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Development Services
Construction Compliance

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Commercial Plans Application Checklist

This document lists the minimum building code information required for commercial project plan review. While providing all of the information listed below does not guarantee plan approval, it will expedite the review process and increase the likelihood of plan approval on first submission. Please review the list and provide the necessary material with your application.

- The Botetourt County **Development Services Office coordinates commercial permit applications**. Its staff is happy to answer questions concerning permit requirements and processing. Call (540) 473-8248 to schedule a pre-permitting meeting, or to request a forms and information packet.

- The Botetourt County **Development Services Office reviews commercial plans** for compliance with the VUSBC. For questions regarding the commercial plan review process, the building code, or to arrange a pre-application plans review, call (540) 473-8248.

- Procedural information and forms may be downloaded from the County website's **Commercial Permitting page**: http://www.botetourtva.gov/business/permitting.php

Documents Required

For All Commercial Permit Applications

The following is only a guide and may not be required for all projects. Consult the Construction Compliance Office if you have questions.

- ❑ completed Occupancy, Zoning, Building Permit Application form and applicable fees.

- ❑ *for Construction Compliance Dept:* 1 set of signed and sealed complete construction plans and 1 digital (CD-rom) copy. Signed and sealed plans will be returned to owner/ contractor/ or design professional *(including a site plan)*

- ❑ *for Planning & Zoning Dept:* 2 site plans *(if new construction, expansion, or change of use)*

- ❑ copy of State contractor's license

- ❑ copy of contractor's Botetourt County business license or Town business license *(depending on whether job is located within an incorporated town limit)*

- ❑ copy of current deed *(if new ownership as of January 1)*

Where applicable

In certain circumstances, the following will be required:

- ❑ Town permit
- ❑ soils report *(see VUSBC 1802)*
- ❑ sprinkler and pre-fabricated structures shop drawings, signed and sealed
- ❑ asbestos inspection report for the remodeling or repair of existing building *(if built prior to 01/01/85)*
- ❑ documentation of VDOT Highway Entrance Permit *(if adding or changing a VDOT entrance)*
- ❑ documentation of water/sewer construction and/or connection approval:
  Well and Septic.....letter from the Health Department *(473-8240)*
  Private/Public .....receipt from the County or private company
- ❑ statement of Special Inspections *(see VUSBC 1704.1.1)*
- ❑ MSDS sheets *(if hazardous materials will be stored in the building or space)* listing the materials with their hazard classifications *(see IBC, Tables 307.7(1) and 307.7(2))*
- ❑ foundation certification

  Certification from a registered design professional stating that the foundation has been designed according to actual loads supplied by the fabricator for pre-fabricated structures (wood trusses, metal buildings, etc.). This certification may be on the plans or in a letter sealed by the registered design professional.
- ❑ Water and Sewer plans for approval and associated fees.
- ❑ Erosion and Sediment plans for approval, Land Disturbing permit application, and associated fees.
- ❑ Site plans for approval and associated fees.

Information Required on Documents

General

The following is only a guide and may not be required for all projects. Consult the Construction Compliance Office if you have questions.

- ❑ a **Virginia Professional seal** (with signature and date) on the construction documents per The Code of Virginia *(§54.1-402)* for the following uses: assembly, educational, institutional, hotel/motel and high hazard; mercantile and business uses when the area of work exceeds 5,000 square feet; storage and factory/industrial uses when the area of work exceeds 15,000 square feet.

  Provide the **name, occupation, address and telephone number of the person who is responsible for the design** if a registered design professional's seal is not present on the construction documents per The Code of Virginia *(§54.1-402)*.

- ❑ a **code analysis summary** containing the following:

  - ❑ **governing codes**
  - ❑ **construction type** *(IBC Chapter 6)*
  - ❑ **allowable area / actual area**, including calculations supporting area increases *(VUSBC Table 503, Sections 505, 506, 507 and 508)*
  - ❑ **allowable height / actual height**, including calculations supporting height increases *(IBC Table 503, Sections 504 and 508)*
  - ❑ **use and occupancy group** classification *(VUSBC Chapter 3)*
  - ❑ **design occupant load** per building *(VUSBC 1004.1)* *(VUSBC Chapter 3)*
  - ❑ **the method of treating mixed uses:** non-separated mixed use, separated mixed use (provide ratio sum), or separate buildings
  - ❑ **minimum plumbing fixtures** required / provided *(IPC 403)*
  - ❑ **fire resistive ratings** of each building element and corresponding openings, *(IBC Table 715.3)* according to:

    - ☐ construction type *(IBC Tables 601 and 602)*
    - ☐ distance to property line *(IBC Tables 601 and 602)*
    - ☐ occupancy separations *(IBC Tables 302.1.1 and 302.3.2)*
    - ☐ corridors *(IBC Table 1016.1)*

- ❑ Identify the following on scaled, dimensioned **floor and ceiling plans** or on a scaled dimensioned **code analysis diagram:**
  - ❑ **"Buildings on the same lot"** or **"fire areas"** *(IBC Section 704.3 and Section 503.1)*
  - ❑ **each tenant space** if the project is in a shopping center or other use with multiple tenants (*VUSBC Chapter 4)*
  - ❑ **the use** of each room or space *(VUSBC Table 1004.1.1 and IBC Table 302.1.1)*
  - ❑ **square footage and design occupant load** per room. Give actual design number and tabular number by *VUSBC Table 1004.1.1*, if applicable.
  - ❑ **existing, demolition,** and **proposed construction areas**
  - ❑ **fire-resistive rated construction** including fire walls, fire partitions, fire barriers, smoke barriers, shaft enclosures, horizontal assemblies, fire separation assemblies, incidental use areas and smoke partitions *(VUSBC Chapter 7)*
  - ❑ **sprinkler, fire alarm and detection systems**, and **fire suppression equipment** locations *(VUSBC Chapter 9)*
  - ❑ **fire extinguishing cabinet** locations *(VUSBC Chapter 9)*
  - ❑ **egress capacity, proposed egress** and **egress direction** at every exit *(VUSBC Chapter 10)*
  - ❑ **exit signage** and **emergency lighting locations** *(IBC Section 1011 and Section 1006)*

- ❑ a dimensioned **site layout plan** that includes:
  - ❑ established street grades, proposed finished grades, and ground floor elevations
  - ❑ the slopes of paving on the accessible route
  - ❑ overall dimensions of all buildings on the site
  - ❑ footprints of all construction to be demolished, to remain, or to be constructed
  - ❑ the distance from the building footprint(s) to property lines and any adjacent buildings drawn in accordance with an accurate boundary line survey
  - ❑ accessible parking

- ❑ a **door schedule** that includes:
  - ❑ door size
  - ❑ hardware type (locks, latches, handles, closers, panic and fire exit hardware, operating devices, access control systems)
  - ❑ door fire rating expressed in hours, if rated
  - ❑ glazing type

- ❑ **building sections** locating floor/ceiling and roof/ceiling assemblies with details, design numbers and specifications

- ❑ **typical wall sections** and partition types

  *All **fire rated** walls must be labeled as to type (fire partition, fire barrier, smoke barrier, shaft enclosure, horizontal assembly, fire separation assembly, fire wall, smoke partition), provided with design numbers and specifications (U.L., Gypsum Association, etc.), drawn full height with cross sections of all fire rated assemblies including all materials used in the assembly, support and termination details.*

- ❑ **stair and ramp sections**

- ❑ **through penetration fire stopping systems** with details, design numbers and specifications

- ❑ If project is an **alteration**, identify all walls and other structural framing that will be affected by the alteration. If framing or foundation systems will be altered, provide complete foundation and framing plans with the design loads listed. Framing plans should provide beam, joist, rafter and truss sizes and layouts. Foundation plans should show footing depths, sizes and design bearing capacity.

- ❑ interior wall and finish requirements *(IBC Section 803, Table 803.5)*

Information Required on Documents

Structural

1. Per VUSBC part 1 Construction Code section 109.3 Engineering Details and IBC 1603 Construction Documents, provide on the plans:

General

- ❑ floor live load(s) including concentrated load(s)
- ❑ roof live load(s)
- ❑ roof dead load(s)
- ❑ rain load including the ds and dh used for calculation per IBC 1611 when water accumulation is possible

Roof Snow Load

- ❑ flat roof snow load, psf or sloped roof snow load, psf for slopes over 5 degrees
- ❑ snow exposure factor, Ce
- ❑ snow load importance factor, Is
- ❑ thermal factor, Ct
- ❑ drift loads per 1608.7 (section 7.7 of ASCE 7) if applicable

Wind Load per IBC 1609

- ❑ provide the basic wind speed
- ❑ use category and Importance factor
- ❑ the exposure group
- ❑ the applicable internal pressure coefficient
- ❑ effective wind loads/pressures for the main wind force resisting system and components and cladding (windward, leeward, uplift, component and cladding pressures)

Earthquake Design Data per IBC 1615

- ❑ use category and Importance factor
- ❑ site class
- ❑ design spectral responses Sds and Sd1 (calculated showing the Ss, S1, Fa and Fv used)
- ❑ the seismic design category
- ❑ the analysis procedure used

- ❑ any structural irregularities listed
- ❑ calculations for Cs and W including the R and Ie used for calculation the seismic base shear
- ❑ the basic seismic force resisting system used per column 1 of table 1617.6.2

Information Required on Documents

Electrical

General

- ❑ Differentiate new work from existing work
- ❑ Drawings need to be at least 1/8” scale or larger
- ❑ Indicate locations of all wet and hazardous locations
- ❑ All drawings need to be neat and legible and all of the same size
- ❑ Make sure all spaces and rooms are labeled as to their use

Title Block

- ❑ Project name and address
- ❑ Designer's name and address
- ❑ Designer’s telephone number
- ❑ Designer's seal and signature or master card number and signature
- ❑ Show page numbers

Service Details

- ❑ Show location of meter and CT cabinet on floor plans
- ❑ Show location of service equipment
- ❑ Size service conductors, raceways; specify raceway type
- ❑ Indicate AIC rating of service equipment and all panelboards
- ❑ Show all fuse and breaker sizes
- ❑ Indicate amperage, voltage and phase of service equipment

Grounding details for services

- ❑ Show grounding electrode system and details
- ❑ Size all grounding conductors

Panelboards

- ❑ Provide panelboard schedule with connected loads and breaker sizes
- ❑ Indicate if panelboards are main lug or main breaker type
- ❑ Indicate AIC rating
- ❑ Indicate panelboards, voltage, phase, rating in amps and name of panel

Feeders

- ❑ Show wire size and type
- ❑ Show conduit size and type
- ❑ Show feeder loads
- ❑ Indicate size of equipment grounding conductor

Branch Circuit Details

- ❑ Designate all branch circuits serving power, lighting and equipment
- ❑ Show all wiring sizes, conduit sizes and number of conductors

Transformers

- ❑ Indicate size in KVA
- ❑ Indicate primary and secondary voltages
- ❑ Show over current protection
- ❑ Show location of transformer on drawing
- ❑ Indicate size of grounding electrode conductor

Disconnects and starters

- ❑ Show location of all disconnects and starter on plans
- ❑ Show size and type; fused or nonfused
- ❑ Indicate fuse size
- ❑ Show location of all electrical equipment on plans
- ❑ Show loads of equipment on panel schedules

Egress and Exit lights

- ❑ Show location of all exit and egress lights on plans
  Indicate lighting circuit that they are supplied from
- ❑ Show breaker lock on panel schedule if using the exception in Article 700

Demand load Summary Sheet

- ❑ Show connected loads of new and existing electrical system
- ❑ Indicate NEC demand loads per Article 220
- ❑ Indicate if demand loads are being calculated from the standard or optional methods

Frequently Asked Questions (FAQ)

Submittals:

Documents for the commercial building permit application must be submitted to the Development Services Office. Any questions regarding the status of the permit application should be directed to the Development Services staff as well.

Plan review turn around time:

Goal: plans review within 14 business days. Once the plan review has been completed, comments will be compiled in a letter and mailed to the permit applicant and architect. For scheduling purposes, allow 4 to 6 weeks from application to permit issuance. Building plan and site plan reviews proceed simultaneously, however, the building permit can not be issued until Planning and Zoning approvals have been received.

Structural design criteria specific to Botetourt County:

- Ground Snow Load: 30 psf
- Basic Wind Speed: 90 mph 3 second gust
- Frost Depth: 24” minimum

Specifications and calculations:

Specifications or calculations are not required to be submitted with the permit application unless they contain building code related information not included on the plans. The “Commercial Plans Application Checklist” contains a section listing what information is required on the documents. If you are unsure, submit the specifications. If errors or concerns are discovered during the structural review, calculations may be requested at that time.

Mechanical, Electrical, Plumbing (MEP) plans:

Full Mechanical, Electrical and Plumbing plans must be submitted with the building permit application for review.

Fire protection systems: Alarms, sprinklers, hood suppression, standpipes

Plans for fire protection systems can be submitted separately from the building permit application. However, please provide enough lead time for review of these drawings prior to construction.

Current code: The 2009 Virginia Uniform Statewide Building Code

Buildings not requiring permits:

One story detached accessory structures used as tool and storage sheds, playhouses or similar uses, provided the floor area does not exceed 200 ft^2 and the structures are not classified as a Group F-1 or H occupancy. *(VUSBC 108.2, #2)*

Detached prefabricated buildings housing the equipment of a publicly regulated utility service, provided the floor area does not exceed 150 ft^2. *(VUSBC 108.2, #3)*

General Building Code Information

The **Virginia Uniform Statewide Building Code (VUSBC)** is enforced in all jurisdictions in The Commonwealth of Virginia. The most recent edition is VUSBC 2009, which became effective May 1, 2009.

Parts 1 and 2 of the VUSBC, (Virginia amendments) contain administrative provisions that replace corresponding chapters of the ICC codes. In addition, they contain technical amendments to the ICC codes. Jurisdictions may not make further amendments to the VUSBC.

ICC codes adopted by VUSBC :

- 2009 ICC International Building Code
- 2009 ICC International Plumbing Code
- 2009 ICC International Mechanical Code
- 2009 ICC International Fuel Gas Code
- 2009 ICC International Energy Conservation Code
- 2009 ICC International Residential Code
- 2009 ICC International Existing Buildings Code
- 2009 ICC International Fire Code
- 2008 National Electrical Code (NFPA 70)

Standards:

- See Chapter 35 of the ICC International Building Code for various design standards.
- VUSBC adopted the following standards in lieu those that are referenced in Chapter 35 of the IBC: ASCE 7-05, ASME A17.1-2000, and ASTM E329-02.

Accessibility: VUSBC adopted the accessibility provisions in Chapter 11 of the 2009 ICC International Building Code, which further references ICC/ANSI A117.1-03.

Energy Code: VUSBC adopted the energy code requirements in Chapter 13 of the 2009 ICC International Building Code, which further references the 2009 ICC International Energy Conservation Code.

Life Safety Code: The NFPA 101 Life Safety Code was not adopted by the VUSBC. The 2009 ICC International Building Code is the "Life Safety Code" enforced in Virginia. However, hospitals, nursing homes, assisted living facilities, etc. may be subject to NFPA 101 provisions if they are state or federally funded.

Current and past editions of the VUSBC (Virginia amendments) can be downloaded from: http://www.vbcoa.org/ .

2009 VUSBC, Part 1: The Construction Code can be accessed directly from: http://www.ecodes.biz/ecodes_support/Free_Resources/Virginia2009/09Construction/09Construction_main.html

2009 VUSBC, Part 2: The Rehabilitation Code can be accessed directly from: http://www.ecodes.biz/ecodes_support/Free_Resources/Virginia2009/09Rehab/09Rehab_main.html

The ICC International Codes and their supplements are available on CD in all Botetourt County Libraries or may be purchased directly from the International Code Council (ICC) online store at http://shop.iccsafe.org/.

The **Botetourt County Municipal Code** can be accessed from the County website: http://www.co.botetourt.va.us/government/municipal_code.php