SECTION 04
DESIGN RATIONALE

SECTION 04. DESIGN RATIONALE

4.1 Design Principles
4.2 Key Design Considerations
4.3 Organization of Functional Programme
4.4 Form and Massing
4.5 Architectural Character Concept
4.6 Proposed Development Elevations

4.1 DESIGN PRINCIPLES

4.1.1 BING THOM'S NINE BIG IDEAS

Bing Thom Architects proposed nine 'big ideas' through which the design of the Broadway and Commercial development would be tested to ensure that the project vision was fulfilled. These 'big ideas' remain relevant to the current scheme and form core principles through which design decisions have been indexed against.

At the heart of these principles is the term 'community social' which was used by Bing Thom Architects to capture ideas of the particular vitality of the neighborhood, the eclectic nature of the project and its transformative potential.

The nine 'big ideas' are summarized below;

4.1.2 DYNAMIC GATEWAY OPPORTUNITY

The Broadway and Commercial site (hereafter referred to as the Safeway site) is an important and recognizable node within the City. Development of the Safeway site has the potential to create positive activation and to act as symbolic gateway between the downtown urban core and the metropolitan areas beyond. The highly visible scheme will become precedent setting, and it is important that in architectural terms that it is bold and assured, even heroic.

4.1.3 A REASON TO BE HERE

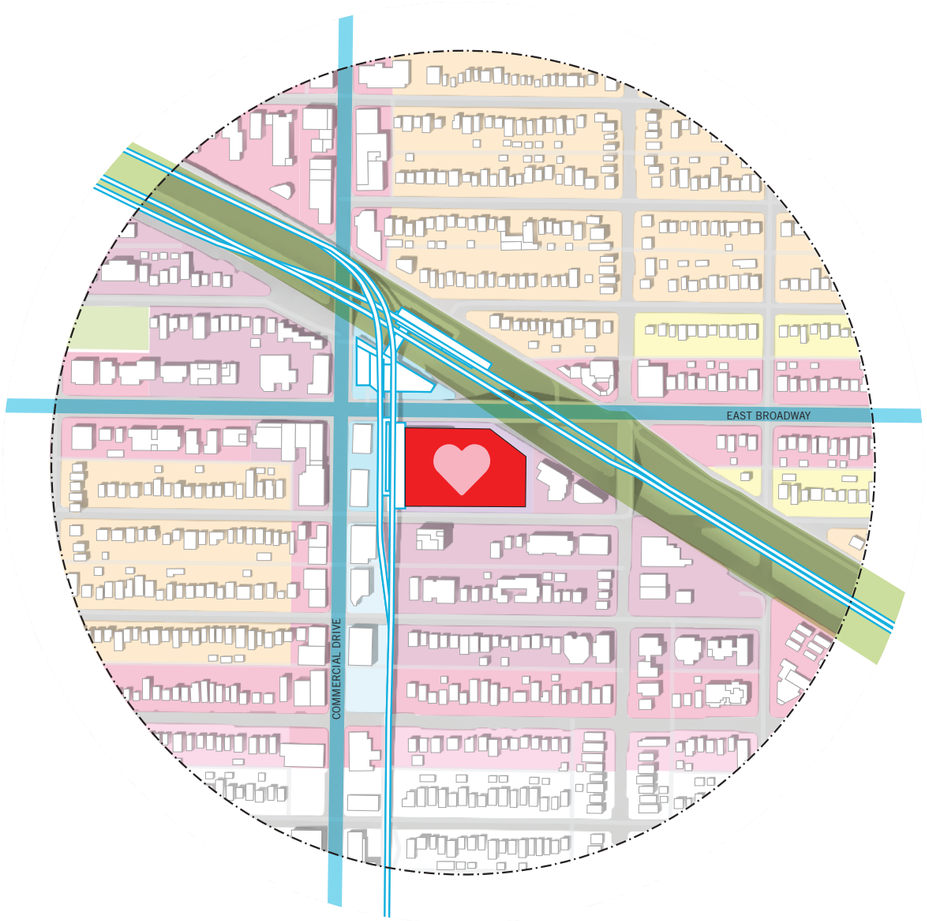
The Safeway site is a logical location for high density development. The scale of the development provides critical mass for enhancement and invigoration of the neighborhood. It is somewhere that suffers from being a point of transition, whereas it should become a destination. The site location is important as the busiest transit interchange within the city, and its elevation marks it as a powerful symbol of positive change.

4.1.4 REUNITE THE DRIVE

Commercial Drive is interrupted at the intersection of Broadway by the east/west rail corridor 'the Cut'. The nature of Commercial Drive to the north is quite different to that south of the cut. The location of the Safeway site to the south of the cut provides an opportunity for a development catalyst for reunification of south Commercial Drive to the more vibrant northern part of the street. The Safeway site can be considered as a 'weld point' where the strength of the connection is greater than the current adjacency.

4.1.5 A VIBRANT LOCAL ECONOMY

The immediate area around the Safeway site is quite ambiguous, and suffers from a lack of positive identity. The development has the potential to reinvigorate this area and to complement the dynamic qualities of north Commercial Drive. The scale of the development will provide a "critical mass" enhancement of the on-site commercial activities as well as support a vital and diverse local economy.



THE SITE SITS AT ONE OF THE MOST DYNAMIC NODES WITHIN THE CITY. IT IS A GATEWAY PROJECT AND A CATALYST FOR POSITIVE SOCIAL DEVELOPMENT.

4.1 DESIGN PRINCIPLES

4.1.6 NEW HOMES

The development is considered in terms of the creation of new homes, not units. Each home must be composed of livable spaces, supported by meaningful amenity and access to gardens and a range of safe outdoor spaces. Bing Thom Architects had characterized the potential of the site as the creation of a true vertical village.

4.1.7 FAMILY SPACE

At the heart of the project is the belief of the importance to create homes for families. This must inform the size and layout of the individual homes but also to extend beyond the threshold of the home. Spaces must be considered in respect to the family and the child, be safe and secure, but also stimulating and life enhancing. The Dutch architect, Aldo Van Eyck, proposed that the city be considered in respect to the house, and that the house be considered in respect to the city. This development must embrace the common values of both the intimate and the broader, societal family of Vancouver.

4.1.8 GREEN URBANISM

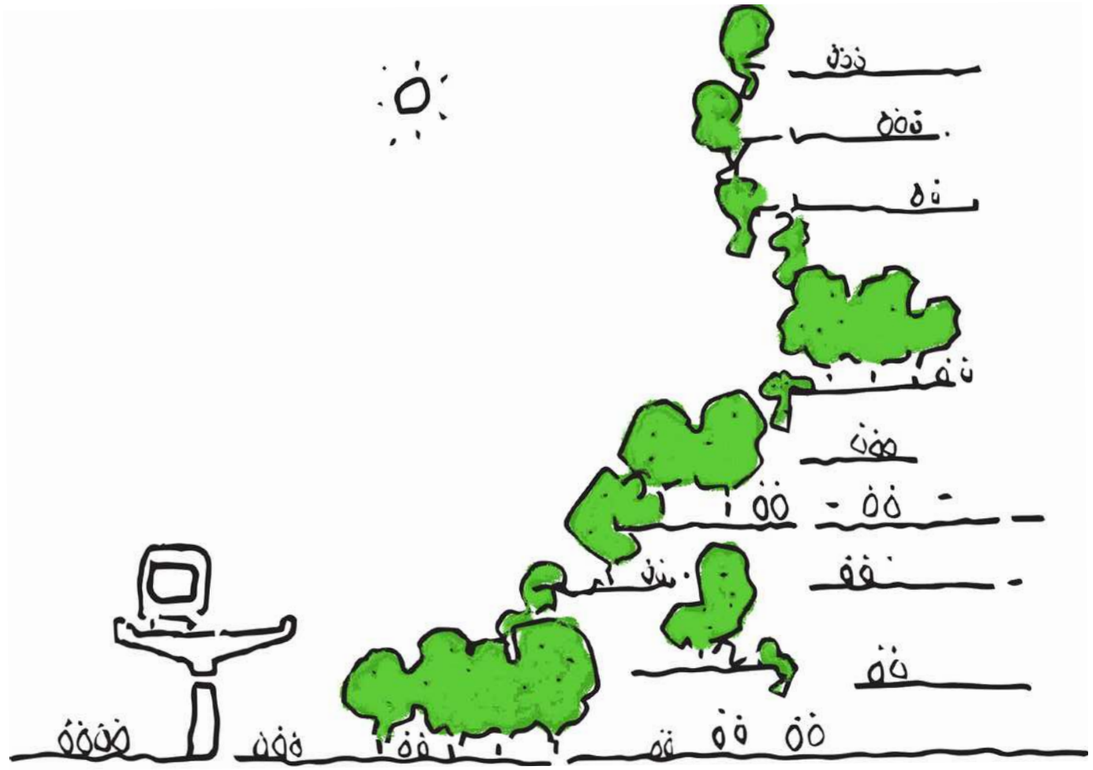
The development must consider landscape strategies as major generators of design. This is not landscape as a mediating edge but fully integrated into a cohesive and coherent structured approach to high density urban development. The architecture of the development must be responsive to the creation of meaningful green spaces but to do so in a manner that captures the idea of ‘green urbanism’, a microcosm of the garden city.

4.1.9 ARCHITECTURE AND CULTURE

Not only is this development seen as a catalyst for change, but also as a reflection for the drive of our community for what is progressive and positive. The dynamic culture of Vancouver must inform the project which in turn must act as a symbol of optimism. Perhaps paradoxically the development must also embrace continuity, memories and evolution of forms of living that look forward, but that respect the essence of the ‘genius loci’ of both its immediate and City context.

4.1.10 PROGRESSIVE ARCHITECTURE

Although the notion of what is progressive in terms of design often becomes confused with subjective notions of style and superficial concerns, the development has an important role in challenging narrow orthodoxies. Truly progressive, the project should embrace performance as well as formal based design criteria. The project should be environmentally responsive and fully committed to becoming an exemplar for future development within the city.



BING THOM ARCHITECTS BIG IDEAS INCLUDE GREEN URBANISM TO INFORM DEVELOPMENT OF THE DESIGN CONCEPTS

4.1 DESIGN PRINCIPLES

4.1.11 HEALTHY CITY GOALS - HAPPY CITY

In addition to the nine 'big ideas' the set of pre-planning guidelines prepared by Happy City to address the goals of the Healthy City form sets of principles through which the design has been critically reviewed and developed.

The current proposal has addressed the headline issues raised by Happy City following the earlier Bing Thom scheme.

These include the size and location of the grocery store, ground level parking, and the status of the public plaza.

The recommendations which are reflected in the design proposal are summarized below;

- Housing
- Shared Space
- Mobility
- Green Space and Nature
- Building Construction and Design

4.1.12 HOUSING

Offer collective housing options that nurture social support and relationships

Amenities which offer opportunities for community models such as Co-housing and household clustering should be safeguarded. These amenities should be meaningful and be supported by a range of spaces of different scales to promote social interaction within proximity of smaller groups of homes within the overall development.

Help people stay longer / support longer tenure

A modular approach to the planning of homes may facilitate longer term flexibility in internal plan arrangement. A variety of home types should be provided, but where the type plans are regular and accommodate a degree of modification without the challenge of irregular geometry. Homes should be designed to support a range of tenure options which are spatially non-discriminatory and which support broad social integration.

4.1.13 SHARED SPACE

Build a generous and inclusive public realm

Public open space should be provided that supports regular, casual and satisfying social encounters not just for the residents of the development but for the whole neighborhood. Creation of a beloved and significant public plaza; it was recognized that an elevated plaza would be unworkable as a truly public space and that such a space should have active commercial edges.

Public art on the site should offer a strong sense of meaning for residents, businesses, visitors and transit users. Public art should reflect the diverse cultural aspects of this part of the City.

Create semi-private and shared spaces that enrich village life

The Podium green space (hereafter referred to as the courtyard garden) should provide an active front yard for residents. Main entrances to the residential blocks should be located off the courtyard. The concierge facility should serve both a social and security function. The design should embrace all-season use of the courtyard with a range of 'social magnets' integrated into the design. Communal amenities at this level should be designed to boost foot traffic. Arrange homes to overlook the courtyard and so convey a sense of passive security.

4.1.14 MOBILITY

Make walking wonderful

Support the public realm along the edge on Broadway. Although previous recommendations called for an active commercial edge on Broadway, this has been determined as being unrealistic. However the design of the grocery store frontage along Broadway should provide visual permeability and avoid the perception of a blank façade.

Provide a safe well lit pedestrian link between Broadway and East 10th Avenue to provide permeability and address concerns of the site becoming a barrier to active mobility.

Reduce car dependence

Bike share stations and great bike services should be provided and be easily accessible, within close proximity to the Skytrain station, both at grade and as dedicated resident bike parking within the parkade. Designated car parking for pool car share vehicles should be considered.

4.1 DESIGN PRINCIPLES

4.1.15 GREEN SPACE AND NATURE

Ensure diverse nature and green space is accessible to residents, visitors and transit users

Shared gardens throughout the residential development should be considered and provided in a variety of forms and scales.

4.1.16 BUILDING CONSTRUCTION AND DESIGN

Become a city of Vancouver best practice in environmental sustainability and human wellbeing

The location of the Safeway site demands that noise mitigation is considered in both the design and the selection of building materials. These considerations will also inform landscape strategies throughout the development and the creation of well insulated internal and social spaces which are conducive to pro-social activities.

The development should showcase best practices in respect to the new standard for sustainable building, and be an exemplar of the Renewable City Strategy.

Support small business and local entrepreneurship

Small retail destinations should provide a range of commercial experiences within the public realm at ground level. The retail nature should be complementary to that of Commercial Drive, and have a strong local ambience.

Opportunities to work within the site should be considered and ideas such as an innovation hub have been suggested.



4.2 KEY DESIGN CONSIDERATIONS

4.2.1 AT GRADE PUBLIC OPEN PLAZA

The Grandview Woodland Community Plan requires that the site provides a generous public plaza at grade. Previous iterations of the development scheme proposed that this be translated as an elevated 'breezeway' on multiple levels spanning from East 10th Avenue to Broadway with sets of monumental stairs at either end.

To support this strategy it had been also proposed that a more suitable location for a grade level public plaza be considered at the intersection of Commercial Drive north and the cut.

It is recognized that the conception of the breezeway, although architecturally arresting, did not satisfy the intention of the requirement and that an at-grade public plaza of approximately 20,000 sqft (open to the air) is required to be satisfactorily integrated into the proposal.

The plaza should be legible in urban terms; functional and a meaningful public space providing connectivity between Broadway and East 10th Avenue.

The design rationale for the plaza is discussed in more detail within Section 5.0 of this report.

4.2.2 ANIMATION OF EDGES

It has been recognized that the planning of a large format grocery store on the site poses a number of challenges in terms of animation and avoidance of 'sterile edges'.

The design must reconcile the functional demands of this type of retail with measures to provide activation of the public plaza and generosity to its address on Broadway and East 10th Avenue.

4.2.3 PEDESTRIAN ACCESS TO GROCERY STORE FROM BROADWAY AND EAST 10TH AVENUE

The Grandview Woodland Community Plan suggests two alternative conceptual strategies for the location of the grocery store, the configuration of the public plaza and the route through the site. Convenient access from both Broadway and East 10th Avenue to the single entry point for the grocery store needs to be provided.

Where the grocery store is elevated to the second floor, as in previous iterations of the scheme this has proved problematic to fulfill the intention of these criteria, and the design must integrate the grocery store location, elevation and entrance with the public plaza and direct connection between Broadway and East 10th Avenue.

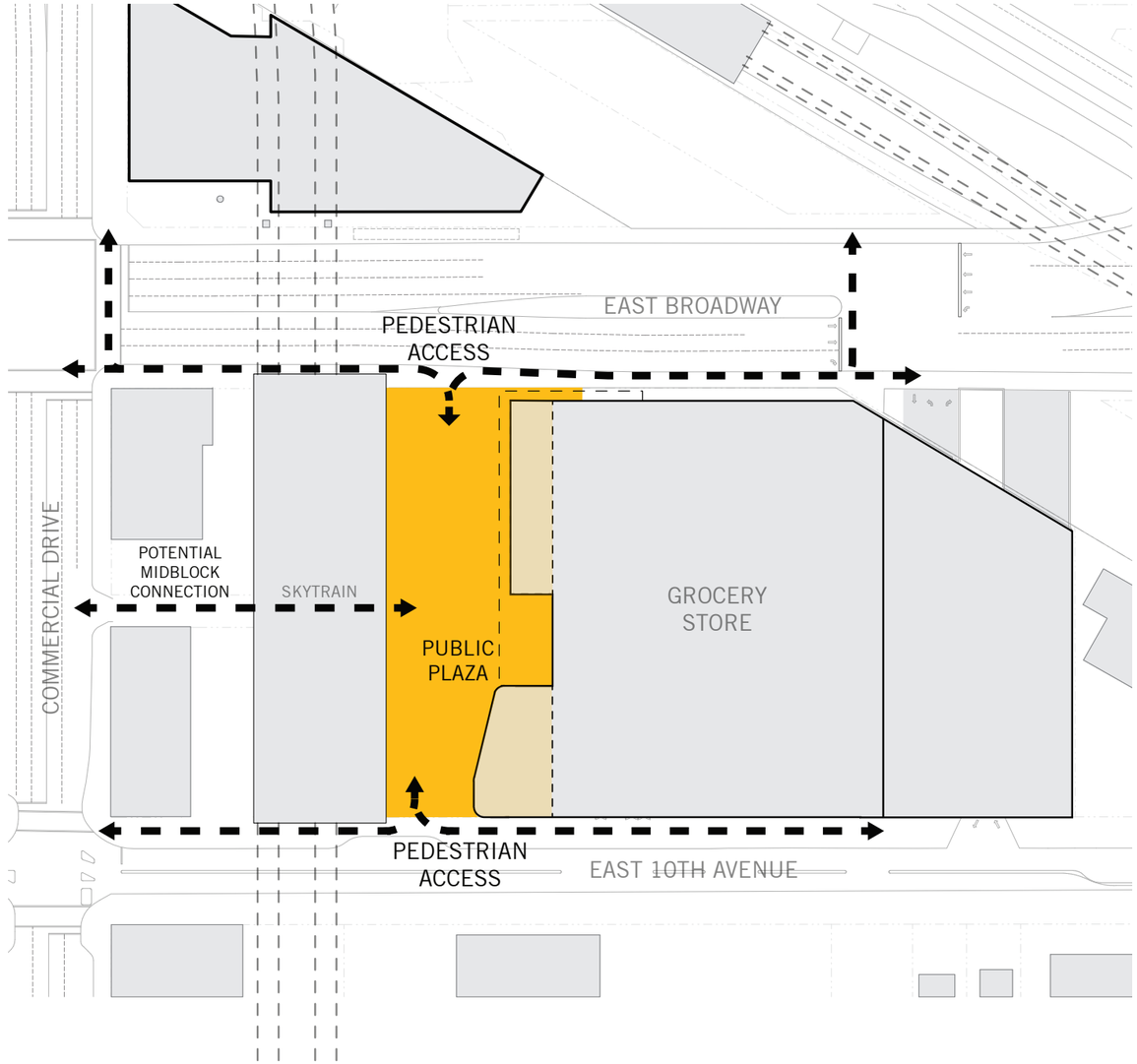


DIAGRAM AT COMMERCIAL-BROADWAY ILLUSTRATING PEDESTRIAN ORIENTED PUBLIC PLAZA AND SAFEGUARDING OF MIDBLOCK CONNECTION

4.2 KEY DESIGN CONSIDERATIONS

4.2.4 SMALL SCALE RETAIL

The relationship of the scheme to its immediate context, and particularly to the character of Commercial Drive North is seen as being of fundamental importance to its success. The large format grocery store should be complimented by small and micro retail opportunities which contrast in scale and use and which may offer non-conventional formats for retail.

The location of such retail units has been considered in the past and it has been suggested that the elevation of the development along Broadway would benefit from active retail frontage.

The proposal presents an alternative recommendation, where the Broadway elevation at grade is dominated by a glazed elevation for the grocery store.

Retail within the public plaza is clustered towards the southern end, wrapping around onto East 10th Avenue. Micro CRU units have also been introduced along the East 10th Avenue elevation to further animate the Greenway.

4.2.5 CONTEXT AND GENIUS LOCI

As discussed elsewhere in this report the character of this part of the city is unique and specific. This development will, by its scale and density, alter the nature of the neighborhood and how the Broadway / Commercial Drive intersection is perceived throughout the city.

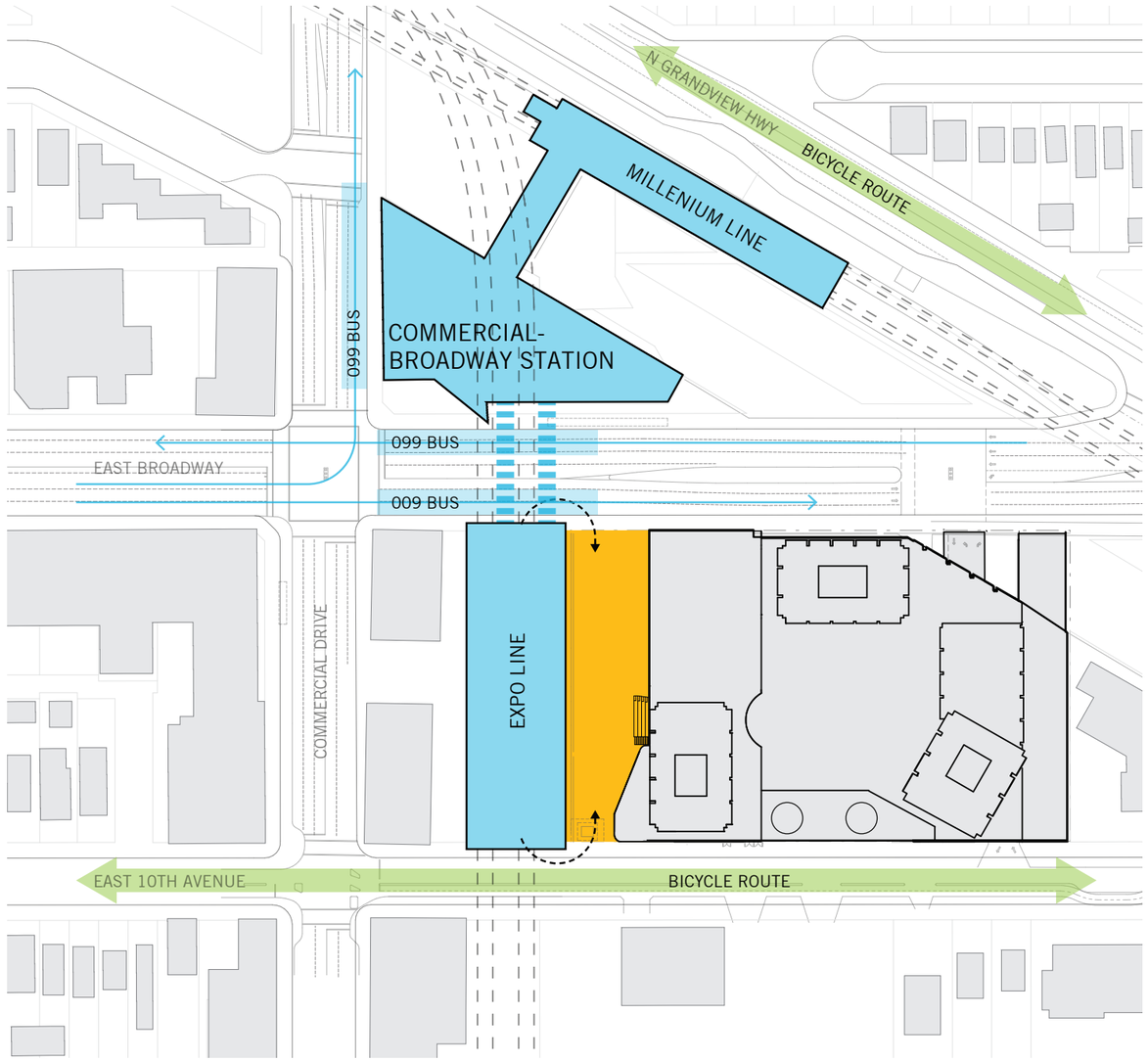
The valued historic fabric of the area must be considered alongside the zones of ambiguity and transition – particularly the immediate area around the Safeway site. The scheme must aim to be responsive to the spirit of the place whilst at the same time offering an optimistic forward looking image for the demands of the 21st century city.

4.2.6 TRANSIT

The relationship of the adjacent Skytrain station is an important design consideration. The main entrance to the station is at grade from Broadway with a secondary at grade entrance from east 10th Avenue.

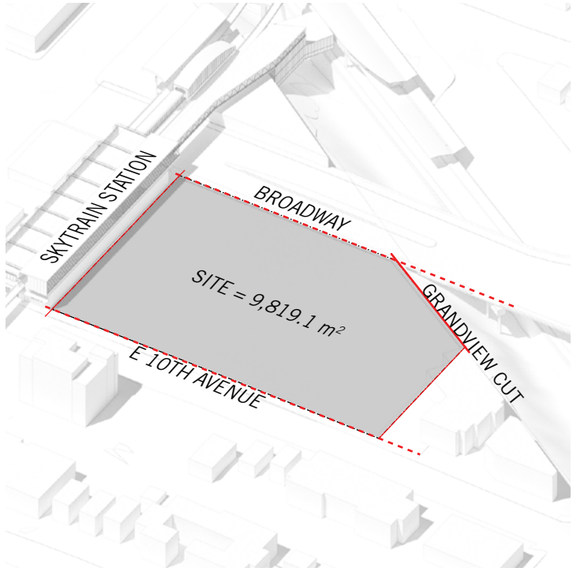
The Grandview Woodland Community Plan illustrates a potential mid-block connection between the station and the development site which should be safeguarded, although the current design for the expansion of the station makes no such concession.

The transit hub of Broadway and Commercial should be enhanced by the scheme, with the plaza connecting the two ends of the station and providing a vibrant active public open space providing spatial amenity at the point of modal interchange.



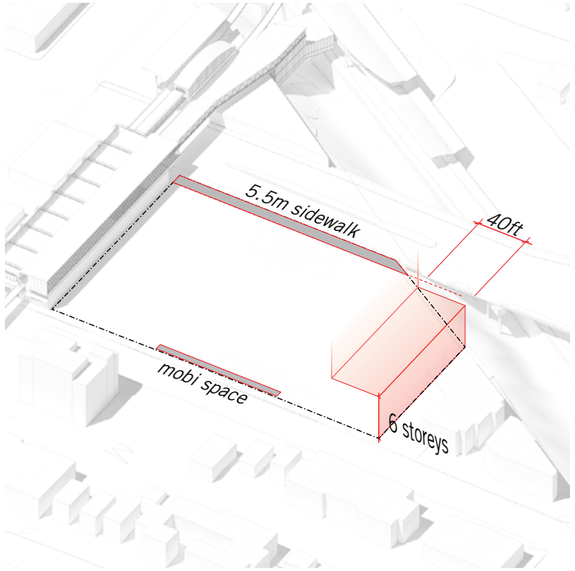
INTERMODAL TRANSIT INTERCHANGE ELEMENTS AT COMMERCIAL/BROADWAY

4.3 ORGANIZATION OF FUNCTIONAL PROGRAMME



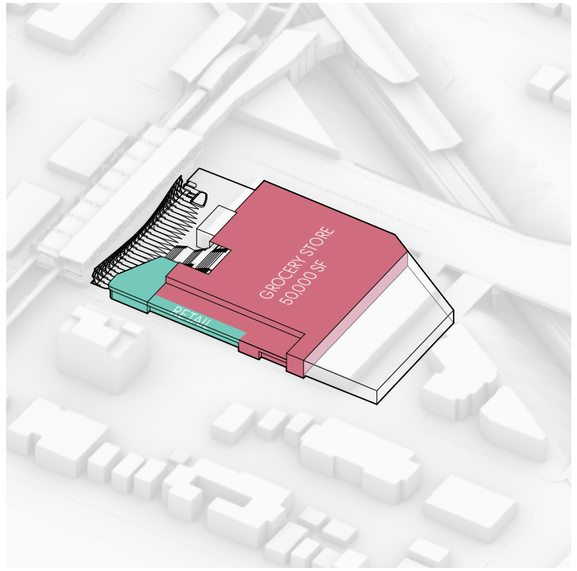
1 SITE CONSTRAINTS

- Front: Broadway
- East: Grandview Cut
- South: 10th Avenue
- West: Commercial-Broadway Station



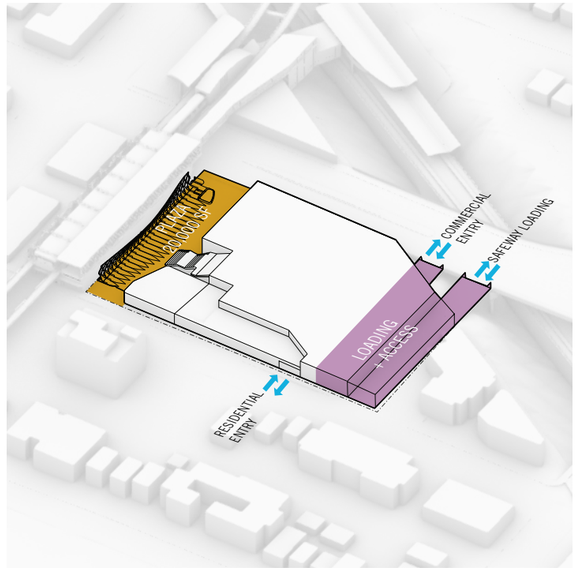
2 SETBACKS

- Front setback of 5.5 m
- 40 ft. building separation for all buildings above 60 ft. in height



3 GROCERY STORE AND RETAIL

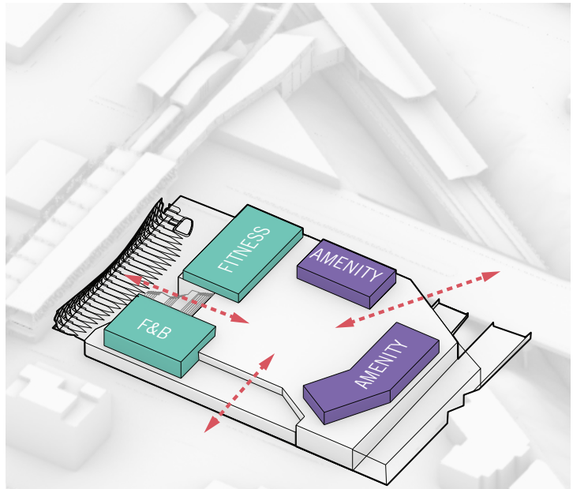
- ± 50,000 sf Grocery store
- Small-scale retail at-grade at the southern end of the plaza and micro-retail along East 10th Avenue



4 PLAZA AND LOADING BRIDGES

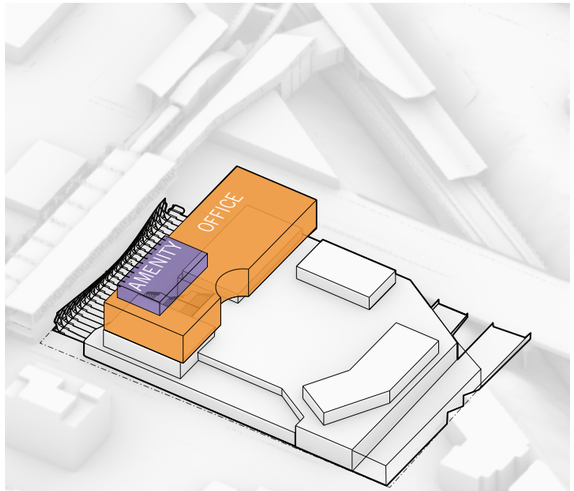
- 20,000 sf public plaza
- Loading and commercial access off Broadway
- Residential access off E 10th Avenue

4.3 ORGANIZATION OF FUNCTIONAL PROGRAMME



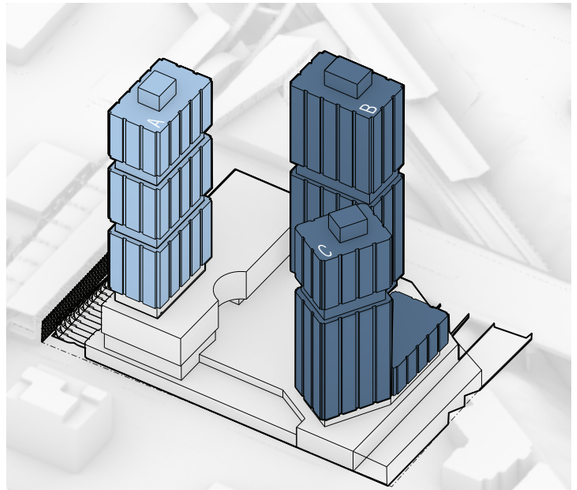
5 AMENITIES

- Residential Amenities
- Retail: F&B, Fitness Centre
- Porosity between amenity buildings



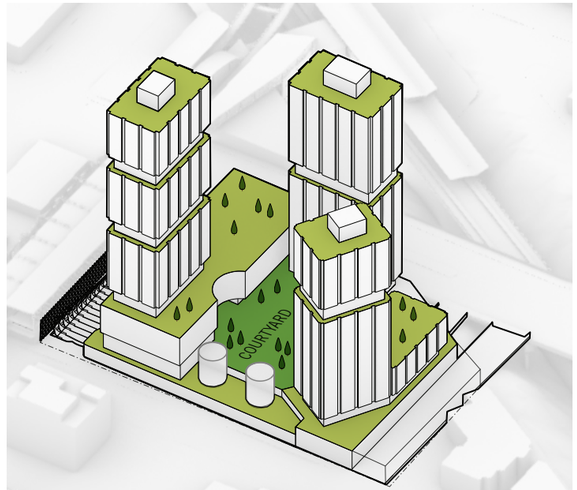
6 OFFICE

- 2 Levels of office space
- Residential Amentiy



7 RESIDENTIAL TOWERS

- Tower A: Market condo
- Towers B, C: Market and Non-Market Rental



8 ROOFTOP SKY-GARDENS AND COURTYARD

- Sky-gardens at various levels
- Courtyard, open to all residents of the site

4.3 ORGANIZATION OF FUNCTIONAL PROGRAMME

4.3.1 PUBLIC PLAZA

The provision of the 20,000 sf public plaza is the primary organizational driver of the design.

The scheme proposes that this plaza run north south along the eastern edge of the Skytrain station extension at the westernmost boundary of the site. This location and configuration of the public open plaza is in accordance with the illustrative material set out in the Grandview Woodland Community Plan.

4.3.2 GROCERY STORE

The large format grocery store anchors the northwest corner of the site while providing the space required for the public plaza and accommodating service loading and vehicular access to the site.

In response to the specific requirements of the tenant, the store is a single level, rectangular plan form approximately 50,000 sf in area.

The store is located at grade relative to the public plaza, with the main entrance to the store located at the north eastern corner of the public plaza, directly addressing the main Skytrain station entrance.

This location provides good visibility of the store entrance from the Broadway and Commercial pedestrian crossing point, and the adjacent bus interchange. The entrance addresses both Broadway and the public plaza and is visible and easily accessible from East 10th Avenue.

The northern edge of the store which runs along Broadway is considered to be largely glazed providing an animated edge with visual generosity to the street frontage - and a unique opportunity for programming within the store.

4.3.3 RETAIL

Retail is concentrated to the southern end of the public plaza and organized over three levels, with a generous public terrace overlooking the performance area of the plaza.

This zone would be ideally suited to uses such as a brewpub or other F+B offerings.

Ground level retail in this area has been designed to allow for a variety of demising strategies, but the intention is that all the retail would be of a character to animate and enliven the public nature of the plaza generally, and reflect the character of the Drive in particular.

Plaza retail is also designed to engage directly with East 10th Avenue and the upper terrace wraps around the corner providing access to outdoor south facing dining spaces which have been stepped down from the upper courtyard level of the podium, softening the relationship of the scheme along this edge.

Micro CRUs have been introduced along East 10th to further animate this edge, while the introduction of Thermal Tank Park in the lower courtyard provides additional interest and activity.

The plaza has been designed to offer a high degree of adaptability of use, and it is expected that temporary facilities including community based retail will encouraged.

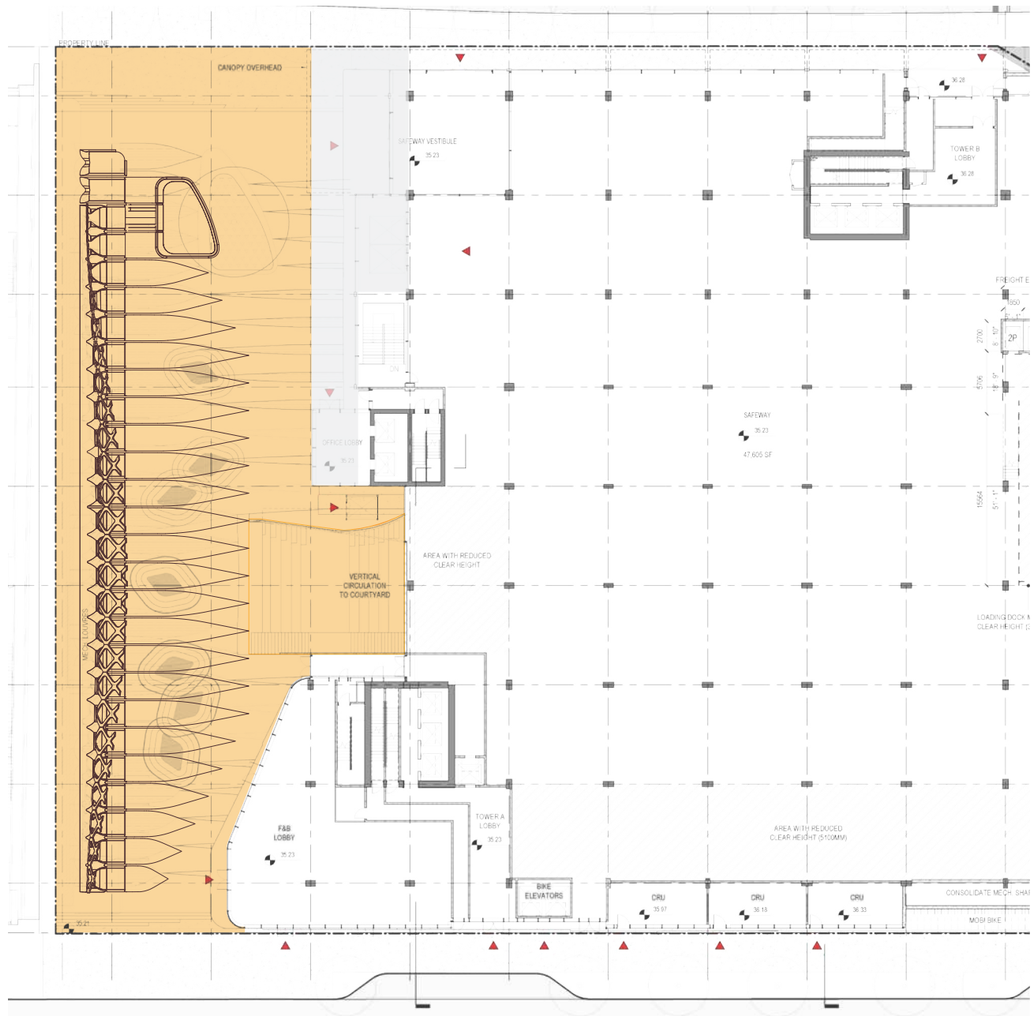
4.3.4 OFFICE

Commercial office space arranged over two floors is located above the level of the courtyard garden to the west of the scheme running along the length of the public plaza parallel to the Skytrain station box.

The Office extends to both East 10th Avenue and to Broadway, where the structural arrangement proposes that the office jetties out over the Grocery store entrance providing a dynamic focus to this critical edge of the development.

Access to the office is provided within the public plaza close to both the grocery store entrance and the Skytrain northern concourse.

The office is configured to provide large floor plates which provides flexibility in terms of sub-division and safeguards potential for high-tech use over the full floor plate(s).



PLAZA	1858 m² / 20,000 sf
CIRCULATION:	280 m² / 2,970 sf

4.3 ORGANIZATION OF FUNCTIONAL PROGRAMME

4.3.5 COURTYARD, AND FAMILY ORIENTATED RESIDENTIAL AMENITY

The roof of the grocery store creates the garden courtyard within which the front door lobbies of the residential towers are accessed.

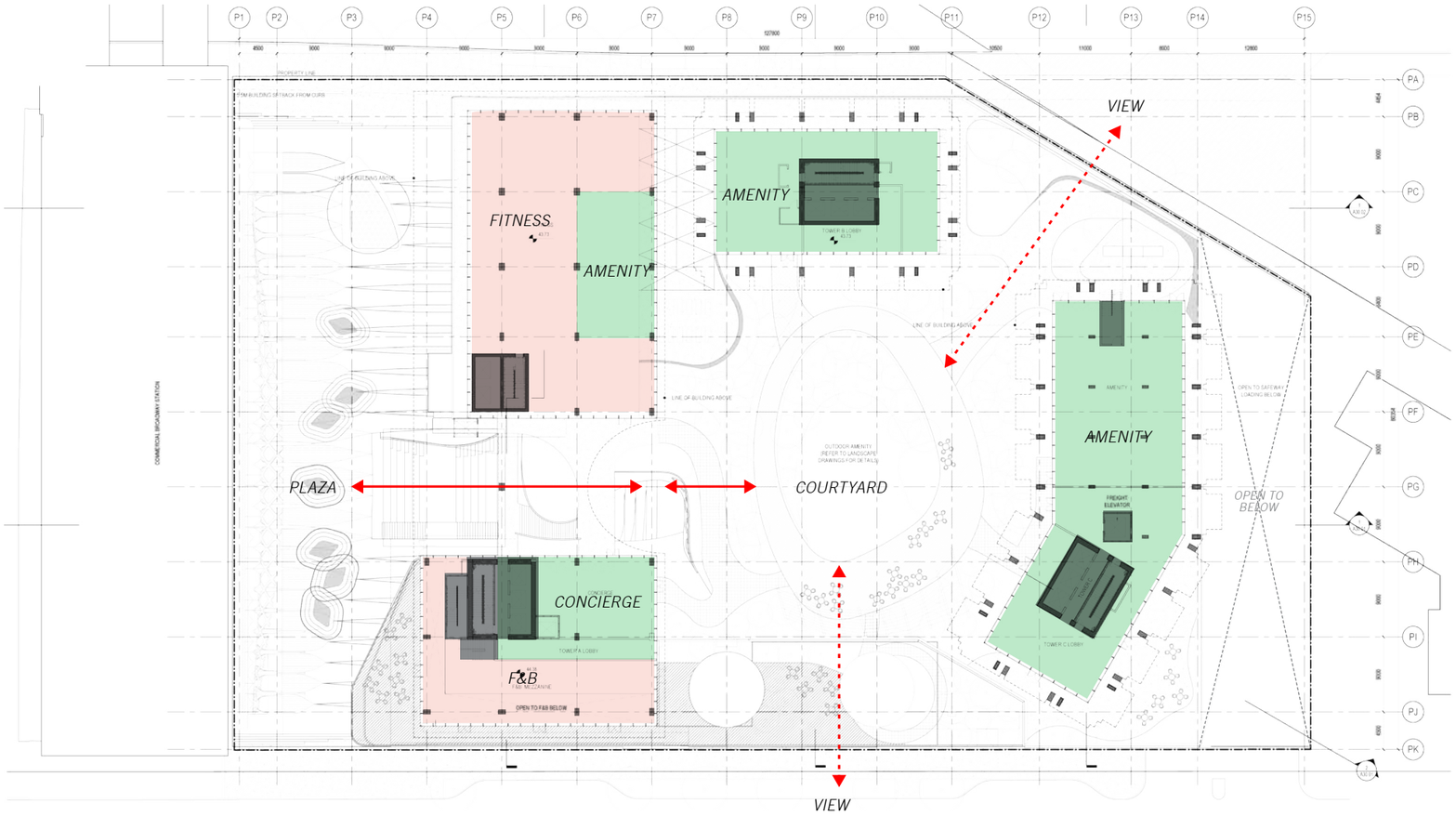
The garden courtyard is dynamically connected to the public plaza with dedicated elevators, and a generous public amphitheatre, which provide access to the public edge of the courtyard. This public edge forms the address for the fitness suite which helps to define enclosure for the public plaza.

The fitness suite is located above the grocery store entrance, and extends along the Broadway face of the development, animating this elevation, highly visible from the Broadway / Commercial Drive intersection.

A concierge office, which will accommodate the mailboxes for the residential units defines the threshold between the public and private zones at the garden courtyard level, secure access beyond this point into the garden courtyard will be controlled for residents and invited visitors only.

Residential amenities are planned flanking the garden courtyard to the north and east, providing a range of functions such as a communal kitchen and dining space (both indoor and outdoor), social and study spaces, a small workshop for arts, crafts and carpentry and links to a centralized recycling / re-use facility.

Residential amenity spaces, including dedicated and secure childrens' play areas, are also planned at the landscaped deck above the lower bar of residential units, and the common areas within the elevated sky gardens.



1 LEVEL 02 FLOOR PLAN
1 : 200

DIAGRAM OF PUBLIC + PRIVATE AMENITY SPACES AND THEIR RELATIONSHIP TO THE GARDEN COURTYARD

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4.3 ORGANIZATION OF FUNCTIONAL PROGRAMME

4.3.6 RESIDENTIAL

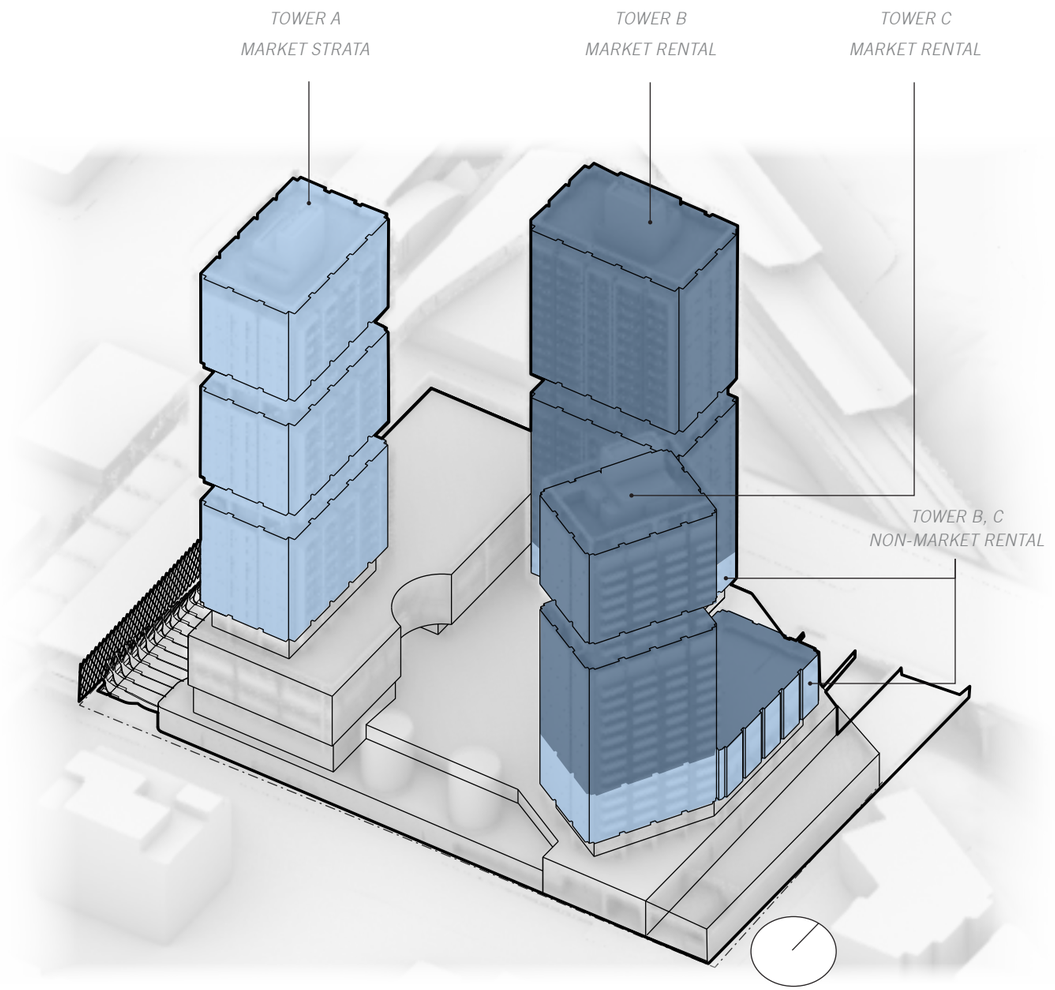
The residential component of the scheme is composed of three rectilinear tower forms; Tower A to the west, Tower B to the north and Tower C to the east of the garden courtyard. Tower A sits above the office bar, whilst towers B and C sit above a bar of additional residential floor space which is elevated above the garden courtyard level.

The location of the towers and the lower bar are arranged so that they form an enclosure to the south facing courtyard garden. Building mass is avoided on the south side of the development to ensure maximum solar exposure into the heart of the project.

The residential blocks are organized to introduce a number of landscaped decks at the courtyard, at the roof of the residential / office bar and at 'sky gardens' within the tower forms.

As stated previously the residential clusters are planned with their main lobbies located within the garden courtyard rather than at street level. This inward facing arrangement ensures that the scheme encourages social mixing and promotes the ideals of the vibrant cohesive vertical village.

Residential housing mix includes market strata within Tower A, market and non-market rental distributed across Tower B, and Tower C.



LEGEND

- STRATA RESIDENTIAL
- MARKET RENTAL
- NON-MARKET RENTAL

4.3 ORGANIZATION OF FUNCTIONAL PROGRAMME

4.3.7 PARKADE

Ground level parking has been eliminated, with the grocery store located at grade. Three full levels of parking are proposed to meet the requirements of the project and provide appropriate separation between the different users.

Parkade Level P1 is to be dedicated to customers of the grocery store. This level of parking is accessed from Broadway at the proposed mid-block signalized intersection.

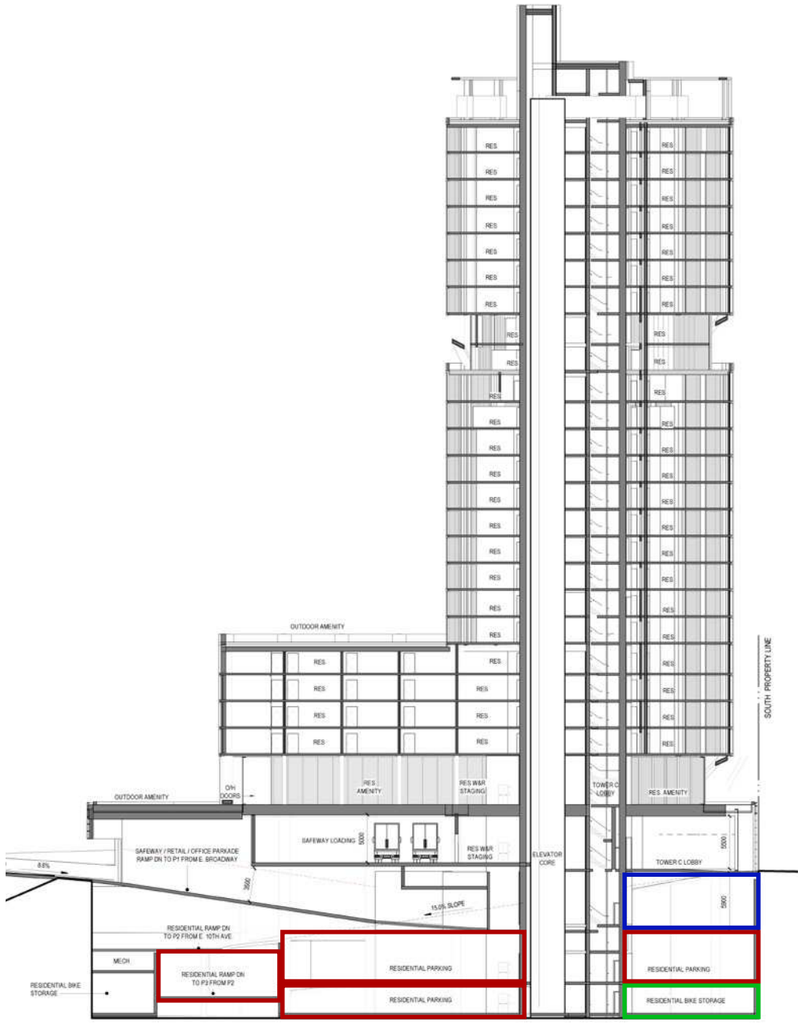
Access to the grocery store is provided at Level P1 via a lobby with an opening to the public plaza which accommodates dedicated commercial elevators and a generous communication stair. Levels P1 and P2 are linked by an internal ramp for commercial parking.

Parkade Level P2 provides the commercial parking, along with the commercial and residential loading facilities.

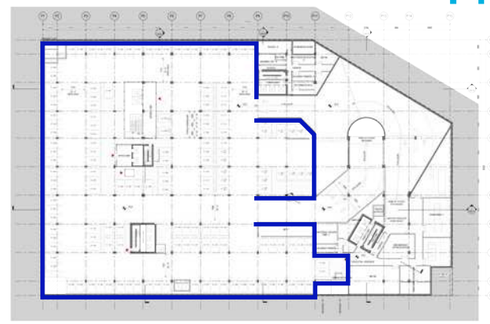
Residential parking is provided at Level P3 and is accessed from East 10th Avenue via a separate ramp system than that of the commercial parking.

In the event of an emergency, vehicles that have entered the parkade via Broadway can exit via East 10th Avenue through a normally secured zone giving access to the residential ramp system. The parkade accommodates the majority of the mechanical systems for the development.

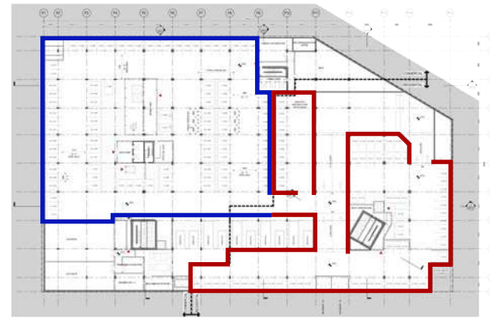
Secure, dedicated, bicycle parking for residents is provided on P3 of the parkade and is accessed via dedicated elevator(s) located close to the bike share stations along the East 10th Avenue edge of the scheme.



P1



P2



P3



4.3 ORGANIZATION OF FUNCTIONAL PROGRAMME

4.3.8 PUBLIC BIKE SHARE FACILITY

The location and extent of the Public Bike Share (PBS) facility has been subject to a number of studies and discussion.

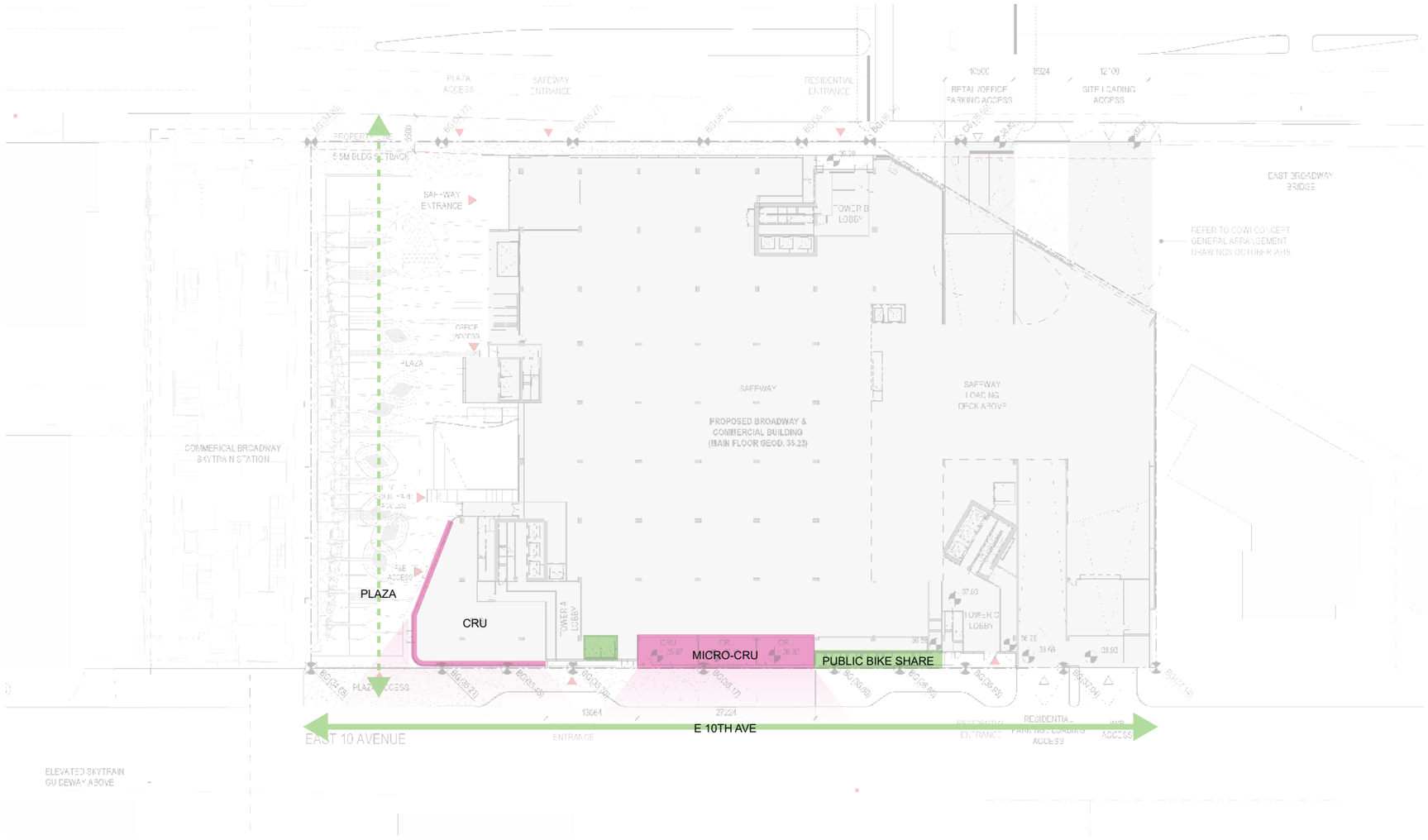
In the original submission the PBS was located along the southern edge of the grocery store, integrated into the building facade.

Desire to animate the East 10th elevation with additional retail has led to competition between the PBS and the new micro CRU spaces.

Operationally, the Safeway store cannot be further reduced in area and so the competition between the PBS and the new retail provision cannot be resolved at this location.

The scheme has provided approximately 50% of the required PBS spaces in location A, balanced with the retail frontage to East 10th Avenue.

Suggestions to locate either all, or the remaining PBS spaces within the Public Plaza have been reviewed, but it is considered that to locate this facility within the pedestrian area would compromise the objectives of the plaza space.



4.4 FORM AND MASSING

4.4.1 SCALE

The scheme is composed of mid-rise and high-rise components as envisioned in the Grandview Woodland Community Plan. Developing the site will result in a vertical extension of mass within this site which will be quite distinct from the scale of the immediate neighborhoods.

Resultant large building masses will rise above the skyline, and create a landmark reference for the Broadway Commercial Drive intersection.

Residential floor plate considerations result in tower forms. The number of towers which can be accommodated on the site is limited due to tower off-sets. A three tower scheme balances the target residential densities whilst allowing the site to open to the south. In this configuration, the towers become staggered rectangular blocks rather than slender towers.

The stepped form of the towers, introduction of sky garden horizontal breaks within the tower forms and the external expression of the tower superstructure are appropriate means to introduce scaling devices to the composition of forms and mitigate against an impression of monolithic dominance.

4.4.2 RESIDENTIAL FLOOR PLATES

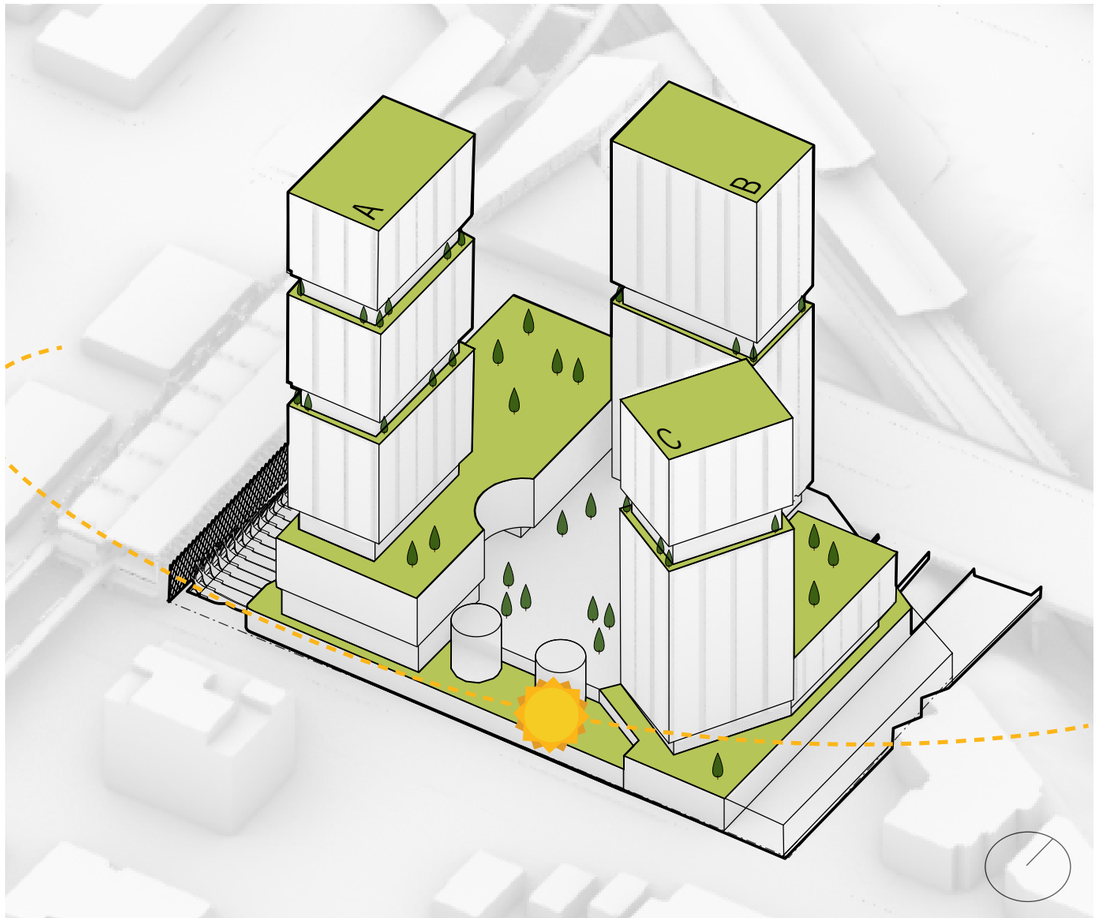
The proposed form of the residential towers creates a range of floor plate sizes. The introduction of sky gardens at the levels where the towers are set back avoids the creation of a simple extruded form for the vertical elements of the architectural composition. The average floor plate for the towers is below 7,000 sf.

4.4.3 ORIENTATION

The placement of the residential towers has been carefully considered to create a south-facing orientation to the interior heart of the scheme, visually open towards east 10th Avenue. Towers A and B are placed orthogonally to the west and north to frame the interior gardens, and whilst tower C frames the interior to the east it is also rotated about its center to formally address the City along the axis of the cut. The placement of towers A and B opens up the north-west corner to reinforce this diagonal axis through the site.

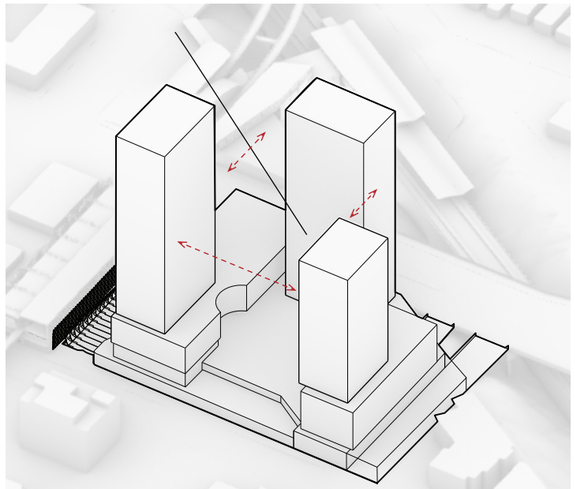
Below the residential towers, the building mass is built up along Broadway and new plaza edges to create an appropriate urban response to the scale and context of the public realm. As stated previously the scheme steps down towards East 10th where the scale of the development is softened and opens out to the expansive gardens.

The treatment of the building faces reinforces the reading of an urban exterior and a more generous, exuberant interior. However, this compositional approach is prevented from creating an introverted character as the oblique views between the tower forms reveal and present the interior gardens to the harder edges of the site.



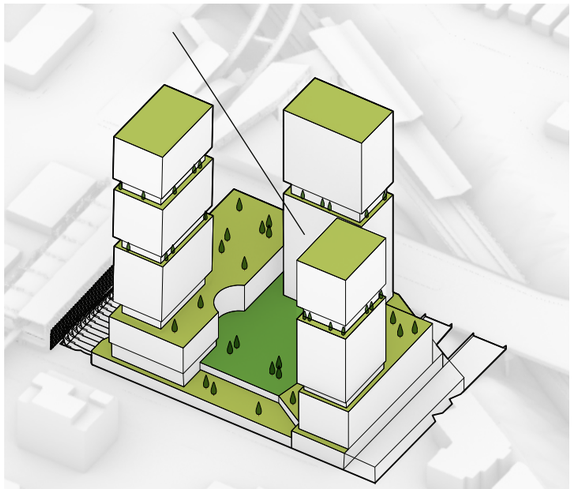
BUILDING ORIENTATION AND SOUTH FACING GARDENS

4.4 FORM AND MASSING



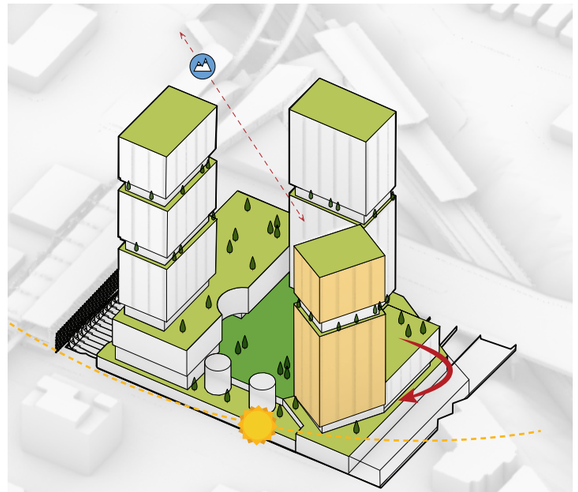
1 TOWERS

3 towers spaced to maximize separation distance within site boundary.



2 SKY-GARDENS

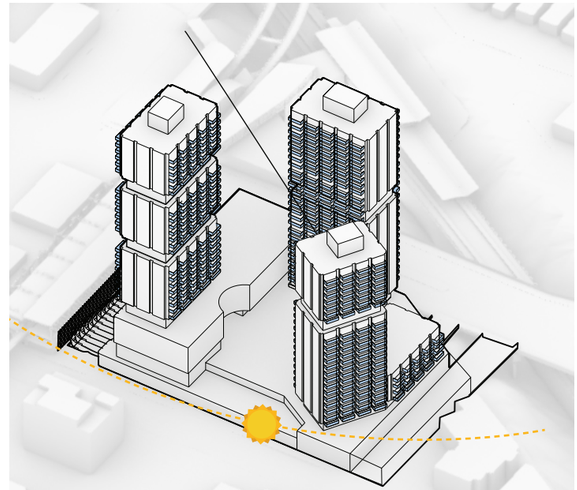
Sky gardens give garden access, and vertically break up tower massing.



3 TOWER STEPPING & ROTATION

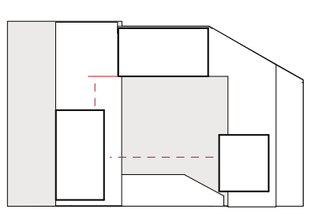
Towers A & B step back in order to optimize daylighting and views.

Tower C rotates and shifts to maximize daylighting on the south and views to the mountains on the north.

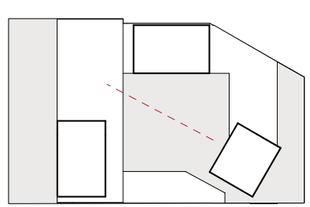


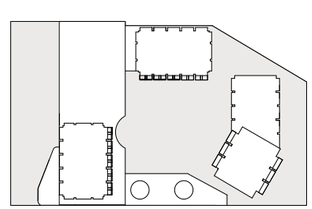
4 BALCONIES

Balconies are defined as inset to the building masses on the ‘street facing’ elevations of the towers, and as suspended outboard elements facing into the garden court.







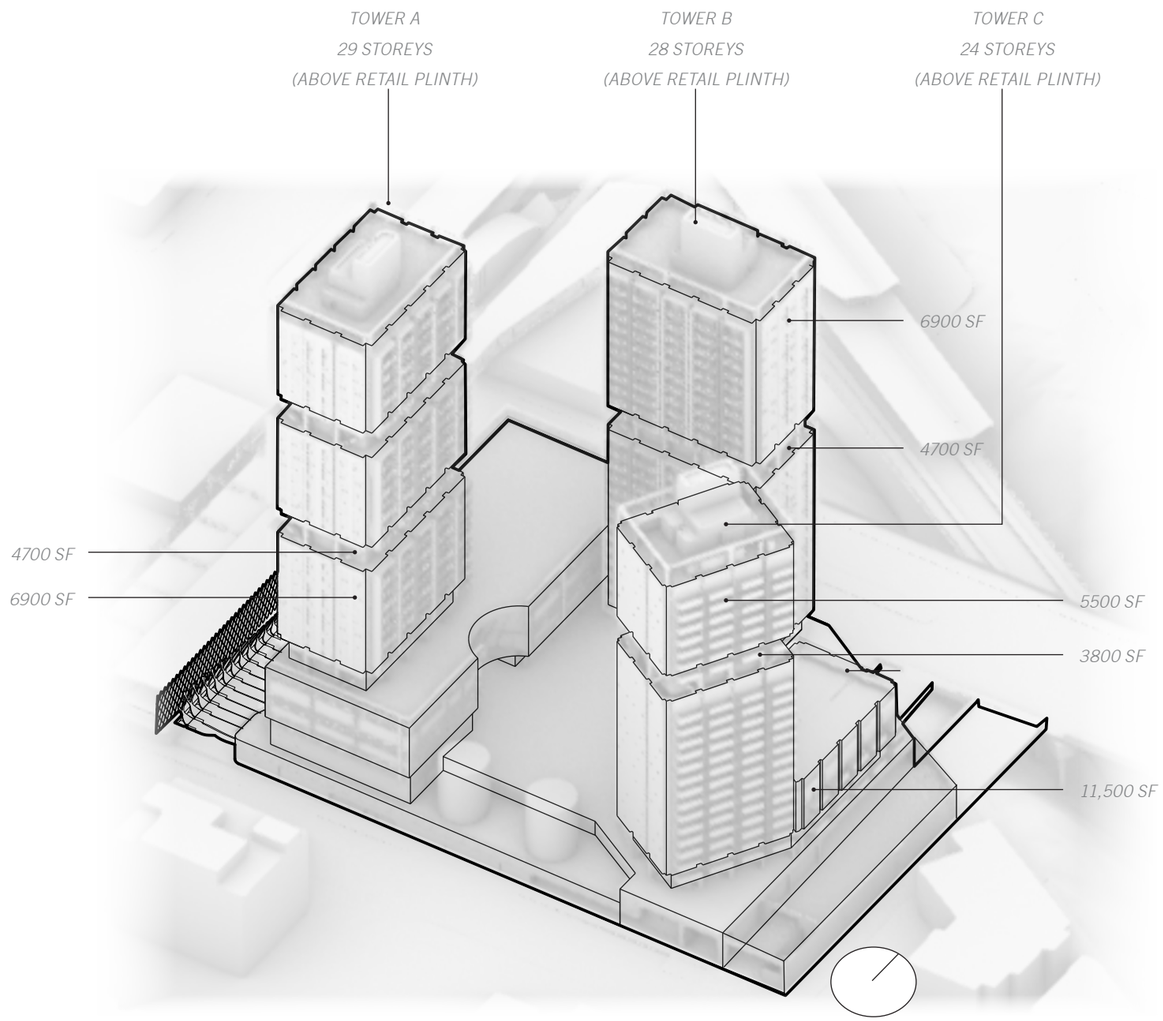


4.4 FORM AND MASSING

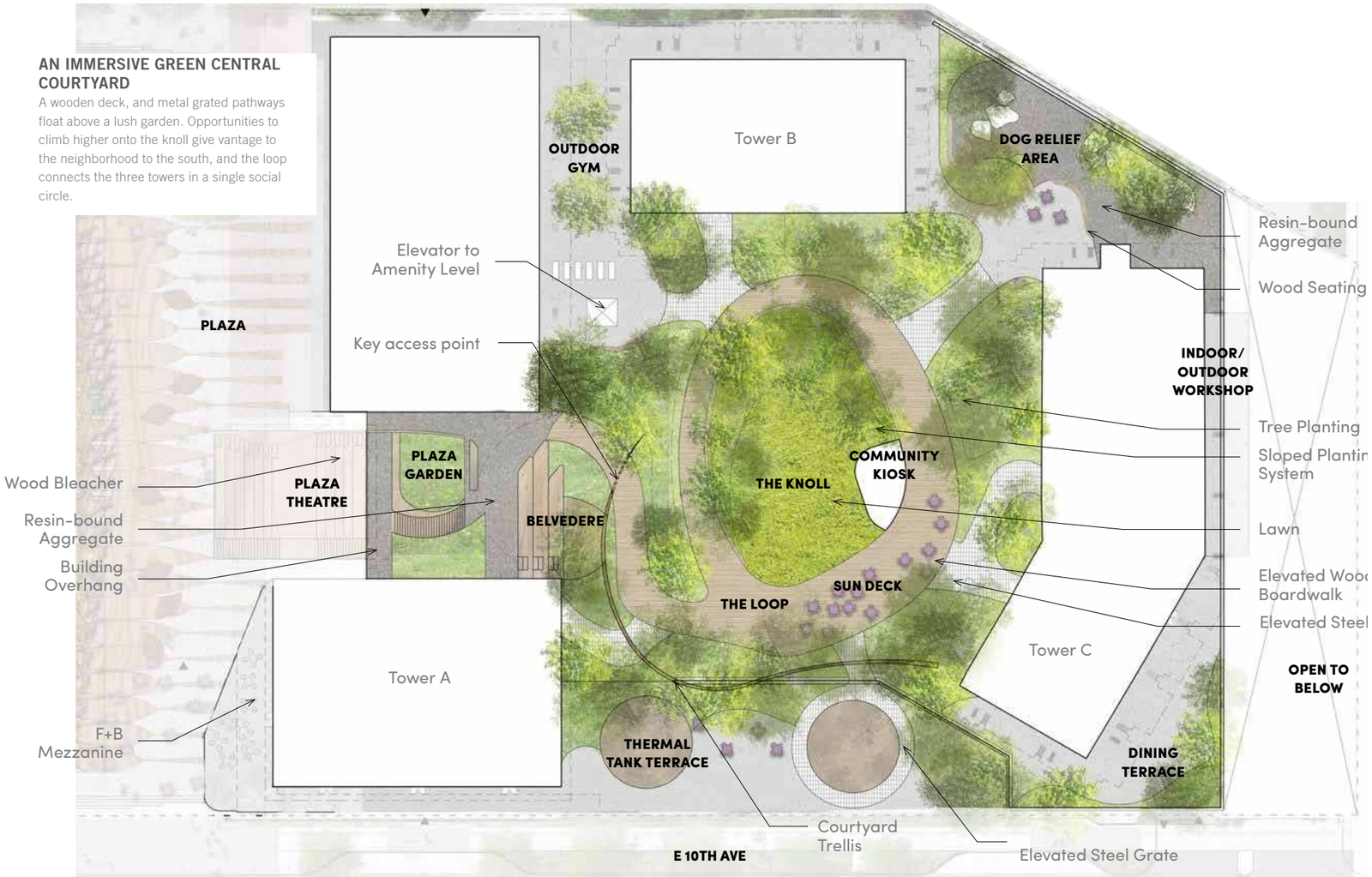
4.4.4 BUILDING HEIGHT

The Grandview Woodland Community Plan stipulates that building height on the Safeway site is to be a maximum of 24 storeys above the retail plinth.

Through discussion with the City of Vancouver it has been agreed that the relative heights of Tower A, B and C are in alignment with the spirit of the Grandview Woodland Community Plan and that the stepping of height from 29 storeys to 24 storeys (above the retail plinth) is a positive design response to the plan.



4.4 FORM AND MASSING



COURTYARD LANDSCAPE DRAWINGS

4.4.5 THE INTEGRATION OF LANDSCAPE – COURTYARD GARDENS AND ELEVATED GREEN SPACES

The building form and massing must be considered in respect to the landscape strategy. The concept of 'green urbanism' is at the heart of the proposal and the configuration of building mass, orientation and treatment of edges have all been critically reviewed with the intention of creating a range of spaces where nature can flourish.

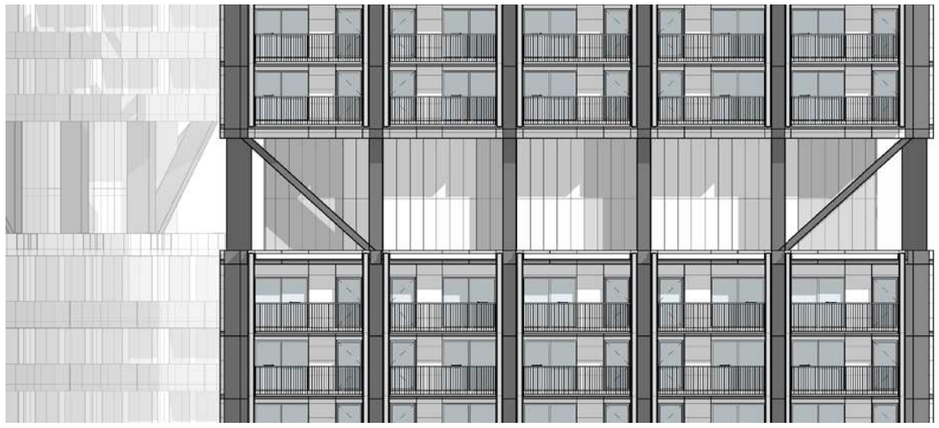
Conceptually, the building forms occur within the spaces between the landscape as opposed to landscape filling the voids between building forms. Paths and routes are overlaid onto the landscape rather than pockets of landscape occurring within the interstitial spaces.

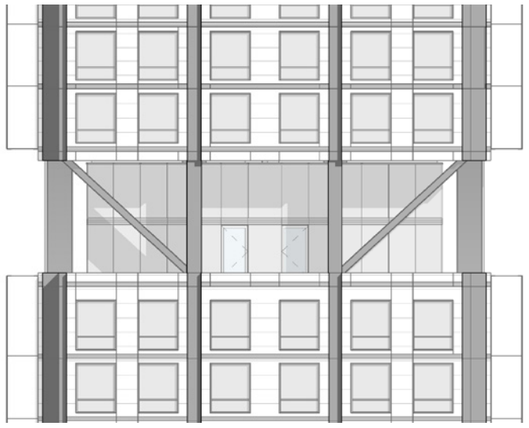
Wild and tamed gardens reveal themselves throughout the various elevations within the project, balcony spaces are colonized and cascade down and across the inner faces of the residential towers. Building edges are blurred as walls are festooned from above.

4.4 FORM AND MASSING



TOWER FACADES FACING COURTYARD





NORTH ELEVATION WITH STRUCTURAL + FACADE MODULE

4.4.6 ORDERING PRINCIPLES AND PROPORTION

The architecture of the project is ordered with a regular 2 foot (600mm) modular grid. This module is extended three dimensionally to form horizontal and vertical reference planes by which elements can be related to each other within relationships of ratio and proportion.

This arithmetic discipline of composition remains generally consistent, but some modification or deviation is accepted (for example, where tower C rotates, or where the north eastern edge of the scheme recognizes the orientation of the cut, and induces geometric relationships as opposed to strictly arithmetic ones).

Regular planning from the primary order of the unit and multipliers results in orthogonal, rectangular plans for the individual homes within the residential component of the scheme, and avoidance of peculiar shaped units.

Structural discipline and clarity is a consequence of this approach, and the expression of the structural framework in turn reinforces the architectonic qualities of the building forms.

Transfer of load-paths within the frame to accommodate the stepped form of the tower, and the change in planning grids between the grocery store and the development above is given poetic expression. It is at these points of transfer that changes in programme are celebrated and communal functions and garden spaces punctuate and modulate the forms in a meaningful way.

The modular approach to the design is also expressed within the various cladding systems employed throughout, the base grid allowing a high degree of variety and play within the compositional framework without undermining the principles of that framework.

4.4 FORM AND MASSING

4.4.7 STRUCTURAL AND DIMENSIONAL CLARITY

The rigor of the dimensional order of the project is manifest in its structural clarity. The structural elements are afforded clear expression within all elements of the design and it is through this expression that the ordering principles of the design are manifest.

Great care has been taken to ensure that the structural format of the building is resolved to reinforce the arithmetic compositional approach of the architecture and to synthesize the engineering and the architectonic aspects into a cohesive expression which is both poetic and pragmatic.

The dimensional purity of the scheme is revealed in the two grid forms of 6 meters above the podium deck and 9 meters below. The transition between the two grid systems is resolved at the garden courtyard providing expressive, but logical, column interplay.

The structure of the building is fully revealed at the skygarden levels where the stepping of the building is acknowledged in the raking perimeter columns, which provide a motif element for the architectural expression of the scheme itself.

This poetic expression, derived from the purity of the structural arrangement is classical in inspiration, not only in terms of the ordering of the architecture into a compositional language of bays, but also in its resonance with the heroic age of nineteenth century engineering, which is itself reflected in the industrial heritage of the city.

Due to the constraints placed upon the site by the grocery store and its functional programme the placement of the main cores for the residential buildings was a key design driver.

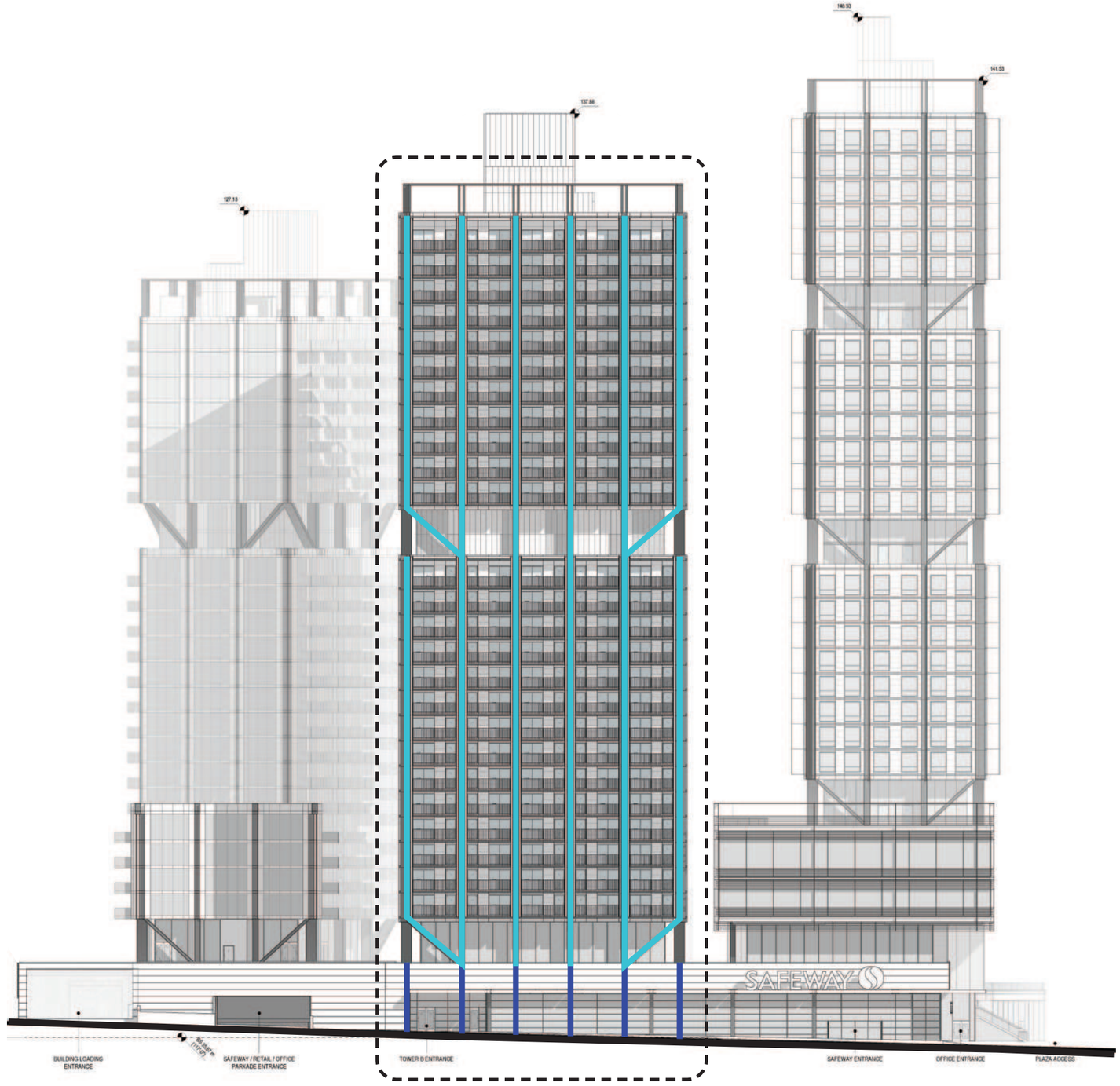


DIAGRAM ILLUSTRATING STRUCTURAL LOGIC AND TRANSFERS

4.5 ARCHITECTURAL CHARACTER CONCEPT

4.5.1 STREETSCAPE AND EASTERN EDGE

There are three principal edges to the project that contribute to the urban grain of the neighborhood. The Broadway face of the scheme is dominated by the main façade of the grocery store. Although there was an earlier requirement to see small scale retail arranged along Broadway it was determined that an ‘open face’ to the grocery store would be appropriate and reflect commercial realities of footfall along the route (which is not equivalent to Commercial Drive), whilst satisfying the desire to see this street-level animation.

With entrance of the grocery store located at the corner of Broadway and the new public plaza there is concentration of activity closer to the Broadway / Commercial Drive intersection and recognition of the transport interchange within this vicinity.

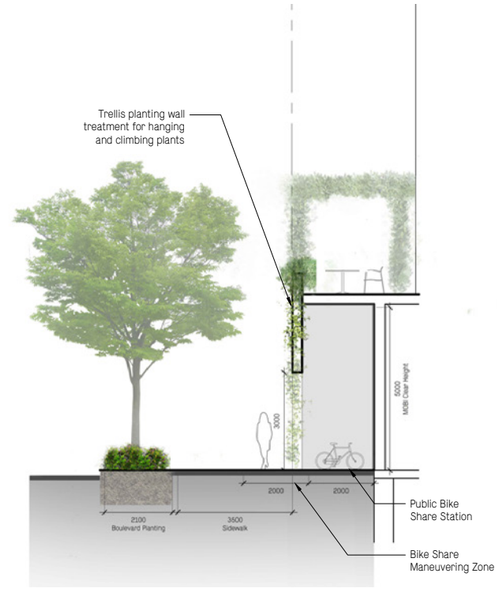
Activity and visual animation along East 10th Avenue is reinforced by the configuration of retail that connects East 10th with the Public Plaza and the Thermal Tank Park above.

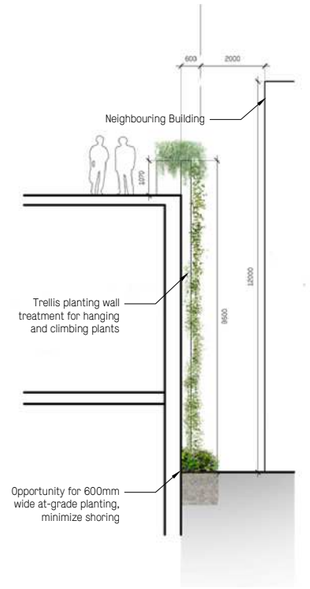
Although visual permeability into the Grocery store is not provided along East 10th Avenue (due to functional considerations of store operations) there is a rich quality to this face of the project facing the street with retail, terraces and gardens cascading down from the elevated garden courtyard.

Micro retail units are integrated into the southern elevation of the podium in the same manner that the PBS bike share facility is with the Thermal Tank Park above on the lower courtyard level.

The third urban edge is formed by the new public open plaza, which is described below. The eastern boundary of the site forms a party wall condition with the neighboring property.

The eastern wall of the scheme encloses the service and loading bays for the grocery store and is approximately 6 meters in height relative to the ground plane in this area.





CONCEPTUAL BUILDING EDGE WALL SECTIONS



CONCEPT IMAGE OF VEGETATION AT EASTERN EDGE



PERSPECTIVE VIEW OF STREET EDGE ALONG 10TH AVE

4.5 ARCHITECTURAL CHARACTER CONCEPT

4.5.3 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED) PRINCIPLES

The creation of the new public plaza and public spaces creates both opportunities for positive change and immediate challenges in respect to a balance of street life vibrancy and public safety.

The scheme addresses CPTED principles in the following ways.

Natural surveillance:

The public plaza has been designed to attract public activity.

The clear connection between East 10th Avenue and Broadway, the location of the entrance to Safeway and the proximity of the Skytrain station entrances create clear and understandable desire lines for pedestrian circulation along the north south axis of the plaza.

The geometry of the plaza itself creates clear lines of sight along the length of the space.

The location of the retail entries within the plaza reinforces passive overlook from the ground level and the upper terrace levels, as does the location and configuration of the fitness area and the office levels.

Vestibule entrances at the ground level for the fitness and office are transparent and do not promote loitering in spaces that are difficult to monitor.

Retail as residential entries along E. 10th animate the streetscape and provide eyes on the street for natural surveillance.

Natural access control

The amphitheatre access to the upper court is now wide and open with clear lines of sight between the plaza and the court.

Thresholds between public, semi public and private spaces are articulated within the design, in a manner that promotes visual connection but provides control and security.

Natural territorial reinforcement

The care and maintenance of the scheme is of paramount importance to the project sponsors and will be fundamental to the creation of environments which will be valued by both the residents and the community.

Care will be taken to ensure that all spaces, private and public are well-maintained and promote ‘ownership’ for those living, working and finding enjoyment within the scheme.

The residential scheme will be characterized by extensive planting dominated by trees within the court.

Amenity spaces are all clustered around the court, which through its design will promote active use.

Lighting

Adequate lighting is effective not only in reducing crime; it also reduces the fear of crime.

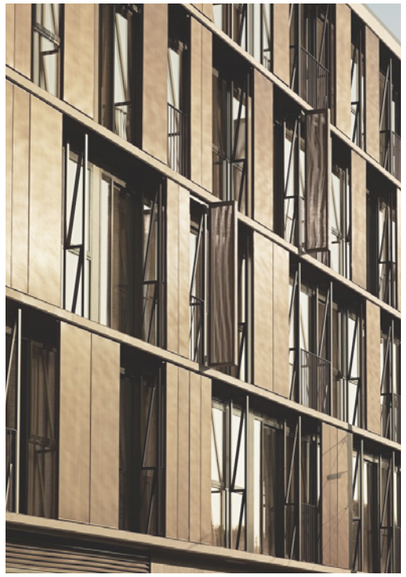
Through design development, a detailed lighting plan will be provided which outlines strategies to illuminate points of entry, the plaza and upper terraced levels, with thoughtful design and fixtures that will enhance the public realm and architectural features, and promote social gatherings.



PERSPECTIVE VIEW ILLUSTRATING COURTYARD AND LOWER PUBLIC TERRACE

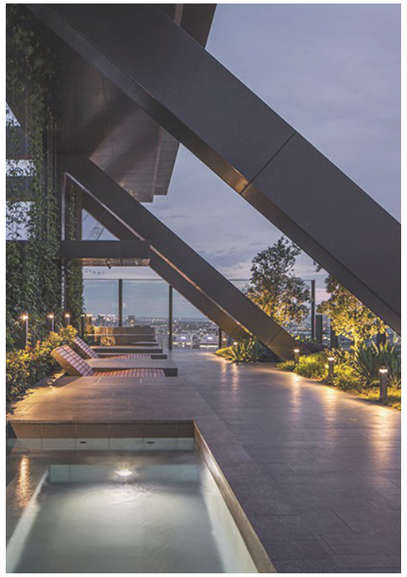
4.5 ARCHITECTURAL CHARACTER CONCEPT

1 FACADE SYSTEMS



- Modular unitized aluminum cladding system
- High thermal performance
- Thermally broken throughout
- Triple glazed low iron glazing
- Copper / bronze finishes
- Panelized zinc cladding system with outward returned fixing flanges

2 EXPRESSED STRUCTURAL ELEMENTS



- Expressed structural elements fully insulated with dry joined metal (zinc or metallic finish aluminum) cladding

3 SOFFITS AND DECKS

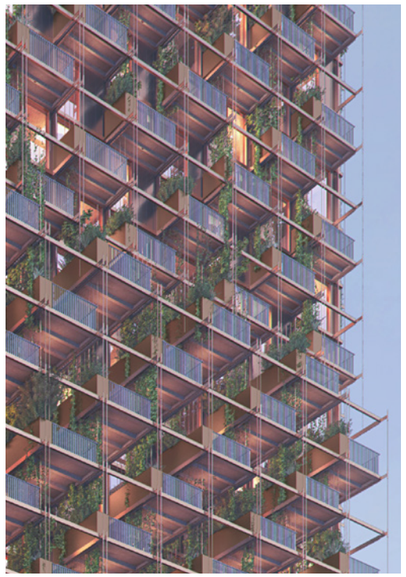


- Panellized zinc cladding system with outward returned fixing flanges
- Glazed end walls of unitized curtain wall system (full height glass)
- Soffits of modular aluminum cladding to compliment facades
- Decks of open jointed hardwood set in modular panels



4.5 ARCHITECTURAL CHARACTER CONCEPT

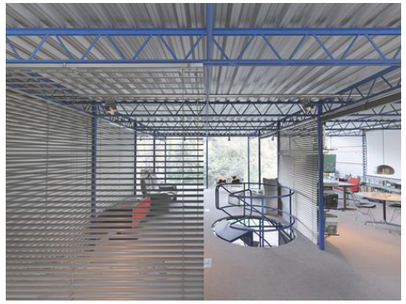
4 BALCONIES



- Modular lightweight thermally broken from superstructure
- Pre-fabricated decks of pre-cast concrete or metal construction
- Fully integrated planters and stainless cable plant supports

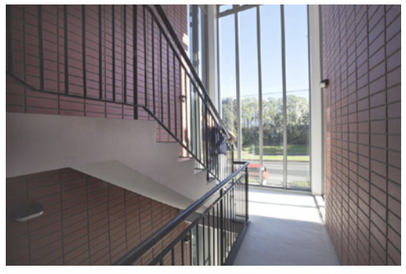
5 TOWNHOUSES WITHIN SKYGARDENS

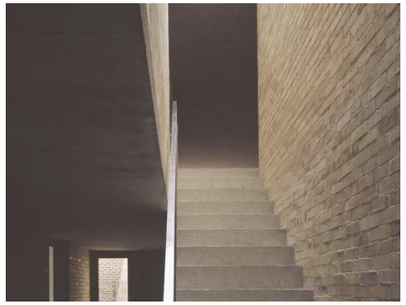




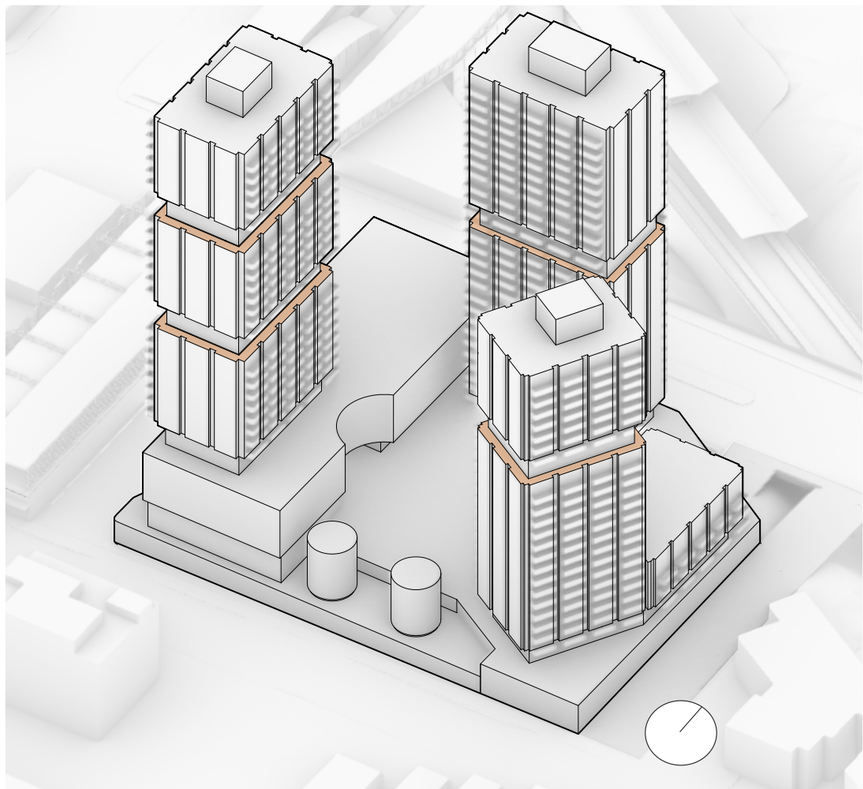
- Lightweight pre-fabricated metal construction
- Thermally insulated from superstructure
- High performance envelope
- Unitized full height glazing elements with integrated bi-fold doors at lower level

6 INTERIORS WITHIN COMMON AREAS





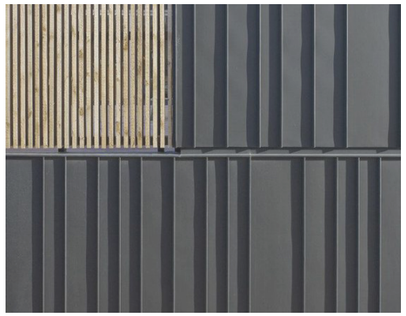
- Sealed concrete screeds
- Open metal plank ceiling systems
- Galvanized metal work, stainless steel handrails
- Terracotta type modular wall tiles
- Metal door frames, solid timber doors
- Stainless steel hardware



4.5 ARCHITECTURAL CHARACTER CONCEPT

7 BOUNDARY WALLS





- Zinc and timber panelized modular cladding
- Integrated louver system
- Stainless steel external doors and surrounds

8 LOBBIES + AMENITY SPACES





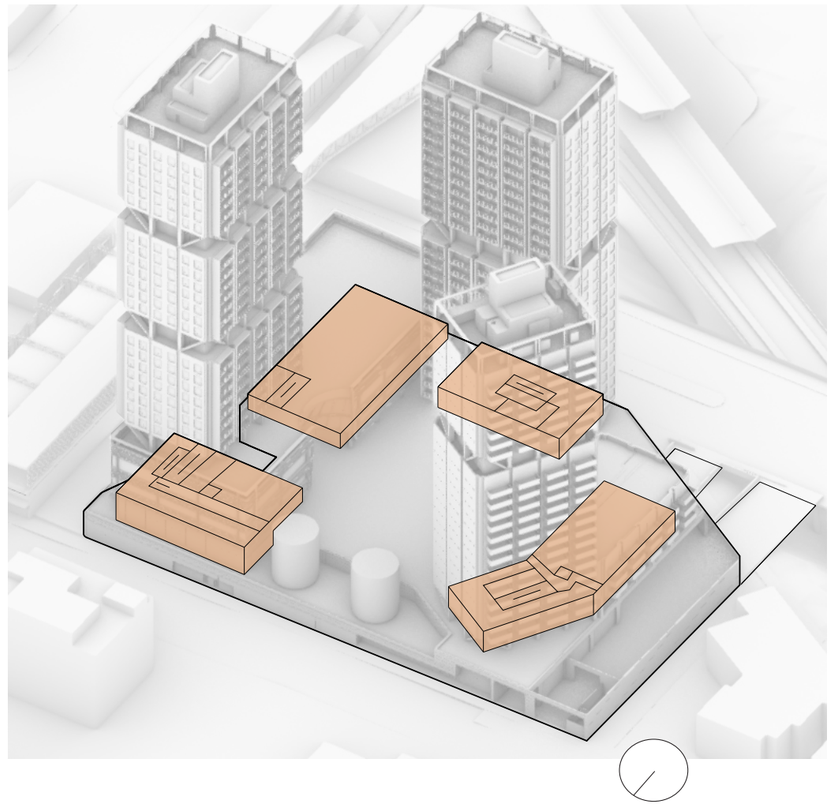
- Fabricated steel structural assemblies
- Large panel low iron glazing systems
- Natural stone flooring
- Aluminum ceiling systems
- Stainless steel metalwork

9 FEATURE STRUCTURES





- Timber / steel hybrid structural system
- ETFE envelope



4.5 ARCHITECTURAL CHARACTER CONCEPT

10 GROCERY EXTERNAL GLAZING + CLADDING



- Structurally glazed gazing with fabricated full height external mullions
- Color backed and internally illuminated glass spandrel cladding modules
- Integrated aluminium/glass canopy sections.

11 OFFICE

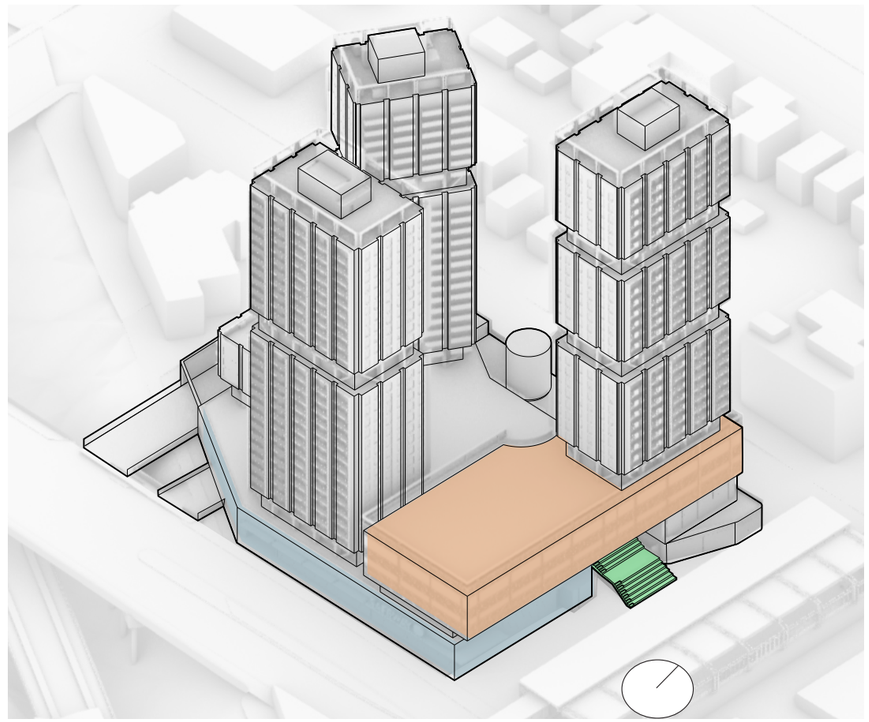


- Unitized high performance aluminum system
- Triple glazed window elements
- Integrated solar control devices and ventilators

12 CIRCULATION ELEMENTS

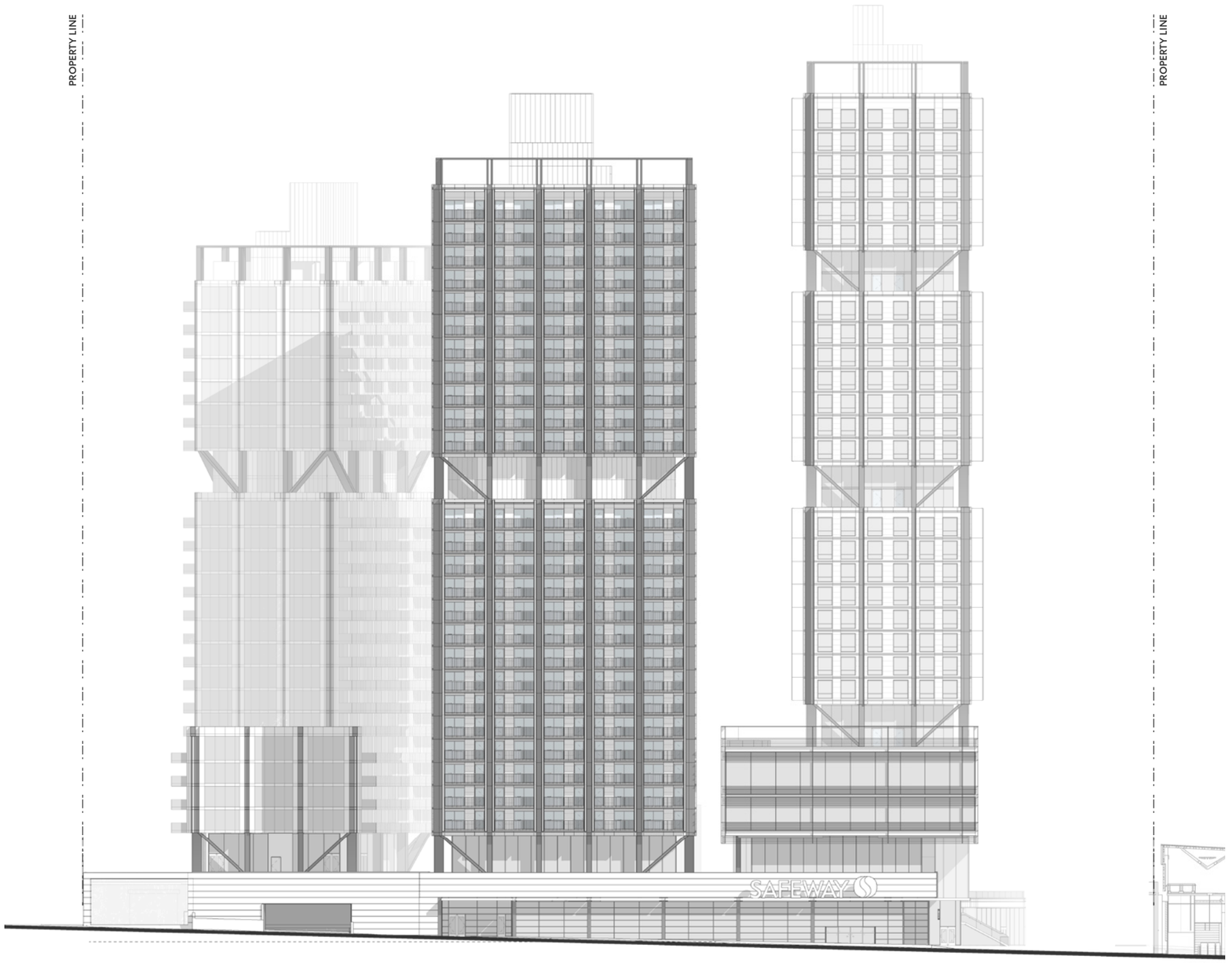


- Stainless steel / glass assemblies
- Glazed elevator shafts
- Glazed stair shafts
- Steel stair assemblies
- Mirrored stainless steel soffits (office)



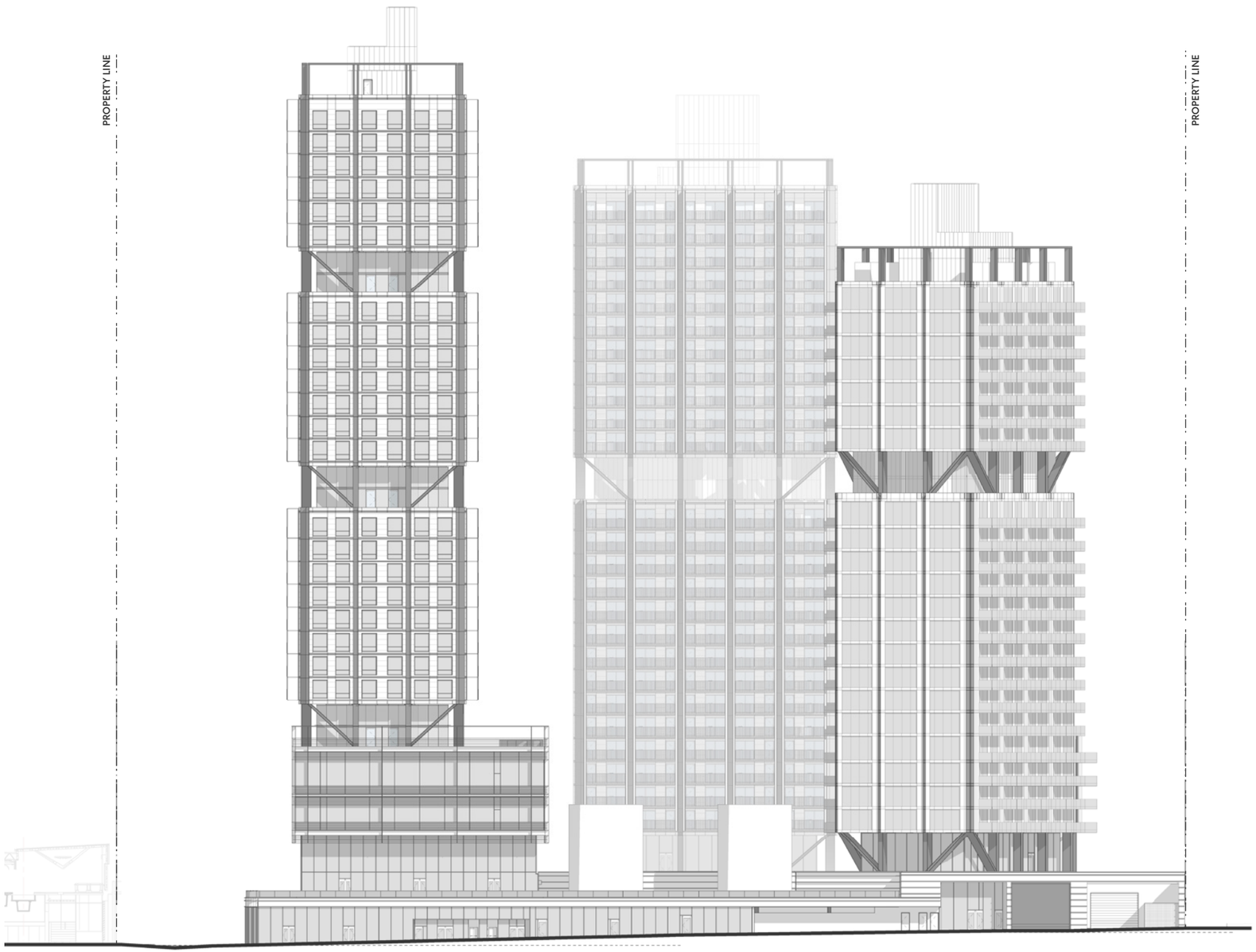
4.6 PROPOSED DEVELOPMENT ELEVATIONS



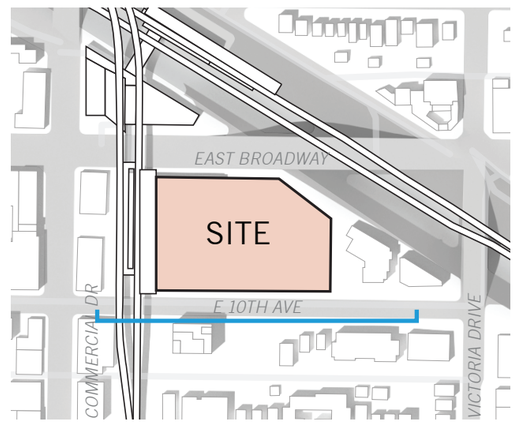


BROADWAY STREETSCAPE

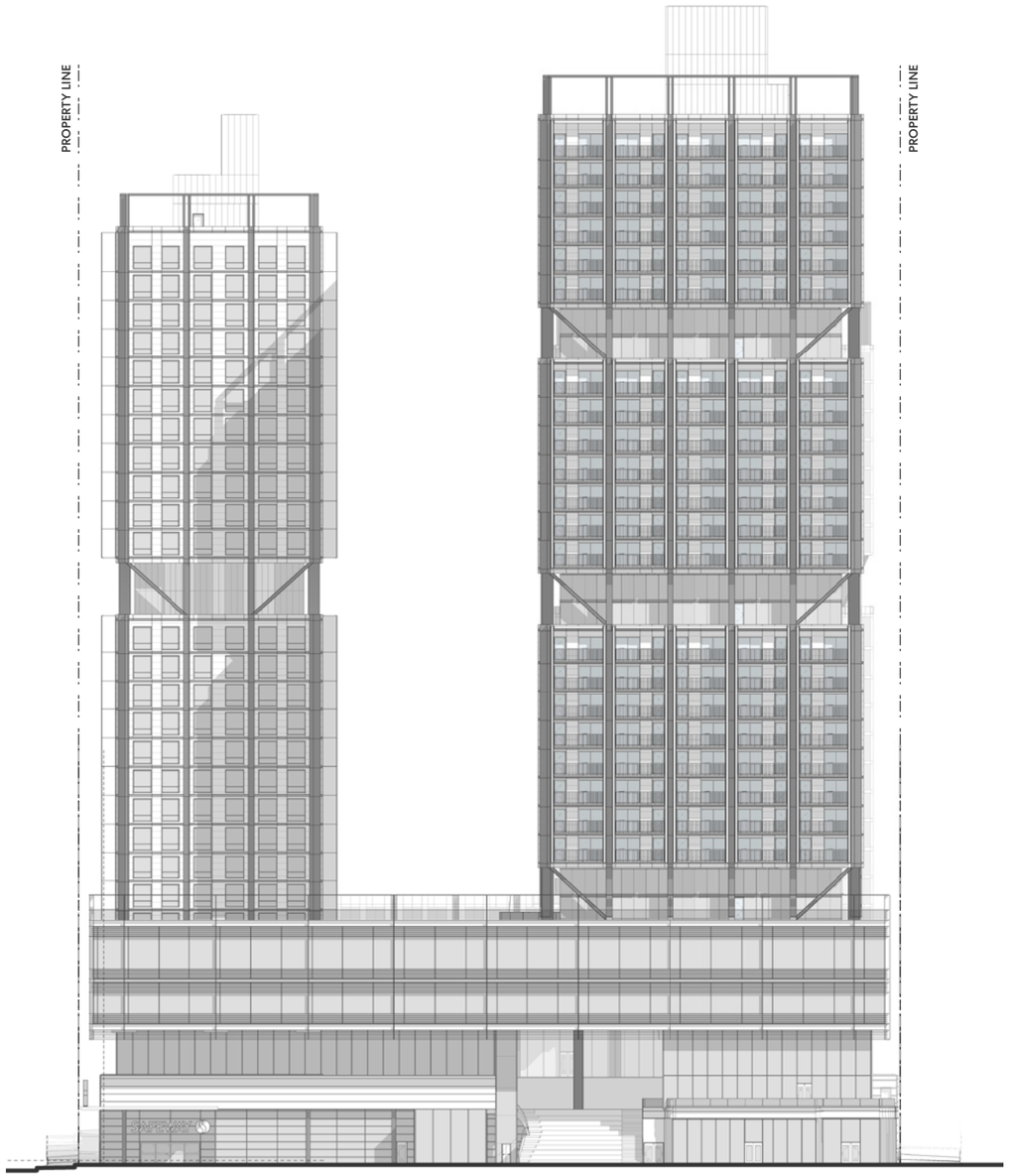
4.6 PROPOSED DEVELOPMENT - E 10TH AVENUE ELEVATION



E. 10TH AVENUE STREETSCAPE



4.6 PROPOSED DEVELOPMENT - WEST ELEVATION



COMMERCIAL DRIVE STREETSCAPE