Georgia Association of Home Inspectors

Protocol for Framing Inspections

OVERVIEW

The purpose of the GAHI (Georgia Association of Home Inspectors) Standards of Practice for Framing Inspections is to establish a uniform guide for performing inspections of construction in one and two family dwellings.

The Standards are intended to set minimum requirements for inspecting, reporting and describing conditions that affect the property and human safety.

The Standards define and clarify terms, procedures, scope and conditions and limitations as they relate to a GAHI approved inspection and report.

GAHI is proud that these are the most rigorous requirements of any home inspection organization in the United States.

PURPOSE

The purpose of the GAHI Framing Inspection is to reduce the public's risk by providing a general inspection of the conditions of the structure as they exist at the time of the inspection and to attempt to identify areas where substandard or deficient construction has the potential for future damage or injury.

The purpose of the GAHI Framing Inspection is to supply a written summary describing the inspection findings.

SCOPE

The scope of the GAHI Framing Inspection is a visual inspection, with limited use of mechanical instruments and should not be considered exhaustive. Due to time consideration it is a general inspection of visible conditions. The inspection is limited to readily accessible areas of the grounds and building components.

Systems and conditions that are not within the scope of the inspection include, but are not limited to environmental hazards, pest infestation, portable appliances, security systems, telephone systems, audio equipment, intercom systems, timers, fire or lawn sprinklers, swimming pools, spas, jetted tubs, tennis courts, playground or other recreational equipment, solar heating systems, below ground septic or drainage systems, water wells, zoning ordinances, building code conformity, or any item considered to be cosmetic in nature.

Any comments about these systems and conditions are informational only and do not represent an inspection. The GAHI inspector takes no position on property value nor makes any representation as to advisability of purchase or suitability of use of the property.

INSPECTOR QUALIFICATIONS

GAHI recommends that only "Code Certified Inspectors" be retained to perform this type of inspection.

GAHI "Code Inspectors" have demonstrated extensive knowledge of Framing Inspections by passing the International Code Council approved "One and Two Family Dwelling Inspection" examination. ICC writes building codes for residential construction in the United States. These codes have been adopted into law by the State of Georgia and many others.

GAHI Inspectors have also demonstrated knowledge of construction by passing GAHI's other required exams.

Finally, each GAHI Certified Inspector is required to have performed at least 250 home inspections according to the GAHI Standards of Practice and maintain GAHI approved continuing education.

WARRANTIES AND GUARANTEES

The GAHI inspection report is not intended to be used as a guarantee or warranty, expressed or implied, regarding adequacy, performance, or condition of any inspected building, improvement, mechanical system or appliance.

STANDARDS OF PRACTICE

The following Standards provide guidelines for the GAHI inspector. The guidelines outline what the GAHI inspector should observe, identify, inspect and describe. The guidelines provide the minimum contents of a written report and are not intended to limit the GAHI inspector from performing additional inspection services.

Consult the Glossary for the definition of the intended use of words. Words not included in the Glossary should be defined using Webster's Dictionary.

A framing inspection is commonly made after the roof, masonry, all framing, firestopping, draftstopping and bracing are in place and after the plumbing, mechanical and electrical rough inspections are approved.

We intend to base our inspections on this Standard. Different designs, types of construction and situations may necessitate that other items be inspected.

GENERAL LIMITATIONS

The inspector is not required to:

1. Perform any task or access any area that may place him or her in danger.
2. Perform any task that may cause damage to the structure or contents.
3. Dismantle any item by other than means provided for the end user.
4. Move any items.
5. Perform Engineering or Cost Estimates.
6. Determine the life expectancy of any component or system.
7. Perform efficiency or performance evaluation of equipment or systems.
8. Inspect any item or system not specifically required by these Standards.

GENERAL REQUIREMENTS

The inspector is required to report:

1. Observed items that may be a threat to human safety.
2. Observed failure of any item or system.
3. Observed conditions that may lead to potential problems.
4. Observed items or systems that are not complete.
5. Observed items that appear to be in used condition.
6. Why any item required by these standards was not reported on.
7. The GAHI inspector is not required to perform code inspections; however, should the inspector choose to cite code deficiencies, the inspector must identify the code by year and section for the permit year of the house.

The GAHI Inspector should describe the materials used and report on the condition and/or any deficiencies in the following areas of the structure.

FRAMING INSPECTION

Roof / Ceiling Construction (Chapter 8-IRC)

Components of roof/ceiling construction fastened per appropriate- Table R602.3(1)

Rafter spans Tables per R802.5.1(1) thru R802.5.1(9)

Grade marks on rafters per R404.2.1

Allowable deflection of structural members per Table R301.7

Ends of rafters to bear on 1 ½" of wood or metal or 3" on masonry- R802.6

Cutting and notching of rafters- R 802.7

Boring of holes in rafters- R802.7

Framing around openings/headers- R802.9

Attic ventilation- R806.1 thru R806.3

Bracing of trusses (trusses require engineer's design) (any truss supporting equipment must be designed for such)- R802.10

Altered or damaged trusses (repairs require design by engineer or truss manufacturer)- R802.10.4

Trusses must be connected to wall plate with connectors (not nailed) R802.10.5

Roof purlins, struts and bracing where required- R802.5.1

Roof bracing to load bearing wall or beam- R802.3

Depth of ridge board not less than end cut of rafter- R802.3

Lower rafter ties where required (when ceiling joist not nailed to rafters to form a continuous tie between exterior walls, rafter ties required on every rafter; collar ties every 4 ft).- R802.3.1

Hip and valley rafters supported at ridge or designed to carry specific load- R802.3

Hip and valley rafters not less than 2" nominal thickness and not less in depth than end cut of rafter- R802.3

Ceiling joist spans Table R802.4(1) thru R802.5(6)

Grade marks on ceiling joists- R404.2.1

Ends of ceiling joists to bear 1 ½" on wood or metal, or 3" on masonry- R802.6

Cutting and notching of ceiling joists- R802.7

Boring of holes in ceiling joists- R802.7

Cathedral ceilings rafters ends supported on bearing walls attached to ridge beam capable of supporting imposed roof loads (may require engineer's design)- R802.3.1

Ceiling joists used to resist rafter thrust lapped minimum 3" or butted and attached in manner to resist such thrust- R803.3.2

Lateral bracing of rafters and ceiling joists where required- R802.8, R802.8.1

Bridging of rafters and ceiling joists where required- 802.8, 802.8.1

Roof tie downs where required- R802.11

Walls

Components of wall construction fastened per appropriate Table R602.3(1)

Grade marks on studs #3 standard or stud grade (see code exceptions) R602.1, R602.3

Allowable deflection of structural members per Table- R301.7

Studs over 10' may require engineer's design- R602.3.1,

Bearing wall studs spaced and sized per Table- R603.3.1,Table R602.3(5)

Exterior wall top plates doubled and joints spaced properly- R602.3.2

Interior load bearing partitions constructed, framed and fireblocked as specified for exterior walls- R602.8, R314.8

Drilling and notching of studs- R602.6

Drilling and notching of top plates- R602.6.1

Headers (#2 grade lumber) sized per (header tables not for use with concentrated loads – engineer's design required)- Table R502.5(1)

Fireblocking required- R602.8

Cripple walls framed and braced properly- R602.9, R602.10.2

Exterior and foundation wall panels framed and braced per Table-
Seismic Zone B- R602.10.3, Table R602.10.3, 602.10.4, 602.10.5

Anchor bolts/straps installed and spaced correctly- R403.1.6

Exterior walls within 3' of property line must be no less than one hour fire resistive rated- R302.1, Table R302.1

Minimum size window openings required in bedrooms- R310.1

Masonry veneers greater than 40 pounds per square foot not to be supported by wood construction unless by design- R703.7

Floors

Components of floor construction fastened per Table- 505.3.1(1)

Floor joist spans Tables R502.3.1

Grade marks on floor joists- R 502.1

Allowable deflection of structural members Table- R301.7

Floor joists, beams and girders capable of accommodating all loads imposed- R501.2

Floor joists under parallel or perpendicular bearing partitions sized to accommodate loads imposed- R502.4

Floor joists to bear on 1 ½" of wood or metal, 3" on masonry- R502.6

Floor joists lapped appropriately- R502.6.1

Floor joists framed into the side of wood girder supported appropriately (hangers or ledgers)- R502.6.2

Cutting and notching of floor joists- R502.8.1

Boring of holes in floor joists- R502.8.1

Floor joists supported laterally at ends- R502.7

Bridging where required- R502.7

Framing of openings and required header and trimmer joists and approved hangers- R502.10

Posts, beams and girder construction require positive connection to ensure against uplift and lateral displacement- R502.9

Floor trusses designed by engineer- R502.11

Draftstopping required- R502.12

Grade marks on floor sheathing and installed and fastened per- R503.2

General

Protection against decay of joists, sill plates, siding, wall sheathing, studs, etc. where applicable due to clearances- R319

Minimum headroom at stairs- R314.3

Minimum ceiling heights- R311.5.2

Chimneys and Fireplaces

Masonry chimney minimum clearance to combustibles, 2" for interior clearances, 1" for chimney located entirely outside the exterior walls- R1001.11

Chimney crickets sized appropriately- R1003.20

Chimney height- R1003.9

Factory built fireplaces installed from combustible material per manufacturer's installation instructions

Required firestopping installed at floor and ceiling penetrations-R1003.19

ELECTRICAL ROUGH INSPECTION (Based on the National Electric Code)

Service Entrance

Proper clearance of overhead conductors

Main disconnect readily accessible and within 6' 7" of final grade

Ampacity sufficient for service entrance conductors (record size)

Support of service conductors

Record location of main service disconnect

Bonding and Grounding

Verify grounding electrode installed properly

Grounding electrode conductor continuous (no splices) and properly attached (Since 1/1/2006, concrete encased electrode (rebar) must be used if present in foundation

Service equipment properly bonded

Metallic water and gas piping, building steel properly bonded

Separate bonding conductor for subpanels

Metal boxes properly grounded

Whirlpool pump bonding

Main Electrical Panel

Sufficient working space

Panel not located in bathroom or clothes closet

Record sizes and type of cable installed for major appliance circuits

Wiring Methods and Materials

Device boxes for receptacles installed on exterior front and rear, not to exceed 6' 6" above grade

Device box located for garage receptacle

Device box located for basement receptacle

Proper spacing of receptacles for habitable rooms (2' wall spaces, 6' spacing rule)

Proper spacing of receptacles for kitchen counter tops (12" and wider, 2' spacing rule)

Installation of receptacle for island and peninsular counters (greater than 1' x 2')

Receptacle provision for bathroom lavatories (one per each unless located between basins)

Receptacle provision for laundry area

Provision for hallway receptacle (hallway greater than 10')

Heating and air conditioning disconnects, service receptacles, lights (in attic, crawl space and exterior)

Required lighting outlets and switches

Lighting at exterior entrances

Support of conductors and installation of wiring method

Proper identification of conductors

Boxes properly located and supported

Junction boxes located so as to be accessible

Floor boxes suitable for use

Box fill

Unused openings closed

Wiring protected from physical damage, stud edges, attic access

NM (Romex) cable supported and secured

PLUMBING ROUGH INSPECTION (Based on International Plumbing Code)

Drain, Vent and Sewer Piping

Sewer cleanout installed within 10 ft. of house & since 1/1/2007 within 10 ft. of right-of-way

Drains and vents sized properly

Fittings installed with proper orientation for flow

Cleanouts installed and accessible as required

Vent termination

Water Supply Piping

Accessibility and location of plumbing fixtures correct

Backflow preventers installed as required

Since 1/1/2007 water hammer arrestors required for quick-closing valves

Since 1/1/2007/ Anti-scald devices required to be installed for tubs with two lever faucets

General

Notching and boring according to code

Protective straps (nailguards) installed (extend two inches on each side of pipe)

Piping properly supported according to size, function, etc.

Workmanship

MECHANICAL ROUGH INSPECTION

Gas Piping
Sized properly for appliances

Properly supported

Shut off valves installed as required

Sediment Traps installed as required

Equipment
Equipment properly located and installed

Clearances

Walkway and service platform correct for attic installations

Light and receptacle for attic and crawl space installations

Ductwork
Material approved for use

Clearances

Insulation and joints properly sealed

Ductwork properly supported

Since 1/1/2008 Duct insulation must be R-8 in attics & crawlspaces (2006 IECC)

Ducts properly sealed

Exhaust Systems
Dryer exhaust (smooth pipe, length within requirements, etc.)

Bathroom vent fans (located where required and properly terminated to outside)

Terminations (hood, etc.)

Combustion Air
Requirements per rated input for appliances

Proper installation of ducts

Chimney and Gas Flues
Material correct

Clearances

Properly sized

Properly terminated through roof or wall

General
Condensate drain pans installed where required

Drain piping (normal and emergency) properly supported and sloped