

Blocking at Bearing Walls Inside the Foundation

In general, a TJI® joist blocking panel or TimberStrand® LSL rim board is required at the end of TJI® joists when the joist ends are bearing on a wall per details A1, A2, or A3 within Weyerhaeuser literature. The purpose of this blocking or rim board is to stabilize the joists against end rotation, and to transfer both vertical (gravity) loads and horizontal (shear) loads into the bearing walls and through to the foundation.

A condition occasionally encountered is a concrete bearing wall with a treated sill plate and a framed wall inside the concrete wall acting as bearing for the TJI® joists. In this case, once the sheathing is secured to the mud sill and the TJI® joist, blocking panels between the joists or a rim board are not usually required. In this configuration, horizontal diaphragm forces are transferred from the floor decking directly into the treated plate atop the concrete wall. Exceptions where blocking is still required include cases when the designer of record specifies blocking, to provide lateral stability requirements during construction, or if no other means of laterally securing the bottom flange exists.

When properly installed, the bottom flange of the TJI® joists should be nailed to the plate where it is bearing. The sheathing must be nailed to the mud sill which is attached to the concrete stem wall. Minimum requirements for nailing floor sheathing to the top flange of the TJI® joists must be adhered to as outlined in Weyerhaeuser [Technical Bulletin 206](#). In addition, the framed bearing wall should be secured against lateral movement.

The framed bearing wall can be secured by attaching wall studs or the wall top plate to the foundation wall if all materials in contact with concrete are treated. If the framed wall is separated from the concrete, it must be laterally supported by sheathing part of the wall or by securing the top plate to a rigid support.

