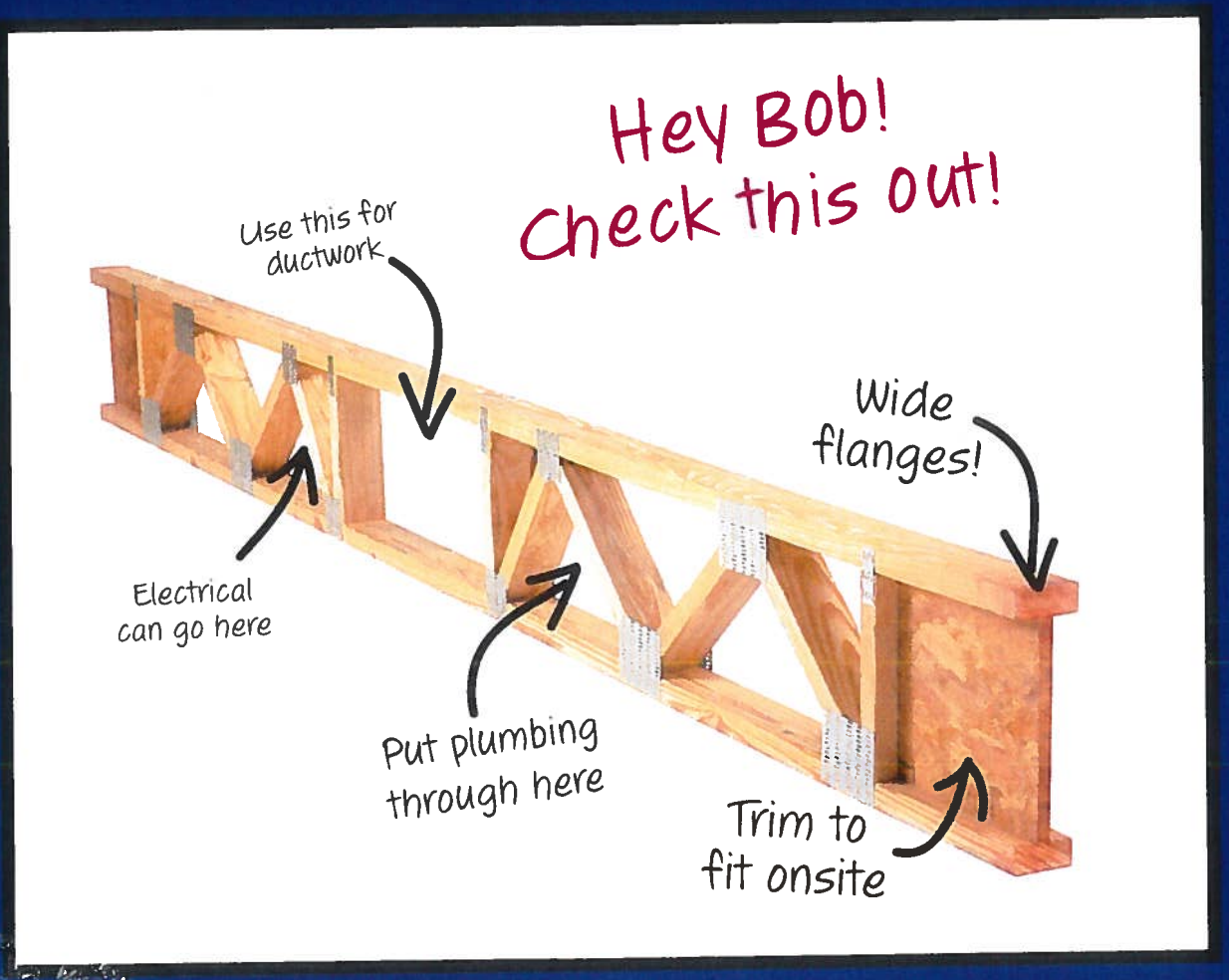
TrimJoist



If Bob tries TrimJoist, he'll find out why TrimJoist is the best choice for floor truss products.

IT'S CONTRACTOR-FRIENDLY.
The end sections can be trimmed onsite.

IT SAVES MONEY AND TIME.
With strut-webbing, there's no need for subcontractors to cut holes.

IT'S STRONGER.
You don't weaken the joist with holes.

IT HAS WIDE FLANGES.
With 3.5-inch flanges on the top and bottom, subfloor application is simple. Nailing and gluing are easier.

IT COMES WITH A TEAM OF ENGINEERS.
Just call our toll-free number for custom engineering.

TrimJoist
ENGINEERED WOOD PRODUCTS
1 800 844-8281
www.trimjoist.com

U.S. Patent 5,761,872 • U.S. Patent 6,139,667 • Additional Patents Pending

The *uniform load* span charts below indicate the maximum design spans (including a 1½" minimum bearing at each end) for each family of *Trim*Joist floor joists. Each chart is divided into columns which represent common design loadings and rows which show typical spacings. Most residential designs require a minimum of 55 psf loading. Floors used for heavy traffic and/or heavy floor coverings (e.g. Tile) should be designed at 60 psf minimum. All loads are broken down into *Live, Top-dead* and *Bottom-dead* components. For example, the 55 psf column is really 40 psf live plus 10 psf top-dead plus 5 psf bottom-dead for a total of 55 psf. Dead loads are the weight of construction materials and are always present for the whole life of the structure. Live loads, on the other hand, are transient and are never constant over the life of the structure. Select the appropriate column based on the *dead* loads of your construction materials. These charts are for *uniformly loaded, clear span, simply supported* joists. For special applications requiring concentrated loads, asymmetric continuous loads, cantilevers, or special bearing conditions please consult a *Trim*Joist representative or authorized dealer. The TPDS computer program can be used to analyze almost any loading and/or bearing condition.

11 ¼" Deep

Loading	55 PSF (40/10/5)	60 PSF (40/10/10)
Spacing 12	24′ - 0" L/589	24′ - 0" L/589
Spacing 16	23′ - 1" L/455	23′ - 1" L/455
Spacing 19.2	21′ - 9" L/454	21′ - 9" L/454
Spacing 24	20′ - 5" L/461	20′ - 0" L/465

16" Deep

Loading	55 PSF (40/10/5)	60 PSF (40/10/10)
Spacing 12	28′ - 0" L/731	28′ - 0" L/731
Spacing 16	28′ - 0" L/549	28′ - 0" L/549
Spacing 19.2	28′ - 0" L/458	27′ - 5" L/486
Spacing 24	26′ - 0" L/456	26′ - 0" L/456

14" Deep

Spacing 12	26′ - 0" L/688	26′ - 0" L/688
Spacing 16	26′ - 0" L/515	26′ - 0" L/515
Spacing 19.2	25′ - 7" L/450	25′ - 7" L/450
Spacing 24	23′ - 8" L/451	23′ - 8" L/451

18" Deep

Spacing 12	30′ - 0" L/768	30′ - 0" L/768
Spacing 16	30′ - 0" L/575	30′ - 0" L/575
Spacing 19.2	30′ - 0" L/479	29′ -10" L/488
Spacing 24	27′ - 4" L/504	26′ - 5" L/579

Notes on Span Charts:

1. Spans are based on uniformly loaded joists and include allowances for repetitive use members.
2. Live loads of 40 psf are assumed, Additional dead loads should be chosen based on construction materials.
3. All *Trim*Joist floor joists have a TOP orientation and should not be installed upside-down.
4. Stiffness factors (L/xxx) assume a minimum ¾-inch span-rated subfloor that has been both *glued* and *nailed*.
5. Limit total reaction (per end) to that indicated in the Maximum Reaction Table at the right.
6. Do not apply center supports, cantilevers, concentrated, or asymmetrical continuous loads without first consulting a *Trim*Joist representative.

Maximum Reaction Table

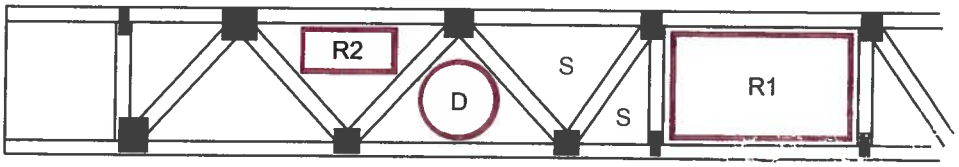
Width	1½	3½	5½
Max	3000	3500	4000

Width is the width of the loaded wall above, or the bearing wall width whichever is less.

A Note About Floor Stiffness: Floor performance is greatly influenced by joist stiffness. Experience has shown that a floor system designed to minimum code acceptance may not meet the expectations of discerning owners. *Trim*Joist Corporation strongly recommends that floor spans be limited to those indicated in the charts above. The numbers in these charts far exceed minimum code requirements and are based on both gluing *and* nailing the subfloor. In cases where the subfloor is nailed only, spans remain the same, but the stiffness must be reduced by 20%. For optimal performance use screws in lieu of nails.

Opening Sizes

	J12	J14	J16	J18
H	11¼"	14"	16"	18"
D	5"	8"	9"	10"
R1	8x16	10x24	12x24	14x24
R2	4x9	4x10 6x6	4x12 6x8	4x14 6x10 8x8



1. All sizes given are in inches and denote maximum expected clearance.
2. Rectangular opening (R1) is provided at centerline of stock length.
3. Only opening D available in 4' stock length (one opening only).
4. Only opening R1 available in 6' and 8' stock length.
5. Openings R2 & D not applicable in shaded areas (s).

Sept. 1, 2006

Good Framing Practice...

DO Install *Trim*Joists right side up. TOP is stamped on the top of each joist.

DO Make sure that each *Trim*Joist bears on the bottom flange beneath the *Trim*End section or beneath the first metal plate if the *Trim*End section has been removed.

DO Use strongback stiffeners. Although not required for structural performance, strongback adds additional resistance to impact loadings.

DO Provide appropriate bearing width at each end of the *Trim*Joist. The required width can be found in the Maximum Reaction Table above. Use vertical web stiffeners where reactions exceed these values.

DO Use *Trim*Joist approved hangers for flush-mounted bearing conditions. These may be purchased from your local *Trim*Joist dealer.

DO Use an appropriately rated sub-floor that has been both glued and nailed/screwed to the top flange of the *Trim*Joist.

DO Consult your *Trim*Joist dealer or representative about special loading or bearing conditions not addressed in this Application Guide.

DO NOT cut any part of the *Trim*Joist except for the *Trim*End sections which are specifically designed to be field cut.

DO NOT remove, cut or alter any metal plate connector on the *Trim*Joist without first consulting a factory engineer.

DO NOT install the *Trim*Joist upside down without first consulting a *Trim*Joist factory engineer.

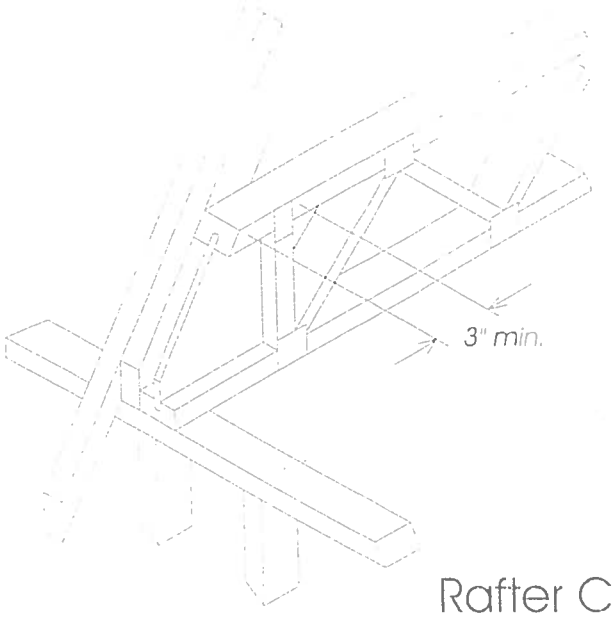
DO NOT use a *Trim*Joist as a header or beam except as may be instructed by a *Trim*Joist engineer.

DO NOT allow the *Trim*Joist to be supported by the top flange. All support must be from under the bottom flange.

DO NOT depend on "toe nailing" to provide adequate support capacity for flush-mounted framing. Consult your local *Trim*Joist dealer or a *Trim*Joist factory engineer for proper hanger selection.

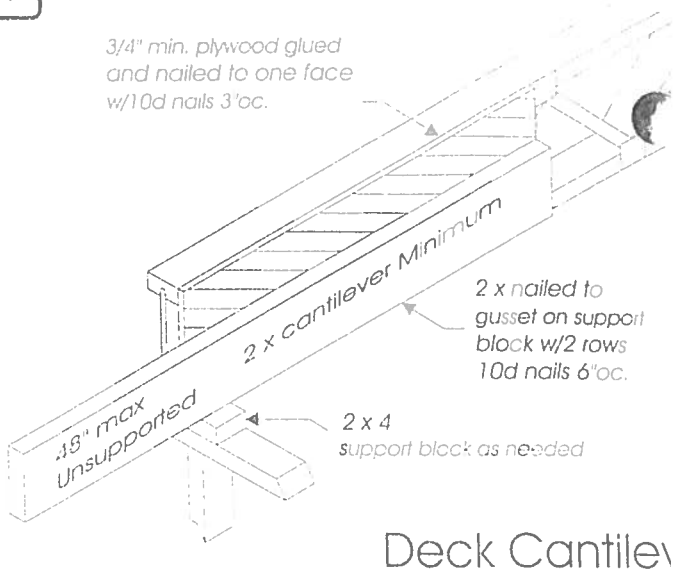
DO NOT apply special support or load conditions without first consulting a *Trim*Joist representative.

D1



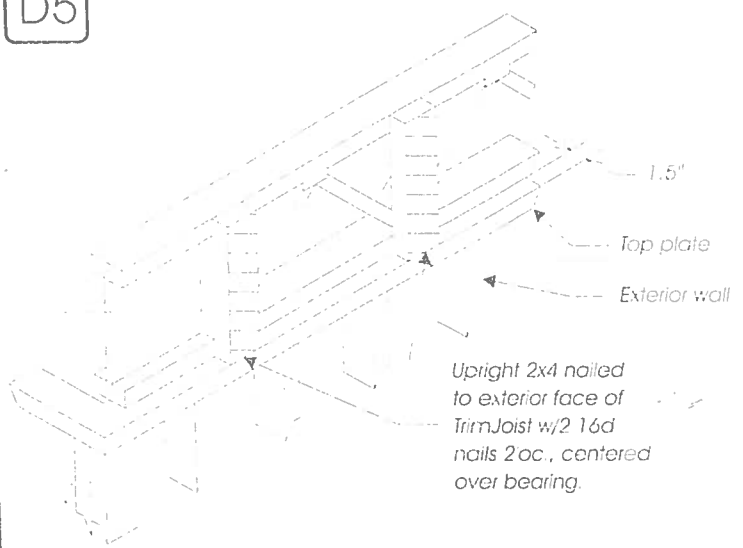
Rafter Cut

D2



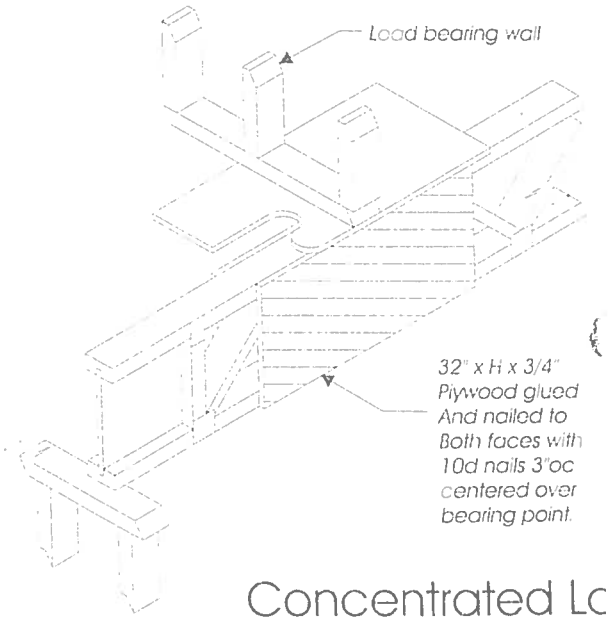
Deck Cantilev

D5



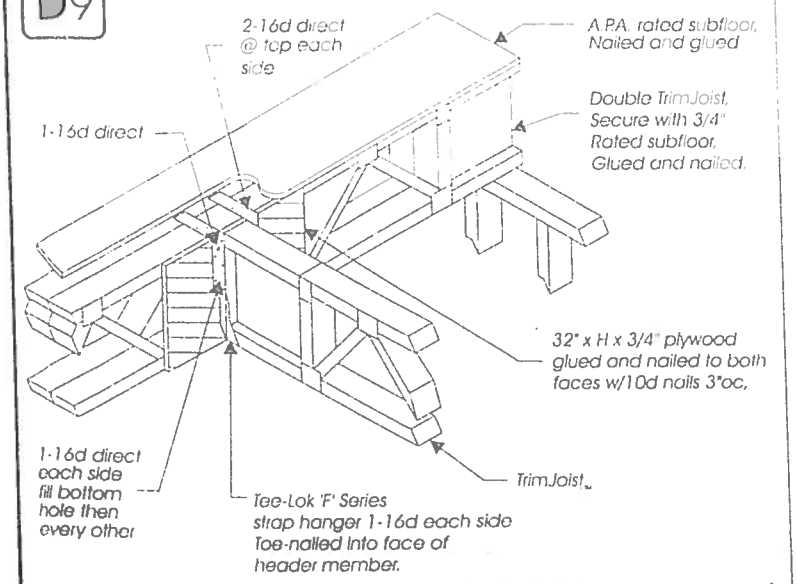
Exterior Knee Wall

D6



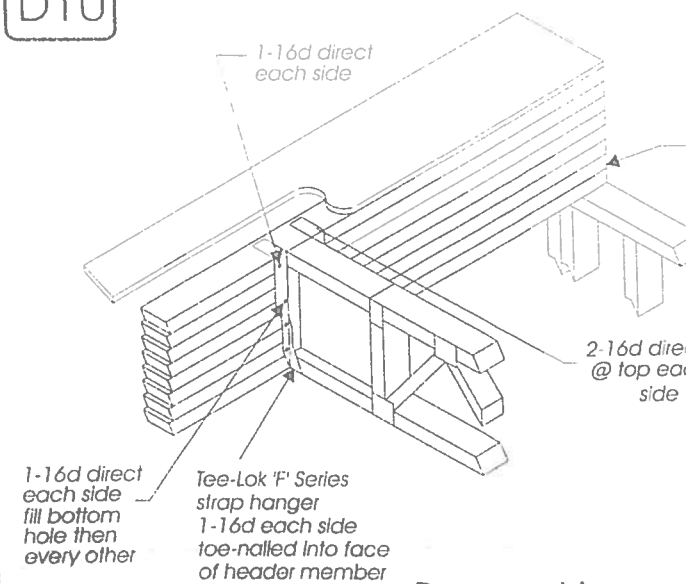
Concentrated Lo

D9



Joist Hangered

D10



Beam Hange

Brainard

COLUMBIA COUNTY BUILDING DEPARTMENT

RESIDENTIAL MINIMUM PLAN REQUIREMENTS AND CHECKLIST FOR FLORIDA BUILDING CODE 2001 ONE (1) AND TWO (2) FAMILY DWELLINGS

ALL REQUIREMENTS ARE SUBJECT TO CHANGE

EFFECTIVE MARCH 1, 2002

ALL BUILDING PLANS MUST INDICATE THE FOLLOWING ITEMS AND INDICATE COMPLIANCE WITH CHAPTER 1606 OF THE FLORIDA BUILDING CODE 2001 BY PROVIDING CALCULATIONS AND DETAILS THAT HAVE THE SEAL AND SIGNATURE OF A CERTIFIED ARCHITECT OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, OR ALTERNATE METHODOLOGIES, APPROVED BY THE STATE OF FLORIDA BUILDING COMMISSION FOR ONE-AND-TWO FAMILY DWELLINGS. FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEED AS PER FIGURE 1606 SHALL BE USED.

WIND SPEED LINE SHALL BE DEFINED AS FOLLOWS: THE CENTERLINE OF INTERSTATE 75.

1. ALL BUILDINGS CONSTRUCTED EAST OF SAID LINE SHALL BE ------- 100 MPH
2. ALL BUILDINGS CONSTRUCTED WEST OF SAID LINE SHALL BE -------110 MPH
3. NO AREA IN COLUMBIA COUNTY IS IN A WIND BORNE DEBRIS REGION

APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL

GENERAL REQUIREMENTS: Two (2) complete sets of plans containing the following:

Applicant	Plans Examiner	
☑	☐	All drawings must be clear, concise and drawn to scale ("Optional details that are not used shall be marked void or crossed off). Square footage of different areas shall be shown on plans.
☑	☐	Designers name and signature on document (FBC 104.2.1). If licensed architect or engineer, official seal shall be affixed.
☑	☐	**Site Plan including:** a) Dimensions of lot b) Dimensions of building set backs c) Location of all other buildings on lot, well and septic tank if applicable, and all utility easements. d) Provide a full legal description of property.
☑	☐	**Wind-load Engineering Summary, calculations and any details required** a) Plans or specifications must state compliance with FBC Section 1606 b) The following information must be shown as per section 1606. .7 FBC a. Basic wind speed (MPH) b. Wind importance factor (I) and building category c. Wind exposure – if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated d. The applicable internal pressure coefficient e. Components and Cladding. The design wind pressure in terms of psf (kN/m²), to be used for the design of exterior component and cladding materials not specifally designed by the registered design professional
☑	☐	**Elevations including:**
☑	☐	a) All sides
☑	☐	b) Roof pitch
☑	☐	c) Overhang dimensions and detail with attic ventilation
☑	☐	d) Location, size and height above roof of chimneys
☑	☐	e) Location and size of skylights
☑	☐	f) Building height
☑	☐	e) Number of stories

Floor Plan including:

- ☑ ☐ a) Rooms labeled and dimensioned
- ☑ ☐ b) Shear walls
- ☑ ☐ c) Windows and doors (including garage doors) showing size, mfg , approval listing and attachment specs. (FBC 1707) and safety glazing wi ere needed (egress windows in bedrooms to be shown)
- ☑ ☐ d) Fireplaces (gas appliance) (vented or non-vented) or wood burn g with hearth
- ☑ ☐ e) Stairs with dimensions (width, tread and riser) and details of gu rdrails and handrails
- ☑ ☐ f) Must show and identify accessibility requirements (accessable athroom)

Foundation Plan including:

- ☑ ☐ a) Location of all load-bearing wall with required footings indicat l as standar Or monolithic and dimensions and reinforcing
- ☑ ☐ b) All posts and/or column footing including size and reinforcing
- ☑ ☐ c) Any special support required by soil analysis such as piling
- ☐ ☐ d) Location of any vertical steel

Roof System:

- ☑ ☐ a) Truss package including:
  1. Truss layout and truss details signed and sealed by Fl Pro. Eng.
  2. Roof assembly (FBC 104.2.1 Roofing system, materi ls, manufacturer, fastening requirements and product ev luation wit wind resistance rating)
- ☐ ☐ b) Conventional Framing Layout including:
  1. Rafter size, species and spacing
  2. Attachment to wall and uplift
  3. Ridge beam sized and valley framing and support det ils
  4. Roof assembly (FBC 104.2.1 Roofing systems, mater ls, manufacturer, fastening requirements and product ev luation wit wind resistance rating)

Wall Sections including:

- ☐ ☐ a) Masonry wall
  1. All materials making up wall
  2. Block size and mortar type with size and spacing of r inforcemen
  3. Lintel, tie-beam sizes and reinforcement
  4. Gable ends with rake beams showing reinforcement c gable trus and wall bracing details
  5. All required connectors with uplift rating and require number an size of fasteners for continuous tie from roof to found tion
  6. Roof assembly shown here or on roof system detail (F 3C 104.2.1 Roofing system, materials, manufacturer, fastening r quirements and product evaluation with resistance rating)
  7. Fire resistant construction (if required)
  8. Fireproofing requirements
  9. Shoe type of termite treatment (termiticide or alterna ve method)
  10. Slab on grade
      a. Vapor retarder (6mil. Polyethylene with join s lapped 6 inches and sealed)
      b. Must show control joints, synthetic fiber rei forcement o Welded fire fabric reinforcement and suppor s
  11. Indicate where pressure treated wood will be placed
  12. Provide insulation R value for the following:
      a. Attic space
      b. Exterior wall cavity
      c. Crawl space (if applicable)

☑ ☐ b) Wood frame wall

1. All materials making up wall
2. Size and species of studs
3. Sheathing size, type and nailing schedule
4. Headers sized
5. Gable end showing balloon framing detail or gable tr ss and wall hinge bracing detail
6. All required fasteners for continuous tie from roof to oundation (truss anchors, straps, anchor bolts and washers)
7. Roof assembly shown here or on roof system detail (F 3C104.2.1 Roofing system, materials, manufacturer, fastening r quirements and product evaluation with wind resistance rating)
8. Fire resistant construction (if applicable)
9. Fireproofing requirements
10. Show type of termite treatment (termiticide or alterna ive method
11. Slab on grade
    a. Vapor retarder (6Mil. Polyethylene with joints lapped 6 inches and sealed
    b. Must show control joints, synthetic fiber reinf cement or welded wire fabric reinforcement and support
12. Indicate where pressure treated wood will be placed
13. Provide insulation R value for the following:
    a. Attic space
    b. Exterior wall cavity
    c. Crawl space (if applicable)

☐ ☐ c) Metal frame wall and roof (designed, signed and sealed by Flor la Prof. Engineer or Architect)

Floor Framing System:

☑ ☐ a) Floor truss package including layout and details, signed and seal d by Florid Registered Professional Engineer

☐ ☐ b) Floor joist size and spacing

☐ ☐ c) Girder size and spacing

☐ ☐ d) Attachment of joist to girder

☑ ☐ e) Wind load requirements where applicable

Plumbing Fixture layout

Electrical layout including:

☐ ☐ a) Switches, outlets/receptacles, lighting and all required GFCI outl as identifie

☐ ☐ b) Ceiling fans

☑ ☐ c) Smoke detectors

☑ ☐ d) Service panel and sub-panel size and location(s)

☑ ☐ e) Meter location with type of service entrance (overhead or under ound)

☑ ☐ f) Appliances and HVAC equipment

HVAC Information

☑ ☐ a) Manual J sizing equipment or equivalent computation

☐ ☐ b) Exhaust fans in bathroom

☑ ☐ **Energy Calculations** (dimensions shall match plans)

☐ ☐ **Gas System** Type (LP or Natural) Location and BTU demand of ea ipment

Disclosure Statement for Owner Builders

Notice Of Commencement

Private Potable Water

a) Size of pump motor

b) Size of pressure tank

c) Cycle stop valve if used