

Historic Preservation Commission

Staff Report

Meeting Date: January 12, 2021

Case #: HPC-03-22

Site Address: 21 Pinehurst Drive
Parcel ID: 31-06-23-2-005-006.000
Applicant: Jay Young
Owner: Will Hewson

Proposed Work: Petition for a Certificate of Appropriateness for a material and design change to one window.
Current Zoning: R-1H

Historic District: Pinehurst
Architectural Style: Cottage
Year Built: 1952
Contributing: No
Historic Survey: Pinehurst Historic District

One story cottage, gable roof, pedimented portico.

DESCRIPTION OF PROPOSED PROJECT:

The petitioner is proposing to remove an existing glass block window and replace it with a direct-set aluminum clad transom window located on the East side of the structure.

STAFF ANALYSIS:

Per the Design Guidelines, aluminum clad is an appropriate window material.

The original number and location of windows will be maintained, however, the size will be decreased slightly and there is a change in design.

APPLICABLE DESIGN GUIDELINES:

Windows

- Maintain the original number, location, size, and glazing pattern of windows on primary building elevations.
- Maintain historic window openings and proportions.
- Permanently affixed internal and external muntins should be employed where appropriate

Examples of Appropriate Window Materials:

- Wood sash windows in double-hung, single-hung, and casement styles
- Aluminum-clad wood
- Fiberglass (Pella, Marvin, or equal) that mimics wood
- Steel, if original to the structure
- Composite material with wood sash, frame, and glides
- Cellular PVC material (All-Season or equal) that mimics wood
- Monarch M-Cell vinyl-clad window, Hurd vinyl-clad window, or equal that mimics wood

Examples of Inappropriate Window Materials:

- Aluminum or vinyl
- Snap-in or artificial muntins
- Reflective or tinted glass



HISTORIC PRESERVATION COMMISSION

CERTIFICATE OF APPROPRIATENESS APPLICATION

Last Updated, April 2021

Please complete all of the following required fields:

Address of premises affected: 21 PINEHURST DR Property Historic District: Pinehurst

Owner Occupied [checked] Renter Occupied []

Name: WILL HEWSON Owner Phone: 210-488-6796 Email: WTHEWSON@YAHOO.COM

Address: 21 PINEHURST DRIVE, TUSCALOOSA, AL 35401

Name: JAY YOUNG Applicant (if different from owner) Phone: 205-366-0807 Email: JAY@TOULMINKB.COM

Name: TOULMIN KITCHEN & BATH Contractor or Architect Phone: 205-366-0807 Email: SALES@TOULMINKB.COM

Check the box that best describes your intended action(s) & include all estimated costs: \$ 6000.00

- Exterior Alteration [checked] Addition or New Construction [] Signage [] Other (please explain):

Certification of Applicant

I hereby certify that I have read and examined this application and known the same to be true and correct. I understand that consideration of this application is based upon the correctness of the information I have supplied and that any permit (s) granted may be revoked upon finding by the Tuscaloosa Historic Preservation Commission that any relevant information supplied on or with the application is substantially incorrect.

It is my understanding that a Certificate of Appropriateness shall become void unless construction is commenced within six (6) months of the date of issuance. Certificates of Appropriateness shall be issued for a period of eighteen (18) months and are renewable.

Finally, it is my understanding that the plans submitted with this application and approved by the Commission are final, and, pending Commission approval, I am bound to follow the plans as approved.

Applicant: [Signature] Date: 12/22/2021

PLEASE SUBMIT AN ELECTRONIC COPY OF THIS AND ANY NECESSARY SUPPORTING MATERIALS TO:

Office of Urban Development: 2201 University Boulevard, Annex III, 3rd FL Email: hpc@tuscaloosa.com Planning Division Tuscaloosa, AL 35401

Please review the following information prior to application submission:

2021 Meeting Dates & Deadlines:

DEADLINE (by 12 pm)	Meeting Date
December 16, 2020	January 13, 2021
January 20, 2021	February 10, 2021
February 17, 2021	March 10, 2021
March 17, 2021	April 14, 2021
April 21, 2021	May 12, 2021
May 19, 2021	June 9, 2021
June 16, 2021	July 14, 2021
July 21, 2021	August 11, 2021
August 18, 2021	September 8, 2021
September 15, 2021	October 13, 2021
October 20, 2021	November 10, 2021
November 17, 2021	December 8, 2021

Fee Schedule:

Repair / Remodeling of Existing Building(s)	\$50.00
New Construction or Addition(s)	\$50.00
Demolition(s)	\$50.00
Sign(s)	\$25.00
Certificate of Economic Hardship	No Fee
Minor Works or Routine Maintenance	No Fee

RECOMMENDED Application Materials:

Graphic Exhibits:

Three-dimensional drawings (perspective, isometrics), though not generally required, are recommended for additional clarity.

The Commission may require other drawings, illustrations, descriptions, and/or specifications, as required on a case-by-case basis when the Commission considers such additional information necessary to make an informed decision.

REQUIRED Application Materials:

New Construction, Alterations, or Additions:

Dimensioned site plans: showing all buildings, additions, drives, sidewalks, fences, exterior lighting, large trees, landscaping, and other site work locations, drawn to scale no less than 1" = 10'-0".

- (1) Existing Conditions
- (2) Proposed Conditions

Dimensioned exterior elevations: including sufficient detail, both graphic and written, to describe all exterior design features and materials, drawn to scale no less than ¼" = 10'-0".

- (1) Existing Conditions
- (2) Proposed Conditions

List of all materials to be utilized and samples or brochures of materials for proposed building or addition, including any site furnishings.

Where scale or massing of alteration is a concern, include elevations of neighboring buildings.

Signage:

Drawings and/or photographs of the sign.

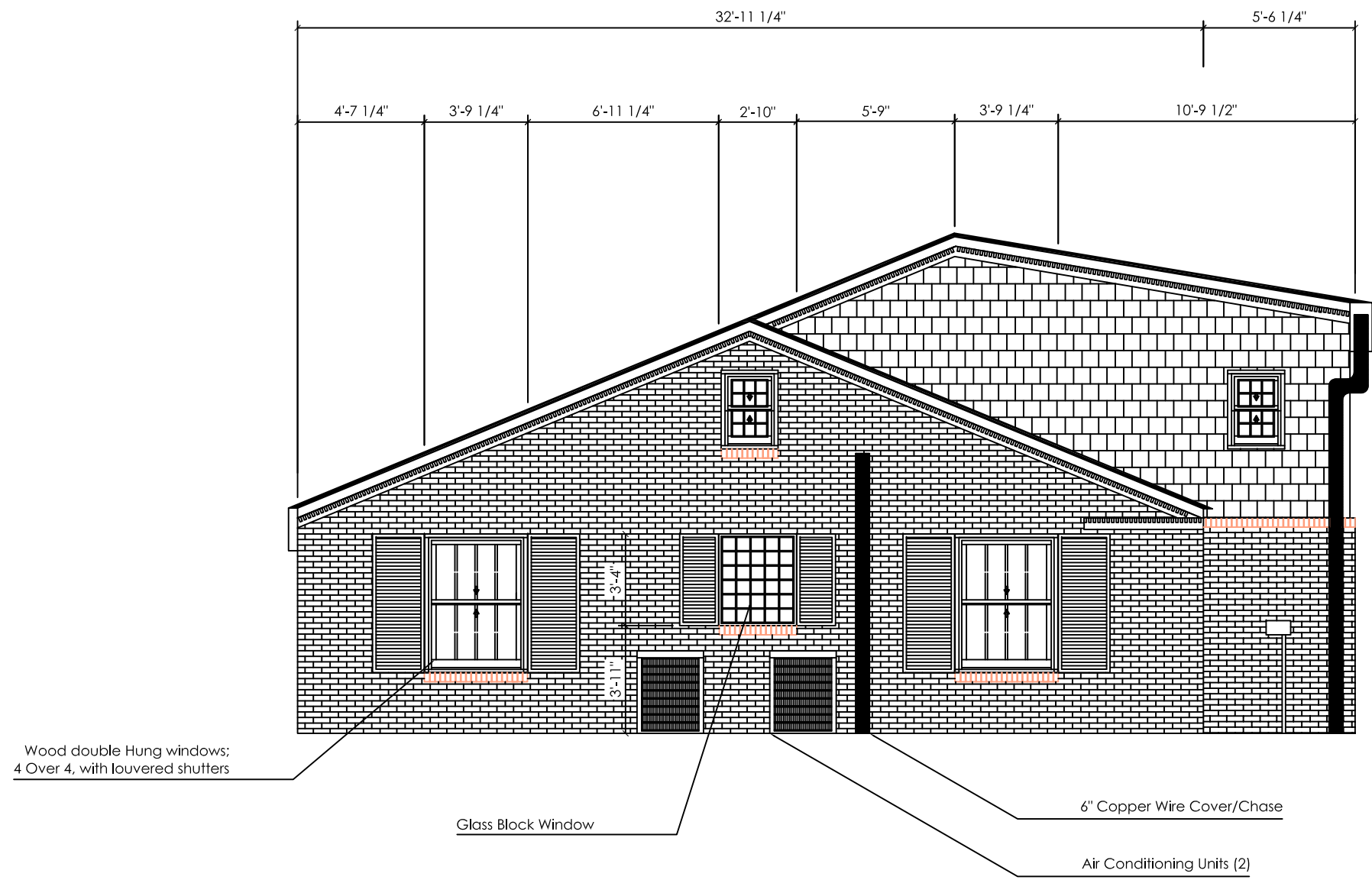
For freestanding signs, a site plan showing proposed location. If a sign is four feet (4') or taller, an engineered drawing will be required for submittal.

Landscaping & Parking:

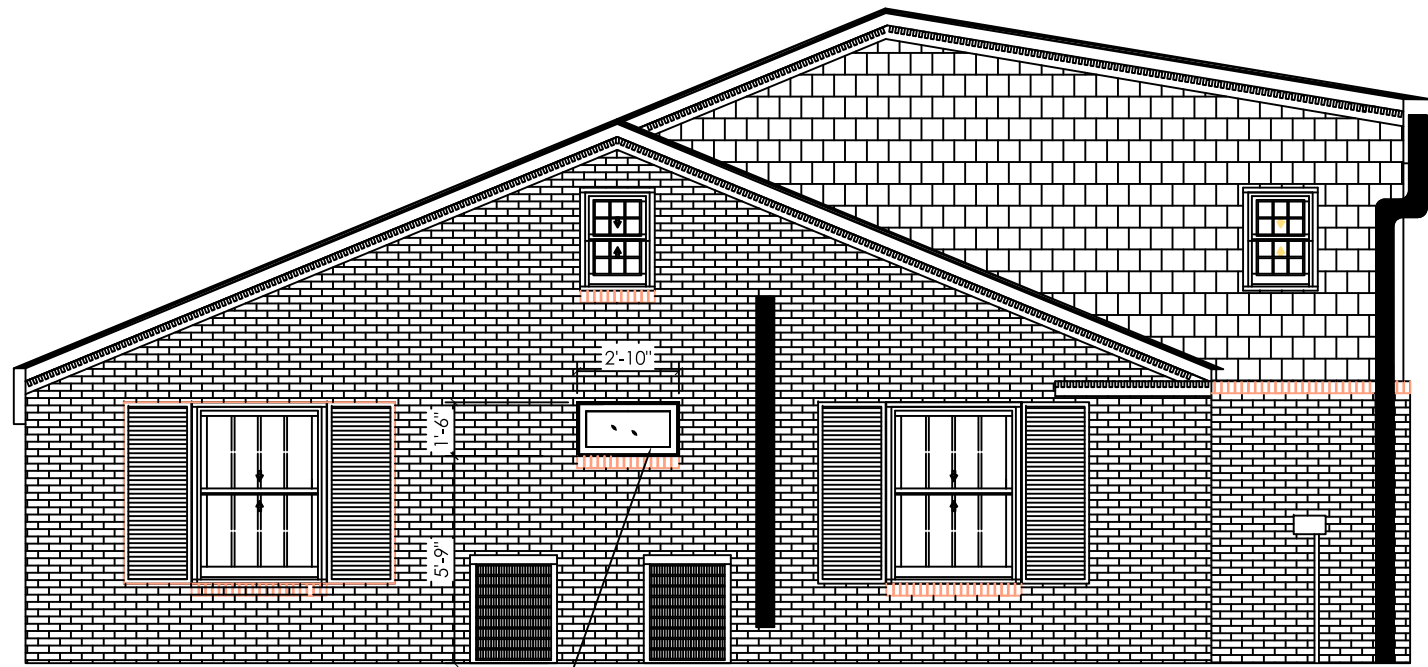
Dimensioned plans drawn to scale no less than 1" = 10'-0".

For parking, indicate the percentage (%) of the yard from the rear face of the house to the rear property line that will be occupied by parking. In cases where the area is over 500 square feet, the application and site plan will be reviewed by the Office of the City Engineer for runoff and storm water concerns.

List of all materials to be utilized.



Residence of Will & Alison Hewson
 Existing Structure
 21 Pinehurst Drive, Tuscaloosa, AL 35401
 scale $\frac{3}{16}'' = 1'-0''$



Proposed exterior alteration:
Removal of existing glass block window,
to be replaced with a direct-set
aluminum clad transom window.

Residence of Will & Alison Hewson
Proposed Alterations
21 Pinehurst Drive, Tuscaloosa, AL 35401
scale: $\frac{3}{16}'' = 1'-0''$

Line	Label	UOM	Quantity	Unit Price	Extended Price
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001 34 X 18 DIRECT SET

WOOD

EA (1)

\$1,133.81

\$1,133.81

PERFORMANCE: Standard Performance

UNIT - Heritage Rectangle CS/AW Transom - Complete Unit, Match Crank Out Profile, Direct Set Frame, Profile: CDS, Stop Profile: Beveled

GLASS: Obscure / Opaque Glass: Pattern (Obscure), Glass Pattern: Frosted Matte, Tempered, Glass Make Up: Double Glazed, Solar Low-E, Mill Finish Spacer, Glass Preserve / Neat+ Coating: No Preserve or Neat+ Coating

CASING-JAMBS-TRIM: Standard Brickmould, Standard Sill Nosing, Apply Exterior Casing/Accessories, 4 9/16" Jamb, Offset Jamb: All Sides Offset, Jamb Applied, 6 5/16" Clips

SPECIES-FINISH-COLOR: Leave All Pine, Exterior Frame Finish: K-Kron2, Exterior Frame Color: Rustic, Exterior Casing/Accessories Color: Rustic, KP2 Primed Interior Frame, Standard Fingerjoints



Scaled to Fit

Rough Opening*:
32 1/2" X 16 1/2"

Frame Size:
31 1/2" X 16"

Unit Dimension:
34" X 18"

002 34 X 18 DIRECT SET

CLAD

EA (1)

\$1,141.11

\$1,141.11

PERFORMANCE: Standard Performance

UNIT - Ultra Rectangle CS/AW Transom - Complete Unit, Match Crank Out Profile, Beveled Direct Set Frame, Profile: UCBDS706, Stop Profile: Beveled

GLASS: Obscure / Opaque Glass: Pattern (Obscure), Glass Pattern: Frosted Matte, Tempered, Glass Make Up: Double Glazed, Solar Low-E, Mill Finish Spacer, Glass Preserve / Neat+ Coating: No Preserve or Neat+ Coating

CASING-JAMBS-TRIM: 2" Standard Brickmould (B820/BU919), Casing Placement: Head and Sides, Standard Sill Nosing (BU824), Apply Exterior Casing/Accessories, Nailing Fin, 4 9/16" Jamb, Offset Jamb: All Sides Offset, Jamb Applied, 6 5/16" Clips

SPECIES-FINISH-COLOR: Leave All Pine, Exterior Frame Finish: 70% Fluoropolymer, Exterior Casing Finish: 70% Fluoropolymer, Exterior Frame Color: Rustic, Exterior Casing/Accessories Color: Rustic, KP2 Primed Interior Frame



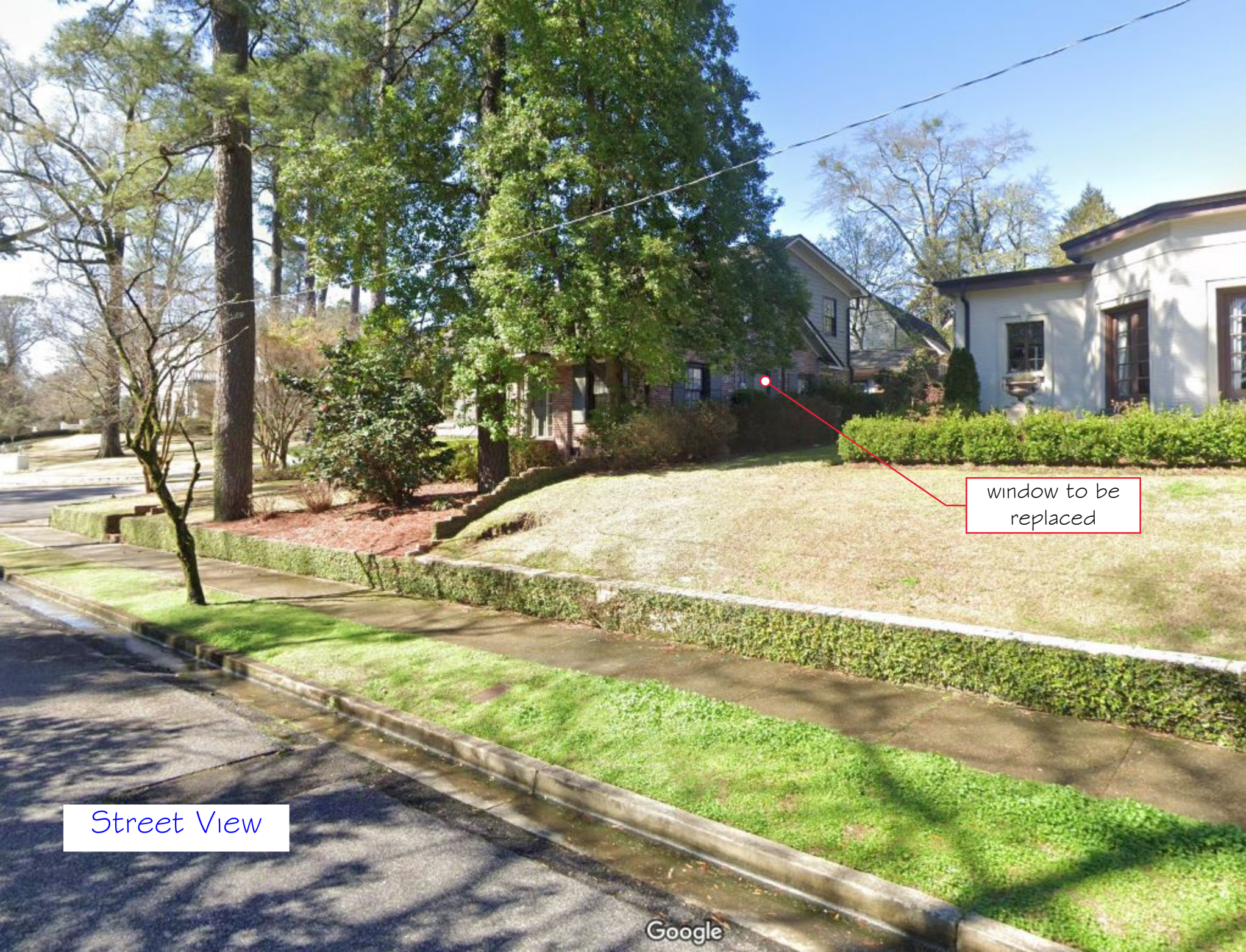
Scaled to Fit

Rough Opening*:
32 3/8" X 16 19/32"

Frame Size:
31 3/8" X 16 3/32"

Unit Dimension:
34" X 18"





window to be replaced

Street View

Existing glass
block window



ULTRA SERIES PRODUCT CATALOG



KOLBE
■ WINDOWS & DOORS ■

See the Difference Quality Makes®

FUNCTIONALITY & PERFORMANCE

The Ultra Series is Kolbe's line of extruded aluminum clad wood windows and doors. This series offers a variety of exterior finishes, interior options and performance modifications.

Create a unique exterior trim coupled with an anodized finish to give dazzling appeal to a unit. Or, enhance the view with custom divided lite designs or a geometric shape. Almost anything is possible, allowing you to create and customize the look and design that fits your ideas while still having the quality workmanship and attention to detail that Kolbe® is known for.

COMMITMENT TO QUALITY

Kolbe is truly committed to providing the highest quality windows and doors. By associating with the NFRC, Window and Door Manufacturers' Association Hallmark Certification Program and the ENERGY STAR® Program, Kolbe products are built to meet the diverse and expanding needs of residential and commercial projects. Rest assured that Kolbe products are tested in an unbiased manner by independent laboratories and that test data is available to the public. See Energy Performance Data on pg. 202.

SUSTAINABLE DESIGN

Ultra Series products can help contribute to meeting criteria for voluntary green building rating systems in the following categories:



SUSTAINABILITY & DURABILITY

- Kolbe products are tested for air and water infiltration, as well as structural and impact performance to ensure you will have a certified product to meet your building's design criteria

MATERIALS AND RESOURCES

- Most of the components used in our products are sourced from within 500 miles of our factory
- Pine and other wood species are renewable resources and sourced from managed forests
- Kolbe has achieved Forest Stewardship Council (FSC) Chain-of-Custody certification, as have many of our distributors, and can provide FSC-certified wood for many window and door products
- Standard glass used in our products contains 25-30% pre-consumer recycled content
- Extruded aluminum billet consists of 50-75% recycled material



INDOOR ENVIRONMENTAL QUALITY

- Kolbe uses a fully encapsulated process in which volatile organic compounds (VOCs) are destroyed when applying wood preservative and 70% PVDF fluoropolymer exterior finish
- Interior paints and stains are water-based, low-VOC products and having your windows and doors factory-finished saves you the hassle of field-finishing, clean-up and disposal
- BetterVue® fiberglass screen mesh has attained GREENGUARD® certification

ENERGY PERFORMANCE

- Units meet or exceed ENERGY STAR® requirements for all climate zones in the United States*



*For more information on ENERGY STAR and energy and performance data for Ultra Series windows, refer to pages 202-203.

For further details about how Kolbe products can contribute to sustainable green design, ask your local Kolbe dealer for a copy of the Green Initiatives brochure, or visit our website at www.kolbe-kolbe.com.



EXTERIOR FINISH OPTIONS

ALUMINUM CLADDING

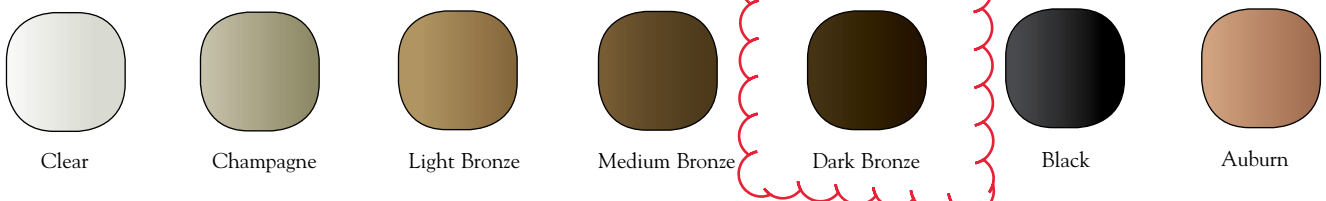
Ultra Series products are finished with a 70% PVDF fluoropolymer coating that meets the performance requirements of American Architectural Manufacturer's Association (AAMA) 2605-05. For the most demanding situations, this coating is the best choice for durability and resistance to chemicals, abrasion, corrosion and weathering. It carries up to a 30-year warranty, which proves Kolbe's commitment to providing the very best. Ultra Series clad products are available in 14 standard colors and 18 specialty colors, with custom colors available.

70% PVDF FLUOROPOLYMER FINISHES



ANODIZED ALUMINUM FINISHES

Special order for most Ultra Series units



* These are specialty colors which will incur an added charge and possible longer lead times. Talk to your local Kolbe dealer for more information.

Printed images of exterior finishes may vary slightly from actual colors. Selections should be made based on actual color samples.

OTHER OPTIONS & ACCESSORIES

EXTERIOR TRIM OPTIONS

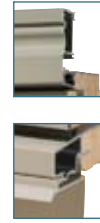
Ultra Series windows and doors are standard without brickmould. For a more distinctive look, numerous different extruded aluminum trim pieces are available (styles pictured below). Various sill nosings can also be applied with brickmould to enhance the overall appearance and to create the perfect look. Custom brickmoulds and casings are available as well; talk to your local Kolbe dealer for more information.



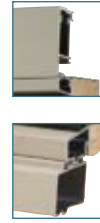
1-15/16" brickmould with traditional sill nosing



2" flat casing with traditional sill nosing



3-1/2" profiled brickmould with sill drip



3-1/2" flat casing with 1-5/8" projected sill nosing



3-1/2" flat casing with backband with 2-1/8" projected sill nosing



Ogee casing with 2-1/8" projected sill nosing



Bull nose casing with 2-1/8" projected sill nosing



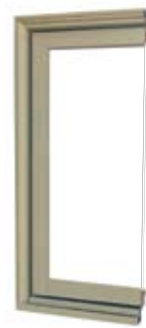
Historic brickmould with 2-1/8" historic sill nosing



2" flat casing with backband with 2-1/8" projected sill nosing



Stucco casing with stucco trim sill nosing



Pavilion brickmould with 2-1/8" projected sill nosing

Note: Additional trim details are shown on pages 176-182.

BEVELED DIRECT SET

The Ultra Series Beveled Direct Set incorporates a clean, contemporary look to provide design flexibility while maximizing the view and daylight.

STANDARD FEATURES

- 2-3/4" overall jamb width
- Constructed of unfinished pine, with pine interior stops and wood mull casings on muller units
- 7/8" LoE²-270 insulating glass*
- Glazing is direct set to the interior
- All exterior wood parts are preservative-treated
- .050" thick, 6063 extruded aluminum alloy frame is applied to the wood frame exterior of all units
- Accessory grooves are integral to the extruded frames for the easy addition of accessories
- Frame corners are mitered 45°, with internal corner keys screwed into the joints and injected with silicone sealant
- 70% PVDF fluoropolymer finish on frame exteriors (meets performance requirements of AAMA 2605-05)
- Heavy vinyl nailing fins**

NOTES:

All measurements are nominal.

* Argon gas may not be included with units to be installed in or shipped through high altitude areas.

** Standard only on units without brickmould.

Beveled Direct Set profile



BEVELED DIRECT SET OPTIONAL FEATURES

GLASS (pgs. 6-7):

- LoE²-240*
- LoE³-366*
- ThermaPlus LoE
- Neat[®]
- Patterned-, bronze- or gray-lite
- Tempered or laminated
- Other options standard to the industry

DIVIDED LITES (pgs. 8-9):

- Grilles-in-the-airspace
- Interior removable wood grilles with 7/8" or 1-1/8" bars and full surrounds
- PDL with 5/8", 7/8", 1-1/8", 1-3/4" or 2-1/4" bars
- Ovolo or square profile interior grille bars (pg. 9)

OTHER OPTIONS: (custom options are also available)

- Other wood species and FSC-certified wood (pg. 11)
- Interior prefinishing (pg. 11)
- Interior casing (pg. 13)
- Extruded aluminum accessories applied to accessory grooves on the exterior frame (pg. 12)
- Extension jambs (up to 12" applied, over 12" shipped loose for field application)
- Galvanized steel installation clips
- Extruded aluminum drip cap (radius units; shipped for field application)

NOTES:

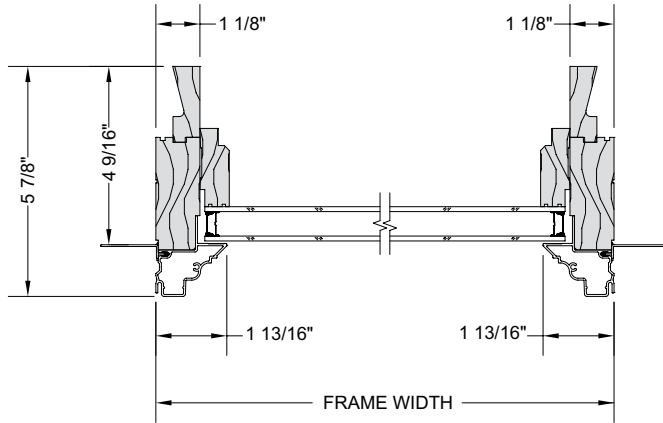
All measurements are nominal.

* Argon gas may not be included with units to be installed in or shipped through high altitude areas.

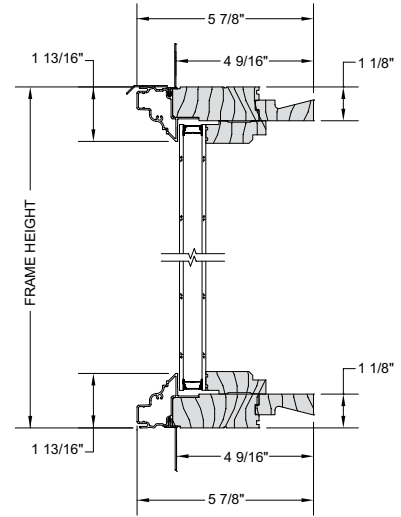
ULTRA SERIES | DIRECT SETS

OGEE DIRECT SET

Horizontal Section

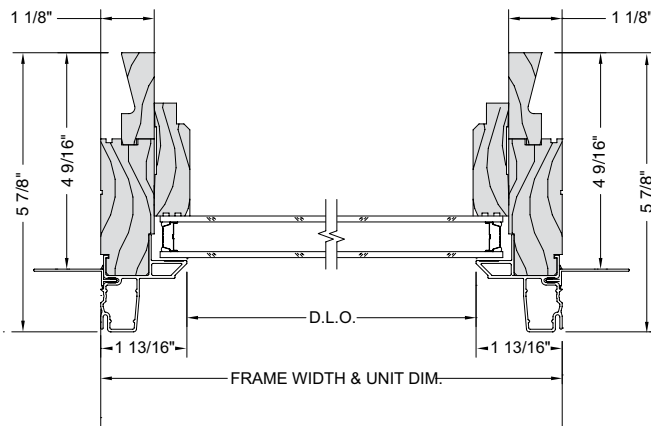


Vertical Section

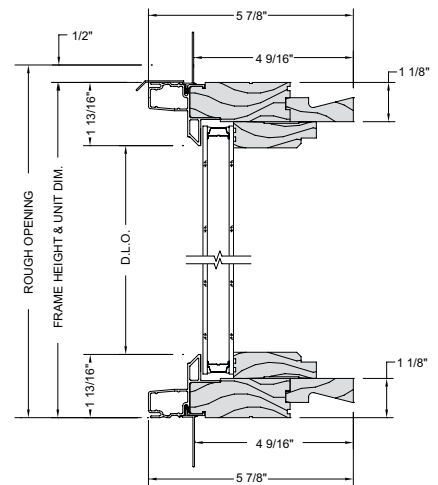


BEVELED DIRECT SET

Horizontal Section

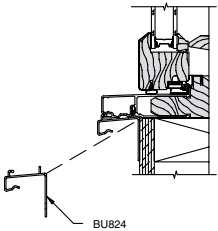


Vertical Section



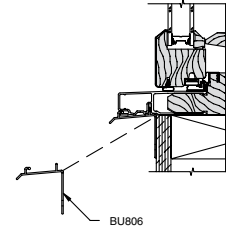
NOTE: Drawings are not to scale.

ULTRA ACCESSORY APPLICATION DETAILS



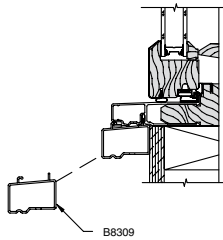
TRADITIONAL SILL NOSING (STANDARD)

Profile BU824 may be applied to units with 1-15/16" brickmould, 3-1/2" brickmould or 3-1/2" flat casing. Colored to match the unit.



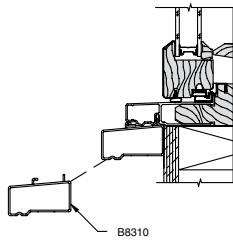
SILL DRIP

Optional Profile BU806 may be applied to units with 1-15/16" brickmould, 3-1/2" brickmould or 3-1/2" flat casing. Colored to match the unit.



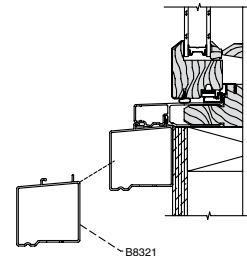
1-5/8" SILL NOSING

Optional Profile BU309 may be applied to units with 1-15/16" brickmould, 3-1/2" brickmould and 3-1/2" flat casing. Colored to match the unit.



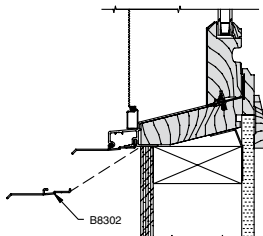
2-1/8" SILL NOSING

Profile B8310 is a standard application to units with backband, ogee casing and bullnose brickmould. Colored to match the unit.



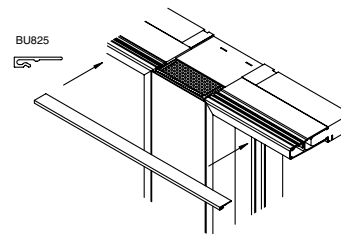
2-1/8" HISTORIC NOSING

Profile B8321 is a standard application to units with historic brickmould. Colored to match the unit.



SILL EXTENDER

Optional Profile B8302 may be used with double hung and slider units only. Colored to match the unit. Field-applied only.



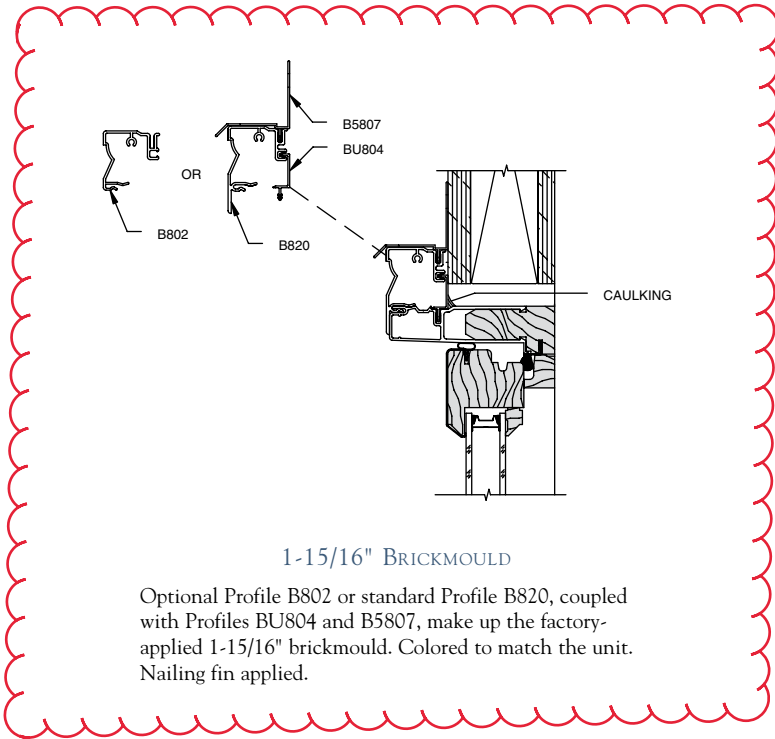
HEAD & SILL TRIM

Profile BU825 may be used on spread mulls and stacked units without brickmould. Colored to match the unit.

NOTE: Drawings are not to scale.

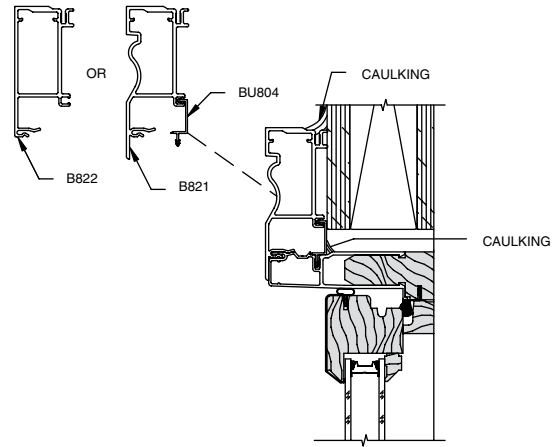
ULTRA SERIES | ACCESSORIES

ULTRA ACCESSORY APPLICATION DETAILS



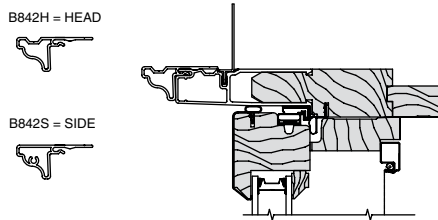
1-15/16" BRICKMOULD

Optional Profile B802 or standard Profile B820, coupled with Profiles BU804 and B5807, make up the factory-applied 1-15/16" brickmould. Colored to match the unit. Nailing fin applied.



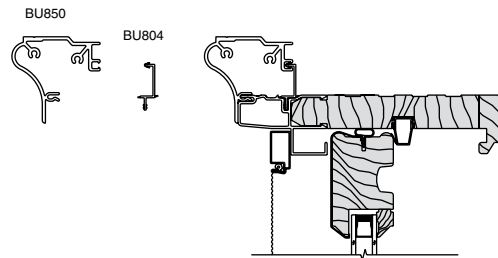
3-1/2" BRICKMOULD OR FLAT CASING

Profiles B821 or B822, coupled with Profile BU804, make up the factory-applied 3-1/2" brickmould or flat casing. Colored to match the unit. No nailing fin is applied.



OGEE CASING

Profile B842H (head)
 Profile B842S (side)
 Ogee casing can be used on any Ultra unit as trim.
 Colored to match the unit. Nailing fin applied.



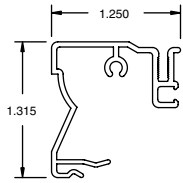
BULL NOSE BRICKMOULD

Profile BU865, used in conjunction with Profile BU804, make up the factory-applied bull nose brickmould. Colored to match the unit.

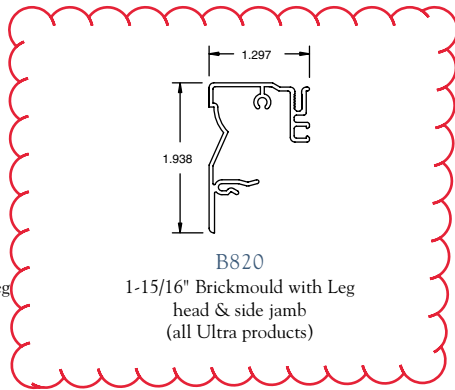
NOTE: Drawings are not to scale.

ULTRA SERIES | ACCESSORIES

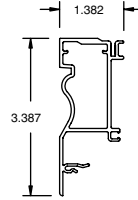
ULTRA ACCESSORY PROFILES



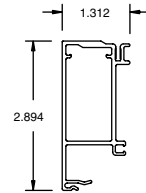
B802
2" Brickmould without Leg
head & side jamb
(all Ultra products)



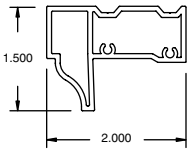
B820
1-15/16" Brickmould with Leg
head & side jamb
(all Ultra products)



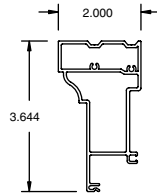
B821
3-1/2" Brickmould with Leg
head & side jamb
(all Ultra products)



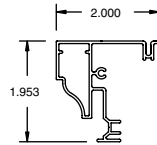
B822
3-1/2" Flat Casing without Leg
head & side jamb
(all Ultra products)



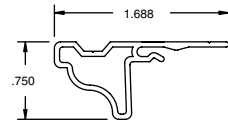
BU823
Backband
(all Ultra products)



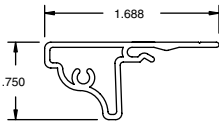
B843
3-1/2" Flat Casing with Backband
(all Ultra products)



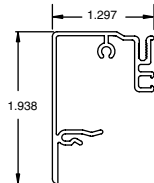
BU834
Receiver Trim Backband Profile
(all Ultra products)



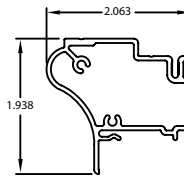
B842H
Ogee Trim - head
(all Ultra products)



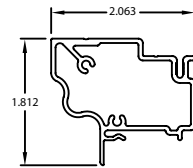
B842S
Ogee Trim - side
(all Ultra products)



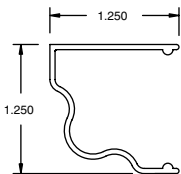
B860
2" Flat Casing
(all Ultra products)



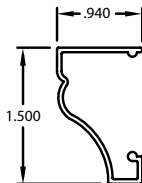
BU865
Bull Nose Casing
(all Ultra products)



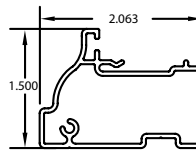
BU866
Historic Trim
(all Ultra products)



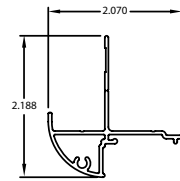
B8304
Chicago Brickmould head & side
(all Ultra products)



BU847
Snap-on Brickmould
(all Ultra products)



BU864
Pavilion Brickmould
(all Ultra products)

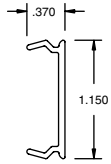


B8329
Stucco Casing
(all Ultra products)

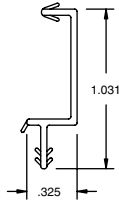
NOTE: Drawings are not to scale.

ULTRA SERIES | ACCESSORIES

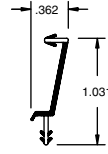
ULTRA ACCESSORY PROFILES



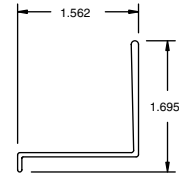
B8303
Chicago Brickmould head & side clip
(all Ultra products)



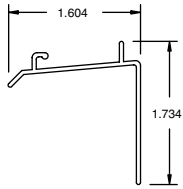
BU804
PVC Trim Holder
(all Ultra products)



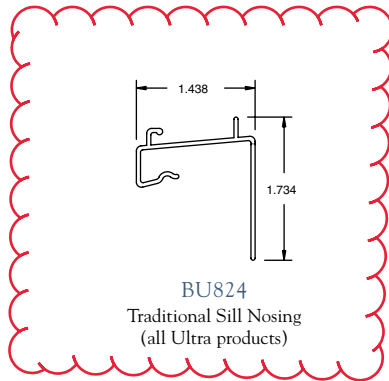
BU844
PVC Trim Holder
(Ultra half-circle radius units)



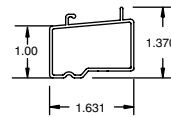
BU827
Radius Nailing Fin with Drip
(Ultra half-circle radius units)



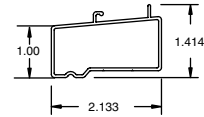
BU806
Sill Drip
(all Ultra products)



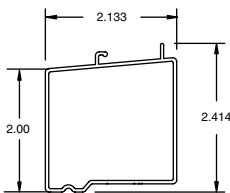
BU824
Traditional Sill Nosing
(all Ultra products)



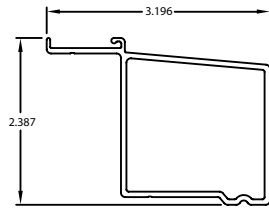
B8309
1-5/8" Projected Sill Nosing
(all Ultra products)



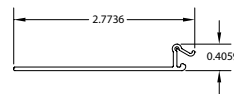
B8310
2-1/8" Projected Sill Nosing
(all Ultra products)



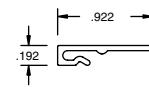
B8321
2-1/8" Historic Nosing
(all Ultra Products)



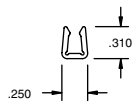
B8330
Stucco Trim Sill Nosing
(all Ultra products)



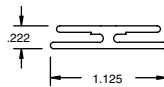
BU839
2-1/2" Sill Extender
(all Ultra products)



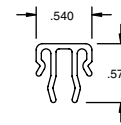
BU825
Head & Sill Trim
(Ultra bow & bay units)



BU805
Mullion & Transom Splice
(all Ultra products)



BU835
1-1/8" Stepped Mull "H" Splice
(all Ultra products)



BU817
1/4" Mull Cover
(all Ultra products)

NOTE: Drawings are not to scale.

ENERGY PERFORMANCE DATA

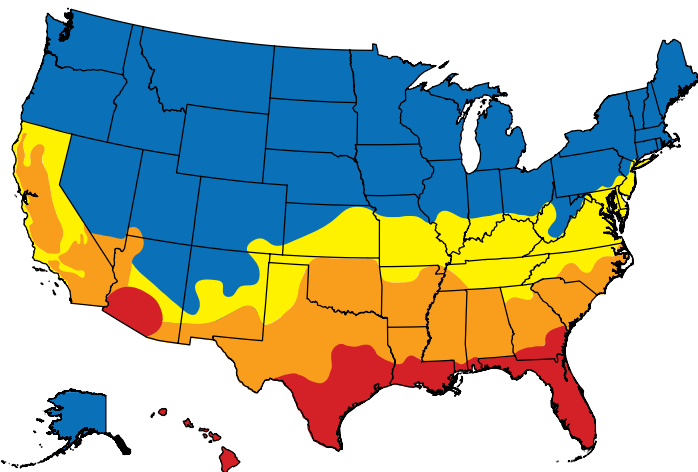
ENERGY STAR® – UNITED STATES



ENERGY STAR is a government-regulated program that was created by the Environmental Protection Agency (EPA), and the U.S. Department of Energy (DOE), to help consumers quickly and easily identify energy saving products. The ENERGY STAR program uses energy values obtained by window and door manufacturers through the National Fenestration Rating Council (NFRC) program. NFRC ratings are based on the energy performance of the total window or door – both glass and frame.

The ENERGY STAR program for the United States divides the nation into four separate climate zones – Northern, North-Central, South-Central, and Southern.

The performance criteria that needs to be met in order to be ENERGY STAR compliant in a specific climate zone (effective January 4, 2010) is shown in the charts provided below.



- Northern
Mostly Heating
- North-Central
Heating & Cooling
- South-Central
Heating & Cooling
- Southern
Mostly Cooling

ENERGY PERFORMANCE TERMINOLOGY

- **U-Factor** refers to a measure of heat transfer through the window or door unit. A lower U-factor means less heat escapes during winter weather, thus reducing heating costs in cold climates.
- **R-Value** refers to resistance to heat flow. A high R-value indicates that a window or door has good heat insulating properties.
- **Solar Heat Gain Coefficient (SHGC)** is a measure of how much solar energy is passing through the unit's glass. The lower a window or door unit's SHGC, the less solar heat is transmitted into a room, thus allowing for lower cooling bills in hot climates.
- **Visible Transmittance (VT)** is a measure of the portion of visible light that passes through a window or door. The higher a window or door unit's VT Total, the more visible light is transmitted into a room. This value is influenced by both the glass selection and by the ratio of glazing and frame area.

2010 ENERGY STAR Qualification Criteria for Windows

Climate Zones - U.S.		U-Factor	SHGC
	Northern**	≤ 0.30	Any
	Northern	= 0.31	≥ 0.35
	Northern	= 0.32	≥ 0.40
	North-Central	≤ 0.32	≤ 0.40
	South-Central	≤ 0.35	≤ 0.30
	Southern	≤ 0.60	≤ 0.27

** Northern zone windows can meet prescriptive (1st row) or alternative energy performance (2nd & 3rd row) criteria to qualify for ENERGY STAR.

2010 ENERGY STAR Qualification Criteria for Doors[†]

Glazing	U-Factor	SHGC
Opaque	≤ 0.21	No rating
≤ 1/2-Lite	≤ 0.27	≤ 0.30
> 1/2-Lite	≤ 0.32	≤ 0.30

[†] Criteria shown applies to both sliding and hinged doors and in all four climate zones.

Kolbe demonstrates a commitment to providing accurate energy data by having products independently simulated, tested, inspected and listed in the NFRC certification program, and making that data available on our website and window labels.

NOTE:

Energy performance data and air, water, structural data is updated on a continuous basis. For the most current information, visit www.kolbe-kolbe.com or contact your local Kolbe dealer.

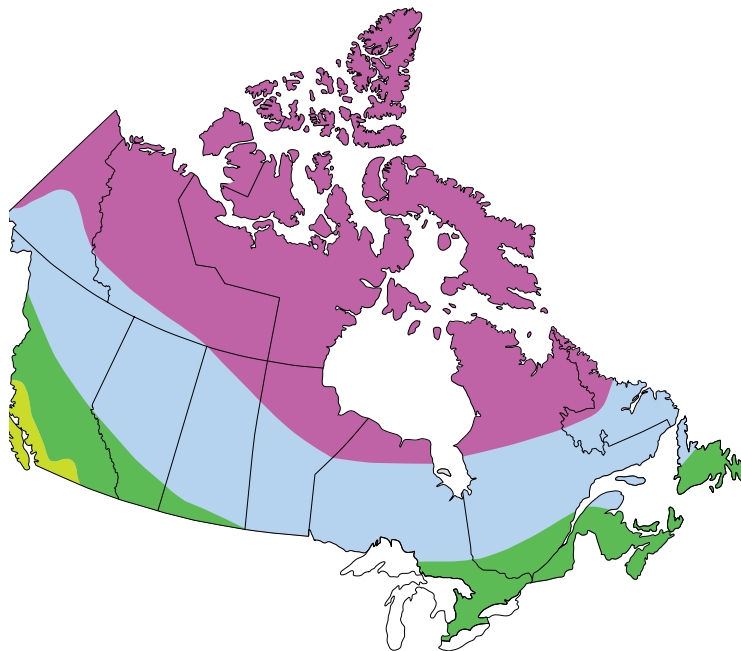
ENERGY PERFORMANCE DATA

ENERGY STAR® – CANADA

Products may comply for Canada's ENERGY STAR program based on two compliance paths: either their U-factor total, or their Energy Rating (ER).

The Energy Rating is based on a product's overall performance based on three criteria: (1) solar heat gain, (2) heat loss through the frame, spacer and glass, and (3) air leakage loss. The higher the ER number, the better the product's thermal performance.

The U-factor and ER criteria for Canada's four climate zones is shown in the charts provided. For more detailed information about their Energy Rating system and Kolbe products that qualify for Canada's ENERGY STAR Program, visit their website at www.oee.nrcan.gc.ca/energystar.



- Zone A**
Southwestern Canada/
British Columbia
- Zone B**
Southern Canada
- Zone C**
Central Canada
- Zone D**
Northern Canada

ENERGY STAR - Canada Qualification Criteria for Windows after October 1, 2010

Zone	COMPLIANCE PATHS		
	Minimum Energy Rating (ER)**	or	Maximum U-Factor
A	21 (Max. U-factor 0.35)	or	≤ 0.32 (Min. ER = 13)
B	25 (Max. U-factor 0.35)	or	≤ 0.28 (Min. ER = 17)
C	29 (Max. U-factor 0.35)	or	≤ 0.25 (Min. ER = 21)
D	34 (Max. U-factor 0.35)	or	≤ 0.21 (Min. ER = 25)

** After June 1, 2010: Both fixed and operable windows will have to meet the same ER level for each climate zone.

ENERGY STAR - Canada Qualification Criteria for Doors† after October 1, 2010

Zone	COMPLIANCE PATHS		
	Minimum Energy Rating (ER)	or	Maximum U-Factor
A	21 (Max. U-factor 0.35)	or	≤ 0.32
B	25 (Max. U-factor 0.35)	or	≤ 0.28
C	29 (Max. U-factor 0.35)	or	≤ 0.25
D	34 (Max. U-factor 0.35)	or	≤ 0.21

† Criteria shown applies to both sliding and hinged doors and in all four climate zones. Doors following the "Maximum U-factor" compliance path do not have a minimum ER requirement.

U-FACTOR CONVERSION	
Imperial	Metric
0.35	2.00
0.32	1.80
0.28	1.60
0.25	1.40
0.21	1.20

NOTE:

Energy performance data and air, water, structural data is updated on a continuous basis. For the most current information, visit www.kolbe-kolbe.com or contact your local Kolbe dealer.



KOLBE

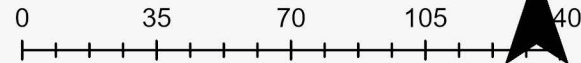
■ WINDOWS & DOORS ■

1323 S. 11th Avenue ■ Wausau, WI 54401-5998
715.842.5666
www.kolbe-kolbe.com

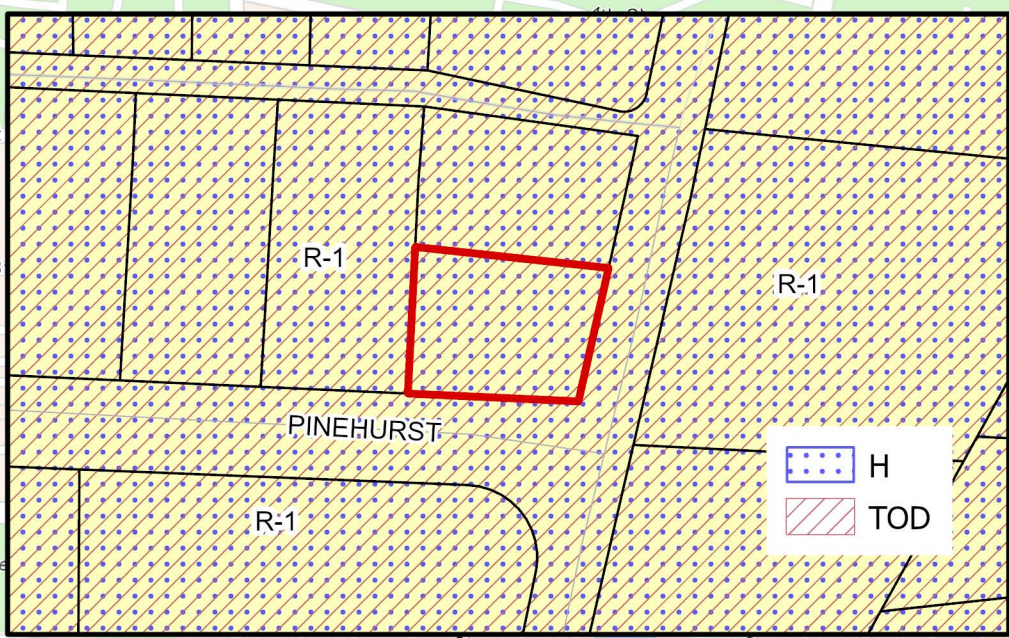
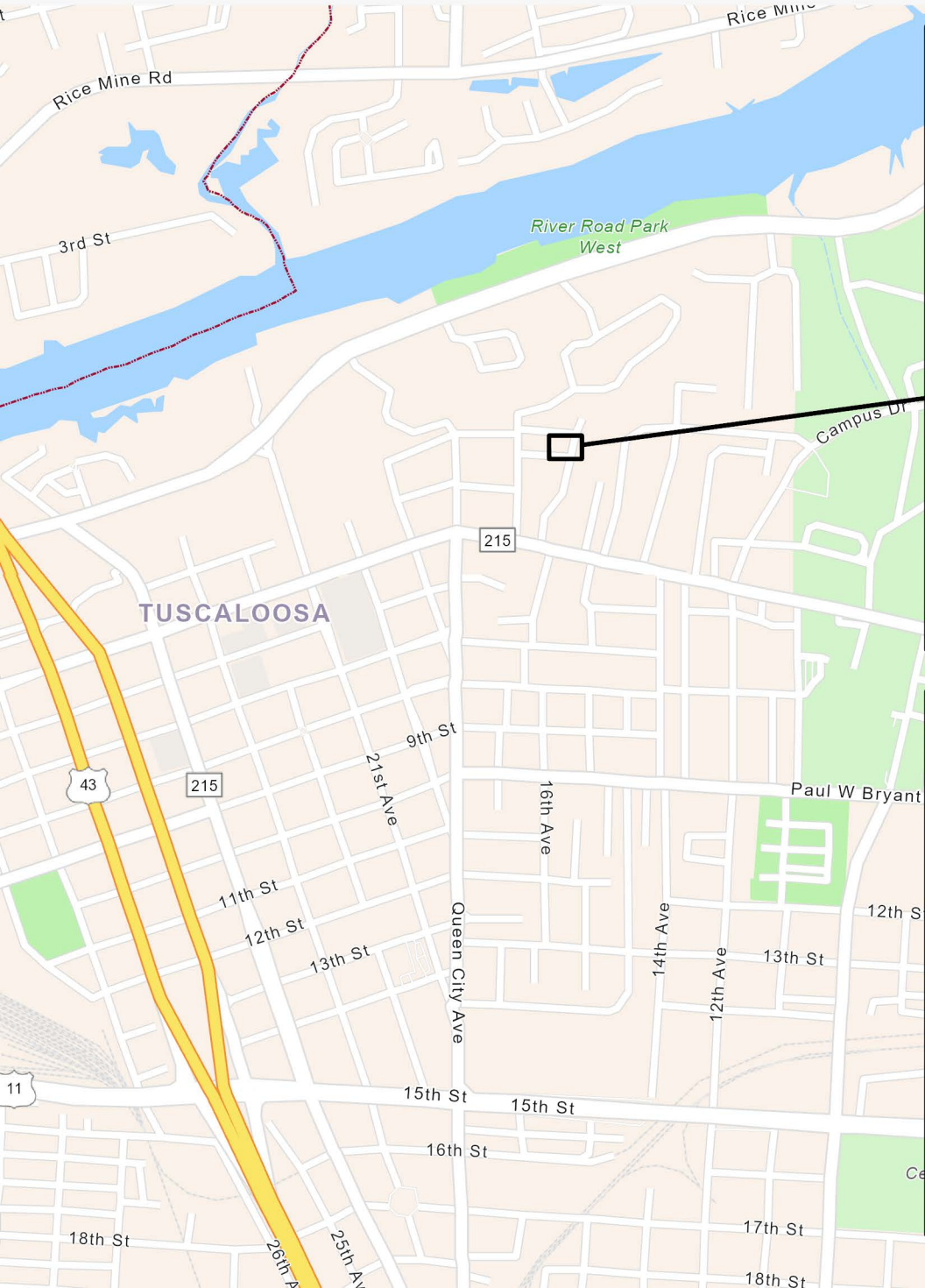


21 Pinehurst Drive

1 inch = 50 feet



N

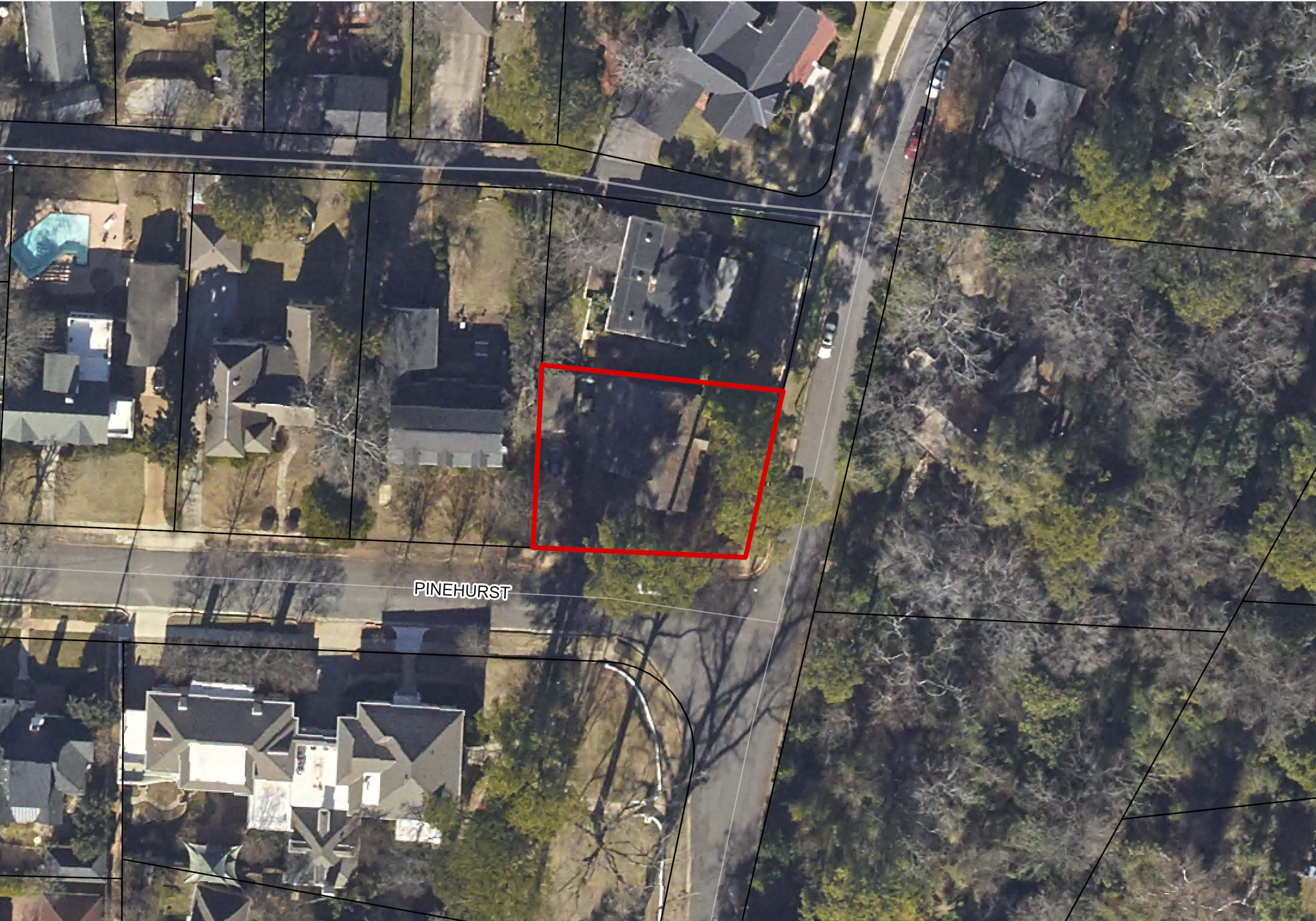




21 Pinehurst Drive


1 inch = 50 feet
0 25 50 75 100

N



PINEHURST



NOTICE
Historic District Review
For further information, please visit
tuscaloosa.com/hpc
or call 248-5100.

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WE LIVE UNITED
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THANK YOU!

