



Liran Bromberg

# A CIVIC CITY CENTRE

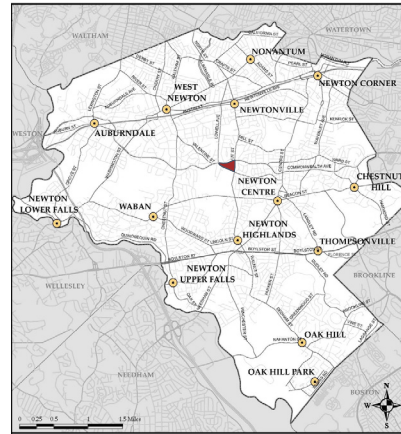
Advisor: Robert Nalls



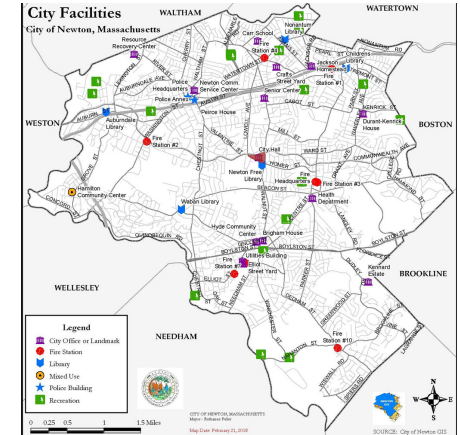
# RESEARCH



NEWTON CONTEXTUAL MAP<sup>1</sup>



NEWTON VILLAGES<sup>2</sup>



NEWTON CITY FACILITIES<sup>3</sup>

NEWTON IS COMPOSED OF 13 DISTINCT VILLAGE CENTERS, EACH WITH THEIR OWN MAIN STREETS, RETAIL AREAS, AND CULTURAL CONTEXT. THE CITY HALL, BY CONTRAST, IS GEOGRAPHICALLY CENTRALIZED WITHIN THE CITY BUT LACKS ANY CULTURAL CONTEXT TO GIVE IT MEANING. THE MAIN PURPOSE OF THIS PROJECT IS TO CULTIVATE THE AREA AROUND CITY HALL TO CREATE A 14TH CIVIC- FOCUSED CITY CENTER

HISTORICAL SKATING AT BULLOUGH'S POND<sup>4</sup>



HISTORICAL SITE PHOTOGRAPH<sup>5</sup>



RECEIVED FROM CURTIS WRIGHT, OCTOBER, 1932

1064-234



# RESEARCH

THE SITE HAS LOTS OF AREAS OF OPPORTUNITY FROM WHICH TO DRAW. AN EXISTING LIBRARY, BUILT IN 1991 PROVIDES A GOOD STARTING POINT AND THE MANY BODIES OF WATER, BOTH CULTURALLY SIGNIFICANT AND ARCHITECTURALLY SIGNIFICANT, HELP TO BEGIN SHAPING THE SITE.

ULTIMATELY, THE MASSING I DECIDED TO USE PLACES A CULTURAL BUILDING AT EACH OF THE CORNERS OF THE SITE. THIS WAY, EACH OF THE PUBLIC SPACES AROUND THE SITE CAN HAVE A DIFFERENT MOOD DEPENDING ON THE SURROUNDING CONTEXT WHILE NEVER LOSING SIGHT OF THE CITY HALL AS THE CENTRAL FOCAL POINT.



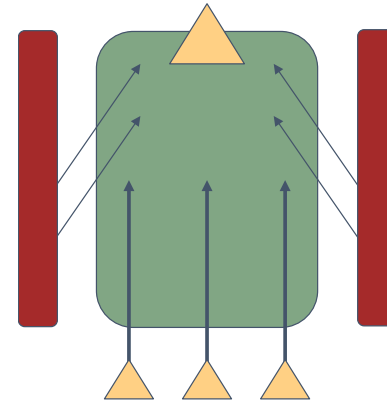
# RESEARCH

RATHER THAN LOOKING AT SPECIFIC BUILDING PRECEDENTS, I USED MY PRECEDENT STUDIES TO INVESTIGATE DIFFERENT STRATEGIES AROUND THE WORLD FOR ORGANIZING PUBLIC SPACE AROUND A CENTRAL CIVIC STRUCTURE.

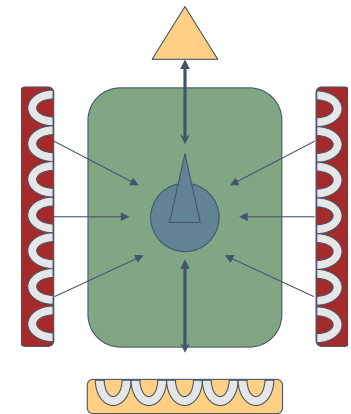
WHAT I FOUND IS THAT THE NATURE OF THE PUBLIC SPACE IS DEFINED BY THE CHARACTER OF THE CONTEXTUAL BUILDINGS WHILE THE ORIENTATION OF FOCUS REMAINS LARGELY ON THE CIVIC FOCAL POINT. I USED THIS STRATEGY TO CREATE A SERIES OF VIGNETTE PUBLIC SPACES EACH WITH THEIR OWN UNIQUE CONTEXT AND THEREFORE CHARACTER.



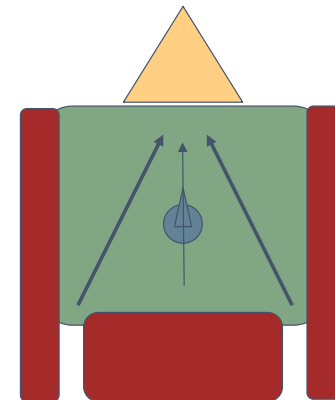
TOWN GREEN, DOUGLAS, MA<sup>8</sup>



CENTRAL PLAZA, CARTAGENA, COLOMBIA<sup>9</sup>



MAIN SQUARE, KRAKOW, POLAND<sup>10</sup>





# RESEARCH

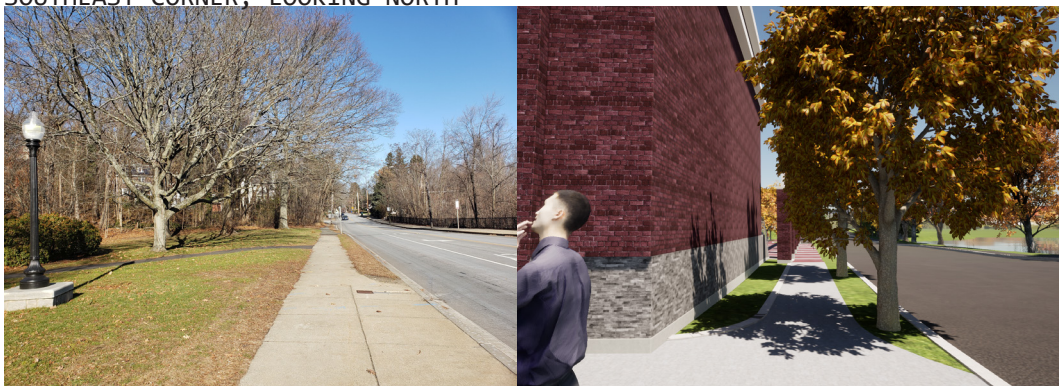
ARTS CORRIDOR PATH, LOOKING EAST



ARTS CORRIDOR PATH, LOOKING WEST



SOUTHEAST CORNER, LOOKING NORTH



THE RESEARCH PHASE OF THE PROJECT WAS ONE OF THE MOST INTENSE PIECES. I TOOK MANY TRIPS TO THE SITE BOTH TO GETHER THOUSANDS OF PHOTOS IN A VARIETY OF SEASONAL CONDITIONS AS WELL AS TO CONDUCT INTERVIEWS WITH CITY OFFICIALS WHO WORK ON THE SITE EVERY DAY AND KNOW WHAT THE CITY IS IN MOST NEED OF. THE MOST INFLUENTIAL INTERVIEW WAS WITH NEWTON'S DIRECTOR OF CULTURAL DEVELOPMENT, WHO LAID OUT THE SPECIFICS OF WHAT PERFORMANCE SPACES WERE NEEDED.

MY RESEARCH ALSO BROUGHT ME TO THE OLMSTED ARCHIVES IN BROOKLINE, MA TO UNDERSTAND THE HISTORICAL LANDSCAPING AS WELL AS TO THE LIBRARY OF CONGRESS IN WASHINGTON, DC TO GET CORRESPONDENCES BETWEEN THE LANDSCAPERS AND THE CITY REGARDING THEIR WISHES FOR THE SITE.



# PROCESS DRAWINGS

ONE OF THE LARGEST SITE CONCERNS THAT I HAD TO FIRST ADDRESS WAS PARKING. THE SITE IS ALREADY ONE OF THE MOST PARKING-SPARSE PORTIONS OF THE CITY AND INTRODUCING NEW PUBLIC PROGRAMMING WITHOUT ADDRESSING THE PARKING WAS AN IMPOSSIBILITY.

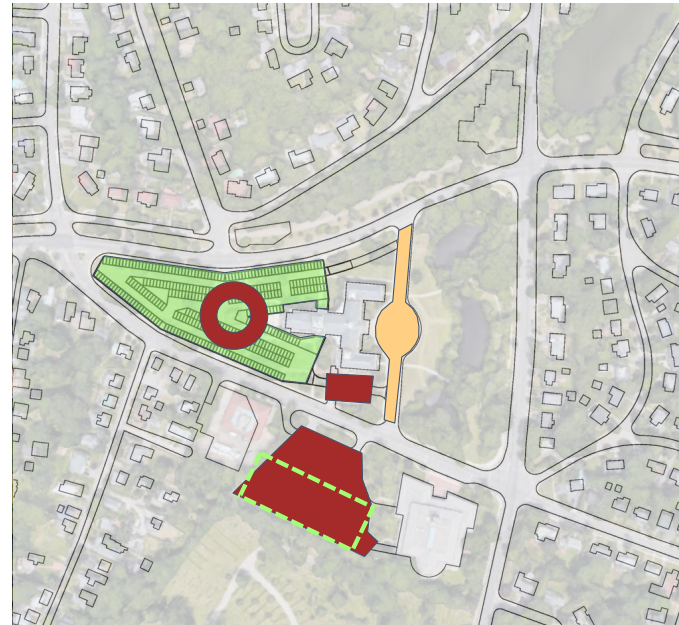


PROPOSED ELIMINATED PARKING  
**226**

LIKELY ELIMINATED STREET PARKING  
**46**

PROPOSED ADDITIONAL PARKING  
**336**

I THEREFORE DEvised A SCHEME WHERE THE PARKING COULD BE PLACED UNDERGROUND BENEATH THE WESTERN PORTION OF THE SITE. THIS WOULD MORE THAN MAKE UP FOR THE REMOVAL OF NEARLY ALL SURFACE PARKING ON THE SITE AND WOULD ALSO PROVIDE A CENTRAL POINT FROM WHICH ALL AREAS OF THE SITE ARE ACCESSIBLE. I ALSO INDICATED AN APPROPRIATE PLACE FOR AN ADDITIONAL ABOVE-GROUND PARKING STRUCTURE IF IT WERE NEEDED IN A PLACE THAT WOULD NOT COMPROMISE THE CHARACTER OF THE SOUTHERN PORTION OF THE SITE.



PROPOSED PARKING PLAN



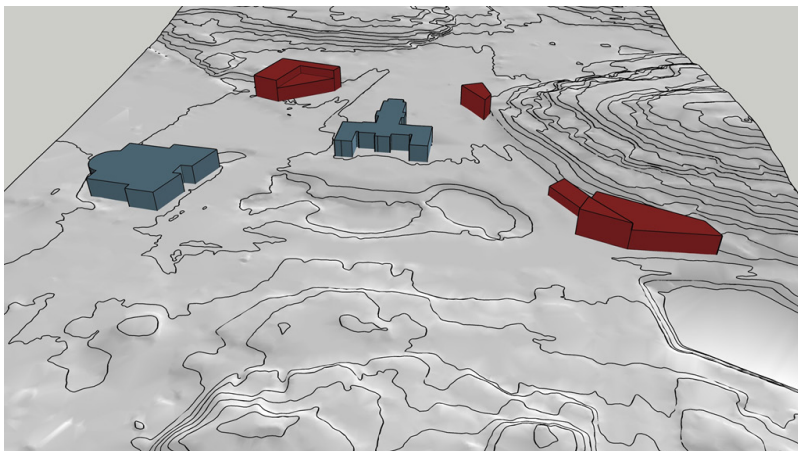
PROPOSED UNDERGROUND PARKING LAYOUT



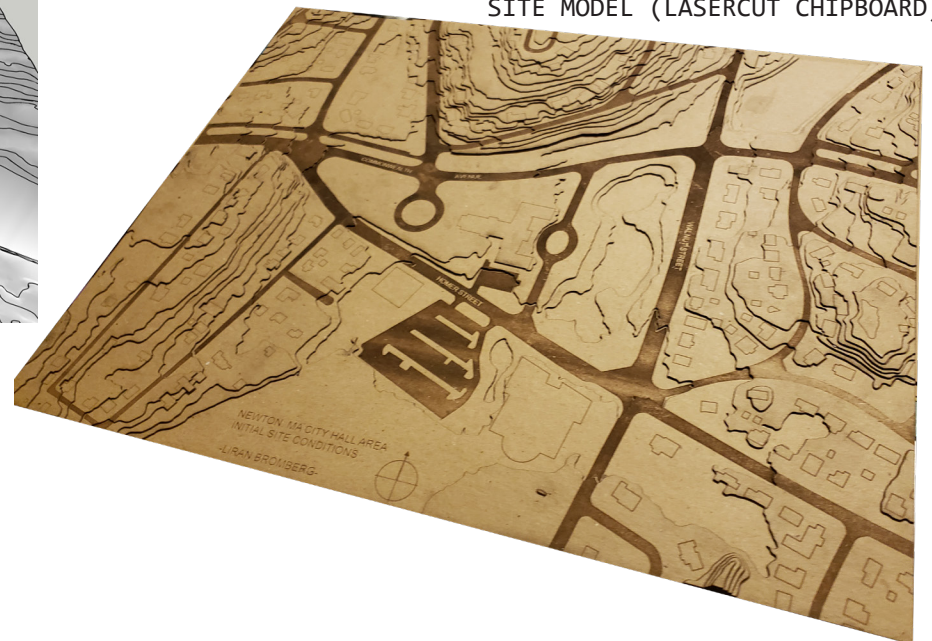
# PROCESS DRAWINGS



VIEW OF ARTS CORRIDOR (REVIT & TWINMOTION)



INITIAL MASSING CONCEPT (AUTOCAD & SKETCHUP)



SITE MODEL (LASERCUT CHIPBOARD)

THIS PROJECT USED MANY DIFFERENT MEDIA AT DIFFERENT POINTS USED FOR BOTH DESIGN AND FOR PRESENTATION INCLUDING PHYSICAL MODELS AND DRAWINGS, AUTOCAD, SKETCHUP, REVIT, AND TWINMOTION



# DESIGN REVIEW



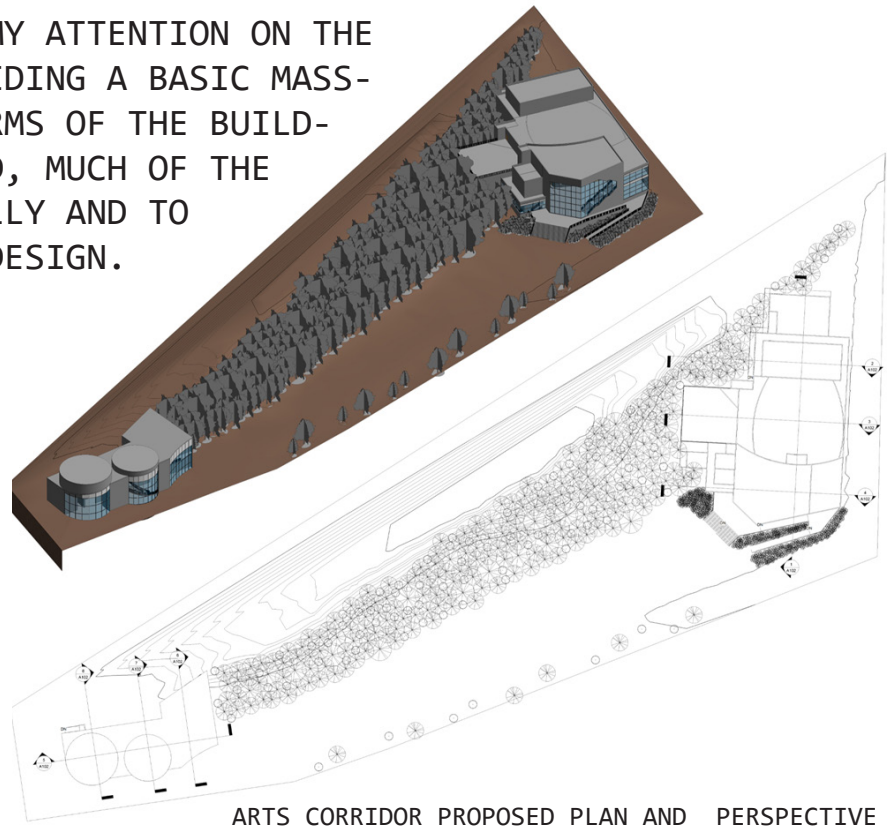
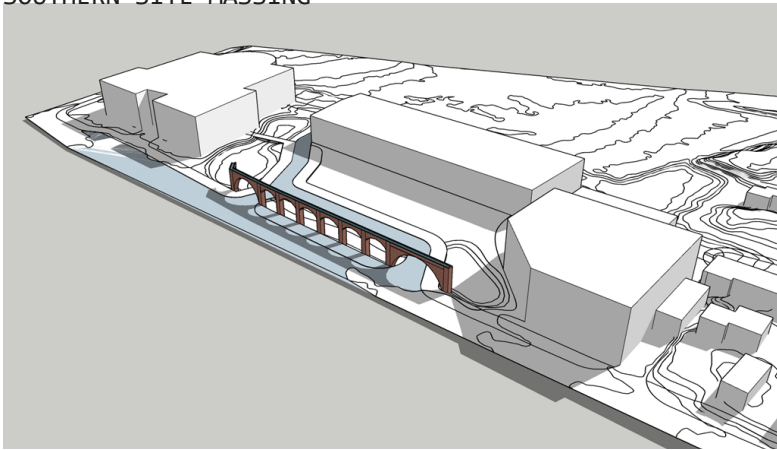
ARTS CORRIDOR EXISTING ELEVATION PHOTO COLLAGE

ARTS CORRIDOR PROPOSED ELEVATION



IN MY INITIAL DESIGN REVIEW, I FOCUSED MY ATTENTION ON THE NORTHERN PORTION OF THE SITE, ONLY PROVIDING A BASIC MASSING FOR THE SOUTHERN HALF. WHILE THE FORMS OF THE BUILDINGS WERE LATER ALMOST ENTIRELY SCRAPPED, MUCH OF THE PROGRAMMATIC RELATIONSHIPS BOTH INTERNALLY AND TO THE SITE REMAIN CONSISTENT TO MY FINAL DESIGN.

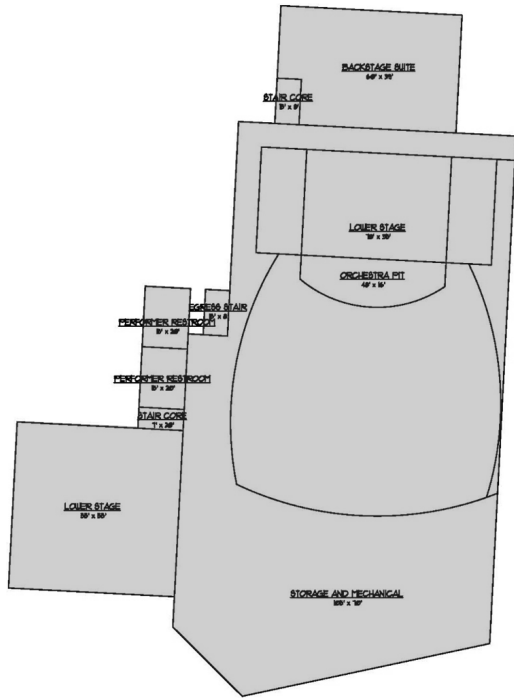
SOUTHERN SITE MASSING



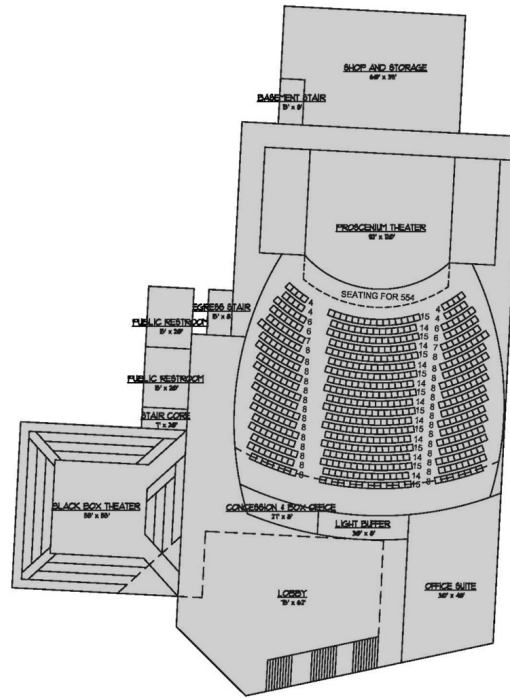
ARTS CORRIDOR PROPOSED PLAN AND PERSPECTIVE



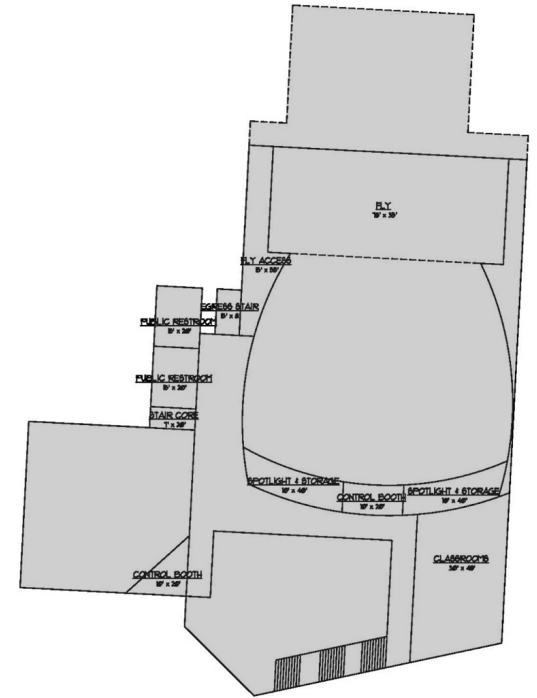
# DESIGN REVIEW



BASEMENT PLAN

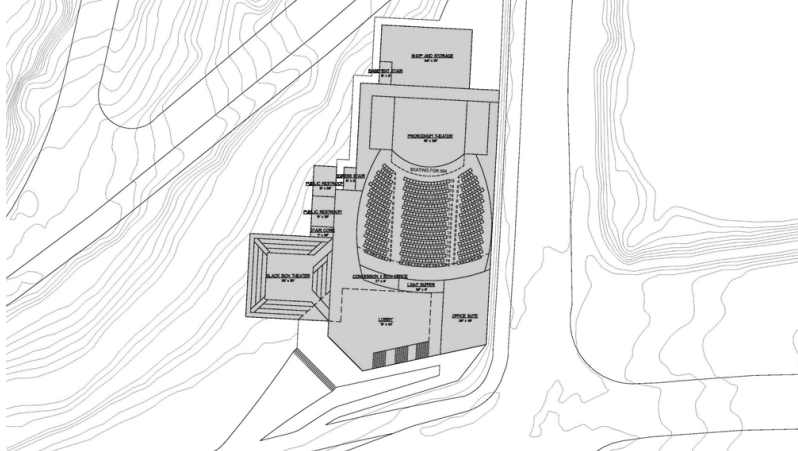


LEVEL 1 PLAN

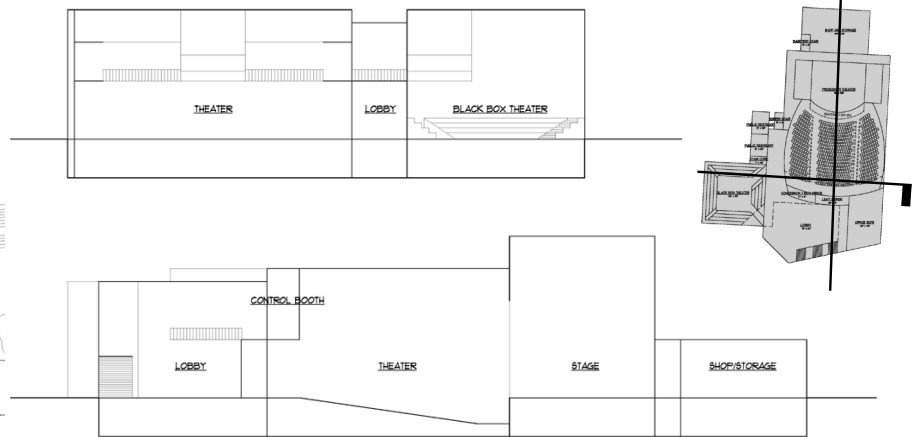


LEVEL 2 PLAN

PERFORMING ARTS CENTER SITE AND GROUND FLOOR

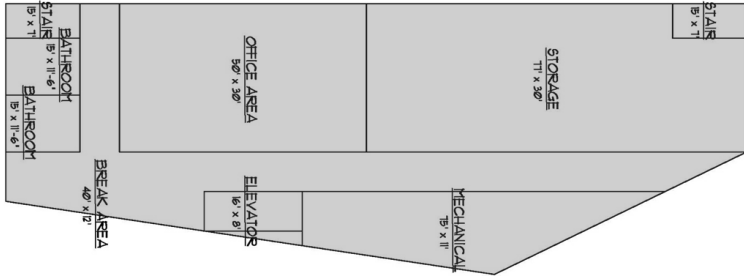


PERFORMING ARTS CENTER SECTIONS

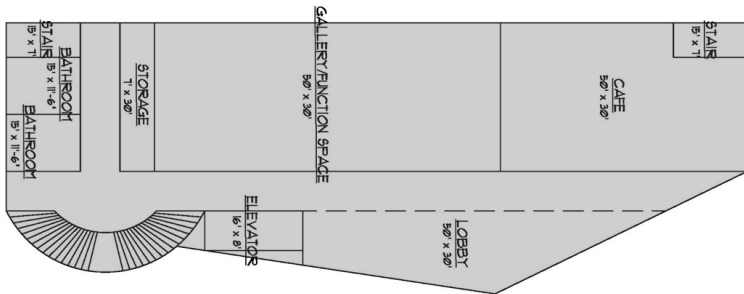




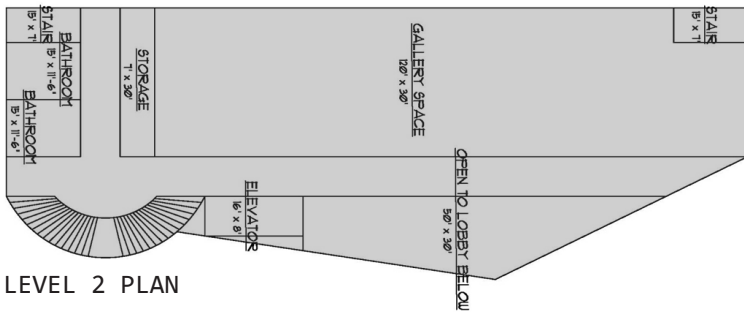
# DESIGN REVIEW



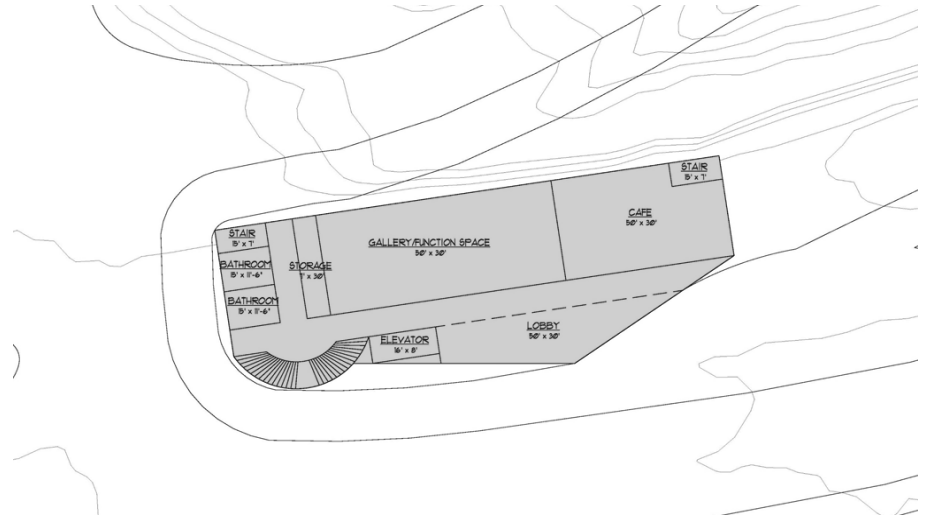
BASEMENT PLAN



LEVEL 1 PLAN

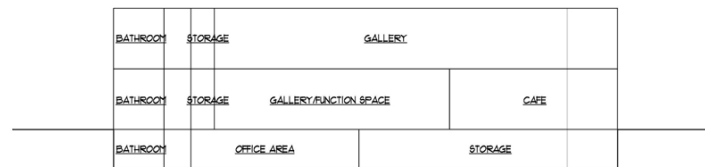
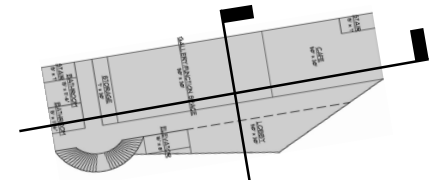
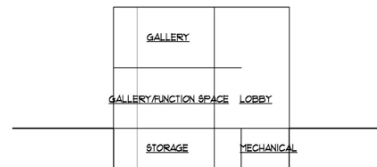


LEVEL 2 PLAN



GALLERY SITE AND GROUND FLOOR

GALLERY SECTIONS

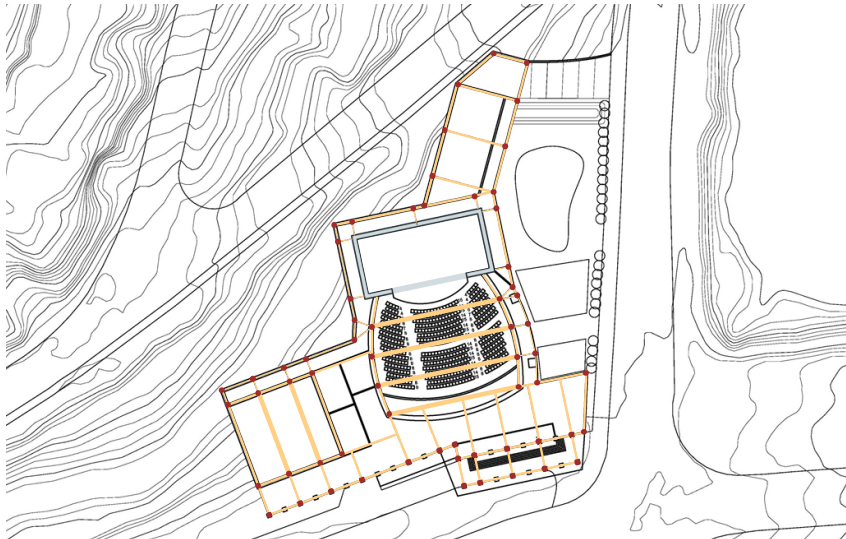




# TECHNICAL REVIEW

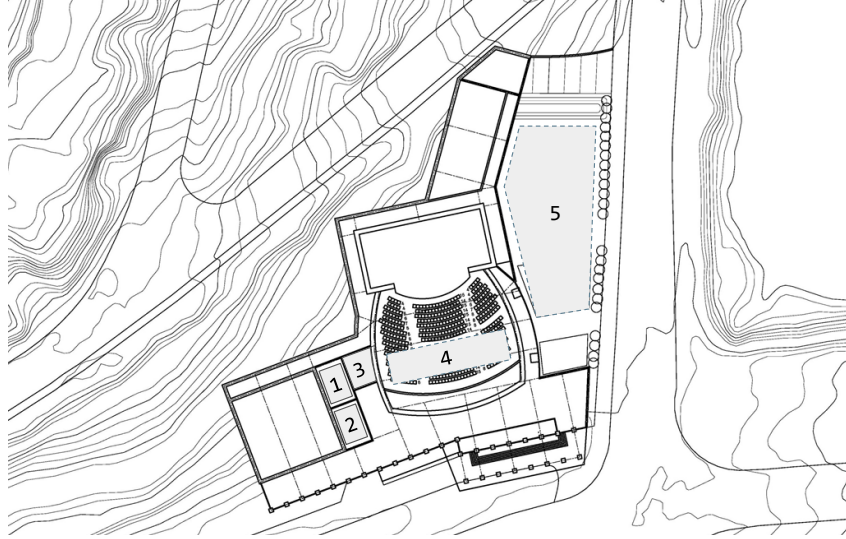
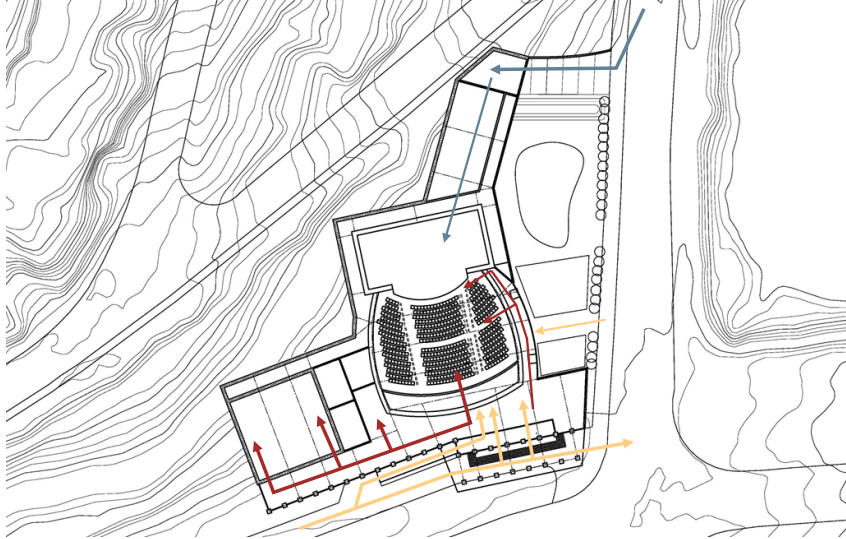
BY THE TIME OFF THE TECHNICAL REVIEW, THE MASSING OF THE BUILDINGS IS A LOT CLOSER TO MY FINAL DESIGN. THROUGH WORKING ON THE TECHNICAL SYSTEMS, I WAS ABLE TO FURTHER SHAPE MY BUILDINGS. THE MAJOR CHALLENGES IN THE PERFORMING ARTS CENTER WERE THE LARGE SPANS ACROSS THE THEATER AS WELL AS HOW TO ADDRESS COOLING SUCH A LARGE VOLUME. THE SPANS WERE ADDRESSED THROUGH A SERIES OF LARGE TRUSSES WHILE THE COOLING WAS SOLVED THROUGH THE USE OF A CHILLED WATER SYSTEM SUPPLIED BY THE NEARBY SKATING POND.

- 1. SUPPLY
- 2. EXHAUST
- 3. VERTICAL ACCESS
- 4. AIR HANDLERS AND CHILLERS
- 5. CHILLED WATER STORAGE



PERFORMING ARTS CENTER STRUCTURAL DIAGRAM

LEFT: PERFORMING ARTS CENTER CIRCULATION DIAGRAM  
 RIGHT: PERFORMING ARTS CENTER HVAC DIAGRAM

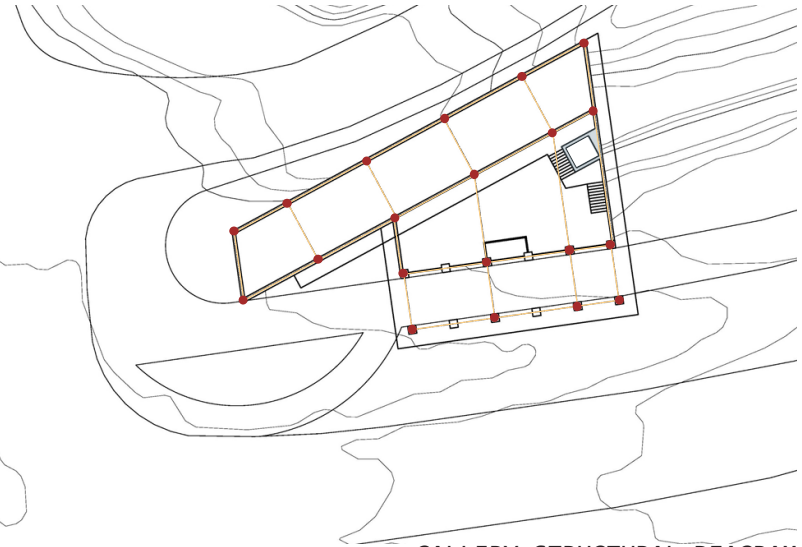




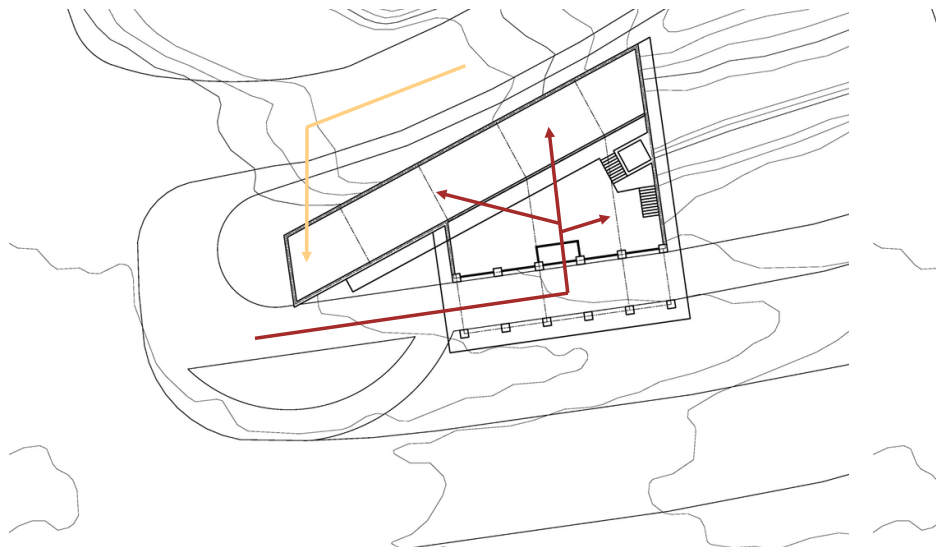
# TECHNICAL REVIEW

THE GALLERY BUILDING BY CONTRAST WAS A LOT MORE STRAIGHT FORWARD IN ALL TECHNICAL ASPECTS. FOR THIS REASON, I DETERMINED THAT MY MAIN FOCUS GOING FORWARD WOULD BE THE MORE COMPLEX PERFORMING ARTS CENTER WHILE THE GALLERY WOULD PLAY A SECONDARY ROLE AND PROVIDE ADDITIONAL CONTEXT OFF OF WHICH I COULD DRAW.

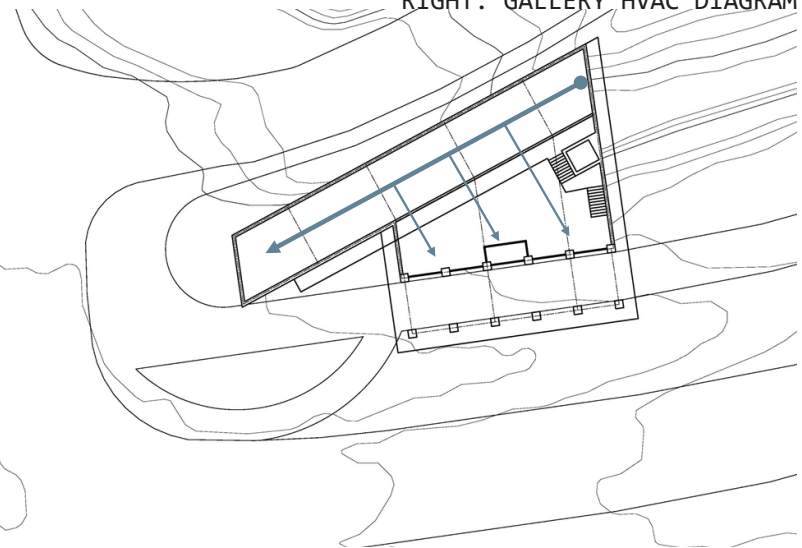
THE MAIN CONCEPTION OF THE GALLERY BUILDING IS THAT IT IS GOVERNED BY TWO FORCES, THE PATH AND THE CITY HALL. USING THESE TWO FORCES AS A STARTING POINT, I WAS ABLE TO LAY OUT STRUCTURAL AND MECHANICAL SYSTEMS THAT INTEGRATED THESE FORCES INTO THEIR DESIGN.



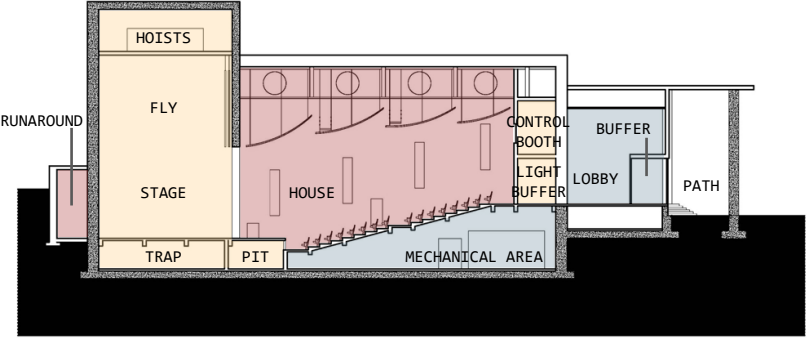
GALLERY STRUCTURAL DIAGRAM



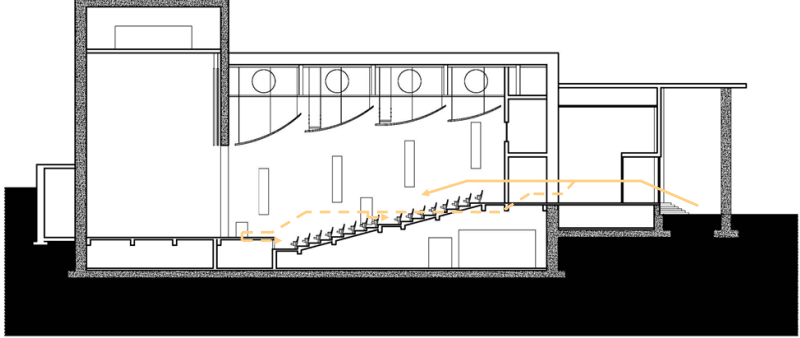
LEFT: GALLERY CIRCULATION DIAGRAM  
RIGHT: GALLERY HVAC DIAGRAM



# TECHNICAL REVIEW

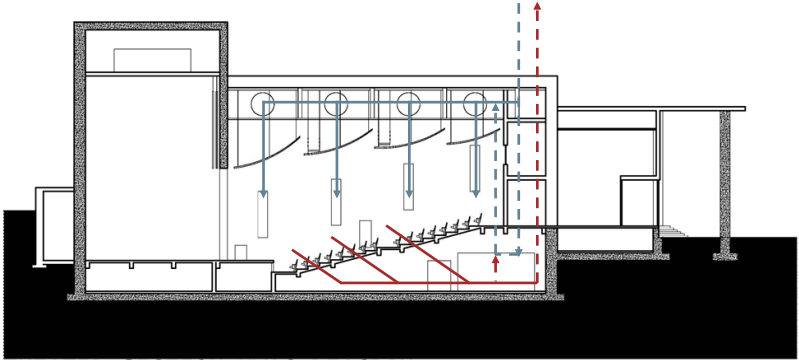


THEATER SECTION PROGRAM

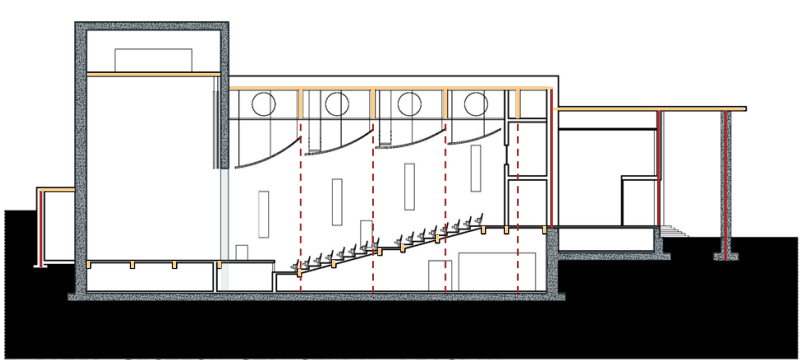


THEATER SECTION CIRCULATION DIAGRAM

THE LARGEST PORTION OF MY FOCUS DURING THIS PART OF THE PROJECT WAS ON THE PRO-SCENIUM THEATER IN THE PERFORMING ARTS CENTER. EACH OF THE DIFFERENT SYSTEMS WITHIN IT FROM PROGRAM AND CIRCULATION TO STRUCTURE AND MECHANICAL HAD TO WORK AROUND AND IN CONCERT WITH EACH OTHER TO CREATE A VIABLE SPACE. EVENTUALLY, THIS DESIGN BEGAN TO TAKE SHAPE WHICH BECAUSE OF ITS FUNDIMENTAL RELATIONSHIP TO THE BUILDING AT LARGE, REMAINED LARGELY UNCHANGED THROUGH TO THE FINAL DESIGN.



THEATER SECTION HVAC DIAGRAM



THEATER SECTION STRUCTURAL DIAGRAM



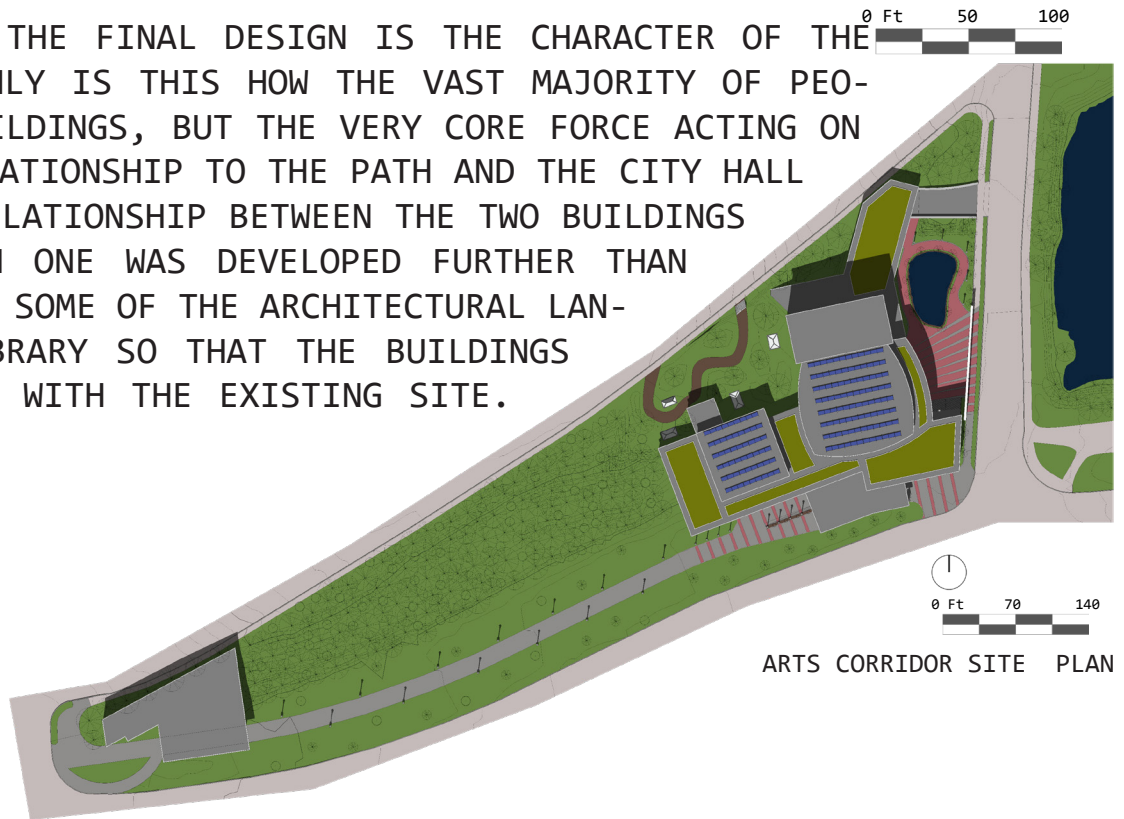
# FINAL REVIEW



ARTS CORRIDOR ELEVATION

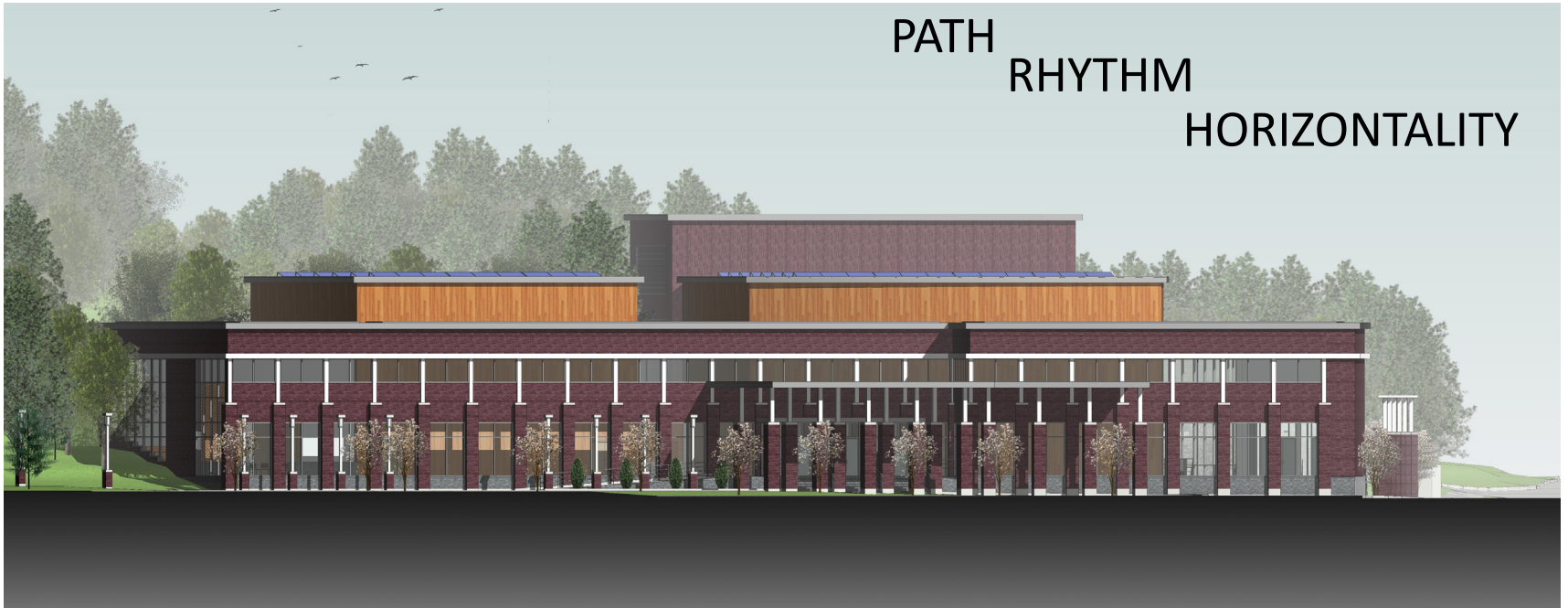
THE MOST IMPORTANT PART OF THE FINAL DESIGN IS THE CHARACTER OF THE SITE ALONG THE PATH. NOT ONLY IS THIS HOW THE VAST MAJORITY OF PEOPLE WILL EXPERIENCE THE BUILDINGS, BUT THE VERY CORE FORCE ACTING ON THESE BUILDINGS IS THEIR RELATIONSHIP TO THE PATH AND THE CITY HALL BEYOND. BY EXTENSION, THE RELATIONSHIP BETWEEN THE TWO BUILDINGS IS ALSO IMPORTANT, ALTHOUGH ONE WAS DEVELOPED FURTHER THAN THE OTHER. I DECIDED TO DRAW SOME OF THE ARCHITECTURAL LANGUAGE FROM THE EXISTING LIBRARY SO THAT THE BUILDINGS WOULD FIT WELL TOGETHER AND WITH THE EXISTING SITE.

ON-SITE PRECEDENT



# FINAL REVIEW

PATH  
RHYTHM  
HORIZONTALITY



SOUTH ELEVATION



EAST ELEVATION

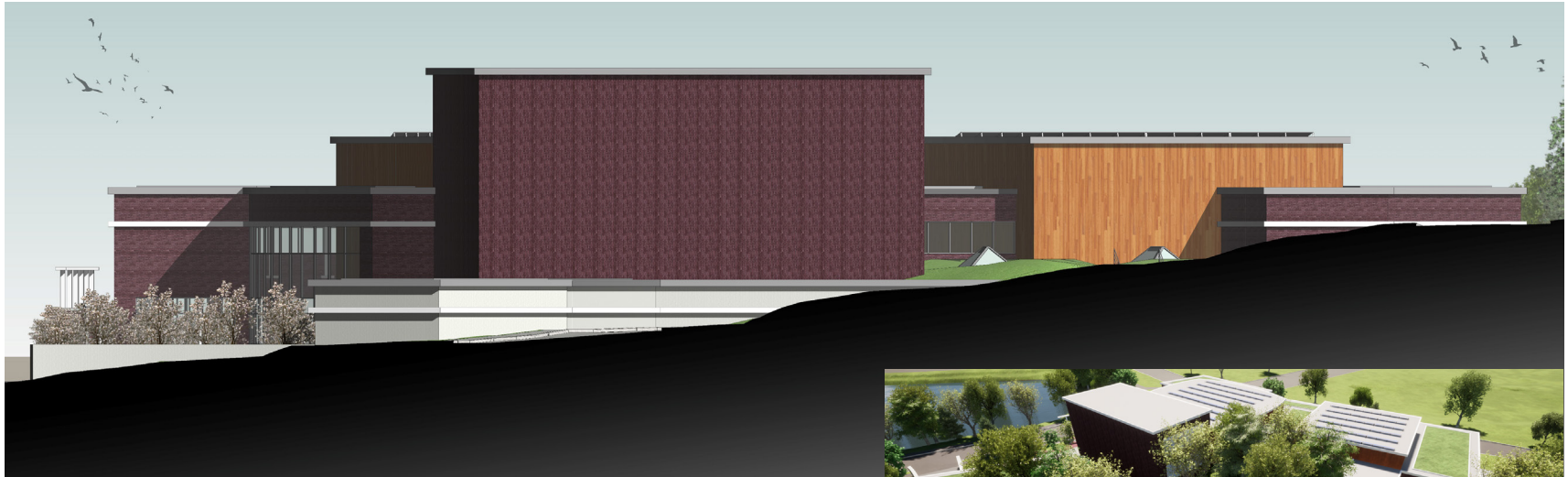
PROSPECT VS REFUGE  
PASTORAL VS PICTURESQUE



EACH FACE OF THE BUILDING REFLECTS THE DIFFERENT CHARACTER OF THE ADJACENT SITE. THE SOUTHERN AND EASTERN FACES ARE THE PRIMARY FOCAL POINTS, BUT THE NORTHERN AND WESTERN FACES EACH REFLECT A SPECIFIC CHARACTER AS WELL.



# FINAL REVIEW



NORTH ELEVATION



NORTHERN PERSPECTIVE



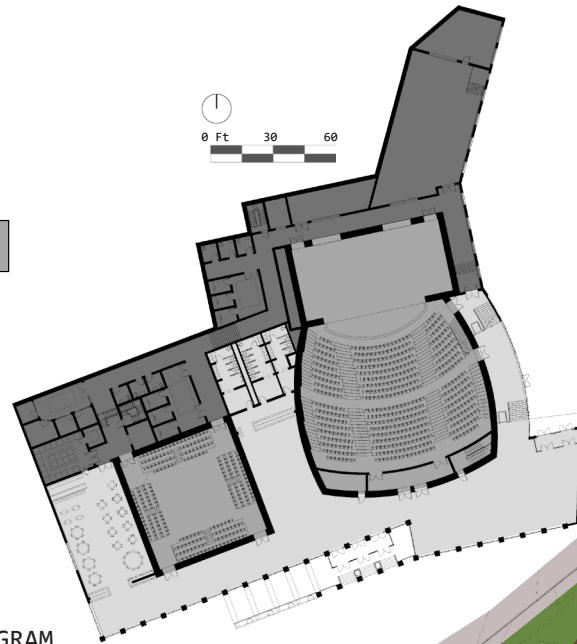
WEST ELEVATION



PRIVATE

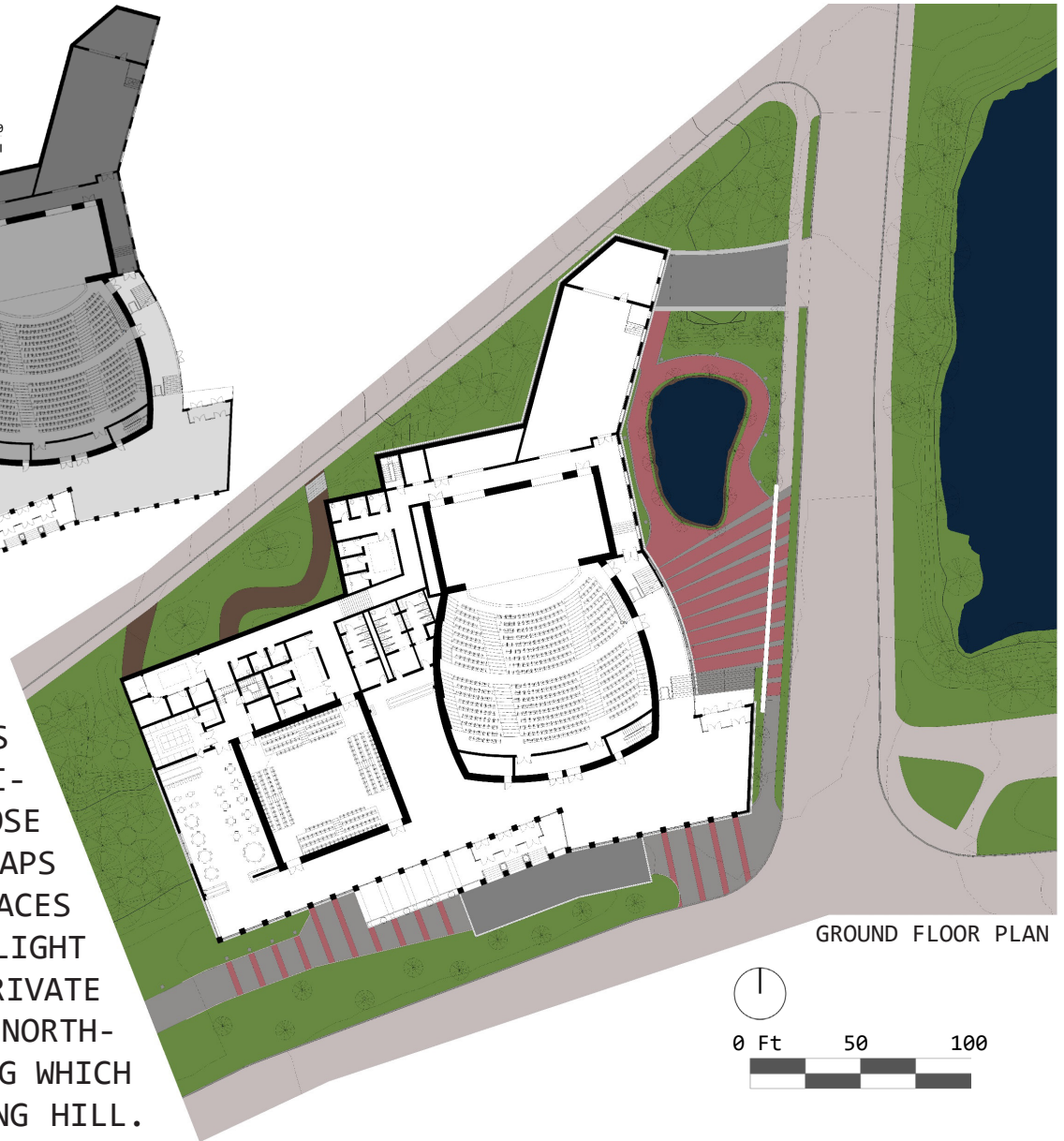
SEMI-PUBLIC

PUBLIC



GROUND FLOOR DIAGRAM

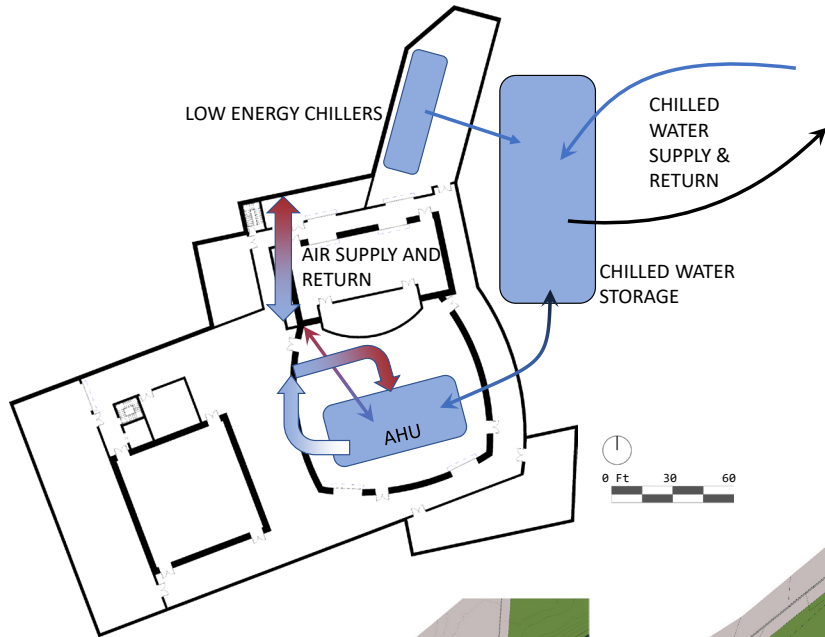
THE MAIN LEVEL OF THE BUILDING IS DEFINED BY THE TWO SEMI-PUBLIC THEATER MASSES AND HOW THE PUBLIC AND PRIVATE SPACES WRAP AROUND THOSE CORES. THE PUBLIC SPACE WRAPS THE SOUTHERN AND EASTERN FACES WHERE THERE IS ACCESS TO LIGHT AND TO THE PUBLIC. THE PRIVATE SPACES ARE CONFINED TO THE NORTHERN PORTIONS OF THE BUILDING WHICH IS BURRIED UNDER THE EXISTING HILL.



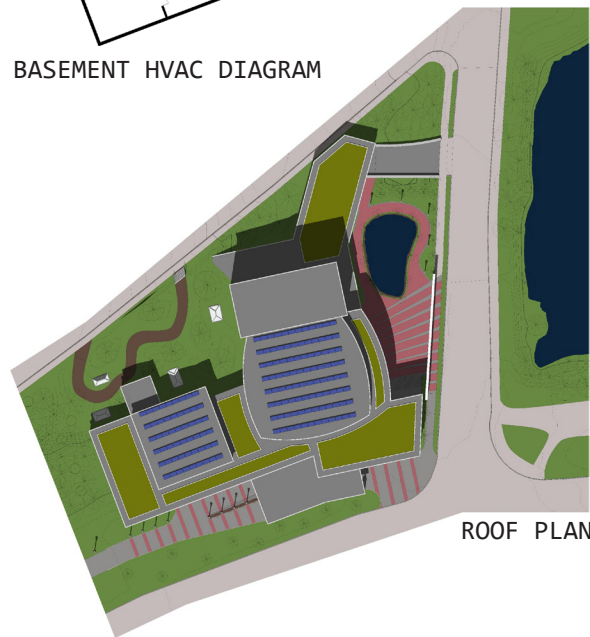
GROUND FLOOR PLAN



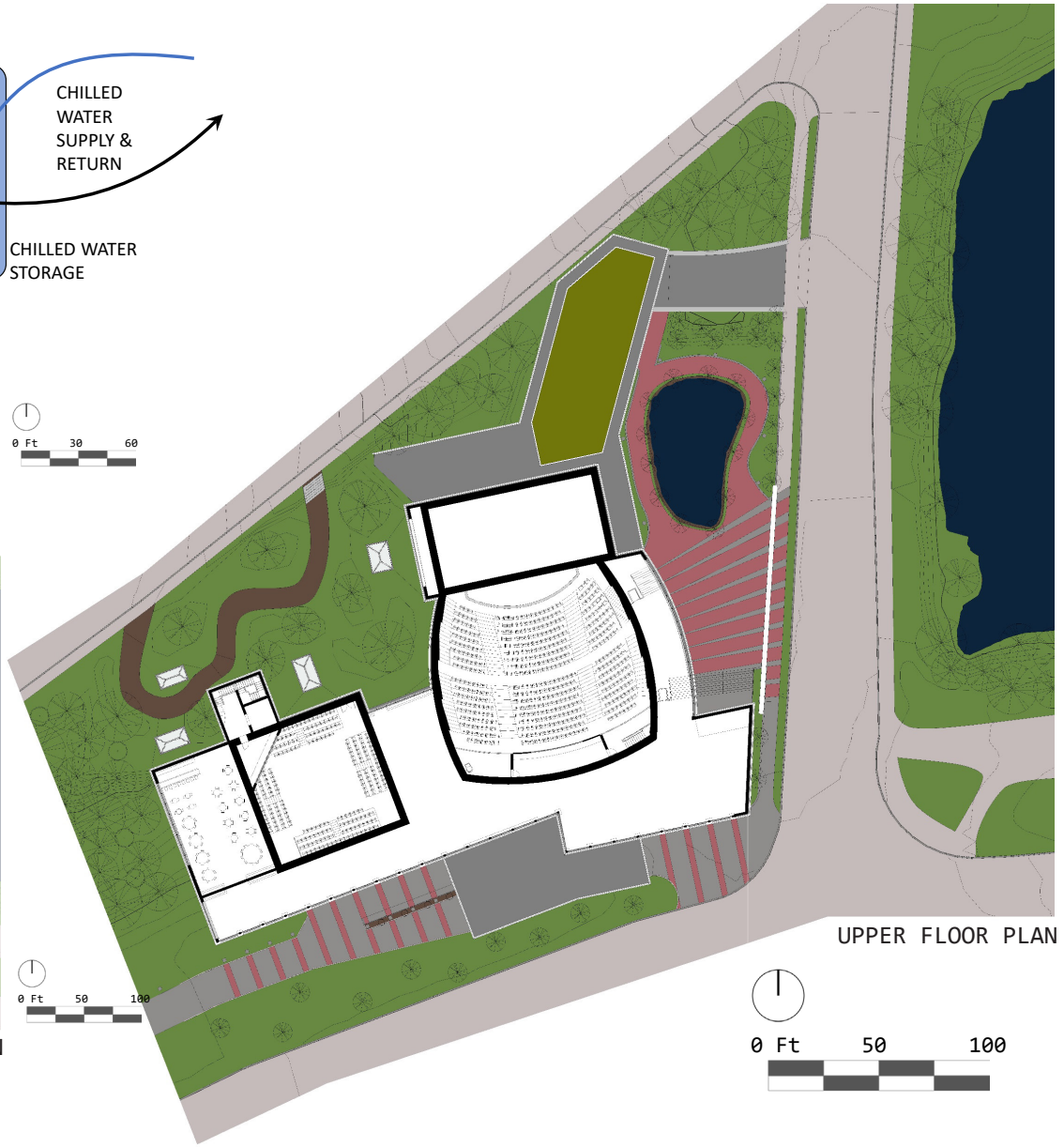
# FINAL REVIEW



BASEMENT HVAC DIAGRAM



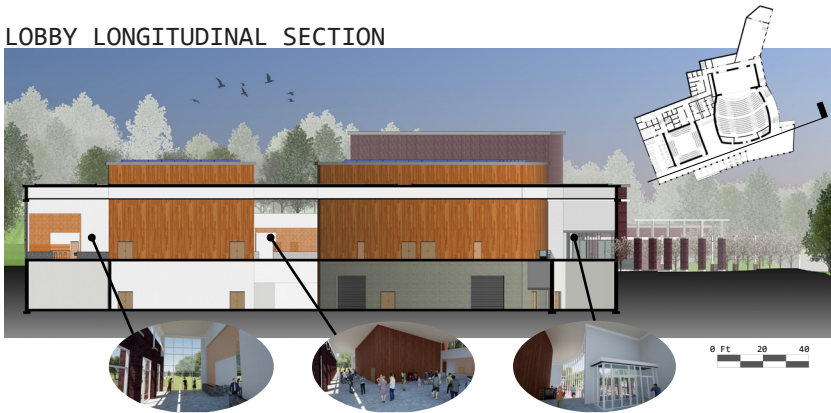
ROOF PLAN



UPPER FLOOR PLAN

# FINAL REVIEW

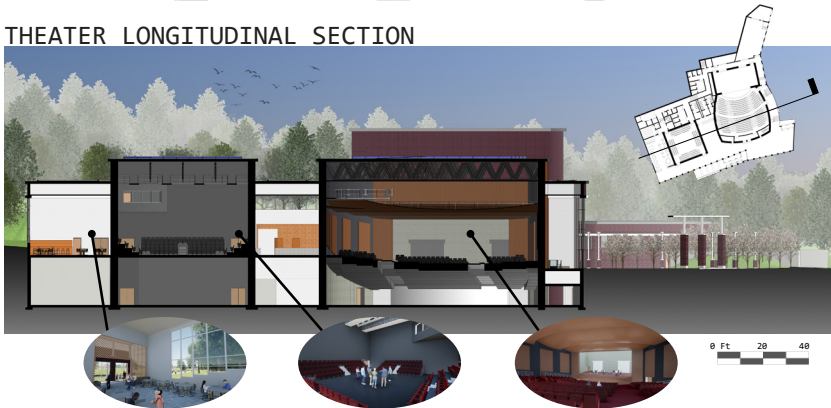
LOBBY LONGITUDINAL SECTION



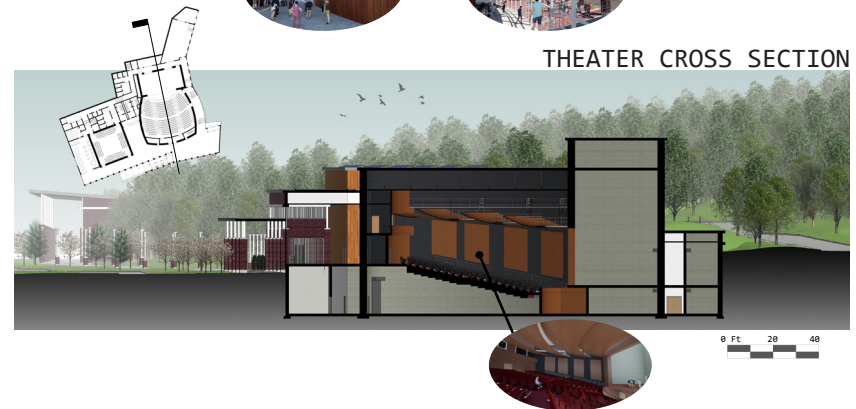
LOBBY CROSS SECTION



THEATER LONGITUDINAL SECTION



THEATER CROSS SECTION



BACKSTAGE LONGITUDINAL SECTION



SECTIONS TAKEN THROUGH DIFFERENT POINTS IN THE BUILDING TELL THE TRUE STORY OF OF THE BUILDING'S EXPERIENCE. EACH SLICE SHOWS THE RELATIONSHIPS BETWEEN THE DIFFERENT PROGRAMMATIC AND SEMIOTICAL SPATIAL AREAS WITHIN THE BUILDING AND HOW THE EXPERIENCE CHANGES AS YOU MOVE FROM ONE TO ANOTHER.



# FINAL REVIEW



THEATER SECTION-PERSPECTIVE



LEFT: BLACK BOX SECTION-PERSPECTIVE  
RIGHT: PROSCENIUM THEATER SECTION-PERSPECTIVE



# FINAL REVIEW

SOUTHEASTERN PERSPECTIVE



EASTERN PERSPECTIVE



SOUTHERN PERSPECTIVE



CLOISTER PERSPECTIVE



LOBBY PERSPECTIVE



THEATER PERSPECTIVE





# PHOTO BIBLIOGRAPHY

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- 9 B, Paul. "Main Square, Cartagena, Colombia." Flickr. Yahoo!, February 3, 2009. <https://www.flickr.com/photos/paulbridgewater/3248613097>.
- 10 "Free Image on Pixabay - Krakow, Town, Square, City." Krakow Town Square - Free photo on Pixabay. Accessed October 21, 2019. <https://pixabay.com/photos/krakow-town-square-city-4437737/>.