CALIFORNIA DEPARTMENT of FORESTRY and FIRE PROTECTION OFFICE OF THE STATE FIRE MARSHAL



WILDLAND URBAN INTERFACE (WUI) PRODUCTS

Published by **CAL-FIRE FIRE ENGINEERING DIVISION**

Revised 07/24/08

http://osfm.fire.ca.gov/strucfireengineer/pdf/bml/wuiproducts.pdf

Starting January 2008, the new 2007 California Building Code (CBC) becomes effective. For products to be used in the Wildland Urban Interface (WUI), there are some regulations that required building products to comply with specific standards.

In an effort to provide the home owners, industries, designers, local fire and building officials a readily list of "compliance WUI products", the State Fire Marshal is publishing this "WUI Products Handbook".

All products published in this handbook have been reviewed and verified their compliance in accordance with the new 2007 CBC by SFM staff. Only products submitted to the SFM and in compliance will be published. It should be noted that products are not in this handbook may still comply with the standards. It is not a requirement for any products to be in this handbook.

This handbook will be categorized into 4 main sections:

- 1. Exterior Wall Siding and Sheathing (SFM Standard 12-7A-1)
- 2. Exterior Windows (SFM Standard 12-7A-2)
- 3. Under Eave (SFM Standard 12-7A-3)
- 4. Decking (SFM Standard 12-7A-4)

The handbook may contain other products that are not listed above.

The SFM reserves the right to remove any products in this handbook for cause. The local Authority Having Jurisdiction (AHJ) has the right to approved or disapproved products for used within their respective jurisdiction.

Our approvals are based upon technical data submitted by applicants. The CSFM Fire Engineering staff reviews test results and/or other data, but does not make an independent verification of any claims. All products shall be constructed in accordance with all applicable codes and ordinances. Refer to the appropriate AHJ for details.

Building Standards and Materials for Building Code Chapter 7A, 2007 California Building Code

The California Building Commission adopted the Wildland-Urban Interface (WUI) codes in late 2005. The majority of the new requirements take effect in 2008. These new codes include provisions for ignition resistant construction standards in the wildland urban interface. The updated fire hazard severity zones will be used by building officials to determine appropriate construction materials for new buildings in the wildland urban interface. The updated zones will also be used by property owners to comply with natural hazards disclosure requirements at time of property sale. It is likely that the fire hazard severity zones will be used by local government as they update the safety element of general plans.

The new building standard for the Fire Hazard Severity Zones will be enforced by the Building Official as projects go through the plan checking process. To best assist them in determining if a product meets the code requirements, the State Fire Marshal's Building Materials Listing program (BML) Program is accepting applications for materials for listing or for the review of meeting the standards. These materials will be posted on the SFM BML website at:

http://osfm.fire.ca.gov/strucfireengineer/pdf/bml/wuiproducts.pdf

and the Wildland Urban Interface Building Codes page of the Wildland Hazards and Building Codes at:

http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes.php

The SFM listing service provides building authorities, architectural and engineering communities, contractors, and the fire service with a reliable and readily available source of information.

Since the materials under Wildland Urban Interface Building Codes (except roof wood shakes and shingles) are not required by law to be listed by the SFM, the listings for these products are strictly voluntary. Materials not listed by the SFM may still qualify for use provided they met all the requirements under Chapter 7A. If not listed on the SFM site, all documentation and testing certificates showing compliance must be submitted to the building official having jurisdiction for final approval.

For product listing information, please contact:

Ben Ho, Chief
Fire Engineering Division
1131 S Street, Sacramento, CA 95811
(916) 445- 8312
ben.ho@fire.ca.gov

Information regarding the listing application, regulations and publications etc. can be downloaded at:

http://osfm.fire.ca.gov/strucfireengineer/strucfireengineer_bml.php

http://osfm.fire.ca.gov/strucfireengineer/pdf/bml/listingApplication.pdf

http://osfm.fire.ca.gov/strucfireengineer/pdf/bml/t-19.pdf

http://osfm.fire.ca.gov/strucfireengineer/pdf/bml/categorybm.pdf

http://osfm.fire.ca.gov/strucfireengineer/pdf/lab/approvedtestinglabs.pdf

<u>For questions relative to Wildland Hazards and Wildland Urban Interface regulations</u> and Chapter 7A, please contact:

Ethan Foote, Assistant Chief WUI Regulations Unit 1131 S Street, Sacramento, CA 958111 (916) 445-8200 ethan.foote@fire.ca.gov

Information regarding all Wildland Urban Interface issues can be downloaded at: http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes.php

All SFM WUI standards can be downloaded at the following links:

- Testing Standards CA SFM 12.7A-1, Exterior Wall Siding and Sheathing http://www.fire.ca.gov/fire_prevention/downloads/Part_12_CA_SFM_12-7A-1_Test_Standards.pdf
- Testing Standards CA SFM 12.7A-1, Exterior Windows
 http://www.fire.ca.gov/fire_prevention/downloads/Part_12_CA_SFM_12-7A-2_Test_Standards.pdf
- Testing Standards CA SFM 12.7A-1, Under Eaves
 http://www.fire.ca.gov/fire_prevention/downloads/Part_12_CA_SFM_12-7A-3_Test_Standards.pdf
- Testing Standards CA SFM 12.7A-1, Decking
 http://www.fire.ca.gov/fire_prevention/downloads/Part_12_CA_SFM_12-7A-4_Test_Standards.pdf

2007 California Building Code

CHAPTER 7A MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE [SFM]

SECTION 701A SCOPE, PURPOSE AND APPLICATION

- **701A.1 Scope.** This chapter applies to building materials, systems and or assemblies used in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area as defined in Section 702A.
- **701A.2 Purpose.** The purpose of this Chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area to resist the intrusion of flame or burning embers projected by a vegetation fire and contributes to a systematic reduction in conflagration losses.
- **701A.3.** Application. New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted on or after December 1, 2005, shall comply with the following Sections:
- 1. 704A.1 Roofing
- 2. 704A.2 Attic Ventilation
- **701A.3.1** Alternates for materials, design, tests, and methods of construction. The enforcing agency is permitted to modify the provisions of this chapter for site-specific conditions in accordance with Appendix Chapter 1, Section 104.10. When required by the enforcing agency for the purposes of granting modifications, a fire protection plan shall be submitted in accordance with the California Fire Code, Chapter 47.
- **701A.3.2 New Buildings Located in Any Fire Hazard Severity Zone.** New buildings located in any Fire Hazard Severity Zone shall comply with one of the following:
- 1. State Responsibility Areas. New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of this chapter.
- 2. Local Agency Very-High Fire Hazard Severity Zone. New buildings located in any Local Agency Very-High Fire Hazard Severity Zone for which an application for a building permit is submitted on or after July 1, 2008, shall comply with all sections of this chapter.
- 3. Wildland-Urban Interface Fire Area designated by the enforcing agency. New buildings located in any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of this chapter.
- **701A.3.2.1 Inspection and certification.** Building permit applications and final completion approvals for buildings within the scope and application of this chapter shall comply with the following:
- **701A.3.2.2** The local building official shall, prior to construction, provide the owner or applicant a certification that the building as proposed to be built complies with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this Chapter.
- **701A.3.2.3** The local building official shall, upon completion of construction, provide the owner or applicant with a copy of the final inspection report that demonstrates the building was constructed in compliance with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this Chapter.

701A.3.2.4 Prior to building permit final approval the property shall be in compliance with the vegetation clearance requirements prescribed in California Public Resources Code 4291 and California Government Code Section 51182.

SECTION 702A - DEFINITIONS

For the purposes of this chapter, certain terms are defined below:

CDF DIRECTOR means the Director of the California Department of Forestry and Fire Protection.

FIRE PROTECTION PLAN is a document prepared for a specific project or development proposed for a Wildland-Urban Interface Fire Area. It describes ways to minimize and mitigate potential for loss from wildfire exposure.

The Fire Protection Plan shall be in accordance with this chapter and the California Fire Code, Chapter 47. When required by the enforcing agency for the purposes of granting modifications, a fire protection plan shall be submitted. Only locally adopted ordinances that have been filed with the California Building Standards Commission or the Department of Housing and Community Development in accordance with Section 101.8 shall apply.

FIRE HAZARD SEVERITY ZONES are geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High, or Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code Sections 51175 through 51189. See California Fire Code Article 86.

The California Code of Regulations, Title 14, Section 1280 entitles the maps of these geographical areas as "Maps of the Fire Hazard Severity Zones in the State Responsibility Area of California."

IGNITION-RESISTANT MATERIAL is any product which, when tested in accordance with ASTM E84 for a period of 30 minutes, shall have a flame spread of not over 25 and show no evidence of progressive combustion. In addition, the flame front shall not progress more than 10½ feet (3200 mm) beyond the centerline of the burner at any time during the test.

Materials shall pass the accelerated weathering test and be identified as Exterior type, in accordance with ASTM D2898 and ASTM D3201. All materials shall bear identification showing the fire performance rating thereof. That identification shall be issued by ICC-ES/ICBO ES or a testing facility recognized by the State Fire Marshal having a service for inspection of materials at the factory.

Fire-Retardant-Treated Wood or noncombustible materials as defined in section 202 shall satisfy the intent of this section.

The enforcing agency may use other definitions of ignition-resistant material that reflect wildfire exposure to building materials and/or their materials performance in resisting ignition.

LOCAL AGENCY VERY HIGH FIRE HAZARD SEVERITY ZONE means an area designated by a local agency upon the recommendation of the CDF Director pursuant to Government Code Sections 51177(c), 51178 and 5118 that is not a state responsibility area and where a local agency, city, county, city and county, or district is responsible for fire protection.

STATE RESPONSIBILITY AREA means lands that are classified by the Board of Forestry pursuant to Public Resources Code Section 4125 where the financial responsibility of preventing and suppressing forest fires is primarily the responsibility of the state.

WILDFIRE is any uncontrolled fire spreading through vegetative fuels that threatens to destroy life, property, or resources as defined in Public Resources Code Sections 4103 and 4104.

WILDFIRE EXPOSURE is one or a combination of radiant heat, convective heat, direct flame contact and burning embers being projected by vegetation fire to a structure and its immediate environment.

WILDLAND-URBAN INTERFACE FIRE AREA is a geographical area identified by the state as a "Fire Hazard Severity Zone" in accordance with the Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires. See Section 706A for the applicable referenced Sections of the Government Code and the Public Resources Code.

SECTION 703A - STANDARDS OF QUALITY

703A.1 General. Material, systems, and methods of construction used shall be in accordance with this Chapter.

703A.2 Qualification by Testing. Material and material assemblies tested in accordance with the requirements of section 703A shall be accepted for use when the results and conditions of those tests are met. Testing shall be performed by a testing agency approved by the State Fire Marshal or identified by an ICC-ES/ICBO-ES report.

703A.3 Standards of Quality. The State Fire Marshal standards listed below and as referenced in this Chapter are located in the California Referenced Standards Code, Part 12 and Chapter 35 of this code.

SFM 12-7A-1, Exterior Wall Siding and Sheathing SFM 12-7A-2, Exterior Window SFM 12-7A-3, Under Eave SFM 12-7A-4, Decking

SECTION - 704A - MATERIALS, SYSTEMS AND METHODS OF CONSTRUCTION SECTION 704A.1- ROOFS

704A.1 ROOFING

704A.1.1 General. Roofs shall comply with the requirements of Chapter 7A and Chapter 15. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.

704A.1.2 Roof Coverings. Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to prevent the intrusion of flames and embers, be fire-stopped with approved materials or have one layer of No. 72 ASTM cap sheet installed over the combustible decking.

704A.1.3 Roof Valleys. When provided, valley flashings shall be not less than 0.019- inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36 inches (914 mm) wide underlayment consisting of one layer of No. 72 ASTM cap sheet running the full length of the valley.

704A.1.5 Roof Gutters. Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter.

704A.2 Attic Ventilation.

704A.2.1 General. When required by Chapter 15, roof and attic vents shall resist the intrusion of flame and embers into the attic area of the structure, or shall be protected by corrosion resistant, non-combustible wire mesh with ¼ inch (6 mm) openings or its equivalent.

704A.2.2 Eave or Cornice Vents. Vents shall not be installed in eaves and cornices.

Exception: Eave and cornice vents may be used provided they resist the intrusion of flame and burning embers into the attic area of the structure.

704A.2.3 Eave Protection. Eaves and soffits shall meet the requirements of SFM 12-7A-3 or shall be protected by ignition-resistant materials or noncombustible construction on the exposed underside.

704A.3 - EXTERIOR WALLS

704A.3.1 General. Exterior walls shall be approved non-combustible or ignition resistant material, heavy timber, or log wall construction or shall provide protection from the intrusion of flames and embers in accordance with standard SFM 12-7A-1.

704A.3.1.1 Exterior wall coverings. Exterior wall coverings shall extend from the top of the foundation to the roof, and terminate at 2 inch (50.8 mm) nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.

704A.3.2 Exterior Wall Openings. Exterior wall openings shall be in accordance with this section.

704A.3.2.1 Exterior Wall Vents. Unless otherwise prohibited by other provisions of this code, vent openings in exterior walls shall resist the intrusion of flame and embers into the structure or vents shall be screened with a corrosion-resistant, non-combustible wire mesh with ¼ inch (6 mm) openings or its equivalent.

704A.3.2.2 Exterior Glazing and window walls. Exterior windows, window walls, glazed doors, and glazed openings within exterior doors shall be insulating-glass units with a minimum of one tempered pane, or glass block units, or have a fire resistance rating of not less than 20 minutes, when tested according to ASTM E 2010, or conform to the performance requirements of SFM 12-7A-2.

704A.3.2.3 Exterior door assemblies. Exterior door assemblies shall conform to the performance requirements of standard SFM 12-7A-1or shall be of approved noncombustible construction, or solid core wood having stiles and rails not less than 1 3/8 inches thick with interior field panel thickness no less than 1 1/4" thick, or shall have a fire resistance rating of not less than 20 minutes when tested according to ASTM E 2074.

Exception: Noncombustible or exterior fire retardant treated wood vehicle access doors are not required to comply with this chapter.

704A.4 DECKING, FLOORS AND UNDERFLOOR PROTECTION

704A.4.1 Decking.

704A.4.1.1 Decking Surfaces. Decking, surfaces, stair treads, risers, and landings of decks, porches, & balconies where any portion of such surface is within 10 feet (3048 mm) of the primary structure shall comply with one of the following methods:

- 1. Shall be constructed of Ignition Resistant Materials and pass the performance requirements of SFM 12-7A-4, Parts A and B.
- 2. Shall be constructed with heavy timber, exterior fire retardant treated wood or approved non-combustible materials.
- 3.Shall pass the performance requirements of SFM 12-7A-4, Part A, 12-7A-4.7.5.1 only with a net peak heat release rate of 25kW/sq-ft for a 40 minute observation period and:
 - a. Decking surface material shall pass the accelerated weathering test and be identified as Exterior type, in accordance with ASTM D2898 and ASTM D3201 and;
 - b. The exterior wall covering to which it the deck is attached and within 10 (3048 mm) feet of the deck shall be constructed of approved noncombustible or ignition resistant material.

Exception: Walls are not required to comply with this sub-section if the decking surface material conforms to ASTM E-84 Class B flame spread.

The use of paints, coatings, stains, or other surface treatments are not an approved method of protection as required in this Chapter.

704A.4.2 Underfloor and Appendages Protection

704A4.2.1 Underside of Appendages and Floor Projections. The underside of cantilevered and overhanging appendages and floor projections shall maintain the ignition-resistant integrity of exterior walls, or the projection shall be enclosed to the grade.

704A.4.2. Unenclosed Underfloor Protection. Buildings shall have all underfloor areas enclosed to the grade with exterior walls in accordance with section 704A.3.

Exception: The complete enclosure of under floor areas may be omitted where the underside of all exposed floors, exposed structural columns, beams and supporting walls are protected as required with exterior ignition-resistant material construction or be heavy timber.

705A. ANCILLARY BUILDINGS AND STRUCTURES

705A.1 Ancillary Buildings and Structures. When required by the enforcing agency ancillary buildings and structures and detached accessory structures shall comply with the provisions of this Chapter.

Wildland Urban Interface (WUI) Products

Exterior Wall Siding and Sheathing (SFM Standard 12-7A-1)

◆Company Name: APA-THE ENGINEERED WOOD ASSOCIATION

7011 South 19th Street, Tacoma, WA 98466

Product Description: "APA 303®" plywood siding with shiplap edges, nominal

19/32" thick and grooves spaced 4" on center, manufactured with veneers of all Southern Pine or Douglas Fir face, back and center with Hemlock or Douglas fir cross piles, 4'x8'

panel.

♦ Company Name: APA-THE ENGINEERED WOOD ASSOCIATION

7011 South 19th Street, Tacoma, WA 98466

Product Description: "APA 303®" plywood siding with reverse-board and batten,

nominal 19/32" thick and shiplap edges, grooves spaced 12"

on center, manufactured with face, back and center of Douglas Fir veneers and cross ply veneers of Hemlock or

Douglas, 4'x8' panel.

♦ Company Name: BODYGUARD WOOD PRODUCTS

5485 NW Osprey Place, Portland, OR 97229

Product Description: Bodyguard® "V-Rustic" siding Pattern Number 793, 794 and

795, preservative treated pine, minimum 3/4x6 inches dimension, with no through holes or loose knots, installed over oriented strand board (OSB) with a 7/16" minimum

thickness. For horizontal installation only.

♦ Company Name: BODYGUARD WOOD PRODUCTS

5485 NW Osprey Place, Portland, OR 97229

Product Description: Bodyguard® "RAB Smooth Face R/S" back siding Nos. 371

and 372, preservative treated pine, minimum 1x6 inches dimension, with no through holes or loose knots, installed over oriented strand board (OSB) with a 7/16" minimum

thickness. For horizontal installation only.

♦ Company Name: BODYGUARD WOOD PRODUCTS

5485 NW Osprey Place, Portland, OR 97229

Product Description: Bodyquard® 2 lap siding Nos. 430, preservative treated pine.

minimum 1x6 inches dimension, with no through holes or

loose knots, installed over oriented strand board (OSB) with a 7/16" minimum thickness. For horizontal installation only.

♦ Company Name: BODYGUARD WOOD PRODUCTS

5485 NW Osprey Place, Portland, OR 97229

Product Description: Bodyguard® 3 lap siding Nos. 432 and 433, preservative

treated pine, minimum 1x8 inches dimension, with no through holes or loose knots, installed over oriented strand board (OSB) with a 7/16" minimum thickness. For horizontal

installation only.

♦ Company Name: BODYGUARD WOOD PRODUCTS

5485 NW Osprey Place, Portland, OR 97229

Product Description: Bodyguard® cove siding Nos. 771 and 772, preservative

treated pine, minimum 1x8 inches dimension, with no through holes or loose knots, installed over oriented strand board (OSB) with a 7/16" minimum thickness. For horizontal

installation only.

♦ Company Name: CERTAINTEED CORPORATION

803 Belden Road, Jackson, MI 49203

Product Description: "Weatherboards™" lap siding, fiber-cement, type "Smooth,

Cedar, Smooth Bead, Textured Bead, Select Cedar, Dutch

Lap", 5/16" thick, 5 ¼" to 12" width, 12' length.

◆Company Name: CERTAINTEED CORPORATION

803 Belden Road, Jackson, MI 49203

Product Description: "Weatherboards™" shapes siding, fiber-cement, type

"Perfection Shingle, Random Square Staggered Edge, Half Rounds, Octagons, 5/16" thick, 16" width, 48" length.

♦ Company Name: CERTAINTEED CORPORATION

803 Belden Road, Jackson, MI 49203

Product Description: "Weatherboards™" vertical siding, fiber-cement, type "Stucco,

Cedar 8"Groove, Cedar (no groove), Smooth, Octagons,

5/16" thick, 4'" width, 8, 9 or 10' length.

♦ Company Name: JAMES HARDIE BUILDING PRODUCTS, INC.

10901 Elm Avenue, Fontana, CA 92337

Product Description: "Artisan®" lap siding, fiber-cement, 5/8" thick.

♦ Company Name: JAMES HARDIE BUILDING PRODUCTS, INC.

10901 Elm Avenue, Fontana, CA 92337

Product Description: "Cemplank®" lap siding, fiber-cement, 5/16" thick.

♦ Company Name: JAMES HARDIE BUILDING PRODUCTS, INC.

10901 Elm Avenue, Fontana, CA 92337

Product Description: "Cempanel®" vertical siding, fiber-cement, 5/16" thick.

♦ Company Name: JAMES HARDIE BUILDING PRODUCTS, INC.

10901 Elm Avenue, Fontana, CA 92337

Product Description: "HardieShingle™" panel, fiber-cement, 1/4" thick.

"HardieShingle™" lap siding, fiber-cement, 1/4" thick.

♦ Company Name: JAMES HARDIE BUILDING PRODUCTS, INC.

10901 Elm Avenue, Fontana, CA 92337

Product Description: "HardiePlank™" lap siding, fiber-cement, 5/16" thick.

"HardiePanel™" vertical siding, fiber-cement, 5/16" thick.

♦ Company Name: LOUISIANA-PACIFIC

414 Union Street, Suite 2000, Nashville, TN 37219

Product Description: "LP SmartSide® Precision Series" exterior lap siding, oriented

strand back-bone, 3/8" thick, applied over 1/2 standard

gypsum wallboard.

♦ Company Name: LOUISIANA-PACIFIC

414 Union Street, Suite 2000, Nashville, TN 37219

Product Description: "LP SmartSide® Precision Series" exterior panel siding,

oriented strand back-bone, 7/16" thick.

♦ Company Name: LOUISIANA-PACIFIC

414 Union Street, Suite 2000, Nashville, TN 37219

Product Description: "LP SmartSide® Fountation Series" exterior lap siding, wet

process fiber back-bone, 1/2" thick, applied over 5/8" type X

standard gypsum wallboard.

♦ Company Name: LOUISIANA-PACIFIC

414 Union Street, Suite 2000, Nashville, TN 37219

Product Description: "LP SmartSide® Fountation Series" exterior panel siding, wet

process fiber back-bone, 7/16" thick.

♦ Company Name: ROSEBURG FOREST PRODUCTS Co.

P.O. Box 1088, Roseburg, OR 97470

Product Description: "Breckenridge" Siding, 19/32" thick, plain square edge, APA

certified siding, installed over 5/32" CDX plywood sheathing.

♦ Company Name: ROSEBURG FOREST PRODUCTS Co.

P.O. Box 1088, Roseburg, OR 97470

Product Description: "Douglas Fir" siding, 11/32" thick, 12" groove spacing, 1.5"

groove width, 3/8" groove depth, shiplap, APA certified siding,

installed over 15/32" CDX plywood sheathing.

♦ Company Name: ROSEBURG FOREST PRODUCTS Co.

P.O. Box 1088, Roseburg, OR 97470

Product Description: "DuraTemp" siding, 15/32" thick, 4 ply, 8" groove spacing,

3/8" groove width, lap edge, APA certified siding, installed

over 15/32" CDX plywood sheathing.

♦ Company Name: WHISPER CREEK LOG HOMES

997 West 950 North, Suite 100, Centerville, UT 84014

Product Description: "Whisper Creek Log" siding, nominal ½ round "slices" cut

from softwood log, mechanically fastened to 7/16" oriented strand board sheathing and supported on nominal 2" x 6" lumber framing. The log sections measured approximately 9' wide, 3" to 4" at the radius, with a nominal 1" gap between sections. Foamed polyethylene backer rod filled the gap between log sections, providing support to a minimum ½' thick application of UL listed Sashco Sealant, Inc. chinking

material.

♦ Company Name: WINDSOR MILL

7950 Redwood Drive #4, Cotati, CA 94931

Product Description: WindsorONE® 8025 w 1212 preservative treated radiate

solid pine wood siding, 1x6, 1x8, and 1x10 v-rustic shiplap

siding pattern, with no through holes or loose knots, installed over oriented strand board (OSB) with a 7/16" minimum thickness. For "Horizontal" installation only.

♦ Company Name: Various Manufacturers

Product Description:

Solid "Wood" siding with no through holes or loose knots, installed over structural plywood or oriented strand board (OSB) with a 7/16" minimum thickness and complying with Voluntary Product Standard PS1 or Voluntary Product Standard PS2, with the following interlocking designs when installed in accordance with industrial technical guide. Refer to manufacturer's installations for details.

- 1. Tongue & Groove, Shiplap, Log Cabin: When applied in a horizontal orientation with minimum nominal 6" wide and nominal 1" thick board made of wood species "Redwood", "Western Red Cedar", "Incense Cedar", "Port Orford Cedar", "Alaska Yellow Cedar", "Ponderosa Pine", "Douglas Fir", "White Fir", and "Western Spruce", or other wood species having a Flame Spread Rating not greater than 150 (Class C) when tested in accordance with ASTM E84.
- 2. Rabbeted Bevel: When applied in a horizontal orientation with minimum nominal 6" wide and nominal 1" thick boards made of a wood species "Redwood", "Western Red Cedar", "Incense Cedar", "Port Orford Cedar", "Alaska Yellow Cedar", or other wood species having a Flame Spread Rating not greater than 75 (Class B) when tested in accordance with ASTM E84.
- 3. <u>Board and Batten</u>: When applied in a vertical orientation with minimum nominal 8" wide and nominal 1" thick boards, and minimum nominal 4" wide and nominal 1-1/4" thick battens, with boards installed with a gap not more than ½", with battens fastened to the wood frame with not less than 3" long fasteners at a schedule not more than 24" on center, and boards and battens made of a wood species "Redwood", "Western Red Cedar", "Incense Cedar", "Port Orford Cedar", "Alaska Yellow Cedar", or other wood species having a Flame Spread Rating not greater than 75 (Class B) when tested in accordance with ASTM E84.

All nominal board sizes shall comply with the applicable provisions of American Softwood Lumber Standard PS 20. Edge and end glued siding is permitted to be used interchangeably with solid sawn members.

The recommended installation practice for solid wood siding in wall construction regarding butt and overlapping joints is:

butt joints between pieces should be staggered a minimum of 12" and all butt joints should be flush with no gap. Nail joints into the studs or blocking members. One nail at each crossing with the wood frame support member shall be used for nominal 6" siding and 2 nails for nominal 8" or wider siding.

Exterior Windows (SFM Standard 12-7A-2) None

Under Eave (SFM Standard 12-7A-3)

♦ Company Name: JAMES HARDIE BUILDING PRODUCTS, INC.

10901 Elm Avenue, Fontana, CA 92337

Product Description: "CemSoffit®" un-vented, fiber-cement soffit, 3/16" thick and

¼" thick.

♦ Company Name: JAMES HARDIE BUILDING PRODUCTS, INC.

10901 Elm Avenue, Fontana, CA 92337

Product Description: "HardieSoffit®" un-vented, fiber-cement soffit, 3/16" thick

and ¼" thick.

Decking (SFM Standard 12-7A-4)

♦ Company Name: ELK COMPOSITE BUILDING PRODUCTS, INC.

9806 Lackman Road, Lenexa, KS 66219

Product Description: "CrossTimbers FR" composite deck board, 1" thick x 5.5"

width (nominal $1" \times 6"$).

Test Protocol 12-7A-4, Part A only, Accelerated weathering.

Flame Spread Class B

♦ Company Name: EPOCH COMPOSITE PRODUCTS, INC., A TAMKO COMPANY

223 South KK Highway, Lamar, MO 64759

Product Description: "EverGrain" composite deck board, 15/16" thick x 5.5" width

Test Protocol 12-7A-4, Part A only, Accelerated weathering. Flame Spread Class C (Refer to Exception of 704A.4.1.1 (3) (b))

◆Company Name: EPOCH COMPOSITE PRODUCTS, INC., A TAMKO COMPANY

223 South KK Highway, Lamar, MO 64759

Product Description: "EverGrain" composite deck board, 1-7/16" thick x 5.5" width

Test Protocol 12-7A-4, Part A only, Accelerated weathering. Flame Spread Class C (Refer to Exception of 704A.4.1.1 (3) (b))

♦ Company Name: FIBER COMPOSITES, LLC

181 Random Drive, New London, NC 28127

Product Description: "Fiberon" composite deck board, 1" thick x 5 1/8" width.

Test Protocol 12-7A-4, Part A only, Accelerated weathering.

Flame Spread Class B

♦ Company Name: FIBER COMPOSITES, LLC

181 Random Drive, New London, NC 28127

Product Description: "WeatherBest™ Meridian" composite deck board, 1" thick x 5

1/8" width.

Test Protocol 12-7A-4, Part A only, Accelerated weathering.

Flame Spread Class B

♦ Company Name: FIBER COMPOSITES, LLC

181 Random Drive, New London, NC 28127

Product Description: "Portico" composite deck board, 1" thick x 5 1/8" width.

Test Protocol 12-7A-4, Part A only, Accelerated weathering.

Flame Spread Class B

◆Company Name: FIBER COMPOSITES, LLC

181 Random Drive, New London, NC 28127

Product Description: "WeatherBest™ Selma" composite deck board, 1" thick x 5

1/2" width.

Test Protocol 12-7A-4, Part A only, Accelerated weathering. Flame Spread Class C (Refer to Exception of 704A.4.1.1 (3) (b))

♦ Company Name: FIBER COMPOSITES, LLC

181 Random Drive, New London, NC 28127

Product Description: "Veranda" composite deck board, 1" thick x 5 1/8" width.

Test Protocol 12-7A-4, Part A only, Accelerated weathering.

Flame Spread Class B

♦ Company Name: TREX COMPANY, INC.

245 Capitol Avenue, Winchester, VA 22601

Product Description: "Trex Accents: Fire Defense" wood and polyethylene

composite deck board, nominal 5/4" thick x 5-1/2" width,

nominal density of 0.036 lb/in³.

Test Protocol 12-7A-4, Part A only, Accelerated weathering.

Flame Spread Class B

♦ Company Name: Various Manufacturers

Product Description: Solid "Wood" decking: "Redwood", "Western Red Cedar",

"Incense Cedar", "Port Orford Cedar", and "Alaska Yellow

Cedar".

Sizes: Minimum nominal 2" thickness (American Softwood

Lumber Standard PS 20).

Lumber grades: Construction Common and better grades for Redwood, 3 Common and better grades for Cedars, and Commercial decking or better grades for both Redwood and

Cedars.

Special instructions: solid wood decking shall be installed

over solid wood joists spacing 24" or less on center.

Flame Spread Class C (Refer to Exception of 704A.4.1.1 (3) (b))

Ignition-Resistant Materials (ASTM E84 for 30 Min. with Accelerated Weathering Test)

♦ Company Name: CHEMCO INC.

4191 Grandview Road (P.O. Box 875), Ferndale, WA 98248

Product Description: Type "FRX" and "Thermex-FR" fire-retardant-treated lumber.

Products are Douglas Fir, Southern Yellow Pine, Western Red

Cedar, White Spruce and Western Hemlock pressure impregnated with "FRX" and "Thermex-FR" fire retardant

chemical.

◆Company Name: CHEMCO INC.

4191 Grandview Road (P.O. Box 875), Ferndale, WA 98248

Product Description: Type "FRX" and "Thermex-FR" fire-retardant-treated plywood.

The plywood is Structural I grade, exterior plywood

complying with PS1. Products are pressure impregnated with "FRX" and "Thermex-FR" fire retardant chemical.

Company Name: HOOVER TREATED WOOD PRODUCTS, INC.

154 Wire Road, Thomson, GA 30824

Product Description: "EXTERIOR FIRE X" pressured impregnated treated lumbers

(Douglas Fir, Southern Yellow Pine, Western Red Cedar,

Redwood). (CSFM Listing No. 2520-1701:100)

♦ Company Name: HOOVER TREATED WOOD PRODUCTS, INC.

154 Wire Road, Thomson, GA 30824

Product Description: "EXTERIOR FIRE X" pressured impregnated treated plywood

(Douglas Fir, Micro-Lam Douglas Fir, Southern Yellow Pine, Gang-Lam Southern Yellow Pine, Micro-Lam Southern Yellow

Pine, Spruce Master Plank). (CSFM Listing No. 2580-

1701:101)

Wood Shakes and Shingles Roofing Materials (UBC 15-2)

♦ Company Name: CHEMCO INC.

4191 Grandview Road (P.O. Box 875), Ferndale, WA 98248

Product Description: "FTX" and "CedarPlus" pressured treated, No. 1 Grade

Western Red Cedar Shakes and Shingles. (CSFM Listing No.

4150-1450:100)