

An aerial, isometric view of a city grid. The buildings are represented as blue-tinted 3D blocks of varying heights and shapes, creating a dense urban landscape. The streets are visible as lighter blue lines forming a grid pattern. The overall color scheme is monochromatic, using different shades of blue.

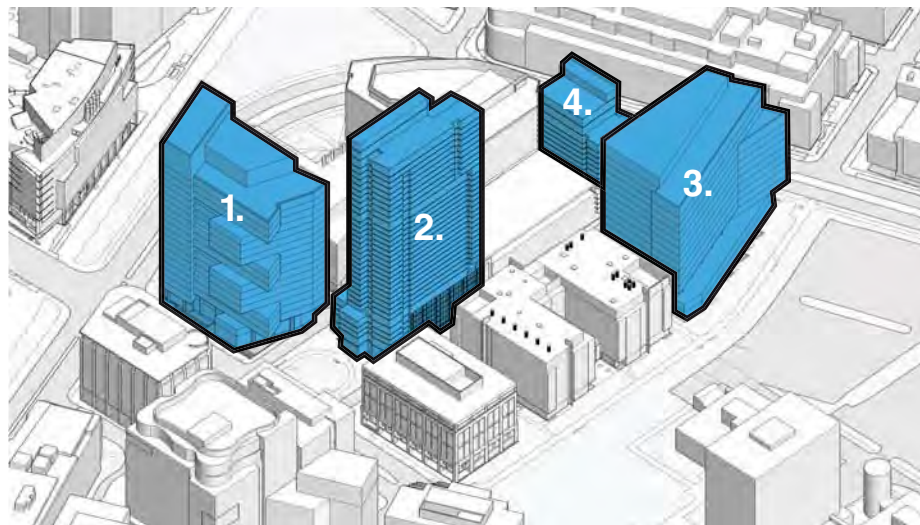
10. DESIGN GUIDELINES

10.1 URBAN REALM DESIGN GUIDELINES

Referencing the Kendall Square Design Guidelines of 2013 (K2) and Kendall Square Urban Renewal Plan of 2015, the four proposed buildings of the MXD Concept Plans are programmed and designed to ensure a lasting contribution to the character and vitality of the surrounding community and public realm. The following design guidelines establish foundational design principles in order to provide a clear blueprint for creating a robust mix of uses and vibrant public realm and open spaces, further contributing to the unique character and vitality of Kendall Square.

The following Urban Realm Design Guidelines graphically communicate the complete spectrum of existing regulations, site assumptions, architectural and urban design principles through a series of clear diagrams and associated annotations.

The specific building massing shown responds to the directives and suggestions outlined in this document and the final architectural scheme will conform to the design guidelines, but may evolve as the design of specific project components is developed. Unless otherwise noted, illustrations in this document represent existing development surrounding the Project site.



1. Commercial Building A (145 Broadway)
2. Residential Building South

3. Commercial Building B (250 Binney St.)
4. Residential Building North

The following Guidelines and associated imagery consist of:

- I. Urban Realm Design Guidelines
- II. Landscape Material Guidelines
- III. Specific Building Guidelines
- IV. Façade Guidelines

PURPOSE

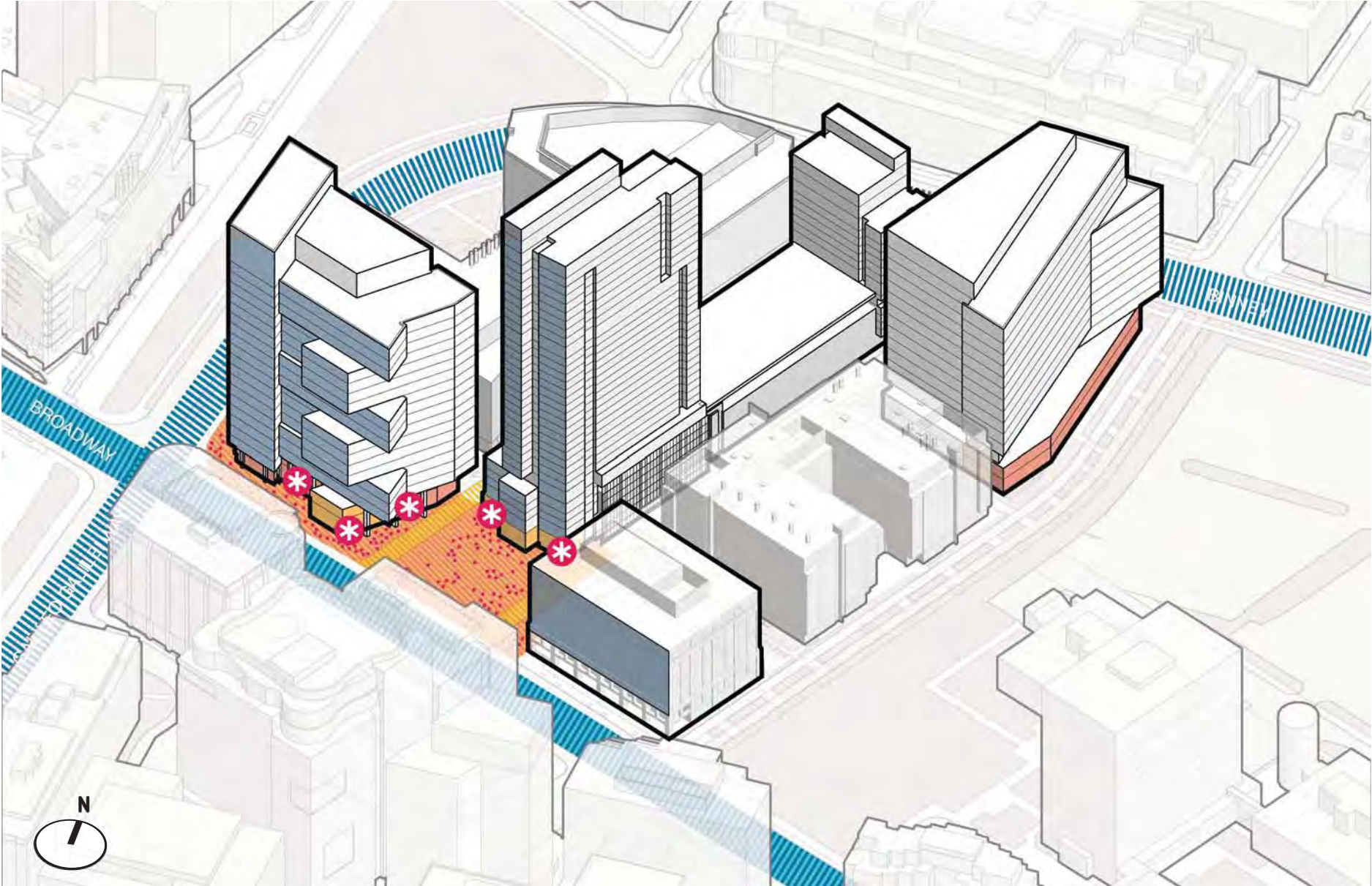
The Guidelines and objectives presented here are not intended to be limiting or prescriptive in nature but are instead intended to inform important design considerations in a cohesive and thoughtful manner. The associated images, in particular, are intended as illustrative precedents and not literal examples of a specific proposal. In the interest of supporting continued evolution in design thinking and approaches throughout the life of the MXD IDCP Project, additional or alternative design solutions may be presented to The Planning Board, CRA Board CDD Staff or the CRA staff.

I. URBAN REALM DESIGN GUIDELINES









The following Urban Realm Guidelines are provided to guide decisions at the IDCP master plan level including public street engagement, walkability and permeability of public spaces and built forms including massing, setbacks and visual interest. The objective is to ensure a functional project with deliberate, destination based pedestrian and vehicle routes and visually interesting and contextually appropriate built forms.

I. URBAN REALM DESIGN GUIDELINES

MAJOR PUBLIC STREET ENGAGEMENT



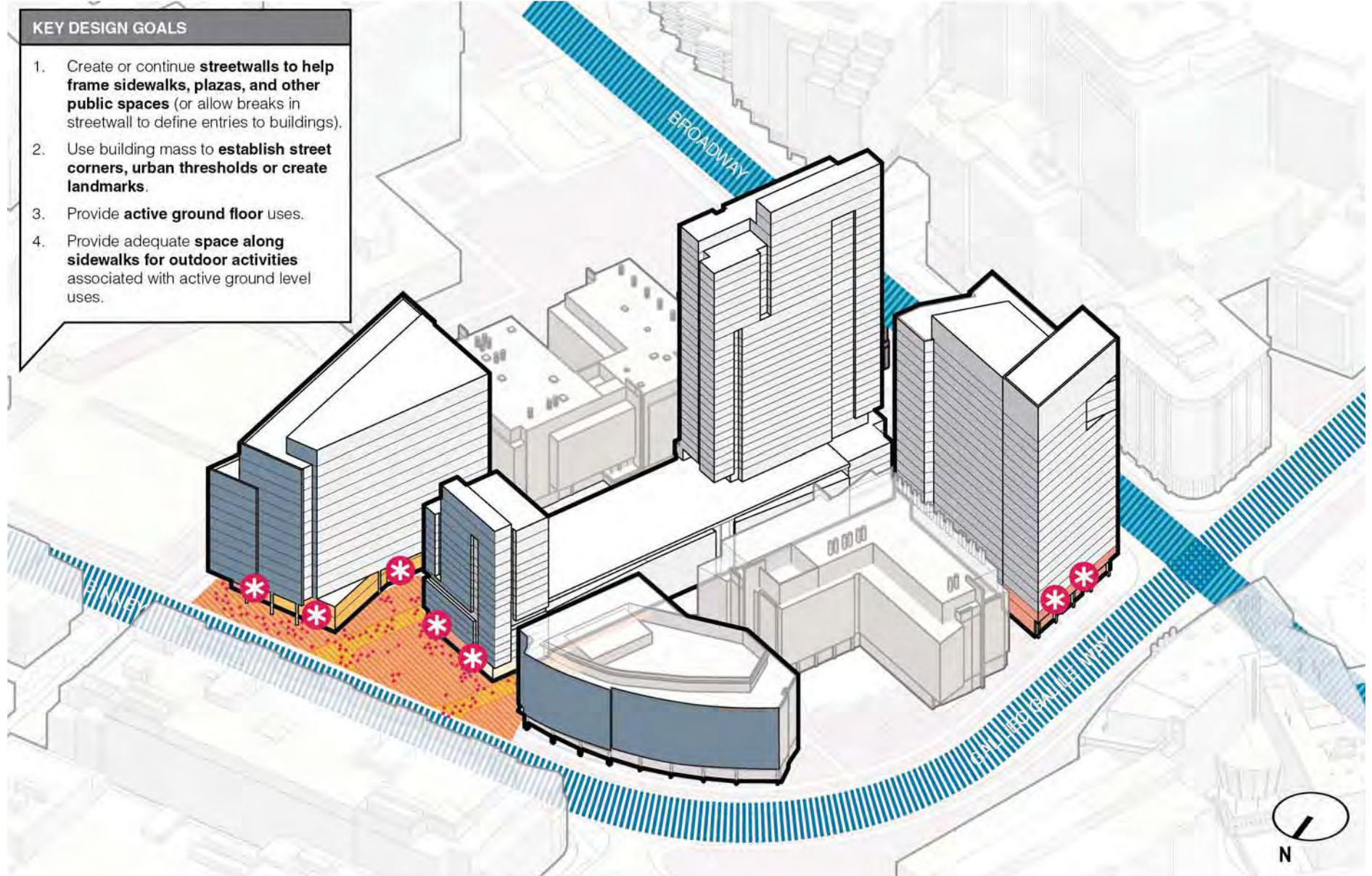
SOUTH EAST AXON

- | | | | | | |
|---|-------------------------|---|----------------------|---|---------------------|
|  | Major Public Street |  | Active Use |  | Pedestrian Activity |
|  | Primary Retail Corridor |  | Streetwall |  | Building Entry |
|  | Lobby |  | Public Outdoor Space | | |

KEY DESIGN GOALS

1. Create or continue **streetwalls to help frame sidewalks, plazas, and other public spaces** (or allow breaks in streetwall to define entries to buildings).
2. Use building mass to **establish street corners, urban thresholds or create landmarks**.
3. Provide **active ground floor** uses.
4. Provide adequate **space along sidewalks for outdoor activities** associated with active ground level uses.

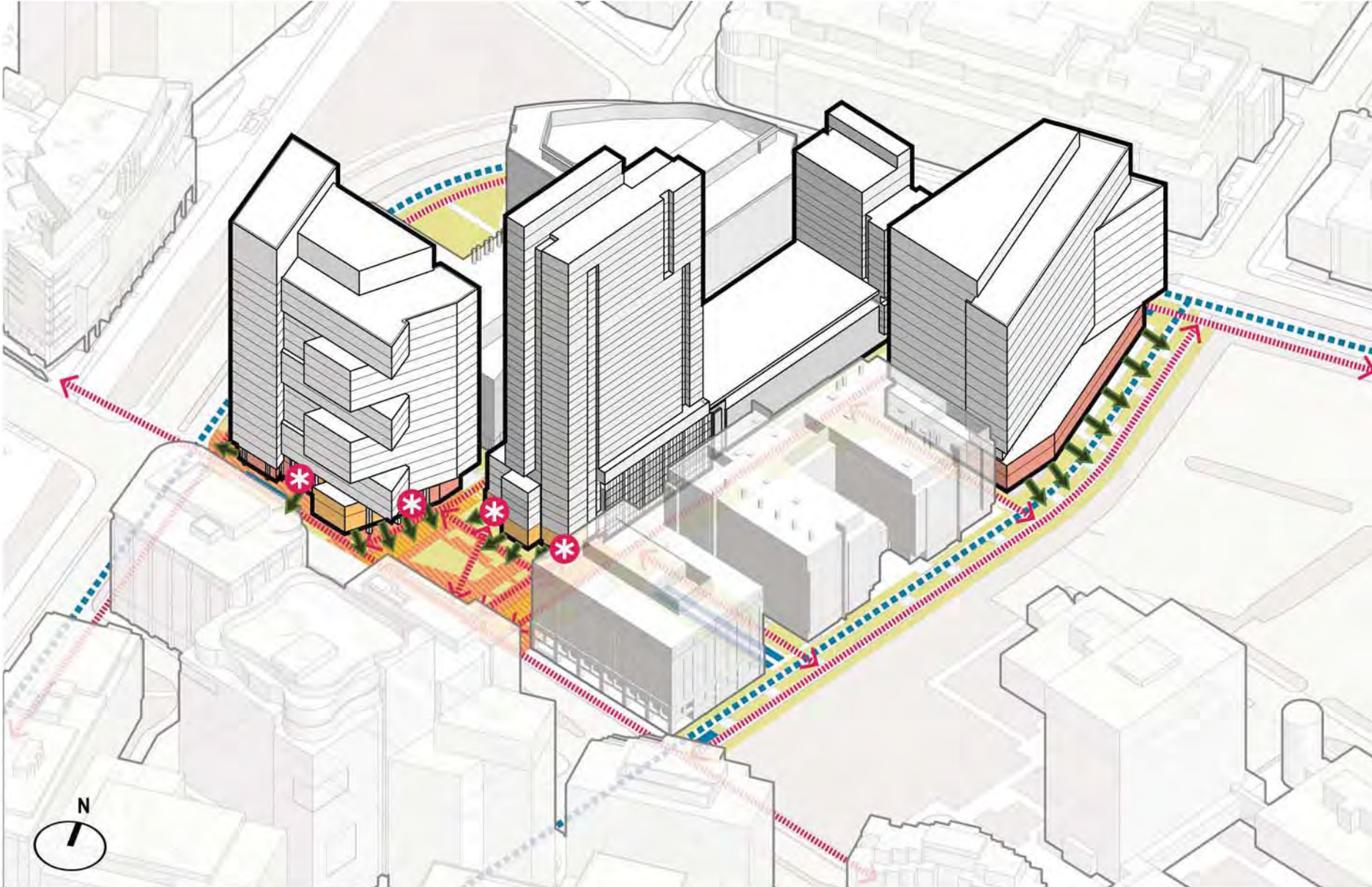
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NORTH WEST AXON

I. URBAN REALM DESIGN GUIDELINES

WALKABILITY, PERMEABILITY, AND PUBLIC REALM



SOUTHEAST AXON

--- Bicycle Path
— Bicycle Parking

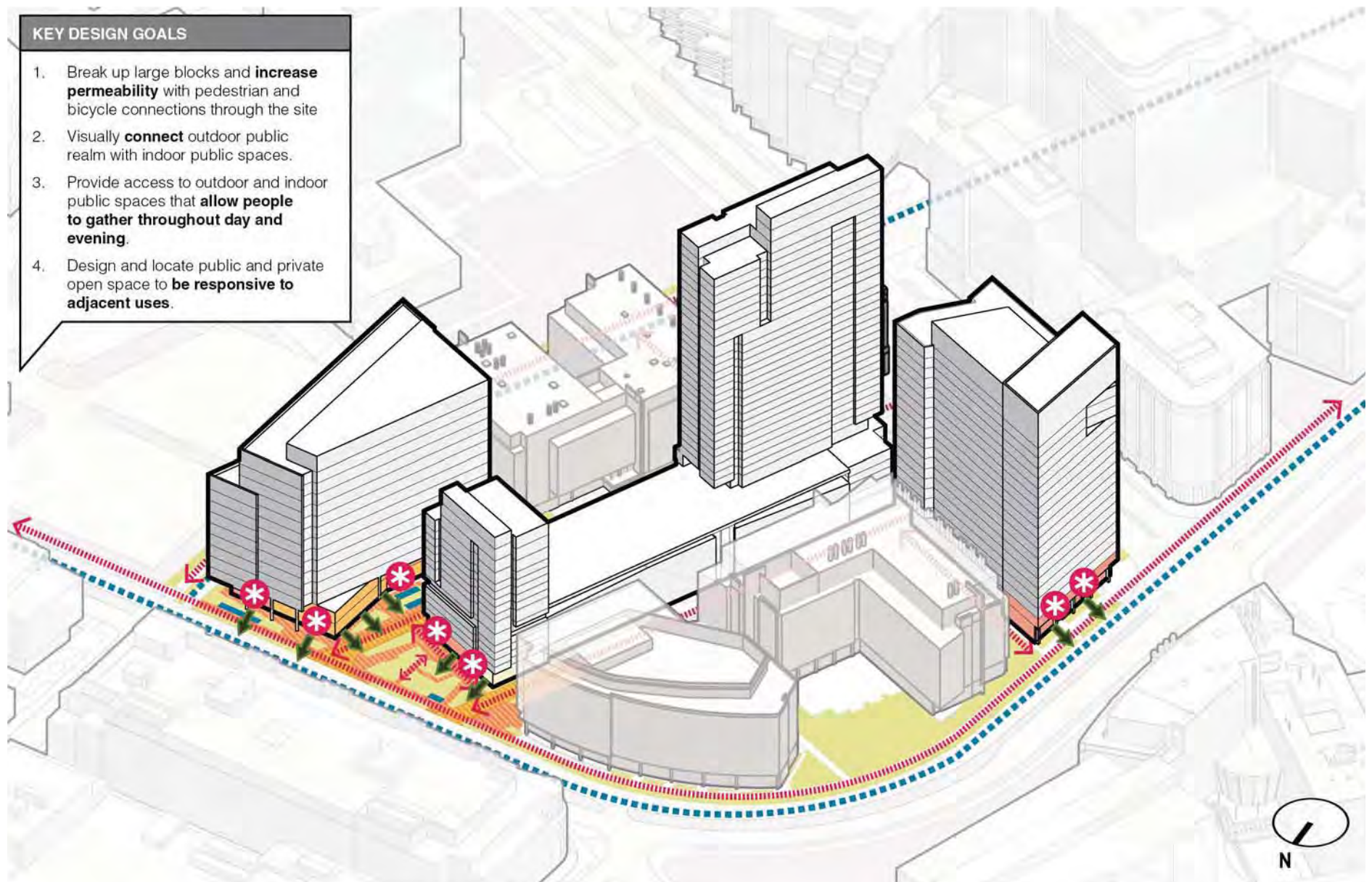
--- Pedestrian Path
— Lobby

— Active Use
— Public Outdoor Space

* Building Entry
→ Indoor/Outdoor Visual Connection

KEY DESIGN GOALS

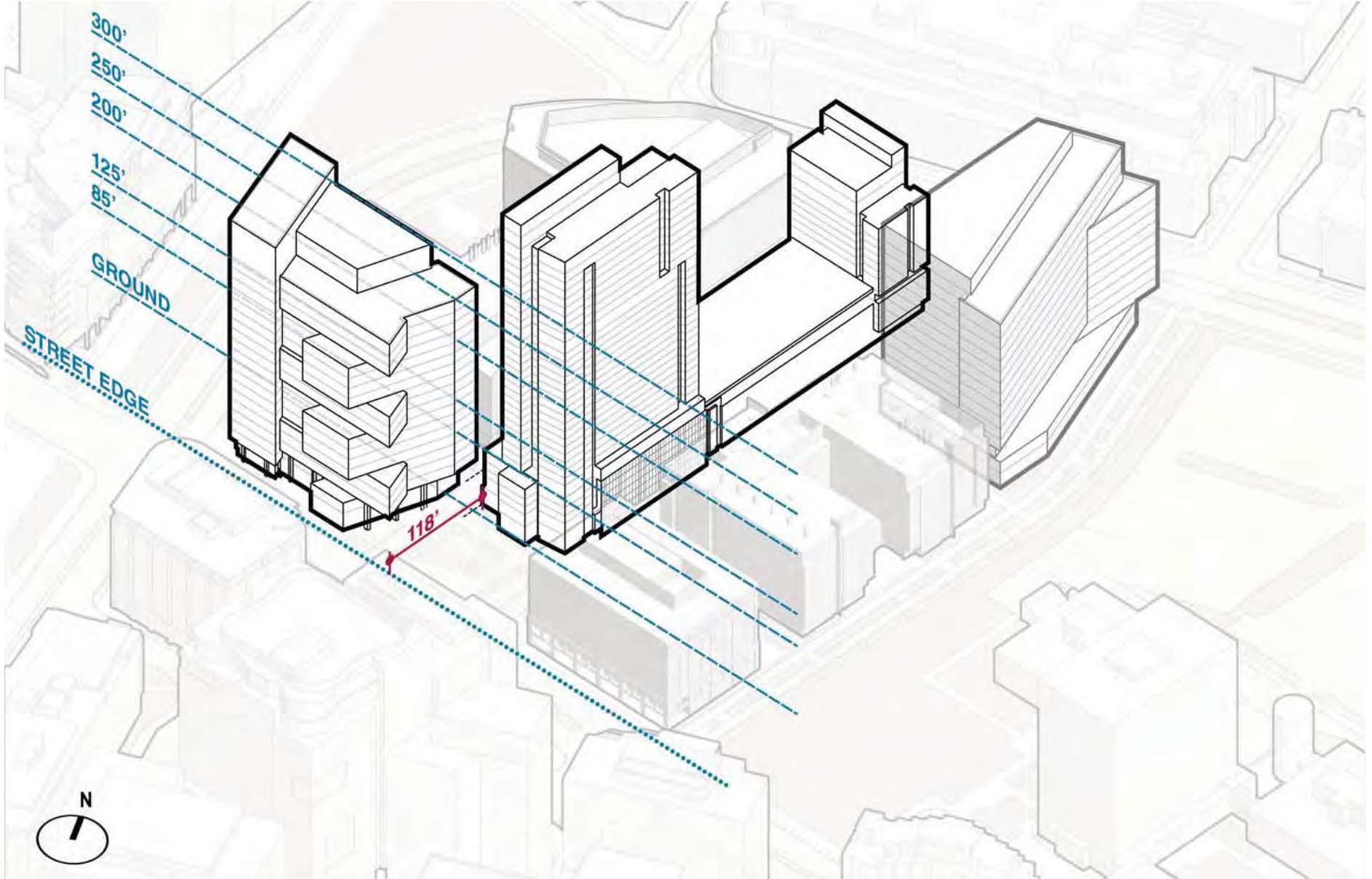
1. Break up large blocks and **increase permeability** with pedestrian and bicycle connections through the site
2. Visually **connect** outdoor public realm with indoor public spaces.
3. Provide access to outdoor and indoor public spaces that **allow people to gather throughout day and evening**.
4. Design and locate public and private open space to **be responsive to adjacent uses**.



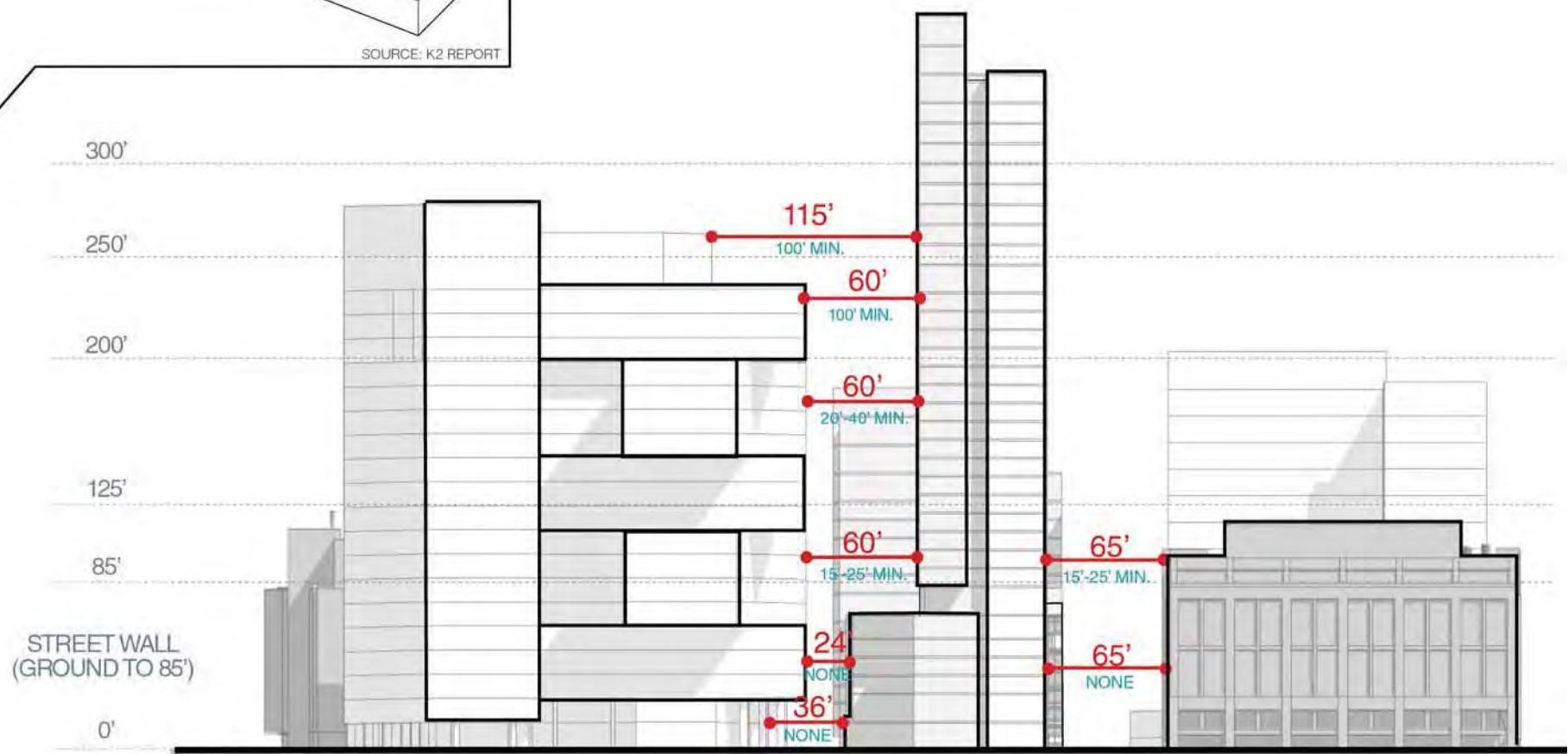
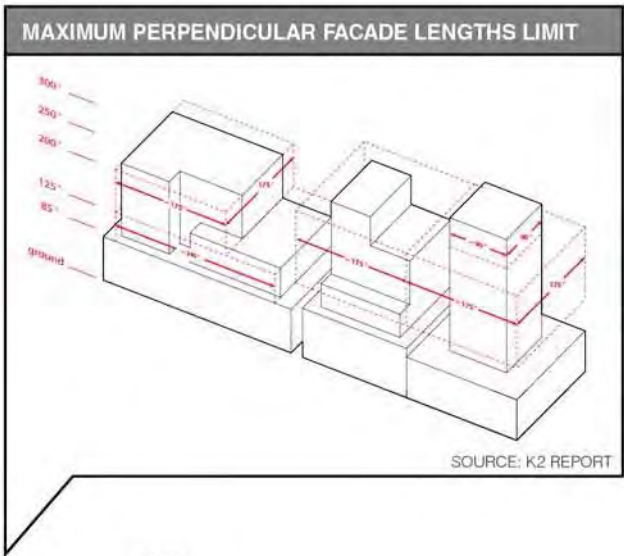
NORTHWEST AXON

I. URBAN REALM DESIGN GUIDELINES

BUILT FORM - BUILDING SEPARATION AND FACADE LENGTHS



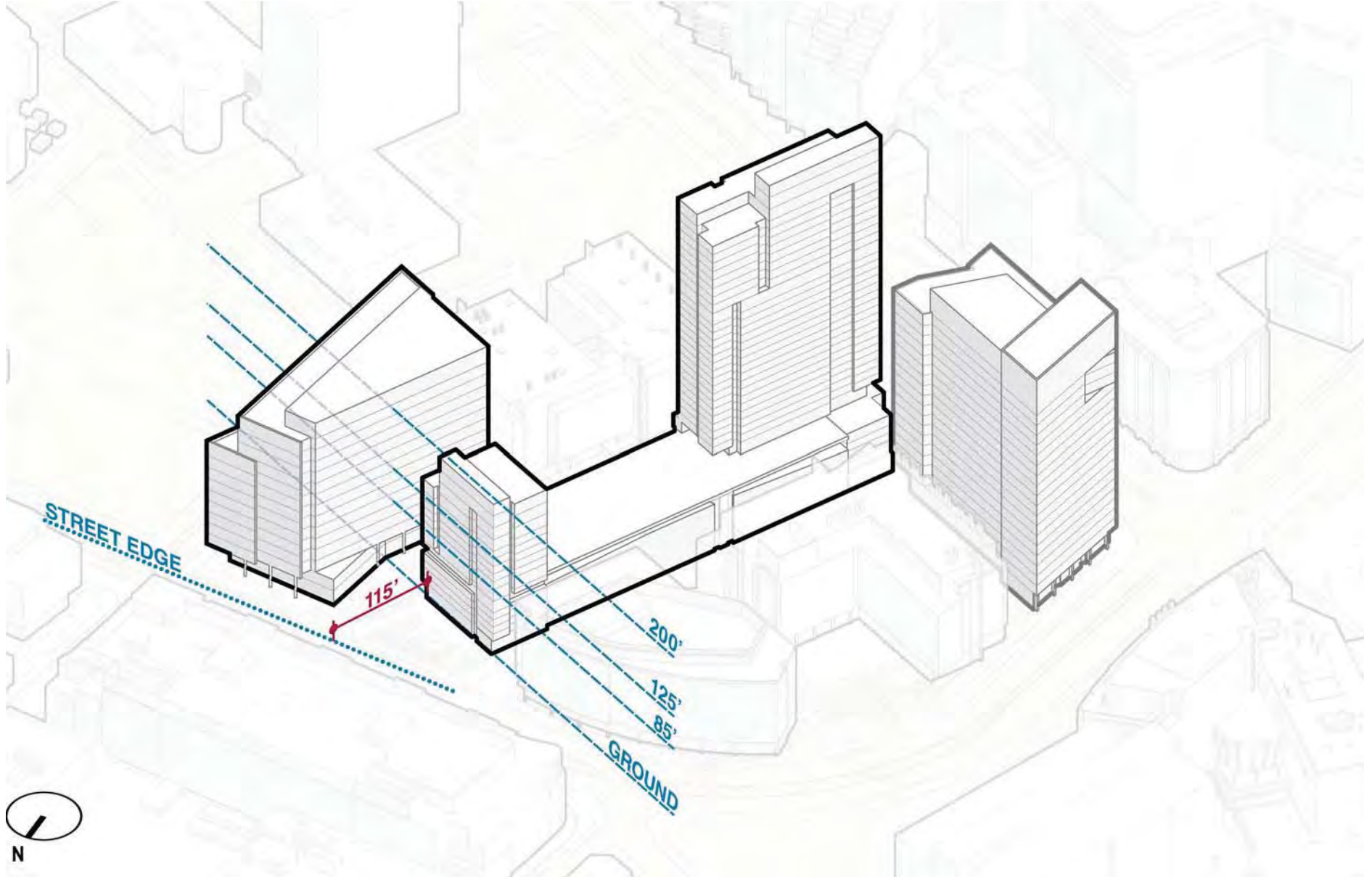
SOUTHEAST AXON



PROPOSED DIMENSION
K2 REPORT SUGGESTED DIMENSION

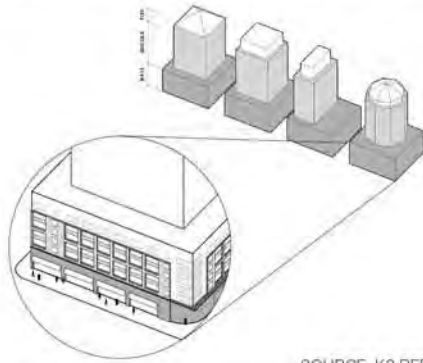
I. URBAN REALM DESIGN GUIDELINES

BUILT FORM - BUILDING SEPARATION AND FACADE LENGTHS

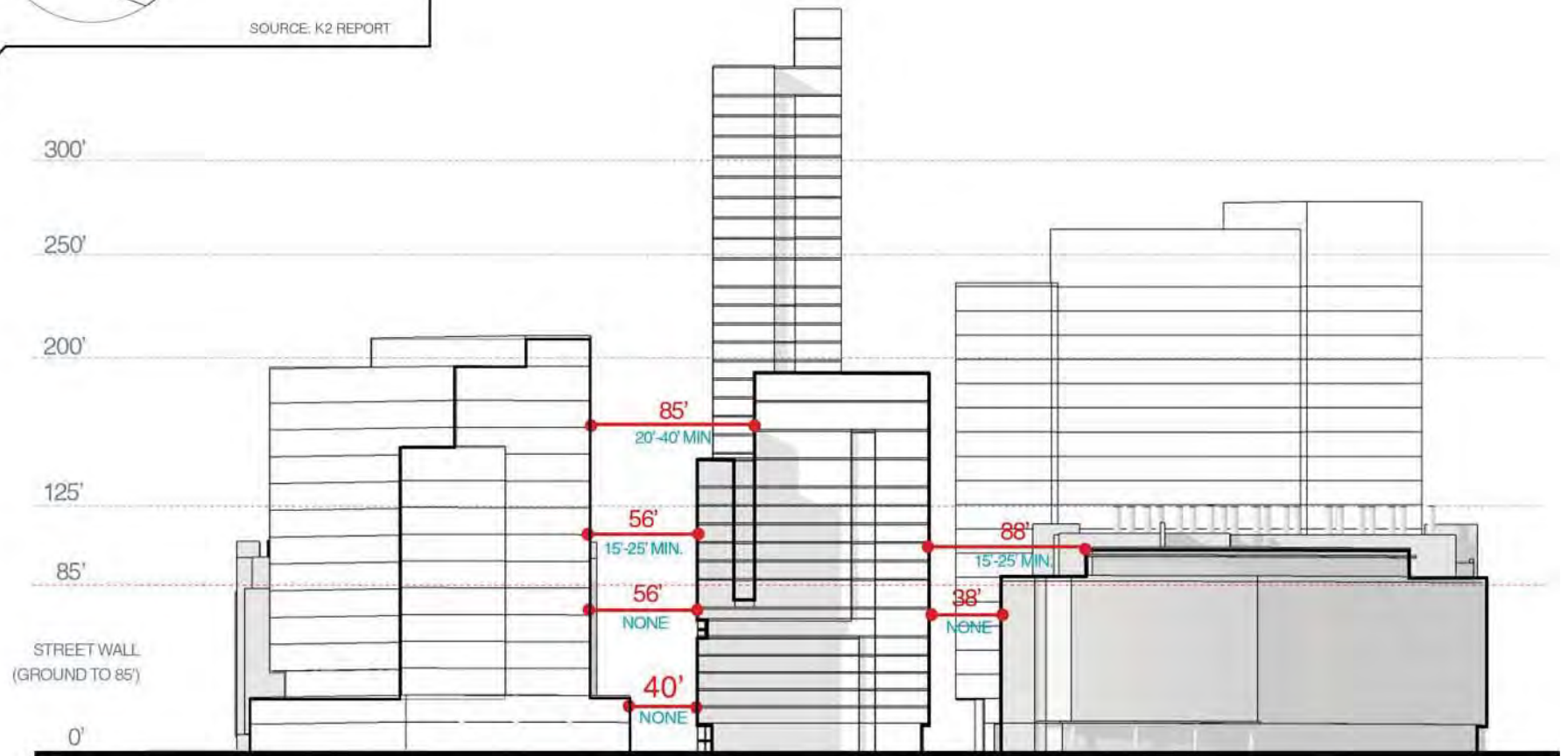


SOUTH EAST AXON

BREAKING DOWN SCALE: BASE, MIDDLE, TOP



SOURCE: K2 REPORT



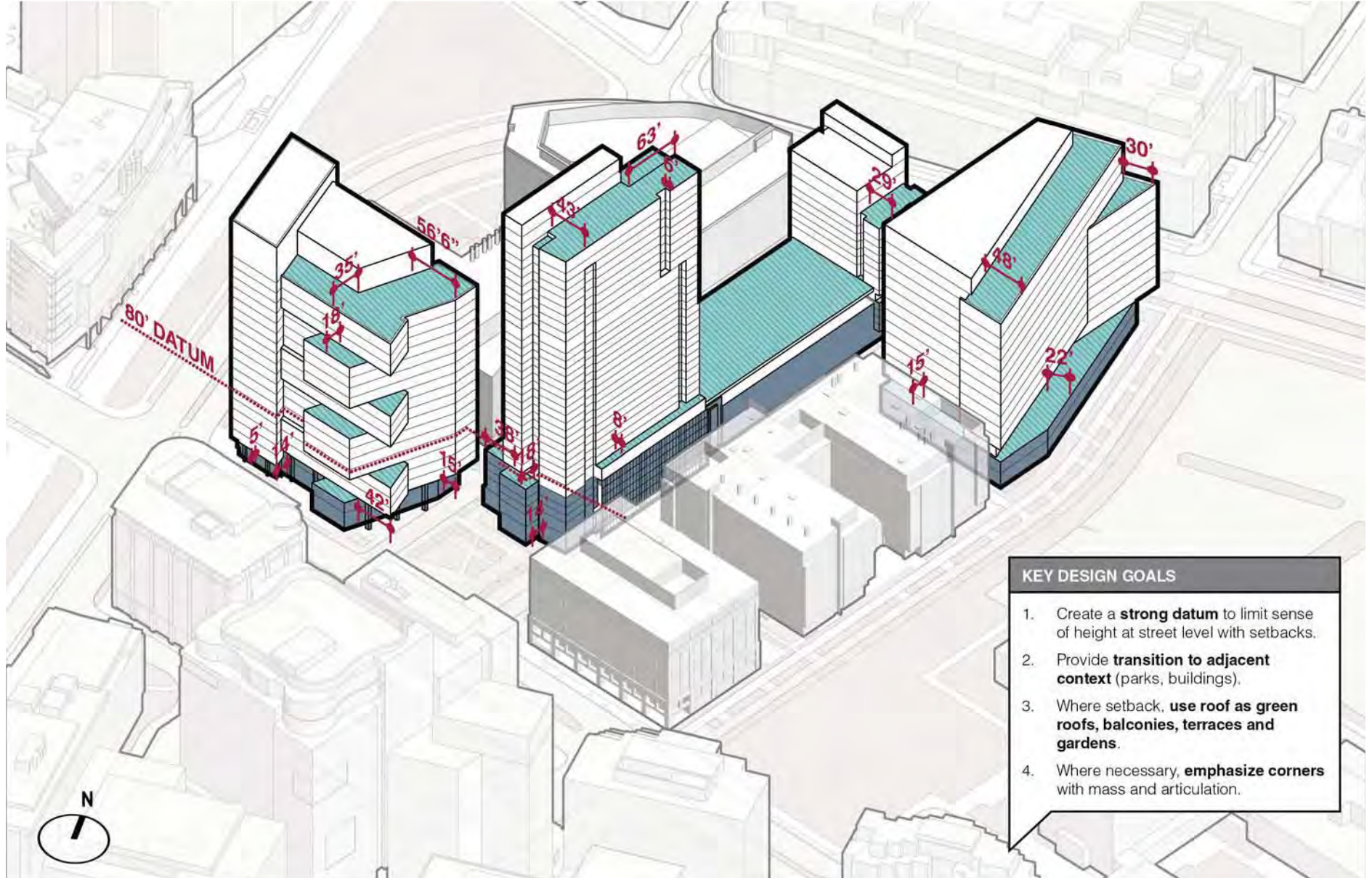
PROPOSED DIMENSION
K2 REPORT SUGGESTED DIMENSION

BINNEY STREET

NORTH ELEVATION

I. URBAN REALM DESIGN GUIDELINES



BUILT FORM - MASSING, SETBACKS, AND DATUM



SOUTH EAST AXON

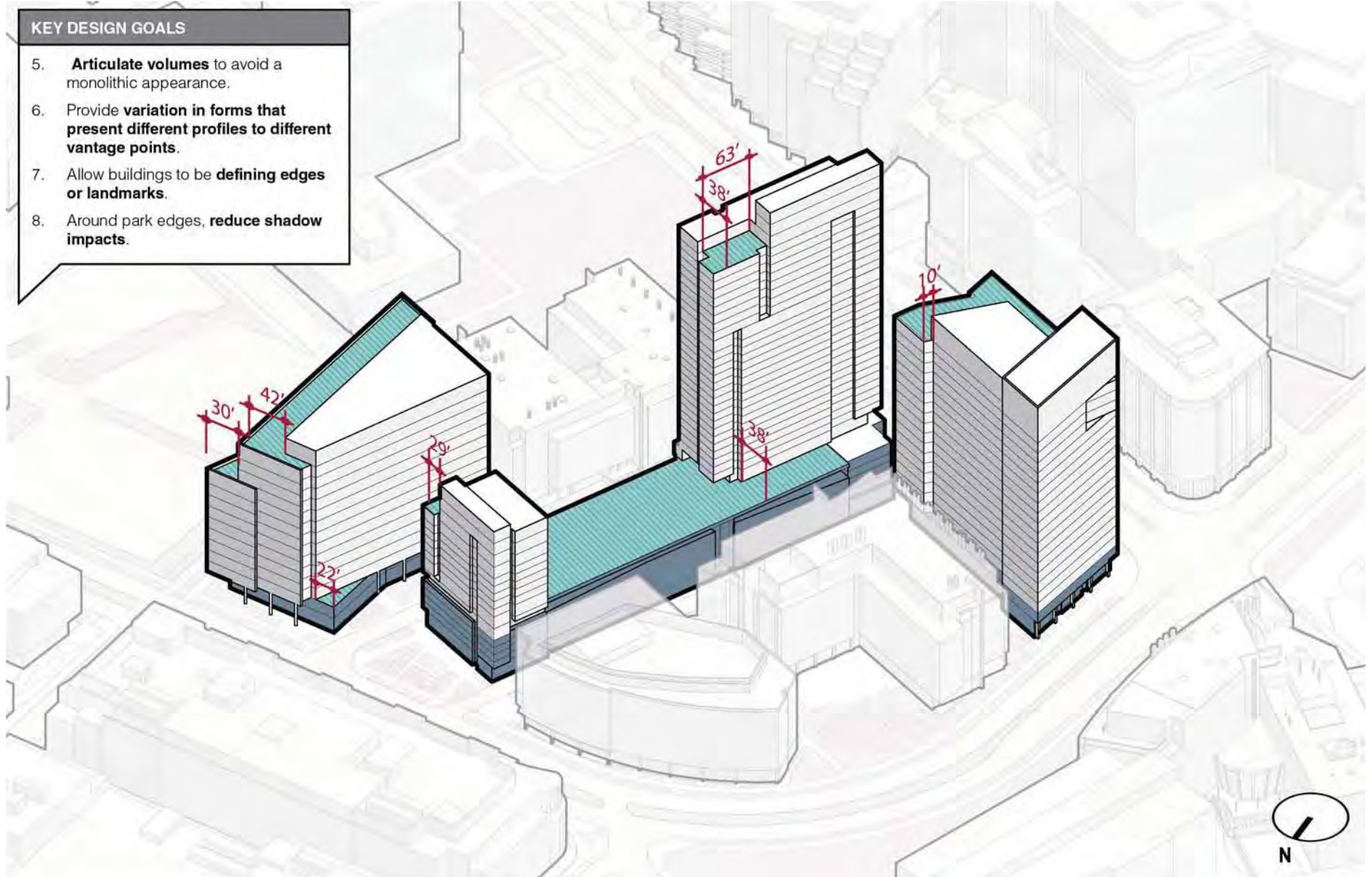
KEY DESIGN GOALS

1. Create a **strong datum** to limit sense of height at street level with setbacks.
2. Provide **transition to adjacent context** (parks, buildings).
3. Where setback, **use roof as green roofs, balconies, terraces and gardens**.
4. Where necessary, **emphasize corners** with mass and articulation.

-  Roof Amenity Opportunity
-  Ground Floor or Base Condition

KEY DESIGN GOALS

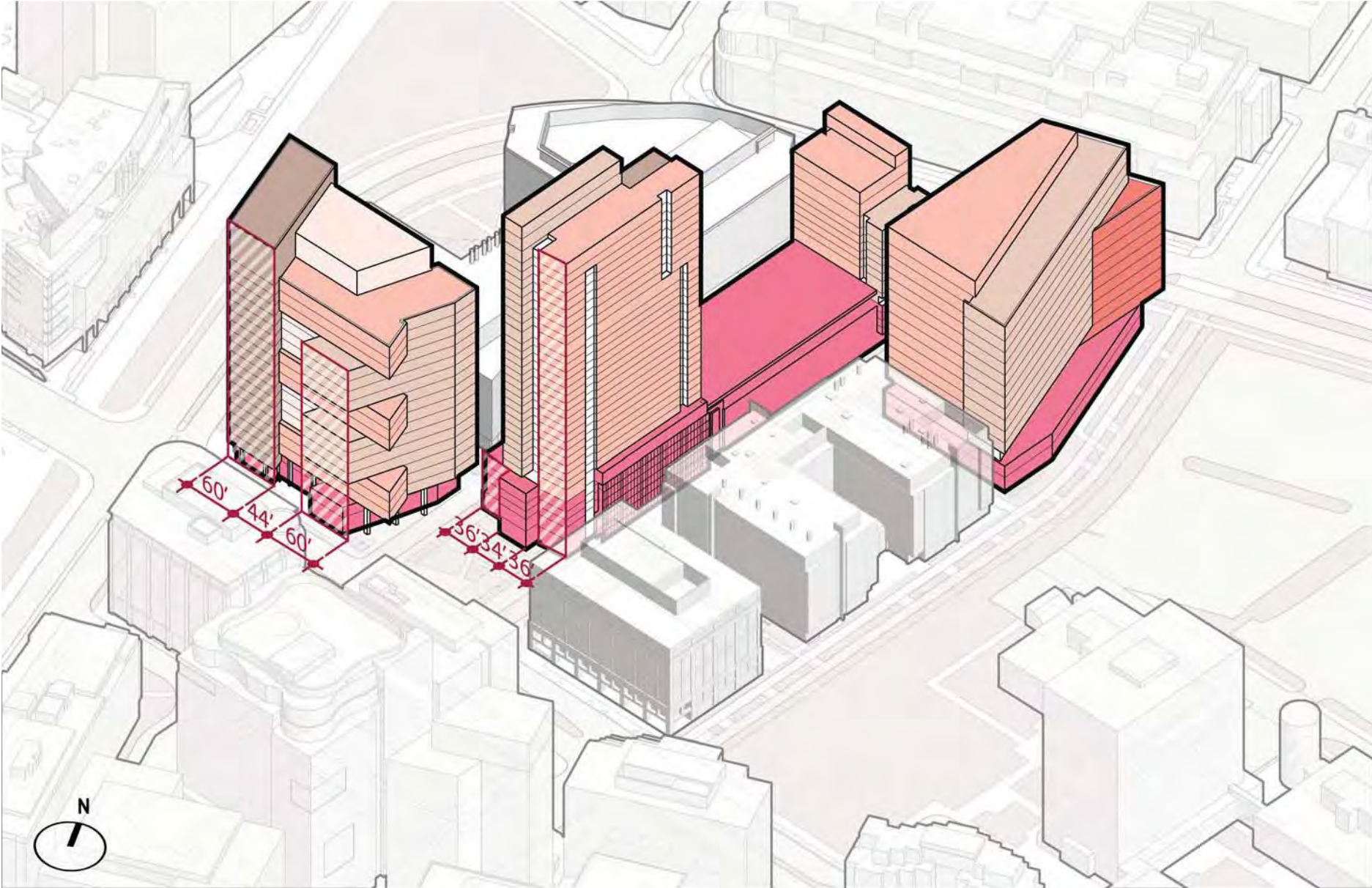
5. **Articulate volumes** to avoid a monolithic appearance.
6. Provide **variation in forms that present different profiles to different vantage points**.
7. Allow buildings to be **defining edges or landmarks**.
8. Around park edges, **reduce shadow impacts**.



NORTH WEST AXON

I. URBAN REALM DESIGN GUIDELINES

BUILT FORM - MASSING AND VISUAL INTEREST

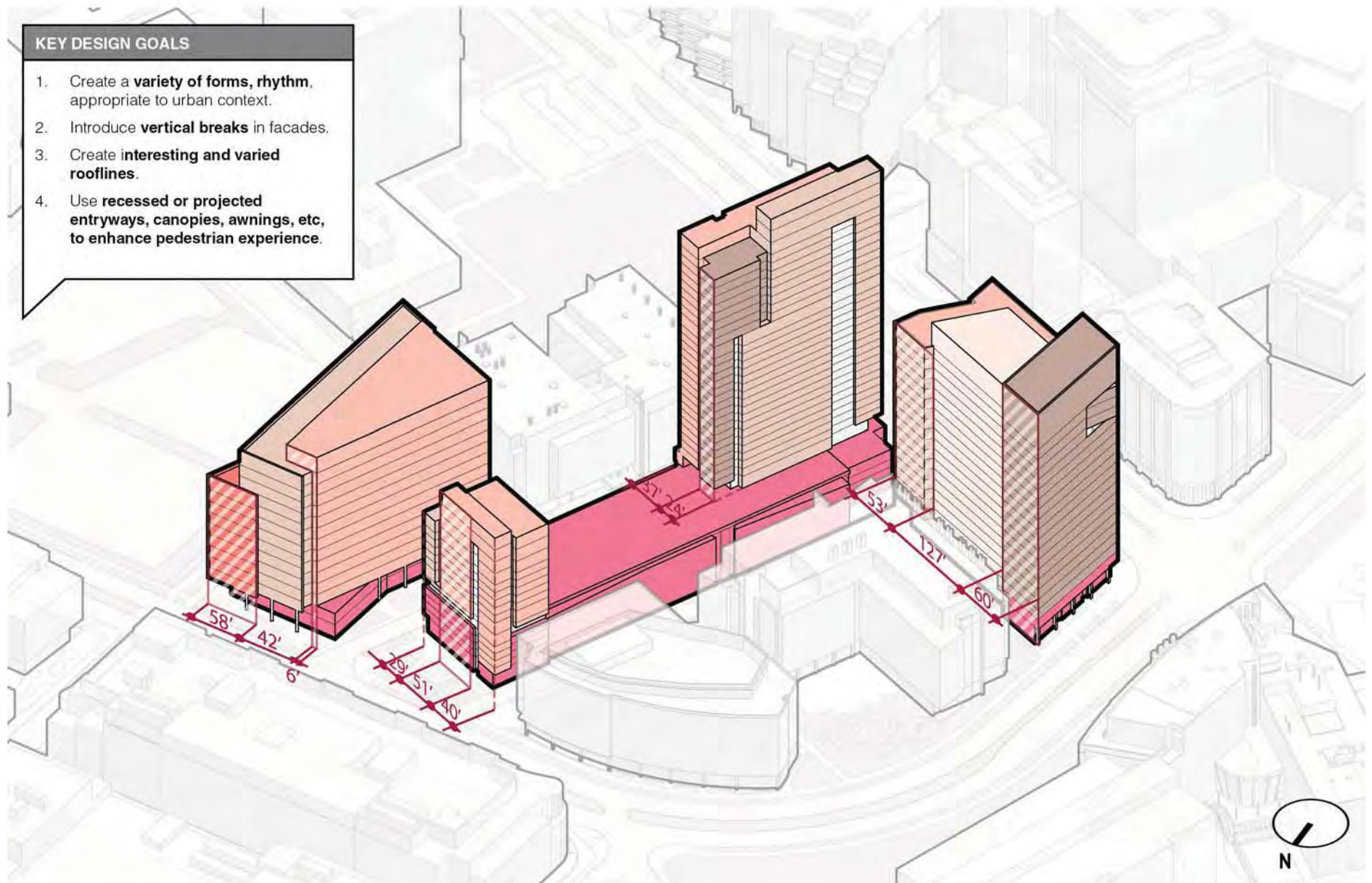


SOUTH EAST AXON

- Base volume
- Distinct volume
- Distinct volume
- Distinct volume
- Vertical bay

KEY DESIGN GOALS

1. Create a **variety of forms, rhythm,** appropriate to urban context.
2. Introduce **vertical breaks** in facades.
3. Create **interesting and varied rooflines.**
4. Use **recessed or projected entryways, canopies, awnings, etc,** to enhance pedestrian experience.



NORTHWEST AXON

II. LANDSCAPE MATERIALS DESIGN GUIDELINES

The following Landscape Materials Guidelines are provided to ensure a visually interesting and cohesive ground plane that emphasizes native and drought resistant plantings, comfortable and visually interesting site furnishing and functional lighting that provides safe lighting coverage but is respectful of neighborhood concerns. The objective is to ensure safety focused function while providing a well planned mixture of sustainable planted material and green space and inviting furnishings that encourage public use and enjoyment of the parks and walkways.

PAVING

All paving materials should be able to withstand high volumes of pedestrian movement and harsh weather conditions. Paving should be able to accommodate garage entrances, retail loading areas, vehicular crossings, and potentially de-icing treatments, if needed. In the event of damage, repair or utility work, paving should be easily repairable. Pavements must be slip resistant and safe for pedestrian traffic. Paving that utilizes lighter coloring can help reduce heat island effect and can count towards LEED credits. The following are pavement recommendations:

Field paving should be predominantly used to minimize tripping hazards along the pedestrian movements. Pave the sidewalk predominantly with field paving to minimize tripping hazards in the pedestrian travel way.

Specialty paving should be used to highlight entries to buildings or park, mid block crossings or even public art. Paving over tree spaces should be porous, either by utilizing porous pavers, setting unit pavers on a pervious setting bed or using tree grates.

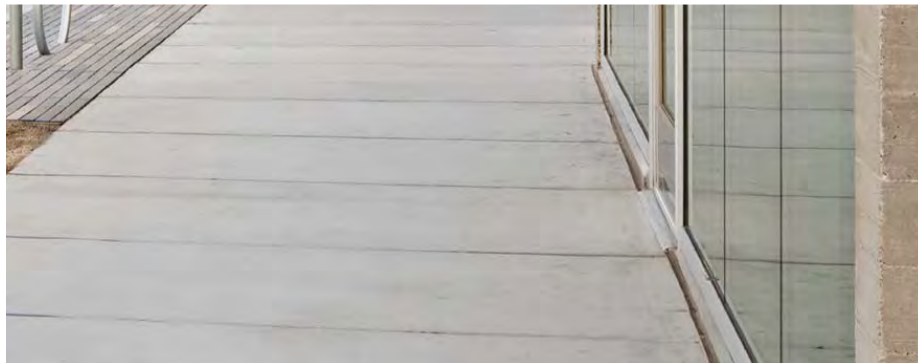
Within the district, concrete pavers may be used along the eastern facade of 145 Broadway, adjacent to Broadway Park to signify primary building entries and stairs. Sidewalks along Broadway, and Galileo Galilei Way will typically be cast in place concrete with saw cut joints, scoring patterns, and/or texture. Decomposed granite and or a Flexi-pave surface material could be considered an option for surfacing below bicycle parking.



CONCRETE UNIT PAVER



DECOMPOSED GRANITE



CAST-IN-PLACE CONCRETE



CONCRETE UNIT PAVER

II. LANDSCAPE MATERIALS DESIGN GUIDELINES

FURNISHINGS

BENCHES, TABLES, AND SEATING

Benches, tables and other types of seating should be located in a variety of settings to allow a choice of scenery and social settings. Within the district, a mix of fixed and movable chairs, as well as tables will be provided to allow for informal gatherings, outdoor eating, studying and socializing.

If located in sunny areas, umbrellas or shading devices will be considered.

In addition to movable tables and chairs, fixed benches may be used along the East West Connector, or potentially near building entrances, including vestibules, and other covered spaces.

SEAT WALLS

Within the district core, seat walls or colored concrete benches (with or without

wooden seats) will be used to provide seating in or around the edges of these spaces. Walls shall be concrete and be compatible in material, pattern and color with immediately adjacent buildings. Capstones will be granite or precast concrete. Seat walls should be set level.

LITTER AND ASH RECEPTACLES

The litter receptacle that should be used throughout the district is the 'collect' as supplied by "landscapeforms," with top or side opening, or similar. Finish shall be polyester powder coat in color 'silver,' 'titanium,' or 'black,' matching the color chosen for the benches.

BICYCLE RACKS

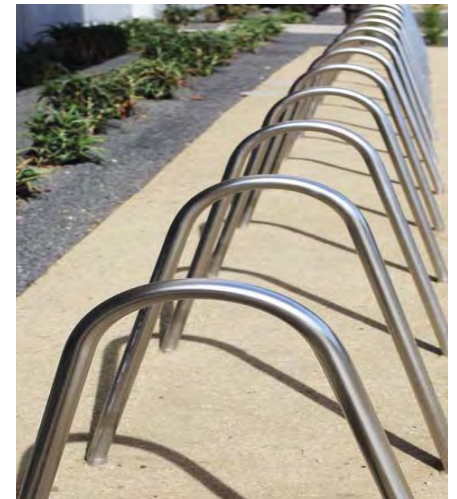
In all district areas, the 'Bola Rack', or similar, shall be used. Racks should be anchored to a concrete base, and shall preferably be stainless steel, receive a hot dipped galvanized finish, or a powder coat finish in black. Spacing of the ranks shall conform to Bicycle Rack Cambridge Standards.



LITTER RECEPTACLES



SEATING WALLS



BIKE RACKS

LIGHTING

The primary function of exterior lighting is the safety of drivers, cyclists and pedestrians at night, but it plays an equally important role in complementing architecture and urban form to provide a sense of place before and after sunset. Exterior lighting sources shall be light emitting diode (LED), unless approved by city staff. All exterior lighting fixtures must be submitted and approved by the CRA and city staff. Developments in the district shall observe the following guidelines with respect to exterior lighting:

Building lighting – Exterior walls of buildings should be illuminated at a regular interval by wall-bracketed or accent up light fixtures, and such fixtures should complement the building's architectural expression. Where a feature such as a soffit or arcade is employed in the architectural design of a building, lighting should be recessed into that feature. Exposed light sources shall not be permitted around buildings.

Pedestrian lighting – Pedestrian light fixtures should be no more than 14 feet

(14') tall, and be anchored by a pedestal base that is of proportion to the height and circumference of the pole of a complementary material.



AMENITY LIGHTING



FULL CUTOFF STREETLIGHT / PEDESTRIAN LIGHT



POST TOP PEDESTRIAN LIGHT



POST TOP PEDESTRIAN LIGHT

II. LANDSCAPE MATERIALS DESIGN GUIDELINES

WATER FEATURE

Water features of the proposed public realm can play a vital role in providing places to create visual interest and serve as a landmarks or focal points. Within Broadway Park, a water feature will serve the purpose of distinguishing the park from buildings along the Broadway streetscape. The design will integrate water features in the urban landscape as stormwater collection, storage and or circulation. Guiding principles for introducing water features into the pedestrian realm are as follows:

1. Use of high-quality stone products and applications that complement adjacent architecture.
2. Locate water features with the landscape zone, building zone, or open space locations. Water features should be kept out of the sidewalk zone of the streetscape, in order to not impede pedestrian movement.
3. Design considerations should take into account the appearance during winter months or during periods of drought.

4. Increase the recycling, storage and recirculation of stormwater.
5. Compliance with the City of Cambridge Standards for drainage.



WATER FEATURE / RUNNEL



RUNNEL SIGNAGE



DECOMPOSED GRANITE



WATER SPOUTS

EXISTING / ADAPTED GARAGE STRUCTURES

FIGURE R10.1.1A

Within the MXD district, recent developments have proposed to mask existing garage structures with new building proposals. For exposed parking garage surfaces, murals and screening devices or the continuation of building facade fenestration can be introduced when appropriate to mask or enliven these existing structures without impacting necessary open area for ventilation of the garage functions.

Within existing parking structures opportunities for enhanced wayfinding graphics can be applied to surfaces for greater pedestrian safety and information



III. BUILDING GUIDELINES

The following Specific Building Guidelines are intended to inform the individual buildings relationship within the wider MXD Project and surrounding neighborhood. The objective is to provide context and define how the buildings relate to each other, the neighborhood and the public realm.

COMMERCIAL BUILDING A (145 BROADWAY)

Located at the intersection of Broadway & Galileo Galilei Way, Commerical Building A at 145 Broadway Street is proposed to be an office building. It is a highly visible gateway, as it occupies two major public streets, Broadway and Galileo Galilei Way. The following are the design guidelines for Commercial Building A:

- Activate the adjacent public realm with public plaza, active use, and lobby spaces.
- Active use space on the ground floor extends along Broadway and wraps the corner of Galileo Galilei Way .
- Enhance the connection to the proposed Broadway Park and Binney Street Park.
- Massing at the corner of Broadway and Galileo Galilei Way establishes a strong urban presence and highlights the entry into the district.
- Interlocking forms face Broadway Park to reduce a monolithic reading of the building, multiple roof terraces and to provide visual interest to the adjacent public space.
- Capitalize on relationship to West Service Road by tucking loading and service access away from Broadway and in the service roadway.

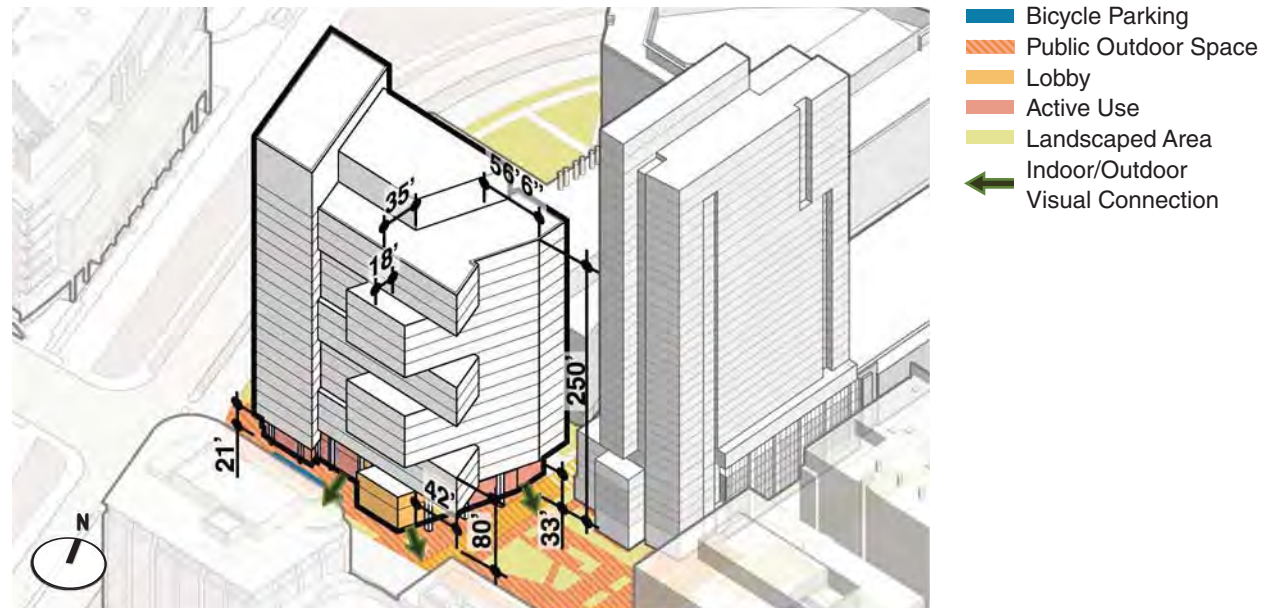
COMMERCIAL BUILDING A (145 BROADWAY)

LOT Size Existing:	37,862 SF
LOT Size Proposed:	56,760 SF
GFA:	443,731*
FAR:	8
USE:	Commercial
PARKING:	337
MAXIMUM HEIGHT:	250 FT
LOT COVERAGE:	39%*

*Numbers reflect revised lot.



PARCEL BOUNDARY



SAMPLE MASSING- SOUTHEAST AXON

III. BUILDING GUIDELINES

RESIDENTIAL BUILDINGS NORTH AND SOUTH (BLUE GARAGE)

Located in the center of Parcel 2, the proposed Residential Buildings North and South contributes to the housing needs of the City of Cambridge through the offering of a broad spectrum of residential units. Comprised of two standalone buildings, one facing Binney Street to the North and the other facing Broadway Street to the South, the new construction will mask the existing parking deck, significantly improving the streetscape and pedestrian experience within the neighborhood. The following are the design guidelines for South and North Buildings:

South Building

- Setback from Broadway Street, fronting the Broadway Park.
- Standing at 350 feet, provides an opportunity for a landmark building and can be seen from afar.
- Provides home ownership and rental units.
- Dedicated loading off West Service Road, away from major pedestrian and traffic paths.
- Two active lobbies on ground floor facing Broadway Park.
- Massing of building emphasize slender, vertically-oriented proportions and vertical breaks as necessary to minimize monolithic form.
- Social space/roof deck atop

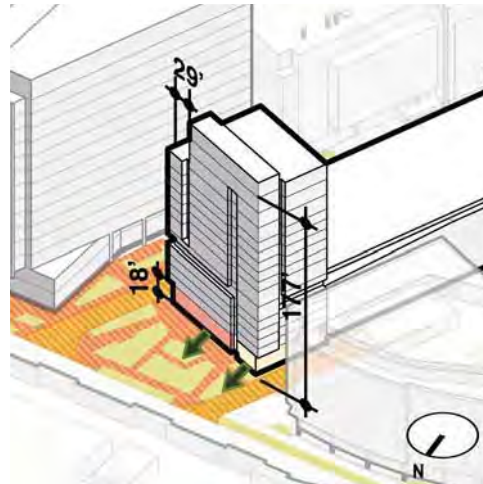
North Building

- Setback from Binney Street, fronting Binney Park.
- Stands at 157 feet, in respect to lower height of the neighborhood to north.
- Accommodates a proportionate share of affordable, middle-income and three-bedroom units.
- Ground floor plan contains active lobby as well as dedicated retail or active use space.
- Dedicated service and loading off East Service Road.
- Vertical breaks in the facade regulate massing.
- Social space/roof deck atop

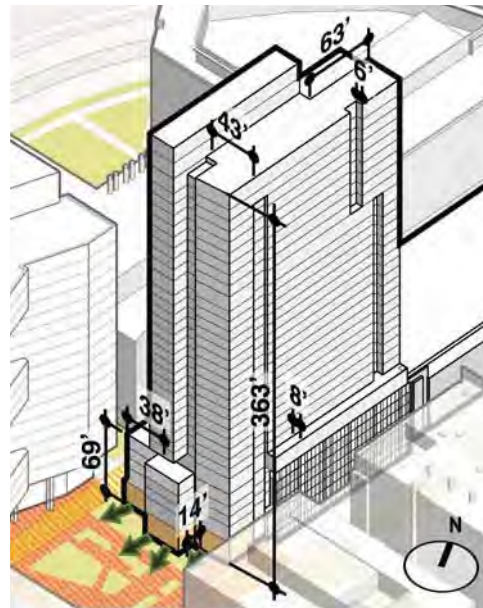
RESIDENTIAL BUILDINGS NORTH AND SOUTH (BLUE GARAGE)

Lot Size Existing:	91,848 SF
Lot Size Proposed:	72,950 SF
GFA:	421,053
FAR:	8
USE:	Residential
PARKING:	1,170
MAXIMUM HEIGHT:	350 FT
LOT COVERAGE:	71%*

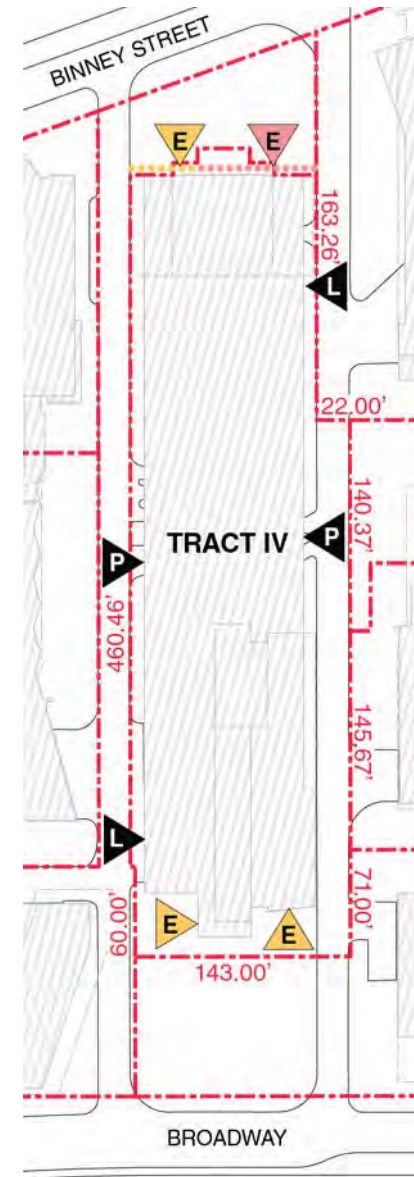
*Number reflects revised lot.



NORTH WEST AXON



SOUTH EAST AXON



GROUND FLOOR LOT BOUNDARY

- P** Parking Entrance
- L** Loading
- E** Entrance (per use type)
- Active Face (per use type)
- Lot Boundary
- ▨ First Floor Outline
- - - Roof Line Above
- Bicycle Parking
- Public Outdoor Space
- Lobby
- Active Use
- Landscaped Area
- ➔ Indoor/Outdoor Visual Connection

III. BUILDING GUIDELINES

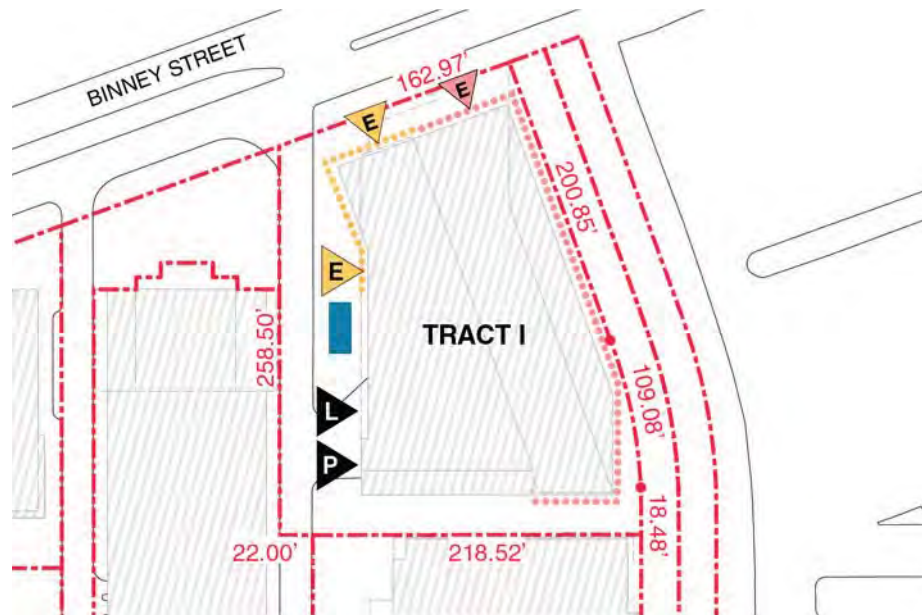
COMMERCIAL BUILDING B (250 BINNEY STREET)

Located along Binney Street, next to the 6th Street Connector, the proposed scheme for Commercial Building B responds to the site's irregular perimeter resulting in a trapezoidal floor plate and building form, while individual facades respond to site-specific conditions on each side of the building. The following are the design guidelines for Commercial Building B:

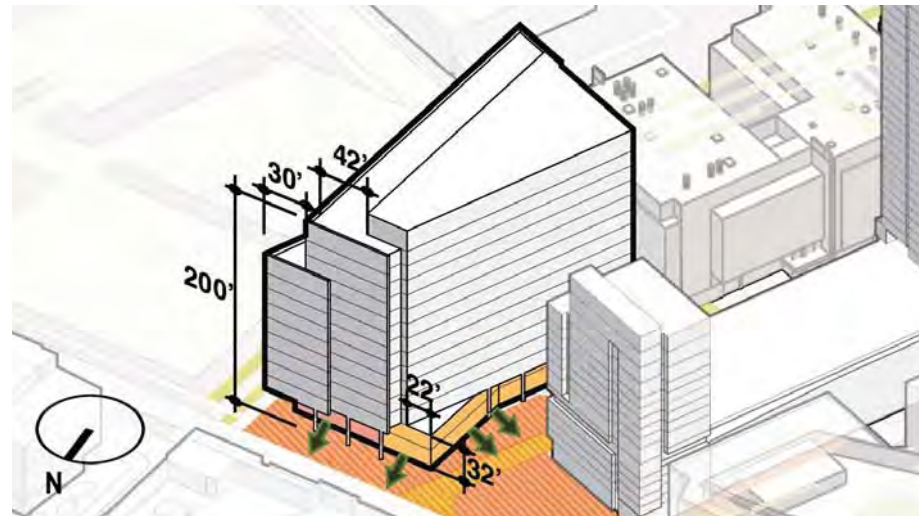
- Ground floor steps back to provide a more generous path of travel for pedestrians and cyclists.
- Active use space facing Binney Park angles to align to Binney Street and to provide a frontage to the public realm.
- Massing of volume is read as a series of overlapping conditions and setbacks.
- Building steps down toward 6th Street Connector with green roof amenities.
- Vertical breaks alleviate the reading of the volume.
- Active use and active lobby establishes the program on the ground floor.
- Service and loading is located on East Service Road.

COMMERCIAL BUILDING B (250 BINNEY STREET)

Lot Size:	60,622 SF
GFA:	318,644 SF
FAR:	5.25
USE:	Commercial
PARKING:	Up to 650
MAXIMUM HEIGHT:	Up to 200'
LOT COVERAGE:	58%



PARCEL BOUNDARY



SAMPLE MASSING- NORTHWEST AXON

- Parking Entrance
- Loading
- Entrance (per use type)
- Active Face (per use type)

- Lot Boundary
- First Floor Outline
- Roof Line Above

- Bicycle Parking
- Public Outdoor Space
- Lobby
- Active Use
- Landscaped Area
- Indoor/Outdoor Visual Connection

IV. FACADE GUIDELINES

The following Façade Guidelines are designed to help define the different strategies necessary to differentiate street level facades, upper level facades and the characteristics of commercial exteriors and residential exteriors. The objective is to select a mix of materials that help make a building architecturally distinct but contextually appropriate, clearly define a building as residential or commercial, are visually interesting from the street level, reinforce broader design principles that define the proposed building and strike a balance between sustainability and architectural interest.

IV. FACADES GUIDELINES - COMMERCIAL

STREET LEVEL CONDITIONS:



CURTAIN WALL PANELS:

FIGURE R10.1.1B



Ground Floor - Transparency at the ground floor level reveals the activity within the building, extending the public realm and enlivening the streetscape.



Curtain Wall Panels - Variation in glazing types, frame depths and scales of horizontal and vertical expressions heightens visual interest.

GLAZED VOLUMES:



Glazed Volumes - Reveals and recesses in the facade breakdown the proportions of large facades. Plane changes on the facade allow opportunities for exterior spaces and introduce a smaller scale of inhabitation on the façade

OPAQUE WALL AREAS:

FIGURE R10.1.1C



Opaque Wall Areas -Introducing solid wall cladding embeds the scale of occupants and interior spaces on the elevations in addition to allowing for complementary materials to the urban context. Opaque wall areas will incorporate depth, scaling elements and create shadow.

IV. FACADES GUIDELINES - RESIDENTIAL

STREET LEVEL CONDITIONS:

FIGURE R10.1.1D



Transparency at the ground floor highlights the residential lobby and animates the streetscape.

Well lit visible lobbies at the ground floor are designed to be the entrance to someone's new home. By creating a transparent and welcoming lobby, a strong sense of activity that is very inviting can be established along the street.

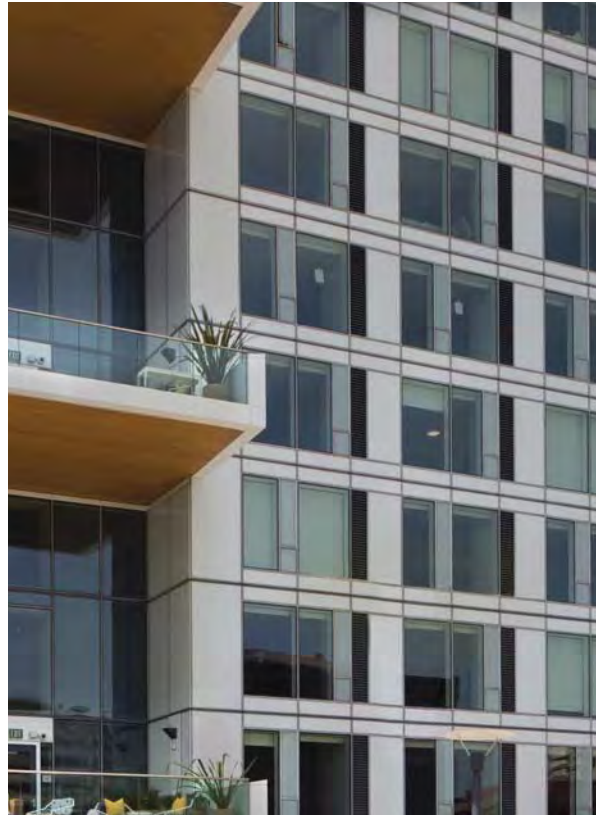
A podium and tower expression is enhanced through material changes and various breaks in the building. This strategy helps to reduce the scale of the building as it comes to the ground floor.

UPPER LEVEL CONDITIONS:

FIGURE R10.1.1E



Inset balconies create visual interest and relief in large facades helping to break down the scale of the building as well as providing an outdoor space for residents to enjoy.



Punched window openings in the facade is a sustainable design approach that seeks to increase energy efficiency to meet the energy code and LEED requirements; while also respecting adjacencies to surrounding buildings. This is achieved through a combination of window glass and opaque materials which can be used architecturally to create interesting visual patterns.



Horizontal spandrels and other pattern facades can be used to accentuate thinner proportions within the building. These strategies work in combination to break down the scale of the mass.