DBS Electrical Program Newsletter

11/15/2017

Apprentice Ratio Returns to 2:1

Temporary change in apprenticeship ratio ending.

The Idaho Division of Building Safety has determined that we do not have the legislative authority to allow for the continued use of 3 apprentices to one journeyman in the installation of residential wiring. We also do not have the authority to do this as a blanket policy that applies to all contractors. The ability to expand the ratio of journeyman to apprentices is to be done on a case by case basis only. Beginning January 1st 2018 contractors working more than two apprentices to one journeyman will be considered out of ratio.

Expansion Fittings in Raceways

300.5 J

For many years some utility companies have required expansion fittings to be installed for underground service entrance conductors. It may be misunderstood by some installers that this is only a utility requirement. Article 300.5 (J) of the NEC states "Earth Movement: Where direct buried conductors, raceways, or cables are subject to movement by settlement or frost, direct buried conductors, raceways, or cables shall be arranged so as to prevent damage to the enclosed conductors or to equipment connected to the raceways." The informational notes in this section tell us that this recognizes expansion fittings in raceways. I have had several contractors call in and ask if inspectors can require expansion fittings, yes they can. I wish they would have put one on my home, in Boise. (Below Pic)

Service-Drop or Overhead Service Attachment

When utilities attach service drops to poles they need to realize that NEC 230.54 (C) requires service heads and goosenecks to be located **ABOVE** the point of attachment of the service-drop or overhead service conductors to buildings or structures.

There is an exception that allows them to be not more than 24" from the point of attachment when it is "impracticable" to locate the service head or gooseneck above the point of attachment. In this example the conductors where pulled tight and no "drip loop" was provided. This can cause a situation where water can run down the conduit entering the service equipment. Contractors should assure that they are providing adequate conductor length for a "drip loop."

Can we run service conductors in walls of dwellings?

Nearest the Point of Entrance

Questions have been raised about how far we can bring service conductors into a structure. 2017 NEC 90.2(C) gives the Authority Having Jurisdiction "special permission" to grant exception for conductors used to connect the utility supply system to the service conductors served, to enter a structure, at a readily accessible location nearest the point of entrance of the service conductors. The use of flush mounted meter bases generates questions about "how far can we bring these conductors into the structure?" The installation of overhead service conductors, inside the wall of dwelling units to flush mounted meter bases, will not be considered a code compliant installation in the State of Idaho. Underground flush mounted meters will be considered a code compliant installation under the following circumstances.

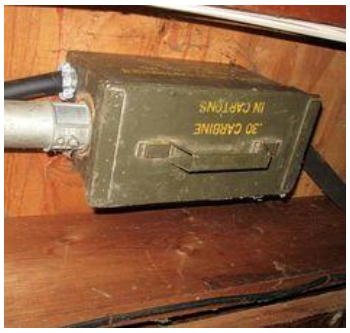
1. Where the service conductor enters the structure it shall be installed in RMC or GRC. This is in keeping with the policy of the largest utility provider in the State of Idaho and should help prevent costly rework by installers.
2. No more than 6' of conduit will be allowed inside the wall to the flush mounted meter base. The 2017 NEC 230.70 demands that the service disconnecting means be located nearest the point of entrance of the service conductors.
3. Service entrance conductors shall be allowed to extend one stud bay from the point of entrance and kept as short as possible.
4. Service entrance conductors shall be protected from damage by siding staples, nails and screws etc.
5. All other NEC requirements shall be followed.
   Service conductors and service entrance conductors entering structures should be kept as short as possible (230.91).

Conductors installed in walls where they are not visible are easily forgotten. We need to protect them from damage during construction and limit the likelihood of them being damaged in the future.

Garage Receptacles

All receptacles in Garages on 20 amp circuits.

The State of Idaho will require all receptacles in dwelling unit garages to be on 20 amp circuits. As long as the requirements of article 210.52(G) and (G)(1)have been met, any additional 20 amp circuits can feed any receptacles outlined in article 210.11(C)(4). Special attention will need to be given to the permissible load requirements of article 210.22 and 210.23. The use of duplex GFCI receptacles and standard receptacles for garage door openers will be allowed as long as permissible loads are followed.



USMC Listed Junction Box

DBS SERVICE CONNECTION POLICY

Beginning January 1st 2018, the Division of Building Safety will be implementing a new service connection policy to ensure we are aligned with current Idaho statutes and rules.