



The City of West University Place

A Neighborhood City

ELECTRICAL INSPECTION CHECK LIST **2020 National Electrical Code with Local Amendments** **International Residential Code with Local Amendments**

Inspection Checklist

An electrical load analysis is required for all buildings.

Temporary Saw Pole (TSP) (Note: T-pole **shall not** be located inside any fenced tree protection area.)

1. Address must visible from street.
2. Proper support.
3. Code requirements for size, protection, burial depth.
Note: TSP's take considerable abuse. All covers will be removed to inspect for the integrity of the system, i.e., GFCI, broken/loose wires, bonding and grounding. All broken receptacles must be replaced. PEOPLE DIE EACH YEAR FROM TEMPORARY ELECTRICAL SERVICES. LET'S MAKE THEM SAFE!
4. At any time, should this TSP become unsafe or used in a manner not allowed by Code, the service will be disconnected until such time safety to personnel is assured. In such case, a re-inspection fee will apply.

Rough in

Only copper wire is acceptable with a 150 Amp Main OCPD with #1 AWG minimum [**Main Disconnect outside**].

1. Overall workmanship.
2. Protection: Attic – stud placement – top and bottom plate placement $\leq 1 \frac{1}{4}$ required nail plate.
3. Kitchen: 210.52 – 2 circuits, counter spacing 2', island, peninsula, separate circuits to dishwasher, disposal and accessible switches, lighting, range and oven per Art. 250.112,114
4. Bathroom: Switches, unless GFCI protected, not accessible from tub/shower; GFCI receptacle for counter, spa/hydro tub GFCI protected, bond wire and accessibility (GFCI not under tub); lighting, exhaust fan/heater proper wiring size per Manufacturer. Minimum dedicated circuits required.
5. Laundry room: Washer dedicated 20 AMP; Dryer per Art. 250.112,114 #10 AWG minimum and 110 Volt receptacle for gas dryer.
6. Don't forget compliance with NEC 210.8 / 210.12 / 406.11
7. HVAC – General use receptacle within 25 ft. and GFCI as required,
8. General
 - a) A receptacle spacing, required locations, lighting,
 - b) Grounding of all metal boxes,
 - c) Pancake boxes are too small for required box fill (do not use unless proof of Code Compliance is on site),
 - d) Fasteners, staples as required and 12" from main,
 - e) Box fill,
 - f) Grounding continuity (wire nuts/crimps) and grounding electrode conductor with supplemental ground,
 - g) Conduit through masonry and concrete,

- h) Nail plate if less than 1-1/4" to surface – inside or outside. **[note all holes must have 5/8" of wood to edge of stud]**
 - i) Attic protection and light switch at entrance,
 - j) Closet lighting complying with NEC Article 410.2/410.16,
 - k) Comply with Boring and Notching Standard; no hole less than 2" to bottom or top of joist, rafters.
 - l) Panel, box recessed per Code limits,
 - m) Cold water, hot water, gas pipe bonding – accessible,
 - n) Proper bonding of metal parts – not through concentric knockouts,
 - o) No wire bundling more than 24" in length or de-rating will apply.
9. Smoke detectors; Per IRC R314.3.1 are required outside each sleeping area, in each bedroom, and at least one downstairs. All to be interconnected (when one sounds they all sound) and operate 110V with battery backup. Compliance to NFPA 72 is required.
 10. Carbon Monoxide Detectors; required in front of each separate sleeping areas per IRC R315.1.
 11. Any 12-3 system shall be protected per Code.
 12. #12 AWG minimum wire size.
 13. See local code amendments for details and other requirements.

Temporary Cut-in (TCI)

1. Electrical underground (visible): All depths per Code are **minimums**. Exposed PVC conduit shall be Schedule 80 and strapped.
2. Electrical overhead: All heights per Code are **minimums**. Check location as per window, porch and roof clearances.
3. Proper service entrance conductor sizing. Should wire size not match OCPD [over current protection device] rating, **a copy of the load analysis must be on site at the time of inspection.**
4. Any OCPD installed shall have all wiring devices complete. **Exception:** Should only the main disconnect be installed and locked in place.
5. Grounding electrode conductor and supplemental ground.
6. Proper bonding, not through knockouts.

****ALL FINAL INSPECTIONS ARE PERFORMED AT THE SAME TIME****

Final

1. All installations required by Code shall be complete and in working order.
2. All GFCI circuits must operate properly and have proper covers installed.
3. Arc-Fault protection: 210.12 (B) Dwelling Units. All 120-volt, single phase, 15- and 20-ampere 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 by a listed arc-fault circuit interrupter, combination-type, installed to provide protection of the branch circuit.
4. Main panel must be labeled, i.e. Kit/1, Kit/2, Master Bdrm, Bdrm-1, Bdrm-2, Laundry, A/C-1, A/C-2, garage, etc. (Don't just say Lights-Plugs-Bedroom)
5. Any 12-3 systems shall be bar tied per Code.
6. Smoke Detectors and Carbon Monoxide Detectors tested for proper operation, with power off.
7. Each receptacle will be tested for power and correct wiring.
8. Each light fixture shall have one bulb for operational check.
9. Closet lighting shall comply with 410.2 & 410.16.
10. Spa/hydro tub – GFCI shall be accessible (not under tub where panel must be removed).
11. Seal (caulk) exterior panel and boxes for weather proofing. **Note:** Weatherproof receptacle covers shall be of the bubble type-in service.