and redevelopment in the County.

Stormwater Management Plan

A plan containing 3 components, the Erosion and Sediment Control Plan, Stormwater Control and Conveyance Plan, and Maintenance Requirements for the HOA or property owner to follow, which must be submitted with subdivision plat and/or site plans describing the processes and details for managing stormwater and its impact on the built and natural environment. The applicability of this plan is described in the Jefferson County Stormwater Management Ordinance.

Street

A strip of land, comprising the entire area within the right-of-way, intended for use as a means of vehicular and pedestrian circulation to provide access to more than one lot. However, the establishment of a common driveway for access purposes for no more than five separate parcels contiguous to one another shall not be considered a street as this term is defined.

Street, Arterial

A street that serves, or is designed to serve, as a connection between uses which generate heavy traffic volumes or between other arterial streets.

Street, Boulevard

A street that is divided by a landscaped median which is continuous or exists at the development's entrance.

Street, Collector

A street that serves or is designed to serve as the connection from minor streets to the arterial street system, such as the main entrance street of a residential development, or as a secondary connection between arterial streets.

Street, Collector (Major)

A street intended to gather traffic from local nonresidential access streets and convey it to higher level streets. Note: This street does not serve individual nonresidential lots. Located in nonresidential areas or developments, this street type collects and moves a high volume of traffic from local nonresidential access streets.

Street Collector (Minor)

A street intended to gather traffic from local nonresidential access streets and convey it to higher level streets. Note: This street does not serve individual, nonresidential lots. Located in nonresidential areas or developments, this street type collects and moves a low volume of traffic from local nonresidential access streets.

Street, Cul-de-sac	A short, independent, minor street having only one point of ingress and egress, terminating in a circular turn-around or other approved termination.
Street, Frontage	The linear measurement of a parcel along a street line, private road, or right-of-way to which the parcel abuts.
Street, Half (Partial)	A street, generally parallel and adjacent to a property line, having a lesser right-of-way width than normally required for improvement and use of the street.
Street Line	A property line of a lot which coincides with a line indicating the limits of an existing or proposed right-of-way.
Street, Local	A street that serves or is designed to serve primarily as access to abutting properties.
Street, Marginal Access	A local street, parallel and adjacent to an arterial street, but separated from it by a long strip, which provides access to abutting properties and control of intersections with the major street.
Street, Private	Any street right-of-way not dedicated to public use.
Street, Public	Any street right-of-way dedicated to public use or maintained by a federal, state, or local unit of government.
Street, Residential Collector	A street intended to gather traffic from local residential access streets and convey it to higher level streets. Note: This street does not serve individual residential lots. Located in residential areas or developments, this street type collects and moves the traffic from local residential access streets whose total dwelling unit count exceeds 240.
Street Right-of-Way	See <i>Street</i> and <i>Right-of-Way</i> .
Street, Service	A public or private way permanently reserved as a secondary means of access to abutting property.
Street, Stub	A nonpermanent dead-end street intended to be extended in conjunction with the subdivision and development of the adjacent un-platted land.
Structure	Anything constructed, the use of which requires fixed location on the ground; or, anything attached to something having such location. A structure does not include fences, individual driveways, or retaining walls. Structures do include prefabricated buildings even if they are not anchored to the ground. Fences 6 feet and higher shall meet building setback lines. Retaining walls 4 feet and higher shall submit building plans and do not have to meet building setback.
Structure	Anything constructed, the use of which requires fixed location on the ground; or, anything attached to something having such location. A

structure does not include fences, individual driveways, or retaining walls. Structures do include prefabricated buildings even if they are not anchored to the ground.

Subdivision

- A. The division or re-division of a lot, tract, or parcel of land, by any means, including by means of a plan or a description by metes and bounds, into two or more lots, tracts, parcels, or other divisions of land, for the purpose, whether immediate or future, of lease, of the transfer of ownership, or of building development, exempting, however, the division of land for agricultural purposes into parcels of more than ten acres not involving any new streets or easements of access, divisions of property by testamentary or intestate provision, or divisions of property upon court order; or
- B. The division or allocation of land for the opening, widening, or extension of any street or streets, or the division or allocation of land as open spaces for common use by owners, occupants, or leaseholders, or as easements for the extension and maintenance of public sewer, water supply, storm drainage, or other public facilities.

Subdivision, Major

See *Major Subdivision Plat*.

Subdivision, Minor

See *Minor Subdivision Plat*.

Subdivision Regulations

The Jefferson County Subdivision and Land Development Regulations, as may be amended from time to time.

Submission Review

A submission review is to determine whether all elements of a subdivision plat or site plan required by these Regulations are present. It is not a review of the merits of the submission, but an administrative determination that everything required by these Regulations and application requirements for a technical review is present. A submission is complete when all material needed by all review agencies is in the submission.

Substantial Construction

- A. **Subdivisions.** Payment of surety, the clearing and grading of the site, installation of roads and utilities, and placing of initial foundations.
- B. **Site Developments.** Installation of parking, circulation, stormwater facilities, and foundations.

Substantial Damage

Damage of any origin sustained by a structure, whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Surety

A form of financial guarantee that requires improvements will be made by providing the County with the resources to install the improvements shall the developer fail to do so. These include bonds, cash, letters of credit, or other financial instruments approved by the County Attorney.

Superblock

An area bounded by arterial or collector streets.

Surface Water

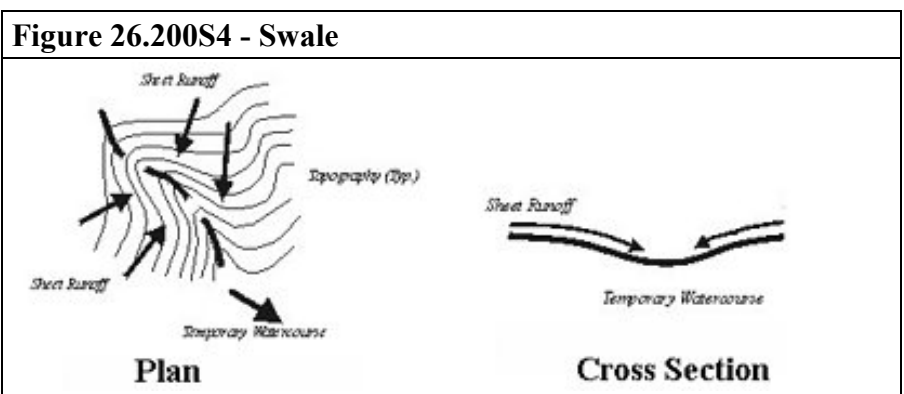
Natural or artificial bodies of water greater than one acre in extent at the normal annual water level, as determined by on-site surveys by a professional surveyor. Excluded from this definition are retention basins or other stormwater management facilities, farm ponds, or other facilities associated with agricultural operations, sewage lagoons, and other facilities for which normal maintenance and repair is necessary.

Surveyor

A land surveyor registered by and licensed to practice in the State of West Virginia.

Swale

A linear depression in the land's surface in which sheet runoff would collect and form a temporary watercourse. The area of a swale is determined by the following: Where the swale serves a drainage area of less than 20 acres, land on either side of and within 30 feet of the centerline is the swale area. Where the swale drains an area of 20 to 160 acres, it is the area 50 feet on either side of the centerline of the swale. For drainage areas in excess of 160 acres, the area is 80 feet on either side of the centerline of the swale.



Topography

The characteristics of a parcel of land with respect to elevation.

Tree, Understory

Trees located between the mature canopy trees and the shrub layer of vegetation in any forest stand (e.g. dogwood, redbud).

Understory Tree	See <i>Tree, Understory</i> .
Uniform Common Interest Ownership Act of West Virginia (UCIOA)	See <i>Homeowner's Association (HOA)</i> .
Violation	<p>A. General. A new use or structure that is not permitted, is improperly located, or is otherwise not in compliance with these Regulations.</p> <p>B. Floodplain. The failure of a structure or other development to be fully compliant with the County's floodplain management regulations contained in the Floodplain Ordinance. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance is presumed to be in violation until such time as that documentation is provided.</p>
Violation	<p>The failure of a building, structure or other land altering activity to be in full compliance with this ordinance. A building, structure or land altering activity without an Improvement Location Permit, is presumed to be in violation until said permit is provided.</p>
Waiver	Adjustments that may be made to the requirements of these Regulations to unusual site conditions in order to achieve a better design. Waivers may not be used to circumvent the process requirements of these Regulations.
Water Body	Any watercourse, lake, or pond defined by a bank or shore in which water can be found on a year-round basis.
Water Surface Elevation	The height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.
Water Table	The level below the surface at which the ground is saturated by water.
Water Quality	Those characteristics of stormwater runoff, usually from a land disturbing activity, that relate to the chemical, physical, biological, or radiological integrity of water.
Watercourse	A stream channel (perennial, intermittent, mapped, or unmapped) with banks and a bed within which concentrated water flows.
Watershed	The total or partial drainage area contributing surface runoff to a single point.
Wellhead Protection Area	This is a buffer extending 100 feet from any municipal or public well.
Wetland⁵	An area that is inundated or saturated by surface water or ground-water at a frequency and duration enough to support, and that, under normal

circumstances, does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation. The substrata are predominantly hydric soil.

Wetland Delineation and Report

An on-site method or process for identifying wetlands as described in the Corps of Engineers Wetland Delineation Manual, Technical Report: Y-87-1, from 1987 and as may be amended from time to time. The report shall be prepared by a person with professional experience and knowledge in wetlands identification and shall analyze a site for the existence and extent of wetlands.

Yard

An unoccupied space open to the sky on the same lot with a building or structure.

Yard, Rear

A yard extending the full width of the lot between the rear lot line and the parts of the principal building erected thereon. For a corner lot, the rear yard shall not extend beyond the building setback line on the side street.

Yard, Side

A yard between the parts of the principal building and the adjacent side lot line and extending from the front yard to the rear yard.

Yard, Street (Front)

A yard extending the full width of the lot between the street line and the parts of the principal building erected thereon, setting back from and nearest such street line. On a corner lot, both sides abutting the streets forming the corner shall be considered street (or front) yards.

Zoning

The division of a municipality or county into districts or zones which specify permitted and conditional uses and development standards for real property within the districts or zones.

Zoning Certificate

A written certificate issued by the Zoning Administrator in hard copy that certifies that the proposed use of the land will follow the use designations of the Zoning Ordinance.

Zoning District

A designation shown on the Zoning Map as being in a district enumerated in the Zoning Ordinance in which a specific set of zoning standards apply. The term may refer to the standards or an area so mapped. The term is also analogous with "zoning classification" or "zoning designation."

Zoning Map

The map(s) showing the location and boundaries of the zoning districts established by the Zoning Ordinance. These maps are entitled, "Official Zoning Map of the Jefferson County, West Virginia."