

MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION
STAFF REPORT

Address:	19735 White Ground Road, Boyds	Meeting Date:	5/14/2025
Resource:	Primary (1850-1935) Resource Boyd's Historic District	Report Date:	5/7/2025
Applicant:	Katharine Blackman and Peter Martel (Richard Kirby, Architect)	Public Notice:	4/30/2025
		Tax Credit:	Partial
Review:	HAWP	Staff:	Laura DiPasquale
Permit No.:	1109665		
Proposal:	Partial demolition and construction of new rear addition, fenestration alterations, roof replacement, and site wall construction.		

STAFF RECOMMENDATION

Staff recommends that the Commission **approve with three (3) conditions** the HAWP application, with final approval authority delegated to staff:

1. The new windows must have smooth and painted trim and sills.
2. The existing replacement windows on the main block are not eligible to be replaced in-kind, and must be reviewed under a new HAWP when they are replaced in the future. New replacement windows must be restored to their original two-over-two appearance and be constructed from wood or an appropriate clad substitute that more closely approximate the appearance and materials of the previous windows.
3. The vinyl siding on the main block is not eligible to be replaced in-kind and must be reviewed under a new HAWP when it is replaced in the future, unless the underlying original wood siding is to be restored or replaced in-kind.

PROPERTY DESCRIPTION

SIGNIFICANCE: Primary (1850-1935) Resource within the Boyds Historic District
STYLE: Gothic Revival farmhouse
DATE: c. 1900

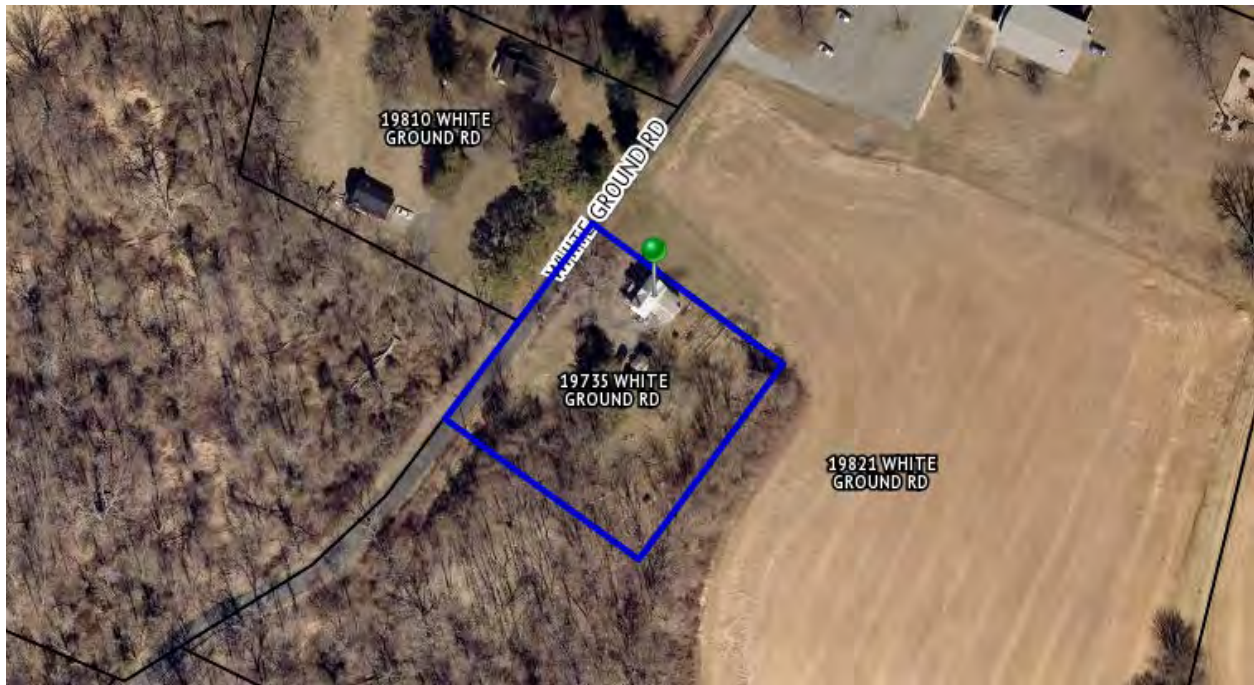


Figure 1: The subject property is outlined in blue.



Figure 2: The front and northeast side elevations of 19735 White Ground Road, Boyds (Historic Preservation Office, November 2024).



Figure 3: The rear and southwest side elevations of 19735 White Ground Road (Historic Preservation Office, November 2024).



Figure 4: The rear and southwest side elevations of 19735 White Ground Road (MCAAtlas, 1986) showing the previously open side porch.



Figure 5: The northeast side and rear elevations of the subject property (MCAtlas, 1986).

PROPOSAL

The applicant proposes to partially demolish the existing rear ell and to construct a new rear addition set in two feet from the southwest side elevation and aligning with the existing northeast elevation. The new ell would feature a gable roof intersecting with the rear slope of the historic roof. The proposed project retains the wall planes of the northwest side and rear elevations of the existing ell and a portion of the existing southeast side wall on the interior. The proposal contains the following alterations:

- Removal of the roof and full second floor, as well as the majority of the southeast-side wall and previously-infilled shed-roofed porch,
- Alteration of the locations of the windows on the northeast elevation,
- Removal of the concrete block chimney at the rear,
- Addition of new fenestration,
- Modification of the roof shape and height; and,
- Minor grading modifications and installation of new wood retaining/site walls.

APPLICABLE GUIDELINES

When reviewing alterations and new construction within the Boyd's Historic District several documents are to be utilized as guidelines to assist the Commission in developing their decision. These documents include the *Vision of Boyds: A Long-Range Preservation Plan (Vision)*¹, Montgomery County Code Chapter 24A (Chapter 24A), and the *Secretary of the Interior's Standards for Rehabilitation (Standards)*, and the HPC's *Policy No. 24-01: Policy for the Appropriateness of Substitute Materials for Porch and Deck Flooring (Policy No. 24-01)*. The pertinent information in these documents is outlined below.

¹ Vision of Boyds: A Long Range Preservation Plan can accessed here: <https://montgomeryplanning.org/wp-content/uploads/2019/09/Vision-of-Boys.pdf>

Vision of Boyds: A Long-Range Preservation Plan

The *Vision* provides the following analysis on the buildings in the Boyds Historic District:

Architectural Style – Gothic Revival

The construction and building of the houses in Boyds began at the height of the Victorian era, and consequently the buildings reflect the stylistic inspiration of the late 19th century. Gothic Revival is the most prevalent architectural style found in Boyds. Examples of Colonial Revival, Queen Anne, and Bungalow are also found. There are numerous illustrations of vernacular forms including the two-bay farmhouses and bungalows. The historic houses in Boyds display a similarity of scale and mass echoing the common stylistic inspiration, choice of materials and details. Many of the architectural elements and details such as porches, entry platforms, brackets and balusters are made of wood and have simple turned decorative elements. These designs while functional are essential to the visual charm and character of the buildings in Boyds.

The Gothic Revival style as executed in Boyds is characterized by its symmetrical facade with side gables and a prominent cross gable, oftentimes decorated with bargeboards. Typically, the houses have a one-story entry or full-width porch with decorative brackets, spindles or posts.

The majority of dwellings located in the Boyds Historic District are designed in a vernacular interpretation of the Gothic Revival style. Less exuberant in detail, more regular in plan these dwellings reflect the skills and interpretations of local craftsman and builders.

Building Setbacks

Dwellings for the most part are set back from the main street, and occupy a small percentage of the lot. The distance between the house and the street is remarkably similar in the Boyds residential sections ranging from 20 feet to 50 feet. This characteristic is one of the most important elements that unifies a residential block.

Rhythm and Spacing Between Buildings

In the residential district around the Boyds Presbyterian Church, a major component of the streetscape, the houses are constructed on regular parcels of land with similar setbacks from White Grounds Road. These buildings are spaced evenly from each other, with similar setbacks creating the strongest sense of continuity along the streetscape in the district. These buildings have small front yards and larger rear yards, many with barns or outbuildings. The dwellings constructed further south along White Ground Road and neighboring St. Marks Church reflect more rural, farm-like developments. These structures tend to stand on their own with larger setbacks from the street. Residential yards surround these properties on the front and sides, opening onto agricultural fields in the rear.

Geographic and Landscape Features

Boyds is dominated by large, impressive trees that line White Ground Road. In the summer, these trees create an alley of shade along the winding course of the road. Dwellings are primarily located in the middle of the parcel of land, with fences or landscaping defining the setting of the house. Many of the houses are framed by two large trees with smaller more manicured plantings and flowers in front, and immediately surrounding the dwelling. Grass is the primary ground cover. Large expanses of grass or cultivated gardens are located behind the primary resources. Typically these rear yard setbacks are more than double those found on the front.

Scale and Building Height

The historic houses in Boyds are very similar in height, ranging only from two stories to two-and-a-half stories. Of the 27 historic houses in Boyds, 76% are two-and-one-half stories in height. Twenty-three percent of the dwellings are two stories high. This uniform scale contributes and is critical to the reading of the village streetscape, particularly as it winds along White Ground Road.

Roof Form and Material

While the majority of Boyd's historic residences have gable roof forms, there are numerous variations including end gables, cross gables and elongated gables. Only one hipped roof is located in the district. Many replacement roofing materials are found throughout the historic district particularly asphalt shingles. Standing seam metal and metal shingles remain on several buildings in the district. Original roofing materials typical of this period and location are standing seam metal and metal shingles.

Dominant Building Material

The dominant building material in Boyds is wood, executed in clapboard and weatherboard.

Montgomery County Code, Chapter 24A Historic Resources Preservation

- (b) The commission shall instruct the director to issue a permit, or issue a permit subject to such conditions as are found to be necessary to ensure conformity with the purposes and requirements of this chapter, if it finds that:
 - (1) The proposal will not substantially alter the exterior features of an historic site or historic resource within an historic district; or
 - (2) The proposal is compatible in character and nature with the historical, archeological, architectural or cultural features of the historic site or the historic district in which an historic resource is located and would not be detrimental thereto or to the achievement of the purposes of this chapter.
 - (3) The proposal would enhance or aid in the protection, preservation and public or private utilization of the historic site or historic resource located within an historic district in a manner compatible with the historical, archeological, architectural or cultural value of the historic site or historic district in which an historic resource is located; or
 - (4) The proposal is necessary in order that unsafe conditions or health hazards be remedied; or
 - (5) The proposal is necessary in order that the owner of the subject property not be deprived of reasonable use of the property or suffer undue hardship; or
 - (6) In balancing the interests of the public in preserving the historic site or historic resource located within an historic district, with the interests of the public from the use and benefit of the alternative proposal, the general public welfare is better served by granting the permit.
- (c) It is not the intent of this chapter to limit new construction, alteration or repairs to any 1 period or architectural style.
- (d) In the case of an application for work on an historic resource located within an historic district, the commission shall be lenient in its judgment of plans for structures of little historical or design significance or for plans involving new construction, unless such plans would seriously impair the historic or architectural value of surrounding historic resources or would impair the character of the historic district.

The Secretary of the Interior's Standards for Rehabilitation

- 2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, space and spatial relationships that characterize a property will be avoided.
- 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportions, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

STAFF DISCUSSION

Background

The HPC held a preliminary consultation review for the proposed project at its April 9, 2025 meeting.² At that time, the HPC generally supported the project and staff findings. A majority of Commissioners offering comments agreed that:

- Removal of/alterations to the existing rear ell is acceptable owing to its out-of-period construction from the main block.
- The proposed addition is lower and narrower than the main block, making it deferential to the historic building, and is compatible in design with the historic property.
- The intersection of the new siding with the old should be carefully studied and detailed. The proposed siding material should be compatible with but differentiated from the historic siding.
- The pitch of the proposed addition's roof should be increased to be more in keeping with the style of the main block but should not be as high as the main ridge.
- One Commissioner suggested that the applicants explore the possibility of a full gable extending from front to back through the master bedroom with the master bathroom roof utilizing a cross-gable.

The HPC concurred with staff regarding materials to be presented with the HAWP and recommended additional documentation:

- Proposed grading modifications;
- Complete architectural drawings showing existing and proposed conditions;
- Existing and proposed roof plans;
- Manufacturers' specifications for proposed materials (siding, trim, windows, doors, and roofing).

Revised Submission – Rear Addition:

Following the preliminary consultation review, the applicants revised the submission to address concerns and considerations raised by the HPC and staff. In the revised submission, the applicants have increased the pitch and height of the addition roof, per the HPC's comments, lowered the eave line, and aligned the east elevation fenestration as suggested by staff. The submission includes the additional documentation requested by the HPC in the preliminary consultation report as well, including a grading plan that shows the removal of an existing wood retaining wall and construction of stepped pressure-treated wood retaining walls. The new retaining walls would have an average height of 14 inches and extend approximately 6 feet from the northeast rear corner of the addition and approximately 10 feet from the southwest rear corner of the proposed addition (see *Figure 8*, *Figure 9*, and *Figure 17*).

Staff finds that the proposed rear alterations are generally compatible with the historic resource and district and recommends approval. Staff finds that, while rear ells are often character-defining features of historic properties, the existing ell at 19735 White Ground Road—which has a different foundation material and features than the main block—appears to post-date the construction of the main house as well as be out-of-period for the district. Staff finds that the overall form of a rear ell with a lower roof and narrower width than the main block is more important to maintain than the preservation of the existing materials of the ell in this particular case. Staff finds that, while the proposed modifications to the existing ell are substantial, the proposed modifications would not seriously impair the character of the resource or district, and could be approved under Chapter 24A-8(4). Staff finds that the proposed project retains the historic character of the

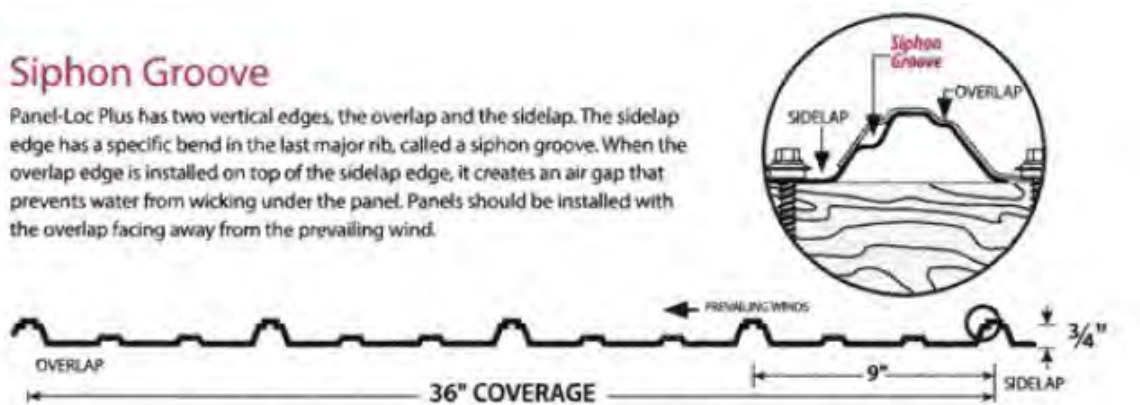
² The staff report and submission materials for <https://montgomeryplanning.org/wp-content/uploads/2025/04/II.A.-19735-White-Ground-Rd-Boyd-1109665.pdf>

property, with the removal of historic materials limited to a portion of the rear wall and rear roof slope, and that the proposal does not remove any of the character-defining features of the property, in keeping with *Standard 2* and the *Vision of Boyds*.

Staff finds that the location of the proposed addition at the rear, inset of the addition along the right (southwest) elevation, and the use of an intersecting gable roof that is set lower than the existing roof ridge provides some differentiation between the new and old, identified as key to a successful new addition in *Standard 9*, and that if removed in the future, the essential form and integrity of the property would be retained, satisfying *Standard 10*.

With some modifications, staff finds that the proposed materials for the addition, which include fiber cement lap siding, Andersen 200 series vinyl-clad wood windows, Boral trim, and metal roofing, are generally compatible materials for use on the rear addition yet differentiated from the old, per Chapter 24A-8(b)(2) and *Standard 9*. Staff finds that the proposed siphon groove Panel-Loc Plus roofing, which has a low profile and is proposed for both the addition and the main block, resembles the existing corrugated metal roofing and is compatible with the resource and district (*Figure 6*).³ Regarding the windows, Staff notes that, unlike standard vinyl windows, the Andersen 200 vinyl-clad wood windows have a traditional putty-slope profile and depth between the glazing and sash components (*Figure 7*). Staff finds that the general dimensions and appearance of the proposed window trim and sills is appropriate, but has concerns about the use of Fibrex window casing by Andersen, which is not paintable like the other proposed trim on the addition. Staff recommends that wood or a smooth and painted substitute material such as Boral or Azek be utilized for the window casing and sills, per Chapter 24A-8(b)(2).

Per the *Vision*, staff finds that the proposed alterations do not impact the building's character-defining Gothic Revival features, alter the building setbacks, rhythm and spacing between buildings, or any geographic or landscape features that characterize the property or district, and that the horizontal cladding, double-hung fenestration, and gable roof form are compatible with the character of the property and district, in keeping with Chapter 24A-8(b)(2).



³An installation guide with additional details for the proposed roofing is available here: https://centralstatesco.com/csm_files/products/panel-loc_plus_panel-loc/documentation/GUID_INSTL_Panel-LocPlus.pdf



Figure 6: Section detail (above) and example image (below) of the proposed Panel-Loc Plus Siphon Groove roofing.

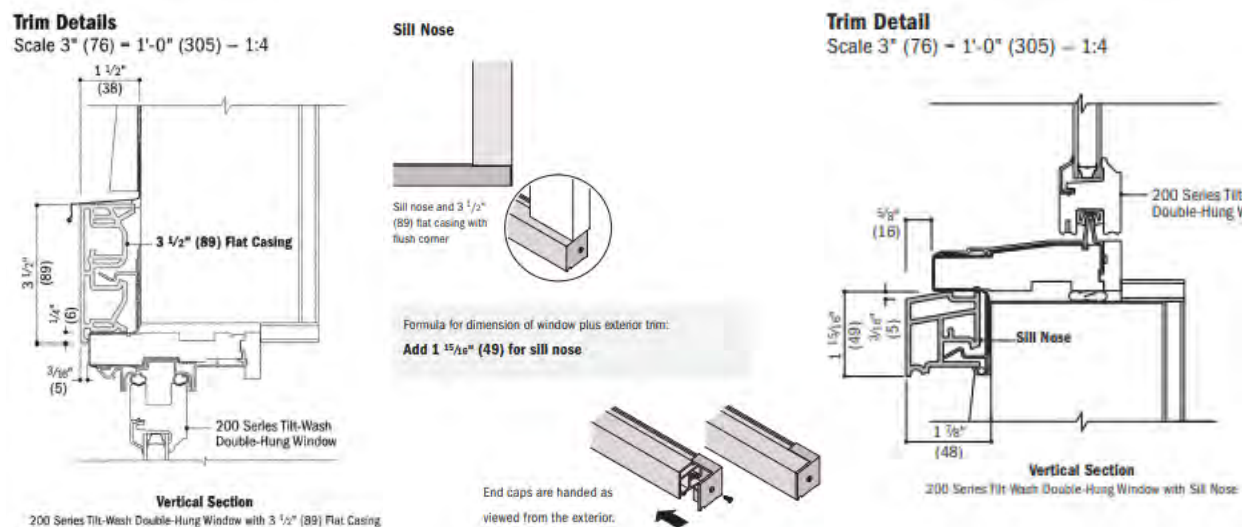


Figure 7: Proposed Andersen 200 series vinyl-clad wood window and 3.5 inch Fibrex casing section and sill details.

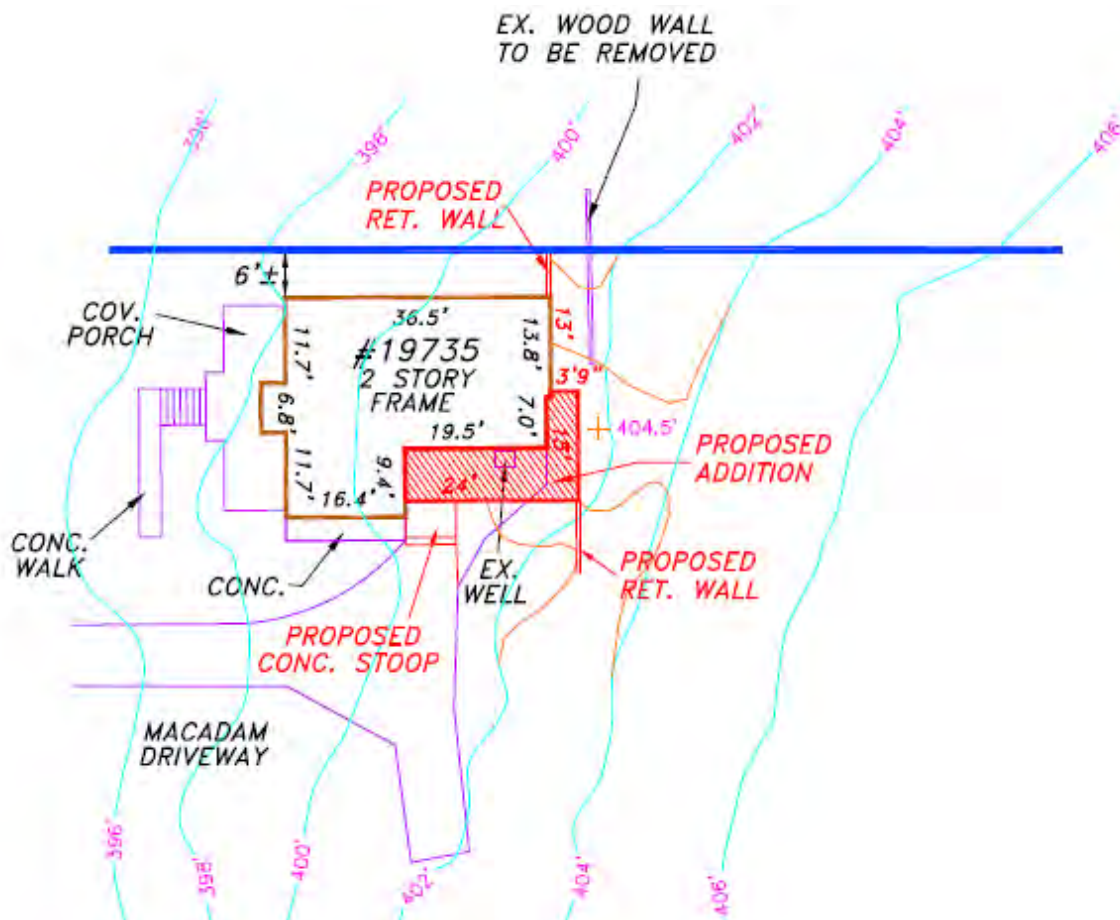


Figure 8: Proposed grading plan showing the existing wood retaining wall to be removed and the locations of the two new proposed retaining walls. The new retaining walls would be constructed of 6x6 pressure treated lumber.



Figure 9: View of the existing rear ell and existing wood retaining wall proposed for removal.



Figure 10: Existing left-side (northeast) elevation photograph showing the aligned fenestration and existing two-over-two window on the main block.

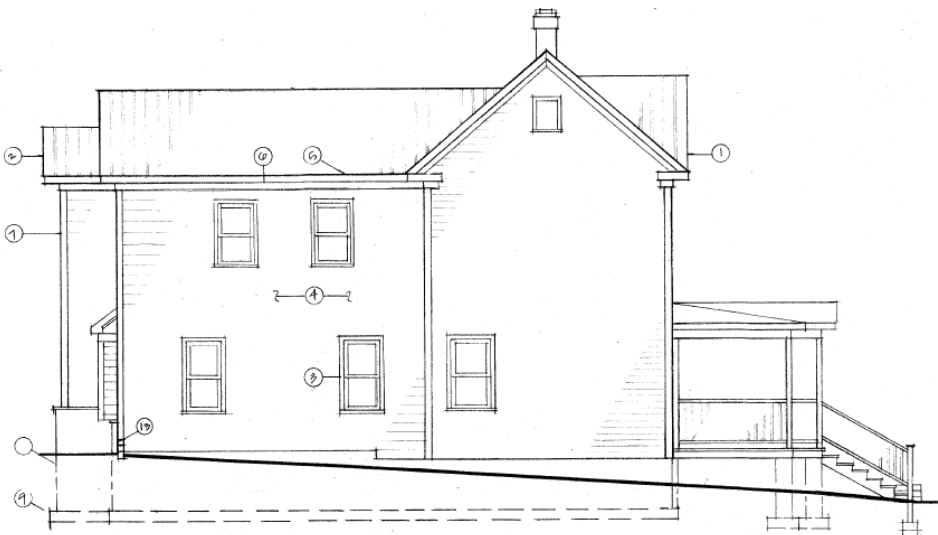


Figure 11: Left-side (northeast) elevation drawing from preliminary consultation review.

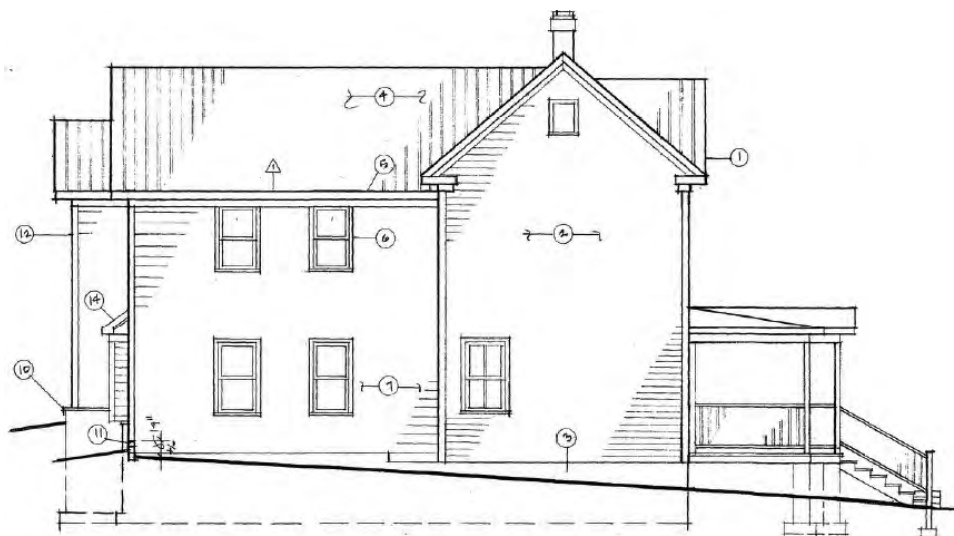


Figure 12: Revised left-side (northeast) elevation drawing.



Figure 13: Existing right-side (southwest) elevation photograph.



Figure 14: Right-side (southwest) elevation drawing from preliminary consultation review.

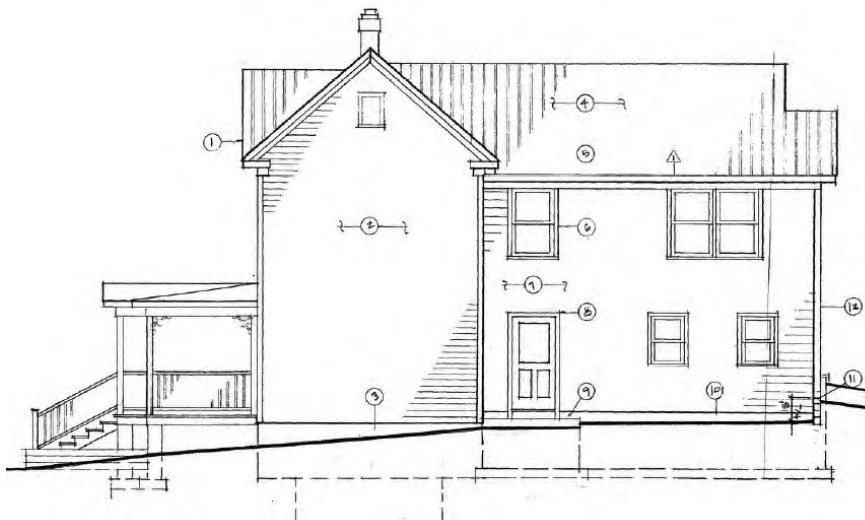


Figure 15: Revised right-side (southwest) elevation drawing.



Figure 16: Existing rear elevation photograph.

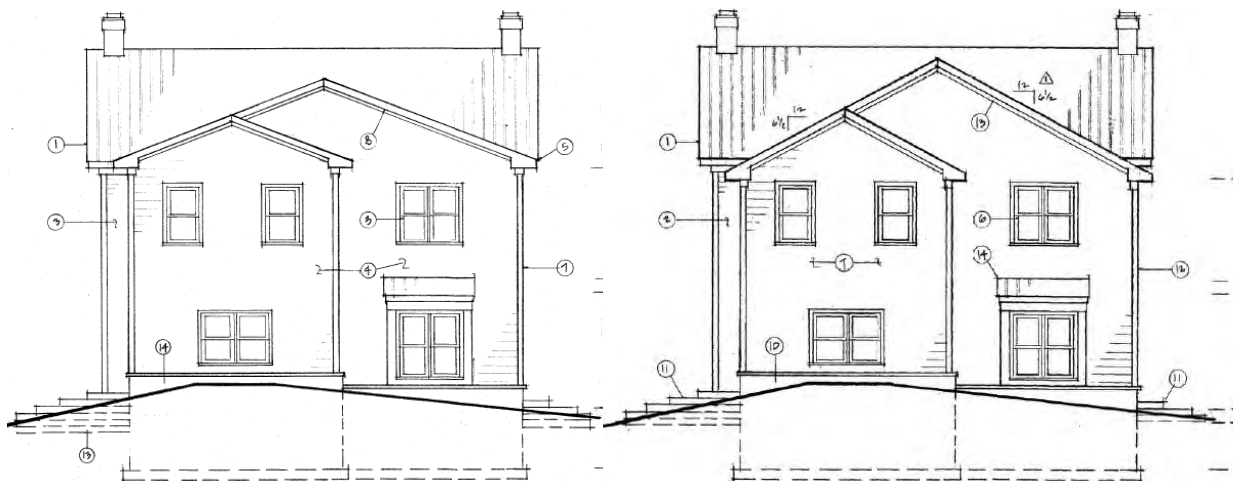


Figure 17: Rear elevation proposed at preliminary consultation review (left) and revised rear elevation drawing (right).

Roof Replacement:

The applicant also proposes to replace the existing main roof with new Panel-Loc Plus Siphon Groove metal roofing to match that of the proposed addition (*Figure 6*). The proposed roofing resembles the historic roofing, but with a slightly different profile. This replacement would qualify for the County's historic preservation tax credit.



Figure 18: The existing metal roofing.

Previous Alterations:

Staff notes that some alterations were made to the property prior to the current ownership that, when replaced in the future, should not be replaced in kind, but rather should be restored to their original appearance. Most of the original two-over-two wood windows on the house appear to have been removed prior to current ownership, between 2012-2016. The existing windows can remain until they need to be replaced, at which time the windows should be restored to their original two-over-two configuration. Likewise, the original wood siding has been covered with vinyl siding. Staff recommends that when the vinyl siding has outlived its service life and needs to be replaced, the vinyl siding be removed and the underlying wood siding repaired or replaced in-kind. The restoration or replacement to match the original wood siding would qualify for the County's historic preservation tax credit.

STAFF RECOMMENDATION

Staff recommends that the Commission **approve with three (3) conditions** the HAWP application:

1. The new windows must have smooth and painted trim and sills.
2. The existing replacement windows on the main block are not eligible to be replaced in-kind, and must be reviewed under a new HAWP when they are replaced in the future. New replacement windows must be restored to their original two-over-two appearance and be constructed from wood or an appropriate clad substitute that more closely approximate the appearance and materials of the previous windows.
3. The vinyl siding on the main block is not eligible to be replaced in-kind and must be reviewed under a new HAWP when it is replaced in the future, unless the underlying original wood siding is to be restored or replaced in-kind.

under the Criteria for Issuance in Chapter 24A-(b)(1) and (2), having found that the proposal will not substantially alter the exterior features of the historic resource; is compatible in character with the purposes of Chapter 24A;

and with the *Secretary of the Interior's Standards for Rehabilitation* #2, #9, and #10;

and with the general condition that the applicant shall present an electronic set of drawings, if applicable, to Historic Preservation Commission (HPC) staff for review and stamping prior to submission for the Montgomery County Department of Permitting Services (DPS) building permits;

and with the general condition that final project design details, not specifically delineated by the Commission, shall be approved by HPC staff or brought back to the Commission as a revised HAWP application at staff's discretion;

and with the general condition that the applicant shall notify the Historic Preservation Staff if they propose to make **any alterations** to the approved plans. Once the work is completed the applicant will contact the staff person assigned to this application at 301-495-2167 or laura.dipasquale@montgomeryplanning.org to schedule a follow-up site visit.



**APPLICATION FOR
HISTORIC AREA WORK PERMIT**
HISTORIC PRESERVATION COMMISSION
301.563.3400

FOR STAFF ONLY:
HAWP# 1109665
DATE ASSIGNED _____

APPLICANT:

Name: Katherine Blackman & Peter Martel
Address: 19735 White Ground Road
Daytime Phone: 202-740-5411 / 202-997-1738

E-mail: kblackman2@gmail.com, petermartel@hotmail.com
City: Boys Zip: 20841
Tax Account No.: 06-00389174

AGENT/CONTACT (if applicable):

Name: Richard Kirby
Address: 28716 Greenberry Dr
Daytime Phone: 301-370-0660

E-mail: housingart@aol.com
City: Gaithersburg Zip: 20882
Contractor Registration No.: 97835

LOCATION OF BUILDING/PREMISE: MIHP # of Historic Property Master Plan Site #18/8-26

Is the Property Located within an Historic District? Y Yes/District Name Boys
No No/Individual Site Name _____

Is there an Historic Preservation/Land Trust/Environmental Easement on the Property? If YES, include a map of the easement, and documentation from the Easement Holder supporting this application.

Are other Planning and/or Hearing Examiner Approvals /Reviews Required as part of this Application? (Conditional Use, Variance, Record Plat, etc.?) If YES, include information on these reviews as supplemental information.

Building Number: 19735 Street: White Ground Road
Town/City: Boys Nearest Cross Street: Clopper Road
Lot: MapDU52 Block: Grid 0000 Subdivision: 0001 Parcel: 513

TYPE OF WORK PROPOSED: See the checklist on Page 4 to verify that all supporting items for proposed work are submitted with this application. Incomplete Applications will not be accepted for review. Check all that apply:

- | | | |
|--|---|--|
| <input type="checkbox"/> New Construction | <input type="checkbox"/> Deck/Porch | <input type="checkbox"/> Shed/Garage/Accessory Structure |
| <input checked="" type="checkbox"/> Addition | <input type="checkbox"/> Fence | <input type="checkbox"/> Solar |
| <input checked="" type="checkbox"/> Demolition | <input checked="" type="checkbox"/> Hardscape/Landscape | <input type="checkbox"/> Tree removal/planting |
| <input checked="" type="checkbox"/> Grading/Excavation | <input checked="" type="checkbox"/> Roof | <input type="checkbox"/> Window/Door |
| | | <input type="checkbox"/> Other: _____ |

I hereby certify that I have the authority to make the foregoing application, that the application is correct and accurate and that the construction will comply with plans reviewed and approved by all necessary agencies and hereby acknowledge and accept this to be a condition for the issuance of this permit.

[Signature]
Signature of owner or authorized agent

7-19-25
Date

HAWP APPLICATION: MAILING ADDRESSES FOR NOTIFYING
 [Owner, Owner's Agent, Adjacent and Confronting Property Owners]

Owner's mailing address Katherine Blackman Peter Martel 19735 White Ground Road Boyds, MD 20841	Owner's Agent's mailing address Housing Art 28716 Greenberry Drive Gaithersburg, MD 20882
Adjacent and confronting Property Owners mailing addresses	
19810 White Ground Road Boyds, MD 20841	19901 White Ground Road Boyds, MD 20841
19821 White Groud Road Boyds, MD 20841	8101 Glembrook Road STE 220 Bethesda, MD 20815

Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

This rural Circa 1880's two-story wood-frame Gothic Revival residence features a reverse gable roof facing White Ground Road with main gable ridge line parallel to the road and bookended by brick chimneys. Subsequently constructed rear additions have both one and two-story forms of non-significant character. An open porch spans the front elevation with turned posts and decorative post / beam brackets. A raised planting area adjacent to the front porch steps is supported by pressure treated wood. Exterior finishes include deteriorating ribbed metal roofing, double-five vinyl siding, painted wood trim, and 1/1 double hung aluminum replacement windows.

The 1.1 acre site of mostly lawn is surrounded on all sides by land owned by the Prysbyterian Church with lawn to the east then woods to the south and west. The church building itself is over 500' away. The ground slopes toward the residence with attempts by previous occupants to address drainage concerns with a pressure treated wood retaining wall that encroaches on the church property. Also employed was a partially raised foundation wall to protect the existing floor framing as the finish floor at the rear of the residence is close to the existing grade with minimal slope for drainage.

Description of Work Proposed: Please give an overview of the work to be undertaken:

The original main 1880's portion is to remain "As-Is" except for the in kind replacement of the ribbed metal roofing. The existing rear addition is to be partially removed and/or enveloped within the proposed two-story addition with expansion limits at 3.5' to the south and 6.2' to the west. There are no trees to be impacted by this scope. The new addition top plate and truss heel height is to be raised so that the overhangs may match the drip line of the original house, as well as its soffit / frieze height and the space between the frieze and top of the window trim. The new addition is to also receive in kind metal roofing, James Hardie fiber cement siding, and Andersen Series 200 1/1 double hung windows. Two (2) 6 x 6 pressure treated retaining walls (approx 18" to 24" high), raised foundation protection, and adequate postive drainage are proposed for the rear of the residence with the existing retaining wall encroachment on the adjacent property to be eliminated.

Work Item 1: Existing & New Roof

Description of Current Condition:

Aged, deteriorating ribbed metal with multiple coats of paint.

Proposed Work:

Remove and replace with Central States Panel Loc Plus prefinished ribbed metal roofing on main house and new addition.

Work Item 2: New Addition

Description of Current Condition:

One and Two-Story Rear Addition over crawl space and slab-on-grade. Conditions not adequate to protect against drainage area above the residence. Non-compliant well location and oil tank eyesore.

Proposed Work:

Partially remove and envelop rear addition with new footprint for a two-story addition. The existing rear crawl space is to be maintained. Raise rear foundation wall for grade protection, add two wood retaining walls, and provide positive drainage behind the house. Relocate well and eliminate oil tank with new hvac system.

Work Item 3: Concrete Stoop

Description of Current Condition:

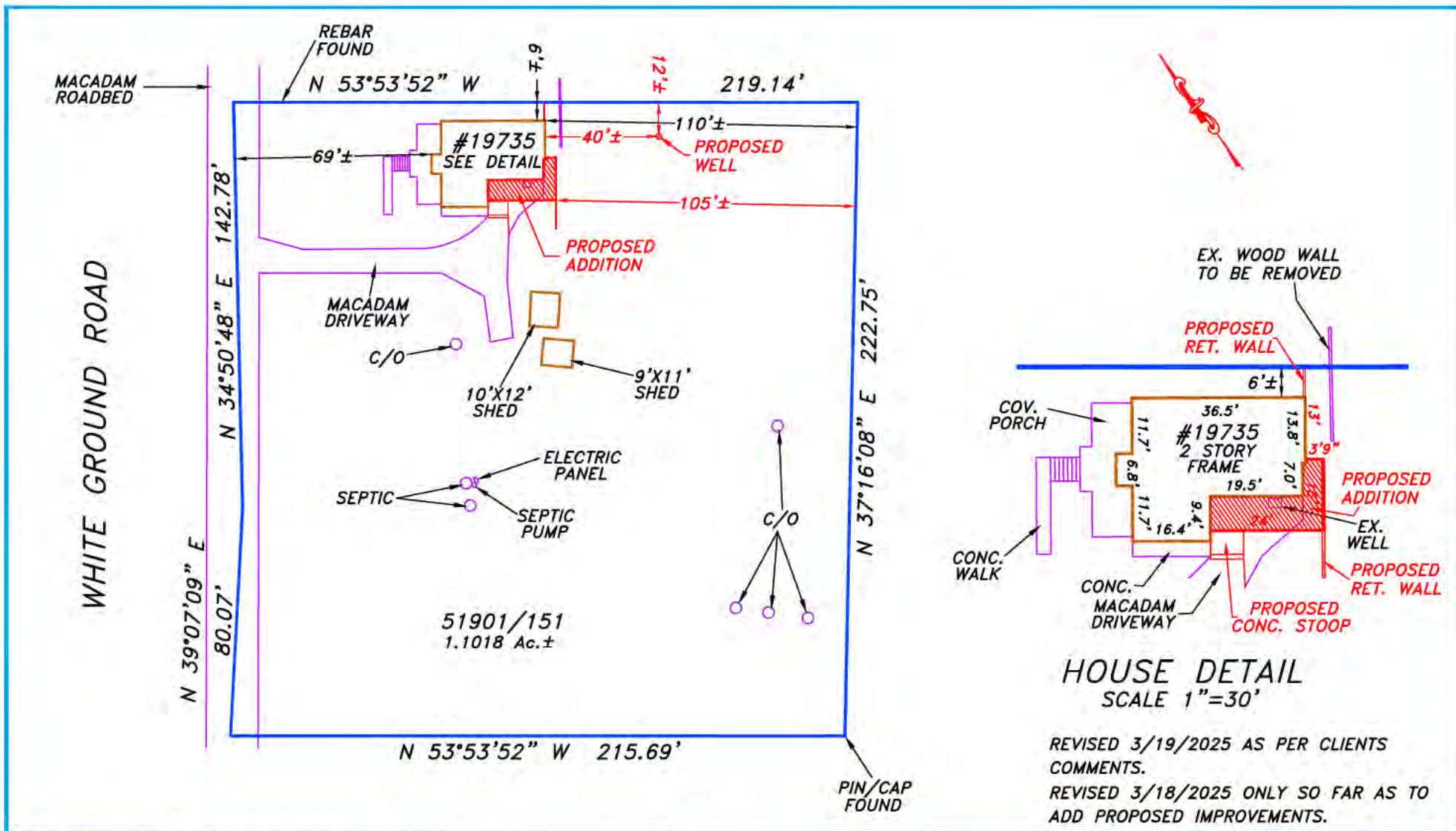
Side entry off asphalt driveway.

Proposed Work:

Relocate side entry and pour new concrete stoop.

HISTORIC AREA WORK PERMIT CHECKLIST OF APPLICATION REQUIREMENTS

	Required Attachments						
Proposed Work	1. Written Description	2. Site Plan	3. Plans/ Elevations	4. Material Specifications	5. Photographs	6. Tree Survey	7. Property Owner Addresses
New Construction	*	*	*	*	*	*	*
Additions/ Alterations	* ✓	* ✓	* ✓	* ✓	* ✓	* ✓ N/A	* ✓
Demolition	*	*	*		*		*
Deck/Porch	*	*	*	*	*	*	*
Fence/Wall	*	*	*	*	*	*	*
Driveway/ Parking Area	*	*		*	*	*	*
Grading/Excavation/Landscaping	*	*		*	*	*	*
Tree Removal	*	*		*	*	*	*
Siding/ Roof Changes	*	*	*	*	*		*
Window/ Door Changes	*	*	*	*	*		*
Masonry Repair/ Repoint	*	*	*	*	*		*
Signs	*	*	*	*	*		*



The purpose of this drawing is to locate, describe, and represent the positions of buildings and substantial improvements affecting the property shown hereon, being known as:

19735 White Ground Road
as described in a deed
recorded among the Land Records of Montgomery County, Maryland in Liber 51901, folio 151

This is to certify that I either personally prepared or was in responsible charge over the preparation of this drawing and the surveying work reflected in it, all set forth in Regulation .12 of Chapter 09.13.06 of the Code of Maryland Annotated Regulations.

This is page one of a two page document. The advice found on the affixed page is an integral part of this drawing, and is not valid without all pages.



James Carl Hudgins
Property Line Surveyor #96
Expiration Date: 3/11/2026

SITE PLAN
19735 WHITE GROUND ROAD
6th ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND

NTT Associates, Inc.

16205 Old Frederick Rd.
Mt. Airy, Maryland 21771
Phone: (410) 442-2031
Fax: (410) 442-1315
www.nttsurveyors.com

Scale: 1"= 50'

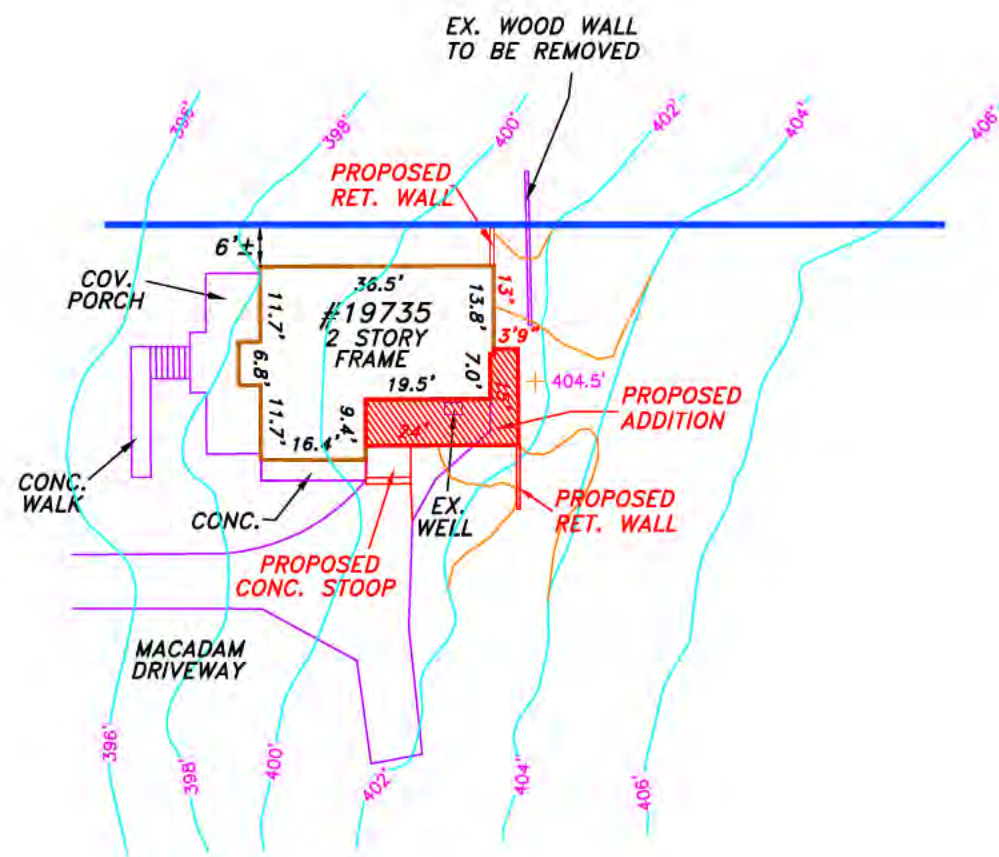
Date: 2/26/2025

Field By: RMS/KSW

Drawn By: RMS

File No.: MISC 16952 A

Page No.: 1 of 2

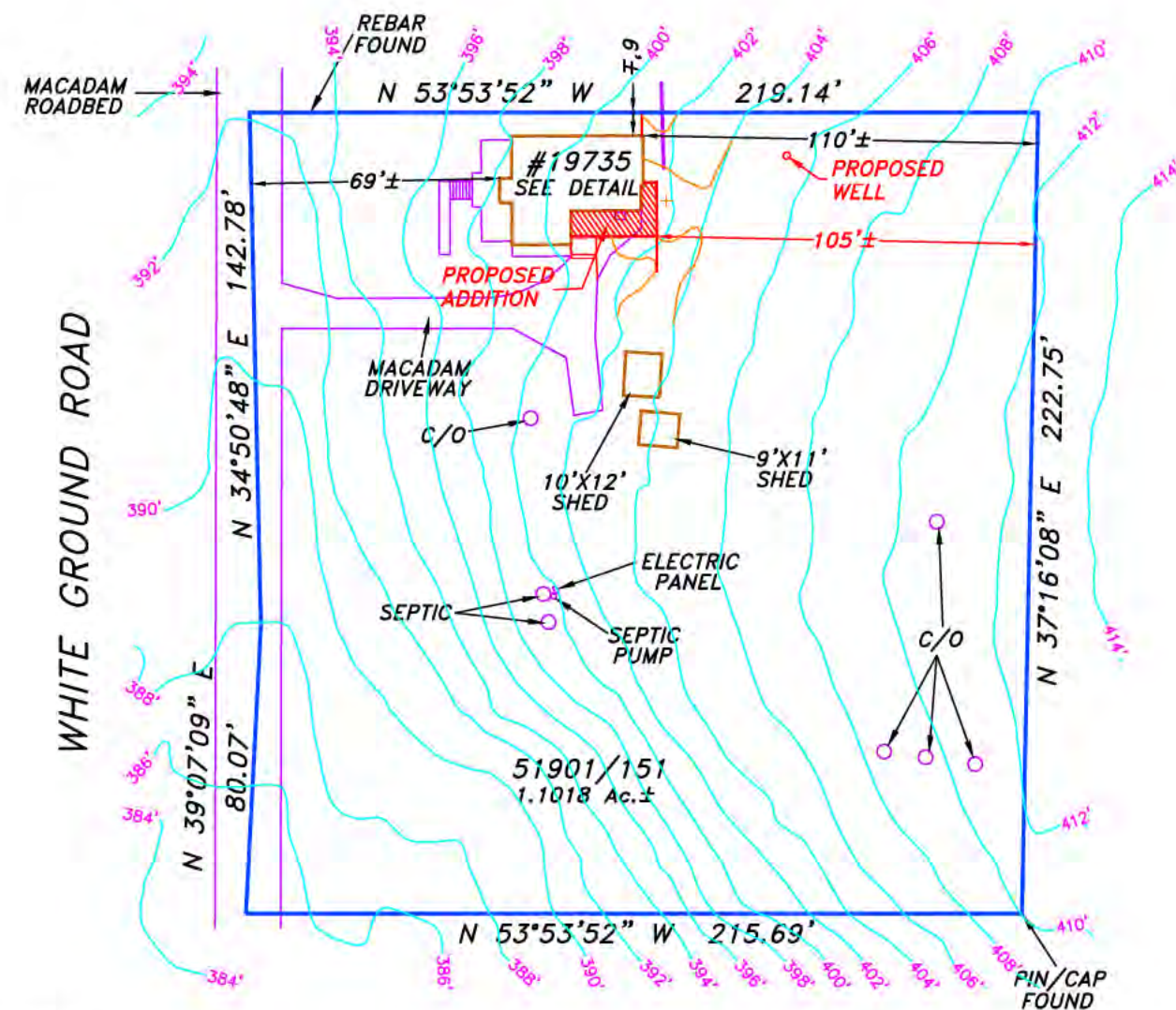


HOUSE DETAIL
SCALE 1"=30'



JOB SPECIFIC NOTES:

- 1) The description in deed 51901/151 failed to mathematically close by 5'±. The property outline and area shown hereon were derived from a Boundary Survey performed by Cloverlea Land Surveys Inc., dated February 23, 2016, provided by client.
- 2) The Contours and Elevations shown hereon were derived from MNCPPC GIS data and not based on a field run Topographical Survey.
- 3) The accuracy of the distances shown from any structure to any apparent property line is 2'±.
- 4) This drawing does not represent a Boundary Survey. Any property markers labeled hereon are not guaranteed by NTT Associates, Inc.
- 5) The Subject Property is shown in Zone X on the FIRM Map of Montgomery County, Maryland on Community Panel Number 24031C0165 D, effective 9/29/2006.



REVISED 3/19/2025 AS PER CLIENTS COMMENTS.

The purpose of this drawing is to locate, describe, and represent the existing and proposed contours in relation to the buildings affecting the property shown hereon, being known as:

19735 White Ground Road
as described in a deed recorded among the Land Records of Montgomery County, Maryland in Liber 51901, folio 151.

See Job Specific Note Number 1

This is to certify that I either personally prepared or was in responsible charge over the preparation of this drawing and the surveying work reflected in it, all set forth in Regulation .12 of Chapter 09.13.06 of the Code of Maryland Annotated Regulations.



James Carl Hudgins
Property Line Surveyor #96
Expiration Date: 3/11/2026

GRADING PLAN
19735 WHITE GROUND ROAD
6th ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND

NTT Associates, Inc.
16205 Old Frederick Rd.
Mt. Airy, Maryland 21771
Phone: (410) 442-2031
Fax: (410) 442-1315
www.nttsurveyors.com

Scale: 1"= 50'
Date: 2/26/2025
Field By: RMS/KSW
Drawn By: RMS
File No.: MISC 16952 B
Page No.: 1 of 1

GENERAL NOTES

- 1) Contractor shall verify all dimensions and conditions prior to start and notify of discrepancies.
- 2) All concrete to be 150 pcf and 3500 psi air entrained.
- 3) All CMU shall be load bearing units conforming to ASTM C90-70 for hollow units w/truss-type bed reinforcing @ 16" vertical spacing. Install #4 rebar in grout filled cells @ 32" oc.
- 4) Footings shall be 24" x 8" w/(3) #4 Rebar continuous (UNO).
- 5) Provide foundation waterproofing per IRC 2018 Section R-406.
- 6) Drainage controls per IRC 208 Sections R-401.3; R-405 and M.C. Ex Ord
- 7) Basement foundation walls per IECC 2018 Section R-402.2.9.
- 8) Provide passive radon gas controls for the new addition per IRC Appendix F.
- 9) Rafters, joists, and studs shall be #2 HF /SPF with min Fb 1000 & ME 1500.
- 10) Provide double jacks under headers 4'-0" to 5'-11" and triple jacks for 6' or longer.
- 11) Exit and stair illumination per IRC 2018 Section R-311.7.9.
- 12) Graspable handrails per IRC 2018 Section 311.7.8.
- 13) Guardrails per IRC 2018 Section R-312.1.
- 14) Attic roof ventilation per IRC 2018 Section R-806.
- 15) Window fall protection per IRC 2018 Section R-312.2.
- 16) Tempered safety glazing per IRC 201 Section R-308.
- 17) New addition windows shall be Andersen Series 200 Double Hung.
- 18) New main stair shall conform with IRC 2018 Section R-311.7.5. Stair manufacturer shall field verify dimensions prior to fabrication.
- 19) Combo carbon monoxide and smoke alarms per IRC 2018 Section R-314.
- 20) Install fire blocking and draft stopping per IRC 2018 R-302.11
- 21) All new interior walls and ceiling repairs are to be covered with ½" gypsum board, screwed, glued, and finished per manufacturer's recommendations. Durock or equal shall be used in tub and shower areas.
- 22) Existing heart pine flooring to be preserved. Install 5" random length #2 red oak t & g flooring in the new bedroom, kitchen, and den areas.



BLACKMAN – MARTEL RESIDENCE
19735 White Ground Road, Boyds
Montgomery County, Maryland

PROJECT DESCRIPTION

The project scope for this 1880's residence in the R-200 Zone includes partial demolition as follows: remove rear roof structure / chimney, second floor walls & second floor joists, first floor kitchen cabinets, and the existing one story rear entry, laundry, bath, and the floor structure below these spaces. A new two-story rear addition is proposed with no trees to be impacted by the work. The replacement of the existing stairs with a code-compliant stairs is proposed along with new mechanical, electrical, and plumbing systems. The roof of the existing main house is to be replaced in kind with ribbed metal, and the new addition shall receive this same material. The new addition is to also receive James Hardie Fiber Cement siding and Andersen Series 200 double hung windows. The existing well is to be abandoned and a new well is to be drilled. The oil tank is to be eliminated with the new hvac system. This project is subject to Historic Area Work Permit approval.

CODE / DESIGN CRITERIA

Work shall conform to the 2018 ICC International Residential Code; 2018 International Energy Conservation Code; 2018 International Mechanical Code; NFPA 70 National Electric Code; and all applicable local amendments:

Roof Load – 30 PSF Live, 10 PSF Dead
Ground Snow Load – 35 PSF
Attic Load – 20 PSF Live, 10 PSF Dead
Second Floor Live Load – 30 PSF Live, 15 PSF Dead
First Floor Live Load – 40 PSF Live, 15 PSF Dead
Seismic Design Category B
Wind Speed – 115 MPH
Assumed Soil Bearing – 1500 psf
Frost Protection – 30 Inches

FLOOR AREA TABULATION

Ex. Basement	175
Ex. Crawl Space	498
Ex. First Floor	809
Ex. Second Floor	773
Ex. Attic	425
Total	2,750 SF

Proposed Crawl Space	341
Proposed First Floor	205
Proposed Second Floor	341
TOTAL	887 SF

Existing	2,750
Proposed	987
Total	3,737 SF

Existing Habitable Space	1128
25% Habitable Space Factor	282
Maximum Habitable Space	1410
Habitable Space Provided	1410 SF

DRAWING INDEX

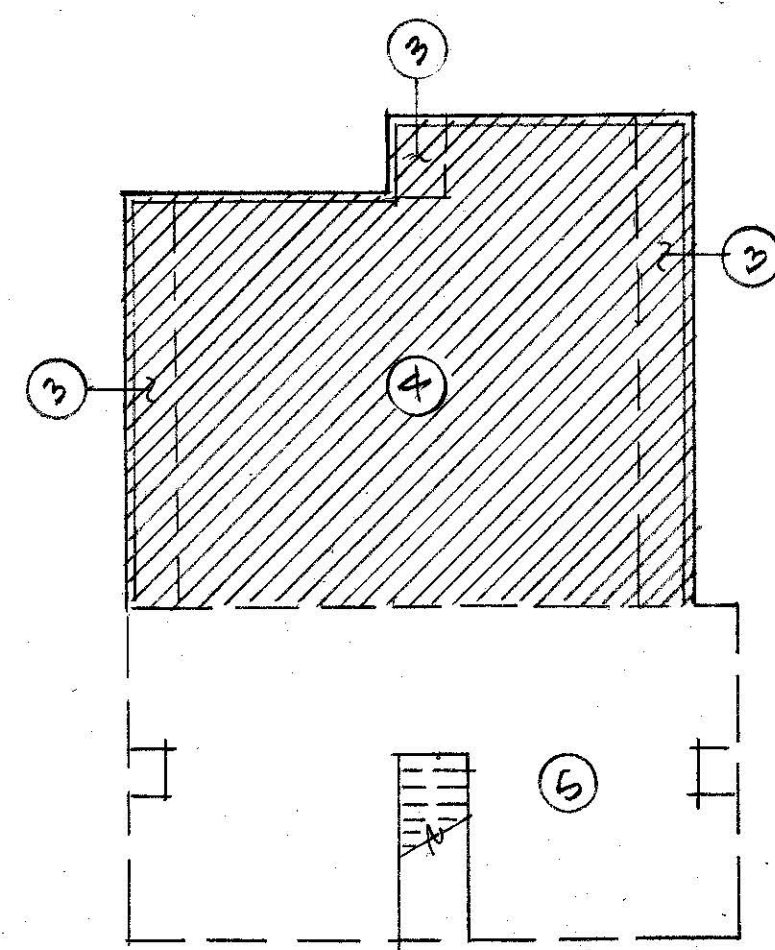
COVER SHEET & NOTES	001
DEMOLITION & THERMAL PLANS	A001
FOUNDATION & SECTION A A	A002
FIRST & SECOND FLOOR PLANS	A003
ELEVATIONS	A004
FLOOR FRAMING	A005
SECTION B B & ROOF FRAMING	A006
WALL BRACING	A007

Housing Art
28716 Greenberry Drive
Gaithersburg, MD 20882
301-370-0660

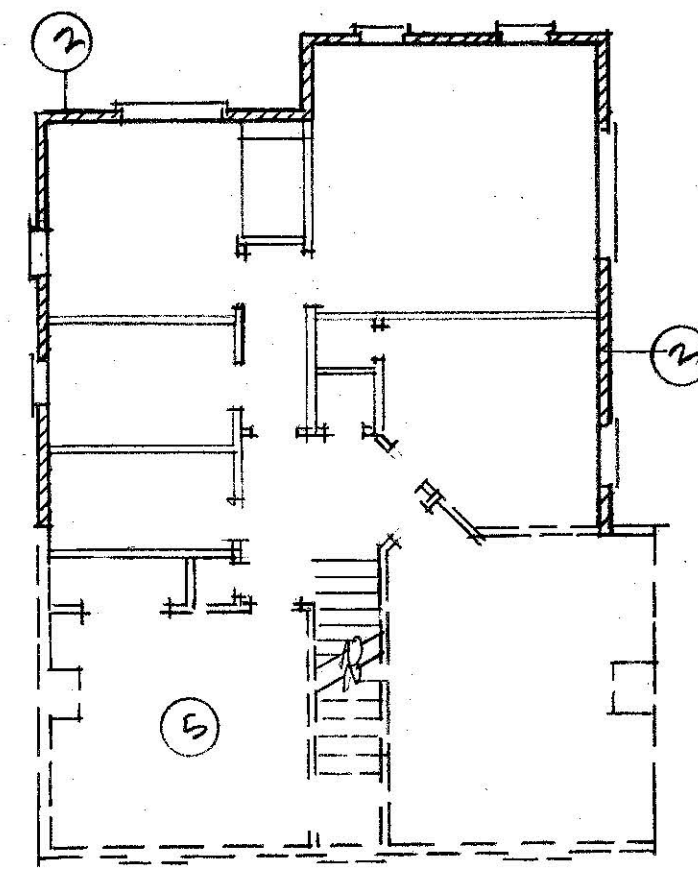
REAR ADDITION & RENOVATIONS
Blackman – Martel Residence
19735 White Ground Road, Boyds, MD 20841

COVER SHEET & NOTES

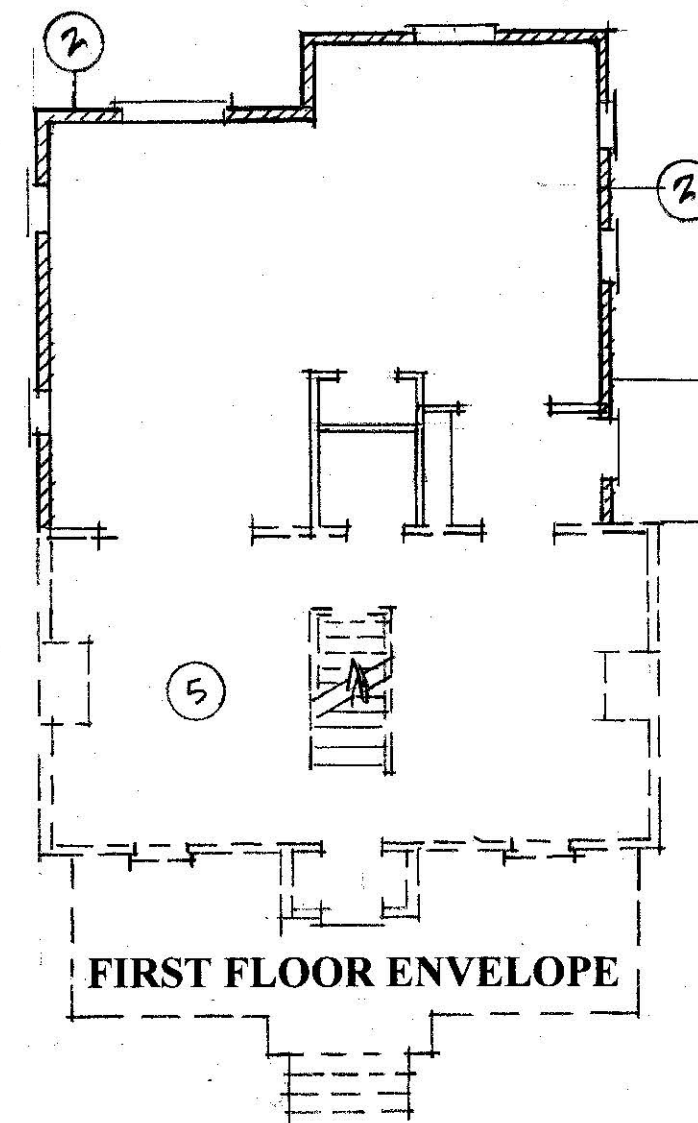
April 14, 2025



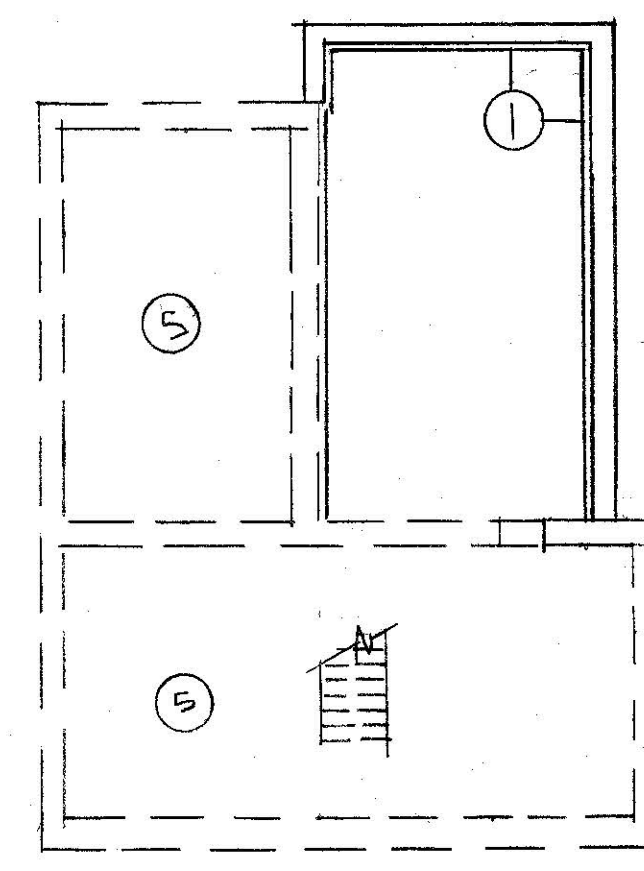
ATTIC ENVELOPE



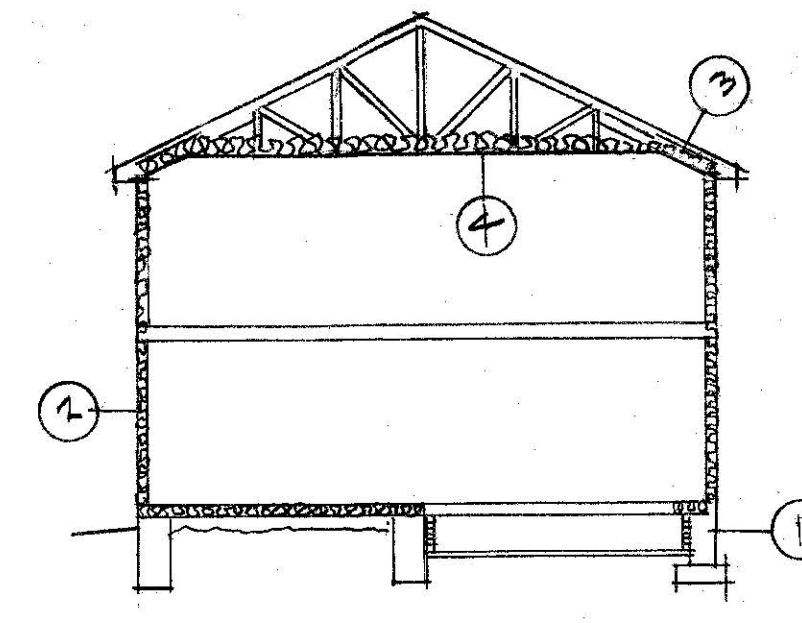
SECOND FLOOR ENVELOPE



FIRST FLOOR ENVELOPE

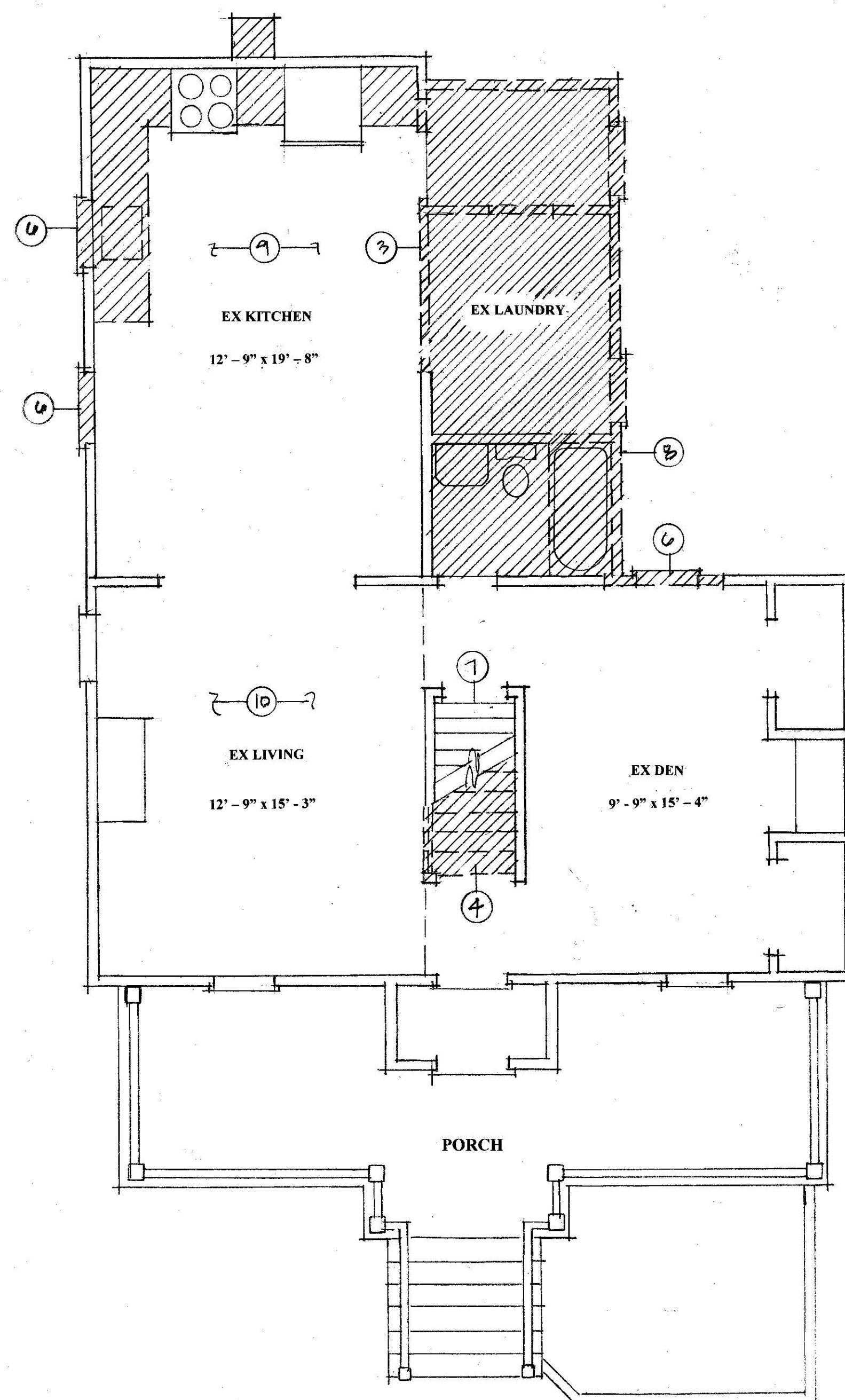


CRAWL SPACE ENVELOPE

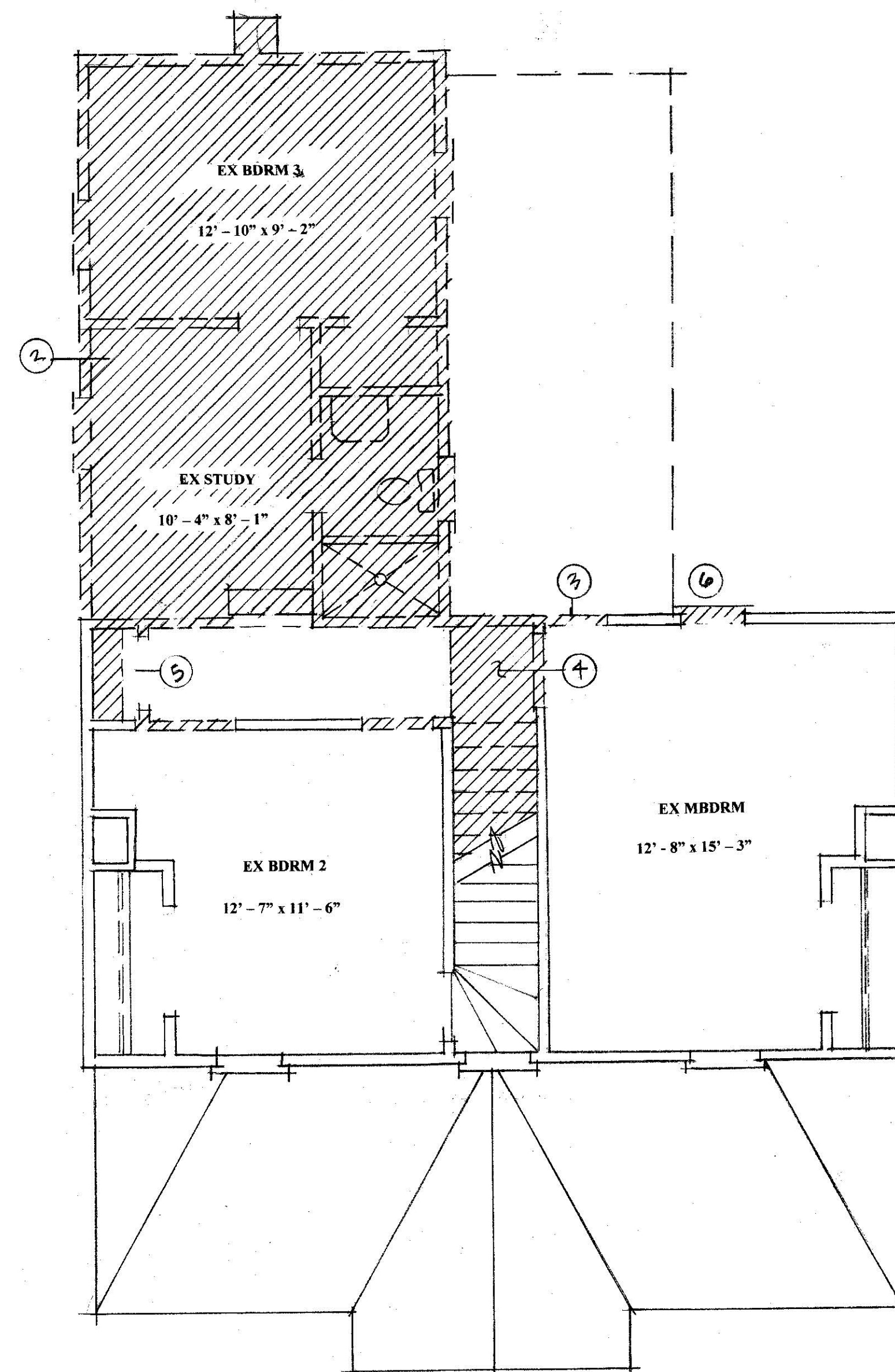


THERMAL SECTION

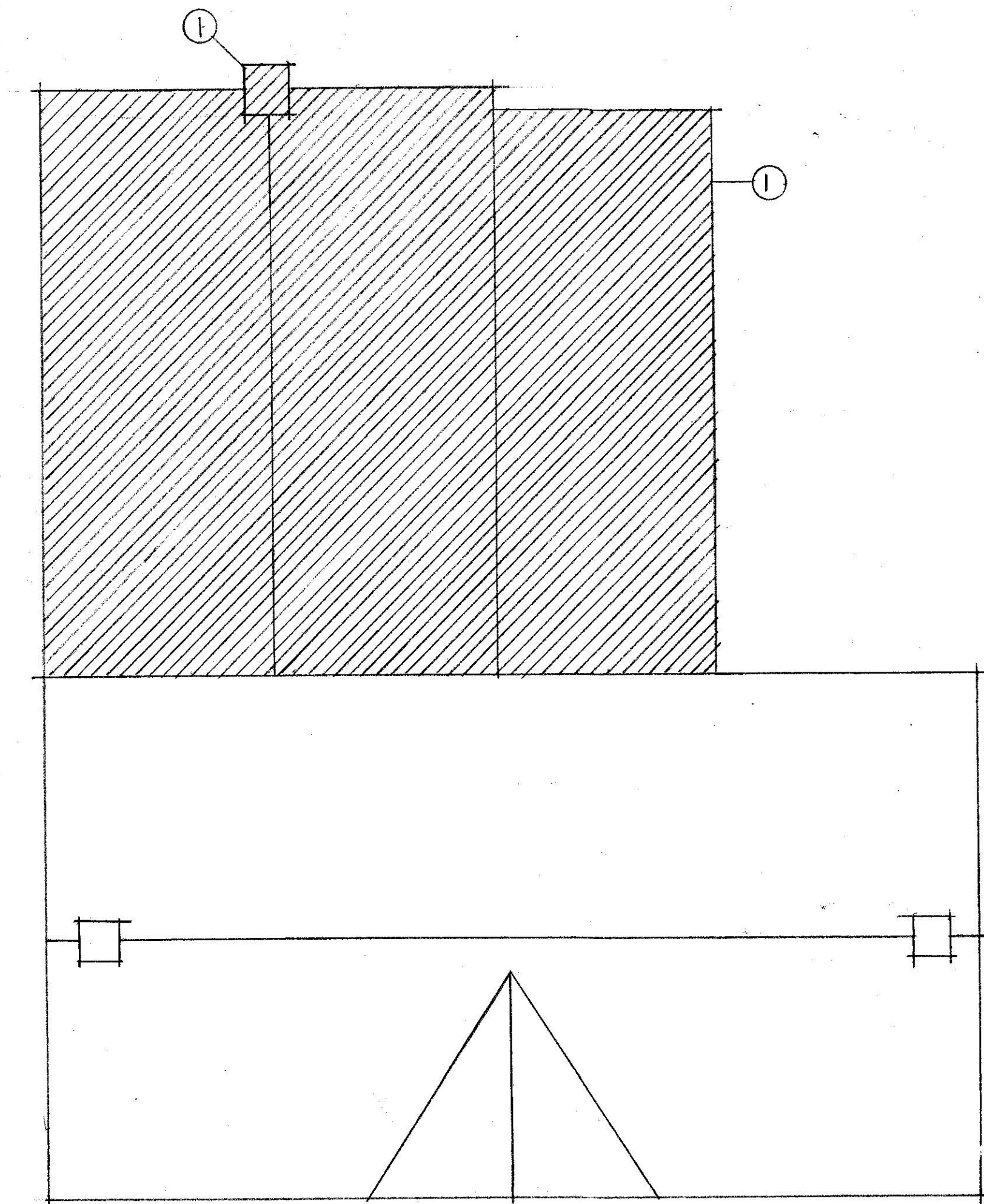
- THERMAL ENVELOPE NOTES**
- 1) R-11 FSK CONTINUOUS INSULATION / NEW CONDITIONED CRAWL SPACE
 - 2) R-21 KRAFT FACE GLASS FIBER BATTS
 - 3) R-38 KRAFT FACE GLASS FIBER BATTS / 1" AIR BAFFLE & VENTILATED EAVE
 - 4) R-49 KRAFT FACE GLASS FIBER BATTS
 - 5) EXISTING INSULATION TO REMAIN



FIRST FLOOR DEMOLITON



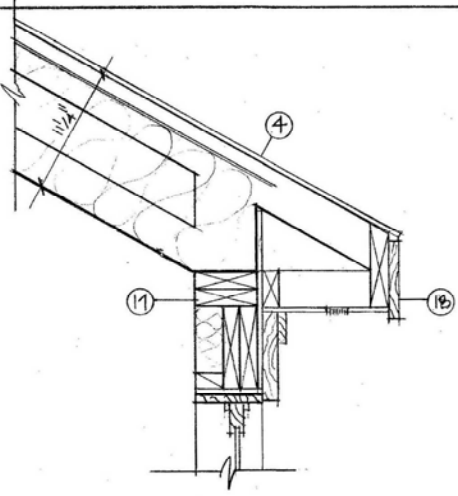
SECOND FLOOR DEMOLITION



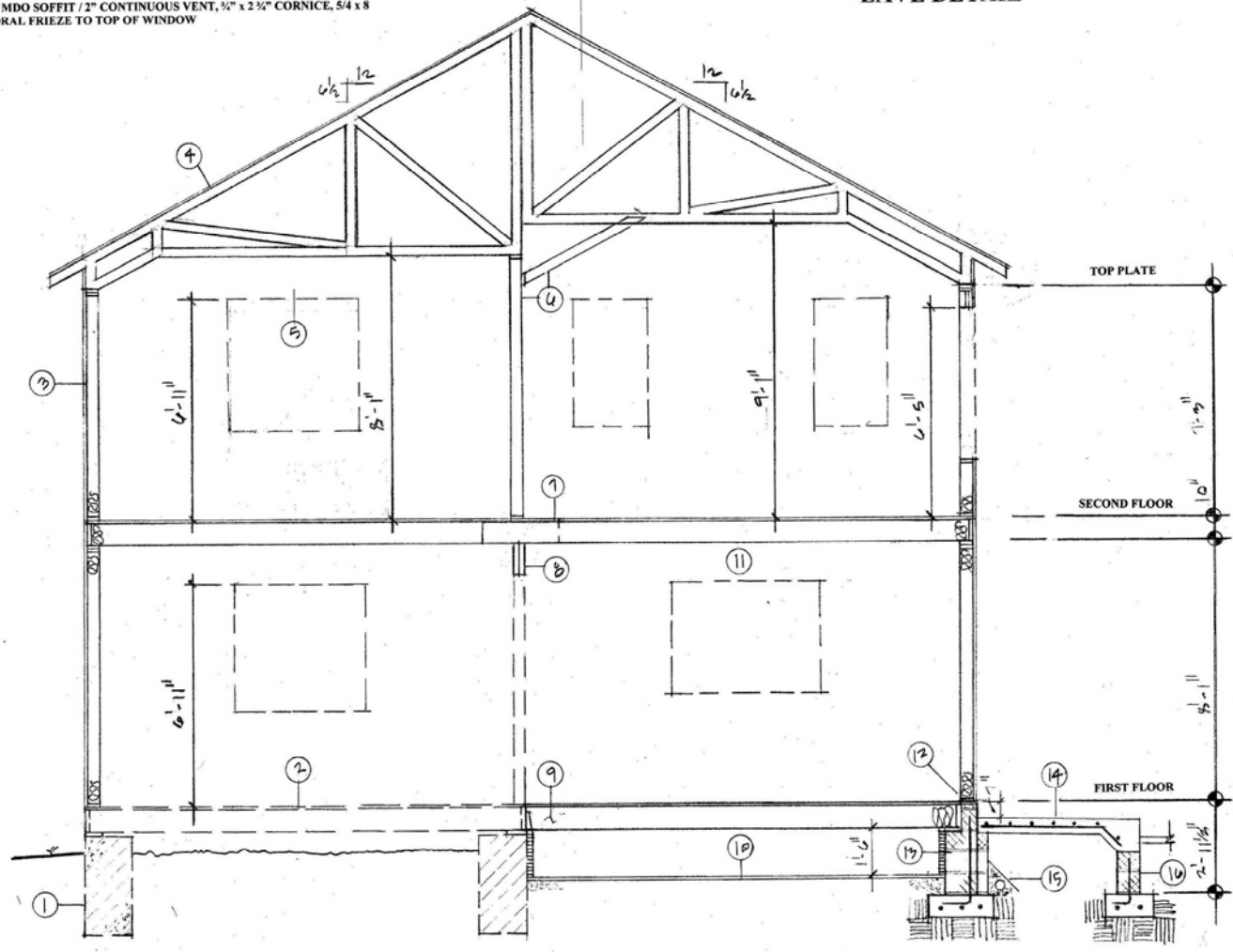
ROOF DEMOLITION

- DEMOLITION NOTES**
- 1) REMOVE EXISTING ROOF STRUCTURE & CHIMNEY
 - 2) REMOVE WALLS & FLOOR JOISTS
 - 3) PARTIALLY REMOVE EXISTING BEARING WALL
 - 4) REMOVE EXISTING STAIRS & LANDING
 - 5) REMOVE EXISTING CLOSET
 - 6) REMOVE EXISTING WINDOW
 - 7) EXISTING BASEMENT STAIRS TO REMAIN
 - 8) REMOVE EXISTING TILE, BATH, & FLOOR STRUCTURE
 - 9) REMOVE TILE & SUBFLOOR / INSPECT CRAWL SPACE
 - 10) REMOVE DROPPED CEILING & RELOCATE WIRES

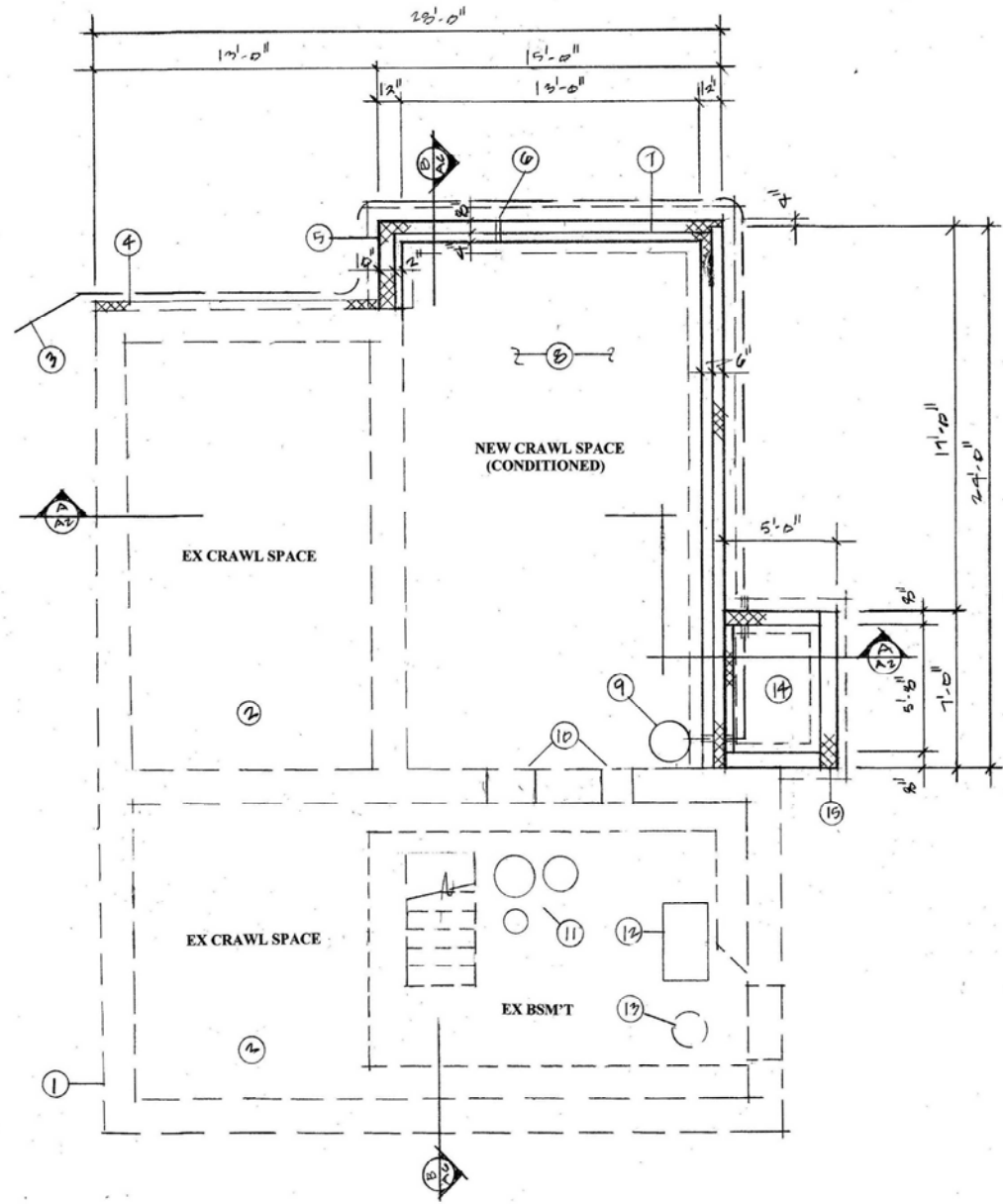
- SECTION B-B & EAVE DETAIL NOTES**
- 1) EX STONE FOUNDATION TO REMAIN
 - 2) EX 2 x 10's @ 16" oc, INSULATION, & CRAWL SPACE / (REMOVE SUBFLOOR TO INSPECT & ACCOMMODATE NEW HVAC RUNS)
 - 3) FIBER CEMENT SIDING, HOUSE WRAP, 7/16" OSB SHEATHING, 2 x 6 @ 16" oc STUDS, R-21 KP INSULATION, 1/2" GYPSUM BOARD
 - 4) CENTRAL STATES PANEL LOC PLUS, VENTED RIDGE CAP SYSTEM, PSU 30 HIGH TEMP ICE GUARD, 1/2" OSB w/CLIPS, ENGINEERED TRUSSES @ 24" oc, R38 INSULATION w/EAVE BAFFLE, R49 INSULATION (FLAT CEILING AREAS) AND 1/2" GYPSUM BOARD
 - 5) (2) 2 x 8 #2 SPF SECOND FLOOR WINDOW HEADERS (TYP)
 - 6) 2 x 4 SPF @ 16" OC INTERIOR NON-BEARING WALL & NON-STRUCTURAL SLOPED OUTRIGGER TO MATCH TRUSS BOTTOM CHORD BEYOND
 - 7) 1/2" ADVANTECH SUBFLOOR & 2 x 10 #2 HF JOISTS @ 16 oc
 - 8) (2) 1 1/2" x 11 7/8" 2-0E GP LAM LVL w/(3) 2x4 BEARING / (2) SIMPSON LCE4 POST CAPS / BLOCK CONTINUOUS TO EXISTING FOUNDATION
 - 9) 1/2" ADVANTECH SUBFLOOR & 2 x 10 #2 HF JOISTS @ 16 oc w/SIMPSON LUS210 JOIST HANGERS (VERIFY CONDITION OF EXISTING BAND JOIST)
 - 10) 2" CONC SLAB, 6 MIL POLY, 4" WASHED GRAVEL
 - 11) (2) 2 x 10 #2 HF FIRST FLOOR WINDOW HEADERS (TYP)
 - 12) INSTALL 1/2" x 12" J-BOLTS MAX 6' oc / ONE FOOT OFF CORNERS w/PT 2 x 6 SILL PLATE / FOAM SEALER UNDER WALL PLATES
 - 13) NEW 12" CMU WALL ON 24" x 8" CONC FTG w/(3) #4 REBAR CONTINUOUS & FOUR INCH CMU STOOP SUPPORT (SEE GENERAL NOTES FOR TYPICAL CMU WALL REINFORCEMENT)
 - 14) WASHED GRAVEL BACKFILL UNDER NEW 6" CONCRETE STOOP w/#4 REBAR 12" oc EACH WAY / SLOPE 2% TO DRAIN
 - 15) 4" DIA EXT DRAINTILE, WASHED GRAVEL BED, FILTER CLOTH / DRAIN TO SEALED SUMP & DAYLIGHT TO GRADE WHERE POSSIBLE
 - 16) NEW 8" CMU WALL / 18" x 8" CONC FTG w/(3) #4 REBAR CONTINUOUS
 - 17) (2) 2 x 6 TOP PLATES, (2) 2 x 8 SPF HEADER, 1 1/2 x 2 1/2" BLOCK
 - 18) 1 x 8 BORAL FASCIA, RIPPED 2 x 8 ROUGH FASCIA, 2 x 4 OUTRIGGER, 1/2" MDO SOFFIT / 2" CONTINUOUS VENT, 1/2" x 2 1/2" CORNICE, 5/4 x 8 BORAL FRIEZE TO TOP OF WINDOW



EAVE DETAIL



SECTION A - A



FOUNDATION PLAN

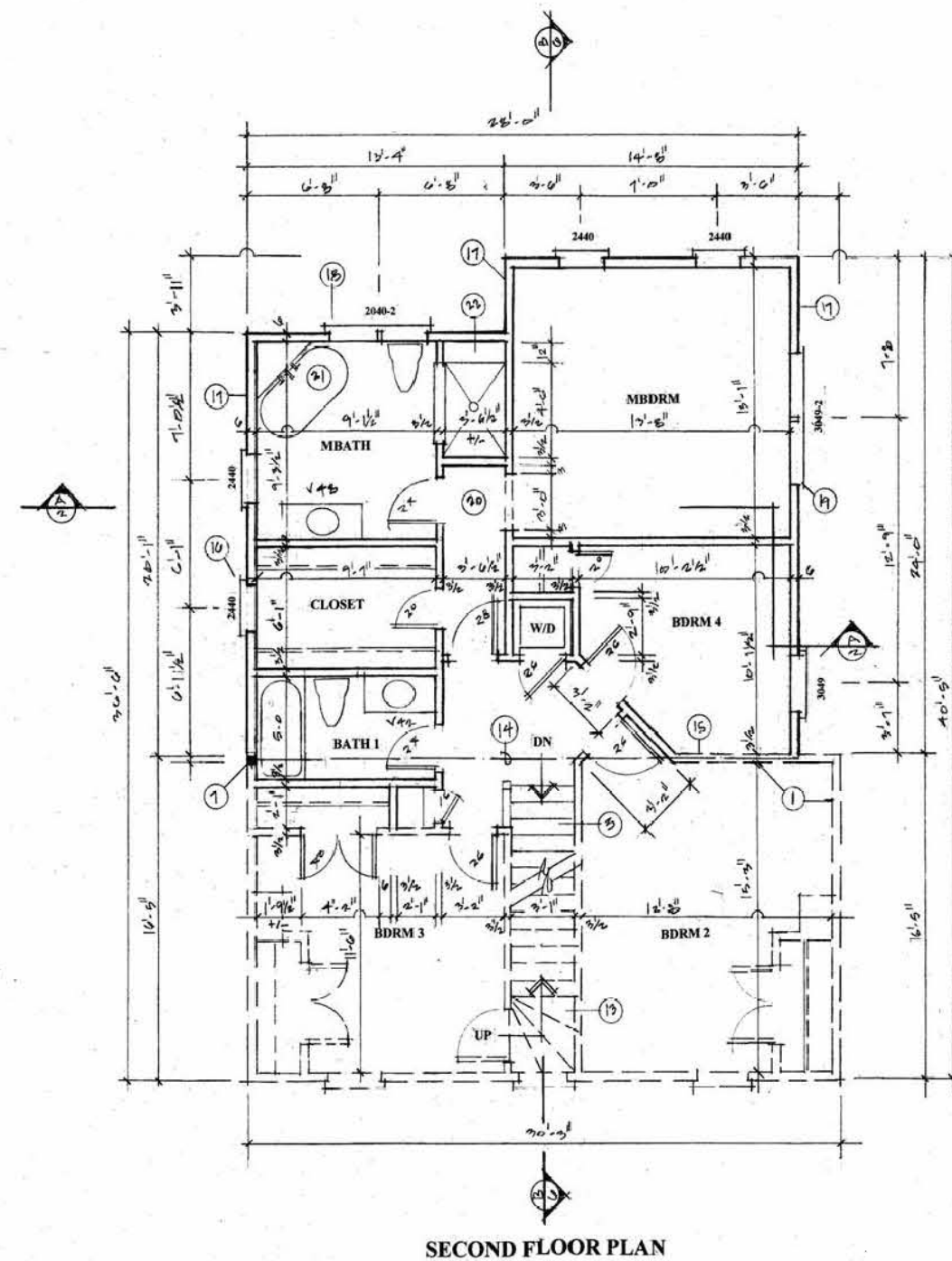
- FOUNDATION NOTES**
- 1) EX STONE FOUNDATION TO REMAIN
 - 2) EX INSULATED CRAWL SPACE TO REMAIN
 - 3) 4" DIA EXT DRAINTILE, WASHED GRAVEL BED, FILTER CLOTH AND DRAIN TO SEALED SUMP & TO DAYLIGHT
 - 4) EXTEND EXISTING 4" CMU TWO COURSES, ADD 2" CAP BLOCK / FLASH / PARGE / WATERPROOF / PAINT EXPOSED AREA
 - 5) NEW 12" CMU WALL / 24" x 8" CONC FTG w/(3) #4 REBAR CONTINUOUS (SEE GENERAL NOTES FOR WALL REINFORCEMENT)
 - 6) PROVIDE 2" DIA PVC WATER LINE SLEEVE @ BOTTOM OF WALL
 - 7) INSTALL 1/2" x 12" J-BOLTS MAX 6' oc / ONE FOOT CORNER
 - 8) 2" CONC SLAB, 6 MIL POLY, 4" WASHED GRAVEL
 - 9) SUMP CROCK w/RADON VENT THRU ROOF
 - 10) INSTALL 24" x 16" CRAWL SPACE ACCESS PANEL / PROVIDE 16" x 12" HVAC SUPPLY OPENING / AVOID LOAD POINTS FROM ABOVE
 - 11) HWH, PRESSURE TANK, & TREATMENT
 - 12) NEW ZONE 1 HEAT PUMP SYSTEM AIR HANDLER
 - 13) EXISTING SUMP CROCK TO REMAIN
 - 14) NEW 6" CONCRETE STOOP w/#4 REBAR 12" OC EACH WAY
 - 15) NEW 8" CMU WALL / 18" x 8" CONC FTG w/(3) #4 REBAR CONTINUOUS

Housing Art
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Gaithersburg, MD 20882
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REAR ADDITION & RENOVATIONS
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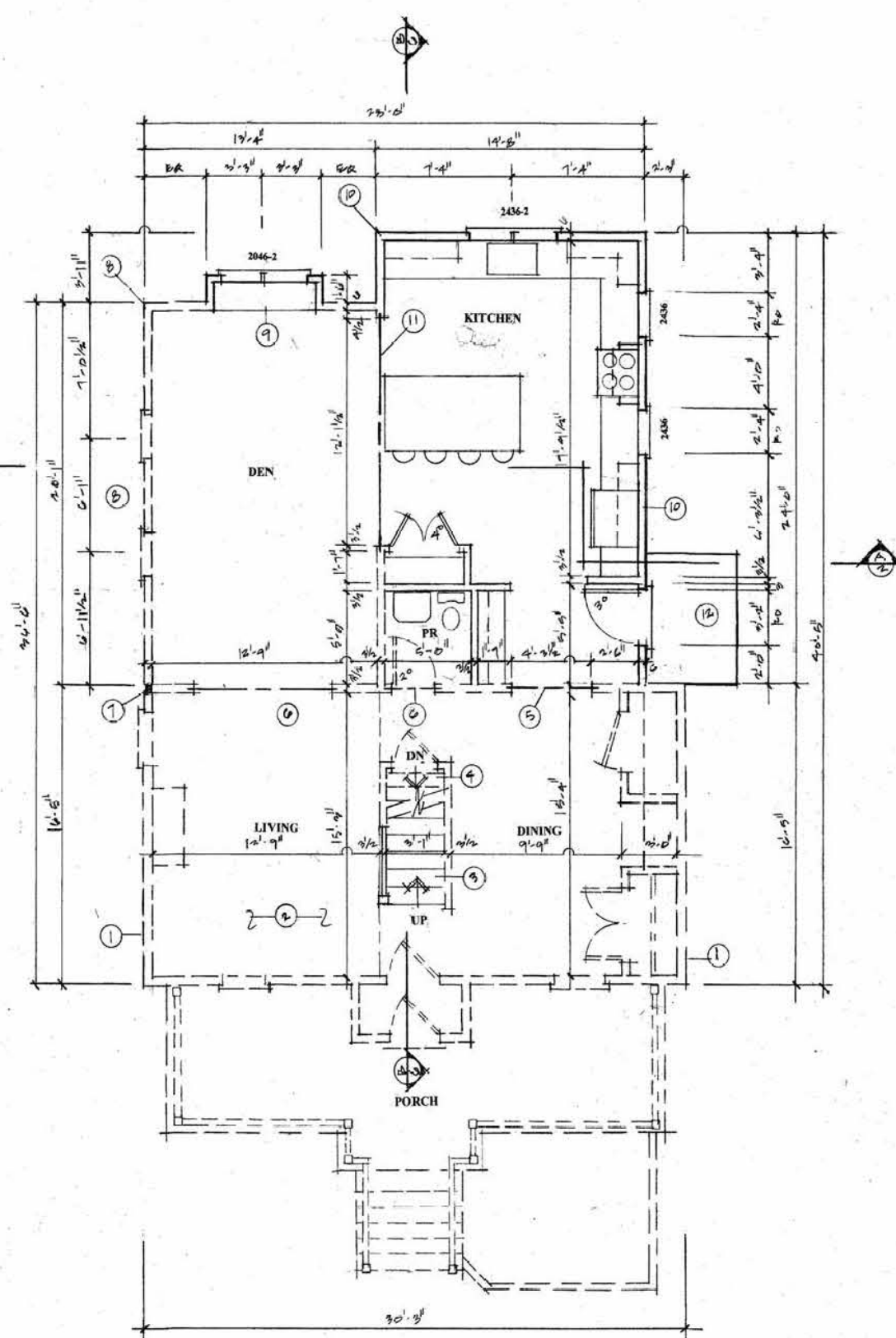
FOUNDATION & SECTION A-A

APRIL 14, 2025
Scale: 1/2" = 3'-0"

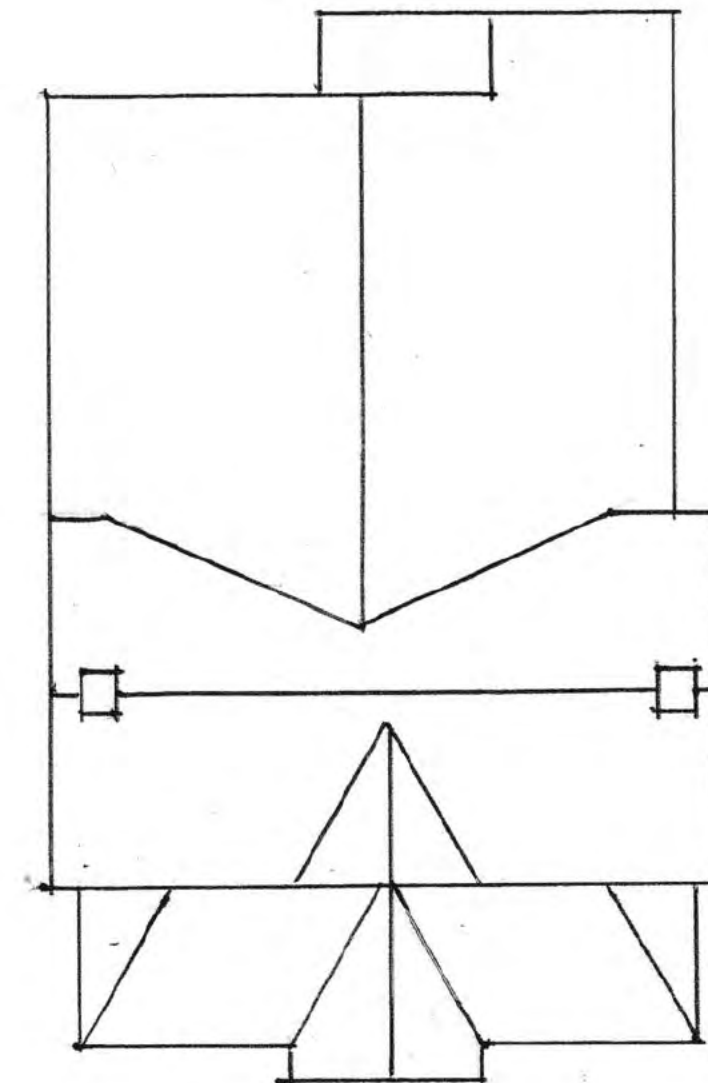


SECOND FLOOR PLAN

- FLOOR PLAN NOTES**
- 1) EXISTING WALLS TO REMAIN
 - 2) REMOVE DROPPED CEILING / ADD 1/2" GYP BD
 - 3) NEW 14 RISE CODE-COMPLIANT STAIRS
 - 4) EXISTING BASEMENT STAIRS TO REMAIN
 - 5) NEW (2) 2 x 12 #2 HF HEADER w/(2) 2 x 4 SPF JACKS / BLOCK SOLID TO FOUNDATION BELOW
 - 6) EXISTING DROPPED BEAM TO REMAIN
 - 7) 3 1/2" x 13 1/2" PSL CONTINUOUS TO FOUNDATION BELOW
 - 8) ADD 2 x 6 #2 SPF STUDS @ 16" OC TO EXISTING 2 x 4 FRAMED WALL & ADD NEW WINDOW OPENINGS w/ (2) 2 x 10 #2 HF FIRST FLOOR HEADERS @ 6'-11" HEIGHT
 - 9) WINDOW BUMP-OUT: (2) LYRS 1/2" OSB EXTENSION JAMB / SHEATHING w/2 x 4 FRAMING, 2 x 6 @ 16" oc RAFTERS, 5/8" MDF SEAT / 2" RIGID INSULATION & 1/2" MDO SOFFIT
 - 10) NEW 2 x 6 @ 16" SPF FRAMED WALLS
 - 11) (2) 1 1/2" x 11 7/8" 2.0E GP LAM LVL w/(3) 2 x 4 BEARING CONTINUOUS TO FOUNDATION BELOW & (2) SIMPSON LCE4 POST CAPS EACH END
 - 12) NEW CONCRETE STOOP / SAWCUT EXISTING ASPHALT DRIVE / BACKFILL OVERDIG w/WASHED GRAVEL & 1" FLAGSTONE FLUSH APRON
 - 13) EXISTING ATTIC STAIRS TO REMAIN
 - 14) LINE OF NEW GIRDER TRUSS ABOVE
 - 15) GIRDER TRUSS UNIFORM LOAD BEARING
 - 16) (2) 2 x 8 #2 HF SECOND FLOOR HEADERS (TYPICAL)
 - 17) 7'-3" TOP PLATE HEIGHT (VARIES / SEE A002 & A006)
 - 18) SECOND FLOOR REAR WALL HEADER HEIGHT 6'-11" /
 - 19) SECOND FLOOR SIDE WALL HEADER HEIGHT 6'-5"
 - 20) 34" x 80" CASED OPENING / CENTER BATH DOOR BEYOND
 - 21) 30" x 60" CLAWFOOT SOAKER w/ TILE SHELF @ 40" AFF / PROVIDE R-23 WALL INSULATION & 16"x16" ACCESS PANEL BEHIND TUB
 - 22) 12" DEEP SHOWER BENCH @ 18" AFF / INSTALL 48" x 72" SLIDING TEMPERED GLASS SHOWER DOOR



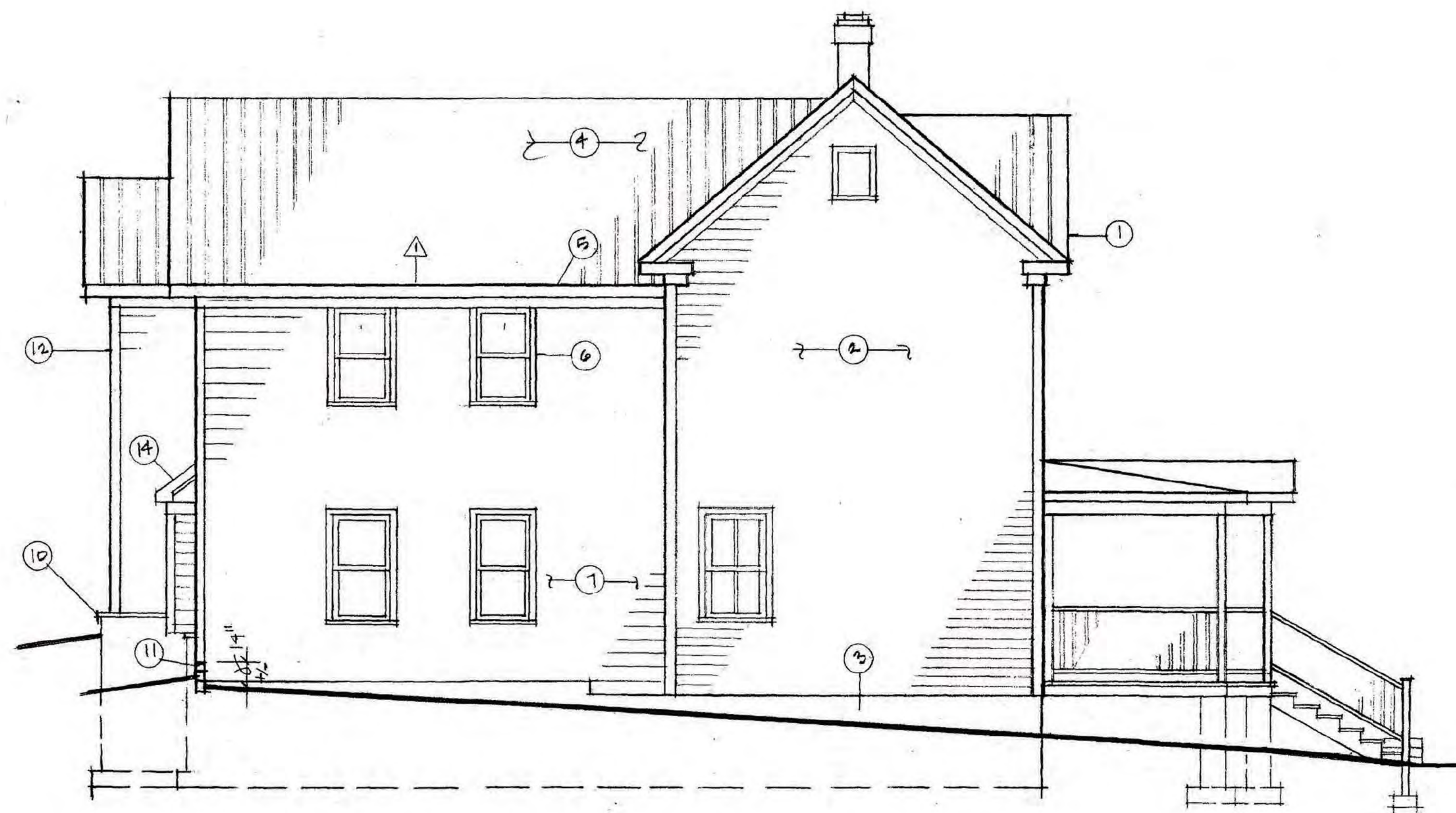
FIRST FLOOR PLAN



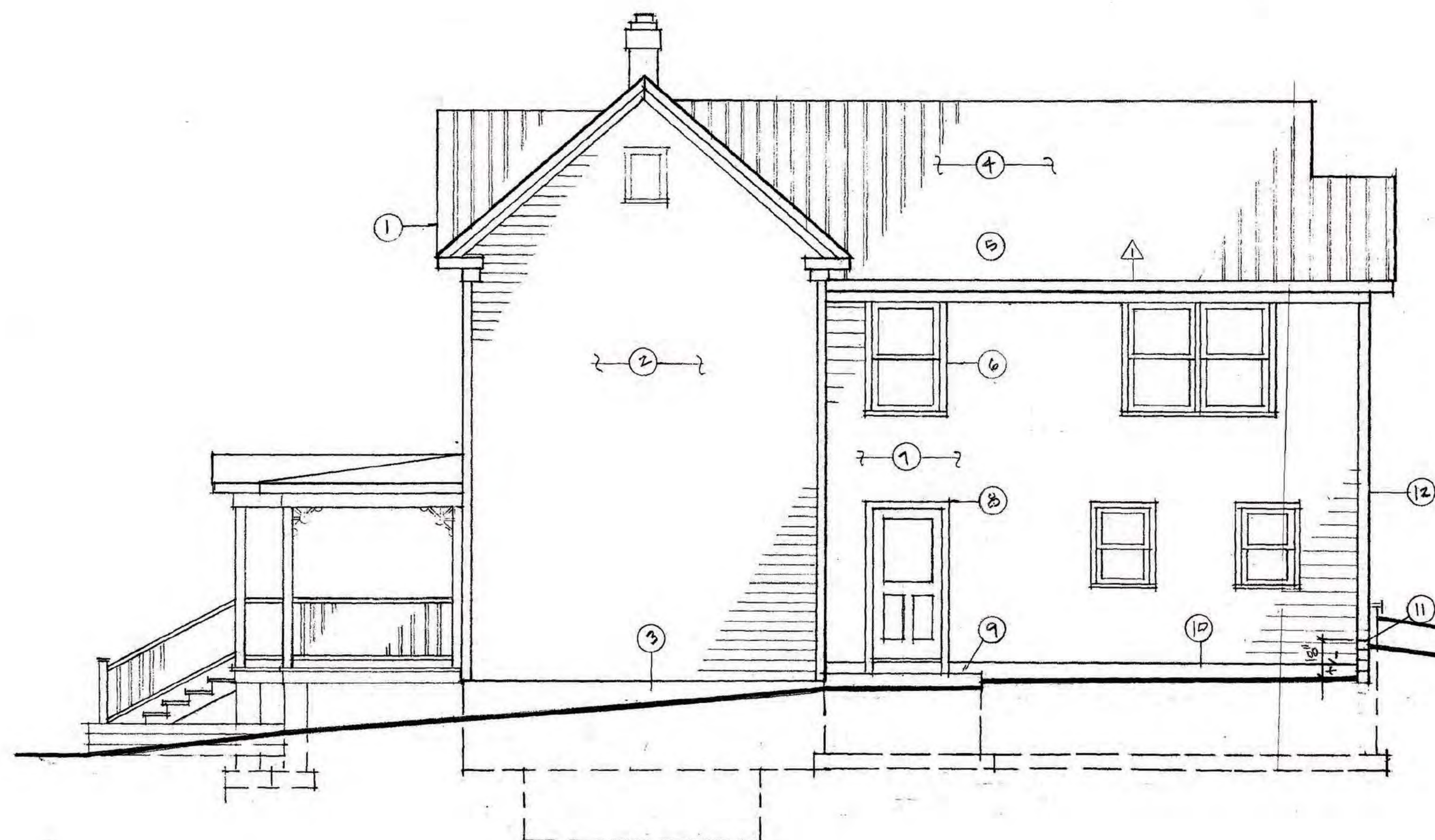
PROPOSED ROOF PLAN
(DROPPED DRIP LINE)

ELEVATION NOTES

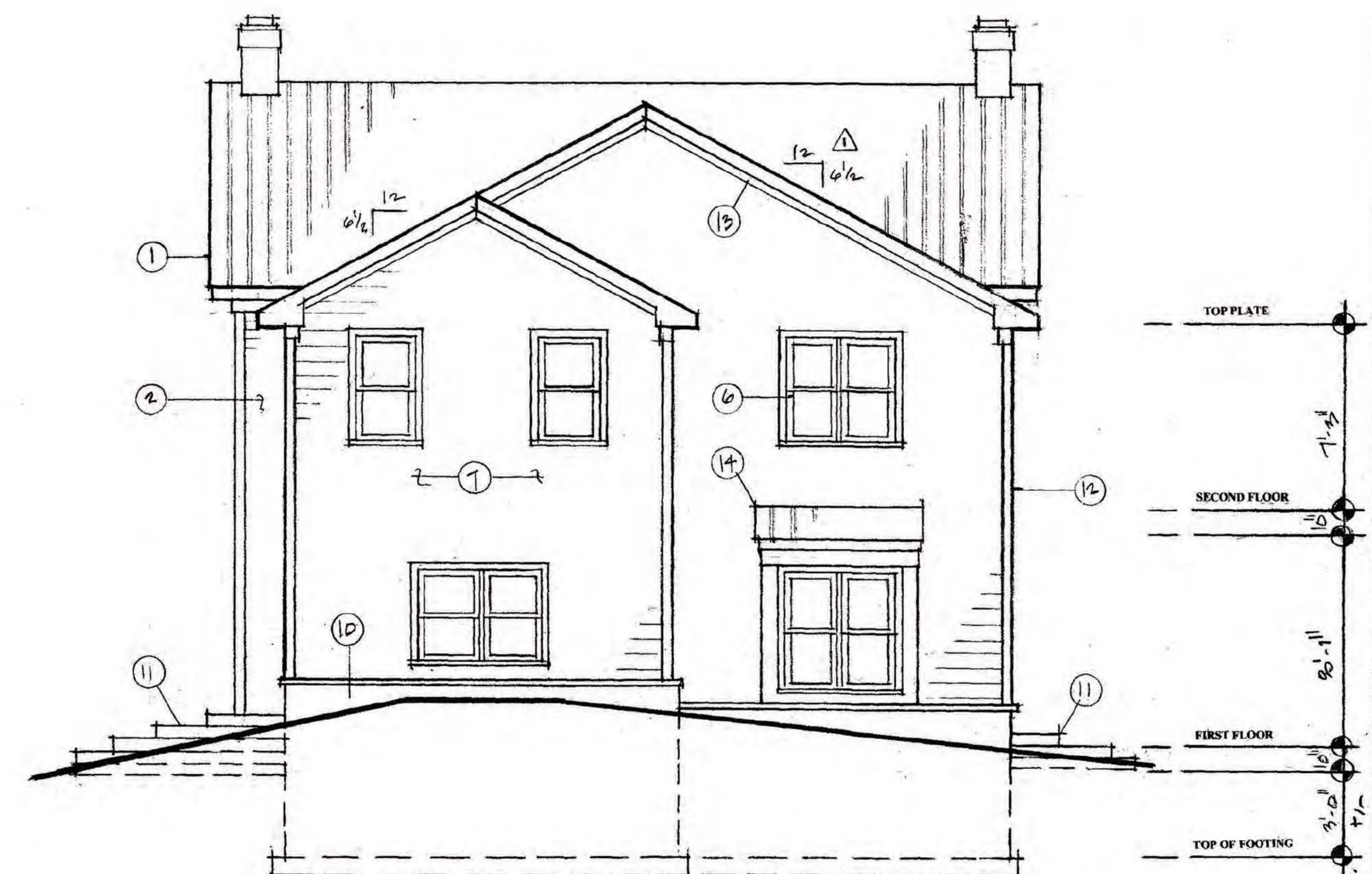
- 1) REPLACE EXISTING ORIGINAL RIBBED METAL ROOFING w/CENTRAL STATES PANEL-LOC PLUS RIBBED METAL ROOFING
- 2) EXISTING DOUBLE FIVE VINYL SIDING AND MAIN HOUSE EXTERIOR TRIM TO REMAIN
- 3) EXISTING STONE FOUNDATION TO REMAIN
- 4) INSTALL CENTRAL STATES PANEL-LOC PLUS RIBBED METAL ROOFING
- 5) EAVES: 1 X 8 BORAL FASCIA, 1/2" MDO SOFFIT, 2" CONTINUOUS VENT, 1/2" X 2 1/2" BORAL CORNICE, 5/4 X 8 BORAL FRIEZE (SEE DETAIL - SHEET A006)
- 6) ANDERSEN SERIES 200 DOUBLE HUNG ONE OVER ONE WINDOWS, 3 1/2" CASING, STANDARD SILL
- 7) JAMES HARDIE FIBER CEMENT SIDING (7" EXPOSURE)
- 8) 5/4 X 4 BORAL SIDE DOOR TRIM
- 9) NEW 5' X 7' CONCRETE LANDING / SLOPE TO DRAIN
- 10) NEW PARGED, WATERPROOFED & PAINTED CONCRETE BLOCK / 24" X 8" CONCRETE FOOTING 30" (MIN) BELOW FROST
- 11) 6 X 6 PRESSURE TREATED RETAINING WALL (STEP w/GRADE)
- 12) 5/4 X 6 & 5/4 X 4 BORAL CORNER TRIM
- 13) RAKES: 1 X 8 BORAL FASCIA, 1/2" MDO SOFFIT, 5/4 X 4 BORAL CORNICE (12" OVERHANG - TYPICAL)
- 14) BAY WINDOW BUMP-OUT: CENTRAL STATES PANEL-LOC PLUS RIBBED METAL ROOFING, 1 X 6 BORAL FASCIA, 1/2" MDO SOFFIT (6" DEEP), RIPPED 5/4 X 10 BORAL CORNER TRIM FRONT / 5/4 X 4 BORAL SIDE RETURNS AND 1/2" MDO SEAT



LEFT SIDE ELEVATION



RIGHT SIDE ELEVATION



REAR ELEVATION



- ### FIRST FLOOR FRAMING PLAN



NOTES:
NARROW WALL BRACING IS TO BE INSTALLED WITHIN 12'-6" OF EACH CORNER.
3/8" OR 1/2" EXTERIOR SHEATHING IS TO BE INSTALLED AND NAILED TO EACH STUD AT 16" ON CENTER.
GYPSUM BOARD WITH MINIMUM 1/2" THICKNESS IS TO BE PLACED ON STUDS SPACED A MAXIMUM OF 24"
ON CENTER AND FASTENED AT 7" ON CENTER.
EACH BRACED WALL PANEL SHALL BE AT LEAST 48" IN LENGTH, COVERING A MINIMUM OF THREE
STUD SPACES WHERE STUDS ARE SPACED 16" ON CENTER.



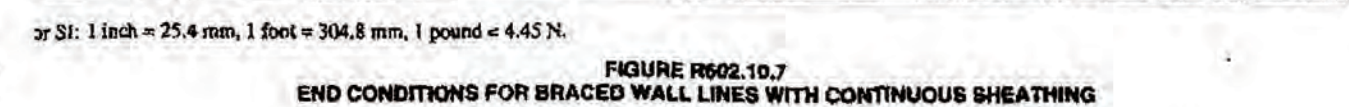
BLOCKING

A BRACED WALL PANEL IS NOT REQUIRED TO BE CONSTRUCTED WITH ONE SHEET OF OSB, PLYWOOD, FIBERBOARD OR GYPSUM BOARD. VERTICAL AND HORIZONTAL JOINTS ARE PERMITTED. ALL JOINTS MUST BE FASTENED USING EDGE NAILING PER TABLE 7.

VERTICAL JOINTS MUST OCCUR AT A STUD. IN THE CASE OF PANELIZED CONSTRUCTION, VERTICAL JOINTS ARE PERMITTED AT DOUBLE STUDS OF ADDITIONAL PANELS. THE DOUBLE STUD MUST BE FASTENED TO THE WALL JOINT USING TWO 16D NAILS PER END OF STUD.

ALL HORIZONTAL JOINTS MUST HAVE 2 BLOCKING. THE LOCATION OF THE HORIZONTAL JOINTS FOR PORTAL FRAMES MUST OCCUR WITHIN 2' OF THE PANELS MID-HEIGHT. HOWEVER, FOR ALL OTHER METHODS, HORIZONTAL JOINTS MAY OCCUR ANYWHERE ALONG THE HEIGHT OF THE BRACED WALL PANEL.

HORIZONTAL BLOCKING IS NOT REQUIRED WHEN THE AMOUNT OF BRACING PROVIDED IN A B.W.J. IS AT LEAST DOUBLE THAT REQUIRED BY TABLE 1 OR, FOR METHOD OR ONLY, THE SUMS OF GYPSUM BOARD AND OSB OR PLYWOOD BOARD AREA.



EXTERIOR OUTSIDE CORNER FRAMING DETAIL

FLOOR/CEILING FRAMING CONNECTIONS

WHERE FRAMING IS PERPENDICULAR TO A BRACED WALL PANEL, A KIM JOIST OR BLOCKING MUST BE PROVIDED ALONG THE LENGTH OF THE BRACED WALL PANEL AS SHOWN IN FIGURE 24. WHERE FRAMING IS PARALLEL TO A BRACED WALL PANEL, A KIM JOIST, FRAMING MEMBER OR BLOCKING MUST BE PROVIDED ALONG THE LENGTH OF THE BRACED WALL PANEL AS SHOWN IN FIGURE 25.

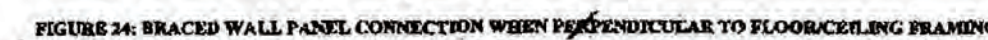


FIGURE R602.10.6.3
METHOD PEC—PORTAL FRAME AT GARAGE DOOR OPENINGS IN SEISMIC DESIGN CATEGORIES A, B AND C

WALL	METHOD	LENGTH (feet)	MIN REQ'D (feet)	ADJUSTMENT FACTOR	REQ'D LENGTH (inches)	ACT LENGTH (inches)	END CONDITION/S
BW-A	CS-WSP	28	8.4	0.9	91	226	1, 3
BW-1	CS-WSP	20.1	6.6	0.9	71	182	1, 4
BW-2	CS-WSP	24	7.8	0.9	84	190	1, 4
BW-B	CS-WSP	28	4.8	0.9	53	226	1, 3, 4
BW-3	CS-WSP	20.1	3.5	0.9	38	182	3
BW-4	CS-WSP	24	4.2	0.9	45	175	3, 4

NOTE: USE 6/12 FASTENER SPACING



Panel-Loc Plus™

Wall and Roof Panel



Superior *durability* with an attractive appearance

Panel-Loc Plus gives residential, agricultural, and light commercial projects the protection of steel with an attractive appearance. It features an extra striation on top of the rib to give it superior durability and protection against extreme weather. Panel-Loc Plus is available in 3 qualities: Standard, Prime, and Ultra.

- Engineered with a Siphon Groove to minimize leaks.
- Wide fastening surface for easy application.
- Unique lap groove hides the overlap giving a smooth, clean appearance.



RECOMMENDED 2½:12 PITCH AND ABOVE	29 OR 26 GAUGE	36" OVERALL COVERAGE	¾" MAXIMUM RIB HEIGHT
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CE FLYR_PLP_240412

Choose CentralGuard® for the best protection and a lifetime warranty.

CentralGuard is our specific combination of everything that goes into making the highest-quality metal panels. Available on our Prime and Ultra panels, the CentralGuard name is a guarantee that you have the best protection and a lifetime paint warranty.

Choose CentralGuard for the perfect balance of fade protection, rust blocking, and dent resistance.

	STANDARD	PRIME CentralGuard	ULTRA CentralGuard
FADE PROTECTION			
Paint Warranty	40-YEAR	LIFETIME	LIFETIME
Paint Thickness	THICK .90 mil	THICKER 1.0 mil	THICKER 1.0 mil
Fade Warranty	30-YEAR	30-YEAR	30-YEAR
Fade Protection	✓	✓✓	✓✓
RUST BLOCKING			
Advanced Rust Blocking	—	✓	✓
Perforation Warranty	—	50-YEAR	50-YEAR
Substrate Thickness	1.12 mil	1.60 mil	1.60 mil
DENT RESISTANCE			
Advanced Dent Resistance	—	✓	✓✓
Steel Thickness	THIN	THICK	THICKEST
Steel Gauge	29 ga	29 ga.	26 ga.

Panel-Loc Plus features UL2218 approval for impact resistance and may qualify for a homeowners insurance discount. See your local insurance agent for qualifications.

Siphon Groove

Panel-Loc Plus has two vertical edges, the overlap and the sidelap. The sidelap edge has a specific bend in the last major rib, called a siphon groove. When the overlap edge is installed on top of the sidelap edge, it creates an air gap that prevents water from wicking under the panel. Panels should be installed with the overlap facing away from the prevailing wind.



Find more information at
centralstatesco.com

MINIMUM SPECIFICATIONS FOR ULTRA AND PRIME PAINTED PANELS

GAUGE

Ultra 26 ga. | Prime 29 ga.

STEEL THICKNESS

Ultra 0.0185" | Prime 0.0150"

PAINT THICKNESS

Top coat paint: .70 mil
Top coat primer: .30 mil
Bottom coat backer: .35 mil
Bottom coat primer: .35 mil

TOTAL THICKNESS

Ultra 0.0202" | Prime 0.0167"

RUST PROTECTANT SUBSTRATE

Galvalume® AZ50

STEEL STRENGTH

80,000 PSI min

PAINT SYSTEM

SMP

WARRANTY

Lifetime limited paint adhesion
30-yr. chalk and fade
50-yr. Galvalume perforation

TESTING & APPROVALS

TESTING

TAS 100-95	Wind Driven Rain Test
TAS 125-03	Uplift Resistance Test, 29 ga. Prime only
ASTM-E455	Diaphragm Shear Standard Test, 26 ga.
ASTM-E455	Diaphragm Shear Standard Test, 29 ga.

APPROVALS

UL2218	UL Approval, Impact Resistance, Class 4
UL580	UL Approval, Uplift Resistance, Class 90
UL790	UL Approval, Fire Resistance, Class A
RC-325	Texas Windstorm Approval, 29 ga. Over Wood Purlins
RC-326	Texas Windstorm Approval, 29 ga. Over Decking
FL14026	Florida Approval, Roof Panel Over 1½" Plywood (HVHZ, Miami-Dade Approved)
FL14026	Florida Approval, Roof Panel Over 1½" Plywood (NON-HVHZ)
FL14026	Florida Approval, Panel Over 2x4's (NON-HVHZ)

Hardie® Plank Lap Siding

Submittal Form

01

Submitted to:

Project Name:

Submitted by:

Date:

☐ HZ5® Product Zone ☐ HZ10® Product Zone

Product Width: ☐ 5-1/4in ☐ 6-1/4in ☐ 7-1/4in ☒ 8in ☐ 8-1/4in ☐ 9-1/4in ☐ 12in

Product Finish: ☐ Primed ☒ ColorPlus® Technology

Product Texture: ☒ Smooth ☐ Select Cedarmill® ☐ Colonial Roughsawn®
☐ Colonial Smooth® ☐ Rustic Cedar

Hardie® Plank Lap Siding

Specification Sheet

01

DIVISION: 07 00 00 THERMAL AND MOISTURE PROTECTION

SECTION: 07 46 46 FIBER CEMENT SIDING

HARDIE® PLANK LAP SIDING

Manufacturer

James Hardie Building Products, Inc.

The products are manufactured at the following locations, with quality control inspections by ICC-ES:

- Cleburne, Texas
- Plant City, Florida
- Reno, Nevada
- Waxahachie, Texas
- Prattville, Alabama
- Peru, Illinois
- Pulaski, Virginia
- Tacoma, Washington
- Fontana, California
- Summerville, South Carolina

Compliance with the following codes

- 2006 thru 2021 International Building Code (IBC)
- 2006 thru 2021 International Residential Code (IRC)

For more information about other compliances and applicable uses, refer to ICC-ES ESR-2290

Features

- Noncombustible
- Dimensionally Stable
- Resists damage from pests
- Weather Resistant-Engineered for Climate®
- Impact resistant
- Sustainable

Use

Hardie® fiber-cement lap siding is used as exterior wall covering. The product complies with IBC Section 1403.9 and IRC Section R703.10. The product may be used on exterior walls of buildings of Type I, II, III and IV construction (IBC)

Description

Hardie® Plank lap siding is a single-faced, cellulose fiber-reinforced cement (fiber-cement) product. Hardie® Plank lap siding complies with ASTM C1186, as Grade II, Type A; has a flame-spread index of 0 and a smoke-developed index of 5 when tested in accordance with ASTM E84; and is classified as noncombustible when tested in accordance with ASTM E136.

Available Sizes

Product	Width (in)	Length	Thickness (in)
Hardie® Plank lap siding*	5-1/4, 6-1/4, 7-1/4, 8, 8-1/4, 9-1/4, 12	12 feet	5/16

* HZ5: 9-1/4, 12 only available primed HZ10: 5-1/4, 9-1/4, 12 only available primed.

Weight 2.31 lbs. per square foot

Texture & Finish

Hardie® Plank lap siding comes in a variety of textures and finishes. The product is available in smooth or wood grain texture. Additional textures are available on a regional basis. Finish options are primed for field paint, or factory finished with ColorPlus® Technology. Color availability varies by region.

Engineered for Climate®

Hardie® Plank lap siding is engineered for performance to specific weather conditions by climate zones as identified by the following map.



Performance Properties

	General Property	Test Method	Unit or Characteristic	Requirement	Result
PHYSICAL ATTRIBUTES	Dimensional Tolerances	ASTM C1185	Length	± 0.5% or ± 1/4 in	Pass
			Width	± 0.5% or ± 1/4 in	
			Thickness	± 0.04 in	
			Squareness	Δ in diagonals ≤ 1/32 in/ft of sheet length. Opposite sheet sides shall not vary in length by more than 1/32 in/ft	
			Edge Straightness	≤ 1/32 in/ft of length	
	Density, lb/ft³	ASTM C1185		As reported	83
	Water Absorption, % by mass	ASTM C1185		As reported	36
THERMAL	Water Tightness	ASTM C1185	Physical Observations	No drop formation	Pass
	Flexural Strength	ASTM C1185	Wet conditioned, psi	>1015 psi	Pass
			Equilibrium conditioned, psi	>1450 psi	
	Thermal Conductivity	ASTM C177	(BTU/(hr·ft²·F))/inch	As reported	2.07
Actual Thermal Conductivity	(K _{eff})		6.62		
Thermal Resistance	R=1 / K _{eff}		0.48		
Actual Thermal Resistance	(R)		0.15		
DURABILITY	Warm Water Resistance	ASTM C1185	Physical Observations	No visible cracks or structural alteration	Pass
	Heat/Rain Resistance	ASTM C1185	Physical Observations	No visible cracks or structural alteration	Pass
	Freeze/Thaw Resistance	ASTM C1185	Physical Observations	No visible cracks or structural alteration	Pass
			Mass Loss, %	≤ 3.0%	
	UV Accelerated Weathering Test	ASTM G23	Freeze/Thaw, % strength retention	≥ 80%	
FIRE CHARACTERISTICS	Surface Burning Characteristics	ASTM E84	Physical Observations	No cracking, checking, or crazing	Pass
			Flame Spread Index (FSI)		0
			Smoke Developed Index (SDI)		≤ 5
			Fuel Contributed		0
			NFPA Class		A
			Uniform Building Code Class	As reported	1
	International Building Code® class		A		
	Noncombustibility	ASTM E136	Noncombustible	Pass/fail	Pass
Fire Resistance Rated Construction	ASTM E119	Fire Resistance Rating	1-hour	Note 1	

Note 1: listed on Warnock Hersey and ESR 2290

Installation

Install Hardie® Plank lap siding in accordance with:

- Hardie® Plank lap siding installation instructions
- ICC-ES ESR 2290
- Requirements of authorities having jurisdiction

Warranty

Hardie® Plank lap siding: 30-year, Non-Prorated, Limited Warranty
ColorPlus® Technology: 15-year Limited Finish Warranty

Sustainable Design Contribution

- Regionally sourced content- varies by project location
- Avoidance of certain chemicals or Red List Compliance

Detailed product information for LEED projects, or other state or regional sustainability programs is available through James Hardie Technical Services.

Storage and Handling

Store flat and keep dry and covered prior to installation.

Technical Services

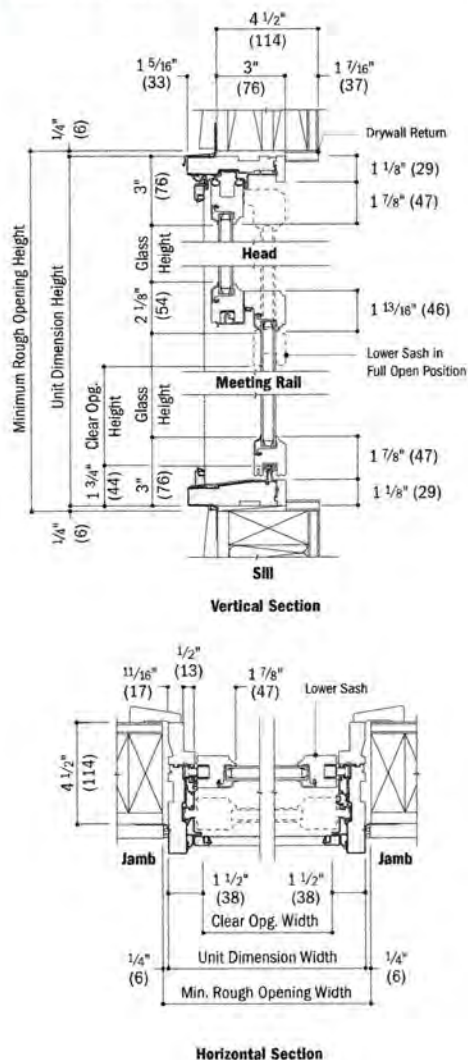
Contact James Hardie Technical Services online at JamesHardie.com, or by phone at (800)426-4051

200 SERIES TILT-WASH DOUBLE-HUNG WINDOWS



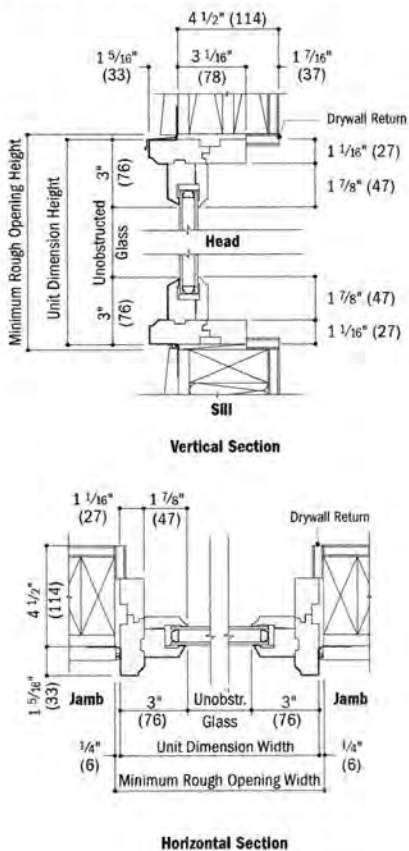
Tilt-Wash Double-Hung Window Details

Scale 1 1/2" (38) = 1'-0" (305) – 1:8



Tilt-Wash Picture/Transom Window Details

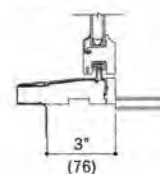
Scale 1 1/2" (38) = 1'-0" (305) – 1:8



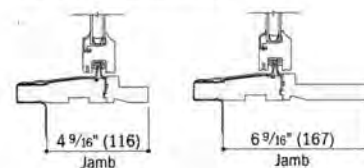
Extension Jamb Details

Scale 1 1/2" (38) = 1'-0" (305) – 1:8

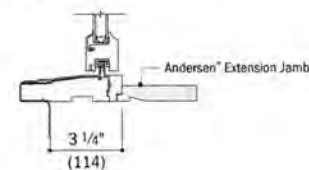
Jamb for Drywall Return



Factory-Applied Extension Jamb

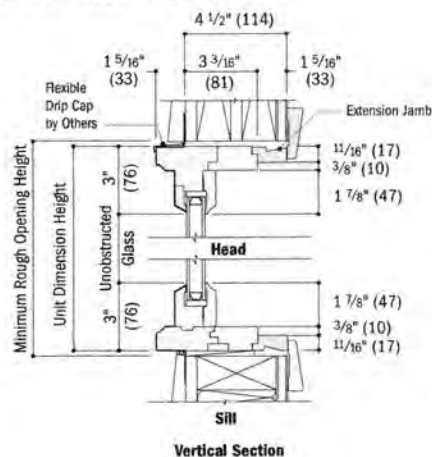


Field-Applied Extension Jamb



Tilt-Wash Half Circle Window Detail

Scale 1 1/2" (38) = 1'-0" (305) – 1:8



- * Light-colored areas are parts included with window. Dark-colored areas are additional Andersen® parts required to complete window assembly as shown.
- * Minimum rough openings may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items.
- * Details are for illustration only and are not intended to represent product installation methods or materials. Refer to product installation instructions at andersenwindows.com.
- * Dimensions in parentheses are in millimeters.

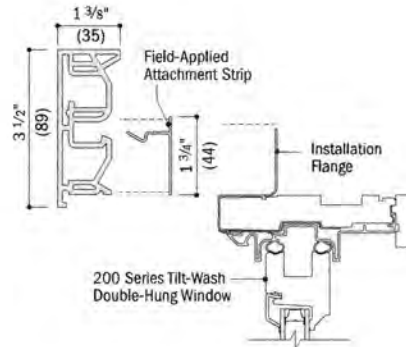
200 SERIES EXTERIOR TRIM



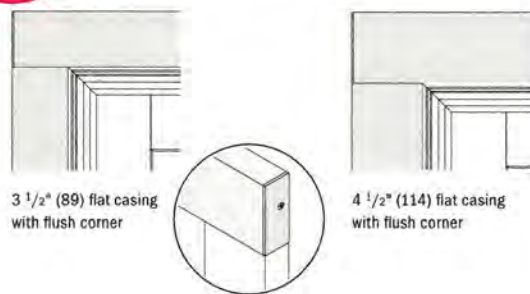
Window and Patio Door Attachment

Field-Applied Attachment Strip

A field-applied attachment strip fastens to the framing through the window or patio door installation flange and flashing tape with screws. Exterior trim connects securely to the field-applied attachment strip. Follow window and patio door installation guides for flashing instructions.



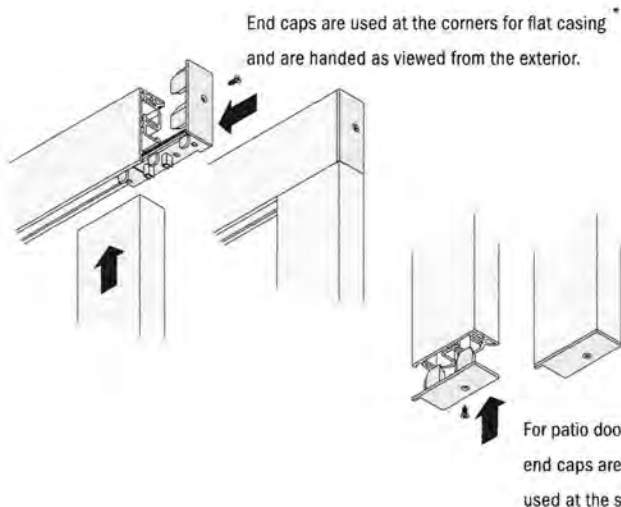
3 1/2" and 4 1/2" Flat Casings



Formula for dimension of window/door plus exterior trim:

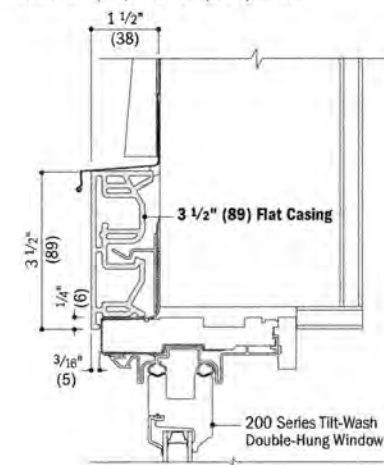
Add 4 1/4" (108) per side for 4 1/2" (114) flat casing

Add 3 1/4" (83) per side for 3 1/2" (89) flat casing



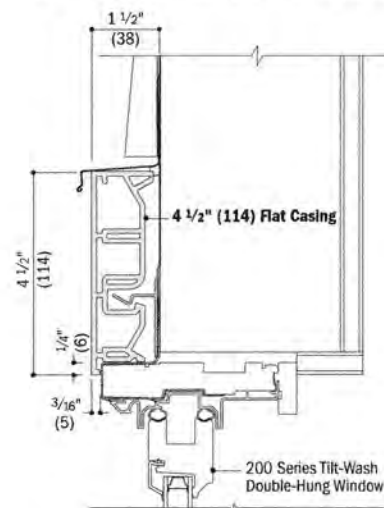
Trim Details

Scale 3" (76) = 1'-0" (305) – 1:4



Vertical Section

200 Series Tilt-Wash Double-Hung Window with 3 1/2" (89) Flat Casing



Vertical Section

200 Series Tilt-Wash Double-Hung Window with 4 1/2" (114) Flat Casing

*Dimensions in parentheses are in millimeters.

*Typical trim combinations shown. Additional combinations may also be used. Some restrictions apply. For more information, contact your Andersen supplier.

*Details are for illustration only and are not intended to represent product installation methods or materials. Refer to product installation guides at andersenwindows.com.

TruExterior®
Siding & Trim

"BORAL"

TRIM

The Freedom To Create **Your Custom Look**

TruExterior offers you the versatility to create virtually any custom look that you want for your homes. With the ability to cut, miter and route TruExterior Trim, you can shape your perfect profile and know your trim will outlast traditional wood.

- Better workability compared to wood, fiber cement or engineered wood trim
- Works with standard woodworking tools and methods
- No edge sealing of cuts required

- Pre-primed and ready to paint any color
- Available in 16' lengths

Technical Data

TruExterior Trim – Product Data Sheet

Product Certifications

SCS Global Services – Minimum 70% Recycled Content

Request Sample



View Idea Gallery

5/8 Trim Sizes		1X Trim Sizes		5/4 Trim Sizes		2X Trim Sizes	
Nominal	Actual	Nominal	Actual	Nominal	Actual	Nominal	Actual
						2 x 2	1-1/2" x 1-1/2"
		1 x 3	3/4" x 2-1/2"	5/4 x 3	1" x 2-1/2"		
5/8 x 4	5/8" x 3-1/2"	1 x 4	3/4" x 3-1/2"	5/4 x 4	1" x 3-1/2"	2 x 4	1-1/2" x 3-1/2"
		1 x 5	3/4" x 4-1/2"	5/4 x 5	1" x 4-1/2"		
5/8 x 6	5/8" x 5-1/2"	1 x 6	3/4" x 5-1/2"	5/4 x 6	1" x 5-1/2"	2 x 6	1-1/2" x 5-1/2"
5/8 x 8	5/8" x 7-1/4"	1 x 8	3/4" x 7-1/4"	5/4 x 8	1" x 7-1/4"	2 x 8	1-1/2" x 7-1/4"
5/8 x 10	5/8" x 9-1/4"	1 x 10	3/4" x 9-1/4"	5/4 x 10	1" x 9-1/4"	2 x 10	1-1/2" x 9-1/4"
5/8 x 12	5/8" x 11-1/4"	1 x 12	3/4" x 11-1/4"	5/4 x 12	1" x 11-1/4"	2 x 12	1-1/2" x 11-1/4"

TRIM PRODUCT DATA SHEET

1. Certificates and Listings

- a. **Cal Fire (WUI):** CA SFM 12-7A-1 Listing No. 8140-2134:0101
- b. **Pre-consumer Recycled Content:** SCS Global Certification—Minimum 70%

2. Properties

- a. **Density:** ASTM C 1185, 40-50 lb_f/ft³
- b. **Flexural Strength:** ASTM C 1185, > 1600 psi
- c. **Coefficient of Linear Expansion:** ASTM D 6341, < 0.000014 in / (in*oF)
- d. **Impact Resistance:** ASTM D 6110, > 50 in.

3. Performance

- a. **Fungi Rot:** AWWA E10, Brown Rot–Negligible Loss, White Rot–Negligible Loss
- b. **Termite Resistance:** AWWA E1, > 9.0
- c. **Water Absorption:** ASTM D 570, < 1.5%
- d. **Flame Spread:** ASTM E 84, < 200

4. Manufacturing Tolerances

- a. **Width:** ± 1/16 in.
- b. **Thickness:** ± 1/16 in.
- c. **Length:** +2.0 / -0.0 in.