HISTORIC AND DESIGN REVIEW COMMISSION

December 05, 2018

HDRC CASE NO:	**2018-315**
ADDRESS:	208 SHERMAN ST
LEGAL DESCRIPTION:	NCB 512 BLK 25 E 24.5 FT OF W 81.5 FT OF 1 ARB A3
ZONING:	R-4 H
CITY COUNCIL DIST.:	2
DISTRICT:	Dignowity Hill Historic District
APPLICANT:	Jennifer Hansen
OWNER:	Jerry and Wilhelmina Hansen
TYPE OF WORK:	Construction of a 1-story single family structure
APPLICATION RECEIVED:	November 16, 2018
60-DAY REVIEW:	January 15, 2018

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval for the construction of a 1-story single family structure on the vacant lot addressed 208 Sherman St.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 4,Guidelines for New Construction

1. Building and Entrance Orientation
A. FAÇADE ORIENTATION
i. *Setbacks*—Align front facades of new buildings with front facades of adjacent buildings where a consistent setback has been established along the street frontage. Use the median setback of buildings along the street frontage where a variety of setbacks exist. Refer to UDC Article 3, Division 2. Base Zoning Districts for applicable setback requirements.
ii. *Orientation*—Orient the front façade of new buildings to be consistent with the predominant orientation of historic buildings along the street frontage.
B. ENTRANCES
i. *Orientation*—Orient primary building entrances, porches, and landings to be consistent with those historically found along the street frontage. Typically, historic building entrances are oriented towards the primary street.

2. Building Massing and Form
A. SCALE AND MASS
i. *Similar height and scale*—Design new construction so that its height and overall scale are consistent with nearby historic buildings. In residential districts, the height and scale of new construction should not exceed that of the majority of historic buildings by more than one-story. In commercial districts, building height shall conform to the established pattern. If there is no more than a 50% variation in the scale of buildings on the adjacent block faces, then the height of the new building shall not exceed the tallest building on the adjacent block face by more than 10%.
ii. *Transitions*—Utilize step-downs in building height , wall-plane offsets, and other variations in building massing to provide a visual transition when the height of new construction exceeds that of adjacent historic buildings by more than one-half story.
iii. *Foundation and floor heights*—Align foundation and floor-to-floor heights (including porches and balconies) within one foot of floor-to-floor heights on adjacent historic structures.
B. ROOF FORM
i. *Similar roof forms*—Incorporate roof forms—pitch, overhangs, and orientation—that are consistent with those predominantly found on the block. Roof forms on residential building types are typically sloped, while roof forms on non-residential building types are more typically flat and screened by an ornamental parapet wall.
C. RELATIONSHIP OF SOLIDS TO VOIDS
i. *Window and door openings*—Incorporate window and door openings with a similar proportion of wall to window space as typical with nearby historic facades. Windows, doors, porches, entryways, dormers, bays, and pediments shall be considered similar if they are no larger than 25% in size and vary no more than 10% in height to width ratio from adjacent historic facades.

ii. *Façade configuration*— The primary façade of new commercial buildings should be in keeping with established patterns. Maintaining horizontal elements within adjacent cap, middle, and base precedents will establish a consistent street wall through the alignment of horizontal parts. Avoid blank walls, particularly on elevations visible from the street. No new façade should exceed 40 linear feet without being penetrated by windows, entryways, or other defined bays.
D. LOT COVERAGE
i. *Building to lot ratio*— New construction should be consistent with adjacent historic buildings in terms of the building to lot ratio. Limit the building footprint for new construction to no more than 50 percent of the total lot area, unless adjacent historic buildings establish a precedent with a greater building to lot ratio.

3. Materials and Textures
A. NEW MATERIALS
i. *Complementary materials*—Use materials that complement the type, color, and texture of materials traditionally found in the district. Materials should not be so dissimilar as to distract from the historic interpretation of the district. For example, corrugated metal siding would not be appropriate for a new structure in a district comprised of homes with wood siding.
ii. *Alternative use of traditional materials*—Consider using traditional materials, such as wood siding, in a new way to provide visual interest in new construction while still ensuring compatibility.
iii. *Roof material*s—Select roof materials that are similar in terms of form, color, and texture to traditionally used in the district.
iv. *Metal roofs*—Construct new metal roofs in a similar fashion as historic metal roofs. Refer to the Guidelines for Alterations and Maintenance section for additional specifications regarding metal roofs.
v. *Imitation or synthetic materials*—Do not use vinyl siding, plastic, or corrugated metal sheeting. Contemporary materials not traditionally used in the district, such as brick or simulated stone veneer and Hardie Board or other fiberboard siding, may be appropriate for new construction in some locations as long as new materials are visually similar to the traditional material in dimension, finish, and texture. EIFS is not recommended as a substitute for actual stucco.
B. REUSE OF HISTORIC MATERIALS
Salvaged materials—Incorporate salvaged historic materials where possible within the context of the overall design of the new structure.

4. Architectural Details
A. GENERAL
i. *Historic context*—Design new buildings to reflect their time while respecting the historic context. While new construction should not attempt to mirror or replicate historic features, new structures should not be so dissimilar as to distract from or diminish the historic interpretation of the district.
ii. *Architectural details*—Incorporate architectural details that are in keeping with the predominant architectural style along the block face or within the district when one exists. Details should be simple in design and should complement, but not visually compete with, the character of the adjacent historic structures or other historic structures within the district. Architectural details that are more ornate or elaborate than those found within the district are inappropriate.
iii. *Contemporary interpretations*—Consider integrating contemporary interpretations of traditional designs and details for new construction. Use of contemporary window moldings and door surroundings, for example, can provide visual interest while helping to convey the fact that the structure is new. Modern materials should be implemented in a way that does not distract from the historic structure.

5. Garages and Outbuildings
A. DESIGN AND CHARACTER
i. *Massing and form*—Design new garages and outbuildings to be visually subordinate to the principal historic structure in terms of their height, massing, and form.
ii. *Building size* – New outbuildings should be no larger in plan than 40 percent of the principal historic structure footprint.
iii. *Character*—Relate new garages and outbuildings to the period of construction of the principal building on the lot through the use of complementary materials and simplified architectural details.
iv. *Windows and doors*—Design window and door openings to be similar to those found on historic garages or outbuildings in the district or on the principle historic structure in terms of their spacing and proportions.
v. *Garage doors*—Incorporate garage doors with similar proportions and materials as those traditionally found in the district.
B. SETBACKS AND ORIENTATION

i. *Orientation*—Match the predominant garage orientation found along the block. Do not introduce front-loaded garages or garages attached to the primary structure on blocks where rear or alley-loaded garages were historically used.
ii. *Setbacks*—Follow historic setback pattern of similar structures along the streetscape or district for new garages and outbuildings. Historic garages and outbuildings are most typically located at the rear of the lot, behind the principal building. In some instances, historic setbacks are not consistent with UDC requirements and a variance may be required.

6. Mechanical Equipment and Roof Appurtenances
A. LOCATION AND SITING
i. *Visibility*—Do not locate utility boxes, air conditioners, rooftop mechanical equipment, skylights, satellite dishes, and other roof appurtenances on primary facades, front-facing roof slopes, in front yards, or in other locations that are clearly visible from the public right-of-way.
ii. *Service Areas*—Locate service areas towards the rear of the site to minimize visibility from the public right-of-way.
B. SCREENING
i. *Building-mounted equipment*—Paint devices mounted on secondary facades and other exposed hardware, frames, and piping to match the color scheme of the primary structure or screen them with landscaping.
ii. *Freestanding equipment*—Screen service areas, air conditioning units, and other mechanical equipment from public view using a fence, hedge, or other enclosure.
iii. *Roof-mounted equipment*—Screen and set back devices mounted on the roof to avoid view from public right-of-way.

7. Designing for Energy Efficiency
A. BUILDING DESIGN
i. *Energy efficiency*—Design additions and new construction to maximize energy efficiency.
ii. *Materials*—Utilize green building materials, such as recycled, locally-sourced, and low maintenance materials whenever possible.
iii. *Building elements*—Incorporate building features that allow for natural environmental control – such as operable windows for cross ventilation.
iv. *Roof slopes*—Orient roof slopes to maximize solar access for the installation of future solar collectors where compatible with typical roof slopes and orientations found in the surrounding historic district.
B. SITE DESIGN
i. *Building orientation*—Orient new buildings and additions with consideration for solar and wind exposure in all seasons to the extent possible within the context of the surrounding district.
ii. *Solar access*—Avoid or minimize the impact of new construction on solar access for adjoining properties.
C. SOLAR COLLECTORS
i. *Location*—Locate solar collectors on side or rear roof pitch of the primary historic structure to the maximum extent feasible to minimize visibility from the public right-of-way while maximizing solar access. Alternatively, locate solar collectors on a garage or outbuilding or consider a ground-mount system where solar access to the primary structure is limited.
ii. *Mounting (sloped roof surfaces)*—Mount solar collectors flush with the surface of a sloped roof. Select collectors that are similar in color to the roof surface to reduce visibility.
iii. *Mounting (flat roof surfaces)*—Mount solar collectors flush with the surface of a flat roof to the maximum extent feasible. Where solar access limitations preclude a flush mount, locate panels towards the rear of the roof where visibility from the public right-of-way will be minimized.

OHP Window Policy Document
Windows used in new construction should:
- Maintain traditional dimensions and profiles;
- Be recessed within the window frame. Windows with a nailing strip are not recommended;
- Feature traditional materials or appearance. Wood windows are most appropriate. Double-hung, block frame windows that feature alternative materials may be considered on a case-by-case basis;
- Feature traditional trim and sill details. Paired windows should be separated by a wood mullion. The use of low-e glass is appropriate in new construction provided that hue and reflectivity are not drastically different from regular glass.

FINDINGS:

a. The applicant is seeking final approval to construct a 1-story single family structure on the vacant lot addressed 208 Sherman. The lot sits between two historic shotgun structures constructed in approximately 1920. Originally, per Sanborn Maps and archival documents, the vacant lot featured a shotgun-style house similar in design and scale to those adjacent. The house was demolished in 1996. The streetscape to the east consists of 1-story single family structures designed with Craftsman, Queen Anne, or Folk Victorian style influences. The residential context of the south side of the block remains relatively intact. Sherman is the northernmost border of the Dignowity Hill Historic District and the northern side of the street contains heavy industrial buildings and surface parking.
b. The applicant received conceptual approval from the Historic and Design Review Commission (HDRC) on July 6, 2018. The approval carried the following stipulations:
    i. That the applicant submits a site plan indicating the exact location of the proposed structure relative to property lines. The site plan should indicate all setbacks and confirm the front setbacks of the neighboring structures on the block. The proposed new construction must have a greater setback than the adjacent structures; **this stipulation has been met.**
    ii. That the applicant utilizes a concrete foundation and porch as noted in finding e. The height of the foundation and porch should be consistent with historic structures on the block; **the applicant has proposed an alternative foundation skirting that is consistent with the Guidelines.**
    iii. That the applicant submits specifications for all materials to be used on the structure, including the Hardie plank and windows. Staff finds smooth Hardie siding with a maximum reveal of 6" to be appropriate. Staff finds wood windows to be appropriate that comply with the following stipulations: meeting rails must be no taller than 1.25" and stiles no wider than 2.25". There should be a minimum of two inches in depth between the front face of the window trim and the front face of the top window sash. This must be accomplished by recessing the window sufficiently within the opening or with the installation of additional window trim to add thickness. Window trim must feature traditional dimensions and architecturally appropriate sill detail. Window track components must be painted to match the window trim or concealed by a wood window screen set within the opening; **this stipulation has been met.**
    iv. That the applicant submits a comprehensive hardscaping and landscaping plan for final approval that indicates all new pervious and impervious cover to be introduced on the lot; **this stipulation has been met.**
    v. That the drawings submitted for final approval are of a quality equal to 80% construction document completion; **this stipulation has been met.**
c. SETBACKS & ORIENTATION – According to the Historic Design Guidelines, the front facades of buildings are to align with front facades of adjacent buildings where a consistent setback has been established along the street frontage. Additionally, the orientation should be consistent with the historic example found on the block. The applicant has proposed to orient the structure to face Sherman, which is consistent with the development pattern found on the block. Based on the submitted conceptual site plan, the front setback is approximately 1 foot from the property line. While this setback is minimal relative to the development pattern of the district overall, the The applicant is to provide field measurements to confirm setbacks of adjacent structures and confirm the proposed setbacks. Staff finds the proposal generally consistent with the Guidelines with the stipulations listed in the recommendation.
d. SCALE & MASSING – Per the Historic Design Guidelines, a height and massing similar to historic structures in the vicinity of the proposed relocated structures should be used. This block of Sherman primarily features 1-story structures, most of which are residential in design. Staff finds the proposal consistent with the Guidelines.
e. LOT COVERAGE – According to the Historic Design Guidelines, building footprints should not cover more than fifty (50) percent of the size of total lot area. Historic shotgun structures on Sherman and in the vicinity significantly eclipse the 50% lot coverage figure due to the division of lot lines over time. Staff finds the lot coverage to be appropriate on this specific lot due to the historic development pattern and overall lot size restrictions.
f. MATERIALS & ARCHITECTURAL DETAILS – The proposed structure features Hardie plank siding with a 6" reveal that will also be utilized as foundation skirting, a gable roof with venting detail, overhanging eaves, and architectural details that are characteristic of 1920s and 1930s shotgun and Craftsman style architecture. The applicant will also utilize reclaimed one over one wood windows, wood doors, and wooden columns and railings. Per the Historic Design Guidelines, architectural details should be complementary in nature and should not detract from nearby historic structures. The applicant has also indicated that the proposed Hardie plank siding will also extend to the foundation skirting, which staff finds appropriate for the style of the structure and the foundation context along the block. Additionally, staff finds that siding with a 4" reveal would be most appropriate, but finds

that up to a 6" reveal acceptable given the historic use of dutch lap siding of that profile on structures on Sherman.

g. HARDSCAPING & LANDSCAPING – The applicant has not formally indicated any hardscaping to be introduced on site. No front curb cut exists on the property. According to the Historic Design Guidelines for Site Elements, driveways that are similar to the historic configuration found on site or in the district should be incorporated. According to Guideline 5.B.i, driveways similar in material find in the district should be used. Concrete driveways are characteristic of the Dignowity Hill Historic District. Additionally, no walkways or landscaping elements are indicated at this time. Staff finds that the applicant should submit an administrative or HDRC proposal for any added landscaping or hardscaping once construction has been completed.
h. MECHANICAL EQUIPMENT – Per the Guidelines, all mechanical equipment should be screened from view at the public right of way. The applicant is responsible for accommodating mechanical elements and screening them from the public right-of-way.

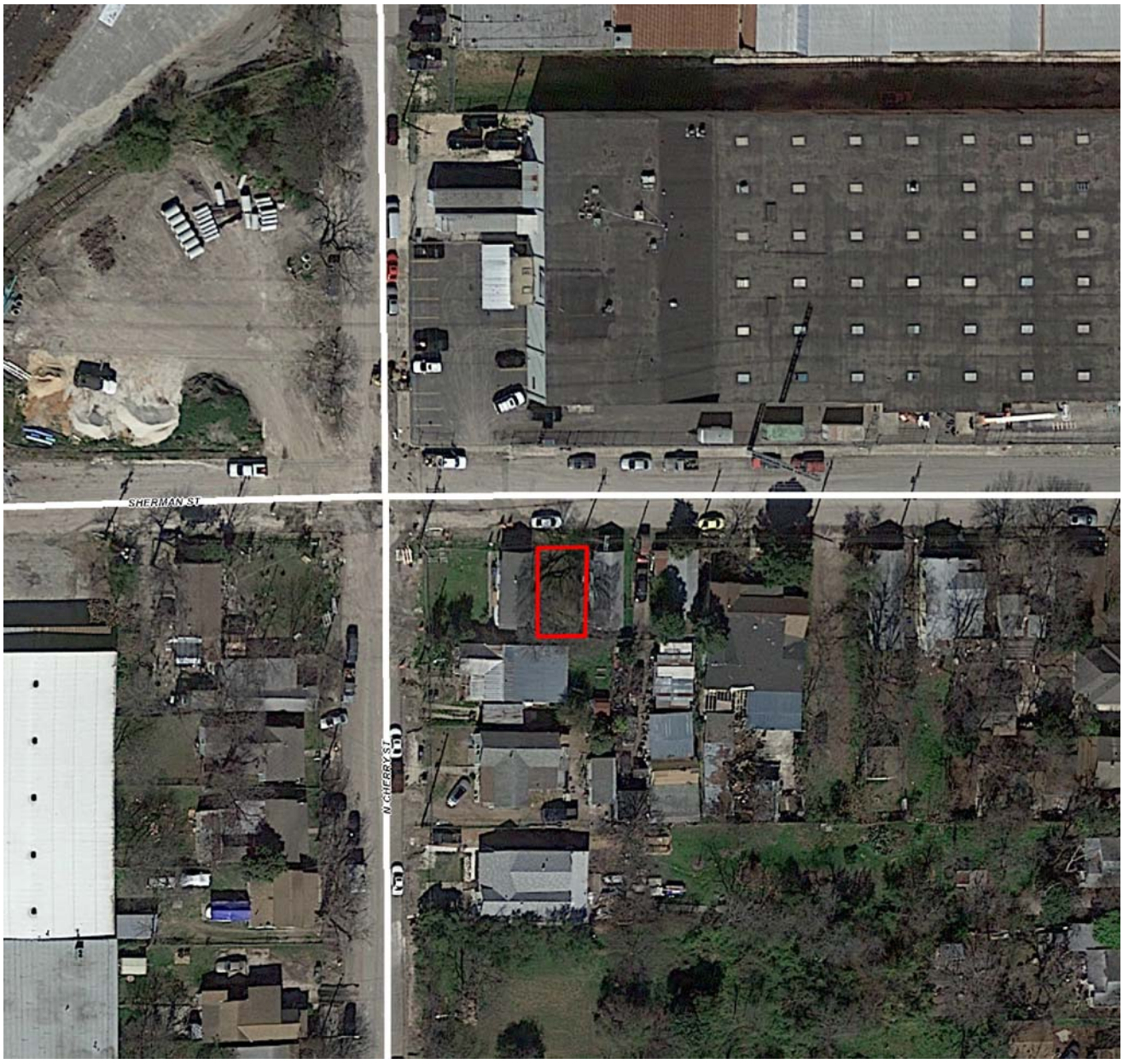
RECOMMENDATION:

Staff recommends final approval based on findings a through h with the following stipulations:

i. That the proposed Hardie Board siding be installed with the smooth side exposed with a maximum exposure of 6 inches.
ii. That the applicant obtains a variance from the Board of Adjustment, if applicable.

CASE MANAGER:

Stephanie Phillips



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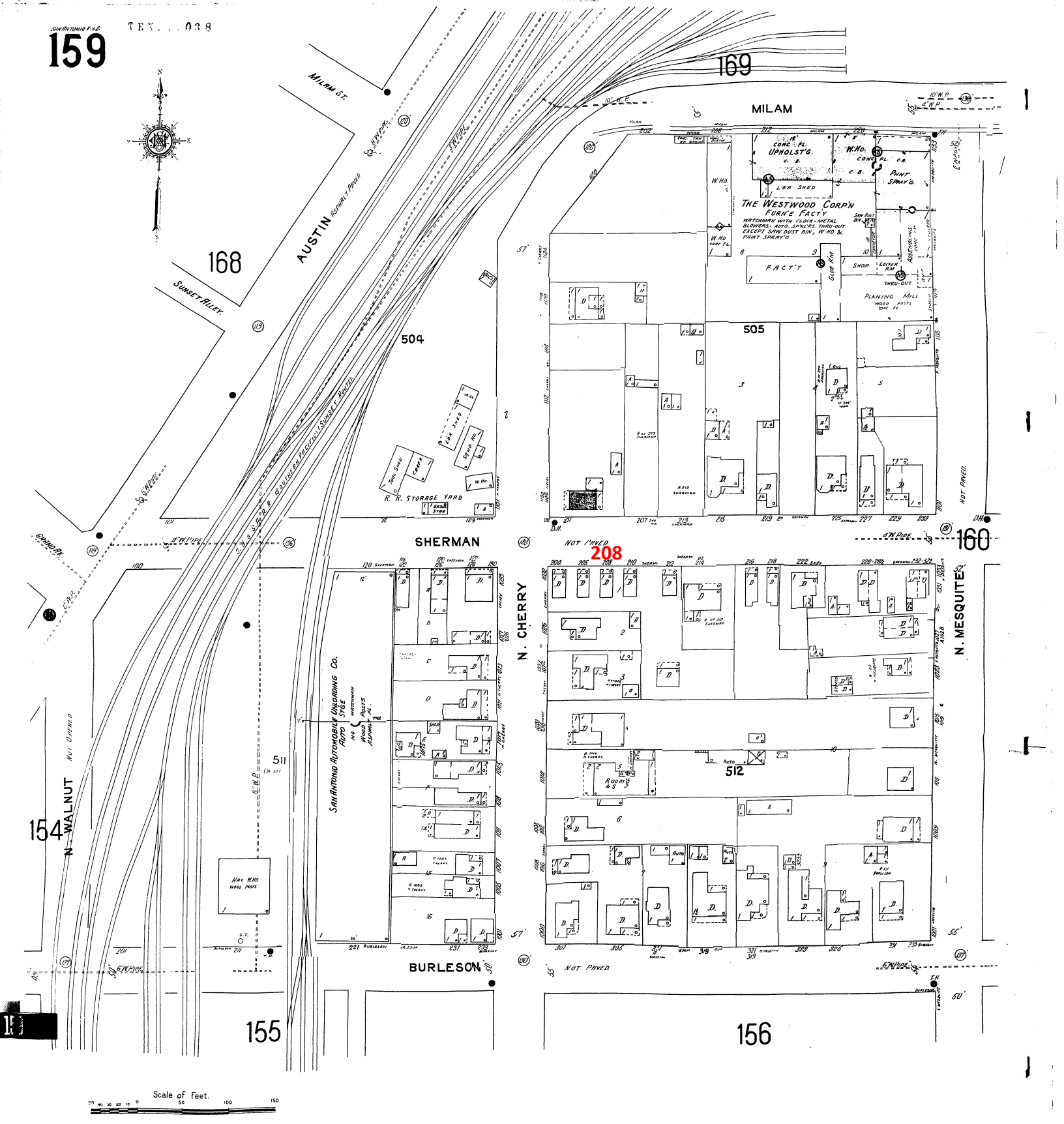
Flex Viewer

Powered by ArcGIS Server

Printed:Jun 25, 2018

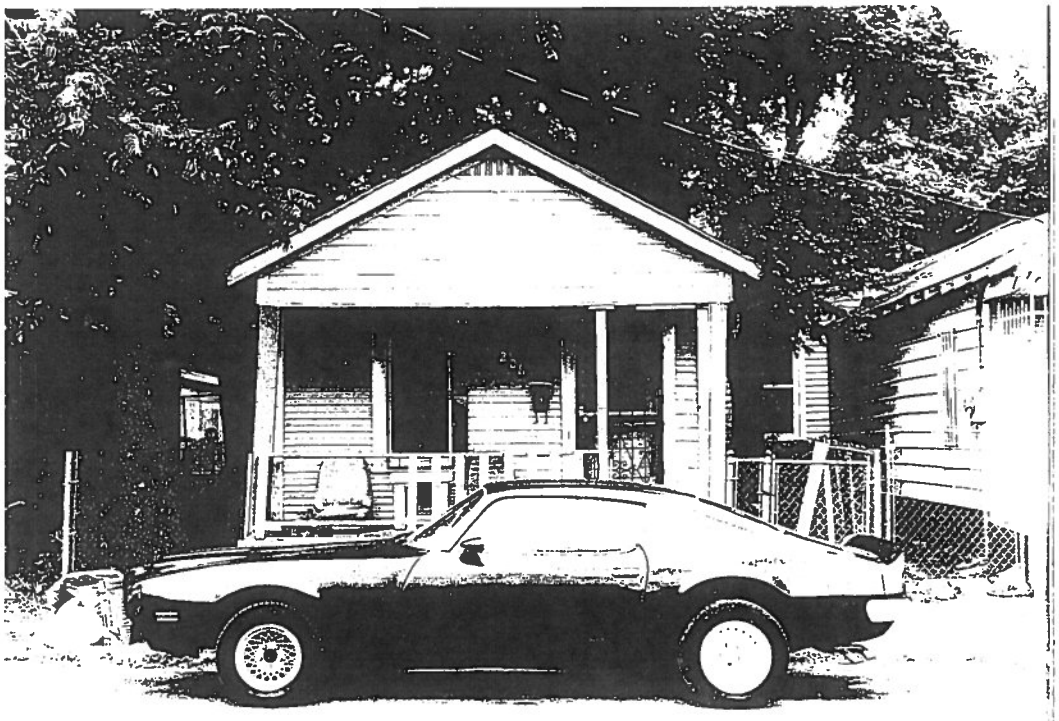

1102
Sherman
Google

SANBORN MAP 1911-1951



208 SHERMAN

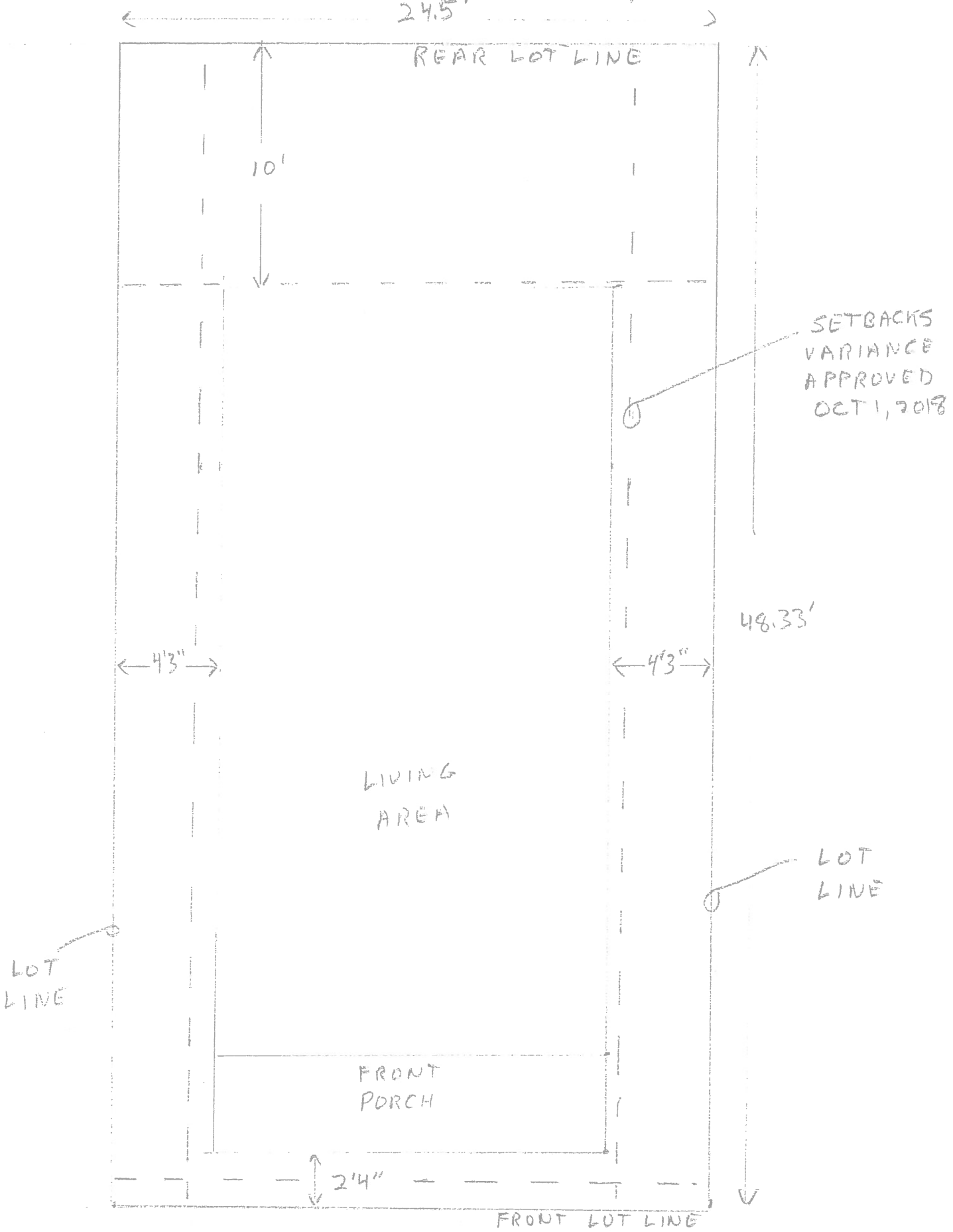
ORIGINAL HOUSE



Narrative: HDRC Case No. 2018-315, 208 Sherman St Nov 16, 2018

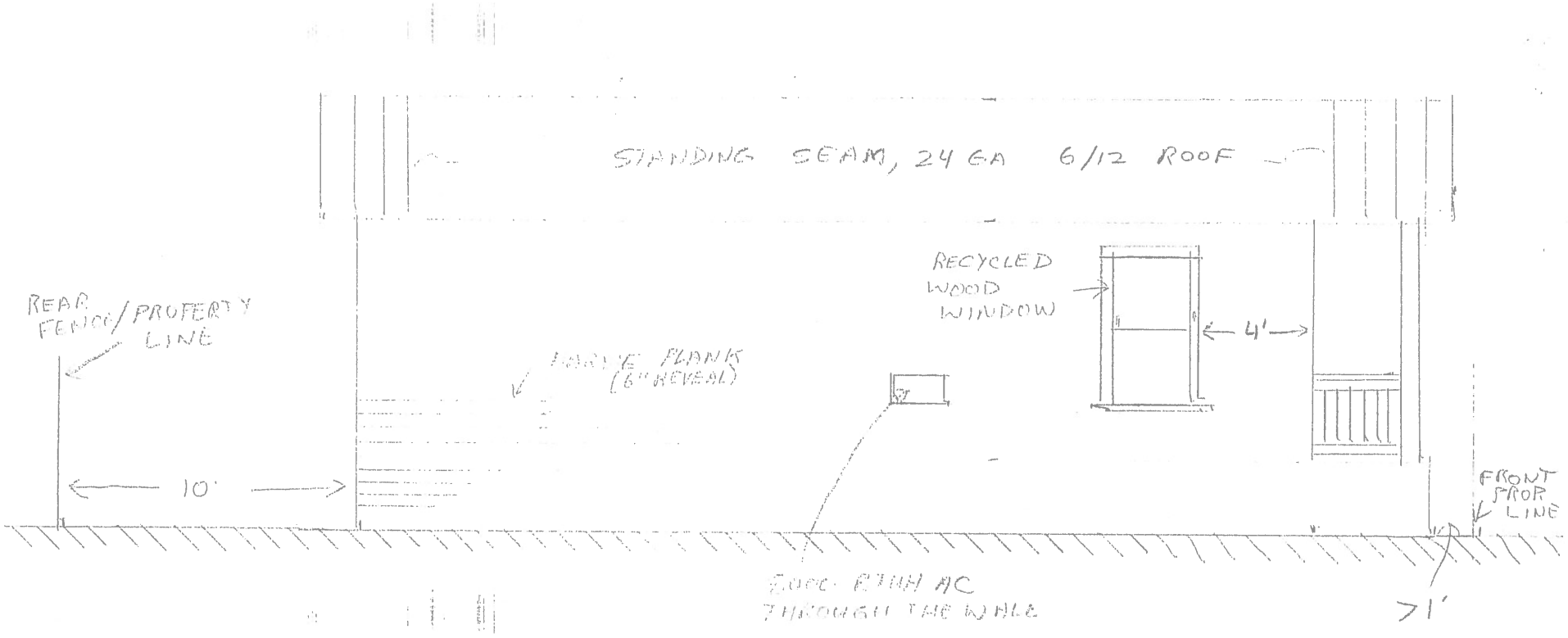
1. Conceptual approval has been granted for the construction of a 1-story single family structure on the vacant lot addressed 208 Sherman St. This narrative is in support of the request for final approval.
2. Our intention is to closely replicate the original structure that was on the site prior to 1996.
3. Materials:
    a. Siding: Smooth cement fiber Hardie siding with a 6 inch reveal. Crawl space skirting will also be enclosed with Hardie siding. Trim is proposed to be wood 1x4 for the exterior house edges, windows, and doors.
    b. Roofing: Metal, unpainted galvalume, 24 gage standing seam, with minimal roof ridge cap. The roofing panels will be formed on-site and have 20 inches between 1 ½ inch standing seams. The roof rafters will be 2x4 exposed at the lower ends approximately 1 foot beyond the walls. The gable ends will be with approximately 10 inches overhang. Roof decking will be 1x6 and 1x8 wood as available.
    c. Foundation: Concrete pier and beam, 8 inch diameter piers, with 2x2 ft. footings placed 24 inches below grade. Piers will be spaced approximately 6 feet apart on the sides of the house. Approximately 18 inch clearance between bottom of floor joists and ground surface. The flooring will be tounge and grove nominal 1 inch wood nailed to 2x10 floor joists which will result in a finished interior floor surface approximately 30 inches above ground surface.
    d. Porch: The porch will be over the crawl space. The joists and flooring in the porch area will be treated wood, the columns will be treated wood, approximately 5 inches square. The railing and balusters will be treated wood. The steps at the front and rear of the house will be prefab concrete. Brick walkways will be constructed at the front and rear of the house. The brick will be laid loose without any mortar on beds of 4 inch compacted limestone base.
    e. Windows: We propose to use recycled wood double hung windows with cast iron sash counter weights. Windows will be approximately 30 inches wide and 60-70 inches in height.
    f. Doors: We propose to use a recycled wood door for the front of the house. The rear door may be a standard insulated metal 9 light exterior door.
    g. Gable venting: The wood venting will be patterned after the venting on the neighboring houses.
    h. Landscaping: There is one large tree on the west side of the lot. We intend to retain this tree. Additionally, there is a native shrub in the rear west corner that will be retained.

EAST 24.5 FT OF THE WEST 81.5 FT OF LOT 1, BLOCK 25, NCB 512



208 SHERMAN SITE PLAN

3/16 = 1'

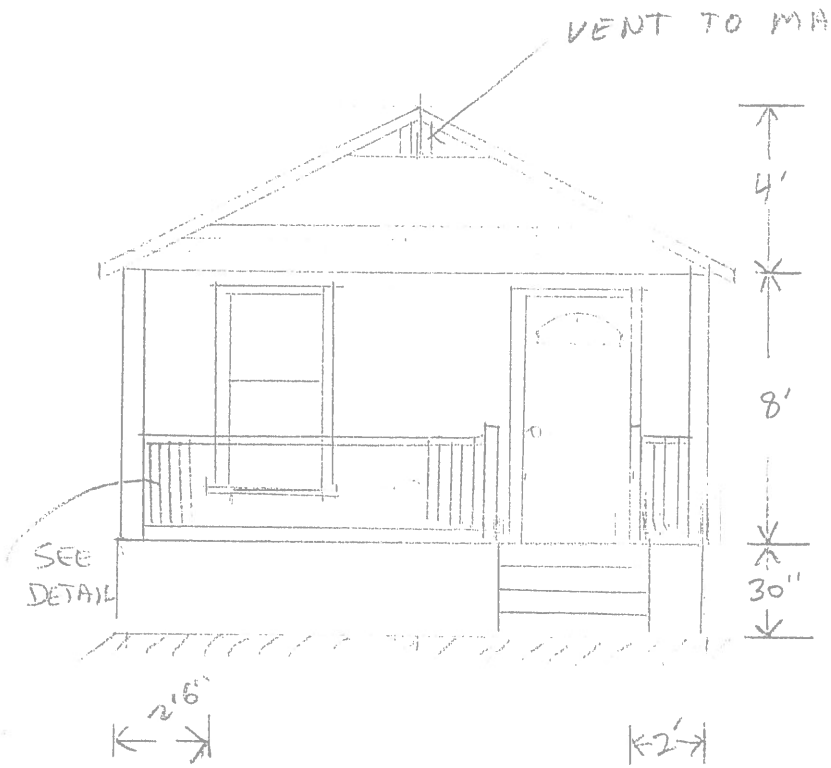


EAST SIDE VIEW - 208 SHERMAN

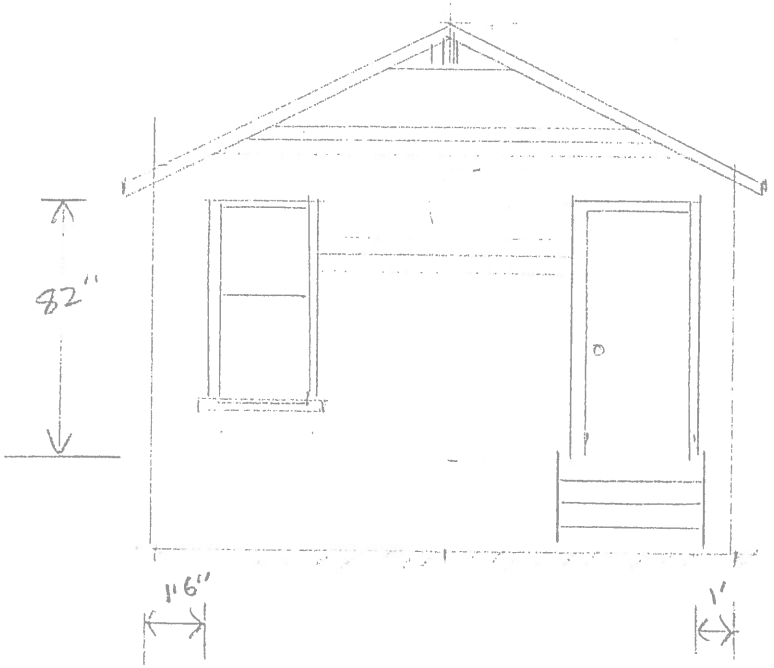
(WEST SIDE, SAME WITHOUT WINDOW)

3/16" = 1'

WINDOWS 30" W x 60" H
EXT DOORS 36" W

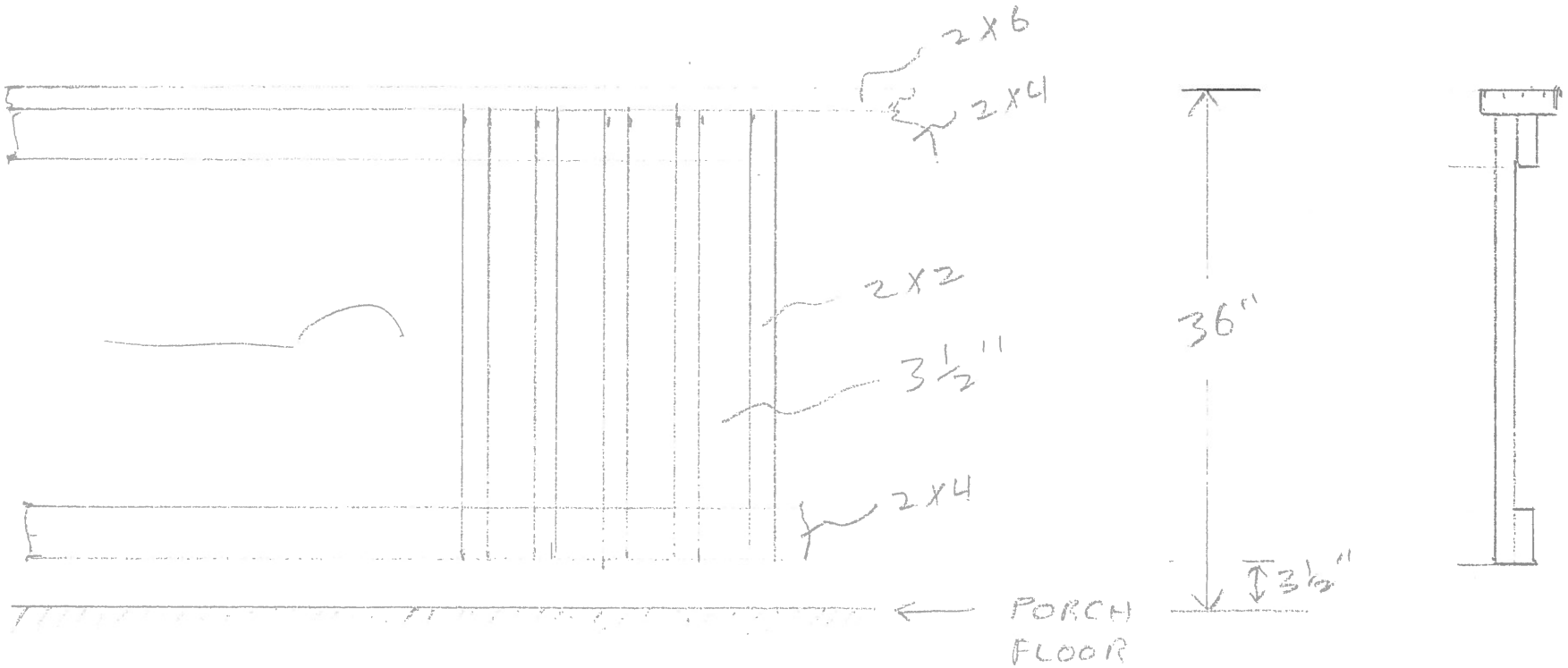


FRONT



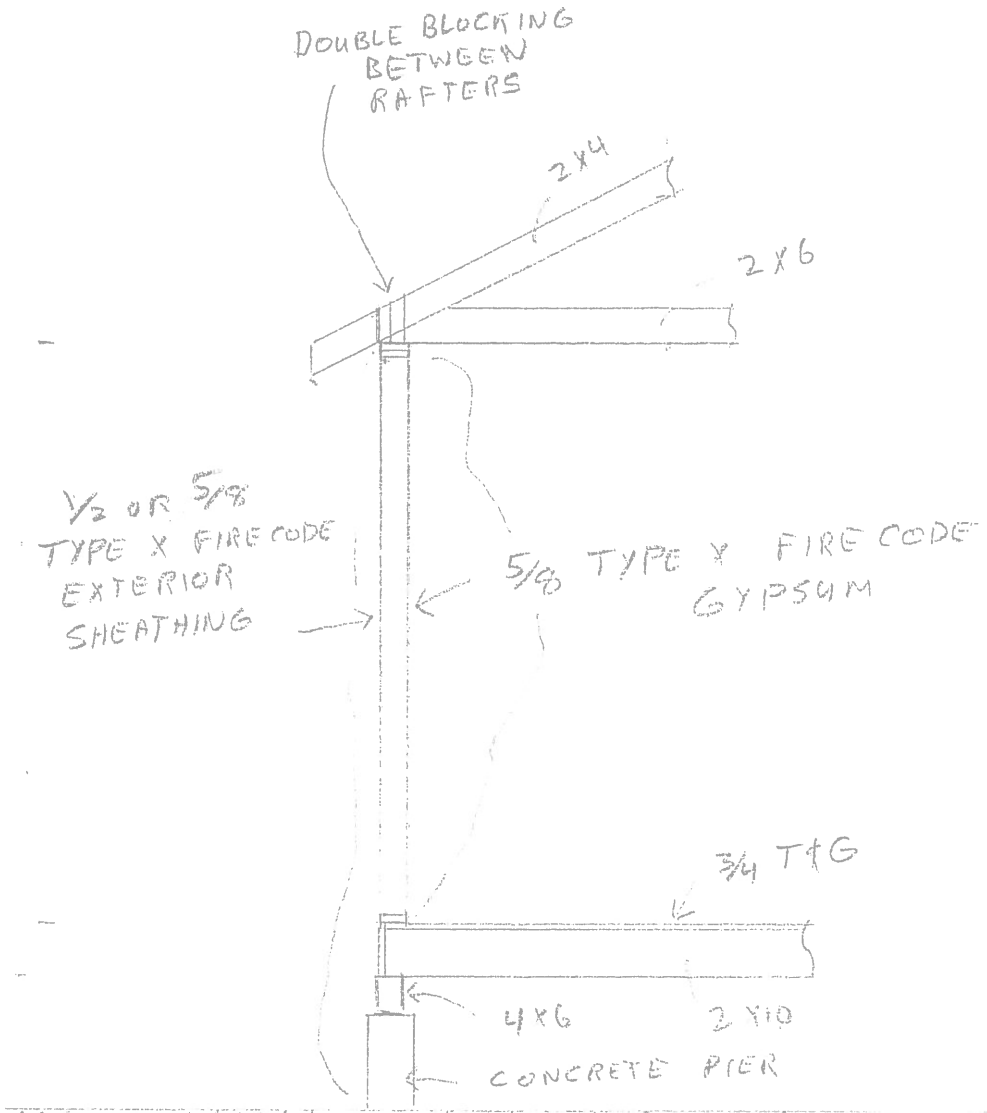
REAR

3/16" = 1'

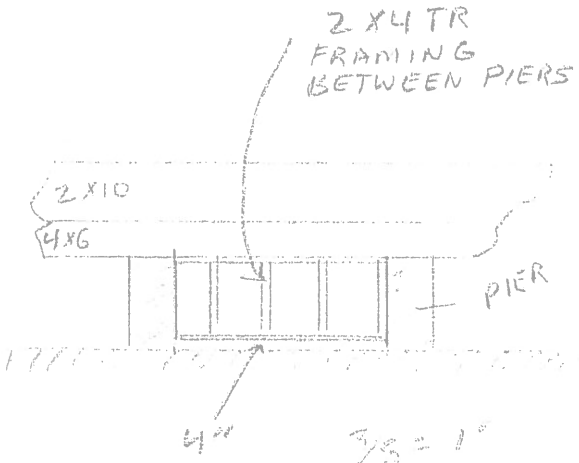


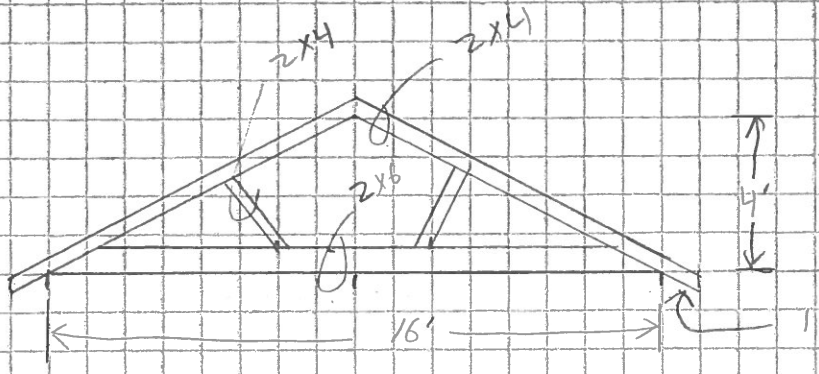
PORCH RAIL DETAIL (VIEW FROM STREET)

1" = 1'



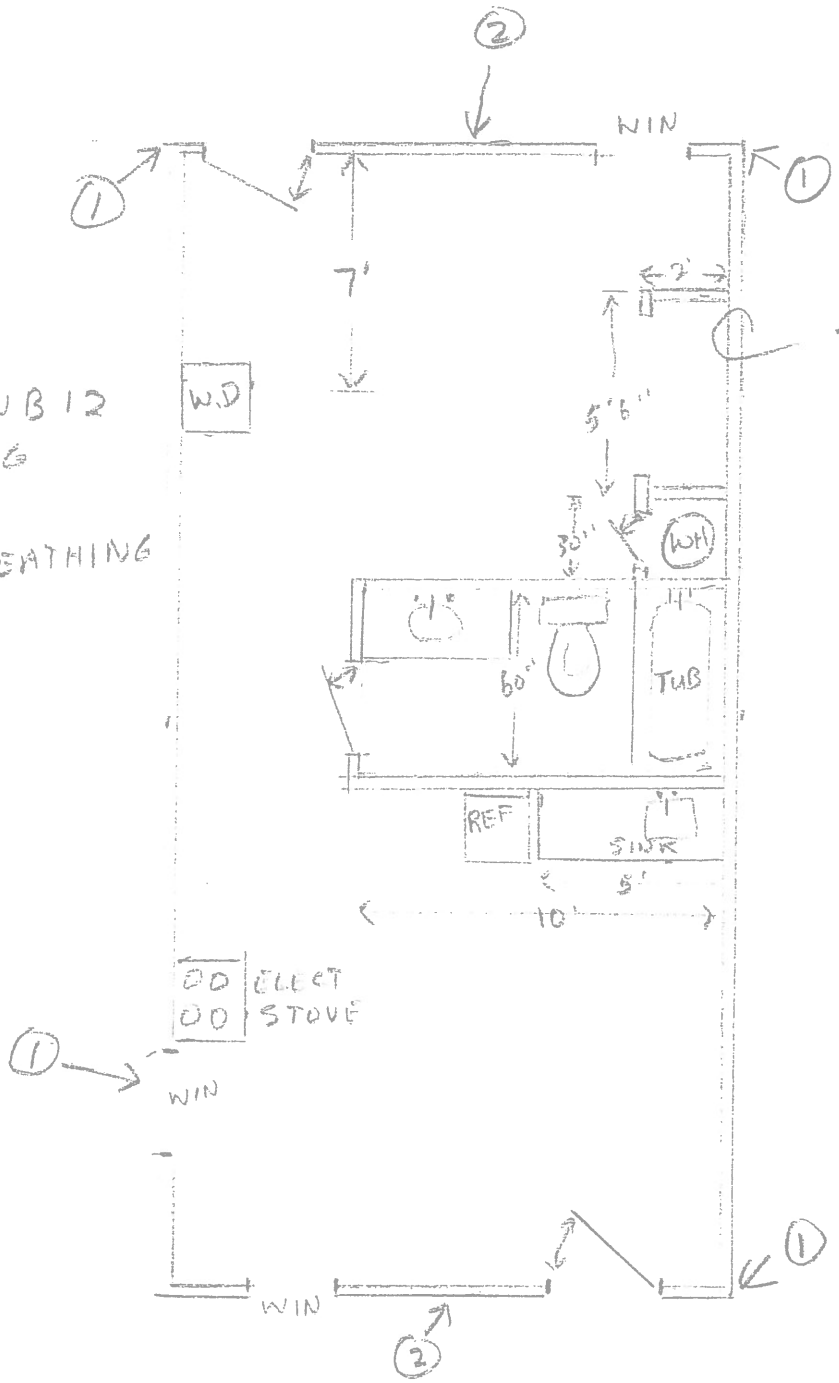
FIRE RATED WALLS





NAILED ON SITE

ROOF TRUSS



(1) SIMPSON TWB12 WALL BRACING

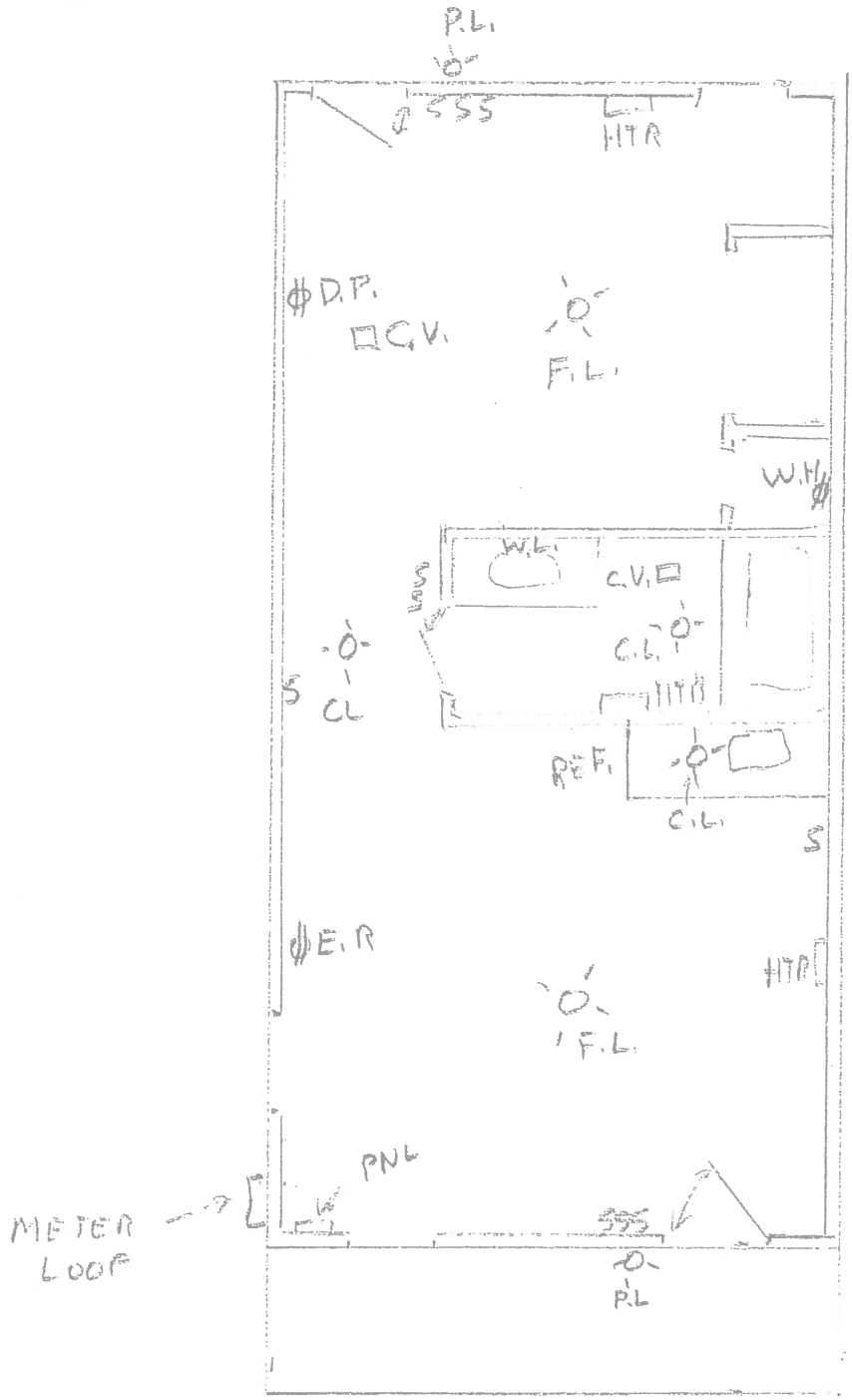
(2) 7/16 OSB SHEATHING

. INTERIOR WALLS TO BE CONSTRUCTED AFTER FIREWALLS

208 SHERMAN INTERIOR LAYOUT AND BRACING PLAN

= OTHER RECEPTACLES PER N.E.C

= SMOKE DETECTORS PER N.E.C.



P.L. -- PORCH LT WALL MTD

F.L -- FAN LT

-⊙- C.L. CEILING LT

W.L WALL LT

C.V. CEILING VENT

⌀ D.P. Dryer PLUG

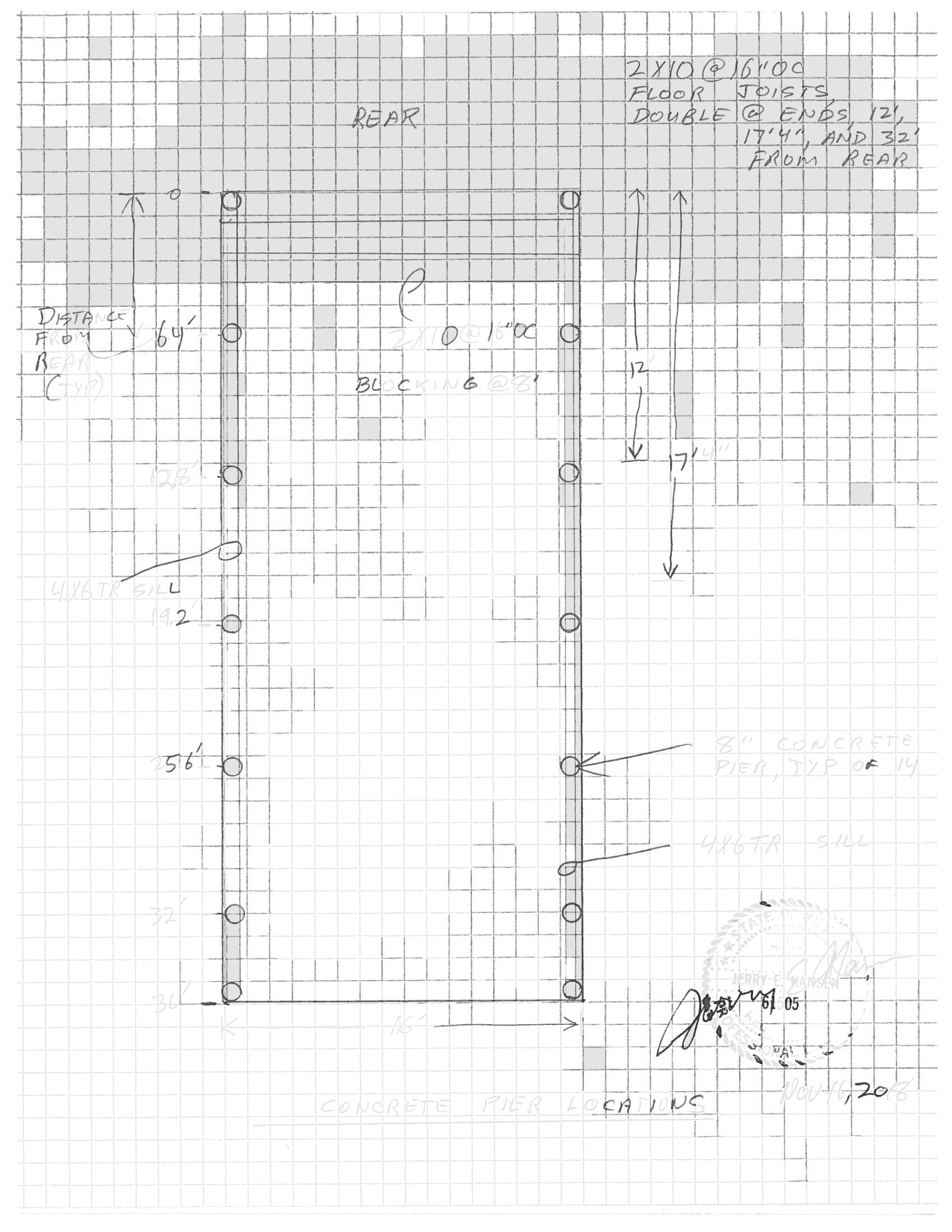
W.H. 30A WATER HTR

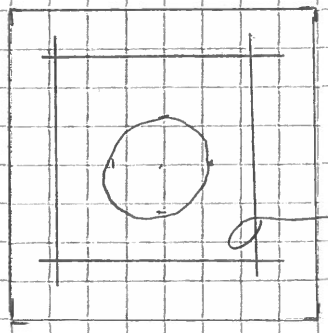
⌀ E.R. 50A ELECT RANGE W/ VENT HOOD

S - SWITCH

HTR - 1000 WATT IN WALL HTR 3 EA

208 SHERMAN - ELECTRICAL


2X10 @ 16" OC
FLOOR JOISTS
DOUBLE @ ENDS, 12', 17'4", AND 32' FROM REAR
REAR
0'
DISTANCE FROM REAR (TYP)
6'4"
2X10 @ 16" OC
BLOCKING @ 8'
12'
17'4"
12'8"
4X6 TR SILL
19'2"
25'6"
8" CONCRETE PIER, TYP OF 14
4X6 TR SILL
32'
36'
46'
CONCRETE PIER LOCATIONS
JERRY E. MANSEN
61 05
NOV 16, 2018

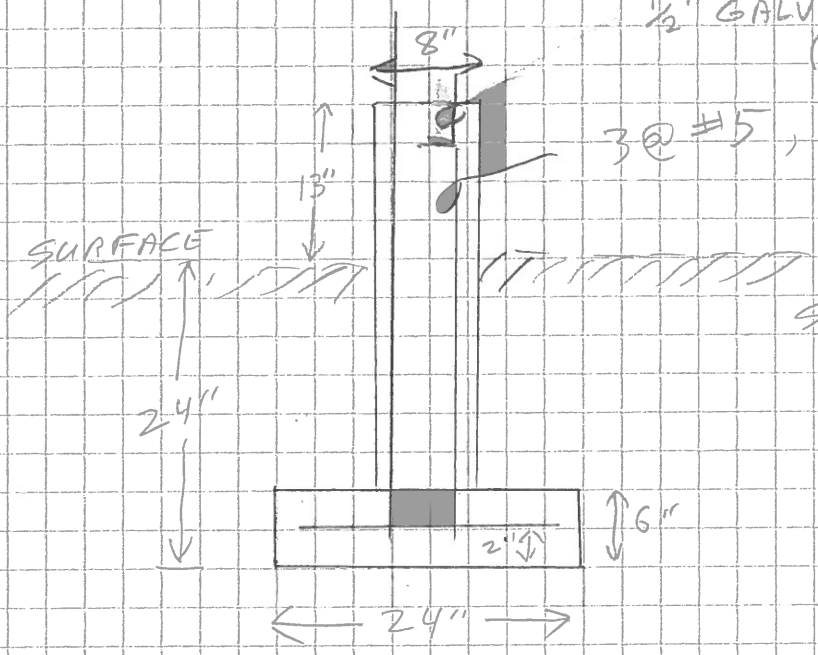


TOP VIEW

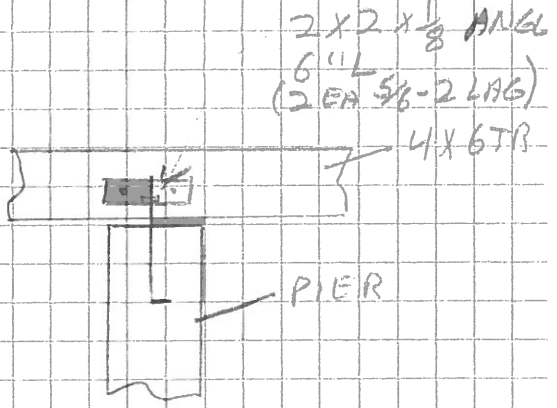
#5 @ 2" FROM BOTTOM

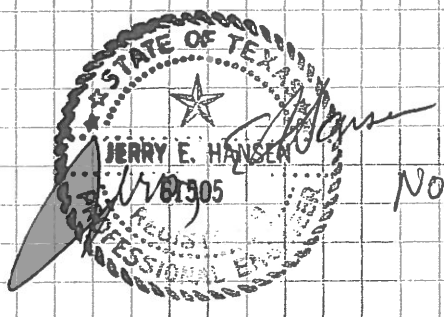
½" GALV ANCHOR BOLT, 10" L
(4" EXPOSED)

3 @ #5, 1 EXTENDING UP 6"
NAILED TO 4X6 SILL



SIDE VIEW





NOV 16, 2018

CONCRETE PIER DETAIL

United States Steel Corporation

GALVALUME®

PRODUCT | JANUARY 28, 2016

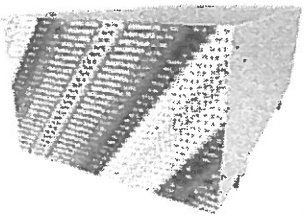
U. S. Steel GALVALUME® Steel Sheet is carbon steel sheet coated with aluminum-zinc alloy by a continuous hot-dip process. The nominal coating composition is 55% aluminum and 45% zinc. A small but important addition of silicon is included in the coating alloy. It is added not to enhance the corrosion performance, but to provide good coating adhesion to the steel substrate when the product is roll-formed, drawn, or bent during fabrication.

GALVALUME® steel sheet combines the excellent barrier corrosion protection of aluminum with the galvanic protection of zinc. The result is a coating that lasts a long time, a coating that provides cut-edge protection along sheared edges, and therefore, a coating that offers excellent protection to steel sheet. Although there are a few exceptions, for most applications in most types of environment, GALVALUME® steel sheet is the preferred product when long-term resistance to atmospheric corrosion is desired. It outlasts a galvanized coating of comparable thickness, and offers cut-edge protection that is not available with aluminum-coated sheet. This cut-edge protection means there is less rust-staining along sheared edges, at scratches, and other imperfections in the coating. Also, since the coating is so resistant to corrosion, it retains a very bright surface appearance when exposed to most atmospheres. These attributes make GALVALUME® steel sheet the preferred material for roofing.

The superior corrosion resistance of GALVALUME® steel sheet is achieved by the presence of microscopic zinc-rich and aluminum-rich areas within the coating. The aluminum-rich areas, which corrode very slowly, provide the long-term durability while the zinc-rich areas, which corrode preferentially, provide galvanic protection.

Submittal Sheet
09250

Sheetrock® Gypsum Sheathing



- Water-repellent face; treated gypsum core
- Score and snap – quick/economical application
- Fire resistant
- Low in-place cost compared to exterior-grade plywood and masonry

Description

SHEETROCK® brand gypsum sheathing features a moisture-resistant gypsum core encased in a 100% recycled moisture-resistant paper on both sides and the long edges. The treated gypsum core permits water vapor to escape from stud space, protecting wood framing from moisture buildup. 5/8" FIRECODE® Type X gypsum core panels meet the requirements of Type X as defined in ASTM C1396 and referenced in the building code and are suitable for use in noncombustible construction. Refer to *Fire-Resistant Assemblies* brochure (SA100) for details on fire-resistive assemblies.

SHEETROCK gypsum sheathing is a non-structural panel that offers the speed and economy of regular drywall construction: quick score-and-snap cutting, no sawing or special tools, and rapid screw or nail attachment. Weather resistance, water repellency, fire resistance and low installed cost make SHEETROCK gypsum sheathing suitable for application under many exterior surfaces for both residential and commercial construction. Applications include, but are not limited to, masonry backup; wood, vinyl and aluminum siding; and traditionally mechanically attached water-managed synthetic stucco.

Limitations

1. Sheathing may be stored outside for up to one month, but must be stored off the ground and must have a protective covering.
2. Maximum stud spacing is 24" o.c.
3. For in-place exposure up to six months, all gaps resulting from cuts, corners, joints and machine end-cuts of the sheathing should be filled with exterior caulk at time of construction or wrapped with a suitable water barrier.
4. Sheathing is not recommended for exterior ceilings and soffits, unless covered with metal lath and exterior portland cement stucco.
5. Direct application of paint, texture finishes and coatings over gypsum sheathing is not recommended.
6. Do not use gypsum sheathing as a nail base. Exterior cladding must be attached to the framing.
7. Exterior finish systems applied over gypsum paper-faced sheathing must be applied with mechanical fasteners through the sheathing into the wall framing.

Product Data

Thickness		Width		Edges	Length	Approx. wt.	
In.	mm	In.	mm		Ft.	lb./ft²	kg/m²
1/2	12.7	48	1219	Square	8,9	2.0	9.8
5/8	15.9	48	1219	Square	8,9	2.4	11.7

Compliance: Meets ASTM C1396, Section 9 – Gypsum Sheathing Board
Thermal Resistance: "R": 0.45 hr. ft² °F/Btu (0.08 K.m²/W)
Permeance: 1/2" SHEETROCK gypsum sheathing / 23.3 Perms; 5/8" SHEETROCK gypsum sheathing / 26.7 Perms
Surface Burning Characteristics: Flame Spread 20, Smoke Developed 0
Fire Resistance: UL Classified as to fire resistance. Refer to the UL Fire Resistance Directory for information on assembly details and ratings.
Packaging: Two panels per bundle

Submittal Approvals

Job Name		
Contractor		Date

Product Information
See usg.com for the most up-to-date product information.

WARNING!
Store all SHEETROCK gypsum panels flat. Panels are heavy and can fall over, causing serious injury or death. Avoid creating a tripping hazard and do not exceed floor limit loads. Do not move unless authorized.

Trademarks
The following trademarks used herein are owned by United States Gypsum Company or a related company: FIRECODE, SHEETROCK, USG.

Note
Products described here may not be available in all geographic markets. Consult your USG sales office or representative for information.

Notice
We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

Safety First!
Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read MSDS and literature before specification and installation.

USG

Manufactured by
United States Gypsum Company
550 West Adams Street
Chicago, IL 60661

800 USG.4YOU (874-4968)
usg.com

WB2380/rev. 5-09

SECTION 092900 - Gypsum Board, USG Sheetrock® Brand Gypsum Sheathing Firecode® X

Product Summary:

- 5/8" Type X exterior sheathing panels with moisture-resistant paper and core.
- Treated gypsum core minimizes the amount of liquid water absorbed from stud space, protecting wood framing from moisture buildup.
- Complies with ASTM C1396 physical properties for gypsum sheathing.
- Low in-place cost compared to exterior-grade plywood and masonry.
- Achieved GREENGUARD Gold Certification.
- Refer to product submittal sheet WB2380 for more information.

Note to Specifiers:

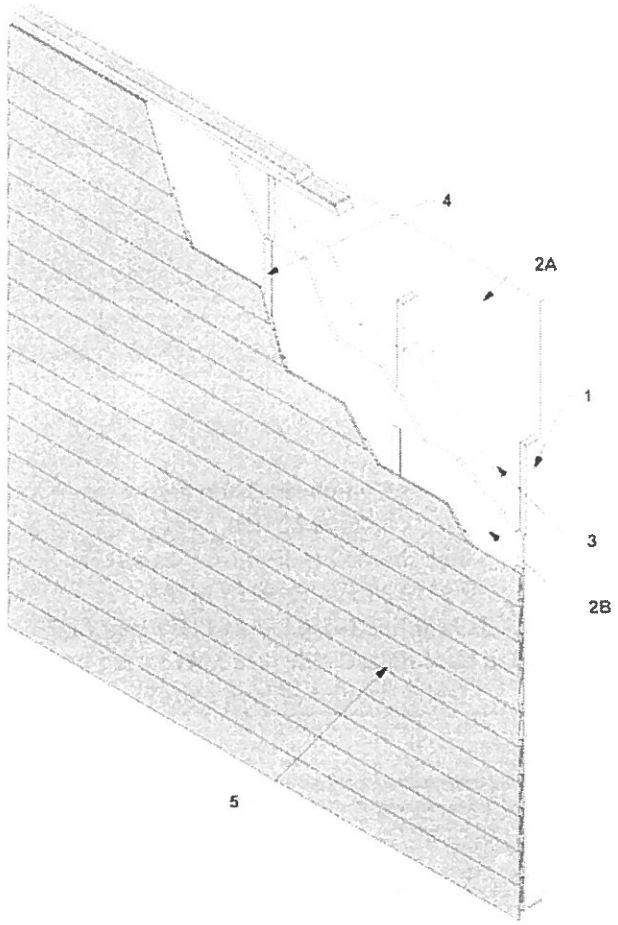
- This document is not intended to function as a standalone specification. It is intended to assist the specifier in inserting the proper language into the following recommended specification sections:
  09 29 00 – GYPSUM BOARD.
- For use in areas where moisture resistance is desired.
- For use under exterior claddings where conventional gypsum sheathing products have traditionally been used such as brick veneer, properly detailed Exterior Insulation Finish Systems (EIFS), clapboard siding, panel siding, shingle siding, shake siding and conventional stucco.
- USG Sheetrock® Brand Gypsum Sheathing Firecode® X can be used in any UL design where UL Type SHX panels are listed.

2. GYPSUM SHEATHING PANEL

A. Gypsum Board ASTM C1396/C1396M: Type X.

1. Basis of Design: Subject to compliance with project requirements, the design is based on the following: United States Gypsum Company, LLC, "USG Sheetrock® Brand Gypsum Sheathing Firecode® X".
2. UL Type Designation "SHX".
3. ASTM E84 Surface-Burning Characteristics:
   1) Flame Spread: 20.
   2) Smoke Developed: 0.
4. Thickness: 5/8" (15.9).
5. Length: [8'-0" (2438)] [9'-0" (2743)].
6. Widths: 48" (1219).
7. Weight: 2.4 lb./ft^2 (11.7 kg/M^2).
8. Long Edges: Square.

James Hardie Building Products
JH/FCS 60-04
James Hardie Fiber Cement Siding
ASTM E119, CAN/ULC S101
Non-Symmetrical, 1 Hour Load-Bearing Wall Assembly
Full Design Load per ASTM E119, 92% Design Load per CAN/ULC S101
(Rating applies to both sides)



1. **WOOD STUDS:** Nominal 2 in. by 4 in. solid sawn wood studs located 24 in. on center (oc), with two top plates and a single bottom plate.

2. **GYPSUM WALLBOARD, SIDE A:** 5/8 in. Type X gypsum wallboard, oriented vertically and fastened with 1-3/4 in. cup-head gypsum nails, spaced 7 in. oc at board edges and in field areas, or 1-1/2 in. Type S drywall screws, spaced 8 in. oc at board edges and in field areas of boards.

GYPSUM SHEATHING, SIDE B: 1/2 in. Type X or 5/8 in. Type X gypsum sheathing fastened with 1-3/4 in. long roofing nails spaced 7 in. oc. Sheathing edge joints shall be staggered from those on opposite sides of the wall.

3. **INSULATION (Optional):** R13 glass fiber batt insulation.

4. **WOOD SHEATHING (Optional):** Install one layer of wood structural panel sheathing on or behind Item 2B.

   FURRING (Optional):

   Min. 1-1/2 in. wide by 3/8 in. thick furring (Wood: Min. 0.42 s.g.; Metal: Corrosion Resistant min. 20 GA 33 ksi metal hat channel, z-girt or u-bar) or

   Min. 4.574 in. wide by 3/4 in. thick James Hardie Horizontal Steel furring installed per manufacturer's installation instructions (min. 18 GA 33 ksi metal).

5. **CERTIFIED MANUFACTURER:** James Hardie Building Products Inc.

   CERTIFIED PRODUCT: HardiePlank® Lap Siding, Prevail® Lap Siding, Artisan® Lap Siding, Artisan® Siding with Lock Joint System, or CemPlank® Lap Siding.

   FIBRE CEMENT EXTERIOR SIDING, SIDE B: 5/16 in. thick HardiePlank® Lap Siding, 5/16 in. Prevail Lap Siding, 5/8 in. Artisan® Lap Siding, 5/8 in. Artisan® Siding with Lock Joint System, or 5/16 in. CemPlank® Lap Siding, applied horizontally with a 1-1/4 in. headlap and fastened with a single 6d corrosion resistant common nail driven through the lapped planks at each stud location.

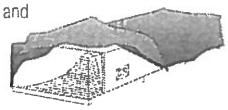
HardiePlank® Lap Siding

EFFECTIVE APRIL 2018

IMPORTANT: FAILURE TO FOLLOW JAMES HARDIE WRITTEN INSTALLATION INSTRUCTIONS AND COMPLY WITH APPLICABLE BUILDING CODES MAY VIOLATE LOCAL LAWS, AFFECT BUILDING ENVELOPE PERFORMANCE AND MAY AFFECT WARRANTY COVERAGE. FAILURE TO COMPLY WITH ALL HEALTH AND SAFETY REGULATIONS WHEN CUTTING AND INSTALLING THIS PRODUCT MAY RESULT IN PERSONAL INJURY. BEFORE INSTALLATION, CONFIRM YOU ARE USING THE CORRECT HARDIEZONE® PRODUCT INSTRUCTIONS BY VISITING HARDIEZONE.COM OR CALL 1-866-942-7343 (866-9-HARDIE)

STORAGE & HANDLING:

Store flat and keep dry and covered prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry planks on edge. Protect edges and corners from breakage. James Hardie is not responsible for damage caused by improper storage and handling of the product.



⚠ CUTTING INSTRUCTIONS

OUTDOORS

1 Position cutting station so that airflow blows dust away from the user and others near the cutting area.
2 Cut using one of the following methods:
- a. Best: Circular saw equipped with a HardieBlade® saw blade and attached vacuum dust collection system. Shears (manual, pneumatic or electric) may also be used, not recommended for products thicker than 7/16 in.
- b. Better: Circular saw equipped with a dust collection feature (e.g. Roan® saw) and a HardieBlade saw blade.
- c. Good: Circular saw equipped with a HardieBlade saw blade.

INDOORS

DO NOT grind or cut with a power saw indoors. Cut using shears (manual, pneumatic or electric) or the score and snap method, not recommended for products thicker than 7/16 in.

- DO NOT dry sweep dust; use wet dust suppression or vacuum to collect dust.
- For maximum dust reduction, James Hardie recommends using the "Best" cutting practices. Always follow the equipment manufacturer's instructions for proper operation.
- For best performance when cutting with a circular saw, James Hardie recommends using HardieBlade® saw blades.
- Go to jameshardiepros.com for additional cutting and dust control recommendations.

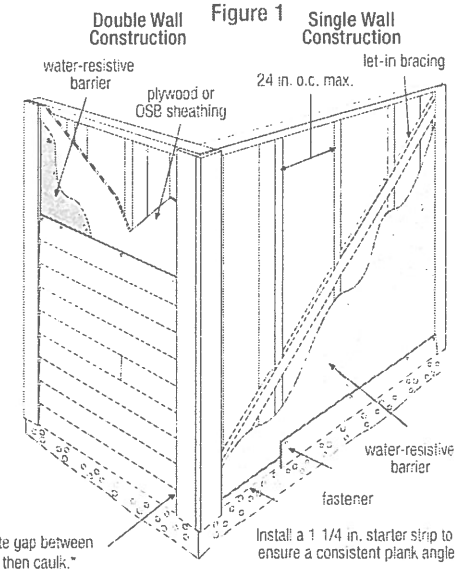
IMPORTANT: The Occupational Safety and Health Administration (OSHA) regulates workplace exposure to silica dust. For construction sites, OSHA has deemed that cutting fiber cement with a circular saw having a blade diameter less than 8 inches and connected to a commercially available dust collection system per manufacturer's instructions results in exposures below the OSHA Permissible Exposure Limit (PEL) for respirable crystalline silica, without the need for additional respiratory protection.

If you are unsure about how to comply with OSHA silica dust regulations, consult a qualified industrial hygienist or safety professional, or contact your James Hardie technical sales representative for assistance. James Hardie makes no representation or warranty that adopting a particular cutting practice will assure your compliance with OSHA rules or other applicable laws and safety requirements.

GENERAL REQUIREMENTS:

- HardiePlank® lap siding can be installed over braced wood or steel studs, 20 gauge (33 mils) minimum to 16 gauge (54 mils) maximum, spaced a maximum of 24 in o.c. or directly to minimum 7/16 in thick OSB sheathing. See General Fastening Requirements. Irregularities in framing and sheathing can mirror through the finished application. Correct irregularities before installing siding.
- Information on installing James Hardie products over non-nailable substrates (ex: gypsum, foam,etc.) can be located in JH Tech Bulletin 19 at www.jamehardie.com
- A water-resistive barrier 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[1], which complies with building code requirements.
- When installing James Hardie products all clearance details in figs. 3-14 must be followed.
- 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..
- Do not use HardiePlank lap siding in Fascia or Trim applications.
- Do not install James Hardie products, such that they may remain in contact with standing water.
- HardiePlank lap siding may be installed on flat vertical wall applications only.
- DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® Products.
- For larger projects, including commercial and multi-family 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.
- 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.

Figure 1



INSTALLATION: JOINT TREATMENT

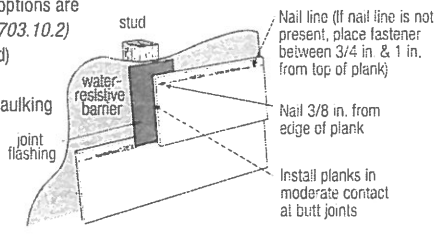
One or more of the following joint treatment options are required by code *(as referenced 2009 IRC R703.10.2)*

A. Joint Flashing (James Hardie recommended)

B. Caulking* (Caulking is not recommended for ColorPlus for aesthetic reasons as the Caulking and ColorPlus will weather differently. For the same reason, do not caulk nail heads on ColorPlus products.)

C. "H" jointer cover

Figure 2



Note: Field painting over caulking may produce a sheen difference when compared to the field painted PrimePlus. *Refer to Caulking section in these instructions.

[1]For additional information on HardieWrap® Weather Barrier, consult James Hardie at 1-866-4Hardie or www.hardiewrap.com

JamesHardie

SELECT CEDARMILL® | SMOOTH | BEADED CEDARMILL® | BEADED SMOOTH | CUSTOM COLONIAL™ SMOOTH | CUSTOM COLONIAL™ ROUGHSAWN

Visit jameshardiepros.com for the most recent version.

CLEARANCE AND FLASHING REQUIREMENTS

Figure 3
Roof to Wall

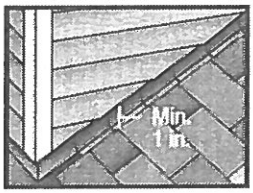


Figure 4
Horizontal Flashing

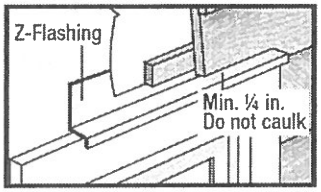


Figure 5
Kickout Flashing

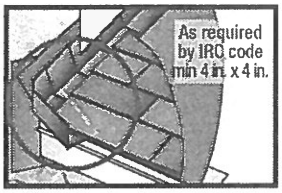


Figure 6
Slabs, Path, Steps to Siding

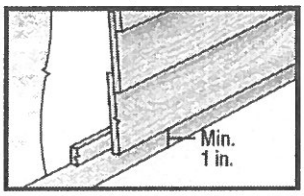


Figure 7
Deck to Wall

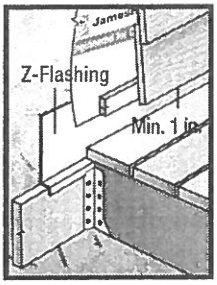


Figure 8
Ground to Siding

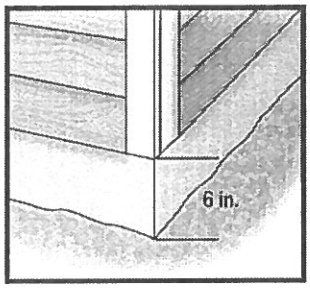


Figure 9
Gutter to Siding

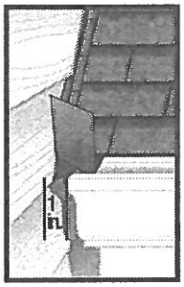


Figure 10
Sheltered Areas

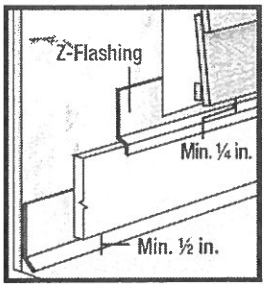


Figure 11
Mortar/Masonry

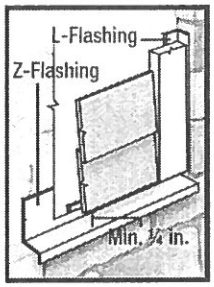


Figure 12
Drip Edge

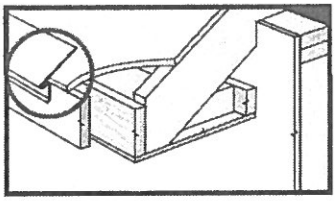


Figure 13
Block Penetration
(Recommended in HZ10)

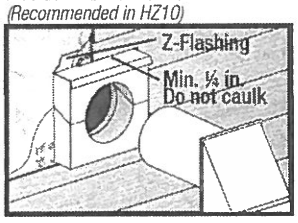
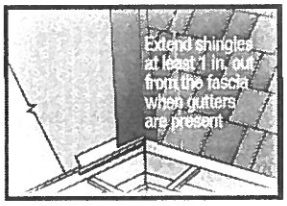


Figure 14
Valley/Shingle Extension



FASTENER REQUIREMENTS**

Blind Nailing is the preferred method of installation for HardiePlank® lap siding products. Face nailing should only be used where required by code for high wind areas and must not be used in conjunction with Blind nailing (Please see JH Tech bulletin 17 for exemption when doing a repair). **Pin-backed corners may be done for aesthetic purposes Only. Finish nails are recommended for pin-backs. Headed siding nails are allowed. Place pin-backs no closer than 1in. from plank ends & 3/4in. from plank edge into min. 3/8in. wood structural panel. Pin-backs are not a substitute for blind or face nailing**

BLIND NAILING

Nails - Wood Framing
- Siding nail (0.09 in. shank x 0.221 in. HD x 2 in. long)
- 11ga. roofing nail (0.121 in. shank x 0.371 in. HD x 1.25 in. long)

Screws - Steel Framing
- Ribbed Wafer-head or equivalent (No. 8 x 1 1/4 in. long x 0.375 in. HD) Screws must penetrate 3 threads into metal framing.

Nails - Steel Framing
- ET & F Panelfast® nails or equivalent (0.10 in. shank x 0.313 in. HD x 1-1/2 in. long) Nails must penetrate minimum 1/4 in. into metal framing.

OSB minimum 7/16 in.
- 11ga. roofing nail (0.121 in. shank x 0.371 in. HD x 1.75 in. long)
- Ribbed Wafer-head or equivalent (No. 8 x 1 5/8 in. long x 0.375 in. HD).

FACE NAILING

Nails - Wood Framing
- 6d (0.113 in. shank x 0.267 in. HD x 2 in. long)
- Siding nail (0.09" shank x 0.221" HD x 2" long)

Screws - Steel Framing
- Ribbed Bugle-head or equivalent (No. 8-18 x 1-5/8 in. long x 0.323 in. HD) Screws must penetrate 3 threads into metal framing.

Nails - Steel Framing
- ET & F pin or equivalent (0.10 in. shank x 0.25 in. HD x 1-1/2 in. long) Nails must penetrate minimum 1/4 in. into metal framing.

OSB minimum 7/16 in.
- Siding nail (0.09 in. shank x 0.221 in. HD x 1-1/2 in. long)*

* When face nailing to OSB, planks must be no greater than 9 1/4 in. wide and fasteners must be 12 in. o.c. or less.

** Also see General Fastening Requirements, and when considering alternative fastening options refer to James Hardie's Technical Bulletin USTB 17 - Fastening Tips for HardiePlank Lap Siding.

FASTENER REQUIREMENTS *continued*

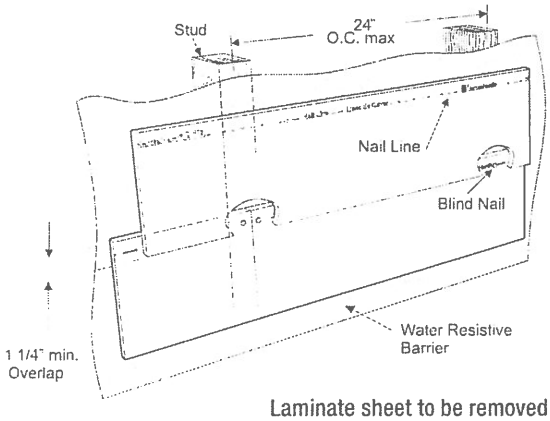


Figure 15

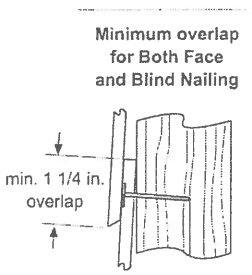
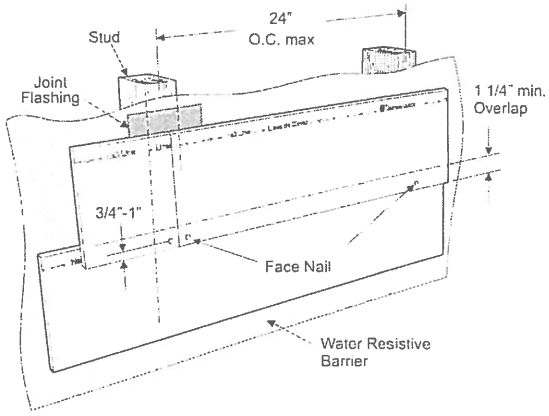


Figure 16



Laminate sheet to be removed immediately after installation of each course for ColorPlus® products.

GENERAL FASTENING REQUIREMENTS

Fasteners must be corrosion resistant, galvanized, or stainless steel. Electro-galvanized are acceptable but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. James Hardie is not responsible for the corrosion resistance of fasteners. Stainless steel fasteners are recommended when installing James Hardie® products near the ocean, large bodies of water, or in very humid climates.

Manufacturers of ACQ and CA preservative-treated wood recommend spacer materials or other physical barriers to prevent direct contact of ACQ or CA preservative-treated wood and aluminum products. Fasteners used to attach HardieTrim Tabs to preservative-treated wood shall be of hot dipped zinc-coated galvanized steel or stainless steel and in accordance to 2009 IRC R317.3 or 2009 IBC 2304.9.5

- Consult applicable product evaluation or listing for correct fasteners type and placement to achieve specified design wind loads.
- NOTE: Published wind loads may not be applicable to all areas where Local Building Codes have specific jurisdiction. Consult James Hardie Technical Services if you are unsure of applicable compliance documentation.
- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space).
- NOTE: Whenever a structural member is present, HardiePlank should be fastened with even spacing to the structural member. The tables allowing direct to OSB or plywood should only be used when traditional framing is not available.

CUT EDGE TREATMENT

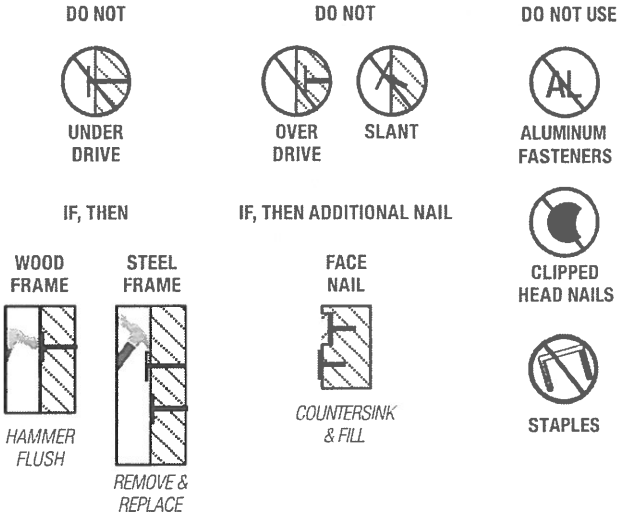
Caulk, paint or prime all field cut edges. James Hardie touch-up kits are required to touch-up ColorPlus products.

CAULKING

For best results use an Elastomeric Joint Sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex Joint Sealant complying with ASTM C834. Caulking/Sealant must be applied in accordance with the caulking/sealant manufacturer's written instructions. **Note: some caulking manufacturers do not allow "tooling".**

PNEUMATIC FASTENING

James Hardie products can be hand nailed or fastened with a pneumatic tool. Pneumatic fastening is highly recommended. Set air pressure so that the fastener is driven snug with the surface of the siding. A flush mount attachment on the pneumatic tool is recommended. This will help control the depth the nail is driven. If setting the nail depth proves difficult, choose a setting that under drives the nail. (Drive under driven nails snug with a smooth faced hammer - Does not apply for installation to steel framing).



PAINTING

DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® Products. Factory-primed James Hardie products must be painted within 180 days of installation. 100% acrylic topcoats are recommended. Do not paint when wet. For application rates refer to paint manufacturers specifications. Back-rolling is recommended if the siding is sprayed.

COLORPLUS® TECHNOLOGY CAULKING, TOUCH-UP & LAMINATE

- Care should be taken when handling and cutting James Hardie® ColorPlus® products. During installation use a wet soft cloth or soft brush to gently wipe off any residue or construction dust left on the product, then rinse with a garden hose.
- Touch up nicks, scrapes and nail heads using the ColorPlus® Technology touch-up applicator. Touch-up should be used sparingly. If large areas require touch-up, replace the damaged area with new HardiePlank® lap siding with ColorPlus® Technology.
- Laminate sheet must be removed immediately after installation of each course.
- Terminate non-factory cut edges into trim where possible, and caulk. Color matched caulks are available from your ColorPlus® product dealer.
- Treat all other non-factory cut edges using the ColorPlus Technology edge coaters, available from your ColorPlus product dealer.

Note: James Hardie does not warrant the usage of third party touch-up or paints used as touch-up on James Hardie ColorPlus products.

Problems with appearance or performance arising from use of third party touch-up paints or paints used as touch-up that are not James Hardie touch-up will not be covered under the James Hardie ColorPlus Limited Finish Warranty.

PAINTING JAMES HARDIE® SIDING AND TRIM PRODUCTS WITH COLORPLUS® TECHNOLOGY

When repainting ColorPlus products, James Hardie recommends the following regarding surface preparation and topcoat application:

- Ensure the surface is clean, dry, and free of any dust, dirt, or mildew
- Repriming is normally not necessary
- 100% acrylic topcoats are recommended
- DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® Products.
- Apply finish coat in accordance with paint manufacturers written instructions regarding coverage, application methods, and application temperature
- DO NOT caulk nail heads when using ColorPlus products, refer to the ColorPlus touch-up section

COVERAGE CHART/ESTIMATING GUIDE

Number of 12 ft. planks, does not include waste

COVERAGE AREA LESS OPENINGS		HARDIEPLANK® LAP SIDING WIDTH								
SQ (1 SQ = 100 sq.ft.)	(exposure)	5 1/4 4	6 1/4 5	7 1/4 6	7 1/2 6 1/4	8 6 3/4	8 1/4 7	9 1/4 8	9 1/2 8 1/4	12 10 3/4
1		25	20	17	16	15	14	13	13	9
2		50	40	33	32	30	29	25	25	19
3		75	60	50	48	44	43	38	38	28
4		100	80	67	64	59	57	50	50	37
5		125	100	83	80	74	71	63	63	47
6		150	120	100	96	89	86	75	75	56
7		175	140	117	112	104	100	88	88	65
8		200	160	133	128	119	114	100	100	74
9		225	180	150	144	133	129	113	113	84
10		250	200	167	160	148	143	125	125	93
11		275	220	183	176	163	157	138	138	102
12		300	240	200	192	178	171	150	150	112
13		325	260	217	208	193	186	163	163	121
14		350	280	233	224	207	200	175	175	130
15		375	300	250	240	222	214	188	188	140
16		400	320	267	256	237	229	200	200	149
17		425	340	283	272	252	243	213	213	158
18		450	360	300	288	267	257	225	225	167
19		475	380	317	304	281	271	238	238	177
20		500	400	333	320	296	286	250	250	186

This coverage chart is meant as a guide. Actual usage is subject to variables such as building design. James Hardie does not assume responsibility for over or under ordering of product.

HS11119 P4/4 04/18

SILICA WARNING

DANGER: May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product. Refer to the current product Safety Data Sheet before use. The hazard associated with fiber cement arises from crystalline silica present in the dust generated by activities such as cutting, machining, drilling, routing, sawing, crushing or otherwise abrading fiber cement, and when cleaning up, disposing of or moving the dust. When doing any of these activities in a manner that generates dust you must (1) comply with the OSHA standard for silica dust and/or other applicable law, (2) follow James Hardie cutting instructions to reduce or limit the release of dust; (3) warn others in the area to avoid breathing the dust; (4) when using mechanical saw or high speed cutting tools, work outdoors and use dust collection equipment; and (5) if no other dust controls are available, wear a dust mask or respirator that meets NIOSH requirements (e.g. N-95 dust mask). During clean-up, use a well maintained vacuum and filter appropriate for capturing fine (respirable) dust or use wet clean-up methods - never dry sweep.

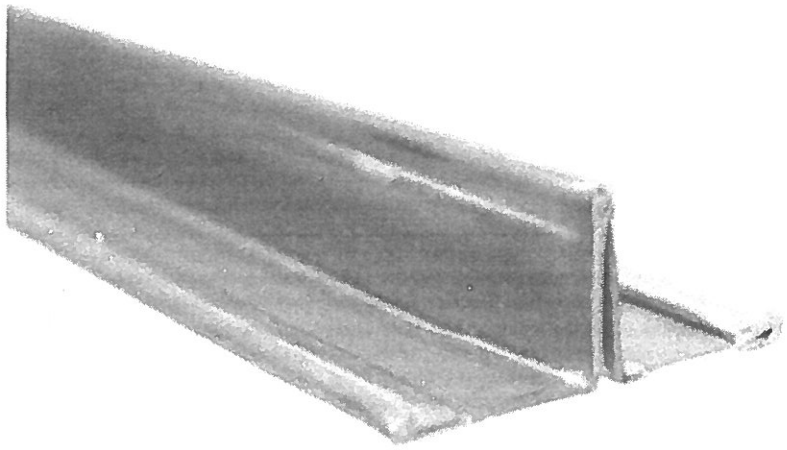
⚠ **WARNING:** This product can expose you to chemicals including respirable crystalline silica, which is known to the State of California to cause cancer. For more information go to P65Warnings.ca.gov.

RECOGNITION: In accordance with ICC-ES Evaluation Report ESR-2290, HardiePlank® lap siding is recognized as a suitable alternate to that specified in the 2006, 2009, 2012 & 2015 International Residential Code for One and Two-Family Dwellings, and the 2006, 2009, 2012 & 2015 International Building Code. HardiePlank lap siding is also recognized for application in the following: City of Los Angeles Research Report No. 24862, State of Florida Product Approval FL#13192, Miami-Dade County Florida NOA No. 17-0406.06, U.S. Dept. of HUD Materials Release 1263f, Texas Department of Insurance Product Evaluation EC-23, City of New York MEA 223-93-M, and California DSA PA-019. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.

Product warranties, safety information and additional installation information are available at jameshardiepros.com

JamesHardie

Model # TWB12 Internet #100375133 Store SKU #333445



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Simpson Strong-Tie

TWB12 11 ft 4 in. Galvanized Steel Wall Bracing

Write the first Review Questions & Answers (2)

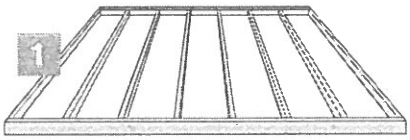
$9.63 /each

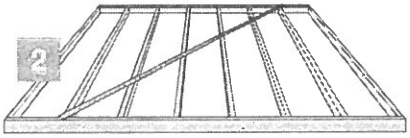
Quantity - 1 +

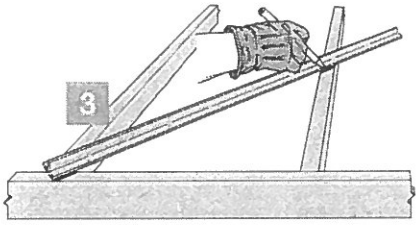
Pick Up at a Nearby Store Today

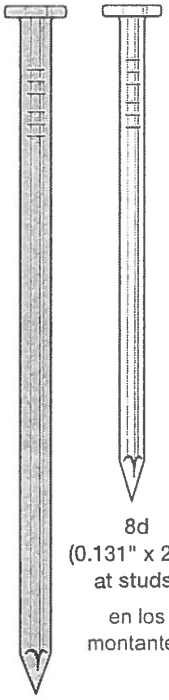
Not in stock at your Cambray store

TWB



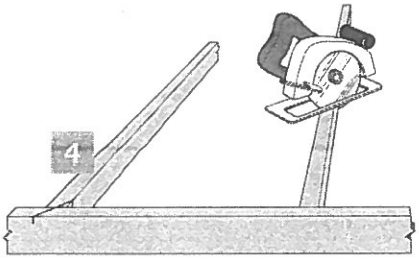






8d
(0.131" x 2½")
at studs/
en los
montantes

16d
(0.162" x 3½")
at plates/
en las soleras

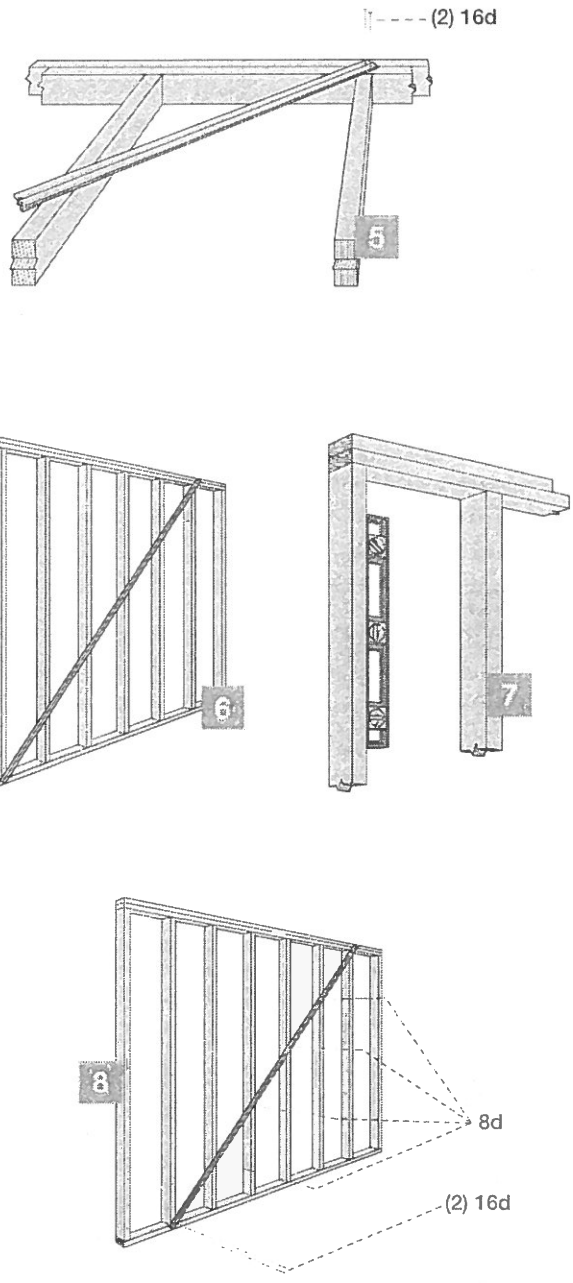


Cut ⅝" kerf.

Corte un corte
de ⅝".

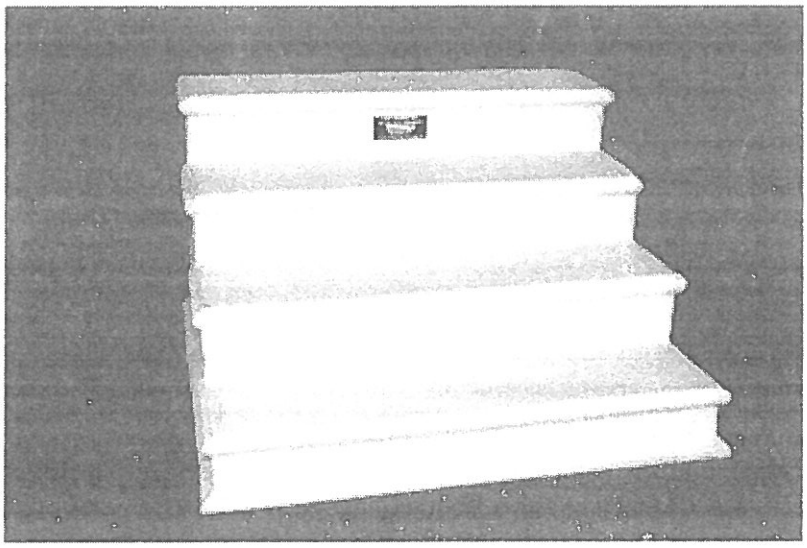
TWB

SIMPSON Strong-Tie



4 Step 7" Rise 48" Concrete Steps

by Century Group
McCoy's Part #:04038162



$229.00

Add To Cart

1 available at San Antonio (Southeast)

Product Information

Description

With the easy installation of these one piece reinforced steps - simply set in place and level - you'll dress up your home while adding the safety of long- lasting,termite-free concrete.

Features

- 7" Riser height
- Weighs 510 lbs
- Reinforced concrete
- Durable
- No assembly required
- Easily installed
- Set in place and level

More Info

- 28"H x 48"W x 44"D

Options

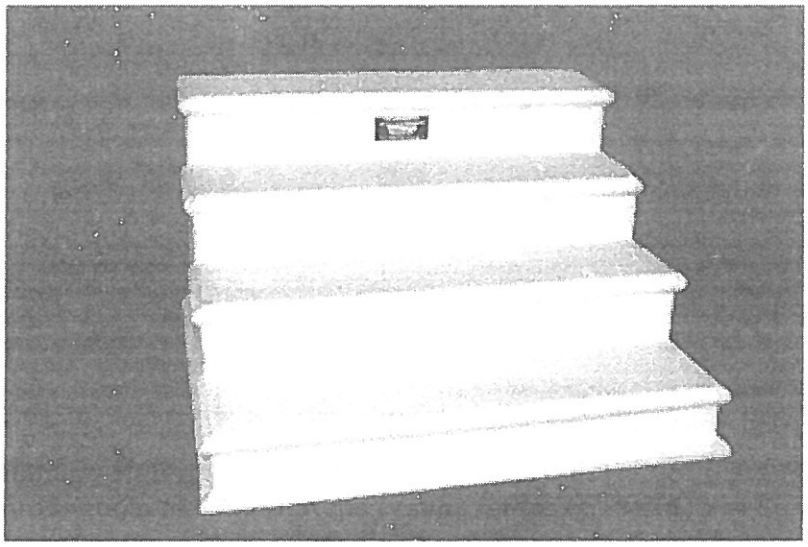
- Available in many sizes
- Aluminum handrail available

Specifications

This product has no specifications.

4 Step 7" Rise 48" Concrete Steps

by Century Group
McCoy's Part #:04038162



$229.00

Add To Cart

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Specifications

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