

3. ARCHITECTURE

3.1 BUILDING OVERVIEW

3.1.1 PLAN



3.1 BUILDING OVERVIEW

3.1.1 MATERIALS



Reference Images

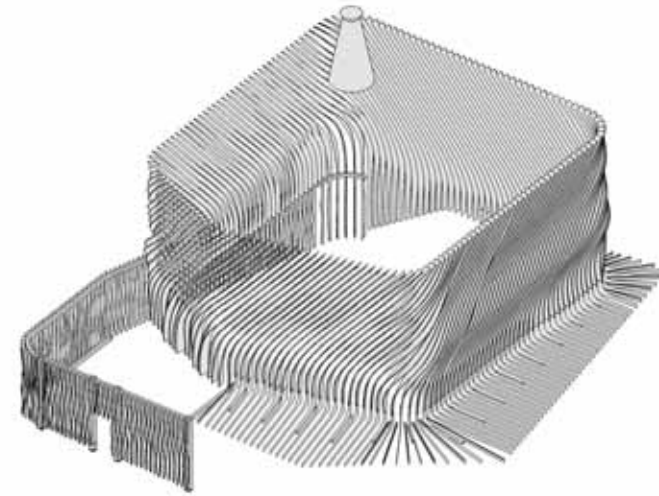
Both the intake and exhaust structures will feature vertical metal curving fins that evoke air movement. At ground level, wood or other warm surfaces will enhance seating areas. Base materials will be concrete curbs to support planting areas and provide flood protection for the substation below.

3.2 INTAKE AND EXHAUST STRUCTURES

3.2.1 COMPONENTS

Decorative fins

Both the intake and exhaust structures will feature vertical metal curving fins that evoke air movement.

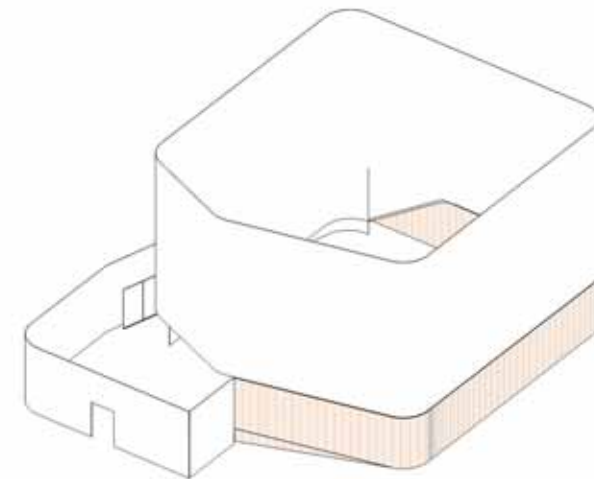


Screen layer

The Intake building will have a perforated metal screen behind the fins to allow air movement into the interior.

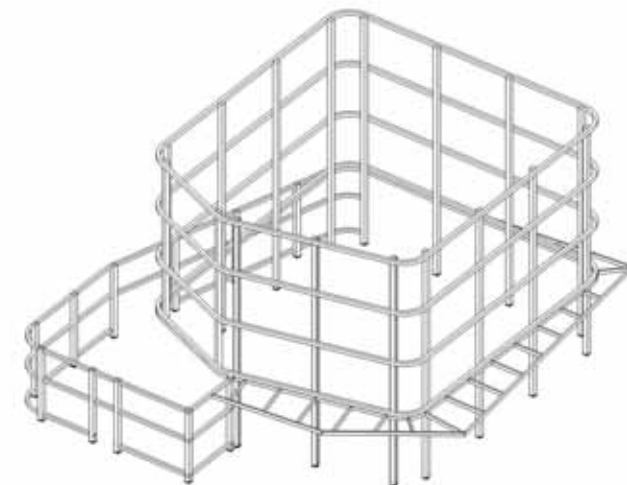
The Exhaust building will have a solid material behind the fins to force outflowing warmer air from the substation upwards away from the plaza.

The lowest level will be solid in both buildings to provide comfortable seating areas and weather protection for building components



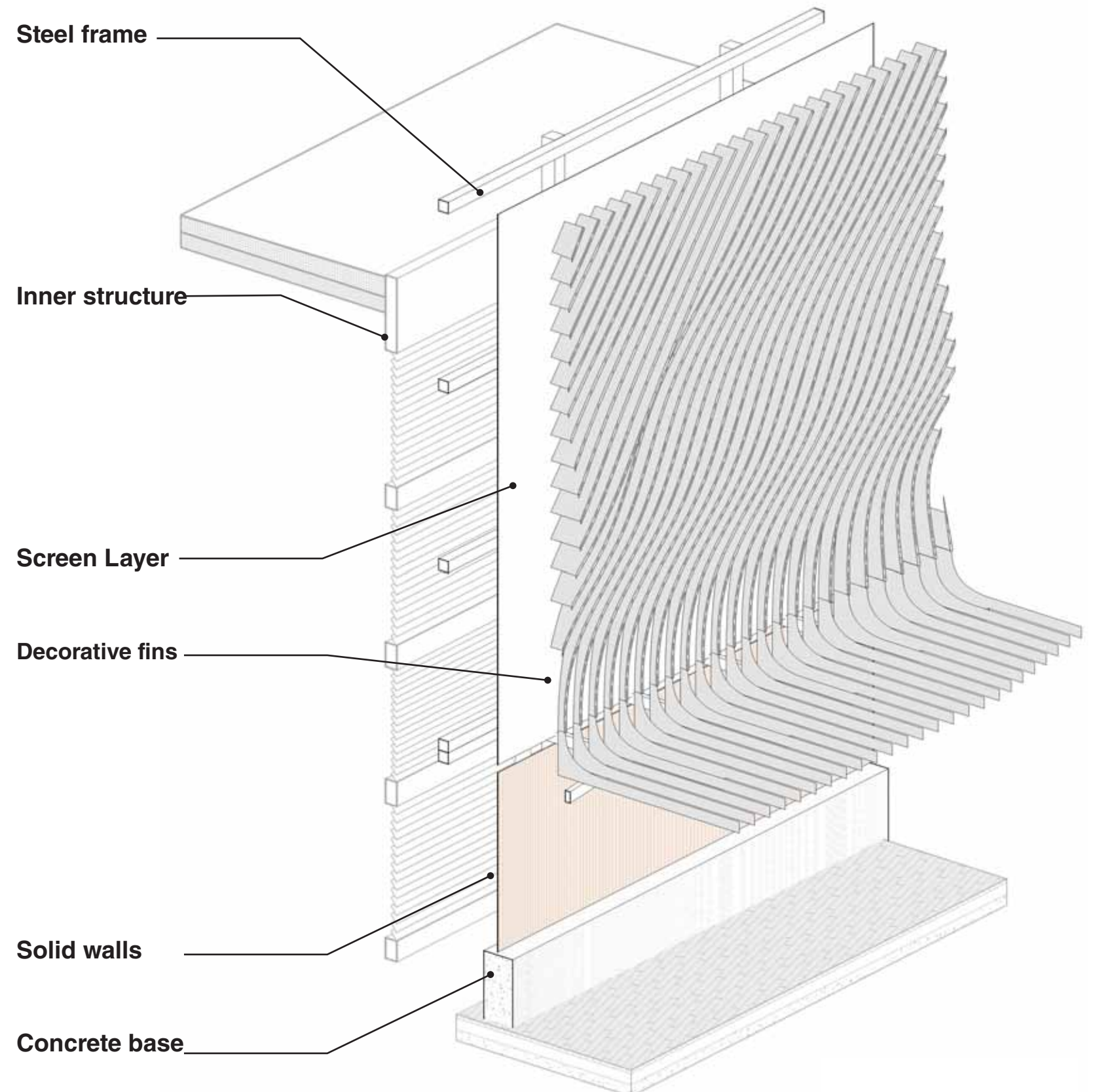
Steel frame

Both buildings will require a structural system behind the fins to support the outer layer separate from the inner structure



Concrete base

Each building will require a solid water-proof base to keep potential flood waters out of the substation below

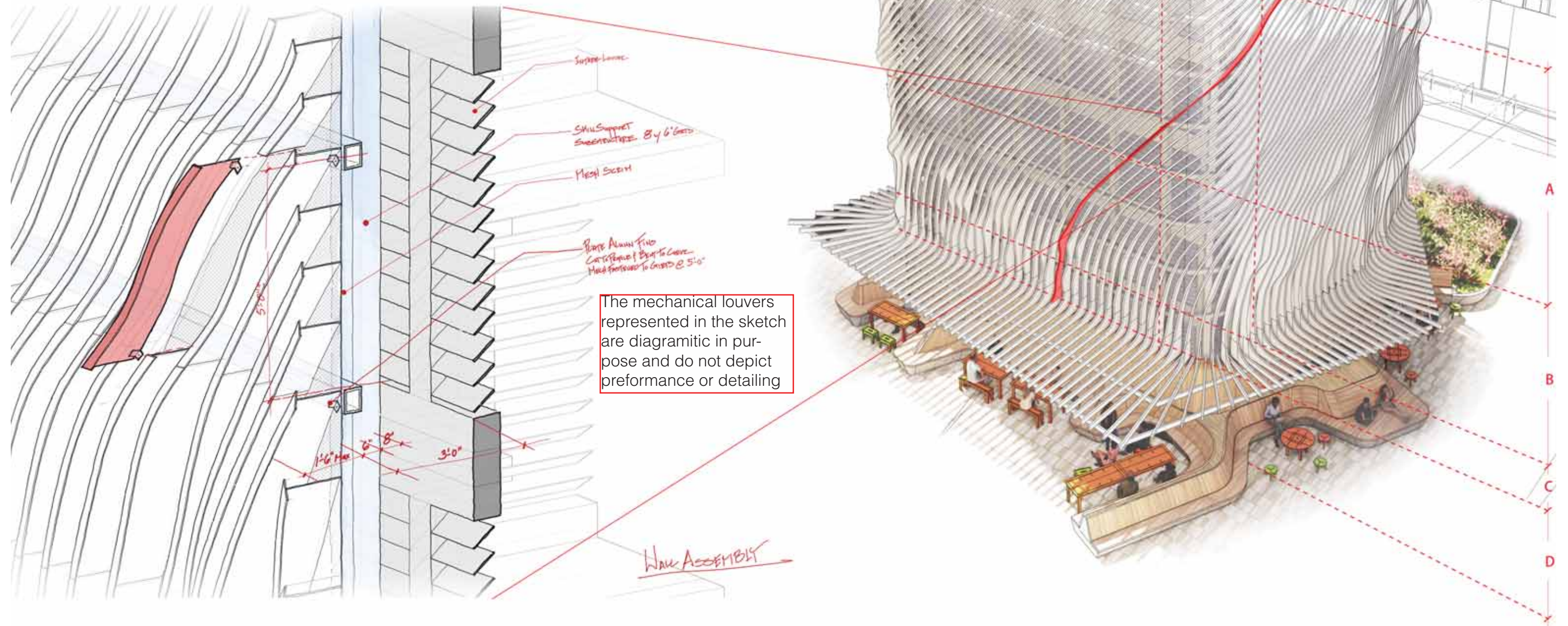


3.2 INTAKE AND EXHAUST STRUCTURES

3.2.2 DETAILS

Two Enclosures

Both the intake and exhaust structures have an inner rain protected ventilation screen, a gap of approximately 3 feet for air movements and an outer skin visible from the plaza. The fins are complexly curved and set apart 6-8 inches.



3.2 INTAKE AND EXHAUST STRUCTURES

3.2.3 FIN COLOR STUDY

Color on fin ends



Color on fin sides



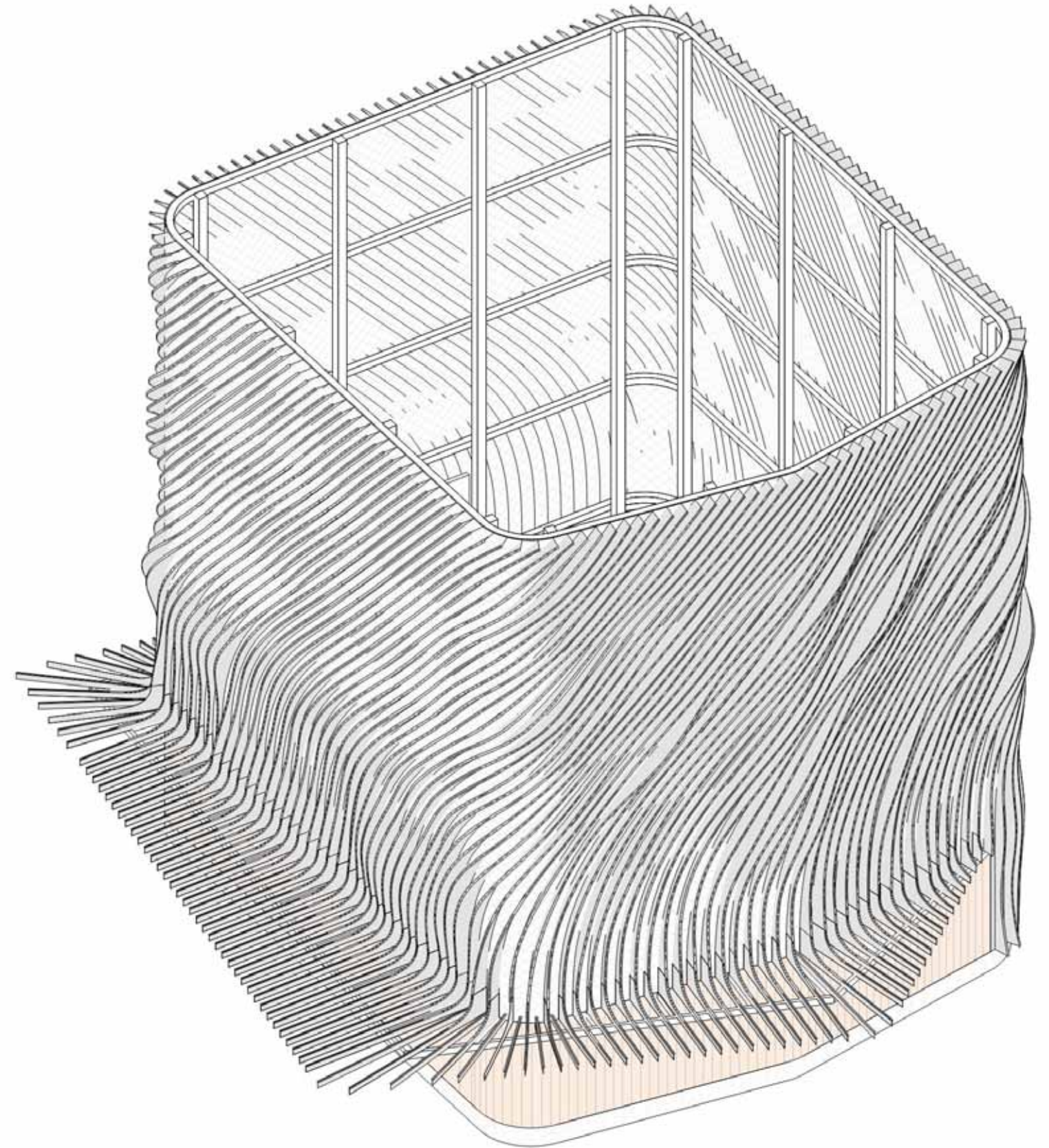
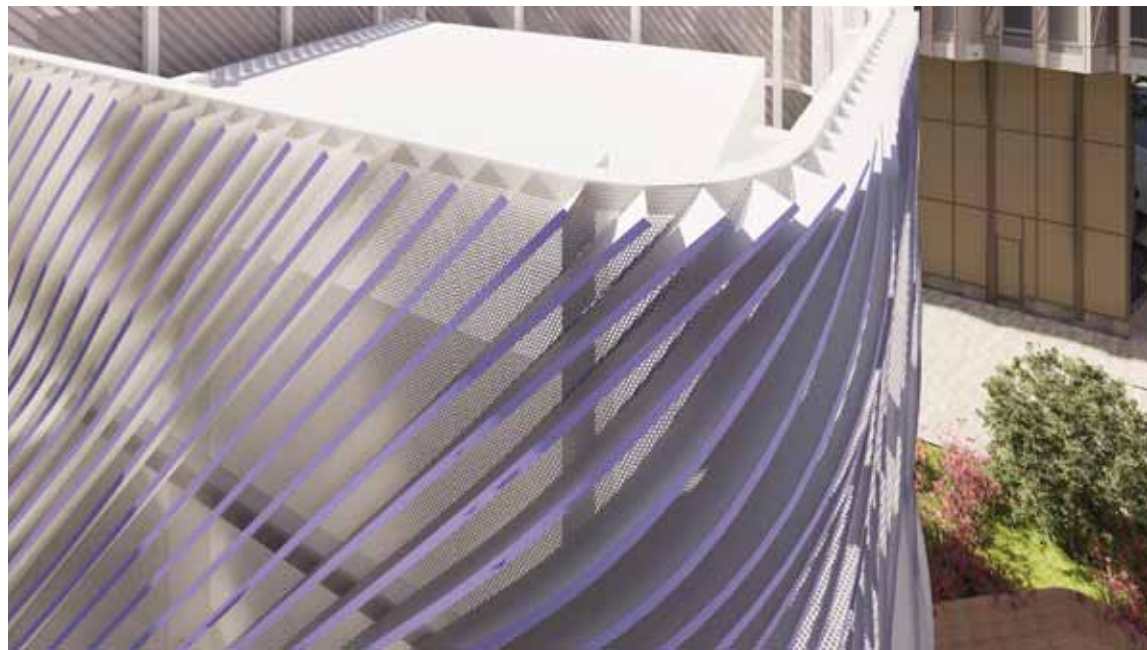
3.2 INTAKE AND EXHAUST STRUCTURES

3.2.4 INTAKE STRUCTURE



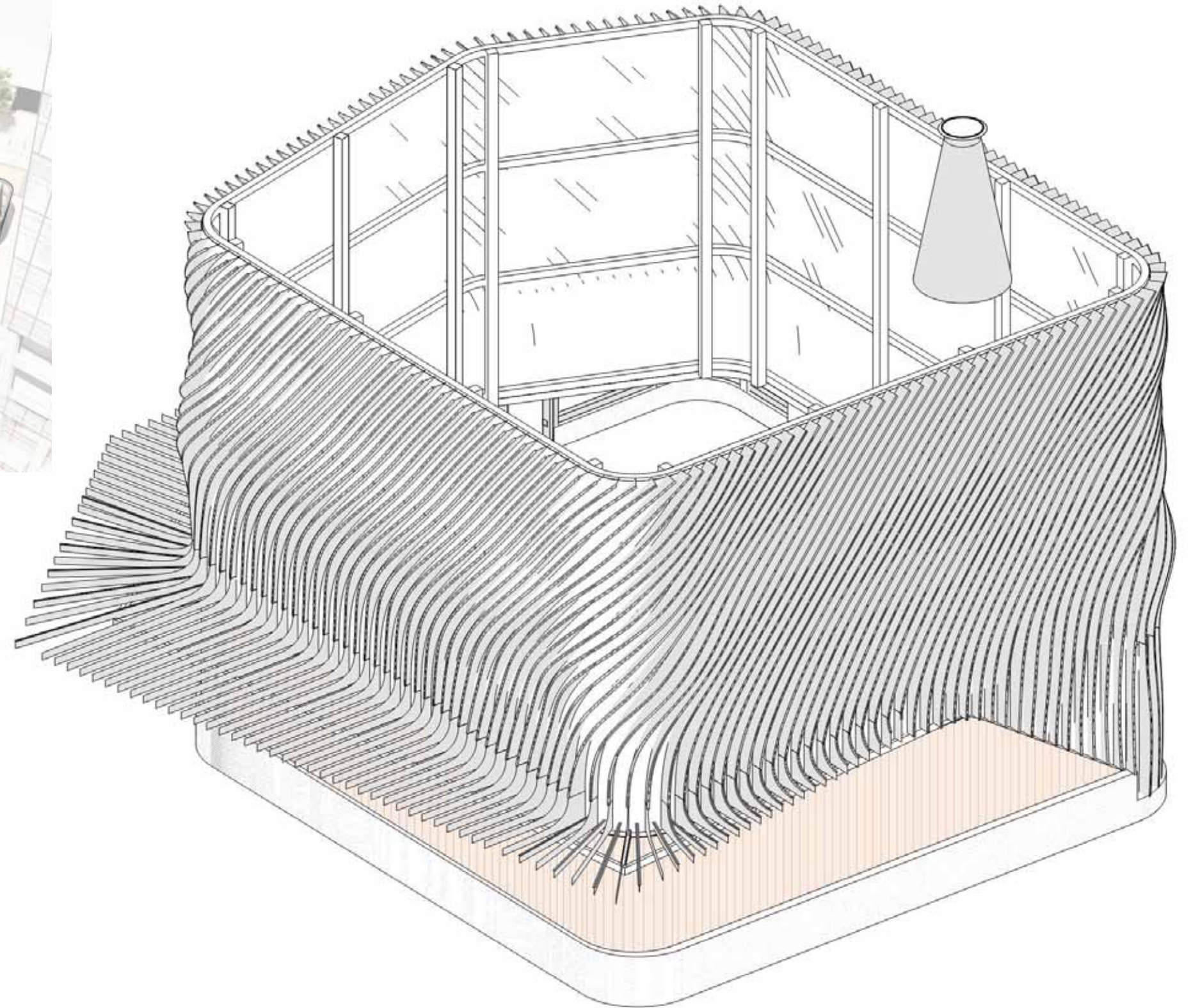
Intake Structure

The intake structure is designed to allow air to travel freely through the outer fin layer into the internal ventilation structure with minimal impedance. A mesh or perforated metal screen is used behind the outer fins to allow air movement but prevent birds or animals from entering the inner gap space.



3.2 INTAKE AND EXHAUST STRUCTURES

3.2.5 EXHAUST STRUCTURE



Exhaust structure

The exhaust building will look similar to the intake building but will feature a solid backing behind the decorative fins to direct air from the substation upwards and away from plaza users

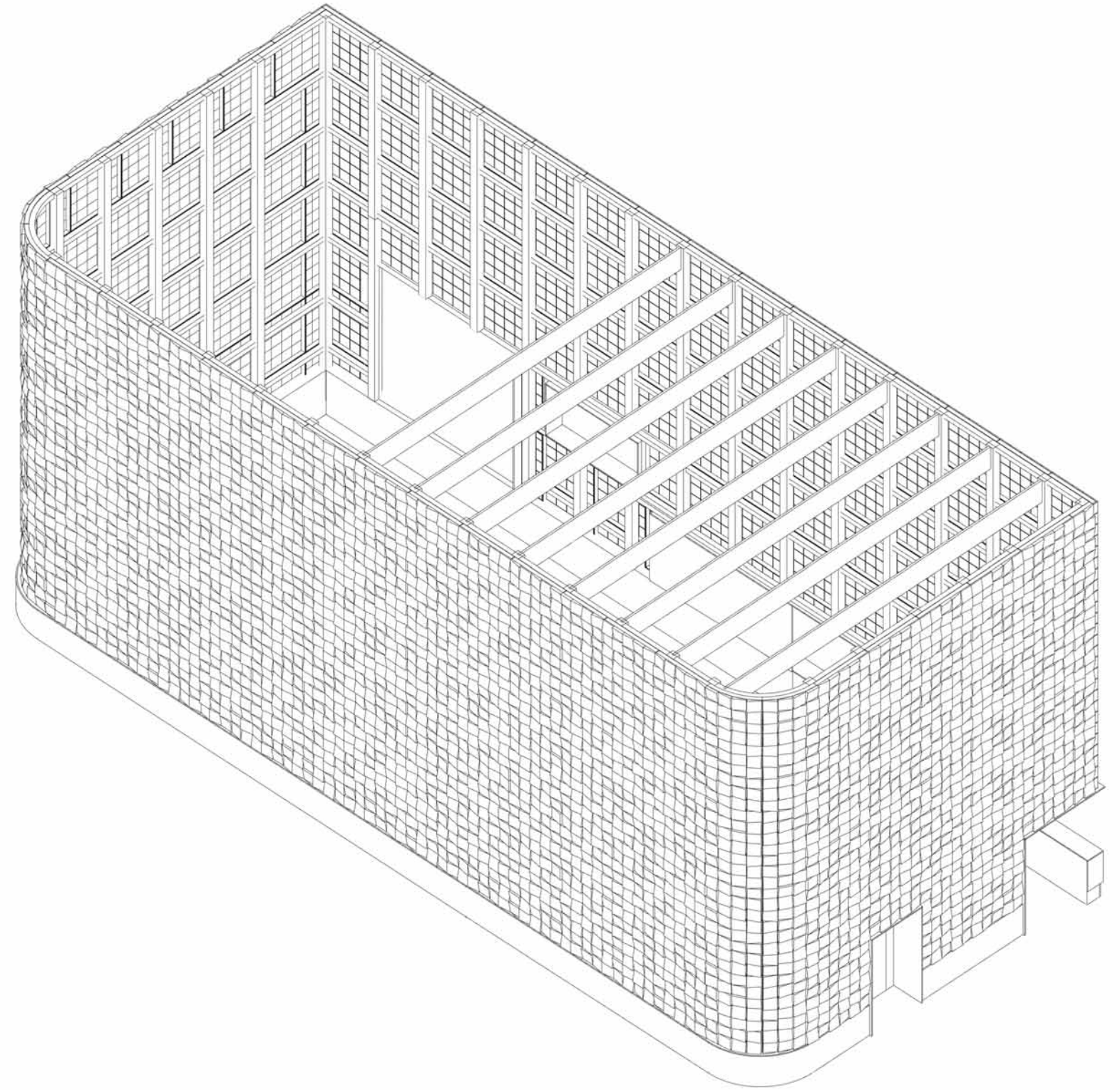
3.3 SERVICE BUILDING (THE BEACON)

3.3.1 OVERVIEW



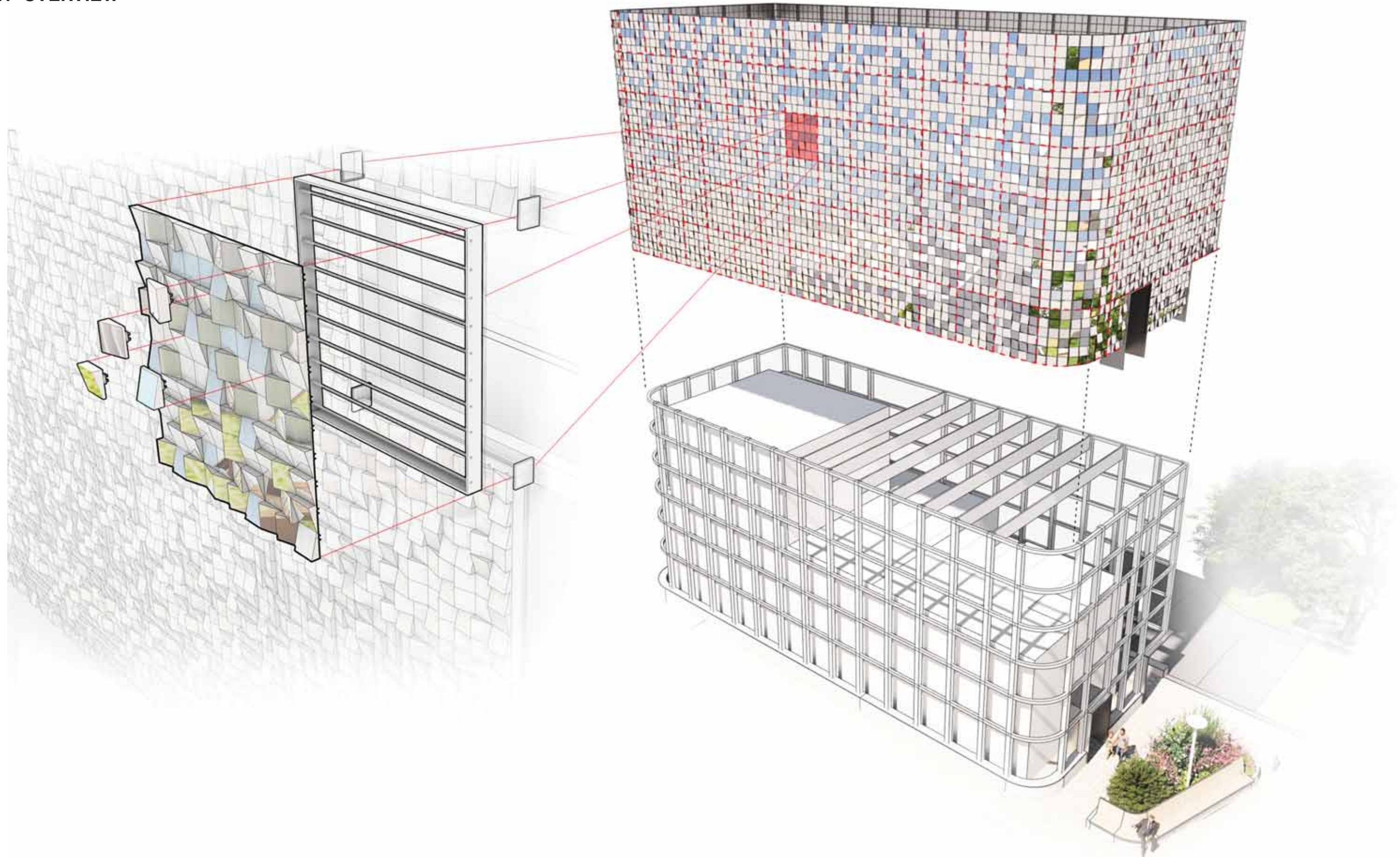
Service Building (the Beacon)

The Beacon houses elevators, loading dock, control rooms and exit stairs to the substation below as well as public restrooms. The Beacon is clad in reflective metal panels designed to scatter and reflect light from bright objects and light sources elsewhere in the park.



3.3 SERVICE BUILDING (THE BEACON)

3.3.1 OVERVIEW



3.3 SERVICE BUILDING (THE BEACON)

3.3.2 UNDERLYING SHAPE



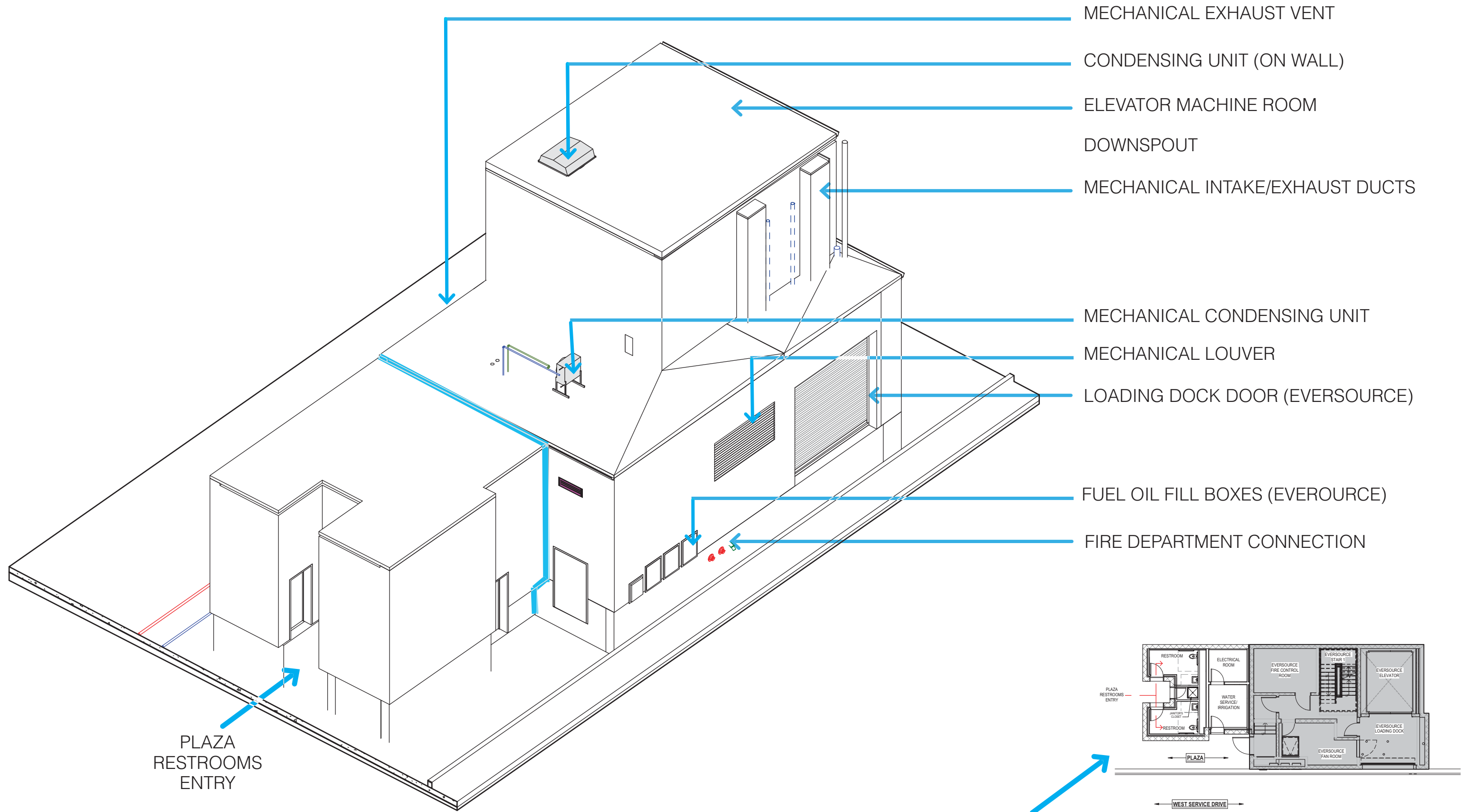
Service Building (the Beacon)

The Beacon houses elevators, loading dock, control rooms and exit stairs to the substation below as well as public restrooms. The complex shape and the need for rooftop ventilation structures argued for a covering that would simplify the multiple forms



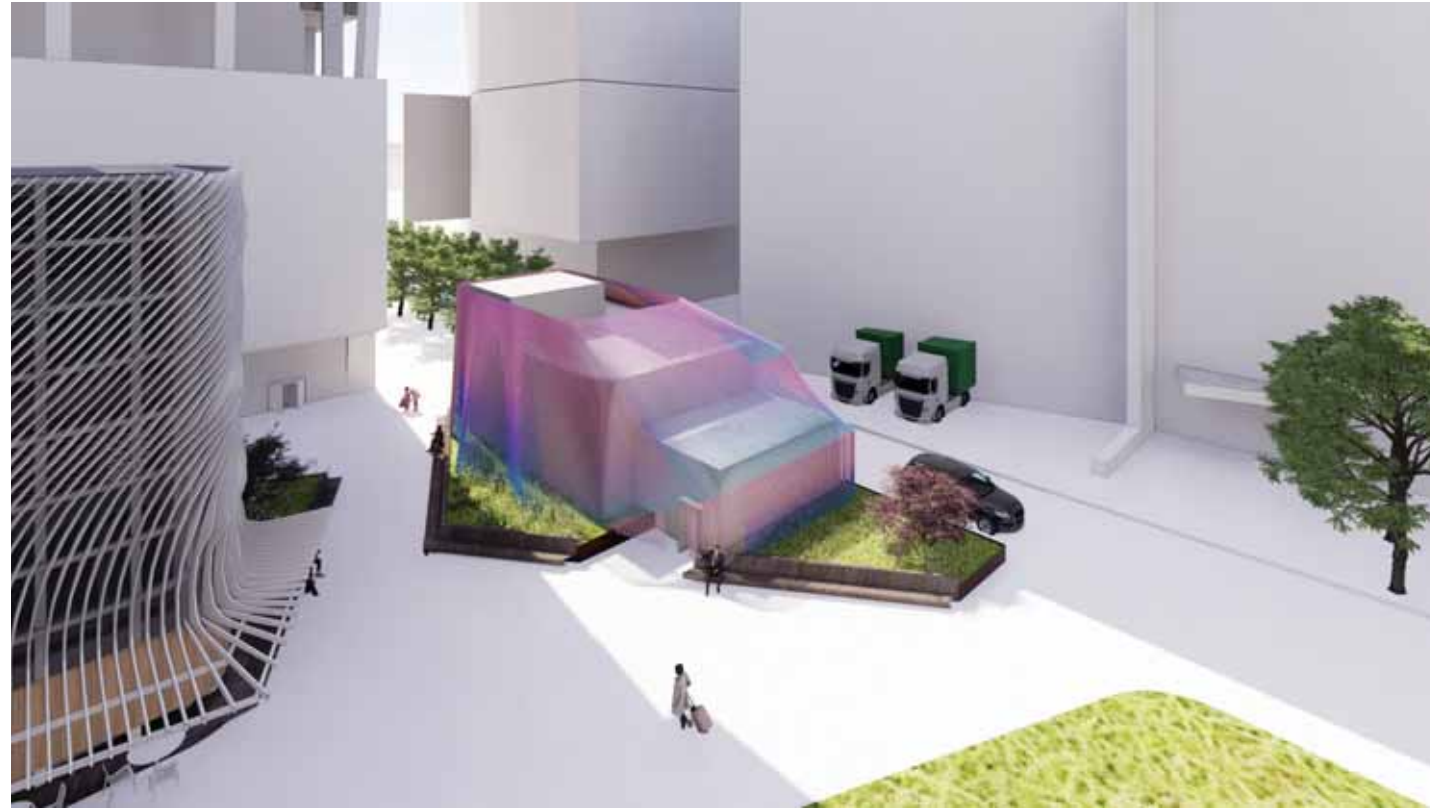
3.3.2 RESTROOM

3.3.2.1 BASE BUILDING PLAN & MEPFP DIAGRAM



3.3 SERVICE BUILDING (THE BEACON)

3.3.3 FACADE STUDY



Service Building (the Beacon)

Early studies looked at wrapping the Service Building tightly to reduce the volume. The shape however limited future flexibility for rooftop ventilation and exhaust. Therefore this approach was not pursued further, in favor of the proposed design.



3.3 SERVICE BUILDING (THE BEACON)

3.3.3 FACADE STUDY



6" tile

3.3 SERVICE BUILDING (THE BEACON)

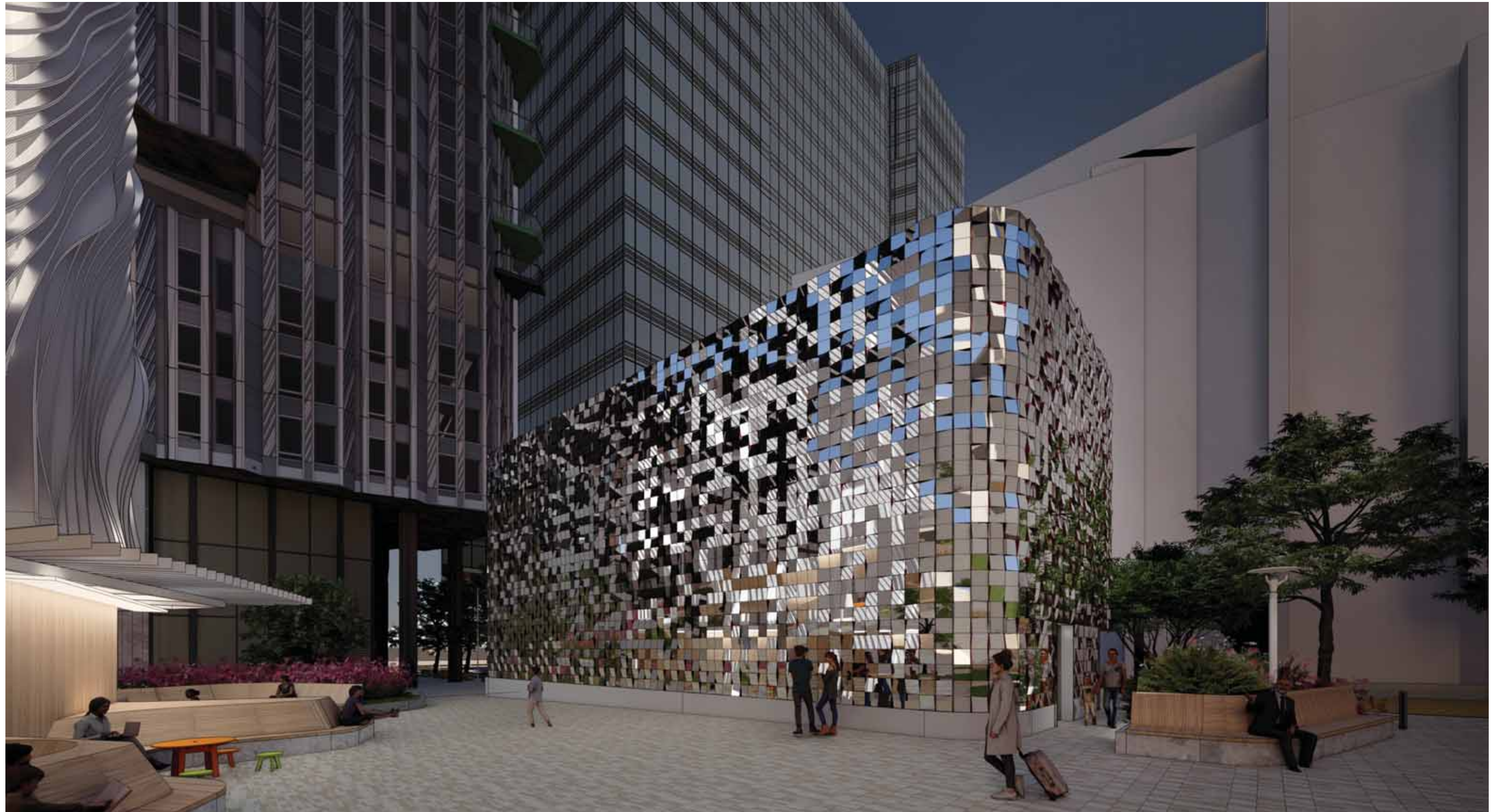
3.3.3 FACADE STUDY



12" tile

3.3 EXHAUST STRUCTURE

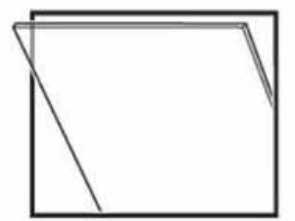
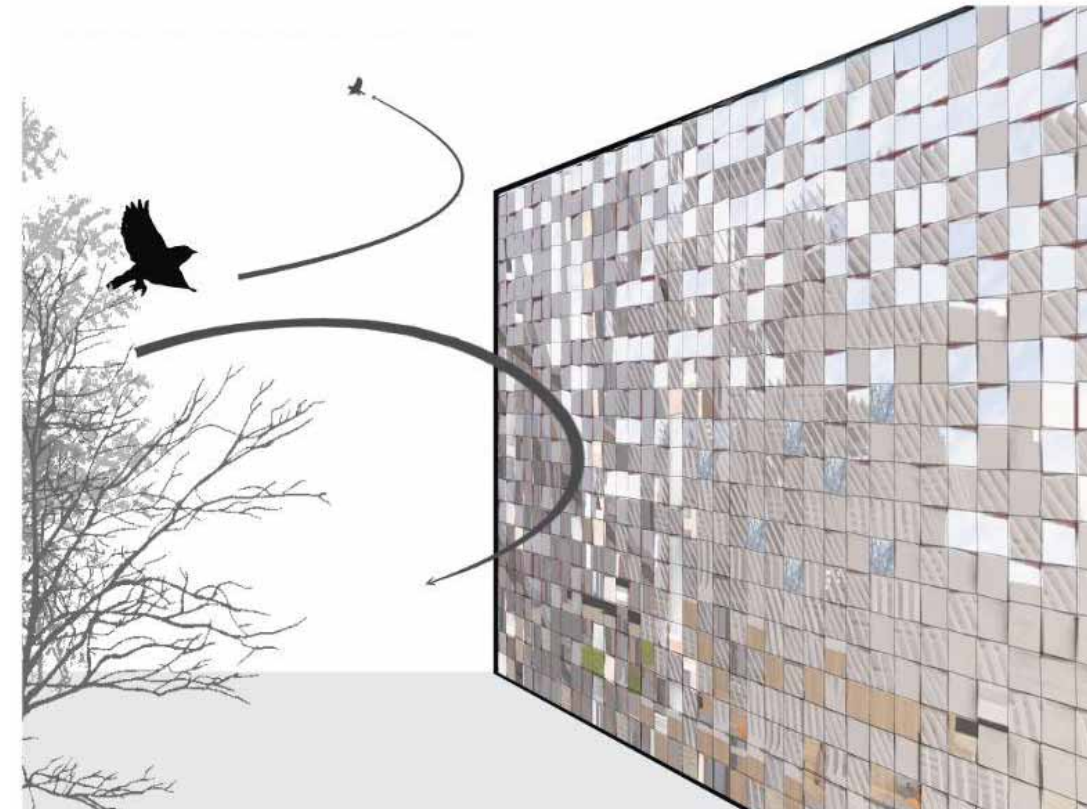
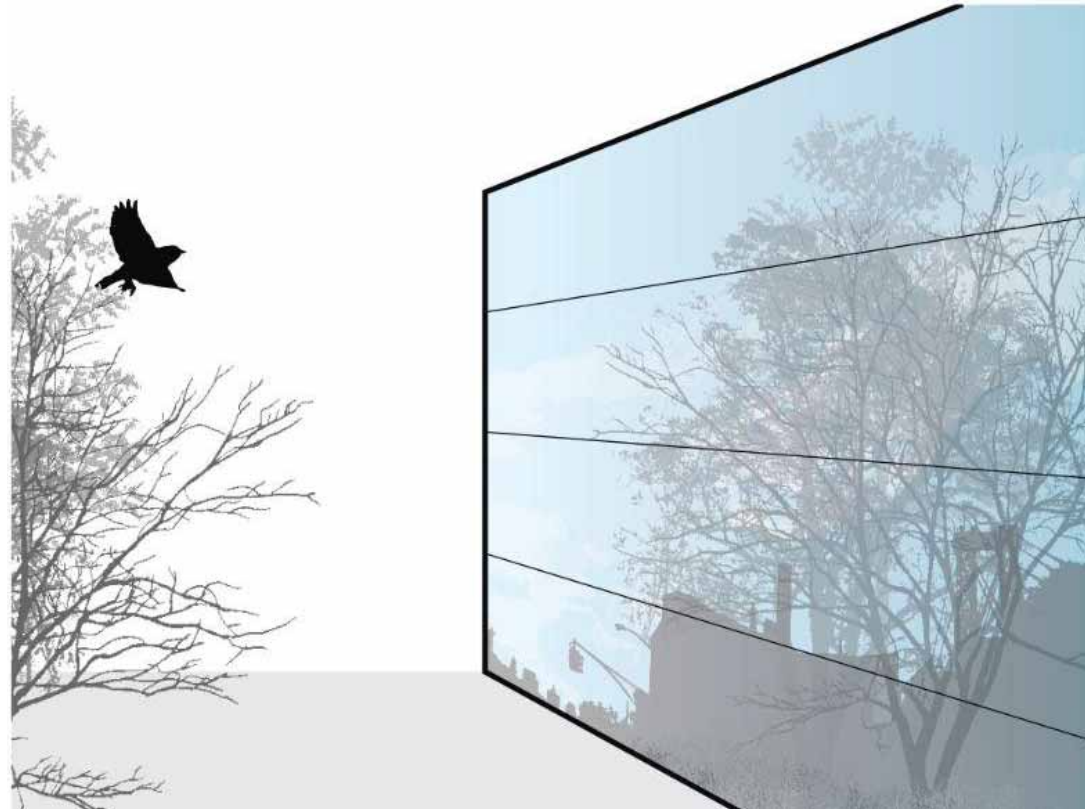
3.3.3 FACADE STUDY



Night View of Beacon

3.3 EXHAUST STRUCTURE

3.3.3 FACADE STUDY



Solution: Glass Tilted Downwards



Solution: Visual Noise

Glass Reflectivity: Mirror Effect

From Outside most buildings, glass often appears highly reflective, increasingly so when seen from an oblique angle. Almost every type of architectural glass under the right conditions reflects the sky, clouds, or nearby trees and vegetation, reproducing habitat familiar and attractive to birds.

Aluminum Plates

Tapered aluminum plates to create visual noise

To create a bird-safe environment in the plaza, we propose using small tapered plates that will create visual noise, effectively steering the birds away from the service building (the beacon).

Reference: Bird-Safe Building Guidelines
Bird-Safe Building Guidelines - SCAPE (scapestudio.com)

3.3 EXHAUST STRUCTURE

3.3.4 PUBLIC ART STUDY- PAINTED MURAL



3.3 EXHAUST STRUCTURE

3.3.4 PUBLIC ART STUDY- PAINTED MURAL



3.3 EXHAUST STRUCTURE

3.3.4 PUBLIC ART STUDY- CERAMIC TILES



3.3 EXHAUST STRUCTURE

3.3.4 PUBLIC ART STUDY- TEXTURED WOOD PANELS



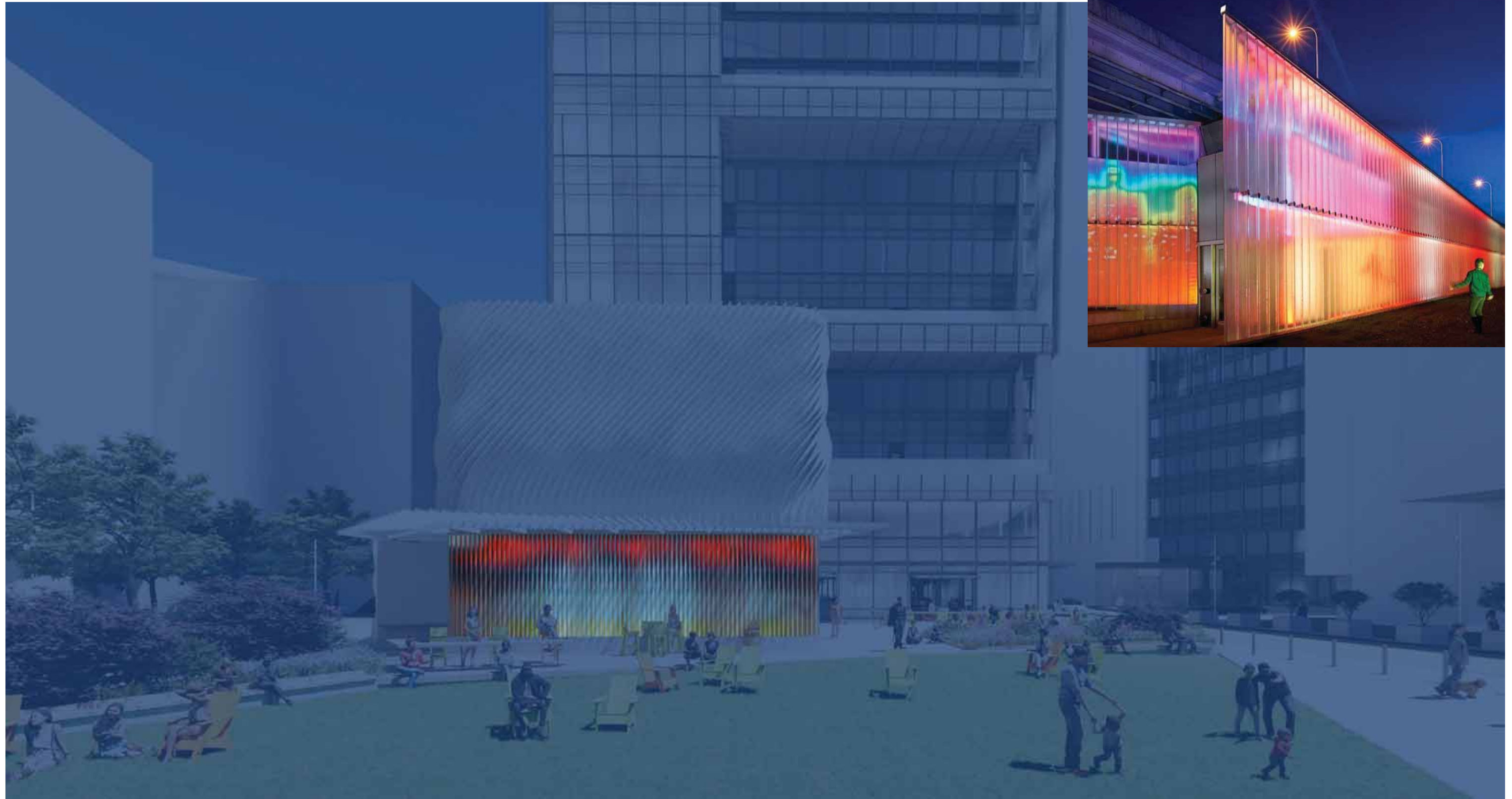
3.3 EXHAUST STRUCTURE

3.3.4 PUBLIC ART STUDY- BACKLIT CHANNEL GLASS



3.3 EXHAUST STRUCTURE

3.3.4 PUBLIC ART STUDY- BACKLIT CHANNEL GLASS



3.3 EXHAUST STRUCTURE

3.3.5 INTERACTIVE PROGRAM STUDY



3.3 EXHAUST STRUCTURE

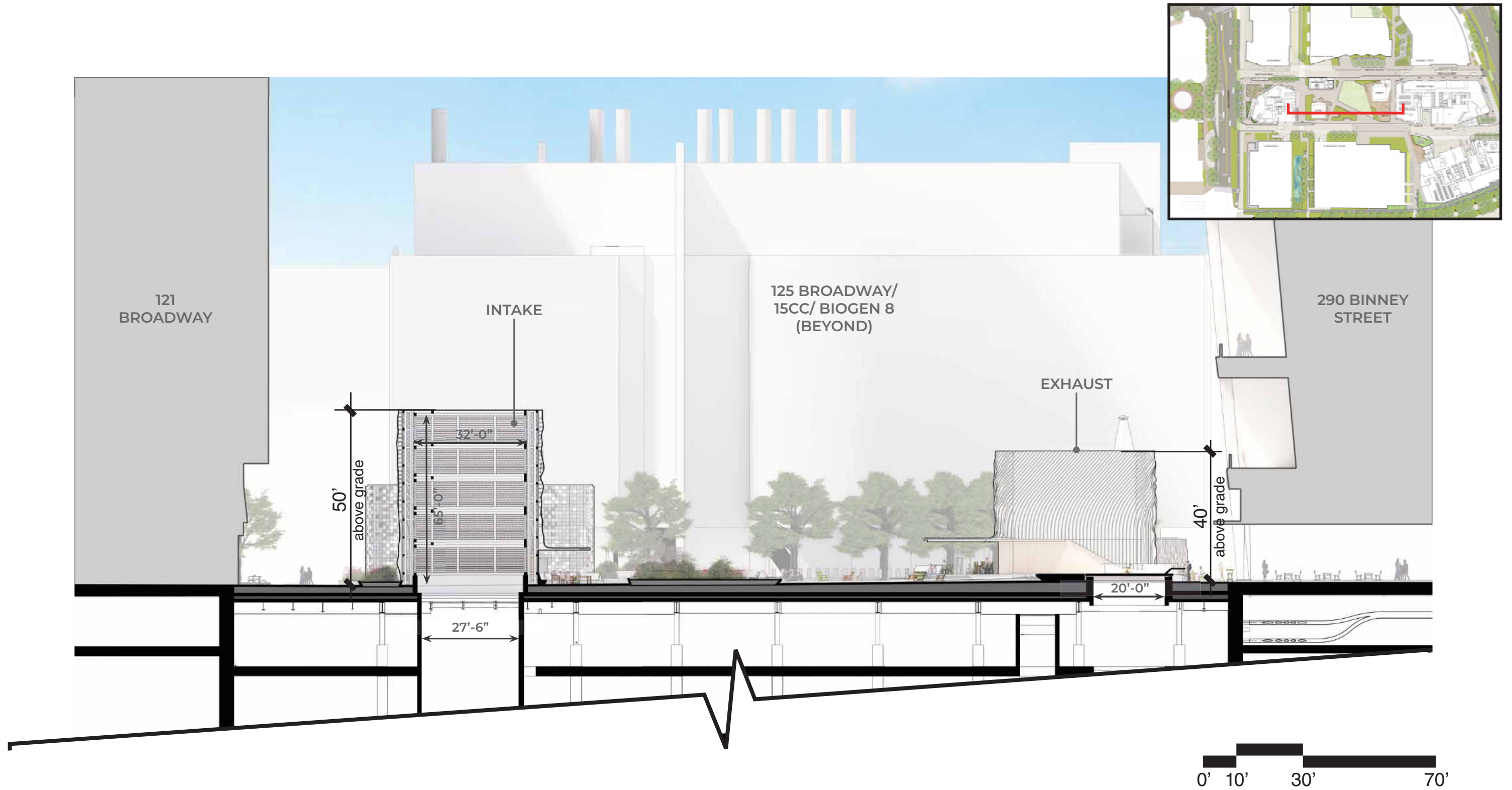
3.3.5 INTERACTIVE PROGRAM STUDY



3.4
3.4.1

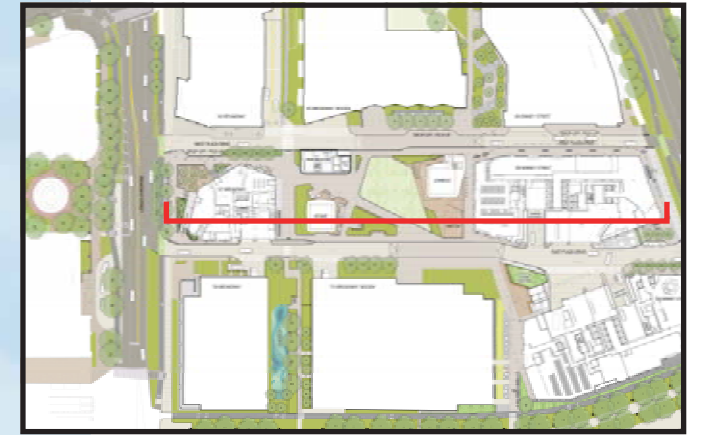
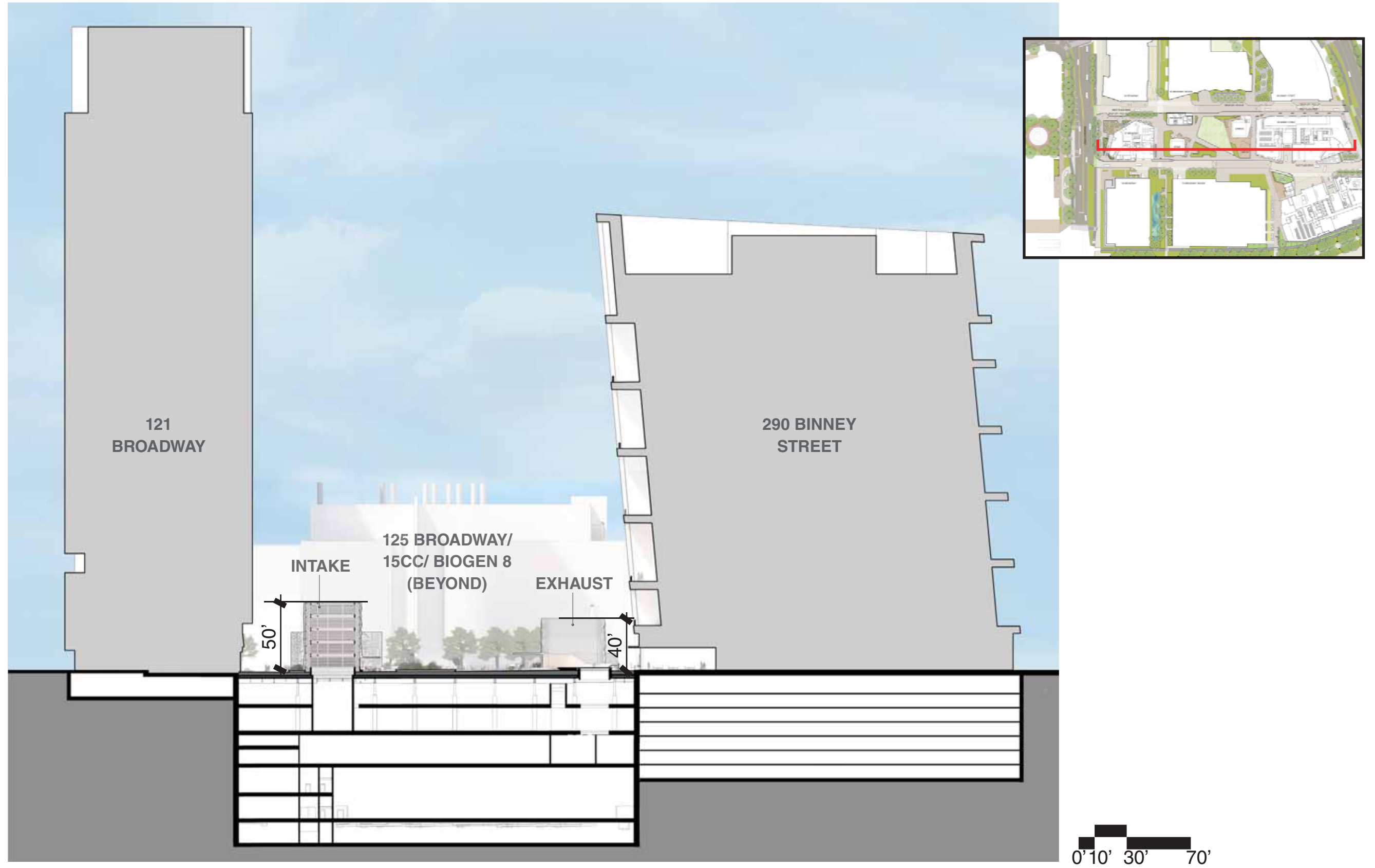
SITE SECTIONS

LOOKING WEST - THROUGH INTAKE, LAWN & HATCH



3.4 SITE SECTIONS

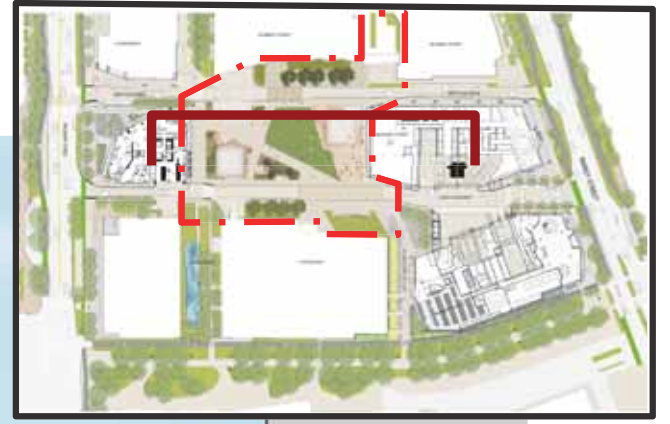
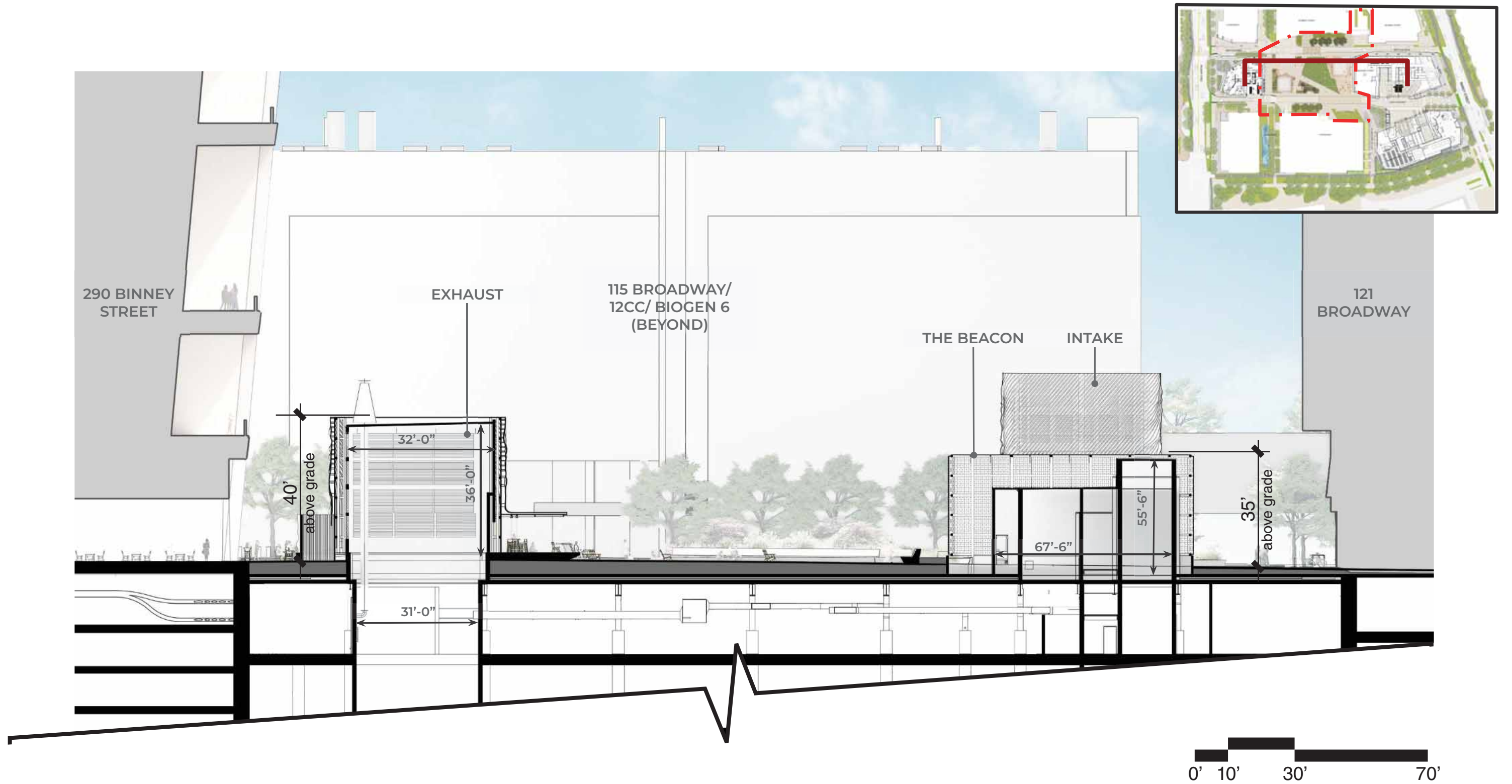
3.4.1.1 LOOKING WEST - THROUGH INTAKE, LAWN & HATCH



3.4
3.4.2

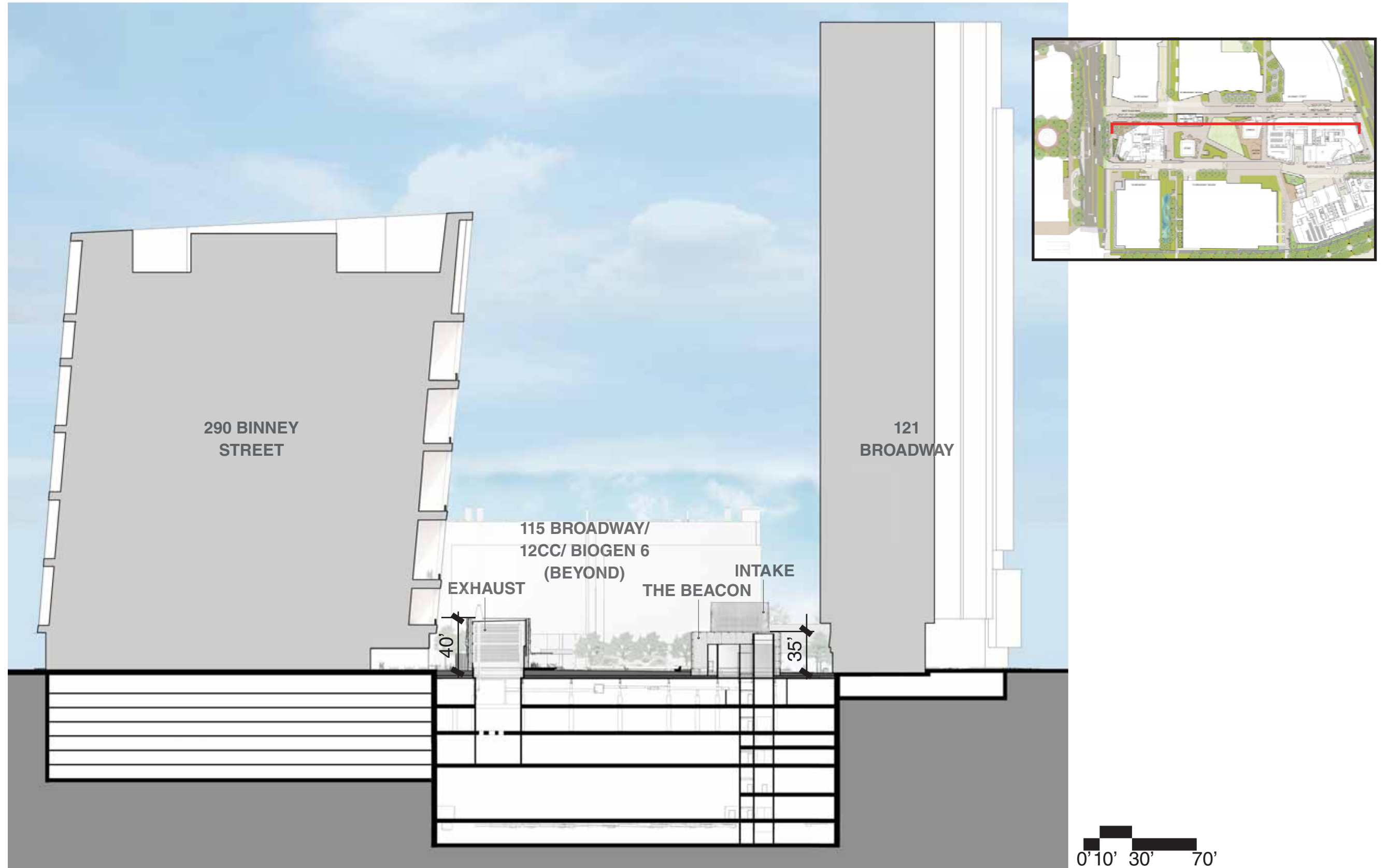
SITE SECTIONS

LOOKING EAST - THROUGH EXHAUST, LAWN & SERVICE BUILDING



3.4 SITE SECTIONS

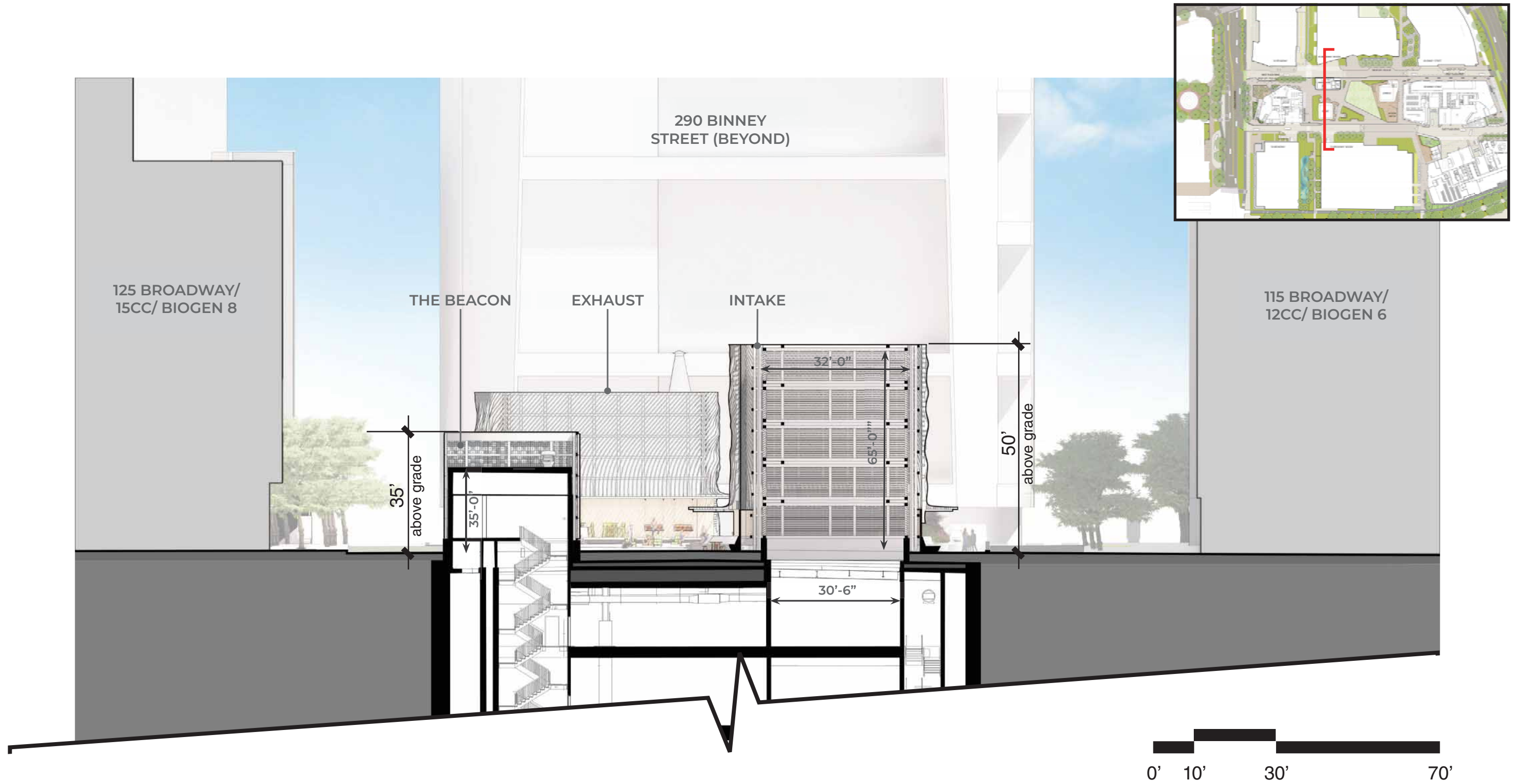
3.4.2.1 LOOKING EAST - THROUGH EXHAUST, LAWN & SERVICE BUILDING



3.4
3.4.3

SITE SECTIONS

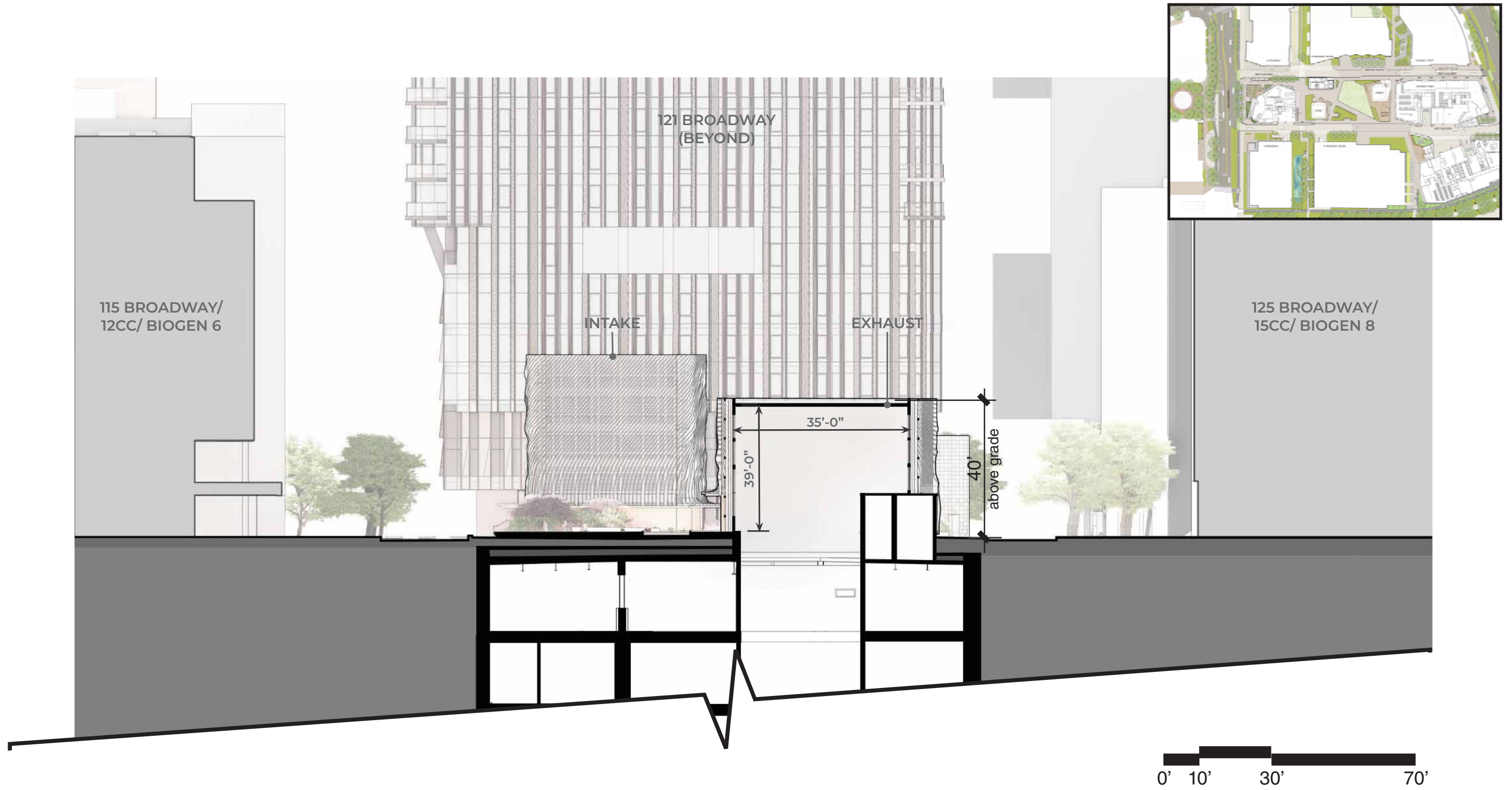
LOOKING NORTH - THROUGH BEACON & INTAKE



3.4
3.4.4

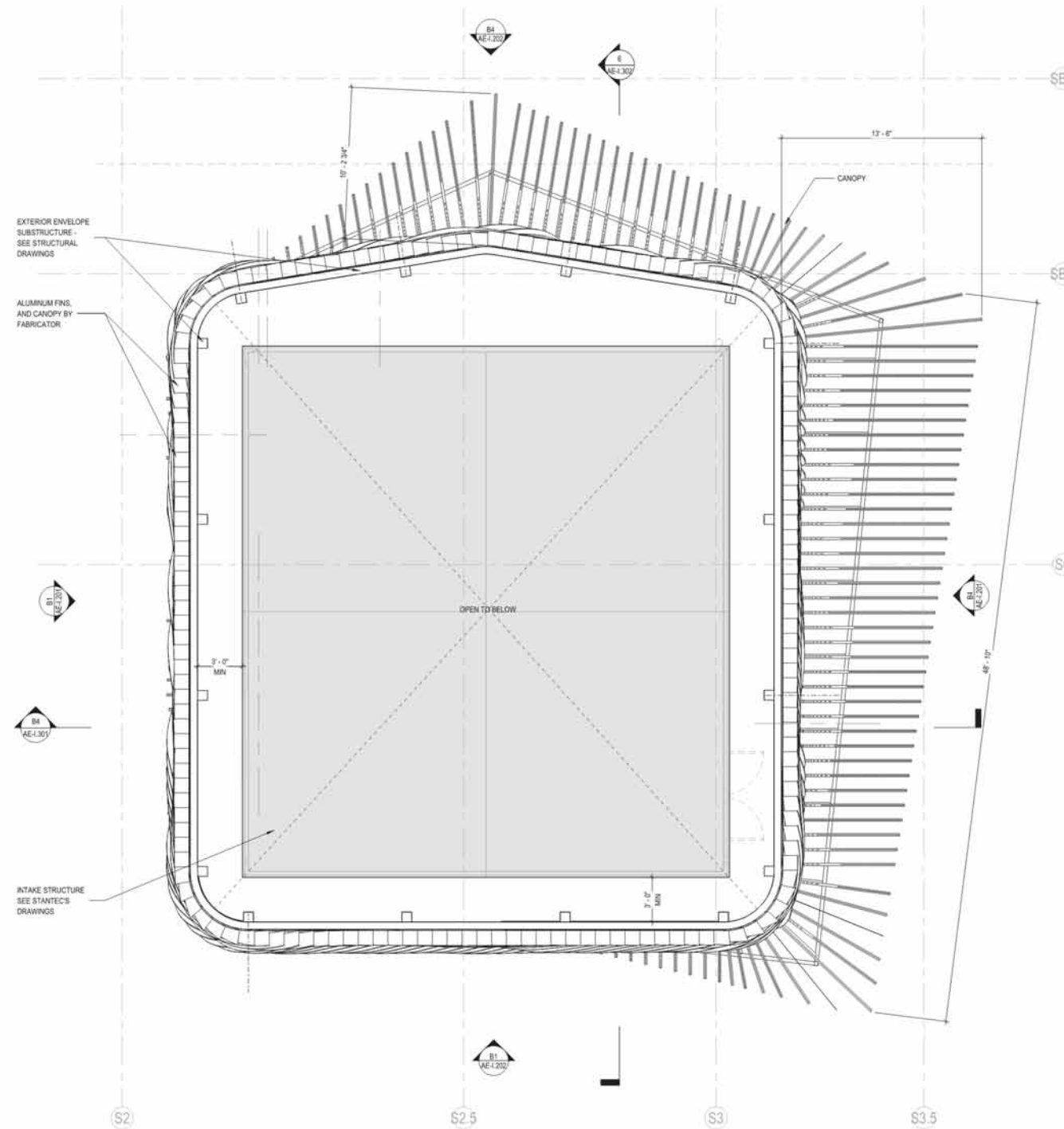
SITE SECTIONS

LOOKING SOUTH - THROUGH EXHAUST, HATCH & DECKS

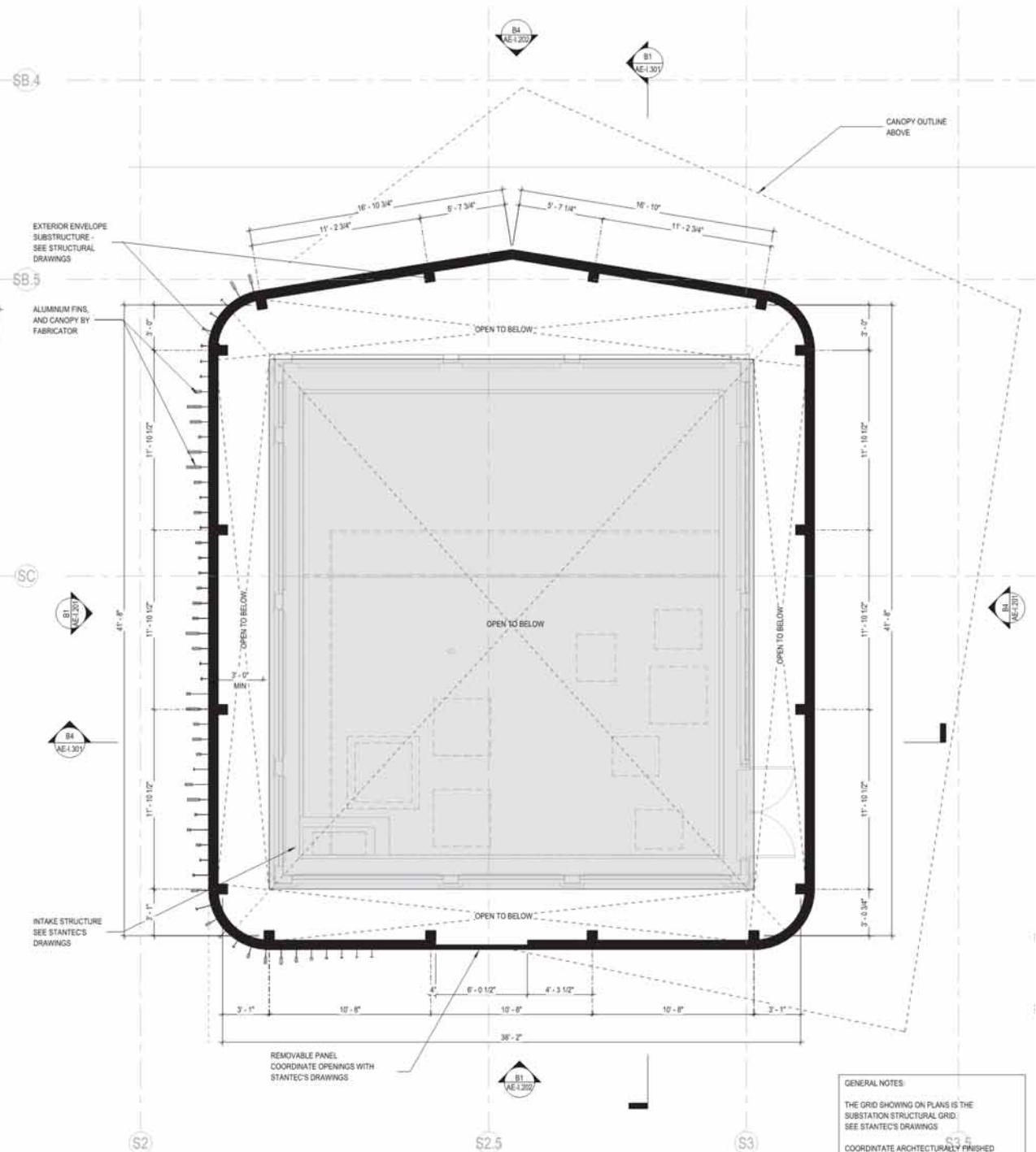


3.5
3.5.1

FLOOR PLANS
INTAKE BUILDING



B1 INTAKE STRUCTURE ROOF PLAN
1/4" = 1'-0"

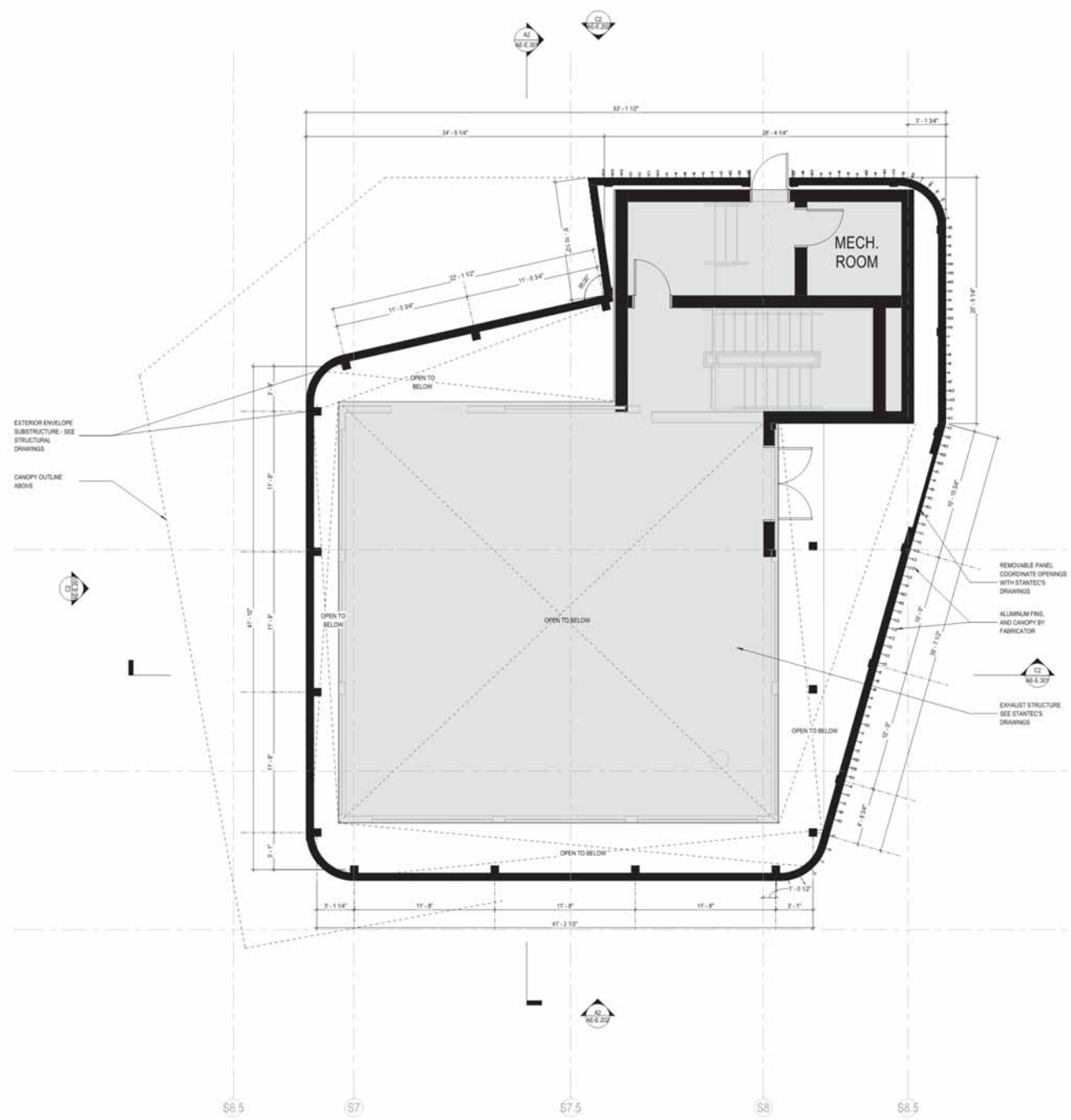


B4 INTAKE STRUCTURE LEVEL 1 PLAN
1/4" = 1'-0"

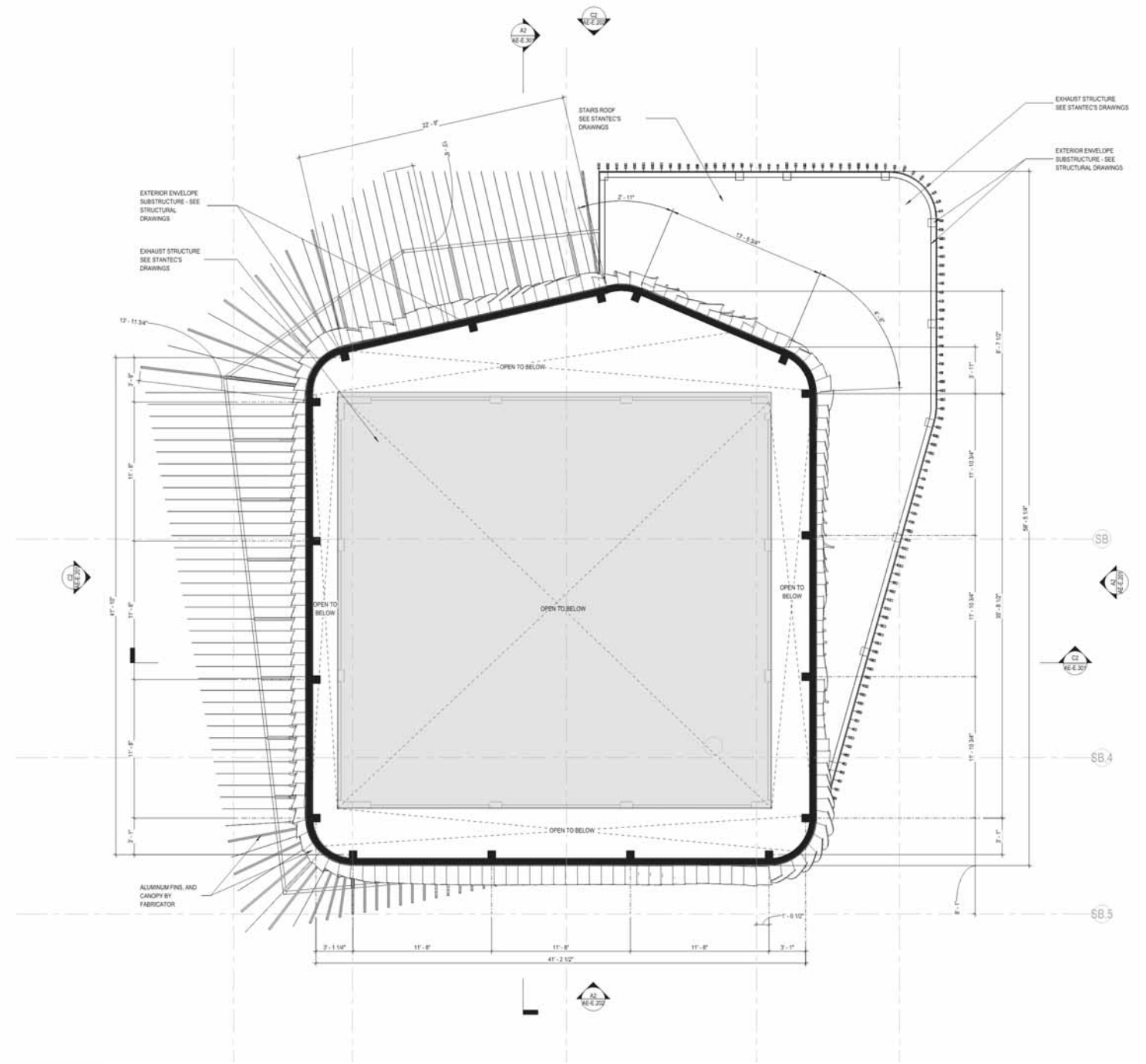
GENERAL NOTES
THE GRID SHOWING ON PLANS IS THE SUBSTATION STRUCTURAL GRID. SEE STANTEC'S DRAWINGS.
COORDINATE ARCHITECTURALLY FINISHED CONCRETE BASE WITH LANDSCAPE PLANTERS AND SEATING WALL.
COORDINATE ARCHITECTURALLY FINISHED CONCRETE BASE WITH LANDSCAPE PLANTERS AND SEATING WALL.
COORDINATE WALL TYPES AND RATING WITH STANTEC'S DRAWINGS.

3.5 FLOOR PLANS

3.5.2 EXHAUST BUILDING



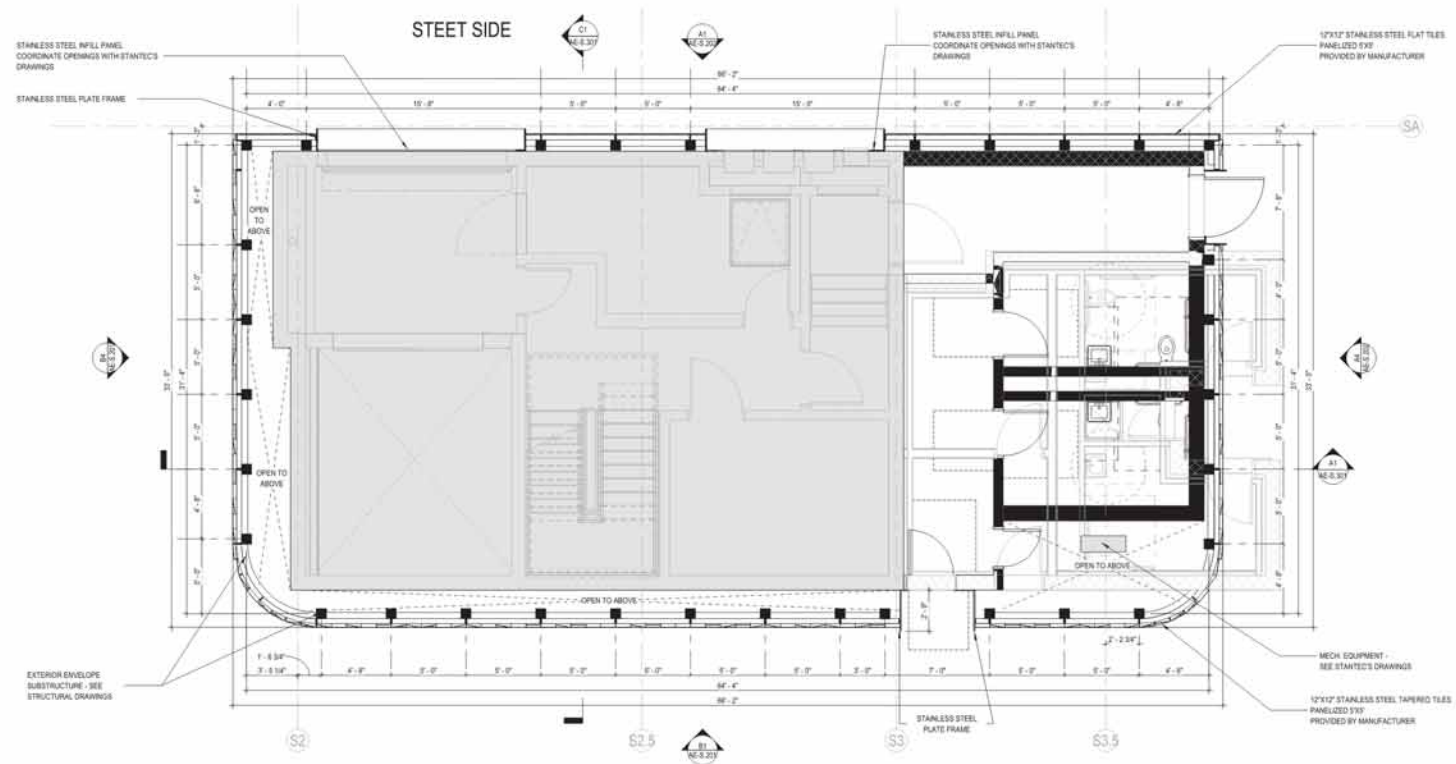
A1 EXHAUST ENVELOPE LEVEL 1
1/4" = 1'-0"



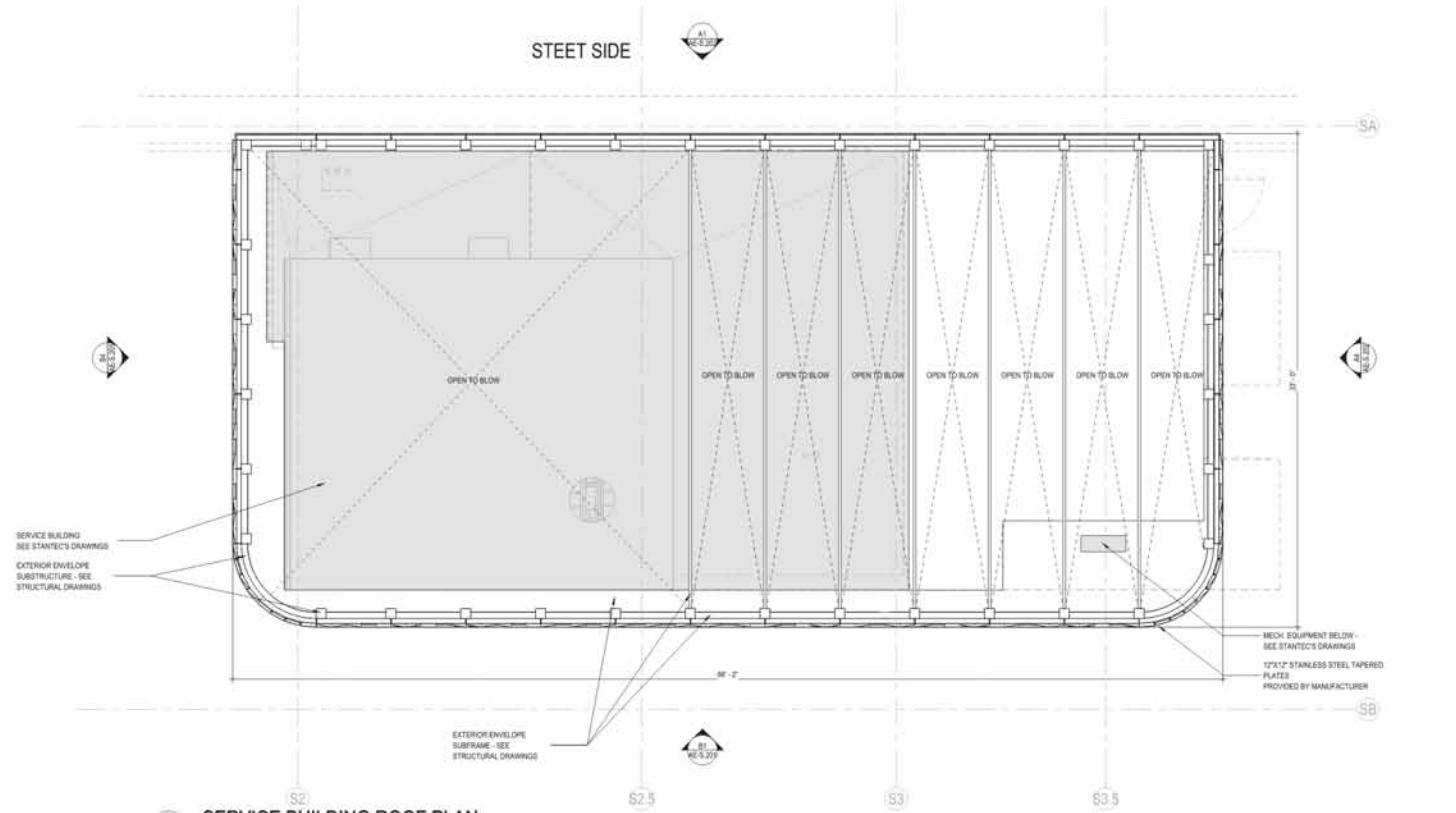
3.5
3.5.3

FLOOR PLANS

SERVICE BUILDING (BEACON)



C1 SERVICE BUILDING ENVELOPE LEVEL 1 _ PLAN
1/8" = 1'-0"

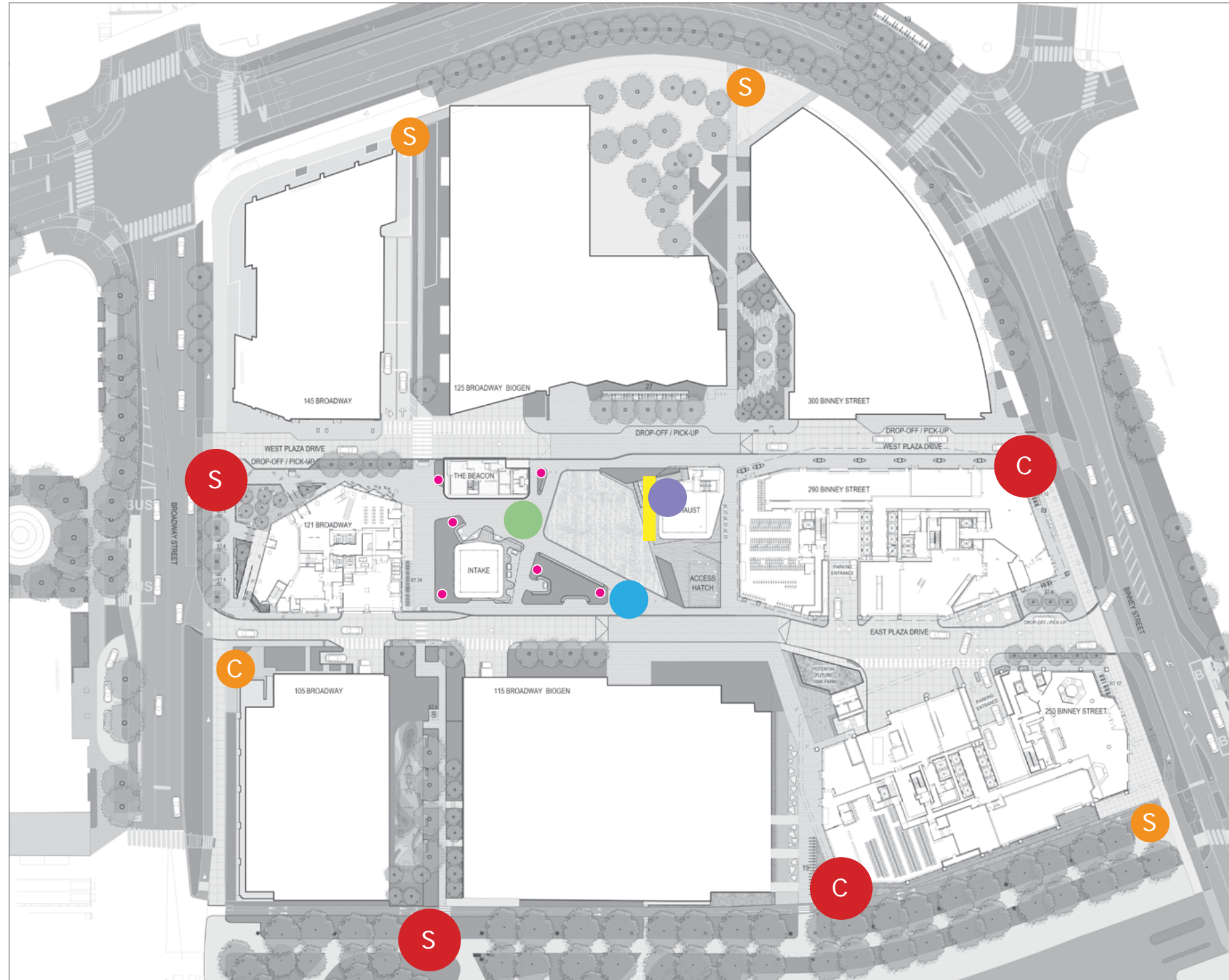


B1 SERVICE BUILDING ROOF PLAN
1/8" = 1'-0"

4. SIGNAGE / WAYFINDING

4.1 SIGNAGE / WAYFINDING LOCATION PLAN

SIGNAGE LOCATION PLAN



Directional Signs

- Primary Directional
(S = Standing sign, C = Column sign)
- Secondary Directional
(S = Standing sign, C = Column sign)

Informational Signs

- Programming Sign
(Location TBD)
- Educational Signs
(Locations TBD)

Identification Signs

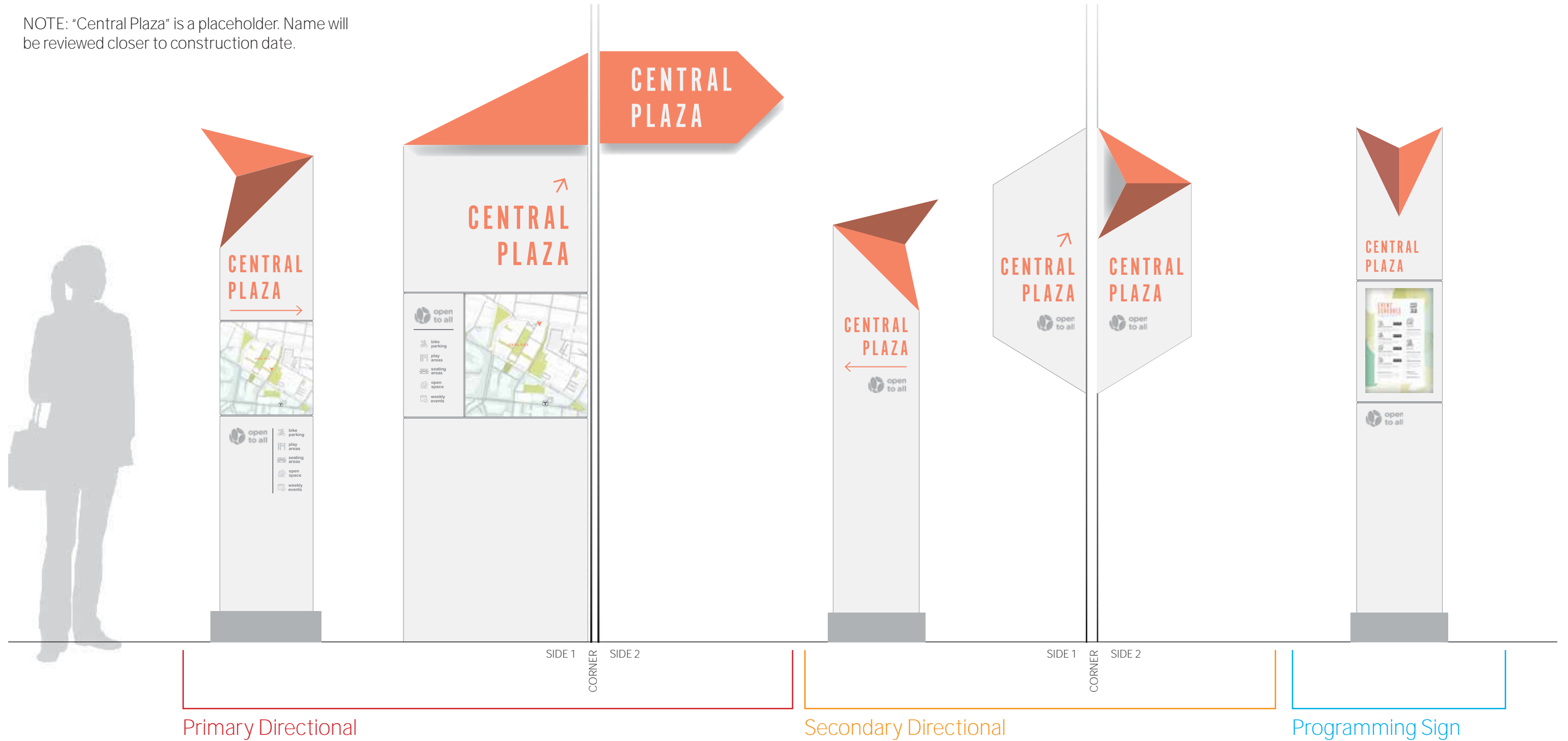
- Canopy Identification
- Ground Identification

Artwork

- Art Opportunity

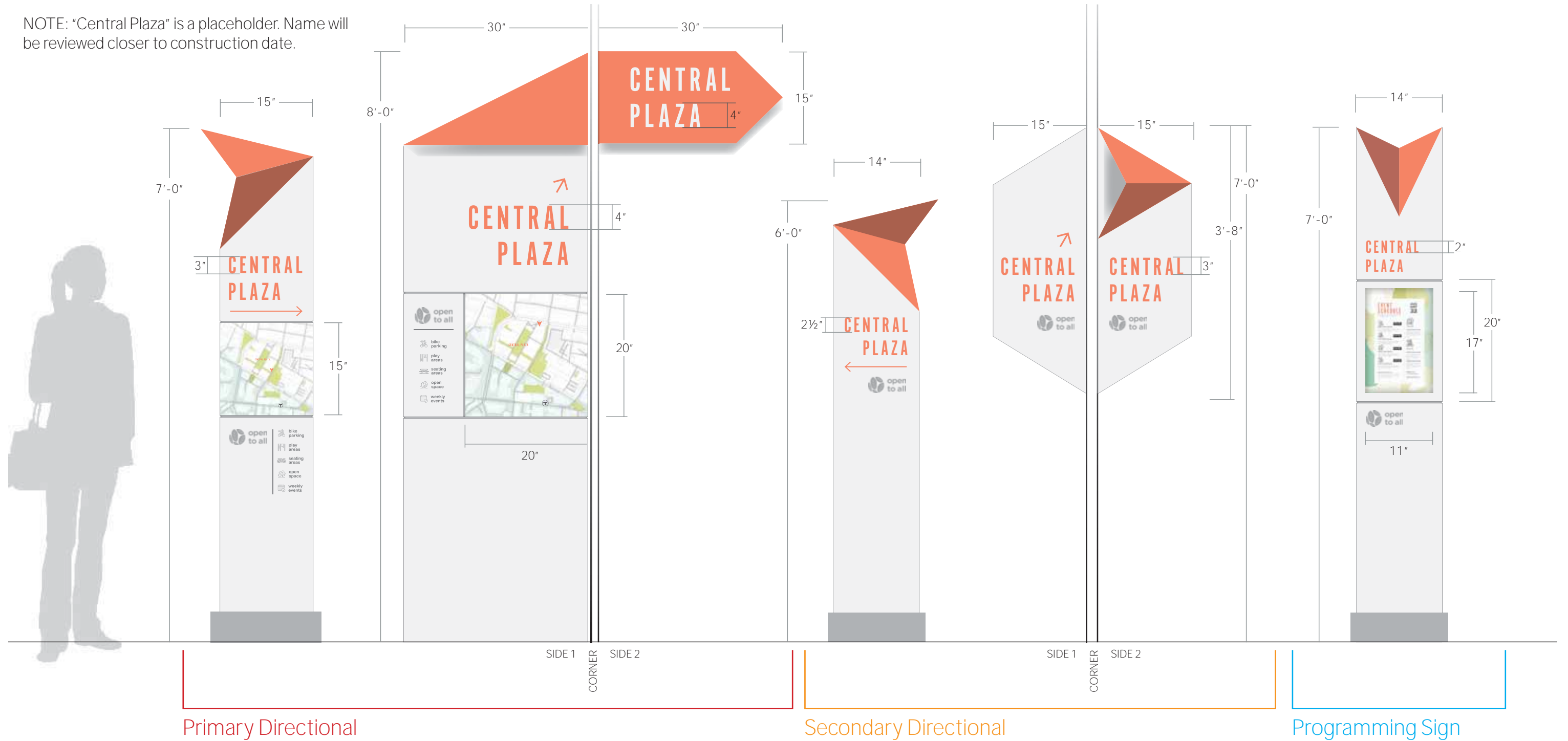
4.2 SIGNAGE PROGRAM

NOTE: "Central Plaza" is a placeholder. Name will be reviewed closer to construction date.



4.3 KEY DIMENSIONS

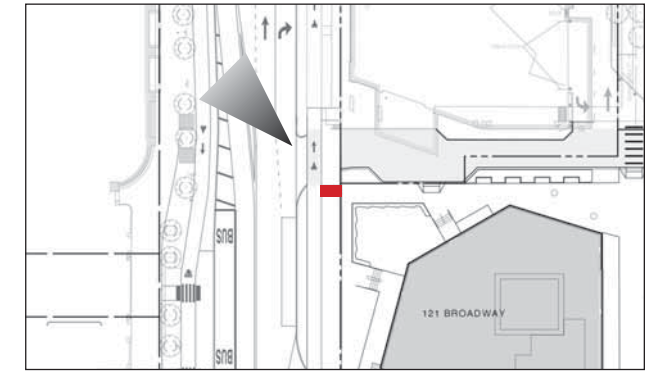
NOTE: "Central Plaza" is a placeholder. Name will be reviewed closer to construction date.



4.4 SITE PERSPECTIVES

VIEW - 121 BROADWAY

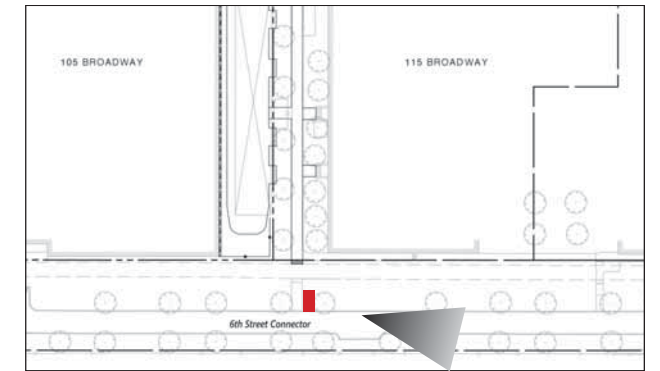
Primary Directional, free-standing



4.4 SITE PERSPECTIVES

VIEW - 6TH ST CONNECTOR (BTW 105 & 115)

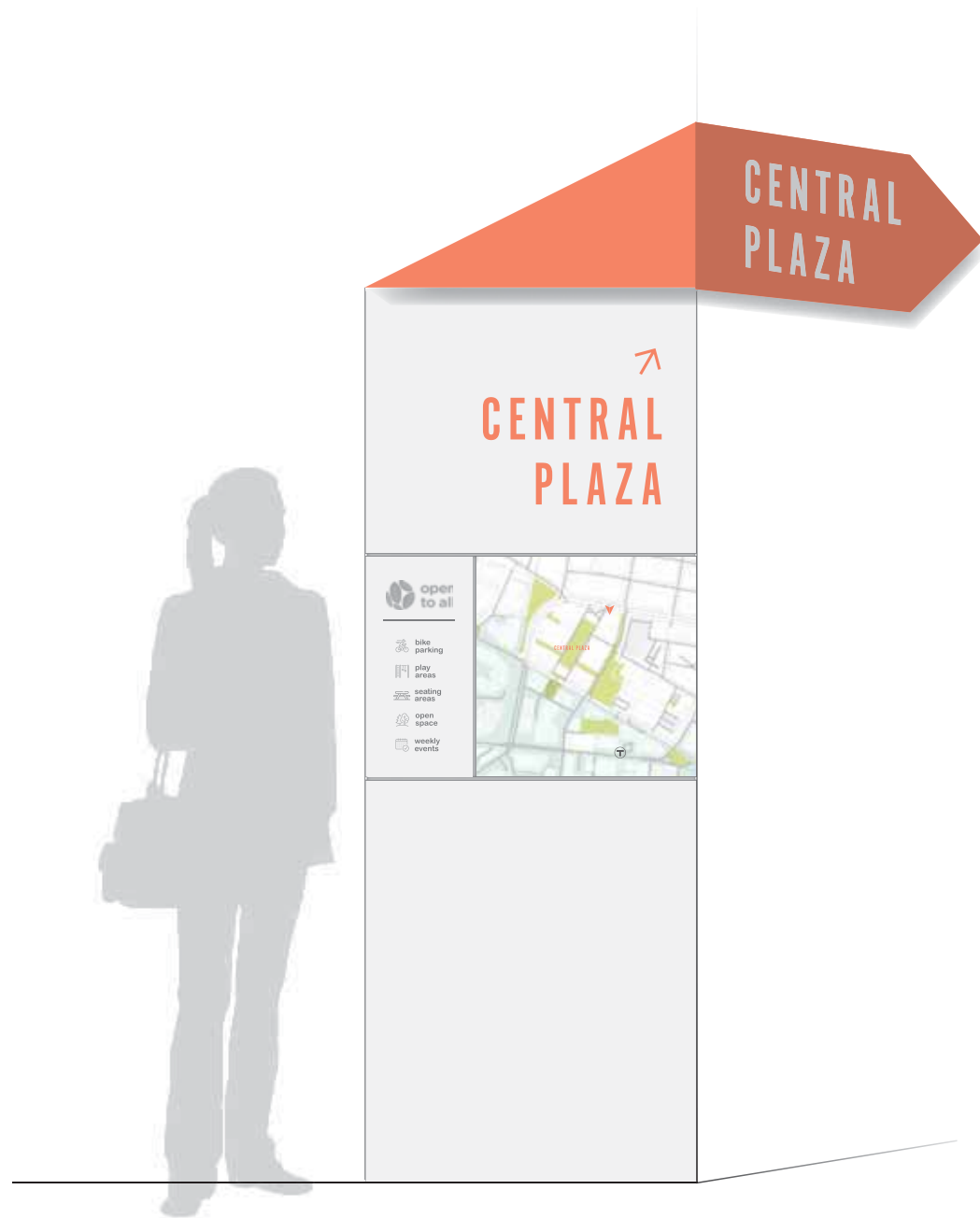
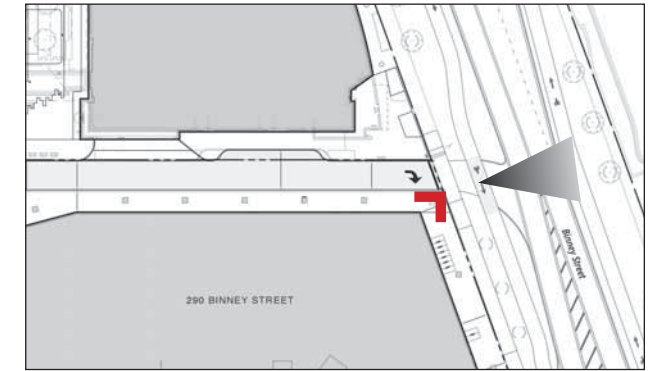
Primary Directional, free-standing



4.4 SITE PERSPECTIVES

VIEW - 290 BINNEY - N/W CORNER

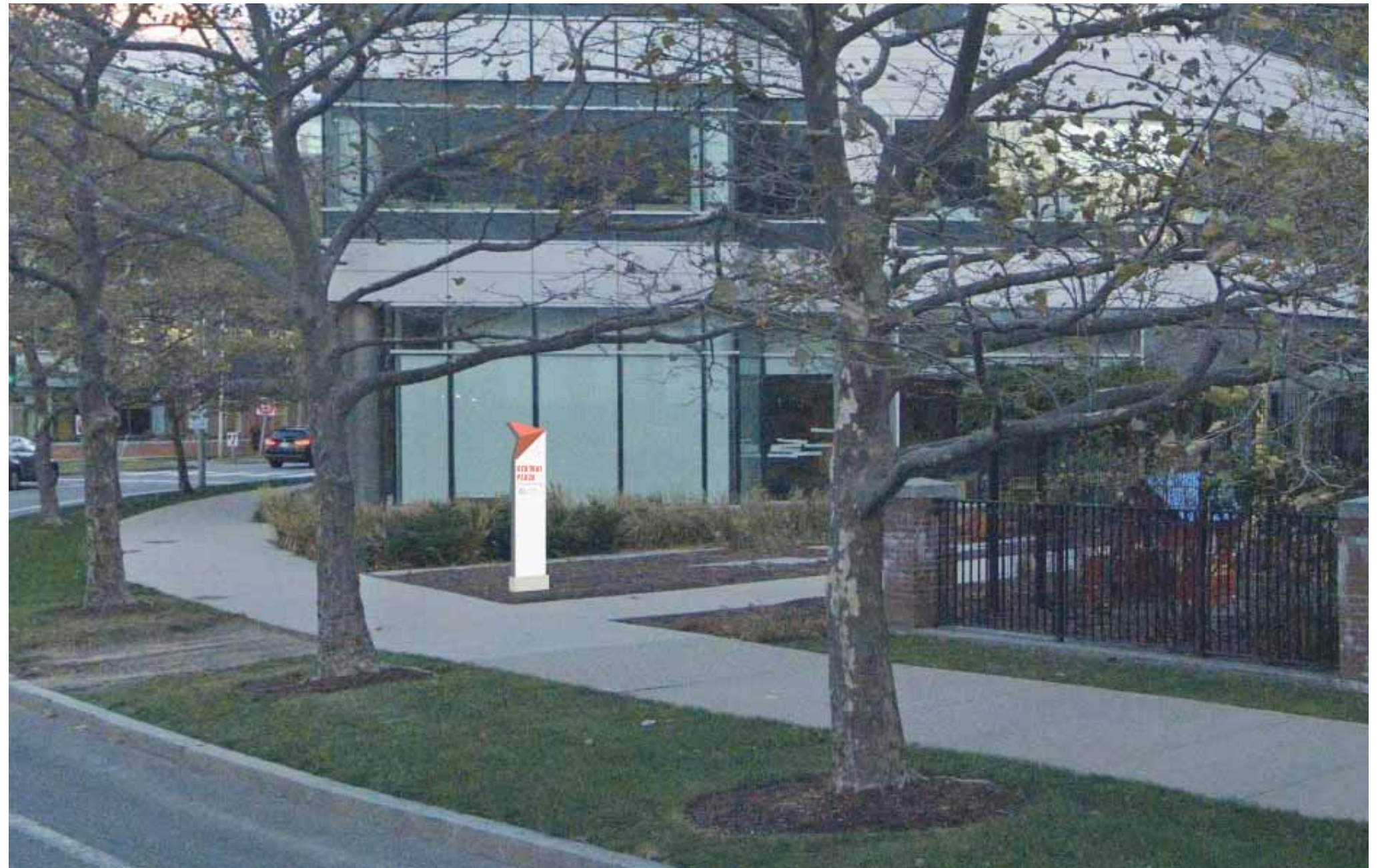
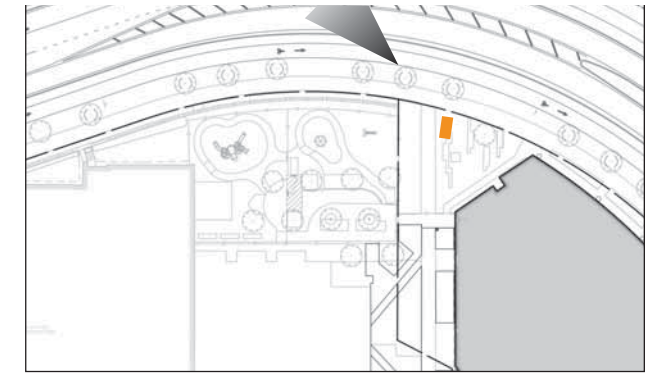
Primary Directional, column-mounted



4.4 SITE PERSPECTIVES

VIEW - 300 BINNEY

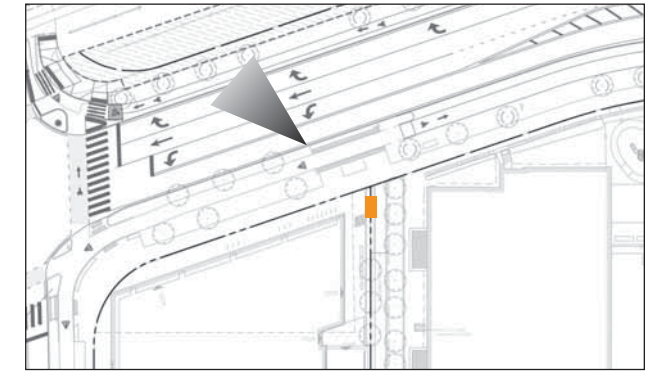
Secondary Directional, free-standing



4.4 SITE PERSPECTIVES

VIEW - 225 BINNEY

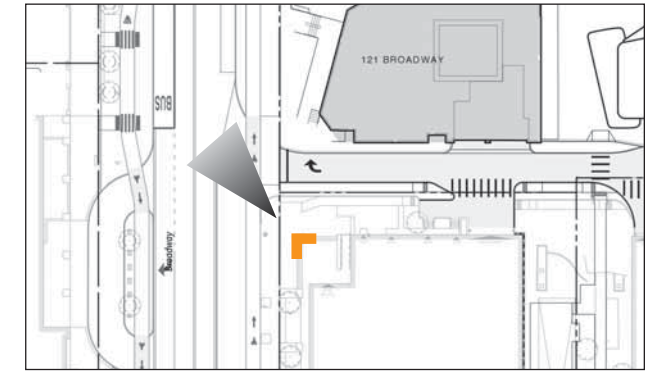
Secondary Directional, free-standing (within existing planter)



4.4 SITE PERSPECTIVES

VIEW - 105 BROADWAY - S/W CORNER

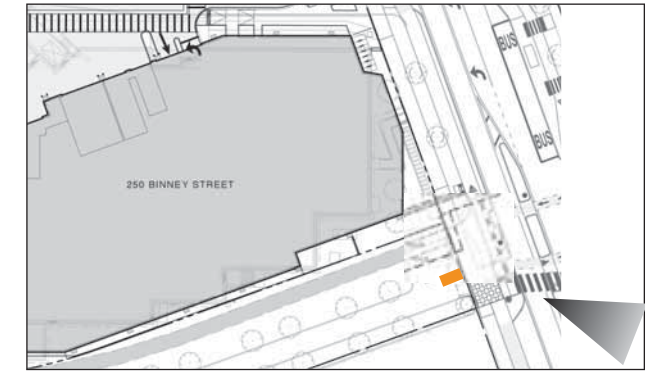
Secondary Directional, column-mounted



4.4 SITE PERSPECTIVES

VIEW - 250 BINNEY - N/E CORNER

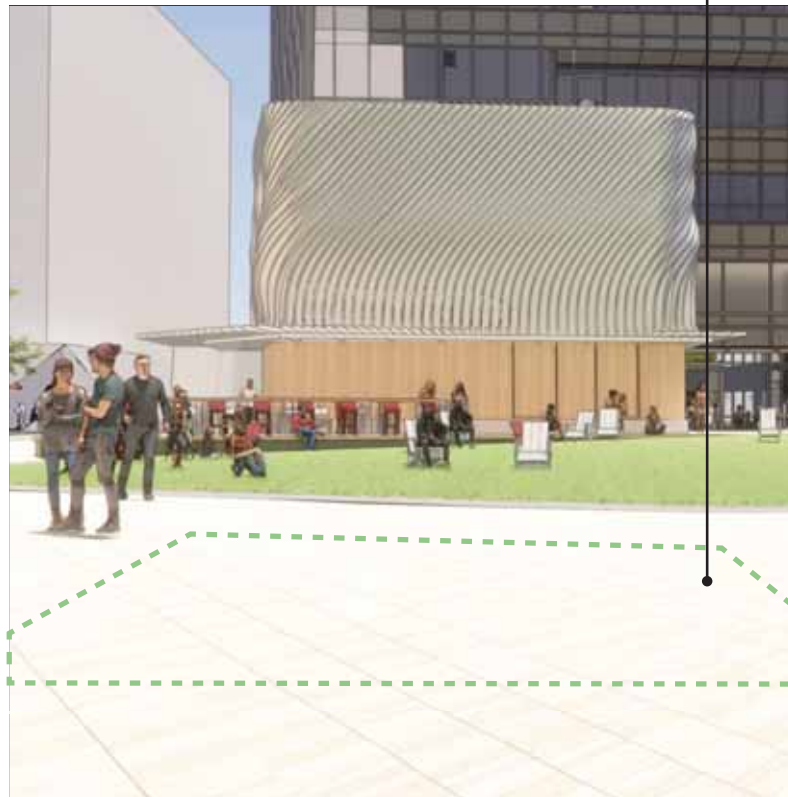
Secondary Directional, free-standing



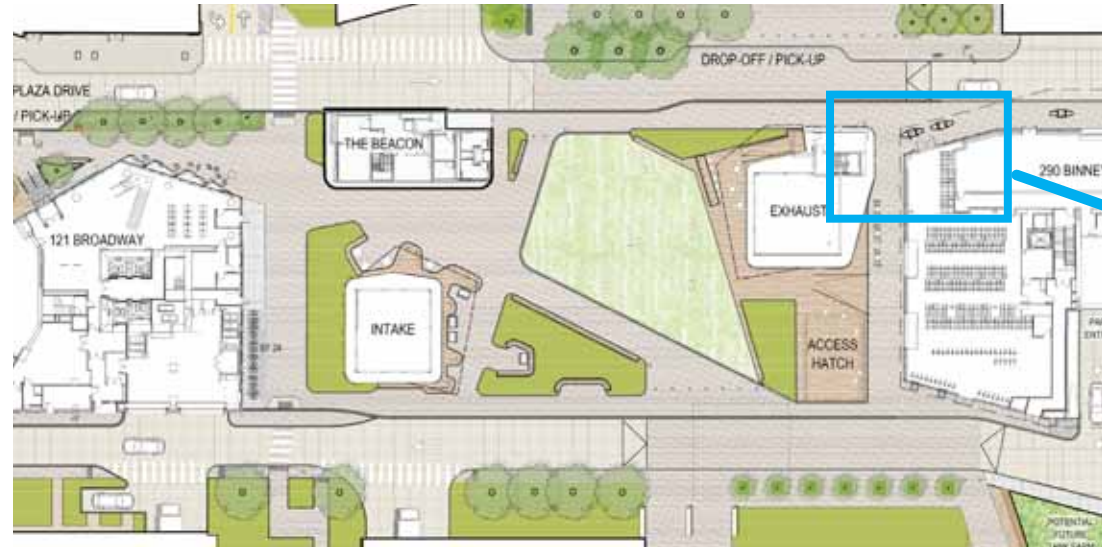
4.4 SITE PERSPECTIVES

PRECEDENT - PLAZA

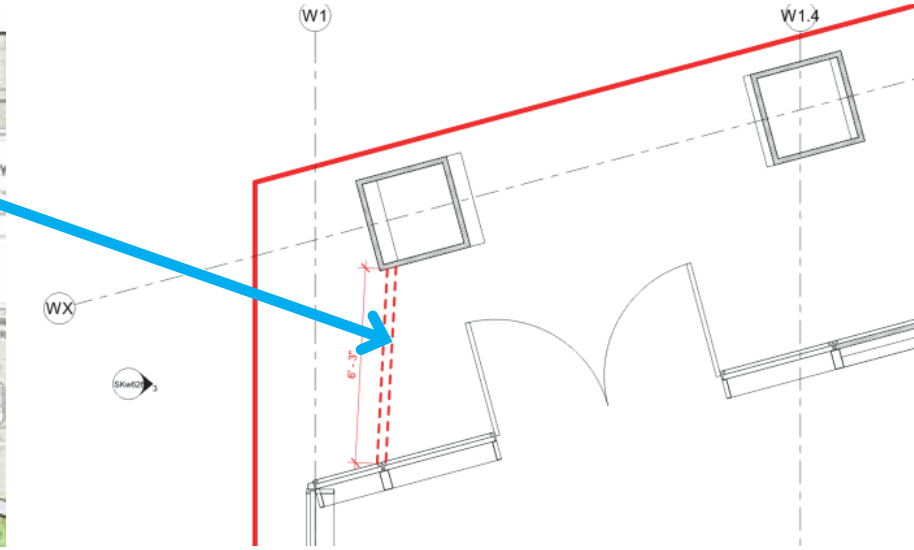
Ground Identification & Canopy Identification



4.5 290 BINNEY STREET WIND SCREEN - OPTION FOR ART/BRANDING

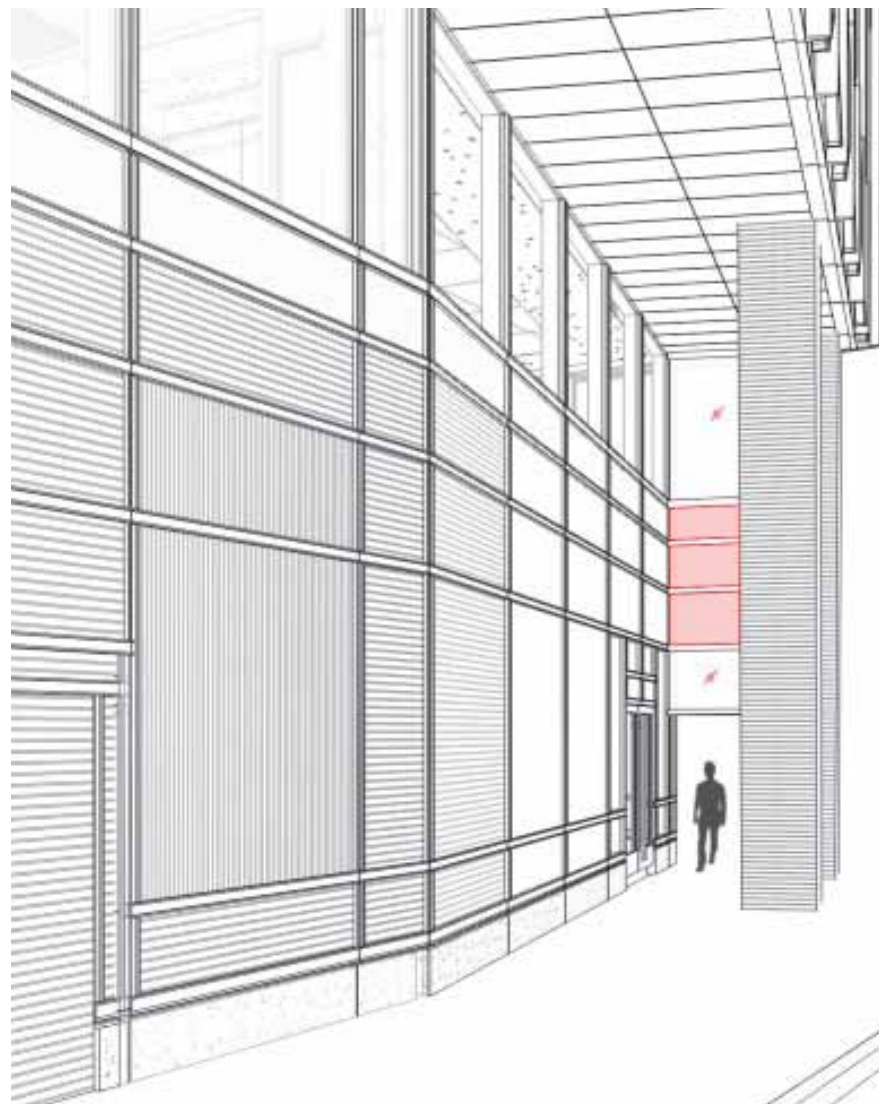


KEY SITE PLAN

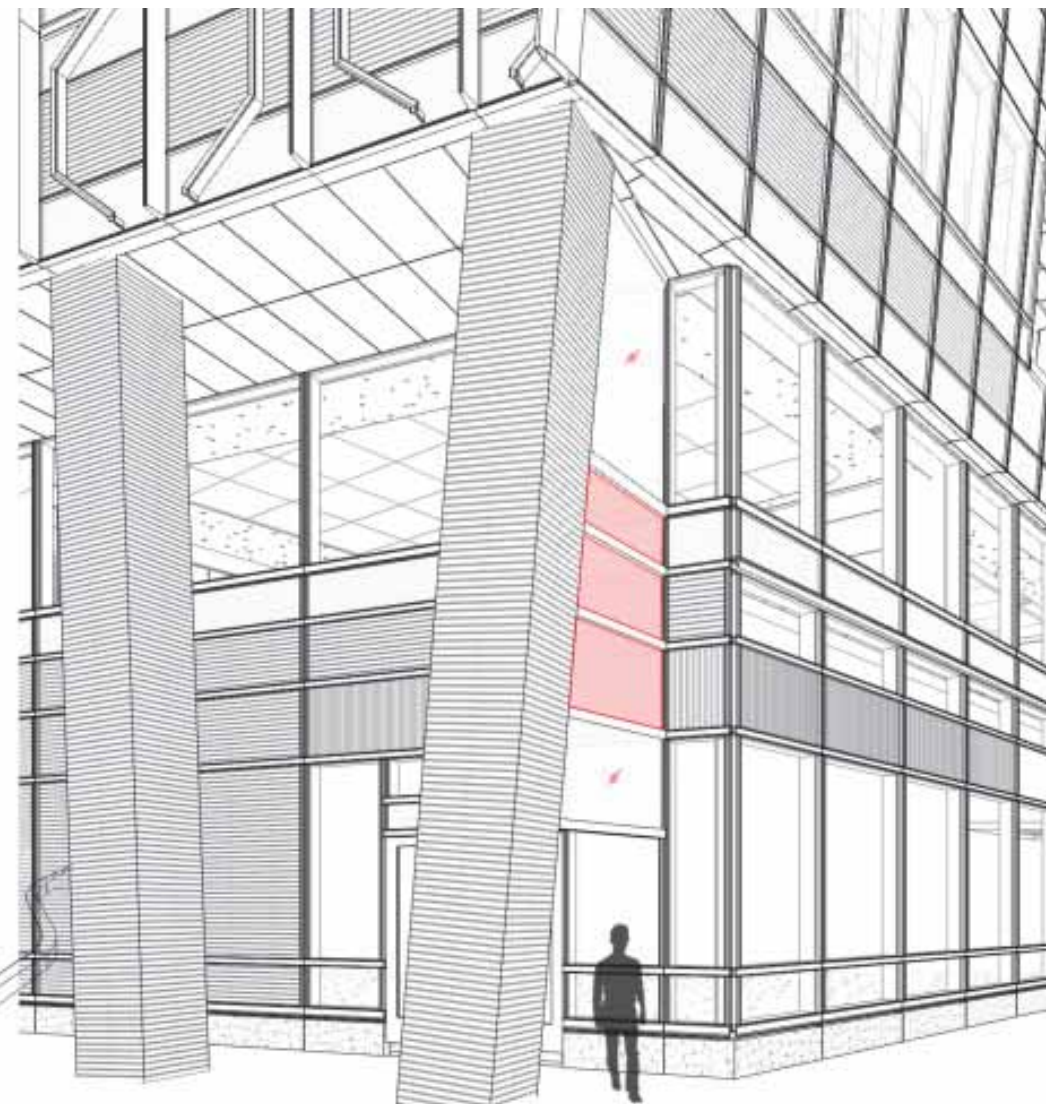


ENLARGED PLAN - LEVEL 1

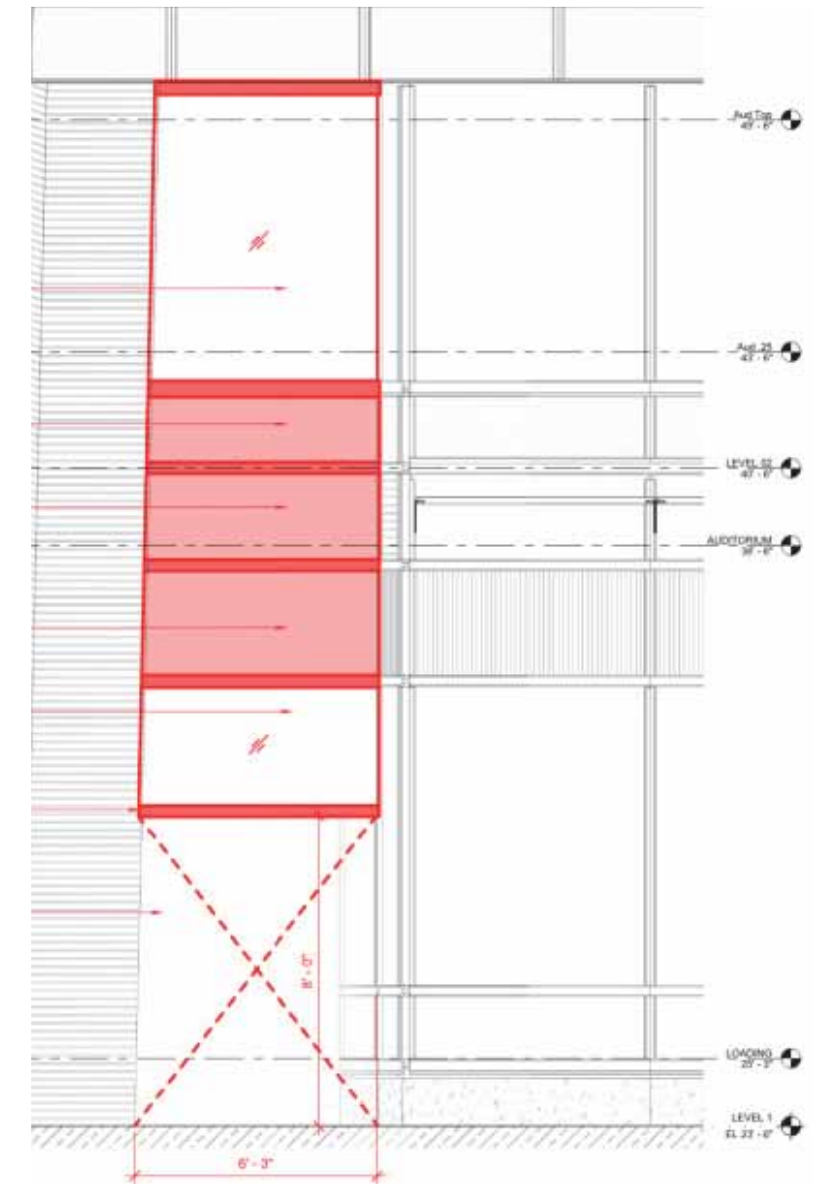
This screen has been added to address a wind condition concern raised during the IDCP and Special Permit Phase.



PERSPECTIVE - VIEW FROM NORTH



PERSPECTIVE - NORTHWEST CORNER

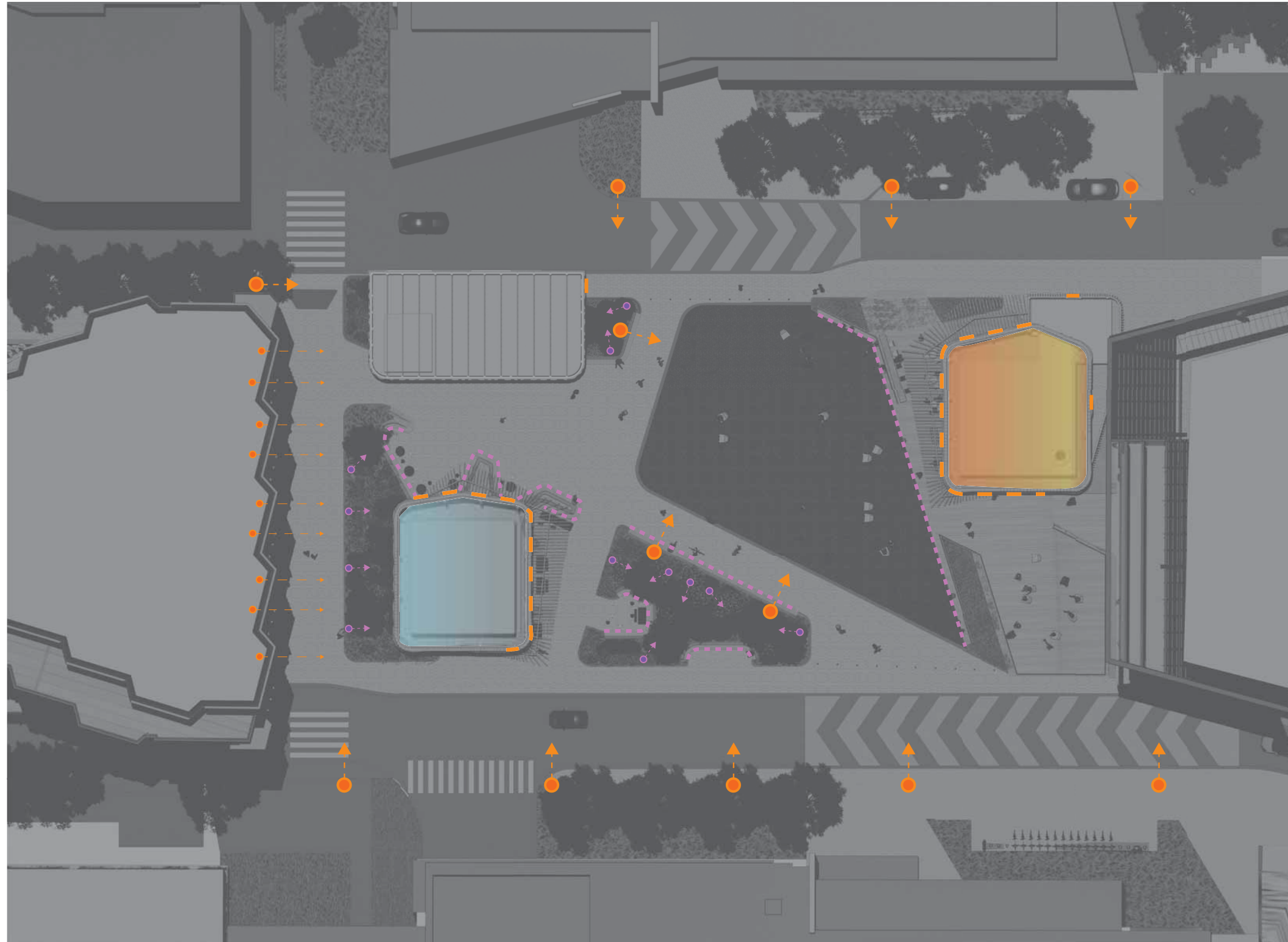


WINDSCREEN ELEVATION

5. LIGHTING DESIGN

5 LIGHTING DESIGN

5.1 OVERALL LIGHTING STRATEGY



General Ambient Layer of Light



An active nighttime experience of the public plaza requires a soft uniform layer of ambient light to provide a feeling of safety. This is achieved by the use of poles. The poles are strategically located along the sidewalks, primary pathways in the plaza and the driveways. This ensures a bright passage for the pedestrians.

Adjustable downlights from the canopy of 121 Broadway reinforces the passage behind the intake.

Lights integrated under the canopies of the intake and the exhaust structures provides functional lighting for people to gather.

Low Level Highlighting



In order for the public to feel welcome, it's important to provide a layer of light that is human scale and feels intimate.

The benches that snake around the structures and through the plaza have an integrated tape light that brings down the visual perception and creates cozy nooks.

Select trees in the planted bed are up-lit to further emphasize the natural elements at night.

Feature Lighting



The intake and exhaust structures are married by not only their louvered outer layer, but also through the flow of air. The feature lighting plays into this conversation by mimic the moving air though slow dynamic light. This creates a site specific language that the sets the plaza apart.

5 LIGHTING DESIGN

5.2 PLAZA POLES

PROPOSED DESIGN



The primary corridor in the plaza stretches across the plaza and is lined by the central lawn on one side and a long bench on the other.

The integrated bench light provides a bright glow along the walkway inviting passers by to sit.

For the general ambient layer there are two proposed lighting options - tall/slim multi-head poles that are hidden within the planting and pool light along the corridor or shorter pedestrian poles that are more visible and recognizable. The renders on this page point out the different visual environments

Proposed Option

Pedestrian Poles along the central path

The pedestrian poles are deployed to create a strong visual presence along the corridor.

The fixture shown here is used along the E-W corridor and the pathway behind the Akamai building.

These poles act as a more visually distinct feature and bring the scale of the space down.

The shorter poles, being closer to the walking path, provide pools of light

ALTERNATE OPTION 01



Alternate Option 01

Taller Multi-head Poles along the central path

The poles shown on the left, are sprinkled throughout the MXD parcel for a uniform approach to the general lighting. These poles come with multiple adjustable pole-heads that can be equipped with different beam optics to provide highly tuned design.

The taller poles are also able to provide a uniform spread of light.

5 LIGHTING DESIGN

5.3 CATENARY LIGHTS

ALTERNATE OPTION 02



Alternate Option 02

Catenary Lighting

Catenary lights are very popular lighting installations in public plazas. Similar to the pedestrian scale poles, the catenary lights bring down the scale of the plaza to a shorter datum. Catenary fixtures can be available in different firm factors and aesthetics and require poles for mounting.

The establish a distinct visual presence in the corridor and create a more localized experience.



5 LIGHTING DESIGN

5.4 MARKER LIGHTS ON THE CURB



Curb Lighting

Another layer of light to consider to further define the width of the corridor can be achieved by introducing small marker lights integrated into the curb. These light fixtures are small profile, low output and leads the eye down the corridor in a subtle, interesting way.

The images below show two project where marker lights are seamlessly melded into the landscape and mark spatial separation.



5 LIGHTING DESIGN

5.5 CONTROLS AND PROGRAMMING



Dynamic Lighting

The center plaza, once completed, is set to be a destination for various programming from holiday markets to small concerts.

The intake and exhaust structures mark either ends of the plaza and talk to each other both from a material stand point but also from an ephemeral standpoint with the flow of air.

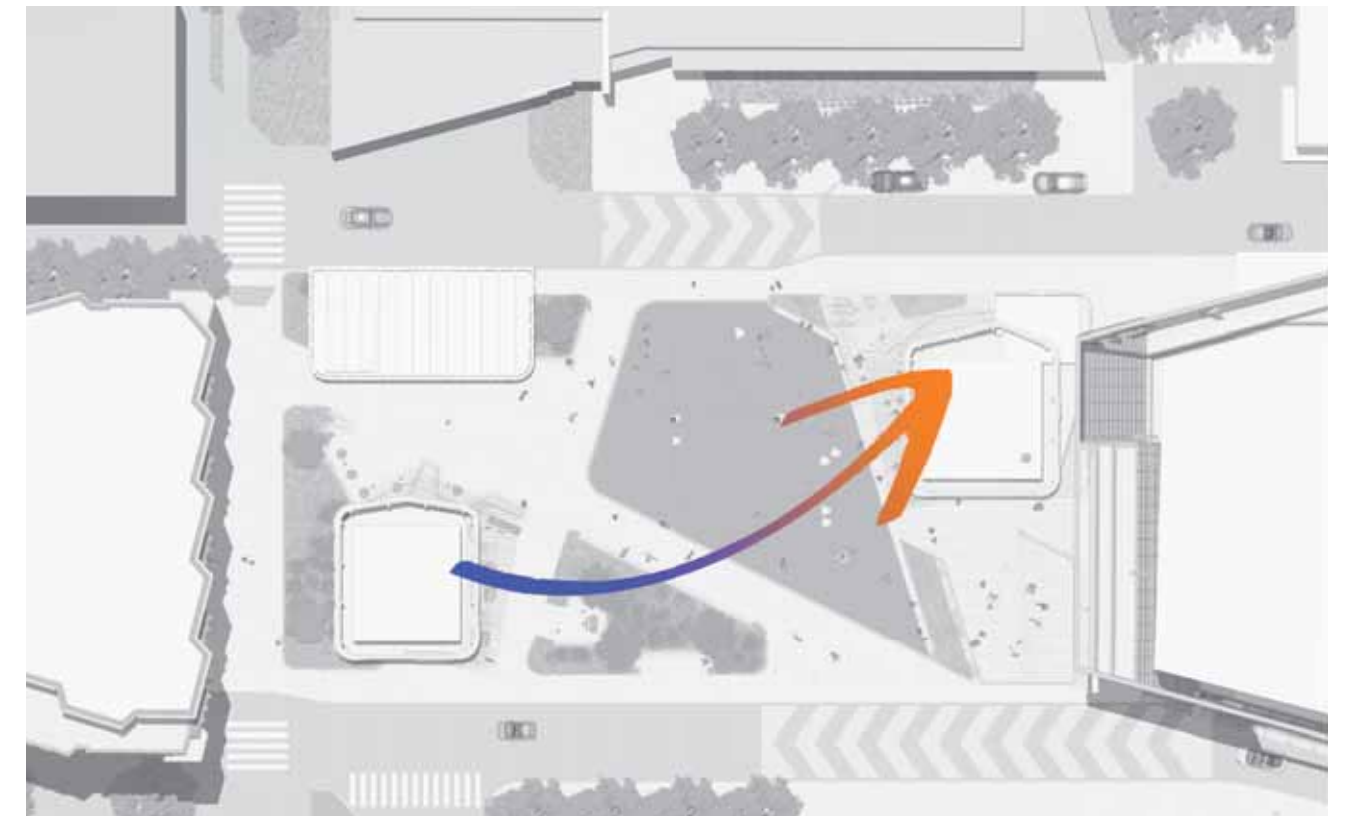
The fixtures used to make these structures glow are highly programmable and possess color changing capabilities. This lends itself to infinite opportunities to bring an element of play into the plaza.

The programming can be used to mark festivals, changing seasons, passing time. The design will be tuned in such a way, that the movement is slow, not too bright and turned off at a reasonable hour and comply with the city of Cambridge standards.

The fixtures will be controlled by a DMX driver with 20 universes. The design team will work to locate this at a convenient and accessible location to facilitate the lighting.



Scan the QR code to see the gifs of the lighting intent



6. ENVIRONMENTAL IMPACTS

6.1 PEDESTRIAN WIND ASSESSMENT [RWDI]



Figure A: Wind Tunnel Study Model - Proposed Configuration

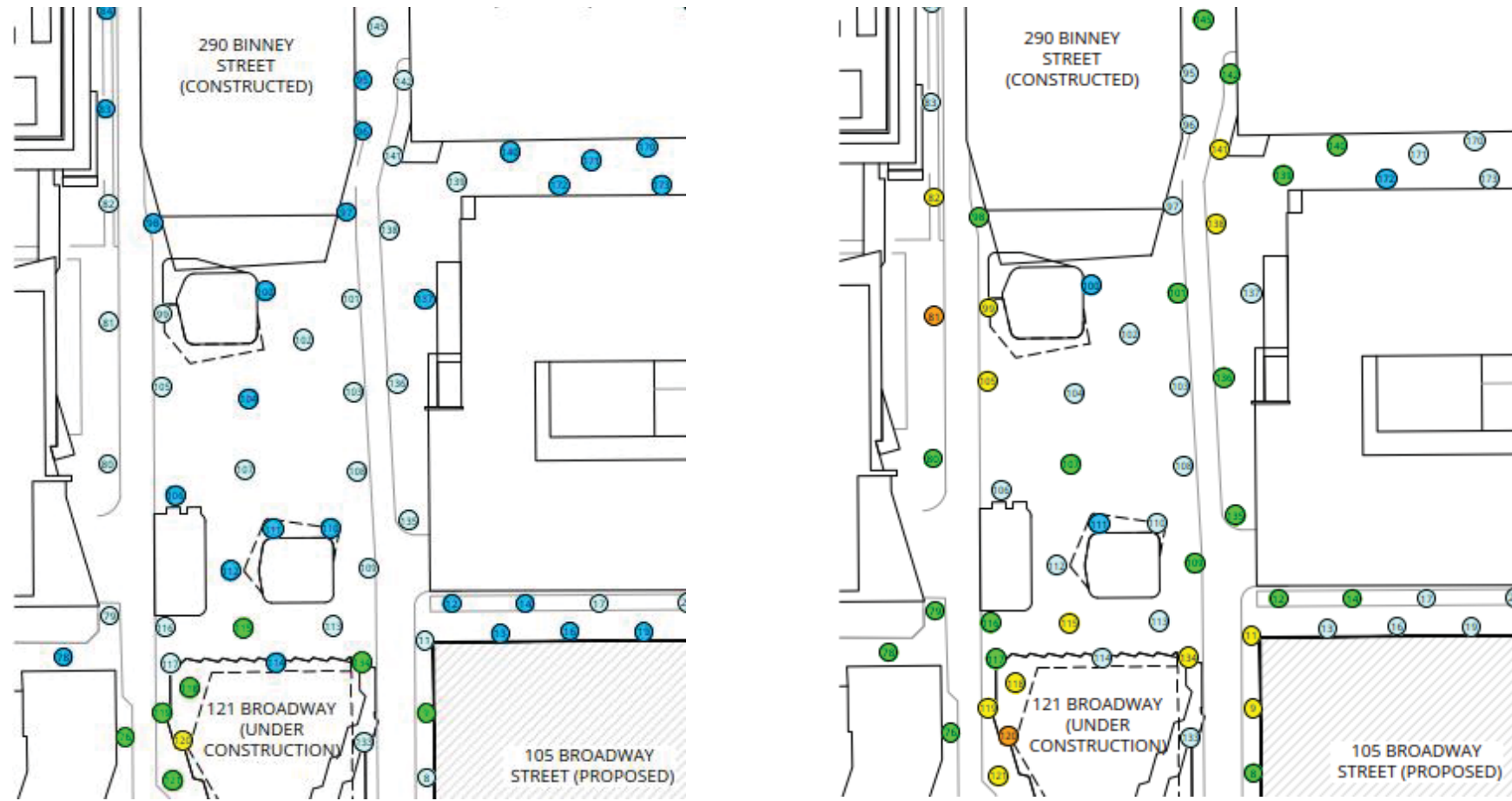
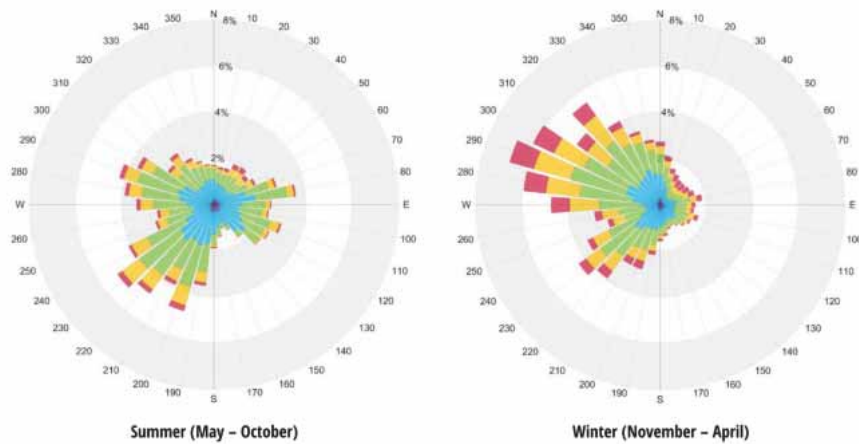


Image 3 - Pedestrian wind conditions result for summer (left) and winter (right)

LEGEND:

COMFORT CATEGORIES:

- Sitting ●
- Standing ●
- Strolling ●
- Walking ●
- Uncomfortable ●



Wind Speed (mph)	Summer Probability (%)	Winter Probability (%)
Calm	2.7	2.3
1-5	8.3	6.1
6-10	36.1	27.7
11-15	36.2	34.2
16-20	12.8	18.7
>20	3.9	11.0

Figure B: Directional Distribution of winds approaching Boston Logan International Airport between 1990 and 2019. These graphically depict the directional distributions of wind frequencies and speeds for summer & winter.

Summary: Wind speeds at all areas during the summer, and at most areas during the winter, are anticipated to be suitable for the intended use at all assessed locations on and around the site of the proposed development. (Reference Figure D - **PASS**)

6.2 SUBSTATION NOISE IMPACT ANALYSIS [INTERTEK]

*Green indicates allowable decibels for both Daytime and Nighttime compliance for both typical use and periodic maintenance times. Red indicates the noise levels prior to exiting the structures.

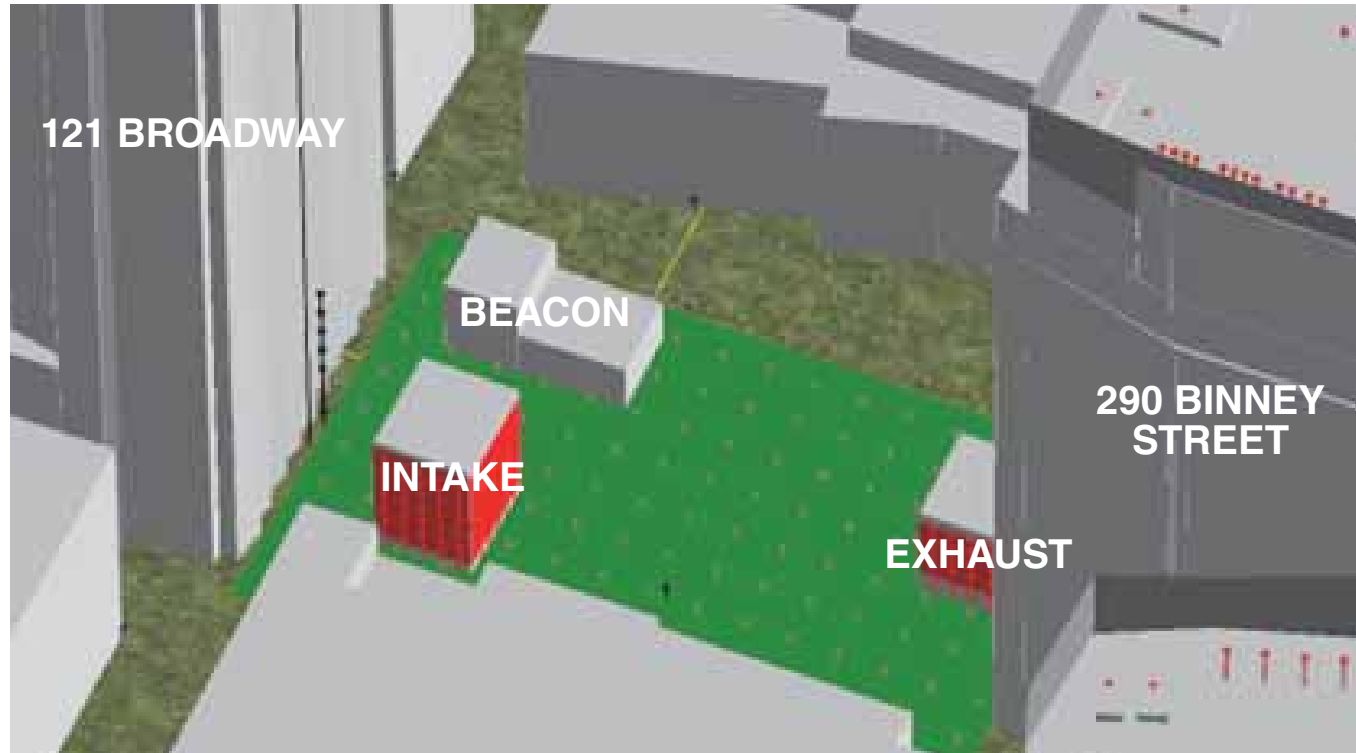


Figure A: View from the East of the MXD Plaza and Substation Intake (lower left) and Exhaust (right) structures. **The sound levels predicted at the Plaza Level from fans underground, prior to exiting the intake and exhaust louvered openings at the Plaza deck, will be lower than the project goals / city requirements when the facility must operate at full capacity.**

Intake Fans: Approximately 99 dBA. Noise impacts to the residential project (the nearest building to the intake air opening) will not exceed the City of Cambridge noise ordinance even when the facility must operate at full capacity.

Exhaust Fans: Approximately 104 dBA. Noise impacts to the Plaza (the nearest public space to the exhaust air discharge) will achieve reasonable sound levels for the people using the Plaza even when the facility must operate at full capacity.

TABLE 2. MXD PROJECT (MXD SUBSTATION, 250 & 290 BINNEY, MXD RESIDENTIAL TOWER) SOUND EMISSIONS									
Modeled Conditions	Sound Level Prediction Locations (dBA)								
	300 Binney	105 Broadway	115 Broadway	125 Broadway	145 Broadway	Plaza	250 Binney	290 Binney	Residential Tower
Project Goals	65	65	65	65	65	55	65	65	60/50
Typical Daytime/Nighttime Substation Without Generator	45	44	45	44	44	46	50	53	48
Daytime Periodic Maintenance Substation with Generator (Hospital-Grade Exhaust Silencer)	48	51	52	51	50	54	52	61	55

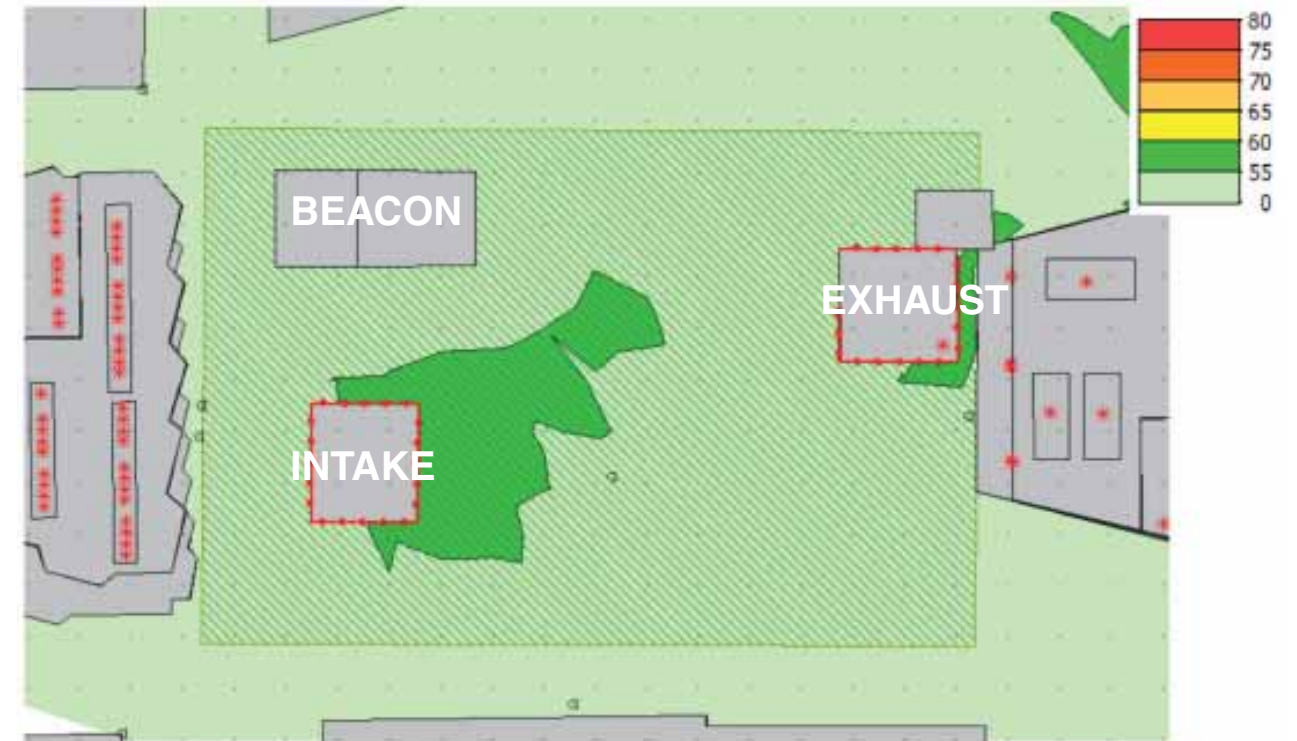


Figure B. Predicted daytime sound levels with equipment for periodic maintenance from the MXD Projects. **The color scale is for assessing Residential Daytime compliance with the Cambridge Noise Control Ordinance.**



Figure C. Predicted typical Daytime and Nighttime sound levels from the MXD Projects. **The color scale uses a lower sound level for assessing Residential Nighttime compliance with the Cambridge Noise Control Ordinance.**

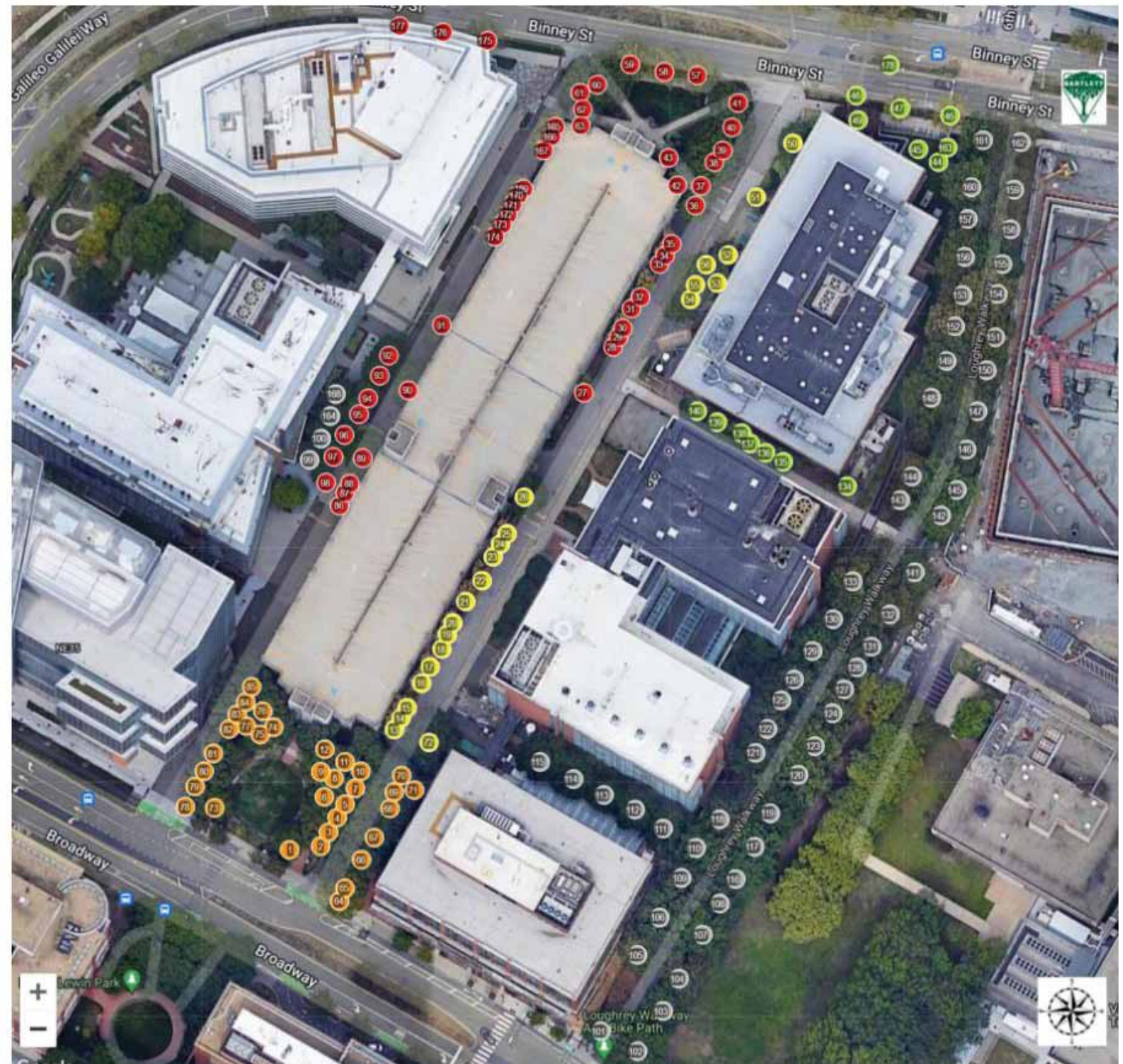
6.3 TREE MITIGATION AND PROTECTION PLAN

The pre-existing trees were inventoried by Bartlett Tree Experts in February 2022. Bartlett issued a Tree Inventory Report which showed the condition, age, size (measured as diameter at breast height or DBH), and any noted defects or observations about each inventoried tree. The report also outlined the proposed removal of the existing trees as needed to accommodate the proposed construction. The tree removal diagram from this report is shown here. Tree removal phases 1 through 3 have been completed as part of the construction of 290 Binney Street, 121 Broadway, and the substation vault. Tree removal phase 4 will occur during the construction of 250 Binney Street. Some of the removed trees will be replaced in front of 115 Broadway and 125 Broadway as shown in the following tree mitigation and protection diagrams. These diagrams have been updated from the tree mitigation and protection diagrams included with the Infill Development Concept Plan (IDCP) Amendment #2.

Four additional trees in front of 125 Broadway have been removed as part of the substation construction project. These trees will be replaced as part of the proposed plaza planting.

Three existing trees in front of 300 Binney that were shown to be removed have been protected.

There were also four trees on the Biogen parcel in front of 115 Broadway that were not included in this tree assessment. These trees have been removed as part of the substation construction project and will be replaced as part of the proposed plaza planting.



Source: Kendall Square Tree Inventory Report 2022, Bartlett Tree Experts

6.3 TREE MITIGATION AND PROTECTION PLAN

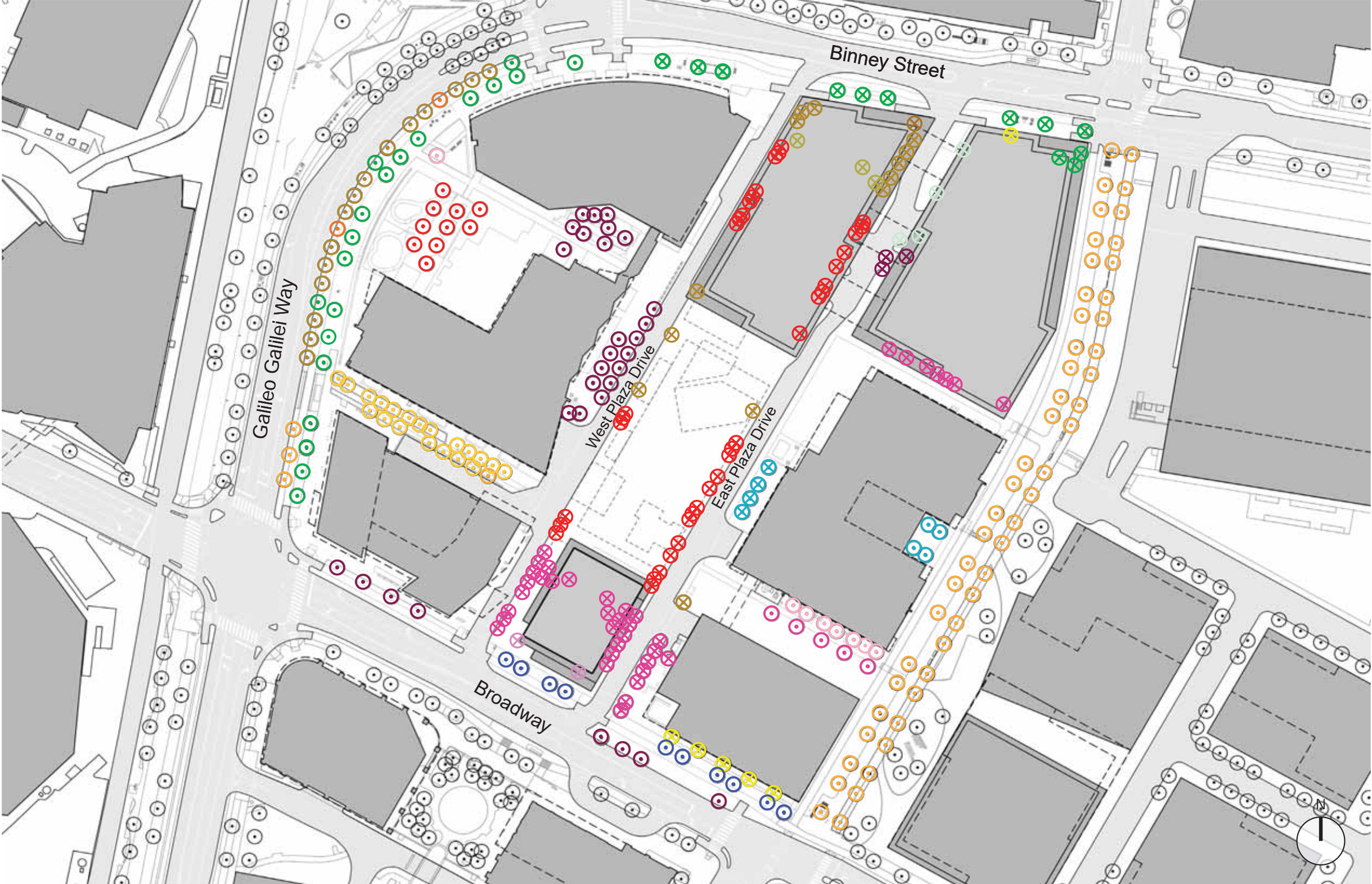
6.3.1 TREE PROTECTION PLAN



- Trees for Protection
- Trees for Removal

6.3 TREE MITIGATION AND PROTECTION PLAN

6.3.2 EXISTING TREE IDENTIFICATION AND SPECIES TYPE



- *ALTA / Inflow & Infiltration Project related tree types included
- | | | | | |
|---|--|---|---|---|
| ● Acer saccharinum (Silver Maple) | ● Gleditsia triacanthos (Honey Locust) | ● Zelkova serrata (Zelkova) | ● Pinus nigra (Austrian Pine) | ● Ulmus americana (American Elm) |
| ● Acer japonicum (Japanese Maple) | ● Betula nigra (River Birch) | ● Tilia cordata (Little-Leaf Linden) | ● Tilia tomentosa (Silver Linden) | ● Ulmus parvifolia (Chinese Elm) |
| ● Quercus rubra (Red Oak) | ● Crataegus crus-galli (Thornless Hawthorne) | ● Platanus x acerifolia (Londonplane tree) | ● Prunus serrulata (Cherry) | ● Magnolia (Magnolia) |

6.3 TREE MITIGATION AND PROTECTION PLAN

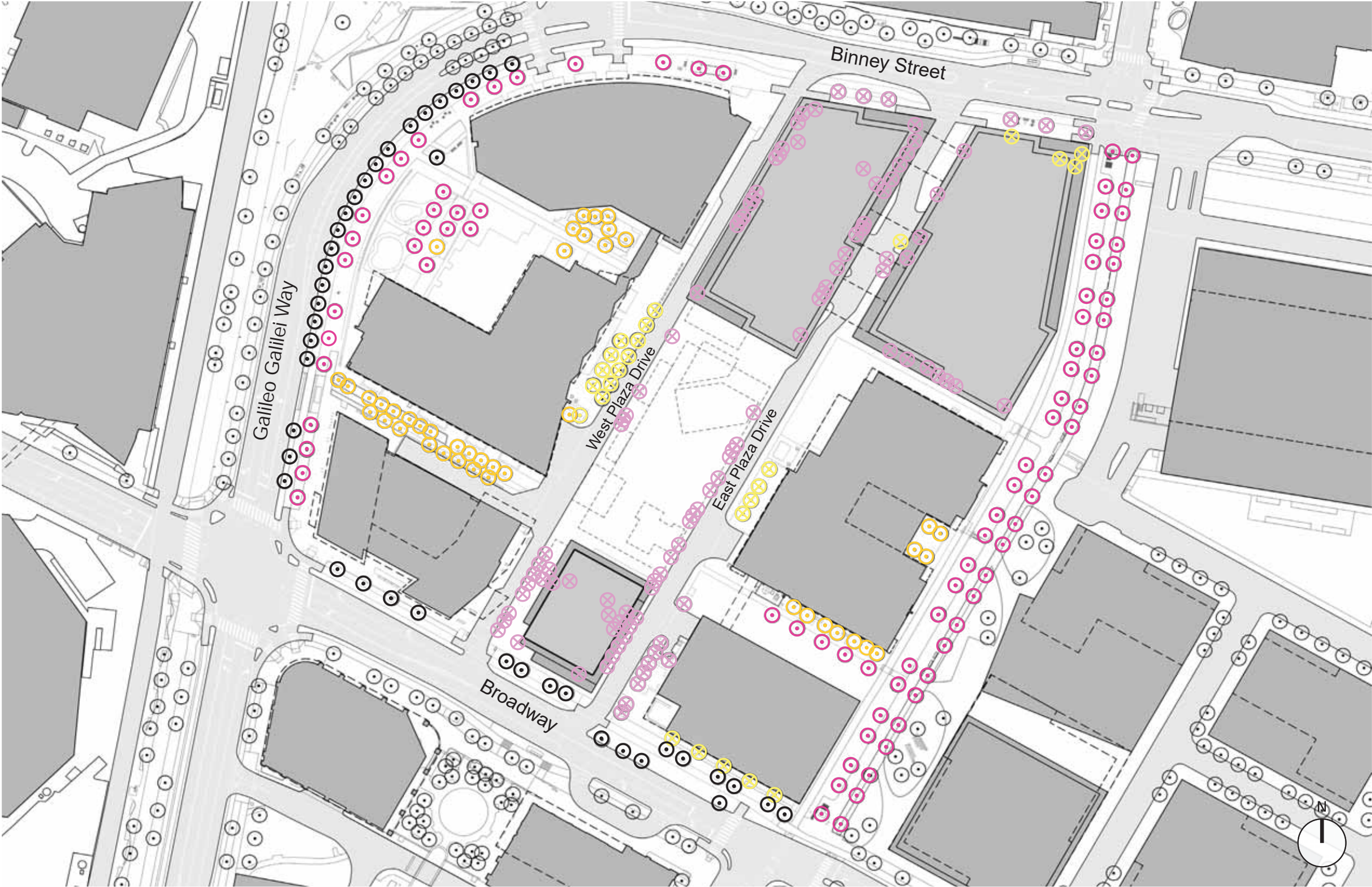
6.3.3 EXISTING TREE CONDITION ASSESSMENT



- Good Condition
- Fair Condition
- Poor Condition
- Dead Condition

6.3 TREE MITIGATION AND PROTECTION PLAN

6.3.4 EXISTING SIGNIFICANT TREES (6DBH+)



- ALTA / Inflow & Infiltration Project related Trees
- Significant Tree to Remain (Trees with a DBH of 6in or higher)
- Removal of Significant Tree (Trees with a DBH of 6in or higher)
- Tree to Remain (DBH of Lower than 6)
- Removal of Tree (DBH of Lower than 6)

6.3 TREE MITIGATION AND PROTECTION PLAN

6.3.5 PROPOSED AND PROTECTED TREES



- ALTA / Inflow & Infiltration Project related Trees
- Parcel 2 Existing Trees
- Trees for Protection
- Proposed Trees

6.4 LIFE CYCLE ANALYSIS INTENT

The center plaza will be an integral part of the landscape for the Kendall MXD district providing a public open space for both the residents, employees and visitors to the buildings as well as the general public to enjoy an open space separated from the busy streets.

Procurement

The materials for the project have been selected to provide durability and to minimize life cycle impacts. Where possible locally extracted and/or manufactured products have been specified.

High albedo pavement, pervious surfaces, and shade structures will be utilized to minimize urban heat island effects and improve user comfort. Pervious surfaces will also help to reduce the stormwater runoff from the roof of the underground substation. Pedestrian wind studies have been completed for the surrounding buildings and building structures in the plaza to help inform the location of programming on the plaza. Noise and temperature impacts from the underground substation have also been studied to ensure that these impacts will not be detrimental to the plaza users.

Plant Species

The plant species selected for the project will be native or adapted species and will not include any invasive species. The plants have also been selected to minimize irrigation water demands. Trees will be planted where possible to increase shade and comfort in the public spaces. Trees cannot be planted above the underground electric vault due to shallow soil depths and restrictions by Eversource. There are also existing and proposed underground utilities that limit where trees can be planted on the site. Movable planters will be used in some areas to provide more shade and planting in areas where permanent plant material cannot be located.

7. PROGRAMMING

7.1 SURROUNDING PARK PROGRAMS

7.1.1 EXISTING AND PROPOSED GREEN SPACES - PROGRAMS



BINNEY STREET PARK



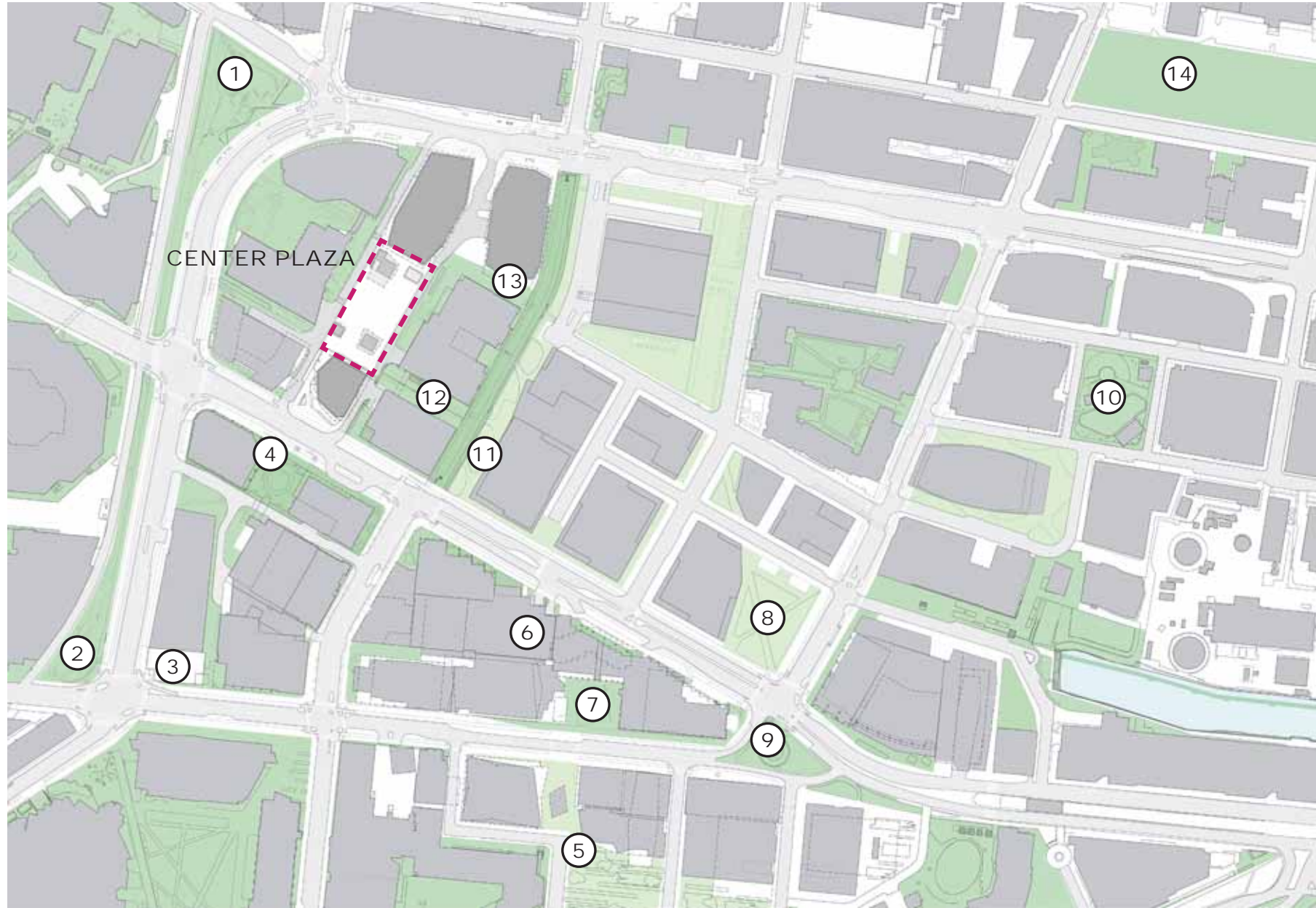
GRAND JUNCTION PARK



WHITEHEAD INST. PLAZA



DANIEL LEWIN PARK



KENDALL/MIT OPEN SPACE



KENDALL SQUARE ROOFTOP GARDEN



KENDALL PLAZA



3RD. ST. VOLPE PARK



TIMOTHY J. TOOMEY JR. PARK



EAST WEST CHILDREN'S PLAY



NORTHERN EAST WEST CONNECTOR





6TH ST. VOLPE PARK



GALAXY PARK



CANAL DISTRICT KENDALL PARK

PROPOSED PARKS 
EXISTING PARKS 

7.1 SURROUNDING PARK PROGRAMS

7.1.1 EXISTING AND PROPOSED GREEN SPACES - PROGRAMS



1



BINNEY STREET PARK



2



GRAND JUNCTION PARK



3



WHITEHEAD INST. PLAZA



4



DANIEL LEWIN PARK



5



KENDALL/MIT OPEN SPACE



6



KENDALL SQUARE ROOFTOP GARDEN



7



KENDALL PLAZA



8



3RD. ST. VOLPE PARK



9



GALAXY PARK



10



CANAL DISTRICT KENDALL PARK



11



6TH ST. VOLPE PARK



12



EAST WEST CHILDREN'S PLAY



13



NORTHERN EAST WEST CONNECTOR



14



TIMOTHY J. TOOMEY JR. PARK

SEATING

LAWN

DOG PARK

CHILDREN'S PLAY AREA

PUBLIC RESTROOMS

SPORTS

PROGRAMS (ART/ YOGA/ MUSIC/ FOOD etc.)

7.2 PROGRAMMING PLAY APPROACH

7.2.1 PLAY ACTIVATION STRATEGY

Flexibility of space to allow for different programming targeted at different users, offering all day amenities with intermittent planned programming



Students



Workers



Broader Community



Residents



Visitors

Everyday Amenities
All Day: 6 AM – 10 PM

Fitness & Wellness
As Planned

Arts & Culture
As Planned

Food & Beverage
As Planned



7.2 PROGRAMMING PLAY APPROACH

7.2.2 ACTIVATED AREAS FOR PLAY



Seating

Fixed and flexible seating, board game night, art classes, knitting classes, trivia night, drink and draw night



Lawn

Lawn games and sports, movie night, yoga, meditation, boot camp, kids story time, seasonal furniture



Hardscape

Performance space for live music, dance performance, dance class and comedy night, coffee/tea/ snack cart area



Structures

Art and light installations, public bathrooms, electrical outlets, signage and wayfinding



Walkways

Farmers market, food trucks, food carts

7.3 PROGRAMMING AND CAPACITY STUDY

7.3.1 VARIETY OF SEASONAL EVENTS *



Lawn Game Day



Yoga / Wellness Evens



Summer / Winter Markets



Concerts



Badminton Courts: 3 (18'x36')



4 v 4 Soccer Field: 1 (32'x75')

* NOTE: Space designed to allow for flexible programming that will evolve and adapt with future trends

7.3 PROGRAMMING AND CAPACITY STUDY

7.3.2 LAWN GAME DAY



7.3 PROGRAMMING AND CAPACITY STUDY

7.3.3 YOGA/WELLNESS EVENTS



7.3 PROGRAMMING AND CAPACITY STUDY

7.3.4 FARMERS MARKET



7.3 PROGRAMMING AND CAPACITY STUDY

7.3.5 CONCERT- SOUTH ORIENTATION AT PLAZA CENTER



7.3 PROGRAMMING AND CAPACITY STUDY

7.3.6 BADMINTON COURT



7.3 PROGRAMMING AND CAPACITY STUDY

7.3.7 SOCCER FIELD 4X4



7.4 KIOSK STUDY

7.4.1 POTENTIAL TEMPORARY LOCATION STUDY



APPENDIX

EXHIBIT A - PEDESTRIAN WIND STUDY RESULTS FOR CENTRAL PLAZA



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October 4, 2024

Boston Properties (BXP)
c/o Vicky Plestis
vplestis@bxp.com
800 Boylston Street, Suite 1900
Boston, MA, 02199

Re: Pedestrian Wind Study Results for Central Plaza
RWDI Reference No. 2405303

Dear Vicky,

We have prepared this letter to comment on predicted wind conditions at the Central Plaza, located between Binney Street, Cambridge Center and Broadway Street, in Cambridge, MA (Image 1).

RWDI has conducted a wind tunnel study for the proposed 105 Broadway Street development results of which were presented in a report dated Aug 16, 2024 (*Report – Pedestrian Wind Study – 105 Broadway Street, Cambridge, MA – RWDI #2405303 – August 16, 2024*). Image 2 shows the wind tunnel model of this wind tunnel study and the Central Plaza.



Image 1 - Location of Central Plaza



Central Plaza
Pedestrian Wind
RWDI # 2405303
OCTOBER 4, 2024



Image 2 - Model of the 105 Broadway Street project as tested in the wind tunnel

The wind comfort conditions at the Central Plaza presented in the above-mentioned study are shown in Image 3, for the summer and winter seasons. Wind speeds during the summer are expected to be lower, with conditions comfortable for sitting or standing, which is suitable for passive activities. Due to higher seasonal winds in the winter, slightly windier conditions are expected at the plaza during the colder season, with conditions comfortable for standing, strolling, and walking. These conditions are considered to be suitable for colder months, when people won't be using the area for passive activities.

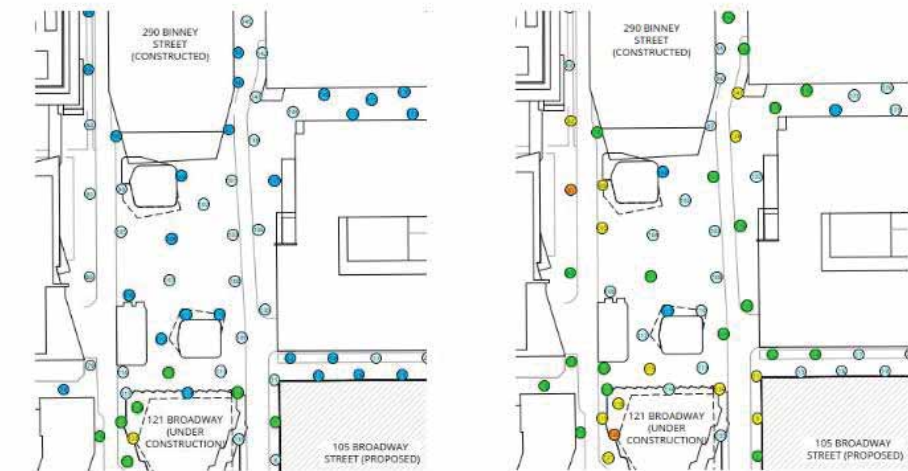


Image 3 - Pedestrian wind conditions result for summer (left) and winter (right)



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APPENDIX

EXHIBIT A - PEDESTRIAN WIND STUDY RESULTS FOR CENTRAL PLAZA



Central Plaza
Pedestrian Wind
RWDI # 2405303
OCTOBER 4, 2024

It should be noted that the model used for the wind tunnel study included an alternative to the existing 105 Broadway Street building (the design is currently being studied by BXP). In the absence of that building, we don't expect the wind speeds at the Central Plaza to be significantly different. Therefore, the wind comfort conditions at the Central Plaza should remain the same as previously presented.

We hope this letter satisfies your needs. Should you have any questions or require additional information, please do not hesitate to contact us.

Yours truly,

RWDI

Sonia Beaulieu, M.Sc., PMP, P.Eng.
Senior Project Manager / Principal

Saba Saneinejad, Ph.D.
Technical Director / Principal



Central Plaza
Pedestrian Wind
RWDI # 2405303
OCTOBER 4, 2024

Statement of Limitations

This letter was prepared by Rowan Williams Davies & Irwin Inc. ("RWDI") for Boston Properties (BXP) ("Client"). The findings and conclusions presented in this letter have been prepared for the Client and are specific to the project described herein ("Project"). The conclusions and recommendations contained in this letter are based on the information available to RWDI when this letter was prepared. Because the contents of this letter may not reflect the final design of the Project or subsequent changes made after the date of this letter, RWDI recommends that it be retained by Client during the final stages of the project to verify that the results and recommendations provided in the previous report and this letter have been correctly interpreted in the final design of the Project.

The conclusions and recommendations contained in the previous report and this letter have also been made for the specific purpose(s) set out herein. Should the Client or any other third party utilize the report/letter and/or implement the conclusions and recommendations contained therein for any other purpose or project without the involvement of RWDI, the Client or such third party assumes any and all risk of any and all consequences arising from such use and RWDI accepts no responsibility for any liability, loss, or damage of any kind suffered by Client or any other third party arising therefrom.

Finally, it is imperative that the Client and/or any party relying on the conclusions and recommendations in this letter carefully review the stated assumptions contained herein and to understand the different factors which may impact the conclusions and recommendations provided.