LAYER CITY

Redesign Skyscrapers

A Thesis

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By

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Born and raised in China, Yangxue Deng had a passion in design since she was a child. This passion led her to attend graduate school in Miami University after she got her bachelor degree in China. This summer, She had a summer internship in NBBJ headquarters Seattle, during which she accumulated professional practice. Through traveling and learning, she witnessed the rapid development as well as social problems brought by the soaring urbanization, rampant consumerism is visible within much of today's architecture. Since then, she is determined to further herself in using architecture design to find a solution.

ABSTRACT

My thesis is dealing with the urban construction---skyscrapers,nowadays, the urban fabric is pronominally skyscraper driven in major cities. I started my paper from my own city experience. While the skyscraper in New York City is a passive existence to fulfill density demand, most of the world's big cities are building skyscraper purposefully other than functionally. This is the main reason that causes rampant consumerism within City of Beijing. Culture heritages are now gradually replaced by decorative buildings in order to obtain the title of "metropolis". Skyscraper is more a political measure. The concept of metropolis is developed from tribe, where in the ancient times people gathered together to exchange stuff and communicate with others. Therefore, city has nothing to do with skyscraper, building skyscraper is just one of many solutions to solve the density problem. Furthermore, skyscraper is causing chaos and disconnecting us from urban fabric by vertically heighten us above the cityscape, which further on disconnecting culture connectivity that sustains a healthy city.

In order to fully realize the relationship between architecture culture and humanity, it's necessary to utilize certain features that are overlooked in current cities, such as horizontality compactness interacting with streetscapes, façade development depth, and enhance horizontal circulation between skyscrapers. Therefore, by adding multiple layers to skyscraper not only enhance communication within the city, but also provide buildings sufficient sunlight, through my research, I am looking to redesign skyscrapers to create a better living experience in the future

Layer City

1) Introduction

I often dream of my hometown Beijing. My homesickness shows in missing my parents, my friends and the authentic Chinese food as well. However, none of them are from the city of Beijing. This capital city of China has confronted so many changes in the past ten years. Day after day, I found myself lost in the miscellaneous architectural complex, the exotic buildings seems to call for a "*Delirious Beijing*". Cultural heritage and traditional settlements are now gradually replaced by decorative buildings. Rampant consumerism, not only in China, is visible within much of today's architecture.

Since then, I've been exploring the way to use design to solve this social problem. The reason why I call it social problem not architecture problem is I think it is another issue brought out by industrial revolution. Meanwhile, urbanization turns architecture field into industrialization production, the same street view make one disoriented. As an architect, I want to design a system which can make people rethink architecture and present living experience.

Instead of talking about the new type of architecture we need, why not first focus on contemporary architecture and cities.
Nowadays, all the big cities around the world are growing in a fast speed and merging into metropolis. It seems metropolis is the" Zeitgeist" of our times. "On the contrary, it is a new type of metropolis that we have called a 'city of exacerbated difference,' whose character is based on the extreme differentiation of its parts,"[i] Rem Koolhaas pointed out in his "Project on the City "speech at Harvard University in 1996.
Now it's almost twenty years, however it seems Koolhaas's query now become reality within most of world's big cites. He realized intuitively that the previous city concept is out of place of today's condition, especially along with "market" this non architecture factor involved, which makes the city getting an unprecedented metamorphosis. However, architects to this change is indifferent, this results in an increasing gap between contemporary city and architectural design.

Therefore, we now aware of that chaos and exacerbated difference are the symbols of metropolis in our times. How can we learn from this phenomenon and creating a better environment for future cities?

2) Methodology

a) City Experience
City of Beijing
Take the city experience of my hometown Beijing as a case study. I witnessed the flourish of Beijing. In the past ten years, the city is expanding in a fast speed. Centered on the old Forbidden City, new subway lines and transportation roads had been built around the edge of the city. It's only been five years since, Beijing' transportation road has grown from fourth circle line to sixth circle line. Skyscrapers can be seen all round the city, and the citizens are proud to see the expansion turns Beijing into a

metropolitan.

As I mentioned before the rampant consumerism is within the city. One is probably not so familiar with this phrase until one takes a walk in Chaoyang District of Beijing. All one can see is ultra-high-rise patterns, steel structures, glass curtain walls, lofty skyscrapers cutting the view of the sky, and the huge advertisement board shinning day and night. "This place is nothing like Beijing, "said the older citizen in the city. The memory of this historical city seems to fade away in the miscellaneous architectural complex.

In recent years, with the influx of well-known international architects into China's architecture market, such as Rem Koolhaas, Jacques Herzog, De Meuron, Paul Andreu, Bernard Tschumi and others, new buildings keep updating the skyline of Beijing. The original urban planning of Beijing focuses on aligning along the axis, however, new buildings are tangled in the axis. This results in breaking the scale, texture, and form of the urban design, and most importantly, the Chinese traditional symmetrical aesthetic.

In today's China, the large scale and exaggerated forms of skyscrapers seem to be the most critical representational devices of a metropolis. Ironically, this phenomenon results in Beijing becoming an experimental field where foreign architects to execute their skyscraper designs.

New York City

Last year, I arrived for the first time in the United States. After I landed in New York, I was not surprised to see the skyline of Manhattan when I was driving through the Brooklyn Bridge. Before my arrival in New York, I expected a "delirious" science-fiction style metropolitan, however the skyline let me down, and the sky scrapers are too bland compared to Beijing.

However I changed my mind after spending half a month walking and living in Manhattan. I realize I am so skin-deep to judge a city by the amount of its skyscraper and its modernization.

Manhattan is deeply in the experience of diverse cultures. Multiculturalism has enabled Manhattan to be known as the city of "Cultural of Congestion"[ii], and the skyscraper is its carrier. The elevators and steel frames give the architecture the ability of reproduce and expanded. In "Delirious New York" Rem Koolhaas terms skyscraper as "the vertical schism". From Waldorf Astoria hotel to Empire State Building, one can see how skyscraper was conquered by society and culture. As a reply to Culture of Congestion, the skyscraper in New York City is a **passive existence**, it implies the uncertainly of the future.

This interesting conclusion reminds me of the Spanish surrealist painter --- Salvador Dali's experience in New York City. In 1935, Dali arrived in New York with a 2.5 meter long giant bread in his hand. As the representative of the avant-garde art, he wanted to continuously cause a surprise. A strange thing happened, no one noticed the bread, on the same day, Dali was shocked again when he saw several workers are painting a new skyscraper into a green rusty look to make it look like it has a long history, Dali concluded: New York doesn't want to

be modern, avant-garde art is invisible in New York City.

b) Discussion

How to define a city? Is the skyscraper the symbol of a metropolitan?

The impact of skyscraper: Functionally? Politically? Culturally?

While the skyscraper in New York City is a passive existence to fulfill density demand, most of the world's big cities are building skyscraper purposefully other than functionally. This is the main reason why I said rampant consumerism is visible within Beijing. Culture heritages are now gradually replaced by decorative buildings in order to obtain the title of "metropolis". It's more a political measure.

So what is metropolis? How to define a metropolis?

The concept of metropolis is developed from tribe, where in the ancient times people gathered together to exchange stuff and communicate with others.

With the increasing amount of people gathering together, the place needs to meet pluralism demand of people, which gradually grows into a city.

To a more accurate saying, city is a place for people to communicate and exchange, exchange goods, language, desire, thoughts...

From this point, we can see that city has **nothing to do** with skyscrapers, building skyscraper is just one of many solutions to solve the density problem. Furthermore, skyscraper is causing chaos and disconnecting us from urban fabric by vertically heighten us above the cityscape, which further on disconnecting culture connectivity that sustains a healthy city.

In order to fully realize the relationship between architecture culture and humanity, it's necessary to utilize certain features that are overlooked in current cities, such as horizontality compactness interacting with streetscapes, façade development depth, and enhance horizontal circulation between skyscrapers.

c) Case Studies

- Case Study 1: Super studio -

By creating alternative visions of the future in photo-montages, sketches, graphic, super studio's hypothetical concept is to create a mega structure which can have endless extensions, and in the extending process, this structure connects the urban fabric and architecture together. Meanwhile, they are using their own way to put "Zeitgeist" into architecture and trying to influence people by giving them visual impacts.

- Case study2: Mage structure &Grids -

Future city always connects with mega structure, when one talking about metropolis, the first adjective come into one's mind is "BIG". In this regard, I was deeply impressed by the designs of Konrad Wachsmann, especially his hangar for the US air force[iii] that was published in《Baukunst Und Werkform》in 1954. Wachsmann's rasterized structure for the cantilever roof of the hangar later became a role model in all kinds of Mega structure architecture, for

example, Eckhard *Schulze-Fielitz' Raumstadt* (Space City). In his concept the gaps of the grid were not only supposed to serve for stabilization, but to become spaces to work and to live in.
Meanwhile, the space can be flexible as well. He conducts several models to create this spatial ordering system, and his ultimate goal is to generate grids which capable of modulations.

- Case study 3: Horizontal skyscraper -
Horizontal skyscraper – Vanke center, Shenzhen, China, 2006-2009. Steven Holl

The Vanke Center in China is a mixed-use building including hotel, offices, serviced apartments, and public parks. The climate in Shenzhen is subtropical. Air ventilation and shady places are pretty welcome in that place. Instead of creating a vertical skyscraper and a square in front of it, Holl just used 3% area from the site for necessary cores, so users will have almost the whole site for a garden and shade. Meanwhile, this is a good way to enhance the connection between architecture and the ground circulation.

- Case study 4: Linked Hybrid -
Linked Hybrid, Steven Holl, Beijing, China, 2003-2009

This linked architecture complex included 644 apartments, public green space, commercial zones, hotel, cinema, kindergarten, Montessori school and underground parking, and the whole area are 221,426 sm.
As Steven Holl stated in his design, he wanted to create an open city within a city. Linked Hybrid is focus on creating a new urban space within an architecture and open to public from multi direction.
This practice adds another layer to the complex in a horizontal way, which enhances the circulation between each building.

d) Additional Literature Analysis

《Swarm Architecture》Kas Oosterhuis

When one looks into urban design, one can take each building in the city as a quantum, they follow a certain rule to consist a swarms system. Like the swarm of birds.

This study of natural behavior benefits a lot for the urban designers. For if one took a swarm-based urban planning as a dynamic system or a design game, each building in it interacts with other, afterwards these activities finally achieved the complexity of the city. It's a process starting from a simple rule extends to a very complex behavior emerges.

《S, M, L, XL》Rem Koolhaas
Large scale[iv] is the keyword in 《S, M, L, and XL》.
Koolhass point out that chaos is the main issue among nowadays modern city. He defined building as a "dangerous mixture", and the architectural design process as "a chaotic adventure". However, "large scale" is a main method

to against the chaos and avoiding fragmented aspect of the city.
1. LARGE in structure.
2. LARGE in quantity. Large amount can solve the disorder problem by establishing a new order. (Mutualism mode)

3) Site Research

I started my summer thesis from site research. Especially my topic is about layer city and skyscraper, what I should focus on are big cities. So I put three cites on my list, which is Beijing, my hometown; New York City and Seattle in where I am going to spend a summertime.

Beijing:
My hometown, traditional as well as high technology, the number of skyscrapers within the city is increasing every year. However the existence of skyscraper is very much a political measure.
Seattle:
One of those big cities within states, I was lucky enough to have an internship in NBBJ Seattle, so I got months to exploring this major coastal city. Seattle has all the stuff associated with life in a major city, sports teams, skyscrapers, bad traffic , etc., but one really don't have to travel far to feel like in rural America.
New York City:
The origin of skyscraper, the limitation of land and space in Manhattan forces building to grow only in a vertical way.

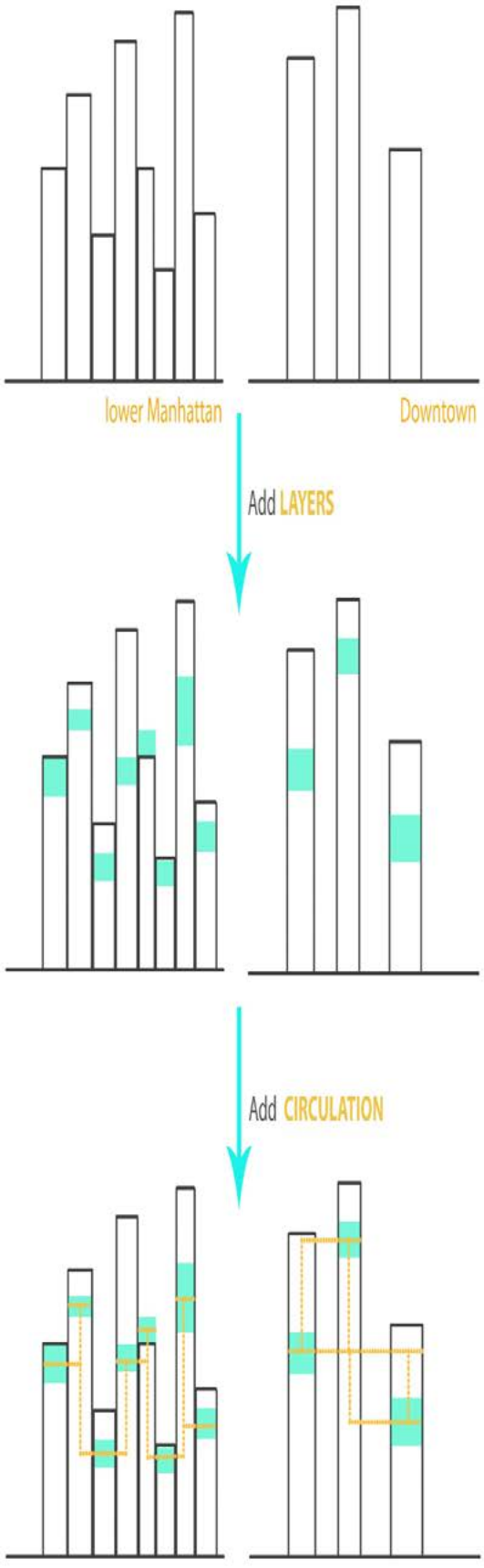
After analyzing the properties of the cities above, I decided to choose Manhattan, New York City as my site. The high density leads New York City in need of multiple layers to achieve sufficient daylight and horizontal circulation.

City Experience:
After I arrived in New York City, I carried my camera and my sketchbook wandering through the city. After several days 'exploring, I observed some very interesting phenomenon:

i) The different arrangement of skyscrapers in lower Manhattan and downtown.

As you can see the diagram below, skyscraper in downtown is more like a complex has its own independence, while skyscrapers in in lower Manhattan rigidly integrated together.

This difference is mainly caused by the price of the land, obviously, in downtown, especially near time square, everything gets expensive, and so this financial reason forces buildings to grow in lower Manhattan, which generate the rigid integrated skyscraper complex.
Although the zooming has a huge difference between downtown and lower Manhattan, both of them has a common point, which is what I been talking about in my paper---lacking of multiple layers. In this point, lower Manhattan is even worse, for it lacks of sufficient daylight as well.
To look into the matter, I did a quick sketch and diagrams below to bring in the concept of 'Layers'.



ii) High line VS Central park

Both of these fields are my favorite place in New York City. The Highline around Hudson River is a narrow, long elevated area, and part of which has been developed into a park like space. While Central Park, which locates in the middle of Manhattan is an famous place and has a lots of activities going on as biking, hiking, rowing on the lake and so on.

As famous recreational areas within the city, they have totally different aspect. Here I put them together is not intended to compare them, however to look into the matter then find out the reason that causing the difference and also learn from their respective advantages.

Speaking of the site research, this is the fourth times I had been in New York City. I lived in my friend's house in upper side east, I still remember the first time I ask her to company me doing research around high line. "Highline? Where is High line?"

I was astonished to see a New Yorker (she has lived there for three years) don't know high line. After a simple introduction, we went to high line that day. That place is never unfamiliar to me. I still remember one year ago our 600 students doing site research for high rise studio around here in a rainy day. Because I was shocked of the fact that my friend does not know high line, this time instead of just taking pictures and observing traffic around the site, I decide to observe people on the high line and do some interviews.

I randomly interviewed 87 people, in whom 54 people are currently living in

New York City, and the other 33 are tourists or from other states .47 of the New Yorkers been to central park, and 31 been to highline. However, in the tourist group, 17 been to central park, 23 been to highline.

We can tell very clearly from this table. Central park is more familiar to residents within New York City, while Highline is more familiar to tourists. What cause the different? Both of them are public recreation place, why they have different aspect of crowd? After I took several walks and observation in each place, I focus my conclusion on the different function preference:

·Central park is in the middle of Manhattan, it's like an island which totally different from other parts of Manhattan, the only vertical objects at there are trees other than skyscrapers. People in there mostly relaxing or doing recreation activities like walking, jogging or walking the dog, of course, there are tourists, too. However, Central park is a quiet place overall for ones to isolate themselves from their office or small apartment to go out to get a bit of fresh air.

· While people in Highline are more focusing in sightseeing tour ,this platform stretched in the west side of the city, starting from meat packing district, once are several abandoned railroad tracks, right now is a 23-block stretch of " Public park". You can hear different language in this place and see tourists all around the world, because this is definitely a good place to view New York's skyline upon Hudson River and also a good place to make friends.

From an urban planning respect, central park is more like a special zoning within New York City, while highline is more like a route layer. A city can abandon its certain zoning to solve the density problem; however it cannot grow bigger without layers.

New York City is very sensitive to any space for landscape or installation art in the street, unlike Europe cities I read in <The Image of The City> which are connected by squares, New York City is famous by its rigid zooming.

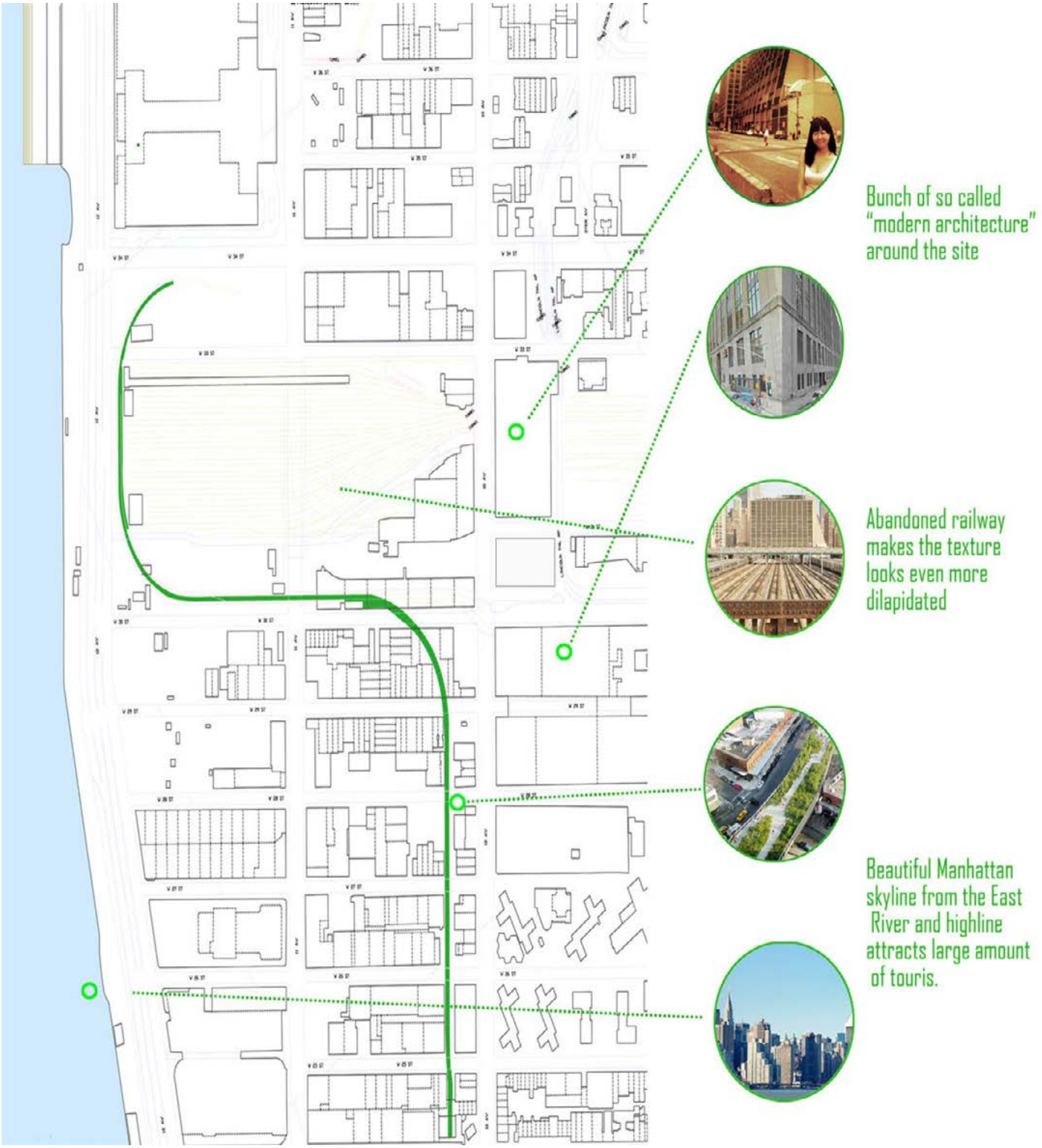
Since Highline and central park have its respective advantages and disadvantages. Here I am trying to create a layer combine them together to solve the noncontinuous of highline and the overused land problem of Central park. Here are the diagrams below:

N
W
E
S
Bronx
New Jersey
Central Park
Highline
Manhattan
Queens
Brooklyn
Hudson River
East River
Harlem River
Franklin D. Roosevelt Island
Ellis Island
Governors Island
Holland Tnl
Broadway
FDR Dr
Queensboro Br
Williamsburg Br
Brooklyn Br
Manhattan Br
Houston
Delancy St
Canal St
Grand St
Water St
Pearl St
Liberty St
Chambers St
Bowery
Hudson St
Varick St
W Broadway
Madison Ave
Park Ave
Lexington Ave
Avenue of the Americas
W Side Hwy
Center St
St James Pl
E Broadway
14th St
23rd St
34th St
42nd St
57th St
72nd St
81st St
86th St
96th St
106th St
145th St
155th St
1st Ave
2nd Ave
3rd Ave
4th Ave
5th Ave
6th Ave
7th Ave
8th Ave
9th Ave
10th Ave
11th Ave

Highline
Central Park
Continuous Route(LAYER)

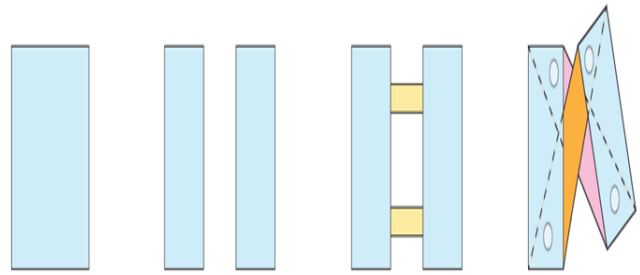
4) Site Analysis

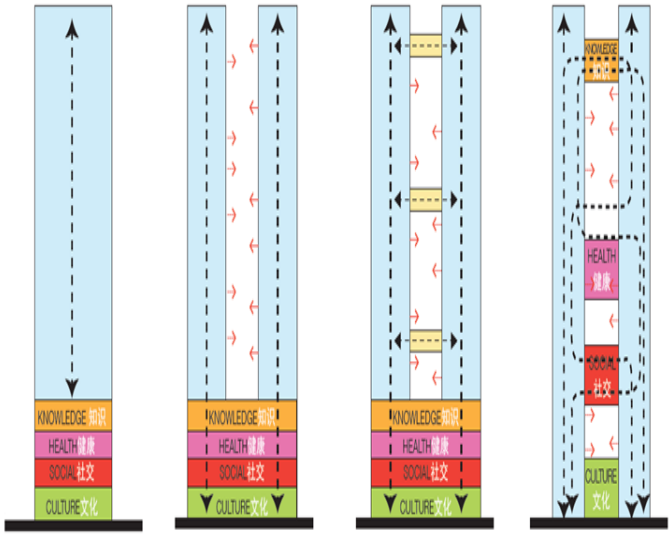
I finally choose my site around highline, which is a very interesting site, locates around 10th avenue and 30th~25th street. Whereas the texture is not that metropolis style, the site is surrounding by discarded high line and railways, in this special site context, a new building is needed to have a force of impact to break down the pressure which generated by the abandoned environment and meanwhile, the contrast of the old building and new skyscraper will force people to rethink about a new lifestyle.



5) Practical Experience:

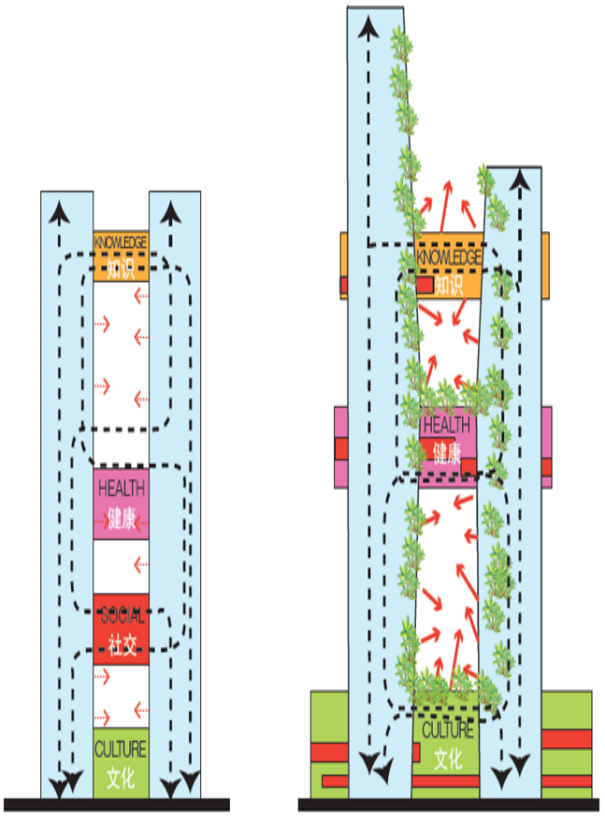
In this summer, I got an internship opportunity in NBBJ Seattle. This Internship is not only a perfect time for me to gain professional attitude as a future architect, but also a good time for me to learn practical skills and combine concept into real design process.
One of the most exciting projects I been working on during this summer is Tencent Tower. The main concept of this tower design is multiple layers, which is the main topic of my paper, too. So this time, I get a chance to do pre- design before my graduation design of "LAYER CITY".





In this project, our design team breaks from the standard modern high-rise city tower. Instead of the typical high-rise which stratifies interaction and communication into strict horizontal layers only with shared functions at the base in which the occupants are isolated, this new tower is organized in a way to maximize visual and physical communication both horizontally and vertically.

On the right is the evolution of the tower's floor plan, Acknowledging the sheer scale of the project, we realize that to stuck everything into one tower will eventually creating chaos and also making the way finding system intricate, so we break down the tower into two massing and also connect them with multiple layers in between.
Moreover, besides the big scale, the population within this tower is huge, too. Every day, 12000 people will live the most creative hours of their days within this environment, it was clear that this

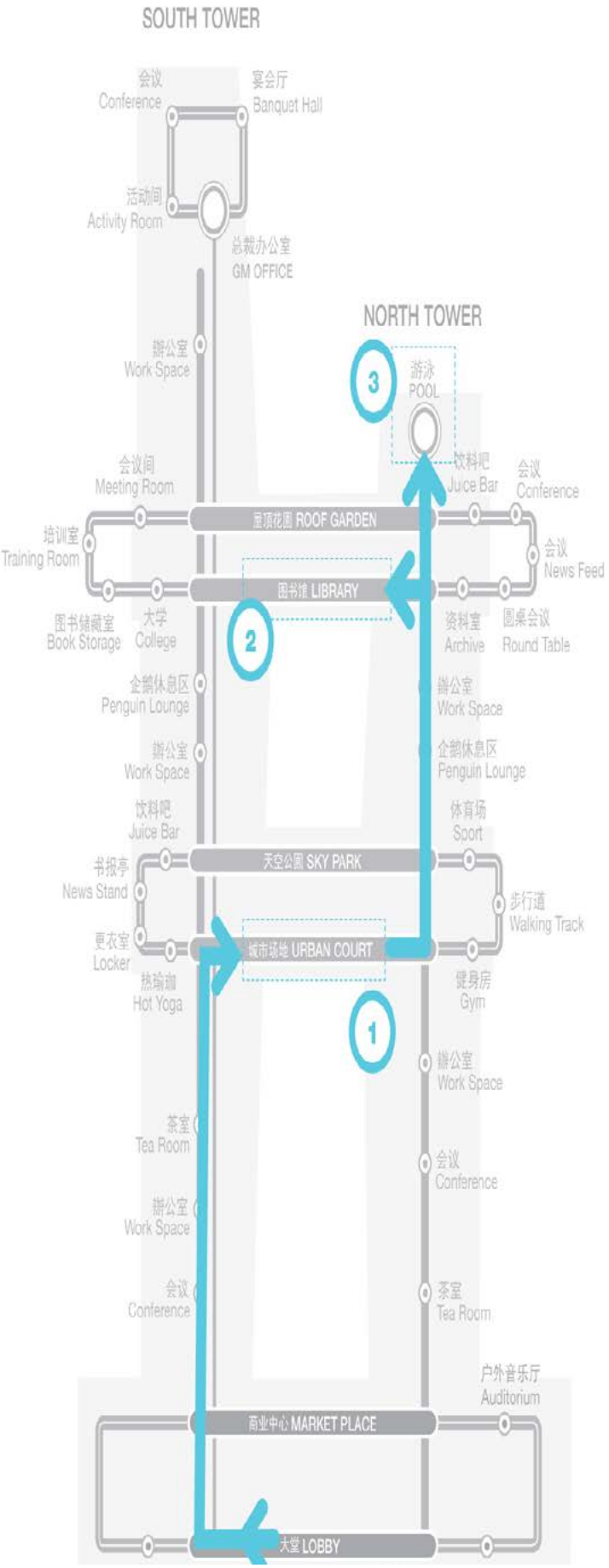


must not be just a building, but a complete, sustainable ecosystem meeting human needs that are social and cultural.

Because the interior experience must meet these needs at the scale of 12000 people, we drew great inspiration from urban establishments. We found rich and fitting analogies for the key spaces of the Vertical City formed by the Tencent Tower. And we also add green space into the layers in between, to make each layer works efficiently, in the diagram below, we color block them and give them different function purpose , which is knowledge space, health space , social space and culture space. We called our design "synergy tower". Because it creates an experience which is a natural extension of a youthful and technologically advancing urban culture.

Another thing I learnt in this design process is to bring narrative into our work, we created different avatars and tried to use a storytelling to illustrate the way finding system within the tower.
The diagram on the right is an avatar we created is a worker in Tencent, besides spending most of his days working within the tower, he loves taking a break from his computer to enjoy the physical and social atmosphere of the gym, library and pool. Below is his daily route within the tower.

The "synergy tower" is programmed and formed as a "Vertical City," taking the traditional city typology and translating it into a vertical format.



6) Conclusion:

The contemporary architecture and cities may be controversial but it has zeitgeist within them which represents the spirit of our time. However, what we can do is to gain knowledge from analysis them and think ahead of times in order to create a better living experience in the future.

Bravado and unplanned expansion is not a healthy mode for city's growth. "Some design rules produce death, others proliferate life. Some design rules create boring situations, other rules may generate excitement." [v]

So each small practice in architecture design can generate a sequence of results in its growth. I believe adding layers between buildings in a horizontal level can solve the isolation problem and chaos which brought out by large amounts of skyscrapers. This is my paper's main concept of layer city.

I remember that Richard Buckminster fuller once said: "you can never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete"[vi]
I hope my design can be a silent movie in some way, they don't need to speak for themselves, but their force of impact will shock the passer-by.
Rethink, Redesign, Rebirth, all this practice is nothing but creating a better living experience for human.

Bibliography

[i] *Rem Koolhaas, Bernard Chang, Mihai Craciun, Nancy Lin, Yuyang Liu, Katherine Orff, and Stephanie Smith, The Great Leap Forward. Harvard Design School Project on the City, Taschen, New York, 2002*

[ii] *Rem Koolhaas, Delirious New York: A retroactive Manifesto for Manhattan (Academy Editions, London, 1978; republished, The Monacelli Press, 1994)*

[iii] *Konrad Wachsmann ,Baukunst und Werkform 12/1951. THEMA: Schulbau.*

[iv] *Rem Koolhaas, Hans Werlemann and Bruce Mau, S,M,L,XL, The Monacelli Press, New York, 1994 (2nd edition 1997)*

[v] *Sculpture City, Kas Oosterhuis, Ilona Lénárd and Menno Rubbens, 1994, ISBN 90-6450-229-3*

[vi] *R. Buckminster Fuller,* "Everything I Know"*, Buckminster Fuller Institute, 1997*

Addendum

My thesis investigation began with an intense site research in New York City, the origin of skyscraper. The limitation of land and space in Manhattan forces building to grow in a vertical way, and it also leads the city in need of multiple layers to achieve sufficient daylight and horizontal circulation. In my site exploration, I observed the different arrangement of skyscrapers in lower Manhattan and downtown area. Skyscrapers in downtown are more like a complex has its own independence, while skyscrapers in lower Manhattan rigidly integrated together. Although the zooming has huge difference between downtown and lower Manhattan, both of them had a common point, which is lacking of multiple layers. In this aspect, lower Manhattan is even worse, for it lacks of sufficient daylight as well.

So I began my design by establishing a proposal for lower Manhattan area. Through site analysis I found out that the building type of that area are mainly industrial buildings, which became the main reason that I picked it as my site. For I hope my new building can become a force of impact that creates a tension to make people rethink a new urban lifestyle that I proposed.

Finally I located my buildings around highline and the cross section of 31st street and 11th avenue. I programmed three buildings at first, and then I plugged my layers into buildings. I began the design process with finding my form, which is also the hardest part. I built several study models while in the critic, I was told that my layer spaces are too linear and lacking of activates. I tried to solve the problem by constructing from the sections. With the help of sketching and story boarding, I managed to create interesting spatial movements within my layer. Another problem that I encountered in my design process is that my design tended to be conceptual rather than practical, I solved this problem by looking into mage structure building and practicing wall detail drawings and sections of my layer.

I am proud that my thesis investigation finally gets through after one and half years' exploration. And through this process, I enhanced my ability in design and negotiation. Nowadays, the urban fabric is pronominally skyscraper driven in major cities. I will continue to develop my layer city proposal, and I am looking forward to creating a better living experience in the future through my architecture work.

SITE ANALYSIS

SITE DIAGRAM

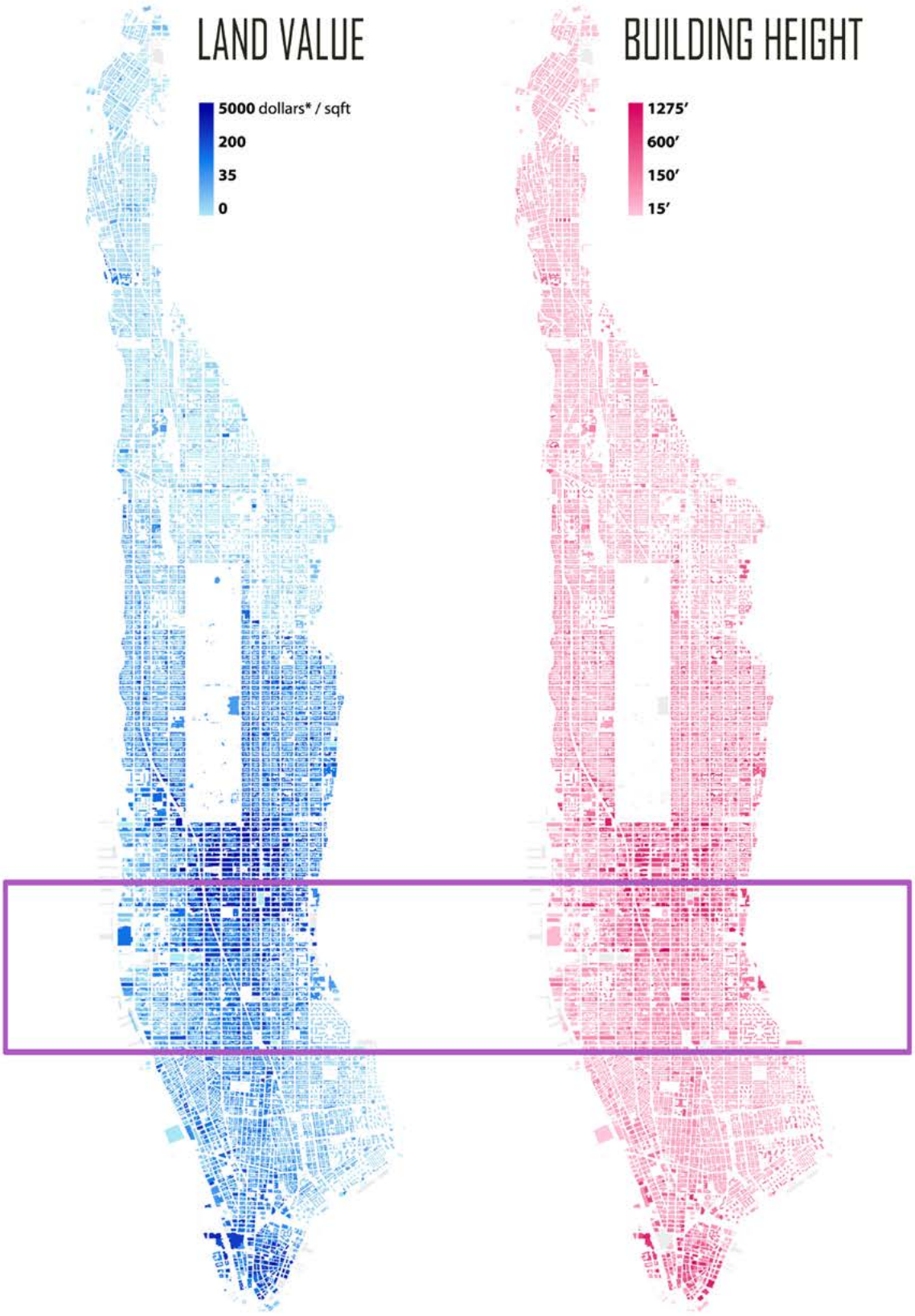
Bunch of so called "modern architecture" around the site

Abandoned railway makes the texture looks even more dilapidated

Beautiful Manhattan skyline from the East River and highline attracts large amount of touris.

影像拍攝日期：2011年6月3日 40°45'07.68"北 73°59'49.19"西 海拔 37米 拍攝時高度 1.00公尺

Hudson
Yards


LAND VALUE
5000 dollars* / sqft
200
35
0
BUILDING HEIGHT
1275′
600′
150′
15′

Underdevelopment
percent of allowed Floor Area Ratio(FAR)
underdevelopted
(less than 20% max allowed FAR)
developed
(95%-100% max allowed FAR)
overderdeveloped
(more than 200% max allowed FAR)
Underdevelopment
total tax assessment per built floor area
underdevelopted
(very high price per occupy able square foot)
overderdeveloped
(very low price per occupyable square foot)

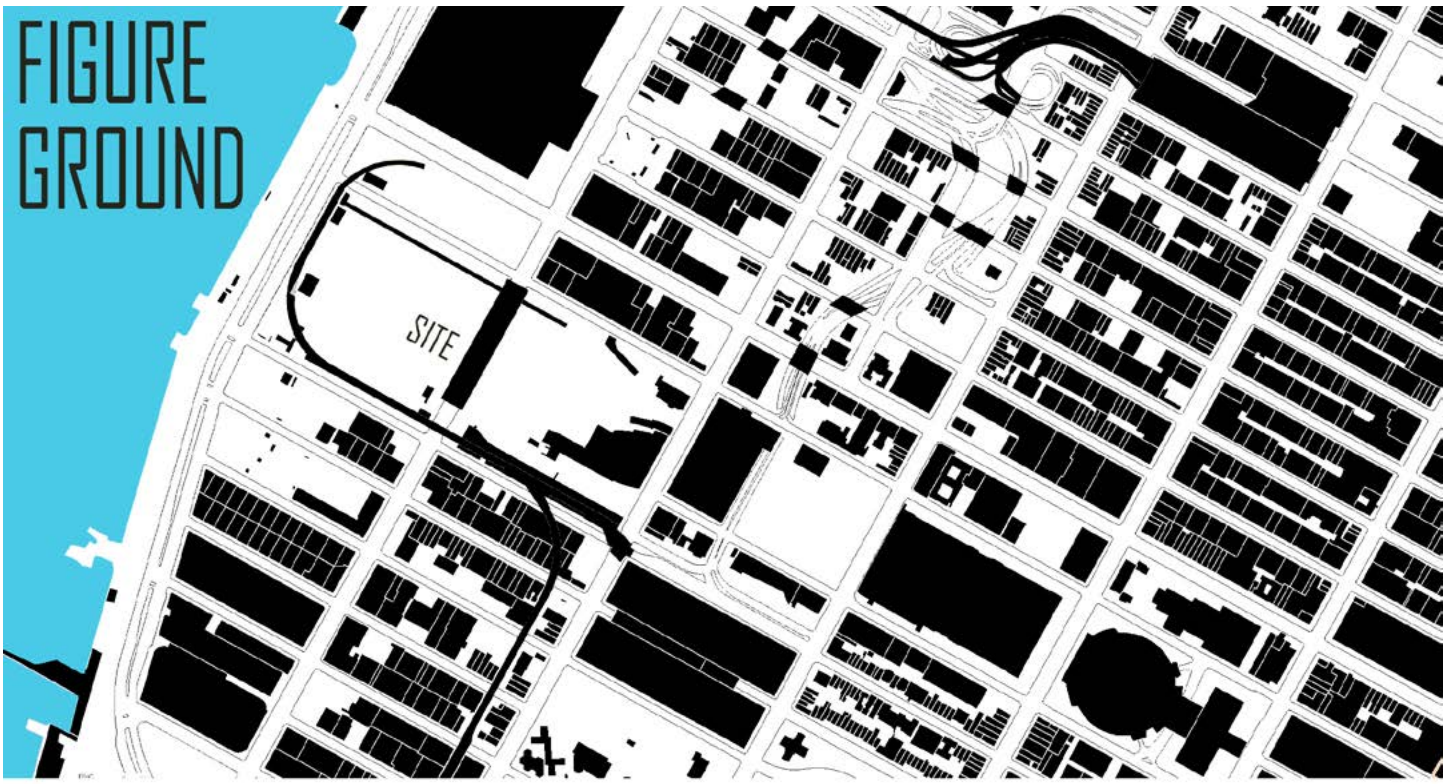
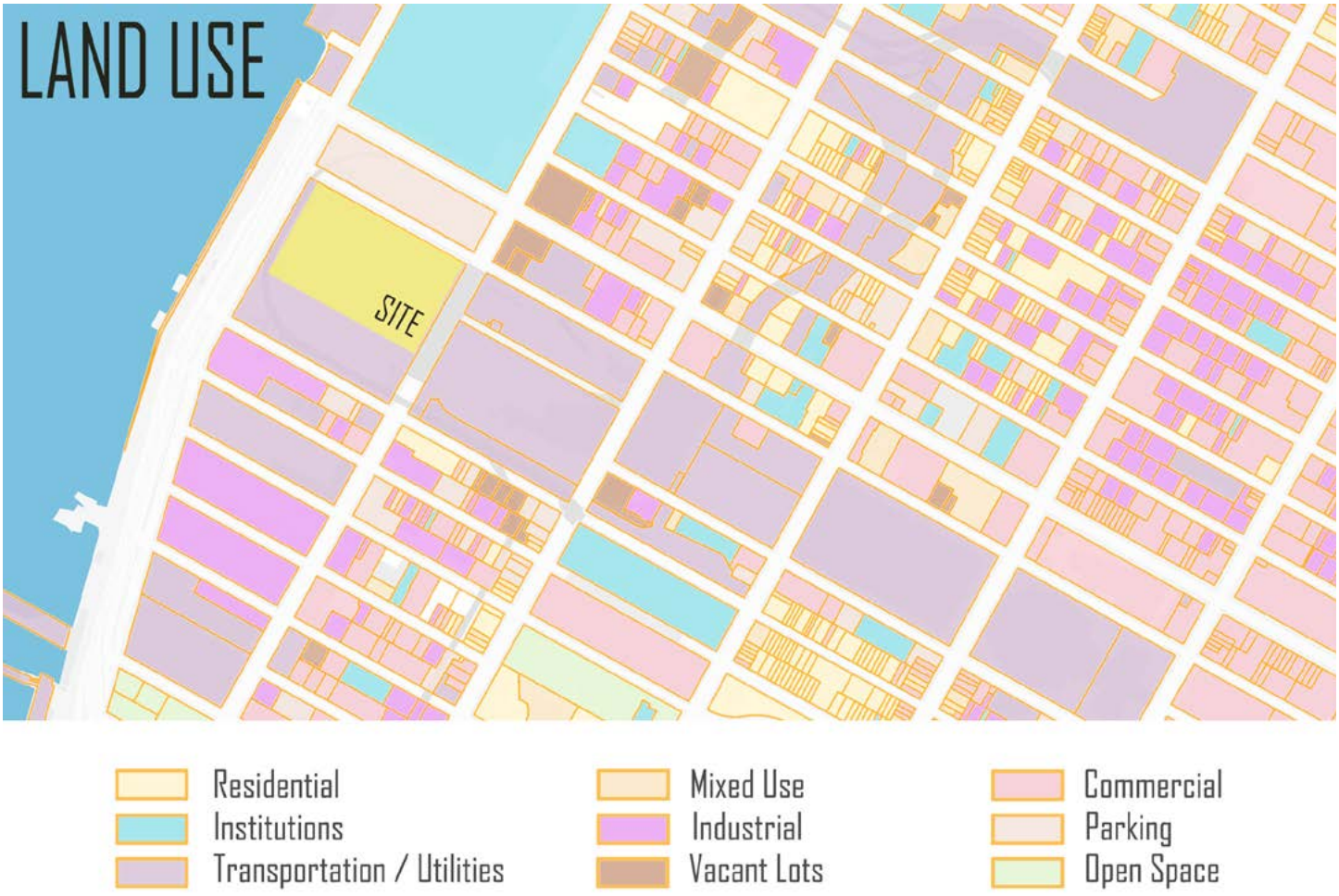
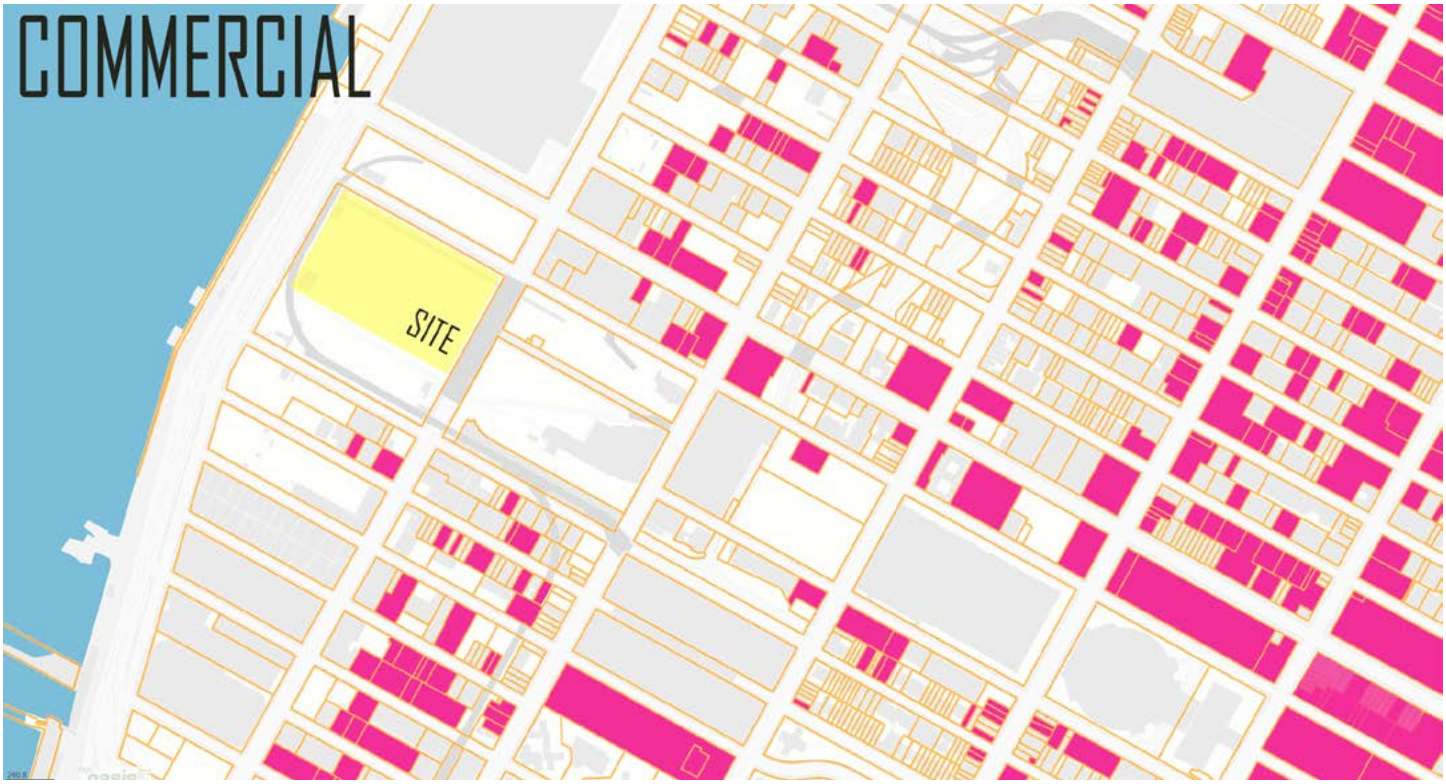
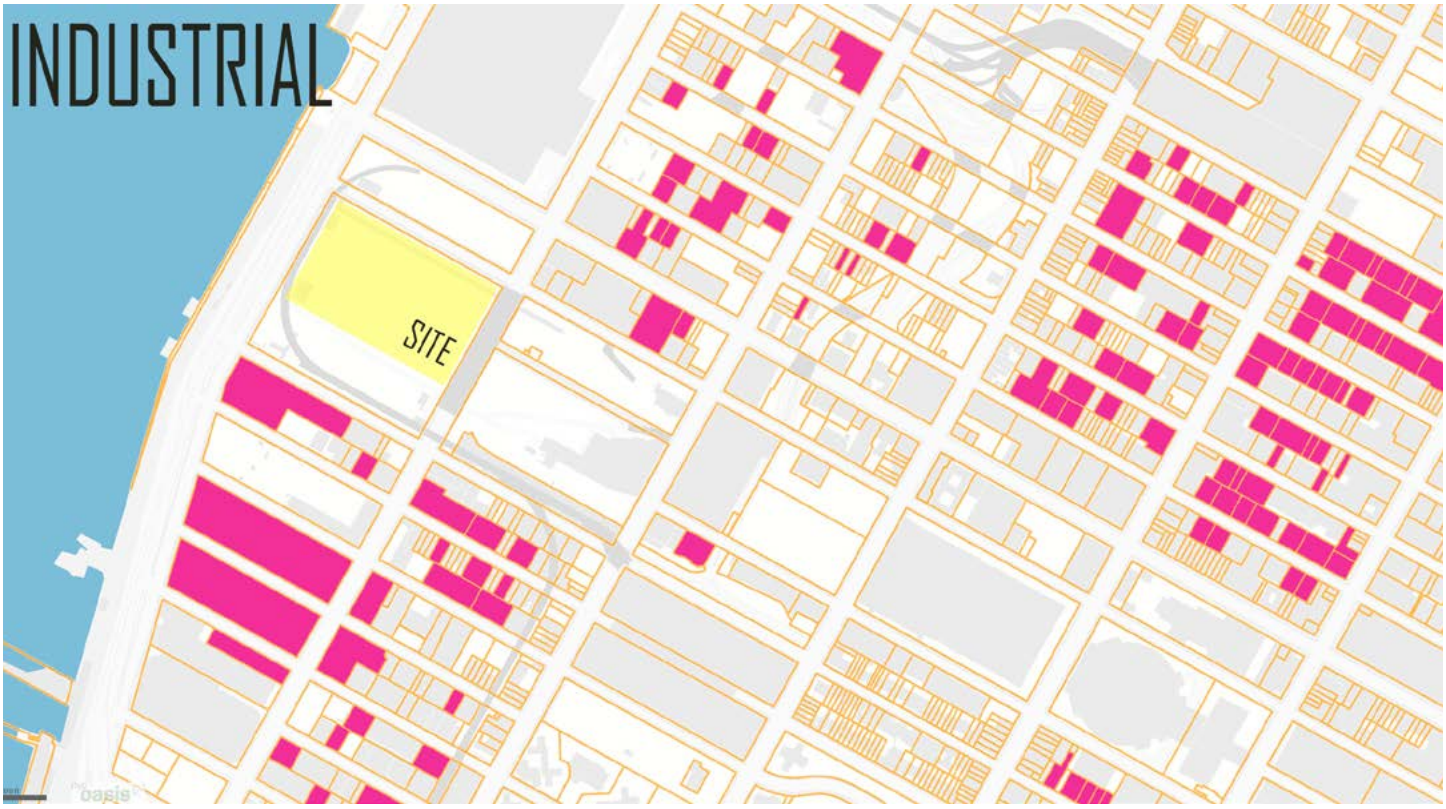
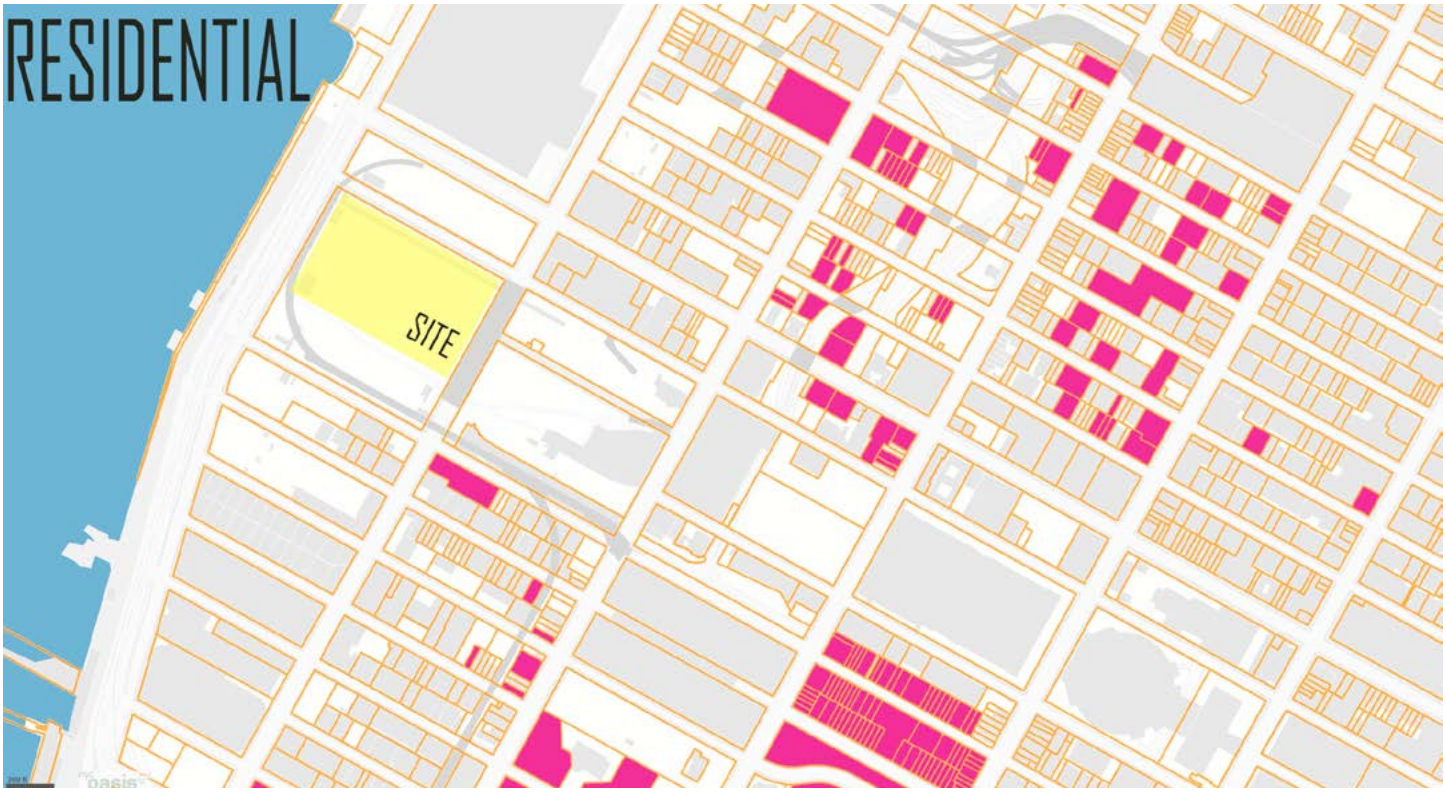


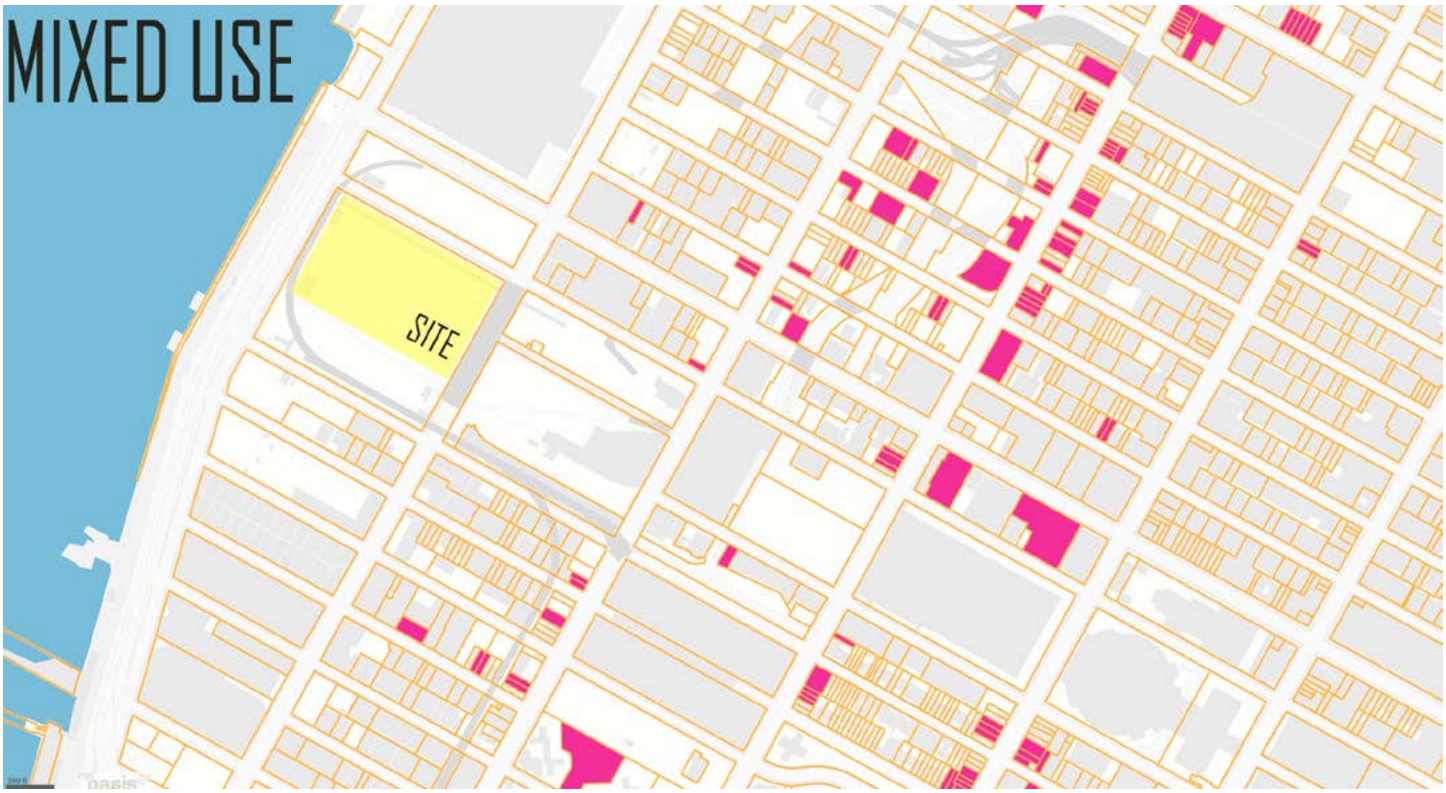
FIGURE
GROUND
SITE

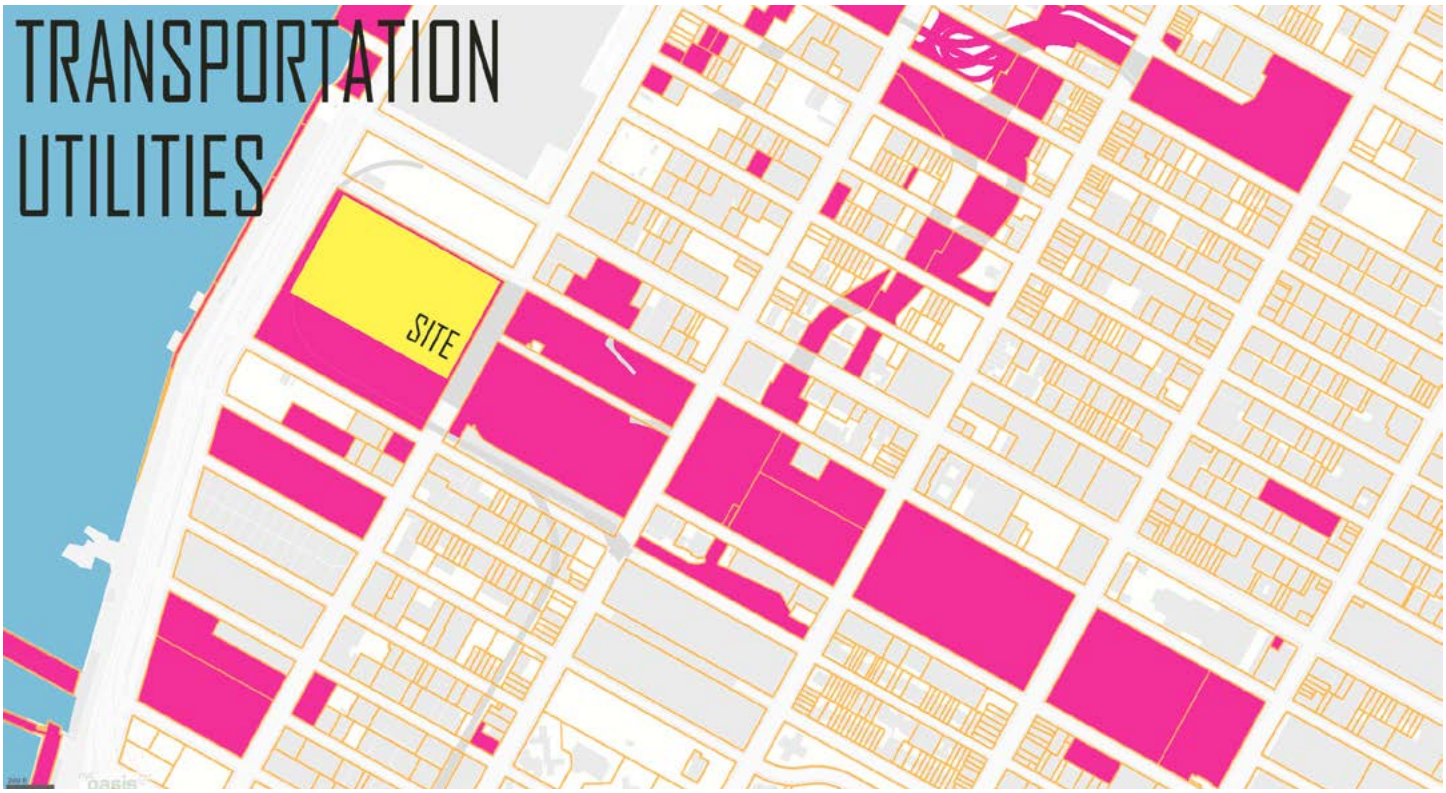

LAND USE
SITE
Residential
Institutions
Transportation / Utilities
Mixed Use
Industrial
Vacant Lots
Commercial
Parking
Open Space


COMMERCIAL
SITE

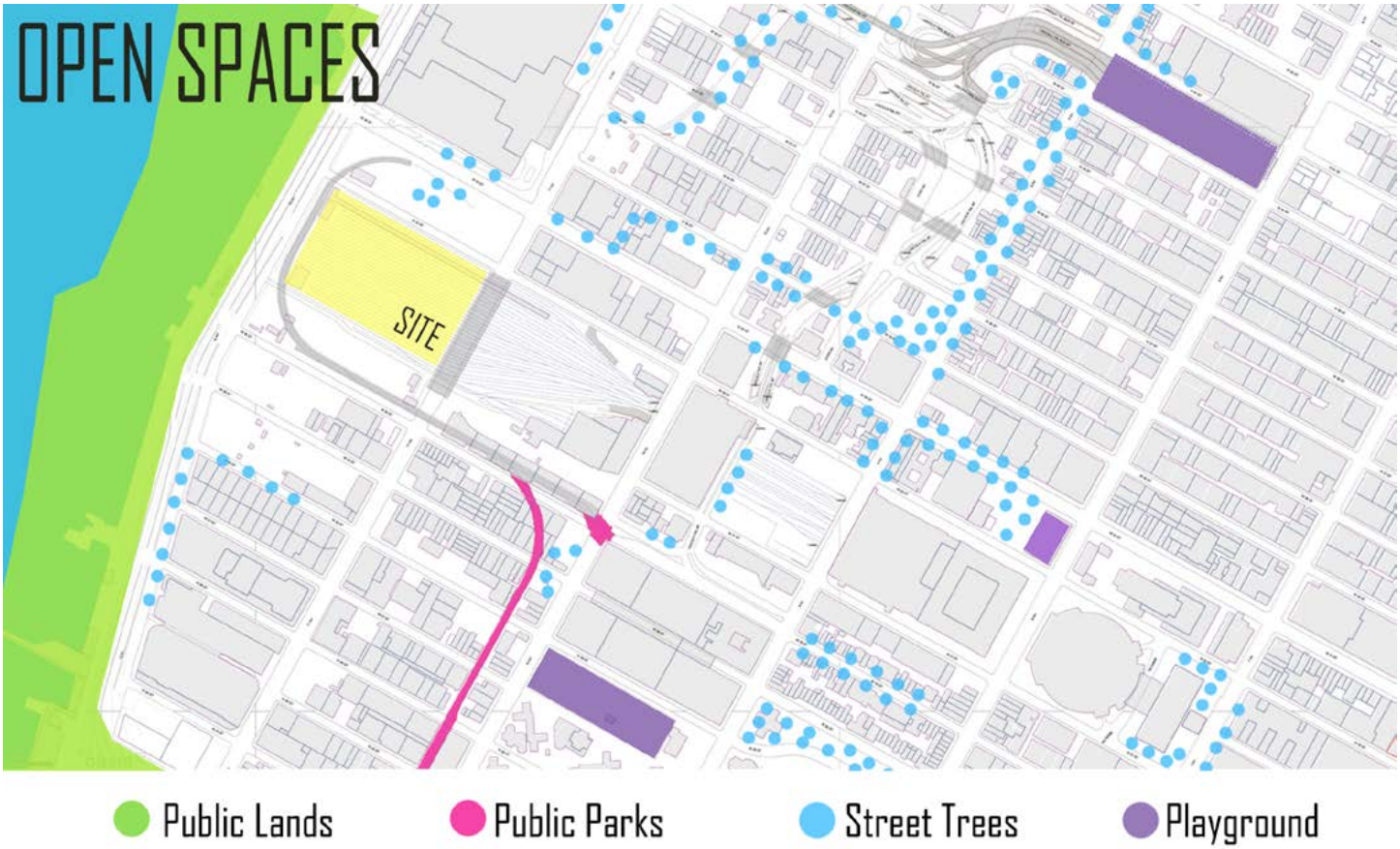

INDUSTRIAL
SITE

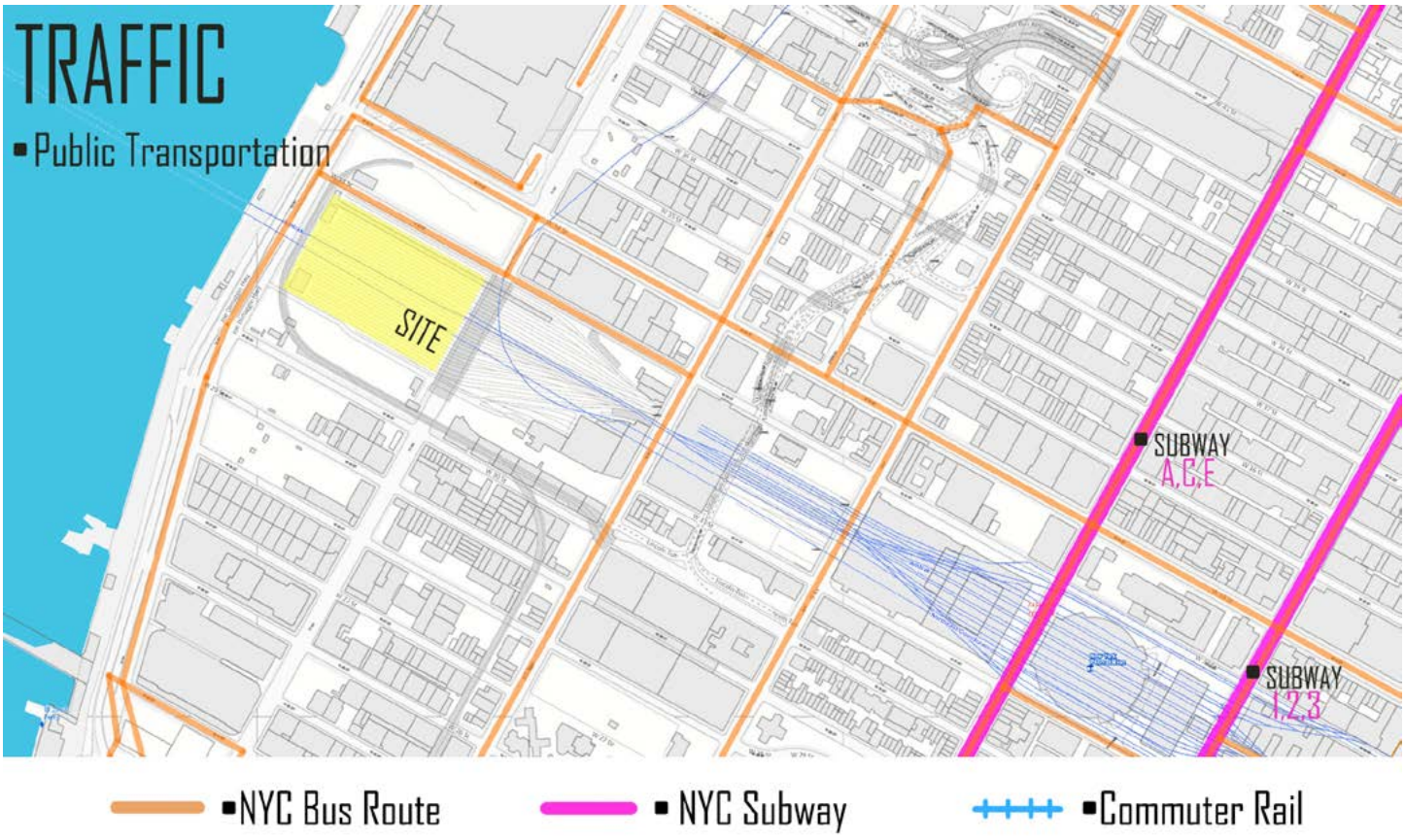

RESIDENTIAL
SITE

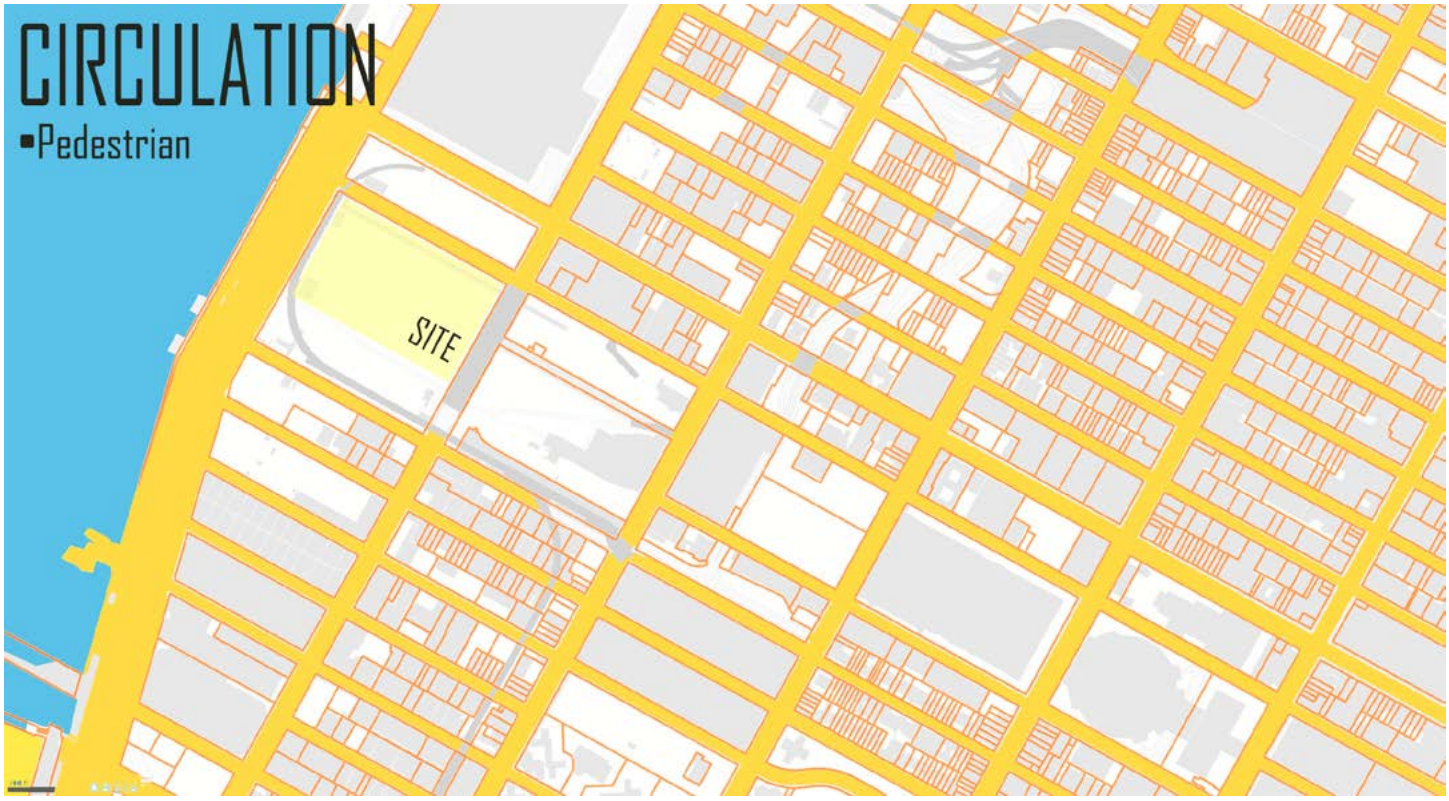

MIXED USE
SITE

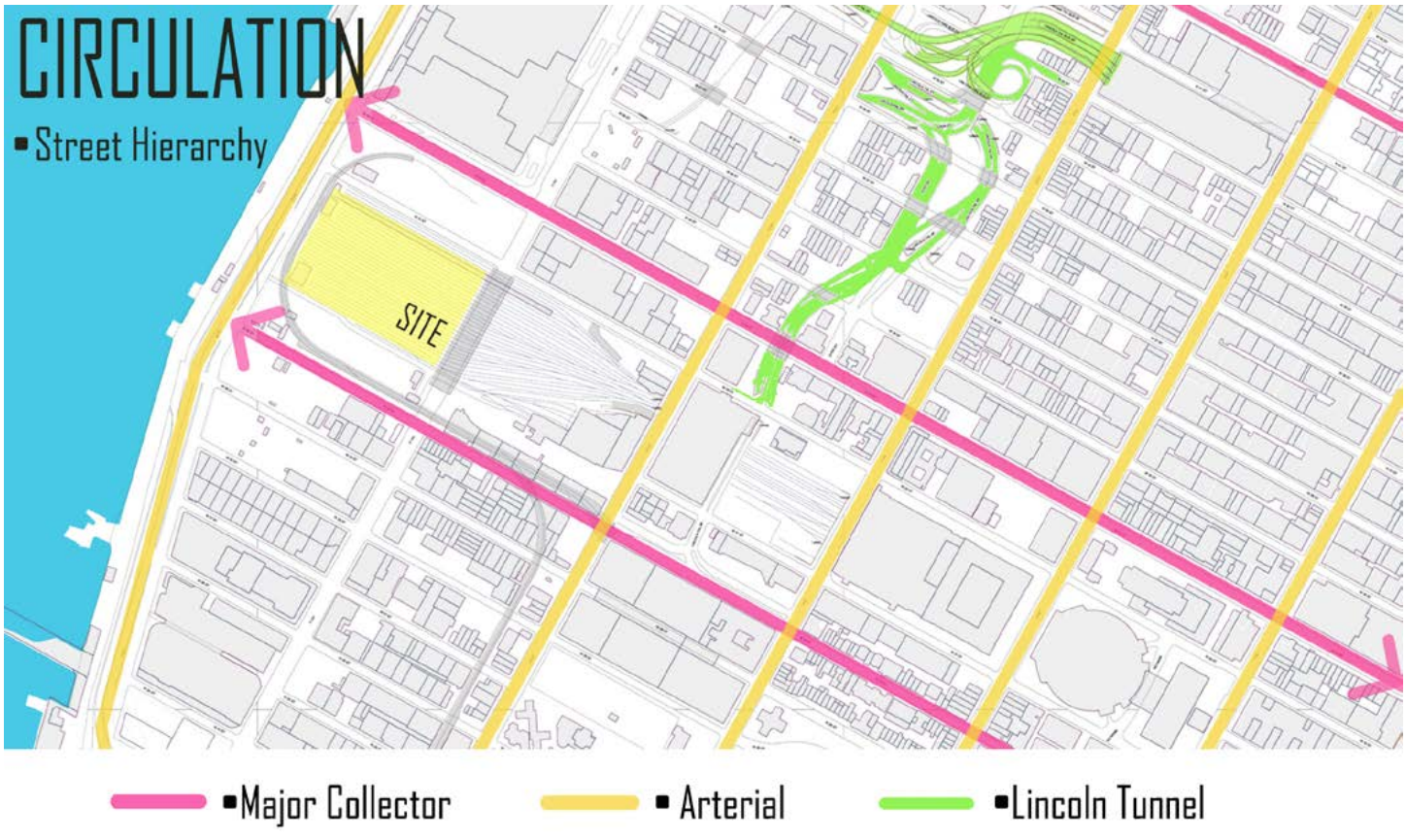

TRANSPORTATION
UTILITIES
SITE

ENVIROMENTAL
Coastal Storm Impact Zones
SITE


OPEN SPACES
SITE
Public Lands
Public Parks
Street Trees
Playground


TRAFFIC
Public Transportation
SITE
SUBWAY
A,C,E
SUBWAY
1,2,3
NYC Bus Route
NYC Subway
Commuter Rail


CIRCULATION
•Pedestrian
SITE

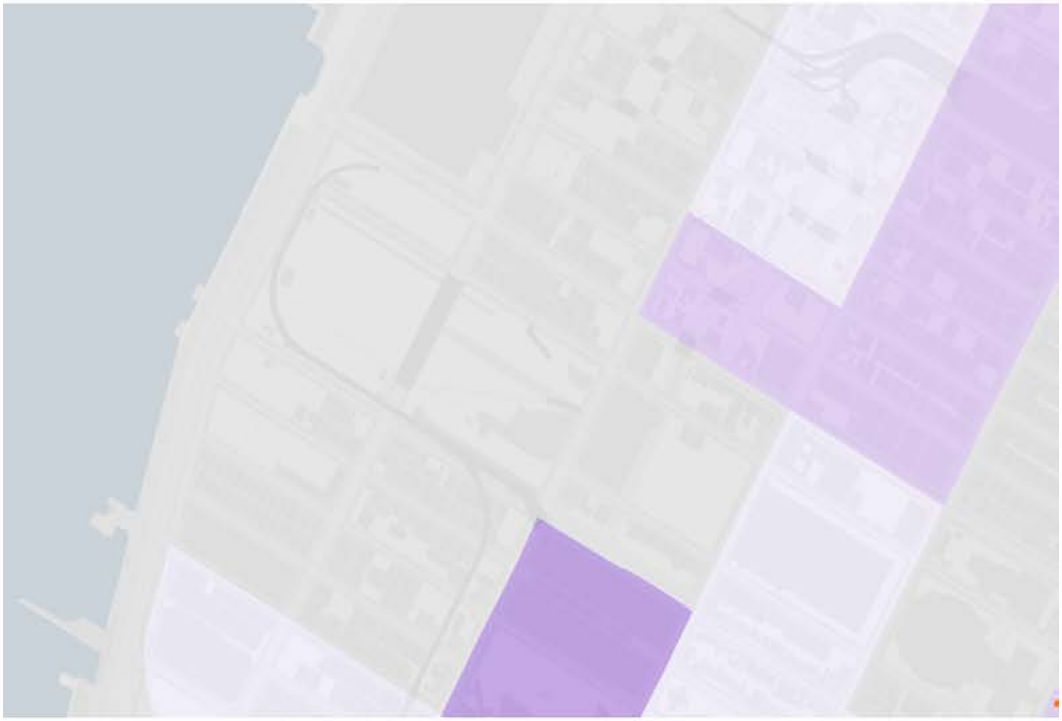

CIRCULATION
• Street Hierarchy
SITE
•Major Collector
• Arterial
•Lincoln Tunnel

MEDIAN HOUSEHOLD INCOME

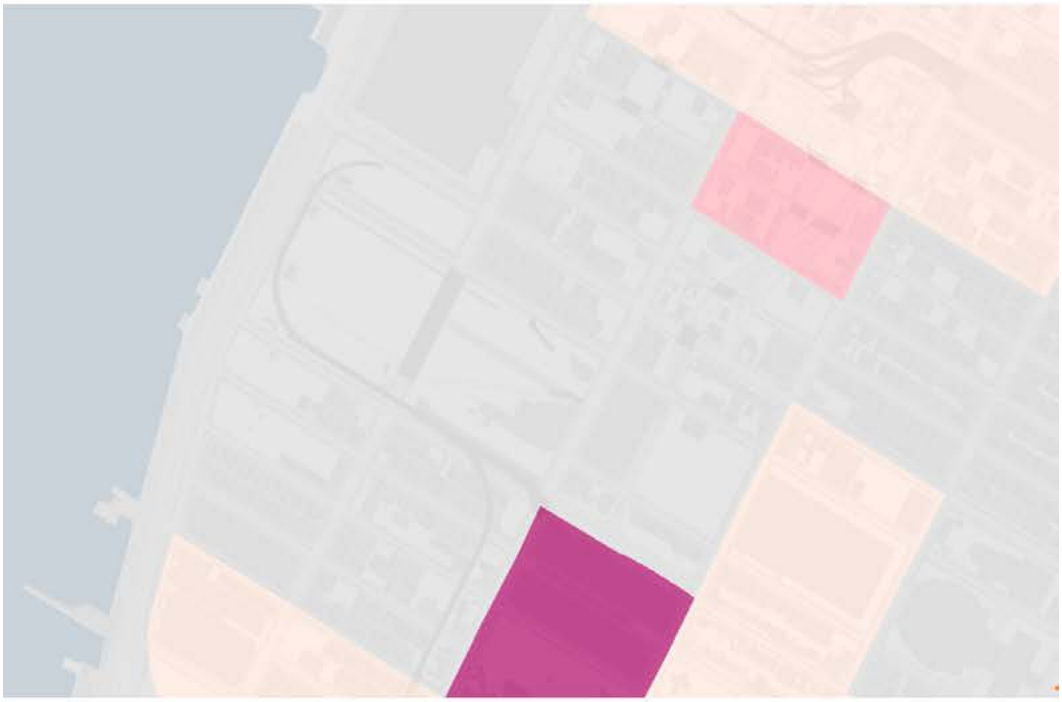
< $25,000
25K to 45K
45K to 65K
65K to 85K
85K to 105K
105K or higher

LINGUISTIC ISOLATION

0.4 - 8%
8.01 - 18%
18.01 - 28%
28.01 - 38%
38.01 - 48%
48.01 - 100%

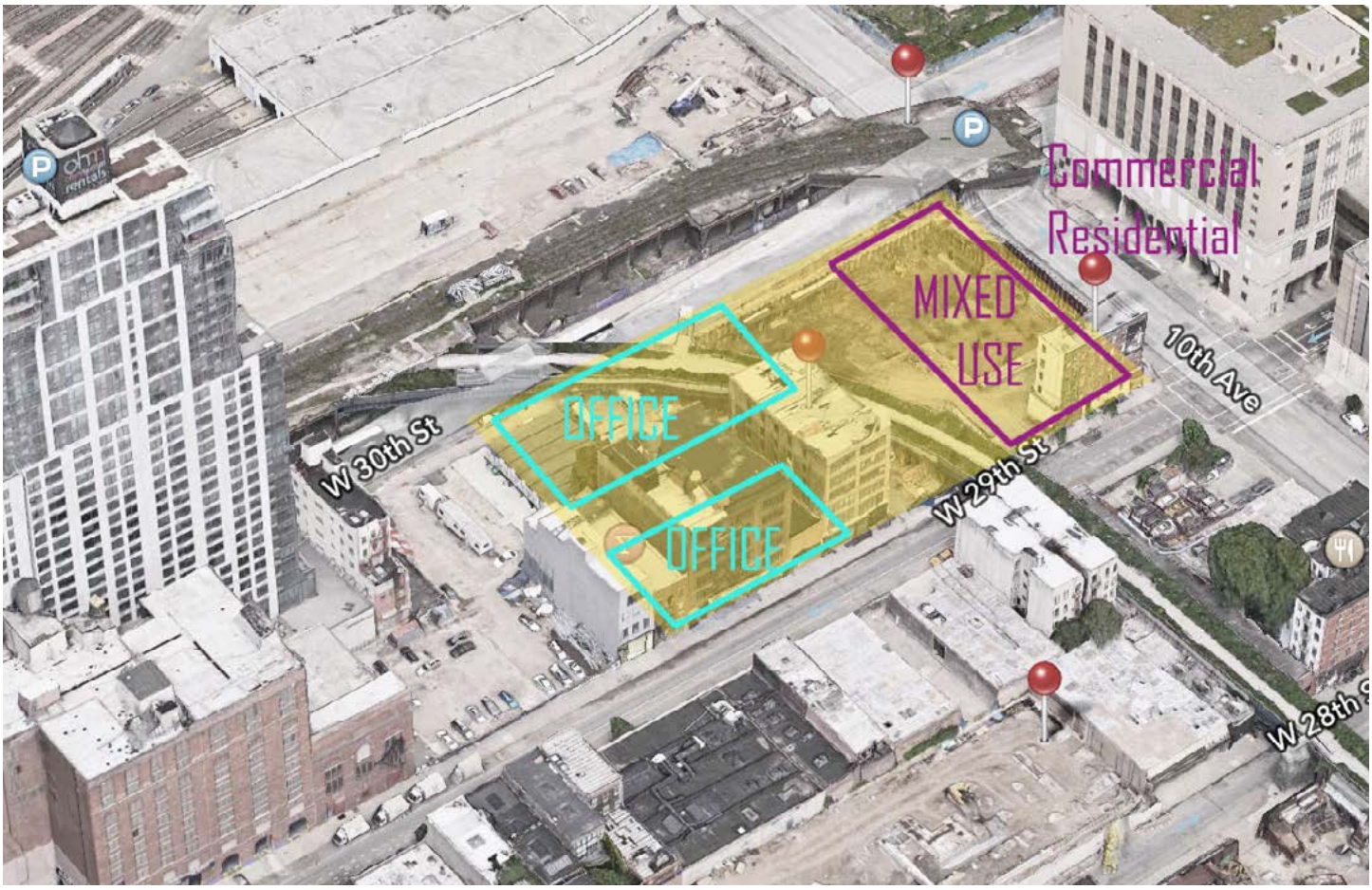


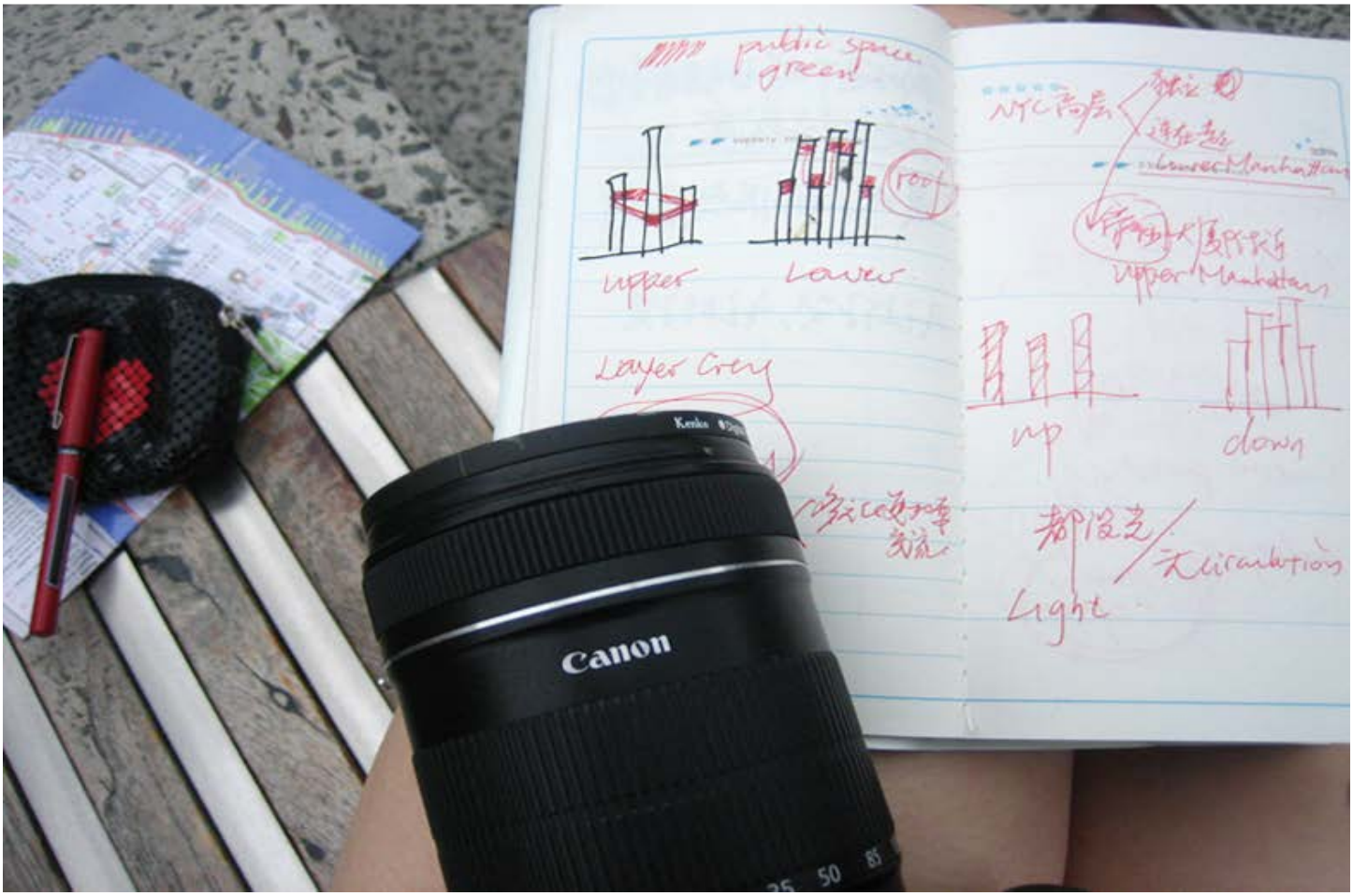
YOUTH POPULATION



COMMUNITY OF COLOR

W 33rd St
W 38rd St
10th Ave
W 31st St
W 29th
W 30th St
W 29th St
10th Ave
W 28th St
W 29th St
W 27th St


Commercial
Residential
MIXED
USE
OFFICE
OFFICE
W 30th St
W 29th St
10th Ave
W 28th S


public space
green
roof
upper
Lower
Layer Grey
up
down
Light
Canon

DESIGN PROCESS

LAYER CITY

New York,USA

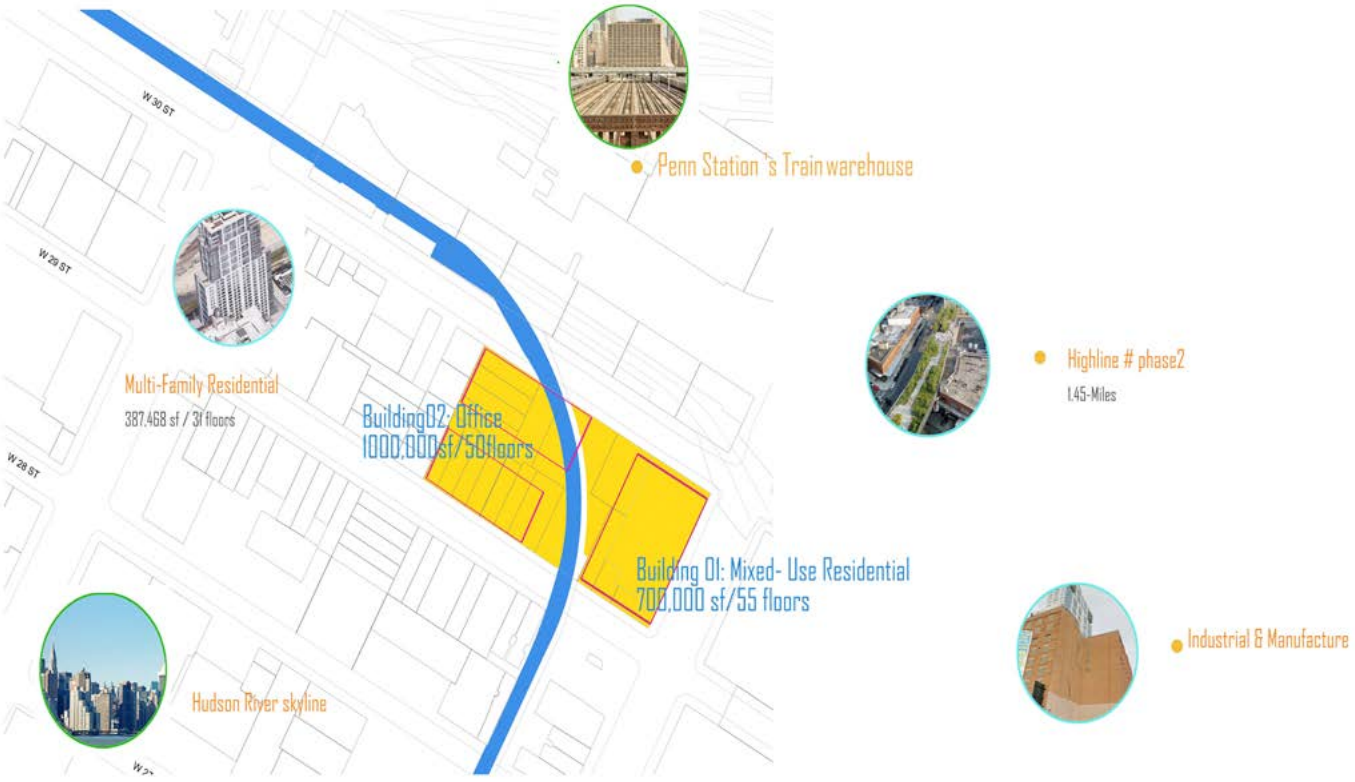
The Site:11th Ave, 31th Street,NYC

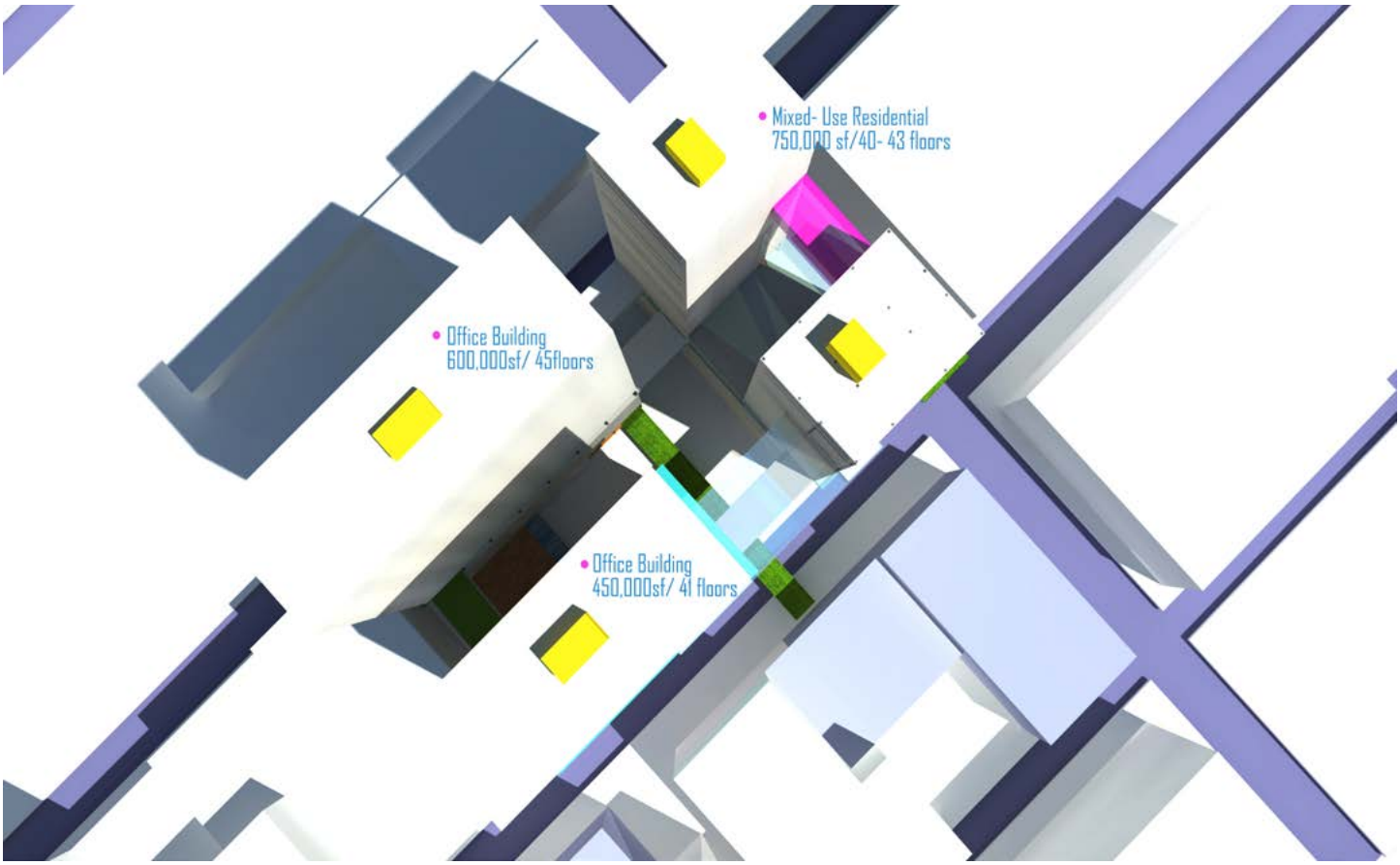
My design is dealing with the urban construction---skyscrapers,

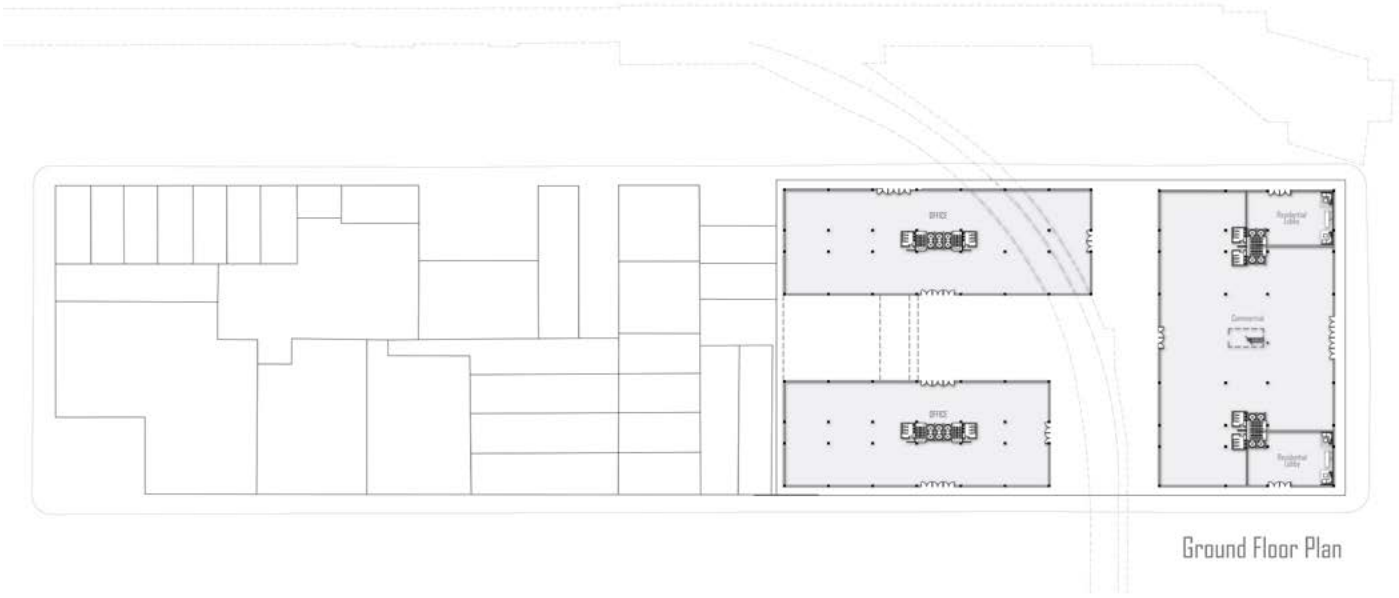
Nowadays, the urban fabric is pronominally skyscraper driven in major cities. Building skyscraper is just one of many solutions to solve the density problem. While skyscraper is causing chaos and disconnecting us from urban fabric by vertically heighten us above the cityscape, which further on disconnecting culture connectivity that sustains a healthy city.

Therefore, by adding multiple layers to skyscraper not only enhance communication within the city, but also provide buildings sufficient sunlight, through my design, I am looking to redesign skyscrapers to create a better living experience in the future.

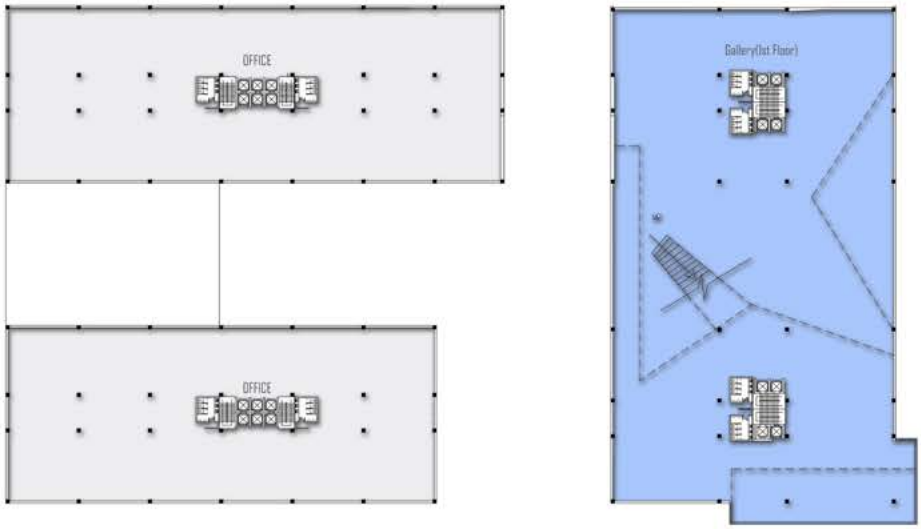
Existing Site Condition



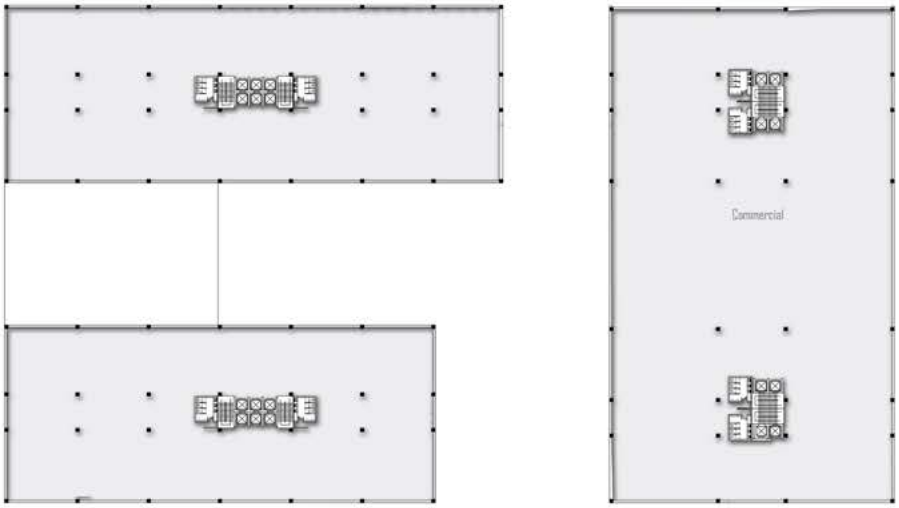




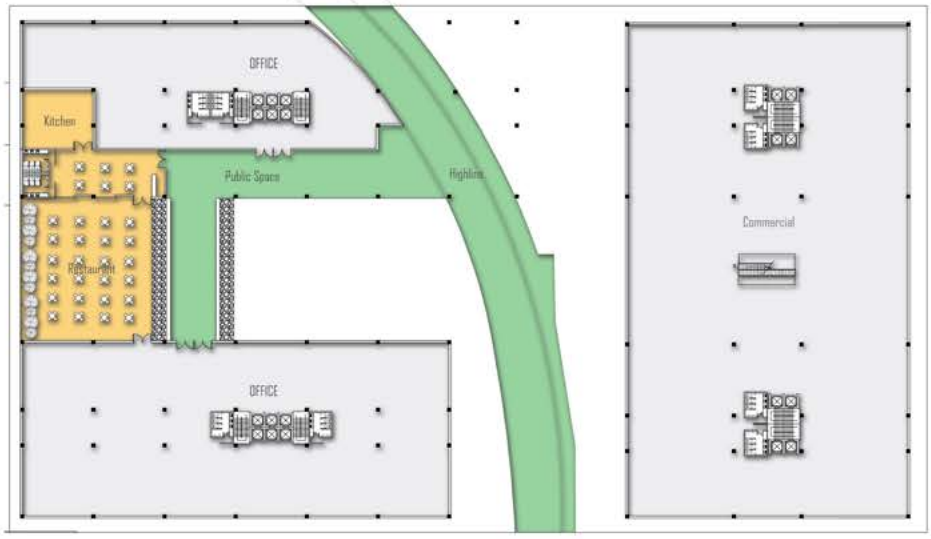
Ground Floor Plan



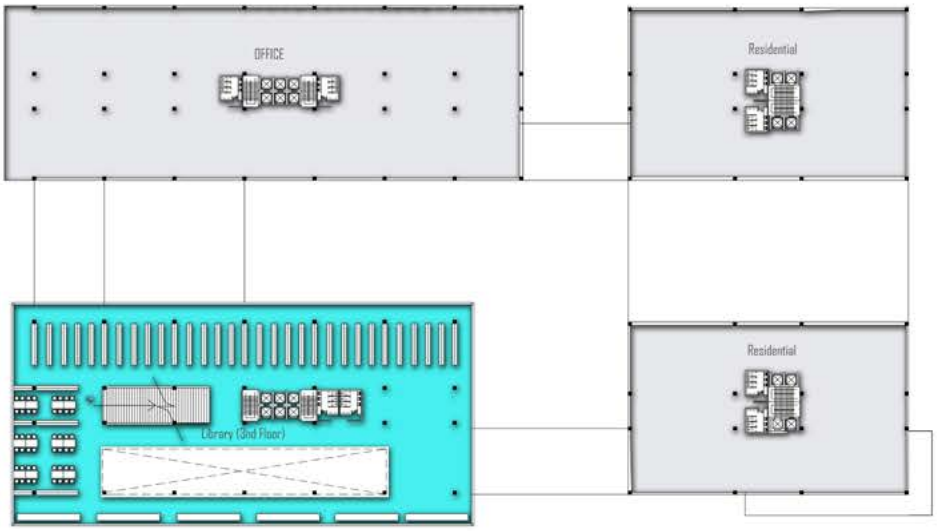
11th Floor Plan



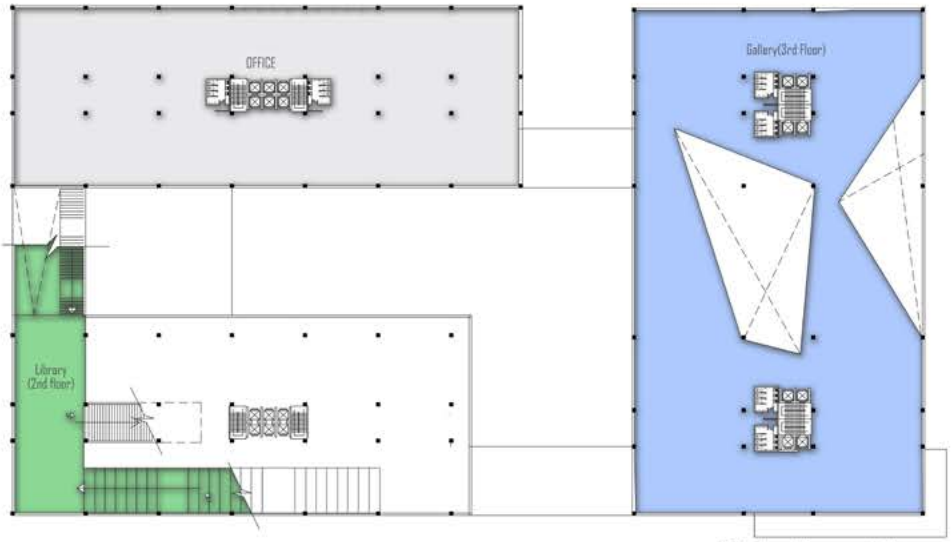
3th - 10th Floor Plan



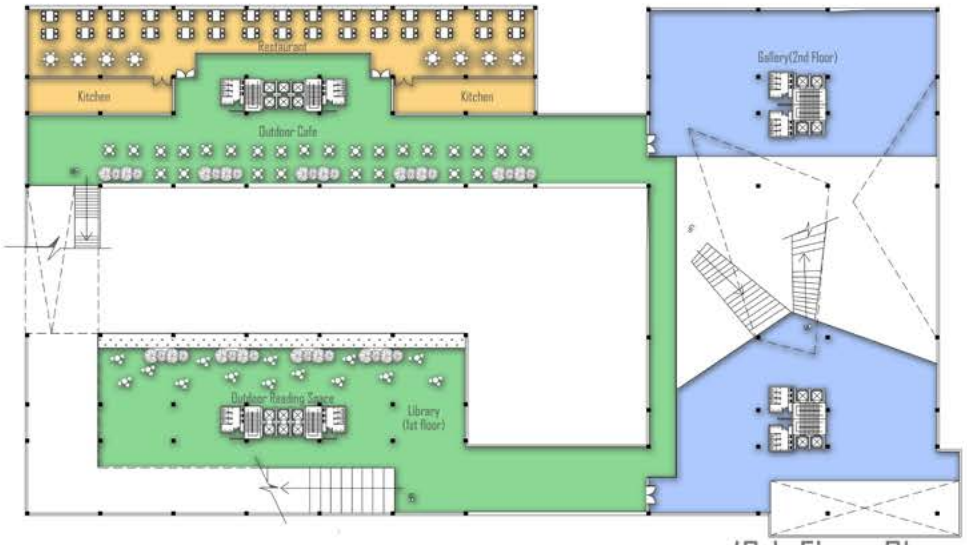
2nd Floor Plan



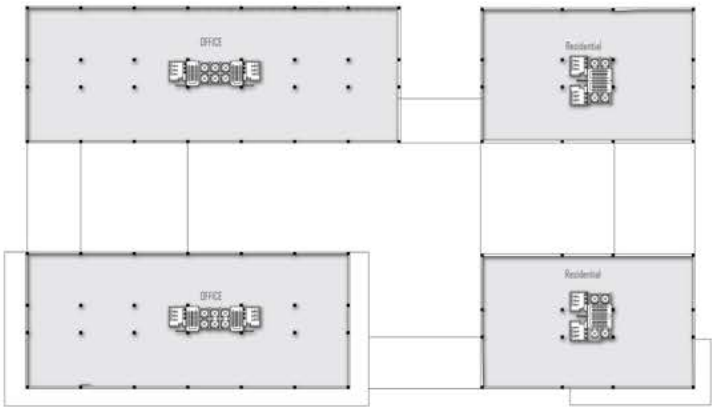
14th Floor Plan



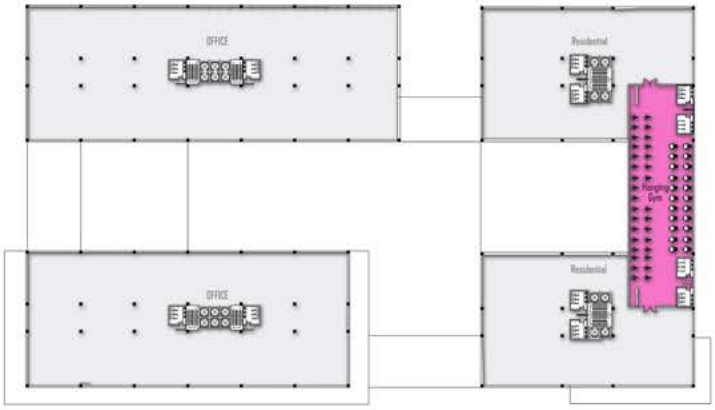
13th Floor Plan



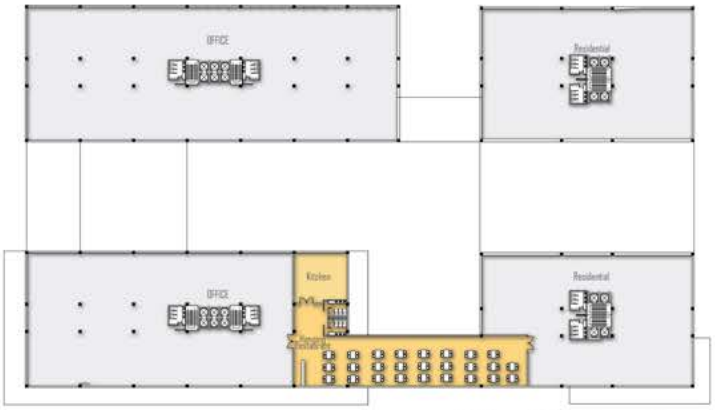
12th Floor Plan



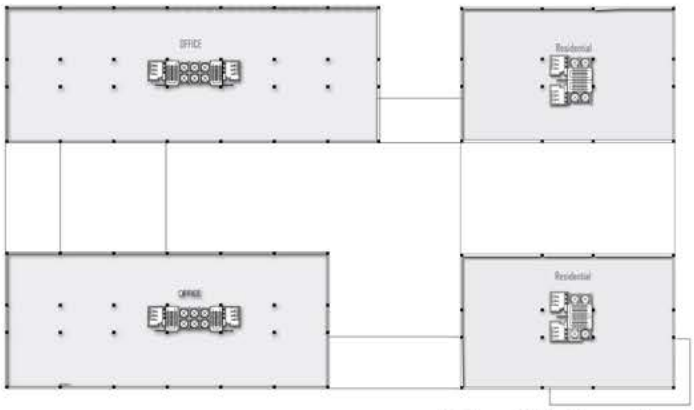
35th- 45th Floor Plan



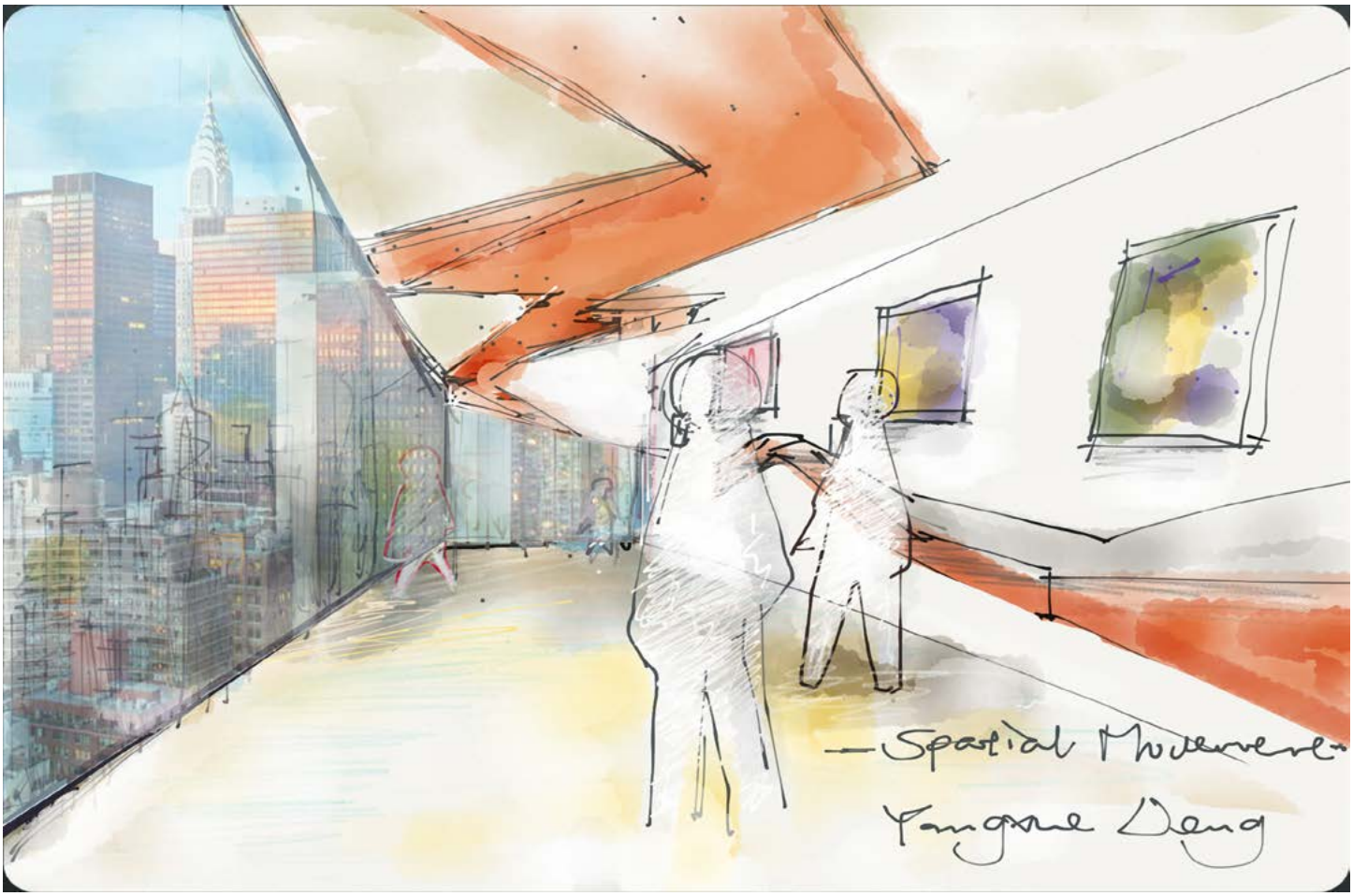
33th - 34th Floor Plan



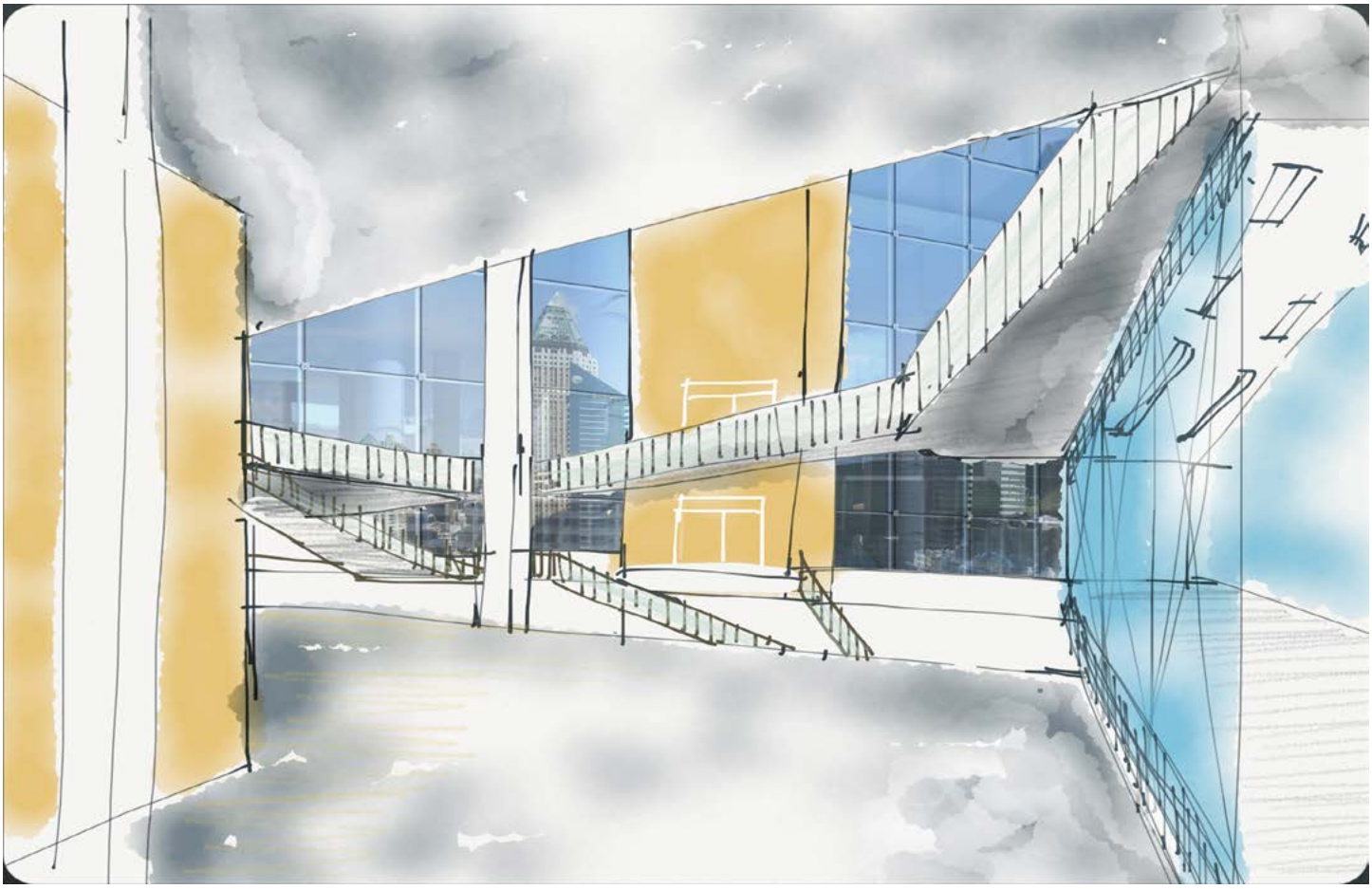
31th - 32th Floor Plan

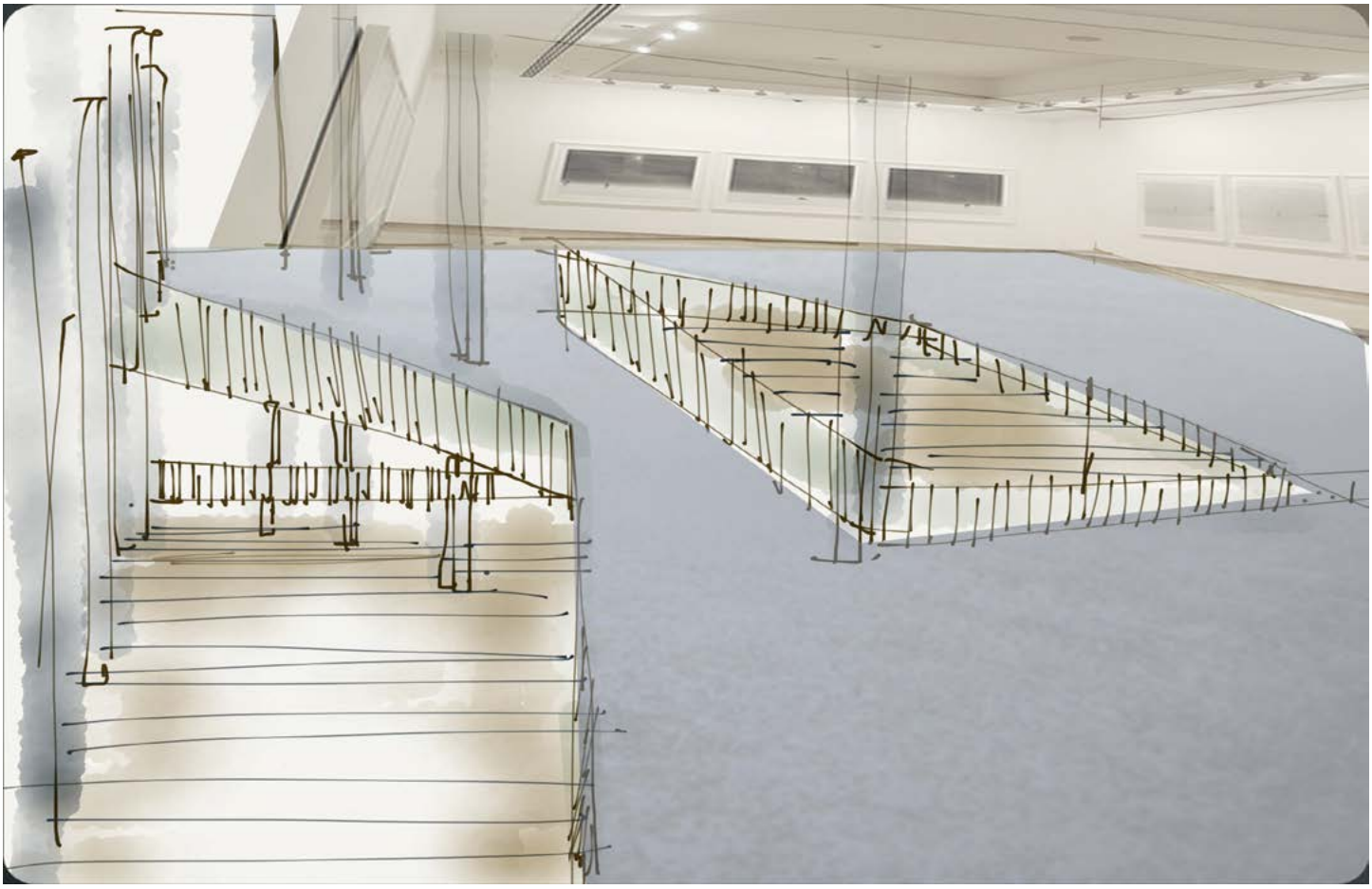


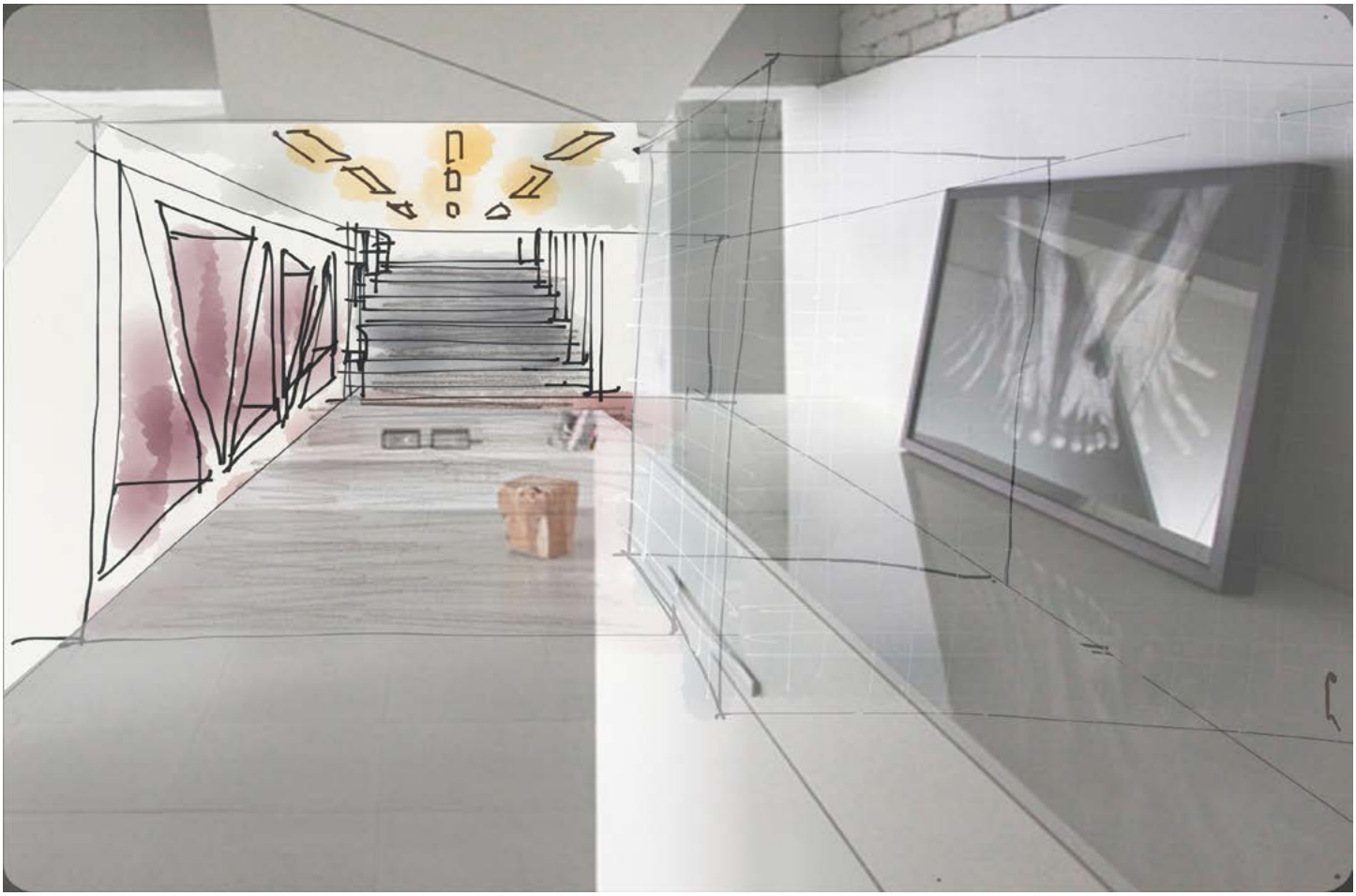
15th - 30th Floor Plan

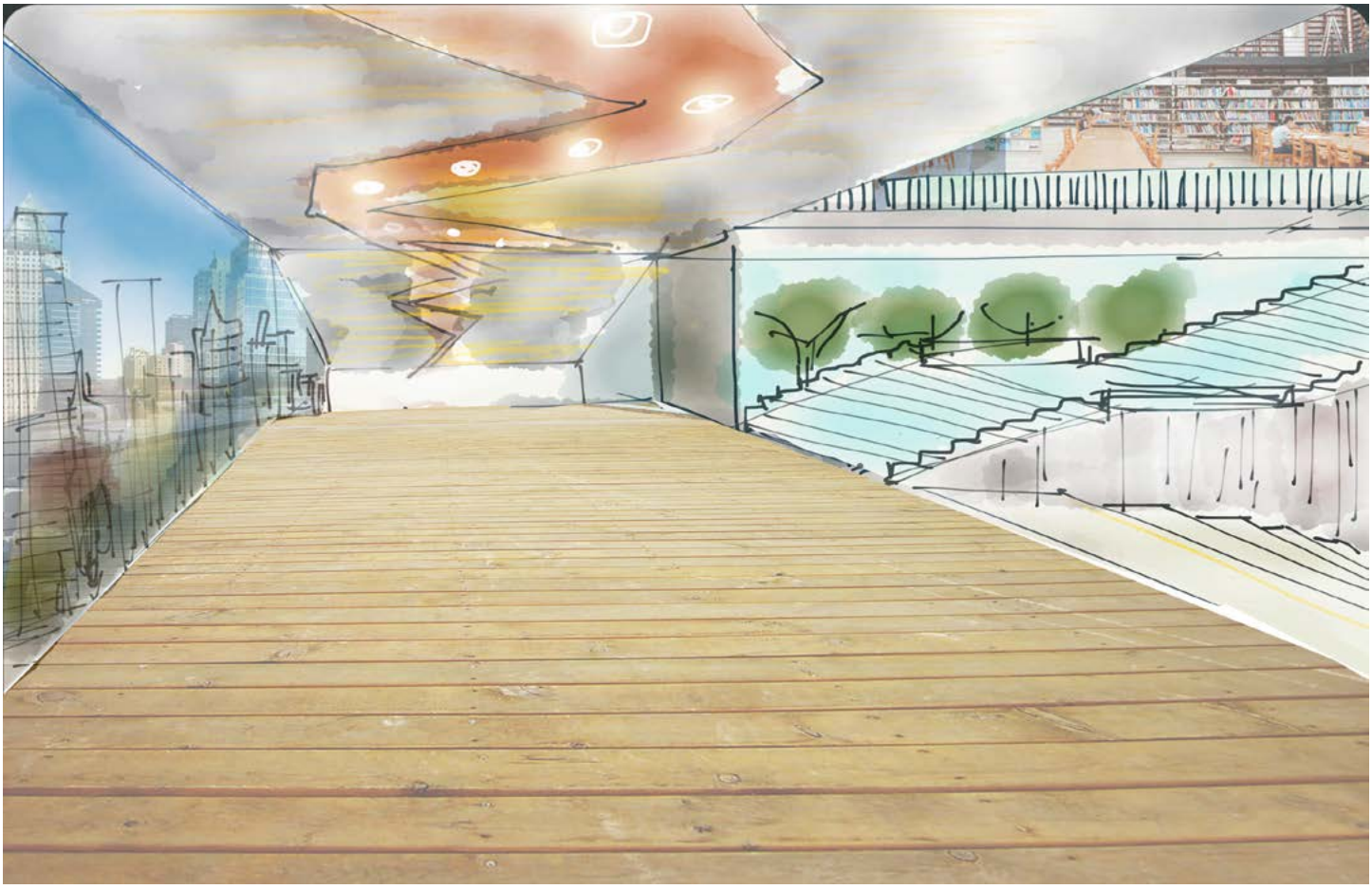

Yangxue Deng

- Green Space -



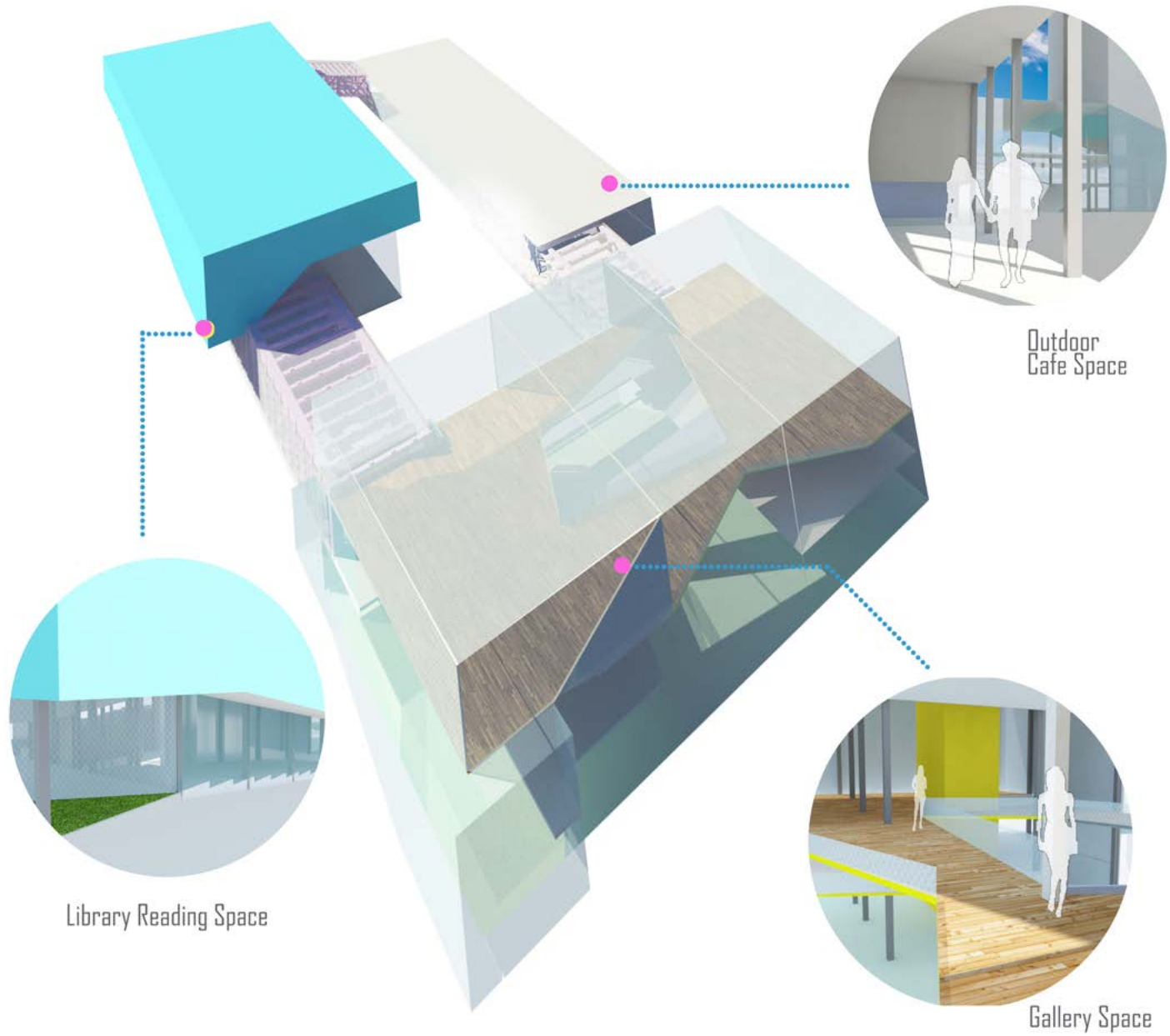


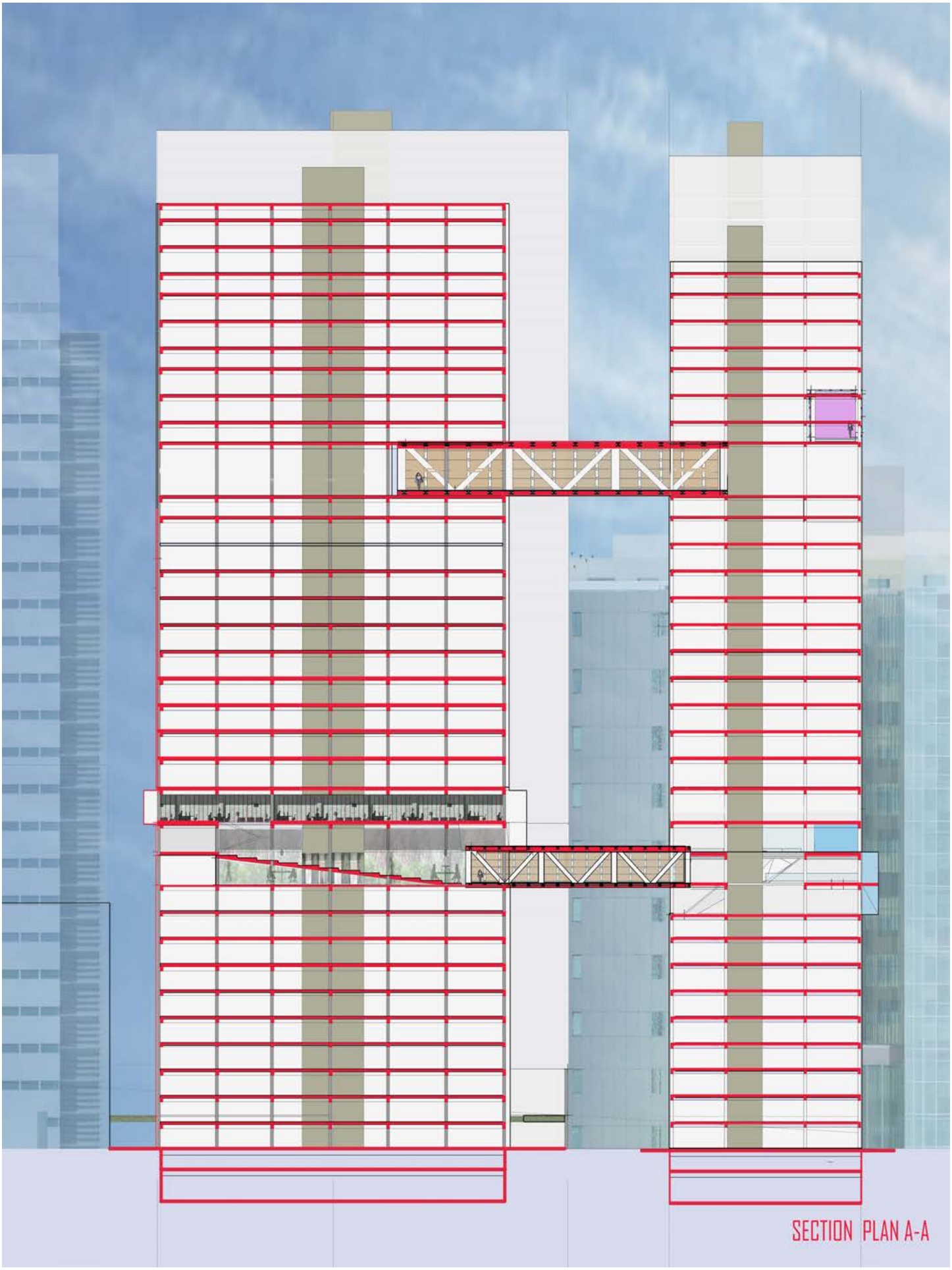


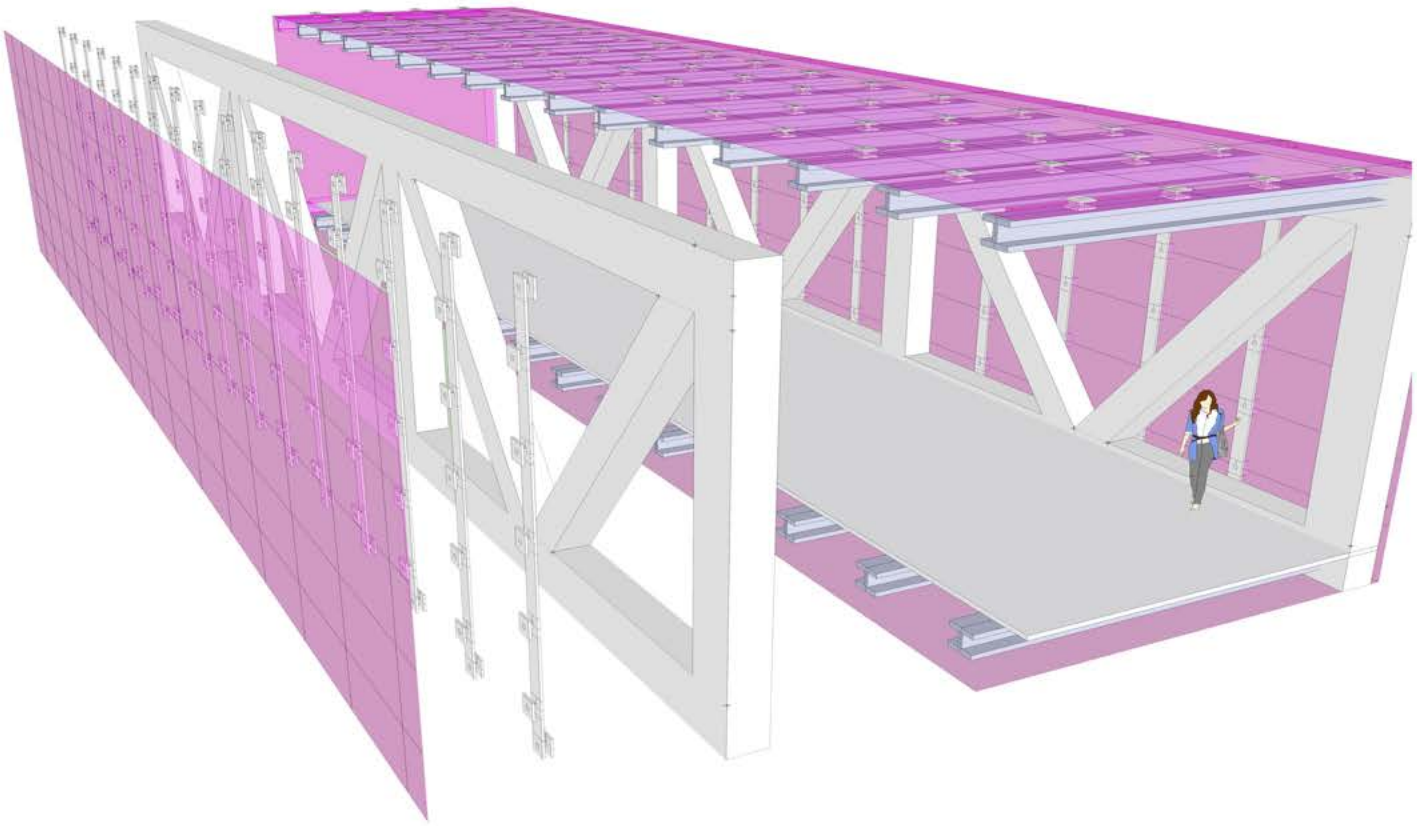


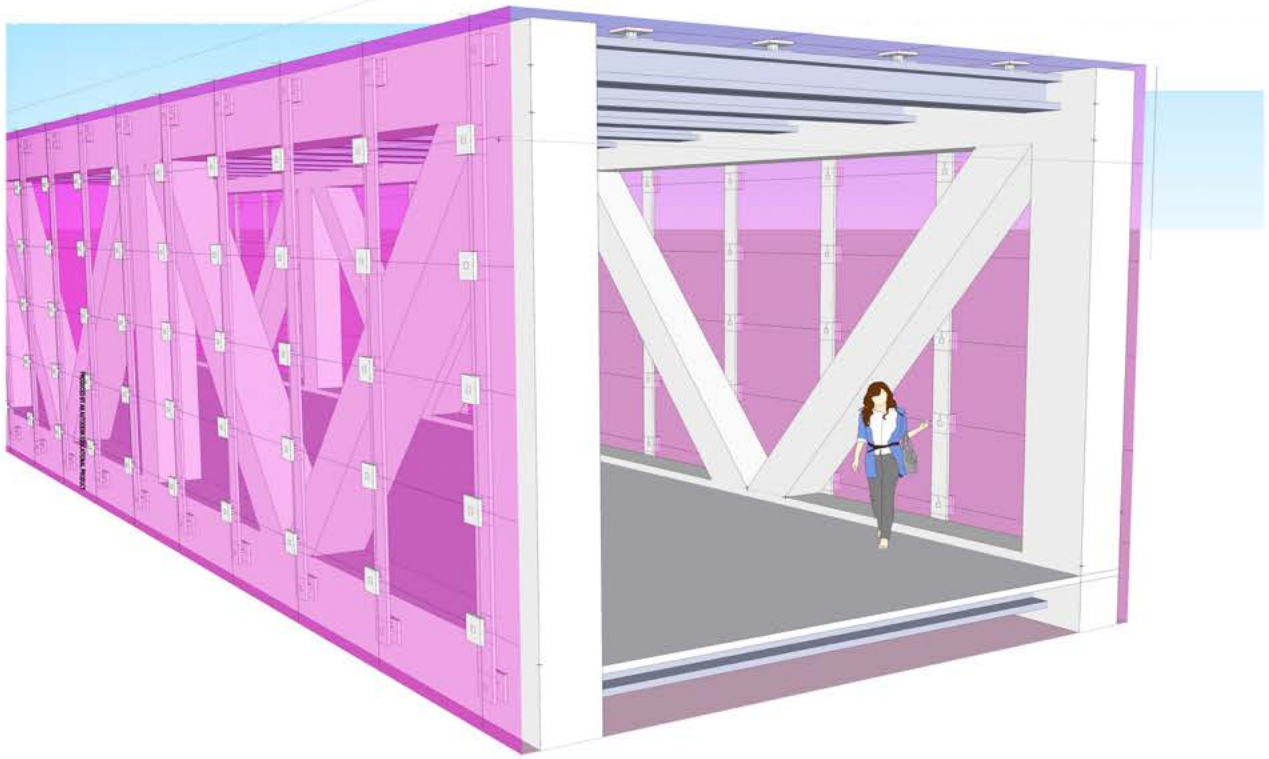
PT 123
AMEND

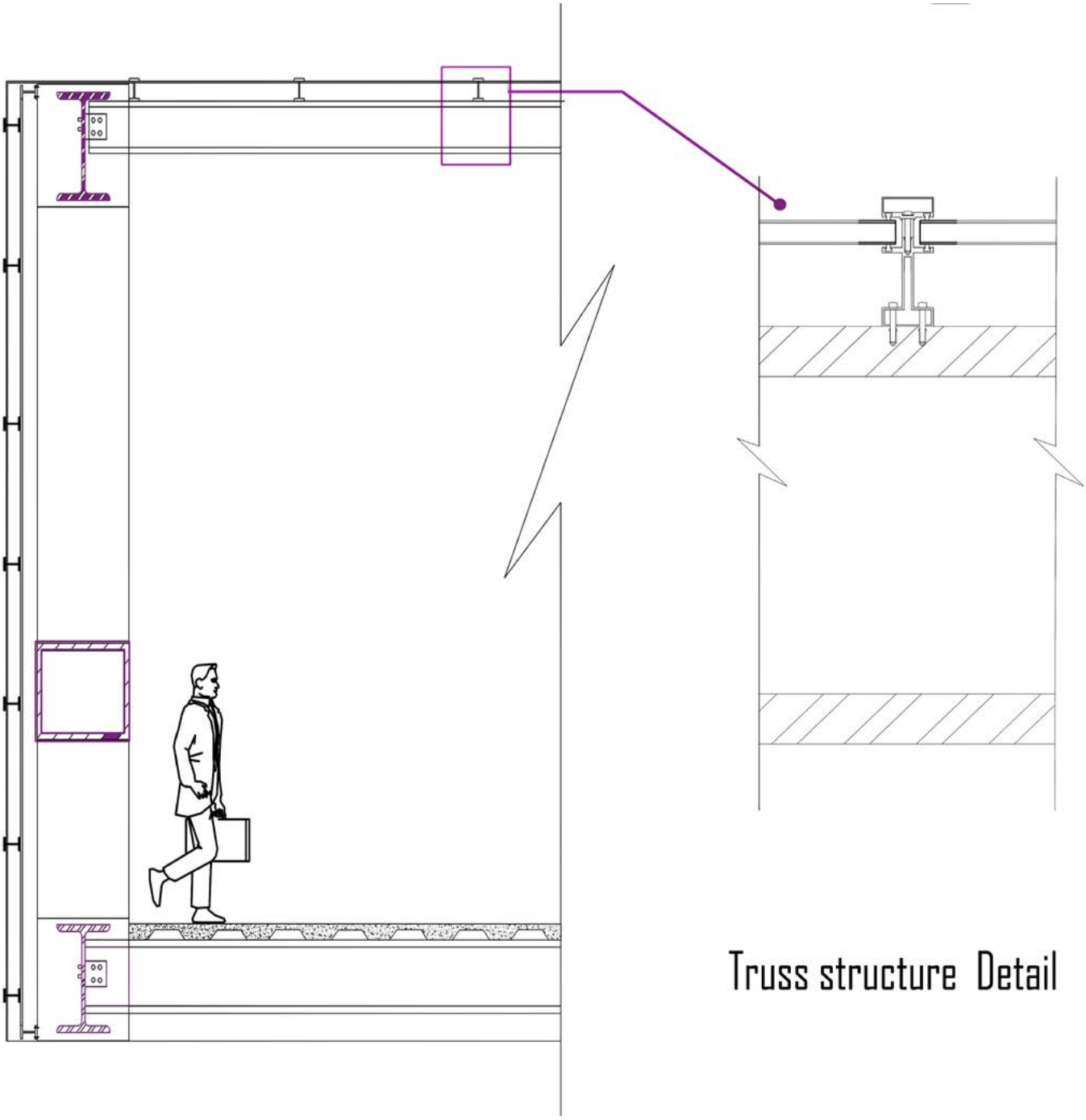
Library
Gallery
Tourist


Outdoor
Cafe Space
Library Reading Space
Gallery Space


SECTION PLAN A-A

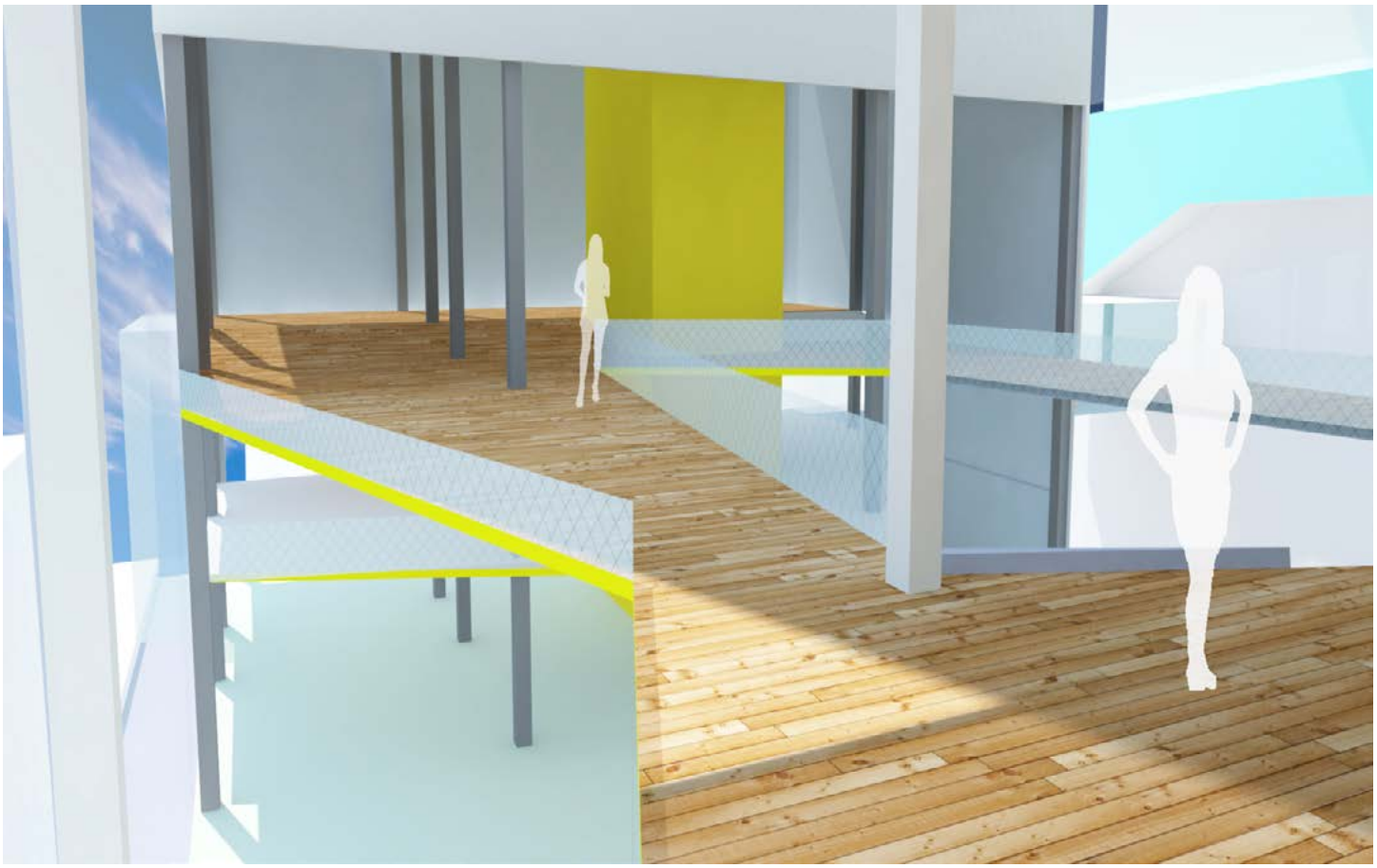






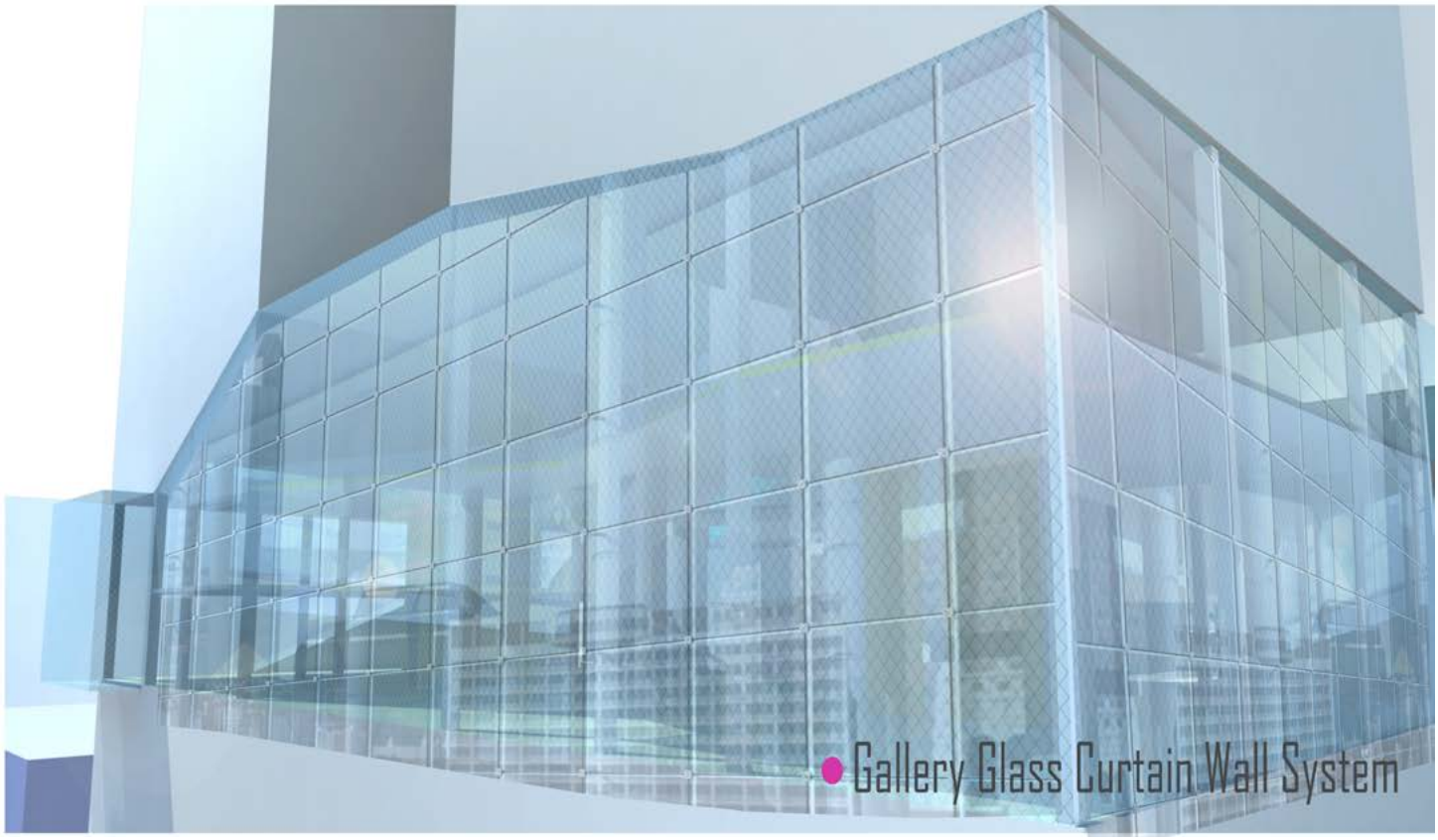
Truss structure Detail

WEST ELEVATION PLAN
EAST ELEVATION PLAN



Gallery Interior Space

Hanging GYM structure


Gallery Glass Curtain Wall System

FINAL BOARDS

LAYER CITY
REDESIGN SKYSCRAPERS
PROPOSED SITE: 11th Ave, 31th Street, New York City
Yangxue Deng
April 16th 12:45 pm
Cage Gallery, Alumni Hall

LAYER CITY

Redesign Skyscraper By Yangxue Deng

My design is dealing with the urban construction---skyscrapers.

Nowadays, the urban fabric is pronominally skyscraper driven in major cities. Building skyscraper is just one of many solutions to solve the density problem. While skyscraper is causing chaos and disconnecting us from urban fabric by vertically heighten us above the cityscape, which further on disconnecting culture connectivity that sustains a healthy city.

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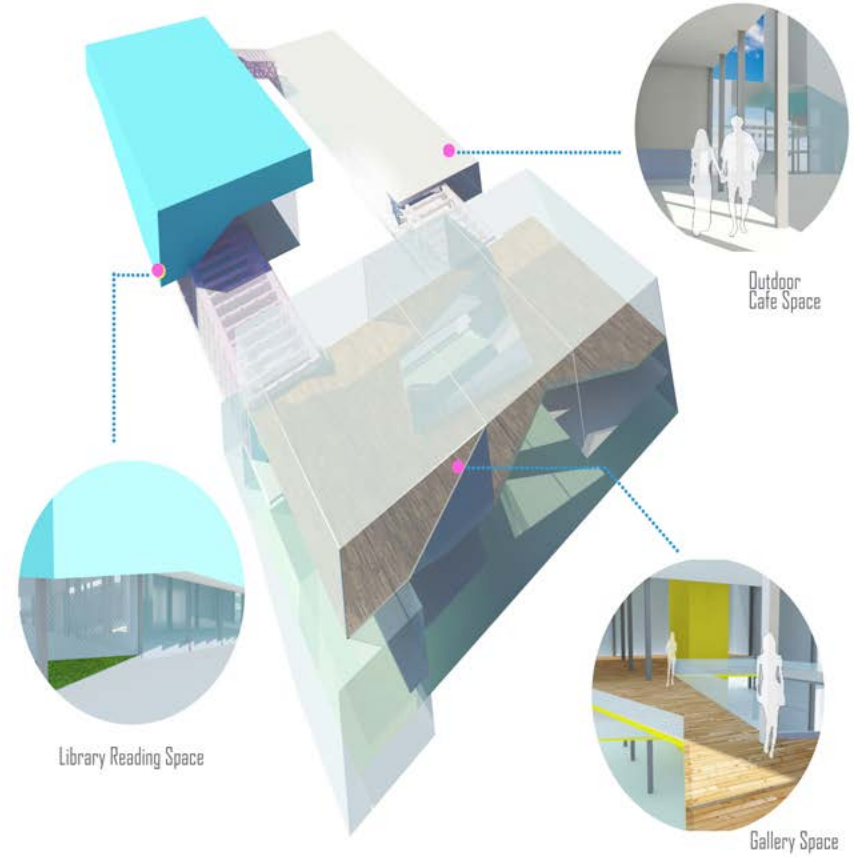
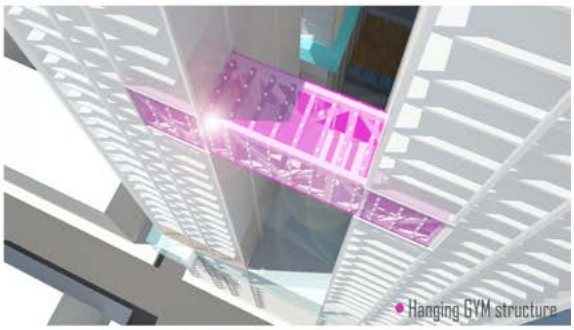
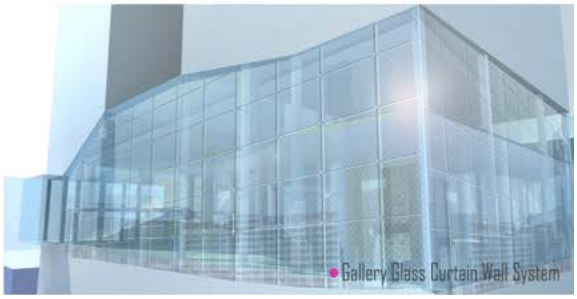
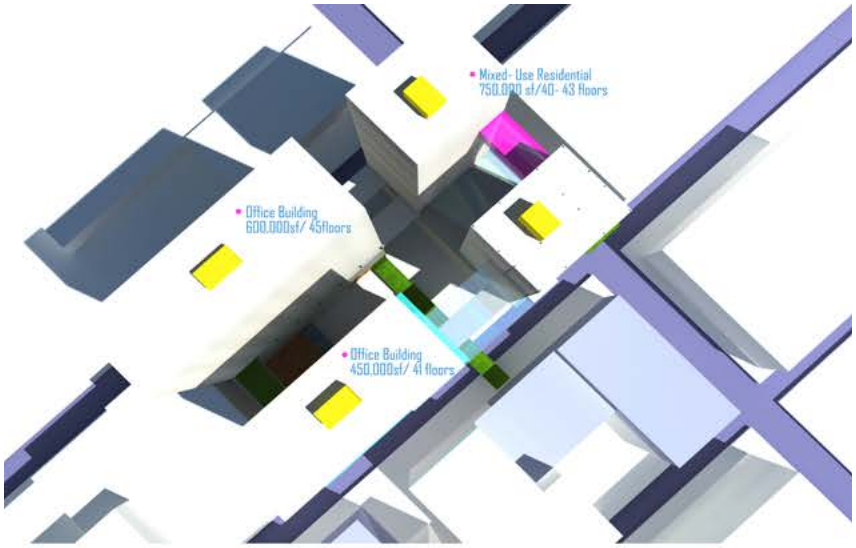
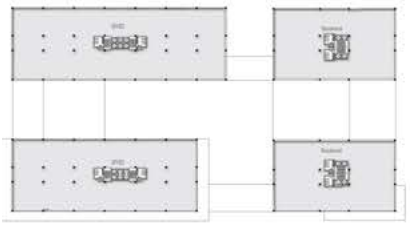
Existing Site Condition



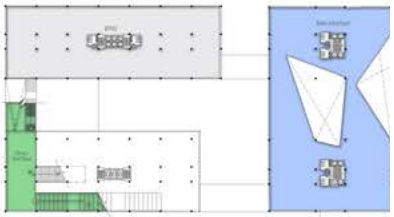




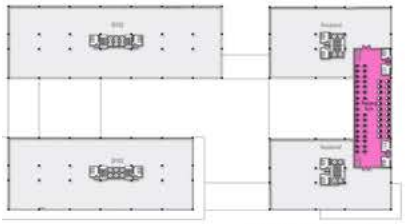




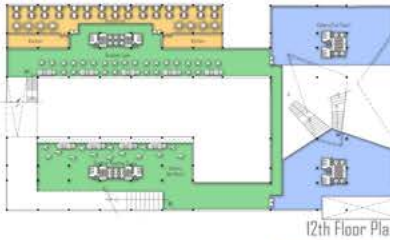
35th- 45th Floor Plan



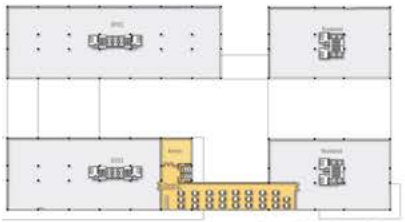
13th Floor Pla



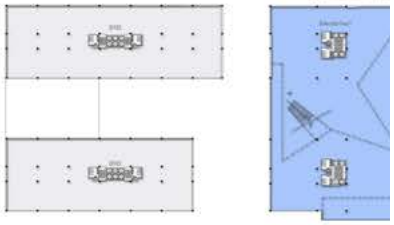
33th - 34th Floor Plan



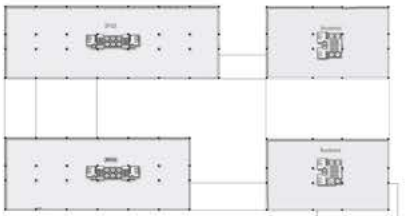
12th Floor Pla



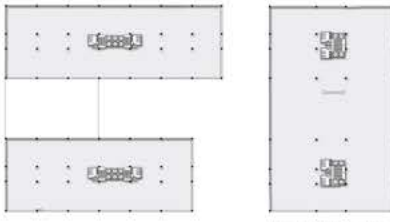
31th - 32th Floor Plan



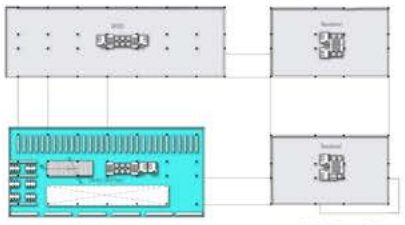
11th Floor Pla



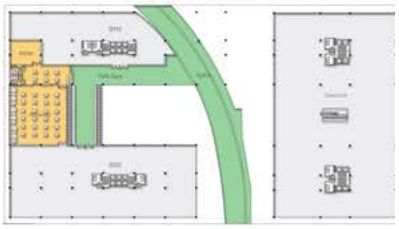
15th - 30th Floor Plan



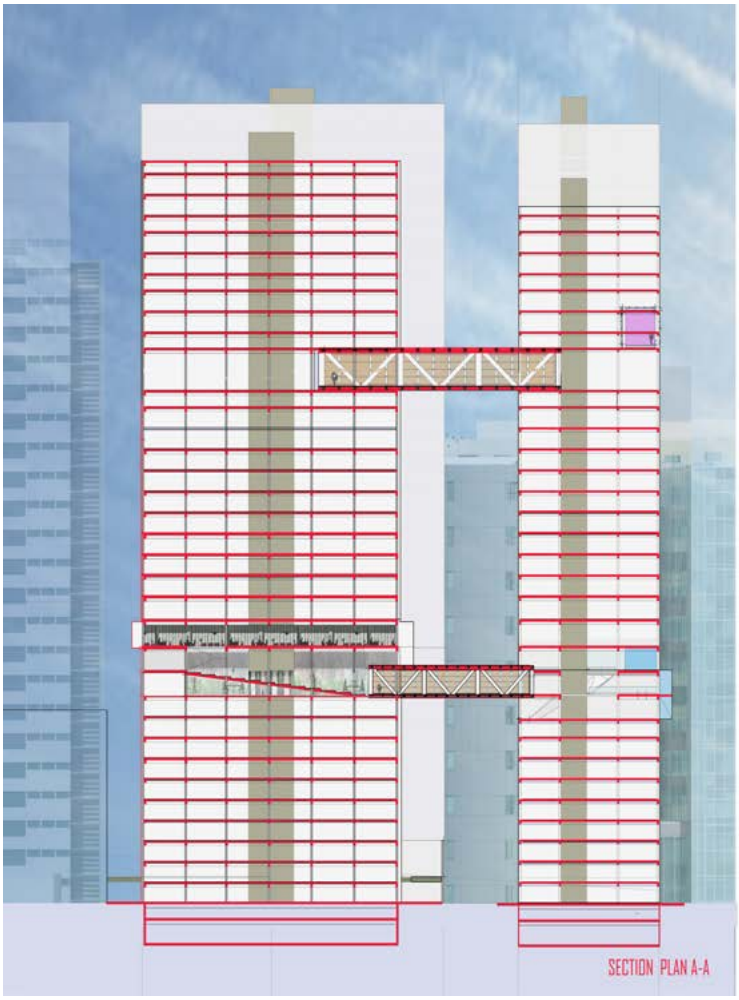
3th - 10th Floor Pla



14th Floor Plan

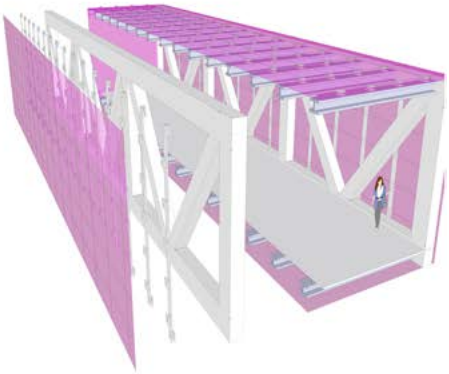


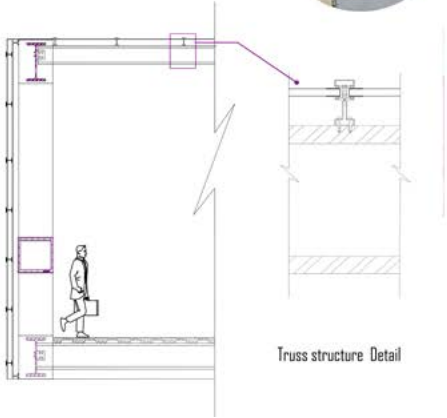
2nd Floor Pla

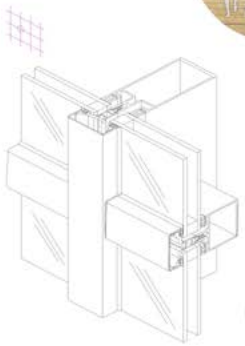

SECTION PLAN A-A

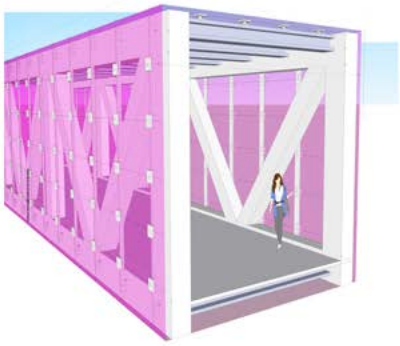
WEST ELEVATION PLAN
EAST ELEVATION PLAN

Library
Gallery
Tourist




Truss structure Detail


Glass Curtain wall detail



LAYER CITY
REDESIGN SKYSCRAPERS

LAYER CITY

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