

**STAFF REPORT: 9/13/2023 MEETING**

**PREPARED BY: J. ROSS**

**APPLICATION NUMBER: HDC2023-8524**

**ADDRESS: 4138 LINCOLN**

**HISTORIC DISTRICT: WOODBRIDGE FARM**

**APPLICANT/OWNER: ERIC JONES & PAMELA CASTILLO**

**ARCHITECT: ASH STUDIO**

**DATE OF PROVISIONALLY COMPLETE APPLICATION: 8/20/2023**

**DATE OF STAFF VISIT: 8/31/2023**

## **SCOPE OF WORK:**

### **EXISTING CONDITIONS**

Erected ca. 1900, 4138 Lincoln is a single-family, wood-frame dwelling that is located at within the Woodbridge Farm Historic District. The building is 2 ½-stories in height and is rectangular in plan. Its primary mass is topped with a front-gabled roof, while the rear roof is hipped. A gabled-roof bay is located at the south elevation. With the exception of the three windows in the attic story's gable end and the windows at the north/side, all windows were recently removed without HDC approval. The window openings are now covered with plywood. Wood, fish-scale shingle siding is located at the building's upper stories. Lapped, wood clapboard siding is at the front elevation, first story, and at the side and rear elevations. Wood panel siding is also located at the front elevation, first story. According to historic Sanborn maps and a review of the submitted photos, a one-story gabled-roof wing and porch was removed front the building's rear elevation sometime after 1970. Brick foundation walls are visible at all four elevations and a brick chimney is located at the north elevation. The primary entry, located at the west elevation, consists of two historic-age paneled wood doors. A partial-width, hipped roof original porch with wood columns, floor, and steps shelters this entry. The rear entry is a single, hinged historic paneled wood door.



**4138 Lincoln, current appearance. Staff photo, taken 8/31/2023**



## **PROPOSAL**

With the current submission, the applicant is seeking the Commission's approval to rehabilitate the house per the attached drawings, including the following scope items:

### **FRONT ELEVATION**

- At porch, retain all roof elements. Where necessary/deteriorated repair using in kind materials. Replace existing floor, steps, skirting, and steps with new wood elements per drawing. Install new light fixture at ceiling.
- Retain remaining wood windows at attic story gable end. Where necessary, replace deteriorated elements with new wood to match existing
- Retain remaining wood trim/brickmould at second story windows and wood trim/paneling at first-story bay. Where necessary, replace deteriorated elements with new wood to match existing
- At first and second story, install new aluminum-clad, wood windows at first and second story per submission
- Retain existing wood siding. Where necessary, replace deteriorated siding with new siding to match existing in material, dimension, and profile

### **REAR ELEVATION**

- Remove existing door and infill opening (material not specified)
- Punch in new opening to accommodate a single door with transom
- Punch in new opening to accommodate a new aluminum clad, 1/1, wood window at second story
- Install new lapped wood siding throughout to include replacement of existing wood siding. The new siding at this location will match the existing in exposure and profile.
- Install a new wood porch deck

### **SIDE/SOUTH ELEVATION**

- Remove two existing windows at 1<sup>st</sup> story, beneath the second story bay, and lengthen opening/ lower sill to accommodate a set of paired swinging wood doors with wood panel
- Erect a 10'x14' wood deck
- Remove existing wood brickmould at window openings and install new install new aluminum-clad, wood windows with wood trim/brickmould
- Retain existing wood siding. Where necessary, replace deteriorated siding with new siding to match existing in material, dimension, and profile

### **SIDE/NORTH ELEVATION**

- Remove existing wood brickmould at window openings and install new install new aluminum-clad, wood windows with wood trim/brickmould
- Retain existing wood siding. Where necessary, replace deteriorated siding with new siding to match existing in material, dimension, and profile

### **ALL ELEVATIONS**

- Paint walls as per submitted color scheme
- Replace basement windows with new glass block windows
- Replace existing wood trim board at foundation with new wood trim board to match existing

### **ROOF**

- Install new black dimensional shingles and continuous ridge vent

- Install solar shingles (finish color, black) at southern roof surface (towards the rear of the roof, behind the projecting bay) and the rear/east roof surface
- Install new aluminum gutters and downspouts

## SITE

- Remove existing chain link fence
- Replace concrete walkway in front yard with new concrete walkway.
- Retain existing hedgerow plants at front yard, adjacent to existing fence
- Install a new HVAC condenser in rear yard

## **STAFF OBSERVATIONS AND RESEARCH**

- Please note that a previous owner presented a rehabilitation proposal to the Commission for review at the 3/21/2021 meeting which included a proposal to rebuild the front porch, retaining only the existing brackets. The Commission approved the proposal with the condition that the existing entire roof/canopy structure, to include the roof, wood bead board ceiling, decorative wood brackets, and cornice be retained and repaired. The Certificate of Appropriateness (COA) allowed for the replacement of the existing corner posts, wood balustrade and newel posts, deck, and steps to match the appear of the elements at the time of the district's designation. The current porch proposal meets the COA and associated conditions which the Commission issued in 2021. Staff supports the current proposed treatment of the front porch.
- The proposal includes the installation of solar shingles at the southern roof surface and the rear roof. See the following link to the product's website for images of the product in situ [Solar Roofing | Integrated Solar Roof Systems | CertainTeed](#). Note the following re: this scope item:
  - The shingle panels have a very thin profile (. 875") and the installation process involves the application of the panels directly to the roof sheathing using standard deck screws. The new shingle panels will therefore present a minimal change to the roof's geometry when compared to conventional solar panels. .
  - The color of the shingle panels will be black to match the color of the new asphalt shingle roof.
  - The current roof covering is not historic age. The proposed new shingle panel installation will not result in the removal of historic fabric
  - The solar shingle panels proposed for installation at the rear elevation will not be visible from the public right-of-way. The shingles proposed for the south roof surface will be located to the rear of the roof, behind the projecting side-gabled bay. As a result, they will be minimally visible from the public right-of way.
  - The Secretary of the Interior's Guidelines for Rehabilitation, [Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings \(nps.gov\)](#) recommends the following for solar technology:
    - *Installing a low-profile solar device on the historic building so that it is not visible or only minimally visible from the public right of way*

It is staff's opinion that the proposed work item/ the proposed new solar shingle panels meet the Standards. Staff therefore recommends that the Commission approve this scope item.

- The application proposes to remove two existing windows at 1<sup>st</sup> story, beneath the second story bay, and lengthen opening/lower sill to accommodate a set of paired swinging wood doors with wood panel at the south side wall. The current set of drawings do not include dimensioned drawing of existing conditions. However, staff did receive a verbal confirmation from the project's architect that once windows and the associated trim/casing are removed at this location, the rough opening width will remain the same/will not be widened, to accommodate the proposed new doors. Also, the doors will match the paired doors at the front façade. Staff therefore supports

this scope item as long as the new doors and trim are wood at the exterior/not clad with metal, fiberglass, vinyl, etc. and the finish color/paint color palette of the new doors and associated trim match that proposed for the front door/primary entrance.

## ISSUES

- The project includes the proposal for the erection of a new wood deck at the south side wall/side yard. It is staff's opinion that the deck as proposed is not compatible with the home's historic appearance for the following reason:
  - The south side wall is highly visible from the public right-of-way as a adjacent parcel is vacant.
  - Historically, wood porches typically included a roof overhand of some kind in order to protect the floor from deterioration due to exposure to weather.
  - The scale/ footprint of the deck is too large/wide as it extends into the adjacent lot at 4132 Lincoln. A porch at that location would have been designed to fit within the boundaries of the parcel which the house sits.

A deck of the sort proposed is better suited for the rear elevation as it would not be visible from the public right-of way. It is staff's opinion that a sensitively designed porch wood porch which includes a roof and fits within the 4138 Lincoln's parcel boundaries would be more appropriate for this location.

- As previously noted, an application for the rehabilitation of the property was approved by the Commission in 2021. Specifically, re: the windows, the application proposed the following:
  - At the north wall, retain and repair all existing wood windows. Replace trim with new ¼ cedar trim. The Commission approved this scope item as proposed.
  - At the south wall, replace trim with new ¼ cedar trim and replace existing windows with new aluminum clad wood windows. The Commission approved this scope item as proposed.
  - At the front elevation replace windows and trim with new. The Commission did not approve this scope item as they placed issued a condition on the COA which required that "the existing windows, brickmould/trim, and mullions at the front shall be retained and repaired."
- Note that the current property owner had all of the existing windows removed with the exception of the three windows at the attic story, front façade. The only windows that received an HDC approval for removal/replacement are those which are located at the south wall. Please see the applicant's narrative which outlines the reasons why he removed the windows throughout. See the 2021 staff report for documentation of the window conditions at that time. As the window conditions were not documented throughout at the time of the unapproved removal, it is not clear that they were deteriorated beyond repair. It is therefore staff's opinion that the unapproved removal of the windows at the front and north side wall does not meet the Secretary of the Interior's (SOI) Standards for Rehabilitation. Also, the current documents do not provide the level of details necessary in order for staff to ascertain that the proposed new windows are an adequate replication for the windows that were removed without HDC approval. Also, note that the proposed Marvin windows are a different product than that which was proposed in 2021. It is not clear if they provide an appropriate replication for the windows which were approved for replacement at the south elevation. The applicant's architect has committed to providing more information re: the proposed new windows and trim/casing which better detail their dimensions versus the original elements. However, staff has yet to receive this information as of the date of this report's completion. Staff will revise this report to incorporate the new information at the time of our receipt of the documentation.



## **RECOMMENDATION**

### Recommendation # 1). Section 21-2-73, DENIAL

It is staff's opinion that the proposed new south side deck is not appropriate to the building's historic character for the following reasons:

- The south side wall is highly visible from the public right-of-way as a adjacent parcel is vacant.
- Historically, wood porches typically included a roof overhand of some kind in order to protect the floor from deterioration due to exposure to weather.
- The scale/ footprint of the deck is too large/wide as it extends into the adjacent lot at 4132 Lincoln. A porch at that location would have been designed to fit within the boundaries of the parcel which the house sits.

Also, the proposed new window treatment is inappropriate for the following reasons:

- As the window conditions were not documented throughout at the time of the unapproved removal, it is not clear that they were deteriorated beyond repair. Also, the current documents do not provide the level of detail necessary in order for staff to ascertain that the proposed new windows are an adequate replication for the windows that were removed without HDC approval. Finally, the proposed Marvin windows are a different product than that which was proposed in 2021. It is not clear if they provide an appropriate replication for all of the windows which were approved for replacement at the south elevation.

Staff therefore recommends that the Commission issue a denial of these work items because they do not meet the Woodbridge Farm Historic District's Elements of Design or the SOI Standards for Rehabilitation, specifically, Standards #:

- 2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.*
- 5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.*
- 6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.*
- 9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.*

### Recommendation # 2). Section 21-2-73, CERTIFICATE OF APPROPRIATENESS (COA)

It is staff's opinion that the remaining items are appropriate to the property's historic character. Staff therefore recommends that the Commission issue a COA for the remaining work items outside of the windows and south side deck because the work is in keeping with the district's elements of design and meet the SOI Standards for Rehabilitation. However, staff does recommend that this COA be issued with the following condition:

- The new doors proposed for the south side wall shall only be installed if an HDC approved porch is installed at that location. Also, the new doors and trim shall be wood at the exterior/not clad with metal, fiberglass, vinyl, etc., and the finish color/paint color palette of the new doors and

associated trim match that proposed for the front door/primary entrance. The applicant shall proposed a revised proposal for this door reflecting this condition to HDC staff for review and approval prior to the issuance of the project permit.

# 4138 Lincoln St. Renovation Historic District Commission Review

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**August 21, 2023**

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**APPENDIX**

Product Data and Cut Sheets

**1. Photographs of Existing Conditions** (taken Aug. 14 2023)



Front Façade looking North



Front Façade looking East



View from Lincoln St. looking North





View from Lincoln St. looking Southeast



South Façade from side yard



Rear Façade





Front Porch



Front Porch



Front porch / South Façade from side yard.



Rear coal chimney proposed for removal





Front chain link fence proposed for removal

## 2. Description of Existing Conditions

4138 Lincoln St. is a wood-framed two-story single-family house with full basement and attic constructed in the late 19<sup>th</sup> Century in the Woodbridge Farms Historic District. The style exhibits a hybrid style of residential design combining modest Victorian elements that was common of homes constructed between 1870-1910 in the area spanning Woodbridge, Corktown, and east of Cass Ave.

The most unique existing elements are the front porch which features a sweeping staggered roof with flared concave eaves, intricate wood paneling at the front bay window, sawtooth brackets below a small attic-level cantilever at the front façade and bedroom bay protrusion at the side façade, expressive shingle-clad curved corners of the front façade at the second story, and three single-hung windows with decorative motifs at the front gable attic level. The original wood structure is structurally sound overall, requiring some patches and repairs to the first floor joists and timber beams from water damage at the foundation. The brick foundation is also structurally sound and was repointed several years ago, but will require some module replacement and repointing at the rear. An original one-story rear portion of the house was removed at some point in time - the gabled imprint is still present as the siding was never properly patched.

The house features a gabled roofline at the front and hipped roof at the rear. The coatings of the existing roof shingle are degraded and require replacement. The existing front porch roof is in repairable condition, but visibly detaching from the main house structure. The existing porch columns, guardrail, decking, and skirting are not original to the structure and have significant portions missing or deteriorated beyond repair due to improper connections and general neglect. The original wood lap-siding that wrapped the majority of the house and wood scallop shingle cladding at the second story of the front and partial side facades was uncovered by the

previous owners after they had removed asphalt tiles in 2021 that covered the entire house and most likely installed decades prior. The original wood siding, trim, and front bay window panel cladding will require patching and some partial replacement of missing or rotted boards, but is in salvageable and repairable condition overall.

The majority of the original windows including frames, sashes, and aluminum storm windows were removed following a break-in and theft in January 2023 upon the purchase of the property. The only windows that remain are the three single-hung wood windows with divided lite sunburst motifs at the fixed upper sashes, which are in poor condition requiring several new components, but which the owner intends to repair and restore.

The interior has been stripped of all mechanical and plumbing fixtures and supply lines. Some electrical was previously installed by the previous owner, but will need to be reconfigured to meet electrical codes. Interior finishes have mostly been stripped and replaced, except for some original plaster walls at the front entryway, main stairway, and front bedroom at the second story. The main stairway, landing, and entryway have remained relatively unaltered from their original condition. The utility stairway leading to the basement from the first floor was relocated at some point from the rear of the house to the be stacked under the main stairway. This stairway will be repaired and partially rebuilt for structural reinforcement at its current location.

### **3. Description of Project**

The current homeowners are seeking to perform a full renovation to become their primary residence, with modifications to the previously-approved renovation scope. Proposed work that departs from the original scope includes the addition of a deck and glazed patio doors at the south side façade to extend into the side yard and provide garden access off the dining area, raising the sills of the two windows at the south façade towards the rear to accommodate kitchen cabinet height, the replacement of all missing window units, removal of the small coal chimney at the rear, and installation of solar array panels at the rear hipped roof and at the pitched roof to be hidden from the street view behind the second level gabled bay protrusion at the south façade.

The parameters of the new side deck are designed to align with the second level gabled bay protrusion above to create a harmonious façade. The new posts and balusters will reflect those of the rebuilt front porch to establish a cohesive character. In order to provide access to the deck, we are proposing extending the bottom of the existing window openings down 20" to floor level, and infilling with new full-glazed double-swing patio doors to match the widths of the original window openings. Note that there is little to no visibility to the lower portion of the south façade from the street affronting the property due to a tall old-growth hedgerow that exists along the entire front property line. The owners are also proposing to remove the existing chain link fence in front of the hedgerow. At the rear façade, the owners seek to remove the existing rear door and infill the opening, and install a new rear entry door with transom window at the opposing side of the rear façade that opens onto a new small wood porch with stairs to access the rear of the lot for future carport/parking area. The proposed plan also includes a new slender window at the first level of the rear to increase visibility from the kitchen to the rear yard.

The original wood lap-siding and scallop shingles will be sanded and patched where required with new wood siding matching type, profile, and exposure. The wood paneling at the front bay window will similarly be patched and repaired as needed to restore to its original appearance as much as possible. The entire rear façade of the house with missing siding will be clad in new cedar lap-siding and trim boards to match the lap-siding of the side facades in profile and exposure. All siding, trim, and cladding is proposed to be painted according to the attached



paint diagrams which incorporate two Grayish Greens from Color System B, and a gray/off-white trim accent gray/off-white to balance the heavier blue/green tones. The owners intend to use a linseed-oil based paint in keeping with a type of paint authentic to the original house.

The existing double-hung window units are mostly missing and the openings have been boarded for security. The owners would like to infill the windows openings with the attached aluminum-clad wood window units. The proposed window model most closely approaches the originals in frame and sash dimension, site lines, and overall aesthetic effect after comparison between four different window models. The three original wood single-hung windows at the front gable attic level that remain will be repaired and refurbished by a local professional window restoration company. Several components of these windows are missing and will need to be replaced or recreated (meeting rails, muntins, glazing).

The proposed rebuilt front porch will not deviate from that approved within the COA issued in March 2021. The original porch roof structure will remain and be stabilized/reinforced as necessary, and the porch posts and base will be completely rebuilt per the attached drawings. The original double-swing panel front door is to remain and be refinished with a dark stain, and the existing aluminum storm door will be removed. The roof shingle covering will be replaced with new asphalt shingles to match those of the main roof.

#### **4. Detailed Scope of Work**

- Demolition:
  - Remove existing front porch elements including posts, decking, stairs, skirting, guards, and roof finishes (existing porch roof structure to remain and be repaired/refinished including bead board, trim, cornice molding, brackets)
  - Remove existing layers of roof shingles and deteriorated portions of roof decking (if applicable) and prepare surface for new shingle roof
  - Cut new openings in rear facade at first level for new kitchen window, mudroom door, and porch ledger.
  - Extend openings from removed windows on south façade below second level bedroom protrusion to allow for new patio doors to new deck.
  - Infill lower sill portions of both window openings at south façade towards rear to accommodate kitchen counter height at interior.
  - Remove existing CMU coal chimney at rear wall.
  - Remove existing chain-link fence at front yard/sidewalk.
- Exterior Improvements:
  - Install new roof membrane, shingles, flashing, gutters, and downspouts
  - Repair and repoint brick foundation wall, replace spalling or missing modules with matching common brick
  - Infill existing basement window openings with ventilated glass block
  - Replace all missing window units with proposed new aluminum-clad wood units
  - Repair three existing single-hung window units at front gable attic-level including divided-lite sunburst motifs in kind to their original construction
  - Repair existing front porch roof and rebuild porch base atop existing foundation in accordance with attached drawings
  - Construct new wood side deck and stairs; and rear porch and stairs
  - Install new rear entry door with half-lite glazing
  - Refinish existing double-swing panel front door
  - Patch, repair, refinish, and paint existing original wood lap-siding, shingles, and panel cladding at front bay window

- Install new cedar lap-siding and trim boards across entire rear façade to match side facades in profile and exposure.
- Refinish window trim at all window openings to greatest extent possible; patch in new wood trim to match the original as required.
- Paint all exterior siding and trim in accord with attached elevation paint diagrams

## 5. Replacement Material Information

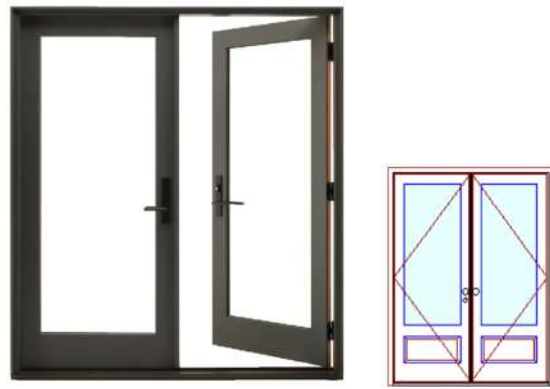
### Windows

Marvin - Ultimate G2  
Aluminum-Clad Wood, Black Exterior



### Exterior Doors at Side/Rear:

Marvin Wood Swing Doors  
Panel Base (not full lite, see shop drawing)



### Basement Windows:

IPS - 8" glass block windows with vent



### Roof Shingles (Main House and Porch Roof):

Atlas Roofing - Storm Master Shake  
Black Shadow



## 6. Exterior Paint Scheme Diagrams

Body: Lap Siding



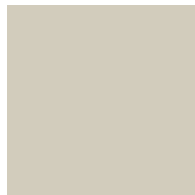
**B:12 Grayish Green**  
MS: 10G 4/2

Body: Shingle



**B:10 Grayish Green**  
MS: 10G 5/2

Trim:



Viking Linseed Oil Paint  
Ottofon: Umber Grey

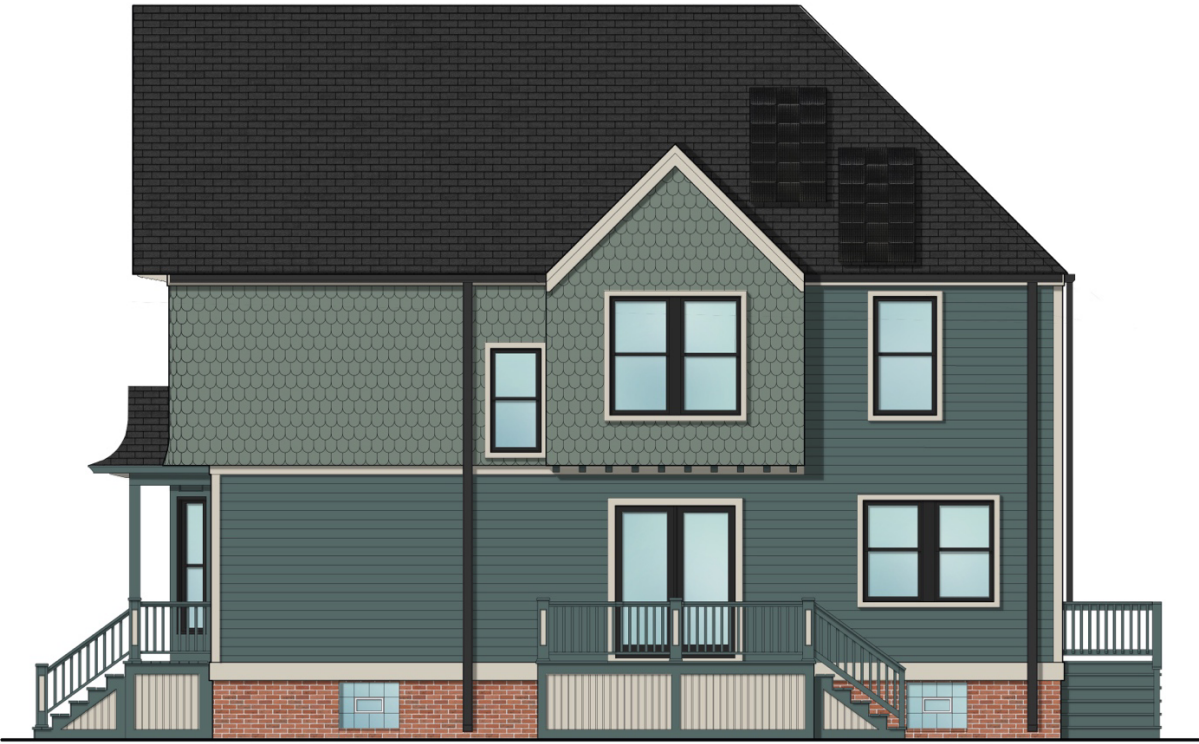
Sash/Gutters



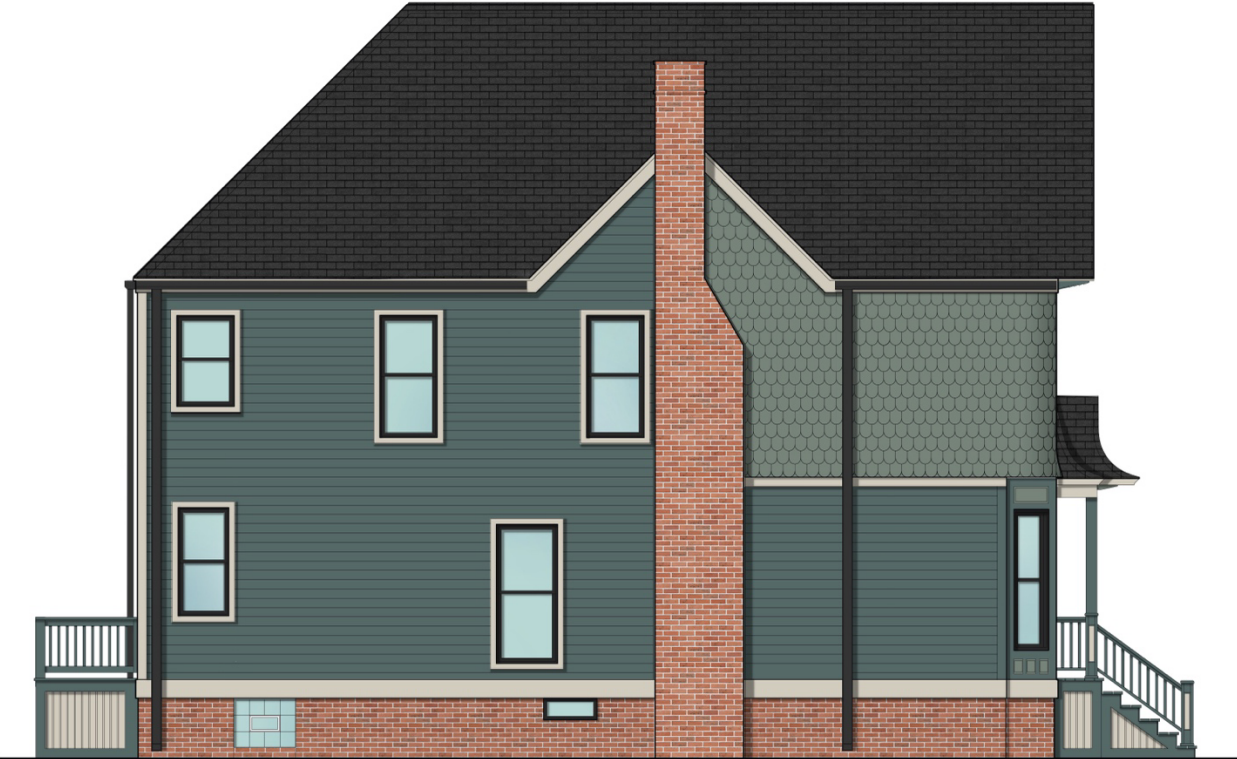
**B:19 Black**  
MS: N 0.5/



**FRONT FAÇADE (Southwest)**



**SIDE FAÇADE (Southeast)**



**SIDE FAÇADE (Northwest)**





**REAR FAÇADE (Northeast)**

## 7. Existing Window Conditions

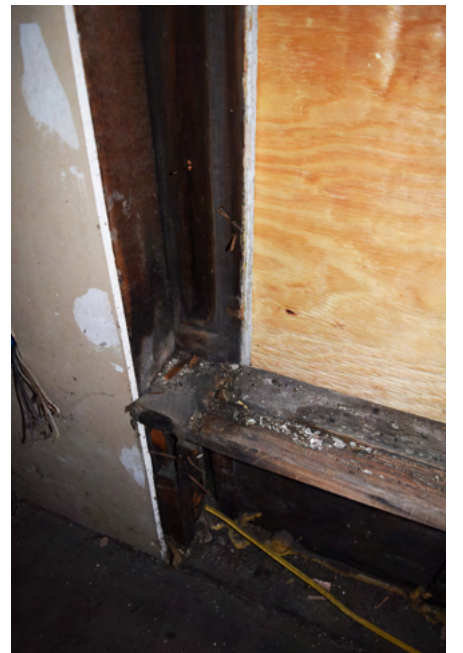
### Window 1.0

Location First Level, Front Facade  
Operation Double Hung  
Condition Missing



### Window 1.1

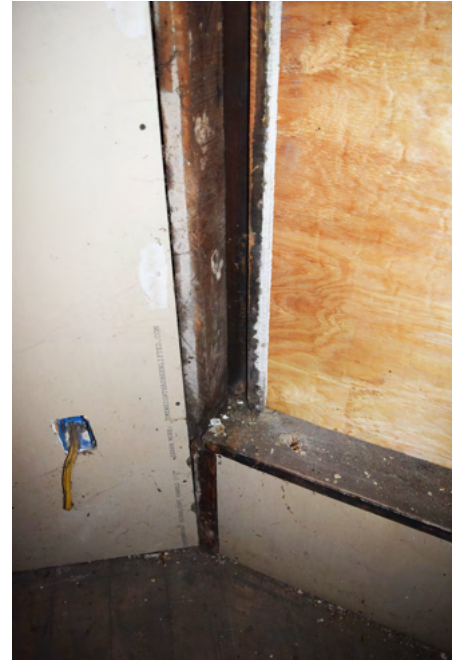
Location First Level, Front Facade  
Operation Fixed Picture with Transom  
Condition Missing





## Window 1.2

Location First Level, Front Facade  
Operation Double Hung  
Condition Missing



## Window 1.3

Location First Level, Side Facade  
Operation Double Hung  
Condition Missing



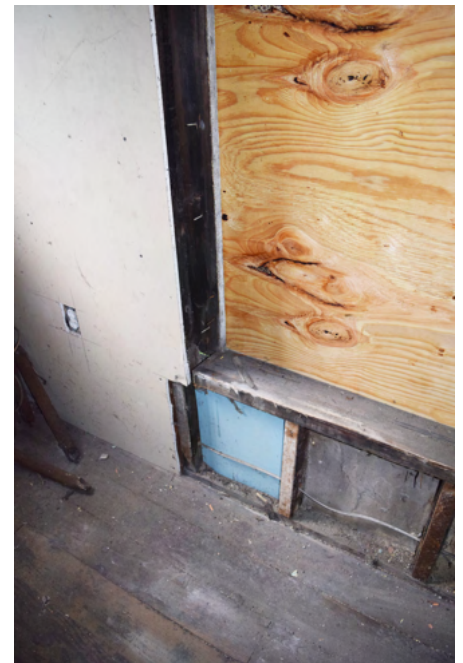
## Window 1.4

Location First Level, Side Facade  
Operation Double Hung  
Condition Missing



## Window 1.7 / 1.8

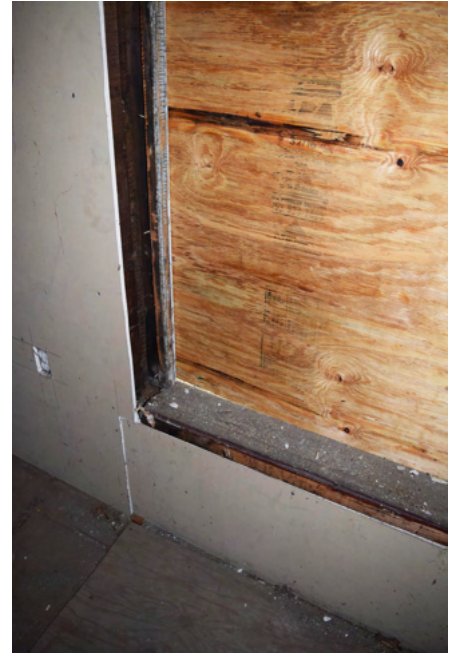
Location First Level, Side Facade  
Operation Double Hung  
Condition Missing





## Window 1.9

Location First Level, Side Facade  
Operation Double Hung  
Condition Missing



## Window 2.0 / 2.1

Location Second Level, Front Facade  
Operation Single Hung  
Condition Missing





## Window 2.2 / 2.3

Location Second Level, Front Facade  
Operation Double Hung with transom  
Condition Missing



## Window 2.4

Location Second Level, Side Facade  
Operation Double Hung  
Condition Missing



## Window 2.5

Location Second Level, Side Facade  
Operation Double Hung  
Condition Missing



## Window 2.6

Location Second Level, Side Facade  
Operation Double Hung  
Condition Missing





## Window 2.7

Location Second Level, Side Facade  
Operation Double Hung  
Condition Missing



## Window 2.8 / 2.9

Location Second Level, Side Facade  
Operation Double Hung  
Condition Missing





## Window 2.10

Location Second Level, Side Facade  
Operation Double Hung  
Condition Missing



## Window 3.0

Location Third Level, Front Facade, Attic  
Operation Single Hung  
Condition Water damage to frame, glass missing from both sashes, broken and missing muntins





### Window 3.1

Location Third Level, Front Facade, Attic  
Operation Single Hung  
Condition Broken and missing muntins, glass missing



### Window 3.2

Location Third Level, Front Facade, Attic  
Operation Single Hung  
Condition Water damage to frame and sash, broken muntins

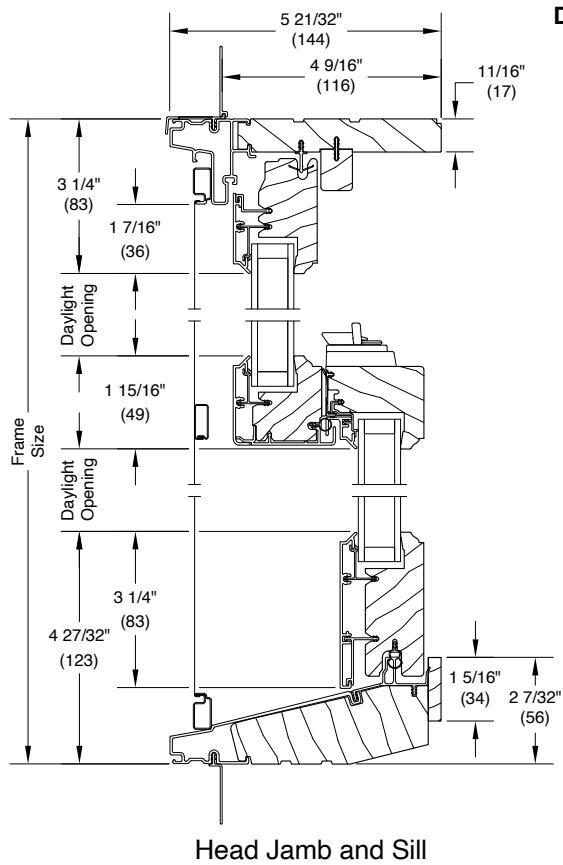


# **APPENDIX**

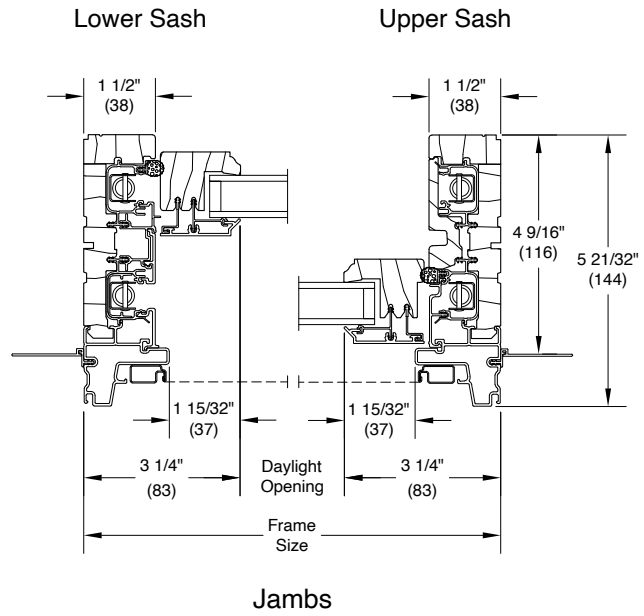
## **Product Data and Cut Sheets**

**Section Details: Operating**

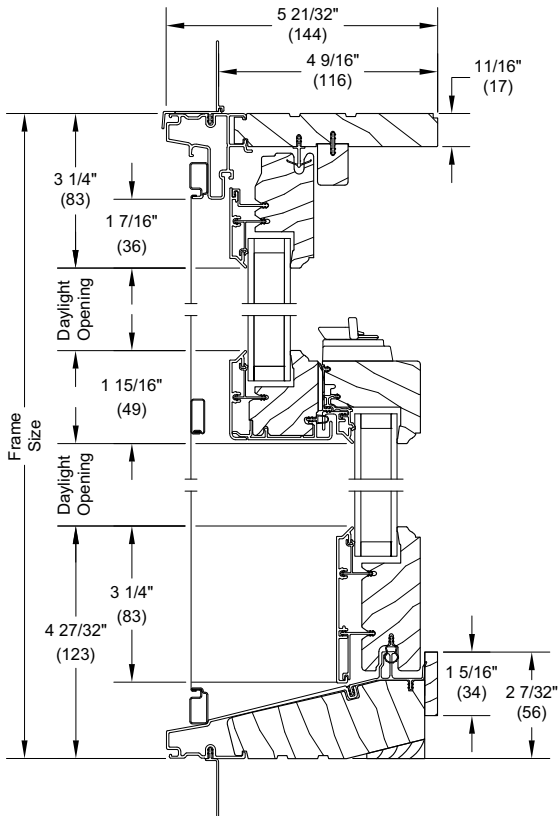
Scale: 3" = 1' 0"



**Double Hung**

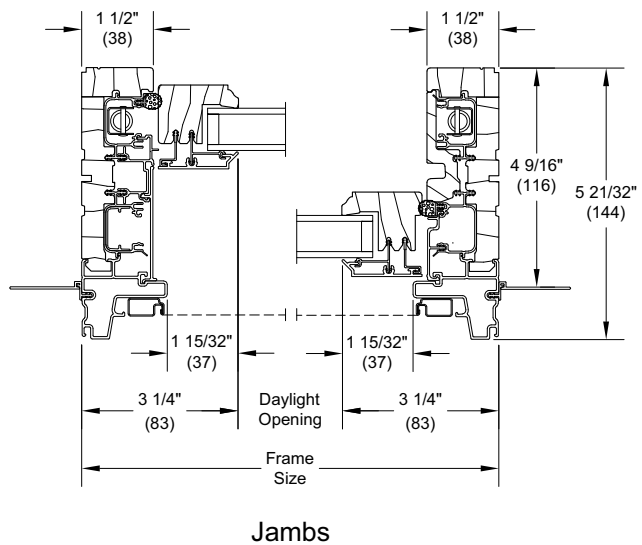


**Single Hung**



**Lower Sash**

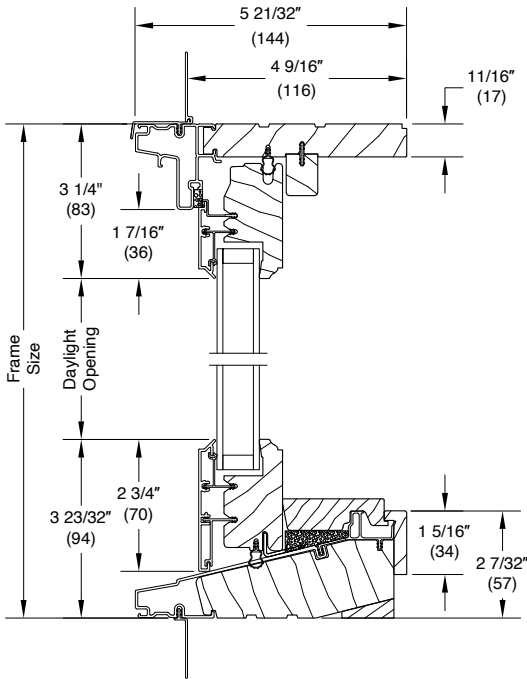
**Upper Sash**



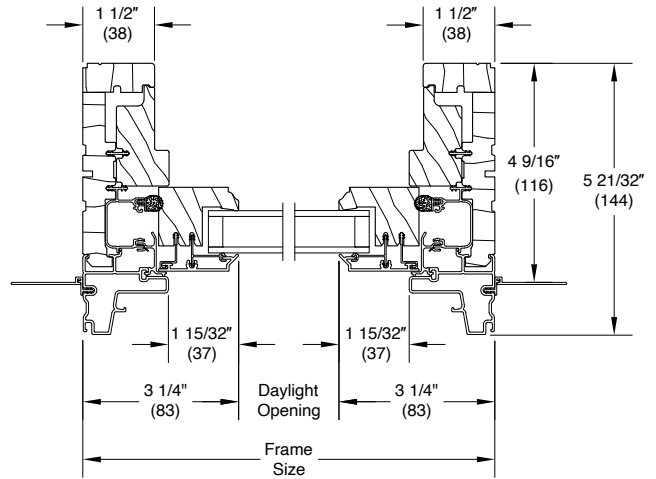
**Section Details: Transom and Picture**

Scale: 3" = 1' 0"

**Transom**

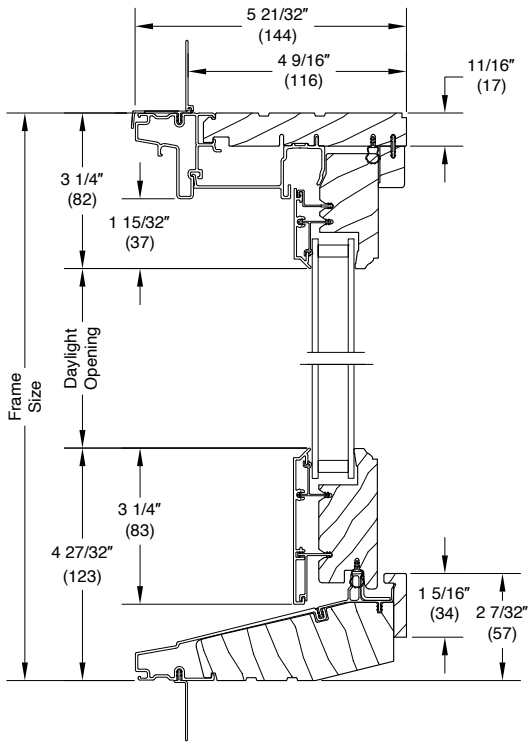


**Head Jamb and Sill**

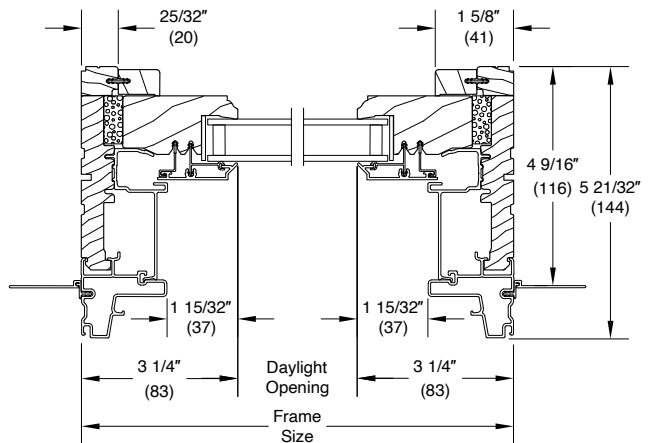


**Jambs**

**Picture**



**Head Jamb & Sill**



**Jambs**

## Unit Features

### Wood Swinging Door Collection consists of:

- UWIFD: Ultimate Wood Inswing French Door
- UWOFD: Ultimate Wood Outswing French Door
- UWIFD AT: Ultimate Wood Inswing French Door Arch Top
- UWOFD AT: Ultimate Wood Outswing French Door Arch Top
- UWIFD 2.25: Ultimate Wood Inswing French Door 2 1/4"
- UWOFD 2.25: Ultimate Wood Outswing French Door 2 1/4"
- UWIFD 2.25 AT: Ultimate Wood Inswing French Door Arch Top 2 1/4"
- UWOFD 2.25 AT: Ultimate Wood Outswing French Door Arch Top 2 1/4"

### Frame:

- Frame thickness: 1 1/16" (27)
- Frame width: 4 9/16" (116)
- Fiberglass reinforced pultruded sill with water shed and weep system
  - Standard color: beige
  - Optional color: bronze
- Arch Top radius head jamb is laminated veneer lumber (LVL) core with non finger-jointed bare wood to the interior
- Optional interior sill liner of Oak, Mahogany or Cherry for UWIFD, UWOFD
- Standard Oak sill liner for UWIFDAT, UWOFDAT, UWIFD2.25, UWIFD2.25AT, UWOFD2.25, UWOFD2.25AT
- Optional interior sill liner of Mahogany or Cherry for UWIFD2.25, UWIFD2.25AT, UWOFD2.25, UWOFD2.25AT,

### Panel:

- Panel thickness: 1 3/4" (44)
  - Top rail height and stile width: 4 3/4" (121)
  - Sidelite stile width: 3" (76)
  - Traditional French Door bottom rail height: 8 1/8" (206)
  - Contemporary Door bottom rail height: 4 3/4" (121)
  - Bottom rail:
    - Stave core is used for Pine, Douglas Fir and Mahogany
  - Stationary stile and hinged stile:
    - LVL is used for Mahogany
    - Stave core is used for Pine and Douglas Fir
  - Locking stile: all wood species uses LVL
  - Top rail:
    - LVL is used for Mahogany
    - Stave core is used for Pine and Douglas Fir
    - Solid wood for arch top doors
  - Intermediate rail: solid wood for all species
- Panel thickness: 2 1/4" (57)
  - Top rail height and stile width: 6" (152)
  - Bottom rail height: 8 1/8" (206)
  - Bottom rail, stationary stile, locking stile, hinged stile and top rail for all species use LVL
  - Top radius rail is finger-jointed solid wood
  - Top rail is solid wood for arch top doors
  - Intermediate rail: solid face laminated
  - Locking stile: all wood species uses LVL
  - Standard interior wood cope sticking: ogee
  - Optional interior wood cope sticking: square

*NOTE: Short Bottom Rail doors will default to square sticking with an option to select ogee*

- Panels are interior glazed



## Unit Features

### Raised/Flat Panel Option:

- Standard raised/flat panel is constructed of medium density fiberboard (MDF) core with laminate veneer to interior and exterior
- Alternative wood species is Vertical Grain Douglas Fir and Mahogany

### NOTE:

- Panel option not available with Short Bottom Rail door.

### Hardware:

- Multi-point lock: applied to active and optional on inactive panels, 2 3/8" (60) backset, with latch engagement and three locking points, with option of keyed alike
  - Dead bolt
  - Sill bolt
  - Head jamb bolt
  - Manual head and foot bolt standard on inactive panel with option of multi-point
- Multi-point is standard on 2 1/4" inactive panels
- Optional mortise lock and passage latch on active panel
- Optional prep for passage latch with deadbolt
- Optional no lock/no bore
- Optional lever handle set: active, inactive and dummy
- Traditional handle set finish options:
  - Powder coat finishes: Satin Taupe, White, Dark Bronze, Matte Black
  - Optional finishes: Satin Chrome, Polished Chrome, Antique Brass, Oil Rubbed Bronze, Oil Rubbed Bronze PVD, Brass PVD, Satin Nickel PVD
- Contemporary handle set finish options:
  - Painted finishes: Matte Black, Dark Bronze, Oil Rubbed Bronze PVD, Satin Nickel PVD

### Hinges

- Adjustable hinges:
  - Standard finish: Satin Taupe with a steel substrate
  - Optional powder coat finish: Gold Tone, Dark Bronze, Silver Frost, White, Matte Black
  - Optional finishes: Antique Brass, Satin Chrome, Oil Rubbed Bronze, Polished Chrome, Brass PVD, Satin Nickel PVD, Oil Rubbed Bronze PVD
  - Dimensions: 4 1/4"(108) x 3 3/4"(95) with 3/8"(10) radius corners
    - Adjustment is 3/16"(5) for horizontal and vertical of panels in frame
  - Quantity per panel for WUIFD, WUOFD
    - Unit rough opening height ≤ 96" (2438) = three hinges per panel
    - Optional four hinges for unit rough opening height ≥ 86 1/2" (2197) and ≤ 96"(2438)
  - Quantity per panel for WUIAF, WUOAF
    - Unit rough opening height ≤ 80" (2032) = three hinges per panel
    - Unit rough opening height ≥ 84" (2134) and ≤ 96"(2438) = four hinges per panel
  - Quantity per panel for WMIFD, WMOFD, WMIAF, and WMOAF
    - Unit rough opening height ≤ 86 1/2"(2197) = three hinges per panel
    - Unit rough opening height > 86 1/2" (2197) and ≤ 96 (2438) = four hinges per panel
    - Unit rough opening height > 96" (2438) = five hinges per panel
    - Optional four hinges for unit rough opening height ≤ 96"(2438)
- Optional butt hinge for 1 3/4" doors
  - Default finish (Inswing): Satin Taupe with steel substrate
    - Optional finish: Brass Plated, Solid Brass, Antique Brass, Oil Rubbed Bronze, Satin Chrome, Satin Nickel, White, Stainless Steel, Satin Nickel PVD
  - Default finish (Outswing): Solid Brass or Stainless Steel with non-removable pin
  - Dimensions: 4" (102) x 4" (102) with radius corners
  - Quantity per panel
    - Unit rough opening height < 86 1/2" (2198) = three hinges per panel
    - Unit rough opening height ≥ 86 1/2" (2198) up to ≤ 110 1/2"(2807) = four hinges per panel
    - Unit rough opening height > 110 1/2"" (2807) = five hinges per panel

**Unit Features:****Hinges Continued**

- Optional ball bearing hinges for 2 1/4" doors
  - Default finish: Satin Chrome with a brass substrate
    - Optional finish: Solid Brass, Bronze with a brass substrate or stainless steel
  - Dimensions: 4 1/2" (114) x 4 1/2" (114) with square corners
  - Quantity per panel
    - Unit rough opening height < 86 1/2" (2198) = three hinges per panel
    - Unit rough opening height ≥ 86 1/2" (2198) up to ≤ 96" (2438) = four hinges per panel
    - Unit rough opening height > 96" (2438) = five hinges per panel

**Optional Screens: (Inswing Units only)**

- Ultimate top hung sliding screen
  - Extruded aluminum
  - Roller bar
  - Integral handle
  - Colors: Pebble Gray, Bahama Brown, Evergreen, Bronze, Stone White, Ebony, Wineberry, Coconut Cream, Hampton Sage, Cashmere, Sierra White, Cadet Gray, Cascade Blue, Liberty Bronze (Pearlescent), Gunmetal, Suede, Clay
  - Sliding screen for XO, OX, OOX, XOO, OXO, OXXO operation
- Ultimate swinging screen:
  - Four concealed hinges per panel are factory installed within the Z bar
  - Handle includes latch with exterior handle and internal locking mechanism
    - Default: Contemporary Handle available in Bronze PVD, Nickel PVD, Matte Black, Dark Bronze
    - Optional: Traditional Handle available in Brass PVD, Bronze PVD, Satin Taupe, Satin Nickel PVD.
  - Screen Colors: Pebble Gray, Bahama Brown, Evergreen, Bronze, Stone White, Ebony, Wineberry, Coconut Cream, Hampton Sage, Cashmere, Sierra White, Cadet Gray, Cascade Blue, Liberty Bronze (Pearlescent), Gunmetal, Suede, Clay
  - Standard screen mesh: charcoal fiberglass
  - Optional screen mesh: bronze, charcoal aluminum, silver aluminum, black aluminum, or charcoal high transparency fiberglass mesh (CH Hi-Tran)

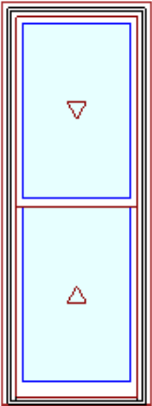
**Weather Strip:**

- Weather strip at all panel perimeter points
- Standard color: beige
- Optional color: black

## LINE ITEM QUOTES

The following is a schedule of the windows and doors for this project. For additional unit details, please see Line Item Quotes. Additional charges, tax or Terms and Conditions may apply. Detail pricing is per unit.

Line #1	Mark Unit: 1.0	Net Price:		2,080.00
Qty: 1		Ext. Net Price:	USD	2,080.00



As Viewed From The Exterior

Entered As: FS

FS 30" X 84"

RO 31" X 84 1/2"

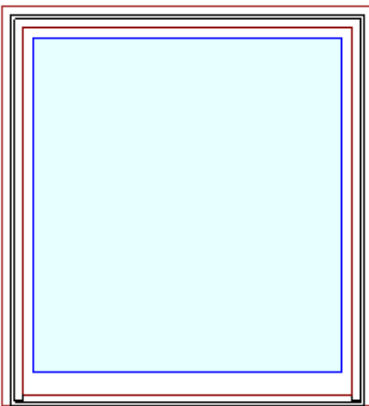
**Egress Information**

Width: 26 13/32" Height: 36 15/16"

Net Clear Opening: 6.77 SqFt

- Ebony Clad Exterior
- Painted Interior Finish - White - Pine Interior ..... 139.39
- Ultimate Double Hung G2 ..... 1,408.33
- Frame Size 30" X 84"
- Rough Opening 31" X 84 1/2"
- Top Sash
- Ebony Clad Sash Exterior
- Painted Interior Finish - White - Pine Sash Interior
- IG - 1 Lite
- Low E2 w/Argon
- Black Perimeter Bar
- Ogee Interior Glazing Profile
- Bottom Sash
- Ebony Clad Sash Exterior
- Painted Interior Finish - White - Pine Sash Interior
- IG - 1 Lite ..... 239.06
- Tempered Low E2 w/Argon
- Black Perimeter Bar
- Ogee Interior Glazing Profile
- White Interior Weather Strip Package
- Black Exterior Weather Strip Package
- Matte Black Sash Lock
- Matte Black Top Sash Strike Plate Assembly Color
- Extruded Aluminum Screen
- Ebony Surround
- Bright View Mesh
- \*\*\*Screen/Combo Ship Loose
- 4 9/16" Jamb
- Casing with Subsill ..... 293.22
- Ebony 1 5/16" Clad BMC
- Ebony A246 Subsill
- Nailing Fin
- \*\*\*Note: Unit Availability and Price is Subject to Change

Line #2	Mark Unit: 1.1A	Net Price:		2,409.34
Qty: 1		Ext. Net Price:	USD	2,409.34

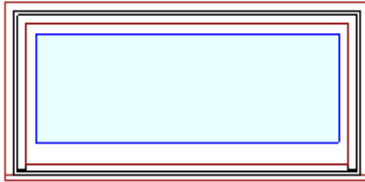


As Viewed From The Exterior

- Ebony Clad Exterior
- Painted Interior Finish - White - Pine Interior ..... 139.39
- Ultimate Double Hung Picture G2 ..... 1,523.89
- Frame Size 52" X 56"
- Rough Opening 53" X 56 1/2"
- Ebony Clad Sash Exterior
- Painted Interior Finish - White - Pine Sash Interior
- IG - 1 Lite ..... 468.00
- Tempered Low E2 w/Argon
- Black Perimeter Bar
- Ogee Interior Glazing Profile
- White Interior Weather Strip Package
- Black Exterior Weather Strip Package
- 4 9/16" Jamb
- Casing with Subsill ..... 278.06
- Ebony 1 5/16" Clad BMC
- Ebony A246 Subsill
- Nailing Fin
- \*\*\*Note: Unit Availability and Price is Subject to Change

**Entered As:** FS  
**FS** 52" X 56"  
**RO** 53" X 56 1/2"  
**Egress Information**  
 No Egress Information available.

Line #3	Mark Unit: 1.1B	Net Price:		1,515.95
Qty: 1		Ext. Net Price:	USD	1,515.95

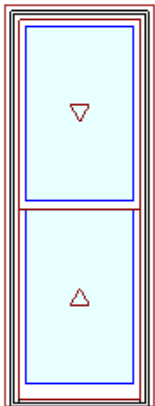


As Viewed From The Exterior

**Entered As:** FS  
**FS** 52" X 24"  
**RO** 53" X 24 1/2"  
**Egress Information**  
 No Egress Information available.

Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39  
 Ultimate Double Hung Picture G2 ..... 1,179.39  
 Frame Size 52" X 24"  
 Rough Opening 53" X 24 1/2"  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 White Interior Weather Strip Package  
 Black Exterior Weather Strip Package  
 4 9/16" Jambs  
 Casing with Subsill ..... 197.17  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change

Line #4	Mark Unit: 1.2	Net Price:		2,080.00
Qty: 1		Ext. Net Price:	USD	2,080.00



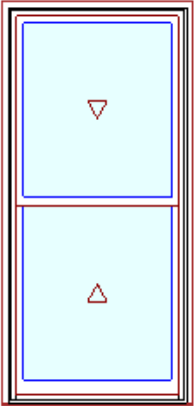
As Viewed From The Exterior

**Entered As:** FS  
**FS** 30" X 84"  
**RO** 31" X 84 1/2"  
**Egress Information**  
 Width: 26 13/32" Height: 36 15/16"  
 Net Clear Opening: 6.77 SqFt

Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39  
 Ultimate Double Hung G2 ..... 1,408.33  
 Frame Size 30" X 84"  
 Rough Opening 31" X 84 1/2"  
 Top Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 Bottom Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite ..... 239.06  
 Tempered Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 White Interior Weather Strip Package  
 Black Exterior Weather Strip Package  
 Matte Black Sash Lock  
 Matte Black Top Sash Strike Plate Assembly Color  
 Extruded Aluminum Screen  
 Ebony Surround  
 Bright View Mesh  
 \*\*\*Screen/Combo Ship Loose  
 4 9/16" Jambs  
 Casing with Subsill ..... 293.22  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change



Line #5	Mark Unit: 1.3	Net Price:		2,095.17
Qty: 1		Ext. Net Price:	USD	2,095.17

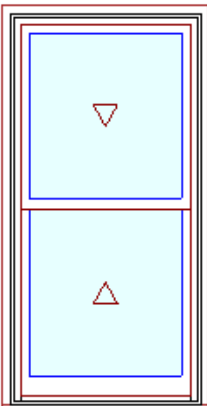


As Viewed From The Exterior

**Entered As:** FS  
**FS** 38" X 82"  
**RO** 39" X 82 1/2"  
**Egress Information**  
 Width: 34 13/32" Height: 35 41/64"  
 Net Clear Opening: 8.51 SqFt

Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39  
 Ultimate Double Hung G2 ..... 1,408.33  
 Frame Size 38" X 82"  
 Rough Opening 39" X 82 1/2"  
 Top Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 Bottom Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite ..... 239.06  
 Tempered Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 White Interior Weather Strip Package  
 Black Exterior Weather Strip Package  
 Matte Black Sash Lock  
 Matte Black Top Sash Strike Plate Assembly Color  
 Extruded Aluminum Screen  
 Ebony Surround  
 Bright View Mesh  
 \*\*\*Screen/Combo Ship Loose  
 4 9/16" Jambs  
 Casing with Subsill ..... 308.39  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change

Line #6	Mark Unit: 1.4	Net Price:		1,444.44
Qty: 1		Ext. Net Price:	USD	1,444.44



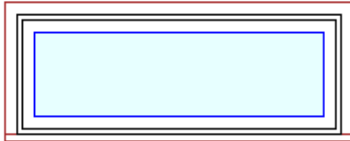
As Viewed From The Exterior

**Entered As:** FS  
**FS** 32" X 64"  
**RO** 33" X 64 1/2"  
**Egress Information**  
 Width: 28 13/32" Height: 26 15/16"  
 Net Clear Opening: 5.31 SqFt

Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39  
 Ultimate Double Hung G2 ..... 1,057.33  
 Frame Size 32" X 64"  
 Rough Opening 33" X 64 1/2"  
 Top Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 Bottom Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 White Interior Weather Strip Package  
 Black Exterior Weather Strip Package  
 Matte Black Sash Lock  
 Matte Black Top Sash Strike Plate Assembly Color  
 Extruded Aluminum Screen  
 Ebony Surround  
 Bright View Mesh  
 \*\*\*Screen/Combo Ship Loose  
 4 9/16" Jambs

Casing with Subsill ..... 247.72  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change

Line #7	Mark Unit: 1.5	Net Price:		799.51
Qty: 1		Ext. Net Price:	USD	799.51



As Viewed From The Exterior

Entered As: FS

FS 36" X 13"

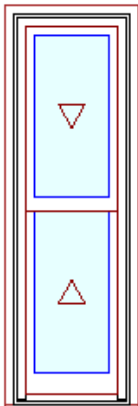
RO 37" X 13 1/2"

**Egress Information**

No Egress Information available.

Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39  
 Ultimate Direct Glaze Rectangle ..... 531.56  
 Frame Size 36" X 13"  
 Rough Opening 37" X 13 1/2"  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 4 9/16" Jamb  
 Casing with Subsill ..... 128.56  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change

Line #8	Mark Unit: 1.6	Net Price:		1,164.94
Qty: 1		Ext. Net Price:	USD	1,164.94



As Viewed From The Exterior

Entered As: FS

FS 18" X 59"

RO 19" X 59 1/2"

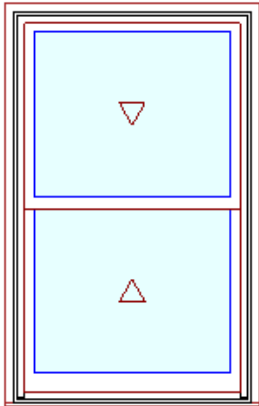
**Egress Information**

Width: 14 13/32" Height: 24 7/16"

Net Clear Opening: 2.44 SqFt

Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39  
 Ultimate Double Hung G2 ..... 826.22  
 Frame Size 18" X 59"  
 Rough Opening 19" X 59 1/2"  
 Top Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 Bottom Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 White Interior Weather Strip Package  
 Black Exterior Weather Strip Package  
 Matte Black Sash Lock  
 Matte Black Top Sash Strike Plate Assembly Color  
 Extruded Aluminum Screen  
 Ebony Surround  
 Bright View Mesh  
 \*\*\*Screen/Combo Ship Loose  
 4 9/16" Jamb  
 Casing with Subsill ..... 199.33  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change

Line #9	Mark Unit: 1.7, 1.8	Net Price:		1,451.66
Qty: 2		Ext. Net Price:	USD	2,903.32

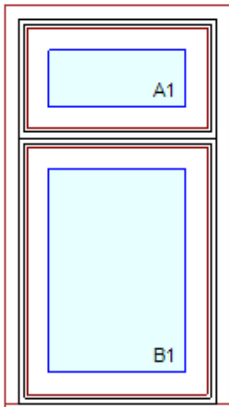


As Viewed From The Exterior

**Entered As:** FS  
**FS** 38" X 61"  
**RO** 39" X 61 1/2"  
**Egress Information**  
 Width: 34 13/32" Height: 25 7/16"  
 Net Clear Opening: 6.08 SqFt

Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39  
 Ultimate Double Hung G2 ..... 1,057.33  
 Frame Size 38" X 61"  
 Rough Opening 39" X 61 1/2"  
 Top Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 Bottom Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 White Interior Weather Strip Package  
 Black Exterior Weather Strip Package  
 Matte Black Sash Lock  
 Matte Black Top Sash Strike Plate Assembly Color  
 Extruded Aluminum Screen  
 Ebony Surround  
 Bright View Mesh  
 \*\*\*Screen/Combo Ship Loose  
 4 9/16" Jambs  
 Casing with Subsill ..... 254.94  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change

Line #10	Mark Unit: 2.0, 2.1	Net Price:		1,357.78
Qty: 2		Ext. Net Price:	USD	2,715.56



As Viewed From The Exterior

**Entered As:** FS  
**FS** 19" X 36"  
**RO** 20" X 36 1/2"  
**Egress Information A1, B1**  
 No Egress Information available.

Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 278.78  
 1W2H - Rectangle Assembly  
 Assembly Frame Size  
 19" X 36"  
 Assembly Rough Opening  
 20" X 36 1/2"  
 Unit: A1 ..... 442.00  
 Ultimate Casement - Stationary  
 Basic Frame 19" X 11 1/8"  
 Rough Opening 20" X 11 5/8"  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 3/4" - 1 Lite  
 Low E2  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 Standard Bottom Rail  
 Black Weather Strip  
 Solid Wood Covers  
 Unit: B1 ..... 455.72  
 Ultimate Casement - Stationary  
 Basic Frame 19" X 24 7/8"  
 Rough Opening 20" X 25 3/8"  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 3/4" - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 Standard Bottom Rail

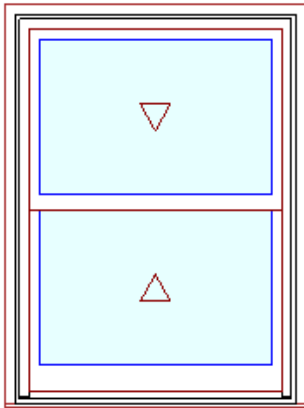


Black Weather Strip  
 Solid Wood Covers  
 Standard Mull Charge ..... 37.56  
 4 9/16" Jamb  
 Casing with Subsill ..... 143.72  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin

\*\*\*Note: This configuration meets a minimum structural performance of DP 20 through either physical testing or calculations in accordance with AAMA 450 and building code requirements. Mull certification ratings may vary from individual unit certification ratings. Reference the mulling chapter of the ADM for additional information.

\*\*\*Note: Unit Availability and Price is Subject to Change

Line #11	Mark Unit: 2.2A, 2.3A	Net Price:		1,340.44
Qty: 2		Ext. Net Price:	USD	2,680.88



As Viewed From The Exterior

**Entered As:** FS

**FS** 37" X 50"

**RO** 38" X 50 1/2"

**Egress Information**

Width: 33 13/32" Height: 19 15/16"

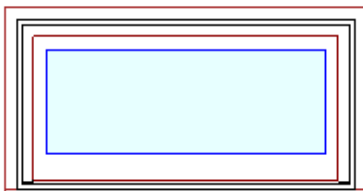
Net Clear Opening: 4.63 SqFt

Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39  
 Ultimate Double Hung G2 ..... 976.44  
 Frame Size 37" X 50"  
 Rough Opening 38" X 50 1/2"  
 Top Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 Bottom Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 White Interior Weather Strip Package  
 Black Exterior Weather Strip Package  
 Matte Black Sash Lock  
 Matte Black Top Sash Strike Plate Assembly Color  
 Aluminum Screen  
 Ebony Surround  
 Bright View Mesh  
 \*\*\*Screen/Combo Ship Loose

4 9/16" Jamb  
 Casing with Subsill ..... 224.61  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin

\*\*\*Note: Unit Availability and Price is Subject to Change

Line #12	Mark Unit: 2.2B, 2.3B	Net Price:		901.33
Qty: 2		Ext. Net Price:	USD	1,802.66



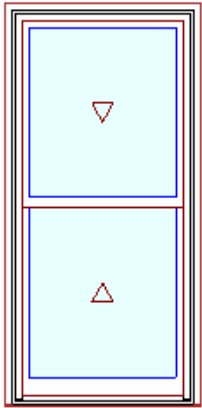
As Viewed From The Exterior

Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39  
 Ultimate Double Hung Transom G2 ..... 618.22  
 Frame Size 37" X 18"  
 Rough Opening 38" X 18 1/2"  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 White Interior Weather Strip Package

**Entered As:** FS  
**FS** 37" X 18"  
**RO** 38" X 18 1/2"  
**Egress Information**  
 No Egress Information available.

Black Exterior Weather Strip Package  
 4 9/16" Jamb  
 Casing with Subsill ..... 143.72  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change

Line #13	Mark Unit: 2.4, 2.5	Net Price:		1,843.84
Qty: 2		Ext. Net Price:	USD	3,687.68



As Viewed From The Exterior

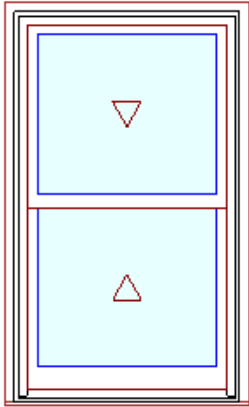
**Entered As:** FS  
**FS** 34" X 72"  
**RO** 35" X 72 1/2"  
**Egress Information**  
 Width: 30 13/32" Height: 30 15/16"  
 Net Clear Opening: 6.53 SqFt

Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39  
 Ultimate Double Hung G2 ..... 1,220.56  
 Frame Size 34" X 72"  
 Rough Opening 35" X 72 1/2"  
 Top Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 Bottom Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite ..... 210.89  
 Tempered Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 White Interior Weather Strip Package  
 Black Exterior Weather Strip Package  
 Matte Black Sash Lock  
 Matte Black Top Sash Strike Plate Assembly Color  
 Extruded Aluminum Screen  
 Ebony Surround  
 Bright View Mesh  
 \*\*\*Screen/Combo Ship Loose  
 4 9/16" Jamb  
 Casing with Subsill ..... 273.00  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change

Line #14	Mark Unit: 2.6	Net Price:		1,278.33
Qty: 1		Ext. Net Price:	USD	1,278.33



Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39  
 Ultimate Double Hung G2 ..... 916.50  
 Frame Size 32" X 54"  
 Rough Opening 33" X 54 1/2"  
 Top Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 Bottom Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile



As Viewed From The Exterior

White Interior Weather Strip Package  
 Black Exterior Weather Strip Package  
 Matte Black Sash Lock  
 Matte Black Top Sash Strike Plate Assembly Color  
 Aluminum Screen  
 Ebony Surround  
 Bright View Mesh  
 \*\*\*Screen/Combo Ship Loose  
 4 9/16" Jambs  
 Casing with Subsill ..... 222.44  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change

**Entered As:** FS

**FS** 32" X 54"

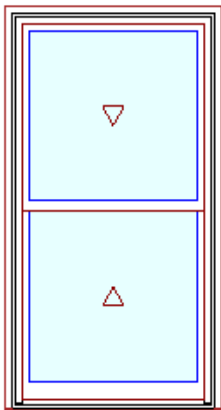
**RO** 33" X 54 1/2"

**Egress Information**

Width: 28 13/32" Height: 21 15/16"

Net Clear Opening: 4.33 SqFt

Line #15	Mark Unit: 2.7, 2.8, 2.9	Net Price:	1,853.95
Qty: 3		Ext. Net Price:	5,561.85
		USD	



As Viewed From The Exterior

Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39  
 Ultimate Double Hung G2 ..... 1,220.56  
 Frame Size 38" X 72"  
 Rough Opening 39" X 72 1/2"  
 Top Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite  
 Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 Bottom Sash  
 Ebony Clad Sash Exterior  
 Painted Interior Finish - White - Pine Sash Interior  
 IG - 1 Lite ..... 210.89  
 Tempered Low E2 w/Argon  
 Black Perimeter Bar  
 Ogee Interior Glazing Profile  
 White Interior Weather Strip Package  
 Black Exterior Weather Strip Package  
 Matte Black Sash Lock  
 Matte Black Top Sash Strike Plate Assembly Color  
 Extruded Aluminum Screen  
 Ebony Surround  
 Bright View Mesh  
 \*\*\*Screen/Combo Ship Loose  
 4 9/16" Jambs  
 Casing with Subsill ..... 283.11  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change

**Entered As:** FS

**FS** 38" X 72"

**RO** 39" X 72 1/2"

**Egress Information**

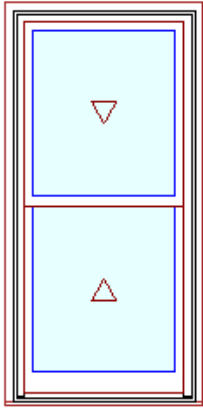
Width: 34 13/32" Height: 30 41/64"

Net Clear Opening: 7.32 SqFt

Line #16	Mark Unit: 2.10	Net Price:	1,405.45
Qty: 1		Ext. Net Price:	1,405.45
		USD	



Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 139.39

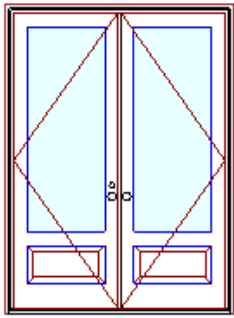


As Viewed From The Exterior

**Entered As:** FS  
**FS** 30" X 63"  
**RO** 31" X 63 1/2"  
**Egress Information**  
 Width: 26 13/32" Height: 26 7/16"  
 Net Clear Opening: 4.85 SqFt

Ultimate Double Hung G2 ..... 1,026.28  
 Frame Size 30" X 63"  
 Rough Opening 31" X 63 1/2"  
 Top Sash  
   Ebony Clad Sash Exterior  
   Painted Interior Finish - White - Pine Sash Interior  
   IG - 1 Lite  
   Low E2 w/Argon  
   Black Perimeter Bar  
   Ogee Interior Glazing Profile  
 Bottom Sash  
   Ebony Clad Sash Exterior  
   Painted Interior Finish - White - Pine Sash Interior  
   IG - 1 Lite  
   Low E2 w/Argon  
   Black Perimeter Bar  
   Ogee Interior Glazing Profile  
 White Interior Weather Strip Package  
 Black Exterior Weather Strip Package  
 Matte Black Sash Lock  
 Matte Black Top Sash Strike Plate Assembly Color  
 Extruded Aluminum Screen  
 Ebony Surround  
 Bright View Mesh  
 \*\*\*Screen/Combo Ship Loose  
 4 9/16" Jambs  
 Casing with Subsill ..... 239.78  
 Ebony 1 5/16" Clad BMC  
 Ebony A246 Subsill  
 Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change

Line #18	Mark Unit: H	Net Price:	8,877.57
Qty: 1		Ext. Net Price:	8,877.57
		USD	



Active Inactive

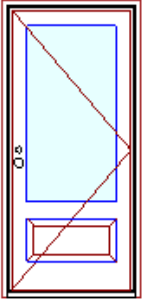
As Viewed From The Exterior

**Entered As:** CN  
**CN** 6080  
**FS** 72 5/8" X 98"  
**RO** 73 5/8" X 98 1/2"  
**Egress Information**  
 Width: 65 3/16" Height: 94 11/32"  
 Net Clear Opening: 42.71 SqFt

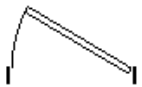
Ebony Clad Exterior  
 Painted Interior Finish - White - Pine Interior ..... 476.67  
 Ultimate Inswing French Door G2 4 9/16" - XX Left Hand ..... 4,730.56  
 CN 6080  
 Rough Opening 73 5/8" X 98 1/2"  
 Left Panel  
   Ebony Clad Sash Exterior  
   Painted Interior Finish - White - Pine Sash Interior  
   IG - 1 Lite  
   Tempered Low E2 w/Argon  
   Black Perimeter Bar  
   Ogee Interior Glazing Profile  
 Stamped Raised Panel Visible Panel Height 12 1/64" ..... 1,396.06  
 Right Panel  
   Ebony Clad Sash Exterior  
   Painted Interior Finish - White - Pine Sash Interior  
   IG - 1 Lite  
   Tempered Low E2 w/Argon  
   Black Perimeter Bar  
   Ogee Interior Glazing Profile  
 Stamped Raised Panel Visible Panel Height 12 1/64" ..... 1,396.06  
 Traditional Lever(s)  
   Multi-Point Lock on Active Panel  
   Matte Black Active Exterior Handle Set on Active Panel Keyed ..... 165.39  
   Matte Black Active Interior Handle Set on Active Panel  
   Multi-Point Lock on Inactive Panel  
   Matte Black Inactive Exterior Handle Set on Inactive Panel ..... 102.56  
   Matte Black Inactive Interior Handle Set on Inactive Panel  
   Matte Black Adjustable Hinges 4 Per Panel- ..... 173.33  
 Bronze Ultrex Sill  
 Black Weather Strip  
 4 9/16" Jambs  
 Ebony 1 5/16" Clad BMC ..... 436.94  
 Thru Jamb Installation w/ Nailing Fin  
 \*\*\*Note: Unit Availability and Price is Subject to Change



Line #19	Mark Unit: J	Net Price:	4,088.49
Qty: 1		Ext. Net Price:	USD 4,088.49



Active



As Viewed From The Exterior

Entered As: CN

CN 3068

FS 37 7/16" X 82"

RO 38 7/16" X 82 1/2"

**Egress Information**

Width: 32 1/16" Height: 78 11/32"

Net Clear Opening: 17.45 SqFt

Ebony Clad Exterior	
Painted Interior Finish - White - Pine Interior	238.33
Ultimate Inswing French Door G2 4 9/16" - X Right Hand	1,944.94
CN 3068	
Rough Opening 38 7/16" X 82 1/2"	
Ebony Clad Sash Exterior	
Painted Interior Finish - White - Pine Sash Interior	
IG - 1 Lite	
Tempered Low E2 w/Argon	
Black Perimeter Bar	
Ogee Interior Glazing Profile	
Stamped Raised Panel Visible Panel Height 12 1/64"	1,396.06
Traditional Lever(s)	
Multi-Point Lock on Active Panel	
Matte Black Active Exterior Handle Set on Active Panel Keyed	165.39
Matte Black Active Interior Handle Set on Active Panel	
Matte Black Adjustable Hinges 3 Per Panel-	36.83
Bronze Ultrex Sill	
Black Weather Strip	
4 9/16" Jamb	
Ebony 1 5/16" Clad BMC	306.94
Thru Jamb Installation w/ Nailing Fin	

\*\*\*Note: Unit Availability and Price is Subject to Change

Project Subtotal Net Price: USD	48,591.14
6.000% Sales Tax: USD	2,915.47
Project Total Net Price: USD	51,506.61

# Solstice<sup>®</sup> Shingle

## 70W



A high-efficiency solar shingle designed for integration with all asphalt shingle roofs.

### FEATURES AND BENEFITS

#### Beautiful

- Sleek and uniform appearance that integrates seamlessly with asphalt shingles

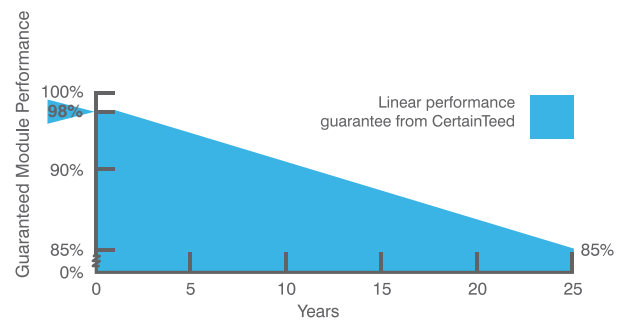
#### Simplified

- Easy design and permitting using industry leading software
- Designed for fast installation by shingle roofing crews. Installed directly on roof sheathing using standard deck screws.

#### Dependable

- Industry-leading reliability thanks to use of patented state-of-the-art technology that makes the Solstice Shingles one of the most electrically and mechanically robust solar shingles on the market
- Market-leading impact and wind resistance for solar shingles
- Watertight: Water channels and raised fastener locations provide added protection against water intrusion. With over a century of roofing experience, we know how to keep water out of your home.
- Superior performance even under diffused light and shade boosting overall energy production

### POWER OUTPUT WARRANTY

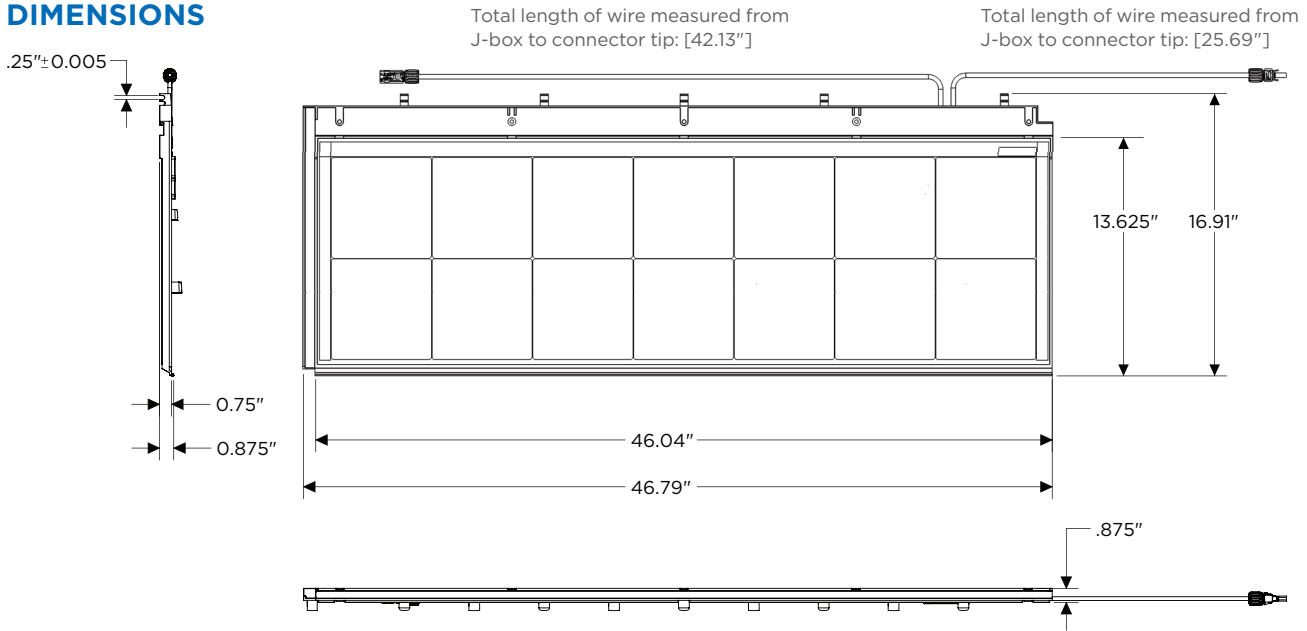


### WARRANTY AND CERTIFICATIONS

<b>Warranty*</b>	25 year limited power warranty 25 year limited workmanship warranty 10 year 110 mph limited wind warranty
<b>Certifications</b>	UL 61730 BIPV UL 7103 Fire Certification UL 790 Class A & C Wind Classification ASTM D3161 Class F 110 mph Impact Resistance FM4473 Class 3 NEC 690.12 Compliant UL 3741 California CEC Listed (pending) FBC HVHZ Approved (Vasd of 150 mph and Vult of 194 mph) (pending)

\*See CertainTeed's limited warranty for details

## DIMENSIONS



## ELECTRICAL CHARACTERISTICS

Standard Test Conditions: 25° C, 1000 W/m<sup>2</sup>, AM 1.5

Maximum Power (Pmax)	70 W
Voltage at Maximum Power	7.8 V
Current at Maximum Power	9.0 A
Open Circuit Voltage (Voc)	9.5 V
Short Circuit Current (Isc)	9.4 A
Maximum System Voltage	600 V
Series Fuse Rating	15 A
Temp. Coefficient of Pmax	-0.34 %/°C
Temp. Coefficient of Voc	-0.26 %/°C
Temp. Coefficient of Isc	+0.04%/° C
Normal Operating Cell Temp. (NOCT)	53.6° C
Active cell efficiency	19.85%
PTC	62.6 W

Power Performance Tolerance +/- 5%  
All other electrical characteristics within +/- 10%

## MECHANICAL CHARACTERISTICS

Tested and Passed Temperature Range	-40 to +85° C
Exposed Area	46" x 13-5/8"
Weight	12.7 lb (2.3 lb per sq ft)
Cell	Monocrystalline PERC
No. of cells and connections	14 in series
Bypass Diode	2 per shingle
Design Load	+2400/-1600 Pa
Wiring	12 AWG PV wire
Connectors	Renhe RHC2
Minimum Roof Pitch	2/12"