

6300000 CONDUIT
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Timothy Ruelke
352-955-6620

Comments: (3-8-12, Internal)

Footnote 3 under Materials should say “hot –dipped galvanized”.

Response: You are correct. This has been corrected.

Ray Haverty
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Comments: (4-3-12)

In 630-4.2 it states that “Due to conditions which may exist on the project site, the contractor may furnish conduit in variable lengths.”

In 630-4.3 it reads that “The Contractor shall furnish conduit in 20 foot sections with one coupling per section.”

In 630-4.4 it reads “The Engineer will supply conduit in sections with one coupling per section and elbows as required.”

I think the 630-4.2 (F&I) and 630-4.3 (F) should both allow for variable length as needed for the site, and for the 630-4.4 (I) is this to mean that someone else has furnished the conduit to the Department / the Engineer and we will provide that conduit to the contractor to install?

I don’t see a pay item for “Conduit Furnish” or “Conduit Install” in the list of valid pay items, therefore maybe the Furnish Section and the Install Section are not needed.

In 630-5 the item listed is “630-1- “ from looking at the list of pay items this should be “0630- 1- XX” in my opinion.

Response:

Bijan Behzadi
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Comments: (4-13-12)

630-3.1 General, 9th paragraph -Add the highlighted word (the pull wire should be inside the conduit):

Install a No. 12 AWG pull wire or polypropylene cord **inside** the full length of all conduits ~~that are designated for future use~~. Ensure that a minimum of 24 inches of pull ~~wire/cord~~ ~~line approved by the Engineer~~ is accessible at each conduit termination.

Response:

Cheryl Hudson
414-5332

Comments: (4-20-12)

1. **630-3.1, paragraph 4:** Did you intend for those to be described as “exposed” or “unexposed” installations?

Use ~~either~~ schedule 80 PVC or fiberglass reinforced epoxy conduit for *bridge decks or other exposed* installations ~~on bridge decks~~.

Response:

Note: Conduit on bridges and approach slabs is directed by Index 21210 and its IDS. Conduit is occasionally installed in the bridge deck, but usually it is located inside the railing as depicted in 21210. That distinction is the basis of some of the proposed changes below (*green text highlighted in yellow*).

The conduit expansion joint requirements in Section 630-3.3, paragraph 1, conflicts with the requirements in Standard Index 21210 Conduit Details. Some expansion joints in a bridge require expansion/deflection fittings (like curved bridges) which allow for non-linear movement, and may not be made of the same material as the conduit. Structures would like to add to the specification information currently in Index 21210 (Notes 4 & 5, expansion/deflection fitting requirements).

2. 630-3.3, paragraph 1:

630-3.3 Conduit Joints: ~~Make conduit joints using materials as specified by the manufacturer~~ *When conduit crosses an expansion joint of a structure and where shown in the plans, **install an expansion or expansion/deflection fitting** as specified by the manufacturer* ~~when conduit crosses an expansion joint of a structure. Use couplings and expansion joints made of the same material as the conduit. Certify that expansion/deflection fittings are rated to accommodate a minimum rotation of 30° and that both the expansion and expansion/deflection fittings are rated to accommodate the anticipated longitudinal movement (minimum 2 inches for deflection fittings and 0.7 inches for expansion/deflection fittings. Ensure that all installed joints are made using materials as specified by the manufacturer and are waterproof.~~ As an exception to the threaded coupling for intermediate metal conduit, at locations where it is not possible to screw the threaded coupling properly, the Contractor may use a waterproof slip-joint coupling approved by the Engineer. Secure the joint, and tighten threaded connections.

Response:

3. 630-4.2, paragraph 2: **Note:** Currently, Index 21210 CONDUIT DETAILS includes the cost of furnishing and installing Conduit etc. in the cost of the Traffic Railing or Pedestrian Railing (Parapet) that the conduit is installed in. This needs to be coordinated between roadway and structures and may change suggestions to Section 630-4.2

Payment for conduit placed in the ground or ~~used on~~ *attached to* bridge ~~s-decks~~ will be based on the horizontal path of the installed conduit ~~as~~ measured in a straight line between the centers of pull boxes, cabinets, poles, etc. No allowance will be made for

sweeps or vertical distances above *the ground or within the structure,* or below the ground ~~or the bridge deck.~~

Response:

4. 630-4.4, paragraph 2: Does the Engineer supply conduit, or the Contractor?

The ~~Engineer~~*Contractor* will supply conduit in sections with one coupling per section and elbows as required.

Response:

5. Pull boxes are not included in this Specification, but seems like a good place for them. We would like to have the following included for bridge or traffic railing installations. This would be for Indexes 21210, 17721, and 410.

Furnish and install NEMA 4X non-metallic, or galvanized steel pull boxes in accordance with NEC requirements. Pull boxes shall include gasketed weatherproof covers permanently labeled to indicate the utility contained within. Letters and symbols shall be a minimum of 0.5 inches tall and may be stamped or molded into the pull box covers.

Response:

Missy Hollis
414-4182

Comments: (4-26-12)

The "Furnish" only and "Install" only pay items were blocked in 2009, due to misuse of these items; some designers would "F&I" the first conduit in a trench, and then try to "Furnish" only the additional conduits. Is there a need to keep the other operations in the spec?

Response:

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Comments: (5-7-12)

630-3.1 does mention complying with NEC or NESC however, the fourth paragraph still dictates SCH 80 PVC or fiberglass conduit for exposed installations (we need SCH 40).

Response:
