

# WHAT TO EXPECT DURING YOUR CITY OF OAKLAND BUILDING INSPECTION

A detailed procedure for each specific inspection and for all the residential project types that we inspect would be too complex. Therefore, we are providing in this handout with some of the most typical inspections performed both for residential projects that are new from the ground up and for additions, repairs, and alterations.

The information contained in this handout is specific to the City of Oakland and no other jurisdictions. It is also not intended to be used as a reference or a basis for all residential projects. Each project is different and may require additional, specific, or other methods.

### For more detailed information consult: Residential Repair Inspection Manual

Permittees are strongly encouraged to consult with a design professional or licensed construction individuals for specific project guidance.

Familiarity with California Residential Code (CRC), California Building Code (CBC), California Electrical Code (CEC), California Plumbing Code (CPC), California Mechanical Code (CMC), California Energy Code (CENC), California Green Code (CalGREEN), and California Existing Building Code (CEXBC) is recommended to make good use of this manual.

The City of Oakland has amendments to the above codes. Please access amendments at <u>Oakland Amendments to</u> <u>California Building Codes</u>.

Important items to remember:

It is the responsibility of the permit holder or owner to request inspections before covering any work

Complete, intact, approved Construction Documents with all approved revisions, job card, CF-1R (Energy Calculations aka Title 24), and Conditions of Approval are required to be on site for ALL inspections

Valid and Issued permits are required for inspections

An individual with direct knowledge aged 18 or over is required to be present for inspection and provide safe means of access to all areas that need inspections. Ladders, lights, scaffolding, etc as necessary

Job site must be maintained safe and in compliance with all applicable codes and approved plans. A stop work order or suspension of inspections may be issued for serious safety violations or work that exceeds the scope of issued permits/approved plans. NOTE: Removal or disassembly of greater than 50% of a structure may result in the structure being classified as a new building when rebuilt. See <u>Code Bulletin D18-001</u>



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The building inspection is typically conducted after the MEP inspections have passed. City of Oakland Inspectors conduct inspections to determine that the project conforms to the approved construction documents and minimum applicable code requirements are met for each project. Inspection results are entered into the electronic permit system.

All approvals, partial or pass, shall be described in clear language and any areas approved to be covered will be described accordingly or noted in the approved plans.

If a Correction is necessary or the inspection did not pass the Inspector will email the correction notice to the field contact/representative. Inspector can provide if requested code sections to support correction notice items as soon as practical, typically next working day.

For projects requiring a private third-party special inspection, testing, rating, or observation, please see below for some of the typical third-party reports required (NOTE: *other reports may be required specific to your project. Please consult your approved plans or applicable codes*):

<u>Special Inspector as required under Chapter 17 of the California Building Code</u>- Special Inspector shall inspect and verify installation of items and provide a report prior to City of Oakland inspection. The report must be made available to City of Oakland inspector. **Special Inspections are not in lieu of required City of Oakland inspections. Only City of Oakland inspector can approve work.** 

<u>GreenPoint rater-</u> GreenPoint rater if required must be involved at start of project and during the course of construction to verify compliance with Green measures through the project. **GreenPoint raters are not in lieu of required City of Oakland inspections. Only City of Oakland inspector can approve work.** 

CalGreen Mandatory Measures- A design professional shall be retained to verify compliance with CalGreen Residential Mandatory Measures during construction. A letter certifying compliance or submittal of the CalGreen Residential Mandatory Measures Checklist will be required at FINAL. **Design Professionals for CalGreen verification are not in lieu of required City of Oakland inspections. Only City of Oakland inspector can approve work.** 

The City of Oakland cannot recommend any third-party individual, company, or firm for the above items.



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Listed below are *examples* of different stages of inspection and requirements. Please note that these are general requirements for residential projects; other requirements may be needed for your project. All work related to each preceding section must be completed and approved before proceeding to the next section.





# WHAT TO EXPECT DURING YOUR CITY OF OAKLAND BUILDING INSPECTION

### Pre-Construction

Upon issuance of a building permit and approval of construction documents, but before construction activities begin. The permittee and/or builder needs to prepare the site for the actual start of work. Part of the site preparation may involve establishing "Best Management Practices" to ensure that a safe, clean, and well-organized job site is achieved during construction activities.

Job Sites shall have at minimum:

1- Property address that is clearly visible from street

2- Toilet Facilities are on-site. If Portable Facility, it must have secondary containment and be within private property and not in the Right of Way.

3- Trash container or continuous trash removal. Sites shall be clean and safe for inspection (Litter Free Job Site Handout)

4- Dust control, erosion control, and other applicable stormwater control measures are in place.

5- Any protected areas (trees, creeks, watersheds, other) are protected and maintained as such.

6- Any other applicable safety measures as mandated by City, County, State, or Federal Agency

### Pre-pour / Foundation Stage

The foundation inspection is typically the first inspection that will be required, unless there is underfloor plumbing that needs to be laid out before any foundation work can take place. All foundation related work shall be ready for inspection, this includes not only having all forms, rebar, moisture barrier, sand/gravel, applicable hardware in place but will also necessitate that 1- any required Special Inspection reports be made available for the City of Oakland inspector, and 2- that formwork certification and/or licensed surveyor stakes be on site.

Only exterior piers, deck footings, and stem/retaining walls inspections may be phased. As per above any required Special Inspection reports must be on-site and available for City of Oakland inspector to review prior to OK to Pour.

If all work is complete and per approved construction documents and applicable code, the City of Oakland inspector will grant an OK to Pour.

- Underground plumbing to be inspected prior to OK to Pour-Do not cover piping until inspected and approved (Plumbing: Supply lines and DWV passing through slab or stem wall shall be sleeved min ½" wrap. Pipes shall not be embedded in the slab or footing)
- <sup>1</sup> When applicable, the Electrical Inspector will inspect any electrical systems that may be required within the foundation (i.e. Concrete Encased Electrode (UFER)).



# WHAT TO EXPECT DURING YOUR CITY OF OAKLAND BUILDING INSPECTION

### Framing Stage

Framing occurs before any building paper; roof underlayment; or rough plumbing, mechanical or electrical is installed. This allows the building inspector to inspect required shear walls/braced walls, roof nailing, exterior strapping, anchoring hardware (IE; Hold-downs, bolts, joist hangers, etc) before the structural items can be covered with the weatherproofing of the house. Roof and Shear inspections can be an elaborate process as it is dependent on the size of the home, the engineered design, and number of stories. Typically, a Special Inspection is required either as prescribed by the design engineer or Chapter 17 of the California Building Code. The Special Inspection field report must take place before a City of Oakland inspection and the report must be provided to the Inspector for verification. A Special Inspection is not in lieu of required City of Oakland inspection. Upon Completion of this stage projects typically move towards the ROUGH stage, which many times is called FRAME as well.

### Rough-in / Frame Stage

This inspection is scheduled after all walls, siding, roofing and windows are installed and the electrical/mechanical rough-ins and the plumbing top-out inspections have passed. The frame inspection consists of all minimum Code requirements. Common items include proper connections of structural members, grade and span of lumber, fire resistance construction, wall construction, life safety and roofing material.

- The Electrical inspection may include the wiring methods, branch circuits and feeders, devices and luminaries, power and lighting distribution, and grounding methods. (Rough-in)
- The Plumbing inspection may include pipes in walls, ceilings and attics for proper venting, connections, type of materials, clean-outs, proper pipe size, water test, gas piping pressure test, and water heater installation. (Plumbing Top Out) (Gas Rough-in)
- The Mechanical inspection may include heating and cooling equipment, exhaust systems, duct system, combustion air and pipe size. (Rough-in).
- The insulation installation is inspected prior to interior drywall installation (before covering walls)
- CalGreen and Cal Energy Code measures should be verified by third-party at this stage. Use CalCerts or CHEERS for Cal Energy Code verification.



# WHAT TO EXPECT DURING YOUR CITY OF OAKLAND BUILDING INSPECTION

### **Insulation**

Inspection of insulation typically follows once the approval of ROUGH or FRAME is granted by the Building Inspector. The insulation shall be installed as per the Energy Calculations for the project or "Prescriptive Approach" as per California Energy Code. All penetrations through the building (crawlspace, top plates, attic, exterior) shall be filled accordingly. Any penetrations or walls that make up a Fire Rated separation shall be constructed as per code ie; penetrations filled with approved Fire rated materials, insulation to be Fire Rated, RC-Channel installed, Fire rated lighting fixtures, electrical boxes, or other building materials shall be verified as installed one more time.

### Drywall, Lath, Gas Test

Once approval of insulation has taken place. The inspector will grant the OK to COVER. At this time the Drywall can be installed as per plans. Note any Fire rated walls in the project and install drywall as per ASTME 1Hour rated assembly. Exterior lath, siding, or approved weather-resistant material can also be installed. Upon installation of drywall and exterior finish material a GAS TEST will be required to ensure that no nail, screw, staple, or other fastener has damaged the gas pipe. For new units, only one utility can be released prior to FINAL.

### Final

The FINAL inspection takes place once no other work is contemplated for the project. The FINAL inspection typically will require that the permittee/ building professional conduct a thorough walk-through of the project prior to calling for inspection. The permittee/ building professional shall ensure that all flooring, transitions, light switches, outlets, covers, lights, handrails, guardrails, cabinetry and related hardware, appliances with manufacturer literature, address, etc are installed and completed. The permittee/ building professional, shall also have all FINAL paperwork available for the inspector, this can include: Final Wet-Signed/Wet-Stamped Special Inspection letter from Project Engineer, Private Sewer Lateral Certificate from EBMUD, PGE lock-out tags on Electrical Meters, Reduced set of floor plans (11x17), HERS Certification for Mechanical systems as required by California Energy Code, California Green Code Residential Mandatory Measures certified checklist, any other project specific document.

A final inspection is called in when all related permits have an approved rough-in inspection.

- The Building Inspection consist of the minimum Code requirements, common items include building planning, life safety, address, positive drainage, flashing, means of egress, smoke detectors, etc...
- The Electrical inspections consist of fixture installation, ground wire connection and proper



# WHAT TO EXPECT DURING YOUR CITY OF OAKLAND BUILDING INSPECTION

breakers, life safety, etc ...

- The Plumbing inspections may include of proper setting of fixtures, leaks, meter connections, and performs gas test, etc... (Plumbing Final) (Gas Final)
- The Mechanical inspections may include equipment installation for proper connection and clearance, wiring, ventilation, and shut-off devices, duct work, HERS certification
- The Zoning inspection may include verification that all landscaping, materials, and project specific Conditions of Approval have been met...
- Obtain all required paperwork, such as Special Inspection Final letter, HERS certifications,
  CalGREEN Mandatory Measures Residential Checklist, EBMUD PSL Certificate, reduced sets of plans (if applicable)

### **Electrical and Gas Utility Releases**

Whether installing a new service, upgrading, repairing, or meter reset of an electrical or gas service an Utility Meter Release (Electrical or Gas) inspection will take place to ensure that the electrical system is installed correctly, and that there are no issues with the equipment, wiring, piping, location, etc. For electrical all wiring, breakers, grounding, bonding must be installed at time of inspection. Note: City of Oakland requires AFCI breakers to be installed. A Utility Meter Release can only be issued once all walls have been covered and are protected. For new units, only one utility can be released prior to FINAL.

Electric and Gas Utility Releases in the City of Oakland

1- Apply for and obtain City of Oakland permit for your Electrical or Gas Service.

2- Contact PGE to obtain Confirmation of Discussion (COD). Permit Inspections cannot inspect Electrical Meters, if PGE COD is not on-site. PGE COD is not required for Gas Utility Release.

- 3- Schedule your Inspections
- 4- If your inspection passes the City of Oakland will place a Green Tag on the Electrical Panel (no tag needed for Gas Service) and will release the meter to PGE by next day at Noon.

5- Call PGE to have your utility connected by them.

If installing, modifying, or removing an Electrical or Gas Service you must contact PG&E and follow their requirements to obtain service. Please note that you must contact PG&E to obtain a Confirmation of Discussion (COD) for electrical meter inspection in the City of Oakland.

After proper inspections have been approved and documented the project is released to the utility company, then the customer can request electricity and/or gas services.



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### Solar and Energy Storage Systems

All solar (PV) and Energy Storage systems (ESS) shall be installed as per approved plans, applicable codes, and manufacturer specifications. Energy Storage Systems exceeding a combined 13.5KwH shall be approved by the City of Oakland Fire Prevention Bureau. For example, installing two Tesla Powerwalls would trigger compliance with the applicable code sections since they are lithium-ion and are a rated at 13.5 kWh.



City of Oakland

## **Building Bureau- Permit Inspections Services**

250 FRANK H. OWAGA PLAZA. SECOND FLOOR. OAKLAND CA 94612

https://www.oaklandca.gov/topics/building-inspections

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#### Building

Foundation = Pre-pour inspection to check beams and steel. Frame = Inspection of the structural members and fire life safety items. Insulation = Inspection of the R-value of Batt insulation installed as well as all gaps and openings poly-sealed. *Final* = Inspection of building after it is completed. *Type* = Inspection of what type of construction a building is determined. OK to Occupy= Building is OK to be occupied. CO or C of O = Certificate of Occupancy. SI= Special Inspection required under Chapter 17 of the CBC.

#### **Mechanical**

Rough in = Rough in inspection shall be made after the roof, framing, fire-blocking and bracing are in place and all ducting and other components to be concealed are complete and prior to installation of wall or ceiling membranes.

**HERS=** Duct Leakage test required under California Energy Code. *Final* =Final inspection shall be made upon completion of the mechanical system and prior to occupancy.

#### **Common Inspector Terms**

**Electrical** 

**<u>Final =</u>** Inspection of building after it is completed. **Rough =** Inspection of electrical system prior to concealment. **COD =** Confirmation of Discussion issued by PGE **AFCI =** Type of Circuit Breaker (Arc-Fault Circuit Interrupter) required to be installed in Oakland as per OMC 15.04. **Green Tag**= Tag placed on

inspected and approved Electrical Service panel *Meter Release=* Electrical Utility released to PGE confirming that equipment is safe and ready to be energized by PGE.

### **Plumbing**

Rough In = Inspection of the drain lines below the slab, floor or an interceptor. DWV= Drain, Waste, and Vent lines for the plumbing Backflow Device= A device that needs to be installed where drains of fixtures sit below the crown of the Sewer Main in the street. This device can only be installed before those fixtures and not for the entire home. **PSL=** Private Sewer Lateral. This is the Sewer Line in your property that connects to the Sewer Main. PSLs are inspected by DOT and not Permit Inspections. SL permit required from DOT.

#### PSL Cert/PSL Certification=

Certificate issued by EBMUD for projects that have a valuation over \$100,001 showing that the Private Sewer Lateral has been replaced or is compliant with EBMUD Regional Ordinance. the floor at framing stage. *Fire Sprinklers* = Inspection of the residential fire sprinkler system piping installation to be conducted by Fire Prevention Bureau.

*Final* = Inspection of the fixtures, appliances, equipment, interceptors, water heater, reverse osmosis, softener, backflow, collection systems (all plumbing) installations.

### <u>Gas</u>

**Rough in** = Inspection of the Natural, L.P. or Med gas piping installation in the walls, ceiling, floors, roof or underground. **Final** = Inspection of the Natural, L.P. or Med gas piping, appliances and equipment installation.



# City of Oakland Building Bureau- Permit Inspections Services

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# WHAT TO EXPECT DURING YOUR CITY OF OAKLAND BUILDING INSPECTION

Other Resources:

Schedule your Building Inspections

Permit Center

Accela Citizen Access

Department of Transportation: Sewer Lateral, Curb-Gutter-Sidewalk, Right of Way, Obstructions Permits and Inspections

Fire Prevention Bureau: Fire Sprinkler Plan Check and Inspections, Energy Storage Systems over 13.5kwH Plan Check and Inspections

Pacific Gas and Electric: Electrical and Gas Meters

EBMUD: Water Service and PSL Certificates

CalCerts: Energy Report (Title 24) registration

CHEERS: Energy Report (Title 24) registration