

Pallet Racking

Legislative requirements:

Pallet racking installations require a building consent, and applications for consent must contain appropriate documentation in support of the claim that the installation will comply with the New Zealand Building Code.

The drawings must include a site plan, floor plan, elevations, sections, loadings, column base-plate and hold down details, and any additional bracing requirements and minimum clearances to building structure. Member sizes and connection details are to be clearly indicated on the drawings. Supporting documentation should include design information (including verification of adequacy of building floor slab to support rack loads), rack manufacturer's specifications and relevant standard details.

The design documentation must identify the design standards and guideline documents which have been referenced in the design.

These may include, but are not limited to, the following

- AS/NZS 1170 Structural Design Actions, in Particular NZS1170 Structural Design Actions Part 5: Earthquake Actions in New Zealand
- BRANZ Seismic Design of High Level Storage Racking Systems with Public Access
- NZS 3404 Steel Structures Standard
- AS/NZS 4600 – Cold Formed Steel Structures
- AS 4084 – Steel Storage Racking

Council may rely on producer statements for the purposes of establishing compliance with the Building Code. For this to be considered the designer must submit a producer statement design (PS1) together with the design report and/or calculations.

An independent peer review of the design by a competent racking design engineer should be carried out for high risk / high value installations, non-standard designs, and for installations that exceed 4m in height. The review may be done by Council, or by an independent peer reviewer (who must be approved by Council).

The peer reviewer must provide a producer statement design review (PS2) to Council.

Inspections:

Particular care should be taken to ensure that the racking has been installed as per the approved building consent and the design and specifications, due to the light gauge members used in racking construction. Small changes in the installation can have significant impact on member capacity.

Council will require a producer statement construction (PS3) to assist in establishing compliance with the approved building consent. This statement shall be provided by the installer after the pallet racking installation is complete.

A PS4 producer statement construction review (PS4) may also be requested for high risk / high value installations, non-standard designs, and for installations that exceed 4m in height.