Job Aid:
Inspection Checklist for Wood Frame Shear Walls

1. ■ Verify from the structural framing plans and architectural floor plans the location and length of all shear walls

2. ■ Verify the nailing of the sheathing agrees with the shear wall schedule

   ○ Nail Type (common, galvanized box);
   ○ Nail Diameter (8d or 10d);
   ○ Nail Length (minimum penetration into framing 12 times nail diameter)
   ○ Spacing Along Each Edge of Each Piece of Sheathing (6", 4", 3" etc.)
   ○ Nail Head Shape (clipped heads not permitted)
   ○ Nail Placement
     ___ Driven flush but not overdriven
     ___ Minimum 3/8" from sheathing edge to center of nail
     ___ View the stud side to check for nails that missed framing
     ___ Staggered along edges where spacing is 3 inches o.c. or less
     ___ Edge nails into hold-down post

3. ■ Verify sheathing material agrees with the structural notes

   ○ Type (Plywood or OSB);
   ○ Grade (APA Rated Panel or APA Rated Panel - Structural I) and
   ○ Thickness (3/8", 15/32")
   ○ Number of Plys (If specified for plywood)

4. ■ Verify lumber size and grade agrees with the structural notes

   ○ Framing Grade of Studs & Posts (Stud, Construction, No. 2, No. 1);
   ○ Lumber Species (Douglas Fir Larch, Hem-Fir)
   ○ Framing Size (3x studs, sill at heavily nailed edges, 2-2x, 4x or 6x at HD posts)

5. ■ Verify bottom of wall shear transfer (sill/sole plate) connection is based on the structural notes or specific sections and details

   ○ Nailing size and spacing of wall sole plate to floor framing below from shear wall schedule; verify nails penetrate framing below
   ○ Foundation sill bolt diameter and spacing from shear wall schedule or notes
   ○ Bolts not less than 7 bolt diameters from ends of sill piece; not more than 12 inches from ends; not less than 1 inch from edge of sill plate; not less than 1 1/2 inches to edge of concrete foundation.
   ○ Verify square plate washer is used on bolts.
   ○ Verify bolt hole in sill plate is not more than 1/16" larger than bolt diameter.
Job Aid: Inspection Checklist for Wood Frame Shear Walls (continued)

6. **Verify top of wall shear transfer connection by looking at the shear wall schedule and typical sections at roof and floor level**
   - Location of edge nail row along top plate of lower wall and sole plate of upper wall, and if required, along the rim joist or blocking
   - Size and spacing of framing clips, when required, from top plate to floor or roof framing, with all nail holes filled
   - Where 10d nails are required for the sheathing, and when edge nailing is required into the rim member, the minimum rim member thickness is 13/4 inch. Therefore a nominal 2x is NOT sufficient.

7. **Verify top plate splice connections along shear wall lines, not only those occurring directly above the shear wall**
   - Check for a detail or note on framing plans calling for typical or special plate splices.
   - Verify the strap size (gage thickness and length) number of rows of nails, and total number of nails per the product manufacturer’s catalogue
   - Verify straps are centered on the splice and have all nail holes filled.
   - Splices are needed anywhere that top plates are interrupted (by perpendicular beams or headers in the plane of the wall)

8. **Verify Hold-Down Installation**
   - Confirm locations per Framing and Foundation Plans (usually, but not always, are hold-downs required at each end of a shear wall)
   - Verify minimum Post Size and Lumber Grade
   - Verify equal number of nails to upper and lower wall framing for Nailed Strap Type Hold-downs Spanning Floor Framing
   - Verify bolt hole diameter through posts is not more than 1/16 inch larger than the actual bolt diameter.
   - Verify bolts heads or nuts are not countersunk into the post, unless specifically permitted
   - Verify a washer is installed under the nut on side of the post opposite the HD
   - Verify nuts are tight on all bolts, including the anchor bolt into the foundation and the ends of threaded rods spanning between floor levels.
   - Anchor bolts and threaded rods should not be bent. HD location should be installed to minimize the length of threaded rods.
   - Verify all bolt diameters are as specified either by the hold-down product manufacturer’s catalogue or as specified on the drawings.
   - Verify prior to concrete pour the length of embedment of anchor bolts and the embedded end condition (e.g., L-hook, J-hook, nut and square plate washer, hex headed bolt) match the drawings
   - Verify anchor bolt clearance from edges and ends of footings as specified on the drawings.