## umtanum build 2258 15th ave w



workshop AD Karen Kiest | Landscape Architects

# section 3.0 design proposal

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## proposal

ocated midblock on the east side of 15th Avenue West rest Wheeler Street and West Boston Street. 15th Avenue hajor vehicle arterial with heavy traffic, frequent transit service, d Ride bus lane fronting the property. To the north, on the 5th and Wheeler, is a two-story structure (The Elevator Union To the south is a single-family structure. To the east is a ily structure and an eight unit rowhouse project (soon to break across the street is a single story commercial building. The s an LR3 zone to its east.

ed development is a 5 story (above grade) multifamily building with 32 dwelling units. Two levels of parking provide stalls, bicycle parking, and waste storage. In addition to the entry and lobby, a 1860 square foot commercial space is the ground floor. An outdoor amenity area is planned for the

proposal responds to four primary considerations.

the public realm by buffering it from the right of way with g, expanding it ten feet through a large building setback, with a continuos overhead canopy, and activating it with a l use.

two-sided response to the topography, views, and tal conditions.

the massing and fenestration for both the scale of a major the interior open space of a residential block.

mall court into the center of the building to provide daylight tion at the core of the project.



#### site location 2258 15th ave w seattle, wa 98119

# section 4.0 summary context analysis

parcel a (north)

2258 15th Avenue West

South 5 feet of lot 2, all of lot 3, north 10 feet of lot 4, block 166, Gilman's addition to the City of Seattle, according to the plat thereof, recorded in volume 5 of plats, page 93, in King County, Washington.

APN 2771601070

parcel b (south)

2254 15th Avenue West

Lot 5 and the south 15 feet of lot 4, block 166, Gilman's addition to the City of Seattle, according to the plat thereof recorded in volume 5 of plats, page 93, records of King County, Washington

APN 2771601075

The site slopes steeply uphill from 15th Avenue West with approximately 22 feet of vertical change. There is an exceptional Douglas Fir located in the southeast corner of the site. Overhead power lines are located in the right-of-way fronting the property that create the need for additional setbacks at upper levels.

The topography and open space created by 15th Avenue West provide excellent views from the site across the Interbay area and toward Puget Sound.

The site contains an exceptional tree (Tree #1 on survey). This tree is a 32.5 inch diameter Douglas Fir with a 31 foot diameter drip line. The tree is exceptional due to size. The tree is in fair condition and the root system has lifted the adjacent sidewalk. If the tree is to remain, the arborist recommends a 22 foot diameter root protection zone, no disturbance of the existing rockery and sidewalk fronting 15th Avenue West and that the existing stairway and walkway to the south of the tree remain.

The board recommended removal of the exceptional tree at EDG, citing the condition of the tree and the potentially unsafe conditions it has created at the sidewalk.



The site is located along the Elliott Avenue / 15th Avenue West corridor that connects the downtown core to Magnolia, West Queen Anne, and Ballard. Situated between the steep west slope of Queen Anne and the industrial infrastructure of Interbay, the corridor provides a diversity of programmatic uses and scales. 15th Avenue West acts as a physical boundary between the uphill residential neighborhood and the downhill industrial, commercial, and recreation areas. It is also a continuous, street wide, linear urban experience. As a corridor, sites are passed through, passed by, or broader regional destinations. There is an absence of gateways, nodes, and centers.

The Queen Anne area uphill from the site is an eclectic mix of single family residences, mid-century apartment buildings, and infill townhouse style development. There is a strong sense of spatial constraint on the east side of the roadway as the parcels back up against the hillside.

The industrial, commercial, and recreational uses that border the artery serve a broader region. The topography continues to fall behind the parcels on the west side of 15th so that uses are largely concealed and unknown to those traveling through the corridor. This also creates a void that opens up views to the west and south toward Elliott Bay.





## zoning // context







interbay work lofts

wells fargo bank

3

seattle animal shelter



interbay golf center



## existing use // context





5

alpine hut





10

brown bear car wash



15

interbay work lofts

## section 5.0 existing site conditions

15th ave looking southeast

15th ave looking east

15th ave looking northeast



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15th ave looking southeast



14th ave looking west



## street view

The east side of 15th Ave W consists of commercial space, self storage, apartment buildings and single family homes. The sites are predominantly sloping from 14th Ave W.





15th ave w - looking west

(across from site)





interbay athletic complex

interbay p-patch

gm nameplate / elliot bay animal hospital

# section 6.0 zoning data

Zone Overlays

Lot Size Street Level Development Standards apply Structure Height FAR (mixed use) Allowable Total GFA FAR (any single use) Allowable Total GFA (any single use) Setbacks

Amenity Area Required Parking Solid Waste Storage Bicycle Parking

Draft MHA Zone

C1-40 (borders LR-3 to east) Outer approach surface Potential Slide Abandoned Landfill 8,412 SF 40 feet (with 4 foot bonus for 13 foot ground floor) 3.25 27,339 SF 3.00 25.236 SF Required for OHP clearance on west side 15 feet required above 13 feet on east side (abutting a residential zone) Additional upper level setback required approximately 1,260 SF (5% of area in residential use) 16 stalls (0.5 per dwelling unit with Frequent Transit reduction) 457 SF 10 stalls

C1-55 (M)



# section 7.0 composite site plan



# section 8.0 response to edg

facade and architectural character





entries and street level interaction



CRE 4ST TURE CR landscape



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PL3-C-3 DC2-B-1

DC4-D-1

west (15th ave) facade



façade composition

choice of plant materials

- CS2-D-5

- mid-block sites

- CS1-B sunlight and natural ventilation
- respect for adjacent sites evolving neighborhoods PL3-A-1.c common entries to multi-story residential buildings

retail edges / ancillary activities

- CS2-C-2
- applicant-selected seattle design guidelines







aerial view looking southeast

sidewalk view looking south







sidewalk view looking north

#### massing and neighborhood context

Initial discussions on the massing of the structure focused on Option A, which proposed to retain the Exceptional tree. After discussing the tree and its impact on the massing and sidewalk, the Board focused their discussions on the proposed massing of Option B and Option C, which are similar in how the structure is located on site and in height, bulk, and scale.

a. Exceptional Douglas Fir. The Board expressed concern for retaining the tree as it would create an unsafe condition for the pedestrian and the necessary pruning would yield unnatural results. The impact on the massing was also significant prompting the Board to recommend proceeding with a different massing alternative. (CS1-D-1, CS2-D-2)

#### **Applicant Response:**

#### Massing alternative Option C has been further developed. The canopy of the existing exceptional Douglas Fir will be replaced on-site by a series of Bald Cypresses planted at the rear patios.

b. The Board preferred Option C due to the expanded sidewalk, creating a wider pedestrian realm along 15th Avenue West. However, the Board was concerned with how the massing relates to the residential zone (LR3) to the rear and instructed the applicant to provide a section through the building to illustrate how the landscaping and shoring wall provides an adequate transition to this residential zone. (CS1-C-2. CS2-D-3)

#### **Applicant Response:**

Floor-to-floor heights of the residential levels were reduced and the height of the street level commercial floor was increased to bring the 2nd floor levels closer to existing grade at the east property line. This creates a more natural relationship between the development and the surrounding context. Planters and retaining walls at the rear patios have been developed as stepped terraces to transition between the proposed project and the residential zone. Different types of landscaping create a variety of scales and screening between the project and the residentially zoned property to the east. Refer to landscape plans, perspective renderings and enlarged sections.

c. The Board supported the proposed location of the amenity area on the roof, which is closer to 15th Avenue West and away from the residential zone. (CS2-D-5)

#### **Applicant Response:**

The amenity area, developed as a series of intimate activity areas, is located on the western portion of the roof, adjacent to 15th Ave W. and away from the residential zone to the east. Refer to landscape plans, roof plan, and building section.

#### enlarged section - looking north

CS1-C-2. elevation changes

CS2-D-5. respect for adjacent sites

CS2-D-3, zone transitions

CS2-D-3. zone transitions

patios - view looking north

TO GUAD ELEV-109 TI-TO DOOP ANTES-LEV-109 TI-TO DOOP ANTES-ELEV-104 TI-TO DOOP ANTES-COOP AN

#### aerial view looking southeast



landscape plan







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sidewalk - view looking south



enlarged section - looking north



CS2-C-2. mid-block sites CS2-D-1. existing development & zoning

> d. The Board unanimously agreed that the applicant proceed with the development of Option C, which the Board decided was appropriate for the commercial zone in terms of height, bulk, and scale and allowed for a greater pedestrian experience (CS2-C-2, CS2-D-1)

> Applicant Response: Option C has been further developed. The public realm has been enhanced through the use of landscaping, lighting and signage. The pedestrian experience at the street level has been improved by relocating trash to the interior of the project and increasing the amount of transparency at the facade by raising the floor-to-floor height of the street level commercial space on 15th Ave W. approximately 3 feet, allowing a mezzanine. The activated portion of the street facade has increased 59%. Refer to perspective renderings and building sections.

CS2-C-2. Mid-Block Sites CS2-D-1. Existing Development & Zoning

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#### massing and neighborhood context

#### facade composition and architectural character

a. The Board strongly supported the design direction of the west (streetfacing) façade which utilizes secondary architectural features and a floor to ceiling expression that alludes to the character of the Interbay neighborhood. The Boards supports the use of high quality materials other than fiber cement siding to strengthen this design language as the façade is developed further. (CS2-A-1, DC2-A-2, DC2-B-1, DC4-A-1)

#### Applicant Response:

The project maintains the depth of the street facing facade, and has been further developed to respond to both the urban and residential environments through the primary organizing element of an industrial structural frame which maintains residential scale through the articulation of walls and individual floor levels. A secondary vocabulary of glazing and louvers take advantage of views while mitigating exposure - both environmental (solar) and visual (neighbors, pedestrian and vehicular traffic). Refer to perspective renderings and rendered elevations. While the street facing facade responds to the scale of 15th Ave W. with a primary structural frame across the entire facade, the east, residential facing facade is scaled using a frame that has been modified to more strongly express the unit width. The repetition and vertical emphasis of each bay creates a scale more typical of a rowhouse, to better relate to the adjacent residential zone.



west facade detail



CS2-A-1 - sense of place DC2-A-2 - reducing perceived mass DC2-B-1 - façade composition DC4-A-1 - exterior finish materials

east elevation



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west elevation





#### facade composition and architectural character

b. The Board instructed the applicant to develop a landscape plan that supports the overall design while providing a fine-textured, residential feel to the project. (DC2-D-1, DC4-D-1)

**Applicant Response:** A contextually appropriate landscape plan has been further developed to enhance the overall design while reinforcing the residential feel to the project. A diverse plant pallete and planting strips soften the edges of the building and enhance the pedestrian experience along the west facade. Raised planters and landscaping at the east patios mitigate elevation changes and provide screening between the project and the residentially zoned property to the east. Refer to landscape plans, perspective renderings and enlarged sections.

#### entries and streel level uses

(PL4-A)

**Applicant Response:** and plans.

b. Access Location and Design, Visual Impacts The Board instructed the applicant to explore methods to minimize the impact of the garage entrance and incorporate this into the full design of the structure. The Board also recommended providing more information on how the parking would function in terms of serving both the commercial and residential uses. (DC1-B-1, DC1-C-2)

**Applicant Response:** The entrance and screen to the parking garage have been recessed, widening the sidewalk and creating more pedestrian space, strengthening the prominance of the commercial frontage. Above the canopy, the clerestory windows continue over the garage entry, reducing the apparent scale of the garage in the overall facade. The screen is integrated into the industrial vocabulary of the secondary architectural elements, further mitigating the impact of the parking entrance on the facade. A five foot wide landscape planter is provided at the south side of the driveway to reduce, soften and buffer the edge of the driveway. Refer to perspective renderings and plans.

a. The Board was concerned with the size of the garage entrance as it is critical to the pedestrian experience along 15th Avenue West. The Board supported locating this entrance at the south end of the site as proposed, allowing the pedestrian entrance to be located closer to the park and transit.

The entrance and screen to the parking garage have been recessed, widening the sidewalk and creating more pedestrian space The project maintains the residential entry at the north end of the site, closer to the park and transit. Refer to perspective renderings

#### street // level 1 plan

#### entries and streel level uses

c. Connection to the Street, Entries, Service Uses

The Board was concerned with overall visibility of the residential entrance and lobby and how it relates to the commercial space and public realm. The Board recommended rearranging the interior uses to bring the lobby forward, increasing its visibility, and locating the trash and recycling in the garage to free up more space on the ground floor. (CS2-B-2, PL3-A, DC1-C-4)

#### Applicant Response:

The interior spaces have been rearranged, and trash and recycling have been relocated to the rear of the project. The residential lobby has been widened and brought forward, increasing the overall visibility and creating a gallery-like, double height space. Refer to perspective renderings and plans.

d. The Board was concerned with the depth of the commercial space and how the space interacted with the public realm. The Board recommended developing a design that increases visibility/interaction with the sidewalk while maintaining a depth that will be viable for a commercial tenant. The Board also recommended increasing the level of transparency into the commercial space. (CS2-B-2, PL2-B-3, PL3-C-2, PL3-C-3)

#### Applicant Response:

The depth of the commercial space has been increased to an average of 34.7 feet. Floor-to-floor height at street level has been increased to 18'-0", allowing for a mezzanine in the commercial space. Commercial transparency/glazing has increased from 248sf to 362sf, improving visibility and interaction with the sidewalk. Refer to perspective renderings, plans, elevations and sections. CS2-B-2. connection to street PL3-A. entries PL2-B-3. street-level transparency PL3-C-2. visibility DC1-B-1. access location & design DC1-C-2. visual impacts

PL3-C-3. ancillary activities

a

b

C

d

a

b

DC1-C-4. Service Uses

15th Ave

0



sidewalk - view looking north

DC1-B-1. access location & design DC1-C-2. visual impacts

CS2-B-2. connection to street PL2-B-3. street-level transparency PL3-C-2. visibility

PL3-C-3. ancillary activities



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garage screen









0









0

5







# section 10.0 composite landscape / hardscape plan





Oahu No Scratch bike rack



bioretention planter w/trees









narrow but generous terrace fire and fun



treelets







Bald Cypress

Lonicera pileata Privet Honeysuckle







Ophiopogon P. 'Nigrescens' Black Mondo Grass



Nandina 'Moon Bay' 'Moon Bay' Nandina



Cornus sericea 'kelseyi'



Sedum Etera 'Color Max'

PLANT LIST - ROOF

SYMBOL	BOTANICAL NAME	COMMON NAME
-	LAGERSTROEMIA INDICA 'MUSKOGEE'	MUSKOGEE CREPE MYRTLE
777772 (	LIRIOPE SPICATA	CREEPING LILYTURF
555555-	OPHIOPOGON P. 'NIGRESCENS"**	BLACK MONDO GRASS

SEDUM TILE: BY ETERA 'COLOR MAX' PLANTED W/ ALTERNATING BANDS OF SEDUM 'AUTUMN JOY' @ 30" O.C. \* STIPA TENUISSIMA @ 12" O.C. \*



llex crenata 'Convexa'

Convex-leaf Japanese Holly



Lagerstroemia indica 'Muscogee' Muscogee Crape Myrtle





Rosa 'Amber Flower Carpet' 'Amber Flower Carpet' Rose



Carex obnupta Slough Sedge



Sedum 'Autumn Joy' 'Autumn Joy' Sedum

# section 11.0 elevations

west elevation

south elevation



east elevation

north elevation



## section 12.0 material and color palette

concrete pavers

reveal system fiber cement panels, recessed trim painted finish







building base black finish



vinyl windows and doors at residential units black finish



narrow profile louver

panel framing black finish

sidewalk - view looking south



## section 13.0 renderings

west elevation





west elevation - enlarged view



sidewalk - view looking north



#### patios - view looking south



aerial view - looking southeast

east elevation






enlarged section at sidewalk / commercial space - looking north

## section 14.0 exterior lighting plan

canopy - west elevation







type a - downlight



#### type b - surface



## section 15.0 signage concept plan

west elevation - residential entry



20" tall swiss font letters centered on residential entry

enlarge section - commercial space



canopy blade signage at commercial space





# section 16.0 building sections

site section - looking north











detail - west facade





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#### equinox



march/september 21 9 am



march/september 21 12 pm



march/september 21 3 pm

#### summer



june 21 9 am







june 21 3 pm

### shadow study

#### winter



december 21 9 am



december 21 12 pm



december 21 3 pm

## section 17.0 departures

#### Standard: SMC 23.47A.014.B.3 Rear lot line setback

#### Requirement

For a structure containing a residential use, a setback is required along any side or rear lot line that abuts a lot in a residential zone or that is across an alley from a lot in a residential zone, or that abuts a lot that is zoned both commercial and residential if the commercial zoned portion of the abutting lot is less than 50 percent of the width or depth of the lot, as follows:

a. Fifteen feet for portions of structures above 13 feet in height to a maximum of 40 feet; and

b. For each portion of a structure above 40 feet in height, additional setback at the rate of 2 feet of setback for every 10 feet by which the height of such portion exceeds 40 feet

#### **Proposed departure**

Request departure to allow decreasing the depth of the setback along the rear property line from 15 feet to 13 feet for portions of the structure above 13 feet in height.

#### Rationale

The design and proposed location of the east facade better meets the intent of adopted design guidelines and more appropriately responds to the transition to the LR-3 residential zone (CS2-D-3) by:

- providing open space in excess of the code requirement, (DC2-A-1) 1.
- 2. providing less gross floor area and associated building mass than allowed by code, (DC2-A-1, CS2-D-3, CS2-D-4)
- З. providing a facade that is articulated and modulated to reflect a low-rise housing typology, (CS2-D-4, CS2-D-5) and
- expanding the at grade open space to provide additional landscaping and respect the natural topography. (DC3-A-1, CS2-D-2, DC4-D-1) 4.

#### Additional open space

While the required rear lot line setback is fifteen feet, the zoning code allows the grade level of a structure to extend to the rear lot line, up to a height of 13 feet. It also allows balconies to project into the setback, to within five feet of the rear lot line.

A conforming scheme could project to within five feet of the rear lot line and still allow windows in the grade level dwelling units. The upper three stories would be set back 15 feet from the rear lot line. The net cross sectional open space described would be 646 square feet.

The proposed design locates the entire rear facade 13 feet from the rear lot line. The net cross sectional open space proposed is 690 square feet, or a 7% increase. (DC2-A-1)

#### Reduced gross floor area and building mass

The portion of the grade level dwelling units that could project to within five feet of the rear lot line would have an area of 161.5 square feet per unit. The proposed portion of the dwelling units that project to within 13 feet of the rea lot line would have an area of 35.3 square feet per unit (141.2 square feet across four units) or a 13.5% reduction in gross floor area within the rear lot line setback. (DC2-A-1, CS2-D-3, CS2-D-4)

#### Façade modulation and articulation

The east facade is articulated as a series of adjacent complete frames. Downspouts from the roof will provide an additional vertical element to set off each unit from the next. With a project width of just 80 feet, this results in four repeated rowhouse-like fine scale and building texture. (DC2-A-2, DC2-B-1, DC2-C-2, DC2-D-1, DC2-D-2).

#### Expanding grade level open space

Holding the grade level dwelling units to thirteen feet from the rear lot line, provides additional ground level open space. This additional space creates a more natural response to the existing sloped topography (CS2-D-2), creates human scaled relationships between interior spaces and usable outdoor terraces (DC3-A-1, DC2-D-1), and allows for more diverse selection of plant materials that can mediate between the adjacent properties at the ground and canopy levels. (DC4-D-1). At maturity, the proposed plant species will provide a landscape screen that filters privacy at all levels of the project and the adjacent property. (DC4-D-3).

#### enlarged section at patios - looking north











### patios - view looking south



#### allowed



646 sq ft.







690 sq ft. (7% more open space)

building section - proposed

east elevation - allowed

### level 2 plan - allowed





646 sf total area





141.2 sf total area





level 2-5 plan - proposed

east elevation - proposed

#### Standard: SMC 23.47A.008.B.4. Non-residential street-level requirements // Height provisions for new structures or new additions to existing structures.

#### Requirement

SMC 23.47A.008.B.3. Depth provisions for new structures or new additions to existing structures. Non-residential uses shall extend an average depth of at least 30 feet and a minimum depth of 15 feet from the street-level street-facing facade. If the combination of the requirements of Sections 23.47A.005 or 23.47A.008 and this depth requirement would result in a requirement that an area greater than 50 percent of the structure's footprint be dedicated to non-residential use, the Director may modify the street-facing facade or depth requirements, or both, so that no more than 50 percent of the structure's footprint is required to be non-residential.

SMC 23.47A.008.B.4. Height provisions for new structures or new additions to existing structures. Non-residential uses at street level shall have a floorto-floor height of at least 13 feet.

#### **Proposed departure**

Request departure from SMC 23.47A.008.B.4. to decrease the floor-to-floor height of at least 13 feet for non-residential uses by allowing a mezzanine within the required average depth of 30 feet.

#### Rationale

The proposed design meets the intent of adopted design guidelines and more appropriately responds to the pedestrian zone by:

- providing floor-to-floor height in excess of the code requirement at the street-level, street-facing facade, (CS2-B-2, PL2-B-3, PL3-C-2) 1.
- providing an average depth in excess of code requirement, (CS2-B-2) 2.

#### Additional floor-to-floor height

The outer edge of the proposed mezzanine floor is 20 feet from the exterior wall, allowing 18'-0" floor-to-floor height at the street-level, street-facing facade. Commercial transparency/glazing has increased 46%, from 248sf to 363sf, improving visibility and connection to the pedestrian zone.

#### Additional depth

In response to the Board's concerns, the interior uses have been re-arranged, and the depth of the street-level commercial space has been increased to an average of 34.7 feet, providing an additional 180sf of viable commercial space beyond that of the 30 foot average depth required.

While the project is in a C1-40 zone, the proposed design meets the standards for allowable departures in pedestrian-designated zones, per SMC 23.41.012.B.36. Development standard departures: "Departures may be granted from any Land Use Code standard or requirement, except for the following: In pedestrian-designated zones, provisions for height requirements for floor-to-floor height, as provided in subsection 23.47.008.B, except that departures to allow a mezzanine with less than the minimum floor-to-floor height may be granted provided that the outer edge of the mezzanine floor is at least 15 feet from the exterior wall facing a principal pedestrian street."



#### enlarged section at sidewalk / commercial space - looking north

### street // level 1 plan

mezzanine plan





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### section 18.0 Alternate // Draft MHA

typical plan



building section - looking north



east elevation



west elevation

east elevation

aerial view - looking southeast



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# appendix a arborist's memo

#### **David Basham**

From:	Ryan Ringe <ryan@arboroptions.com></ryan@arboroptions.com>
Sent:	Thursday, April 13, 2017 4:09 PM
То:	Steve Bull
Cc:	David Basham
Subject:	Re: 2258 15th Ave W // Exceptional Tree

Hi Steve,

Here are some comments regarding the protection of Exceptional Tree #1 located at 2254 15th Avenue West in Seattle. Basically, the proposed design does not work for the tree protection, as the impacts to the tree are to great.

Tree #1 is an Exceptional Douglas Fir tree with a 32.5 in. DBH and a 31 ft. dripline radius (17.5 ft. inner root zone).

#### Comments

1. Demo & replacement of existing entrance sidewalk south of tree & rockery west of tree

The existing sidewalk is located 5 ft. south of the center of tree (about 3.5 ft. south of tree trunk), and is lifted slightly from root growth. Demo of the existing sidewalk could damage roots, so would have to be done with extreme care with an arborist present. Installing a new sidewalk would require a slight grade raise, because if it was installed in the same depth/ location, it would require large root pruning/ shaving. This grade raise would be required within the inner root zone, so the city would have to approve this (usually no excavation/ grade raise is allowed within the inner root zone.

To install the new sidewalk, the rockery would require removal, which also would need to be performed with great care with an arborist present. The plans show the rockery being installed 5 ft. to the east (closer to the tree), which would put it in the inner root zone (not allowed by the City, and too close because of the possibility of damaging large roots).

2. Pin Pile excavation and soldier pile wall excavation

The Pin Piles are shown as being drilled about 16-18 ft. from the tree (6 piles), which could potentially be ok. Because of the close proximity to the tree, each pile would require hand excavation to ensure that there are no large structural roots in the location. If large structural roots (over 2" diameter) are found, the location of the pile would require being moved 6 in. to 1 ft. to avoid the root.

The Soldier Pile wall is located near the inner root zone (approx. 16-18 ft. for over 25% of the dripline circumference) and would be 25 ft. deep. This is too much disturbance for the tree; over 1/3 of the outer drip line would be disturbed, and it is too close for the health/ stability of the tree. A 22 ft. - 26 ft. minimum radius distance is required for the location of the soldier pile wall excavation.

#### 3. Pruning

The proposed building side is located approx. 16-17 ft. east of the tree. The building roof top is 50 ft. above the tree base, and the lowest branches on the east side of the tree are approx. 40 ft. height. A deck is located on top

1

of the roof, which would require 10-15 ft. clearance. All of the branches on the east side of the tree would require pruning to a height of 60-65 ft. Douglas Fir trees do not have good lateral branches to cut back to (reduce canopy spread), so the tree would have all branches extending east cut back to the trunk from a height of 40 ft. to 65-65 ft. This is approaching the upper limit of acceptable pruning, and would be a significant impact to the tree (especially with all of the other impacts already). It would take a closer inspection of the exact number of branches requiring removal, but could possibly be ok.

4. Existing hardscape/ buildings requiring demo

The existing house/ garage requires demo, and has portions within the dripline (close to inner dripline). Again, care would need to be taken to avoid damaging roots.

5. The existing grade on the west side of the proposed building would be above the first living level floor. This grade is located within the inner root zone, and could not be lowered/ removed.

#### Summary

The proposed construction poses too many significant disturbances to the tree, and will not work. For tree retention, here are some thoughts:

A. Retain existing sidewalk (no demo) and leave retaining wall/ rockery in place. If sidewalk must be replaced, it must be done carefully, and a slight grade raise must be approved to avoid damaging roots. The rockery could be removed carefully, but could not be replaced 5 ft. to the east.

B. The building excavation (soldier pile wall excavation) would need to be at minimum 22 ft. from center of tree, and must be less than 1/3 of the outer dripline area. 26 ft. would be more acceptable; it really depends on how many other impacts to the tree are occurring. If there are other significant impacts to the tree, I would stipulate a 26 ft. radius.

C. Lowering the total height of the building would help lessen the pruning impacts to the tree. When pruning is performed, I think it would be important to have the Project Arborist there to ensure that only the absolutely necessary branches be removed. A 10 ft. vertical clearance would be more acceptable over the roof/ deck if possible.

Thank you,

Ryan

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#### SUBJECT PROPERTY SIGNIFICANT TREES (LOTS 3, 4, &5)

TREE #1: 32.5" DBH DOUGLAS FIR TREE. PSEUDOTSUGA MENZIESII, FAIR CONDITION, 31 FT. DRIP LINE RADIUS, EXCEPTIONAL TREE DUE TO SIZE (THRESHOLD DIAMETER 30". SEATTLE DPD DIRECTOR'S RULE 162008, TABLE 1) NOTE: TREE #1 IS LOCATED 5 FT. AWAY (CENTER OF TREE) FROM THE ADJACENT ENTRY SIDEWALK/ CONCRETE STEPS WITH RETAINING WALL ON A WEST FACING SLOPE. DEMOLITION OF THE ADJACENT SIDEWALK/ STEPS/RETAINING WALL FOR ANY PROPOSED DEVELOPMENT WILL LIKELY DAMAGE THE TREE'S STRUCTURAL ROOTS. THE TREE'S ROOTS HAVE LIFTED THE SIDEWALK SLIGHTLY.

TREE #2: 12.1" DBH ENGLISH HOLLY TREE, ILEX AQUIFOLIUM, GOOD/ FAIR CONDITION, NON EXCEPTIONAL TREE (LARGEST ENGLISH HOLLY IN TREES OF SEATTLE, 2ND EDITION BY ARTHUR LEE JACOBSON IS 6'7" CIRCUMFERENCE = 25.2" DIAMETER; 75% = 18.9" THRESHOLD DIAMETER)

TREE #3: 14.7" DBH (8 STEMS OF 5.3", 5.9", 5.9", 4.3", 5.0", 4.9", 3.9", AND 6.0" DBH ATTACHED AT GROUND) ENGLISH HOLLY TREE, ILEX AQUIFOLIUM, GOOD/ FAIR CONDITION, NON EXCEPTIONAL TREE (LARGEST ENGLISH HOLLY IN TREES OF SEATTLE, 2ND EDITION BY ARTHUR LEE JACOBSON IS 6'7" CIRCUMFERENCE = 25.2" DIAMETER; 75% = 18.9" THRESHOLD DIAMETER)

TREE #4: 6.9" DBH (2 STEMS OF 4.8" AND 4.9" DBH ATTACHED AT GROUND) COMMON PLUM TREE, PRUNUS DOMESTICA, FAIR CONDITION, NON EXCEPTIONAL TREE (NO DIAMETER GIVEN IN TREES OF SEATTLE, 2ND EDITION BY ARTHUR LEE JACOBSON OR CHAMPION TREES OF WASHINGTON STATE BY ROBERT VAN PELT. SO THRESHOLD DIAMETER = 30")

TREE #5: 15.3" DBH MAZZARD CHERRY TREE. PRUNUS AVIUM L., GOOD/ FAIR CONDITION, NON EXCEPTIONAL TREE (LARGEST MAZZARD CHERRY IN TREES OF SEATTLE, 2ND EDITION BY ARTHUR LEE JACOBSON IS 10'3 1/4" CIRCUMFERENCE = 39.3" DIAMETER; 75% = 29.5" THRESHOLD DIAMETER)

TREE #6: 8.0" DBH FLOWERING CHERRY SPP TREE. PRUNUS SPP. FAIR CONDITION, NON EXCEPTIONAL TREE (THRESHOLD DIAMETER 23", SEATTLE DPD DIRECTOR'S RULE 16-2008, TABLE 1)

TREE #7: 16.1" DBH (TREE HAS 6 STEMS OF 6.1", 6.7", 7.4", 6.3", 7.2", AND 5.5" DBH) ENGLISH WALNUT TREE, JUGLANS REGIA, FAIR CONDITION, NON-EXCEPTIONAL TREE (LARGEST ENGLISH WALNUT IN TREES OF SEATTLE, 2ND EDITION BY ARTHUR LEE JACOBSON IS 10'1" CIRCUMFERENCE = 38.5" DIAMETER; 75% = 28.9" THRESHOLD DIAMETER)



tree survey