

6300000 CONDUIT
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Stefanie Maxwell
414-4314

Comment: (11-29-12)

1. 630-2.4 Warning Tape: Add highlighted text (for clarification) as follows:

630-2.4 Warning Tape: Ensure that the buried cable warning tape is flexible, elastic material 3 inches wide, 6 mil (0.006 inches) thick, intended for burial and use as an underground utility warning notice.

Response:

2. 630-3.1 General: Change (highlighted) 13th paragraph as follows, as this is old language:

When backfilling trenches in existing pavement, use a commercially available sand-cement (approximately 10:1 mix ratio) flowable fill meeting the requirements of Section 121.

Response:

3. 630-3.9 Fiber Optic Cable Locate Wire: Change (highlighted) 1st paragraph as follows:

630-3.9 Fiber Optic Cable Locate Wire: Install locate wire in the trench or bore with all underground conduits to provide end-to-end electrical continuity for electronically locating the underground conduit system. Bury locate wire along the centerline of the top outer surface of installed conduit, as shown in the Plans, or as directed by the Engineer. Install locate wire in the trench or bore with all underground conduits to provide end-to-end electrical continuity for electronically locating the underground conduit system. Do not install locate wire in a conduit with fiber optic cable.

Response:

4. 630-3.10(3) Route Markers: Do we need to say this (highlighted text)?

3. Markers are placed at a 1 foot offset from the conduit system or as shown in the Plans. Ensure that markers are set within the right-of-way.

Response:

5. 630-4.2 Furnish and Install: (see Comment 2, above) Add highlighted text as follows:

630-4.2 Furnish and Install: The Contract unit price per foot of conduit, furnished and installed, will include furnishing all hardware and materials *and all testing* as specified in ~~the this~~ *Section and the* Contract Documents, and all labor, trenching, boring, backfilling, flowable fill, and restoration materials necessary for a complete and accepted installation.

Response:

Debbie Toole
414-4114

Comment: (12-5-12)

630-5 Basis of Payment, paragraph 5: Is this really necessary? We direct the Contractor in 630-3 to install in accordance with Section 555, which already states this requirement.

No payment will be made for underpavement/directional bore until a Bore Path Report has been delivered to the Engineer.

555-6 Compensation

No ~~payment~~ *compensation* will be made for directional boring until a Bore Path Report has been delivered to the Engineer

Response:

Gordon Wheeler
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Comment: (12-7-12)

1. 630-2.1 Conduit: I suggest revising the first sentence of 630-2.1 to : “Use materials that meet the following industry standards.”

Response:

2. 630-2.1 Conduit, footnote #1: I believe the term is “solvent weld” type slip-fit instead of solvent type slip fit.

Response:

3. 630-2.2 Locate Wire: I suggest adding “or copper clad” conductor.

Response:

4. 630-2.3 Locate Wire Grounding Unit, (# 2): I suggest changing it to read ...after the unit has “been” grounded to dissipate....

Response:

5. 630-2.4 Warning Tape, (2nd sentence): I suggest it to read: ...and has “the repeating message” “CAUTION: FDOT CABLE”,...

Response:

6. 630-3.1 General (8th paragraph): change degree to degrees.

Response:

7. 630-4.2 Furnish and Install: The second paragraph is incomplete.

Is the second paragraph of 630-4.2 needed? It looks like the next paragraph repeats the same info.

Response:

Comment: (date)

Response:

Bob Dion
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Comment: (12-10-12)

1. Suggest you delete 'in' from the first sentence of the second paragraph of 630-4.2, changing the wording to: 'Payment for conduit placed underground will be based on the linear feet installed.'

Response:

2. There seems to 2 methods of measurement for underground conduit. The second paragraph of 630-4.2 is the linear length of conduit installed; the third paragraph is based on the length of trench or bore measured between pull boxes. Can the first sentence of the third paragraph be deleted?

Response:

Chris Sweitzer
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Comment: (12-18-12)

630-1: Suggest changing "Plans" at the end to "Contract Documents" as some conduit is not shown in the plans but is detailed in the Design Standards (such as vertical conduit on sign structures and power services), and may be referred to in a TSP or MSP.

Response:

Jennifer Williams
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Comments: (12-26-12)

Add the requirement for Contractors to provide Global Positioning System (GPS) coordinates of underground or other infrastructure. Due to current and future advancements to the satellite based GPS and procedures of other Federal and State entities the requirement for GPS and Geographic Information System (GIS) should be required by State Specification for all future projects. An exception could be defined requiring the FDOT Project Manager to authorize total or partial exemption from the guidance.

Several machine manufactures offer GPS as an integrated, on board tool to increase work accuracy. GPS could provide a mechanism to allow quick locates after events such as hurricanes and other weather or natural events (fires, etc.) where markers or other identification is damaged or destroyed (including mower strikes on markers). GPS would enhance plan sets and aid other contractors when additional projects are being advertised, construction phase begins, etc. Central Office is building a database for ITS and other FDOT infrastructure (fiber, electrical, etc.) that includes GPS locations. Our District Survey and Mapping group also has the ability and has provided GPS based interactive maps when the data is available.

Response:

Rudy Hoyos
rudy.hoyos@pde-inc.com

Comment: (12-28-12)

1. 630-3.1: HDPE and PVC should also be options for underground power service installations. If run to power pole needs to be bored it will be HDPE.

Response:

2. 630-5: Add the highlighted text.

No additional payment will be made for multiple conduits in the same trench when bored. [s1]

Response:

3.630-5 Basis of Payment: DO NOT CHANGE THE PAY ITEM TO 630-2. LEAVE AS 630-1. This should be stressed.

Payment will be made under:

Item No. 630- 2+- Conduit - per foot LF.

Response:

D4 Construction

Comment: (1-2-13)

1. 630-2.1: Hot dipped galvanizing coating text; how is the actual vs specified coating thickness/weight to be determined, i.e. is the contractor or manufacturer supposed to conduct tests and or certify?

³Use conduit that is hot-dipped galvanized with a minimum coating of 1.24 ounces per ft² square foot on both the inside and outside of the conduit. with both ends reamed and threaded. The weight of the zinc coating shall be determined using ASTM- A90[s2].

Response:

2. 630-2.5: Second paragraph, last sentence; suggest deleting the text and the sentence after the word “deteriorate”.

Ensure that each SRM is labeled and identified as an FDOT fiber optic cable marker unless otherwise shown in the pPlans. ~~Ensure that~~ The labels must include the Department's logo, contact information for the local FDOT District, and a telephone number to call prior to any excavation in the area. Ensure that the identification information is permanently imprinted on the top fitting, and will not peel, fade, or deteriorate with prolonged exposure to the typical roadside environmental hazards. ~~Ensure that all route markers used on the project are new and consistent in appearance.~~

Response:

Cheryl Hudson
414-5332

Comment: (1-2-13)

1. 630-3.1 General, paragraph 4 states: "Use Schedule 80 PVC or fiberglass reinforced epoxy conduit on bridge decks." Suggest the sentence/paragraph be replaced with: "*Use Schedule 80 PVC conduit in structural elements in or on bridges.*"

Index 21210 requires Schedule 80 PVC in bridge decks and traffic railings. The fiberglass reinforced epoxy conduit has a history of UV degradation; therefore we do not recommend it be used on or in any structure. Additionally, we are not familiar with any conduit placed "on" bridge decks. Galvanized steel may be used when attached to the bridge (if required by the utility and approved by the EOR or Bridge Maintenance).

Response:

2. 630-3.1: "Use HDPE with an SDR number less than or equal to 13.5, Schedule 80 PVC, Schedule 40 PVC, rigid galvanized metal, or **rigid aluminum** for underground installations of electrical conduit **in concrete** for lighting applications." Suggest "**or rigid aluminum**" be deleted. Aluminum should not be installed in direct contact with concrete due to corrosion. For more information contact State Materials Office (SMO).

Response:
