



ROANOKE COUNTY COMMUNITY DEVELOPMENT
Office of Building Safety



NEW STRUCTURES AND ADDITIONS
Residential Plans Checklist

PROJECT ADDRESS _____

This checklist is as a guide for all applications for all new residential construction or additions. Please address any questions to plans review staff at 540.772.2065. There is a five (5) business day review period for residential plan reviews beginning the day after submission to the permit office.

Part 1 – Application, Site Plan and Related Documents

Yes N/A

- Completed Permit Application
- Proof of Ownership (if not current in property records)
- Owner's Affidavit completed on permit application if Owner Permit
- Contractors License, when required
- County Business License, when required
- List of sub-contractors to be used on project
- VDOT highway entrance permits if applicable
- Health Department construction permit for well and/or septic; or water/sewer availability letter from WVWA
- Soil test report and engineer's recommendation and/or design when project located within a designated expansive soil area of the county (Generally for new construction only. Applicants should review the Roanoke County Expansive Soil Policy)
- Engineers report and design for structures located on lots with steep slopes. (See Steep Slope Policy)

Permit Plot Plan and Erosion Control Plan (3 Copies)

Erosion and Sediment Control Plan (check one and verify the total disturbed area as shown on the plot plan)

- 0 - 2,500 sq. ft. of disturbed area** – no erosion control plan required. Plot plan to indicate measures to control storm water runoff to adjoining properties during construction. **Roanoke County Plot Plan Template must be used; see example below (Required size 8.5" x 11")** No Review Fee
- 2,500 – 5,000 of disturbed area** – Signed "Agreement in Lieu of" letter and plot plan to indicate minimum E & S measures per the agreement. **Roanoke County Plot Plan Template must be used; see example below (Required size 8.5" x 11")** Review Fee - \$25.00
- 5,000 – 10,000 sq. ft. of disturbed area** – Certified Responsible Land Disturber for project. Erosion and Sediment Control Plan prepared by either **the project RLD or a Professional Engineer. Roanoke County Plot Plan Template must be used; see example below (Required size 11" x 17")** Review Fee - \$50.00
- 10,000 sq. ft and over** - Certified Responsible Land Disturber for project. Erosion and Sediment Control Plan prepared by Professional Engineer. Surety and Review Fee – per E&S Ordinance. Completed E&S Plot Plan Review Checklist. These plans may require an **extended review period** due to the complexity and detail involved.



Plot Plan: 0 – 5,000 square feet of disturbed area (8.5" x 11" Paper Size)

Building Permit Plot Plan
for disturbed areas of 5000 sq. ft. or less Scale: 1 in = _____ ft

Roanoke County Community Development

Plot Plan Checklist

Applicant: _____ Staff: _____

- Property Lines and Dimensions
- New and Existing Structures
- Distances to Property Lines
- Utilities and Easements
- Streets and Entrances
- Drainage Arrows
- Disturbed Area _____ sq. ft.
- E&S Agreement when > 2500 SF
- Location of E&S Controls

Notes

- Use solid lines for existing structures
- Use dashed lines for proposed structures
- Use arrows to indicate the general direction of lot drainage

All collected storm water must be discharged to an approved location. This plan and any other plans or maps may require additional information. A copy of the approved plan is required at all times during inspections.

Project Information

Site Address: _____
 Owner: _____
 Parcel ID: _____
 Zoning District: _____

Required Setbacks for This Project

Front: _____ Side: _____ Rear: _____

Rev. 07/15/2009

Plot Plan: 5,001 – 10,000 square feet of disturbed area (11" x 17" Paper Size)

Building Permit and Erosion Control Plot Plan
for projects exceeding 5,000 but less than 10,000 sq. ft. Scale: 1" = _____ ft.

Roanoke County Community Development

Plot Plan Checklist Items

- Property Lines and Dimensions
- Site and North Arrow
- Existing Buildings
- New Construction
- Required setbacks and distances from adjoining property lines
- Easements, utilities, wells, septic systems indicated on plan
- Driveway Entrances
- Adjoining Streets
- Designated Flood Boundaries
- Statement of slope analysis

Erosion Control Checklist Items

- Limits of Clearing and Grading
- Existing Drainage Patterns
- Existing Vegetation
- Critical Erosion Areas
- Location of E&S Controls
- Topography contours including both existing and proposed
- Final disposition of stormwater

Notes

1. Permanent establishment of disturbed areas is required before final approval.
 2. A copy of the approved plan is required to be available on-site during construction.
 3. Plans to be prepared by the R.C.D. or Registered Design Professional of Record.
 4. All erosion control measures to be installed by all time grading, soil and/or seeding.

Maintenance and Seeding Schedules

Erosion Control Minimum Standards

<input type="checkbox"/> MS-1 Stabilization of Disturbed Areas	<input type="checkbox"/> MS-10 Mud Production
<input type="checkbox"/> MS-2 Stabilization of Stockpiles	<input type="checkbox"/> MS-11 Stabilization of Outlets
<input type="checkbox"/> MS-3 Permanent Vegetative Cover	<input type="checkbox"/> MS-12 Storm Drain Watercourse
<input type="checkbox"/> MS-4 Erosion Control on Roadway Construction	<input type="checkbox"/> MS-13 Grading a Use Watercourse
<input type="checkbox"/> MS-5 Stabilization of Section Structures	<input type="checkbox"/> MS-14 Access Regulations
<input type="checkbox"/> MS-6 Sediment Basins	<input type="checkbox"/> MS-15 Stabilization of Bed and Banks
<input type="checkbox"/> MS-7 Cut and Fill Slopes	<input type="checkbox"/> MS-16 Underground Utility Construction
<input type="checkbox"/> MS-8 Runoff on Cut or Fill Slopes	<input type="checkbox"/> MS-17 Temporary Access Roads
<input type="checkbox"/> MS-9 Water Seals from Slope Face	<input type="checkbox"/> MS-18 Temporary S&S Measure Removal
	<input type="checkbox"/> MS-19 Protection of downstream areas

Project Narrative

Project Information

Job Site Address: _____
 Owner: _____
 Parcel ID: _____
 Zoning District: _____
 RLD: _____
 Plan Preparer: _____
 Disturbed Area: _____ sq. ft.

Rev. 06/25/09



Part 2 – Construction Documents (2 Copies)

Each set of plans must accurately depict the following information. It may be necessary to obtain professional assistance in order to provide a plan as required.

All Applications**Yes N/A**

- Two complete sets of documents must be submitted with each permit application. (USBC 109.1)
- Plans shall not be submitted when defaced, faded, incomplete, non-scaled, or indefinite.

Virginia Uniform Statewide Building Code, section 109.1 requires that each drawing sheet is signed and dated by the designer licensed in Virginia responsible for the drawings:

- **In accordance with 18 VAC10-20-760, drawings that are prepared by a registered design professional must bear professional seal on all sheets, signature is required and date within seal**
- **Contractors or other agents, as permitted by Section 54.1-402 of the Code of VA, list license number, occupation, name, address, telephone number; sign and date (see informational handout)**

National mail-order type plans that do not contain all of the information covered by this outline, or plans that do not conform to the adopted code requirements, or do not accurately represent the proposed structure, are not considered acceptable for use. In such cases, you must edit the plans to depict your project. Please use black ink for this purpose: **Do not use red ink or pencil. Please also note that drawings prepared by a Registered Design Professional may not be altered without his or her written consent.**

Buildings

FOUNDATION/BASEMENT/SLAB PLAN Preferred Scale: 1/4" = 1' (USBC 109.1)

Yes N/A

- Soil bearing value. Submit engineering soil reports for foundations on fill or if calculations are for greater than 2,000 psf soil bearing capacity. (Table R401.4.1) **See also: Roanoke Co. Expansive Soil policy**
- A completely dimensioned plan of the foundation, footing and slab. (IRC R401-R403)
- The size, location, and spacing of all piers and girders proposed. (IRC R606)
- The size, spacing, and direction of run of all joists proposed. (IRC R502, R505)
- The location of crawl space access and crawl space ventilation. (IRC R408.1)
- Any special construction required by the structure or by any site condition. (IRC R301.1, USBC 111.2)
- The size and location of all isolated pad footings. (IRC Table R401.4.1)
- Floor sheathing materials. (IRC R503)
- All recommendations made by the soils engineer, if required. (IRC R401.2, R401.4)
- The extent and location of all slabs and foundations for patios, breezeways, garages, etc. (IRC R506)
- Size and location of all special footings, grade beams, slab blockouts, etc., required. (IRC R403)
- Basement wall sections with dimensions, wall composition, backfill material & height, and reinforcing; coordinate section with elevations and actual site conditions (USBC 109.3)



FLOOR PLAN Preferred Scale: ¼ " = 1' (USBC 109.1)

Yes N/A

- A completely dimensioned floor plan for each floor level. (USBC 109.1)
- A clarification of the use of all rooms in the building (i.e., bedroom, study, living, utility, etc). (IRC R304)
- The location and description of all plumbing fixtures. (IRC R306)
- Location and description of **all electrical fixtures** including outlets, switches & smoke detectors, service panels and feeder panels. Indicate GFCI and arc-fault protection. (IRC 314, E3603, E3608 & 3501)
- Door and window sizes, location, and types. Safety glazing indicated where required. (IRC R308)
- Location of heating and cooling equipment and ventilation fans. Combustion air supply where required by fuel burning appliances and fireplaces including factory built and zero clearance units. (IRC R303.6, R303.3, exception)
- The size, spacing, and direction of run of all floor and roof framing members in each room and all balconies, decks, breezeways, carports, and garages. (IRC R802, R804, R502, R505)
- Location, type of fuel, of all fireplaces, stoves and other heating equipment. (IRC R1003, R1004)

ELEVATIONS Preferred Scale: ¼" = 1' (USBC 109.1)

Yes N/A

- Four (4) elevations of the exterior of the building. (USBC 109.1)
- Exterior wall materials (may be shown on sectional drawing). (USBC 109.3)
- Type of roofing and the pitch of the roof (may be shown on sectional drawing). (IRC R904, R905)
- A complete set of dimensions in the vertical direction to clarify the height proposed (may be shown on sectional drawing). (IRC R305)
- The elevations must show actual site conditions, final grade, slope, drainage, etc. (USBC 109.3)
- Location of all openings (windows, doors, etc.) in exterior walls. (IRC R310.1.1, R311.3, R311.4)
- Location of all decks, balconies & exterior stairs. (USBC 302.1)

CONSTRUCTION DETAILS

Yes N/A

- Stairway dimensions, handrail(s) height and circular/rectangular cross section of railing (IRC R314)
- Balconies and decks.(IRC R109.3)
- Post and beam connections.(IRC Table R602.3.1)
- Guard rails (connections, materials, spacing, etc.)(IRC R316)
- Fireplace/chimney detail and cross sections indicating clearances.(IRC R1001, R1002, R1003, R1004)
- Roof framing plan and ventilation details.(IRC R802, R804, R806)
- Fire separation walls and ceilings between garage and remainder of dwelling. (IRC R309.1, R309.2)
- Exterior fire rated walls/soffit protection sections; reference fire resistance rated assemblies listed/tested by a third party testing laboratory (IRC R302.1, Table R302.1)
- Description of insulation materials, R values, fenestration ratings & equipment performance (IRC R316. IRC Chapter 11) as shown below:

Insulation Ratings		Fenestration Ratings		Equipment Performance	
Roof Ceiling	With Attic R____ Without Attic R____	Opaque Doors	U _____	Heating System Efficiency _____	Size _____
Walls	Frame R ____ Basement R ____ Crawlspace R ____	Windows	U _____	Cooling System Efficiency _____	Size _____
Floors	Slabs R ____ Over conditioned space R ____	Skylights	U _____	Water Heater/Boiler Eff. _____	Size _____
Ducts	outside cond. space R ____			Confirm sizing with ACCA Manual J	



FRAMING SECTIONS

Yes N/A

- Completely dimensioned cross-sections through the building, showing the type of construction to be used. In most buildings, a transverse and longitudinal cross-section will be required. (USBC 109.3)
- Complete cross-section and details of any unusual or special construction. (IRC109.3)

Braced wall provisions apply to all new construction, additions and conversions of 1 & 2 family homes, townhouses and accessory buildings; the provisions do not apply on a local level to industrialized buildings (modular construction) and manufactured homes

- Dimensioned location of all **Braced Wall Lines** and **Braced Wall Panels** on plan view drawing (USBC R602.10, R602.10.1)
- Complete **Wall Bracing Compliance Sheet** (see example below) to show calculations for percentage, location and type of braced wall panel(s) proposed (USBC R602.10.1.2, R602.10.1.3, R602.10.1.5)

A wall bracing compliance template is also available to assist you in preparing these plans

Wall Bracing Compliance Worksheet

Continuous Sheathing Return Panel Options

Option 1: CS panel at BWL end & 24" return panel.

Option 2: CS panel with 800 lb hold-down at BWL end.

Option 3: CS panel within 12.5' of BWL end AND 24" end & return panels.

Option 4: CS panel with 800 lb hold-down within 12.5' of BWL.

BWL	General Information	Braced Wall Panels	BWL Actual Conditions																									
Wall Height: _____ ft BWL Spacing (L): _____ ft BWL Spacing (R): _____ ft BWL Length: _____ ft Required %bracing: _____ % Location: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">BWP left end</th> <th style="width: 15%;">BWP 2</th> <th style="width: 15%;">BWP 3</th> <th style="width: 15%;">BWP 4</th> <th style="width: 15%;">BWP right end</th> </tr> <tr> <td> WSP: _____ SFB: _____ GB (1 side): _____ GB (2 sides): _____ CS-WSP: _____ CS-SFB: _____ Other: _____ Length: _____ in </td> <td> WSP: _____ SFB: _____ GB (1 side): _____ GB (2 sides): _____ CS-WSP: _____ CS-SFB: _____ Other: _____ Length: _____ in </td> <td> WSP: _____ SFB: _____ GB (1 side): _____ GB (2 sides): _____ CS-WSP: _____ CS-SFB: _____ Other: _____ Length: _____ in </td> <td> WSP: _____ SFB: _____ GB (1 side): _____ GB (2 sides): _____ CS-WSP: _____ CS-SFB: _____ Other: _____ Length: _____ in </td> <td> WSP: _____ SFB: _____ GB (1 side): _____ GB (2 sides): _____ CS-WSP: _____ CS-SFB: _____ Other: _____ Length: _____ in </td> </tr> </table> <p style="text-align: center;">Total Length of BWPs _____ in ÷ 12 = _____ ft</p>	BWP left end	BWP 2	BWP 3	BWP 4	BWP right end	WSP: _____ SFB: _____ GB (1 side): _____ GB (2 sides): _____ CS-WSP: _____ CS-SFB: _____ Other: _____ Length: _____ in	WSP: _____ SFB: _____ GB (1 side): _____ GB (2 sides): _____ CS-WSP: _____ CS-SFB: _____ Other: _____ Length: _____ in	WSP: _____ SFB: _____ GB (1 side): _____ GB (2 sides): _____ CS-WSP: _____ CS-SFB: _____ Other: _____ Length: _____ in	WSP: _____ SFB: _____ GB (1 side): _____ GB (2 sides): _____ CS-WSP: _____ CS-SFB: _____ Other: _____ Length: _____ in	WSP: _____ SFB: _____ GB (1 side): _____ GB (2 sides): _____ CS-WSP: _____ CS-SFB: _____ Other: _____ Length: _____ in	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Panel Location:</th> </tr> <tr> <td>Left End: <input type="checkbox"/> @ end <input type="checkbox"/> within 12.5'</td> <td>Right End: <input type="checkbox"/> @ end <input type="checkbox"/> within 12.5'</td> </tr> <tr> <th colspan="2">Return panel (CS only):</th> </tr> <tr> <td>Left End: <input type="checkbox"/> Option 1 <input type="checkbox"/> Option 2 <input type="checkbox"/> Option 3 <input type="checkbox"/> Option 4</td> <td>Right End: <input type="checkbox"/> Option 1 <input type="checkbox"/> Option 2 <input type="checkbox"/> Option 3 <input type="checkbox"/> Option 4</td> </tr> <tr> <td colspan="2">Panel Spacing ≠ 25' o.c.: <input type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> <tr> <td>Total length of BWPs _____ ft</td> <td>BWL length _____ ft</td> </tr> <tr> <td colspan="2" style="text-align: center;">Actual % of bracing = $\frac{\text{Total length of BWPs}}{\text{BWL length}} = \frac{\text{ft}}{\text{ft}} = \text{Actual \% bracing}$</td> </tr> <tr> <td colspan="2" style="text-align: center;">Actual % of bracing \geq Required % of bracing: <input type="checkbox"/> NO STOP! <input type="checkbox"/> YES- BWL GOOD</td> </tr> </table>	Panel Location:		Left End: <input type="checkbox"/> @ end <input type="checkbox"/> within 12.5'	Right End: <input type="checkbox"/> @ end <input type="checkbox"/> within 12.5'	Return panel (CS only):		Left End: <input type="checkbox"/> Option 1 <input type="checkbox"/> Option 2 <input type="checkbox"/> Option 3 <input type="checkbox"/> Option 4	Right End: <input type="checkbox"/> Option 1 <input type="checkbox"/> Option 2 <input type="checkbox"/> Option 3 <input type="checkbox"/> Option 4	Panel Spacing ≠ 25' o.c.: <input type="checkbox"/> Yes <input type="checkbox"/> No		Total length of BWPs _____ ft	BWL length _____ ft	Actual % of bracing = $\frac{\text{Total length of BWPs}}{\text{BWL length}} = \frac{\text{ft}}{\text{ft}} = \text{Actual \% bracing}$		Actual % of bracing \geq Required % of bracing: <input type="checkbox"/> NO STOP! <input type="checkbox"/> YES- BWL GOOD	
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Part 3 – POOLS, SPAS AND HOT TUBS Preferred Scale: 1/4" = 1' (USBC 109.1) N/A

Definition: Pool – any structure intended for swimming or recreational bathing and containing water over 24" deep. This includes in-ground, aboveground and on-ground swimming pools, hot tubs & spas

- Completed and signed barrier responsibility form.
- Plot plan showing location of existing structures and intended location of pool
- Details and/or description of barrier type, including security fencing & alarm (Fencing must be on plot plan)
- Location of all associated proposed equipment, pumps, heaters, drains, etc.
- Construction drawings for any decks, steps, railings or guards to be built in association with the pool
- Complete architectural/engineering drawings for all site built pools
- Manufacturers installation instructions available on-site for all kit and pre-manufactured pools
- Electrical details per NEC for outlets, fixtures or other devices to be installed or used with the pool
- The plan is to indicate the discharge of any pool drain to an approved discharge point

Part 4 – RETAINING WALLS Preferred Scale: 1/4" = 1' (USBC 109.1) N/A

- >2 – <4 feet in height or fill - no construction documents required. Plot plan should indicate setbacks
- 4 - ≤6 feet in height of fill - construction documents required; standard manufacturer designs are acceptable
- >6 feet in height or fill – construction documents required- must bear the seal of a VA Reg. Design Prof.
- 10 feet in height or fill and above – Statement of Special Inspections is also required

All retaining wall construction documents submitted shall include the following in addition to plot plan:

- Specifications for the construction materials
- Specification for the backfill material and compaction requirements
- Wall elevations and multiple cross-sections of each retaining wall, to include structural details; the actual ground slope at the top and the toe of the retaining wall
- Bearing capacity of the foundation soil
- Method of drainage behind the wall
- Guardrail location and details for retaining wall systems 30 inches and higher, to protect pedestrian traffic when applicable
- Per IBC Section 1806, walls are to be designed with a safety factor of 1.5 against lateral sliding/overturning
- Plans indicating walls which extend across multiple properties must include a description of provisions to be made to provide for access and maintenance of wall

Part 5 – ACCESSORY STRUCTURES, DECKS & POST FRAME CONSTRUCTION Preferred Scale: 1/4" = 1'

Yes N/A

- Accessory Structures less than 300 sq. ft., no building plans required, plot plan only required
- Accessory Structures over 300 sq. ft., submit building plans showing framing details including wall bracing, lumber sizes and spans, roof system and foundation system in addition to plot plan
- Accessory and Post Frame pre-fabricated/manufactured buildings – supply manufacturers details for foundation and anchoring requirements
- Decks shall be built in accordance with the AFPA 2006 *Prescriptive Residential Wood Deck Construction Guideline- DA6*, or must be designed in accordance with accepted engineering practice and show all related details for framing, foundation, guards, connections and fasteners
- Post frame construction drawings must be engineered and sealed by a registered design professional; drawings must indicate all structural design loads in accordance with IBC chapter 16 and ASCE 7
- Post frame construction drawings must indicate the size, grade and species of wood members, metal roofing and side panel size and material quality, engineered post connections, and fastener schedule
- Post frame construction drawings must indicate foundation system and connections



Attention

**Contractors/Renovators applying for a local
Government renovation or demolition permits**

**There are other applicable renovation and demolition
Regulatory requirements administered by
The Virginia Department of Labor and Industry
Fines can be as much as \$25,000**

**Information and assistance is available by contacting
540-562-3580 Extension 131**

