

**NC Department of Insurance  
Office of the State Fire Marshal - Engineering Division  
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**Electrical Outlet Penetrations of Rated Exit Enclosure Membranes**

**Code:** 2018 Building Code  
**Section:** 1023.5

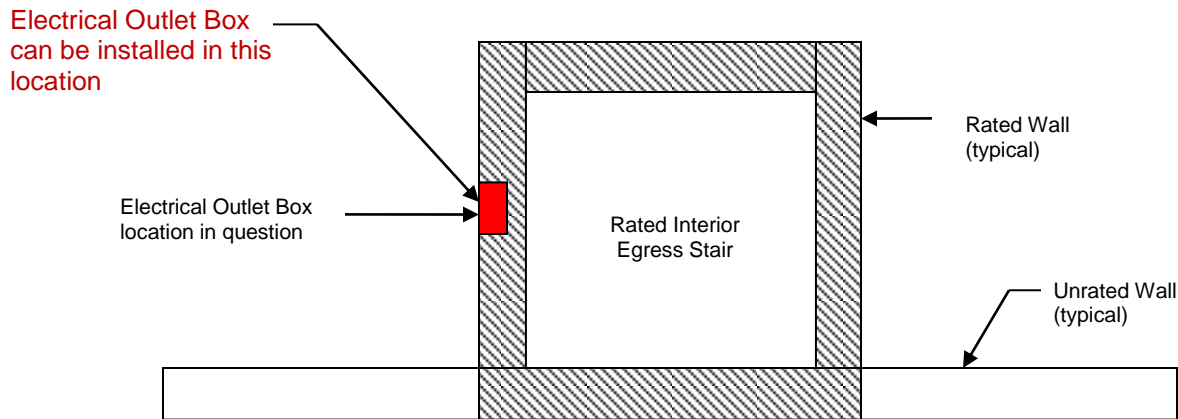
**Date:** September 13, 2018

**Question:**

Can an unrated electrical outlet box located on the outside of a rated exit enclosure penetrate the associated membrane of the rated assembly enclosing the exit? See “Plan View A” below for the electrical outlet box location in question.

**Answer:**

Yes. The exception in Section 1023.5 of the NC Building Code specifically allows this penetration when the penetration complies with Section 714.3.2. The purpose of a rated exit enclosure is to separate, as much as is practical, the enclosure from the hazards within the building. This then provides a safe path of egress from the entrance into the exit enclosure to the exit discharge. The code considers the electrical outlet box inside the cavity of the rated assembly of the exit enclosure a negligible hazard by the code. Note the box cannot be located inside the stair.



Plan View A

**Footnotes:**

1. This interpretation does not address other types of penetrations.

**Keywords:**

Stair shaft, exit passageway, junction box, power, electrical, means of egress