



Division 260532

Boxes

DESIGN GUIDE

1 General

1.1 Introduction

- A. This section applies to the following:
 - 1. Wall and ceiling outlet boxes
 - 2. Floor boxes
 - 3. Pull and junction boxes
 - 4. Access doors
- B. The use floor boxes shall be minimized to what is required by the program and the national electrical code.
- C. Where floor boxes are used, the electrical designer shall coordinate with the telecom and AV designer to utilize a shared floor box where possible.

2 Materials

2.1 Outlet Boxes

- A. Boxes shall be square type. Round or octagon boxes will not be permitted. Boxes shall have galvanized finish.
- B. Boxes shall be of code gauge steel.



- C. Outlet boxes and device boxes mounted in non-masonry walls shall be minimum 4 inches square by 2-1/8 inches deep exclusive of rings.
- D. Outlet boxes and device boxes mounted in masonry walls shall be single gang or double gang masonry boxes with a minimum depth of 2½ inches for 4 inch masonry walls and 3½ inches for 6 inch or 8 inch masonry walls (exclusive of rings).
- E. Multi-gang boxes shall be one-piece. Do not use built-up boxes.
- F. Weatherproof boxes shall be non-rusting cast metal with threaded hubs. Boxes shall have screw mounted, gasketed covers. Plugs shall be installed in all unused holes.

2.2 Floor Boxes

- A. Floor boxes shall be avoided where wall or structure is available for mounting of devices.
- B. Floor boxes shall have angled devices for improved access.
- C. General purpose floor boxes shall be minimum 2-gang and minimum 2-1/2" depth behind device plates.
- D. Large capacity floor boxes shall be minimum 4-gang and minimum 2-1/2" depth behind device plates.
- E. Where power floor boxes are intended to be shared with low voltage systems, refer to the applicable low voltage standards for additional requirements.

2.3 Access Doors

- A. Minimum 12" square with hinged cover.

3 Execution

3.1 General Installation

- A. Install boxes in accordance with NECA "Standard of Installation."



- B. Where rigid conduit enters a box, fitting or device through a knockout, double locknuts and an insulated metallic bushing shall be used. EMT shall terminate at knockouts with an insulated throat fitting and one locknut.
- C. Provide access doors where boxes are not exposed or not located within an accessible ceiling. Box shall be within 6" of access door opening.

3.2 Outlet Box Installation

- A. Align adjacent wall mounted outlet boxes for receptacles, data/telephone outlets, and similar devices.
- B. Use flush mounting outlet box in finished areas.
- C. Do not install flush mounting box back-to-back in walls; provide minimum of 6 inches separation.
- D. Use cast outlet box in exterior locations, where exposed to the weather and wet locations.

3.3 Floor Box Installation

- A. Use cast floor boxes or pour pans for installations in slab on grade; formed steel boxes for other installations. Set floor boxes level and flush with finish flooring material.
- B. Floor outlet cover plates shall be compatible with finish floor as installed.
- C. Provide 10% spare replacement covers and cover fasteners for each floor box type provided on the project. Minimum spare quantity of (3) covers and cover fasteners per floor box type.
- D. Where power floor boxes are intended to be shared with low voltage systems, refer to the applicable low voltage standards for additional requirements.

3.4 Pull and Junction Box Installation

- A. Install pull boxes and junction boxes above accessible ceilings in finished areas and exposed in unfinished areas.



- B. Where approved by the ELSM, pull and junction boxes can be installed within 6" of an access panel in a non-accessible ceiling.

4 Appendix

4.1 Reserved for future.