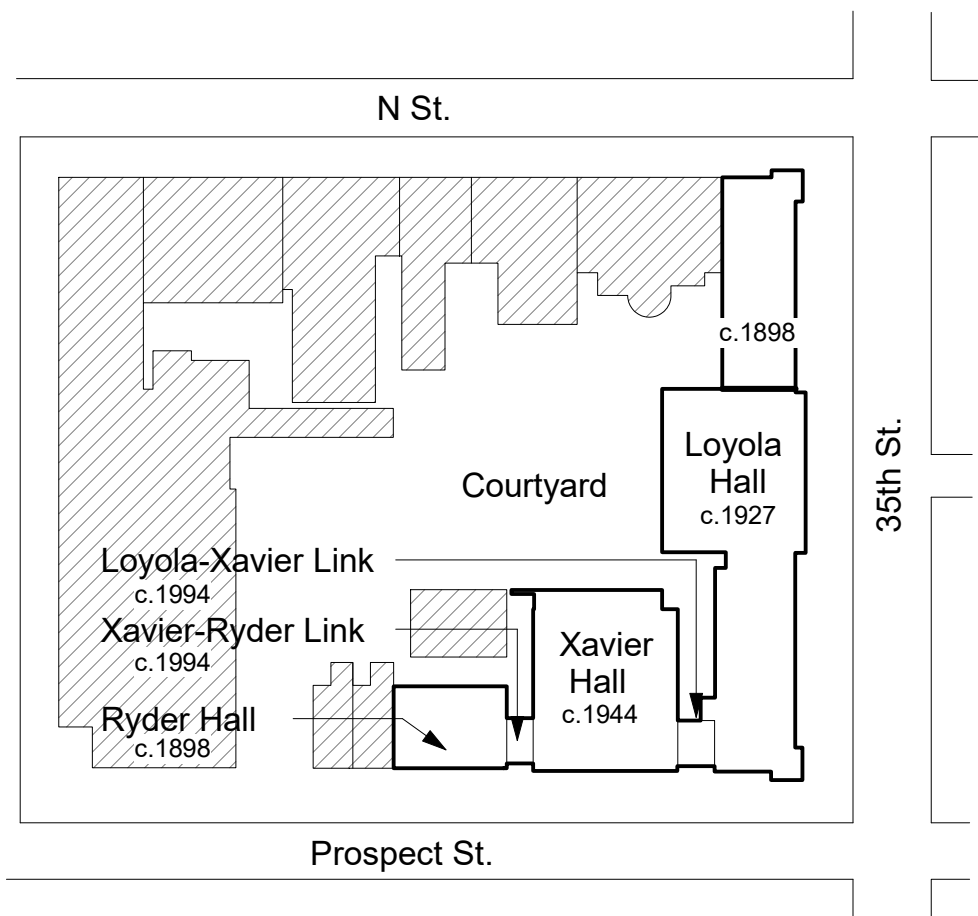
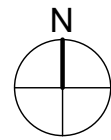


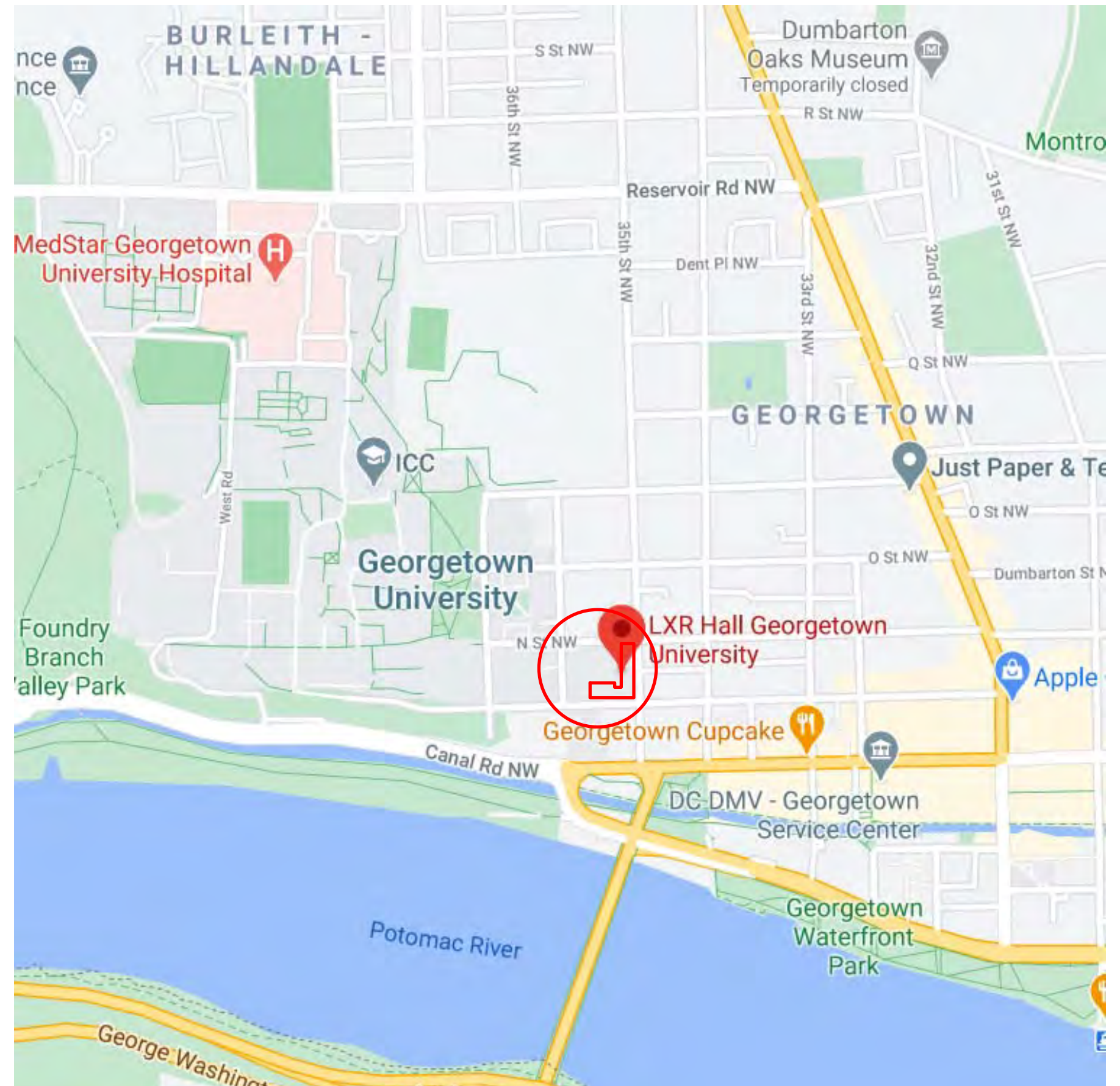


OGB - CONCEPT SUBMISSION



### **PROJECT SCOPE :**

The Project is limited to the replacement of all windows and supporting adjacent elements (interior and exterior) throughout Loyola, Xavier and Ryder Halls (LXR Hall) including new waterproofing at the interior jambs, heads and sills as well as remedial interior repairs. All other facade elements are existing to remain.



PROJECT LOCATION MAP

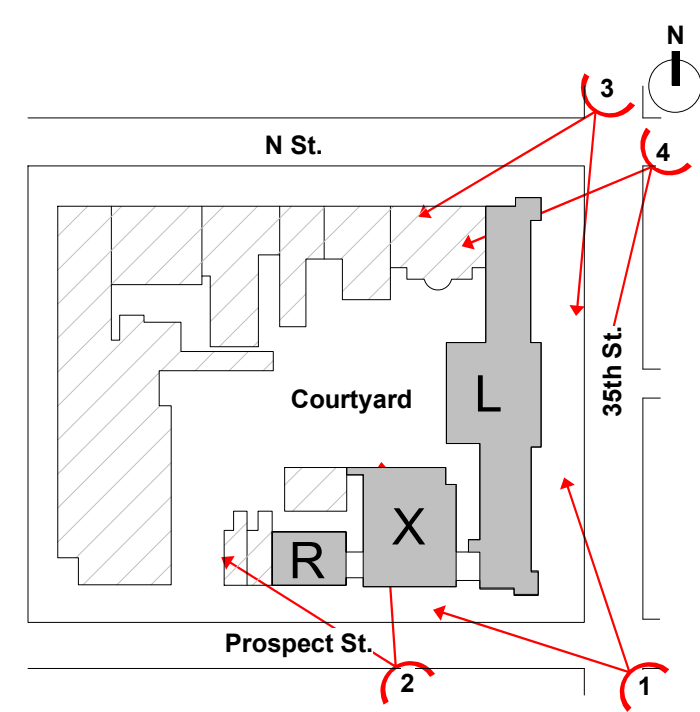
# LXR HALL - GEORGETOWN WINDOW REPLACEMENT



1.LOYOLA HALL SOUTH-EAST ELEVATION - 1944



2.XAVIER HALL SOUTH-WEST ELEVATION - PROSPECT STREET - 1956



3.LOYOLA HALL NORTH-EAST ELEVATION - 1944



3.LOYOLA HALL NORTH-EAST ELEVATION - 1910



4.LOYOLA HALL ENTRANCE NORTH-EAST ELEVATION

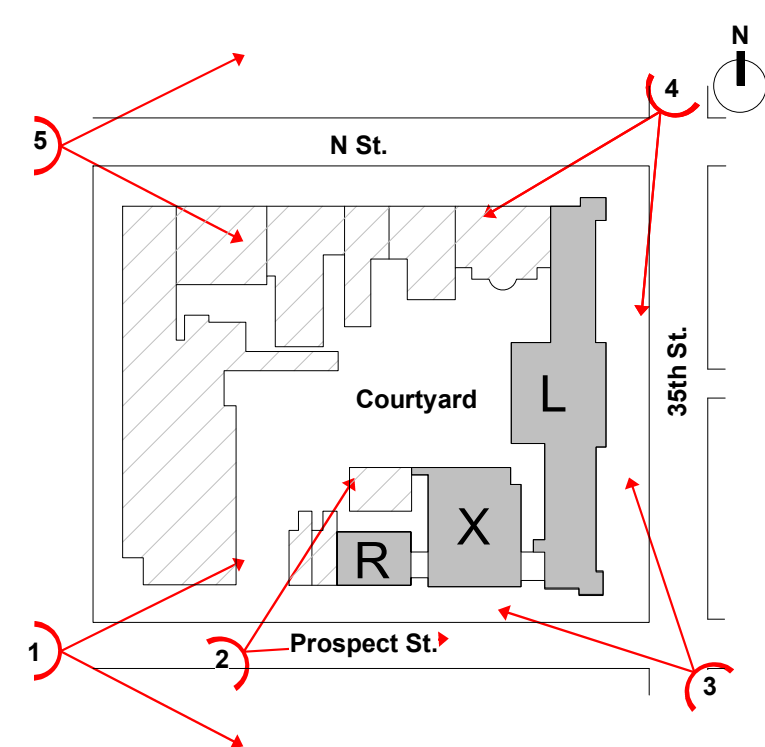




1.RYDER HALL / XAVIER HALL- PROSPECT STREET SOUTH-WEST



2.RYDER HALL / XAVIER HALL- PROSPECT STREET SOUTH-WEST



3.LOYOLA HALL / XAVIER HALL- 35TH STREET SOUTH-EAST



4.LOYOLA HALL - 35TH STREET NORTH-EAST



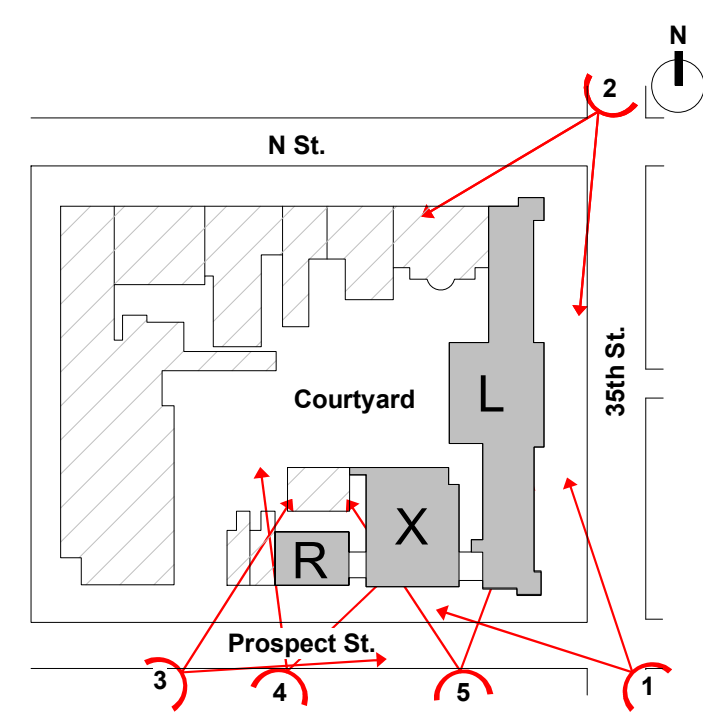
5.LOYOLA HALL - N STREET NORTH - WEST



1.LOYOLA HALL SOUTH-EAST ELEVATION - 35TH ST.



2.LOYOLA HALL NORTH-EAST ELEVATION - N ST.



3.RYDER HALL- XAVIER HALL- SOUTH ELEVATION - PROSPECT ST.



4.RYDER HALL- PROSPECT ST.



5.XAVIER HALL- PROSPECT ST.

## STREET VIEWS



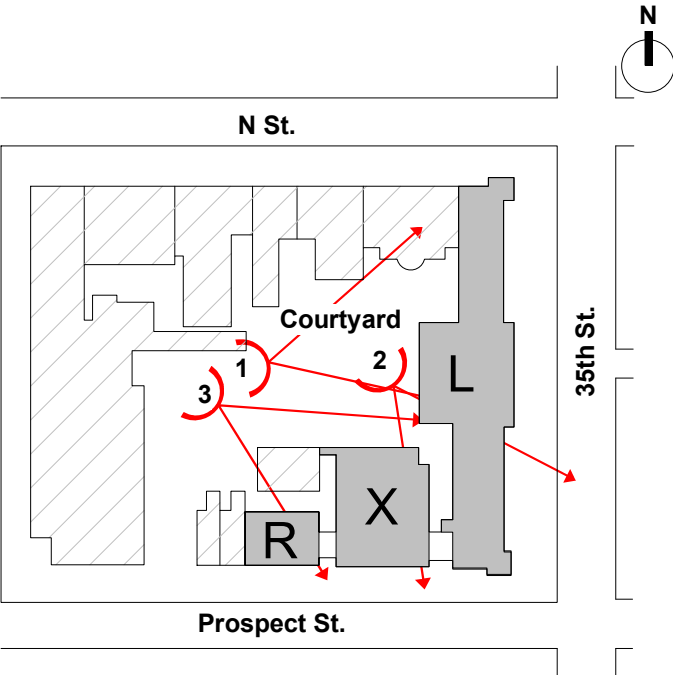
1. LOYOLA WEST ELEVATION



2. LOYOLA WEST ELEVATION

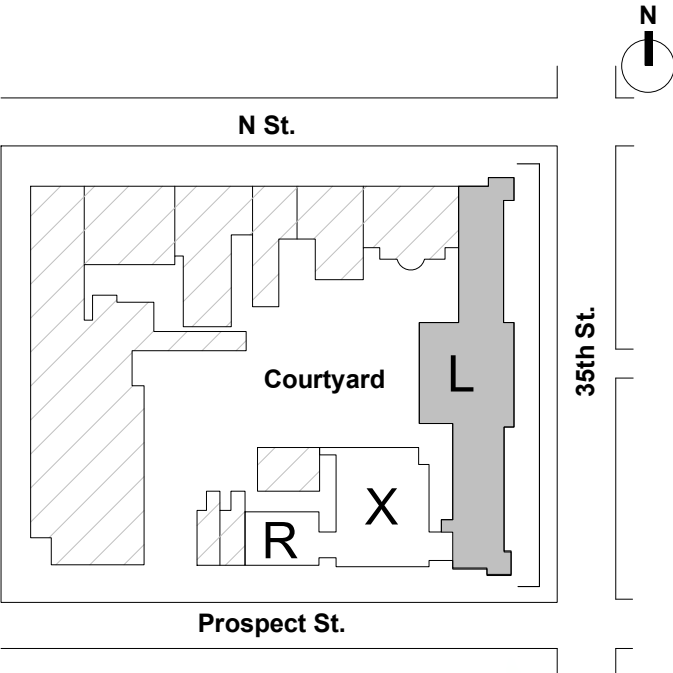


3. XAVIER HALL NORTH ELEVATION



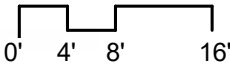
PROPOSED WINDOW LEGEND :

- A = EXISTING WINDOWS TO REMAIN (NOT IN SCOPE)
- B = EXISTING HISTORIC WINDOWS TO BE RESTORED
- C1 = NEW DOUBLE PANE WOOD WINDOW
- C2 = NEW DOUBLE PANE WOOD WINDOW WITH SIMULATED DIVIDED LIGHT
- C3 = NEW DOUBLE PANE ALUMINUM CLAD WOOD WINDOW



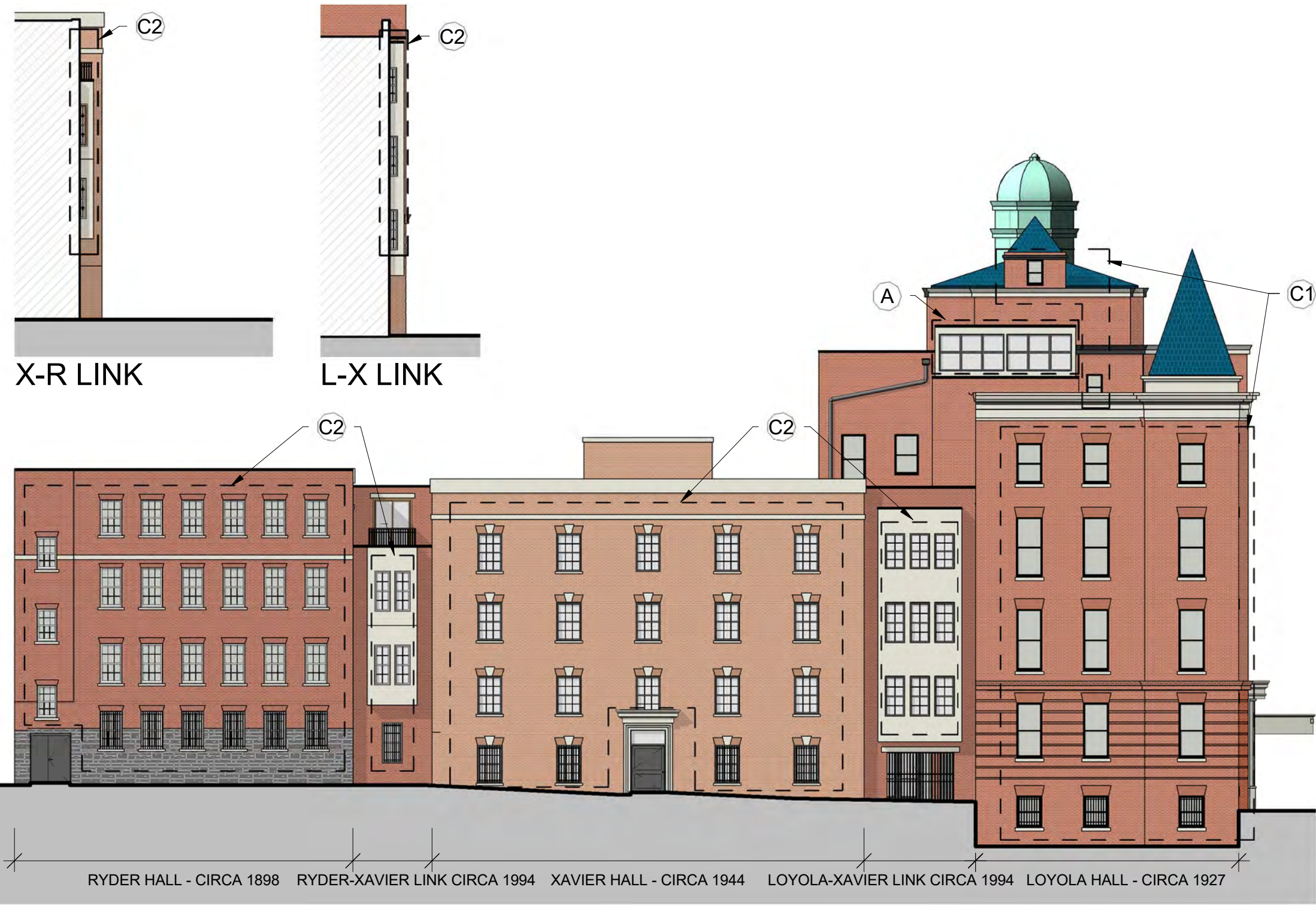
EAST ELEVATION - 35TH STREET

STREET ELEVATION - LOYOLA HALL

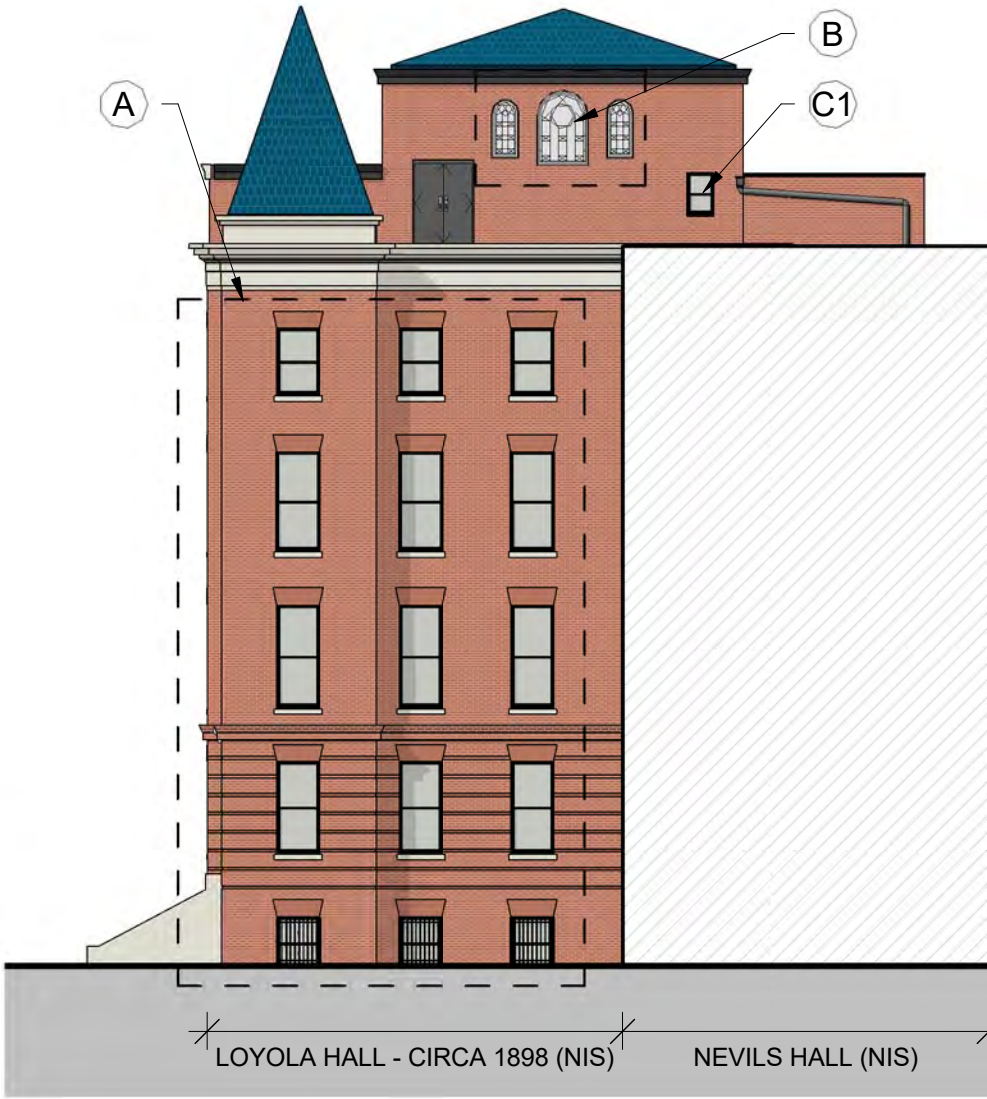
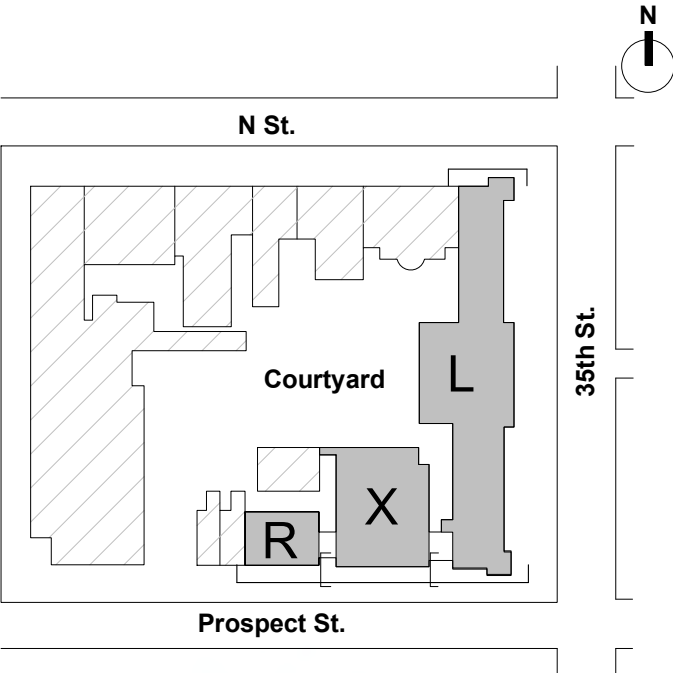


PROPOSED WINDOW LEGEND :

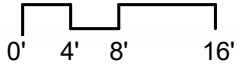
- A = EXISTING WINDOWS TO REMAIN (NOT IN SCOPE)
- B = EXISTING HISTORIC WINDOWS TO BE RESTORED
- C1 = NEW DOUBLE PANE WOOD WINDOW
- C2 = NEW DOUBLE PANE WOOD WINDOW WITH SIMULATED DIVIDED LIGHT
- C3 = NEW DOUBLE PANE ALUMINUM CLAD WOOD WINDOW



SOUTH ELEVATION



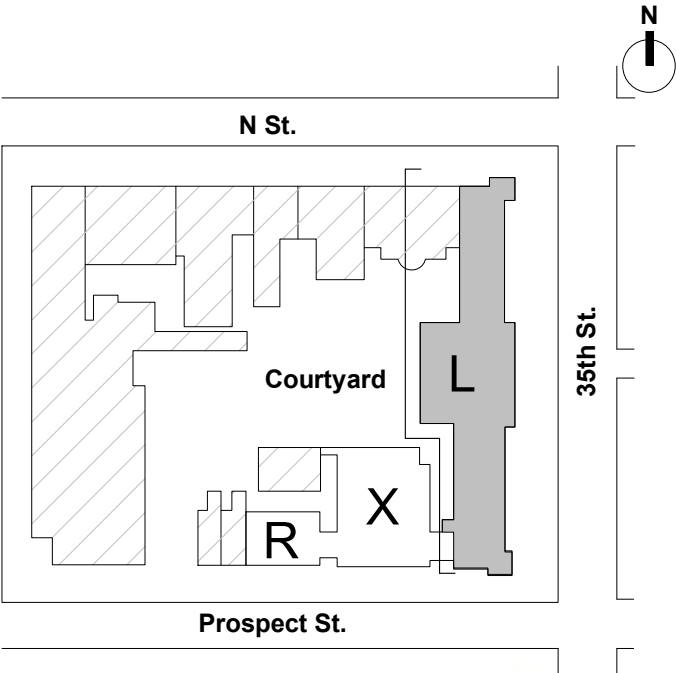
NORTH ELEVATION



STREET ELEVATIONS

PROPOSED WINDOW LEGEND :

- A = EXISTING WINDOWS TO REMAIN (NOT IN SCOPE)
- B = EXISTING HISTORIC WINDOWS TO BE RESTORED
- C1 = NEW DOUBLE PANE WOOD WINDOW
- C2 = NEW DOUBLE PANE WOOD WINDOW WITH SIMULATED DIVIDED LIGHT
- C3 = NEW DOUBLE PANE ALUMINUM CLAD WOOD WINDOW

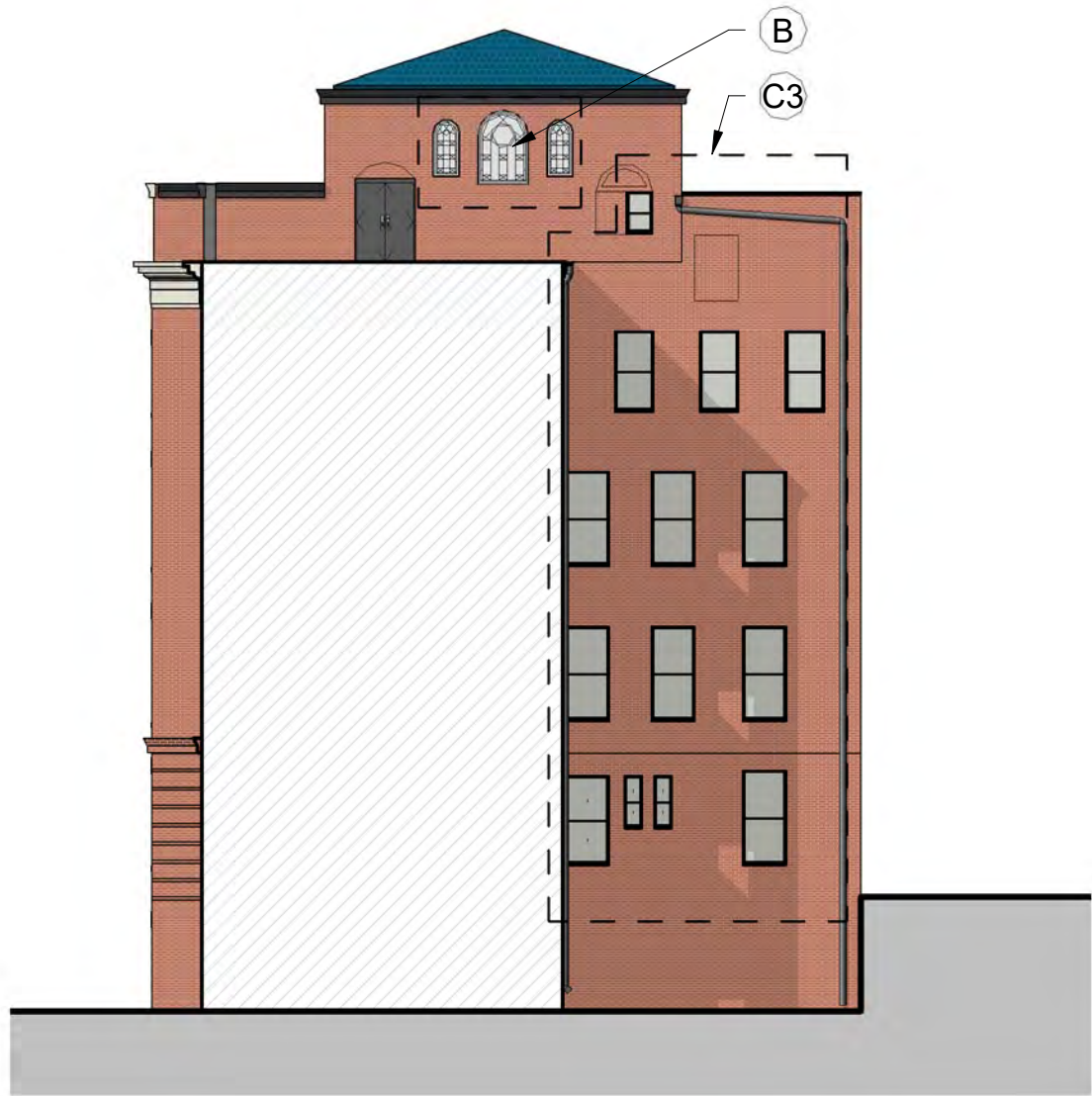


WEST ELEVATION

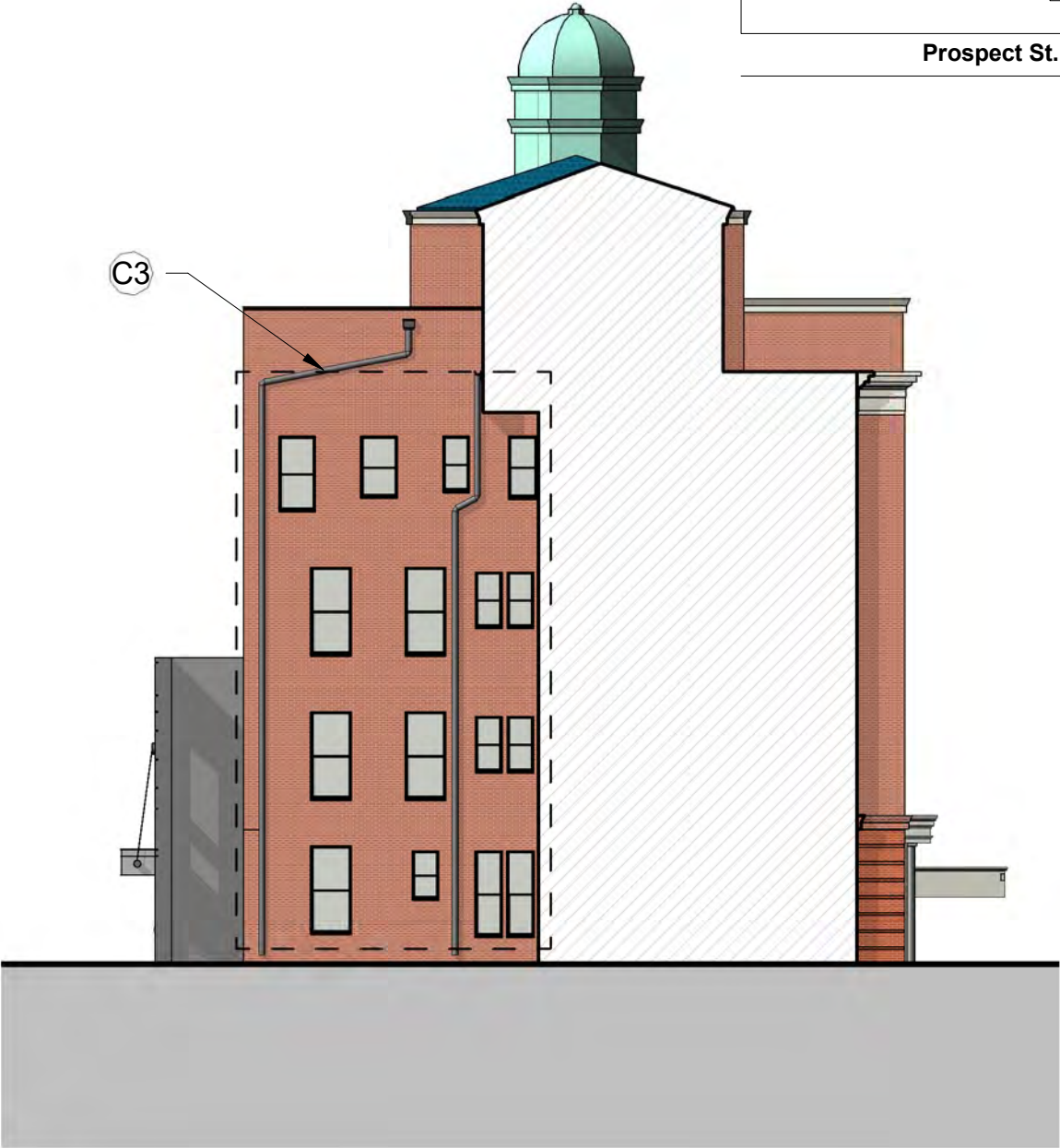
COURTYARD ELEVATION - LOYOLA HALL

**PROPOSED WINDOW LEGEND :**

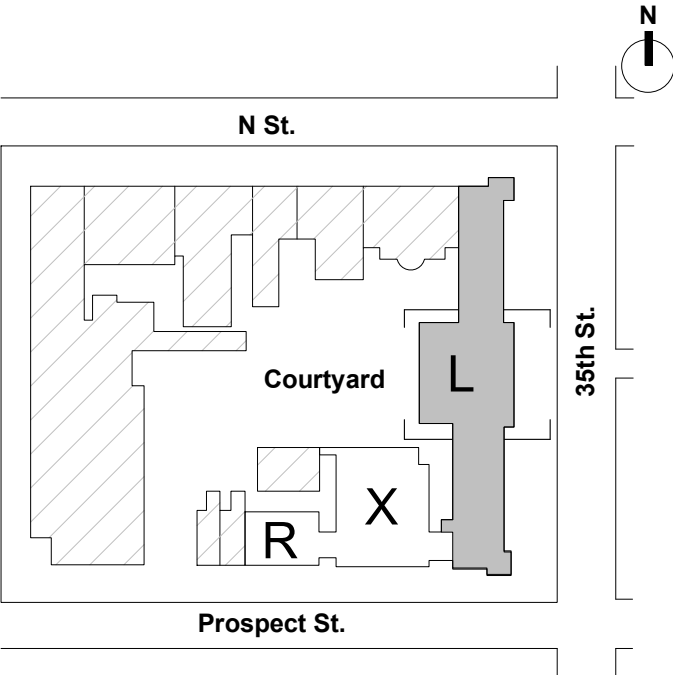
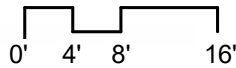
- A = EXISTING WINDOWS TO REMAIN (NOT IN SCOPE)
- B = EXISTING HISTORIC WINDOWS TO BE RESTORED
- C1 = NEW DOUBLE PANE WOOD WINDOW
- C2 = NEW DOUBLE PANE WOOD WINDOW WITH SIMULATED DIVIDED LIGHT
- C3 = NEW DOUBLE PANE ALUMINUM CLAD WOOD WINDOW



NORTH ELEVATION

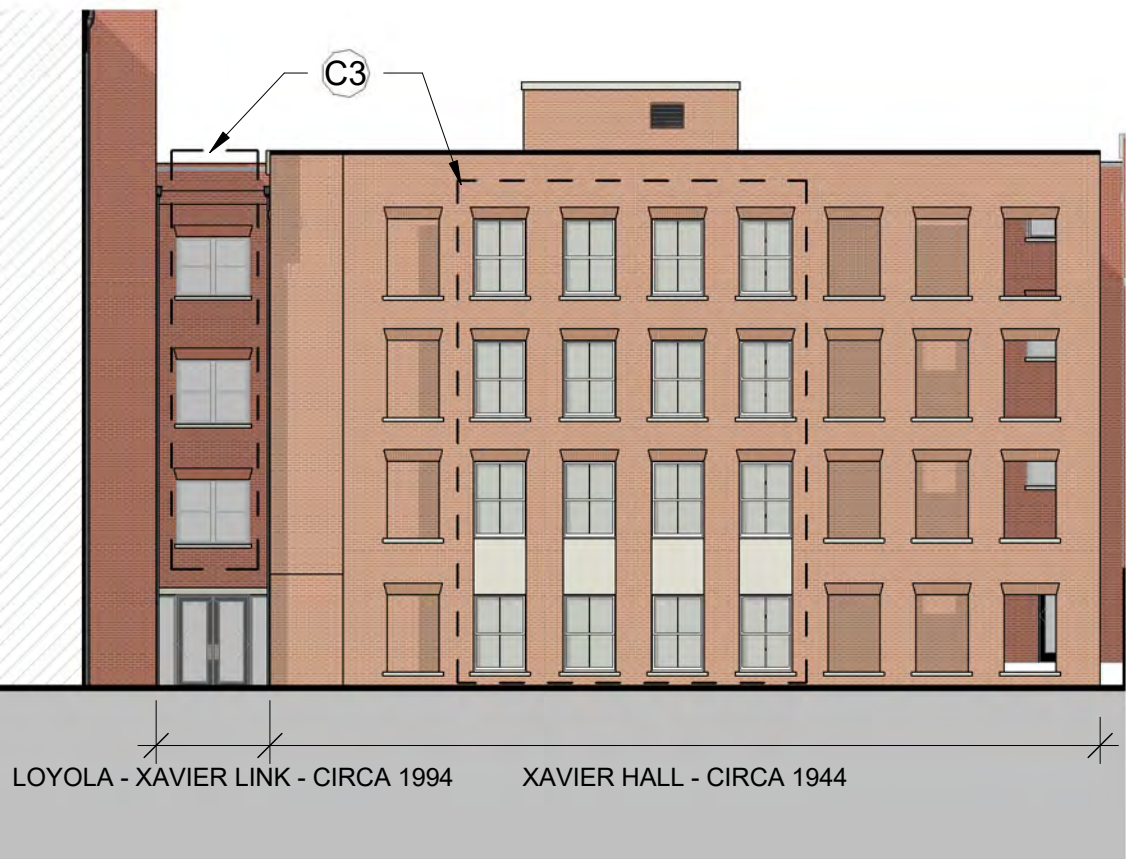
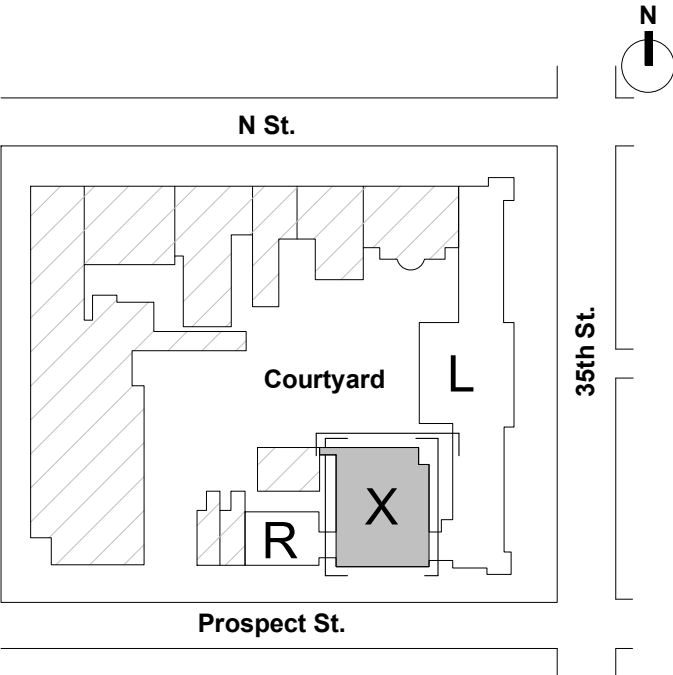


SOUTH ELEVATION

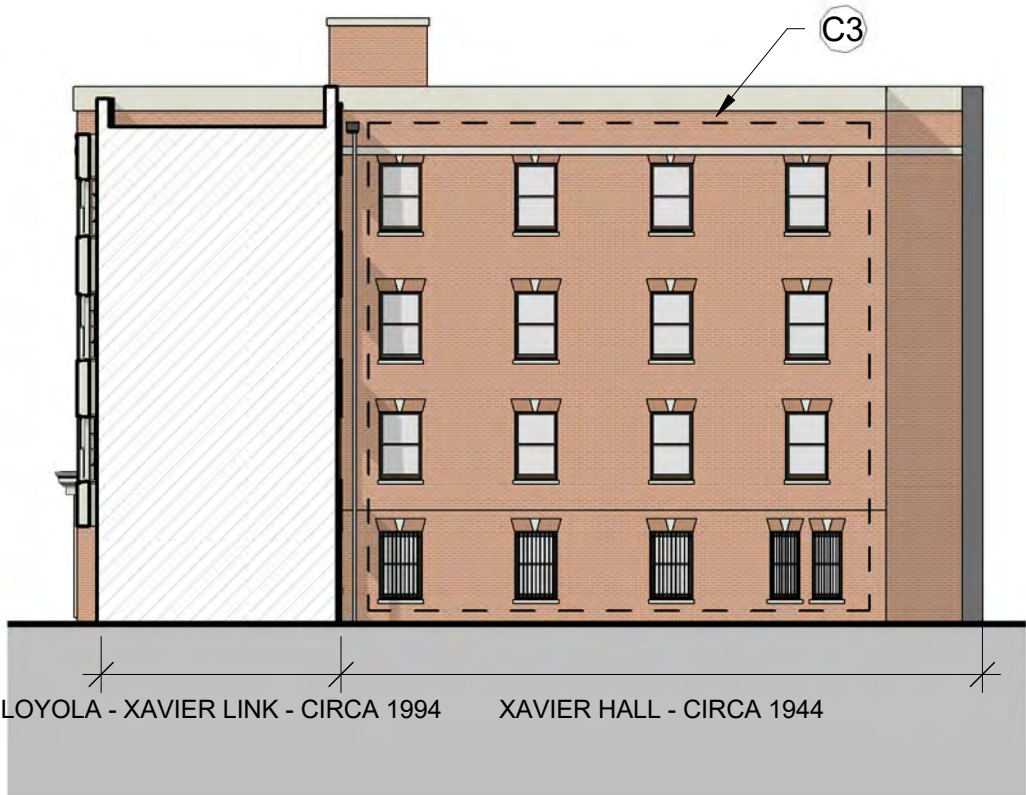


**PROPOSED WINDOW LEGEND :**

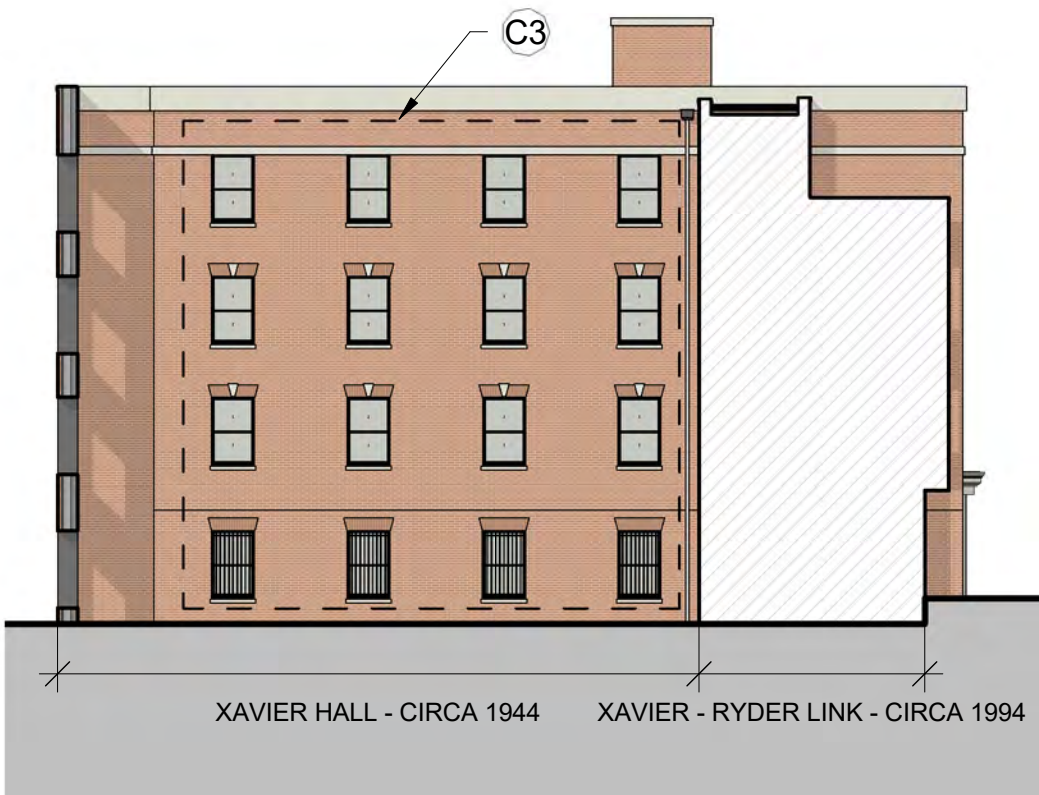
- A = EXISTING WINDOWS TO REMAIN (NOT IN SCOPE)
- B = EXISTING HISTORIC WINDOWS TO BE RESTORED
- C1 = NEW DOUBLE PANE WOOD WINDOW
- C2 = NEW DOUBLE PANE WOOD WINDOW WITH SIMULATED DIVIDED LIGHT
- C3 = NEW DOUBLE PANE ALUMINUM CLAD WOOD WINDOW



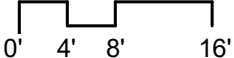
NORTH ELEVATION



EAST ELEVATION



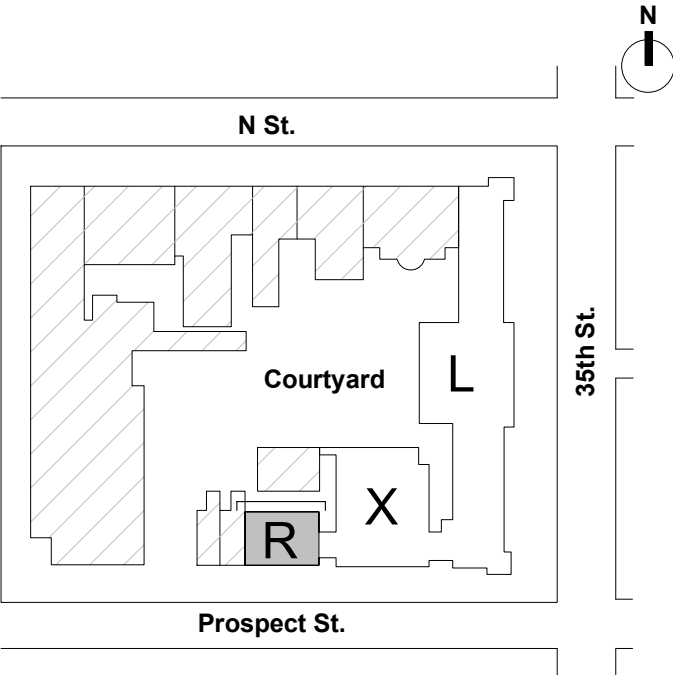
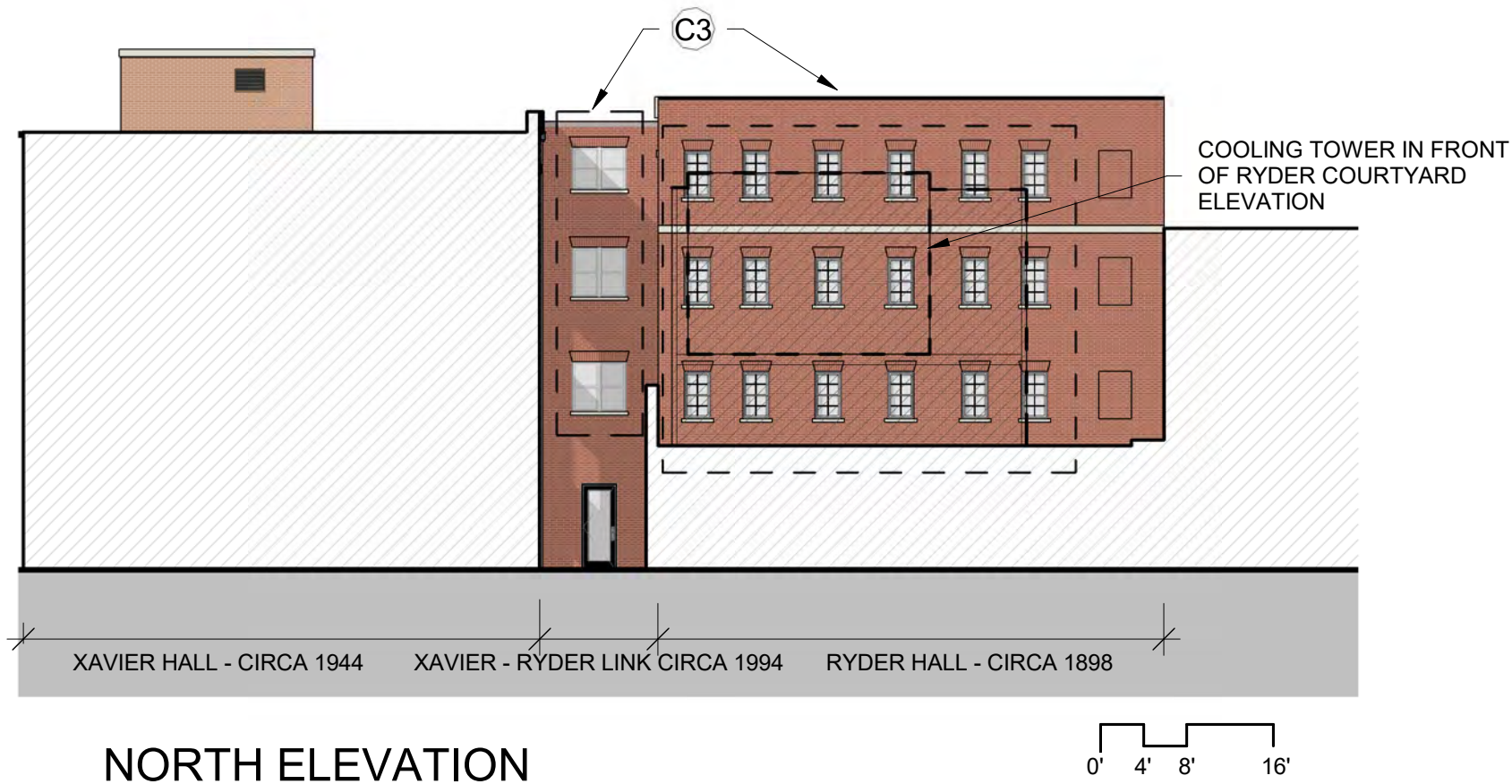
WEST ELEVATION



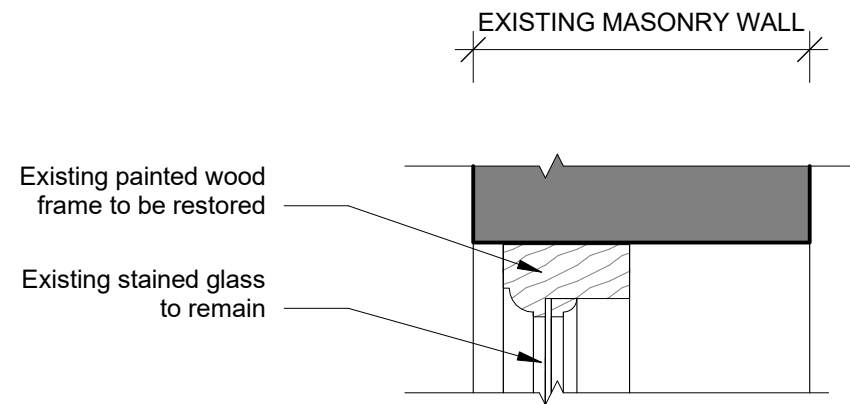
**COURTYARD ELEVATIONS - XAVIER HALL**

**PROPOSED WINDOW LEGEND :**

- A = EXISTING WINDOWS TO REMAIN (NOT IN SCOPE)
- B = EXISTING HISTORIC WINDOWS TO BE RESTORED
- C1 = NEW DOUBLE PANE WOOD WINDOW
- C2 = NEW DOUBLE PANE WOOD WINDOW WITH SIMULATED DIVIDED LIGHT
- C3 = NEW DOUBLE PANE ALUMINUM CLAD WOOD WINDOW

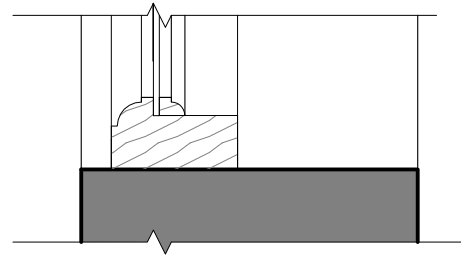


**COURTYARD ELEVATION - RYDER HALL**



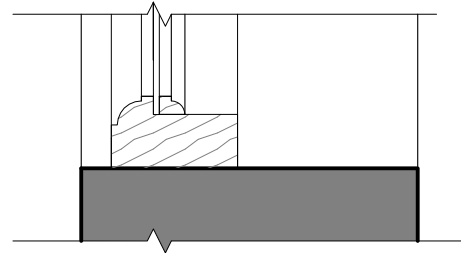
## 2 | TYPE B DETAIL @ HEADER

1 1/2" = 1'-0"



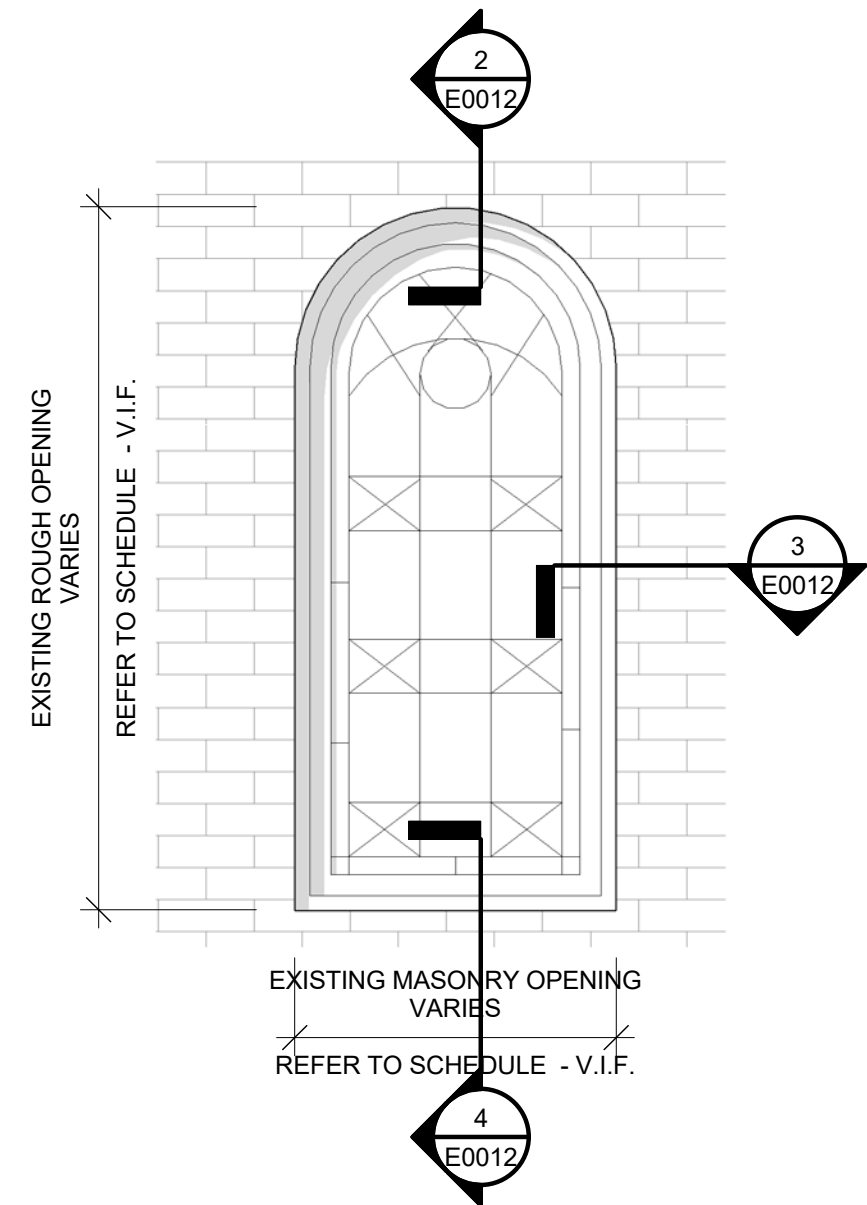
## 3 | TYPE B DETAIL @ JAMB

1 1/2" = 1'-0"



## 4 | TYPE B DETAIL @ SILL

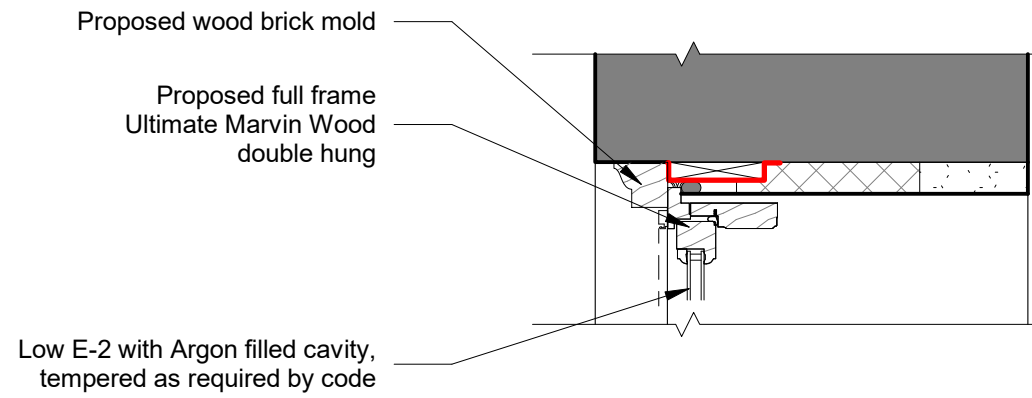
1 1/2" = 1'-0"



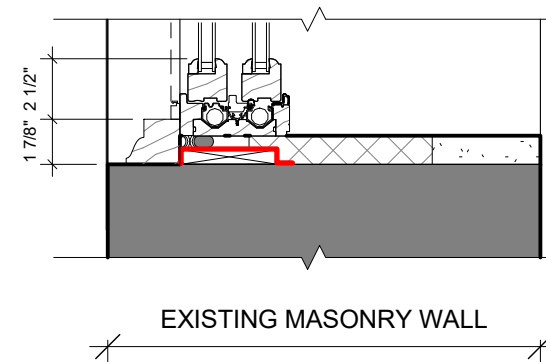
## 1 | TYPE B ELEVATION

3/4" = 1'-0"

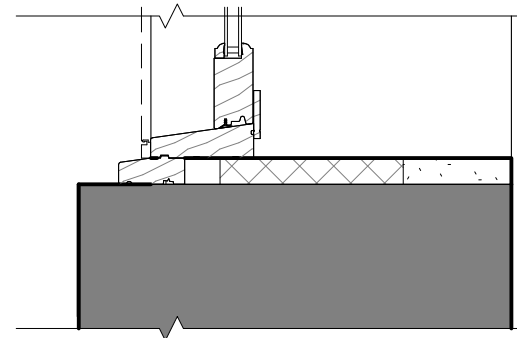
TYPICAL SIZE: 2'-2" x 4'-10"  
QUANTITY: 9



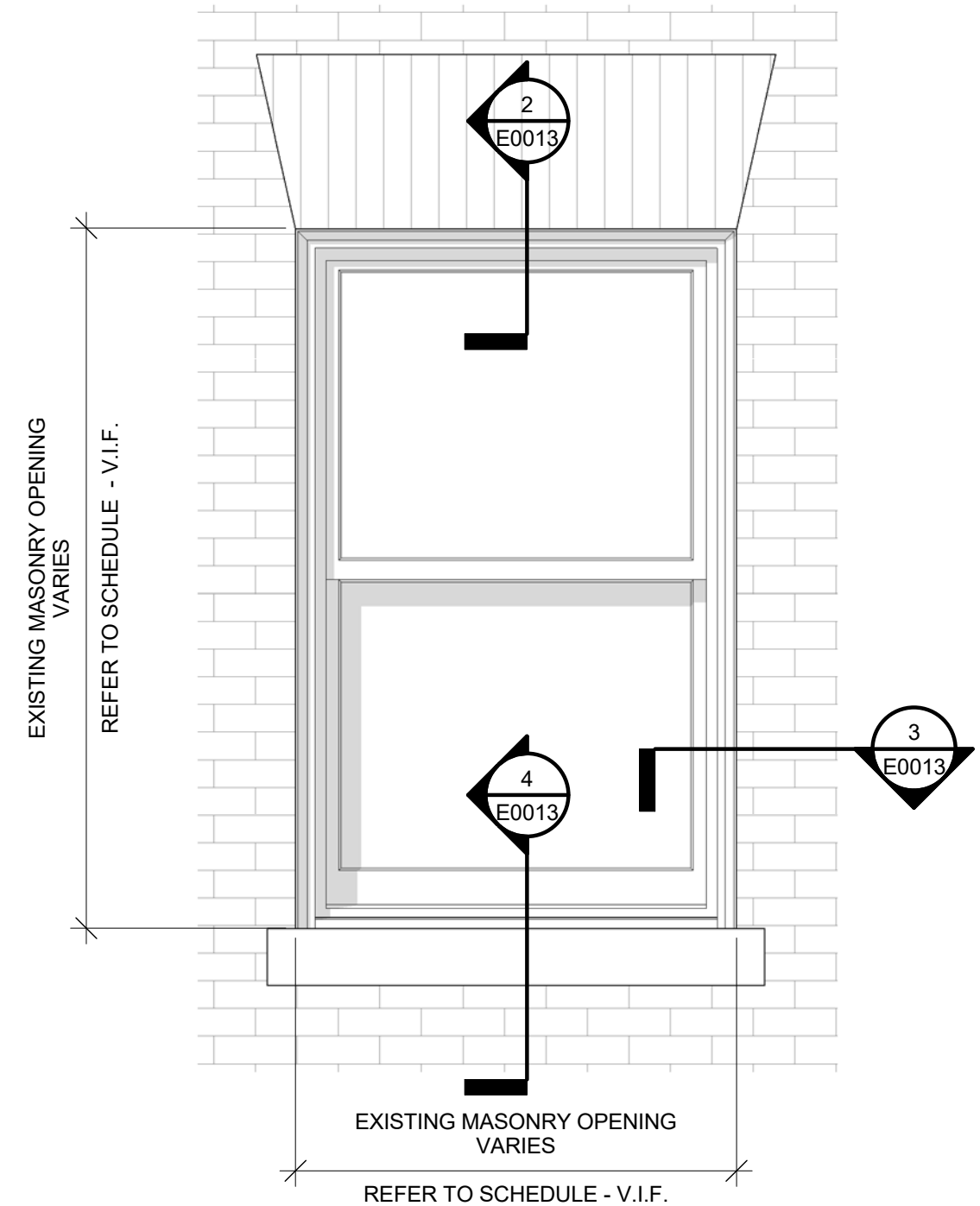
**2 | TYPE C1 DETAIL @ HEADER**  
1 1/2" = 1'-0"



**3 | TYPE C1 DETAIL @ JAMB**  
1 1/2" = 1'-0"



**4 | TYPE C1 DETAIL @ SILL**  
1 1/2" = 1'-0"

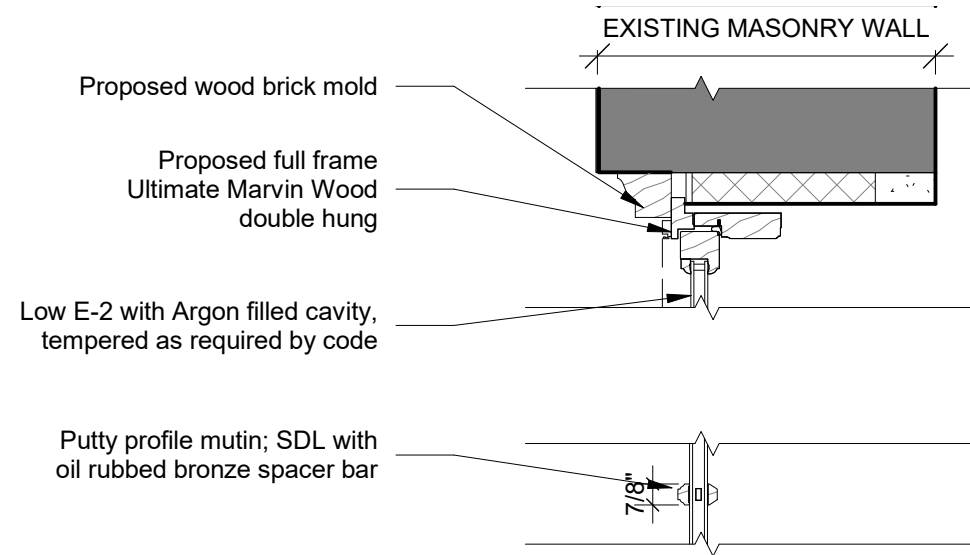


**1 | TYPE C1 ELEVATION**  
3/4" = 1'-0"

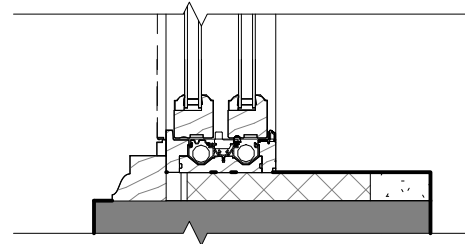
**SIZE RANGE: 2'-2" to 3'-6" W**

**3'-7" to 8'-7" H**

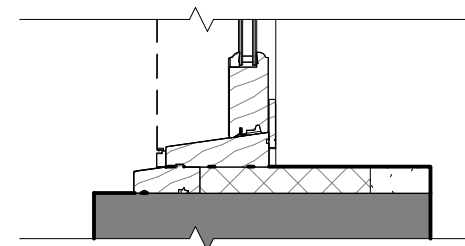
**QUANTITY: 162**



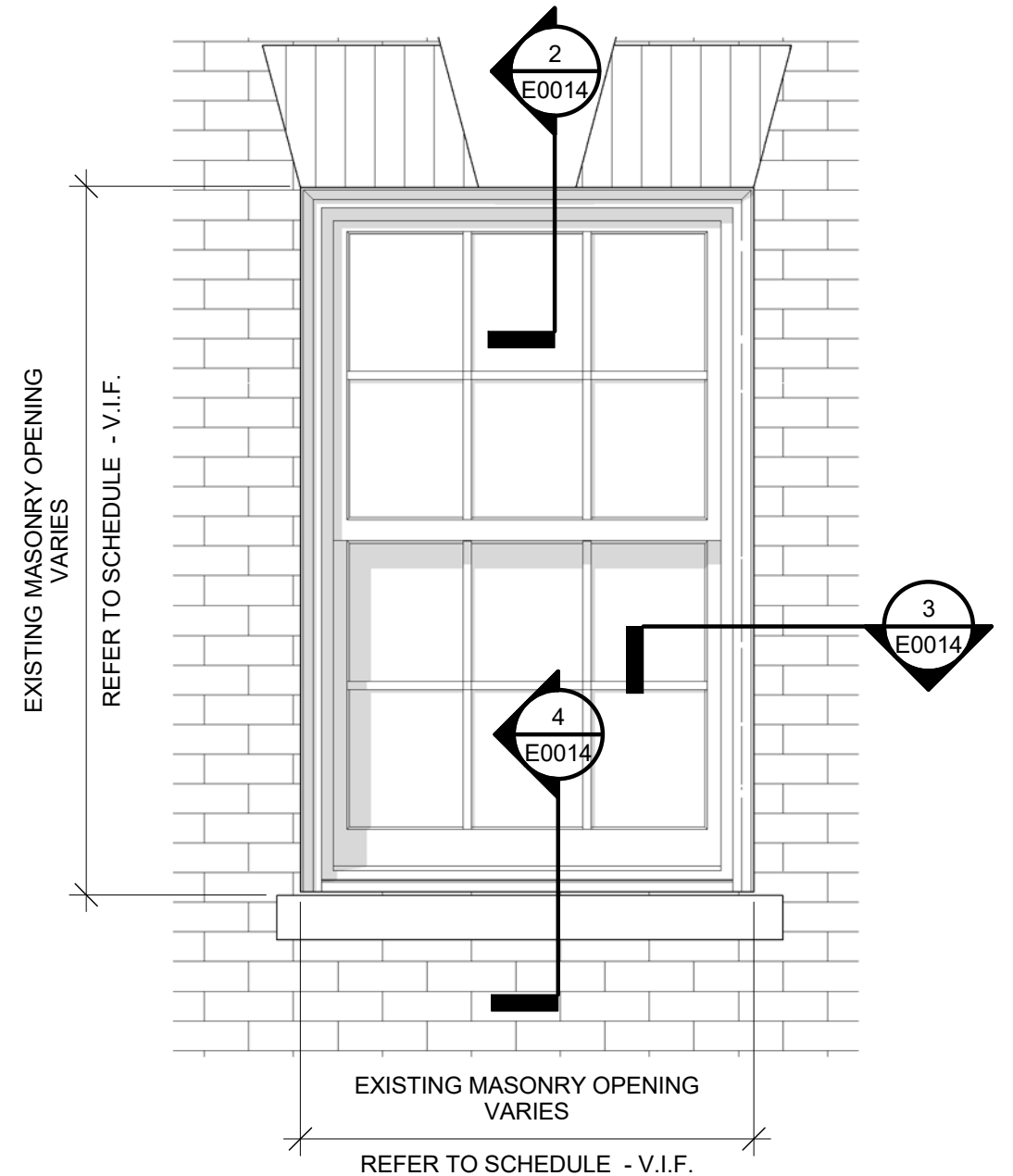
**2 | TYPE C2 DETAIL @ HEADER**  
1 1/2" = 1'-0"



**3 | TYPE C2 DETAIL @ JAMB**  
1 1/2" = 1'-0"



**4 | TYPE C2 DETAIL @ SILL**  
1 1/2" = 1'-0"



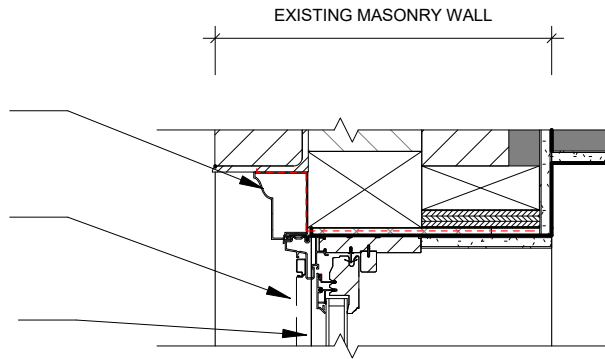
**1 | TYPE C2 ELEVATION**  
3/4" = 1'-0"

**SIZE RANGE: 1'-1" to 5'3" W**  
**5'-7" to 3'-4" H**  
**QUANTITY: 86**

Aluminum Brick Mold,  
Profile replicating the Type C1 Wood Brick Mold

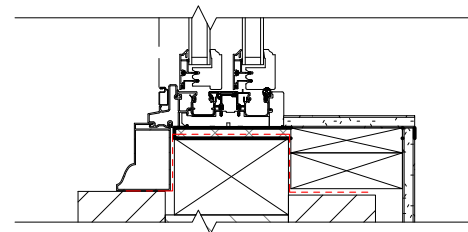
Proposed full frame  
Ultimate Marvin Aluminum  
Claded Wood double hung

Low E-2 with Argon filled cavity,  
tempered as required by code



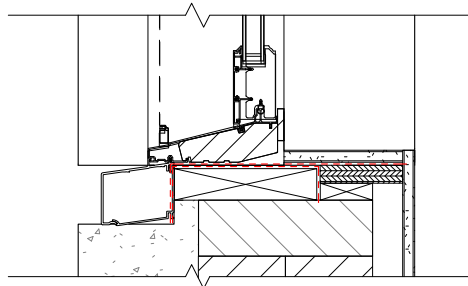
## 2 | TYPE C3 DETAIL @ HEADER

1 1/2" = 1'-0"



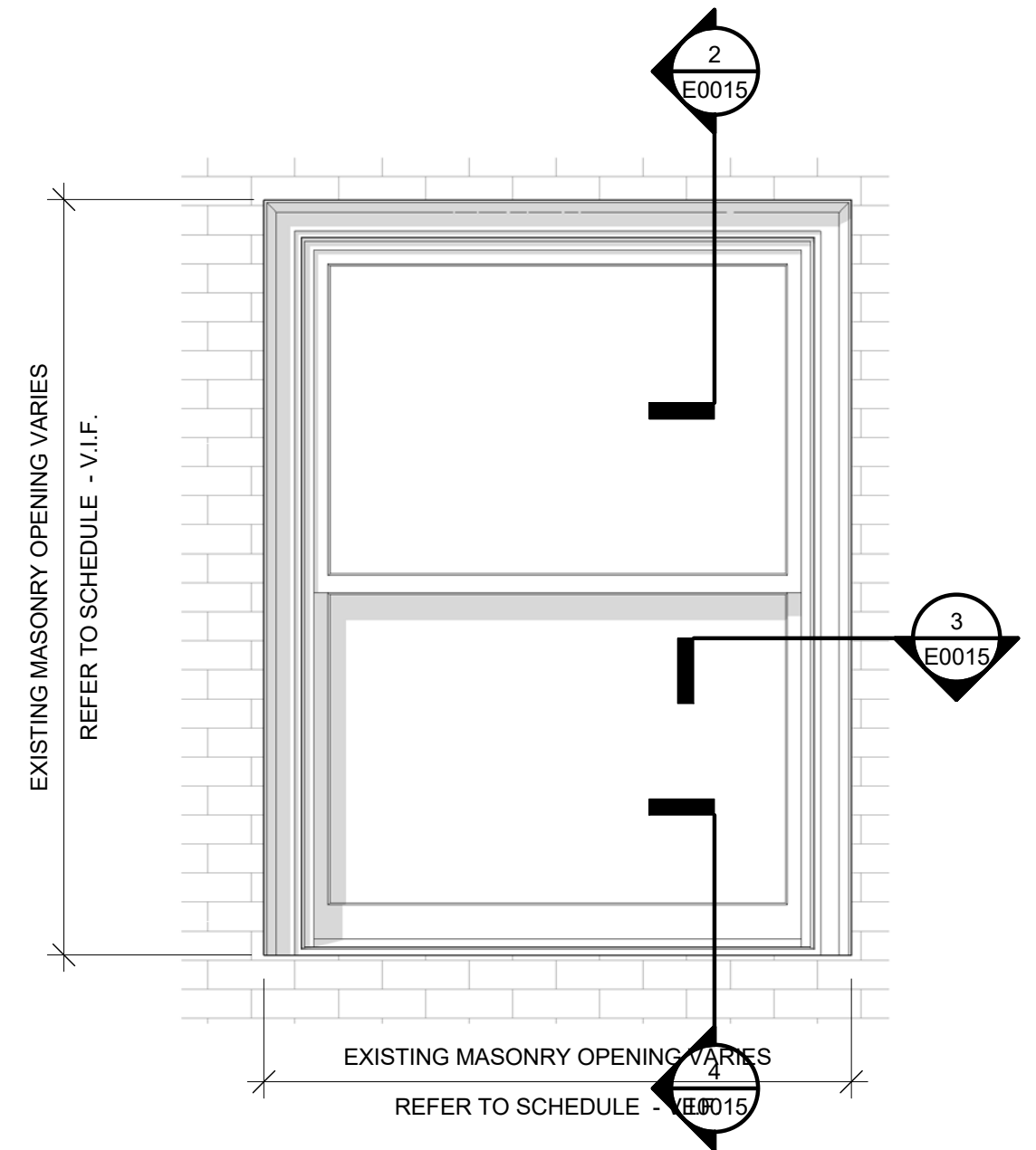
## 3 | TYPE C3 DETAIL @ JAMB

1 1/2" = 1'-0"



## 4 | TYPE C3 DETAIL @ SILL

1 1/2" = 1'-0"



## 1 | TYPE C3 - ELEVATION

3/4" = 1'-0"

SIZE RANGE: 2'-2" to 3'-6" W

3'-7" to 8'-7" H

QUANTITY: 208



# REPRESENTATIVE DATA

WINDOW TYPE	POTENTIAL WINDOW TYPE	INTERIOR STORM WINDOW	TYPE OF GLASS AT STORM WINDOW	U-VALUE	WARRANTY	QUANTITY
WOOD D/HUNG SINGLE PANE	TYP C1+C2	YES When interior sash open	CLEAR	.47 -.51* 1.01	10 YEARS FOR WINDOW, 5 YEARS FOR INTERIOR STORM WINDOW	248
WOOD D/HUNG DOUBLE PANE LOW E2 with Argon	TYP C1+C2	NO	N/A	.25 -.31**	10 YEARS	248
WOOD D/HUNG CLAD ALUM. DOUBLE PANE LOW E2 with Argon	TYP C3	NO	N/A	.23- .30**	20 YEARS	208

## SELECTED INSULATED GLAZING DATA (from Cardinal Corp Product sheets)

\*source: Allied Window Manufacturer - AIA-Certified  
\*\*source: Marvin.com

		VISIBLE LIGHT			SGHC	CENTER OF GLASS U-VALUE (BTU/hr/ft <sup>2</sup> /°F)		CENTER OF GLASS INDOOR GLASS TEMPATURE (°F)		UV TRANS%
						REFLECTANCE		AIR	ARGON	
EXTERIOR GLASS	INTERIOR GLASS	TRANS.	OUT	IN						
CLEAR	LowE 180 #3	79%	15%	15%	0.68	0.31	0.26	51		0.28
CLEAR	LowE 270 #3	70%	12%	13%	0.37	0.30	0.25	52		0.14

3mm glass / 13.0mm airspace / 3mm glass  
(⅛" glass – ½" airspace – ⅛" glass)

Exterior Glass	Interior Glass	Visible Light			SHGC	Center of Glass U-Value (BTU/hr/ft²/°F)		Center of Glass Indoor Glass Temperature (°F)		UV Trans
		Trans	Out	In		Air	Argon	Winter	Summer	
Clear	Clear	82%	15%	15%	0.78	0.48	0.46	45	90	58%
Clear	LoE-i89® (#3)	80%	15%	14%	0.75	0.33	0.29	54	98	55%
Clear	LoE-180 ESC™ (#3)	79%	15%	15%	0.71	0.31	0.27	55	94	25%
Clear	LoE-180® (#3)	79%	15%	15%	0.69	0.31	0.26	55	94	29%
Clear	LoE-Di89™ (#3 & #4)	79%	14%	14%	0.71	0.26	0.23	44	122	52%
LoE-180 ESC™ (#2)	Clear	79%	15%	15%	0.67	0.31	0.27	55	87	25%
LoE-180® (#2)	Clear	79%	15%	15%	0.64	0.31	0.26	55	87	29%
LoE²-272® (#2)	Clear	72%	11%	12%	0.41	0.30	0.25	56	84	16%
LoE²-270® (#2)	Clear	70%	12%	13%	0.37	0.30	0.25	56	83	14%
LoE³-366® (#2)	Clear	65%	11%	12%	0.27	0.29	0.24	56	82	5%
Quad LoE-452+™ (#2)	Clear	52%	10%	15%	0.22	0.29	0.24	56	83	1%
LoE²-240® (#2)	Clear	40%	14%	11%	0.25	0.30	0.26	55	86	16%
LoE³-340® (#2)	Clear	39%	13%	16%	0.18	0.29	0.25	56	83	2%
LoE-180® ESC™ (#2)	LoE-i89® (#4)	78%	15%	14%	0.64	0.24	0.21	46	107	24%
LoE-180® (#2)	LoE-i89® (#4)	77%	15%	14%	0.62	0.24	0.21	46	105	27%
LoE²-272® (#2)	LoE-i89® (#4)	70%	11%	11%	0.41	0.23	0.20	47	94	16%
LoE²-270® (#2)	LoE-i89® (#4)	68%	12%	13%	0.36	0.23	0.20	47	93	14%
LoE³-366® (#2)	LoE-i89® (#4)	63%	11%	12%	0.27	0.23	0.20	48	90	5%
Quad LoE-452+™ (#2)	LoE-i89® (#4)	51%	10%	14%	0.21	0.23	0.20	48	91	1%
LoE²-240® (#2)	LoE-i89® (#4)	39%	14%	10%	0.24	0.24	0.21	47	95	15%
LoE³-340® (#2)	LoE-i89® (#4)	38%	13%	15%	0.17	0.23	0.20	47	91	2%

- Notes:
- (1) Data was calculated using LBNL Window computer program with winter & summer NFRC environmental conditions.
  - (2) Calculations based on 90% Argon gas fill level.
  - (3) Shading Coefficient (SC) can be calculated by dividing SHGC by 0.87.
  - (4) The UV Transmittance is determined as an average for wavelengths 310 -380 nm.

## DATA STUDY