

Handbook for BUILDING CODE OFFICIALS

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FORWARD

Handbook for BUILDING CODE OFFICIALS

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The West Virginia Board of Architects has drafted this document to provide assistance to West Virginia's Building Code Officials and other professionals whose charge is to protect the health, safety, and welfare of the citizens of our state.

Building code officials are part of the team that ensures the adequacy of buildings and their surroundings through the review of construction documents, authorization of new buildings, and the monitoring of existing structures for code compliance. While professional boards assure that design professionals have met minimum competency standards, code officials assist in compliance with the laws and rules governing the practice of architecture in West Virginia. Building officials may, in turn, rely on the Board of Architects as a source of information and support. The West Virginia State Fire Marshal is also a critical partner in this effort and has joined in the review of this document, along with the West Virginia Code Officials Association, the West Virginia Board of Professional Surveyors, and the West Virginia Board of Landscape Architects.

This document is not exhaustive and cannot take the place of careful review of West Virginia Code or Legislative Rule governing the practice of architecture in this state. However, it is intended to provide guidance and helpful information and best practices to building code officials for the issues they most frequently confront, as well as forge a link to the Board of Architects and the tools it offers to easily confirm the credentials of design professionals.

We hope that the handbook is useful in providing guidance for both design professionals and local building code officials in interpreting certain aspects of West Virginia professional registration laws and regulations.

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The following are representative of common questions regarding the application of the laws and rules for architects in West Virginia.

What Structures are Exempt from WV Registration Laws?

What structures may be exempt in the registration laws from the architect's seal requirements and may be prepared by other non-registered individuals?

The West Virginia Architect Registration Law lists several types of structures which do not require an architect's participation in the project. *See the "Structures Exempt from Registration Laws" section on page 11 for specific information related to this topic.*

How do I Determine Building Area for Exemption Purposes?

How do I measure the square footage of building area to determine whether a structure is exempt or not exempt?

Measurements should be taken from the exterior wall to exterior wall at the ground line following the shape of the building. Any occupied areas which are projected or suspended above the ground level should be included measured from outside wall.

How do I calculate the ground area square footage if a building is divided by an open walkway (breezeway) but has a continuous roof?

The common roof establishes the structural element of a single building, so the square footage includes the exterior area contained beneath the continuous roof.

If a commercial building has a gross area less than 7,600 square feet, but exceeds one story in height (not including any basement), is it an exempted structure?

No. Both limitations apply under the law. An exempt building may not exceed either the area limitation or the height limitation. Technical submissions for all non-exempt buildings must be prepared by an architect.

Does separation by a rated fire wall make one structure into two separate buildings as it relates to exemptions if each section is smaller than 7,600 square feet?

No. Although there are provisions in building and fire code to divide a building into separate fire areas, a fire wall or barrier does not create two separate buildings for purposes of the exemption. If the building is one continuous structure, it must be considered one building.

What About Renovations and Additions to a (previously) Exempt Structure?

If an addition is being proposed to a previously exempt one-story structure bringing the total square footage to greater than 7,600 square feet, must the plans be prepared by an architect?

Yes. The total square footage of the completed structure (including both the addition as well as the existing building) must be considered in determining whether the building remains exempt.

What other changes to exempt structures do not require an architect's participation in the project?

For renovations to an existing building not involving additions, projects remain exempt if all of the following conditions are met:

- The renovations do not alter or affect the structural system
- The renovations do not alter access or exit routes
- The renovations do not alter structural live or dead loads
- The renovations do not alter the building's safety features
- The renovations do not require the issuance of a permit under any applicable code.

Which Type of Licensee Must Prepare and Seal Plans?

Can architects prepare and seal engineering plans?

Although incidental engineering is allowed, architects generally should not seal electrical, mechanical, civil, or structural engineering drawings. *See Incidental Practice section on page 14 for more information*.

Can engineers prepare and seal architectural plans?

Engineers generally should not represent their work as architecture and should not seal drawings identified as architectural. *See Incidental Practice section on page 14 for more information*.

Are companies employing architects required to be registered by their respective boards prior to providing, or even offering to provide, professional services on projects in West Virginia?

No, the West Virginia Board of Architects does not license companies/firms to practice architecture. However, the individual architect is required to be registered in WV before soliciting work in WV, and firms must employ a WV registered architect before applying for a West Virginia Business License with the West Virginia Secretary of State.*

* Registered architects should check with the WV Secretary of State's office regarding additional business licensing requirements once properly registered with the board.

I have a set of construction documents sealed by an architect registered in a state other than West Virginia. Does the plan submittal meet West Virginia requirements?

No. Only design professionals with an active license in West Virginia have authority to practice in the state. Professionals registered in other states must become licensed in West Virginia through reciprocal registration.

How can one verify that an architect is actively registered and eligible to offer professional services in West Virginia ?

The Board has a website which allows online active registration verification. *West Virginia Board of Architects – <u>brdarch.wv.gov</u>*

Can an owner/builder/contractor make changes to an architect's or engineer's construction documents?

No. When construction documents are prepared by a West Virginia registered design professional, no changes may be made except by the professional whose seal appears on the documents (or under certain conditions by another appropriately registered design professional).

Are There Special Requirements Regarding the Use of a Seal?

May a registered architect use an electronic seal?

Electronic seals are permitted, but electronic signatures are not permitted. The signature must be an original, handwritten signature.

May a registered architect seal another registrant's standard (prototypical) plans?

No, they must be sealed by the same West Virginia registered architect who is in responsible control of the preparation of the documents. *See definition of Responsible Control on page 26 in the Definitions section*.

May an individual registered in another state engage in temporary practice before obtaining a registration in West Virginia? No.

Security of Seal – May someone else use a design professional's seal? No.

Must professional corporations use corporate seals on plans? No.

Must the registrant seal, sign, and date each sheet of original drawings issued for bidding, permitting, and construction?

A registered architect must sign and seal either the index page or each individual sheet that was prepared under the architect's responsible control. The date is not required. In the event of drawings in which multiple disciplines or team members contribute, each discipline or team member should sign and seal (and date, if an engineer) the index in such a way that the portion of the work for which they are responsible is obvious.

Must the registrant seal, sign, and date the index page identifying each set of specification or technical submissions?

Architects must sign and seal all technical work which they prepare. No date is required. In the event of project manuals in which multiple disciplines or team members contribute, each discipline or team member should sign and seal (and date) the index page(s) for the portion of the work for which they are responsible.

Do shop drawings require a design professional seal?

No. Shop drawings are typically prepared by the contractor or product fabricator and show how their specific product or system will fit into the overall design of the project. These are not part of the technical submissions prepared by the design professionals, and as such, shop drawings are generally deemed to not be acceptable to a building code official in lieu of technical submissions when applying for a permit in most jurisdictions.

Are churches or other not-for-profit entities exempt from the architect participation in the project?

No, unless the church or entity meets the definition of the commercial building exemption.

What Type of Documents Require a Seal?

Must a registrant seal plans prepared for bidding, permitting, or construction? Yes.

Are specifications or project manuals required to be sealed? Yes.

If a project is exempt per the West Virginia Architect Registration Law, but a registrant performs the work anyway, are the documents required to be sealed?

There is no requirement to seal exempt projects. The Authority Having Jurisdiction (AHJ) has the final say on what projects require a seal, as what appears to be an exempt project may need professional design services to meet code or satisfy the AHJ's requirements.

Are change orders, technical submissions, or drawings accompanying or related to change orders required to be sealed?

Yes, if the changes, technical submissions, or drawings are of a type that must be prepared by a registrant.

Are addenda and field change drawings and other related technical submissions required to be sealed?

Yes, if the changes can only be lawfully prepared by an architect or engineer.

Are Record Drawings (As-Built plans) required to be sealed? Yes, when prepared by an architect or engineer.

May a registrant seal sheet or pages prepared by others?

Yes, in certain cases where portions of the work were prepared by others under the direct supervision and responsible control of the architect. The architect may also sign and seal those portions of professional work if the architect has reviewed them and coordinated their preparation.

May a registrant seal a professional opinion letter or report concerning whether plans prepared by someone else comply with the building code? Yes.

May a registrant seal a document that was not prepared by the registrant under his or her responsible control? No.

Red Flags

What red flags should a building official look for when reviewing construction documents?

Building officials should watch out for these issues:

- Architectural sheets sealed by a professional engineer
- Engineering sheets sealed by an architect
- Plans signed or sealed by an unregistered person; a registrant listed as expired, inactive, or deceased on the board's website; or a design professional using a seal from another state or jurisdiction
- Plans signed or sealed by an interior designer registered in another state. West Virginia does not register interior designers.
- Incomplete documents sealed without a disclaimer (see example disclaimer on the following page)

- Plans that have not been sealed, signed (and dated, if required) by the registrant
- Prototypical, standard plans that do not bear the seal of a WV registrant and disclaimer
- Seals that appear to be cut and pasted
- Contact person from the submitting design professional is not the registrant, or the registrant is difficult to contact
- Plans, details, letters, project manuals, reports or other technical submissions do not appear to relate to the project
- Plans have numerous or serious code violations
- Non-dated revisions
- Revisions, addenda, or change order drawings missing seal, signature (and date, if required)
- Plans which do not list the name of the Design Professional involved or the name and contact details of the firm

What should a Building Official do if any of these red flags are present?

- Question the Design Professional as to the circumstances and/or their qualifications
- Get the issue corrected
- If unable to correct the issue, reject the documents
- Contact the appropriate registration board
- File a complaint with the registration board if necessary

Example Disclaimer

DESIGN NOTE:

THE STRUCTURAL ILLUSTRATION INCLUDED HEREIN IS CONCEPTUAL IN NATURE TO DESCRIBE ONE POTENTIAL STRUCTURAL CONFIGURATION FOR THIS DESIGN FOR PURPOSES OF DISCUSSIONS BETWEEN THE ARCHITECT, OWNER, AND THE OWNER'S STRUCTURAL ENGINEER. THIS ILLUSTRATION IS NOT FOR CONSTRUCTION PURPOSES. THE ARCHITECT HAS NOT BEEN RETAINED TO PROVIDE STRUCTURAL DESIGN SERVICES NOR IS THE ARCHITECT QUALIFIED BY TRAINING AND EXPERIENCE TO PROVIDE SUCH DESIGNS. THE OWNER SHALL ENGAGE A QUALIFIED ENGINEER LICENSED BY THE STATE OF WEST VIRGINIA TO PERFORM THE FINAL STRUCTURAL DESIGN INCLUDING SELECTION, CONFIGURATION, AND SIZING OF STRUCTURAL MEMBERS AND PREPARATION OF CONSTRUCTION / ERECTION DRAWINGS AND DETAILS DESCRIBING THEIR DESIGN.



Structures Exempt from Registration Laws

The West Virginia Architect Registration Law (W.Va. Code §30-12 et. seq.) establishes several building types for which it is not required to have a registered architect design and observe the erection or alteration, as follows:

- 1. A detached single-family dwelling and any sheds, storage buildings and garages incidental thereto;
- 2. A multifamily residential structure not taller than three stories excluding any basement area;
- 3. Farm buildings, including barns, silos, sheds or housing for farm equipment and machinery, livestock, poultry or storage, if such structures are designed to be occupied by not more than ten persons;
- 4. Any alteration, renovation, or remodeling of a building, if such alteration, renovation or remodeling does not affect structural or other safety features of the building or if the work contemplated by the design does not require the issuance of a permit under any applicable building code;
- 5. Pre-engineered buildings, including mobile classrooms purchased by county school boards; and
- 6. A commercial structure smaller than seventy-six hundred square feet and not taller than one story excluding any basement area.

Note: Even though a structure itself may be exempt, certain components of the design may still require the services of a registered architect. For instance, even if a pre-engineered structure (exempted in #5 above but not #6 above) is incorporated as a part of an overall building design for human occupancy and habitation, and the scope of the project includes interior construction to divide the pre-engineered structure into usable rooms and spaces to facilitate its intended use, applicable codes for life-safety, building systems and materials, energy efficiency, accessibility, and other health and safety requirements still apply to the project. The building official should require the services of an architect to complete the design compliant with these applicable codes and standards.



Design Professionals' Scope of Service

The following is intended to provide general guidance on the practice of architects and engineers relating specifically to buildings for human occupancy and habitation.

Architects:

Architects are competent through education, examination, and experience in the multiple design disciplines typically integrated into the design of a building. Architects develop a comprehensive package of design documents for submission to the Authority Having Jurisdiction (AHJ) taking all aspects of the project into account, determining the appropriate governing codes and standards, and coordinating various submissions prepared by other project team disciplines. Listed below are examples of the matters architects typically address consistent with the standard-of-care:

- Site layout (e.g., zoning requirements, building and site feature placement, parking, grading, landscaping)
- Aesthetics and overall interior and exterior design
- Building classification (e.g., occupancy, type of construction)
- Building circulation and exiting (e.g., stairways and exit widths, travel distances, corridors)
- Life safety considerations, including Fire Protection Systems for particular uses and occupancy types (e.g., requirements

for sprinklers, fire ratings, fire and smoke separations, fire alarm, smoke control)

- Interior space planning
- Interior and exterior finish materials (e.g., durability, function, aesthetics, fire ratings and flammability)
- Environmental impacts (e.g., requirements for lighting, acoustics, comfort, quality of life)
- Sustainability (e.g., location and transportation, sustainable sites, water and energy efficiency, indoor environmental quality, materials and resources, innovation)
- Accessible design for disabled individuals
- Overall project coordination between the project team members when the project is architectural in nature.

Engineers:

Professional Engineers are concerned with the planning, analysis, and design of particular building systems. Through education and training, they have detailed knowledge of how specialized components of a building must work. Professional engineers practice based upon their training, knowledge, and expertise in one or more disciplines. They are not, however, registered by any specific discipline. The types of engineering usually provided by professional engineers include:

- Structural systems (e.g., foundations, framing, structural connections)
- Electrical systems (e.g., power distribution, lighting, electronic safety, security, and access control, fire alarm, smoke detection, data networking, communications systems)
- Mechanical systems (e.g., water supply systems, drainage systems, heating ventilation and air conditioning, HVAC controls, fire protection systems)
- Soils analysis (e.g., geotechnical sub-surface investigation, laboratory investigation, soils report, soils stabilization)
- Civil works (e.g., site design, site grading and drainage, site utilities, water supplies, site materials and systems, roadways, parking layout, and circulation)

- Coordination of engineering works (e.g., power stations, dams, bridges, sewage treatment facilities)
- Overall project coordination between the project team members when the project is predominantly engineering of new systems.



Incidental Practice (Architectural and Engineering Overlap)

Although the scopes of practice of each field overlap to some extent, architecture and engineering are distinct professions. It is important for a code official to understand the scope of services (<u>See Scope of Services on page 12</u>) generally performed by these two professions, but also understand that there are instances where the services of these professions may overlap: There may be minor "incidental" work related to engineering designed by an architect; similarly, there can be times when an engineer may perform minor architectural services in a engineering project.

Professional registration laws require that all professionals practice within their respective areas of knowledge and expertise. As an

example, a professional engineer who has expertise in electrical engineering, but not in structural engineering, is not legally qualified to seal any aspects of a project involving structural engineering, yet there is no indication of this restriction on his or her seal or certificate of registration. Conversely, the electrical engineer may have a project involving a power upgrade to a building that increases the number of required exits from the service entry room from one to two. Certainly, the professional engineer should be allowed to specify and detail the door if that professional engineer has the knowledge and experience to do so. It would be an arbitrary restriction to assert that since the professional engineer does not have an architectural seal, she or he cannot detail and specify the door.

Likewise, an architect may have a project that involves some minor structural, electrical and HVAC work. The training, examination, and experience of the specific architect may allow him or her to design these systems and therefore place his or her architectural seal on the technical submissions. The question is then not as narrow as "Who has which seal?" but rather "Who has the appropriate education and experience to use their seal on the specific technical submissions?"

Defining the limits of "incidental practice" is not always easy; however, the boundaries are generally understood to be exceeded by either architects or engineers who perform significant work outside of their respective discipline. The scope of such activities should not be significant in nature as considered within the context of the work being performed. Some considerations for building code officials to determine if "incidental practice" is acceptable include:

- West Virginia architecture law expressly states that designing buildings and structures intended for human occupation is an architecture activity. W.Va. Code §30-12-2(5)
- West Virginia architecture law expressly permits architects to perform such engineering work as is incidental to the practice of architecture and for which the architect, through education, training, or experience is competent to perform. W.Va. Code R. § 2-1-9.1.3

- Evaluation of the design professional's education, training, and experience, and
- Professional judgment and exercise of due care by the design professional.

Architects and professional engineers should not be permitted to take advantage of incidental practice in order to expand the scope of their practice. Rather, design professionals must be cautious when performing work that is borderline of stepping outside of their profession's traditional scope of services. If a building code official has questions as to whether an architect or professional engineer may have submitted work under their seal that is outside their area of licensed professional practice or outside of their expertise, proficiency, or competency, the building official could:

- Contact the design professional whose seal appears on the technical submissions and request an opportunity for review of the appropriateness of the seal applied and solicit information from the design professional regarding their competency and experience in undertaking such design. As a result of such review, changes to the documents and/or the involvement of another design professional may result.
- If a building code official is not satisfied with the results of the above process, refer the matter to the appropriate professional registration board for further review or action.





Construction Administration

Architect participation during the construction administration phase of a project is a vital aspect of the protection of the public, and the West Virginia Architect Registration Law requires such participation. Construction administration is important because, during construction, the architect will provide an onsite visual review of ongoing construction to provide an initial review that code compliance is met. Additionally, through the submittal process, the architect will ensure that products and materials comply with the requirements included in the technical submissions prepared by the project team. This includes review and determination that new products and materials not initially included by the architect or engineer meet applicable codes and are appropriate for inclusion in the project. Lastly, architects verify that the owner's quality and performance expectations required for the project are met throughout the construction process.

In accordance with W.Va. Code § 30-12-11a., construction administration services include (1) visiting the construction site on a regular basis to determine that the work is proceeding in accordance with the technical submission submitted to the code official at the time the permit was issued, (2) processing shop drawings, samples and other submittals required of the contractor by the terms of the construction contract documents, and (3) notifying an owner and building code official of any code violation, changes which affect code compliance, the use of any materials, assemblies, components, or equipment prohibited by a code, major or substantial changes between technical submissions which he or she identifies as constituting a hazard to the public, which he or she observes in the course of performing his or her duties.

Code officials need to be aware that per W.Va. Code \S 30-12-11a(c), if the architect who sealed the technical submissions which are submitted to the building official at the time the building permit was issued has not been employed to furnish construction administration services at the time such registered professional issued technical submissions, he or she shall note on such technical submissions that he or she has not been so employed. If not employed to furnish construction administration (CA) services when the construction of the project begins, the professional shall file, within 30 days after construction begins, with the Board of Architects and the building official, a form available from the Board of Architects indicating the names of the owner(s), the address of the project, and the name, if known, of the registered architect (or engineer) employed to provide CA services. If the design professional believes no registered individual has been employed to provide CA services, that should be noted on the form.

Construction administration services may be performed by an architect or a registered professional engineer, either of whom must be registered in the State of West Virginia.





Recommended Minimum Standards for Code Submission

At the end of this section is a recommended minimum standard for required construction documents to be submitted for review by building code officials. The construction document requirements will depend upon the size, scope, and complexity of the project. Additions, alterations, and remodeling may require fewer documents. Often construction documents will contain information that may be reviewed by other entities than the building code official, such as a third-party structural review, or require delayed submittals, such as fire protection system design. These situations may require the building code official to coordinate and verify these approvals prior to the issuance of a permit or include conditions of approval on the permit.

The West Virginia State Fire Marshal is an excellent resource for minimum code submission requirements. *See page 24 for specifics on submission of plans to the State Fire Marshal.*

Plans and specifications submitted to the building official for a building for human occupancy and habitation must be of sufficient nature to clearly show the project in its entirety with emphasis on the following:

- Fire code compliance
- Life safety

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- Means of egress
- Barrier free accessibility

- Structural integrity
- Building code compliance
- Energy code compliance
- Definition of scope of work

The technical submissions shall be drawn to scale with sufficient clarity to indicate the nature and extent of the work proposed.

COVER SHEET

- 1. Project identification
- 2. Project address and a location map
- 3. All design professionals indicated
- 4. The principal design professional responsible for project coordination shall be identified.
- 5. Index of drawings
- 6. Design criteria list:
 - Location of property
 - Occupancy classification
 - Construction classification
 - Seismic design category
 - Design loads
 - Square footage/allowable floor area
 - Fire protection system inclusion, if applicable
 - Building height and number of stories
 - Occupant load
 - Land use, occupancy type, and zoning

SITE PLAN

- 1. Show proposed new building or structure and any existing buildings or structures, all property lines with dimensions, all streets, easements, and setbacks.
- Show all civil engineering systems such as water, sewer, communication services, natural gas, telephone, and cable TV. Electrical points of connection, proposed utility service routes, and existing utilities on the site.
- 3. Show all required parking, landscape elements, drainage, and site grading information.
- 4. Show all applicable accessibility provisions for site improvements.

- 5. Indicate drainage inflow and outflow locations and specify areas required to be maintained for drainage purposes. Provide stormwater runoff calculations when required.
- 6. When appropriate include a topographical survey.
- 7. Show north arrow.
- 8. Show dimensions for the location and size of components delineated on the site plan.

FOUNDATION PLAN

- 1. Show all foundations and footings. Indicate size, locations, thickness, materials and strengths, and reinforcing.
- 2. Show all imbedded anchoring such as anchor bolts, hold-downs, post bases, etc.
- 3. Provide a geotechnical report for the proposed structure at that site.
- 4. Show dimensions for the location and size of all components delineated on the foundation plan.

FLOOR PLANS

- 1. Show all floors including basements, mezzanines and equipment mezzanines or raised platforms.
- 2. Show all rooms, with their use, overall dimensions, and locations of all structural elements and openings.
- 3. Show all doors and windows.
- 4. Show all fire resistance rated assemblies, areas of refuge, occupancy separations, fire blocking, and draft stopping.
- 5. Show dimensions for the size of all rooms and the locations of other components delineated on the floor plans.
- 6. Show means of egress system including the path of exit discharge to the public way.
- 7. Show all applicable accessibility provisions for floor areas.

SCHEDULES

- 1. Room finish schedule
- 2. Doors, hardware, windows schedules
- 3. Plumbing, mechanical, and electrical schedules
- 4. Structural schedules
- 5. Other applicable design or code required information, including Fire Code Analysis or Life Safety Plan

FRAMING PLANS AND ROOF FRAMING PLANS

- 1. Show all structural members and shear/braced wall panels systems, their size and methods of attachment, connections, and location as well as materials for floors and roofs.
- 2. Show roof plan.
- 3. Show dimensions for the location and size of all components delineated on the roof plan.

EXTERIOR ELEVATIONS

- 1. Show each view.
- 2. Show vertical dimensions and heights.
- 3. Show openings and identify materials.
- 4. Show lateral bracing system, where applicable.
- 5. Show dimensions and schedules.

BUILDING SECTIONS, WALL SECTIONS, ROOF/CEILING SECTIONS

- 1. Show materials of construction, non-rated and fire-resistance rated assemblies, and fire-resistance rated penetrations.
- 2. Show all weather, thermal and air barrier layers with installation criteria for the thermal envelope within all framing assemblies and foundation systems.
- 3. Show dimensions and construction details.

STRUCTURAL SYSTEMS

- Show foundation, structural members, anchorage systems and fastener schedules, and where required, provide structural calculations for the structural systems.
- 2. Include calculations indicating compliance with seismic, wind, snow, and other design loads.
- 3. Show dimensions and construction details.
- 4. Note special inspections/third party inspections, and required components/schedule.

MECHANICAL SYSTEMS

- 1. Show the mechanical systems. Include all units, their sizes, mounting details, all ductwork, and duct sizes.
- 2. Indicate all required dampers.
- 3. Provide equipment schedules.
- 4. Submit energy conservation calculations.
- 5. Show dimensions.
- 6. Provide outside air calculations.
- 7. Provide ventilation information and details (supply, exhaust, return and transfer air).

PLUMBING SYSTEMS

- 1. Show all fixtures, piping, slopes, materials, and sizes.
- 2. Show point of connections to utilities, septic tanks, pretreatment sewer systems, and water wells.
- 3. Show dimensions, including clear floor spaces (accessibility), and construction details.

ELECTRICAL SYSTEMS

- Show all electrical fixtures (interior, exterior, and site), wiring sizes and circuiting, grounding, panel schedules, single line diagrams, load calculations, and fixture schedules.
- 2. Show point of connection to utility.
- 3. Show dimensions and construction details.

FIRE SUPPRESSION SYSTEMS

- 1. Show all sprinkler heads, piping valves, alarms, tamper switches, materials, and sizes.
- 2. Show point of connection to the water system and fire alarm system.
- 3. Show dimensions for the size and location of components delineated on the life safety system drawings.

SPECIAL SYSTEMS

Depending on the scope of the project, additional drawings may be required such as those related to information technology, communications, security, audiovisual, graphics, food service, laboratory, and medical systems. Special systems may also be involved for high pile combustible storage, hazardous materials, etc.

SPECIFICATIONS

- Prepare specifications to further define the construction components; the quality of the materials; delineation of the materials and methods of construction; wall, floor, and ceiling finishes; exterior finishes; and descriptions of all pertinent equipment.
- 2. Schedules may be incorporated into the project manual in lieu of being delineated on the construction drawings.
- 3. Information should be contained on the plans clearly directing one to the pertinent specifications for this scope of the project.

ADDENDA AND CHANGES

It shall be the responsibility of the appropriate professional of record to notify the building official, as required, of changes throughout the project and provide revised construction documents, calculations, or other appropriate documentation prior to commencement of that portion of the construction.

REVISIONS

The party for submitting changes shall be identified at the beginning of the approval process. For clarity, all revisions should be identified and dated. All revised portions of drawings should be bounded by a cloud shape identifier on the construction drawings and appropriately marked as a revision in that drawing's title block OR resubmit new technical submission(s) if necessary. Revisions within the Project Manual should be similarly noted.

Submission of Plans to the State Fire Marshal for Review

Beginning January 1, 2025, the State Fire Marshal (SFM) implemented new Electronic Plans Submittal and Review Process, as noted in the State Fire Code, Section 2.1.d. The new submission process will incorporate all architectural, mechanical, electrical, plumbing, and fire protection system drawings. To ensure timely response and turn around for all submissions, the SFM requires and expects that all drawings/plans shall include a Life Safety Plan and Building/Fire Code Analysis Form with emphasis on applicable fire codes (NFPA 1, NFPA 101, Other applicable NFPA Codes & State Fire Code).

For more information, questions regarding submission of plans, or the review process, call 304-558-2191 or scan the QR code to the right with your cell phone.





Definitions

Registered Architect – A person holding an active registration in the State of West Virginia who has passed all education, examination, and experience requirements to be registered as an Architect and to practice architecture in accordance with West Virginia State Code.

Practice of Architecture – Rendering or offering to render services in connection with the design and construction, enlargement or alteration of a building or group of buildings and the space within and surrounding such buildings, which have as their principal purpose human occupancy or habitation. Such services include planning, providing preliminary studies, designs, drawings, specifications and other technical submissions and administration of construction contracts (Paraphrased from W.Va. Code §30-12).

Registered Professional Engineer – A person holding an active registration in the State of West Virginia who has passed all education, examination, and experience requirements to be registered as a Professional Engineer and to practice professional engineering in accordance with West Virginia State Code. Professional Engineers practice based upon their training, knowledge, and expertise and are not registered by any specific discipline.

Practice of Engineering - Any service or creative work, the adequate performance of which requires engineering education, training and experience in the application of special knowledge of the mathematical, physical and engineering sciences to such services or creative work as consultation, investigation, evaluation, planning and design of engineering works and systems; planning the use of land and water; teaching of advanced engineering subjects, engineering surveys and studies; and the review of construction for the purpose of assuring compliance with drawings and specifications any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects and industrial or consumer products or equipment of a mechanical, electrical, hydraulic, pneumatic or thermal nature, insofar as they involve safeguarding life, health

or property, and including such other professional services as may be necessary to the planning, progress and completion of any engineering services. Engineering surveys include all survey activities required to support the sound conception, planning, design, construction, maintenance and operation of engineered projects (Excerpted from W.Va. Code §30-13).

Design Professional – For the purposes of this handbook, this generic term refers collectively to either a Registered Architect or Registered Professional Engineer duly registered by the appropriate West Virginia registration board.

Building/Fire Code Official – Any person appointed by a county, municipality or state political subdivision or agency having jurisdiction over the project to have principal responsibility for the safety of the public within or around the project as finally built.

Applicable Building Codes – Those codes and standards as defined in the West Virginia State Building Code and West Virginia State Fire Code in legislative rules as promulgated by the West Virginia State Fire Commission and adopted by the West Virginia Legislature.

Responsible Control - That amount of control over and detailed professional knowledge of the content of technical submissions during their preparation as is ordinarily exercised by a registered architect applying the required professional standard of care including, but not limited to, an architect's integration of information from manufacturers, suppliers, installers, the architect's consultants, owners, contractors, and other sources the architect reasonably trusts that is incidental to and intended to be incorporated into the architect's technical submissions if the architect has coordinated and reviewed such information. Other review, or review and correction, of technical submissions after they have been prepared by others does not constitute the exercise of responsible control because the reviewer has neither control over, nor detailed professional knowledge of, the content of such submission throughout their preparation.

Technical Submissions – Designs, drawings, specifications, studies, and other technical reports prepared in the practice of architecture and/or engineering.

Construction Administration – Services performed by the Design Professional during the construction of a building.

Incidental Practice – The occasional overlap of practice between architects and professional engineers. *See "Incidental Practice" section of this handbook on page 14 for more information.*



Means of Identifying Professional Work

Registered architects and professional engineers are responsible for their professional design services. The public, as well as building code officials, rely on their professional expertise. Therefore, technical submissions such as plans, specifications, reports, calculations, etc. should clearly indicate the identity of the design professional who prepared them. In accordance with W.Va. Code, the primary method for this identification is by affixing a professional seal and signature (and date, in the case of West Virginia professional engineers). This act signifies that the architect and/or professional engineer are responsible and accountable for their professional design services.

Architectural and professional engineering seals, properly signed, sealed, and dated are indicated in the examples below.



Seals on drawings – An architect must affix his or her seal and signature on either the index page or on each individual sheet that was prepared under the architect's responsible control. A professional engineer must sign, seal, and date the first sheet or title sheet of the appropriate sections. In the event of drawings in which multiple disciplines or team members contribute, each discipline or team member should sign and seal (and date) the index in such a way that the portion of the work which they contributed is obvious.

Seals on Project Manuals and other Technical Submissions -

An architect must sign and seal all technical work which they prepare. No date is required. In the event of project manuals in which multiple disciplines or team members contribute, each discipline or team member should sign and seal (and date) the index page(s) for the portion of the work which they contribute. A professional engineer is required to sign, seal, and date all technical work they prepare.



Relevant Acronyms and Abbreviations

Architects

AIA – American Institute of Architects

*Note: According to the American Institute of Architects, "AIA" is reserved as a title for those members licensed in a U.S. jurisdiction.

ARE - Architect Registration Examination

Associate AIA – Title used by those members who are not yet licensed in a U.S. jurisdiction
AXP - Architectural Experience Program
CE – Continuing Education
FAIA – Fellow of the American Institute of Architects
HSW – Health, Safety, and Welfare
LEED – Leadership in Energy and Environmental Design
NCARB – National Council of Architectural Registration Boards
*Note: This is also a title used by architects who have obtained a NCARB certificate

RA – Registered Architect

Building Code Officials

ANSI - American National Standards Institute IBC - International Building Code ICC - International Code Council IEBC - International Existing Building Code **IECC** - International Energy Code for Commercial Buildings **IERC** – International Energy Code for Residential Buildings IFGC - International Fuel Gas Code IMC - International Mechanical Code **IPC** - International Plumbing Code **IPMC** – International Property Maintenance Code IRC - International Residential Code **ISPSC** – International Swimming Pool and Spa Code NFPA – National Fire Protection Association NEC - National Electrical Code State Building Code - where adopted State Fire Code – in full effect without adoption UL – Underwriters Laboratories

Professional Engineers

ASCE – American Society of Civil Engineers
ASHRAE – American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASME – American Society of Mechanical Engineers
COA – Certificate of Authorization
EI – Engineer Intern
IESNA – Illuminating Engineering Society of North America
PE – Professional Engineer



Helpful Contact Information

West Virginia Board of Architects

405 Capitol Street, Mezzanine Suite 3 • Charleston, WV 25301 (304) 558-1406 • <u>brdarch.wv.gov</u>

- W.Va. Code §30-12 et seq. WV State Registration Law for Architects
- W.Va.Code R. §2-1 et seq. Registration of Architects
- W.Va.Code R. §2-2 et seq. Disciplinary and Complaint Procedures for Architects
- W.Va.Code R. §2-3 et seq. Fees for Registration of Architects

West Virginia Board of Registration for Professional Engineers

300 Capitol Street, Suite 910 • Charleston, WV 25301

(304) 558-3554 • <u>wvpebd.gov</u>

- W.Va. Code §30-13 et seq. WV State Registration Law for Professional Engineers
- W.Va. Code R. §7-1 et seq. Legislative Rule for Professional Engineers
- W.Va. Code R. §7-2 et seq. Procedural Rule for Professional Engineers

West Virginia Fire Marshal

4th Floor North • 1700 MacCorkle Avenue, SE • Charleston, WV 25314 (304) 558-2191 • <u>firemarshal.wv.gov</u>

- W.Va. Code §15A-10 Fire Marshal
- W.Va. Code §15A-11 Fire Commission
- Title 87-1 State Fire Code
- Title 87-4 State Building Co



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