Date:	ORANGE
Tracking #:	COUNTY
(Reviewer's Name)	GOVERNMENT F L O R I D A

Minimum Requirements for Plans Submittal For Residential Building Permit

	Application for Land Use/Building Permit form shall be approved by Zoning. Page 2 of the Building Permit Application shall be completely filled out when the estimated value exceeds \$2,500.00. The owners estimated value must be written on the front of the application in all cases.
	2 Site plans approved by Zoning.
	2 Sets of construction documents prepared by an Architect or Engineer registered in the State of Florida designed in accordance with the 2007 Florida Building Code Residential with 2009 Supplements with wind criteria (basic wind speed, wind exposure, applicable internal pressure coefficient, components and cladding) per FBCR 301. All documents shall be signed, dated and affixed with a raised seal.
	The following documents shall be attached: ☐ 2 sets of signed and sealed Truss engineering.
	2 sets of completed form 1100A-08, 600A-08 or form 1100B-08, Florida Energy Efficiency Code for Building Construction and manual J load calculations for all.
	☐ 2 mechanical duct layouts.
	2 copies of product approval installation details and specifications for all windows and all doors with Orange County Product Approval Cover Sheet per Reference rule 9B-72. (See page 1 of 11 attached)
	2 copies of Lot Grading/Drainage Plan and finished floor elevation approved by the Development Engineering Dept. or Ranger Drainage District approval. For infill lots, a separate inspection by a Building Inspector will be required. *An original Flood Plain Permit required if lot is in Flood Zone. OC Water and sewer connection fee receipts or an approved septic permit from the Orange County Health Department is required prior to permit issuance (800 Mercy Dr Orlando. Phone: 407-521-2630) and approval from Orange County Development Engineering Division is required (201 S. Rosalind Ave., Orlando. Phone: Micah 407-836-7907 or Miguel 407-836-7914) must be presented when applying for a building permit. 1 extra site and floor plans for Property Appraiser's office (not required to be signed and sealed). A licensed contractor will be required for this project. NOTE: Only a Licensed Contractor is allowed to give Power of Attorney to an agent. Power of Attorney must be original, site specific and notarized. Any project over \$2,500 will require a certified copy of the recorded Notice of Commencement. The first inspection cannot be scheduled without this on file with the Division of Building Safety. The homeowner must occupy the home and must be present to obtain a building permit if they wish to be their own contractor. NOTE: Only a Licensed Contractor is allowed to give Power of Attorney to an agent. An Owner Builder Disclosure Statement is required to be completed for an owner builder.
Ш	Revised Sheets must be inserted into full sets. Collate any pages stamped in red by Zoning, or have Zoning restamp revised plans. Changes are to be accompanied by a cover letter or clouded on revised sheets.

Date:	
Tracking #:	
(Reviewer's Name)	



A GUIDE FOR RESIDENTIAL PLAN APPROVAL

(Developed by The Division of Building Safety in conjunction with The Home Builders Association of Mid Florida)

** ARCHITECT OR ENGINEER, PLEASE CONTACT PLANS EXAMINER TO SCHEDULE AN APPOINTMENT TO DISCUSS DENIAL COMMENTS. REFERENCE PHONE NUMBERS AT THE END OF DOCUMENT **

Product Information – Provide manufacturer, model number, current compliance report numbers (ICC, NER, or other NRTL) and limitations contained therein.

Rule 9B-72 State Product Approval Documents – The following information must be submitted for the building envelope elements a-f before a permit can be approved:

- 1). Orange County Product Approval Cover Sheet (Form #147 on website) filled out.
- 2). Manufacturer's installation details and instructions
- 3) Copy of the Internet screen showing that product approved, its Product Approval number, and the Florida Building Code edition.
 - a) Panel walls and roof systems
 - b) Exterior doors and windows
 - c) Roofing products
 - d) Skylights
 - e) Shutters and
 - f) Structural components

I. General Requirements:

- a) All drawings shall be dimensioned and to scale. Site plans and building plans shall correspond. Septic tank location is required on site plan.
- b) Under no circumstances shall notes include the phrase "as per (local) code", or "or equal". All notes and details shall be specific.
- c) Submit **only** drawings and information for the buildings being permitted. Additional material marked "**void**", "**not used**", or "**crossed out**". If excessive in the opinion of the Building Division, the plans will be denied.
- d) Any changes to approved sealed drawings shall be approved by the architect or engineer of record **and** accepted by the Building Division.

II.	Drawings and Specifications FBC 106.1.1

III. Exterior Wall Location:

R302.1 Exterior Walls. Walls, projections, openings, and penetrations less than 3 feet from a property line shall comply with the provisions of R302.

IV. The Minimum drawing set shall consist of:

A. Foundation Plan:

- 1. Footing schedule. FBC R403.1, R403.1.4.
- 2. Column pad size and reinforcement FBC R403.1.1.
- 3. Interior and exterior footing size and reinforcing, including lapping or crossing of reinforcing FBC R403.
- 4. Protection against termites. FBC R320.
- 5. Crawl space ventilation and access if applicable. FBC R408.
- 6. For concrete block construction, show all vertical reinforcement. FBC R609.
- 7. Concrete slabs on grade FBC R506.1
- 8. Vapor retarder. FBC R506.2.3.
- 9. Compressive strength of concrete. Table R402.2 and R402.2.
- 10. Concrete slabs on ground. R506.1.

B. Wall sections: Provide details in accordance with the following:

- 1. One story: Wood Frame (* items also apply to concrete block)
 - a) (*) Foundation with reinforcement, 12" below grade minimum FBC R403.1.4 and 6" above grade FBC R404.1.6.
 - b) Pressure treated plate with anchor bolt size, spacing and embedment FBC R319.
 - c) Denote size, grade and species of all structural lumber. FBC R602.
 - d) Stud size and spacing, **specify** top and bottom connection for bearing walls FBC R602.
 - e) Double top plate, show splicing for shear walls FBC R602.
 - f) Wall sheathing **nailing schedule** FBC R602.
 - g) (*) Exterior finish if stucco, document thickness: if siding, provide manufacturer's specification at job site. Table R703.13.
 - h) (*) Roof structure (trusses or conventional) **specify** connection to wall, provide **nailing schedules** for roof sheathing, show roof covering and sheathing FBC R301, R602, R802, R803 and R905.
 - i) Continuous load path from roof to foundation **specifying** all connectors and their spacing FBC R301.
 - j) (*) Brick veneer show additional footing width, tie schedule, and flashing FBC R403 and R703.
 - k) (*) Indicate window in wall sections.
 - 1) (*) Vertical reinforcing and lap/crossing of reinforcing. R609.
 - m) (*) Continuous tie beam/top plate around building or alternate reinforcing FBC R609.
 - n) Double headers to studs connection for frame opening FBC R301 and R602.

1 /	Moisture vapor retarder. R506.2.3. (*) Detail any special conditions:

o) Wood frame to block wall connection for bearing walls FBC R602 and

- 2. Mobile/Manufactured Home Repair and Remodeling Code. These guidelines shall be used to assure safe and livable housing and shall not be more stringent than the standard to which the home was originally constructed.
 - a) Addition, including, but not limited to add-a-rooms, roof-overs and porches shall be free standing and self supporting with only the flashing attached to the main unit unless the added unit has been designed to be married to the existing unit. All additions shall be constructed in compliance with State and locally adopted building codes.
 - b) Anchoring of additions shall be in compliance with requirements for similar type construction.
 - c) Repair or remodeling of a mobile/manufactured home shall require the use of material and design equivalent to the original construction. Structure shall include, but not be limited to, roof system, walls, floor system, windows and exterior doors of the mobile/manufactured home.
- 3. Two stories: All of the above plus floor structure **specifying** floor framing. Specify connections to walls above and below and **nailing schedules** for floor sheathing FBC R301, R502, R503, and R602.
- 4. Interior bearing walls: Foundation, **specify** connections to foundation and floor and/or roof structure FBC R403, R502, R602 and R802.
- 5. Gable ends: Materials, sheathing, bracing, **nailing schedules** for sheathing and diaphragms and **specify** connections to wall below. Gable and Bonus truss gable ends shall be designed in accordance with FBC R602, R606 R609 and Figure R609.4.
- 6. Chimneys: Materials, bracing, **nailing schedules** for sheathing, tie schedule for brick veneer, and **specifications** for connections to the roof structure below, and shall comply with FBC Chapter 10.
- 7. Columns: Material, show and detail **specific** connection to foundation and roof structure.

C. Roof framing plan:

R606.

- 1. Direction, spans and spacing of roof structure.
 - a) Denote size, grade, and species of lumber for all conventional framing FBC R602 and R802.

- b) **Specify** each roof member connectors, anchors and hangers FBC R301 and R802.
- c) **Specify** connectors, document size of headers for wood frame construction.
- d) Sealed truss engineering in accordance with F.S. 471 and FBC R802. The architect or engineer must provide the following for field built trusses: geometry of **all** components (profiles), framing plans or layouts, connection detail **specifications** based on calculated uplift on the Roof Framing Plan.
- e) Document grade and thickness of roof sheathing materials FBC R803.1.
- f) Provide nailing schedule. R803.2.3.1. (Staples not allowed unless accompanied by current compliance report.)
- g) Dormer framing details are required.
- h) Provide conventionally framed valley detail FBC R802.

D. Second story floor framing plan:

- 1. Engineering and specifications for pre-engineered floor systems FBC R502.
- 2. Direction, span, and spacing of floor structure FBC R502.
- 3. Pre-engineered members or sizes grade and species if conventionally framed FBC R502, R602 and R802.
- 4. Nailing schedule of floor sheathing if used as a diaphragm FBC R503 and R602.

E. Beams:

Show and detail the size of all beams and specify their connectors and anchors and hangers. FBC R301 and R502.

F. Floor plans:

- 1. Plumbing fixtures layout.
- 2. Emergency escape and rescue shall comply with FBC R310.
- 3. Attic access. FBC R807.
- 4. Glass in hazardous locations. FBC R308.
- 5. All new single family houses, duplexes, triplexes, condominiums, and townhouses shall provide at least one bathroom, located with maximum possible privacy, where bathrooms are provided on habitable grade levels, with a door that has a 29 inch clear opening. However, if only a toilet room is provided at grade level, such toilet room shall have a clear opening of not less than 29 inches. FBC Building Chapter 11, Section 11-11.

G. <u>Elevations:</u>

Elevations shall show roof pitch, eave height, ceiling height, length of roof overhangs, exterior wall finish, chimney, guardrails at porches, and handrails at steps. Windows with an opening more than 72" above finished grade shall comply with FBC R613.2.

H. Roof ventilation:

Roof venting shall comply with FBC R806. Unvented attic assemblies FBC R806.4.

I. Electrical layout:

Electrical layout shall include electrical riser diagrams (new SFR's); panel schedules (new SFR's) i.e., outlets, switches, lights, ceiling fans, smoke detectors, CO₂ detectors, bath exhaust fans, and light in attic.

J. Stairway Illumination

All interior and exterior stairways shall be provided with a means to illuminate the stairs, including the landings and treads. Interior stairways shall be provided with an artificial light source located in the immediate vicinity of each landing of the stairway. FBC R303.6.

Exception: An artificial light source is not required at the top and bottom landing, provided an artificial light source is located directly over each stairway section.

K. Mechanical Duct Layout:

Complete duct design with sizes, balanced return, and R-value complying with FBC Chapter 13-101.2 and Sub Chapter 13-6 Florida Energy Efficiency Code for Building Construction. Sufficient space shall be provided adjacent to mechanical components to assure adequate access for:

- a) Construction and sealing, FBC Chapter 13-610 and
- b) Maintenance FBC Chapter 13-610 AB 3.0.3.

L. Additional details:

- 1. Two story buildings:
 - a) Complete stair section from starting point to termination of stair.
 - b) Headroom (6' 8" minimum) FBC R311.5.2.
 - c) Tread and riser dimensions FBC R311.5.3.1 R311.5.3.2.
 - d) Guardrails showing height and spacing between intermediate rails. FBC R312,
 - e) Handrail shall comply with FBC R311.5.6 R311.5.6.3.
 - f) Special stairs shall comply with FBC R311.5, R311.5.8.1 R311.5.8.3.
 - g) Landings at stairs FBC R311.5.4.
 - h) Landings at doors FBC R311.4.3.
 - i) Balconies FBC R312.1 R312.2.
 - j) Windowsill heights. FBC R613.2.

M. General

- 1. Attachment: Required exterior exit balconies, stairs and similar exit facilities shall be positively anchored to the primary structure to resist both vertical and lateral forces. Such attachment shall not be accomplished by use of toenails or nails subject to withdrawal. FBC R311.2.1
- 2. Under Stair Protection: Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected on the enclosed side with ½ inch gypsum boards. FBC R311.2.2

3. Garages and Carports:

- a) Opening Protection: Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb core steel doors note less than 1 3/8 inches (35 mm) thick, or 20-minute fire-rated doors. R309.1.
- b) Separation Required: The garage shall be separated from the residence and its attic area by not less than ½-inch (12.7 mm) gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch (15.9 mm) type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½-inch (12.7 mm) gypsum board or equivalent. R309.2

4. Fireplaces and chimneys:

- a) Masonry fireplaces shall comply with FBC R1001.
- b) Masonry chimneys shall comply with FBC R1003. Provide a complete section from foundation to top of chimney. Footings shall comply with FBC R1001.2.
- c) Factory built (prefab) fireplaces and chimneys shall comply with FBC R1004 and R1005.

5. Door and window schedules:

- a) Document sizes on plans. FBC R310 and R311.
- b) Windows and exterior doors shall comply with FBC R301.2.1 for wind pressures.

6. Glass block:

Glass block details shall comply with resistance to wind pressure. FBC R301.1 and R610.

7. Structural steel members:

Size of members and connection details shall be shown, material grade, weld grade and size FBC R505, R603 and R804. Note: a 3rd party inspection is required.

- 8. Pipes passing through the foundation FBC P2603.
- 9. If gutters are required, designer shall specify location and size. Roof drains-scuppers, etc.
- 10. All lintels regardless of type and/or manufacturer must be specific at every opening. They shall be specifically identified and indicated on the construction plans, along with the approved manufacturer's installations, load tables, and detail structural sections. R606. Florida Product Approval or N.O.A. may be used in lieu of load tables.

N. Basements:

Basements shall comply with FBC R202. Include calculations verifying whether it qualifies as a story or basement. Also reference definition of "story above grade."

O. <u>Structural Live Loads</u>:

Document live loads for the following FBC R301 and Table R301.5:

- a) Floors
- b) Balconies
- c) Decks
- d) Stairs
- e) Roofs

P. <u>Light and Ventilation</u>: FBC R303

- 1. All habitable room shall be provided with aggregate glazing area of not less than 8 percent of the floor of such rooms FBC R303.1.
- 2. Ventilation of toilet rooms and bathrooms shall comply with FBC R303.3 and R1507

Q. Minimum Room Areas: FBC R304

- 1. Every dwelling unit shall have at least one habitable room that shall have not less than 120 square feet of gross floor area. Other habitable rooms shall have a floor area of not less than 70 square feet exception kitchens. FBC R304.1 and R304.2.
- 2. One and two family dwellings shall comply with the ceiling height requirements of FBC R305.

R. Veneered Walls:

Brick veneer shall comply with the requirements FBC R703.7

S. <u>Roof Coverings</u>:

Roof coverings shall be applied in accordance with applicable provisions of this section and the manufacturer's installation instructions. FBC R905.

T. Light Metal Alloys:

- 1. The design, fabrication and assembly of structural aluminum for buildings or structures shall conform to Specifications for Aluminum Structures, Aluminum Design Manual, Part 1-A and 1-B, of the Aluminum Association. FBC 2002.2.
- 2. Wall thickness of aluminum screen enclosures shall be not less than 0.040 inches. FBC 2002.3.1.
- 3. The thickness of wall panels shall be not less than 0.024 inches. FBC 2002.5

U. Wood:

- 1. Truss Engineering shall reflect all imposed loads from equipment or other components, which are not part of the truss design. FBC R301.1.
- 2. Documentation is required on grade and species of framing materials FBC R502.1, R602.1 and R802.1.
- 3. All wood in contact with the ground and that supports permanent structures intended for human occupancy shall be approved preservative treated wood. FBC R319.1.2.
- 4. Posts, poles and columns supporting permanent structures shall comply with FBC R319.1.4.
- 5. Wood siding, sheathing and wall framing on the exterior of a building having a clearance of less than 6 inches from the ground. FBC R319.1. (5).
- 6. Sills and sleepers on a concrete or masonry slab that is in direct contact with the ground unless separated from such slab by an impervious moisture barrier FBC R319.1 (3).
- 7. Fire blocking is required in concealed spaces of stud walls and partitions including furred spaces at ceiling and floor levels FBC R602.1.2.
- 8. Draft stopping is required in floor/ceilings so that no horizontal area exceeds 1000 square feet FBC R502.1.2.
- 9. Requirement(s) for exterior wall sheathing shall be documented in compliance with FBC R602.3.

V. Existing Buildings/Existing Florida Building Code 2007:

Repairs, alteration and additions shall comply with the Existing Florida Building Code 2007.

W. <u>Dwelling Unit Separation:</u>

- 1. Provide a typical wall section of all fire rated assemblies. Section views shall show construction of wall (s) from floor to termination point. FBC R317.1 and R317.2.
- 2. Dwelling unit separation requirement(s) cannot be determined from information submitted. FBC R317.1 and R317.2.

- 3. Provide details and specifications for penetration. The penetration shall be an approved system that has been tested in a wall assembly. Penetrations shall have an F rating not less than the required rating of the wall being penetrated FBC R317.3.1.2.
- 4. Electrical outlets or boxes located on opposite sides of rated walls or partitions shall be separated by a horizontal distance of not less than 24 inches. FBC R317.3.2.
- 5. Exterior walls on a lot shall comply with section FBC R302.

The Division of Building Safety accepts the following publications:

- FM Specification Tested Products Guide
- GA Fire Resistance Design Manual
- ESI Evaluation Report Listing
- UL Fire Resistance Directory
- Warnock Hershey
- ICC Evaluation Reports
- Florida Product Approval
- Miami Dade Product Approval

X. Custom Doors:

Custom (one of a kind) exterior door assemblies shall be tested by an approved testing laboratory or be engineered in accordance with accepted engineering practices. FBC R613.4.3.

Y. Spray Foam in Un-vented Conditioned Attic Assemblies:

The following information will be required from the design professional of record if this product/method is used:

- a) The manufacturer's installation details.
- b) The ICC Evaluation Report showing compliance with the FBC R806.4.
- c) Plans showing no attic ventilation.
- d) Energy Calculations indication this product/method.
- e) Manufacturer's literature showing flame-spread of 75 or less and smoke developed of 450 or less per ASTM E84 as required by FBC R314.

Z. <u>Exterior Covering:</u>

- 1. Two layers of felt or one layer of house wrap and one layer of felt are required behind stucco per section FBC R703.6.
- 2. Where stucco on wood frame is constructed above masonry or concrete, flashing or other approved drainage systems shall be installed as required by FBC R703.8, 703.11 and 703.12. This commonly occurs at the first to second floor joints, gable ends, one story walls at foundations, and upper level walls above roofs.

AA. Energy Calculation Requirements:

- 1. Energy Gauge version of the energy calculations is required. For Method A (Whole Building Performance), provide computer generated form 1100A-08 FLA RES or form 600A-08 from code book. For Method B (Component Prescriptive), provide computer generated form 1100B-08 FLA RES. FBC R N1100.3.
- 2. The energy calculations may say "yes" or "no" for worse case.
- 3. The conditioned floor area in the energy calculations shall closely match that listed on the plans.
- 4. SEER shall be 13 minimum.
- 5. HSPF shall be 7.7 minimum.
- 6. The energy calculations shall say PASS on the bottom.
- 7. The energy calculations shall be signed and dated by the preparer.
- 8. Manual (J) shall be included with the plans for review and shall be site specific. FBC R N1107.AB.1.
- 9. If any glass other than "single pane clear" is shown in the energy calculations, then the type of glass/windows (double pane, tinted, labeled, etc.) must be shown EITHER on the Window Location Form (the simplified floor/site plan that Building Safety has developed) or on the actual building plans or elevations.
- 10. If the Window Location Form is required, then its orientation shall match the orientation of the house on the survey.
- 11. Category IV and V sunrooms are required to have energy calculations. FBC R 301.2.1.1.2.

AB. Florida Statutes:

- 1. Plans, specifications, reports and/or other documents prepared by engineer for public record shall be signed, sealed and dated in accordance to Florida Statutes. (Chapter 471)
- 2. Plans, specifications, reports and/or other document required the seal and signature of an engineer registered in the State of Florida. (Chapter 471)
- 3. Plans, specifications, reports and/or other documents prepared by architect for public record shall be signed and sealed and dated in accordance to Florida Statutes. (Chapter 481)
- 4. Plans, specifications, reports and/or other documents require the seal and signature of an architect registered in the State of Florida. (Chapter 481)
- 5. Plans, specifications reports and/or other documents requiring the seal of an architect (Chapter 481) or engineer (Chapter 471) shall be properly signed and sealed. The signature shall be handwritten (not stamped) and the seal shall be embossed on the documents(s).
- 6. Revision(s) to sealed documents prepared by an architect or engineer shall only be made by that architect or engineer. Revision(s) shall be properly signed and sealed in accordance to Florida Statutes. (Chapter 471 and 481).
- 7. Plans, specifications, reports or other documents requiring preparation by an architect or engineer under any specific code section of the standard building code, standard mechanical code, standard plumbing code, or national electrical code shall be signed, sealed and dated by architect

- 8. Energy calculations required, Florida Energy Efficiency Code. (Chapter 553, part VII, Florida Statutes) (Four sets of calculations on proper forms shall be provided.)
- 9. Electrical documents on a residential system, which exceeds 600 amps, shall be signed, sealed and dated by an Electrical Engineer registered on the State of Florida. (Chapter 471, 553, Part VI, Florida Statutes).
- 10. Heating, ventilation, and air conditioning document for any new building or addition, which requires more than a 15 ton per system, or which is designed to accommodate 100 or more persons shall be signed, sealed, and dated by a Mechanical Engineer registered on the State of Florida. (Chapter 471, Chapter 553, Part VI, Florida Statutes.)

2007 Florida Building Code Additional Submittal Requirements

Building

- Architect or engineer of record shall identify on the floor plan or elevation plan, the size and design pressures for all exterior openings, in accordance with FBCR Table 301.2.(2)
- Truss engineer shall provide engineering in compliance with section R301 of the Florida Building Code Residential or provide a cover letter stating such.
- The following information related to wind loads shall be shown on the construction drawings FBC R301:
 - 1. Basic wind speed, mph, (m/s).
 - 2. Wind exposure if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated.
 - 3. The applicable internal pressure coefficient.
 - 4. Components and Cladding. The design wind pressures in terms of psf (kN/m2), to be used for the design of exterior component and cladding materials not specifically designed by the registered design professional.

Note: These requirements are not all inclusive of the code requirements for the proposed building construction. The Division of Building Safety may require additional drawings, specifications, and/or calculations. (FBC104.2)

Residential Plans Examiners:

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