

**ROANOKE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT
ENGINEERING REVIEW CHECKLIST**

PROJECT NAME: _____

PROJECT NUMBER: _____

ENGINEER: _____

DATE: _____

GENERAL:

_____ Vicinity Map showing the location of the site and the surrounding area. North Arrow and scale on plans.

_____ Plans signed and sealed by an appropriate certified Design Professional.

_____ Roanoke County Cover

_____ Check that bonding amounts include all public improvements. Also, proffered amenities in Planned Residential Developments (PRD) shall be included based on the site improvement Quantity & Cost Estimate table (site surety or landsubdividers surety). The erosion control and SWM BMP measures must be bonded separately based on the Erosion Control and SWM Cost Estimate table.

_____ All physical improvements such as buildings, parking lots, access roads, utility construction, etc.

_____ SWM is required if 1 acre or more is disturbed, or if it is part of a common plan of development or sale.

_____ Are any DEQ or Army Corps of Engineers jurisdictional waters or wetlands present? If so, plan shall be submitted to the respective agency for review and approval. Wetlands shall be delineated and shown on the plans.

_____ Benchmark shall be shown on plan.

_____ Topography map with a maximum of 1"=200' scale and 2' contour interval. Existing and proposed contours (min 2' contour) provided within the disturbance area. Areas outside of limits of grading may use County GIS. In situations where any portion of the lot is in a floodplain, all elevations and contour information shall be on the FEMA approved datum for the FIRM. Survey shall be to the State Plane coordinates.

_____ Electronic submittal provided

STREETS: Refer to Roanoke County's Public Street and Parking Design Standards and Specifications and VDOT specifications.

_____ Miscellaneous Construction Standards. (Section 203.00)

_____ VDOT approval required (temporary and/or permanent). (Section 203.01)

- _____ Street categories on the plans. (Section 200.09)
- _____ Pavement surface shown as asphalt. (Section 200.04)
- _____ Subdivisions creating > 1500 vpd, additional entrances are required. (Section 200.11)
- _____ Reverse frontage shown for streets which are classified as primary/arterial and/or carry in excess of 5,500 vpd as determined by the director. (Section 200.05 and 200.06)
- _____ Street connections are aligned opposite of each other or separated a minimum of 200 ft. (Section 200.12)
- _____ ROW is extended to boundary where applicable. (Section 200.02)
- _____ Curb and gutter shown for all development except for property zoned AG-3 or AG-1. (Section 200.07)
- _____ Pavement cross section provided.
- _____ Sight distance profiles, site triangles, and road profiles provided as applicable.

STORMWATER MANAGEMENT: Refer to Roanoke County Department of Community Development's Stormwater Management Ordinance and Stormwater Management Design Manual, latest edition(s).

- _____ VDOT approval.
- _____ Correct peak discharge method used. Appropriate run-off coefficients and rainfall intensity values are used based upon correct landuse.
- _____ Drainage Area Map including the following:
 - All contributing on-site and off-site drainage area boundaries to each storm drainage/BMP structure. Each drainage area shall be labeled with structure number and acreage (Ac).
 - Pre and post-developed land uses with corresponding acreage.
 - Toc flow path shall be provided for all devices with Toc>5.0 minutes. Each Toc flow path shall be labeled with length, slope, elevation breaks, and type of flow.
 - Existing and proposed topographic features including sufficient information (topo, storm drainage pipes/channels, and edge of pavement/building footprint) on adjacent properties to access the impacts of stormwater on or from these parcels.
 - Existing streams, ponds, culverts, ditches, wetlands, other water bodies, flood plains, etc on proposed property and adjacent properties.
 - Existing and proposed vegetative areas, forest cover, geologic formations if karst features are present, etc.
- _____ Stormwater Narrative describing pre and post conditions and stormwater management strategy and assumptions.

Minimum 15" dia. culvert shown for entrance conditions. (SWM Manual Chapter 6: Culverts) HW/D chart shall be used for all culverts that cross roadways.

All culverts in drainage easements and storm sewers shown with appropriate headwall (>36") or end section ($\leq 36"$). (SWM Manual Chapter 6: Culverts)

HGL calculations shall be provided. Design professional may submit HGL calculations and profiles from current design software.

Plan and profiles are shown along with storm sewer and hydraulic calculations. The profiles shall also be labeled to include the storm drainage structure number, pipe info, rim and invert elevations. All utility crossings shall be shown on the profile. (SWM Manual Chapter 7: Storm Drains)

Sites which drain in excess of 100 acres, a flood study is submitted and/or is a FEMA studied area, and the minimum finished floors are shown on the plans and plat. Elevation certificate notification on the plans and plat. For flood studies, the Engineer should assume off-site developed. Residential buildings minimum 2.0 ft. above base flood elevation (BFE) and commercial buildings 1.0 ft. above BFE. (Refer to Roanoke County Zoning Ordinance, latest edition, Section 30.74)

A digital version of the HEC-RAS flood study shall be provided to the County. (SWM Manual Chapter 12: Environmentally Sensitive Areas)

For inlets draining less than 100 acres, an easement is shown for the 100 year ponding elevation on the plans and plat. (SWM Manual Chapter 3: Easements)

Spread calculations shall be provided for drainage inlets in private/public streets. Calculations can be provided as part of current design software (ie HydraFlow Storm Sewers, etc)

Correct easement widths are shown on the plat. Access easements shall be a minimum 20 ft. width. All stormwater structures and BMPs shall be accessible by vehicle. Access easements intended to be vehicle accessible shall have a maximum slope of 10 percent for unpaved surfaces and 18 percent for paved surfaces. (SWM Manual Chapter 3: Easements)

Liners, channels, and outlet protection shown on the plans with calculations and details. Drainage area map and calculations for each channel and shall be provided. Dimensions, depth of stone, and stone size(d_{50}) of outlet protection shall be provided on the plans (VAESC Plate 3.18). Channel adequacy shall be provided. (SWM Manual Chapter 5: Open Channels)

Emergency spillway designed to pass the 100 year storm with 1.0 ft. of freeboard.

Easement shown to encompass the 100-year flooding area of all stormwater basins or other holding structures, plus a minimum distance of 20-feet around the facility. (SWM Manual Chapter 3: Easements)

- _____ Maintenance Agreements and Plans for all Stormwater Management Facilities. (SWM Manual Chapter 14: Maintenance of Stormwater Management Facilities)
- _____ Schedule of BMPs on the drawings, including indication of quality control activities that the Owner's certifying professional will perform and identifying critical stages that require County inspection for each BMP.
- _____ Stormwater Statistics Table and BMP Information Table are located on the plans.
- _____ BMP detail showing all relevant dimensions, and locations of all conveyance system outfalls into basin with pretreatment and outlet protection.
- _____ Landscape plan, planting schedule and specifications if chosen water quality BMP Incorporates plant material in to the design.
- _____ Maintenance Agreements and Plans for all Stormwater Management BMPs. (SWM Manual Chapter 14: Maintenance of Stormwater Management Facilities).
- _____ BMPs used on the plans are approved on the VA BMP Clearinghouse.
- _____ Verify that there is no illicit discharge from dumpsters to the storm drainage system.
- _____ Unsigned Registration Statement and VSMP fees (50% minimum) submitted with first submittal.

STORMWATER CALCULATIONS Refer to 9VAC25-870, latest edition, and Roanoke County Stormwater Ordinance Chapter 23, as amended, and the VA BMP Clearinghouse Specifications

- _____ Soils investigation including geotechnical report, percolation tests, or boring logs (if applicable). Location of soil testing shall be shown on a map. Soil testing shall be provided for all infiltration devices per the BMP Clearinghouse specifications.
- _____ Runoff calculations. Virginia Runoff Reduction Method, latest worksheet. Has Engineer used correct VRRM worksheet (i.e. New vs Prior Developed, 2011/2013 worksheet used with its corresponding 2011/2013 BMP specification, etc)
- _____ Summary of existing and proposed conditions, how stormwater will be treated, table that contains the pre and post development peak discharges for the 1, 2, and 10 year storms, how MS-19 is addressed (if required), and all other items per VAC25-870-55.
- _____ Was 42" used as the annual rainfall on the *Site Data* tab of the VRRM worksheet?
- _____ Were NOAA precipitation rates used for the Airport on the *Channel and Flood Protection* tab?
- _____ Were the correct Curve numbers (CN) used in the modeling calculations? Was a common point of interest used for both the pre and post modeling?

EROSION AND SEDIMENT CONTROL: Refer to Virginia's Erosion and Sediment Control Handbook, latest edition, and Roanoke County Erosion and Sediment Control and Steep Slope Development Ordinance Chapter 8.1, as amended

_____ An ESC plan is required if the disturbance is greater than 5,000 sf. If the plan is a detached single family residential development and not 5,000 sf of disturbance, an agreement in lieu of a plan may be required. An agreement in lieu of a plan cannot be used for any project other than a detached single family residence. (Ch 8.1-6 RCESC)

_____ An Erosion and Sediment Control Narrative is included and contains the following Items: (Ch. 6 VESCH):

_____ Project description: Briefly describes the nature and purpose of the land disturbing activity, and the area (acres) to be disturbed.

_____ Existing site conditions: A description of the existing topography vegetation and drainage.

_____ Adjacent areas: A description of the neighboring areas such as streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance.

_____ Soils Map including the following:

- Limits for each soil group.
- Each soil group area shall be labeled with soil name and hydrologic soil group (A,B,C,D).
- Provide supporting USDA soil information in calculations package.

_____ Off-site areas: Describe any off-site land-disturbing activities that will occur (including borrow sites, waste or surplus areas, etc.). Will any other areas be disturbed?

_____ Critical areas: A description of the areas on the site which have potentially serious erosion problems (e.g. steep slopes, channels, wet weather/underground springs, etc.)

_____ Erosion and sediment control measures: A description of the methods which will be used to control erosion and sedimentation on the site (Must meet Chapter 3 VESCH).

_____ Permanent stabilization: A brief description, including specifications, of how the site will be stabilized after construction is completed.

_____ Stormwater runoff considerations: Will the development site cause an increase in peak runoff rates? Will the increase runoff cause flooding or channel degradation downstream? Describe the strategy to control stormwater runoff.

_____ Calculations: Detailed calculations for the design of temporary sediment basins, permanent stormwater detention basins, diversions, channels, etc. Include calculations for pre and post-development runoff. Sediment traps and basins require a design table on the plans that provides the following information: structure number, drainage area, wet & dry volume required and provided, weir length and width, berm width and length. Plans should also note the dimensions, elevation, and storage

volume at each of the following elevations: bottom, top of wet storage, and top of dry storage. The sediment trap/basin shall be graded out on the plans and shall show the location of the weir and berm.

_____ Note to be included in ESC Plan:

- The location of all off-site fill or borrow areas associated with the construction project will be provided to Roanoke County Department of Community Development. An Erosion Control Plan or measures may be required for this area.

_____ Provide locations of contractor storage/staging areas, topsoil stockpile area, and concrete washout.

_____ Erosion control basins and traps shall be graded, contours labeled, and shall provide the following info for each device: area for each contour elevation, storage required, storage provided, depth of wet storage and dry storage, top of berm elevation, height and width of berm, and weir elevation and width.

_____ Permanent and temporary seeding schedules shall be shown on the erosion control plans/details with the application rates, seed species, and application dates. Fertilizing and lime applications shall also be provided. (VA ESC Manual Technical Bulletin #4)

_____ Limits of disturbance shown and disturbance area called out.

The following Minimum Standards must be met (VESCH Ch 8):

_____ MS-1: Temporary and permanent stabilization of denuded areas (Permanent within 7 days for areas at final grade; temporary for areas not to final grade but will remain dormant for longer than 14 days).

- a) Are practices shown on the plan?
- b) Are the limits of clearing and grading shown on the plan?
- c) Seed Specifications?

_____ MS-2: Protection or stabilization of on-site and off-site stockpiles and borrow areas.

_____ MS-3: Permanent Stabilization of denuded areas not otherwise stabilized.

_____ MS-4: Install E&S Measures as first step in land-disturbing activity.

_____ MS-5: Earthen controls and structures stabilized immediately upon installation.

_____ MS-6: Sediment Traps (less than 3 acres drainage) and basins (greater than 3 acres of drainage).

- a) Are traps/basins properly sized?
- b) Are the details shown on the plans?
- c) Are the calculations included in the narrative or plan?

_____ MS-7: Design and construction of cut and fill slopes to minimize erosion.

_____ MS-8: Concentrated flow down cut and fill must be in adequate channel, flume, or slope drain.

- _____ MS-9: Slopes protected from seepage.
- _____ MS-10: Storm sewer inlets must have adequate inlet protection.
- _____ MS-11: Outlet protection and channel lining is required prior to operation storm sewer system.
- _____ MS-12: Minimize impacts when working in and around live watercourse. A DEQ and/or Army Corps of Engineers permit may be required.
- _____ MS-13: Temporary vehicular stream crossings for more than 2 trips in 6 months.
- _____ MS-14: Other federal, state and local chapters must be met when working in live watercourses.
- _____ MS-15: The bed and banks of disturbed watercourses must be stabilized immediately.
- _____ MS-16: Utility installations.
- a) No more than 500 feet of open trench at any one time.
 - b) Excavated material shall be placed on uphill side of trench.
 - c) Effluent of dewatering system must be filtered.
 - d) Proper backfill and compaction.
 - e) Re-stabilize immediately.
- _____ MS-17: Keep paved or public areas clean (Construction Entrances)
- _____ MS-18: Temporary measures should be removed within 14 days when no longer needed and removal approved by Roanoke County.
- a) Schedule for maintenance
- _____ MS-19: Properties and waterways downstream from development sites shall be protected from sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff for the stated frequency storm of 24-hour duration in accordance with the following standards and criteria. Stream restoration and relocation projects that incorporate natural channel design concepts are not man-made channels and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels:
- a) Concentrated stormwater runoff leaving a development site shall be discharged directly into an adequate natural or man-made receiving channel, pipe or storm sewer system. For those sites where runoff is discharged into a pipe or pipe system, downstream stability analyses at the outfall of the pipe or pipe system shall be performed.
 - b) Adequacy of all channels and pipes shall be verified in the following manner:
 - 1) The applicant shall demonstrate that the total drainage area to the point of analysis within the channel is one hundred times greater than the contributing drainage area of the project in question; or
 - (2)(a) Natural channels shall be analyzed by the use of a two-year storm to verify that stormwater will not overtop channel banks nor cause erosion of channel bed or banks.

- (2)(b) All previously constructed man-made channels shall be analyzed by the use of a ten-year storm to verify that stormwater will not overtop its banks and by the use of a two-year storm to demonstrate that stormwater will not cause erosion of channel bed or banks; and
- (2)(c) Pipes and storm sewer systems shall be analyzed by the use of a ten-year storm to verify that stormwater will be contained within the pipe or system.
- c) If existing natural receiving channels or previously constructed man-made channels or pipes are not adequate, the applicant shall:
 - (1) Improve the channels to a condition where a ten-year storm will not overtop the banks and a two-year storm will not cause erosion to channel the bed or banks; or
 - (2) Improve the pipe or pipe system to a condition where the ten-year storm is contained within the appurtenances;
 - (3) Develop a site design that will not cause the pre-development peak runoff rate from a two-year storm to increase when runoff outfalls into a natural channel or will not cause the pre-development peak runoff rate from a ten-year storm to increase when runoff outfalls into a man-made channel; or
 - (4) Provide a combination of channel improvement, stormwater detention or other measures which is satisfactory to the VESCP authority to prevent downstream erosion.
- d) The applicant shall provide evidence of permission to make the improvements.
- e) All hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development condition of the subject project.
- f) If the applicant chooses an option that includes stormwater detention, he/she shall obtain approval from the VESCP of a plan for maintenance of the detention facilities. The plan shall set forth the maintenance requirements of the facility and the person responsible for performing the maintenance.
- g) Outfall from a detention facility shall be discharged to a receiving channel, and energy dissipators shall be placed at the outfall of all detention facilities as necessary to provide a stabilized transition from the facility to the receiving channel.
- h) All on-site channels must be verified to be adequate.
- i) Increased volumes of sheet flows that may cause erosion or sedimentation on adjacent property shall be diverted to a stable outlet, adequate channel, pipe or pipe system, or to a detention facility.
- j) In applying these stormwater management criteria, individual lots or parcels in a residential, commercial or industrial development shall not be considered to be separate development projects. Instead, the development, as a whole, shall be considered to be a single development project. Hydrologic parameters that reflect the ultimate development condition shall be used in all engineering calculations.
- k) All measures used to protect properties and waterways shall be employed in a manner which minimizes impacts on the physical, chemical and biological integrity of rivers, streams and other waters of the state.
- l) Any plan approved prior to July 1, 2014, that provides for stormwater management that addresses any flow rate capacity and velocity requirements for natural or man-made channels shall satisfy the flow rate capacity and velocity requirements for natural or man-made channels if the practices are designed to (i) detain the water quality volume and to release it over 48 hours; (ii) detain and release over a 24-hour period the expected rainfall resulting from the one year, 24-hour storm; and (iii)

reduce the allowable peak flow rate resulting from the 1.5, 2, and 10-year, 24-hour storms to a level that is less than or equal to the peak flow rate from the site assuming it was in a good forested condition, achieved through multiplication of the forested peak flow rate by a reduction factor that is equal to the runoff volume from the site when it was in a good forested condition divided by the runoff volume from the site in its proposed condition, and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels as defined in any regulations promulgated pursuant to § 10.1-562 or 10.1-570 of the Act.

- m) For plans approved on and after July 1, 2014, the flow rate capacity and velocity requirements of § 10.1-561A of the Act and this subsection shall be satisfied by compliance with water quantity requirements in the Stormwater Management Act (§ 10.1-603.2 et seq. of the Code of Virginia) and attendant regulations, unless such land-disturbing activities are in accordance with 4VAC50-60-48 of the Virginia Stormwater Management Program (VSMP) Permit Regulations.
- n) Compliance with the water quantity minimum standards set out in 4VAC50-60-66 of the Virginia Stormwater Management Program (VSMP) Permit Regulations shall be deemed to satisfy the requirements of Minimum Standard 19.

_____ Existing and proposed contours must be shown for the entire property boundaries.

_____ Existing vegetation (trees, grassed areas, or unique vegetation) must be shown.

_____ Location of all erosion control practices.

_____ The ESC plan should cover all phases of construction and a construction sequence must be provided for all phases of construction. (Ch 8, ESC Plan)

_____ Current ESC detail sheet is included with appropriate bond amounts as defined by the County. Costs of erosion control devices can be found on the County's website. (Refer to Roanoke County [ESC Ordinance](#))

_____ A maintenance schedule for the erosion controls measures must be set forth.

STEEP SLOPE DEVELOPMENT: Refer to Virginia's Erosion and Sediment Control Handbook, latest edition, and Roanoke County Erosion and Sediment Control and Steep Slope Development Ordinance Chapter 8.1

_____ Cut slopes or fill slopes shall not be greater than 2:1 (horizontal:vertical), unless a geotechnical report is provided for the proposed slopes.

_____ Cut slopes or fill slopes shall not be greater than 25 vertical feet in height, unless a geotechnical report is provided for the proposed slopes. Cut slopes or fill slopes less than or equal to 3:1 (horizontal:vertical) may exceed 25 vertical feet in height and shall not require a geotechnical report.

_____ For any cut slopes or fill slopes greater than or equal to 2:1 (horizontal:vertical) and greater than or equal to 25 vertical feet in height, as-built plans showing that the finished geometry is in substantial conformity with the design shall be provided to the plan-approving authority.

_____ Fill materials, compaction methods and density specifications shall be indicated on the site development plans. Fill areas intended to support structures shall also be indicated on the site development plans. Compaction test results (per VDOT standards) shall be submitted to the plan-approving authority.

_____ Development plans for all new subdivisions shall show proposed lot grades to ensure positive drainage.

FLOOD ZONES:

_____ List the applicable FIRM with date.

_____ Provide minimum of 100+1 for commercial buildings and fuel tanks. Provide minimum of 100+2 for residential buildings.

BUILDING:

_____ Building footprint

_____ Engineered retaining wall design(s) on civil drawings or attached with first site submittal. Retaining walls require a separate submittal, approval, and permit from the Building Commissioner.

_____ Accessible route(s) & entrance(s) to building per IBC sections 1104 & 1105 & ANSI A117.1 Chapters 4 & 5 by line diagram

_____ All accessible parking spaces/van accessible spaces as required (IBC table 1106.1 & section 1106.5)

_____ Include handicap sign detail VUSBC section 1106.8

_____ Indicate type of material, size & test standard met of all private utility lines (water, sewer, electrical, sprinkler, etc.)

_____ Location of fire department connection, sprinkler post, indicator valve, backflow preventer, etc., where applicable.

_____ If roof stormwater is conveyed through storm sewer, please indicate size & type of material of storm sewer piping. Include stormwater calculations & rainfall rates used to size piping.

Roanoke County Land Development Procedures

In order to maintain the character and integrity of neighborhoods, to promote excellence of development, to prevent undue traffic hazards, and to encourage the most harmonious development and use of land, a Development Plan with its accompanying Erosion and Sediment Control Plan is required for commercial and residential development and shall be submitted to Roanoke County's Development Review Coordinator.

These plans will be distributed to the appropriate County departments/divisions for review and approval. The design engineer or developer is responsible for separate submittals to the Western Virginia Water Authority, the Town of Vinton, the Virginia Department of Transportation and the Virginia Department of Health (when applicable) for their review and approval. When applicable, all of these entities must approve the development plans prior to the issuance of any permits for all types of developments as required by Section 30-90 Site Development Plans of the Roanoke County Zoning Ordinance and the Roanoke County Erosion and Sediment Control Ordinance. In cases where jurisdictional waters exist on the proposed site, the developer may need to obtain approval and/or permits from any or all of the following agencies: the Department of Environmental Quality, the Department of Conservation and Recreation, the Federal Emergency Management Agency and the Marine Resource Commission.

In order to make the Development Review Procedure more efficient for you, we have prepared this booklet to guide you through the process. We hope you will find it helpful.

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The Development Plan Procedure

Submitting development plans will allow all required reviewing entities to review and comment on the plan for general compliance with all applicable regulations and requirements. Zoning of the site will be checked to ensure that the proposed use is permitted in the district. The applicant will be advised of requirements relative to building setbacks, subdivisions, parking, screening and buffering of the site, Special Use Permits (SUP) required, flood plains, erosion and sediment control, stormwater management, availability of water and sewer services and any other requirements that may affect the development. Reviewing entities for Concept Plans or Full Plan Review must include, but is not limited to, Planning & Zoning, Fire and Rescue, Engineering, and the Western Virginia Water Authority (WVWA) or Town of Vinton Public Works Department (TOVPW), as applicable, the Virginia Department of Health (VDOH) and the Virginia Department of Transportation (VDOT). Roanoke County's Development Review Coordinator will prepare a review letter which will include all comments received from these entities with the exception of the Virginia Department of Transportation and the Virginia Department of Health.

Four (4) sets of plans and a Development Application should be mailed to:

Roanoke County Department of Community Development
Development Review Coordinator
PO Box 29800
Roanoke, VA 24018

or delivered to
Development Review Coordinator
Roanoke County Administration Center
5204 Bernard Drive
Second Floor
Roanoke, VA 24018

A. CONCEPT PLAN REVIEW

A concept plan is **required** if the plan meets the appropriate qualifications (See page 10).

This review will allow all reviewing entities to comment on the plan for general compliance with all regulations and requirements before proceeding to the formal review. Roanoke County's Development Review Coordinator will prepare a concept review letter which will include all comments received from these entities. Roanoke County's review letter will be mailed and/or emailed to the owner/developer and the design engineer.

The following should be included in the submittal for a concept review:

- Completed Development Application (See page 9).
- Completed Concept Plan Checklist (See page 11).
- Four (4) sets of concept plans.
- If the site is to be served with public water and/or sewer, a map showing the services requested is required on Roanoke County topographic maps.
- Cover sheet shall list all proffers for site, if applicable.

Your careful completion of all development applications and checklists will expedite the process. A plan cannot be logged in for review without the development application due to the pertinent information it shows. For post initial reviews, a comments response letter is required before a plan will be logged in to note the revisions to the plan for the reviewers. This will help expedite the review of the plan. No application is due with subsequent review submittals.

B. CONCEPT PLAN MEETING

If after the concept review has been completed by staff, the owner/developer and/or design engineer desires to meet with the reviewing entities to discuss the concept plan, the Development Review Coordinator should be notified and a meeting will be scheduled.

C. FORMAL PLAN REVIEW

Development plans should be submitted to Roanoke County's Development Review Coordinator at the address noted above and will be distributed to Roanoke County's Engineering division, Planning & Zoning division and the Fire & Rescue Department. Please note that in addition to Roanoke County's review, the Virginia Department of Transportation (VDOT), the Western Virginia Water Authority WVWA or the Town of Vinton Public Works, and the Virginia Department of Health may also have to review the development plan. Plans for review by these entities must be submitted directly to them.

Comments from the WVWA and the Town of Vinton Public Works are forwarded to Roanoke County's Development Review Coordinator for inclusion in the County's review letter. Comments from VDOT and the Virginia Department of Health will come directly from them and will not be included in the County's review letter.

Section 30-90B of the Roanoke County Zoning Ordinance requires that plans be prepared by a certified Engineer, Architect or Land Surveyor who is registered with the Commonwealth of Virginia as noted in the Code of Virginia §15.2-2262.

Please use the checklists in the appendices of this booklet for help in preparation of the Development Plans and/or the Subdivision Plat. Checklists should be submitted with plans for review. Any appropriate plats must be an integral part of the development plan.

Each entity will respond in writing to the Development Review Coordinator. Contact names and phone numbers for the review staff will be shown in the review letter so that the design firm may contact the reviewer for specific questions. The owner/developer and the design firm will then be notified in writing by the Development Review Coordinator of all review comments.

A review meeting is required and will be scheduled with the date, time and location shown in the first review letter. This meeting will be with all reviewing entities, the design engineer, and the developer to allow the opportunity to discuss plans and comments with the plan review team. These meetings are held on Wednesdays in Room 215 or 217 of the Roanoke County Administration Building, second floor. Please contact the Development Review Coordinator for further details on scheduling meetings.

The development plan will either be approved or disapproved with comments in the following timeframes:

Concept Plan	6 working days
Site Plan Submissions:	13 working days
Subdivision Plan submissions:	19 working days
Field Revisions	6 working days
Revision to Approved Plans	6 working days up to 13 working days depending on revision

D. PLAN RESUBMITTAL

Each time the development plans are disapproved, the design firm must revise them and resubmit for review by the appropriate entities within 6 (six) months or the project will be considered null and void, the review process will cease and further review will require another initial submission of plans, plats and fees. The plan will be reviewed under the same timeframes as shown above. When resubmitting, please respond to all review comments in written form indicating where or how the comments were addressed to expedite the review of the plan. **A resubmittal will not be logged in for review without this comments response letter.**

E. REVIEW BY THE WESTERN VIRGINIA WATER AUTHORITY

The Western Virginia Water Authority (WVWA) must review and approve all development plans which will require water and/or sewer connections unless the plan is within the Town of Vinton service area. If the development is within the Town of Vinton service area, the TOVPW must review the plan.

Three (3) sets of development plans should be submitted to the following address:

Western Virginia Water Authority
Engineering Services Division
601 S. Jefferson Street, Suite 300
Roanoke, VA 24014.
(540) 853-5659

WVWA Construction Standards and other pertinent forms can be found at www.westernvawater.org

F. REVIEW BY THE TOWN OF VINTON PUBLIC WORKS DEPARTMENT FOR PLANS IN ROANOKE COUNTY, BUT EAST OF THE TOWN OF VINTON CORPORATE LIMITS

Development plans located in Roanoke County, but east of the Town of Vinton Corporate Limits must be reviewed by the Town of Vinton Public Works Department, as the Town of Vinton will supply the water and sewer lines that will serve the development. Plans will also be reviewed by the County's review team.

For these projects, please submit two (2) sets of development plans to

Town of Vinton Planning & Zoning
311 South Pollard St
Vinton, VA 24179
Planning & Zoning (540) 983-0601
Public Works (540) 983-0646

TOV Planning & Zoning is responsible for insuring that TOVPW receives one (1) set of plans for review and they will also have a set for their use. Roanoke County's Development Review Coordinator will respond in writing to the owner/developer and the design firm including the TOVPW comments.

G. TOWN OF VINTON CORPORATE LIMITS PLAN REVIEW

Development plans located within the Town of Vinton Corporate Limits must be reviewed by the Town of Vinton Planning and Zoning Department, the Vinton Public Works Department, and the County of Roanoke.

For these projects, please submit five (5) sets of development plans to

Town of Vinton Planning & Zoning
311 South Pollard St
Vinton, VA 24179
Planning & Zoning (540) 983-0601
Public Works (540) 983-0646

TOV Planning & Zoning is responsible for ensuring that Public Works receives one (1) set of plans for review, that Roanoke County will receive three (3) sets of plans (Engineering, Fire & Rescue, File), and they will have a set for their use. The Town of Vinton Planning & Zoning Department will respond in writing to the design firm which will include TOVPW comments, the County's Erosion and Sediment Control and Stormwater comments, Fire & Rescue comments and TOV comments.

If you are unsure about where your plans should be submitted, please contact Roanoke County's Development Review Coordinator for assistance.

H. REVIEW BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT)

The Virginia Department of Transportation must review the development plans for all new subdivision streets and any new or existing entrances to a public highway. Their review letter will be sent separately from the County's review letter. VDOT must review and approve the plan and must issue either a temporary or permanent entrance permit if a project has an entrance onto a public highway, even if there is an existing entrance. Roanoke County will not approve a plan without one of these permits.

Plans should be mailed to the following address:

The Virginia Department of Transportation
PO Box 3071
Salem, VA 24153

or delivered to

714 South Broad Street
Salem, VA 24153
(540) 387-5488

VDOT Construction Standards can be found at www.virginiadot.org/projects/ssr-rev.asp

I. REVIEW BY THE ROANOKE COUNTY HEALTH DEPARTMENT

The Roanoke County Health Department must review and approve the following:

1. All new subdivision developments which require the use of on-site septic systems and/or wells;
2. All new restaurants;
3. Restaurants which will be remodeled, are a change of use from a prior business, or are changing their place of business.

Plans should be submitted to the following address:

Roanoke County Health Department
227 South Pollard Street
Vinton, VA 24179
(540) 857-7807
www.vdh.state.va.us

J. PRELIMINARY PLAN APPROVAL

Once the County has completed its review and has preliminarily approved the site development plan for construction, a preliminary approval letter will be sent to the owner/developer and the design firm outlining all items that must be submitted at least two (2) working days prior to a preconstruction meeting being scheduled. This letter also states that all reviewing entities must approve the site plan before a preconstruction meeting can be held. A preconstruction meeting must be held with the County and the WVWA or Town of Vinton Public Works before any grading or construction can begin. This approval does not include the building review and approval. This review and approval is handled separately through the Building Commissioner's office; however, building plans may not be submitted until an approved stamped set of plans from the preconstruction meeting accompanies each set of building plans. This is to ensure that the architect is aware of the site plan layout when designing the building.

The following actions must be taken prior to final plan approval and an E & S permit and/or a building permit being issued:

Submissions:

- Six (6) complete sets of plans for use as stamped approved sets for the preconstruction meeting must be submitted. These will be distributed as follows: two (2) to Roanoke County; two (2) to the Western Virginia Water Authority or Town of Vinton Public Works; and two (2) to the developer. If additional sets are required by the contractor, please submit the desired number of sets.
- A copy of the Department of Conservation and Recreation (DCR) general permit application, a copy of the application check, and a copy of the Stormwater Pollution Prevention Plan (SWPPP).
- A copy of any additional Department of Environmental Quality (DEQ), Army Corps of Engineer (USACOE) or Marine Resource Commission (MRC) permits.
- A VDOT approval letter.
- Either a temporary or a permanent highway entrance permit or land use permit must be submitted for any work in the VDOT right-of-way or for entry onto the property.
- A Virginia Department of Health approval letter, if applicable.
- A WVWA approval letter, if applicable.
- A TOVPW approval letter, if applicable.
- Have the owner/developer sign the site plans (these can be signed at the preconstruction meeting if the owner/developer attends).
- Provide the name and a copy of the certificate for the Virginia Certified Responsible Land Disturber (RLD).
- Original plat with seals of all owners, trustees, and surveyors, if applicable.
- All recorded off-site easements.

Fees/Sureties/Agreements:

- Erosion and Sediment Control Permit fees.
- Review fee.
- Street sign fee, if applicable.
- The surety for the Site Agreement for public improvements.
- A Site Agreement must be signed and submitted.
- The surety for the Erosion & Sediment Control Agreement to guarantee the erosion control measures shown on the plan will be installed.
- An Erosion and Sediment Control Agreement must be signed and submitted.
- A Stormwater Management Agreement with attached plat must be signed and submitted along with the Stormwater Management Administration and Recordation fee.

K. PRECONSTRUCTION MEETING

Once all items above are submitted to the Development Review Coordinator, the developer must contact the Development Review Coordinator to indicate that a preconstruction meeting needs to be scheduled. The preconstruction meeting will be scheduled with the owner/developer two (2) working days later, if possible. It is the responsibility of the owner/developer to notify his responsible land disturber and his utility contractor to attend the meeting with him.

The Development Review Coordinator will coordinate the meeting with the County review engineer, the County inspector, and the WVWA or the Town of Vinton Public Works.

The project engineer will inform the owner/developer verbally and in writing of the County's obligation to perform inspections on site. Everyone in the meeting will be required to sign the pre-construction checklist indicating their knowledge of the obligation to perform inspections on site.

The Erosion Control Permit is given to the developer at this meeting.

The developer MUST contact the project inspector 24 hours before beginning any grading or construction on the property.

The project inspector will visit the site within 48 hours of the developer's call to ensure that all necessary erosion and sediment control measures are properly installed according to the approved plan.

L. PRECONSTRUCTION MEETING FOR PROJECTS WITHIN THE TOWN OF VINTON

Preconstruction meetings for projects within the Town of Vinton Corporate Limits will be coordinated by the Town of Vinton Planning & Zoning Department. These meetings will be held in the conference room of the Town of Vinton Municipal Building located at 311 South Pollard Street, Vinton.

M. AS-BUILT PLANS

As-built plans showing water and sewer as-builts must be submitted to and approved by the WVWA prior to the issuance of the Certificate of Substantial Completion. As-builts showing the stormwater system and the stormwater pond/facility and access easement must be submitted to Roanoke County and approved prior to sureties being released.

N. FURTHER INFORMATION

If you should find that you need further information about any of the topics discussed herein, please do not hesitate to contact our office:

Development Review Coordinator
Phone: (540) 772-2190 or 772-2065 ext. 246
Fax: (540) 772-2108
or
dsowder@roanokecountyva.gov

DEVELOPMENT APPLICATION

(Please Type or Print)

DATE: _____

PROJECT NUMBER: _____

APPLICANT: _____ PHONE: _____ FAX: _____

ADDRESS: _____ E-MAIL ADDRESS: _____

OWNER: _____ PHONE: _____ FAX: _____

ADDRESS: _____ E-MAIL ADDRESS: _____

ENGINEER: _____ PHONE: _____ FAX: _____

ADDRESS: _____ E-MAIL ADDRESS: _____

CONTRACTOR: _____ PHONE: _____ FAX: _____

E-MAIL ADDRESS: _____

SOURCE OF REVIEW NOTIFICATION (CIRCLE) MAIL - FAX - INTERNET

SITE INFORMATION

PROPERTY ADDRESS: _____

DEVELOPMENT NAME: _____

PROPOSED USE: _____

DEVELOPED AREA: _____ GRADED AREA: _____

TAX MAP #: _____ MAGISTERIAL DISTRICT: _____

ZONING: _____ TOTAL UNITS: _____ TOTAL LOTS: _____

REQUESTED SERVICE: (CIRCLE - THIS MUST BE MARKED)

WATER FACILITIES: (COUNTY - CITY - TOWN OF VINTON - PRIVATE - WELL - OTHER)

SEWER FACILITIES: (COUNTY - CITY - TOWN OF VINTON - PRIVATE - OTHER)

IS BUILDING TO BE SPRINKLERED? _____ FLOW REQUIRED: _____ GPM

It is understood that submission of inaccurate or incomplete information may delay final approval of the comprehensive development plans.

I do hereby certify that I fully understand the provisions of the Erosion and Sediment Control Ordinance and program, and the above-referenced project as approved. I further grant the right-of-entry to this project, as described above, to the designated personnel for the purpose of inspecting and monitoring for compliance with the aforesaid Ordinance.

SIGNATURE OF APPLICANT

ROANOKE COUNTY CONCEPTUAL MEETING CHECKLIST

If your proposed development meets any of the following criteria, a conceptual meeting with reviewing staff is required:

- ___ Any project with a water line or sewer line extension of more than 300'
- ___ Any project requiring the construction of a bridge
- ___ Any project with a watercourse crossing the property
- ___ Any project with a stream crossing or work in a watercourse subject to DEQ, FEMA or VMRC regulations
- ___ Any project requiring a traffic study as identified by VDOT or the Roanoke County Traffic Engineer
- ___ Any project located in a designated shrink swell soil area as identified by the Building Commissioner
- ___ Any project with 25% or greater slopes in the area of land disturbance
- ___ Any project with zoning conditions
- ___ Any project requiring a 2232 review by the Planning Commission
- ___ Any project that has been granted a rezoning for the development (to verify proffers)
- ___ Any project at the discretion of the Development Review Coordinator

ROANOKE COUNTY CONCEPT PLAN CHECKLIST

- If development is to be phased, a concept plan is required showing entire development.
- Development name and use.
- Owner's name, address and telephone number.
- Date, scale of plat and north point of map.
- Topography map with a suitable scale and contour interval.
- All natural watercourses.
- All property lines.
- Locations, names of adjoining property owners and/or properties, and Roanoke County tax map numbers on parcels adjacent to project.
- The zoning and land use of all adjacent properties.
- All parking and loading spaces.
- Sidewalks, alleys and any easements.
- Any driveways, entrances/exits, curb openings and crossovers.
- The locations, widths and names of all existing or platted streets or other public ways within or adjacent to the development.
- Approximate street grades and sight distances at all intersections.
- All buildings.
- Is building to be sprinkled?
- A copy of Western Virginia Water Authority (WVWA) water and sewer maps (if required).
- Please submit any proffer conditions at the site and show how they are addressed.
- Address stormwater management; provide location and HEC-2 or HEC-RAS Analysis if in floodplain.
- Has the Virginia Department of Transportation (VDOT) been provided with plans?
- Has the Western Virginia Water Authority (WVWA) been provided with plans? Refer to their checklist.
- Has the Town of Vinton been provided with plans?
- Has the Health Department been provided with plans?
- Has the Department of Environmental Quality been contacted for potential stream or wetland impact?

I certify that all items required in the checklist above are complete and submitted.

Signature

_____/_____/_____
Date

ROANOKE COUNTY REVIEW SUBMISSION CHECKLIST

If applicable, the following must be submitted for review:

- _____ Four (4) complete sets of development plans including the Roanoke County Cover Sheet, the Roanoke County Erosion & Sediment Control Detail Sheet and an Erosion & Sediment Control Plan to Roanoke County Community Development.
- _____ Three (3) complete sets of development plans to the Western Virginia Water Authority.
- _____ Two (2) sets of development plans to the Town of Vinton.
- _____ Two (2) sets of development plans to VDOT and one set (1) of calculations.
- _____ All plan sets shall include a copy of the plat (if one is required for the development).
- _____ Two (2) sets of the complete drainage calculations.
- _____ Erosion Control Narrative directly on development plans.
- _____ One (1) copy of the Development Plan Checklist.
- _____ One (1) copy of the Plat Checklist.
- _____ Landscape Plan.
- _____ Photometric Plan.
- _____ Any request for a waiver of Roanoke County regulations in a separate letter addressed to the County Engineer.

I certify that all items required in the checklist above are complete.

Signature

____/____/_____
Date

ROANOKE COUNTY COVER SHEET CHECKLIST

- _____ The Roanoke County cover sheet is required in all sets of plans.
- _____ Name of development.
- _____ Owner/developer's name and address.
- _____ Signature of owner/developer.
- _____ Name and address of Engineer, Architect or Surveyor preparing the plans.
- _____ Professional seal(s).
- _____ Complete GIS tax map number(s) of the development.
- _____ Vicinity map.
- _____ Date, scale and number of streets.
- _____ Magisterial district.
- _____ Quantity and cost for all public improvements.
- _____ List all proffer conditions.
- _____ Use of property in development.

I certify that all items required in the checklist above are complete.

Signature

_____/_____/_____
Date

DEVELOPMENT PLAN ITEM INCLUSION CHECKLIST

- _____ All property lines including distances and bearings.
- _____ All adjacent property owners with Roanoke County Tax Map Numbers.
- _____ Zoning designation and current land use of all adjacent properties. (For additional requirements concerning Planning and Zoning, see Roanoke County Zoning Ordinance, Sections 30-32 through 30-76 through 30-90-4.
- _____ Building(s) should be located on plans with distances from property lines shown. Lot and building coverage should also be provided. Show zoning tabulation table on plan.
- _____ All building setback lines from street right-of-ways shown. (See Roanoke County Zoning Ordinance). Show zoning tabulation table on plan.
- _____ Existing and proposed topography with a maximum of two-foot contour intervals within one hundred feet of all buildings and a maximum of ten-foot intervals on the remainder of the development.
- _____ Floodway, Floodplain and elevation of 100-year flood plain if the site is adjacent to a natural watercourse which drains an upstream drainage area of greater than 100 acres, or if the site is in a FEMA-designated flood hazard zone. (See Roanoke County Zoning Ordinance).
- _____ Landscape and buffering plan*, including plant schedule detailing plant types, original and ultimate heights of plantings, and quality and spacing of vegetation. (*=If required by Section 30-92 of the County Zoning Ordinance). Show bonding as per Schedule
- _____ In compliance with Chapter 8 of the Roanoke County Code, an Erosion Control Plan along with an Erosion Control Narrative must be submitted. The submittal must include Roanoke County's Erosion Detail Sheet along with cost estimates for all erosion control measures.
- _____ The 19 state minimum standards must be listed on the plan and a description of how they will be met must be included. If not applicable, state N/A.

Cost estimates must be submitted for any public physical improvements, including required landscaping and all erosion control measures.
- _____ A detailed Stormwater Management Plan designed by a professional engineer in accordance with the County of Roanoke drainage standards (Chapter 8 of the Roanoke County Code) must be submitted along with all calculations for adequacy of all existing and proposed stormwater management systems.
- _____ Delineate on the site plan(s) and submit plat(s) showing a metes and bounds description detailing all areas around stormwater detention facility as a Stormwater Detention Easement. This plat will be recorded with the maintenance agreements for the stormwater detention facility.
- _____ Roanoke County requires the private maintenance of all detention/retention ponds, which may be required by the Roanoke County Drainage Standards. These maintenance agreements will be provided to the developer with the review of the development plans.
- _____ All on and off-site drainage and utility easements must be shown and, if necessary, submitted for public acceptance.
- _____ Section 29-5.4 of the Roanoke County Subdivision Ordinance requires that all lots created must have an approved septic system if the lots do not connect to public sanitary sewer. A soil study must be prepared by a consulting engineer or soil scientist and submitted to the State of Virginia/Roanoke County Health Department for review.

- _____ All inert waste (septic) areas must be shown, and they must meet all State standards.
- _____ Three complete and sealed sets of building plans (if required).
- _____ Fire prevention: show the location of all existing and proposed fire lanes and hydrants.
- _____ Parking areas should be shown with specific dimensions for all parking, loading and handicap spaces as well as travel lanes. (See Roanoke County Street and Off-Street Parking – Design Standard and Specification, Roanoke County Zoning Ordinance Section 30-91/Off-Street Parking, Stacking and Loading).
- _____ Show all sidewalks, alleys and any easements.
- _____ Show all driveways, entrances/exits, curb openings and crossovers, sight distances at access points must be provided.
- _____ Show the lighting plan, including pole heights and fixture types. (Refer to Roanoke County Zoning Ordinance, Section 30-94).
- _____ Show courses and distances of centerlines of all streets or roads adjoining the proposed development.
- _____ All new public streets should be designed to Roanoke County Public Street Standards. (See Roanoke County Street and Off-street Parking Standards).
- _____ If any signs are to be erected, the location must be shown on the development plan and a sign permit obtained for each. (See Section 30-93 of the Roanoke County Zoning Ordinance).
- _____ Show dumpster location including screening. (Section 30-92.6(F))

**ROANOKE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT
DETAILED DEVELOPMENT REVIEW CHECKLIST**

PROJECT NAME: _____

PROJECT NUMBER: _____

ENGINEER: _____

DATE: _____

GENERAL:

_____ Vicinity Map showing the location of the site and the surrounding area must be shown.

_____ North Arrow must be shown.

_____ Roanoke County Cover Sheet is required.

_____ Check Bonding Amounts. All public improvements must be included in the site bond.

_____ Show all physical improvements such as buildings, parking lots, access roads, utility construction, etc.

_____ SWPPP Permit must be obtained for any disturbed areas of more than one (1) acre.

_____ Are any DEQ or Army Corps of Engineers jurisdictional waters present? If so, plan must be submitted to the respective agency for review and approval.

STREETS: Refer to Roanoke County's Public Street and Parking Design Standards and Specifications and VDOT specifications.

_____ Miscellaneous Construction Standards. (Section 203.00)

_____ VDOT approval required (temporary and/or permanent). (Section 203.01)

_____ Street categories on the plans. (Section 200.09)

_____ Pavement surface shown as asphalt. (Section 200.04)

_____ Subdivisions creating > 1500 vpd, additional entrances are required. (Section 200.11)

_____ Reverse frontage shown for streets which are classified as primary/arterial and/or carry in excess of 5,500 vpd as determined by the director. (Section 200.05 and 200.06)

_____ Street connections are aligned opposite of each other or separated a minimum of 200 ft. (Section 200.12)

_____ ROW is extended to boundary where applicable. (Section 200.02)

_____ Curb and gutter shown for all development except for property zoned AG-3 or AG-1. (Section 200.07)

DRAINAGE: Refer to Roanoke County Storm Water Ordinance & Design Manual Roanoke County Code Chapter 23

- _____ VDOT approval.
- _____ Correct peak discharge method used. Drainage maps are submitted outline Tc path, land uses on and off-site. Appropriate run-off coefficients are used. (Section 503.00)
- _____ Minimum 15" dia. Culvert shown. (Section 504.01, Para. B, 1)
- _____ All culverts in drainage easements and storm sewers are concrete with appropriate headwall (>36") or end section (<= 36"). (Section 504.01, Para. D and Section 504.04, Para. B, 1 and 2)
- _____ Plan and profiles are shown along with storm sewer and hydraulic calculations. (Section 504.03, Para. D)
- _____ Sites which drain in excess of 100 acres, a flood study is submitted and/or is a FEMA studied area, and the minimum finished floors are shown on the plans and plat. Elevation certificate notification on the plans and plat. For flood studies, the engineer should assume off-site developed. Residential buildings minimum 2.0 ft. above base flood elevation and commercial buildings 1.0 ft. above BFE. (Refer to Roanoke County Zoning Ordinance, latest edition, Section 30.74)
- _____ Inlets draining less than 100 acres, an easement is shown for the 100 yr. ponding elevation on the plans and plat. (Section 504.01, Para. C, d)
- _____ Correct easement widths are shown on the plat. (Section 504.01, Para. E, 5, Section 504.02, Para C, 5, and Section 504.03, Para. D, 5)
- _____ Liners, inlet and outlet protection shown on the plans IAW calculations (0 to 4 fps, grass liner, 4 to 7 fps EC-1, Type A, 7 to 18 fps, calculations determining the minimum liner and stone size required, 18 fps and greater energy dissipater). (Section 504.04, Para. C)

STORMWATER MANAGEMENT: Refer to Roanoke County Storm Water Ordinance & Design Manual Roanoke County Code Chapter 23

- _____ Drainage map submitted with existing land uses identified for on and off-site, Tc shown for pre and post development, and existing land uses correctly identified. (Undeveloped c = 0.35 grass and c = 0.30 for woods.) (DS, Section 503.00)
- _____ Access easements, min. 15 ft. width for slopes 0 to 8%, min. 20 ft. width for 8 to 18%, > 18% slope, min. width of 25 ft. (ORD, Para. IV, A)
- _____ Access roads are paved (Cat I, pavement design) with an approved VDOT entrance. Min. 12 ft. wide. (ORD, Para. IV, B)
- _____ Routing shown for 10/2 and 25/10 submitted. (DS, Section 503.03, Para. B)
- _____ Emergency spillway designed to pass the 100 year storm with 1.0 ft. of freeboard. (DS, Section 503.03, Para. B)
- _____ Easement shown to encompass high water mark and/or 15 ft. outside toe of embankment. Fencing is required if the pond is over 4.0 ft. deep, takes four hours to drain or the interior slopes are steeper than 3 to 1. (DS, Section 505.02, Para. A, 6 and ORD, Para. III)
- _____ Compaction and testing requirements shown. (ORD, Para. III)

_____ Check bonding amounts. (ORD, Para. V)

EROSION AND SEDIMENT CONTROL: Refer to Virginia's Erosion and Sediment Control Handbook, latest edition, and Roanoke County Erosion and Sediment Control Ordinance Chapter 8.1

_____ An ESC plan is required if the disturbance is greater than 5,000 sf, if not an agreement in lieu of a plan may be required. (Ch 8.1-6 RCESC)

An Erosion and Sediment Control Narrative is included and contains the following items (Ch. 6 VESCH):

_____ Project description: Briefly describes the nature and purpose of the land disturbing activity, and the area (acres) to be disturbed.

_____ Existing site conditions: A description of the existing topography vegetation and drainage.

_____ Adjacent areas: A description of the neighboring areas such as streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance.

_____ Off-site areas: Describe any off-site land-disturbing activities that will occur (including borrow sites, waste or surplus areas, etc.). Will any other areas be disturbed?

_____ Soils: A brief description of the soils on the site giving such information as soil name, mapping unit, erodibility, permeability, depth, texture and soil structure.

_____ Critical areas: A description of the areas on the site which have potentially serious erosion problems (e.g. steep slopes, channels, wet weather/underground springs, etc.)

_____ Erosion and sediment control measures: A description of the methods which will be used to control erosion and sedimentation on the site (Must meet Chapter 3 VESCH).

_____ Permanent stabilization: A brief description, including specifications, of how the site will be stabilized after construction is completed.

_____ Stormwater runoff considerations: Will the development site cause an increase in peak runoff rates? Will the increase runoff cause flooding or channel degradation downstream? Describe the strategy to control stormwater runoff.

_____ Calculations: Detailed calculations for the design of temporary sediment basins, permanent stormwater detention basins, diversions, channels, etc. Include calculations for pre- and post-development runoff.

_____ Note to be included in ESC Plan:

The location of all off-site fill or borrow areas associated with the construction project will be provided to Roanoke County Department of Community Development. An Erosion Control Plan or measures may be required for this area.

The following Minimum Standards must be met (VESCH Ch 8):

_____ MS-1: Temporary and permanent stabilization of denuded areas (Permanent within 7 days for areas at final grade, Temporary for areas not to final for 30 days).

- a) Are practices shown on the plan?
- b) Are the limits of clearing and grading shown on the plan?
- c) Seed Specifications?

_____ MS-2: Protection or stabilization of on-site and off-site stockpiles and borrow areas.

- _____ MS-3: Permanent Stabilization of denuded areas not otherwise stabilized.
- _____ MS-4: Install E&S Measures as first step in land-disturbing activity.
- _____ MS-5: Earthen controls and structures stabilized immediately upon installation.
- _____ MS-6: Sediment Traps (less than 3 acres drainage) and basins (greater than 3 acres of drainage).
- a) Are traps/basins properly sized?
 - b) Are the details shown on the plans?
 - c) Are the calculations included in the narrative or plan?
- _____ MS-7: Design and construction of cut and fill slopes to minimize erosion.
- _____ MS-8: Concentrated flow down cut and fill must be in adequate channel, flume, or slope drain.
- _____ MS-9: Slopes protected from seepage.
- _____ MS-10: Storm sewer inlets must have adequate inlet protection.
- _____ MS-11: Outlet protection and channel lining is required prior to operation storm sewer system.
- _____ MS-12: Minimize impacts when working in and around live watercourse.
- a) DEQ and/or Army Corps of Engineers permits may be required.
- _____ MS-13: Temporary vehicular stream crossings for more than 2 trips in 6 months.
- _____ MS-14: Other federal, state and local regulations must be met when working in live watercourses.
- _____ MS-15: The bed and banks of disturbed watercourses must be stabilized immediately.
- _____ MS-16: Utility installations.
- a) No more than 500 feet of open trench at any one time.
 - b) Excavated material shall be placed on uphill side of trench.
 - c) Effluent of dewatering system must be filtered.
 - d) Proper backfill and compaction.
 - e) Re-stabilize immediately.
- _____ MS-17: Keep paved or public areas clean (Construction Entrances)
- _____ MS-18: Temporary measures should be removed within 30 days when no longer needed.
- a) Schedule for maintenance
- _____ MS-19: Address increases in stormwater volume, velocity, and peak runoff.
- a) Are offsite, contributing areas accounted for?
 - b) Are offsite, receiving areas and channels described and adequate?
 - c) Are calculations included in the narrative or plan and adequate?
- _____ The limits of clearing and grading must be shown.
- _____ Existing and proposed contours must be shown.
- _____ Existing vegetation (trees, grassed areas, or unique vegetation) must be shown.
- _____ Location of all erosion control practices.
- _____ The ESC plan should cover all phases of construction. (Ch 8, ESC Plan)

_____ Current ESC detail sheet is included with appropriate bond amounts. (Refer to Roanoke County ESC Ordinance)

_____ A maintenance schedule for the erosion controls measures must be set forth.

CONSTRUCTION/FIELD CHANGES:

Add the following notes to the plan:

_____ None without approval of the Consulting Engineer and Roanoke County.

_____ Any new alignments, change in grades, alternative pipe sizes or manholes will require a new set of plans stamped by the Consulting Engineer. County engineers will review plans within one day of submittal. Plan sheets can be 8.5 x 11 if the information is legible.

ROANOKE COUNTY PLAT CHECKLIST

- _____ Subdivision name.
- _____ Name of the subdivider.
- _____ Name of the surveyor or engineer.
- _____ Surveyor's professional seal signed with a permanent marker.
- _____ All owners, trustees, and beneficiaries must sign the plat with a permanent marker; signatures must be acknowledged by a notary public.
- _____ If the plat is drawn from record or from a current field survey.
- _____ State plane coordinates strongly suggested.
- _____ Original tax map numbers and tax map numbers assigned to new lots as shown on printout from review.
- _____ All monuments and iron pins.
- _____ Deed references.
- _____ Date of the plat.
- _____ Magisterial district.
- _____ A legend.
- _____ The scale.
- _____ Boundary coordinates.
- _____ Bearings and distances of all boundaries.
- _____ Labeled lots.
- _____ Acreage or area of all new tracts, including common open space, park, or public lands, and the remaining tract.
- _____ All adjacent property owners, deed book and page references, lots, blocks, section numbers and the county's tax map numbers.
- _____ Identification of graves, objects, or structures marking a place of human burial.
- _____ A vicinity map with a north arrow.
- _____ A north arrow that references either true or magnetic meridian.
- _____ All existing building structures showing setbacks to nearest property line.
- _____ Show and name all natural watercourses.
- _____ Note the following on the plat: "This property is/is not located in a special flood hazard area designated as Zone 'X.' This determination is based on the current FEMA flood insurance rate maps and has/has not been verified by actual field elevations."
- _____ Show FEMA Map Number or Community Panel Number and FEMA flood hazard zone.
- _____ Topography map on a suitable scale and contour intervals when required by the agent.
- _____ Show a signature and date blank for the agent, Roanoke County Planning Commission.
- _____ Where applicable, the surveyor must determine whether the natural watercourse(s) adjacent to or on this site drains an upstream area of greater than 100 acres. If so, the surveyor must show the elevation of the 100-year floodplain on each lot and add the following note to the plat: "The watercourse crossing this property drains an upstream area of greater than 100 acres. A detailed flood study must be made and an elevation certificate may be required before any building permits can be issued on this property."
- _____ Show the statement of consent to subdivisions from the State Code of Virginia, 1950 (as amended), and the county subdivision ordinance reference.
- _____ Note the following on the plat: "Approval hereof by the Roanoke County Subdivision Agent is for the purposes of ensuring compliance with the Roanoke County Subdivision Ordinance. Private matters, such as compliance with restrictive covenants or other title requirements, applicable to the properties shown hereon, are not reviewed or approved with regard to this subdivision or resubdivision."
- _____ The general locations of existing drain fields and reserve areas (if applicable), but not proposed drain fields.
- _____ A note stating the type of septic system being used (i.e., conventional, nonconventional).
- _____ A note stating "All lots shown on this subdivision plat have been evaluated by the personnel of the Virginia Department of Health and/or an authorized on-site soil evaluator and have met the criteria as set forth in the Commonwealth of Virginia Sewage Handling and Disposal Regulations entitled 32.1 Code of Virginia, as amended to date, and each lot or parcel is eligible for a septic permit."
- _____ Any nonpublic means of water service.
- _____ Any existing or proposed public utility or other easements and a dedication statement.

- _____ Any existing or proposed private utility or other easements and a statement describing which easements serve which lots. If any water meters and/or sewer lateral connections were set at old property lines, then private easements may be required to provide service to the newly configured lots.
- _____ Other important features such as railroad rights-of-way, lakes, greenways, etc.
- _____ Access easements from the public right-of-way to the created tract(s).
- _____ All parcels of land designated, or reasonably expected to be required, for future street widening shall be dedicated.
- _____ A dedication statement for street rights-of-way that will be accepted by VDOT or the Town of Vinton.
- _____ For private access easements, show the following note on each sheet of the plat: "The road serving this lot is private and its maintenance, including snow removal, is not a public responsibility. It shall not be eligible for acceptance into the state secondary system for maintenance until such time as it is constructed and otherwise complies with all requirements of the Virginia Department of Transportation for the addition of subdivision streets current at the time of such request. Any costs required to cause this street to become eligible for addition into the state system shall be provided with funds other than those administered by the Virginia Department of Transportation."
- _____ The names and VDOT route numbers for all existing, platted, and proposed streets.
- _____ Width of existing, platted, and proposed streets indicating a prescriptive easement if one exists.
- _____ If applicable, a note stating that "Tax map number _____ is to be added and combined with tax map number _____ and is not _____ to be used as a separate building lot."
- _____ Plats showing boundary and ALTA/ACSM plats may show the following note on the plat and will not require the signature of the agent: "This survey does not constitute a subdivision under the current Roanoke County Subdivision and/or Zoning Ordinance."
- _____ If a proposed subdivision is using the Family Exemption provision, in addition to the above requirements, the requirements shown in Table 2 must also be included.
- _____ A note stating "Approval of this subdivision is subject to the condition that the parcel subdivided can only be conveyed to a member of the immediate family as set forth in Roanoke County's Subdivision Ordinance, as amended, and the Code of Virginia, as amended. Conveyance to any other person or entity voids approval. This restriction does not apply to subsequent reconveyance."
- _____ Affidavits that are available in the Development Review office stating that the family subdivision is for the passing of real property interests from one family member to another, rather than for the purpose of short-term investment.
- _____ A copy of the proposed deed(s) from one family member to the other.
- _____ A description of the family relationship in the consent statement or the following shown and notarized on the plat: "I, _____, do hereby certify that _____ is my legal _____. New tract _____ is being conveyed to _____."



Schedule of Fees Plan & Plat Review

Department	Description	Current Fee
Department of Community Development	Small Subdivision Review (4 lots or less)	\$25.00
Department of Community Development	Large Subdivision Review (5 lots or more)	\$220.00 + \$45.00/lot or parcel
Department of Community Development	Subdivision Waiver or Variance	\$190.00
Department of Community Development	Erosion Plan Review	\$100.00 + \$100.00/acre or portion thereof
Department of Community Development	Site Plan Review	\$685.00 + \$40.00/acre
Department of Community Development	Stormwater Management/ BMP Facilities Maintenance Agreement Fee	\$90.00
Department of Community Development	Street Sign Fee	\$150.00/double bladed sign
Department of Community Development	Vacation of Plats, Rights-of-way or Easements	\$625.00
Planning and Zoning	Variance	\$190.00
Planning and Zoning	Administrative Appeal	\$275.00
Planning and Zoning	Land Use Plan Amendment	\$710.00
Planning and Zoning	Special Use/Landfill Special Use B Other	\$1,875.00 \$40.00
Planning and Zoning	Rezoning: Agricultural/Single Family Residence	\$415.00 + \$20/acre or portion thereof
Planning and Zoning	Rezoning: Multi-Family	\$860.00 + \$25.00/acre or portion thereof
Planning and Zoning	Rezoning: Industrial	\$840.00 + \$30.00/acre or portion thereof
Planning and Zoning	Rezoning: Commercial	\$945.00 + \$32.00/acre or portion thereof

Fees effective as of July 1, 1990

WESTERN VIRGINIA WATER AUTHORITY - PLAN SUBMITTAL CHECKLIST

Project Name: _____

Date: _____ Design Engineer: _____

1. _____ Obtain an Availability Letter. An Availability Letter Application can be found at www.wvwater.org under Developers/Engineers, Water/Sewer Availability Application.
2. _____ All non-residential sanitary sewer connections shall submit a Significant Discharge Application. This application can be found at the above website under Developers/Engineers, Significant Discharge Application.
3. _____ Submit three sets of plans to the Authority Engineering Services office located at 601 South Jefferson Street, Suite 300 Roanoke, VA 24014. c/o Roger Blankenship for all Roanoke County projects, and c/o Jamie Morris for all City of Roanoke projects. The Authority will only review plans for public water and sewer related issues, all comments will be channeled to the appropriate jurisdiction. **All plan reviews will be scheduled and coordinated by Roanoke County, or the City of Roanoke.**
4. _____ Submit calculations for water and sewer systems as required by the Authority's Design and Construction Standards, available through the above referenced website.
5. _____ Roanoke County projects shall include the most recent cover sheet located on the Roanoke County website at www.roanokecountyva.gov, under Community Development, Forms and Publications, Cover Sheet.
6. _____ Provide a table of sewer lateral elevations at the service clean-outs located at the public/private interface, and minimum sewer elevations at each proposed building.
7. _____ Submit plan and profile sheets for all proposed public water and sewer.
8. _____ Include all relevant WWA standard details. Details are located on the Authority's website under developers/engineers.
9. _____ Show and label all adjoining and adjacent property lines.
10. _____ Show and label all adjoining and adjacent R.O.W. lines.
11. _____ Show and label all proposed and existing easements.
12. _____ Show and label all adjoining property owners including addresses (if developed) or tax map numbers (if undeveloped).
13. _____ Label all streets shown on drawings.
14. _____ Show and label all surveying benchmarks and monuments.
15. _____ Show water meter locations and sizes.
16. _____ Show all sewer service clean out locations.
17. _____ Show and label information regarding water line appurtenances, wet taps, tees, bends, etc...
18. _____ Label diameter of all water and sewer lines, existing and proposed.
19. _____ Label all sewer manhole covers as standard or bolt-down.
20. _____ If a sewer sampling structure is required, ensure that flow passes through the structure in a straight vertical and horizontal alignment.
21. _____ Label deflection angles on sewer lines at manholes.
22. _____ Show all miscellaneous requirements for utility lines, e.g. slope anchors, thrust collars, encasements, etc...
23. _____ Show and label all utility crossings.
24. _____ Show and describe the proposed process for abandonment of existing water and sewer lines.
25. _____ On profile, label all water line appurtenances including fire hydrants, air release valves, bends, fittings, restraints, etc., with stationing.
26. _____ Show on profile, material of all proposed Water and Sewer lines.
27. _____ Submit completed checklist.

NO DEVELOPMENT PLANS WILL BE APPROVED BY THE AUTHORITY UNTIL ALL ITEMS ON THIS CHECKLIST HAVE BEEN COMPLETED OR WAIVED BY THE AUTHORITY.

Western Virginia Water Authority Water/Sewer Availability Application

Date: _____

Applicant: _____

Mailing Address: _____

Phone: _____

Cell: _____

Fax: _____

Property Address: _____

City or County: _____

Tax Map Number(s): _____

Development (Subdivision) Name: _____

Single Residential, Duplex, Multi-Residential, Subdivision, or Commercial Facility?

Water Meter Size Requested: _____

Sewer Lateral Size Requested: _____

**COMPLETE THE FOLLOWING FOR
NON-RESIDENTIAL AND MULTI-RESIDENTIAL SERVICES**

Domestic Flow Required? ** _____GPM

** (Attach completed "Sizing Water Service Lines and Meters" Form AND "Non-Residential Sanitary Sewer Checklist", blank forms available on website under "Engineers" section)

Is Building to be Sprinkled? YES / NO

Minimum Fire Flow Required? _____GPM

Return to Jamie Morris; Phone: 540-853-1588; Fax: 540-853-1017

Postal Mail: 2012 S. Jefferson Street, Suite 200, Roanoke, VA 24014

jamie.morris@westernvawater.org; www.westernvawater.org

Rev. 12/09/04

WVWA Sizing Water Service Lines and Meters

Development: _____

Type of Occupancy: _____

<u>Plumbing Fixture</u>	<u>No. of Fixtures</u>
Bathtub	
Bedpad Washers	
Combination Sink & Tray	
Dental Unit	
Dental Lavatory	
Drinking Fountain - Cooler	
Drinking Fountain - Public	
Sink	
1/2" Connection	
3/4" Connection	
Lavatory	
3/8" Connection	
1/2" Connection	
Laundry Tray	
1/2" Connection	
3/4" Connection	
Shower Head (Shower only)	
Urinal -	
Pedestal Flush Valve	
Wall Flush Valve	
Trough (2 foot unit)	
Wash Sink (each set of faucets)	
Water Closet	
-	
Flush Valve	
Tank Type	
Dishwasher -	
1/2" connection	
3/4" connection	
Washing Machine -	
1/2" connection	
3/4" connection	
1" connection	
Hose Connection (Wash Down) -	
1/2"	
3/4"	
Hose (50 foot Wash Down)	
1/2"	
5/8"	
3/4"	



WESTERN VIRGINIA WATER AUTHORITY

Preliminary Pretreatment Wastewater Survey Form

Facility Name: _____

Facility Address: _____

Facility Telephone Number: _____ Facility FAX Number: _____

Type of Industry, Manufacture, Trade or Business: _____

Products Produced: _____

Number of Employees: _____

General description of the industrial activities and/or plant processes at this site: _____

Current Federal Standard Industrial Classification Code (S.I.C.): _____

Does the facility discharge any water from parts washing operations, contact cooling, oil/water separators, or any other type of wastewater other than from restrooms? If so, describe: _____

“Industrial Waste” means liquid or other wastes resulting from any process of industry, manufacturing, trade, or business, or from the development of any natural resource.

“Other Waste” means decayed wood, sawdust, shavings, bark, limes, garbage, refuse, ashes, offal’s, tar, oil, chemicals, and all other substances, except industrial waste and sewage, which may cause pollution in any waters.

1. Does this facility discharge industrial waste or other waste to the sanitary sewer?

Yes No

2. Is the discharge from industrial waste or other waste continuous or batch? _____

3. Does this facility use any type of chemical mixed with water that is discharged to the sanitary sewer?

Yes No

4. What is the total discharge to the sanitary sewer? _____ gallons per day (gpd)

5. What is the total industrial or other waste discharge to the sanitary sewer? _____ gallons per day (gpd).

6. Are any chemicals stored in quantities of 55 gallons or more?

Yes No

7. Does this facility use any well water or other water source other than the public water supply?

Yes No

8. Are any outside drains connected to the sanitary sewer?

Yes No

9. Does your facility discharge storm water to the sanitary sewer?

Yes No

If your facility employs or will be employing processes in any of the industrial categories or business activities listed below (regardless of whether they generate wastewater, waste sludge, or hazardous wastes), place a check beside the category of business activity (check all that apply)

Industrial Categories*

- | | |
|---|---|
| <input type="checkbox"/> Aluminum Forming | <input type="checkbox"/> Metal Powders |
| <input type="checkbox"/> Asbestos Manufacturing | <input type="checkbox"/> Mineral Mining and Processing |
| <input type="checkbox"/> Battery Manufacturing | <input type="checkbox"/> Nonferrous Metals Forming |
| <input type="checkbox"/> Can Making | <input type="checkbox"/> Nonferrous Metal Manufacturing |
| <input type="checkbox"/> Carbon Black | <input type="checkbox"/> Oil & Gas Extraction |
| <input type="checkbox"/> Cement Manufacturing | <input type="checkbox"/> Ore Mining & Dressing |
| <input type="checkbox"/> Centralized Waste Treatment | <input type="checkbox"/> Organic Chemicals Manufacturing |
| <input type="checkbox"/> Coal Mining | <input type="checkbox"/> Paint and Ink Formulating |
| <input type="checkbox"/> Copper Forming | <input type="checkbox"/> Pesticides Manufacturing |
| <input type="checkbox"/> Dairy Products | <input type="checkbox"/> Petroleum Refining |
| <input type="checkbox"/> Electric and Electronic Components Manufacturing | <input type="checkbox"/> Pharmaceutical |
| <input type="checkbox"/> Electroplating | <input type="checkbox"/> Phosphate Manufacturing |
| <input type="checkbox"/> Explosive Manufacturing | <input type="checkbox"/> Plastic Molding & Forming |
| <input type="checkbox"/> Feedlots | <input type="checkbox"/> Plastics and Synthetic Materials Manufacturing |
| <input type="checkbox"/> Ferro-alloy Manufacturing | <input type="checkbox"/> Plastics Processing Manufacturing |
| <input type="checkbox"/> Fertilizer Manufacturing | <input type="checkbox"/> Porcelain Enamel |
| <input type="checkbox"/> Foundries (Metal Molding and Casting) | <input type="checkbox"/> Pulp, Paper, and Fiberboard Manufacturing |
| <input type="checkbox"/> Glass Manufacturing | <input type="checkbox"/> Rubber |
| <input type="checkbox"/> Grain Mills | <input type="checkbox"/> Soap and Detergent Manufacturing |
| <input type="checkbox"/> Gum and Wood Chemicals | <input type="checkbox"/> Steam Electric |
| <input type="checkbox"/> Inorganic Chemicals | <input type="checkbox"/> Sugar Processing |
| <input type="checkbox"/> Iron and Steel | <input type="checkbox"/> Textile Mills |
| <input type="checkbox"/> Leather Tanning and Finishing | <input type="checkbox"/> Timber Products |
| <input type="checkbox"/> Meat Products | <input type="checkbox"/> Transportation & Equipment Cleaning |
| <input type="checkbox"/> Metal Finishing | <input type="checkbox"/> Waste Combustors |
| <input type="checkbox"/> Metal Molding and Casting | <input type="checkbox"/> Other _____ |

* A facility with processes inclusive in these business areas may be covered by Environmental Agency's (EPA) categorical pretreatment standards. These facilities are termed "categorical users."

Name of person completing this form.	Title of person completing this form.
I hereby certify that I have completed this form to the best of my knowledge.	
_____ Signature of person completing this form.	

WESTERN VIRGINIA WATER AND SEWER AVAILABILITY & CONNECTION FEES FOR 2007

Meter Size	Water Availability Fee	Water Connection Fee	Sewer Availability Fee	Sewer Connection Fee
5 /8"	\$2,400.00	\$1,500.00	\$2,000.00	\$1,500.00(4")
3 /4"	\$3,600.00	\$1,515.00	\$3,000.00	\$1,500.00(4")
1"	\$6,000.00	\$1,600.00	\$5,000.00	\$2,000.00(6")
1 1/2"	\$12,000.00	\$2,300.00	\$10,000.00	\$2,000.00(6")
2"	\$19,200.00	\$2,500.00	\$16,000.00	\$2,000.00(6")
3"	\$36,000.00	\$3,960.00	\$30,000.00	At Cost (8")
4"	\$72,000.00	\$12,300.00	\$60,000.00	At Cost (8")
6"	\$144,000.00	\$14,010.00	\$120,000.00	At Cost (8")

Fire Line Size	Connection Fee
4 - inch	\$10,300.00
6 - inch	\$10,800.00
8 - inch	\$13,300.00
10 - inch	\$15,000.00
12- inch	Actual Cost

ROANOKE COUNTY FIRE AND RESCUE CHECKLIST

For Fire Service requirements, refer to Article III, Chapter 9 of the Virginia Statewide Fire Prevention Code – Fire Prevention and Protection and the International Fire Code 2003 which includes the following:

- _____ Location of all fire lanes with details of curb marking and sign locations (§9.21 Subsection 8-15 Roanoke County Code.
- _____ Location of fire department connections (FDC) for fire protection systems such as sprinkler, standpipe, etc.
- _____ Location and type of any proposed hazardous materials storage areas, inside or outside.
- _____ Arrangement of water supply piping for fire protection, including the location of any backflow prevention devices.
- _____ Calculation of the fire flow required on site. When the calculated fire flow exceeds 1000 g.p.m. an approved computer generated flow test shall be submitted verifying that the needed fire flow (NFF) is available on site.
- _____ Location of any fencing, temporary or permanent, or any other potential obstruction to hydrants, fire department connections or fire lanes.
- _____ Buildings which will be equipped with an automatic fire sprinkler system shall have the following note added to the plans: “Approval of site plan does not include the design of the fire sprinkler system underground piping from backflow prevention device to one foot above finished floor level. Prior to installation, shop drawings and a separate permit application and must be submitted through the department of building inspections for review and approval.”
- _____ Fire hydrants are shown as required by the Roanoke County Fire Marshal and are to be installed according to Roanoke County Fire Marshal’s Office Fire Hydrant Placement Policy in accordance with the Statewide Fire Prevention Code 508.5.1.
- _____ Fire apparatus Access Road(s) are shown according to Roanoke County Fire Marshal’s Office Fire Hydrant Placement Policy in accordance with the Statewide Fire Prevention Code 503.1.
- _____ Show static pressure (psi) and fire flow (gpm) with 20 psi residual at proposed fire hydrant.

ROANOKE COUNTY PLOT PLAN REQUIREMENTS

2006 Uniform Statewide Building Code §109.2: Site plan. When determined necessary by the building official, a site plan shall be submitted with the application for a permit. The site plan shall show to scale the size and location of all proposed construction, including any associated wells, septic tanks or drain fields. The site plan shall also show to scale the size and location of all existing structures on the site, the distances from lot lines to all proposed construction, the established street grades and the proposed finished grades. When determined necessary by the building official, the site plan shall contain the elevation of the lowest floor of any proposed buildings. The site plan shall also be drawn in accordance with an accurate boundary line survey. When the application for a permit is for demolition, the site plan shall show all construction to be demolished and the location and size of all existing structures that are to remain on the site.

ROANOKE COUNTY RETAINING WALL POLICY

Separate review and building permit application are required for all retaining wall(s) and must be submitted separately for review) prior to commencing construction. A copy of the approved site plan must be submitted with the building permit application for the retaining wall(s) plan.

1. If a plan contains any retaining wall(s), the developer/applicant must submit the following information on the engineering drawings:
 - Vertical profile of the wall(s) within the site
 - Cross-section of the wall(s)
 - Indicate on the plans all correspondent elevations and drainage implications associated with the site.
 - Plans may be approved if they meet the rules and regulations of the development
2. Separate detailed plans of the retaining wall(s) shall be submitted with building permit application for review and approval.
3. If detailed plan/s of the retaining wall(s) is included with the site plan, and the site plan has received final approval by the development review staff, building safety staff will review and issue pre-approval subject to applicant submitting a separate building permit application for construction.

Revised 03/01/05: First Iteration

Revised 09/26/08: Entire Document Reworked

Revised 12/16/09: Table of Contents, Stormwater Management References, Fire Hydrant & Apparatus Road Policy References, Plot Plan Requirements, Retaining Wall Policy