

## RESIDENTIAL INSPECTION REFERENCE CHECKLIST

- 1. This is only a reference guide and shall not be interpreted to be an all encompassing checklist of requirements.
- 2. Applicants and contractors are responsible for construction in accordance with their approved plans and at least to the minimum mandatory building code requirements, regardless of any oversights attributed to the City of Richmond Hill Building Department
- 3. Any deviations from the approved plans may require documentation and/or a letter from the design architect/engineer.
- 4. The building inspector may require additional documentation, testing and/or clarification from the applicant, design architect/engineer and/or testing company/lab, at any time in order to ensure code and/or approved plan compliance.
- 5. If the structure falls within a Special Flood Hazard Area (SFHA), it must comply with certain minimum standards per FEMA regulations and/or the City of Richmond Hill Flood Ordinance.

## CURRENT MANDATORY CODES PER The Uniform Codes Act of The Official Code of Georgia Annotated. O.C.G.A. Section 8-2-20(9)(B)

- International Building Code, 2012 Edition, with Georgia Amendments
- International Residential Code, 2012 Edition, with Georgia Amendments
- International Fire Code, 2012 Edition, with Georgia Amendments
- International Plumbing Code, 2012 Edition, with Georgia Amendments
- International Mechanical Code, 2012 Edition, with Georgia Amendments
- International Fuel Gas Code, 2012 Edition, with Georgia Amendments
- National Electrical Code, 2014 Edition (No Georgia Amendments)
- International Energy Conservation Code, 2009 Edition, with Georgia Supplements and Amendments
- For information and questions regarding the Life Safety Code (NFPA 101) or the Georgia Accessibility Code please contact the State Fire Marshal's Office. Phone: (404) 656-2064

**BUILDING INSPECTIONS DEPARTMENT** 

(912)-756-4521

## TABLE OF CONTENTS

INSPECTION TYPE	<b>PAGE</b>
Prior To Requesting First Inspection	2
Inspection #1: Saw Pole	3
Inspection #2: Footing/Stem Wall	4
-open cell/block stem wall/bond beam	
Inspections #2: Footing/Monolithic Slab	5
Inspection #3: Plumbing Slab Rough In	6
Inspection #4: Slab	7
Inspection #5: Sub-Floor	8
Inspection #6: Nailing	9
Inspection #7: Framing Rough-In	10-11
Inspection #7: Mechanical Rough-In	12
Inspection #7: Plumbing Rough-In	13
Inspection #7: Electrical Rough-In	14
Inspection #8: Insulation	15
Inspection #9: Sewer Tie In	16
Inspection #10: Power Release	17
Inspection #11: Certificate of Occupancy	18 -19
- Building Final	
- Electrical Final	
- Mechanical Final	
- Plumbing Final	

## **Prior To Requesting First Inspection:**

Post job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
Post the lot number of the job site until C/O is issued IRC R319.1
Backflow installed on water lateral
Erosion control installed per approved plans: silt fence, construction exit, storm drain inlet protection, etc
Erosion control plan on site – Contractors should have Level 1A (blue card) and subcontractors should have Level 1 (white card) <i>EPD NPDES</i>
Chemical toilet must be on site prior to the first inspection <i>IRC R306 with Ga. Amendment</i> It shall not be located on or near a storm inlet or curb inlet box nor shall it be located in the street.
If and when trash bin (roll off) is present, it must be located on the site and not in the road.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot
No dirt in the road from this lot

## **Inspection #1: Saw Pole (1 inspection)**

Pole must be securely and firmly installed in the ground
Minimum size # 8 grounding conductor to ground rod <i>NEC 250.20(B)</i> . Ground clamp suitable for direct burial <i>NEC 250</i>
Proper conductor sizes NEC 110.6
All receptacles must be watertight and GFCI protected NEC 210.8
Circuit breakers must contain a legible amp rating NEC 110.9
All non-current carrying metal parts are to be bonded with a bonding screw, bus bar, copper wire, or other similar conductor <i>NEC250.92(2) &amp; NEC 250.28(A)</i> .
Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet protection, etc.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot
No dirt in the road from this lot
Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
Post the lot number of the job site until C/O is issued IRC R319.1
Backflow installed on water lateral
Erosion control plan on site – Contractors should have Level 1A (blue card) and subcontractors should have Level 1 (white card) <i>EPD NPDES</i>

## **Inspection #2: Footing (1 inspection)**

	Setbacks – All string lines must be pulled from all property corners. Setbacks at the property must agree with the setbacks on the building permit application and the approved plans.
Foot	ings / Stem Wall
	Footings shall be on natural soil or engineered fill and must be 12" into the soil <i>IRC R403.1.4</i> , A load-bearing test must be completed by a laboratory, the results must be minimum 98%. <i>IRC R401.4</i>
	approved test results required before inspection will take place.  Natural Ground / Engineered Fill Certification completely filled out.
	Footings and Slabs per Engineer plans/ IRC min requirements
	Two - #5 reinforcement rods, continuous in the footings, with bent corners and a minimum 25" overlap <i>ICC 600</i>
	Concrete on grade slabs used with stem wall foundations shall have 6X6 Wl.4X1.4 welded wire synthetic fiber reinforcement <i>ICC</i> 600
	Vertical rebar for stem walls up to 3' in height: Vertical rebar to be placed in stem wall foundation walls at 4' o.c., and crawlspace stem wall / sub-floor foundation walls, every 4' o.c and within 1' of each corner. <i>ICC 600</i> On crawlspace stem walls. See Figure 303G in IRC for stem wall with slab on grade construction.
	Vertical rebar for stem walls greater than 3', but do not exceed 8' in height: Vertical rebar to be placed in the slab stem wall foundation walls at 4' o.c. and bent 10 feet into the top of the slab <i>ICC 600</i>
	Cover slab with 6-mil vapor barrier <i>IRC R506.2.3</i> .  Bond beam: There is one (1) #5 rebar placed around the perimeter of the entire slab. This is tied to all vertical rebar that was bent 1' or 10' in the top of the slab (depending on the foundation wall height), or the 6x6 welded wire. The wire / rebar should extend 6" into the bond beam. <i>ICC 600 Ch 2 and 3</i>
	Minimum slab thickness, 3½" IRC R506.1 and ICC 600
	Anchor bolts: All anchor bolts must be placed a minimum of every 18"o.c. and within 6" to 12" of sill terminations and corners. <i>ICC 600</i>
	If go-bolt system is used (for uplift resistance), at 6' intervals, anchor bolts are still required at 3' o.c. (for shear and lateral support), as well as within 6" to 12" of the sill plate terminations and corners.  Manufacturer's instructions and ICC 600
	Additions must tie existing footing to the new footing according to approved plans.
	Pier pads 24" x 24" x 10" thick with two - #5 reinforcement rods in each direction (for crawlspaces) <i>IRC 403.1</i>
	No organic material IRC R408.5
	Reminder: Min. Foundation Drainage IRC 404.1.6
	Reminder: Grading around homes, 6" drop in first 10' feet IRC 401.3
	Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet
	protection, etc.
	No dirt in the curb and gutter adjacent to this lot
	No dirt/debris blocking storm drain opening adjacent to lot No dirt in the road from this lot
	Job box with permit, approved stamped plans and approved site plan. Permit is to remain
	on site until the C/O is issued
	Post the lot number of the job site until C/O is issued IRC R319.1
	Backflow installed on water lateral
	Erosion control plan on site – Contractors should have Level 1A (blue card) and
	subcontractors should have Level 1 (white card) EPD NPDES

## **Inspection #2: Footing (1 inspection)**

	Setbacks – All string lines must be pulled from all property corners. Setbacks at the property must agree with the setbacks on the building permit application and the approved plans.
Mono	olithic Slab
	The total depth of a mono slab is 20" ICC 600
	Compaction test results IRC R401.4
	Termite Treatment proof IRC R318
	Footings shall be on natural soil or engineered fill and must be 12" into the soil <i>IRC R-403.1.4</i> load-bearing test must be completed by a laboratory, the results must be minimum 98% <i>IRC R-401.4</i> Approved test results required before inspection will take place.
	Natural Ground / Engineered Fill Certification completely filled out.
	A mono slab must be 8" above ground and 12" in ground ICC 600
	Mono slab, per approved plans
	Anchor Bolts: Mono slab must have 5/8" anchor bolts with 3"x3"x1/8" washer placed every 18" o.c., and within 6" to 12" of sill terminations and corners. <i>ICC 600</i>
	If go-bolt system is used (for uplift resistance), at 6' intervals, anchor bolts are required at 3' o.c. (for shear and lateral support) and within 6" to 12" of the sill plate terminations and corners. <i>Manufacturers instructions and ICC 600</i>
	All mono slabs must have a minimum of a 6-mil vapor barrier IRC R506.2.3
	No organic material IRC R408.5
	Footings and Slabs per Engineer plans/ IRC min requirements
	REMINDER: Min. Foundation Drainage IRC 404.1.6
	REMINDER: Grading around homes, 6" drop in first 10' feet IRC 401.3
	Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet protection, etc.
	No dirt in the curb and gutter adjacent to this lot
	No dirt/debris blocking storm drain opening adjacent to lot
	No dirt in the road from this lot
	Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
	Post the lot number of the job site until C/O is issued IRC R319.1
	Backflow installed on water lateral
	Erosion control plan on site – Contractors should have Level 1A (blue card) and subcontractors should have Level 1 (white card) <i>EPD NPDES</i>

## **Inspection #3: Plumbing Slab Rough-In (1 inspection)**

3" Vent stack continuous from building drain through the roof to open air IRC Appendix J
Purple primer that conforms to ASTM F 656 shall be applied or must meet requirements in IRC 3003.14.2
Water line pressure 50 psi IPC 312.5 GA Amendment
DWV 10' feet stack of head pressure or 5 psi air pressure test. Waste pipes must be exposed IPC 312.2
All pipes through footers/foundations must be sleeved, with the sleeve pipe being 2 sizes larger than the supply and/or waste pipe IPC 305.5
Proof of treatment of slab for termites IRC R318
Accessible shut-off to water outside of structure IPC 606
Dryer vent max. 25' extension to the exterior IRC M1502.6
No organic material IRC R408.5
Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet protection, etc.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot
No dirt in the road from this lot
Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
Post the lot number of the job site until C/O is issued IRC R319.1
Backflow installed on water lateral
Erosion control plan on site – Contractors should have Level 1A (blue card) and subcontractors should have Level 1 (white card) <i>EPD NPDES</i>

## **Inspection #4 Slab (1 inspection)**

NOTE: See Footings/Stem Wall Checklist and Monolithic Slab Checklist where applicable.
Cover slab with 6-mil vapor barrier IRC R506.2.3
Mud sill straps at 9" o.c. (lateral, shear, and uplift) Manufacturers instructions and ICC 600
5/8" anchor bolts required at sill plate ICC 600
No organic material IRC R408.5
Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet protection, etc.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot
No dirt in the road from this lot
Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
Post the lot number of the job site until C/O is issued IRC R319.1
Backflow installed on water lateral
Erosion control plan on site – Contractors should have Level 1A (blue card) and subcontractors should have Level 1 (white card) <i>EPD NPDES</i>

## **Inspection #5 Sub-Floor (1 inspection)**

5/8" anchor bolts to foundation walls / piers ICC 600
7/16" minimum sub floor (structural sheathing) thickness ICC 600
Floor bracing – full depth blocking, perpendicular to floor framing members, in the first two framing spaces at each end of floor system spaced 4' o. c. <i>ICC 600</i>
Floor structure clearance from ground IRC R317.1
Ventilation – within 3 feet of all corners, then one (1) square foot of ventilation for every 150 square foot of building space <i>IRC R408.1 &amp; R408.2</i>
Remove all debris from the crawlspace IRC R408.5
Size beams to span IRC R502.5
Pressure treated floor joist, girders, etc. within 18" of earth IRC R317
Floor girders and Ceiling girders installed with uplift connection ICC 600
Floor joist need hangers or approved ledger ICC 600
Size Girders to span IRC R502.5
Size joists to span IRC R502.3
Access equipment in wall/floor must have not less than 30" high and 22" wide clearance with maximum distance to equipment 20' <i>IRC M1305.1.4 with GA Amendment</i>
Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet protection, etc.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot
No dirt in the road from this lot
Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
Post the lot number of the job site until C/O is issued IRC R319.1
Backflow installed on water lateral
Erosion control plan on site – Contractors should have Level 1A (blue card) and subcontractors should have Level 1 (white card) <i>EPD NPDES</i>

## **Inspection #6: Nailing (1 inspection)**

NOTE: No house wrap can be installed until the nailing inspection is approved.
Exterior straps, hold downs and/or clips per engineered plans
Nails at edges: 3" spacing at the vertical and horizontal edges, and 6" spacing at the intermediate framing, unless the specifications of approved "Hold Down" devices / methods specify otherwise ICC 600
Sheathing must attach to the top member of the double top plate ICC 600
Exterior sheathing must over lap at the floors ICC 600
Minimum sheathing thickness for walls and roofs, 15/32" ICC 600
Purlin blocking required on all seams of the wall sheathing ICC 600
Balloon framing or diaphraming at the gable end walls ICC 600
Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet protection, etc.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot
No dirt in the road from this lot
Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
Post the lot number of the job site until C/O is issued IRC R319.1
Backflow installed on water lateral
Erosion control plan on site – Contractors should have Level 1A (blue card) and subcontractors should have Level 1 (white card) <i>EPD NPDES</i>

#### (1) Framing Rough-In

	Sill or bottom plate has anchor bolts, mud sills, etc., installed correctly. See Inspection #2 Footings
	Building under construction elevation certificate required if in a special flood hazard area (SFHA).Flood
	vent openings, if required. Water resistant material required below base flood elevation. See FEMA
	regulations for complete requirements.
	Every structure must meet the wind loads on exterior and interior shear walls ICC 600 and stamped plans
	All openings throughout the structure must be strapped with the appropriate type straps. This is for doors
	and windows; each strap has a different rating ICC 600
	All doors, windows, openings, garage headers, etc., must be strapped at the top and bottom of each
	opening ICC 600
	Top plates, wall studs, and sill plates are to be properly connected to resist uplift, etc ICC 600
	Bracing gable end walls – first two rafters or truss spaces at each end and shall be spaced at 4' o.c.
	ICC 600
	Floor bracing and full depth blocking, perpendicular to floor framing members, in the first two framing
	spaces at each end of floor system spaced 4' o.c. ICC 600
	Hurricane clips on every roof rafter, installed per plan ICC 600
	Joist bearing min 1.5" on wood or 3" on masonry IRC 502.6.2
	Minimum window and door DP-rating of 35 ICC 600
	Due to the spans and loads at the garage door header, laminated beams shall be engineered.
	Verify tempered glass at exterior doors, windows within 5' of tub drains, stairways and at required
	windows, etc IRC R308.4
	Under Stair Protection ½" gypsum board IRC R302.7
	Door from garage to house cannot go through bedroom, must be solid core door IRC R302.5.1
	Garage wall and ceiling separation ½" drywall from residence and attic shall not be less than ½" gypsum
	board to garage side IRC R302.6 Penetrations 302.6 also no duct openings in garage IRC R302.5.2
	Garage ceiling beneath habitable rooms shall be not less then 5/8" Type X gypsum board IRC R302
	A disappearing stairway with a minimum of 3/8" fire retardant structural panel is deemed to meet 20 min.
	thermal test based on ASTME 119 or deemed to have the fire resistance equivalent to ½" gypsum wall board <i>IRC R302</i>
	All windows must meet minimum egress requirements of 5.7 sq. ft.; minimum width of 20" and a
	minimum clear height of 24" IRC R311
	Joist boring or notching with middle 1/3 span, holes 2" from top or bottom in outer 1/3 span. Notching 1/4"
	min maximum depth $-1/6$ " depth or notch at end for ledger IRC Figure R502.8
	Decks for residential applications and total design are 50 psf, per table. IRC R507 and GA Amendments
	Floor Framing IRC Chapter 5
	Maximum height on 2"x4" studs (bearing walls) = $10$ ' IRC R602.3(5)
	All penetrations in the wall top plates, sole plates, ceiling framing (horizontally and vertically, where
_	applicable), etc., including for the passage of wires, pipes, ducts, etc. must be fire stopped with an
	approved material to resist the free passage of flame and products of combustion IRC R302.8 and R602.8
	All notches/cuts must be strapped with metal FHA straps 1 ½" wide across and
	1 ½" at each side and extend minimum 6" past the opening IRC R602.6.1 and Figure R602.6.1
	Top Plate installed to provide overlapping at corners and intersections with bearing partitions. End joints in
	top plates shall be offset at least 24" IRC R602.3.2
	Attic opening rough opening 22"x 30" head height min 30" IRC R807.1 and M1305.1
	Steel Wall Framing IRC R603
	Purlin blocking required on all seams of the wall sheathing ICC 600
	Balloon framing or diaphraming at the gable end walls ICC 600
	2"X 6" collar ties every 48" IRC R802.3.1
	Attic access double framed and hanger/ledger IRC R802.9
	(1) Framing Rough-In Continued Next Page

#### (1) Framing Rough-In – Continued

Check spans of ceiling joist IRC Tables R802.4(1) and (2)
Check spans of roof rafters IRC Tables R802.5.1(1) - (8)
Knee walls or roof purlins must be the same size as the roof rafters (example 2"x 6" roof rafter must be
braced with 2"x 6" members), with the rafters supported by the narrow edge of the purlin and not the flat
size IRC R802.5.1 and Figure 802.5.1
Fire blocking between floor spaces IRC R1003.19
Draft stopping: floors/ceiling not more that 1,000 sq ft. IRC R302.12
Minimum work space 30" x 30" in front of attic equipment IRC M1305.1
All bathrooms and other similar rooms must have an exhaust fan that is vented to the outside directly, not
to the soffit, attic, or crawl space IRC M1507
Ceilings height not less than 7', 6'-8" for stairs and bathrooms IRC R305
Engineered truss plans on site if trusses used. IRC R802.10.1
Ceiling joist and rafter connections shall be nailed to each other then rafter nailed to top plate, ceiling joist
shall not be connected to rafters at the top wall plate, joist installed as rafter ties, ceiling joist not parallel to
rafters, rafter ties installed on every rafter min 2"x 4" IRC R802.3.1
Stairways: headroom 6'8" min, riser height max 7 3/4", min tread depth 10" IRC R311
Ventilation fans 50 cubic feet per minute, or operable windows (3 sq. ft. window), must be installed in
all bathrooms, water closet departments, and other similar rooms IRC R303.3
Stairs minimum width 3' IRC R311
Hallway minimum width 3' IRC R3ll
Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet
protection, etc.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot No dirt in the road from this lot
Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
Post the lot number of the job site until C/O is issued IRC R319.1
Backflow installed on water lateral
Erosion control plan on site – Contractors should have Level 1A (blue card) and subcontractors should have Level 1 (white card) <i>EPD NPDES</i>
SUDCOMERCIOES SHOULD HAVE LEVEL LAWING CALLE - 12LD IVLDIC)

#### (2) Mechanical Rough-In

Appliance access in attic: Unobstructed passage way min. 30" high x 22" wide. The passage way shall have continuous solid flooring 24" wide. A level working space of 30" x 30" shall be maintained on all sides, where access is required. The clear access opening for removal of the appliance is a min. 20" x 30" and big enough to remove largest appliance. <i>IRC M1305.1.3</i>
Units set with drains for condensation and pan IRC Ml4ll
Dryer Vent vertical through roof needs clean out IMC 504.3
Heat source required in all habitable rooms IRC R303.9
All "hub" type condensation drains must be equipped with a priming mechanism to prevent them from drying out.
Flex ducts: see IMC 603.6 with GA Amendment
Ducts shall be installed and sealed (output and input) IMC 603.9, with GA Amendment
Duct line support, maximum 10', flex duct Manufacturers instructions and IMC 603.10
NOTE: See Georgia IECC Appendix A, Air Sealing Keys Points. (Found on DCA website)
Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet protection, etc.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot
No dirt in the road from this lot
140 tht in the rotal from this for
Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
Job box with permit, approved stamped plans and approved site plan. Permit is to remain
Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued

#### (3) Plumbing Rough-In

Water meter, backflow and meter box installed
Two (2) hose bibs – one at rear and one on the side IRC CH 27
Waste line supported maximum of 48" IPC Table 308.5
All water lines in the unheated spaces must be insulated IPC 305.6
All plumbing line protected from nails and screws IPC 305.8
Metal straps for cuts in wood and notches to studs and top plates. (less than $1\frac{1}{2}$ " to member edge) Min 2" above sole plates and below top plates <i>IPC 305.8</i>
Maximum travel distance to a water heater installed in the attic is 20' from the attic access IPC 502.3
Water heaters must be sized to: Table IPC 506 GA Amendment
The venting of the water heater temperature pressure relief valve and its drain line must comply with: <i>IPC 504.6 with GA Amendments</i>
The venting of the water heater's auxiliary drain pan must comply with: IPC 504.7.2
Water hammers on all fixtures with quick losing values (washing machines, dishwasher, icemakers, etc.). <i>IPC 604.9</i>
Minimum working pressure on all water service pipe 160 psi IPC 605.3
Required vent: not less than one vent pipe that extends to outdoors IPC 904
Roof vent covers installed IPC 305.5
Structural safety: load bearing walls stud face 5/8" min, bored holes dia. 40% of stud width 60% of stud width if stud double, notch 25% of stud width max  IPC 307
Required test on DWV and water lines IPC 312
Minimum pressure rating of 100 psi on all hot water pipes. IPC 605.4
A minimum of 1 vent pipe through the roof IPC 917.7
No copper lines can be used for gas lines in walls.
Gas lines must have a minimum pressure of 10 psi.
Corrugated Stainless Steel Tubing (CSST) shall be bonded directly to the electrical grounding system. The direct bonding shall be made with a #6 AWG copper wire IRC G2411.1.1
NOTE: See Georgia IECC Appendix A, Air Sealing Keys Points. (Found on DCA web site)
Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet protection, etc.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot
No dirt in the road from this lot
Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
Post the lot number of the job site until C/O is issued IRC R319.1
Backflow installed on water lateral
Erosion control plan on site - Contractors should have Level 1A (blue card) and
subcontractors should have Level 1 (white card) EPD NPDES

#### (4) Electrical Rough-In

Two separate circuits for kitchen area, minimum 20 amps NEC 210.52 (B)(1)
Conductor sizes NEC 110.6
Required outlets NEC 210.50
Lighting outlets required NEC 210.70
Branch Circuits requirements NEC 210
Wiring Integrity (free of damage) NEC 110.07
Wire marking NEC 110.21
Identification of disconnection means NEC 110.22
Clearance for panel boards NEC 110.26
Lights and receptacles in required locations NEC 210 / 410 and NEC 210.52
No panel shall be located in bathrooms $NEC\ 240.24(E)$
Maximum number of disconnects NEC 225.32
Service Entrance cables shall be supported by straps or other approved means within 12" of every service head or connection to an enclosure and at intervals not exceeding 30" NEC 230.51
Protection against physical damage bored holes more than 1 ½" to edge needs nail guard, notches in wood need nail guard, in both exposed and concealed locations cables parallel to framing members and furring strips shall be installed and supported so that the nearest outside surface of cable is not less than 1 ½" from the nearest edge of the framing NEC 300.4
Box fill calculation NEC 314.16
Ground clamps in receptacles NEC 250
NM cables shall be supported and secured by staples, cable ties, straps etc not exceeding $4\frac{1}{2}$ NEC 334-30
Lighting in closets: minimum to shelf: 12" surface-mounted, 6" for surface-mounted, 6" for recessed NEC 410-16
No smoke detector within 36" of air return: install outside of airflow.
No smoke detector within 36" horizontal path of bathroom door or kitchen door.
Interconnected smoke detectors hard wired and with battery backups. Located in every bedroom and outside the bedrooms, within 10', and at each level <i>IRC R313.2</i>
No exposed wiring within 6' of attic access NEC 320.23(A)
Whirlpool tub motor, bonding required NEC 680.74
NOTE: See Georgia IECC Appendix A, Air Sealing Keys Points. (Found on DCA web site)
Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet protection, etc.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot
No dirt in the road from this lot
Job box with permit, approved stamped plans and approved site plan. Permit is to remain
on site until the C/O is issued
Post the lot number of the job site until C/O is issued IRC R319.1
Backflow installed on water lateral
Erosion control plan on site – Contractors should have Level 1A (blue card) and subcontractors should have Level 1 (white card) <i>EPD NPDES</i>

## **Inspection #8: Insulation (1 inspection)**

R-13 exterior walls IECC Ch. 5 with GA Amendments
R-19 walls that back to attic space IECC with GA Amendments, Appendix A
R-30 flat ceilings (no slopes, vaulted ceilings) IECC Ch. 5 with GA Amendments
Insulation baffles to be installed adjacent to the soffit and eave vents <i>IECC 402.2.1.1 with GA Amendments</i>
Attic doors, hatches, and scuttle holes accessed from conditioned spaces to unconditioned spaces shall be weather-stripped and insulated <i>IECC 402.2.3 with GA Amendments</i>
No blown in insulation on sloped or vaulted ceilings, insulation batts only.
Blown in insulation must be marked in attic my stapled paper rulers for depth and R-value. Blown insulation thickness will be confirmed at the final Inspection.
Paper vapor barrier must be installed toward the living space IRC R318.1
Seal and insulate around windows and doors IECC w/GA Amendments
Spray Foam insulation must be covered with a thermal and ignition barrier unless otherwise approved <i>IRC R314.4 and manufactures specifications</i>
Low-e glazing with the min. factor and solar heat gain coefficient IECC Ch. 5 with GA Amendments
Attic doors and hatches same r value as ceiling with blown insulation.
Insulation dams required at attic access with blown insulation.
NOTE: See Georgia IECC Appendix A, Air Sealing Keys Points. (Found on DCA web site)
Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet protection, etc.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot
No dirt in the road from this lot
Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
Post the lot number of the job site until C/O is issued IRC R319.1
Backflow installed on water lateral
Erosion control plan on site – Contractors should have Level 1A (blue card) and subcontractors should have Level 1 (white card) <i>EPD NPDES</i>

## **Inspection #9: Sewer Tie in (1 inspection)**

Sewer line must be open trench to see run of lines and connections IRC P3002.2
Sewer line solvent cementing conforms to ASTM D 2235 or CSA B181.1 IRC P3003
Sewer line from road connection to first clean out not located under drive way.
Required cleanouts IRC P3005.2
Horizontal drainage piping slope not less than 1/8 unit vertical in 12 units horizontal for diameters of 3" or larger <i>IRC P3005.3</i>
Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inler protection, etc.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot
No dirt in the road from this lot
Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
Post the lot number of the job site until C/O is issued IRC R319.1
Backflow installed on water lateral
Erosion control plan on site – Contractors should have Level 1A (blue card) and subcontractors should have Level 1 (white card) <i>EPD NPDES</i>

## **Inspection #10: Power Release (1 inspection)**

911 address must be posted on house and must be plainly visible and legible from the road or street. <i>IRC R321.1</i>
Verify Grounding of Panel – if two ground rods method used both must be uncovered and visible <i>NEC 250</i>
Verify wiring sizes and breaker sizes in the main panels, sub panels, <i>NEC 210.24</i> , and that service cables are properly sized to disconnects, <i>NEC Table 310.16</i> and coated with an anti-oxidant gel where they connect to the panel's lugs <i>NEC 110.14 and NEC 300.6</i>
Circuit breakers must contain a legible amp rating NEC 110.9
No double tapping at the circuit breakers, panel lugs, etc. unless rated and labeled for more than one wire $NEC\ 110.14(A)$
Verify that the sub panel neutral buss bars are not grounded or bonded NEC 250.24A5
All electrical receptacles and switches must be installed or the circuits must be capped with wire nuts and in junction box if under $6$ ' $NEC~110.14(B)$
All junction boxes must be covered, NEC 314.28C and not installed on cabinet floors or under sinks NEC 314.15
If compressor is not set to a disconnect, the compressor circuit whip must be in a junction box. $NEC\ 110.14(B)$
All appliances must either be installed or circuits capped with wire nuts and in a junction box. $NEC\ 110.14(B)$
Electrical meter box installed with ground rods NEC 250
Lights and receptacles in required locations. NEC 210 / 410 and NEC 210.52
Tamper Resistant Receptacles installed NEC 406.11
Erosion control installed and maintained, per approved plans: silt fence, construction exit, storm drain inlet protection, etc.
No dirt in the curb and gutter adjacent to this lot
No dirt/debris blocking storm drain opening adjacent to lot
No dirt in the road from this lot
Job box with permit, approved stamped plans and approved site plan. Permit is to remain on site until the C/O is issued
Post the lot number of the job site until C/O is issued IRC R319.1
Backflow installed on water lateral
Erosion control plan on site – Contractors should have Level 1A (blue card) and subcontractors should have Level 1 (white card) <i>EPD NPDES</i>

## Inspection #11: Certificate of Occupancy – Building, Electrical, Mechanical and Plumbing (4 inspections together)

	Before inspection called for and scheduled, the following items need to be turned into inspections office: Final FEMA Elevation Certificate with color pictures, Blower Door Test, Duct Tightness Test and Lot Grading Verification Form
	•
	Water Meter, backflow and meter box not damaged/broken/missing
	All sidewalks must be installed to property lines.
	Yard clean of all debris.
	Trees per City of Richmond Hill Tree Ordinance / Subdivision approved plan
	Final grade and final erosion control in place. Mulch required over yard seeding.
	911 address must be posted on the house and must be plainly visible and legible from the road or street. <i>IRC R321.1</i>
	All exterior penetrations and door thresholds sealed with approved exterior sealant IECC 502
	Irrigation back flow installed if irrigation installed IRC P2902
	Dryer vent vertical through roof needs clean out IMC 504.3
	Fresh air intake required where the air infiltration rate in a dwelling unit is less than 5 air changes per hour when tested with a blower door test. <i>IMC 401 .2</i>
	Min. Foundation Drainage IRC R404.1.6
	Grading around homes, minimum 6" drop in first 10' IRC R401.3
	All receptacles working properly and GFI receptacles in all required locations and working properly <i>NEC 210.8</i>
	Outside receptacles: damp and wet location covers NEC 406.9
	Field identification required: every circuit shall be legibly identified as to its clear, evident and specific purpose or use <i>NEC 408.4</i>
	Closet storage space lights min clearance NEC 410
	Lights at bathtub and shower areas: no parts of cord-connected luminaries, chain, cable, or cord suspended luminaries, light track, pendants or ceiling-suspended fans shall be located with a zone measured 3'
	horizontally and 8' vertically from the top of the bathtub rim or shower stall threshold NEC 410.10
	Branch circuits: dwelling units, laundry, bathroom and small-appliances: two branch circuits min., shall
_	have no other outlets on them $NEC\ 210.11(c)$
	Arc-Fault Circuit-Interrupter protection- Dwelling units 15 and 20 amp branch circuits supplying outlets installed in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways or similar rooms or areas shall be protected <i>IRC R210.12</i>
	Identification of disconnection means NEC 110.22
	Unused openings in panels covered IRC E3404.6
	Clearance for Panel boards NEC 110.26
	Over current Protection NEC 240
	All smoke detectors functioning, interconnected, inside and outside of the bedrooms, on each floor <i>IRC R313.2</i>
	Carbon Monoxide detectors required IRC R313.4 and 313.4.1 with GA Amendments
	Hose-connection backflow preventer IRC P2902.3
	Water Heater relief valves required – pressure relief valve installed directly into connection to tank or in a water line close to the tank, set to open at not less than 25 psi above the system pressure but not over 150
	psi IRC P2803.3
	Temperature relief valves shall be installed such that the temp sensing element monitors the water within the top 6" of the tank, shall be set to open at a temp of not greater than 210 f IRC P2803.4
	Required traps installed IRC P3201
	Discharge pipe installed to the outside not more than 6" above grade IRC P2803.6.1
	Thermal expansion control: a means for controlling increased pressure caused by thermal expansion shall be installed <i>IRC P2903.4</i>
	Water heater cold water shut off valve IRC P2903.9.2  Continued on next page

# Inspection #11: Certificate of Occupancy – Building, Electrical, Mechanical and Plumbing (4 inspections together)

#### Continued

HVAC Equipment working and plumbing fixtures free of leaks and have hot water at time of inspection.  IMC and IPC
Weep holes every 33" o.c, to include porches (brick veneer only)  IRC R703.7.6
All handrails installed and turned in towards the walls, all guardrails installed IRC R311
Guard rails required where vertical drop is greater than 30" IRC R312.1 with GA Amendment
Stair handrail height 34" to 38" IRC R311
Max. riser height 7 3/4" and min. tread 10" IRC R311 with GA Amendments
All stairways require a handrail to be continuous and graspable IRC R311
Maximum tread on winder is 6" at the narrowest point and 10" at 12" from the inside point IRC R3ll
Stairs minimum width 3' IRC R311
Hallway minimum width 3' IRC R3ll
Screened porches and screened decks, as well as those without screens, over 30" high require guards. <i>IRC R312.1</i>
Handrails are required on stairs with 4 or more risers IRC R3ll.5.6
Verify tempered glass at exterior doors, windows within 5' of tub drains, at required windows, etc. <i>IRC R308.4</i>
NOTE: See Georgia IECC Appendix A, Air Sealing Keys Points. (Found on DCA website)
If blown Insulation, attic door/ hatch same R value as ceiling.
Spray foam insulation paper with depth, R value, type, and if thermal/Ignition barrier is installed.
Blown in insulation must be marked in attic by stapled paper rulers for depth and R-value. Blown insulation will be confirmed at the Pre-Final Inspection <i>IECC w/ GA Amendments</i>
Weather stripping around doors and attic IECC w/ GA Amendments
Drip edge required IRC R905.2.8.5
Garage/house separation: 20 min rated door IRC R302.6
Egress Doors: no key only locks and min 32" wide IRC R311
Glazing tempered windows 60" from tub/shower, 36" stairs, stair landing less than 36", window greater 9 sq ft and less than 18" above floor & top 36" above floor walking with 36", window 24" of door <i>IRC R308</i>
Weep holes are required, every 33" o.c.in brick veneer siding IRC R703.7.6 flashing IRC R703.8
Copy of RES CHECK in panel box IECC w/ GA Amendments