

Issue: DS 2024-002: The petitioner Shane Kittendorf, of The City of Cape Coral is seeking a declaratory statement to clarify whether when reviewing the minimum plan review criteria for Residential (one- and two-family) projects under section 107.3.5 of the 8th Edition (2023) Florida Building Code, Building, the inclusion of the electrical, plumbing, mechanical and gas drawings required to be a part of the submittal package.

Petitioner seeks clarification of the following questions:

Question #1: When reviewing the minimum plan review criteria for Residential (one- and two-family) projects under section 107.3.5, is the inclusion of the electrical, plumbing, mechanical and gas drawings required to be a part of the submittal package?

Question #2: When reviewing the minimum plan review criteria for Residential (one- and two-family) projects under section 107.3.5, is the inclusion of the electrical, plumbing, mechanical and gas minimum plan review criteria required to be enforced?

Question #3: When reviewing the minimum plan review criteria under section 107.3.5, is the enforcement of the minimum plan review criteria for electrical, plumbing, mechanical and gas able to be omitted by the Building Official from plan review in association to Residential (one- and two-family) projects?

Background:

The Petitioner provides for the following:

- The new building official with the City of Cape Coral is currently working on minimum plan review requirements for electrical, plumbing, mechanical, and gas plan reviews associated with residential (one- and two-family) projects.
- When reading Section 553.794, Local government residential master building permit program, section (4)(e), Florida Statutes: states that the minimum plan review for master residential projects “Must contain a complete set of applicable electrical, plumbing, fuel gas, and mechanical plans”.
- When reading section 107.3.5 of the 8th Edition (2023) Florida Building Code, Building, for the minimum plan review criteria as outlined for Residential (one- and two-family) projects. This section does not mention electrical, plumbing, mechanical, and gas reviews, which instead appear to be listed as part of the minimum criteria for Commercial Building reviews, contributing to the question of applicability.
- When reading further into section 107.3.5, there are Exemptions from plans examination by the building official, none of which mention the exemption of electrical, plumbing, mechanical, and gas reviews from residential (one- and two-family) projects.
- When reading BOAF informal interpretation #8820, the answer provided states that “Section 107.3.5 simply gives guidance for a minimum list of items that need to be submitted/ outlined in the package.” With this understanding, the electrical, plumbing, mechanical, and gas

minimum criteria appear to be required under 107.3.5 and are in addition to the Residential (one- and two- family) listed items?

Interpretation #8820

Question: Is it the intent of 107.3.5, Minimum plan review criteria for buildings, under Residential (one and two family) section, to only require the 8 items listed to be provided on residential building plans for a one or two story single family dwelling, including townhomes, or are the provisions under 107.2 also applicable to one and two family dwelling plans?

Answer: Section 107.2 and 107.3.5 are two separate sections. Section 107.3.5 simply gives guidance for a minimum list of items that need to be submitted/ outlined in the package. The Building Official has the ability to require more information. As for the specific point, "provide full exterior wall envelope details"; this is referenced in section 107.2.4, and is required for all buildings, no matter the type.

Commentary:

The minimum requirement on plans is determined in accordance with this code section. 107.3.5 is simply a bare minimum. It's up to the Building Official to determine if the plans submitted provide sufficient information to show compliance with the applicable codes. Section 107.2 provides additional guidance as to what the plans must clearly depict. Remember also, Section R103.2 of the Florida Building Code - Energy Conservation volume contains information to be depicted on the plans, including the thermal envelope.

8th (2023) Florida Building Code, Building

CHAPTER 1 SCOPE AND ADMINISTRATION

107.2 Construction documents. *Construction documents* shall be in accordance with Sections 107.2.1 through 107.2.6.

[A] 107.2.1 Information on construction documents. *Construction documents* shall be dimensioned and drawn upon suitable material. Electronic media documents are permitted to be submitted where *approved* by the *building official*. *Construction documents shall be 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 and relevant laws, ordinances, rules and regulations, as determined by the building official.*

107.3.5 Minimum plan review criteria for buildings.

The examination of the documents by the building official shall include the following minimum criteria and documents: a floor plan; site plan; foundation plan; floor/roof framing plan or truss layout; all fenestration penetrations; flashing; and rough opening dimensions; and all exterior elevations:

Commercial Buildings:

- **Building:**

1. Site requirements:
 - Parking
 - Fire access
 - Vehicle loading
 - Driving/turning radius
 - Fire hydrant/water supply/post indicator valve (PIV)
 - Set back/separation (assumed property lines)
 - Location of specific tanks, water lines and sewer lines
 - Flood hazard areas, flood zones, and design flood elevations
2. Occupancy group and special occupancy requirements shall be determined.
3. Minimum type of construction shall be determined (see Table 504.3a).
4. Fire-resistant construction requirements shall include the following components:
 - Fire-resistant separations
 - Fire-resistant protection for type of construction
 - Protection of openings and penetrations of rated walls
 - Fire blocking and draftstopping and calculated fire resistance
5. Fire suppression systems shall include:
 - Early warning smoke evacuation systems
 - Schematic fire sprinklers
 - Standpipes
 - Pre-engineered systems
 - Riser diagram.
6. Life safety systems shall be determined and shall include the following requirements:
 - Occupant load and egress capacities
 - Early warning
 - Smoke control
 - Stair pressurization
 - Systems schematic
7. Occupancy load/egress requirements shall include:
 - Occupancy load
 - Gross
 - Net
 - Means of egress
 - Exit access
 - Exit
 - Exit discharge
 - Stairs construction/geometry and protection
 - Doors
 - Emergency lighting and exit signs
 - Specific occupancy requirements
 - Construction requirements
 - Horizontal exits/exit passageways

8. Structural requirements shall include:

- Soil conditions/analysis
- Termite protection
- Design loads
- Wind requirements
- Building envelope
- Impact resistant coverings or systems
- Structural calculations (if required)
- Foundation

- Flood requirements in accordance with Section 1612, including lowest floor elevations, enclosures, flood damage-resistant materials
 - Wall systems
 - Floor systems
 - Roof systems
 - Threshold inspection plan
 - Stair systems
9. Materials shall be reviewed and shall at a minimum include the following:
- Wood
 - Steel
 - Aluminum
 - Concrete
 - Plastic
 - Glass
 - Masonry
 - Gypsum board and plaster
 - Insulating (mechanical)
 - Roofing
 - Insulation
10. Accessibility requirements shall include the following:
- Site requirements
 - Accessible route
 - Vertical accessibility
 - Toilet and bathing facilities
 - Drinking fountains
 - Equipment
 - Special occupancy requirements
 - Fair housing requirements
11. Interior requirements shall include the following:
- Interior finishes (flame spread/smoke development)
 - Light and ventilation
 - Sanitation
12. Special systems:
- Elevators
 - Escalators
 - Lifts
13. Swimming pools:
- Barrier requirements
 - Spas
 - Wading pools

14. Location and installation details. The specific location and installation details of each fire door, fire damper, ceiling damper and smoke damper shall be shown and properly identified on the building plans by the designer.

- **Electrical:**

1. Electrical:
 - Wiring
 - Services
 - Feeders and branch circuits
 - Overcurrent protection
 - Grounding
 - Wiring methods and materials
 - GFCIs
2. Equipment
3. Special occupancies
4. Emergency systems
5. Communication systems
6. Low voltage
7. Load calculations
8. Design flood elevation

- **Plumbing:**

1. Minimum plumbing facilities
2. Fixture requirements
3. Water supply piping
4. Sanitary drainage
5. Water heaters
6. Vents
7. Roof drainage
8. Back flow prevention
9. Irrigation
10. Location of water supply line
11. Grease traps
12. Environmental requirements
13. Plumbing riser
14. Design flood elevation

- **Mechanical:**

1. Energy calculations
2. Exhaust systems:
 - Clothes dryer exhaust
 - Kitchen equipment exhaust
 - Specialty exhaust systems
3. Equipment
4. Equipment location

5. Make-up air
 6. Roof-mounted equipment
 7. Duct systems
 8. Ventilation
 9. Combustion air
 10. Chimneys, fireplaces and vents
 11. Appliances
 12. Boilers
 13. Refrigeration
 14. Bathroom ventilation
 15. Laboratory
 16. Design flood elevation
- **Gas:**
 1. Gas piping
 2. Venting
 3. Combustion air
 4. Chimneys and vents
 5. Appliances
 6. Type of gas
 7. Fireplaces
 8. LP tank location
 9. Riser diagram/shutoffs
 10. Design flood elevation
 - **Demolition:**
 1. Asbestos removal
 - **Residential (one- and two-family):**
 1. **Site requirements:**
 - Set back/separation (assumed property lines)
 - Location of septic tanks
 2. Fire-resistant construction (if required)
 3. Fire
 4. Smoke detector locations
 5. Egress:
 - Egress window size and location stairs construction requirements
 6. Structural requirements shall include:
 - Wall section from foundation through roof, including assembly and materials connector tables wind requirements structural calculations (if required)
 - Flood hazard areas, flood zones, design flood elevations, lowest floor elevations, enclosures, equipment, and flood damage- resistant materials
 7. Accessibility requirements:
 - Show/identify
 - Accessible bath

8. Impact resistant coverings or systems
- **Exemptions:**
 - Plans examination by the building official shall not be required for the following work:
 1. Replacing existing equipment such as mechanical units, water heaters, etc.
 2. Reroofs
 3. Minor electrical, plumbing and mechanical repairs
 4. Annual maintenance permits
 5. Prototype plans:
 - Except for local site adaptations, siding, foundations and/or modifications.
 - Except for structures that require waiver.
 6. Manufactured buildings plan except for foundations and modifications of buildings on site.

8th (2023) Florida Building Code, Residential

R101.2 Scope. The provisions of the *Florida Building Code, Residential* shall apply to the construction, *alteration*, movement, enlargement, replacement, repair, *equipment*, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above *grade plane* in height with a separate means of egress and their *accessory structures* not more than three stories above *grade plane* in height.

CHAPTER 13 GENERAL MECHANICAL SYSTEM REQUIREMENTS

SECTION M1301 GENERAL

M1301.1 Scope. The provisions of this chapter shall govern the installation of mechanical systems not specifically covered in other chapters applicable to mechanical systems. Installations of mechanical *appliances*, *equipment* and systems not addressed by this code shall comply with the applicable provisions of the *Florida Building Code, Mechanical* and the *Florida Building Code, Fuel Gas Code*.

CHAPTER 24 FUEL GAS

SECTION G2401 (101) GENERAL

G2401.1 (101.2) Application. This chapter covers those fuel gas *pipng systems*, fuel-gas *appliances* and related accessories, *venting systems* and *combustion air* configurations most commonly encountered in the construction of one- and two-family dwellings and structures regulated by this code.

CHAPTER 26 GENERAL PLUMBING REQUIREMENTS

SECTION P2601 GENERAL

P2601.1 Scope. The provisions of this chapter shall govern the installation of plumbing not specifically covered in other chapters applicable to plumbing systems. The installation of

plumbing, *appliances, equipment* and systems not addressed by this code shall comply with the applicable provisions of the *Florida Building Code, Plumbing*.

CHAPTER 34 GENERAL REQUIREMENTS

SECTION E3401 GENERAL

E3401.1 Applicability. Electrical systems, equipment and components for buildings under the scope of this code shall comply with the applicable provisions of NFPA 70, *National Electrical Code*.

CHAPTER 11 [RE] ENERGY EFFICIENCY

SECTION N1101

GENERAL

N1101.1 Energy efficiency. The provisions of the Florida Building Code, Energy Conservation, shall govern the energy efficiency of residential construction.

8th (2023) Florida Building Code, Energy Conservation – Residential

CHAPTER 1 [RE] SCOPE AND ADMINISTRATION

SECTION R103 CONSTRUCTION DOCUMENTS

R103.1 General. Construction documents, technical reports and other supporting data shall be submitted in one or more sets, or in a digital format where allowed by the code official, with each application for a permit. The construction documents and technical reports shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the code official is authorized to require necessary construction documents to be prepared by a registered design professional.

Exception: The code official is authorized to waive the requirements for construction documents or other supporting data if the code official determines they are not necessary to confirm compliance with this code.

R103.2 Information on construction documents. Construction documents shall be drawn to scale upon suitable material. Electronic media documents are permitted to be submitted where approved by the code official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, systems and equipment as herein governed. Details shall include, but are not limited to, the following as applicable:

1. Energy compliance path.
2. Insulation materials and their R-values.
3. Fenestration U-factors and solar heat gain coefficients (SHGC).
4. Area-weighted U-factor and solar heat gain coefficients (SHGC) calculations.
5. Mechanical system design criteria.
6. Mechanical and service water-heating system and equipment types, sizes and efficiencies.
7. Equipment and system controls.
8. Duct sealing, duct and pipe insulation and location.
9. Air sealing details.

Florida Statutes

553.80 Enforcement.—

(1) Except as provided in paragraphs (a)-(g), each local government and each legally constituted enforcement district with statutory authority shall regulate building construction and, where authorized in the state agency's enabling legislation, each state agency shall enforce the Florida Building Code required by this part on all public or private buildings, structures, and facilities, unless such responsibility has been delegated to another unit of government under s. 553.79(11).

553.794 Local government residential master building permit program.

(1) MASTER BUILDING PERMIT PROGRAM CREATION.—If a local building code administrator licensed under part XII of chapter 468 receives a written request from a general, building, or residential contractor licensed under chapter 489 requesting the creation of a master building permit program, the applicable local government shall create such program within 6 months after receipt of the written request. The master building permit program is intended for use by builders who expect to construct identical single-family or two-family dwellings or townhomes on a repetitive basis. The master building permit program must be designed to achieve standardization and consistency during the permitting process and to reduce the time spent by local building departments during the site-specific building permit application process.

(4) GENERAL CONSTRUCTION PLAN.—The general construction plan submitted as part of a master building permit application:

(a) May be submitted in electronic or paper format, as required by the local building department. A plan submitted in paper format must be a minimum of 36 inches by 48 inches or must comply with requirements of the local building department.

(b) Shall include left-hand and right-hand building orientations, including floor plans.

(c) Shall include a model design which may include up to four alternate exterior elevations, each containing the same living space footprint. The model design:

1. May not contain more than three alternate garage layouts, with each garage layout limited to accommodating no more than three cars.

2. Must include a foundation plan.

3. Must contain a truss layout sheet for each exterior elevation that is compatible with the roof plan.

(d) Must show typical wall sections from the foundation to the roof.

(e) Must contain a complete set of applicable electrical, plumbing, fuel gas, and mechanical plans.

(f) Must contain window, door, and glazed opening impact protection device schedules, if applicable.

(g) Must meet any other requirements of the local building department.

Staff Analysis

Question #1:

When reviewing the minimum plan review criteria for Residential (one- and two-family) projects under section 107.3.5, is the inclusion of the electrical, plumbing, mechanical and gas drawings required to be a part of the submittal package?

Answer:

The answer to the Petitioner's question is yes. Pursuant to sections R101.1, M1301.1, G2401.1, P2601.1 and E3401.1, Florida Building Code (FBC), Residential, 8th Edition (2023), one-and two-family projects are required to comply with the electrical, plumbing, mechanical and gas requirements of the FBC, as applicable. Section 107.3.5, Florida Building Code, Building, 8th Edition (2023) provides for a minimum list of items that need to be submitted/outlined in the submittal package. However, the Building Official has the authority to require additional information necessary to substantiate compliance with the applicable requirements of the FBC. Further, pursuant to section 107.2.1, Florida Building Code, Building, 8th Edition (2023), it is the responsibility of the Building Official to determine that a construction document submittal provides sufficient information and details necessary to show compliance with the electrical, plumbing, mechanical and gas requirements of the Florida Building Code, Residential, 8th Edition (2023).

Question #2:

When reviewing the minimum plan review criteria for Residential (one- and two-family) projects under section 107.3.5, is the inclusion of the electrical, plumbing, mechanical and gas minimum plan review criteria required to be enforced?

Answer:

Please see answer to Question #1.

Question #3:

When reviewing the minimum plan review criteria under section 107.3.5, is the enforcement of the minimum plan review criteria for electrical, plumbing, mechanical and gas able to be omitted by the Building Official from plan review in association to Residential (one- and two-family) projects?

Answer:

Please see answer to Question #1.