

Inspector Quantlist Report 20240205

Diary Number: _____ Inspector Name: _____

TRACS Number: _____ Date: _____

Division VII: Traffic Control Facilities
Title: Electrical Conduit

Route Name:
Conduit Run Number:
Begin Station:
End Station:
Offset:
Plan Sheet Number:

Attribute Numbers	Yes No N/A	Narratives	References
0.		All stakeholders have participated in the pre-activity meeting.	Construction Bulletin 02-01
1.		The contractor has submitted a complete project material submittal for approval to the Engineer electronically by the pre-construction conference.	2021 Standard Specifications 730-4 pg. 828
2.		All materials delivered to the field match the approved certificates of compliance or certificate of analysis.	2021 Standard Specifications 106.05 pg. 89
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. Test results are on file with the Materials Lab.	2021 Standard Specifications 732-2.02 pg. 851
4.		Areas are Blued Staked (Arizona 811) prior to beginning work.	2021 Standard Specifications 107.15(C) pg.117 - 118
5.		All exposed conduit and fittings to be installed above ground are IMC or galvanized rigid metal.	2021 Standard Specifications 732-2.02 pg. 851
6.		Underground conduits and fittings are heavy wall Schedule 40 PVC (UL or NEC) or as shown on plans.	2021 Standard Specifications 732-2.02 pg. 851

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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.	2021 Standard Specifications 732-3.01 pg. 852
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.	2021 Standard Specifications 732-3.01 pg. 853
9.		Trench excavations deeper than 5 feet are sloped or shored per OSHA regulations.	OSHA Standards 29 CFR 1926.652(a)(1)(ii)
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 Standards 29 CFR 1926.651(j)(2)
11.		Excavation and backfill are in accordance with the requirements of Standard Specifications 203-5.	2021 Standard Specifications 203-5,pg. 201 2021 Standard Specifications 732-3.01,pg. 853
12.		When connection is made to steel conduit, the coupling used will be a PVC female adapter.	2021 Standard Specifications 732-3.01, pg.853
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).	2021 Standard Specifications 732-3.01, pg. 853
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.	2021 Standard Specifications 732-3.01, pg. 853
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.	2021 Standard Specifications 732-3.01,pg. 853
16.		All above ground couplings are the rigid metal type, manufactured of galvanized steel, conforming to UL 6 for Rigid Metallic Conduit.	2021 Standard Specifications 732-2.02, pg.851
17.		When backfill consists of non-cemented or cemented slurries, the slurry is placed in uniform horizontal lifts not exceeding 4 feet in depth.	2021 Standard Specifications 203-5.03 (B) (3) pg.202

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18.		PVC conduits are cut square and trimmed to remove all rough edges. Conforming to the requirements of ASTM 656, Purple primer is being used on all joined surfaces.	2021 Standard Specifications 732-3.01 pg. 853
19.		Conforming to the requirements of ASTM D2564, Gray PVC joint cement is being used on the conduit connections.	2021 Standard Specifications 732-3.01, pg. 852
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).	2021 Standard Specifications 732-3.01, pg. 853
21.		Backfill material is free of large rock, paving materials, cinders, large or sharp angular substances or corrosive material.	2021 Standard Specifications 732-3.01 pg. 853
22.		Loosened or collapsed earth material from excavation or adjacent ground, including trash, has been removed from the trench prior to backfill.	2021 Standard Specifications 203-5.03 (B) (3) pg. 201
23.		Backfill is placed in layers not exceeding 8 inches (un-compacted) when compacted with pneumatic or mechanical tamping devices.	2021 Standard Specifications 203-5.03 (B) (3) pg. 202
24.		Conduit is installed under existing pavement by jacking or drilling by methods approved by the Engineer. Jacking and drilling pits are kept 2 feet clear of the edge of the pavement.	2021 Standard Specifications 732-3.01 pg 854.
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 .	2021 Standard Specifications 732-2.02 pg. 851
26.		All warning tape will be buried at a depth of six to eight inches below the finished grade.	2021 Standard Specifications 732-3.01 pg. 854
27.		Excavations for conduit are performed in a manner to avoid unnecessary damage to streets, curbs, sidewalks and landscaping.	2021 Standard Specifications 731-3.02 pg. 844
28.		All conduits will be capped immediately after installation until wiring is installed.	2021 Standard Specifications 732-3.01 pg. 854
29.		A three-inch "Y" is cut into the face of the curb directly over conduit located under curbs.	2021 Standard Specifications 732-3.01 pg. 854
30.		Material which, in the opinion of the Engineer, is not suitable for use or which is deemed surplus will be disposed of in accordance with Subsection 203-3 of the specifications.	2021 Standard Specifications 732-3.01 pg. 835 203-3 pg. 195 203-5.03 pg.199

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31.		Conduit runs shown on the project plans can be changed to avoid underground obstructions as directed by the Engineer.	2021 Standard Specifications 732-3.01 pg. 835
32.		Changes in the location and size shown on the project plans are documented by the contractor and submitted to the Engineer.	2021 Standard Specifications 732-3.01 pg. 835
33.		All changes are documented by the inspector and noted in the as-built plans.	Construction Bulletin 09-04 Construction Manual 105.11 2021 Standard Specifications 732-3.01 pg. 835
34.		All PVC conduits are stored and handled in an approved manner to minimize ultraviolet deterioration due to exposure to sunlight.	2021 Standard Specifications 732-3.01 pg. 835
35.		Installation of conduit for underground primary service conforms 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.	2021 Standard Specifications 732-3.01 pg. 835
36.		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 2021 Standard Specifications 732-3.01 pg. 835
37.		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
38.		Quantlist Minimum Frequency is being followed with a minimum of one per week.	Construction Bulletin 07-01