



# VOLUSIA COUNTY

## GROWTH & RESOURCE MANAGEMENT BUILDING ACTIVITY

### One and two family dwelling inspection checklist

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The attached information is to be used *as a guide* to the building inspection expectations of Volusia County. The checklist is intended for one and two family dwellings and *is not all inclusive*. It is expected that the information included will benefit permit holders in understanding County requirements. The checklist is proposed to be updated periodically.



Revised July 2015

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# **General Notes**

## **1. Placard and Plans**

- a. Per FBC 105.7 the permit placard and stamped Volusia County reviewed plans are to be posted on the job site for all inspections, be protected from the weather, and be located in such position that the inspector may conveniently make the required entries.
- b. Deviations from reviewed plans will require re-submittal of a revision through the Volusia County Permit Center for re-review by staff. The stamped/reviewed copy is to be on site prior to the next inspection.
- c. Verify that the Notice of Commencement is in the permit box.

## **2. Site Location**

- a. Address numbers must be posted in accordance with Volusia County Ordinance, Section 22-706.

## **3. Check Drawings**

- a. On each inspection the inspector will verify that the construction matches the stamped reviewed plans.
- b. Reviewed riser diagrams are required on site for installations of more than 1 gas appliance.
- c. Verify manufacturer's specifications for windows, door, shingles, skylights, garage doors, and pre-manufactured fireplaces.

## **4. Inspection Access**

- a. If a gate code is required to obtain access to a job site, the code is to be provided prior to scheduling inspections.
- b. Animals and/or livestock are to be properly secured prior to inspections.
- c. Someone 18 or older must be present for occupied structures.
- d. Inspectors will not go into an occupied building without being accompanied.

## **5. Concealment**

- a. Per FBC 110.1, NO construction shall be concealed without inspection approval.

## **6. Toilet**

- a. Per FBC 3305, sanitary facilities are required to be on site throughout the duration of construction beginning at the first inspection. Failure to provide onsite facilities may result in no further inspections being performed.

## **7. Drainage**

- a. Per Volusia County Code, Division 4, Section 72-611, Sub-section (2), FBC-R401.3, and FBC 3307, drainage and erosion control provisions are to be provided and maintained.

## **8. Flood Elevation**

- a. If the job site is located in a Special Flood Hazard Area, three (3) Flood Elevation Certificates will be required. The first certificate will be required before permit issuance. The second will be listed in your inspection sequence as Elevation Certificate. This is for the certificate listed as "during construction". The third will be listed as Final Elevation Certificate and is to be listed as "after construction". These certificates can, and will, hold up further inspections.

## **9. Compaction Testing**

- a. **All footings on fill or any slab areas, which exceed 32" in depth of fill, require compaction testing, including any disturbed or relocated soil.** Original certification documents are to be submitted to the Volusia County Building Permit Center.

# Standard footing inspection checklist (FTG)

Also review general notes for all inspections.

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1. Verify setbacks
  2. Footing excavations (size, shape, layout)
  3. Grade stakes (Plastic or Steel only)
  4. Reinforcement placement
  5. Compaction
  6. Inspection Notes
- 
1. Setbacks from property lines, etc., must be as indicated on stamped/reviewed plot plan. If necessary, leave notice for permit holder to verify.
  2. Footing excavations or forms should be as indicated on the stamped/reviewed drawings.
  3. Check for proper footing depth. Bottom of footing must be a minimum of 12 inches below finished grade. Form work is NOT to be left in concrete. Wood stakes, either pressure treated or regular, are not acceptable.
  4. Check for proper reinforcing steel placement - 3 inches minimum cover, proper lap, secure ties, vertical members, size, number, proper bends.
  5. See General Notes item # 9a.
  6. Make proper notations to inspection record.

# Under slab plumbing inspection checklist (PLMG)

Also review general notes for all inspections.

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1. Verify setbacks
2. Check foundation walls
3. Check floor elevation
4. DWV piping
5. Supply piping
6. Test piping
7. Required sleeving (protection)
8. Inspection Notes

1. Setbacks from property lines, etc., must be as indicated on stamped/reviewed plot plan. If need be, leave notice for permit holder to verify.
2. Structural foundation walls must be minimum 8 inches masonry units or 6 inches cast in place concrete or other engineered design.
3. All floor levels must be a minimum of 12 inches above the crown of *all* adjacent roads or an approved variance obtained. If necessary, leave notice for permit holder to verify. Be aware of floor level requirements with respect to special flood hazard areas.
4. Check for: layout (flush no major fixtures past minors, proper dry venting, maximum (2) water closets on 3 inch pipe); materials compliance; all joints exposed.
5. Check for: materials compliance; pipe protection; proper bending and fittings; layout, pipe size, fixture count. One hose bibb, two cold water fixtures or four hot water fixtures are allowed on 1/2 inch piping as a matter of policy. Proven calculations which will support other numbers will be accepted. Plastic piping installed to fixtures is to be in accordance with manufacturer's specifications.
6. Check for test on DWV and water supply piping. Plastic piping shall not be tested using air. Make sure there is a 10' head on DWV for 15 minutes. Potable water lines shall be tested no less than the working pressure and an air test for copper shall be no less than 50 psi for 15 minutes.
7. Check for required sleeving through foundation.
8. Make proper notations to inspection record.

# Monolithic slab type inspection checklist

(MONO)

Also review general notes for all inspections.

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1. Check floor elevation
2. Verify & collect termite protection certificate
3. Check for Bora-Care or Sentricon (FBC-R 318)
4. Require compaction test (if applicable)
5. Check vapor barrier
6. Check reinforcing or expansion joints (if applicable)
7. Check pipe protection
8. Check slab thickness
9. Check footing size
10. Check for proper installation of forms
11. Check for interior bearing wall footings
12. Check foundation walls
13. Observe fill materials
14. Inspection Notes

1. All floor levels must be a minimum of 12 inches above the crown of *all* adjacent roads at their highest points or an approved variance obtained. If necessary, leave notice for permit holder to verify. Be aware of floor level requirements with respect to flood hazard zones.
2. Florida is considered hazardous with respect to termite damage. Accordingly, an initial pre-treatment spray must be performed by a licensed pest control agency. A weather resistant job site posting board shall be provided to receive duplicate Treatment Certificates as each required protective treatment is completed, providing a copy for the person the permit is issued to and another copy for the building permit files. Upon completion of the termite treatment, a Certificate of Compliance shall be issued to the building dept. by the licensed pest control company that contains the following statement: "The building has received a complete treatment for the prevention of subterranean termites. Treatment is in accordance with rules and laws established by the Florida Department of Agriculture and Consumer Services." Homeowner cannot do their own pesticide. (FBC-R 318)
3. See General Notes item # 9a.
4. Check for proper vapor barrier, including lapped or sealed joints.
5. As applicable check for laps, ties, spacing of control joints, etc.
6. Concrete must not be in intimate contact with metallic piping. Look for no contact between dissimilar metals.
7. Minimum slab thickness is 3 ½ inches or as specified.
8. Footing must be excavated to the sizes per reviewed plans. Look for proper beveling from base of footing to slab.
9. Forms must be securely placed and completed.

10. Any interior bearing partitions must have required foundation support.
11. Structural foundation walls, such as those commonly seen at the exterior garage walls must be a minimum of 6 inches wide cast in place, or 8 inches wide masonry unit.
12. Areas of fill located within building lines must be reasonably free of organic material - stumps, roots, grass, etc.
13. Make proper notations to inspection record.

# Stem wall type slab inspection checklist (SLAB)

Also review general notes for all inspections.

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1. Check floor elevation
  2. Verify & collect termite protection certificate
  3. Require compaction test (if applicable)
  4. Check vapor barrier
  5. Check reinforcing or expansion joints (if applicable)
  6. Check pipe protection
  7. Check slab thickness
  8. Check for interior bearing wall footings
  9. Check foundation walls
  10. Check required down cells
  11. Inspection Notes
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1. All floor levels must be a minimum of 12 inches above the crown of *all* adjacent roads at their highest points or an approved variance obtained. If necessary, leave notice for permit holder to verify. Be aware of floor level requirements with respect to flood hazard zones.
  2. Florida is considered hazardous with respect to termite damage. Accordingly, an initial pre-treatment spray must be performed by a licensed pest control agency. **A weather resistant job site posting board shall be provided to receive duplicate Treatment Certificates as each** required protective treatment is completed, providing a copy for the person the permit is issued to and another copy for the building permit files. Upon completion of the termite treatment, a Certificate of Compliance shall be issued to the building dept. by the licensed pest control company that contains the following statement: "The building has received a complete treatment for the prevention of subterranean termites. Treatment is in accordance with rules and laws established by the Florida Department of Agriculture and Consumer Services." Homeowner cannot do their own pesticide. (FBC-R 318)
  3. See General Notes item # 9a.
  4. Check for proper vapor barrier, including lapped or sealed joints.
  5. As applicable, check for laps, ties, spacing of control joints, etc.
  6. Concrete must not be in intimate contact with metallic piping. Look for no contact between dissimilar metals.
  7. Minimum slab thickness of 3 ½ inches or as specified.
  8. Any interior bearing partitions must have required foundation support.
  9. Structural foundation walls must be minimum 8 inches masonry units or 6 inches cast in place concrete or other engineered design.
  10. Ensure required down cells are free of fill material and debris.
  11. Make proper notations to inspection record.



# Open wood floor inspection checklist (WFLR)

Also review general notes for all inspections.

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1. Supporting foundations
2. Anchoring system
3. Check size, type and spacing of structural members
4. Verify & collect termite protection certificate
5. Access & Ventilation
6. Plumbing
7. Inspection Notes

1. Check for location and spacing of supporting foundations with respect to beam or girder spans. Verify that proper ventilation and access to under floor is provided. Look for proper placement of any interior bearing supports.
2. The anchoring system must be in accordance with reviewed plans.
3. Be sure that any notching, boring, joints or firecuts are properly sized and located. Look for lumber grade and species identification.
4. Florida is considered hazardous with respect to termite damage. Accordingly, an initial pre-treatment spray must be performed by a licensed pest control agency. A weather resistant job site posting board shall be provided to receive duplicate Treatment Certificates as each required protective treatment is completed, providing a copy for the person the permit is issued to and another copy for the building permit files.

Upon completion of the termite treatment, a Certificate of Compliance shall be issued to the building dept. by the licensed pest control company that contains the following statement: "The building has received a complete treatment for the prevention of subterranean termites. Treatment is in accordance with rules and laws established by the Florida Department of Agriculture and Consumer Services." Homeowner cannot do their own pesticide. (FBC-R 318)

5. Ensure provisions for crawl space access & ventilation per code/reviewed plan.
6. Check rough plumbing before floor deck is installed.
7. Make proper notations to inspection record.

# Lintel (reinforced tie beam) inspection checklist (LNTL)

Also review general notes for all inspections.

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1. Check reinforcing steel
2. Check masonry, concrete or steel headers
3. Check drawings for any cast in place lintels
4. Check required down cells
5. Check required down cell cleanouts
6. Plumbing Vents
7. Inspection Notes

1. Reinforcing steel: proper size, laps, ties, and placement.
2. Look for manufacturer's label and proper bearing provided for pre-manufactured units.
3. Cast in place lintels must be engineered, except that any span 48 inches or less may be formed and poured with adequate reinforcing if supporting roof loads only. The beam must not measure less than 8 inches nominal size in any dimension.
4. Ensure required down cells are free of fill material and debris.
5. Cleanout openings to be provided at base of all required down cells.
6. Plumbing vents 2 inches and larger through the tie beam are required to be formed and poured.
7. Make proper notations to inspection record.

# Roof Sheathing inspection checklist

(RSHT)

Also review general notes for all inspections.

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1. Verify material
2. Nailing pattern
3. Inspection Notes

1. Check to ensure material conforms to reviewed plan and is properly supported.
2. Check fastening method and check for shiners.
3. Make proper notations to inspection record.

# Roof Underlayment inspection checklist

(RUND)

Also review general notes for all inspections.

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1. Verify material
2. Underlayment, flashings, drip edge, valleys, & sky lights
3. Fasteners
4. Covered roof openings
5. Inspection notes

1. Verify that material conforms to reviewed plans and specifications. Manufacturer's specifications for shingles and skylights must be on site for inspection.
2. Verify installation conforms to minimum code requirements and/or manufacturer's specifications. Check placement on flashing & drip edge.
3. Underlayment to be properly secured.
4. Clearly indicate location(s) of any covered roof openings.
5. Make proper notations to inspection record.

# Window Buck inspection checklist

(BUCK)

Also review general notes for all inspections.

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1. "2 by" Buck installations (Windows & Doors not to be installed)
  2. Fasteners
  3. "1 by" Buck installations (Windows & Doors need to be installed)
  4. Manufacturer's specifications for windows and doors.
  5. Inspection notes
- 
1. Buck installations 1 ½ inches or greater are to be inspected prior to the installation of the window and/or door units.
  2. All fasteners are to be installed per reviewed plans and manufacturer's specifications.
  3. Buck installations less than 1 ½ inches do not require a buck inspection.
  4. Make proper notations to inspection record.
  5. Manufacturer's specifications for windows and doors must be on site for inspection.

# Framing inspection checklist

(FRMG)

Also review general notes for all inspections.

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1. Construction
  - A. Structural
    1. Masonry
      - a. Tie Down hardware
      - b. Roof structure
      - c. Emergency egress
      - d. Attic access
      - e. Furring
      - f. Beam support
      - g. Fire stopping / Draft stopping
      - h. Window / exterior door installation
    2. Frame
      - a. Tie Down hardware
      - b. Roof structure
      - c. Emergency egress
      - d. Attic access
      - e. Beam supports
      - f. Bracing - fasteners
      - g. Lumber grading & sizing
      - h. Fire stopping / Draft stopping
      - i. Window / exterior door installation
      - j. Verify manufacturer's specifications for windows, door, shingles, skylights, garage doors, and pre-manufactured fireplaces

## B. Plumbing

1. Pressure test
2. Air chambers
3. Straps & nail plates
4. Horizontal piping extensions
5. Tub set
6. Shower construction
7. Vents
8. Framing damage
9. Check for sealed slab penetrations

## C. Electrical

1. Conductor material & sizes
2. Outlets
3. Circuits
4. GFCI / AFCI (**GFCI**: Ground Fault Circuit Interrupter & **AFCI**: Arc Fault Circuit Interrupter)
5. Smoke Detectors
6. Nail plates
7. Framing damage

## D. Mechanical

1. Duct work size, length, routing
2. Duct joint seals
3. Duct material & support
4. Terminations
5. Location of equipment
6. Exterior equipment anchored per code
7. Refrigerant piping
8. Provisions for balanced air requirements
9. No flammable material located in return air.

## E. Gas

1. Pressure test
2. Straps & nail plates
3. Material & pipe sizing
4. Framing damage

## 2. Inspection Notes

### 1. A. (1) (2)

Check for proper hurricane ties, roof structure such as: manufactured truss layout, etc. Engineered individual truss drawings are required at the job site. All sleeping rooms require emergency egress provisions as per code. Required attic access must be readily accessible. Furring must be securely fastened. Fire stopping at ceilings and floors is required. Beam supports must be adequate and, if manufactured items, must be installed to specification. Lumber sizes and grading are to be per reviewed plans. All windows and exterior doors to be installed per manufacturer's specifications and reviewed plans. At least one exit door must be framed to accommodate a side-swinging door, which will open a minimum of 32 inches in the clear. Double doors without manually operated bolts may accomplish this.

### 1. B.

Check for pressure test on cold and hot water piping. Proper size and number of air chambers should be installed to prevent hammer action. All piping should be securely strapped and protected by nail plates where exposed. Be sure that horizontal pipe extensions through walls or above ceiling are properly sized and

sloped. The tub set must be checked for adequate support such as blocking and furring. Sealing around tub drain is required. Keep in mind the procedure for upper story plumbing inspections. Check for proper shower installation including required pan, blocking and furring, and wet test... etc. Check for proper termination of vent piping through the roof. Check for possible structural damage caused by notching or boring.

1. C.

Check for proper size of wiring and be aware of conductor materials, including type of insulation. Outlets require termination in approved boxes, properly secured. Check for number of conductors per box size. Check circuitry for proper placement of receptacles, switches, lighting outlets, etc. Be aware of ground fault and arc fault interrupter requirements. Check for interconnection and battery backup requirements for multiple smoke detectors. Be certain that all cables and conductors are protected from damage by fasteners. Check for possible structural damage caused by notching or boring.

1. D.

Check to determine the proper size, length and routing of ductwork including adequate support and clearance for insulation. Approved joint seals for the type of duct material are required. Be sure that supply and return terminations are properly located. Check the location of air handling equipment for proper structural support, required pans and drains and auto shut-off safety device(s), access and wiring requirements. Check for insulation of refrigerant piping. All piping must be installed outside of the flow of air through the duct system. Check for proper location of equipment with respect to mechanical closets, which may be required such as attic locations etc. Check for proper provisions for return air.

1. E.

Check for pressure test on all gas lines. Material to be installed in accordance with manufacturer's specifications and minimum code requirements. Check for possible structural damage caused by notching or boring.

2.

Make proper notations to inspection record.

# Insulation inspection checklist

(INSL)

Also review general notes for all inspections.

1. Type & R-value
2. Baffles
3. Check infiltration barrier requirements
4. Require certificate
5. Recessed light fixtures
6. Roof
7. Inspection Notes

1. The type of insulation and its *R-Value* should be as indicated on the energy compliance form.
2. Baffles are required to be in place if blown insulation will be used in ceiling areas. Blown insulation is allowed in ceilings with a slope of 5 inches to 12 inches or less. Look for depth indicators.
3. Draftstopping must be in place at top plates and where required by code.
4. Especially in the case of blown ceiling insulation, it may be necessary to ask for an insulation certificate.
5. Check to be sure recessed light fixtures are properly installed with respect to insulation clearance.
6. Finished roof covering must be in place.
7. Make proper notations to inspection record.

# Final inspection checklist

(FINL)

Also review general notes for all inspections.

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1. Termite Protection Final Certificate approval prior to scheduling Final
  2. Address Numbers
  3. Observe site work (Right of way restored, grading)
  4. Hose bibb protection (Anti-siphon device)
  5. Exterior electrical trim
  6. Rodent proofing
  7. Exterior finishes (Waterproof)
  8. Landings, steps, graspable railings
  9. Check for exterior plumbing concerns
  10. Smoke detectors
  11. Identify circuitry
  12. Check GFCI & AFCI circuits
  13. Closet lighting fixtures
  14. Electrical trim
  15. Range hood
  16. Plumbing trim (caulked toilet base)
  17. Hot water heater (expansion tank or valve and other code compliant safety devices installed)
  18. Termite Treatment Sticker
  19. HVAC Trim/Equipment
  20. Ceiling insulation (Insulation certificate for attic insulation when blown in)
  21. Energy Code Requirements
  22. Fireplace (check operation of damper and check to ensure operation when it is a gas fireplace)
  23. Pool, Spa, and Hot tub
  24. Driveway / Right-of-Way
  25. Manufacturer's specifications for shingles and garage door
  26. Inspection Notes
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1. Prior to scheduling the Final Building Inspection, the Termite Certificate is required to be submitted to, and approved by, the Volusia County Building Dept. This certificate is required to have the statement per Number 2 on Page 4 as required in (FBC-R 318).
  2. Address numbers must be posted in accordance with Volusia County Ordinance, Section 22-706.
  3. Observe the site work and particularly drainage patterns so as to be certain that no undue drainage or erosion encroachment will occur at the site or to adjacent properties. Look for a minimum of 6 inches of clearance from bottom edge of siding if required.
  4. Backflow preventers are required on all hose bibbs.
  5. Verify proper electrical trim including GFCI receptacles, required exterior lighting and disconnects for air handlers, pumps, etc. Verify proper installation of required service grounding conductors.
  6. Ventilation for roof systems is required as per code and any exterior openings must be properly secured with appropriate screening.
  7. The entire exterior of the building must be weatherproofed including finished roof.



8. Check for landing sizes as required and stairs for proper risers and treads. Stair railings and guardrails must meet code requirements.
9. Health Department approval for septic system is required. Look for cleanout approximately 3 to 5 feet from exterior wall of building. Verify that there is a water service connection and a shut off valve is installed in accordance with the code. Check for plumbing vent extensions through the roof for proper height and flashing. Be aware of any gas fixture venting which may be required. Check all water discharge (A/C condensate discharge, gutter downspout, sprinkler heads, and pool deck drains to be a minimum of 12 inches from foundation).
10. Look for proper placement of smoke detectors as required. Where more than one smoke alarm is required to be installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. All detectors will be tested.
11. Verify that the electrical panel has all circuits identified.
12. Ground fault interruption circuitry is required in bathrooms, kitchen sink areas and garages as well as exterior receptacles. Arc vault circuit-interrupter protection is required in all bedrooms, family rooms, dining rooms, living rooms, parlors, libraries, dens, sunrooms, recreation rooms, closets, hallways and similar rooms or areas.
13. Check for proper clearance from storage areas to lighting fixtures in closets.
14. Be sure that all electrical trim is in place or proper terminations and covers are installed.
15. Check for proper range hood connection to duct.
16. All plumbing fixtures must be installed in a secure manner and required stops installed.
17. Hot water heater valves, relief valves and required pans and drains must be properly installed. Thermal expansion relief is required (Expansion Tank) per FBC - P 607.3.
18. Termite Protection Final Treatment sticker(s) to be located at the water heater or on electric panel.
19. Verify that grills, filters and other equipment are properly installed. Outside units to be properly secured. If an air handler is in the attic, a notice must be posted on the electric panel, in 16 pt type.
20. Check for proper installation of blown insulation or require installation certificate.
21. Be sure that ceiling fans, fireplace glass doors, sealants, etc. are in place as required.
22. At this inspection verify that hearth dimensions are proper, combustibles such as mantles, trim, etc., have proper clearances and chimney height is correct.
23. Enclosure (including alarms) for pool/spa is to be in place for final inspection. Pools, spas and/or hot tub installations require special attention to location of lighting fixtures, other electrical devices and any metal installations such as window, door frames, etc.
24. Inspect to verify that the driveway access through the right-of-way (ROW) from the property line is properly installed and stabilized. Swales must be maintained and any damage to the ROW repaired.
25. Make proper notations to Inspection record.