Town of Enfield

# Residential Electrical Service Checklist

Address:

| OK | NG | N/A | # | Item** | NFPA 70- 2005 NEC* |
|---|---|---|---|---|---|
| | | | | ***General*** | ***2005 Connecticut State Building Code*** |
| | | | 1- | Obtain electrical permits and utility approval | 2003 IBC 105.0 or 2003 IRC R105.0 |
| | | | | ***Service Drop*** | |
| | | | 2- | Minimum conductor sizes (AWG). | 310.15(B)6 |
| | | | | 100 Amp. #4 copper or #2 aluminum | *Table 310.15(B)6* |
| | | | | 200 Amp. #2/0 copper or #4/0 aluminum | *Table 310.15(B)6* |
| | | | 3- | Minimum open conductor clearance from doors or windows is 3 feet | 230.9 |
| | | | | Unless above a window | *Exception* |
| | | | 4- | Minimum roof clearance is 8 feet | 230.24(A) |
| | | | | Reduction to 3 feet allowed for roof pitches ≥ 4:12 | *Exception 2* |
| | | | | Reduction to 18 inches above overhangs (≤ 6 feet horiz. above overhang) | *Exception 3* |
| | | | 5- | Minimum vertical ground clearance | 230.24(B) |
| | | | | 10 feet from grade or sidewalks to lowest point of drip loop | 230.24(B)(1) |
| | | | | 12 feet from grade over residential driveways | 230.24(B)(2) |
| | | | 6- | Protect service entrance cables near driveways or where subject to damage | 230.50(A) |
| | | | 7- | Cable wall support within 12 inches of terminations & not over 30 inch intervals | 230.51(A) |
| | | | 8- | Aluminum connections require anti-oxidant | 110.3(B) |
| | | | 9- | Raintight service head or gooseneck required | 230.54 |
| | | | 10- | Locate weatherhead or gooseneck above service-drop attach point | 230.54(C) |
| | | | | Where impracticable, locate within 24 inches of attach point | *Exception* |
| | | | 11- | Formed drip loops and connections located below service head | 230.54(F) |
| | | | | ***Grounding and Bonding*** | |
| | | | 12- | Minimum grounding electrode conductor size (AWG) | 250.66 |
| | | | | 100 Amp - #6 unprotected or #8 copper in raceway or armor 250.64(B) | *Table 250.66* |
| | | | | 200 Amp - #4 copper to water pipe and #6 copper to ground rods | *Table 250.66* |
| | | | | Aluminum conductors not allowed in contact with masonry or earth | 250.64(A) |
| | | | 13- | Securely fasten and protect grounding electrode conductor from physical damage | 250.64(B) |
| | | | 14- | Grounding electrode conductor attached within 5 feet of water pipe building entrance | 250.52(A)(1) |
| | | | 15- | Clean electrodes at the clamp connector to make a permanent, effective path | 250.68(B) |
| | | | 16- | Two 8 foot long ground rods at 6 feet minimum separation (1 rod if ≤ 25 ohms) | 250.56 |
| | | | | Eight feet of rod in ground contact, upper end flush with or below ground | 250.53(G) |
| | | | 17- | Ground rod clamps suitable for direct burial & connect only one conductor | 250.70 |
| | | | 18- | All grounding electrode conductors must be brought to the service disconnect | 250.24(C) |
| | | | 19- | No grounding connections on the load side of service disconecting means | 250.24(A)(5) |
| | | | 20- | Main bonding jumper (strap or green screw) to service disconnect enclosure | 250.28 |
| | | | 21- | Bond both ends of metal raceways containing grounding electrode conductors | 250.64(E) |
| | | | 22- | Bonding jumper required across water meters and insulated joints | 250.68(B) |
| | | | | ***Service Panel*** | |
| | | | 23- | Workspace in front of panel 30w x 36d x 78h except replacement of existing panels | 110.26 |
| | | | 24- | Illumination of indoor working spaces about service equipment and panelboards | 110.26(D) |
| | | | 25- | Service disconnect limited to six switches or breakers at one location | 230.71(A) |
| | | | 26- | Service disconnect outside or inside at nearest point of entry of service conductors | 230.70(A) |
| | | | 27- | Service disconnect permanently marked to identify it as a service disconnect | 230.70(B) |
| | | | 28- | Circuit breakers or fuses identified on a circuit directory by the loads they supply | 408.4 |
| | | | 29- | Fuse or circuit-breaker panels prohibited in clothes closets or bathrooms | 240.24(D)&(E) |
| | | | 30- | Circuit breakers are compatible with the panel as listed on the panel door | 110.3(B) |
| | | | 31- | Unused openings in panels, raceways or boxes shall be properly closed 408.7 & | 110.12(A) |

Comments:

Building Official: Date:

**The equivalent provisions of the 2003 International Residential Code, Chapter 35 may be used in place of NFPA 70.*

***This checklist does not include every code requirement, but most common issues.*

*Rev.05.12jt*