

# Bethesda Downtown Design Advisory Panel (DAP)

## Submission Form (Revised March 2020)

### PROJECT INFORMATION

Project Name	4405 East-West Highway
File Number(s)	32022012A, and Site Plan No. TBD
Project Address	4405, 4419 and 4421 East-West Highway, Bethesda, MD 20814 and Parcel P224, PT LTS 6-10 in Block A

Plan Type    ☐ Concept Plan    ☒ Sketch Plan    ☒ Site Plan    ☐ Consultation w/o Plan

### APPLICANT TEAM

	Name	Phone	Email
Primary Contact	John Camera, Transwestern Development	202-617-2143	John.Camera@transwestern.com
Architect	SK+I Architecture (Chris Huffer), 240-479-7484, chuffer@skiarch.com		
Landscape Architect	Parker Rodriguez (Trini Rodriguez), 703-548-5010, trodriguez@parkerrodriguez.com		

### PROJECT DESCRIPTION

	Zone	Proposed Height	Proposed Density (SF/FAR)	Requested BOZ Density (SF/FAR)	MPDU %
Project Data	CR-1.5, C-1.5, R-1.5, H-100'	100'	421,500 SF /4.82 FAR	SF / FAR	15%
Proposed Land Uses	Commercial, Multi-Family Residential				

### DESIGN ADVISORY PANEL SUBMISSION PROCESS & REQUIREMENTS

1. Schedule a Design Advisory Panel review date with the Design Advisory Panel Liaison.
2. At least two weeks prior to the scheduled Panel meeting, provide via email to the Design Advisory Panel Liaison the completed Submission Form and required drawings in PDF format. Incomplete applications will be returned for revision. **Applications deemed incomplete by the Liaison may result in the loss of the scheduled meeting date if not returned complete within the above time frame.**
3. Concept Plan and Sketch Plan applications must include the following, at a minimum:
  - Property location plan showing three-block context radius
  - Illustrative site plan showing two-block context radius
  - Perspective images of all building faces from a 3-D model that show the proposal in the built context, as well as with nearby buildings approved by the Planning Board. (Bring the 3-D model to the Panel review.)
  - 3-D building massing diagrams illustrating:
    - both strict conformance with the design guidelines and the proposed design, indicating where the proposal does not conform and how the alternative treatments meet the intent of the guidelines
    - the maximum standard method of development density on site
    - the maximum mapped density on site
  - Precedent images showing scale, architectural character, materiality, etc. (Concept & Sketch Plans only).

Except as noted, Site Plan applications must include all of the above, as well as, at a minimum:

- Floor plans for parking level(s), ground floor, typical floor, roof, and unique conditions
- Building/site sections showing full adjacent street sections with opposite building face
- Elevations for each façade
- Key perspective views expressing character of the building elevations and streetscape.



## DESIGN GUIDELINES CONFORMANCE

The primary goal of the DAP is to provide advice and recommendations that will heighten design excellence and improve the quality of architecture, urban design, and landscape architecture in Downtown Bethesda. Simple compliance with the numerical standards in the Design Guidelines does not in itself achieve Design Excellence.

STREET TYPE(S): Urban Boulevard (East-West Highway)

	Recommended	Provided	Alternative Compliance?
Sidewalk Zone			
Planting/Furnishing Zone	6-10 ft.	8 ft	
Pedestrian Thorough Zone	10-20 ft.	11 ft.	shared use path
Frontage Zone	0-10 ft.	6 ft. tree panel & 15'	sidewalk
Building Placement			
Build-to Line (from street curb)	25-30 ft.	40 ft.	
Building Form			
Base Height	3-6 stories	2 stories	
Step-Back	10-15 ft.		alt. methods to reduce bulk

### DOES THE PROJECT INCLUDE A THROUGH-BLOCK CONNECTION OR TRAIL?

☐ Yes ☒ No

- If yes, please provide sectional diagrams demonstrating conformance with Section 2.1.9 of the Guidelines

### DOES THE PROJECT INCLUDE A SECTOR-PLAN RECOMMENDED PARK OR OPEN SPACE?

☐ Yes ☒ No

- If yes, please provide diagrams demonstrating conformance with Section 2.2 of the Guidelines

## BUILDING FORM

	Recommended	Provided	Alternative Compliance?
Tower			
Separation Distance	45-60'	55'-2" to East	
Step-Back	Per Street Type	10'-5" @ 5th floor and 12' 2" 9th floor on North Side of building	
Bulk Reduction Methods	Unique Geometry, Varying Tower Heights, Modulate and Articulate Facades, Limit Apparent Face		

### IS THE PROJECT LOCATED IN A DISTRICT IDENTIFIED IN CHAPTER 3 OF THE DESIGN GUIDELINES?

☐ Yes ☒ No

- If yes, please provide diagrams demonstrating conformance with the District-Specific Guidelines

EXCEPTIONAL DESIGN POINTS REQUESTED (MIN: 10, MAX: 30): 20

- 10 Points: Generally consistent with the Design Guidelines and meets four of the CR Guideline Criteria
- 20 Points: Superlative design that in a uniquely compelling way meets the Design Guidelines or overcomes a significant site or similar constraint; a top example of design within Montgomery County
- 30 Points: Singular design that exemplifies the highest intent of the Design Guidelines and may be considered a top example of design within the Mid-Atlantic region



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**STREET TYPE(S):** Neighborhood Residential Street (Pearl Street)

	Recommended	Provided	Alternative Compliance?
Sidewalk Zone			
Planting/Furnishing Zone	6-8 feet	6 feet	
Pedestrian Thorough Zone	6-10 feet	7 feet	
Frontage Zone	5-8 feet	12 feet	
Building Placement			
Build-to Line (from street curb)	20-25 feet	25 feet	
Building Form			
Base Height	2-3 stories (25-35 ft.)	2 stories	
Step-Back	15-20 feet		alt. methods to reduce bulk



**4405, 4419 and 4421 East-West Highway Bethesda, Maryland**  
**Design Advisory Panel**  
**Sketch Plan Amendment and Site Plan**  
**June 14, 2023**

**I. Introduction**

4405 East West Highway Owner, LLC, an affiliate of Transwestern Development Company (the “Applicant”) is submitting this application to receive input from the Design Advisory Panel (“DAP”) on the Sketch Plan Amendment and Site Plan for the properties located at 4405, 4419 and 4421 East-West Highway in Bethesda, Maryland (the “Property”). The Applicant proposes to redevelop the Property with a multi-family residential building with ground floor retail uses (the “Project”).

The Project is notable in that it will be only the second Sketch Plan approved for the Pearl District since the adoption of the *2017 Approved and Adopted Bethesda Downtown Plan* (the “Downtown Plan”) and very likely the first project to be developed in the Pearl Street District.

**II. Property Description**

The inverted “L” shaped Property is located on the north side of East-West Highway at the intersection of East-West Highway and Pearl Street and just west of Bethesda-Chevy Chase High School, just over 1,000 feet from the Bethesda Metro Station. The Property contains a total of 87,344 square feet of gross tract area and is zoned CR 1.5, C 1.5, R 1.5 H 100 and is subject to the Bethesda Overlay Zone. The Property is currently improved with a five-story 65,060 square foot office building and surface parking at 4405 East-West Highway and two single family homes that have been converted to office use and surface parking at 4419 and 4421 East-West Highway. The entire frontage consists of curb, sidewalk and surface parking with virtually no landscaping.

**III. Proposed Development**

Furthering the goal of the Downtown Plan to increase the number of residential units within walking distance of the Metro Station, the Applicant proposes redeveloping the Property with up to 414,000 square feet of residential use to accommodate up to 420 units, including 15 percent moderately priced dwelling units (“MPDUs”) and approximately 7,500 square feet of ground floor retail. Consistent with the Downtown Plan recommendations, the building will be 100 feet in height (10 floors of residential uses with ground floor retail) along the East-West Highway and Pearl Street façades and 11 stories along the north end of the building. The northern façade and will step down to a height of 51 feet along the southern façade as measured from the adjacent grade and 38 feet as measured from East-West Highway.

The Project is located within the Pearl Street District, identified in the Downtown Plan as an emerging center. The Project promotes a number of the goals and recommendations of the Downtown Plan, with the most notable being the following:



Gateway to Bethesda: The building will likely be the first developed in the Pearl District under the Downtown Plan, and given the Property's prominent location, it will serve as a gateway to Bethesda. The building is designed with its highly visible location in mind, with care and attention paid to all of the eastern elevations.

Transformation of the Streetscape: A prominent component of the Project will be its transformation of the existing Property frontage. The existing "streetscape" section from the back of curb is comprised of a sidewalk with overhead utilities adjacent to the surface parking. The Property frontage contains no green space, except a one-two foot wide strip of grass next to a small portion of the building, one lone tree, and a few bushes. This barren frontage will be replaced with the Bethesda streetscape standards that will include an eight-foot tree lined buffer, a shared use bike path, a second row of trees and a 15-foot-wide sidewalk, thus transforming the suburban auto-centric existing conditions of the Property to a more urbanized, inviting landscaped streetscape. The new streetscape will also promote the connectivity goals of the Downtown Plan by providing a quality pedestrian experience. This is particularly important given the number of students that walk almost every day along the frontage of the Property from B-CC High School just to the east to downtown Bethesda.

Enhance Street Activity: The retail is located along the western portion of the ground floor, extending to Pearl Street, in order to help promote this intended retail corridor. In addition, replacing a dated office building with a residential building will help promote the 24-hour activity desired by the Downtown Plan.

#### **IV. Project Design and Architectural Narrative**

The Project will provide a building of exceptional design to this area of Bethesda that complies with the various recommendations of the Design Guidelines. As described below, the building employs a number of alternative "menu" options from the Design Guidelines to achieve the objectives of the Design Guidelines.

Due to the Project's location, the Pearl Street, East-West Highway and eastern façades will be featured prominently. Although the eastern façade is mid-block, the façade is designed with the intention that this is a main façade that is consistent and integrated with the primary street façades on East-West Highway and Pearl Street and serves as a focal point as you enter Bethesda from the East. The lobby entrance has been located at the center of the East-West Highway façade, emphasizing the symmetrical nature of the base façade that wraps from the east all the way around to Pearl Street. The Project focuses on activating East-West Highway with a two-story residential lobby and amenity space as well as retail. The transparency and activity of the first two levels will help break down the scale of the base but also create a vibrant and energetic pedestrian experience.

The massing and articulation concept creates a simple, unified building concept that breaks down the size of the building using a visual "tower" break between the northern and southern halves of the building and is unified using similar articulation and architectural features throughout the whole design. The primary façades on Pearl Street, East-West Highway and the eastern façade are enhanced using a symmetrical "wave" that wraps the primary elevation of the southern bar. This

wrapping symmetry highlights the equal importance of all three main façades. Within this “wave,” projecting balconies are utilized to further emphasize the movement façade along East-West Highway. Together these elements create a sense of movement which break down the façade to a scale and proportion suitable for the building and creates a façade that doesn’t feel long or imposing. Breaking up the eastern façade is a vertical tower that connects the penthouse down to the ground and helps create a visual break between the southern and northern halves of the building. The tower also serves as a break in the undulating “wave” façade that connect the East-West Highway façade and the eastern façade. Once past the tower break, the “wave” is simplified as it moves north and breaks down into four 5-bay elements that bring an overall proportion to the façade by also serving as a direct visual connection between the main elevation on the street and the rest of the face. On the north the massing breaks down even further by adding two setbacks on the north end that reduces the height of the building to a more appropriate scale adjacent to the High School. Taking advantage of the setbacks on the north end, integrated and projecting balconies are incorporated into the façade to give residents highly coveted outdoor space. These elements will also add another layer of activity to the façade but also create a more dynamic elevation that will enhance the public realm.

## **V. Design Guideline Compliance**

### **1) 2.1.10 Canopy Corridors**

The Project proposes improvements to the East-West Highway streetscape to be in compliance with the future streetscape plans. A new 8-foot green street tree buffer will replace the current street adjacent sidewalk, followed by a 11-foot-wide shared use path that will taper at the east to tie into the existing location of the sidewalks on the neighboring properties. Directly next to the shared use path, a 6-foot wide tree panel buffer will be added to incorporate a 2<sup>nd</sup> row of trees followed by a 15-foot-wide sidewalk directly in front of the building. The Project proposes a 40-foot building setback from the curb, which will provide this future streetscape as well as create an enhanced public realm.

### **2) 2.3.2 Green Cover**

The Project is designed to meet the 35% Green Cover requirements with a combination of tree canopy and intensive green roof that are located above structure at the G1 and first floor levels. Additional green roofs are located on terraces on the 5<sup>th</sup> and 9<sup>th</sup> floors as well as at the penthouse and mechanical penthouse levels. Bio-Retention planters will be located at various places around the ground floor.

### **3) 2.3.3 Servicing, Access, and Parking**

The Project proposes utilizing one curb cut off of Pearl Street. This curb cut serves as the access point into the site for both the residential loading and garage entry. The location of the garage and loading entries allows them to be hidden from the street as they face north towards the existing parking lot and be integrated into the façade architecture and providing an overall better and safer pedestrian experience. By placing these services on the north side off of Pearl Street it allows for

the project to have a continuous frontage zone along East-West Highway that is line with retail and amenity uses that enhance the pedestrian experience.

#### 4) 2.4.2 Base: Building Placement

The Project proposes a 40-foot building setback from the curb to provide the enhanced and pedestrian friendly streetscape on East-West Highway. This setback provides a larger setback from the street than is recommended in the Design Guidelines but is consistent with the larger vision for the future of East-West Highway. A 25-foot setback is provided on Pearl Street that is also consistent with the further vision of the street as well as the Design Guidelines.

#### 5) 2.4.3 Base: Street Activation

The Project proposes placing along the East-West Highway and Pearl Street frontage a combination of double height retail and amenity uses. These uses will promote the visual transparency of the ground floor and increase the connection with the street. Above the ground floor the building will be visually engaging with a combination of an undulating “wave” façade, interconnected with balconies and terraces that face the street. This will further enhance and integrate the building with the public realm.

#### 6) 2.4.4 Base: Variation and Articulation

The Project proposes multiple ground floor uses as mentioned above that will be articulated through different architectural languages on the façade. This, in addition to plane changes, material variation and the modulation above, will help break up the elevation, add visual interest and enhance the pedestrian experience.

#### 7) 2.4.8 Tower: “Menu” of Methods to Reduce Bulk

The Project proposes to pursue alternative methods to reduce tower bulk in lieu of building step backs on East-West Highway and Pearl Street because the height of the building is under 120 feet. In order to reduce bulk, the Project proposes a mix of unique geometry in combination with a modulating “wave” façade that is integrated with projecting balconies that emphasize the movement and “wave” around the face. This geometry and articulation will help reduce the apparent face of the building and break down the scale of the building. The main penthouse structure is setback from the street and integrated with the overall massing concept of the building and functions as an anchor to hold the “wave” on the front of the building but also create the visual break with the north end of the building. By setting this tower back from the façade it creates the perception of different tower heights and makes the main façade feel less imposing. The massing as viewed from the street will provide a dynamic and dramatic façade that will further promote visual interest and enhance the public realm.

#### 8) 2.4.9 Top: Tower Top

The Project’s massing has been designed to help reduce the perceived length of the north-south façade while also creating a focal point at the southeast corner of the building. This is achieved

by setting the penthouse tower massing away from the street creating a visual break between the street and east elevations and creating an element that helps anchor the corner on Pearl Street. The penthouse tower utilizes the “background” architecture that is integrated throughout the building and focuses on simplicity to emphasize the main “wave” element. This harmonizes with the rest of the design while also integrating the mechanical and amenity penthouse into the architecture. By creating this vertical element at the corner, it creates a very unique and dynamic visual experience that will welcome people approaching Bethesda from the East or the Project from the West.

#### 9) 2.4.11 Bird-Safe Design

The Project proposes a massing and façade concept that will help create a very bird friendly building. The façade articulation through the “wave” coupled with integrated projecting balconies and plane changes create many opportunities for areas to produce varied shadows and help block window reflection. In addition to those architectural features, different façade treatments and colors, use of several different materials and varying window sizes will be utilized throughout the building to enhance the visual aesthetic of the building and will further help reduce reflections and help avoid deadly collisions.

### **VI. Conclusion**

The Applicant is excited to deliver this exceptionally designed building to this gateway location in Bethesda. The Applicant’s design team has paid careful attention to the recommendations of the Sector Plan and the Design Guidelines and the Project furthers the design objectives of these guiding documents. We look forward to presenting the Project to the DAP.

### **Supplemental DAP Statement 4405, 4419 and 4421 East-West Highway**

Pursuant to Staff's request, the following addresses the questions that were raised at the May 25, 2022 DAP meeting on the Sketch Plan for the 4405 East-West Highway property.

- Is the curb moving along East-West Highway?  
Response: It is not necessary to move the curb to accommodate the recommended street section. The section behind the curb will be as follows: 8 foot tree lawn; 11 foot shared use path; 6 foot tree pit; and 15 foot pedestrian zone. The building will be setback 3 feet from the proposed right-of-way line. All existing curb cuts along the East-West Highway frontage are being removed. Site access will be off of Pearl Street.
- How does the shared use path transition back?  
Response: On the eastern end of the Property, the shared use path will transition into the Property from the existing sidewalk within the right-of-way in front of the High School property. On the west side, there is no longer the need for a transition, given that the Property is now extended to Pearl Street.
- How does the Project address the open space designation of the Bethesda Sector Plan?  
Response: Consistent with Sketch Plan Condition No. 3 "At building permit, the Applicant must provide financial contribution to the M-NCPPC Department of Parks for the implementation of the Sector Plan recommended Bethesda-Chevy Chase Neighborhood Green. The amount and instrument of the contribution will be determined at Site Plan." The Applicant will be working with the Parks Department during the Site Plan process to determine the appropriate amount of the contribution, timing, conditions and instrument.
- Do the residential compatibility standards apply?  
Response: As indicated in 2022, the residential compatibility standards do not apply. The adjacent property is not developed with residential uses and the closest residence north of the Property is approximately 590 feet away.
- Is there affordable housing?  
Response: Yes, the Project will provide 15 percent MPDUs.
- What are the sustainable initiatives other than a green roof?  
Response: As we proceed, the Applicant will be investigating a LEED certified building. In addition to green roof, roofing materials/aggregate will be used in the mechanical areas that meet the cool roof standards.
- Is this a cantilever you are showing along East-West Highway instead of a stepback?

Response: The design intent is to emphasize the double-height retail and amenity space along East-West Highway without utilizing a step back. The building is setback 41 feet from the back of curb providing a very generous setback. Following the recommendations of the Design Guidelines for buildings under 120 feet located on an Urban Boulevard, alternative treatments can be considered to reduce bulk rather than step-backs. The design utilizes the following methods to reduce the bulk without a step-back: Unique geometry, varying tower heights, a modulated and articulated façade and limiting the apparent face of the façade. Additionally, because of the unique geometry of our “wave” the cantilever at the 3<sup>rd</sup> floor varies between 1.5 feet and 4.5 feet so it is not obtrusive.

- What material is the undulating façade? The crease works with a certain type of materials but not all materials.

Response: The material of the undulating façade is currently designed as metal panel window wall, however SK+I is still finalizing the design as masonry is also being considered. SK+I have accomplished this detail on several other projects in the past using both metal and masonry.

- There are balconies along East-West Highway but they do not show up on the plans?

Response: There continues to be balconies along East-West Highway and they are included on the plans.

- Can you describe the tower element and the relationship to the east and west. They look like facades of units but I imagine there is glazing and operable windows. With respect to the east west façade to the east, would it be more of an advantage to wrap it without the tower interruption? Is there a way to chamfer rather than an entire extrusion. Is there a way to integrate it more?

Response: The tower element has been further refined since sketch plan, especially with the extension of the Project to Pearl Street. The tower connects all the way from east to west and plays an integral part in the overall massing concept of the building by serving as a visual break between the northern and southern halves of the building. It helps anchor the main façade and due to its symmetry on both sides helps frame the main three facades and promote their importance. Units are located in this area from the ground to the 10<sup>th</sup> floor and the tower further integrates into the penthouse amenity and mechanical spaces to harmonize the penthouse with the rest of the buildings architecture.



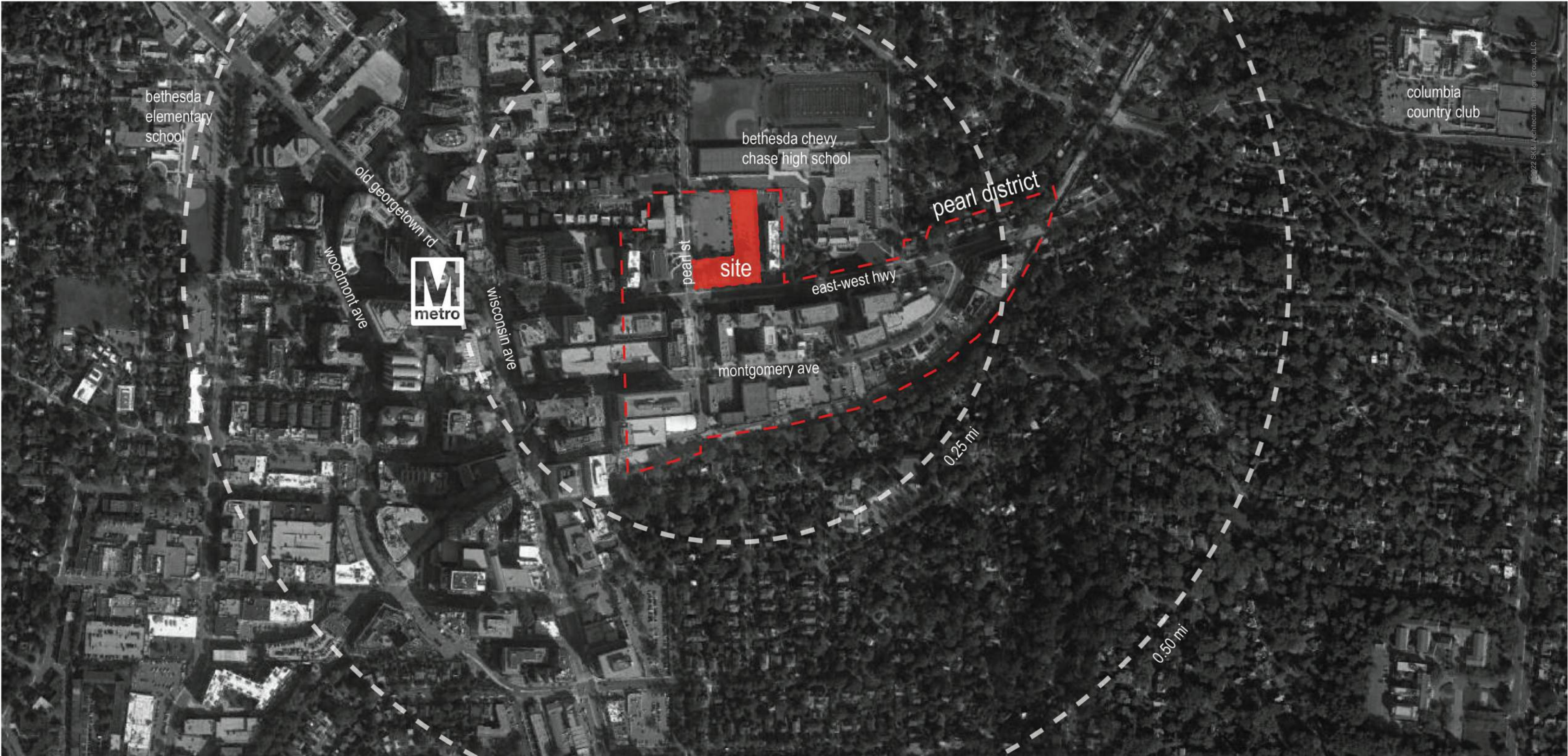


# 4405 East-West Highway, Bethesda, Maryland

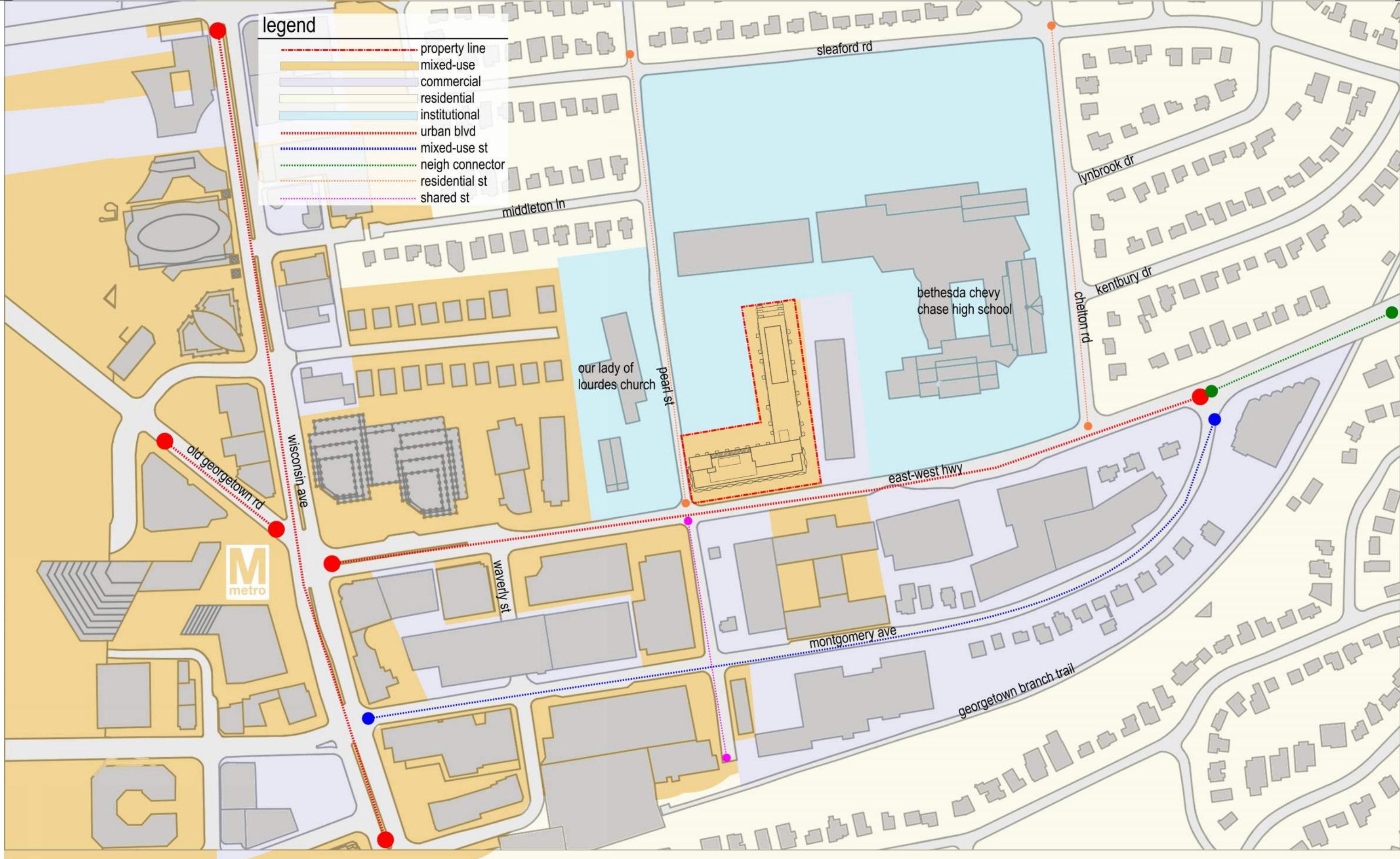
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south view



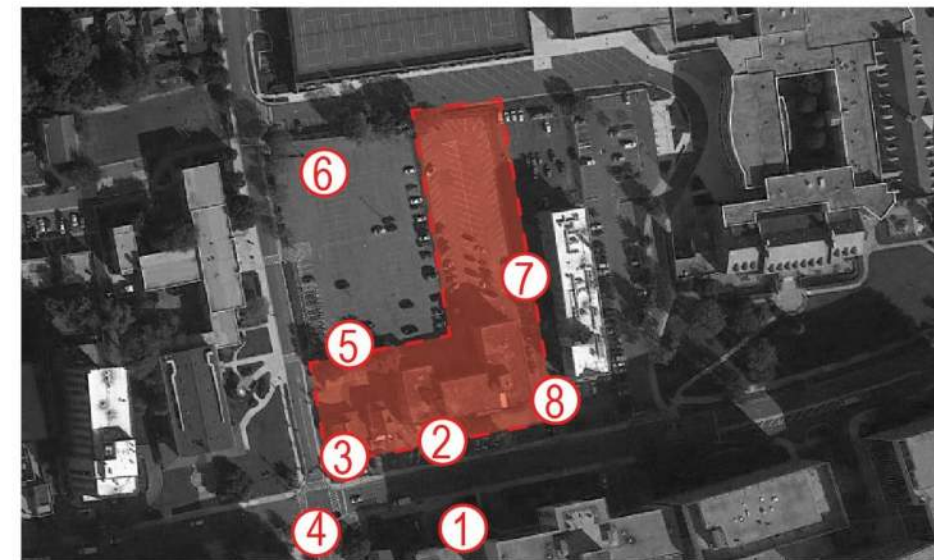
looking across south of site



southwest corner



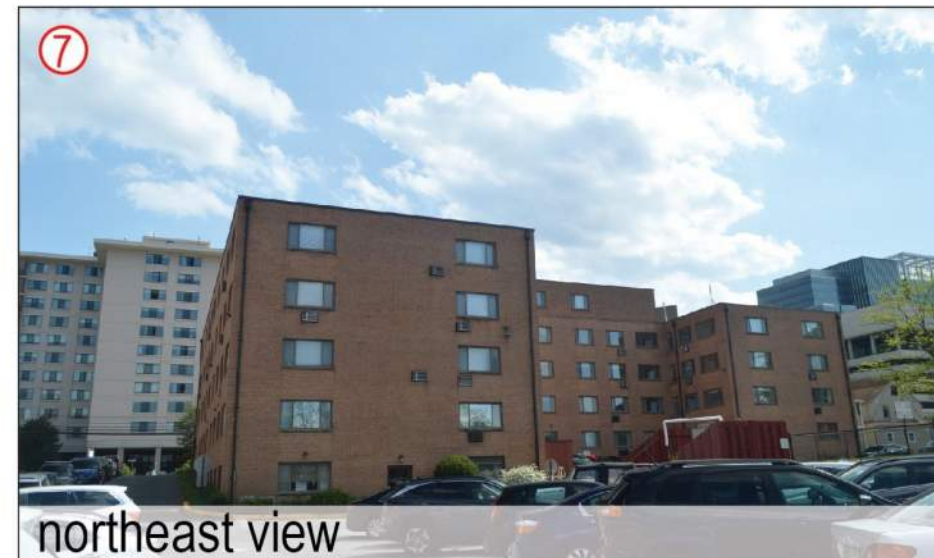
southwest view



north alley



northwest view across parking lot

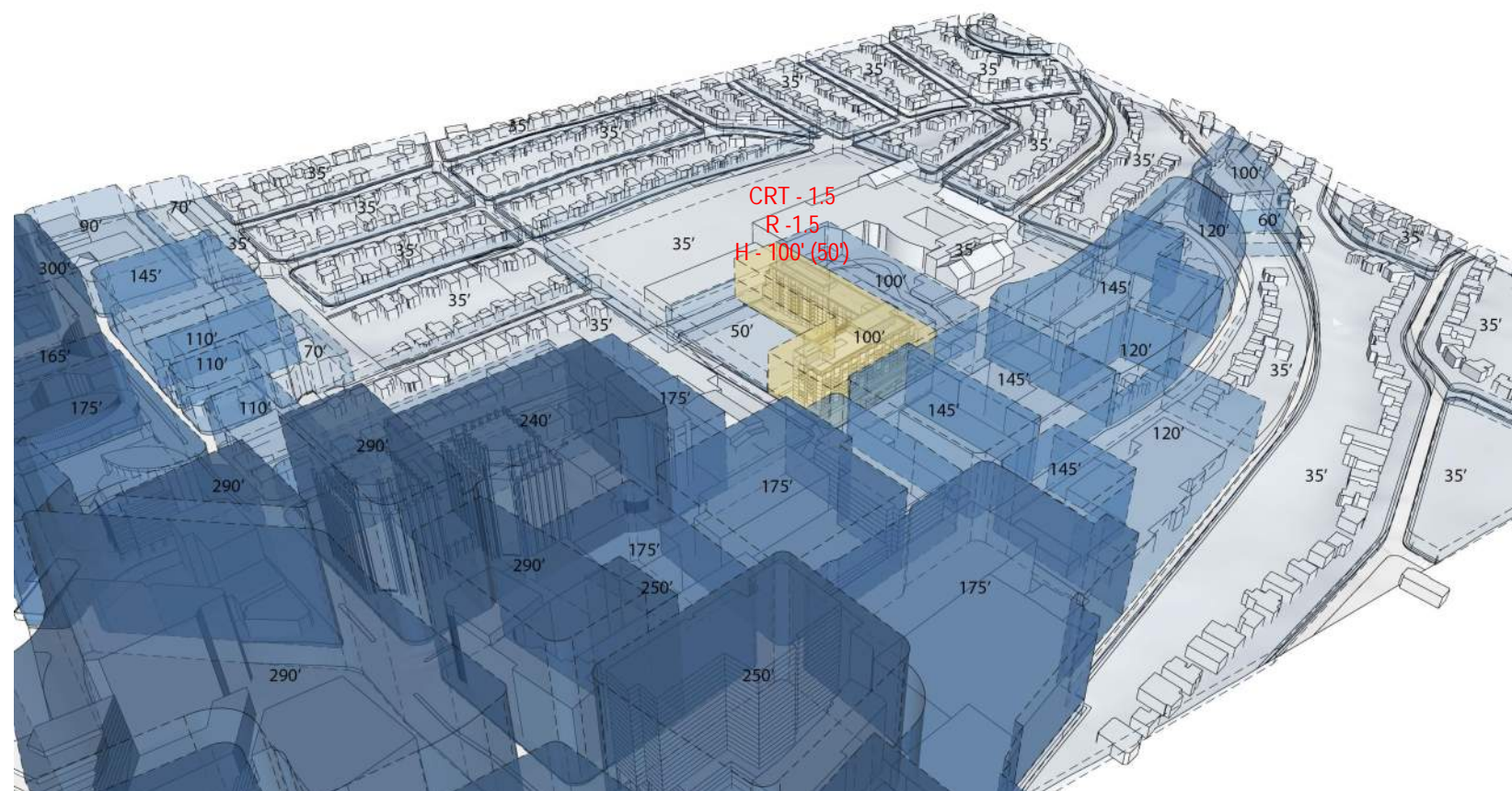
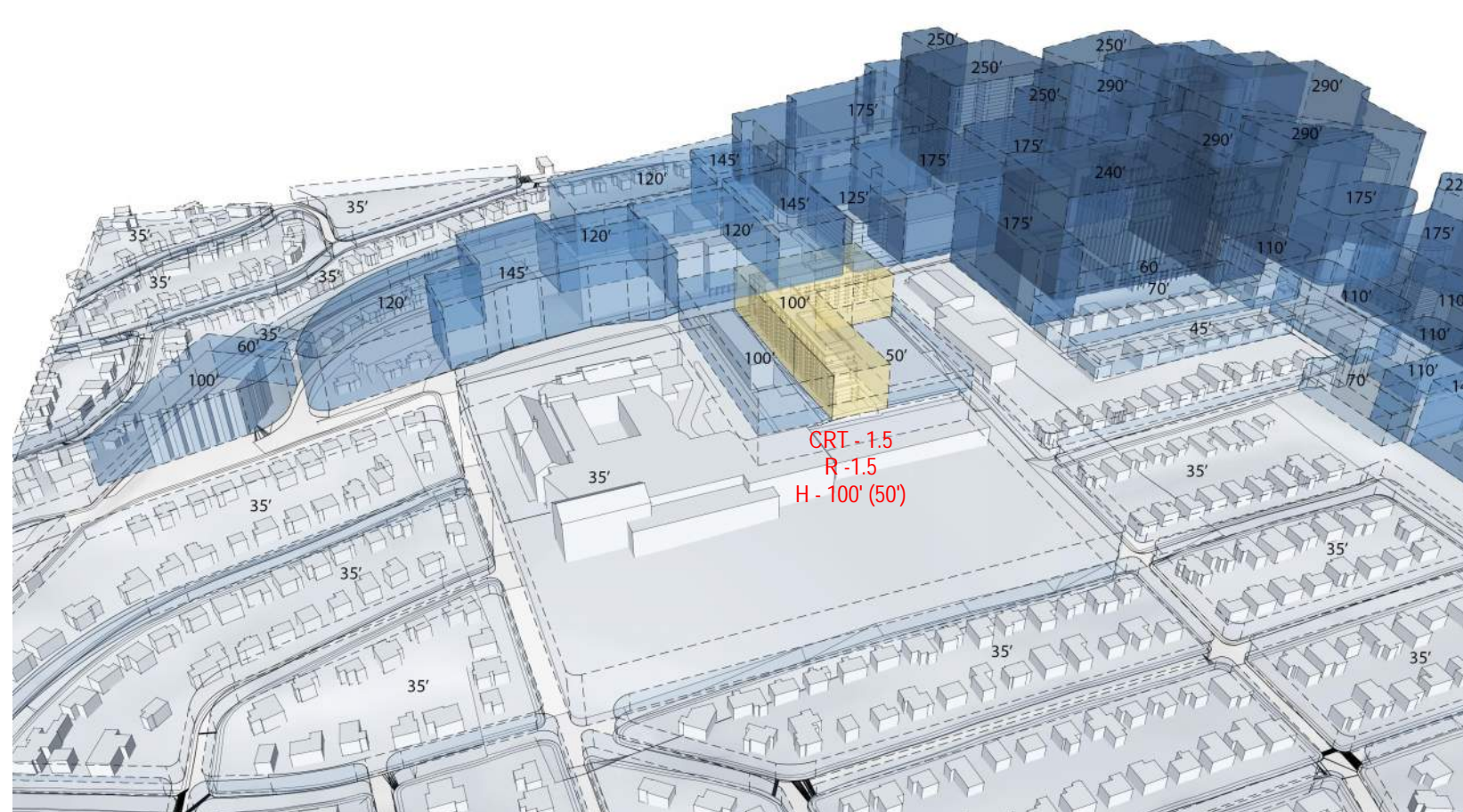


northeast view

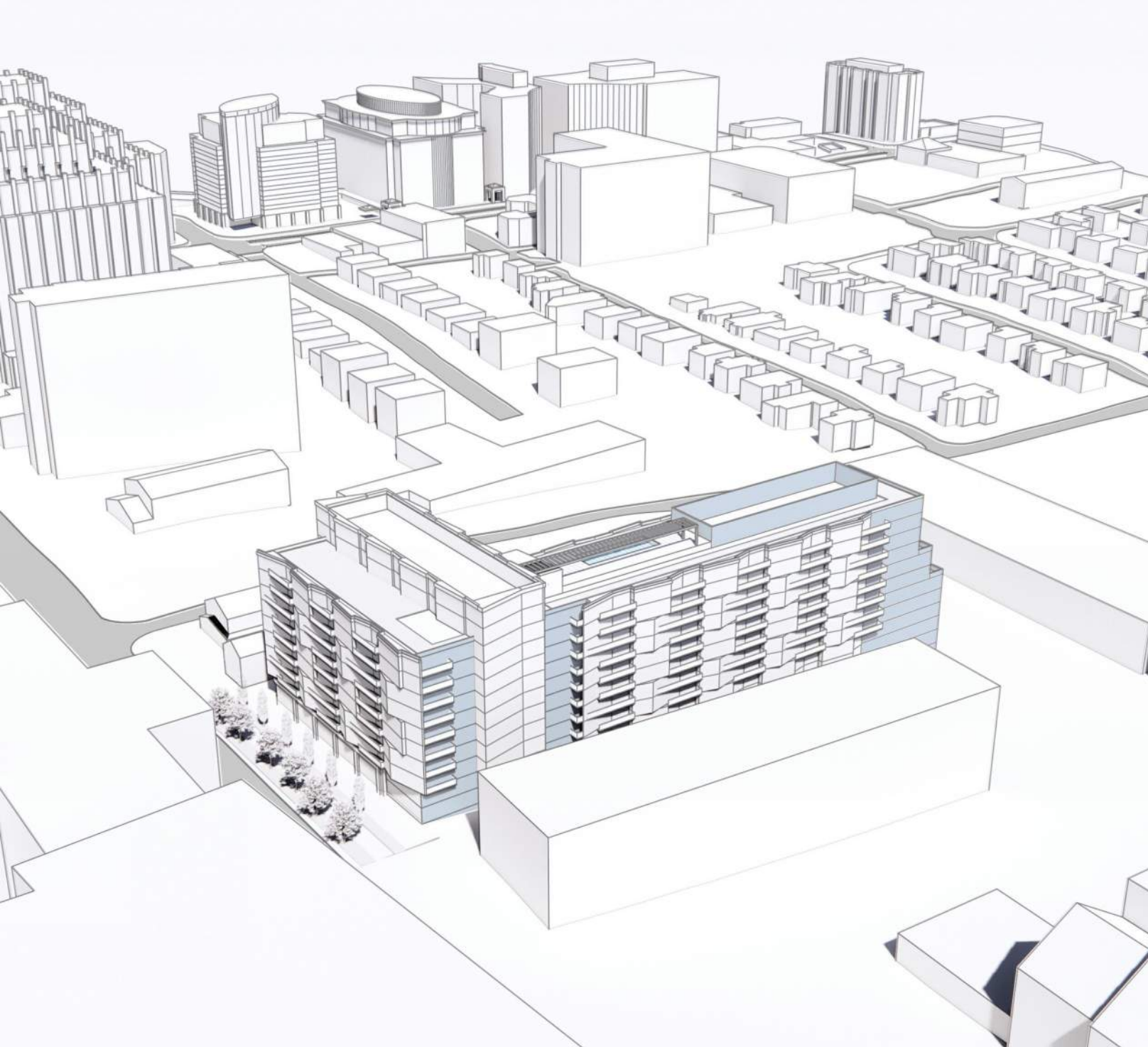


east alley









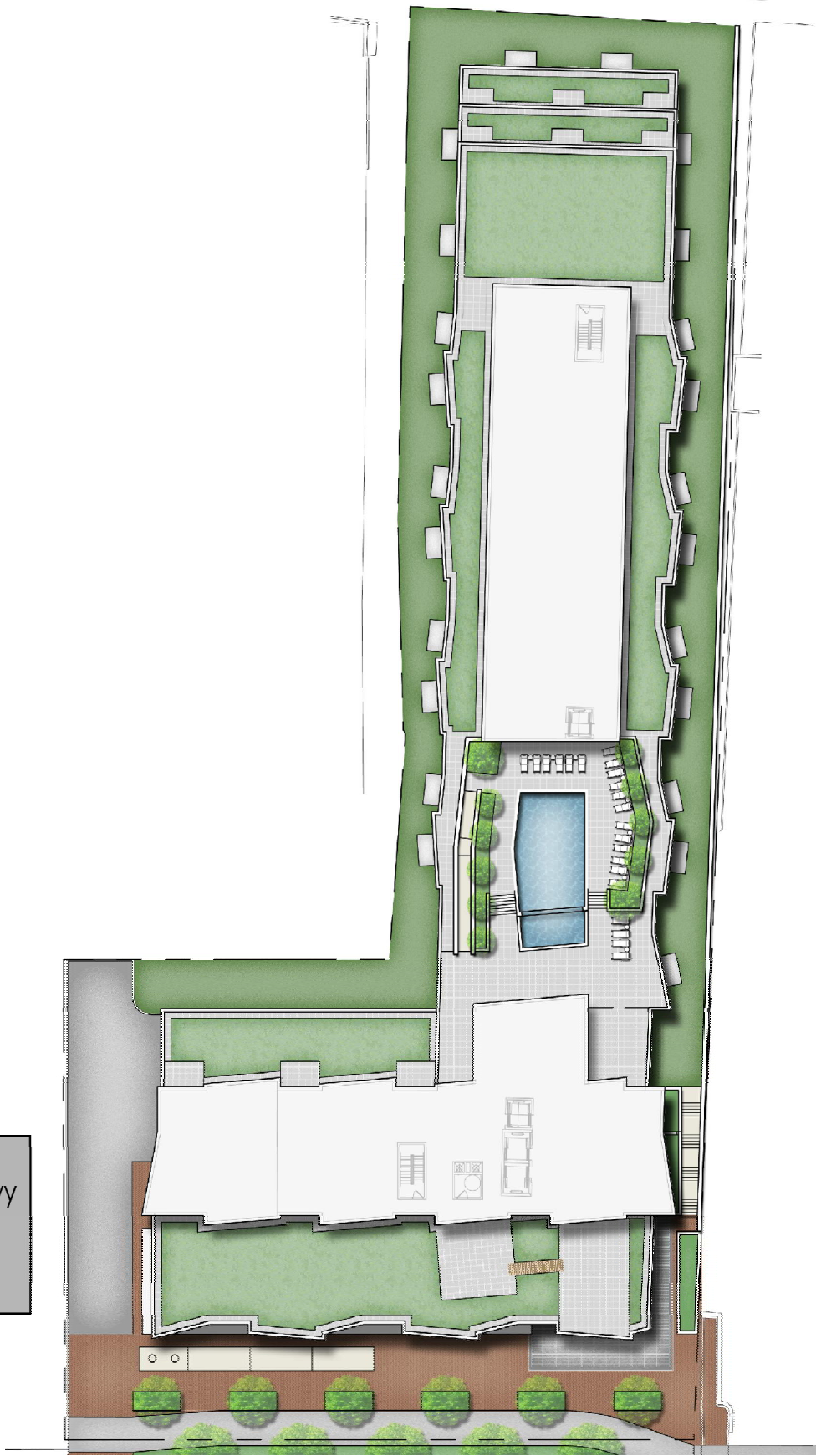
## sketch plan amendment

- Expand the site area to include 4419 and 4421 East-West Highway which results in an additional 15,000sf of site area
- Increase maximum density by 66,000sf to 421,000sf from 355,000sf.
- Relocated vehicular access points to Pearl Street



pearl st

4421, 4419 e-w hwy



east-west-hwy

PREVIOUSLY APPROVED SKETCH PLAN

pearl st



east-west-hwy

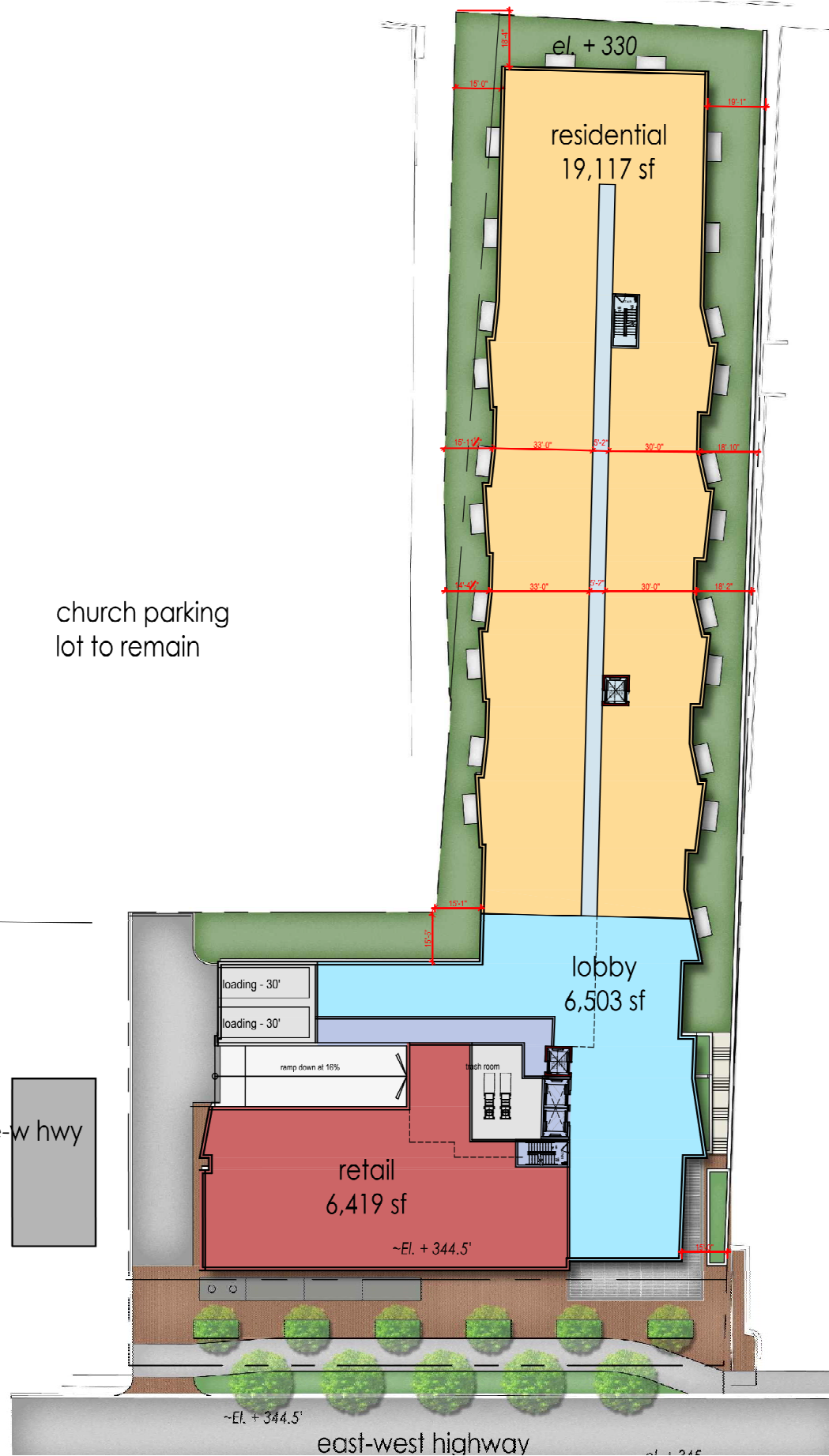




pearl st

church parking  
lot to remain

4421, 4419 e-w hwy



PREVIOUSLY APPROVED SKETCH PLAN

SK+I | Transwestern Development Company

440  
4405 East-West Highway

Bethesda

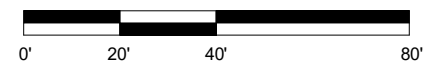
ground floor - previously approved /current proposed

pearl st

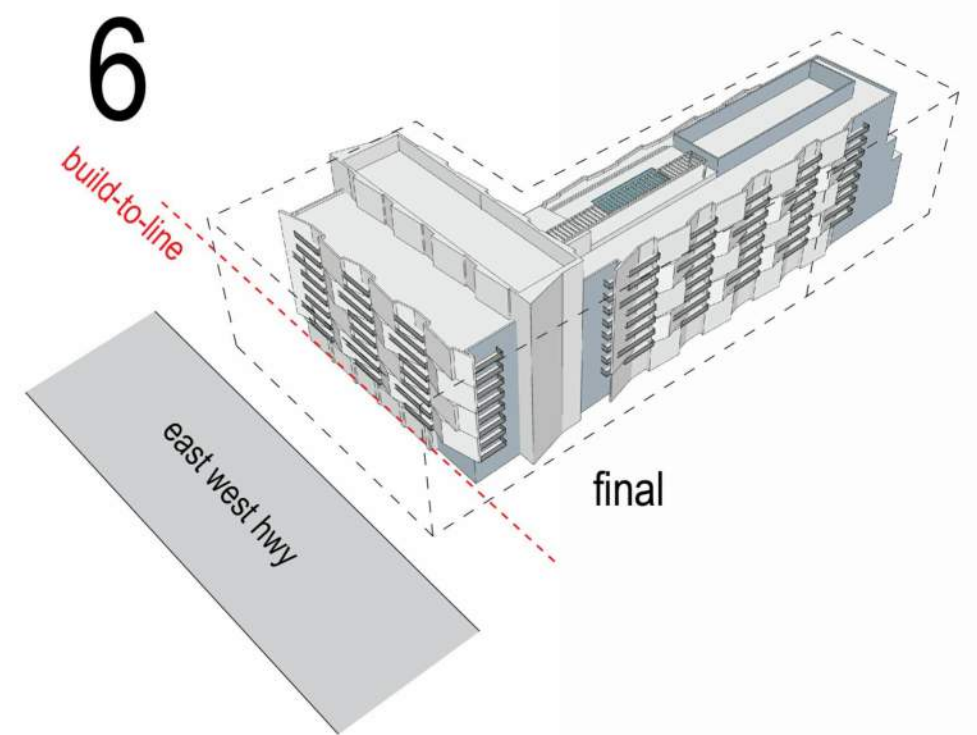
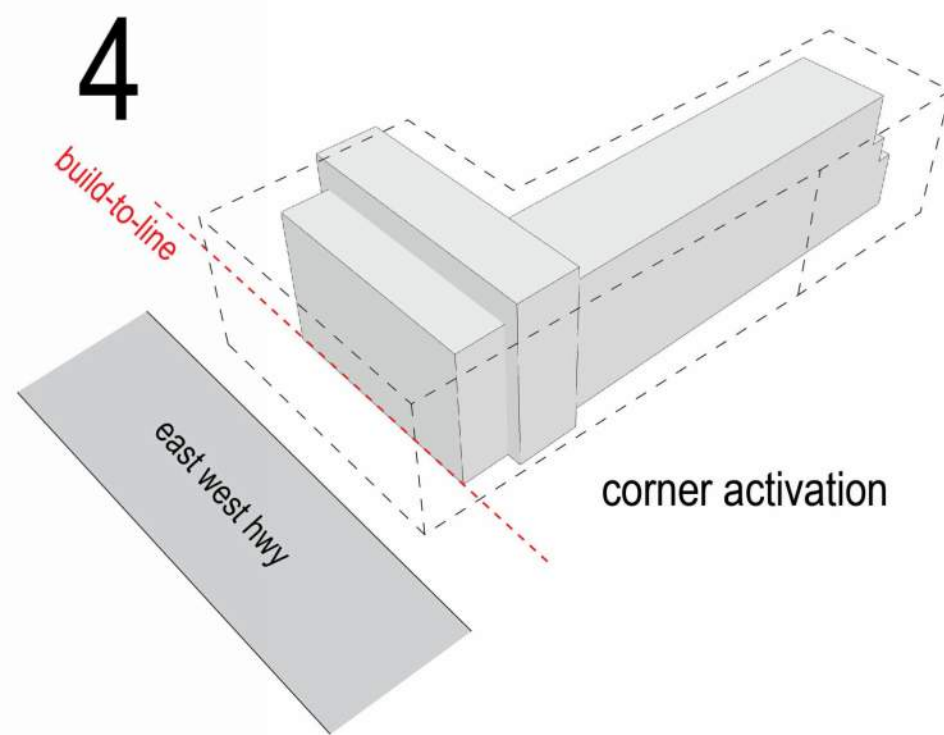
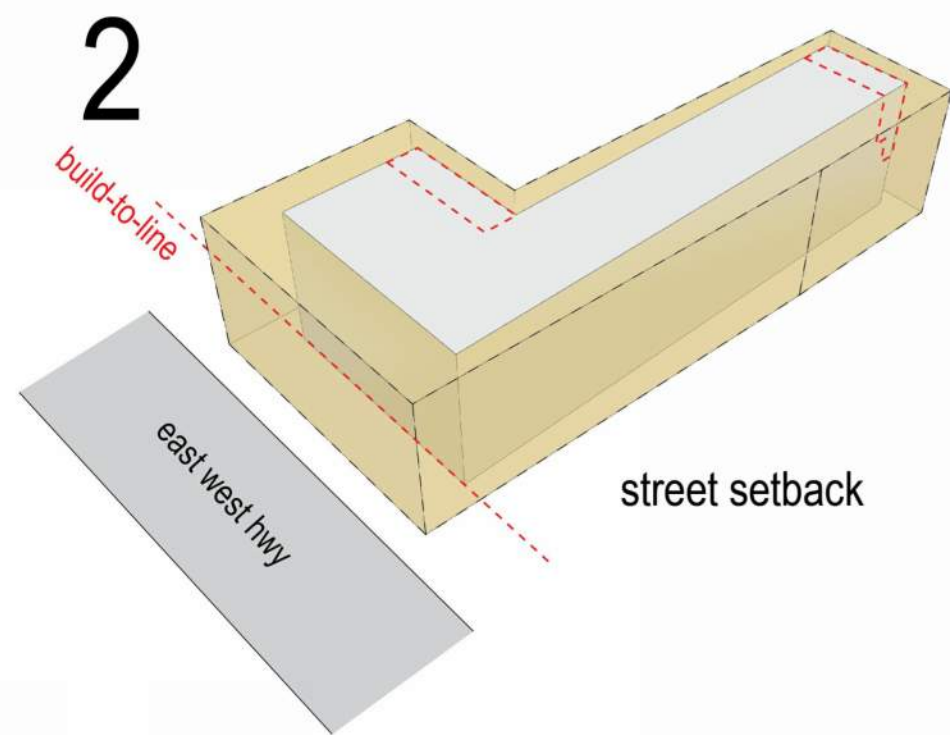
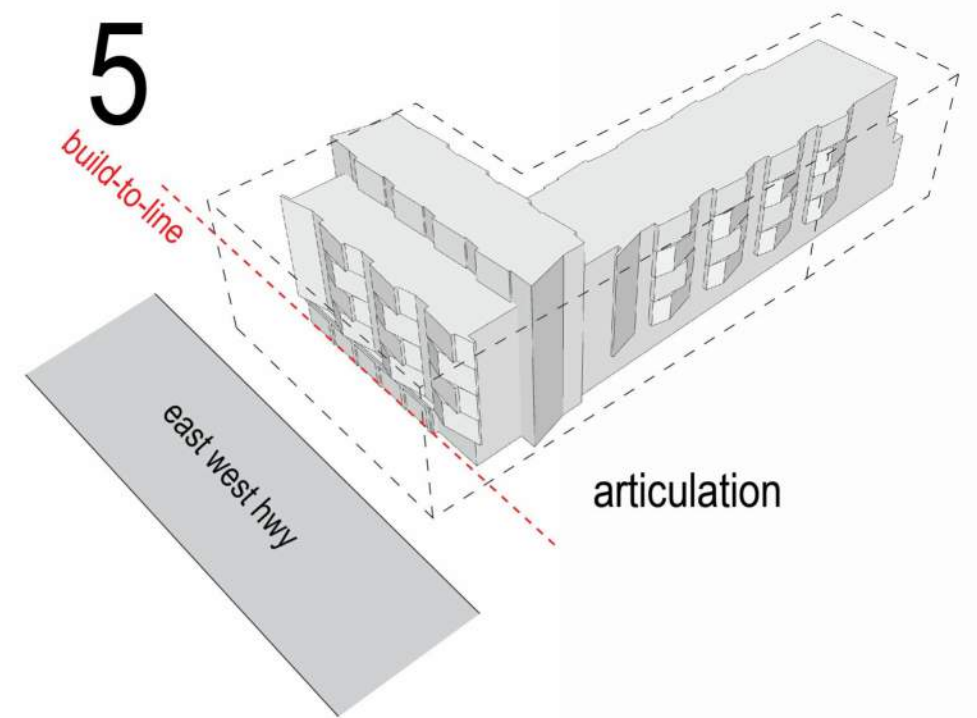
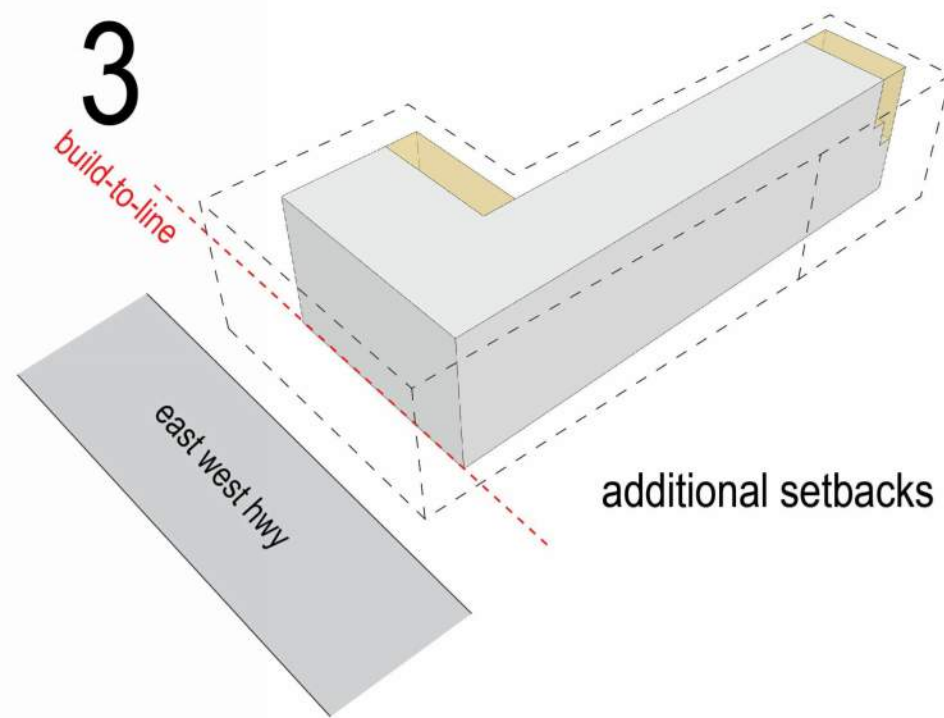
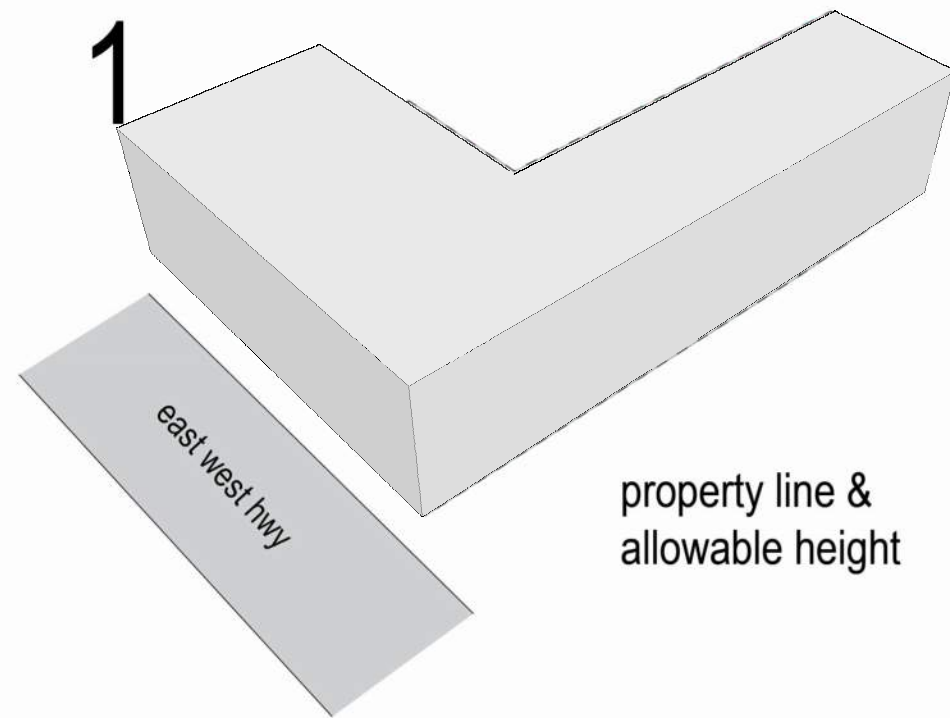


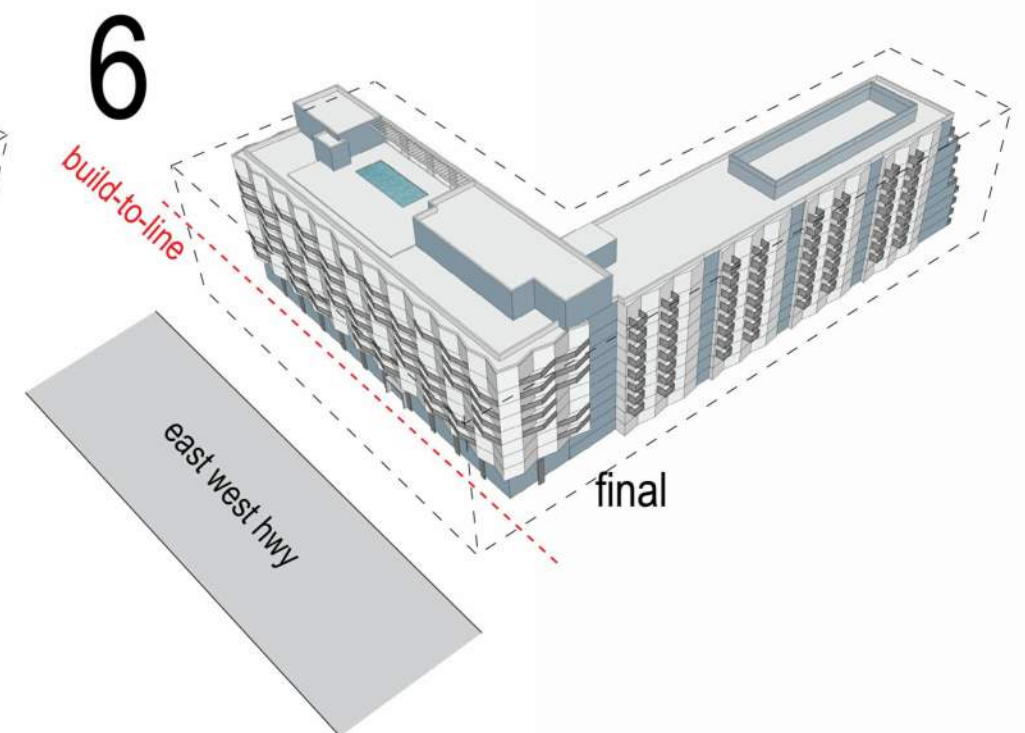
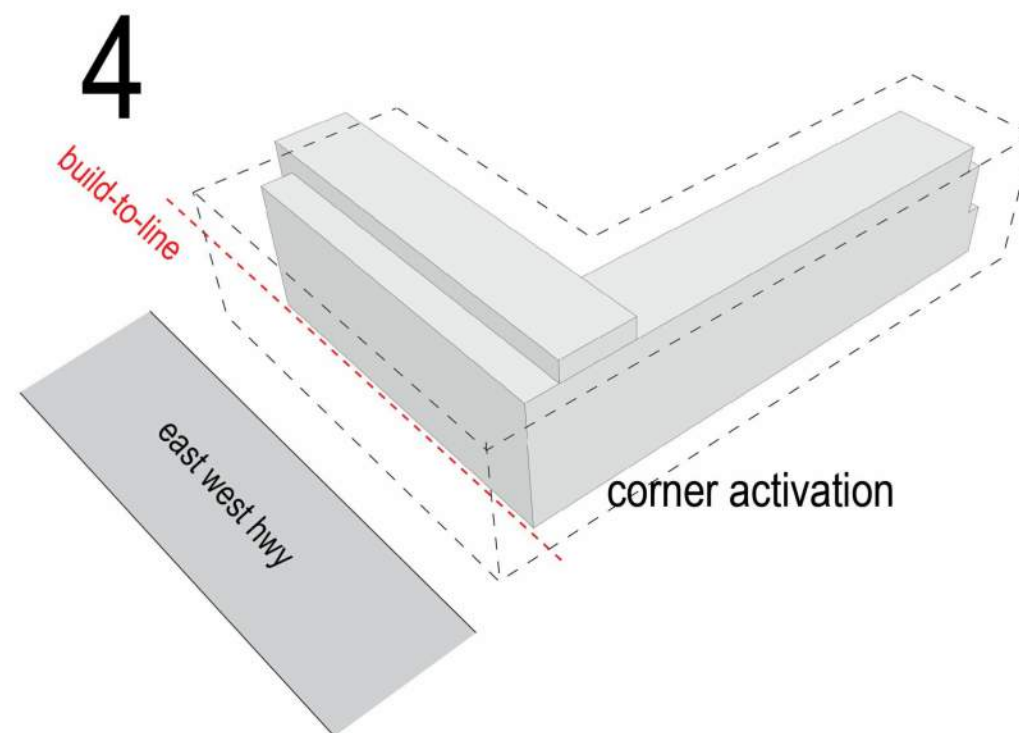
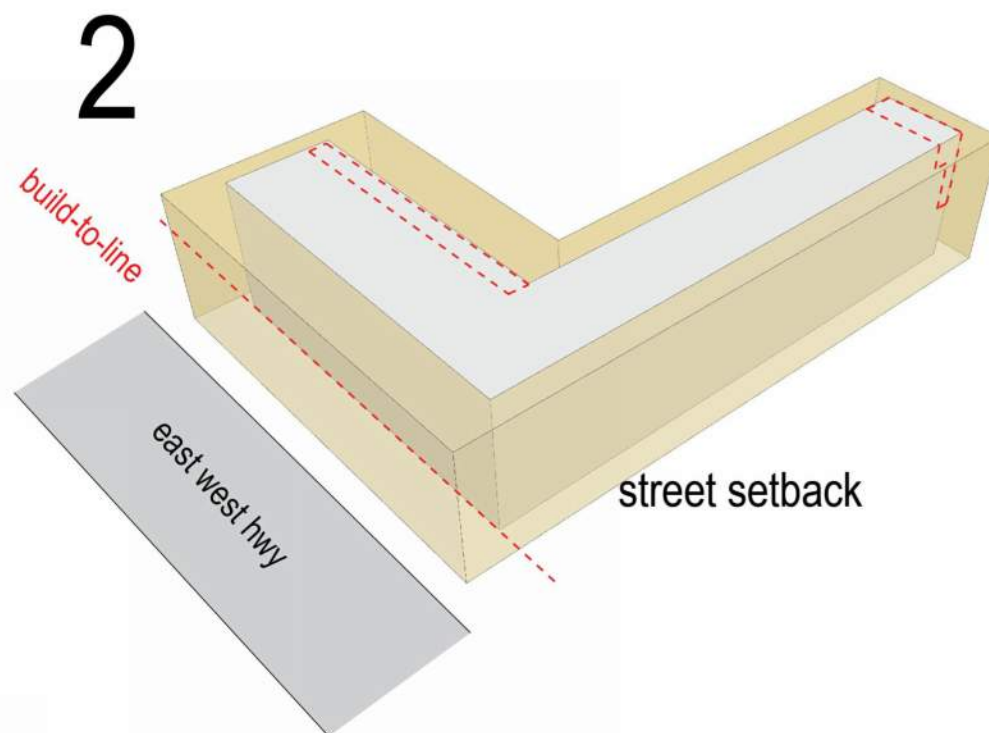
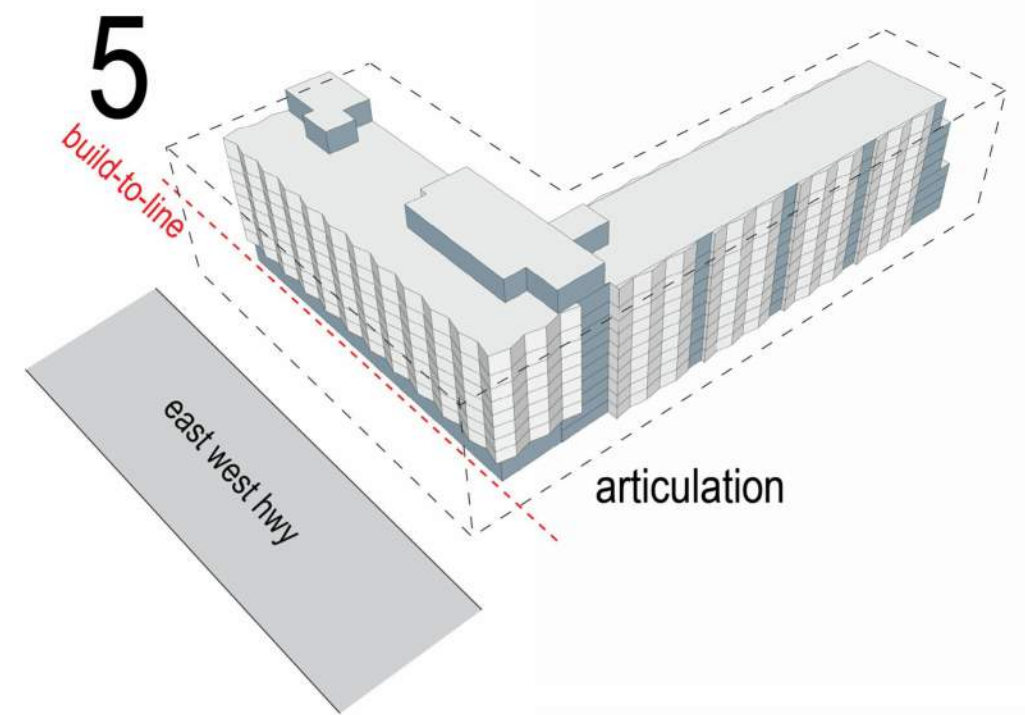
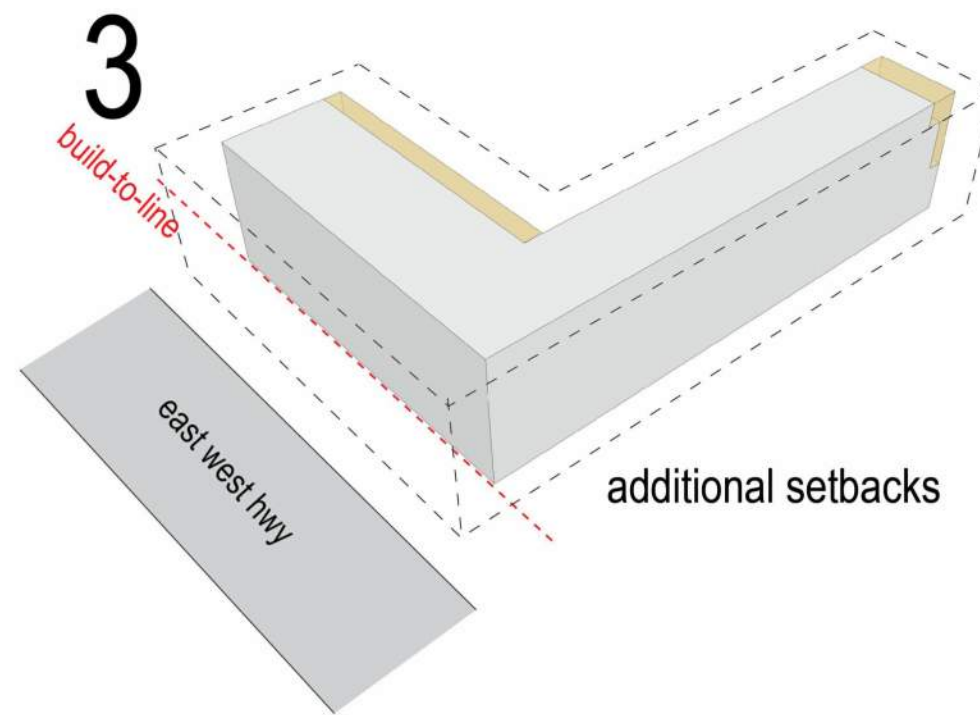
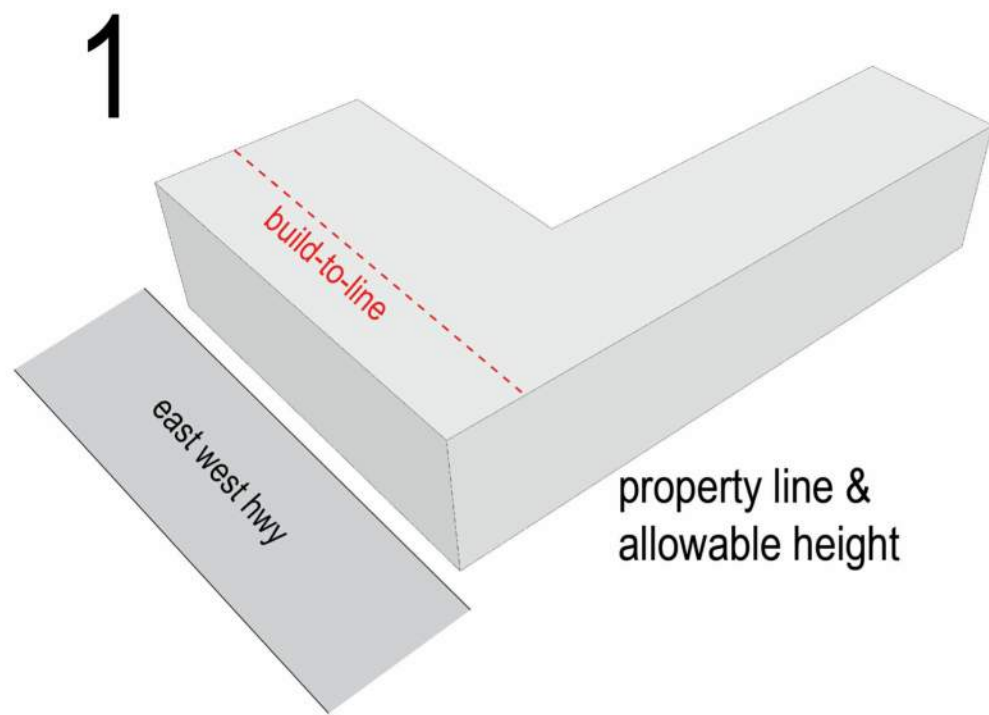
east-west-hwy

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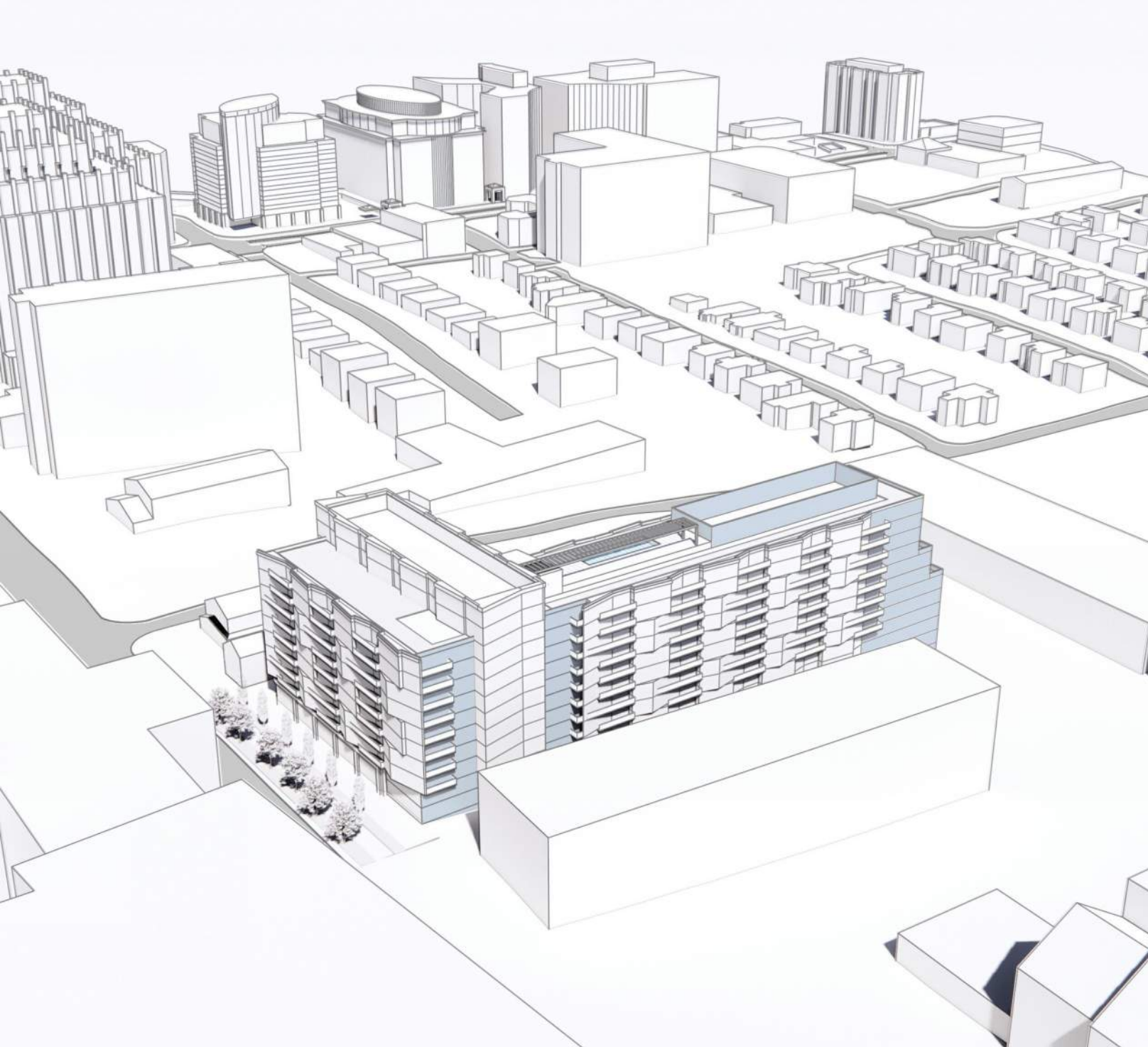










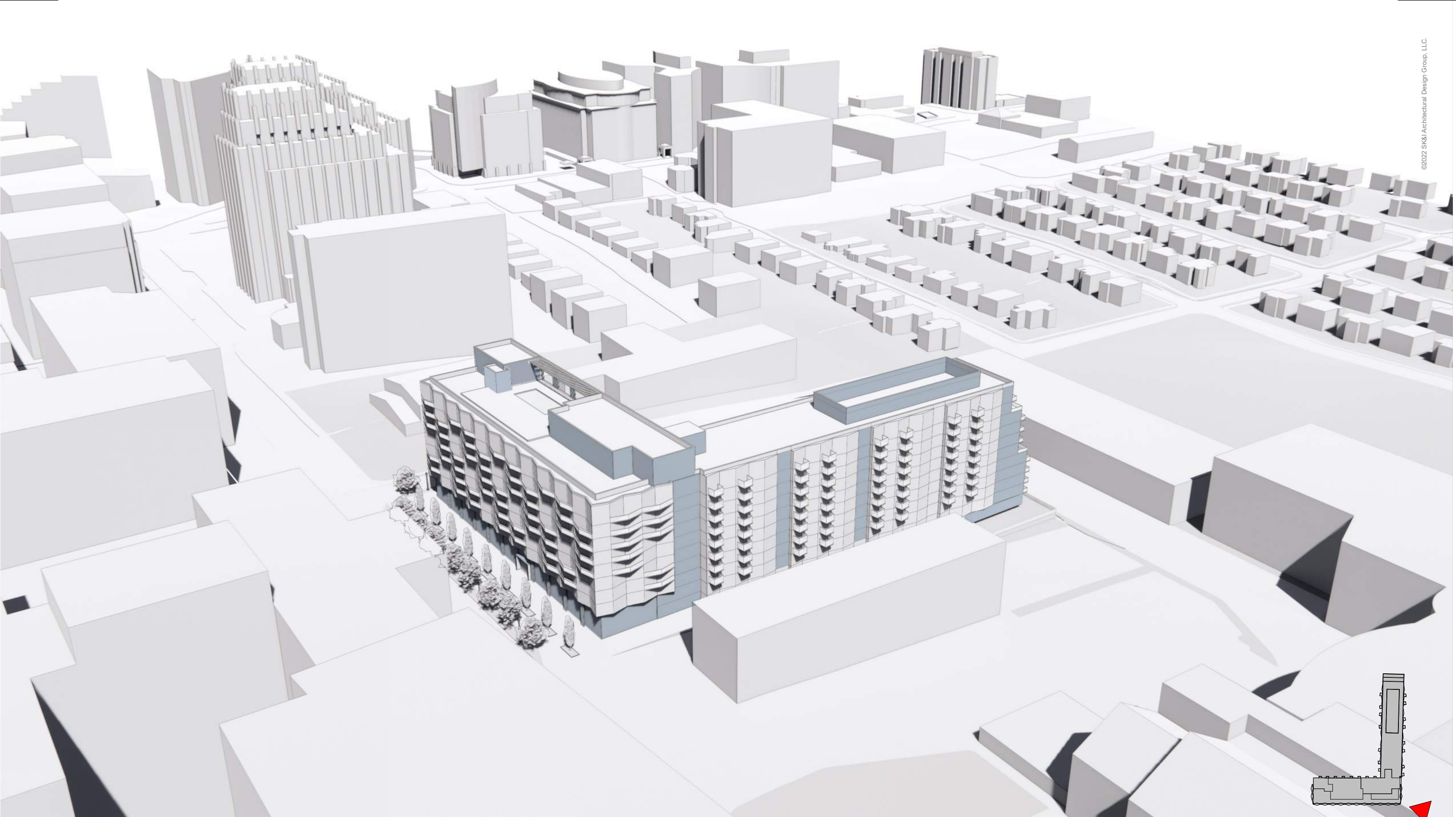


PREVIOUSLY APPROVED SKETCH PLAN

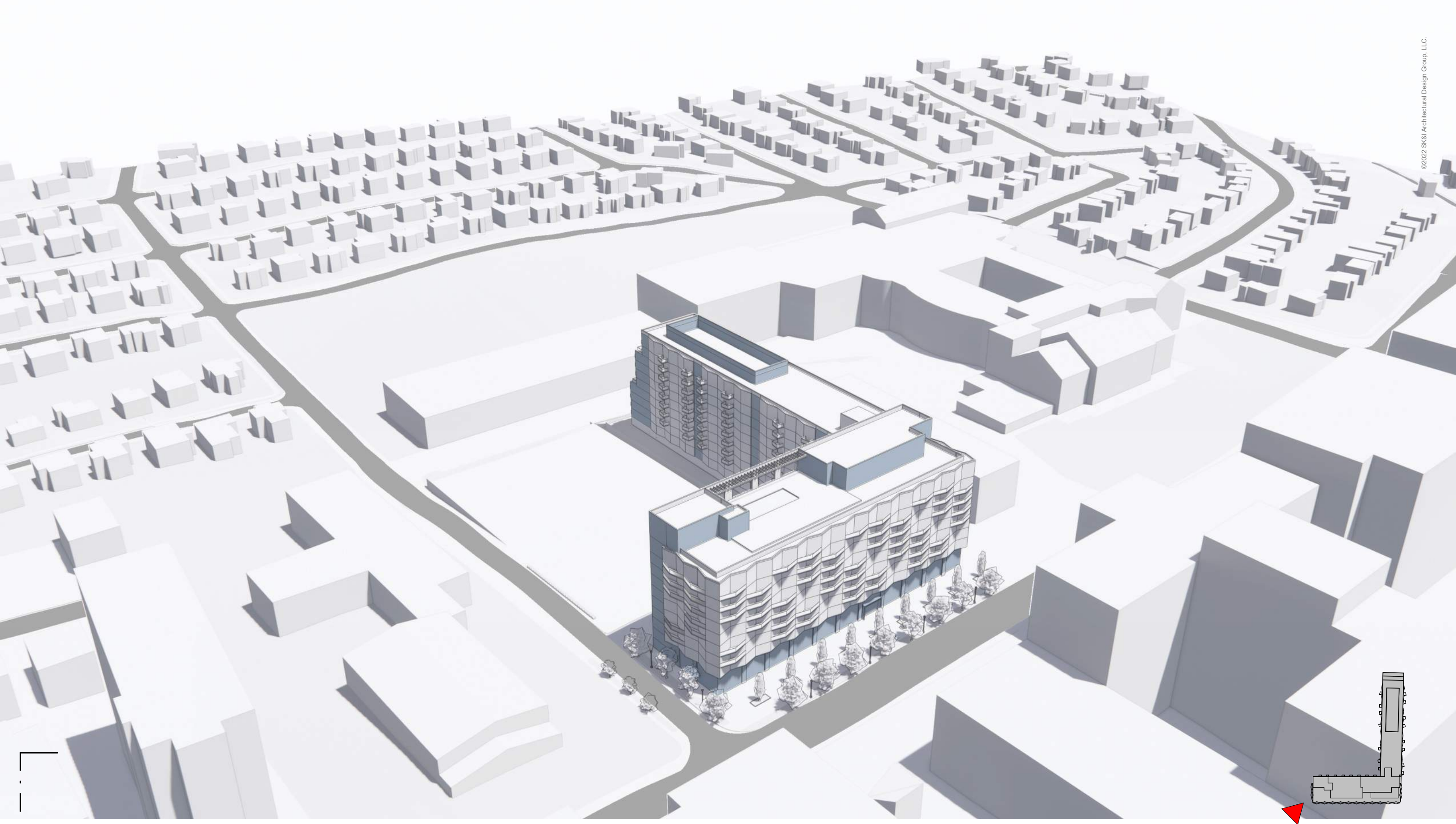


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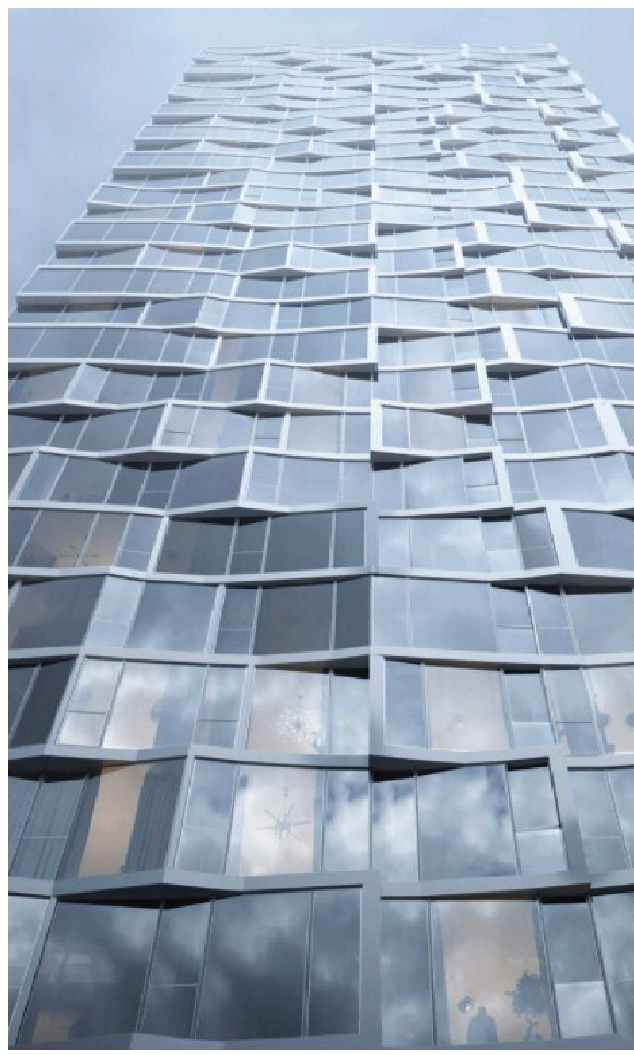
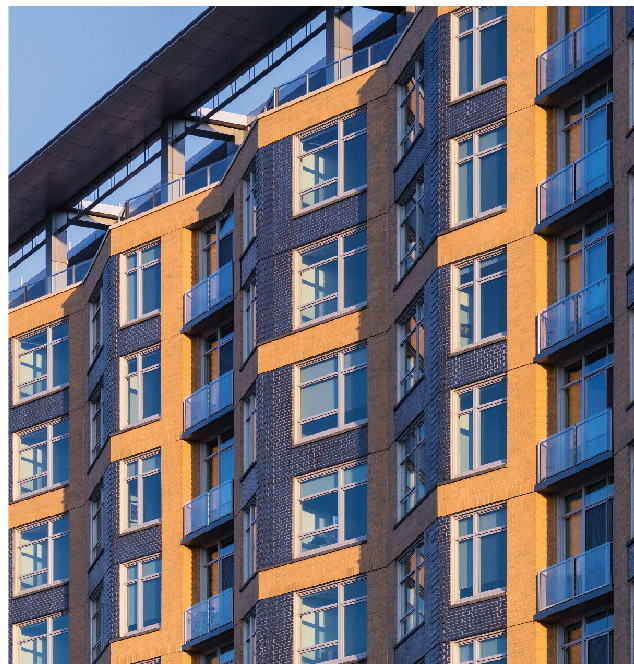
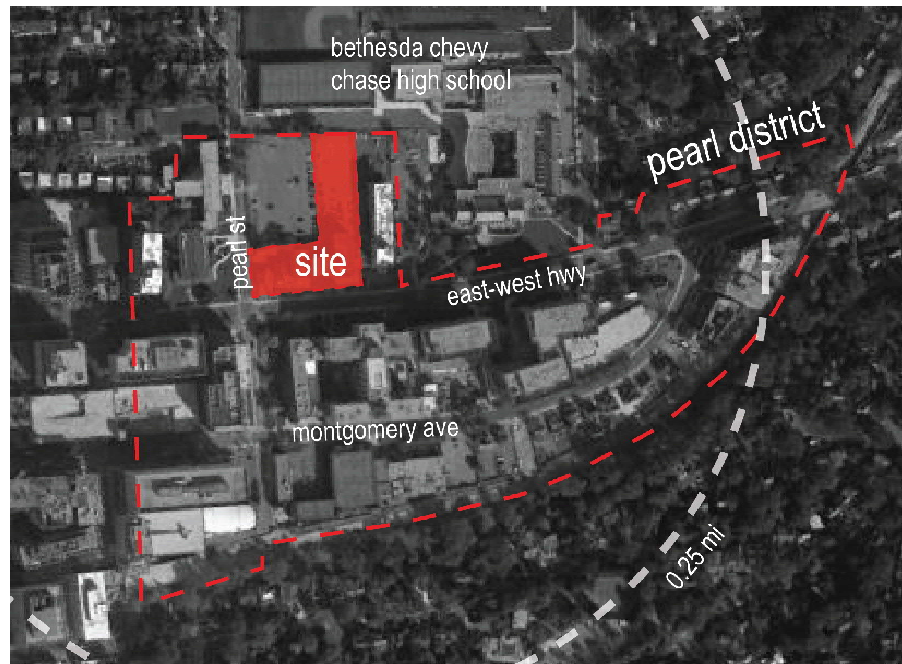












## design goals

- achieve the design of the bethesda plan and provide a dynamic, sustainable, and inclusive signature address through
  - building placement
  - street activation
  - base variation and articulation
  - reduction of bulk
  - tower top design
- create a signature residential tower that is scaled, approachable, that engages and enhances the pedestrian experience, that supports the transformation of the pearl district





























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### 2.1.8 Neighborhood Residential Street

Neighborhood Residential Streets are narrow, low-volume streets that have on-street parking and provide for very slow moving local traffic. They are primarily lined with low-rise residential buildings, townhouses and detached homes.

**Intent:** Building and sidewalk designs along Neighborhood Residential Streets should provide landscaped local access creating a casual walking experience within a garden environment. The height of building frontages should reflect the low-rise scale of surrounding development and include elements such as frequent ground floor residential entries.

**Table 2.07: Neighborhood Residential Street**

#### Sidewalk Zones

- A. Planting/Furnishing Zone: 6 - 8 ft.
- B. Pedestrian Through Zone: 6 - 10 ft.
- C. Frontage Zone: 5 - 8 ft. min.

#### Building Placement

- D. Build-to Line: 20 - 25 ft. from street curb

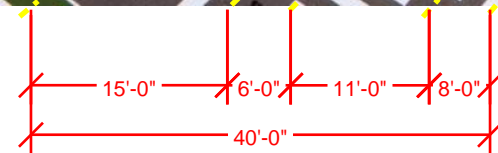
#### Building Form

- E. Base Height\*: 2 - 3 stories (25 - 35 ft.)
- F. Step-back\*: 15 - 20 ft.

*\* Properties on a Neighborhood Residential Street confronting a Residential Detached or Residential Townhouse zone should see the Montgomery County Code Chapter 59 Section 4.1.8 Compatibility Requirements for base height and upper floor step-backs.*







row dedication  
line/build-to-line

frontage

sidewalk

tree panel

shared used  
path

street buffer

## 2.1.2 Urban Boulevard

Urban Boulevards typically carry a significant amount of pedestrian, bus and vehicular traffic, and connect to major transit nodes. These streets are predominantly lined by high-rise buildings with a mix of commercial and residential uses. Examples of Urban Boulevards include Wisconsin Avenue and Old Georgetown Road.

**Intent: Building and sidewalk design along Urban Boulevards should ensure both efficient pedestrian flow and comfort despite the prominence of large-scale buildings and streets.**

**Table 2.01: Urban Boulevard**

### Sidewalk Zones

- A. Planting/Furnishing Zone: 6- 10 ft.
- B. Pedestrian Through Zone: 10- 20 ft.
- C. Frontage Zone\*: 0- 10 ft.

### Building Placement

- D. Build-to Line: 25-30 ft. from street curb

### Building Form

- E. Base Height: 3-6 stories (35-70 ft.)
- F. Step-back: 10-15 ft.\*\*

### Alternative Treatments

\*\* On this street type, buildings under 120 ft. may consider alternative methods to reduce tower bulk other than step-backs. These are outlined in Section 2.4.8 Tower: "Menu" of Methods to Reduce Bulk.

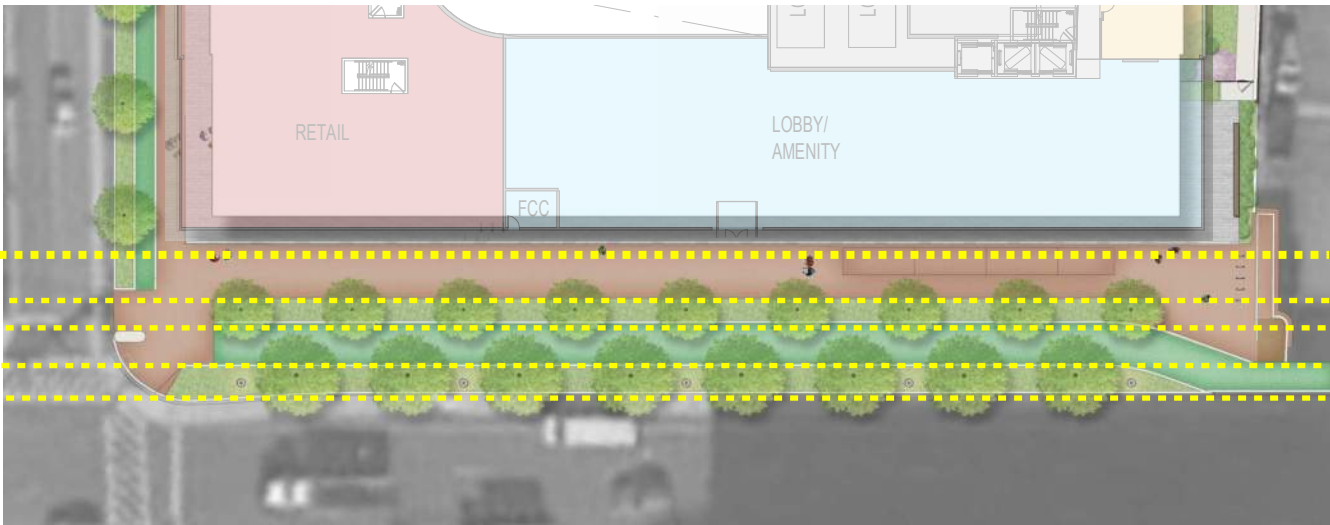


\* The Frontage Zone can be minimized or eliminated particularly near transit stations to provide a wider Pedestrian Through Zone.





additional row  
of trees  
canopy corridor



build-to-line  
sidewalk  
tree panel  
shared use path  
street buffer

### 2.1.10 Canopy Corridors

**Intent:** The Canopy Corridor recommendations in the Sector Plan aim to create green corridors that connect parks, trails, stream buffers and the denser forest networks beyond the Bethesda boundaries.

The canopy corridors align with the recommended bike priority streets where continuous streetscape improvements are most likely. Though bicycle and pedestrian facilities are the priority on these streets, tree canopy is also a crucial element to enhance shade, attractiveness and comfort to encourage people to walk and bike throughout the downtown.

#### Guidelines:

- A. Prioritize street tree planting along existing and proposed bicycle networks to expand linear green corridors.
- B. Use appropriate plant species that will thrive in various site conditions and climates. Species should be a combination of native and locally adaptive species lessening water demand while providing biological benefits.
- C. Provide soil volumes for canopy trees of no less than 600 cubic feet, as recommended in the Sector Plan. This volume may be achieved through amended soil panels, and where possible, utilize street tree panels for greater soil volumes.
- D. Design buildings to allow streets to receive sufficient sunlight to maintain healthy trees along these corridors.
- E. Provide the maximum sidewalk width possible to allow for larger canopy, and consider opportunities for double rows of trees.
- F. Include additional locations for trees on both private and public property, right-of-way and medians wherever possible.



Figure 2.18: Public Space Network







vegetative  
roof system

bioretention

vegetative  
roof system

bioretention

vegetative  
roof system

### 2.3.1 Environmental Site Design

#### Objectives

New developments, redevelopments or retrofits rely on the application of Environmental Site Design (ESD). ESD is a land planning and engineering design approach to manage and treat stormwater runoff. The purpose of ESD is to distribute small-scale treatment practices uniformly throughout a site, street, or community to provide onsite stormwater treatment. The second aspect of ESD is to mimic nature by simulating "woods in good condition" which allows water to slowly infiltrate through soil and into the ground water table while filtering out pollutants.

ESD treats rain where it falls to manage urban stormwater runoff and reduce overflow into the sanitary sewer system. The objectives of ESD are:

- **Minimize Volume:** Reduce or delay the volume of stormwater that enters the sewer system.
- **Minimize Peak Discharge:** Reduce the maximum flow rate into the combined system by decreasing the stormwater volume and lengthening the duration of discharge. This reduction inherently lowers the frequency of combined sewer overflows (CSO).
- **Maximize Water Quality:** Improve water quality through volume reduction, filtration, and biological and chemical processes.

In addition to satisfying the three urban stormwater control requirements, ESDs also fulfill several criteria as follows:

- **Treatment Train:** The ESD should be linked to form a treatment train where possible. For example, the overflow from a green roof could be directed into a vegetated planter box which when full, might overflow into a bioretention cell. The development of a treatment train allows for enhanced water quality and runoff reductions.

#### Bioretention

Bioretention systems are shallow depressions within small drainage areas using soil and plant materials (bio) to reduce the volume of stormwater runoff, and detain and filter pollutant loads where they are generated. The soil media is engineered to maximize infiltration and pollutant removal. There are many types of bioretention systems, including cells, planters and swales. They can have a variety of plants including herbaceous plants, grasses, shrubs and in some instances, trees. Often, they contain underdrains to convey treated and surplus water to storm drains.

**Design factors:** Existing soils play a significant factor when determining the type of structure and drainage systems. Similar systems without the soil element are called retention systems.

#### Vegetated Roofs

Green roofs and living roofs are alternative roof surfaces that replace conventional construction materials with a planting media and vegetation. They may be used in place of traditional flat or pitched roofs to reduce impervious cover and more closely mimic natural soil hydrology. Green roofs reduce heat island effect, decrease the buildings demand for heating and cooling, and provide additional habitat and valuable open space in the urban landscape.

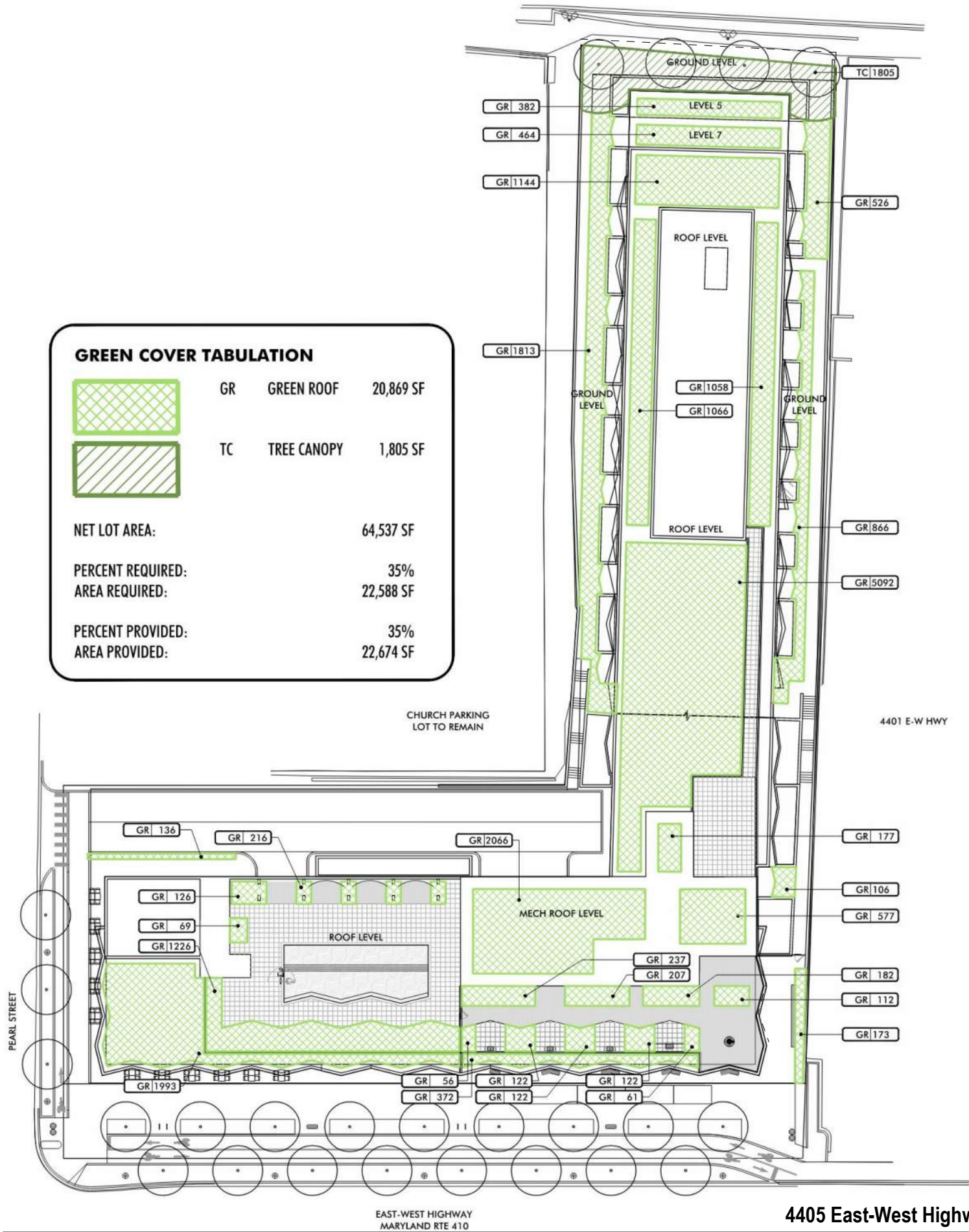
**Design factors:** There are three basic green roof designs distinguished by media thickness and the plants that can grow in them.

- **Site Integration:** The ESD should be able to be integrated into other functional components of the site, such as the landscaping and infrastructure, without impeding or significantly affecting their function. The land on which the ESD is applied should serve purposes in addition to stormwater management, such as open space, play areas, or walkways.
- **Design Storm:** The ESD should satisfy stormwater management objectives for small, frequently occurring storms to reduce the incidence of combined sewer overflow and mitigate urban stormwater pollution.
- **Source Control:** ESD should meet the stormwater management objectives for relatively small quantities of stormwater at or near the source, rather than at a centralized collection point. The ESD should be dispersed in different locations on a site, if necessary, to ensure distributed control of stormwater.

#### ESD Tool Box

There are many types of ESD tools that can be used in Bethesda. Systems such as vegetated filter strips, green roofs, and bioretention areas, to innovative new technologies such as underground detention vaults. In an urban setting with high amount of impervious cover, and limited land, artful, aesthetically pleasing, and creative ESD is needed. These site design strategies are an opportunity to contribute to the quality of life and place while providing: open space; parks/recreation/and play; increased biodiversity; contribute to urban greening; and improve air and water quality. A few common types of urban stormwater treatment systems are shown on the following pages.





### 2.3.2 Green Cover

**Intent:** The green cover guidelines are intended to increase overall tree canopy cover, expand green corridors, reduce heat island effect, improve air quality and carbon sequestration capacity and improve ecological biodiversity. See the Sector Plan Section 2.4.1 Urban Green.

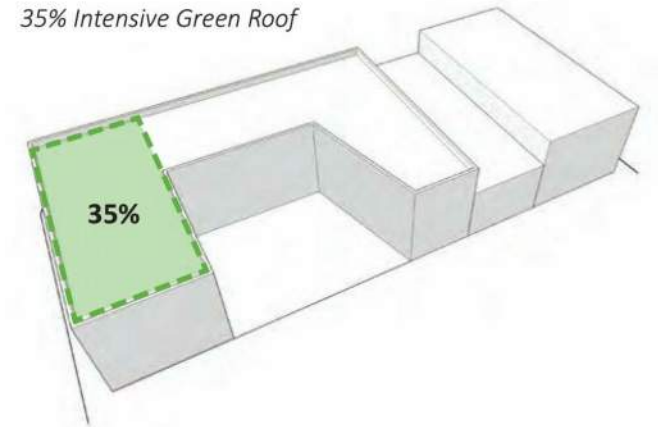
#### Guidelines:

On private property, provide a minimum of 35 percent\* green cover, which may include singularly or a combination of the following:

- A. Intensive green roof (6 inches or deeper) on 35 percent of rooftop.
- B. Tree canopy cover on 35 percent of landscape.
- C. A combination of tree canopy and intensive green roof for a total green cover of 35 percent or greater.

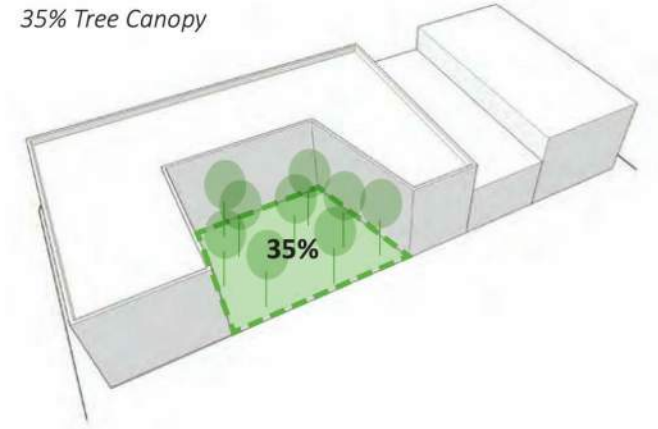
*\* If on-site energy generation requires the use of the roof or open space, accommodations for these features may alter the 35 percent minimum green cover requirement.*

35% Intensive Green Roof



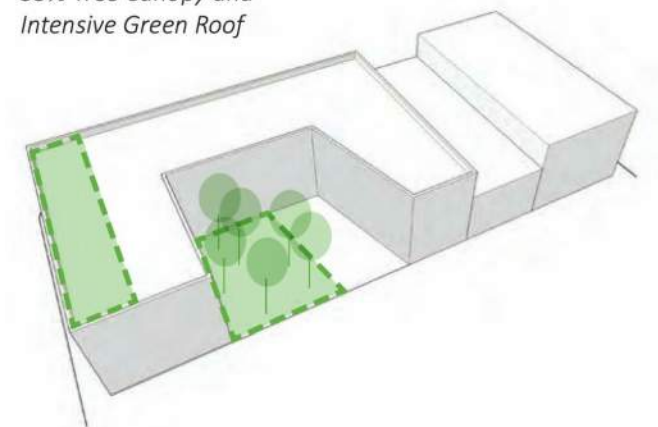
OR

35% Tree Canopy

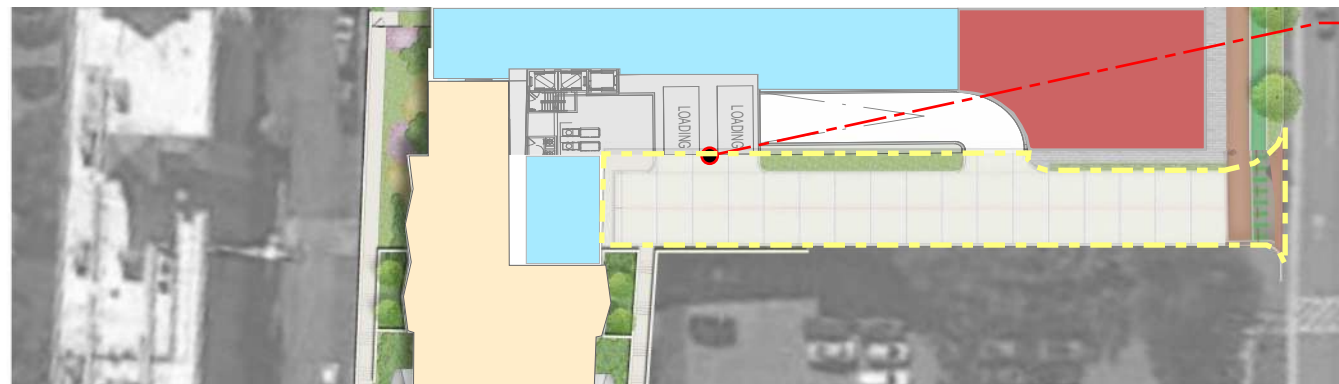


OR

35% Tree Canopy and Intensive Green Roof







- loading located on interior of site and integrated with facade
- structured parking located below grade. garage entrance integrated with facade
- consolidated curb cut
- line of trees provided for vehicular screening (hidden for clarity)
- loading faces away from street

### 2.3.3 Servicing, Access and Parking

**Intent:** Loading, servicing and parking should be designed to minimize conflicts between vehicles, pedestrians and cyclists and reduce the visual impacts of vehicle access and parking on the Public Realm. Site design should prioritize the public sidewalk and bikeways over private vehicular crossings.

#### Guidelines:

- A. Line the ground floor of structured parking with retail or other uses with transparency to maintain an active building edge. Where active uses are infeasible, avoid exposed parking floors along the street through measures outlined in the Zoning Ordinance *Section 6.2.9.D.1 Structured Parking Requirements*.
- B. Design exterior of the garage portion of the building to be compatible with the rest of the building facade, in order to enhance the overall architectural quality of the building.
- C. Provide a continuous, level and clearly delineated Pedestrian Through Zone across driveways to encourage drivers to yield to pedestrians. Consider applying the same materials across these vehicle access points as the sidewalk, such as brick pavers.
- D. Locate loading and servicing within the interior of a building at the rear whenever possible. Service alleys are also recommended where setbacks are required from the side or rear property lines for building code.
- E. Avoid placing entries to loading docks, service areas and parking garages on neighborhood residential streets when alternative access is feasible.
- F. Minimize the width and height of driveways and vehicular entrances. Where possible, combine loading dock and garage access.
- G. Screen vehicle and servicing access areas and trash storage with landscaping or other vertical

elements, and design vehicle access doors to incorporate high-quality materials and finishes that are consistent with the building.

- H. Vehicle access points should not be located adjacent to a public open space other than through-block connections.
- I. Coordinate location of access points with adjacent and confronting properties where possible to ensure a comfortable sidewalk environment and limited conflicts.
- J. Provide loading spaces for pick-up and drop-off where feasible to reduce idling in the travel lane.
- K. Design structured parking floors to be flexible for future retrofit to other uses where possible.
- L. Ensure continuous tree canopy along service areas and lay-by areas to the greatest extent feasible.
- M. While not recommended in Downtown Bethesda, surface parking should be designed according to the following:
  - Locate the parking on the back of the building, with the building fronting the primary streets and sidewalks.
  - For interim lots, design the parking to provide flexibility for temporary events such as pop-up events and public gatherings to maintain an active street edge. See *Section 2.5 Creative Placemaking*.

#### Servicing Operations:

The dense urban grid presents both challenges and opportunities for loading and trash collection. Without alleys, trucks and other delivery vehicles have to make complex maneuvers on the streets to access the buildings' loading areas where they exist or simply operate from the streets themselves when the buildings they serve don't have off-street loading facilities. When trucks must access buildings from streets, especially high volume corridors, the loading areas create conflicts with pedestrians. When loading





-build to line

## 2.4.2 Base: Building Placement

**Intent:** To create a continuous street wall to frame the sidewalk and create a more comfortable outdoor room for pedestrians to encourage walking throughout the downtown.

### Guidelines:

- Place the facade of the building base along the recommended build-to-line to create a continuous street edge.
- Buildings taller than 200 feet that do not step back the upper floors should have a build-to-line of at least 20-30 feet.
- Where existing building lines for adjacent properties are set back more than the recommended build-to-line, buildings may be placed to align with this existing building line as long as it is within 5 feet of the recommended build-to line.
- Exceptions to the building placement guidelines include through-block connections and open spaces recommended in the sector plan, entrances and articulation for architectural interest.



*The building base of Eleven 55 Ripley in Silver Spring creates a continuous edge along the sidewalk at a low-rise scale.  
Source: Shalom Baranes Associates Architects*



- Build-to Line





transparent  
2-story base

balconies and  
terraces face street

building entry with  
signage and canopy

base height variation  
and plane change

undulating  
facade

east west highway

### 2.4.3 Base: Street Activation

**Intent:** To encourage pedestrian activity by providing ground-floor and base design elements that engage with the sidewalk environment.

#### Guidelines:

- Provide frequent entries, transparency and operable walls where possible to encourage visual and physical connections between the ground floor and the public sidewalk. Avoid long blank walls along the sidewalk.
- Orient private balconies and terraces toward the street to encourage an interface between the private and public realms and to create eyes on the street.
- Include elements such as textured materials, awnings, plantings, signage and seating to create a visually engaging and inviting building edge to frame the sidewalk and create stopping points to relax, gather and socialize.
- Place particular focus on active ground floor design along the portions of streets identified as the recommended retail nodes in the *Retail Planning Strategy for the Downtown Bethesda Plan*.



Operable walls that open to the street, along with various materials and textures, create an inviting and visually-engaging sidewalk environment for pedestrians.  
Source: David Baker Architects

B. Orient  
balconies and  
terraces toward  
the street.

C. Include elements  
such as textured  
materials awnings,  
signage, plantings  
and seating.

A. Provide  
frequent entries  
and ground floor  
transparency.



Commercial ground floor activation





## 2.4.4 Base: Variation and Articulation

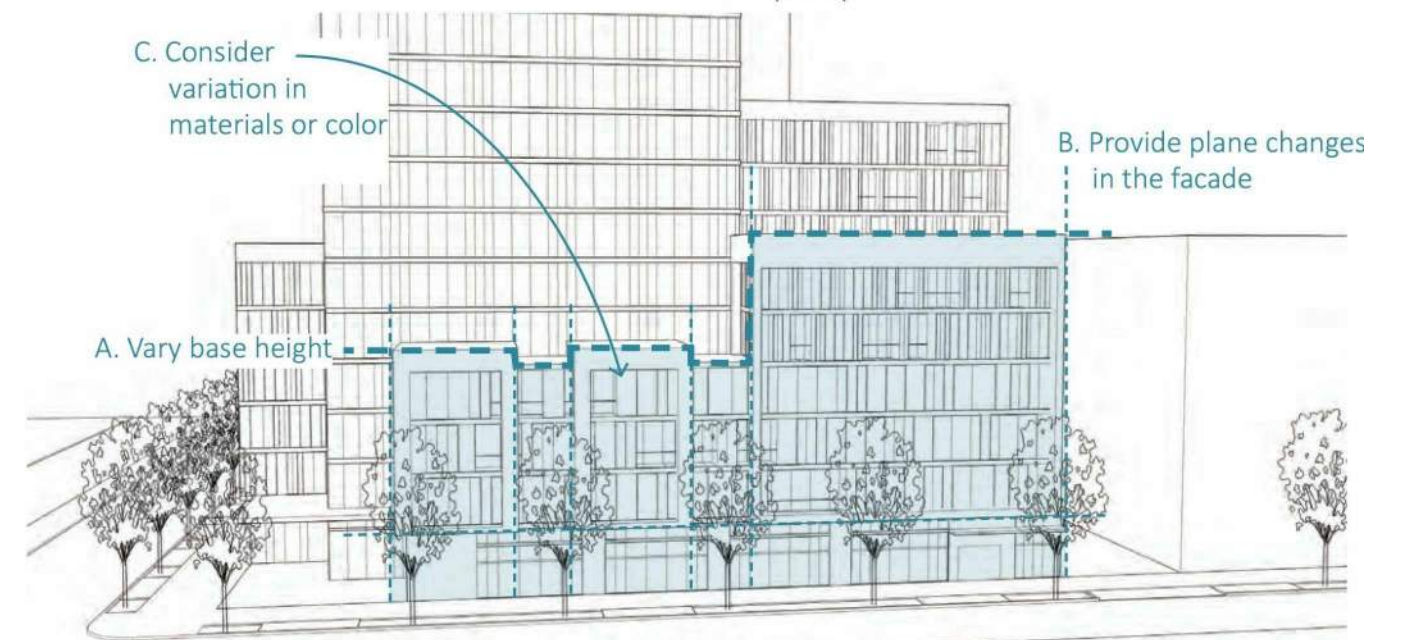
**Intent:** To ensure that facades are not exceedingly long, uninterrupted and rigidly uniform. These variations break up the mass of large buildings, add visual interest and promote human-scaled lower stories to relate to pedestrians.

### Guidelines:

- Vary base height up to the maximum height designated by the street type. This variation should respond to the street character and typical widths, heights and modulation of existing buildings to create a contextually sensitive building wall along the street.
- Provide plane changes in the facade that create significant vertical and horizontal breaks, and shadow lines on the facade.
- Consider variation in building materials or color to add texture to lower floors most visible to those at pedestrian level.
- Avoid cantilevering the majority of the building mass over the Frontage Zone, public sidewalk or public open space to prevent interfering with street trees and blocking access to sunlight and sky views for pedestrians.



Building bases with variation in height and articulation can break up a large building, and can also reflect the modulation and character of adjacent structures.  
Source: Hariri Pontarini Architects (above), Google Street View (below)







varying tower heights

articulation produces undulating facade

undulating facade limits apparent face

unique geometry used at base and middle

## 2.4.8 Tower: “Menu” of Methods to Reduce Bulk

### A. Limit Tower Floor Plate

Reduced tower floor plates limit shadows on the public realm and allow access to sky view while also improving the quality of the building's indoor environment.



### B. Use Unique Geometry

Varied geometry adds visual interest and helps to reduce the perceived bulk of a building's upper floors. Angled and curved facades allow a building to be viewed dynamically from different vantage points. They can enhance privacy between towers in close proximity by directing views away from nearby windows.



### C. Vary Tower Heights

Whether creating a large development with several towers, or an infill development between multiple existing towers, variation in building height can reduce the imposing massing of several large structures built adjacent to each other.



### D. Modulate and Articulate Facades

Techniques to break up large facades and reduce perceived building bulk include shifts in massing to allow for upper floor terraces, green roofs and balconies; changes in facade planes; and varied fins, frames and mullions to add depth to glass facades.



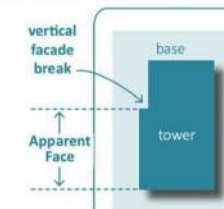
### E. Vary Tower Placement and Orientation

Similar to variation in tower height, variation in tower placement and orientation can increase perceived separation between towers, reduce the perceived imposing massing of several adjacent towers and increase privacy by orienting views in different directions.



### F. Limit Apparent Face

The apparent face is the length of a facade plane that is unbroken by vertical changes in depth. Limiting this length reduces the perceived bulk of a long building facade.







penthouse  
harmonizes with  
rest of building

taller penthouse  
setback to reduce  
perceived height



amenity space set  
back from roof  
line

## 2.4.9 Top: Tower Top

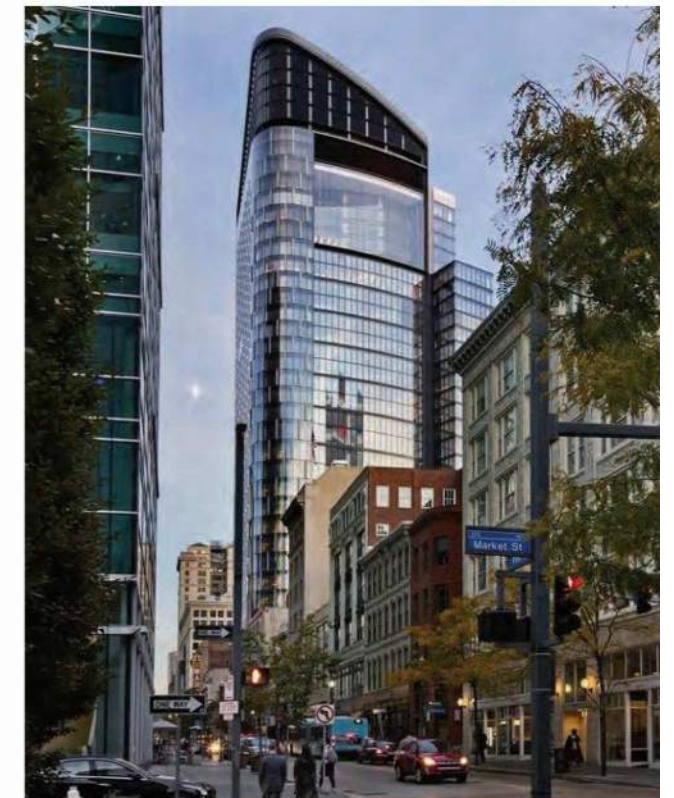
**Intent:** The building top or cap contributes to the skyline, adding visual interest and shaping the image of Bethesda from afar. Tower tops should be carefully considered on prominent sites, including those with the tallest building heights, locations adjacent to major public open spaces and those that terminate views.

### Guidelines:

- Encourage unique design of tower tops that can enhance the image of Bethesda as an innovative downtown, welcoming new businesses, residents and visitors.
- Taper tower tops where possible to reduce the perceived bulk of tall buildings.
- Integrate energy efficiency into the design of tower tops, including solar panels and passive heating and cooling elements.
- Consider the views of the rooftop composition from adjacent buildings when designing building tops.
- Not all tall buildings should have a sculptural top. However, mechanical penthouses and rooftop amenity spaces should in all cases be designed to harmonize with the overall building composition.
- Enclosures for rooftop amenity spaces should either contribute to the creation of expressive tops, or otherwise be set back from the roof line and limited to a portion of the roof area so as to not be perceived from surrounding streets and public spaces.



*This curved and tapered top adds a unique element to the skyline.*



*The form of the tower top for this Pittsburgh office building is part of the energy efficient solar chimney design. Source: Gensler*





varied materials  
and apparent  
window openings

projecting  
balconies

facade  
articulation  
through plan  
changes

varied  
landscaping and  
furniture

### 2.4.11 Bird-Safe Design

The windows, doors, and arches of buildings can be deadly obstacles for birds causing hundreds of millions of bird collisions annually. Glass is transparent to birds. Reflections of the sky, vegetation, clouds, water, and branches lure birds into the glass causing mortality and injury.

**Intent: To design glass buildings to protect local and migratory birds from deadly strikes. Integrate elements into the building and site design to warn birds before they collide.**

#### Guidelines:

##### A. Glass Coverage and Glazing

- **Patterns on Glass:** Ceramic dots, or frits, can be screened, printed, applied between layers of insulated glass to reduce transmission of light and prevent bird collisions. These can be applied in different colors and patterns to work effectively.
- **Angled Glass:** Not as effective as other strategies, angled glass at 20-40 degrees has resulted in reduced mortality.
- **Window Surfaces:** New one-way transparent opaque films and window surfaces allow sunlight to pass through windows while reducing reflectivity.

##### B. Architectural Features

- **Awnings, Louvers and Overhangs:** When designed to eliminate reflections and shadow glass these architectural features have shown to reduce bird collisions.
- **Balconies and Balustrades:** Along with providing outdoor spaces for humans, balconies and balustrades can block window reflection.
- **Opaque and Translucent Glass:** Frosted, colored, opaque, or stained glass have proven to be significantly successful bird deterrents.

##### C. Facade Treatments

- **Screens:** Screens can be integrated into facade elements without blocking view or light and are highly effective in protecting birds.

- **Grilles:** Horizontal or vertical grilles can be incorporated into the aesthetic and design of windows.
- **Shutters and Shades:** External shutters and shades of various styles and colors enhance a buildings aesthetic while reducing or eliminating reflections.

#### D. Lighting Treatments

Lights disrupt birds' orientation inhibiting them from seeing their navigational markers like the stars and moon. Night lights and up lights (lights pointing upward) can entrap birds reluctant to fly from a lit area into a dark one.

- **Eliminating unnecessary lighting** is one of the easiest ways to reduce bird collisions, with the added advantage of saving energy and expense.
- Choose down-lighting over up-lighting to keep from directing light into the night sky.
- Minimize perimeter and vanity lighting and consider filters or special bulbs to reduce red wavelengths where lighting is necessary.
- As much as possible, lights should be controlled by motion sensors.
- **Lights Out:** Turn lights out visible from the outside during spring and fall migration periods.

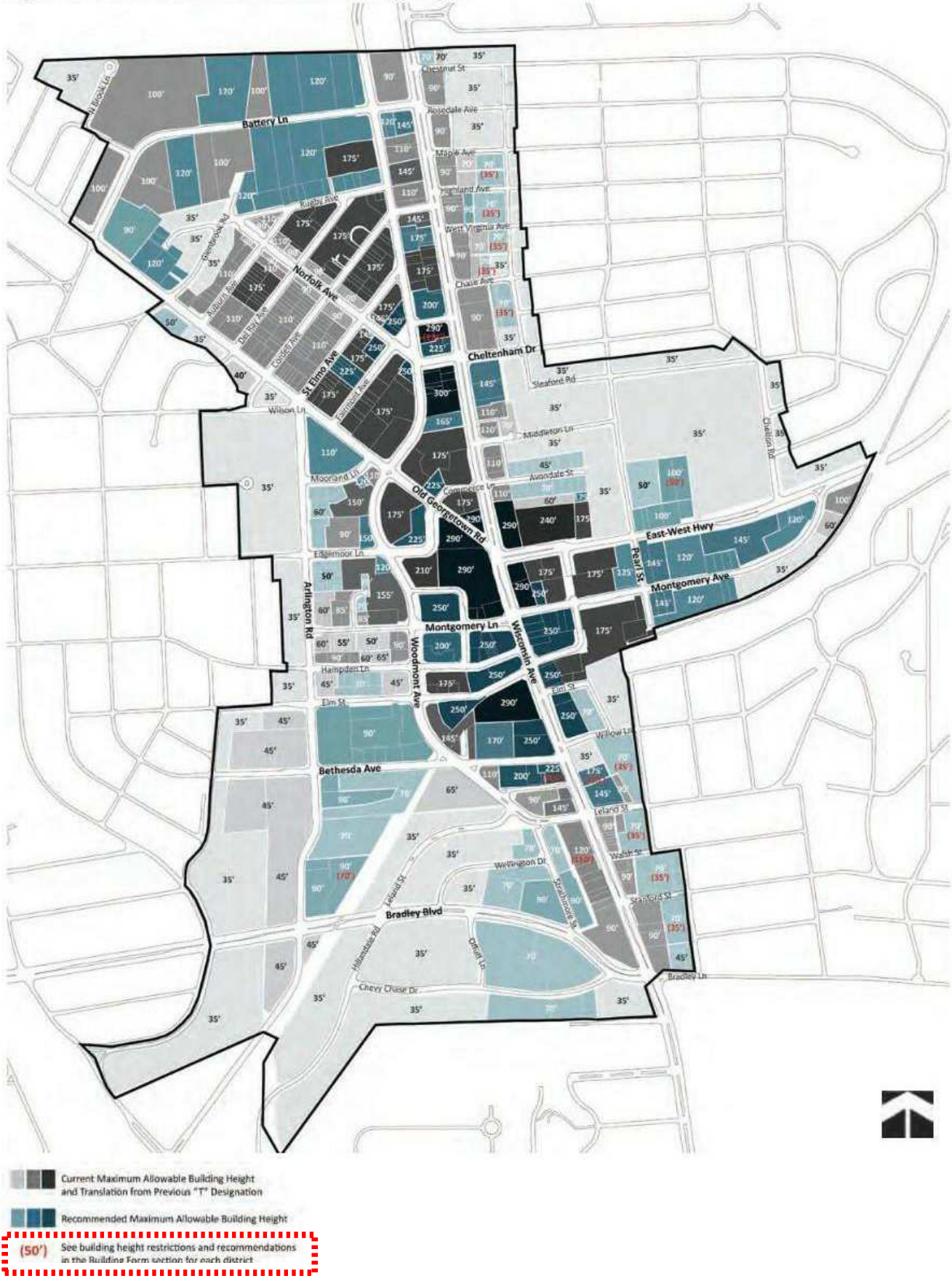
#### E. Site and Landscape Design

- Obtain USGBC LEED Green Building Rating Points from the category of "Bird Collision Deterrence".
- Glass windows should not reflect nearby or site vegetation, particularly large, mature trees and water. Where this is not feasible, use window treatments outlined above.
- Use soil berms, furniture, landscaping, or architectural features to prevent reflection in glazed building facades.
- Avoid up-lighting rooftop antennas and tall equipment as well as decorative architectural spires.

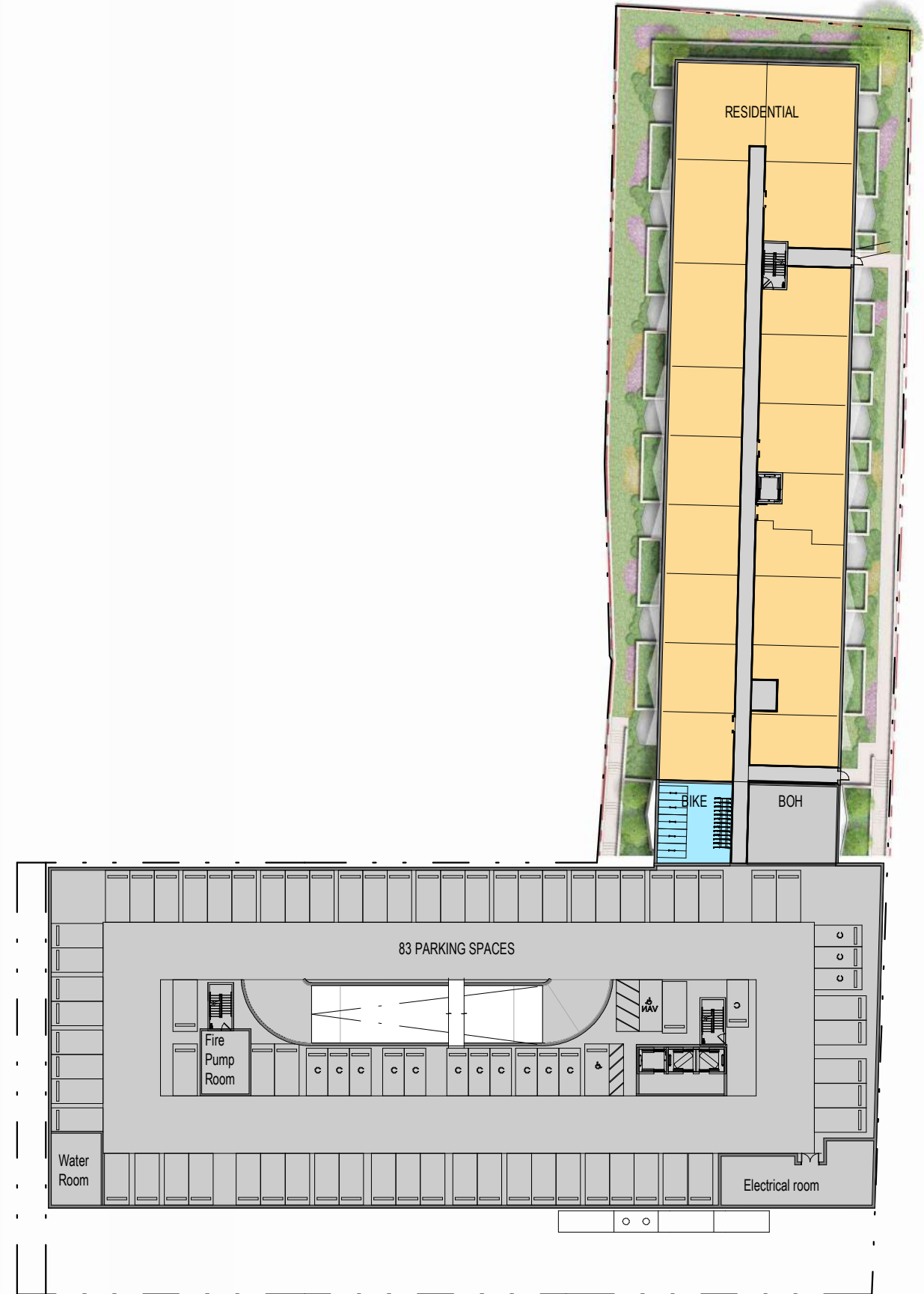
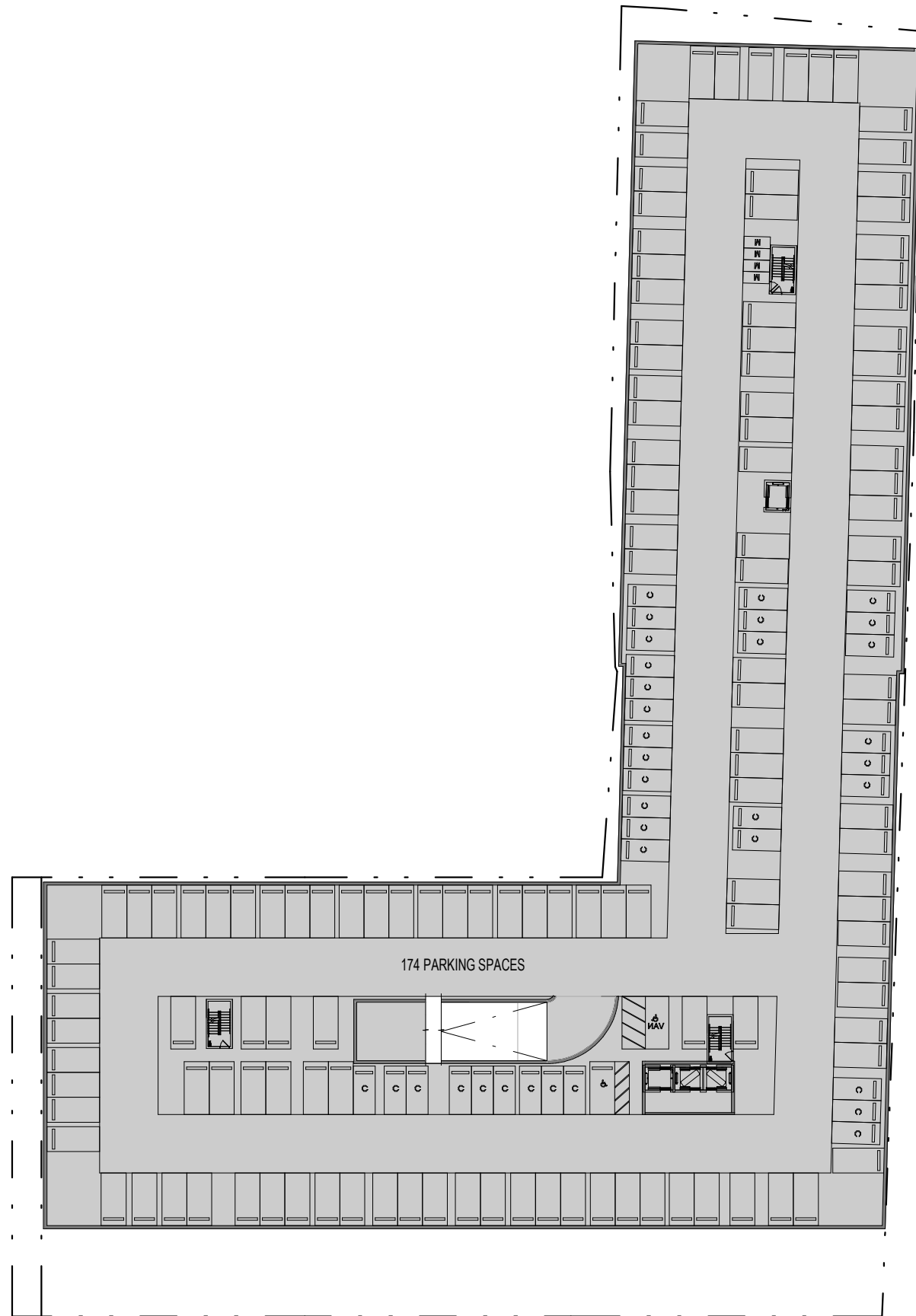




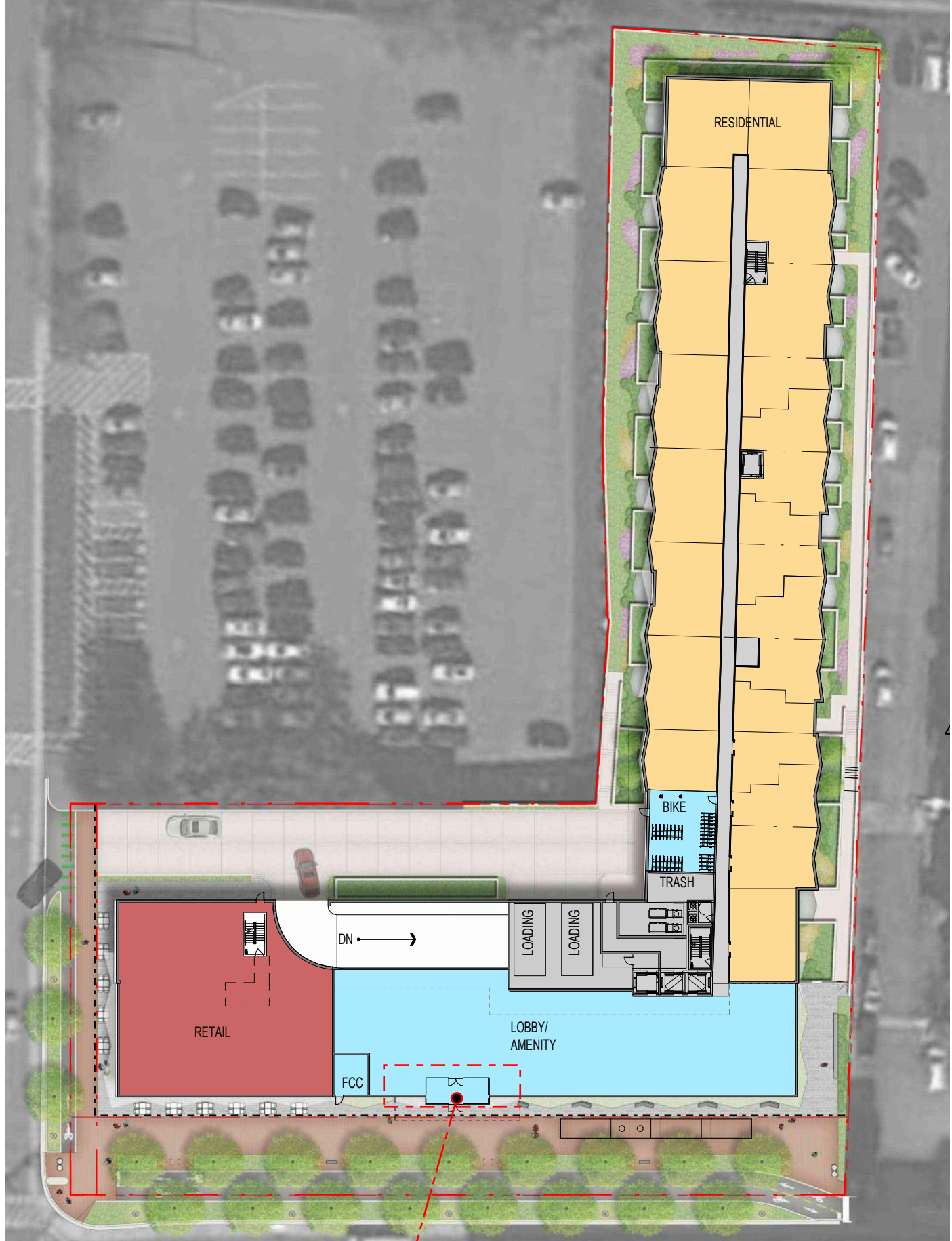
Figure 2.19: Recommended Maximum Building Heights











exact location of main entrance to be flexible  
based on final interior design

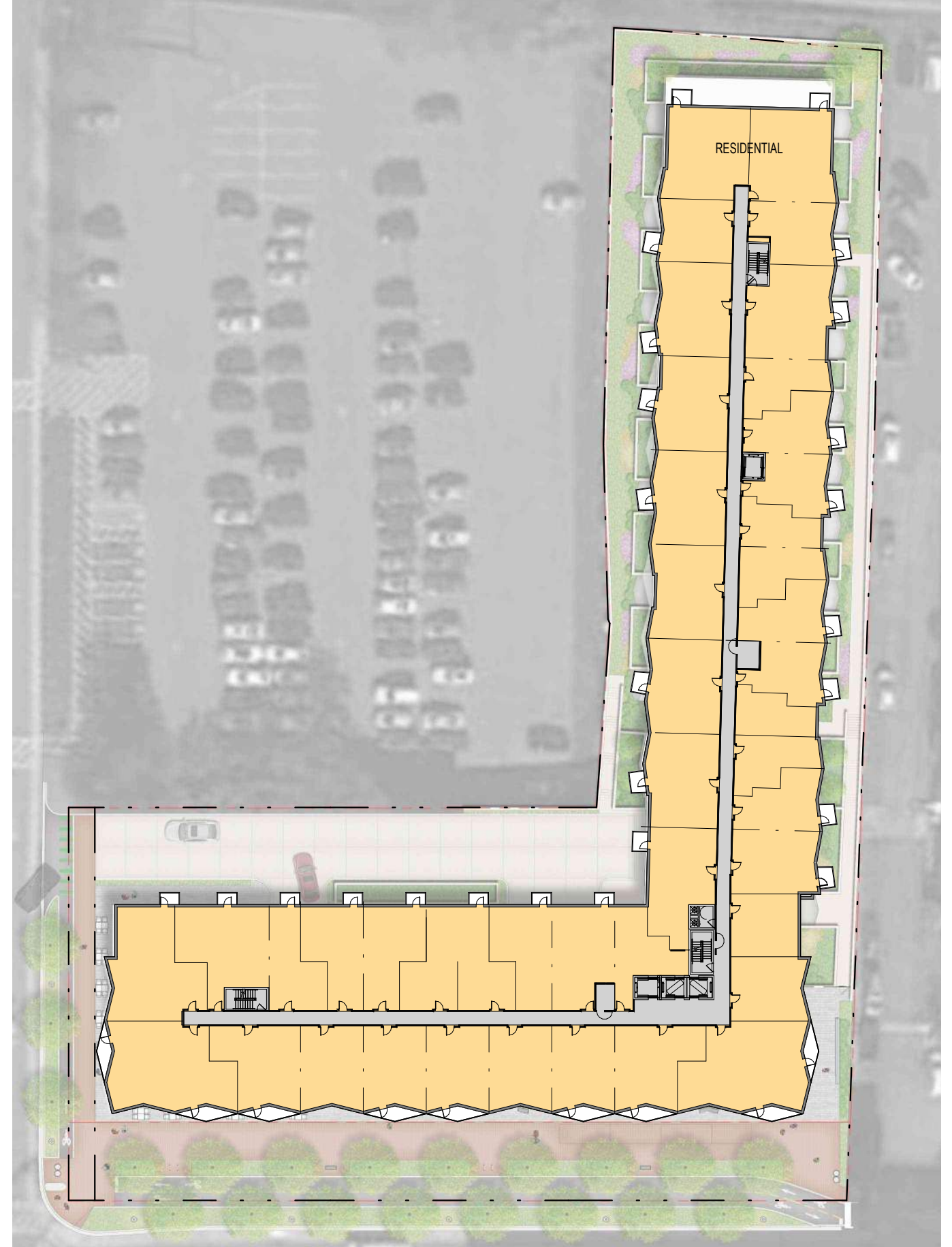
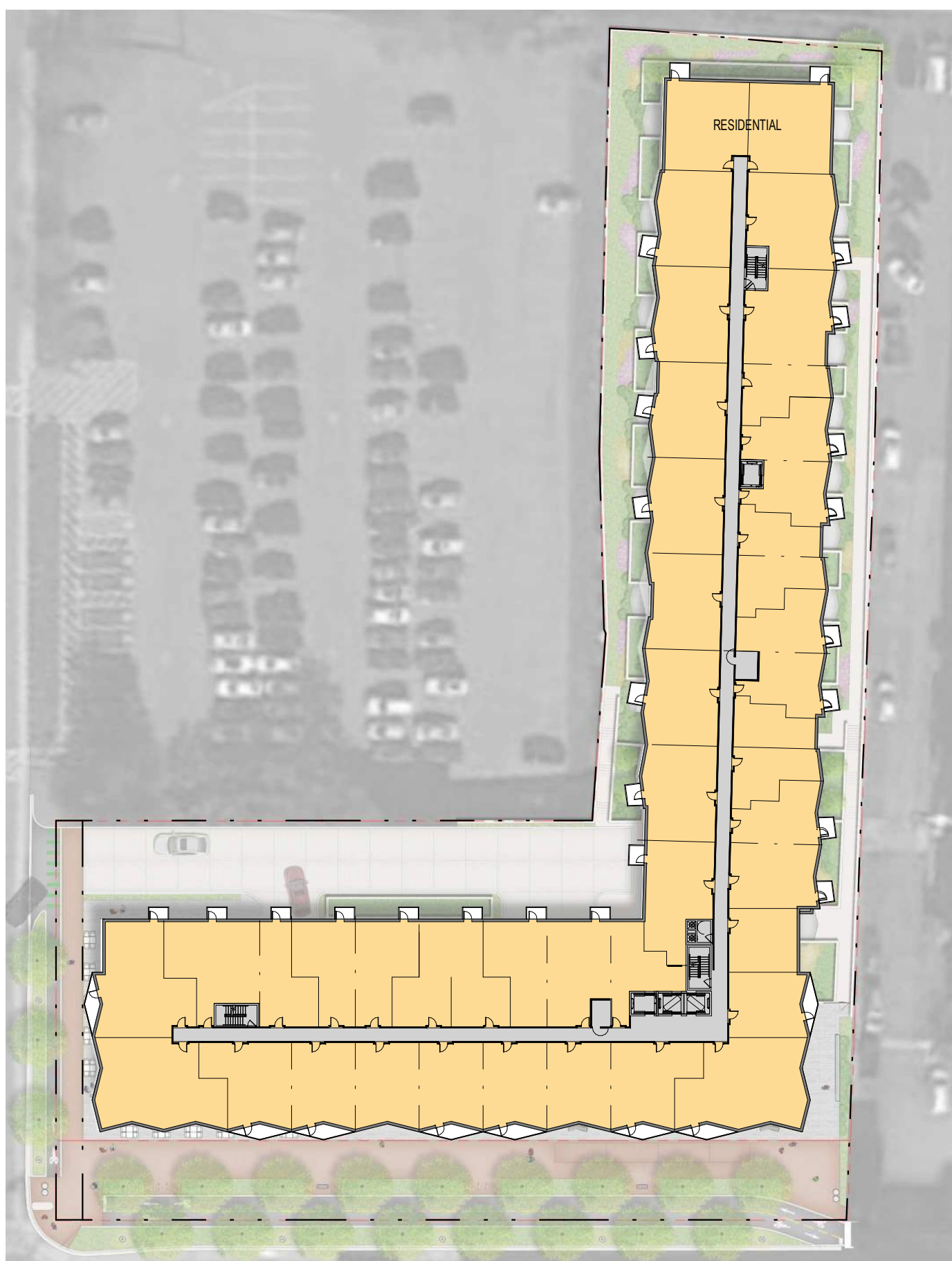
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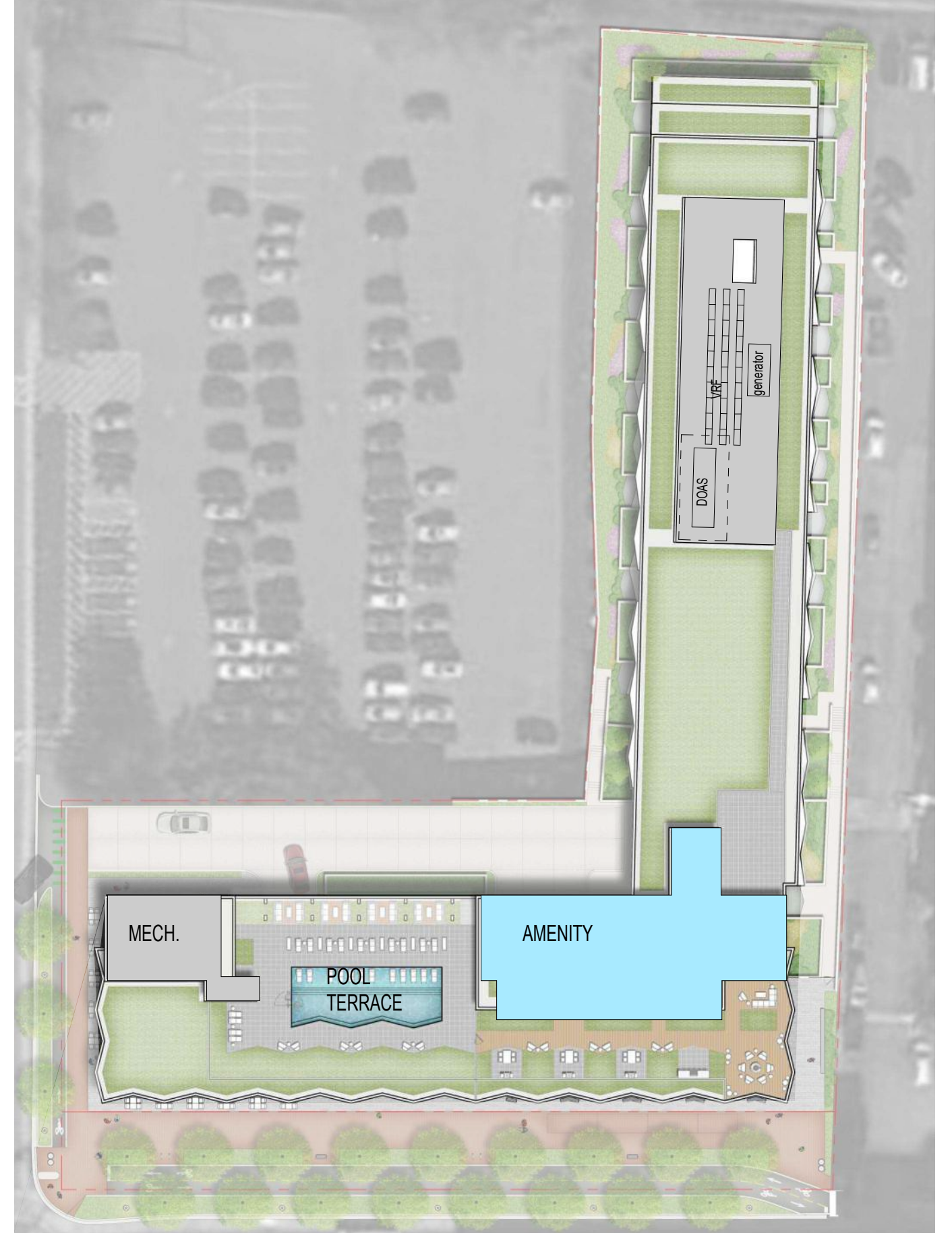
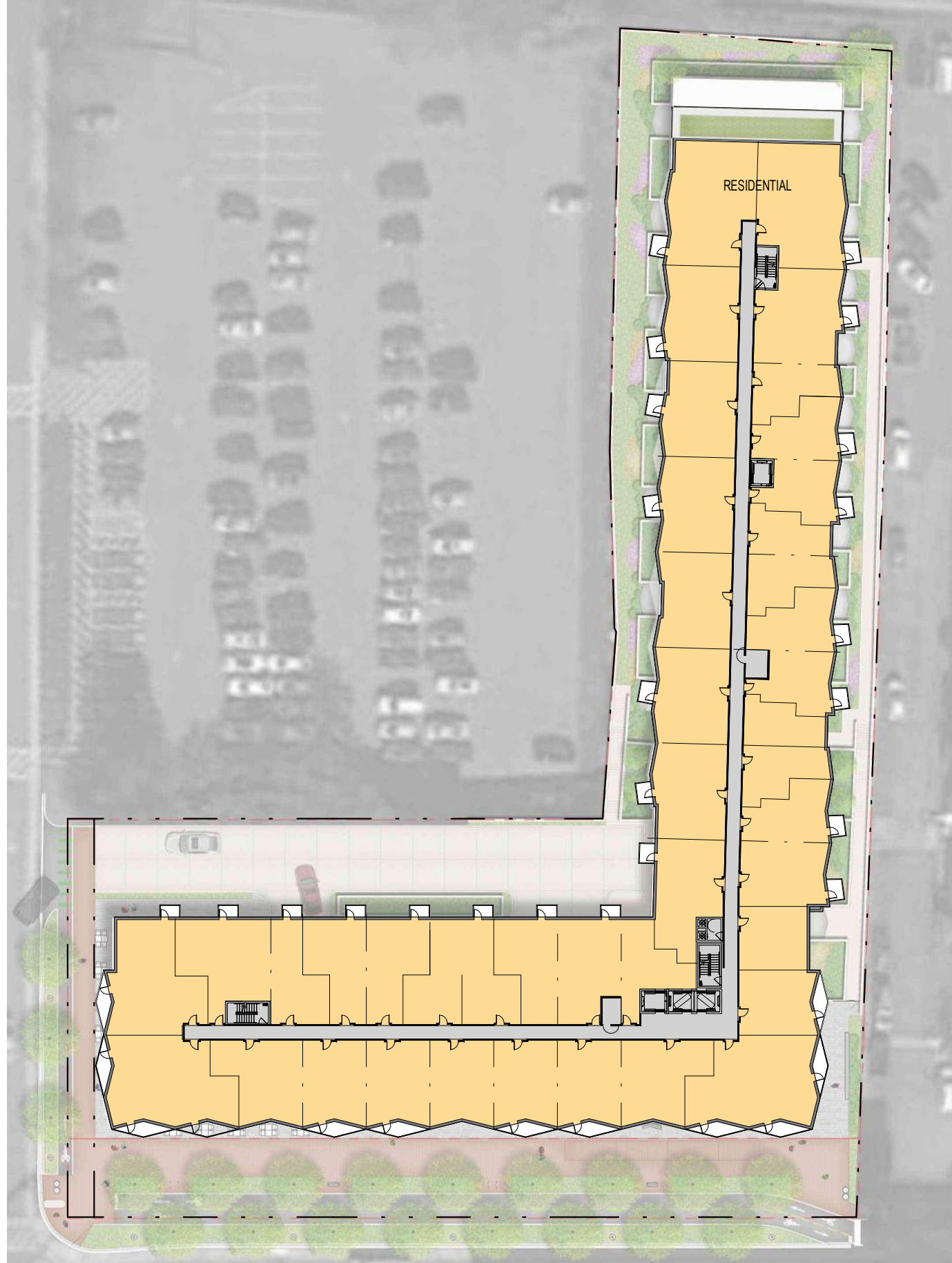
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3rd - 4th & 5th to 8th floor plans

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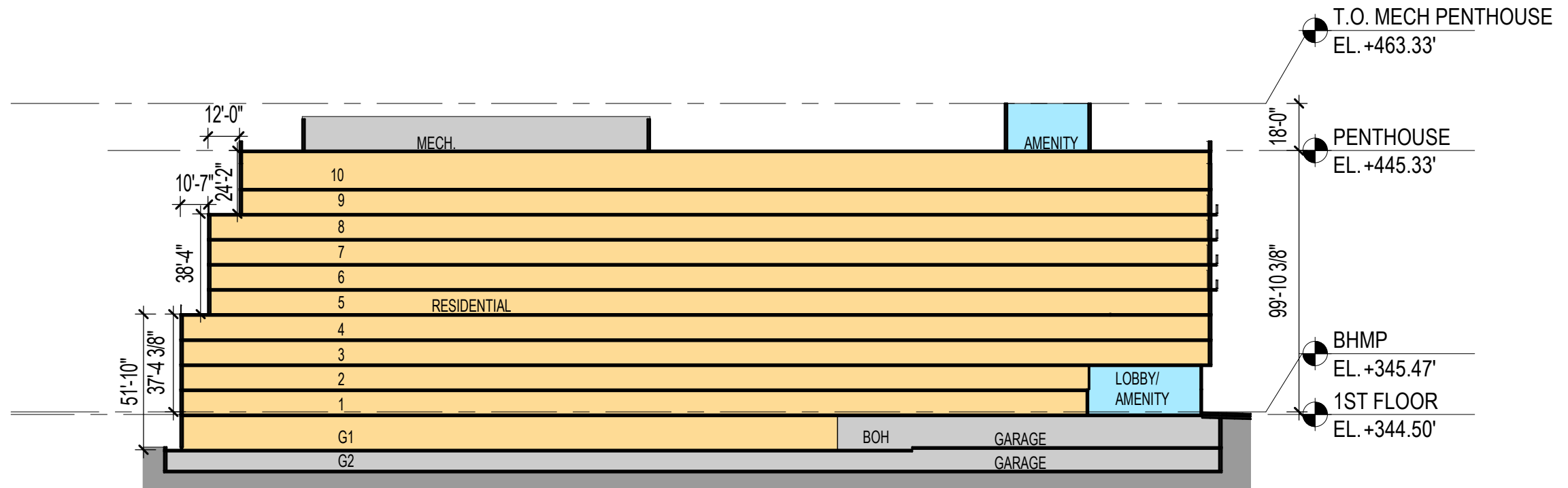


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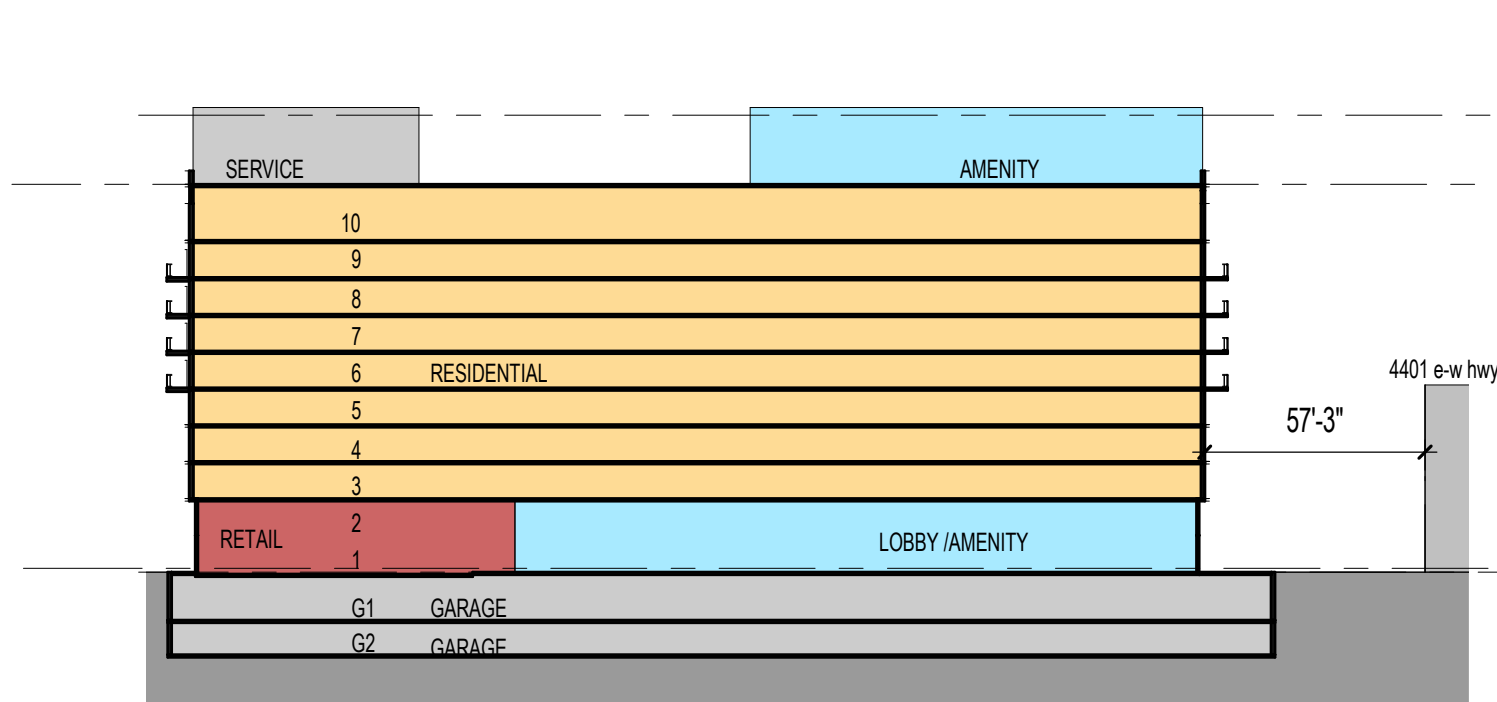
06.14.2023 | 042



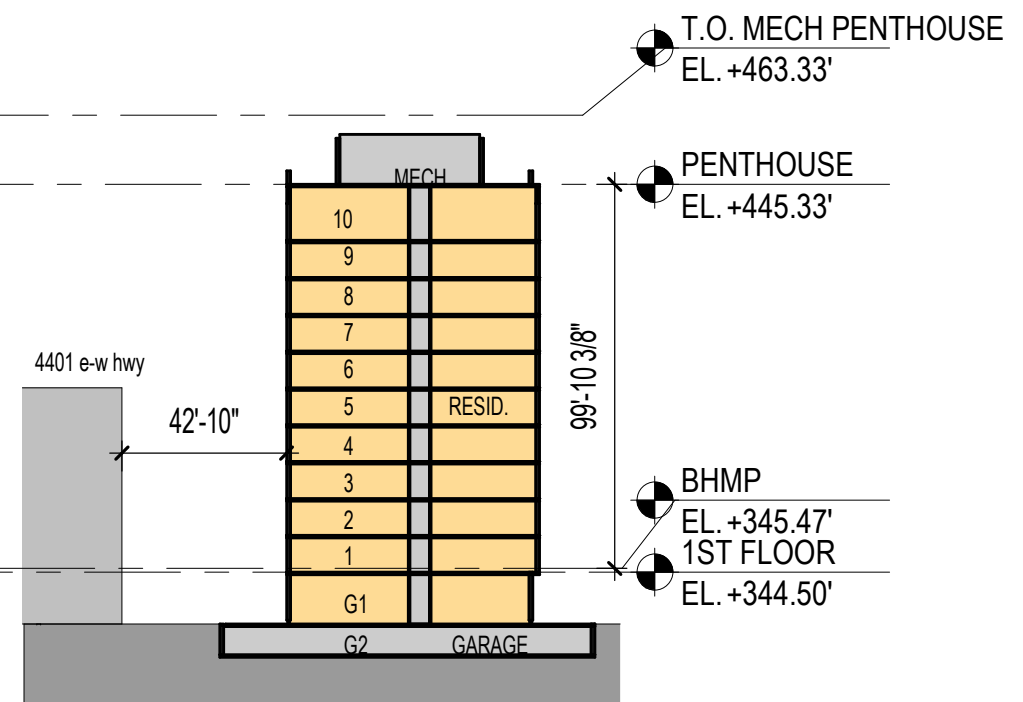




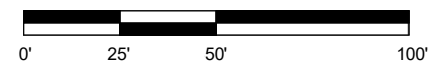
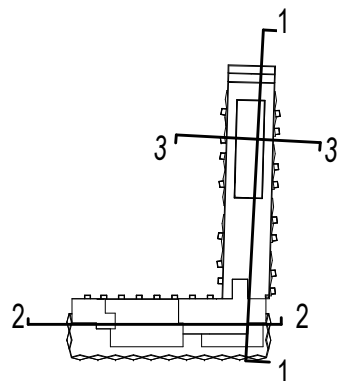
1 north-south section  
SCALE: 1" = 50'-0" 043



2 east-west long section  
SCALE: 1" = 50'-0" 043



3 east-west bar section  
SCALE: 1" = 50'-0" 043







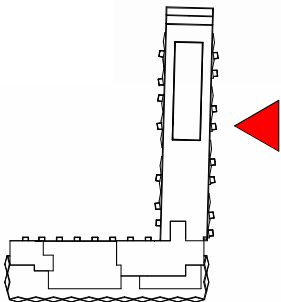
exact location of main entrance to be flexible  
based on final interior design

4405 East-West Highway | Bethesda  
south elevation





- 18'-0"
- 99'-10 3/8"
- T.O. MECH PENTHOUSE  
EL. +463.33'
  - PENTHOUSE  
EL. +445.33'
  - BHMP  
EL. +345.47'
  - 1ST FLOOR  
EL. +344.50'
  - G1  
EL. +332.00'







18'-0"

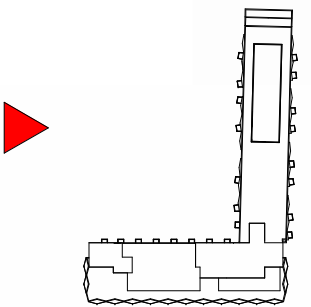
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