

Steel Storage Racks and Shelving Design Installation Guidelines

This document applies to design guidelines and installation requirements for pallet racks, movable shelf racks, stacker-racks, and cantilevered steel storage racks made of cold formed or hot-rolled steel structural members. Applicant shall furnish rack installation drawings with full dimensional floor plans elevation views of each type of rack.

1. **Rack Design:** Rack design documents shall be prepared by either a California licensed Civil or Structural Engineer. Design documents shall be in accordance with the 2022 CBC section 2209 and RMI/ANSI MH 16.1-12.
2. **Storage Rack Height Under 5'9"**: A permit is not required.
3. **Storage Rack Height between 5'9" and 8'**: Anchorage is required, and anchorage design calculations shall comply with ASCE 7-16, section 15.5.3. Submit rack installation drawings, including floor plans, baseplates, and anchorage details for each type of rack.
4. **Storage Rack Height between 8' and 12'**: Complete rack engineering is required including beam to post, post to base plate, longitudinal and transverse diagonal braces, bolted and welded connections, and anchorage to concrete floor. Submit rack installation drawings including floor plan, rack framing system, member connections, and anchorage details for each type of rack 8 feet and taller. Special inspection is required for rack material test reports, rack fabrication, anchorage installation, and completed storage rack system per 2022 CBC 1705.13.7
5. **Storage Rack Height 12' and Greater:** In addition to item #4 above, High Piled Rack Storage shall comply with the 2022 CBC, Section 910.2.2 and the 2022 CFC.