



2031 WEST LAKE

EARLY DESIGN
GUIDANCE

SDCI PROJECT #:3022513
4 MAY 2016



VICINITY MAP

SITE

PROJECT ADDRESS:
2031 Westlake Ave. N.

PROJECT TEAM:

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EARLY DESIGN GUIDANCE MEETING

4 May 2016

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Overview

Project Information

Parcel No.:	9301300115
Lot Area:	31,285 sf
Zoning:	Lowrise 3
Overlay:	ECA (40% Steep Slope/ Known Slide Area/ Potential Slide Area) UC (Urban Commercial) Shoreline Environment Steep Slope
Street Classification:	Crockett St. - Unimproved Westlake Ave. N. - Principal Arterial

Development Objectives

The project is a four to six-story building containing approximately 75 residential units (including 15 Multifamily Tax Exemption units) in 3 above-grade structures connected by 2 levels of below grade parking.

Overall building area is approximately 115,000 sq. ft. The intent is to provide residential units in this active and vibrant area directly across from Lake Union and north of SLU. The MFTE units will increase the affordability of the project.

The design incorporates the unique nature of the steep grade to create a series of inviting public, semi-private, and private spaces on different levels throughout the project.

Project Details

Units:	75 +/-
Total GSF:	115,000 sq. ft.
Parking Spaces:	75 - 80

KEY: Zoning

	Lowrise 2
	Lowrise 3
	Commercial 1-40
	Commercial 1-65
	Commercial 2-40
	Neighborhood Commercial 3-40



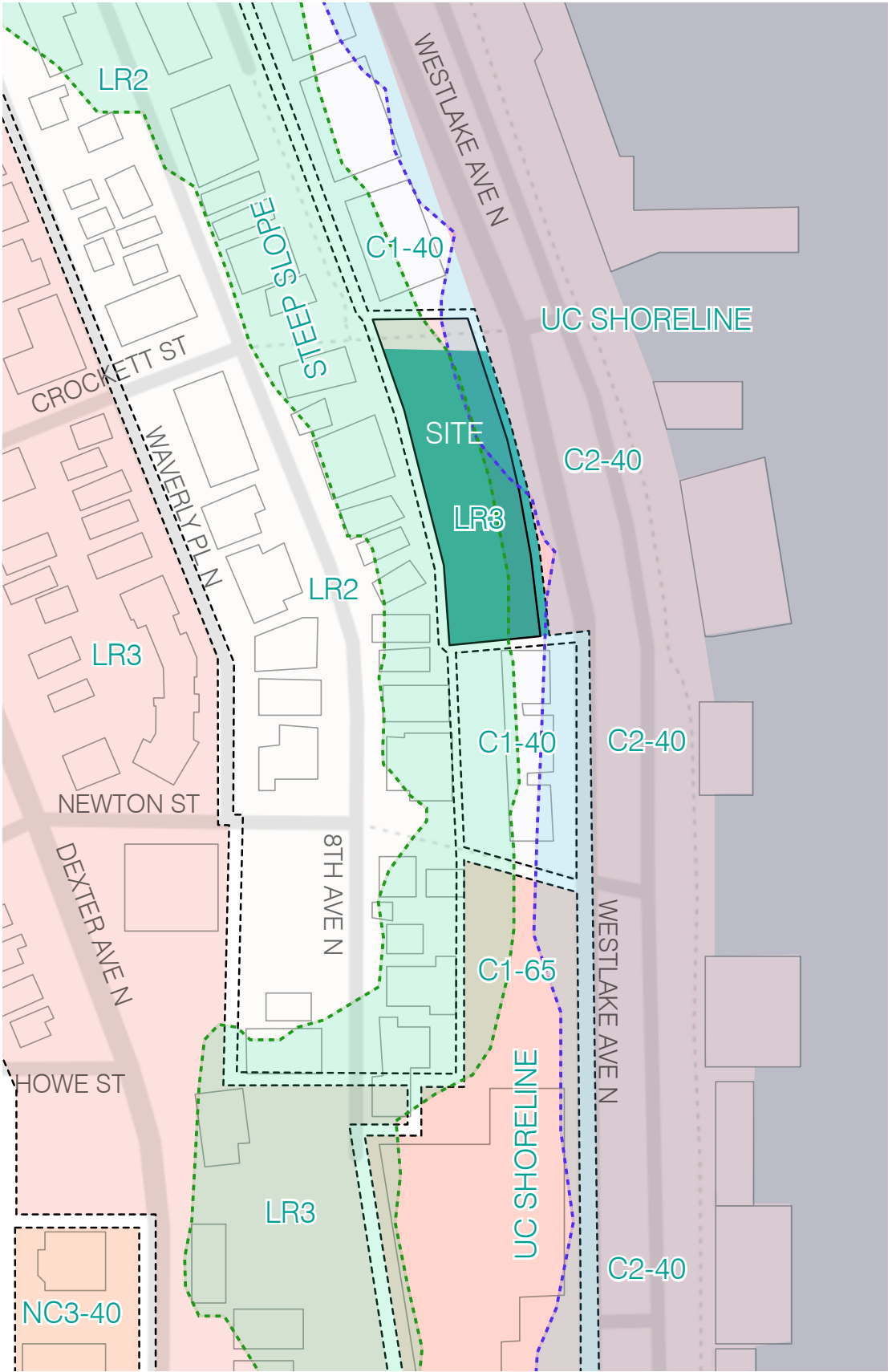
(A) Westlake being graded (circa 1911)



(B) Fremont Bridge (circa 1910)



(C) South Lake Union (circa 1880)



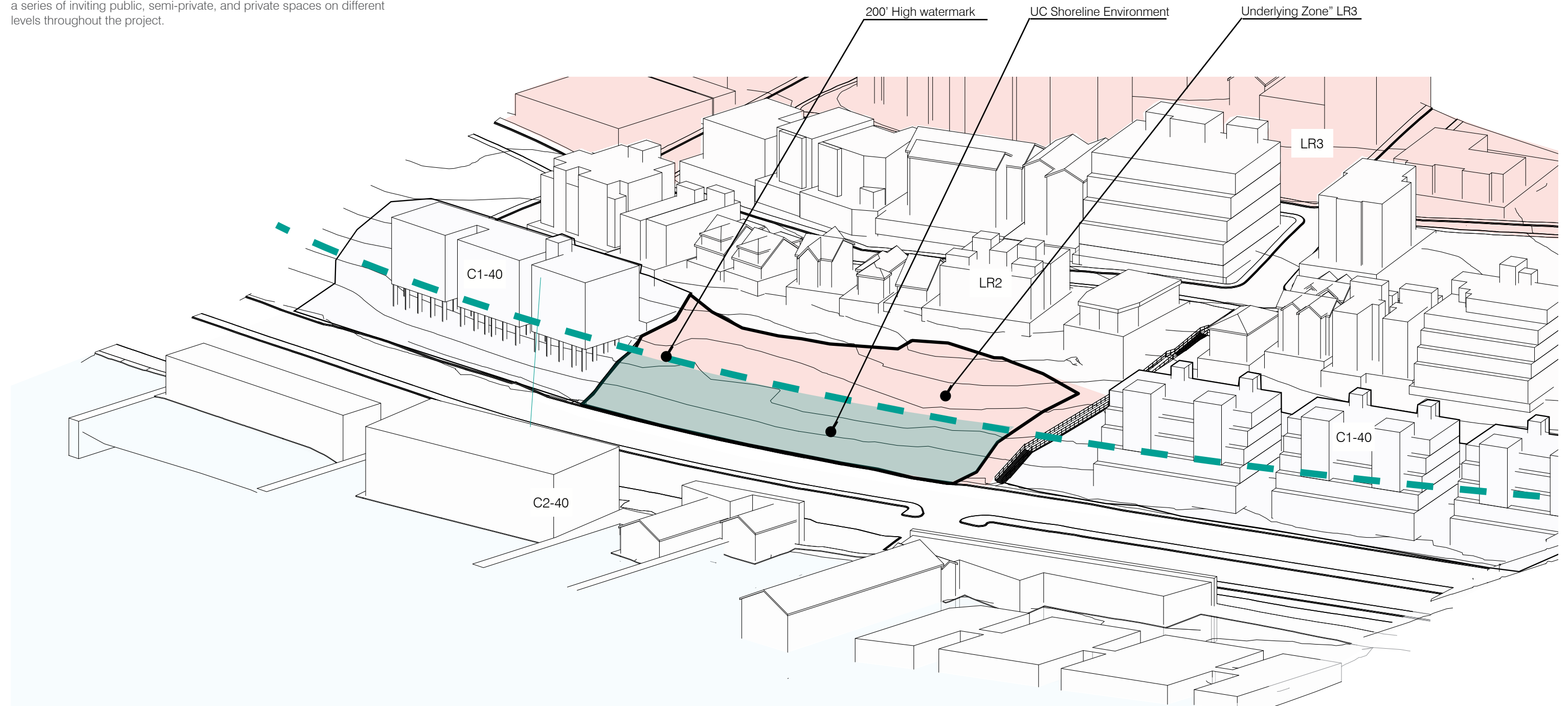
⊕ ZONING MAP

Shoreline District

The project is a four to six-story building containing approximately 75 residential units (including 15 Multifamily Tax Exemption units) in 3 above-grade structures connected by 2 levels of below grade parking.

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The design incorporates the unique nature of the steep grade to create a series of inviting public, semi-private, and private spaces on different levels throughout the project.



Urban Context

The Neighborhood is a mixture of different types of buildings. From Mixed Use and Commercial to residential. it is more residential than the mixed-use development farther South.

Pedestrian Access



(A) Crockett St. Steps (Westlake Ave N to 8th Ave N)



(B) Newton St. Steps (Westlake Ave N to Newton St.)



(C) Galer St. Pedestrian Bridge

KEY: Urban Context

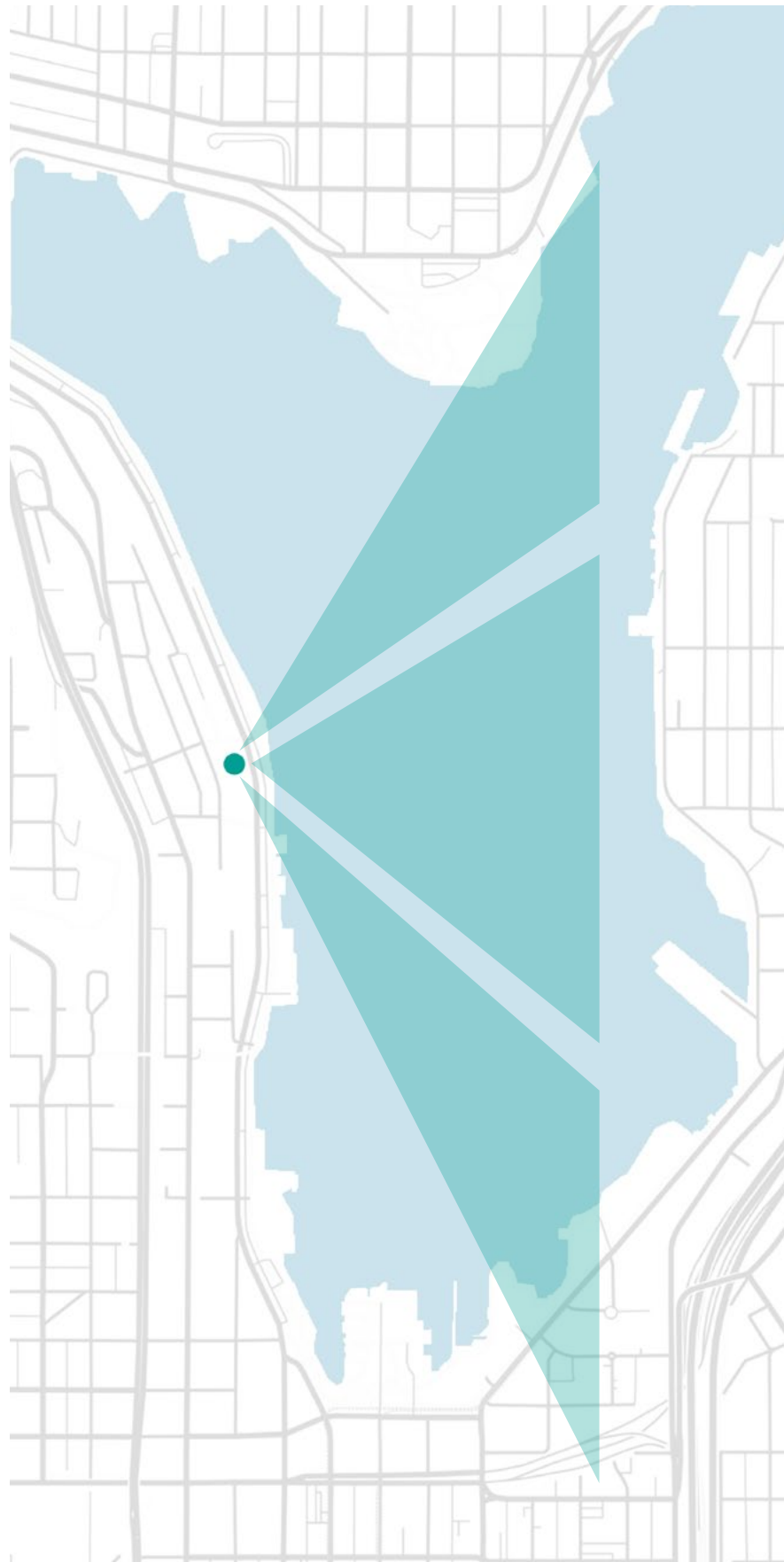
- Single Family Residence
- Multi Family Apartments
- Commercial / Retail
- Other

KEY: SDOT Classification

- Green Space
- Primary Arterial
- Secondary Arterial
- Bus Route
- Bus Stop
- Bike / Pedestrian Route
- Topography (2' Contours)



⊕ LAND USE/ TRANSPORTATION MAP

VIEW TO
GASWORKS

Urban Context

The Neighborhood is a mixture of different types of buildings. From Mixed Use and Commercial to residential. it is more residential than the mixed-use development farther South.

North-East facade (Westlake Ave, N) provides spectacular opportunity to overlook Gasworks Park and Eastlake.

VIEW TO
LAKE UNION

East facade (Westlake Ave, N) creates an opportunity to overlook the beautiful Lake Union, and Capital Hill.

VIEW TO
DOWNTOWN +
S LAKE UNION

This project provides opportunities overlooking vibrant Westlake Ave N, Seattle downtown, docks, and South of lake union.

Places and Buildings of Interest

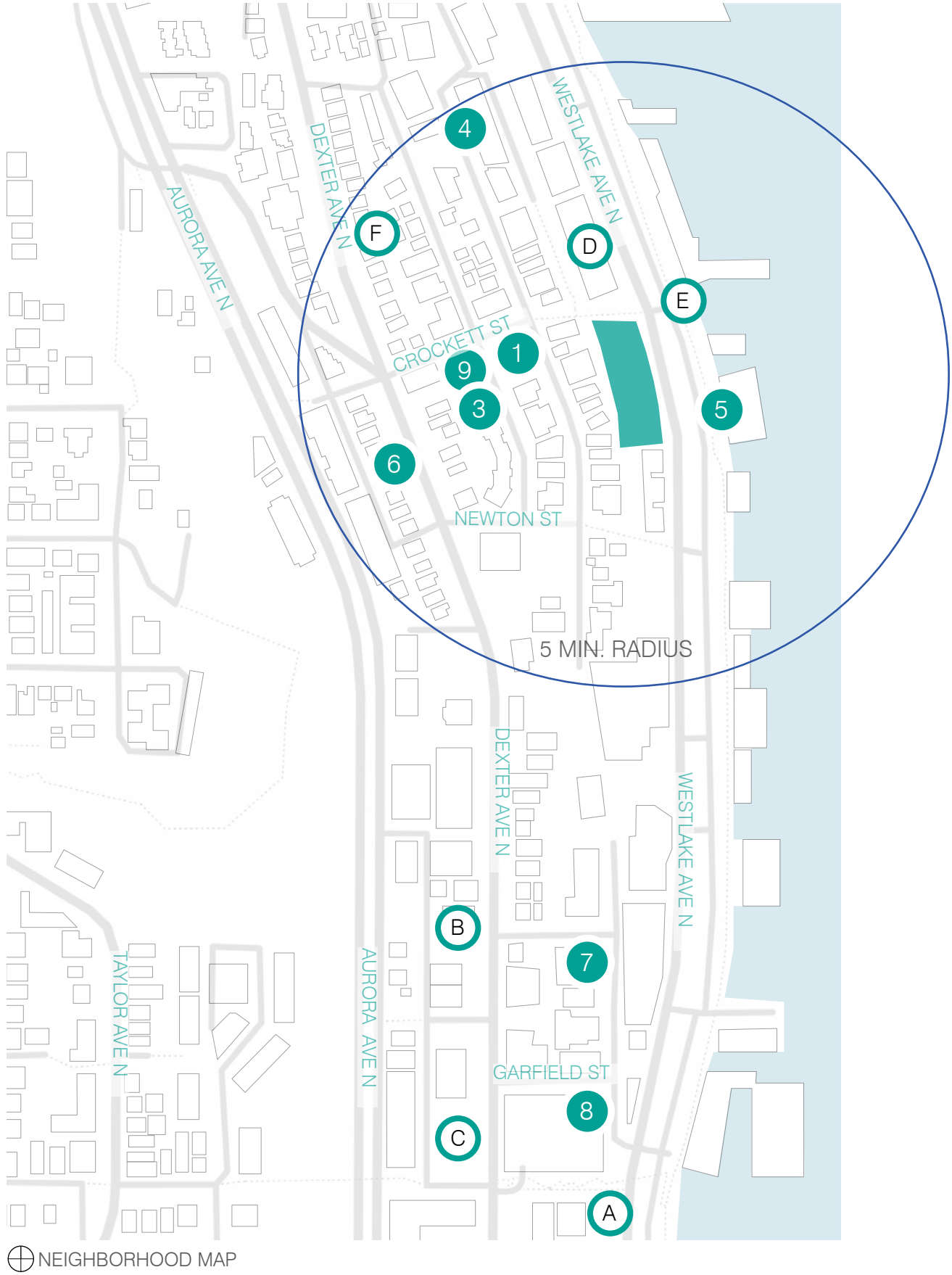
The site is located on Westlake Ave. N. facing Lake Union. To the North, West, and South there are multi-family buildings and some single-family residences. Adjacent buildings along Westlake Ave. N. are residential and have little or no connection to the street. Larger mixed-use buildings are located further South on Westlake Ave. N. and to the West on Dexter Ave. N.

Neighborhood Urban Features

Two of the main neighborhood features are a steep slope down from 8th Ave. N towards Lake Union and a steep slope up from Aurora Ave. towards Queen Anne. Due to the prospective views of Lake Union, most of the residential structures incorporate decks and balconies facing East as a part of their design. The presence of sloped terrain also influences the massing arrangements of the buildings, resulting in designs that include stepping of the structures with the slope. Attention is also given to the spaces in front of the buildings., Landscaping is used to screen the buildings from Westlake Ave. N.; making the adjacent streetscape more aesthetically pleasing to the vehicular traffic and the pedestrian eye.

New Developments, Commercial Spaces, & Residences

- (A) Westlake Steps, 1287 Westlake Ave N
- (B) "N" Habitat Dexter, 1701 Dexter Ave N
- (C) 1511 Dexter Ave N
- (D) 2105 Westlake Ave N
- (E) Jules Landing, 2100 Westlake Ave N
- (F) Private Residence, 2010 5th Ave N



New Development



(A) Westlake Steps - Multi-Family Residence



(B) 1701 Dexter Ave N - Multi-Family Residence



(C) 1511 Dexter Ave N - Multi-Family Residence

Types of Buildings



D 2105 Westlake Ave N - Multi-Family Residence

Treatments

Balconies



1 Balconies - Multi-Family Residence

Front Spaces



4 Front Spaces - Multi-Family Residence

Slope Terrain



7 Slope Terrain - Multi-Family Residence



E Jules Landing - Commercial



2 Balconies - Commercial



5 Front Spaces - Commercial



8 Slope Terrain - Commercial



F Private Residence - Single Family



3 Balconies - Single Family Residence



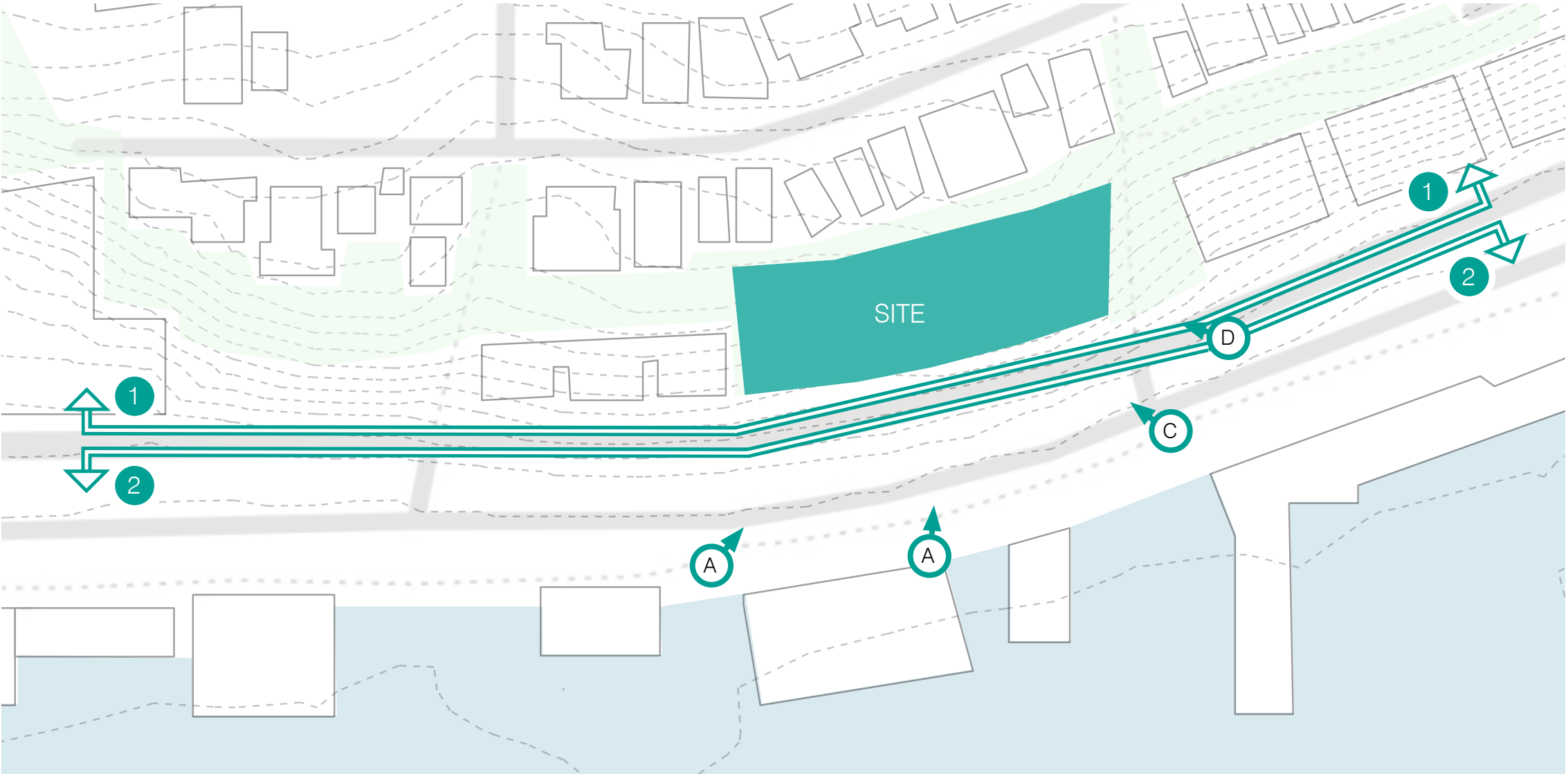
6 Front Spaces - Single Family Residence



9 Slope Terrain - Single Family Residence

Streetscape Context

There is a traffic light and a bus stop at the Northwest corner of the site. The stairs connecting Westlake Ave. N. and 8th Ave. N. are immediately to the North of the Site in the Crockett St. right of way. This is the last pedestrian connection across Westlake Ave. N. until you get to where Dexter Ave. N. intersects Westlake Ave. N., or have minimal connection to the street. Across the street from the site, the buildings are water related and not very tall. An exception is the three story China Harbor restaurant building.



Approximate Zoning Envelope



A Facing Northwest



C Facing Southwest



D Facing South



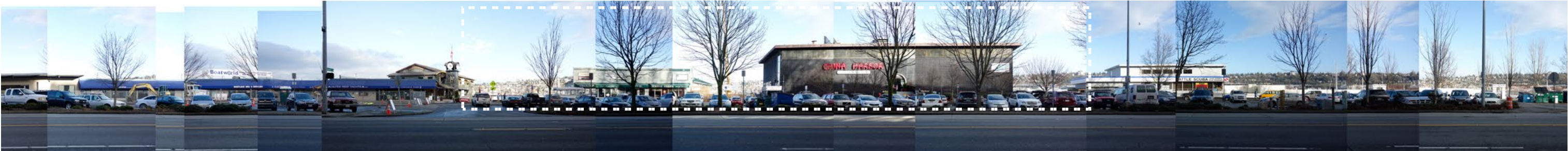
B Facing Northwest

FACING SITE



1 Looking West on Westlake Ave N

ACROSS FROM SITE



2 Looking East on Westlake Ave N



Intentionally Blank

Tree Preservation Plan



Proposed canopy retained	254 sf
Proposed canopy removed	15,898 sf
Total canopy	16,152 sf
CANOPY COVERAGE TOTAL ADJUSTED TO REFLECT CANOPY OVERLAP	
★ exceptional trees, as noted in arborist's report	

An initial Arborist's report for the site was done by Tree Solutions, Inc., Project No. TS-5166, on the 29th of December 2015. Tree Solutions performed an additional tree analysis on 12 February 2016.

When overlaying the existing Exceptional trees upon the proposed site plan, it is clear that trying to retain all Exceptional trees would severely impact the development potential of the site as LR-3.

The project proposes retaining the Grey Poplar tree on the northwest corner of the site, and replacing the other Exceptional trees with large caliper trees on site.



Existing Tree Inventory Chart

Tree ID	Scientific Name	Common Name	DSH (in)	Health Condition	Dripline Radius (ft)	Canopy Coverage (sf)
147	<i>Alnus rubra</i>	Red alder	12.2	Fair	10	314
148	<i>Alnus rubra</i>	Red alder	14	Fair	17	907
149	<i>Alnus rubra</i>	Red alder	10.5	Fair	15	707
150	<i>Alnus rubra</i>	Red alder	9.7	Fair	7	154
151	<i>Alnus rubra</i>	Red alder	9	Fair	8	201
152	<i>Alnus rubra</i>	Red alder	12.2	Fair	8	201
153	<i>Alnus rubra</i>	Red alder	10.2	Fair	10	314
154	<i>Acer macrophyllum</i>	Bigleaf maple	27.9	Fair	22	1520
155	<i>Prunus laurocerasus</i>	English laurel	7	Good	15	707
156	<i>Acer macrophyllum</i>	Bigleaf maple	29.5*	Fair	14	615
157	<i>Acer macrophyllum</i>	Bigleaf maple	19	Good	12	452
158	<i>Acer macrophyllum</i>	Bigleaf maple	18	Fair	11	380
159	<i>Acer macrophyllum</i>	Bigleaf maple	14.4	Poor	10	314
160	<i>Acer macrophyllum</i>	Bigleaf maple	17.9*	Fair	10	314
161	<i>Acer macrophyllum</i>	Bigleaf maple	14	Poor	5	79
162	<i>Acer macrophyllum</i>	Bigleaf maple	18	Poor	5	79
163	<i>Acer macrophyllum</i>	Bigleaf maple	10.7	Good	14	615
164	<i>Acer macrophyllum</i>	Bigleaf maple	14.7	Fair	8	201
★ 165	<i>Acer macrophyllum</i>	Bigleaf maple	33.8	Good	13	531
166	<i>Acer macrophyllum</i>	Bigleaf maple	10.7*	Fair	9	254
167	<i>Acer macrophyllum</i>	Bigleaf maple	10.5	Fair	5	79
168	<i>Acer macrophyllum</i>	Bigleaf maple	12.8	Fair	4	50
169	<i>Acer macrophyllum</i>	Bigleaf maple	19	Fair	10	314
170	<i>Acer macrophyllum</i>	Bigleaf maple	17.5*	Fair	6	113
171	<i>Acer macrophyllum</i>	Bigleaf maple	16.7*	Fair	10	314
172	<i>Acer macrophyllum</i>	Bigleaf maple	9.1*	Fair	10	314
173	<i>Prunus laurocerasus</i>	English laurel	19.3*	Good	17	907
174	<i>Acer macrophyllum</i>	Bigleaf maple	8.6*	Poor	8	201
175	<i>Acer macrophyllum</i>	Bigleaf maple	13.2*	Fair	7	154
176	<i>Acer macrophyllum</i>	Bigleaf maple	14.5*	Fair	10	314
177	<i>Acer macrophyllum</i>	Bigleaf maple	6.7	Good	5	79
★ 178	<i>Acer macrophyllum</i>	Bigleaf maple	31.3	Good	19	1134

Tree ID	Scientific Name	Common Name	DSH (in)	Health Condition	Dripline Radius (ft)	Canopy Coverage (sf)
★ 179	<i>Acer macrophyllum</i>	Bigleaf maple	40.8*	Good	21	1385
180	<i>Acer macrophyllum</i>	Bigleaf maple	21.8	Good	15	707
181	<i>Prunus laurocerasus</i>	English laurel	7.8*	Fair	11	380
182	<i>Acer macrophyllum</i>	Bigleaf maple	28.5*	Good	16	804
183	<i>Acer macrophyllum</i>	Bigleaf maple	14.3	Poor	5	79
184	<i>Acer macrophyllum</i>	Bigleaf maple	6.3	Poor	7	154
185	<i>Acer macrophyllum</i>	Bigleaf maple	23.1*	Fair	13	531
186	<i>Acer macrophyllum</i>	Bigleaf maple	35.7*	Good	19	1134
187	<i>Acer macrophyllum</i>	Bigleaf maple	24.5	Good	10	314
188	<i>Acer macrophyllum</i>	Bigleaf maple	24.2	Good	16	804
189	<i>Acer macrophyllum</i>	Bigleaf maple	8	Poor	9	254
190	<i>Alnus rubra</i>	Red alder	28.3*	Fair	12	452
★ 191	<i>Acer macrophyllum</i>	Bigleaf maple	52.4*	Good	26	2123
192	<i>Alnus rubra</i>	Red alder	17.2	Fair	15	707
★ 193	<i>Acer macrophyllum</i>	Bigleaf maple	36.3*	Fair	20	1256
194	<i>Acer macrophyllum</i>	Bigleaf maple	28.6	Fair	15	707
195	<i>Acer macrophyllum</i>	Bigleaf maple	9	Fair	7	154
196	<i>Acer macrophyllum</i>	Bigleaf maple	14.2	Good	11	380
197	<i>Acer macrophyllum</i>	Bigleaf maple	15.9	Fair	14	615
★ 198	<i>Acer macrophyllum</i>	Bigleaf maple	32	Poor	11	380
★ 199	<i>Acer macrophyllum</i>	Bigleaf maple	37.2	Poor	13	531
★ 200	<i>Acer macrophyllum</i>	Bigleaf maple	39.6*	Fair	19	1134
201	<i>Acer macrophyllum</i>	Bigleaf maple	29	Good	19	1134
202	<i>Alnus rubra</i>	Red alder	9.5	Fair	10	314
203	<i>Alnus rubra</i>	Red alder	10.9	Fair	6	113
204	<i>Alnus rubra</i>	Red alder	15	Fair	14	615
★ 205	<i>Populus x canescens</i>	Grey poplar	30.5	Fair	9	254

This tree inventory chart was created with the information from the two Arborist's Reports by Tree Solutions, Inc. from 29 December 2015 and 12 February 2016.

SEATTLE MUNICIPAL CODE TITLE 23
ZONING (LR-3) | UC Shoreline Environment | Steep Slope ECA

SMC 23.41 Early Project Implementation

004.A APLICABILITY
Design Review Required

LR-3: 8 dwelling units or 4,000 sq. ft.

012. DEVELOPMENT STANDARD DEPARTURES
B. Departures may be granted from any Land Use Code standard or requirement, except for the following: resid. density limits, Floor Area Ratios, max. size of use, structure height, storage of solid waste containers, noise and odor stds., reqs. For streets, alleys, and easements per Chapt. 23.53, definitions, and measurements.

SMC 23.45 Residential Multi-Family (LR-3)

504 PERMITTED AND PROHIBITED USES

Residential Permitted

508 GENERAL PROVISIONS
B. Off street parking shall be provided pursuant to 23.54.015
G. Subject to the transportation concurrency requirements per 23.52

510 FLOOR AREA RATIO (FAR) LIMITS
B. Permitted LR3 FAR: 1.5; 1.6 FAR Permitted per 23.45.510.C
Permitted FAR: 1.5
Permitted FAR: 1.6
C. For higher FAR limit shown in Table A for 23.45.510, the following standards shall be met
1. Green building performance standards
3. Parking enclosed in structure
4. Access to parking
a. BF parking may be from either street/alley
b. Parking access from alley unless 23.45.536.C.2 conditions met
d. Parking from alley and street reverts FAR to 1.5 limi
E. Exempt from FAR Limits
1. All underground stories
4. Portions of a story that extend no more then 4’ above existing or finished grade, whichever is lower, excluding access. See Exhibit 23.45.510
5. Area exempt from FAR
a. avg. ht. not > 1 story
b. roof area flat; used for amenity area
c. 25% of amenity area not enclosed

512 DENSITY LIMITS
A. Minimum lot area per dwelling unit
LR3: 1/800 or No limit if qualified for FAR 2.0 per 23.45.510.C

514 STRUCTURE HEIGHT (LR-3)
A. Base Ht.: 30’ max.
D. Exceptions for pitched roofs limits:
4. Additional 5’ to ridge of pitched roof unless exception 23.45.514.F is not used
E. Shed and Butterfly roofs in LR zones
1. Additional 3’ for shed and butterfly roofs unless exception 23.45.514.F is not used
F. Additional 4’ for projects with partially below grade story
2. 4-stories max above lower floor with other conditions
H. 4’ maximum above height limit for roofs enclosed by parapets
I. Structures w/green roofs (50%) min. may exceed height by 2’
J. Rooftop Features
2. Parapets/railings/clerestories/skylights 4’ above ht.
5. Stair penthouses 15’ above ht.
6. Elevator penthouses 16’ above ht.

518 SETBACKS & SEPARATIONS
A. Front: 5’ min.
Rear: 10’ min. with alley; 15’ min. with no alley
Side: < 40’ façade length; 5’ min.
> 40’ façade length; 7’ avg. and 5’ min.
H. Projections permitted in all required setbacks
1. Roof eaves, etc. – max. 4’ with min. 3’ to property line
3. Bay windows 10’ in width, 2’ depth, min. 5’ to property line
5. Unenclosed porches extend to within 4’ of property line
I. Unenclosed decks and balconies may extend max. 4’, max. 20’ width, min. 5’ to property line; separation ½ width of projection required
J. Structures in required setbacks
2. Barrier free ramps may be in required setbacks
4. Underground structures
6. Signs 6’ or <
7. Fences - max 6’ high; 4’ in front setback; 2’ additional for arbors/trellises
8. Retaining wall – max 6’ high
9. Arbor – max. 40 sf footprint; 30’ sf abutting street
L. Min. upper-level setback from all street lot lines is required
2. For 40’ height limit according to Table A for 23.45.514, 16’ setback above 44’

522 AMENITY AREA
A. Apartments
1. 25% of total lot area required as amenity area
2. 50% of amenity area to be provided at grade unless roof amenity meeting stds, of 23.45.510.E.513 (partially below grade)
4. Apartments - amenity area at ground floor to be common area

D. General Requirements
1. All units shall have access to common or private amenity area
4. a. No min. dimension for private. amenity area; except 10’ from side property line
5. Common amenity area
a. Common amenity area – 250 sf and 10’ min. dimension
b. 50% of ground amenity area landscaped

524 LANDSCAPE STANDARDS
A. Landscaping Standards
2. Green Factor requirement
b. Green Area Factor of 0.6 or greater; vegetated walls – up to 25%
B. Street Tree requirement
1. Street trees are required

527 STRUCTURE WIDTH AND FACADE LENTH LIMITS (LR-3)
A. Structure width
120’ max.
B. Max. façade length
1. 65% lot depth max. length within 15’ of lot line

529 DESIGN STANDARDS
C. Treatment of Street Facades
1. Façade Openings
a. 20% shall consist of windows / doors
2. Façade Articulation
b. If street-facing façade of a structure exceeds 750 sf, division of façade is required
c. Separate façade plane shall have a minimum of 150 sf and max. of 500’

534 LIGHT & GLARE STANDARDS
A. Directed away from adjacent properties

536 PARKING LOCATION, ACCESS, AND SCREENING
A. Off-street parking per Chapter 23.54
C. Access to parking
1. Alley access required except as permitted per 23.45.536 C. and D
D. Screening of parking
3. Screening by façade, garage doors, fence, or wall.

SMC 23.53 Requirements for Streets, Alleys, and Easements

015 IMPROVEMENT REQUIREMENTS FOR EXISTING STREETS IN RESIDENTIAL AND COMMERCIAL ZONES
Street improvements required per SDOT standards

Response: Street Improvements on Crockett St. are not required. The request for exception from the requirements of SMC 23.53.015 and 23.53.006 was granted by SDCI (1/10/2016, SDCI #6516305)

- 030ALLEY IMPROVEMENTS IN ALL ZONES
Alley improvements required per SDOT standards
- 035STRUCTURAL BUILDING OVERHANGS
A.1.8' vertical from sidewalk min.
2.1' horiz, 2'-6" ht., projection for architectural , or decorative features – eaves, etc.
4.Window bays/balconies – 8' above sidewalk, max. 3' horiz. Projection, 50% open area, 15' max. length, 2' separation (see additional specific requirements)

SMC 23.54 Quantity and Design Standards for Off Street Parking

- 015REQUIRED PARKING
A.Min. parking per SLUC 23.54.015,, Tables A and B, except as modified in this section
K.Bicycle parking required at 1 stall per 4 units for multi-family structures'

Table B, PARKING FOR RESIDENTIAL USES:
1 space for 2 small efficiency dwelling units (SEDU)

Table E, PARKING FOR BICYCLES:

General Sales and Services and Eating and Drinking Establishments – 1/12,000 sf long term, 1 /4,000 sf short term; Multi-family – 1 /4 units

Response:
Parking: 1 per dwelling unit
Bicycle: 1 per 4 units

- 020PARKING QUANTITY EXCEPTIONS
F.2.Transit Reduction
a. Transit reduction of up to 50%
- 030PARKING SPACE STANDARDS
B.1Residential Uses
a. Min. 60% medium vehicles
- 040SOLID WASTE AND RECYCLABLE MATERIALS STORAGE AND ACCESS
A.Table A – 51-100 units – 375 sf plus 4 sf for each additional unit above 50

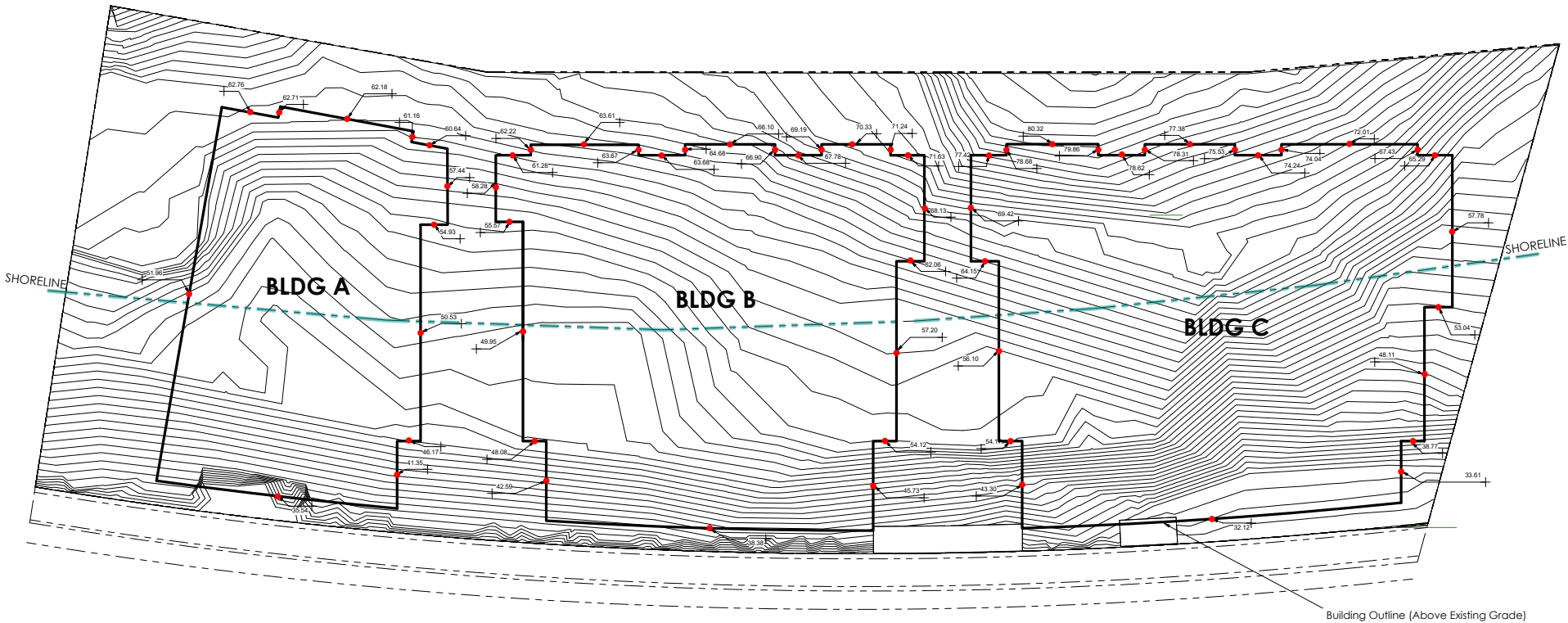
Response:
Solid waste will be picked up off Westlake.
The garbage | recycle room will be approximately sized per SLUC

SMC 23.60A Seattle Shoreline Master Permit Regulations

0162. The height limit for a structure in the Shoreline District is the lower of the height limits provided in the shoreline environment, the underlying zone, or overlay district, except in the Urban Harborfront (UH) Environment, where the shoreline height limit controls.

- 020PERMITS AND EXEMPTIONS
A.1. Permit required unless exempted by Director
2. Substantial development means any development for which total cost exceeds \$6,146 adjusted by RCW 90.58.030(3)(e)
- 022APPLICATION WHEN DEVELOPMENT PARTLY OUT OF SHORELINE DISTRICT
A. 23.60a applies only to part of development in Shoreline
B. Shoreline Master Permit required for entire development
C. Use, development standards and measurements for portion outside shoreline are governed by underlying zone
- 062PROCEDURES ... FOR OBTAINING EXEMPTIONS...:
- 063PROCEDURES ... FOR OBTAINING VARIANCES...:
- 152GENERAL DEVELOPMENT
Applies to all developments in shoreline environment
- 156STANDARDS FOR ENVIRONMENTALLY CRITICAL AREAS IN THE SHORELINE DISTRICT
Development standards for steep slopes in Shoreline District

- 383USES ALLOWED ON UPLAND LOTS IN THE UC ENVIRONMENT
Table A K.4 Multifamily residences permitted
- 386HEIGHT IN THE UC ENVIRONMENT
- 388LOT COVERAGE IN THE UC ENVIRONMENT
- 390SHORELINE SETBACKS IN THE UC ENVIRONMENT
- 394VIEW CORRIDORS IN THE UC ENVIRONMENT
- 952HEIGHT
Height of structures shall be determined by measuring from the average grade of the lot immediately prior to the proposed development to the highest point of the structure not otherwise excepted from the height limits. Calculation of the average grade level shall be made by averaging the elevations at the center of all exterior walls of the proposed building or structure.



Average Grade Calculations:

BLDG A: (35.54+51.96+62.76+62.71+62.18+61.16+60.64+57.44+54.93+50.53+46.17+41.35)/12 = 646.37/12 = **53.95 ft**

BLDG B: (38.38+42.59+48.08+49.95+55.57+58.28+61.28+62.22+63.61+63.67+63.68+64.68+66.1+66.9+67.78+69.19+70.33+71.24+71.63+68.13+62.06+57.2+54.12+45.73)/24 = 1442.41/24 = **60.1 ft**

BLDG C: (32.12+43.3+54.17+56.1+64.15+69.42+77.42+78.68+80.32+79.86+78.62+78.31+77.38+75.53+74.24+74.04+72.01+67.43+65.29+57.78+53.04+48.11+38.77)/24 = 1529.7/24 = **63.74 ft**

Max Height Calculations (based on 23.60A.016) :

BLDG A: 53.95 ft + 30 ft = **83.95 ft**

BLDG B: 60.1 ft + 30 ft = **90.1 ft**

BLDG C: 63.74 ft + 30 ft = **93.74 ft**

Avg Grade and Height Limit
Measurement for Preferred Alt

Design Guidelines:

The project is located to the North of the South Lake Union Urban Center and to the South of the Fremont Urban Village. The following guidelines are from the 2014 Seattle Design Guidelines. Initial responses are provided based on preferred Alt. 3

CS-1 NATURAL SYSTEMS AND SITE FEATURES

CS-1: NATURAL SYSTEMS AND SITE FEATURES:

Use natural systems/features of the site and its surroundings as a starting point for project design

- A. Energy Use
 - A-1. Energy Choices:
- B. Sunlight and Natural Ventilation
 - B-1. Sun and Wind:
 - B-2. Daylight and Shading:
 - B-3. Managing Solar Gain:

Response:
The 'buildings' on the site are set back from each other in the East-West direction. This allows the natural wind coming up from Lake Union to ventilate and cool the units in the summer. This orientation also allows morning and afternoon sun to penetrate the site. New trees along the west property line and street trees on Westlake Ave. N. will shade the project. Queen Anne Hill also shades the project from the West. Space between the 'buildings' along Westlake will allow planting and site features.

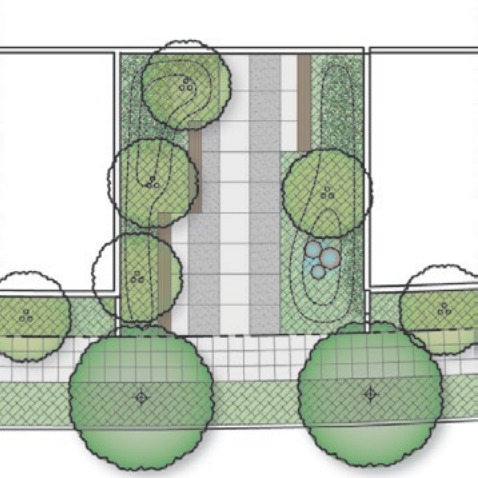
- C. Topography
 - C-1. Land Form:
Use natural topography and desirable landforms to inform project design.
 - C-2. Elevation Changes:
Use the existing site topography when locating structures and open spaces on the site.

Response:
The existing site topography is a major influence on the project design. The project steps down the hill.

- D. Plants and Habitat
 - D-1. On-Site Features:
Incorporate on-site natural habitats and landscape elements and connect those features to existing networks of open spaces and natural habitats wherever possible.
 - D-2. Off-Site Features:



CS-2/CS-3: Massing similar to projects to North & South



CS-2/PL-1: Residential entry at Westlake



CS-1: Steep slope at NE corner of site

- E. Water
 - E-1. Natural Water Features:
 - E-2. Adding Interest with Project Drainage:
- Response:
There are opportunities between the 'buildings' for rain gardens, or water features.

CS-2 URBAN PATTERN AND FORM

CS-2: URBAN PATTERN AND FORM:

Strengthen the most desirable forms, characteristics and patterns of the streets, block faces, and open spaces in the surrounding area

- A. Location in the City and Neighborhood
 - A-1. Sense of Place:
Emphasize attributes that give a distinctive sense of place. Design the building and open spaces to enhance areas where a strong identity already exists, and create a sense of place where the physical context is less established.
 - A-2. Architectural Presence:
- B. Adjacent Sites, Streets, and Open Spaces
 - B-2. Connection to the Street:
Identify opportunities for the project to make a strong connection to the street and public realm.
 - B-3. Character of Open Space:
- C. Relationship to the Block
 - C-1. Corner Sites:
 - C-2. Mid-Block Sites:

- C-3. Full Block Sites:
Break up long facades of full-block buildings to avoid a monolithic presence
- D. Height, Bulk, and Scale
 - D-1. Existing Development and Zoning:
 - D-2. Existing Site Features:
 - D-3. Zone Transitions:
 - D-4. Massing Choices:
 - D-5. Respect for Adjacent Sites:
Respect adjacent properties with design and site

Response:
The project is located on a steeply sloping site separated from Lake Union by Westlake Ave N. At the site's northern property line there is a pedestrian connection from Westlake Ave. N. to 8th Ave. N. At the same location there's a bus stop, stop light and crosswalk. Similarly sited multifamily projects to the North and South have very little meaningful connection to the sidewalk. We're proposing a major pedestrian entry off Westlake that would tie the project to the street, the crosswalk and the pathway. The height bulk and scale and massing break-up is similar to the projects to the north and south.



CS-1: Stepped building on a sloped site

CS-3 ARCHITECTURAL CONTEXT AND CHARACTER

CS-3: ARCHITECTURAL CONTEXT AND CHARACTER:

Contribute to the architectural character of the neighborhood

- A. Emphasizing Positive Neighborhood Attributes
 - A-1. Fitting Old and New Together:
Create compatibility between new projects, and existing architectural context, including historic and modern designs, through building articulation, scale and proportion, roof forms, detailing, fenestration, and/or the use of complementary materials.
 - A-2. Contemporary Design:
Explore how contemporary designs can contribute to the development of attractive new forms and architectural styles; as expressed through the use of new materials or other means.
 - A-3. Established Neighborhoods:
In existing neighborhoods with a well-defined architectural character, site and design new structures to complement or be compatible with the architectural style and siting patterns of neighborhood buildings.
 - A-4. Evolving Neighborhoods:
 - B. Local History and Culture
 - B-1. Placemaking:
Explore the history of the site and neighborhood as a potential placemaking opportunity.
 - B-2. Historical / Cultural References:
Reuse existing structures on the site where feasible as a means of incorporating historical or cultural elements into the new project.

Response:
To the north and south of the project there are multifamily projects located on the hillside. They either step up the hill, or, are located on columns above the street. This design is broken up into three masses that break down the scale of the project. Stepping, modulation, bays, decks, and other design elements will further articulate the facades.

PL-1 CONNECTIVITY

PL-1: CONNECTIVITY:

Complement and contribute to the network of open spaces around the site and the connections among them

- A. Network of Open Spaces
 - A-1. Enhancing Open Space:
Design the building and open spaces to positively contribute to a broader network of open spaces throughout the neighborhood.
 - A-2. Adding to Public Life:
Seek opportunities to foster human interaction through an increase in the size and quality of project-related open space available for public life.
- B. Walkways and Connections
 - B-1. Pedestrian Infrastructure:
Connect on-site pedestrian walkways with existing public and private pedestrian infrastructure, thereby supporting pedestrian connections within and outside the project
 - B-2. Pedestrian Volumes:
Provide ample space for pedestrian flow and circulation
 - B-3. Pedestrian Amenities:
Opportunities for creating lively, pedestrian oriented open spaces to enliven the area and attract interest and interaction with the site and building should be considered
- C. Outdoor Uses and Activities
 - C-1. Selecting Activity Areas:
Concentrate activity areas in places with sunny exposure, views across spaces, and in direct line with pedestrian routes.
 - C-2. Informal Community Uses:
 - C-3. Year-Round Activity:

Response:
The breaks between the buildings and the pedestrian entry will allow views into the project and connect the project to the street.



DC-2: Retaining wall at sidewalk

PL-2 WALKABILITY

PL-2: WALKABILITY:

Create a safe and comfortable walking environment that is easy to navigate and well connected to existing pedestrian walkways and features

- A. Accessibility
 - A-1. Access for All:
 - A-2. Access Challenges:
- B. Safety and Security
 - B-1. Eyes on the Street:
Create a safe environment by providing lines of sight and encouraging natural surveillance.
 - B-2. Lighting for Safety:
Provide lighting at sufficient lumen intensities and scales, including pathway illumination, pedestrian and entry lighting, and/or security lights.
- B-3. Street-Level Transparency:
- C. Weather Protection
 - C-1. Locations and Coverage:
 - C-2. Design Integration:
 - C-3. People-Friendly Spaces:
- D. Wayfinding
 - D-1. Design as Wayfinding:

Response:
Generally, pedestrian activity along Westlake Ave. N. to the north, all of the way to the Fremont Bridge, is very minimal. To the south, it is also minimal until Newton St. Most pedestrian activity is at the crosswalk, bus stop, and path to 8th Ave. N. adjacent to the site. Nearby multifamily projects have minimal connection to the sidewalk. Lighting, the wider main entry, and overlooking units will enhance the security and safety of the sidewalk and the pathway on Crockett.



PL-3: Westlake bicycle path



PL-4: Bus stop, Crockett St stairs, & pedestrian activated signal and crosswalk at NE corner of site

PL-3 STREET LEVEL INTERACTION

PL-3: STREET LEVEL INTERACTION:

Encourage human interaction and activity at the street level with clear connections to building entries and edges

- A. Entries
 - A-1. Design Objectives:
 - A-2. Ensemble of Elements:

Design the entry as a collection of coordinated elements including the door(s), overhead features, ground surface, landscaping, lighting, and other features.
- B. Residential Edges
 - B-1. Security and Privacy:
 - B-2. Ground-level Residential:
 - B-3. Buildings with Live / Work Uses:
 - B-4. Interaction:
- C. Retail Edges
 - C-1. Porous Edge:
 - C-2. Visibility:
 - C-3. Ancillary Activities:

Response
The building will have an entrance that will be clearly identified with landscaping, canopies, and lighting. There will be no residential units on the ground level. The space in front of the building will be landscaped and serve as a transition zone from the public to private zone.

PL-4 ACTIVE TRANSPORTATION

PL-4: ACTIVE TRANSPORTATION:

Incorporate design features that facilitate active forms of transportation such as walking, bicycling, and use of transit

- A. Entry Locations and Relationships
 - A-1. Serving all Modes of Travel:
 - A-2. Connections to All Modes:

Site the primary entry in a location that logically relates to building uses and clearly connects all major points of access.
- B. Planning Ahead for Bicyclists
 - B-1. Early Planning:
 - B-2. Bike Facilities:
 - B-3. Bike Connections:
- C. Planning Ahead for Transit
 - C-1. Influence on Project Design:
 - C-2. On-site Transit Stops:
 - C-3. Transit Connections:

Response
The main entrance to the building will be located off Westlake Ave. N. towards the center of the project. Westlake Ave. N. serves as a main arterial and has transit service. The new Westlake Bike and Pedestrian path is located across Westlake on the Lake Union side. Access to the project's bicycle storage will be off the main entry.

DC-1 PROJECT USES AND ACTIVITIES

DC-1: PROJECT USES AND ACTIVITIES

Optimize the arrangement of uses and activities on site

- A. Arrangement of Interior Uses
 - A-1. Visibility:

Locate uses and services frequently used by the public in visible/prominent areas, such as entries/along the street front.
 - A-2. Gathering Places:
 - A-3. Flexibility:
 - A-4. Views and Connections:
- B. Vehicular Access and Circulation
 - B-1. Access Location and Design:
 - B-2. Facilities for Alternative Transportation:
- C. Parking and Service Uses
 - C-1. Below-Grade Parking:
 - C-2. Visual Impacts:
 - C-3. Multiple Uses:
 - C-4. Service Uses:

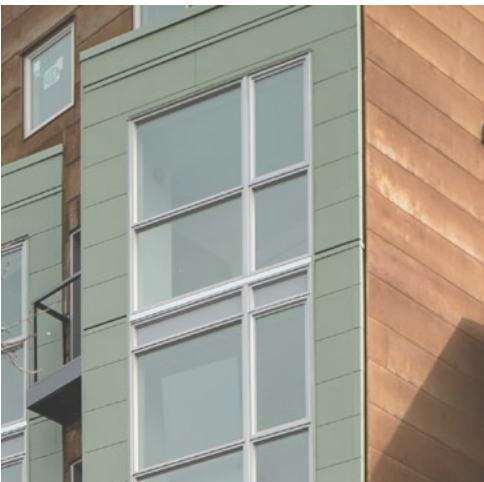
Response:
The landscaped main entry in front serves as the primary residential entry. The parking garage entrances will be off the same street and located to the north and south of the main entry. Services, such as recycling and garbage will be from the north garage door



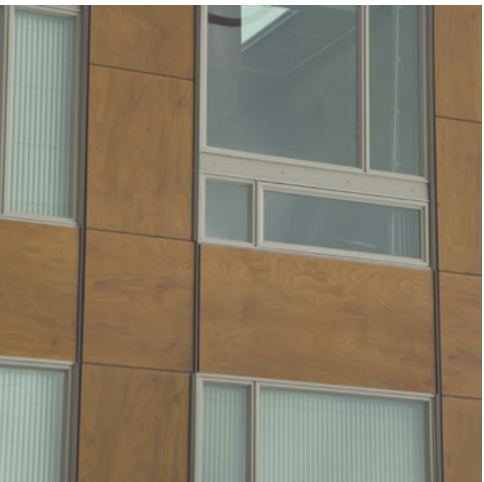
DC-4: Wood siding/vinyl window with FCP spandrel



DC-4: Vinyl window with glass spandrel



DC-4: Vinyl window with glass spandrel/ rusted metal and FCP siding



DC-4: Wood siding/vinyl window



DC-4: Aluminum/glass guardrails

DC-2 ARCHITECTURAL CONCEPT

DC-2: ARCHITECTURAL CONCEPT:

Develop an architectural concept that will result in a unified and functional design that fits well on the site and within its surroundings

- A. Massing
 - A-1. Site Characteristics and Uses:
 - A-2. Reducing Perceived Mass:
 - Use secondary architectural elements to reduce the perceived mass of larger projects.
- B. Architectural and Facade Composition
 - B-1. Façade Composition:
 - Design all building facades—including alleys and visible roofs—considering the composition and architectural expression of the building as a whole. Ensure that all facades are attractive and well-proportioned.
 - B-2. Blank Walls:
- C. Secondary Architectural Features
 - C-1. Visual Depth and Interest:
 - C-2. Dual Purpose Elements:
 - C-3. Fit With Neighboring Buildings:
- D. Scale and Texture
 - D-1. Human Scale:
 - D-2. Texture:
 - Design the character of the building, as expressed in the form, scale, and materials, to strive for a fine-grained scale, or “texture,” particularly at the street level and other areas where pedestrians predominate.
- E. Form and Function
 - E-1. Legibility and Flexibility:
 - Strive for a balance between building legibility and flexibility

Response:
The building design is broken down to reduce the perceived mass. The building design strategically uses decks, recessed and protruding elements, flat and sloped roofs. The design parti will be consistent on all sides of the building.

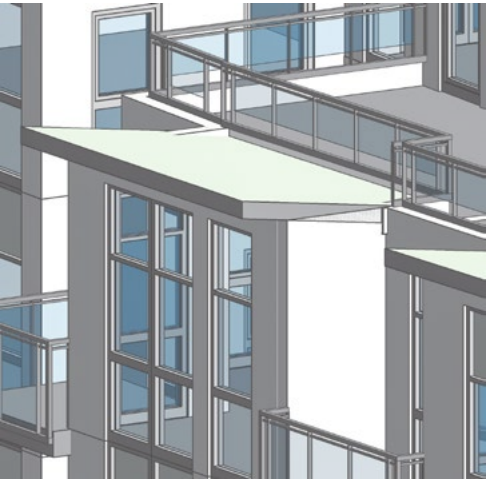
DC-3 OPEN SPACE CONCEPT

DC-3: OPEN SPACE CONCEPT:

Integrate open space design with the building design so that each compliments the other.

- A. Building - Open Space Relationship
 - A-1. Interior / Exterior Fit:
 - B. Open Space Uses and Activities
 - B-1. Meeting User Needs:
 - Plan the size, uses, activities and features of each open space to meet the needs of expected users, ensuring each space has a purpose and function.
 - B-2. Matching Uses to Conditions:
 - B-3. Connections to Other Open Space:
 - Site and design project-related open spaces to connect with, or enhance, the uses and activities of other nearby public open space where appropriate.
 - B-4. Multi-family Open Space:
 - C Design
 - C-1. Reinforce Existing Open Space:
 - Where a strong open space concept exists in the neighborhood, reinforce existing character and patterns of street tree planting, buffers or treatment of topographic changes. Where no strong patterns exist, initiate a strong open space concept that other projects can build upon in the future.
 - C-2. Amenities and Features:
 - C-3. Support Natural Ares:

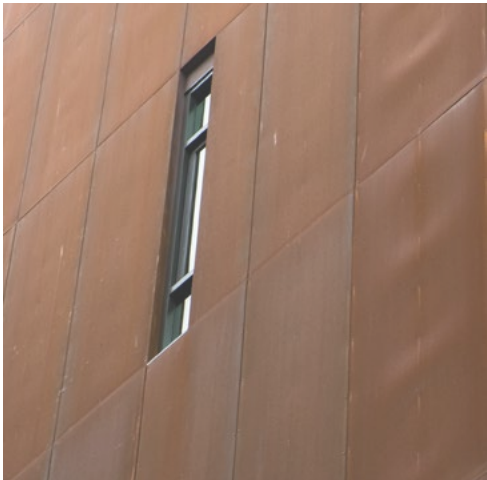
Response:
Each 'building' will have it's own common amenity area offering social interaction and private relaxation for the tenants. Landscaping around the perimeter of the project and at the entry will screen the base of the project and transition from public to semi-private space. Planting at ground level will primarily be in native soil, not planters, allowing more extensive landscaping.



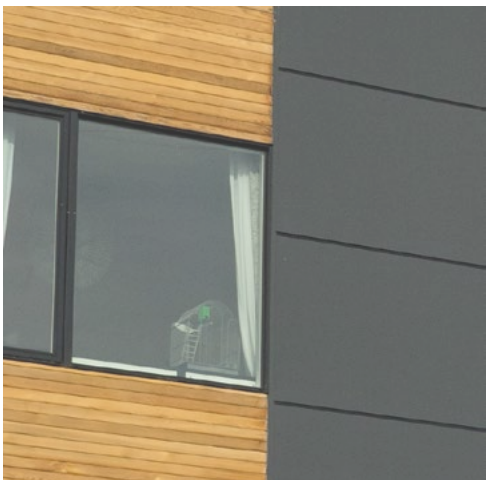
DC-4: Pitched roofs and taller windows



DC-4: Pitched and flat roof



DC-4: Rusted metal siding



DC-4: Fiber Cement panel/wood accent siding



DC-4: Wood accent siding/vinyl windows

DC-4 EXTERIOR ELEMENTS AND FINISHES

DC-4: EXTERIOR MATERIALS AND FINISHES:

Use appropriate and high quality elements and finishes for the building and its open spaces.

- A. Building Materials
 - A-1. Exterior Finish Materials:

Building exteriors should be constructed of durable and maintainable materials that are attractive even when viewed up close. Materials that have texture, pattern, or lend themselves to a high quality of detailing are encouraged.
 - A-2. Climate Appropriateness:

Select durable and attractive materials that will age well in Seattle's climate, taking special care to detail corners, edge, and transitions
- B. Signage
 - B-1. Scale and Charcter:
 - B-2. Coordination With Project Design:
- C. Lighting
 - C-1. Functions:
 - C-2. Avoiding Glare:
- D. Trees, Landscape, and Hardscape Materials
 - D-1. Choice of Plant Materials:

Reinforce the overall architectural and open space design concepts through the selection of landscape materials.
 - D-2. Hardscape Materials:

Use exterior courtyards, plazas, and other hard surfaces areas as an opportunity to add color, texture, and/or pattern
 - D-3. Long Range Planning:

Select plants that upon maturity will be of appropriate size, scale and shape to contribute to the site as intended
 - D-4. Place Making:

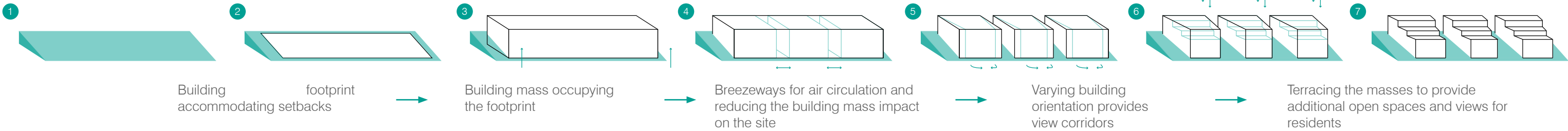
Create a landscape plan that helps define spaces with significant elements such as trees

- E. Project Assembly and Lifespan
 - E-1. Deconstruction:

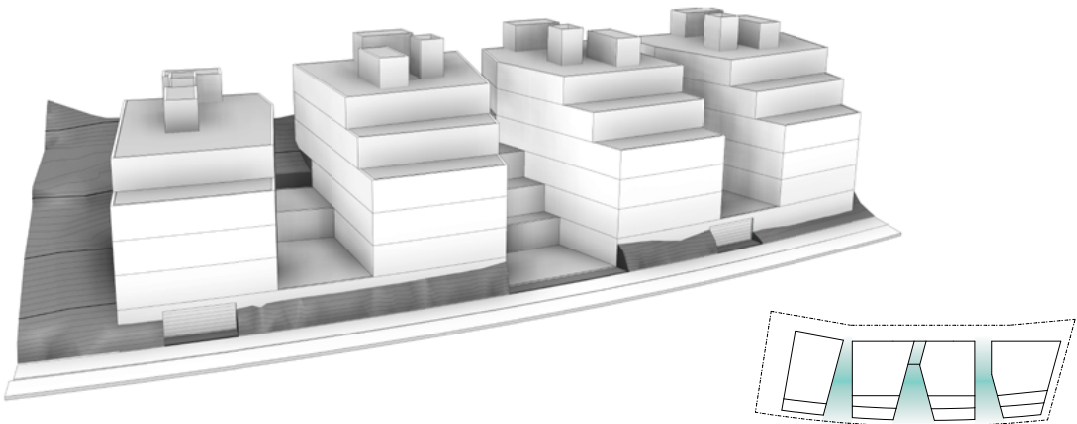
Response:
Exterior finish materials will be chosen for their fit into the contemporary design of the project. The predominate exterior materials would be fiber cement panels. Materials will be durable and of high quality. Color, texture, and pattern will be consistent with the intended design. A building sign will be incorporated into the design.



Volume Exploration:



All Alternatives: Summary



Alternative 1 - Four Towers / Unconventional Geometries

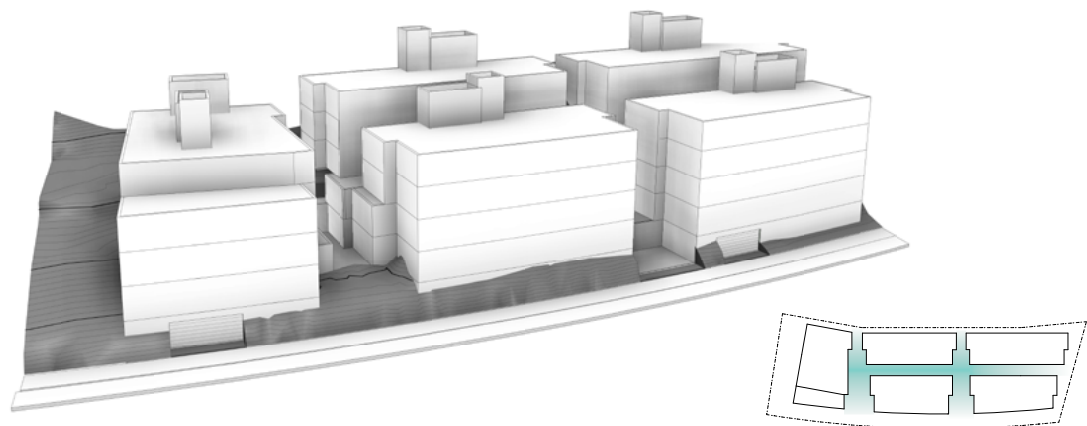
Basement & 6 stories + Roof Amenity	
Unit Count	76
Total Floor Area	93,274 sf
Total Parking Area	29,596 sf
Total Residential Floor Area	53,836 sf
FAR Proposed	1.60
FAR allowed	1.60
Amenity Area Provided	7,000 sf
Amenity Area Required	2,278 sf

Pros:

- Lots of terrace spaces in between buildings
- Unconventional mass orientation
- Wider view corridors towards the lake
- Private terraces for units on top levels

Cons:

- Big portion of the wall on L1 is facing the street makes for unfriendly pedestrian experience
- More units facing each other - minimized privacy
- Smaller rooftop amenities
- Increased number of stair and elevator shafts block more views to the neighbors to the east
- Requires departures (building width max 120')



Alternative 2 - Five Towers / Horizontal Split

Basement & 6 stories + Roof Amenity	
Unit Count	76
Total Floor Area	93,808 sf
Total Parking Area	29,542 sf
Total Residential Floor Area	46,950 sf
FAR Proposed	1.58
FAR allowed	1.60
Amenity Area Provided	6,252 sf
Amenity Area Required	2,348 sf

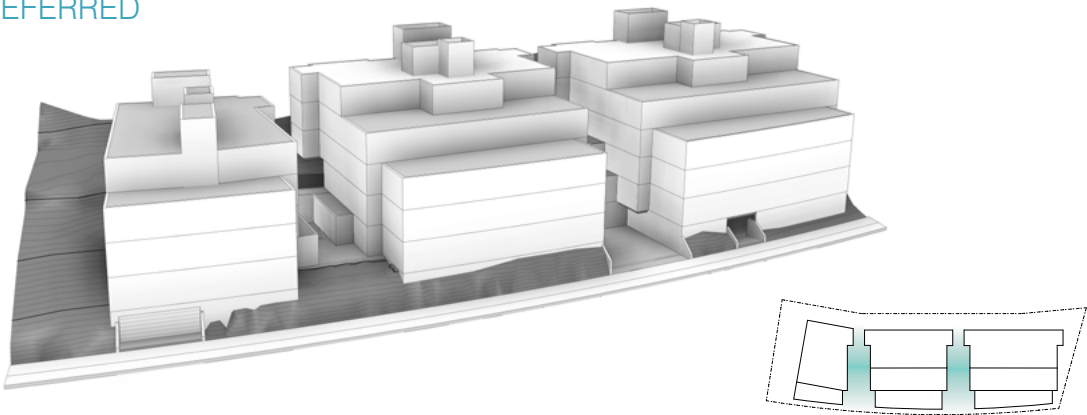
Pros:

- Axial corridor allows for accessibility to Crockett Stair
- Opportunity for providing double height units with 'townhouse' feeling
- More opportunities for greenscaping due to the void spaces

Cons:

- Back units don't have a view of the lake
- No large private terraces for the units
- Smaller rooftop amenities
- Less privacy for back units (Buildings face each other)
- Requires departures (> 120' width to accommodate the breezeway corridor)

PREFERRED



Alternative 3 - Three Cascading Towers (Code Compliant)

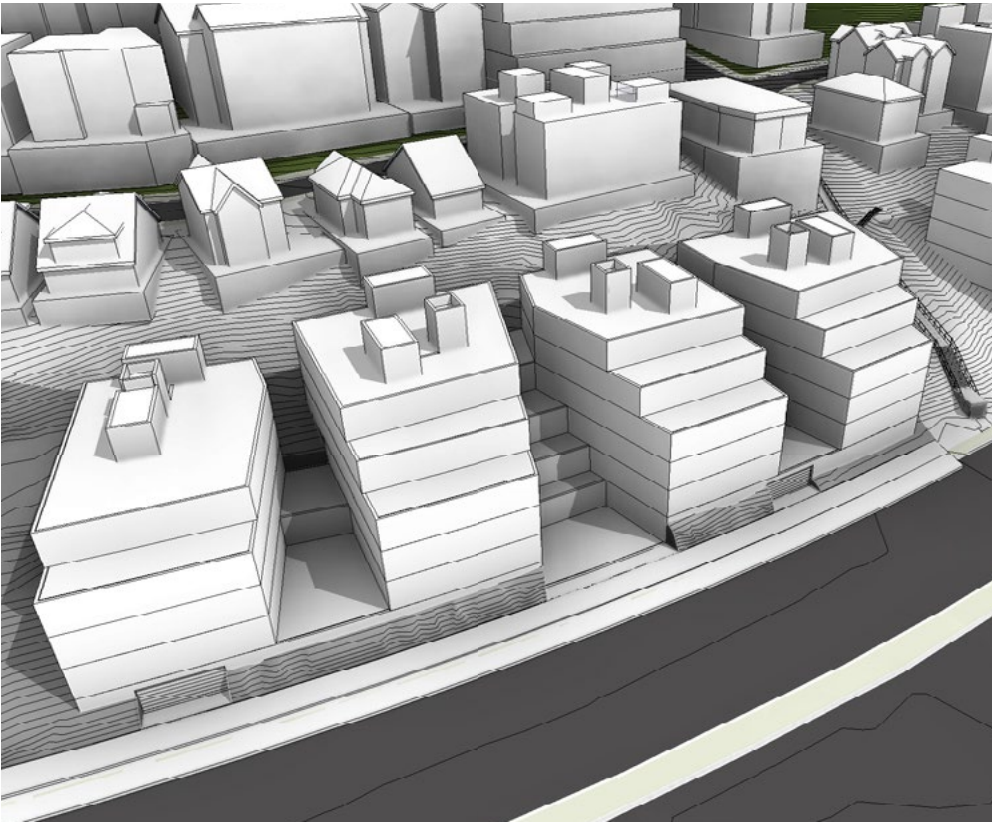
Basement & 6 stories + Roof Amenity	
Unit Count	77
Total Floor Area	93,003 sf
Total Parking Area	30,050 sf
Total Residential Floor Area	53,807 sf
FAR Proposed	1.60
FAR allowed	1.60
Amenity Area Provided	6,487 sf
Amenity Area Required	2,307 sf

Pros:

- Wider facades allow for more units to face the lake and not each other - more privacy
- Large rooftop amenities for residents
- Large private terraces for units on top levels
- Stepping inward towards the front allows for more straight on views on the lake for back units

Cons:

- Less available ground space for greenscaping due to smaller number of breaks between buildings
- no departures required



Alternative 1 - Four Towers / Unconventional Geometries

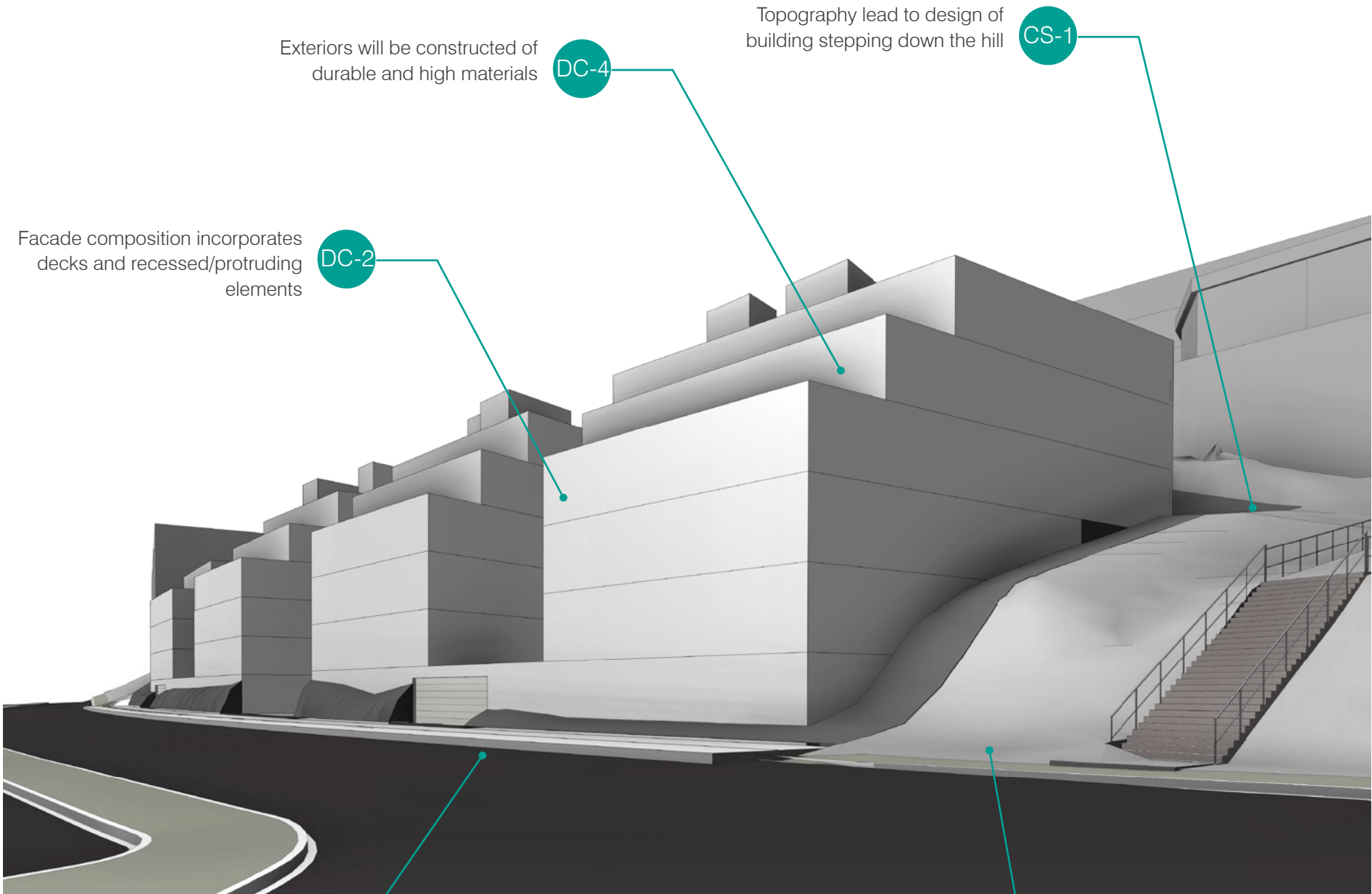
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- Unconventional mass orientation
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- Private terraces for units on top levels

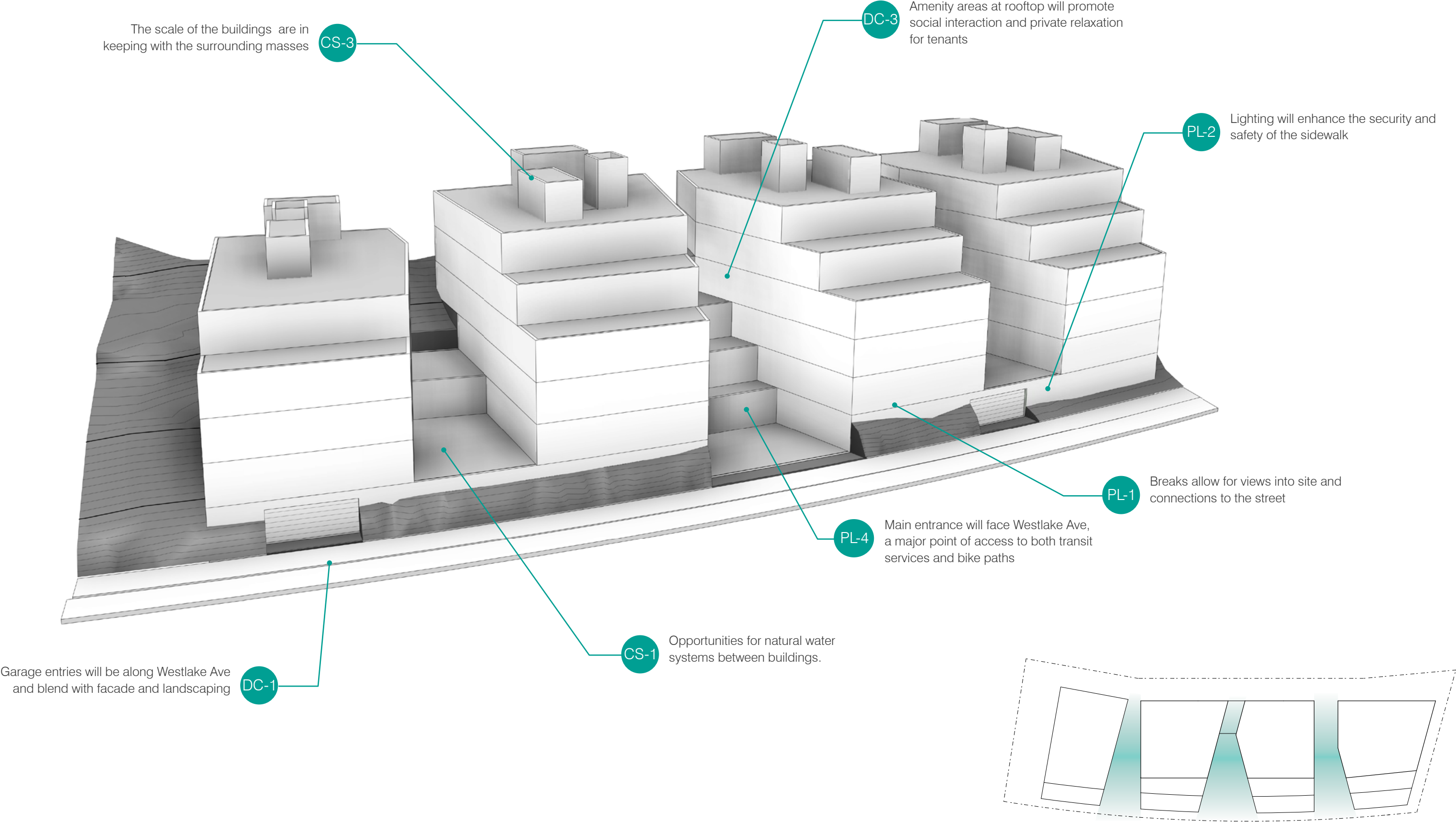
Cons:

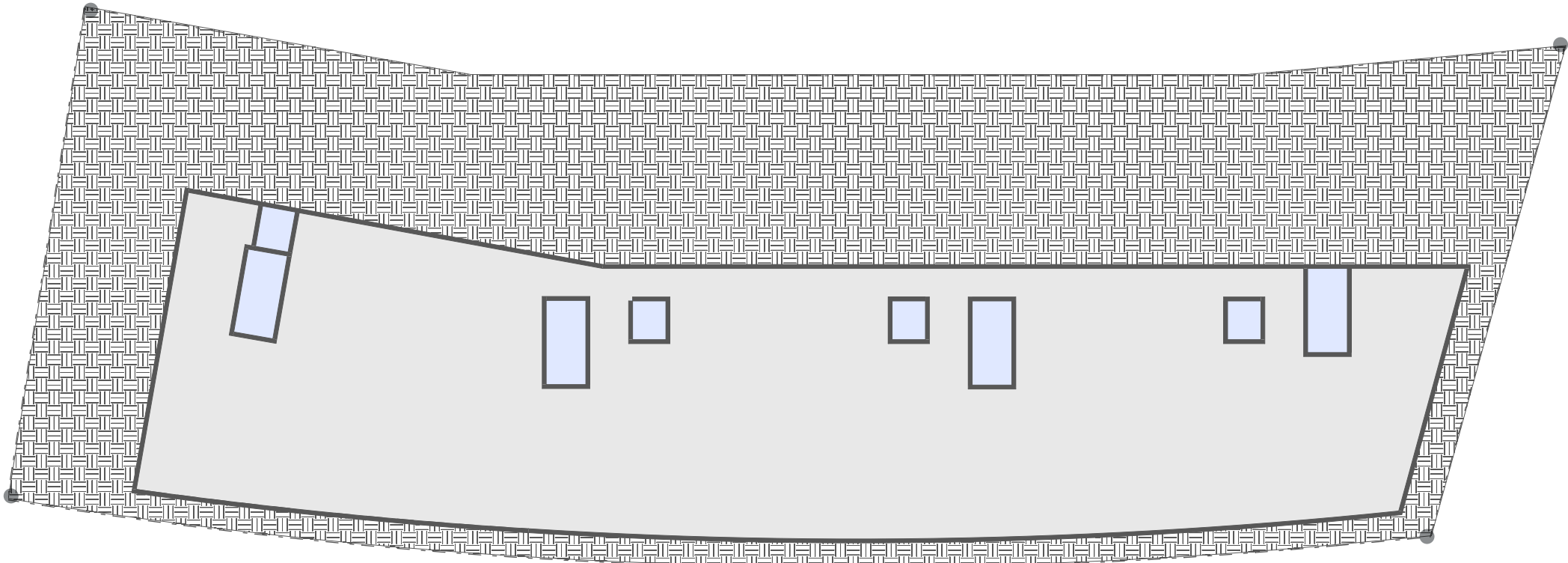
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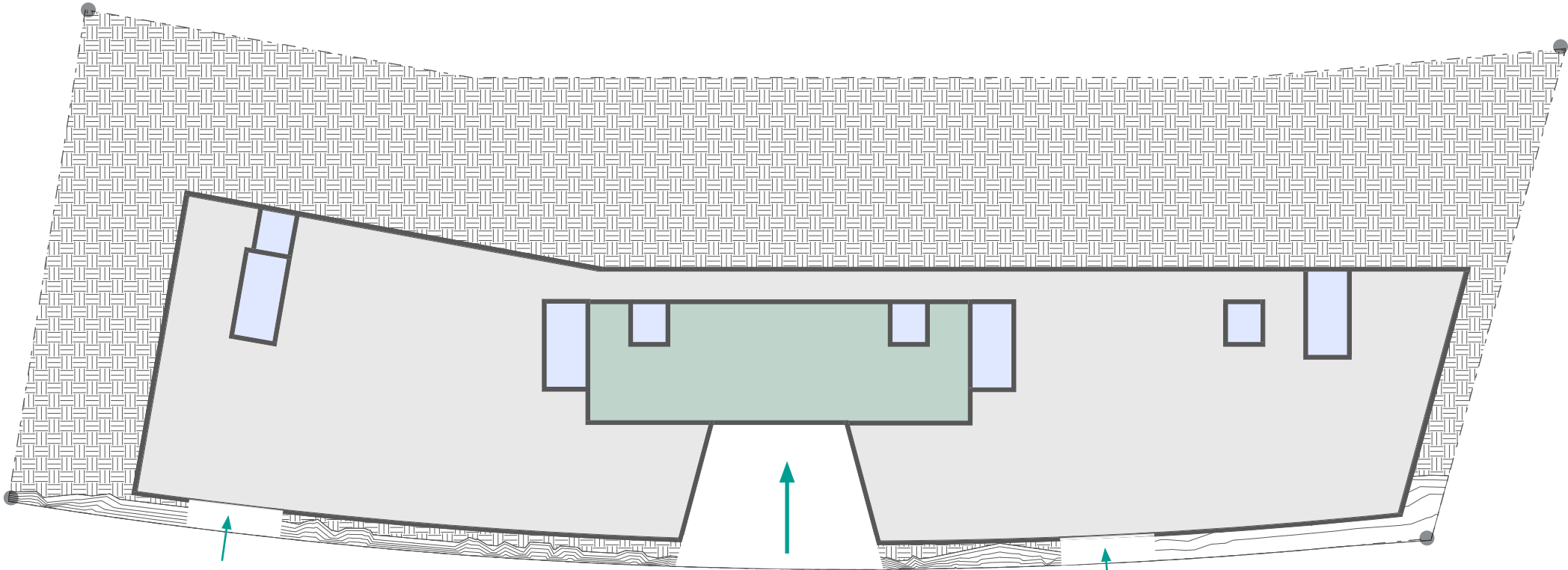
Main residential entry at street level with a clear connection to the street will serve as a transition zone from public to private

Major pedestrian tying project to street and surroundings





Plan: Level P1 - P2



Plan: Level 1

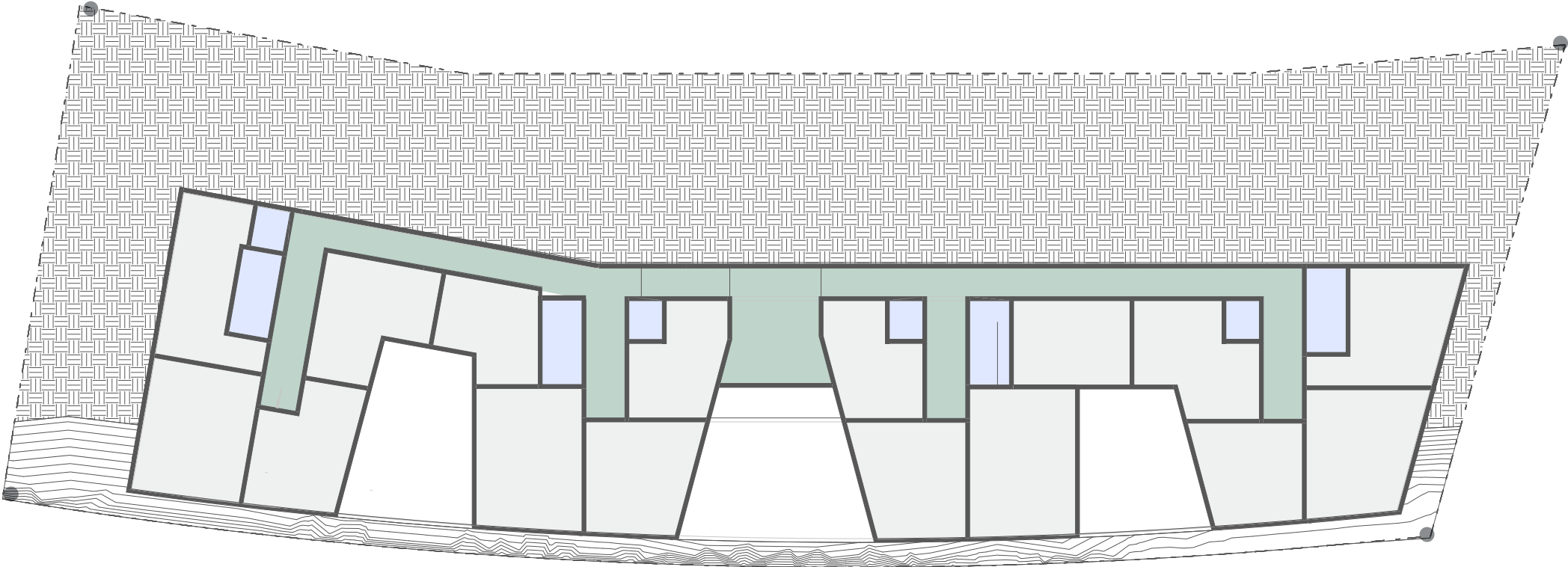
Key: Program

Corridor | Lobby

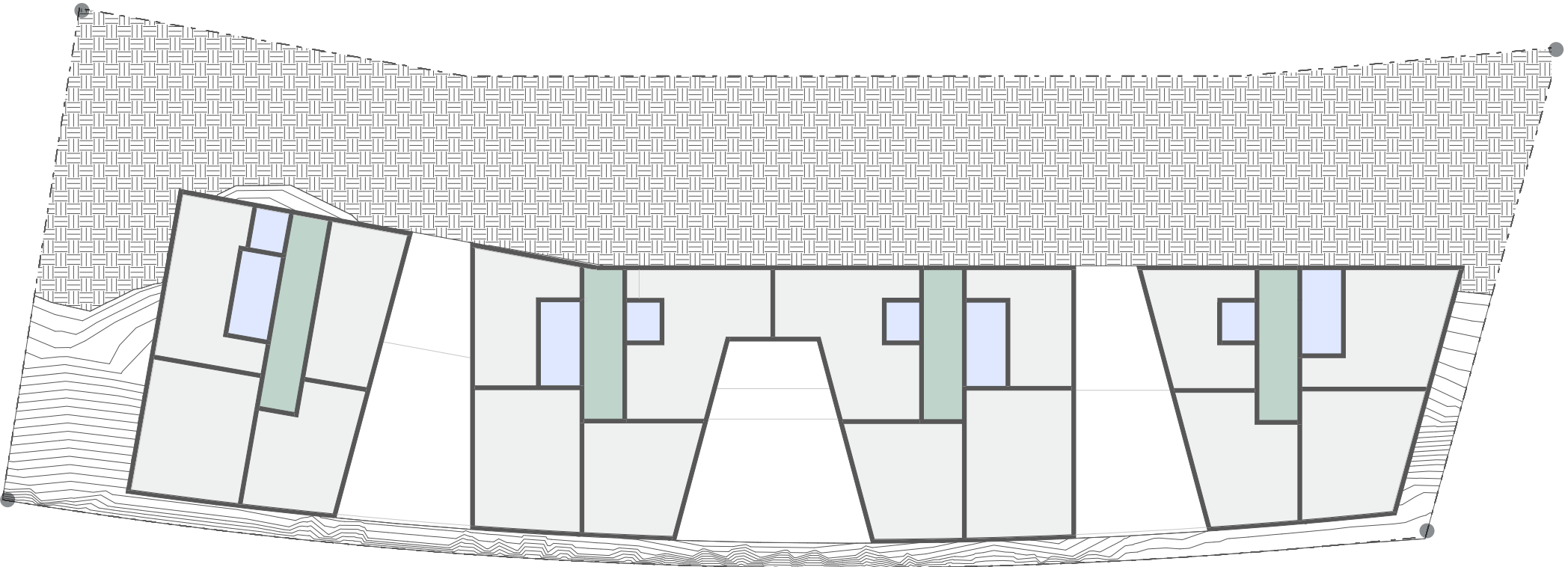
Stairs | Elevators

Parking

Entrances



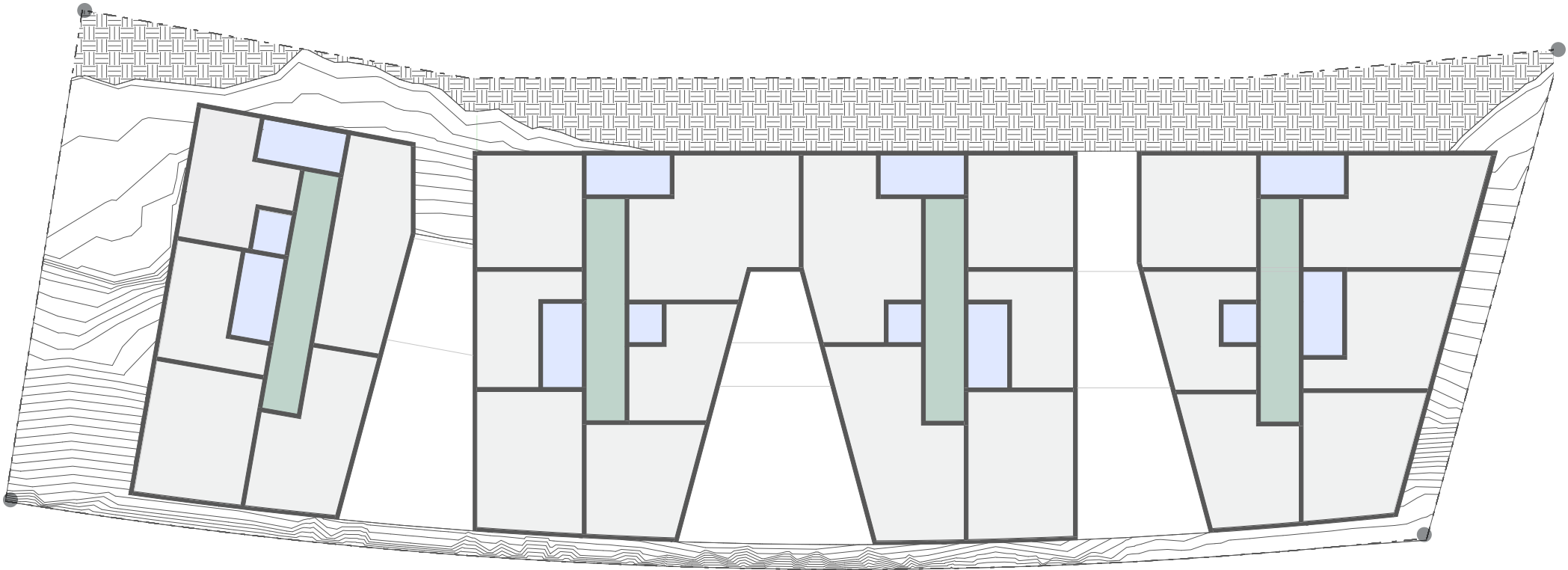
Plan: Level 2



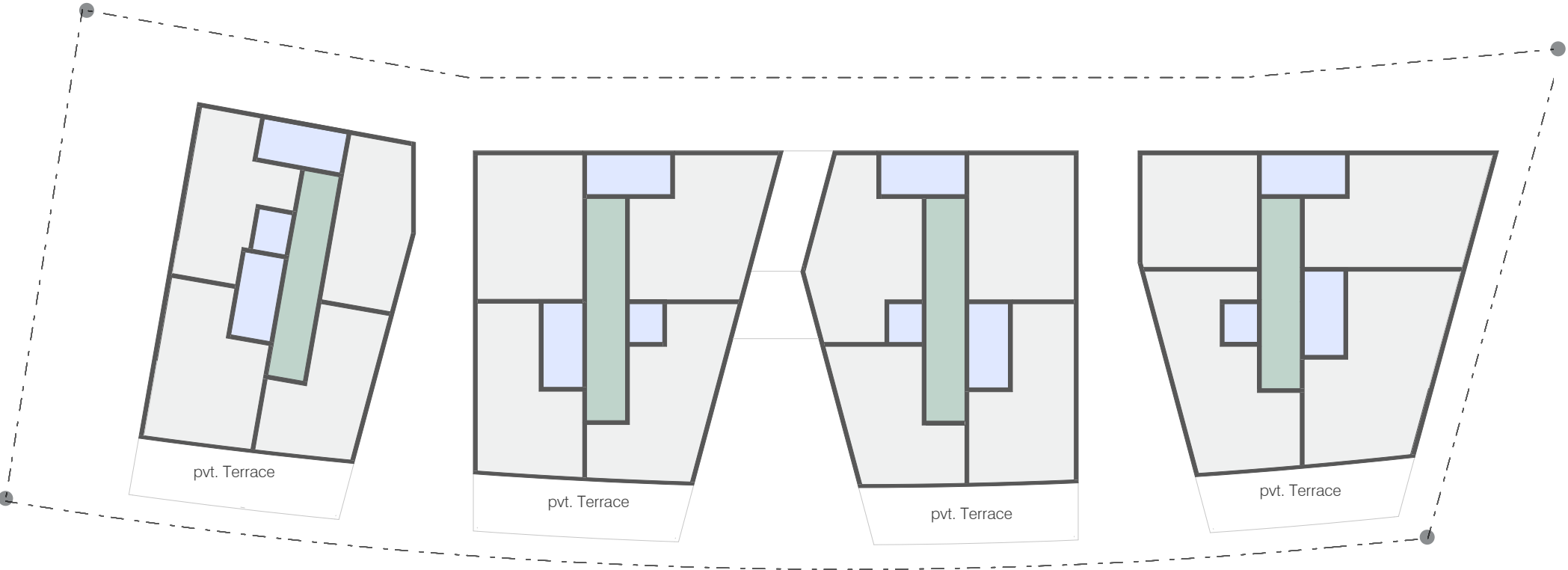
Plan: Level 3

Key: Program

- Corridor | Lobby
- Stairs | Elevators
- Residential



Plan: Level 4



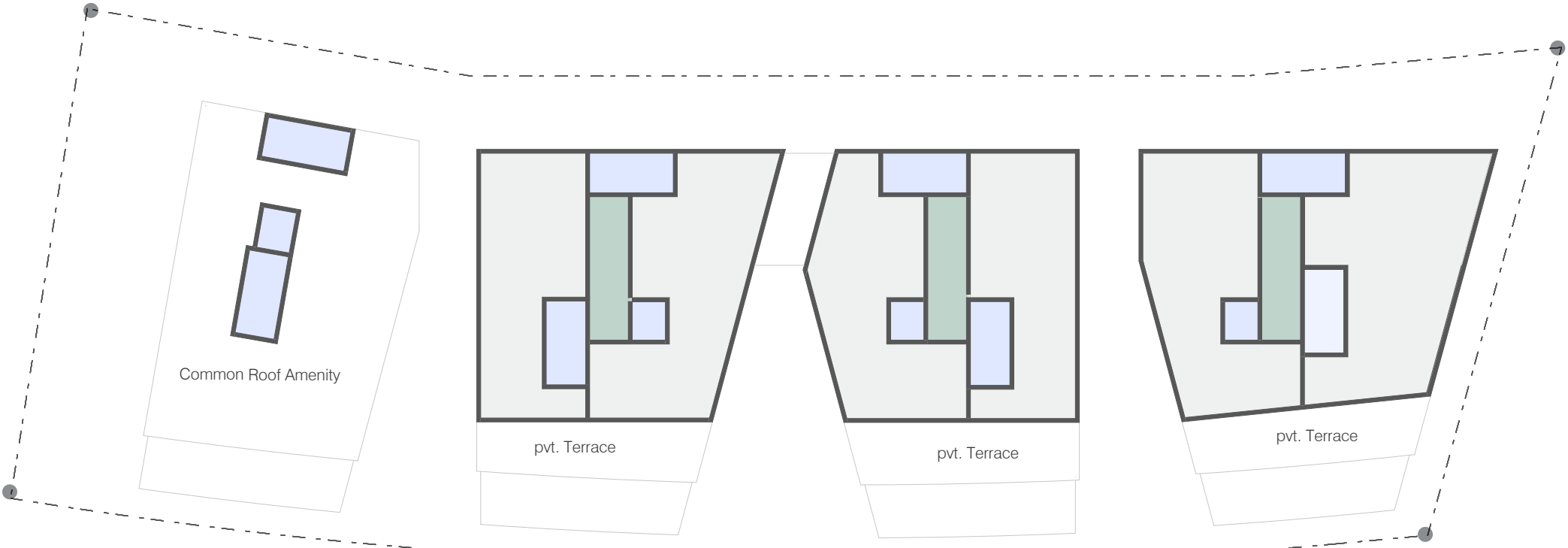
Plan: Level 5

Key: Program

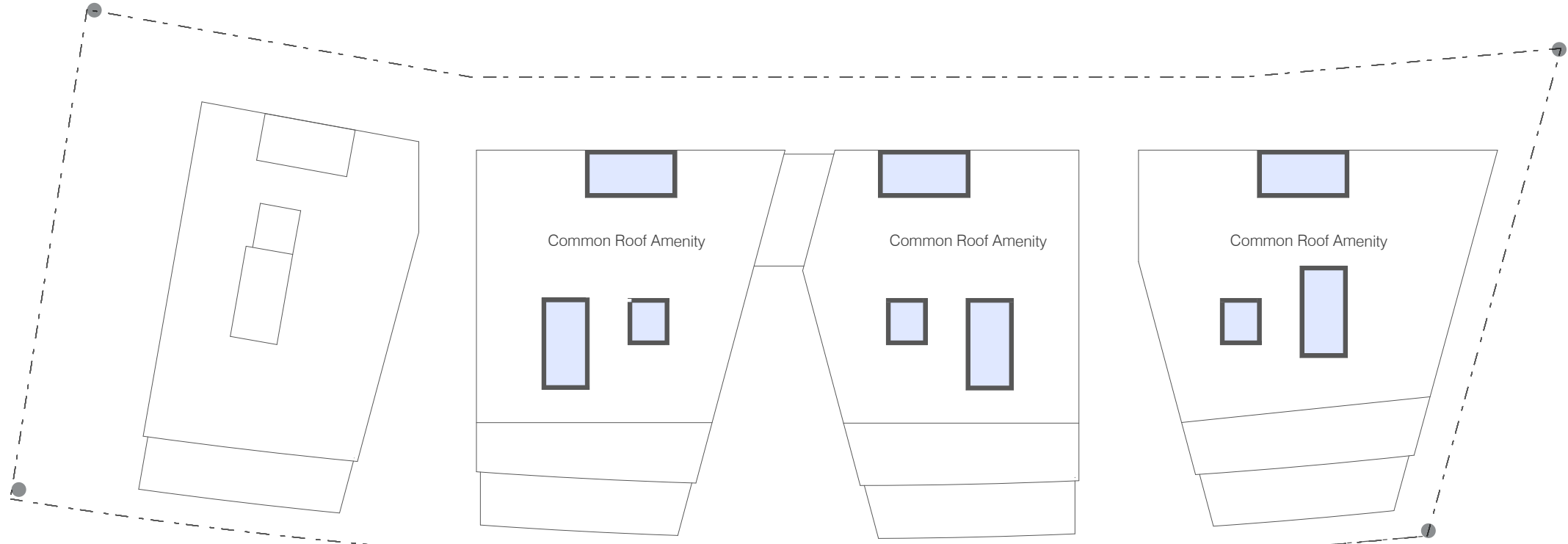
Corridor | Lobby

Stairs | Elevators

Residential



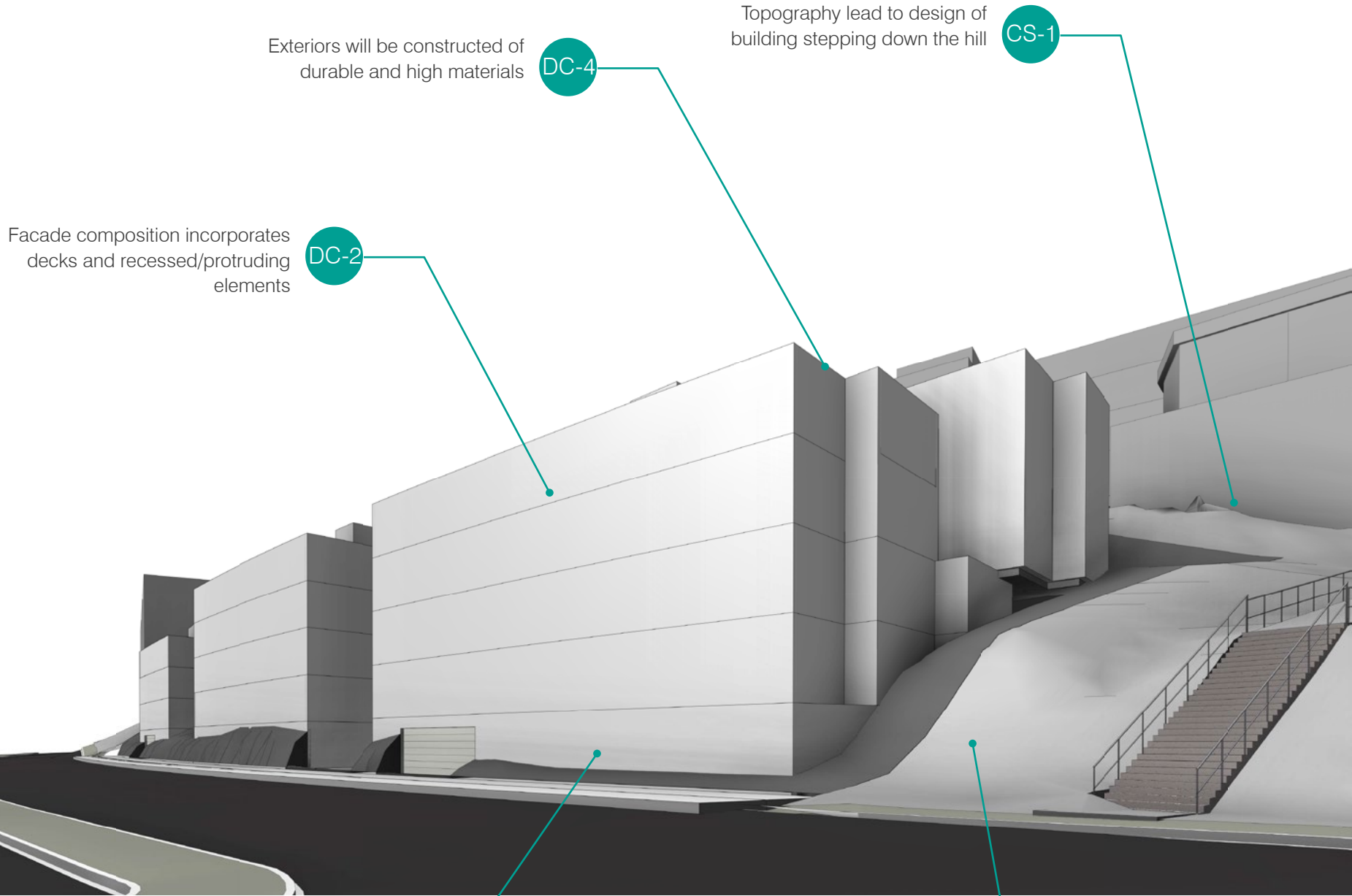
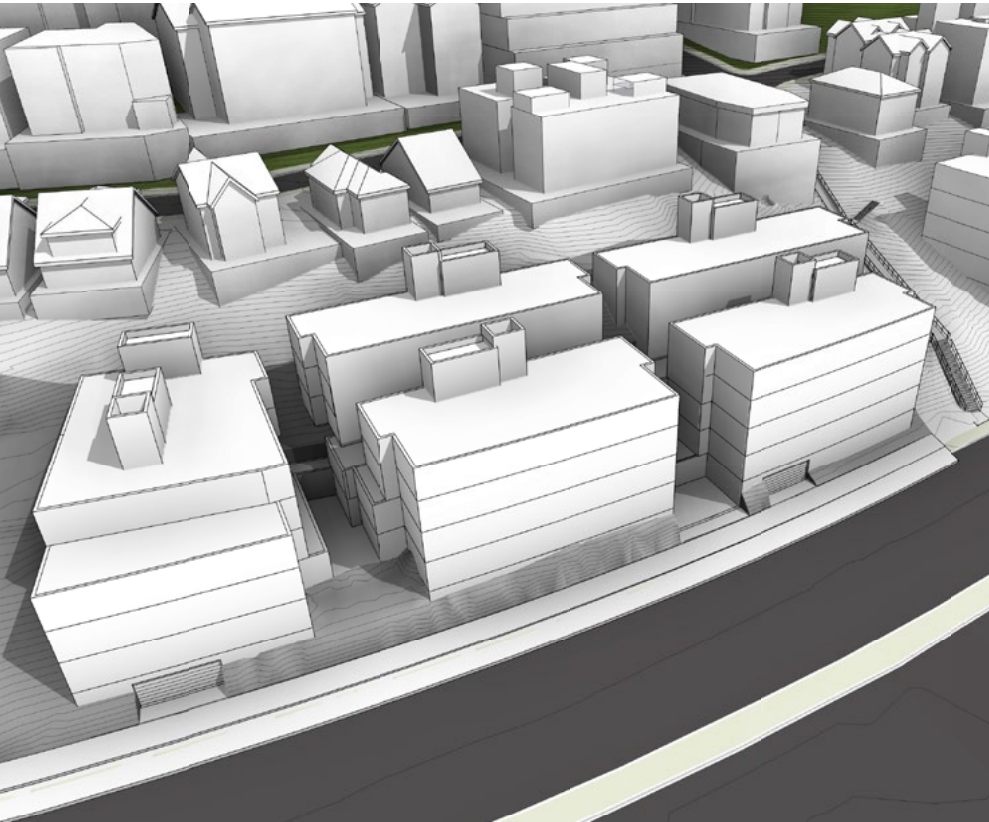
Plan: Level 6



Plan: Roof

Key: Program

- Corridor | Lobby
- Stairs | Elevators
- Residential



Alternative 2 - Five Towers / Horizontal Split

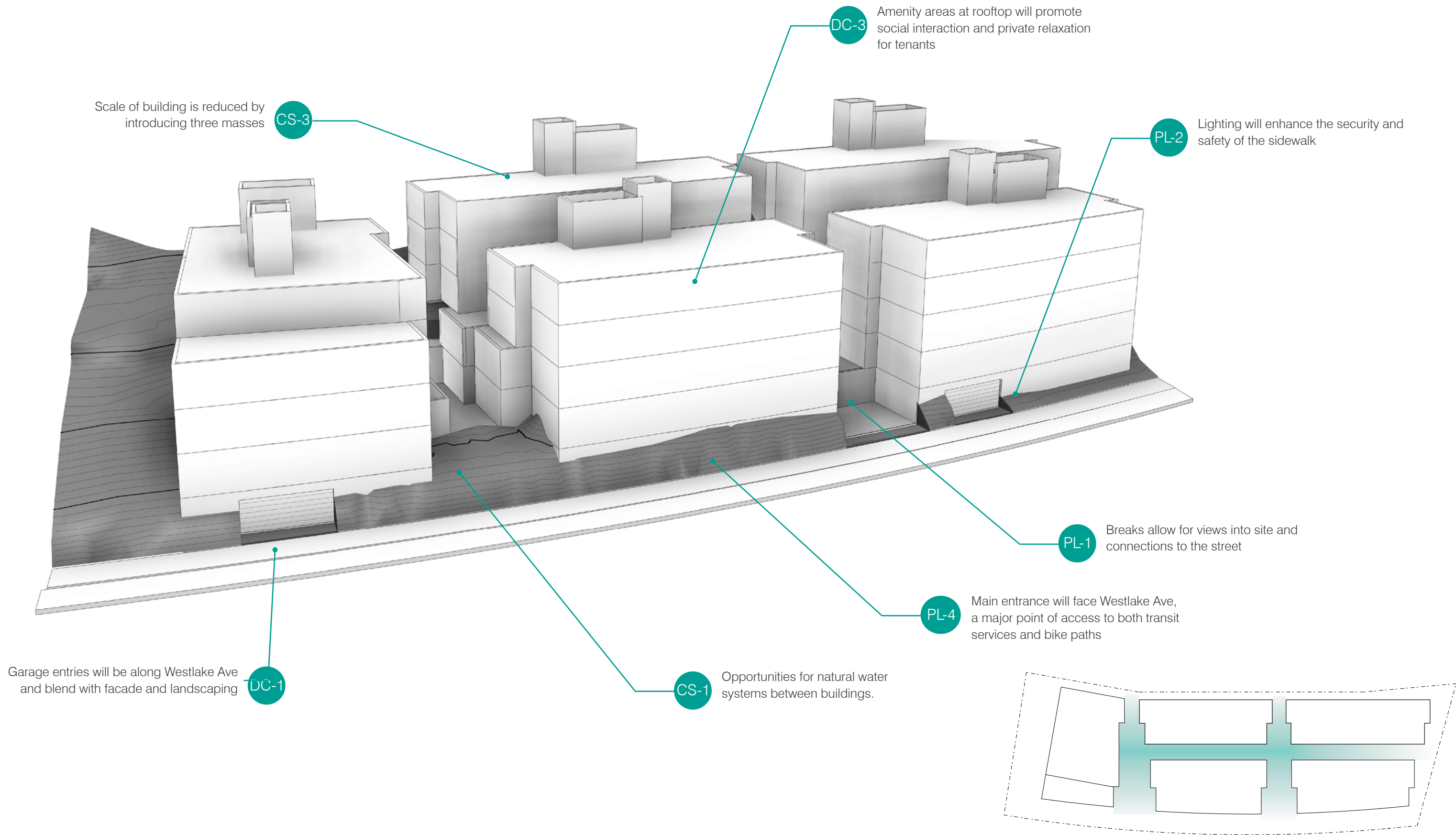
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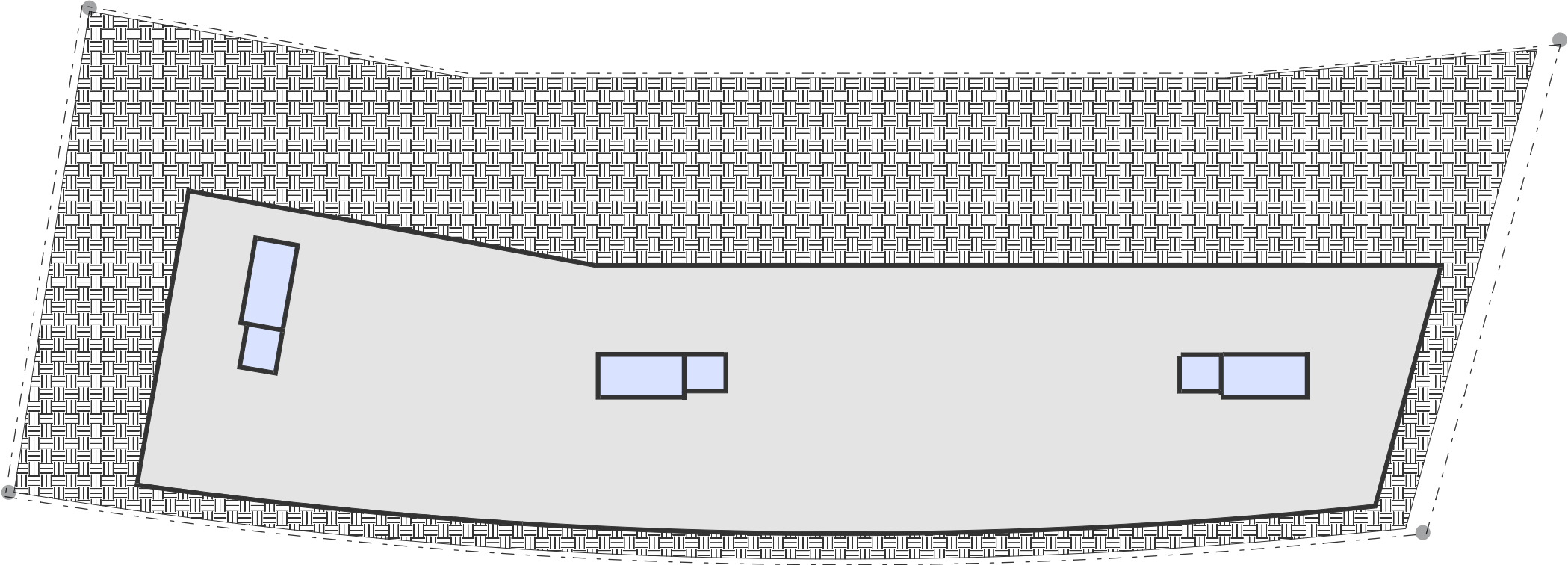
- Pros:
- Axial corridor allows for accessibility to Crockett Stair
 - Opportunity for providing double height units with 'townhouse' feeling
 - More opportunities for greenscaping due to the void spaces

- Cons:
- Back units don't have a view of the lake
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 - Smaller rooftop amenities
 - Less privacy for back units (Buildings face each other)
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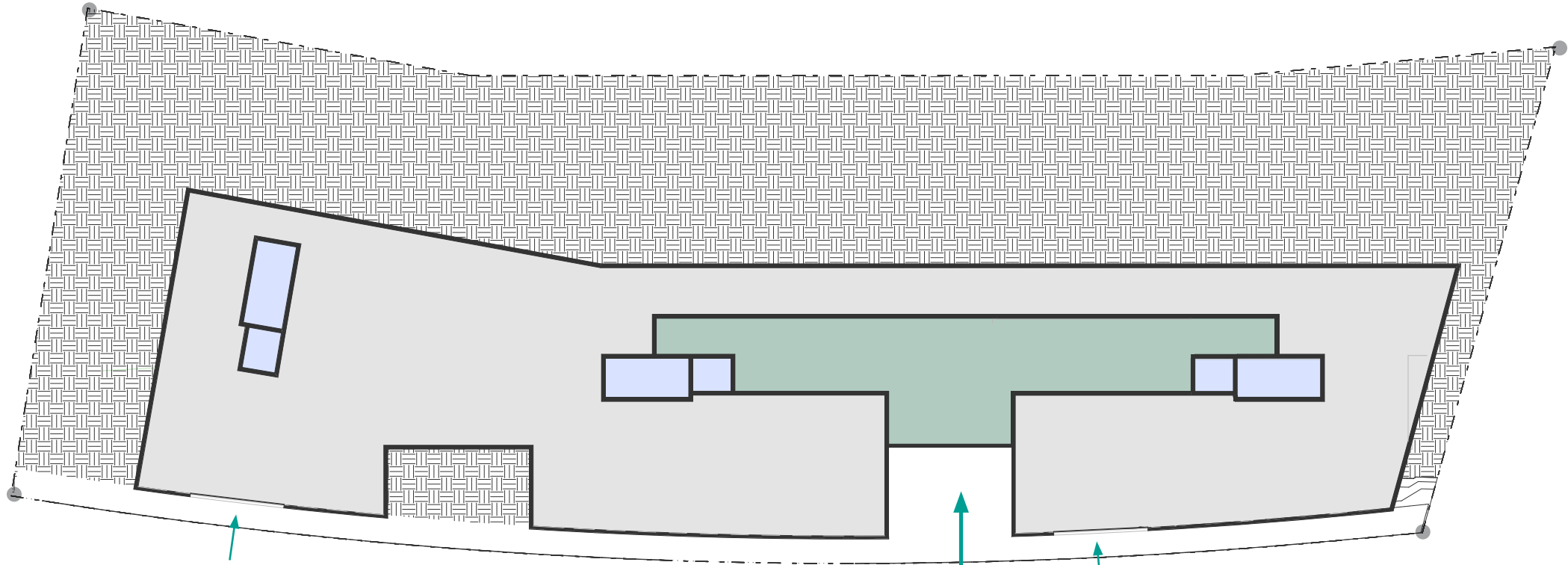
Landscaping at street level will serve as a transition/screen zone from public to private

Major pedestrian tying project to street and surroundings





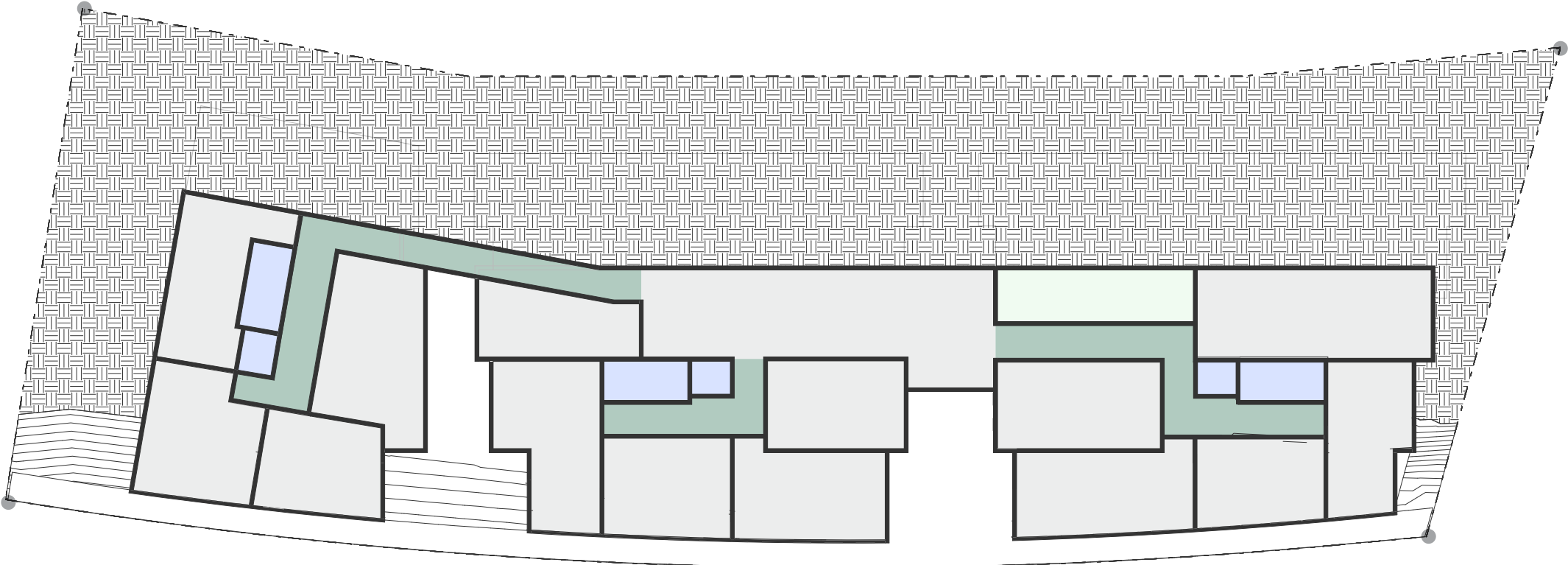
Plan: Level P1 - P2



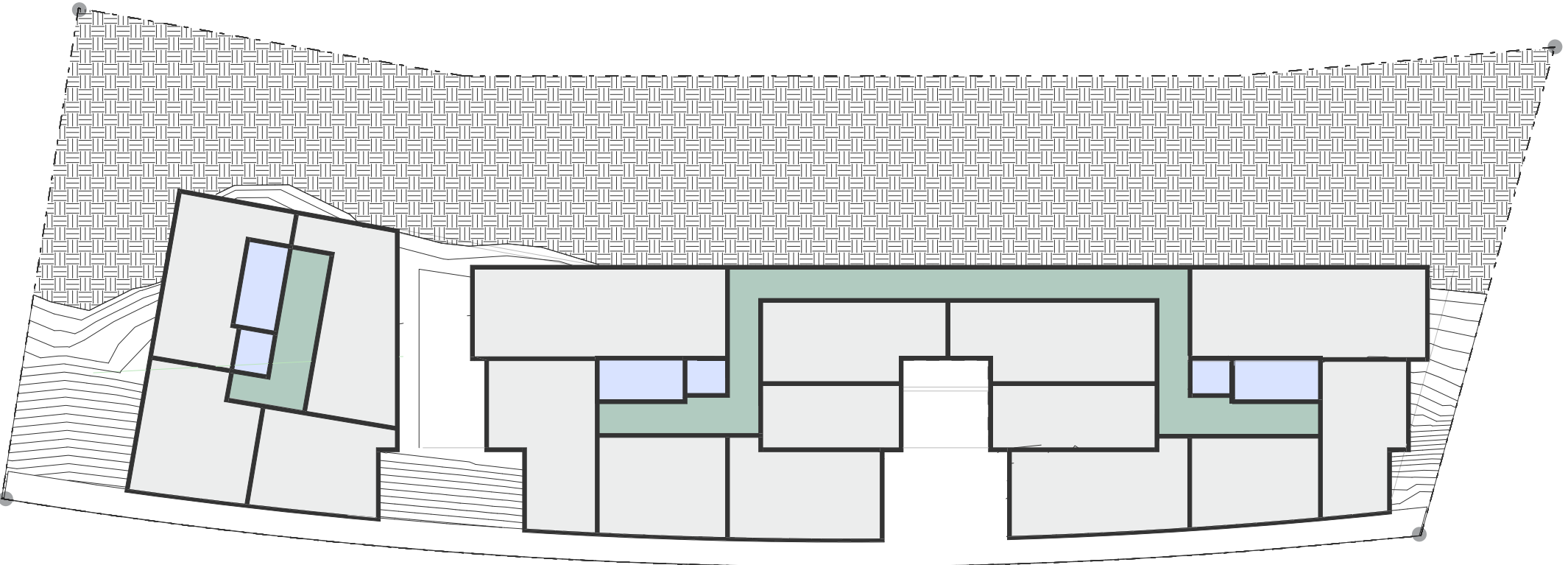
Plan: Level 1

Key: Program

- Corridor | Lobby
- Stairs | Elevators
- Parking
- Entrances



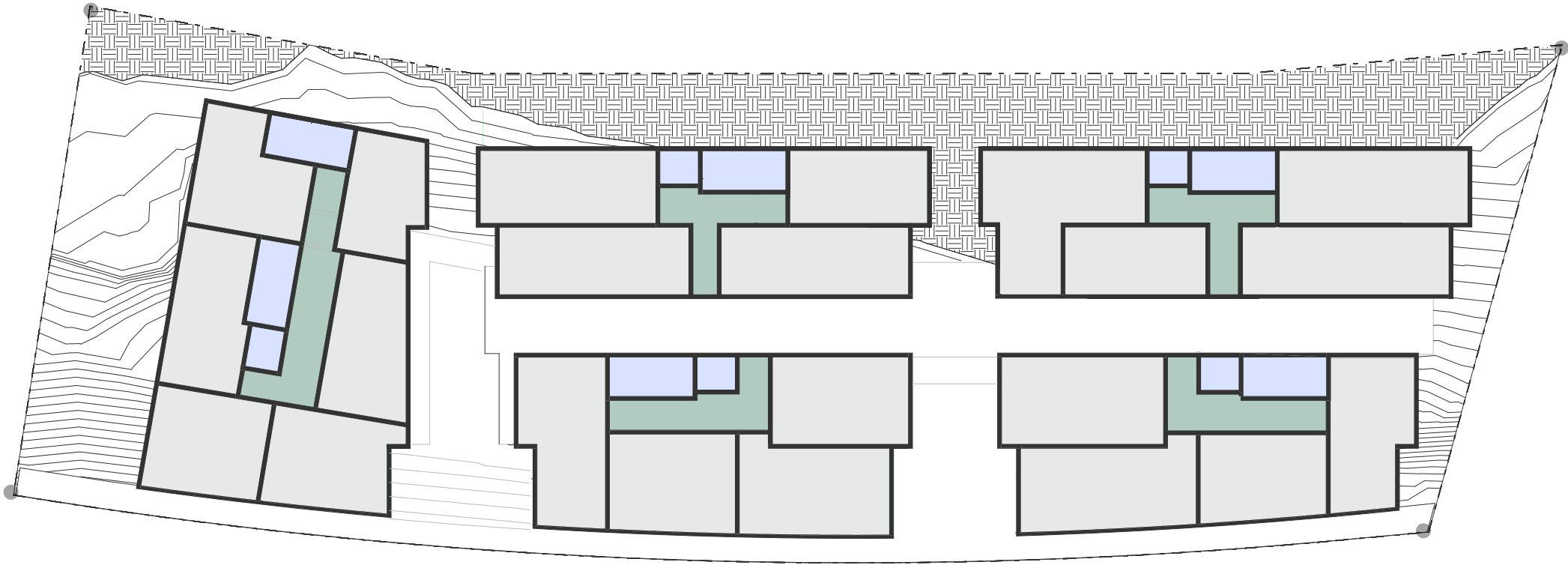
Plan: Level 2



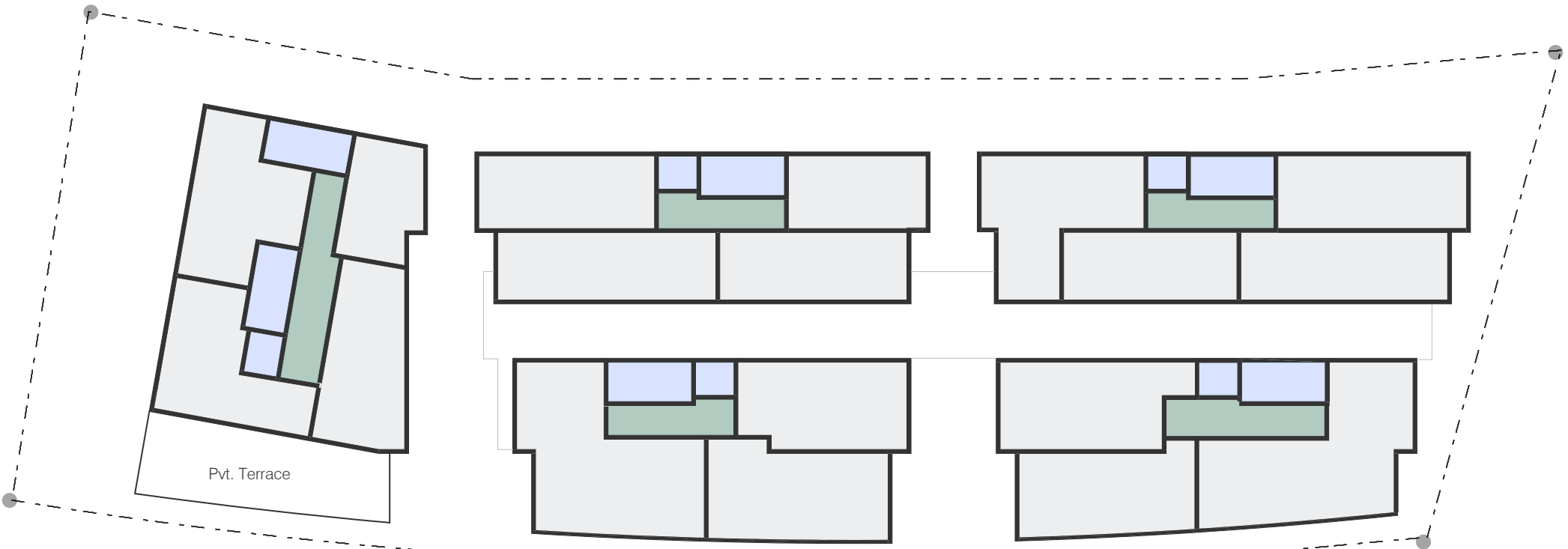
Plan: Level 3

Key: Program

- Corridor | Lobby
- Stairs | Elevators
- Residential
- Mechanical



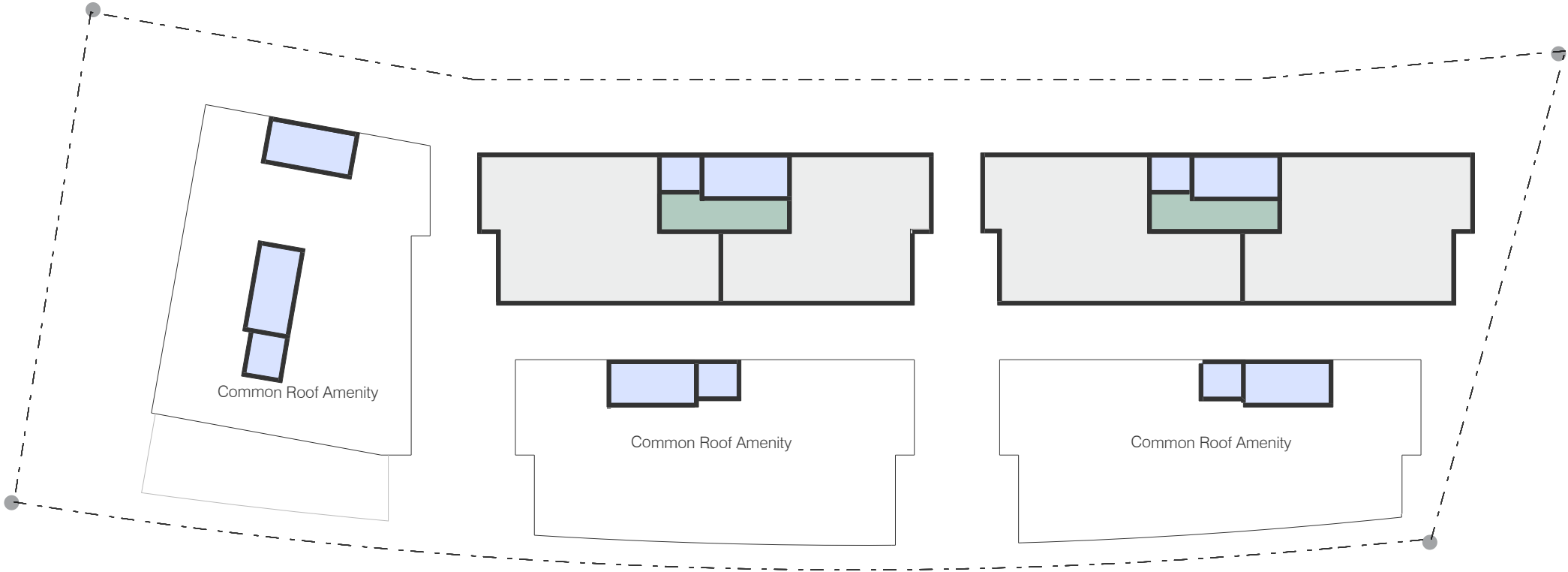
Plan: Level 4



Plan: Level 5

Key: Program

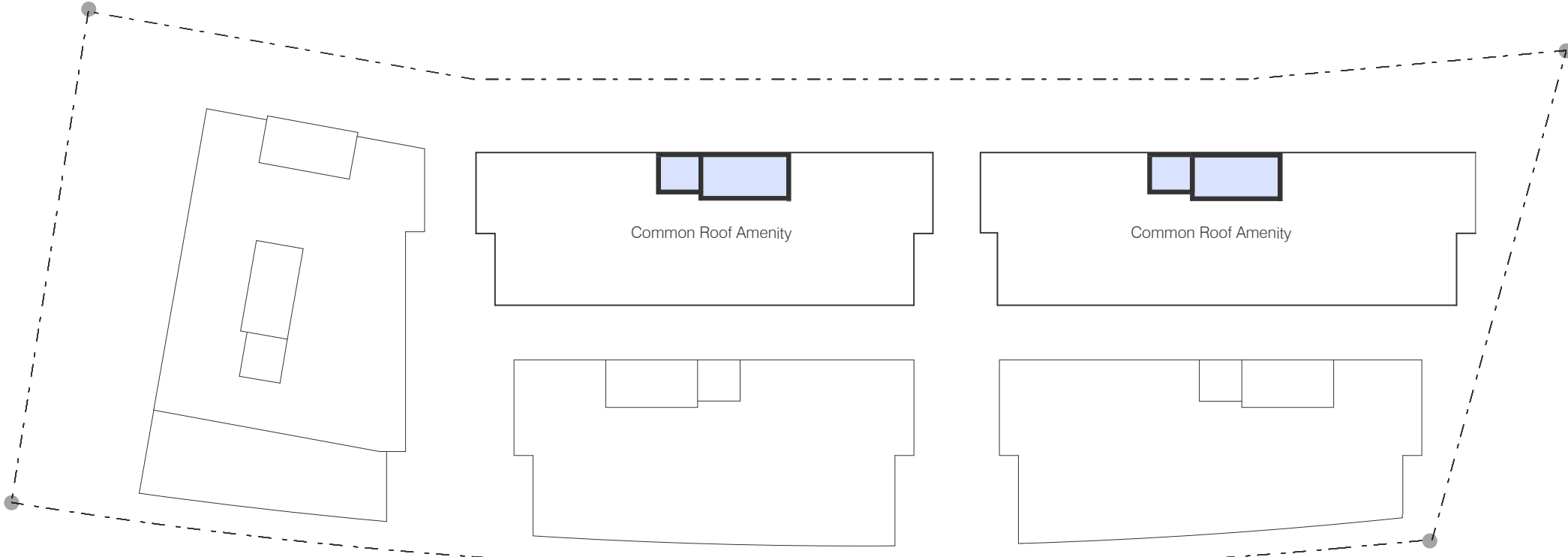
	Corridor Lobby
	Stairs Elevators
	Residential



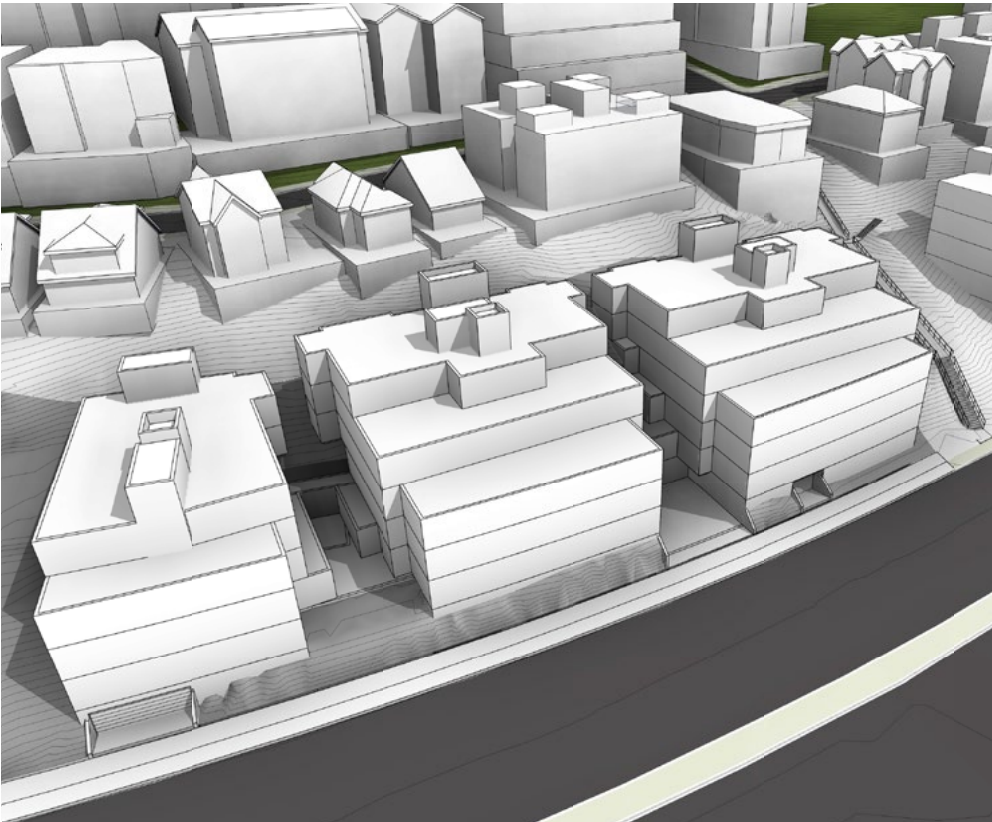
Plan: Level 6

Key: Program

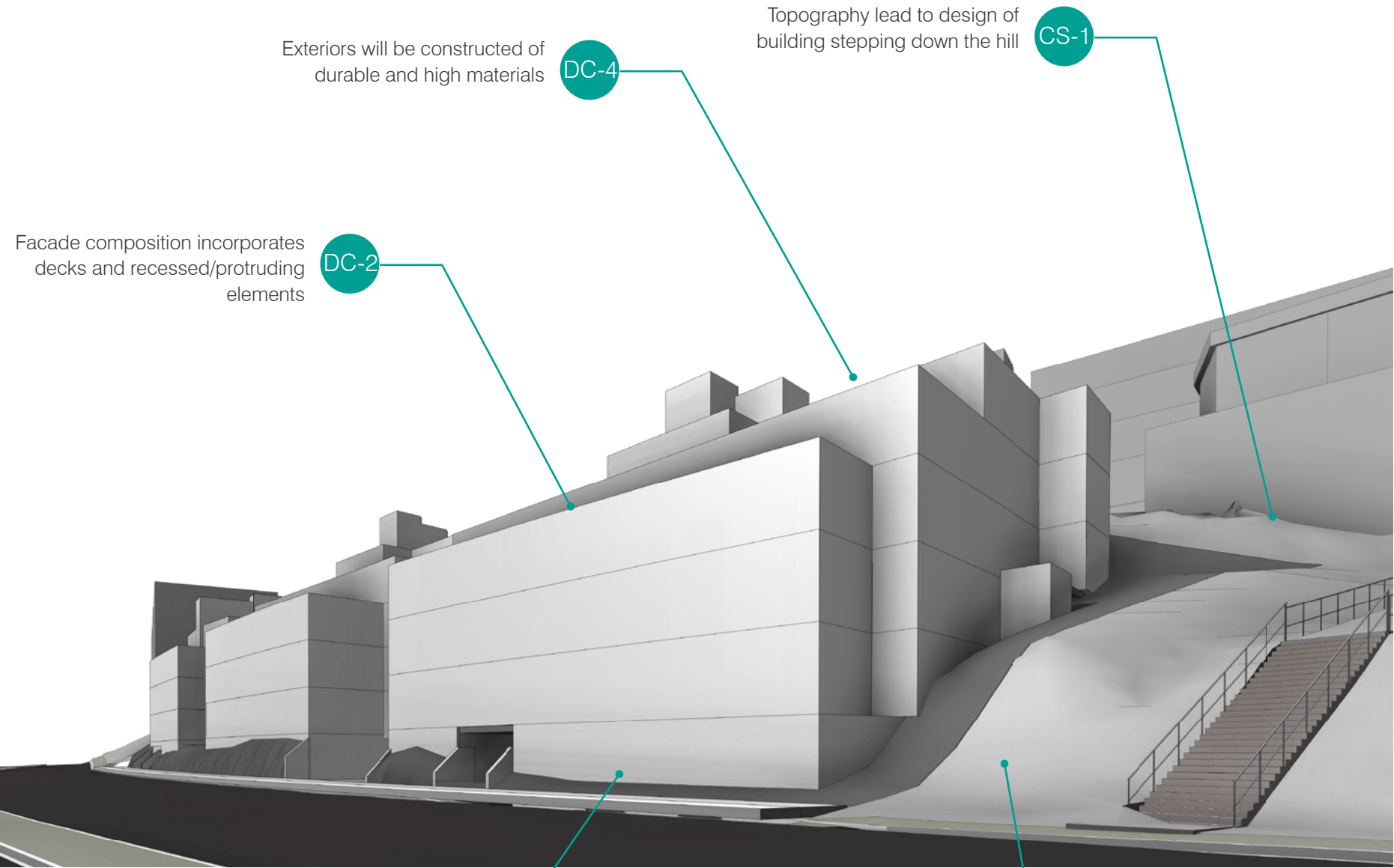
- Corridor | Lobby
- Stairs | Elevators
- Residential



Plan: Roof



PREFERRED



Alternative 3 - Three Cascading Towers (Code Compliant)

Basement & 6 stories + Roof Amenity	
Unit Count	77
Total Floor Area	93,003 sf
Total Residential Floor Area	53,807 sf
Total Parking Area	30,050 sf
FAR Proposed	1.60
FAR allowed	1.60
Amenity Area Provided	6,487 sf
Amenity Area Required	2,307 sf

Pros:

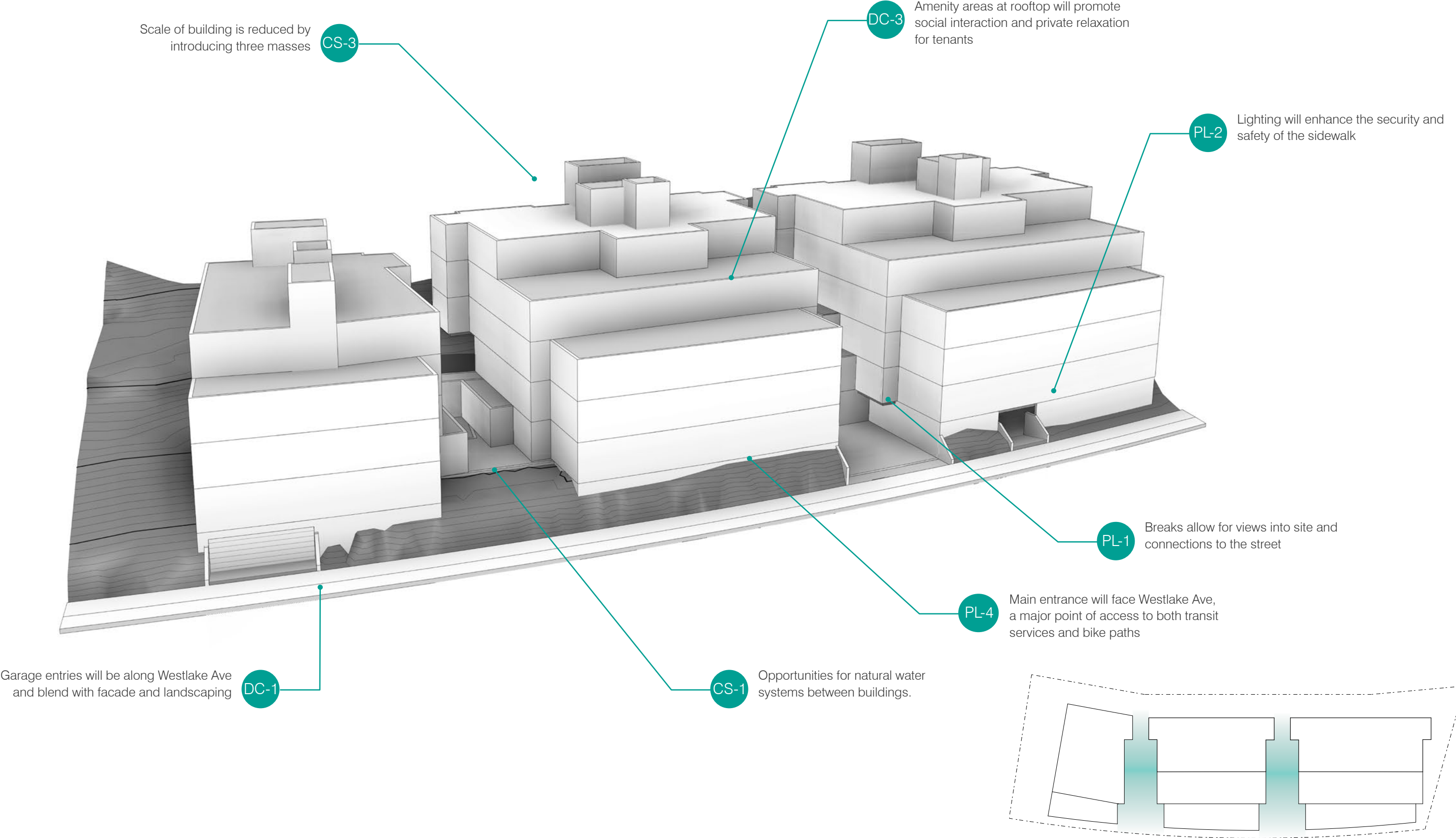
- Wider facades allow for more units to face the lake and not each other - more privacy
- Large rooftop amenities for residents
- Large private terraces for units on top levels
- Stepping inward towards the front allows for more straight on views on the lake for back units

Cons:

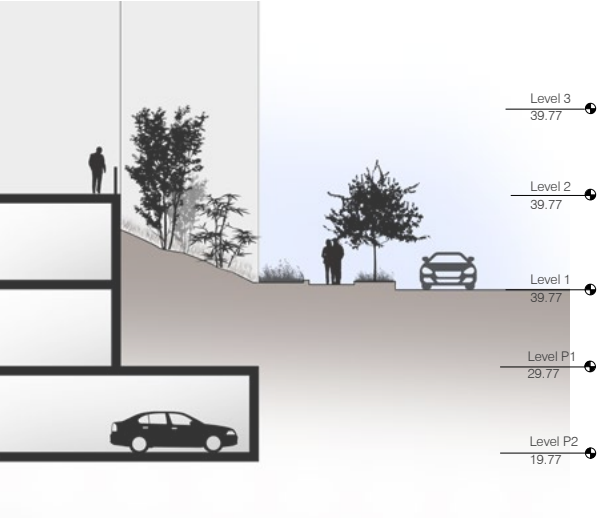
- Less available ground space for greenscaping due to smaller number of breaks between buildings
- no departures required

Landscaping at street level will serve as a transition/screen zone from public to private

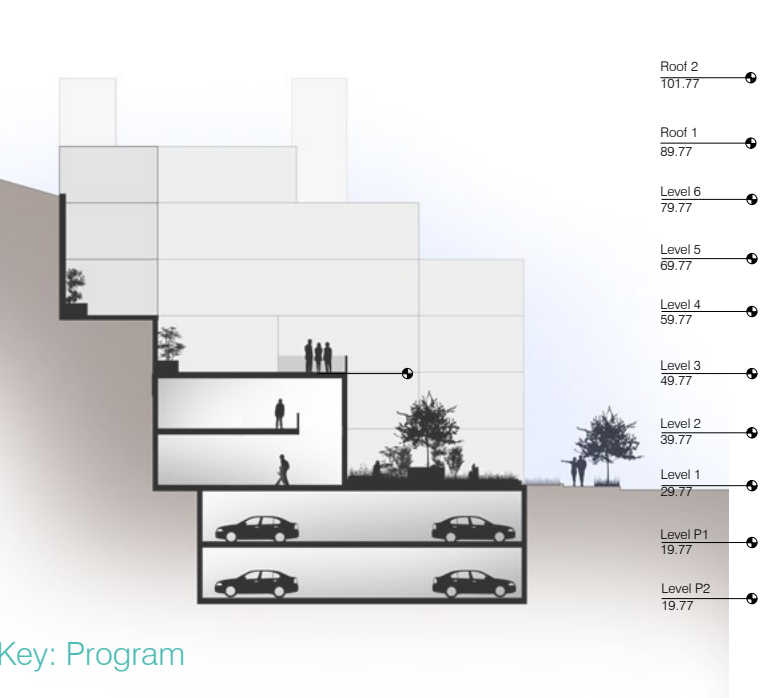
Major pedestrian tying project to street and surroundings



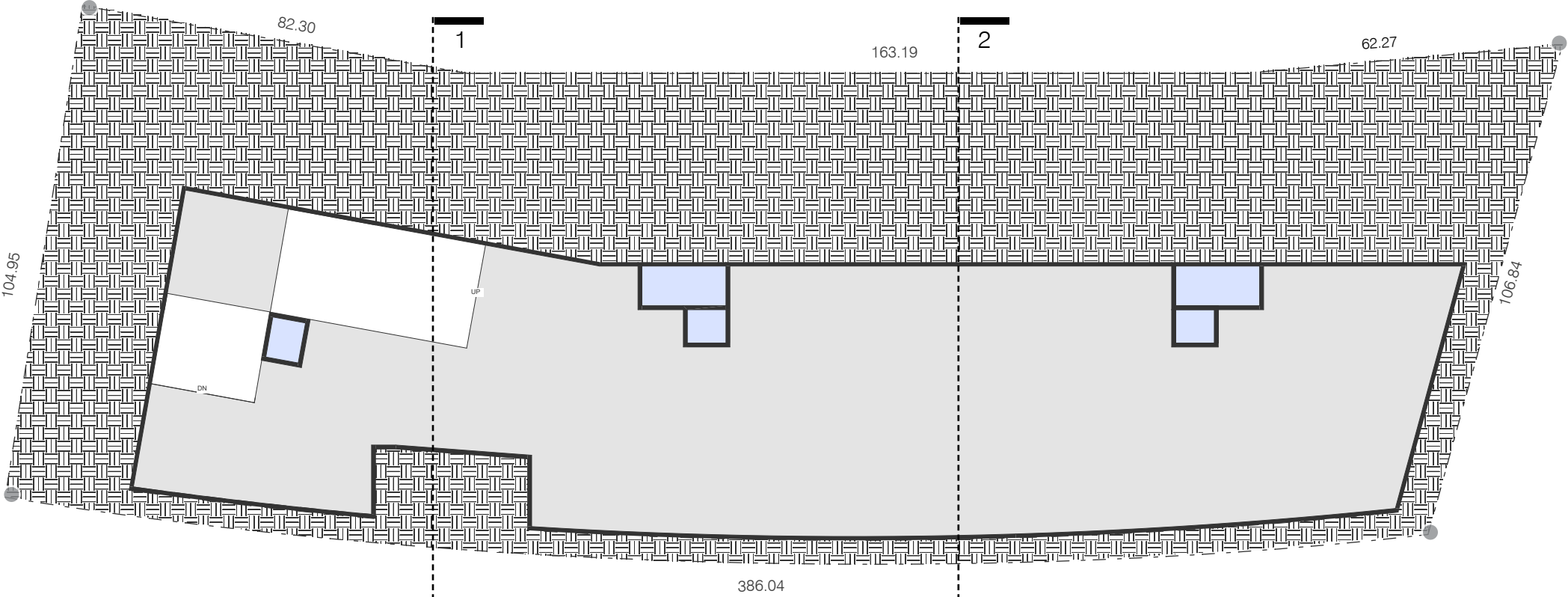
Section 1-1



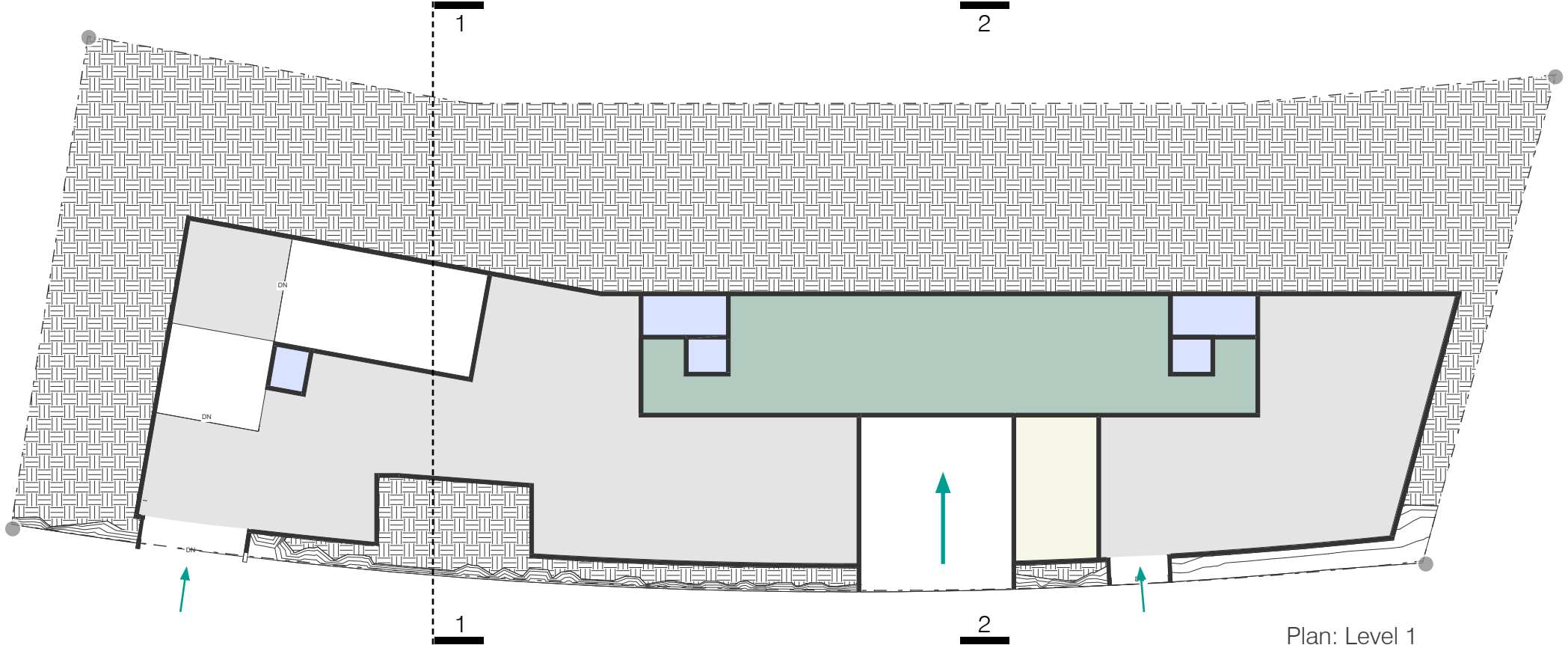
Section 2-2



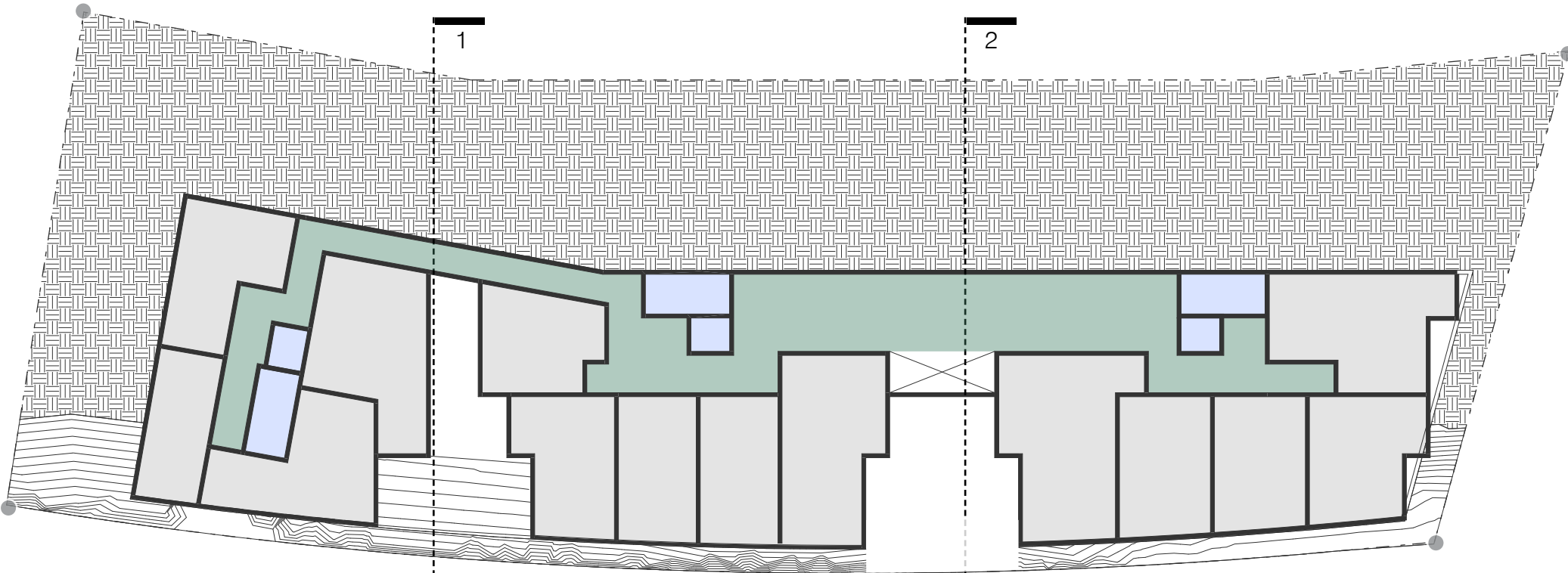
- Key: Program
- Corridor | Lobby
 - Stairs | Elevators
 - Parking
 - Entrances



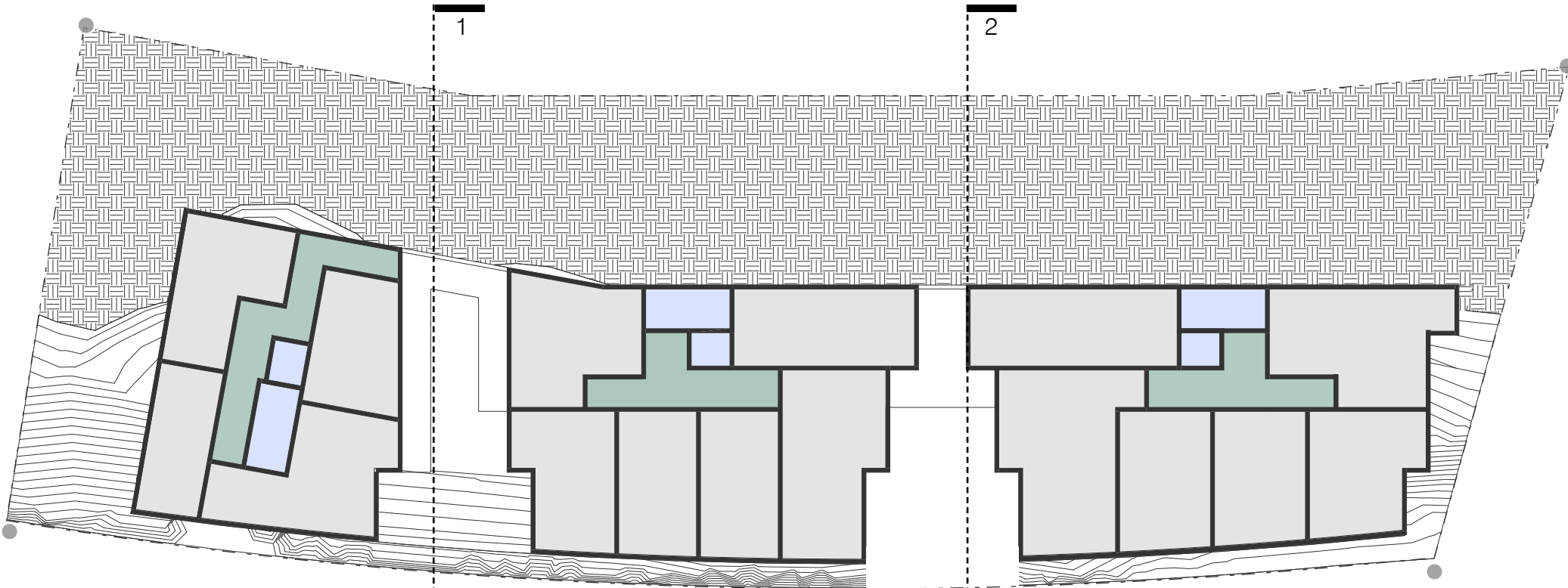
Plan: Level P1 - P2



Plan: Level 1



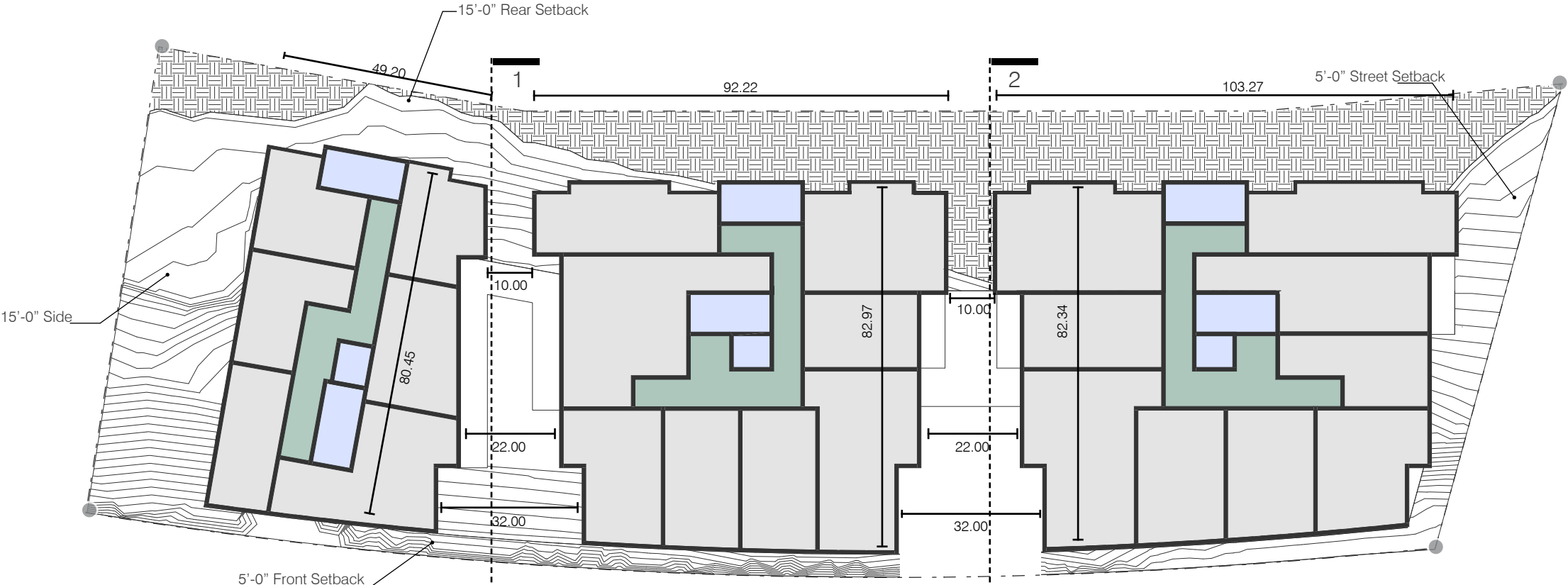
Plan: Level 2



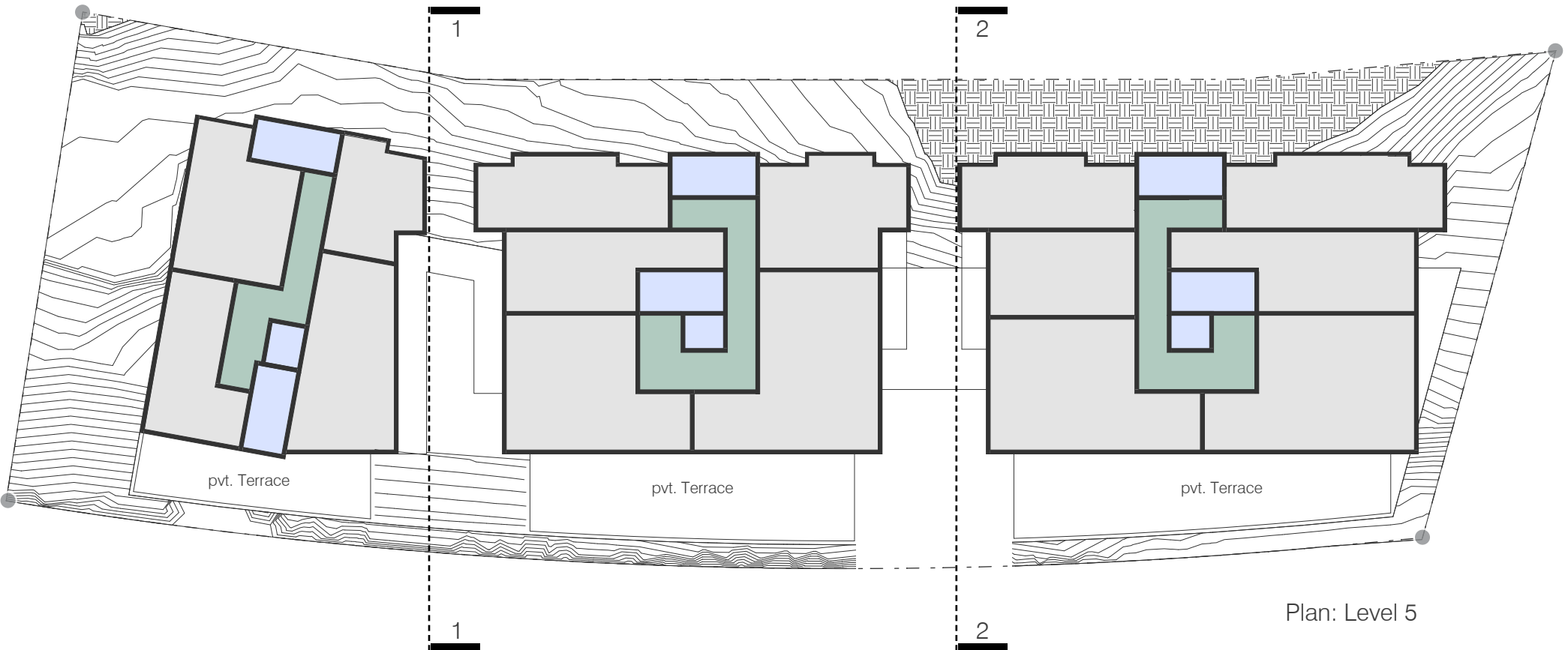
Plan: Level 3

Key: Program

- Corridor | Lobby
- Stairs | Elevators
- Residential
- Mechanical



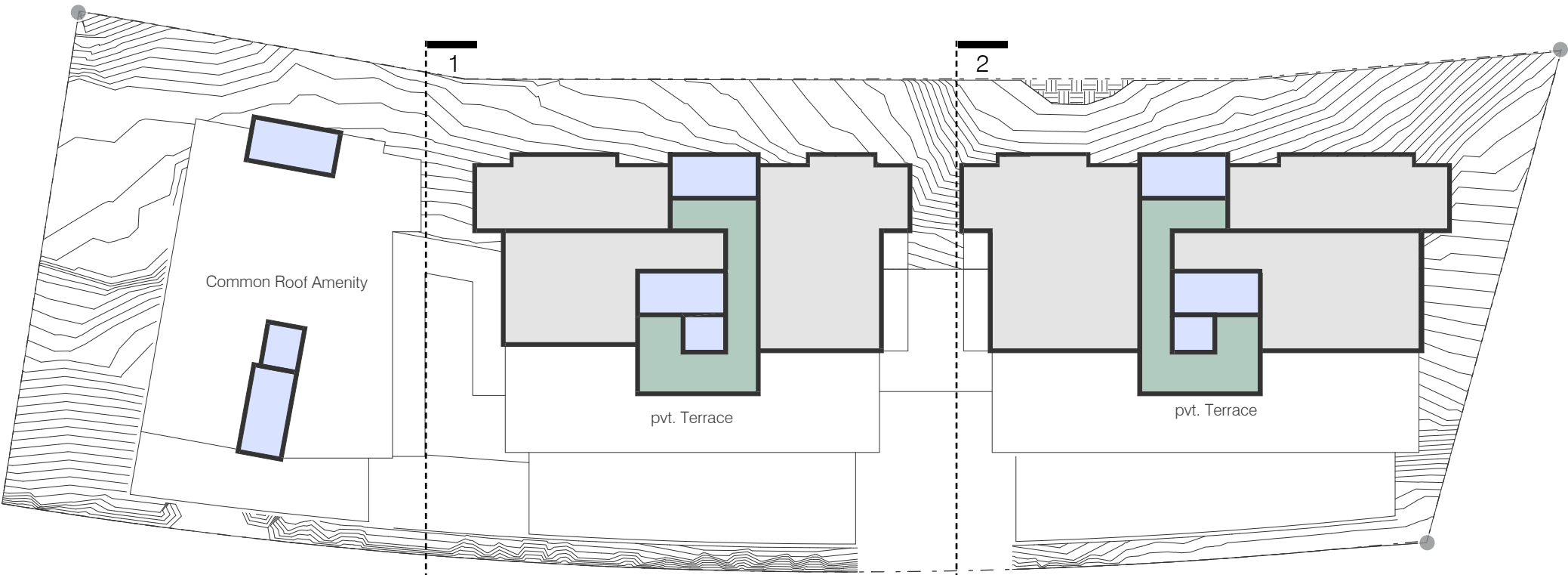
Plan: Level 4



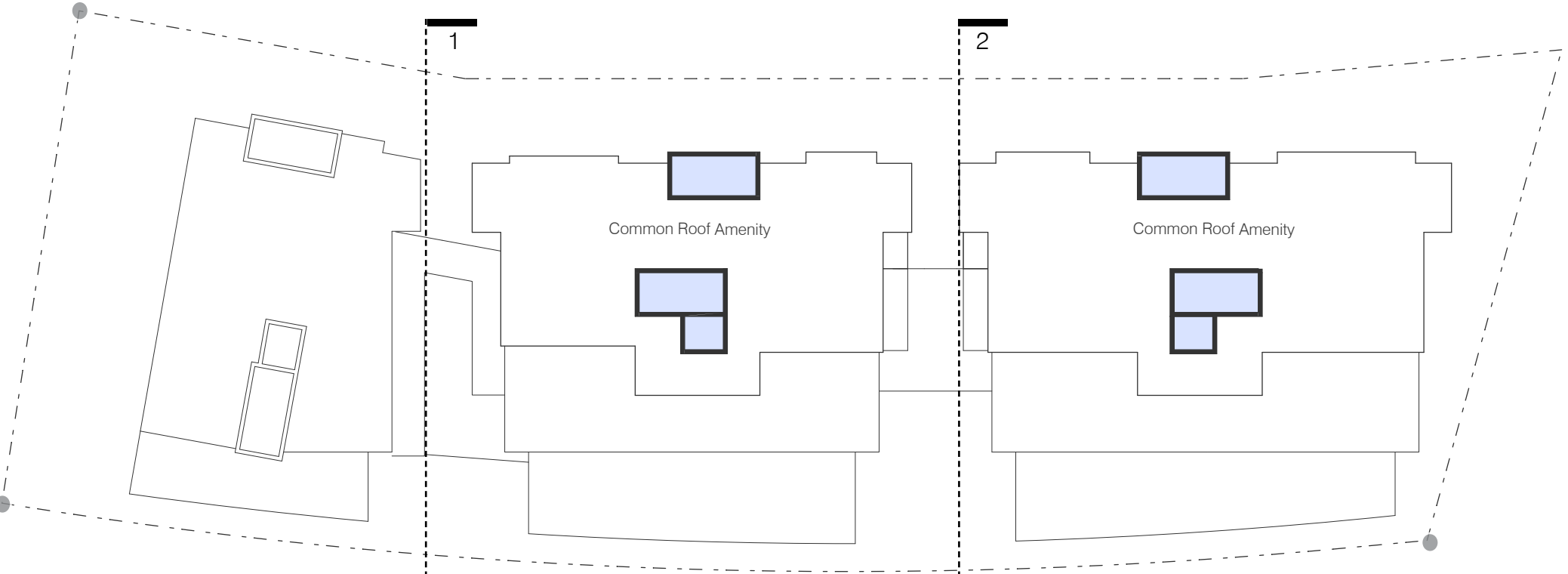
Plan: Level 5

Key: Program

- Corridor | Lobby
- Stairs | Elevators
- Residential



Plan: Level 6



Plan: Roof

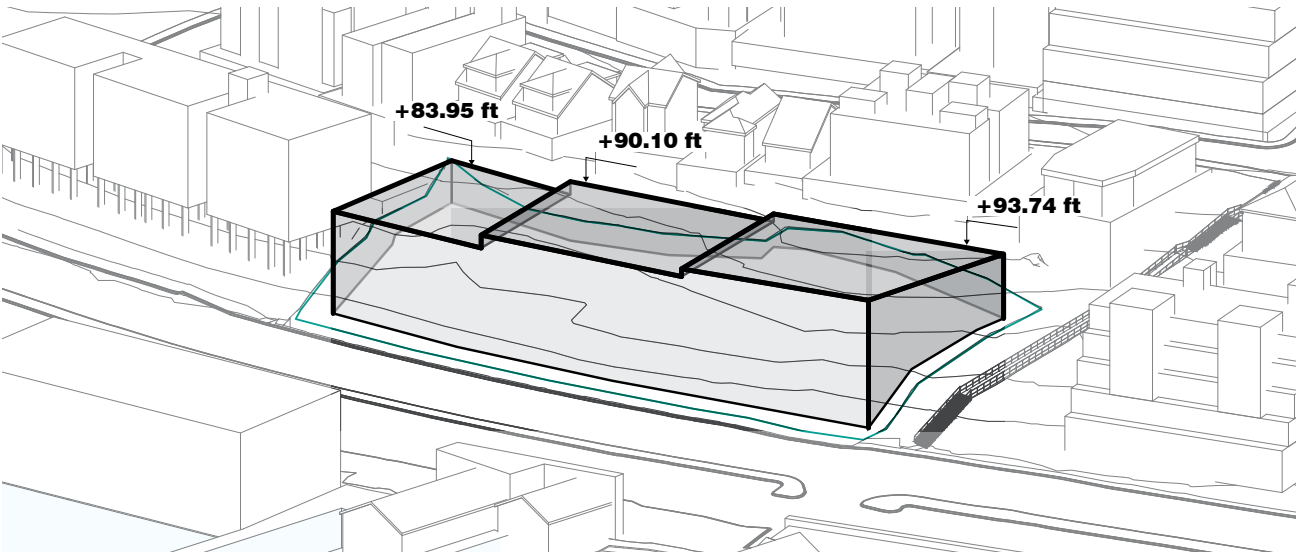
Key: Program

- Corridor | Lobby
- Stairs | Elevators
- Residential

Volume exploration

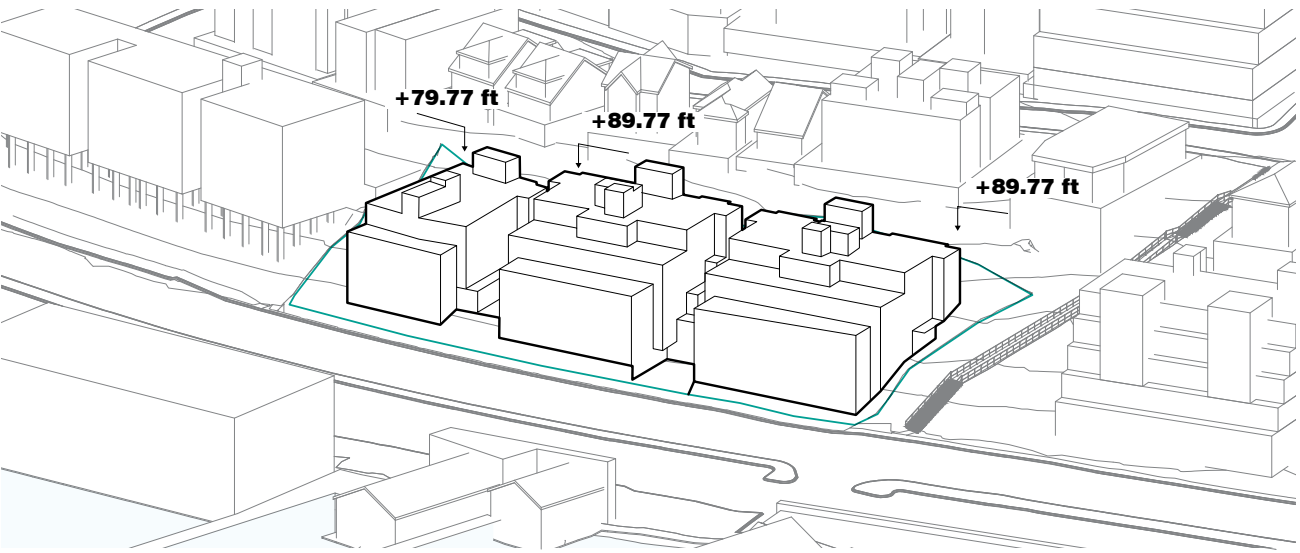
Full potential volume

After calculating Max. Allowable Height and measuring the setbacks full potential volume represents a mass that could be occupied by the building



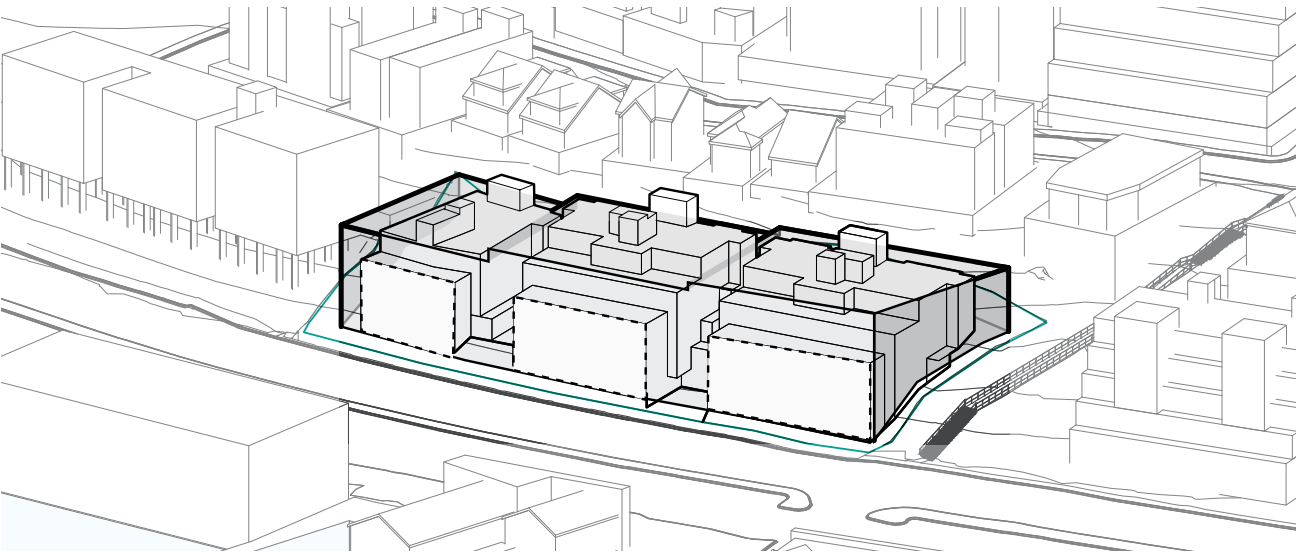
Proposed Preferred Alternative

Abiding the constraint set by the full potential volume, alternative 3 represents, in our opinion, most successful massing option.

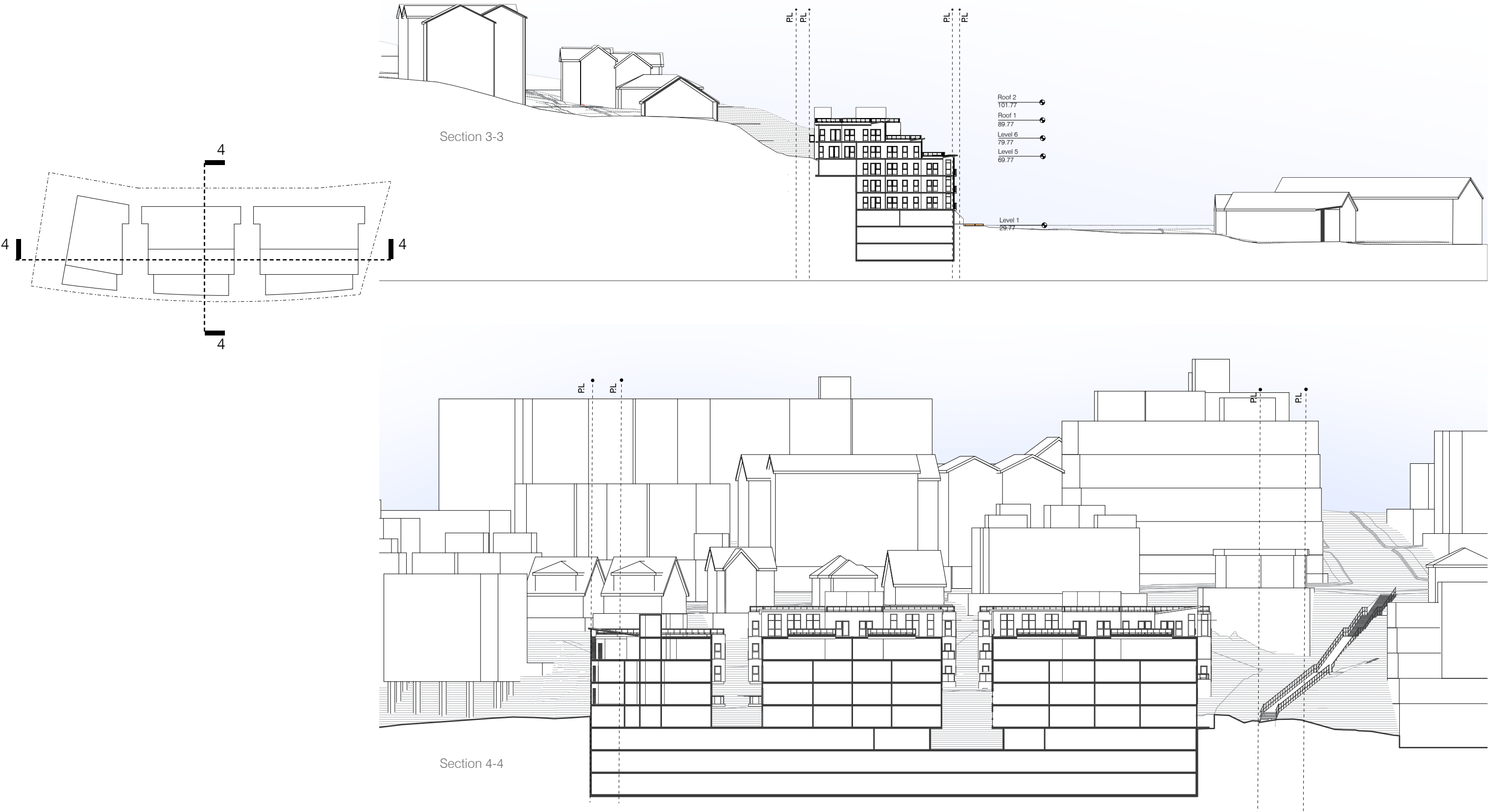


Volume subtraction

Void subtraction diagram illustrates that preferred alternative does not reach the full potential volume, therefore has less impact surrounding views. Middle tower is the only structure that reaches max. height limit.

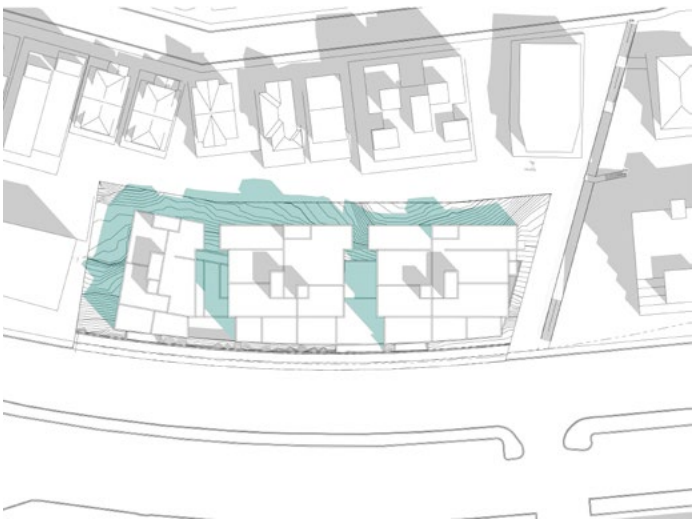


Sections within neighborhood context

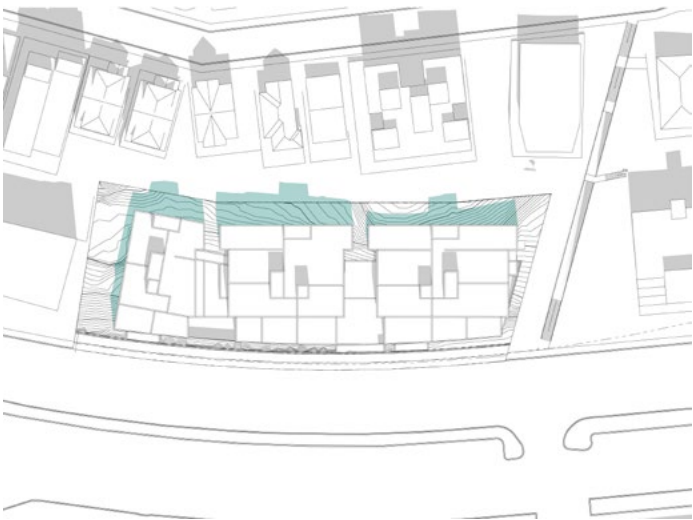


Shadow Studies: Overview

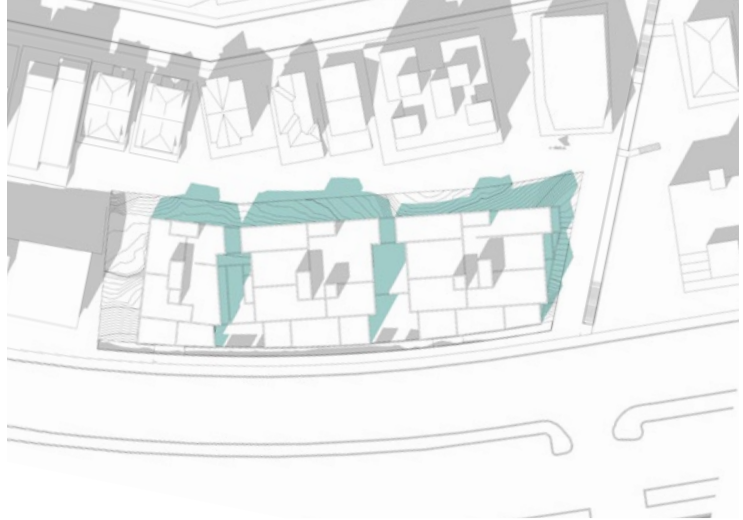
The shadow studies are based on Alternative 3 (Preferred). The site primarily has access to Eastern, Southern, and SouthWestern sun exposure. The long shadows cast by the proposed building do not appear to impact adjacent properties.



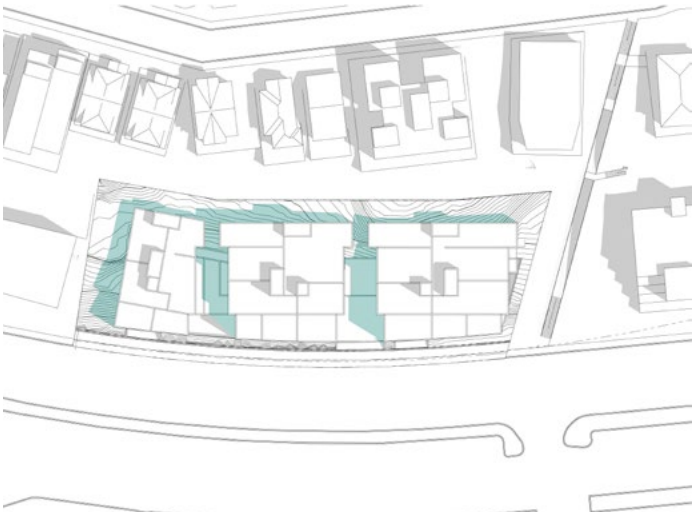
Equinox - March / September 21 at 10am



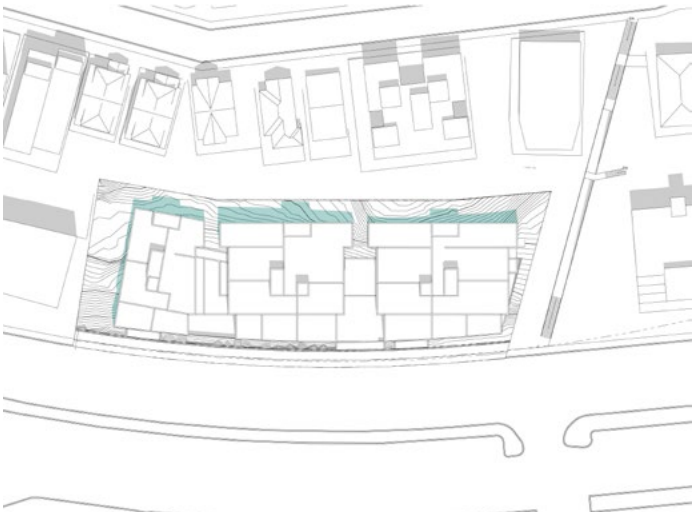
Equinox - March / September 21 at 12pm



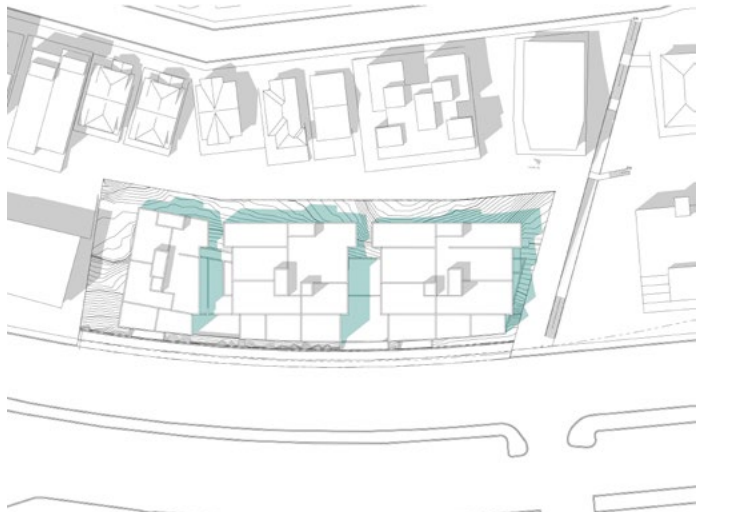
Equinox - March / September 21 at 2pm



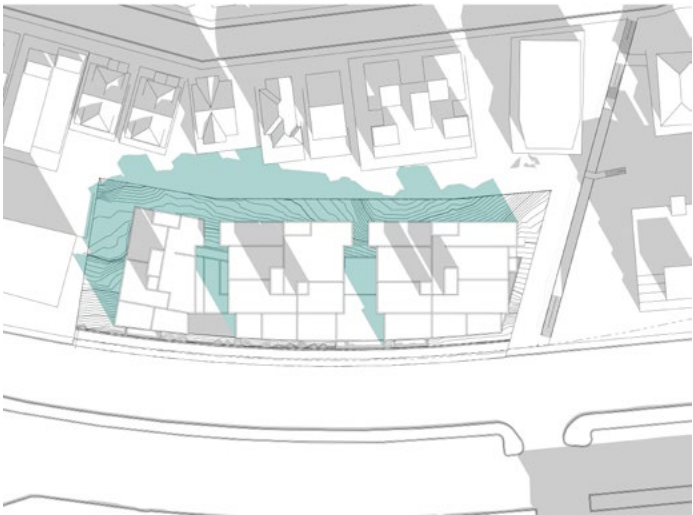
Summer Solstice - June 21 at 10am



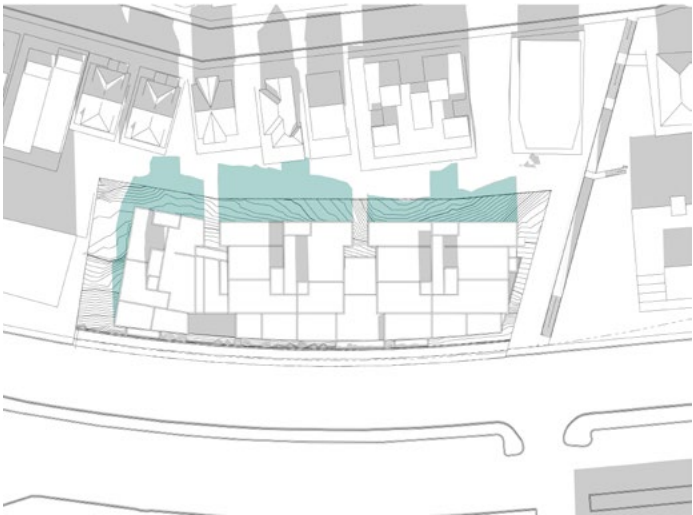
Summer Solstice - June 21 at 12pm



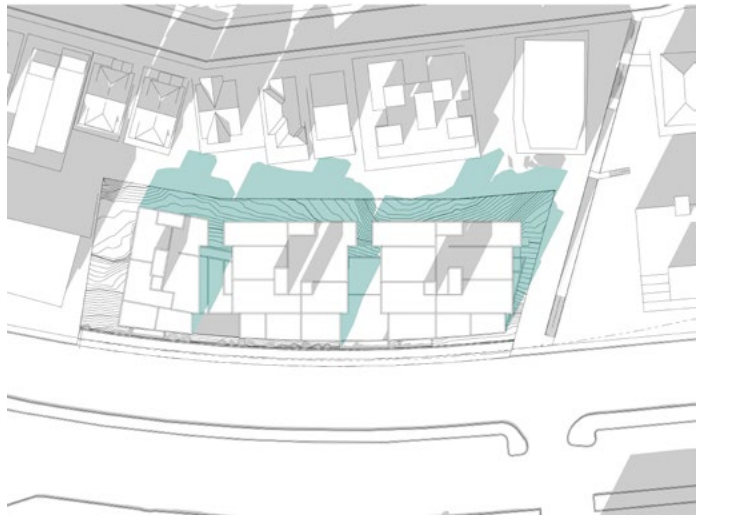
Summer Solstice - June 21 at 2pm



Winter Solstice - December 21 at 10am



Winter Solstice - December 21 at 12pm



Winter Solstice - December 21 at 2pm



Front Facade: view across Westlake Ave N



View from Crockett Stairway



Aerial looking Northeast



View from Westlake Ave N Looking Southwest



South Building Break



View Looking Southwest

CONCEPTUAL OVERALL RENDERED LANDSCAPE PLAN



LANDSCAPE CONCEPT



GREEN ROOF



ACCENT LIGHTING



FIRE ELEMENT

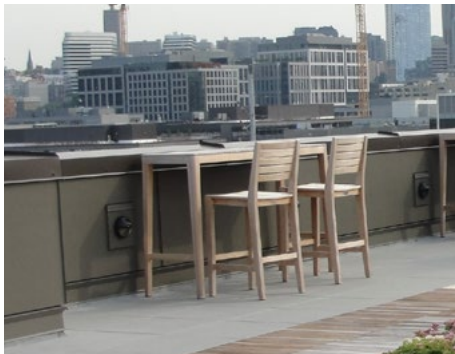


SMALL TREES IN RAISED PLANTERS

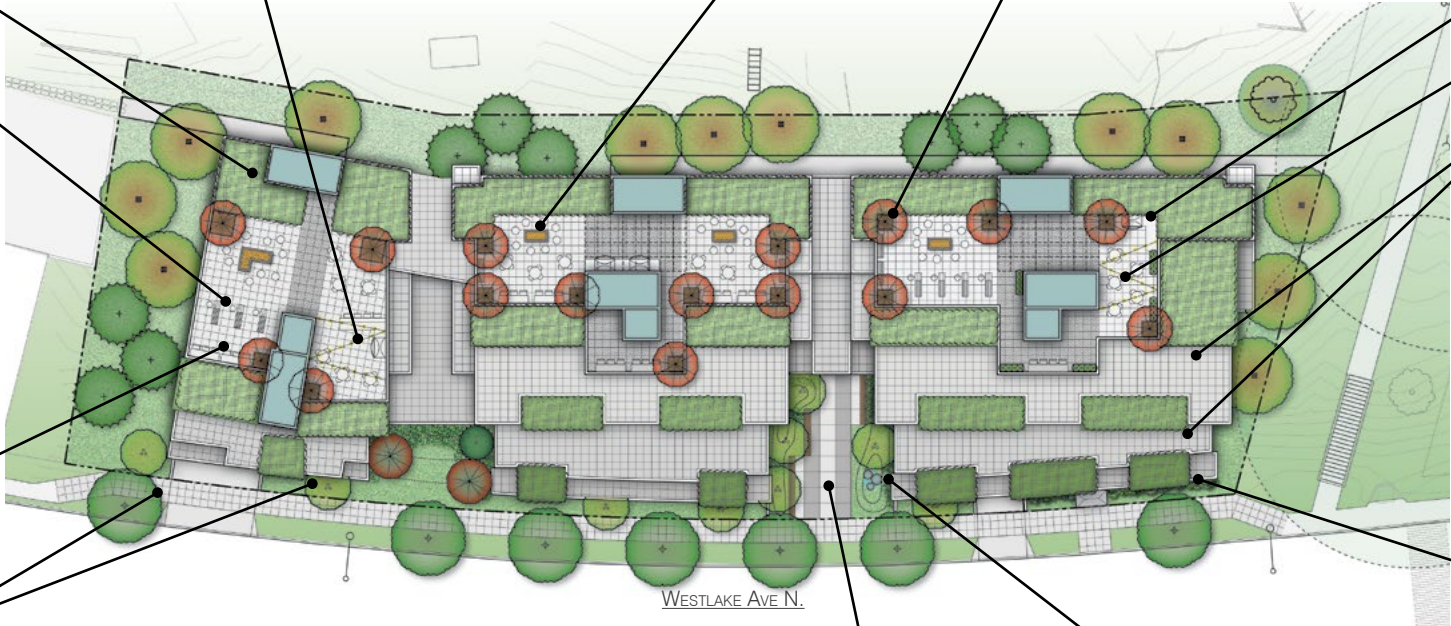


GRILL AND COUNTER

OUTDOOR FURNITURE



OUTDOOR FURNITURE



TABLES & CHAIRS

PEDESTAL PAVERS FOR ALL DECK SPACES



NEW PLANTING STRIP, STREET TREES, AND SIDEWALK WITH RETAINING WALL AND BERM AGAINST BUILDING



RESIDENTIAL ENTRY LINED WITH BENCHES, VEGETATION, ACCENT CONCRETE

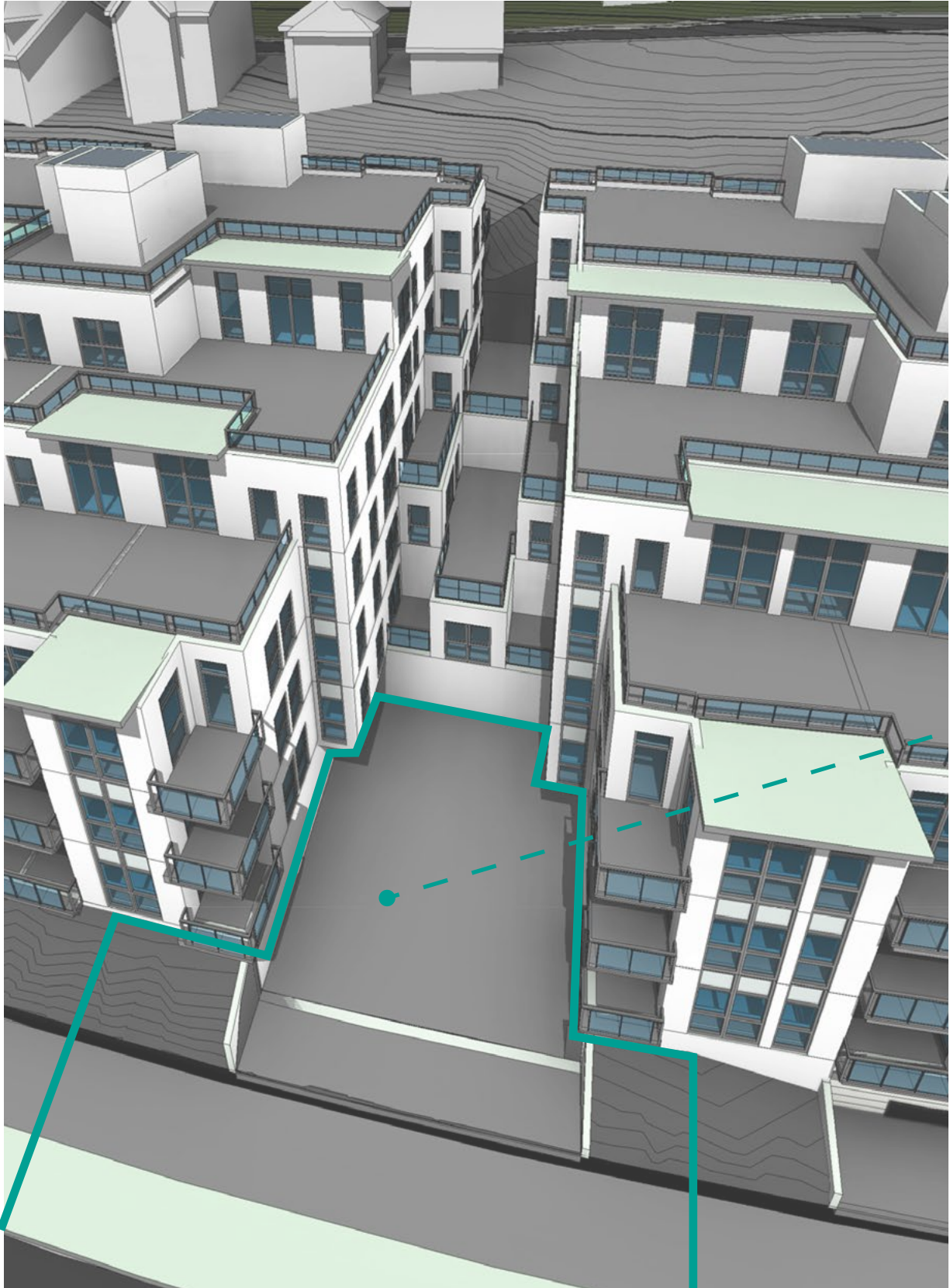


BASALT COLUMN WATER FEATURE



GREEN SCREEN WITH CLIMBING VINES

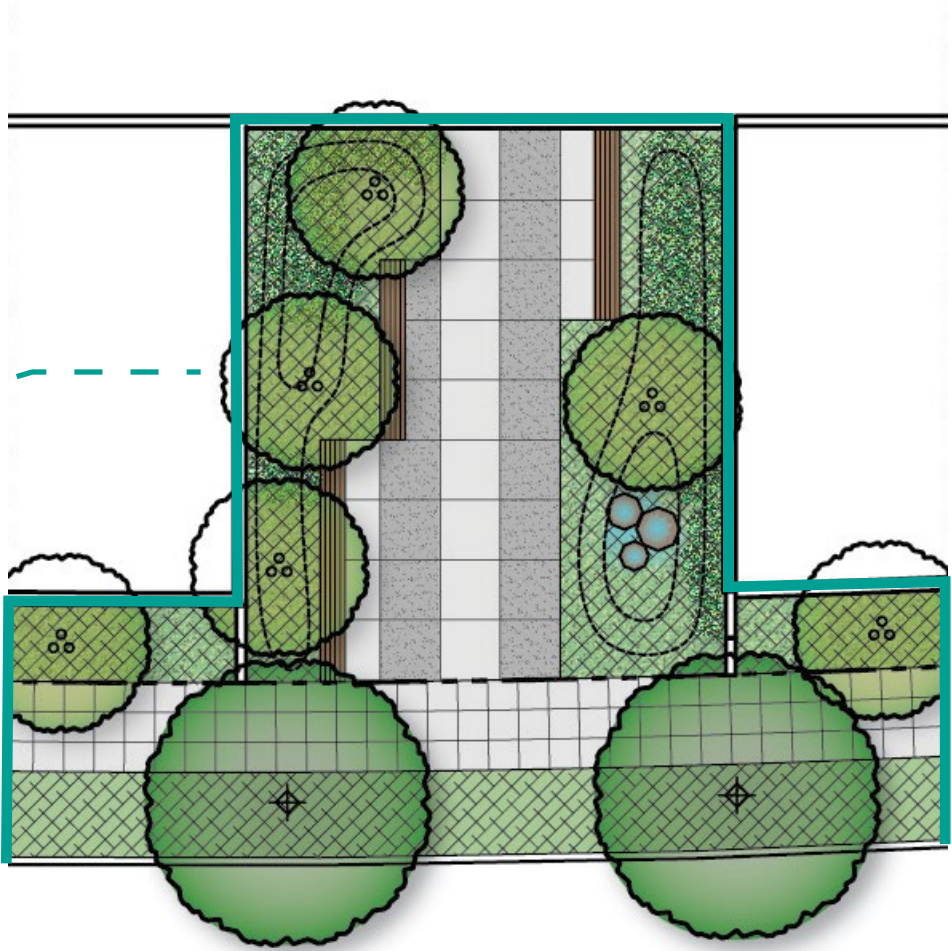




North Building Break: Main Entry



Conceptual Imagery



Entry Plan



There are no Standard Departures requested at this time.



Liberty Gateway, Salt Lake City, UT



Liberty Gateway, Front Facade



Malmo Apts, Shoreline, WA



Malmo Apts, Front Entryway



Academia Court, University District



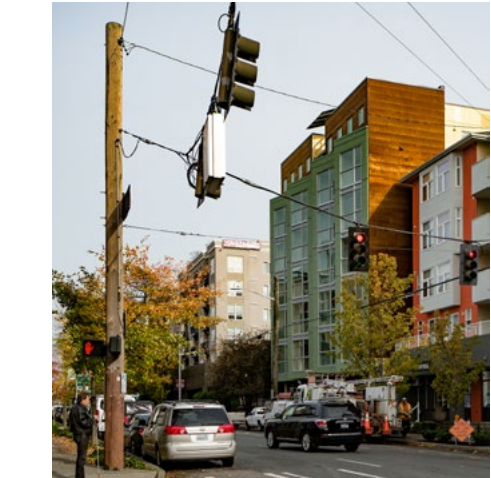
Academia Court, Courtyard



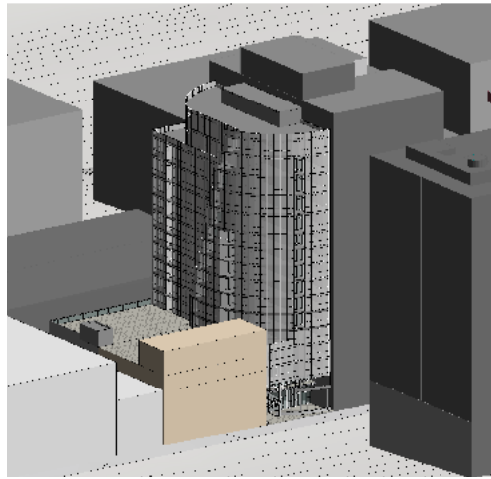
Stone Way Apts, Seattle



Savanna Apts, University District



Savanna Apts, Front Facade



Tacoma Condo Hotel, Tacoma, WA



Mixed-Use, Spokane, WA



Lavender Suites, University District



323 Bellevue, Capitol Hill



323 Bellevue, Capitol Hill

intentionally blank

Tree Solutions Inc

Consulting Arborists

Project No. TS - 5166

Arborist Report

TO:Midby Companies, c/o John Midby

SITE:2031 Westlake Ave N, Seattle, WA 98109

RE:Tree Inventory & Assessment

DATE:December 29, 2015

PROJECT ARBORISTS: Haley Galbraith, ISA Certified Arborist Municipal Specialist PN-7512AM
ISA Qualified Tree Risk Assessor

Katie Hogan, ISA Certified Arborist PN-8078A

Summary

Fifty-nine (59) significant trees were inventoried and assessed at the above-addressed site. Seventeen (17) of the trees qualify as Exceptional per Seattle Director’s Rule 16-2008.

One (1) Exceptional Grove, defined as a group of eight or more trees 12 inches in diameter at standard height (DSH) or greater with overlapping canopies, currently exists on site. This Grove is located in the southeast corner of the site along Westlake Ave N and consists of nine (9) trees, the majority of which are in poor health and/or structural condition.

The additional eight (8) Exceptional trees on site are bigleaf maple (*Acer macrophyllum*) trees which meet or exceed the size threshold of 30 inches DSH for this species in the City of Seattle.

According to proposed site plans dated December 23, 2013, it may be feasible to retain some of the existing Exceptional trees.

Tree 205, an Exceptional grey poplar (*Populus x canescens*) tree, does not appear to conflict with any of the three potential design plans provided to us. This tree can likely be retained if appropriate tree protection measures are established and maintained throughout all phases of development.

Of the trees in the Exceptional Grove, trees 191 and 192 would likely require removal to accommodate the southernmost proposed building. Trees 183, 185, 188, 189 & 190 were found to be in poor health and/or structural condition, but may be retainable if plans allow and pruning management is performed.

Trees 178, 179, and 180 are bigleaf maple (*Acer macrophyllum*) trees in good health and fair structural condition; two of which are Exceptional by size. These trees are potential candidates for retention.

The remainder of the trees on site will likely require removal to accommodate proposed development.

Two (2) trees located on adjacent properties had canopies overhanging the site. These trees should not be impacted by proposed development, with the exception of minor canopy pruning for clearance.

2940 Westlake Ave N (Suite 200) · Seattle, WA 98109 · Phone 206.528.4670
www.treesolutions.net

Assignment & Scope of Report
This report outlines the site inspection by Haley Galbraith and Katie Hogan, of Tree Solutions Inc, on December 18, 2015. Included are observations and data collected at the site located at 2031 Westlake Ave N, in Seattle. John Midby, of Midby Companies, requested these services to acquire information for project planning in accordance with Seattle Municipal Code.

We were asked to evaluate the significant trees on site and to produce an Arborist Report including our findings and recommendations.

The tree identifier, species, size, health and structural condition, Exceptional status, and additional notes and for each tree can be found in the attached [Table of Trees](#). A site survey showing tree locations and corresponding identifiers is also attached. Photographs, Glossary, and References are included below. Limits of Assignment can be found in [Appendix A](#). Methods can be found in [Appendix B](#). Additional Assumptions and Limiting Conditions can be found in [Appendix C](#).

Observations
Site
The 26,800 square foot (0.6 acre) site fronts Westlake Ave N in the Queen Anne neighborhood of Seattle. The lot is currently vacant and no permanent structures exist on site. The topography throughout the site is relatively steep. The steepest area is along Westlake Ave N, likely as a result of the man-made road cut. Approximately two-thirds of the site has a more gradual slope than the steep section paralleling Westlake Ave N, and there is a flat plateau along the westernmost edge of the site.

The site is heavily covered in invasive ivy (*Hedera* spp.) and clematis (*Clematis* spp.) vines, and there were signs of active slope failure along the steepest (eastern) edge. The remainder of the slope appeared stable. The site is a designated Environmentally Critical Area (ECA) due to steep slope and known potential landslide areas.

Trees
Fifty-nine significant trees currently exist on site, seventeen of which are Exceptional by size, due to being part of a Grove, or both. Tree species consist of mainly native species, including bigleaf maple (*Acer macrophyllum*) and red alder (*Alnus rubra*). There is a moderate to high density of invasive English laurel (*Prunus laurocerasus*), three of which were significant by size. One grey poplar (*Populus x canescens*) was also measured and assessed at the northwest corner of the site.

We evaluated the site for Exceptional Groves during our assessment, and found that one Grove exists in the southeast corner of the site. We determined that none of the remaining clusters of trees had eight or more trees, twelve inches DSH or greater with overlapping canopies.

Twelve native red alder trees currently exist on site, most of which were in fair health and structural condition. The alders were concentrated in the northeast corner of the site and along Westlake Ave N. Several alders had significant trunk leans toward the road and appeared to be actively failing. We also observed locations of past failures in the canopies of several alders, indicating past trunk or branch loss into or very near Westlake Ave N.

Tree 190 was a 28.3 inch DSH multi-trunk red alder tree located in the southeast corner of the site. The co-dominant union was crowded with fairly large trunks, one of which was dead. We observed several broken branches which appeared to have fallen into Westlake Ave N.

Tree 165 was a 33.8 inch DSH bigleaf maple tree which we measured at the narrowest point below the co-dominant union to achieve the most representative size measurement. This tree was in poor structural condition due to a large basal decay cavity and multiple trunks attached from a single point that appeared to have significant decay.

Trees 178 and 179 were Exceptional bigleaf maple trees, measuring 31.3 and 40.8 inches DSH respectively. Both trees were in good health and fair structural condition due to co-dominant trunk form. They were located at the crest of the slope near the south end of the site. The tree bases appeared stable and we observed signs of vigorous growth.

In the southeast corner of the site, trees 182, 183, 185 through 188, 190, 191, and 192 form an Exceptional Grove. Two of these trees also exceed the 30 inch diameter Exceptional threshold for bigleaf maple. The trees in this Grove were in varying health and structural condition and several had previous branch failures over Westlake Ave N.

Tree 191 was mapped as three trees on the survey provided to us, however, we determined that the three trunks grew from the same rooting location. The tree had a swept base toward the road but appeared stable and healthy. There was no visible decay on the exterior of the tree.

Eight bigleaf maple trees, four of which are Exceptional, line Westlake Ave N (trees 193 through 201). Most of these trees were previously topped, likely for view enhancement, and were declining in health and structural condition as a result. We observed some basal decay, previous branch failures, and swept bases.

Tree 205 was a 30.5 inch DSH Exceptional grey poplar tree. The trunk was co-dominant from the base with a narrow angle of attachment and a large area of visible decay along the east side of the trunk. According to the survey, this tree appears to be shared with the property to the west.

We assessed two off-site trees, located on the property to the north of the site. Both trees were bigleaf maples; we estimated tree A to measure greater than 30 inches DSH and tree B to be less than 30 inches DSH. We measured the canopy of tree A to extend approximately 47 feet south from the trunk of the tree and the canopy of tree B to extend about 45 feet south from the tree trunk.

Discussion
Based on proposed site plans, it may be possible to retain trees 178, 179, and 180. These trees were in good health condition and would be suitable long-term trees for this site if properly protected and managed. We recommend showing these trees with accurate drip lines on the proposed site plans to discuss retention possibilities.

The Exceptional grey poplar, tree 205, should be retained and protected throughout all stages of development. This tree should be clearly shown with an accurate drip line dimensions on all site plans; tree protection should encompass the entire drip line of the tree. No equipment or materials should enter the established tree protection area throughout any stages of development. Invasive ivy vines should be carefully removed from the trunk of the tree as soon as possible.

The Exceptional Grove in the southeast corner consists of several trees with health and structural defects. It may be possible to retain these trees through proper tree protection and pruning to mitigate risk of falling parts. We recommend showing these trees on the site plans with accurate drip lines to assess retention options and pruning management that may be needed to protect proposed structures.

During our assessment, the trees were not in leaf which may have affected our identification of Exceptional Groves on site. It is possible that more clusters of trees meet the City definition of an Exceptional Grove when in full leaf.

According to the provided site plans, it does not appear that any adjacent property trees would be detrimentally impacted by proposed development. Minor canopy reduction pruning may be necessary to provide adequate clearance for equipment and materials, but based on the current condition of these trees, they should tolerate pruning well.

Recommendations

- Obtain permission from the city prior to the removal of any site trees.
- Establish tree protection for all trees to be retained.
 - Tree protection should be installed prior to the commencement of site work and remain in place through completion of development.
- Show possible retention trees (178-180, 181-190) and accurate drip line dimensions on proposed site plans to determine the feasibility of retention.
- Retain and protect Exceptional grey poplar, tree 205, throughout all stages of development. Show tree location, accurate drip line dimensions, and proposed tree protection on site plans.

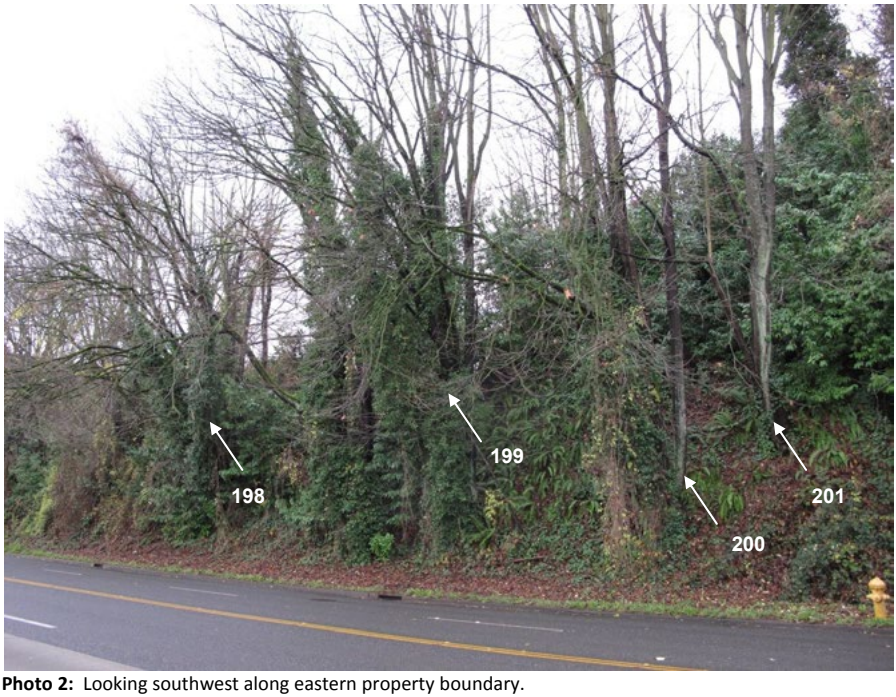




Photo 3: Adjacent site trees A & B located on north side of staircase to be retained. These trees should not be negatively impacted by proposed development.



Photo 4: Tree 178 - Exceptional bigleaf maple tree. Potential candidate for retention.



Photo 5: Trees 179 & 178 - potential candidates for retention.

Glossary

- co-dominant stems:** stems or branches of nearly equal diameter, often weakly attached (Matheny *et al.* 1998)
- crown/canopy:** the aboveground portions of a tree (Lilly 2001)
- DSH:** diameter at standard height; the diameter of the trunk measured 54 inches (4.5 feet) above average grade (Matheny *et al.* 1998)
- ISA:** International Society of Arboriculture
- included bark:** bark that becomes embedded in a crotch between branch and trunk or between co-dominant stems and causes a weak structure (Lilly 2001)
- significant size:** a tree measuring 6 inches DSH or greater
- structural defects:** flaws, decay, or other faults in the trunk, branches, or root collar of a tree, which may lead to failure (Lilly 2001)

References

- ANSI A300 (Part 1) – 2008 American National Standards Institute. American National Standard for Tree Care Operations: Tree, Shrub, and Other Woody Plant Maintenance: Standard Practices (Pruning). New York: Tree Care Industry Association, 2008.
- Sugimura, D.W. “DPD Director’s Rule 16-2008”. Seattle, WA, 2009.
- Dunster & Associates Environmental Consultants Ltd. Assessing Trees in Urban Areas and the Urban-Rural Interface, US Release 1.0. Silverton: Pacific Northwest Chapter ISA, 2006.
- Lilly, Sharon. Arborists’ Certification Study Guide. Champaign, IL: The International Society of Arboriculture, 2001.
- Matheny, Nelda and James R. Clark. Trees and Development: A Technical Guide to Preservation of Trees During Land Development. Champaign, IL: International Society of Arboriculture, 1998.
- Mattheck, Claus and Helge Breloer, The Body Language of Trees.: A Handbook for Failure Analysis. London: HMSO, 1994.

Appendix A - Limits of Assignment

Unless stated otherwise: 1) information contained in this report covers only those trees that were examined and reflects the condition of those trees at the time of inspection; and 2) the inspection is limited to visual examination of the subject trees without dissection, excavation, probing, climbing, or coring unless explicitly specified. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future.

Tree Solutions did not review any reports or perform any tests related to the soil located on the subject property unless outlined in the scope of services. Tree Solutions staff are not and do not claim to be soils experts. An independent inventory and evaluation of the soils on site should be obtained by a qualified professional if additional understanding of site characteristics is needed to make an informed decision.

Appendix B - Methods

We evaluated tree health and structure utilizing visual tree assessment (VTA) methods. The basis behind VTA is the identification of symptoms, which trees produce in reaction to weak spots or areas of mechanical stress. Trees react to mechanical and physiological stresses by growing more vigorously to re-enforce weak areas, while depriving less stressed parts (Mattheck & Breloer 1994). Understanding uniform stress allows us to make informed judgments about the condition of a tree.

We measured the diameter of each tree at 54 inches above grade, diameter at standard height (DSH) unless otherwise noted. If a tree had multiple stems, we measured each stem individually at standard height and determined a single-stem equivalent diameter by using the method outlined by Seattle Director’s Rule 16-2008. A tree is considered Exceptional based on this single stem equivalent value.

Appendix C - Assumptions & Limiting Conditions

1. Consultant assumes that any legal description provided to Consultant is correct and that title to property is good and marketable. Consultant assumes no responsibility for legal matters. Consultant assumes all property appraised or evaluated is free and clear, and is under responsible ownership and competent management.
2. Consultant assumes that the property and its use do not violate applicable codes, ordinances, statutes or regulations.
3. Although Consultant has taken care to obtain all information from reliable sources and to verify the data insofar as possible, Consultant does not guarantee and is not responsible for the accuracy of information provided by others.
4. Client may not require Consultant to testify or attend court by reason of any report unless mutually satisfactory contractual arrangements are made, including payment of an additional fee for such Services as described in the Consulting Arborist Agreement.
5. Unless otherwise required by law, possession of this report does not imply right of publication or use for any purpose by any person other than the person to whom it is addressed, without the prior express written consent of the Consultant.
6. Unless otherwise required by law, no part of this report shall be conveyed by any person, including the Client, the public through advertising, public relations, news, sales or other media without the Consultant’s prior express written consent.
7. This report and any values expressed herein represent the opinion of the Consultant, and the Consultant’s fee is in no way contingent upon the reporting of a specific value, a stipulated result, the occurrence of a subsequent event or upon any finding to be reported.
8. All photographs included in this report were taken by Tree Solutions Inc. during the documented site visit, unless otherwise noted.
9. Sketches, drawings and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys. The reproduction of any information generated by architects, engineers or other consultants and any sketches, drawings or photographs is for the express purpose of coordination and ease of reference only. Inclusion of such information on any drawings or other documents does not constitute a representation by Consultant as to the sufficiency or accuracy of the information.
10. Unless otherwise agreed, (1) information contained in this report covers only the items examined and reflects the condition of the those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, climbing, or coring. Consultant makes no warranty or guarantee, express or implied, that the problems or deficiencies of the plans or property in question may not arise in the future.
11. Loss or alteration of any part of this Agreement invalidates the entire report.



Table of Trees
2031 Westlake Ave N
Seattle, WA 98109

Date of Inventory: 12.18.2015
Table Prepared: 12.28.2015

Tree ID	Scientific Name	Common Name	DSH (Inches)	Health Condition	Structural Condition	Drip Line Radius (feet)				Exceptional Threshold	Exceptional?	Notes
						North	East	South	West			
147	<i>Alnus rubra</i>	Red alder	12.2	Fair	Poor	10	10	10	10	Not Exceptional unless in Grove	No	Active slope failure, tree appears to be pulling out of ground, 35 degree lean over Westlake Ave
148	<i>Alnus rubra</i>	Red alder	14.0	Fair	Fair	17	17	17	17	Not Exceptional unless in Grove	No	
149	<i>Alnus rubra</i>	Red alder	10.5	Fair	Fair	15	15	15	15	Not Exceptional unless in Grove	No	Trunk lean over Westlake Ave
150	<i>Alnus rubra</i>	Red alder	9.7	Fair	Poor	7	7	7	7	Not Exceptional unless in Grove	No	Trunk wound & visible decay - good response growth, trunk lean over Westlake Ave
151	<i>Alnus rubra</i>	Red alder	9.0	Fair	Fair	8	8	8	8	Not Exceptional unless in Grove	No	
152	<i>Alnus rubra</i>	Red alder	12.2	Fair	Fair	8	8	8	8	Not Exceptional unless in Grove	No	
153	<i>Alnus rubra</i>	Red alder	10.2	Fair	Fair	10	10	10	10	Not Exceptional unless in Grove	No	Trunk lean - corrected, symmetrical canopy
154	<i>Acer macrophyllum</i>	Bigleaf maple	27.9	Fair	Fair	22	22	22	22	30.0	No	Bulbous base, previously topped, diameter taken above standard height to get best representation of average size
155	<i>Prunus lauracerasus</i>	English laurel	7.0	Good	Fair	15	15	15	15	26.0	No	
156	<i>Acer macrophyllum</i>	Bigleaf maple	29.5*	Fair	Fair	20	10	20	10	30.0	No	Multiple leads from base (some dead), canopy in fair condition, upright structure
157	<i>Acer macrophyllum</i>	Bigleaf maple	19.0	Good	Good	15	0	15	18	30.0	No	Single, upright stem, ivy root in decay cavity along trunk
158	<i>Acer macrophyllum</i>	Bigleaf maple	18.0	Fair	Fair	11	11	11	11	30.0	No	Diameter adjusted for ivy, j-shaped base

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Table of Trees
2031 Westlake Ave N
Seattle, WA 98109

Date of Inventory: 12.18.2015
Table Prepared: 12.28.2015

Tree ID	Scientific Name	Common Name	DSH (Inches)	Health Condition	Structural Condition	Drip Line Radius (feet)				Exceptional Threshold	Exceptional?	Notes
						North	East	South	West			
159	<i>Acer macrophyllum</i>	Bigleaf maple	14.4	Poor	Poor	15	0	13	13	30.0	No	Diameter adjusted for ivy, canopy made up of stump sprouts, previously topped, smaller lead broken at location of topping
160	<i>Acer macrophyllum</i>	Bigleaf maple	17.9*	Fair	Fair	10	10	10	10	30.0	No	
161	<i>Acer macrophyllum</i>	Bigleaf maple	14.0	Poor	Poor	5	5	5	5	30.0	No	Visible decay at standard height - one stem dead, one stem alive
162	<i>Acer macrophyllum</i>	Bigleaf maple	18.0	Poor	Poor	10	0	12	0	30.0	No	Fruiting bodies on trunk - decay/bark loss
163	<i>Acer macrophyllum</i>	Bigleaf maple	10.7	Good	Fair	14	14	14	14	30.0	No	J-shaped base
164	<i>Acer macrophyllum</i>	Bigleaf maple	14.7	Fair	Poor	5	4	12	10	30.0	No	Major basal trunk decay - 50%, <i>Kretzschmaria deusta</i> at base
165	<i>Acer macrophyllum</i>	Bigleaf maple	33.8	Good	Poor	15	18	5	18	30.0	Yes	Diameter taken at narrowest point below co-dominant union, basal cavities with decay, 7 leaders attached to base with areas of decay at attachments
166	<i>Acer macrophyllum</i>	Bigleaf maple	10.7*	Fair	Poor	6	15	10	6	30.0	No	Slitted roots
167	<i>Acer macrophyllum</i>	Bigleaf maple	10.5	Fair	Fair	0	5	7	4	30.0	No	One out of two leads dead
168	<i>Acer macrophyllum</i>	Bigleaf maple	12.8	Fair	Poor	2	4	6	4	30.0	No	Basal trunk decay

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Table of Trees
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Date of Inventory: 12.18.2015
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Tree ID	Scientific Name	Common Name	DSH (Inches)	Health Condition	Structural Condition	Drip Line Radius (feet)				Exceptional Threshold	Exceptional?	Notes
						North	East	South	West			
169	<i>Acer macrophyllum</i>	Bigleaf maple	19.0	Fair	Poor	10	15	15	0	30.0	No	Diameter taken at narrowest point below co-dominant union, decay at base - actively falling
170	<i>Acer macrophyllum</i>	Bigleaf maple	17.5*	Fair	Poor	6	6	6	6	30.0	No	Upright leaders crowded, re-sprouts from former parent trees that were removed
171	<i>Acer macrophyllum</i>	Bigleaf maple	16.7*	Fair	Poor	12	10	10	10	30.0	No	Basal trunk decay, re-sprouts from former parent trees that were removed
172	<i>Acer macrophyllum</i>	Bigleaf maple	9.1*	Fair	Poor	10	5	15	10	30.0	No	Basal trunk decay, re-sprouts from former parent trees that were removed
173	<i>Prunus lauracerasus</i>	English laurel	19.3*	Good	Fair	20	10	20	20	26.0	No	
174	<i>Acer macrophyllum</i>	Bigleaf maple	8.6*	Poor	Poor	0	20	0	0	30.0	No	
175	<i>Acer macrophyllum</i>	Bigleaf maple	13.2*	Fair	Fair	0	4	10	10	30.0	No	Visible decay on trunk
176	<i>Acer macrophyllum</i>	Bigleaf maple	14.5*	Fair	Poor	10	10	10	10	30.0	No	Trunk parallel to soil with reiterative leaders about 6 feet from others
177	<i>Acer macrophyllum</i>	Bigleaf maple	6.7	Good	Good	5	5	5	5	30.0	No	
178	<i>Acer macrophyllum</i>	Bigleaf maple	31.3	Good	Fair	15	20	22	20	30.0	Yes	Diameter measured at narrowest point below co-dominant union - well-attached/stable, previously topped for view
179	<i>Acer macrophyllum</i>	Bigleaf maple	40.8*	Good	Fair	26	28	12	19	30.0	Yes	Specimen tree, root/branch connecting/grafted to two main leads, previously topped for view

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Tree ID	Scientific Name	Common Name	DSH (Inches)	Health Condition	Structural Condition	Drip Line Radius (feet)				Exceptional Threshold	Exceptional?	Notes
						North	East	South	West			
180	Acer macrophyllum	Bigleaf maple	21.8	Good	Fair	8	28	14	0	30.0	No	Co-dominant from about 10 feet with narrow angle of attachment, previously topped for view
181	Prunus laurocerasus	English laurel	7.8*	Fair	Poor	15	15	10	4	26.0	No	Basal decay, larger lead resting on ground, broken branches
182	Acer macrophyllum	Bigleaf maple	28.5*	Good	Fair	15	10	20	20	30.0	Yes - Grove	Previously topped, co-dominant from base with concrete between stems
183	Acer macrophyllum	Bigleaf maple	14.3	Poor	Poor	0	0	4	16	30.0	Yes - Grove	
184	Acer macrophyllum	Bigleaf maple	6.3	Poor	Poor	12	12	0	0	30.0	No	
185	Acer macrophyllum	Bigleaf maple	23.1*	Fair	Poor	25	22	0	0	30.0	Yes - Grove	Basal trunk decay, co-dominant union with narrow angle of attachment and decay column
186	Acer macrophyllum	Bigleaf maple	35.7*	Good	Fair	25	30	15	0	30.0	Yes - Size & Grove	
187	Acer macrophyllum	Bigleaf maple	24.5	Good	Good	10	10	10	10	30.0	Yes - Grove	
188	Acer macrophyllum	Bigleaf maple	24.2	Good	Poor	15	25	18	0	30.0	Yes - Grove	About 3 foot seam of included bark with large nose on north side of trunk, weaker lead targets Westlake Ave
189	Acer macrophyllum	Bigleaf maple	8.0	Poor	Poor	0	26	0	0	30.0	No	Large column of decay - targets Westlake Ave
190	Alnus rubra	Red alder	28.3*	Fair	Poor	0	23	18	0	Not Exceptional unless in Grove	Yes - Grove	Previous canopy failures over Westlake Ave, one trunk dead, odd basal form

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Tree ID	Scientific Name	Common Name	DSH (Inches)	Health Condition	Structural Condition	Drip Line Radius (feet)				Exceptional Threshold	Exceptional?	Notes
						North	East	South	West			
191	Acer macrophyllum	Bigleaf maple	52.4*	Good	Fair	25	27	25	27	30.0	Yes - Size & Grove	Giant tree, multiple large trunks from same root system, appears sound/stable
192	Alnus rubra	Red alder	17.2	Fair	Poor	22	26	0	0	Not Exceptional unless in Grove	Yes - Grove	Phototropic lean over Westlake Ave, co-dominant from about 14 feet up trunk with narrow angle of attachment
193	Acer macrophyllum	Bigleaf maple	36.3*	Fair	Fair	25	30	20	0	30.0	Yes	Previously topped, overhangs Westlake Ave
194	Acer macrophyllum	Bigleaf maple	28.6	Fair	Fair	15	15	15	15	30.0	No	Diameter taken at narrowest point below co-dominant union, extremely narrow attachment/fused, stilted roots, previously topped
195	Acer macrophyllum	Bigleaf maple	9.0	Fair	Poor	0	8	18	0	30.0	No	Previously topped
196	Acer macrophyllum	Bigleaf maple	14.2	Good	Fair	10	10	12	12	30.0	No	Minor basal decay likely
197	Acer macrophyllum	Bigleaf maple	15.9	Fair	Poor	0	28	18	0	30.0	No	Swept base, active slope failure, overhangs Westlake Ave - 45 degree lean
198	Acer macrophyllum	Bigleaf maple	32.0	Poor	Poor	8	16	12	6	30.0	Yes	Ganoderma applanatum fruiting body at base, diameter adjusted for ivy coverage, significant decay likely throughout, past canopy failures
199	Acer macrophyllum	Bigleaf maple	37.2	Poor	Poor	6	26	14	10	30.0	Yes	Diameter measured above standard height, large hanger stuck in south canopy

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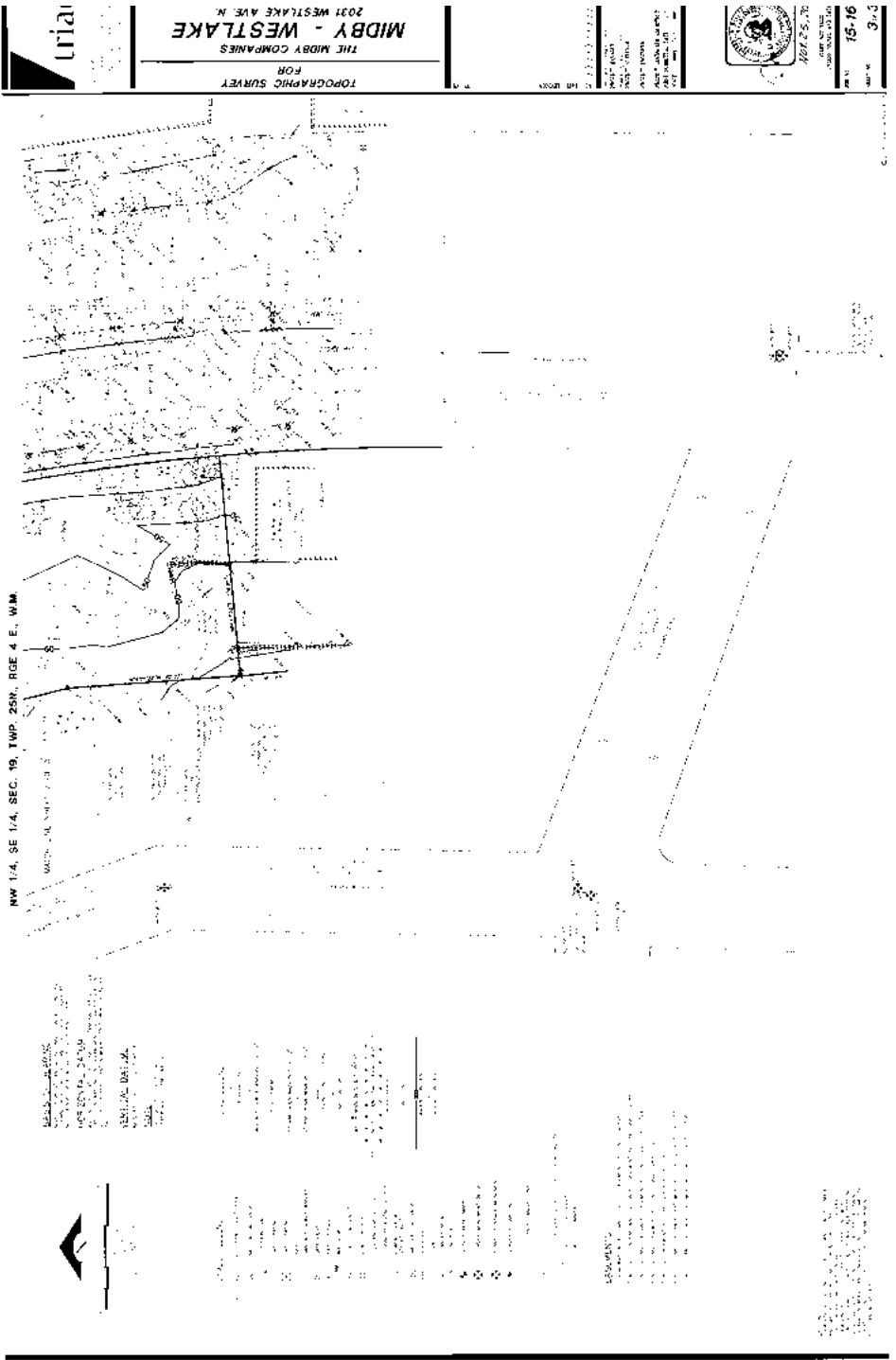
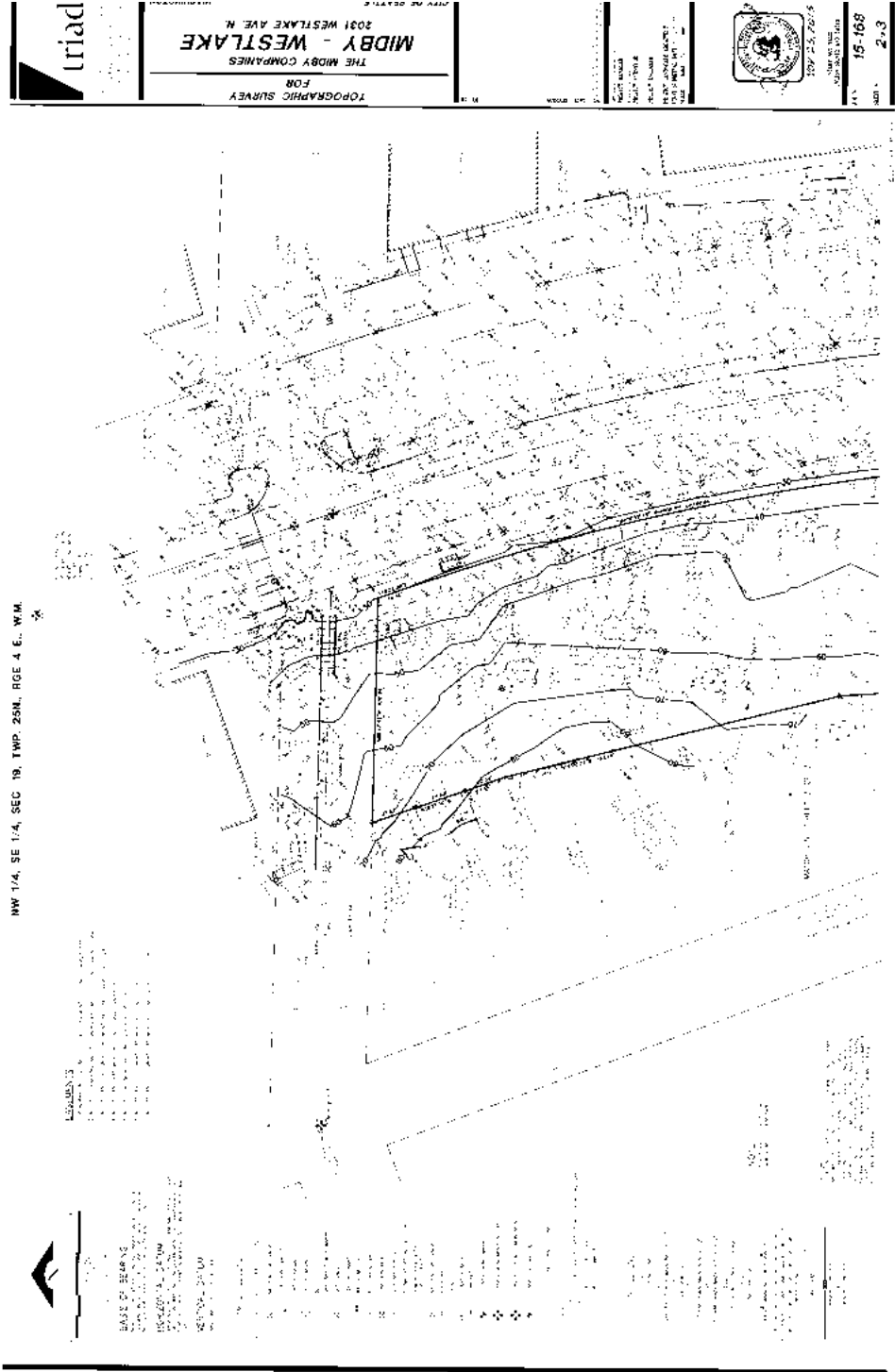
Tree ID	Scientific Name	Common Name	DSH (Inches)	Health Condition	Structural Condition	Drip Line Radius (feet)				Exceptional Threshold	Exceptional?	Notes
						North	East	South	West			
200	Acer macrophyllum	Bigleaf maple	39.6*	Fair	Fair	18	27	15	16	30.0	Yes	
201	Acer macrophyllum	Bigleaf maple	29.0	Good	Fair	20	28	20	10	30.0	No	Stilted roots, within Exceptional tree range
202	Alnus rubra	Red alder	9.5	Fair	Poor	5	17	12	0	Not Exceptional unless in Grove	No	Pulling out of slope, bowed trunk, 25 degree lean over Westlake Ave
203	Alnus rubra	Red alder	10.9	Fair	Fair	5	18	0	0	Not Exceptional unless in Grove	No	
204	Alnus rubra	Red alder	15.0	Fair	Fair	20	20	10	0	Not Exceptional unless in Grove	No	
205	Populus x canescens	Grey poplar	30.5	Fair	Fair	11	8	6	8	17.9	Yes	Co-dominant from base with narrow angle of attachment, column of decay on east side of base
										Total Exceptional	17	

Adjacent property trees:

A	Acer macrophyllum	Bigleaf maple	>30.0	Fair	Fair	-	-	47	-	30.0		On adjacent property to north, appeared greater than 30 inches DSH/Exceptional - not measured
B	Acer macrophyllum	Bigleaf maple	<30.0	Fair	Fair	-	-	45	-	30.0		On adjacent property to north, appeared less than 30 inches DSH - not measured

Additional notes:

DSH (Diameter at Standard Height) is measured 4.5 feet above average grade.
Multi-stem trees are noted (*), and a single stem equivalent is calculated using the method defined in the Director's Rule 16-2008.
Drip line is measured from the center of the tree to the outermost extent of the canopy in each direction noted.



TO: Midby Companies, c/o John Midby

SITE: 2031 Westlake Ave N, Seattle, WA 98109

RE: Return visit for further evaluation of Exceptional Grove

DATE: February 12, 2016

PROJECT ARBORIST: Katie Hogan, ISA Certified Arborist PN-8078A
ISA Qualified Tree Risk Assessor

ASSISTED BY: Haley Galbraith, ISA Certified Arborist Municipal Specialist PN-7512AM
ISA Qualified Tree Risk Assessor

On February 10th, 2016 I re-visited the above-addressed site to perform a detailed visual assessment of the grouping of trees located in the southeast corner of the site. Tree Solutions Inc. initially assessed these trees on December 18, 2015. We identified this grouping of trees as an Exceptional Grove, per Seattle Director's Rule 16-2008, in our report provided to Midby Companies and the Seattle Department of Construction and Inspections (DCI). At that time, we identified several trees in this Grove to be declining in health and structural condition. Due to the observed structural defects of these trees and close proximity to the busy thoroughfare, Westlake Ave N, our opinion is that these tree should not qualify as an Exceptional Grove, due to having short safe and useful life expectancies.

The scope of my follow-up site visit was to document the Exceptional Grove with photographs to be included in this addendum, and to perform a detailed visual inspection of the health and structure of this Grove. My findings were in alignment with our original inventory, but I will provide more detailed notes for specific trees in this addendum.

The trees that we found to be in poor structural condition within this grove were trees 183, 185, 188, and 190. Tree 190, a 28.3 inch diameter at standard height (DSH) multi-stemmed red alder (*Alnus rubra*), had large columns of decay along trunks leaning over Westlake Ave N (see [Photo 1](#)). We observed several broken branches which appeared to have fallen into Westlake Ave N. This particular species of tree is fast-growing and relatively short-lived, with brittle wood characteristics. Tree 190 appeared to be entering a stage of over-maturity, in other words, nearing the end of its life expectancy.

Tree 183 was a bigleaf maple (*Acer macrophyllum*) tree in poor structural condition. The tree appeared to be suppressed due to the surrounding dense canopy and previous topping. The height and diameter of the tree was relatively small and would therefore not likely present a high level of risk to surrounding targets at this time. However, due to the topping the tree had multiple weakly attached parts that would continue to be an on-going maintenance issue and present potential risk as the tree grew larger.

Tree 185 was a 23.1 inch DSH multi-trunk bigleaf maple tree that we found to be in fair health and poor structural condition. We observed significant trunk decay and a co-dominant union with a narrow angled attachment (see [Photo 2](#)). There was also a high volume of moderate sized diameter dead wood present throughout the canopy.

Tree 188 was a 24.2 inch DSH bigleaf maple tree that had a co-dominant form from the base with a very narrow angled attachment and large seam of included bark. Included bark can cause structural weakness in trees due to the lack of strength in bark fibers compared to that of wood tissue. We observed that the eastern trunk targets Westlake Ave N and would likely fall into the road in the event of co-dominant failure (see [Photo 3](#)).

Due to the proximity of the proposed site disturbances to these trees, the rate of decline would likely increase if the trees were to be retained. Furthermore, the addition of new high value targets within range of these trees would likely increase associated risk. In order to mitigate the risk the trees present to new targets, a significant crown reduction would be necessary. The health of these trees was notably in decline and this level of crown removal could further decrease tree health.

Based on these observations, it is in our opinion that these trees do not meet the condition criteria outlined in the Director's Rule 16-2008 and therefore the group of trees in the southeast corner of the site should not qualify as an Exceptional Grove (trees 182, 183, 185, 186, 187, 188, 190, 191, and 192). Please see the attached Tree Inventory for more details.

Tree 186, a bigleaf maple tree with five co-dominant trunks, has a single-stem equivalent diameter that qualifies this tree as Exceptional by size. We found the tree to be in fair structural condition during our assessment. We observed that there was a previous co-dominant failure at about 20 feet and that the central trunk had died. The health of the tree appeared stable however it is possible that some decay exists at the base due to the co-dominant form and dead central trunk (see [Photo 4](#)). Due to these structural defects, this tree is not an ideal candidate for retention on this site. It is likely that the safe and useful life expectancy would be relatively short, especially in conjunction with adjacent development. Based on these observations as well as the risk potential to planned targets, we do not believe this tree meets the condition requirements for an Exceptional tree.

Photographs



Photo 1: Red alder tree 190 looking east. Arrow points to large column of decay in trunk leaning over Westlake Ave N.



Photo 2: Decay along trunk of tree 185.



Photo 3: South side of tree 188. Note large seam of included bark and narrow angled co-dominant union.



Photo 4: Base of tree 186. Note multiple trunk form.

Appendix A - Assumptions & Limiting Conditions

1. Consultant assumes that any legal description provided to Consultant is correct and that title to property is good and marketable. Consultant assumes no responsibility for legal matters. Consultant assumes all property appraised or evaluated is free and clear, and is under responsible ownership and competent management.
2. Consultant assumes that the property and its use do not violate applicable codes, ordinances, statutes or regulations.
3. Although Consultant has taken care to obtain all information from reliable sources and to verify the data insofar as possible, Consultant does not guarantee and is not responsible for the accuracy of information provided by others.
4. Client may not require Consultant to testify or attend court by reason of any report unless mutually satisfactory contractual arrangements are made, including payment of an additional fee for such Services as described in the Consulting Arborist Agreement.
5. Unless otherwise required by law, possession of this report does not imply right of publication or use for any purpose by any person other than the person to whom it is addressed, without the prior express written consent of the Consultant.
6. Unless otherwise required by law, no part of this report shall be conveyed by any person, including the Client, the public through advertising, public relations, news, sales or other media without the Consultant's prior express written consent.
7. This report and any values expressed herein represent the opinion of the Consultant, and the Consultant's fee is in no way contingent upon the reporting of a specific value, a stipulated result, the occurrence of a subsequent event or upon any finding to be reported.
8. All photographs included in this report were taken by Tree Solutions Inc. during the documented site visit, unless otherwise noted.
9. Sketches, drawings and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys. The reproduction of any information generated by architects, engineers or other consultants and any sketches, drawings or photographs is for the express purpose of coordination and ease of reference only. Inclusion of such information on any drawings or other documents does not constitute a representation by Consultant as to the sufficiency or accuracy of the information.
10. Unless otherwise agreed, (1) information contained in this report covers only the items examined and reflects the condition of the those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, climbing, or coring. Consultant makes no warranty or guarantee, express or implied, that the problems or deficiencies of the plans or property in question may not arise in the future.
11. Loss or alteration of any part of this Agreement invalidates the entire report.

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Table of Trees
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Seattle, WA 98109

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Table Prepared: 12.28.2015
Table Updated: 02.12.2016

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						North	East	South	West				
147	<i>Alnus rubra</i>	Red alder	12.2	Fair	Poor	10	10	10	10	Not Exceptional unless in Grove	No	Active slope failure, tree appears to be pulling out of ground, 35 degree lean over Westlake Ave	
148	<i>Alnus rubra</i>	Red alder	14.0	Fair	Fair	17	17	17	17	Not Exceptional unless in Grove	No		
149	<i>Alnus rubra</i>	Red alder	10.5	Fair	Fair	15	15	15	15	Not Exceptional unless in Grove	No	Trunk lean over Westlake Ave	
150	<i>Alnus rubra</i>	Red alder	9.7	Fair	Poor	7	7	7	7	Not Exceptional unless in Grove	No	Trunk wound & visible decay - good response growth, trunk lean over Westlake Ave	
151	<i>Alnus rubra</i>	Red alder	9.0	Fair	Fair	8	8	8	8	Not Exceptional unless in Grove	No		
152	<i>Alnus rubra</i>	Red alder	12.2	Fair	Fair	8	8	8	8	Not Exceptional unless in Grove	No		
153	<i>Alnus rubra</i>	Red alder	10.2	Fair	Fair	10	10	10	10	Not Exceptional unless in Grove	No	Trunk lean - corrected, symmetrical canopy	
154	<i>Acer macrophyllum</i>	Bigleaf maple	27.9	Fair	Fair	22	22	22	22	30.0	No	Bulbous base, previously topped, diameter taken above standard height to get best representation of average size	
155	<i>Prunus laurocerasus</i>	English laurel	7.0	Good	Fair	15	15	15	15	26.0	No		
156	<i>Acer macrophyllum</i>	Bigleaf maple	25.5*	Fair	Fair	20	10	20	10	30.0	No	Multiple leads from base (some dead), canopy in fair condition, upright structure	
157	<i>Acer macrophyllum</i>	Bigleaf maple	19.0	Good	Good	15	0	15	18	30.0	No	Single, upright stem, ivy root in decay cavity along trunk	
158	<i>Acer macrophyllum</i>	Bigleaf maple	16.0	Fair	Fair	11	11	11	11	30.0	No	Diameter adjusted for ivy, J-shaped base	
159	<i>Acer macrophyllum</i>	Bigleaf maple	14.4	Poor	Poor	15	0	15	13	30.0	No	Diameter adjusted for ivy, canopy made up of stump sprouts, previously topped, smaller lead broken at location of topping	
160	<i>Acer macrophyllum</i>	Bigleaf maple	17.9*	Fair	Fair	10	10	10	10	30.0	No		
161	<i>Acer macrophyllum</i>	Bigleaf maple	14.0	Poor	Poor	5	5	5	5	30.0	No	Visible decay at standard height - one stem dead, one stem alive	
162	<i>Acer macrophyllum</i>	Bigleaf maple	18.0	Poor	Poor	10	0	12	0	30.0	No	Fruiting bodies on trunk - decay/bark loss	
163	<i>Acer macrophyllum</i>	Bigleaf maple	10.7	Good	Fair	14	14	14	14	30.0	No	J-shaped base	

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						North	East	South	West				
164	<i>Acer macrophyllum</i>	Bigleaf maple	14.7	Fair	Poor	5	4	12	10	30.0	No	Major basal trunk decay - 50%, <i>Freetschmoria deusta</i> at base	
165	<i>Acer macrophyllum</i>	Bigleaf maple	33.8	Good	Poor	15	18	5	18	30.0	Yes	Diameter taken at narrowest point below co-dominant union, basal cavities with decay, 7 leaders attached to base with areas of decay at attachments	
166	<i>Acer macrophyllum</i>	Bigleaf maple	10.7*	Fair	Poor	6	15	10	6	30.0	No	Silled roots	
167	<i>Acer macrophyllum</i>	Bigleaf maple	10.5	Fair	Fair	0	5	7	4	30.0	No	One out of two leads dead	
168	<i>Acer macrophyllum</i>	Bigleaf maple	12.8	Fair	Poor	2	4	6	4	30.0	No	Basal trunk decay	
169	<i>Acer macrophyllum</i>	Bigleaf maple	19.0	Fair	Poor	10	15	15	0	30.0	No	Diameter taken at narrowest point below co-dominant union, decay at base - actively falling	
170	<i>Acer macrophyllum</i>	Bigleaf maple	17.5*	Fair	Poor	6	6	6	6	30.0	No	Upright leaders crowded, re-sprouts from former parent trees that were removed	
171	<i>Acer macrophyllum</i>	Bigleaf maple	16.7*	Fair	Poor	12	10	10	10	30.0	No	Basal trunk decay, re-sprouts from former parent trees that were removed	
172	<i>Acer macrophyllum</i>	Bigleaf maple	19.1*	Fair	Poor	10	5	15	10	30.0	No	Basal trunk decay, re-sprouts from former parent trees that were removed	
173	<i>Pinus laurocerasus</i>	English laurel	19.3*	Good	Fair	20	10	20	20	26.0	No		
174	<i>Acer macrophyllum</i>	Bigleaf maple	8.6*	Poor	Poor	0	20	0	0	30.0	No		
175	<i>Acer macrophyllum</i>	Bigleaf maple	13.2*	Fair	Fair	0	4	10	10	30.0	No	Visible decay on trunk	
176	<i>Acer macrophyllum</i>	Bigleaf maple	14.5*	Fair	Poor	10	10	10	10	30.0	No	Trunk parallel to soil with reiterative leaders about 6 feet from others	
177	<i>Acer macrophyllum</i>	Bigleaf maple	6.7	Good	Good	5	5	5	5	30.0	No		

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Tree ID	Scientific Name	Common Name	DBH (inches)	Health Condition	Structural Condition	Drip Line Radius (feet)				Exceptional Threshold	Exceptional?	Notes	02.10.2016 Notes
						North	East	South	West				
178	Acer macrophyllum	Bigleaf maple	31.3	Good	Fair	15	20	22	20	30.0	Yes	Diameter measured at narrowest point below co-dominant union - well-attached/stable, previously topped for view	Drip lines: North - 23 ft; South - 25 ft; East - 20 ft; West - 23+ ft
179	Acer macrophyllum	Bigleaf maple	40.8*	Good	Fair	26	28	12	19	30.0	Yes	Specimen tree, red/branch decay, large trunk dead, previously topped for view	Upright crown with few lower branches - dead/dying drip line. Estimated 20 ft in all directions
180	Acer macrophyllum	Bigleaf maple	21.8	Good	Fair	8	28	14	0	30.0	No	Co-dominant from about 10 feet with narrow angle of attachment, previously topped for view	Branching starts high up along stem. Estimated drip lines about 25 ft north, south, east
181	Pinus lauracensus	English laurel	7.8*	Fair	Poor	15	15	10	4	26.0	No	Basal decay, larger lead resting on ground, broken branches	Dead wood present throughout canopy with concrete between stems
182	Acer macrophyllum	Bigleaf maple	28.5*	Good	Fair	15	10	20	20	30.0	No	Previously topped, co-dominant from base	Previously topped, low live crown ratio
183	Acer macrophyllum	Bigleaf maple	14.3	Poor	Poor	0	0	4	16	30.0	No		
184	Acer macrophyllum	Bigleaf maple	6.3	Poor	Poor	12	12	0	0	30.0	No		
185	Acer macrophyllum	Bigleaf maple	23.1*	Fair	Poor	25	22	0	0	30.0	No	Basal trunk decay, co-dominant union with narrow angle of attachment and decay column	Significant dead wood throughout canopy.
186	Acer macrophyllum	Bigleaf maple	35.7*	Good	Fair	25	30	15	0	30.0	No		Previous co-dominant failure at about 20 feet; central trunk dead; likely decay at base. Does not meet condition requirements for Exceptional tree.
187	Acer macrophyllum	Bigleaf maple	24.5	Good	Good	10	10	10	10	30.0	No		Large column of decay on south side of main trunk - good wound wood; co-dominant at about 30 feet - appeared stable.
188	Acer macrophyllum	Bigleaf maple	24.2	Good	Poor	15	25	18	0	30.0	No	About 3 foot seam of included bark with large nose on north side of trunk, weaker lead targets Westlake Ave	Co-dominant failure at about 23 feet.
189	Acer macrophyllum	Bigleaf maple	8.0	Poor	Poor	0	26	0	0	30.0	No		
190	Alnus rubra	Red alder	28.3*	Fair	Poor	0	23	18	0	Not Exceptional unless in Grove	No	Previous canopy failures over Westlake Ave, one trunk dead, led basal from	Wides column of decay in trunk over Westlake Ave.
191	Acer macrophyllum	Bigleaf maple	52.4*	Good	Fair	25	27	25	27	30.0	Yes	Giant tree multiple large trunks from same root system, appears sound/table	



Tree ID	Scientific Name	Common Name	DBH (inches)	Health Condition	Structural Condition	Drip Line Radius (feet)				Exceptional Threshold	Exceptional?	Notes	02.10.2016 Notes
						North	East	South	West				
192	Alnus rubra	Red alder	17.2	Fair	Poor	22	26	0	0	Not Exceptional unless in Grove	No	Previous canopy failures over Westlake Ave, co-dominant from about 14 feet up trunk with narrow angle of attachment	
193	Acer macrophyllum	Bigleaf maple	36.3*	Fair	Fair	25	30	20	0	30.0	Yes	Previously topped, overhangs Westlake Ave	
194	Acer macrophyllum	Bigleaf maple	28.6	Fair	Fair	15	15	15	15	30.0	No	Diameter taken at narrowest point below co-dominant union, extremely narrow attachment/fused, stilted roots, previously topped	
195	Acer macrophyllum	Bigleaf maple	9.0	Fair	Poor	0	8	18	0	30.0	No	Previously topped	
196	Acer macrophyllum	Bigleaf maple	14.2	Good	Fair	10	10	12	12	30.0	No	Minor basal decay likely	
197	Acer macrophyllum	Bigleaf maple	15.9	Fair	Poor	0	28	18	0	30.0	No	Sweet base, active slope failure, overhangs Westlake Ave - 45 degree lean	
198	Acer macrophyllum	Bigleaf maple	32.0	Poor	Poor	8	16	12	6	30.0	Yes	Gonodermis applanatum fruiting body at base, diameter adjusted for ivy coverage, significant decay likely throughout, past canopy failures	
199	Acer macrophyllum	Bigleaf maple	37.2	Poor	Poor	6	26	14	10	30.0	Yes	Diameter measured above standard height, large hanger stuck in south canopy	
200	Acer macrophyllum	Bigleaf maple	39.6*	Fair	Fair	18	27	15	16	30.0	Yes		
201	Acer macrophyllum	Bigleaf maple	29.0	Good	Fair	20	28	20	10	30.0	No	Stilted roots, within exceptional tree range	
202	Alnus rubra	Red alder	9.5	Fair	Poor	5	17	12	0	Not Exceptional unless in Grove	No	Pulling out of slope, bowed trunk, 25 degree lean over Westlake Ave	
203	Alnus rubra	Red alder	10.9	Fair	Fair	5	18	0	0	Not Exceptional unless in Grove	No		
204	Alnus rubra	Red alder	15.0	Fair	Fair	20	20	10	0	Not Exceptional unless in Grove	No		
205	Populus x canadensis	Grey poplar	30.5	Fair	Fair	11	8	6	8	17.9	Yes	Co-dominant from base with narrow angle of attachment, column of decay on east side of base	
Total Exceptional											9		

Adjacent property trees:



Tree ID	Scientific Name	Common Name	DBH (inches)	Health Condition	Structural Condition	Drip Line Radius (feet)				Exceptional Threshold	Exceptional?	Notes	02.10.2016 Notes
						North	East	South	West				
A	Acer macrophyllum	Bigleaf maple	>30.0	Fair	Fair	-	-	47	-	30.0		On adjacent property to north, appeared greater than 30 inches DBH/Exceptional - not measured	
B	Acer macrophyllum	Bigleaf maple	<30.0	Fair	Fair	-	-	45	-	30.0		On adjacent property to north, appeared less than 30 inches DBH - not measured	

Additional notes:
1. Diameter of Standard Height (DBH) is measured 4.5 feet above average grade.
2. Multi-stem trees are noted (P) and a single stem equivalent is calculated using the method defined in the Director's Rule 14-2008.
3. Drip line is measured from the center of the tree to the outermost extent of the canopy in each direction noted.