SECTION 07 46 46
SIDING
(James Hardie HZ10 Engineered for Climate Siding)

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PART 1 GENERAL

1.1 SECTION INCLUDES

A. Fiber cement lap siding, panels, shingle, trim, fascia, moulding, and accessories; James Hardie HZ10 Engineered for Climate Siding and Hardie Architectural Panels.

B. Factory-finished fiber cement lap siding, panels, shingle, trim, fascia, moulding, and accessories; James Hardie HZ10 Engineered for Climate Siding.

1.2 RELATED SECTIONS

A. Section 05 40 00 - Cold-Formed Metal Framing.

B. Section 06 10 00 - Rough Carpentry.

C. Section 06 10 00 - Rough Carpentry.

D. Section 07 21 19 - Foamed-In-Place Insulation.

1.3 REFERENCES

A. ASTM D3359 - Standard Test Method for Measuring Adhesion by Tape Test, Tool and Tape.

B. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C.

1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00 - Administrative Requirements.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

C. Shop Drawings: Provide detailed drawings of atypical non-standard applications of cementitious siding materials which are outside the scope of the standard details and specifications provided by the manufacturer.

D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

County of Ventura
May 8, 2023
Cultural Heritage Board Meeting
Item 7a
Exhibit 2 – Architectural Cut Sheets

E. Verification Samples: For each finish product specified, two samples, minimum size 4 by 6 inches (100 by 150 mm), representing actual product, color, and patterns.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Minimum of 2 years' experience with installation of similar products.

B. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
1. Finish areas designated by Architect.
2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
3. Remodel mock-up area as required to produce acceptable work.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store siding on edge or lay flat on a smooth level surface. Protect edges and corners from chipping. Store sheets under cover and keep dry prior to installing.

C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.8 WARRANTY

A. Product Warranty: Limited, non-pro-rated product warranty.
1. HardiePlank HZ10 lap siding for 30 years.
2. HardiePanel HZ10 vertical siding for 30 years.
3. HardieSoffit HZ10 panels for 30 years.
4. HardieShingle HZ10 siding for 30 years.
5. HardieTrim HZ10 boards for 15 years.
6. Artisan HZ10 lap siding for 30 years.
7. Hardie Architectural Panels for 30 years.

B. Finish Warranty: Limited product warranty against manufacturing finish defects.
1. When used for its intended purpose, properly installed and maintained according to Hardie's published installation instructions, James Hardie's ColorPlus finish with ColorPlus Technology, for a period of 15 years from the date of purchase: will not peel; will not crack; and will not chip. Finish warranty includes the coverage for labor and material.

C. Workmanship Warranty: Application limited warranty for 2 years.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: James Hardie Building Products, Inc., which is located at: 231 S. La Salle St. Suite 2000; Chicago, IL 60604; Toll Free Tel: 877-236-7526; Email:request info (info@jameshardie.com);
Web:https://www.jameshardiepros.com|https://www.jameshardie.com

B. Substitutions: Not permitted.

C. Requests for approval of equal substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 SIDING AND TRIM

A. HardiePlank HZ10 lap siding, HardiePanel HZ10 vertical siding, HardieSoffit HZ10 panels and HardieShingle HZ10 siding requirement for materials:
1. Fiber-cement siding - complies with ASTM C 1186 Type A Grade II.
2. Fiber-cement siding - complies with ASTM E 136 as a noncombustible material.
3. Fiber-cement siding - complies with ASTM E 84 Flame Spread Index = 0, Smoke Developed Index = 5.
4. CAL-FIRE, Fire Engineering Division Building Materials Listing - Wildland Urban Interface (WUI) Listed Product.
5. ICC-ES evaluation reports ESR-2290, ESR-1844, and ESR-2273 (IBC, IRC, CBC, CRC).
6. City of Los Angeles, Research Report No. 24862.
7. Miami Dade County, -Notice of Acceptance -20-070.06
8. US Department of Housing and Urban Development Materials Release -1263.
9. California DSA PA-019.
10. City of New York M EA 223-93-M.
11. Florida State Product Approval -FL13192, FL13223, and FL13265.
12. Texas Department of Insurance Product Evaluation EC-23.

B. Artisan HZ10 lap siding requirement for Materials:
1. Fiber-cement siding - complies with ASTM C 1186 Type A Grade II.
2. Fiber-cement siding - complies with ASTM E 136 as a noncombustible material.
3. Fiber-cement Siding - complies with ASTM E 84 Flame Spread Index = 0, Smoke Developed Index = 5.
4. ICC-ES evaluation report ESR-2290.
5. Intertek Product Listing.
6. CAL-FIRE, Fire Engineering Division Building Materials Listing - Wildland Urban Interface (WUI) Listed Product.
7. Florida State Product Approval FL-13192.
8. Miami Dade County, Florida Notice of Acceptance -20-0730.07
9. Texas Department of Insurance Product Evaluation EC-55.
10. Manufacturer's Technical Data Sheet.

C. Lap Siding: Artisan HZ10 Lap Siding as manufactured by James Hardie Building Products, Inc.
1. Type: Smooth 5-1/4 inches (133 mm) with 4 inches (102 mm) exposure.
2. Type: Smooth 7-1/4 inches (184 mm) with 6 inches (152 mm) exposure.
3. Type: Smooth 8-1/4 inches (210 mm) with 7 inches (178 mm) exposure.
4. Type: Texture 5-1/4 inches (133 mm) with 4 inches (102 mm) exposure.
5. Type: Texture 7-1/4 inches (184 mm) with 6 inches (152 mm) exposure.
6. Type: Texture 8-1/4 inches (210 mm) with 7 inches (178 mm) exposure.
7. Type: Beaded 8-1/4 inches (210 mm) with 7 inches (178 mm) exposure.

D. Lap Siding: Artisan HZ10 Siding with Lock Joint System as manufactured by James Hardie Building Products, Inc.
1. Type: V-Groove 8-1/4 inches (210 mm) with 7 inches (178 mm) exposure.
2. Type: Shiplap 10-1/4 inches (260 mm) with 9 inches (229 mm) exposure.
3. Type: Square Channel 10-1/4 inches (260 mm) with 9 inches (229 mm) exposure.
4. Type: Bevel Channel 10-1/4 inches (260 mm) with 9 inches (229 mm) exposure.

E. Lap Siding: HardiePlank HZ10 Lap as manufactured by James Hardie Building Products,

Inc.

1. Type: Smooth 5-1/4 inches (133 mm) with 4 inches (102 mm) exposure.
2. Type: Smooth 6-1/4 inches (159 mm) with 5 inches (127 mm) exposure.
3. Type: Smooth 7-1/4 inches (184 mm) with 6 inches (152 mm) exposure.
4. Type: Smooth 8-1/4 inches (210 mm) with 7 inches (178 mm) exposure.
5. Type: Smooth 9-1/4 inches (235 mm) with 8 inches (203 mm) exposure.
6. Type: Smooth 12 inches (305 mm) with 10-3/4 inches (273 mm) exposure.
7. Type: Select Cedarmill 5-1/4 inches (133 mm) with 4 inches (102 mm) exposure.
8. Type: Select Cedarmill 6-1/4 inches (159 mm) with 5 inches (127 mm) exposure.
9. Type: Select Cedarmill 7-1/4 inches (184 mm) with 6 inches (152 mm) exposure.
10. Type: Select Cedarmill 8-1/4 inches (210 mm) with 7 inches (178 mm) exposure.
11. Type: Select Cedarmill 9-1/4 inches (235 mm) with 8 inches (203 mm) exposure.
12. Type: Select Cedarmill 12 inches (305 mm) with 10-3/4 inches (273 mm) exposure.
13. Type: Beaded Smooth 8-1/4 inches (210 mm) with 7 inches (178 mm) exposure.
14. Type: Beaded Cedarmill 8-1/4 inches (210 mm) with 7 inches (178 mm) exposure.

F. Vertical Siding: HardiePanel HZ10 siding as manufactured by James Hardie Building Products, Inc.

1. Type: Smooth Vertical siding panel 4 feet by 8 feet (1219 mm by 2438 mm).
2. Type: Smooth Vertical siding panel 4 feet by 9 feet (1219 mm by 2743 mm).
3. Type: Smooth Vertical siding panel 4 feet by 10 feet (1219 mm by 3048 mm).
4. Type: Cedarmill Vertical siding panel 4 feet by 8 feet (1219 mm by 2438 mm).
5. Type: Cedarmill Vertical siding panel 4 feet by 9 feet (1219 mm by 2743 mm).
6. Type: Cedarmill Vertical siding panel 4 feet by 10 feet (1219 mm by 3048 mm).
7. Type: Stucco Vertical siding panel 4 feet by 8 feet (1219 mm by 2438 mm).
8. Type: Stucco Vertical siding panel 4 feet by 9 feet (1219 mm by 2743 mm).
9. Type: Stucco Vertical siding panel 4 feet by 10 feet (1219 mm by 3048 mm).
10. Type: Sierra 8 inches (203 mm) Vertical siding panel 4 feet by 8 feet (1219 mm by 2438 mm).
11. Type: Sierra 8 inches (203 mm) Vertical siding panel 4 feet by 9 feet (1219 mm by 2743 mm).
12. Type: Sierra 8 inches (203 mm) Vertical siding panel 4 feet by 10 feet (1219 mm by 3048 mm).

G. Shingle Siding: HardieShingle HZ10 siding as manufactured by James Hardie Building Products, Inc.

1. Type: HardieShingle Individual Shingles 6 inches (152 mm) wide by 18 inches (457 mm) high with 8 inches (203 mm) exposure.
2. Type: HardieShingle Individual Shingles 8 inches (203 mm) wide by 18 inches (457 mm) high with 8 inches (203 mm) exposure.
3. Type: HardieShingle Individual Shingles 12 inches (305 mm) wide by 18 inches (457 mm) high with 8 inches (203 mm) exposure.
4. Type: HardieShingle Straight-Edge Notched Panel 48 inches (1219 mm) wide by 16 inches (406mm) high with 7 inches (178 mm) exposure.
5. Type: HardieShingle Staggered-Edge Notched Panel 48 inches (1219 mm) wide by 16 inches (406mm) high with 7 inches (178 mm) exposure.
6. Type: HardieShingle Half Round Notched Panel 48 inches (1219 mm) wide by 19 inches (483mm) high with 7 inches (178 mm) exposure.
7. Type: Sierra 8 inches (203 mm) Vertical siding panel 4 feet by 10 feet (1219 mm by 3048 mm).

H. Hardie Architectural Panels as manufactured by James Hardie Building Products, Inc. A non-combustible fiber-cement panel.

1. Product Composition: Grade II, Type A, fiber-cement sheets as defined by ASTM C1186. manufactured by the Hatschek process and cured by high pressure steam autoclaving.

2. Florida State Product Approval FL13223.
3. Florida State Product Approval FL 32103.
4. Intertek Product Listing.
5. Code Compliance:
    a. International Building Code (IBC).
        1) Section 1404.10: 2009, 2012 and 2015.
        2) Section 1403.10: 2018.
    b. International Residential Code (IRC):
        1) Table R703.3(1): 2009, 2012, 2015, and 2018.
        2) Section R703.10.1 as ASTM C 1186 Grade II, Type A Fiber Cement: 2009, 2012, 2015, and 2018.
    c. Florida Building Code (FBC):
        1) Section 1404.10: 2017 and 2020.
        2) Section 1405.16 as ASTM C 1186 Grade II, Type A Fiber Cement.
    d. Wind Design:
        1) Manufacturer's readily available design load and exposure category tables are derived from testing in accordance with ASTM E 330.
        2) Wind speed design coefficient assumptions per Analytical Method in ASCE 7.
6. Fire Characteristics:
    a. Tested in Accordance with ASTM E136: Classified as non-combustible.
    b. May be used in ASTM E119 fire resistance rated assemblies as listed by Warnock Hersey.
    c. Class A Material: Per FBC 2017 and 2020, and 2018 IBC Section 803.1.1 Surface Burning Characteristics when tested in accordance with ASTM E84:
        1) Flame Spread Index : 0. Smoke Developed Index: 0.
7. Type: Hardie Architectural Panels - Fine Sand 4 by 8 feet (1219 by 2438 mm).
8. Type: Hardie Architectural Panels - Fine Sand 4 by 10 feet (1219 by 3048 mm).
9. Type: Hardie Architectural Panels - Fine Sand 4 by 12 feet (1219 by 3658 mm).
10. Type: Hardie Architectural Panels - Mounded Sand Panel 4 by 8 feet (1219 by 2438 mm).
11. Type: Hardie Textured Knockdown Panel 4 by 10 feet (1219 by 3048 mm).
12. Type: Hardie Textured Knockdown Panel4 by 12 feet (1219 by 3658 mm).
13. Type: Hardie Textured Multi-Groove Panel 4 by 8 feet (1219 by 2438 mm).
14. Type: Hardie Textured Multi-Groove Panel 4 by 10 feet (1219 by 3048 mm).
15. Type: Hardie Textured Multi-Groove Panel 4 by 12 feet (1219 by 3658 mm).
    a. Thickness: 0.3125 inches (8 mm).
    b. Length: 96 inches (02438 mm).
    c. Length: 120 inches (3048 mm).
    d. Length: 144 inches (3658 mm).
    e. Width: 48 inches (1219 mm).
    f. Vertical Joint: Shiplap.
16. Physical Properties:
    a. Test Method ASTM C1185: Passed.
        1) Dimensional Tolerances.
            a) Length: Plus or minus 0.5 percent or plus or minus1/4 inch (6 mm).
            b) Width: Plus or minus 0.5 percent or plus or minus1/4 inch (6 mm),
            c) Thickness: Plus or minus 0.04 inch (1 mm).
            d) Squareness: Less than1/32 inches per ft (2.6 mm per m) of length.
            e) Edge Straightness: Less than 1/32 inches per ft (2.6 mm per m) of length.
        2) Density: Less than 83 pounds per sq ft (4 kPa).
        3) Water Tightness: No drop formation; Pass.
        4) Flexural strength:
            a) Wet Conditioned, psi: Greater than 1015 psi (7 MPa); Pass.

b) Equilibrium Conditioned, psi: Greater than 1450 psi (10 MPa); Pass.
5) Warm Water Resistance, Observations: No structural alteration; Pass.
6) Heat / Rain Resistance:
a) Physical Observations Mass: No structural alteration; Pass.
b) Loss Percentage: Less than or equal to 3.0 percent; Pass..
c) Freeze/Thaw, percent strength retention: Greater than or equal to 80 percent; Pass.

b. Fire Characteristics:
1) ASTM E84: Surface Burning Characteristics
a) Flame Spread Index (FSI) Smoke: 0.
b) Developed Index (SDI): 0.
c) Fuel Contributed: 0.
d) International Building Code: A.
2) ASTM E136: Non-combustibility: Pass.

17. Trim Accessories:
a. J Trim: Aluminum extrusion to be used as a trim at abutments; soffits, masonry, windows, etc.
b. Low-Profile Inside Corner Trim: Aluminum extrusion to be used for inside corners.
c. Inside Corner Trim: Aluminum extrusion to be used for inside corners.
d. Low-Profile Outside Corner Trim: Aluminum extrusion to be used for outside corners.
e. Low Profile 45 degrees Inside Corner Trim: Aluminum extrusion to be used for bay windows.
f. Low Profile 45 degrees Outside Corner Trim: Aluminum extrusion to be used for bay windows.
g. Vertical T Trim: Aluminum extrusion to be used along vertical butt joints. For horizontal panel orientations only.
h. Vertical H Trim: Aluminum extrusion to be used along vertical butt joints. For horizontal panel orientations only.
i. Horizontal Angled T Flashing Trim: Aluminum extrusion to be used along horizontal control joints.
j. Horizontal Z Flashing Trim: Aluminum extrusion to be used along horizontal control joints.
k. Base Trim: Aluminum extrusion to be used as a base edge solution.
l. Base Outside Corner Trim: To be used as an outside corner connection for Base trim.
m. Base Inside Corner Trim: To be used as an inside corner connection for Base trim.
n. Base Jointer: To be used to connect Base trims.
o. HardieTrim Boards: Fiber cement trim for corners and windows. Can be mounted horizontally or vertically.

I. Soffit Panels: HardieSoffit HZ10 Non-Vented Soffit Panel, as manufactured by James Hardie Building Products, Inc.
1. Factory sealed on 5 sides.
2. Thickness: 1/4 inch (6 mm).
3. Type: Smooth, 12 inches (305 mm) by 12 feet (3658 mm).
4. Type: Smooth, 16 inches (406 mm) by 12 feet (3658 mm.
5. Type: Smooth, 24 inches (610 mm) by 8 feet (2438 mm).
6. Type: Textured Cedarmill, 12 inches (305 mm) by 12 feet (3658 mm).
7. Type: Textured Cedarmill, 16 inches (406 mm) by 12 feet (3658 mm).
8. Type: Textured Cedarmill, 24 inches (610 mm) by 8 feet (2438 mm).

J. Vented Soffit Panels: HardieSoffit HZ10 Vented Panels. as manufactured by James Hardie

Building Products, Inc.

1. Net Free Ventilation: 5 sq inches of net free ventilation per linear foot (10583 sq mm per linear meter).
2. Factory sealed on 5 sides.
3. Thickness: 1/4 inch (6 mm).
4. Type: Smooth, 12 inches (305 mm) by 12 feet (3658 mm).
5. Type: Smooth, 16 inches (406 mm) by 12 feet (3658 mm),
6. Type: Smooth, 24 inches (610 mm) by 8 feet (2438 mm).
7. Type: Textured Cedarmill, 12 inches (305 mm) by 12 feet (3658 mm).
8. Type: Textured Cedarmill, 16 inches (406 mm) by 12 feet (3658 mm).
9. Type: Textured Cedarmill vented, 24 inches (610 mm) by 8 feet (2438 mm).

K. Vented Soffit Panels: HardieSoffit HZ10 VentedPlus Panels. as manufactured by James Hardie Building Products, Inc.

1. Net Free Ventilation: 12.6 sq inches of net free ventilation per linear foot (26670 sq mm per linear meter).
2. Factory sealed on 5 sides.
3. Thickness: 1/4 inch (6 mm).
4. Type: Smooth vented, 12 inches (305 mm) by 12 feet (3658 mm).
5. Type: Smooth vented, 16 inches (406 mm) by 12 feet (3658 mm),
6. Type: Smooth vented, 24 inches (610 mm) by 8 feet (2438 mm).
7. Type: Textured Cedarmill, 12 inches (305 mm) by 12 feet (3658 mm).
8. Type: Textured Cedarmill, 16 inches (406 mm) by 12 feet (3658 mm).
9. Type: Textured Cedarmill, 24 inches (610 mm) by 8 feet (2438 mm).

L. Trim:

1. HardieTrim HZ10 boards as manufactured by James Hardie Building Products, Inc.
   a. Product: Batten Boards, 2-1/2 inch (63 mm) width.
   b. Product: 4/4 Boards, 3-1/2 inch (89 mm) width.
   c. Product: 4/4 Boards, 5-1/2 inch (140 mm) width.
   d. Product: 4/4 Boards, 7-1/4 inch (184 mm) width.
   e. Product: 4/4 Boards, 9-1/4 inch (235 mm) width.
   f. Product: 4/4 Boards, 11-1/4 inch (286 mm) width.
   g. Product: 4/4 NT3 Boards, 3-1/2 inch (89 mm) width.
   h. Product: 4/4 NT3 Boards, 5-1/2 inch (140 mm) width.
   i. Product: 4/4 NT3 Boards, 7-1/4 inch (184 mm) width.
   j. Product: 4/4 NT3 Boards, 9-1/4 inch (235 mm) width.
   k. Product: 4/4 NT3 Boards, 11-1/4 inch (286 mm) width.
   l. Product: 5/4 Boards, 3-1/2 inch (89 mm) width.
   m. Product: 5/4 Boards, 5-1/2 inch (140 mm) width.
   n. Product: 5/4 Boards, 7-1/4 inch (184 mm) width.
   o. Product: 5/4 Boards, 9-1/4 inch (235 mm) width.
   p. Product: 5/4 Boards, 11-1/4 inch (286 mm) width.
   q. Product: 5/4 NT3 Boards, 3-1/2 inch (89 mm) width.
   r. Product: 5/4 NT3 Boards, 4-1/2 inch (114 mm) width.
   s. Product: 5/4 NT3 Boards, 5-1/2 inch (140 mm) width.
   t. Product: 5/4 NT3 Boards, 7-1/4 inch (184 mm) width.
   u. Product: 5/4 NT3 Boards, 11-1/4 inch (286 mm) width.
   v. Texture: Smooth.
   w. Texture: Rustic.
   x. Texture: Wood Grained.
   y. Length: 12 feet (3658 mm).
   z. Thickness: 3/4 inch (19 mm).
   aa. Thickness: 1 inch (24 mm).
2. HardieTrim HZ10 Fascia boards as manufactured by James Hardie Building Products, Inc.

3. Artisan HZ10 Accent trim as manufactured by James Hardie Building Products, Inc.
4. Fiber-cement trim - complies with ASTM C 1186 Type A Grade II.
5. Fiber-cement trim - complies with ASTM E 136 as a noncombustible material.
6. Fiber-cement trim - complies with ASTM E 84 Flame Spread Index = 0, Smoke Developed Index = 5.
7. Intertek Product Listing.

M. 2X Smooth HardieTrim:
1. 2X Smooth HardieTrim manufactured by James Hardie Building Products, Inc.
2. Overall Thickness: 1-1/2 in (38 mm).
3. Width: 3-1/2 inch (89 mm).
4. Width: 5-1/2 inch (140 mm).
5. Width: 7-1/4 inch (184 mm).
6. Width: 9-1/4 inch (235 mm).
7. Width: 11-1/4 inch (286 mm).
8. Texture: Smooth.

N. Crown Mouldings:
1. HardieTrim HZ10 Crown moulding manufactured by James Hardie Building Products, Inc.

2.3 FASTENERS

A. Wood Framing Fasteners:
1. Wood Framing: 4d common corrosion resistant nails.
2. Wood Framing: 6d common corrosion resistant nails.
3. Wood Framing: 8d box ring common corrosion resistant nails.
4. Wood Framing: 0.089 inch (2.2 mm) shank by 0.221 inch (5.6 mm) head by 2 inches (51 mm) corrosion resistant siding nails.
5. Wood Framing: 0.093 inch (2.4 mm) shank by 0.222 inch (5.6 mm) head by 2 inches (51 mm) corrosion resistant siding nails.
6. Wood Framing: 0.093 inch (2.4 mm) shank by 0.222 inch (5.6 mm) head by 2-1/2 inches (64 mm) corrosion resistant siding nails.
7. Wood Framing: 0.091 inch (2.3 mm) shank by 0.221 inch (5.6 mm) head by 1-1/2 inches (38 mm) corrosion resistant siding nails.
8. Wood Framing: 0.091 inch (2.3 mm) shank by 0.225 inch (5.7 mm) head by 1-1/2 inches (38 mm) corrosion resistant siding nails.
9. Wood Framing: 0.121 inch (3 mm) shank by 0.371 inch (9.4 mm) head by 1-1/4 inches (32 mm) corrosion resistant roofing nails.
10. Wood Framing: No. 11 gauge 1-1/4 inches (32 mm) corrosion resistant roofing nails.
11. Wood Framing: No. 11 gauge 1-1/2 inches (38 mm) corrosion resistant roofing nails.
12. Wood Framing: No. 11 gauge 1-3/4 inches (44 mm) corrosion resistant roofing nails.
13. Wood Framing: 16 gauge 1-1/2 inches (38 mm) stainless finish nails

B. Metal Framing:
1. Metal Framing: 1-1/4 inches (32 mm) No. 8-18 by 0.375 inch (9.5 mm) head self-drilling, corrosion resistant S-12 ribbed buglehead screws.
2. Metal Framing: 1-5/8 inches (41 mm) No. 8-18 by 0.323 inch (8.2 mm) head self-drilling, corrosion resistant S-12 ribbed buglehead screws.
3. Metal Framing: 1 inch (25 mm) No. 8-18 by 0.323 inch (8.2 mm) head self-drilling, corrosion resistant ribbed buglehead screws.
4. Metal Framing: 1 inch (25 mm) No. 8-18 by 0.311 inch (7.9 mm) head self-drilling, corrosion resistant S-12 ribbed buglehead screws.
5. Metal Framing: 1.5 inch (38 mm) [AGS-100] .100 inches by 25 inches (2540 mm by 635 mm) ETandF Pin or equivalent pneumatic fastener.

C. Masonry Walls:

1. Masonry Walls: Aerico Stud Nail, ET&F ASM No.-144-125, 0.14 inch (3.6 mm) shank by 0.30 inch (7.6 mm) head by 2 inches (51 mm) long corrosion resistant nails.

2.4 FINISHES

A. Factory Primer: Provide factory applied universal primer.
   1. Primer: Factory primed by James Hardie.
   2. Topcoat: Refer to Section 09 90 00 - Painting and Coating and Exterior Finish Schedule.

B. Factory Finish: Refer to Exterior Finish Schedule.
   1. Product: ColorPlus Technology by James Hardie.
   2. Definition:Factory applied finish; defined as a finish applied in the same facility and company that manufactures the siding substrate.
   3. Process:
      a. Factory applied finish by fiber cement manufacturer in a controlled environment within the fiber cement manufacturer's own facility utilizing a multi-coat, heat cured finish within one manufacturing process.
      b. Each finish color must have documented color match to delta E of 0.5 or better between product lines, manufacturing lots or production runs as measured by photospectrometer and verified by third party.
   4. Protection: Factory applied finish protection such as plastic laminate that is removed once siding is installed
   5. Accessories: Complete finishing system includes pre-packaged touch-up kit provided by fiber cement manufacturer. Provide quantities as recommended by manufacturer.

C. Factory Finish Color for Trim, Soffit and Siding Colors:
   1. Alpine Frost JH50-10.
   2. Arctic White JH10-20.
   3. Autumn Tan JH20-20.
   4. Boothbay Blue JH70-20.
   5. Chestnut Brown JH80-30.
   6. Cobble Stone JH40-10.
   7. Countrylane Red JH90-20.
   8. Evening Blue JH70-30.
   9. Frosted Green JH60-20.
   10. Harris Cream JH80-10.
   11. Heathered Moss JH50-20.
   12. Iron Gray JH90-30.
   13. Khaki Brown JH20-30.
   14. Light Mist JH70-10.
   15. Monterey Taupe JH40-20.
   16. Mountain Sage JH50-30.
   17. Navajo Beige JH30-10.
   18. Parkside Pine JH60-30.
   19. Sail Cloth JH20-10.
   20. Sandstone Beige JH30-20.
   21. Soft Green JH60-10.
   22. Timber Bark JH40-30.
   23. Traditional Red JH90-10.
   24. Tuscan Gold JH80-20.
   25. Woodland Cream JH10-30.
   26. Woodstock Brown JH30-30.
   27. Terra Cotta JH15-20.
   28. Coral Coast JH25-20.
   29. Aqua Marine JH35-20.

30. Cool Breeze JH45-20.
31. Pink Sand JH55-20.

PART 3 EXECUTION

3.1 EXAMINATION IMPORT "http://www.arcat.com/gfx/csi_revision_21b.gif" * MERGEFORMAT \

A. Do not begin installation until substrates have been properly prepared.

B. If framing preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Nominal 2 inch by 4 inch (51 m by 102 mm) wood framing selected for minimal shrinkage and complying with local building codes, including the use of water-resistive barriers or vapor barriers where required. Minimum 1-1/2 inches (38 mm) face and straight, true, of uniform dimensions and properly aligned.
1. Install water-resistive barriers and claddings to dry surfaces.
2. Repair any punctures or tears in the water-resistive barrier prior to the installation of the siding.
3. Protect siding from other trades.

D. Minimum 20 gauge (1 mm) 3-5/8 inch (92 mm) C-Stud 16 inches maximum on center or 16 gauge (1.6 mm) 3-5/8 inches (92 mm) C-Stud 24 inches (610 mm) maximum on center metal framing complying with local building codes, including the use of water-resistive barriers and/or vapor barriers where required. Minimum 1-1/2 inches (38 mm) face and straight, true, of uniform dimensions and properly aligned.
1. Install water-resistive barriers and claddings to dry surfaces.
2. Repair any punctures or tears in the water-resistive barrier prior to the installation of the siding.
3. Protect siding from other trades.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Install a water-resistive barrier is required in accordance with local building code requirements.

D. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements.

E. Install Engineered for Climate HardieWrap weather barrier in accordance with local building code requirements.

F. Use HardieWrap Seam Tape and joint and laps.

G. Install and HardieWrap flashing, HardieWrap Flex Flashing.

3.3 INSTALLATION - HARDIEPLANK HZ10 LAP SIDING, ARTISAN HZ10 LAP SIDING, AND ARTISAN HZ10 LAP SIDING WITH LOCK JOINT SYSTEM

A. Install materials in strict accordance with manufacturer's installation instructions.

B. Starting: Install a minimum 1/4 inch (6 mm) thick lath starter strip at the bottom course of the wall. Apply planks horizontally with minimum 1-1/4 inches (32 mm) wide laps at the top. The

bottom edge of the first plank overlaps the starter strip.

C. Allow minimum vertical clearance between the edge of siding and any other material in strict accordance with the manufacturer's installation instructions.

D. Align vertical joints of the planks over framing members.

E. Butt joints must not fall within 4 inches (102 mm) of a stud. Do not nail within 2 inches (51 mm) of the end of planks.

F. Maintain clearance between siding and adjacent finished grade.

G. Locate splices at least one stud cavity away from window and door openings.

H. For proper fastener selection and fastening schedules for various wind load requirements and framing options, refer to the Technical Data Sheet at www.aspyredesign.com.

I. Face nail to sheathing.

J. Locate splices at least 12 inches (305 mm) away from window and door openings.

3.4 INSTALLATION - HARDIEPANEL HZ10 VERTICAL SIDING

A. Install materials in strict accordance with manufacturer's installation instructions.

B. Install metal Z flashing and provide a 1/4 inch (6 mm) gap at horizontal panel joints.

C. Place fasteners no closer than 3/8 inch (9.5 mm) from panel edges and 2 inches (51 mm) from panel corners.

D. Allow minimum vertical clearance between the edge of siding and any other material in strict accordance with the manufacturer's installation instructions.

E. Maintain clearance between siding and adjacent finished grade.

F. Specific framing and fastener requirements refer to Tables 2 and 3 in National Evaluation Service Report No. NER-405.

G. Factory Finish Touch Up: Apply touch up paint to cut edges in accordance with manufacturer's printed instructions.
   1. Touch-up nicks, scrapes, and nail heads in pre-finished siding using the manufacturer's touch-up kit pen.
   2. Touch-up of nails shall be performed after application, but before plastic protection wrap is removed to prevent spotting of touch-up finish.
   3. Use touch-up paint sparingly. If large areas require touch-up, replace the damaged area with new pre-finished siding. Match touch up color to siding color through use of manufacturer's branded touch-up kits.

3.5 INSTALLATION - HARDIE ARCHITECTURAL PANELS

A. Install materials in strict accordance with manufacturer's installation instructions.

B. Install over braced wood. See General Fastening Requirements. Irregularities in framing and sheathing can mirror through the finished application. Correct irregularities before installing siding.

C. A water-resistive barrier (WRB) is required in accordance with local building code requirements. The water-resistive barrier must be appropriately installed with penetration

and junction flashing in accordance with local building code requirements. James Hardie will assume no responsibility for water infiltration. James Hardie does manufacture HardieWrap Weather Barrier, a non-woven non-perforated housewrap, which complies with building code requirements.

D. When installing horizontally, a WRB with min. 90 percent drainage efficiency shall be used.

E. Adjacent finished grade must slope away from the building in accordance with local building codes - typically a minimum of 6 in. in the first 10 ft.

F. Do not use Hardie Architectural Panels in Fascia or Trim applications.

G. Do not install that product remains in contact with standing water.

H. Installed on flat vertical wall applications only.

I. For larger projects where the span of the wall is significant in length, the designer and/or architect should take into consideration the coefficient of thermal expansion and moisture movement of the product in their design. These values can be found in the Technical Bulletin "Expansion Characteristics of James Hardie Siding Products" at www.jameshardie.com.

J. James Hardie Building Products provides installation /wind load information for buildings with a maximum mean roof height of 85 feet. For information on installations above 60 feet, please contact JH technical support.

K. Minimum standard panel design size is 12 x 16 inches (). Panels may be notched and cut to size to fit between windows, doors, corners, etc.

3.6 INSTALLATION - HARDIESOFFIT HZ10 AND VENTED PANELS

A. Install materials in strict accordance with manufacturer's installation instructions.
   1. Panels may be installed as soffit or ceiling over wood or steel framing; 20 gauge (33 mils) minimum to 16 gauge (54 mils), complying with local building code. Install soffits to nominal 2 x 4 framing members spaced a maximum of 24 inches (610 mm) on center with the long dimension perpendicular to the rafter or joist framing.
   2. Support edges by framing.
   3. Install water barriers and air barriers as required by local building codes.
   4. Ensure gutters have end caps. Maintain a minimum 1 inch (25 mm) gap between end caps and siding and trim.
   5. Install kickout flashing at roof-wall junctions per manufacturer's instructions.
   6. Additional framing may be needed to ensure proper fastening.
   7. Position vent holes toward outside of eave for optimal airflow.
   8. Vents can be installed into non-vented soffit.
   9. Insect screen can be installed using construction adhesive.
   10. Fastener Positioning: Position fasteners 3/8 inches (9.5 mm) from panel edges and no closer than 2 inches (51 mm) away from corners when using soffit greater than 12 inch (305 mm) wide and no closer than 1 inch (25 mm) away from corners when using soffit that is less than or equal to 12 inch (305 mm) wide.
   11. Jointing Methods: Install panels in moderate contact at ends, provide PVC or metal jointers, battens or leave appropriate gap and caulk.
   12. Drive fasteners perpendicular to siding and framing.
   13. Fastener heads should fit snug against siding; no air space.

3.7 INSTALLATION - HARDIE HZ10 SHINGLESIDE CLADDING

A. Install materials in strict accordance with manufacturer's installation instructions.

B. Substrate: Install a minimum 7/16 inch (11 mm) thick OSB wall sheathing or equivalent

braced walls complying with applicable building codes.

C. Starting: Install a minimum 1/4 inch (6 mm) thick lath starter strip at the bottom course of the wall.

D. Maintain clearance between siding and adjacent finished grade.

E. Apply starter course of 10 inches (254 mm) shingles or 9-1/2 inches (241 mm) lap siding overlapping the starter strip.

F. Apply subsequent courses horizontally with a minimum 10 inch overlap at the top and a minimum 2 inch (51 mm) side lap. The bottom edge of the first two courses overlaps the starter strip.

G. Fasten between 1/2 inch (13 mm) and 1 inch (25 mm) in from the side edge and between 8-1/2 inches (216 mm) and 9 inches (229 mm) up from the shingle bottom edge.

H. Allow minimum vertical clearance between the edge of siding and any other material in strict accordance with the manufacturer's installation instructions.

I. Ensure vertical joints of overlapping shingle course do not align.

J. Wind Resistance: Where a specified level of wind resistance is required, Hardie Shingle siding is installed to substrate and secured with a minimum two fasteners described in Table No. 6, 7 and 8 in National Evaluation Service Report No. NER-405.

3.8 INSTALLATION - HARDIETRIM HZ10 BOARDS

A. Install materials in strict accordance with manufacturer's installation instructions. Install flashing around all wall openings.

B. Fasten through trim into structural framing or code complying sheathing. Fasteners must penetrate minimum 3/4 inch (19 mm) or full thickness of sheathing. Additional fasteners may be required to ensure adequate security.

C. Place fasteners no closer than 3/4 inch (19 mm) and no further than 2 inches (51 mm) from side edge of trim board and no closer than 1 inch (25 mm) from end. Fasten maximum 16 inches (406 mm) on center.

D. Maintain clearance between trim and adjacent finished grade.

E. Trim inside corner with a single board trim both side of corner.

F. Outside Corner Board Attach Trim on both sides of corner with 16 gage corrosion resistant finish nail 1/2 inch (13 mm) from edge spaced 16 inches (406 mm) apart, weather cut each end spaced minimum 12 inches (305 mm) apart.

G. Allow 1/8 inch gap between trim and siding.

H. Seal gap with high quality, paint-able caulk.

I. Shim frieze board as required to align with corner trim..

J. Fasten through overlapping boards. Do not nail between lap joints.

K. Overlay siding with single board of outside corner board then align second corner board to outside edge of first corner board. Do not fasten HardieTrim boards to HardieTrim boards.

L. Shim frieze board as required to align with corner trim.

M. Install HardieTrim Fascia boards to rafter tails or to sub fascia.

3.9 FINISHING

A. Finish unprimed siding with a minimum one coat high quality, alkali resistant primer and one coat of either, 100 percent acrylic or latex or oil based, exterior grade topcoats or two coats high quality alkali resistant 100 percent acrylic or latex, exterior grade topcoat within 90 days of installation. Follow paint manufacturer's written product recommendation and written application instructions.

B. Finish factory primed siding with a minimum of one coat of high quality 100 percent acrylic or latex or oil based exterior grade paint within 180 days of installation. Follow paint manufacturer's written product recommendation and written application instructions.

3.10 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

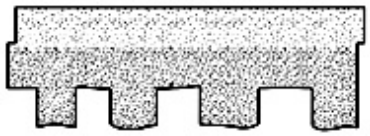
END OF SECTION

Technical Data Sheet

Presidential® Shake® & Presidential® Shake® TL Shingles

PRODUCT INFORMATION

Presidential® Shake® TL, with its sculpted rustic edges, is constructed using three laminated layers of the industry's strongest, most durable materials, making it one of the thickest, toughest and best looking shingles on the market. It has the beauty of a wood shake with less cost and better performance. It is designed to resist blow off in high wind conditions up to 110-mph with normal installation and 130-mph with special installation.



Presidential® Shake®, with its unique sculptured tab, provides the distinct styling, depth and dimension of wood shakes. It is constructed using two laminated layers of the industry's strongest, most durable roofing materials. It is designed to resist blow off in high wind conditions up to 110-mph with normal installation and 130-mph with special installation.

Presidential Shake TL AR (Algae Resistant) and **Presidential Shake AR** (Algae Resistant) shingles help protect against staining or discoloration caused by algae.

Colors: Please refer to the product brochure or CertainTeed website for the colors available in your region.

Limitations: It is recommended to apply these shingles at slopes of 4" per foot slope and greater in order to achieve optimum appearance. Low slope applications (2:12 to < 4:12) of Presidential TL shingles require CertainTeed's WinterGuard® Waterproofing Shingle Underlayment, or its equivalent meeting ASTM D1970, be applied to the entire deck surface, according to application instructions provided with the product and on the shingle package. For low slope applications of Presidential Shake shingles apply CertainTeed WinterGuard Waterproofing Shingle Underlayment or its equivalent, or two layers of 36" wide felt shingle underlayment (product meeting ASTM D226, D4869 or ASTM D6757) lapped 19", over entire deck according to the application instructions provided with the product. In areas where icing along the eaves can cause the back-up of water (all slopes), apply WinterGuard, or its equivalent, according to application instructions provided with the product and on the shingle package.

On slopes greater than 21" per foot, use nine nails and apply spots of roofing cement under each shingle tab, according to application instructions provided with the product and the shingle package.

Product Composition: Presidential Shake TL and Presidential Shake shingles are composed of a fiber glass mat base. Ceramic-coated mineral granules are tightly embedded in carefully refined, water-resistant asphalt. The laminated pieces are firmly adhered in a special tough asphaltic cement. These fiber glass based shingles have self-sealing adhesive applied.

Applicable Standards:

ASTM D3018 Type 1
ASTM D3462
ASTM E108 Class A Fire Resistance
ASTM D3161 Class F Wind Resistance
ASTM D7158 Class H Wind Resistance
UL 790 Class A Fire Resistance
ICC-ES ESR-1389 & ESR-3537
CSA Standard A123.5
CAN/ULC S107 Class A Fire Resistance
Miami-Dade County Product Control Approved
(Pres Shake – all plants)
(Pres Shake TL – Shakopee only)
Florida Product Approval # FL5444
Meets TDI Windstorm Requirements

Technical Data:	**Presidential Shake**	**Presidential Shake TL**
Weight/Square (approx.):	350 lb.	468 lb.
Dimensions (overall):	14 1/4" x 40"	14 1/4" x 40"
Shingles/Square:	90	90
Weather Exposure:	4”	4”

INSTALLATION

Detailed installation instructions are supplied on each bundle of Presidential Shake and Presidential Shake TL shingles and must be followed. Separate application sheets may also be obtained from CertainTeed.

IMPORTANT NOTE - Presidential Starter or an approved alternative starter system must be used for the two-layered starter course.

Hips and Ridges: For a complementary color, use Cedar Crest® or CertainTeed’s enhanced high profile accessory shingle, Mountain Ridge®, shingles of a like color for capping the hips and ridges.

MAINTENANCE

Presidential Shake TL and Presidential Shake shingles require virtually no maintenance when installed according to manufacturer's application instructions. However, to protect the investment, any roof should be routinely inspected at least once a year. Older roofs should be looked at more frequently.

WARRANTY

Presidential Shake and Presidential Shake TL carry a lifetime limited transferable warranty against manufacturing defects for the original homeowner when applied to stated CertainTeed application instructions. In addition, both Presidential Shake TL and Presidential Shake shingles also carry 10-years of SureStart™ Protection. Presidential AR and Presidential TL AR shingles carry a 15-year algae resistance warranty. For specific warranty details and limitations, refer to the warranty itself (available from the local supplier, roofing contractor or on-line at www.certainteed.com).

TECHNICAL SUPPORT

Technical Service Department: 1-800-345-1145
e-mail: RPG.T.Services@saint-gobain.com

FOR MORE INFORMATION

Customer Experience Team: 800-233-8990
e-mail: gethelp@saint-gobain.com
Web site: www.certainteed.com
See us at our on-line specification writing tool, CertaSpec, at www.certainteed.com/certaspec

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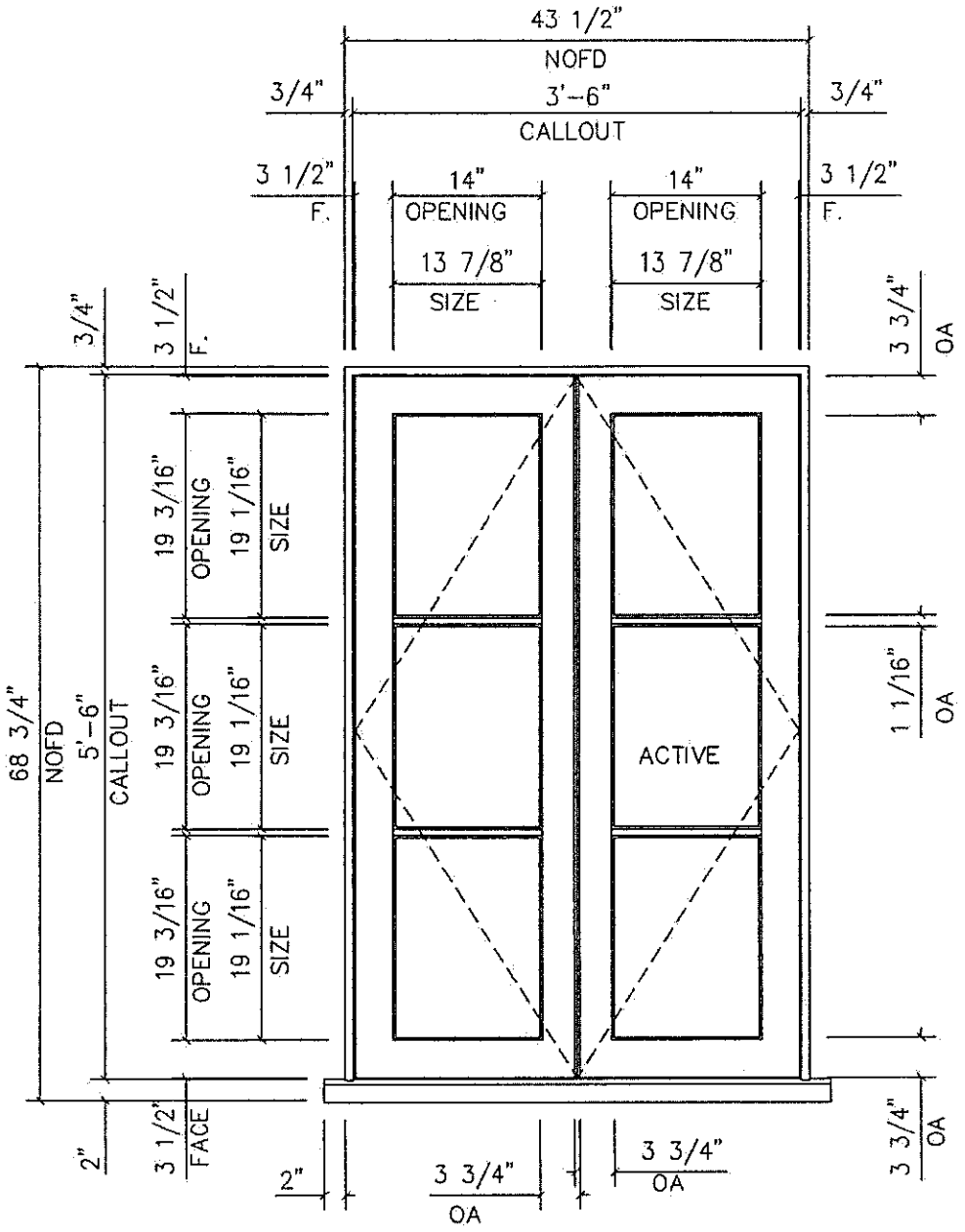

3 HINGES PER SASH

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Approved By:	Date Approved:	Scale: 3/4" = 1'-0"	W-61
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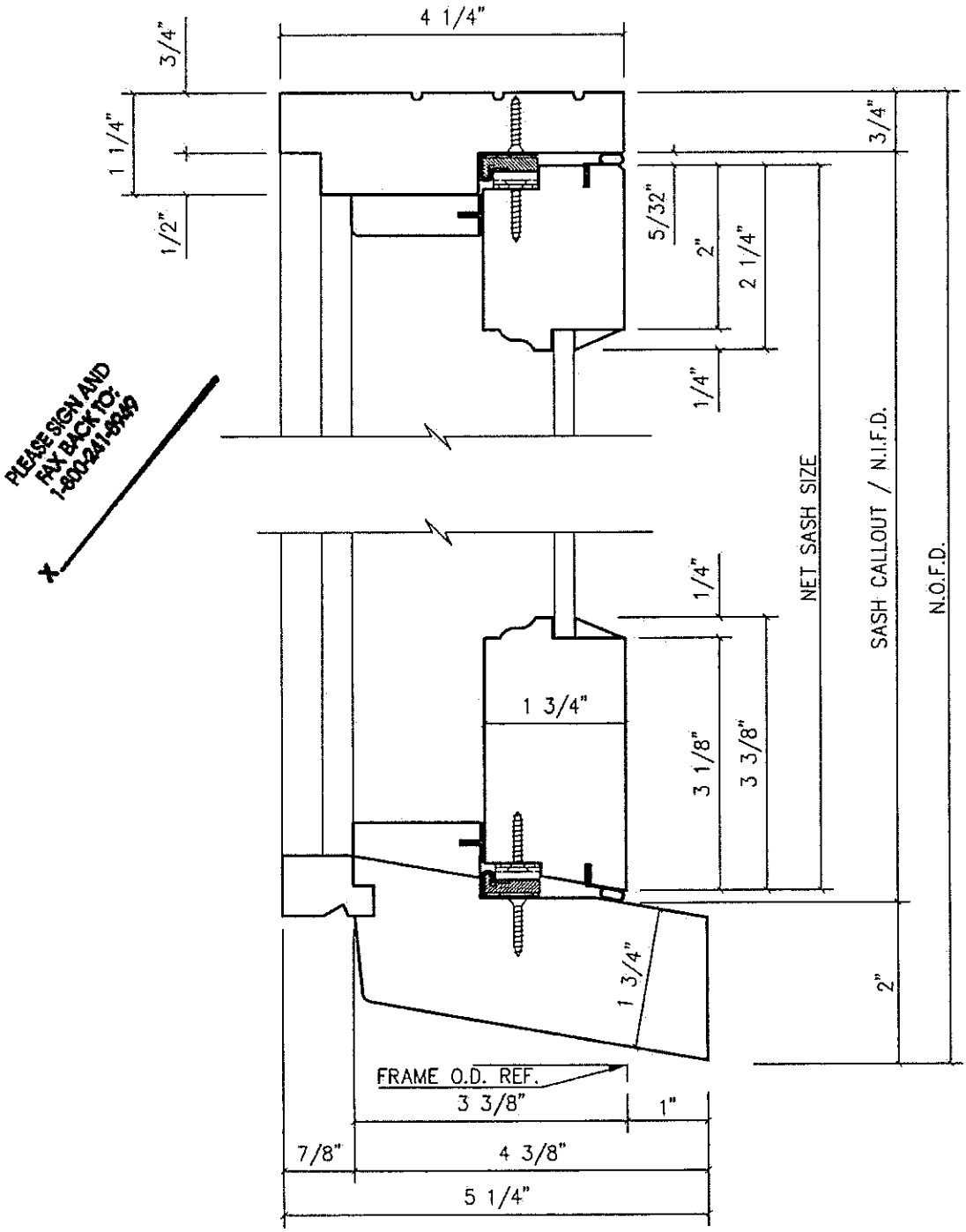

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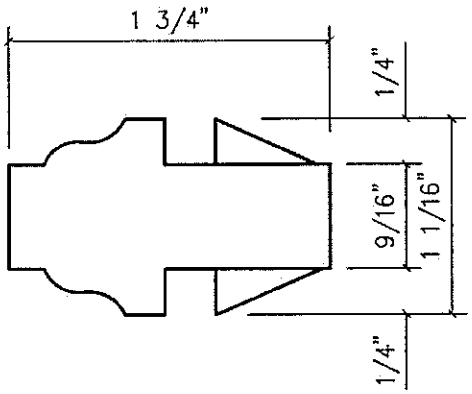

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