



SECTION B - BUILT FORM AND PARCELIZATION

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1.0

INTRODUCTION

Section B, 'Built Form and Parcelization' addresses the form and massing of the Area 2 development. It begins with site-wide massing concepts including building heights, 3-D composition, public views and solar access. Following this, massing parameters provide more detailed guidance for the design of individual development parcels, especially the shaping of building envelopes as they relate to the public realm. In the last part of the Section, the general concept for each of the development parcels is described in representative plans and sections and a 3-D illustration demonstrates how the concept might be further developed.

Section 5.0, Alternative Massing and Height Option, illustrates a potential variation in overall massing that was reviewed as part of the rezoning process for Area 2. This option reallocates a portion of the densities associated with some of the mid-rise parcels in the Southwest neighbourhood in the form of 2 to 3 storey height increases in the small towers lining the Kinross Park Corridor and in the Southeast neighbourhood. This option allows greater flexibility in responding to market conditions as the area develops over time.

Although Area 2 is primarily residential, the urban design intent is consistent with the general aims of Area 1 for a rich urban fabric reinforcing the many and varied streets, parks and open spaces of the public realm. In addition to defining these spaces, the overall massing concept together with the massing parameters serve to enhance the specific nature of the three character precincts.

In the Northwest precinct, this hillside community is shaped by midrise buildings at the perimeter framing the smaller scaled townhouse village at its centre. The massing of the Southwest precinct optimizes the naturalistic setting of the foreshore with roughly u-shaped blocks opening to the river and buildings stepping down to create generous terraces for residents; blocks fronting on the Kent Avenue corridor and road H, although more linear, are shaped to provide generous landscaped areas. Blocks in the Southeast precinct continue the urban character of the central neighbourhood with small tower forms and a strong streetwall fronting on Mount Baker Way; from here, townhouses extend a more intimate scale to the river's edge.

In the 3-D illustrations, buildings that are shaded grey are part of EFL Area 1, or are located on other properties that were not rezoned as part of EFL Area 2.



Aerial of Northwest neighbourhood



Aerial of Southwest neighbourhood



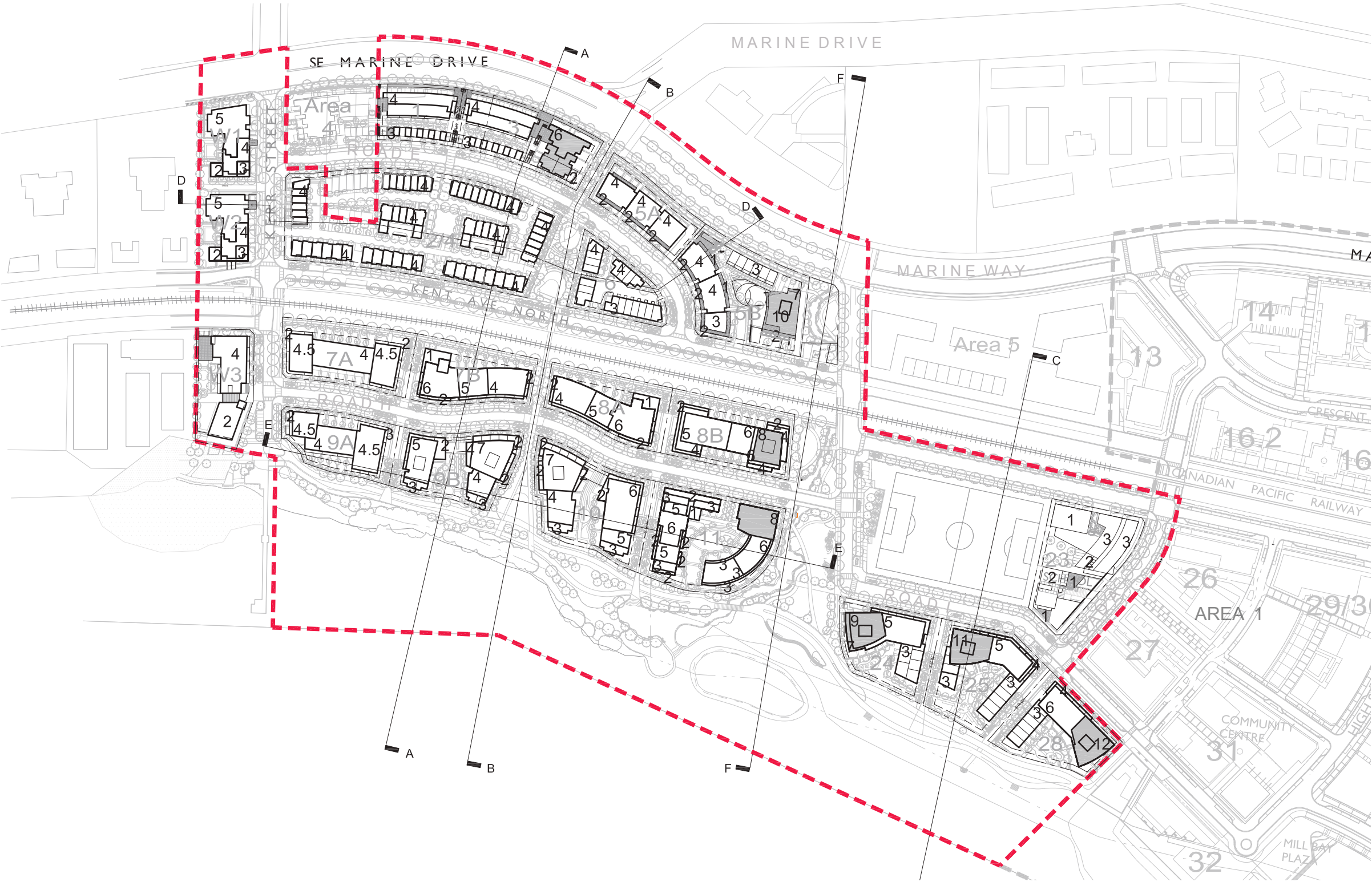
Aerial of Southeast neighbourhood

2.0

BUILDING MASSING

2.1

Building Heights



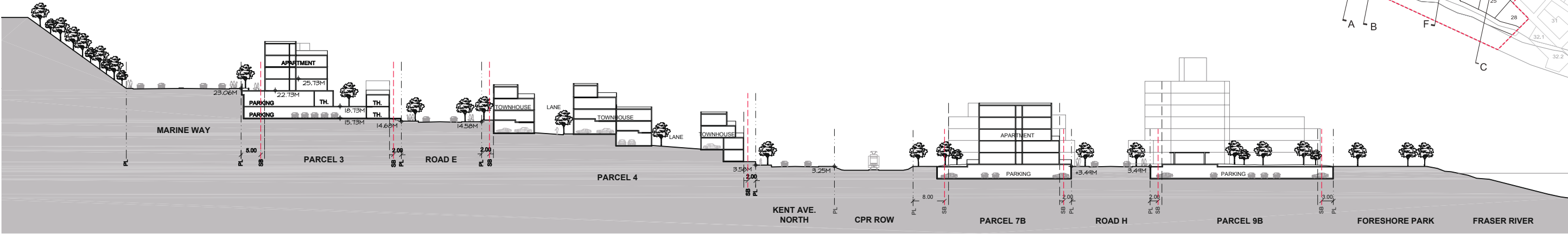
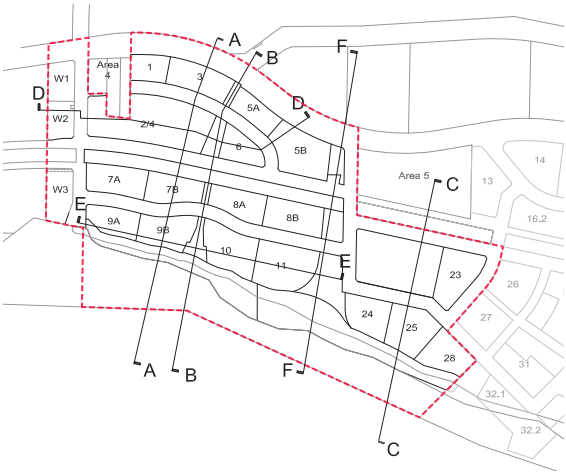
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2.2

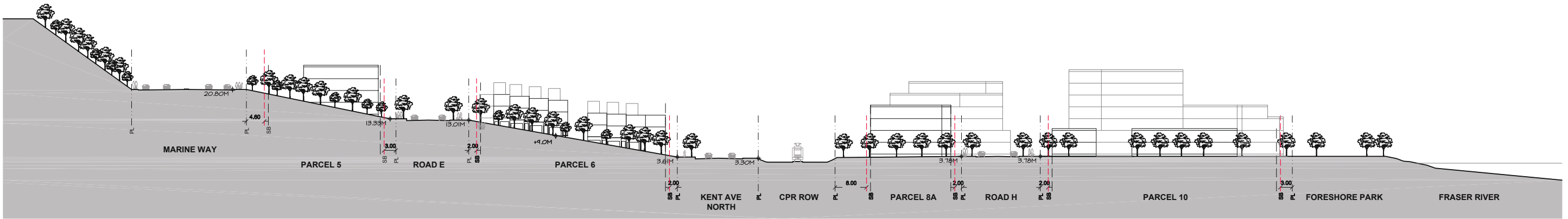
OVERALL 3D VIEW



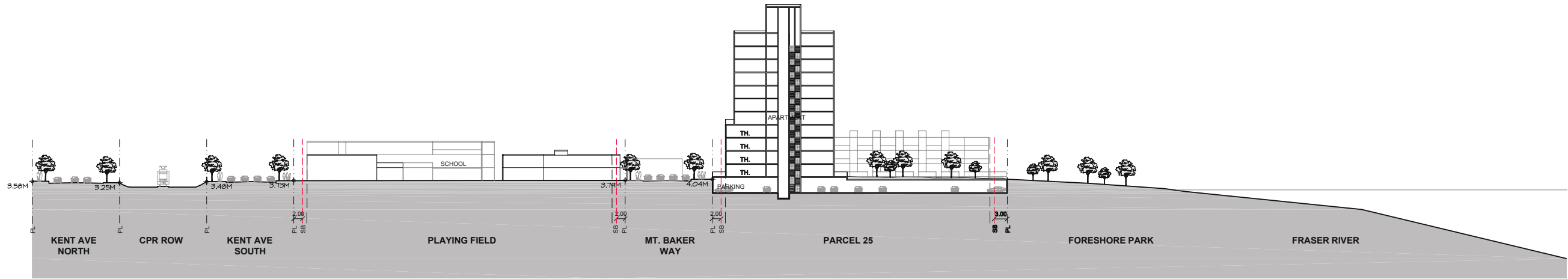
2.3 CROSS SITE SECTIONS



SECTION A-A

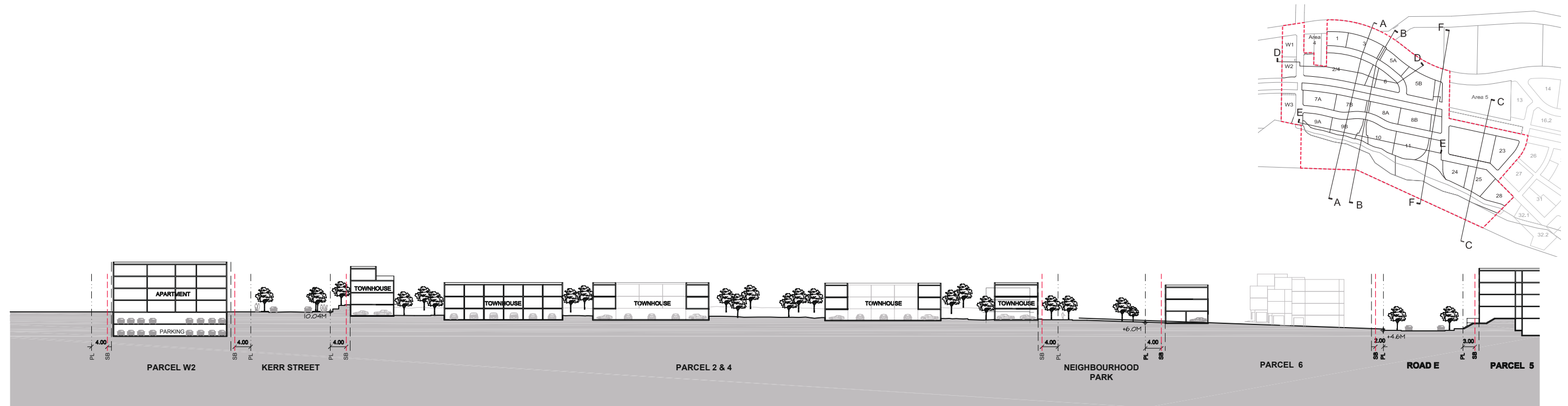


SECTION B-B

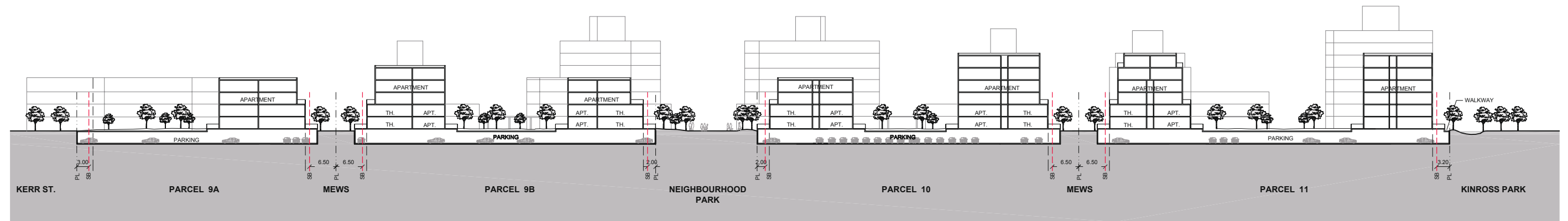


SECTION C-C

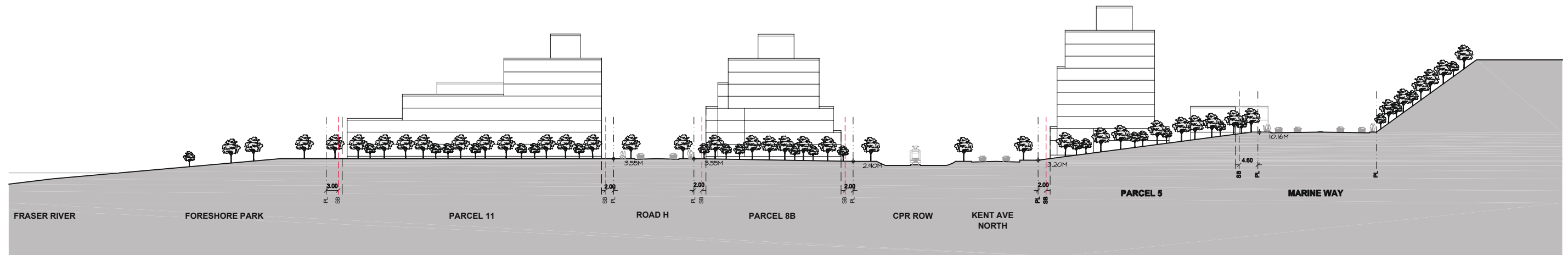
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SECTION D-D



SECTION E-E



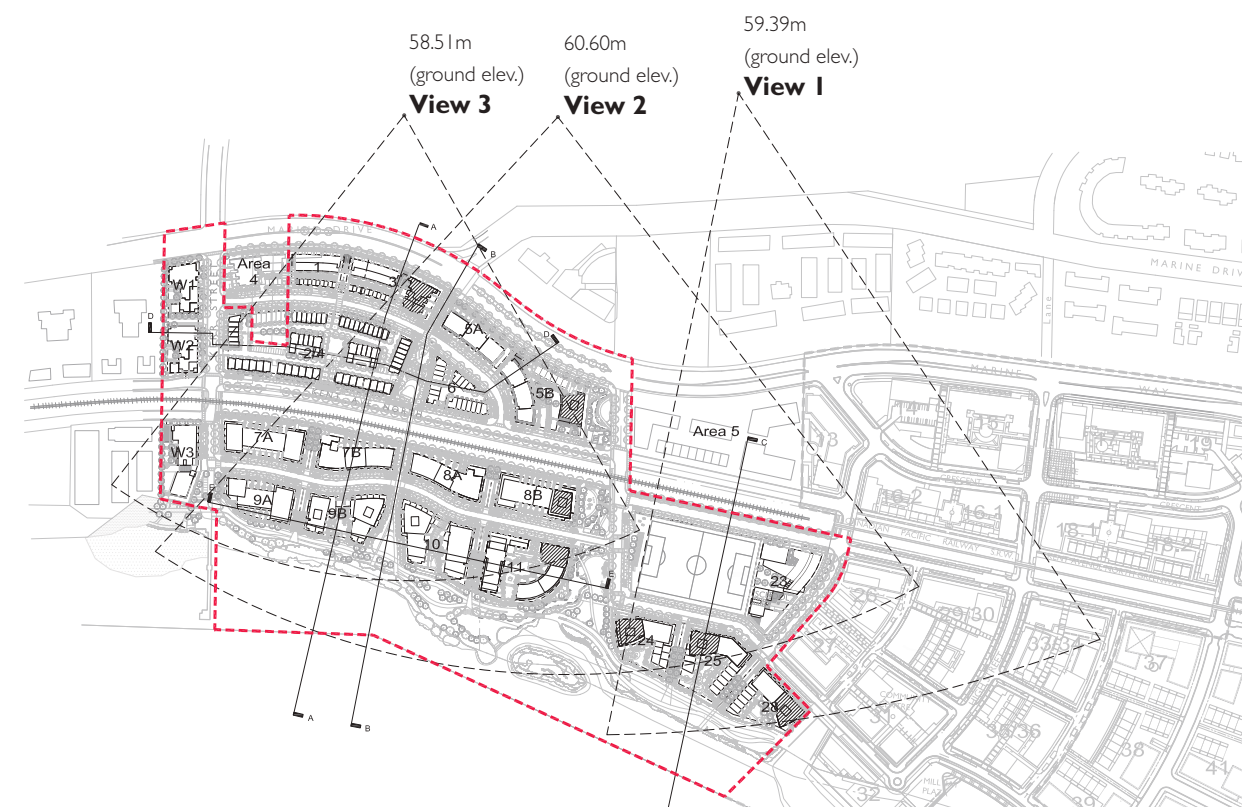
SECTION F-F

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2.4

EVERETT CROWLEY PARK VIEWS

The following photomontages are constructed using the public viewpoints in Everett Crowley Park identified in the ODP. For clarity, the existing park context is seen in the winter season. These views would be screened to a much higher degree in those months when trees are in leaf. In general, the proposed Area 2 development maintains the established views, with higher buildings located in the periphery – consistent with the ODP development strategy.



View 1
Everett Crowley Park Eastern View Point



View 2
Everett Crowley Park Central View Point



View 3
Everett Crowley Park Western View Point

2.5

SOLAR ACCESS

The development has been configured to accomplish an appropriate density while mitigating shadowing of key public spaces, semi-private open spaces and residential units.

As demonstrated in the following studies, tower forms especially have been carefully located to ensure solar access to parks, squares and public open spaces for most times of day in the summer; spring and fall scenarios.

The winter studies show more significant shadowing of all open spaces due to the very shallow sun angles at this time of year:



Summer
June 21, 10am



Summer
June 21, 12pm



Summer
June 21, 2pm



Summer
June 21, 4pm



Spring / Fall
March 21, 10am



Spring / Fall
March 21, 12pm



Spring / Fall
March 21, 2pm



Spring / Fall
March 21, 4pm



Winter
December 21, 10am



Winter
December 21, 12pm



Winter
December 21, 2pm



Winter
December 21, 4pm

Introduction and Intent :

The parcel studies contained in this document reflect the goals of the ODP to create a diverse and highly legible urban fabric clearly defining a public realm network. Comprised of streets, plazas, promenades, parks and the riverfront, this network reinforces the identity of East Fraserlands, encourages walking and contributes to a high level of liveability.

This document demonstrates the general viability of development in each of the parcels in terms of density, use and access. The intention of these studies is to provide a general framework giving different architects the opportunity to contribute a higher level of diversity in the East Fraserlands development.

While the illustrative built form is intended as a demonstration and guide to the further development of each block, there may be potential to accomplish the key urban design role and meet the guidelines in an alternate form. Consideration may also be given through the approvals process to modest reallocation of floorspace within each CD-I. Of primary concern to considering variations in massing and floorspace allocation will be ensuring that key urban design objectives are met, and that the scale and definition of the streets and public spaces is not diminished by the changes.

Section 5.0, Height and Massing Alternative outlines a strategy for reallocation of more substantial building areas that was reviewed as part of the rezoning process.

Net Floorspace/ FSR

Building areas have been calculated based on the net floorspace (FSR) indicated by the solid line at the perimeter of building plans. There are no exclusions accounted for in these areas, and the plans are deliberately simple, with minimal articulation to provide an easily understood base case. The simplified building footprints have been set with sufficient room in the parcel to accommodate additional building mass generated by exclusions.

While the plans are illustrated simply, a high level of architectural articulation is sought, and the three-dimensional massing illustrations begin to demonstrate how further design development might see the building form evolve.

In the following massing parameters, the grey shaded area illustrates possible articulation of the gross floor area.

Building Setbacks and Streetwall Envelopes

Setbacks, indicated by a dashed red line, establish the frontages for the public realm and set the extent for building projections. Simple building footprints are illustrated with a space between the building and the setback. This space is called the streetwall envelope. The streetwall envelope provides for design flexibility to ensure a richly diverse development, a means to achieve the spatial qualities anticipated for the public realm, and room to accommodate additional building mass generated by areas excluded from floorspace calculations.

Envelopes have not been defined for the interior faces of blocks, as there is greater room for flexibility in building placement and massing in these locations, and the interior block faces do not for the most part affect or define the spatial quality of the public realm. However, the mid-block open spaces are an important aspect of EFL's urban fabric and although building configurations demonstrated in the development parcels are expected to evolve in design development, the general approach to open spaces is strongly encouraged. It is anticipated

that the building depths illustrated will expand and courtyard widths will decrease somewhat to accommodate articulation and additional building mass generated by areas excluded from floorspace calculations.

Projections into Streetwall Envelope:
Projections of interior floor areas into the streetwall envelope are limited to 50% of the building frontage (not including outdoor balconies, architectural elements, solar shading devices, and other similar features).

Projections into Setback:
Consideration may be given to extending outdoor balconies into the setback provided the spatial qualities of the public realm, the amenity and usability of street gardens (including solar access and rain exposure), and the amenable relationship of dwelling to street are maintained.

Statutory R.O.W:
The lanes, mews, pedestrian paths and breezeways between buildings and blocks are an important part of the fine-grained pedestrian network that facilitates movement through the development. Key connections are indicated with a public r.o.w. indicated with red hatched lines, for which the precise width and location will be determined at development permit.

Maximum Height and Rooftop Access and Articulation

The general height for all building types assumes a floor-to-floor height of generally 3m (10') for residential and 4.3m (14') for the school; retail height varies up to 6.0m (20'). To encourage a high degree of articulation at tops of buildings, and to facilitate roof-top access and use for residents, an additional 3m is included in the maximum heights. Projections into this top 3m will be limited in a building to no more than 40% of floor area below. Partial development associated with roof top access at this level will not be considered as a storey for purposes of the CD-I by-law. If the height of the projection for a residential floor exceeds 4.3 meters (14') the floor area of the projection must be included in the building area. Section 10 of the General Regulations of the City of Vancouver Zoning and Development By-law addresses projections beyond this maximum height.
Note: In the CD-I By-law the maximum building heights may be greater than the guidelines to allow consideration for transfer of density between parcels. It is anticipated that where transfer of density is not proposed, buildings will reflect both the number of storeys and the heights given in the guidelines.

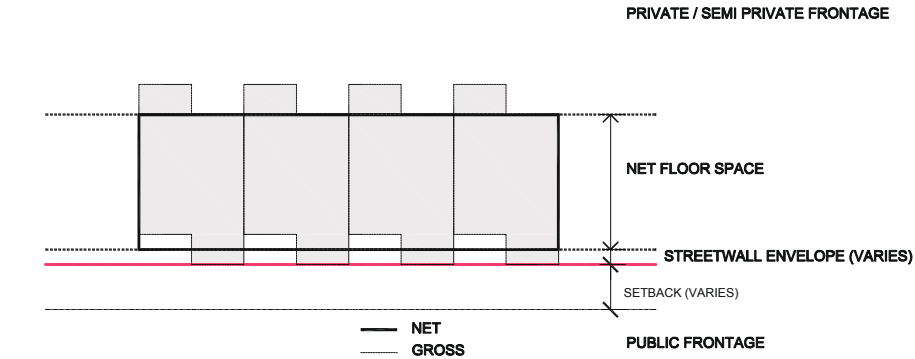
Low and Mid-rise Massing Flexibility

Consideration may be given to additional height and additional one or two storeys in low and midrise massing. Consideration may also be given to additional mid-rise massing up to nine storeys in association with towers.

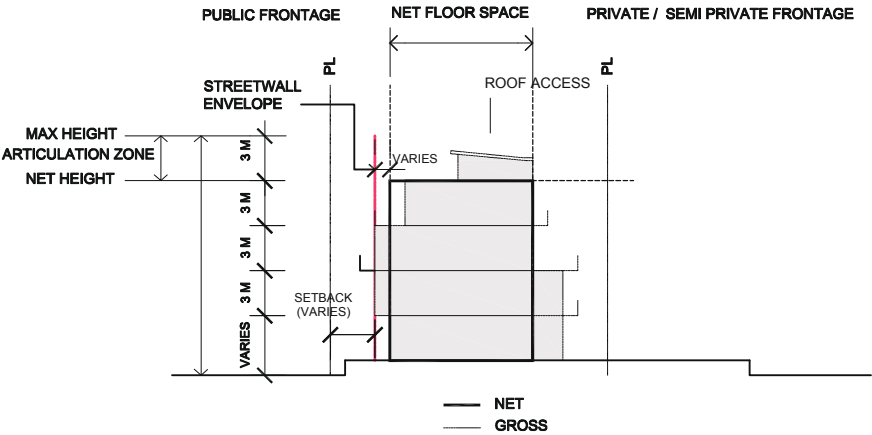
Four storey wood frame:
Massing for these buildings should reflect the principles of wood frame terraced building, employing increased ceiling heights for partial upper floors, roof top accesses, setbacks on upper levels, terracing and/or the like.

TOWNHOUSES

PLAN



- **Plans:** Townhouses are intended to have a high degree of articulation. For most of the units, a streetwall envelope of 1m is set for the front of the unit while more flexibility is anticipated at the rear of the unit where projections and recesses may be introduced to optimize outdoor use.

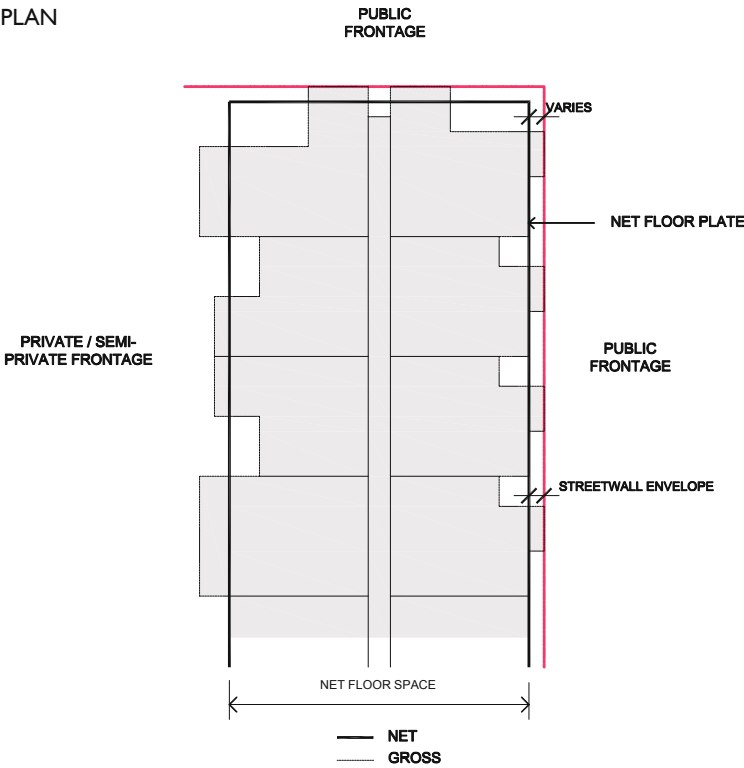


SECTION - 3 and 4 STOREYS

- **Sections:** Floor-to-floor heights in townhouses are generally 3m (10') with the exception of the ground and uppermost floors which vary. Similar to the tower and mid-rise buildings, a net height provides the general height whereas certain appurtenance are anticipated for areas and increased articulation. Refer to note on "Maximum Height".

LOW AND MID-RISE BUILDINGS

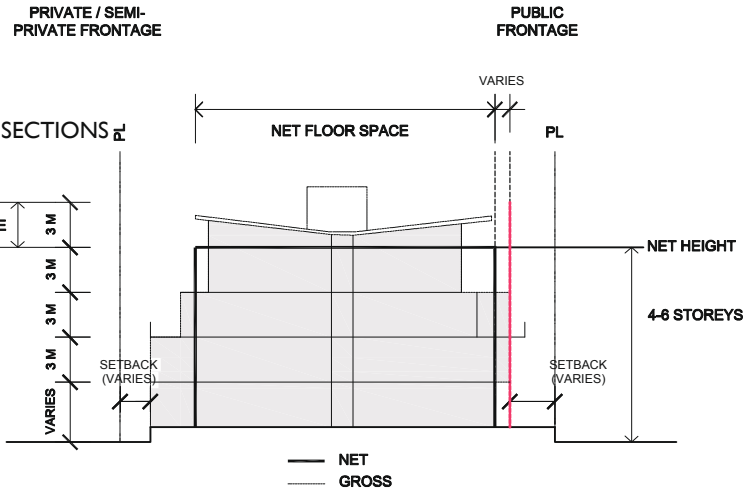
PLAN



TYPICAL FLOOR PLAN, (PARTIAL)

Plan: Generally, the streetwall envelope is established at 1m beyond the net floorspace for the public frontages of a block to ensure a well-defined public realm. The plan diagram demonstrates how projections and recesses from the net floorspace can be accommodated within the envelope (dashed line) at the public frontage.

Note : The net floorspace for low and mid-rise buildings is generally indicated as 18m to 20m in width.



RESIDENTIAL

- **Sections:** Residential uses at grade would make use of overheight space for lobbies and may require additional height to reconcile frontages with sloping grades. Middle storeys are indicated as 3m for residential. At top floors, where a high degree of articulation is encouraged, heights are expected to vary, allowing for an additional 3m to achieve this.
- In general, recessing of floors above three storeys from the streetwall should be considered.

TERRACED BUILDINGS

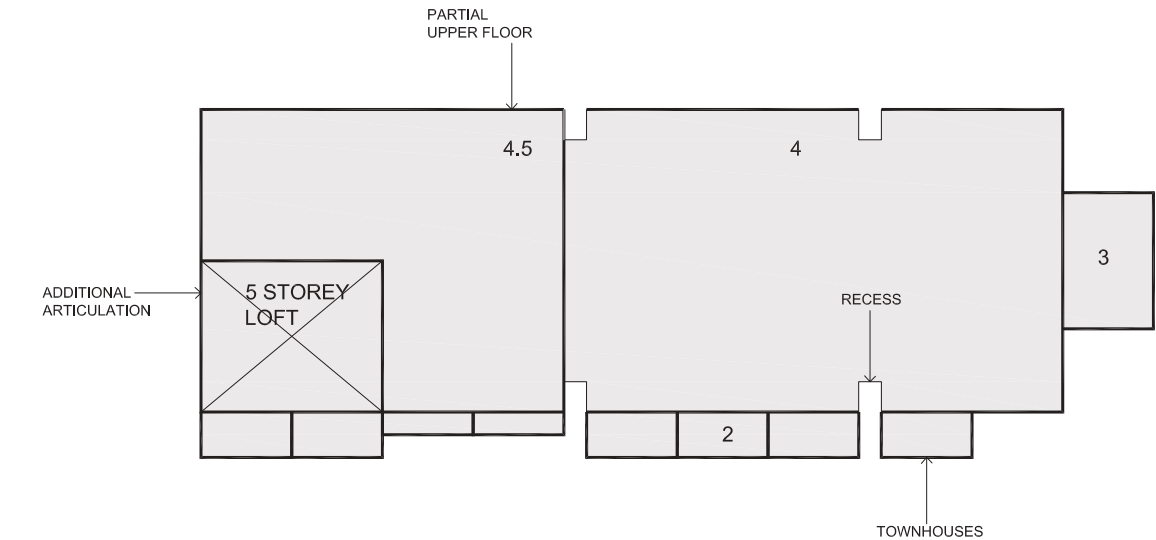
General

It is anticipated that some buildings in the Southwest precinct may be of wood construction. To maintain the terracing nature proposed for some buildings in this precinct, the following principles should be considered in their design

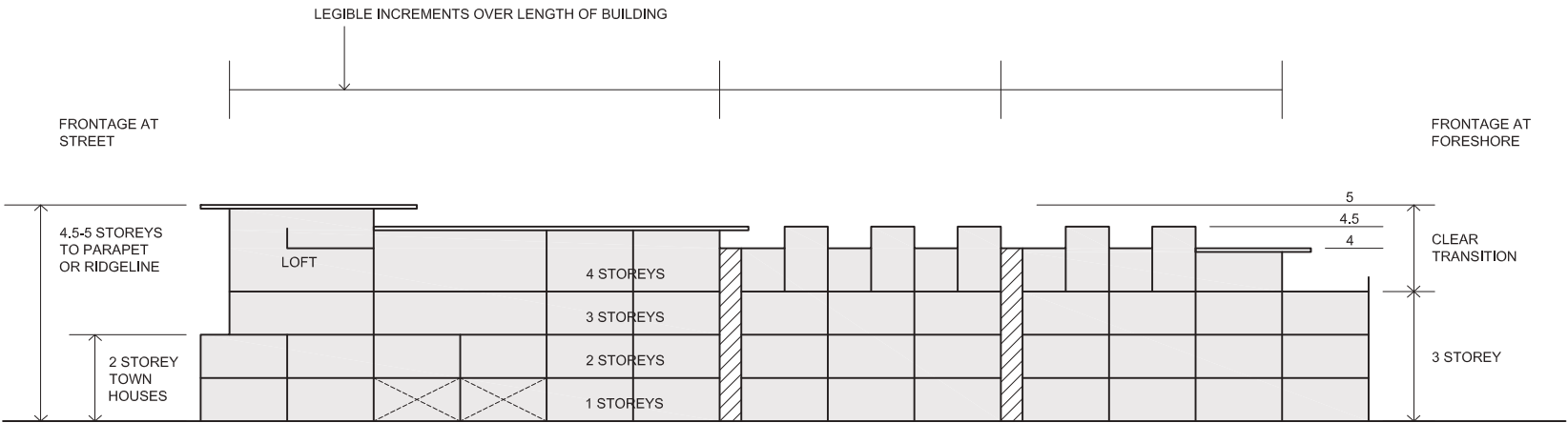
Wood Frame Terraced Buildings

Principles

- Clear vertical and horizontal articulation
- Horizontal - intent is to break down the length of the building to achieve a more comfortable massing; may be achieved with projections and recesses in the general wall plane as well as transition in scale towards waterfront
- Vertical - a clear transition from street to foreshore in waterfront blocks; north of Road H - stepping to reinforce urban design - raised/projecting volumes at scale of units to add further richness to four storey form
- Townhouses generally projecting beyond the 3rd and 4th storeys by 1 to 2 meters
- 4.5 storey height is intended to provide additional articulation for four storey wood frame buildings, allowing increased ceiling heights for partial upper floors
- Additional articulation may be achieved using 5 storey loft volumes to punctuate key building corners
- Buildings should resolve in a three storey expression at the riverfront.



SAMPLE PLAN

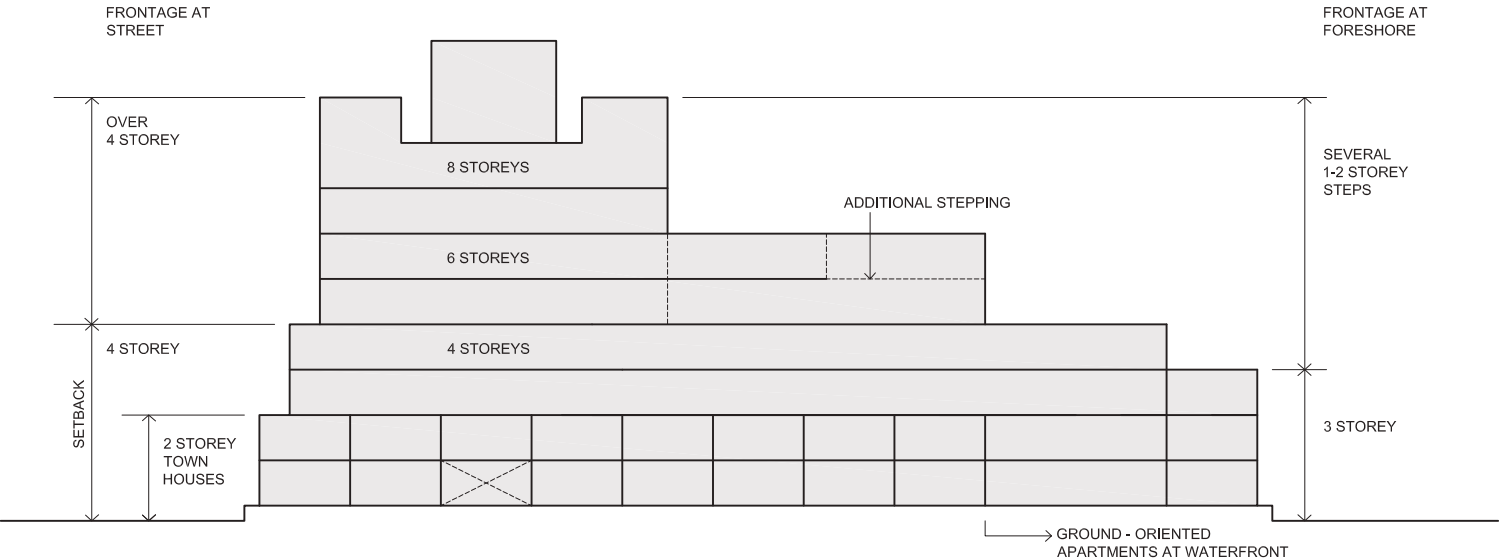


SAMPLE SECTION

Concrete Terraced Buildings

Principles

- Intent is for terraces allowing enhanced outdoor space
- 'Steps' - horizontal dimension greater than vertical
- A series of steps to give terraced form legibility



SAMPLE SECTION

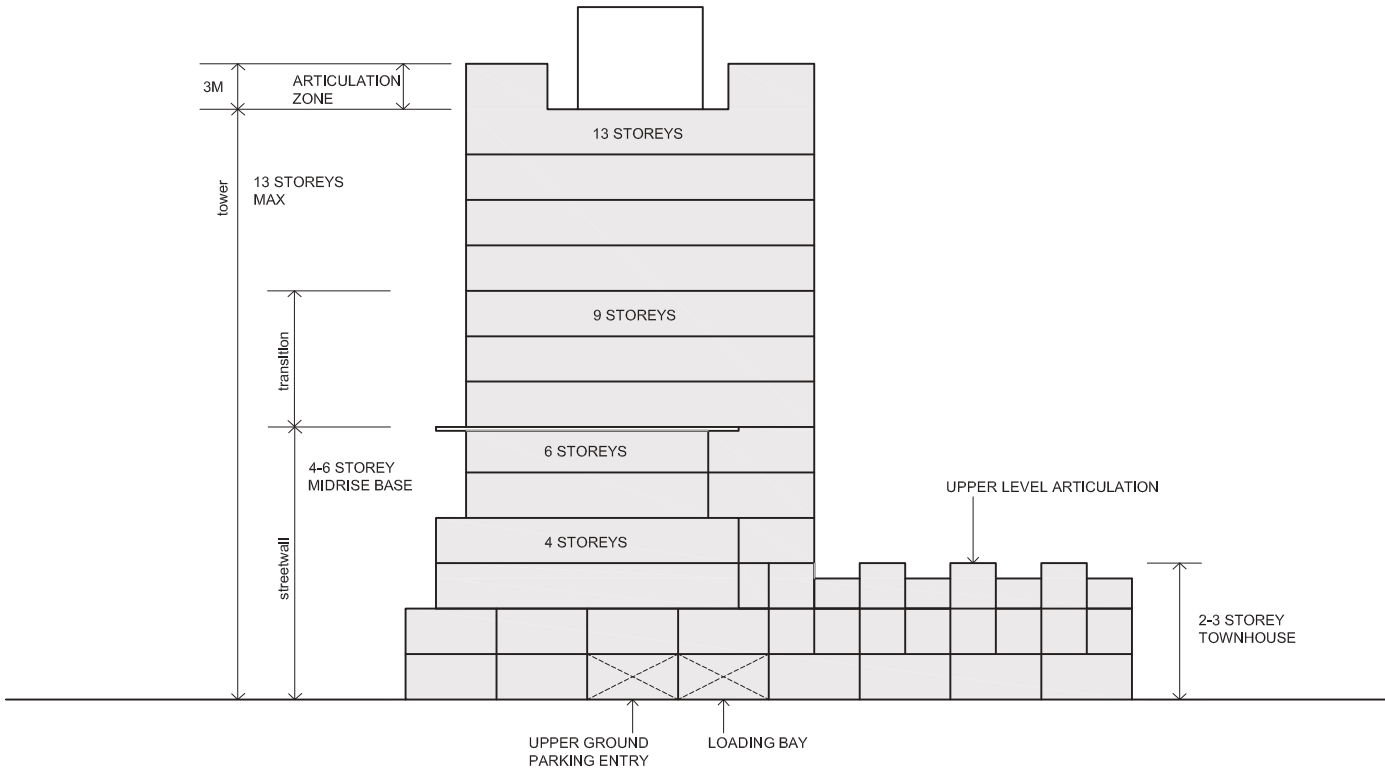
SCALE 1:500

TOWERS

- **Plans:** Examples of upper and lower floor plans for two towers are provided on this page to demonstrate possible articulation and the intent for reducing tower mass at upper levels.
- **Section:** Towers in EFL are generally integrated into a lower mid-rise building base. Massing for towers is anticipated to have a high degree of articulation with a reduction of mass at the upper levels. To achieve this, tower design should take the following vertical zones into consideration:
 - **Streetwall zone** - up to 6 storeys
The tower is integrated into the mid-rise building streetwall, generally following mid-rise massing parameters. (Note: This does not preclude some legibility of the tower in this zone.)
 - **Transition zone** - from streetwall up to 9 storeys.
There is flexibility in this transition zone for a variety of massing approaches: Extended mid-rise base; Simple low, mid-rise base or small secondary tower element.
 - **Tower zone** - 10th floor and higher
Reduced floorplates create a slimmer tower profile at upper levels and articulation of top floors provides architectural interest and a distinctive identity. Floor-to-floor heights for towers are generally indicated as 3m for typical floors. However, as in mid-rise buildings at ground floor and penthouse levels, a range is provided. At grade, this increased height is intended to encourage higher entry lobbies. At the top floor, screening of the mechanical penthouse and a more interesting architectural expression is the aim.
 - **Articulation zone** - At the top floor of towers, an increase of up to 3m above typical 3m floor to floor height is intended to allow for a more interesting architectural expression as well as screening of elevator/mechanical penthouse

Principles:

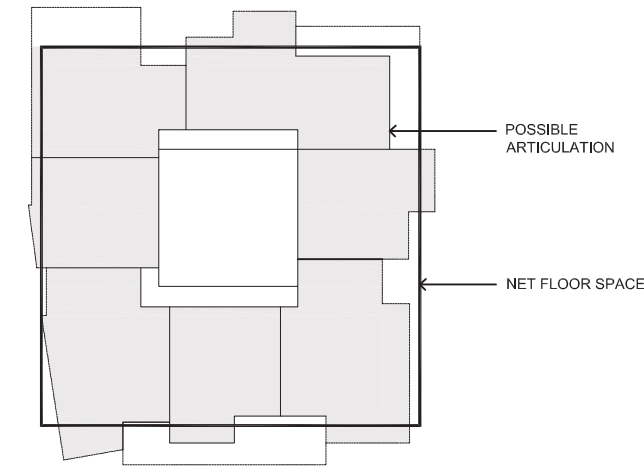
- 4-6 storey midrise to provide a consistent streetwall at mt.baker way.
 - Design and massing for these relatively small towers requires special care to achieve a high level of architectural interest through articulation, roof form and plate configuration
 - For townhouses integrated with midrise, massing and architecture treatment to provide distinct legibility
 - Standalone townhouses to complement those integrated with midrise; additional articulation, especially at the roof line is encouraged to provide rich frontages to mews and garden courts
- The parcels between the Foreshore Park and the Playfield Park are intended as a unique grouping, extending the more urban massing of the central neighbourhood. The intent is for the 3 building types to remain legible elements within a cohesive composition.



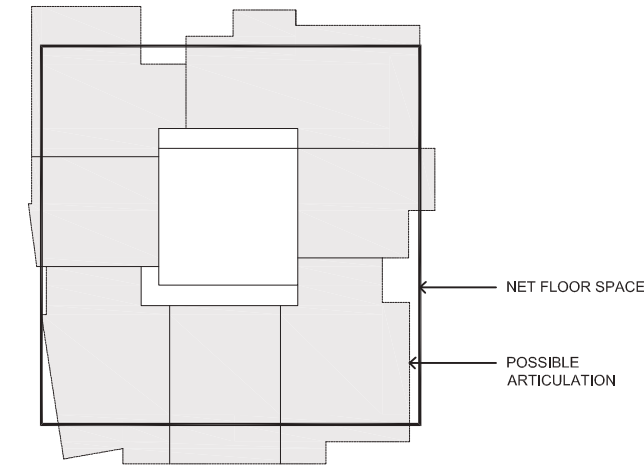
SAMPLE SECTION

SCALE 1:500

EXAMPLE 1:

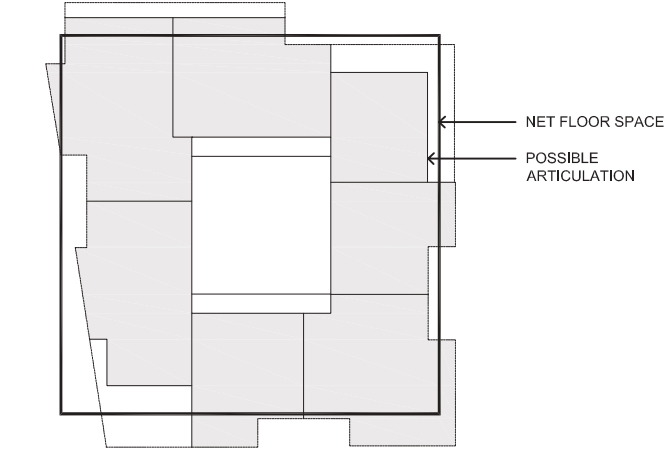


TYPICAL FLOOR PLAN, UPPER STOREYS

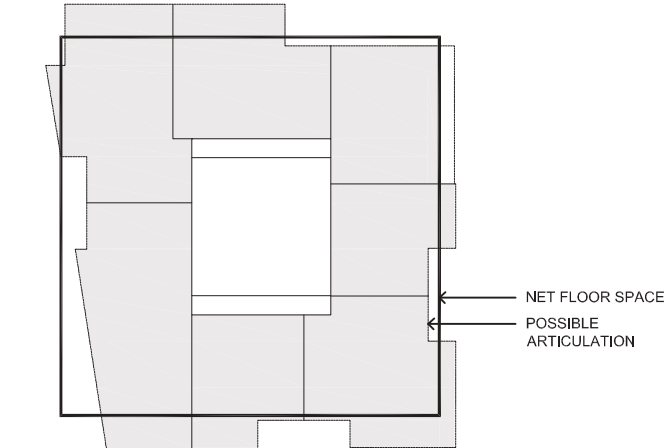


TYPICAL FLOOR PLAN, LOWER STOREYS

EXAMPLE 2:



TYPICAL FLOOR PLAN, UPPER STOREYS



TYPICAL FLOOR PLAN, LOWER STOREYS

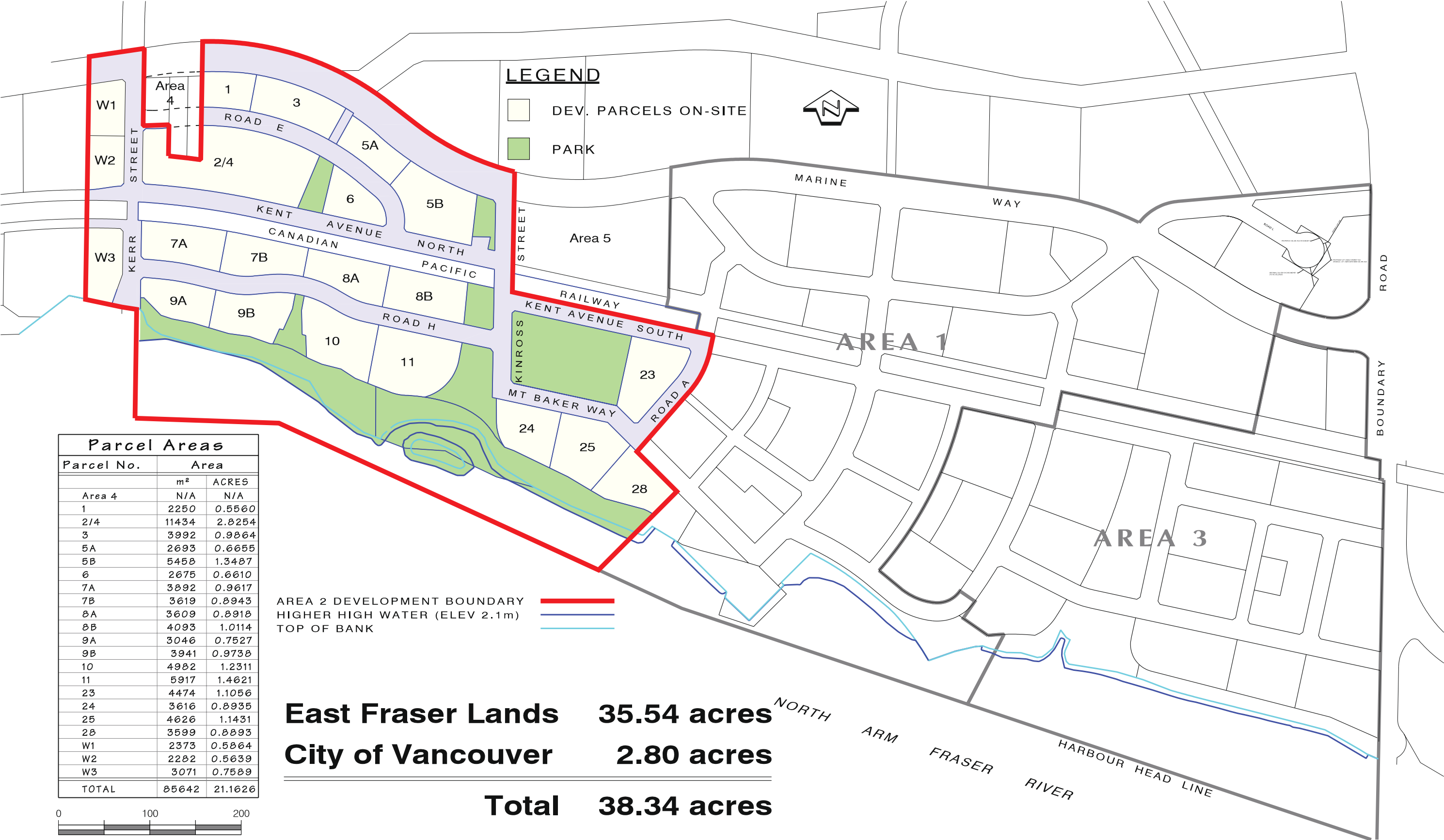
— NET
- - - GROSS

3.0

PROJECT DATA

EFL Area 2, 4 and W Densities								
	RESIDENTIAL		COMMERCIAL/RETAIL		DAYCARE/SCHOOL		TOTAL	
	sm	sf	sm	sf	sm	sf	sm	sf
North of Tracks (Excluding Area 4)								
CD-1 Sub-Total	38,414	413,485	0	0	936	10,075	39,350	423,560
Parcel 1	3,359	36,156	0	0	0	0	3,359	36,156
Parcel 2+4	10,659	114,733	0	0	0	0	10,659	114,733
Parcel 3	7,696	82,839	0	0	0	0	7,696	82,839
Parcel 5A	4,339	46,705	0	0	0	0	4,339	46,705
Parcel 5B	9,991	107,542	0	0	936	10,075	10,927	117,617
Parcel 6	2,370	25,510	0	0	0	0	2,370	25,510
	RESIDENTIAL		COMMERCIAL/RETAIL		DAYCARE/SCHOOL		TOTAL	
	sm	sf	sm	sf	sm	sf	sm	sf
South of Tracks								
CD-1 Sub-Total	106,743	1,148,972	0	0	5,220	56,188	111,963	1,205,160
Parcel 7A	7,005	75,401	0	0	0	0	7,005	75,401
Parcel 7B	7,809	84,055	0	0	0	0	7,809	84,055
Parcel 8A	7,930	85,358	0	0	0	0	7,930	85,358
Parcel 8B	11,018	118,597	0	0	0	0	11,018	118,597
Parcel 9A	5,956	64,110	0	0	0	0	5,956	64,110
Parcel 9B	9,326	100,384	0	0	0	0	9,326	100,384
Parcel 10	12,721	136,928	0	0	0	0	12,721	136,928
Parcel 11	13,064	140,620	0	0	0	0	13,064	140,620
Parcel 23	0	0	0	0	5,220	56,188	5,220	56,188
Parcel 24	9,172	98,727	0	0	0	0	9,172	98,727
Parcel 25	11,398	122,687	0	0	0	0	11,398	122,687
Parcel 28	11,344	122,106	0	0	0	0	11,344	122,106
Area 2 Total (Parklane Controlled)								
Total Residential	145,157	1,562,457						
Total Commercial/Retail	0	0						
Total Daycare/School	6,156	66,263						
Total Affordable Housing	19,965	214,901						
	RESIDENTIAL		COMMERCIAL/RETAIL		DAYCARE/SCHOOL		TOTAL	
	sm	sf	sm	sf	sm	sf	sm	sf
AREA 4								
Precinct Sub-Total	7,120	76,639	0	0	0	0	7,120	76,639
Parcel 1A	5,555	59,794					5,555	59,794
Remainder Portion of Parcel 2/4	1,565	16,846					1,565	16,846
Total of Area 2 & Area 4								
Total Residential	152,277	1,639,096						
	RESIDENTIAL		COMMERCIAL/RETAIL		DAYCARE/SCHOOL		TOTAL	
	sm	sf	sm	sf	sm	sf	sm	sf
CD-1 West of Kerr								
Precinct Sub-Total	11,825	127,283	929	10,000	0	0	12,754	137,283
Parcel W1-2	8,260	88,910					8,260	88,910
Parcel W3	3,565	38,373	929	10,000	0	0	4,494	48,373

3.1 PARCELIZATION/AREA SUMMARY PLAN



Parcel Areas		
Parcel No.	Area	
	m ²	ACRES
Area 4	N/A	N/A
1	2250	0.5560
2/4	11434	2.8254
3	3992	0.9864
5A	2693	0.6655
5B	5458	1.3487
6	2675	0.6610
7A	3892	0.9617
7B	3619	0.8943
8A	3609	0.8918
8B	4093	1.0114
9A	3046	0.7527
9B	3941	0.9738
10	4982	1.2311
11	5917	1.4621
23	4474	1.1056
24	3616	0.8935
25	4626	1.1431
28	3599	0.8893
W1	2373	0.5864
W2	2282	0.5639
W3	3071	0.7589
TOTAL	85642	21.1626

AREA 2 DEVELOPMENT BOUNDARY
HIGHER HIGH WATER (ELEV 2.1m)
TOP OF BANK

East Fraser Lands 35.54 acres
City of Vancouver 2.80 acres

Total 38.34 acres

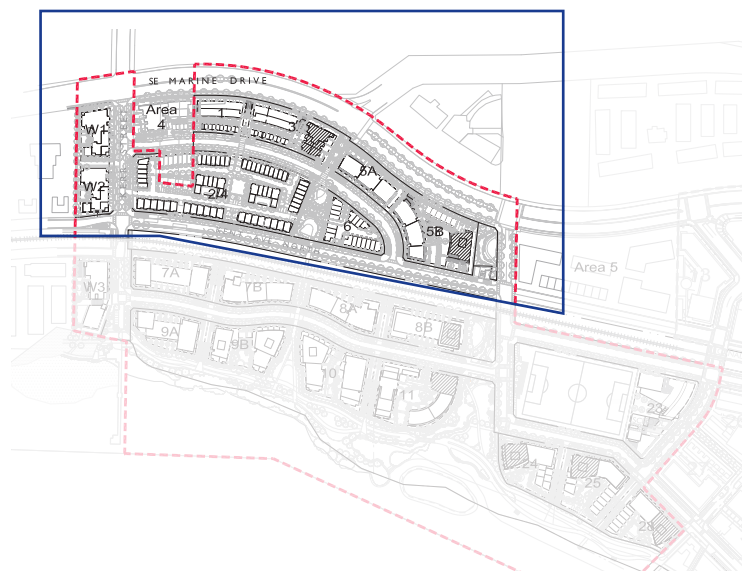
Parcelization Plan
1:4000

4.0

4.1

DEVELOPMENT PARCELS

Northwest precinct



Looking North to Neighbourhood Park



Looking West Along Kent Avenue North



Looking Northeast along Kerr Street



PARCEL 1/3 DATA

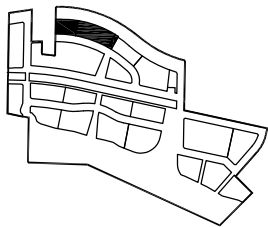
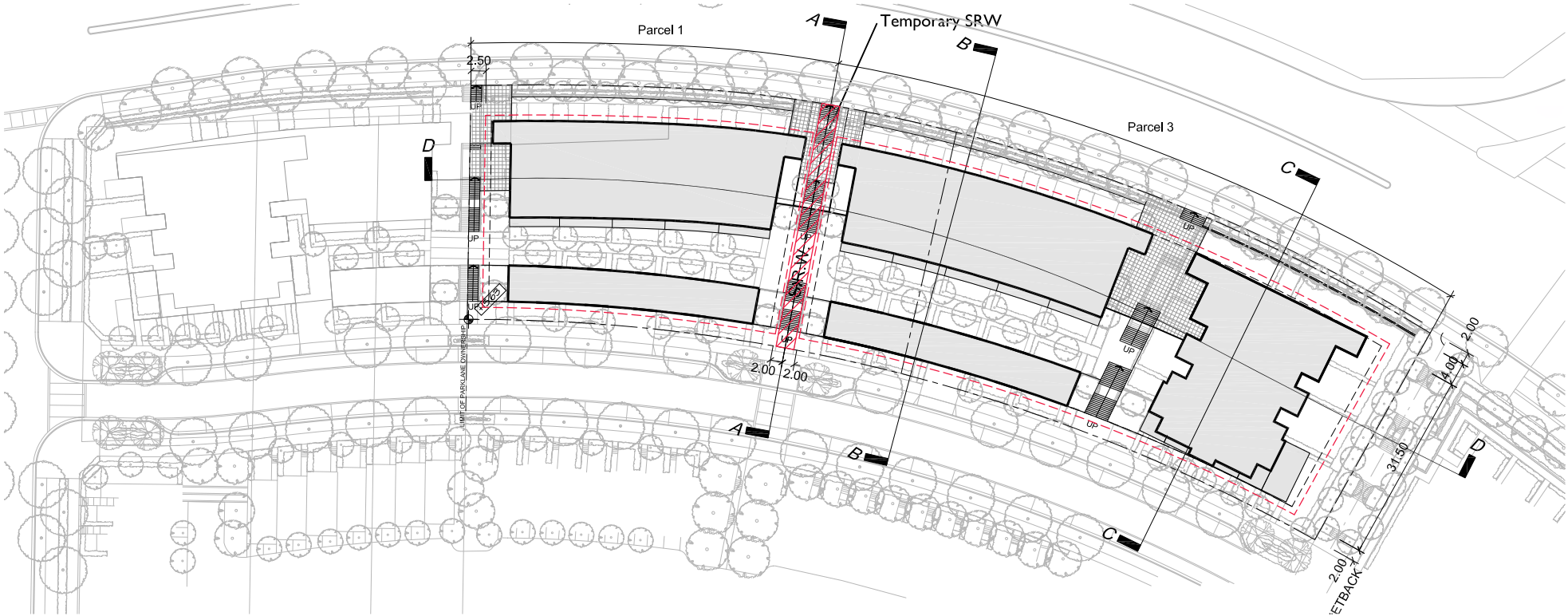
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
1-1	RESIDENTIAL	4	2,793	30,064
1-2	RESIDENTIAL	3	566	6,092
3-1	RESIDENTIAL	4	2,891	31,118
3-2	RESIDENTIAL	3	580	6,243
3-3	RESIDENTIAL	6	4,225	45,478
	TOTAL	6	11,055	118,995

Urban design role:

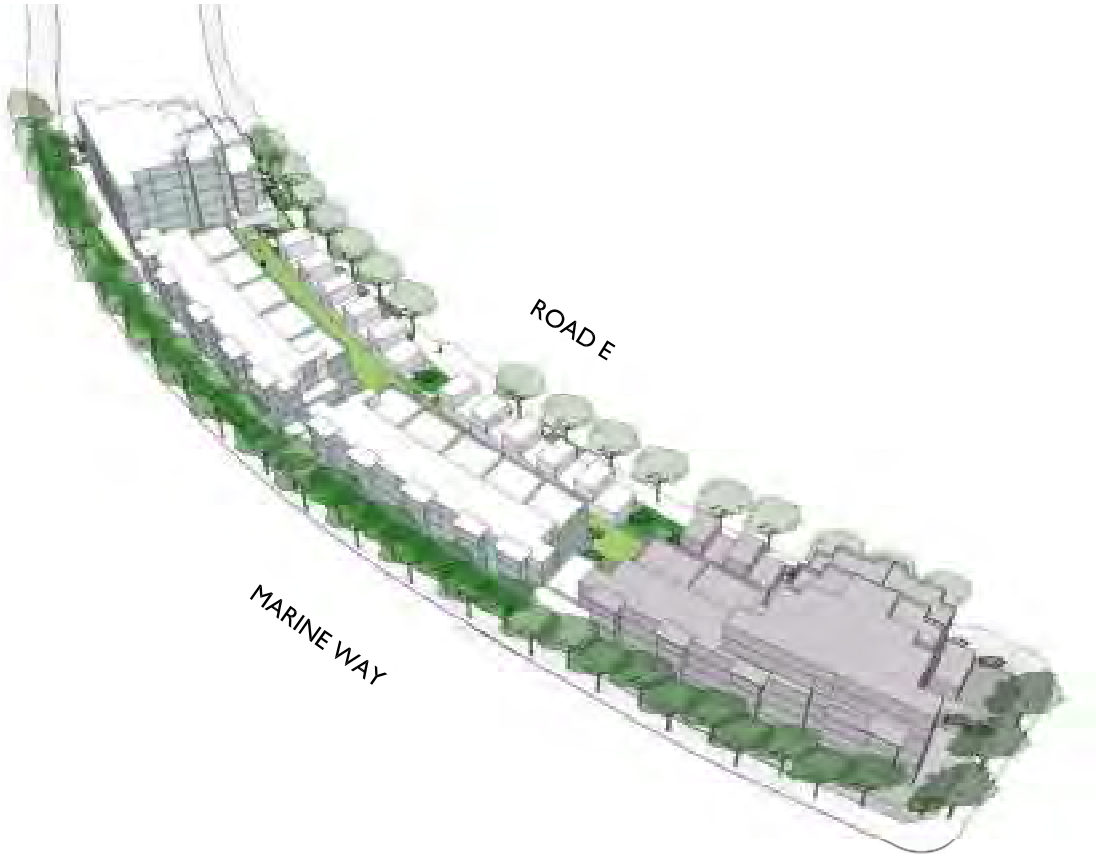
- highly-visible SE Marine Drive frontage is comprised of diverse building forms that enliven this frontage and the SE Marine Drive pedestrian experience
- strong midrise edge of NW Precinct frames the central townhouse community; frontage on road 'E' should complement the townhouse scale and character on the south side
- openings in streetwall along SE Marine Drive provide views into the development and to the river

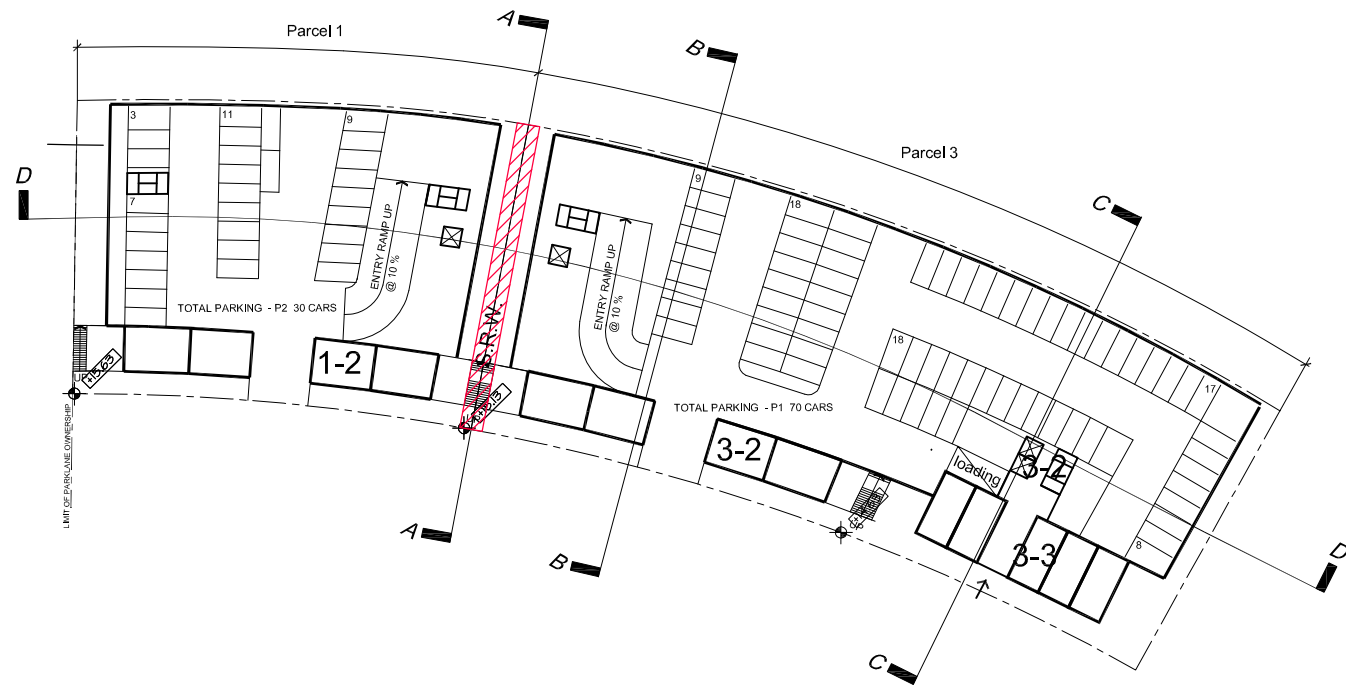
Characteristics:

- north-south orientation and higher form of eastern and western-most buildings frame the lower 4 storey buildings running parallel to SE Marine Drive and provide a welcome variation in the massing of this parcel; these higher buildings also mark entries to the site from Marine Way at Kerr St and the Neighbourhood Park North
- four to six storey frontage on SE Marine Drive provides a streetwall well-suited to the broad scale of this street; two storey townhouse form along road 'E', whether stand alone or projecting from higher buildings, complements Parcel 2/4 townhouse scale on south side of road 'E'
- openings through SE Marine Drive frontage provide a sense of the sloping site beyond, daylight penetration to the south sidewalk and in some cases, views to the river; mitigating impact of SE Marine Drive
- contiguous mid-block terraces offer a linear semi-private space between town homes and 4 storey buildings intersecting three generous north-south spaces
- narrower midrise buildings along SE Marine Drive allow for: 1) adequate space for townhouses along Road 'E' and open space between and 2) shallower units with more access to light along SE Marine Drive
- temporary SRW between Parcel 1 and 3 to remain in place until Road E open to Kerr
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions

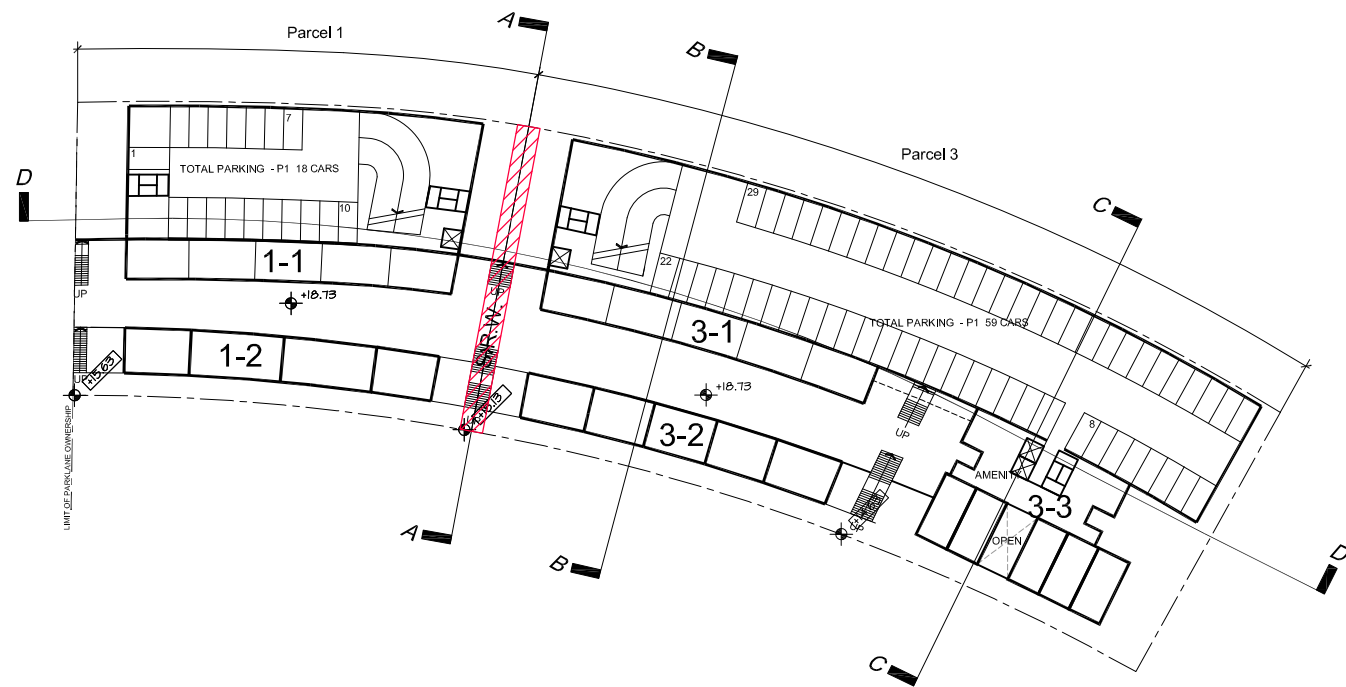


MASSING DIAGRAM

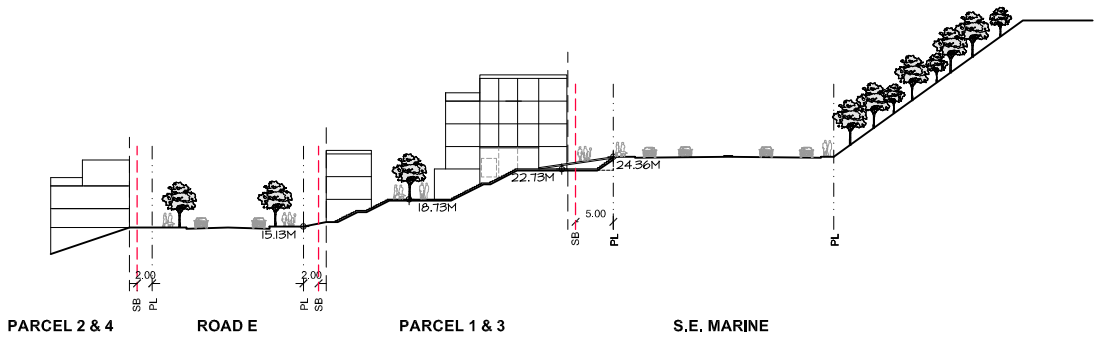




LOWER TOWNHOUSE / P2 LEVEL

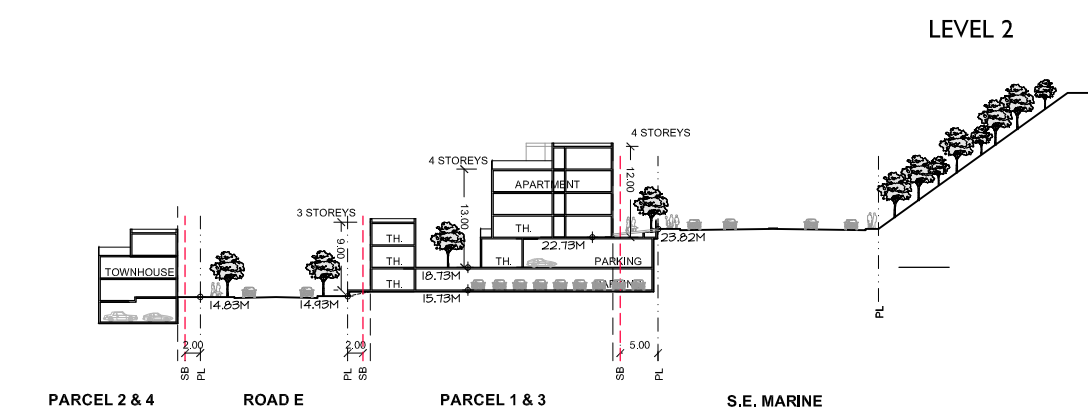
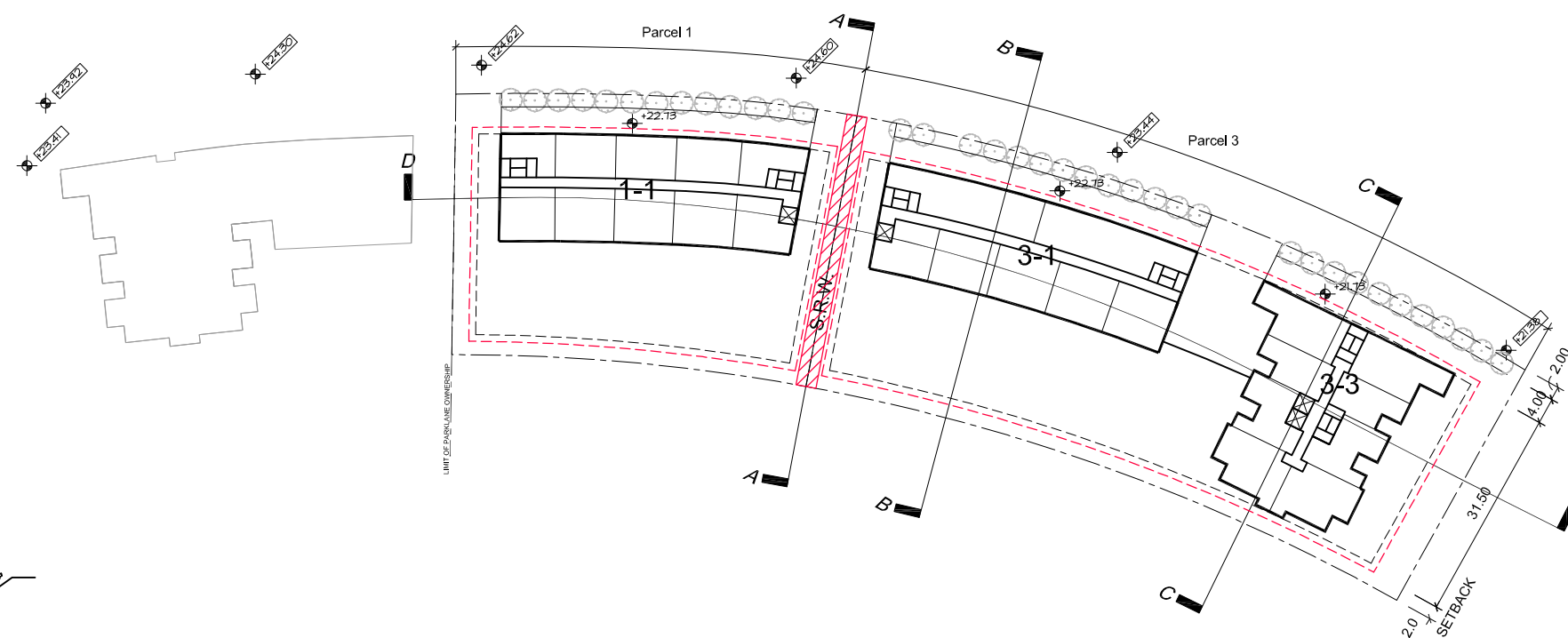
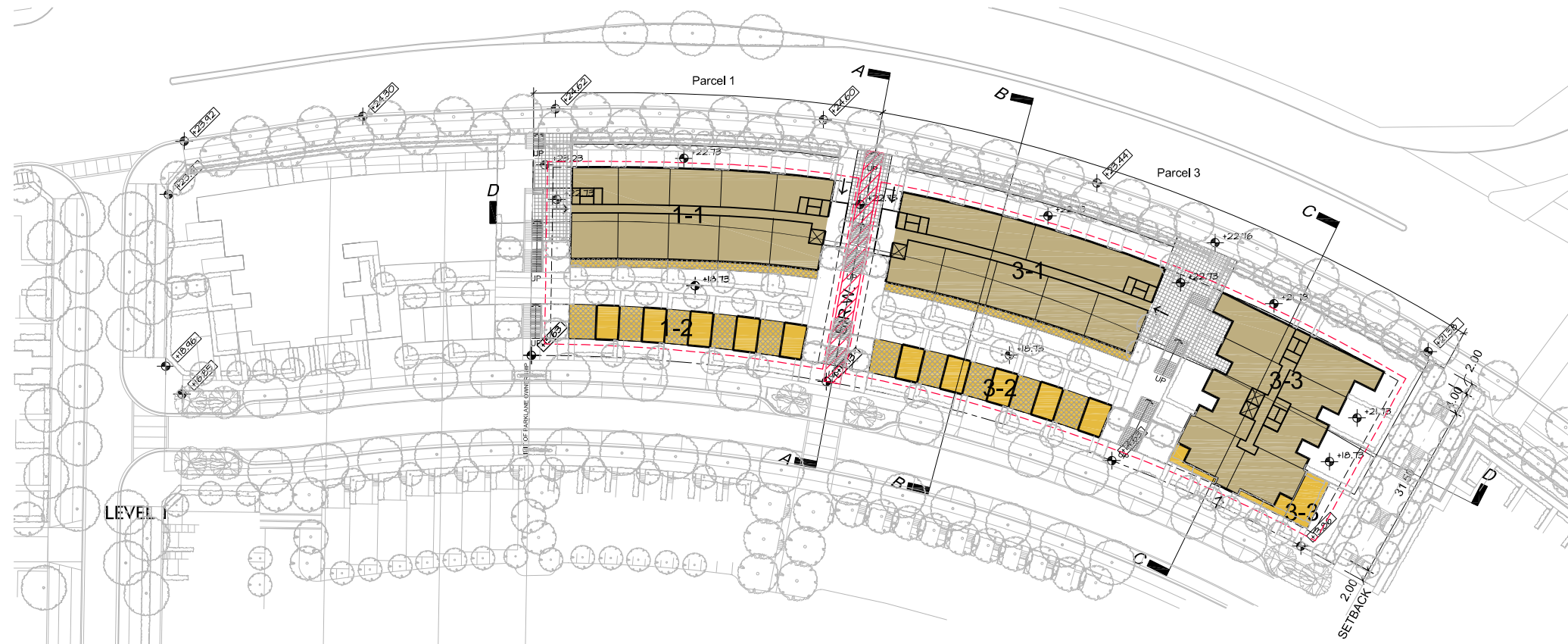


GARDEN / P1 LEVEL



SECTION A-A

*Dimensions provided are for illustrative purposes only.
The maximum height as identified in the by-law is taken from the base surface.

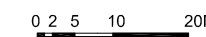


*Dimensions provided are for illustrative purposes only.
The maximum height as identified in the by-law is taken from the base surface.



PARCEL 1 & 3

I&3.c



PARCEL 2/4 DATA

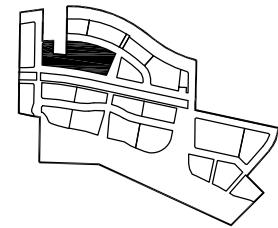
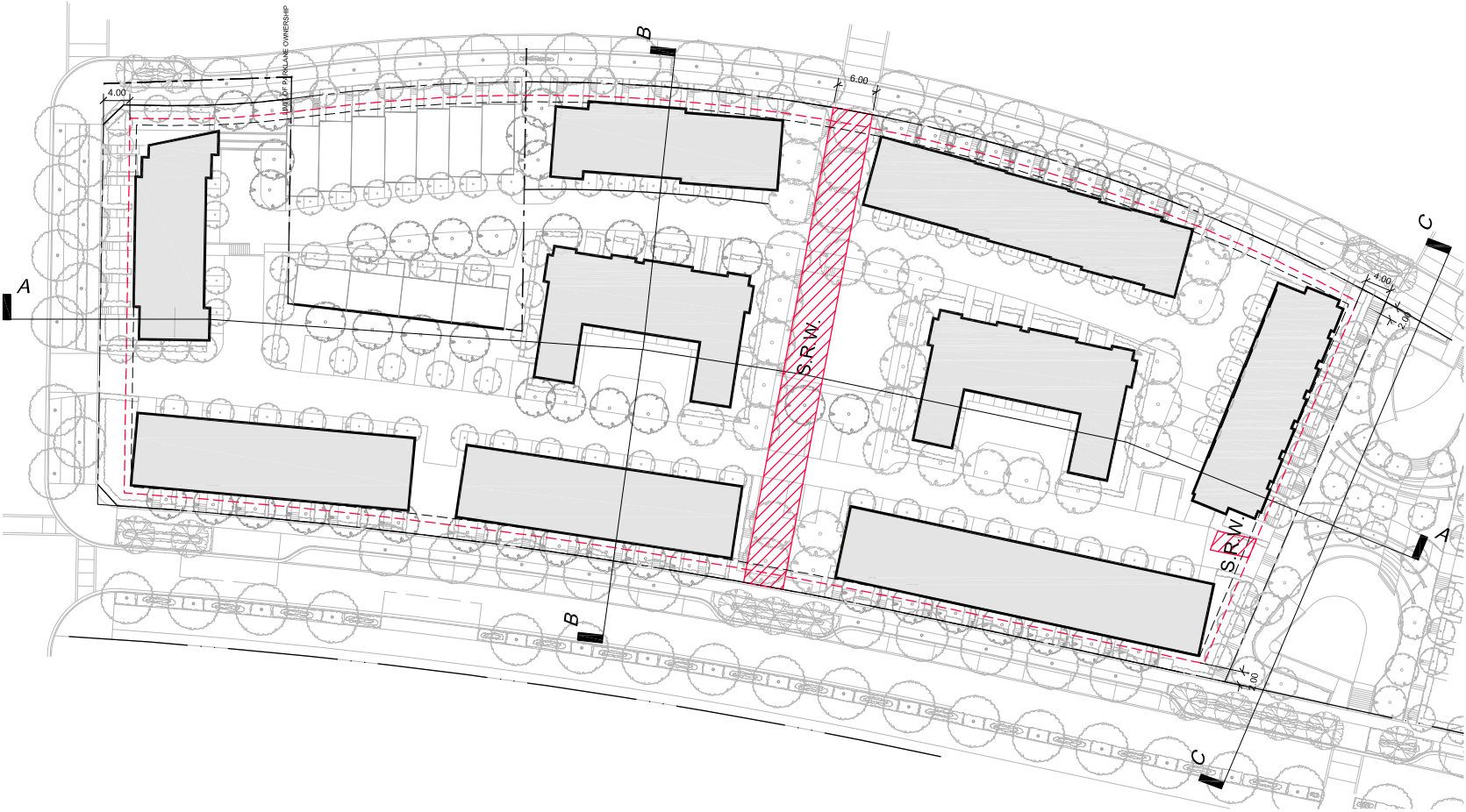
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
2/4	RESIDENTIAL	4	10,659	114,733
	TOTAL	4	10,659	114,733

Urban design role:

- low-scale hillside community, accentuating the sloping topography
- forms frontages to surrounding streets and neighbourhood park
- provides a strong visual connection north-south through this Parcel and those in the SW Precinct to the river beyond
- fine-grained urban pattern creates a range of intimately-scaled semi-private open spaces within the Parcel and offers permeability through the site

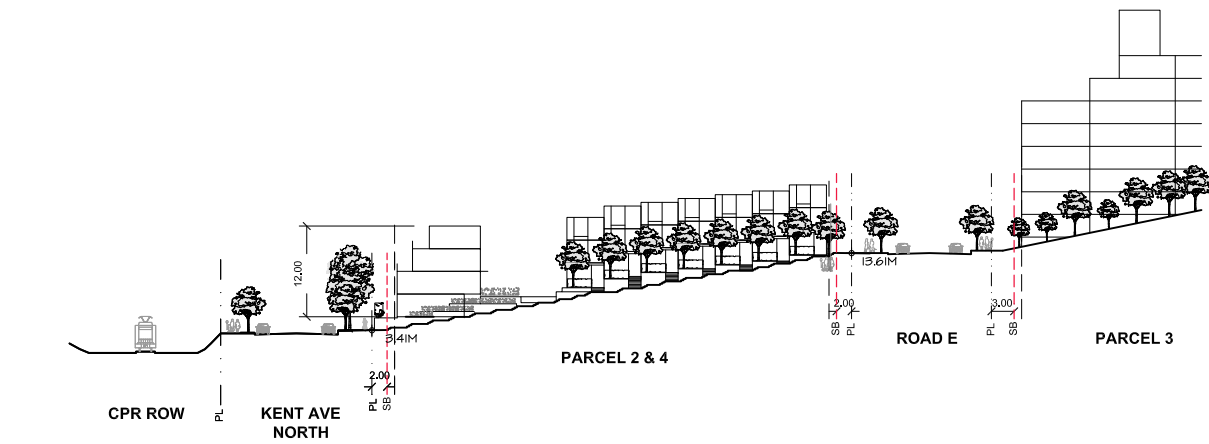
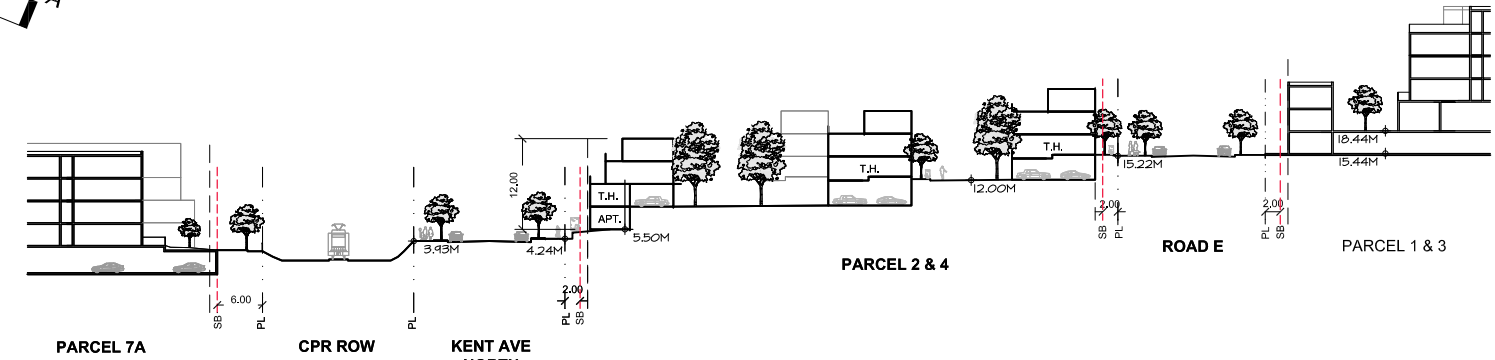
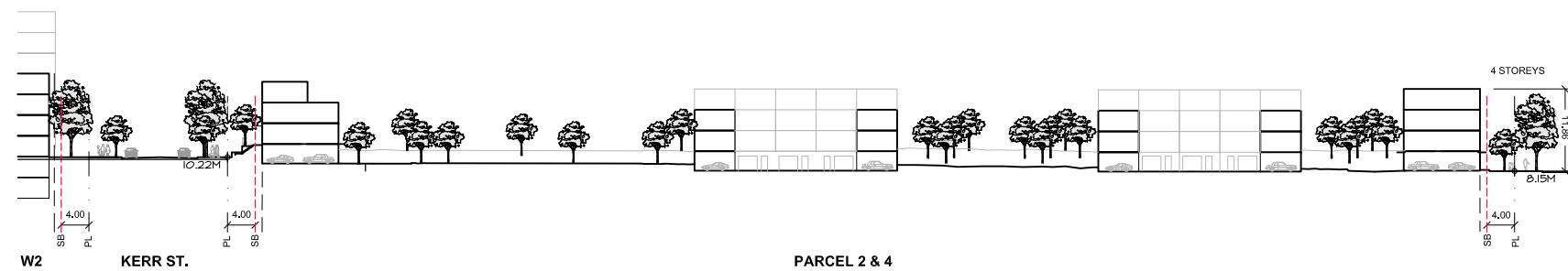
Characteristics:

- 3 to 4 storey townhouse forms terrace down towards the river, giving a sense of the sloping site and creating multiple opportunities for views to the river and the SW Precinct
- together with townhouse frontage on Parcel 1/3, Road 'E' frontage creates a comfortable neighbourhood scale broken at two key access/vantage points - the mid-block open space and Neighbourhood Park North; Kerr St frontages; Kent Ave frontage provides a more urban expression with stacked townhouses forming a more substantial streetwall
- private drives are enlivened by dwelling entries and substantially planted to enhance livability and to create the feeling of a small scale, well treed street or mews
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions

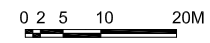


MASSING DIAGRAM





*Dimensions provided are for illustrative purposes only.
The maximum height as identified in the by-law is taken from the base surface.



PARCEL 2/4
SCALE 1:1000
2/4.b

PARCEL 5A AND 5B DATA

PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
5A	RESIDENTIAL	4	4,339	46,705
5B-1	RESIDENTIAL	4	4,052	43,615
5B-2	RESIDENTIAL	10	5,279	56,823
	CHILD CARE	2	936	10,075
5B-3	RESIDENTIAL	3	707	7,610
	TOTAL	10	15,313	164,828

Urban design role:

- marks north end of the Kinross Park Corridor
- forms northeast edge of the NW Precinct
- highly-visible frontage on Marine Way
- provides western edge for Kinross Park North
- streetwall for Kent Ave North

Characteristics:

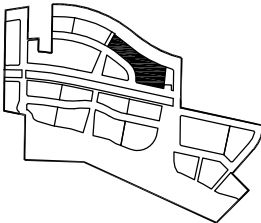
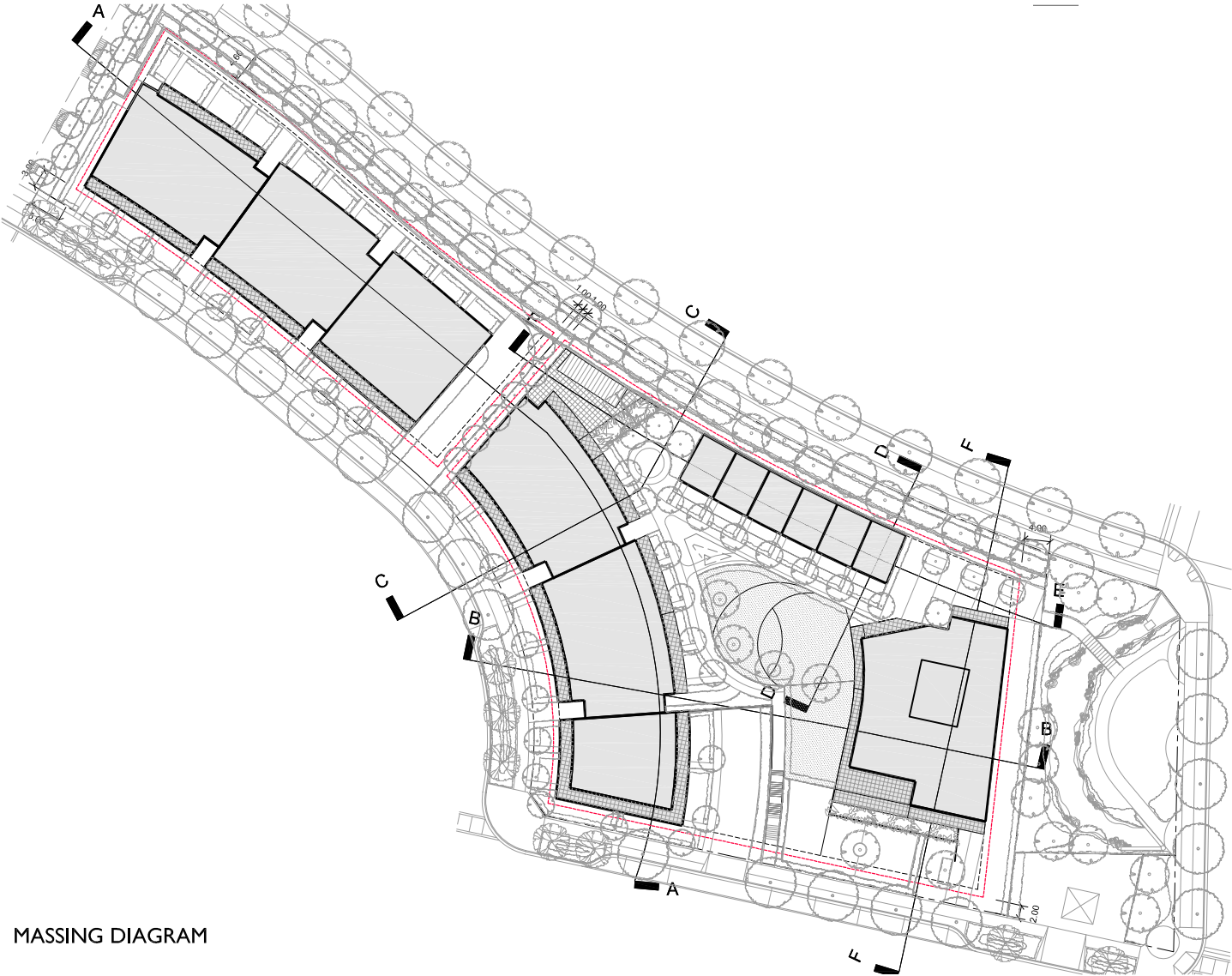
- tower at SE corner provides highest form for buildings stepping up from the river at the edge of Kinross Park and lowest form for towers stepping down from Town Centre Precinct
- midrise terracing buildings along road 'E' frame the central townhouse community, provide dramatic forms that take advantage of views to easterly open spaces (Kinross Park and Playfield Park) and offer access to roof top terrace
- 4 storey form following Marine Way extends streetwall edge from Parcel 1/3, and creating protected semi-private green space mid-block
- Kinross Park frontage is angled to provide increased landscape buffer around existing pump station
- 2 storey townhouse forms project beyond upper storeys of mid-rise and tower to complement frontage in townhouse community immediately west
- relationship to marine
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions
- note1: A 500 sm neighbourhood energy utility may be accommodated in this parcel at lower level parking
- note2: 69 spaces child care facility located on lower two levels of 5B along Kent Ave N. with southern exposure for outdoor play areas



ROAD E

MARINE WAY

KENT AVE NORTH



MASSING DIAGRAM

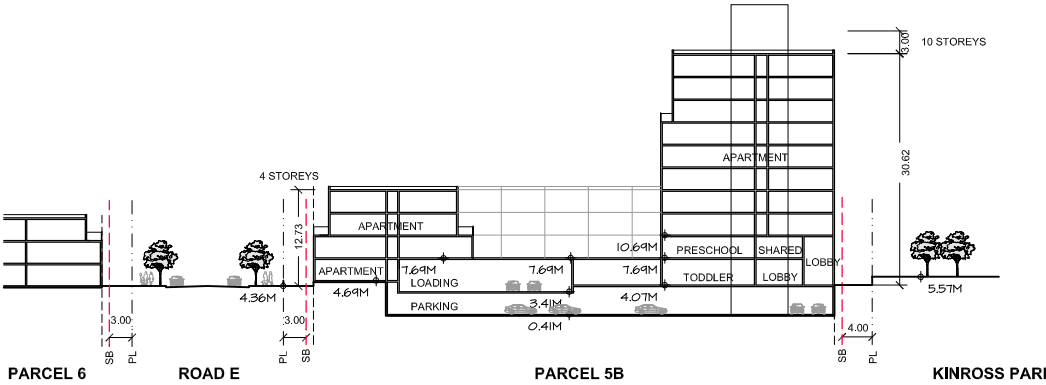
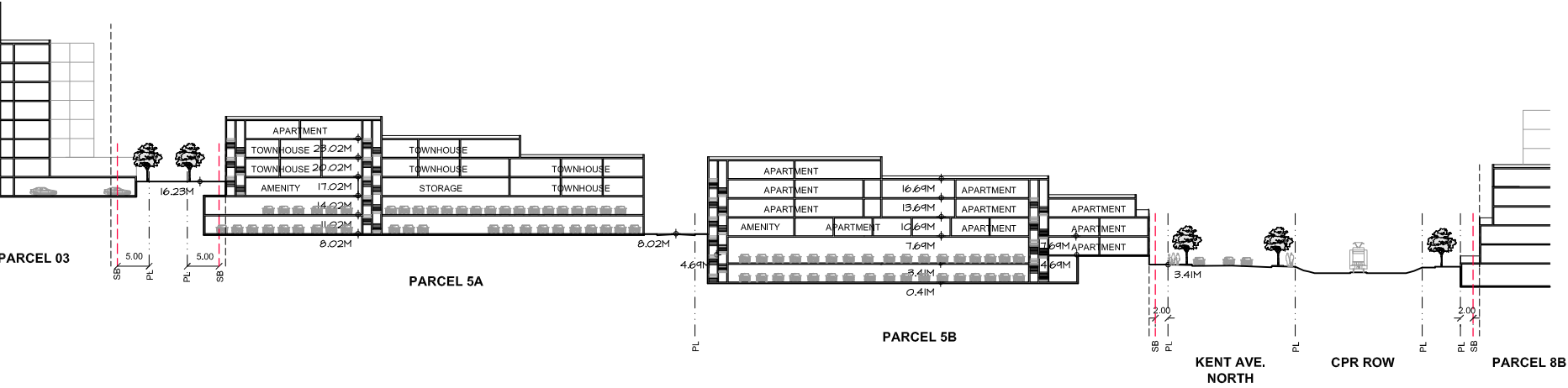
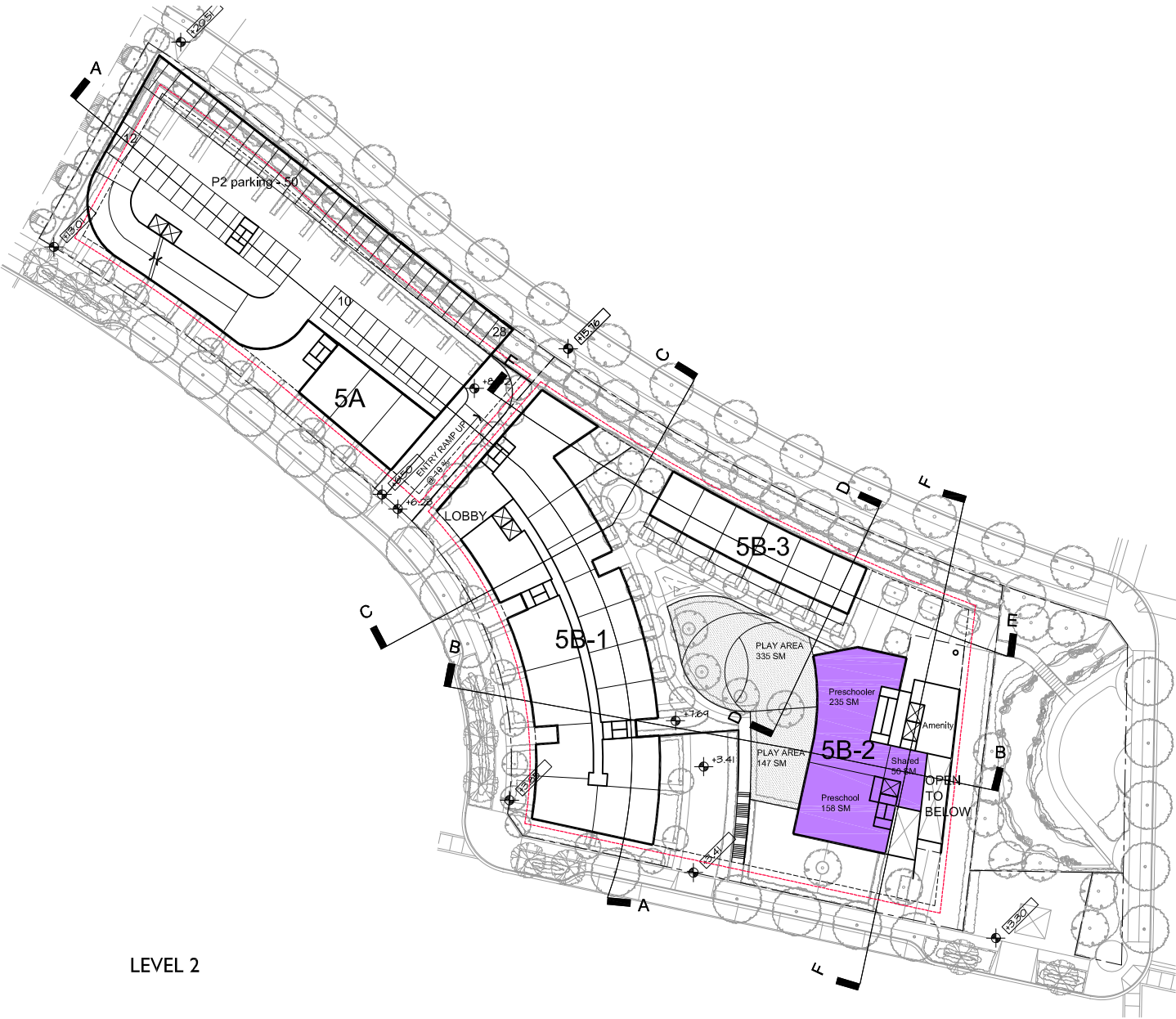
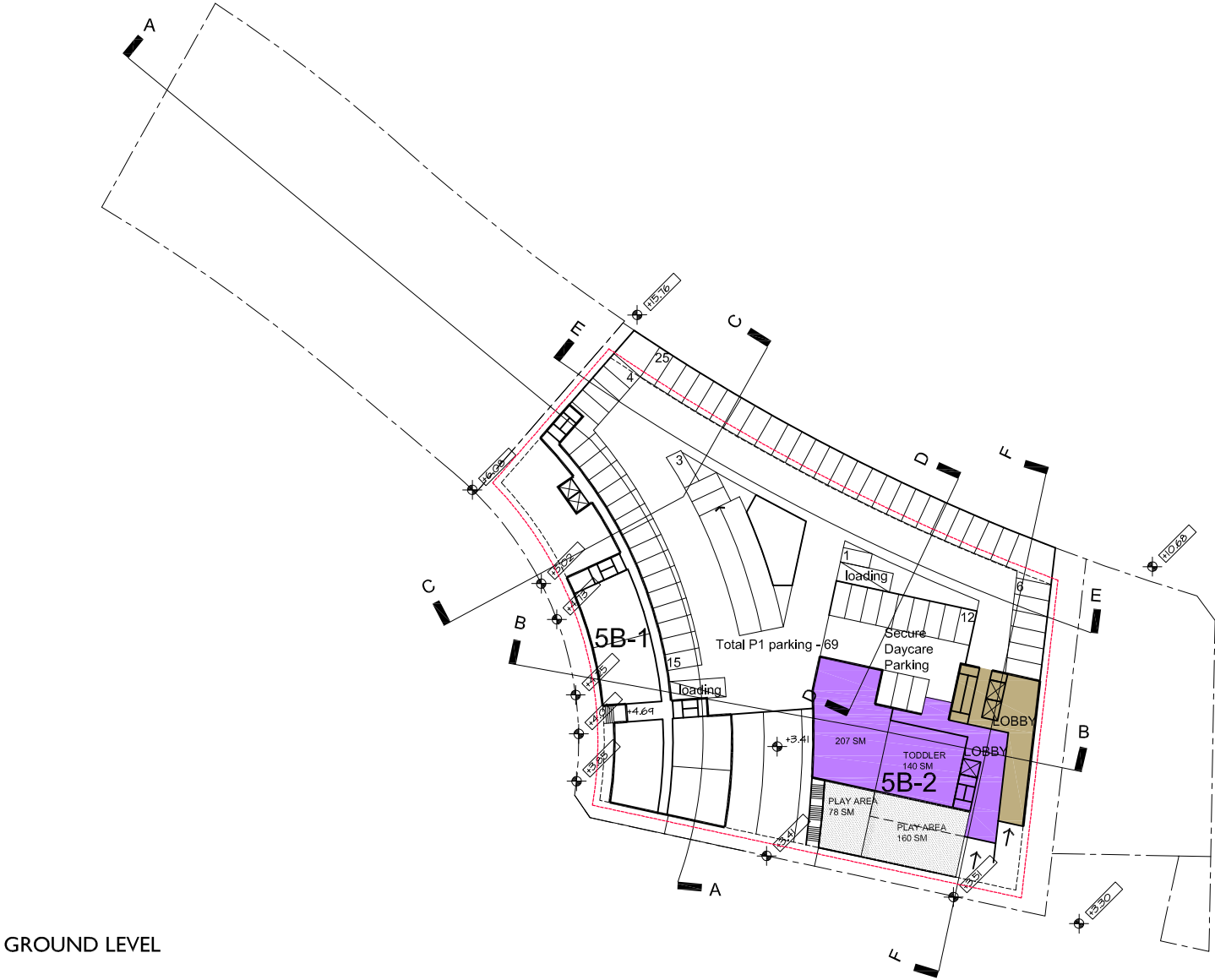


MARINE WAY

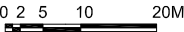
ROAD E

KENT AVE NORTH

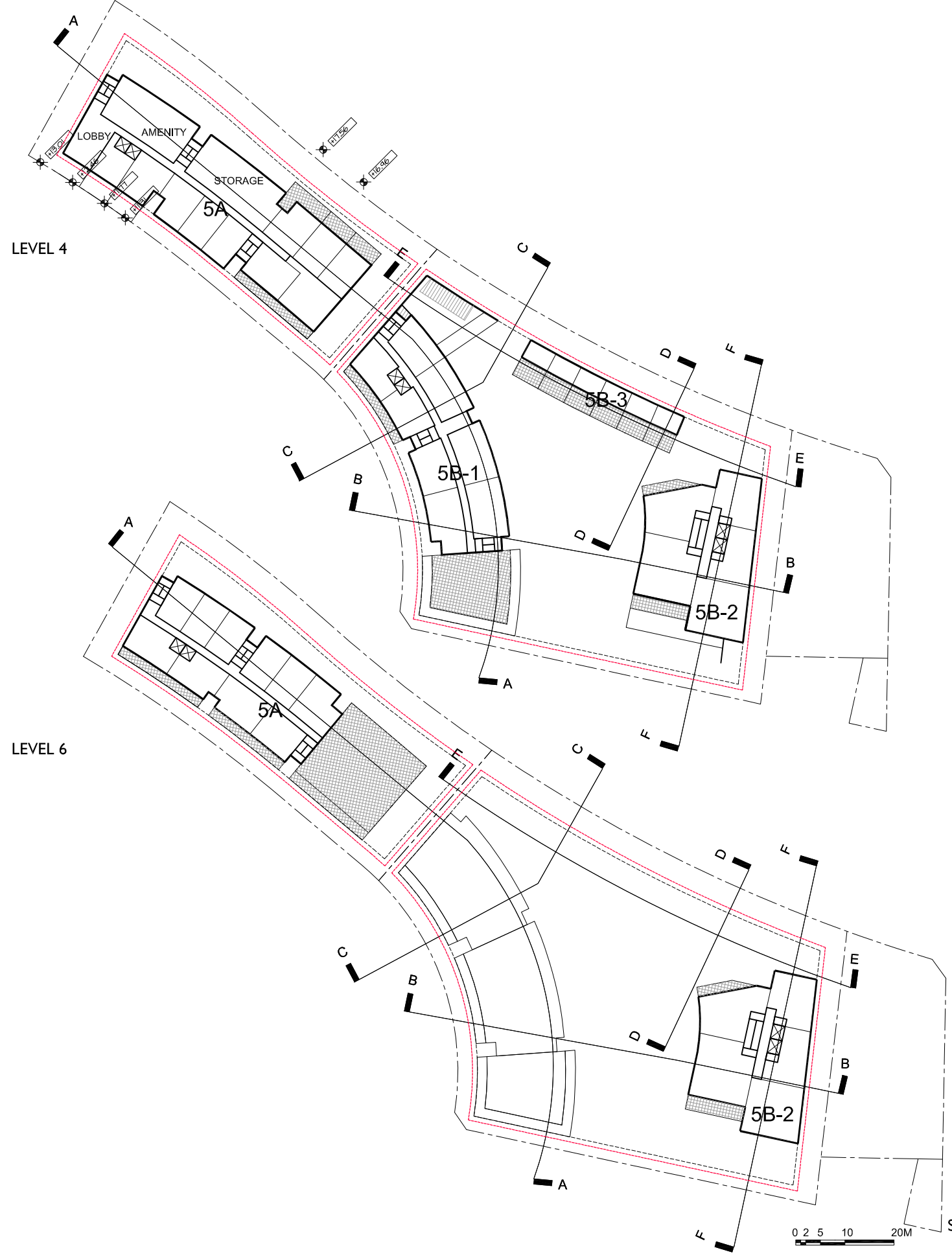
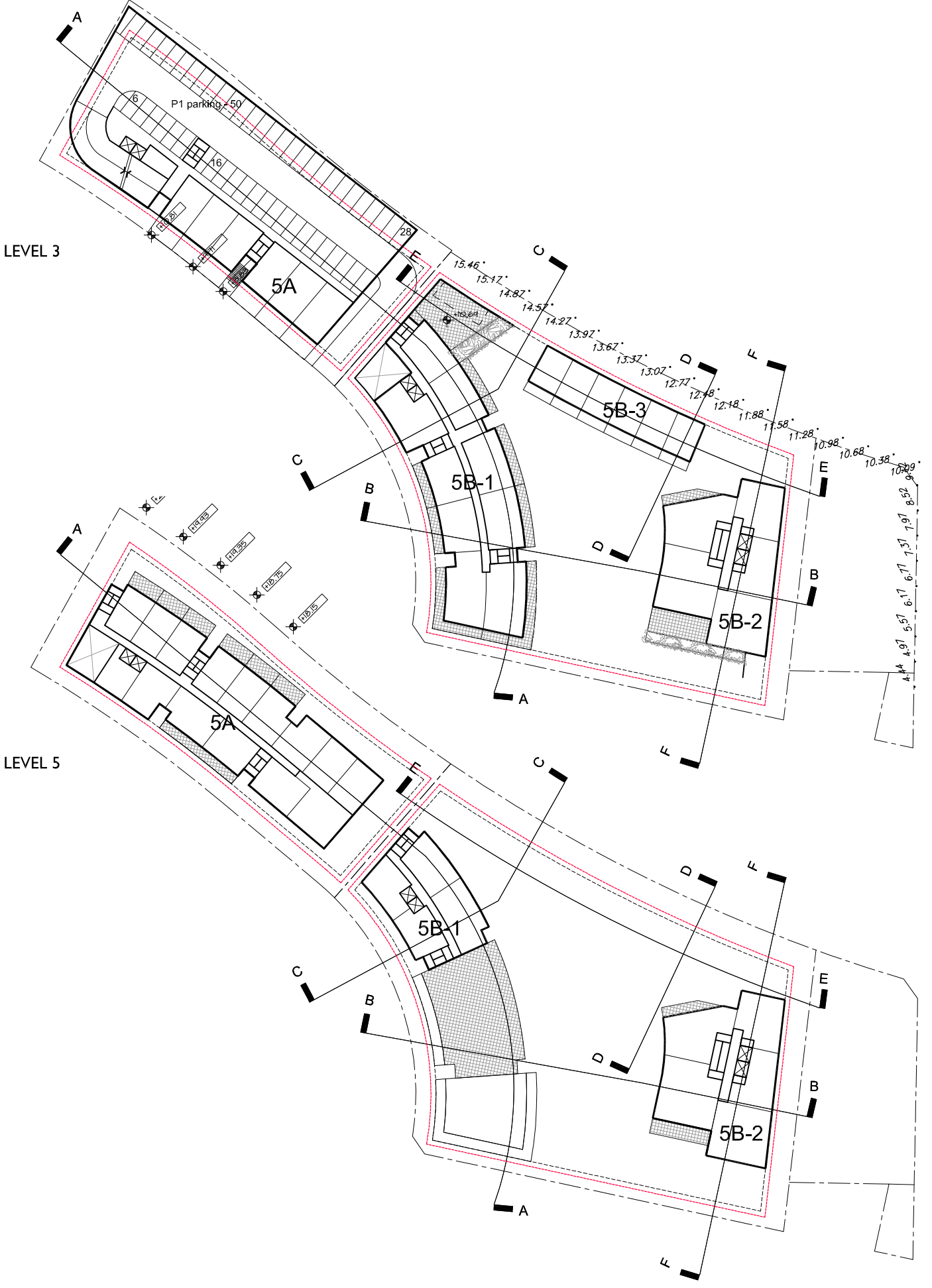
PARCEL 5
5.a

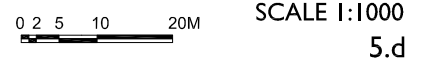
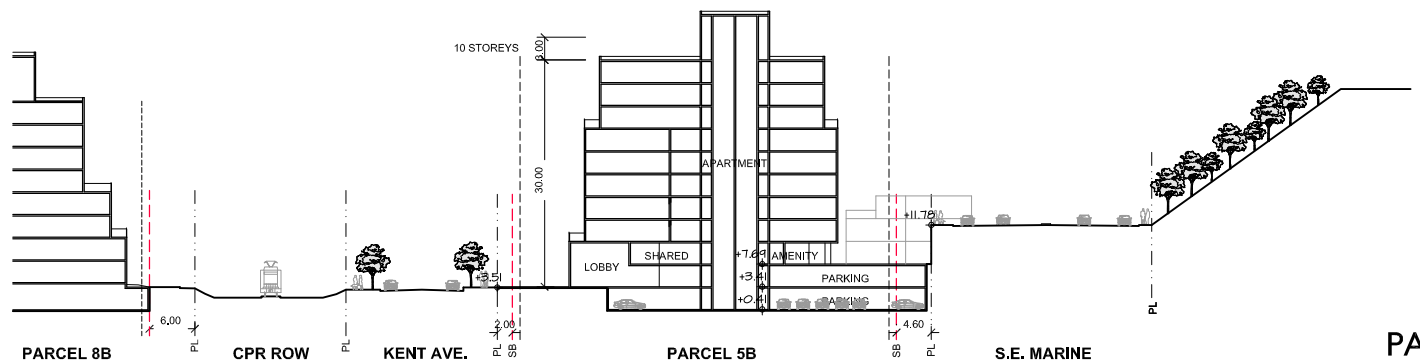
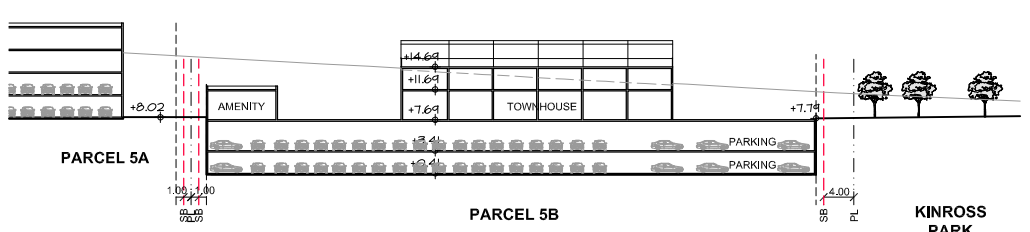
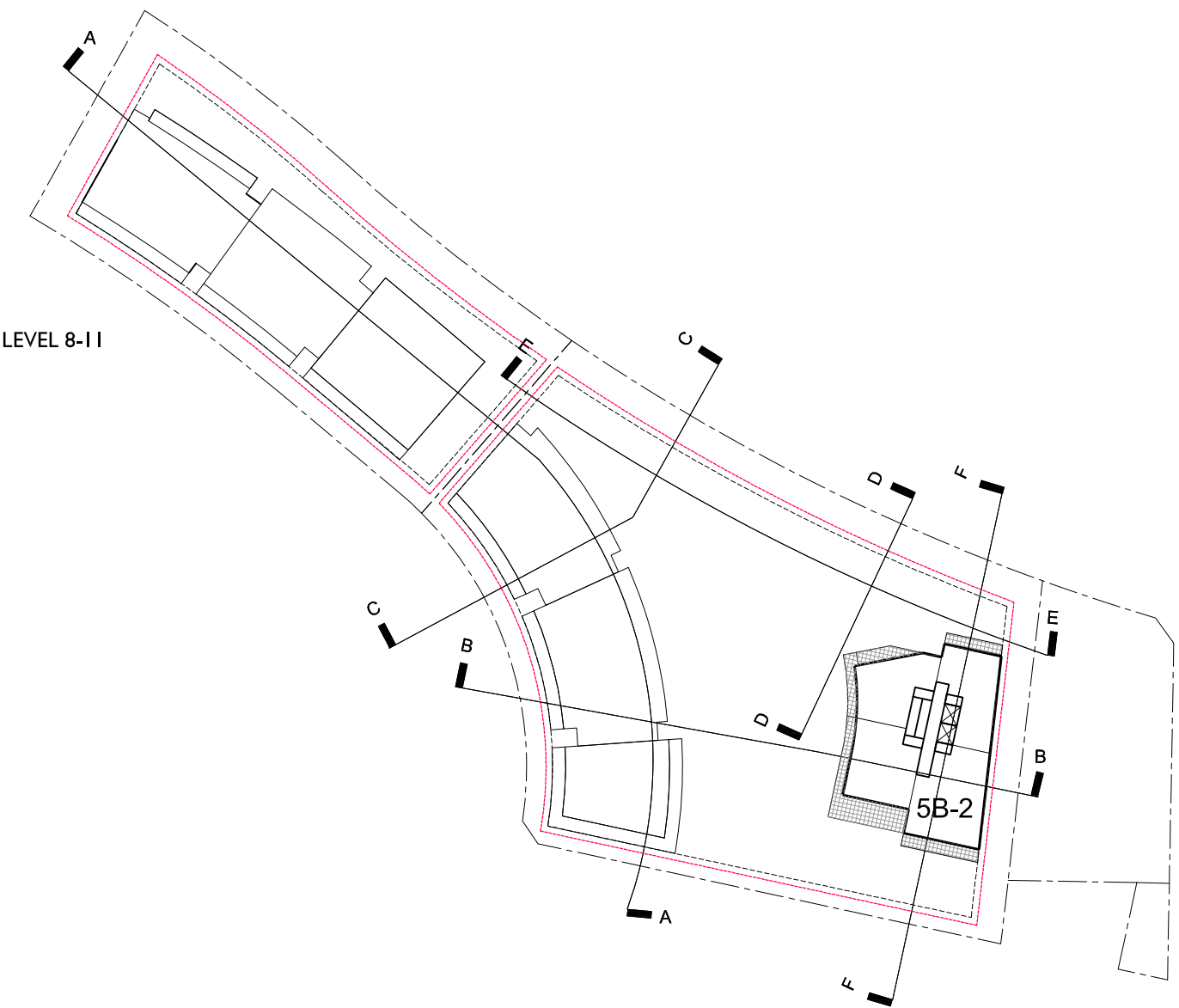
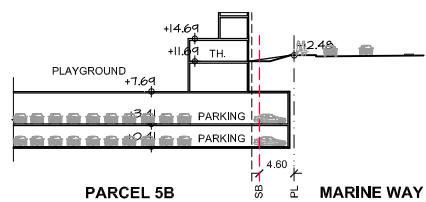
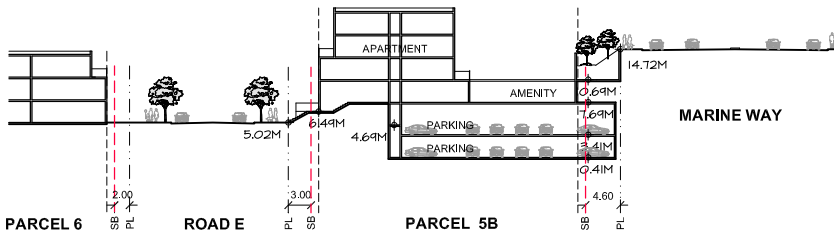
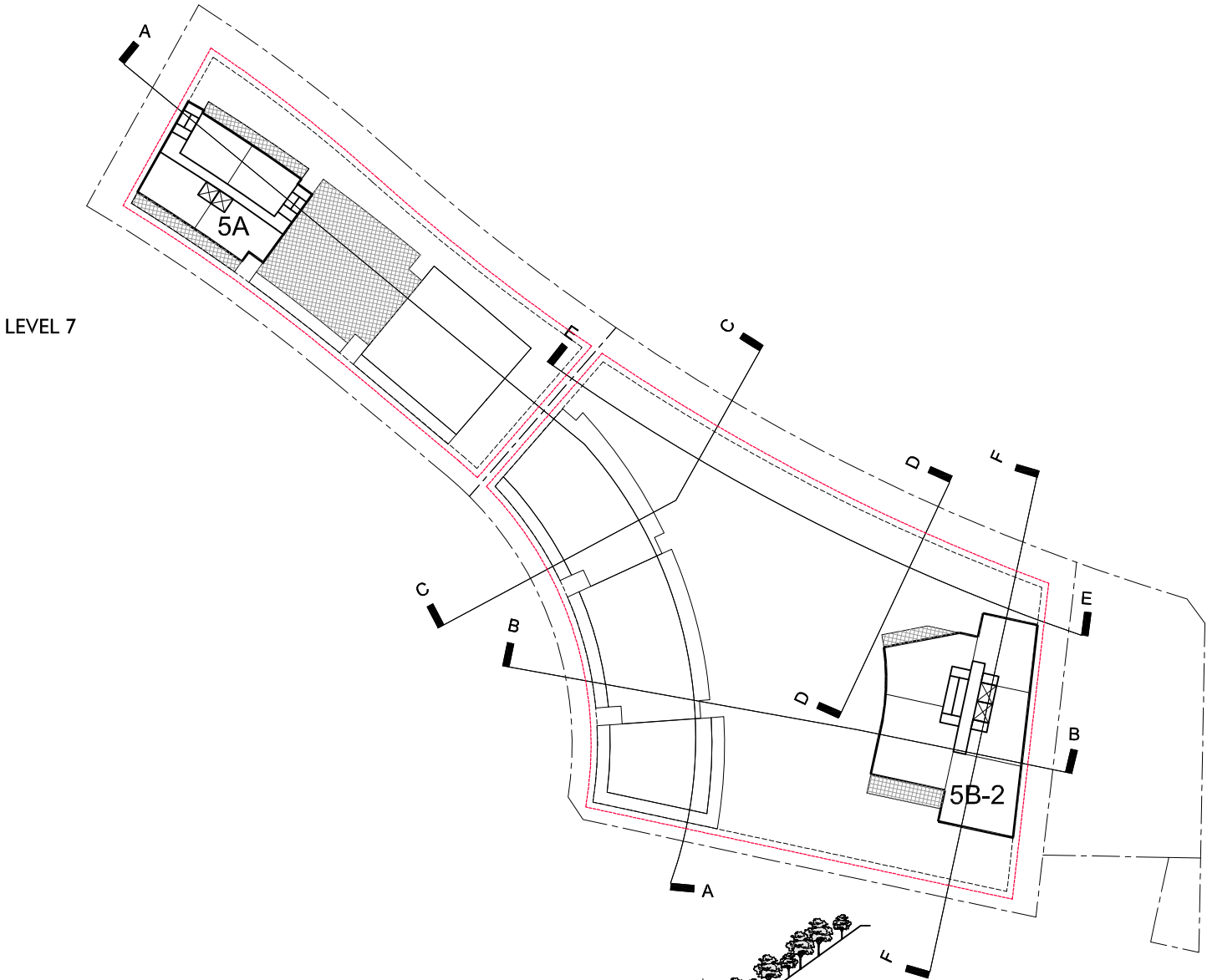


*Dimensions provided are for illustrative purposes only.
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PARCEL 5
SCALE 1:1000
5.b





PARCEL 5
SCALE 1:1000
5.d

PARCEL 6 DATA

PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
6	RESIDENTIAL	4	2,370	25,510
	TOTAL	4	2,370	25,510

Urban design role:

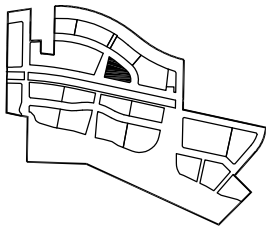
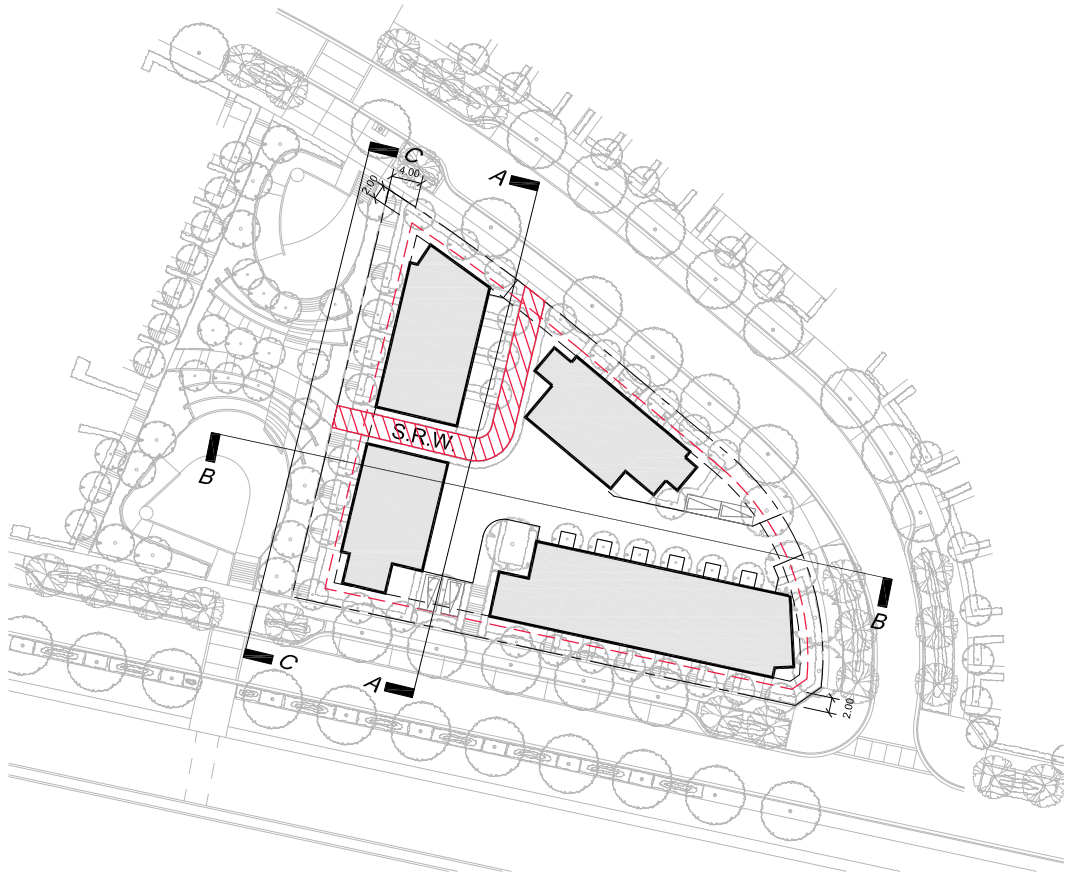
- extension of hillside townhouse community
- forms frontages for flanking streets and Neighbourhood Park North
- provides accessibility to middle terrace of Neighbourhood Park North

Characteristics:

- 3 to 4 storey townhouse forms follow the perimeter of the parcel and form a central courtyard serving as semi-private space and access to at-grade parking
- west frontage closely integrated with grades of neighbourhood park; pedestrian connection through this frontage offers accessible route to middle terrace of Neighbourhood Park North
- east end of Kent Ave frontage is an opportunity for signaling the entry to the hillside townhouse community
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions



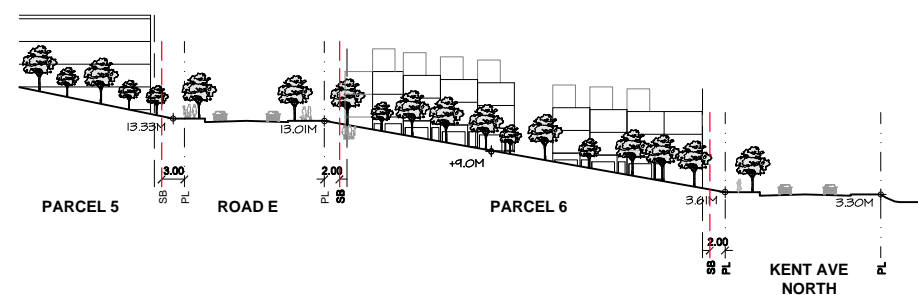
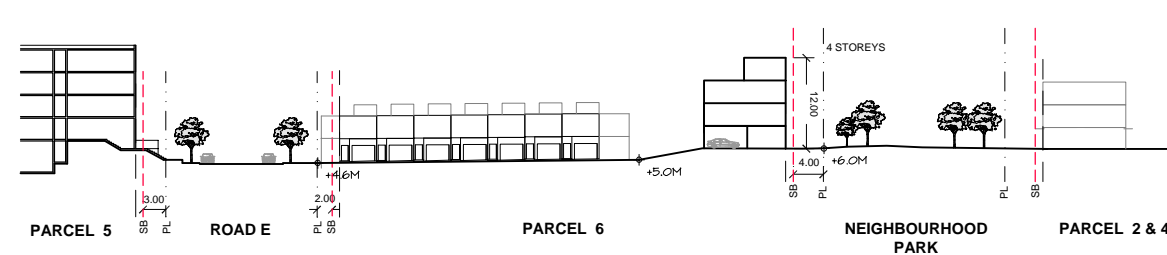
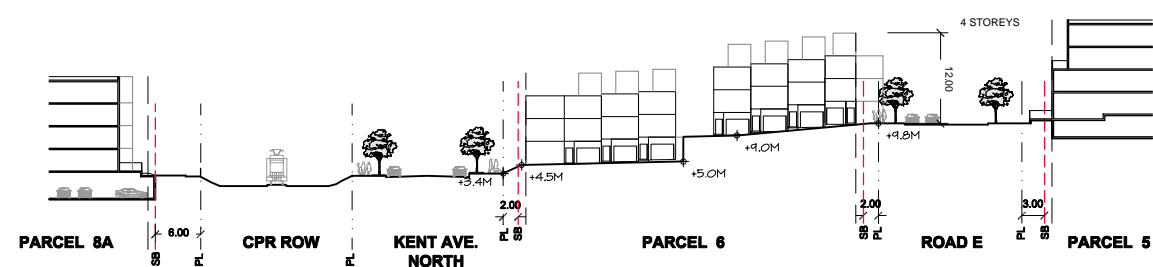
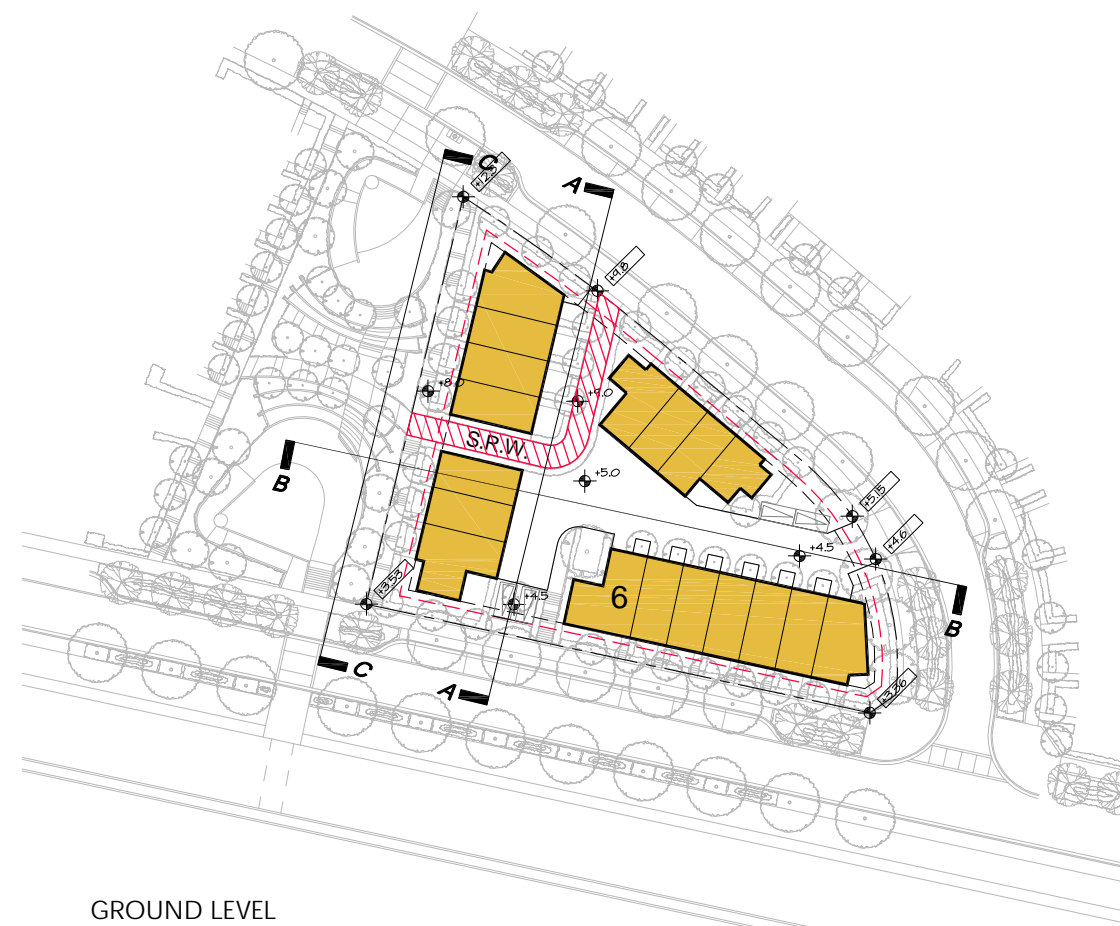
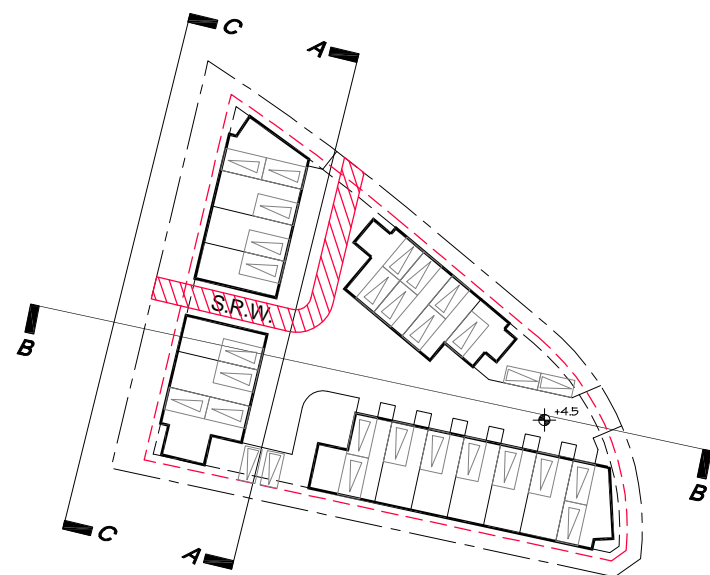
ROAD E



MASSING DIAGRAM



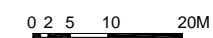
KENT AVE NORTH



*Dimensions provided are for illustrative purposes only.
The maximum height as identified in the by-law is taken from the base surface.

PARCEL 6
SCALE 1:1000
6.b

6.b



PARCEL W1+2 DATA

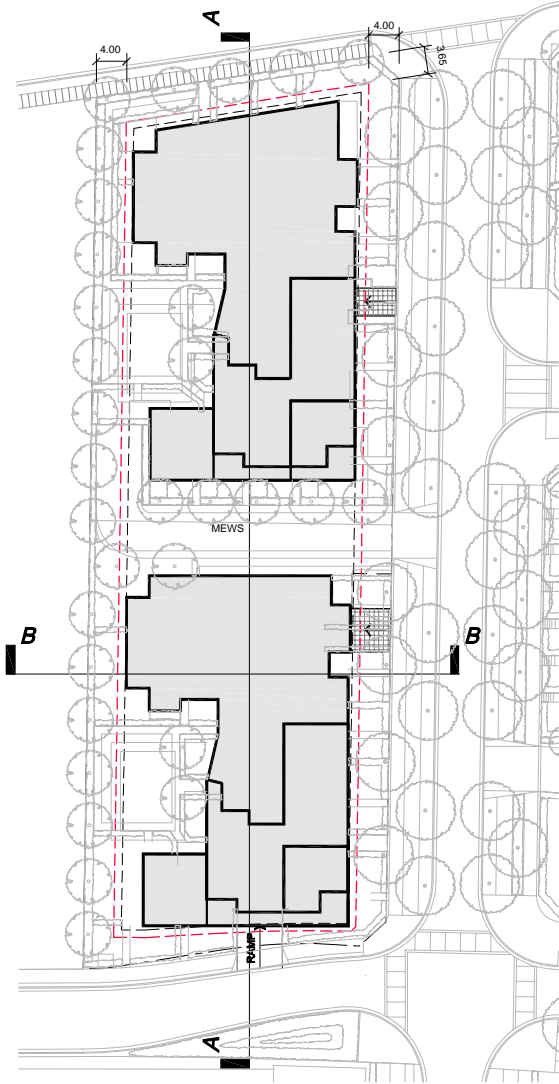
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
W1+2	RESIDENTIAL	5	8,260	89,910
	TOTAL	5	8,260	89,910

Urban design role:

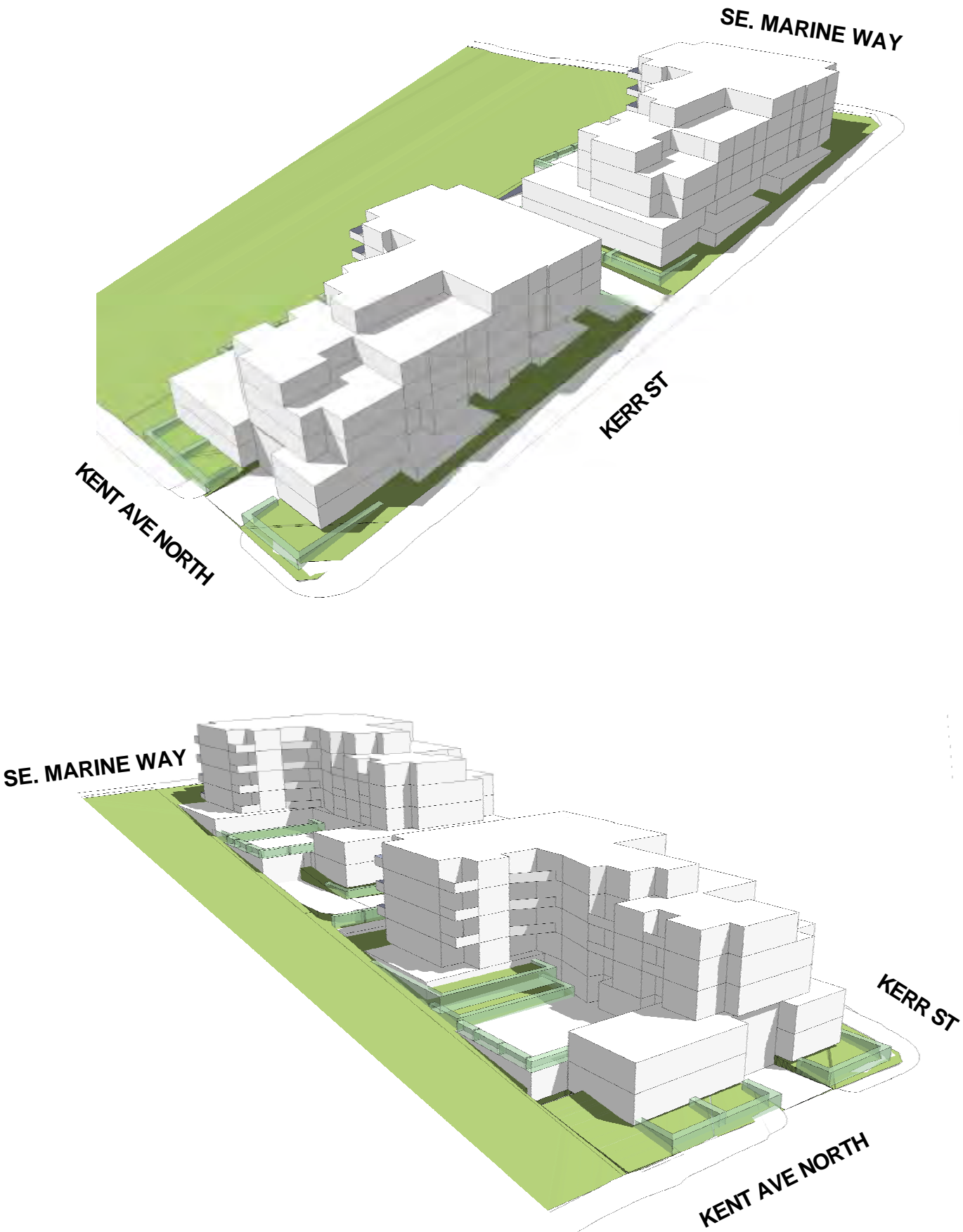
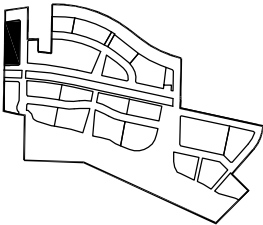
- forms Kerr St frontage and western edge of NW Precinct
- provides transition between EFL and WFL
- W1: with Parcel 1, forms west entry to EFL
- W2: extends scale of WFL townhouse frontage along Kent Ave North
- mitigates scale of WFL towers to the west on EFL

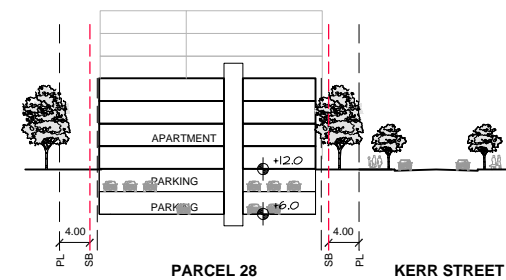
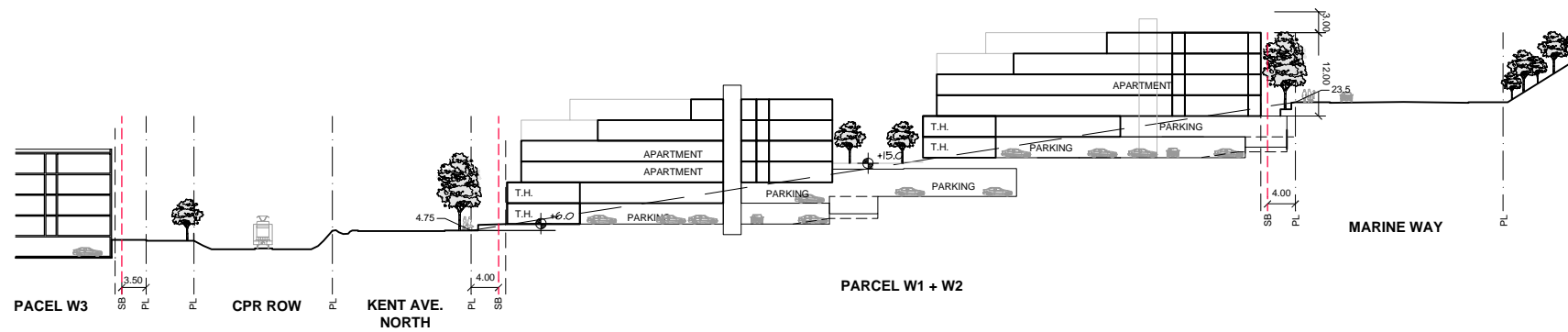
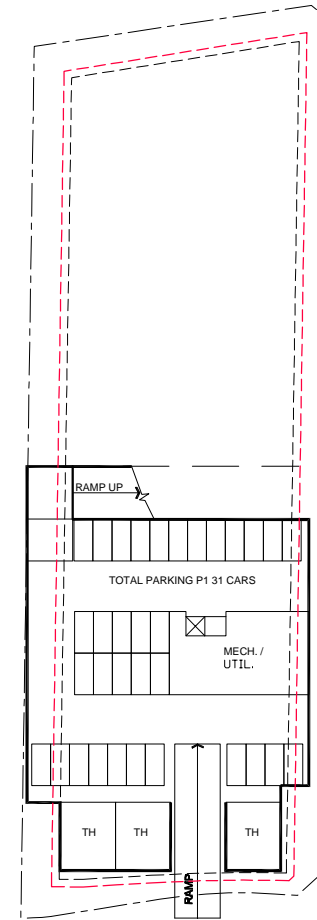
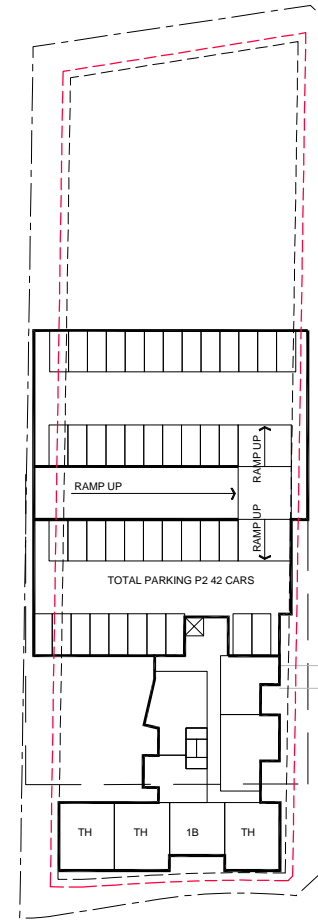
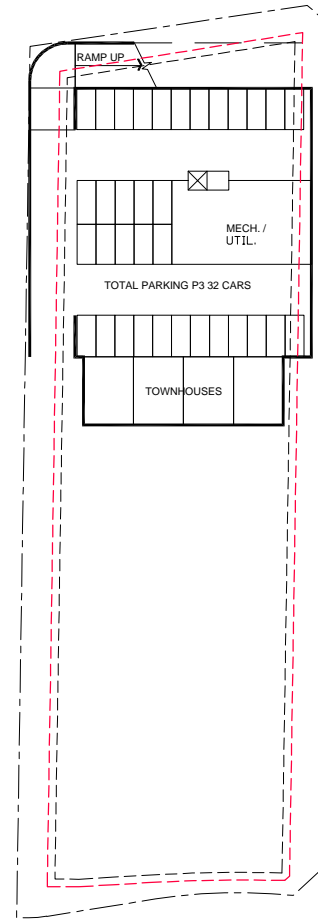
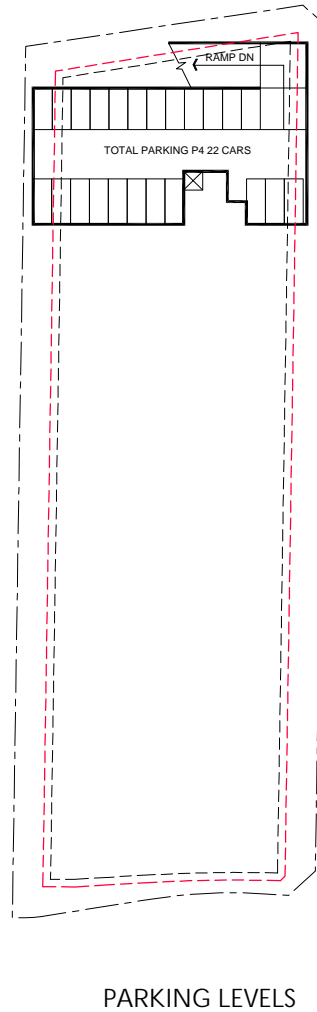
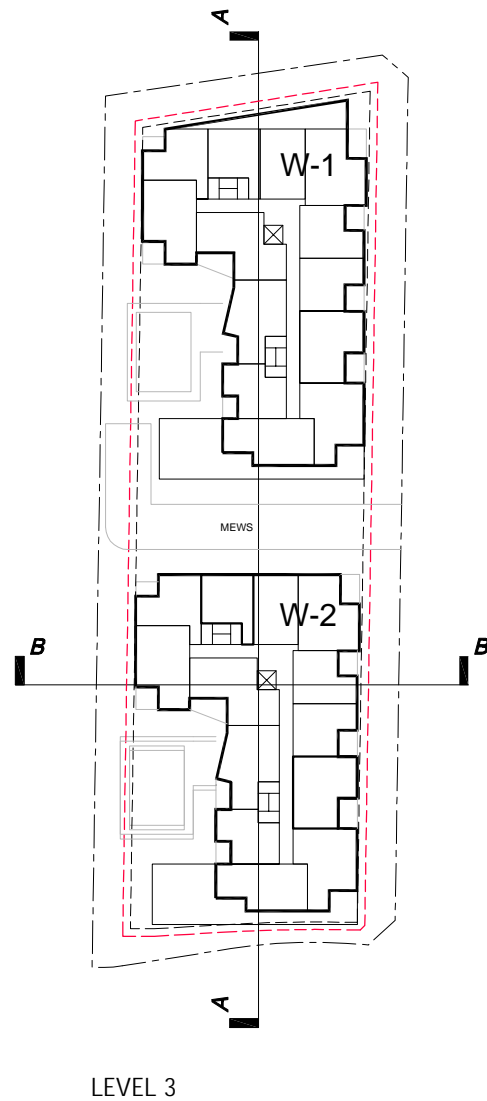
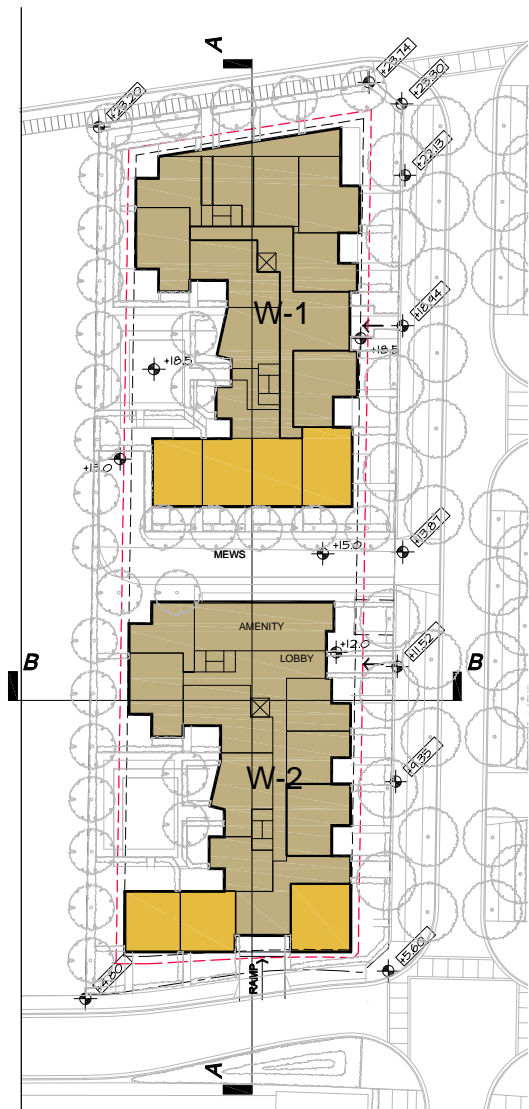
Common characteristics:

- distinctly-terraced forms take advantage of the Kerr St grades with full storey steps towards the river providing generous accessible roof spaces with dramatic river views
- 5 storey plus scale provides strong west edge of hillside community and mitigates the imposing WFL tower forms to the west
- a vehicular/ped mews between W1and 2 provides an intimate semi-private space flanked by town homes and leads to the underground parking access for W1 at the west side of the site
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions

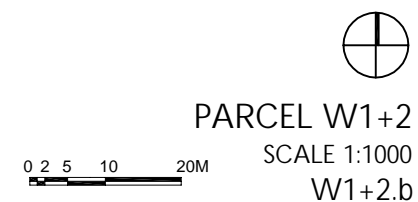


MASSING DIAGRAM



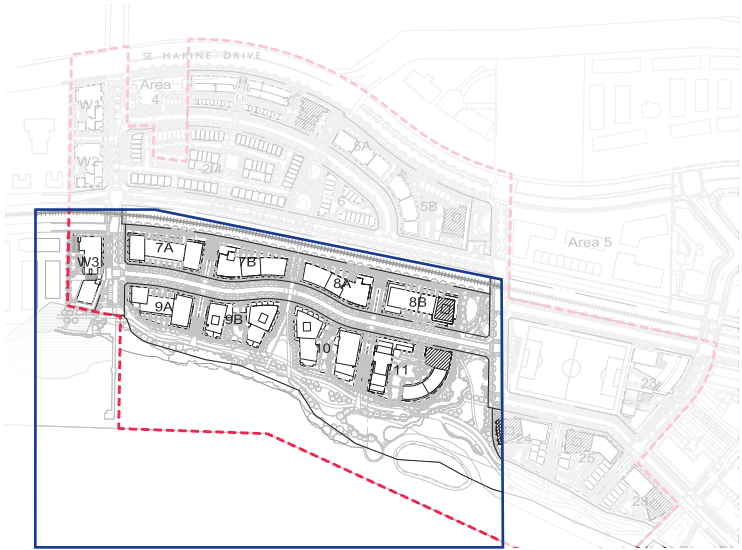


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4.2

SOUTHWEST PRECINCT



Looking North at Kerr Pier



Looking West along Road H



Aerial of SW neighbourhood



PARCEL W3 DATA

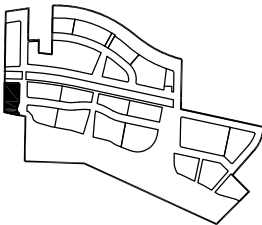
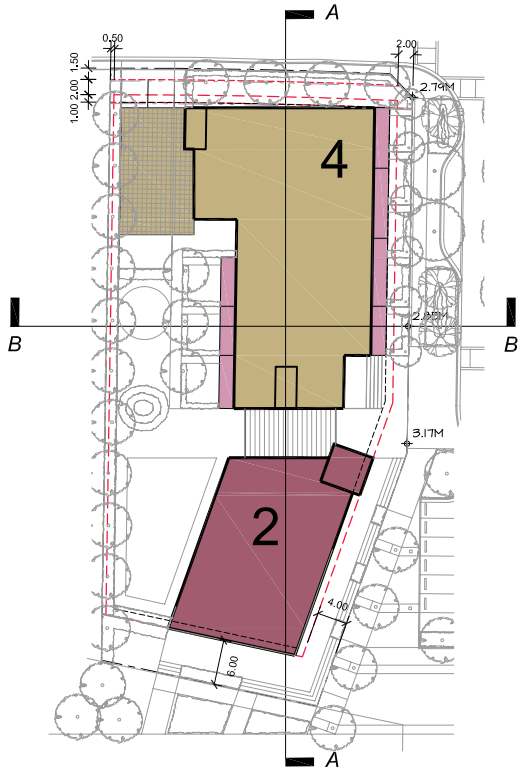
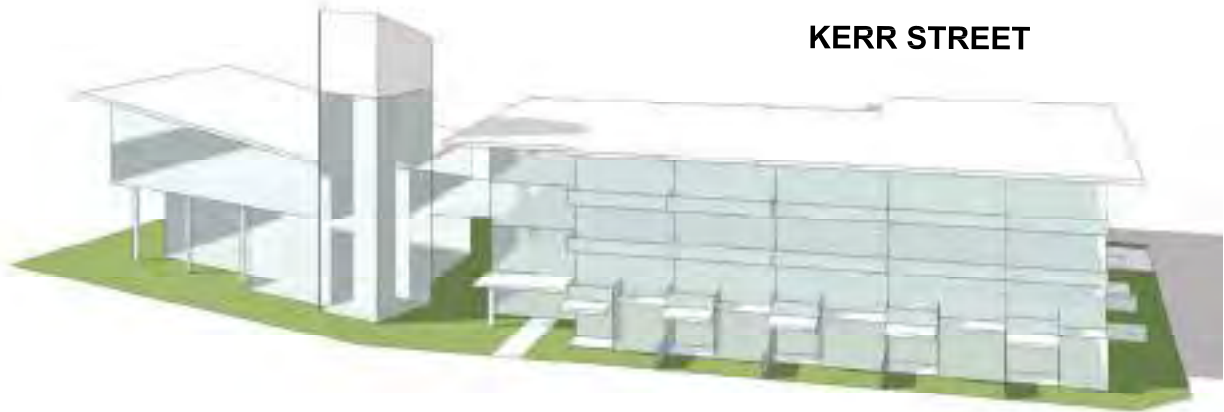
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
W3-1	RESIDENTIAL	4	3,565	38,373
W3-2	RETAIL	2	792	8,525
	TOTAL	4	4,357	46,898

Urban design role:

- mixed use parcel providing commercial uses adjacent to the existing pier
- complete west side of Kerr St frontage
- building massing to respond sensitively to existing adjacent residential

Characteristics:

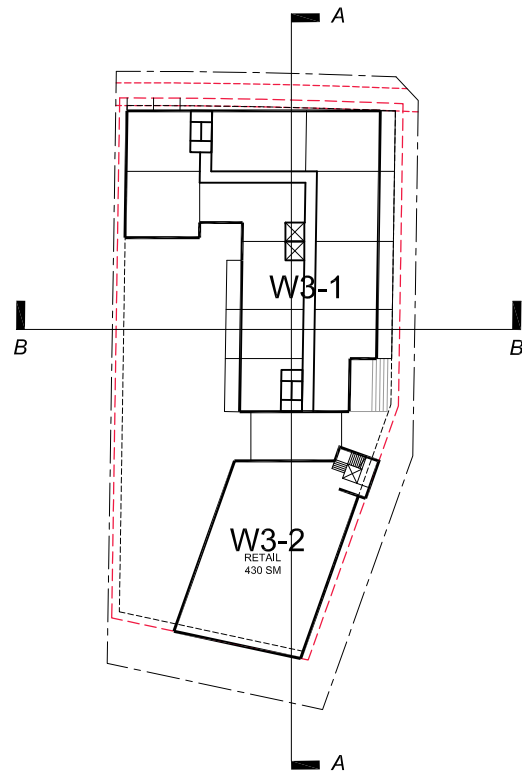
- stand-alone two storey retail space provides dramatic views of the pier and river; unique form and lookout tower create a community landmark for west end of the EFL foreshore; treatment of eastern and southern frontages (covered deck, steps, planting and interface with public realm) critical to enhance activity and publicness of waterfront and pier
- four storey residential enhances activity and overlook of Kerr Street
- retail space located and designed with consideration for existing adjacent residential
- residential building steps down in scale adjacent to neighbouring residential development
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions



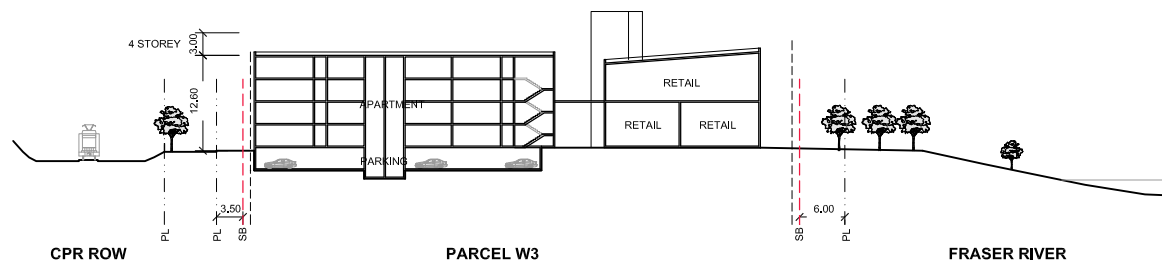
MASSING DIAGRAM



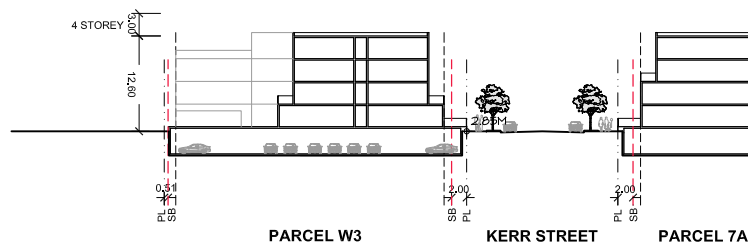
GROUND LEVEL



LEVEL 2

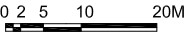


SECTION A-A



SECTION B-B

*Dimensions provided are for illustrative purposes only.
The maximum height as identified in the by-law is taken from the base surface.



PARCEL 7A DATA

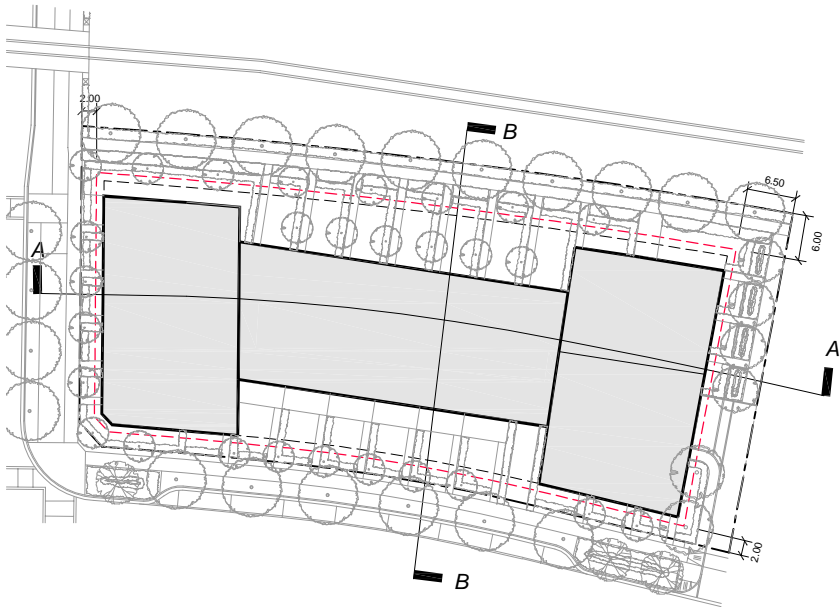
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
7A	RESIDENTIAL	4	7,005	75,401
	TOTAL	4	7,005	75,401

Urban design role:

- east streetwall for south Kerr St
- creates interest in the Kent Avenue frontage flanking the CPR ROW
- with Parcel 7B, defines shared mews
- contributes to 'green' character of road 'H'

Characteristics:

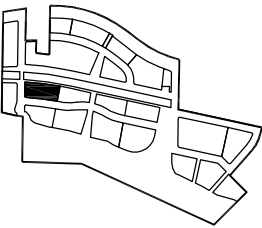
- at the Kerr St frontage a series of townhouses corresponds to scale of townhouses on Parcel W3
- at Kent frontage, central mass of building deeply recessed to provide more streetwall articulation and open space for residents
- private residential path along CPR ROW serves north facing units
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions

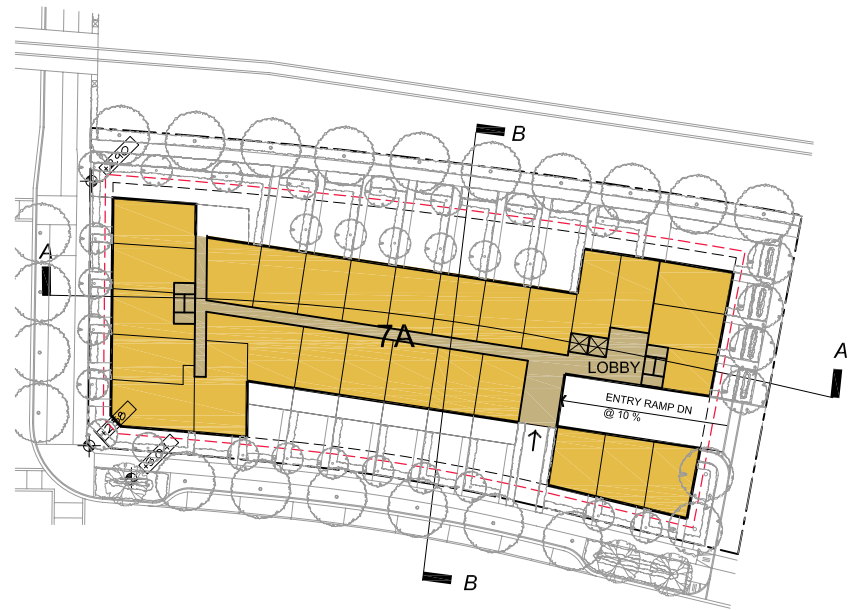


MASSING DIAGRAM

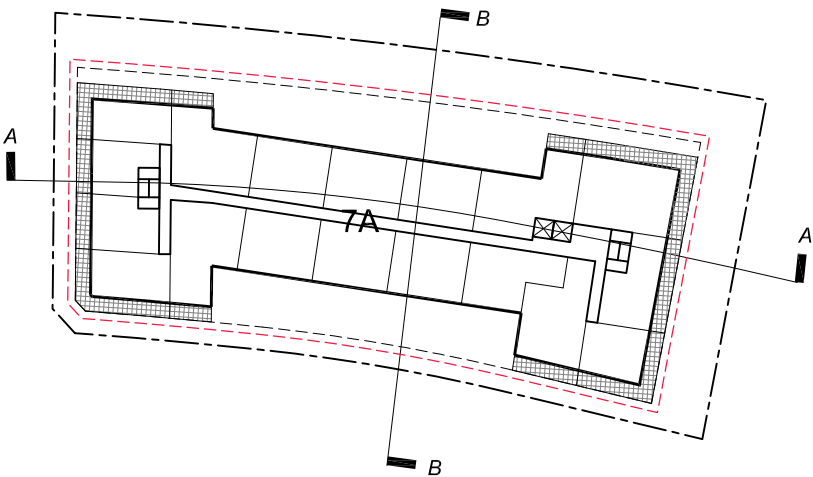


PARCEL 7A
7A.a

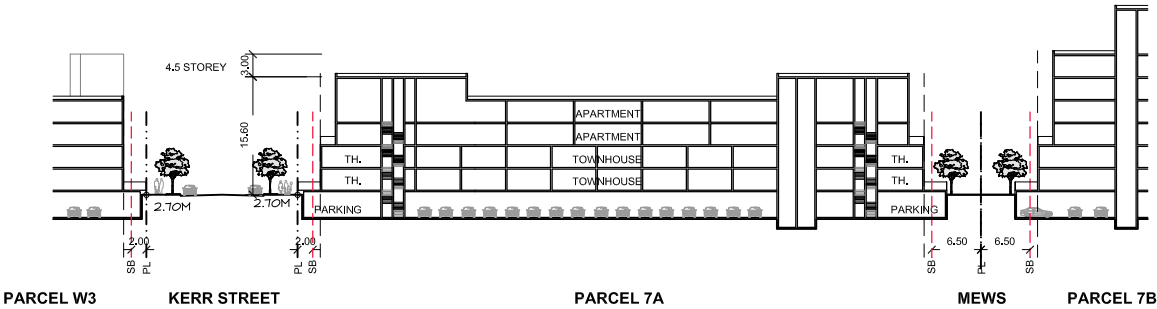




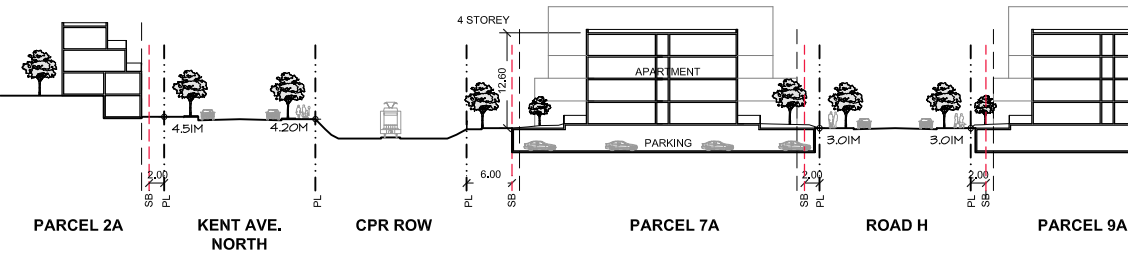
GROUND LEVEL



LEVEL 3

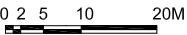


SECTION A-A



SECTION B-B

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PARCEL 7B DATA

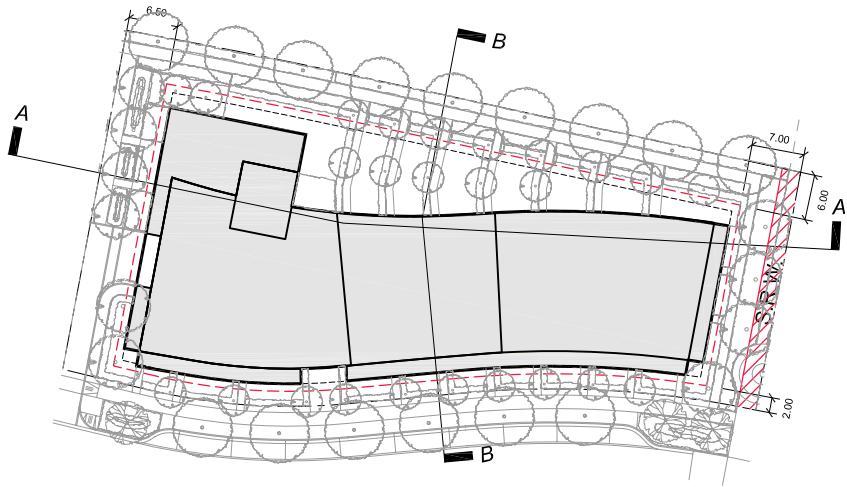
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
7B	RESIDENTIAL	6	7,809	84,055
	TOTAL	6	7,809	84,055

Urban design role:

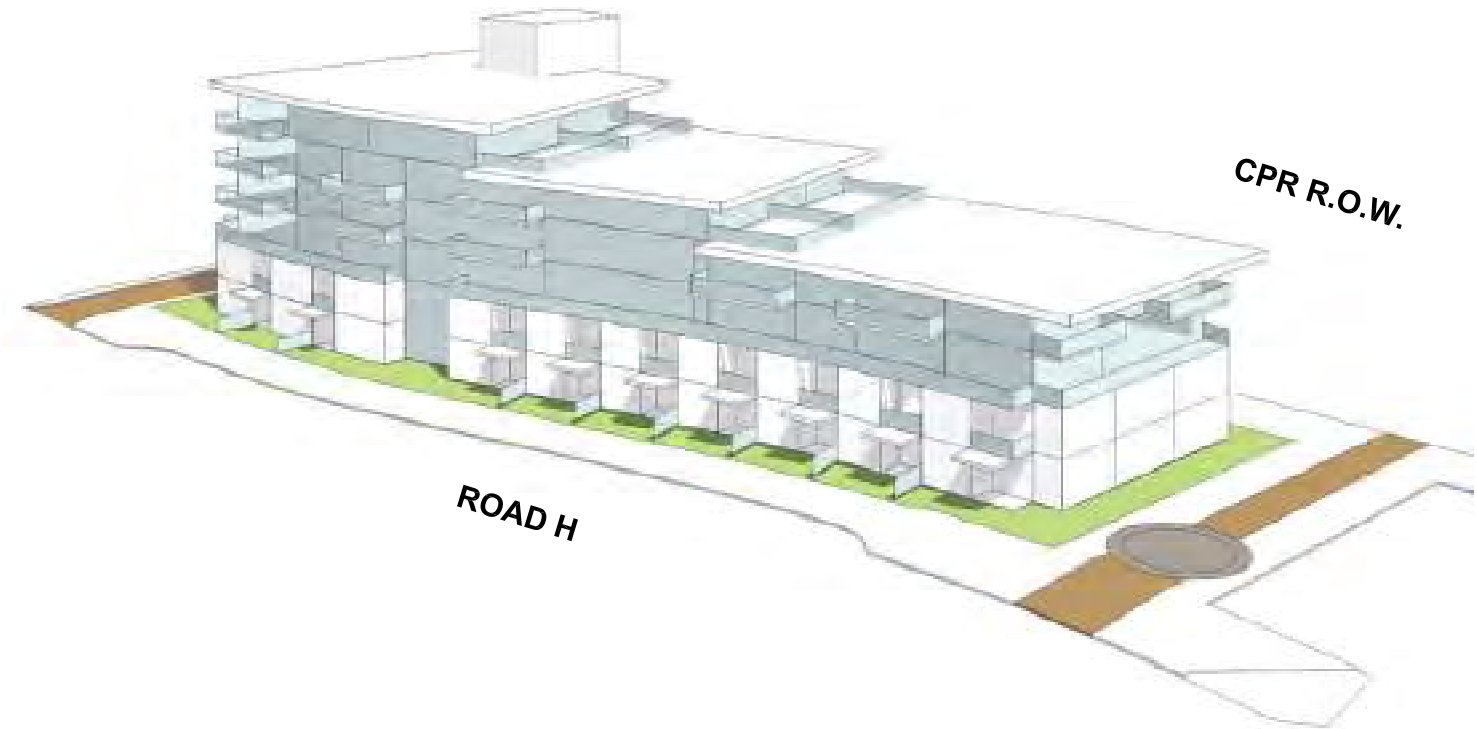
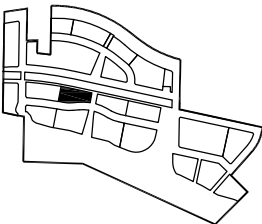
- with 8A, frames view from NW Precinct to the SW Precinct and the river; also allows for connection to future crossing at CPR ROW
- provides a unique building form mirrored in 8A
- provide interest in the Kent frontage flanking the CPR ROW

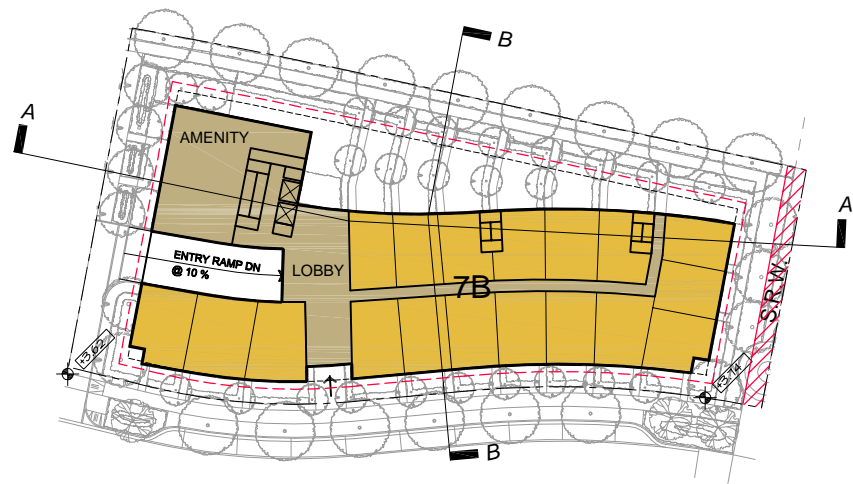
Characteristics:

- with 8A, building mass following road H and terracing to SRW frames views from NW Precinct and future connection across CPR ROW
- deep articulation on Kent Avenue corridor side extends open space
- private residential path along CPR ROW serves north facing units
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions

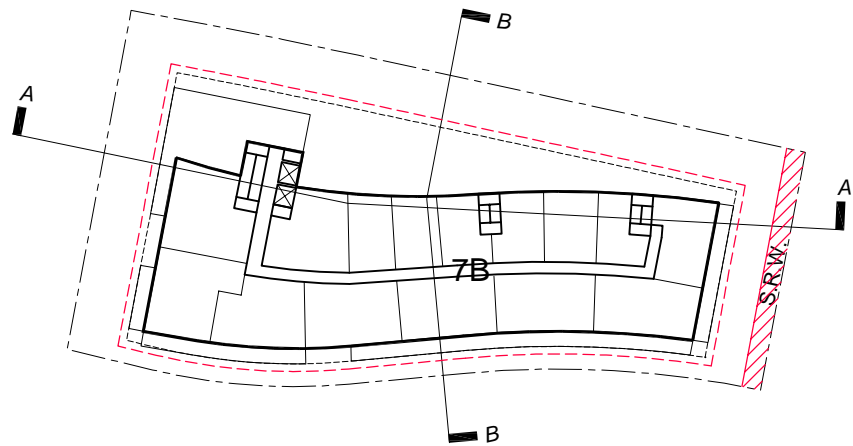


MASSING DIAGRAM

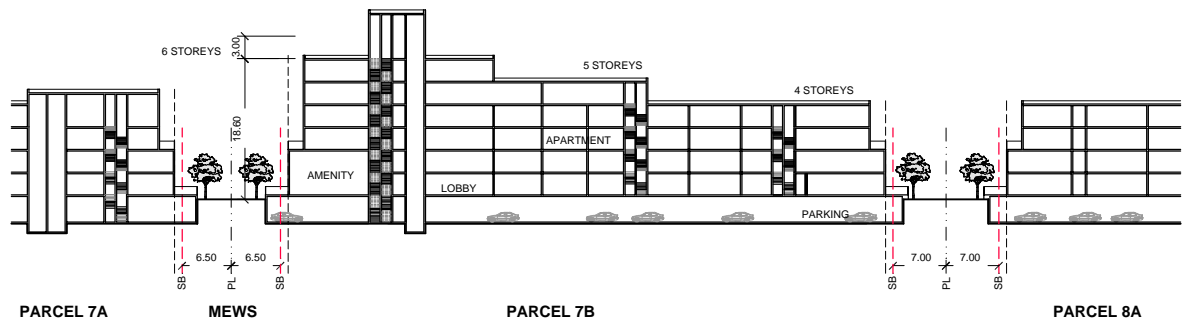




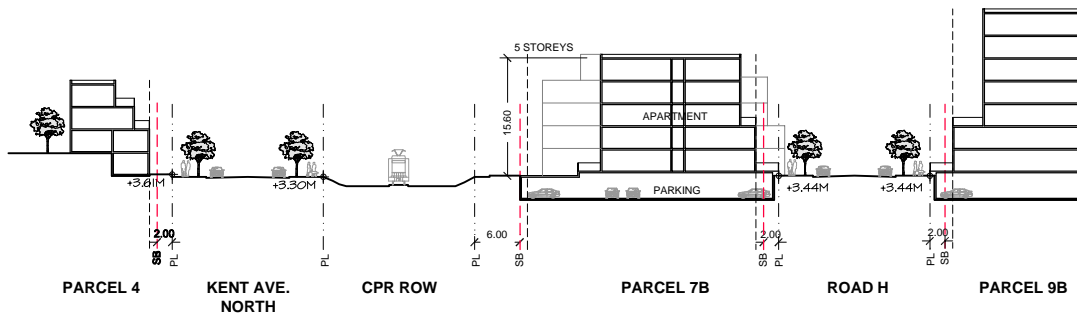
GROUND LEVEL



LEVEL 3

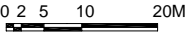


SECTION A-A



SECTION B-B

*Dimensions provided are for illustrative purposes only.
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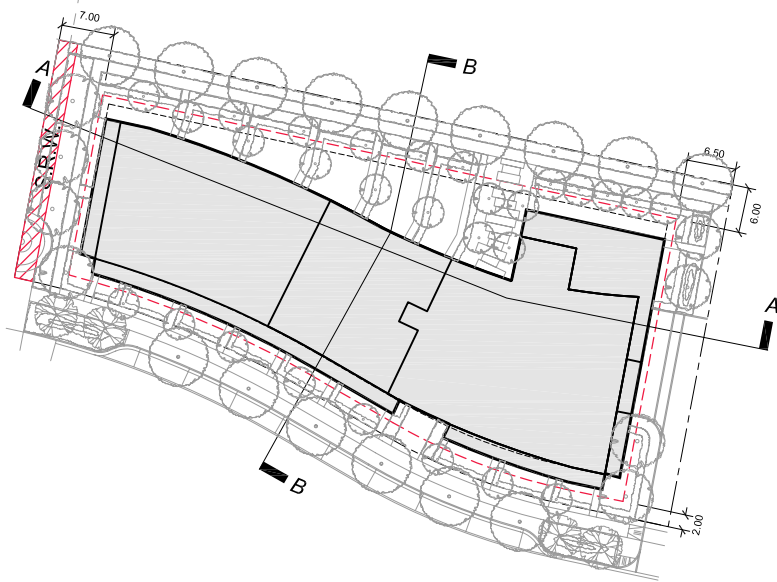


PARCEL 8A DATA

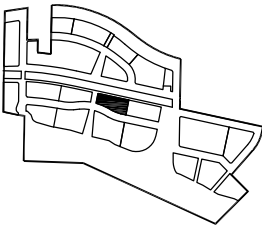
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
8A	AFFORDABLE HOUSING	6	7,930	85,358
	TOTAL	6	7,930	85,358

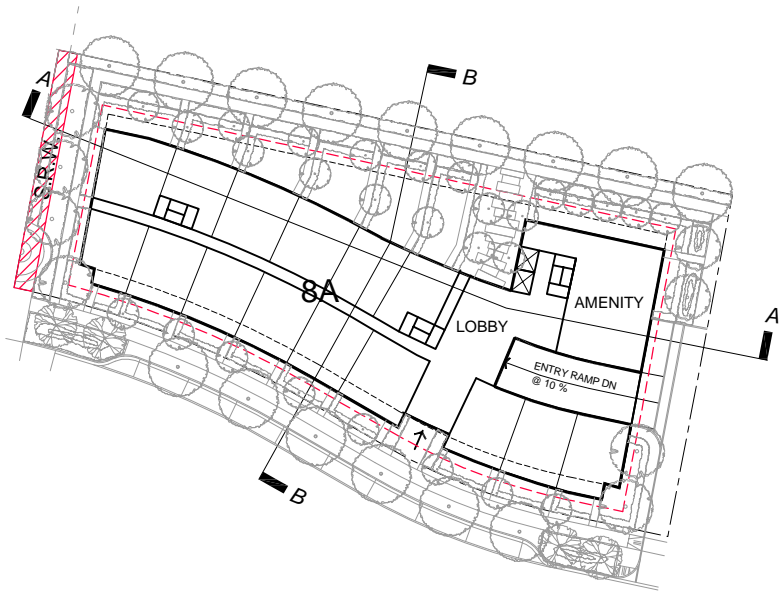
- Urban design role:
- with 7B, frames views from NW Precinct to the SW Precinct and river; provides connection to future CPR ROW crossing
 - provides a unique building form mirrored in 7B
 - creates interest in the Kent frontage flanking the CPR ROW

- Characteristics:
- with 7B, building mass following road H and terracing to SRW frames views from NW Precinct and future connection across CPR ROW
 - deep articulation on Kent Avenue corridor side extends open space
 - private residential path along CPR ROW serves north facing units
 - the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions

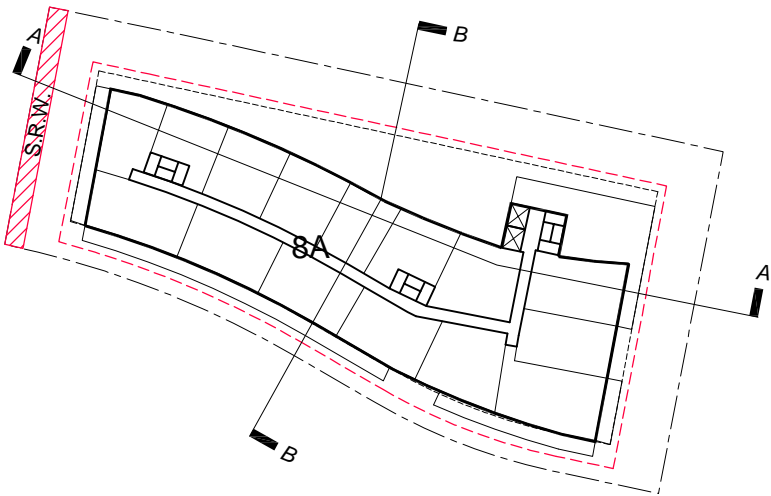


MASSING DIAGRAM

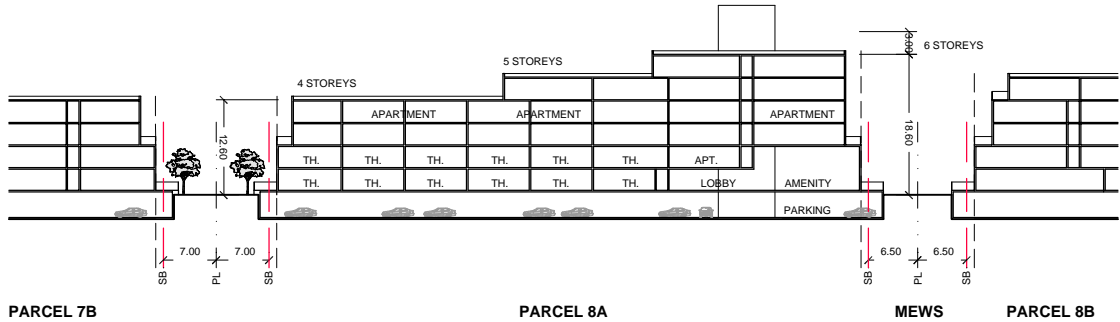




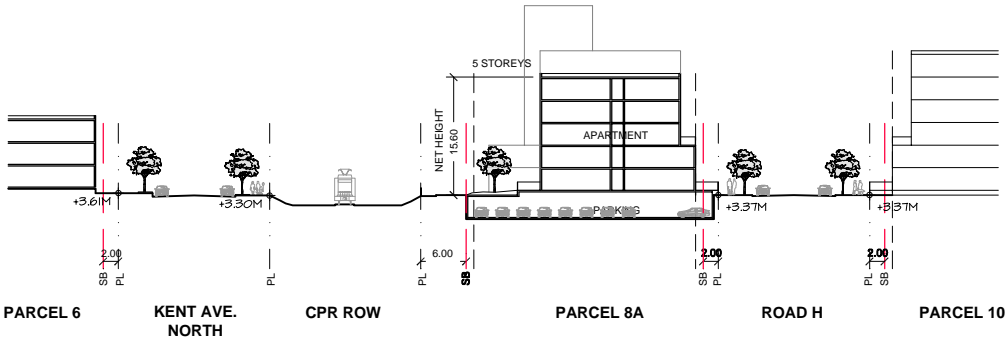
GROUND LEVEL



LEVEL 3

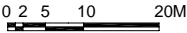


SECTION A-A



SECTION B-B

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PARCEL 8B DATA

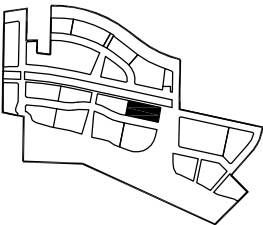
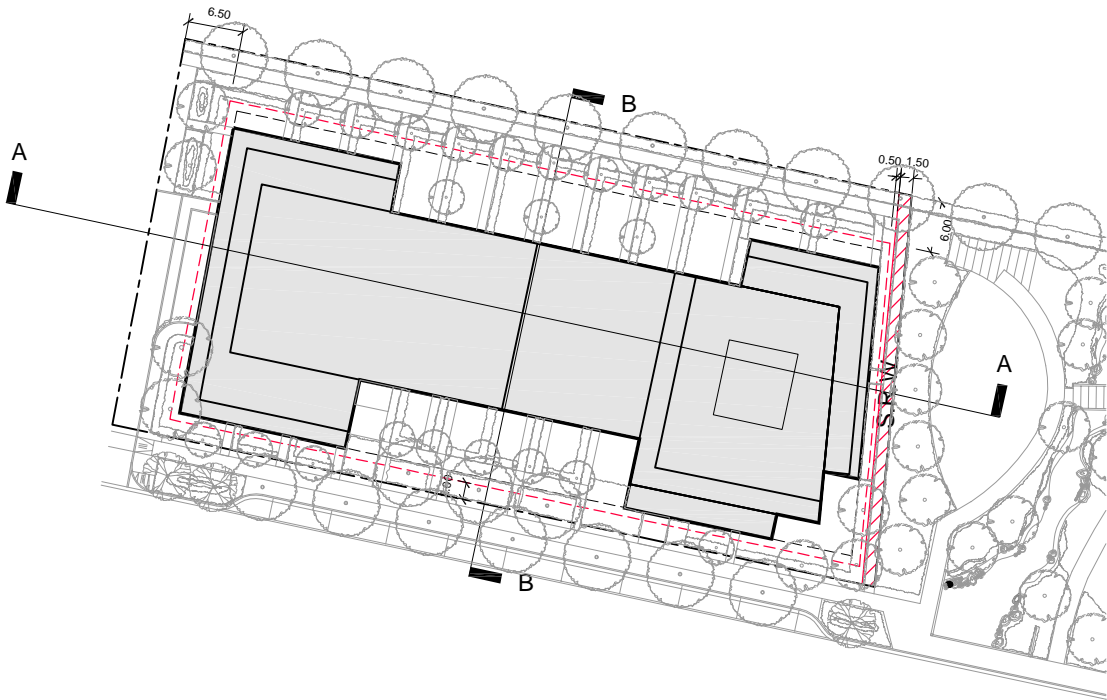
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
8B	RESIDENTIAL	8	11,018	118,597
	TOTAL	8	11,018	118,597

Urban design role:

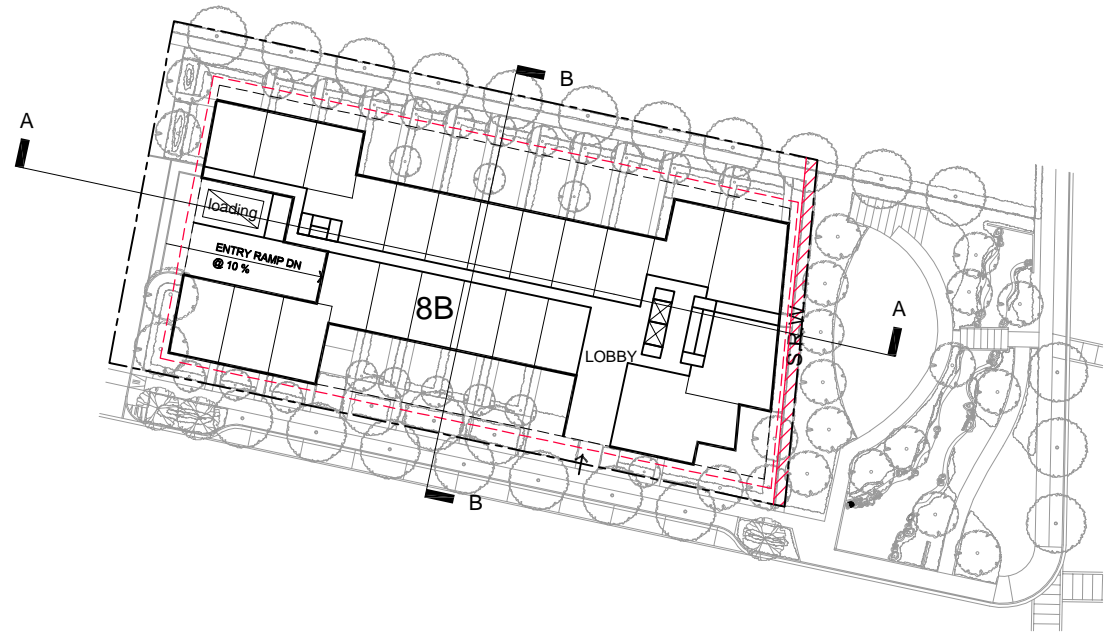
- marks edge of Kinross Park South
- creates interest and reinforces the Kent frontage flanking the CPR ROW

Characteristics:

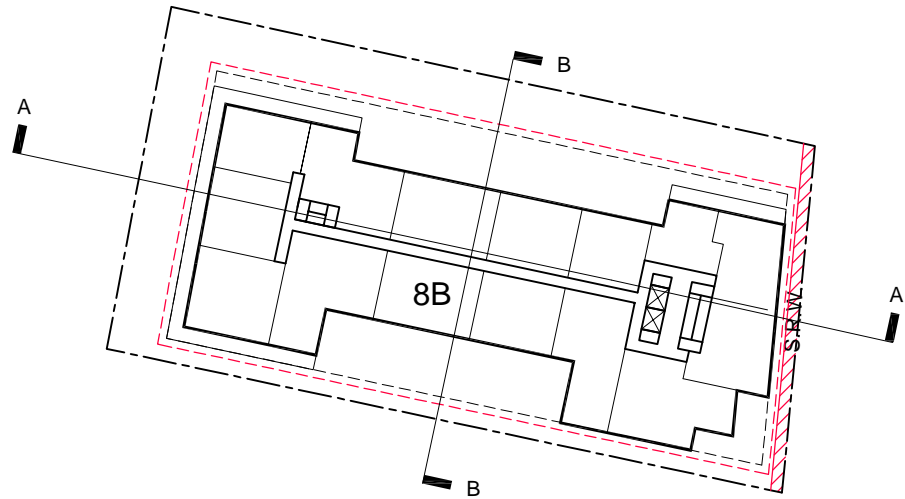
- 8 storey tower form marks Kinross Park, providing the mid-height mass in the towers stepping to the river at the park edge; tower configuration should consider solar access to the park
- at Kent frontage, central mass of building deeply recessed to provide more streetwall articulation and open space for residents
- deep articulation on Kent corridor side extends open space and enhances pedestrian experience on shared path
- private residential path along CPR ROW serves north facing units
- upper level massing set further back from park edge
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions



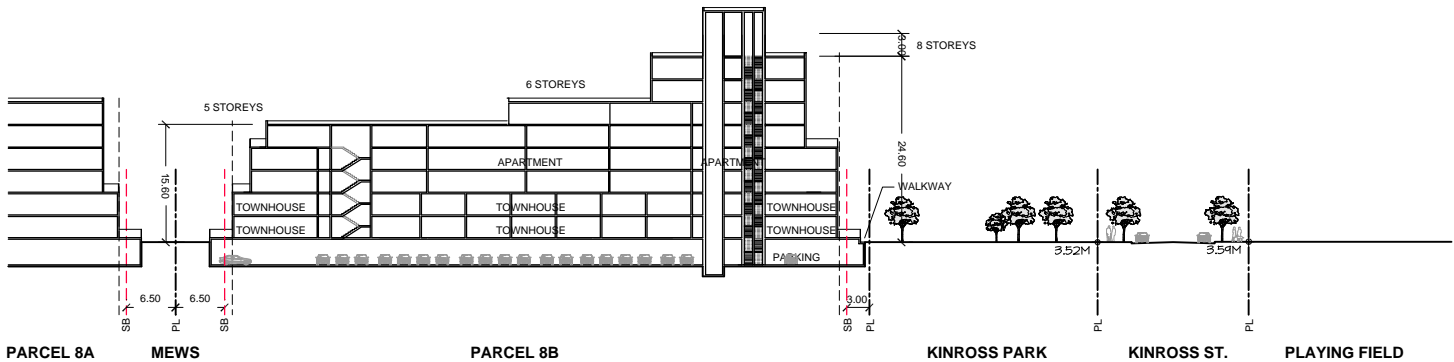
MASSING DIAGRAM



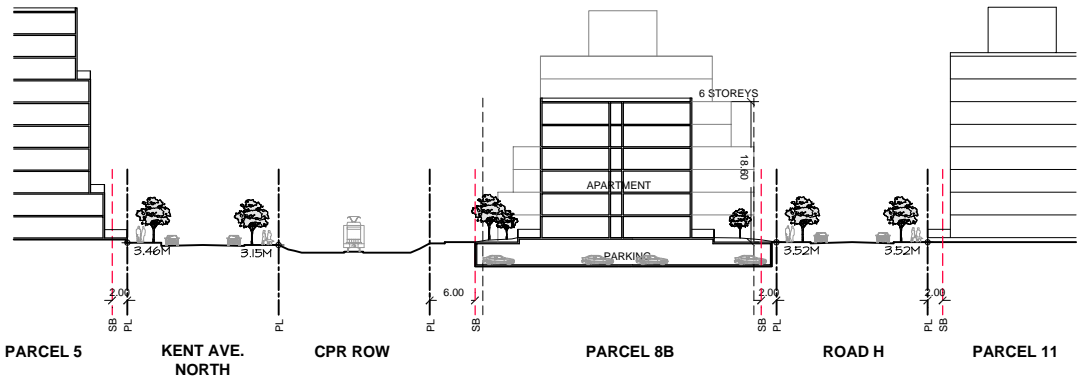
GROUND LEVEL



LEVEL 3

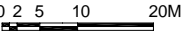


SECTION A-A



SECTION B-B

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PARCEL 9A DATA

PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
9A	RESIDENTIAL	4	5,956	64,110
	TOTAL	4	5,956	64,110

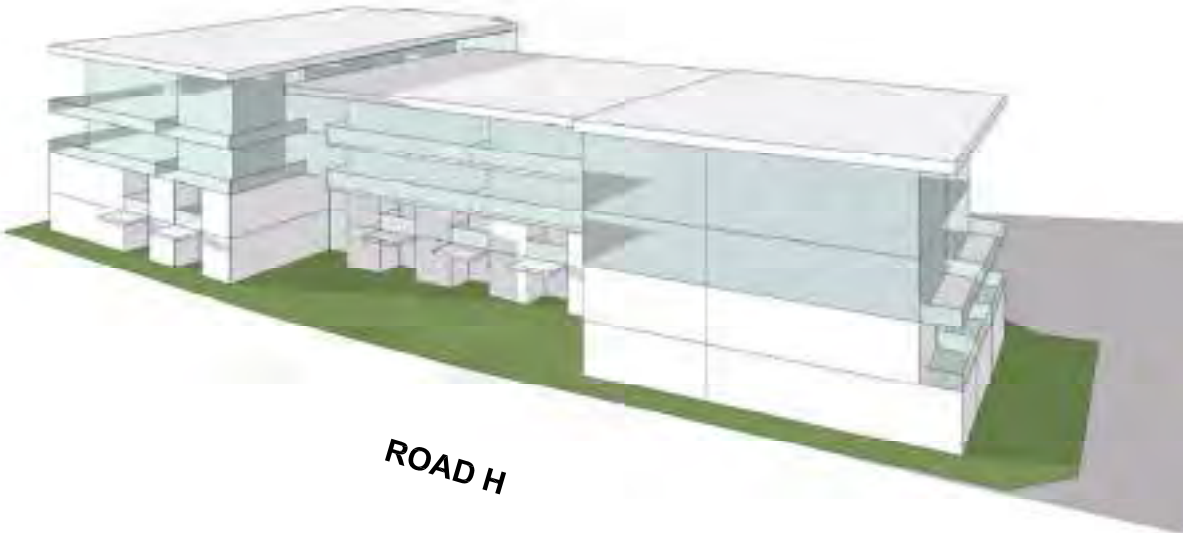
Urban design role:

- with commercial building on Parcel W3, forms the terminus of Kerr St and frames the plaza as well as access to the existing public pier
- 4 storey streetwall defines south edge of road H
- with Parcel 9B, defines north-south mews
- completes western edge of southern frontage of the Foreshore Park

Characteristics:

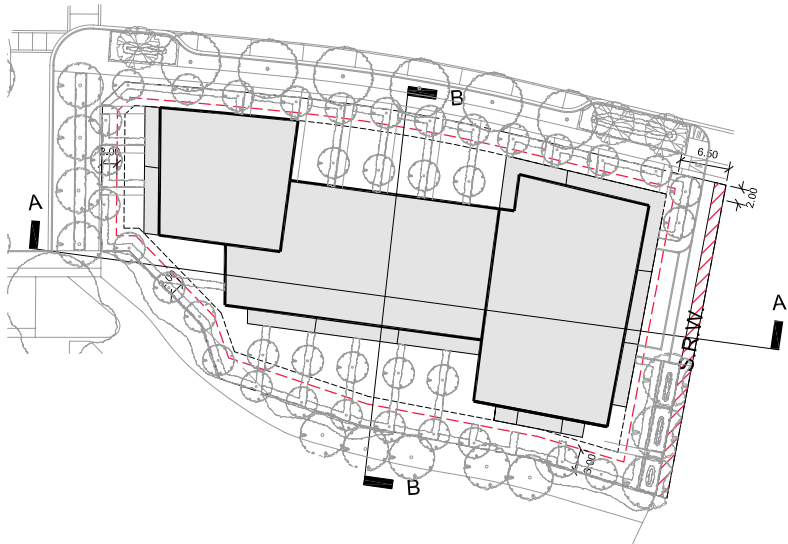
- 4 storey building elements complement the scale of facing Parcels W3 and 7A, all providing a comfortable scale for this neighbourhood hub
- west and south frontages offer opportunities for a unique response to the riverfront location
- with Parcel 9B, north-south building element defines shared mews with townhouse forms at the base
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions

FORESHORE PARK



KERR STREET

ROAD H

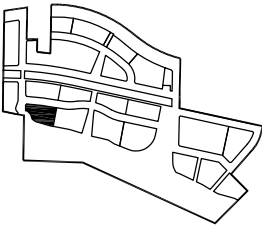


PLAZA

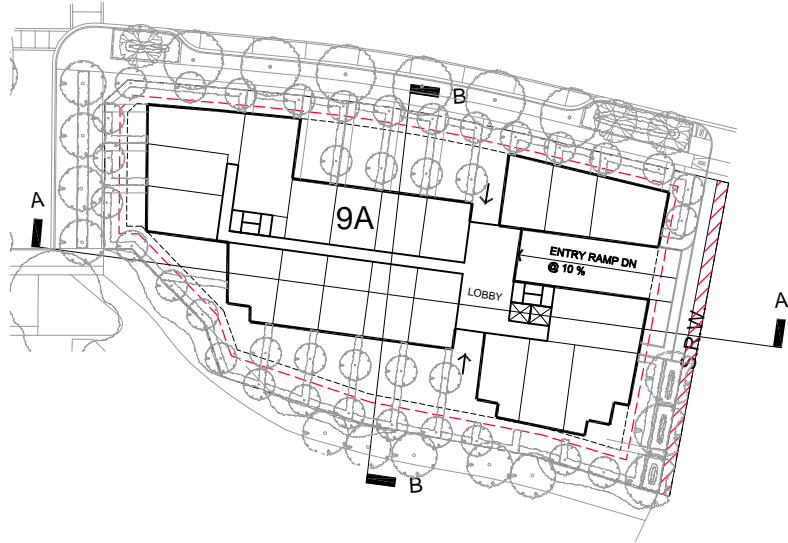
ROAD H

MEWS

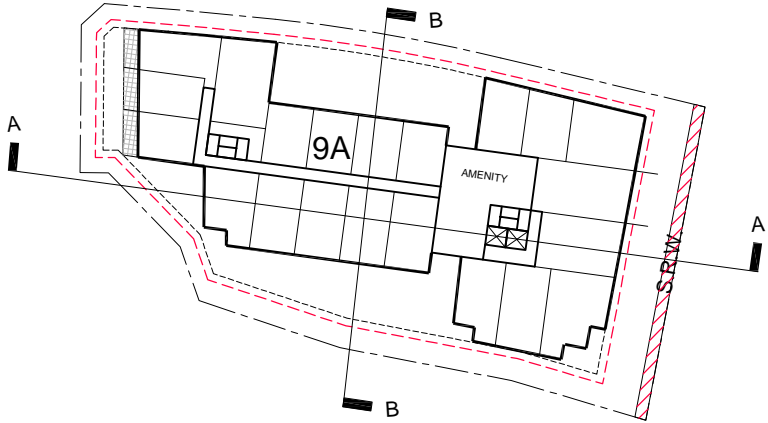
FORESHORE PARK



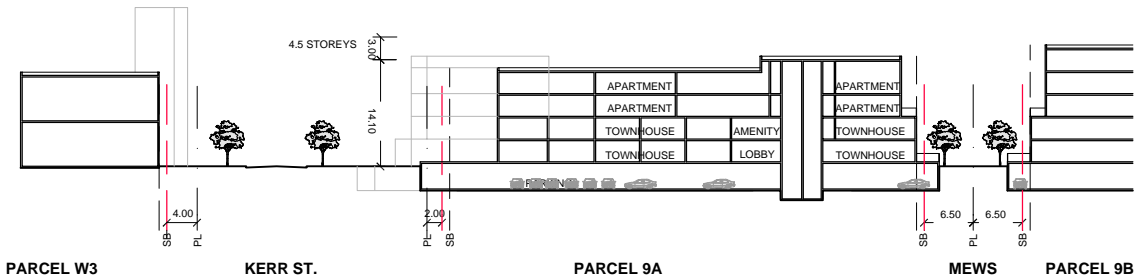
MASSING DIAGRAM



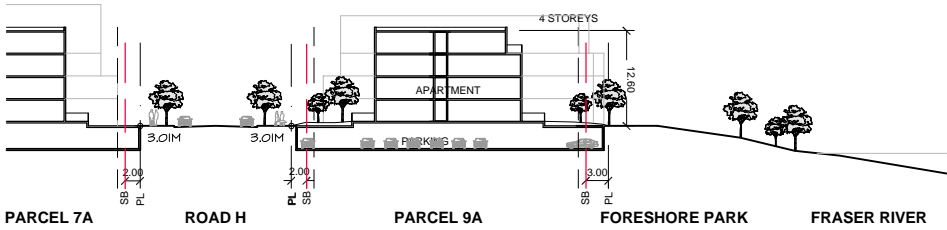
GROUND LEVEL



LEVEL 2

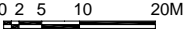


SECTION A-A



SECTION B-B

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PARCEL 9B DATA

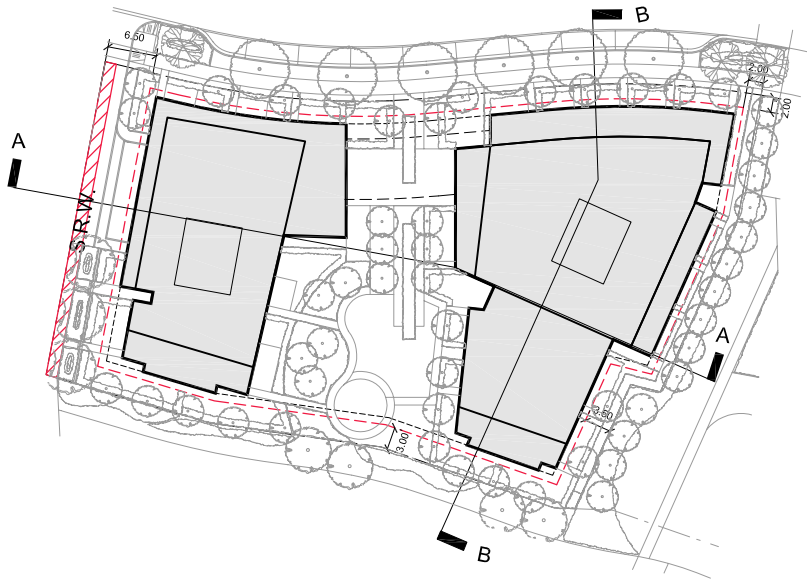
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
9B-1	RESIDENTIAL	5	3,101	33,379
9B-2	RESIDENTIAL	7	6,225	67,005
	TOTAL	7	9,326	100,384

Urban design role:

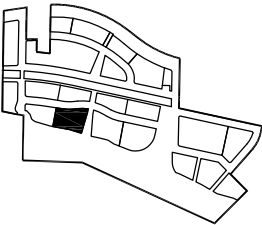
- road 'H' frontage
- forms western edge of Neighbourhood Park South
- with Parcel 10, frames threshold to the river
- transitions building scale to the foreshore
- with Parcel 9A, defines pedestrian mews
- building forms frame semi-private landscaped space that contribute to the unique character of the foreshore

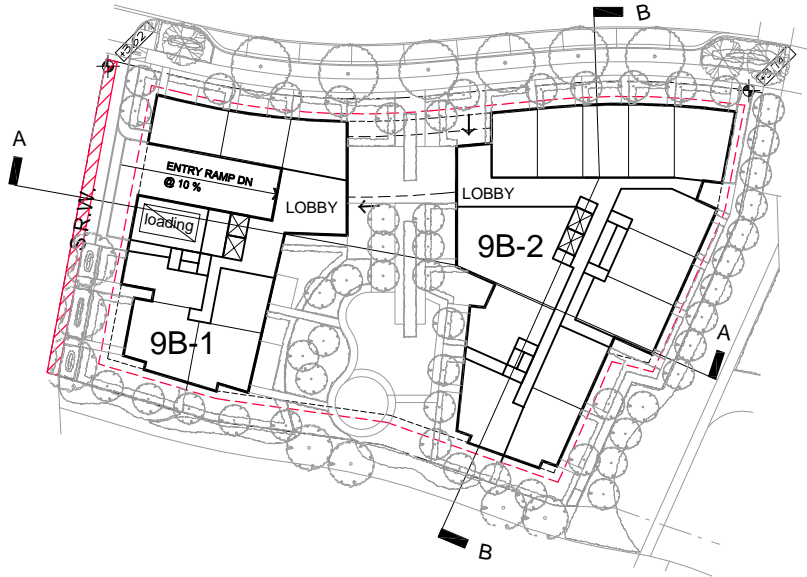
Characteristics:

- road 'H' frontage comprises two series of townhouses with a generous break between, providing views to the river and access to lobbies
- 2 storey townhouses form most of the Neighbourhood Park South frontage, offering a comfortable scale for this more contained open space
- higher form on east building marks the threshold to the southernmost section of the park and the foreshore beyond
- both buildings terrace towards the river, from 5 or 7 storeys down to three
- private courtyard opening to river provides a visual amenity and enhances the riverfront park experience
- building frontages offer opportunities for a unique expression responding to the riverfront location
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions

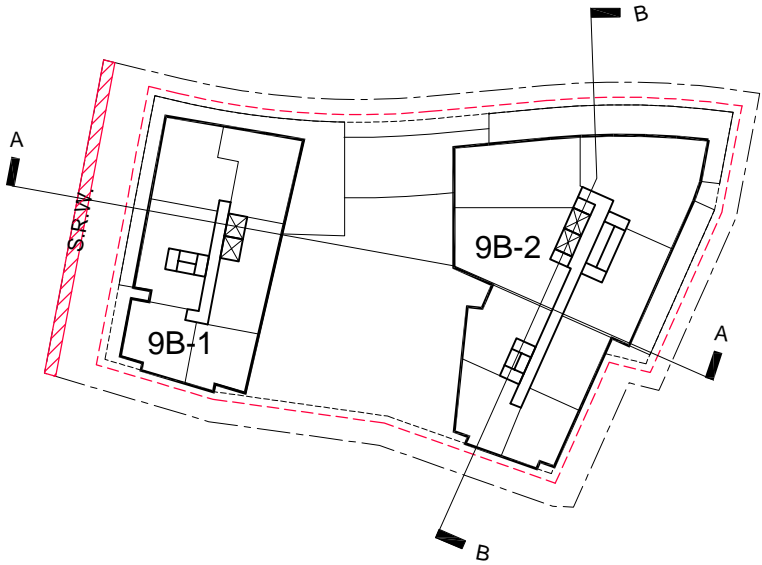


MASSING DIAGRAM

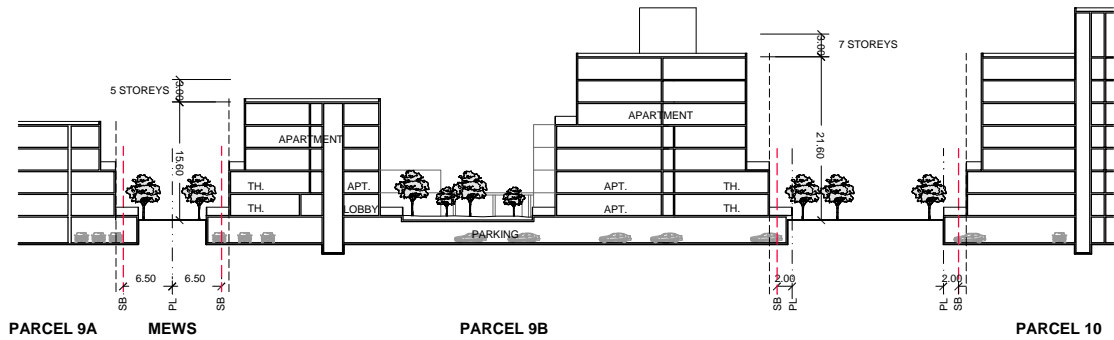




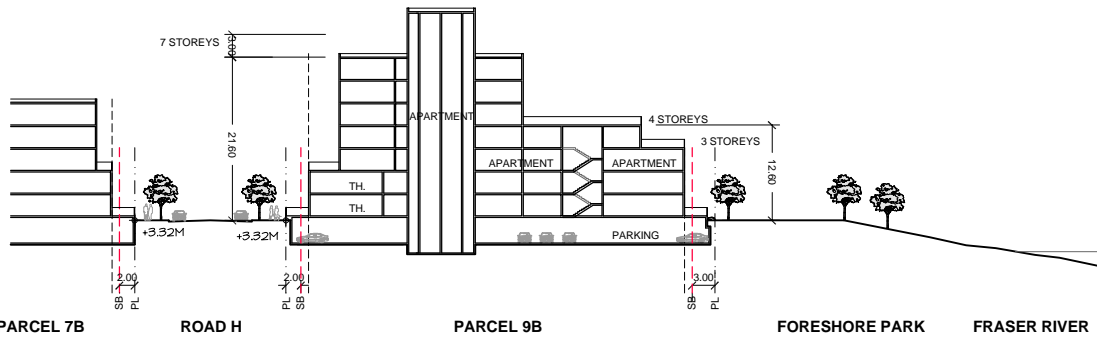
GROUND LEVEL



LEVEL 3

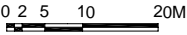


SECTION A-A



SECTION B-B

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PARCEL 10 DATA

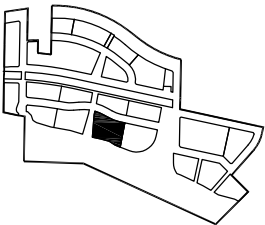
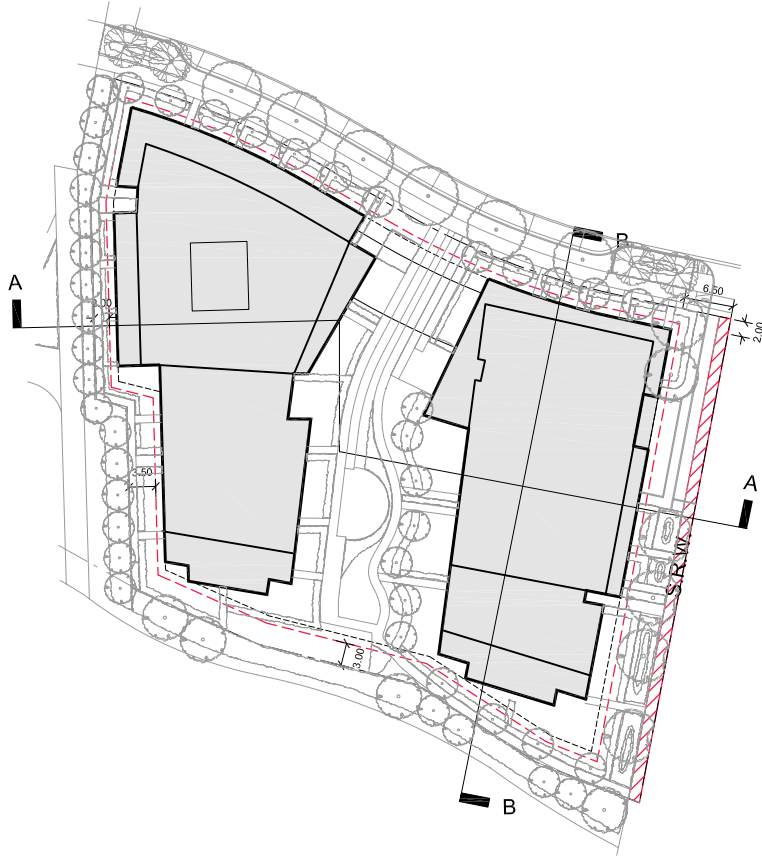
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
10-1	RESIDENTIAL	7	6,807	73,270
10-2	RESIDENTIAL	6	5,914	63,658
	TOTAL	7	12,721	136,928

Urban design role:

- road 'H' frontage
- forms eastern edge of Neighbourhood Park South
- with Parcel 9B, frames threshold to the river
- transitions building scale to the foreshore
- with Parcel 11, defines shared mews
- building forms frame semi-private landscaped space that will contribute to the character of the foreshore

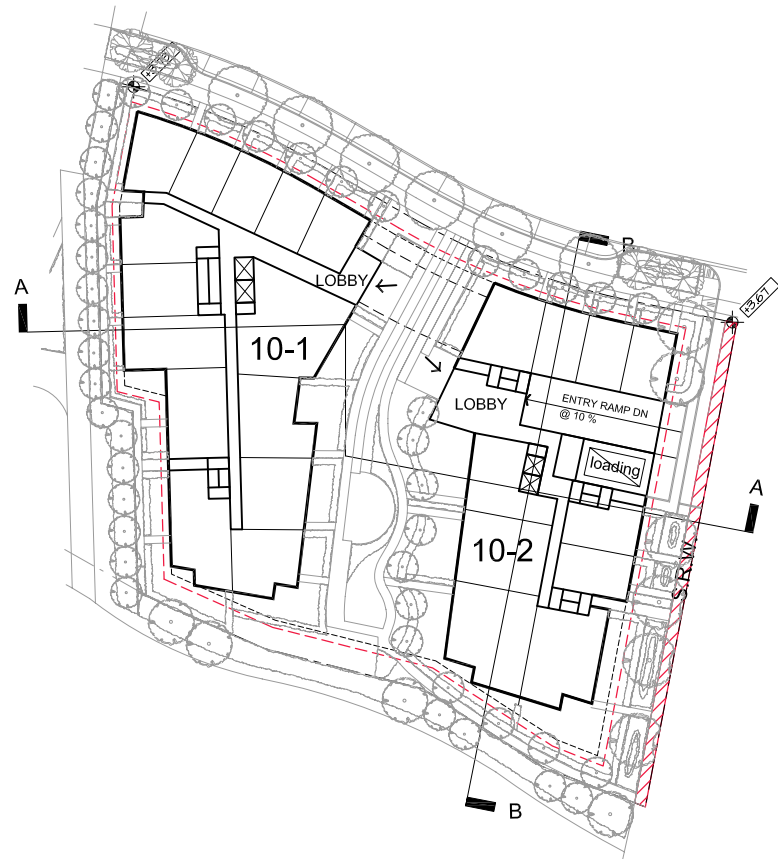
Characteristics:

- road 'H' frontage comprises two series of townhouses with a generous break between, providing views to the river and access to lobbies
- 2 storey townhouses form most of the Neighbourhood Park South frontage, offering a comfortable scale for this more contained open space
- higher form on east building marks the threshold to the southernmost section of the park and the foreshore beyond
- both buildings terrace towards the river, from a 5 or 7 storeys down to three
- private courtyard opening to river provides a visual amenity and enhances the riverfront park experience
- building frontages offer opportunities for a unique expression responding to the riverfront location
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions

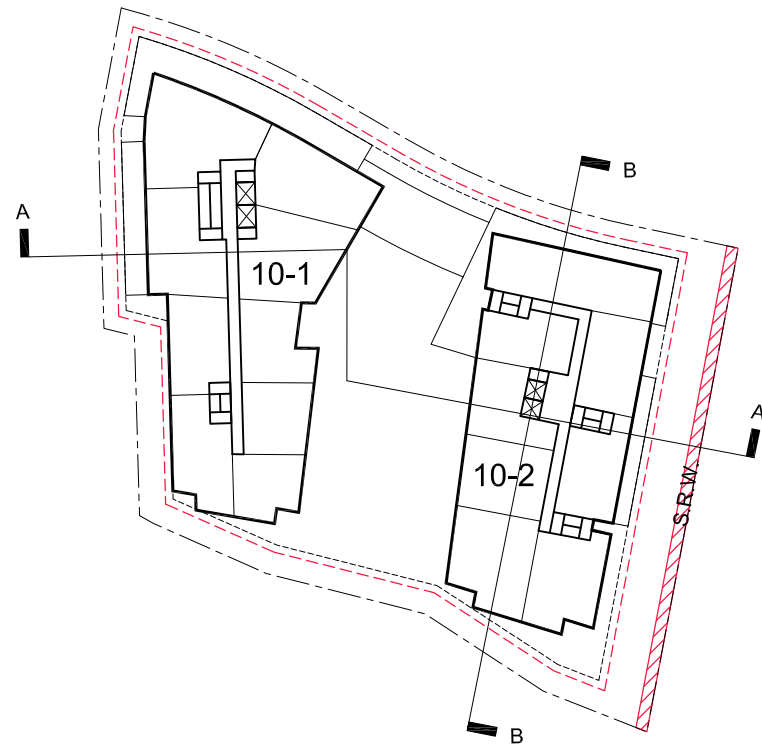


MASSING DIAGRAM

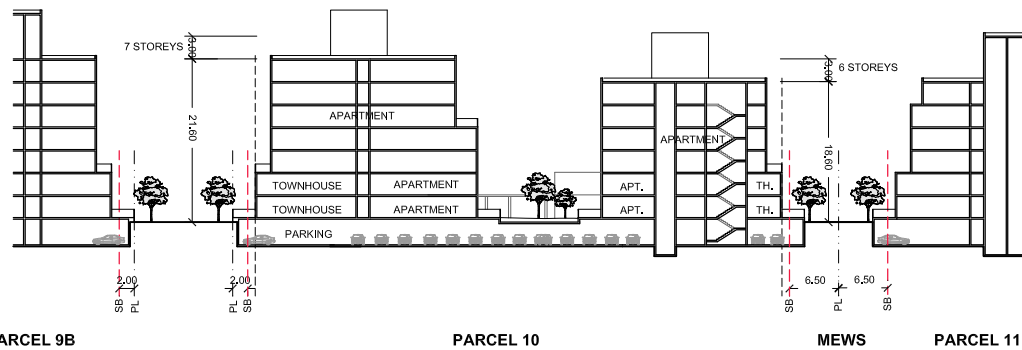




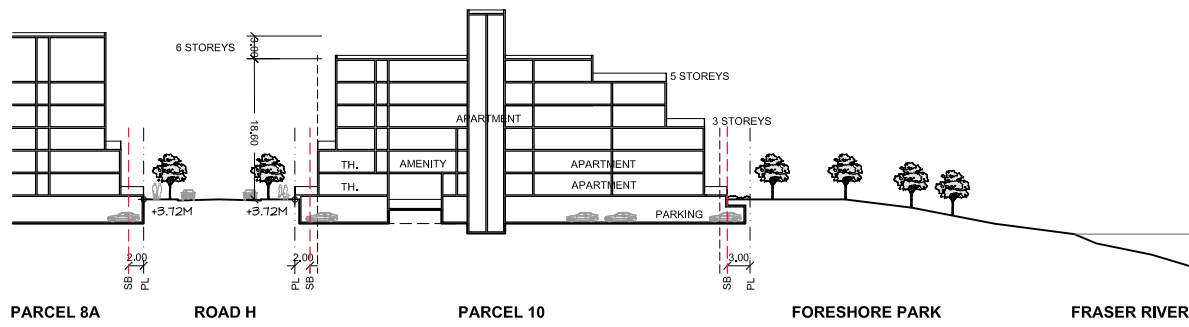
GROUND LEVEL



LEVEL 3

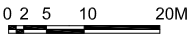


SECTION A-A



SECTION B-B

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PARCEL 11 DATA

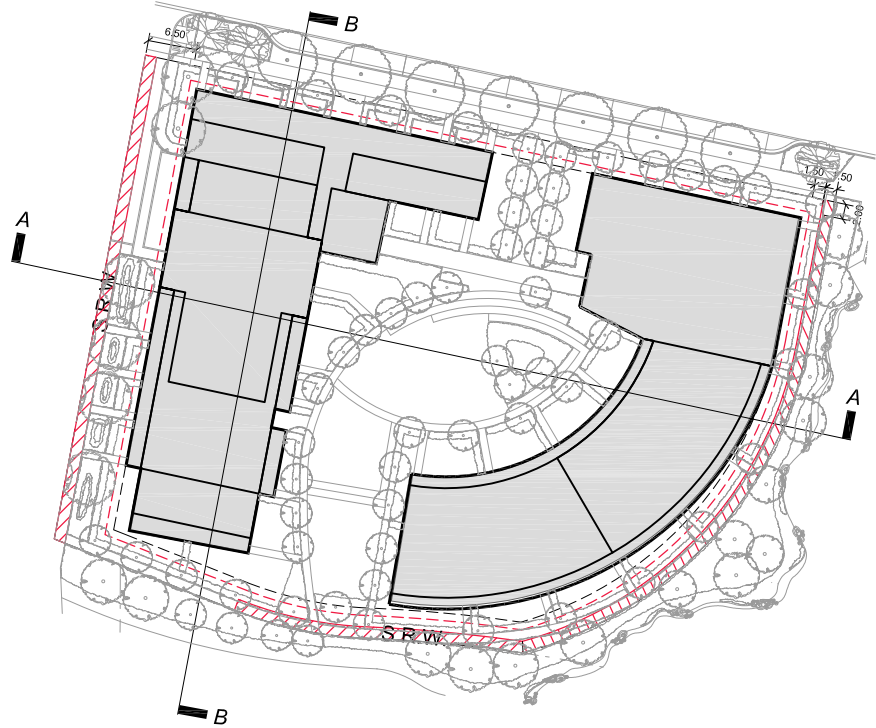
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
11- 1	RESIDENTIAL	6	5,213	56,112
11- 2	RESIDENTIAL	8	7,851	84,507
	TOTAL	8	13,064	140,620

Urban design role:

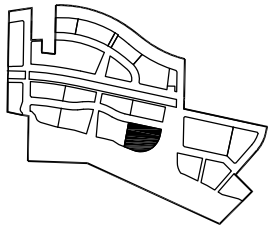
- marks the southwest terminus of Kinross Park South and provides transitions to Foreshore Park
- contributes to streetwall definition of road 'H'
- with Parcel 10, defines shared mews
- building forms frame semi-private landscaped space that will contribute to the character of the foreshore

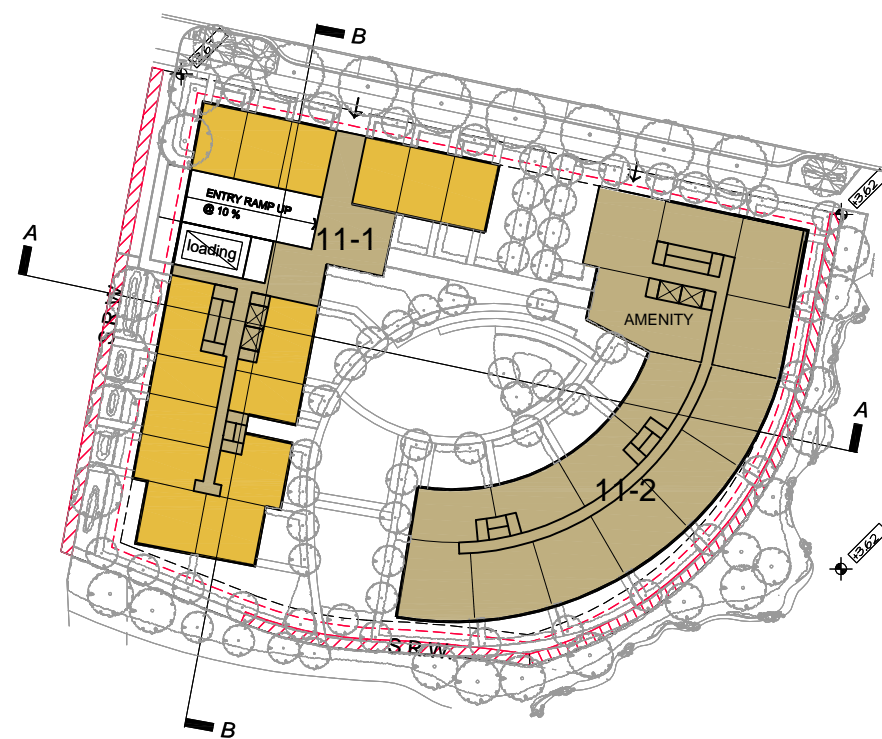
Characteristics:

- dramatic curving frontage of the east building steps towards the Foreshore Park and the river, broadening the water view and defining the south end of the park; garden terraces with low walls form a dignified park edge
- road 'H' frontage comprised of a series of townhouses and a higher tower form to the east separated building lobbies and the view
- both buildings contribute to the general 'terracing' nature of the blocks south of road 'H'
- tower configuration should consider solar access to the park
- private courtyard opening to river provides a visual amenity and enhances the riverfront park experience
- building frontages offer opportunities for a unique expression responding to the riverfront location
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions

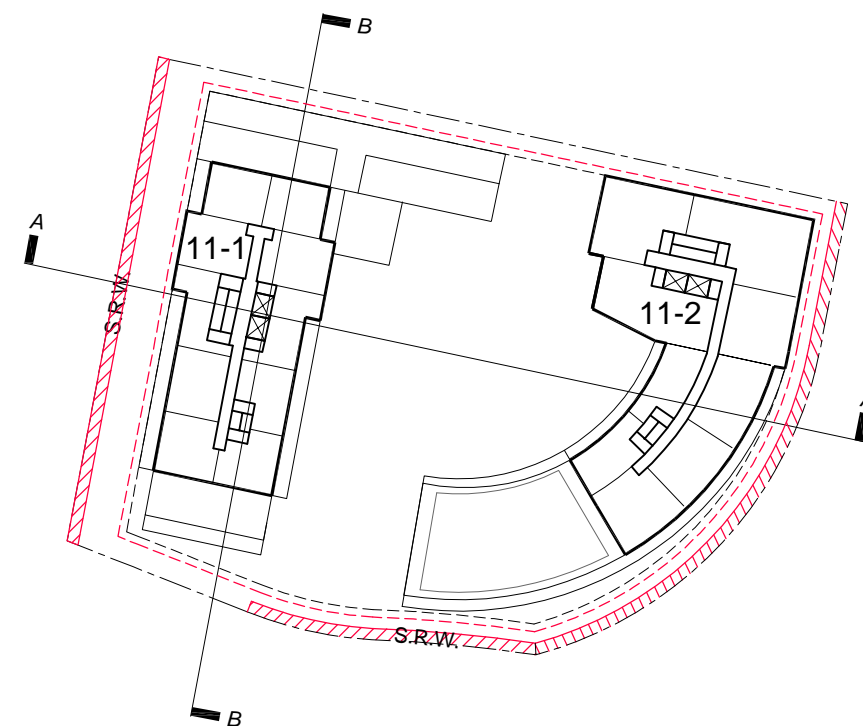


MASSING DIAGRAM

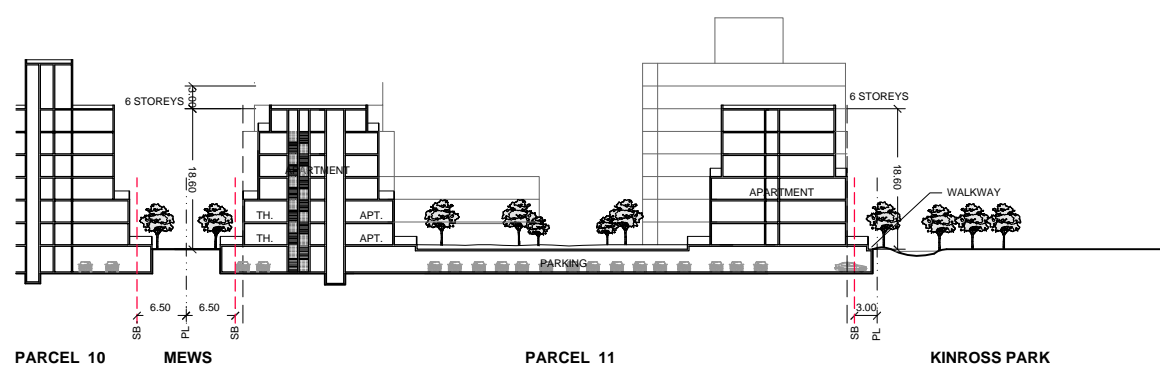




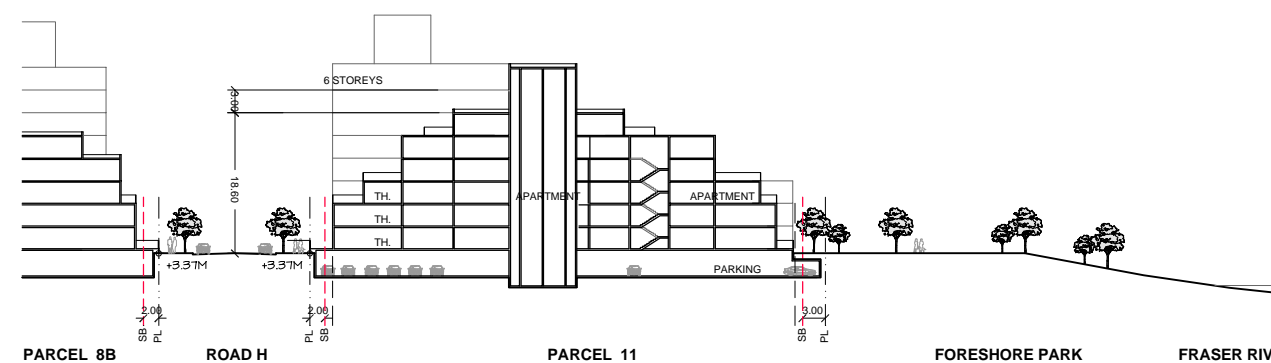
GROUND LEVEL



LEVEL 4

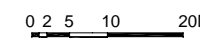


SECTION A-A



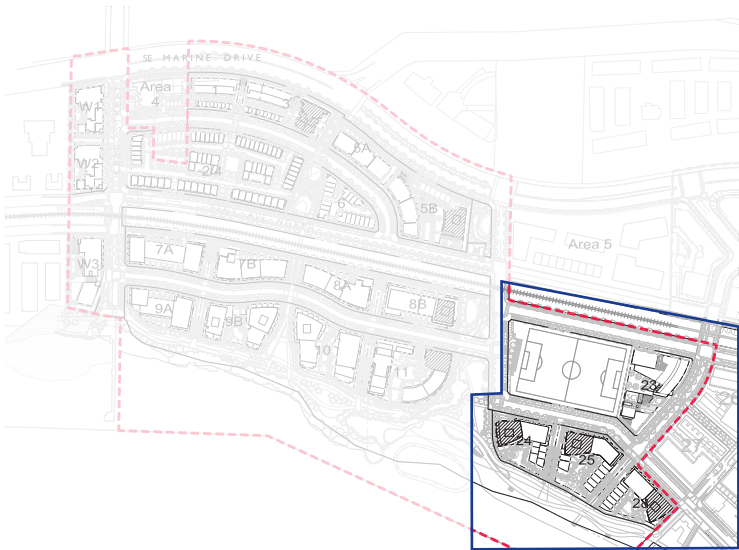
SECTION B-B

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PARCEL 11
SCALE 1:1000
11.b

4.3 SOUTHEAST PRECINCT



Looking Northwest along Fraser River

Looking South over the Playfield Park

Looking Northwest along Fraser River



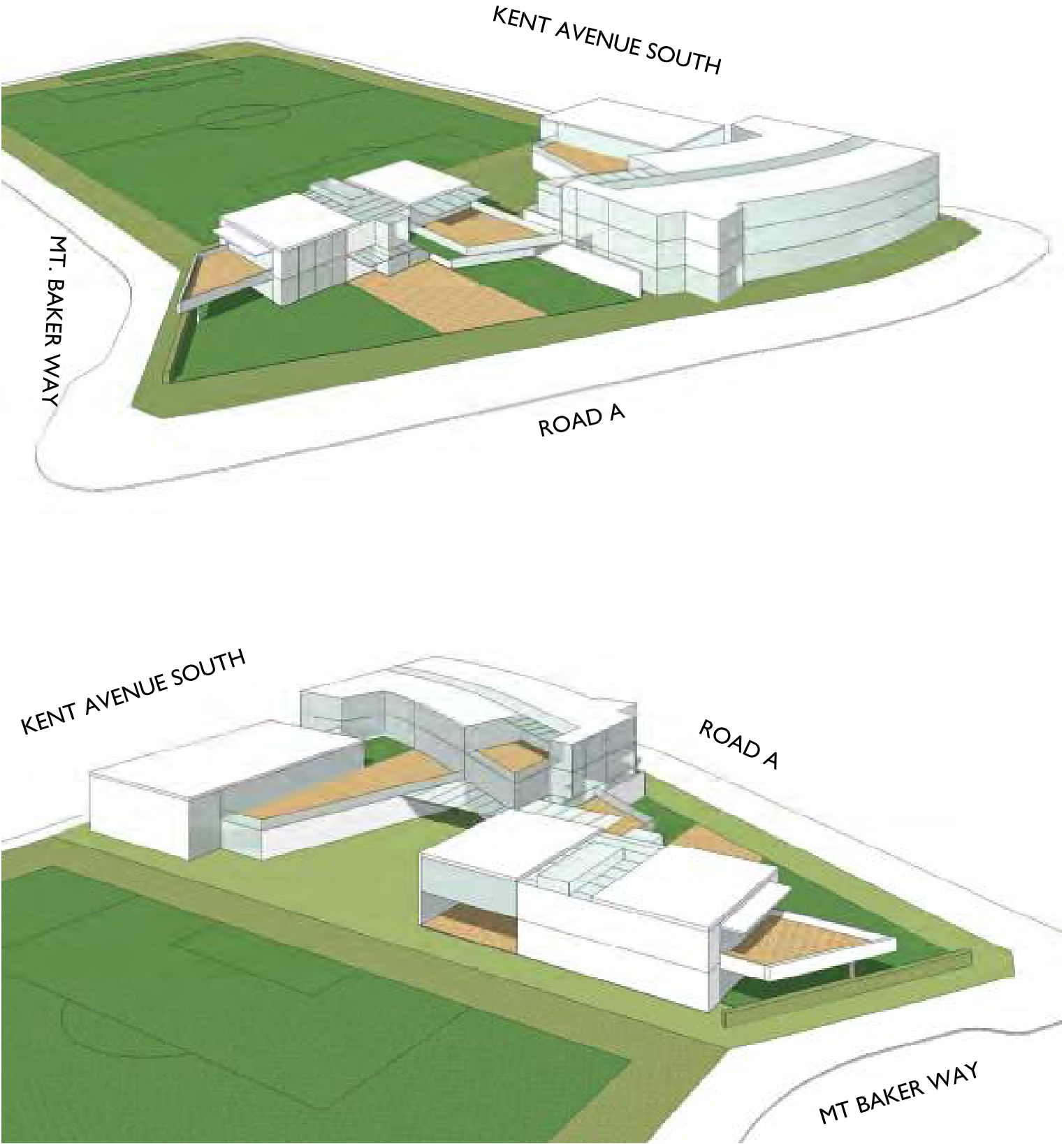
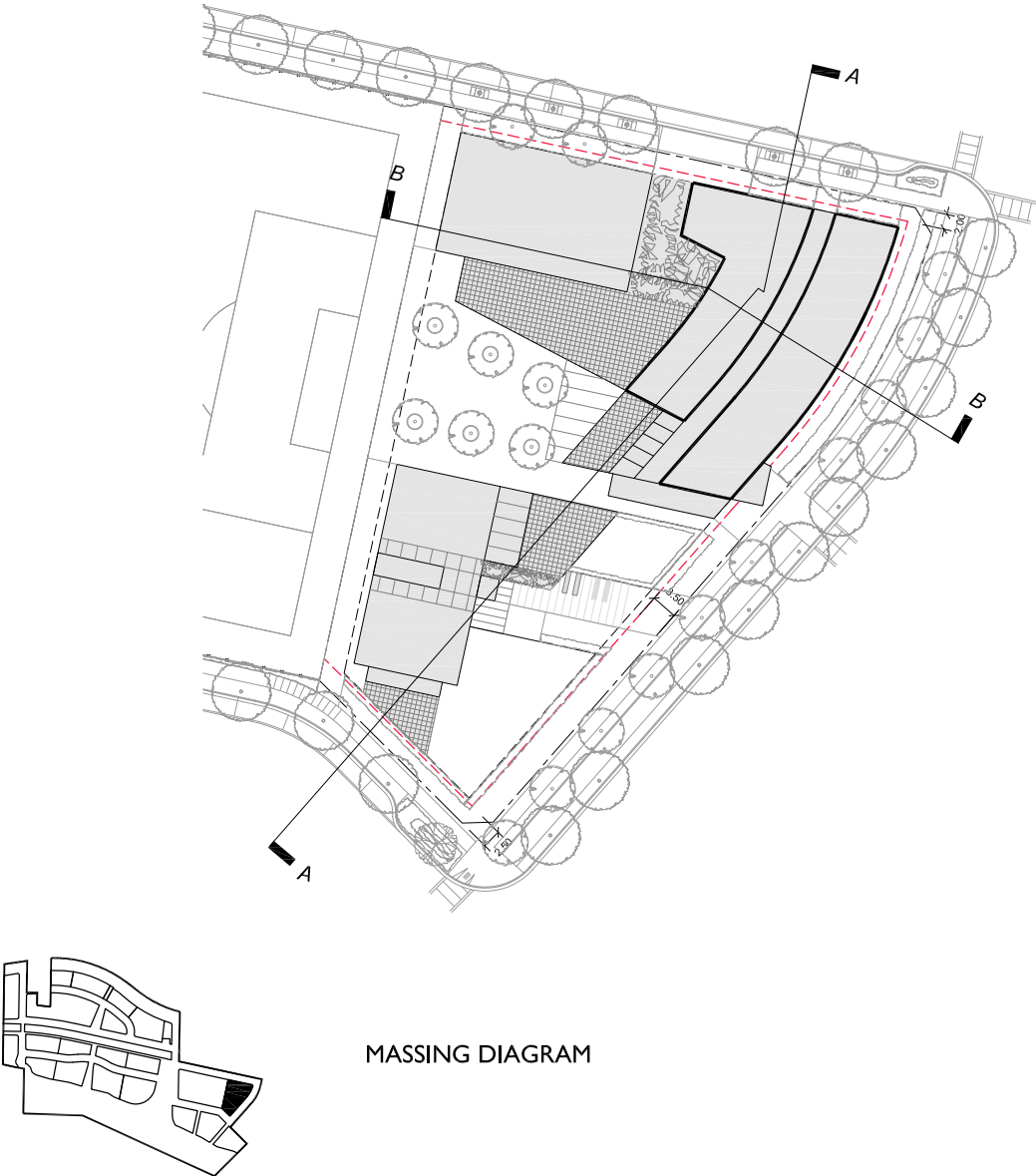
PARCEL 23 DATA

PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
23	SCHOOL	3	4,458	47,986
	CHILD CARE	2	762	8,202
	TOTAL	3	5,220	56,188

- Urban design role:**
- Elementary school site; civic frontage for collector road with entry located as a visual terminus to pedestrian mews between Parcels 26 and 27;civic terminus to playing field; civic punctuation along Kent Avenue corridor

- Characteristics:**
- three storey school form and a two storey childcare facility
 - distinctive form of the gymnasium gives the school a strong civic presence in the Kent Ave Corridor
 - loading and service screened by building and wall enclosure

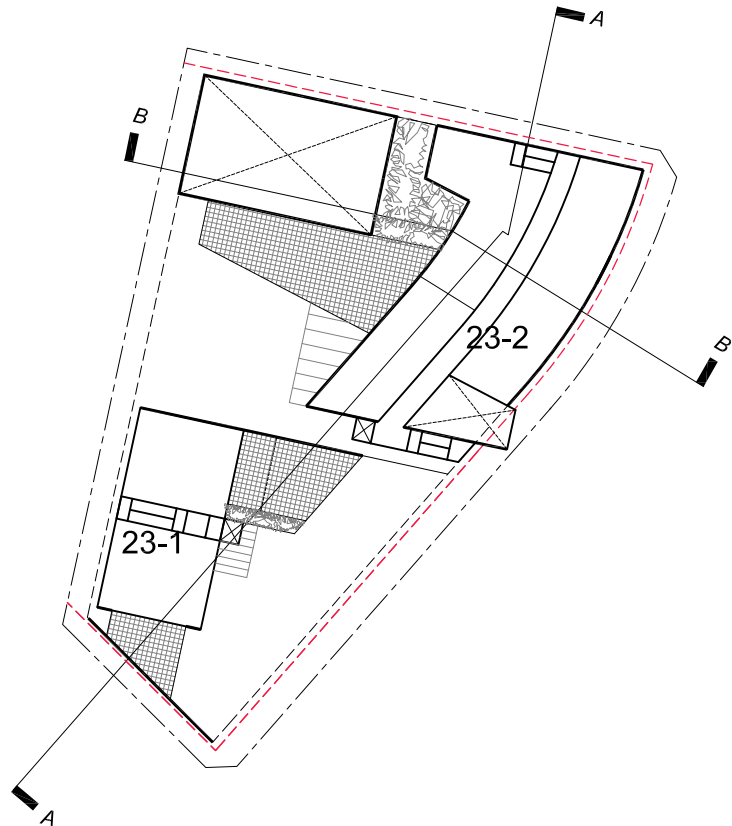
- Additional Parcel Considerations:**
- child care facility to comply with Childcare Design Guidelines for a 69-space facility and to be a minimum of 764 sm and 615 sm outdoor space
 - school program to accomodate approximately 4,500 sm
 - building and site should be configured in a way that maximizes flexibility for the school, childcare and their outside uses
 - it is intended that preliminary conceptual design work be undertaken for both facilities at the time the first one proceeds
 - both the school and childcare will likely require underground parking and drop-off
 - preliminary conceptual design should seek to maximize efficiencies between the needs of the two facilities such as shared access to underground parking
 - the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions



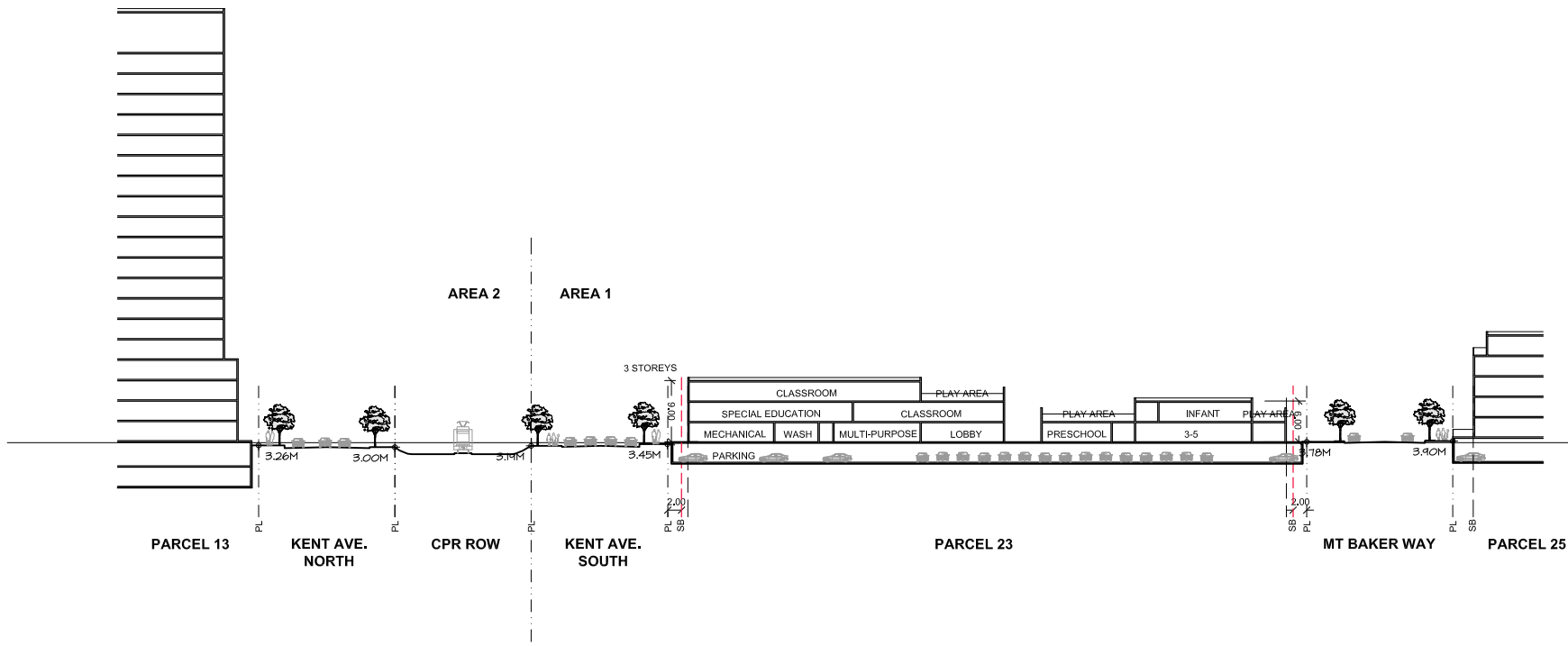
LEVEL 1



LEVEL 2

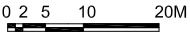
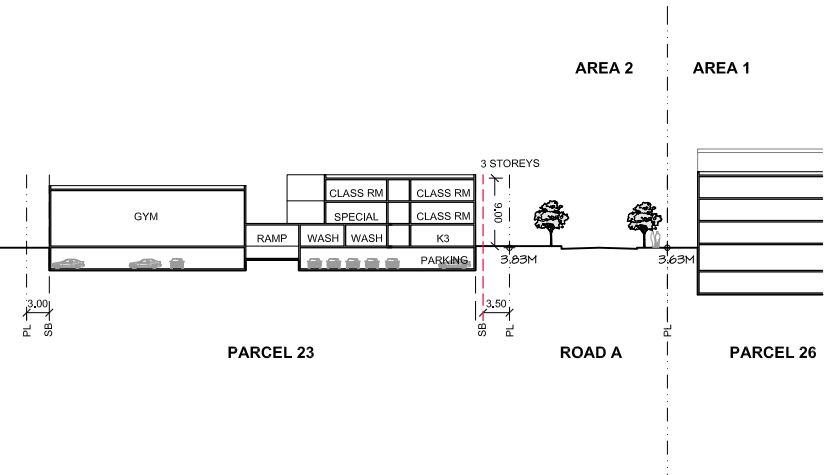


SECTION A-A



SECTION B-B

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PARCEL 24 DATA

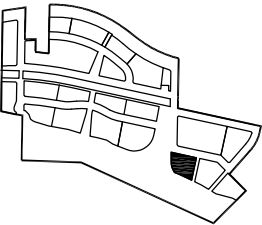
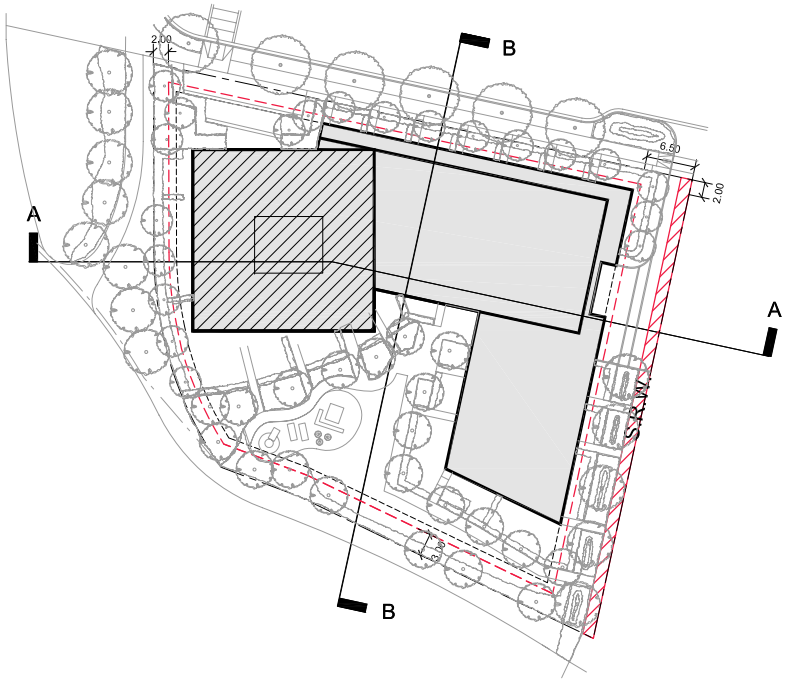
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
24	RESIDENTIAL	9	9,172	98,727
	TOTAL	9	9,172	98,727

Urban design role:

- marks the southeast corner of Kinross Park
- terminates the view along Kinross Road
- with Parcel 25, frames the shared mews
- building forms frame semi-private landscaped space that contributes to the unique character of the foreshore

Characteristics:

- with Parcel 11, higher form at west side of parcel frames south end of Kinross Park South and provides a focal point at the south end of Kinross Road
- tower configuration should consider solar access to Playfield Park and the school yard
- townhouses flanking the mews provide a comfortable scale for this pedestrian environment
- tower height should be lower than tower on Parcel 25
- tower, lowrise and townhouse forms create a discernable transition, diminishing in scale from street to waterfront
- private courtyard opening to river provides a visual amenity and enhances the riverfront park experience
- building frontages offer opportunities for a unique response to the riverfront location
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions

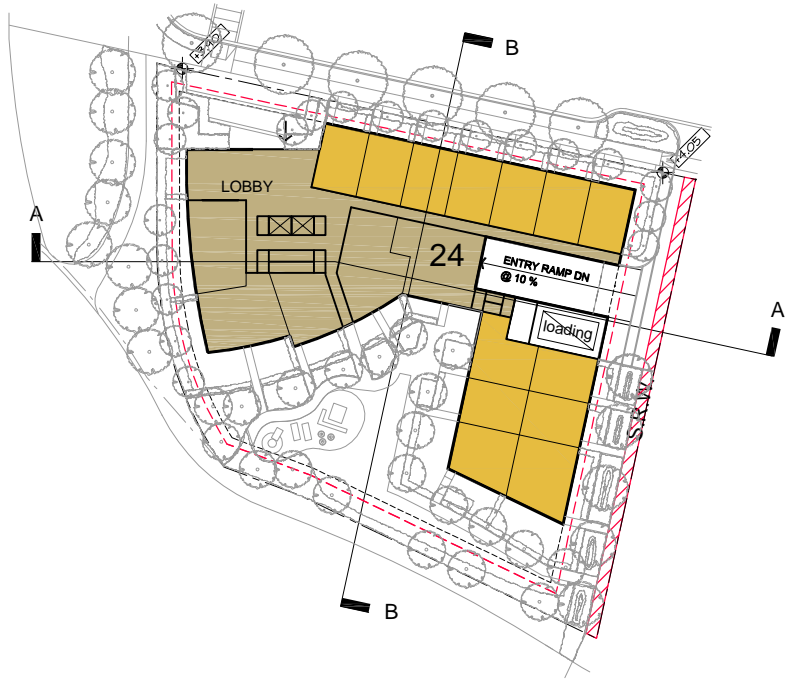


MASSING DIAGRAM

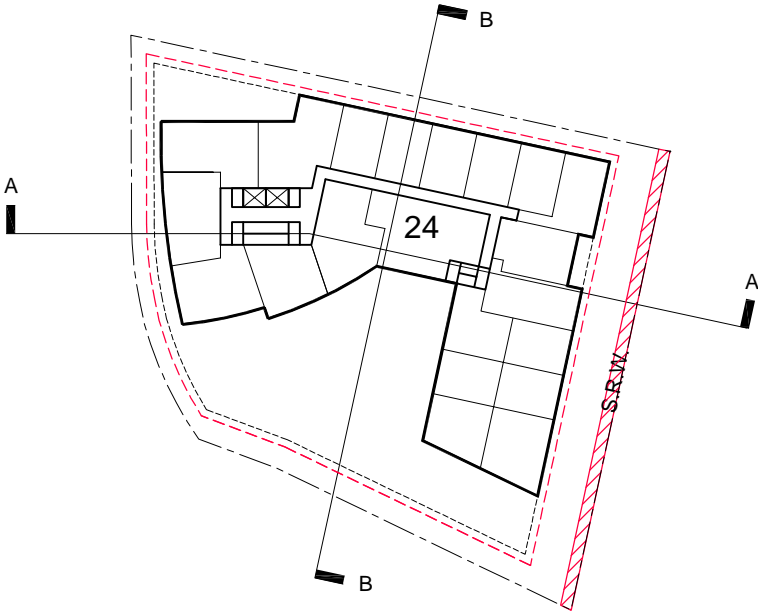


FORESHORE PARK

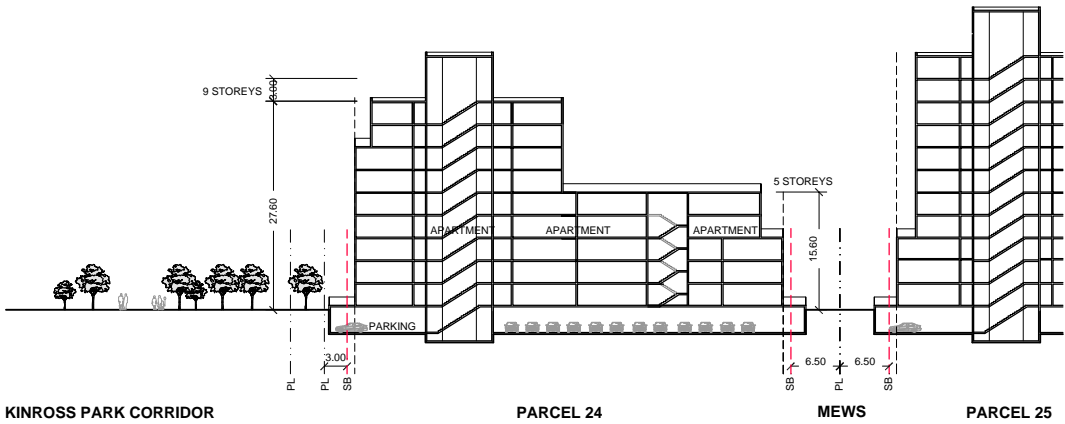
PARCEL 24
24.a



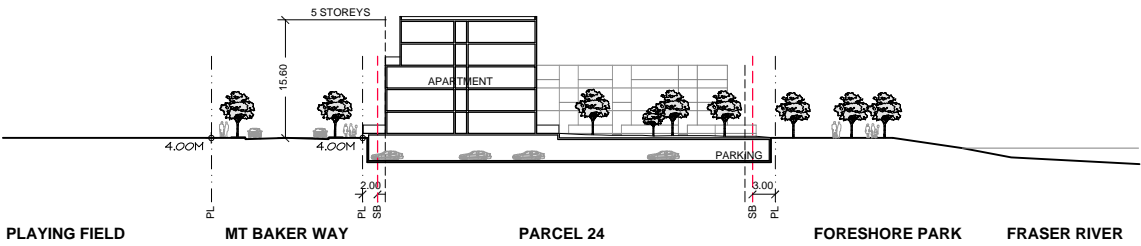
GROUND LEVEL



LEVEL 3

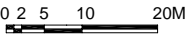


SECTION A-A



SECTION B-B

*Dimensions provided are for illustrative purposes only.
The maximum height as identified in the by-law is taken from the base surface.



PARCEL 24
SCALE 1:1000
24.b

PARCEL 25 DATA

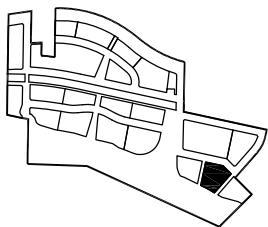
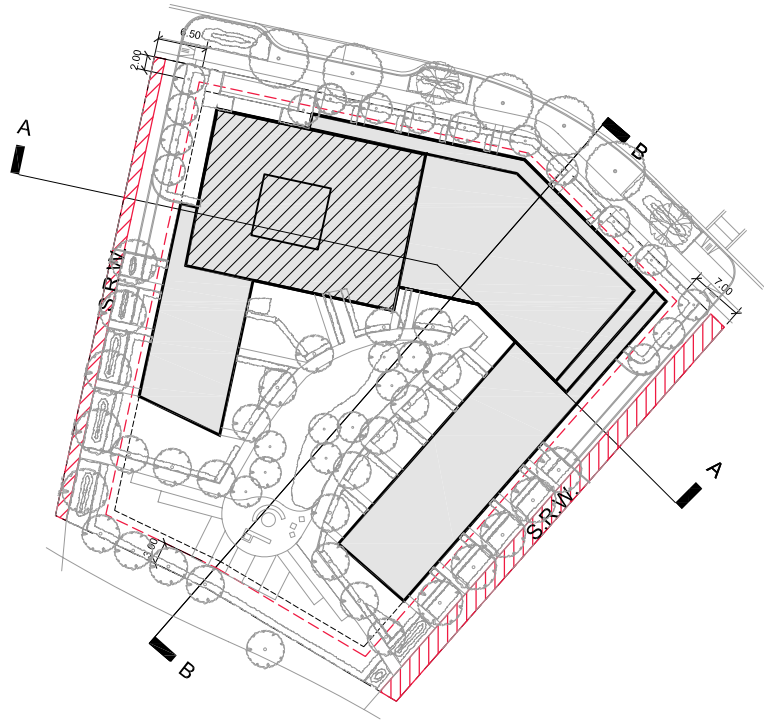
PARCEL	USE	STOREYS	BUILDING AREA NET (sm)	BUILDING AREA NET (sf)
25	RESIDENTIAL	11	11,398	122,687
	TOTAL	11	11,398	122,687

Urban design role:

- mid-step in tower transition from central neighbourhood
- provide a strong edge for the substantial open space of the Playfield Park
- define pedestrian routes
- building forms frame semi-private landscaped space that contributes to the unique character of the foreshore

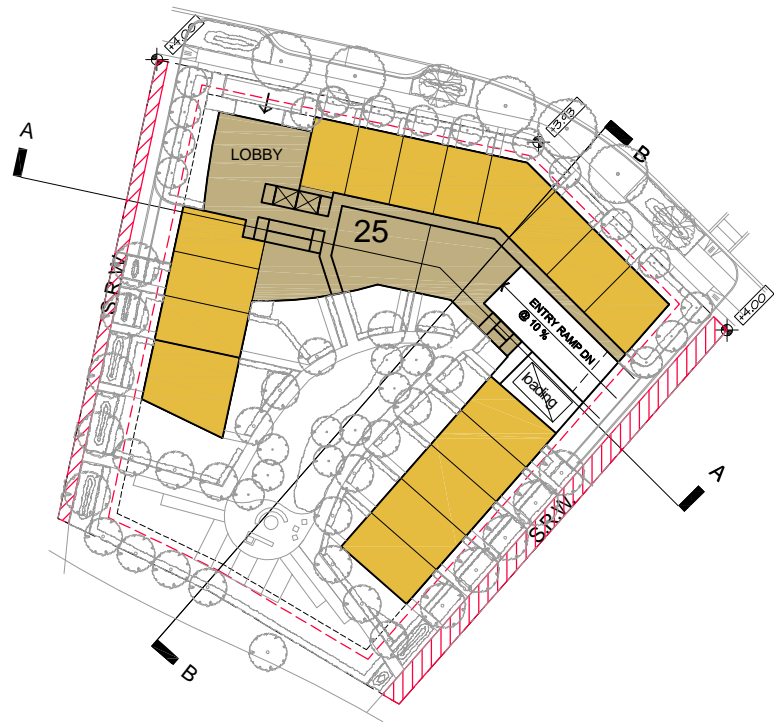
Characteristics:

- tower height should be lower than tower on Parcel 28; tower configuration should consider solar access to the Playfield Park, school and childcare site
- with frontage on Parcel 24, streetwall provides a scale appropriate to contain the south edge of the playing field open space combining tower and midrise form
- townhouses on both sides of the parcel define the adjacent mews with a comfortable scale for pedestrians
- private courtyard opening to river provides a visual amenity and enhances the riverfront park experience
- building frontages offer opportunities for a unique response to the riverfront location
- the 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions

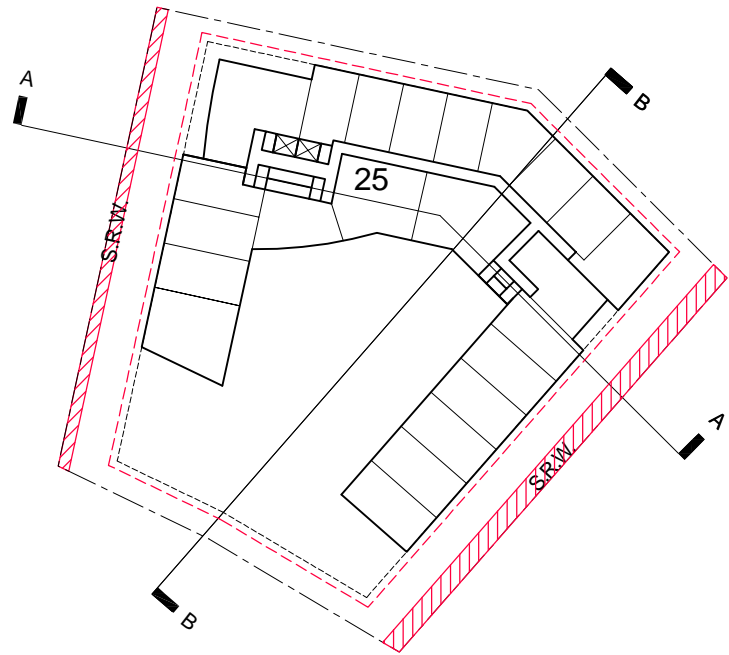


MASSING DIAGRAM

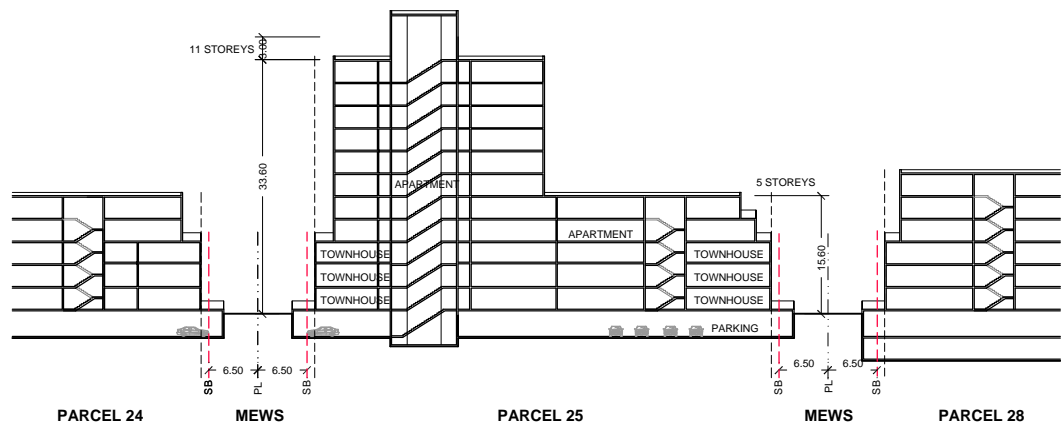




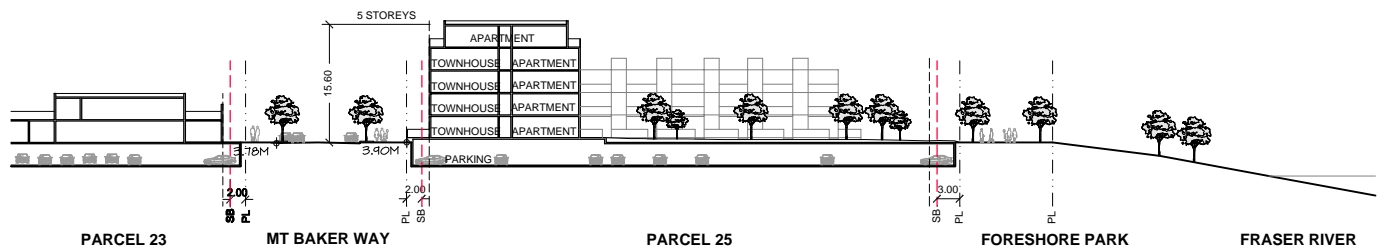
GROUND LEVEL



LEVEL 3

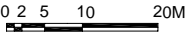


SECTION A-A

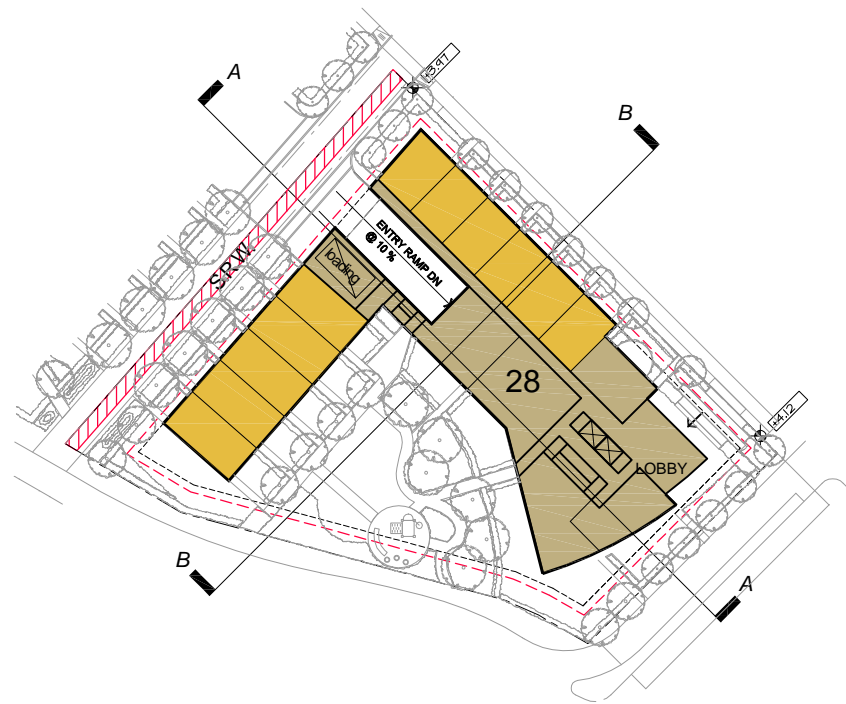


SECTION B-B

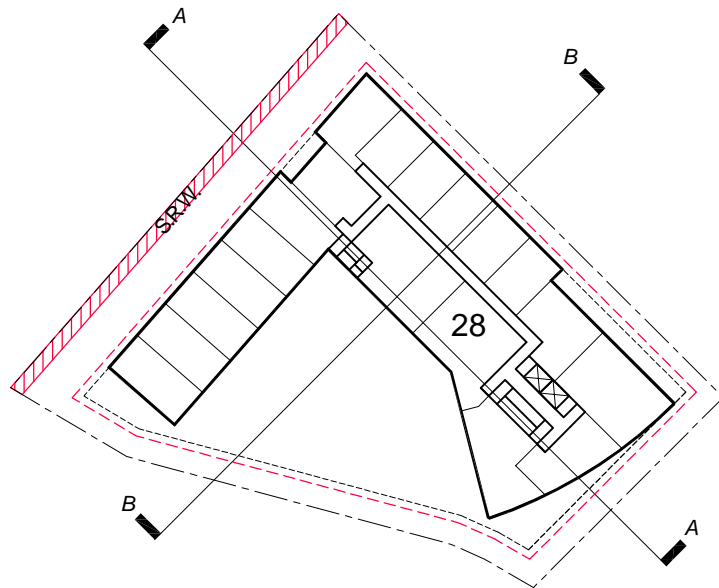
*Dimensions provided are for illustrative purposes only.
The maximum height as identified in the by-law is taken from the base surface.



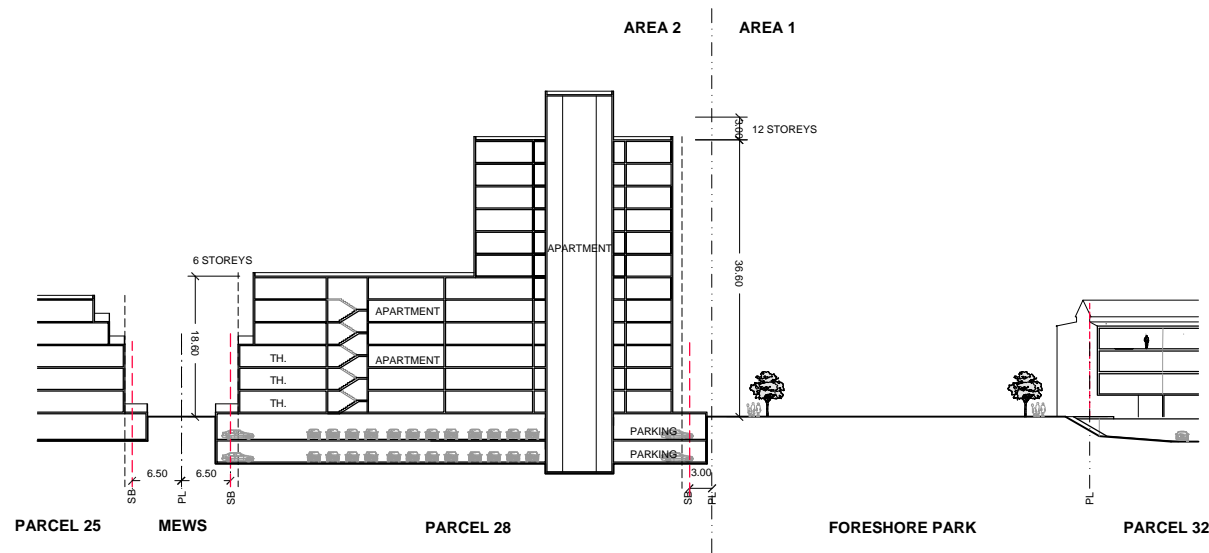
PARCEL 25
SCALE 1:1000
25.b



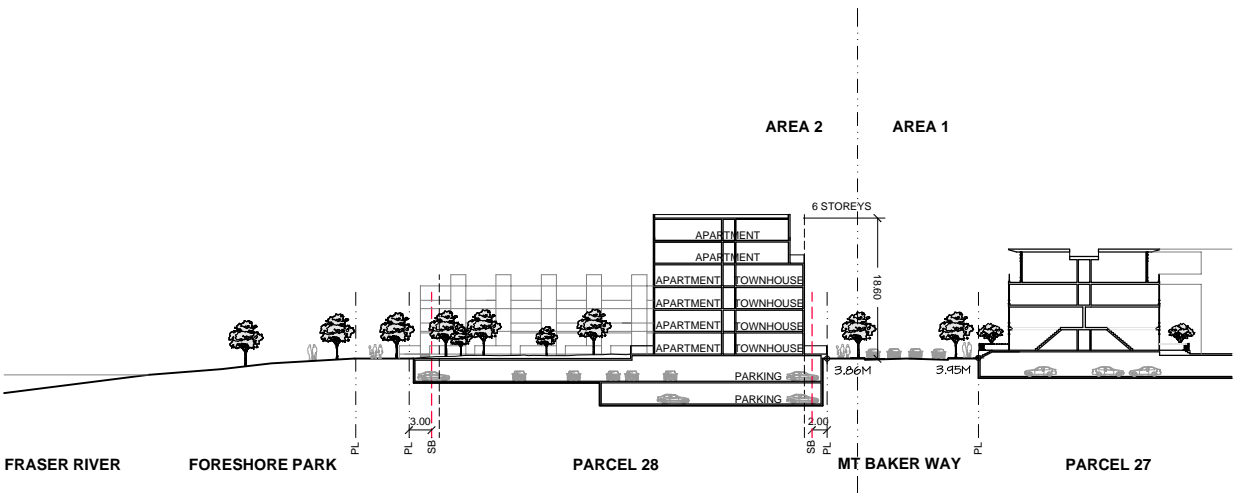
GROUND LEVEL



LEVEL 3

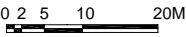


SECTION A-A



SECTION B-B

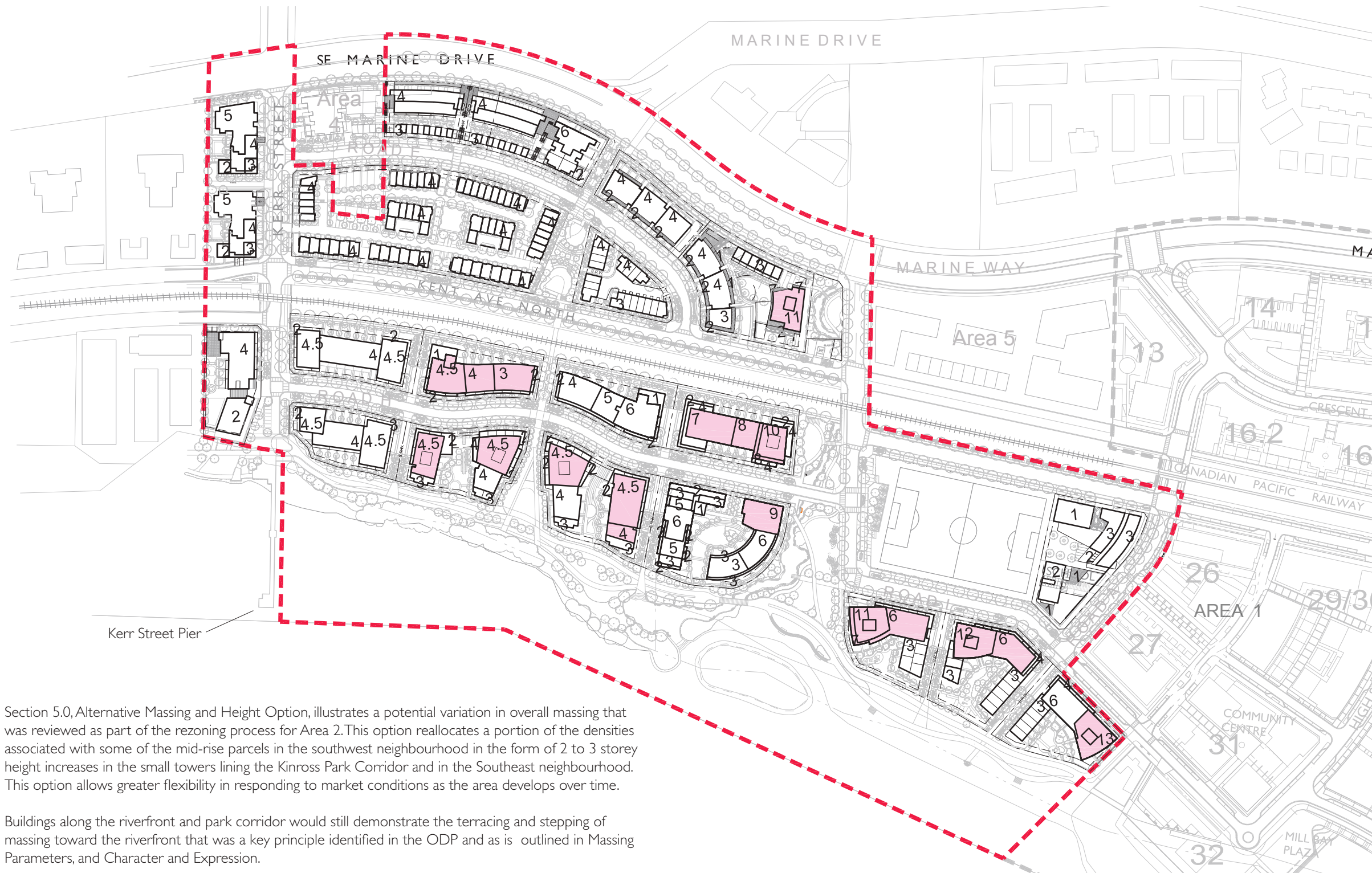
*Dimensions provided are for illustrative purposes only.
The maximum height as identified in the by-law is taken from the base surface.



PARCEL 28
SCALE 1:1000
28.b

5.0 ALTERNATIVE MASSING AND HEIGHTS OPTION

5.1 Building Heights



Section 5.0, Alternative Massing and Height Option, illustrates a potential variation in overall massing that was reviewed as part of the rezoning process for Area 2. This option reallocates a portion of the densities associated with some of the mid-rise parcels in the southwest neighbourhood in the form of 2 to 3 storey height increases in the small towers lining the Kinross Park Corridor and in the Southeast neighbourhood. This option allows greater flexibility in responding to market conditions as the area develops over time.

Buildings along the riverfront and park corridor would still demonstrate the terracing and stepping of massing toward the riverfront that was a key principle identified in the ODP and as is outlined in Massing Parameters, and Character and Expression.

5.2

OVERALL 3D VIEW



5.3

NORTHWEST AND SOUTHWEST OVERALL 3D VIEW

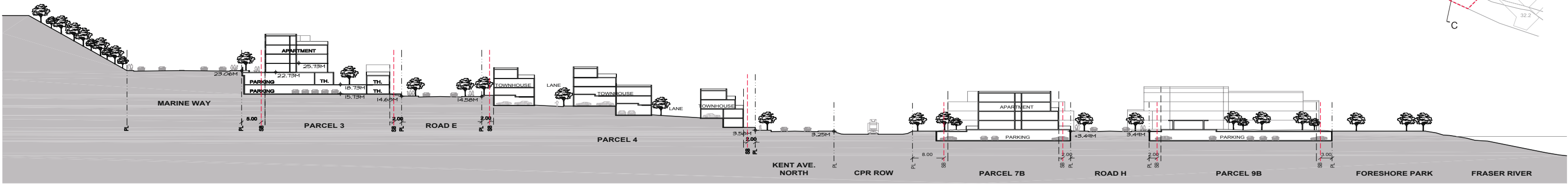
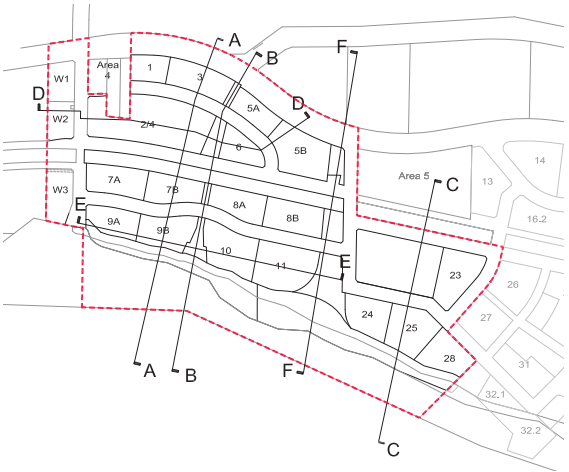


5.4

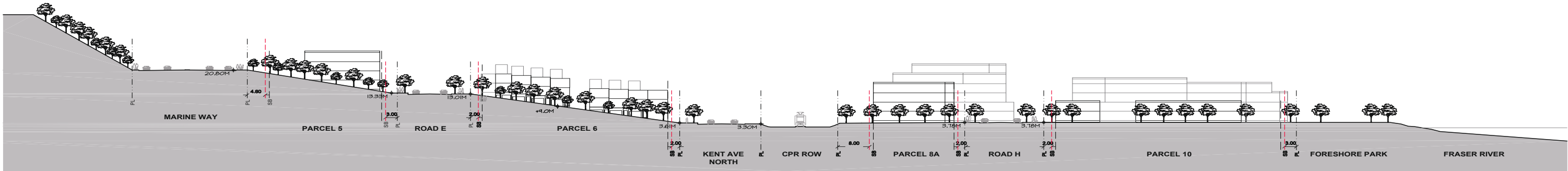
SOUTHEAST OVERALL 3D VIEW



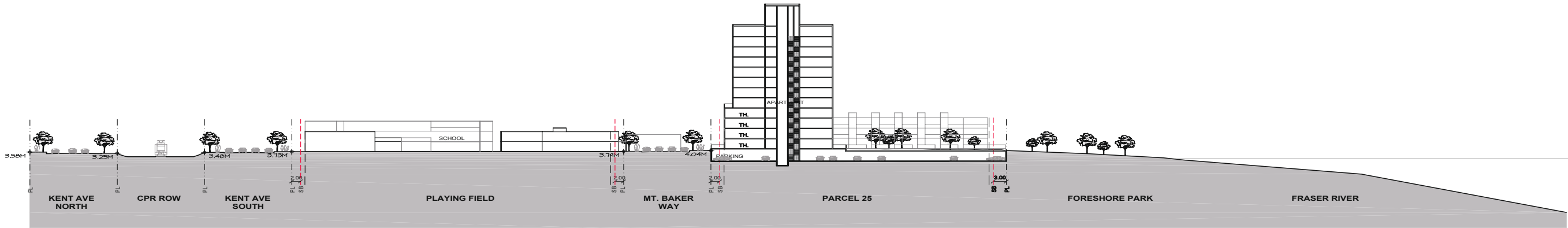
5.5 CROSS SITE SECTIONS



SECTION A-A

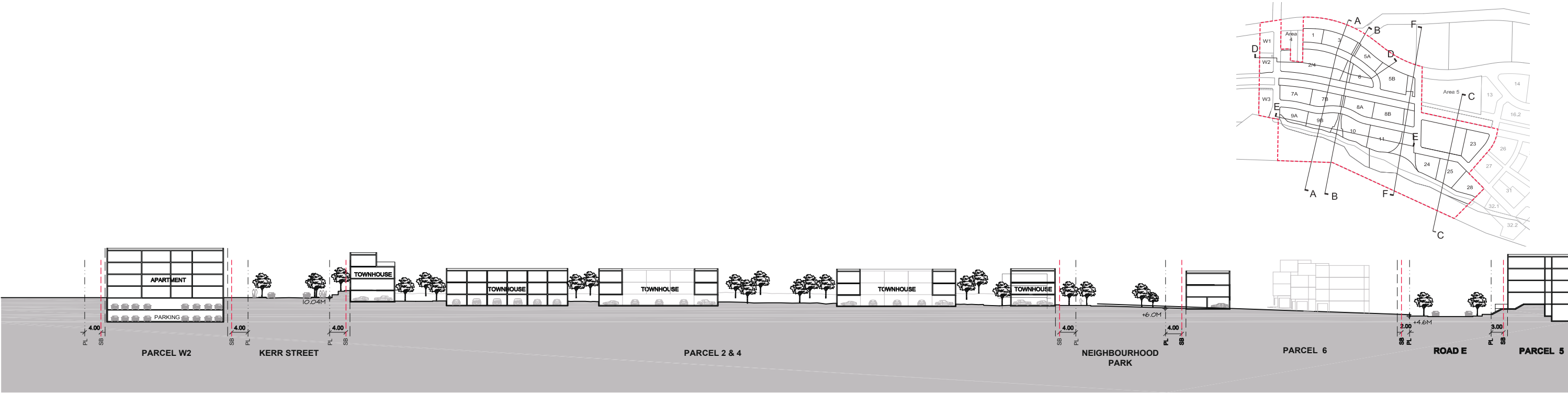


SECTION B-B

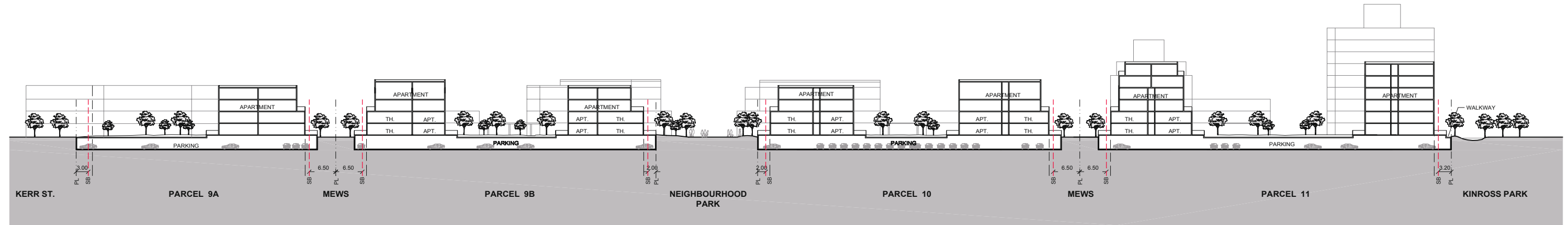


SECTION C-C

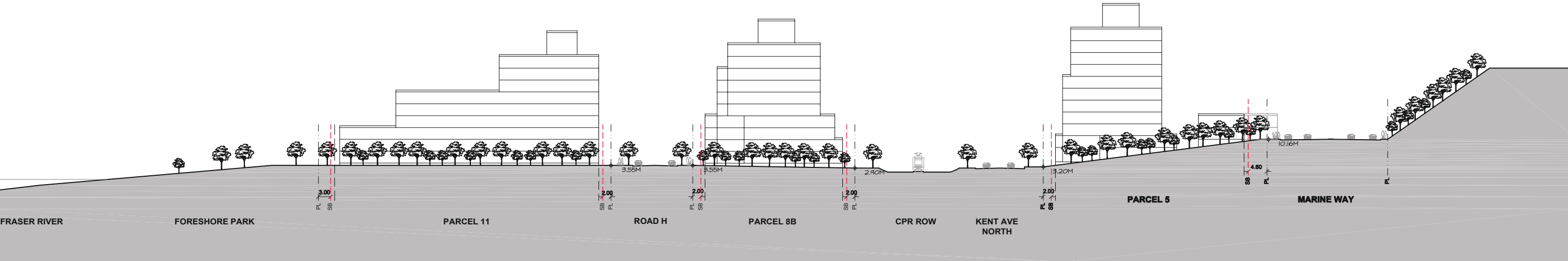
Scale: 1:1000



SECTION D-D



SECTION E-E



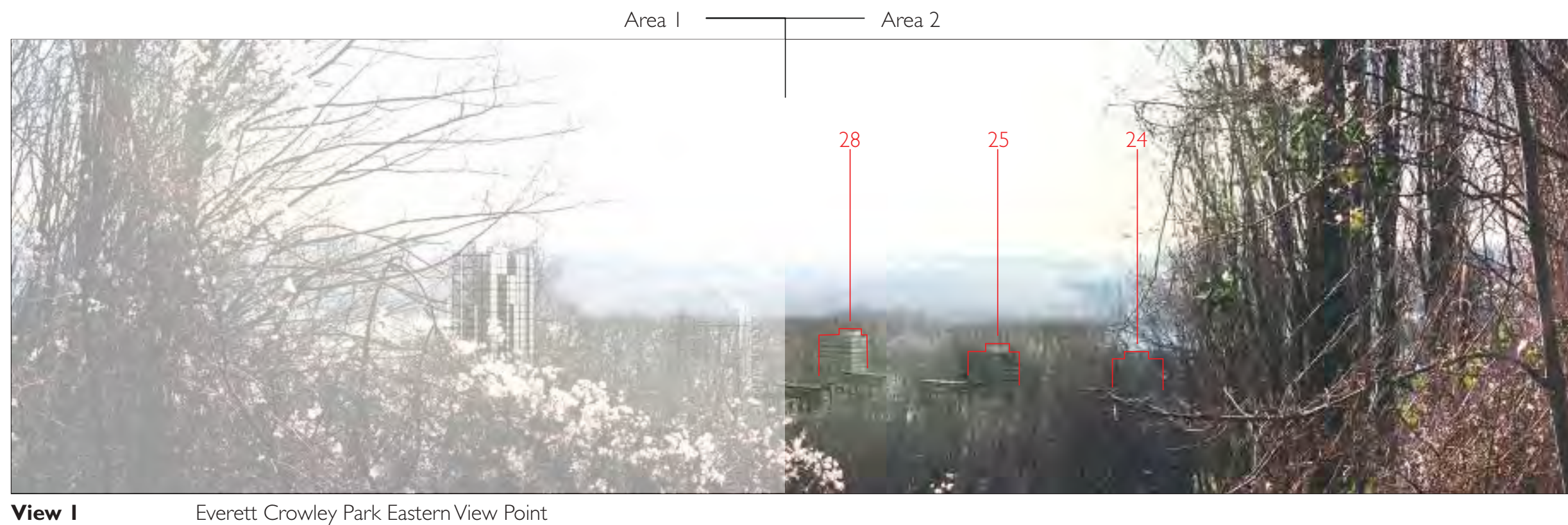
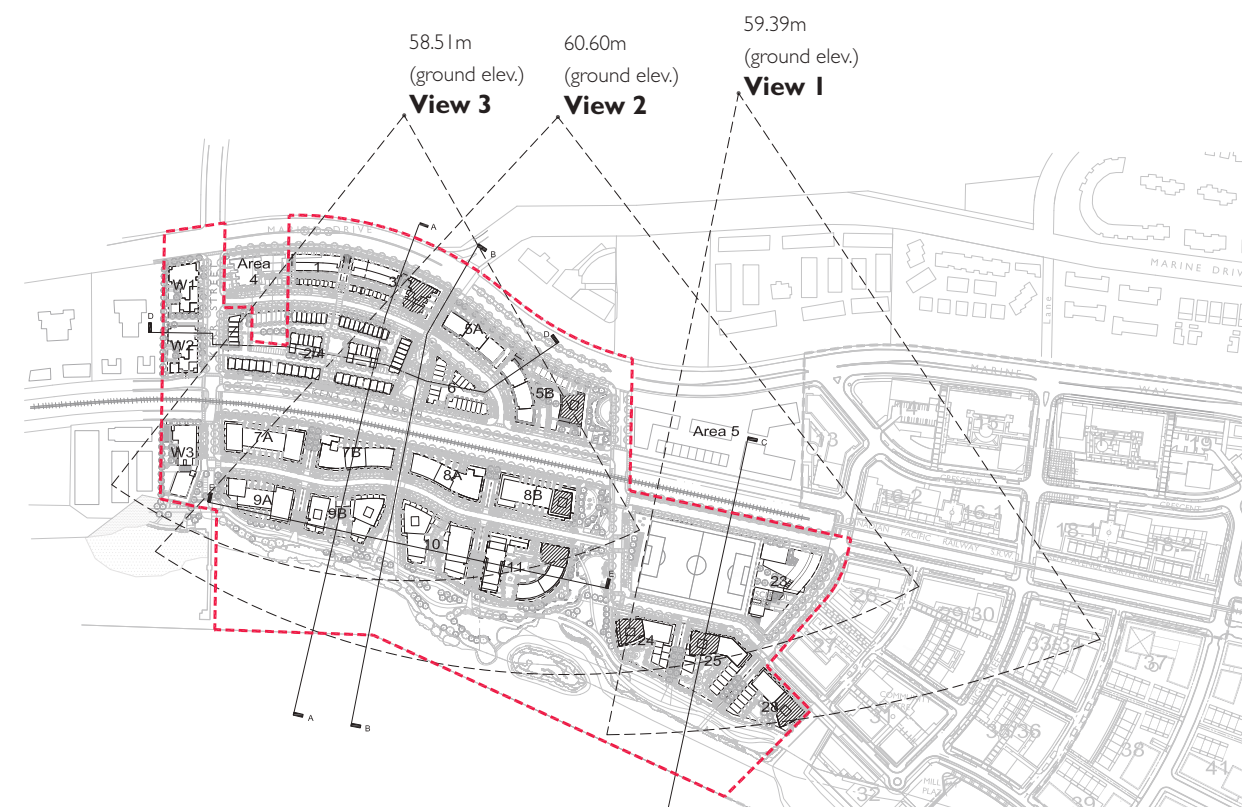
SECTION F-F

Scale: 1:1000

5.6

EVERETT CROWLEY PARK VIEWS

The following photomontages are constructed using the public viewpoints in Everett Crowley Park identified in the ODP. For clarity, the existing park context is seen in the winter season. These views would be screened to a much higher degree in those months when trees are in leaf. In general, the proposed Area 2 development maintains the established views, with higher buildings located in the periphery – consistent with the ODP development strategy.



View 1

Everett Crowley Park Eastern View Point



View 2 Everett Crowley Park Central View Point



View 3 Everett Crowley Park Western View Point

The development has been configured to accomplish an appropriate density while mitigating shadowing of key public spaces, semi-private open spaces and residential units.

As demonstrated in the following studies, tower forms especially have been carefully located to ensure superior solar access to parks, squares and public open spaces for most times of day in the summer, spring and fall scenarios.

The winter studies show more significant shadowing of all open spaces due to the very shallow sun angles at this time of year:



Summer
June 21, 10am



Summer
June 21, 12pm



Summer
June 21, 2pm



Summer
June 21, 4pm



Spring / Fall
March 21, 10am



Spring / Fall
March 21, 12pm



Spring / Fall
March 21, 2pm



Spring / Fall
March 21, 4pm



Winter
December 21, 10am



Winter
December 21, 12pm



Winter
December 21, 2pm



Winter
December 21, 4pm

6.0APPROACH TO GREEN BUILDING DESIGN

MEASURING GREEN BUILDING PERFORMANCE

The different nature of various building types in the EFL development requires adopting principles of two different rating systems as reference: LEED® and Built Green™.The two reference systems and the corresponding building types have been outlined below.

Built Green™ Rating Systems

The Built Green™ system (mainly for homes) and its MS&RT (Multi-Storey and Residential Towers) version provide a comprehensive method of measuring the green strategies used in the low- and mid-rise residential buildings. Built Green™ awards its four levels of rating (Bronze, Silver, Gold and Platinum) based on the cumulative total of the points available in eight categories. Each category has a minimum point total that must be met.

The low- and mid-density wood frame residential buildings within the EFL will be designed and constructed to achieve performance levels equivalent to Built Green™ Gold. In terms of energy, these buildings will go beyond the Built Green™ Gold requirement (77) to provide an EnerGuide score of 80.

LEED® Green Building Rating System

The LEED® rating system offers a comprehensive approach to green building design under six categories.The system awards four levels of rating (Certified, Silver, Gold and Platinum) based on achieving several Prerequisites and a score that is the cumulative total of points/ Credits achieved under its 6 categories.

High-density residential, commercial and institutional buildings in the EFL development will be designed and constructed to achieve performance levels equivalent to LEED® Gold standards.

The EFL Mandatory Green Building Requirements

The following LEED®-NC Canada Scorecard will be used as a tool for evaluating the entire EFL development.The scorecard highlights the City ofVancouver Mandatory Requirements as well as LEED® Prerequisites.

The EFL Mandatory Green Building Requirements			Vancouver GBS 08/09 VBBL 08/09
Legend:			
Required credit consistent with Vancouver GBS			
LEED® Prerequisite			
			Mandatory
Sustainable Sites			14 Points
			4
Prereq 1	Erosion & Sedimentation Control	Required	Y
Credit 1	Site Selection ¹		
Credit 2	Development Density		1
Credit 3	Redevelopment of Contaminated Site		
Credit 4.1	Alternative Transportation, Public Transportation Access		1
Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms		1
Credit 4.3	Alternative Transportation, Alternative Fuel Vehicles		1
Credit 4.4	Alternative Transportation, Parking Capacity		
Credit 5.1	Reduced Site Disturbance, Protect or Restore Open Space		
Credit 5.2	Reduced Site Disturbance, Development Footprint		
Credit 6.1	Stormwater Management, Rate and Quantity		
Credit 6.2	Stormwater Management, Treatment		
Credit 7.1	Heat Island Effect, Non-Roof		
Credit 7.2	Heat Island Effect, Roof		
Credit 8	Light Pollution Reduction		
Water Efficiency			5 Points
			2
Credit 1.1	Water Efficient Landscaping, Reduce by 50%		1
Credit 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation		
Credit 2	Innovative Wastewater Technologies		
Credit 3.1	Water Use Reduction, 20% Reduction		1
Credit 3.2	Water Use Reduction, 30% Reduction		
Energy & Atmosphere			
			3
Prereq 1	Fundamental Building Systems Commissioning	Required	
Prereq 2	Minimum Energy Performance	Required	Y
Prereq 3	CFC Reduction in HVAC&R Equipment	Required	Y
Credit 1	Optimize Energy Performance 20%	1 to 10	2
Credit 1.2	Optimize Energy Performance 30%		
Credit 1.3	Optimize Energy Performance 40%		
Credit 1.4	Optimize Energy Performance 50%		
Credit 1.5	Optimize Energy Performance 60%		
Credit 2.1	Renewable Energy, 5% ²		
Credit 2.2	Renewable Energy, 10% ²		
Credit 2.3	Renewable Energy, 20% ²		
Credit 3	Best Practice Commissioning		
Credit 4	Ozone Protection		1
Credit 5	Measurement & Verification ³		
Credit 6	Green Power		

Materials & Resources		14 Points	3
Prereq 1	Storage & Collection of Recyclables	Required	Y
Credit 1.1	Building Reuse: Maintain 75% of Existing Walls, Floors, and Roof		
Credit 1.2	Building Reuse: Maintain 95% of Existing Walls, Floors, and Roof		
Credit 1.3	Building Reuse: Maintain 50% of Interior Non-Structural Elements		
Credit 2.1	Construction Waste Management: Divert 50% from Landfill		1
Credit 2.2	Construction Waste Management: Divert 75% from Landfill		1
Credit 3.1	Resource Reuse: 5%		
Credit 3.2	Resource Reuse: 10%		
Credit 4.1	Recycled Content: 7.5% (post-consumer + ½ post-industrial)		
Credit 4.2	Recycled Content: 15% (post-consumer + ½ post-industrial)		
Credit 5.1	Regional Materials: 10% Extracted and Manufactured Regionally		
Credit 5.2	Regional Materials: 20% Extracted and Manufactured Regionally		
Credit 6	Rapidly Renewable Materials		
Credit 7	Certified Wood		
Credit 8	Durable Building		1
Indoor Environmental Quality		15 Points	8
Prereq 1	Minimum IAQ Performance	Required	Y
Prereq 2	Environmental Tobacco Smoke (ETS) Control ⁴	Required	Y
Credit 1	Carbon Dioxide (CO ₂) Monitoring		
Credit 2	Ventilation Effectiveness		
Credit 3.1	Construction IAQ Management Plan: During Construction		
Credit 3.2	Construction IAQ Management Plan: Testing Before Occupancy		
Credit 4.1	Low-Emitting Materials: Adhesives & Sealants		1
Credit 4.2	Low-Emitting Materials: Paints and Coating		1
Credit 4.3	Low-Emitting Materials: Carpet		1
Credit 4.4	Low-Emitting Materials: Composite Wood and Laminate Adhesives		1
Credit 5	Indoor Chemical & Pollutant Source Control		
Credit 6.1	Controllability of Systems: Perimeter Spaces		1
Credit 6.2	Controllability of Systems: Non-Perimeter Spaces		
Credit 7.1	Thermal Comfort: Compliance		1
Credit 7.2	Thermal Comfort: Monitoring		
Credit 8.1	Daylight & Views: Daylight 75% of Spaces		1
Credit 8.2	Daylight & Views: Views 90% of Spaces		1
Innovation & Design Process		5 Points	2
Credit 1.1	3 stream waste diversion		1
Credit 1.2	Urban Agriculture		1
Credit 1.3	Innovation in Design		
Credit 1.4	Innovation in Design		
Credit 2	LEED® Accredited Professional		

Mandatory Credits, Total

Certified 26-32 points Silver 33-38 points Gold 39-51 points Platinum 52-70 points

NOTES:

1. The City of Vancouver will accept a negotiated standard that differs from LEED.

2. The City of Vancouver will accept the EFL NEU as equivalent to satisfaction of this credit.

3. The City of Vancouver will accept in-suite energy use displays.

4. Smoking will be prohibited in common areas. No additional requirements necessary.

GENERAL CONDITIONS

Additional conditions are to be met by the project:

- The development parcels for this project will connect to a proposed Neighbourhood Energy Utility (NEU) should the proposed NEU be approved and implemented by the time of development.
- No electrical baseboards will be used in this project for heating residential suites. Some electrical base board heaters may be used in appropriate locations such as utility rooms in the parkade.
- All ENERGY STAR® eligible domestic appliances installed in residential units will be ENERGY STAR® qualified.
- Provide for individual in-suite metering for energy use. Meter displays will be in a prominent location to encourage usage and improve effectiveness.
- No natural gas fireplaces are to be installed within dwelling units. Ornamental non-combustion fireplaces are permitted if they are not heat producing.
- Heat recovery from large retailers, if applicable, will be part of the LEED® Gold initiatives.
- Provide a green roof over concrete structures, excluding the tops of towers. Such roofscapes should be highly programmable, useable and accessible.
- Provide three streams of waste removal both in-suite and in-building for the development parcel (regular garbage, recyclable materials and organics). The development site is to provide adequate space and infrastructure to accommodate three streams of waste removal including fully outfitted areas that can be made active upon implementation of an organics collection system.
- Twenty percent of all residential parking spaces (excluding visitor parking) will have electric conduits for potential recharging outlets for electric vehicle.

COMPLIANCE

Each development will provide a compliance strategy and timeline that outlines the documentation process required to achieve LEED® Canada-NC v.1.0 Gold and/or Built Green TM Gold equivalent, including reference to appropriate documentation at development permit, building permit and occupancy permit stages.

