# Section 71 – Airport Underground Electrical Ducts and Conduit (FAA L-110)

Black text – from standard FAA spec

Strikeout text – deletions from FAA standard spec

Red text – notes to the Engineer/won't appear in spec

## I. DESCRIPTION

## A. GENERAL

1. This item shall consist of underground electrical conduits and duct banks

## II. EQUIPMENT AND MATERIALS

#### A. GENERAL

- 1. All equipment and materials shall be subject to acceptance through manufacturer's certification
- 2. Manufacturer's certifications shall not relieve the Contractor of responsibility
- 3. All materials and equipment shall be submitted to the Engineer for approval
- 4. The data submitted shall be sufficient, to determine compliance with the plans
- 5. All equipment and materials shall be guaranteed against defects for a period of at least twelve (12) months

#### B. STEEL CONDUIT

1. Rigid galvanized steel conduit and fittings

## C. PLASTIC CONDUIT

- 1. Plastic conduit and fittings-shall conform to the requirements of Fed. Spec. W--C-1094.
  - a) Type I–Schedule 40 PVC
  - b) Type II–Schedule 40 PVC

Non-metallic conduit and fittings shall conform to the requirements of Fed. Spec. W-C- 1094 and shall be Type II, Schedule 40  $\,$ 

#### D. SPLIT CONDUIT

1. Split conduit shall be pre-manufactured

# E. CONDUIT SPACERS

1. Conduit spacers shall be prefabricated

## F. CONCRETE

1. Concrete encasement with red dye shall conform to Section 54.

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- G. FLOWABLE BACKFILL
  - 1. Flowable material shall conform to Section 24 of these specifications
- H. DETECTABLE WARNING TAPE
  - 1. Red detectable conduit marker tape shall be inert polyethylene plastic
- I. DUCT MARKERS
  - 1. The location of duct bank terminations shall be marked by a concrete slab marker 2 ft square
- J. GROUND ROD INSPECTION PITS USED AS DUCT MARKERS
  - 1. Ground rod inspection pits may be used as the required cable markers
- K. CONDUIT PULLING LUBRICANT
  - 1. Thomas and Betts, Kopr-Kote or approved equal

#### III. CONSTRUCTION METHODS

- A. GENERAL
  - 1. The Contractor shall install underground duct banks and conduits at the approximate locations indicated on the plans
- B. DUCT BANKS
  - 1. Unless otherwise shown in the plans, duct banks shall be installed so that the top of the concrete envelope is not less than 18 inches
- C. CONDUITS WITHOUT CONCRETE ENCASEMENT
  - 1. Trenches for single conduit lines
- D. MARKERS
  - 1. The location of each end of duct banks shall be marked by a concrete slab marker
- E. BACKFILLING FOR CONDUITS
  - 1. For conduits, 8 inches
- F. BACKFILLING FOR DUCTBANKS
  - 1. After the concrete has cured, the remaining trench shall be backfilled
- G. RESTORATION
  - 1. Where sod has been removed, it shall be replaced

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# IV. METHOD OF MEASUREMENT

1. Duct bank or conduit shall be measured by the number of linear feet

## V. BASIS OF PAYMENT

1. Payment will be made at the contract unit price

# VI. MATERIAL REQUIREMENTS

- A. Fed.Spec.W-C-1094
- B. Underwriters Laboratories Standard 6
- C. Underwriters Laboratories Standard 514B
- D. Underwriters Laboratories Standard 651
- E. Underwriters Laboratories Standard 651A

**END OF SECTION 71**