

WHAT WE DO IN PLAN REVIEW

RESIDENTIAL

- 1) Review building plans for structural, electrical, mechanical, plumbing and gas code compliance and verify accuracy and completeness of associated submittal documents.
- 2) Work closely with general public, contractors, engineers and architects to answer questions related to the Florida Building Code and questions about their specific projects.
- 3) Maintain file and log of appropriate records.
- 4) Work with permit processors and records management to meet the statutory requirements for public records retention.
- 5) Calculate building, electrical, mechanical, plumbing, gas and surcharge fees.

HOW WE DO PLAN REVIEW

- 1) Verify type of application submitted
 - a. Residential
 - b. New construction
 - Single Family Detached
 - Duplex
 - Single Family Attached (Townhouse)
 - c. Alteration
 - d. Addition
 - e. Repair
- 2) Check parcel identification number on all submissions
- 3) Verify submission of all required documents
 - a. Two complete sets of plans
 - b. Site plan
 - c. Soil test
 - d. Flood elevation letter
 - e. Energy form and equipment sizing calculations
 - f. Wind load analysis form completed by a Florida registered design professional
 - g. Roof framing plan or pre-engineered truss layout
 - h. Product approval form
- 4) Check contractor license
 - a. Verify if allowed to build structure

SOIL TEST

- 1) Check soil test results for expansive clays
 - a. If present, engineered foundation required
- 2) Check soil test results for organic materials
 - a. If present, engineered foundation required
- 3) Check soil test results high water table
 - a. 1 to 4 feet, engineered foundation required
- 4) Check soil test for engineer's signature, seal and date signed

FLOOD LETTER

- 1) Check flood letter to verify if the parcel is within or outside of a known flood prone area
- 2) Check flood letter for required minimum lowest floor elevation
- 3) Establish lowest floor elevation based on engineer's recommendations
- 4) Establish lowest elevation of equipment (water heater, a/c air handling units, power receptacles etc.)
- 5) Check flood letter for engineer's signature, seal and appropriate disclosure information

ENERGY FORM

- 1) Check energy form for type of construction
 - a. new construction
 - b. addition
- 2) Check energy form for conditioned floor area
- 3) Check energy form for overhang length
- 4) Check energy form for porch overhang length
- 5) Check energy form for glass square footage, single or double pane, tinting, or Argon gas options
- 6) Check energy form for exterior wall square footage
- 7) Check energy form for exterior door square footage
- 8) Check energy form for adjacent and knee wall square footage
- 9) Check energy form for adjacent door square footage
- 10) Check energy form for ductwork length and location
- 11) Check energy form for air handler location and make plan notes accordingly
- 12) Check energy form for the type of system used
- 13) Check energy form for energy efficiency rating
- 14) Check energy form for a/c unit energy rating number
- 15) Check energy form for R values
 - a. exterior walls
 - b. adjacent walls
 - c. ductwork
 - d. ceiling
 - e. floor (off grade wood floor system)
- 16) Check energy form for energy credits.
 - a. ceiling fan
 - b. multizone
 - c. whole house fan
 - d. cross ventilation
 - e. attic radiant barrier
 - f. programmable thermostat
- 17) Check energy form for water heater type
 - a. electric
 - b. l.p. gas
 - c. natural gas
 - d. efficiency rating number
- 18) Check energy form for pass / fail rating

B.T.U. / HR. LOAD CALCULATIONS (MANUAL "J")

- 1) Check BTU/hr load calculations for glass square footage
- 2) Check BTU/hr load calculations for exposed wall and partition square footage
- 3) Check BTU/hr load calculations for door square footage
- 4) Check BTU/hr load calculations for ceiling square footage.
 - a. sloped
 - b. flat
- 5) Check BTU/hr load calculations for floor square footage
- 6) Check BTU/hr load calculations for total sensible B.T.U. load
- 7) Check BTU/hr load calculations for total latent B.T.U. load
- 8) Calculate the total B.T.U. /hr load for required unit tonnage.

LAND USE APPROVAL

- 1) Verify parcel number with other application documents
- 2) Check for reviewer signature and date of approved

SITE PLAN

- 1) Check site plan for consistency with approved subdivision file
 - a. record perimeter information on back of application
 - b. property size
 - c. front, sides and rear setbacks
- 2) Check site plan for setbacks to vertical construction
- 3) Check site plan for structure orientation on site
- 4) Check site plan for reviewer signature and date approved

FLOOR PLAN

- 1) Check floor plan to verify room dimensions meet minimum requirements
- 2) Check floor plan for room designations
- 3) Check floor plan for handicap bathroom accessibility & route to bathrooms doors
 - a. 29 inches clear opening width
- 4) Check floor plan for means of ingress and egress
 - a. egress doors
 - minimum size
 - location
 - b. bedroom windows (emergency egress)
 - vertical clear opening of 24 inches minimum
 - horizontal clear opening of 20 inches minimum
 - 44 inches maximum sill height above finish floor
 - 5.0 square feet of clear opening for first floor
 - 5.7 square feet of clear opening for second floor

FLOOR PLAN

- 1) Check floor plan for hazardous window locations
 - a. glazing in ingress or egress doors
 - b. fixed or sliding panels in door assemblies
 - c. glazing in storm doors
 - d. glazing in all unframed swinging doors
 - e. glazing in doors or enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers
 - f. nearest vertical edge of window within a 24 inch arc of a door and whose bottom edge is less than 60 inches above the finish floor
 - g. less than 18 inches above finish floor, greater than 9 square feet of glass area, top edge greater than 36 inches above the finish floor, one or more walking surfaces within 36 inches horizontally
 - h. bottom edge less than 60 inches above a tub or shower drain inlet
 - i. glazing adjacent to stairways, landings or ramps within 36 inches of a walking surface when the exposed surface of the glass is less than 60 inches above the walking surface
 - j. glazing adjacent to stairways within 60 inches horizontally of the bottom tread in any direction when the surface of the glass is less than 60 inches of the nose of the tread
- 2) Check floor plan for equipment location (water heater, a/c air handler)
 - a. garage
 - b. attic
 - c. closet
 - d. crawl space

- 3) Check floor plan for electrical panel location.
 - a. prohibited locations
 - clothes closets
 - storage rooms containing combustible materials
- 4) Check floor plan for spa motor access door
- 5) Check floor plan for electrical outlet locations
- 6) Check floor plan for ground fault circuit interrupter at required locations
 - a. all exterior outlets
 - b. kitchen counter tops
 - c. bathroom area
 - d. garage receptacles
 - e. within 25 foot of AC compressor
 - f. within 6 feet of attic installed a/c air handling unit
- 7) Check floor plan for lighting locations
- 8) Check floor plan for required fan sizes
- 9) Check floor plan for light and ventilation requirements
 - a. bathroom windows
- 10) 3 sq. ft. minimum opening (if no mechanical ventilation)
 - a. bathroom exhaust fans
 - b. range hoods
 - c. dryer vents
- 11) 25 feet maximum duct length
 - a. 5 foot reduction in length for 90 degree turns
 - b. 2.5 foot reduction in length for 45 degree turns
- 12) Check truss plan for location and size of all load carrying beams

FLOOR PLAN

- 1) Check floor plan for floor joist and floor truss verification
 - a. size
 - b. spans
 - c. spacing
- 2) Check floor plan for stairs
 - a. type
 - b. width
 - c. number of stringers
 - d. size of landings
 - e. doors opening into landing area
 - f. handrail height
 - g. minimum tread width
 - h. maximum riser height
 - i. baluster openings
 - j. headroom height
- 3) Check floor plan for required bathroom
 - a. 1 per dwelling unit
- 4) Check floor plan for hallway width
- 5) Check floor plan for fire walls as appropriate
- 6) Check floor plan for travel distances
- 7) Check floor plan for location and size of attic access
- 8) Check floor plan for smoke detector adjacent to each sleeping area

- 9) Check floor plan for fireplace requirements
 - a. no combustibles within 6 inches of fire box side
 - b. no combustibles within 6 inches of fire box top
 - c. if combustibles projection more than 1 1/2 inches
 - d. 12 inch minimum clearance required
 - e. hearth requirements
 - f. firebox with less than 6 sq. ft / 8 inches on side, 16 inches on front
 - g. firebox with 6 sq. ft. or more / 12 inches on side, 20 inches on front
- 10) Check floor plan for knee wall insulation
- 11) Check floor plan to verify porch overhang length with energy form
- 12) Check floor plan to verify window square footage with energy form
- 13) Check truss layout for interior load bearing walls
- 14) Check truss layout for location and support of girder trusses

ELEVATIONS

- 1) Check elevations for roof slope
 - a. less than 4: 12 slope with composite shingles require double layer of A.S.T.M. compliant underlayment
- 2) Check elevations for type of siding
- 3) Check elevations for window size and locations (verify with floor plan)

ELEVATIONS

- 1) Check elevations for porches
 - a. if over 30 inches above grade
 - b. guardrail is required
 - c. 36 inches minimum height
 - d. baluster spacing
- 2) Check elevations for attic and foundation vents
- 3) Check elevations for chimney heights
 - a. 36 inches minimum clearance above roof penetration
 - b. 24 inches minimum clearance above roof at a distance of 10 feet from chimney
- 4) Check elevations for wind loading compliance
 - a. non compliant siding solidly backed with approved structural sheathing
- 5) Verify overhang recorded on energy form

FOUNDATION PLAN

- 1) Check foundation plan for type of foundation system
 - a. monolithic
 - size of footing
 - size of reinforcing steel
 - location of interior grade beams
 - size of interior grade beams
 - size of reinforcing steel in grade beams
 - b. spread footing with stem wall
 - size of footing
 - size of reinforcing steel
 - corners poured and reinforced with 1 vertical #5 diameter reinforcing bar
 - c. size of interior grade beams
 - d. location of interior grade beams
 - e. lintel with horizontal reinforcing at perimeter

- f. piling
 - composition
 - dimension
 - embedment
 - height
 - type installation
- 2) Check foundation plan for floor type
 - a. concrete slab on grade
 - b. 3 ½ inches minimum thickness
 - c. reinforcing wire size / fiber mesh
 - d. anchor bolt location and size
 - e. interior grade beam runs and locations, with regard to load bearing partitions
 - f. step downs at porches and garages (as necessary)
 - g. vapor barrier
 - h. off grade wood floor

FOUNDATION PLAN

- 1) Check location of spot piers
 - a. size of footings
 - b. size of reinforcing steel
 - c. girder sizes
 - d. girder spans
 - e. joist sizes
 - f. joist spans
 - g. joist spacing
 - h. approved wood type or protection for wood in contact with masonry
 - i. crawl space ventilation
 - j. crawl space access

COMMON FRAMING PLAN

- 1) Check second floor framing plan
 - a. joist size
 - b. joist spacing
 - c. joist spans
 - d. truss
- 2) Check ceiling plan
 - a. joist size
 - b. joist spacing
 - c. joist spans
- 3) Check roof framing plan
 - a. rafter sizes
 - b. rafter spans
 - c. rafter spacing

WALL SECTION

- 1) Check wall section for reinforcing steel location and size
- 2) Check wall section for footing depth
- 3) Check wall section for sole plate
 - a. type of wood used
- 4) Check wall section for anchor bolt length and spacing
- 5) Check wall section for wall height

- 6) Check wall section for exterior cladding
 - a. brick veneer
 - b. 1 inch air space
 - c. wall ties @ 18 inches vertically and 32 inches horizontally
 - d. perimeter flashing
 - e. weep holes @ 4 foot centers maximum spacing
- 7) Check wall section for double top plates
- 8) Check wall section for stud spacing
- 9) Check wall section for continuous loading path
 - a. solid sheathing on two story structures
 - b. lateral control straps
 - c. top and bottom
 - d. 6 feet on center maximum spacing
- 10) Check wall section for truss / rafter anchors
- 11) Check wall section for soffit ventilation
- 12) Check wall section for truss bracing
- 13) Check wall section for sheathing
 - a. type
 - b. structural
 - c. nonstructural
 - d. thickness
- 14) Check wall section to verify floor type with energy form
- 15) Check wall section to verify wall type with energy form
- 16) Check wall section to verify ceiling slope with energy form
 - a. flat
 - b. vaulted

WIND ANALYSIS

- 1) Check length of building to ensure consistent with wind analysis
- 2) Check width of building to ensure consistent with wind analysis
- 3) Check the roof overhang
- 4) Check the roof pitch
- 5) Check the height of exterior walls
- 6) Check mean roof height
- 7) Determine if building is enclosed or open construction
- 8) Determine "use factor" of occupancy
- 9) Determine wind velocity to be used for calculations based on location

FEE CALCULATIONS

- 1) Calculate square footage for building permit fees
- 2) Calculate plumbing permit fees
- 3) Calculate electrical permit fees
- 4) Calculate mechanical permit fees
- 5) Calculate gas fees

FINAL REVIEW AND APPROVALS

- 1) Stamp approvals and code requirements on plans
- 2) Initial and date application and plans
- 3) Record fees on application

- 4) Notify contractor or owner if additional information is needed
 - a. special engineered foundation
 - b. revised energy form
 - c. revised equipment sizing calculations
 - d. revised flood letter
- 5) Record special conditions on application
 - a. engineered foundation needed
 - b. minimum finish floor elevation required
 - c. existence of and length of flag on lot (deeded access road)
- 6) Check for completion of environmental review and approval signature
- 7) Input information into computer tracking system
- 8) Deliver to contractor licensing review