

BUILDING CODE REQUIREMENTS

All work, materials and installation shall be in strict accordance with all extant ordinances, State and local building codes, OSHA regulations, and codes in force by reference, latest adopted editions, including: The 2007 Florida Building Code (with supplements through 2009); NFPA 70A-05; the current National Electric Code; "Building Code Requirements for Reinforcing Concrete" (ACI 318-05); "Specifications for Structural Concrete Buildings" (ACI 301-05); "Building Code Requirements for Masonry Structures" (ACI 530-05); the "Wood-Framed Construction Manual," current edition; and the "APA Plywood Design Specification manual," current edition.

NOTICE TO BUILDERS

It is the intent of the designer that these plans are accurate and are clear enough for a licensed professional to construct this project. Post-permitting consulting fees are established in separate agreements between the designer and the builder or owner, and were not part of the agreement to produce these construction documents. If the owner intends to build this project without the aid of a licensed professional contractor, it is assumed that the owner has the same abilities and knowledge as a fully licensed and experienced professional builder.

OWNERSHIP OF DOCUMENTS

All drawings & specifications are considered Instruments of Service, will remain the property of Florida Tectonics, Inc., and may not be reused in any fashion without express written permission from Florida Tectonics, Inc. and from the Engineer of Record. All drawings are Copyright (c) 2011 by Florida Tectonics, Inc. All rights reserved.

SHORING AND OTHER CONSTRUCTION PROCEDURES

The shoring of structural systems and foundation excavations is the responsibility of the Contractor. Site visits by the designer do not include inspection of construction procedures. Complete shoring plans and calculations (when required by the Building Official) shall be submitted for plan check for the necessary approvals prior to commencing with the work.

DIMENSIONING CONVENTIONS

Written dimensions shall at all times take precedence over scaled dimensions, and no workman shall rely upon the scale of any portion of the drawings in determining dimensions on the job site.

Unless otherwise noted on the drawings, all dimensions of walls are to the face of the CMU exterior wall, or to one side of the wood studs of interior partitions.

Unless otherwise noted on the drawings, elevations of floor and ceiling heights are to finished floor line.

In wood-framed exterior walls, the dimensions of window and door openings are to the centerline of the window or door. In CMU exterior walls, the dimensions of windows and doors are to rough masonry openings. It is the responsibility of the contractor and the mason to verify all window and door rough opening dimensions prior to commencement of construction, and to adjust the rough openings accordingly. The height dimensions of exterior windows and doors are to nominal finished openings.

All structural conditions noted as "existing" or of existing structures are based on the best information currently available at the time of preparation of these documents. The Contractor is to verify all conditions prior to commencing work and report any anomalies that may affect the Work. The Contractor is to verify all dimensions prior to construction.

GYPSON WALLBOARD INSTALLATION

Gypsum wallboard shall be fastened in accordance with the Nailing Schedule accompanying these drawings. All ASTM standards noted in Table 2506.2 of the 2007 Florida Building Code shall be adhered to. Installation of gypsum wallboard should be down by a knowledgeable, licensed sheetrock/drywall subcontractor.

EXTERIOR LATHING AND PLASTER

Exterior use of Portland cement plaster shall comply with the application requirements of ASTM C926. Installation of exterior lathing and framing shall comply with ASTM 1063. The licensed stucco applicator shall be fully familiar with these standards.

FIELD REPAIRS

Missed J-bolts for wood bearing walls may be substituted with 1/2" diameter steel all-thread rods embedded a minimum of 6" into the concrete and secured with Simpson "Set" Epoxy Adhesive Binder, following all manufacturer's recommendations. See plans for embedment depth at floor steps.

For missed vertical dowels, drill a 3/4" diameter hole 6" deep at the location of the omitted rebar, clean all dust and debris from the hole with compressed air, and install a 32"-long #5 rebar into the epoxy-filled hole. Use a two-part embedment epoxy (Simpson "Set" Epoxy). Allow the epoxy to cure to the manufacturer's specifications, then fill the cell in the normal manner during bond beam pour.

Missed lintel straps in masonry construction may be substituted as follows: For uplifts less than 860 lbs., install (1) Simpson MTSM16 twist strap with (4) 1/4" X 2 1/4" Titen anchors to the CMU and (7) 10d nails to the truss; for uplifts less than 1,720 lbs., install (2) MTSM16's in similar fashion. No more than 10 straps may be substituted, and not more than (3) in a row. If girder truss connections are missed, contact the Engineer of Record for substitution.

CAST-IN-PLACE CONCRETE

All concrete shall have a minimum compressive strength at 28 days of 3,000 psi, a slump of 5" +/- 1", air entrainment of 2% to 5% and a maximum water/cement ratio of 0.63. Cement shall be tested, Type 1 Portland cement conforming to ASTM C-150. Aggregate shall have a maximum of 1 1/2" for footings and 1" for all other work and shall conform to ASTM C-33.

Water used in concrete mixtures shall be potable, clean and free from injurious amounts of oils, acids, alkalis, salts, organic materials or other substances that may be deleterious to the concrete or the reinforcement. Concrete containing reinforcement that will be exposed to chlorides from deicing chemicals, salts, salt water, brackish water, sea water or spray from these sources shall meet the durability 2007 Florida Building Code (with supplements through 2009)

Concrete shall be cured while in a moist condition for at least the first 7 days after placement.

Before placing any concrete, the Contractor shall coordinate with all trades to ensure proper placement of all openings, sleeves, inserts, depressions, etc.

Removal of forms shall be as follows: Vertical surfaces: 2 days minimum. Horizontal slabs and beams, if reinforced with 5% of props within 3 hours in checkerboard fashion: 15 days minimum.

All concrete work shall be in accordance with the "The Building Code Requirements for Reinforced Concrete" (ACI 318, latest edition), and "Specifications for Concrete for Buildings" (ACI 301, latest Edition).

REINFORCING STEEL

Reinforcement bars shall conform to ASTM A615 and be new domestic deformed grade 40 billet steel (with the exception of #9 bar or larger, which shall be grade 60 billet steel.

Joint reinforcement, anchors, ties and wire fabric shall conform to the following standards: ASTM A82 for joint reinforcement and wire anchors and ties; ASTM A36 for plate, header and bent bar anchors; and ASTM A366 for sheet metal anchors and ties.

The minimum reinforcement bar lap shall be 40 bar diameters (or 2'-0" min., whichever is greater) in concrete unless otherwise noted on the drawings. Horizontal footing bars shall be bent 1'-0" around corners, or corner bars with a minimum 2'-0" lap shall be provided. Splicing of horizontal rebar in walls and footings shall be staggered a minimum of 4'-0".

Welded wire mesh shall conform to ASTM A185. All W.W.M. shall be lapped min. 8", containing at least 1 cross-wire within the 8"

Hooks shall be provided at discontinuous ends of all top bars of beams.

For foundations, minimum concrete cover over reinforcing bars shall be 3" where the concrete is cast against and permanently in contact with the earth, or 1 1/2" where the concrete is not exposed to the weather.

Cleanout openings shall be provided, in the bottom course of the masonry cell to be filled, for cells containing spliced reinforcement when the grout pour exceeds 5 feet in height. Cleanout openings shall have a minimum area of 12 square inches and a minimum opening dimension of 3 inches.

FOOTINGS AND FOUNDATIONS

All fill soil and disturbed natural soils are to be excavated and replaced with properly-compacted fill. The foundation design is based on an assumed allowable bearing pressure of 2,000 psf. The Contractor shall verify to his or her satisfaction the assumed capacity in the field prior to the pouring of any foundation concrete. Geotechnical evaluation is not part of the services making up these drawings.

Use relatively non-expansive fill in back-filling behind retaining walls. CMU cells reinforced with reinforcing bars shall be filled solid with concrete prior to back-filling. Adequately shored all walls during back-filling.

Footing excavations shown on these plans are for estimating purposes only. The Contractor shall verify all field conditions prior to bidding plans. No pipes, conduits or chases are allowed in footings.

Footings shall preferably bear on undisturbed, naturally-compacted soil. Where backfilling under footings is necessary, the following standards apply:

Where footings will bear on compacted fill material less than 12" in depth, the fill material shall be compacted to a minimum of 90% modified proctor in accordance with ASTM D1557, and the compaction shall be verified by a method approved by the building official.

Where footings will bear on compacted fill 12" or more in depth, the contractor shall secure the services of a licensed geotechnical engineer, who will prepare specifications for the preparation of the site prior to placement of foundations, in compliance with sections 1802.5 of the 2007 Florida Building Code (with supplements through 2009).

CMU WALL CONSTRUCTION

Concrete masonry units shall be hollow or solid unit masonry in accordance with ASTM C90 and shall have a minimum net area compressive strength of 1,900 psi when using Type M or S mortar or a minimum net area compressive strength of 2,150 psi when using Type N mortar.

Mortar and grout shall be wither Type M, S or N, conforming to ASTM C-270. The grout/ mortar mix shall be 1 part cement, 3 1/2 parts sand, and 1/4 part lime putty. Coarse grout shall conform to ASTM C 476 with a maximum aggregate size of 3/8" and a minimum compressive strength of 2,500 psi.

Vertical reinforcement shall be as noted on the drawings with cells filled with coarse grout. Vertical reinforcement shall be placed in the center of the masonry cell. The maximum center-to-center spacing of the vertical reinforcement shall be 6'-0".

Grout pours shall be limited to 48" at work stoppages. Horizontal construction joints shall be formed by stopping grout 1/2" below top of masonry. Tamp grout to ensure filling of all voids. Grout solid all cells below grade. Horizontal rebars are to be placed in bond beam units.

Grout stops shall be provided below the bond beam. Plastic screen, metal lath strip or cavity caps may be used to prevent the flow of grout into the cells below. The use of felt paper as a stop is prohibited.

All precast lintels must meet or exceed L/360 vertical deflection, except lintels 17'-4" and longer with a nominal height of 8", which must meet or exceed L/180. Cast-in-place concrete may be provided in composite lintel in lieu of concrete masonry units.

DOORS AND WINDOWS

Windows, sliding glass doors, exterior doors, and overhead garage doors shall be certified by the manufacturer to the design pressures specified in the "Basic Structural Criteria" included in these drawings. The window and door manufacturers shall provide engineered installation details that satisfy the specific design pressures and are in compliance with all the code provisions. The windows shall also comply with the glazing and tinting requirements of the Energy Calculations (by others) accompanying these drawings.

In areas requiring impact-resistance, the windows, exterior doors and sliding glass doors shall be certified as impact-resistance, or they shall be protected by an approved sheet metal shutter system installed as per the manufacturer's specifications, or shall be protected with 15/32" CDX plywood panels installed as per the provisions of the 2007 Florida Building Code (with supplements through 2009).

STRUCTURAL CONNECTORS

Unless otherwise noted, all metal connectors shall be Simpson Strong-Tie brand connectors. All connectors shall be installed with fasteners as specified by the manufacturer's most recent recommendations.

Other Simpson connectors, or connectors supplied by a different manufacturer, may be substituted for the specified connectors, as long as the alternate connector meets or exceeds all of the structural capacities of the specified connector, or if the alternate connector meets or exceeds the structural requirements of the specialty truss engineer for the project.

Uplift connectors such as hurricane clips, truss anchors and anchor bolts are only required in walls that are exposed to uplift forces. Interior load-bearing walls are not always exposed to uplift, and the wood members in these walls would not need to have connections applied. Consult the truss engineering for the location of these walls.

Engineer
Designer

31 MAY 11
Kenneth S. Risley, P.E.
P.E. No. 35266
Auth. No. 02090970

Owner
Roger and
Marion Cox

502 SW Rattlesnake Glen Rd.
Fort White, FL 32038

Builder
Feeney
Construction

2841 SE 46th Way
Trenton, FL 32693
352-682-4660

Project
Cox Residence
Lot 3
Rum Island Ranches, Sect. 2
Columbia County, Florida

Sheet Description

GENERAL NOTES

Issue Date April 27, 2011

1 May 31, 2011

2

3

D-2