



DIVISION OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES

SPECIAL PROJECTS SECTION

PRODUCT ACCEPTANCE NUMBER: PA-110

PRODUCT TYPE: Prefabricated Shear Panels

ACCEPTANCE DATE: May 17, 2001

COMPANY NAME: Simpson Strong-Tie® Co., Inc.
1450 Doolittle Dr.
San Leandro, CA 94577

PRODUCT NAME: Strong-Wall™ ShearWall

CODE REFERENCES: 1998 Title 24, Part 2, Sections 1605A.4 and 1605A.5

DISCUSSION:

Strong-Wall™ ShearWall manufactured by Simpson Strong-Tie® Co., Inc., are approved for use as an alternative building material to site framed wood shear walls on public schools, state-owned and state-leased essential services buildings and California Community College projects. The approval is based on a review of test and analytical data and ICBO Evaluation Service, Inc., Evaluation Report PCF-5485, issued February 1, 1999.

Acceptance of the allowable shear loads is based on the lesser of the following criteria:

- Ultimate test force divided by the factor of safety of 2.5, or
- Force associated with the code defined inelastic deformation limit divided by the load factor 1.4.

Strong-Wall™ ShearWall is fabricated at Gang-Nail Truss, Panel Division, Visalia California. Quality control tests and inspections are performed by Gang-Nail Truss, Panel Division, and quality assurance audits are performed by Twining Laboratories in compliance with the ICBO Quality Control Manual. The quality control inspector is to place his/her identification mark and inspection status tag on each product, which is to remain affixed to the product to facilitate inspection at the project site.

Limitations of use for the Strong-Wall™ ShearWall are listed below:

1. The project inspector shall verify that the ShearWall panels provided at the jobsite have been marked with the manufacturer's quality control inspector's identification mark and inspection status tag.
2. The 24, 32 and 48 inch wide panels are approved for slab-on-grade (or concrete curb) installations. Raised floor and floor-to-floor installations are not approved at

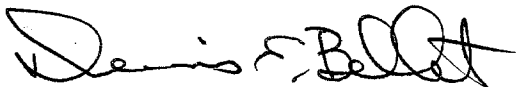
this time. The 16 and 22 inch wide portal frame panels are not covered in this approval.

3. The allowable shear loads and holdown reactions shall be as listed in the ICBO Evaluation Service, Inc., Evaluation Report PCF-5485. The shears listed are maximum, and further stress increases are not applicable.

Exception: Model Setup SW48x9-4 – Allowable shear shall not exceed 1050 plf (ICBO ER – 1093 plf).

4. The oriented strand board (OSB) sheathing shall be Weyerhaeuser Corporation, 15/32, Sturd-i-wood, Structural 1 panels meeting PS-2 requirements and bearing the manufacturers identification and grade stamp. All OSB sheathing material shall have a minimum internal bond stress of 50 psi, substantiated by the manufacturer.
5. The glued-laminated posts and plate material are to be fabricated per AITC A190.1-1992 Structural Glued Laminated Timber Standards requirements, and are to be machine stress rated (MSR) per specifications. Material complying with the manufacturer's specifications is stamped as either "POST" or PLATE" by the supplier.
6. Installation shall be as per the ICBO Evaluation Report and manufacturer's requirements. Field modification of the Strong-Wall ShearWall, other than as defined in the manufacturer's installation requirements, will not be allowed unless specifically detailed on the approved project plans.
7. Any wall line in which the Strong-Wall™ ShearWall exceeds height-to-length aspect ratio of 3.5:1 shall require multiple panels along that line. If combined with alternate types of shear-resisting elements, the distribution of shear forces shall be distributed by relative stiffness of the elements.
8. All foundations and shear transfer members shall be properly analyzed and detailed for the lateral forces being resisted by the Strong-Wall™ ShearWall per code requirements.

Changes to the product without DSA concurrence will void this acceptance. Changes in subsequent building codes may void this application. The acceptance of this product is contingent on continued acceptable performance and compliance with the building code in effect.



Dennis Bellet
Chief Structural Engineer

Cc: Steven Pryor, Simpson Strong-Tie Co.®, Inc.
DSA Regional Offices
Bhima Nagarajan, Office of Statewide Health and Planning Department
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