Panelized Floor Installation Details

Panelized systems consist of prefabricated or factory-manufactured panels that form a structural envelope, to simplify the on-site framing. Important safety information relating to construction safety, such as panel lifting and site handling, is not covered in this document.

There are only few differences in terms of installation details between a site-framed home built with I-joists and one built with pre-assembled floor panels – mainly the floor sheathing pattern and the lifting holes. This document only covers single-family residential buildings that, by their size, framing and occupancy, fall within the parameters of a Part 9 building as described in the National Building Code of Canada (NBC) 2020.

Construction Details
The construction details that apply to a standard floor system also apply to a panelized floor system, among others for load transfer, lateral support, fastening and connections. Refer to the Nordic Joist Installation Guide for Residential Floors (NS-GI31) for construction details, including maximum web holes and openings.

Note:
1. Some framing requirements such as erection bracing and blocking panels have been omitted for clarity.
Panel Subflooring

1. Plywood and OSB subflooring shall be installed with the surface grain or face orientation at right angles to the joists and with joints parallel to floor joists staggered, as per the NBC 2020. Other configurations are not covered in this document.

2. Fastening of sheathing and subflooring shall conform to the building code, i.e., for plywood and OSB up to 3/4 inch thick, 2-inch common or spiral nails or 1-3/4-inch ring thread nails or screws at 6 inches o.c. along edges and 12 inches o.c. along intermediate supports.

Lifting Holes

Lifting holes are drilled through the subflooring (floor sheathing) at specific locations to allow lifting and placement of floor panels in place, on site. They should be located directly above an I-joist for safe lifting and to facilitate the installation of hole covers. The subflooring must be replaced and attached to the I-joist using one of the two details shown below.

Option 1

- Hole cut-out
- Fasten floor sheathing filler to I-joist below with subfloor adhesive and two 2" wood screws

Option 2

- 2x3 (6" long) each side on flat, fastened to underside of floor sheathing with subfloor adhesive and two 2" wood screws
- Fasten floor sheathing filler to each 2x3 with one 2" wood screw