

HISTORIC AND DESIGN REVIEW COMMISSION

May 21, 2025

HDRC CASE NO: 2025-122
ADDRESS: 1914 W KINGS HWY
LEGAL DESCRIPTION: NCB 1941 BLK 29 LOT 23
ZONING: R-6, H
CITY COUNCIL DIST.: 7
DISTRICT: Monticello Park Historic District
APPLICANT: Zachary Fischer
OWNER: Zachary Fischer/FISCHER ZACHARY
TYPE OF WORK: Wholesale window replacement and Historic Tax Certification
APPLICATION RECEIVED: April 20, 2025
60-DAY REVIEW: June 19, 2025
CASE MANAGER: Bryan Morales
REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to:

1. Replace 15 wood windows with new fiberglass-clad wood windows featuring faux divided lites.
2. Receive Historic Tax Certification.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 2, Exterior Maintenance and Alterations

6. Architectural Features: Doors, Windows, and Screens

A. MAINTENANCE (PRESERVATION)

- i. *Openings*—Preserve existing window and door openings. Avoid enlarging or diminishing to fit stock sizes or air conditioning units. Avoid filling in historic door or window openings. Avoid creating new primary entrances or window openings on the primary façade or where visible from the public right-of-way.
- ii. *Doors*—Preserve historic doors including hardware, fanlights, sidelights, pilasters, and entablatures.
- iii. *Windows*—Preserve historic windows. When glass is broken, the color and clarity of replacement glass should match the original historic glass.
- iv. *Screens and shutters*—Preserve historic window screens and shutters.
- v. *Storm windows*—Install full-view storm windows on the interior of windows for improved energy efficiency. Storm window may be installed on the exterior so long as the visual impact is minimal and original architectural details are not obscured.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)

- i. *Doors*—Replace doors, hardware, fanlight, sidelights, pilasters, and entablatures in-kind when possible and when deteriorated beyond repair. When in-kind replacement is not feasible, ensure features match the size, material, and profile of the historic element.
- ii. *New entrances*—Ensure that new entrances, when necessary to comply with other regulations, are compatible in size, scale, shape, proportion, material, and massing with historic entrances.
- iii. *Glazed area*—Avoid installing interior floors or suspended ceilings that block the glazed area of historic windows.
- iv. *Window design*—Install new windows to match the historic or existing windows in terms of size, type, configuration, material, form, appearance, and detail when original windows are deteriorated beyond repair.
- v. *Muntins*—Use the exterior muntin pattern, profile, and size appropriate for the historic building when replacement windows are necessary. Do not use internal muntins sandwiched between layers of glass.
- vi. *Replacement glass*—Use clear glass when replacement glass is necessary. Do not use tinted glass, reflective glass, opaque glass, and other non-traditional glass types unless it was used historically. When established by the architectural style of the building, patterned, leaded, or colored glass can be used.
- vii. *Non-historic windows*—Replace non-historic incompatible windows with windows that are typical of the architectural style of the building.
- viii. *Security bars*—Install security bars only on the interior of windows and doors.

ix. *Screens*—Utilize wood screen window frames matching in profile, size, and design of those historically found when the existing screens are deteriorated beyond repair. Ensure that the tint of replacement screens closely matches the original screens or those used historically.

x. *Shutters*—Incorporate shutters only where they existed historically and where appropriate to the architectural style of the house. Shutters should match the height and width of the opening and be mounted to be operational or appear to be operational. Do not mount shutters directly onto any historic wall material.

Standard Specifications for Replacement Windows

Consistent with the Historic Design Guidelines, the following recommendations are made for replacement windows:

- **MATERIALS:** If full window replacement is approved, the new windows must feature primed and painted wood exterior finish. Clad, composition, or non-wood options are not allowed unless explicitly approved by the commission.
- **SASHES:** Meeting rails must be no taller than 1.25". Stiles must be no wider than 2.25". Top and bottom sashes must be equal in size unless otherwise approved.
- **DEPTH:** There should be a minimum of 2" in depth between the front face of the window trim and the front face of the top window sash. This must be accomplished by recessing the window sufficiently within the opening or with the installation of additional window trim to add thickness.
- **TRIM:** Original trim details and sills should be retained or repaired in kind. If approved, new window trim must feature traditional dimensions and architecturally appropriate casing and sloped sill detail. Window track components such as jamb liners must be painted to match the window trim or concealed by a wood window screen set within the opening.
- **GLAZING:** Replacement windows should feature clear glass. Low-e or reflective coatings are not recommended for replacements. The glazing should not feature faux divided lights with an interior grille. If approved to match a historic window configuration, the window should feature real exterior muntins.
- **COLOR:** Replacement windows should feature a painted finish. If a clad product is approved, white or metallic manufacturer's color is not allowed, and color selection must be presented to staff.
- **INSTALLATION:** Replacement windows should be supplied in a block frame and exclude nailing fins. Window opening sizes should not be altered to accommodate stock sizes prior to approval.

UDC Section 35-618. Tax Exemption Qualification.

(d) Certification.

(1) Historic and Design Review Commission Certification. Upon receipt of the owner's sworn application the historic and design review commission shall make an investigation of the property and shall certify the facts to the city tax assessor-collector within thirty (30) days along with the historic and design review commission's documentation for recommendation of either approval or disapproval of the application for exemption.

FINDINGS:

- a. The primary structure located at 1914 W Kings Hwy is a 1-story single-family Tudor Revival structure constructed c. 1934 and first appears on the 1934 Sanborn map. This property features a prominent front-facing gable with a cross-gable roof form, a composition shingle roof, one-over-one wood windows with wood window screens, an arched front door, stone-cladding, and Craftsman influences. This property contributes to the Monticello Park Historic District.
- b. **ADMINISTRATIVE SCOPES OF WORK** – On May 1, 2025, the applicant received an administrative Certificate of Appropriateness for approval to repair the foundation, install foundation skirting, remove non-conforming vinyl and asbestos siding, replace existing soffits, spot repair stone and plaster, and remove the window screens. Additionally, the applicant received approval to replace the existing composition shingle roof in-kind.
- c. **WINDOW REPLACEMENT: EXISTING CONDITION:** Staff conducted a site visit on April 29, 2025, to assess the existing window condition and found that all 15 wood windows proposed for replacement are in various states of disrepair. Windows onsite were painted or screwed shut. The applicant had noted onsite water infiltration has damaged most of the window's wood members and successive painting has trapped moisture causing additional damage. Additionally, the applicant had noted that wood repairs over time has resulted in the removal of significant portions of the old-growth lumber. Staff does not recommend wholesale replacement at this time; however, if substantial window replacement is required, staff may administratively approve replacement on a case-by-case basis after individual assessment by a window repair contractor.

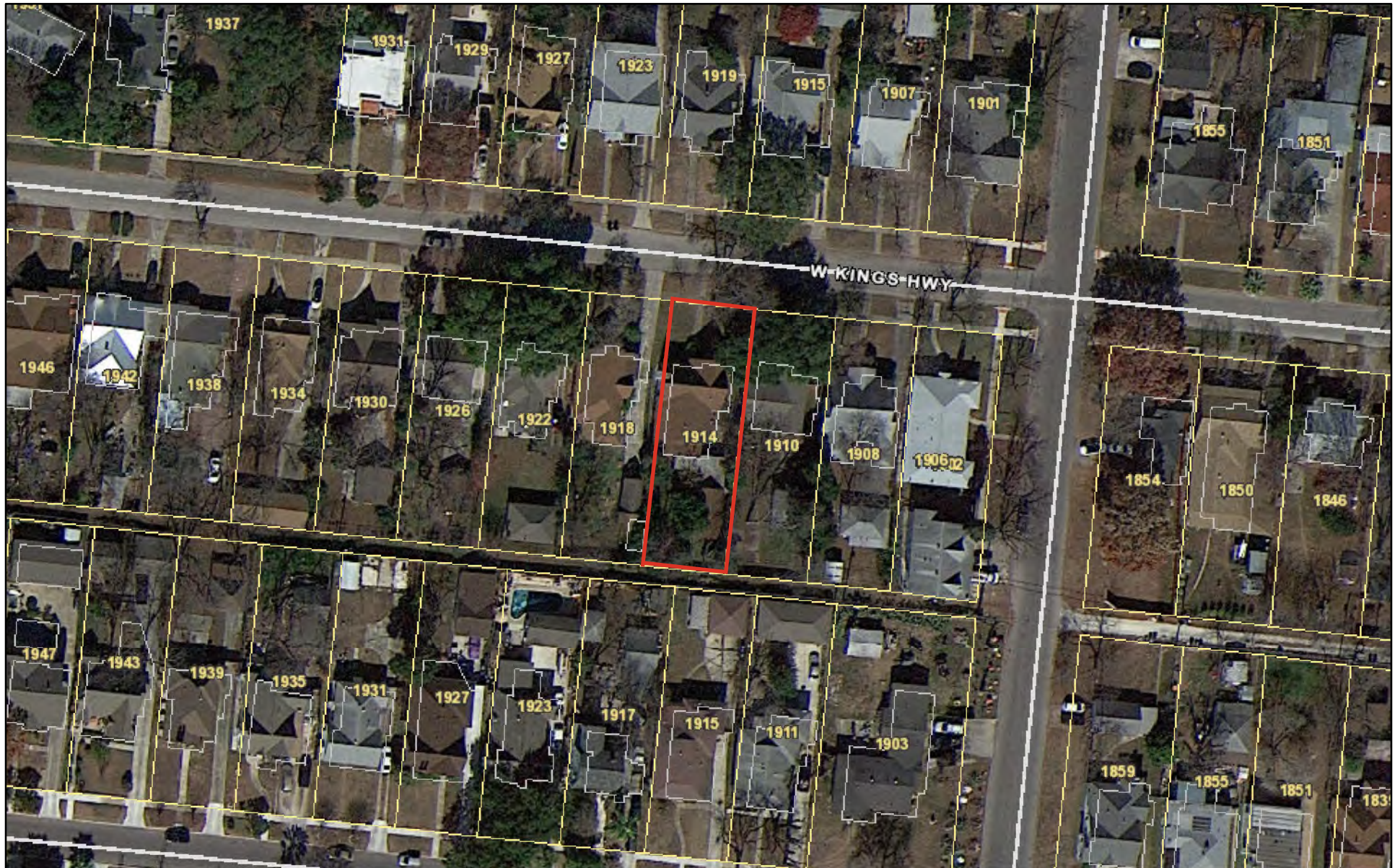
- d. **WINDOW REPLACEMENT: ENERGY EFFICIENCY:** The applicant has expressed concern to staff regarding the need to improve the energy efficiency of the house. However, in most cases, windows only account for a fraction of heat gain/loss in a house. Improving the energy efficiency of historic windows should be considered only after other options have been explored such as improving attic and wall insulation. The original windows feature single-pane glass which is subject to radiant heat transfer. Products are available to reduce heat transfer such as window films, interior storm windows, and thermal shades. Additionally, air infiltration can be mitigated through weatherstripping or readjusting the window assembly within the frame, as assemblies can settle or shift over time. Over 112 million windows end up in landfills each year, and about half are under 20 years old. Historic wood windows were constructed to last 100+ years with old growth wood, which is substantially more durable than modern wood products, and original windows that are restored and maintained over time can last for decades. Replacement window products have a much shorter lifespan, around 10-20 years, and cannot be repaired once they fail. On average, over the lifetime of an original wood window, replacement windows will need to be again replaced at least 4 times. The total lifecycle cost of replacement windows is also much more energy intensive than the restoration of existing windows, including material sourcing, manufacture, transportation, and installation. Finally, window repair and restoration utilizes the local labor of craftspeople. Staff generally encourages the repair and restoration of windows whenever possible.
- e. **WINDOW REPLACEMENT: WASTE AND LIFESPAN:** More than 112 million windows end up in landfills each year, and about half are under 20 years old. Historic wood windows were constructed to last 100+ years with old growth wood, which is substantially more durable than modern wood and clad products, and original windows that are restored and maintained over time can last for decades. Replacement window products have a much shorter lifespan, around 10-20 years, and cannot be repaired once they fail. On average, over the lifetime of an original wood window, replacement windows will need to be again replaced at least 4 times. The total lifecycle cost of replacement windows is also much more energy intensive than the restoration of existing windows, including material sourcing and the depletion of natural resources and forests, petroleum-heavy manufacturing methods, transportation, and installation. Finally, window repair and restoration utilizes the local labor and expertise of craftspeople versus off-the-shelf, non-custom composite products. Staff generally encourages the repair and restoration of original windows whenever possible.
- f. **WINDOW REPLACEMENT:** The applicant has proposed to replace 15 windows on the structure with Marvin fiberglass-clad wood windows featuring faux divided lites. Guideline 6.B.iv for Exterior Maintenance and Alterations states that new windows should be installed to match the historic or existing windows in terms of size, type, configuration, material, form, appearance, and detail when original windows are deteriorated beyond repair. Staff does not find the proposed window product consistent with Guidelines. According to the Historic Design Guidelines, wood windows should be repaired in place and restored whenever possible, unless there is substantial evidence that the windows are deteriorated beyond repair. If a window assembly is deemed irreparable, the window should be replaced in-kind in terms of materiality, configuration, inset, proportion, style, and detailing. Staff does not find replacement of original wood windows consistent with Guidelines. The proposed window replacement product does not meet the dimensions as noted in the *Standard Specifications for Replacement Windows* located within the citations above.
- g. The tax certification scope of work includes foundation repair; roof replacement; siding and soffit replacement; window and door replacement; attic insulation; and mechanical and plumbing upgrades. Certificates of Appropriateness are required for all exterior scopes of work.
- h. The applicant has met all the requirements for Historic Tax Certification outlined in UDC Section 35-618 and has provided evidence to that effect to the Historic Preservation Officer. To qualify for the Substantial Rehabilitation Tax Incentive the owner must pursue Historic Tax Verification once the rehabilitation work is complete. Any violations on the property may disqualify the property from participation in the program.

RECOMMENDATION:

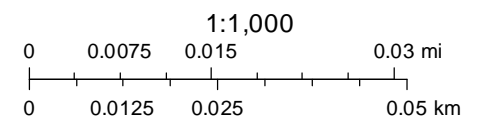
Item 1: Staff does not recommend approval for the wood window replacement, based on findings a and d through g. Staff recommends the applicant repair the existing wood windows in-kind.

Item 2: Staff recommends approval for the Historic Tax Certification based on the findings.

City of San Antonio One Stop



May 14, 2025



1914 West Kings Highway
Certificate of Appropriateness Application
Submitted: 4/20/2025



Table of Contents

Document	Page Number
Scope of Work Description	3
Project Cost Estimate	6
Project Schedule	8
Appendix 1A - Foundations Condition Survey	10
Appendix 1B - Interior Elevation Survey	34
Appendix 2A - Window Conditions Summary	37
Appendix 2B - Exterior Window Survey	39
Appendix 2C - Interior Window Survey	55
Appendix 3 - 2021 Inspection Report	62

1914 W. Kings Hwy
Scope of Work Description

Zack and Aronid Fischer

1914 W. Kings Hwy
San Antonio, TX 78201
Monticello Park Historic District
April 19th, 2025

Historic Preservation Officer

City of San Antonio Office of Historic Preservation
P.O. Box 839966
San Antonio, TX 78283-3966

RE: Application for Structural and Exterior Rehabilitation – 1914 W. Kings Hwy

To Whom It May Concern,

We are submitting this application for review and approval of critical structural and exterior rehabilitation work at my residence, located within the Monticello Park Historic District. This work is essential to address significant deterioration in the home's foundation, roof structure, and exterior envelope to ensure the house's structural integrity and preserve its historic character for the long term.

The proposed scope of work includes:

1. Foundation Repairs

- Perform structural foundation stabilization to correct significant settling and shifting, which currently jeopardizes the integrity of the structure. All work will maintain the home's original footprint and visible architectural details.
- *Please reference the attached third party foundation & floor elevations reports for more information.*

2. Roof Replacement

- Remove existing deteriorated roofing materials due to storm damage and patchwork of repairs.
- Install new roofing system with a historically compatible profile, color, and appearance appropriate for the home's original cottage-style character.
- Final roofing material selection (asphalt shingle or standing seam metal) will be determined based on budget, availability, and compatibility with historic district guidelines.
 - *If a metal roof is selected, it will be a low-profile, standing seam system in a matte, historically appropriate color to minimize visual intrusion and maintain neighborhood consistency.*

3. Siding and Soffit Replacement

- Remove existing non-original vinyl siding and soffits.
- Install new batterboard wood siding, matching existing profile dimensions, exposures, and painted finishes.
- Replace lower skirting with cement board panels for durability while maintaining a wood-like appearance and historically compatible design.

1914 W. Kings Hwy

Scope of Work Description

- New wood soffits to match original dimensions and profiles.
- Front - existing stone & plaster cladding to remain. Repairs as necessary to preserve the historical features.

4. Window Replacement

- Replace all 15 existing deteriorated wood windows with historically compatible full-frame replacement double-hung windows. The new windows will preserve the appearance, operation, and character of the originals while ensuring the integrity of surrounding wall systems.
- Window casings, sash counterweight pockets, and associated framing will be removed due to extensive rot and water damage, then reframed and insulated to stabilize the openings. New wood casings will replicate the original profiles.
- Simulated divided light grilles will be incorporated where appropriate, and front elevation window screens will be eliminated to restore a clean historic appearance.
- Existing window screens will be removed and not replaced. Interior wood blinds will be installed in their place. This will serve to improve the aesthetics of the house
- **Window Information**
 - Manufacturer: Marvin or Pella
 - Model Line: Ultimate/ Reserve
 - Type: Full-frame double-hung replacement windows
 - Material: Aluminum clad wood/ Fiberglass clad wood
 - Exterior Finish: Tan or equivalent
 - Interior Finish: Stained wood/
 - Grille Configuration: Simulated Divided Lite (SDL)
 - Glass: Double Paned, Low-E insulated, argon-filled
 - Installation Method: Full-frame replacement, with reframing and insulation of former weight pockets. New interior wood casings to provide a uniform finish to align with Tutor Revival styled homes.

5. Doors

- Replacement of all existing doors and storm doors.
- Refurbish & repoint existing front door leaf.
- Door replacements will fit in existing opening, with no changes to the exterior appearance or profile.
- Exterior trim will be painted to match new window casings.

6. Attic Insulation

- Install blown-in insulation in the attic to protect the roof structure and improve energy efficiency, without altering visible historic features. Insulation will be blown in up to a depth of 14", to achieve an R38 rating.

7. Mechanical Upgrades

- Complete minor HVAC and utility upgrades to support the structural rehabilitation and improve long-term habitability, with no exterior visibility or impact.

1914 W. Kings Hwy
Scope of Work Description

8. Plumbing Repairs

- Following foundation repairs, perform repairs and minor upgrades as required, without impact to historical features.

The driving goal of this project is not modernization or cosmetic improvement, but rather the essential structural stabilization and restoration necessary to ensure that this historic home remains standing, safe, and representative of the Monticello Park Historic District for generations to come.

Thank you for your consideration. We welcome the opportunity to provide any additional documentation, drawings, or product details needed to support this application.

Sincerely,

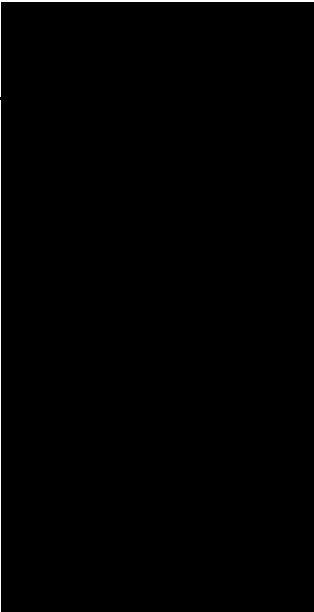
Zack Fischer - 623-385-9326

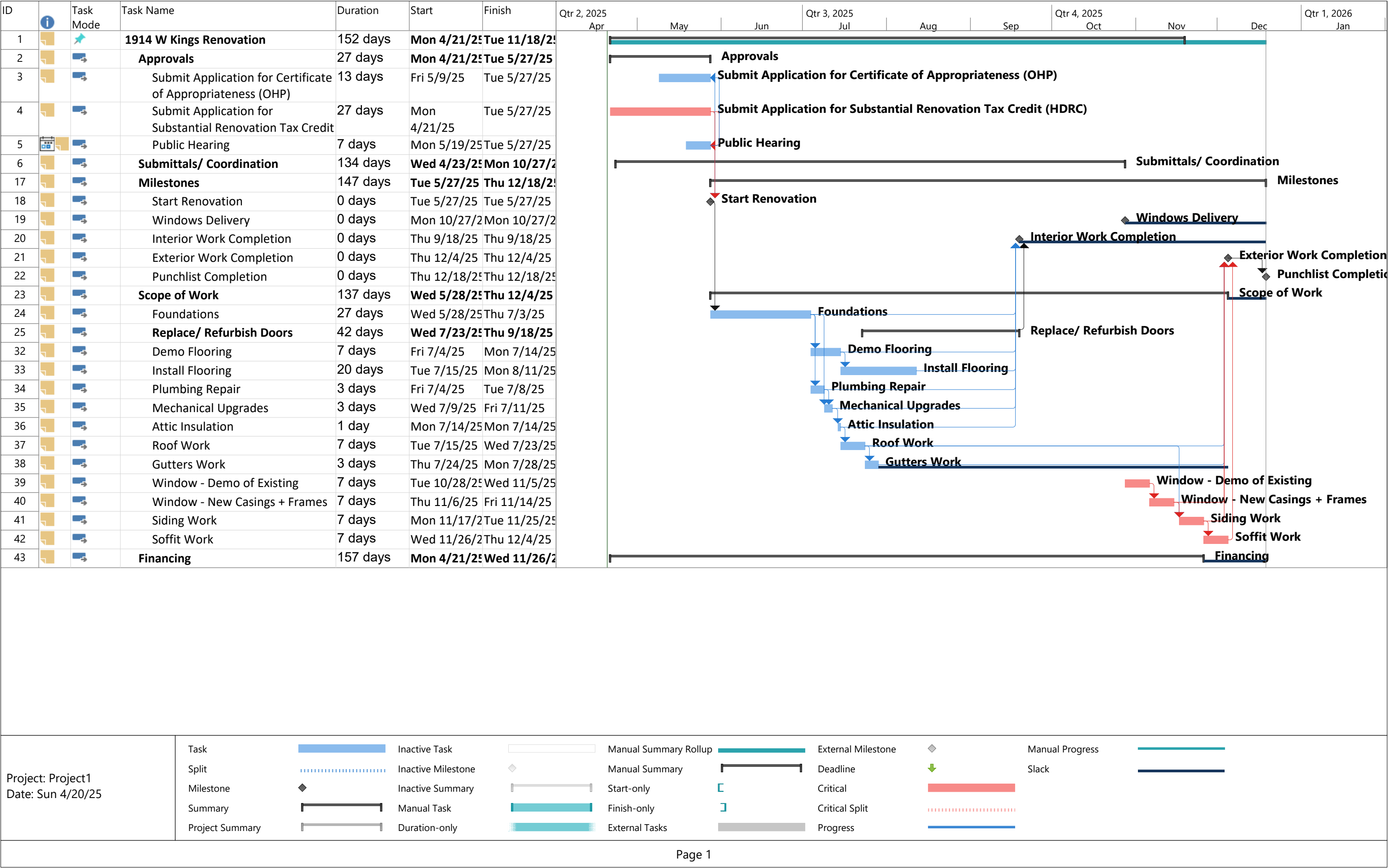
Aronid Fischer – 623-466-5175

fischhaus25@gmail.com

1914 W. Kings Hwy
Project Cost Estimate

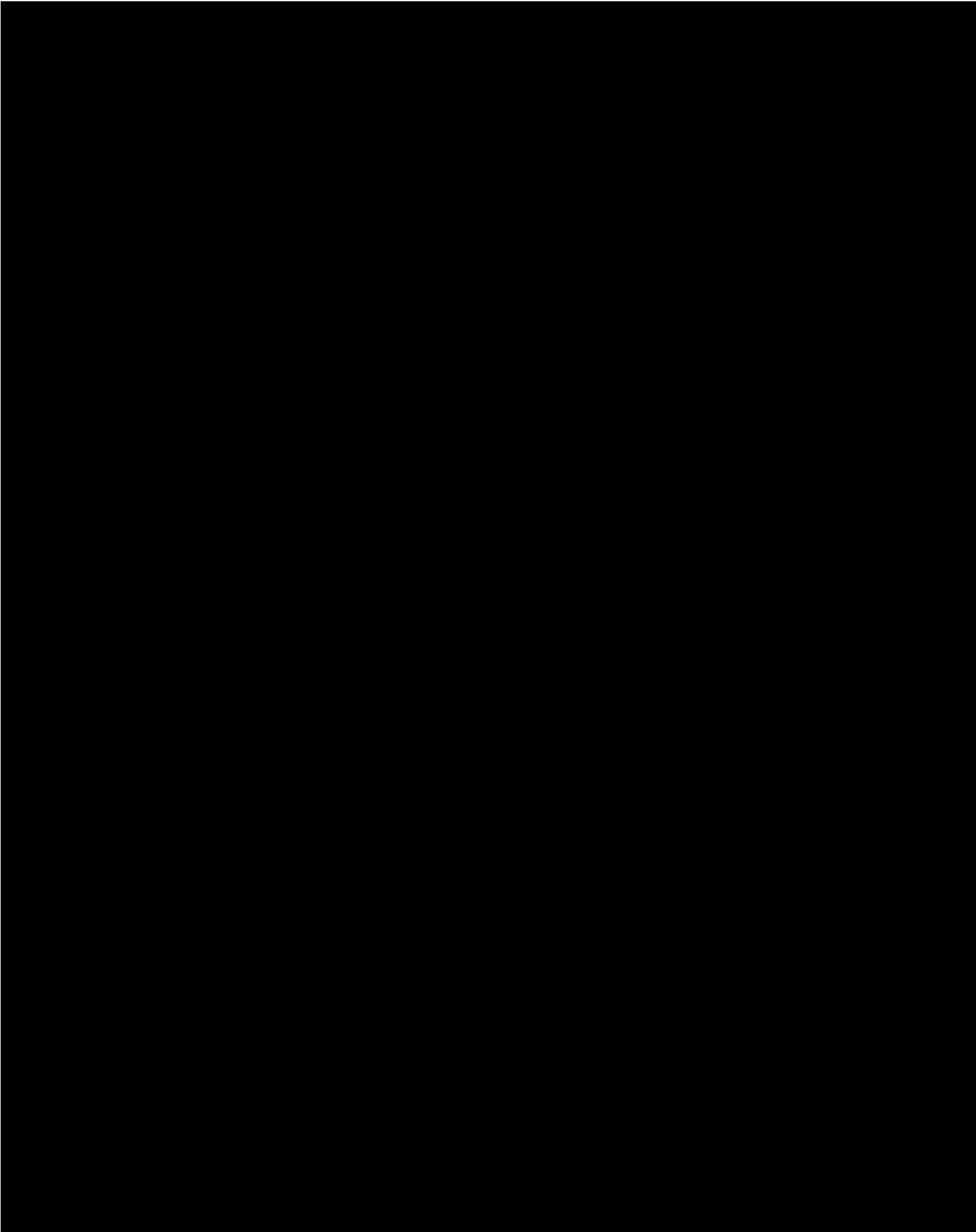
Desired Feature
Foundation Repair - <i>per Engineer's recommendations</i>
Flooring Replacement
Door Refurbishment + Replacement
Window Replacement
Interior Blinds
Batterboard Siding Replacement
Asphalt Shingle Roof Replacement - <i>per 2021 inspection report recommendations</i>
R38 Blown-In Insulation (Attic)
Plumbing Repairs
Rebalancing & Cleaning HVAC

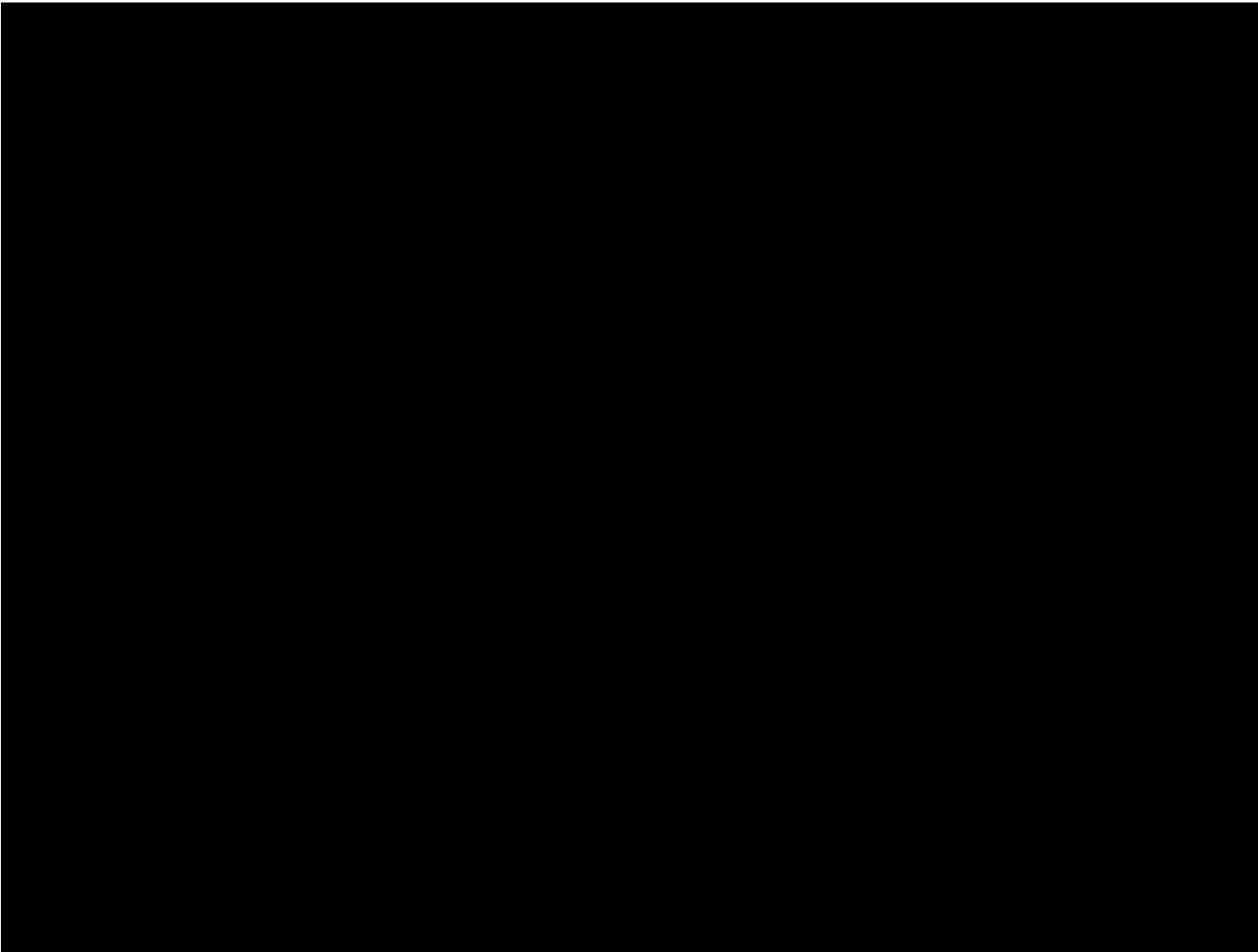




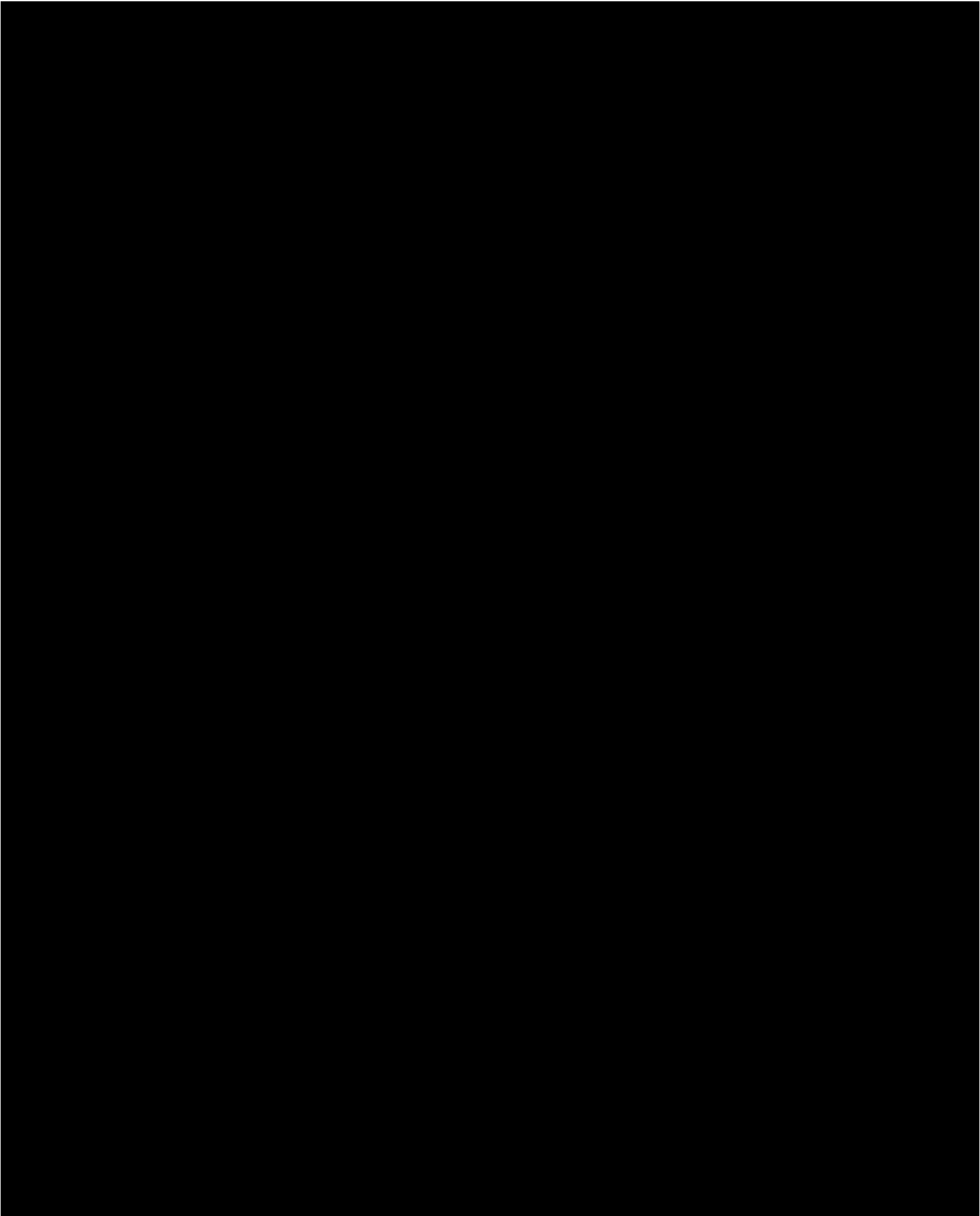
Page 1

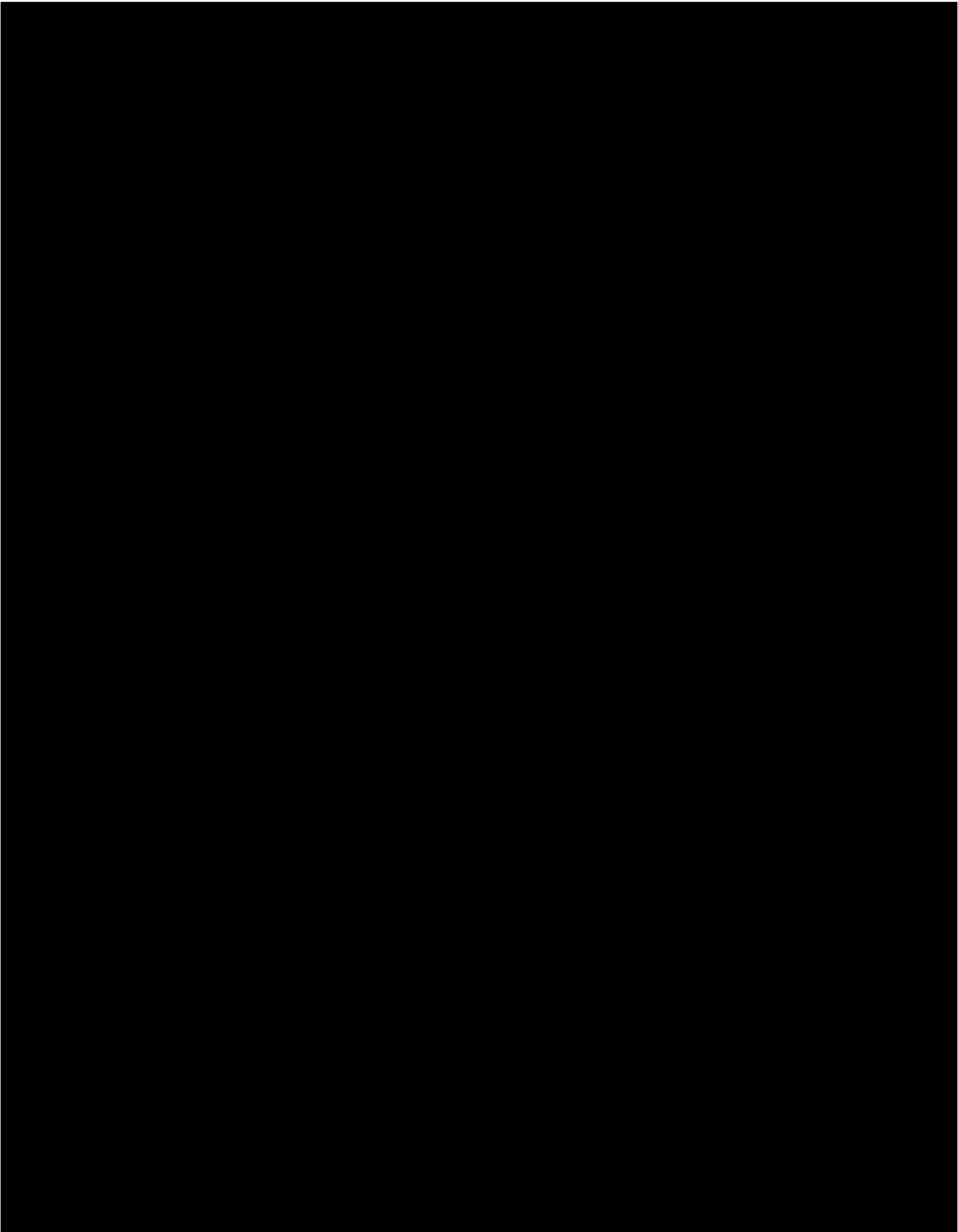
General Pictures





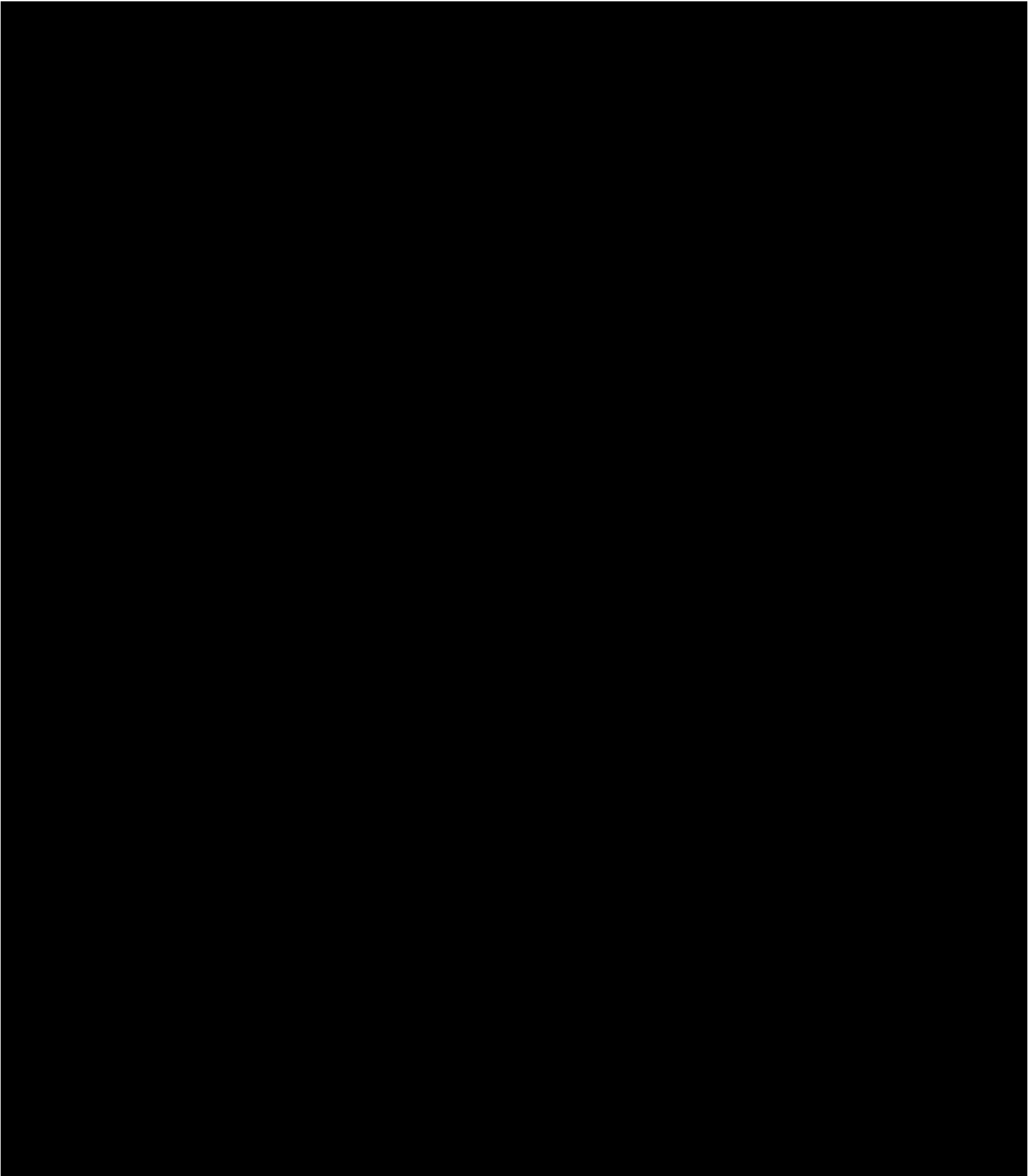
Wall Cracks Present





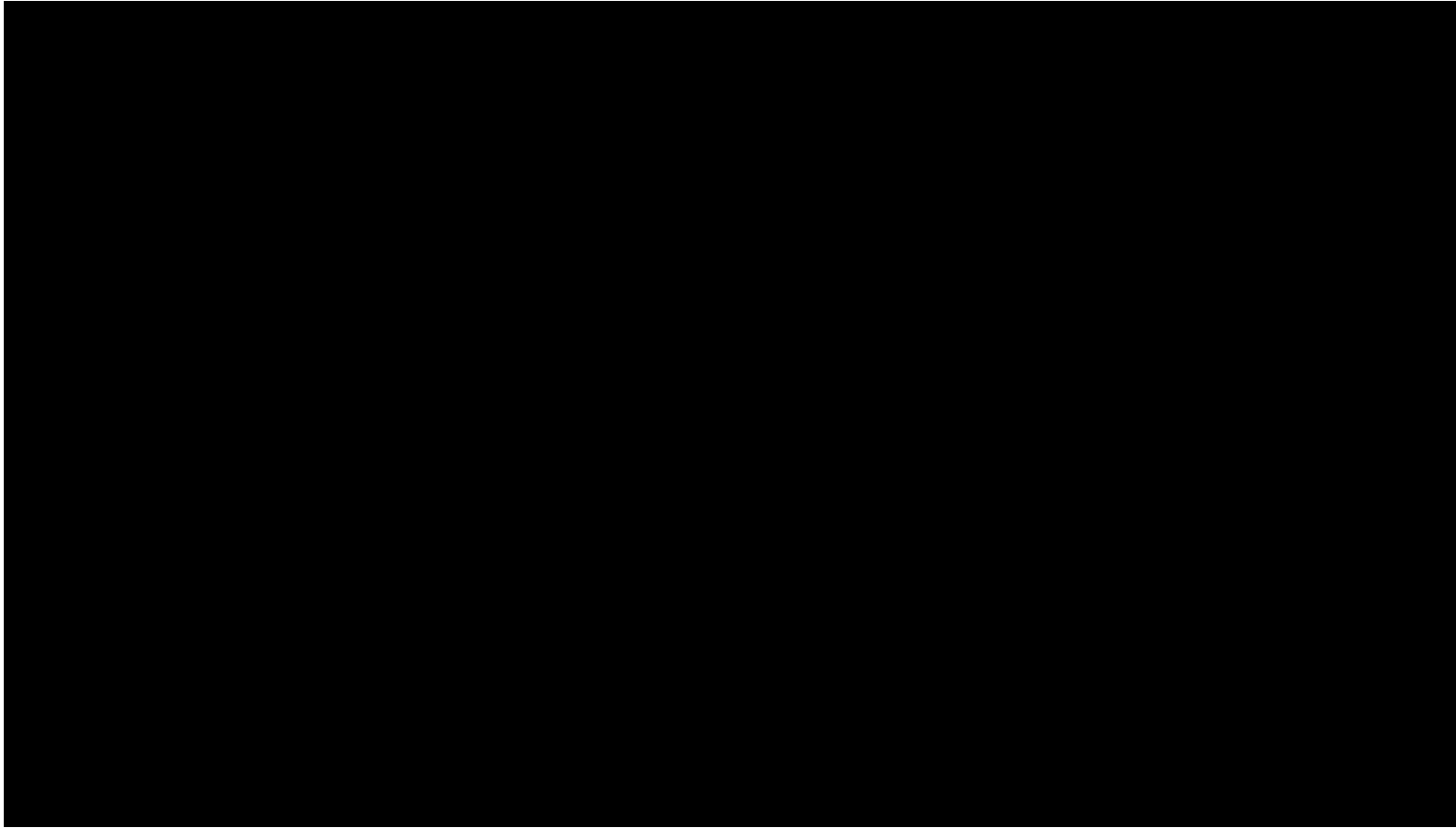
Corner Bead Separation

Separation of the drywall at interior corners



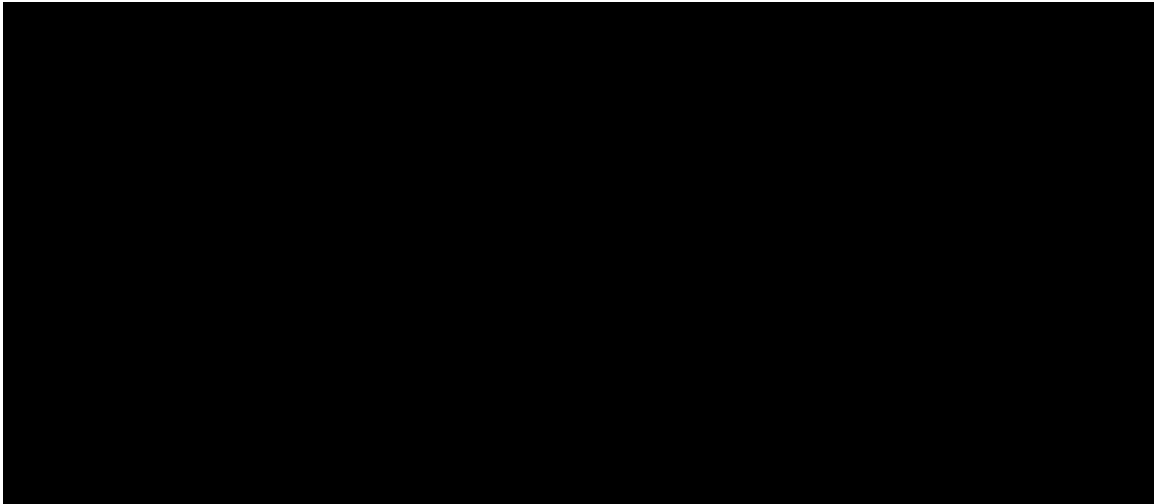
Tape Separation

Separation of the drywall tape from the drywall



Floor Distress: Flooring Cracking

Isolation membranes that meet ANSI A118.12 may be installed under flooring to help resist cracking associated with foundation movement, though this method requires removal and replacement of the flooring in the desired areas. We recommend contacting a flooring professional to determine which isolation membrane solution is best suited if desired.



6: OBSERVATIONS - EXTERIOR

Information

General Pictures



Slope of Grade

Positive, Negative



Left



Right



Right

Downspout Terminations

At foundation

A properly functioning gutter system will minimize ponding, soil loss and erosion, and can help control seasonal movement of the foundation. The gutter system should discharge the water a minimum of 5 feet from the foundation or into a below-grade drainage system.



Rear



Left



Left



Front Right Corner

Trees Within 10ft

Yes



Rear

Bushes/Foliage Within 5ft

Yes



Front

Veneer Cracks

Brick/stone veneer cracks can be filled with mortar. Note, expansion joints in veneer should be filled with an elastic silicone caulk, not mortar.



Right



Right



Right



Right



Right



Right



Right



Right



Front



Front



Front



Front



Front



Front

Mortar Separation



Front



Front



Front



Front



Front Patio

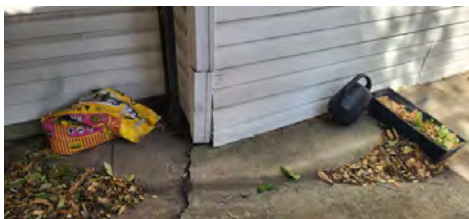


Front Patio

Trim Separation



Rear



Left



Left

Driveway/Sidewalk Cracks



Left



Left



Left



Left

Flatwork Separation/Settlement

Flatwork can be re-leveled with mud-jacking or poly-jacking if desired.



Front Patio

Limitations

Exterior Distress

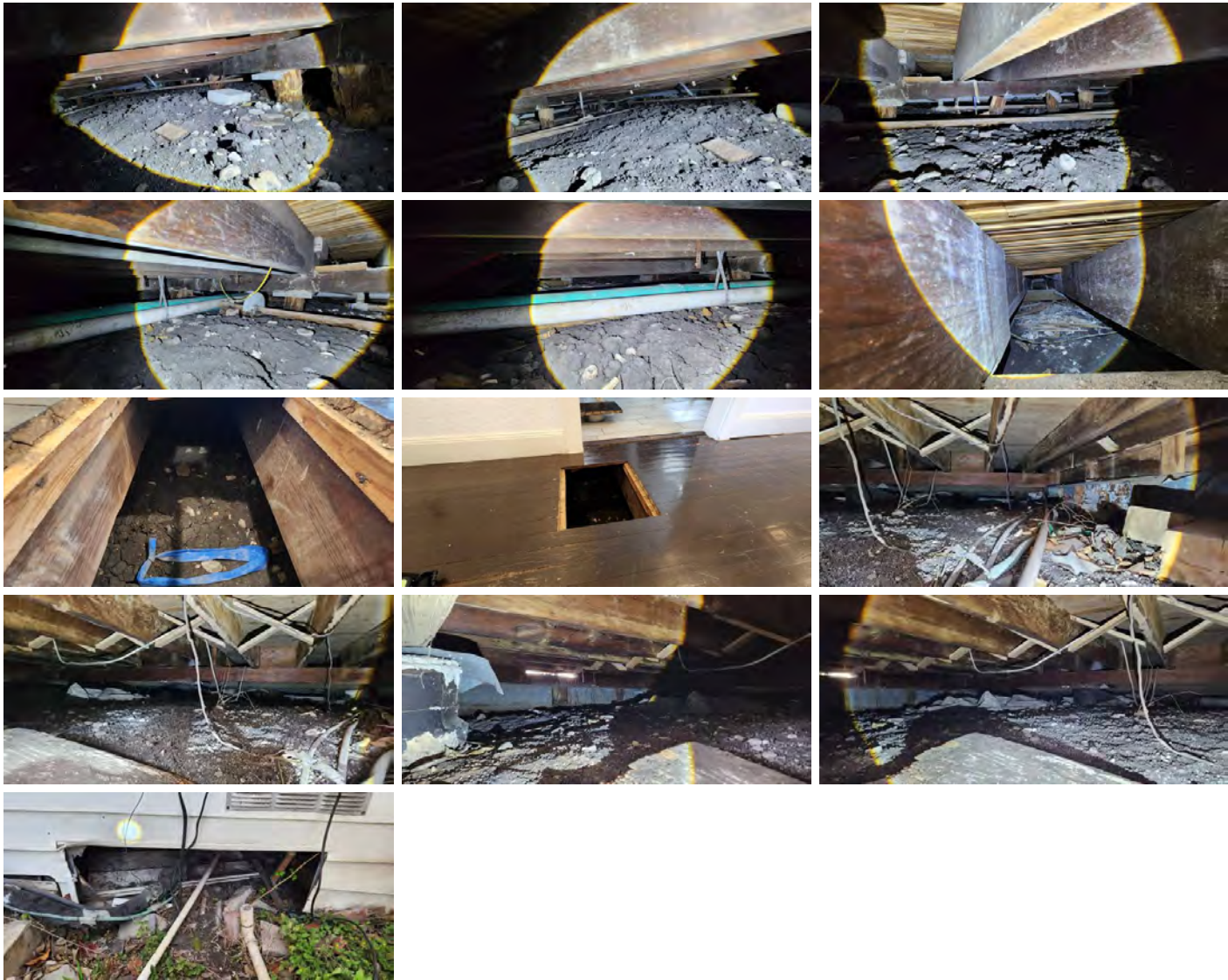
VINYL SIDING

The existing vinyl siding also limited our ability to visually evaluate the house due to not being rigid enough to show the distress we normally look for in the exterior walls.

7: OBSERVATIONS - CRAWLSPACE

Information

General Pictures



Beam Sizes

3x6

Max Floor Beam Span

35 feet

Joist Sizes

1x8

Max Floor Joist Span

0 Not able to confirm

Pier Type

Concrete, Wood

Crawlspace Temperature

72

Crawlspace Humidity

51

Limitations

General

LIMITED CRAWLSPACE ACCESS

We were not able to access and visually assess the entirety of the crawlspace. See Figure 2 for the extents of the crawlspace we were able to access.

General regulations require that access to the crawlspace be a minimum of 18 inches by 24 inches and not be under a door and that there is a minimum of 18 inches clearance between the top of the grade and the bottom of the floor framing.

Structural concerns

7.1.1 Areas of Concern

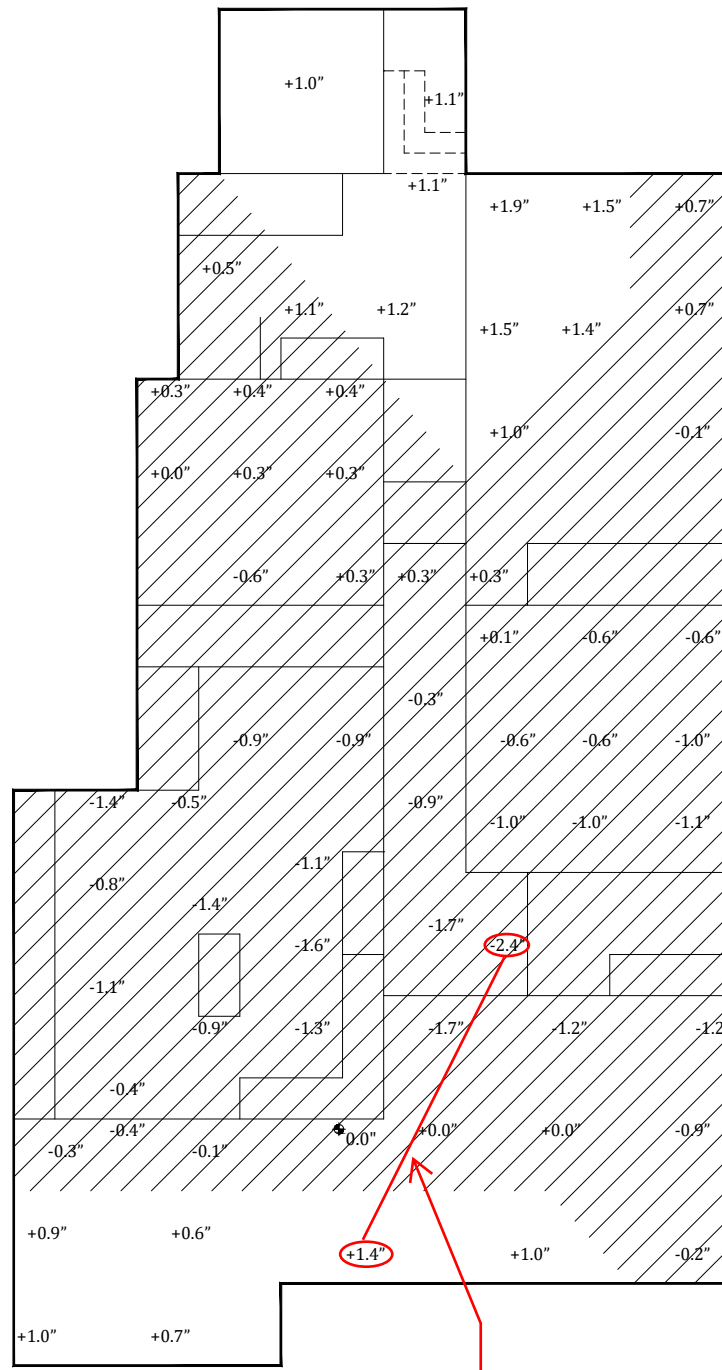
LEANING/DISPLACED PIERS



7.1.2 Areas of Concern

WOOD PIERS IN DIRECT CONTACT WITH THE GROUND





3.8" change in
elevation over 25'

FIGURE 1

NOT TO SCALE



LEGEND	
	Bench Mark Elevation, 0.0"
	0.0" Top of Floor Elevation
	Area of Floor To Be Adjusted



Texas Eng. Firm : 20170

3626 N. Hall Street, Suite 610-G91
Dallas, Texas 75219
(855) 349-6757

ELEVATION SURVEY

1914 WEST KINGS HWY 78201
SAN ANTONIO, TX

Project No: 173010

Figure No: 1 of 2

Date: 03/24/2025

Revision Date: ---

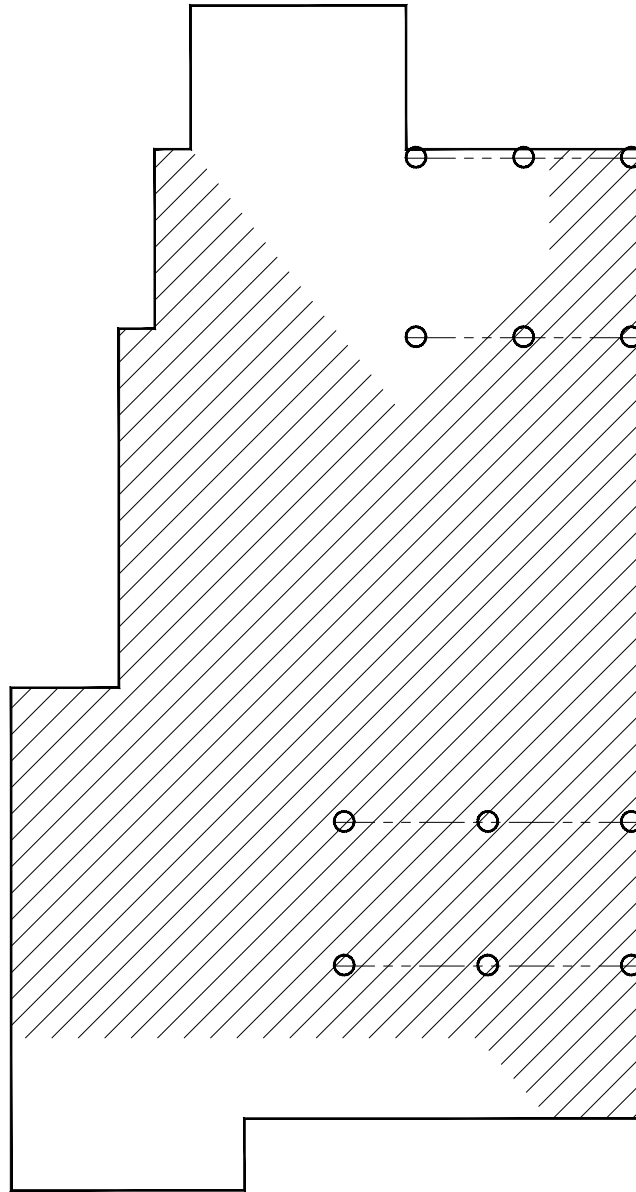


FIGURE 2

NOT TO SCALE

LEGEND	
○	Existing Crawlspace Pier
----	Floor Beam
///	Area of Floor To Be Adjusted



Texas Eng. Firm : 20170

3626 N. Hall Street, Suite 610-G91
Dallas, Texas 75219
(855) 349-6757

CRAWLSPACE LAYOUT

1914 WEST KINGS HWY 78201
SAN ANTONIO, TX

Project No: 173010

Figure No: 2 of 2

Date: 03/24/2025

Revision Date:

Legend	
X	Damage to element noted, reference exterior & interior window survey

Window Location	Face	Glass	Screen	Damage					
				Screen	Top Sash	Bottom Sash	Jambs	Header	Sill
Guest Room #2 Window 1	Interior				X	X	X	X	X
	Exterior	Single Pane	Wood w/ metal mesh	Frame	X	X	X	X	X
Guest Room #2 Window 2	Interior				X	X	X	X	X
	Exterior	Single Pane	Wood w/ metal mesh		X	X	X	X	X
Guest Bathroom #1	Interior				X	X	X	X	X
	Exterior	Single Pane	Wood w/ metal mesh	Frame	X	X	X	X	X
Living Room #1	Interior				X	X	X	X	X
	Exterior	Single Pane	Wood w/ metal mesh	Frame	X	X	X	X	X
Living Room #2	Interior				X	X	X	X	X
	Exterior	Single Pane	Wood w/ metal mesh	Frame	X	X	X	X	X
Living Room #3	Interior				X	X	X	X	X
	Exterior	Single Pane	Wood w/ metal mesh	Frame	X	X	X	X	X
Dining Room #1	Interior				X	X	X	X	X
	Exterior	Single Pane	Wood w/ metal mesh	Frame	X	X	X	X	X
Dining Room #2	Interior				X	X	X	X	X
	Exterior	Single Pane	Wood w/ metal mesh	Frame	X	X	X	X	X
Dining Room #3	Interior				X	X	X	X	X
	Exterior	Single Pane	Wood w/ metal mesh		X	X	X	X	X
Dining Room #4	Interior				X	X	X	X	X
	Exterior	Single Pane	Wood w/ metal mesh		X	X	X	X	X
Kitchen #1	Interior				X	X	X	X	X
	Exterior	Single Pane	Aluminum		X	X	X	X	X
Kitchen #2	Interior				X	X	X	X	X
	Exterior	Single Pane	Wood w/ chicken wire	Frame	X	X	X	X	X
Guest Room #1	Interior				X	X	X	X	X
	Exterior	Single Pane	No Screen		X	X	X	X	X
Master Bedroom #1	Interior				X	X			
	Exterior	Single Pane	No Screen						X
Master Bedroom #2	Interior								
	Exterior	Single Pane	No Screen						X
Master Bedroom #3	Interior				X	X			
	Exterior	Single Pane	No Screen						X

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Bathroom Window #1**

Notes:



Location: Bathroom 1

Notes:

- Needs new lower sash & glass
- Needs structural repair to frame
- Potential water intrusion issue
- Sill flashing needs replacement
- Screen inoperable



Location: **Bathroom #1**

Notes:

- Sill Flashing pulling up
- Sash does not seal at bottom.



Location: **Living Room Window #1**

Notes:

- Screen inoperable, damage to casing
- Window opening is skewed

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Living Room Window #1**

Notes:

- Damage multiple elements of the frame.
- Rough opening needs to be made square
- Bottom sill shows signs of rot.
- Needs lower sash replaced
- 33% of exterior window needs replacement**



Location: **Living Room Window #1**

Notes:

- Sill has separated from exterior trim.
- Window trim & sill are rotting
- Missing sill flashing
- Bottom sash does not properly align w/ top.
- Damage to 2 sides of bottom sash



Location: **Living Room Window #2**

Notes:

- Window Screen is cracked and has extensive cosmetic damage



Location: **Living Room Window #2**

Notes:

- Gaps between exterior & bottom of sill
- Flashing drip edge is bent
- Water intrusion suspected at chipped plaster

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Living Room Window #2**

Notes:

- Window screen does not fit into window cavity
- Cosmetic damage to screen



Location: **Living Room Window #2**

Notes:

- Screen does not fit into window opening, rubs against sill flashing.
- Screen is blown around by wind
- Flashing has pulled back from window sill, creating a gap with moisture intrusion potential



Location: **Dining Room Window #1**

Notes:

- Window screen does not fit into window cavity
- Cosmetic damage to screen



Location: **Dining Room Window #1**

Notes:

- Top and bottom sashes do not align, large $\frac{1}{2}$ " gap allowing air transfer between inside & outside.
- Trim separating from window frame, moisture intrusion concern

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Dining Room Window #1**

Notes:

- Damage to frame of top sash
- Wood in frame is rotted



Location: **Dining Room Window #1**

Notes:

- Gaps between header and surrounding trim, 1/2" wide allowing air transfer between inside and outside.



Location: **Living Room Window #2**

Notes:

- Bottom sash does not meet up with sill
- Sill flashing has pulled away from frame, creates a moisture intrusion concern
- Punctures in sill flashing
- Some chipping of plaster @ joint w/ window frame



Location: **Living Room Window #2**

Notes:

- Some chipping of plaster @ joint w/ window frame
- Damage to screen frame, poor appearance

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Living Room Window #3**

Notes:

-Screen operable, but damage to screen frame.



Location: **Living Room Window #3**

Notes:

-Screen has rubbed paint off of sill and damaged the wood/ flashing where it contacts



Location: **Living Room Window #3**

Notes:

- Joint between window sill & flashing is damaged by where window screen rests.
- 1/4" Gap between sash and sill.
- Trim is lifting away from window jambs, moisture intrusion potential.



Location: **Living Room Window #3**

Notes:

-Top sash is badly damaged and needs replacement
- Top and bottom sashes out of alignment, allows outside air into house.

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Living Room Window #3**

Notes:

-Moisture intrusion concern at sill, flashing has pulled away from sill plate



Location: **Front Door Crawl Space Grate**

Notes:

-Broken Grate in Plaster exterior



Location: **Dining Room**

Notes:

-Crack in exterior skirting



Location: **Dining Room Window #1**

Notes:

-Sill flashing has entirely fallen off, exposing rotted wood sill below.

-Moisture intrusion concern w/ exterior cladding

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Dining Room Window #1**

Notes:

- Rotted sill plate, missing flashing.
- Entire sill needs replacement.



Location: **Dining Room Window #1**

Notes:

- Close up of exposed rotting wood



Location: **Dining Room Window #3**

Notes:

- Top and bottom sash don't align, $\frac{1}{2}$ " gap allows for air exchange between interior and exterior.



Location: **Dining Room Window #3**

Notes:

- Gap between sill and bottom sash, $\frac{1}{4}$ " gap allows for air exchange between interior and exterior.

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Dining Room Window #3**

Notes:

-Trim has pulled away from frame, $\frac{3}{4}$ " gap allows
air exchange between interior and exterior
Moisture intrusion concerns



Location: **Dining Room Window #4**

Notes:



Location: **Dining Room Window #4**

Notes: Damage to window frame and sash.

- Pinholes creating a moisture intrusion concern



Location: **Dining Room Window #4**

Notes:

-Pinholes creating a moisture intrusion concern

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Dining Room Window #4**

Notes:

-Drip edge at trim has a gap into window pocket, moisture intrusion concern



Location: **Kitchen Window #1**

Notes:

-Aluminum screen screwed into frame, moisture intrusion concern
-Aluminum screen does not match the wood frames elsewhere



Location: **Kitchen Window #1**

Notes:

-Gap between sill and bottom sash, 1/4" gap allows for air exchange between interior and exterior.
-Top sash is shorter than bottom sash.
-Top and bottom sashes don't align



Location: **Kitchen Window #1**

Notes:

-Gap between sill and bottom sash, 1/4" gap allows for air exchange between interior and exterior.

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Kitchen Window #1**

Notes:

- Trim pulling away from sill, no flashing present

Moisture intrusion concern



Location: **Kitchen Window #1**

Notes:

- Gaps between trim and flashing, moisture intrusion concern.
- Metal on metal joint between flashing and aluminum frame



Location: **Kitchen Window #1**

Notes:

- Gaps between trim and flashing, moisture intrusion concern.
- Metal on metal joint between flashing and aluminum frame



Location: **Kitchen Window #2**

Notes:

- Screen does not match rest of house, screwed into frame, causing moisture intrusion concerns.
- Drip edge at top has large gap with frame, allowing air exchange between interior and exterior.

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Kitchen Window #2**

Notes:

-Screen frame is too tall and too narrow for window, allowing leaves and other debris to accumulate



Location: **Kitchen Window #2**

Notes:

-Screen frame screwed into window frame.
-Moisture intrusion concerns



Location: **Kitchen Window #2**

Notes:

-Unsealed gap between underside of sill and end of jamb. Water intrusion concern



Location: **Kitchen Window #2**

Notes:

-Unsealed gap between underside of sill and end of jamb. Water intrusion concern

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Kitchen Window #2**

Notes:

-Unsealed gap between underside of sill and end of jamb. Water intrusion concern



Location: **Guest Room Window #1**

Notes:

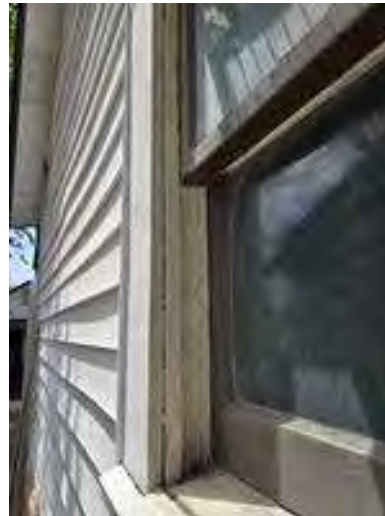
-Gaps allow air exchange between interior & exterior
-Bottom sash is taller than top, window does not fully seal.



Location: **Guest Room Window #1**

Notes:

-Unsealed gap between trim and sill plate
Moisture intrusion concern



Location: **Guest Room Window #1**

Notes:

-Trim has pulled away from frame, 1/4" creates moisture intrusion concern

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Guest Room Window #1**

Notes:

-Sashes do not align, gap allows for air exchange between interior and exterior.



Location: **Guest Room Window #1**

Notes:

-Right corner of window has a 1/2" gap, but is flush on left side.
-Frame appears warped, needs to be leveled.



Location: **Guest Room Window #1**

Notes:

-Unsealed gap between window trim and siding moulding. Moisture intrusion concern



Location: **Master Bedroom Window #1**

Notes:

-No screens
-Gaps between sashes allows air exchange between interior and exterior

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Master Bedroom Window #1**

Notes:

-Gap between sash & sill, ¼" gap allows for air exchange between interior and exterior



Location: **Master Bedroom Window #1**

Notes:

-Sash rails are damaged
-Siding pulling away from trim, moisture intrusion concerns.
-Nearby penetrations through wall may have compromised window frame



Location: **Master Bedroom Window #1**

Notes:

-Top and bottom sashes are not aligned, allowing air exchange between interior and exterior.



Location: **Master Bedroom Window #2**

Notes:

-No screen
-Weathered exposed wood

1914 W Kings Hwy
Exterior Conditions Survey



Location: **Master Bedroom Window #2**

Notes:

- Gap between trim and frame creates moisture intrusion concern.
- Sash has 1/4" gap with sill, creates air exchange between interior and exterior



Location: **Master Bedroom Window #3**

Notes:

- No screen
- Weathered exposed wood



Location: **Master Bedroom Window #3**

Notes:

- 1/4" gap between sill and sash creates air exchange between interior and exterior.
- Sash is weathered and appears to be rotting underneath paint.



Location: **Master Bedroom Window #3**

Notes:

- Sash is weathered and appears to be rotting underneath paint

Appendix 2C - Interior Window Survey

1914 West Kings Highway
Certificate of Appropriateness Application
Submitted: 4/20/2025



1914 W Kings Hwy
Interior Conditions Survey



Location: **Living Room**

Notes:

- Rotting Window frame,
- Previous owners completed poor repair;
- Stool damage



Location: **Living Room, all non-operational windows**

Notes:

- Casing damage and separation



Location: **Living room, all non-operational windows**

Notes:

- Frame separation



Location: **Living Room**

Notes:

- Frame damage by previous owner;
- frame separation
- Stool damage

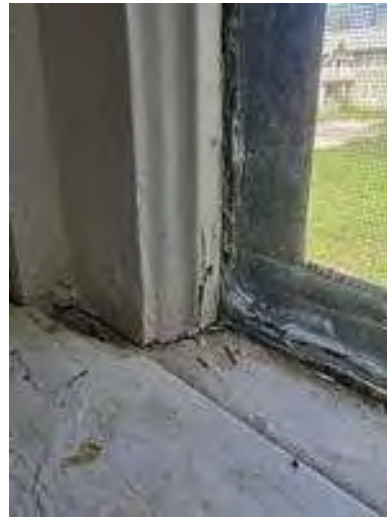
1914 W Kings Hwy
Interior Conditions Survey



Location: **Living Room**

Notes:

- Fully separated glass from frame, rotted and water damaged frame
- severely out of alignment



Location: **Living Room**

Notes:

- Chipped glass
- Rotting and separated frame,



Location: **Living Room**

Notes:

- Separation of window frame and drywall
- Evidence of poor foundation
- Mismatched trim



Location: **Dining Room**

Notes:

- Screws in frame
- Poor previous window repair has damaged mechanism
- Broken sash cover and cord

1914 W Kings Hwy
Interior Conditions Survey



Location: **Living Room**

Notes:

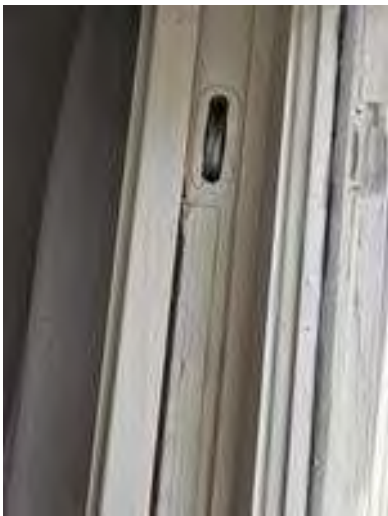
- Wood rot
- Miss matched apron



Location: **Dining Room**

Notes:

- Broken sash cover and cord



Location: **Dining room**

Notes:

- Stool and apron damage
- Miss matched apron

Location: **Multiple**

Notes:

- Missing weight
- Frame damage from previous repairs
- Broken sash cover and cord

1914 W Kings Hwy
Interior Conditions Survey



Location: **Bedroom 2**
Notes: Rotting frame, missing apron



Location: **Bedroom 2**
Notes: water damage, wood rot



Location: **Bedroom 2**
Notes:
-Cracked frame
-Water damage



Location: **Bedroom 2**
Notes:
-Damage to frame

1914 W Kings Hwy
Interior Conditions Survey



Location: **Bedroom 1**

Notes:

-Miss matched apron, sill, and frame



Location: **Bedroom 1**

Notes:

-Broken sash cover and cord



Location: **Bedroom 1**

Notes:

-Wood rot

-Damaged casing from settlement



Location: **Bedroom 1**

Notes:

-Wood rot

1914 W Kings Hwy
Interior Conditions Survey



Location: **Bathroom 2**

Notes:

- Broken sash cover and cord
- Wood rot
- Glass damage
- Missing weights



Location: **Living room**

Notes:

- Mismatched trim
- Damage from settlement



Location: **Living room, Dining room**

Notes:

- Damage to trim

Appendix 3 - 2021 Inspection Report

1914 West Kings Highway
Certificate of Appropriateness Application
Submitted: 4/20/2025





BPG Inspection, LLC



**1914 West Kings Highway
San Antonio TX 78201**

Client(s): Fischer

Inspection Date: 4/24/2021

Inspector: Cullen Jones , TREC #23940

Applicant Notes:



Work completed during prior
repairs, not applicable



Proposed work this application

Prepared For: Zachary Fischer

(Name of Client)

Concerning: 1914 West Kings Highway, San Antonio, TX 78201

(Address or Other Identification of Inspected Property)

By: Cullen Jones TREC #23940 / BPG Inspection, LLC 4/24/2021

(Name and License Number of Inspector)

(Date)

(Name, License Number of Sponsoring Inspector)

PURPOSE, LIMITATIONS AND INSPECTOR / CLIENT RESPONSIBILITIES

This property inspection report may include an inspection agreement (contract), addenda, and other information related to property conditions. If any item or comment is unclear, you should ask the inspector to clarify the findings. It is important that you carefully read ALL of this information.

This inspection is subject to the rules ("Rules") of the Texas Real Estate Commission ("TREC"), which can be found at www.trec.texas.gov.

The TREC Standards of Practice (Sections 535.227-535.233 of the Rules) are the minimum standard for inspections by TREC Licensed inspectors. An inspection addresses only those components and conditions that are present, visible, and accessible at the time of the inspection. While there may be other parts, components or systems present, only those items specifically noted as being inspected were inspected. The inspector is NOT required to turn on decommissioned equipment, systems, utility services or apply an open flame or light a pilot to operate any appliance. The inspector is NOT required to climb over obstacles, move furnishings or stored items. The inspection report may address issues that are code-based or may refer to a particular code; however, this is NOT a code compliance inspection and does NOT verify compliance with manufacturer's installation instructions. The inspection does NOT imply insurability or warrantability of the structure or its components. Although some safety issues may be addressed in this report, this inspection is NOT a safety/code inspection, and the inspector is NOT required to identify all potential hazards.

In this report, the inspector shall indicate, by checking the appropriate boxes on the form, whether each item was inspected, not inspected, not present or deficient and explain the findings in the corresponding section in the body of the report form. The inspector must check the Deficient (D) box if a condition exists that adversely and materially affects the performance of a system or component or constitutes a hazard to life, limb or property as specified by the TREC Standards of Practice. General deficiencies include inoperability, material distress, water penetration, damage, deterioration, missing components, and unsuitable installation. Comments may be provided by the inspector whether or not an item is deemed deficient. The inspector is not required to prioritize or emphasize the importance of one deficiency over another.

Some items reported may be considered life-safety upgrades to the property. For more information, refer to Texas Real Estate Consumer Notice Concerning Recognized Hazards or Deficiencies below.

THIS PROPERTY INSPECTION IS NOT A TECHNICALLY EXHAUSTIVE INSPECTION OF THE STRUCTURE, SYSTEMS OR COMPONENTS. The inspection may not reveal all deficiencies. A real estate inspection helps to reduce some of the risk involved in purchasing a home, but it cannot eliminate these risks, nor can the inspection anticipate future events or changes in performance due to changes in use or occupancy. It is recommended that you obtain as much information as is available about this property, including any seller's disclosures, previous inspection reports, engineering reports, building/remodeling permits, and reports performed for or by relocation companies, municipal inspection departments, lenders, insurers, and appraisers. You should also attempt to determine whether repairs, renovation, remodeling, additions, or other such activities have taken place at this property. It is not the inspector's responsibility to confirm that information obtained from these sources is complete or accurate or that this inspection is consistent with the opinions expressed in previous or future reports.

ITEMS IDENTIFIED IN THE REPORT DO NOT OBLIGATE ANY PARTY TO MAKE REPAIRS OR TAKE OTHER ACTIONS, NOR IS THE PURCHASER REQUIRED TO REQUEST THAT THE SELLER TAKE ANY ACTION. When a deficiency is reported, it is the client's responsibility to obtain further evaluations and/or cost estimates from qualified service professionals. Any such follow-up should take place prior to the expiration of any time limitations such as option periods.

Evaluations by qualified tradesmen may lead to the discovery of additional deficiencies which may involve additional repair costs. Failure to address deficiencies or comments noted in this report may lead to further damage of the structure or systems and add to the original repair costs. The inspector is not required to provide follow-up services to verify that proper repairs have been made.

Property conditions change with time and use. For example, mechanical devices can fail at any time, plumbing gaskets and seals may crack if the appliance or plumbing fixture is not used often, roof leaks can occur at any time regardless of the apparent condition of the roof, and the performance of the structure and the systems may change due to changes in use or occupancy, effects of weather, etc. These changes or repairs made to the structure after the inspection may render information contained herein obsolete or invalid. This report is provided for the specific benefit of the client named above and is based on observations at the time of the inspection. If you did not hire the inspector yourself, reliance on this report may provide incomplete or outdated information. Repairs, professional opinions or additional inspection reports may affect the meaning of the information in this report. It is recommended that you hire a licensed inspector to perform an inspection to meet your specific needs and to provide you with current information concerning this property.

TEXAS REAL ESTATE CONSUMER NOTICE CONCERNING HAZARDS OR DEFICIENCIES

Each year, Texans sustain property damage and are injured by accidents in the home. While some accidents may not be avoidable, many other accidents, injuries, and deaths may be avoided through the identification and repair of certain hazardous conditions. Examples of such hazards include:

- malfunctioning, improperly installed, or missing ground fault circuit protection (GFCI) devices for electrical receptacles in garages, bathrooms, kitchens, and exterior areas;
- malfunctioning arc fault protection (AFCI) devices;
- ordinary glass in locations where modern construction techniques call for safety glass;
- malfunctioning or lack of fire safety features such as smoke alarms, fire-rated doors in certain locations, and functional emergency escape and rescue openings in bedrooms;
- malfunctioning carbon monoxide alarms;
- excessive spacing between balusters on stairways and porches;
- improperly installed appliances;
- improperly installed or defective safety devices;
- lack of electrical bonding and grounding; and
- lack of bonding on gas piping, including corrugated stainless steel tubing (CSST).

To ensure that consumers are informed of hazards such as these, the Texas Real Estate Commission (TREC) has adopted Standards of Practice requiring licensed inspectors to report these conditions as "Deficient" when performing an inspection for a buyer or seller, if they can be reasonably determined.

These conditions may not have violated building codes or common practices at the time of the construction of the home, or they may have been "grandfathered" because they were present prior to the adoption of codes prohibiting such conditions. While the TREC Standards of Practice do not require inspectors to perform a code compliance inspection, TREC considers the potential for injury or property loss from the hazards addressed in the Standards of Practice to be significant enough to warrant this notice.

Contract forms developed by TREC for use by its real estate licensees also inform the buyer of the right to have the home inspected and can provide an option clause permitting the buyer to terminate the contract within a specified time. Neither the Standards of Practice nor the TREC contract forms require a seller to remedy conditions revealed by an inspection. The decision to correct a hazard or any deficiency identified in an inspection report is left to the parties to the contract for the sale or purchase of the home.

INFORMATION INCLUDED UNDER "ADDITIONAL INFORMATION PROVIDED BY INSPECTOR", OR PROVIDED AS AN ATTACHMENT WITH THE STANDARD FORM, IS NOT REQUIRED BY THE COMMISSION AND MAY CONTAIN CONTRACTUAL TERMS BETWEEN THE INSPECTOR AND YOU, AS THE CLIENT. THE COMMISSION DOES NOT REGULATE CONTRACTUAL TERMS BETWEEN PARTIES. IF YOU DO NOT UNDERSTAND THE EFFECT OF ANY CONTRACTUAL TERM CONTAINED IN THIS SECTION OR ANY ATTACHMENTS, CONSULT AN ATTORNEY.

ADDITIONAL INFORMATION PROVIDED BY INSPECTOR:

UNDERSTANDING THE FULL EXTENT OF NEEDED REPAIRS

It is recommended that the client consults with service companies and/or contractors in respective categories included in the inspection report, and to acquire written bids for determining scope of, and making proper correction(s). Our efforts and inspection findings are confined to problem identification for major repairs observed. BPG Inspections does not analyze the design of the building, determine if construction is in conformance with plans or manufactures specifications, or make references as to whether or not the building construction is in strict compliance with building codes.

THE FOLLOWING ITEMS OFTEN HAVE LIMITS TO THE INSPECTORS FINDINGS

Attics due to limited clearance and or storage, floors due to coverings and or furnishings, electrical items due to storage/furnishings/safety, garage(s) due to storage, the condition of walls, ceilings due to recent painting or coverings, exterior walls and structure due to excessive plant growth and or limited access, areas under a pier & beam foundation due to limited access or the safety of the inspector, and the inside of HVAC equipment including the heat exchangers of gas heaters.

WE OFTEN DO NOT INSPECT THE FOLLOWING UNLESS NOTED

Septic systems, water wells, water quality, water treatment equipment, sub surface drains/pumps, sewer lines, sub-surface/hidden plumbing components, outdoor kitchens, audio visual systems, light fixtures/light bulbs compatibility, sound systems, low voltage lighting, remote controlled items and or lighting, landscape lighting, fiber optic lighting, soffit outlets, electric gates/fences, alarm systems, central vacuums, intercom systems, or water softeners. Client(s) may want to consider additional inspections/testing based on personal levels of risk tolerance.

DIRECTIONAL COMMENTS USED IN REPORT

For the purpose of clarification, written comments in the report are noted as, right, left, front and back as determined by standing at street, and looking towards the front of the house, unless other directions are noted.

IMPORTANT ADDITIONAL INFORMATION

If the Client(s) were not present at the time of the inspection, they are encouraged to contact the inspector for a review of the inspection and any limitations that may apply.


Photos used in this report are a often just a representation of conditions and client(s) should expect that additional defective conditions may be present.

Style of Home: Single Family, One Story	Age Of Home: 55+ Years	Client(s) Present: Yes
Home Status:: Vacant and freshly painted.	Weather: Clear	Temperature: 80+ Degrees
Rain in last 3 days: No known	Recommended Professionals: Structural Engineer, Licensed Heating/ Air Contractor, Licensed Electrician, Licensed Plumber, General Contractor, Qualified Roofing Contractor	


Thank you for choosing BPG for your property inspection. We value your business and are available should you have any follow-up questions regarding your report.

This report represents our professional opinion regarding conditions of the property as they existed on the day of our inspection. We adhere to the Standards of Practices as outlined in our Inspection Agreement.

Your **INSPECTION REPORT** includes three sections: **1) Key Findings**, **2) Property Information**, and **3) Inspection Agreement**. It is important to evaluate all three sections in order to fully understand the property and general conditions. The following definitions may be helpful in reviewing your reports.

 Action Items may include:

- Items that are no longer functioning as intended
- Conditions that present safety issues
- Items or conditions that may require repair, replacement, or further evaluation by a specialist
- Items that were inaccessible

 Consideration Items may include:

- Conditions that may require repair due to normal wear and the passage of time.
- Conditions that have not significantly affected usability or function- but may if left unattended.

SECTION I. KEY FINDINGS

This section is designed to summarize the findings and conditions that may require your immediate attention. Typically, the Key Findings Summary is used to help prioritize issues with other parties involved in the real estate transaction. *It is important to review carefully all sections of your report and not rely solely on the Key Findings summary.*

SECTION II. PROPERTY INFORMATION

This section contains our detailed findings on all items inspected. Component locations, system types and details, maintenance tips, and other general information about the property will be included as appropriate.

SECTION III. INSPECTION AGREEMENT

This section details the scope of the inspection. BY ACCEPTANCE OF OUR INSPECTION REPORT, YOU ARE AGREEING TO THE TERMS OF OUR INSPECTION AGREEMENT. A copy of this agreement was made available immediately after scheduling your inspection and prior to the beginning of your inspection. In addition, a copy is included on our website with your final inspection report.

To retrieve your full PROPERTY INSPECTION REPORT (all 3 sections) from our Web site:

- Point your web browser to <http://www.bpginspections.com>
- Click on **View Your Inspection Report**
- Enter the **Report Id** and **Client Last Name** (shown below)
 - Report Id: 879822
 - Client's Last Name: Fischer
- Follow the instructions to either view the report online or download it to your computer.

Again, thank you for selecting us as your inspection company. Please contact our Customer Service Center at 800-285-3001 should you have any questions about your reports or desire additional assistance.

Action / Consideration Items

STRUCTURAL SYSTEMS

Foundations

- ❌ 1. In regards to inspector's safety, due to building materials in the way, height limitations of the opening (only twelve inches), and loose/hanging electrical wiring, the crawl space was not accessed.
- ❌ 2. Using a golf ball to demonstrate, observed uneven/sloping floors in multiple areas of the home. This condition is indicative of foundation movement.
- ❌ 3. Several doors not operating as intended (unable to latch, binding in their jambs, or uneven) indicate possible foundation movement.
- ❌ 4. Observed damaged/missing ventilation vents (can allow rodents into the crawl space) around the home.
- ❌ 5. Due to the issues with the home's foundation, recommend consulting with a structural engineer prior to closing.

Grading and Drainage

- ❌ 6. [REDACTED]
- ✅ 7. The sub-surface drain on the right side of the home was not part of this inspection.
- ✅ 8. Recommend cleaning gutters as part of scheduled home maintenance.
- ✅ 9. Extend downspouts with gutter extensions or splash blocks to "throw" water away from the home's foundation.

Roof Covering Materials

- ❌ 10. Observed damaged shingles in multiple areas of the roof. The asphalt granules are missing, exposing the fiberglass underlayment of the shingles.
- ❌ 11. Exposed fasteners observed. Recommend sealing all fasteners with a weather-resistant sealant to prevent water entering the attic space.
- ❌ 12. Observed signs of possible previous repair to the home's roof. Note the differing colors of shingles in the photograph. Recommend consulting with seller regarding history, issues, etc. prior to closing.
- ❌ 13. Shingle up-lift and buckling were also observed.
- ❌ 14. Observed deflection in the home's roof. The origins or significance of the condition could not be determined at the time of the inspection.
- ❌ 15. Recommend seeking multiple bids from reputable and qualified roofing contractors for repairs to the home's roof.


Roof Structures and Attics

- ❌ 16. The attic pulldown stairs are not properly trimmed and are either too long or too short. Repair/replace as necessary.
- ❌ 17. The attic's insulation is not up to industry standards of ten to fourteen inches. Recommend adding insulation, as desired, to assist with energy efficiency.



Walls (Interior and Exterior)

- ❌ 18. Observed cracks in the home's stone/brick veneer consistent with settling/expansion-contraction of building materials. Recommend filling with a weather-proof sealant/caulk to prevent water/insect intrusion into the wall space.
- ❌ 19. Noted damaged/missing siding (gaps, penetrations, or fastenings) in multiple locations. Recommend repairs to prevent water/insect/rodent entering the wall space.
- ✅ 20. Noted cracks at interior wall/mantle. Recommend repairs as desired.



Action / Consideration Items

-  21. Recommend removing foliage at least three feet away from the home's siding to deter insect/moisture entering the home.


Ceilings and Floors

-  22. Noted signs of previous repairs to the home's ceiling. Recommend consulting with seller regarding history, causes, etc. prior to closing.
-  [REDACTED]

Doors (Interior and Exterior)

-  24. Many of the home's doors' jambs/hardware had been altered. Recommend repairs as desired.
-  25. The right side garage door was bent and could not be opened. Recommend replacement as desired.

Windows

-  26. Many of the home's windows were inoperable, either stuck/painted shut or closed with fasteners. Recommend a general contractor for repairs as windows are points of emergency egress and should be operable.

Fireplaces and Chimneys

-  27. The chimney was blocked with masonry and should not be used.

Porches, Balconies, Decks, and Carports






-  [REDACTED]

ELECTRICAL SYSTEMS

Service Entrance and Panels

-  [REDACTED]
-  [REDACTED]
-  [REDACTED]

Branch Circuits, Connected Devices, and Fixtures

-  [REDACTED]
-  [REDACTED]
-  [REDACTED]
-  [REDACTED]
-  [REDACTED]

Action / Consideration Items

- ☒ [REDACTED]
- ☐ [REDACTED]

HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

Cooling Equipment

- ☒ [REDACTED]


PLUMBING SYSTEM














Plumbing Supply, Distribution Systems and Fixtures

- ☒ [REDACTED]




Legend

X No Action Items Found


 Action Item Consideration Item**STRUCTURAL SYSTEMS**

A.	Foundations			
B.	Grading and Drainage			
C.	Roof Covering Materials			
D.	Roof Structures and Attics			
E.	Walls (Interior and Exterior)			
F.	Ceilings and Floors			
G.	Doors (Interior and Exterior)			
H.	Windows			
I.	Stairways (Interior and Exterior)	X		
J.	Fireplaces and Chimneys	X		
K.	Porches, Balconies, Decks, and Carports	X		
L.	Other	X		

ELECTRICAL SYSTEMS


A.	Service Entrance and Panels			
B.	Branch Circuits, Connected Devices, and Fixtures			

HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

A.	Heating Equipment	X		
B.	Cooling Equipment			

C.	Duct Systems, Chases, and Vents	X		
----	---------------------------------	---	--	--

PLUMBING SYSTEM

A.	Plumbing Supply, Distribution Systems and Fixtures			
B.	Drains, Wastes, and Vents	X		
C.	Water Heating Equipment	X		
D.	Hydro-Massage Therapy Equipment	X		
E.	Other	X		

APPLIANCES

A.	Dishwashers	X		
B.	Food Waste Disposers	X		
C.	Range Hood and Exhaust Systems	X		
D.	Ranges, Cooktops, and Ovens	X		
E.	Microwave Ovens	X		
F.	Mechanical Exhaust Vents and Bathroom Heaters	X		
G.	Garage Door Operators	X		
H.	Dryer Exhaust Systems	X		
I.	Other	X		

OPTIONAL SYSTEMS

I = Inspected

NI = Not Inspected

NP = Not Present

D = Deficient

I NI NP D

I. STRUCTURAL SYSTEMS

Our inspection of the structure included a visual examination of the exposed, readily accessible portions of the structure. These items were examined for visible defects, excessive wear, and general condition. Many structural components are inaccessible because they are buried below grade or are behind finished surfaces. Therefore, much of the inspection was performed by looking for visible symptoms of past movement, damage and deterioration. Where there are no symptoms, conditions requiring further review or repair may go undetected and identification is not possible without destructive testing. We make no representations as to the internal conditions or stability of soils, concrete footings and foundations, except as exhibited by their performance. We cannot predict when or if foundations or roofs might fail or leak in the future.

It is advisable to maintain at least 4 inches minimum of clear area between the ground and walls/siding. Proper drainage is critical to the performance of the foundation and grades should promote drainage away from the structure.

☒ ☐ ☐ ☐ A. Foundations

Type of Foundation(s): Pier & Beam

Foundation method of inspection: Crawl space not entered due to -, Unsafe conditions

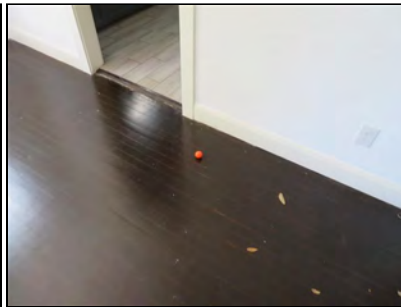
Foundation performance: The visual inspection of this property revealed signs of structural movement/distress which indicates repairs may be needed. It is recommended that the client(s) seek additional opinions from a structural engineer and or foundation contractor on scope of any needed repairs or improvements.

Comments:

☒ In regards to inspector's safety, due to building materials in the way, height limitations of the opening (only twelve inches), and loose/hanging electrical wiring, the crawl space was not accessed.



☒ Using a golf ball to demonstrate, observed uneven/sloping floors in multiple areas of the home. This condition is indicative of foundation movement.



I = Inspected

NI = Not Inspected

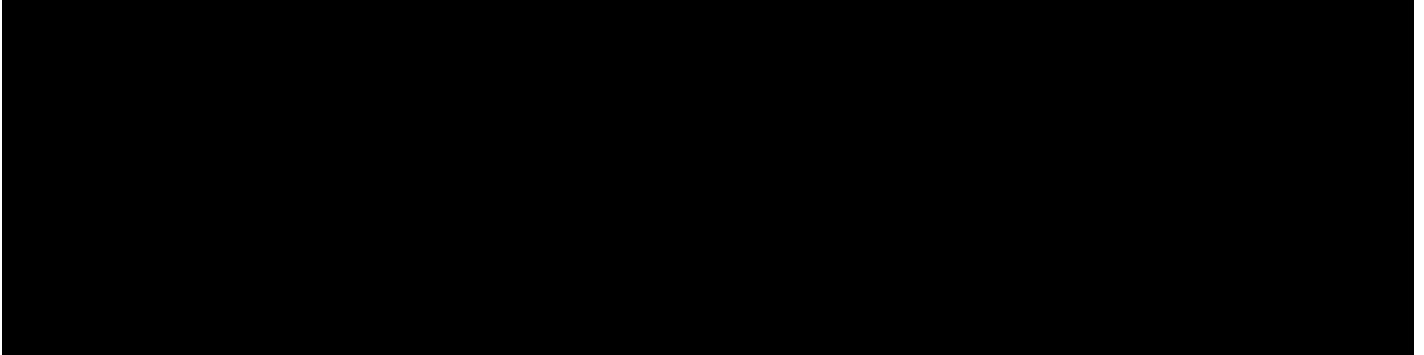
NP = Not Present

D = Deficient

I	NI	NP	D
---	----	----	---



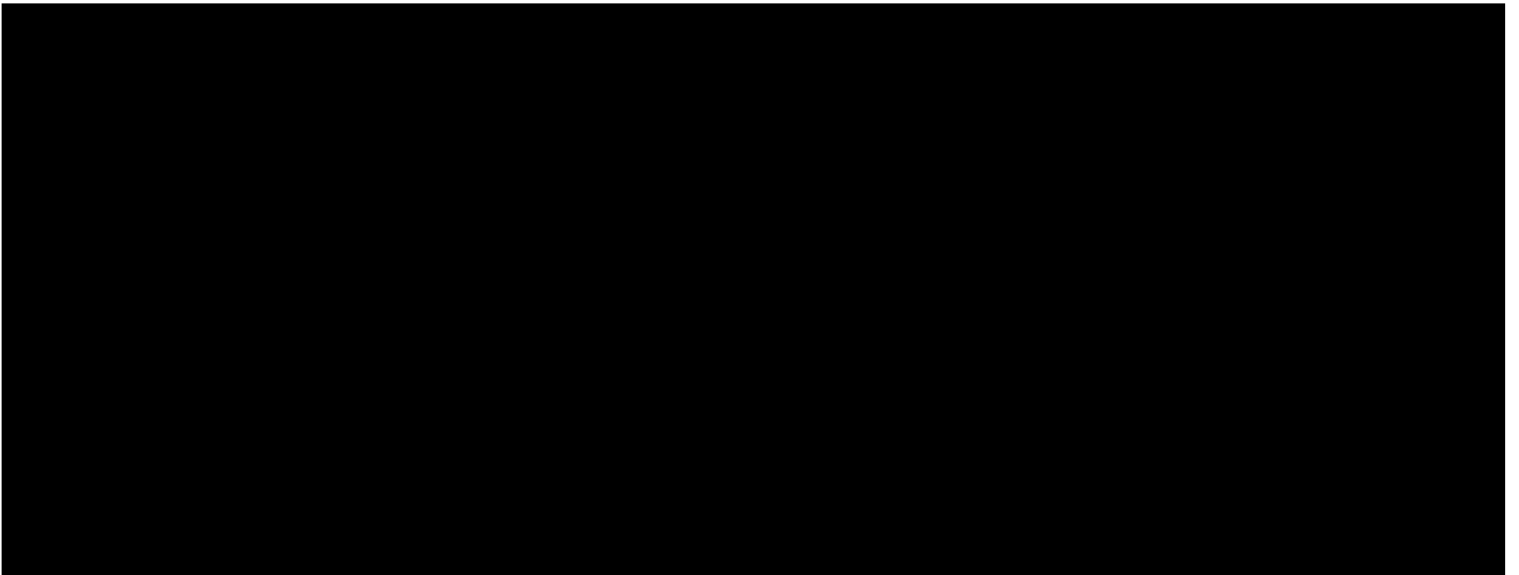
☒ Several doors not operating as intended (unable to latch, binding in their jambs, or uneven) indicate



☒ Observed damaged/missing ventilation vents (can allow rodents into the crawl space) around the home.



☒ Due to the issues with the home's foundation, recommend consulting with a structural engineer prior to closing.



I = Inspected

NI = Not Inspected

NP = Not Present

D = Deficient

I NI NP D



☐ Recommend cleaning gutters as part of scheduled home maintenance.



☐ Extend downspouts with gutter extensions or splash blocks to "throw" water away from the home's foundation.



☒☐☐☒ C. Roof Covering Materials

Types of Roof Covering: Fiberglass / Asphalt

Roof Viewed From: Roof Surface

Comments:

☒ Observed damaged shingles in multiple areas of the roof. The asphalt granules are missing, exposing the fiberglass underlayment of the shingles.



☒ Exposed fasteners observed. Recommend sealing all fasteners with a weather-resistant sealant to prevent water entering the attic space.

I = Inspected

NI = Not Inspected

NP = Not Present

D = Deficient

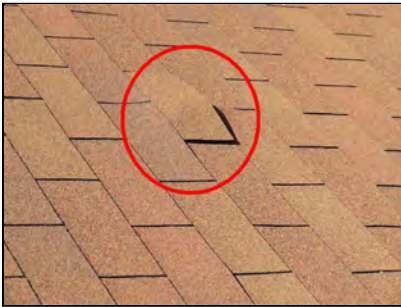
I NI NP D



☒ Observed signs of possible previous repair to the home's roof. Note the differing colors of shingles in the photograph. Recommend consulting with seller regarding history, issues, etc. prior to closing.



☒ Shingle up-lift and buckling were also observed.



☒ Observed deflection in the home's roof. The origins or significance of the condition could not be determined at the time of the inspection.

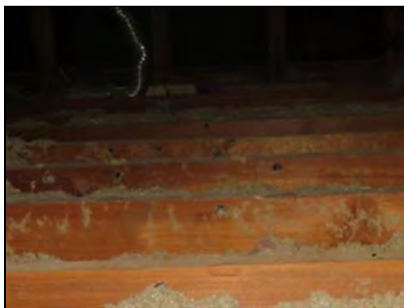
I = Inspected NI = Not Inspected NP = Not Present D = Deficient

I	NI	NP	D
---	----	----	---



☒ Recommend seeking multiple bids from reputable and qualified roofing contractors for repairs to the home's roof.

☒ The attic's insulation is not up to industry standards of ten to fourteen inches. Recommend adding insulation, as desired, to assist with energy efficiency.



☒☐☐☒ E. Walls (Interior and Exterior)

Comments:
☒ Observed cracks in the home's stone/brick veneer consistent with settling/expansion-contraction of building materials. Recommend filling with a weather-proof sealant/caulk to prevent water/insect intrusion into the wall space.

I = Inspected

NI = Not Inspected

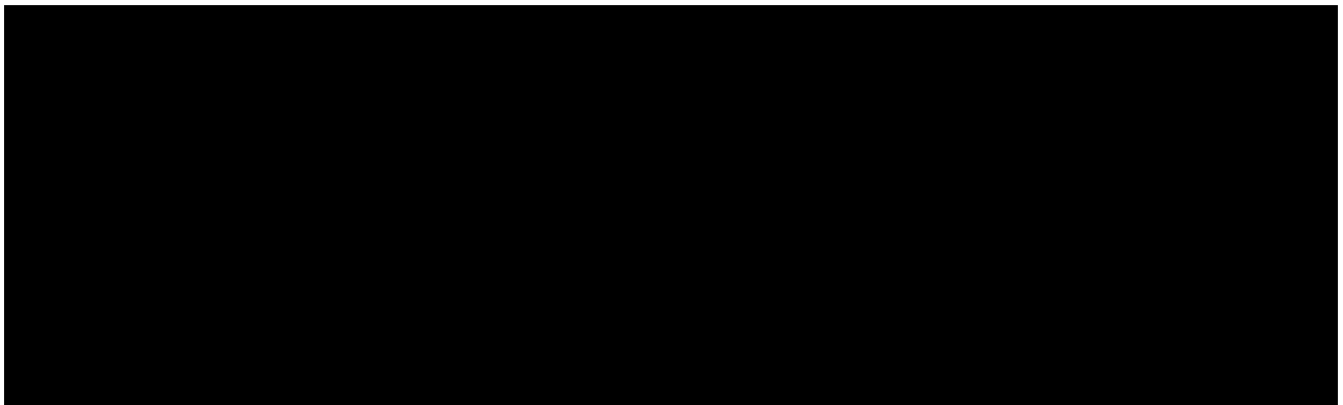
NP = Not Present

D = Deficient

I	NI	NP	D



☒ Noted damaged/missing siding (gaps, penetrations, or fastenings) in multiple locations. Recommend repairs to prevent water/insect/rodent entering the wall space.




I = Inspected

NI = Not Inspected

NP = Not Present

D = Deficient


I	NI	NP	D
---	----	----	---

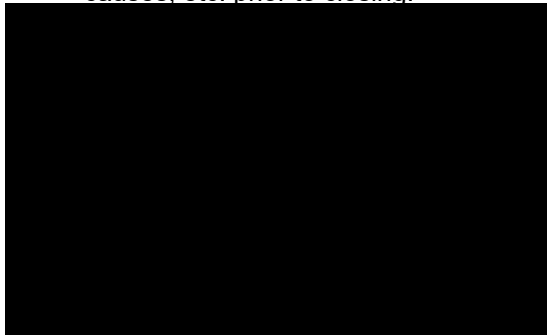
 Recommend removing foliage at least three feet away from the home's siding to deter insect/moisture entering the home.



☒☐☐☒ F. Ceilings and Floors


Comments:

 Noted signs of previous repairs to the home's ceiling. Recommend consulting with seller regarding history, causes, etc. prior to closing.



☒☐☐☒ G. Doors (Interior and Exterior)

Comments:

 Many of the home's doors' jambs/hardware had been altered. Recommend repairs as desired.

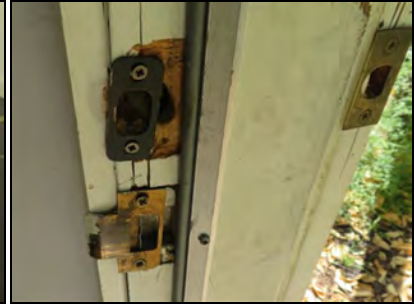
I = Inspected

NI = Not Inspected

NP = Not Present

D = Deficient

I NI NP D



☒ ☐ ☐ ☒ H. Windows

Comments:

☒ Many of the home's windows were inoperable, either stuck/painted shut or closed with fasteners. Recommend a general contractor for repairs as windows are points of emergency egress and should be operable.



Observed damaged/missing screens on multiple windows. Recommend repairs/replacement as desired.

☐ ☐ ☒ ☐ I. Stairways (Interior and Exterior)

Comments:

☒ ☐ ☐ ☐ J. Fireplaces and Chimneys

Comments:

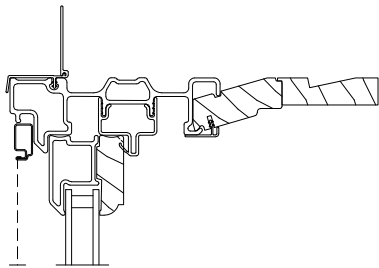
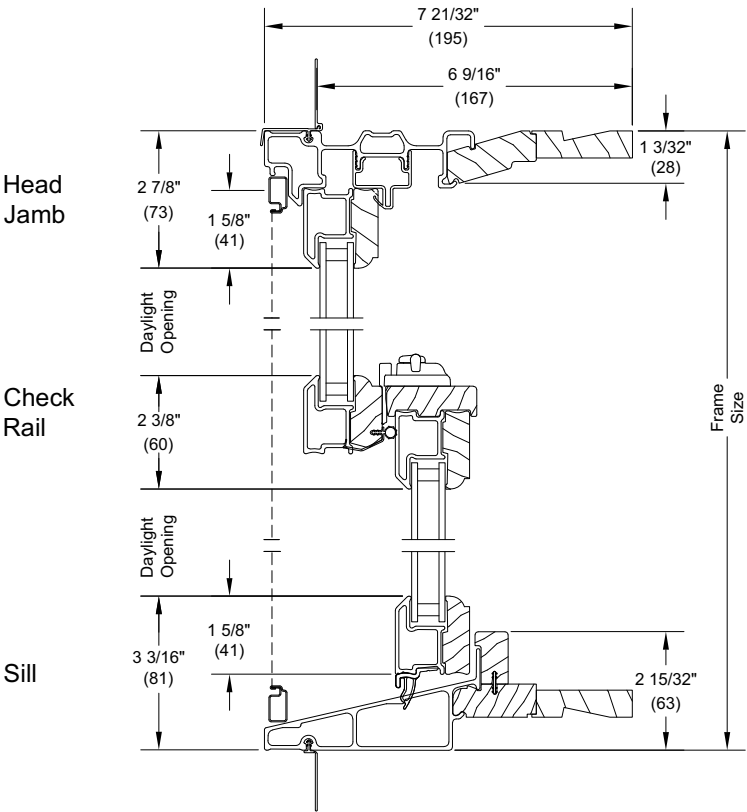
☒ The chimney was blocked with masonry and should not be used.

1914 West Kings Highway
Certificate of Appropriateness Application
Marvin Elevate - Product Sections
Submitted: 5/12/2025

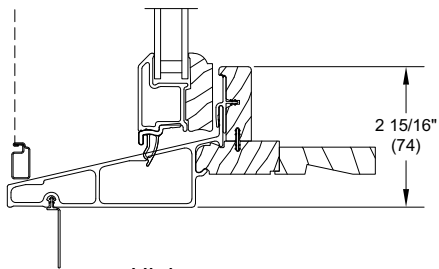


Section Details: Operating - Double Hung (6 9/16" Jambs)

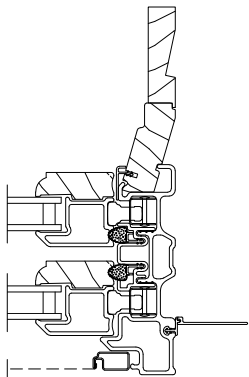
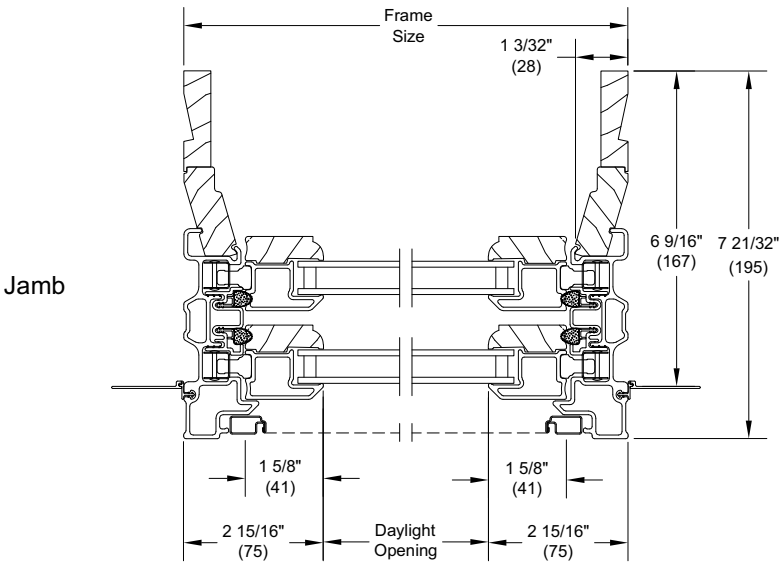
Scale: 3" = 1' 0"



Head Jamb
Interior Painted
Units Only



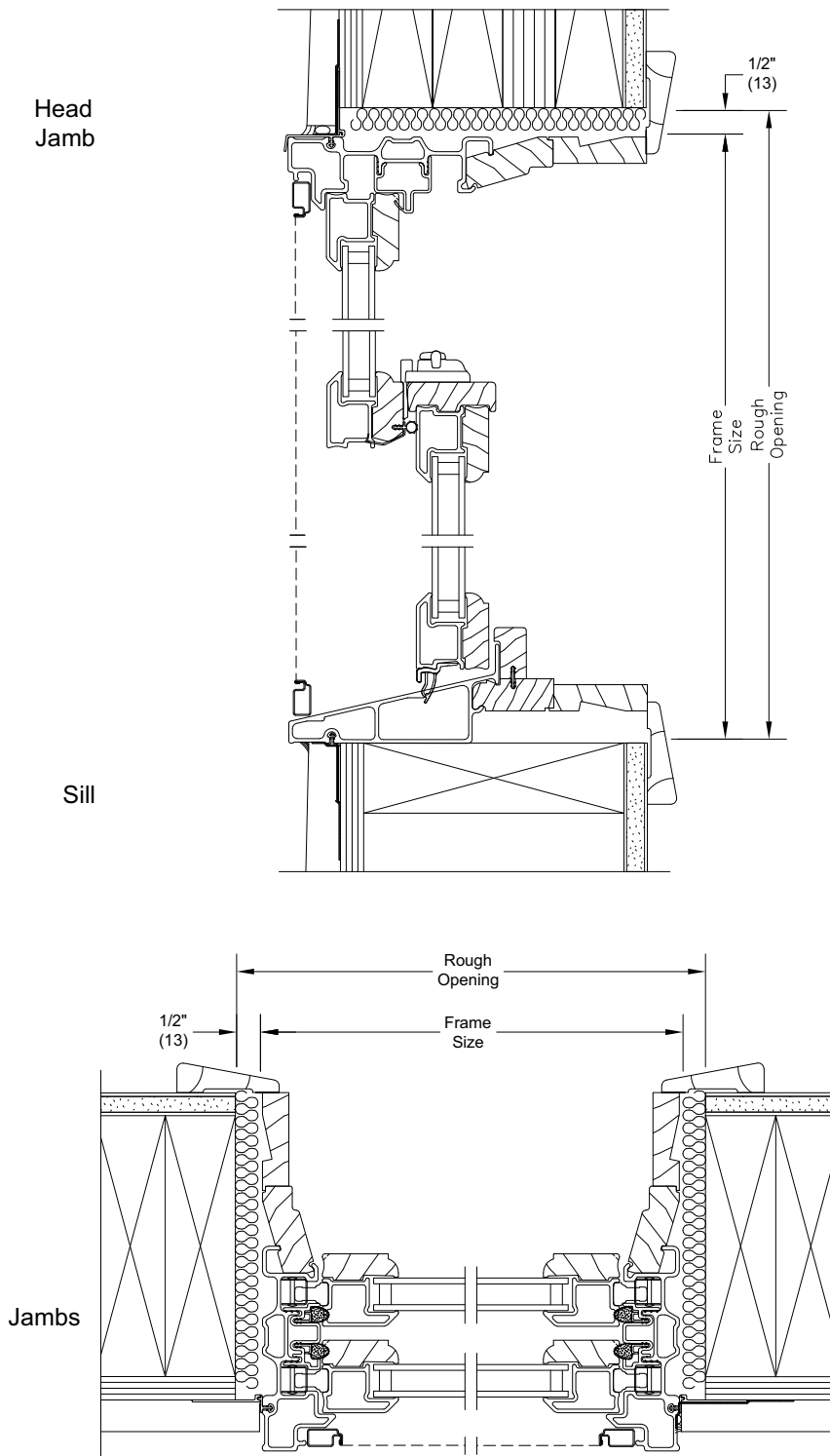
High
Performance
Sill



Jamb
Interior Painted
Units Only

Section Details: Installation Suggestion - Wood Siding With 2x6 Frame Construction

Scale: 1 1/2" = 1' 0"



NOTES:

- The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.
- Picture unit installation similar. Picture units may require both nailing fin and installation brackets.
- Double Hung unit shown with jamb extension.

1914 West Kings Highway
Certificate of Appropriateness Application
Marvin Elevate - Product Brochure
Submitted: 5/12/2025



ELEVATE

MARVIN ELEVATE COLLECTION



THE MARVIN PORTFOLIO

The Marvin portfolio consists of five product lines organized into three distinct collections defined by the degree of design detail and customization opportunities.

Marvin windows and doors offer exceptional performance, energy efficiency, low maintenance, and quality you can see, feel, and touch to help bring your vision to life.



ULTIMATE

Most extensive selection of features, options, and product types



MODERN

Design flexibility in a purely modern aesthetic available exclusively at Marvin Modern dealers



COASTLINE

Custom windows and doors for high velocity hurricane zones in the coastal Southeast



ELEVATE

Wide range of options and product types



ESSENTIAL

Curated options and product types

MARVIN SIGNATURE® COLLECTION

MARVIN ELEVATE® COLLECTION

MARVIN ESSENTIAL™ COLLECTION

INTERIORS	WOOD 6 species options + custom 2 painted or primed options 6 stains + clear coat	EXTRUDED ALUMINUM 5 color options	EXTRUDED ALUMINUM 6 solid colors, 4 woodgrain finishes	WOOD Bare pine, painted Designer Black, painted White, or clear coat	FIBERGLASS 4 color options
EXTERIORS	EXTRUDED ALUMINUM 19 colors + custom OR WOOD 3 species + custom	FIBERGLASS 5 color options	EXTRUDED ALUMINUM 6 solid colors, 4 woodgrain finishes	FIBERGLASS 6 color options	FIBERGLASS 6 color options
SIZING	Standard + custom sizing for replacement, remodeling, or new construction	Custom sizing for remodeling or new construction	Custom sizing for replacement, remodeling, or new construction	Standard + custom sizing for replacement, remodeling, or new construction	Standard + custom sizing for replacement, remodeling, or new construction
HARDWARE	Extensive selection including Marvin Gallery Hardware	Minimalist hardware for modern design aesthetic	Available in multiple styles, sizes, and finishes to complement the window + door aesthetics	Available in 6 finish options with 2 door handle styles	Available in 6 finish options with 1 door handle style
COASTAL + WATERFRONT	Hurricane Impact Zones 3 and 4, + PG 50 Products		All products rated for High Velocity Hurricane Zone (IZ4)	Hurricane Impact Zone 3, + PG 50 Products	

Marvin Elevate® collection

WINDOWS



Casement windows in Bronze

DOUBLE HUNG



Double Hung windows in Designer Black with Matte Black hardware



Double Hung window in White with White hardware

DOUBLE HUNG

- Equipped with a standard full screen; optional half screen is available.
- Tilt latches are ergonomically designed and easy to operate, making tilting and cleaning effortless.
- Sash lock provides a positive detent, reassuring the user that the window is either locked or unlocked.
- Up to PG50 performance rating.
- Equal, Cottage, and Reverse Cottage sash provide a variety of looks and checkrail heights.
- Available in standard and special sizes up to 4 feet 6 inches wide by 7 feet high.
- Coordinating Picture and Transom windows also available.
- Double Hung Insert option features ¾ inch insert replacement frame with through jamb installation and up to PG40 performance rating.



DOUBLE HUNG



DOUBLE HUNG INSERT



Available with IZ3
(Excludes Insert option)

Marvin Elevate® collection

PRODUCT OPTIONS



Double Hung and Direct Glaze windows in Bronze

DESIGN OPTIONS

INTERIOR AND EXTERIOR FINISHES

Elevate windows and doors features rich pine interiors and a durable, strong, and fully paintable Ultrex® fiberglass exterior, featuring our AAMA-verified acrylic finish for low-maintenance and superior aesthetics. Elevate Round Tops include the extruded aluminum exterior finished in commercial-grade paint for superior resistance to fading and chalking.

WOOD INTERIOR FINISHES

BARE PINE
Wood comes bare and ready to be painted or stained

CLEAR COAT
Wood is finished in the factory with a clear coat

PAINTED WHITE
Factory painted

PAINTED DESIGNER BLACK
Factory painted

FIBERGLASS EXTERIOR COLORS

STONE WHITE

CASHMERE

PEBBLE GRAY

BRONZE

GUNMETAL

EBONY

DIVIDED LITES

GRILLES-BETWEEN-THE-GLASS (GBG)

Available in several popular lite cut options for a classic divided lite look and easy glass cleaning. Available in Stone White, Bronze, and Ebony interior and Stone White, Cashmere, Pebble Gray, Bronze, Gunmetal or Ebony exterior.*

SIMULATED DIVIDED LITE (SDL)

Bars permanently adhered to both sides of the glass for a more authentic look. Available with or without spacer bar and in several lite cut options.



GRILLES-BETWEEN-THE-GLASS



SIMULATED DIVIDED LITE

GLASS OPTIONS

Glass is available with Standard Dual Pane or optional Triple Pane on select products. Available with Low E1, Low E2, Low E3, and Low E3/ERS insulated glass with argon gas.* Options include glazing for sound abatement (STC/OITC), high altitudes, and California fire zones. Laminated glass is also offered in products designed specifically for hurricane zones.

DECORATIVE GLASS

OBSCURE

GLUE CHIP

RAIN

REED

NARROW REED

FROST

BRONZE TINT

GRAY TINT

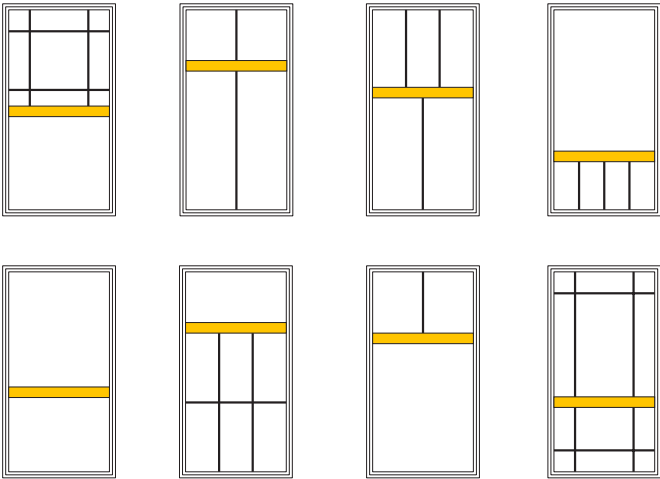
GREEN TINT

SIMULATED CHECKRAIL

Simulated Checkrail is the perfect solution when aesthetics call for the beauty of a double hung, but operation, egress, or performance demand another solution.

You specify placement of the horizontal simulated checkrail bar and the lite cut patterns above and below.

These illustrations offer a sampling of 7/8" Simulated Divided Lite (SDL) patterns that can be selected in combination with the 2 1/2" Simulated Checkrail on Casement, Awning, Glider, Direct Glaze Rectangle, Picture windows, and all Elevate doors.



* Not available in polygons except direct glaze rectangles.

* Argon gas not available in high elevations where capillary tubes are required.

1914 West Kings Highway
Certificate of Appropriateness Application
Marvin Elevate - Technical Specifications
Submitted: 5/12/2025



Elevate and Essential Product Performance

How to Use this Manual.....	1
Certification and Code Information.....	2
NFRC Certification Program.....	3
Building Categories and Design Factors	4
NFRC Label.....	6
ENERGY STAR® Program.....	7
ENERGY STAR® Program - United States	8
ENERGY STAR® Most Efficient - United States	9
ENERGY STAR® Program - Canada	10
ENERGY STAR® Most Efficient - Canada	11
Wind Speed Map - ASCE 7-16	13
Product Design Pressures - Elevate (Standard Product).....	14
Product Design Pressures - Elevate (IZ3 Product).....	15
Product Design Pressures - Essential.....	16
Product Rating Codes / Performance Classes/Design Pressure Ratings	17
STC/OITC Glass Values - Elevate	18
STC/OITC Glass Values - Elevate (Doors)	19
STC/OITC Glass Values - Essential.....	20
STC/OITC Glass Availability - Elevate Casement and Awning	21
STC/OITC Glass Availability - Elevate Casement and Awning Picture/Transom.....	22
STC/OITC Glass Availability - Elevate Double Hung	23
STC/OITC Glass Availability - Elevate Double Hung Picture	24
STC/OITC Glass Availability - Elevate Double Hung IZ3	25
STC/OITC Glass Availability - Elevate Double Hung Picture IZ3.....	26
STC/OITC Glass Availability - Elevate Glider.....	27
STC/OITC Glass Availability - Elevate Polygon	28
STC/OITC Glass Availability - Elevate Round Top IZ3	29
STC/OITC Glass Availability - Elevate Bifold Doors.....	30
STC/OITC Glass Availability - Elevate Sliding Doors.....	31
STC/OITC Glass Availability - Elevate Swinging Doors.....	32
STC/OITC Glass Availability - Elevate Casement and Awning Narrow Frame	33
STC/OITC Glass Availability - Elevate Casement Narrow Frame Picture/Transom.....	34
STC/OITC Glass Availability - Elevate Double Hung Insert	35
STC/OITC Glass Availability - Elevate Double Hung Insert Picture	36
STC/OITC Glass Availability - Essential Casement and Awning.....	37
STC/OITC Glass Availability - Essential Casement Picture/Transom.....	38
STC/OITC Glass Availability - Essential Double Hung and Single Hung	39
STC/OITC Glass Availability - Essential Double Hung Picture.....	40
STC/OITC Glass Values - Essential Polygon.....	41
STC/OITC Glass Values - Essential Glider	42
STC/OITC Glass Values - Essential Sliding Patio Door.....	43
Ultrex and Capillary Tube Information.....	44
Ultrex, Refinishing Information	45
General Painting and Staining Instructions, Wood Preservative Information.....	46
Abbreviations.....	47
Glossary of Terms	48

How to Use this Manual

Manual Objectives:

The content of this manual will aid in understanding the wide variety of standards, codes, and regulations governing the use of windows and doors. Consumer-friendly information on a variety of highly-rated Marvin products along with fenestration standards, including glazing, Ultrex® finishes, hardware, and overall product performance can be used to help your clients understand what products best fit their project needs.

Intended Audience:

This manual is primarily intended for professionals who:

- Provide shop drawings, sales and service to customers
- Write job specifications
- Need further product knowledge

Sources of Additional Help:

- Our Website: www.marvin.com
- CSI Specifications
- Installations Instructions
- Warranty Information
- Care and Maintenance
- Owner's Manual
- Parts Manual

The online version of this document is the document of record and will be the most current version. Specifications and technical data are subject to change without notice.

Product Notes:

- Numbers in parentheses () following measurements are metric equivalents in millimeters rounded to the nearest whole number.
- Allow 1/16" (2) tolerance on all measurements.
- For accessories, dimensions and applications, see the Accessories chapter of this manual.
- All measurements for Rough Opening, Masonry Opening, Frame Size, Casing OM are rounded to the nearest 1/16th of an inch.
- Rounded fraction for Glass Size, Daylight Opening are to the nearest 32nd of an inch to be consistent with the above.
- E = (Egress): Window that meets the requirements for egress. Please note that the top of the sill must be no more than 44" (1118) from the floor. Code restrictions may vary depending on your local building codes.
- T = (Tempered): For safety and/or code requirements, frame sizes greater than 71 1/8" (2924) tall, Marvin recommends tempered glass. Units with Frame 25.2 sq. ft. and larger may require tempered glass.

Trademark Information:

The following trademarks are referenced in this manual:

- E-Gard® is a registered trademark of Amesbury/Truth Hardware

How to Submit Suggestions:

Comments or suggestions regarding this publication can be directed to: Technical Publications, Marvin, P.O. Box 100, Warroad, MN 56763 or call (218) 386-1430 or 1-800-346-5044.

Certification and Code Information

Marvin meet or exceed the following industry and federal performance standards

FGIA Fenestration Glazing Industry Alliance

NOTE: AAMA documents referenced are FGIA publications

AAMA American Architectural Manufacturers Association

ASCE American Society of Civil Engineers

ANSI American National Standards Institute

ASTM American Society of Testing Materials

CSA Canadian Standards Association

A – Air Leakage

B – Water Leakage

C – Wind Resistance

Minimum Requirement = A1, B1, C1

FenCan Fenestration Canada

FHA Federal Housing Administration

HUD Housing and Urban Development

IGCC Insulating Glass Certification Council

IGMAC Insulating Glass Manufacturers Association of Canada

NFRC National Fenestration Rating Council

WDMA Window and Door Manufacturers Association

SIGMA Sealed Insulating Glass Manufacturers Association

SMA Screen Manufacturers Association

Marvin products have been tested and passed the following applicable test procedures referenced by AAMA, ANSI, CMBISO, CWDMA, IGCC, SIGMA, SMA, and WDMA.

AAMA 624 Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Fiber Reinforced Thermoset Profiles

AAMA 1304 Voluntary Specification for Determining Forced Entry Resistance of Side-Hinged Door Systems

WDMA I.S.4 Industry Specification for Preservative Treatment for Millwork.

AAMA/WDMA/CSA 101/I.S.2/A440 North American Fenestration Standard/Specification for windows, doors, and skylights.

ASTM C1036 Standard Specification for Flat Glass

ASTM E283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls and Doors under specified pressure differences across the specimen.

ASTM E2068 Standard Test Method for Determination of Operating Force of Sliding Windows and Doors

ASTM E330 Standard Test Method for Structural Performance of Exterior Windows, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference

ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference

ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements

ASTM E547 Standard Test Method for Water Penetration of Exterior Windows, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference

ASTM E1886 Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors and Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials

ASTM E1996 Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Impact Protective Systems Impacted by Wind Borne Debris in Hurricanes

ASTM F588 Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact.

ASTM F842 Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies, Excluding Glazing Impact.

ASTM E2190 Standard Specification for Insulating Glass Unit Performance and Evaluation

ASTM F2090 Standard Specification for Window Fall Prevention Devices with Emergency Escape (Egress) Release Mechanisms

SMA 1201 Specification for Insect Screen for Windows, Sliding Doors and Swinging Doors.

AAMA/WDMA/CSA 101/I.S.2/A440-22 NAFS - North American Fenestration Standard/Specification for windows, doors and skylights.

WDMA I.S. 11 Industry Standard for Analytical Method for Design Pressure (DP) Ratings of Fenestration Products

NFRC Certification Program

Who is the NFRC?

The National Fenestration Rating Council (NFRC) is an independent non-profit organization that may be made up of manufacturers, builders, designers, specifiers, code officials, utilities, regulators and consumers formed to establish a national energy performance rating system for fenestration products.

Sanctioned by the federal government under the Energy Policy Act of 1992, NFRC will, in addition to U-factor (thermal transmission) and SHGC (Solar Heat Gain Coefficient), rate other performance metrics such as Condensation Resistance (CR) or Condensation Index (CI), Visible Transmittance (VT), etc. .

It is important to note that the NFRC is not setting minimum performance standards or mandating specific performance levels. NFRC has established a single rating system with a rigorous process for comparing product performance. By certifying and labeling their products in accordance with the NFRC program, manufacturers demonstrate their commitment to provide accurate energy performance information.

Whole Product Performance

NFRC ratings are based on “whole product performance”. Although a window, door, or skylight may have high performance glazing, its overall performance may be reduced by a poorly performing frame. Similarly, a very energy efficient frame may be wasted on ineffective glazing and sealing. Whole product performance helps builders and consumers compare products of different construction and attributes directly.

When reading a NFRC Label, it is important to remember that the U-Factor, Solar Heat Gain Coefficient (SHGC), and Visible Transmittance (VT), values represent the whole window, not the center-of-glass

NFRC Labeling

Certification and Labeling Process

Window and door manufacturers attempting to certify their fenestration products are required to have them evaluated by two different types of independent NFRC accredited laboratories.

1. The first type of laboratory is a computer simulation lab which evaluates a window or door's thermal efficiency by computer simulation programs. The computer program takes into account the product's frame and glazing system attributes and derives overall thermal performance (U-Factor, SHGC, VT).
2. The second type of laboratory is a physical testing laboratory which takes an actual product and evaluates it in a thermal chamber. The physical test lab will also derive overall thermal performance (U-Factor, SHGC, VT).

Window Label must include U-Factor, Visible Transmittance, Solar Heat Gain Coefficient, and Air Leakage. In addition, NFRC has a Condensation Rating that is optional for manufacturers to include.

- U-Factor: Measures how well a product can keep heat from escaping from the inside of a room. The lower the number, the better a product is at keeping keep in.
- Visible Transmittance: Measures how well a product is designed to effectively light your home with daylight. The higher the number, the more natural light is let in.
- Solar Heat Gain Coefficient: Measures how well a product can resist unwanted heat gain, which is especially important during summer cooling season. The lower the number, the less you'll spend.
- Air Leakage: Measures how much air will enter a room through a product. The lower the number, the fewer drafts you'll experience.
- Condensation Rating: Measures how well a product resists condensation. The higher the number, the better.

For additional regional information, please contact your local Marvin representative.

Building Categories and Design Factors

Design Wind Pressure (PSF) - ASCE 7-10												
Location	Zone	Effective Wind Area (SF)	Basic Wind Speed V (MPH)									
			110		115		120		125		130	
Walls	4	10	13	-14	14	-15	16	-17	17	-18	18	-20
		50	11	-13	12	-14	14	-16	15	-17	16	-18
		500	9	-10	9	-11	10	-12	11	-13	12	-14
			135		140		145		150		155	
		10	20	-21	21	-23	23	-25	24	-26	26	-28
		50	17	-20	18	-21	20	-23	21	-24	23	-26
		500	13	-15	14	-16	15	-17	16	-18	17	-19
			160		165		170		175		180	
		10	28	-30	29	-32	31	-34	33	-36	35	-38
		50	24	-28	26	-29	27	-31	29	-33	31	-35
		500	18	-21	19	-22	21	-23	22	-25	23	-26
Walls	5		110		115		120		125		130	
		10	13	-18	14	-19	16	-21	17	-23	18	-24
		50	11	-15	12	-16	14	-18	15	-19	16	-21
		500	9	-13	9	-14	10	-16	11	-17	12	-18
			135		140		145		150		155	
		10	20	-26	21	-28	23	-30	24	-33	26	-35
		50	17	-22	18	-24	20	-26	21	-27	23	-29
		500	13	-20	14	-21	15	-23	16	-24	17	-26
			160		165		170		175		180	
		10	28	-37	29	-39	31	-42	33	-44	35	-38
		50	24	-31	26	-33	27	-35	29	-37	31	-39
		500	18	-28	19	-29	21	-31	22	-33	23	-35

Metric Conversions: 1 PSF = 47.9 pascals

1 SF = 0.0929 SM

1 MPH = 0.447 M/S

NOTE:

- Design wind pressures above represent the net pressure (sum of external and internal pressures) applied normal to all surfaces.
- Values shown are for exposure B. For other exposures, multiply values shown by the following factor: exposure C: 1.40 and exposure D: 1.66
- Linear interpolation between values of tributary area is permissible.
- Values shown are for an importance factor I = 1.0. For other values of I, multiply values shown by I.
- Plus and minus signs signify pressure acting toward and away from the exterior surface, respectively.
- All component and cladding elements shall be designed for both positive and negative pressures shown in the table.
- Notation:
 - 10 percent of least horizontal dimension or 0.4 h, whichever is smaller, but not less than 40% of least horizontal dimension or 3 ft (914).
 - Mean roof height in feet (meters).

BUILDING WIND LOADS

The information presented is provided to simplify the determination of structural wind load requirements of ASCE 7-16. ASCE 7-16 may not have local precedence. Please refer to your local codes for design pressures that apply to your area.

ASCE 7-16 Design wind load tables are based on the following:

- Wind loads tables are based on Exposure B.
- Tributary area of the structural elements is less than or equal to 10 sq. ft.
- Does not apply to roof areas.
- Roof slope is greater than 10 degrees.
- Building is less than or equal to 30 (9144) feet tall.
- The building is completely enclosed, all windows and doors are designed to withstand full wind load.
- Applicable to components and cladding, which include windows and doors.

If the tributary area is greater than 10 sq. ft. or if the roof slope is less than 10 degrees, the design wind loads from this table may be conservative. However, if the building has openings in the elevation which may allow wind to pass through, the design values in the tables may be too low. For these cases, ASCE 7-16 should be consulted.

NOTE: Windows and doors designed to resist wind loading are not considered openings.

Building Categories and Design Factors**EXPOSURES**

Exposure B: Urban and suburban areas, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single family dwellings or larger. For buildings with a mean roof height of less than or equal to 30ft (9.1m). Exposure B shall apply where the ground surface roughness, as defined by Surface Roughness B, prevails in the upwind direction for a distance greater than 1,500ft (457m). For buildings with a mean roof height greater than 30ft (9.1m), Exposure B shall apply where Surface Roughness B prevails in the upwind direction for a distance greater than 2,600ft (792m) or 20 times the height of the building, whichever is greater.

Exposure C: Open terrain with scattered obstructions having heights generally less than 30 ft. (9.1 m). This category includes flat open country, grasslands and shorelines in hurricane prone regions.

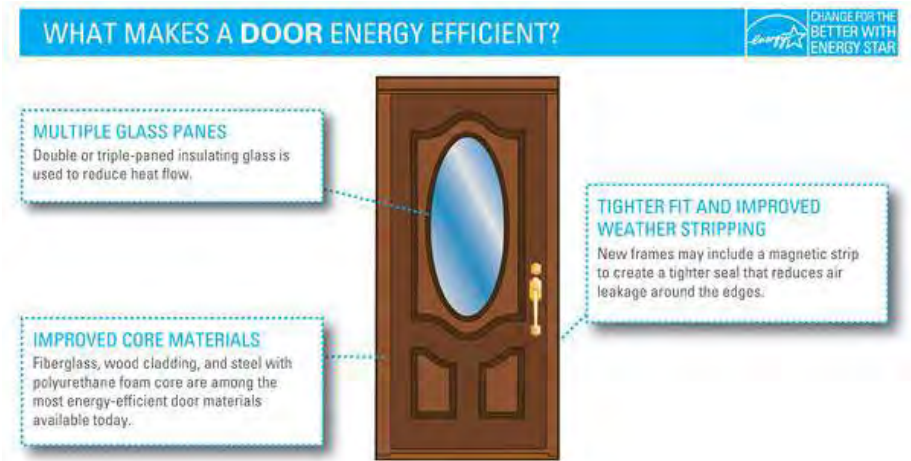
Exposure D: Flat, unobstructed areas and water surfaces. This category includes smooth mud flats, salt flats, and unbroken ice. Shall apply where the ground surface roughness, as defined by Surface Roughness D, prevails in the upwind direction for a distance greater than 5,000ft (1,524m) or 20 times the building height, whichever is greater. Exposure D shall also apply where the ground surface roughness immediately upwind of the site is B or C, and the site is within a distance of 600ft (183m) or 20 times the building height, whichever is greater, from the Exposure D condition as defined in the previous sentence. For a site located in the transition zone between exposure categories, the category resulting in the largest wind forces shall be used.

INSTRUCTIONS:

- Determine the Basic Wind Speed (V) in mph from Design Wind Load Table based on the location of the building.
- Determine the Roof Height (h) of the building in feet. This is the mean height of the roof above the lowest grade adjacent to the building. Eave height may be used for roof slope of less than 10 degrees.
- Determine least width (B) of the building in feet. This is defined as the shortest distance between two parallel lines which contain the entire building floor plan.
- Determine high pressure outside corner loading zones (a) in feet from building illustration on following page. $a = (0.10) \times (B)$ or $a = (0.4) \times (h)$, whichever is smaller, but not less than either $(0.04) \times (B)$ or 3 feet (76).
- Determine design pressure from Design Pressure Table.
- All design pressure values are assumed for buildings with an importance Factor Category of II. See Design Factors chart on following page.
- If category III, IV is more appropriate then multiply the design pressure by the corresponding Design Factor - See Design Factor chart.

WDMA

ENERGY STAR® Program



ENERGY STAR® Program - United States

www.energystar.gov

About ENERGY STAR®

ENERGY STAR® is a program of the U.S. Environmental Protection Agency helping us all save money and protect the environment through energy efficient products and practices.

Residential Windows, Doors and Skylights

Thanks to advances in technology, today's ENERGY STAR® certified windows, doors, and skylights offer greater savings than ever before. Just look for the ENERGY STAR® label.

Save energy and money.

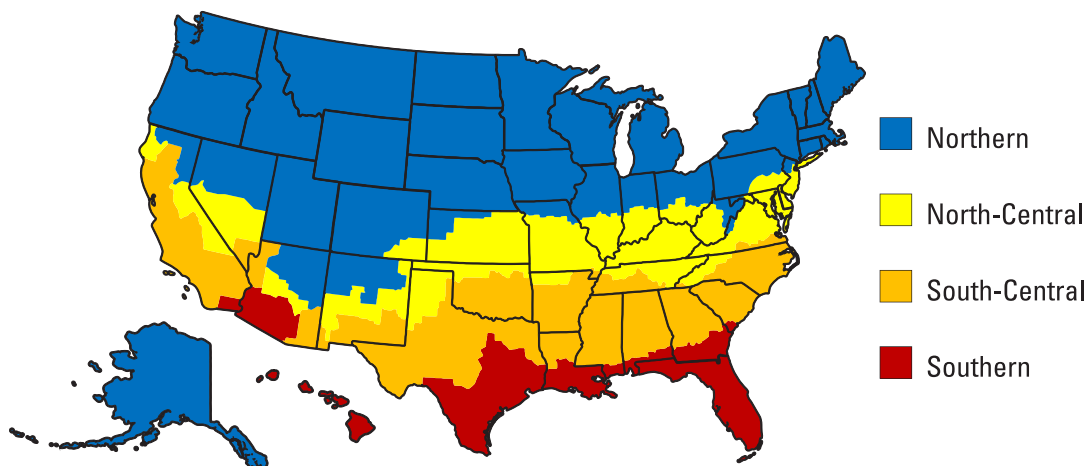
Replacing old windows with ENERGY STAR® certified windows lowers household energy bills. Lower energy consumption also reduces greenhouse gas emissions from power plants and shrinks a house's carbon footprint.

Current Specification Effective Date: October 23, 2023.

As of October 23, 2023, ENERGY STAR® certified windows, doors, and skylights meet new performance levels, see below.

Windows and skylights must meet NFRC U-Factor and, where applicable, Solar Heat Gain Coefficient (SHGC) requirements based on climate zone. Doors must meet U-Factor and, where applicable, SHGC requirements based on glazing level (amount of glass).

At this time, many Marvin product lines are certified for the ENERGY STAR® program. For more specific information, please refer to the individual product sections in your Marvin catalog.



WINDOWS			
Climate Zone	U-Factor ¹	SHGC ²	
Northern	≤ 0.22	≥ 0.17	Prescriptive
	= 0.23	≥ 0.35	Equivalent Energy Performance
	= 0.24		
	= 0.25	≥ 0.40	
	= 0.26		
North-Central	≤ 0.25	≤ 0.40	
South-Central	≤ 0.28	≤ 0.23	
Southern	≤ 0.32	≤ 0.23	

Air Leakage ≤ 0.3 cfm/ft²
¹ Btu/h-ft²-°F
² Solar Heat Gain Coefficient

DOORS			
Glazing Level	Climate Zone	U-Factor ¹	SHGC ²
Opaque	All Zones	≤ 0.17	No Rating
≤ ½-Lite	All Zones	≤ 0.23	≤ 0.23
> ½-Lite	Northern	≤ 0.26	≤ 0.40
	North-Central		
	South-Central	≤ 0.28	≤ 0.23
	Southern		

Air Leakage for Sliding Doors ≤ 0.3 cfm/ft²
 Air Leakage for Swinging Doors ≤ 0.5 cfm/ft²
¹ Btu/h-ft²-°F
² Solar Heat Gain Coefficient

ENERGY STAR® Most Efficient - United States

The ENERGY STAR® Most Efficient is an extension of the ENERGY STAR® brand and is designed to recognize and advance the most efficient products among those that are certified to ENERGY STAR®. This recognition is for specific categories and awarded for a specific year.

Marvin has long been a leader in providing our customers with energy efficient options. We are pleased to announce that Marvin meets the US ENERGY STAR® Most Efficient criteria with over 40 product types and 27,000+ glazing options.

MOST EFFICIENT CRITERIA

Climate Zone	U-factor	SHGC
Northern	≤ 0.20	≥ 0.20
North-Central	≤ 0.20	≤ 0.40
South-Central	≤ 0.20	≤ 0.23
Southern	≤ 0.21 $= 0.22$	≤ 0.23 ≤ 0.21

As more product and glazing options are certified throughout the year, additional qualifying options will become available. The EPA has set up a page on its website where consumers can go to find all of the Marvin options that meet the Most efficient criteria.

To view the latest listing of Most Efficient-qualifying products, click [here](#).



ENERGY STAR® Program - Canada

This technical specification determines how residential windows, doors, and skylights sold in Canada are certified for the ENERGY STAR® program. This specification is issued by Natural Resources Canada (NRCAN). NRCAN has been authorized by the U.S. Environmental Protection Agency (EPA) to promote and administer the ENERGY STAR name and symbol in Canada. A product must meet this specification in order to be promoted as ENERGY STAR certified in Canada by its manufacturer or authorized agent. Manufacturers must also sign a Fenestration Administrative Arrangement with NRCAN.

Performance metrics

U-Factor: The heat transfer per time per area and per degree of temperature difference in $W/m^2 \cdot K$ ($Btu/h \cdot ft^2 \cdot ^\circ F$). The U-factor multiplied by the interior-exterior temperature difference and by the projected fenestration product area yields the total heat transfer through the fenestration product due to conduction, convection, and long-wave infra-red radiation. A U-factor in $Btu/h \cdot ft^2 \cdot ^\circ F$ multiplied by 5.678263 converts the value to $W/m^2 \cdot K$. The U-factor in $Btu/h \cdot ft^2 \cdot ^\circ F$ shall conform with Table 1 before the conversion to $W/m^2 \cdot K$.

Solar heat gain coefficient (SHGC): The ratio of the solar heat gain entering the space through the fenestration product to the incident solar radiation.

Air leakage: the flow of air that passes through fenestration products in $L/s \cdot m^2$. Air leakage infiltration is the flow of air into the building envelope and exfiltration is the flow of air out of the building envelope. An air leakage in cfm/ft^2 multiplied by 5.08 converts the value to $L/s \cdot m^2$. The air leakage value in cfm/ft^2 shall conform with Table 1 before the conversion to $L/s \cdot m^2$.

Energy rating (ER): a unitless value derived from a formula that balances heat loss (U-factor), air leakage loss and potential passive solar gain of a fenestration product. The ER is applied to fenestration systems intended to be installed in a vertical orientation in low-rise residential buildings. The simplified ER equation is as follows:

$$ER = (57.76 \times SHGC_w) - (21.90 \times U_w) - (1.97 \times L_{75}) + 40 \text{ where}$$

- i. $SHGC_w$ = fenestration system solar heat gain coefficient
- ii. U_w = fenestration system U-factor (W/m^2)
- iii. L_{75} = fenestration system air leakage rate at a pressure difference of 75 Pa, established in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 (North American Fenestration Standard) in $L/s \cdot m^2$. The L_{75} shall be the average of the infiltration and exfiltration measurements.

A complete explanation of the ER equation may be found in the CSA A440.2 Standard.

U-factor Criteria for Residential Windows and Doors

Product	Maximum U-factor $W/m^2 \cdot K$	Maximum U-factor $Btu/h \cdot ft^2 \cdot ^\circ F$
Windows and Doors	1.22	0.21

Alternate ER Criteria for Residential Windows and Doors

Product	Minimum ER (unitless)
Windows and Doors	34

Air Leakage requirements: Fenestration models must have an air infiltration rate and an air exfiltration rate less than or equal to 1.5 $L/s \cdot m^2$.

Marvin options that meet the ENERGY STAR Canada criteria can be viewed in the NRCAN listing for [NRCAN ENERGY STAR Searchable Product List](#).

ENERGY STAR® Most Efficient - Canada**Most Efficient criteria for windows and sliding glass doors 2023**

The window or sliding glass door must:

- be manufactured by an ENERGY STAR Canada Participant
 - be sold in Canada, registered with NRCAN as ENERGY STAR certified and posted on the Canada/NRCAN website
 - meet the labeling section of the *Guidelines for the labeling and promotion of ENERGY STAR certified fenestration products*
 - meet the following specific criteria:
 - A U-factor of $1.05 \text{ W/m}^2 \cdot \text{K}$ ($0.18 \text{ Btu/h} \cdot \text{ft}^2 \cdot ^\circ\text{F}$) or lower
- OR**
- An Energy Rating (ER) of 40 (unitless) or higher

Marvin options that meet the Most efficient criteria can be viewed in the NRCAN listing for [NRCAN Most Efficient Windows and Sliding Glass Doors](#)

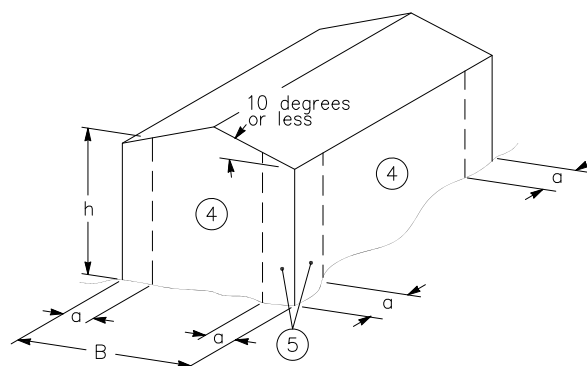


Building Categories and Design Factors

Building Categories	
Category	Nature of Occupancy
I	Building and structures that represent a low hazard to human life in the event of failure, such as agricultural building, certain temporary facilities, and minor storage facilities.
II	Building and structures where primary occupancy is one in which more than 300 people congregate in one area.
III	Building and other structures in which more than 300 people congregate in one area or structures containing sufficient quantities of toxic, explosive, or other hazardous substances including, but not limited to: Petro chemical facilities Fuel storage facilities Manufacturing or storage facilities for hazardous chemicals Manufacturing or storage facilities for explosives
IV	Building and Structures designated as essential facilities including, but limited to: Hospital and other medical facilities having surgery or emergency treatment areas. Fire or rescue and police stations. Structures and equipment in government. Communication centers and other facilities required for emergency responses. Designated shelters for hurricanes.

Design Factors		
Category	Non-Hurricane prone regions and Hurricane prone regions with V = 85/100 mph and Alaska	Hurricane prone regions with V greater than 100 mph
I	0.87	0.77
II	1.00	1.00
III	1.15	1.15
IV	1.15	1.15

NOTE: Hurricane prone regions with V greater than 100 mph



Wind Speed Map - ASCE 7-16

NOTES: Basic Wind Speeds for Occupancy Category II Buildings and Other Structures.

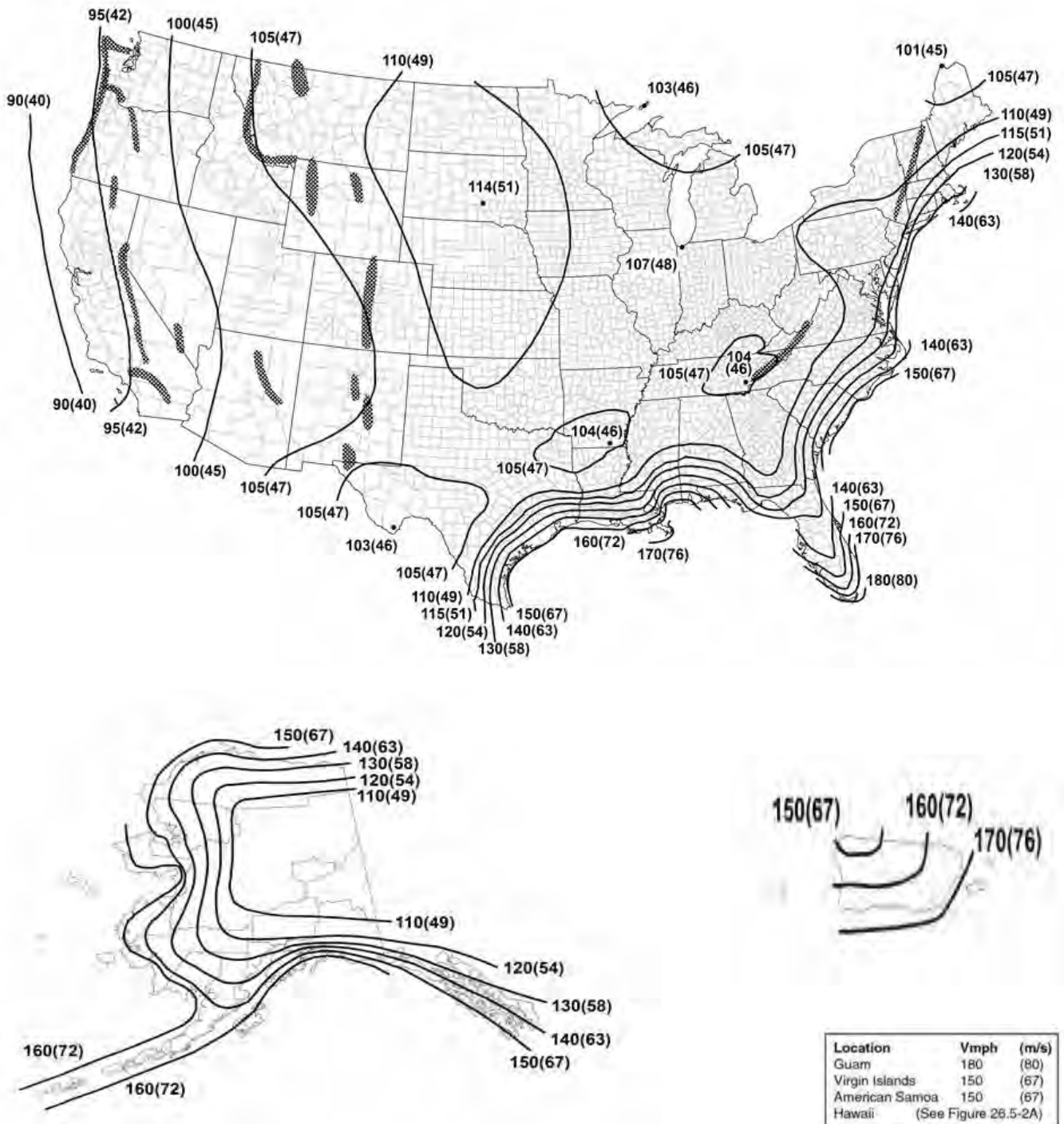
Values are nominal design 3-second gust wind speeds in miles per hour (m/s) at 33ft (10m) above ground for Exposure C category.

Linear interpolation between contours is permitted.

Islands and coastal areas outside the last contour shall use the last wind speed contour of the coastal area.

Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.

Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (Annual Exceedance Probability = 0.00143, MRI = 700 Years).



Product Design Pressures - Elevate (Standard Product)

Elevate Window and Door Product Values - Standard Product			
Product Type	Maximum Frame Size	AAMA/WDMA/CSA 101/I.S.2/A440	CSA-A440
			Air
Elevate Casement - Operable	36" x 71 1/8"	LC-PG50	A3
Elevate Casement - Stationary Units	36" x 71 1/8"	LC-PG50-FW	A3
Elevate Awning - Operable	48" x 47 1/8"	LC-PG50	A3
Elevate Awning - Stationary	48" x 47 1/8"	LC-PG50-FW	A3
Elevate Casement Picture/Transom	72" x 59 1/8"	LC-PG50-FW	FIXED
	56" x 71 1/8"	LC-PG50-FW	FIXED
Elevate Casement Narrow Frame - Operable	36" x 71 1/8"	LC-PG50-C	A3
Elevate Awning Narrow Frame - Operable	48" x 47 1/8"	LC-PG50-AP	A3
Elevate Casement Narrow Frame - Picture/Transom	72" x 59 1/8"	LC-PG50-AP	FIXED
	56" x 71 1/8"	LC-PG50-AP	FIXED
Elevate Double Hung - Operable	53 1/2" x 75 3/4"	LC-PG40-H	A3
	53 1/2" x 83 3/4"	LC-PG35-H	A3
Elevate Double Hung - Cottage	41 1/2" x 67 3/4"	LC-PG40-H	A3
Elevate Double Hung - Operable (HP)	53 1/2" x 75 3/4"	LC-PG50-H	A3
	53 1/2" x 83 3/4"	LC-PG40-H	A3
Elevate Double Hung - Cottage (HP)	41 1/2" x 67 3/4"	LC-PG50-H	A3
Elevate Double Hung - Picture/Transom	53 1/2" x 83 3/4"	LC-PG35-FW	FIXED
	61 1/2" x 75 3/4"	LC-PG40-FW	FIXED
Elevate Double Hung - Picture (HP)	53 1/2" x 83 3/4"	LC-PG40-FW	FIXED
	61 1/2" x 75 3/4"	LC-PG50-FW	FIXED
Elevate Double Hung Insert	42 3/32" x 84"	LC-PG40-H	A2
Elevate Double Hung Insert - Cottage	42 3/32" x 68 1/2"	LC-PG35-H	A2
	54" x 68 1/2"	LC-PG35-H	A2
Elevate Double Hung Insert Picture/Transom	62" x 84"	LC-PG40-FW	Fixed
Elevate Glider - OX / XO	71 1/2" x 59 3/4"	LC-PG30-HS	A2
Elevate Glider - XOX	95 1/2" x 59 3/4"	LC-PG30-HS	A2
Elevate Direct Glaze Polygon	84" x 84"	CW-PG55-FW	FIXED
Elevate Direct Glaze Round Top	71" x 36"	SP-PG50-FW	FIXED
Elevate Aluminum Direct Glaze Round Top	83" x 72 7/8"	LC-PG50-FW	FIXED
Elevate Sliding Patio Door - 2 panels	71" x 82"	R-PG30-SD	A2
Elevate Sliding Patio Door - 3 panels	106 1/2" x 82"	R-PG30-SD	A2
Elevate Inswing Door - 1 panel	36 5/16" x 95 1/2"	LC-PG30-SHD	A2
Elevate Inswing Door - 2 panels	71" x 95 1/2"	LC-PG30-SHD	A2
Elevate Inswing Door - 1 panel (HP)	36 5/16" x 95 1/2"	LC-PG50-SHD	A2
Elevate Inswing Door - 2 panels (HP)	71" x 95 1/2"	LC-PG50-SHD	A2
Elevate Outswing Door - 1 panel	36 5/16" x 96"	LC-PG50-SHD	A3
Elevate Outswing Door - 2 panels	71" x 96"	LC-PG50-SHD	A3
Elevate Sliding French Door - 2 panels	95" x 86"	LC-PG40-SD	A3
	95" x 95 1/2"	LC-PG30-SD	A3
Elevate Sliding French Door - 2 panels (HP)	95" x 95 1/2"	LC-PG50-SD	A3
Elevate Sliding French Door - 3 panels	106 1/2" x 86"	LC-PG40-SD	A3
	142 1/2" x 95 1/2"	LC-PG30-SD	A3
Elevate Sliding French Door - 3 panels (HP)	106 1/2" x 95 1/2"	LC-PG50-SD	A3
Elevate Sliding French Door - 4 panels	189" x 95 1/2"	LC-PG30-SD	A2

Product Design Pressures - Elevate (IZ3 Product)

Elevate Window and Door Products - Impact Zone (IZ3)		
Product Type	Frame Size	AAMA/WDMA/CSA 101/I.S.2/A440
Elevate Casement - Operable	36" x 71 1/8"	LC-PG55-C
Elevate Casement - Stationary Units	36" x 71 1/8"	LC-PG55-C
Elevate Casement Picture/Transom	56" x 71 1/8"	LC-PG55-FW
	72" x 55 1/8"	LC-PG55-FW
Elevate Awning - Operable	48" x 47 1/8"	LC-PG55-AP
Elevate Awning - Stationary	48" x 47 1/8"	LC-PG55-AP
Elevate Double Hung - Operable	41 1/2" x 75 3/4"	LC-PG55-H
Elevate Double Hung - Cottage	41 1/2" x 67 3/4"	LC-PG55-H
Elevate Double Hung - Picture/Transom	53 1/2" x 75 3/4"	LC-PG55-FW
	61 1/2" x 63 3/4"	LC-PG55-FW
Elevate Direct Glaze Polygon	95" x 71 1/2"	LC-PG55-FW
Elevate Outswing French Door - O, X	36 5/16" x 95 1/2"	LC-PG55-SHD
Elevate Outswing French Door - XX	71" x 95 1/2"	LC-PG55-SHD
Elevate Inswing French Door - O, X	36 5/16" x 95 1/2"	LC-PG55-SHD
Elevate Inswing French Door - XO/OX, XX	71" x 95 1/2"	LC-PG55-SHD
Elevate Sliding French Door - XO/OX	95" x 95 1/2"	LC-PG55-SD
Elevate Direct Glaze Round Top Casement Impact	83 1/2" x 83 1/2"	LC-PG55-FW
Elevate Direct Glaze Round Top Double Hung Impact	83 1/2" x 83 1/2"	LC-PG55-FW

Product Design Pressures - Essential

Essential Window and Door Product Values - Standard Product			
Product Type	Max Frame Size	AAMA/WDMA/CSA 101/I.S.2/A40	CSA-A440
			Air
Essential Casement	27 1/2" x 83 1/2"	R-PG40-C	A3
	35 1/2" x 71 1/2"	LC-PG40-C	A3
	35 1/2" x 83 1/2"	LC-PG40-C	A3
Essential Awning	59 1/2" x 47 1/2"	LC-PG40-AP	A3
Essential Casement Picture/Transom	71 1/2" x 71 1/2"	LC-PG40-FW	FIXED
	47 1/2" x 83 1/2"	LC-PG40-FW	FIXED
Essential Double/Single Hung	35 1/2" x 59 1/2"	LC-PG50-H	A3
	47 1/2" x 47 1/2"	LC-PG50-H	A3
	35 1/2" x 77 1/2"	LC-PG40-H	A3
	41 1/2" x 65 1/2"	LC-PG40-H	A3
	47 1/2" x 59 1/2"	LC-PG40-H	A3
	47 1/2" x 77 1/2"	LC-PG30-H	A3
Essential Double Hung - Cottage	47 1/2" x 65 1/2"	LC-PG30-H	A3
Essential Single Hung - Cottage	35 1/2" x 71 1/2"	LC-PG30-H	A3
	47 1/2" x 77 1/2"	LC-PG25-H	A3
Essential Glider - OX/XO	71 1/2" x 41 1/2"	LC-PG40-HS	A3
	71 1/2" x 59 1/2"	LC-PG30-HS	A3
Essential Glider - XOX	95 1/2" x 59 1/2"	LC-PG25-HS	A3
Essential Double Hung Picture/Transom	59 1/2" x 71 1/2"	LC-PG50-FW	FIXED
Essential Direct Glaze Round Top	83" x 83"	CW-PG50-FW	FIXED
	87" x 50"	CW-PG50-FW	FIXED
Essential Sliding Patio Door - 2 panels	95" x 81"	LC-PG30-SD	A3
	95" x 95"	LC-PG25-SD	A3
Essential Sliding Patio Door - 3 panels	107 1/2" x 95 1/2"	LC-PG30-SD	A3
Essential Direct Glaze Polygon	83" x 83"	LC-PG50-FW	A3

Product Rating Codes / Performance Classes/Design Pressure Ratings

Performance Classes (‘08, ‘11, ‘17 Standards)	(psf) Min. DP	(psf) Struct. Press.	(psf) Water Press.	(cfm/ft ²) Max. Air. Inf.
R = Residential	15	22.56	2.92	0.3 (1.57 psf)
LC = Light Commercial	25	37.59	3.76	0.3 (1.57 psf)
CW = Commercial	30	45.11	4.59	0.3 (1.57 psf)
AW = Architectural	40	60.15	7.95	0.1 or 0.3 (6.27 psf)
Metric	(Pa)	(Pa)	(Pa)	(L/s/m ²)
R = Residential	720	1080	140	1.5 (75 Pa)
LC = Light Commercial	1200	1800	180	1.5 (75 Pa)
CW = Commercial	1440	2160	220	1.5 (75 Pa)
AW = Architectural	1920	2880	380	0.5 or 1.5 (300 Pa)

NOTE: AAMA/WDMA chose to establish 2.86 psf as the minimum air pressure used during water testing although it is greater than 15% of the design pressure at DP15.

Performance Grade					
Performance Grade	PG15	PG20	PG25	PG30	PG35
Design Pressure (DP) (psf)	15.04	20.05	25.06	30.08	35.09
Structural Test Pressure (STP) (psf)	22.56	30.08	37.59	45.11	52.63
Water penetration resistance test pressure (psf)	2.92	3.13	3.76	4.59	5.43
Performance Grade	PG40	PG45	PG50	PG55	PG60
Design Pressure (DP) (psf)	40.10	45.11	50.13	55.14	60.15
Structural Test Pressure (STP) (psf)	60.15	67.67	75.19	82.71	90.23
Water penetration resistance test pressure (psf)	6.06	6.89	7.52	8.35	9.19
Metric Performance Grade					
Metric Performance Grade	PG15	PG20	PG25	PG30	PG35
Design Pressure (DP) (Pa)	720	960	1,200	1,440	1,680
Structural Test Pressure (STP) (Pa)	1,080	1,440	1,800	2,160	2,520
Water penetration resistance test pressure (Pa)	140	150	180	220	260
Metric Performance Grade	PG40	PG45	PG50	PG55	PG60
Design Pressure (DP) (Pa)	1,920	2,160	2,400	2,640	2,880
Structural Test Pressure (STP) (Pa)	2,880	3,240	3,600	3,960	4,320
Water penetration resistance test pressure (Pa)	290	330	360	400	440

STC/OITC Glass Values - Elevate

Product Type	Exterior Glazing	Airspace	Interior or Center Glazing	Airspace	Interior Glazing	STC	OITC	Additional Information
Elevate Casement and Awning								
ELCA	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	28	24	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	32	28	
	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	28	24	Tripane
	1/8" (3.1)	5/16" (7.5)	9/32" (6.9) PVB laminate	--	--	33	29	Impact
	5/32" (3.9)	9/32" (7.0)	9/32" (6.9) SGP laminate	--	--	30	27	Impact
ELAWN	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	29	24	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	32	27	
	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	30	24	Tripane
	1/8" (3.1)	5/16" (7.5)	9/32" (6.9) PVB laminate	--	--	32	28	Impact
	5/32" (3.9)	9/32" (7.0)	9/32" (6.9) SGP laminate	--	--	31	27	Impact
ELCAP	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	27	23	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	31	27	
	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	28	21	Tripane
	1/8" (3.1)	5/16" (7.5)	9/32" (6.9) PVB laminate	--	--	32	27	Impact
	5/32" (3.9)	9/32" (7.0)	9/32" (6.9) SGP laminate	--	--	30	27	Impact
Elevate Casement Narrow Frame and Awning Narrow Frame								
ELCANF	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	28	25	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	33	29	
ELAWNPF	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	28	24	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	32	27	
ELCANFP	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	26	22	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	31	27	
Elevate Double Hung								
ELDH	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	27	23	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	30	26	
	1/8" (3.1)	5/16" (7.5)	9/32" (6.9) PVB laminate	--	--	32	28	Impact
ELDHP	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	27	23	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	31	26	
	1/8" (3.1)	5/16" (7.5)	9/32" (6.9) PVB laminate	--	--	32	27	Impact
	1/8" (3.1)	9/32" (7.0)	9/32" (6.9) SGP laminate	--	--	31	27	Impact
ELDHIN	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	29	24	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	31	27	
ELDHINP	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	27	23	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	31	26	
Elevate Glider								
ELGL	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	28	23	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	30	27	
Elevate Direct Glaze								
ELDG-CA	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	28	23	
	1/8" (3.1)	17/32" (13.0)	3/16" (4.7)	--	--	32	27	
	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	28	23	Tripane
	5/16" (3.9)	17/32" (13.0)	9/32" (6.9) PVB laminate	--	--	33	28	Impact
	1/4" (5.7)	13/32" (9.8)	13/32" (10.1) SGP laminate	--	--	35	31	Impact
ELDG-DH/Door	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	27	22	
	1/8" (3.1)	17/32" (13.0)	3/16" (4.7)	--	--	32	27	
	5/16" (3.9)	17/32" (13.0)	9/32" (6.9) PVB laminate	--	--	34	28	Impact
	1/4" (5.7)	13/32" (9.8)	13/32" (10.1) SGP laminate	--	--	34	30	Impact
Elevate Direct Glaze Round Top IZ3								
ELDGRT-CA	5/16" (3.9)	17/32" (13.0)	9/32" (6.9) PVB laminate	--	--	34	28	Impact
	1/4" (5.7)	13/32" (9.8)	13/32" (10.1) SGP laminate	--	--	34	30	Impact
ELDGRT-DH/Door	5/16" (3.9)	17/32" (13.0)	9/32" (6.9) PVB laminate	--	--	34	28	Impact
	1/4" (5.7)	13/32" (9.8)	13/32" (10.1) SGP laminate	--	--	34	30	Impact

STC/OITC Glass Values - Elevate (Doors)

Sound Transmission Class and Outdoor-Indoor Transmission Class Values						
Product Type	Exterior Glazing	Airspace	Interior Glazing	STC	OITC	Additional Information
Elevate Inswing French Door						
ELIFD	1/8" (3.1)	17/32" (13.0)	1/8" (3.1)	28	24	
	1/8" (3.1)	15/32" (11.5)	3/16" (4.7)	32	27	
	1/8" (3.1)	17/32" (13.0)	1/8" (3.1)	29	25	High Performance
	1/8" (3.1)	15/32" (11.5)	3/16" (4.7)	33	28	High Performance
	5/32" (3.9)	5/16" (8.0)	9/32" (6.9) SGP Laminate	32	29	Impact
Elevate Outswing French Door						
ELOFD	1/8" (3.1)	17/32" (13.0)	1/8" (3.1)	30	24	
	1/8" (3.1)	15/32" (11.5)	3/16" (4.7)	32	27	
	5/32" (3.9)	5/16" (8.0)	9/32" (6.9) SGP laminate	32	29	Impact
Elevate Sliding French Door						
ELSPD	1/8" (3.1)	17/32" (13.0)	1/8" (3.1)	28	24	
	1/8" (3.1)	15/32" (11.5)	3/16" (4.7)	31	27	
	1/8" (3.1)	17/32" (13.0)	1/8" (3.1)	28	24	High Performance
	1/8" (3.1)	15/32" (11.5)	3/16" (4.7)	31	27	High Performance
	5/32" (3.9)	5/16" (8.0)	9/32" (6.9) SGP Laminate	31	28	Impact
Elevate Sliding French Door						
ELSPD	1/8" (3.1)	17/32" (13.0)	1/8" (3.1)	27	23	
	1/8" (3.1)	15/32" (11.5)	3/16" (4.7)	30	26	

STC/OITC Glass Values - Essential

Essential Sound Transmission Class and Outdoor-Indoor Transmission Class Values						
Product Type	Exterior Glazing	Airspace	Interior Glazing	STC	OITC	Additional Information
Essential Casement and Awning						
ESCA	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	28	24	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	31	26	
ESAWN	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	28	24	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	33	28	
ESCAP/TR	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	28	23	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	33	28	
Essential Single Hung and Double Hung						
ESDH	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	27	23	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	28	25	
ESSH	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	27	22	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	32	27	
ESDHP	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	29	25	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	30	25	
Essential Glider						
ESGL	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	27	24	
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	29	26	
Essential Direct Glaze Round Top						
ESDGRT	1/8" (3.1)	5/8" (16.0)	1/8" (3.1)	27	22	
	1/8" (3.1)	19/32" (14.5)	3/16" (4.7)	32	26	
Essential Direct Glaze						
ESDG	1/8" (3.1)	5/8" (16.0)	1/8" (3.1)	26	21	
	1/8" (3.1)	19/32" (14.5)	3/16" (4.7)	32	27	
Essential Sliding Patio Door						
ESSPD	1/8" (3.1)	17/32" (13.0)	1/8" (3.1)	27	23	
	1/8" (3.1)	15/32" (11.5)	3/16" (4.7)	28	24	

STC/OITC Glass Availability - Elevate Casement and Awning

		ELCA											
		Width (Frame Size)											
		16	18	20	22	24	26	28	30	32	34	36	
Height (Frame Size)	24												
	25												
	27												
	29												
	31												
	33												
	35												
	37												
	39												
	41												
	43												
	45												
	47												
	49												
	51												
	53												
	55												
	57												
	59												
	61												
	63												
	65												
	67												
	69												
	71												

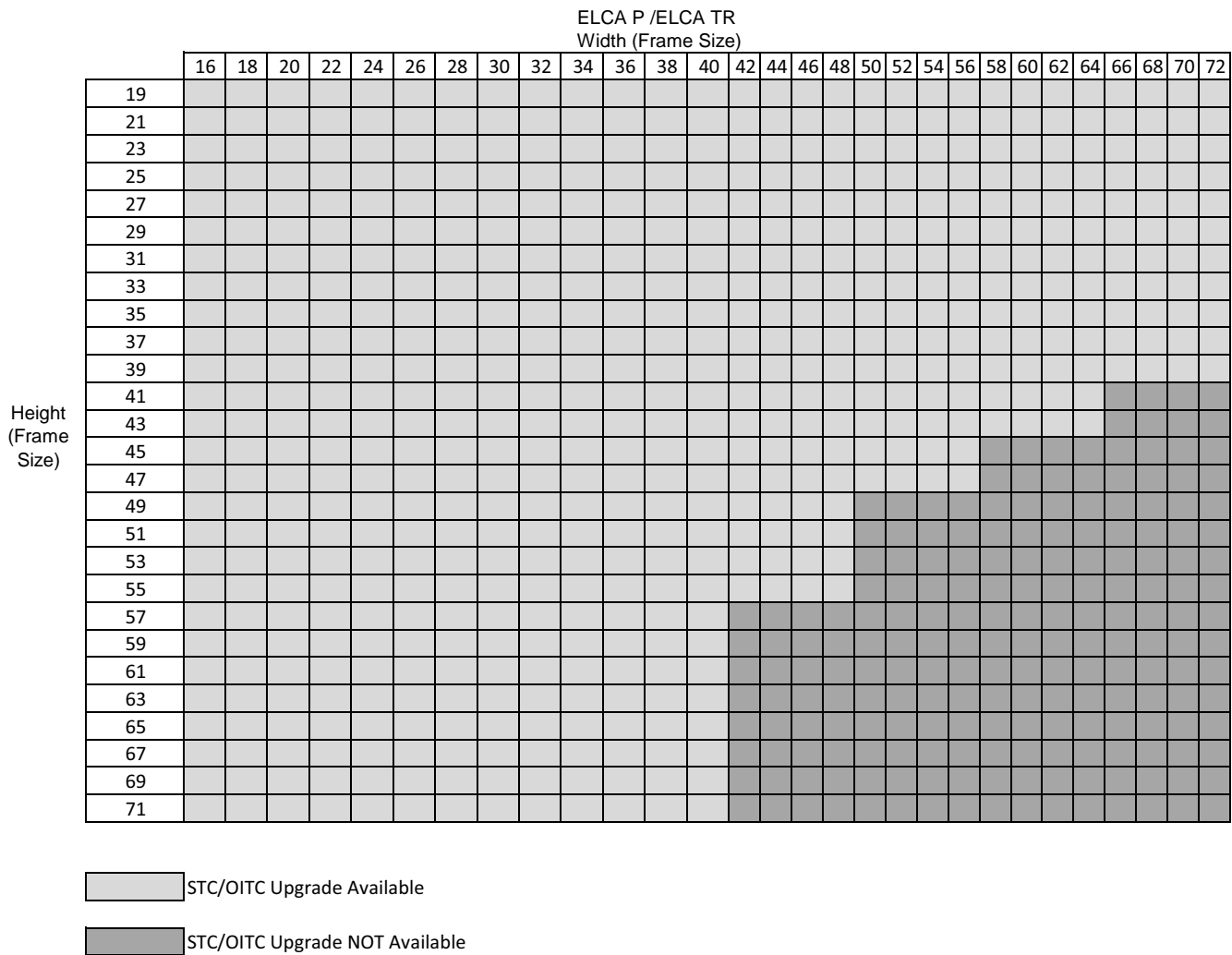
		ELAWN												
		Width (Frame Size)												
		24	26	28	30	32	34	36	38	40	42	44	46	48
Height (Frame Size)	19													
	21													
	23													
	25													
	27													
	29													
	31													
	33													
	35													
	37													
	39													
	41													
	43													
	45													
	47													

 STC/OITC Upgrade Available

 STC/OITC Upgrade NOT Available

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Elevate Casement and Awning Picture/Transom



NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Elevate Double Hung

		ELDH												
		Width (CN)												
		22	24	26	28	30	32	34	36	38	40	42	48	54
Height (CN)	16													
	36													
	38													
	40													
	42													
	44													
	46													
	48													
	50													
	52													
	54													
	56													
	58													
	60													
	62													
	64													
66														
68														
70														
72														
74														
76														



STC/OITC Upgrade Available

STC/OITC Upgrade NOT Available

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

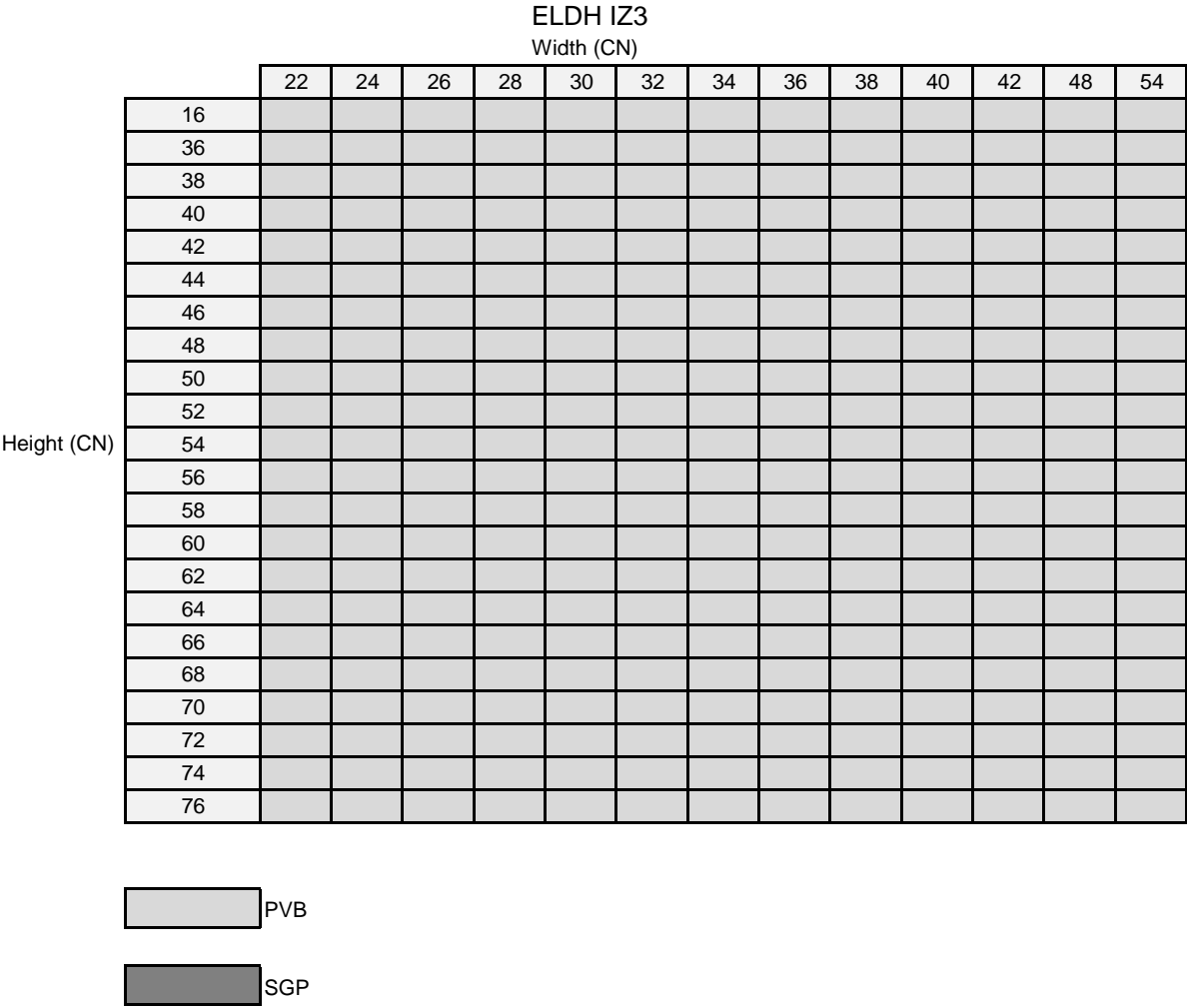
STC/OITC Glass Availability - Elevate Double Hung Picture

		ELDH P										
		Width (CN)										
Height (CN)		22	26	30	32	34	36	38	42	50	54	62
	16											
	24											
	36											
	40											
	44											
	48											
	52											
	56											
	60											
	64											
	68											
	72											
	76											

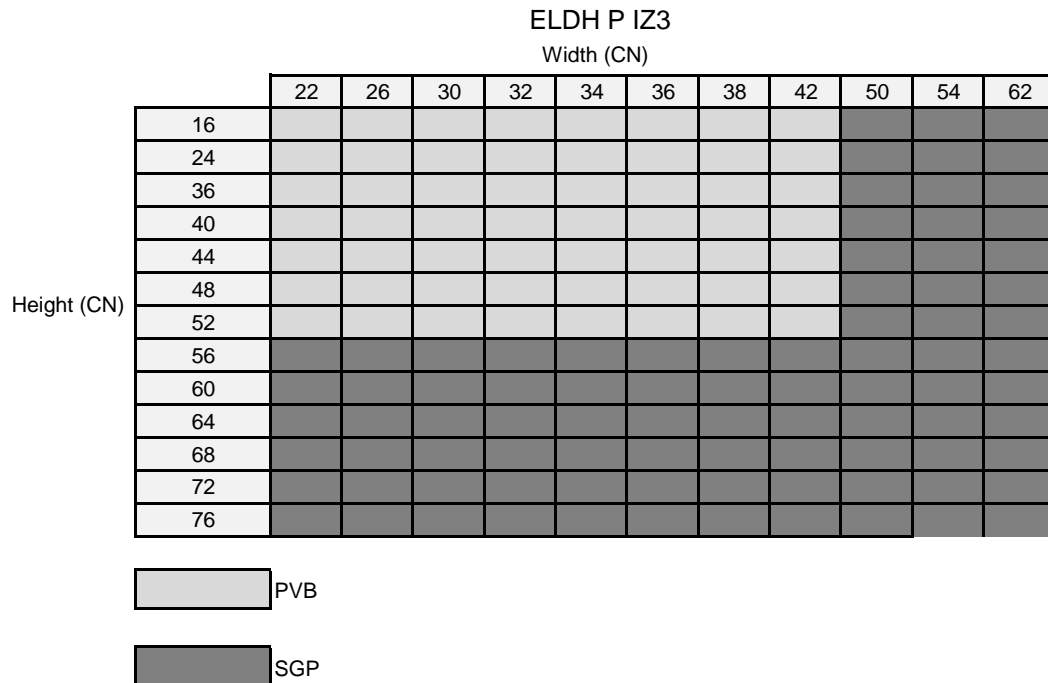
	STC/OITC Upgrade Available
	STC/OITC Upgrade NOT Available

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Elevate Double Hung IZ3



This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.



STC/OITC Glass Availability - Elevate Double Hung Picture IZ3


This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Elevate Glider

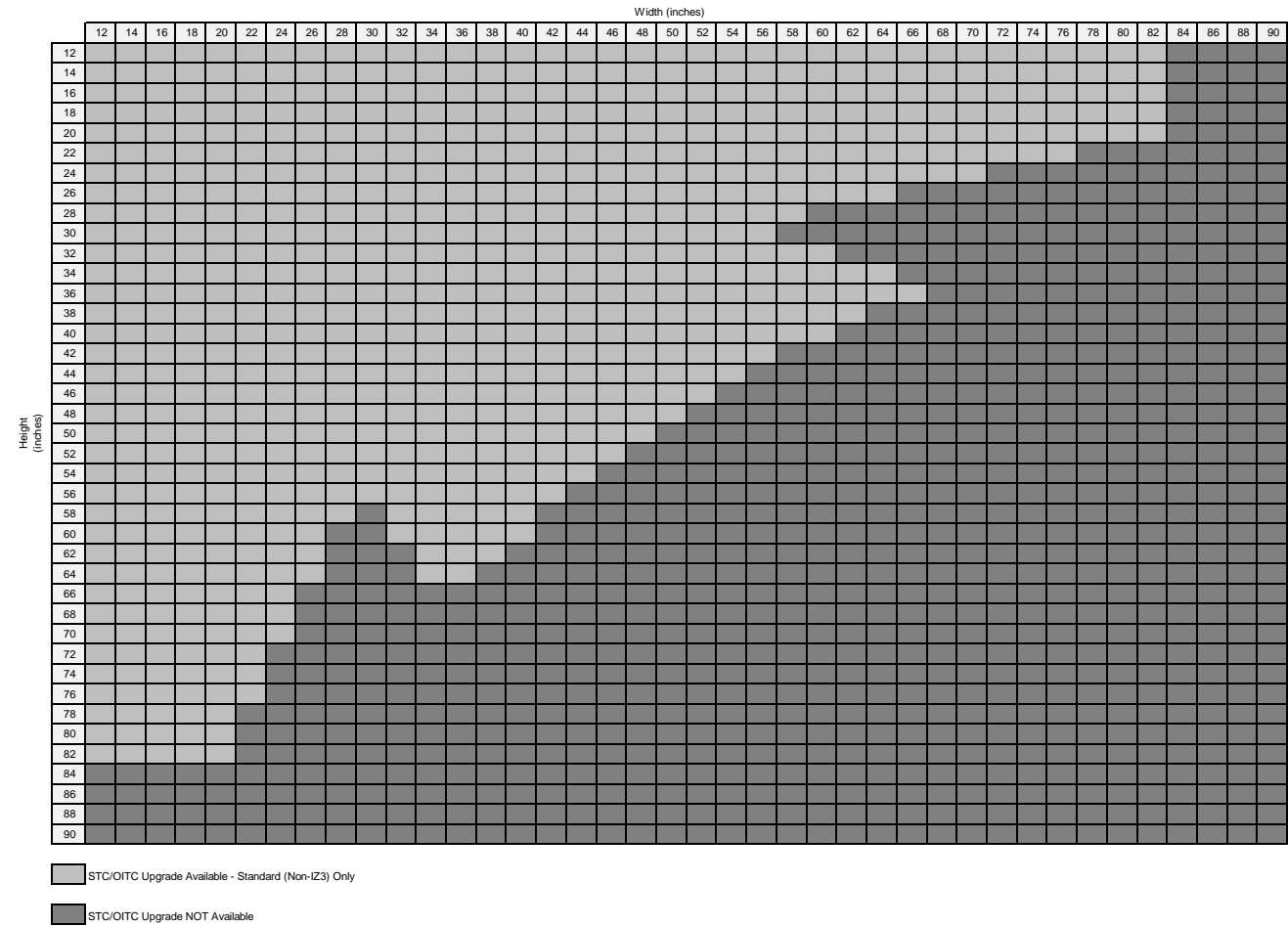
		ELGL																		
		Width (CN)																		
Height (CN)		36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72
	24																			
	26																			
	28																			
	30																			
	32																			
	34																			
	36																			
	38																			
	40																			
	42																			
	44																			
	46																			
	48																			
	50																			
	52																			
	54																			
	56																			
	58																			
	60																			

		ELGL TS												
		Width (CN)												
Height (CN)		72	74	76	78	80	82	84	86	88	90	92	94	96
	24													
	26													
	28													
	30													
	32													
	34													
	36													
	38													
	40													
	42													
	44													
	46													
	48													
	50													
	52													
	54													
	56													
	58													
	60													

	STC/OITC Upgrade Available
	STC/OITC Upgrade NOT Available

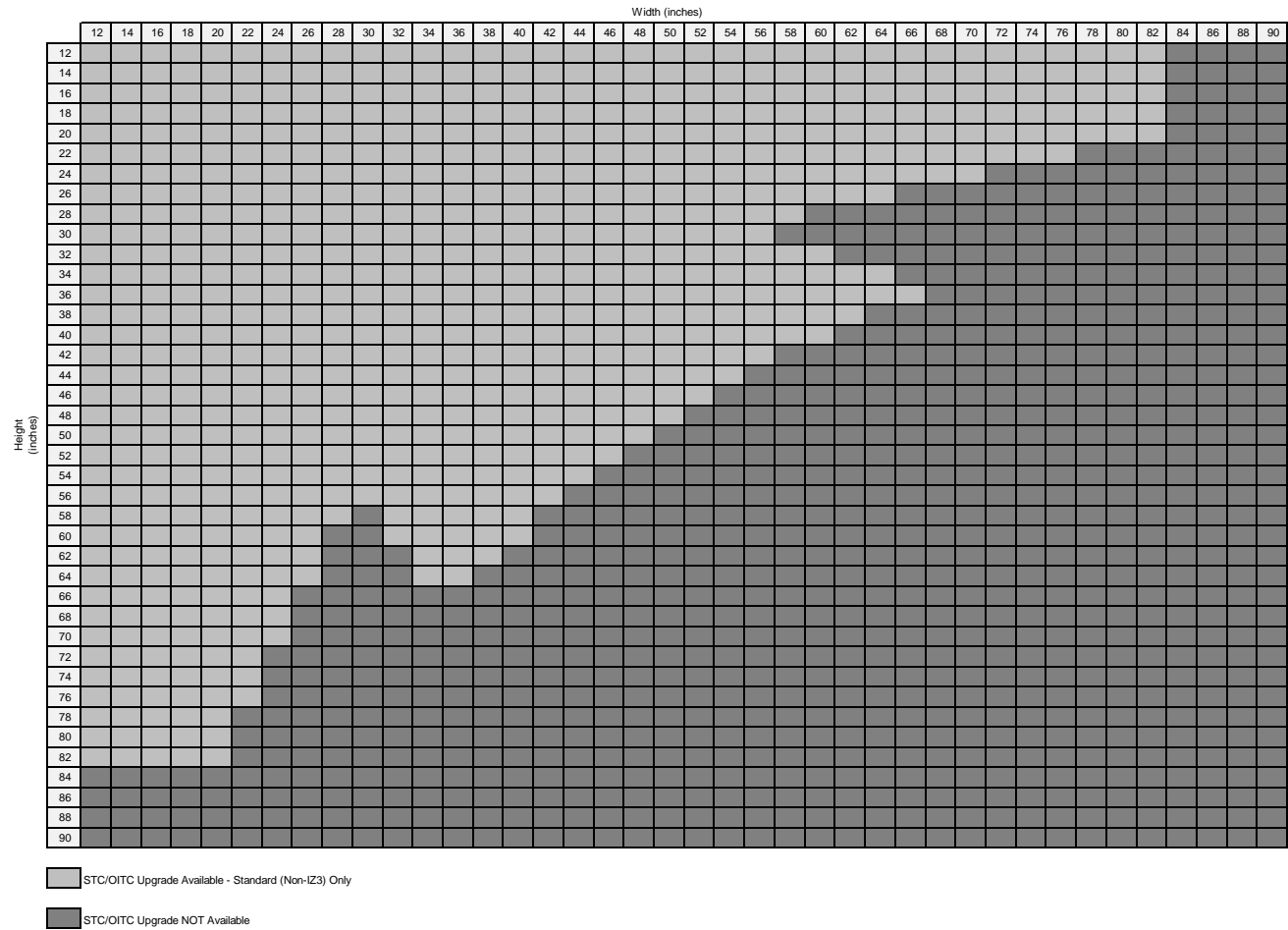
NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Elevate Polygon



NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Elevate Round Top IZ3





NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Elevate Bifold Doors

Bifold Doors

		Width (CN)		No. of Panels
		20-6	22-0	7
		17-8	19-0	6
		15-0	16-0	5
		12-0	12-8	4
		9-0	9-8	3
		6-0	6-6	2
		3-0	3-4	1
Height (CN)	6-5			
	6-8			
	7-0			
	8-0			

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

	STC/OITC Upgrade Available
	STC/OITC Upgrade NOT Available

STC/OITC Glass Availability - Elevate Sliding Doors

Sliding French Door

		2-panel		
		Width (CN)		
		5-0	6-0	8-0
Height (CN)	6-5			
	6-8			
	7-0			
	8-0			

		3-panel		
		Width (CN)		
		7-6	9-0	12-0
Height (CN)	6-5			
	6-8			
	7-0			
	8-0			

		4-panel		
		Width (CN)		
		10-0	12-0	16-0
Height (CN)	6-5			
	6-8			
	7-0			
	8-0			

Sliding Patio Door

		2-panel		
		Width (CN)		
		5-0	6-0	8-0
Height (CN)	6-5			
	6-8			
	7-0			
	8-0			

		3-panel		
		Width (CN)		
		7-6	9-0	12-0
Height (CN)	6-5			
	6-8			
	7-0			
	8-0			

		4-panel		
		Width (CN)		
		10-0	12-0	16-0
Height (CN)	6-5			
	6-8			
	7-0			
	8-0			

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Upgrade Available

STC/OITC Upgrade NOT Available

STC/OITC Glass Availability - Elevate Swinging Doors
Inswing French Door

1-panel		Width (CN)		
		2-6	2-8	3-0
Height (CN)	6-5			
	6-8			
	7-0			
	8-0			



2-panel		Width (CN)		
		5-0	5-4	6-0
Height (CN)	6-5			
	6-8			
	7-0			
	8-0			

Outswing French Door

1-panel		Width (CN)		
		2-6	2-8	3-0
Height (CN)	6-5			
	6-8			
	7-0			
	8-0			

2-panel		Width (CN)		
		5-0	5-4	6-0
Height (CN)	6-5			
	6-8			
	7-0			
	8-0			

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

	STC/OITC Upgrade Available
	STC/OITC Upgrade NOT Available

STC/OITC Glass Availability - Elevate Casement and Awning Narrow Frame

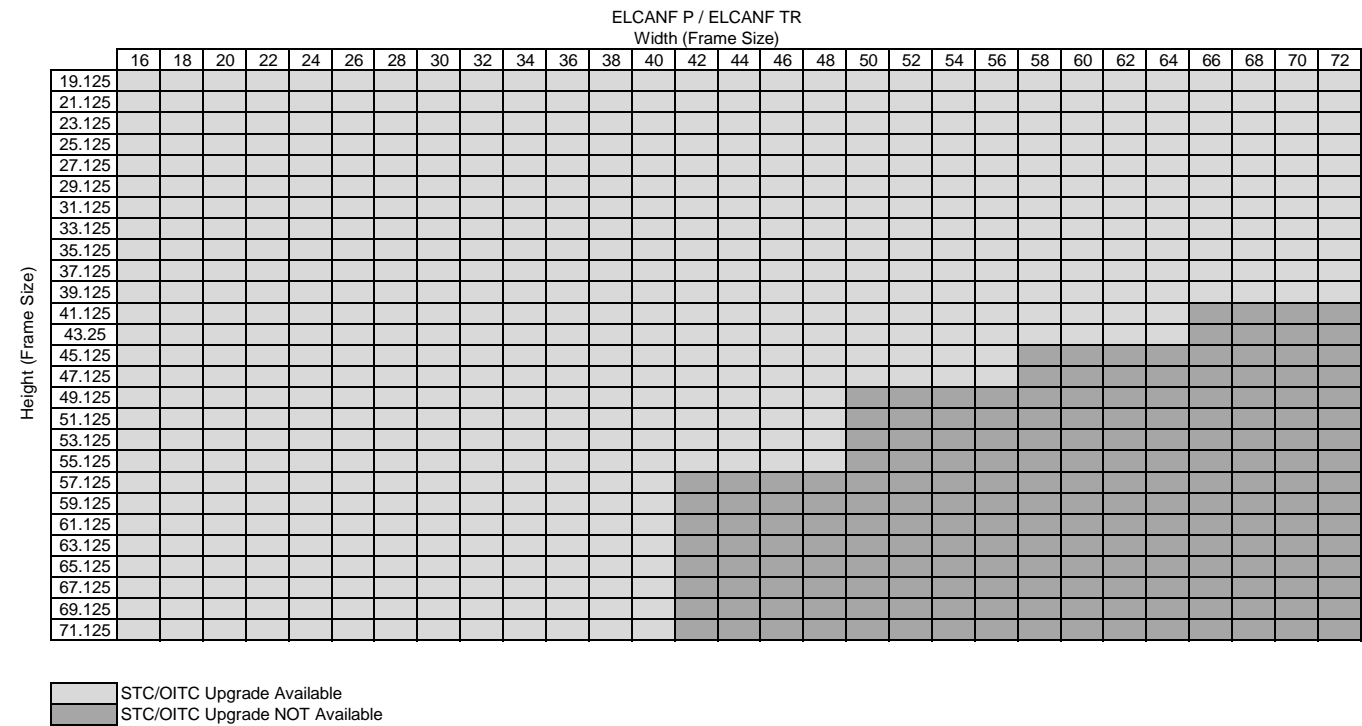
		ELCANF Width (Frame Size)										
		16	18	20	22	24	26	28	30	32	34	36
Height (Frame Size)	24											
	25											
	27											
	29											
	31											
	33											
	35											
	37											
	39											
	41											
	43											
	45											
	47											
	49											
	51											
	53											
	55											
	57											
	59											
	61											
	63											
	65											
	67											
	69											
	71.125											

		ELAWNNF												
		Width (Frame Size)												
		24	26	28	30	32	34	36	38	40	42	44	46	48
Height (Frame Size)	19.125													
	21.125													
	23.125													
	25.125													
	27.125													
	29.125													
	31.125													
	33.125													
	35.125													
	37.125													
	39.125													
	41.125													
	43.125													
	45.125													
	47.125													

	STC/OITC Upgrade Available
	STC/OITC Upgrade NOT Available

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Elevate Casement Narrow Frame Picture/Transom



NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Elevate Double Hung Insert

ELDHIN																				
		Width (Frame Size)																		
Height (Frame Size)		18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
	28																			
	30																			
	32																			
	34																			
	36																			
	38																			
	40																			
	42																			
	44																			
	46																			
	48																			
	50																			
	52																			
	54																			
	56																			
	58																			
	60																			
	62																			
	64																			
	66																			
	68																			
	70																			
	72																			
	74																			
	76																			
	78																			
	80																			
	82																			
	84																			

STC/OITC Upgrade Available

STC/OITC Upgrade NOT Available

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Elevate Double Hung Insert Picture

ELDHIN P																										
		Width (Frame Size)																								
Height (Frame Size)		18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62		
	16																									
	18																									
	20																									
	22																									
	24																									
	26																									
	28																									
	30																									
	32																									
	34																									
	36																									
	38																									
	40																									
	42																									
	44																									
	46																									
	48																									
	50																									
	52																									
	54																									
	56																									
	58																									
	60																									
	62																									
	64																									
	66																									
68																										
70																										
72																										
74																										
76																										
78																										
80																										
82																										
84																										

 STC/OITC Upgrade Available

 STC/OITC Upgrade NOT Available

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Essential Casement and Awning

		ESCA									
		Width (CN)									
		1-6	1-8	1-10	2-0	2-2	2-4	2-6	2-8	2-10	3-0
Height (CN)	2-0										
	2-2										
	2-4										
	2-6										
	2-8										
	2-10										
	3-0										
	3-2										
	3-4										
	3-6										
	3-8										
	3-10										
	4-0										
	4-2										
	4-4										
	4-6										
	4-8										
	4-10										
	5-0										
	5-2										
	5-4										
	5-6										
	5-8										
	5-10										
	6-0										
	6-2										
	6-4										
	6-6										
	6-8										
	6-10										
	7-0										

		ESAWN																					
		Width (CN)																					
		1-6	1-8	1-10	2-0	2-2	2-4	2-6	2-8	2-10	3-0	3-2	3-4	3-6	3-8	3-10	4-0	4-2	4-4	4-6	4-8	4-10	5-0
Height (CN)	1-6																						
	1-8																						
	1-10																						
	2-0																						
	2-2																						
	2-4																						
	2-6																						
	2-8																						
	2-10																						
	3-0																						
	3-2																						
	3-4																						
	3-6																						
	3-8																						
	3-10																						
	4-0																						
	4-2																						
	4-4																						
	4-6																						
	4-8																						
	4-10																						
	5-0																						

STC/OITC Upgrade Available

STC/OITC Upgrade NOT Available

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

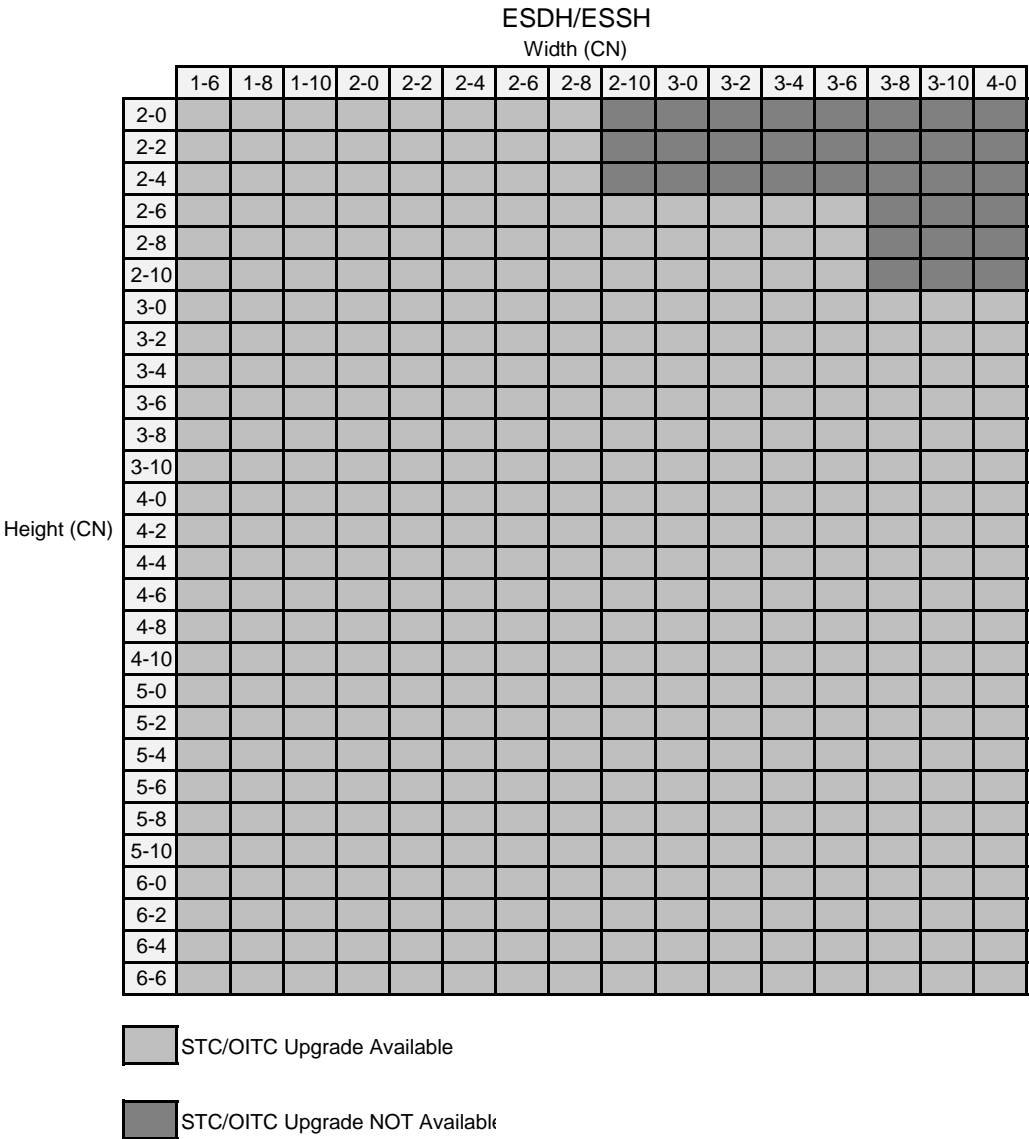
STC/OITC Glass Availability - Essential Casement Picture/Transom

		ESCA TR																		
		Width (CN)																		
		1-6	1-8	1-10	2-0	2-2	2-4	2-6	2-8	2-10	3-0	3-2	3-4	3-6	3-8	3-10	4-0	4-6	5-0	6-0
Height (CN)	1-0																			
	1-2																			
	1-4																			
	1-6																			

		ESCA P															
		Width (CN)															
Height (CN)		3-6	3-8	3-10	4-0	4-2	4-4	4-6	4-8	4-10	5-0	5-2	5-4	5-6	5-8	5-10	6-0
	2-0																
	2-2																
	2-4																
	2-6																
	2-8																
	2-10																
	3-0																
	3-2																
	3-4																
	3-6																
	3-8																
	3-10																
	4-0																
	4-2																
	4-4																
	4-6																
	4-8																
	4-10																
	5-0																
	5-2																
	5-4																
	5-6																
	5-8																
	5-10																
	6-0																
	6-2																
	6-4																
	6-6																
	6-8																
	6-10																
	7-0																

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Essential Double Hung and Single Hung



NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Availability - Essential Double Hung Picture

ESDH TR

		Width (CN)																					
		1-6	1-8	1-10	2-0	2-2	2-4	2-6	2-8	2-10	3-0	3-2	3-4	3-6	3-8	3-10	4-0	4-2	4-4	4-6	4-8	4-10	5-0
1-0																							
1-2																							
1-4																							
1-6																							

ESDH P

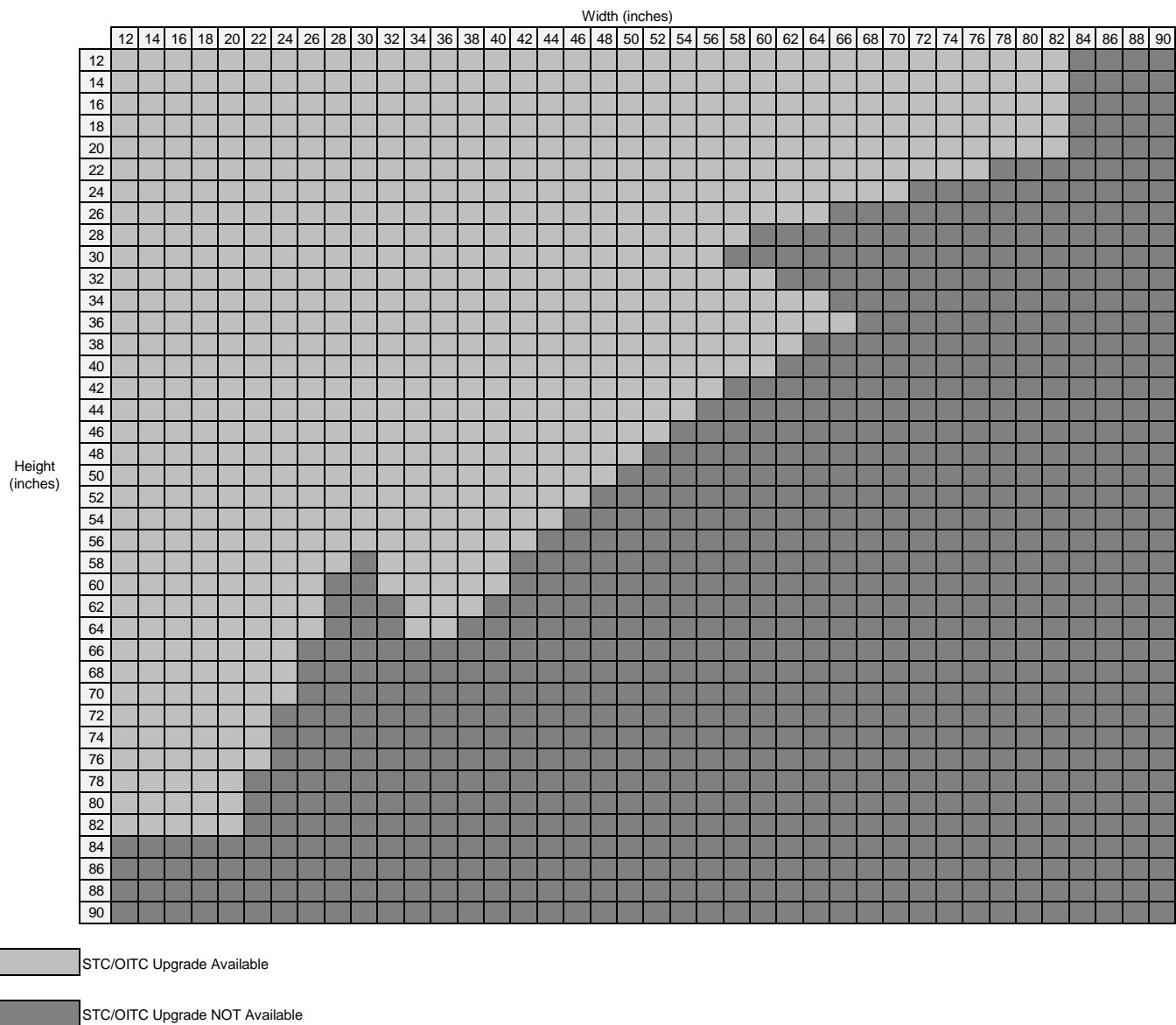
		Width (CN)													
		3-0	3-2	3-4	3-6	3-8	3-10	4-0	4-2	4-4	4-6	4-8	4-10	5-0	
Height (CN)	3-0														
	3-2														
	3-4														
	3-6														
	3-8														
	3-10														
	4-0														
	4-2														
	4-4														
	4-6														
	4-8														
	4-10														
	5-0														
	5-2														
	5-4														
	5-6														
	5-8														
	5-10														
	6-0														

 STC/OITC Upgrade Available

 STC/OITC Upgrade NOT Available

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Values - Essential Polygon



NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Values - Essential Glider

		Width (CN)															
Height (CN)		1-6	1-8	1-10	2-0	2-2	2-4	2-6	2-8	2-10	3-0	3-2	3-4	3-6	3-8	3-10	4-0
	2-0																
	2-2																
	2-4																
	2-6																
	2-8																
	2-10																
	3-0																
	3-2																
	3-4																
	3-6																
	3-8																
	3-10																
	4-0																
	4-2																
	4-4																
	4-6																
	4-8																
	4-10																
	5-0																
	5-2																
	5-4																
	5-6																
	5-8																
	5-10																
	6-0																
	6-2																
	6-4																
	6-6																

 STC/OITC Upgrade Available



 STC/OITC Upgrade NOT Available

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

STC/OITC Glass Values - Essential Sliding Patio Door

		2-panel Width (CN)		
Height (CN)	68			
	610			
	80			

		3-panel Width (CN)
Height (CN)	610	
	80	

-  STC/OITC Upgrade Available
-  STC/OITC Upgrade NOT Available

NOTE: This chart is for reference only. For exact limits of STC/OITC upgrade, refer to OMS or contact Marvin Sales & Support representative.

Ultrex and Capillary Tube Information

ULTREX CLADDING CHARACTERISTICS: Ultrex is a composite material of fiberglass filaments that are shaped and matted, then saturated with compound resins. Ultrex offers stability, and stands up to the elements such as; sun, rain, airborne pollutants, and salt water. Ultrex also acts as a structural component adding to the entire window or door unit, and has a very low rate of expansion and contraction. Under the same conditions as vinyl, Ultrex moves only 1/10th as much as vinyl, it actually moves at the same minimal rate as window glass, reducing wear and tear on thermal seals. The impermeable factory finish is a patented acrylic coating which is applied utilizing a zero emission process. The finish provides excellent gloss and color retention, hardness, abrasion and chemical resistance. The dry film thickness is greater than 3 mils.

CAPILLARY TUBES: As a general rule, capillary tubes (also known as breather tubes) are recommended in 1-lite insulated units installed in elevations of 5,000 feet or more above sea level. Capillary tubes are also recommended in smaller (or) divided lite units where one side of glass is less than 12" (305) in length at elevations above 3,000 feet or more above sea level. Marvin does not install capillary tubes into insulated units just for transit through higher elevations (such as insulated units shipping to the west coast via Rocky Mountains). The final installation location of the unit determines if a capillary tube is necessary or not.

Ultrex, Refinishing Information**ULTREX REFINISHING INFORMATION****Painting Ultrex**

You will need to supply:

- 320-400 grit sandpaper
- Quality exterior grade acrylic latex paint
- Foam paint brush
- Masking tape

1. Thoroughly sand the factory finish with 320-400 grit sandpaper.
2. Wash the surface with water and detergent to remove contaminants, rinse with clear water and dry thoroughly.
3. Mask any window components that will not be painted.
4. Coat the Ultrex with a quality exterior grade acrylic latex paint.
5. Acrylic latex products gain full adhesion after the seven to ten days cure.
6. Spot test a small area after seven to ten days to verify adequate surface preparation prior to finishing large areas.

Cleaning Ultrex

For regular cleaning and maintenance of Elevate and Essential products, non-abrasive household cleaner will not harm the factory finish. Accidental wood stain can be removed safely with painters naphtha (the same solvent used for thinning stain) and is not considered a harsh chemical as some of our literature cautions.

General Painting and Staining Instructions, Wood Preservative Information

GENERAL PAINTING AND STAINING INSTRUCTIONS

Finish paint on primed or bare wood windows and doors must be applied immediately following installation and repainted periodically to avoid damage to the wood. LAP THE FINISH COAT 1/16" ONTO THE GLASS FOR A PROPER MOISTURE SEAL.

WHEN APPLYING PAINT OR OTHER FINISH TO WINDOWS IT IS EXTREMELY IMPORTANT THAT YOU DO NOT PAINT: weather stripping or other non-wood parts; hardware, handles, rollers, etc.; or any surface which has an abrasive or sliding contact with another surface. Paints, stains and varnishes contain solvents which cause plastics or vinyls to dry out and become brittle. Once brittle, they will need to be replaced.

Abrasive cleaners or harsh solutions containing solvents should not be used on Elevate and Essential products. Painters naphtha is recommended for removing excessive paint or stain.

The exterior surfaces of Elevate wood windows come to you with a low maintenance finish. However, the interior must be painted or stained and varnished by carefully following these instructions. Before finishing, bare wood window and door surfaces must be clean and dry. Remove handling marks, debris, or effects or exposure to moisture by sanding lightly with 220 or 320 grit sandpaper and clean before applying your choice or finish.

PAINTING: Use only a high-quality oil base or latex paint. To provide good adhesion of paint, a compatible prime coat should be applied. Paint with sash or panels open (or removed) and do not close until thoroughly dry. Apply one coat of primer and two coats of top quality paint according to the paint manufacturer's instructions. **NOTE: DO NOT APPLY PAINT TO THE MARVIN FACTORY PREFINISH WITHOUT FIRST CONTACTING YOUR MARVIN DEALER FOR PROPER INSTRUCTIONS.**

STAINING: Apply stain according to the manufacturer's instructions. Apply as many coats of stain as necessary to achieve the desired color. After the stain is thoroughly dry, apply at least two coats of varnish.

WOOD PRESERVATIVE INFORMATION

WOODTREAT MB is a clear water repellent wood preservative which has been specially formulated by Kop-Coat, Inc. for the treatment of millwork prior to factory or field priming, painting, finishing. It penetrates into the wood to provide effective long-term protection from moisture, mold, mildew, decay and wood destroying fungi which would adversely affect the appearance and/or serviceability of the millwork.

The water repellent WOODTREAT MB helps to stabilize the wood. The non-film forming treatment will not peel or chip off. It has been specially formulated for compatibility with oil and water base primers.

The preservative in WOODTREAT MB is an iodine base fungicide commonly marked under the name Troysan Polyphase. Troysan Polyphase is biodegradable,

The preservative complies with WDMA Standards I.S. 4 and exceeds all WDMA industry standard requirements for a water repellent preservative treatment for millwork.

TIMBERTREAT 6WT, a biodegradable additive also manufactured by Kop-Coat, Inc., is added to the WOODTREAT MB for protection against termites, carpenter ants, beetles and other wood destroying insects.

The stable composition and bond durability of TIMBERTREAT 6WT provides long term protection. Combined, WOODTREAT MB and TIMBERTREAT 6WT provide unsurpassed excellent protection against both decay and insect attack.

Abbreviations

Elevate and Essential Product Abbreviations

BAY	Bay	ELAWN	Elevate Awning
BOW	Bow	ELCA	Elevate Casement
C	Cottage Style	ELDGCA	Elevate Direct Glaze Casement
CA	Casement	ELCAP	Elevate Casement/Awning Picture
DH	Double Hung	ELCATR	Elevate Casement/Awning Transom
FS	Frame Size	ELDG RECT	Elevate Direct Glaze
GBG	Grilles-Between-the-Glass	ELIFD	Elevate Inswing French Door
GL	Glider	ELIFDDGTR	Elevate Inswing Direct Glaze French Door
L	Left-Handed	ELOFD	Elevate Outswing French Door
MO	Masonry Opening	ELOFDDG	Elevate Outswing French Door Direct Glaze
MM	Millimeters	ELDGDH	Elevate Direct Glaze Double Hung
N/A	Not Available	ELCART	Elevate Round Top
O	Stationary	ELALDGRT	Elevate Aluminum Direct Glaze Round Top
OM	Outside Measurement	ELSFD	Elevate Sliding French Door
POLY	Polygon	ELSFDDGTR	Elevate Sliding French Door Transom
R	Right-Handed	ELSPD	Elevate Sliding Patio Door
RECT	Rectangle	ELSPDDGTR	Elevate Sliding Patio Door Direct Glaze
RO	Rough Opening	ELDHIN P	Elevate Insert Double Hung Picture
SDL	Simulated Divided Lites	ELDHIN TR	Elevate Insert Double Hung Transom
Sq. Ft.	Square Feet	ELDH	Elevate Double Hung
X	Operating	ELDHP	Elevate Double Hung Picture
2W	2 Units Wide	ELDHTR	Elevate Double Hung Transom
3W	3 Units Wide	ELGL	Elevate Glider
4W	4 Units Wide	ELGLTS	Elevate Glider Triple Sash
ESAWN	Essential Awning		
ESCA	Essential Casement		
ESCAP	Essential Casement Picture		
ESCATR	Essential Casement Transom		
ESDG POLY	Essential Polygon		
ESDH	Essential Double Hung		
ESDHP	Essential Double Hung Picture		
ESDHTR	Essential Double Hung Transom		
ESGL	Essential Glider		
ESGL TS	Essential Glider Triple Sash		
ESDG RT	Essential Round Top		
ESSH	Essential Single Hung		
ESSPD	Essential Sliding Patio Door		
ESSPD DGTR	Essential Sliding Patio Door Direct Glaze Transom		

Glossary of Terms

This glossary is for reference only. For Marvin Windows and Doors Product conditions please refer to individual sections and specifications throughout this manual.

AAMA – see FGIA

ACTIVE PANEL – Primary operating door panel.

AIR INFILTRATION – The amount of air leaking through cracks in walls, windows, and doors.

ASSEMBLY – Single units mullied together.

ARGON GAS – An inert, non-toxic gas used in insulating windows to reduce heat transfer.

AWNING WINDOW – Awning windows are projected windows having one sash hinged at the top edge and projecting outward from the plane of the window bottom.

BALANCE – A mechanical device spring loaded used in double hung windows as a means of balancing the weight of the sash during opening and closing.

BAY WINDOW – An arrangement of three or more individual window units, attached so as to project from the building at various angles.

BOW WINDOW – A series of adjoining window units, installed on a radius.

CAPILLARY TUBES – A tube inserted into the insulating glass spacer that allows the inside and outside air pressure to equalize in higher elevations.

CASEMENT WINDOW – Casement windows contain outswinging sash that project away from the plane of the frame and are side hinged at the jambs. Sash are mounted by use of hinging hardware which allow them to swing. The sash are operated by roto operators. Unit may include one or more locking handles to secure sash tightly in the frame in a closed position.

CAULKING – A mastic compound for filling joints and sealing cracks to prevent leakage of air and water. Commonly made of silicone or a rubber based material.

CLEAR OPENING (CO) – The opening created when the window or door is completely open.

CONDENSATION RESISTANCE (CR) – Measures the ability of a product to resist the formation of condensation on the interior surface of that product. The higher the CR rating, the better it resists forming condensation.

COTTAGE WINDOW – A window with unequal sash, top and bottom.

DAYLIGHT OPENING (DLO) – The width and height of the visible glass.

DESIGN PRESSURE (DP) – The pressure a product is designed to withstand. $DP = \text{Effective velocity pressure} \times 1.25$.

DIRECT GLAZE (DG) – Refers to a window with no sash. The glass is glazed directly into the frame and is stationary.

DOUBLE HUNG WINDOW – A window unit operating vertically. The sash weight is offset by a counterbalancing mechanism mounted in the jambs. Unit may include one or more locking devices to secure the sash in the closed position. Both sash in a double hung are operable. See also – Balance.

EGRESS – The act of leaving an enclosed space. In the window industry the term refers to the dimensions of the opening of a window or door (the horizontal and vertical clear distance). Established by building codes. The purpose for establishing minimum egress dimensions is to insure that in an emergency situation a person attempting to leave a building has adequate area to escape.

EMISSIVITY – A measure of a surface's ability to emit long – wave infrared radiation or room temperature radiant heat energy. Emissivity varies from 0 (no emitted infrared) to 1 (100% emitted infrared). The lower the emissivity, the lower the resultant U-value.

ESCUTCHEON – A decorative door handle attached to the stile directly behind the handle(s). Generally square or rectangular shaped.

FENESTRATION – Openings in a building wall, such as windows, doors, and skylights designed to permit the passage of air, light, and people.

FGIA - Fenestration Glazing Industry Alliance (formerly AAMA). A national trade association that establishes voluntary standards for the window, door, and skylight industry. Note: Many standards referenced in the Codes will still reference AAMA documents which are FGIA publications.

FOOTBOLT – A locking rod device installed vertically in the stile or astragal of a door or screen which when activated secures the panel or screen in a stationary position.

FRAME – The stationary portion of a window that encloses either the glass (direct glaze) or the sash (operating or stationary) and consists of the following parts:

1. HEAD JAMB – The top frame member.
2. Sill – The bottom frame member.
3. SIDE JAMB – Side or vertical frame members.
4. JAMB EXTENSION – The addition onto the standard jamb to adapt a window unit to deeper wall thicknesses, in most cases will be factory applied unless specified otherwise.

GLASS SIZE (GS) – The measurement of the actual glass, not the visible glass.

GLIDER WINDOW – A window unit operating horizontally. Typically consisting of two sash, with one sash operable. Unit may include one or more locking devices to secure the sash in the closed position. One sash must remain stationary.

Glossary of Terms

This glossary is for reference only. For Marvin Windows and Doors Product conditions please refer to individual

GRILLES – Removable Grille – A narrow profiled wood member that snaps into place on the interior surface of the glass giving a divided appearance. Grilles Between Glass – A narrow profiled aluminum member installed between two pieces of glass that gives a divided appearance. *sections and specifications throughout this manual.*

HANDING – A term used to describe the right or left hand operation of a window or door.

HEADBOLT – A locking rod device installed vertically in the stile or astragal of a door or screen which when activated secures the door in a stationary position.

INACTIVE PANEL – Secondary operating door panel.

INSULATING GLASS (IG) – Two pieces of glass spaced apart with an aluminum edge spacer to create a hermetically sealed section of glass with an air space.

INSERT – A specially designed, made-to-order sash and frame unit that is used to replace existing double hung sash and hardware in an existing frame– without disturbing existing interior trim or exterior casing.

JAMBS – Vertical members of a window or doors outside frame.

JAMB EXTENSION – A jamb-like member, usually surfaced on four sides, which increases or extends the depth of the exterior or interior window or door frame.

LOW E GLASS – Low E stands for low emissivity. The lower the emissivity the higher the percentage of long wave radiation blocked thereby improving thermal performance. Low E glass is coated with a thin microscopic, virtually invisible, metal or metallic oxide layer. The primary function is to reduce the U-value by suppressing radioactive heat flow. A secondary feature is the blocking of short wave radiation to impede heat gain.

MULTI-POINT LOCKING SYSTEM – A line of standard or optional multiple point locking mechanisms installed on the operative panel(s)/ sash of various Marvin products to enhance security and performance.

OBSCURE GLASS – Glass formed by running molten glass through special rollers. These rollers have a pattern on them causing the glass to become patterned and thus “obscure.”

OPERATING FORCE – The forces required to maintain sash or panel motion in either the initial opening or closing direction.

OUTSIDE MEASUREMENT OF THE FRAME – The width and the height of the unit not including the casing.

OX AND XO – The letters OX or XO identify the operation of window or door units as viewed from the exterior. The letter O stands for stationary while the letter X stands for operating.

PANEL – A part of a fenestration product composed of a light of glass surrounded by a door frame. Similar to a sash.

PERFORMANCE CLASS – A means to grade a products performance. R = Residential, LC = Light Commercial, CW = Commercial, AW = Architectural Window

PERFORMANCE GRADE – A numeric designator that defines performance that applies to; air leakage resistance, water penetration resistance and deflection resistance according to Standard Specifications.

PICTURE WINDOW – A non-operating window unit. A window consisting of frame, sash, and glass, with no hardware.

PITCH – A term used to describe the angle of a roof. For example: A 412 pitch indicates that the roof rises 4 (102) vertically for each 12 (305) horizontally.

POLYGON – A high level term used to describe triangles, trapezoids, pentagons, hexagons and octagons.

PULTRUSION – Lineal profiles of constant cross section manufactured by combining plastic resin and continuous glass fiber reinforcement. These thermally insulating and structural components are ideally suited for applications where strength, thermal stability and weather resistance are required, such as in patio door frames and commercial windows.

R-VALUE – A measure of the resistance of a glazing material or fenestration assembly to heat flow. It is the inverse of the “U” Value. Higher numbers indicate greater insulating capabilities. See “U” Value.

RABBET – A groove along or near the edge of a piece of wood.

RADIUS – The length of an imaginary line from the center point of a circle to the arc or circumference of a circle.

RAILS – The cross or horizontal members of the framework of a sash, door or other panel assembly.

REINFORCEMENT – Material added to individual sash or frame members to increase strength or stiffness.

ROTO GEAR – A term used to describe the steel drive worm, gears and crank device used for opening awnings and Casements.

ROUGH OPENING – The opening in the wall where a window or door unit is to be installed. Openings are larger than the size of the unit to allow room for insulation and to shim the unit square.

ROUND TOP – Generally a semicircle window which is mullied to the top of another window or door, thus forming the round top appearance.

Glossary of Terms

This glossary is for reference only. For Marvin Windows and Doors Product conditions please refer to individual sections and specifications throughout this manual.

SASH – The operating and/or stationary portion of the window unit that is separate from the frame. The sash consists of the following parts:

1. **STILES** – Vertical sash members.
2. **RAILS** – Horizontal sash members.
3. **CHECK RAILS** – Horizontal sash members that meet, as in double hung units. These could also be vertical check stiles as in the glider or patio door

SCREEN – A product used with a window or door consisting of a four-sided frame surrounding a fiberglass mesh designed to keep insects out.

SEALANT – A compound used to fill and seal a joint or opening. Also the material used to seal edges of insulated glass.

SIMULATED DIVIDED LITE: SDL – Permanent wood or Ultrex bars applied to the interior and exterior of a one-lite piece of glass to simulate authentic divided lites. Optional spacer bar available with all glass types.

SNUBBER – An interlocking metal bracket attached at the center of the hinge side of a casement sash and frame with certain heights and top sides of an awning sash and frame with certain widths. It allows operation but pulls the sash tightly against the frame weather strip to maximize performance when closed.

SOLAR HEAT GAIN COEFFICIENT (SHGC) – The lower a window's SHGC, the less solar heat it transmits, and the greater its shading ability.

SPACER – Used to separate the two pieces of glass in an insulating glass panel.

SQUARE FOOT – For measuring the area of a unit. RO width (in inches) x RO height (in inches) divided by 144 equals the area in square feet of a unit

STATIONARY – A non-operating sash, panel or unit.

STILES – The upright or vertical perimeter pieces of a sash, panel or screen.

STRUCTURAL TEST PRESSURE – The pressure differential applied to a window to determine structural load capacity.

TEMPERED GLASS – Float glass panels heated and then cooled rapidly in a controlled environment. This process makes the glass several times stronger than regular glass. It also makes it safer because when broken it yields small pebble-like fragments.

TRANSOM – A window above a window or door. Transoms can be either stationary or operating.

U-FACTOR – Hourly rate of heat transfer for one square foot of surface when there is a temperature difference of one degree F of air on the two sides of the surface, also recognized as "U" Value or Heat Transmission Coefficient.

ULTREX – A pultruded composite material made of polyester resin and glass fibers.

U-VALUE – (Btu/hr-sq ft – *f) The lower the U-Value, the greater the resistance to heat flow and better its insulating value.

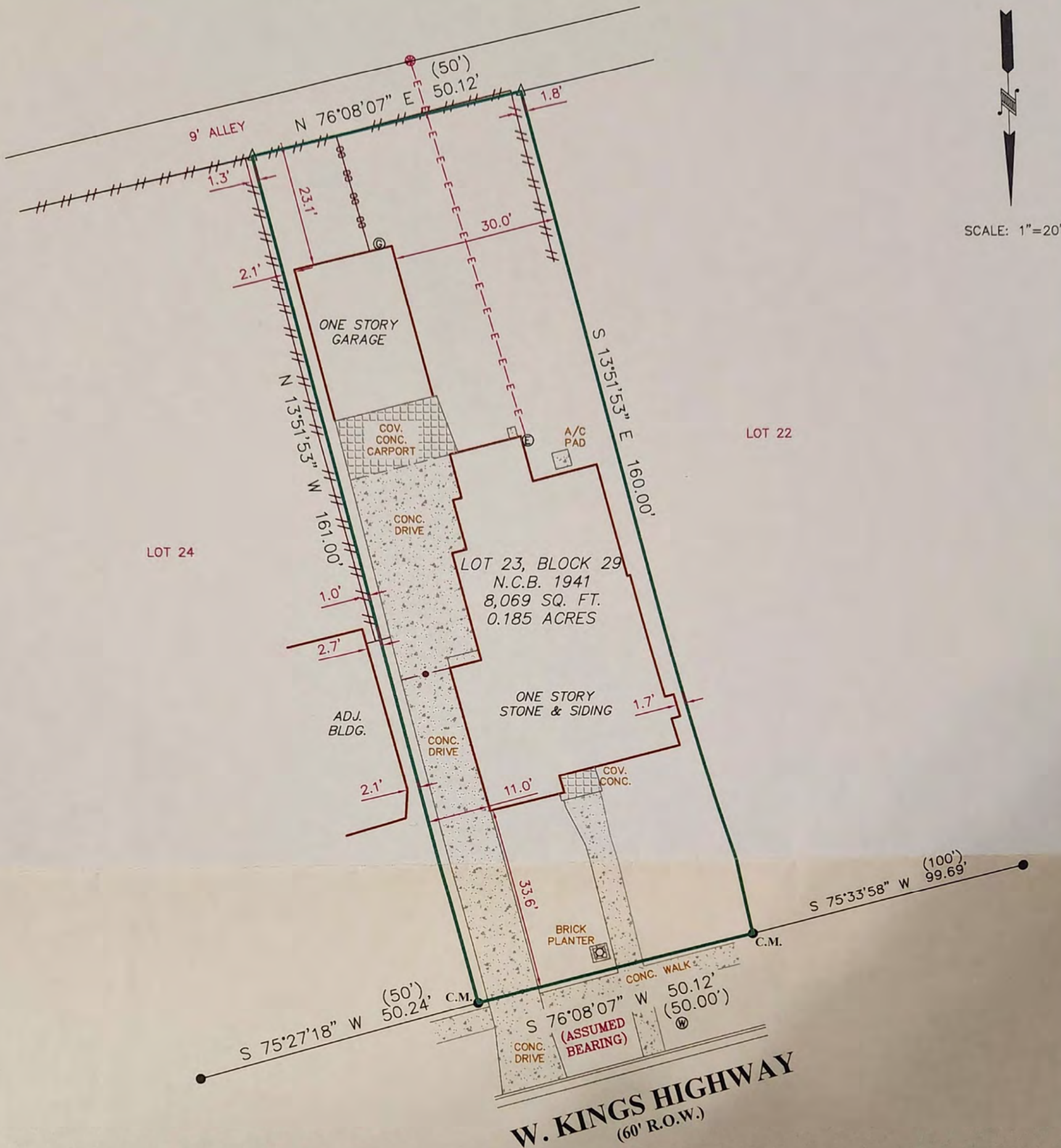
UNIT – One single product such as a one wide casement.

VENTING OPENING – The total opening created when a door or window is completely open.

VISIBLE LIGHT TRANSMITTANCE (VLT) – Percentage of visible light transmitted through the unit.

WDMA – Window and Door Manufacturers Association.

WEATHER STRIP – A flexible material or device used to seal the opening between a sash/panel and frame, typically made of vinyl or foam.



NOTE:
NO RESTRICTIVE COVENANTS OF RECORD WERE FOUND.

NOTE:
THE BEARINGS SHOWN HEREON ARE ASSUMED.

THIS SURVEY IS
ACKNOWLEDGED AND
IS ACCEPTED:

[Signature]



FLOOD ZONE INTERPRETATION: IT IS THE RESPONSIBILITY OF ANY INTERESTED PERSONS TO VERIFY THE ACCURACY OF FEMA FLOOD ZONE DESIGNATION OF THIS PROPERTY WITH FEMA AND STATE AND LOCAL OFFICIALS, AND TO DETERMINE THE EFFECT THAT SUCH DESIGNATION MAY HAVE REGARDING THE INTENDED USE OF THE PROPERTY. The property made the subject of this survey appears to be included in a FEMA Flood Insurance Rate Map (FIRM), identified as Community No. 48029C, Panel No. 0384H, which is Dated 6/19/2020. By scaling from that FIRM, it appears that all or a portion of the property may be in Flood Zone(s) X. Because this is a boundary survey, the surveyor did not take any actions to determine the Flood Zone status of the surveyed property other than to interpret the information set out on FEMA's FIRM, as described above. THIS SURVEYOR DOES NOT CERTIFY THE ACCURACY OF THIS INTERPRETATION OF THE FLOOD ZONES, which may not agree with the interpretations of FEMA or State or local officials, and which may not agree with the tract's actual conditions. More information concerning FEMA's Special Flood Hazard Areas and Zones may be found at <https://msc.fema.gov/portal>.

Property Address:
1914 W. KINGS HIGHWAY
Property Description:

LOT 23, BLOCK 29, NEW CITY BLOCK 1941, WOODLAWN TERRACE, LYING AND BEING SITUATED IN THE CITY OF SAN ANTONIO, BEXAR COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN VOLUME 642, PAGE 130, DEED AND PLAT RECORDS OF BEXAR COUNTY.

Owner:
MIKE HERMES

I, MARK J. EWALD, Registered Professional Land Surveyor, State of Texas, do hereby certify that the above plat represents an actual survey made on the ground under my supervision, and there are no discrepancies, conflicts, shortages in area or boundary lines, or any encroachment or overlapping of improvements, to the best of my knowledge and belief, except as shown herein.

[Signature]
MARK J. EWALD
Registered Professional Land Surveyor
Texas Registration No. 5095



FIRM REGISTRATION NO.
10111700

**Westar
Alamo**

LAND SURVEYORS, LLC.
P.O. BOX 1645 BOERNE, TEXAS 78006
PHONE (210) 372-9500 FAX (210) 372-9999

LEGEND

- △ = CALCULATED POINT
- = FND 1/2" IRON ROD
- () = RECORD INFORMATION
- B.S. = BUILDING SETBACK
- C.M. = CONTROLLING MONUMENT
- ⊕ = ELECTRIC METER
- ⊙ = GAS METER
- ⊖ = WATER METER
- ⊗ = IRON ROD FENCE
- ⊘ = CHAIN LINK FENCE
- ⊙ = WOOD FENCE
- ⊙ = LIGHT POLE
- ⊙ = POWER POLE
- ⊙ = OVERHEAD ELECTRIC

DWG BY: HDJ RVD BY: RBA
JOB NO. 107304

TITLE COMPANY: EXCEL TITLE COMPANY

DATE: 6/2/2021

G.F. NO. 21-0008724SAR1

MARY LOUISE DRIVE (CLEVELAND)

FURR DRIVE (CONSTANTIA)

DONALDSON AV.

W. GRAMERCY PL. (JOHNS AV.)

W. KINGS HIGHWAY

W. SUMMIT AV.

W. MULBERRY AV.

FREDERICKSBURG

BLVD (AV.)

SAN ANTONIO

ELMIENDORF



Scale 100 Ft. to One Inch.

Copyright 1925 by the Sanborn Map Co.

**YOUR
BANK
ACCOUNT
IS
IMPORTANT**

**THE
GROOS
NATIONAL
BANK**

**Commerce
and
Navarro Sts.**

**INVITES YOU
AND
OFFERS SAFETY
AND
MODERN
FACILITIES**

**MEMBER FEDERAL
DEPOSIT INSURANCE
CORPORATION**



**Who
Sells
It?**

**Is
Answered
By the
Classified
Business
Lists
In this
Directory**

FITCH, CHADWICK & CO.

INSURANCE AND SURETY BONDS

312-16 Insurance Bldg.

Tel. Garfield 9329

KINGS HIGHWAY W—Contd

- 418 Apartments
1 Mackey E C
2 Dickson J A
3 Baum H I
4 Magavern W C
419 Hope A C
422 Quillin R W
426 Vacant
427 McDade Helen Mrs
431 Benton L W
rear Bell Bessie
435 Duger Wm L
438 Apartments
1 Kaufman S S
2 Miller R A
3 Smith S P
4 Ridley J D

Breeden av intscts

- 503 Crescents Apts
Holman Addie Mrs
Fisher J F
503 1/2 Cason W M
506 Stutts J A
511 Vacant
515 Crittenden J F
519 Rochs P A
523 Clayton R F
525 Hachstatler Alex
526 Fleeharty E L
527 Thomson G R
Kitowski C B Dr
531 Hollman H E
Monson Houston
532 Robie M M Mrs
535 Miller W H Dr
536 Apartments
1 Person J W
2 Collins M M
3 Jones Ewing
4 Vacant

- 602 Oden G R Dr
606 Van Horn O J
607 Isbell G P
610 Coleman F M
611 Huber C E
614 Walker A A
615 Krause E E
618 Phillips N A
619 Jordan J A
620 Vacant
622 Killingsworth W H
623 Curtis Maude Mrs
626 Persons W W
627 Rodgers F G
630 King H B
637 Preneti M S
640 Chapa F L

I & G N R R intscts

- 702 Compton H M Mrs
715 Weber R H
716 Northrup P E
720 Kennedy Richd
721 Flanagan Harman
722 Verble Maurine Mrs
725 Davis C R
728 Adams J L
729 Eifler W F

Aganier av intscts

- 800 Vacant
802 Smith Elton
803 Womack M L
806 Jacobs Irene Mrs
807 Reser R D
807 1/2 Reser Eliz Mrs
808 Ross G J
810 Witherspoon H Ford
811 Tidmore Edw
813 Drake G L Mrs
814 Karotkin I P
815 Faulker L E
818 Sanders H E
819 Pressly E Mrs
822 Hogan Archie
823 Einhorn Isabel Mrs
824 Brannen Frank
826 Harris Mae Mrs
827 Thompson D C Mrs
830 McGinness Norman
Sherman Saml
831 Hieser Louise Mrs
832 Weiss Saul
834 Foote R L
835 Phelps Martha Mrs
838 Vacant

Blanco rd intscts

- 902 Jacobs B C
903 McRoberts M L
906 Tate R F
907 Singer Leo
910 Bowlin J W
rear Biggs S T
911 Nessauer Geo
914 Vacant
915 Laas J J
916 Gaetjen T T

- 917 Hasse E J
922 Cassilly F B
923 Cameron R L
926 Herbec M J
927 Greenwood Harry
930 Johnson Sue Mrs
931 Davis N E Mrs
934 Volz J P
935 Garret Gertrude Mrs
938 Rote G T
942 Carl D B
943 Mewhlirter Sydney
944 Goodman Chas
947 Kinney J P

Grant av intscts

- 1002 Williams W A
1004 Eby O R
1011 Bonebrake H C
1014 Nutt G C
1015 Arnot C W
1018 Miller Wilma
1021 Shepler I D adv
1024 Smith L D Jr
1025 Swope J W
1027 Bain H A
1028 Massey Albert
1031 Vacant
1032 Finley S B
1034 Bachelor D E
1035 Sawtelle C O
1038 Villareal M Mrs
1041 Walsh J A
1041 1/2 Powell J T
1045 Barbieri Alf J

Michigan av intscts

- 1100 Chrisman Richd
1102 White E J
1104 Phelps A Burney
1110 Dielman S J
1111 Giraud V B Mrs
Ender L M Mrs
1114 Vacant
1115 Vacant
1118 Weidner C T
1119 Graves R A
Frazier F W
1121 Turner T A
1122 Granfors J W
1124 Franz Elmo
1127 Dower V A Mrs
1131 Jennings Vance
1134 Roberts M L Mrs
Guadalupe Valley Pecan
Co
1135 Carson T J
1139 Knebel Besse Mrs
1143 Hilley E M
1145 Cadena D G

Capitol av intscts

- 1204 Kriss Peter J
S A & A P R R intscts

Warner intscts

- 1445 Lawhon W A
1446 Wilson H L

Neer av intscts

- 1502 Longist W P
1503 Wandell G W
1506 Brewer Mattie Miss
1507 Cotter T P Jr
1510 Herbst Albert
1511 Kornegay J A
1514 Marshall F T
1515 Lewis F W
1518 Morrison F B
1519 Kneeland A P
1522 Cockrell S J
1523 Dunlap N P Mrs
Whipple Lester
1526 Page R E
1527 Vacant
1530 Post M A
Post E S
1531 Tonchstone R H
1533 Talbott H B
1534 Davenport Chas
1535 Frances H L
1538 Watkins C L
1543 Dickerson G W
1546 Gotthard A T

Buckeye av intscts

Fredericksburg rd intscts

- 1614 Simpson Mary Mrs
1616 Engel M C
1618 Chavis Mae Mrs
1619 Latimer O E
1620 Webster F E
rear Vacant
1622 Tower Apts The
1 Brand R H
2 Crawford F A
3 Striebeck L E
4 Marshall E M Mrs
1623 Juraschek M H Mrs

- 1628 Tower Apts The
5 Haver O B
6 Varga E L
7 Patterson J W
8 Vacant

- 1630 Vacant
rear Vacant
1633 Rivers Theo

N Zarzamora intscts

- 1702 Monte Carlo Clars
1707 Felt M F
1711 Proctor A L
1714 Vacant
1715 Barnes W B
1727 Vacant
1730 Jackson R M
1731 Keylich C C
1734 Fly Saml L
1735 Crossley L Mrs
1738 Capron C B
1739 Means C W
1742 Skiles C A
1747 Van Deventer F M
1751 Coppard L M
1754 Vacant
1755 Finkle Minnie Mrs

N Elmendorf intscts

- 1801 Nevins J W
1805 Vacant
1806 Fenner W H
Clements J V
1810 Smith E G
1811 Weinecke A C
1814 Krous B W Dr
1815 Gold Felix
1819 Karnes C K
1820 Nussle F A
1823 Brady J E
1827 Summerlin S M
1830 MacCurdy R R
1838 Edgar J J
1842 Wofford F B
1846 Ro-zak P M Mrs

San Antonio intscts

- 1901 Raines F D
1906 Hall R L
1908 Smith W B
1914 Potter H H
1915 Bivins W T
1918 Hale J P
1919 Baldwin D D Mrs
1923 Apartments
1 Kipp Grace Mrs
2 Doyle J E
3 Collins G F Mrs
4 Crenshaw A L

- 1927 Hanke W F
1930 Barberio Ernest
1931 Hein F D
1934 Vacant
1937 Smith Almyra Mrs
1942 Brinkman Martha Mrs
1946 Rowe W S

Montrose av intscts

- 2000 McPeak E M Dr
2001 Simonsen Arth
2012 Randal T A
2014 Rogers J W
2015 Alterman N E
2017 Borchardt Rebecca
2019 Hubbard A F
2020 Askew Rual
Wolf W R
2021 Parks J E
2022 Weiss O J
2023 Bower E E
2027 Forest F C
2030 Long A W
2031 Grandjean M R Mrs
2034 Cart C W
2035 Rader E V
2039 Smith E H Mrs
2042 Weiss W J C
2046 Calkins J W
2047 Cain P J
2050 Pfennig Ella Mrs
2051 Talevich T J
2054 Tingler A C
2055 Watts P H

Lake blvd intscts

- 2102 Daubert C A
2107 Cooper B E
2110 Pitman B F Jr
2111 Dinsmoor C G
2115 Seeley E H
2118 Miller O E
2126 Morriss W A Jr
rear Parrish Gevace
2130 Wolf J H
2131 Parker E C
2134 White R W
2135 Vacant
2138 Jennings R F
2141 Vacant
2142 Brusenhan R L
2150 Vacant
2151 Ebert W A