

Inspector Quantlist Report 20190416

Diary Number: _____ Inspector Name: _____

TRACS Number: _____ Date: _____

Division VII: Traffic Control Facilities
Title: Electrical Conduit

Route Name:
Reference Number:
Station:
Offset:
Sheet Number:

Attribute Numbers	Compliance	Narratives	References
0.		All stakeholders have participated in the pre-activity meeting (can be combined with other pre-activity).	Construction Manual 108.04
1.		The contractor has submitted six copies (or submitted electronic format/docuSign) of a complete project material submittal for approval at the preconstruction conference.	Standard Specifications 106.05 Standard Specifications 730-4 Standard Specifications 732-2.01
2.		All materials match the approved submittals and contract documents.	Standard Specifications 732-2.01
3.		Sampling and testing procedures conform to Underwriters' Laboratories, Inc. (UL) standards and approved for use by the Engineer prior to installation on the project (sample bell end; 6 foot per 5000 LF) and test results on file from Material Lab.	Standard Specifications 732-2.02
4.		Areas are Blued Staked (Arizona 811) prior to beginning work.	Standard Specifications 107.15
5.		Exposed conduit and fittings are installed above ground and are IMC or galvanized rigid metal.	Standard Specifications 732-2.02
6.		Underground conduits and fittings are heavy wall Schedule 40 PVC (UL or NEC) or as shown on plans.	Standard Specifications 732-2.02
7.		Changes in the location and size (larger size conduit can be used for the full run at no cost to ADOT and no reducing couplings are permitted) shown on the project plans shall be documented by the Contractor and submitted to the Engineer.	Standard Specifications 732-3.01

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8.		Expansion fittings will not be installed in PVC conduit runs between two pull boxes unless otherwise specified. An expansion fitting is installed in conduit runs in which both ends of the conduit are fixed in place such as between two foundations.	Standard Specifications 732-3.01
9.		Trench excavations deeper than 4 feet are sloped or shored per OSHA regulations.	Standard Specifications 203-5.03 Standard Specifications 107.08 OSHA Standards 29 CFR 1926.651 and 1926.652
10.		Spoil piles from excavations are placed a minimum of 2 feet from the edge of the trench to prevent materials from falling/rolling into the trench.	OSHA Subpart B OSHA Standards 29 CFR 1926.651 and 1926.652
11.		Excavation and backfill will be in accordance with the requirements of Standard Specifications 203-5.	Standard Specifications 203-5 Standard Specifications 732-3.01
12.		When connection is made to steel conduit, the coupling used will be a PVC female adapter.	Standard Specifications 732-3.01
13.		Conduit is placed at a minimum depth of 30 inches when conductors have voltages over 250 volts and when not protected by concrete (encasement or slab).	Standard Specifications 732-3.01
14.		Conduits containing conductors less than 250 volts and placed behind curbs and sidewalks and not subject to vehicular traffic have been placed at a minimum depth of 18 inches or encased in 3 inches of concrete if less than 18 inches.	Standard Specifications 732-3.01
15.		Where specified due to shallow trenching depths, the conduit is encased in a minimum of three inches of concrete; conduit is supported with masonry block or brick on 10-foot centers, during encasement, so that the conduit will be completely encased.	Standard Specifications 732-3.01
16.		All above ground couplings are threaded (not compression fittings).	Standard Specifications 732-2.02
17.		When backfill consists of non-cemented or cemented slurries, the slurry is placed in uniform horizontal lifts not exceeding 4 feet in depth.	Standard Specifications 203-5.03 (B) (3)
18.		All PVC conduit shall be cut square and trimmed to remove all rough edges; Conduit connections is prime with Purple primer conforming to the requirements of ASTM F 656 and be applied to the joined surfaces prior to use of cement.	Standard Specifications 732-3.01
19.		The joint cement used is the gray PVC cement conforming to the requirements of ASTM D 2564 on the PVC conduits.	Standard Specifications 732-3.01
20.		When a trench is left open overnight, a minimum of six inches of backfill material is used as a protective cover to eliminate contraction of the conduit system (backfill material is removed if final inspection by the Engineer has not been made).	Standard Specifications 732-3.01

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21.		Backfill material is free of loose rock, paving materials, cinders and large or sharp angular substances.	Standard Specifications 732-3.01
22.		Loosened or collapsed earth material from excavation or adjacent ground, including trash, has been removed from the trench prior to backfill.	Standard Specifications 203-5.03 (B) (3)
23.		Backfill is placed in layers not exceeding 8 inches (un-compacted) when compacted with pneumatic or mechanical tamping devices.	Standard Specifications 203-5.03 (B) (3)
24.		Contractor has submitted a jack and bore or directional drill plan which includes proposed methods and procedures to be approved by the Resident Engineer, prior to start of work.	Special Provisions 732-1
25.		Warning tape is 4-mil inert plastic film for use underground; the continuous printed message warning of "CAUTION - ELECTRIC LINE BURIED BELOW" in black letters on a red background (not backfilled to the top of the trench w/cemented slurry or concrete).	Standard Specifications 732-2.02 Standard Specifications 732-3.01
26.		All warning tape will be buried at a depth of six to eight inches below the finished grade.	Standard Specifications 732-3.01
27.		Excavations for conduit are performed in a manner to avoid unnecessary damage to streets, curbs, sidewalks and landscaping.	Standard Specifications 732-3.01
28.		All conduits will be capped immediately after installation until wiring is installed.	Standard Specifications 732-3.01
29.		A three-inch "Y" is cut into the face of the curb directly over conduit located under curbs.	Standard Specifications 732-3.01
30.		Surplus excavation material from trenching has been removed and properly disposed of within 48 hours.	Standard Specifications 732-3.01
31.		All changes are approved by the Engineer.	Standard Specifications 732-3.01
32.		All PVC conduits is stored and handled in an approved manner to minimize ultraviolet deterioration due to exposure to sunlight.	Standard Specifications 732-3.01
33.		Installation of conduit for underground primary service conform to the utility company requirements, local codes and the Special Provisions; conduit installed in railroad right-of-way shall be to the depth specified by the railroad company.	Standard Specifications 732-3.01
34.		Except for factory bends, conduit bends have a radius of not less than that specified in the NEC; conduit bent without crimping or flattening, using the longest radius practicable.	National Electrical Code Chapter 9 Tables Standard Specifications 732-3.01
35.		The number of bends in the conduit are less than or equal to 360 degrees from pull point to pull point.	National Electrical Code Article 352.26
36.		All changes are documented by the inspector and noted in the as-built plans.	Construction Bulletin 09-04 Construction Manual 105.11 Standard Specifications 732-3.01
37.		Quantlist Minimum Frequency is being followed with a minimum of one per week.	Construction Bulletin 07-01