

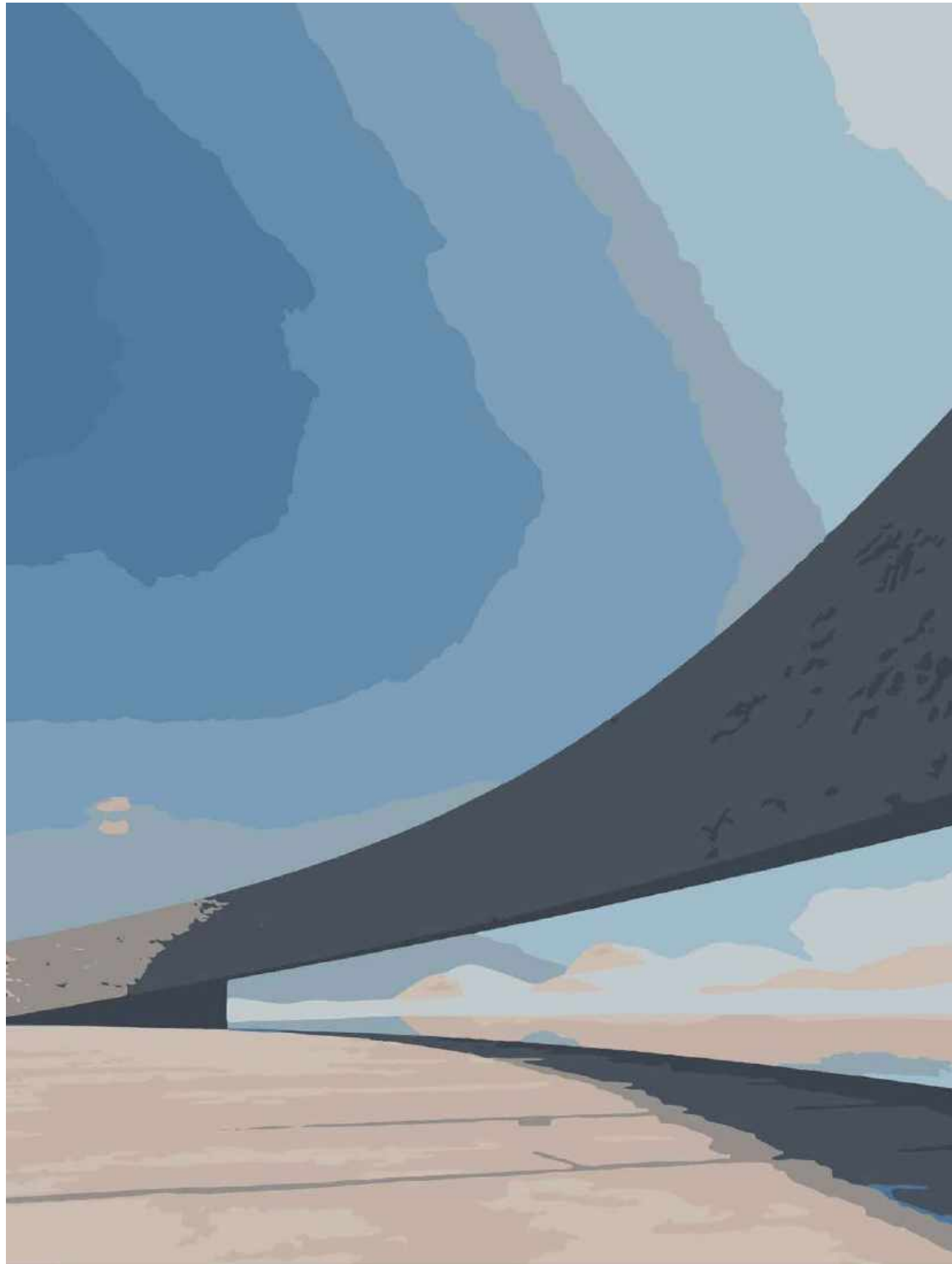
YONGHAO HU

PORTFOLIO  
2021

YONGHAO HU  
CITY COLLEGE OF NEW YORK  
THE BERNARD AND ANNE SPITZER SCHOOL OF ARCHITECTURE  
SELECTED WORKS 2018-2021

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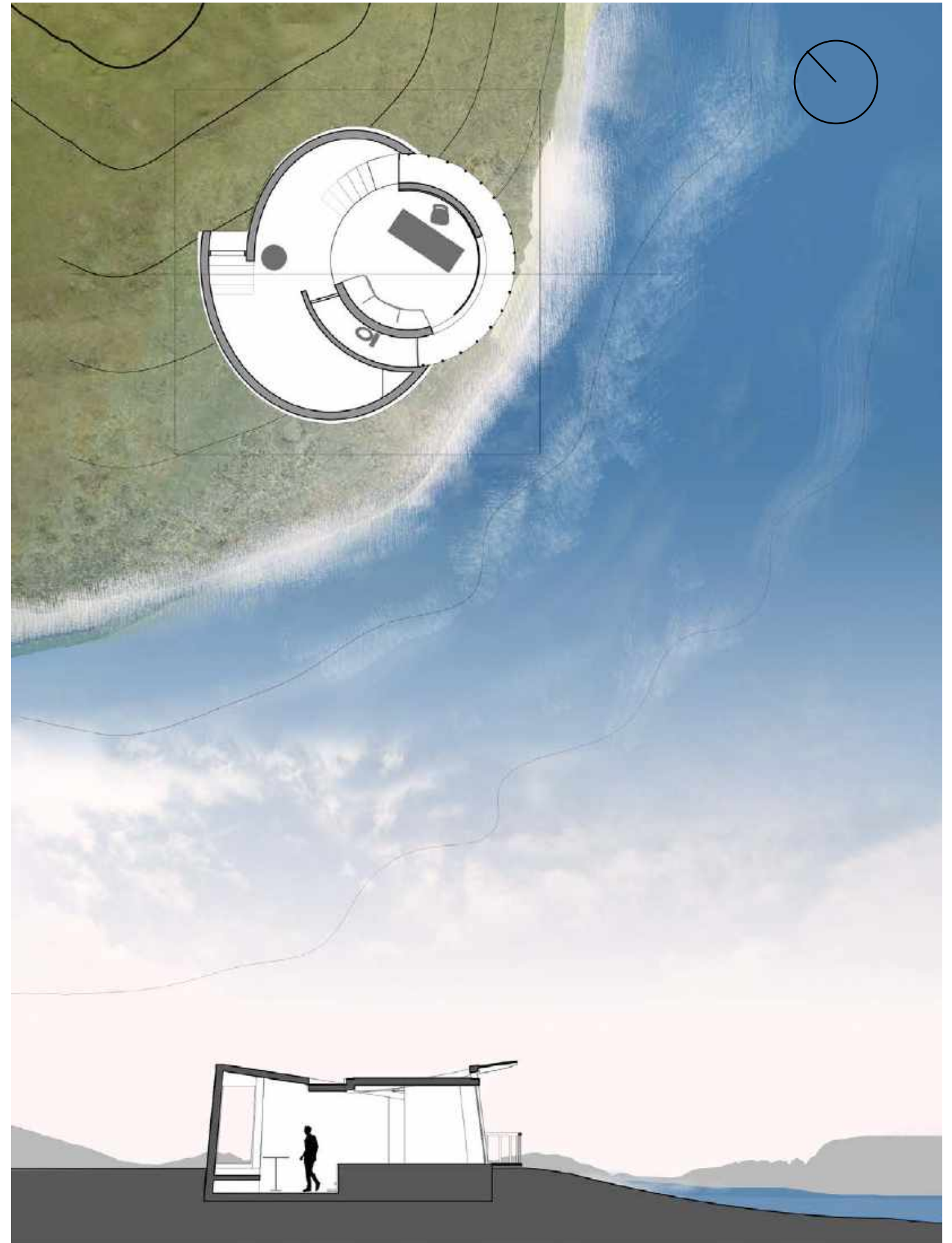
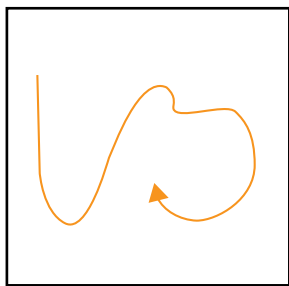
**YUAN**  
DAYAN LAKE | MONGOLIA  
PROJECT TYPE: STUDIO  
STUDIO II SPRING 2018

## SPATIAL VARIATION

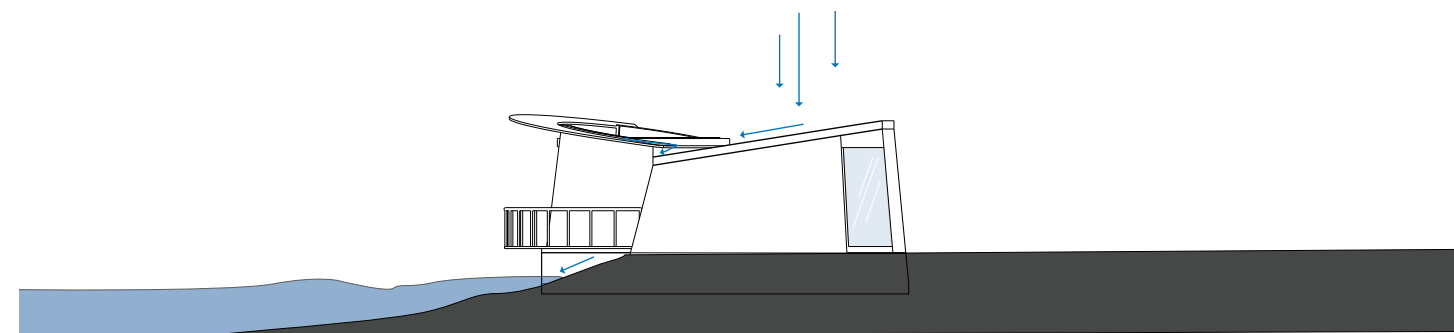
The focus of this project is to design a 25'x25' personal studio separated from civilization. The process began with researching and choosing an ideal location for the studio. In this case, Dayan Lake, Mongolia, is chosen to be part of the contextual landscape. Within a constraint scale, the design challenges the spatial variation.



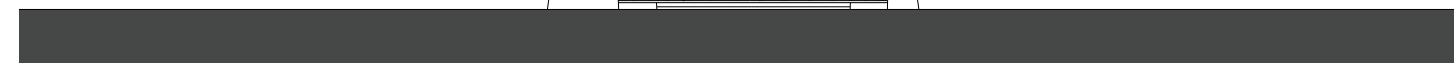
In essence, the structure explores the relationship between exterior and interior, this connection brings new spatial experience through generating a form that follows a circulation rhythm.



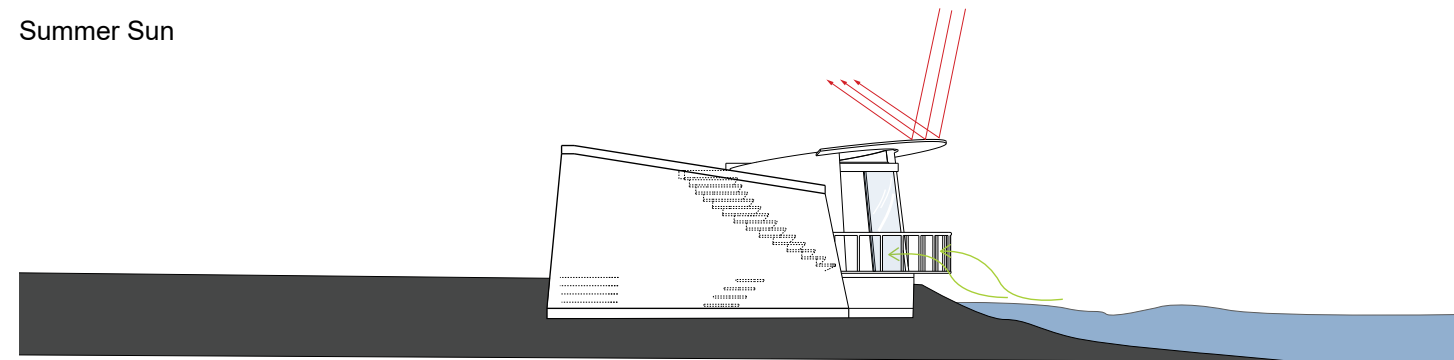
MASSING STRATEGY



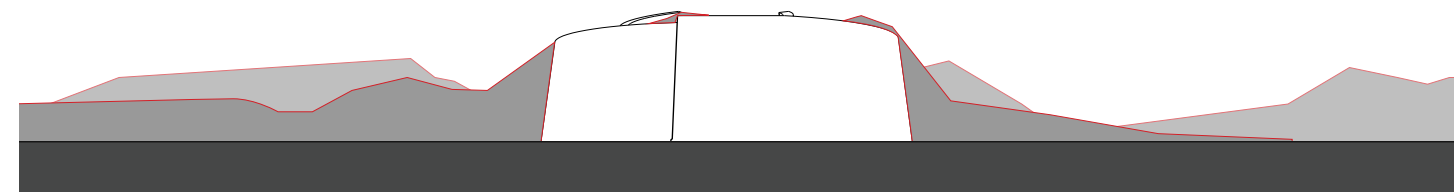
Winter Sun



Summer Sun



Site Context

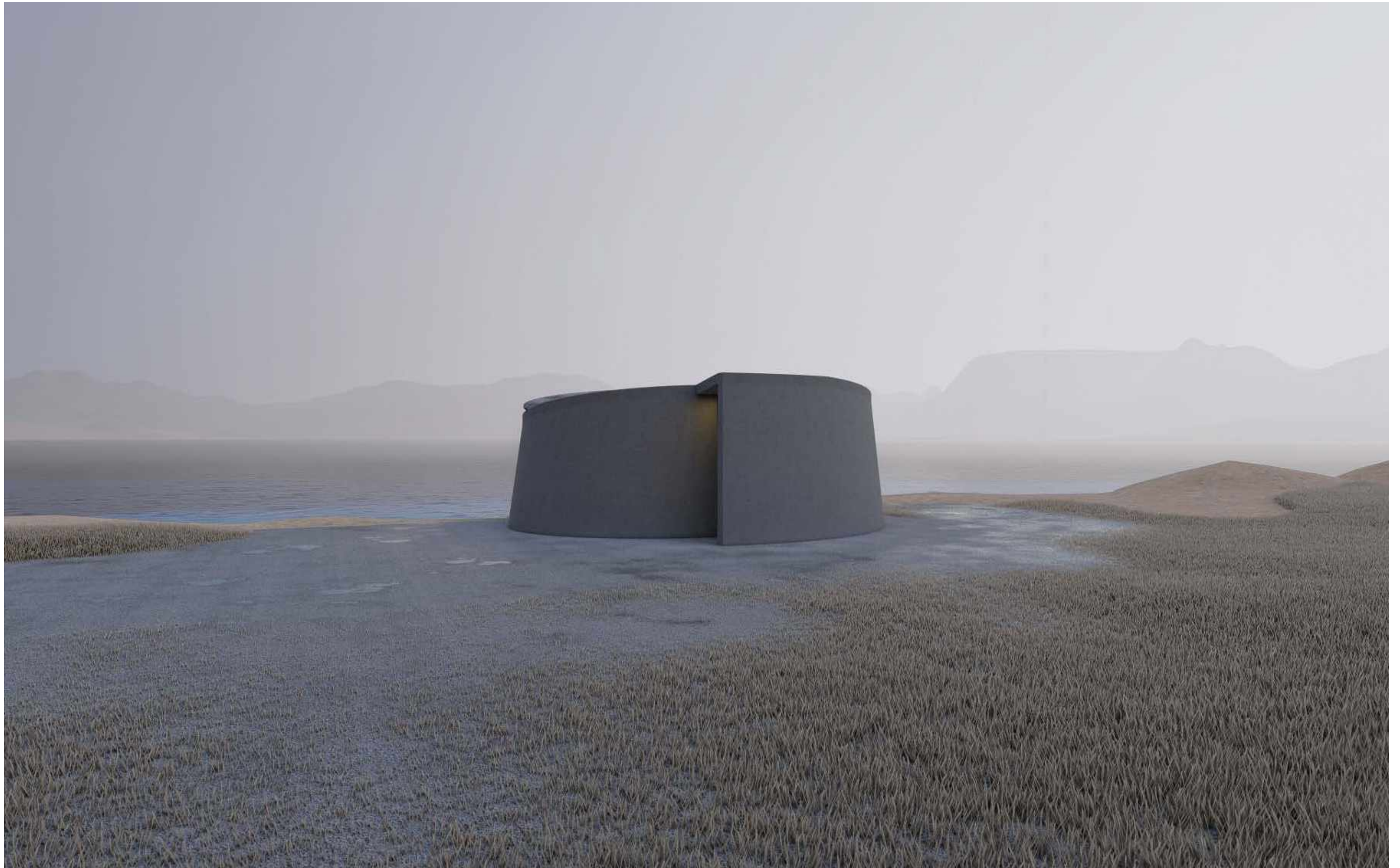


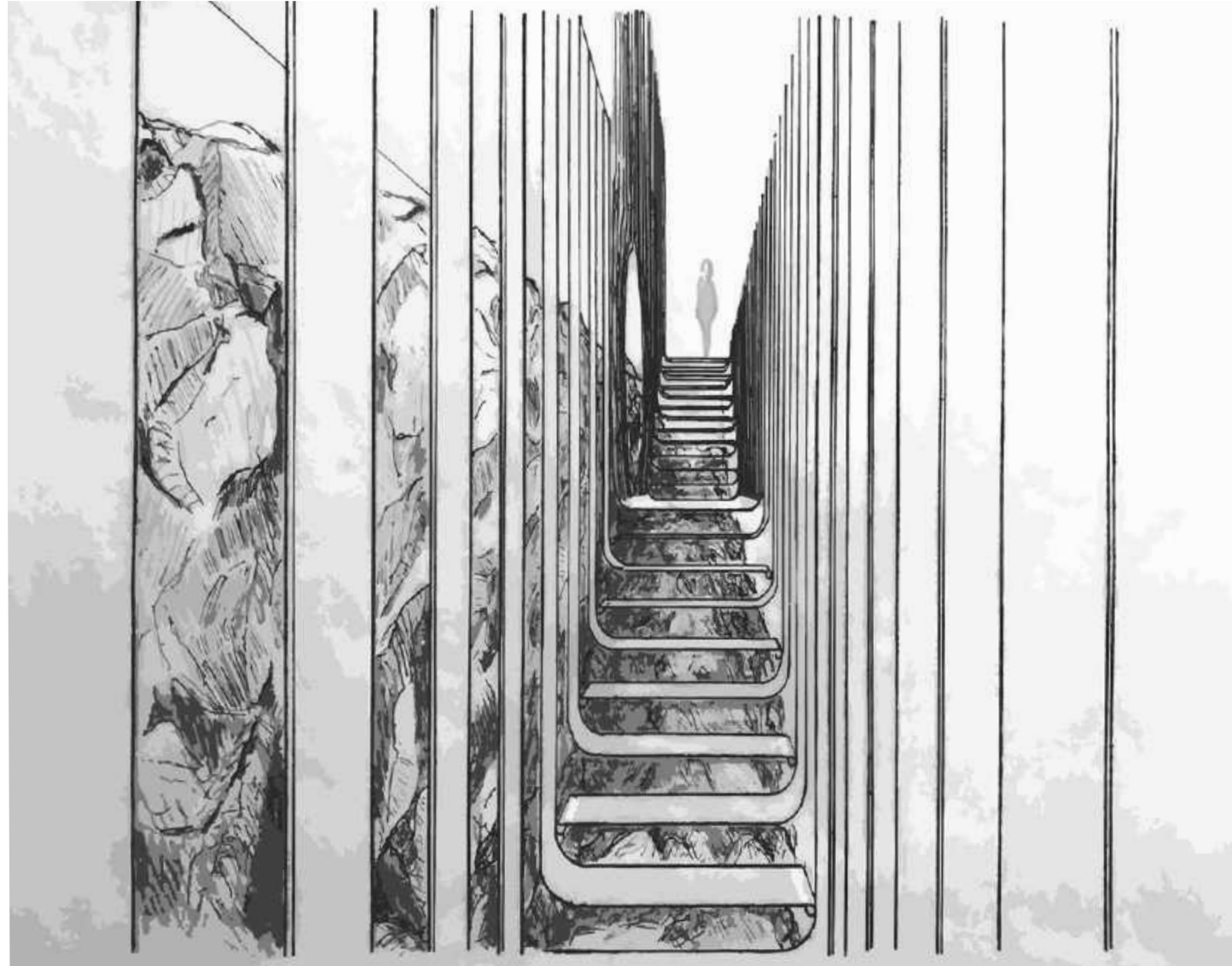


**LIGHT FILLED SPACE**  
A pattern of void introduces light to the interior to make the space alive - creating an experience of time.

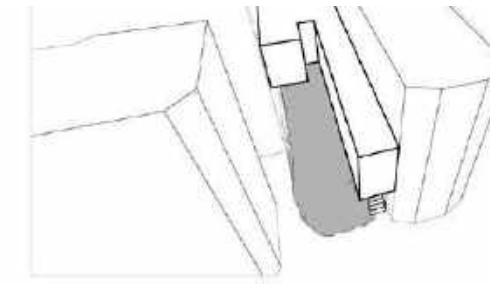
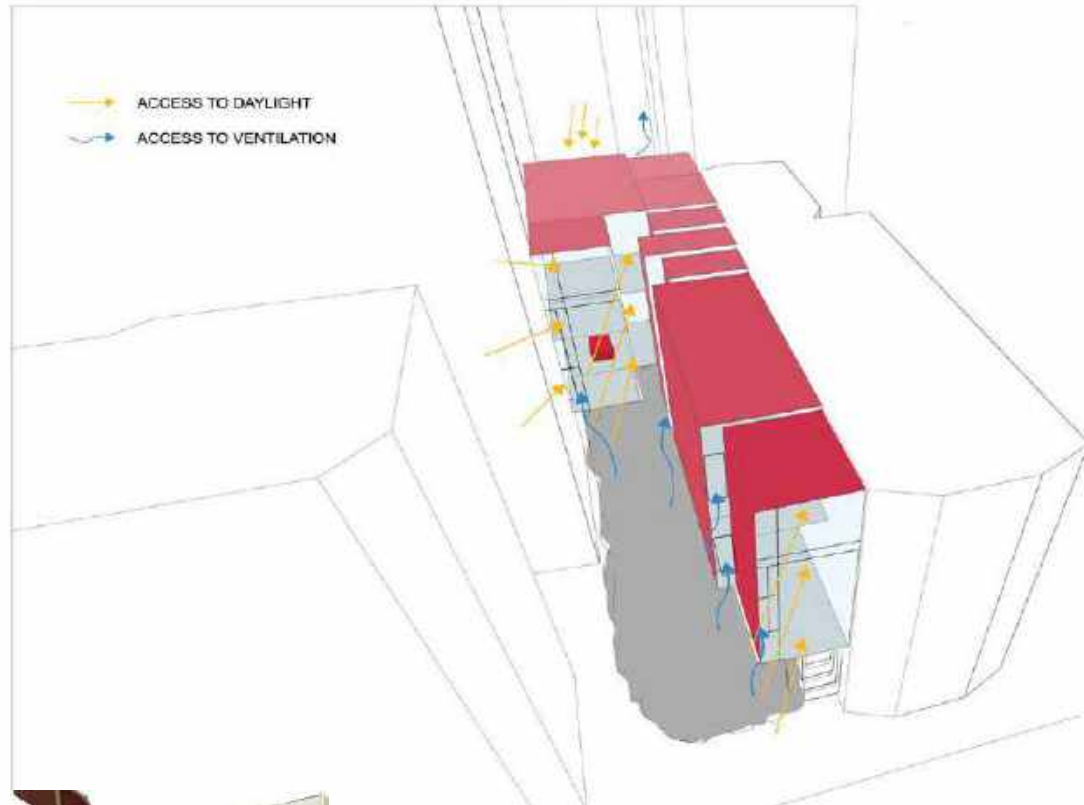


**SUNSET LIGHT**  
The glazing programmatically takes advantage of the sunset giving a new reading of the space.

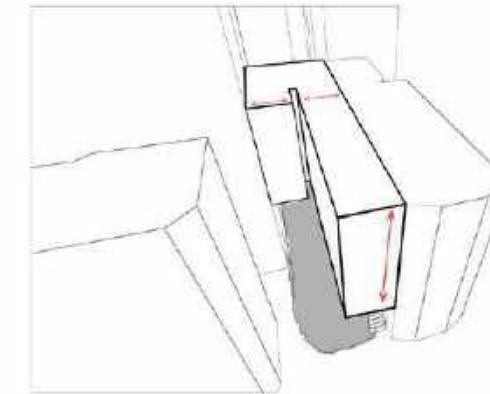




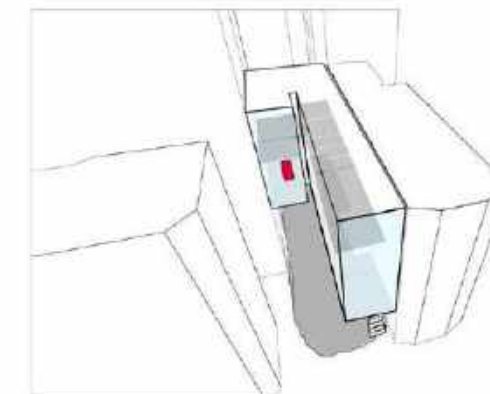
**RED RIBBON RIOT**  
602 W114TH STREET | MANHATTAN  
PROJECT TYPE: ASSEMBLY  
PARTNER: HIBA TAGELALLA  
STUDIO V FALL 2020



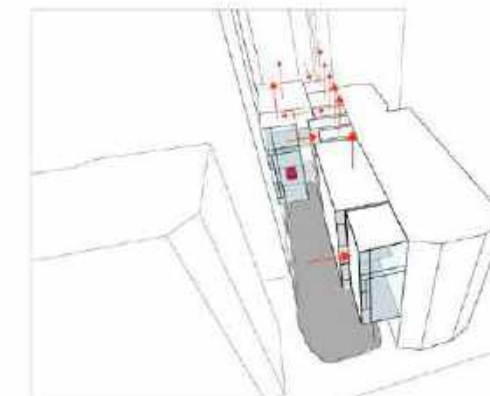
ORIGINAL MASS DERIVED FROM THE STAIR PROJECT



PUSH AND PULL MASS TO FORM A CONNECTION WITH THE URBAN SCALE



GLAZED TO MAXIMIZE LIGHTING IN KITCHEN, MINI-LIBRARY, AND BEDROOMS



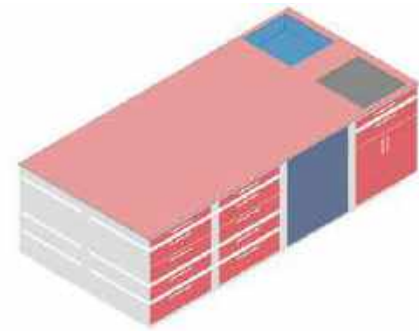
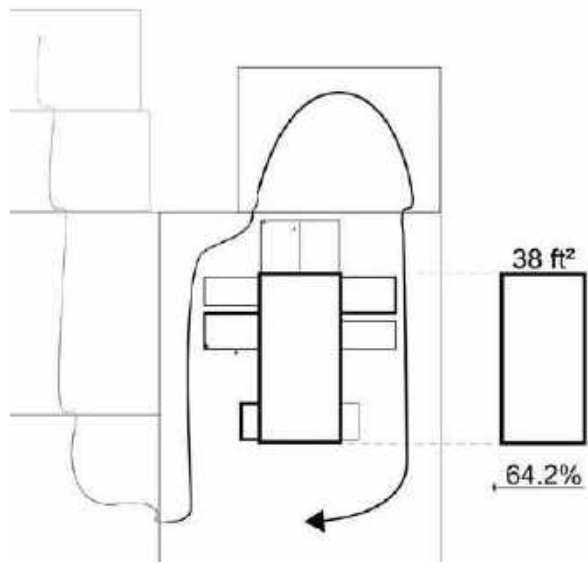
PUSH AND PULL TO CREATE SKIPPING CONTOUR AND ALLOW INSERTION OF GLAZING

PARTI

Our project is a sequence of different volumes that step and turn around to highlight the most beautiful view towards the rock. Above the rock rest an assembly of frames and ribbons that creates a lightweight architectural promenade. The structure is made accessible by a long entry stair that is suspended from steel beams. These steel beams cantilever from steel columns that extend into the ground, along with the party walls which serve as the main structural system.

The facade is composed of a lightweight, red-lacquered metal sheet skin and a double-paned glazing system. It is segmented into stepping 'ribbons' that, when peeled away from one another, allow for the subdued insertion of glazing that allows for increased light and ventilation. The main windows, present at both the front and end of the project, frame the views to the north and south end of the site. These contrasting facade treatments maximize the site's solar conditions and create points of bearing for the very beginning and very end of the parti.

THE ISLAND THAT DOES EVERYTHING

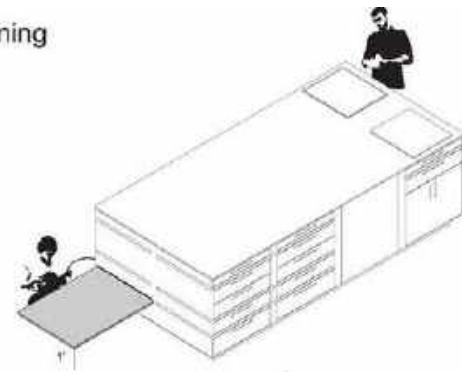


- Refrigerator
- Sink
- Gas Range
- Countertop
- Storage

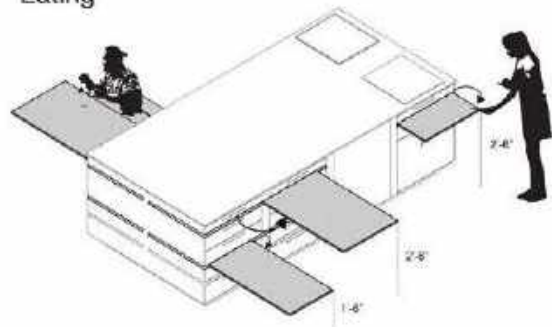
Cooking



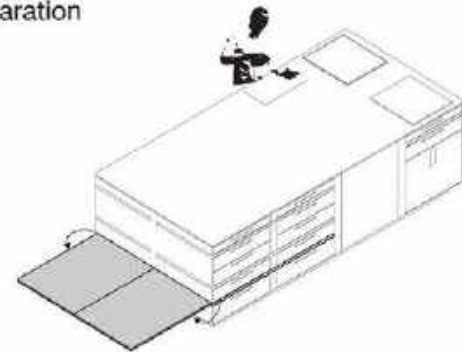
Cleaning



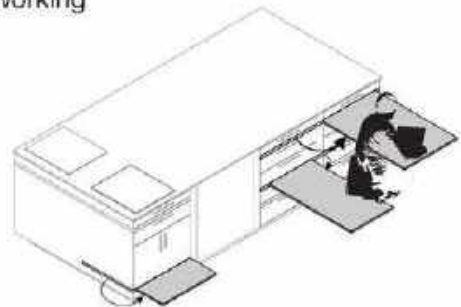
Eating



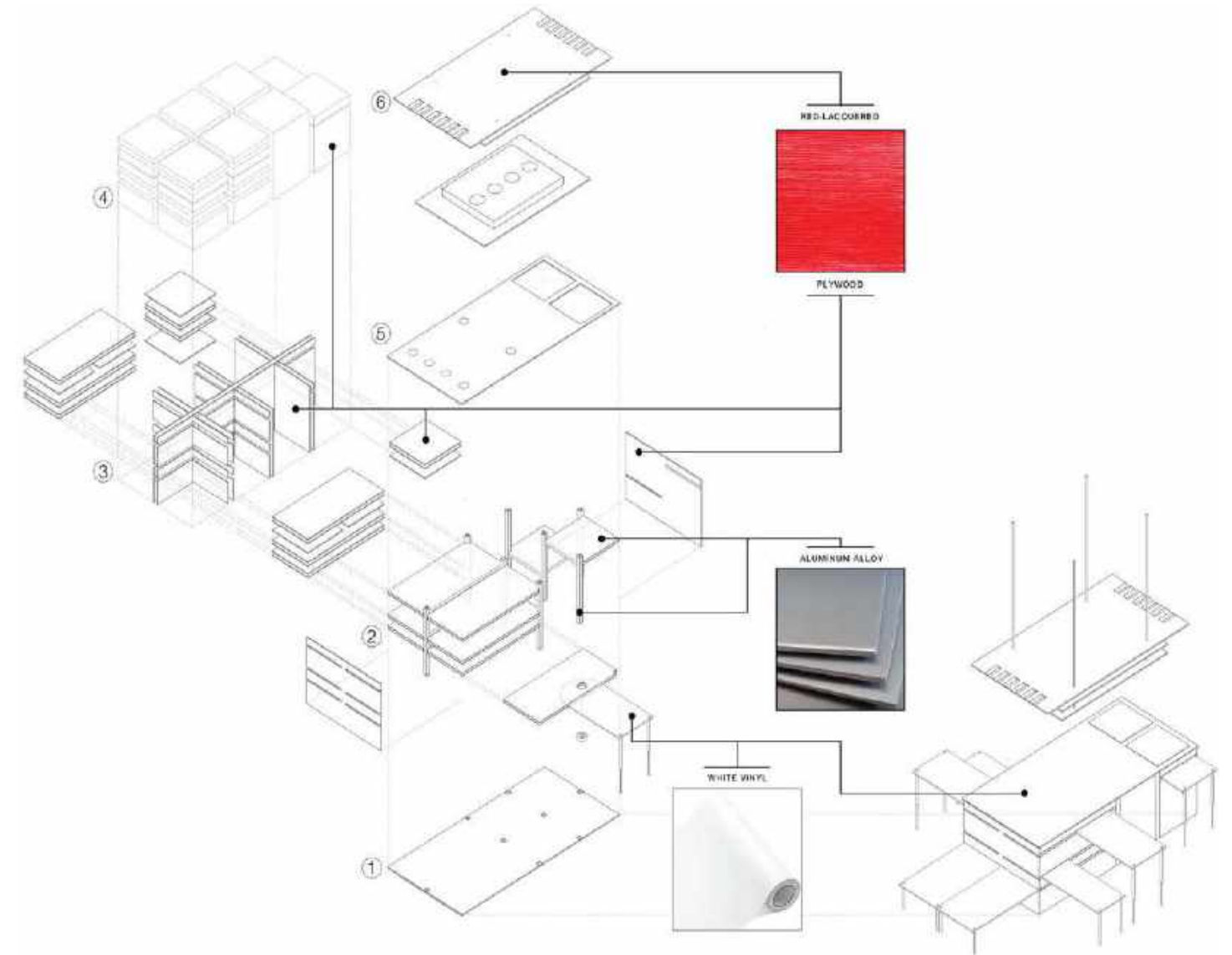
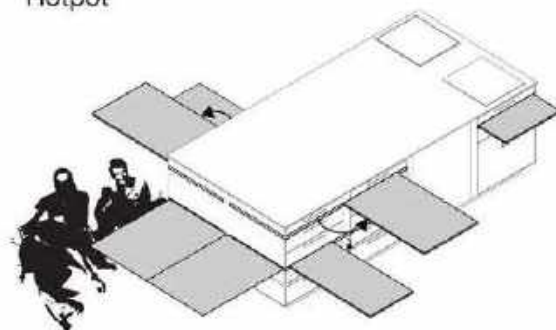
Preparation



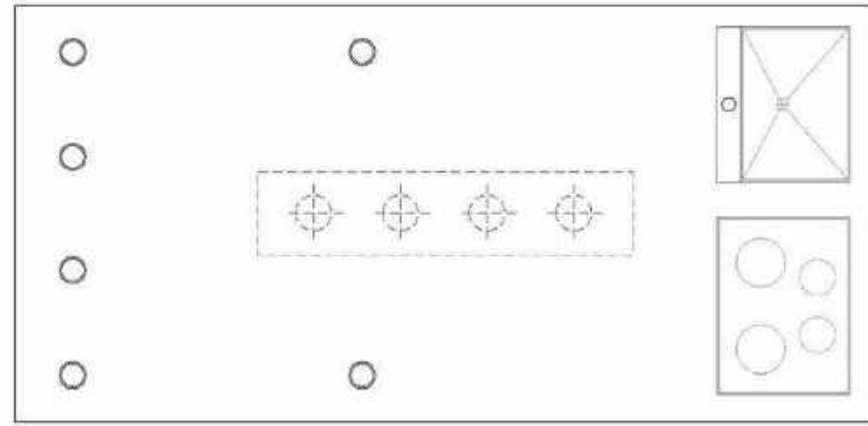
Working



Hotpot



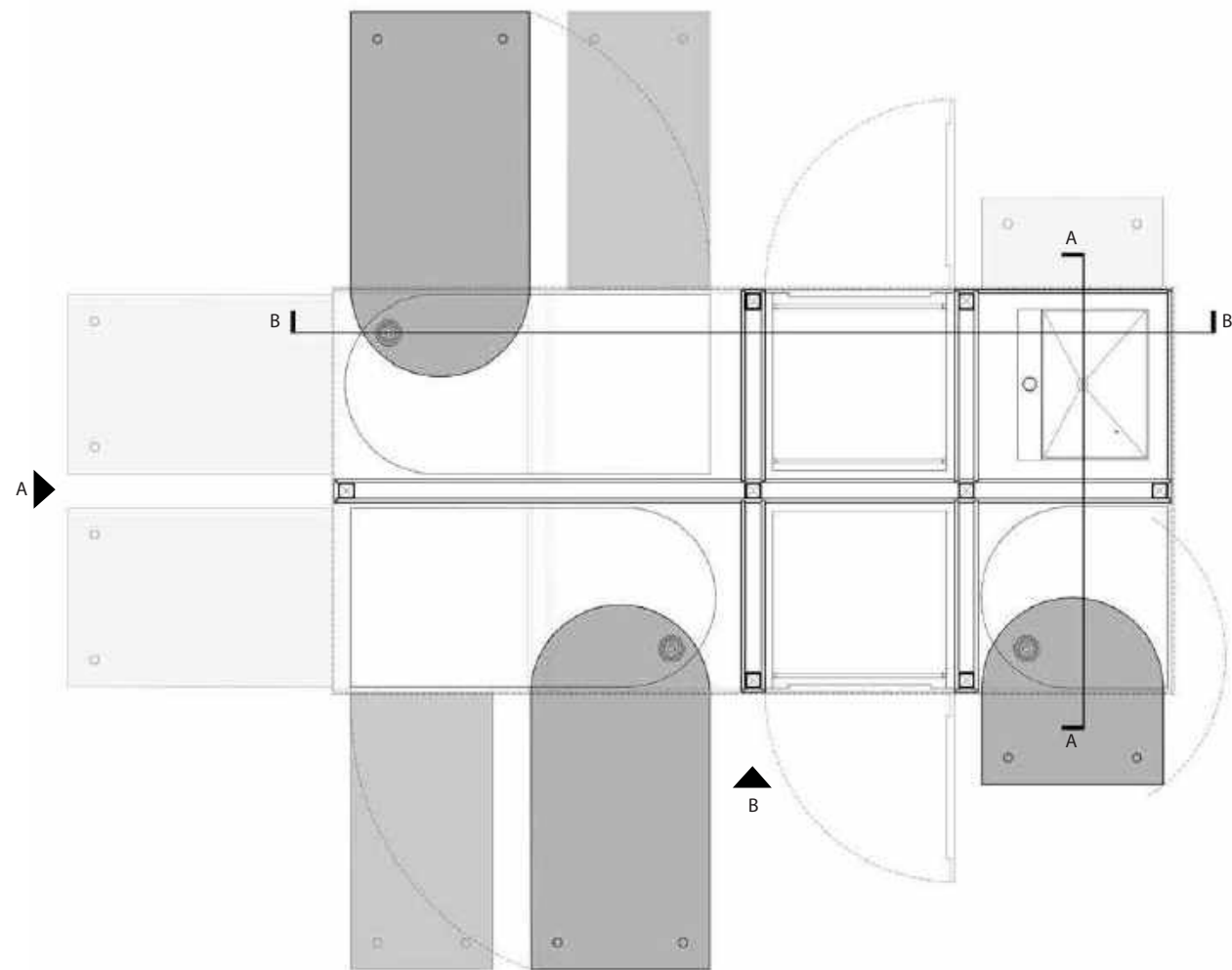
EXPLODED AXON



TOP VIEW - COMPACT



COMPACT KITCHEN - RENDERING



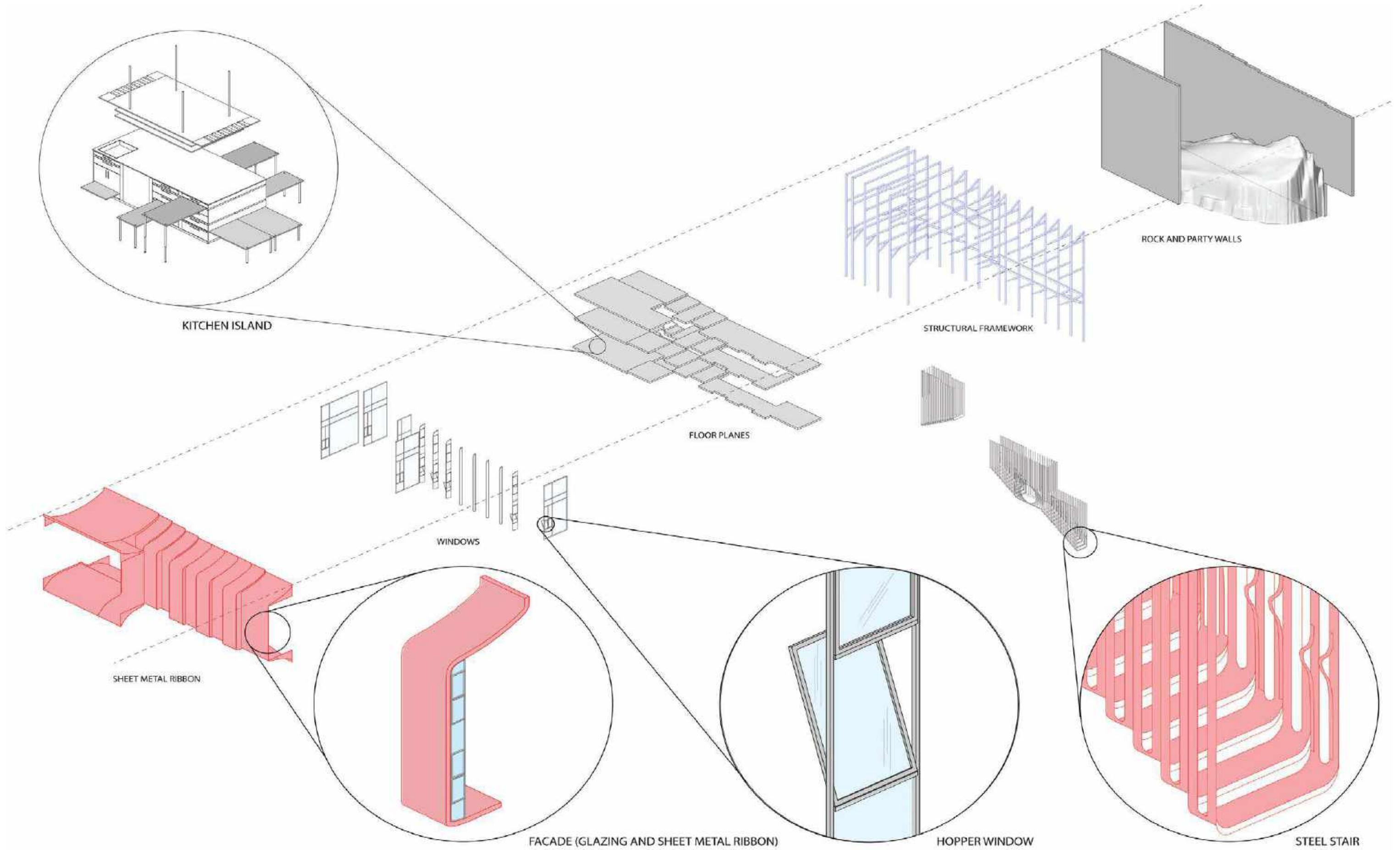
PLAN 1-1 - UNFOLDED

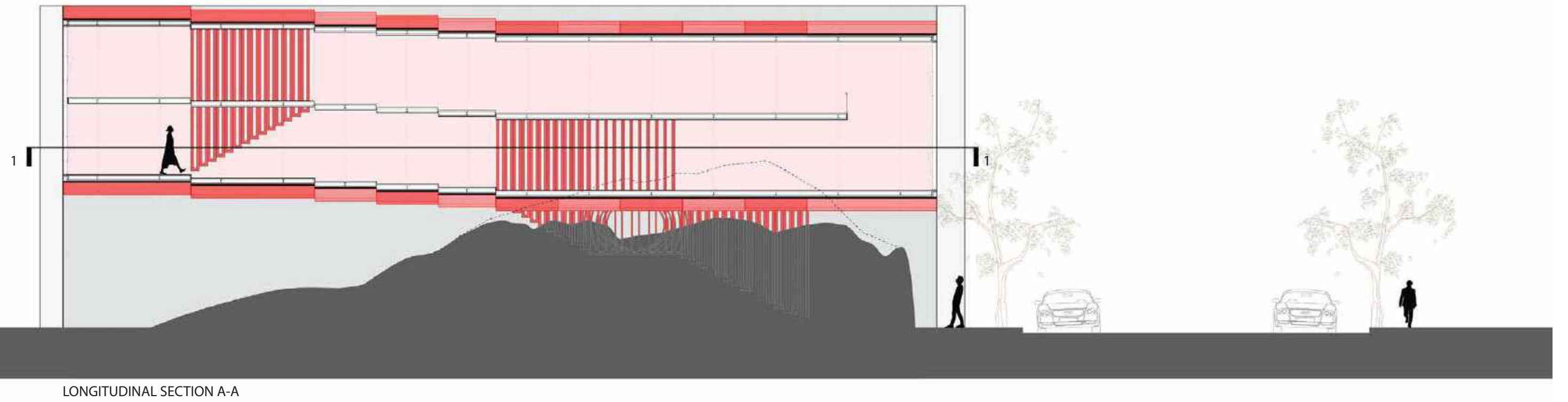
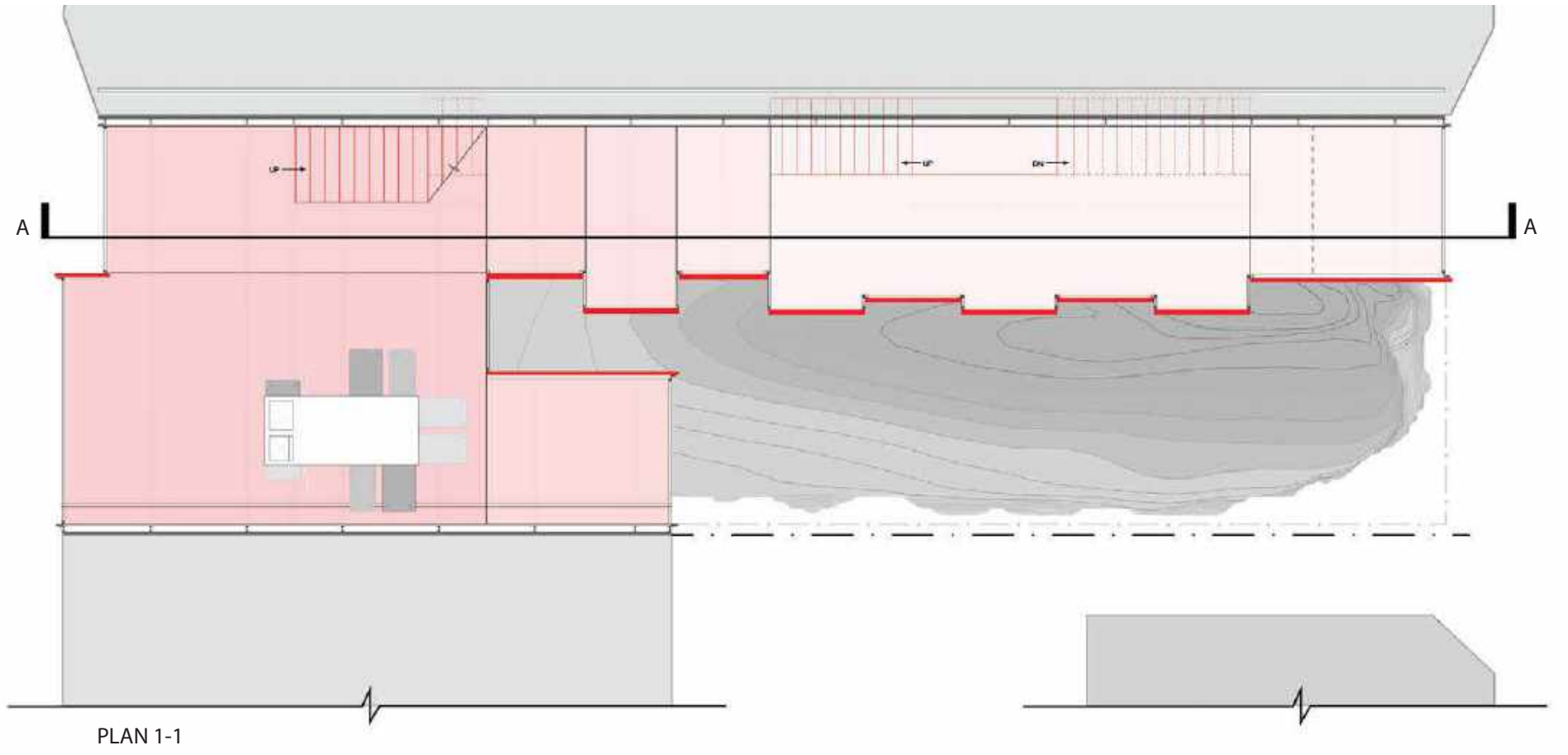


UNFOLDED KITCHEN - RENDERING

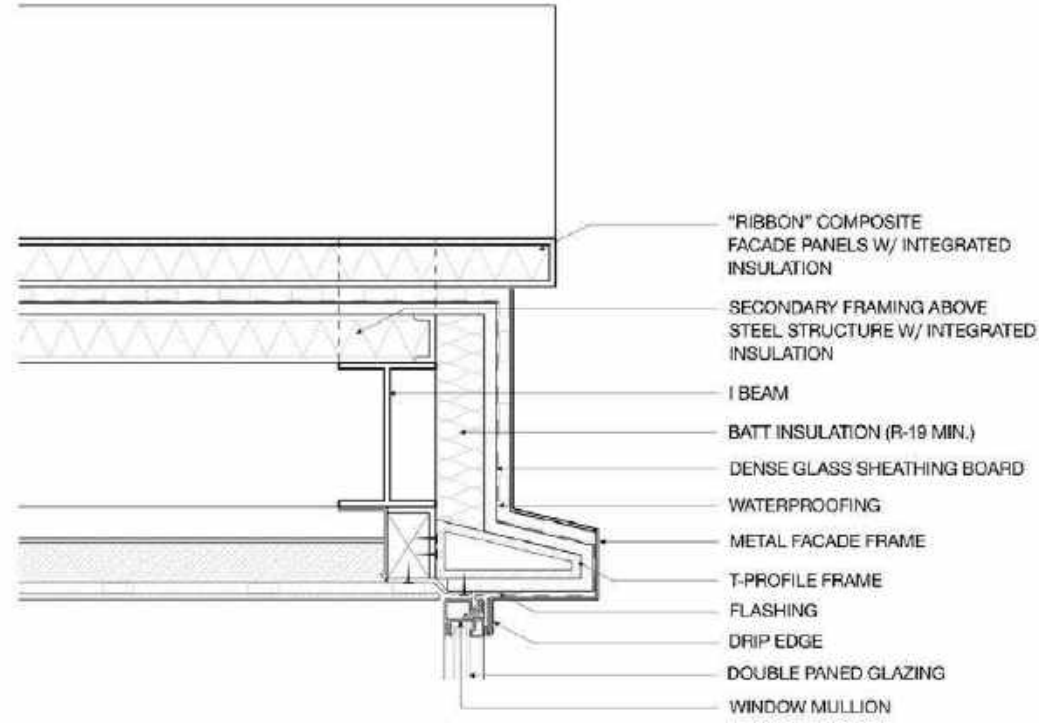


KITCHEN VIEW - RENDERING

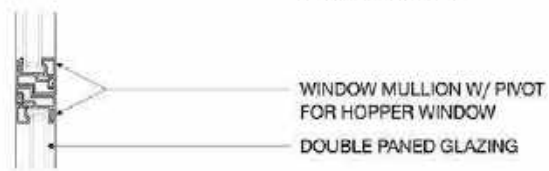




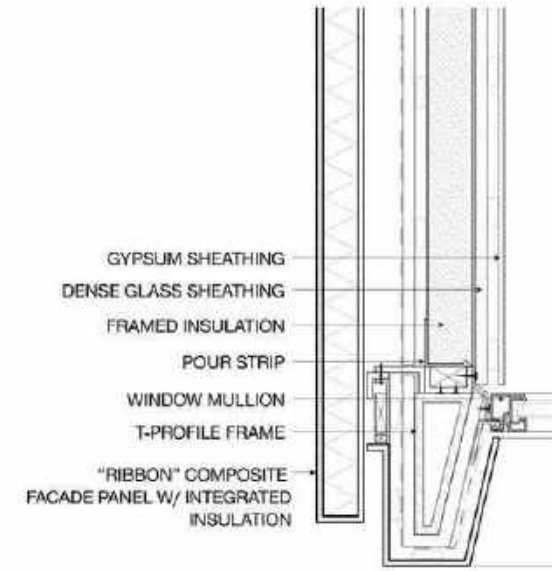
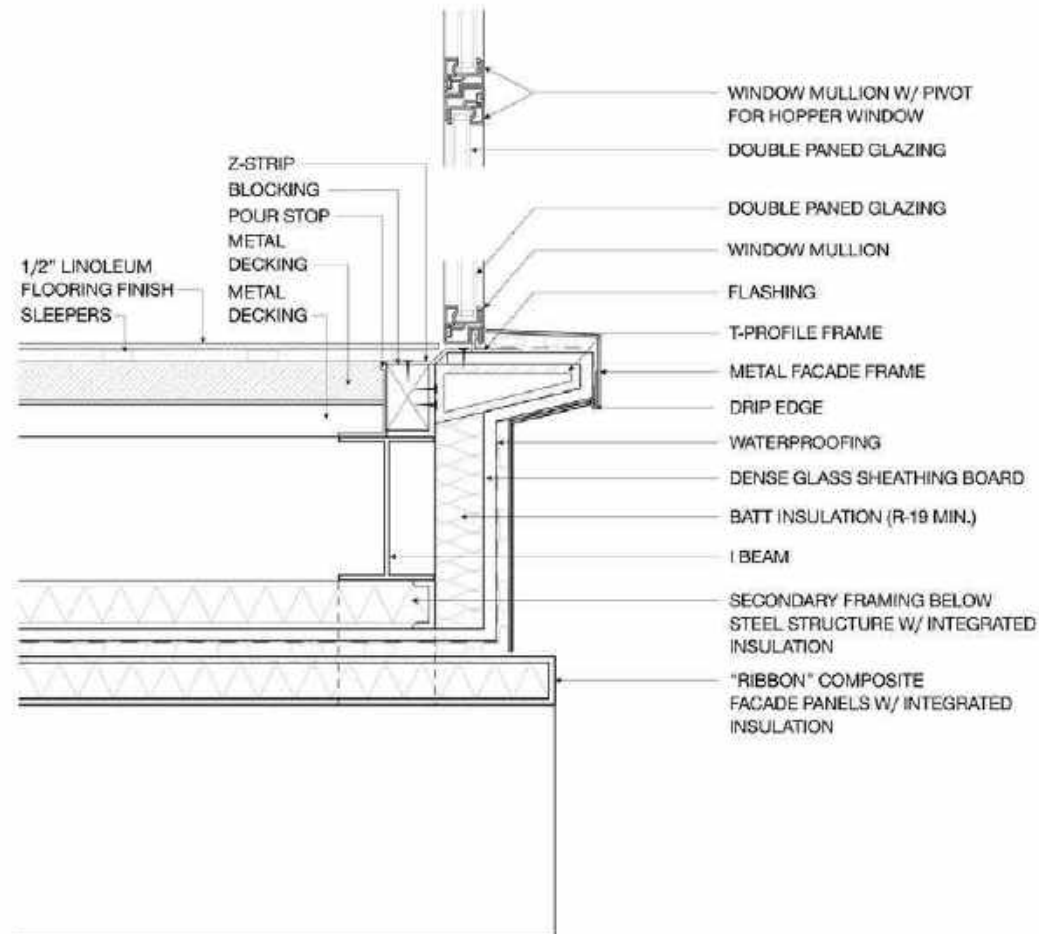
**DETAIL A**  
SCALE: 3" = 1'-0"



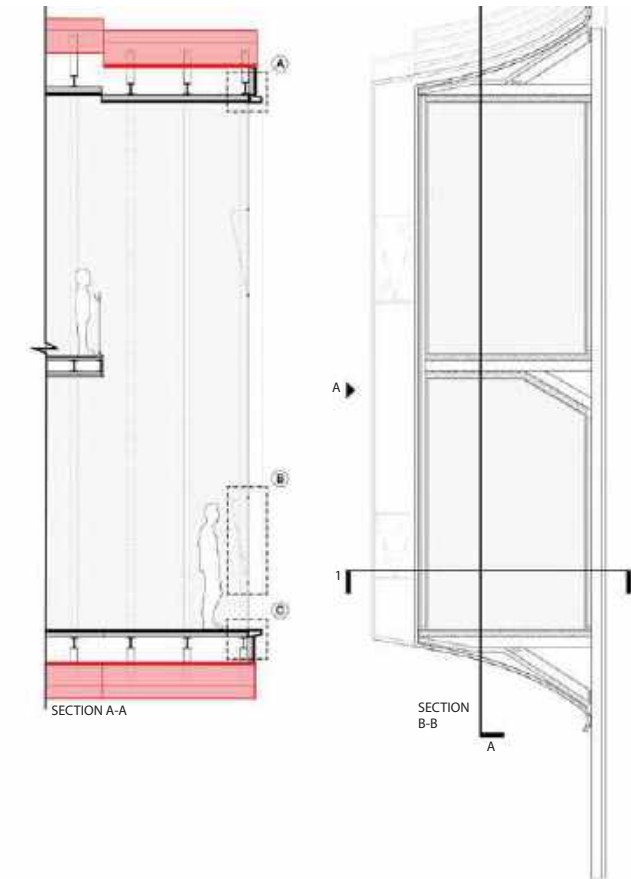
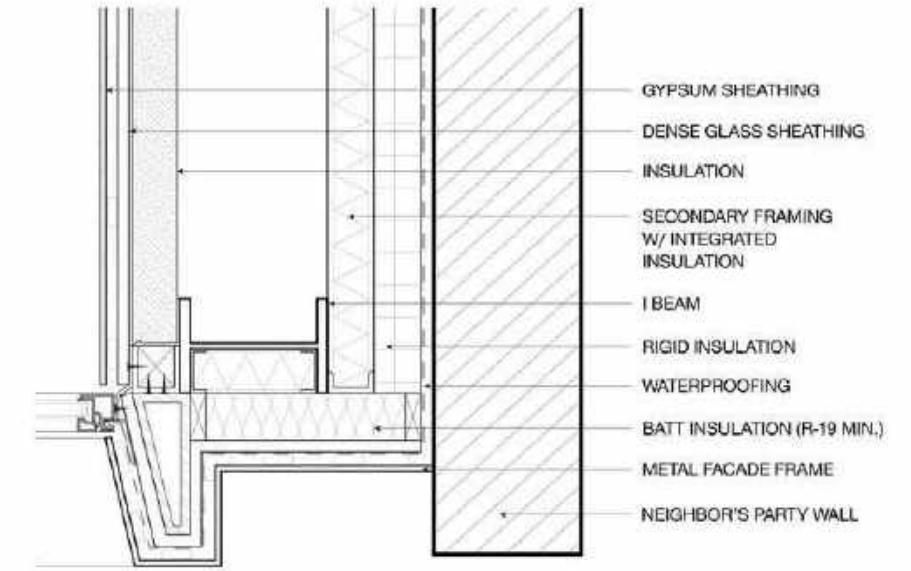
**DETAIL B**  
SCALE: 3" = 1'-0"



**DETAIL C**  
SCALE: 3" = 1'-0"



**DETAIL D**  
SCALE: 3" = 1'-0"





FRONT ELEVATION

BACK ELEVATION



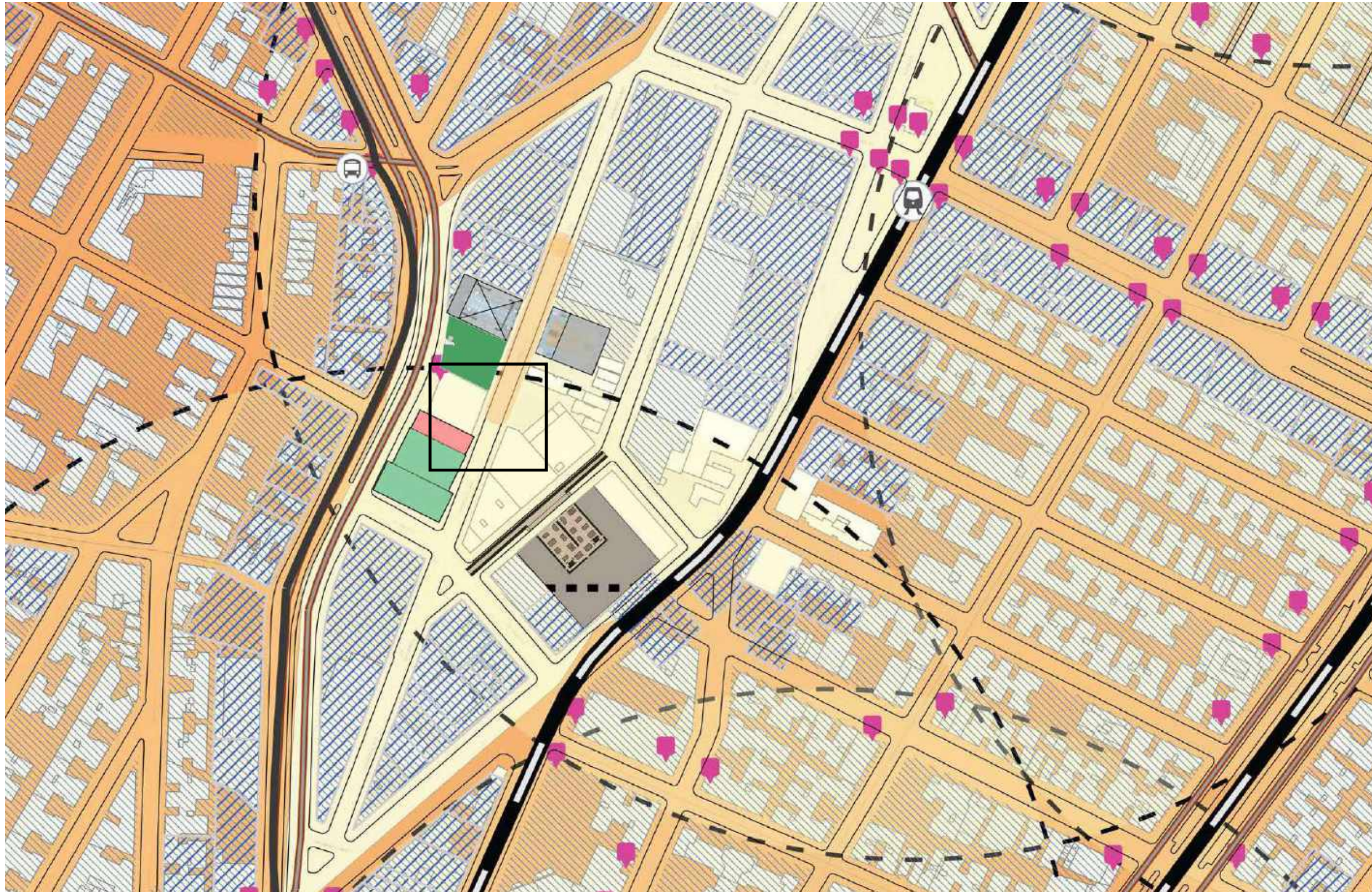
STREET VIEW



NIGHT VIEW

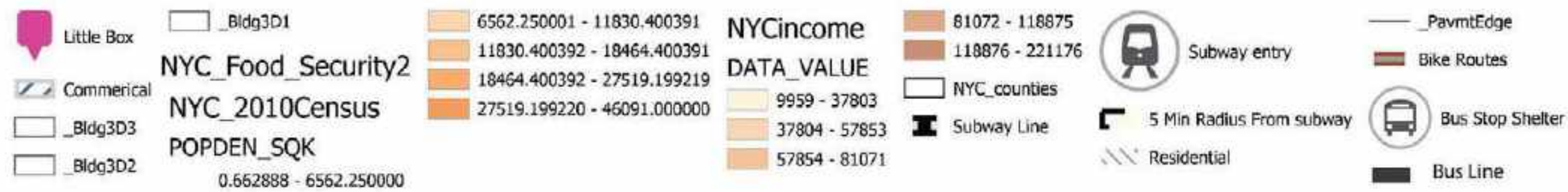
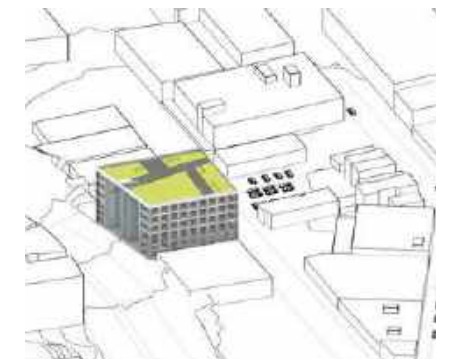


**RECENTRE**  
1310 CROMWELL AVE | BRONX  
PROJECT TYPE: URBAN STREET  
STUDIO III FALL 2019



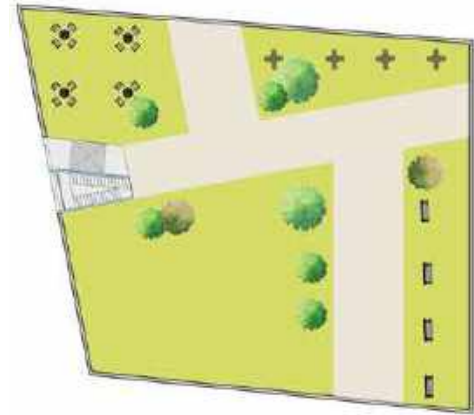
### SITE ANALYSIS

This map illustrates the locations of the residential and commercial areas that overlap, as well as the least dense area of the site. We decided to place our intervention in the center of the commercial district to attract more attention to this part of the site. The buffers allow us to see where on the map is close by the subway stations to allow for maximum efficiency and convenience. The buildings that have not been hatched, shows manufacturing zones, where goods are produced. The box pins indicate where the trash cans are. On the other hand, our chosen location does not have trash cans and is surrounded by commercial areas that overlap the residential ones. The area has a lower population density. The sidewalks are filled with cars, which minimize the walkability for the pedestrian. So based on this information, we want to centralize the commerce in this area and bring density higher for the site.

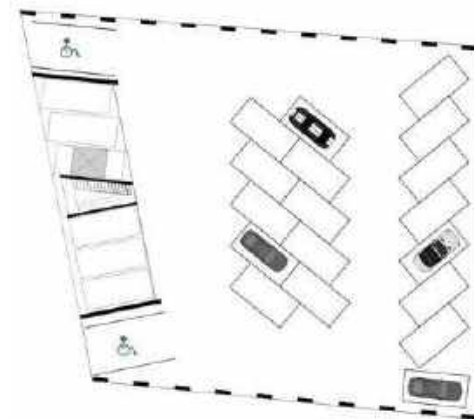


SITE

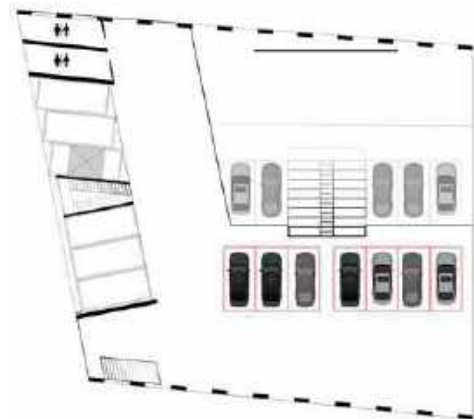




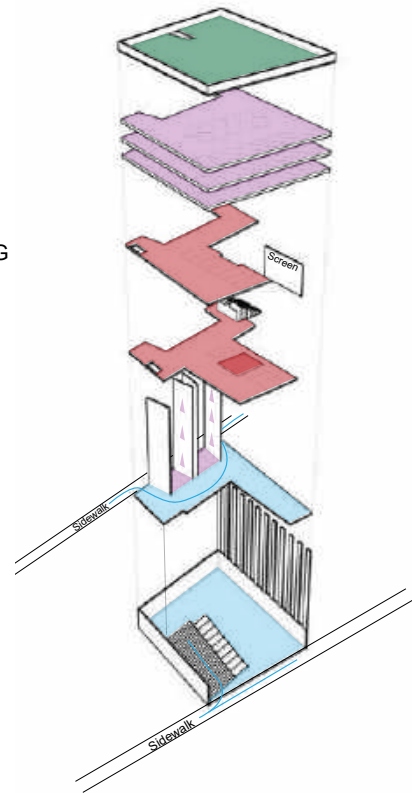
ROOF GARDEN



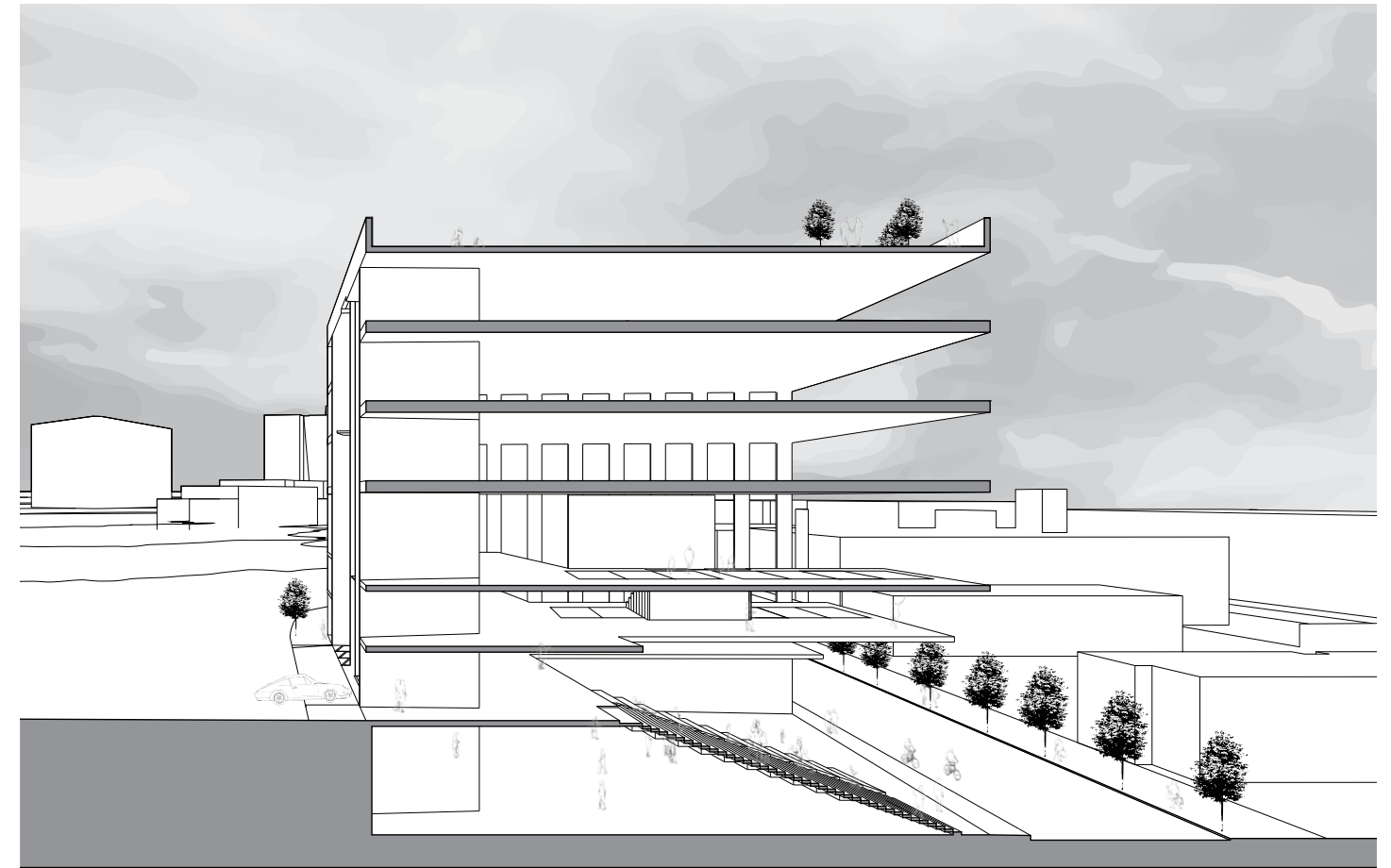
6th FL PARKING



CAR CINEMA



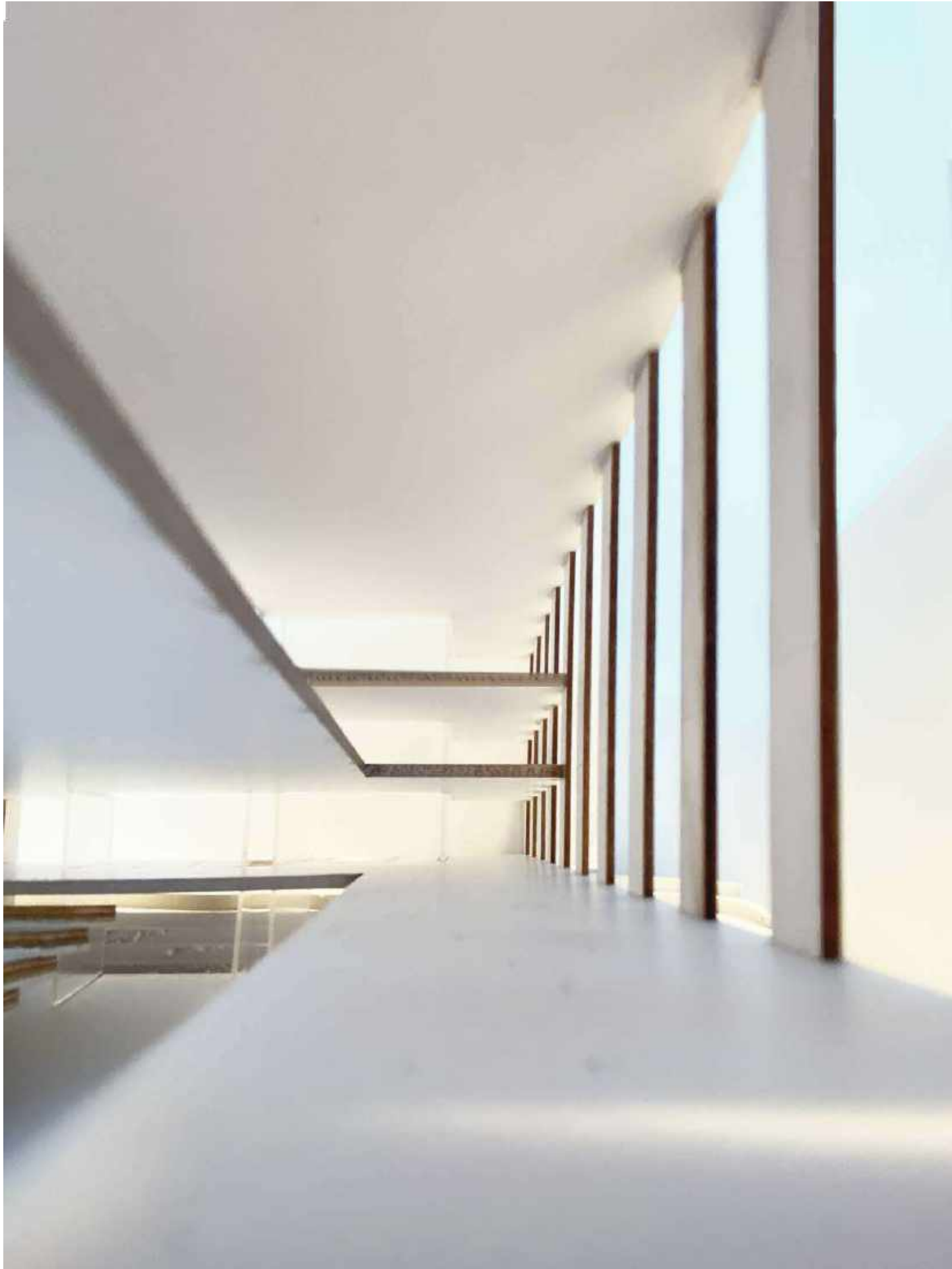
- GARDEN
- PARKING
- CINEMA&CAFE
- EXTENDED SIDEWALK
- PLAYGROUND



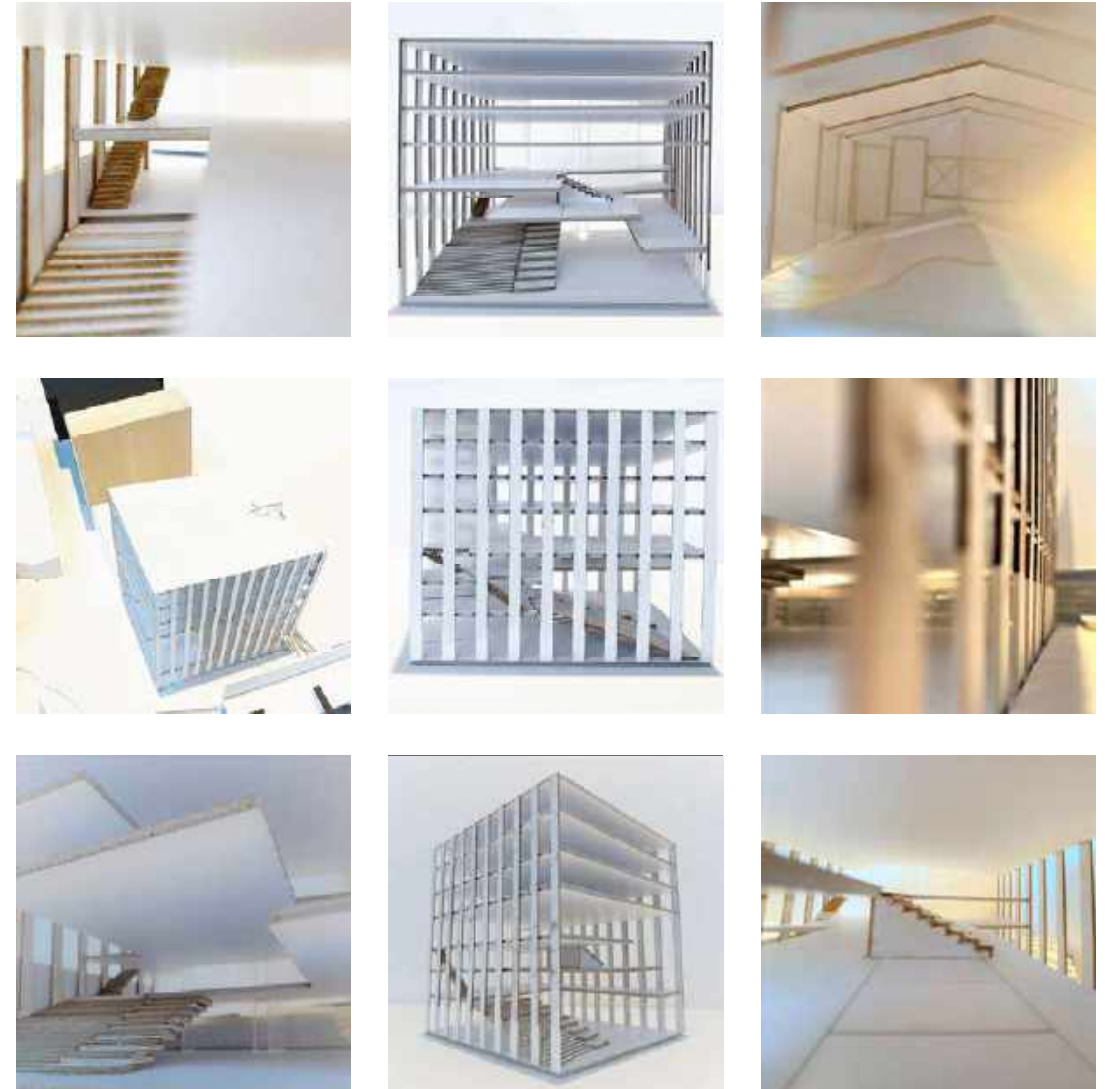
SECTION PERSPECTIVE

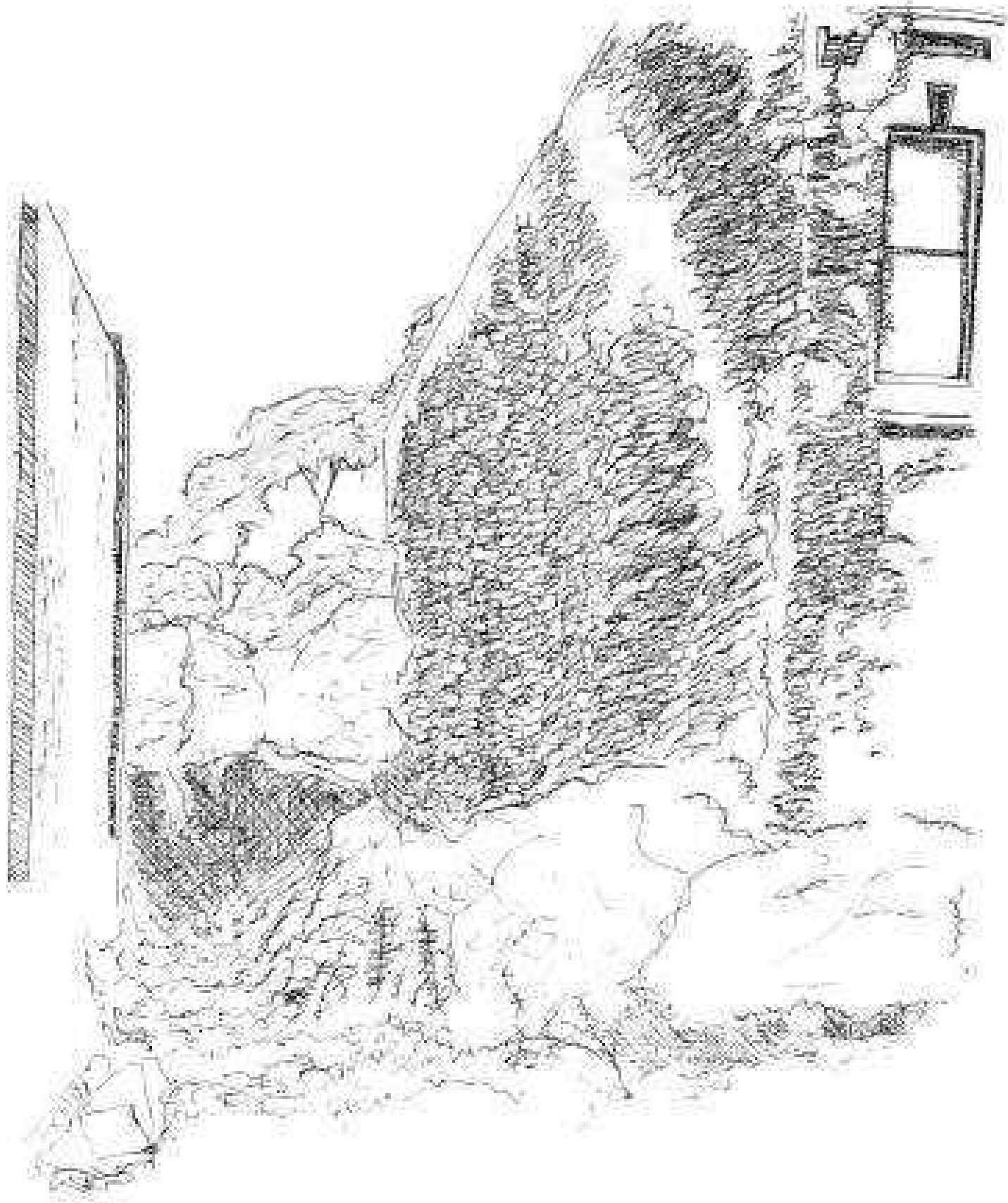


FRONT PERSPECTIVE - RENDERING



MODEL PHOTOGRAPHS





# HOME COMMUNITY CENTER

HARLEM | MANHATTAN

PROJECT TYPE: SITE ANALYSIS & ZONING ANALYSIS

SPRING 2018

# LOT 8

243 West 134th Street  
Central Harlem, New York



KEY MAP

## PROPERTY INFO

BOROUGH	1-MANHATTAN
BLOCK	1940
LOT	8
ADDRESS	261 WEST 134 STREET,
NEIGHBORHOOD	10030
COMMUNITY DISTRICT	HARLEM
SCHOOL DISTRICT	10
BUILDING CLASS	05
OWNER	VACANT LAND
LOT AREA	POLICE DEPARTMENT 1
LOT FRONTAGE	4696'
LOT WIDTH	47'
LOT DEPTH	99.92'

## ZONING ANALYSIS

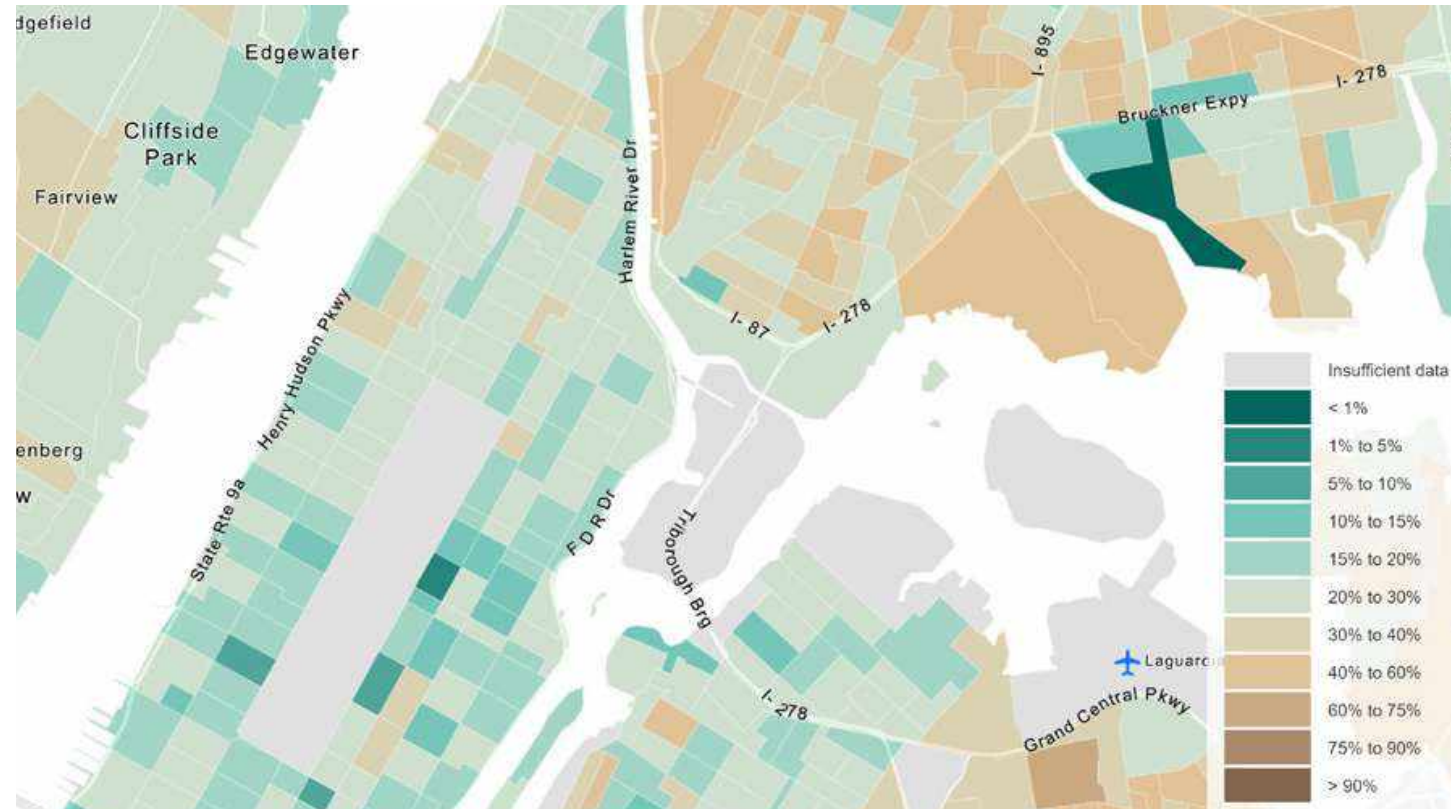
EXISTING ZONING	R7-2
MAX RESIDENTIAL FAR	3.44
MAX FACILITY FAR	6.5
MAX ALLOWABLE FLOOR AREA	16155 SF
LOT AREA	4696 SF
STREET TYPE	NARROW<75'W
SETBACKS	15'
REAR YARD (MIN)	30'
LOT COVERAGE	65%
BASE HEIGHT (MIN-MAX)	40'-65'
BUILDING HEIGHT (MAX)	75'
NUMBER OF STORIES (MAX)	N/A



STREET VIEW

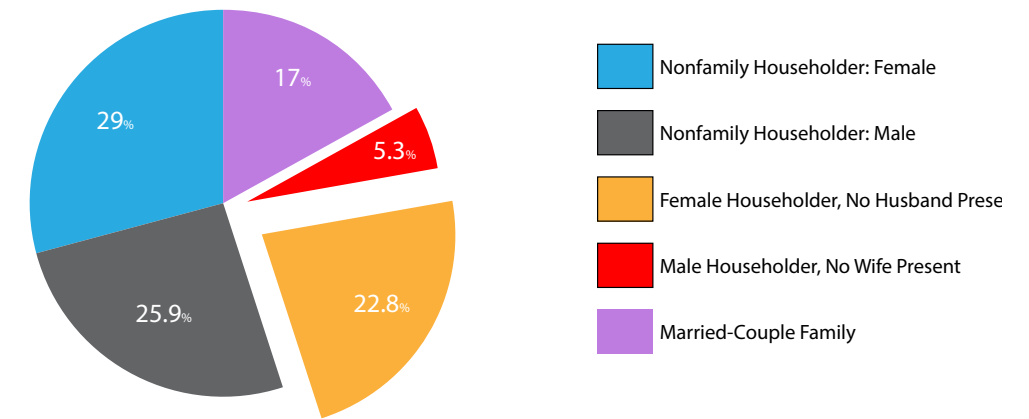
The specified lot is located in a residential area across from an elementary school. The design concept is to create a social link through students to promote services such as art programs, childcare, and employment opportunities.

With high rent and a large number of single household families, the proposed program aims to provide support and care for these individuals. In addition, the facility center supplies affordable residential units.

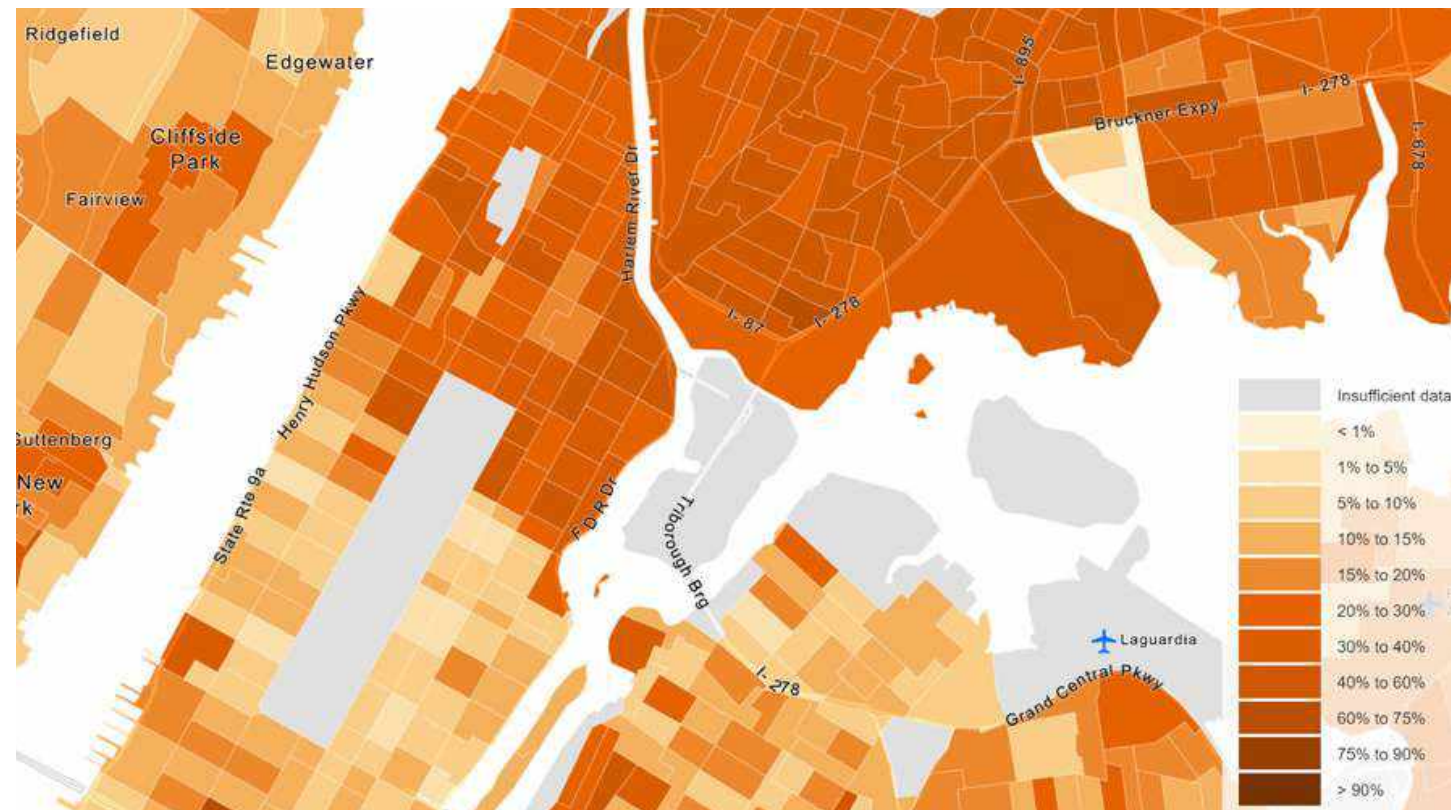


Renter-Occupied Housing Units:50 percent or More  
ACS 2017 (5-Year Estimates)

HIGH RENT



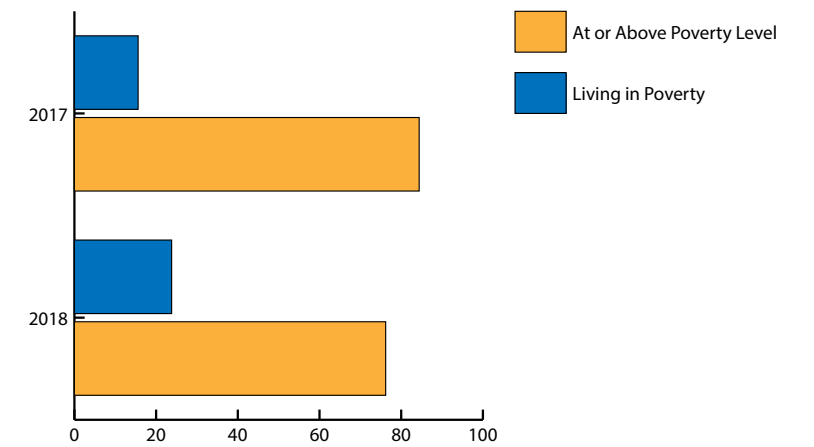
Households by Household Type  
Manhattan Census Tracts 228 + 230  
Source: ACS 2017 (5-Year Estimates)



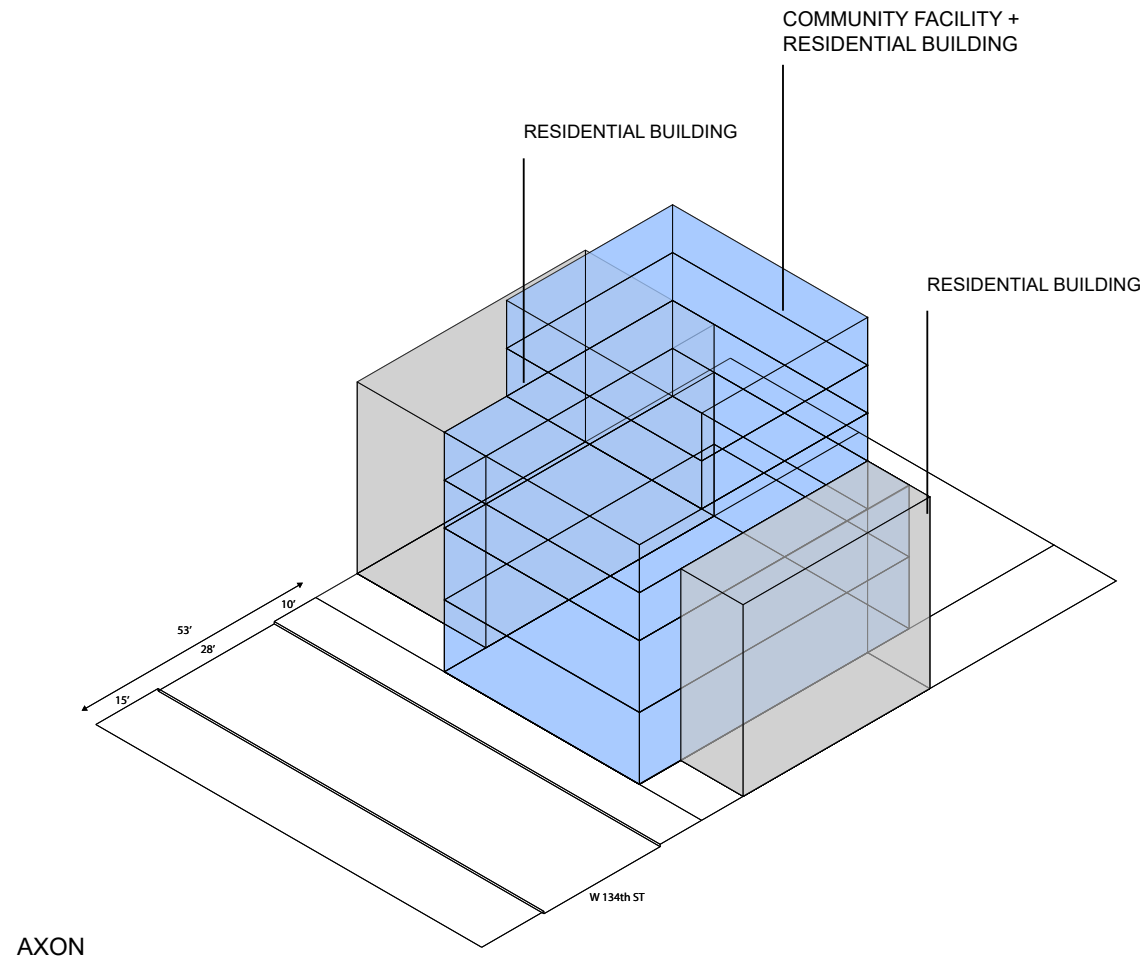
Households:Less than \$20,000  
ACS 2017 (5-Year Estimates)

HIGH RENT vs. POVERTY

The socioeconomic information from US Census data shows a correlation between rent and poverty. The study area has a lower household income relative to other districts in Manhattan. Fifty percent or more of the expenditure of income goes to rent payment. Making a higher percentage than married-couples, single households are statistically poverty-stricken due to high rent.



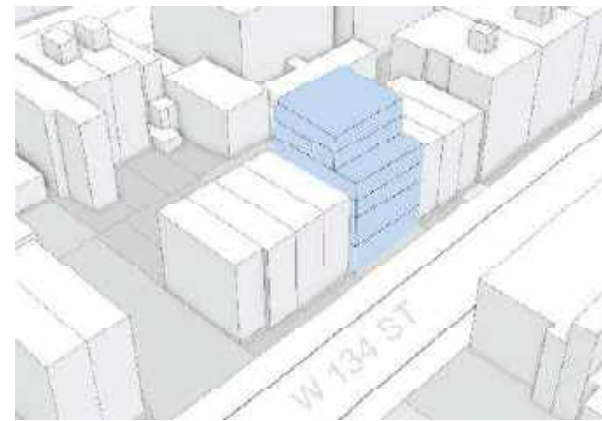
Poverty Status in 2018 for Children Under 18  
New York City Census  
Source: ACS 2017 + ACS 2018 (1-Year Estimates)



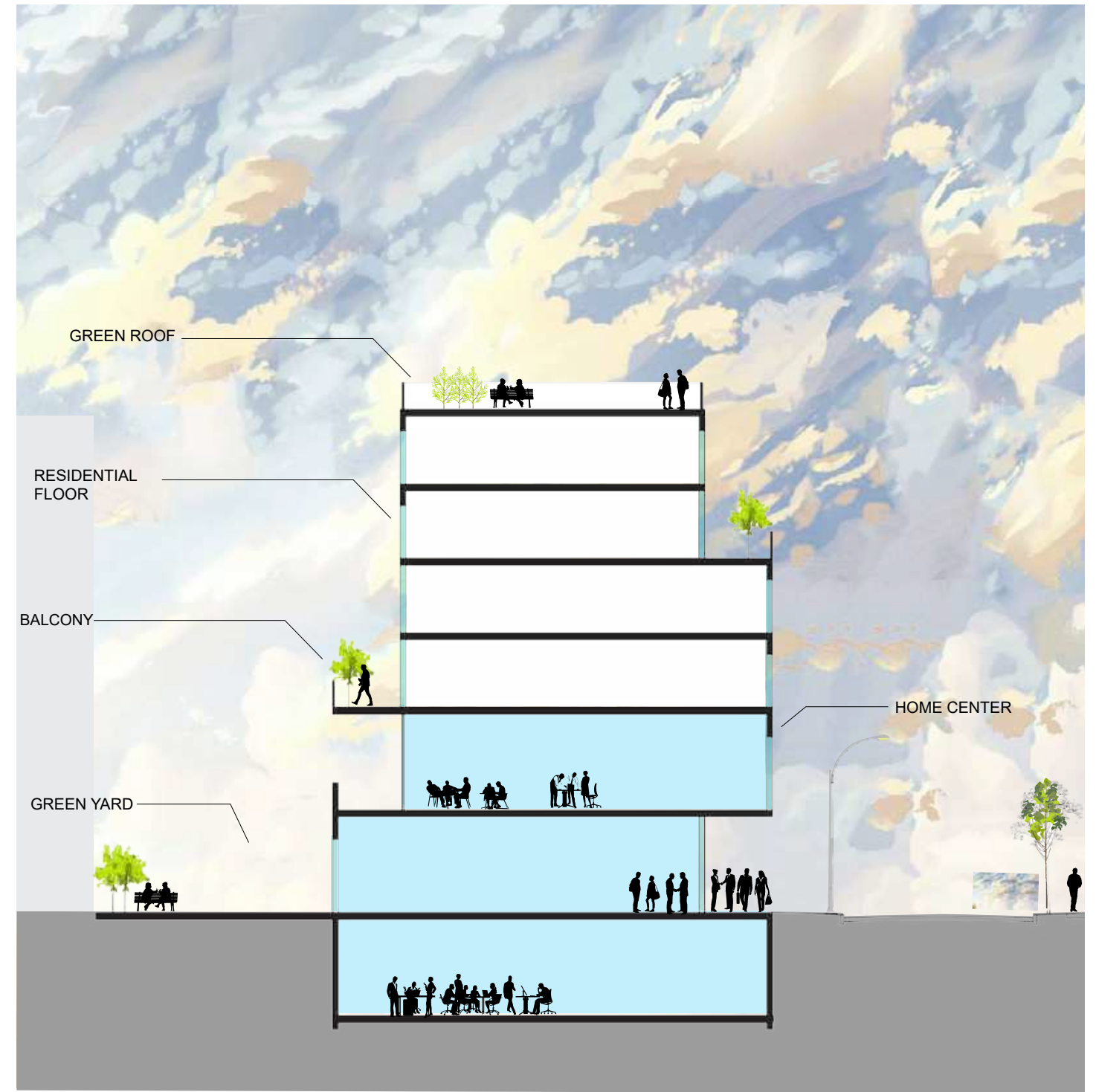
AXON

PROPOSED PROGRAM

NUMBER OF FLOORS	6
BUILDING HEIGHT	70'
BASE HEIGHT	50'
RESIDENTIAL FL	3-6 FL
COMMUNITY FACILITY FL	1-2 FL
FLOOR 1-2	3,055 SF/FL
SUBTOTAL	6,110 SF
FLOOR 3-4	2,585 SF/FL
SUBTOTAL	5,170 SF
FLOOR 5-6	1,880 SF/FL
SUBTOTAL	3,760
TOTAL PROPOSED FLOOR AREA	15,030 FL
TOTAL RESIDENTIAL FLOOR AREA	8,930 SF
TOTAL FACILITY FLOOR AREA	6110
FAR	3.2



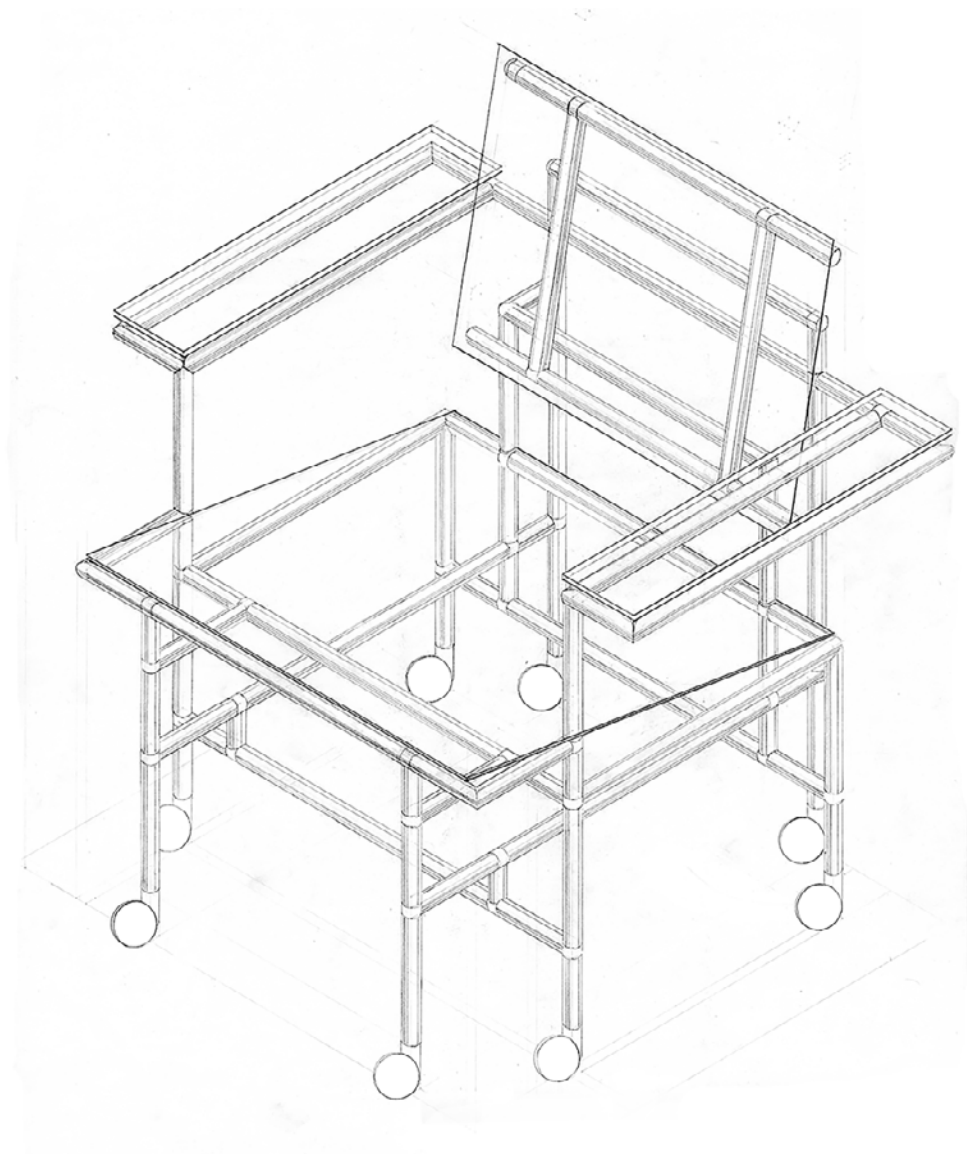
Northeast view of the proposed program - 1st and 2nd level serve as a community facility and maintain a spatial balance with the multi-family residential levels from 3 to 6. The base height setback on the 4th floor balcony provides a panoramic view of the streetscape. The building design synchronizes the visual continuity with its adjacent buildings.



SECTION

Social Connection

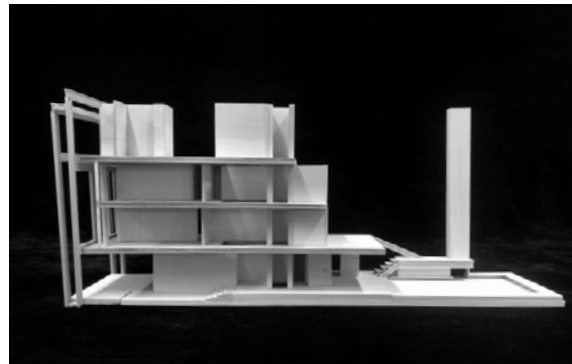
The building enables meetings, activities, and social connection with an indoor-outdoor design approach. The Green roof and yard are a means to promote health and connection between people.



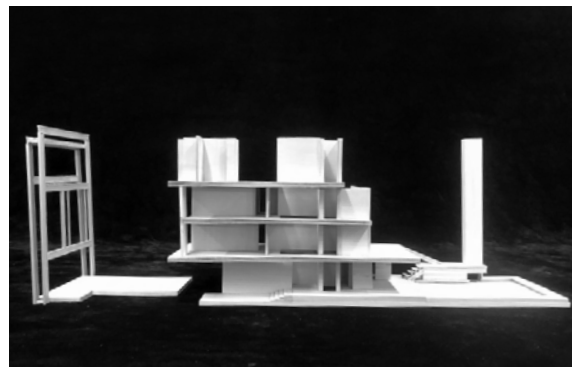
**HIRSCH RESIDENCE**  
101 E63RD | MANHATTAN  
PROJECT TYPE: DESIGN ANALYSIS  
SPRING 2018

## SOUND TRACE

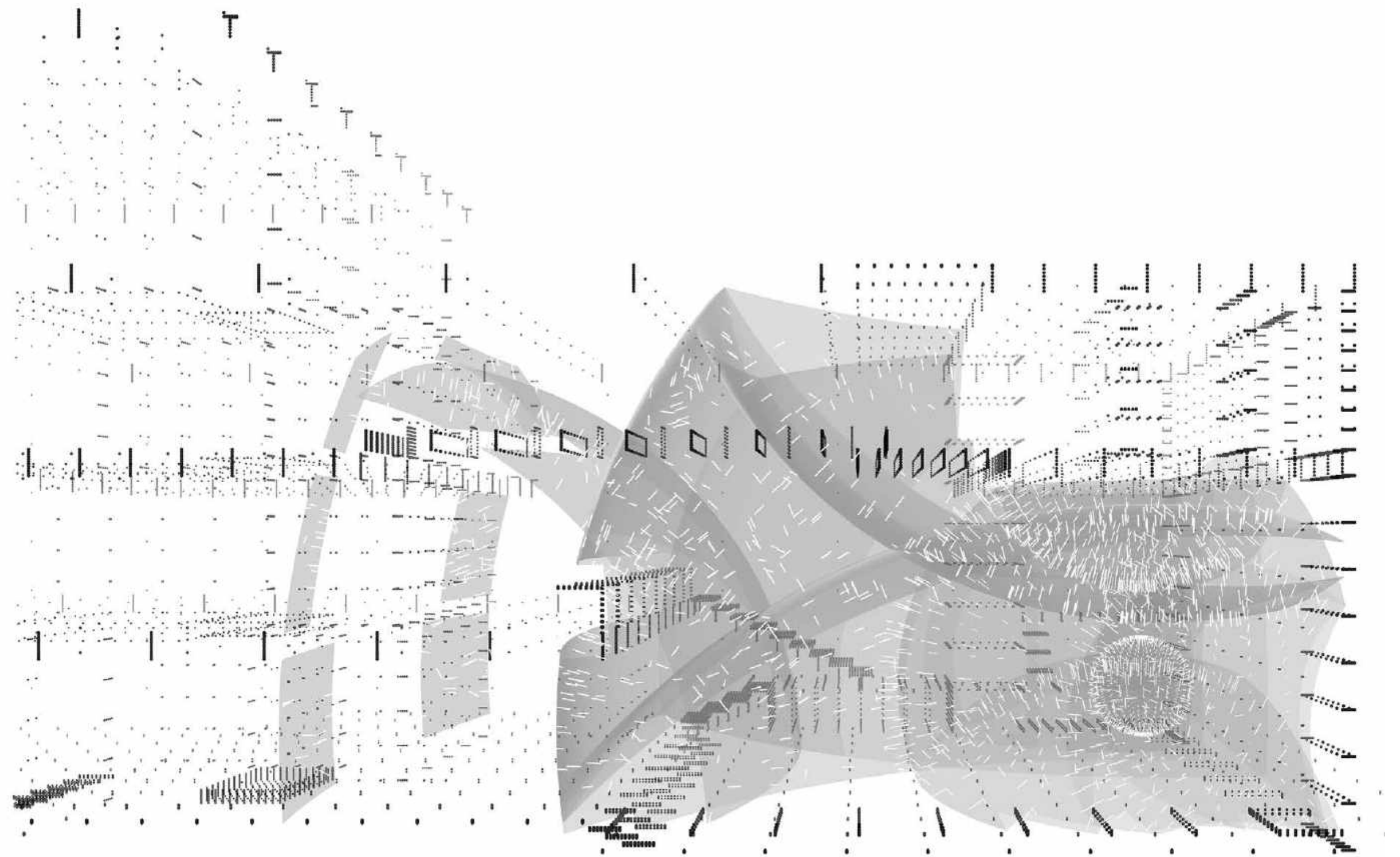
This project focuses on the analysis of Paul Rudolph's 101 House. My analysis deals with how sound reconstructs the space in a visible form. This informs us how much privacy is considered in the design of 101. The sound reflections map the contours of reachable space. The way that I translated this to a visual form represents how sound, in both molecular and tidal form, indicates a high level of reflectancy in the space. This visualization shows that sound was not highly considered in the design.



INTERIOR MODEL



BACK FACADE - DETACHED

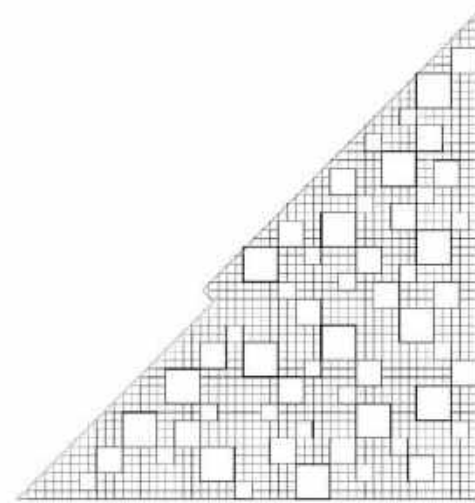
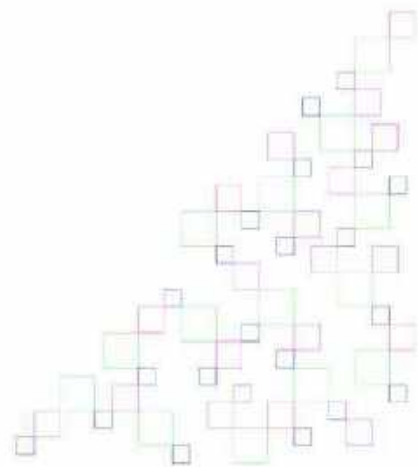


SOUND REFLECTION PERSPECTIVE



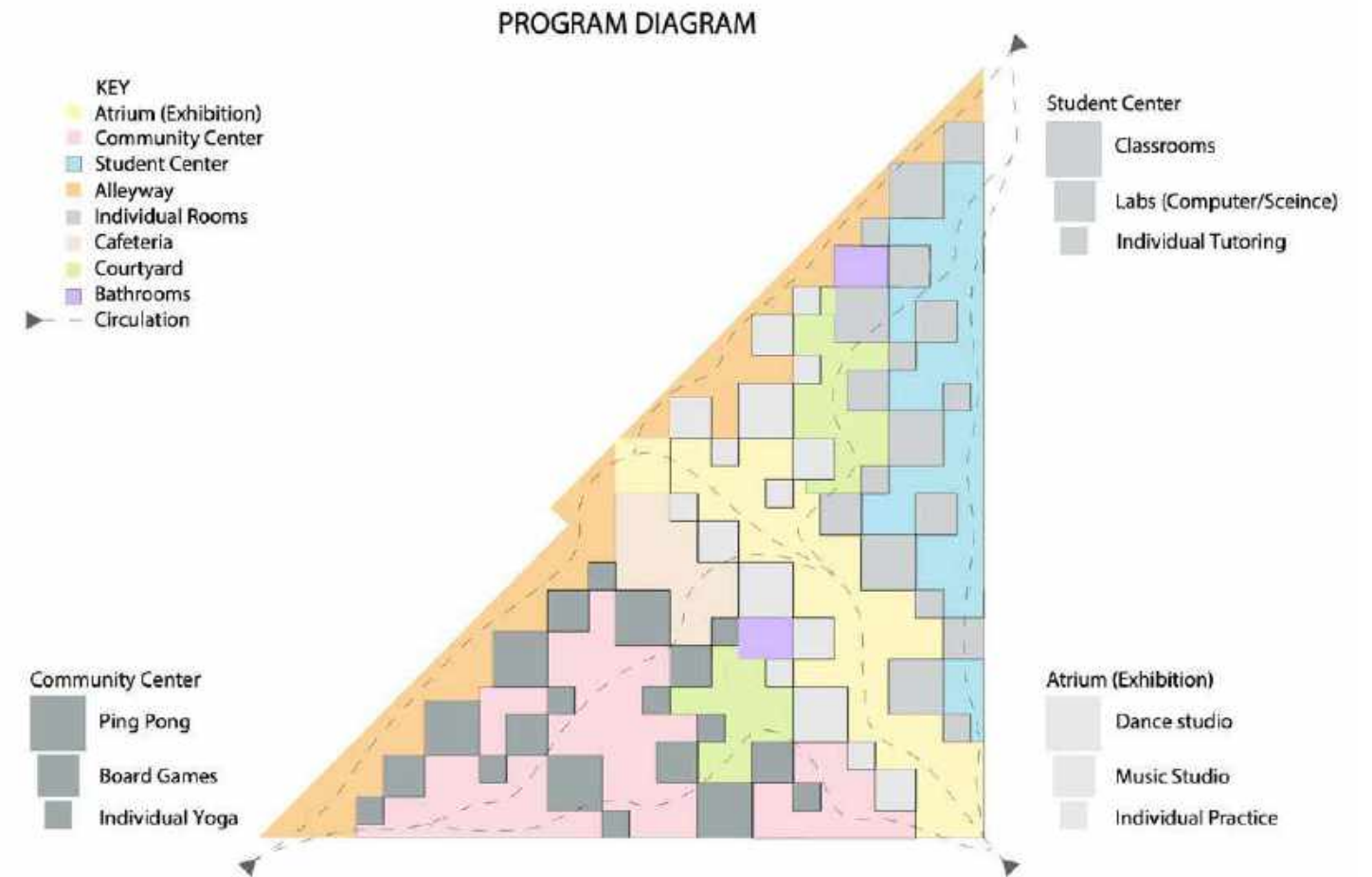
## STEPPING STONES

CONVENT AVE | MANHATTAN  
PROJECT TYPE: INTEGRATION  
PARTNER: HINA SARDAR  
STUDIO VI SPRING 2021



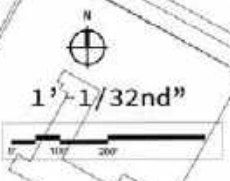
Drawing on the varying multiples of the number 6, this 53,000 square foot lot creates a series of interlocking spaces that function as steppingstones.

The design uses the triangular site as a grid for the distribution of different arrangement of spaces. These arrangements create fluidity for various communities to gather as well as maintain a safe distance through the distribution of these steps. As one maneuvers through the space, the function changes from a smaller and a more individual one to a larger and a more combined one. The expansive interior space allows for views across the atrium, while the exterior spaces create variation in height to allow multiple views.





SITE PLAN  
THE CITY COLLEGE OF NEW YORK

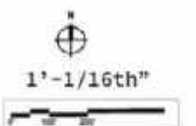


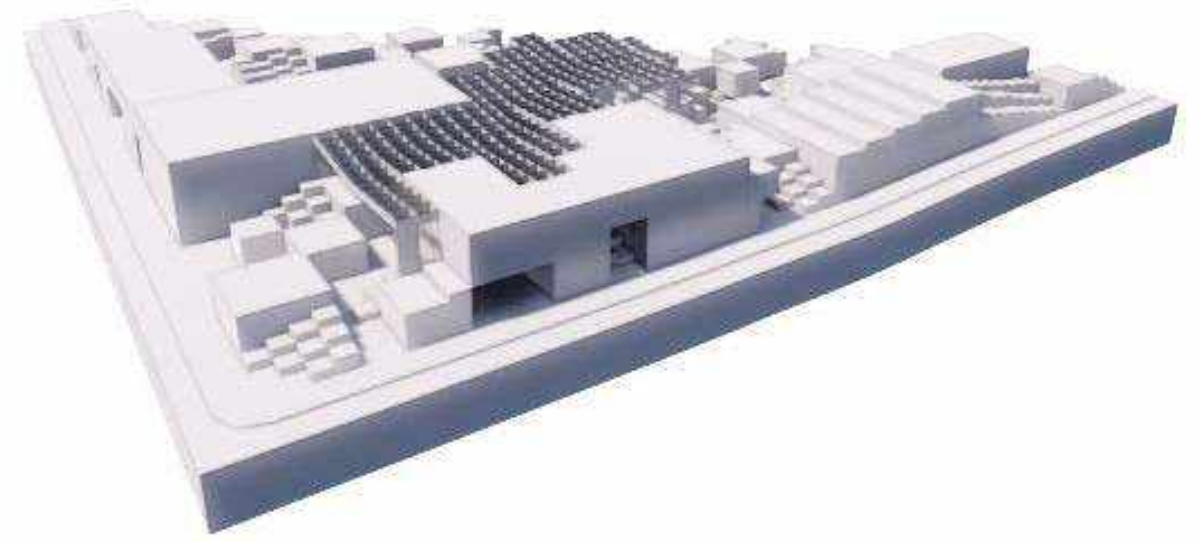
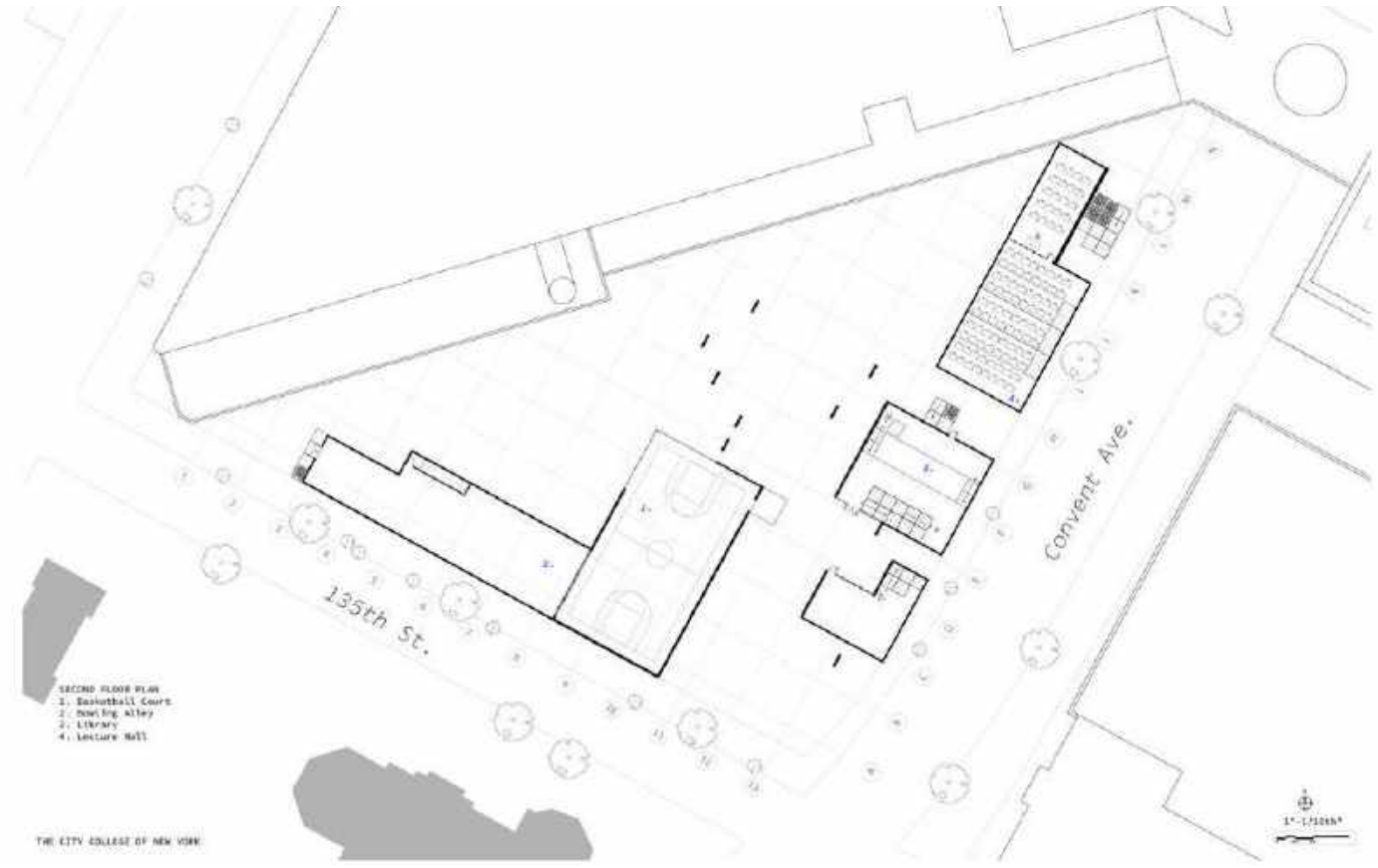


FIRST FLOOR PLAN

- 1. Basketball Court
- 2. Volleyball Court
- 3. Ping Pong
- 4. Board Games
- 5. Dance Studio
- 6. Music Studio
- 7. Courtyard-1
- 8. Bathroom-1
- 9. Lecture Hall
- 10. Classrooms
- 11. Computer Labs
- 12. Bathroom-2
- 13. Atrium Space
- 14. HVAC
- 15. Library
- 16. Locker Rooms
- 17. Storage Room
- 18. Courtyard-2
- 19. Rock Climbing

THE CITY COLLEGE OF NEW YORK



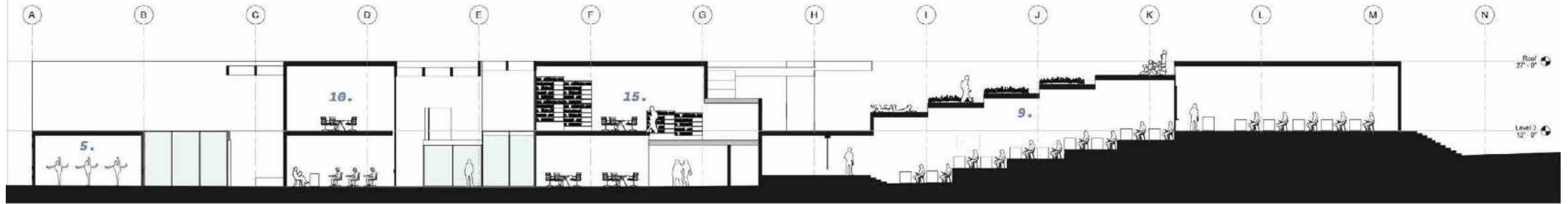


3D AXON

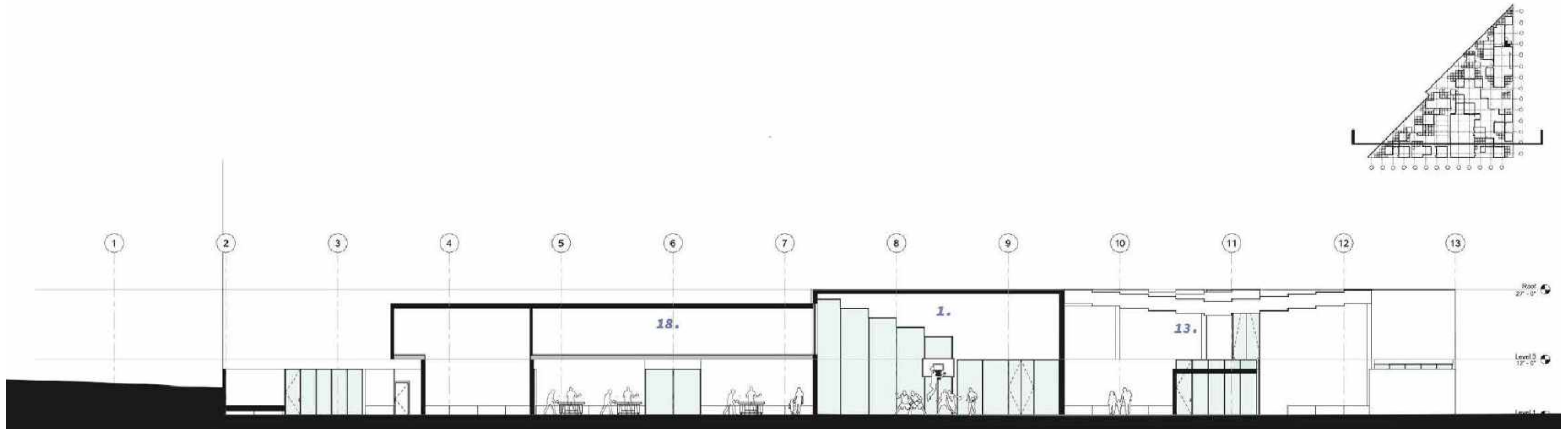


- SECTION
1. Basketball Court
  2. Volleyball Court
  3. Ping Pong
  4. Board Games
  5. Dance Studio
  6. Music Studio
  7. Courtyard
  8. Bathroom-1
  9. Lecture Hall
  10. Classrooms
  11. Computer Labs
  12. Bathroom-2
  13. Atrium Space
  14. HVAC
  15. Library
  16. Locker Rooms
  17. Storage Room
  18. Bowling Alley

THE CITY COLLEGE OF NEW YORK



EAST  
SCALE: 1/8" = 1'



SOUTH  
SCALE: 1/8" = 1'

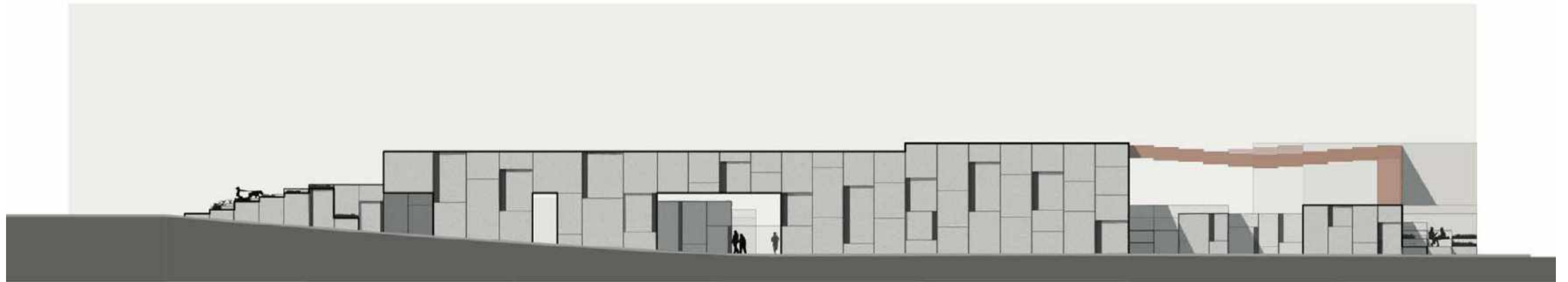


CONVENT AVE ALLEYWAY - RENDERING



EAST ELEVATION  
SCALE: 1/16" = 1'

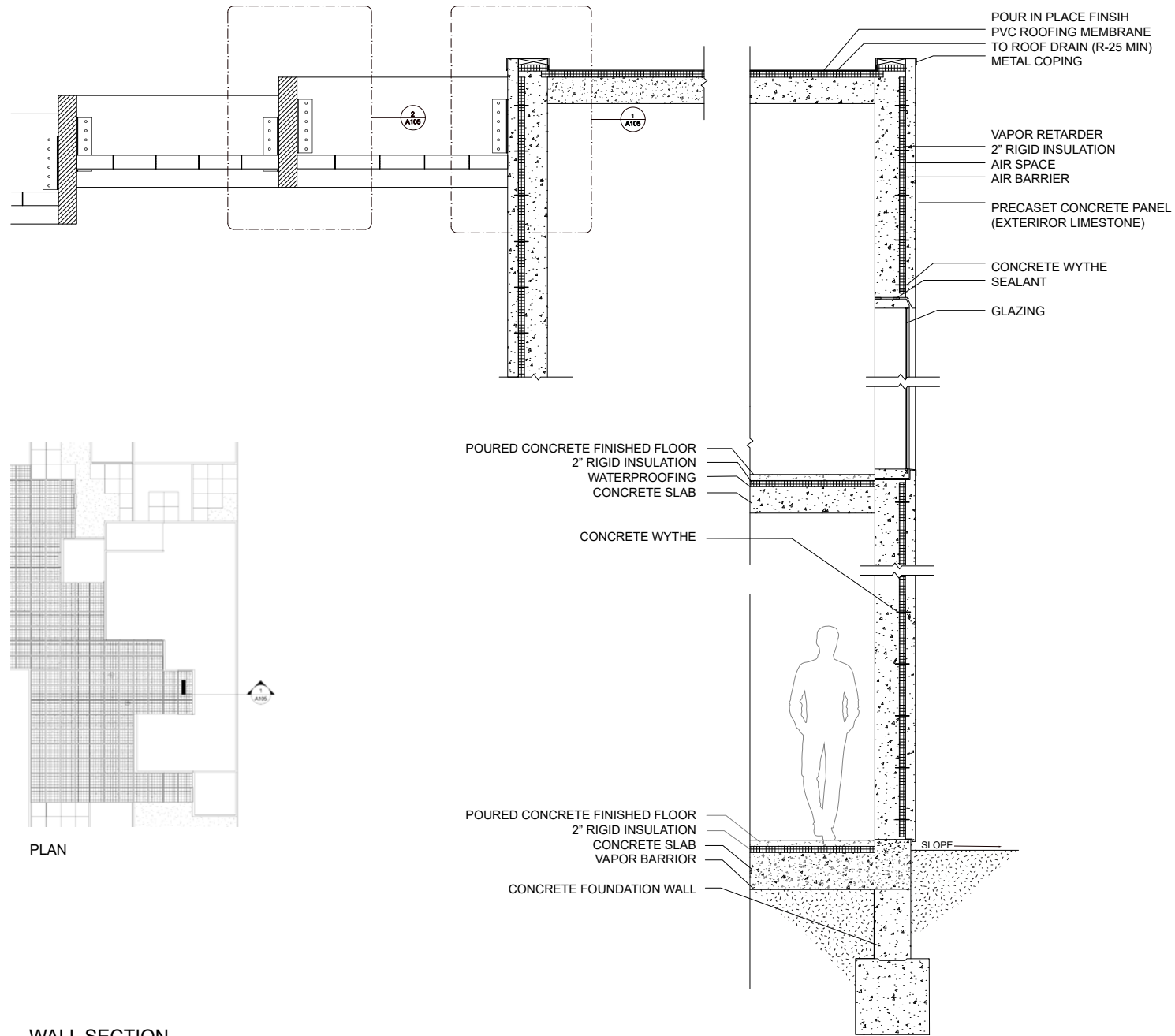
Convent Ave



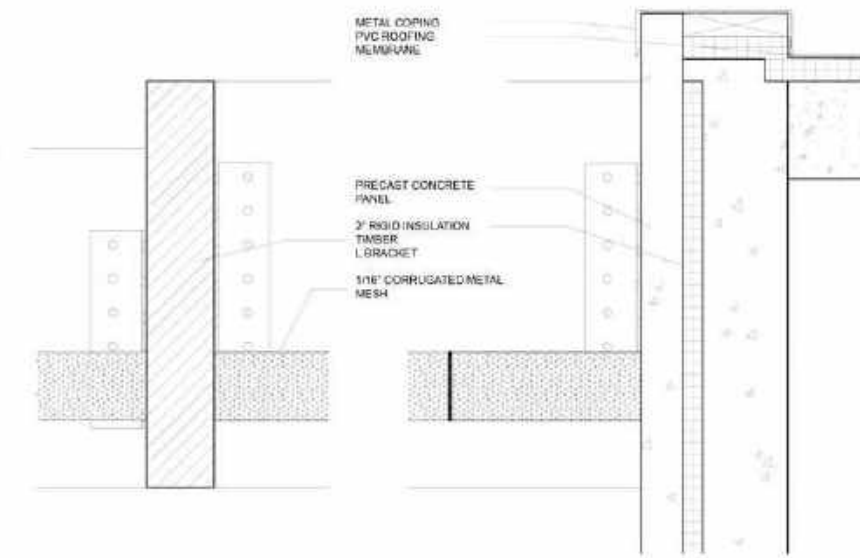
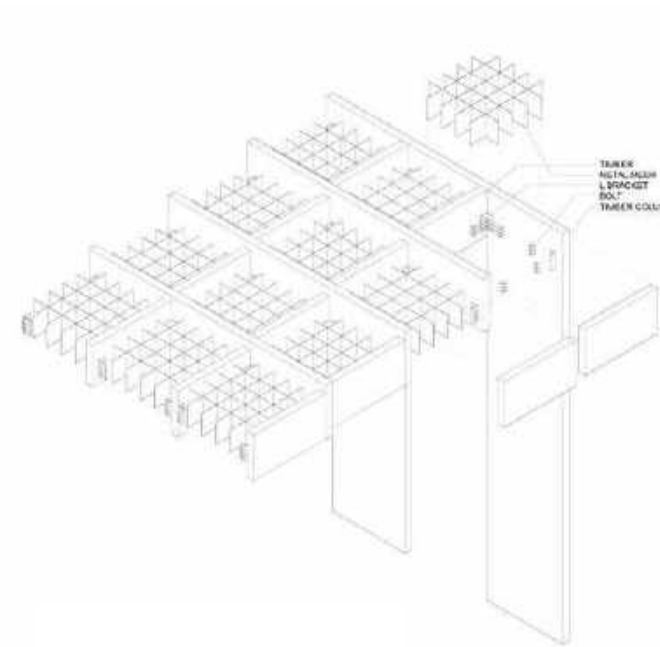
WEST ELEVATION  
SCALE: 1/16" = 1'

W 135th St

06 STEPPING STONES



WALL SECTION  
SCALE: 3/4" = 1'



② CALL OUT  
SCALE: 3/4" = 1'

① CALL OUT  
SCALE: 3/4" = 1'



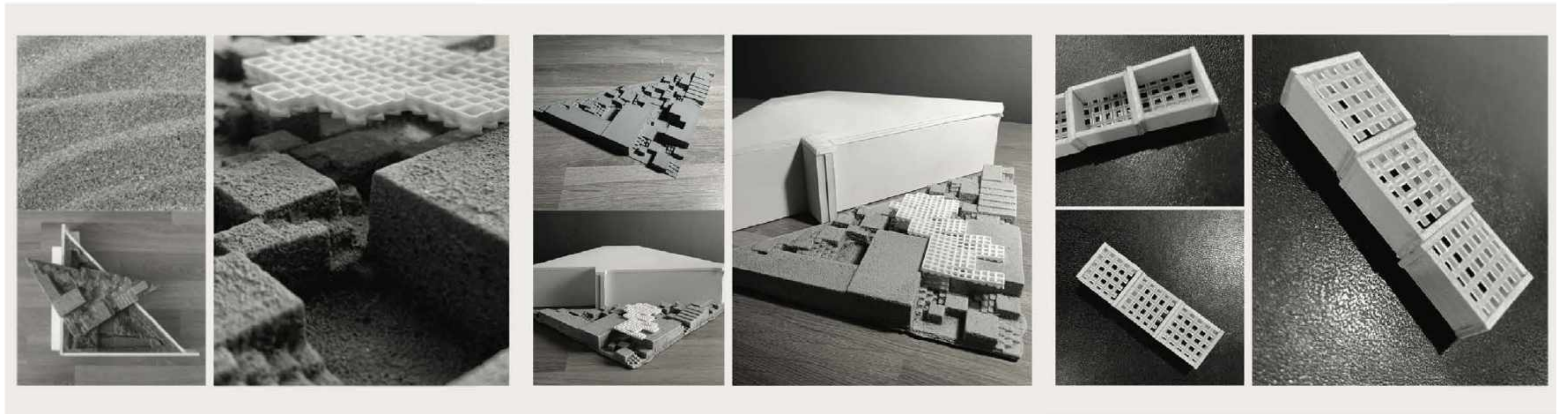
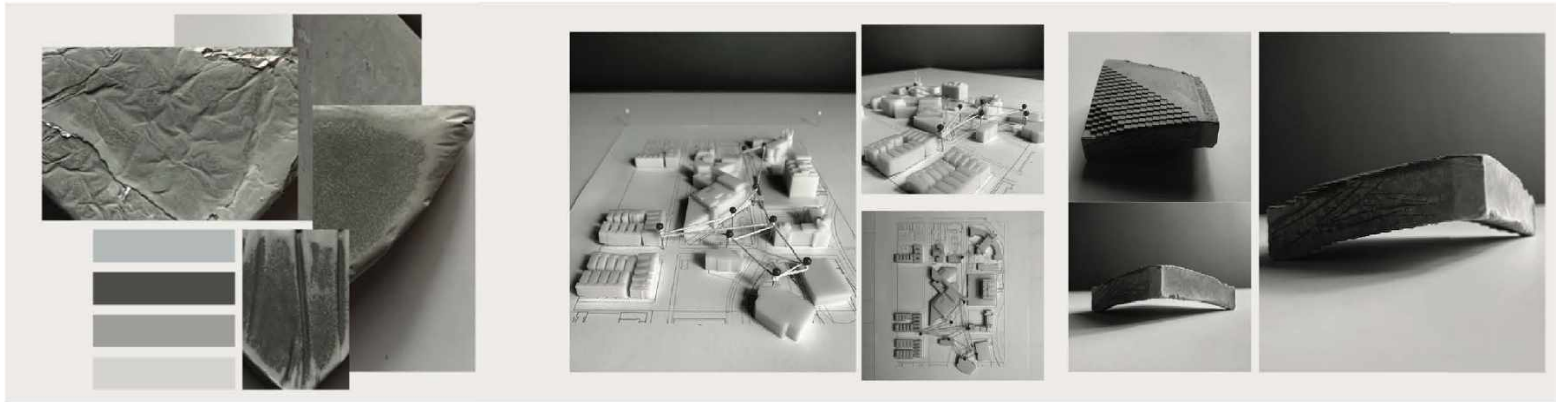
ATRIUM VIEW 1 - RENDERING



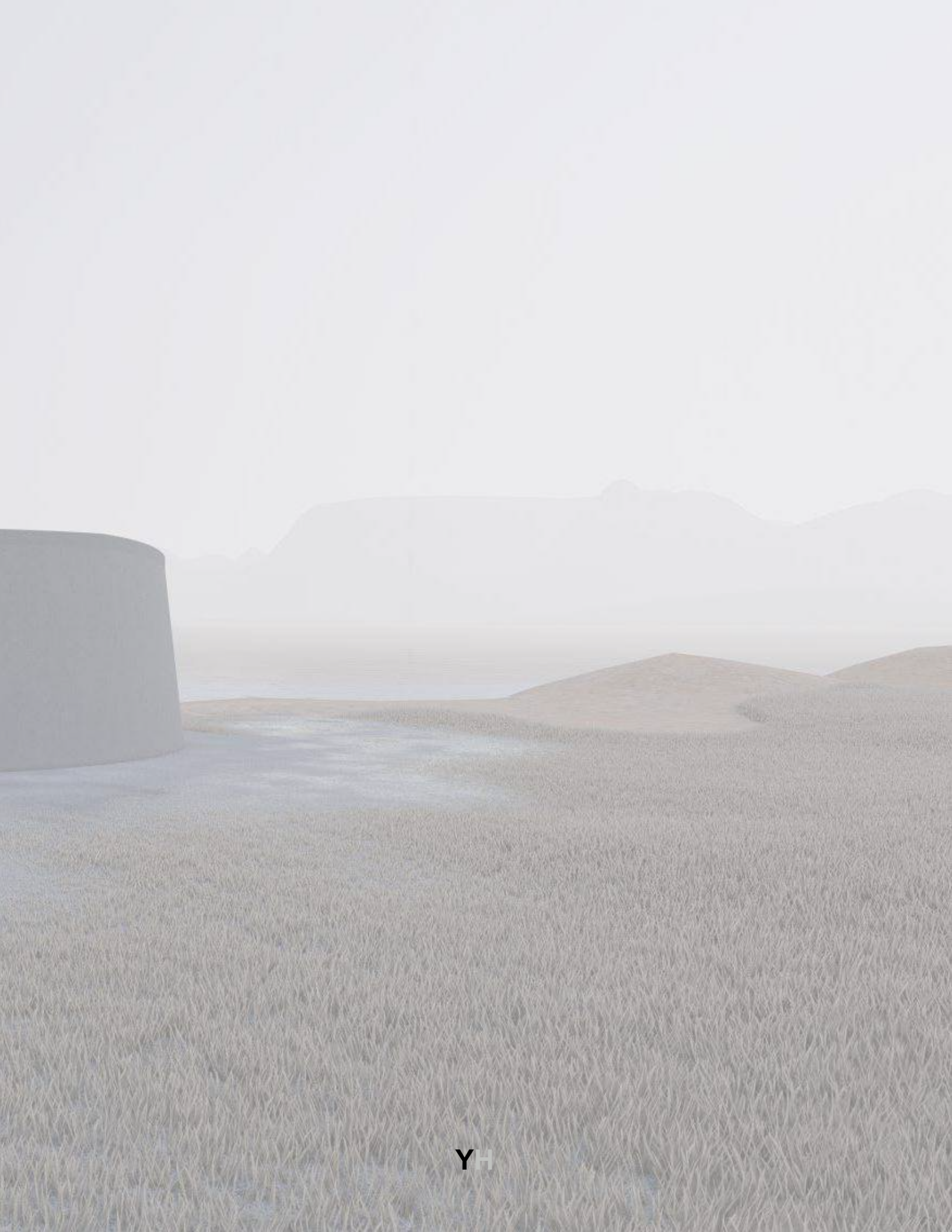
ATRIUM VIEW 2 - RENDERING



EXTERIOR PERSPECTIVE - RENDERING



MODELS PHOTOGRAPHS



YH