



Jefferson County, West Virginia
Department of Engineering, Planning and Zoning
Office of Planning and Zoning
116 E. Washington Street, 2nd Floor
P.O. Box 716
Charles Town, West Virginia 25414

File #: _____
Mtg. Date: _____
Fees Paid: \$ _____

Email: planningdepartment@jeffersoncountywv.org
zoning@jeffersoncountywv.org

Phone: (304) 728-3228
Fax: (304) 728-8126

Preliminary Plat Review Application/Checklist

(See instructions on other side of this sheet)

Project Name: _____

Property Owner Information

Owner Name: _____
Mailing Address: _____
Phone Number: _____ Email: _____

Applicant Information

Applicant Name: _____ Same as owner: ☐
Business Name: _____
Mailing Address: _____
Phone Number: _____ Email: _____

Physical Property Details

Tax District: _____ Map No: _____ Parcel No. _____
Parcel Size: _____ Deed Book: _____ Page No. _____

Applicants Engineer/Surveyor

Name: _____
Mailing Address: _____
Phone Number: _____ Email: _____

Required Submittal Information

- | | |
|---|--|
| <input type="checkbox"/> Check for Review Fees | <input type="checkbox"/> 2 sets of Engineered Plans |
| <input type="checkbox"/> Completed Application Checklist (Signed by owner) | <input type="checkbox"/> 2 Copies of Stormwater Management Report with Narrative |

FOR OFFICE USE ONLY

	1st Review	2nd Review	3rd Review	4th Review
Submittal Date				
County Engineer				
County Planner				
Zoning Administrator				
Assessor's Office				
GIS / Addressing				
Returned to/Date/Staff Initials				

Place received stamps here:

APPROVED FOR

County Engineer

Date

Instructions:

- This checklist serves as a quick reference guide only. The consultant/developer is responsible for reading the regulations and complying with all of the requirements of the relevant Ordinances and Regulations which are available online. Standard Engineering Details are available for purchase in the Office of Engineering. 304-725-2998.
- The checklist shall be completed by the Engineer/Surveyor and attached to the Preliminary Plat review submission. The Engineer/Surveyor shall note in the "Engineer/Surveyor" column where each item on the checklist is addressed on the Preliminary Plat.
- Place all site notes (i.e. flood plain designation, permit numbers, building setbacks, etc.) that address items on the checklist together under a "Site Information" heading so they can be easily found by the reviewer.
- For all other items on the checklist that cannot be addressed by a note under "Site Information", provide the sheet number and/or note number in the checklist column marked "Engineer/Surveyor", where the information can be found. This will allow for a quicker and more thorough review of the Site Plan on the first submission.

Return marked-up review prints and this checklist to the Office of Planning, Zoning and Engineering with each resubmittal

Applicable Dates

Pre-Proposal Conference (if applicable)	
Pre-Proposal Conference Memo:	
Concept Plan Public workshop date	
Concept Plan approval:	
Application Submittal date:	
Site Inspection (if applicable):	
Written Determination of Sufficiency to be Mailed:	
Approval Date:	
Approval Expiration (5 years from date of approval)	

Reviewing Agency Comments (Attach additional comments as needed)

Conditions of approval (attach additional comments as needed)

Subdivision Regulations (See Instructions)	Engr./Surveyor	1st Review	2nd Review	3rd Review	4th Review	Review Key	
						✓	O.K.
						O	Incomplete
						N/A	Not Applicable
						×	Unacceptable

Sub-Section	Appendix A, Section 1.3(A) Preliminary Plan Requirements						Staff Comments
A	Sheet size shall be at a scale of 1"= 100' or larger. Plan shall be 24" x 36" in size.						
1	Border: 1/2" on top, bottom, & right; 1-3/4" border on left edge. Text height minimum of 1/10".						
2	Title Block: Lower right corner.						
	Subdivision Plan Name and Jefferson County, WV.						
	Deed book and page numbers; Tax District, Map and Parcel.						
	Owner: Name, Address & Phone.						
	Developer: Name, Address & Phone.						
	Engineer/Surveyor: Name, Address & Phone. Signature and seal.						
	Sheet Index on cover sheet if more than one page						
3	Tic Marks/SPCS WV North NAD83.						
4	North Arrow, graphic scale, & date. (on all plat plan views).						
5	Location Map: 1" = 2000' or other approved scale.						
6	If applicable, small inset map of subdivision section layout (adjacent sections/lots previously platted).						
7	Subdivision perimeter boundary or lot boundary described by bearings and distances with an error of closure 1:7500 or better.						
8	Lot Boundary Lines: drawn to scale & dimensioned.						
9	Lot Numbers for each lot in logical order						
10	Symbol Key: identify monuments & markers by type & whether "found", "set", or "to be set".						
11	Show existing easements and rights-of way. Reference source.						
12	Show proposed easements & ROW; Roads shall be named & approved by the Addressing Office. Otherwise, note none proposed.						
	Where state road has a ROW less than 50' wide, provide a fee simple dedication or road improvement easement, a minimum of 25' wide from existing centerline of the state road ROW.						

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13	Show future easements & ROW; otherwise, note none proposed.						
14	Show current adjoiners: owner(s) name, tax district, map, & parcel; zoning district, deed book, & page; Show departure lines for each adjoining property.						
15	Existing & Proposed Contours: 2' interval, or other approved interval; & contour source noted.						
16	Benchmarks: show location & elevation within limits of project.						
17	Show existing conditions on a separate sheet; maximum scale 1"=100'						
18	Show existing physical features: woods, watercourses, rock outcroppings, sink holes, quarries, culverts, bridges, & drains.						
	Show existing on-site structures/buildings.						
	Show off-site structures/buildings & associated topography, within 200' downstream of any drainage pipe outfall.						
	Show 100 Year Floodplain & delineated wetlands; otherwise, note that there are no floodplain/wetlands on site.						
19	Show adjoining roads including ROW widths, pavements widths, road names, & route numbers.						
20	Tentative list of restrictive covenants .						
21	Show reservations of land for public/semi-public use if required.						
22	Surface drainage plan & erosion control methods. See Article II.C.4.d of SWM Ordinance.						
23	Complete design & construction plans, profiles, & engineering specifications for proposed water treatment & distribution facilities & proposed sewage collection & treatment facilities to be installed. (See App. B, Sec. 3.0 of Sub. Regs.)						
24	WVDOH entrance permit: provide copy of permit & note permit number on site plan.						
25	Water/Well Permit: provide copy of Board of Health plans & permits; note permit number on plan, if applicable.						

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	Septic/Sewer System Permit: provide Board of Health approval, copy of plans & permits; note permit number on plan, if applicable						
26	Provide copy of PSD letter: water/sewer availability; note permit number on plan. (If applicable)						
27	Note WVDEP permit numbers for all approvals.						
28	Copy of written notification to WV Public Service Commission of intent to construct & operate public water/sewer utility systems. (If applicable)						
29	Design & construction plans, profiles, cross- sections, & engineering specifications for roads, sidewalks, curbs, & gutters.						
30	Description of soils, subsurface geology, & hydrology.						
31	Show building setback lines & note minimum building setbacks.						
32	N/A						
33	Statement of Acceptance signed by the developer/owner.						
34	Signature Block: on cover sheet, per this section. See Appendix A, Section 1.3						
35	On cover sheet, provide Table of Construction Notes & Milestone Inspections, per this section. (see Table 1.2.1)						
36	On cover sheet, provide waiver/variance table; if none, note "None Granted" in the table.						
37	Plan shall be sealed, signed, & dated, in accordance with state law.						
Sub-Section	Appendix B, Section 2.2 Streets (Standard Details are available through the Office of Engineering)	Staff Comments					
A	Roadway plan & profile sheets scale: 1" = 50' horizontal; 1" = 5' vertical.						
B	Road improvement specifications per WVDOH "Standard Specifications for Roads & Bridges.						
C	Geometric & pavement design in accordance with Table 2.2-1, Roadway Design Standards; & standard details established by County Engineer.						
D.1	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.						

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D.2	Cut slopes shall not exceed (2:1) 2' horizontal to 1' vertical slope.						
D.3	Open ditches shall not be flatter than 1.5 %; however, a minimum of 0.5% vertical grade.						
G	Dead-end subdivision streets and rights of ways shall terminate in turnarounds according to the following: Subdivision road Cul-De-Sac: Diam. of turnaround for ROW 120 ft Diam. of turnaround for pvmt. 100 ft. Width of shoulder 3 ft. Right of way fillet 30 ft.						
	Circular cul-de-sac may be landscaped in the center with trees, shrubs or other suitable vegetation.						
	A "tee" 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.						
	Cul-de-sac and turnaround dimensions shall be consistent with the standard details.						
H.1	Minimum 50' wide right-of-way for Residential subdivision.						
H.2	Minimum 60' wide right-of-way for Non-Residential Subdivisions.						
H.3	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.						
H.4	Revertible slope easement?						
H.5	The centerline of the roadway section shall be congruous with the center of the right-of-way.						
I.1	Clear sight triangles provided at all intersections.						
I.2(a)	Minimum 60 degree angle at all intersections. Preferred 90 degree angle.						
I.2(b)	Multiple intersections involving junctions of more than two (2) streets, is not allowed.						
I.2(c)	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.						

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I.2(d)	Minimum curb radii at street intersections: Residential Subdivision Thirty (30) feet. Non-residential Subdivision Thirty-five (35) feet.						
J	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.						
K.1(a)	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.						
K.1(b)	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.						
K.2(a)	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.						
K.2(b)	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.						
K.3(a)	Sidewalks: minimum 4' width; maximum grade 20:1; provide details & notes.						
K.3(b)	Handicap accessible walkways, stairs, & ramps designed/constructed per "ADA Standards for Accessible Design (28 CFR, Part 36).						

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K.3(c)	If hiking path is proposed to be installed, 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						
M.1	All subdivision roads shall be clearly identified by permanent road name signs, in accordance with the Jefferson County E-9-1-1 Addressing Ordinance.						
M.6	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.						
Sub-Section	Appendix B, Section 2.3 A Subdivision Access to Public Roads	Staff Comments					
A.1	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.						
A.2	Non-Residential subdivision entrances accessing 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.						
A.3	For a residential subdivision, a single entrance may be used under the following conditions: Max. No of Lots Entrance width 12 22' entire length 13-30 24' entire length Residential Subdivisions with more than 30 lots shall have 2 entrances.						

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A.4	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.						
A.5	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:						
A.5(a)	Raised median minimum 4' wide with concrete curb.						
A.5(b)	Single lane width of a minimum of 13' and maximum of 17'.						
A.5 (c)	Single lane width shall extend a min. of 50' beyond termination of median; pavement edge transition taper of 10:1 to a two way street pavement. shall begin						
A.6	Non-Residential subdivisions shall have a concrete entrance apron, 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.						
A.7	Minimum curb radii at the subdivision entrance should be as follows: Residential Subdivision Thirty (30) feet. Non-Residential Subdivision Thirty-five (35) feet.						
Sub-Section	Appendix B; Section 2.3C Improvements to State Highways <i>*Only if warranted by the WVDOT*</i>					Staff Comments	
1	Traffic signals warranted per Part IV of the Manual on Uniform Traffic Control Devices (Warrant 1-8Hour Vehicular Volume).						
2	Left turn lanes existing road: required if two-way PHV > 600, & ADT > 6000, & Peak Hour left turning movement > 50.						
3	Deceleration Lane: required on Primary & Secondary Routes if operating speed > 45 mph.						

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4	Acceleration Lane: required on two-way, two-lane highways where peak hour volume is > 600.						
5	Vertical/Horizontal Alignment of Existing Roadway: need for reconstruction per AASHTO Geometric Highway Design Manual.						
6	Shoulder widening should be provided						
Sub-Section	Appendix B; Section 2.4 Subdivision Road and Common Area Ownership & Maintenance					Staff Comments	
A & B	Provide draft copy of proposed Covenants & Restrictions.						
Sub-Section	Appendix B; Section 2.5 Off-Street Parking Standards					Staff Comments	
A	Off street parking facilities may be parking lots, 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.						
B	The number of parking spaces shall be as required by the Zoning Ordinance.						
C	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.						
D	Any curb lines in parking areas shall have a minimum radius of curvature of five (5) feet						
F	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.						
G	Handicap Parking: Meets ADA Standards for Accessible Design. Provide details						
H	Parking area and drive aisle grades: 0.5% - 6.5%						
I	Access and entrances below 8% grade						
J	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.						

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	3' wide stripe at 5% slope between parking areas, sidewalks, & access drives to any embankment.						
K	Minimum 10' median between end of parking spaces and access drive.						
L	Show pavement markings						
M	Parking areas shall be bituminous asphalt or concrete paved (if zoned rural, may utilize minimum of 6' gravel).						
N	Minimum Dimensions: Perpendicular 9' x 20', Parallel 9' x 22'. (See Table 2.5-1).						
Sub-Section	Appendix B; Section 2.6 Outside Lighting						Staff Comments
	Provided as required by the Zoning Ordinance & Section 22.209 of these Regulations.						
Sub-Section	Appendix B; Section 2.7 Speed Humps						Staff Comments
	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 Guide lines for the Design and Application of speed humps. Provide construction details on Plan.						
Sub-Section	Appendix B; Division 3.0 Utilities and Water and Sanitary Sewer Systems						Staff Comments
A.1	Where allowed, well and septic systems shall be approved by the Health Dept. Copies of approval shall be approved permit shall be submitted prior to the approval of this plan.						
A.2	Show location of the septic system percolation test holes and septic reserve area with a 100' buffer separating any well from any septic reserve area and existing drain field.						
A.3	Pressure Grouted well: provide verification note on plan.						
A.4	Public Service connection note: for well and/or septic systems, note requiring future connection if service becomes available.						
B.1	Public Service connection note: for well and/or septic systems, note requiring future connection if service becomes available.						

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B.2	Provide a copy of the approved WV Bureau of Health permit and complete set of approved plans.						
B.6	Service Laterals Note: Provide note laterals to be installed before paving.						
B.8	Fire Hydrants required in central water systems with 60,000 gal. storage and 500 gpm at 20 psi residual pressure.						
B.9	Fire Hydrant spacing 500 spacing max. and on min. 6" in diameter.						
B.10	Fire Hydrant: Provide note that specifications & threads are acceptable to the WV State Fire Marshall and Jefferson County Volunteer Fireman's Assoc.						
B.11	Fire Truck Tap: provide storage tank if fire hydrants are not feasible.						
Sub-Section	Appendix B, Section 5.3, Requirements for Townhouses	Staff Comments					
A	Roads and Rights-of way Specific to Townhouse Subdivisions.						
B	Curbs, Gutters, Sidewalks Specific to Townhouse Subdivisions.						
C	Storm Drainage and Erosion Control Specific to Townhouse Subdivisions						
D	Utilities.						
E	Street and parking area lighting						
F	Lots and setbacks						
G	Screening						
H	Parkland						
I	Parking						
Sub-Section	Appendix B, Section 6.2 Requirements for Condominium Subdivisions (Residential & Non-Residential)	Staff Comments					
6.2A	Items specific to Condominium plats						
Sub-Section	Appendix B, Section 6.3 Requirements for Condominium Subdivisions (Design and Construction Requirements)	Staff Comments					
A	Roads and Rights-of-Way Specific to Condominium Subdivisions.						
B	Curbs, Gutters, Sidewalks Specific to Condominiums.						
C	Storm Water Drainage and Erosion Control Specific to Condominiums.						
D	Utilities.						
E	Street & Parking Area Lighting.						
F	Building Sites and Setbacks.						
G	Parkland						

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H	Parking						
I	Surveys						
J	Construction Plans and Specifications						
K	Construction practices						
Article/ Section	Zoning Ordinance Requirements						Staff Comments
4.10	Preliminary Plan Requirements						
4.11	Landscaping, Screening, & Buffer Yard Requirements.						
5	Complies with Article 5, District Regulations.						
8	Supplemental Use Regulations (if applicable).						
10	Provisions for Signs.						
11	Number of Parking Spaces.						
Appendix A&B	Setbacks for parking/drive aisles						
Special requirements imposed by Board of Zoning Appeals?							
Special requirements imposed by Planning Commission?							

Stormwater Management Ordinance (see notes on page 2)		Engr./Surveyor	1st Review	2nd Review	3rd Review	4th Review	Review Key	
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Sub-Section	Article II.B, Erosion and Sediment Control Plan						Staff Comments	
2.b.i	North arrow & graphic scale.							
2.b.ii	Symbol Key / Legend							
2.b.iii	Existing & Proposed contour							
2.b.iv	Outlined Limits of Disturbed Area							
2.b.v	Chart of Q10 discharge rates & velocity at outfalls							
2.b.vi	Erosion & sediment control provisions							
	Preserve topsoil & limit disturbance							
	Details of grading practices							
	Design details & construction notes							
	Erosion & Sediment Control Notes (Fig. 1)							
2.b.vii	Seeding Specifications, temporary & permanent							
2.b.viii	Sequence of construction outlining the installation & maintenance of erosion & sediment controls.							
2.b.ix	Offsite source of borrow materials - reference in Plan or state if no offsite borrow source is needed.							
2.b.x	Stabilized construction entrance note, per this section.							
2.b.xi	Provide computations necessary to show adequate sizing of erosion & sediment control measures.							
Sub-Section	Article II.C, Conveyance Plan Requirements						Staff Comments	
3.a	Property owner(s) name, address, & phone no.							
3.b	Tax District, Map, & Parcel Numbers							
3.c	Existing/proposed buildings, roads, & parking areas							
3.d	Existing/proposed drainage areas & areas necessary to determine downstream analysis for SWM facilities.							
3.e	Existing/proposed utilities, easements, & structural SWM & SEC facilities.							
3.f	Proposed land use with tabulation of the percentage of surface area to be adapted to various uses.							
3.g	Clearing & grading limit boundaries.							
3.h	1" = 200' topographical base map extending 200' beyond limits of proposed development.							

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3.i	Existing surface water drainage (streams, ponds, culverts, ditches, drainage patterns, & wetlands)							
3.j	Natural resources shown or described.							
3.k	Environmentally sensitive features shown as defined in Subdivision Regulations							
3.l	Maintenance route to SWM feature in ROW or easement.							
3.m	Construction specifications							
3.n	NRCS 378 Pond Design Criteria							
3.o	Downstream flow analysis							
3.p	Sequence of construction							
3.q	Plan & profile view through all SWM features.							
3.r	Geotechnical properties of soils							
3.s	Outlet protection details							
3.t	Tabular summary of all SWM facilities in a spreadsheet, per this section.							
3.v	Digital Data Submission in DXF or DWG in a coordinate system with NAD83, US survey foot							
3.w	Other required information from the Jefferson County Engineering Department.							
3.x	Stormwater Control & Conveyance Plan with Hydrologic & Hydraulic design calculations:							
	Description of the design storm frequency, intensity, & duration							
	Time of concentration							
	Soil Curve Numbers or runoff coefficients							
	Peak runoff rates & total runoff volumes for watersheds							
	Infiltration rates, if applicable							
	Culvert and/or channel capacities							
	Flow velocities							
	Data on the increase in rate & volume of runoff for designed storms.							
	Documentation of sources for all computation methods & field test results.							
4.a	Plan over profile sheets for storm sewer system							
	Inlet identification in both plan & profile							
	Top & bottom of storm inlet elevations							

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	Pipe size, shape, material type & length							
	Pipe inlet & outlet invert elevations							
	Slope of pipe							
	Outlet end-section type							
	Outfall rip-rap apron/energy dissipation device at 10% grade							
	Q10 flow rate & velocity							
	Hydraulic Grade line							
	Details of inlets & associated structures							
4.b	Plan over profile sheets for Culverts							
	Culvert identification in plan & profile view							
	Invert elevations at inlet & outlet of culvert							
	Pipe size, shape, material type & length							
	Slope of pipe							
	Outlet end-section type							
	Outfall rip-rap apron/energy dissipation device at 10% grade							
	Q10 flow rate & velocity							
4.c	Drainage swales							
	Grading of the swales							
	Typical cross section of the swale showing the 10-year water surface							
	Any required lining							
	Slope of the swale							
	Q10 flow rate & velocity							
	Any applicable details							
4.d	Stormwater Control and Conveyance Plan, per this section. Report shall be dated, signed, & sealed by the Engineer of Record.							

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Sub-Section	Article II.D, Maintenance Requirements							
	Inspection report requirements on plans “Jefferson County, West Virginia Stormwater Management Facilities Maintenance Requirement”							
Sub-Section	Article IV.A, Reference to the Design Manual						Staff Comments	
	West Virginia Stormwater Management and Design Guidance Manual, NRCS 378							
Sub-Section	Article IV.C, Stormwater Quantity Control Criteria						Staff Comments	
14	SWM & Culvert Discharge: in cuts & 0% grade to end of rip-rap.							
15	Outfall Rip-Rap: depressed 6” if within 75’ of property line.							
16	Anti-seep Devices: provide if embankment > 6’ height.							
17	Dam Breach Analysis: provide if embankment >10’ height.							
18	SWM basin embankment – core trench							
19	1' freeboard for 100-year, 24-hour storm event							
20	SWM basin bottom at 1% slope to low flow outlet							
21	Infiltration BMP checklist - Chapter 4.2.6 in the WV SWM & Design Guidance Manual							
22	Infiltration rates for Infiltration basins							
23	Stormwater management easements, 100-year storm event storage limits.							
24	Demonstrate adequate downstream conveyance of stormwater discharge from the Site							
27	Outfall pipe discharges into a natural wetland, the velocity shall not exceed 2' per second for the two-year storm event.							
Sub-Section	Article IV.D, Stormwater Quality Control Criteria						Staff Comments	
1.a	General Quality Control Provisions							
	Capture stormwater runoff volume of the first 1" of rainfall from a 24-hour storm event.							
	Designed per West Virginia Stormwater Management & Design Guidance Manual							
	Facility constructed in accordance with all applicable plans & permits.							
	Facility maintained per Article VI							

Stormwater Management Ordinance (see notes on page 2)		Engr./Surveyor	1st Review	2nd Review	3rd Review	4th Review	Review Key	
							Y	O.K.
							O	Incomplete
							N/A	Not Applicable
							x	Unacceptable
	WVDEP's Stormwater Spreadsheet Tool							
1.d	.75 runoff reduction for:							
	Redevelopment							
	Brownfield Redevelopment							
	Transit oriented development							
	Vertical density FAR of 2 or >18 units per acre							
1.e	If high water table or other constraints exist – follow this section.							
1.f	New development activities:							
	Provide or encourage infiltration							
	Capture & treat the runoff volume from first 1" of rainfall							
2.a	Table 2: Potential Stormwater Hotspot Land Uses							
2.a(i)	Stormwater Pollution Prevention Plan							
2.a(ii)	Restricted Infiltration: 50% treated by infiltration							
2.a(iii)	Infiltration Prohibition: 0% treated by infiltration							
Sub-Section	Article IV.F, Redevelopment						Staff Comments	
Only one of the following requirements is needed for redevelopment.								
1.a	20% reduction of impervious cover							
1.b	10% reduction in volume the 1 yr 24 hr storm event							
1.c	Reduce post-development peak discharge rates to 90% of the pre-development rates for the 2-yr, 10-yr, & 100-yr							
Sub-Section	Article IV.H, Stormwater Conveyance & Drainage Criteria						Staff Comments	
1	Drainage Culverts:							
1.b, c, d, e, f	Culverts: galvanized, minimum 15", minimum 0.5% slope, & rip-rap aprons, minimum 12" cover under subdivision roads. Manufactured end sections.							
1.g	Profiles of the roadway culverts:							
1.g(i)	Culvert ID in both plan & profile view							
1.g(ii)	Pipe size, shape, material type & length							

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							×	Unacceptable
1.g(iii)	Inlet & outlet invert elevations							
1.g(iv)	Slope of pipe							
1.g(v)	Inlet & outlet end section type							
1.g(vi)	Outfall rip-rap apron/energy-dissipation device at 0% grade							
1.g(vii)	Q10 flow rate & velocity							
1.h	Construction details & specifications for culvert pipe, outfall aprons, & end sections/wing walls.							
1.i	Individual lot driveway culverts sized for 10-year storm event; the minimum is 15" in diameter.							
2	Roadway Ditch Lines							
2.a	Minimum depth of 1½' with a 4:1 slope in from the road shoulder & a 2:1 return slope back out							
2.b	Minimum linear slope of 1.5% unless a trapezoidal ditch (minimum 2' wide) is used; then a minimum of 0.5% is acceptable.							
2.c	Generally parallel to the roadway							
2.d	Ditch line invert treatment: see Table 3							
2.e	Location & type of ditch line treatment & a typical section of the roadway ditch line.							
3	Curb & Gutter							
3.b	Curb & gutter construction details, 3,000 psi strength Portland cement concrete							
4.a	Roof drain discharge points located to avoid icing of walkways, driveways, parking, & entrances.							
5	Drainage Swales							
5.a	Sized for 10-year, 24-hour storm event.							
5.b	Grading & drainage details							
	Cross section of the swale showing 10-year water surface							
	Any required lining							
	Slope of the swale							
	Q10 flow rate & velocity							
	Any applicable details; see also: Article II.4.c							
6	Storm Sewers							
6.a	Designed for the 10-year storm event. Storm sewer inlets designed for the 2-year storm event.							

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6.c	Galvanized CMP; minimum of 15" diameter or equivalent elliptical/arched pipe size.							
6.d	Outlet end - protected from scour by rip-rap aprons.							
6.e	Storm sewer outfalls shall be at a 0% grade							
6.f	Minimum of 12" of cover over the pipe.							
6.g	Manufactured end sections or concrete end walls.							
6.h(i)	Inlet identification in both plan & profile view							
6.h(ii)	Top & bottom of storm inlet elevations							
6.h(iii)	Pipe size, shape, material type & length							
6.h(iv)	Pipe inlet & outlet invert elevations							
6.h(v)	Slope of pipe							
6.h(vi)	Outlet end-section type							
6.h(vii)	Outfall rip-rap apron/energy-dissipation device at 0% grade							
6.h(viii)	Q10 flow rate & velocity; Hydraulic Grade line; any applicable details							
6.i	Drain inlets in residential subdivisions with closed section roads shall have bicycle-safe grates							
6.j	Construction details & specifications							
7	Drainage Easements							
7.a	Drainage swale easements shall be sized to contain the 10-yr, 24-hr storm event flow & shall be a minimum width of 15'.							
7.b	Storm sewer system easements shall be a minimum width of 15'.							
Sub-Section	Article IV.I, Landscaping							Staff Comments
1	The maintenance requirements component of the SWM Plan.							
2	Landscaping in & around constructed SWM practices with minimum surface area of 1,000 sq ft.							
3	No woody plants planted within saturated zone or on a berm constructed for impounded water.							
Sub-Section	Article IV.J, Riparian Buffers							Staff Comments
1	Activity within buffers limited to the following:							

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1.a	Activities integral to the utilization of the watercourse that meet all other federal, state, county, & local code, ordinance, & permitting requirements, including but not limited to the construction & use of:							
1.a(i)	Docks							
1.a(ii)	Boat Ramps							
1.a(iii)	Piers							
1.a(iv)	Other facilities designed to allow recreational access to watercourse. Corridor crossings for farm vehicles & livestock.							
1.b	Public roads & improvements							
1.c	Corridor crossings for roads & railroads.							
1.d	Public utility crossings, including but not limited to sewer, water, & electric							
1.e	Passive recreation uses.							
1.f	Steambank improvement projects.							
1.g	Any activity, as approved by the Jefferson County Engineering Department, that will minimally disrupt the existing tree cover & soil mantle in order to maximize filtering & overall physical removal of particulate-form pollutants from stormwater runoff.							
2	Riparian buffer requirements, per this section.							
2.a	Lakes & ponds - 75 '							
2.b	Ephemeral streams with stream channels - 50' (100' when located in the Elk Run & Elk Branch Watersheds)							
2.c	Potomac River & Shenandoah Rivers - 300' (unless a greater standard required by Zoning Ordinance)							
2.d	Opequon Creek & Perennial Streams - 100'							
2.e	Wetlands, Marl - 75'							
2.f	Wetlands, Farmed - 10'							
2.g	Wetlands - 50'							
2.h	Hillsides 15 - 25% - to the top of the slope where it falls below 15% or 400', whichever is less.							
2.i	Hillsides 25% or more - to the top of the slope where it falls below 15% or 600', whichever is less.							