



Charles D. Baker, Governor  
Karyn E. Polito, Lieutenant Governor  
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## DESIGN DIRECTIVE

To: Distribution

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

Date: 5/22/2020

RE: Electrical Junction Box penetrations in Exterior and/or Wet Locations

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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 directive is to provide guidance in penetrations made in electrical junction boxes when installed in wet or exterior locations subjected to moisture:

Field made penetrations created to enter an electrical junction box shall be made on the bottom of all junction boxes to limit the possibility of the entrance of moisture.

When bottom entry is not possible and with written approval from the Office of the Chief Engineer, threaded weatherproof hubs shall be installed for conduit systems and threaded weatherproof compression style hubs for cable entrances will be allowed.

### **CODES AND STANDARDS**

- NFPA 70
- Massachusetts Electric Code (527 CMR 12.00)