



BUILDING SERVICES

RESIDENTIAL INSPECTION GUIDELINES

BUILDING SERVICES

Justin Wilkins	Building Official	817-743-4119	jwilkins@cityofkeller.com
Carlos Gutierrez	Plans Examiner	817-743-4115	cgutierrez@cityofkeller.com
Vicki Chavez	Permit Technician	817-743-4113	vchavez@cityofkeller.com
Linda Mumtaz	Permit Technician	817-743-4114	arangel@cityofkeller.com

PUBLIC WORKS

Chad Bartee	City Engineer	817-743-4082	cbartee@cityofkeller.com
Dann Weesner	Construction Inspector	817-743-4084	dweesner@cityofkeller.com
James Byerly	Construction Inspector	817-743-4085	jbyerly@cityofkeller.com
Jeremy Sutton	Construction Inspector	817-743-4086	jsutton@cityofkeller.com
Tyler Spence	Environmental Specialist	817-753-4094	tspence@cityofkeller.com

FIRE DEPARTMENT

Debra Crafton	Fire Marshal	817-743-4472	dcrafton@cityofkeller.com
David Simmons	Fire Inspector	817-743-4470	drsimmons@cityofkeller.com

GENERAL INFORMATION

- All contractors shall be registered annually with the City of Keller.
- Upon approval of a permit application, you will be contacted and advised of the permit fees.
- Permitted construction work hours: Weekdays 6:00 am-7:00 pm / Weekends/Holidays 8:00 am-6:00 pm
- **Adopted Codes/Ordinances: Unified Development code, 2021 I-Codes, 2020 NEC, 2018 IECC**
- No dirt work, grading and/or earth disturbance may occur without obtaining a permit.
- Inspection results will **NOT** be given over the phone.
- Trash container shall be on site and of sufficient size for the job site at all times. Community Waste Disposal (CWD) is the exclusive provider for construction dumpsters, roll-offs and waste hauling services. Contact Community Waste Disposal at 817-795-9300.
- Erosion control must be installed properly and maintained at all times.
- Trees shall be protected according to the Tree Preservation Ordinance at all times.

JOB SITE REQUIREMENTS

- All work shall be ready to be inspected for the type of inspection requested.

- The permit packet shall be on-site and readily accessible. City approved plans, all previous inspections performed, and any required paperwork shall be in packet.
- The building address shall be clearly posted.
- Toilet facilities shall be provided for construction workers and shall be maintained in a sanitary condition.
- Job site shall be cleaned daily.

FAILED INSPECTIONS (Fees may be assessed)

- Failure to meet **ANY** Job Site Requirements.
- Permit packet or approved building plans are not on job site.
- The building is locked or work is otherwise not available for inspection.
- Previous “red tag” items are still outstanding.
- Other violations of city/state ordinances/codes exist on the property.
- All fees must be paid prior to scheduling any inspection.
- If outstanding fees exist, the inspection will not be scheduled.

REQUESTING INSPECTIONS

- **Project shall be ready before requesting an inspection.**
- Inspections may be requested 24 hours daily online at www.cityofkeller.com by clicking on Building Inspections Online System.
- The General Contractor or company representative shall request inspections.
- Inspections requested after 7:00 am will be scheduled the following business day, and all reasonable attempts will be made to perform the inspection.
- Incomplete permit information or inaccurate information may delay the inspection requested.
- **ANY INSPECTION CANCELLATIONS:** Shall be emailed to buildingservices@cityofkeller.com with the address and permit number. Failure to cancel the inspection can result with a reinspection fee.
- Inspections will **NOT** automatically rollover in the event of wet, rainy, or bad weather days. The inspection must be rescheduled.
- If outstanding fees exist, the inspection will **NOT** be scheduled.

REQUIRED INSPECTIONS

For wet, rainy, and/or bad weather days, the inspection will NOT automatically roll-over. The inspection must be rescheduled.

ALL Job Site Requirements shall be met at each inspection.

1. **Temporary Electric (T-Pole):** Must comply with the 2021 IRC / 2020 NEC.
2. **Rough Grade:**
 - Proper erosion control must be in place and maintained throughout all phases of construction.
 - Grading plans and two original form-board surveys are required in permit packet. (The inspector will take one for City records.)
 - Trees that will not be removed must be properly flagged with fluorescent tape. Trees that are within 20’ of the building pad must have orange protective fencing placed around the drip line.
 - The form-board survey shall show the foundation forms, dimensioned setbacks, lot corner elevations, top-of-form elevation, and any other pertinent grade elevations as shown on the grading plan.

- Elevation stakes shall be placed at all four corners to clearly show lot elevation.
 - Lot shall be benched with drainage swales in place.
 - Retaining walls greater than a 1"1 ration (height: distance from building foundation) shall also be in place (Retaining walls exceeding 3' in height measured from the bottom of the footing to the top of the wall require a separate permit.)
3. **Piers:** Piers may be inspected by a licensed professional engineer in lieu of a City inspection. If using an engineer for inspection, an original inspection report sealed by the engineer of record must be in the permit packet at the Foundation inspection and submitted to building services.
 4. **Plumbing Rough:** Must comply with Chapters 24-33 of the 2021 IRC.
 - Water service and sewer service lines shall be in place and connected.
 - All piping shall be bedded properly.
 - The test riser on the sanitary sewer shall be a 10-foot water column, or an air test may be used with a minimum of 5 lbs. of pressure using a gauge in 1/10 lb. increments.
 - The water-supply system shall be tested with water pressure not less than the working pressure of the system, or an air test may be used with a minimum pressure of 50 lbs. of pressure using a gauge with 1 lb. increments. An air test is not allowed on plastic piping.
 - PVC joints must be sealed using a purple primer and CPVC joints must use an orange primer that conforms to ASTM F 493.
 - A test gauge must be placed on one hose bib. If static pressure exceeds 80 psi, a pressure reducing valve must be installed.
 - Connection of the private drain line to the City service line at the City-side cleanout shall be left exposed for a Sewer Tie-in inspection (performed by a Public Works Construction Inspector).
 5. **Sewer Tie-in:** The wastewater system that extends from the public sewer main to the cleanout at the from property line shall be inspected by the Public Works Construction Inspector. This inspection shall be performed the same day as the Plumbing Rough inspection request.
 6. **Electric Underground / Mechanical Underground:** Downdraft vent – 3, 4, and 5 may be called together.
 7. **Underground Fire Sprinkler Line:** Call 817-743-4470 to schedule the inspection with the Fire Inspector.
 8. **Foundation:**
 Must comply with Chapters 3 & 4 of the 2021 IRC.
 One original certified form board survey shall be in permit packet.
 Work must match the City-stamped foundation plan
 Exposed plumbing piping must be wrapped.
 If plastic water piping is used, a concrete-encased grounding electrode must be installed.
 An engineer's inspection report is not allowed in lieu of a City inspection.
 9. **All Seconds:**
 - a) Framing: – Must comply with Chapters 5-9 and 11 of the 2021 IRC
 - Houses with fire suppression systems must have been previously inspected by the Fire Marshal or Fire Inspector
 - Structure is dried-in including roof covering (note: cedar shakes and shingles are not allowed).
 - A water-resistive barrier of No.15 asphalt felt, house wrap or other approved water-resistive barrier (such as Zip System sheathing) shall be in place (Note: painted plywood or OSB is not considered a water-resistive barrier.)
 - All framing, fire blocking, draft stopping, bracing, rodent proofing and exterior sheathing is in place and windows and doors are installed.
 - Exterior sheathing shall be completely sealed and brick ties installed.
 - Windows, doors, and all openings must be properly flashed.
 - Windows located more the 6' above the exterior grade must also be located at least 2' above the floor or fall protection is required.

- If stucco is to be installed, lathe and two layers of house wrap or felt to be in place.
 - Stairways shall comply with section R311.7.
 - Winding stairway treads are to be at least 6' at the inside of each tread. Minimum of 10' tread required measured 12' in from winder.
 - All studs and joists must conform to the maximum allowed for cutting, notching, and boring.
- b) **Rough-in Electric – Must comply with the 2021 IRE / 2020 NEC**
- All rough-in wiring is complete.
 - Ground and neutral conductors will be made up in all panels.
 - A ground must be connected to the cold-water piping and supplemental grounding rod must also be provided. If plastic water piping is used, a concrete-encased electrode must be used in addition to the grounding rod.
 - Ground clamps used on ground rods must be listed for direct burial.
 - Jetted tubs must be on a dedicated, GFCI protected circuit.
 - Outlets for carbon monoxide detectors are required outside each bedroom door and must be hardwired and interconnected.
- c) **Top-out plumbing – Must comply with Chapters 25-32 of the 2021 IRC**
All soil, waste, vent and water supply pipes for all the fixtures are in place.
- A water test is required.
 - Water heater drain lines must run to outside. Drain pans required.
 - Water heaters are not allowed in the attic
 - Removable, self-draining, frons-proof hose bibs shall be installed and shall have vacuum breakers.
 - Combustion air inlets and grills shall be in place.
 - All vents shall be in place.
- d) **Rough-in Gas – Must comply with Chapter 24 of the 2021 IRC**
- All gas piping for all fixtures shall be in place.
 - Piping to be tested with a minimum of 10 lbs. of pressure shall use a gauge with 1/10 lb. increments for piping to be tested with 3 lbs. of pressure, a gauge with 1/10 lb. increments and pressure gauge not to exceed 6 psig shall be used.
 - Gas lines shall be properly secured and protected.
- e) **Rough-in Mechanical – Must comply with Chapters 12-23 of the 2021 IRC**
- All duct work and concealed components are complete.
 - Flexible ducts must be supported and in such a way that the airflow is not restricted.
 - Duct insulation must be a minimum of R-8 in attics and R-6 in other areas outside the building envelope.
 - Exhaust ducts must terminate to the outdoors. Air shall not be exhausted into an attic, soffit, ridge vent or crawl space.
- f) **Chimneys and Fireplaces – Must comply with Chapter 10 of the 2021 IRC**
- Wood-burning fireplaces shall have a gasketed door and outdoor combustion air.
10. **Fire Wall (if applicable):** Must comply with Section R302 of the 2021 IRC
- To be made after drywall is in place on fire-rated walls prior to applying any textured finish or paint.
 - Any penetrations must be sealed with fire caulk or other approved method.
 - Plastic electrical boxes are not allowed unless listed for such use.
 - Dryer vents cannot penetrate a firewall where openings are not allowed, and washer connections must be backed with a double layer of 5/8" type X gypsum board.
11. **Approach and Sidewalk:** Must comply with City detail
- Inspection may be made anytime before Final
12. **Permanent Power:**
- All electric and gas piping work is complete.

- Electrical system shall have all receptacles, switches and fixtures in place.
- Receptacles shall be of the tamper-resistant type.
- Arc-fault circuit interrupters (AFIC) are required in family rooms, dining rooms, living rooms, dens, bedrooms, offices, sunrooms, game rooms, media rooms, closets, hallways, and similar rooms and areas.
- Ground-fault circuit interrupters (GFCI) are required for all receptacles located within 6' from the outside edge of any sink and for all circuits in a kitchen, bathroom, outdoors, and garage including those for automatic garage door openers and dedicated appliance circuits.
- Where fixtures are not installed, the outlet shall be blanked off with a plate cover.
- Gas system shall be complete including valves and equipment (with exception of dryer and range).
- Gas test shall be performed.
- Gas flex lines are not allowed through knockouts.
- If applicable – jetted tub pump grounding to cold water supply with 12x12" access panel.
- Where gas appliances have not been installed, the gas line must be capped to prevent accidental opening of a valve.

13. Drainage Final:

- Landscaping, turf and drains shall be in place.
- The City shall run a sewer-drain camera from a cleanout to the sewer main to check for any separation or blockage. If any separation or obstructions are found, it shall be the responsibility of the plumber to make repairs.
- All areas of City Right of Way shall be clean.
- The street, drive approach, sidewalks, storm drain inlets, manholes, water valves, handicap ramps, water meters/boxes and sanitary sewer cleanouts in the Right of Way shall be inspected.

14. (CSI) Customer Service Inspection [Conducted by a Third-Party CSI Inspector]:

- CSI Certificates shall be submitted to www.sctrackingsolutions.com.

15. Energy Final [Conducted by a Third-Party CSI Inspector]:

- Provide result of 3rd party Keller Energy residential Energy Compliance Certificate to buildingservices@cityofkeller.com.

16. Fire Suppression Final: [Contact the Fire Department for inspection]:

- Call 817-743-4470 to schedule the inspection with the Fire Inspector.

17. Building Final:

- The permanent address must be posted on the house or mailbox with numbers a minimum of 4" in height.
- One full-length continuous handrail must be installed at each stairway with 4 or more risers. Ends must be returned to the wall or terminate at the Newel post. Handrails must be installed at a height of 34" – 38". Handrails shall have a space of not less than 1.5 inches between the wall and the handrail.
- Safety glazing shall be identified in a permanent manner (etched on glass) where required by section R308.4.
- Both smoke detectors and carbon monoxide detectors are required. Smoke detectors and carbon monoxide detectors must also be retrofitted with current code for all remodels and additions: however, battery powered units may be substituted in areas where no work is being performed.
- A permanent certificate as provided in the permit packet shall be posted on the electrical panel. The certificate shall list the insulation R-value in the ceiling/roof, walls, floors, and ducts, the U-factors for fenestration, the solar heat gain coefficient of fenestration, and type and efficiency of the heating, cooling, and service water heating equipment. This is to be completed by the builder, and architect, or an engineer.
- A permanent pull-down ladder must be installed to access appliances located in an attic. An access opening is required to all attic areas with a height of 30" or greater.

- Attic insulation shall be in place and depth markers installed.
- If using EnergyStar as method of energy code compliance, an official EnergyStar certificate must be in permit pack.
- Air conditioning equipment and pads shall be set.
- Programmable thermostats must be used for all heating/air conditioning units.
- Water, electricity and gas shall be on at this time to verify proper operation of outlets and equipment.
- Electric panel must be specifically and clearly labeled.
- A permanent electrical outlet and lighting fixture controlled by a switch located at the required attic opening must be provided at or near any mechanical equipment.
- All light fixtures must be installed or blank plate must be in place.
- An exterior light fixture shall be in place at all egresses.
- A removable access panel must be provided for jetted tubs.
- All plumbing fixtures must be installed.
- Street, alley, and all flatwork must be clean and clear of mud and debris.
- The yard, garage, and attic must be clear of debris and trash.
- If a lawn sprinkler system is installed, a separate permit must be issued.