



ARROWSTREET

# LINCOLN-ELIOT ELEMENTARY SCHOOL

DRC MEETING

NEWTON, MA  
10 MAY 2023



PREPARED FOR

Dr. Kathleen Smith,  
Interim Superintendent

Ruthanne Fuller,  
Mayor



## **AGENDA /**

- 1 EXTERIOR DESIGN UPDATE**
- 2 ENERGY CODE/WALL ASSEMBLIES**
- 3 INTERIOR DESIGN UPDATE**

# EXTERIOR DESIGN



# OVERALL AXON - VIEW FROM THE SOUTHWEST



\* TREES AND PLANTS ARE PLANNED BUT NOT SHOWN IN THIS ILLUSTRATIVE RENDITION OF THE PROJECT.



# OVERALL AXON - VIEW FROM THE NORTHEAST



\* TREES AND PLANTS ARE PLANNED BUT NOT SHOWN IN THIS ILLUSTRATIVE RENDITION OF THE PROJECT.



## PERSPECTIVE - APPROACH FROM JACKSON ROAD



\* TREES AND PLANTS ARE PLANNED BUT NOT ALL ARE SHOWN IN THIS ILLUSTRATIVE RENDITION OF THE PROJECT.



## PERSPECTIVE - APPROACH FROM BUS PICK-UP/DROP-OFF



\* TREES AND PLANTS ARE PLANNED BUT NOT ALL ARE SHOWN IN THIS ILLUSTRATIVE RENDITION OF THE PROJECT.



## PERSPECTIVE - APPROACH FROM WABAN STREET



\* TREES AND PLANTS ARE PLANNED BUT NOT ALL ARE SHOWN IN THIS ILLUSTRATIVE RENDITION OF THE PROJECT.



## PERSPECTIVE - APPROACH FROM WABAN STREET



\* TREES AND PLANTS ARE PLANNED BUT NOT ALL ARE SHOWN IN THIS ILLUSTRATIVE RENDITION OF THE PROJECT.



## PERSPECTIVE - APPROACH FROM WABAN STREET & WALNUT PARK



\* TREES AND PLANTS ARE PLANNED BUT NOT ALL ARE SHOWN IN THIS ILLUSTRATIVE RENDITION OF THE PROJECT.



# SOUTH ELEVATION



\* TREES AND PLANTS ARE PLANNED BUT NOT ALL ARE SHOWN IN THIS ILLUSTRATIVE RENDITION OF THE PROJECT.

# WEST ELEVATION



\* TREES AND PLANTS ARE PLANNED BUT NOT ALL ARE SHOWN IN THIS ILLUSTRATIVE RENDITION OF THE PROJECT.



# NORTH ELEVATION



\* TREES AND PLANTS ARE PLANNED BUT NOT ALL ARE SHOWN IN THIS ILLUSTRATIVE RENDITION OF THE PROJECT.



## PERSPECTIVE - APPROACH FROM WABAN STREET & WALNUT PARK



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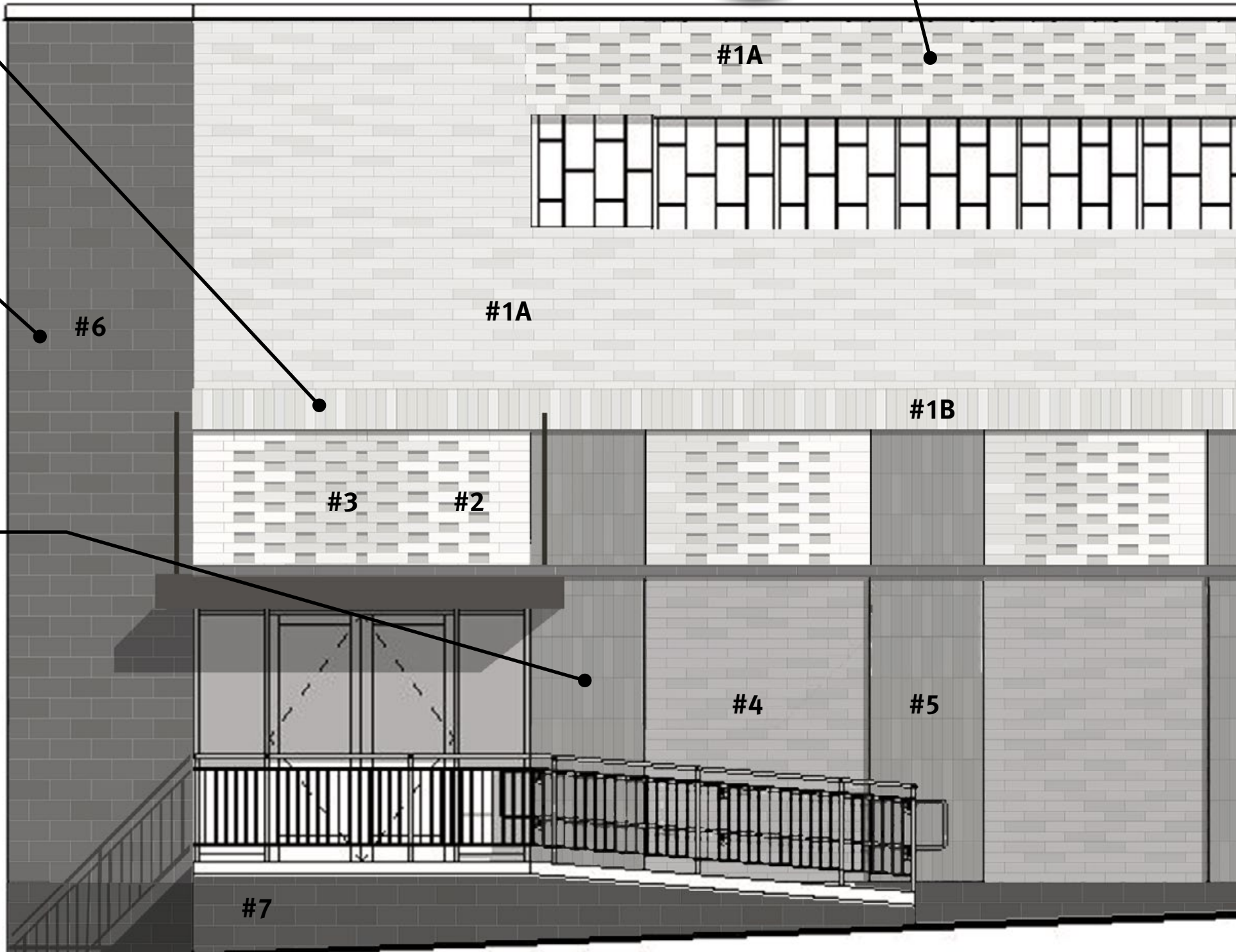
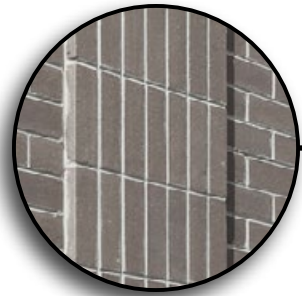
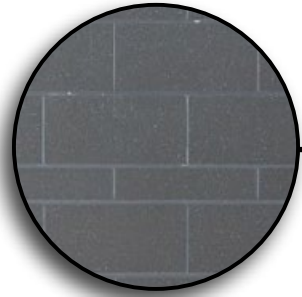
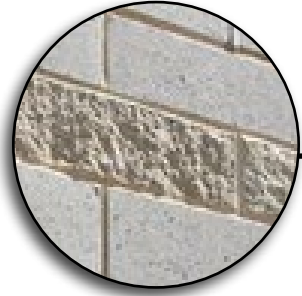
# SOUTH ELEVATION - ENLARGED

IMAGES FOR TEXTURE/  
PATTERN ONLY











FOR REF: EXISTING BRICK

IMAGES FOR TEXTURE/  
PATTERN ONLY

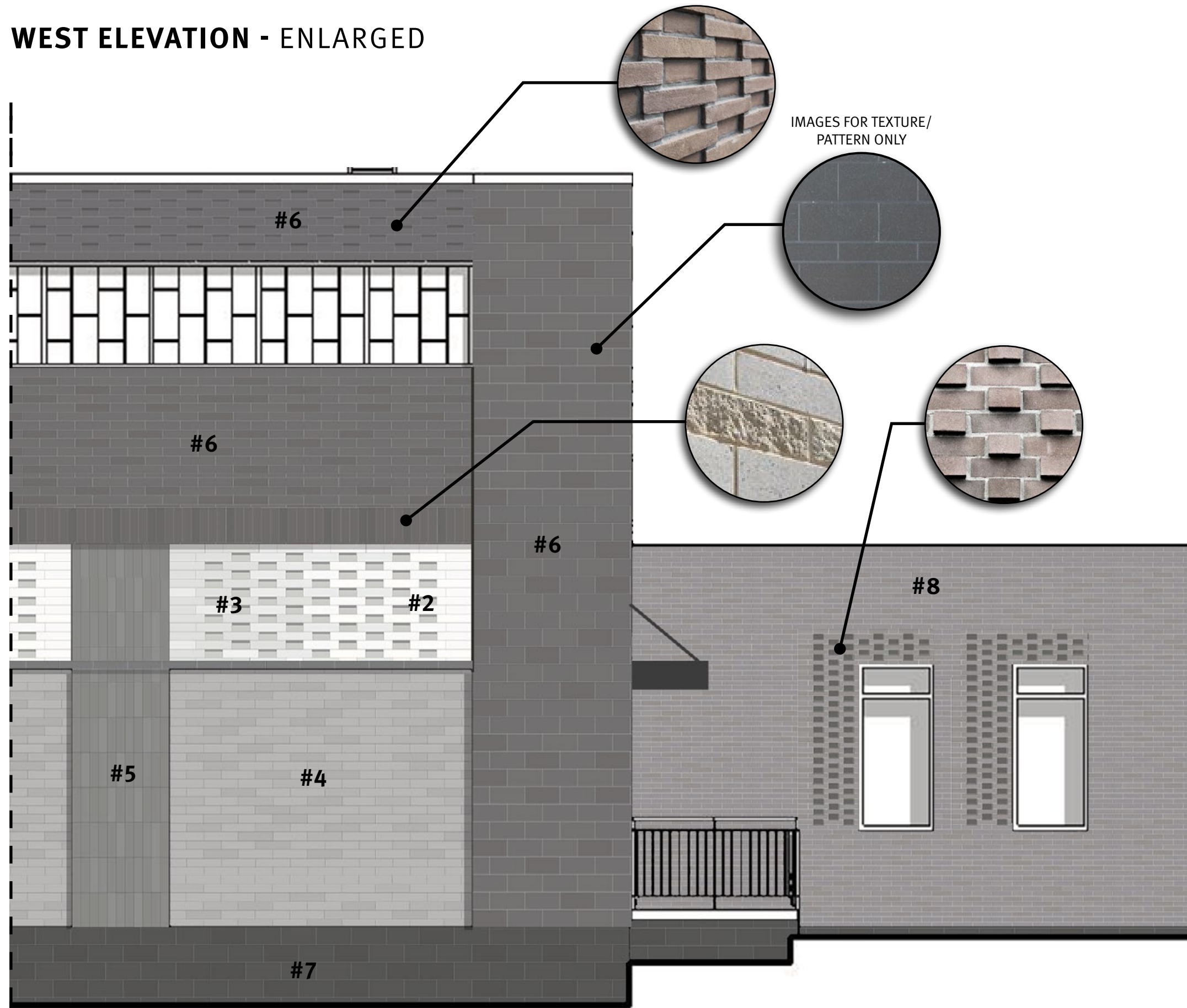


## MASONRY TYPES / SIZES / FINISHES:

- #1A  **ARCH CMU - 4" X 16" NOM. AND 4"X8" NOM. JANDRIS - 5100G-2 GROUND FACE**
- #1B  **ARCH CMU - 4" X 16" NOM. AND 4"X8" NOM. JANDRIS - W-60 SPLIT FACE**
- #2  **ARCH CMU - 4" X 8" NOM. & 4" X 16" NOM. JANDRIS - 520G-2 GROUND FACE**
- #3  **ARCH CMU - 4" X 8" NOM. & 4" X 16" NOM. JANDRIS - 9303 GROUND FACE**
- #4  **ARCH CMU - 4" X 16" NOM. JANDRIS - 5200G WEATHERED POLISH**
- #5  **ARCH CMU - 4" X 16" NOM. JANDRIS - 510-G-2 WEATHERED POLISH**
- #6  **ARCH CMU - 8" X 16" NOM. JANDRIS - 9307 GROUND FACE**
- #7  **ARCH CMU - 4" X 16" NOM. JANDRIS - DS-24-2 SPLIT FACE**










# WEST ELEVATION - ENLARGED



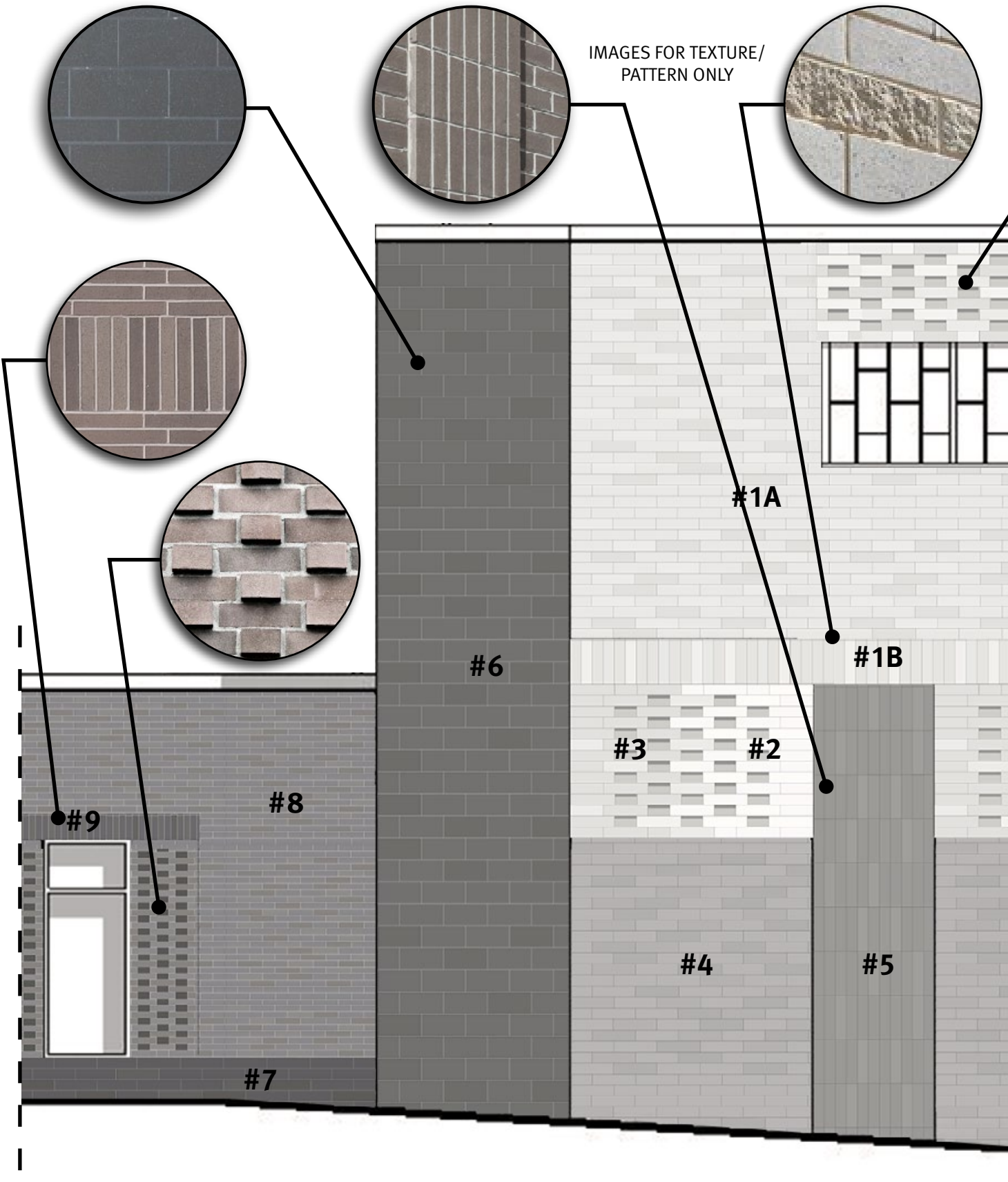
IMAGES FOR TEXTURE/  
PATTERN ONLY

## MASONRY TYPES / SIZES / FINISHES:

- #2  **ARCH CMU** - 4" X 8" NOM. & 4" X 16" NOM.  
JANDRIS - 520G-2  
GROUND FACE
- #3  **ARCH CMU** - 4" X 8" NOM. & 4" X 16" NOM.  
JANDRIS - 9303  
GROUND FACE
- #4  **ARCH CMU** - 4" X 16" NOM.  
JANDRIS - 5200G  
WEATHERED POLISH
- #5  **ARCH CMU** - 4" X 16" NOM.  
JANDRIS - 510-G-2  
WEATHERED POLISH
- #6  **ARCH CMU** - 8" X 16" NOM., 4" X 16" NOM. AND 4" X 8" NOM.  
JANDRIS - 9307  
GROUND FACE
- #7  **ARCH CMU** - 4" X 16" NOM.  
JANDRIS - DS-24-2  
SPLIT FACE
- #8  **BRICK** - 2 1/4" X 8" NOM.  
CONSOLIDATED - SLATE GRAY



# NORTH ELEVATION - ENLARGED



## MASONRY TYPES / SIZES / FINISHES:

- |     |  |  |    |  |  |
|-----|--|--|----|--|--|
| #1A |  | <b>ARCH CMU</b> - 4" X 16" NOM.<br>JANDRIS - 5100G-2<br>GROUND FACE                  | #5 |  | <b>ARCH CMU</b> - 4" X 16" NOM.<br>JANDRIS - 510-G-2<br>WEATHERED POLISH       |
| #1B |  | <b>ARCH CMU</b> - 4" X 16" NOM.<br>JANDRIS - W-60<br>SPLIT FACE                      | #6 |  | <b>ARCH CMU</b> - 8" X 16" NOM.<br>JANDRIS - 9307<br>GROUND FACE               |
| #2  |  | <b>ARCH CMU</b> - 4" X 8" NOM. &<br>4" X 16" NOM.<br>JANDRIS - 520G-2<br>GROUND FACE | #7 |  | <b>ARCH CMU</b> - 4" X 16" NOM.<br>JANDRIS - DK-24-2<br>SPLIT FACE             |
| #3  |  | <b>ARCH CMU</b> - 4" X 8" NOM. &<br>4" X 16" NOM.<br>JANDRIS - 9303<br>GROUND FACE   | #8 |  | <b>BRICK</b> - 2 1/4" X 8" NOM.<br>CONSOLIDATED -<br>SLATE GRAY                |
| #4  |  | <b>ARCH CMU</b> - 4" X 16" NOM.<br>JANDRIS - 5200G<br>WEATHERED POLISH               | #9 |  | <b>BRICK</b> - 2 1/4" X 8" NOM.<br>CONSOLIDATED -<br>WATERSTOWN<br>SILVERSTONE |



# ENERGY CODE/WALL ASSEMBLIES



**EXTERIOR ASSEMBLIES**  
U-FACTOR TABLE C402.1.4

REQUIRED FOR 2023 STRETCH CODE UNLESS PASS COMPONENT PERFORMANCE (UXA).

OPTION FOR BASE CODE PRESCRIPTIVE PATH.

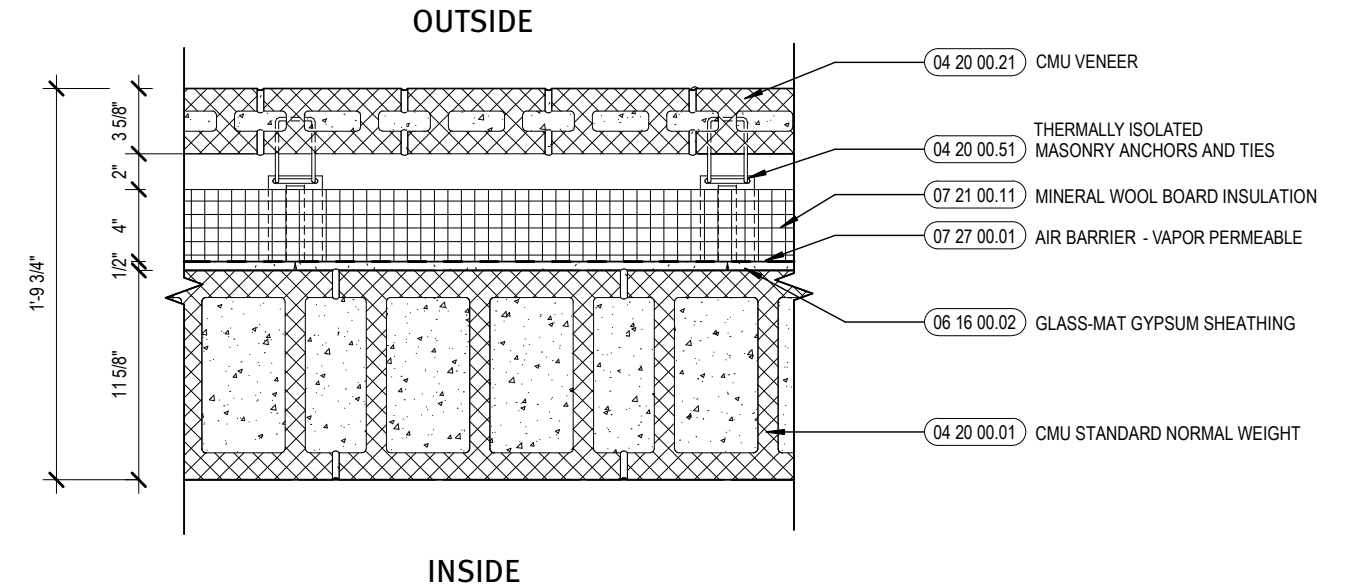
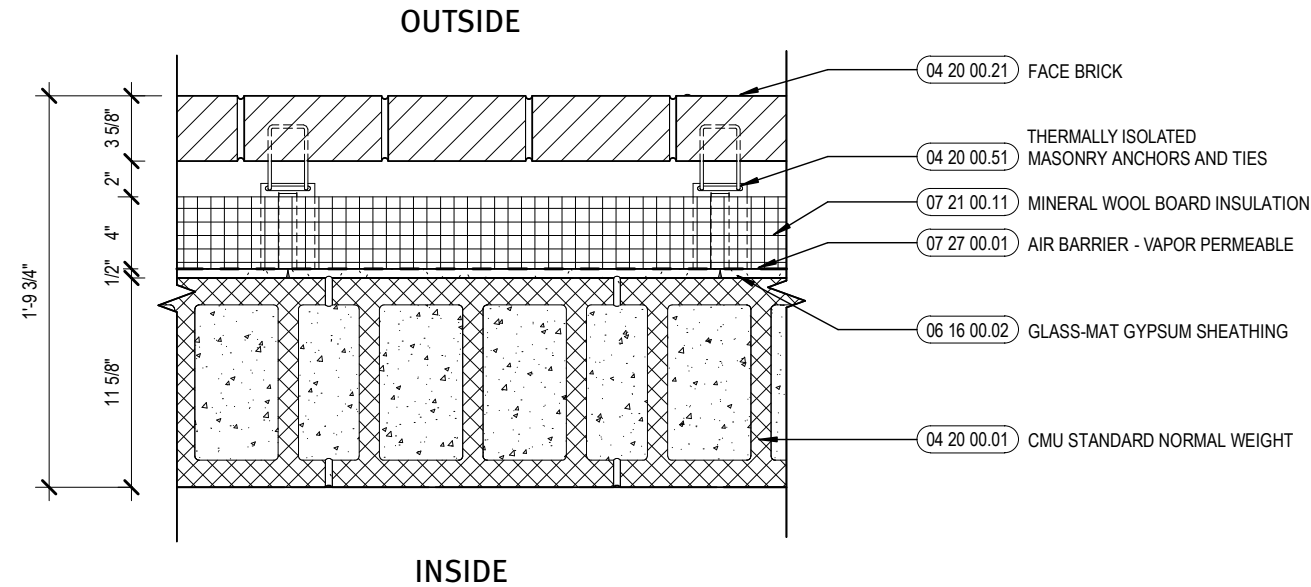
**2023 MA STRETCH/  
SPECIALIZED**

		IECC 2018 BASE		IECC 2021 BASE		2023 MA STRETCH/ SPECIALIZED	
		ALL OTHER	GROUP R	ALL OTHER	GROUP R	ALL OTHER	GROUP R
<b>ROOFS</b>	Insulation above deck	U-0.032	same			Same values as IECC 2021 Base	
	Metal building	U-0.035	same				
	Attic and Other	U-0.027	U-0.021	U-0.021			
<b>WALLS ABOVE GRADE</b>	Mass	U-0.090	U-0.080				
	Metal building	U-0.052	same	U-0.050	U-0.050		
	Metal framed	U-0.064	same	U-0.055	U-0.055		
<b>WALLS BELOW GRADE</b>	Wood framed	U-0.064	same	U-0.051	U-0.051		
	Below grade wall	C-0.119	same		C-0.092		
	<b>FLOORS</b>	Mass	U-0.074	U-0.064	U-0.057		U-0.051
Joist/Framing		U-0.033	same				
<b>SLAB-ON-GRADE FLOORS</b>	Unheated slabs	F-0.54	same	F-0.52	F-0.51		
	Heated Slabs	F-0.79 perimeter + F-0.64 full slab	same	F-0.62	F-0.62		
<b>OPAQUE DOORS</b>	Swinging (<50% glass)	U-0.37	same				
	Nonswing/Garage <14% glass	U-0.31	same				
Based on MA climate zone 5. Check code for full chart and other reqs.							



# BRICK VENEER ON CMU - U VALUE: 0.0710

# CMU VENEER ON CMU - U VALUE: 0.0710



Walls - Mass	Thickness	Nominal/R <sub>o</sub> Value	Derating factor for c.i.	R <sub>base</sub> /Derated R Value	U-factor
<b>Exterior Wall - Masonry Veneer</b>					
3 5/8" Brick Veneer	3.625				
2" Air Space	2				
4" Semi Rigid Mineral Wool Insulation (R-17.2) (Cavityrock) w/ Brick Tie	4	17.2	0.7	12.04	
Vapor Permeable Air Barrier	0				
12" Concrete Block normal wieght 125 lb/ft3	12	NA	NA	2.04	
<b>Assembly Total</b>	<b>21.625</b>			<b>14.08</b>	<b>0.0710</b>

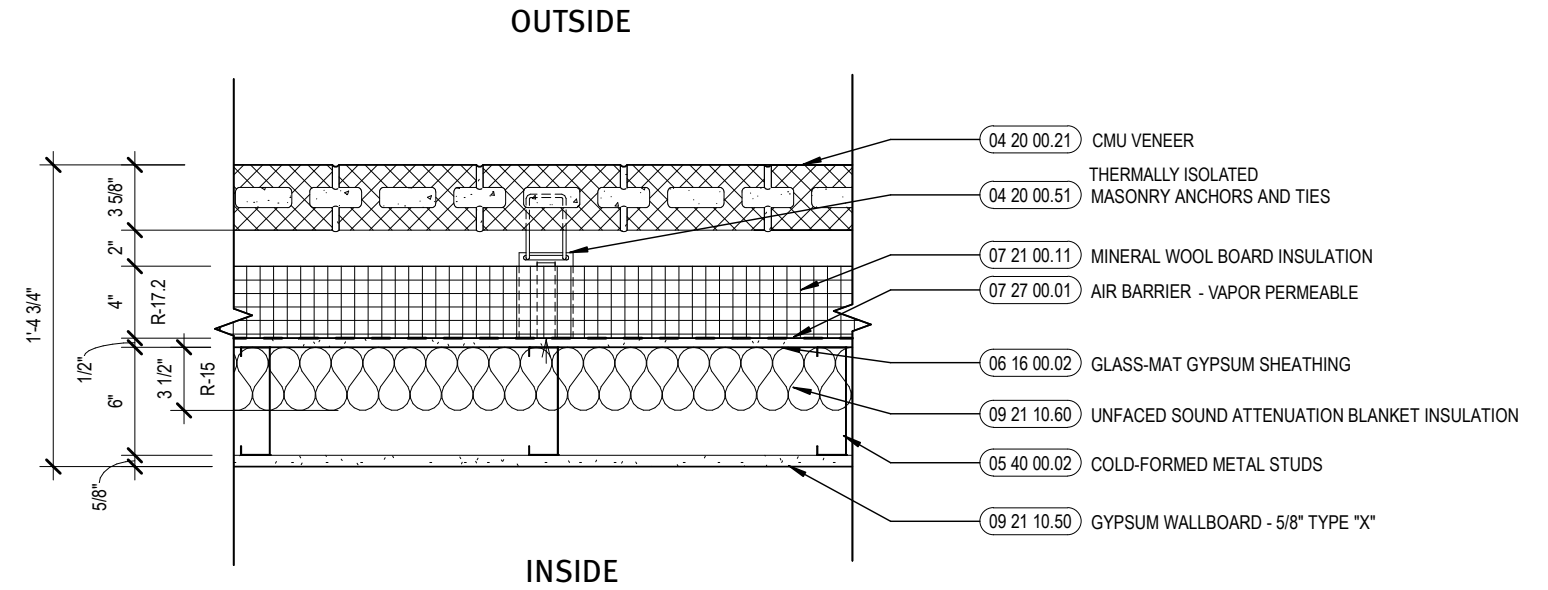
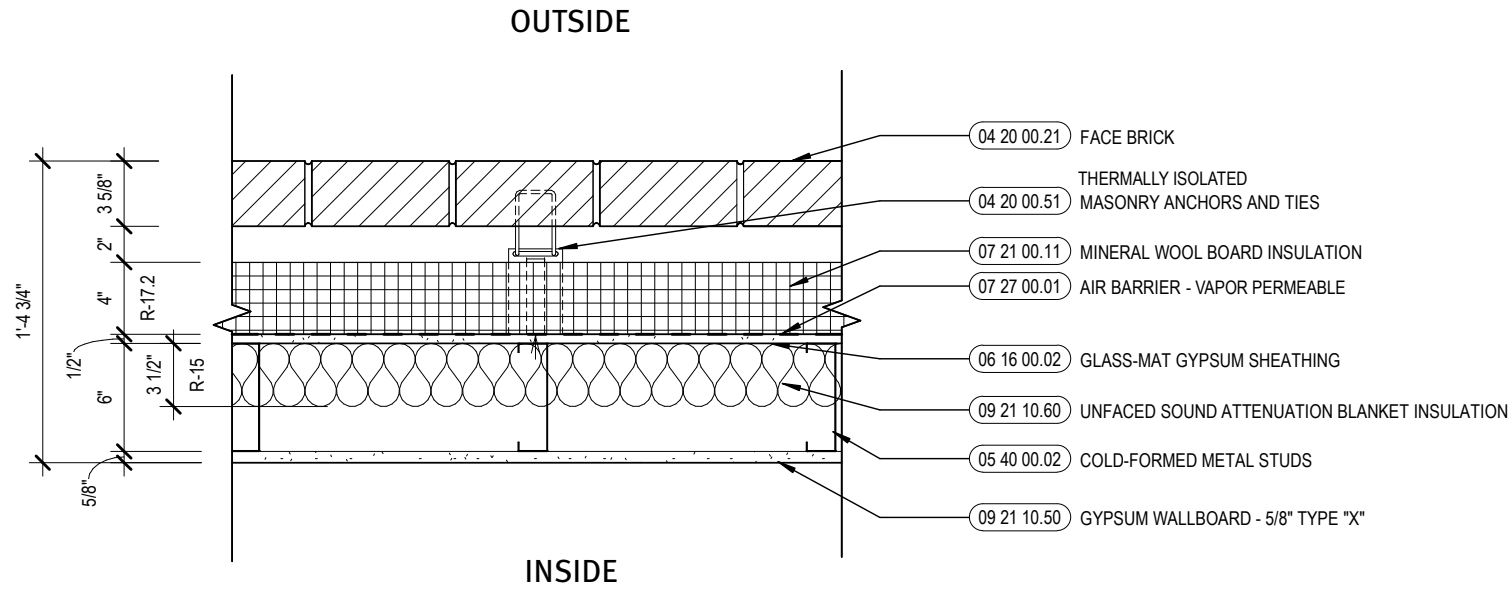
Walls - Mass	Thickness	Nominal/R <sub>o</sub> Value	Derating factor for c.i.	R <sub>base</sub> /Derated R Value	U-factor
<b>Exterior Wall - CMU Veneer</b>					
3 7/8" CMU Veneer (4X16)	3.875				
2" Air Space	2				
4" Semi Rigid Mineral Wool Insulation (R-17.2) (Cavityrock) w/ Brick Tie	4	17.2	0.7	12.04	
Vapor Permeable Air Barrier	0				
12" Concrete Block normal wieght 125 lb/ft3	12	NA	NA	2.04	
<b>Assembly Total</b>	<b>21.875</b>			<b>14.08</b>	<b>0.0710</b>

WHEN THE LINEAR THERMAL BREAK DERATING IS COMPLETE, WE ANTICIPATE THAT THE FINAL ASSEMBLY U-FACTORS WILL MEET OR EXCEED THE 0.09 CODE REQUIREMENT.



# BRICK VENEER ON METAL STUD - U VALUE: 0.0487

# CMU VENEER ON METAL STUD - U VALUE: 0.0487



Walls - Metal Framed	Thickness	Nominal/R <sub>o</sub> Value	Derating factor for c.i.	R <sub>base</sub> /Derated R Value	U-factor
<b>Exterior Wall - Masonry Veneer</b>					
3 5/8" Brick Veneer	3.625				
2" Air Space	2				
4" Semi Rigid Mineral Wool Insulation (R-17.2) (Cavityrock) w/ Brick Tie	4	17.2	0.7	12.04	
Vapor Permeable Air Barrier	0				
1/2" Glass-Mat Gypsum Sheathing Board	0.5				
3 1/2" Mineral Wool Insulation (R-15) between 6" studs 16" O.C.	6	15	NA	8.47	
5/8" Moisture Resistant Gypsum Wall Board	0.625				
<b>Assembly Total</b>	<b>16.750</b>			<b>20.51</b>	<b>0.0487</b>

Walls - Metal Framed	Thickness	Nominal/R <sub>o</sub> Value	Derating factor for c.i.	R <sub>base</sub> /Derated R Value	U-factor
<b>Exterior Wall - CMU Veneer</b>					
3 7/8" CMU Veneer (4X16)	3.875				
2" Air Space	2				
4" Semi Rigid Mineral Wool Insulation (R-17.2) (Cavityrock) w/ Brick Tie	4	17.2	0.7	12.04	
Vapor Permeable Air Barrier	0				
1/2" Glass-Mat Gypsum Sheathing Board	0.5				
3 1/2" Mineral Wool Insulation (R-15) between 6" studs 16" O.C.	6	15	NA	8.47	
5/8" Moisture Resistant Gypsum Wall Board	0.625				
<b>Assembly Total</b>	<b>17.000</b>			<b>20.51</b>	<b>0.0487</b>

WHEN THE LINEAR THERMAL BREAK DERATING IS COMPLETE, WE ANTICIPATE THAT THE FINAL ASSEMBLY U-FACTORS WILL MEET OR EXCEED THE 0.055 CODE REQUIREMENT.

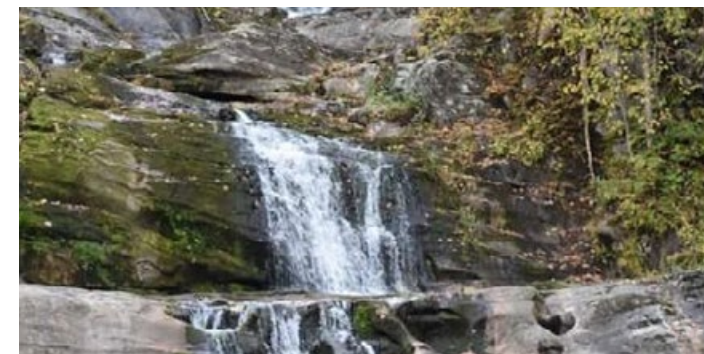
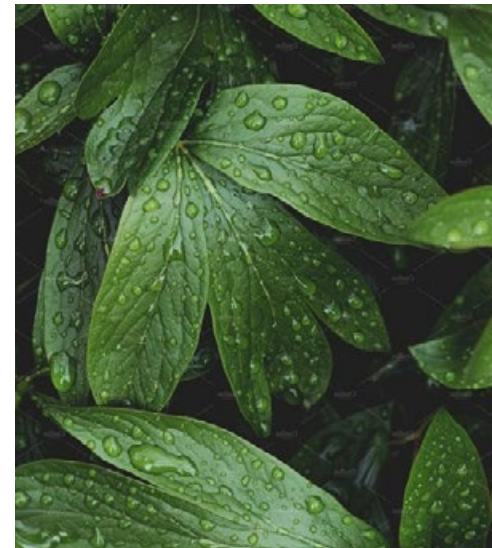


# INTERIOR DESIGN



## INSPIRATION

Lincoln Elliot attracts students from diverse corners of the globe, each seeking a learning environment that feels like a second home. To achieve this, we have carefully crafted a color scheme that evolves as students navigate the space, providing each level with a distinct identity that aids wayfinding and encourages exploration. The result is an immersive educational experience that celebrates the unique cultural backgrounds of our students while fostering a sense of belonging and community.



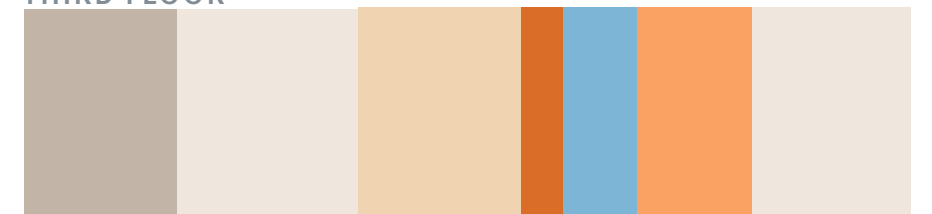
FIRST FLOOR



SECOND FLOOR



THIRD FLOOR



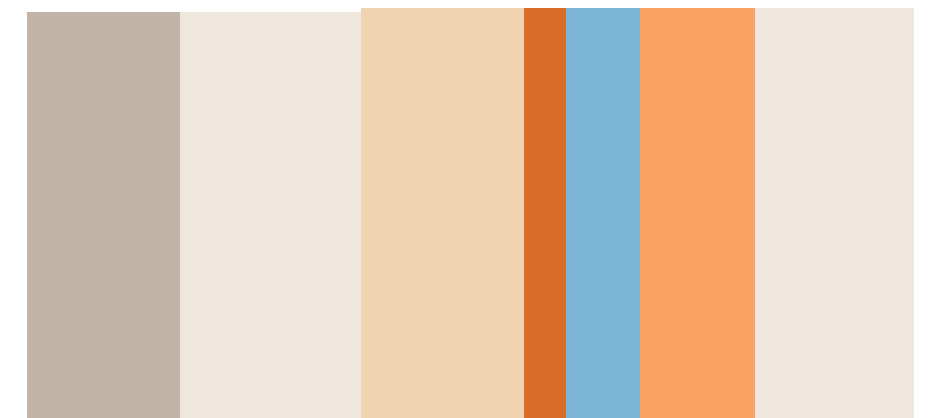
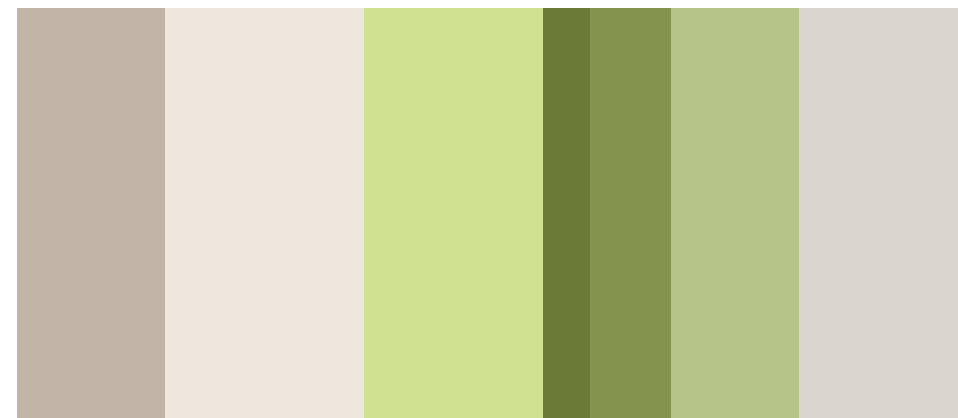
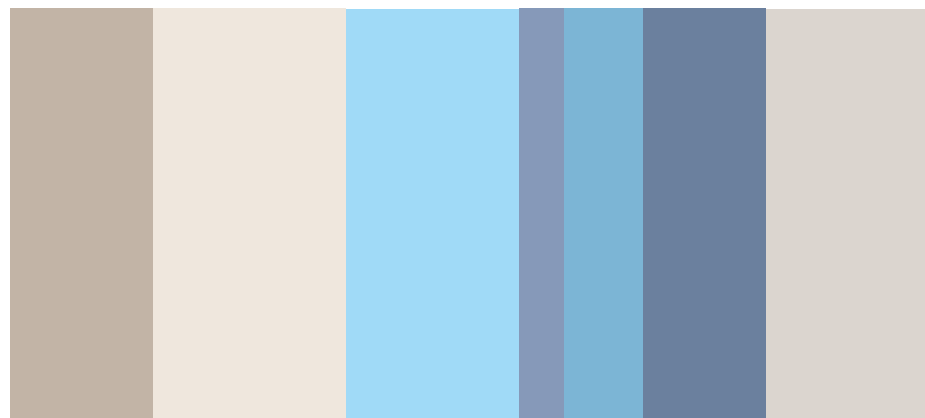


## CONNECTION OF THE GLOBE - WORLD TOPOGRAPHY

We understand that despite our varied origins, we are all united on one globe. With this in mind, we have designed our interior spaces to honor and celebrate the diversity of our student body. Our flooring pattern takes inspiration from topography maps, symbolizing the universal interconnectedness of all living things.

Our interior design concept is influenced by the global student body at Lincoln-Eliot. Our goal is to foster an appreciation for community and environment, and we achieve this by surrounding our students with beautiful abstract designs inspired by diverse landscapes. The colors of the blue sea and the yellow sun feature prominently in our designs, creating a calming yet energetic atmosphere that encourages creativity and learning.

The interior design should be an extension of the classroom, providing inspiration and promoting curiosity. By infusing our spaces with vibrant colors and evocative forms, we encourage students to explore not only different parts of the world but also their own creative potential.





# INTERIOR DESIGN

## COLOR THEORY - LEVELS

### THIRD FLOOR (GRADES 4-5)

Orange has shown to help stimulate the brain, increase energy levels, and improve creativity. Orange is also associated with feelings of warmth and friendliness, which can promote a positive learning environment and encourage social interaction among students.



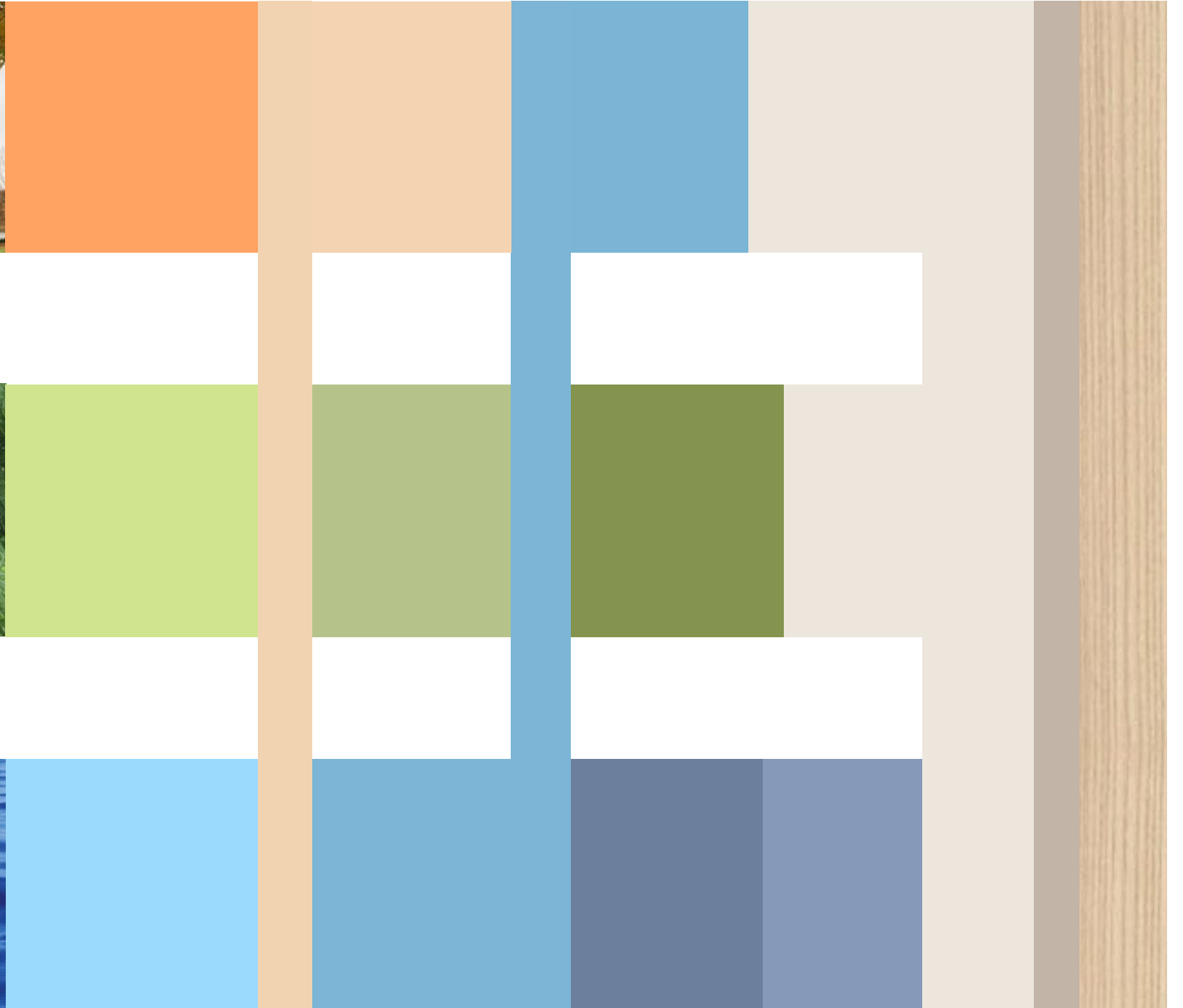
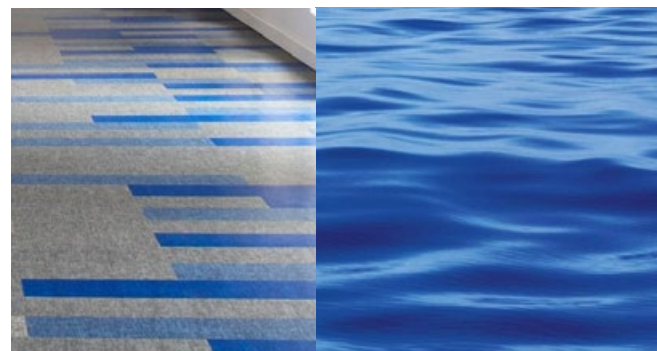
### SECOND FLOOR (GRADES 2-3)

Green is a calming color that has been shown to have several benefits for students in the classroom. This color is associated with nature and can create a peaceful and harmonious atmosphere that can reduce stress and anxiety while also improve reading ability and academic performance. Additionally, green can enhance creativity and improve focus, making it a useful color for students who need to concentrate on their studies.



### FIRST FLOOR (GRADES K-1)

The color blue can be beneficial for students in the classroom as it has a calming and soothing effect. Blue has also been found to improve focus and mental alertness, making it a helpful color for students who need to concentrate on their studies.









# MAIN LOBBY AND LIBRARY

# MAIN LOBBY





# LIBRARY





# LIBRARY





# CAFETERIA LOBBY

# CAFETERIA LOBBY





# CAFETERIA LOBBY



# CAFETERIA



# CAFETERIA





# CAFETERIA





# CAFETERIA



## Q&A

### For Further Information:

- » [www.newtonma.gov/gov/building/capital\\_projects](http://www.newtonma.gov/gov/building/capital_projects)
- » [www.lincolneliot-necp-projects.com](http://www.lincolneliot-necp-projects.com)
- » Alejandro Valcarce, AIA, Deputy Commissioner Newton Public Buildings; [avalcarce@newtonma.gov](mailto:avalcarce@newtonma.gov)
- » Vivian Varbedian, Project Manager, Hill International; [vvarbedian@hillintl.com](mailto:vvarbedian@hillintl.com)





# BUILDING EXTERIOR EXISTING



150 JACKSON ROAD



CLASSROOM FACADE



EXISTING BRICK

## EXISTING BUILDING:

- Massing is a collection of simple forms
- Building forms are rectilinear boxes punctuated with simple punched window openings
- Special spaces articulated with larger windows or grouped windows (entries, cafeteria, chapel, living quarters)
- Uniform beige / brown brick laid up in random pattern



# BUILDING EXTERIOR EXISTING



CHAPEL ENTRANCE



15 WALNUT PARK ENTRANCE



WALNUT PARK CLASSROOM FACADE



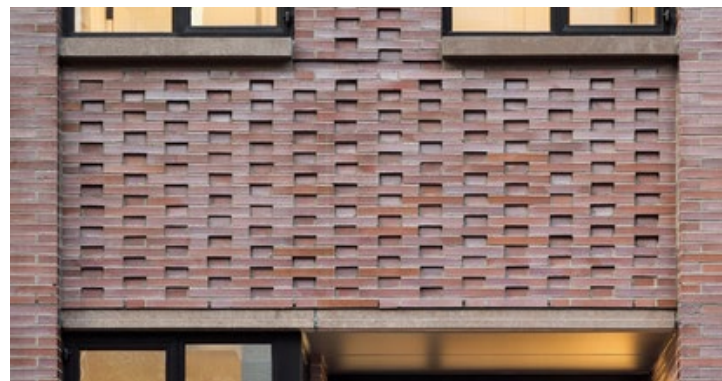
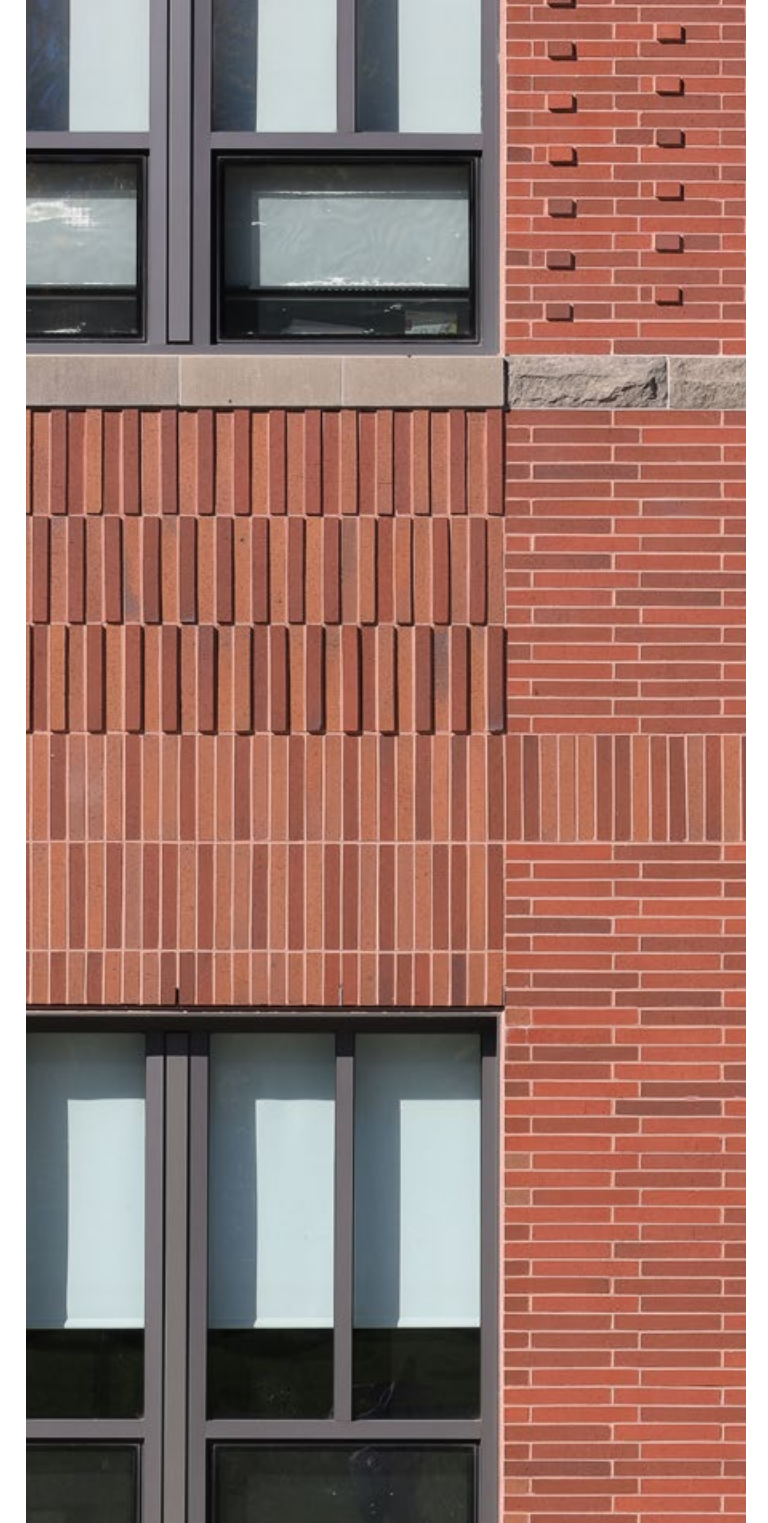
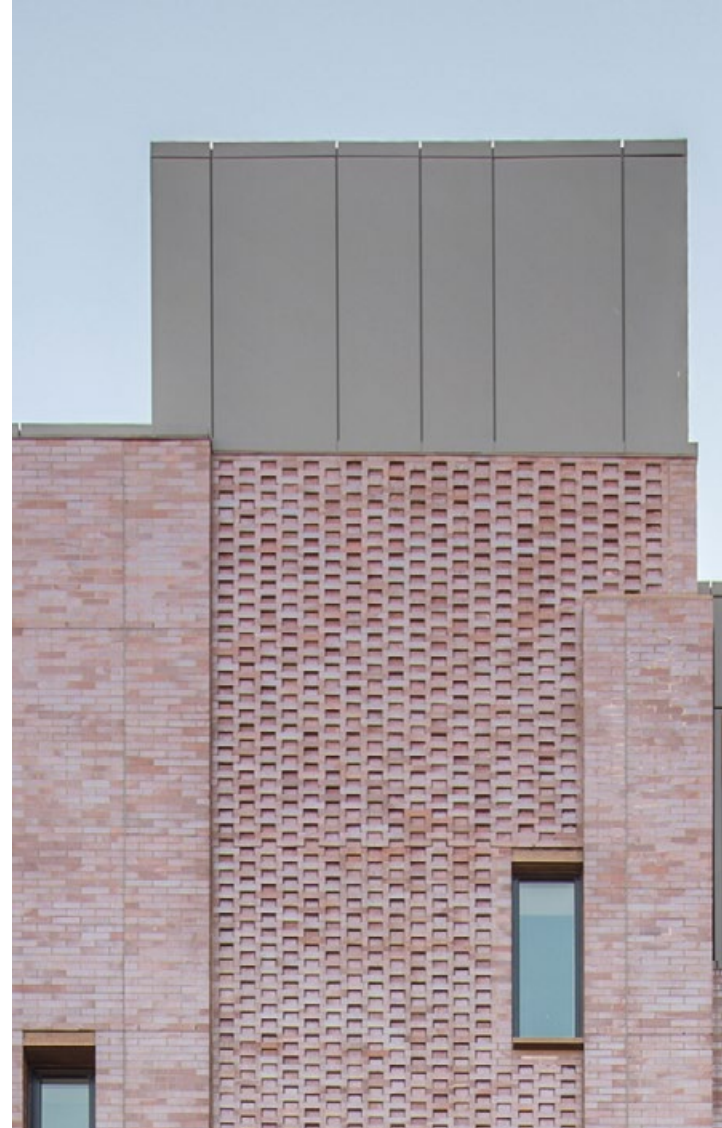
CHAPEL /& CONVENT - VIEW FROM WABAN STREET





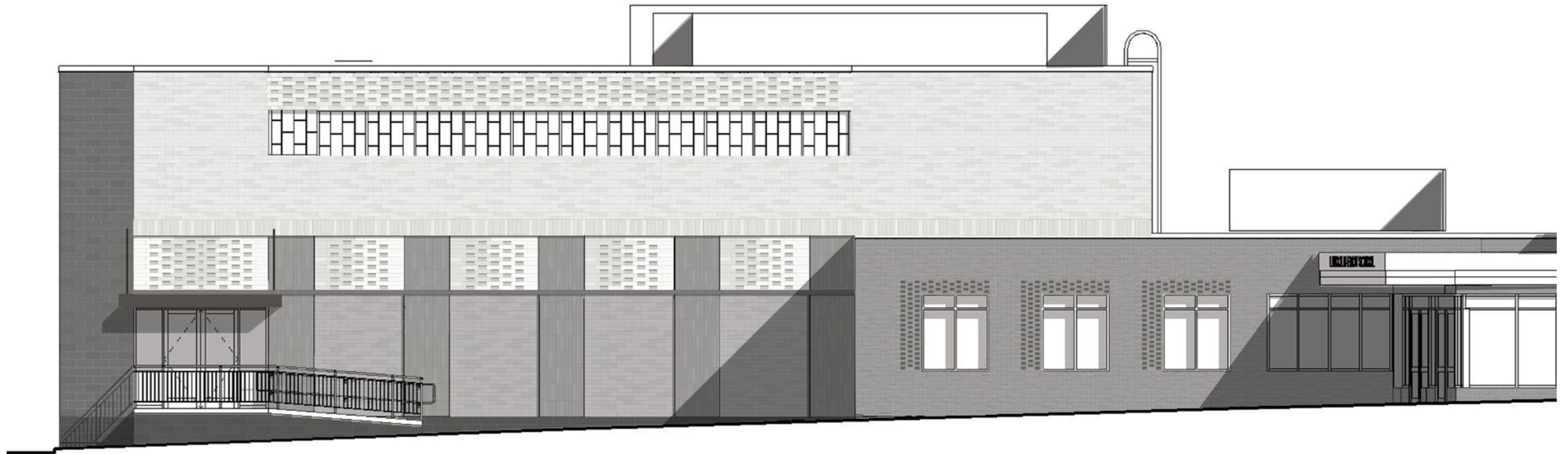


# MASONRY PRECEDENTS





# SOUTH ELEVATION





# WEST ELEVATION



# SOUTH ELEVATION - ENLARGED



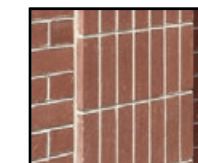
**ARCH CMU - SOLDIER COURSE**  
4" X 16" NOM.



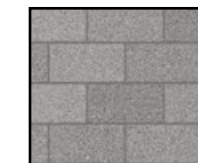
**ARCH CMU - RUNNING BOND**  
4" X 16" NOM.



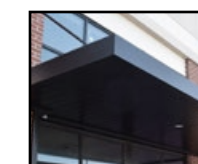
**ARCH CMU - PATTERN**  
4" X 8" NOM. &  
4" X 16" NOM.



**ARCH CMU - STACK**  
4" X 16" NOM.



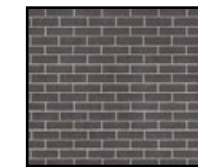
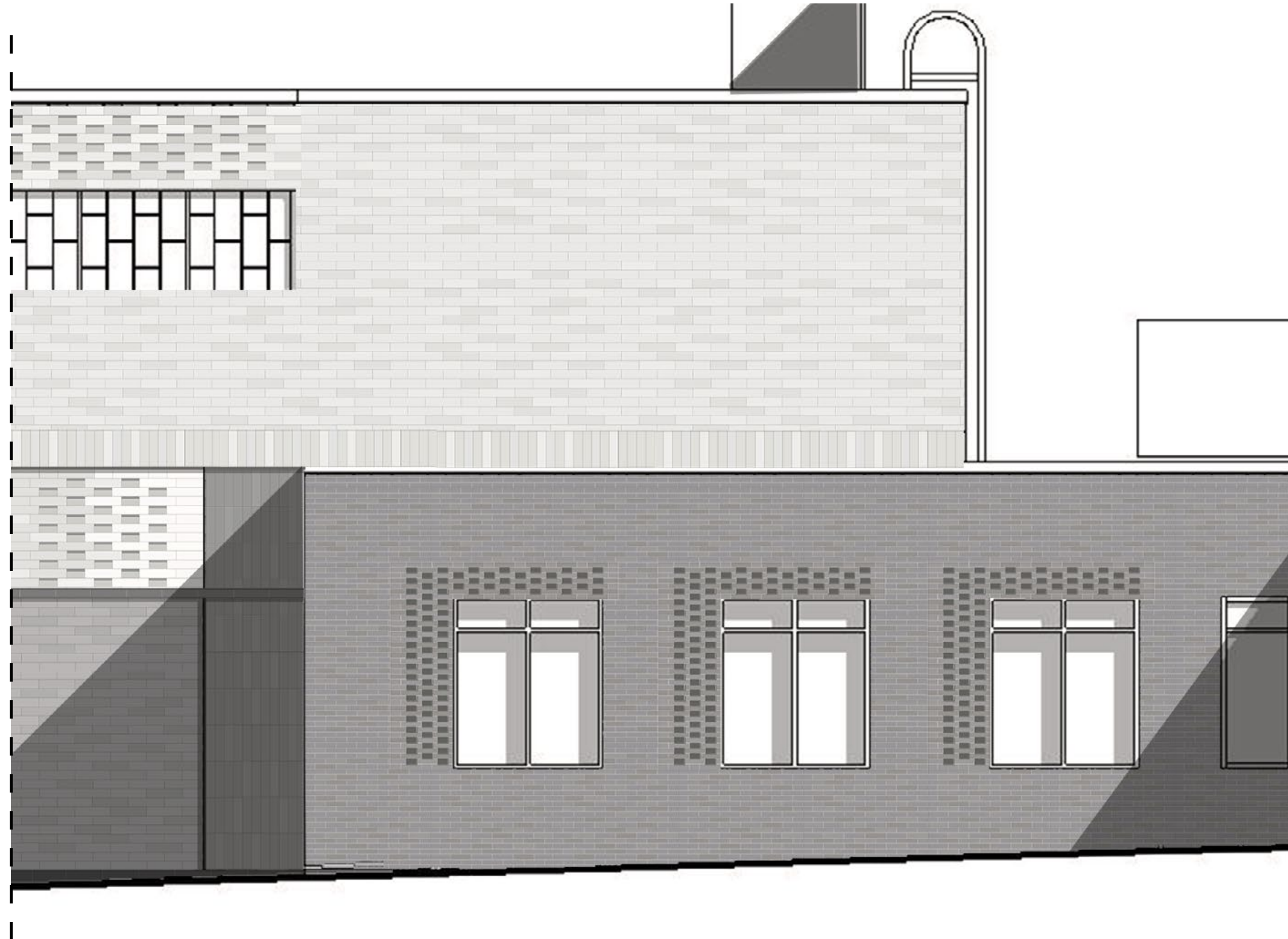
**ARCH CMU - RUNNING BOND**  
8" X 16" NOM.



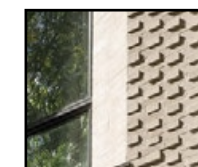
**CANOPY**



# SOUTH ELEVATION - ENLARGED

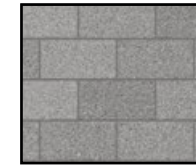


**BRICK - RUNNING BOND**  
2 1/4" X 8" NOM. &



**BRICK - PATTERN**  
2 1/4" X 8" NOM.

# WEST ELEVATION - ENLARGED



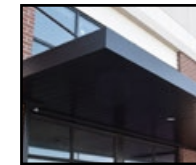
**ARCH CMU - RUNNING BOND**  
8" X 16" NOM.



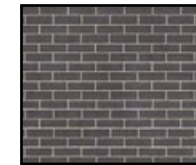
**ARCH CMU - STACK**  
4" X 16" NOM.



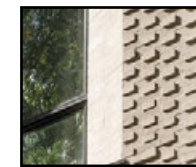
**ARCH CMU - RUNNING BOND**  
4" X 16" NOM.



**CANOPY**



**BRICK - RUNNING BOND**  
2 1/4" X 8" NOM.



**BRICK - PATTERN**  
2 1/4" X 8" NOM.