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CODE REFERENCES

2007 Florida Building Code & 2007 Florida Residential Code w/2009 Amendments

This is a general list of compliance requirements for one and two family dwellings and their accessory structures and may not be complete. The permit applicant is responsible for complying with all adopted codes, statutes and ordinances regardless of this list.

Construction standards or practices not covered by the FRC shall be in accordance with the provisions of the FBC

General

Interpretations of code are to be made by the designated Building Official	FBC104.1
No access…for inspection	FBC109.1
No access… to permit card	FBC105.7
Not ready…for inspection	FBC109.5
Permit required…for work being done	FBC105.1
Permit required to be posted in a conspicuous, weatherproof location	FBC105.7
Permit has expired 6 months max. from issuance/approved inspection	FBC105.4, FBC105.5
Plan revision…required for alternate construction	FBC106.4
Plans…are not legible	FBC106.1.1
Previous required inspections…not passed	FBC109.1, FBC109.3
Previous correction notice…items not complete	FBC109.3, FBC109.1
Reviewed plans…truss engineering, site plan required to be posted	FBC106.3.1
Restrain your dogs…no permit card or inspection access	FBC109.5, FBC105.7
Sanitary facilities…required at job site in sanitary condition	R101.2, FBC 3305.1, FPC311.1
Site debris…must be contained, removed at 14 day intervals and by final inspection	FBC109.3
Termite protection…general requirements	FBC109.3.4
Work started before the permit…is issued will be double the permit fee	FBC108.4
Stop work	FBC114

Temporary Power Pole, Overhead and Underground

Bond…the panel	NEC250.92
GFCI protection…required	NEC590.6
Ground rod…missing	NEC250.52
Grounding electrode conductor…minimum #4 required	NEC250.64B
Knockouts…that are open must be properly blanked off	NEC110.12A
Lamp protection…required	NEC590.4F
Main bonding jumper…not sized per code	NEC250.92
Overhead mast height…is 10 foot minimum to connectors	NEC230.24B
Overhead service…is not properly braced	NEC230.28
Receptacle condition…is not acceptable	NEC110.3(A)(8)

Receptacles…exposed to weather require an enclosure that is weatherproof whether or not the attachment plug is inserted and be weather resistant "WR" type	NEC406.8(B)
Service not built per plans	Plans, FBC106.4
Wires…are not secure under the lugs	NEC110.14

Footing

Angle of repose violation...to another structure, pool, wall, pipe, etc.	R403.1.7
Compaction test…results required for footing not in virgin soil	R401.4
Compaction…of 90% required	R101.2, FBC1803.5
Dowel locations…are improper	Plans, FBC106.4
Electrical bonding…must be provided to footer steel	NEC250.50;250.52
Footing…width, depth, layout incorrect	Plans, FBC106.4
Footing bottom…must be a minimum of 12" below grade	R403.1.4
Forms…incomplete	R101.2, FBC1906.1
Rebar laps…not minimum per plans/code …40 bar diameters minimum	R101.2, FBC1907.5, ACI318
Rebar clearance…is not a minimum of 3" from earth	R101.2, FBC1907.7.1
Rebar…must be continuous around corners	R101.2, FBC1907, ACI318
Rebar…must be tied in place to prevent displacement	FBC1907.5
Soil boring test…results required	FRC401.4
Termite protection and certificate…required	R320, FBC105.10
Vegetation/roots…must be removed from footings	R320.8.2
Vegetation/roots/trash, etc…must be removed from the foundation and the area encompassed within 1 foot therein	R320.8.2, R506.2

Rough Plumbing (Underground)

Clean out…required at the base of soil / waste stack and at the building drain at the sewer	P3005.6
Clean out…required within 40' of fittings greater than 45 degrees	P3005.2.4
Clean out clearance…of 18" for rodding purposes required for pipes 3" or larger	P3005.2.5
Drain piping…sleeved through or under footing or foundation wall	P2603.5
Drain waste pipe…minimum 1½" required under grade	P3005.4.1(1)
DWV fitting…is improper	P3005.1
DWV piping pressure test…of 5 feet static head pressure	P2503.5.1
Floor drain trap primer…supply line required	FPC 1002.4
Hot water supply…shall be on the left side of the fixture	P2722.2
Improper fall…on drain piping (2½" and less = ¼" per foot…3" and larger = 1/8" per foot	P3005.3
Fixture drain venting…not per code	P3105
Washing Machine connect 3" stack or branch	P2503.2
Purple primer…required on PVC joints	FPC705.14.2

Trap recesses…for tubs or showers shall have sides and a bottom of corrosion resistant metal or plastic; insect and vermin proof construction and permanently placed as to not cause future planned soil disturbance	R320.1.3
Water line pressure test…of 65 psi is required	P2503.6
Water piping not sized properly…	P2903
Water piping not properly sleeved…at masonry / concrete	P2603.3
Water piping material …improper type	P2904
Water service pipe …minimum ¾" required	P2903.7
Water heater relief line …cannot have any trapped section	P2803.6.1.1
Water heater drain line …required	P2801.5

Sewer

Clean out …required at changes of direction greater than 45 degrees	P3005.2.4
Clean out …required at 100 foot intervals maximum	P3005.2.2
Forced sewer …requires pressure test of 5 psi greater than the pump rating for 15 minutes	R101.2, FPC 312.7
Minimum slope …is 1/8" per foot	P3005.3
Minimum size …is 3" with water closet	P3005.4.1
Trench installed parallel to footer …shall not extend below 45 degrees bearing plane	P2604.4
Water test …filling sewer to it's highest point required	P2503.4
Water service pipe …and building sewer must be separated by 5 ft min (Exception: when bottom of water service pipe is min. 12" above the top of sewer pipe.)	P2904.4.2

Mono Slab/Stemwall Slab

(Mono slab includes footing requirements)

Cells …to be filled must be free of mortar, debris, etc.	R609.1.3
Cells …must be free of cellulose containing material	R609.1.3
Compaction test results …for slab / footings fill required	R506.2.1
Dowel locations …not per plans	Plans, FBC106.4
Drain piping is not sleeved …properly through footing/stem wall	P2603.5
Electrical bond to the footer steel …required	NEC250.50;250.52
Footing dowels must extend above slab for minimum lap	R101.2, FBC1901.2, ACI 318
Footing width, depth, layout …not according to plans	Plans, FBC106.4
Forms incomplete…	R101.2, FBC1906.1
Gas piping shall not be installed in a slab unless sleeved per	G2415.4
Piping, conduits, …that displace structural concrete must be engineered, unless they are iron or steel not thinner than schedule 40 steel pipe and have a nominal inside diameter not more than 2" and spaced not more than 3" diameter on center	R101.2, FBC106.1.2, FBC1906.3, ACI 318, Section 6.3
Rebar …size and / or location not per plan	Plans

Rebar laps …not minimum 3" from earth	R101.2, FBC1907.7.1
Rebar laps …not per plan/code minimum	R101.2, FBC1901.2, ACI 318
Rebar must be tied in …place and supported to prevent displacement	R101.2, FBC1907.5.1
Shower dimension …of 30" and 900 sq. inches required (see reference in tubset inspection)	P2708.1
Slab reinforcement required …wire mesh, fibermesh or control joints will be required.	R506.2.4
Slab thickness …of 3 1/2 " minimum is required	R506.1
Soil boring test results …required	R401.4
Termite treatment baiting system (Sentricon) …if used requires a copy of a signed five year contract to be provided to BID	R320.1.7
Termite treatment …proof required	R320.1, FBC105.10
Termite Treatment Certificate …stating product used, identifying the applicator, time and date of treatment, site location, area treated, chemical used, % concentration and # of gallons used; must be provided and retained by BID	FBC105.10
Vapor barrier incomplete …must be minimum 6 mil., lapped 6" and sealed.	R406.3.2, R506.2.3
Vegetation/roots/trash/etc. …must be removed from the foundation	R320.8.2, R506.2
Vegetation/roots …must be removed from slab/footings	R320.8.2
Water pipes are not sleeved …properly through concrete (two pipe sizes greater than the pipe passing through)	P2603.5

Lintel

Cells …not located per plan	Plans, FBC106.4
Cells missing …rebar/footing dowels	Plans, FBC106.4
Cells …to be filled are not free of debris, mortar, max. ½" mortar fins	R609.1.3
Cells …must be free from cellulose containing material	R609.1.3
Clean out required …for grout lifts greater than 4 feet	R609.1.5
Concrete coverage …minimum 1 ½ " for reinforcement in tie beam	R101.2, FBC1907.7
Gable end walls with cathedral ceilings …must be continuous from the uppermost floor to the ceiling or roof diaphragm	R101.2, FBC2115.1, ACI 318-7.5
Tie beam …is not sized per plan	Plans, FBC106.4
Head and bed joints …Unless otherwise required or indicated on the project drawings, head and bed joints shall be 3 / 8 inch thick, except that the thickness of the bed joint of the starting course placed over foundations shall not be less than ¼ inch and not more than ¾ inch **Mortar joint thickness tolerance.** Mortar joint thickness shall be within the following tolerances from the specified dimensions: 1. Bed joint: + 1 / 8 inch	R607.2.1

2. Head joint: ¼ inch + 3 / 8 inch 3. Collar joints: ¼ inch + 3 / 8 inch **Exception:** Nonload-bearing masonry elements and masonry veneers designed and constructed in accordance with Section R703.7 are not required to meet these tolerances.	
Mortar joints …shall be solidly filled	R607.2.2
Precast lintel …requires minimum 4" end bearing	R101.2, FBC2104.1.5
Rebar …not lapped per plan/code	R101.2, FBC1901.2, ACI 318
Rebar …required in precast per plan	Plans
Rebar must be tied in …place to prevent displacement	FBC1907.5
Rebar not continuous …at corners/tie beam height changes	R101.2, FBC1901.2, ACI 318
Standard hook …is required in tie beam	FBC1901.2, ACI 318
Stack bond …requires horizontal joint reinforcement at 16" on center, vertically running bond with less that ¼ unit overlap from adjacent unit is considered stack bond	R202, R606.7
Veneer ties required …and each tie shall be spaced not more than 24 inches on center horizontally and vertically and shall support not more than 2 square feet of wall area.	R703.7.4.1
Wall openings …shall be supported on lintels	R606.9

Roof / Wall Sheathing

Diaphragm blocking …install per plan on unsupported edges of sheathing and nail sheathing to the blocking per plan	Plans, FBC106.4 R101.2, FBC1602 see definition of diaphragm, blocked
Door bucks …must be installed/attached per plan (2xs)	FBC 109.3(3)
Exterior strapping/attachments not complete/exposed	FBC109.3, FBC109.5
Pressure treated sheathing/framing …required within 6" of grade	R319.1
Intermediate plywood supports …required (plywood clips, blocking)	R101.2, FBC2304.7.5 (Note "B")
Nail patterns …not per plans	Plans, FBC106.4
Nail size …not per plans (if 8d common nail is required then minimum gun nail size is .131" shank diameter x 2 ½ inch nail length with full head)	Plans, FBC106.4
Nails over driven …into the sheathing	FBC 104.1, R101.2, FBC2314.4.3
Roof framing incomplete (truss tails, subfascia, etc.)	FBC109.3, R802.1.6
Roof vents cut in and install blocking	FBC109.3, M1804.2
Shiners must be removed and reinstall into framing members	FBC109.3

Roof Dry In / Flashing (Asphalt Shingles)

Chimneys greater than 30" wide require cricket or saddle	R905.2.8.3
Drip edge minimum 2 inch overlap, fastened 12" o.c.	R905.2.8.6
Felt paper for roof slopes 4:12 and over requires to be installed with 2" overlap shingle fashion parallel to the roof eaves	R905.2.7

Felt paper for roof slopes 2:12 up to 4:12 requires to be installed with 19" overlap, shingle fashion parallel to roof eaves	R905.2.7
Felt paper for roofs end laps shall be offset by 6 feet	R905.2.7
Felt paper / underlayment and high wind… Underlayment applied in areas subject to high winds [greater than 110 mph shall be applied with corrosion-resistant fasteners in accordance with manufacturer's installation instructions. Fasteners are to be applied along the overlap not farther apart than 36 inches on center.	FBC1507.2.8.1
Flashing against a vertical front wall, as well as soil stack, vent pipe and chimney flashing shall be applied according to asphalt shingle manufacturer's printed instructions.	FBC1503.2
Flashing at sidewall against a vertical sidewall shall be by the **step-flashing method**.	R905.2.8.4
Minimum slope for asphalt shingles is 2:12	R905.2.2
Valley flashing <u>one</u> of the following is required: **1.** For open valley lined with metal, the valley lining shall be at least 16 inches wide and of any of the corrosion-resistant metals in Table R903.1 **2.** For open valleys, valley lining of two plies of mineral surface roll roofing, complying with ASTM D 249, shall be permitted. The bottom layer shall be 18 inches and the top layer a minimum of 36 inches wide. **3.** For closed valleys, lining of one ply of smooth roll roofing complying with ASTM D 224 Type II or Type III and at least 36 inches wide or valley lining as described in Items 1 and 2 above shall be permitted. Specialty underlayment complying with ASTM D 1970 may be used in lieu of the lining material.	R905.2.8.2

Roof Dry In / Flashing (Clay and Concrete Tile)

Roofing permit required (not in GC license scope)	FSS489.113(3)b
Minimum slope for tile roof is 2 ½ : 12	R905.3.3.1
Flashing must be installed per manufacturer's specifications or recommendations of the FRSA/RTI 07320 Manual.	R905.3.8
Underlayment. Unless otherwise noted, required underlayment shall conform with ASTM D 226, Type II; ASTM D 2626; ASTM D 1970 or ASTM D 6380 mineral surfaced roll roofing.	FBC1502.4.5
Underlayment for roof slopes from 2½ :12 up to 4:12, underlayment shall be a minimum of <u>two layers</u> underlayment applied as follows: 1. Starting at the eave, a 19-inch strip of underlayment shall be applied parallel with the eave and fastened sufficiently in place. 2. Starting at the eave, 36-inch-wide strips of underlayment felt shall be applied, overlapping successive sheets 19 inches and fastened sufficiently in place.	FBC1507.3.3

Underlayment for roof slopes of 4:12 or greater, underlayment shall be a minimum of one layer of underlayment felt applied shingle fashion, parallel to and starting from the eaves and lapped 2 inches, fastened sufficiently in place.	FBC1507.3.3
Underlayment and high wind underlayment applied in areas subject to high wind [greater than 110 miles per hour (Oviedo is 120 mph)] shall be applied with corrosion-resistant fasteners in accordance with manufacturer's installation instructions. Fasteners are to be applied along the overlap not farther apart than 36 inches on center.	FBC1507.3.3

Stucco Lathe

Portland cement plaster shall comply with the application requirements of ASTM C 926	R703.6.1
Stucco lathe bond break over wood framed construction, one of the following is required: 1. Two layers of a water resistant material, or 2. One layer of approved water resistant barrier over an approved plastic house wrap, or 3. Other approved methods or materials applied in accordance with the manufacturer's installation instructions	R703.6.3
Wood framed wall assembly over CMU (mass) wall assembly Requires flashing, or other approved drainage system in accordance with **R703.8** (see next reference)	R703.14
Flashing Approved corrosion-resistant flashings shall be installed at all of the following locations: **1.** At top of all exterior window and door openings in such a manner as to be leakproof, except that self-flashing windows having a continuous lap of not less than 1 1 / 8 inches over the sheathing material around the perimeter of the opening, including corners. **2.** At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings. **3.** Under and at the ends of masonry, wood or metal copings and sills. **4.** Continuously above all projecting wood trim. **5.** Where exterior porches, decks or stairs attach to a wall or floor assembly of wood-frame construction. **6.** At wall and roof intersections. **7.** At built-in gutters.	R703.8
Lathe installation **Installation of exterior lathing and framing shall comply with the application requirements of ASTM C 1063 as provided below:**	R703.6.2
1. Lath must be attached to framing members with attachments spaced not more than 7 inches on centers along supports	R703.6.2 ASTM C 1063.7.10.2.1

2. Diamond mesh expanded metal lath, flat rib expanded metal lathe and wire lath shall be attached to horizontal wood framing members with 1-1/2" roofing nails driven flush with the plaster base and attached to vertical wood framing members with 6d common nails **OR** 1" roofing nails driven to a penetration of not less than ¾" **OR 1" wire staples** driven flush with the plaster base. Staples shall have crowns not less than ¾" and shall engage not less than three strands of lath and penetrate the wood framing members not less than ¾". When metal lath is applied over sheathing, use fasteners that will penetrate the structural members not less than ¾".	R703.6.2 ASTM C 1063.7.10.2.2
3. Expanded 3/8" rib lath shall be attached to horizontal and vertical wood framing members with nails or staples to provide not less than 1 ¾" penetration into horizontal wood framing members, and ¾" penetration into vertical wood framing members.	R703.6.2 ASTM C 1063.7.10.2.3
4. Common nails shall be bent over to engage not less than three strands of lath, or be bent over a rib when rib lath is installed.	R703.6.2 ASTM C 1063.7.10.2.4
5. Screws used to attach metal plaster base to horizontal and vertical wood framing members shall penetrate not less than 5/8" into the member when the lath is installed and shall engage not less than three strands of lath. When installing rib lath, the screw shall pass through, but not deform the rib.	R703.6.2 ASTM C 1063.7.10.2.5

2nd Rough Plumbing (Stack Out)

Anti Scald valve required at showers that comply with ASSE 1016, CSA CAN/CSA-B125 standards	P2708.3
Clean out required at base of soil/waste stacks	P3005.2.6
Clean out require 18" clearance for rodding purposes	P3005.2.5
CPCV joints – primer required when using a solvent cement that that is orange in color	P2094.9.1.2
CPCV joints – solvent cement that does not require the use a primer shall be yellow in color	P2094.9.1.2
Drain piping must have minimum grade(2½" and less = ¼" per foot…3" and larger = 1/8" per foot	P3005.3
DWV fittings improper	P3005.1
Hot water supply shall be on the left side of the fixture	P2722.2
Water pressure closed system test (service valve must be shut) required on water lines (this is average working pressure) **or by an air test of not less than 50 psi**	P2503.6
Pressure test required on 2nd floor DWV piping (minimum 5' head pressure test above highest drain branch)	P2503.5.1

Pipe protection plates required within 1 ½ " from face of framing	P2603.2.1
Pipes not secured or supported per code (see support on next page)	P2605
Purple primer required on PVC joints	FPC605.21.2/ P3003.14.2
Shower compartments shall have at least 900 square inches of interior cross-sectional area. Shower compartments shall not be less than 30 inches in minimum dimension measured from the finished interior dimension of the shower compartment, exclusive of fixture valves, shower heads, soap dishes, and safety grab bars or rails. The minimum required area and dimension shall be measured from the finished interior dimension at a height equal to the top of the threshold and at a point tangent to its centerline and shall be continued to a height not less than 70 inches above the shower drain outlet.	P2708.1
Shower pans are required except slab with minimum 2" recess to shower inlet	P2709.2(2)
Shower water-supply riser from the shower valve to the shower head outlet shall be secured to the permanent structure.	P2708.2
Support all piping to Code	Table P2605.1
Tubs not set / not ready	FBC 109.5
Tub trap voids are not sealed	E402.3
Vent terminations (Minimum one vent through the roof, minimum 6" above the roof, no less than 4 feet directly beneath any door, operable window, or other air intake opening, nor shall any such vent terminal be within 10 feet horizontally of such an opening unless it is at least 2 feet above the top of such opening.)	P3114.7, P3102.3 P3103.1, P3103.5
Vent piping must have proper grade to drip back to drain piping	P3104.2
Vent for fixture exceeds allowable distance from trap (trap arm length) 1¼"=5' max, 1½"=6' max, 2"=8' max, 3"=12' max	P3105
Vertical distance from trap weir to fixture can not exceed 24" except washers	P3201.6
Washing machine stand pipes shall extend a minimum of 18 inches and a maximum of 42 inches above the trap weir. Access shall be provided to all standpipe traps and drains for rodding.	P2706.2
Water closet must be minimum 15" center to wall, cabinet or other fixture, 21" front clearance	P2705.1(5)
Water closet flanges of the offset type with a ledge are not approved	P3002.3.1
Water hammer arresters required on quick closing valves meeting the requirement of ASSE 1010	P2903.5
Water heater relief piping can have no trapped sections	P2803.6.1.2

Rough Mechanical

Air-handling units shall be allowed in attics if the following conditions are met: **1.** The service panel of the equipment is located within 6 feet (1829 mm) of an attic access. **2**. A device is installed to alert the owner or shut the unit down when the condensation drain is not working properly. **3.** The attic access opening is of sufficient size to replace the air handler. **4.** A notice is posted on the electric service panel indicating to the homeowner that the air handler is located in the attic. Said notice shall be in all capitals, in 16 point type, with the title and first paragraph in bold: **NOTICE TO HOMEOWNER** **A PART OF YOUR AIR CONDITIONING SYSTEM, THE AIR HANDLER, IS LOCATED IN THE ATTIC. FOR PROPER, EFFICIENT, AND ECONOMIC OPERATION OF THE AIR CONDITIONING SYSTEM, YOU MUST ENSURE THAT REGULAR MAINTENANCE IS PERFORMED. YOUR AIR CONDITIONING SYSTEM IS EQUIPPED WITH ONE OR BOTH OF THE FOLLOWING:** **1) A DEVICE THAT WILL ALERT YOU WHEN THE CONDENSATION DRAIN IS NOT WORKING PROPERLY OR** **2) A DEVICE THAT WILL SHUT THE SYSTEM DOWN WHEN THE CONDENSATION DRAIN IS NOT WORKING. TO LIMIT POTENTIAL DAMAGE TO YOUR HOME, AND TO AVOID DISRUPTION OF SERVICE, IT IS RECOMMENDED THAT YOU ENSURE PROPER WORKING ORDER OF THESE DEVICES BEFORE EACH SEASON OF PEAK OPERATION.**	M1305.1.3.2
Closet Access not large enough for the equipment	M1305.1.1
Attic and crawl space installation requires a light and receptacle; w/switch at point of entry	M1305.1.3.1;NEC210.63 NEC210.70
Attic installation. Appliances requiring access shall be provided with an opening and unobstructed passageway large enough to allow removal of the largest appliance. The passageway shall not be less than 30 inches high and 22 inches wide and not more than 6 feet in length measured along the centerline of the passageway from the attic access opening to the appliance's service panel. The passageway shall have continuous solid flooring not less than 24 inches wide. A level service space not less than 30 inches deep and 30 inches wide shall be present at the front or service side of the appliance. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches, where such dimensions are large enough to allow removal of the largest appliance. **Exception:** The passageway and level service space are not required where the appliance is capable of being serviced and removed through the required opening.	M1305.1.3
Bathrooms require a mechanical exhaust fan or minimum 3 sq. ft. of net window opening if containing bathtub, shower, spa, etc	R303.3; M1507
Balanced return air required – transfer or ducted return	M1602.4

Combustion air required for all fuel burning appliances	M1701.1
Condensate piping not installed/complete minimum ¾"	M1411.3.2
Flex horizontal ducts – must be fully extended, supported at 5 foot intervals maximum, within 1.5 feet of intermediate fittings and between intermediate fittings and bends. No more than ½" per foot of sag in ducts between supports. Supports must be minimum 1 ½" wide. **Vertical ducts** shall be stabilized with support straps at intervals not greater than 6 feet (all the above)	M1601.6.4.6
Ducts in the attic space required to be minimum R-6 insulated	FBC13-610.1.AB.2.1 (See Energy Efficiency Forms)
Ducts mechanical fastening All joints between sections of air ducts and plenums, between intermediate and terminal fittings and other components of air distribution systems, and between subsections of these components shall be mechanically fastened to secure the sections independently of the closure system(s).	M1601.3.1
Duct Sealing Air distribution system components shall be sealed with approved closure systems.	M1601.3.2
Ducts 4" of clearance required for sealing and inspection at supply plenum to unit (new units only)	FBC13-610.1.ABC.3.0.3 (See Energy Efficiency Forms)

Return transfer duct size requirements
for round flex ducts serving habitable rooms per M1602.4 *

Supply duct size in inches	Cross sectional area in square inches	1 ½ x cross sectional area in square inches	Minimum trade size of return transfer flex duct in inches
4	12.56	18.84	5
5	19.63	29.43	7
6	28.26	42.39	8
7	38.47	57.70	9
8	50.24	75.36	10
9	63.59	95.38	12
10	78.50	117.75	14
11	94.99	142.48	14
12	113.04	169.56	16
14	153.86	230.80	18
16	201.00	302.00	20
18	254.34	381.00	must use duct board
20	314.00	471.00	must use duct board

Diameters generally range from 2" (50mm) through 12" (300mm) in 1 in. (25mm) increments and 14" (350mm) through 20" (500mm) in 2 in. (50mm) increments.
*(Note that this requirement also must include a 1" undercut on the door to the room)

Duct work in the garage Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other approved material and shall have no openings into the garage.	R309
Dryer vent not constructed per code (Min. 4" metal, no screws allowed, seal with noncombustible tape, the male end of the duct at overlapped duct joints shall extend in the direction of air flow)	M1502.5

Dryer vent exceeds 25 ft. max length (unless dryer specs allow) calculate 5' for 90 degree bend and 2 ½ ' for 45 degree bend	M1502.6
Dryer vent termination must be non screened with back draft damper	M1501.2
Dryer vent not properly secured	M1601.3
Exhaust fans required for bathrooms and must vent outside and must have the minimum rating of 50 CMF if intermittent and 20 CFM if continuous.	M1507
Freon lines (suction) must be insulated	M1411.4
Intake openings must be min. 10 ft from plumbing vents, chimneys, exhaust outlets, loading docks, public streets, and parking lots	R303.4.1; M1602.2
Protection for piping In concealed locations where piping, other than cast-iron or galvanized steel, is installed through holes or notches in studs, joists, rafters or similar members less than 1.5 inches from the nearest edge of the member, the pipe shall be protected by shield plates. Protective shield plates shall be a minimum of 0.062-inch-thick steel, shall cover the area of the pipe where the member is notched or bored, and shall extend a minimum of 2 inches above sole plates and below top plates.	M1308.2
Protection for mechanical ductwork exposed to vehicular hazard	M1601.3.11
Refrigerant chase under slab can't be sealed with foam	R320.6

Rough Gas Piping

Appliance requires combustion air	G2407.1
Direct vent terminations must be min. 4 ft below, 4 ft horizontal, or 1 ft above any door window, or gravity air inlet to the building. Min. 3 ft from an interior corner formed by two walls, and min. 12" above grade	G2427.8 (exc. 2)
Gas piping pressure test of min. 3psi required	G2415.16, G2417.4.1
Gas piping not bonded to electrical grounding system	G2410.1
Gas piping can not be used as a grounding electrode	G2410.2, NEC250.52B
Gas piping, Protection against physical damage. In concealed locations, where piping other than black or galvanized steel is installed through holes or notches in wood studs, joists, rafters or similar members less than 1 inch from the nearest edge of the member, the pipe shall be protected by shield plates. Shield plates shall be a minimum of 0.0625-inch-thick steel, shall cover the area of the pipe where the member is notched or bored, and shall extend a minimum of 4 inches above sole plates, below top plates and to each side of a stud, joist or rafter.	G2415.5
Gas piping, Above-ground, outdoors. All piping installed outdoors shall be elevated not less than 3½ inches above ground and where installed across roof surfaces, shall be elevated not less than 3½ inches	G2415.7

above the roof surface. Piping installed above ground, outdoors, and installed across the surface of roofs shall be securely supported and located where it will be protected from physical damage. Where passing through an outside wall, the piping shall also be protected against corrosion by coating or wrapping with an inert material. Where piping is encased in a protective pipe sleeve, the annular space between the piping and the sleeve shall be sealed.	
Gas piping, Minimum burial depth. Underground piping systems shall be installed a minimum depth of 12 inches below grade, exception: as provided for in Section G2415.9.1 Individual outside appliances as follows, Individual lines to outside lights, grills or other appliances shall be installed a minimum of 8 inches below finished grade, provided that such installation is approved and is installed in locations not susceptible to physical damage.	G2415.9
Gas Piping. underground beneath buildings. Piping installed underground beneath buildings is prohibited except where the piping is encased in a conduit of wrought iron, plastic pipe, or steel pipe designed to withstand the superimposed loads. Such conduit shall extend into an occupiable portion of the building and, at the point where the conduit terminates in the building, the space between the conduit and the gas piping shall be sealed to prevent the possible entrance of any gas leakage. If the end sealing is capable of withstanding the full pressure of the gas pipe, the conduit shall be designed for the same pressure as the pipe. Such conduit shall extend not less than 4 inches outside the building, shall be vented above grade to the outdoors, and shall be installed so as prevent the entrance of water and insects. The conduit shall be protected from corrosion in accordance with Section G2415.8	G2415.11
Gas Piping, support. Piping shall be supported at intervals not exceeding the spacing specified in Table G2424.1 (see below) Spacing of **supports for CSST shall be in accordance with the CSST manufacturer's instructions**.	G2424.1

TABLE G2424.1
SUPPORT OF PIPING

STEEL PIPE, NOMINAL SIZE OF PIPE (inches)	**SPACING OF SUPPORTS (feet)**	**NOMINAL SIZE OF TUBING SMOOTH-WALL (inch O.D.)**	**SPACING OF SUPPORTS (feet)**
½	6	½	4
¾ or 1	8	5 / 8 or ¾	6
1¼ or larger (horizontal)	10	7 / 8 or 1 (horizontal)	8
1¼ or larger (vertical)	Every floor level	1 or Larger (vertical)	Every floor level

Rough Electric

Bonding, non current carrying metal parts, boxes, conduit, etc	NEC250.96A,314.4
Bonding, service equipment	NEC250.92(A)
Bonding, metal water pipe, gas pipe, building steel	NEC250.104
Boxes, properly located and supported	NEC314.23
Boxes, maximum fill	NEC314.16
Boxes, junction must be accessible	NEC314.29
Boxes, unused openings must be effectively closed of with approved material	NEC110.12A
Burial depth of conduit, wires	NEC300.5
Circuit size, 600 sq. ft. = 15 amp 800sq.ft. = 20 amp. Max; 3 watts per sq. ft.	NEC220.12
Disconnect, Hermetically sealed compressor units, in sight,50ft./ Motor only appliances, breaker must be capable of being locked in the open position or disconnect	NEC422.30,422.31; 430.102
Grounding of appliances, ranges, dryers require 3 wire w/ground; cover lighting requires access, (i.e., 4-wire feeder)	NEC250.140; NEC410.18
Lighting outlets, cove lighting shall have adequate space so lamps and equipment can be maintained	NEC410.18
Lighting outlets, switched light or receptacle in habitable room	NEC210.70A(1)
Lighting outlets, switched exterior doors, halls, stairs, garages; over 6 risers = 2 switches	NEC210.70A(2)
Lighting outlets, required in any attic, under floor space, utility room or basement used for storage and located at the point of entry	NEC210.70A(3)
Lighting outlets, required in any attic, under floor space, utility room or basement containing equipment requiring servicing and located at the point of entry	NEC210.70(3)
Lighting outlets in clothes closets, clearances, proper installation	NEC410.2; 410.16
Lighting outlets at interior and exterior stairways	NEC210.70(A)(2)(6)
Panel, working clearance min. 30" wide, and 36" deep to 6'6"high; illumination required	NEC110.26
Panel, not allowed in clothes closet, bathroom	NEC240.24D&E
Protection, protect wire from damage, nail plates, grommets,1 1/4"rule	NEC300.4
Protection, Wiring in accessible attic spaces within 6' of access; Protection in crawl spaces and unfinished basements bored holes, on face of joist or running boards	NEC334.23; NEC320.23 NEC334.15(C)
Receptacles, all in dwelling units must be Tamper Resistant “TR”	NEC406.11
Receptacles, spacing, habitable rooms, 2' wall spaces(6'-12' rule)	NEC210.52A
Receptacles, kitchen and dining counters,12" and wider,(2'-4' rule) min. 1 required on island or peninsula counter 24"x12" or greater, if on cabinet, max.12" below	NEC210.52C,210.8

counter; maximum 6" extension over cabinet; required to be GFCI protected	
Receptacles, required counter top outlets must be no more than 20” above counter	NEC210.52C(5)
Receptacles, small appliance, (2) 20 amp. dedicated circuits required on countertop	NEC210.52B
Receptacles, garage require GFCI	NEC210.52G;NEC210.8
Receptacles, Bathrooms, 1 min. within 36" of each basin	NEC210.52D
Receptacles, Bathrooms, dedicated 20 amp circuit per bath or dedicated to receptacle in baths only	NEC210.11C(3)
Receptacles, GFCI protection required	NEC210.8(A)
Receptacles, AFCI protection required in bedrooms, family room, dining rooms, living rooms, parlors, libraries, dens, sunrooms, recreations rooms, closets and hallways	NEC210.12(B)
Receptacles, Laundry, min. (1) 20 amp.(no other outlets) GFCI if within 6’ of sink	NEC210-52f, 210.11C(2) NEC210.8(A)(7)
Receptacles, Hallway 10ft or longer	NEC210.52H
Receptacles, Front and rear of dwellings within 6 ½’ of grade on all balconys >200’	NEC210.52E
Receptacles, Floor outlet must be within 18" of wall to count as required receptacle	NEC210.52(A)(3)
Receptacles, Wall outlet must be within 5 ½’ of floor to count	NEC210.52
Receptacles, Service outlet for heating, refrigeration,& AC equipment within 25' of unit	NEC210.63
Smoke detectors, location, hardwired ,and interconnected – location per NFPA	R313.1
Support, romex must be supported/secured at 4 ½’ max	NEC334.30
Support, wires secured within 12" of metal box or cable clamp	NEC334.30
Support, wires secured within 8" of plastic boxes	NEC314.17C
Wire size, too small for load	NEC210.19,310.15

Framing

Structural components must be designed to meet the applicable wind zone for the location	R301.2.1. FBC 102.9 (definition of wind speed)
The following is a list of common truss installation & fabrication errors that may require engineering. Truss design drawings, prepared in conformance with Section R802.10.1, shall be provided to the Building Official and approved prior to installation. • Valley, or piggyback trusses not braced, and properly attached to main trusses. • Web and chord sizes, grade, and configuration. • Loose or damaged plates. • Trusses that are cut, notched, bored, damaged, altered, or have additional loads applied**.** (i.e: supporting air handling equipment, storage, etc.) • Lateral, T, or scab bracing missing, or improperly installed. • Top, or bottom chords without rigid sheathing applied, not braced**.** • Trusses installed backwards, bearing points in wrong location. • Trusses with parallel top & bottom chords installed upside down. • Interior bearing points not located properly over bearing walls. • Multiple ply girder trusses not assembled per engineering (nailing, bolting, etc.) • Excessive space between the plies of fastened built up girder trusses • Girder trusses designed to carry a specific point load installed backwards. • Trusses installed in wrong locations. • Gable end trusses installed without continuous bearing. • Gable end truss verticals not braced per engineering. • Hip jacks are not properly attached to hip girders. • Bearing blocks missing per truss engineering	R806.1.6
Accessible bathroom door required min. 2-8 swing, or 2-6 pocket (29” clear opening)	R322.1.1
Attic ventilation 1/150 net area of ceiling, or 1/300 when 50% of the ventilation is accomplished by roof vents min. 3 ft. Above eave	R806.2
Attic access min. 22"x30" shall be provided to attic areas that exceed 30 square feet and have a vertical height of 30” or greater. (when of combustible construction) A 30” minimum unobstructed headroom in the attic space shall be provided at some point above the access opening. See Section M1305.1.3 for access requirements where mechanical equipment is located in attics.	R807.1
Chimney height, 2ft higher than any roof or wall within10ft,3ft min	R1001.1

Chimney cricket required if chimney is greater than 30" wide	R1001.17
Clearance between exterior non p.t. wood siding and grade is 6”	R1003.20
Connectors, **bolts must be exposed** for inspection	FBC109.9
Doors, garage doors, windows, must be installed per manuf. specs	R613.7.5
Draft stopping required to separate floor systems into 1000 sq. ft. max	R502.1.2
Emergency escape and rescue openings for sleeping rooms 20" net clear width min. 24" net clear height min./ Ground floor min. 5 sq. feet or 720sq. inches/ 2nd & 3rd floor min. 5.7sq. feet or 821sq. inches net clear openings/ Maximum sill height is 44"	R310.1
Egress, width, min. 36" when finished (anywhere inside the building except doors)	R311.1
Egress, height, min. 7ft., except stairs, projections from ceilings, and doors which are 6'8"(with other exceptions, see code)	R305.1
Exit Door, The required exit door shall be a side-hinged door not less than 3 feet in width and 6 feet 8 inches in height. Other doors shall not be required to comply with these minimum dimensions..	R311.4.2
Fire blocking required	R602.1.2
Foam plastics must have 6" clearance to grade	R320.6
Gable end walls adjacent to cathedral ceilings shall be continuous from the uppermost floor to the ceiling or roof diaphragm	FBC2304.3.4.2
Overnotched, overbored studs (40% notch, 60% bore max., non bearing walls) (25% notch, 40% bore, max. bearing walls)	R602.2.7
Pressure treated wood required in contact with masonry, or concrete	R319.1.3
Safety glazing required in hazardous locations (see final building list)	R308.4
Seal all holes in exterior walls	FBC13-606.1.ABC.1.2.1 (See Energy Efficiency Forms)
Slab having been opened & soil disturbed needs termite retreat	R320.1.2
Stairs 2 risers +1 tread=24"-25"- 3/16" variance in adjacent risers max. -3/8" variance in any other risers max. - 7 3/4" max. riser.- 9" min. tread depth exclusive of the nosing.(1&2 family dwellings only)	R311.5.3.1 (height), R311.5.3.2 (depth)
Stair width minimum 36"	R311.5.1
Stairs headroom, minimum 6'8"	R311.5.2
Stair landings, minimum size is 3'x3'	R311.5.4
Stairs max. vertical rise between floors or landings is 12 feet	R311.5.4
Stairs tread slope maximum 1/4" per foot	R311.5.5

Stairs, must have floors, or landings at door openings, except at the top of the stairs where the door doesn't swing over the stairs, and has an occupant load of less than 50 persons.	R311.5.4

Insulation

Baffles or chutes required at eaves to prevent blockage of attic ventilation for both blown, and batt type insulation	FBC 13-604.1ABC.1.1 (See Energy Efficiency Forms)
Blown insulation markers must be placed at 6' to 10' intervals must be visible from at least one point of attic access	FBC 13-604.1ABC.1.1 (See Energy Efficiency Forms)
Combustion air required for fuel burning appliances (unless they are direct vent type or manufacturer installation instructions do not require it)	FBC13-606.1.ABC.1.3 (See Energy Efficiency Forms) M1701
Energy calculations required on site for inspection	FBC 13-600 (See Energy Efficiency Forms)
Insulation incomplete	FBC 109.5 (See Energy Efficiency Forms)
R- values must match energy calculations or revise them	FBC 13-600.3.ABC.2 (See Energy Efficiency Forms)
Seal top plate penetrations	FBC13-606.1.ABC.1.2 (See Energy Efficiency Forms)
Seal exterior holes, and cracks in framing	FBC13-606.1.ABC.1.2 (See Energy Efficiency Forms)
Seal or gasket bottom plates at the conditioned envelope	FBC13-606.1.ABC.1.2 (See Energy Efficiency Forms)
Seal around door & window frames	FBC13-606.1.ABC.1.2 (See Energy Efficiency Forms)
Walls separating attic spaces from conditioned spaces are considered ceiling areas for insulation purposes	FBC13-604.1.A.1 (See Energy Efficiency Forms)

Gypsum Board

Fire rated assembly fastener patterns must meet tested design specified on the plans	R317, Plans
Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5 / 8 -inch Type X gypsum board or equivalent and installed perpendicular to the ceiling framing and fastened at maximum 6 inches o.c. by minimum 1 7 / 8 inches 6d coated nails or equivalent drywall screws.	R309.2, Table R702.3.5 Note E
Ceramic tile, gypsum backer Gypsum board utilized as the base or backer for adhesive application of ceramic tile or other nonabsorbent finish material shall conform with ASTM C 630 or C 1178. Water-resistant gypsum backing board shall be permitted to be used on ceilings where framing spacing does not exceed 12 inches on center for ½-inch-thick or 16 inches for 5 / 8 inch-thick gypsum board. Water-resistant gypsum board shall not be installed over a vapor retarder in a shower or tub compartment. All cut or exposed edges, including those at wall intersections, shall	R702.4.2

be sealed as recommended by the manufacturer.	
Gypsum board diaphragm ceilings, installation gypsum board used in a horizontal diaphragm ceiling shall be installed perpendicular to ceiling framing members. End joints of adjacent courses of gypsum board shall not occur on the same joist (where indicated on plans, i.e. gable end detail)	R101.2, FBC2508.5.2
Gypsum board diaphragm ceilings, blocking of perimeter edges All perimeter edges shall be blocked using a wood member not less than 2-inch by 6-inch nominal dimension. Blocking material shall be installed flat over the top plate of the wall to provide a nailing surface not less than 2 inches in width for the attachment of the gypsum board. (where indicated on plans, i.e. gable end detail)	R101.2, FBC2508.5.3
Gypsum board diaphragm ceilings, Fasteners used for the attachment of gypsum board to a horizontal diaphragm ceiling shall be as defined in Table 2508.5 (5d cooler or wallboard nail; 1 5 / 8 -inch long; 0.086-inch shank; 15 / 64 -inch head, 1¼ -inch, No. 6 Type S or W screws are permitted to be substituted for the listed nails). Fasteners shall be spaced not more than 7 inches on center o.c. at all supports, including perimeter blocking, and not more than 3 / 8 inch from the edges and ends of the gypsum board (where indicated on plans, i.e. gable end detail)	R101.2, FBC2508.5.4
Gypsum board supports and fasteners shall comply with Table R702.3.5 next page:	R702.3.5

TABLE R702.3.5
MINIMUM THICKNESS AND APPLICATION OF GYPSUM BOARD

THICKNESS OF GYPSUM BOARD (inches)	APPLIC-ATION	ORIENTATION OF GYPSUM BOARD TO FRAMING	MAXIMUM SPACING OF FRAMING MEMBERS (inches o.c.)	MAXIMUM SPACING OF FASTENERS (inches)		SIZE OF NAILS FOR APPLICATION TO WOOD FRAMING c
				Nails a	Screws b	
Application without adhesive						
3 / 8	Ceiling d	Perpendicular	16	7	12	13 gage, 1¼" long, 19 / 64 " head; 0.098 ″ diameter, 1¼" long, annular-ringed; or 4d cooler nail, 0.080 ″ diameter, 1 3 / 8 "long, 7 / 32" head.
	Wall	Either direction	16	8	16	
1 / 2	Ceiling	Either direction	16	7	12	13 gage, 1 3 / 8 " long, 19 / 64 " head; 0.098 ″ diameter, 1¼" long, annular-ringed; 5d cooler nail, 0.086 ″ diameter, 1 5 / 8 " long, 15 / 64 " head; or gypsum board nail, 0.086 ″ diameter, 1 5 / 8 " long, 9 / 32 " head.
	Ceiling d	Perpendicular	24	7	12	
	Wall	Either direction	24	8	12	
	Wall	Either direction	16	8	16	
5 / 8	Ceiling	Either direction	16	7	12	13 gage, 1 5 / 8 " long, 19 / 64 " head; 0.098 ″ diameter, 1 3 / 8 " long, annular-ringed; 6d cooler nail, 0.092 ″ diameter, 1 7 / 8 " long, ¼" head; or gypsum board nail, 0.0915 ″ diameter, 1 7 / 8 " long, 19 / 64 " head.
	Ceiling e	Perpendicular	24	7	12	
	Wall	Either direction	24	8	12	
	Wall	Either direction	16	8	16	
Application with adhesive						
3 / 8	Ceiling d	Perpendicular	16	16	16	Same as above for 3 / 8 " gypsum board
	Wall	Either direction	16	16	24	
1 / 2 or 5 / 8	Ceiling	Either direction	16	16	16	Same as above for ½" and 5 / 8 " gypsum board, respectively
	Ceiling d	Perpendicular	24	12	16	
	Wall	Either direction	24	16	24	
Two 3 / 8 layers	Ceiling	Perpendicular	16	16	16	Base ply nailed as above for ½" gypsum board; face ply installed with adhesive
	Wall	Either direction	24	24	24	

Notes to table:

a. For application without adhesive, a pair of nails spaced not less than 2 inches apart or more than 2½ inches apart may be used with the pair of nails spaced 12 inches on center.

b. Screws shall be Type S or W per ASTM C 1002 and shall be sufficiently long to penetrate wood framing not less than 5 / 8 inch and metal framing not less than 3 / 8 inch.

c. Where metal framing is used with a clinching design to receive nails by two edges of metal, the nails shall be not less than 5 / 8 inch longer than the gypsum board thickness and shall have ringed shanks. Where the metal framing has a nailing groove formed to receive the nails, the nails shall have barbed shanks or be 5d, 13½ gage, 1 5 / 8 inches long, 1 5 / 64 -inch head for ½-inch gypsum board; and 6d, 13 gage, 1 7 / 8 inches long, 15 / 64 -inch head for 5 / 8 -inch gypsum board.

d. Three-eighths-inch-thick single-ply gypsum board shall not be used on a ceiling where a water-based textured finish is to be applied, or where it will be required to support insulation above a ceiling. On ceiling applications to receive a water-based texture material, either hand or spray applied, the gypsum board shall be applied perpendicular to framing. When applying a water-based texture material, the minimum gypsum board thickness shall be increased from 3 / 8 inch to ½ inch for 16-inch on center framing and from ½ inch to 5 / 8 inch for 24-inch on center framing or ½-inch sag-resistant gypsum ceiling board shall be used.

e. Type X gypsum board for garage ceilings beneath habitable rooms shall be installed perpendicular to the ceiling framing and shall be fastened at maximum 6 inches o.c. by minimum 1 7 / 8 inches 6d coated nails or equivalent drywall screws.

Ceilings shall be installed in accordance with the requirements for interior wall finishes as provided in Section R702 (walls)	R805.1

Final Plumbing

Air admittance valve must be in accessible ventilated space	P3114.5
Air admittance valve must be located min. 4" above branch or fixture drain, min. 6" above insulation, and comply with ASSE1051	P3114.4, P3114.1
Cleanout Spacing shall be installed not more than **100 feet apart** in horizontal drainage lines.	P3005.2.2
Clean out must be accessible	P3005.2.5
Clean out outside must be flush with grade	P3005.2.3
Clean out on concealed piping must be flush to finished surface	R101.2, FPC708.4
Clean out required at the base of each soil or waste stack	P3005.2.6
Clean out for 6" or smaller pipes need 18" clearance for rodding	P3005.2.5
Clean outs with countersunk heads shall be installed where raised heads are a trip hazard.	R101.2, FPC 708.2
Hot water supply shall be on the left side of the fixture	P2722.2
Access for Inspection	FBC109.5
Plumbing fixtures installed incorrectly	P2705.1
Septic tank final approval from health department required	SS381.0065(4)
Service valve required at entrance of pipe to the building and at the curb	P2903.9.1
Shower walls must have smooth, noncorrosive, nonabsorbant, waterproof material not less than 6 feet above room floor level	R307.2
Shower compartment size, min. interior finished dimension is 30" in any direction, and 900 sq. inches	P2708.1
Shutoff valves required for fixtures, except tubs, and showers	P2903.9.3
Thermal expansion control required	P2903.4
Vacuum breakers required on hosebibs	P2902.3.2
Water heater in attic needs 30"h x 22"w passageway max. 20' long	M2005.1, M1305.1.3
Water heater, gas be installed per manufacturer's installation instructions	M2001.1; G2408.2
Water heater pan required above ground floor, attic, or ceiling	P2801.5
Water heater pan drain to ext. must terminate 6" - 24" above grade	P2801.5.2
Water heater cold water supply line valve required	R101.2, FPC 503.1

Water heater relief valve discharge pipe can not be trapped, must drain to floor or exterior & must have visible air gap, or air gap fitting located in the same room. Must discharge to a safe location which doesn't cause personal injury to the occupants in the immediate area, or structural damage	P2803.6.1.2

Final Mechanical

Air-handling units shall be allowed in attics if the following conditions are met: **1.** The service panel of the equipment is located within 6 feet (1829 mm) of an attic access. **2**. A device is installed to alert the owner or shut the unit down when the condensation drain is not working properly. **3.** The attic access opening is of sufficient size to replace the air handler. **4.** A notice is posted on the electric service panel indicating to the homeowner that the air handler is located in the attic. Said notice shall be in all capitals, in 16 point type, with the title and first paragraph in bold: **NOTICE TO HOMEOWNER** **A PART OF YOUR AIR CONDITIONING SYSTEM, THE AIR HANDLER, IS LOCATED IN THE ATTIC. FOR PROPER, EFFICIENT, AND ECONOMIC OPERATION OF THE AIR CONDITIONING SYSTEM, YOU MUST ENSURE THAT REGULAR MAINTENANCE IS PERFORMED. YOUR AIR CONDITIONING SYSTEM IS EQUIPPED WITH ONE OR BOTH OF THE FOLLOWING:** **1) A DEVICE THAT WILL ALERT YOU WHEN THE CONDENSATION DRAIN IS NOT WORKING PROPERLY OR** **2) A DEVICE THAT WILL SHUT THE SYSTEM DOWN WHEN THE CONDENSATION DRAIN IS NOT WORKING. TO LIMIT POTENTIAL DAMAGE TO YOUR HOME, AND TO AVOID DISRUPTION OF SERVICE, IT IS RECOMMENDED THAT YOU ENSURE PROPER WORKING ORDER OF THESE DEVICES BEFORE EACH SEASON OF PEAK OPERATION.**	M1305.1.3.2
Appliance installation Heating and cooling equipment and appliances shall be installed in accordance with the manufacturer's installation instructions and the requirements of this code.	M1401.1
Balanced return air required (Transfer, or ducted return)	M1602.4
Bathroom exhaust req. or minimum 3 sq. ft. of net window opening if containing bathtub, shower, spa, etc	R303.3
Condenser pad must be minimum 3½" thick concrete minimum 3" above adjoining grade, (Exception: existing pad for change outs ok.)	M1403.2; M1305.1.4.1
Condensate piping Condensate drains shall connect to air outside the building perimeter at a height of **at least 6 inches above the finished grade** ground level. Chases through which the condensate and refrigerant lines run shall not terminate in the air return plenum or duct. If a portion of the condensate pipe does not drop below the height of the condensate outlet, then a trap should be installed to prevent suction of outdoor air into the air handler	M1411.3-1411.3.2

Condensate drain must terminate **minimum 1 ft. from structure**	R101.2, FBC1503.6
Dryer vent termination must be nonscreened with back draft damper	M1501.2
Ducts 4" of clearance required for sealing and inspection at supply plenum to unit	FBC13-610.1.ABC.3.0.3 (See Energy Efficiency Forms)
Exhaust termination – MUST BE OUTDOORS	M1501.1
Exterior units must be secured per plans/provide engineering to meet wind loads	M1307.3
Freon lines must be protected from damage	M1301.1, FMC1101.3
Manufacturers installation instructions for products, and appliances required on the job site	M1401.1, M1301.1, FMC304.1
Mechanical fastening, from plenum to air handler required	M1601.3.1
Mechanical system efficiency must match energy calculations	FBC 13-600.3 (See Energy Efficiency Forms)

Final Gas

Appliance installation Heating and cooling equipment and appliances shall be installed in accordance with the manufacturer's installation instructions and the requirements of this code.	M1401.1, M1301.1, FMC304.1
Appliances located in private garages shall be installed with a minimum clearance of 6 feet above the floor. **Exception:** The requirements of this section shall not apply where the appliances are protected from motor vehicle impact and installed in accordance with Section G2408.2.	G2408.3
Combustion air provisions required for any fuel burning appliances	M1701.1, G2407
Direct vent terminations must be installed in accordance with manufacturer's installation instructions and The vent terminal of a direct-vent appliance with an input of 10,000 BTU per hour or less shall be located at least 6 inches from any air opening into a building, and such an appliance with an input over 10,000 BTU per hour but not over 50,000 BTU per hour shall be installed with a 9-inch vent termination clearance, and an appliance with an input over 50,000 BTU/h shall have at least a 12-inch vent termination clearance. The bottom of the vent terminal and the air intake shall be located at least 12 inches above grade.	G2427.2.1,G2427.8(3)
Equipment shutoff valve, each appliance shall be provided with a shutoff valve separate from the appliance. The shutoff valve shall be located in the same room as the appliance, not further than 6 feet from the appliance, and shall be installed upstream from the union, connector or quick disconnect device it serves. Such shutoff valves shall be provided with access. **Exception:** Shutoff valves for vented decorative appliances	G2420.5

and decorative appliances for installation in vented fireplaces shall not be prohibited from being installed in an area remote from the appliance where such valves are provided with ready access. Such valves shall be permanently identified and shall serve no other equipment.	
Gas pipe bonding. Each above-ground portion of a gas piping system that is likely to become energized shall be electrically continuous and bonded to an effective ground-fault current path. Gas piping shall be considered to be bonded where it is connected to gas utilization equipment that is connected to the equipment grounding conductor of the circuit supplying that equipment.	G2411.1
Gas vent termination A gas vent shall terminate in accordance with one of the following: 1. Above the roof surface with a listed cap or listed roof assembly. Gas vents 12 inches in size or smaller with listed caps shall be permitted to be terminated in accordance with Figure G2427.6.5, provided that such vents are at least 8 feet from a vertical wall or similar obstruction. All other gas vents shall terminate not less than 2 feet above the highest point where they pass through the roof and at least 2 feet higher than any portion of a building within 10 feet 2. As provided for direct-vent systems in Sec. G2427.2.1. 3. As provided for equipment with integral vents in Sec. G2427.2.2. 4. As provided for mechanical draft systems in Sec.G2427.3.3.	G2427.6.4
Gas Water heaters installed in garages shall be installed in accordance with the manufacturer's instructions which shall be available on the job site at the time of inspection.	G2408.2; FGC305.3
LP tanks, **Above ground,** less than 125 gal. may be placed directly against the building,125-250 gal.10ft. min. from the building, & property line that may be built upon	G2412.2, FFPC (NFPA 58)69-3.2.1
LP tanks Mounted, or underground, up to 2000 gal. min.10 ft. from a building, or property line that may built upon	G2412.2, FFPC (NFPA 58)69-3.2.1
LP tank, relief valve, vent discharge, and filling connection, min. 10' from exterior source of ignition, openings into direct vent appliances, & mechanical ventilation intakes. Cylinder type filled on site min. 3', and ASME tank filled on site min. 5' from building openings below point of discharge	G2412.2, FFPC (NFPA 58)69-3.2.1

Final Electric

Appliance, breaker must meet nameplate rating	NEC422.11A
Appliance, circuit size must meet the nameplate rating	NEC422.10A
A/C equipment, breaker size must meet the nameplate rating	NEC440.6
A/C equipment, circuit size must meet the nameplate rating	NEC440.6
Bonding, non-current carrying metal parts, boxes, conduits, etc.	NEC250.96a,314.4

Bonding, service equipment	NEC250.92A
Bonding, metal water pipe, gas pipe, building steel	NEC250.104
Boxes located properly with respect to wall finish(Combustible=flush, non combustible=recessed 1/4" maximum)	NEC314.20
Branch circuit conductor ampacity and terminal ratings	NEC210.19, 110.14c
Burial depth of conduit, wires	NEC300.5
Circuit breakers, generally unless otherwise allowed #14cu=15amp,#12cu=20amp,#10cu=30amp max	NEC240.3d
Conductor identification, White used for hot; must be properly marked/coded	NEC210.5
Contamination of equipment (paint, solvents, etc.) prohibited – interior of panels	NEC110.12c
Continuity check must pass for short circuits in receptacles	NEC110.7
Continuity check must pass for neutral/ground in receptacles	NEC250.90
Continuity check must pass for proper polarity of receptacles	NEC200.11
Cover plate, junction boxes must have cover plate	NEC314.28c
Disconnecting means required within sight, and 50' for motors; W/H	NEC430.102
Disconnecting means required within sight, and 50' for hvac equipment	NEC440.11
Equipment, must be identified as suitable for it's use	NEC110.3
Ground rod missing; verify alternate ground	NEC250.52
Grounding electrode conductor, unprotected, minimum #4 required; for 200 Amp Service	NEC250.64b
Hydro massage tub, GFCI protection required for individual circuit	NEC680.71
Hydro massage tub, electrical equipment shall be accessible without damaging the building structure, or finish	NEC680.73
Identify branch circuits, in panel	NEC110.22
Knockouts that are open must be properly blanked off	NEC110.12a
Lighting outlets, switched light or receptacle in habitable room	NEC210.70A(1)
Lighting outlets, switched exterior doors ,halls, stairs, garages	NEC210.70A(2)
Lighting outlets, attics, under floor spaces, utility rooms	NEC210.70A(3)
Light fixtures not properly supported and installed	NEC410.30;NEC410.36
Light fixtures in clothes closet, min. 6" from vertical line at front of shelf for fluorescent fixture, min. 12" from shelf for globe type incandescent fixture (no shelves? add 24" at or below 6', add 12" above 6')	NEC410.8
Neutral/ground separation, required in any sub-panel	NEC408.40
Overhead mast height is 10' minimum over walkway; up to 18' over comm. driveway	NEC230.24B
Panel, not allowed in clothes closet, bathroom	NEC240.24D&E
Panel, cover must be in place	NEC408.18

Panel, must be grounded	NEC408.20
Panel unused openings (knock outs) must be properly closed	NEC110.12A
Protection, wiring in accessible attic spaces	NEC334.23
Protection, wiring from physical damage, attic, crawlspace, garage	NEC300.4
Receptacles, installation in a damp, or wet location; tamper resistant “TR” and WR, “Bubble Cover”	NEC406.8
Receptacles, spacing, habitable rooms, 2' wall spaces(6'-12' rule)	NEC210.52A
Receptacles, kitchen and dining counters,12" and wider,(2'-4' rule) min. 1 required on island or peninsula counter 24"x12" or greater, if on cabinet, max.12" below counter, max.6"extention over cabinet req. to be GFCI protected	NEC210.52C,210.8
Receptacles, req. countertop outlets must be within 20" above top	NEC210.52C(5)
Receptacles, small appliance, (2) 20 amp dedicated circuits required for kitchen countertop	NEC210.52B NEC210.11(C)(1)
Receptacles, garage; GFCI required	NEC210.52G NEC210.8
Receptacles, Bathrooms, 1 min. within 36" of each basin	NEC210.52D
Receptacles, Bathrooms, dedicated 20 amp. circuit for all bathroom receptacles, or dedicated 20amp branch circuit for all equipment in 1 bathroom	NEC210.11C(3)
Receptacles, Hallway 10ft or longer	NEC210.52H
Receptacles, Front and rear of dwellings within 6 ½’ of grade; all decks and porches >200’	NEC210.52E
Receptacles, Service outlet for heating, refrigeration,& AC equipment within 25' of unit; GFCI & “Bubble Cover”	NEC210.63; NEC210.8
Receptacles, Floor outlet must be within 18" of wall to count	NEC210.52(3)
Receptacles, Wall outlet must be within 5 ½’ of floor to count	NEC210.52
Receptacles, Outdoor requires GFCI protection; also requires WR,TR and have “Bubble Cover”	NEC210.8A(3); NEC406.8
Receptacles, Garage & accessory buildings, GFCI protection and TR required	NEC210.8A(2)
Receptacles, Within 6' of bar sink, GFCI protection and TR required	NEC210.8A(7)
Receptacles, Bathroom, GFCI protection and TR required	NEC210.8A(1)
Receptacles, Kitchen counters, GFCI protection and TR required	NEC210.8A(6)
Receptacles, Unfinished basement, GFCI and TR protection required	NEC210.8A(5)
Receptacles, Basement or crawl space, GFCI and TR protection required	NEC210.8A(4)
Receptacles and all other outlets, AFCI protection and TR is required in sleeping rooms, family rooms, dining room, living rooms, parlors, libraries, dens, sunrooms,	NEC210.12B

<table>
<tr><td>recreations rooms, closets and hallways</td><td></td></tr>
<tr><td>Receptacles, Laundry, min. (1) 20 amp w/ no other outlets; GFCI and TR if within 6’ of sink</td><td>NEC210.52F, 210.C(2); NEC210.5(A)(7)</td></tr>
<tr><td>Receptacles, 15 amp receptacle and TR required on 15 amp circuit</td><td>NEC210.21</td></tr>
<tr><td>Receptacles, 15, or 20 amp receptacle (except for dedicated receptacle, it must be 20 amp) and TR on a 20 amp circuit</td><td>NEC210.21</td></tr>
<tr><td>Receptacles, mounted on raised steel covers require 2 screws, or listed for use with one</td><td>NEC406.4C</td></tr>
<tr><td>Receptacles, loose</td><td>NEC406.4</td></tr>
<tr><td>Receptacles in outdoor wet location req. weatherproof covers with or without plug inserted. (bubble cover), and must be type WR & TR</td><td>NEC406.8B(1)</td></tr>
<tr><td>Service/feeders, Minimum size awg (100 amp = #4cu, #2alum) (150amp=#1cu,#1/0alum) (200amp= #2/0cu, #4/0 alum) If “main powerfeeder” for <u>all</u> loads</td><td>NEC310.15B(6)</td></tr>
<tr><td>Service, size insufficient for the load imposed</td><td>NEC230.42</td></tr>
<tr><td>Splices, devices must be proper, and suitable for use</td><td>NEC110.14B</td></tr>
<tr><td>Terminations, loose connections</td><td>NEC110.14A</td></tr>
<tr><td>Wire size, SE cable for interior wiring applied @ 60” c.
<table>
<tr><th colspan="3">SE Wire Sizes</th></tr>
<tr><td>AWG</td><td>Amps CU</td><td>Amps AL</td></tr>
<tr><td>#8</td><td>40</td><td>30</td></tr>
<tr><td>#6</td><td>55</td><td>40</td></tr>
<tr><td>#4</td><td>70</td><td>55</td></tr>
<tr><td>#2</td><td>95</td><td>75</td></tr>
<tr><td>#1</td><td>110</td><td>85</td></tr>
</table></td><td>NEC310.16</td></tr>
<tr><td>Working clearance, 3' deep, 30" wide x 6 1/2' high</td><td>NEC110.26</td></tr>
<tr><td>Wire size, too small for load</td><td>NEC210.19, 310.15</td></tr>
</table>

Final Building

Address numbers must be posted on the building in such a position as to be plainly visible and legible from the street or road fronting the property.	R321.1
Attic access min. 22"x30" required when greater than 30" at peak	R807.1
Doors, landings, max. drop of 7 ¾ " in elev. from finish floor to outside, exterior balcony, or exterior ext access	R311.4.3
Doors, garage doors ,windows must be installed per manuf. specs	R613.6.1
Doors, from conditioned space to exterior, or garage, must be solid core, wood panel, or insulated, and weather stripped	FBC13-603.1 (See Energy Efficiency Forms)
Emergency escape and rescue openings for sleeping rooms 20" net clear width min. 24" net clear height min./ Ground floor min. 5 sq. feet or 720sq. inches/ 2nd & 3rd floor min. 5.7sq. feet or 821sq. inches net clear openings/ Maximum sill height is 44"	R310.1

Egress, width, min. 36" (anywhere inside the building except doors)	R311.3, R311.5
Egress, height, min. 7ft., except stairs, projections from ceilings, and doors which are 6'8"(for other exceptions see code)	R305.1
Exterior of building, must be sealed and weather resistant	R703.1
Exit Door, The required exit door shall be a side-hinged door not less than 3 feet in width and 6 feet 8 inches in height. Other doors shall not be required to comply with these minimum dimensions..	R311.4.2
Foam plastics must have 6" clearance to grade	R320.6
Grade, clearance between exterior wall coverings and final earth grade on the exterior of a building **shall not be less than 6 inches** **Exceptions:** 1.) Paint or decorative cementitious finish less than 5 / 8 inch thick adhered directly to the masonry foundation sidewall. 2.) Access or vehicle ramps which rise to the interior finish floor elevation for the width of such ramps only. 3.) A 4-inch inspection space above patio and garage slabs and entry areas. 4.) If the patio has been soil treated for termites, the finish elevation may match the building interior finish floor elevations on masonry construction only. 5.) Masonry veneers	R704
Grade, Drainage Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection so as to not create a hazard. Lots shall be graded so as to drain surface water away from foundation walls. The grade away from foundation walls shall fall a minimum of 6 inches within the first 10 feet (also proposed site plan req.)	R401.3
Guardrails, required on open porches, balconies, landings, stairs, etc. that are more than 30" above ground level, or floor below	R312.1
Guardrails, for dwellings must be minimum 36" high	R312.1
Guardrails, openings must reject the passage of a 4" diameter sphere **exceptions:** Triangular openings formed along stairs must reject the passage of a 6" diameter sphere. Openings for required guards on the sides of stair treads shall not allow a sphere 4 3 / 8 inches to pass through.	R312.2
Guardrails, not strong enough	R101.2, FBC1607.7.1
Handrails, required for stairs having 4 or more risers	R311.5.6
Handrails, must be located at 34"-38" above the leading edge of the tread	R311.5.6.1
Handrails shall be provided on at least one side of each continuous run of treads or flight with four or more risers.	R311.5.6,
Handrails, gripping surface must be continuous	R311.5.6.2
Handrails, grip size	R311.5.6.2

Insulation that was blown, is not to proper depth per insulation certificate	FBC13-604.1.ABC.1.1 (See Energy Efficiency Forms)
Irrigation/sprinklers, systems, and risers for spray heads shall not be installed within 1' of the building sidewalls	R101.2, FBC1816.1.6 **,** FPC316.1
Roof gutters and down spouts, are required on all buildings with eaves having less than a 6" horizontal projection, except for gable ends, and roofs above other roofs	R101.2, FBC1503.6
Roof gutter down spouts, must discharge at least 1' from the structure sidewalls, by means of underground piping, tail extensions, or splash blocks	R101.2, FBC1503.6
Site debris, must be completely removed	R320.8.2
Soffits for eaves, must be complete with 1/4" max openings	R101.2, FBC1203.2.1
Safety glazing, required in hazardous locations The following locations are considered hazardous: 1) Glazing in swing doors, and fixed, and sliding panels in sliding door assemblies. 2) Glazing in doors, and walls of enclosures for hot tubs, whirlpools, saunas, bathtubs, showers, and other such facilities, where the glazing is located 36", or less horizontally from a standing, or walking surface within the enclosure, and where the bottom edge of the exposed glazing is less than 60" measured vertically above such standing, or walking surface. 3) Glazing in individual fixed, or operable panels adjacent to a door, where the nearest vertical edge is within a 24" radius of the door in a closed position, and where the bottom edge is within 60", measured vertically above the floor, or walking surface. Exception: Glazing in walls perpendicular to the plane of the door in a closed position. 4) Glazing in an individual fixed, or operable panel, other than those locations described in 2, or 3 above that meet all of the following conditions. Exposed area of an individual pane greater than 9sq ft, the bottom edge is less than 18" above the floor, the top edge is greater than 36" above the floor, one or more walking surfaces is within 36" horizontally of the plane of the glazing. 5) Glazing in railings regardless area, or height above a walking surface. 6) Glazing in walls, and fences enclosing indoor, and outdoor swimming pool, and spas where the bottom edge of the glazing is 1) less than 60" above the walking surface on the pool side, & 2) the glazing is within 60" horizontally of the waters edge of a swimming pool, or spa.	R308.4
Smoke detectors, location, hardwired, interconnected, and battery backup	R313.1
Stairs, 2 risers + 1 tread=24"-25"- 3/16" variance in adjacent risers max. - 3/8" variance in any other risers max. - 7 3/4" max. riser - 9" min. tread depth exclusive of the nosing, (1&2 family dwellings only)	R311.5.3.2

Stair width, minimum 36"	R311.5.1
Stairs headroom, minimum 6'8"	R311.5.2
Stair landings, minimum size is 3'x3'	R311.5.4
Stairs max. vertical rise between floors or landings is 12 feet	R311.5.4
Stairs tread slope maximum 1/4" per foot	R311.5.5
Stairs, must have floors, or landings at door openings, except at the top of the stairs where the door doesn't swing over the stairs, and has an occupant load of less than 50 persons	R311.5.4
Termite treatment, concrete over pour or mortar accumulated on exterior grade must be removed prior to required perimeter termite treatment	R320.1.5
Termite treatment, Perimeter, soil within 1 ft of the structure sidewalls required	R320.1.6
Termite treatment certificate stating product used, identifying the applicator, time, and date of treatment, site location, area treated, chemical used, % concentration, and # of gallons used, must be provided to retain for building department files	FBC105.10
Termite treatment, A permanent sign which identifies the termite treatment provider, and need for reinspection, and termite contract renewal shall be posted near the water heater, or electric panel	FBC105.11
Termite treatment certificate of compliance, stating "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" shall be issued to the Building Department by a licensed pest control company	R320.1
Windows, and glass doors, must bear an AAMA, or WDMA, or other approved label to indicate wind load compliance	R613.3.1

Pool – Steel and Ground

Angle of repose, violation	R403.1.7
Barrier, Any excavation requires barrier, to make it safe from danger to life	R101.2, FBC3304.1
Bonding, Min. #8 copper conductor required to bond reinforcing steel, and light niche to the common bonding grid; and under perimeter surfaces (pool deck)	NEC680.26
Bond clamp, incased with concrete must have corrosion protection	NEC300.6B;NEC250.70
Reinforcing steel, Minimum 3" concrete coverage (clearance to earth) required for reinforcing steel required in concrete cast, and permanently placed in contact with earth	R101.2, FBC1907.7.1
Reinforcing steel, Must be installed in accordance with the engineered design	Plans, FBC106.4

Over excavation, if the pool shell is over excavated or excessive backfill has been placed, sealed compaction test results in 12" lifts will be required at the deck inspection	R401.4
Pressure test, All pool piping shall be inspected, and approved before being covered or concealed. It shall be tested, and proved tight to the satisfaction of the administrative authority, under a static water, or air pressure test of not less than 35 psi for 15 minutes	R4101.12.1
Purple primer, required to be used on PVC pipe fittings	R4101.13.2, FPC705.14.2
Suction inlets for pumps, At least two suction inlets shall be provided for each pump in the suction inlet system, separated by a minimum of 3', or located on two different planes; (i.e, one on the bottom and one on the vertical wall, or one each on two separate vertical walls. They must be plumbed together such that water is drawn through them simultaneously through a common line)	R4101.6.6.4

Pool – Deck

Bonding, All metal parts of the pool structure including the reinforcing metal of the pool shell, coping stones, and deck. Also all metal sheathed cables, metal piping, and all fixed metal parts that are within 5' horizontally of the inside walls of the pool, and within 12' vertically above the max water level.(i.e. metal, door, or window frames, soffits, fences, pool enclosures, etc.)	NEC680.26B(5)
Bond Wire, run under perimeter deck	NEC680.26(2)
Burial depth, Nonmetallic conduit 18" min., rigid or intermediate metal conduit 6" min., 120 volt 20 amp max. GFCI protected branch circuits (pool light conduit) 12" minimum, (circuits within 5' of the pool shell see 680.10)	NEC300.5
Compaction testing if the pool shell is over excavated or excessive backfill has been placed, sealed compaction test results in 12" lifts will be required at the deck inspection	R401.4
Deck drains, shall be installed to provide continuous grade to point of discharge	R4101.13.1
Pressure test, All pool piping shall be inspected, and approved before being covered or concealed. It shall be tested, and proved tight to the satisfaction of the administrative authority, under a static water, or air pressure test of not less than 35 psi for 15 minutes	R4101.12.1
Purple primer, required to be used on PVC pipe fittings (EXCEPT exposed above ground piping – it does NOT have to be colored.)	R4101.13.2 (exc. R4101.6.5)
Rebar not min. 3" from earth	R101.2, FBC1907.7.1
Rebar laps not per plan/code minimum	Plans, FBC106.4,R101.2, FBC1901.2, ACI 318

Rebars must be tied in place to prevent displacement	R101.2, FBC1908.4.1, FBC1907.5.1
Roots, vegetation, etc., must be completely removed from under the deck	R320.8.2
Slab reinforcement required, wire mesh, or fibermesh	R506.2.4
Slab thickness of 3½" minimum is required	R506.1
Shotcrete, that exhibits sags, sloughs, segregation, honeycombing, sand pockets, or other obvious defects shall be removed, and replaced	R101.2, FBC1914.8
Termite treatment proof required	R320.1, FBC105.10
Termite treatment certificate stating product used, identifying the applicator, time, and date of treatment, site location, area treated, chemical used, % concentration, and # of gallons used, must be provided to retain for building department files	FBC105.10

Pool – Final Pool

Appliance information, Manufacturers installation information must be on the job, and appliances pertaining to the pool must be installed per manufacturers info	R4101.22
Barriers required, meeting the requirements of R4101.17.1.1 through R4101.17.1.14, **except when an approved pool cover** meeting the requirements of ASTM F 1346-91 is installed per its listing	R4101.17 Exception
Outdoor pool barriers: **Barriers, height**, Must be minimum 48" high above grade measured on the side of barrier away from the pool. Maximum of 2" from grade to bottom. If mounted on the top of the pool structure, a maximum of 4" from the structure to the bottom of the barrier	R4101.17.1.1
Barriers, construction of, 1.) No gaps, indentations, protrusions, or structural components that could allow a young child to crawl under, squeeze through, or climb over as herein described below. One end of a removable barrier shall not be removable without the aid of tools. Openings in it shall reject the passage of a 4" diameter sphere	R4101.17.1.2
2.)**Solid barriers** which do not have openings shall not contain indentations or protrusions except normal construction tolerances, or tooled masonry joints	R4101.17.1.3
3.) Where the **barrier is composed of horizontal and vertical members**, and the distance between the tops of the horizontal members is **less than 45"**, the horizontal members shall be on the pool side of the fence. Spacing between the vertical members, or spacing within decorative cutouts within vertical members shall not exceed 1 3/4" in width	R4101.17.1.4
4.) Where the **barrier is composed of horizontal, and vertical members**, and the distance between the tops of the horizontal members is **45"or more**, spacing between the vertical members shall not exceed 4".	R4101.17.1.5

Spacing within decorative cutouts within vertical members shall not exceed 1 3/4" in width	
5.) **Chain link fences**, The maximum mesh size shall be 2 1/4" square, unless provided with slats fastened at the top, or bottom which reduce the openings to no more than 1 ¾"	R4101.17.1.6
6.)Where the **barrier is composed of diagonal members,** the maximum opening formed by the diagonal members shall be no more than 1 3/4"	R4101.17.1.7
7) **Standard screen enclosures,** which meet the requirements of 424.2.17 may be utilized as part of or all of the "barrier" and shall be considered a non-dwelling wall. One end of the barrier shall not be removable without the aid of tools.	R4101.17.1.11
Barriers 1.) **The barrier must be placed** around the perimeter of the pool, and must be separate from any fence, wall, or other enclosure surrounding the yard, unless the fence wall or other enclosure or portion thereof is situated on the perimeter of the pool, is being used as part of the barrier, and meets the barrier requirements of this section. (This section was clarified by a dec. statement DCA02 DEC-050 that defined the pool deck as a flat stable area (floor) which includes a flat surface such as a concrete slab, wooden deck, grass, etc.)	R4101.17.1.12
Barriers 2.)**Removable child barriers** shall be placed min. 20" from the water's edge of the pool	R4101.17.1.13
Barriers 3.) **The barrier may not be located** in a way that allows any permanent structure, equipment, or window that opens to provide access from the home to the swimming pool	R4101.17.3
Barriers 4) **Where an above ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure**, and the means of access is a ladder or steps either shall be capable of being secured, locked or removed to prevent access, or the ladder or steps shall be surrounded by a barrier that meets the requirements of this code. The any opening created by this method shall not allow the passage of a 4" diameter sphere	R4101.17.1.10
Access gate requirements, when provided: Non-Dwelling walls, (i.e. fences, screen enclosures, etc.) Access gates shall meet the construction requirements of the code, and shall swing outward from the pool, be equipped with a self closing, and self latching device when on the outside of the gate the release mechanism shall be located no less than 54" from the bottom of the gate. It shall have no openings greater than 1/2" within 18" of the release mechanism when located	R4101.17.1.8

below 54" on the pool side of the gate	
Access gate requirements, when provided: **Dwelling walls**,(i.e. walls of the dwelling being used as part of the barrier) One of the following shall apply: **1.)** All doors and windows providing direct access from the home to the pool shall be equipped with an exit alarm meeting the requirements of UL2017 that produces 85db A at 10' continuous when the door and screen are opened, and is either hardwired, or of the plug in type. Separate alarms are not required for each door or window when equipped with sensors wired to a central alarm. It shall sound immediately after the door is opened. It shall be equipped with a manual means to temporarily deactivate it for 15 seconds max., and for a single opening. The switch must be located at least 54" above the threshold of the door. **Exceptions :** **a.)** Screened, or protected windows having a bottom sill height of 48" or more measured from the interior finished floor at the pool access level. **b.)** Windows facing the pool on floor above the first story. **c.)** Screened or protected pass through kitchen windows 42" or higher with a counter beneath. **2.)** All doors providing direct access from the home to the pool must be equipped with a self closing, self latching device with positive mechanical latching/locking installed a minimum of 54" above the threshold, which is approved by the authority having jurisdiction.	R4101.17.1.9
Indoor pool barriers: All walls surrounding indoor swimming pools shall comply with R4101.17.1.9 (Dwelling wall being used as a barrier section, above.)	R4101.17.1.9
Bonding: 1.) All fixed metal parts within 5' horizontally from the inside walls of the pool, and 12' vertically from the max. water level of the pool shall be bonded to the common bonding grid unless separated by a permanent structure, (i.e. metal, door, or window frames, soffits, fences, pool enclosures, etc.) 2.) Metal parts of electrical equipment associated with the pool water circulating system, and metal parts of equipment associated with pool covers, including motors 3.) All metal fittings within or attached to the pool structure. (Isolated parts no greater than 4" in any dimension, and do not penetrate the structure more than 1" are exempt.)	NEC680.26B(5); NEC680.26B(4); NEC680.26B(3)
All parts above shall be connected to the common bonding grid with a minimum #8 solid copper conductor. Connections shall be made by exothermic welding, or by approved pressure connectors, or clamps made with stainless steel, brass, copper, or copper alloy.	NEC680.26C
Disconnecting means, required insight, and 50' of the pool, spa, or hot tub equipment, but at least 5' from the inside walls of the pools, spas, or hot tub equipment	NEC680.12

Equipment foundations and enclosures. All pool motors and equipment shall be installed in compliance with the manufacturer's recommendations. All heating and electrical equipment, unless approved for outdoor installation, shall be adequately protected against the weather or installed within a building.	R4101.22
Glazing, in walls, and fences enclosing indoor, and outdoor swimming pool, and spas where the bottom edge of the glazing is 1) less than 60" above the walking surface on the pool side, & 2) the glazing is within 60" horizontally of the waters edge of a swimming pool, or spa.	R308.4 (9)
Light fixtures, **Existing light fixtures,** located less than 5' horizontally from the inside walls of the pool shall be a minimum of 5' above the max. water level, rigidly attached, & GFCI protected	NEC680.22(C)(3)
New light fixtures and ceiling fans shall not extend within 5' horizontal from the inside walls of the pool and 12' vertical above the max. water level--NEC680.22B(1) **Lot grading,** must be restored	NEC680.22(C)(1)
LP tanks, **Above ground,** less than 125 gal. may be placed directly against the building, 125-250 gal.10ft. min .from the building, & property line that may be built upon	G2412.2, FFPC (NFPA 1)69-3.2.1
LP tanks Mounded, or underground, up to 2000 gal. Min.10 ft. From a building, or property line that may built upon	G2412.2, FFPC (NFPA 1)69-3.2.1
Pump mounting, Circulating pumps shall be set on a substantial base in a manner that will eliminate strain on the piping. Electrical equipment shall be firmly secured to the surface on which it is mounted. Wooden plugs shall not be used	NEC110.13(a)
LP tank, relief valve, vent discharge, and filling connection, min. 10' from exterior source of ignition, openings into direct vent appliances, & mechanical ventilation intakes. Cylinder type filled on site min. 3', and ASME tank filled on site min. 5' from building openings below point of discharge	G2412.2, FFPC (NFPA 1)69-3.2.1
Pool cover, to minimize heat loss required when using a gas, or electric pool heater	FBC13-612.1.ABC.2.3.2 (See Energy Efficiency Forms)
Receptacle outlets, General purpose outlet, required within 10- 20 feet, GFCI protected	NEC680.22A(3)
Outlet that provides power to a pump only, allowed within 5-10 feet as long as it's of a single, locking, grounding type, and is GFCI protected	NEC680.22A(1)
Screen Rooms (Pool Cages), must be bonded	NEC680-26(B)(5)
Sidewalks, and driveway aprons that have been broken must be properly replaced, and the right of way must be cleaned, and restored to it's original condition	R101.2, FBC3306.8
Switching devices, must be min. 5' from the pools water edge unless separated by a permanent barrier	NEC680.22(C)(5)

Vacuum relief vent, min. 12" above grade, and protected from debris, insect infestation, and microbiological contamination, or approved safety vacuum release system	R4101.4.2; R4101.6.3
Water heater, must bear a label of a recognized testing agency, and shall conform to the design, construction, and installation requirements. Provide manufacturer's installation requirements	R4101.14.1