



ACADEMIC PORTFOLIO

VICTOR CENTENO

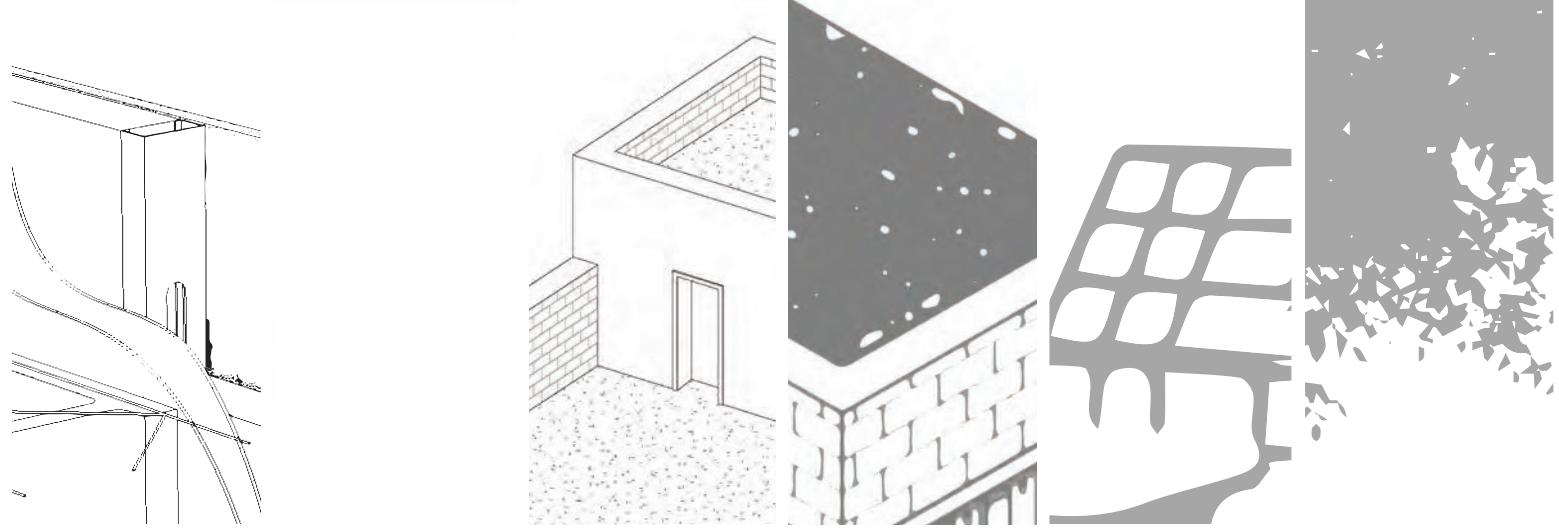
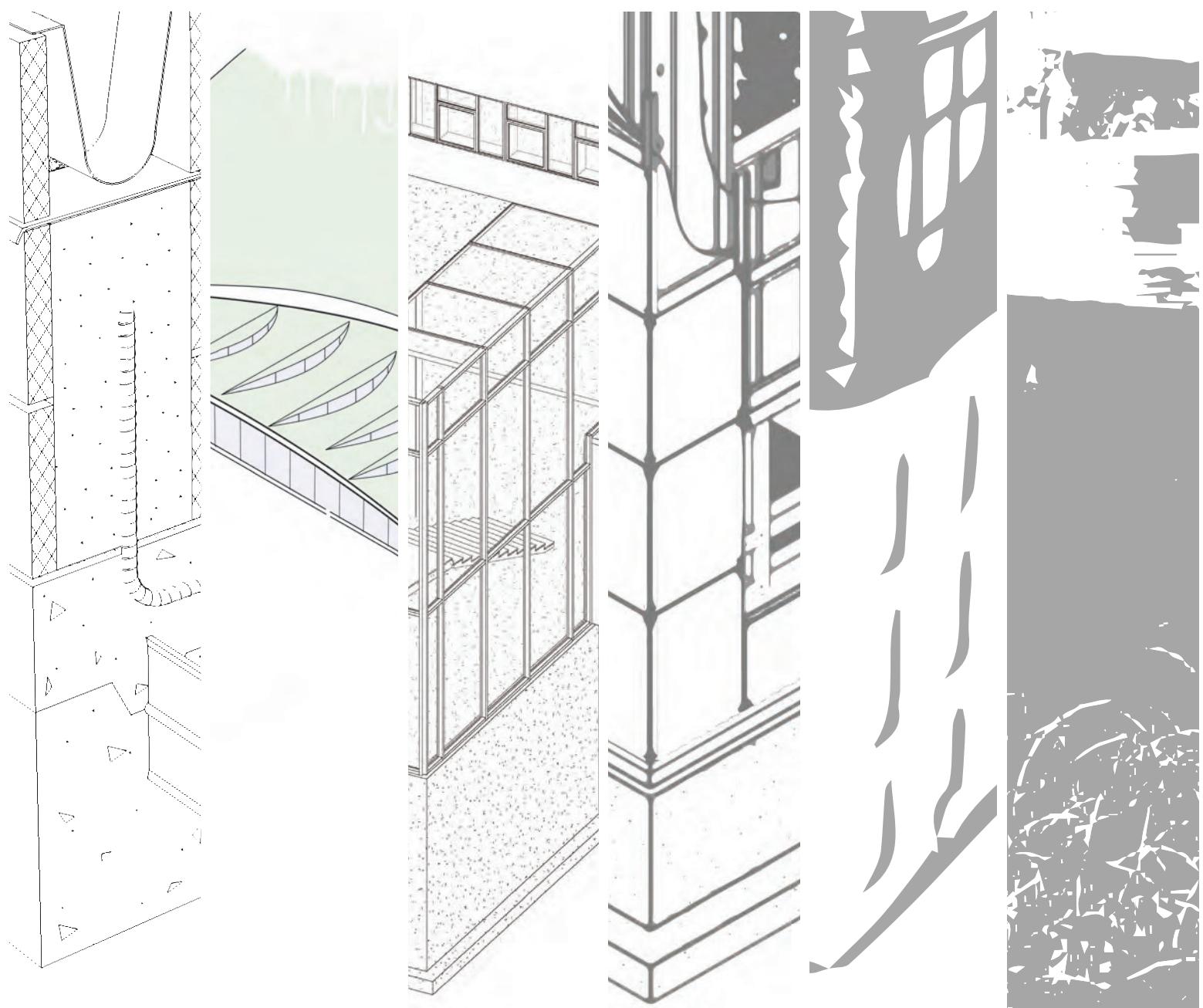


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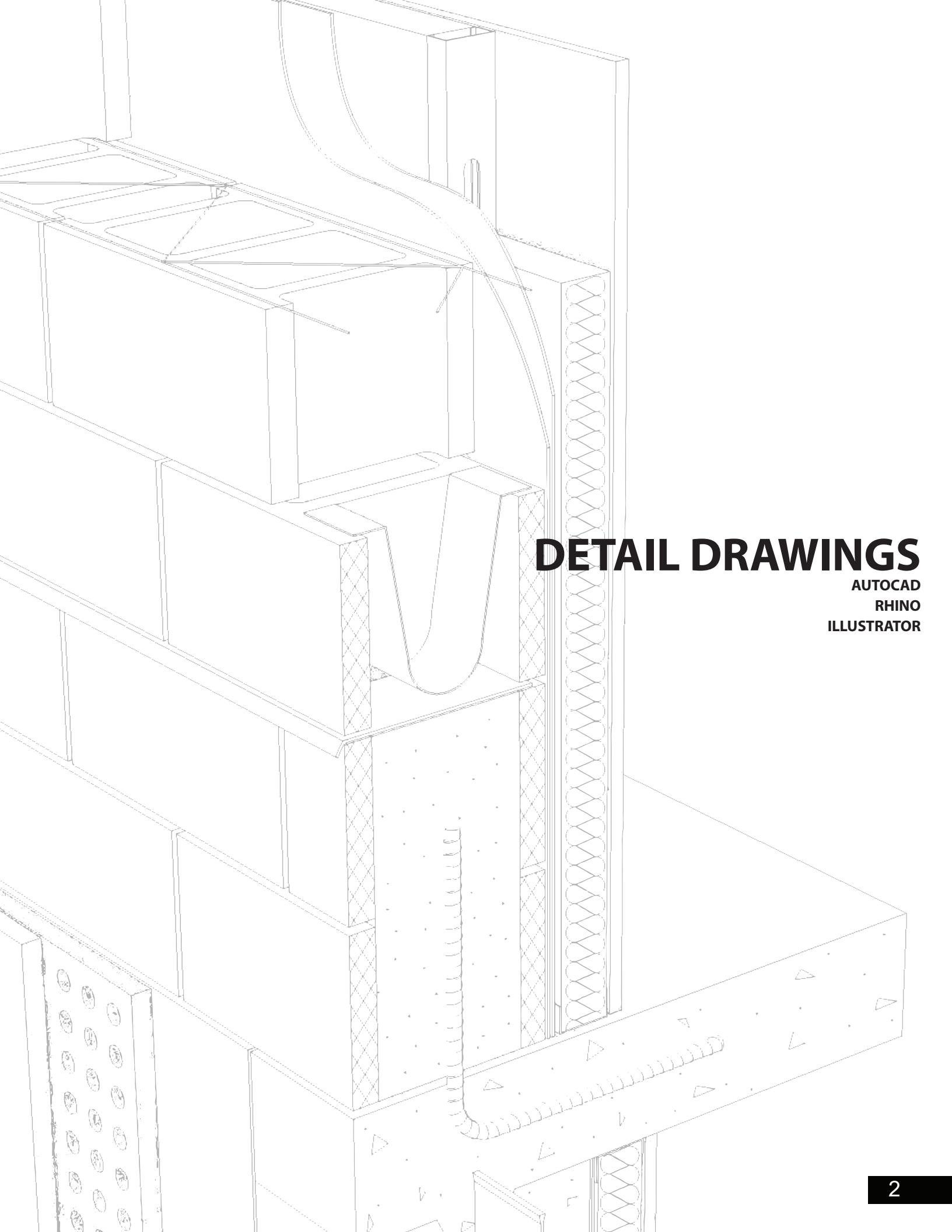
RENDERINGS

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LUMION

58

ARCH3630 - ADVANCED DETAILING STUDIO
PROFESSOR EDWARDS & PROFESSOR COOMBS
SPRING 2021

PROFESSOR EDWARDS PROVIDED EXAMPLES OF
DIFFERENT WALL TYPES AND FOUNDATION DETAILS,
WHICH WE RECREATED THROUGH AUTOCAD & BY
HAND SKETCH.



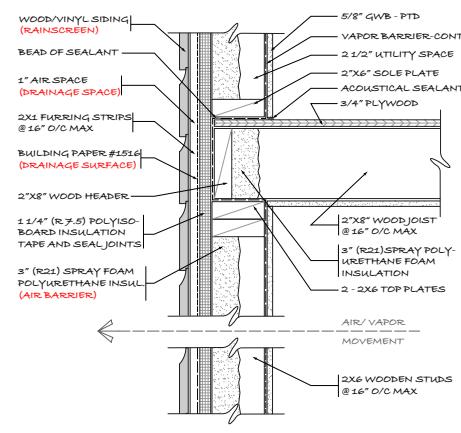
DETAIL DRAWINGS

AUTOCAD

RHINO

ILLUSTRATOR

COLD SIDE

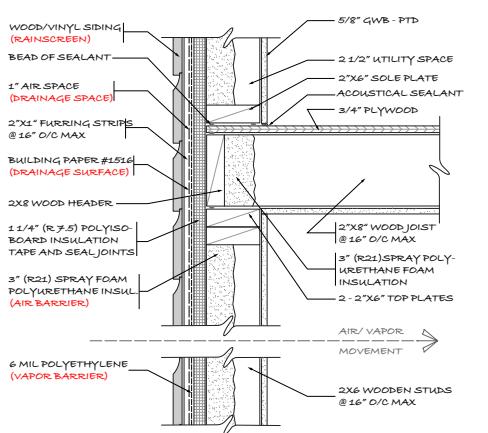


1 COLD CLIMATE WALL DETAIL

SCALE: 1 1/2" = 1'-0"

* WOOD SIDING ACT AS RAINSCREEN
BUILDING PAPER ACT AS DRAINAGE SURFACE
VAPOR BARRIER WRAPPED AROUND FRAMING

COLD SIDE

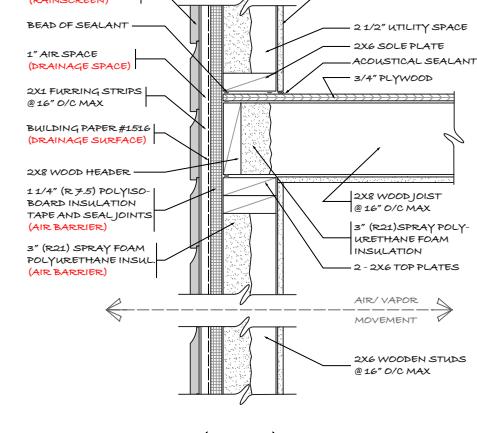


2 HOT CLIMATE WALL DETAIL

SCALE: 1 1/2" = 1'-0"

* WOOD SIDING ACT AS RAINSCREEN
BUILDING PAPER ACT AS DRAINAGE SURFACE

WARM SIDE

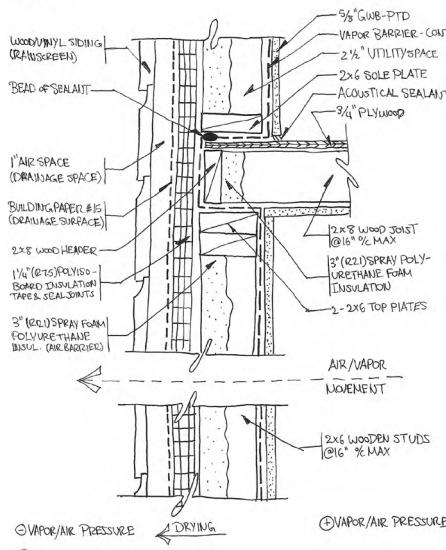


3 MIXED CLIMATE WALL DETAIL

NO VAPOR BARRIER
SCALE: 1 1/2" = 1'-0"

* WOOD SIDING ACT AS RAINSCREEN
BUILDING PAPER ACT AS DRAINAGE SURFACE

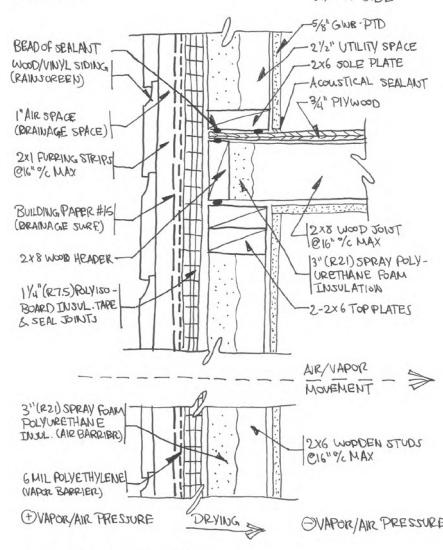
COLD SIDE



1 COLD CLIMATE WALL DETAIL

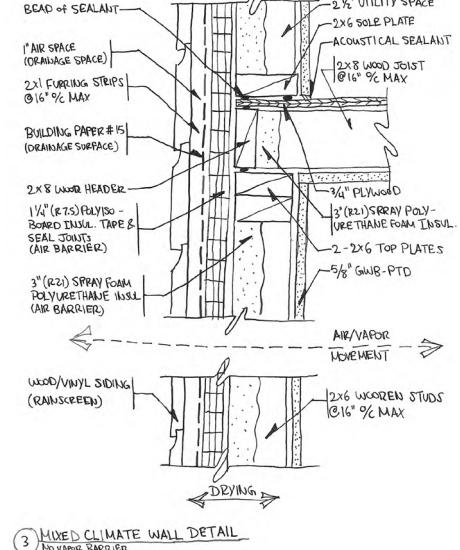
SCALE: 1 1/2" = 1'-0"

COLD SIDE



2 HOT CLIMATE WALL DETAIL

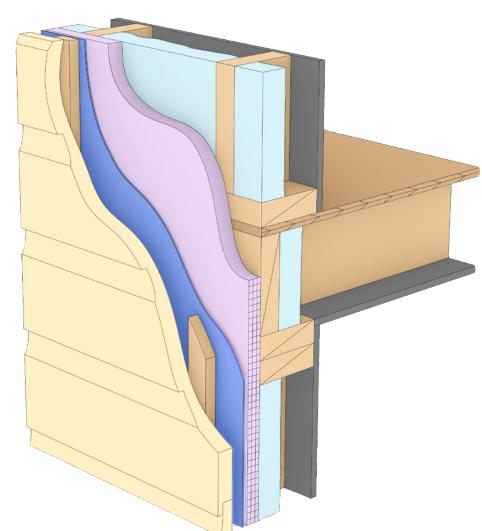
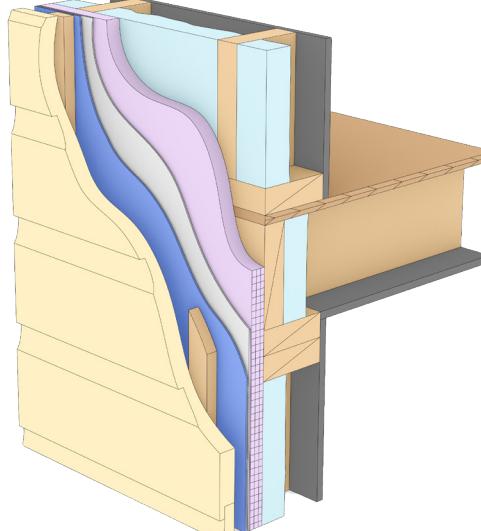
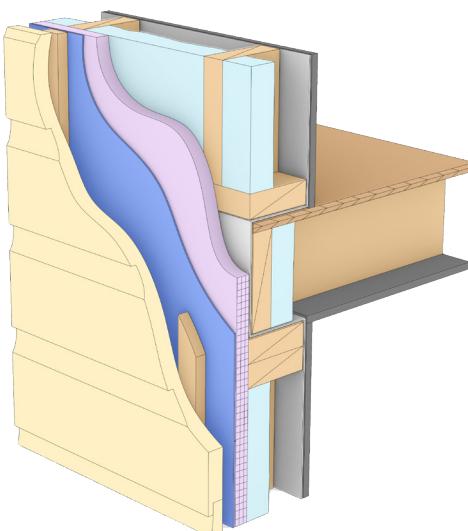
SCALE: 1 1/2" = 1'-0"

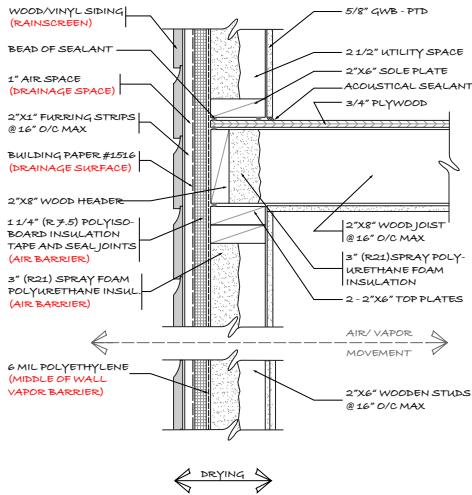


3 MIXED CLIMATE WALL DETAIL

NO VAPOR BARRIER

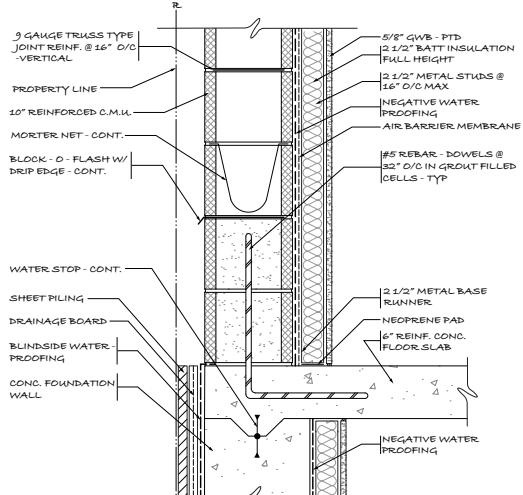
SCALE: 1 1/2" = 1'-0"



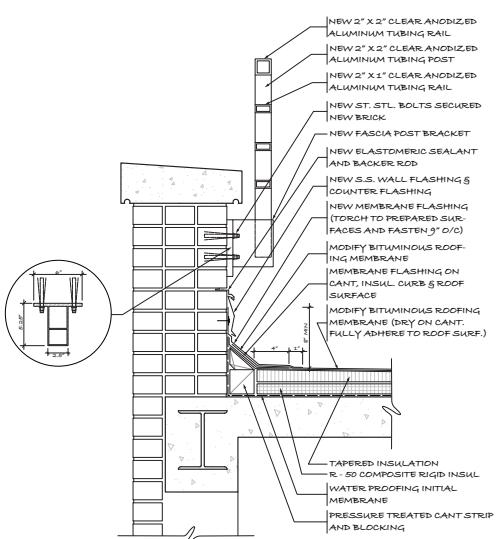


4 MIXED CLIMATE WALL DETAIL
MIDDLE OF WALL VAPOR BARRIER
SCALE: 1/2" = 1'-0"

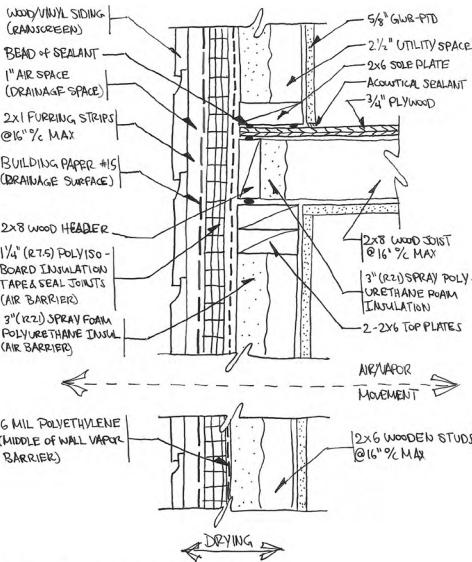
* WOOD SIDING ACTS AS RAINSCREEN
BUILDING PAPER ACTS AS DRAINAGE SURFACE



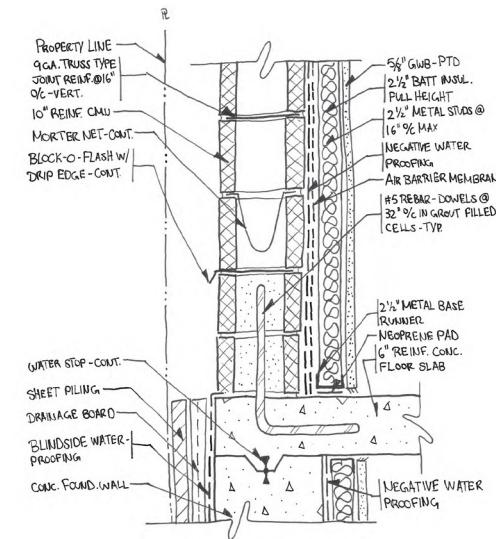
13 PROPERTY LINE EXTERIOR DETAIL
SCALE: 1/2" = 1'-0"



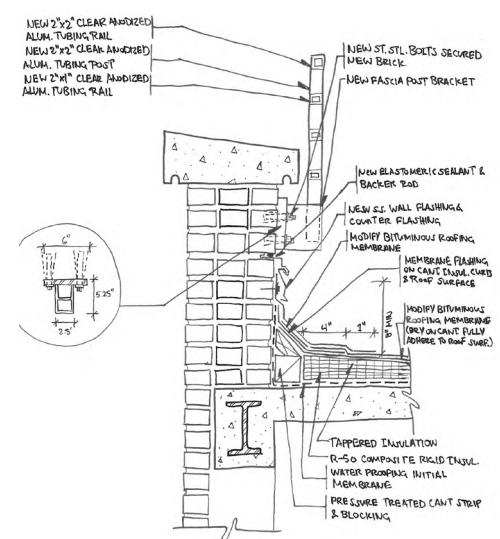
26 ROOF/EXISTING WALL W/ RAILING DETAIL
SCALE: 1/2" = 1'-0"



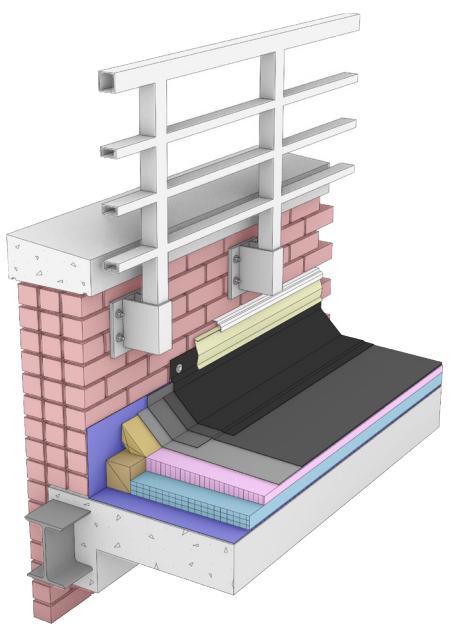
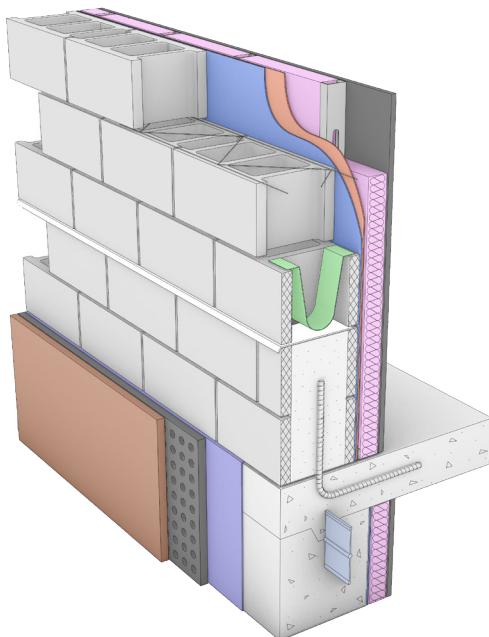
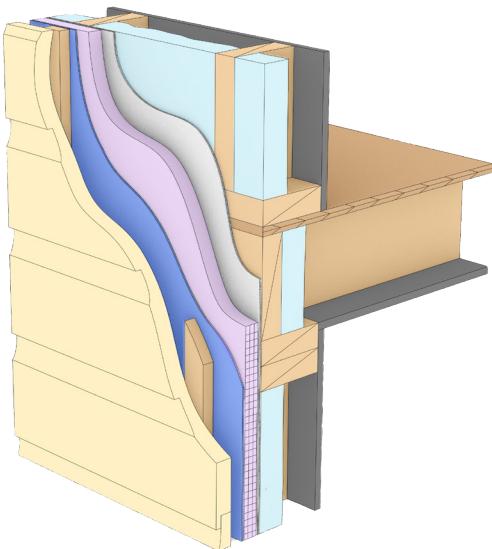
4 MIXED CLIMATE WALL DETAIL
MIDDLE OF WALL VAPOR BARRIER
SCALE: 1/2" = 1'-0"

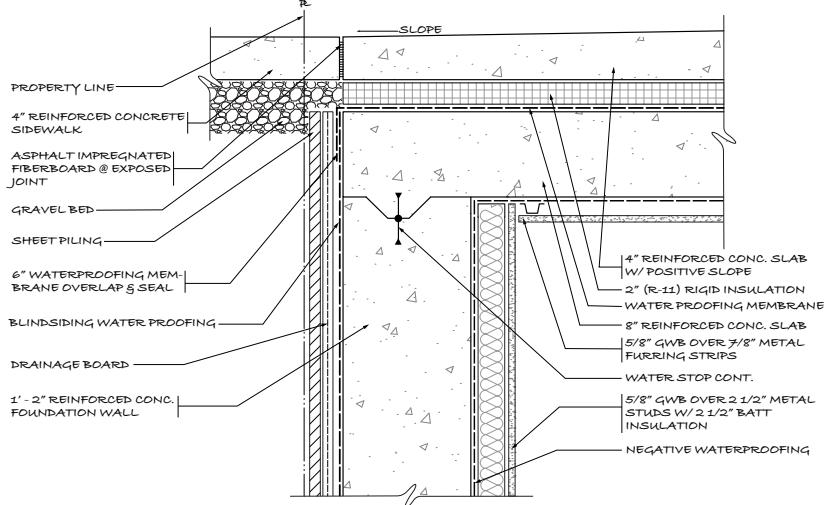


13 PROPERTY LINE EXTERIOR DETAIL
SCALE: 1/2" = 1'-0"

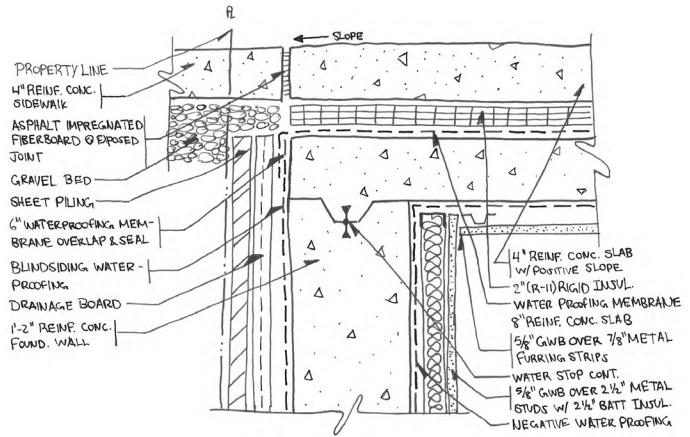


26 ROOF/EXISTING WALL W/ RAILING DETAIL
SCALE: 1/2" = 1'-0"

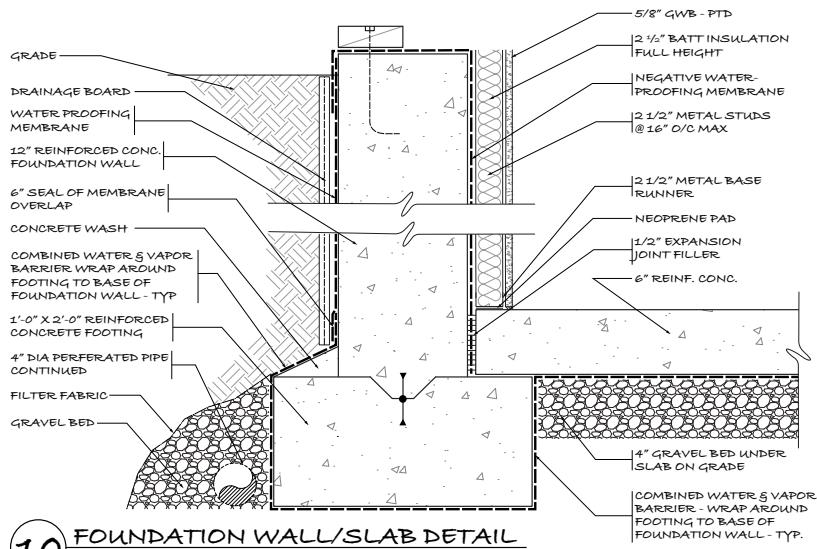
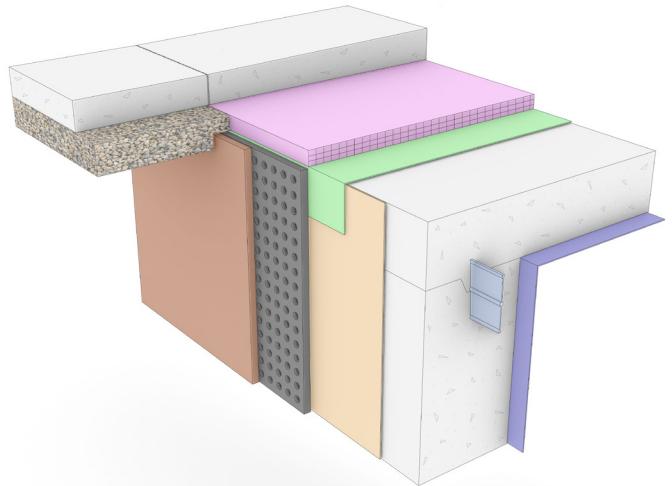




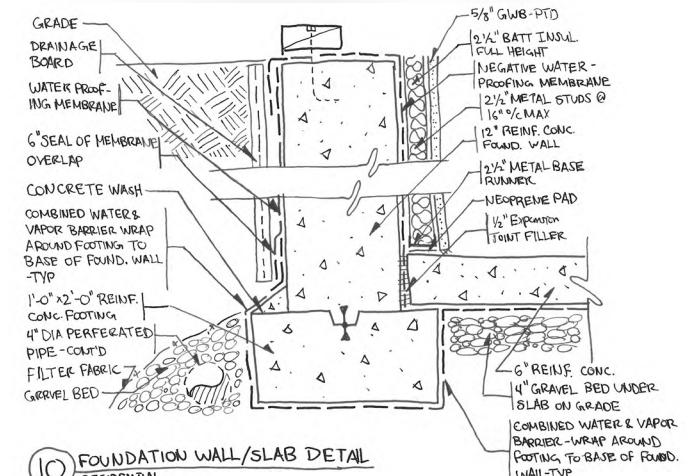
12 SPLIT-SLAB / FOUNDATION WATER PROOFING DETAIL
SCALE: 1 1/2" = 1'-0"



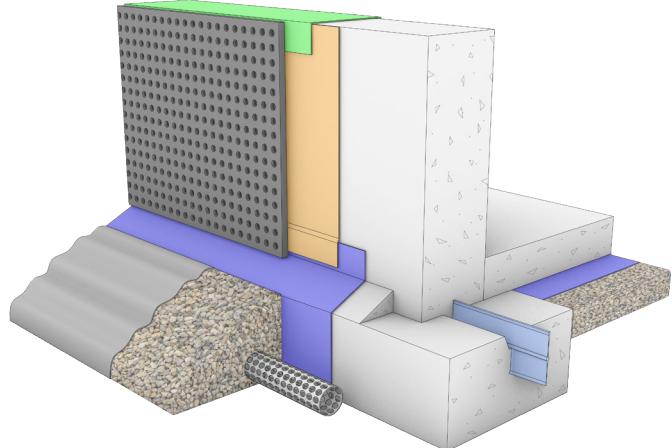
12 SPLIT-SLAB / FOUNDATION WATER PROOFING DETAIL
SCALE: 1 1/2" = 1'-0"

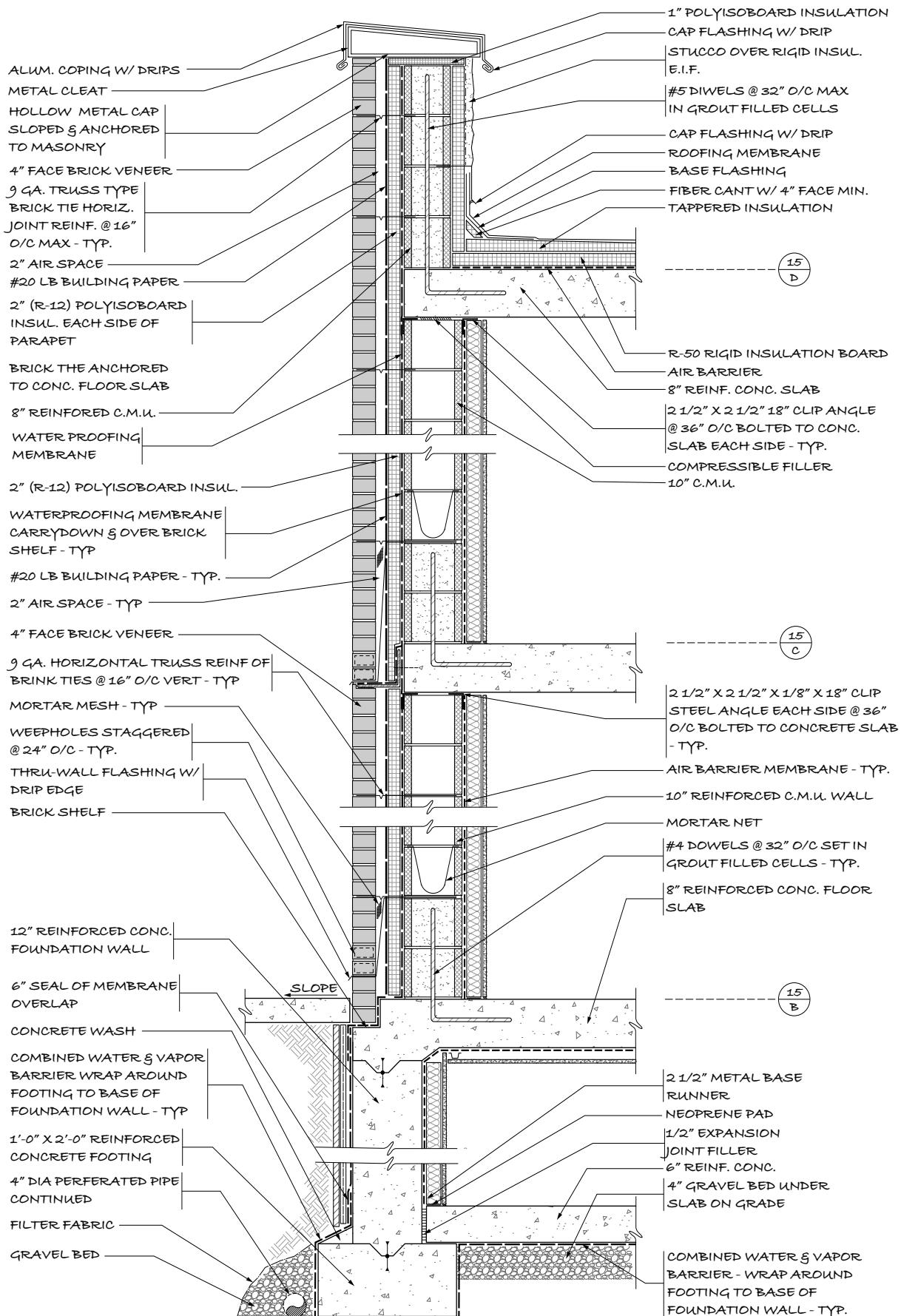


10 FOUNDATION WALL/SLAB DETAIL
RESIDENTIAL
SCALE: 1 1/2" = 1'-0"



10 FOUNDATION WALL/SLAB DETAIL
RESIDENTIAL
SCALE: 1 1/2" = 1'-0"





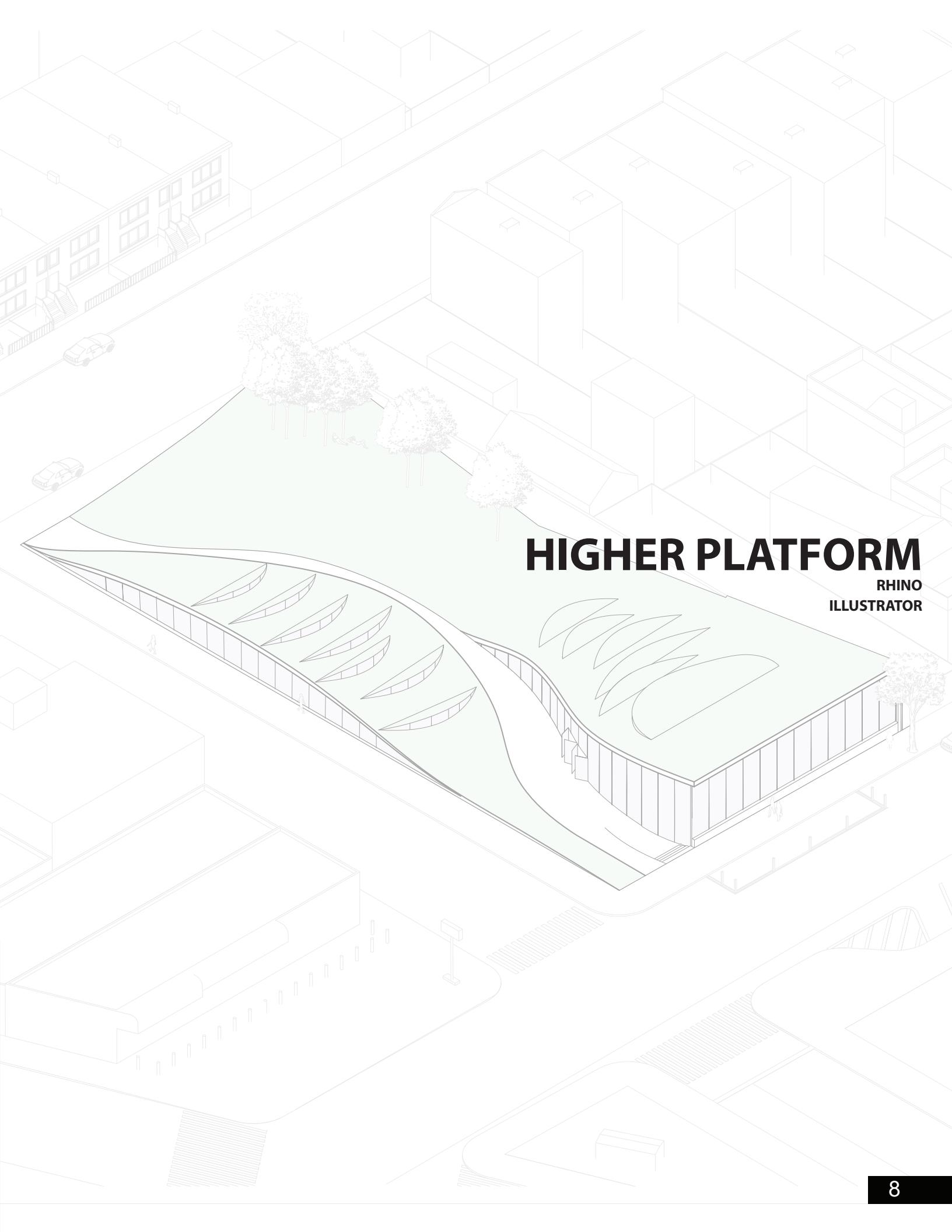
15

EXTERIOR MASONRY WALL SECTION

SCALE: 1 1/2" = 1'-0"

ARCH2412 - ARCHITECTURE DESIGN IV
PROFESSOR CHIN
SPRING 2020

THIS PROJECT WAS LOCATED IN RED HOOK,
BROOKLYN & THE OBJECTIVE WAS TO CREATE A
CENTER FOR THE COMMUNITY.



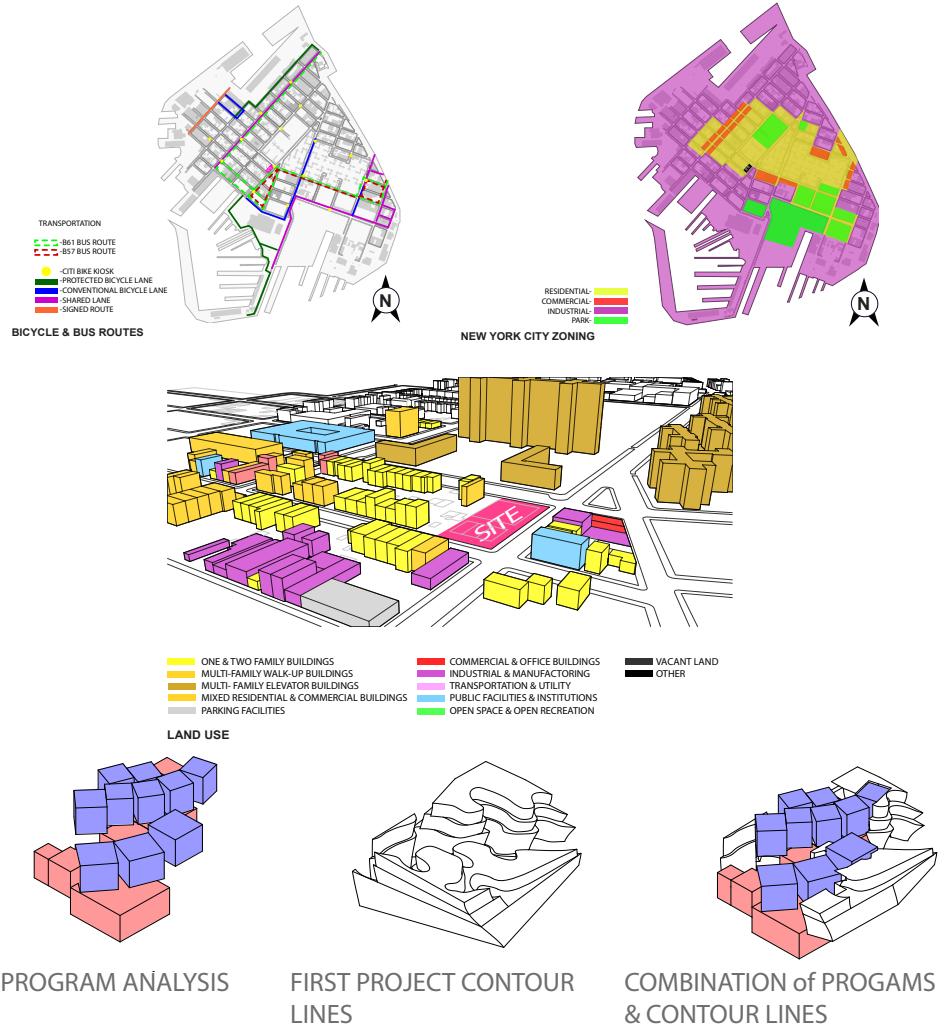
HIGHER PLATFORM

RHINO
ILLUSTRATOR

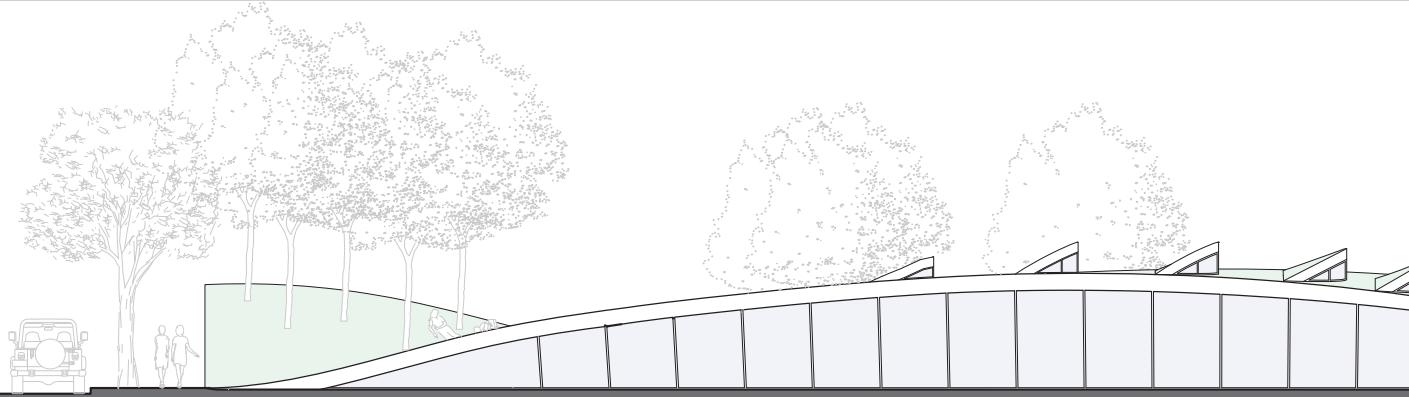
HIGHER PLATFORM

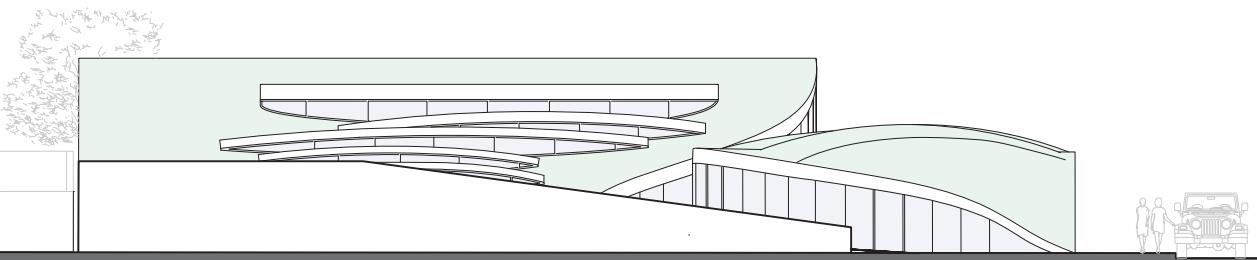
SITE ANALYSIS

THE CONCEPT BEHIND HIGHER PLATFORM CAME FROM MY FIRST PROJECT "LEVELS" WHICH WAS BASED ON CONTOUR LINES EXTRACTED FROM AN IMAGE. WHICH LATER LED TO THE DESIGN AND LANGUAGE INTEGRATED INTO THE MASSING AND LANDSCAPE. I WANTED TO CREATE A SENSE OF OPENNESS TO THE COMMUNITY AND USERS OF THE BUILDING. WITH A SLOPED GREEN ROOF, ACCESSIBLE TO THE PUBLIC, TO SLIGHTLY OFFSET LEVEL FLOORS, I IN-VISIONED A RECREATIONAL CENTER THATS COMFORTABLE TO ALL.

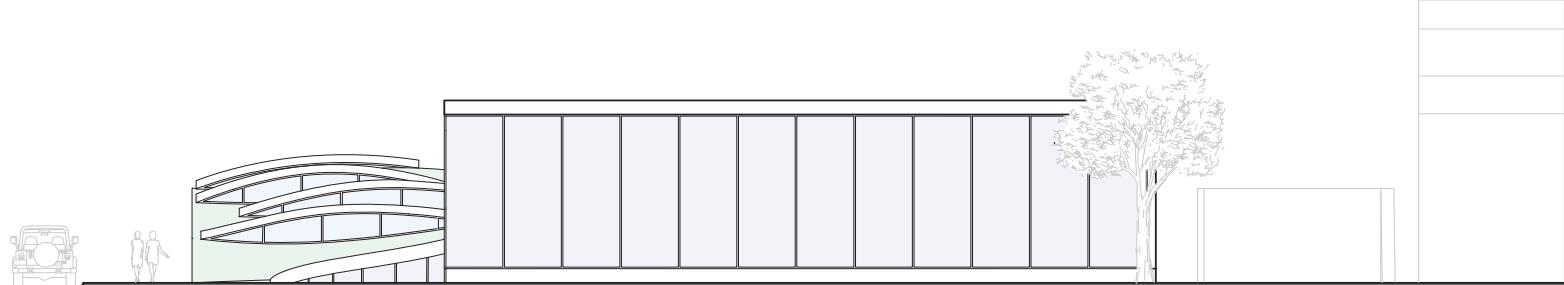


NORTH WEST ELEVATION

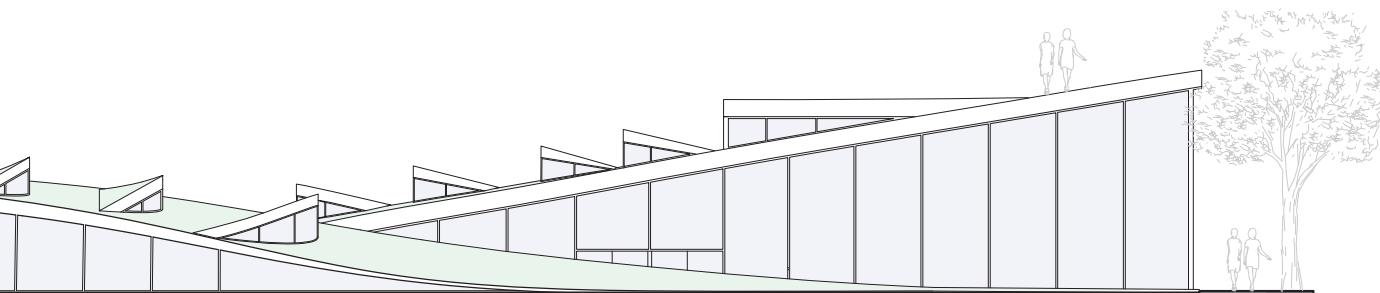
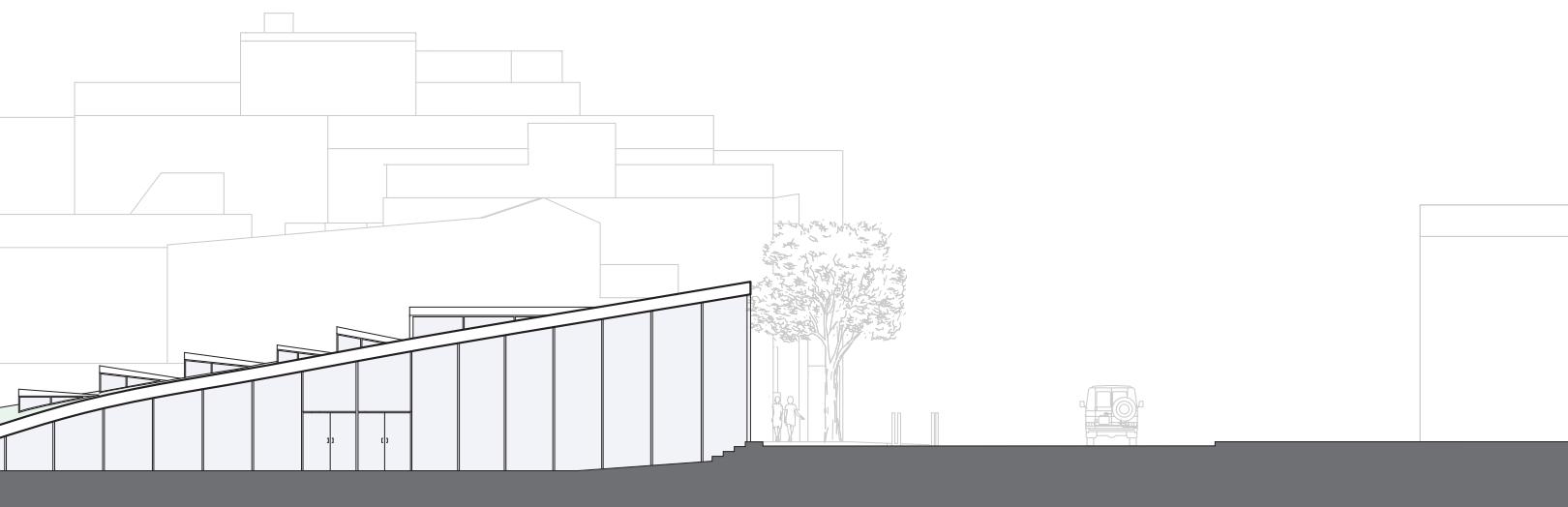


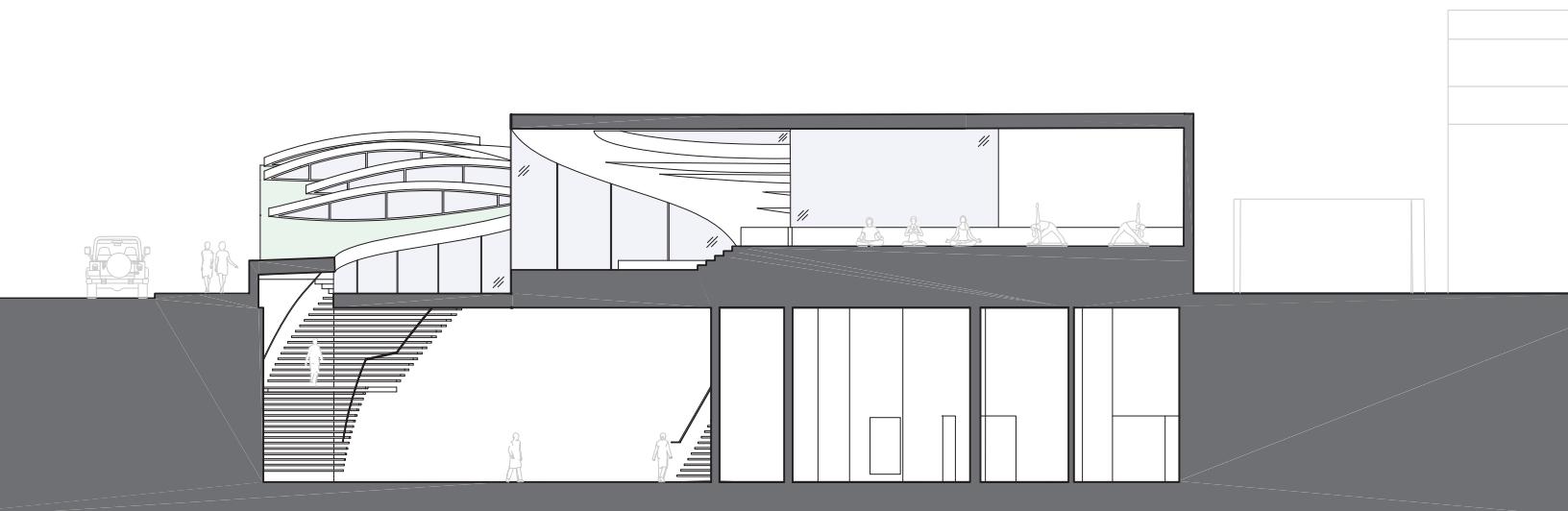
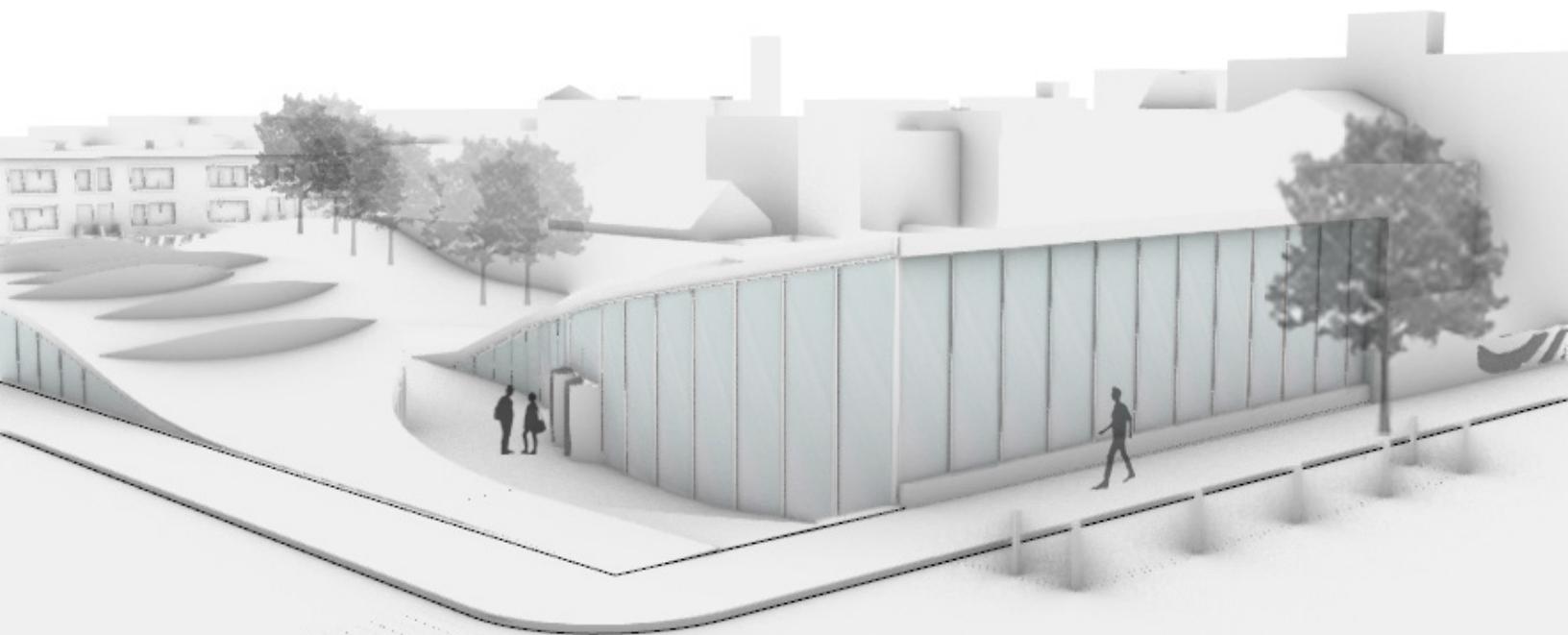


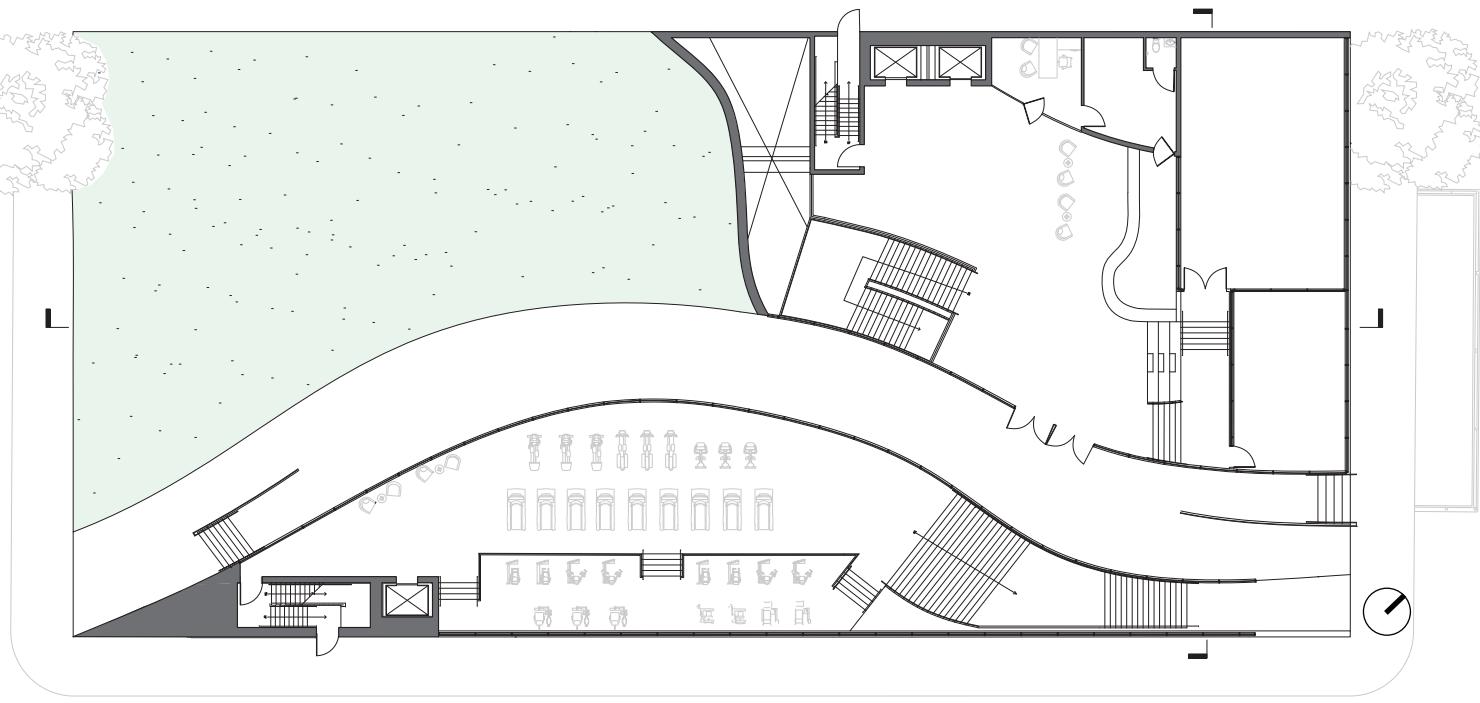
NORTH EAST ELEVATION



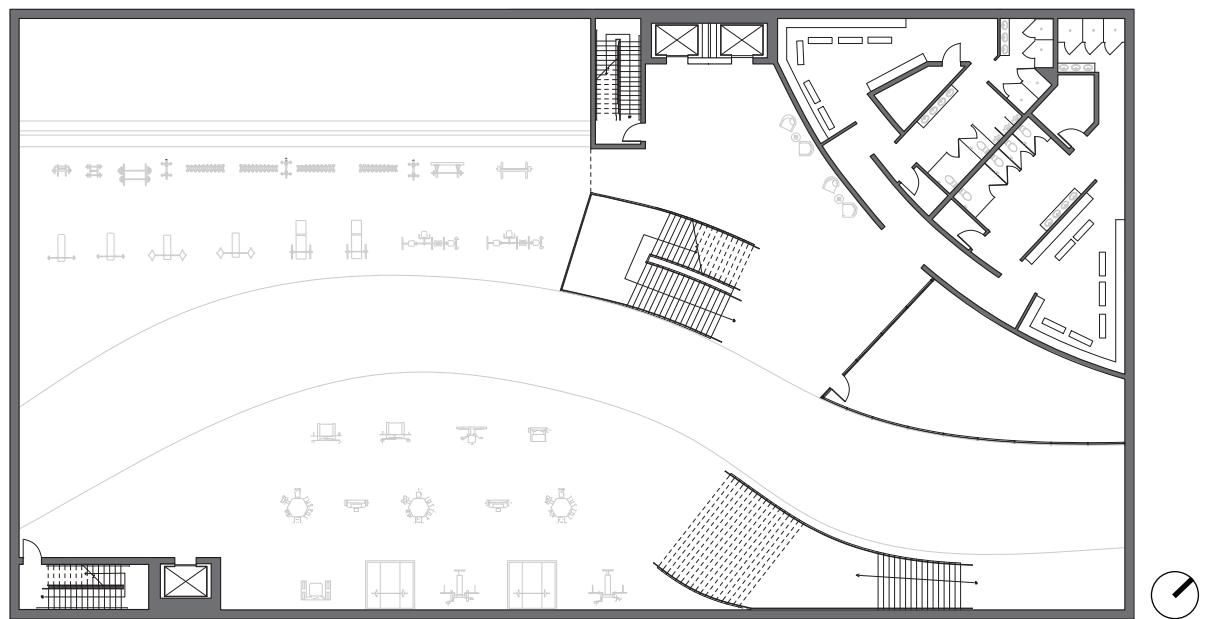
SOUTH WEST ELEVATION



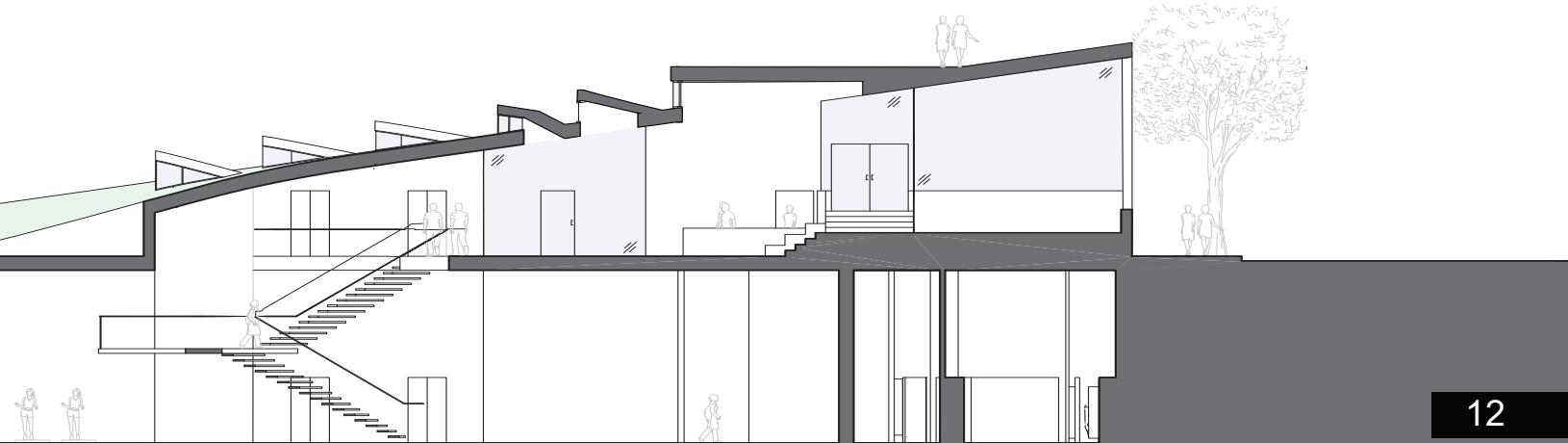




GROUND LEVEL



LOWER LEVEL





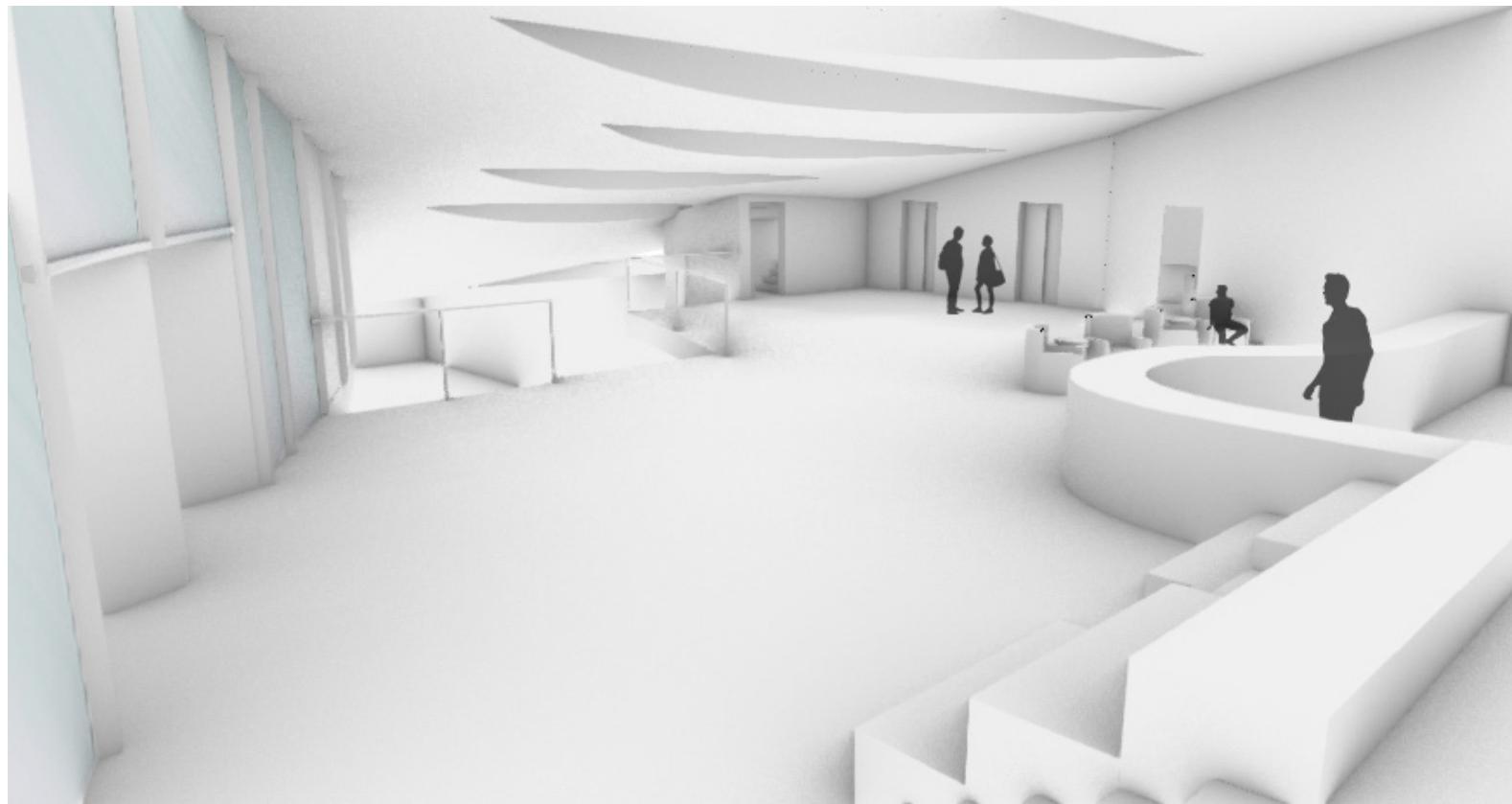
MAIN LOBBY - ARTIC MODE RHINO



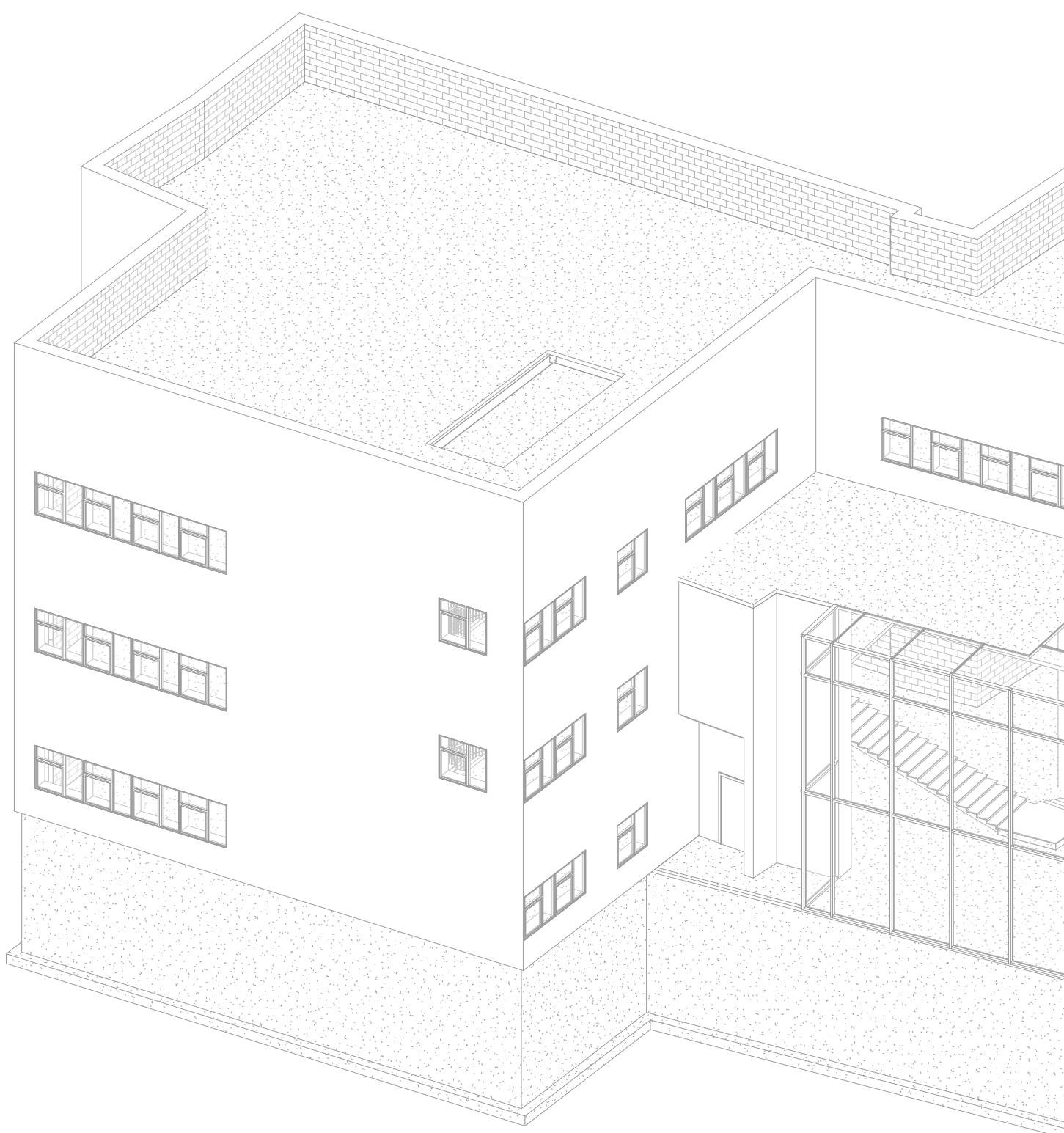
EXTER - ARTIC MODE RHINO



MAIN LOBBY - ARTIC MODE RHINO



MAIN LOBBY - ARTIC MODE RHINO

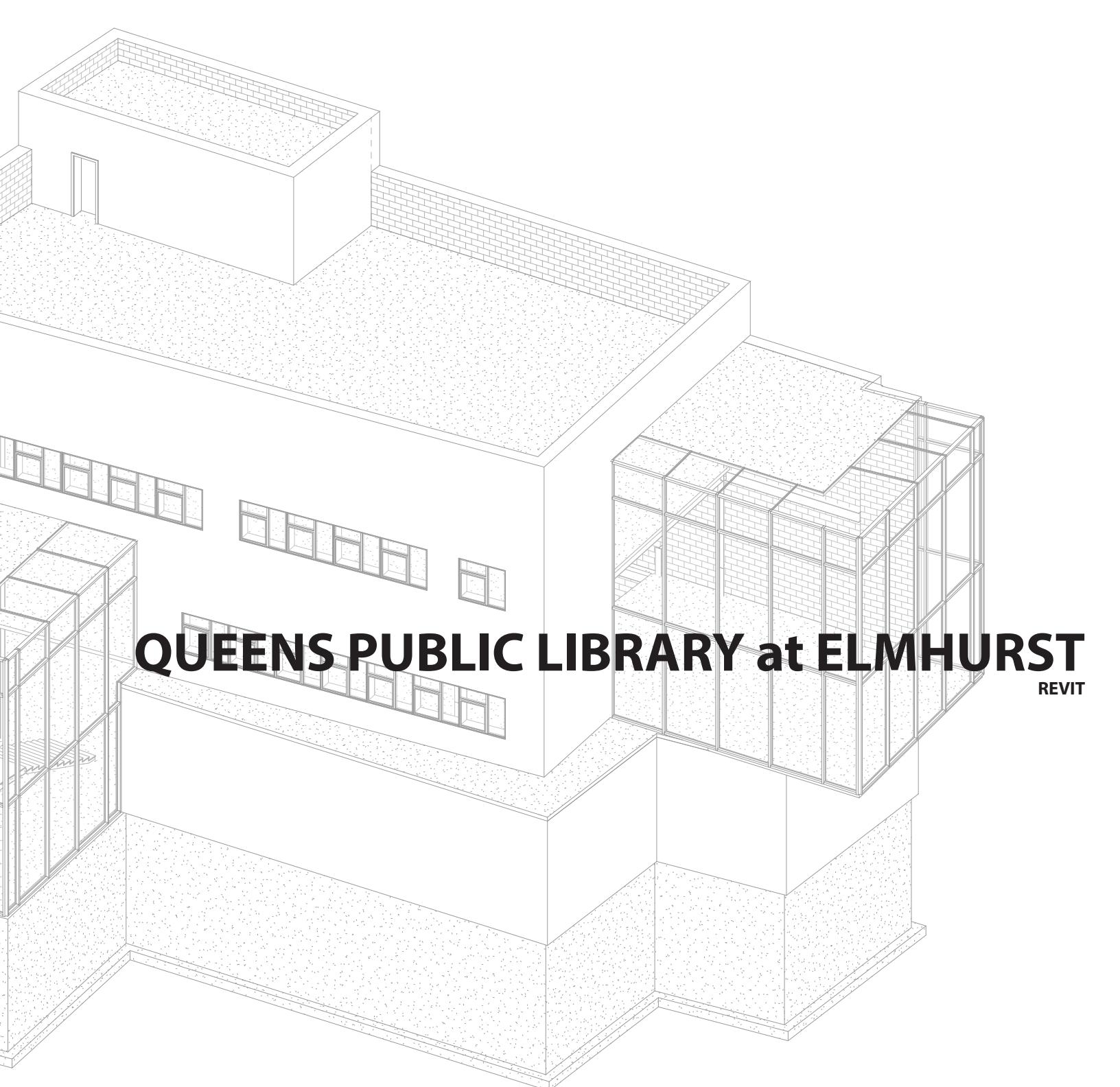


ARCH2431 - BUILDING TECHNOLOGY III

PROFESSOR KING

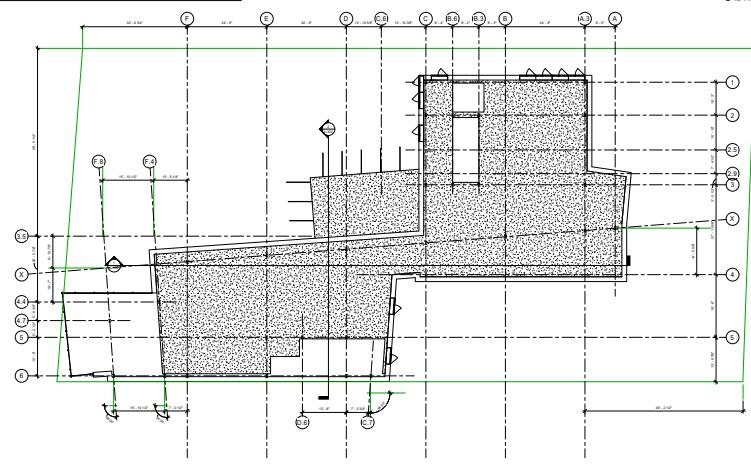
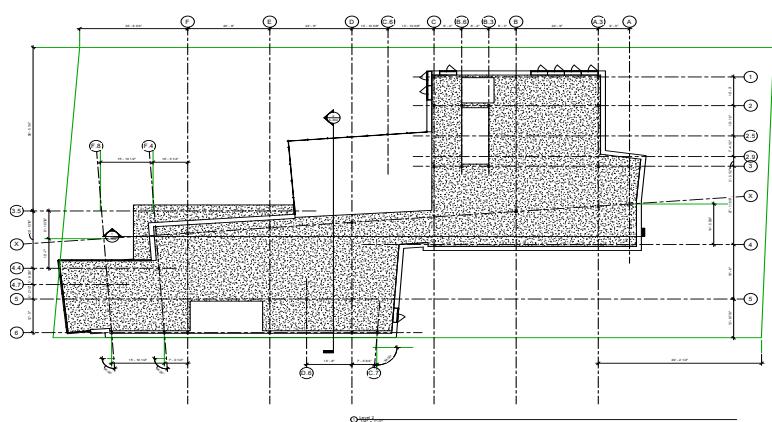
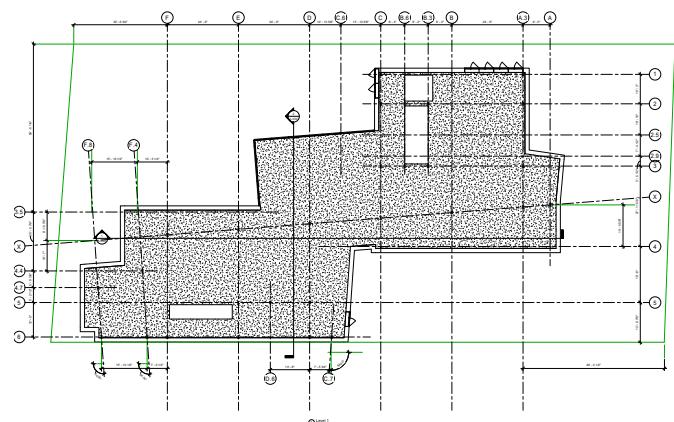
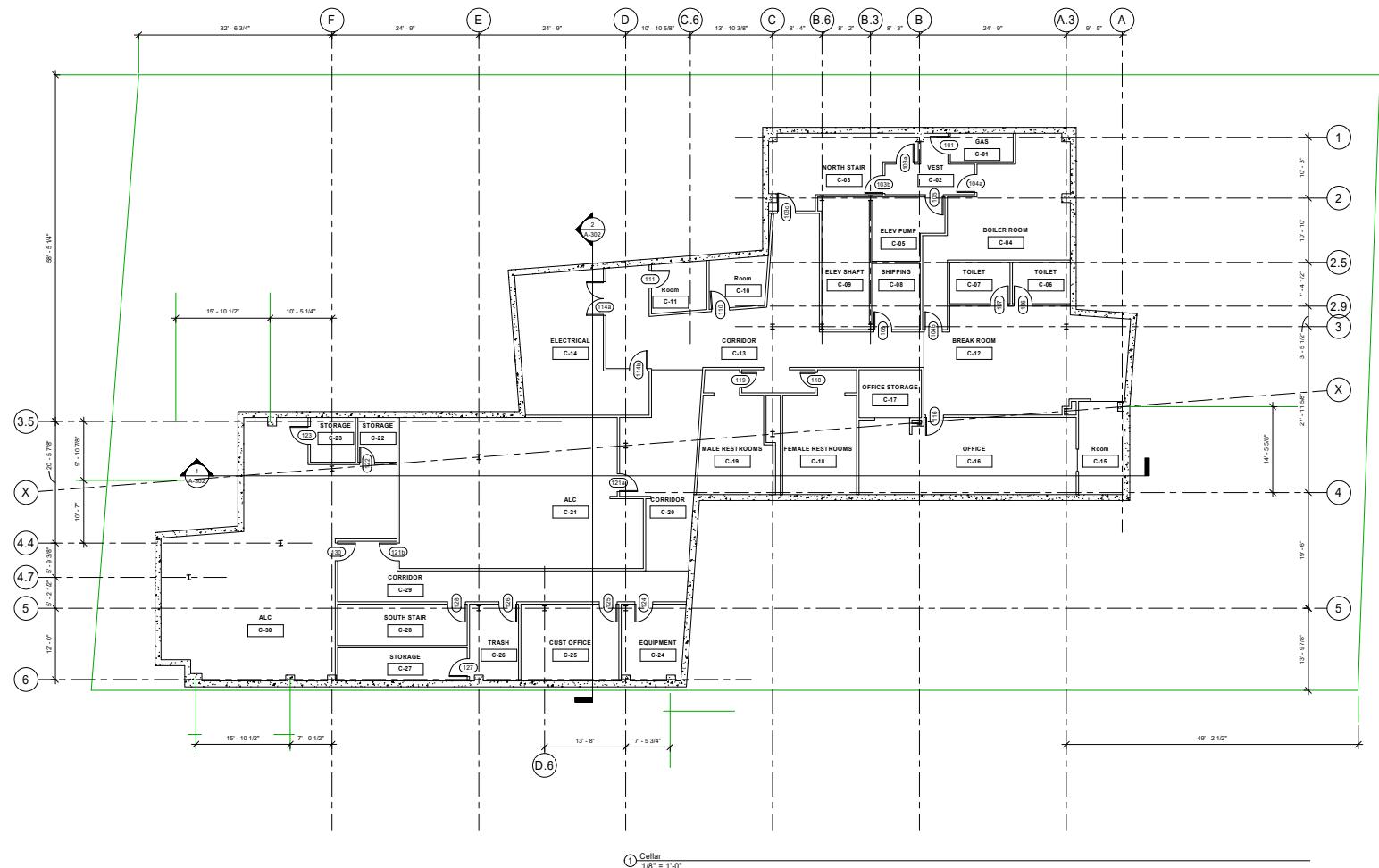
SPRING 2020

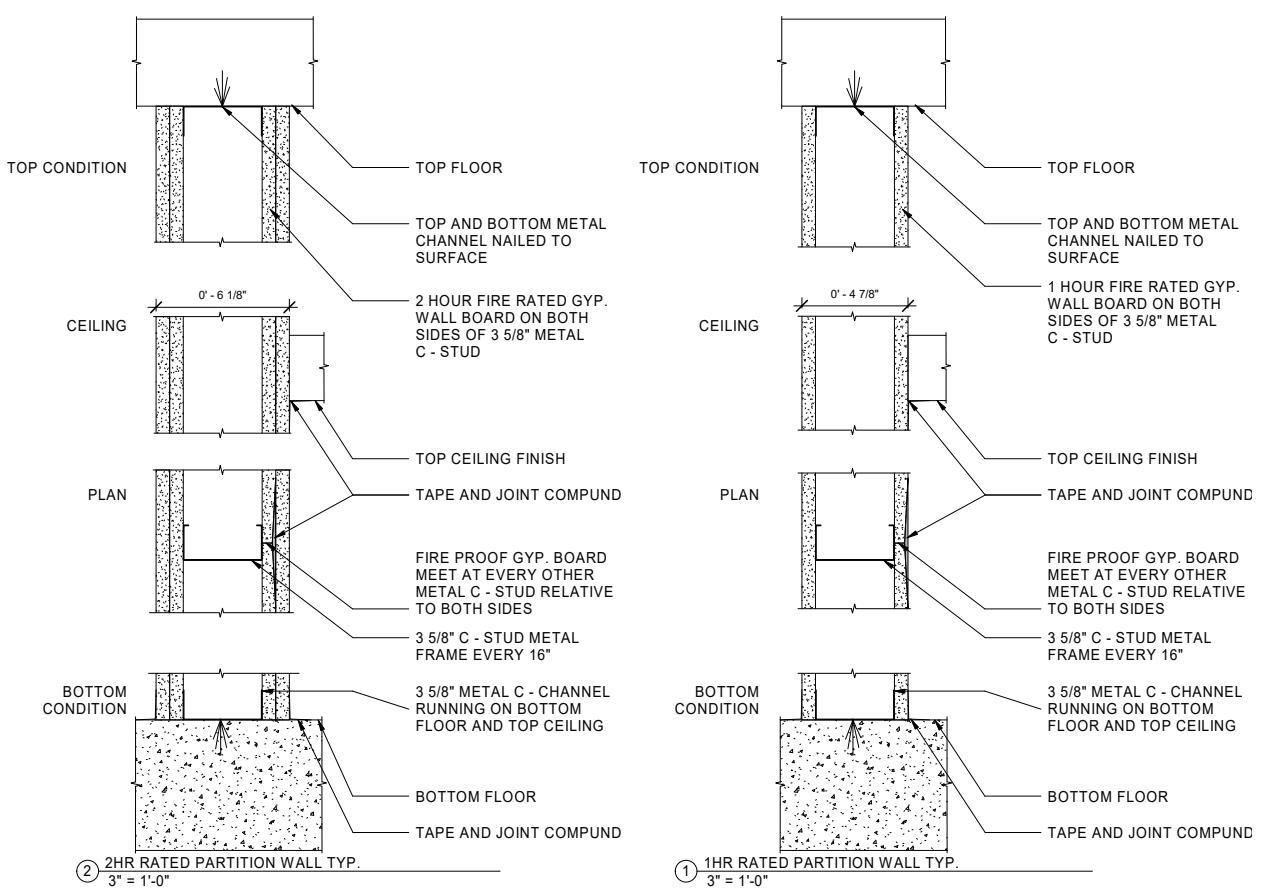
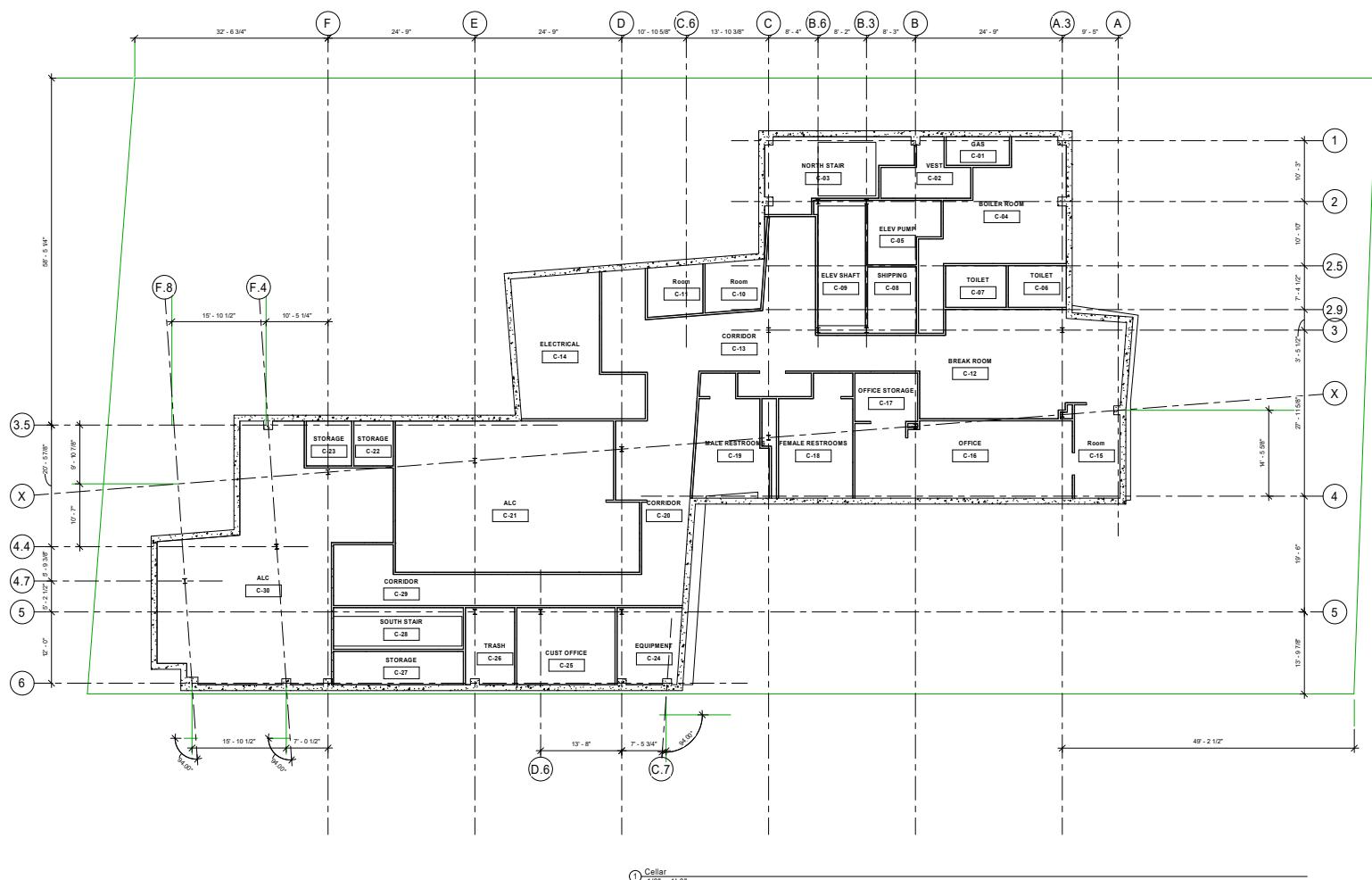
THIS PROJECT I HAD TO STUDY AN EXISTING
BUILDING AND RECONSTRUCT FLOOR PLANS AND
TYPICAL PARTITION TYPES ALONG WITH A FEW
TYPICAL STRUCTURAL CONNECTIONS.

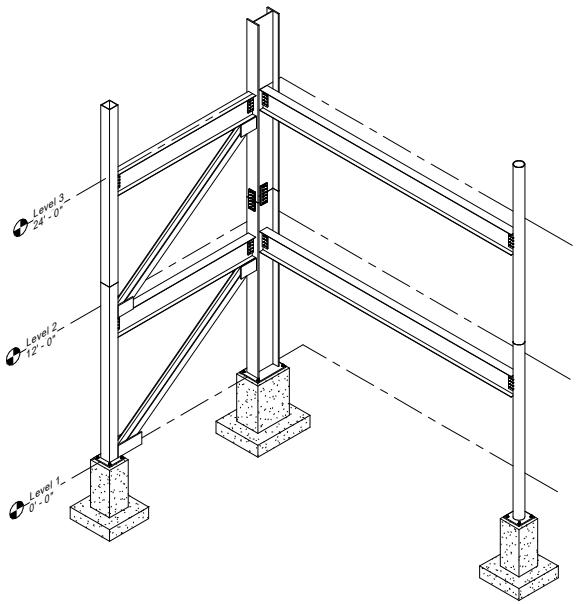


QUEENS PUBLIC LIBRARY at ELMHURST

REVIT

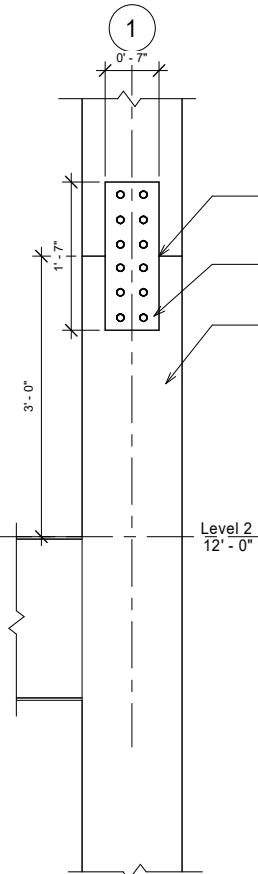
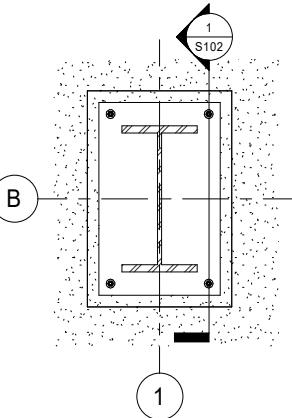






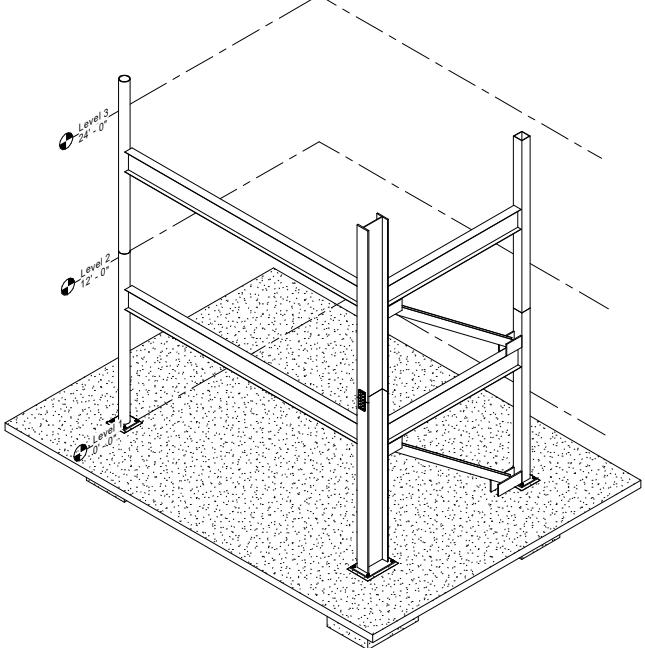
⑥ Isometric SE

⑤ Level 2 - Plan View
3/4" = 1'-0"

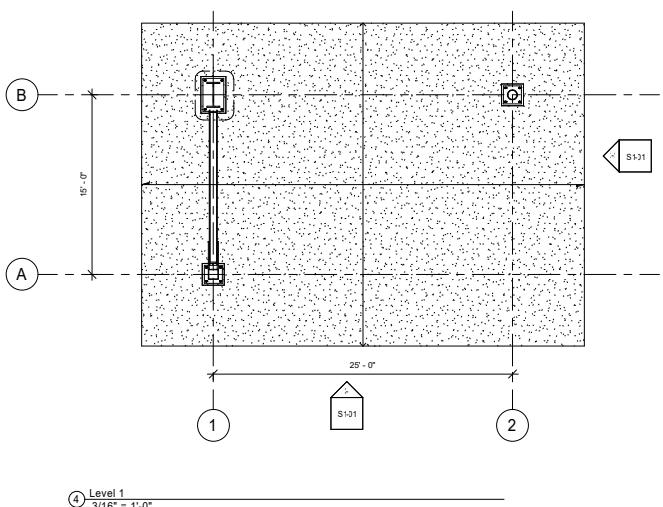


④ Level 1 - Plan View
3/4" = 1'-0"

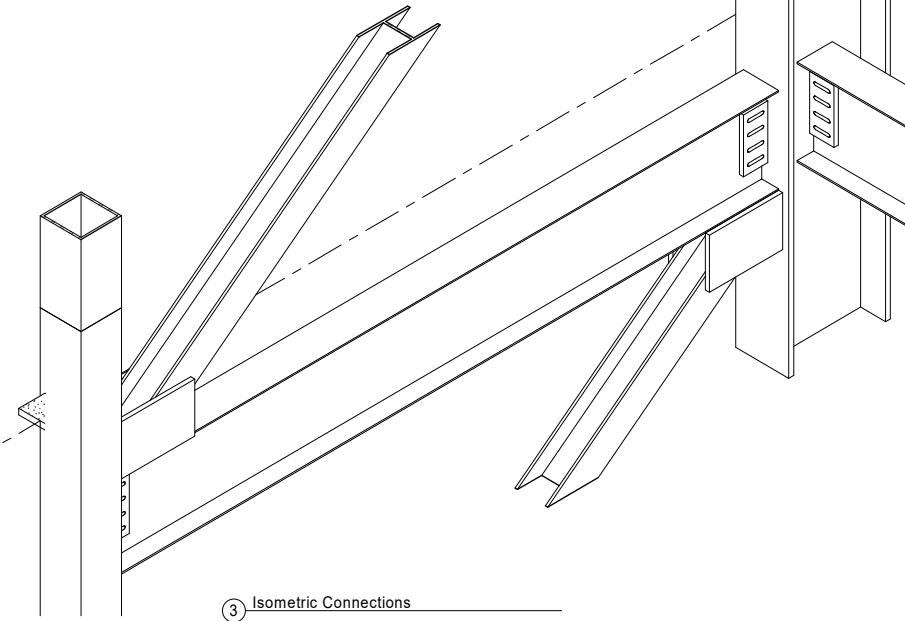
⑥ Elevation Column Plate Conn
1" = 1'-0"



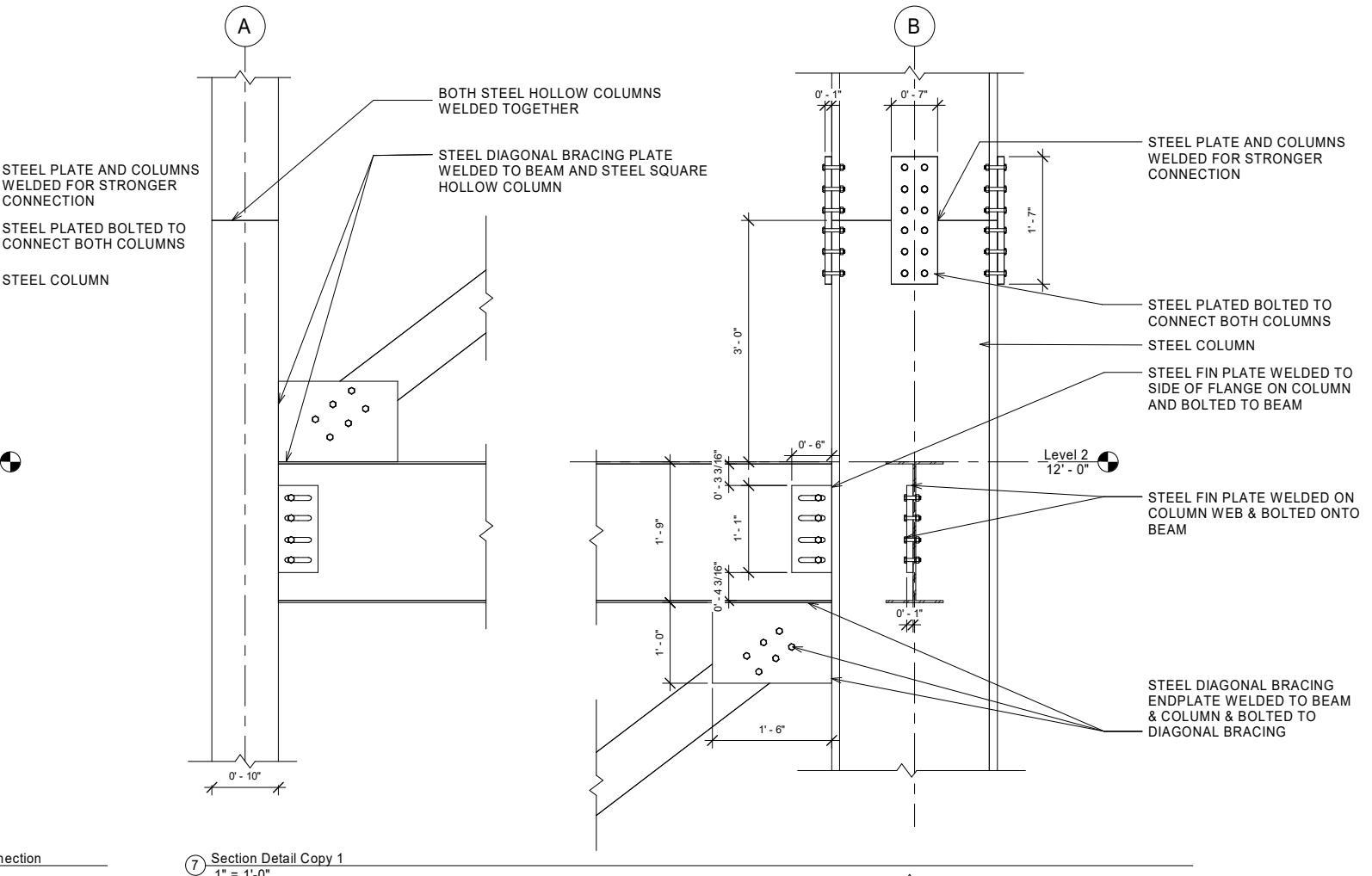
⑤ Isometric NW



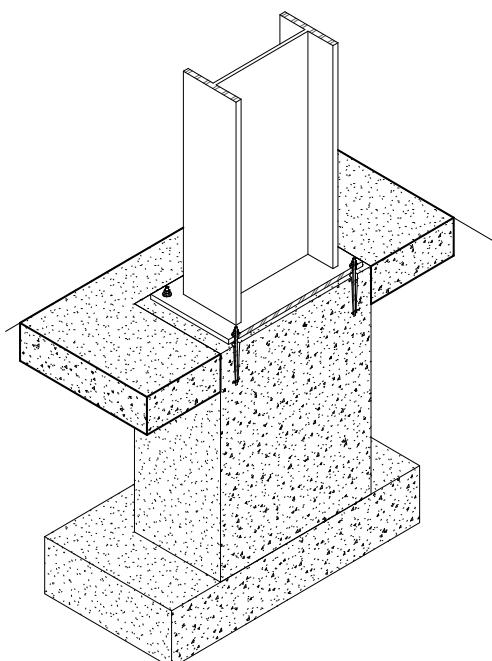
④ Level 1
3/16" = 1'-0"



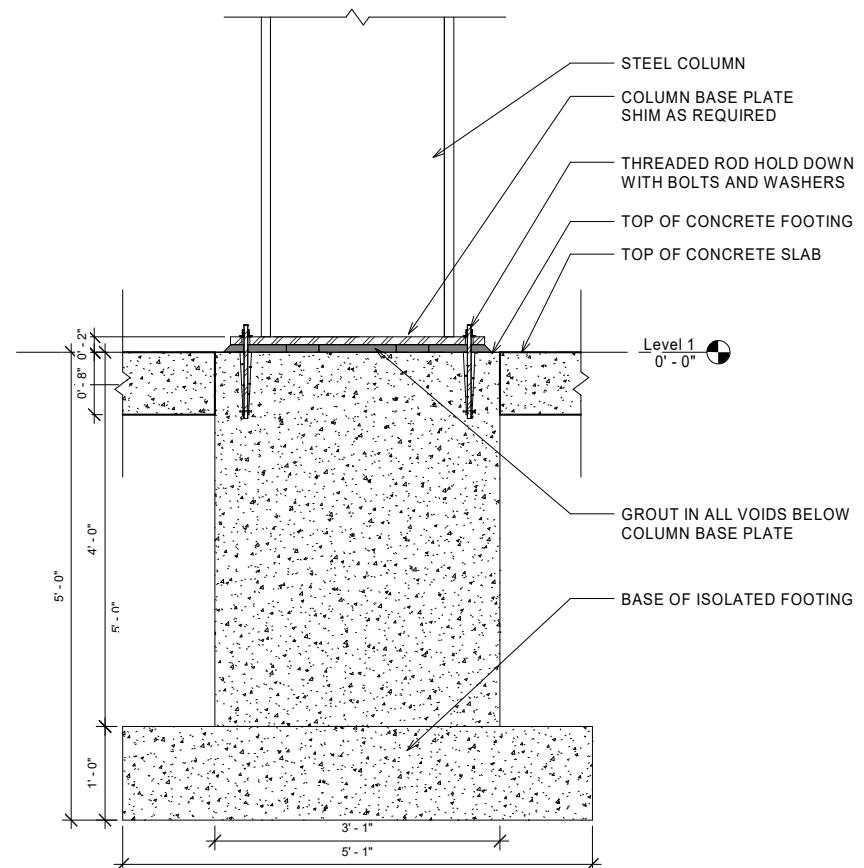
③ Isometric Connections



⑦ Section Detail Copy 1
1" = 1'-0"



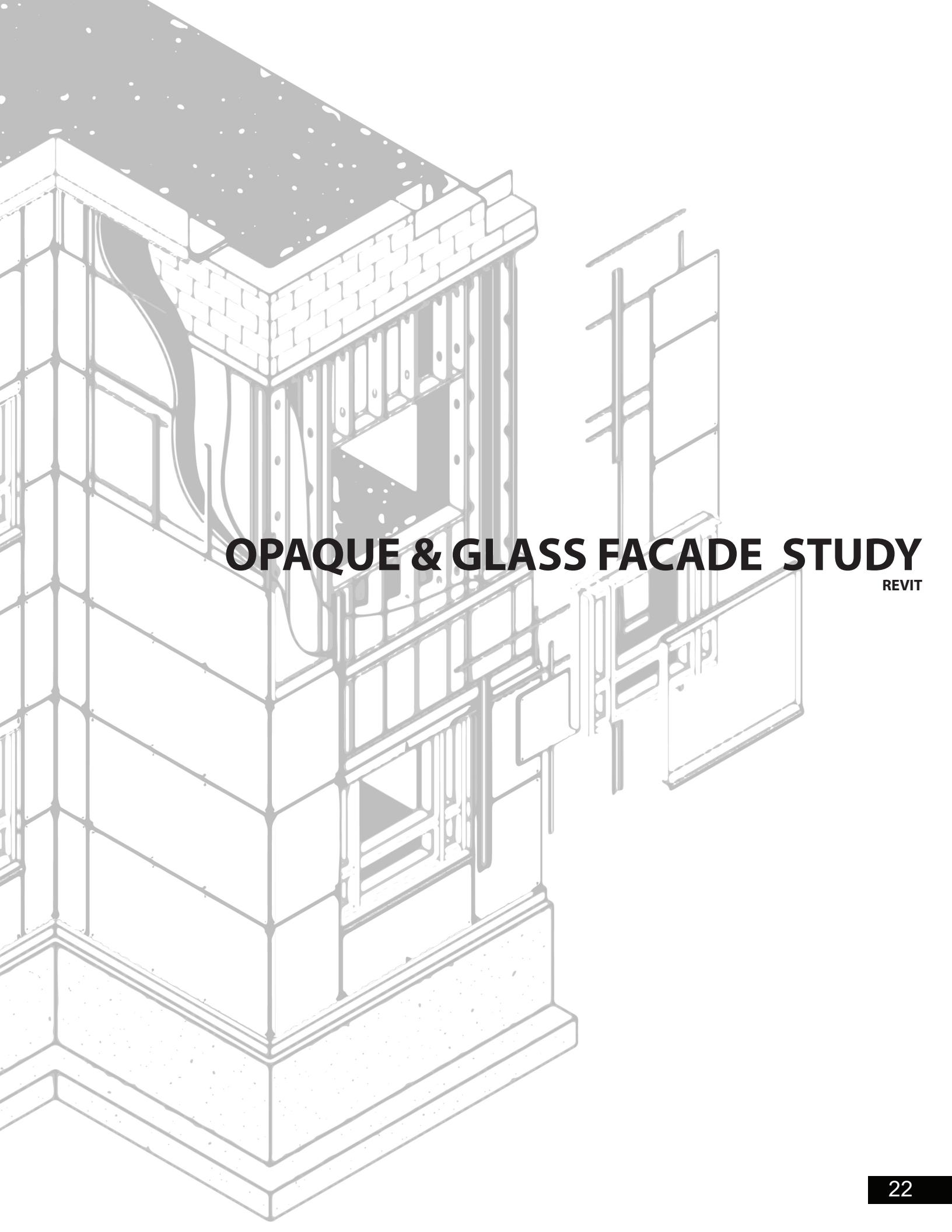
② Footing Isometric



① Typical Footing Section
1" = 1'-0"

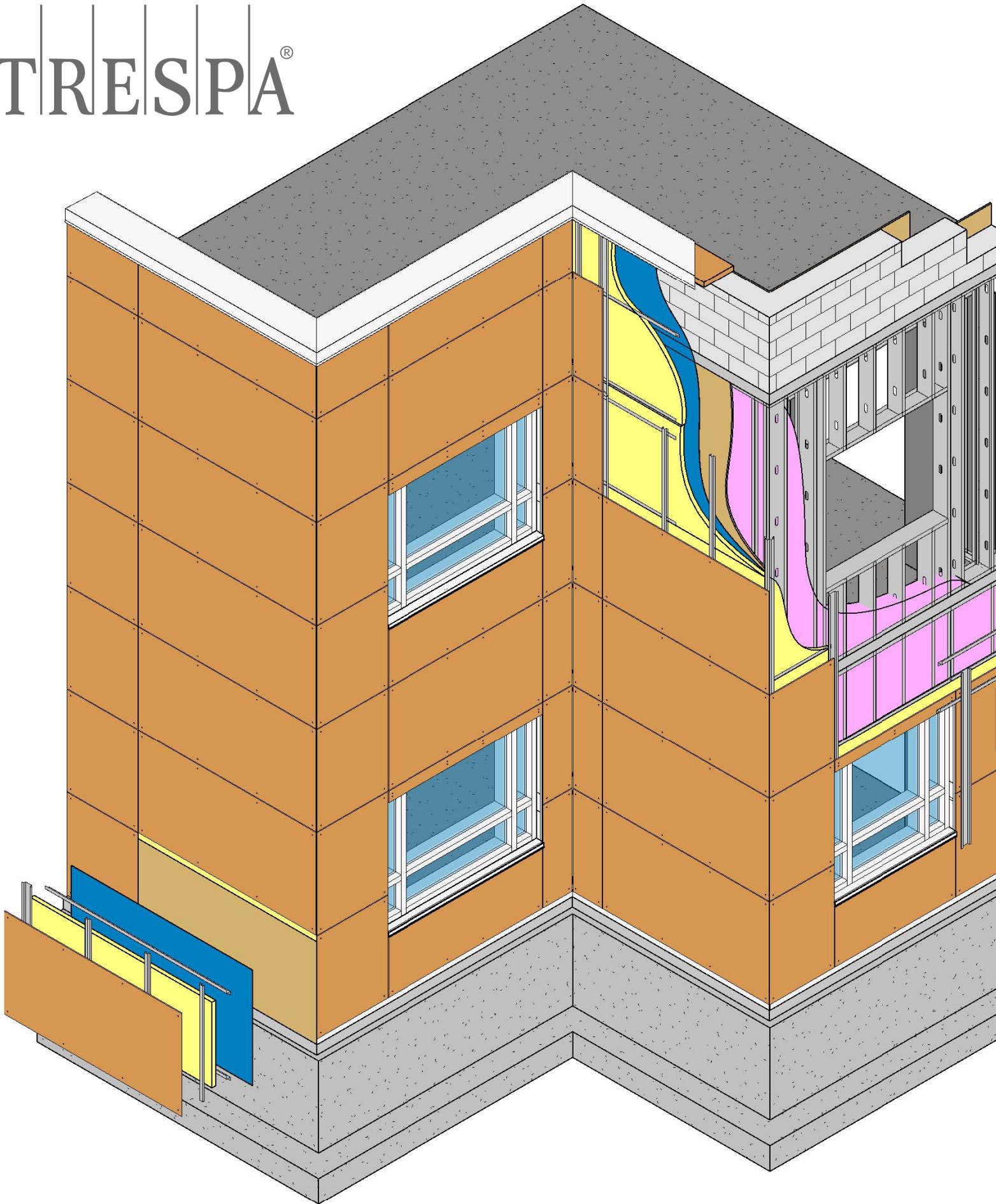
ARCH2431 - BUILDING TECHNOLOGY III
PROFESSOR KING
SPRING 2020

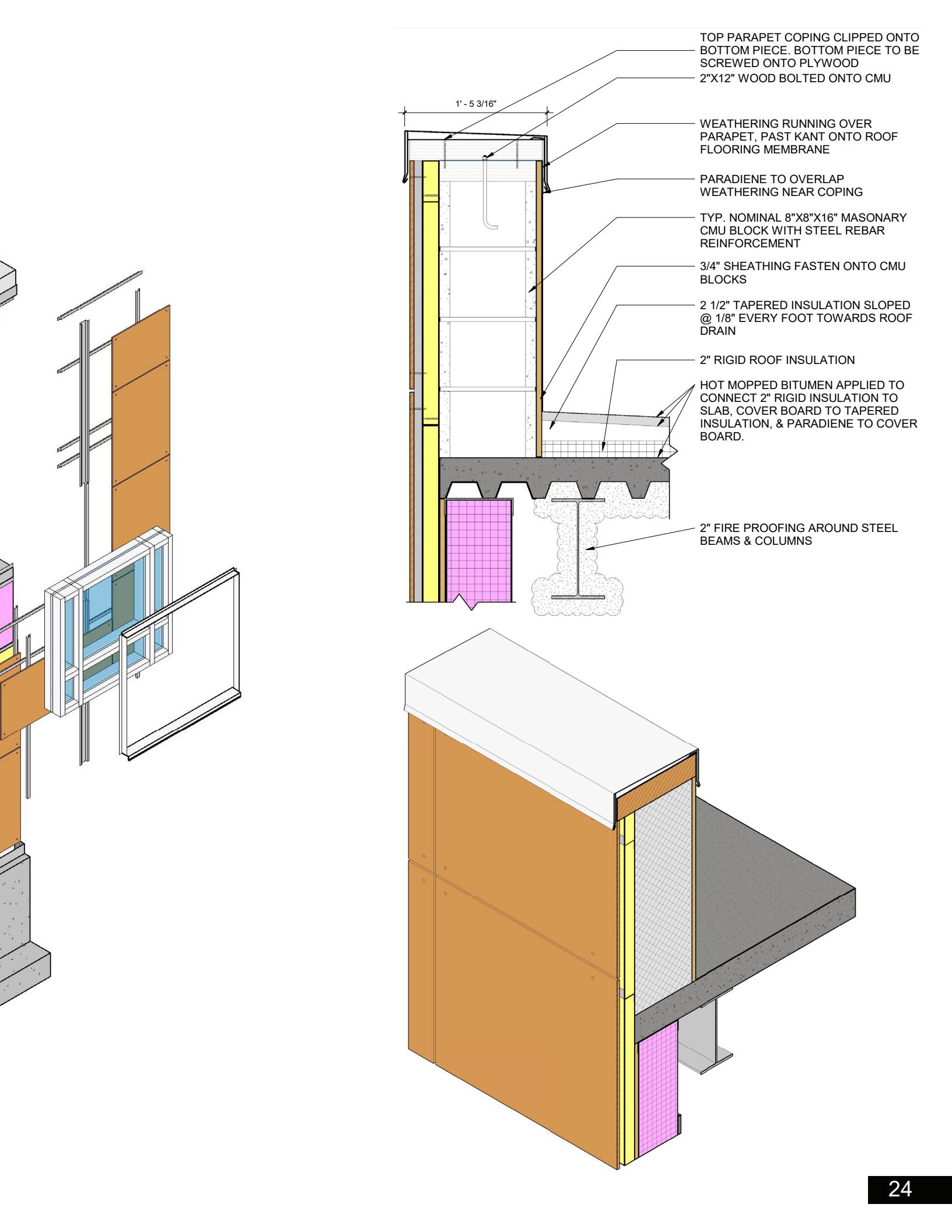
THIS PROJECT I HAD TO STUDY TWO DIFFERENT
TYPES OF FAÇADES. USING REVIT I HAD TO APPLY
THE SYSTEM TO A 3D MODEL PROVIDED BY
PROFESSOR KING.

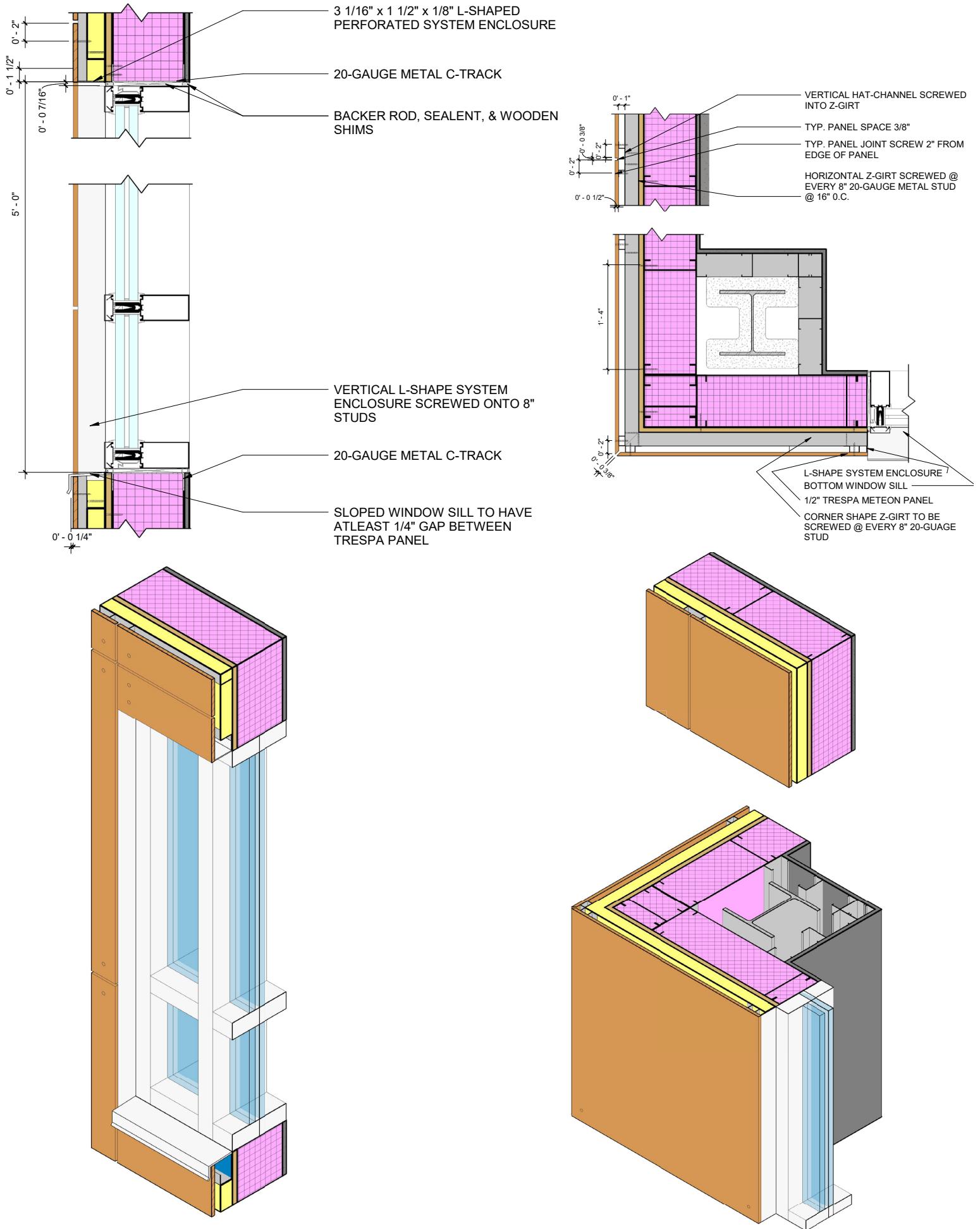


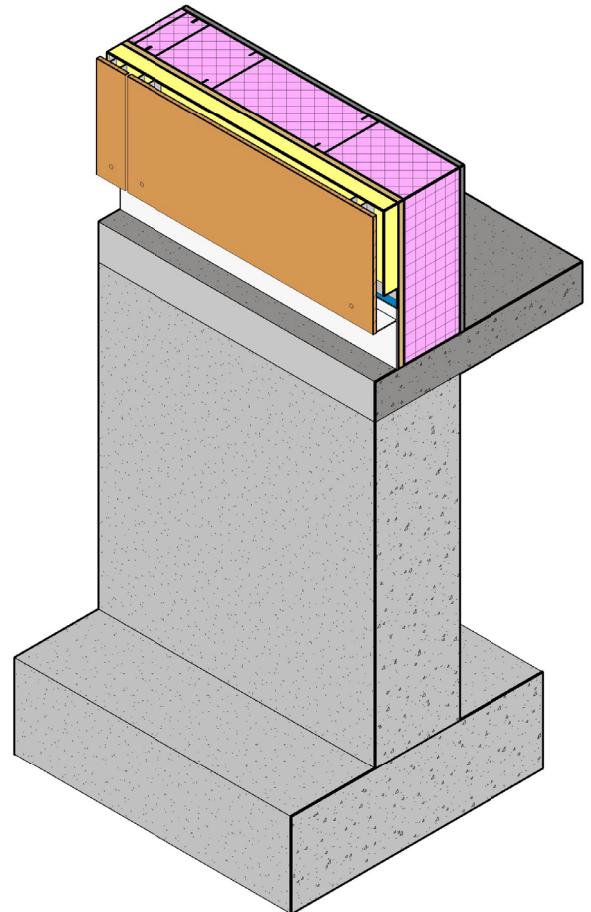
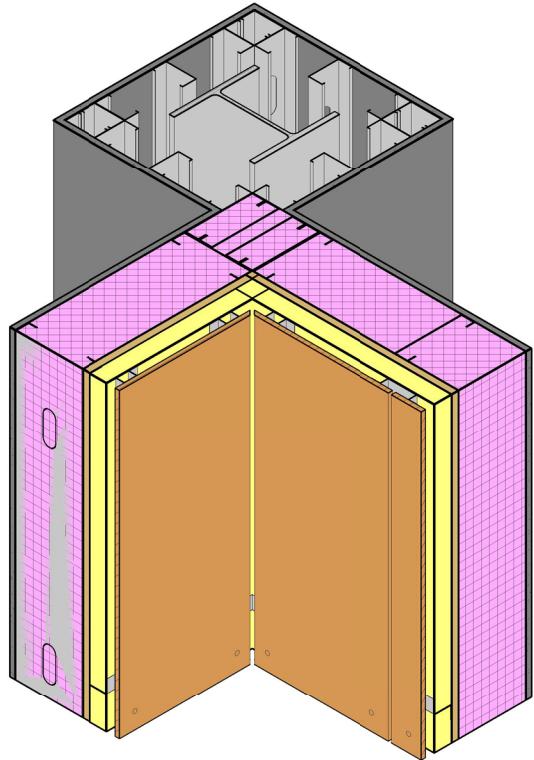
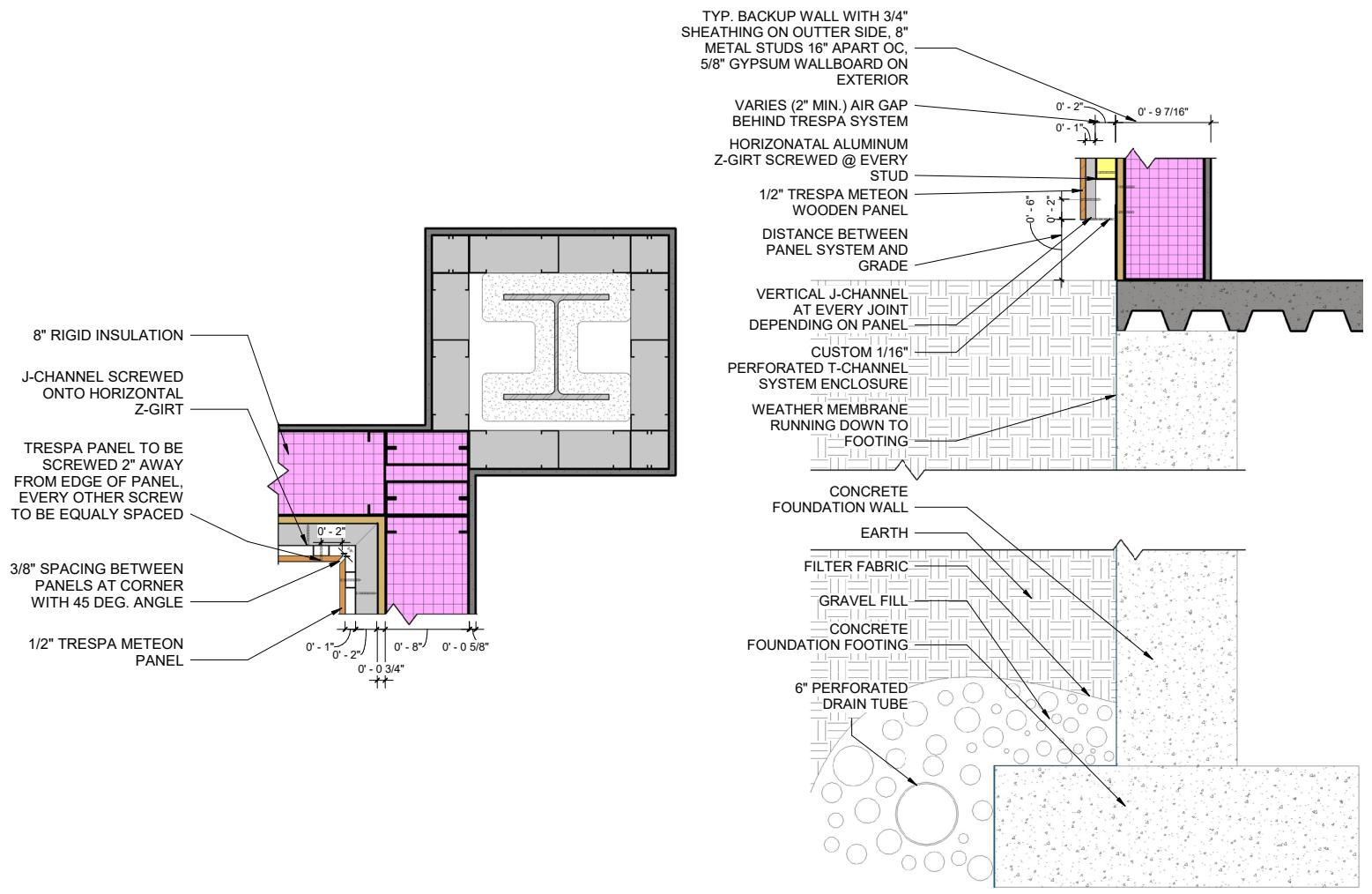
OPAQUE & GLASS FACADE STUDY

REVIT



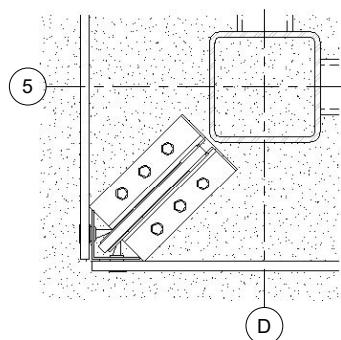
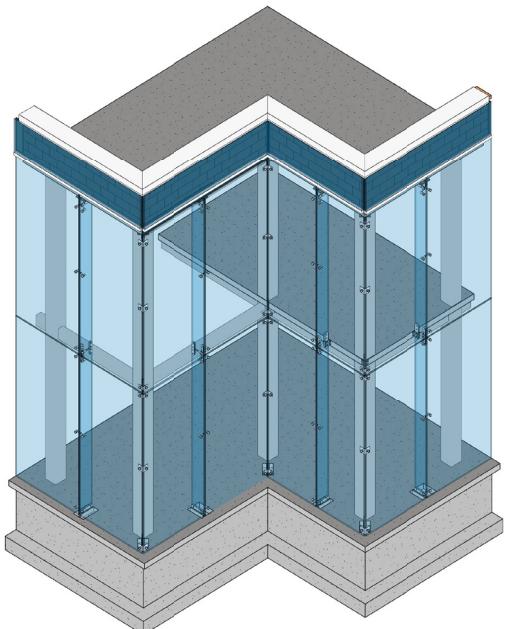




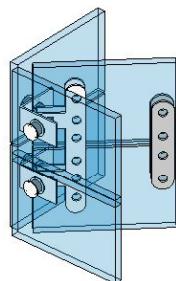




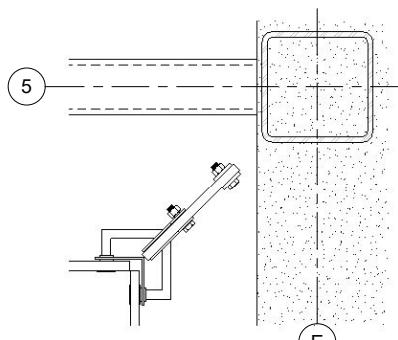
PILKINGTON



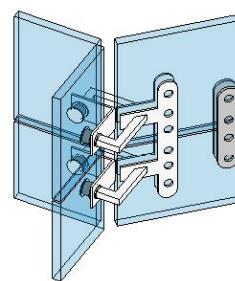
30) OUTER CORNER @ TWO PANELS
1 1/2" = 1'-0"



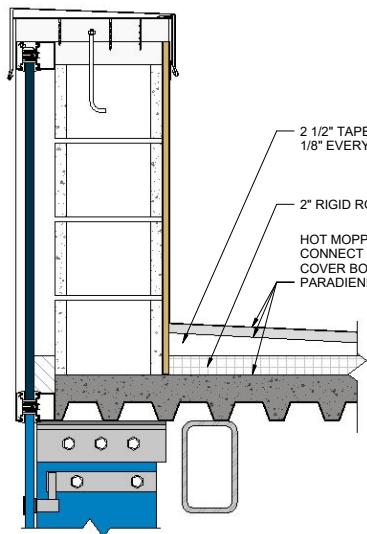
29) CONNECTION @ TWO PANELS AXON



28) INNER CORNER CONDITION
1 1/2" = 1'-0"

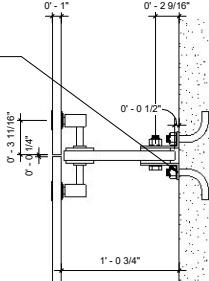


27) INNER CORNER BRACE

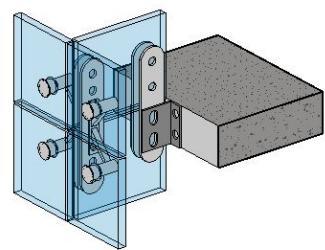


31) CURTAIN WALL @ PARAPET
1 1/2" = 1'-0"

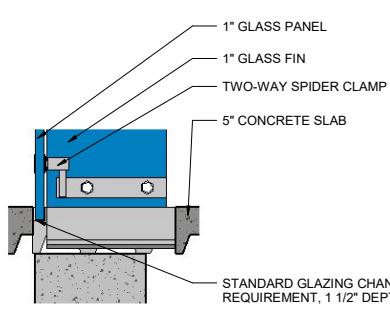
GLASS FIN SECURED TO SLAB
WITH L-SHAPE BRACKET, ANCHORED
TO SLAB



25) PLAN VIEW @ SLAB
1 1/2" = 1'-0"

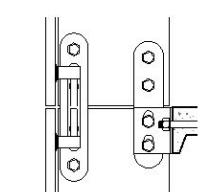


26) MID SLAB CONNECTION AXON



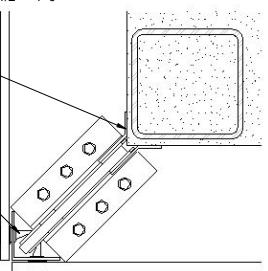
21) GLASS PANEL @ SLAB
1 1/2" = 1'-0"

135 DEG. ANGLE BRACE TO BE ANCHORED
TO SLAB & BOLTED ONTO 4 PUNCH PLATE
SECURING GLASS FIN

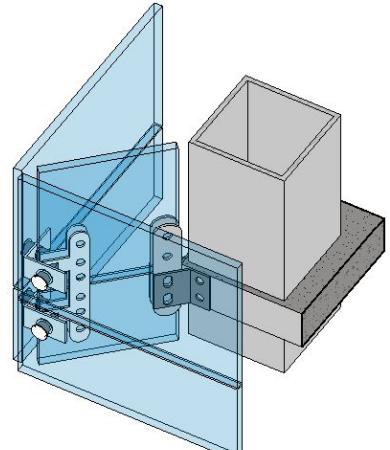


24) GLASS FIN @ SLAB
1 1/2" = 1'-0"

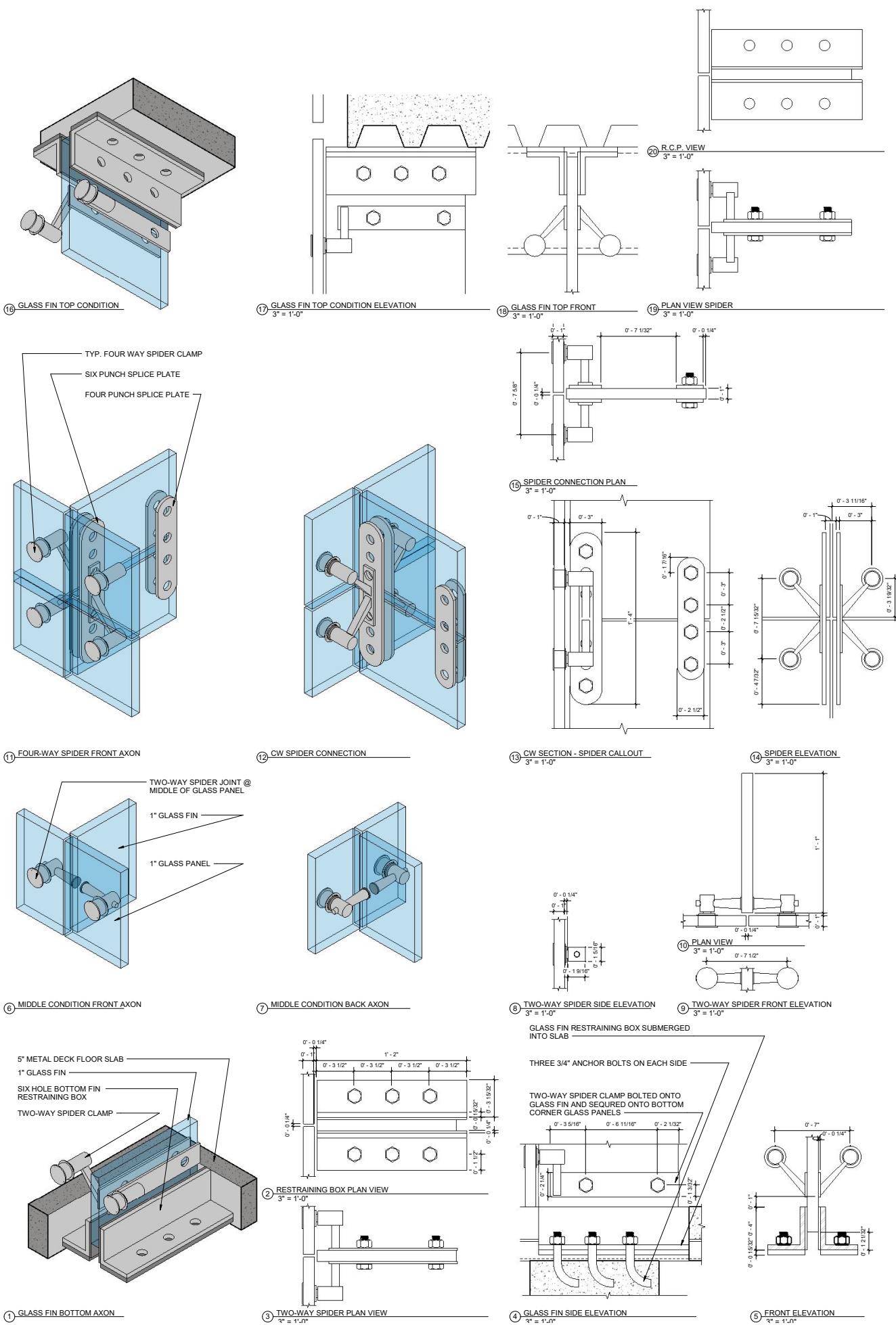
90 DEG. BRACE CONNECTED TO
6 PUNCH SPLICE PLATE. SPLICE PLATE
BOLTED TO GLASS FIN.



22) OUTER CORNER @ SLAB
1 1/2" = 1'-0"



23) OUTER CONDITION AXON



ARCH3512 - ARCHITECTURAL DESIGN V
PROFESSOR ARFAEI
FALL 2020

THIS PROJECT CONSISTED OF INTENSIVE RESEARCH
WHICH LEAD TO CREATE A HOSTEL WITHIN AN
EXISTING BUILDING. A PROCESS OF REPURPOSING
AN OLD BUILDING INTO NEW MODERN PURPOSE.



ADAPTIVE REUSE

RHINO
ILLUSTRATOR
PHOTOSHOP

COMMUNAL KITCHEN

THE HOSTEL PROJECT ON ROOSEVELT ISLAND STARTED OFF WITH INTENSIVE ANALYSIS. GATHERING DEMOGRAPHICAL INFO AND CREATING COLLAGES BASED ON WHAT WAS SEEN ON SITE. WE PROCCEEDED WITH PROGRAM DIAGRAMS WHICH LEAD TO MASSING CONCEPTS. THE MAIN IDEA WAS TO BUILD WITHIN AN EXISTING BUILDING SHELL. A STRATEGY KNOWN AS ADAPTIVE REUSE. AFTER ALL MY SITE ANALYSIS I DECIDED TO ADOPT A COMMUNAL KITCHEN THEME FOR MY HOSTEL. A PLACE WHERE USERS AND THE PUBLIC CAN MEET IN A COMMON AREA.

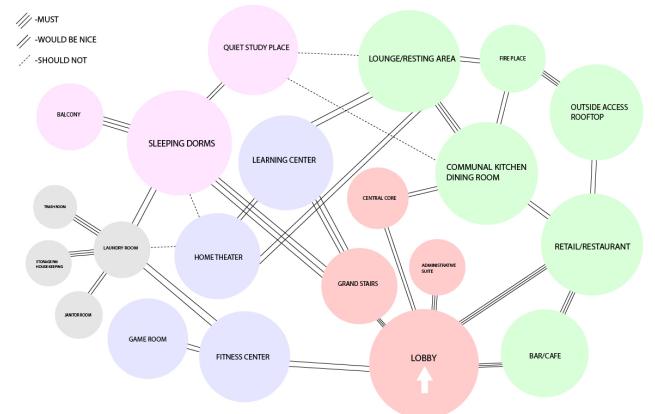
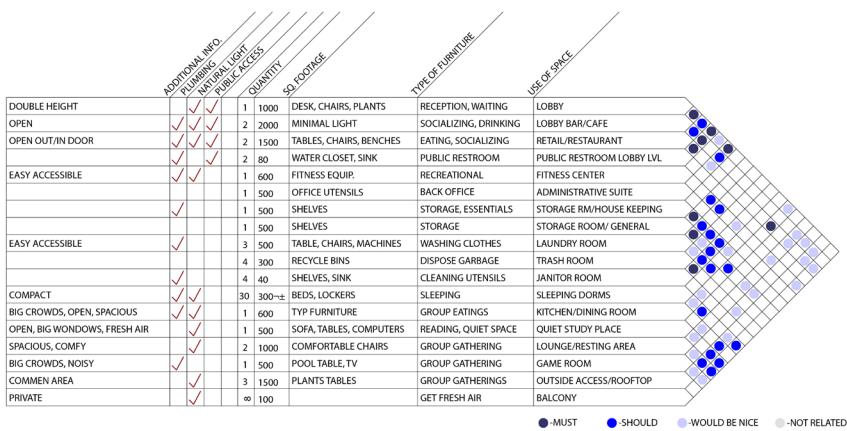
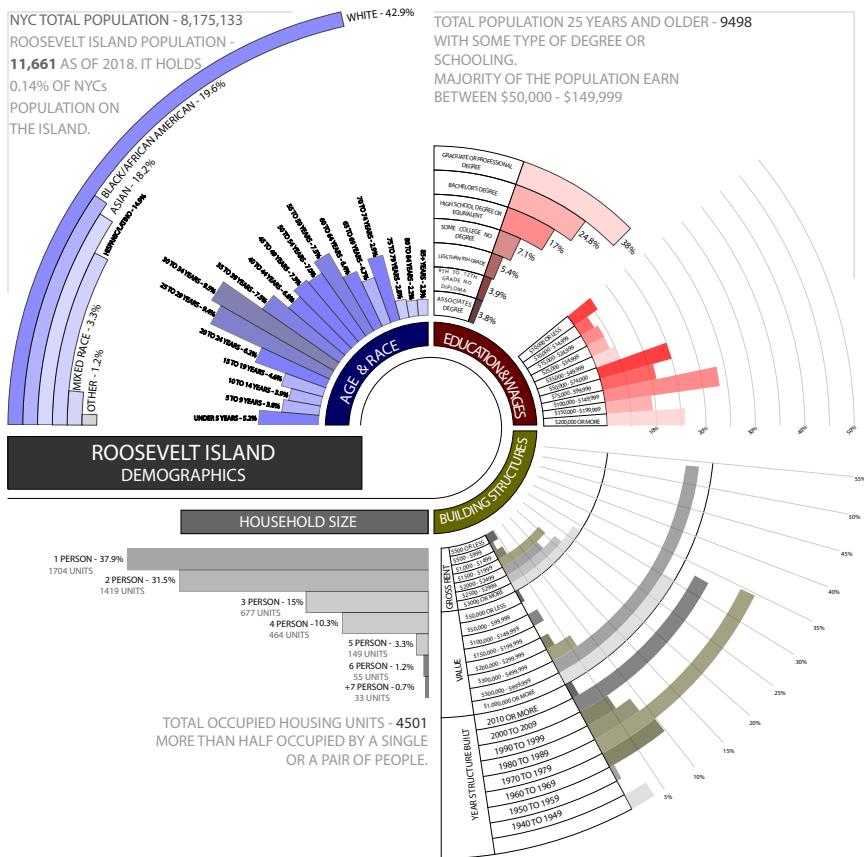
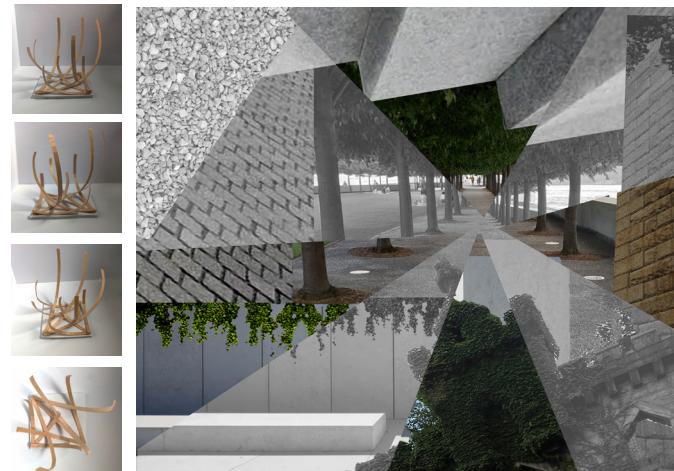
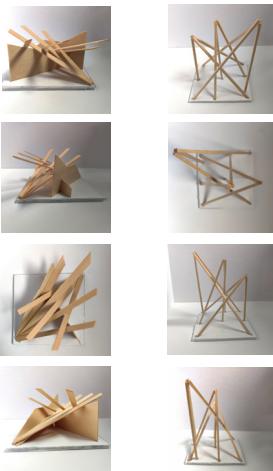
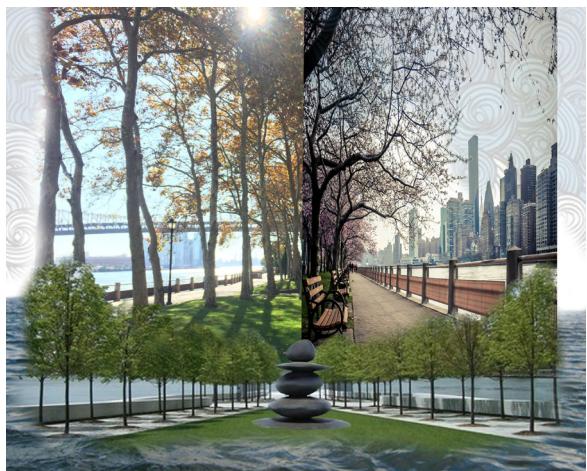
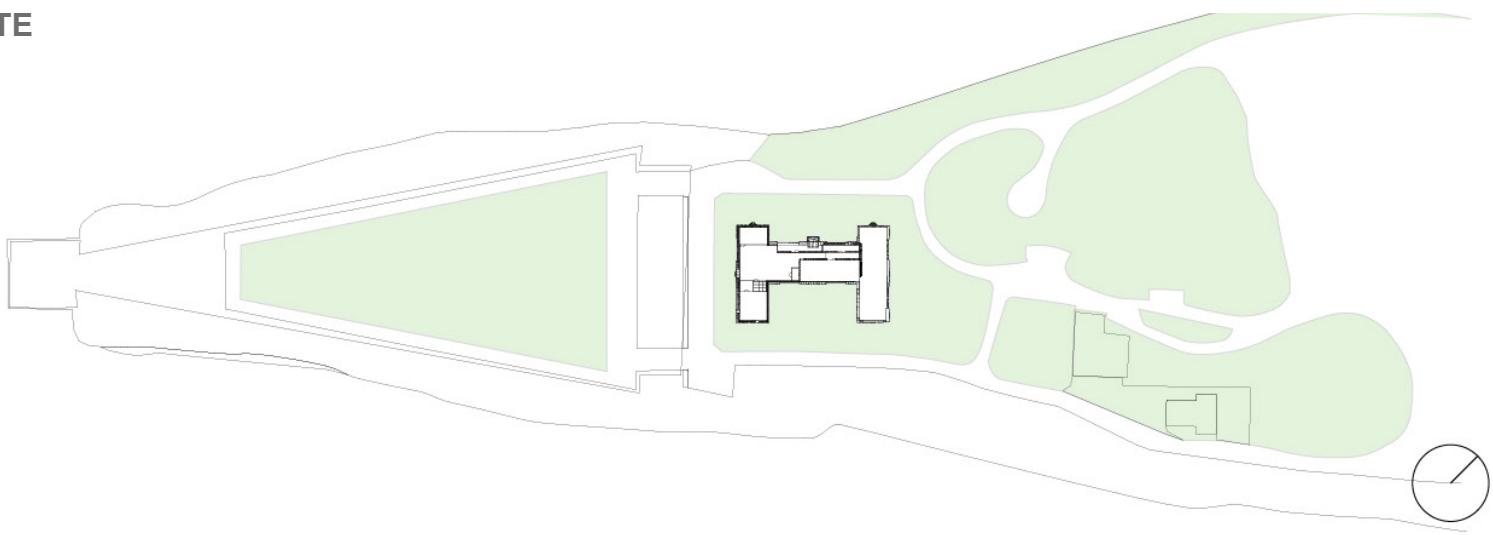


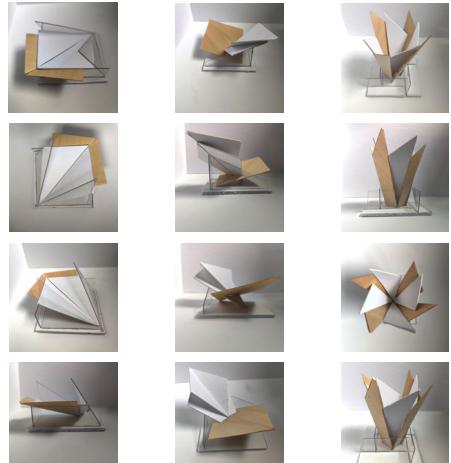
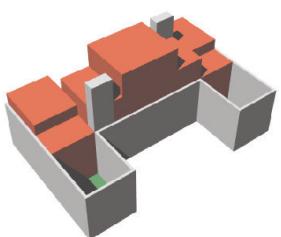
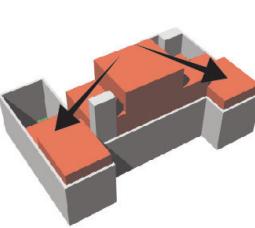
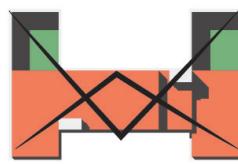
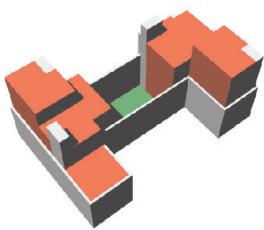
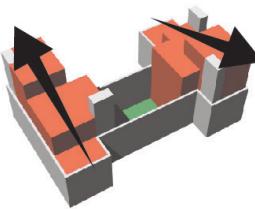
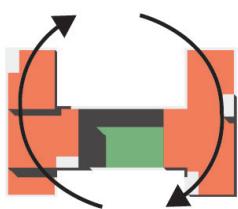
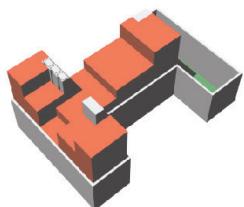
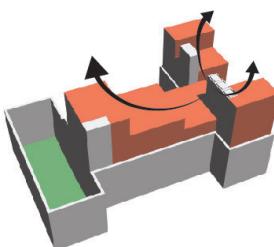
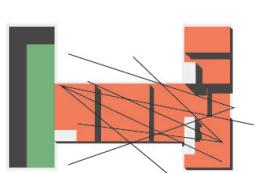
PHOTO COLLAGE

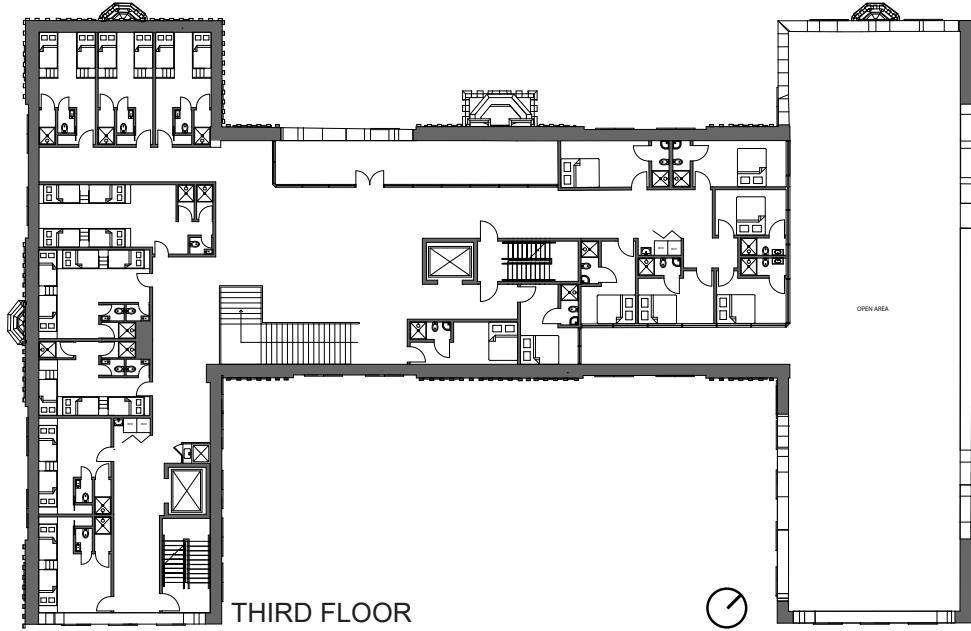
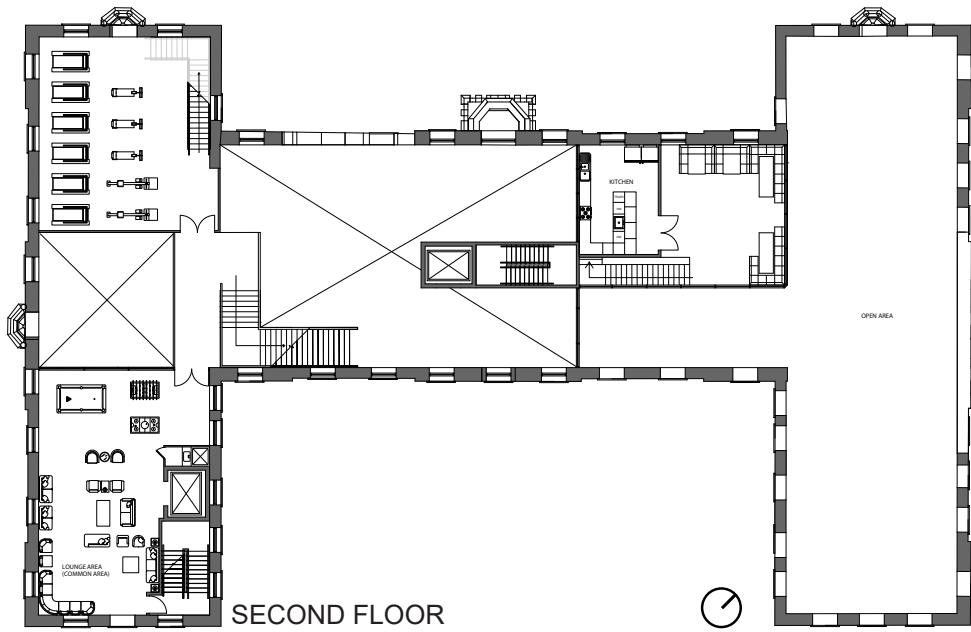
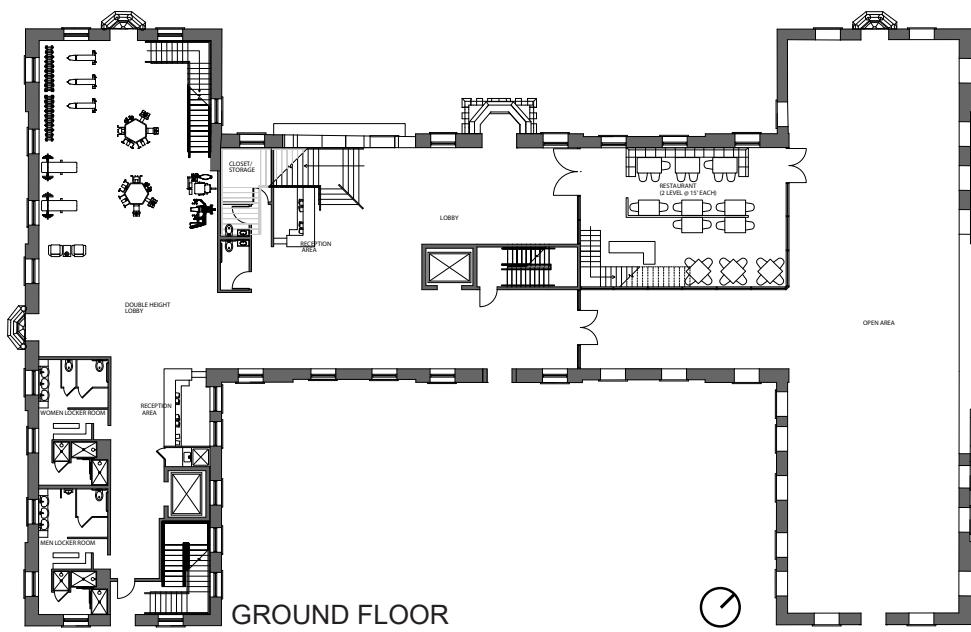


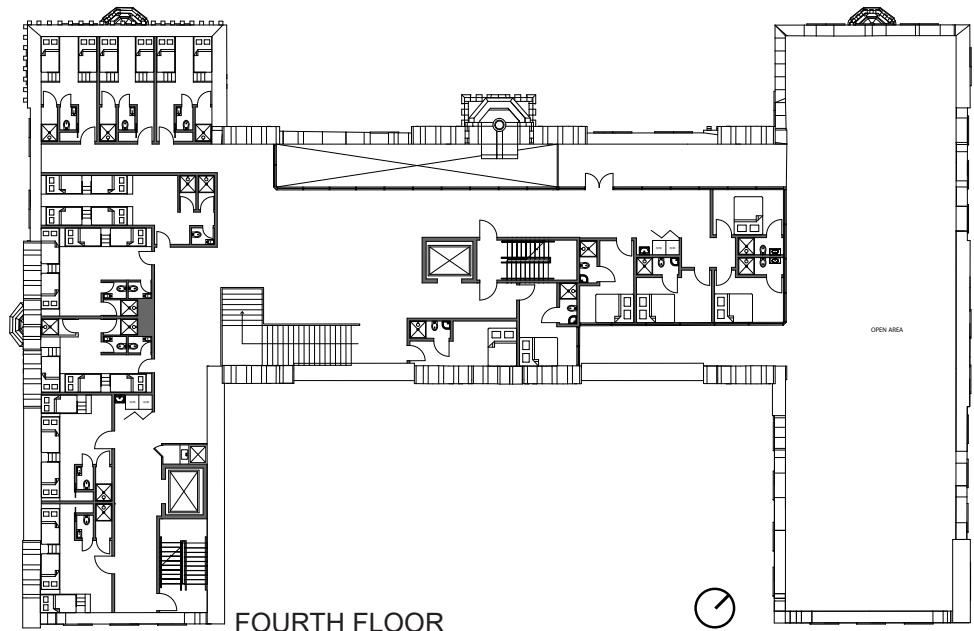
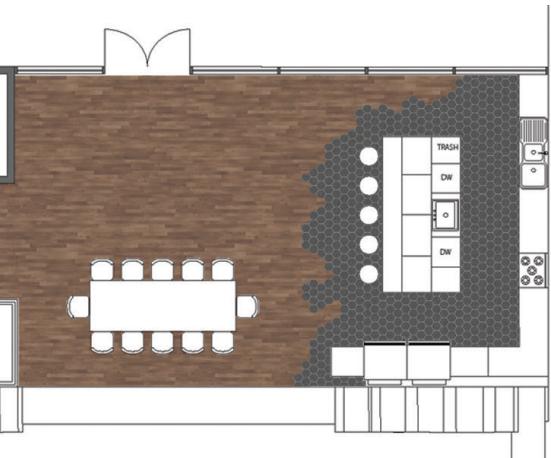
SITE



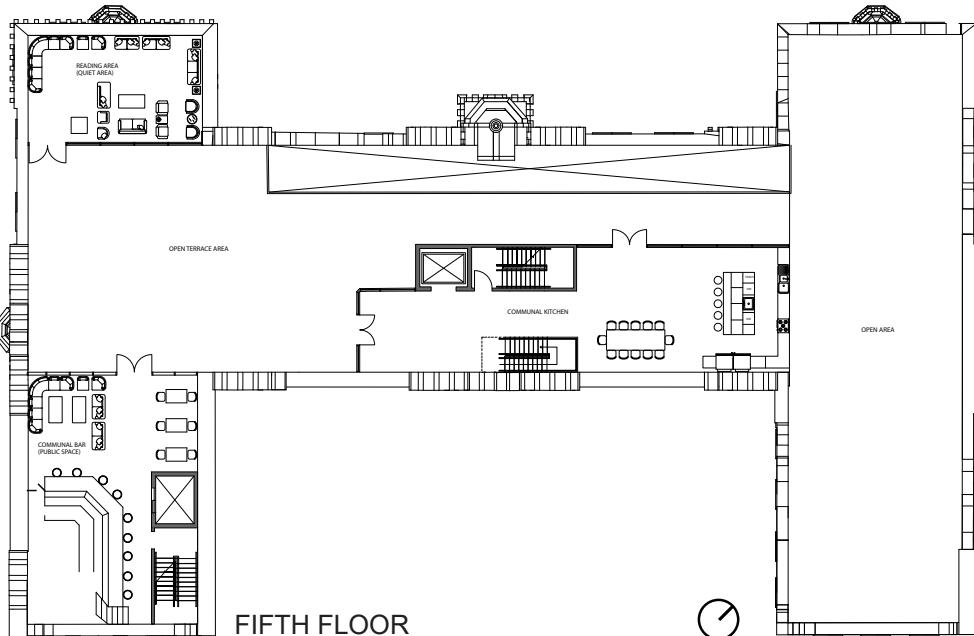
MASSING CONCEPTS



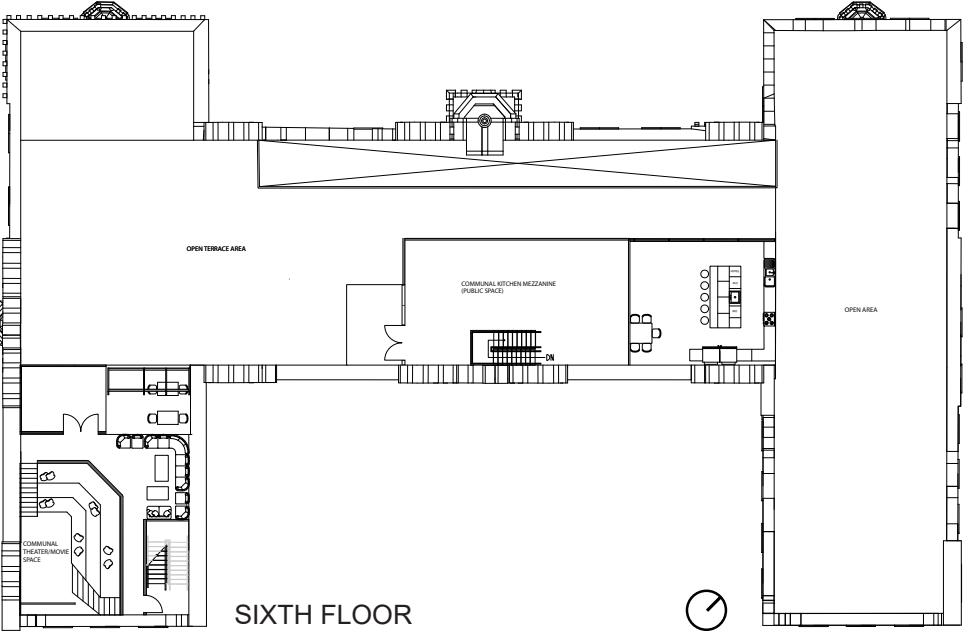




FOURTH FLOOR

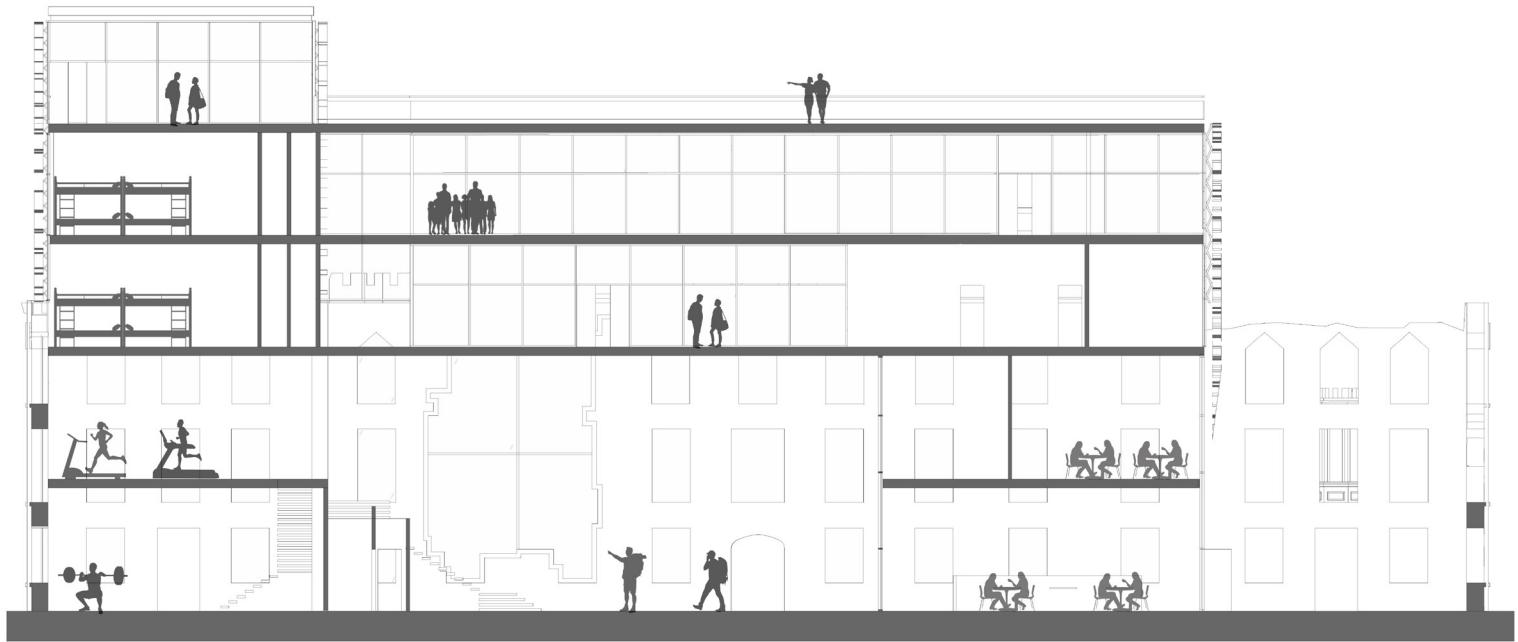


FIFTH FLOOR

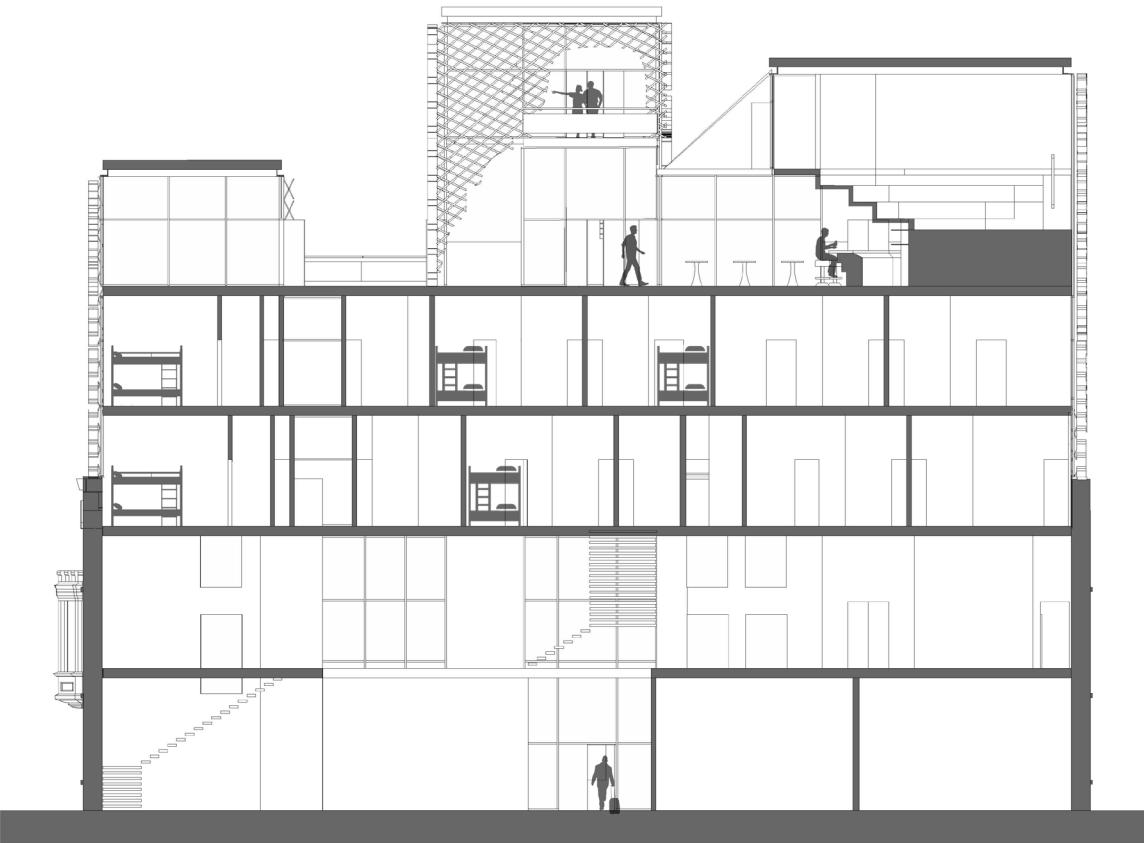


SIXTH FLOOR

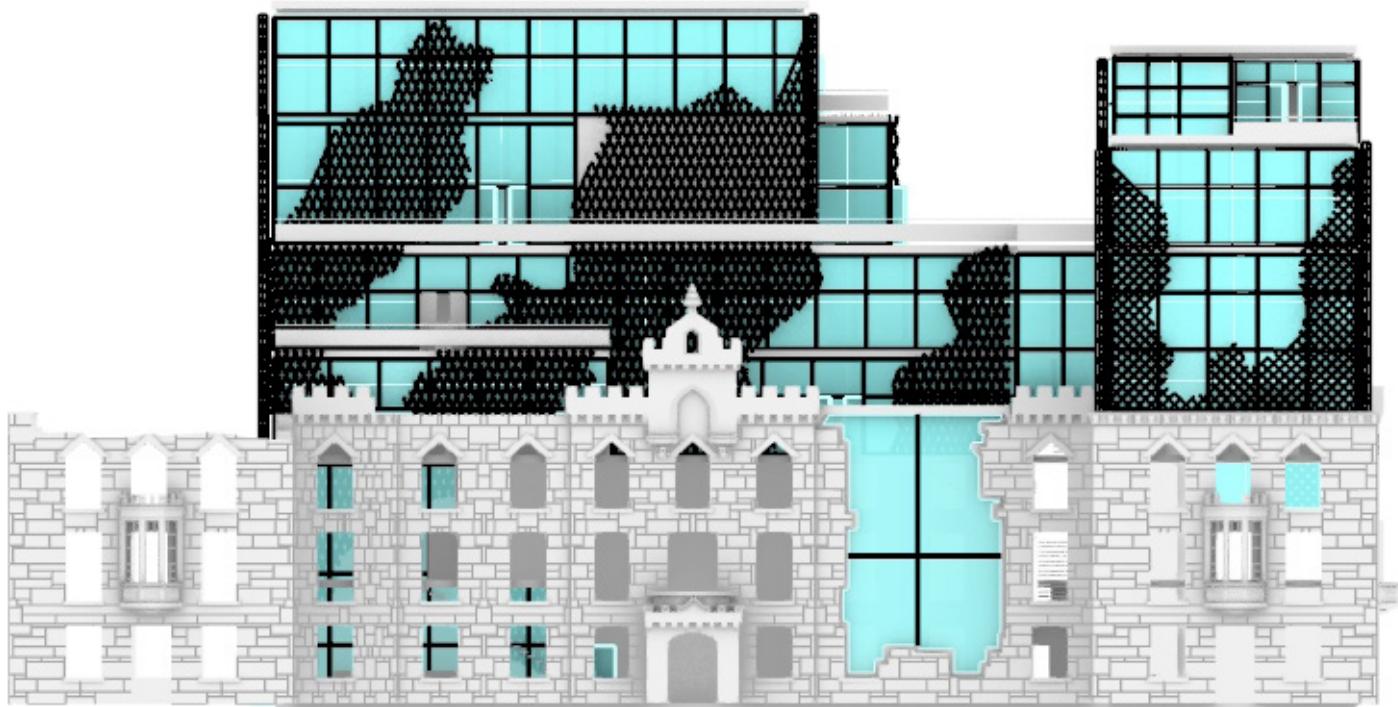
SECTION
LONG SECTION



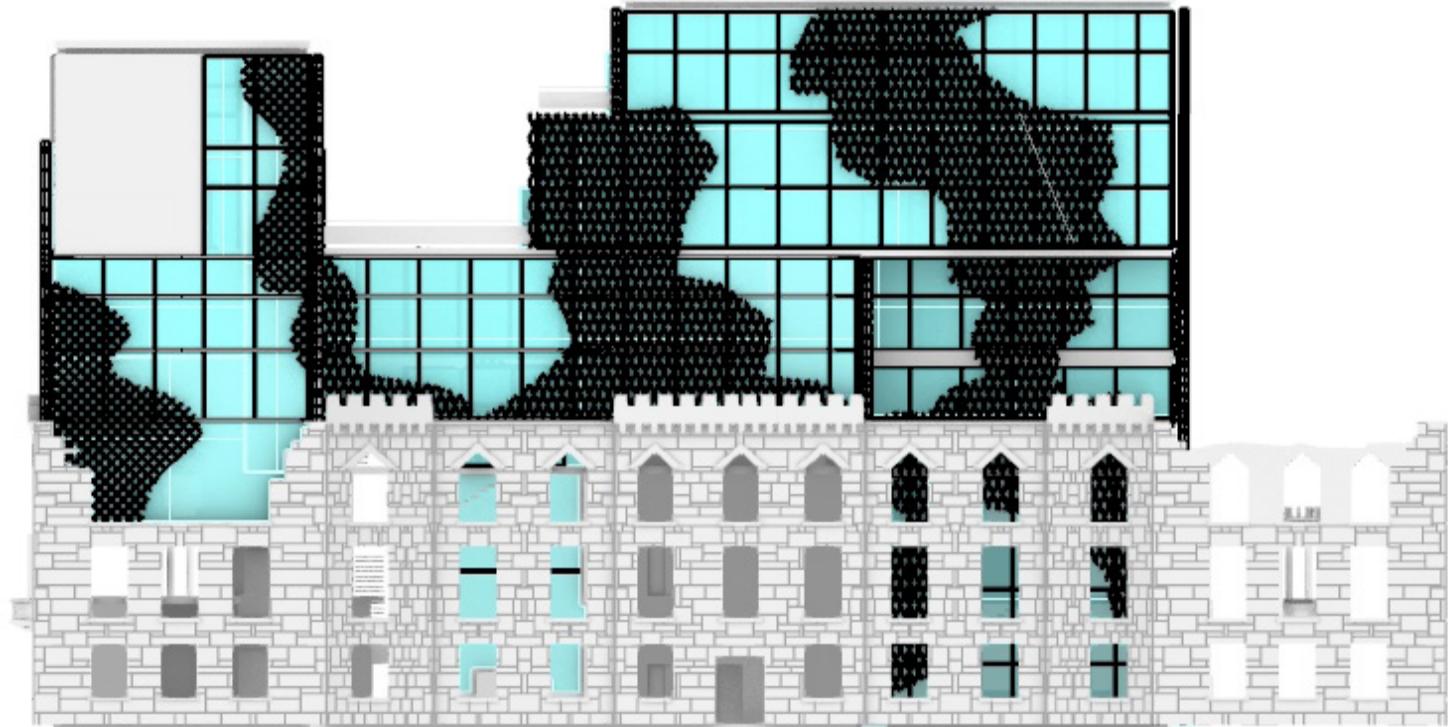
SECTION
SHORT SECTION



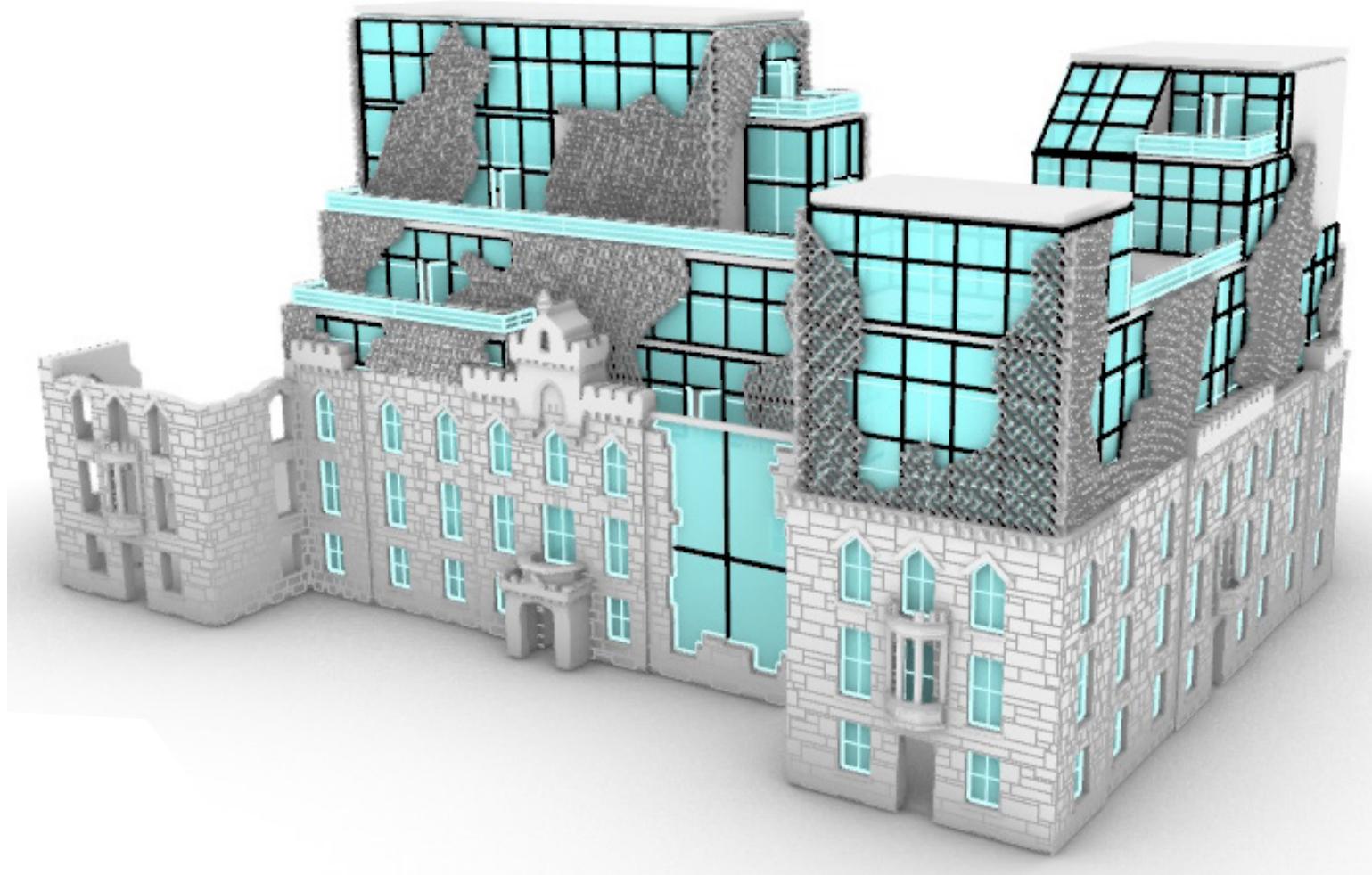
FRONT ELEVATION



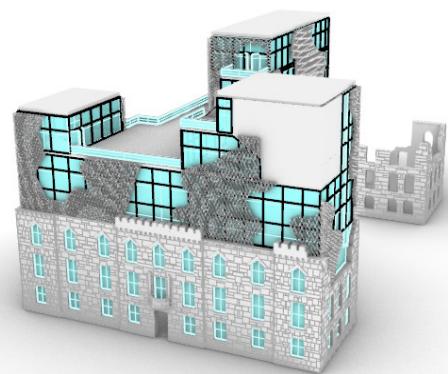
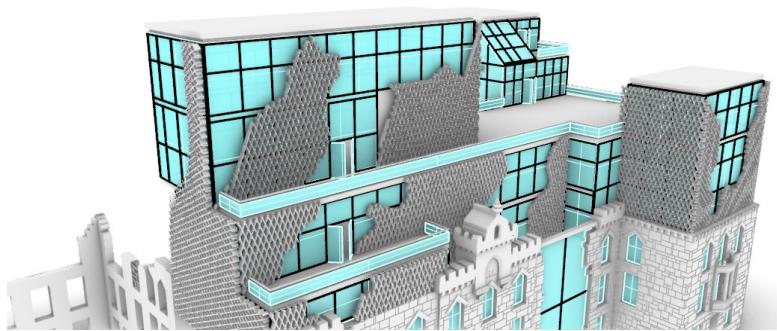
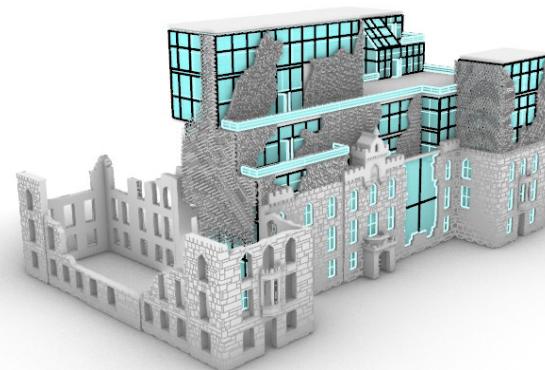
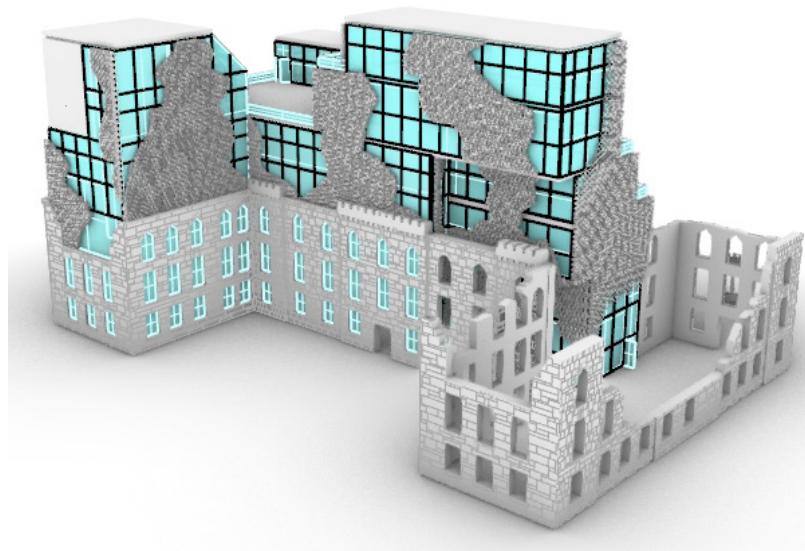
REAR ELEVATION



RENDERINGS



INTERIOR PUBLIC SPACE



ARCH4812 - ARCHITECTURAL DESIGN VIII
PROFESSOR NEARY & PROFESSOR GLASSMAN
FALL 2021

THE PURPOSE OF THIS PROJECT WAS TO EXPLORE
THE POTENTIAL ROLE OF THE FACADE IN
OPTIMIZING DAYLIGHTING FOR USER COMFORT
AND ENERGY DEMAND REDUCTION.

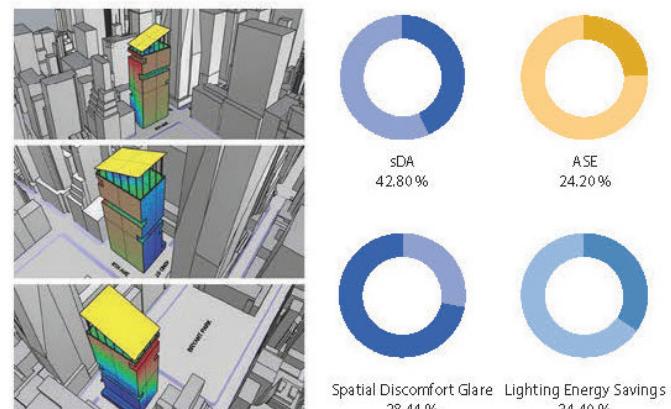
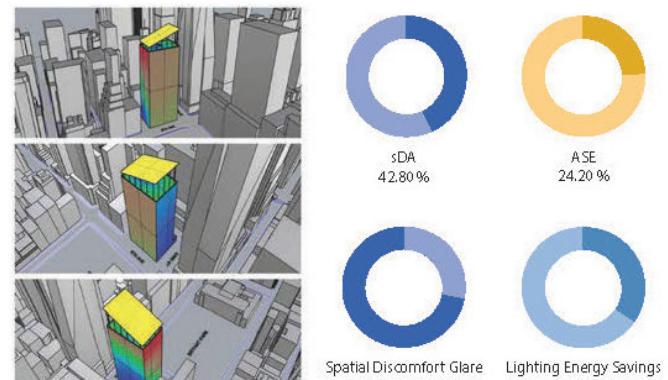
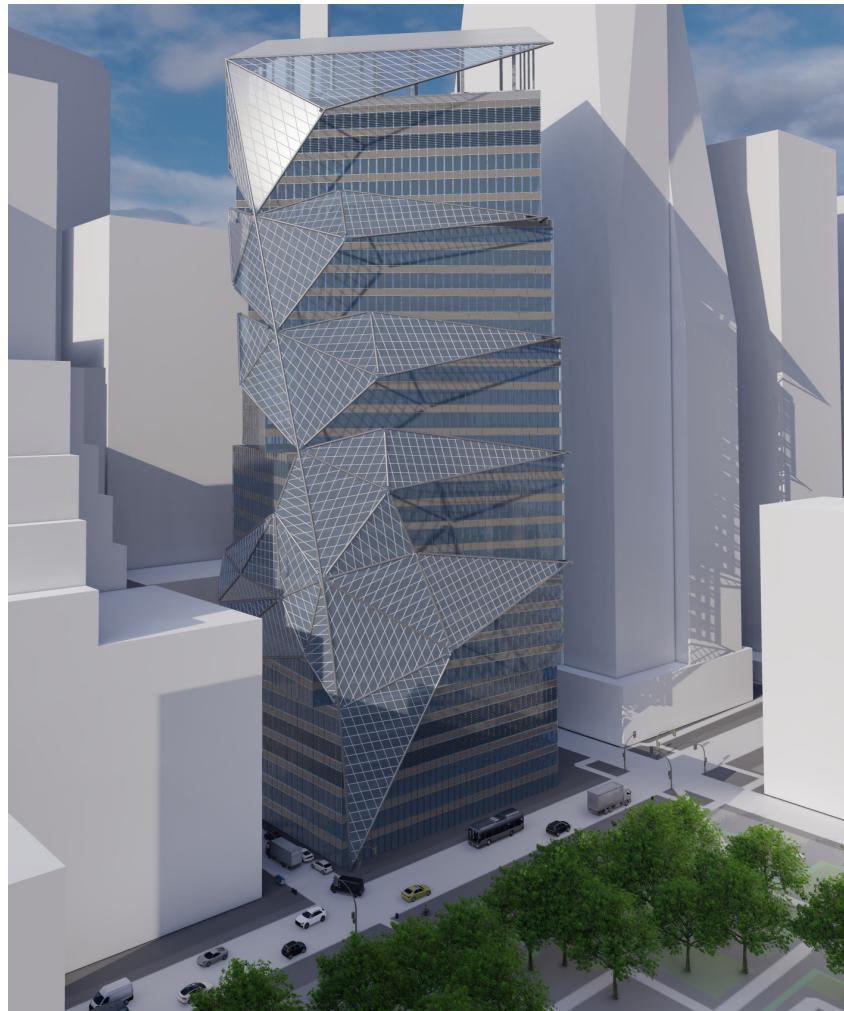
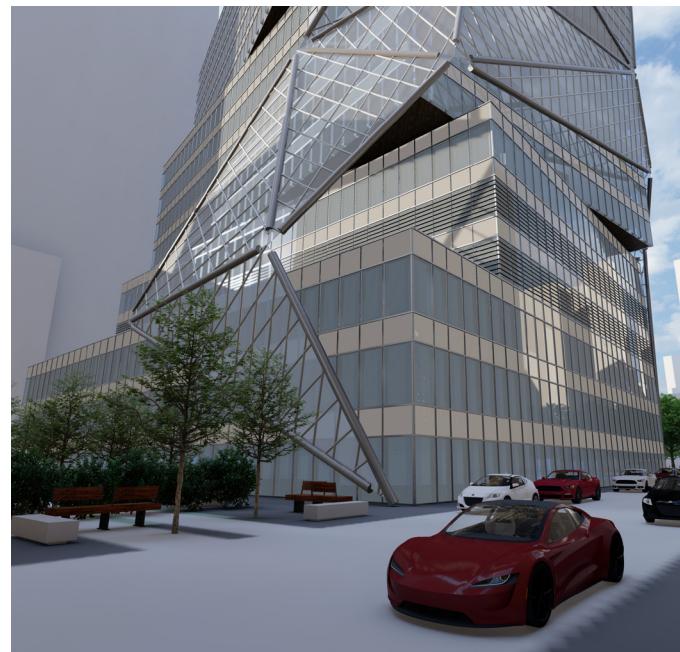


NET ZERO TOWER FACADE

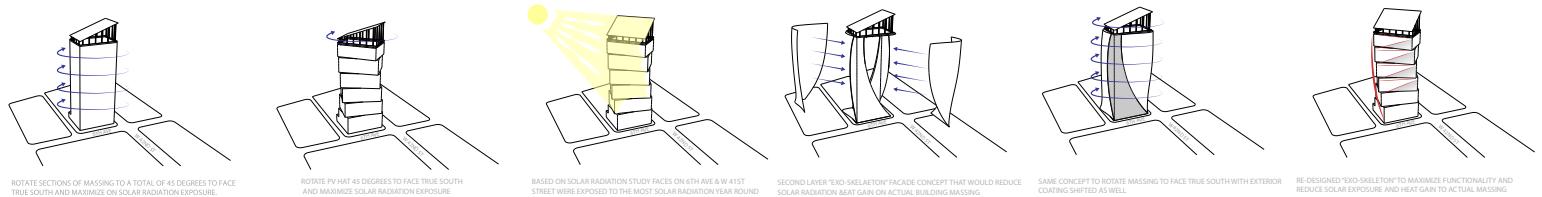
RHINO
ILLUSTRATOR
LUMION

NET ZERO TOWER FACADE

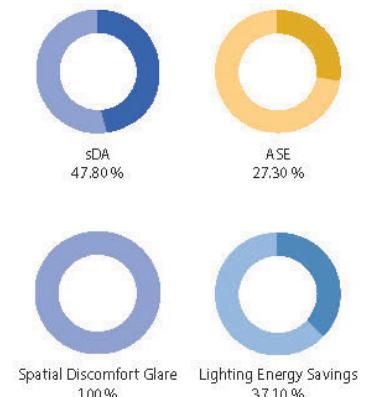
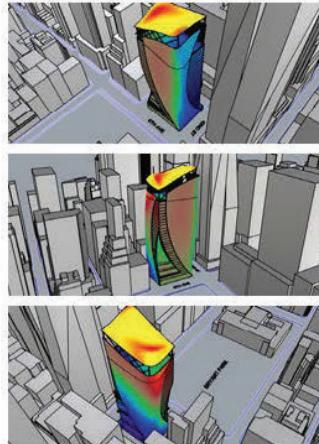
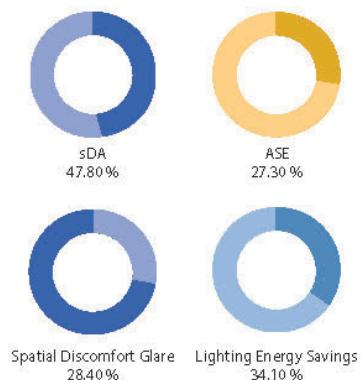
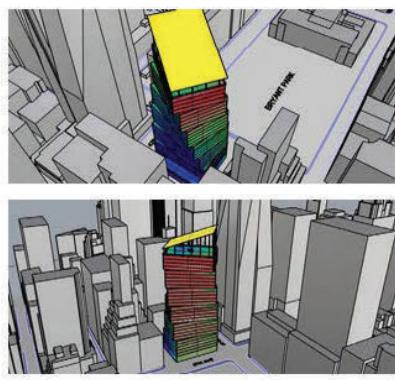
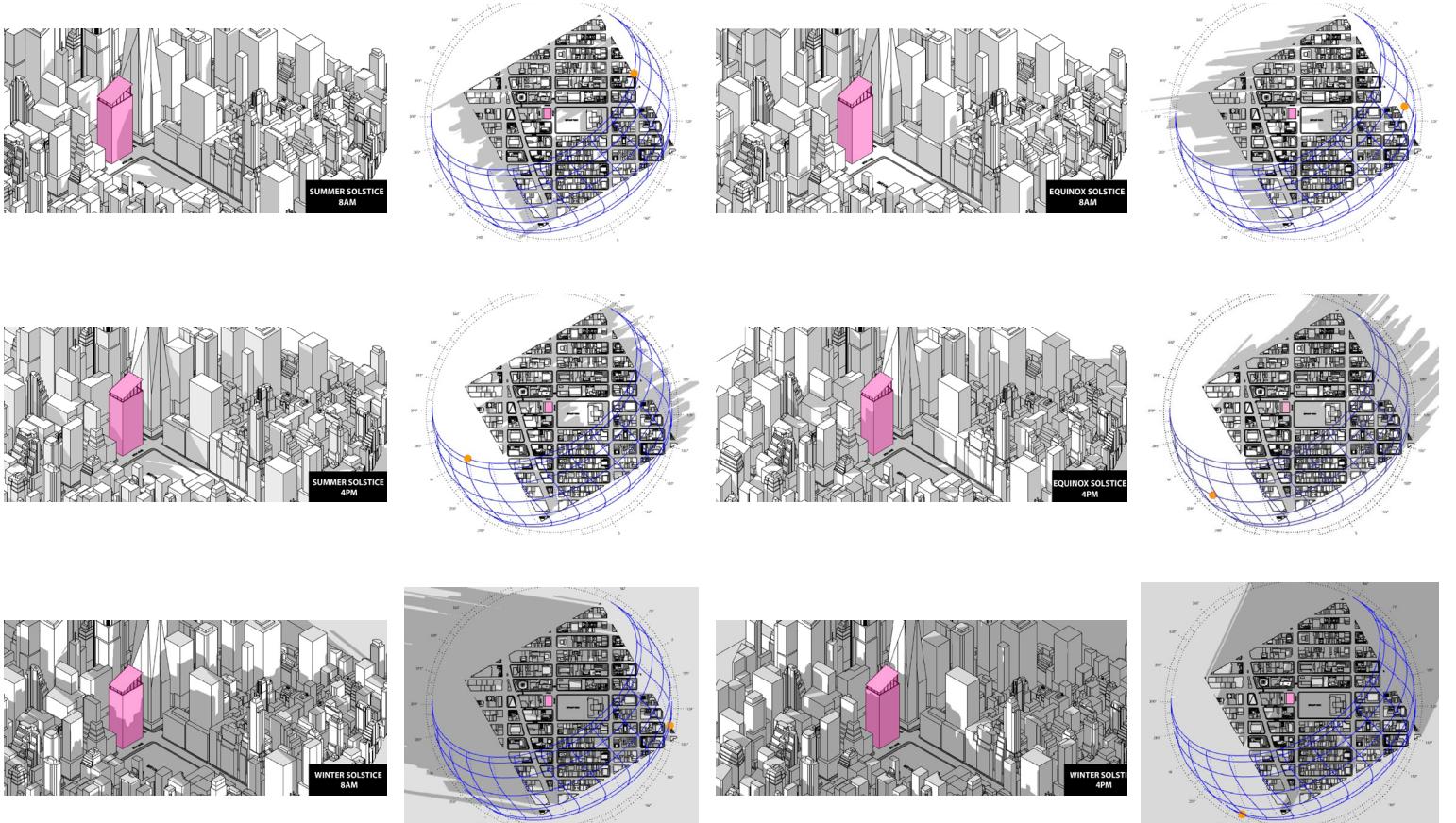
THE PURPOSE OF THIS PROJECT IS TO INVESTIGATE THE POTENTIAL ROLE OF THE FACADE IN OPTIMIZING DAYLIGHTING FOR USER COMFORT AND ENERGY DEMAND REDUCTION RELATIVE TO A CONVENTIONAL BASELINE BUILDING IN THE DESIGN OF NET-ZERO HIGH-RISE COMMERCIAL BUILDING FOR A SITE IN MANHATTAN. WE WERE FOCUSED ON UNDERSTANDING HOW CURTAIN WALL SYSTEMS PERFORM AND HOW THEY CAN BE IMPROVED. IN ADDITION TO SEEKING WAYS TO IMPROVE PASSIVE PERFORMANCE, WE WILL INVESTIGATE THE USE OF AUTOMATIC SHADING AND PHOTOVOLTAIC GLASS IN THE FACADE AND ON THE ROOFTOP ARRAYS FOR ON-SITE ENERGY PRODUCTION AS WELL.



DESIGN CONCEPT



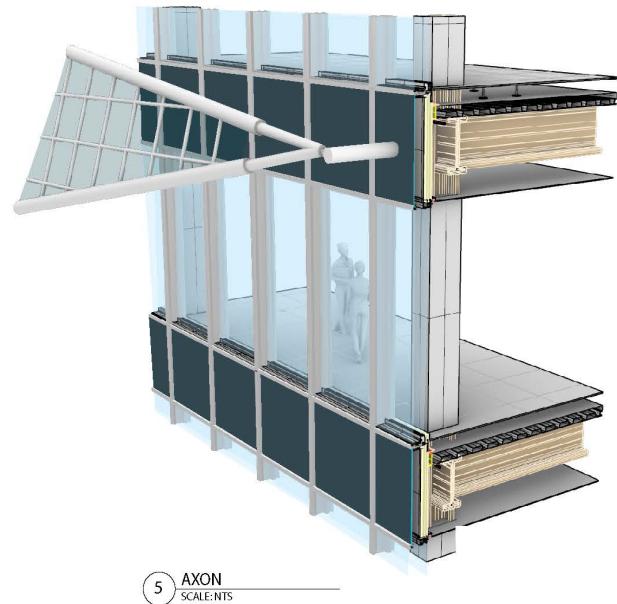
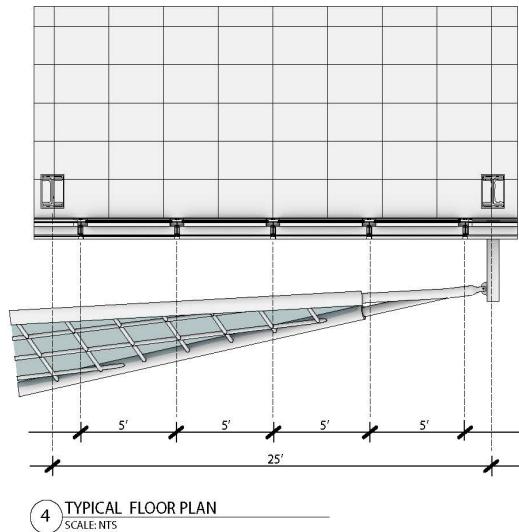
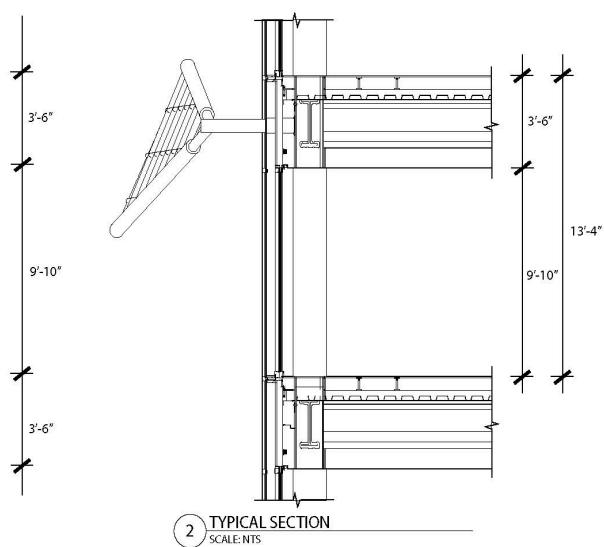
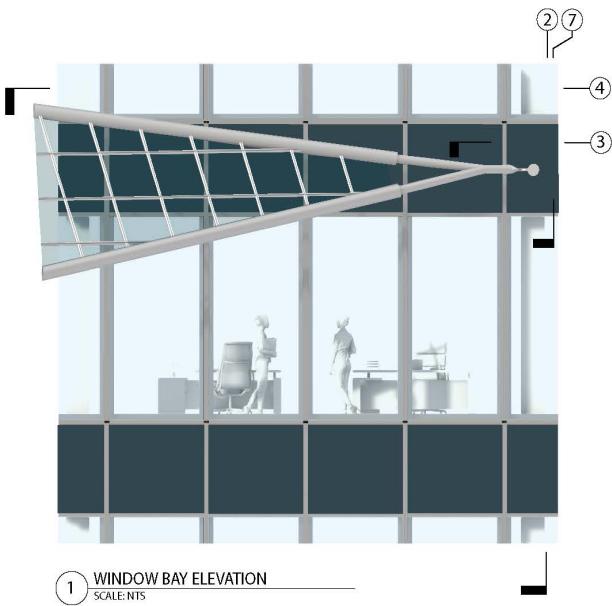
SUN STUDY & SOLAR RADIATION STUDY



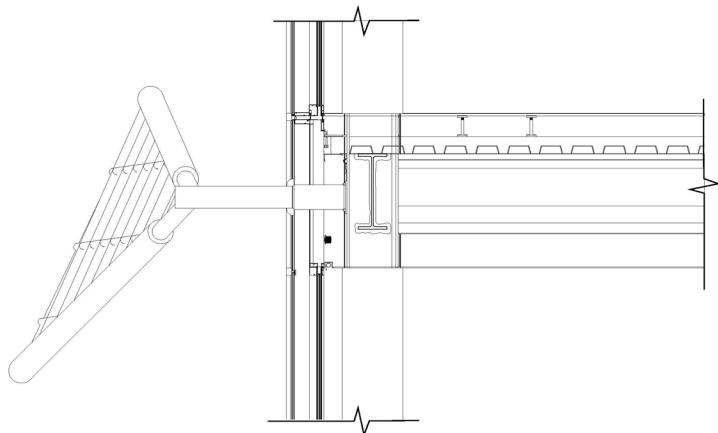
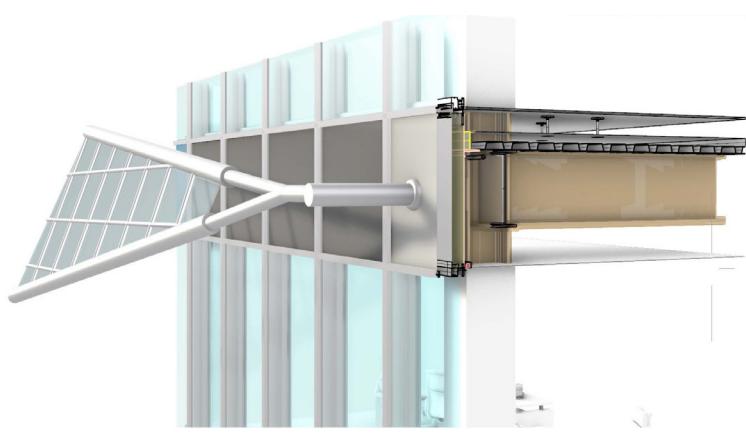
SECOND ITERATION

THIRD ITERATION

WINDOW BAY STUDY



INTERIOR SUN ANALYSIS



3D PRINTED STUDY MODELS

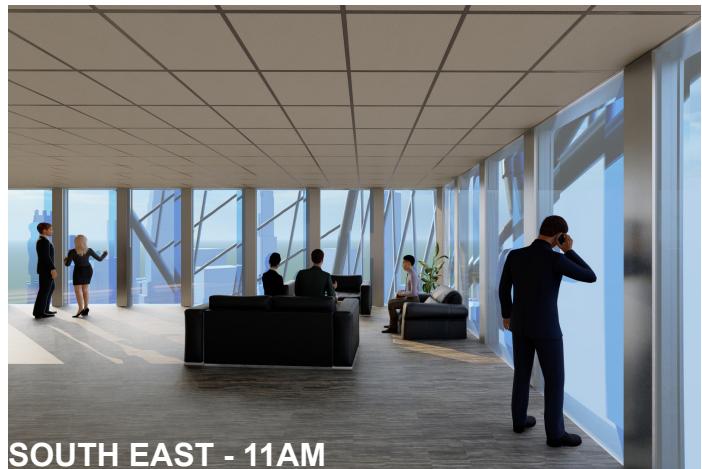


FALL EQUINOX @ 4PM

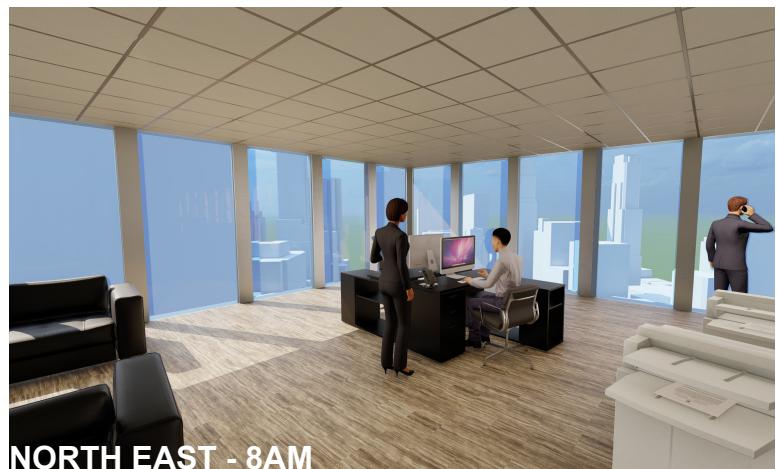


WINTER SOLSTICE @ 4PM

RENDERINGS



SOUTH EAST - 11AM



NORTH EAST - 8AM



WEST SIDE



MAIN LOBBY



NORTH SIDE



MAIN LOBBY



SOUTH SIDE



MAIN LOBBY



ARCH4712 - ARCHITECTURAL DESIGN VII
PROFESSOR VESSELIN MILEV
SPRING 2022

THIS PROJECT EXPLORED THE THEORETICAL &
PRAGMATIC ASPECTS OF DESIGN APPLIED TO
URBAN ENVIRONMENT.



SUNSET PARK URBAN PLAN

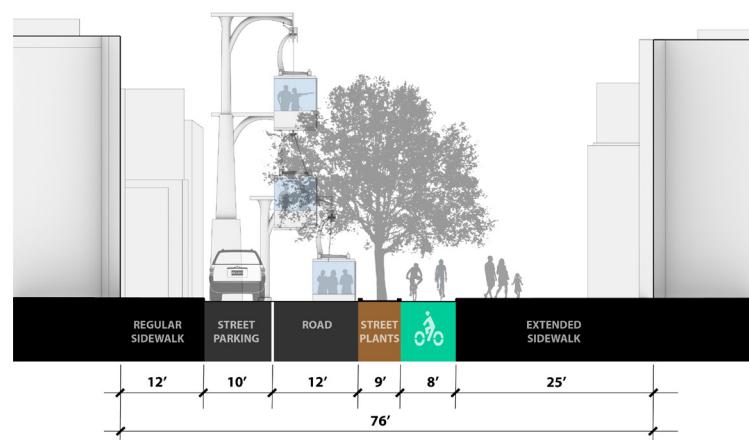
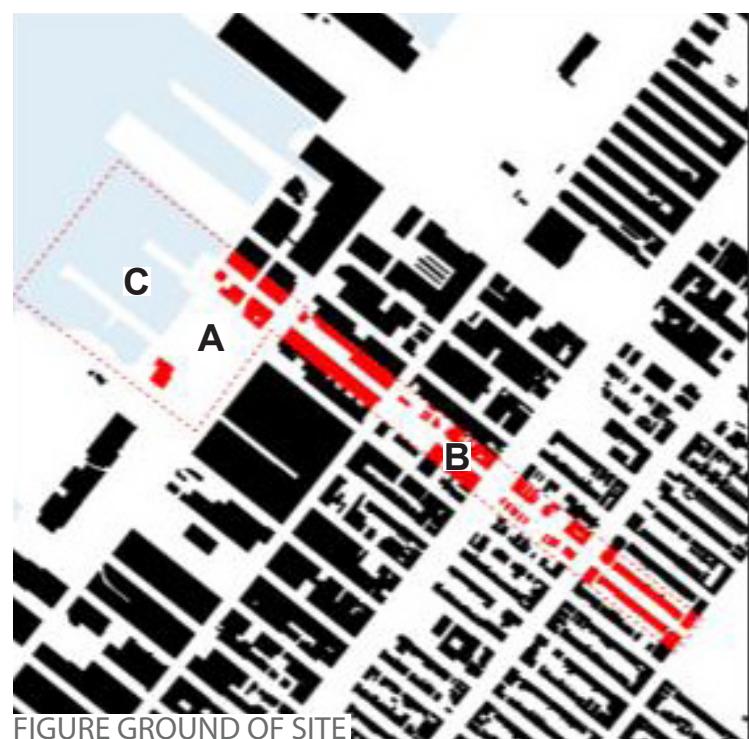
RHINO
ILLUSTRATOR
PHOTOSHOP

SUNSET PARK WATER FRONT

THIS PROJECT CONSISTING OF TWO PHASES LET US TO ANALYZE THE NEIGHBORHOOD OF SUNSET PARK AND TO FULLY UNDERSTAND WHAT IT TAKES TO SUCCESSFULLY PROPOSE A MASTER PLAN FOR THE SUNSET PARK WATER FRONT.

FIRST PHASE (SITE B) WAS TO ATTRACT TRAFFIC TO TRAVEL DOWN 43RD ST STARTING AT SUNSET PARK ENTRANCE TOWARDS NW TO THE WATER FRONT WHICH WE HAD TO PROPOSE A MASTER PLAN FOR THE WATER FRONT.

FOR THE SECOND PHASE (SITE A & C) WE HAD TO IMPLEMENT PROGRAM AND A PLAZA WHICH WOULD BE HIGHER THAN SEA LEVEL TO ALSO HAVE A SECOND FUCNTION IF WATER LEVELS EVER ROSE TOO HIGH.



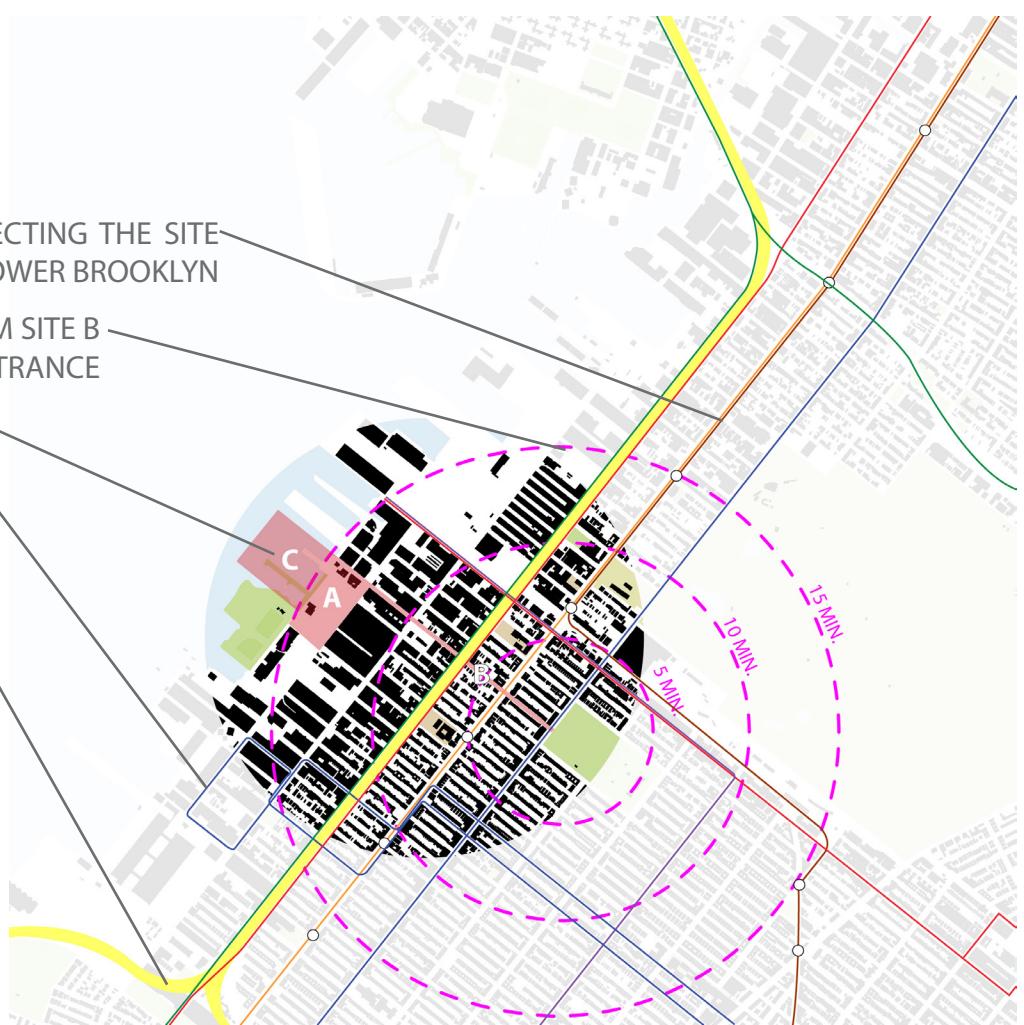
THREE TRAIN LINE CONNECTING THE SITE FROM MANHATTAN TO LOWER BROOKLYN

WALKING DISTANCES FROM SITE B AT SUN SET PARK ENTRANCE

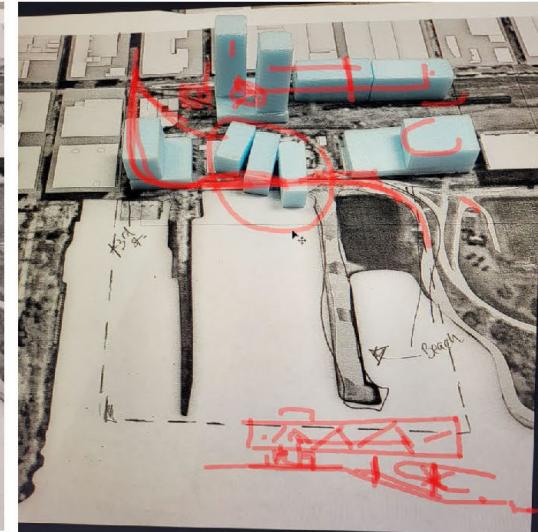
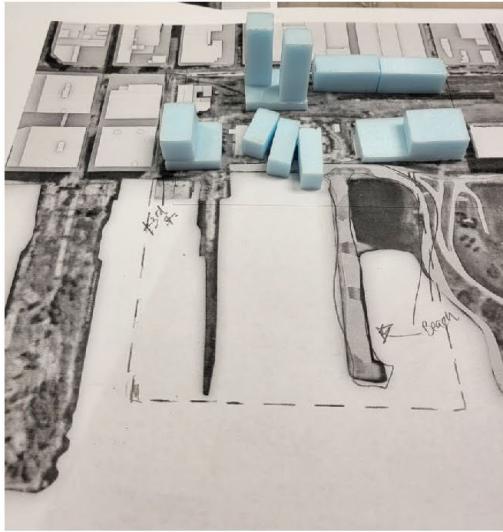
SECOND PART OF PROJECT SITE

A FEW BUS ROUTES RUNNING NEAR PROJECT SITE

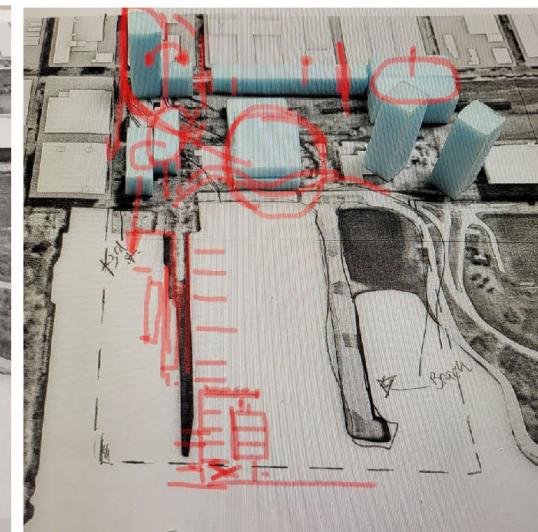
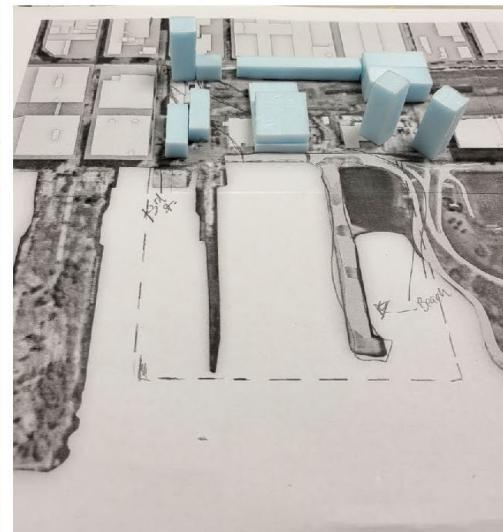
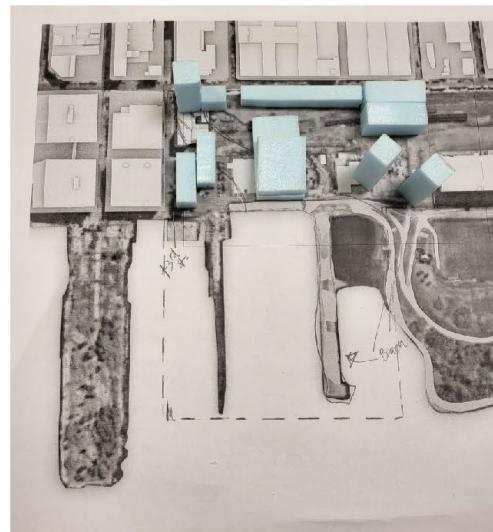
BELT PARKWAY – HIGHWAY PARALLEL & ABOVE 3RD AVE



MASSING PLACEMENT 1 - GENERLAL MASSING MODELS CUT TO SCALE TO GET A BETTER SENSE OF SCALE FOR OUR SITE



MASSING PLACEMENT 2





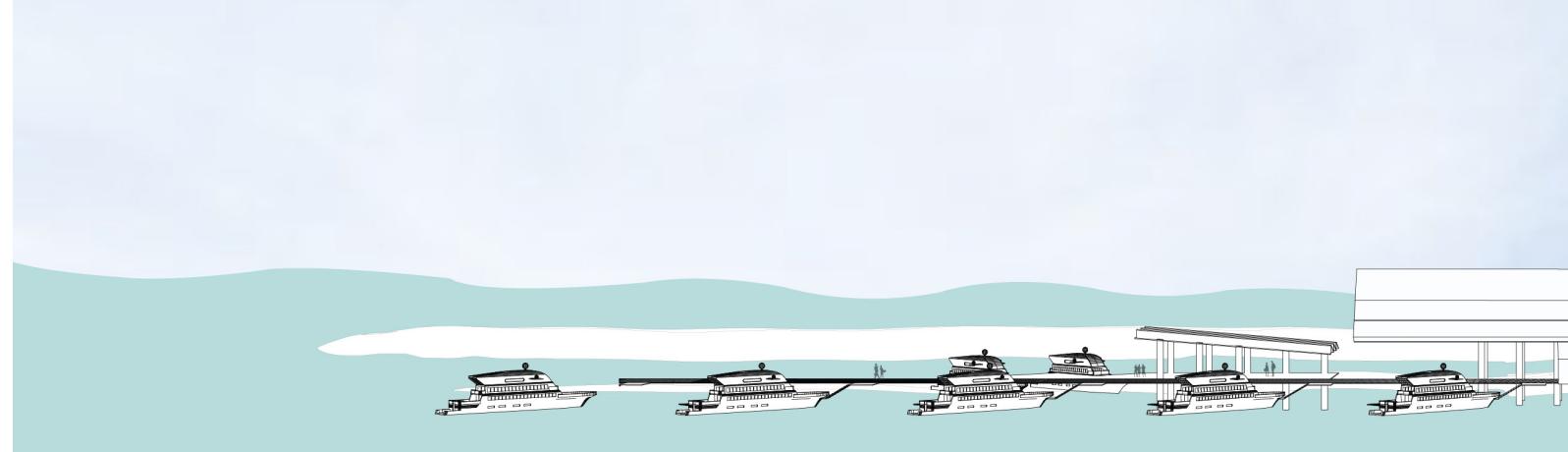
SITE FLOOR PLAN



LONG SECTION



SHORT SECTION



**USE: HOTEL WITH CLUB/RESTAURANT
ON ROOF TOP
SQ FOOTAGE: 60,000 SQ. FT.**

**USE: YACHT SCHOOL/MARINE
LIFE RESEARCH/NYC FERRY
TERMINAL
SQ FOOTAGE: 126,000 SQ. FT.**

**USE: ROOFTOP LOUNGE/
RESTAURANT
SQ FOOTAGE: 7,000 SQ. FT.**

**USE: SPORTS CENTER
SQ FOOTAGE: 5,800 SQ. FT.**

**USE: COMMUNITY
CENTER/RESTAURANT
SQ FOOTAGE: 37,000 SQ. FT.**

**USE: PERFORMACE & ART
CENTER
SQ FOOTAGE: 17,000 SQ. FT.**

**USE: OFFICE/AFFORDABLE
HOUSING/LEARNING
CENTER
SQ FOOTAGE: 74,000 SQ. FT.**



SITE RENDERINGS





ARCH4709 - ADVANCED 3D MODELING AND RENDERING
PROFESSOR BEITA
FALL 2021

CREATED CUSTOM MATERIALS IN 3DS MAX AND APPLIED THEM TO
THE AZUMA HOUSE BY TADAO ANDO & THE BARCELONA PAVILION
BY MIES VAN DER ROHE. USED THE BARCELONA PAVILION MODEL IN
LUMION TO EXPLORE A DIFFERENT RENDERING SOFTWARE.

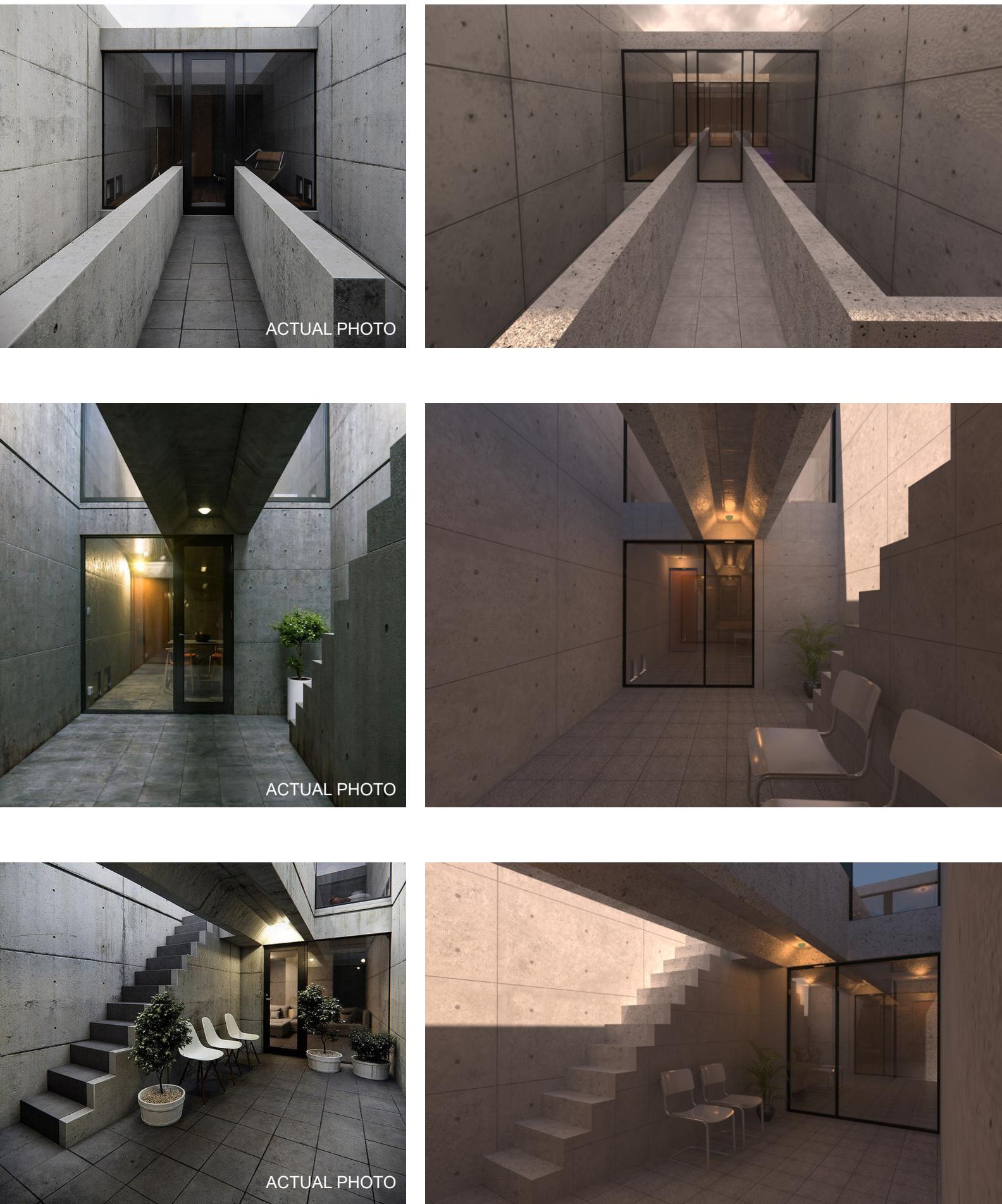


RENDERINGS

3DS MAX

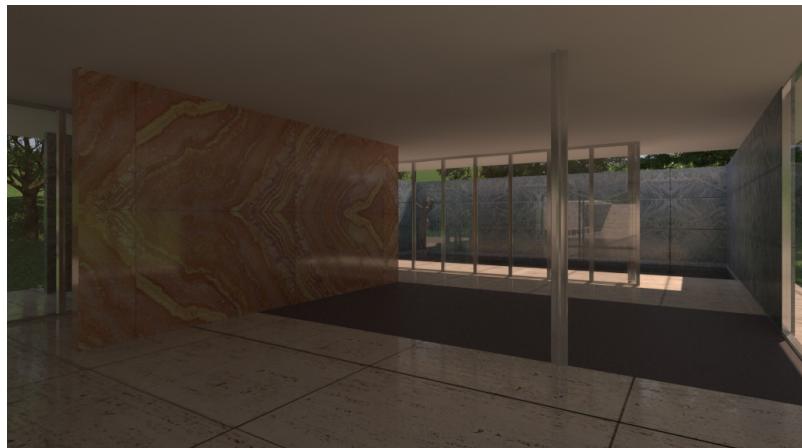
LUMION

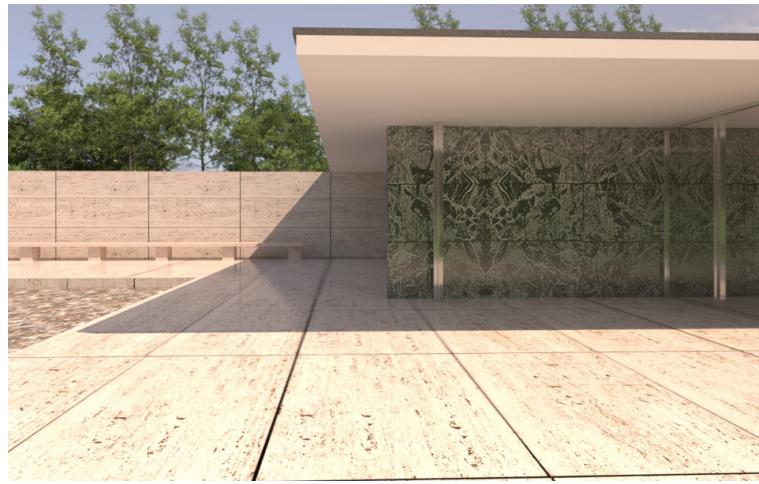
3DS MAX- AZUMA HOUSE





3DS MAX- BARCELONA PAVILION

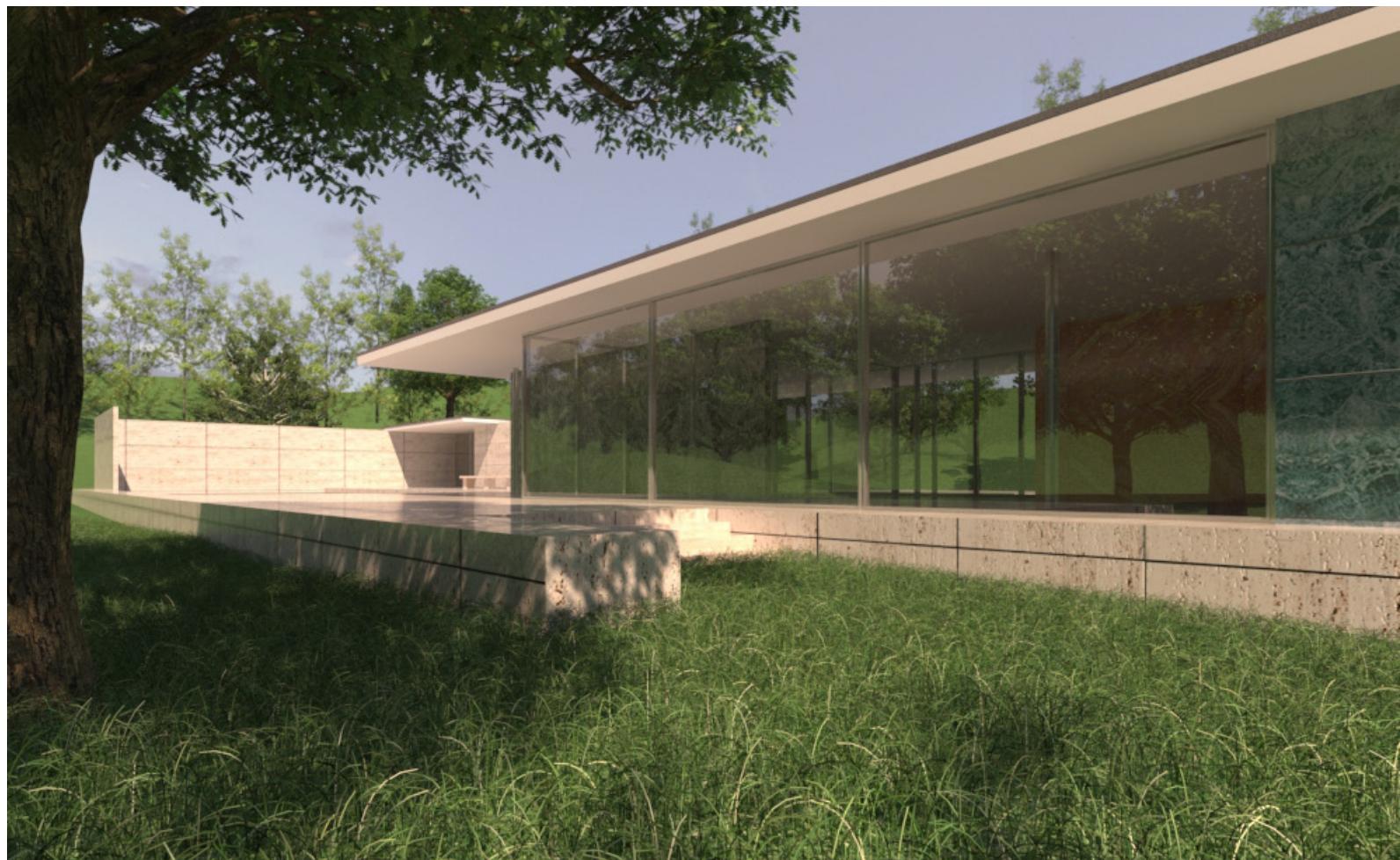




ACTUAL PHOTO



ACTUAL PHOTO



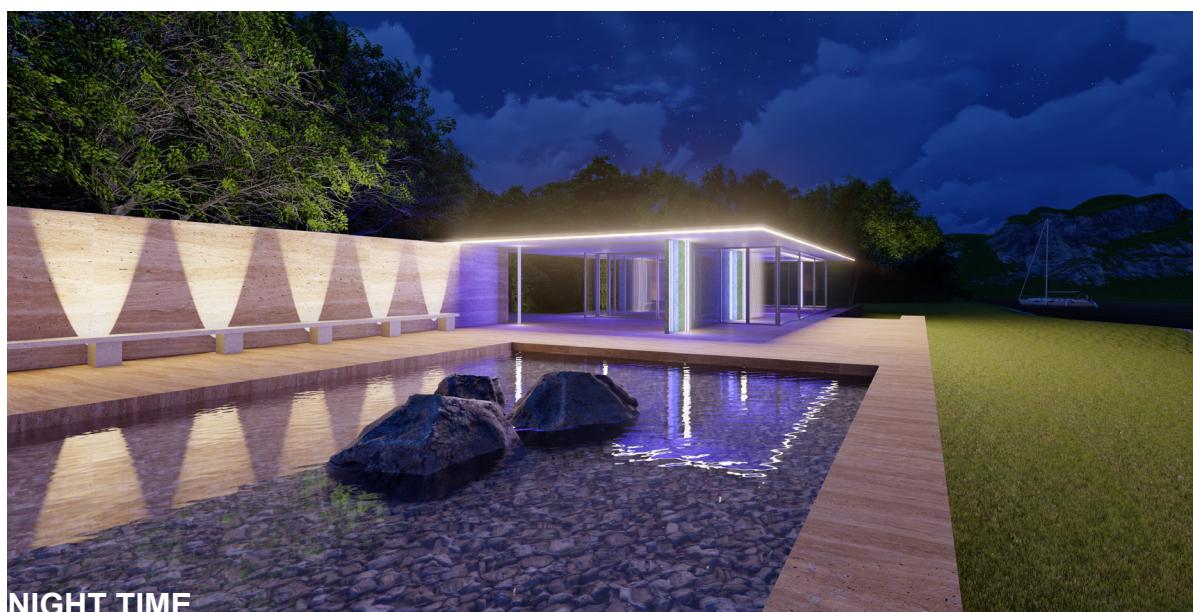
LUMION - BARCELONA PAVILION



DAY TIME



EVENING TIME



NIGHT TIME

