CITY OF SACRAMENTO

Permit No: 9804032

1231 I Street, Sacramento, CA 95814

Insp Area: 1

Site Address: 401 T ST SAC
Parcel No: 0090054021

Sub-Type: ADUP
Housing (Y/N): N

CONTRACTOR

OWNER
REDEVELOPMENT AGENCY CITY OF SACRA
1919 21ST ST 204
SACRAMENTO CA 95814

ARCHITECT

Nature of Work: SHRA / CONSTRUCTION OF A NEW 2 STORY DUPLEX W/ ATTACHED GARAGE

CONSTRUCTION LENDING AGENCY : I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name_____ Lender'sAddress_____

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class_____ License Number_____ Date_____ Contractor Signature_____

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500.00);

X I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

_____ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

_____ I am exempt under Sec._____ B & PC for this reason:_____

Date 7/2/98 Owner Signature Alida E Martin

IN ISSUING THIS BUILDING PERMIT, the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and herby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 7/2/98 Applicant/Agent Signature Alida E. Martin

WORKER'S COMPENSATION DECLARATION: I hereby affirm under penalty of perjury one of the following declarations:

_____ I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, forthe performance of work for which the permit is issued.

_____ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier_____ Policy Number_____

X (This section need not be completed if the permit is for $100 or less) I certify that in the performance of the work for which this permit is issued,I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 7/2/98 Applicant Signature Alida E Martin

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.

CAPITOL ENGINEERING LABORATORIES, INC.
631 Commerce Drive, Suite #200, Roseville, California 95678 • (916) 786-2488

JOB REPORT

PAGE: _____

PROJECT NAME: CANBY RESIDENCE - 401 T STREET FILE NO. 5050

INSPECTOR: MARK W CONWAY DATE: 6-3-99

PERSONS CONTACTED: JACK CANBY PERMIT #: 98 04 0 32

REFERENCE DOCUMENTS: SPECS WEATHER: CLOUDY

SERVICE PROVIDED: CONCRETE (INSP / SAMPLE ONLY / PU) ☐ MASONRY ☐ WELDING (SHOP / FIELD) ☐ SOILS ☐

OTHER ☑ EPOXIED STUD PROOF LOAD

PERFORMED TENSION TEST ON SIX 1/2" EPOXIED THREADED STUDS MST 72 PER SIMPSON CHART 2610 LBS. PER STUD WITH NO FAILURES.

COMPLIANCE OF WORK: NO FAILURES NOTED

ATTACHMENTS: _____

EQUIPMENT/SUPPLIES USED: _____

NEXT VISIT: _____

START TIME: _____ ARRIVED JOB: _____ LEFT JOB: _____ *OFFICE USE ONLY:*

REGULAR TIME: 2 OT: _____ MILES: _____ BILLABLE R/T: _____

REMARKS: _____ BILLABLE O/T: _____

REVIEWED BY: Mark W Conway BILLABLE MILES: _____

Charles Desler
Architect
864 Oak Terrace
Placerville, CA 95667
(530) 626 9416

June 14, 1999

Jack Canby
Contractor
916 4445496

Shep Johnson
Developer
916 7862350

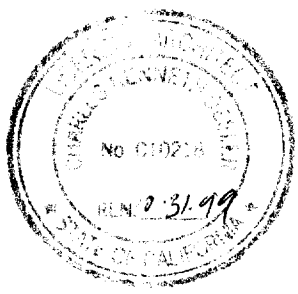
Reference: 401 T Streets
4th and T Streets, Sacramento, CA

The Contractor, Jack Canby, asked me to look at the straps that are located at the second floor on the edges of the shear panels on the south wall and are shown on the Roof Framing Plan, Sheet S2. These Vertical Shear Panels are located between the Second Floor and Roof Diaphragms. The Building Inspector had commented on the Correction Notice that these straps were located in the wrong postion.

My field observation indicated that these straps are located as shown on the plans and are satifactory to meet all the conditions as laid out in my Drawings and Calculations.

If there are any questions, please feel free to give me a call.

Charles Desler
Architect
C10218



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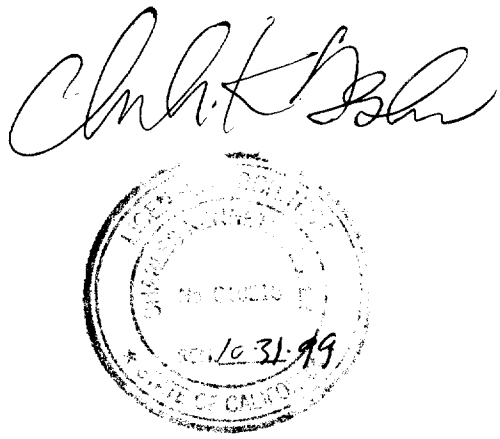


June 2, 1999

Jack Canby
Contractor
916 4445496

Shep Johnson
Developer
916 7862350

Reference: 401 T Streets
4th and T Streets, Sacramento, CA

The wall sheathing, Oriented Strand Board (OSB), as now applied to the building referenced above, have the correct stamp which conforms to the guidelines of the APA.

Calls to the APA Engineers in Tacoma, WA and reference to the NER-108 indicates that Reconstituted Wood Panels, bearing the stamp, PS 2-92 or APA PRP-108, meet the structural requirements designated in those requirements and those laid out in Table 2 of NER-108. Table 2, NER-108 is identical to Table 23-I-K-1 in the 1994 UBC, which was used for the project referenced above. Because the sheathing has the appropriate designation of either PS 2-92 or APA PRP-108 and the thickness is at least 15/32" the Panels meet the requirements for the above referenced building.

Indications on the Panels of numbers similar to 450 or 461 are Mill designations. The Panels do not require a Structural 1 designation.

The Contractor has a copy of NER-108, which was taken from the ICBO site, at http://www.icbo.org.

If there are any questions, please feel free to give me a call.

Charles Desler
Architect
C10218

Attachements: Report no. NER-108

National Evaluation Service, Inc.

Participating Members:

BOCA Evaluation Services, Inc.
4051 West Flossmoor Road
Country Club Hills, Illinois 60478-5795
(708) 799-2305

ICBO Evaluation Service, Inc.
5360 Workman Mill Road
Whittier, California 90601-2299
(310) 699-0543

SBCCI Public Safety Testing and Evaluation Services, Inc.
900 Montclair Road, Suite A
Birmingham, Alabama 35213-1206
(205) 599-9800

NATIONAL EVALUATION REPORT

Report No. NER-108
Reissued April 1, 1997

STANDARDS FOR STRUCTURAL-USE PANELS

APA - The Engineered Wood Association
POST OFFICE BOX 11700
TACOMA, WASHINGTON 98411-0700

1.0 SUBJECT

Standards for Structural-Use Panels

2.0 PROPERTIES FOR WHICH EVALUATION IS SOUGHT

Product Performance and Installation Requirements for:

2.1 Wall Sheathing
2.1 Floor Sheathing
2.3 Roof Sheathing
2.4 Siding

3.0 DESCRIPTION

3.1 Product Performance Standards

3.1.1 General: APA - The Engineered Wood Association is an agency that promulgates the following standards as published in the "Performance Standards and Policies for Structural-Use Panels", PRP-108 (February, 1994):

- Sturd-I-Floor Standard
- Sheathing Standard
- Siding Standard

The U.S. Department of Commerce promulgates Voluntary Product Standard PS 2-92 "Performance Standard for Wood-Based Structural-Use Panels".

Panels evaluated under this report comply with either APA PRP-108 or DOC PS 2-92 requirements, or both. Although the structural performance requirements of DOC PS 2-92 and APA PRP-108 are the same, the panel identification stamp shall include the standard(s) to which the panel was tested.

3.1.2 APA Rated Sturd-I-Floor standard covers thicknesses from 19/32 through 1-1/8 inch (15.08 through 28.58 mm). Face ply (if veneer) and the ply adjacent to the face (if veneer) shall meet the applicable requirements of DOC PS 1-95 for underlayment grade. Veneer faces are touch-sanded and the backs are unsanded, touch-sanded, or textured.

3.1.3 APA Rated Sheathing standard identifies subfloor span ratings of 16, 20, 24, 32 and 48 inches (406.4, 508, 609.6, 812.8 and 1219.2 mm) and roof span ratings of 16, 20, 24, 32, 40, 48, 54 and 60 inches (406.4, 508, 609.6, 812.8, 1016, 1219.2, 1371.6, and 1524 mm), or wall span ratings of 16 or 24 inches (406.4 or 609.6 mm). The span rating is determined on the basis of the results of performance tests as noted in Section 3.1.5. APA Rated Sheathing/Ceiling Deck has one face textured. APA Rated Wall Bracing has a wall span rating of 16 or 24 inches (406.4 or 609.6 mm).

3.1.4 APA Rated Siding standard identifies span ratings (maximum stud spacings) of 16 and 24 inches (406.4 and 609.6 mm). Panels are composed entirely of veneer, of combinations of veneer and reconstituted wood or entirely of reconstituted wood, except that hardboard siding is not included. The span rating is determined on the basis of results of performance tests as noted in Section 3.1.5.

3.1.5 Performance Requirements

3.1.5.1 Structural Performance: Structural-use panels meet performance requirements established by APA for concentrated, impact, and uniform loads for the end use span on the grade mark. Panels are tested dry, wetted and redried and, for certain loading conditions, tested wet. Load test requirements are given in APA PRP-108. Roof spans and live loads shall not exceed those given in Table No. 3 and dead loads not to exceed 10 psf (480 Pa). The live load for floor panels shall not exceed 100 psf (4800 Pa) with a dead load not to exceed 10 psf (480 Pa), except the Sturd-I-Floor panel, with a span rating of 48 inches (1219.2 mm) on center, is limited to a total floor load of 65 psf (3120 Pa).

3.1.5.2 Panel Durability: The performance standard requires evaluation of the resin bonding system. Exterior-type plywood in U.S. Department of Commerce Voluntary Product Standard PS 1-95 is designed to be permanently exposed in outdoor applications. Siding panels are identified as Exterior. Other panels are identified as Exposure 1 or 2 and are not intended for permanent exposure to weather. Exposure 1 or 2 panels are designed to be used for roof sheathing, subflooring,

combination subfloor-underlayment, or wall sheathing and shall be covered with an approved roof covering or exterior wall covering. Panels identified as Exposure 1 are designed to be used for roof sheathing where exposed on the underside such as on eaves.

3.1.6 Composition

3.1.6.1 Veneer: Veneer used in structural-use panels meets the applicable requirements of DOC PS 1-95. Veneer not meeting the requirements of DOC PS 1-95 is designed to be used, provided the panels meet the applicable performance requirements. Veneer is used through-out the all-veneer panels and for face and back plies or inner layers in composite panels.

3.1.6.2 Reconstituted Wood: Panels composed entirely of reconstituted wood are waferboard, oriented strandboard or other wood-based panels. The panels are manufactured to meet the performance requirements given in APA PRP-108.

3.1.7 Panels

3.1.7.1 Size: Panels are generally produced in nominal sizes of 4 feet by 8 feet (1.2 m by 2.4 m). Length and width tolerances are +0, -1/8 inch (+0, -3.18 mm).

3.1.7.2 Tongue-and-groove Joints: When panels have tongue-and-groove joints, the joints are on the 8 foot (2.4 m) sides, 4 foot (1.2 m) ends, or both.

3.1.7.3 Shiplap edges: When siding panels have shiplap edges, the edges occur on the 8, 9, or 10 foot (2.4, 2.7 or 3 m) sides. The joint is typically cut approximately one-half way through the thickness and when installed (after expansion occurs), provides a 3/8 inch (9.53 mm) lap.

4.0 INSTALLATION

4.1 General

The Structural-Use-Panels shall be installed in accordance with this report and the applicable code.

All panels used for floors and roofs shall be installed over two or more spans, with the long dimension perpendicular to supports spaced in accordance with the span rating. Where the strong panel direction is not parallel to the long dimension, or where the span rating applies to either direction, panels shall be so identified and shall be installed accordingly. A ½ inch (12.7 mm) gap shall be provided between the panel and concrete or masonry walls. Cutouts for plumbing and electrical shall be oversized. Firestopping is required in accordance with the applicable code.

Framing members shall properly align with the panel surface. Square-edged panels used for floors shall be covered with one of the following:

- minimum 1/4 inch (6.35 mm) or thicker underlayment; or
- minimum 1-1/2 inches (38.10 mm) of cellular or lightweight concrete; or
- 3/4 inch (19.05 mm) wood strip finish flooring; or
- the edges shall be supported with blocking.

Fasteners shall be located 3/8 inch (9.53 mm) from panel edges. Supported panel joints shall occur approximately along the centerline of framing with a minimum bearing of ½ inch (12.7 mm).

4.2 Sturd-I-Floor

Panel end joints shall be staggered. Ring- or screw-shank nails are used to attach Sturd-I-Floor panels to supports – 6d for thicknesses through 3/4 inch (19.05 mm) and 8d for greater thicknesses. Nails are spaced a maximum of 6 inches (152.4 mm) on center along panel edges and 12 inches (304.8 mm) on center along intermediate supports except that for 48 inch (1219.2 mm) spans the maximum spacing shall be 6 inches (152.4 mm) along intermediate supports. Sturd-I-Floor panels having nonveneer faces and intended for use under nontextile resilient flooring shall be covered with 1/4 inch (6.35 mm) minimum thickness underlayment.

If panels are field glued with an adhesive meeting APA Specification AFG-01 applied to joists and tongue-and-groove edges, nails may be spaced a maximum of 12 inches (304.8 mm) along all bearings for panels 3/4 inches (19.05 mm) or less, and 6 inches (152.4 mm) for thicker panels. Framing shall be free of surface moisture, dirt, cement, and other foreign materials prior to application of the adhesive.

Adhesives shall be applied in accordance with the adhesive manufacturer's instructions. The application rate shall be 1/4 inch (6.35 mm) diameter beads applied to each joist or blocking member, except two 1/4 inch (6.35 mm) diameter beads shall be applied where panels abut on a joist. Installation of the panels shall be within the time limit designated by the adhesive manufacturer. Where diaphragm action is required, the nail size and spacing shall be as set forth in Table 1.

If panels are square edged and resilient floor covering is to be applied directly, panel edges shall be supported by 2 inch (50.8 mm) lumber blocking. Where panels are covered with a 1/4 inch (6.35 mm) minimum thickness underlayment or have tongue-and-groove edges, blocking is not required except if required by Table 1.

4.3 Sheathing

4.3.1 Wall Sheathing and Floor Panels: Panels used for wall sheathing are permitted to be installed with the long panel dimension either perpendicular or parallel to studs. Panels rated for wall spans shall be installed over studs spaced no farther apart than the span rating. When panels rated for roof spans are used for wall sheathing, the maximum stud spacing is 16 inches (406.4 mm) for panels with ratings of 16 and 20 inches (406.4 and 508 mm), and 24 inches (609.6 mm) for 24 inch (609.6 mm) and greater span rating. Panels used for wall sheathing are an alternate to the plywood sheathing specified in the code for wall bracing. The panels are considered water-repellent panel sheathing as defined in the Standard Building code and the Uniform Building Code. The panels shall be covered by an exterior wall covering complying with the appropriate code, as noted in Section 3.1.5.2. Wall and floor panels ½ inch (12.7 mm) and less in thickness are fastened with 6d common nails; 8d nails are used for thicker panels. Nails are spaced 6 inches (152.4 mm) on center at panel edges

supported by framing and 12 inches (304.8 mm) on center at other supports. A 6 inch (152.4 mm) on center spacing shall be used when supports are spaced 48 inches (1219.2 mm) on center.

4.3.2 **Draftstopping:** When panels are used as Draftstopping material, the minimum thickness of the panel shall be 3/8 inch (9.53 mm).

4.3.3 **Roof Sheathing:** Allowable live loads for panels used for roof sheathing with long panel dimension across supports are given in Table 3. Use panel edge clips at unsupported edges if required by Table No. 3.

Allowable live loads for panels for roof sheathing applied with the long panel dimension parallel to supports are given in Table No. 4. Roof panels shall be fastened with 8d common nails spaced 6 inches (152.4 mm) on center at panel edges supported by framing and 12 inches (304.8 mm) on center at other supports. Fastener schedule applies when Douglas-Fir or Southern-Pine roof framing spaced 24 inches (609.6 mm) on center is used in one or two story construction, when the basic wind speed is 70 MPH (112 km/hr) maximum in areas using the Uniform Building Code or 80 MPH (128 km/hr) maximum for areas using the BOCA National Building Code or Standard Building Code. Nails shall be spaced 6 inches (152.4 mm) on center at all supports within 4 feet (1.2 m) of ridges, eaves and gable ends and at panel supports, when the basic wind speed is greater than 70 MPH (112 km/hr) and no greater than 100 MPH (160 km/hr) in areas using the Uniform Building code, or basic wind speed is greater than 80 MPH (128 km/hr), but not greater than 110 MPH (176 km/hr), in areas using the BOCA National Building Code or the Standard Building Code.

Staples used for attaching rated sheathing to framing shall be as approved for plywood of the same thickness.

4.3.4 **Diaphragm Construction:** When used in diaphragm construction, structural-use panels are assigned the values in Table 1. Diaphragm dimension ratios permitted in the code for plywood apply to structural-use panels. The unblocked values shown also apply to panels having tongue-and-groo ve joints along the longitudinal edges, except as noted below.

One and one eighth inch (1-1/8 inch, 28.58 mm) APA structural-use panels fastened with 8d ring or screw-shank nails or 10d common nails are assigned the values for 10d common nails and 19/32 inch (15.08 mm) minimum nominal panel thickness in Table 1. Where blocked values are required for 1-3/32 or 1-1/8 inch (27.78 or 28.58 mm) tongue-and-grooved panels, 1 inch by 3/8 inch (25.4 by 9.53 mm) crown by No. 16 gauge staples shall be driven through the tongue-and-groove edges 3/8 inch (9.53 mm) from the joint and driven so as to penetrate the tongue as illustrated in Figure 1. Staples shall be spaced at one-half of the boundary nail spacing for Case 1 and 2, Table No. 1, and at one-third the boundary nail spacing for Case 3 through 6, Table 1.

4.3.5 **Shear Walls:** When used in shear walls, APA Rated Sheathing is assigned the values in Table 2 except that the allowable shear for APA Rated Wall Bracing panels applied directly to studs in accordance with the above nail schedule shall be 180 plf (2626.2 N/m) regardless of panel thickness. Diaphragm dimension ratios permitted in the code for plywood apply to structural-use panels.

For purposes of determining seismic forces for design, the values of K and R_w, given in the applicable code for plywood shall apply to structural-use panels, for buildings not more than three stories in height with stud wall framing using siding, sheathing or Sturd-I-Floor panels for shear walls and diaphragms for lateral force system.

4.4 **Siding**

4.4.1 **General:** When siding is applied directly to studs, the studs shall be spaced no farther apart than the span rating included in the grade mark on the panel. All veneer-faced siding panels with a span rating of 16 or 24 (406.4 or 609.6 mm) on center are permitted to be applied over studs spaced 24 inches (609.6 mm) on center when applied with face grain horizontal or over nailable sheathing. Other siding panels with a span rating of 16 or 24 inches (406.4 or 609.6 mm) on center are permitted to be applied over studs spaced 24 inches (609.6 mm) on center when applied over nailable sheathing. Nailable sheathing shall be nominal 1 inch (25.4 mm) boards or structural-use panels of thickness permitted in the applicable code for plywood sheathing to which the siding is directly attached.

Fasteners for attaching siding shall be non-staining box, siding or casing nails. For panels ½ inch (12.7 mm) thick or less, use 6d nails, and 8d for thicker panels. For 3/8 inch (9.53 mm) and thinner lap siding, use 6d nails, and 8d for thicker lap siding.

4.4.2 **Panel Siding:** Panel siding is designed to be applied without building paper either directly to framing or over sheathing, provided all siding joints occur over framing and are protected with a continuous wood batt, approved caulking, flashing, vertical or horizontal shiplaps, or otherwise made waterproof. Where grooved siding is applied horizontally directly to framing, building paper shall be installed behind the siding, in accordance with the applicable code. Siding shall be fastened directly to framing in accordance with plywood provisions of the code. When siding ½ inch (12.7 mm) or less in thickness is installed over foam sheathing up to 1 inch (25.4 mm) in thickness, the siding shall be fastened with 8d galvanized box nails. Siding greater than ½ inch (12.7 mm) in thickness applied over foam sheathing shall be fastened with 10d galvanized box nails. The foam sheathing shall conform to the code.

Panel siding applied directly to studs, spaced in accordance with the span rating and fastened with 6d galvanized box nails or equivalent, spaced 6 inches (152.4 mm) on center at panel edges and 12 inches (304.8 mm) on center at intermediate studs, is an alternative to the plywood sheathing construction specified in the code for wall bracing.

Shear values for all-veneer panel siding shall be as given in Table 2 for siding applied directly to studs or over ½ or 5/8 inch (12.7 mm or 15.88 mm) gypsum sheathing. Thickness at point of nailing at panel edges determines applicable values.

All-veneer panel siding identified as APA 303 applied over maximum 1 inch (25.4 mm) thick foam sheathing, as described above, on studs spaced either 16 or 24 inches (406.4 or 609.6 mm) on center with ½ inch (12.7 mm) gypsum wallboard installed on the interior is an alternate to the plywood sheathing construction specified in the code for wall bracing.

For use as roof sheathing with the underside exposed, the allowable spans for all-veneer siding identified as "303" shall conform to Table 5.

4.4.3 Lap Siding: Lap siding is applied either directly to framing or over nailable sheathing as defined above. When installed either directly to framing or over boards, building paper (weather-resistive barrier) is required to be installed over the framing in accordance with the applicable code. Vertical end joints shall be either caulked or otherwise installed in accordance with recommendations of the manufacturer. Siding joints, if staggered, are allowed to occur away from studs when nailable sheathing is used. When lap siding is installed over nailable sheathing, nails shall be spaced 8 inches (203.2 mm) on center along the bottom edge. If siding is wider than 12 inches (304.8 mm), also nail siding to intermediate studs with nails spaced 8 inches (203.2 mm) on center.

5.0 IDENTIFICATION

The Structural-Use Panels shall be identified in accordance with the National Evaluation Service report or individual model code agency evaluation report that specifically evaluates the panels.

6.0 EVIDENCE SUBMITTED

6.1 APA Research Report 135-C titled "Test Methods and Performance Requirements for Floor and Roof Sheathing".
6.2 Calculations of plywood section properties and allowable loads.
6.3 APA Specification and Policy for Structural-Use Panel Sheathing.
6.4 Performance Standards and Policies for Structural-Use Panels, APA PRP-108; February 1994.
6.5 Tests and Calculations for Racking Shear Values.
6.6 Calculations for Rated Siding Used as Roof Sheathing.
6.7 Calculations for Wind Resistance.
6.8 APA Research Report 148 - Structural Performance of Wood-Based Siding.
6.9 APA Research Report 149 - Dimensional Performance of Wood-Based Siding.
6.10 APA Lap Siding Installation Guide, dated July 1987.
6.11 Calculations on the recommended roof snow loads for APA rated sheathing 54/32 and 60/48 and Sturd-I-Floor 48 o.c. and 24 o.c.; sealed by John R. Tissell, P.E.
6.12 APA technical note number N375A titled "Design Capacities of APA Performance-Rated Structural-Use Panels", dated September 1991.
6.13 APA Report No. T88-16 titled "Design Values for Structural Panel Products", prepared by Michael R. O'Halloran and Edward G. Elias, dated May 1988.
6.14 U.S. Department of Commerce Voluntary product Standard PS 2-95, dated March 1996.
6.15 Calculations for fastener spacing on roof sheathing, dated December 29, 1993, prepared and sealed by William Baker, P.E.

7.0 CONDITIONS OF USE

The National Evaluation Service Committee finds that the APA-EWA Standards for Structural-Use Panels described in this report are acceptable alternative materials to those specified in the 1996 BOCA National Building Code, the 1994 Standard Building Code with 1995/1996 Revisions and the 1994 Uniform Building Code with 1996 Accumulative Supplement, and the 1995 CABO One and Two Family Dwelling Code, subject to the following conditions:

7.1 Structural-Use Panels developed in accordance with the procedure described in this report shall be evaluated in a current National Evaluation Service Report or individual report of a participating member.

7.2 Span ratings and load capacities are based on untreated panels or plywood panels treated only with preservatives in accordance with AWPA Standards C9, C22, or C29. Structural performance characteristics of FRTW panels are outside the scope of this report and require evaluation in accordance with the applicable code.

7.3 This report is subject to re-examination on a periodic basis. For information on the current status of this report, contact one of the participating members of the NES.

TABLE 1

RECOMMENDED SHEAR (POUNDS PER FOOT) FOR HORIZONTAL APA STRUCTURAL-USE PANEL DIAPHRAGMS WITH FRAMING OF DOUGLAS FIR, LARCH OR SOUTHERN PINE[1] FOR WIND OR SEISMIC LOADING[5]

Panel Grade	Common Nail Size	Minimum Nail Penetration in Framing (inches)	Minimum Nominal Panel Thickness (inch)	Minimum Nominal Width of Framing Member	Blocked Diaphragms				Unblocked Diaphragms	
					Nail Spacing (in.) at diaphragm boundaries (all cases), at continuous panel edges parallel to load (Cases 3 & 4) and at all panel edges (Cases 5 & 6)[2]				Nails Spaced 6" max. at supported edges[2]	
					6	4	2-1/2[3]	2[3]	Case 1 (no unblocked edges or continuous joints parallel to load)	All other configurations (Cases 2, 3, 4, 5 & 6)
					Nail Spacing (in.) at other panel edges					
					6	6	4	3		
APA STRUCTURAL I RATED SHEATHING, EXP 1 or EXT	6d[4]	1-1/4	5/16	2 3	185 210	250 280	375 420	420 475	165 185	125 140
	8d	1-1/2	3/8	2 3	270 300	360 400	530 600	600 675	240 265	180 200
	10d	1-5/8	15/32	2 3	320 360	425 480	640 720	730[3] 820	285 320	215 240
APA RATED SHEATHING, STURD-I-FLOOR EXP 1, EXP 2 or EXT	6d	1-1/4	5/16	2 3	170 190	225 250	335 380	380 430	150 170	110 125
			3/8	2 3	185 210	250 280	375 420	420 475	165 185	125 140
	8d	1-1/2	3/8	2 3	240 270	320 360	480 540	545 610	215 240	160 180
			7/16	2 3	255 285	340 380	505 570	575 645	230 255	170 190
			15/32	2 3	270 300	360 400	530 600	600 675	240 265	180 200
	10d	1-5/8	15/32	2 3	290 325	385 430	575 650	655[3] 735	255 290	190 215
			19/32	2 3	320 360	425 480	640 720	730[3] 820	285 320	215 240

[1] For framing of other species: (a) Find specific gravity for species of lumber in AF&PA National Design Specification, (b) find shear value from table for nail size, and for Structural I panels (regardless of actual grade), (c) multiply value found in (b) by 0.82 for species with specific gravity of greater than or equal to 0.42 but less than 0.49, or multiply by 0.65 for species with a specific gravity less than 0.42.

[2] Space nails 12 inches o.c. along intermediate framing members (6 inches o.c. when supports are spaced 48 inches o.c.).

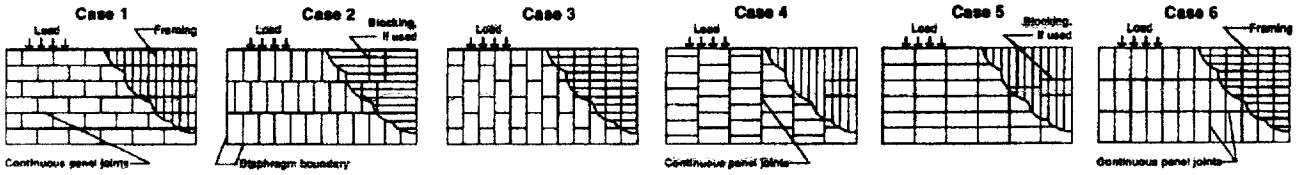
[3] Framing at panel edges shall be 3-inch nominal or wider, and nails shall be staggered where nails are spaced 2 inches o.c. or 2-1/2 inches o.c., and where 10d nails having penetration into framing of more than 1-5/8 inches are spaced 3 inches o.c.

Exception: Unless otherwise required, 2-inch nominal framing is permitted to be used where full nailing surface width is available and nails are staggered.

[4] Use minimum 8d common nails for roof sheathing.

[5] Shear panels shall be not less than 4 feet by 8 feet, except at boundaries and changes in framing. Wood structural panels less than 12 inches wide shall be blocked.

[6] SI units: 1 in = 25.4 mm, 1 plf = 14.59 N/m, 1 ft = 0.3 m.



Note: Framing is permitted to be located in either direction for blocked diaphragms.

TABLE 2

ALLOWABLE SHEAR (POUNDS PER FOOT) FOR APA STRUCTURAL-USE PANEL SHEAR WALLS WITH FRAMING OF DOUGLAS FIR, LARCH, OR SOUTHERN PINE FOR WIND OR SEISMIC LOADING[1,2,5,7]

Panel Grade	Minimum Nominal Panel Thickness (inch)	Minimum Nail Penetration in Framing (inches)	Panels Applied Direct to Framing					Panels Applied Over 1/2" or 5/8" Gypsum Sheathing				
			Nail Size (common or galvanized box)	Nail Spacing at panel edges (in.)				Nail Size (common or galvanized box)	Nail Spacing at panel edges (in.)			
				6	4	3	2[3]		6	4	3	2[3]
APA STRUCTURAL I RATED SHEATHING EXP 1 or EXT	5/16	1-1/4	6d	200	300	390	510	8d	200	300	390	510
	3/8	1-1/2	8d	230[4]	360[4]	460[4]	610[4]	10d	280	430	550[3]	730
	7/16			255[4]	395[4]	505[4]	670[4]					
	15/32			280	430	550	730					
	15/32	1-5/8	10d	340	510	665[3]	870	–	–	–	–	–
APA RATED SHEATHING, EXP 1, EXP 2 or EXT APA RATED SIDING EXT[6]	5/16	1-1/4	6d	180	270	350	450	8d	180	270	350	450
	3/8			200	300	390	510		200	300	390	510
	3/8	1-1/2	8d	220[4]	320[4]	410[4]	530[4]	10d	260	380	490[3]	640
	7/16			240[4]	350[4]	450[4]	585[4]					
	15/32			260	380	490	640					
	15/32	1-5/8	10d	310	460	600[3]	770	–	–	–	–	–
	19/32			340	510	665	870					
			Nail Size (galvanized casing)					Nail Size (galvanized casing)				
APA RATED SIDING EXT[6]	5/16	1-1/4	6d	140	210	275	360	8d	140	210	275	360
	3/8	1-1/2	8d	160	240	310	410	10d	160	240	310[3]	410

[1] For framing of other species: (a) Find specific gravity for species of lumber in the AF&PA National Design Specification, (b) find shear value from table for nail size, and for Structural I panels (regardless of actual grade), (c) multiply value found in (b) by 0.82 for species with specific gravity of greater than or equal to 0.42 but less than 0.49, or multiply by 0.65 for species with a specific gravity less than 0.42.

[2] All panel edges backed with 2-inch nominal or wider framing. Install panels either horizontally or vertically. Space nails 6 inches o.c. along intermediate framing members for 3/8-inch and 7/16-inch panels installed on studs spaced 24 inches o.c. For other conditions and panel thicknesses, space nails 12 inches o.c. on intermediate supports.

[3] Framing at panel edges shall be 3-inch nominal or wider and nails shall be staggered where nails are spaced 2 inches o.c., and where 10d nails having penetration into framing of more than 1-5/8 inches are spaced 3 inches o.c.

Exception: Unless otherwise required, 2-inch nominal framing is permitted to be used where full nailing surface width is available and nails are staggered.

[4] Shears are permitted to be increased to values shown for 15/32-inch sheathing with same nailing, provided (1) studs are spaced a maximum of 16 inches o.c. or (2) if panels are applied with long dimension across studs.

[5] The values are for short-time loads due to wind or earthquake and must be reduced by 25 percent for normal loading.

[6] All-veneer panel.

[7] Shear panels shall be not less than 4 feet by 8 feet, except at boundaries and changes in framing. Wood structural panels less than 12 inches wide shall be blocked.

[8] SI units: 1 in = 25.4 mm, 1 ft = 0.3 m, 1 plf = 14.59 N/m.

TABLE 3

ALLOWABLE UNIFORM ROOF LIVE LOADS FOR APA RATED SHEATHING AND APA RATED STURD-I-FLOOR WITH LONG DIMENSION PERPENDICULAR TO SUPPORTS[1,2]

APA RATED SHEATHING APA RATED SHEATHING/CEILING DECK		Roof										Floor[7]
		Maximum Span (inches)		Allowable Live Loads (psf)								
				Spacing of Supports Center-to-Center (inches)								Maximum Span (inches)
Span Rating Roof/Floor Span	Panel Thickness (inch)	With Edge Support[3]	Without Edge Support	12	16	20	24	32	40	48	54	60	
12/0	5/16	12	12	30									0
16/0	5/16, 3/8	16	16	70	30								0
20/0	5/16, 3/8	20	20	120	50	30							0
24/0	3/8, 7/16, 1/2	24	20[4]	190	100	60	30						0
24/16	7/16, 1/2	24	24	190	100	65	40						16
32/16	15/32, 1/2, 5/8	32	28	325	180	120	70	30					16[5]
40/20	9/16, 19/32, 5/8, 3/4, 7/8	40	32	–	305	205	130	60	30				20[5,6]
48/24	23/32, 3/4, 7/8	48	36	–	–	280	175	95	45	35			24
54/32	7/8, 1	54	40	–	–	–	245	130	75	50	35		32
60/32	7/8, 1	60	40	–	–	–	305	165	100	70	50	35	32
60/48	7/8, 1, 1-1/8	60	48	–	–	–	305	165	100	70	50	35	48[8]

APA RATED STURD-I-FLOOR				Roof									Floor[7]
		Maximum Span (inches)		Allowable Live Loads (psf)									
				Spacing of Supports Center-to-Center (inches)									Maximum Span (inches)
Span Rating	Panel Thickness (inch)	With Edge Support[3]	Without Edge Support	12	16	20	24	32	40	48	54	60	
16 oc	19/32, 5/8, 21/32	24	24	185	100	65	40						16[5]
20 oc	19/32, 5/8, 3/4	32	32	270	150	100	60	30					20[5,6]
24 oc	11/16, 23/32, 3/4	48	36	–	240	160	100	50	30	25			24
32 oc	7/8, 1	48	40	–	–	295	185	100	60	40			32
48 oc	1-3/32, 1-1/8	60	48	–	–	–	290	160	100	65	50	40	48[8]

[1] The allowable live loads were determined using a dead load of 10 psf. If the dead load exceeds 10 psf then the live load shall be reduced accordingly.

[2] Applied to panels 24 inches or wider.

[3] Tongue-and-groove edges, panel edge clips (one midway between each support, except two equally spaced between supports 48 inches on center), lumber blocking, or other. Only lumber blocking will satisfy blocked diaphragm requirements of Table No. 1, except as noted in Section 3.2.3.

[4] Twenty-four inches for 1/2-inch panels.

[5] Is permitted to be used over framing of 24 inches on center where 3/4-inch wood strip flooring is installed at right angles to joist.

[6] Is permitted to be used over framing spaced 24 inches on center for floors where 1-1/2 inches of cellular or lightweight concrete is applied over the panels.

[7] Live load not to exceed 100 psf, dead load not to exceed 10 psf, except as noted.

[8] Total load not to exceed 65 psf.

[9] SI units: 1 in = 25.4 mm, 1 ft = 0.3 m, 1 psf = 48 Pa

TABLE 4

ALLOWABLE UNIFORM ROOF LOADS (psf) FOR APA RATED SHEATHING WITH LONG DIMENSION PARALLEL TO SUPPORTS[4]
(Nonveneer, Composite and 5-Ply/5-Layer Plywood Panels Unless Otherwise Noted)

Panel Grade	Thickness (in.)	Span Rating	Maximum Span (in.)	Load at Maximum Span	
				Live	Total
APA STRUCTURAL I RATED SHEATHING	7/16	24/0, 24/16	24	20	30
	15/32	32/16	24	35[1]	45[1]
	1/2	32/16	24	40[1]	50[1]
	19/32, 5/8	40/20	24	70	80
	23/32, 3/4	48/24	24	90	100
APA RATED SHEATHING	7/16[2]	24/0, 24/16	16	40	50
	15/32[2]	32/16	24	20	25
	1/2[2]	24/0, 32/16	24	25	30
	19/32	40/20	24	40[3]	50[3]
	5/8	32/16, 40/20	24	45[3]	55[3]
	23/32, 3/4	40/20, 48/24	24	60[3]	65[3]

[1] For 4-ply plywood marked PS 1, reduce load by 15 psf.

[2] Composite panels must be 19/32 inch or thicker.

[3] For composite and 4-ply panels, reduce load by 15 psf.

[4] Edges shall be blocked with lumber or other approved type of edge support.

[5] SI units: 1 in = 25.4 mm, 1 ft = 0.3 m, 1 psf = 48 Pa

TABLE 5

ALLOWABLE SPANS FOR APA RATED 303 PLYWOOD SIDING USED AS ROOF SHEATHING[1]

Minimum Nominal Thickness (inches)	Species Group No.	Maximum Span (inches)
15/32	1	24
15/23	2, 3, 4	16
19/32	1	32
19/32	2, 3, 4	24
23/32	1, 2, 3, 4	32
1-1/8	1, 2, 3, 4	48

[1] Plywood continuous over two or more spans, long dimension across supports. Uniform load deflection limit is 1/240 of the span under live load. Live load capacity at maximum span for all listed construction is 30 psf.

[2] SI units: 1 in = 25.4 mm, 1 psf = 48 Pa

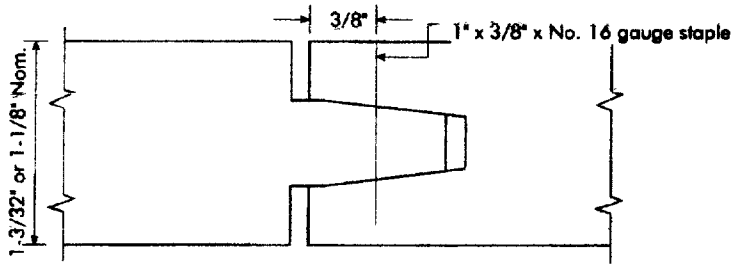


FIGURE 1*

DETAIL OF STAPLE IN TONGUE-AND-GROOVE JOINT OF STURD-I-FLOOR 48 oc (1 in = 25.4 mm)

*This drawing is for illustration purposes only. It is not intended for use as a construction document for the purpose of fabrication or erection.

CITY OF SACRAMENTO

CASH RECEIPT

TRANSACTION CODE	CR	CASH RECEIPT NUMBER	148331	DATE OF DEPOSIT (MMDDYY)		ACCOUNTING PERIOD (MMYY)	6398	BUDGET FY (YY)	
ACTION ☐ Original Entry (E) ☐ Adjustment (M)		BANK ACCOUNT	01	OFFSET CASH ACCOUNT		COMMENTS:	Richard Munson 456-2670 Sac Housing & Redevelop: 44 ITT		

REFERENCE INVOICE NUMBER	LINE	FUND	AGENCY	ORGANIZATION	SUB-ORG	ACTIVITY	REVENUE SOURCE 3XXX	SUB-REV	JOB NUMBER	REPT CAT	BAL. SHEET ACCT 1,2XXX	OBJECT 4XXX	SUB-OBJ	VENDOR/PROVIDER	AMOUNT	INC./DEC IND	P/F IND
		413	330	3350			3667								326.00		
DESCRIPTION: (30 SPACES) 2 - 1" meter only																	
		413	330	3350			3667								1187.00		
DESCRIPTION: (30 SPACES) 1 - 1" tap & meter																	
		413									2493				~~342.00~~ 724.00		
DESCRIPTION: (30 SPACES) Water Dev fee																	
		414	330	3350			3668								3361.75		
DESCRIPTION: (30 SPACES) 2 - 4" sewer connection fees																	
DESCRIPTION: (30 SPACES)																	
DESCRIPTION: (30 SPACES)																	

TOTAL 5610.75

CITY OF SACRAMENTO PAID JUL 02 1998 DEPARTMENT OF UTILITIES

PREPARED BY: NAME Karen [illegible] PHONE 264-5341

DEPARTMENT/DIVISION Utilities - Business Services DATE 7/2/98

264-5450

— FORM DISTRIBUTION —

City of Sacramento
Utilities/Business Services
Water and/or Sewer Service Quotation

Date: 6-11-98

Address: 401 "T" St.

Description: Residential (vacant lot)

Subdivision Map/lot number: 4th-5th Sts./ S-T Sts.

APN: 009-0054-021-0000

Water and/or Sewer map page: water pg. 24 / sewer GIS DD13-EE13

Main location: water in alley / sewer in "T" St.

Estimate by: Pat

Caller name & phone #: Shepard Johnson (916)786-2676 Fax: (916)786-2350

Comments: water: existing 1 1/2" 8' EEC of 4th St., 1' SSPL of alley. Can downsize at point of service to 1" meter. Need to install box & yoke.
Sewer: Point of service is at the curb in park strip. Main is 4' deep.

Water Service Quote

Main Size	Service Size	Tap Fee	Meter Fee	Total
6"c	1"	existing	$164.00	$164.00 ✓

Water Development Fees (no development fee for fire services): downsizing, no dev. fee
Commercial Acreage Fee (based on parcel size, not developed area): NA

Sewer Service Quote

Main Size	Service Size	Street Width	Tap Fee/per ft	Total
8"	4"	50'	25 x $96.05	$2,401.25

Sewer Development Fee: $124.00 paid to City of Sacramento

Total Fees: $2,689.25
2,565.25 ✓

C:\WP98\ESTIMATE\401T.wpd 5-14-98

CITY OF SACRAMENTO
PAID
JUL 02 1998
DEPARTMENT OF UTILITIES

SACRAMENTO CITY UNIFIED SCHOOL DISTRICT

CERTIFICATION OF COMPLIANCE

SCHOOL DISTRICT DEVELOPMENT FEES

PROPERTY OWNER'S NAME Redevelopment Agency of the City of Sacramento

OWNER'S ADDRESS 630 I Street, 3rd Floor, Sacramento, CA 95814

PROJECT ADDRESS 401 T ST

PARCEL NUMBER 009-0054-021 LOT NUMBER 8

SUBDIVISION NAME

NUMBER OF UNITS 1

APPLICANT'S SIGNATURE Alicia E. Martin

TITLE OF APPLICANT Housing Finance Specialist

DATE 7/2/98 TELEPHONE NUMBER 440-1399 ext. 1464

PLAN IDENTIFICATION NUMBER 98-04032

BUILDING TYPE (CHECK ONE)

☒ RESIDENTIAL ☐ APARTMENT/CONDOMINIUM ☐ COMMERCIAL/INDUSTRIAL

SQUARE FEET OF CHARGEABLE BUILDING AREA 2264 S.F.

SIGNATURE D. [illegible]

TITLE Bldg Insp. DATE 5.18.98

DISTRICT CERTIFICATION NUMBER 6400

EXEMPT COMMENTS 4800# Previously existed as commercial rezoned residential

RESIDENTIAL / APARTMENT / ETC. 2264 SQ. FT. X $ 1.72 = $ 3894.08

COMMERCIAL / INDUSTRIAL ______ SQ. FT. X $______ = $______

OTHER FEE Demo'd TYPE commercial credit 4800# SQ. FT. X $ .28 = $ -1344.00

wrecking permit 6/26/89

TOTAL FEES COLLECTED .... $ 2550.08

This certification covers only the amount of square footage indicated above. Any additions or corrections to the square footage for this project will require an amendment to the Certificate of Compliance.

As the authorized school district official, I hereby certify that the requirements of Government Code Section 65995 and any other authorized requirements have been complied with by the above signed applicant.

SIGNATURE [illegible]

TITLE CIVIC CENTER PERMITS DATE 7/2/98

91a:certcomp

Distribution: *Original*--School District; *1st Copy*--School District; *2nd Copy*--Building Department; *3rd Copy*--Applicant