

**City of Poughkeepsie  
Historic District and Landmarks Preservation Commission  
Meeting Agenda**

Common Council Chambers

Tuesday, August 9, 2022

4:30 PM

**I. APPLICATION FOR CERTIFICATE OF APPROPRIATENESS**

**1. 108 Academy Street**

Applicant information:

Name: Albert & Michelle White

Address: 108 Academy St., Poughkeepsie, NY 12601

Project classification: Exterior Alteration – replacement of 10 windows and exterior paint

**2. 317 Main Street**

Applicant information:

Name: Arthur T. Rollin dba Rollin Preservation

Address: 114 Hooker Avenue

Project classification: Exterior Alteration and Repair or Replacement – façade work including window replacement, window repair, reopening of infilled window, repair of exterior trim and cornice, and repair of awning.

**3. 113 Academy Street – Windows**

Applicant information:

Name: Gary Beck Jr., Z3 Consultants, Inc.

Address: PO Box 363, Lagrangeville, NY 12540

Project classification: Exterior Alteration – window replacement

**II. COMMISSION BUSINESS**

**1. New / Old Business**



Gary E. Beck, Jr.  
Building Inspector

**THE CITY OF POUGHKEEPSIE  
NEW YORK**  
**BUILDING PLANNING & ZONING**  
62 CIVIC CENTER PLAZA, 2<sup>ND</sup> FLOOR  
POUGHKEEPSIE, NY 12601  
Phone: (845) 451-4007 Fax: (845) 451-4006

Staff Use Only  
Application # PD-2022-084  
ID # 004150

**THE HISTORIC DISTRICT & LANDMARKS PRESERVATION COMMISSION  
APPLICATION**

(Type or print neatly. Illegible applications will not be accepted.)

**APPLICANT INFORMATION**

Project Address: 108 Academy St. Poughkeepsie NY 12601  
Applicant Name: Albert + Michelle White  
Applicant's Address: 108 Academy St.  
City: Poughkeepsie  
State/Zip: NY 12601  
Email: mboddenwhite@gmail.com &  
olbenbless@gmail.com  
Phone Number(s): (718) 570-6650 or (646) 204-4731

Property Owner (if not the applicant): \_\_\_\_\_  
(If applicant is not the property owner, a letter of authorization from the owner **MUST** accompany the application.)

**PROJECT CLASSIFICATION** (Check all boxes that apply to the proposed project):

- ☐ New construction (construction of a new building, addition, garage, shed, swimming pool, etc)
- ☒ Exterior alteration (includes, but is not limited to, all exterior changes to windows, doors, roof, paint colors, etc)
- ☐ Landscaping (removing or adding significant plantings or landscape features such as driveways, sidewalks, fencing, retaining walls, patios, etc., that will alter the appearance of the property)
- ☒ Repair or replacement
- ☐ Restoration (railings, balconies, cornices, porches, etc.)
- ☐ Relocation
- ☐ Demolition
- ☐ Other: \_\_\_\_\_

**WORK DESCRIPTION** (Describe in detail all proposed work and indicate all materials to be used. Attached the manufacturer's product literature if available. Please keep in mind that the information you give to the Commission is the only description they will have of your design. It must illustrate what you have in mind very accurately.) Attach additional sheets as required.):

Windows - Ten wooden windows that are exact





**THE CITY OF POUGHKEEPSIE  
NEW YORK**

**BUILDING PLANNING & ZONING**  
62 CIVIC CENTER PLAZA, 2<sup>ND</sup> FLOOR  
POUGHKEEPSIE, NY 12601

Gary E. Beck, Jr.  
Building Inspector

Phone: (845) 451-4007 Fax: (845) 451-4006

*replacements of current windows.*

*House was repainted using Benjamin Moore  
Historical Colors*

**REQUIRED ATTACHMENTS TO SUBMIT WITH THE APPLICATION** (Please submit the following attachments in triplicate):

**Recent Color Photos:** Include photos of each side of the building (and site when landscaping changes are proposed) with close-ups of the specific area(s) to be changed.

**Color chips, charts or color samples:** If your plans include paint or stain, describe the color(s) and include a sample along with information on color placement. A good way to show the color scheme is to color one or more of the elevations.

**Material Samples/Manufacturer's Brochures:** Material samples (when possible), manufacturer's brochures, product literature or catalog pages.

**Plot Plan:** A plot plan must be included for new construction, additions, demolition, fencing and major landscaping projects. The plan must be drawn to scale, indicating property lines, existing structures and/or landscaping, their relationship to adjacent structures and any proposed changes.

**Elevation drawings:** Include all relevant views at the scale necessary to show building detail. The elevations should be accurately labeled with cardinal directions. The existing building should be included with as much detail as necessary to show how the old and the new relate to each other.

**OWNER/APPLICANT SIGNATURE:**

I hereby certify that I understand this application will not be accepted until all requested information has been supplied. I also understand that this application may require a site visit and/or public hearing by the City of Poughkeepsie Historic District and Landmarks Preservation Commission

*[Handwritten Signature]*

Signature of Owner

Date: *6/2/22*

OR

Signature of Agent/Applicant

Date: \_\_\_\_\_



|               |
|---------------|
| CREATED DATE  |
| 10/18/2021    |
| LATEST UPDATE |
| 11/11/2021    |

SOLD TO:

SOLD BY:

Custom Restoration Inc  
81 Medway Ave  
Congers, NY 10920-2826

## Abbreviated Quote Report - Customer Pricing

TRADE ID

CUSTOMER PO#

QUOTE NUMBER

1438326

PROJECT NAME

LPC

DELIVERY NOTES:

ORDER NOTES:

WHITE

Unit Price Ext. Price

Location

Operation

Item Qty

100

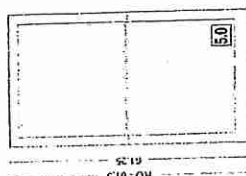
9

None Assigned

AA

Unit Size = 32 3/4" x 61 1/4"

RO Size = 33 1/8" x 61 1/2"



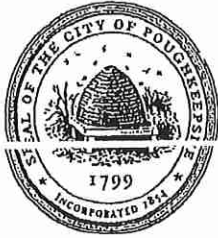
Unit 2' 8 3/4"X5' 1 1/4", Unit, 8 Degrees - Moderate, 400 Series Double-Hung-Insert, Equal Sash, Canvas Exterior Frame, Canvas Exterior Sash/Panel, Pine w/White - Painted Interior Frame, Pine w/White - Painted Interior Sash/Panel, AA, Dual Pane Low-E4 Standard Argon Fill Stainless Glass / Grille Spacer, Traditional, 1 Sash Locks White (Factory Applied), WhiteJamb Liner, Terratone, Full Screen, Aluminum

Insect Screen 1: 400 Series Double-Hung-Insert, TWI 32.75 x 61.25 8 Degrees - Moderate Full Screen Aluminum Terratone

Comments:

| Unit # | U-Factor | SHGC |
|--------|----------|------|
| A1     | 0.3      | 0.32 |

| Clear Opening/Unit # | Width   | Height  | Area (Sq. Ft) |
|----------------------|---------|---------|---------------|
| A1                   | 28.9520 | 25.8290 | 5.19310       |



Gary E. Beck, Jr.  
Building Inspector

**THE CITY OF POUGHKEEPSIE  
NEW YORK  
BUILDING PLANNING & ZONING  
62 CIVIC CENTER PLAZA, 2<sup>ND</sup> FLOOR  
POUGHKEEPSIE, NY 12601  
Phone: (845) 451-4007 Fax: (845) 451-4006**

## **THE HISTORIC DISTRICT & LANDMARKS PRESERVATION COMMISSION APPLICATION**

### **INTRODUCTION**

Section 19-4.5(5) of the Zoning Ordinance requires that the Historic District and Landmarks Preservation Commission "...shall review all plans for the moving, exterior construction, alteration or repair, landscaping or demolition or any change in the exterior appearance of places, sites, structures or buildings designated landmarks or landmark sites and all places, sites, structures or buildings wholly or partly within the boundaries of a historic district."

### **STANDARDS AND GUIDELINES**

In making its determinations, the Commission uses the guidelines specified in Section 19-4.5 of the Zoning Ordinance as well as the Secretary of the Interior's Standards for Rehabilitating Historic Properties. The Zoning Ordinance may be found on-line on the City of Poughkeepsie's website, [cityofpoughkeepsie.com](http://cityofpoughkeepsie.com), in the Government section under "Codes & Charter." The Secretary of the Interiors Standards may be found on-line at <http://www.cr.nps.gov/hps/TPS/tax/rhb/stand.htm>.

### **FILING THE APPLICATION**

Please read the application instructions carefully and attach all required documentation. Incomplete applications cannot be accepted for review. Please call the Building Department at 451-4007 if you have any questions about the application process or if you would like to schedule a pre-submittal appointment to discuss your application.

Applications are to be filed with the Building Department. The Building Inspector will transmit complete applications, with supporting documentation, to the Commission for placement on the next agenda. Within one week of the filing of the application, the Building Department will send you either a deficiency letter or a letter confirming the scheduling of your application before the Commission.

Applications must be received at least two weeks prior to the regularly scheduled meeting of the Commission. Meetings are scheduled for the fourth Wednesday of each month at 7pm in the Common Council Chambers on the third floor of City Hall at 62 Civic Center Plaza. Walk in applications are not accepted.

You are encouraged to attend the meeting at which the Commission will review your application. This will enable you to answer any questions that are raised by the Commission or neighboring property owners. Once the Commission has determined that the application is complete, the Commission will approve, approve with conditions or deny the application.





















































Gary E. Beck, Jr.  
Building Inspector

**THE CITY OF POUGHKEEPSIE  
NEW YORK  
BUILDING PLANNING & ZONING**  
62 CIVIC CENTER PLAZA, 2<sup>ND</sup> FLOOR  
POUGHKEEPSIE, NY 12601  
Phone: (845) 451-4007 Fax: (845) 451-4006

Staff Use Only  
Application #  
ID #

**THE HISTORIC DISTRICT & LANDMARKS PRESERVATION COMMISSION  
APPLICATION**

(Type or print neatly. Illegible applications will not be accepted.)

**APPLICANT INFORMATION**

Project Address: 317 Main Street, Poughkeepsie NY 12601

Applicant Name: Arthur T. Rollin dba Rollin Preservation

Applicant's Address: 114 Hooker Avenue

City: Poughkeepsie

State/Zip: New York / 12601

Email: arthur.rollin@gmail.com

Phone Number(s): Applicant: 704-763-4482, owner: 845-471-1047

Property Owner (if not the applicant): 315 Main Street, LLC  
(If applicant is not the property owner, a letter of authorization from the owner **MUST** accompany the application.)

**PROJECT CLASSIFICATION** (Check all boxes that apply to the proposed project):

- ☐ New construction (construction of a new building, addition, garage, shed, swimming pool, etc)
- ☒ Exterior alteration (includes, but is not limited to, all exterior changes to windows, doors, roof, paint colors, etc)
- ☐ Landscaping (removing or adding significant plantings or landscape features such as driveways, sidewalks, fencing, retaining walls, patios, etc., that will alter the appearance of the property)
- ☒ Repair or replacement
- ☐ Restoration (railings, balconies, cornices, porches, etc.)
- ☐ Relocation
- ☐ Demolition
- ☐ Other: \_\_\_\_\_

**WORK DESCRIPTION** (Describe in detail all proposed work and indicate all materials to be used. Attached the manufacturer's product literature if available. Please keep in mind that the information you give to the Commission is the only description they will have of your design. It must illustrate what you have in mind very accurately.) Attach additional sheets as required.):





Gary E. Beck, Jr.  
Building Inspector

**THE CITY OF POUGHKEEPSIE  
NEW YORK  
BUILDING PLANNING & ZONING  
62 CIVIC CENTER PLAZA, 2<sup>ND</sup> FLOOR  
POUGHKEEPSIE, NY 12601  
Phone: (845) 451-4007 Fax: (845) 451-4006**

Repair of existing, non-historic, windows on front (south) facade. Repair of existing historic wood windows on side (east) facade with one window replacement. Replacement of existing, non-historic, windows on rear (north) facade. Removal of existing infill brick at historic window openings and installation of new windows on rear (north) facade). Repainting and repair, as needed, exterior wood trim, including cornices at the front and rear. Color and appearance to remain, in-kind, unless otherwise noted. Repair of existing storefront awning on front (south) facade, as needed. Please see the attached drawing set for more information.

**REQUIRED ATTACHMENTS TO SUBMIT WITH THE APPLICATION** (Please submit the following attachments in triplicate):

**Recent Color Photos:** Include photos of each side of the building (and site when landscaping changes are proposed) with close-ups of the specific area(s) to be changed.

**Color chips, charts or color samples:** If your plans include paint or stain, describe the color(s) and include a sample along with information on color placement. A good way to show the color scheme is to color one or more of the elevations.

**Material Samples/Manufacturer's Brochures:** Material samples (when possible), manufacturer's brochures, product literature or catalog pages.

**Plot Plan:** A plot plan must be included for new construction, additions, demolition, fencing and major landscaping projects. The plan must be drawn to scale, indicating property lines, existing structures and/or landscaping, their relationship to adjacent structures and any proposed changes.

**Elevation drawings:** Include all relevant views at the scale necessary to show building detail. The elevations should be accurately labeled with cardinal directions. The existing building should be included with as much detail as necessary to show how the old and the new relate to each other.

**OWNER/APPLICANT SIGNATURE:**

I hereby certify that I understand this application will not be accepted until all requested information has been supplied. I also understand that this application may require a site visit and/or public hearing by the City of Poughkeepsie Historic District and Landmarks Preservation Commission

315 Main Street LLC

By: *Andrew A. Lewis*

Signature of Owner

Date: 6/2/2022

*Arthur J. Rubin*

OR

Signature of Agent/Applicant

Date: 06/02/22

**Owner's authorization:**

As property owner of 317 Main Street, I hereby authorize the above named Agent/Applicant to act on my behalf in presenting this application to the City of Poughkeepsie Historic District and Landmarks Preservation Commission.

315 Main Street LLC

By: *Andrew A. Lewis*

Signature of Owner

Date: 6/2/2022









E-I PHOTO OF SOUTH ELEVATION

E-6 PHOTO OF NORTH ELEVATION

E-10 PROPOSED NORTH ELEVATION



A-I EAST ELEVATION

NOTES:

EXISTING WINDOWS FOR REHABILITATION

#5,#6,#7,#8, #9, #10, #11,#12,#16,#17,#18,#19, #20,#21

NEW WINDOWS

#13,#14,#15

REPLACEMENT WINDOWS

#22, #23, #24, #25,#26

SEE WINDOW SCHEDULE FOR MORE INFO

|     |                                  |         |
|-----|----------------------------------|---------|
| 3   | REVISED WINDOW DETAILS           | 5-24-22 |
| 2   | ADDED W200 W201 - WINDOW DETAILS | 5-12-22 |
| 1   | ADDED SHEET W100 - WINDOW REPAIR | 4-29-22 |
| No. | REVISION/SUBMISSION              | DATE    |

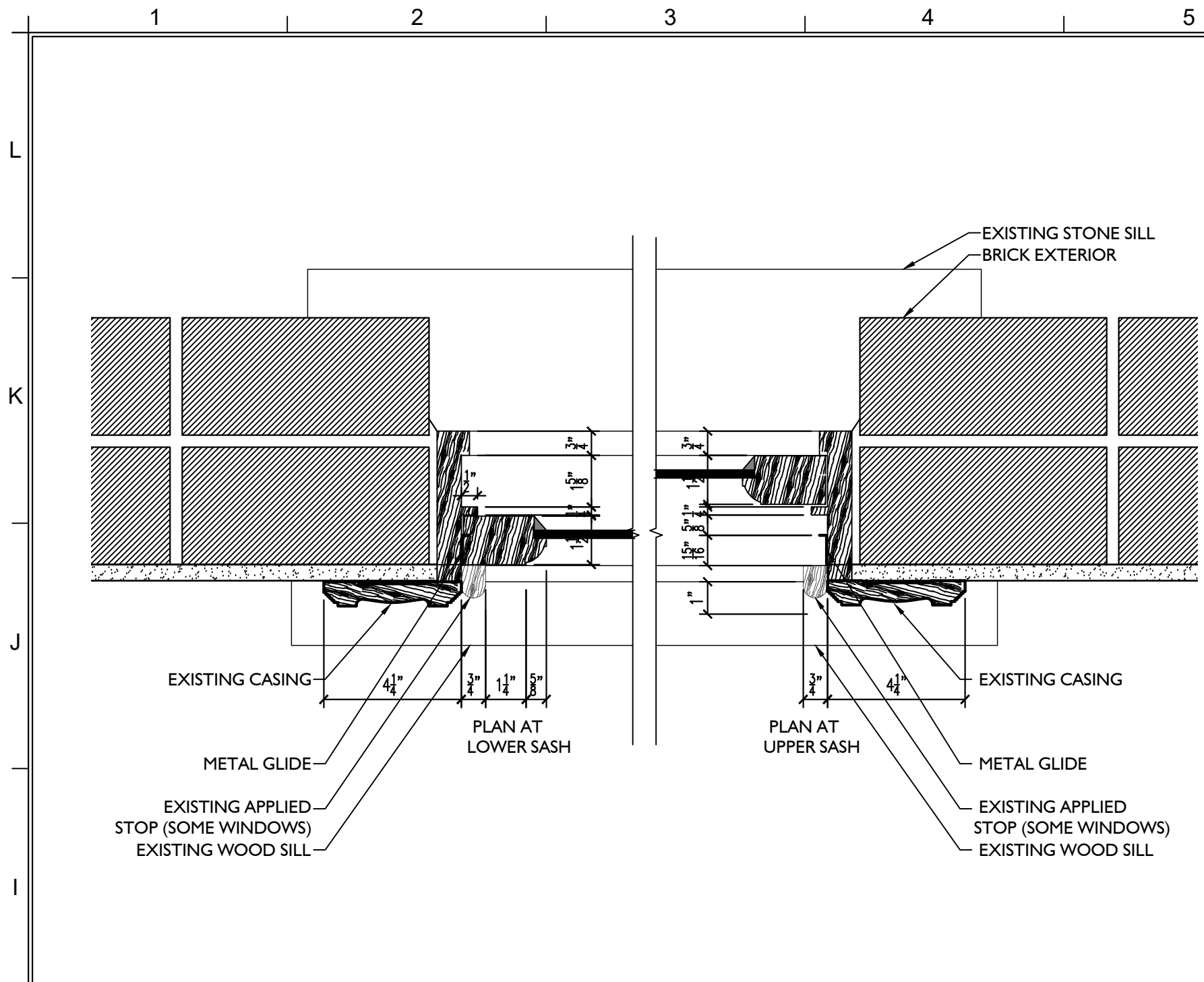
**Liscum McCormack VanVoorhis**  
181 CHURCH STREET  
POUGHKEEPSIE, NEW YORK 12601  
ARCHITECTURE PLANNING INTERIORS PHONE 845-452-2268 FAX 845-452-3752

PROJECT  
317 MAIN STREET  
POUGHKEEPSIE, NY

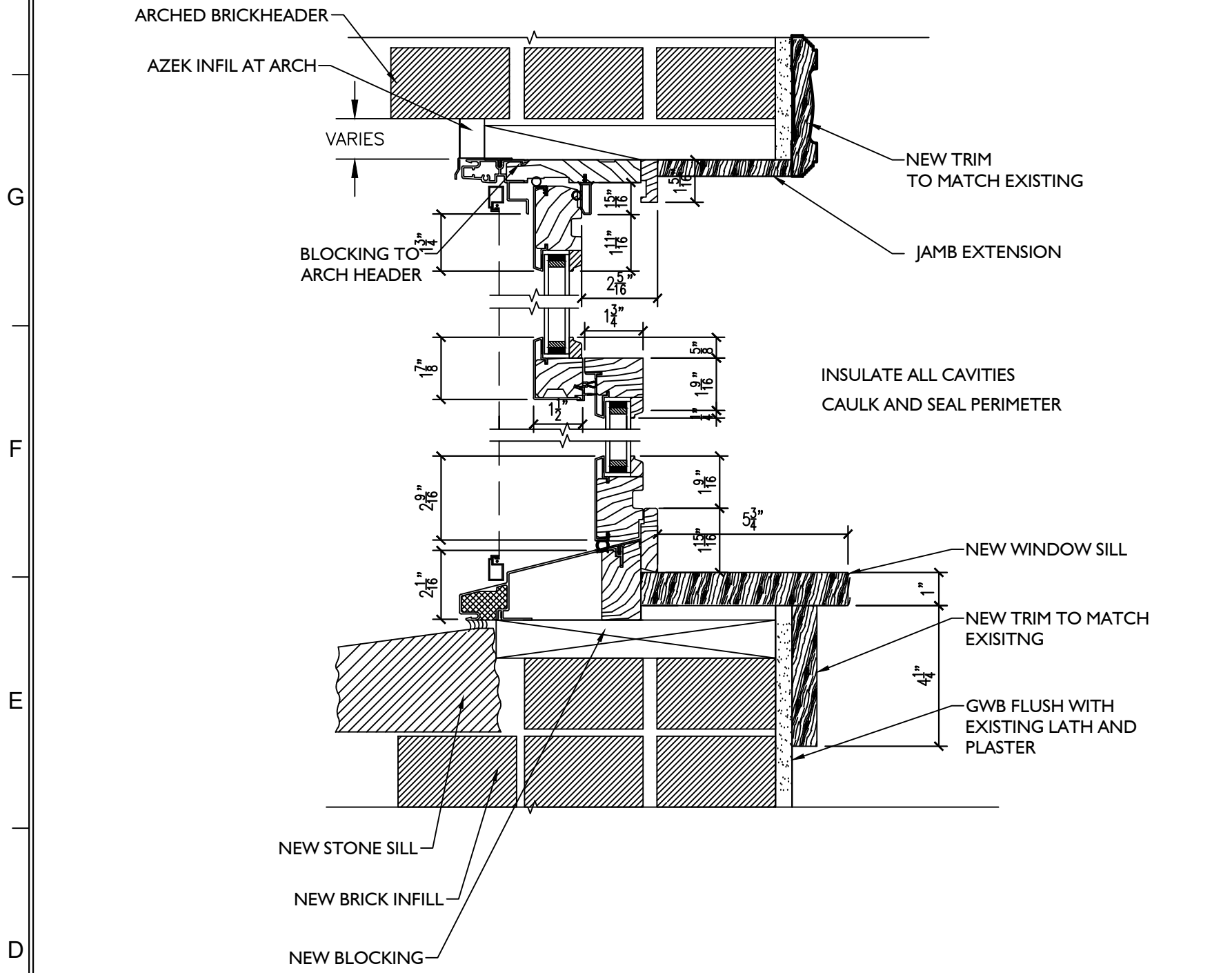
DRAWING  
PHOTOS & DRAWINGS  
OF EXTERIOR ELEVATIONS

|      |                               |                         |
|------|-------------------------------|-------------------------|
| SEAL | DRAWN BY<br>HM/KR             | PROJECT NUMBER<br>21112 |
|      | CHECKED BY<br>KR              | DATE<br>5-16-22         |
|      | DRAWING NUMBER<br><b>W200</b> |                         |
| FILE | P:\2000\JOB # - JOB NAME\     |                         |

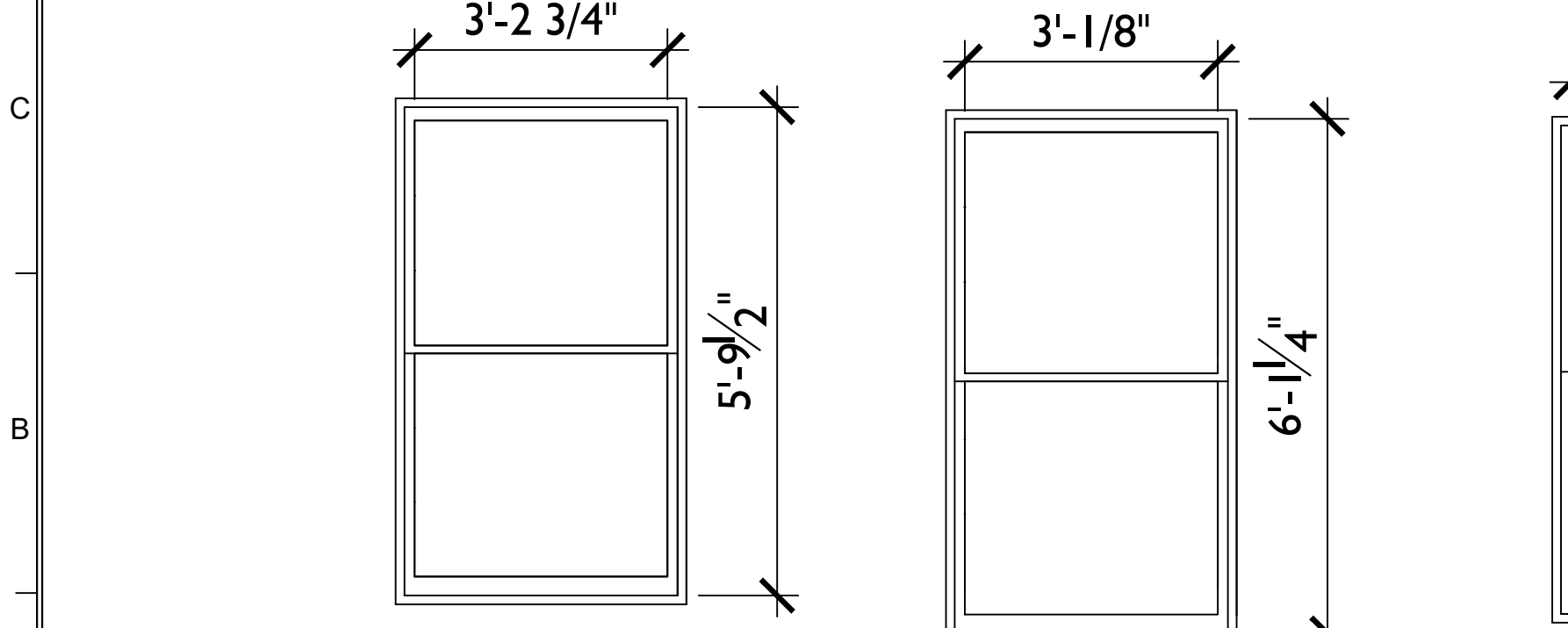




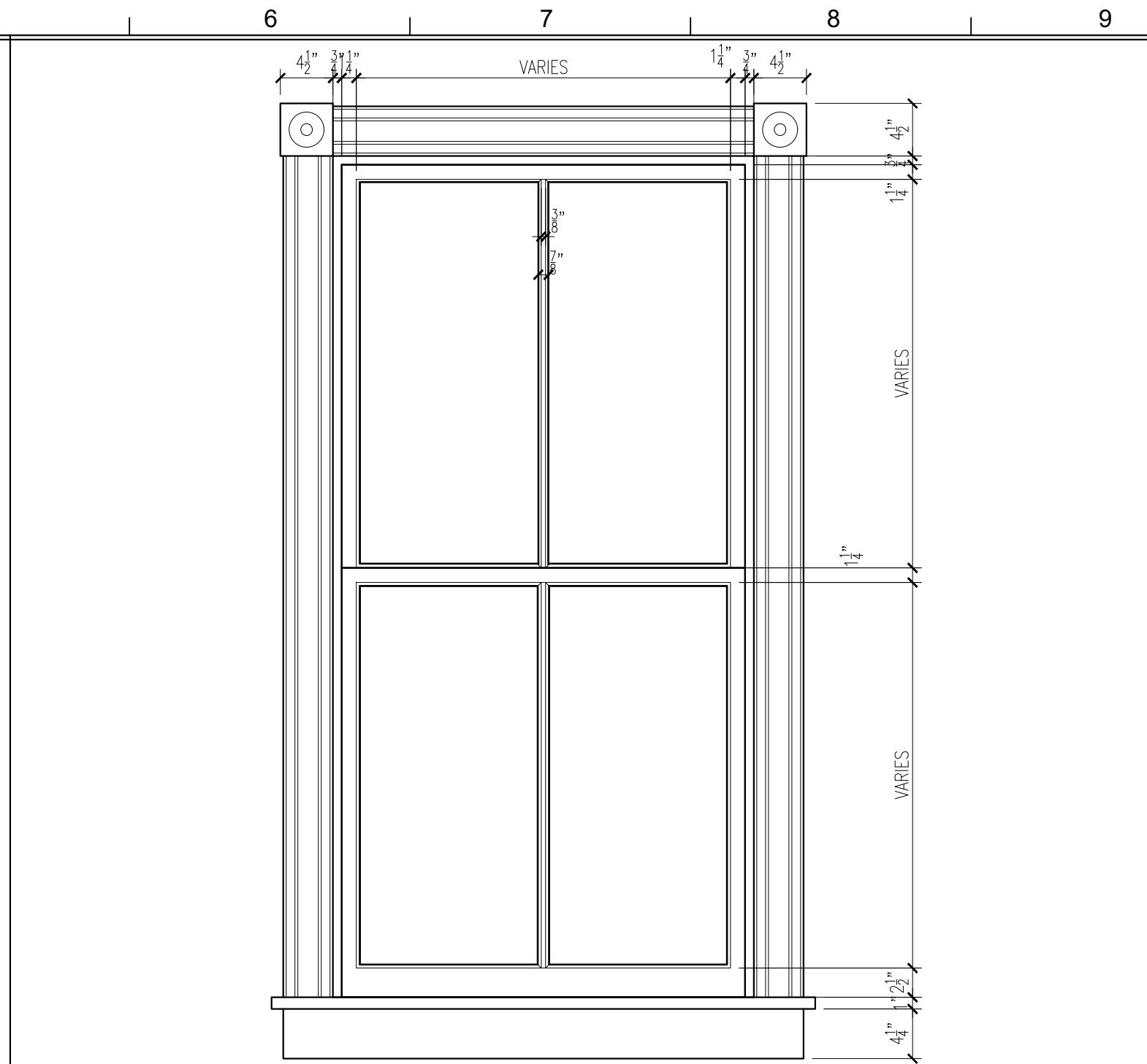
**H-I** WINDOW PLAN SECTION  
3"=1'-0" ORIGINAL THRID FLOOR WINDOW



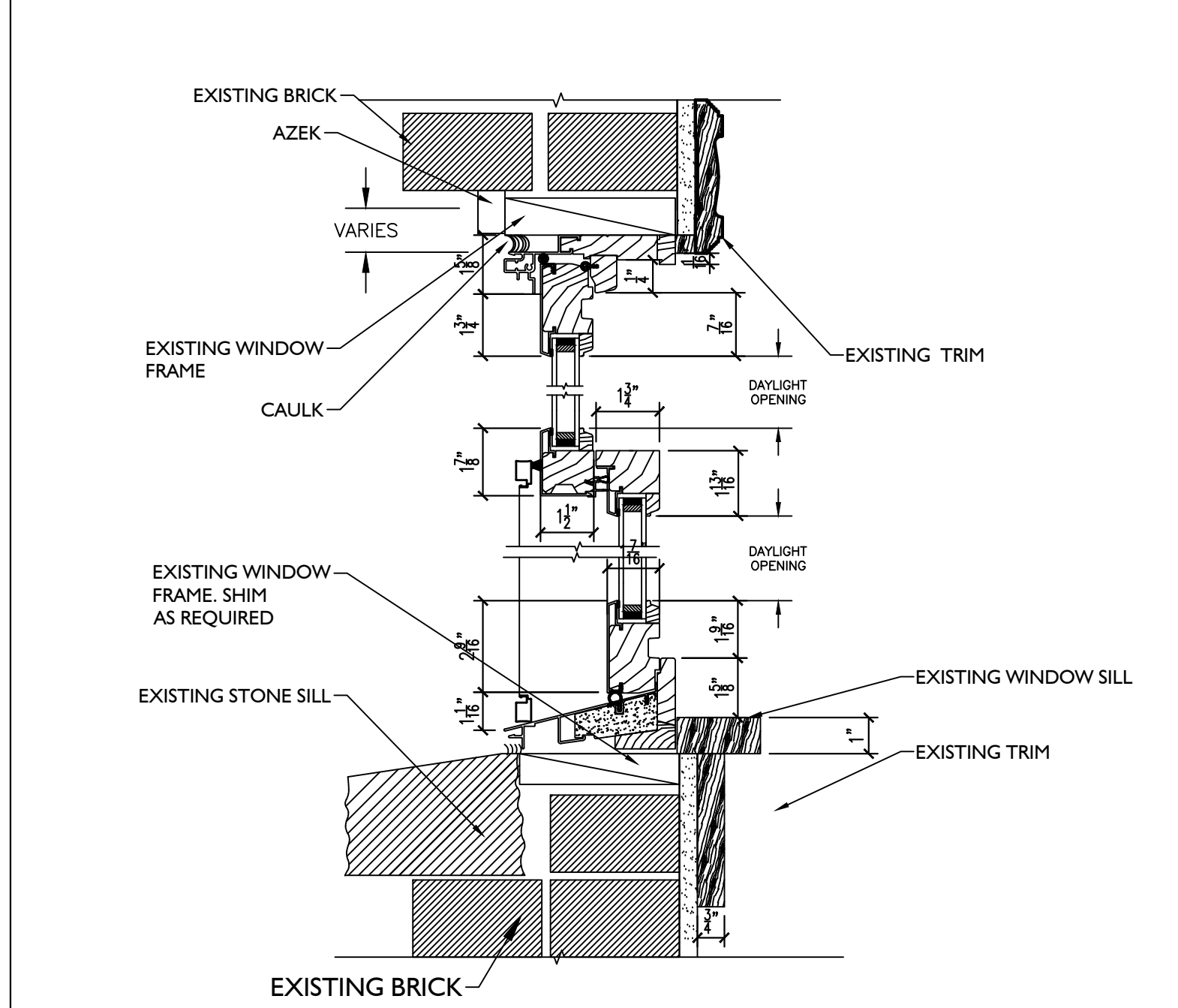
**D-I** WINDOW SECTION  
3"=1'-0" PINNACLE SERIES



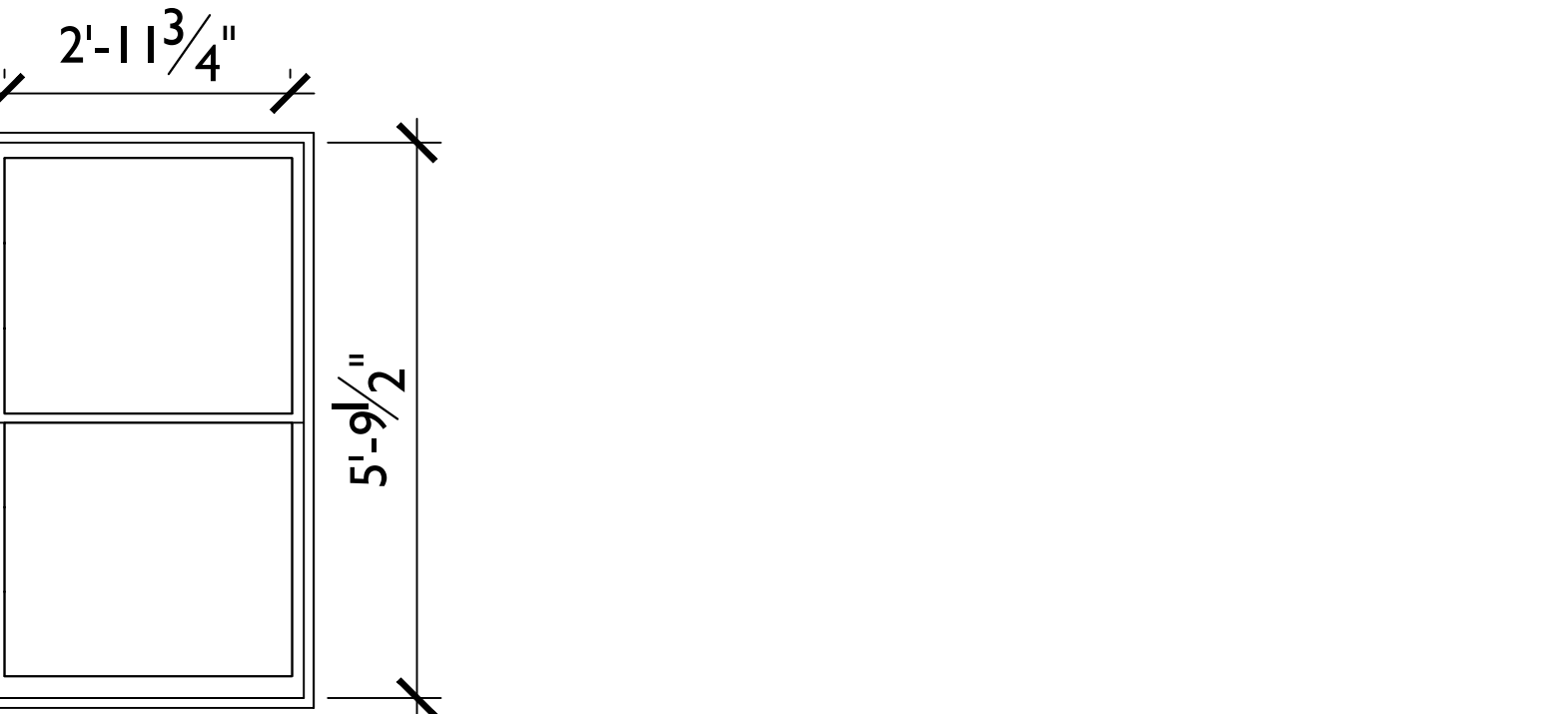
**A-I** NEW WINDOW TYPES - WINDSOR WINDOWS  
3/16"=1'-0"



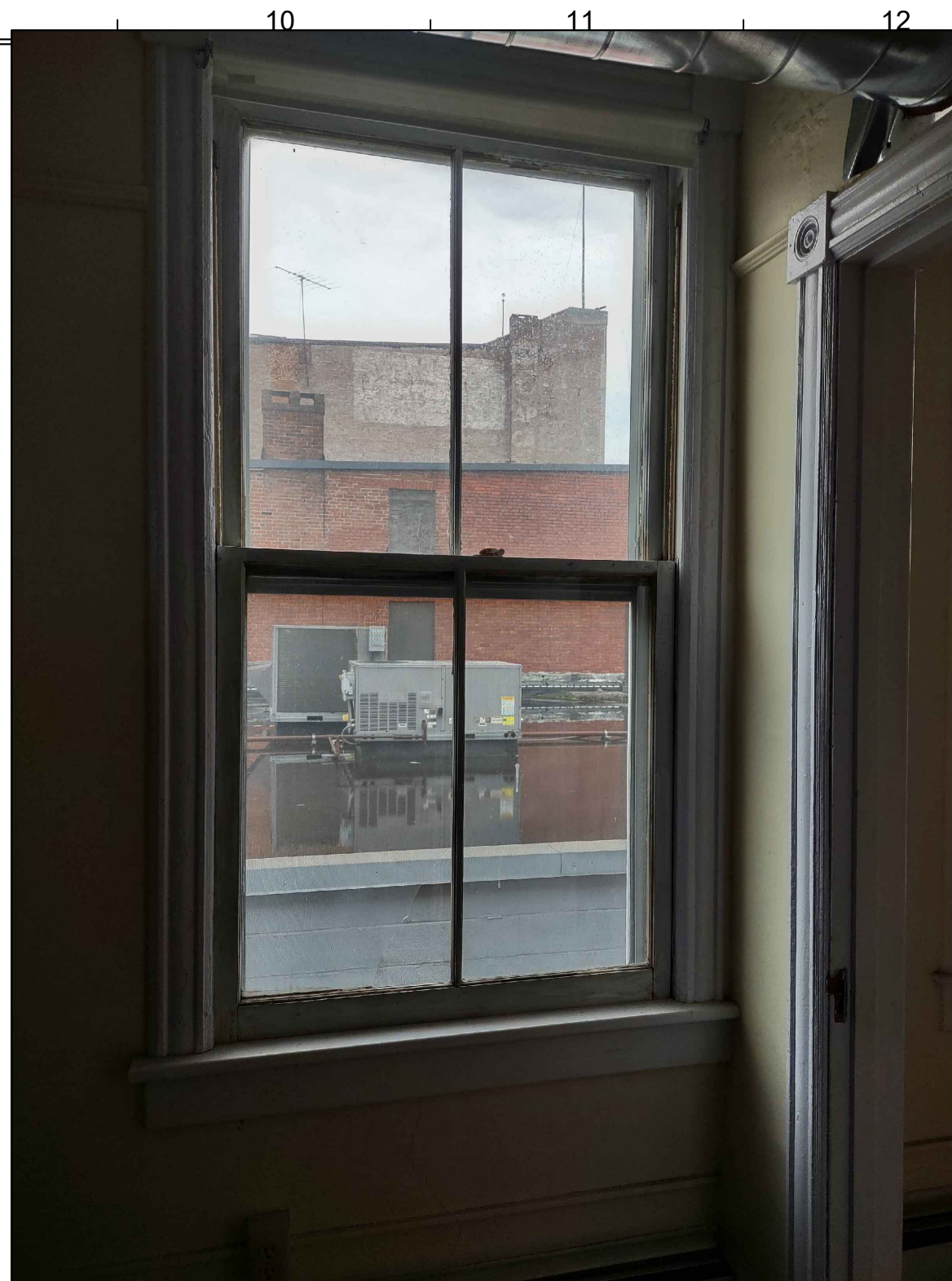
**H-I** WINDOW ELEVATION  
1"=1'-0" ORIGINAL THRID FLOOR WINDOW



**D-6** WINDOW SECTION  
3"=1'-0" REVIVE SERIES



**A-I** NEW WINDOW TYPES - WINDSOR WINDOWS  
3/16"=1'-0"

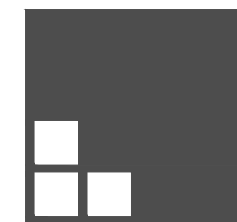


**H-I** WINDOW INTERIOR PHOTO  
ORIGINAL THRID FLOOR WINDOW #21

| WINDOW SCHEDULE |       |        |       |          |                                                                                                                                      |  |
|-----------------|-------|--------|-------|----------|--------------------------------------------------------------------------------------------------------------------------------------|--|
| MARK            | SIZE  |        | TYPE  | MATERIAL | NOTES                                                                                                                                |  |
|                 | Width | HEIGHT |       |          |                                                                                                                                      |  |
| 1               | 3'-7" | 6'-0"  | FIXED | ---      | Existing Storefront                                                                                                                  |  |
| 2               | 2'-8" | 4'-2"  | FIXED | ---      | Existing Storefront                                                                                                                  |  |
| 3               | 2'-8" | 4'-2"  | FIXED | ---      | Existing Storefront                                                                                                                  |  |
| 4               | 3'-0" | 6'-0"  | FIXED | ---      | Existing Storefront                                                                                                                  |  |
| 5               | 3'-0" | 6'-3"  | DH    | ---      | RW - install new weatherstripping                                                                                                    |  |
| 6               | 2'-7" | 6'-0"  | DH    | ---      | RW - double units of the same size, exterior sill requires repair and repainting, repair one screen                                  |  |
| 7               | 3'-0" | 6'-3"  | DH    | ---      | RW - replace weatherstripping, repair exterior casing                                                                                |  |
| 8               | 3'-0" | 6'-7"  | DH    | ---      | OW - install weatherstripping, remove/replace stops, replace latch, repair storm window to smooth function,                          |  |
| 9               | 3'-0" | 6'-7"  | DH    | ---      | OW - install weatherstripping, new stops, repair storm window to smooth function                                                     |  |
| 10              | 3'-0" | 6'-7"  | DH    | ---      | OW - install weatherstripping, replace/install latch, repair sill and paint                                                          |  |
| 11              | 3'-0" | 6'-7"  | DH    | ---      | OW - install weatherstripping, repair/replace sub sill and paint, repair latch                                                       |  |
| 12              | 3'-0" | 6'-7"  | DH    | ---      | OW - install weatherstripping, repair to smooth function, replace/repair sill/subsill/repair latch                                   |  |
| 13              | 3'-0" | 6'-0"  | DH    | ---      | Raise height of sill from original opening so sill is not on roof below, install Pinnacle Series Window                              |  |
| 14              | 3'-0" | 6'-0"  | DH    | ---      | Raise height of sill from original opening so sill is not on roof below, install Pinnacle Series Window                              |  |
| 15              | 3'-0" | 6'-0"  | DH    | ---      | Raise height of sill from original opening so sill is not on roof below, install Pinnacle Series Window                              |  |
| 16              | 3'-3" | 6'-0"  | DH    | ---      | RW - adjust window to latch, remove solar film                                                                                       |  |
| 17              | 3'-3" | 6'-3"  | DH    | ---      | RW - remove solar film                                                                                                               |  |
| 18              | 3'-3" | 6'-0"  | DH    | ---      | RW - No work                                                                                                                         |  |
| 19              | 3'-0" | 6'-0"  | DH    | ---      | OW - adjust ropes and weights, install stops, repair meeting rail, repair/replace jambs and sills/subsills, install weatherstripping |  |
| 20              | 3'-0" | 6'-0"  | DH    | ---      | OW - install weatherstripping, repair glazing, repair/replace jambs and sill/subsill, repair latch                                   |  |
| 21              | 3'-0" | 6'-0"  | DH    | ---      | OW - install weatherstripping, repair glass, repair/replace jambs and sill/subsill and latch                                         |  |
| 22              | 3'-0" | 6'-0"  | DH    | ---      | Alum RW - replace window Revive series                                                                                               |  |
| 23              | 3'-0" | 6'-0"  | DH    | ---      | Alum RW - replace window Revive series                                                                                               |  |
| 24              | 3'-0" | 6'-0"  | DH    | ---      | Alum RW - replace window Revive series                                                                                               |  |
| 25              | 3'-0" | 6'-0"  | DH    | ---      | Alum RW - replace window Revive series                                                                                               |  |
| 26              | 3'-0" | 6'-0"  | DH    | ---      | Alum RW - replace window Revive series                                                                                               |  |

RW - REPLACEMENT WINDOW WOOD CLAD  
OW - ORIGINAL WINDOW ALUMINUM  
Alum RW - REPLACEMENT WINDOW ALL LUMINUM

|     |                                  |         |
|-----|----------------------------------|---------|
| 3   | REVISED WINDOW DETAILS           | 5-24-22 |
| 2   | ADDED W200 W201 - WINDOW DETAILS | 5-12-22 |
| 1   | ADDED SHEET W100 - WINDOW REPAIR | 4-29-22 |
| No. | REVISION/SUBMISSION              | DATE    |



Liscum  
McCormack  
VanVoorhis

ARCHITECTURE  
181 CHURCH STREET  
POUGHKEEPSIE, NEW YORK 12601  
PLANNING INTERIORS PHONE 845-452-2268 FAX 845-452-3752

PROJECT  
317 MAIN STREET  
POUGHKEEPSIE, NY

DRAWING  
WINDOW SCHEDULE  
WINDOW SECTIONS AND WINDOW TYPES

|      |                               |                         |
|------|-------------------------------|-------------------------|
| SEAL | DRAWN BY<br>HM/KR             | PROJECT NUMBER<br>21112 |
|      | CHECKED BY<br>KR              | DATE<br>5-16-22         |
|      | DRAWING NUMBER<br><b>W201</b> |                         |
| FILE | P:\2000\JOB # - JOB NAME\     |                         |





June 22, 2022

To: HDLPC Chairman & HDLPC Commission Members

From: Gary E. Beck Jr. / Z3 Consultants

Re: 113 Academy Street  
Poughkeepsie, NY  
Parcel No. 131300-6161-21-062877-0000

Dear Chairman Privratsky and the HDLPC Commission,

We are submitting this letter to you along with the previous information we submitted regarding the windows that our client would like to install at his home.

We have reached out to other window companies to get quotes on different types of windows as well as reached out to someone to restore all the windows in the home. The cost to restore the windows was \$3,000.00 per window. To have all the windows restored would cost upwards of \$180,000 and would take over a year. The price to have the windows restored, would cost half of what the house was purchased for.

In 2021 the fire department had come out and deemed the third story windows a fire hazard as they would not open. The client went to the building department, not knowing they had to come before the commission and received building department approval to purchase the windows and replace them. Because of this approval, our client went out and purchased the additional windows to replace throughout the home. The cost of these windows that has already been purchased is \$60,000.00. The measurements that were originally taken had the aluminum screens in place, which are not historic. If you take these storms out, then that slight difference that is being scrutinized is no longer there.

Our client is trying to do right by the commission. Everything that he wanted to do at the home was brought before the commission for approval. Our clients are adding value to their home as well as the neighborhood. Rather than let the house go, they are bringing it to life and making the necessary changes to bring worth back into it.

We are not changing the type of window that we have already submitted to the commission. The windows are 6 panes, with muntin and from the street, they look the same as the ones currently installed on the home.

A handwritten signature in black ink that reads "Gary E. Beck Jr.".

---

Gary E. Beck, Jr.  
Certified Backflow Tester #10953  
Certified Electrical Inspector #6060950  
Code Compliance Technician #720000-0804-0096  
CT Licensed Home Inspector #HOI.0000999  
NYS Licensed Home Inspector #16000001220  
NYS Certified Building Official #0299-7020 B  
[garybeck@z3consultants.com](mailto:garybeck@z3consultants.com)





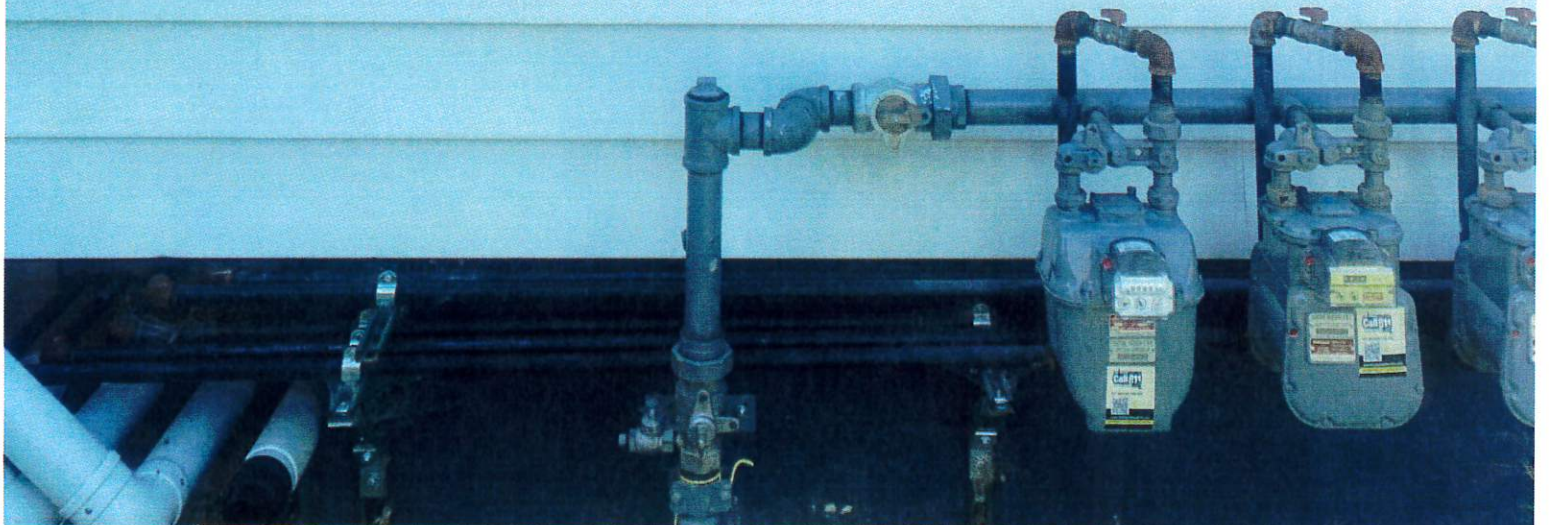














## WINDOW STRATEGY

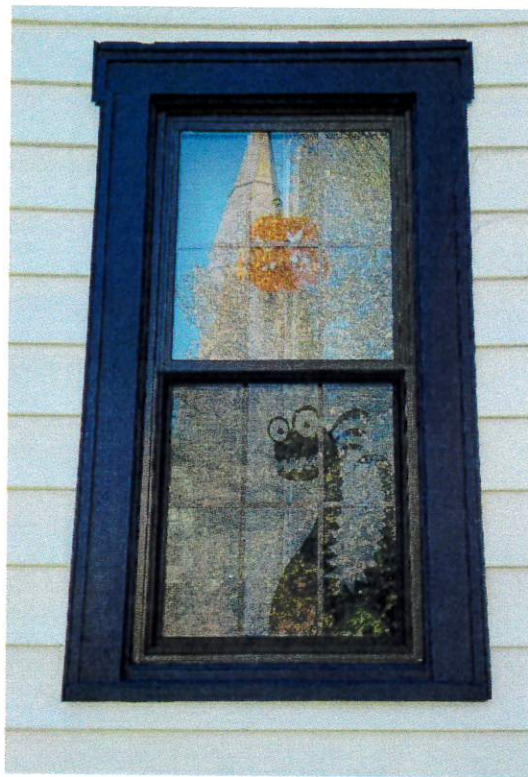
- Remove existing double hung wood windows.
  - Remove existing aluminum storm windows.
  - Replace with Crystal Windows, Series 5500 Heavy Commercial / Architectural Aluminum Thermal-Break Tilt Windows
- All replacement windows to match existing sizes.  
Proposed window frames are black  
Mullions to match existing, sash sizes, are comparable to existing sash sizes

Total of 64 Windows

- 7 Existing Windows to remain, no change required.
- 24 Windows have been previously installed.
- 33 proposed new Windows.



Existing window  
with Aluminum storm



New Window

## BASEMENT FLOOR

- (1, 2) Existing fixed wood frame window 2' - 4" x 2' - 0"  
Proposed Horizontal sliding window 2' - 4" x 2' - 0"
- (3, 4, 5,) Existing wood frame 2'-4" x 2'-0"  
Previously changed to 2' - 4" x 2' - 0"
- (6) Existing wood frame 2' - 4" x 2' - 0"  
Previously changed to Double hung tilt window 3' - 0" x 4' - 2" in window well.
- (7) Existing fixed wood frame window 2' - 4" x 2' - 0  
Proposed to double hung tilt window 3' - 0" x 4' - 2" in window well.



## **FIRST FLOOR - Apartment #1**

### **Living room**

- (9, 13) Existing double hung wood frame 3' – 0" x 6' -6"  
Proposed H-HC60 double hung tilt window 3' – 0" x 6' -6"
- (10, 11, 12) Existing double hung wood frame 3' – 4" x 6' -10"  
Proposed H-HC60 double hung tilt window 3' – 4" x 6' -10"

### **Bedroom #1**

- (8, 28) Existing double hung wood frame 3' – 2" x 7' -10"  
Proposed H-HC60 double hung tilt window 3' – 2" x 6' - 2"
- (27) Existing double hung wood frame 3' – 2" x 7' - 10"  
Proposed H-HC60 double hung tilt window 3' – 2" x 7' - 10"

### **Bedroom #2**

- (25) Existing double hung wood frame 3' – 2" x 7' - 10"  
Proposed H-HC60 double hung tilt window 3' – 2" x 7' - 10"

### **Bathroom**

- (26) Existing double hung wood frame 3' – 2" x 7' - 10"  
Proposed H-HC60 double hung tilt window 3' – 2" x 7' - 10"

### **Kitchen**

- (14, 15) Existing double hung wood frame 3' – 2" x 6' - 0"  
Proposed H-HC60 double hung tilt window 3' – 2" x 6' - 0"
- (16.1) Existing fixed pain 2' – 6" x 7' - 6"
- (16.2, 16.3) double hung units one on each side of fixed pain, 1' – 0" x 7' - 6"

### **Back Entry**

- (17,18) Existing double hung wood frame 2' – 0" x 4' - 0"  
Proposed H-HC60 double hung tilt window 2' – 0" x 4' - 0"
- (19) Existing fixed wood frame 9' – 8" x 2' - 6"  
Proposed H-HC60 fixed window 9' – 8" x 2' - 6"
- 

## **FIRST FLOOR**

- (20.1,20.2,20.3) Existing double hung wood frame 3 @ 2' - 0" x 3' - 4"  
Installed H-HC60 double hung tilt window 3 @ 2' - 0" x 3' - 4"
- (21) Existing double hung wood frame 2' - 6" x 4' - 4"  
Installed H-HC60 double hung tilt window 3 @ 2' - 0" x 3' - 4"
- (22, 23, 24) Existing double hung wood frame 2' - 6" x 5' - 6"  
Installed H-HC60 double hung tilt window 2' - 6" x 5' - 6"

## **SECOND FLOOR**



- (43) Existing double hung wood frame 2' - 2" x 4' - 4"  
Installed H-HC60 double hung tilt window 2' - 2" x 4' - 4"
- (44) Existing double hung wood frame 2' - 6" x 5' - 6"  
Installed H-HC60 double hung tilt window 2' - 6" x 5' - 6"
- (45,46,47,48,49,50) Existing double hung wood frame 2' - 6" x 5' - 6"  
Installed H-HC60 double hung tilt window 2' - 6" x 5' - 6"

#### Living room

- (51,52) Existing double hung wood frame 3' - 4" x 5' - 4"  
Proposed H-HC60 double hung tilt window 3' - 4" x 5' - 4"

#### Bedroom #1

- (30,53) Existing double hung wood frame 3' - 2" x 5' - 10"  
Proposed H-HC60 double hung tilt window 3' - 2" x 5' - 10"

#### Bedroom #2

- (31) Existing double hung wood frame 3' - 2" x 5' - 10"  
Proposed H-HC60 double hung tilt window 3' - 2" x 5' - 10"

#### Bedroom #3

- (32,33) Existing double hung wood frame 3' - 2" x 5' - 10"  
Proposed H-HC60 double hung tilt window 3' - 2" x 5' - 10"

#### Bathroom #1

- (34) Existing double hung wood frame 3' - 0" x 5' - 10"  
Proposed H-HC60 double hung tilt window 3' - 0" x 5' - 10"
- (35) Existing double hung wood frame 2' - 4" x 5' - 6"  
Proposed H-HC60 double hung tilt window 2' - 4" x 5' - 6"

#### Bathroom #2

- (42) Existing double hung vinyl window 2' - 2" x 4' - 4"  
Proposed H-HC60 double hung tilt window 2' - 2" x 4' - 4"

#### Kitchen

- (36,37,38,39,40) Existing double hung wood frame 2' - 0" x 4' - 6"  
Installed H-HC60 double hung tilt window 2' - 0" x 4' - 6"
- (41) Existing double hung wood frame 3' - 4" x 5' - 6"  
Installed H-HC60 double hung tilt window 3' - 4" x 5' - 6"

### THIRD FLOOR

- (54,58) Existing Arch double hung wood frame 2' - 8" x 5' - 4"  
Existing to remain no change
- (55,56,60,61) Existing double hung wood frame 2' - 8" x 5' - 4"  
Installed H-HC60 double hung tilt window 2' - 8" x 5' - 4"
- (57) Existing double hung wood frame 2' - 4" x 5' - 4"  
Proposed H-HC60 double hung tilt window 2' - 4" x 5' - 4"
- (59) Existing fixed wood frame 2' - 4" x 5' - 4"  
Installed H-HC60 double hung tilt window 2' - 4" x 5' - 4"



## WINDOW SCHEDULE

| #    | LOCATION            | EXISTING WINDOW DESCRIPTION                | EXISTING SIZE  | PROPOSED WINDOW DESCRIPTION                            | PROPOSED SIZE  | INSTALLED |
|------|---------------------|--------------------------------------------|----------------|--------------------------------------------------------|----------------|-----------|
| 1    | Basement            | Existing fixed wood frame                  | 2'-4" X 2'-0"  | H-HC60 horizontal sliding window                       | 2'-4" X 2'-0"  |           |
| 2    | Basement            | Existing fixed wood frame                  | 2'-4" X 2'-0"  | H-HC60 horizontal sliding window                       | 2'-4" X 2'-0"  |           |
| 3    | Basement            | Existing fixed wood frame                  | 2'-4" x 2'-0"  | H-HC60 horizontal sliding window                       | 2'-4" X 2'-0"  | Yes       |
| 4    | Basement            | Existing fixed wood frame                  | 2'-4" x 2'-0"  | H-HC60 horizontal sliding window                       | 2'-4" X 2'-0"  | Yes       |
| 5    | Basement            | Existing fixed wood frame                  | 2'-4" x 2'-0"  | H-HC60 horizontal sliding window                       | 2'-4" X 2'-0"  | Yes       |
| 6    | Basement            | Existing fixed wood frame                  | 2'-4" x 2'-0"  | Proposed H-HC60 double hung tilt window in window well | 3'-0" x 4'-2"  | Yes       |
| 7    | Basement            | Existing fixed wood frame                  | 2'-4" x 2'-0"  | Double hung tilt window                                | 3'-0" x 4'-2"  |           |
| 8    | First Floor         | Existing double hung wood frame            | 3'-2" x 7'-10" | Double hung tilt window                                | 3'-2" x 7'-10" |           |
| 9    | First Floor         | Double hung wood frame with aluminum storm | 3'-0" x 6'-6"  | Double hung tilt window                                | 3'-0" x 6'-6"  |           |
| 10   | First Floor         | Double hung wood frame with aluminum storm | 3'-4" x 6'-10" | Double hung tilt window                                | 3'-4" x 6'-10" |           |
| 11   | First Floor         | Double hung wood frame with aluminum storm | 3'-4" x 6'-10" | Double hung tilt window                                | 3'-4" x 6'-10" |           |
| 12   | First Floor         | Double hung wood frame with aluminum storm | 3'-4" x 6'-10" | Double hung tilt window                                | 3'-4" x 6'-10" |           |
| 13   | First Floor         | Double hung wood frame with aluminum storm | 3'-0" x 6'-6"  | Double hung tilt window                                | 3'-0" x 6'-6"  |           |
| 14   | First Floor         | Double hung wood frame with aluminum storm | 3'-2" x 6'-0"  | Double hung tilt window                                | 3'-2" x 6'-0"  |           |
| 15   | First Floor         | Double hung wood frame with aluminum storm | 3'-2" x 6'-0"  | Double hung tilt window                                | 3'-2" x 6'-0"  |           |
| 16.1 | First Floor kitchen | Fixed wood frame                           | 2'-6" x 7'-6"  | Double hung tilt window                                | 2'-6" x 7'-6"  |           |
| 16.2 | First Floor         | Double hung wood frame with aluminum storm | 1'-0" x 7'-6"  | Double hung tilt window                                | 1'-0" x 7'-6"  |           |
| 16.3 | First Floor         | Double hung wood frame with aluminum storm | 1'-0" x 7'-6"  | Double hung tilt window                                | 1'-0" x 7'-6"  |           |
| 17   | First Floor         | Double hung wood frame with aluminum storm | 2'-0" x 4'-0"  | Double hung tilt window                                | 2'-0" x 4'-0"  |           |
| 18   | First Floor         | Double hung wood frame with aluminum storm | 2'-0" x 4'-0"  | Double hung tilt window                                | 2'-0" x 4'-0"  |           |
| 19   | First Floor         | Fixed wood frame                           | 9'-8" x 2'-6"  | Double hung tilt window                                | 9'-8" x 2'-6"  |           |
| 20.1 | First Floor         | Double hung wood frame with aluminum storm | 2'-0" x 3'-4"  | Double hung tilt window                                | 2'-0" x 3'-4"  | Yes       |
| 20.2 | First Floor         | Double hung wood frame with aluminum storm | 2'-0" x 3'-4"  | Double hung tilt window                                | 2'-0" x 3'-4"  | Yes       |



|      |              |                                            |                    |                                                  |                    |     |
|------|--------------|--------------------------------------------|--------------------|--------------------------------------------------|--------------------|-----|
| 20.3 | First Floor  | Double hung wood frame with aluminum storm | 2' - 0" x 3' - 4"  | Double hung tilt window                          | 2' - 0" x 3' - 4"  | Yes |
| 21   | First Floor  | Double hung wood frame with aluminum storm | 2' - 6" x 4' - 4"  | Double hung tilt window                          | 2' - 6" x 4' - 4"  | Yes |
| 22   | First Floor  | Double hung wood frame with aluminum storm | 2' - 6" x 5' - 6"  | Double hung tilt window                          | 2' - 6" x 5' - 6"  | Yes |
| 23   | First Floor  | Double hung wood frame with aluminum storm | 2' - 6" x 5' - 6"  | Double hung tilt window                          | 2' - 6" x 5' - 6"  | Yes |
| 24   | First Floor  | Double hung wood frame with aluminum storm | 2' - 6" x 5' - 6"  | Double hung tilt window                          | 2' - 6" x 5' - 6"  | Yes |
| 25   | First Floor  | Double hung wood frame with aluminum storm | 3' - 2" x 7' - 10" | Double hung tilt window                          | 3' - 2" x 7' - 10" |     |
| 26   | First Floor  | Double hung wood frame with aluminum storm | 3' - 2" x 7' - 10" | Double hung tilt window                          | 3' - 2" x 7' - 10" |     |
| 27   | First Floor  | Double hung wood frame with aluminum storm | 3' - 2" x 7' - 10" | Double hung tilt window                          | 3' - 2" x 7' - 10" |     |
| 28   | First Floor  | Double hung wood frame with aluminum storm | 3' - 2" x 7' - 10" | Double hung tilt window                          | 3' - 2" x 7' - 10" |     |
|      |              |                                            |                    |                                                  |                    |     |
| 30   | Second Floor | Double hung wood frame with aluminum storm | 3' - 2" x 5' - 10" | Double hung tilt window                          | 3' - 2" x 5' - 10" |     |
| 31   | Second Floor | Double hung wood frame with aluminum storm | 3' - 2" x 5' - 10" | Double hung tilt window                          | 3' - 2" x 5' - 10" |     |
| 32   | Second Floor | Double hung wood frame with aluminum storm | 3' - 2" x 5' - 10" | Double hung tilt window                          | 3' - 2" x 5' - 10" |     |
| 33   | Second Floor | Double hung wood frame with aluminum storm | 3' - 2" x 5' - 10" | Double hung tilt window                          | 3' - 2" x 5' - 10" |     |
| 34   | Second Floor | Double hung wood frame with aluminum storm | 3' - 0" x 5' - 10" | Double hung tilt window                          | 3' - 0" x 5' - 10" |     |
| 35   | Second Floor | Double hung wood frame                     | 2' - 4" x 5' - 6"  | Double hung tilt window                          | 2' - 4" x 5' - 6"  |     |
| 36   | Second Floor | Double hung wood frame with aluminum storm | 2' - 0" x 4' - 6"  | Existing Double hung window to Remain, No change |                    | ETR |
| 37   | Second Floor | Double hung wood frame with aluminum storm | 2' - 0" x 4' - 6"  | Existing Double hung window to Remain, No change |                    | ETR |
| 38   | Second Floor | Double hung wood frame with aluminum storm | 2' - 0" x 4' - 6"  | Existing Double hung window to Remain, No change |                    | ETR |
| 39   | Second Floor | Double hung wood frame with aluminum storm | 2' - 0" x 4' - 6"  | Existing Double hung window to Remain, No change |                    | ETR |
| 40   | Second Floor | Double hung wood frame with aluminum storm | 2' - 0" x 4' - 6"  | Existing Double hung window to Remain, No change |                    | ETR |
| 41   | Second Floor | Double hung wood frame with aluminum storm | 3' - 4" x 5' - 6"  | Double hung tilt window                          | 3' - 4" x 5' - 6"  |     |
| 42   | Second Floor | Double hung wood frame with aluminum storm | 2' - 2" x 4' - 4"  | Double hung tilt window                          | 2' - 2" x 4' - 4"  |     |
| 43   | Second Floor | Double hung wood frame with aluminum storm | 2' - 2" x 4' - 4"  | Double hung tilt window                          | 2' - 2" x 4' - 4"  | Yes |
| 44   | Second Floor | Double hung wood frame with aluminum storm | 2' - 6" x 5' - 6"  | Double hung tilt window                          | 2' - 6" x 5' - 6"  | Yes |
| 45   | Second Floor | Double hung wood frame with aluminum storm | 2' - 6" x 5' - 6"  | Double hung tilt window                          | 2' - 6" x 5' - 6"  | Yes |



|    |              |                                            |                    |                                                       |                    |     |
|----|--------------|--------------------------------------------|--------------------|-------------------------------------------------------|--------------------|-----|
| 46 | Second Floor | Double hung wood frame with aluminum storm | 2' - 6" x 5' - 6"  | Double hung tilt window                               | 2' - 6" x 5' - 6"  | Yes |
| 47 | Second Floor | Double hung wood frame with aluminum storm | 2' - 6" x 5' - 6"  | Double hung tilt window                               | 2' - 6" x 5' - 6"  | Yes |
| 48 | Second Floor | Double hung wood frame with aluminum storm | 2' - 6" x 5' - 6"  | Double hung tilt window                               | 2' - 6" x 5' - 6"  | Yes |
| 49 | Second Floor | Double hung wood frame with aluminum storm | 2' - 6" x 5' - 6"  | Double hung tilt window                               | 2' - 6" x 5' - 6"  | Yes |
| 50 | Second Floor | Double hung wood frame with aluminum storm | 2' - 6" x 5' - 6"  | Double hung tilt window                               | 2' - 6" x 5' - 6"  | Yes |
| 51 | Second Floor | Double hung wood frame with aluminum storm | 3' - 4" x 5' - 4"  | Double hung tilt window                               | 3' - 4" x 5' - 4"  |     |
| 52 | Second Floor | Double hung wood frame with aluminum storm | 3' - 4" x 5' - 4"  | Double hung tilt window                               | 3' - 4" x 5' - 4"  |     |
| 53 | Second Floor | Double hung wood frame with aluminum storm | 3' - 2" x 5' - 10" | Double hung tilt window                               | 3' - 2" x 5' - 10" |     |
| 54 | Third Floor  | Double hung Arch wood frame                | 2' - 8" x 5' - 4"  | Existing Double Hung Arch window to Remain. No change |                    | ETR |
| 55 | Third Floor  | Double hung wood frame with aluminum storm | 2' - 8" x 5' - 4"  | Double hung tilt window                               | 2' - 8" x 5' - 4"  | Yes |
| 56 | Third Floor  | Double hung wood frame with aluminum storm | 2' - 8" x 5' - 4"  | Double hung tilt window                               | 2' - 8" x 5' - 4"  | Yes |
| 57 | Third Floor  | Existing Fixed wood frame                  | 2' - 4" x 5' - 4"  | Double hung tilt window                               | 2' - 4" x 5' - 4"  |     |
| 58 | Third Floor  | Double hung Arch wood frame                | 2' - 8" x 5' - 4"  | Existing Double Hung Arch window to Remain. No change |                    | ETR |
| 59 | Third Floor  | Double hung wood frame with aluminum storm | 2' - 4" x 5' - 4"  | Double hung tilt window                               | 2' - 4" x 5' - 4"  | Yes |
| 60 | Third Floor  | Double hung wood frame with aluminum storm | 2' - 8" x 5' - 4"  | Double hung tilt window                               | 2' - 8" x 5' - 4"  | Yes |
| 61 | Third Floor  | Double hung wood frame with aluminum storm | 2' - 8" x 5' - 4"  | Double hung tilt window                               | 2' - 8" x 5' - 4"  | Yes |
|    |              |                                            |                    |                                                       |                    |     |
|    |              |                                            |                    |                                                       |                    |     |
|    |              |                                            |                    |                                                       |                    |     |





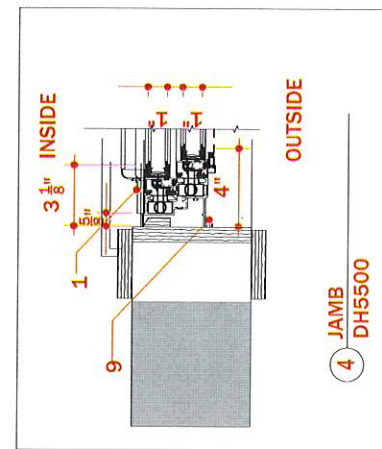
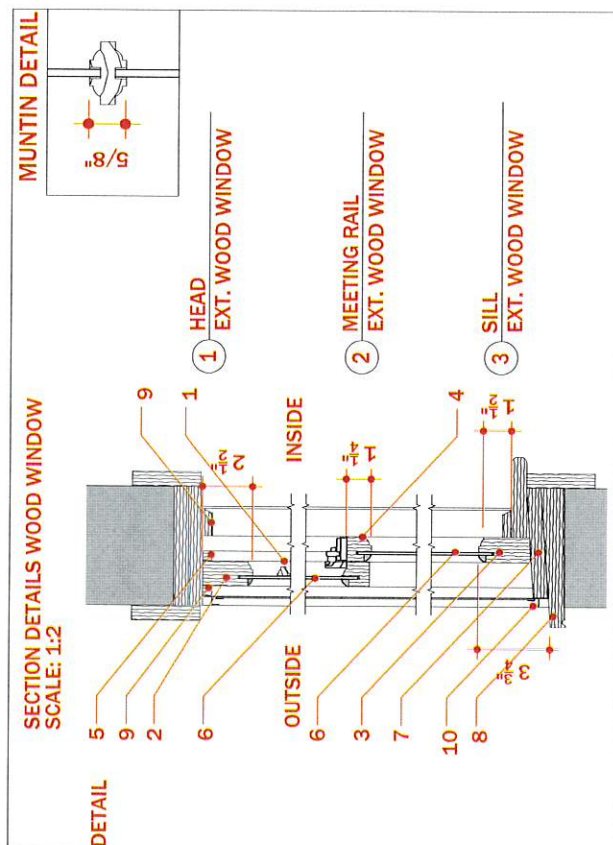
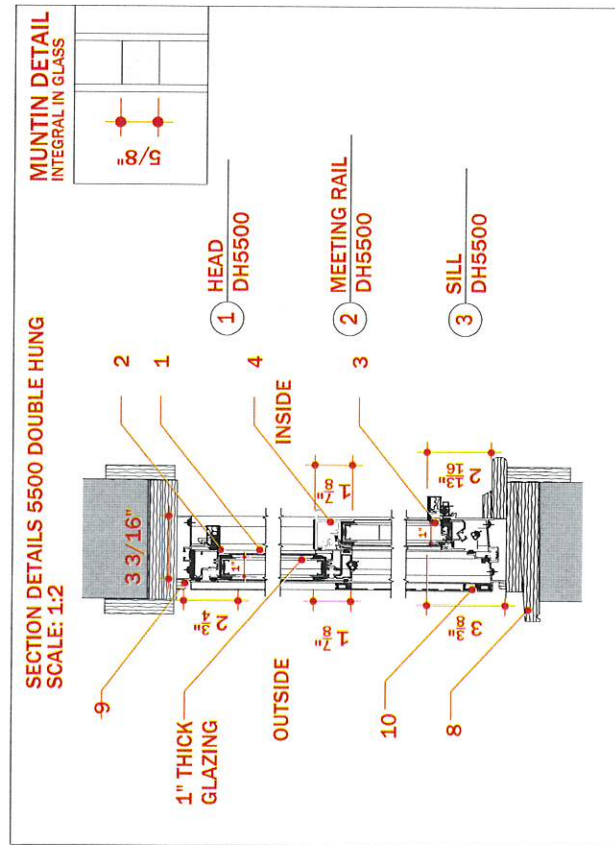
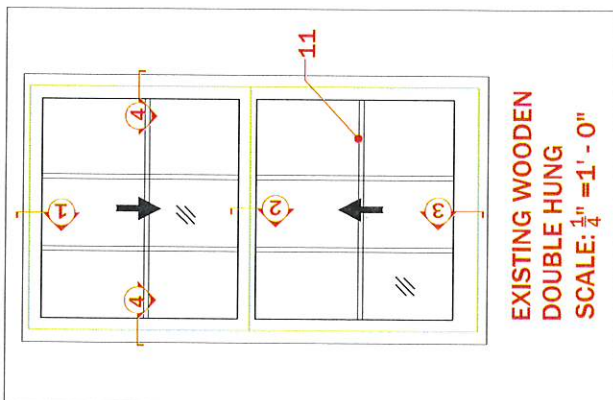
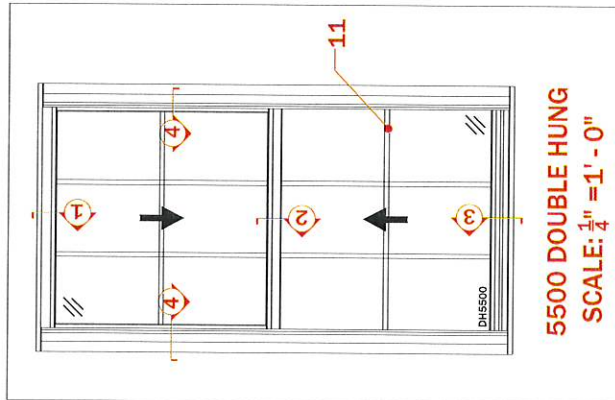




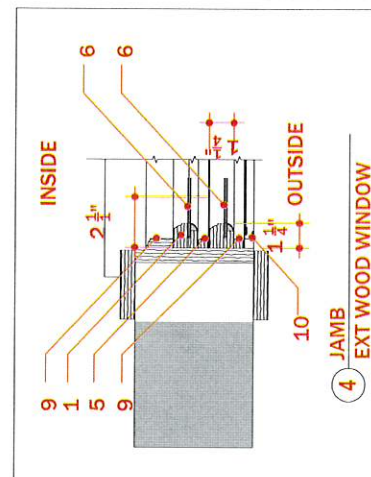








|    |                       |
|----|-----------------------|
| 1  | VERTICAL STILE        |
| 2  | TOP RAIL              |
| 3  | BOTTOM RAIL           |
| 4  | MEETING RAIL          |
| 5  | PARTING BEAD          |
| 6  | SINGLE GLAZING        |
| 7  | SILL                  |
| 8  | SUB SILL              |
| 9  | STOP                  |
| 10 | ALUMINUM STORM WINDOW |
| 11 | MUNTIN DETAIL         |







## SERIES 5500 H-HC60 DOUBLE-HUNG TILT WINDOW

I hSECTION 08 51 13

### ALUMINUM WINDOWS

#### PART 1 - GENERAL

##### 1.1 SCOPE OF WORK

- A. Furnish and install aluminum windows as shown in bid drawings and as per specifications stipulated in this section.
- B. Factory-installed glass & glazing

##### 1.2 ITEMS FURNISHED BUT NOT INSTALLED (Enter description and quantity of items such as extra sash, screens, glass units, hardware, etc. for attic stock)

##### 1.3 ITEMS INSTALLED BUT NOT FURNISHED (Enter description and quantity of items such as air conditioners, louvers, duct work to be installed in locations as directed by Architect)

##### 1.4 RELATED SECTIONS

- A. Section 07 90 00 - Joint Protection.
- B. Section 08 41 00 - Entrances and Storefronts.
- C. Section 08 70 00 - Hardware.

##### 1.5 REFERENCES

- A. AAMA - American Architectural Manufacturers Association:
  - 1. AAMA/WDMA/CSA 101/I.S.2/A440-05 "Standard/Specification for Windows, Doors, and Unit Skylights"
  - 2. AAMA 502-08 - Voluntary Specification for Field Testing of Newly Installed Fenestration Products.
  - 3. AAMA 611-98 - Voluntary Specification for Anodized Architectural Aluminum
  - 4. AAMA 701/702-04 - Voluntary Specification for Pile Weatherstripping and Replaceable Fenestration Weatherseals.
  - 5. AAMA 800-07 - Voluntary Specifications and Test Methods for Sealants.
  - 6. AAMA 902-07 - Voluntary Specification for Sash Balances.
  - 7. AAMA 910-93 - Voluntary Life Cycle' Specifications and Test Methods for Architectural Grade Windows and Sliding Glass Doors.
  - 8. AAMA 1503-98 - Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors, and Glazed Wall Sections.
  - 9. AAMA 2603-02 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
  - 10. AAMA 2604-05 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
  - 11. AAMA 2605-05 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- B. ASTM – American Society for Testing and Materials:
  - 1. ASTM E 283-04 - Standard Test Method for Determining Rate of Air Leakage Through





## **SERIES 5500 H-HC60 DOUBLE-HUNG TILT WINDOW**

Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.

2. ASTM E 330-02 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference.
  3. ASTM E 331-00 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
  4. ASTM E 547-00 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Differential..
  5. ASTM F 588; 1997 - Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact
  6. ASTM E 2190-02 - Standard Specification for Insulating Glass Unit Performance and Evaluation.
- C. NFRC - National Fenestration Rating Council.
1. NFRC 100-04 - Procedure for Determining Fenestration Product U Factors.
  2. NFRC 102-04 - Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems.
  3. NFRC 500-04 - Procedure for Determining Fenestration Product Condensation Resistance Values.
- D. IGCC - Insulating Glass Certification Council.
- E. SGCC - Safety Glazing Certification Council.
1. Z97.1-04 American National Standard for Safety Glazing Materials used in Buildings - Safety Performance Specifications and Methods of Test.
  2. 16 CFR 1201 Consumer Product Safety Commission Safety Standard for Architectural Glazing Materials - codified at Title 16, Part 1201 of the Code of Federal Regulations.
- F. ANSI Z97.1 - American National Standard For Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test/Consumer Products Safety Commission CPSC 16 CFR 1201.
- G. LEED: The Leadership in Energy & Environmental Design; U.S. Green Building Council (USGBC).

### **1.6 SUBMITTALS**

- A. Submit administrative requirements under provisions of Section 01 30 00.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
  2. Storage and handling requirements and recommendations.
  3. Installation methods.
- C. Shop Drawings:
1. Elevation for each style window specified indicating its size, glazing type, muntin type and design.
  2. Manufacturer's head, jamb and sill details and section views for each window type specified.
- D. Schedules:
1. Provide a window schedule indicating the type, size, color, , and operation of each unit specified. Coordinate with window mark types found in the Contract Drawings.





## SERIES 5500 H-HC60 DOUBLE-HUNG TILT WINDOW

- E. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- F. Verification Samples: For each finish product specified, samples may be subsequently installed on the project.
- G. Test Reports: Submit certified independent testing agency reports indicating window units meet or exceed specified performance requirements.

### 1.7 SYSTEM DESCRIPTION

- A. Operation: DOUBLE HUNG with TILT-IN SASH for cleaning
- B. AAMA Rating: H-HC60 when tested according to AAMA/WDMA/CSA 101/I.S.2/A440-05 at the gateway size of 60" x 99"
- C. Construction: 3 1/4 inch frame depth. Wall thickness: 0.062"/0.094" frame/sill; 0.062" sash. Factory finished extruded aluminum frame and sash members with integral structural polyurethane thermal break. Rails shall be tubular profile.
- D. Glazing: 1 inch insulating glass; black reusable flexible PVC channel gasket;

### 1.8 HARDWARE:

- 1. Balances:
  - a. Balances shall provide a positive lifting force through the full range of sash travel. Sash travel shall be limited on oversize units.
  - b. When properly adjusted, balances shall hold the sash stationary at any open position.
  - c. Balances shall be factory calibrated of type Spiral (or Ultra-Lift balance or Block and Tackle)
- 2. Head Lock: Automatic continuous aluminum spring-loaded head lock shall secure top sash in closed position.
- 3. Sill Lock: Automatic continuous aluminum spring-loaded sill lock shall secure bottom sash in closed position.
- 4. Tilt latches: Concealed custodial-operated (Allen) zinc alloy tilt latches.
- 5. Lift Handles: Integral continuous lift handles on bottom sash.
- 6. Limit Stops: Jamb-mounted limit stops.

### 1.9 WEATHERSTRIPPING:

- A. Sash: High-density woven pile shall be used in combination with continuous polyethylene rigid seal to minimize air infiltration.
- B. Securely stake and join at corners. Provide drainage to exterior as necessary.

### 1.10 PERFORMANCE REQUIREMENTS

- A. Air, Water and Structural Performance Requirements:

When tested in accordance with cited test procedures, windows shall meet or exceed the following performance criteria, as well as those indicated in AAMA 101 and 101/I.S.2/A440-08 for performance grade of unit specified unless otherwise noted herein.





## SERIES 5500 H-HC60 DOUBLE-HUNG TILT WINDOW

1. Air Test Performance Requirements:
    - a. Performance: Air infiltration maximum 0.30 cfm per square foot at 6.2 psf pressure differential when tested in accordance with ASTM E283 for sliding sealed products.
  2. Water Test Performance Requirements:
    - a. No uncontrolled water leakage at 9 psf static pressure differential when tested in accordance with ASTM E331 and ASTM E547.
  3. Structural Test Performance Requirements:
    - a. Uniform Load Deflection Test
      - 1) No deflection of any unsupported span L of test unit (framing rails, muntins, mullions, etc.) in excess of  $L/175$  at both a positive and negative load of design test pressure when tested in accordance with ASTM E330.
      - 2) Structural reinforcing that is not standard on units being furnished is not allowed.
    - b. Uniform Load Structural Test:
      - 1) Unit to be tested at 1.5 x design test pressure, both positive and negative, acting normal to plane of wall in accordance with ASTM E330.
      - 2) No glass breakage; permanent damage to fasteners, hardware parts, or anchors; damage to make windows inoperable; or permanent deformation of any main frame or ventilator member in excess of 0.2% of its clear span.
- B. Forced Entry Resistance Test: ASTM F 588, Type and Grade as indicated for each Product.
- C. Thermal Performance Requirements
1. Perform thermal computer simulation in accordance with the configuration specified in NFRC 100.
  2. Computed Thermal Transmittance (U-Value) shall not exceed (value determined based on glazing elements) for the whole window assembly.
  3. Computed Solar Heat Gain Coefficient (SHGC) shall not exceed (value determined based on glazing elements) for the whole window assembly.

### 1.11 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All windows specified in this section shall be supplied by a manufacturer which has been fabricating/manufacturing commercial grade aluminum windows of similar quality and performance for a minimum of ten (10) years.
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of five (5) years demonstrated experience in installing windows of the same type and scope as specified, preferably AAMA certified installers.
- C. Provide test reports from AAMA accredited laboratory certifying that window units are found to be in compliance with AAMA/WDMA/CSA 101/I.S.2/A440-05 and performance standards listed above.
  1. Test reports shall be accompanied by the window manufacturer's letter of certification stating that the tested window meets or exceeds criteria for the appropriate AAMA/WDMA/CSA 101/I.S.2/A440 test.

### 1.12 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation in accordance with manufacturer's recommendations.





## SERIES 5500 H-HC60 DOUBLE-HUNG TILT WINDOW

- B. Protect units against damage from the elements, construction activities and other hazards before, during, and after installation.

### 1.13 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

### 1.14 WARRANTY

- A. *Refer to Crystal Window & Door Systems, Ltd. standard warranty.*
- B. *Optional Extended Warranty (contact your Crystal sales representative).*

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: **Crystal Window & Door Systems, Ltd.**, which is located at: 31-10 Whitestone Expressway, Flushing, NY 11354; Tel: 718. 961.7300; Tel: 800. 472.9988; Fax: 718.460.4594; Web: [www.crystalwindows.com](http://www.crystalwindows.com)
- B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

### 2.2 Aluminum:

- A. Extruded aluminum prime billet 6063-T5 or 6063-T6 alloy for primary components; 6063-T5, 6063-T6, or 6061-T6 for structural components; all meeting the requirements of ASTM B221.
- B. Aluminum sheet alloy 5005 H 32 (for anodic finish), meeting the requirements of ASTM B209 or alloy 3003 H 14 (for painted or unfinished sheet).

### 2.3 Thermal Barrier:

- A. Structural Thermal Barrier:
  - 1. Structural thermal barrier shall consist of poured-in-place polyurethane polymer that shall transfer shear during bending and provide composite action between frame components.
- B. Non Structural Thermal Barriers:
  - 1. Non structural thermal barriers are used only in conjunction with structural thermal barriers. The purpose of non structural thermal barriers is to enhance thermal performance of the primary structural thermal barriers by inhibiting heat transfer through thermal radiation and convection. Non structural thermal barriers shall not be used as primary load carrying members.
  - 2. Rigid non structural thermal barriers shall be constructed of extruded polyvinylchloride (PVC).

### 2.4 GLASS

- A. Glazing Materials:
  - 1. Vertical Glazing: For glass surfaces sloped 15 degrees or less from vertical. Design glass



## SERIES 5500 H-HC60 DOUBLE-HUNG TILT WINDOW

to resist design wind pressure based on glass type factors for short-duration load.

2. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass lites in thicknesses as needed to comply with requirements indicated.
3. Strength: Where float glass is indicated, provide annealed float glass. Where fully tempered glass is indicated, provide Kind FT heat-treated float glass.
4. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated.
  - a. U-Factors: Total-glazing values, according to NFRC 100 and based on LBL's WINDOW 5.2 computer program, expressed as BTU/sq.ft x h x deg F (W/sq. m x K).
  - b. Solar Heat-Gain Coefficient and Visible Transmittance: Center-of-glazing values, according to NFRC 200 and based on LBL's WINDOW 5.2 computer program.
  - c. Visible Reflectance: Center-of-glazing values, according to NFRC 300.
5. Float Glass: ASTM C 1036, Type 1, Quality-Q3, Class 1 (clear) unless otherwise indicated.
6. Coated Glass: ASTM C 1376, Type 1, Quality-Q3, Class 1 (clear) unless otherwise indicated, of kind and condition indicated.
7. Laminated Glass: ASTM C 1172, Type 1, Quality-Q3, Class 1 (clear) unless otherwise indicated, of kind and condition indicated.

### B. Insulating Glass Units:

1. Factory-assemble units consisting of sealed lites of glass separated by a PPG Intercept Spacer system consisting of a one-piece, metallic, U-channel design that creates an effective thermal barrier to help reduce conducted heat loss through the window.
2. Insulating glass units shall be sealed with an integral dessicant matrix and a butyl sealant extruded around the entire perimeter of the spacer to achieve a seal. The sealant applied is to be Dual Seal Equivalent (DSE). Interspace to be filled with air or argon gas as required by thermal computer simulation.
3. Insulating Glass Types: Low-E coated, insulating glass units.
  - a. Overall Unit Thickness: 1" (25.4mm)
  - b. Thickness of Each Glass Lite: 3/32", 1/8", 3/16" or 1/4"
  - c. Outdoor Lite: Class 1 (Clear) float glass, or fully tempered float glass.
  - d. Interspace Content: Air or Argon Gas.
  - e. Indoor Lite: Class 1 (Clear) float glass, or fully tempered float glass.
  - f. Low-E Coating: Sputtered on second or third surface.
  - g. Glass Winter Night time U-Value: 0.27 maximum.
  - h. Solar Heat Gain Coefficient: 0.46 maximum.
  - i. Provide safety glazing labeling, if necessary.

## 2.5 WINDOW ACCESSORIES

Provide the following accessories as specified in the contract drawings. Finish to match window frames or as selected by the Architect:

- A. Wrap Around Panning
- B. Preset Panning
- C. Snap Trim/Clips
- D. Expanders





## SERIES 5500 H-HC60 DOUBLE-HUNG TILT WINDOW

- E. Receptors
- F. Subsills and Subsill Anchors
- G. Mullions and Mullion Covers
- H. Exterior Sills
- I. Interior Stools
- J. Muntins

### 2.6 FINISHES

- A. Conforming to AAMA 2604-05 specification, finish on all extruded aluminum shall consist of zero or near-zero VOC, organic POWDER COAT with a baked on super-durable thermosetting polyester resin, electro-statically applied on five-stage pre-treated aluminum surface. Powder coat material to be as manufactured by Sherwin Williams or PPG Powder Coatings.
- B. Color to be selected from Manufacturer's Standard Color Chart (or custom-matched as required by project Architect/Owner).

### 2.7 Insect Screens:

- A. Screen frames shall consist of tubular extruded aluminum profiles with finish to match window frames.
- B. Fiberglass mesh (18 X 16) with PVC spline.

2.8 Steel components including attachment fasteners shall be 300 series stainless steel except as noted.

2.9 Thermoplastic or thermo-set plastic caps, housings and other components shall be injection-molded nylon, extruded PVC, or other suitable compound.

### 2.10 Sealants:

- 1. Sealants shall comply with applicable provisions of AAMA 800 and/or Federal Specifications FS-TT-001 and 002 Series.
- 2. Frame joinery sealants shall be suitable for application specified and as tested and approved by window manufacturer.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 PREPARATION





## **SERIES 5500 H-HC60 DOUBLE-HUNG TILT WINDOW**

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### **3.3 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.

### **3.4 ANCHORAGE**

- A. Anchor window units and/or assemblies sufficiently to maintain permanent positions when subjected to normal thermal movement, specified building movement and specified wind loads.

### **3.5 PROTECTION**

- A. Protect installed products until completion of project.
- B. Final operating adjustment shall be made after glazing work is complete. Operating sash and ventilator shall operate smoothly and shall be weathertight when in locked position
- C. Touch-up, repair or replace damaged products before Substantial Completion.

### **3.6 DISPOSAL OF DEBRIS**

- A. Remove all garbage off site and legally dispose of existing windows and debris generated from the installation of the new windows.

### **3.7 OPTIONAL FIELD TESTING**

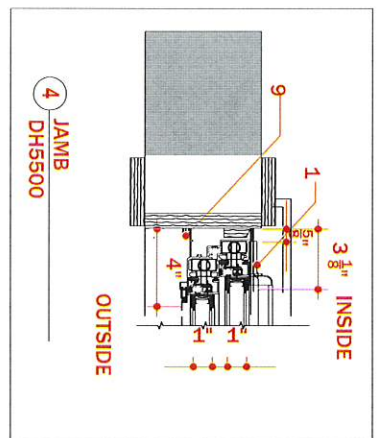
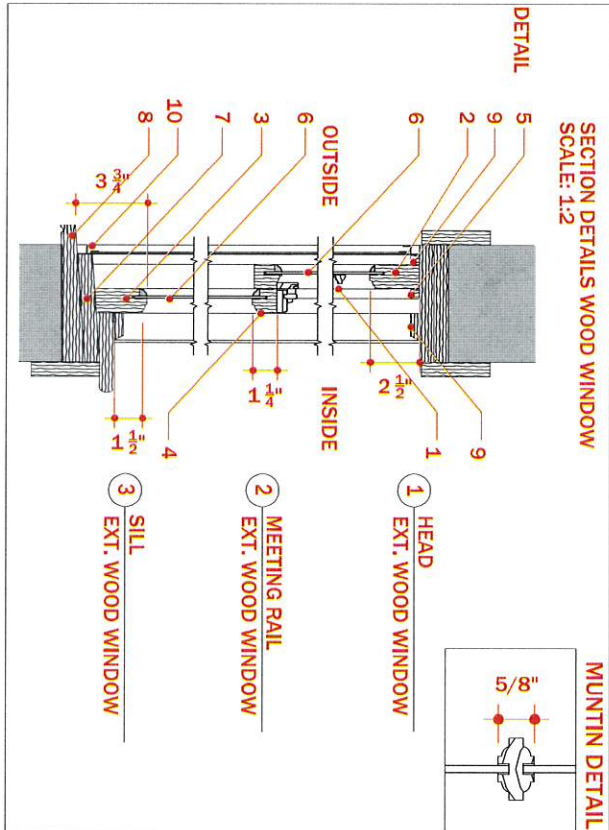
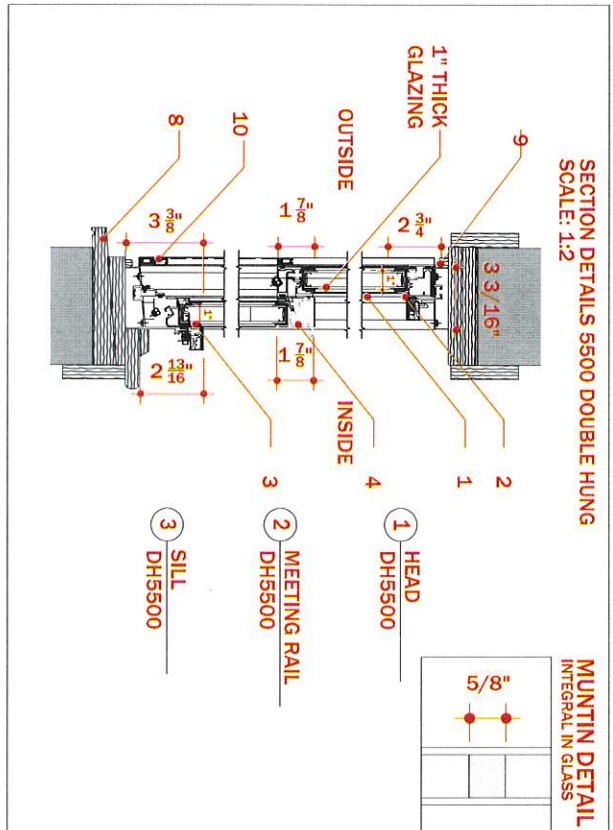
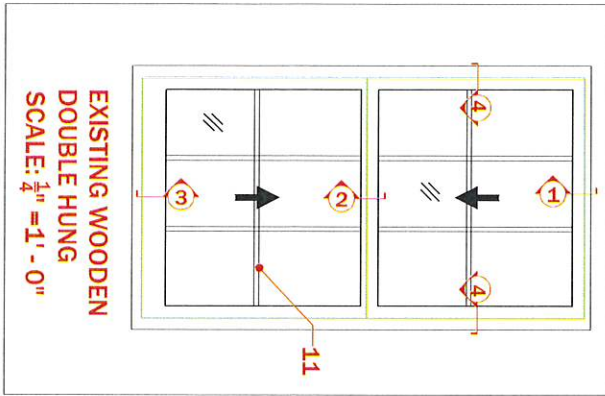
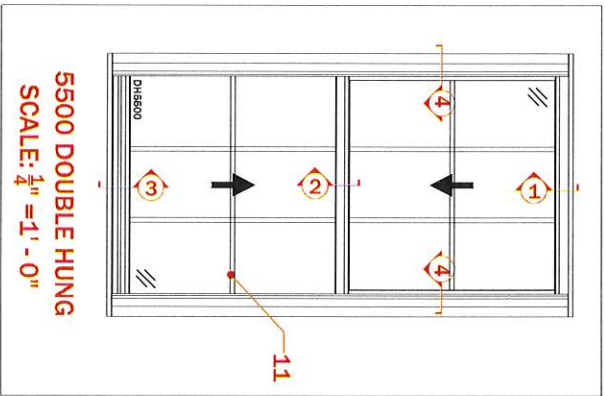
- A. At the discretion and expense of Owner or Owner's representative, perform on-site testing of installed units in conformance with AAMA 502 - Voluntary Specification for Field Testing of Windows and Sliding Glass Doors. Conduct air and water infiltration testing with the window manufacturer, contractor, and owner present.
- B. An AAMA accredited lab will be hired by the owner to perform the required testing.

### **3.8 ADJUSTMENT AND CLEAN UP**

- A. Adjust all products, sash, vents, and hardware after installation, as necessary to provide proper operation and a weather tight installation
- B. Remove any labels and dirt from the window.

**END OF SECTION**





|    |                       |
|----|-----------------------|
| 1  | VERTICAL STILE        |
| 2  | TOP RAIL              |
| 3  | BOTTOM RAIL           |
| 4  | MEETING RAIL          |
| 5  | PARTING BEAD          |
| 6  | SINGLE GLAZING        |
| 7  | SILL                  |
| 8  | SUB SILL              |
| 9  | STOP                  |
| 10 | ALUMINUM STORM WINDOW |
| 11 | MUNTIN DETAIL         |

