

January, 2013

Greene County Department of Building Regulation Residential Permit, Plan Approval, & Inspection Process

The following is intended to provide home owners, contractors, and other individuals contemplating a construction project within Greene County a guide to understanding code requirements and our permitting, plan approval, & inspection process.

In 2006 the State of Ohio adopted its first statewide residential building code. The 2013 edition of the Residential Code of Ohio (2013 RCO) was recently adopted and governs ALL residential construction projects in the State of Ohio beginning January 1, 2013. As a Certified Building Department, our responsibility is to administer the Code and conduct our operations as directed by state law. The portion of the Code requiring approval of residential construction projects is Section 105.1 as follows.

105.1 Approvals required. *Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, or change the occupancy of a residential building or structure, or portion thereof, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical, plumbing system, other residential building service equipment, or piping system the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the residential building official of a certified residential building department and obtain the required approval.*

The process for lawfully completing residential construction projects under our jurisdiction, consists of the following steps:

1. Application & submittal of construction documents
2. Plan review and approval
3. Construction and inspection
4. Final approval

Obtaining the required plan approval is considered a license to build under Ohio law. However, the license is not permission build when approvals from other authorities are required. It is critically important to note that our department is not the only entity which may have jurisdiction over any particular project.

Various Cities, Villages, and Townships have authority over zoning and property maintenance.

The Greene County Combined Health District is the authority having jurisdiction over plumbing and private water supply, and private sewage disposal systems.

The Greene County Sanitary Engineering Department is the authority having jurisdiction over public water supply and sewage disposal systems.

The Greene County Engineer is the authority having jurisdiction over driveways on some county and township roads.

The Greene County Department of Building Regulation is the authority having jurisdiction for Floodplain Development and WPAFB Airport Zoning

This guide focuses on the procedures of the Greene County Department of Building Regulation only.

Step 1; Application & Submittal of construction documents

Once the scope of your project is determined, the first step is to prepare the construction documents. Generally, these documents consist of plans depicting the work, a description of the building service systems (plumbing, HVAC, & electric etc.), construction specifications, and manufacturer's installation instructions. Section 106 of the 2013RCO is excerpted below. Please see the highlighted portions describing the construction documents that are required to be submitted.

SECTION 106 CONSTRUCTION DOCUMENTS

106.1 Submittal documents. Residential construction documents and other data shall be submitted in two or more sets with each application for an approval. Before beginning the construction of any building for which construction documents are required under section 105, the owner or the owner's representative shall submit construction documents to the residential building official of a certified residential building department for approval. When construction documents have been found to be in compliance with the rules of the board of building standards in accordance with section 107 by a certified residential building department, that determination of compliance shall be deemed sufficient to obtain approval for construction pursuant to section 105.2 and the residential building official shall issue the certificate of plan approval. Construction documents for the installation of industrialized units shall be submitted to the residential building official for approval in accordance with the provisions of section 106.1.4.

106.1.1 Professionally prepared construction documents. Construction documents which have been prepared by a registered design professional who prepared the same as conforming to the requirements of the rules of the board pertaining to design loads, stresses, strength, and stability, or other requirements involving technical analysis, need be examined only to the extent necessary to determine conformity of such residential construction documents with other requirements of this code.

106.1.2 Residential fire protection system construction documents.

Residential construction documents for fire protection systems authorized to be submitted by individuals certified pursuant to Chapter 4101:2-87 of the Administrative Code shall:

1. When submitted under the signature of an individual certified under section 3781.105 of the Revised Code, be processed in the same manner as construction documents submitted under the signature of a registered design professional. Any statistical data, reports, explanations, plan description, or information that would not also be required for a similar submission by a registered design professional need not be submitted by a certified designer.
2. If certified by a registered design professional or individual certified under section 3781.105 of the Revised Code as conforming to requirements of the rules of the board pertaining to design loads, stresses, strength, stability, or other requirements involving technical analysis, be examined by the building department official only to the extent necessary to determine conformity of such construction documents with other requirements of this Code.
3. Indicate thereon the individual installing the fire protection systems who shall be certified by the fire marshal pursuant to section 3737.65 of the Revised Code. In the event that the installer is not known at the time of plan approval, partial plan approval shall be granted subject to subsequent submission by addendum of the name of the qualified installer prior to installation of any part of the fire protection systems.

106.1.3 Information on construction documents. Residential construction documents shall be dimensioned and drawn upon suitable material. Electronic media documents are permitted to be submitted when approved by the residential building official.

Construction documents shall be coordinated

and of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code. Construction documents, adequate for the scope of the project, shall include information necessary to determine compliance with this code.

1. **Index.** An index of drawings located on the first sheet;

2. **Site plan.** A site plan showing a north orientation arrow, the size and location of new residential construction and all existing structures on the site, all property and interior lot line locations with setback and side yard dimensions and distances from buildings to lot lines, the locations of the nearest streets, the established street grades, the locations, types and sizes of all utility lines, the location of any fences, and the elevations of all proposed finished grades; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The residential building official is authorized to waive or modify the requirement for a site plan when the application for approval is for alteration or repair or when otherwise warranted.

2.1 Residential buildings or structures located in flood hazard areas.

Construction documents submitted for residential buildings or structures located in communities with identified flood hazard areas, pursuant to section 1612, shall include the current FEMA

"Flood Hazard Boundary Map" (FHBM), "Flood Insurance Rate Map" (FIRM) or "Flood Boundary Floodway Map" (FBFM) for the project location. The required site plan shall include building elevations using the same datum as the related flood hazard map. The owner shall be responsible for the compliance with local flood damage prevention regulations for additional critical elevation information for the project site. The elevation certification and dry flood proofing certification, when required for buildings or structures located in communities with identified flood hazard areas, shall be submitted to the residential building official.

2.2 Site accessibility plan. For structures of four or more dwellings, information in plan view and details shall be submitted indicating compliance with the accessibility provisions of this code for the exterior of the building in addition to any accessible features of the interior. When applicable, the plans shall include: the exterior accessible route between all facilities required to be

connected; ramp locations and elevations along the exterior accessible route; number of and details for the required accessible van and car parking spaces and passenger loading areas; location and detail of required accessibility signage; grade/topographic elevations before and after proposed grading when site impracticality is intended to be applied.

3. Floor plans. Complete floor plans, including plans of full or partial basements and full or partial attics. Floor plans must show all relevant information such as door swings, stairs and ramps, windows, shafts, all portions of the means of egress, etc., and shall be sufficiently dimensioned to describe all relevant space sizes. Wall materials shall be described by cross-hatching (with explanatory key), by notation, or by other clearly understandable method. Spaces must be identified by how each space is intended to be used;

4. Exterior wall envelope. The residential construction documents shall provide details of the exterior wall envelope as required, including flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves, or parapets, means of drainage, water-resistive membrane, all elevations necessary to completely describe the exterior of the residential building including floor to floor dimensions, and details around openings.

5. Sections. Cross sections, wall sections, details including typical connections as required to fully describe the residential building construction showing wall, ceiling, floor and roof materials. Residential construction documents shall describe the exterior wall envelope in sufficient detail to determine compliance with this code.

6. Structure. Complete structural description of the residential building including size and location of all structural elements used in the design of the residential building and other data as required to fully describe the structural system;

7. Ratings. The fire-resistance ratings of all structural elements as required by this code, data substantiating all required fire-resistance ratings including details showing how penetrations will be made for electrical, mechanical, plumbing, and communication conduits, pipes, and systems, and the materials and methods for maintaining the required structural integrity, fire-resistance rating, and firestopping;

8. System descriptions. Description of the mechanical, plumbing and electrical systems, including: materials; location and type of fixtures and equipment; materials, and sizes of all ductwork; location and type of heating, ventilation, air conditioning and other mechanical equipment; and all lighting and power equipment;

9. Additional information. Additional graphic or text information as may be reasonably required by the residential building official to allow the review of special or extraordinary construction methods or equipment.

106.1.3.1 Fire protection system drawings. Construction documents for the fire protection system(s) shall be submitted to indicate conformance with this code and shall be approved prior to the start of system installation.

106.1.3.2 Manufacturer's installation instructions. Manufacturer's installation instructions, as required by this code, shall be available on the job site at the time of inspection.

106.1.4 Industrialized units. When construction includes the use of industrialized units approved by the board, documentation shall be provided to the building official describing how they are to be used. Before these items are installed or used, the following shall be submitted:

1. A copy of the construction documents approved by the board; and
2. Details pertaining to on-site interconnection of modules or assemblies.

Exception: When construction includes the use of industrialized units for one-, two-, and three- family dwellings and their accessory structures, the documents shall be provided to the residential building official. If no residential department is certified in a jurisdiction, construction documents for one-, two-, or three-family dwellings comprised of industrialized units are not required to be submitted for approval.

106.1.4.1. Definitions.

Closed construction. An assembly of materials or products manufactured in such a manner that its structural, plumbing, electrical, environmental control, or fire protection elements or components are concealed and are not readily accessible for inspection at the site of its erection, without disassembly, damage, or destruction. Closed construction includes assemblies where only one of the components is not accessible for inspection. (For example, an accessory structure where all the electrical conductors and components are exposed for inspection and its roof and wall panels have exposed structural members but the floor panel structural members are not exposed.)

Industrialized units. Industrialized units are prefabricated components comprised of closed construction manufactured at a location remote from the site of intended use and transported to a building site for its subsequent use. Industrialized units are not restricted to housing for one-, two-, and three-family dwellings, but includes all prefabricated forms of building elements and assembled construction units, intended for both structural and service equipment purposes in all buildings of all groups.

Prefabricated shop assemblies may be shipped in structurally complete units ready for installation in the building structure or in knock-down and packaged form for assembly at the site.

106.1.4.2 General terms. Such terms as heart modules or cores, modules, modulars, service cores, prefabs, sectional or sectionalized, panels or panelized construction, and specific terms including "prefabricated-subassembly, -building, -unit, -unit service equipment" shall be considered industrialized units. They may be self-sufficient or interdependent as a unit or group of units and used together or incorporated with standard construction methods to form a completed structural entity. For a complete description of the Ohio industrialized unit program refer to OBC Section 113.

106.2 Evidence of responsibility. Required residential construction documents, when submitted for review as required under section 107, shall bear the identification of the person primarily responsible for their preparation.

106.3 Amended construction documents. If substantive changes to the residential building are contemplated after first document submission, or during construction, those changes must be submitted to the residential building official for review and approval prior to those changes being executed. The residential building official may waive this requirement in the instance of an emergency repair, or similar instance.

106.4 Alternative materials and methods of construction and equipment. For approval of a device, material or assembly that does not conform to the performance requirements in this code, section 114 shall apply.

106.5 Alternative engineered design. The design, documentation, inspection, testing and approval of an alternative engineered system shall comply with sections 106.5.1 to 106.5.3.

106.5.1 Design criteria. *An alternative engineered design shall conform to the intent of the provisions of this code and shall provide an equivalent level of quality, strength, effectiveness, fire resistance, durability and safety. Materials, equipment or components shall be designed and installed in accordance with the manufacturer's installation instructions.*

106.5.2 Submittal. *A registered design professional shall indicate on the application that the system is an alternative engineered design. The approval and permanent approval records shall indicate that an alternative engineered design was part of the approved installation. Where special conditions exist, the residential building official is authorized to require additional construction documents to be prepared by a registered design professional.*

106.5.3 Technical data. *The registered design professional shall submit sufficient technical data to substantiate the proposed alternative engineered design and to prove that the performance meets the intent of this code.*

Step 2; Plan Review & Approval

The next step in the process is to complete the application(s) required for the work. The various applications (building, HVAC, electric etc.) are available on our website, (www.co.greene.oh.us) or at our office at 667 Dayton-Xenia Rd. The application(s) and two (2) copies of the construction documents are then submitted for review and approval. A certified Residential Plans Examiner (RPE) or certified Residential Building Official (RBO) reviews the construction documents for conformance to the Code. If the reviewer of the construction documents finds them in conformance to the Code, a plan approval is issued. Minor deficiencies may be noted on the plan approval. If the construction documents are found to be outside the Code, the owner or owner's representative will be contacted either by phone, e-mail, fax, or mail, and notified of the item(s) of non-conformance with the Code. The applicant then may either revise the construction documents to bring them into conformance with Code, or appeal the Department's finding to our local Residential Appeals Board for resolution. Once all items of non-conformance have been resolved either by revision or appeal, the plan approval will be issued. Once our plan approval has been obtained, and requirements of other jurisdictions have been satisfied (zoning, sewer & water etc.), construction can commence.

Step 3; Construction & Inspection

During the construction process several periodic inspections of the work are required. Inspections are scheduled by the owner or owner's representative. Generally, inspections requested before 3:00p.m., can be scheduled for the following day. On the day of the inspection, our automated calling system will provide a 3 hour window for the time of the inspection. The owner or owner's representative must provide access to the work being inspected. Our inspector will leave an inspection ticket at the site indicating the results of the inspection. Inspection results are also available on our website using the tracking number you receive when you file your application. If a deficiency is noted at the inspection, it must be corrected or appealed through our local Residential Appeals Board. Depending upon the nature of the deficiency, work may be prevented from proceeding until the issue is resolved. The following is a list of required inspections. Each one that applies to your project is required, and must be scheduled and the work approved.

Required Inspections

Choose the required inspections from the inspections listed below. The approved plans shall be on site for: Footings, Framing, Final Electric, & Final Building Inspection.

Temporary electric pole***

Location approval from Zoning Dept. *, ***

Footings*

Special Foundations*

Engineered*

Reinforced*

Wood*

ICF*

House*

Garage*

Porch*

Fireplace*

Misc./Acc. Bldg*

Crawl Space: Inspection when floor framing

Is complete, before sub-floor install***

Slabs*

Basement*

1st floor*

Garage*

Porch*

Slab conduit*, ***

Slab HVAC Duct*, ***

Pools, Whirlpools, Hot Tubs, etc. ***

Rough Elec., service release & trench***, ****
(before insulating)

Framing, Rough HVAC, Air-Barrier, Factory

Fireplaces & Masonry Veneer. (provide

(truss drawings & structure shall be prepped
for masonry)***, ****

Insulation***

Provide energy compliance certificate posted

On electrical panel

Fire Wall drywall***

Masonry Fireplace***

firebox & smoke chamber***

Chimney top out***

Pre-fab. factory fireplace & stove***

Masonry Chimney (top out)***

Ext. Plaster (before application)***

EIFS; after prep for finish, before finish

app., or provide factory insp. Report

Final Electric**, ***, ****

Propane tank & inside house line****

Final HVAC & Final Building***, ****

*Inspection before placing concrete.**Electric to be energized before Final Electric inspection. ***No time given for this inspection.

****To be inspected at the same time. *****If finished floors are installed, the contractor shall provide shoe protection for the inspector to prevent tracking dirt or mud into the house.

Step 4; Final Approval

Upon approval of all the work, a Certificate of Occupancy will be issued by the Department, and the project can be safely occupied. It is the owner's responsibility to maintain the property in accordance with the Certificate of Occupancy (as approved).