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DESIGN DIRECTIVE

To: Distribution

From: Erik J. Stoothoff, P.E. *EJS*
Chief Engineer

Date: 5/5/2020

RE: Electric Conduits (Non-Duct bank/Non-Direct burial)

This Design Directive is intended to consolidate, reiterate, supplement, and clarify the MBTA's approach, preferences, and requirements for all MBTA Stations and Facilities. In the event that conditions warrant deviation from this directive, a design waiver signed by the Chief Engineer and department owning the scope of work will be required of the project.

This is directive is to provide guidance in the use of electrical conduit:

ALL installations for branch and distribution conduits SHALL be designed and installed as rigid galvanized conduit schedule 80 with threaded matching galvanized fittings. Installations where the environment requires an increase in corrosion protection, stainless steel conduit with matching threaded fittings and matching stainless steel supports shall be used.

Exception: The use of EMT with steel set screw fittings or steel compression fittings are ONLY allowed within dry locations within protected in-wall construction, such as sheetrock wall construction.

Spare conduits shall be provided, preference is to achieve 50% spare capacity, however the Designer of Record shall make reasonable recommendation considering:

- Criticality of service carried
- Encroachment into publicly accessible areas
- Coverage of underlying structures
- All empty conduits shall be installed with a pull string with a minimum 200lb pull strength

CODES AND STANDARDS

- NFPA 70
- NFPA 130
- Massachusetts Electric Code (527 CMR 12.00)
- Massachusetts Building Code (780 CMR)