



Shearwall Inspections

Bulletin # 18

Department of Planning and Land Services, June 2007
Division of Building Safety and Inspection for 2006 I Codes

Residential Engineered Shearwall Inspection and Documentation

Pierce County inspects "Braced Wall Panels" (IRC R602.10) that are part of an engineered design. Since these building elements resist shear or overturning forces, we call the inspection a "Shear Wall" inspection. The purpose of this shear wall inspection is to look at the "Braced Wall Panels" fully assembled.

Shear wall inspections are required to get the approval on the exterior walls so you can start siding. However, there is more to the inspection than just the exterior nailing that needs to be looked at before an approval to cover or start siding can be given.

To approve a typical shear wall inspection the following elements would need to be completed:

- Verify nailing type and pattern matches the shear wall schedule in the engineered plan.
- Check the stud and plate size, grade and species of the lumber.
- Check that the panel joints occur over framing. (WAC 602.10.7)
- Check edge blocking. Often there is a requirement for interior nailing to the blocks so the blocks would need to be placed with edge towards the sheathing not flat.
- Check for panels <12" wide for blocking.
- Check for treated plywood and flashing where slabs will be poured against.
- Confirm placement, size and types of strapping and holdowns, inside and or outside,
- Separate inspection for the straps may be required if placed under the panel sheathing or siding. Typically the contractor will install the panels and leave the lower half un-nailed to allow the inspection of the strap nailing.
- Check for excessive spalling at the holdowns, (spalling 1"- 4" will cause reduction in load capacities). See manufacturer's literature.
- Full height studs required at the strapping and hold down locations.
- Multiple studs installed per engineering and manufacturer's specs at strapping and holdowns,
- Check for anchor bolts or holdowns that may not have been in place at underfloor.
- Two sided plywood/OSB and wallboard "Braced Wall Panels normally require 2-inspections.
- Note: Verify one side at the shear wall or frame inspection, the other side at energy. It is OK for the contractor to insulate if on an exterior wall, when dried out, prior to observing the second side.
- A frame inspection of the exterior structural elements, that are not part of the shear, may be required before cover.
- Example: Post to beam connections.

Status of the shear wall inspection:

Partial Approval (PA) – If there are corrections or incomplete items that need re-inspected and can be re-inspected during the frame inspection the inspection may be **partial approved**. The inspector will document on the inspection worksheet if it is OK to start siding.

Approved (AP) - Once all the elements of the engineered shear walls "Braced Wall Panels" have been inspected and approved, the inspection report status will be **approved**.

Notes:

1. Prescriptive path (R602.10) "Braced Wall Panels", and "Alternate Braced Wall Panels", do not require a separate inspection. These are inspected at the frame inspection.
2. Engineered shear walls both exterior and interior should be inspected when the shear wall inspection is called for. If both are not complete, the inspector will document what inspected and approved on the inspection worksheet.