West Seattle

FIRE STATION 32

Replacement Project

Seattle Design Commission Meeting 3
Design Development

Presented by
Bohlin Cywinski Jackson
May 1, 2014

CLIENT

City of Seattle
Dept. of Finance and Administrative Services
700 5th Ave., Suite 5200
PO Box 94680
Seattle WA 98124-4689

David Kunselman, Fire Levy Administrator
Mark Nakagawara, Senior Project Manager
Chief Michael H. Walsh, Battalion Chief, Retired

Seattle Fire Department
Chief Charles Cordova, Deputy Fire Chief
Chief William Hepburn, Deputy Fire Chief
Lt. Jared Fields, Station Representative
Sean Plattner, Station Representative
Michael Mann, Station Representative

DESIGN TEAM

Architect
Bohlin Cywinski Jackson
1932 First Avenue, Suite 916
Seattle, WA 98101
Peter Bohlin, FAIA, Lead Designer
Robert Miller, FAIA, LEED AP, Principal in Charge
Mark Adams, AIA, LEED AP, Project Manager
Emma Nowinski, LEED AP, Project Architect

Civil
Coughlin Porter Lundeen
413 Pine Street, Suite 300
Seattle WA 98101
Alan Jacobson, PE, Associate Principal
Bart Balko, PE, Project Manager

Landscape
Swift Company
3131 Western Avenue, Suite M423
Seattle WA 98121
Alison Maitland Scheetz, Project Manager

Structural
PCS Structural Solutions
811 First Avenue, Suite 510
Seattle WA 98104
Craig D. Stauffer, PE, President
Bob Copeland, PE, Project Manager

Mechanical
Hargis
600 Stewart Street, Suite 1000
Seattle WA 98101
Vernon Enns, Senior Associate

Electrical
Travis Fitzmaurice & Associates
1200 Westlake Avenue N, Suite 509
Seattle WA 98109
Kevin Wartelle, Principal

Alerting Systems
Tetra Tech
19803 North Creek Parkway
Bothell WA 98011
John Rice, Sr. Electrical Engineer

Sustainability
Brightworks
412 NW Couch Street, Suite 202
Portland OR 97209
Joshua Hatch, Sustainability Advisor

Energy Modeling and Daylighting
Integrated Design Lab
100 NE Northlake Way, Suite 100
Seattle WA 98105
Joel Loveland, Director
Christopher Meek, Daylighting Specialist

Solarc Engineering
223 West 12th Avenue
Eugene, OR 97401
Michael Hatten, Principal
Eric Knowles

Fire Station Consultant
TCA Architecture and Planning
6211 Roosevelt Way NE
Seattle WA 98115
Brian Harris, Principal

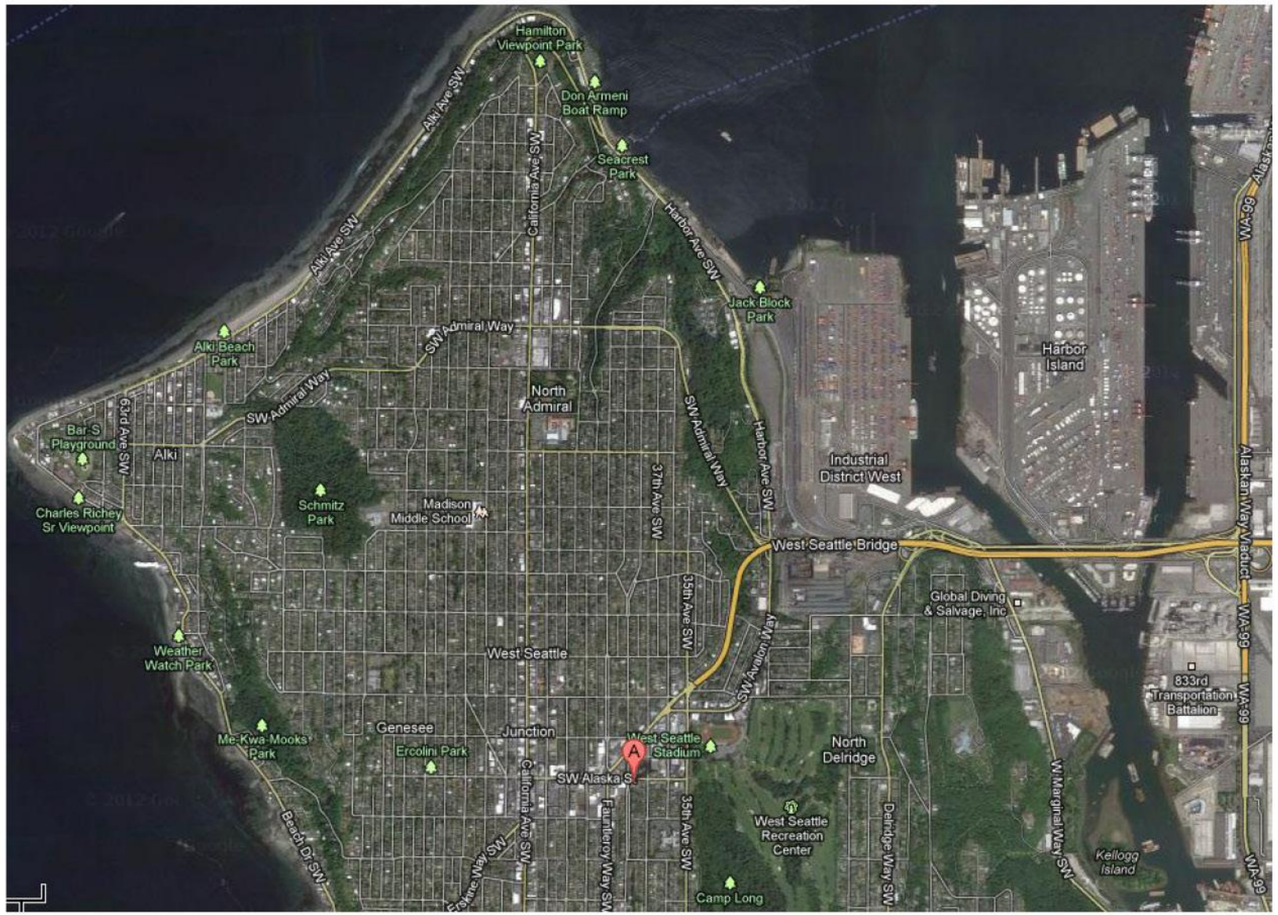
Acoustical Consultant
SSA Acoustics
222 Etruria Street, Suite 100
Seattle WA 98109
Matthew Roe, Acoustical Consultant

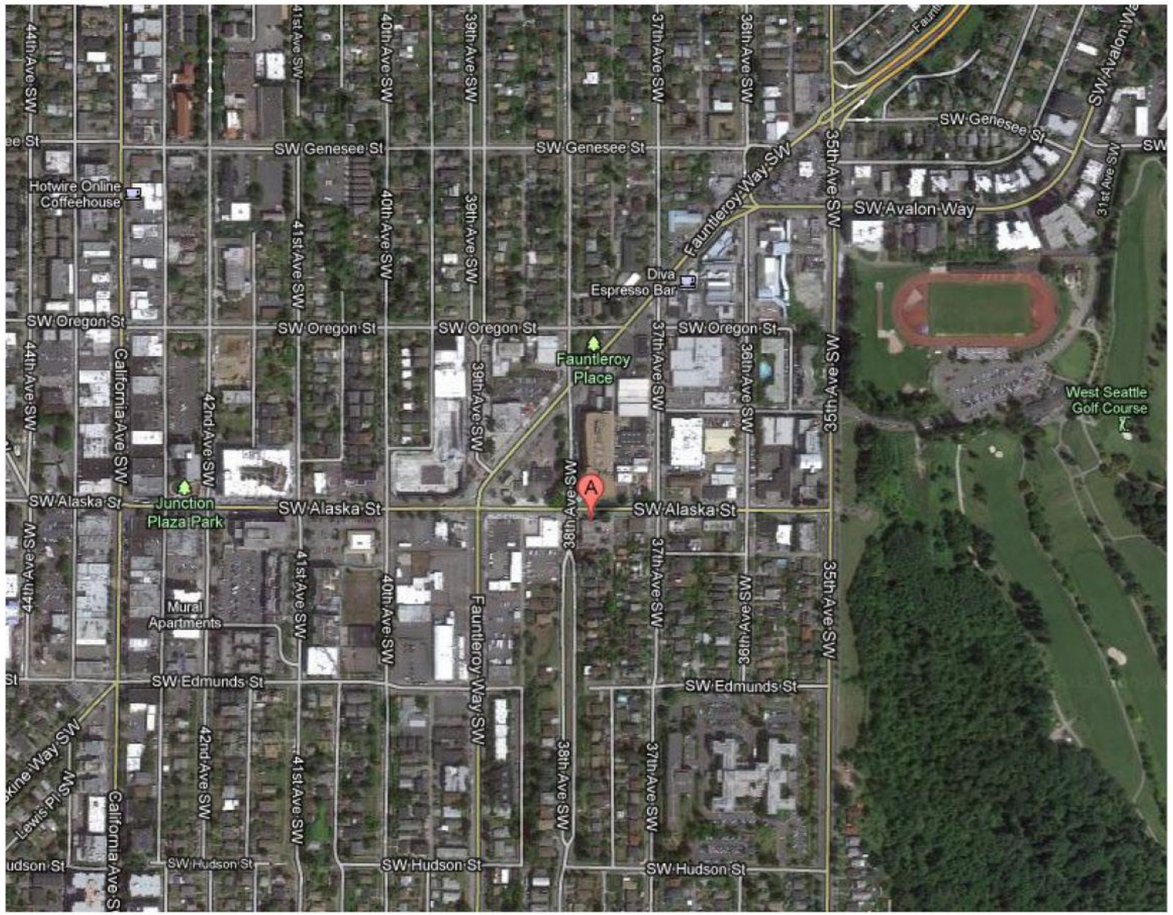
Envelope Consultant
RDH Building Sciences
2101 N 34th Street, Suite 150
Seattle WA 98103
Michael Aoki-Kramer, Principal

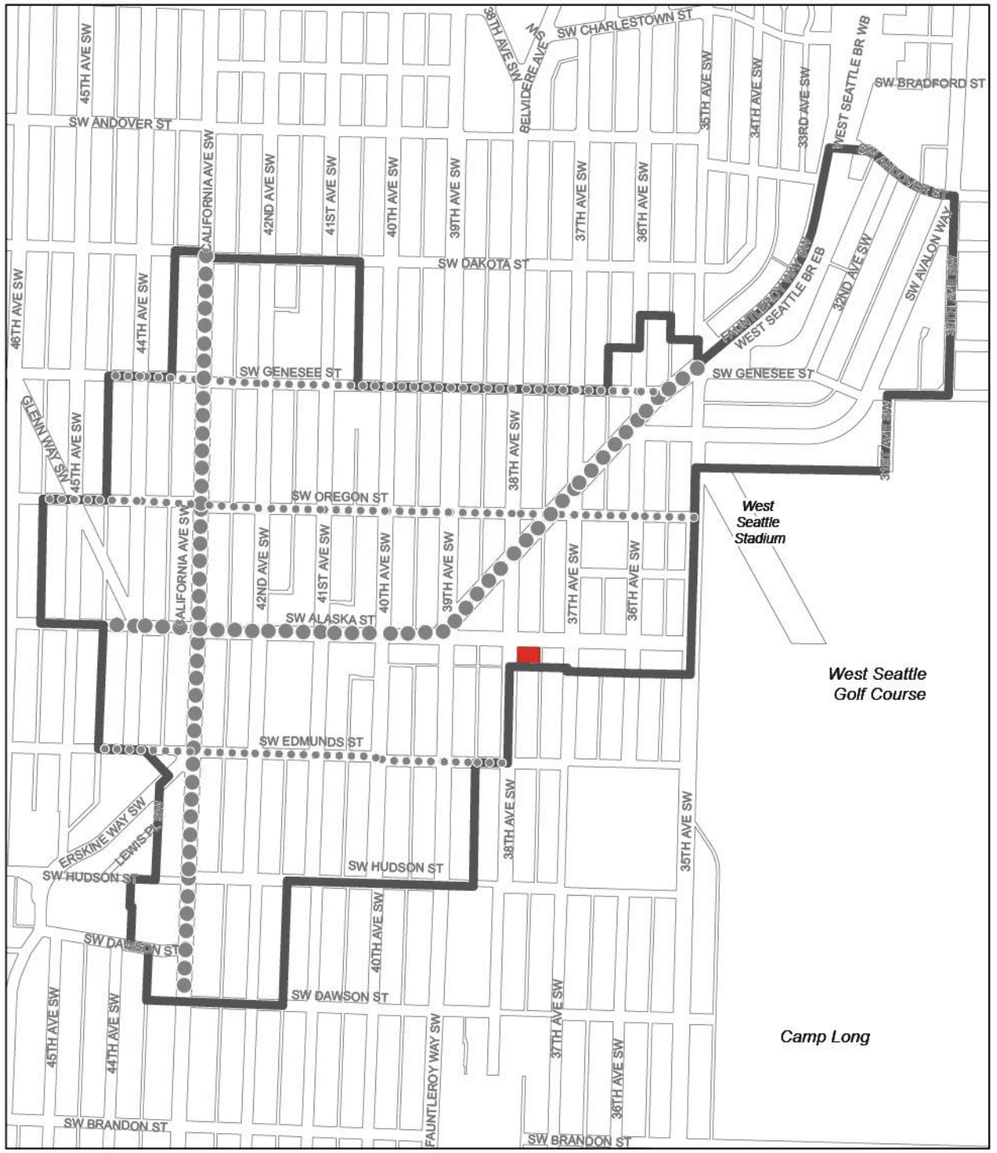
Cost
Robinson Company
101 Stewart Street, Suite 925
Seattle WA 98101
Sharon Kennedy, Chief Estimator
Dan Cassady, Project Manager

Artist
Sean Orlando
Engineered Art Works
1422 Glenfield Avenue
Oakland CA 94602

Seattle Office of Arts & Cultural Affairs
Marcia Iwasaki, Public Art Program


Hamilton Viewpoint Park
Don Armeni Boat Ramp
Seacrest Park
Alki Ave SW
California Ave SW
Harbor Ave SW
Jack Block Park
Alki Beach Park
SW Admiral Way
North Admiral
Harbor Island
Bar-S Playground
63rd Ave SW
Alki
Industrial District West
Alaskan Way Viaduct
WA-99
Charles Richey Sr Viewpoint
Schmitz Park
Madison Middle School
37th Ave SW
West Seattle Bridge
Global Diving & Salvage, Inc
35th Ave SW
SW Avalon Way
Weather Watch Park
West Seattle
833rd Transportation Battalion
Me-Kwa-Mooks Park
Genesee
Junction
Ercolini Park
West Seattle Stadium
SW Alaska St
North Delridge
Beach Dr SW
Fauntleroy Way SW
West Seattle Recreation Center
Delridge Way SW
W Marginal Way SW
Kellogg Island
Camp Long

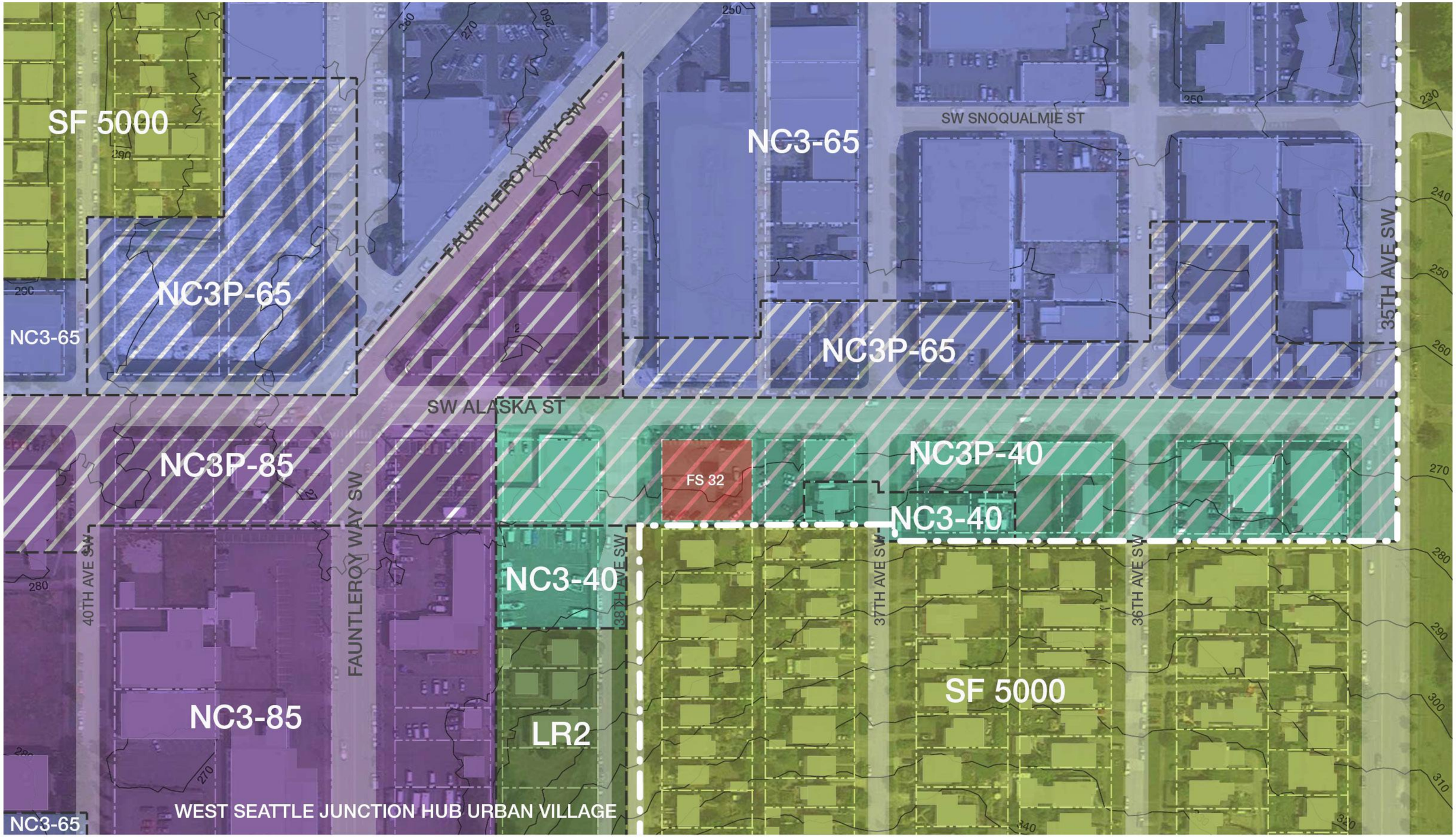

SW Genesee St
Hotwire Online Coffeehouse
41st Ave SW
40th Ave SW
39th Ave SW
37th Ave SW
36th Ave SW
35th Ave SW
Fauntleroy Way SW
SW Avalon Way
Diva Espresso Bar
SW Oregon St
Fauntleroy Place
West Seattle Golf Course
California Ave SW
42nd Ave SW
44th Ave SW
SW Alaska St
Junction Plaza Park
38th Ave SW
Mural Apartments
SW Edmunds St
SW Hudson St



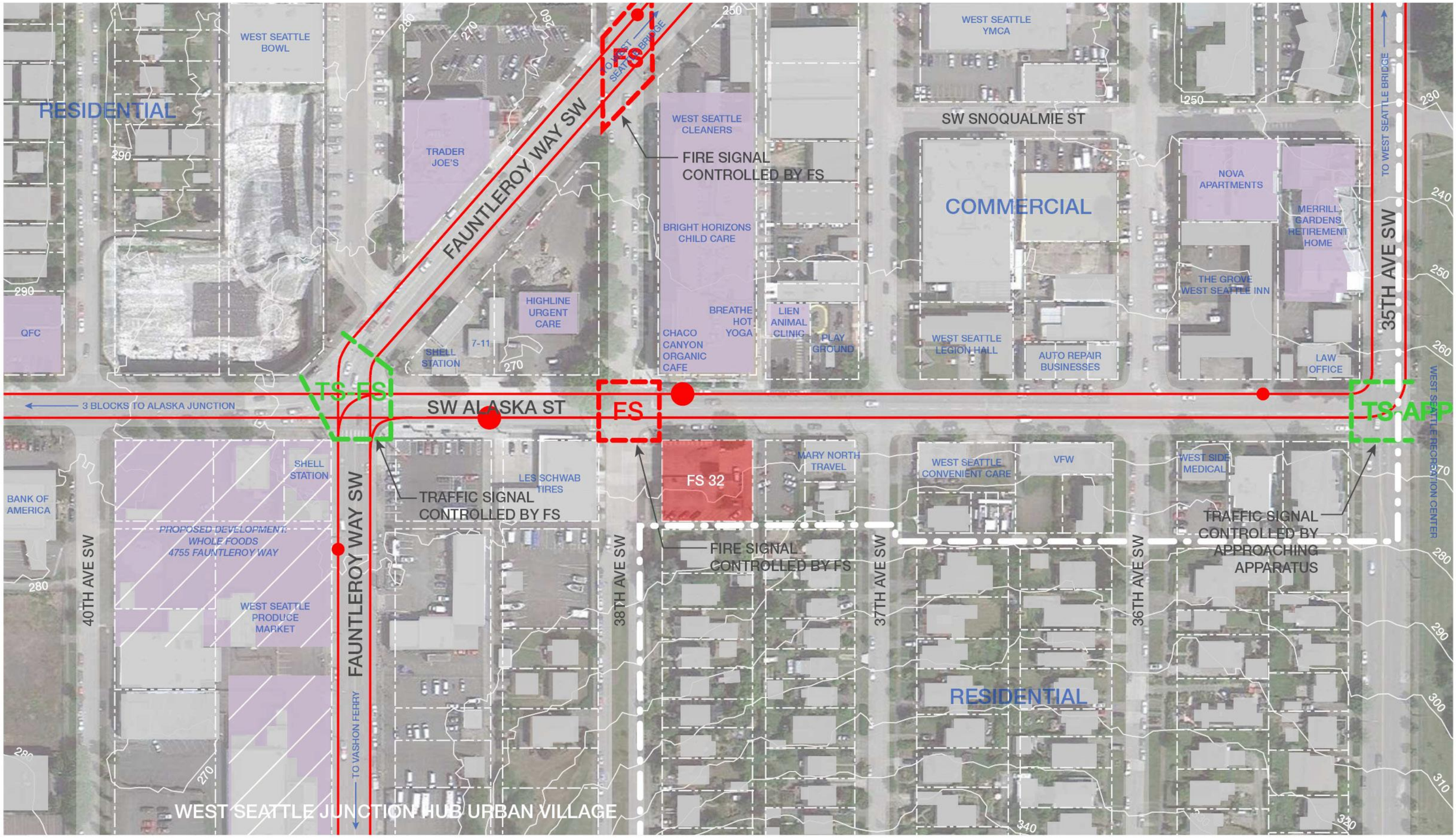
West Seattle Junction Hub Urban Village Pedestrian Connectors

Hub Urban Village Boundary
Major Pedestrian Street
Important Pedestrian Connectors

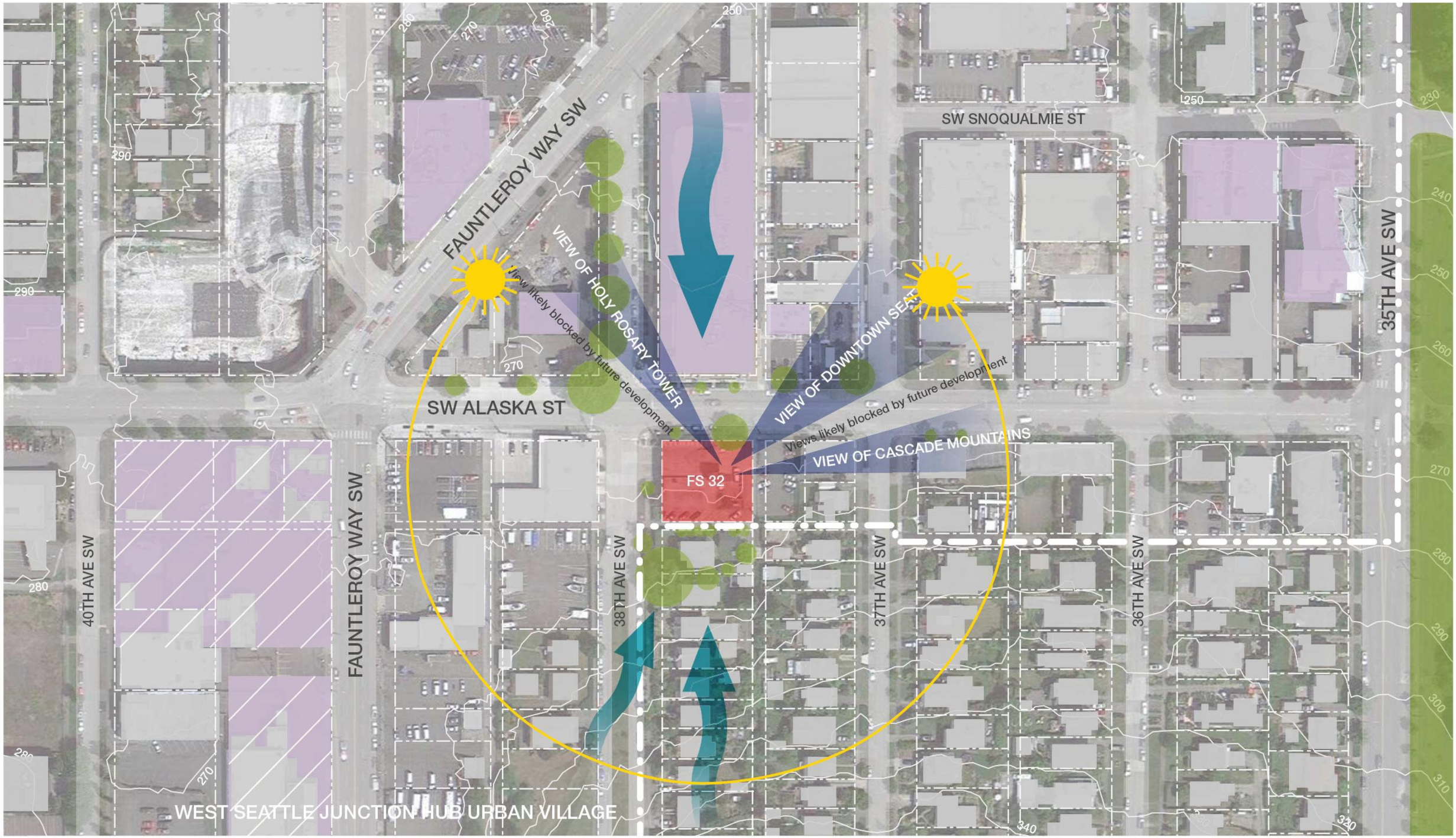
0 250 500 1,000 Feet



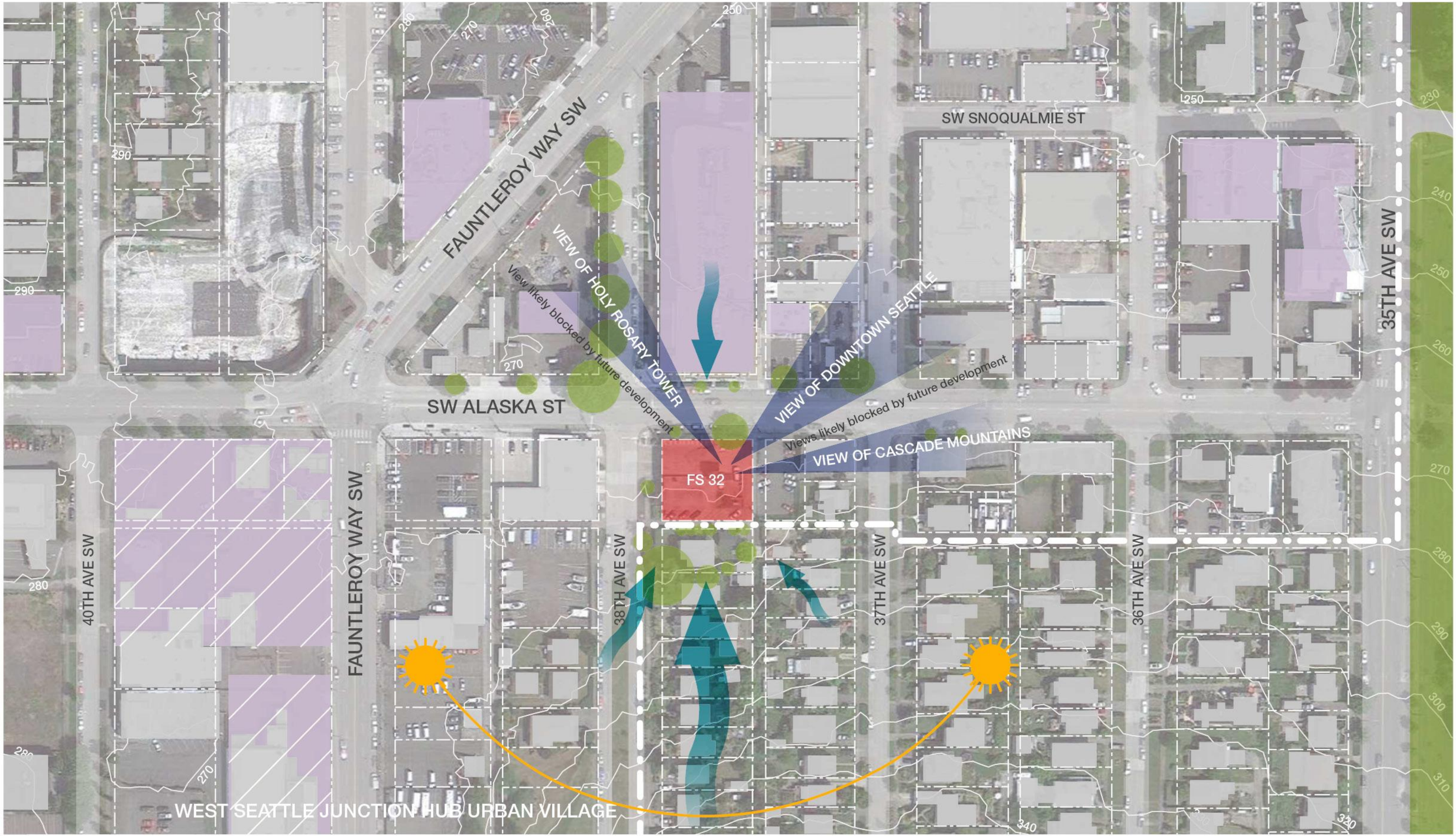
SITE EVALUATION - ZONING



SITE EVALUATION - TRAFFIC



SITE EVALUATION - SUMMER CONDITIONS



SITE EVALUATION - WINTER CONDITIONS

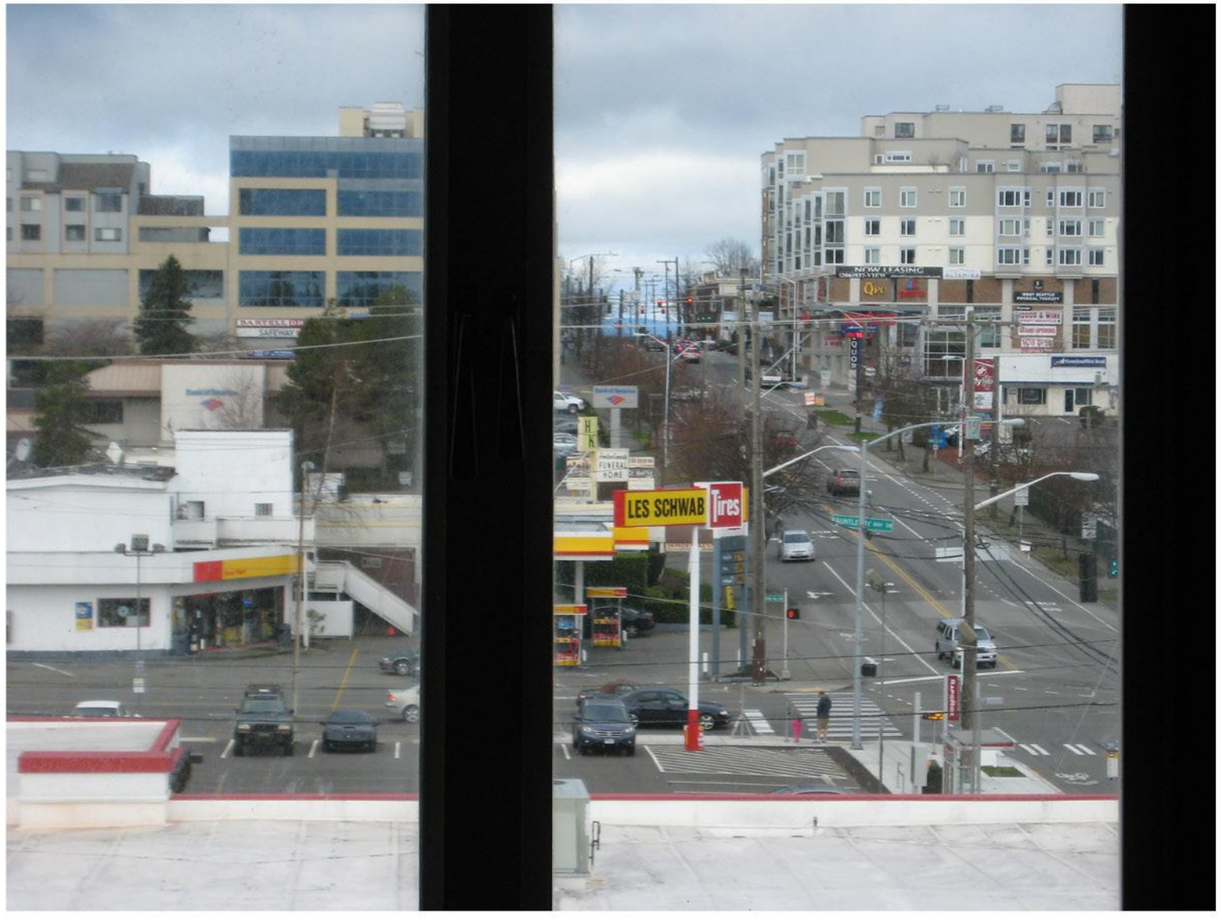
VIEW OF STATION, FACING EAST

VIEW OF STATION, FACING SOUTHWEST

VIEW TO SOUTH

SOUTH ALLEY

VIEW FROM DRILL TOWER LOOKING EAST

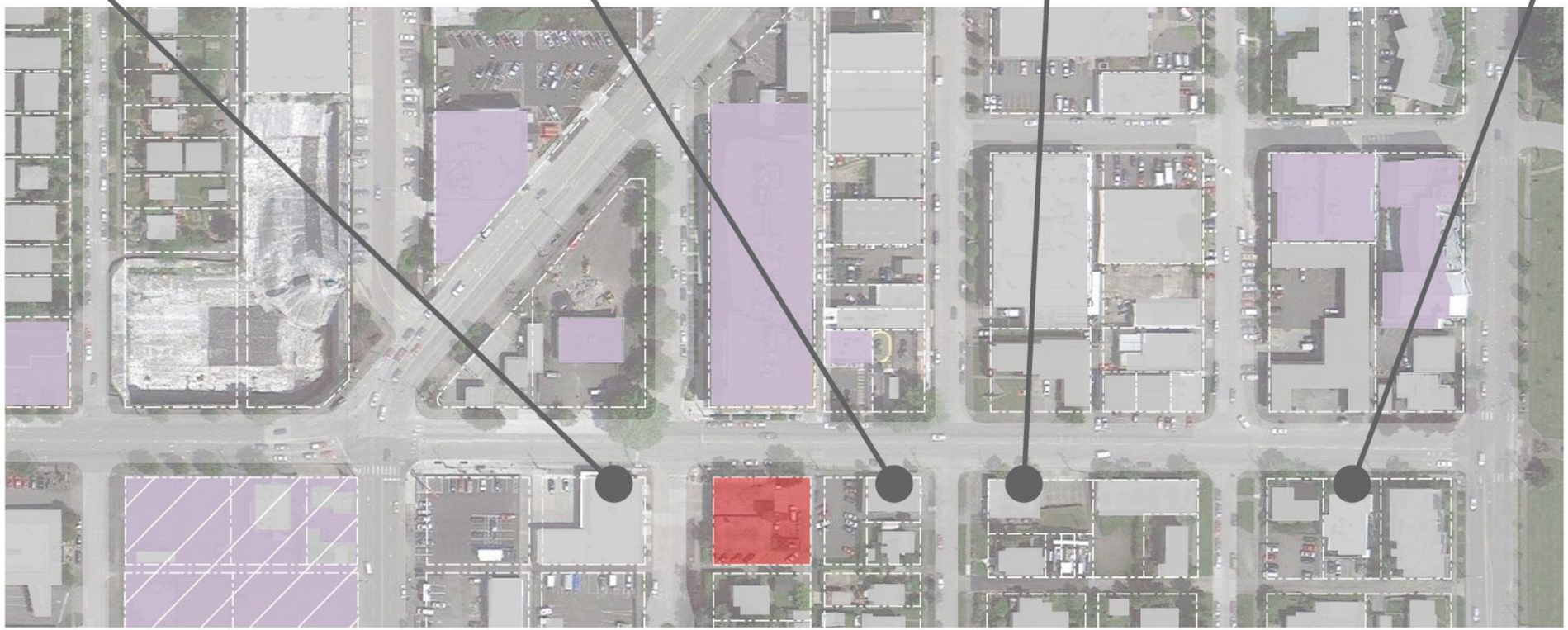


VIEW FROM DRILL TOWER LOOKING WEST

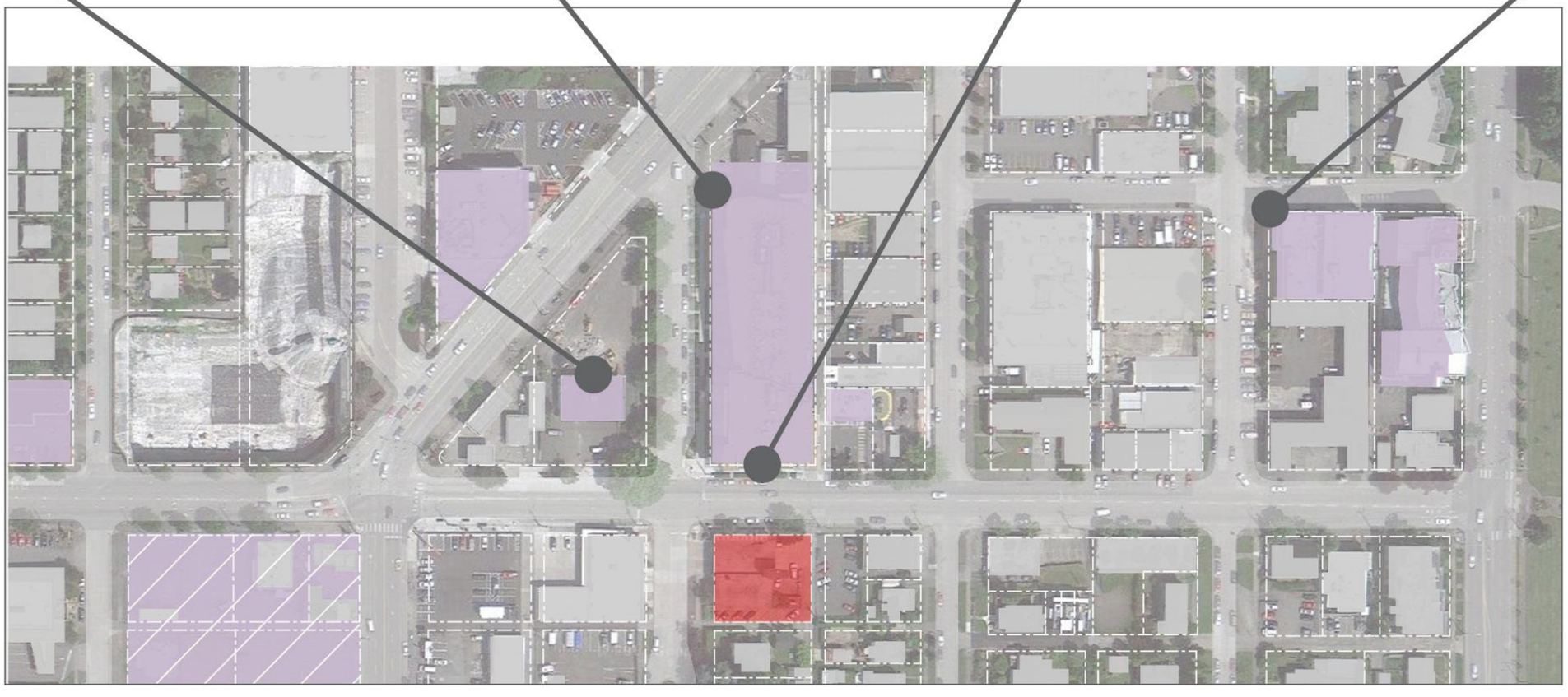
VIEW FROM DRILL TOWER LOOKING NORTHEAST

VIEW OF STATION, FACING NORTHEAST

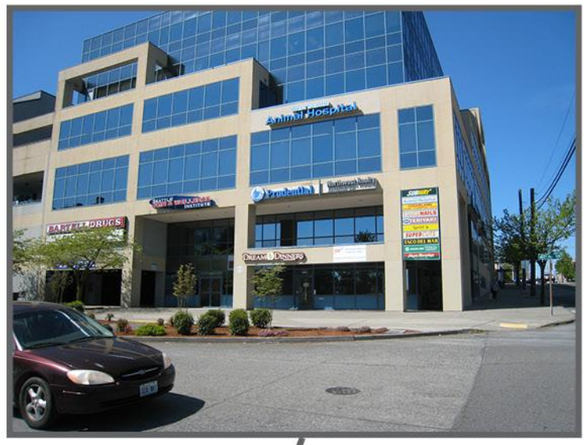
VIEW OF STATION, FACING NORTH ON 38TH AVE SW



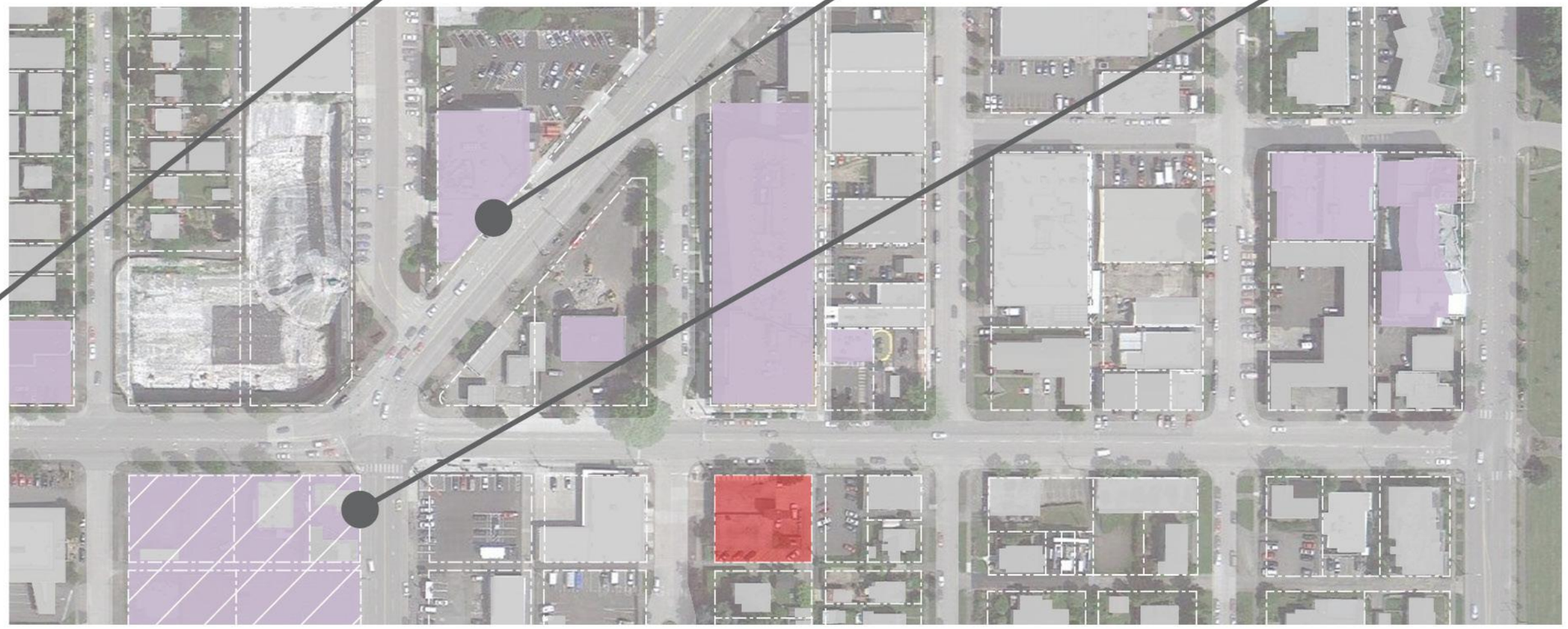
EXISTING NEIGHBORHOOD BUILDINGS - OLDER



EXISTING NEIGHBORHOOD BUILDINGS - NEWER

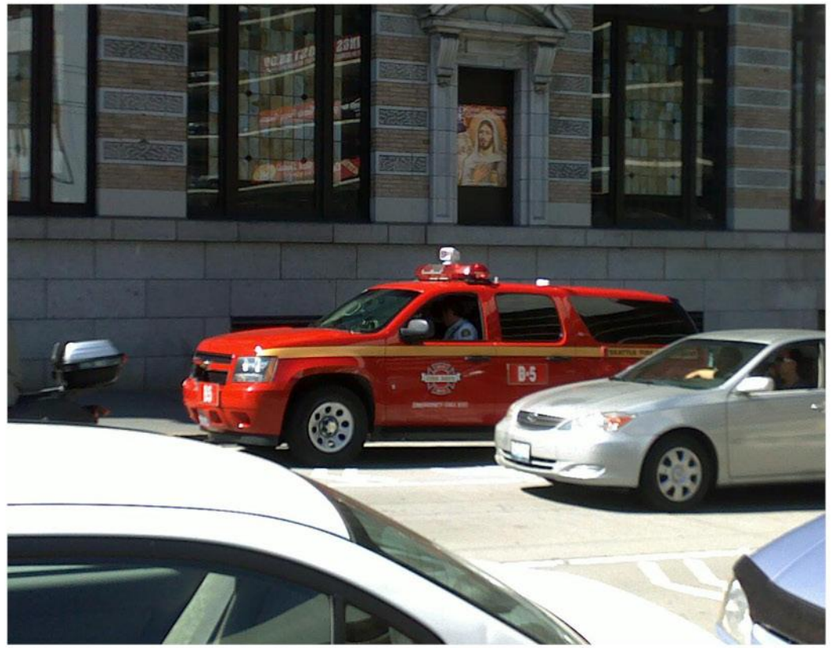


RENDERING OF FUTURE DEVELOPMENT



EXISTING NEIGHBORHOOD BUILDINGS - NEWER

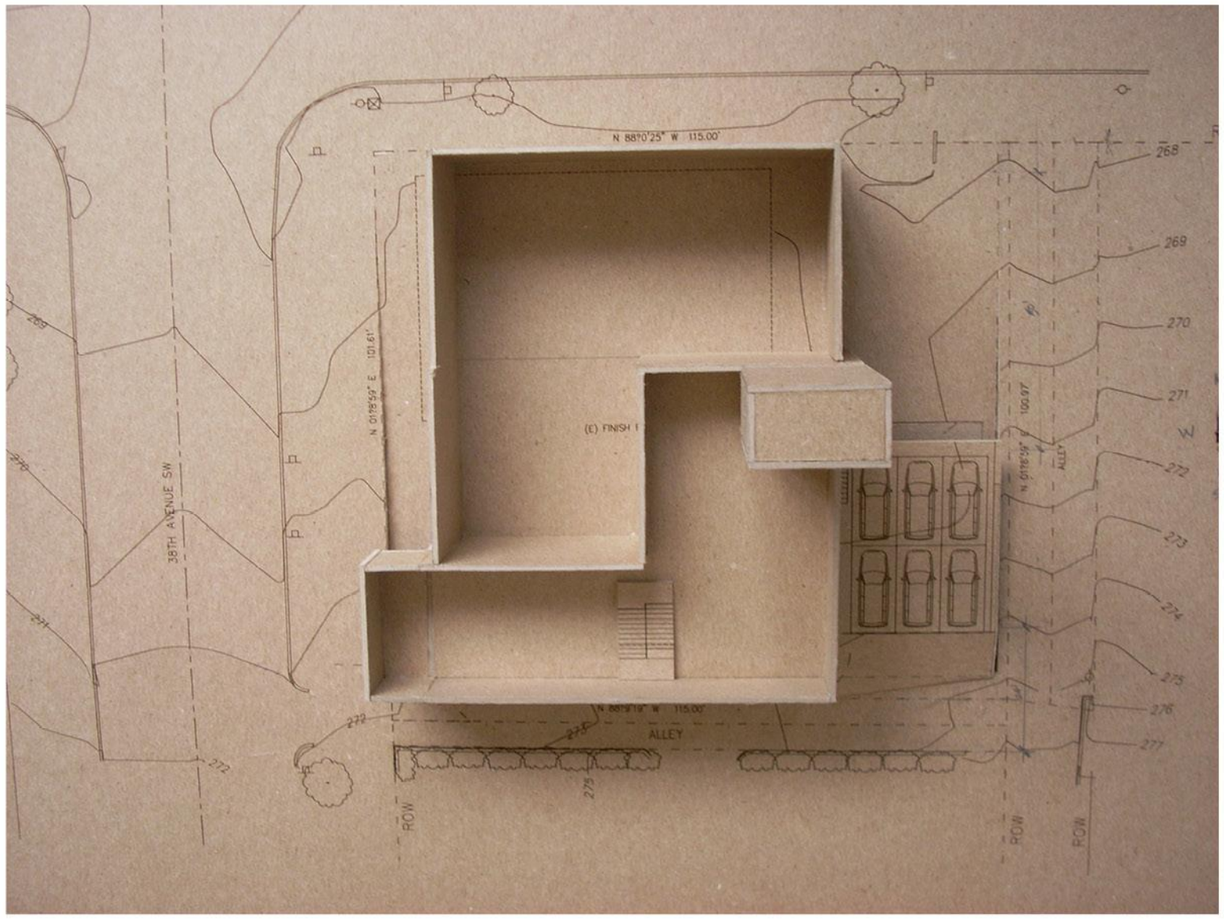
TILLERED LADDER TRUCK

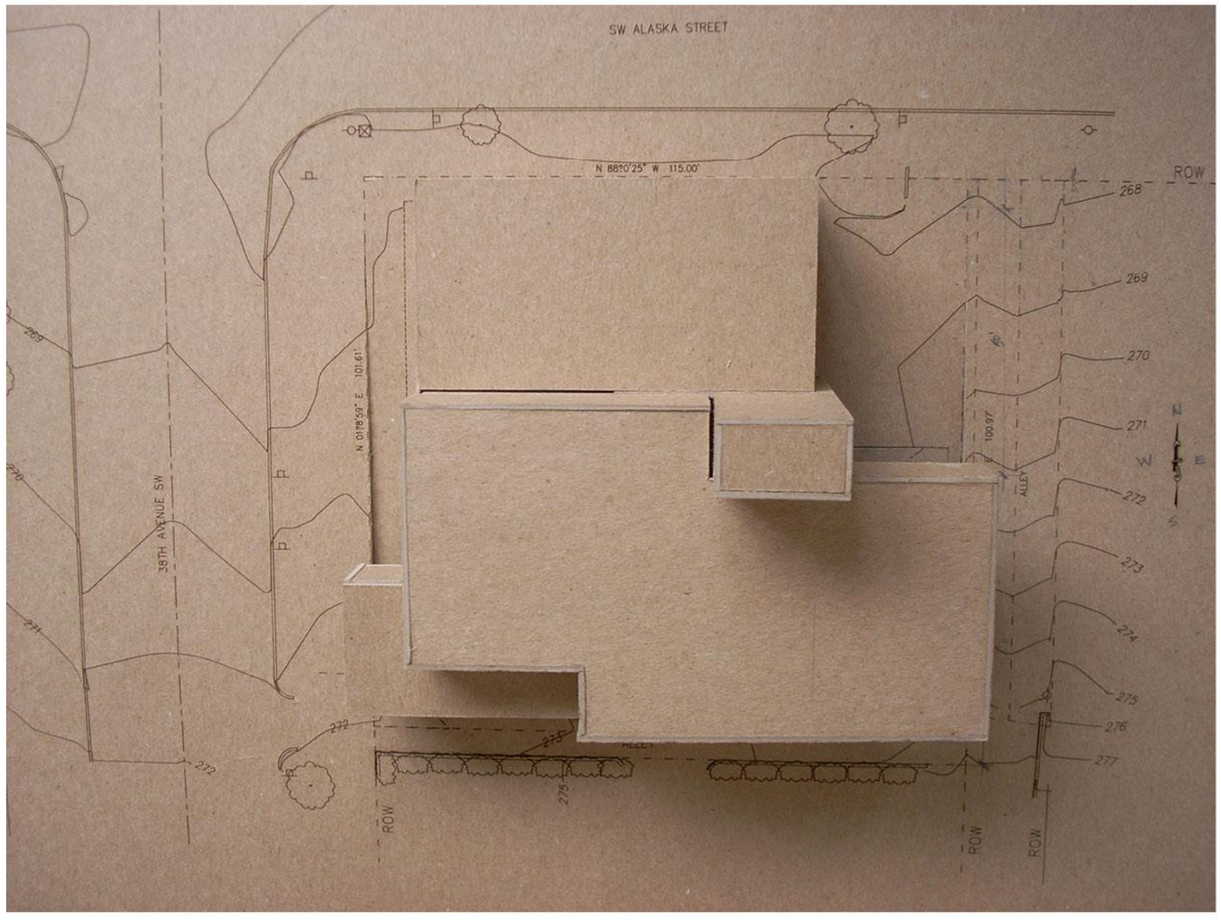


BATTALION CHIEF'S VEHICLE

MEDIC TRUCK

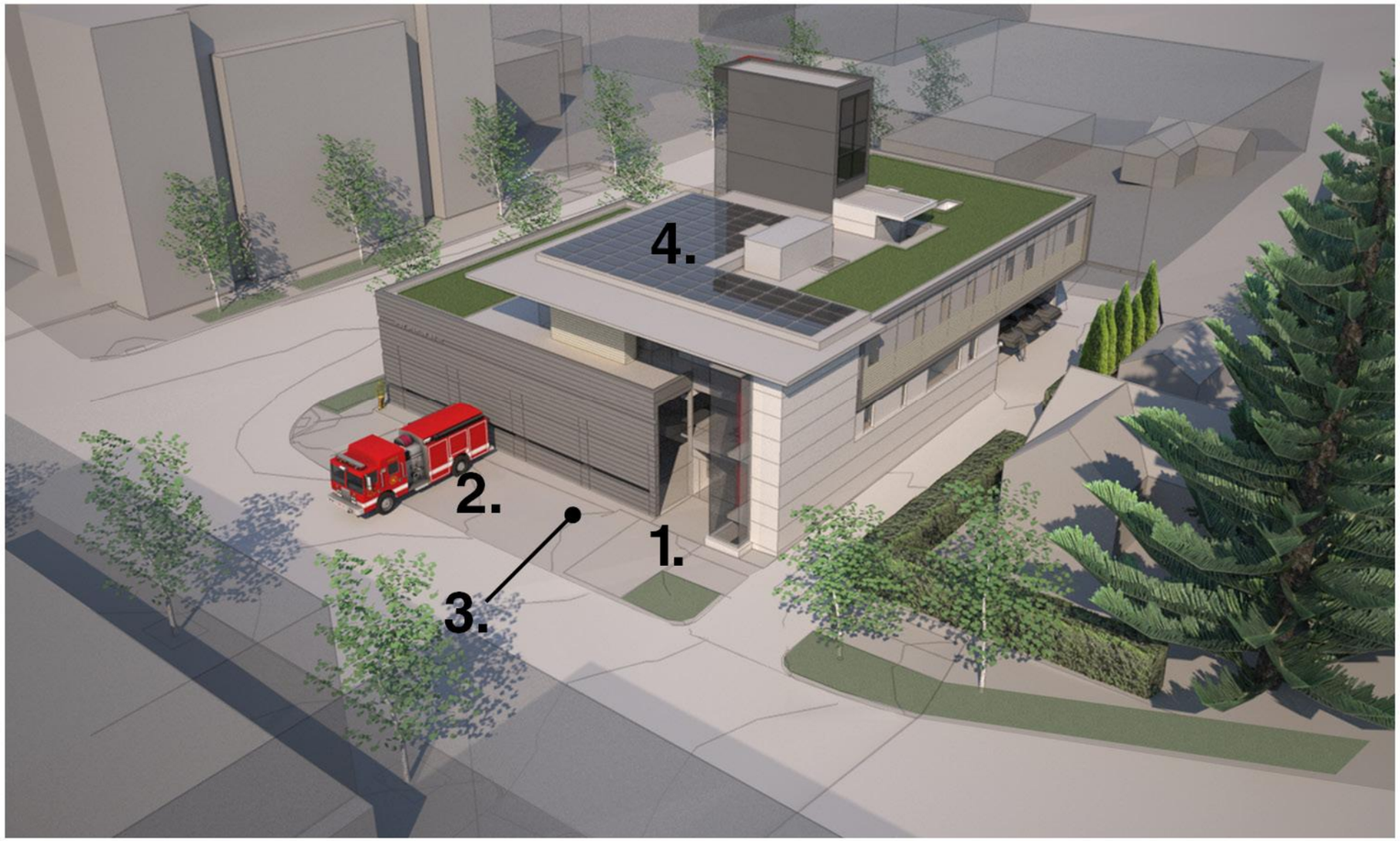
ENGINE





PRE-DESIGN CONCEPT MODEL

VIEW FROM THE INTERSECTION OF SW ALASKA ST AND 38TH AVE SW



SDC SCHEMATIC DESIGN RECOMMENDATIONS

1. Soften the hard-scape around the public entry on 38th Ave SW.
2. Explore differentiating pavement textures to visualize pedestrian routes on the front ramp.
3. Study daylighting options for the basement training area.
4. Be sure the PV rooftop panels are not shaded and are a cost-effective element.

SCHEMATIC DESIGN - AERIAL VIEW FROM SOUTHWEST

SDC SCHEMATIC DESIGN RECOMMENDATIONS

5. Resolve the massing of the east part of the building, aligning and optimizing programming while harmonizing the building elements. This side of the building along the alley is visible from SW Alaska St and, instead of appearing to be back-of-house, should allow room for the public to engage with firefighters.
6. Ensure the street trees provide transparency into the building along SW Alaska St.
7. Consider paving options or soft treatment buffers at the rear apron and sidewalk along SW Alaska St to improve this area of the design.

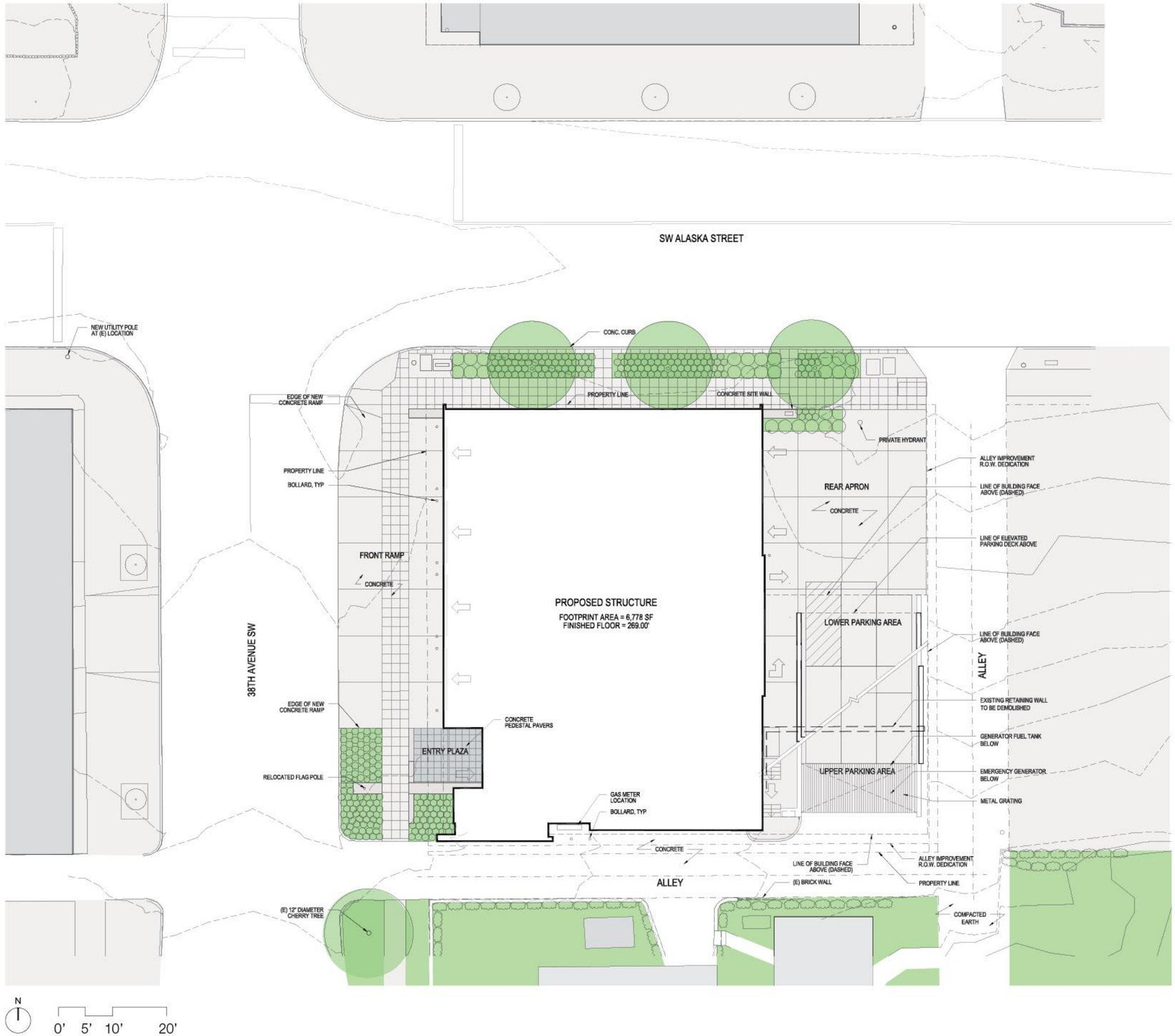
SCHEMATIC DESIGN - AERIAL VIEW FROM NORTHEAST

AERIAL LADDER CHECK

LADDER DRILL

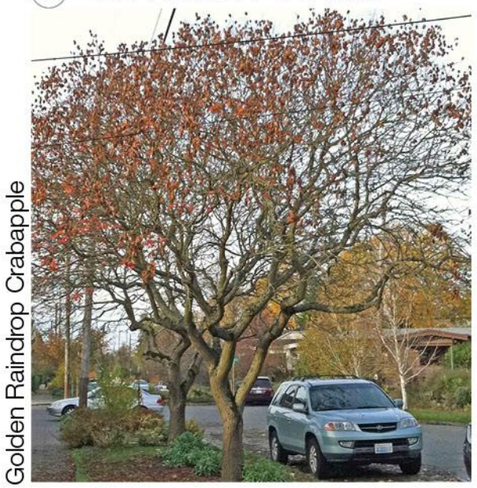
EQUIPMENT CHECK

WATER DRILLING


SW ALASKA STREET
NEW UTILITY POLE AT (E) LOCATION
CONC. CURB
EDGE OF NEW CONCRETE RAMP
PROPERTY LINE
CONCRETE SITE WALL
PRIVATE HYDRANT
PROPERTY LINE
BOLLARD, TYP
REAR APRON
CONCRETE
ALLEY IMPROVEMENT R.O.W. DEDICATION
LINE OF BUILDING FACE ABOVE (DASHED)
LINE OF ELEVATED PARKING DECK ABOVE
FRONT RAMP
CONCRETE
PROPOSED STRUCTURE
FOOTPRINT AREA = 6,778 SF
FINISHED FLOOR = 269.00'
LOWER PARKING AREA
38TH AVENUE SW
ALLEY
LINE OF BUILDING FACE ABOVE (DASHED)
EDGE OF NEW CONCRETE RAMP
CONCRETE PEDESTAL PAVERS
EXISTING RETAINING WALL TO BE DEMOLISHED
ENTRY PLAZA
GENERATOR FUEL TANK BELOW
UPPER PARKING AREA
EMERGENCY GENERATOR BELOW
RELOCATED FLAG POLE
METAL GRATING
GAS METER LOCATION
BOLLARD, TYP
CONCRETE
LINE OF BUILDING FACE ABOVE (DASHED)
ALLEY IMPROVEMENT R.O.W. DEDICATION
ALLEY
(E) BRICK WALL
PROPERTY LINE
(E) 12" DIAMETER CHERRY TREE
COMPACTED EARTH
N
0' 5' 10' 20'

SITE PLAN

1 SW ALASKA STREET

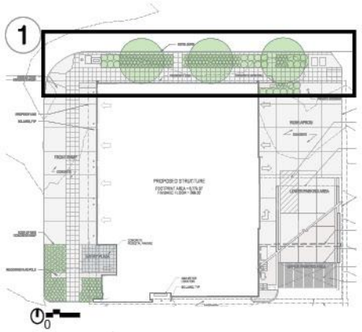


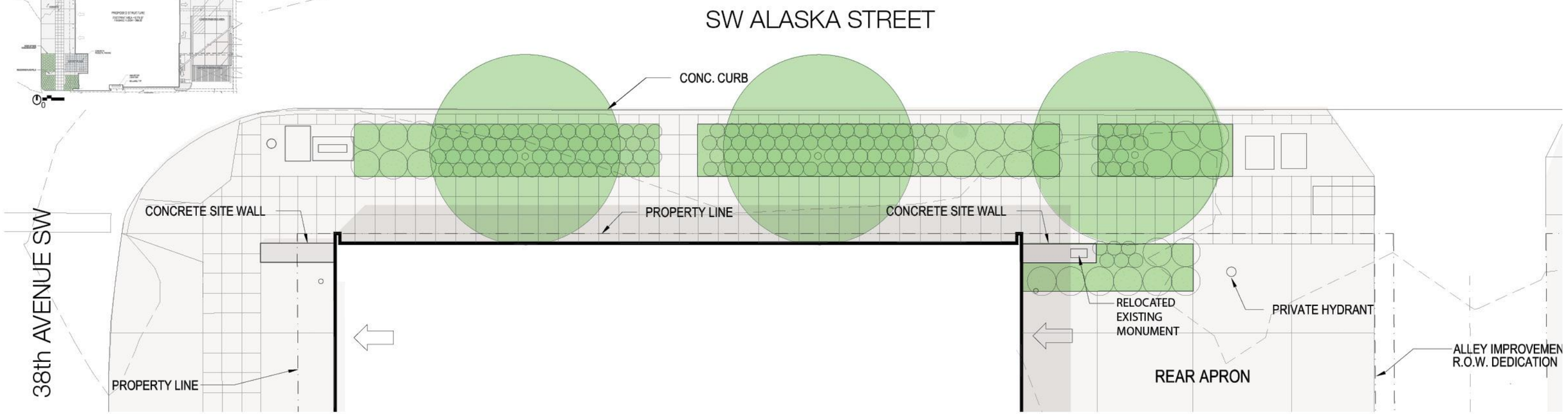
Golden Raindrop Crabapple

Yew

Lily Turf

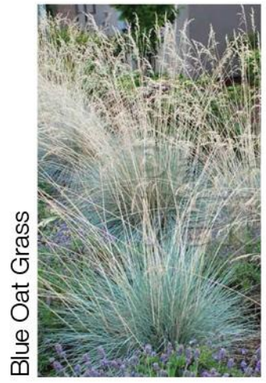
Anenome





SW ALASKA LANDSCAPE DESIGN

2



Blue Oat Grass

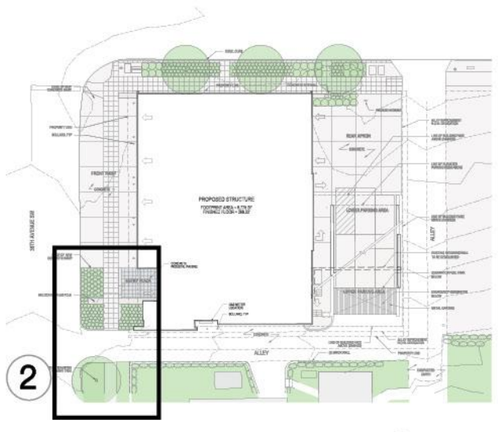
Russian Sage

Sedum

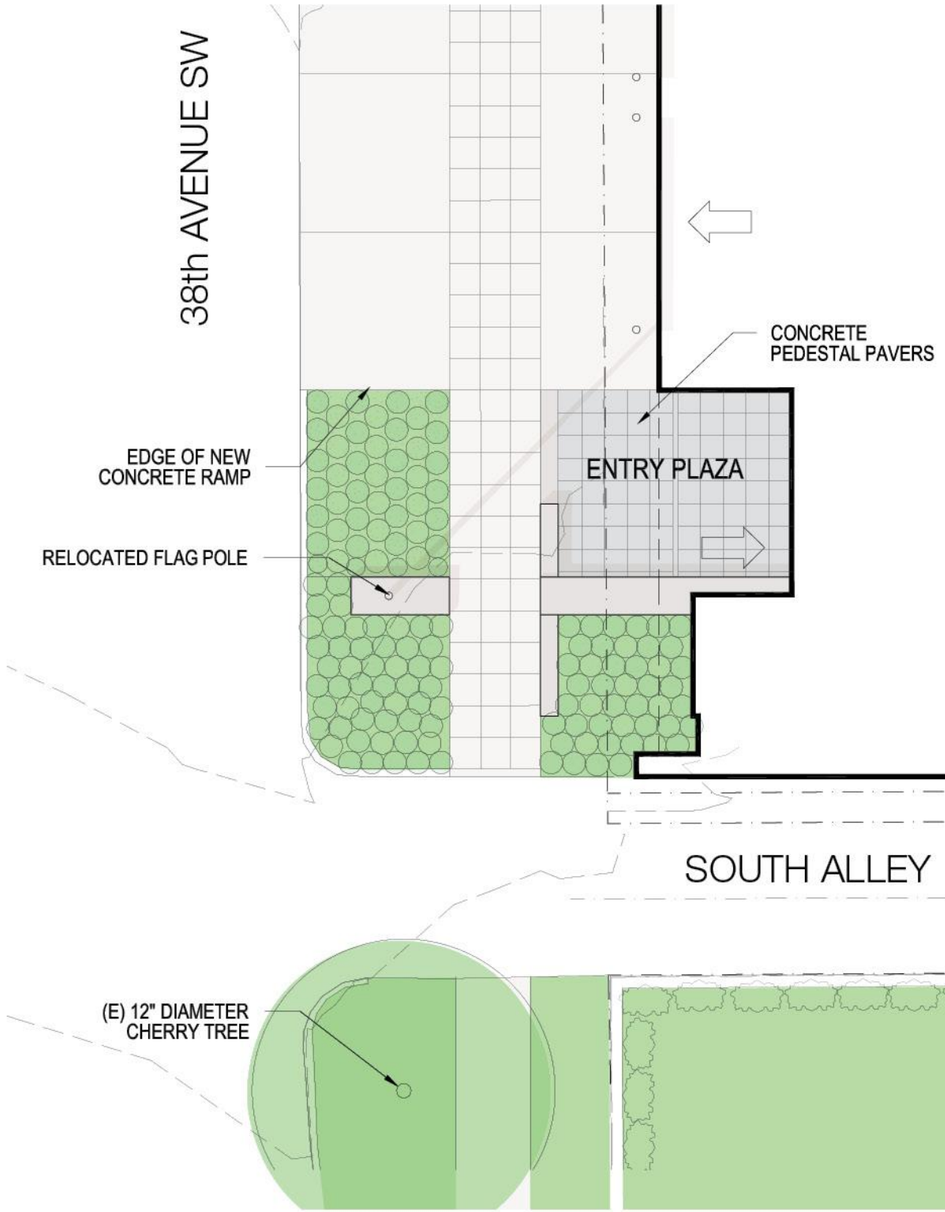
Autumn Joy Sedum

Beach Strawberry

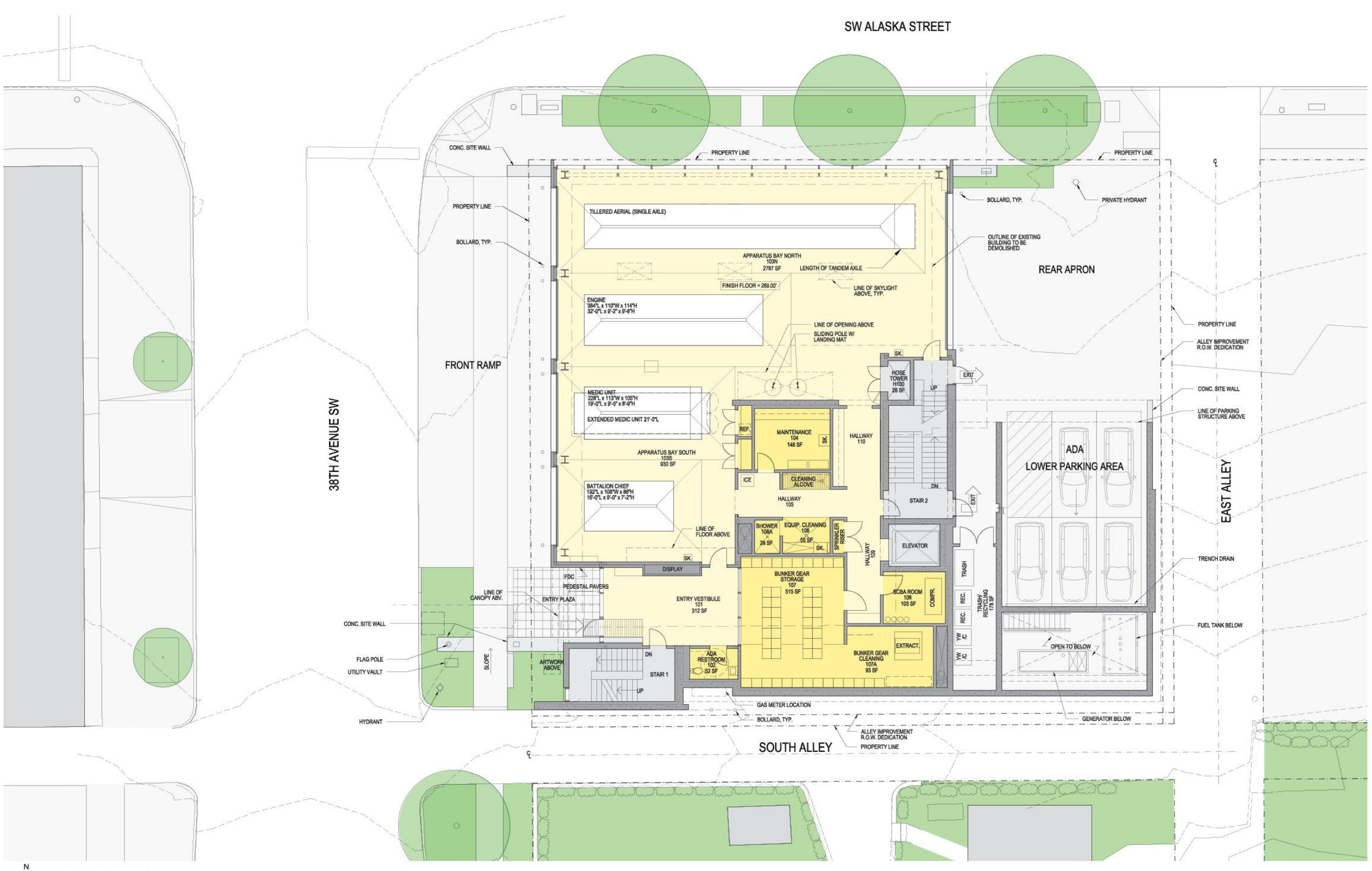
Sedum



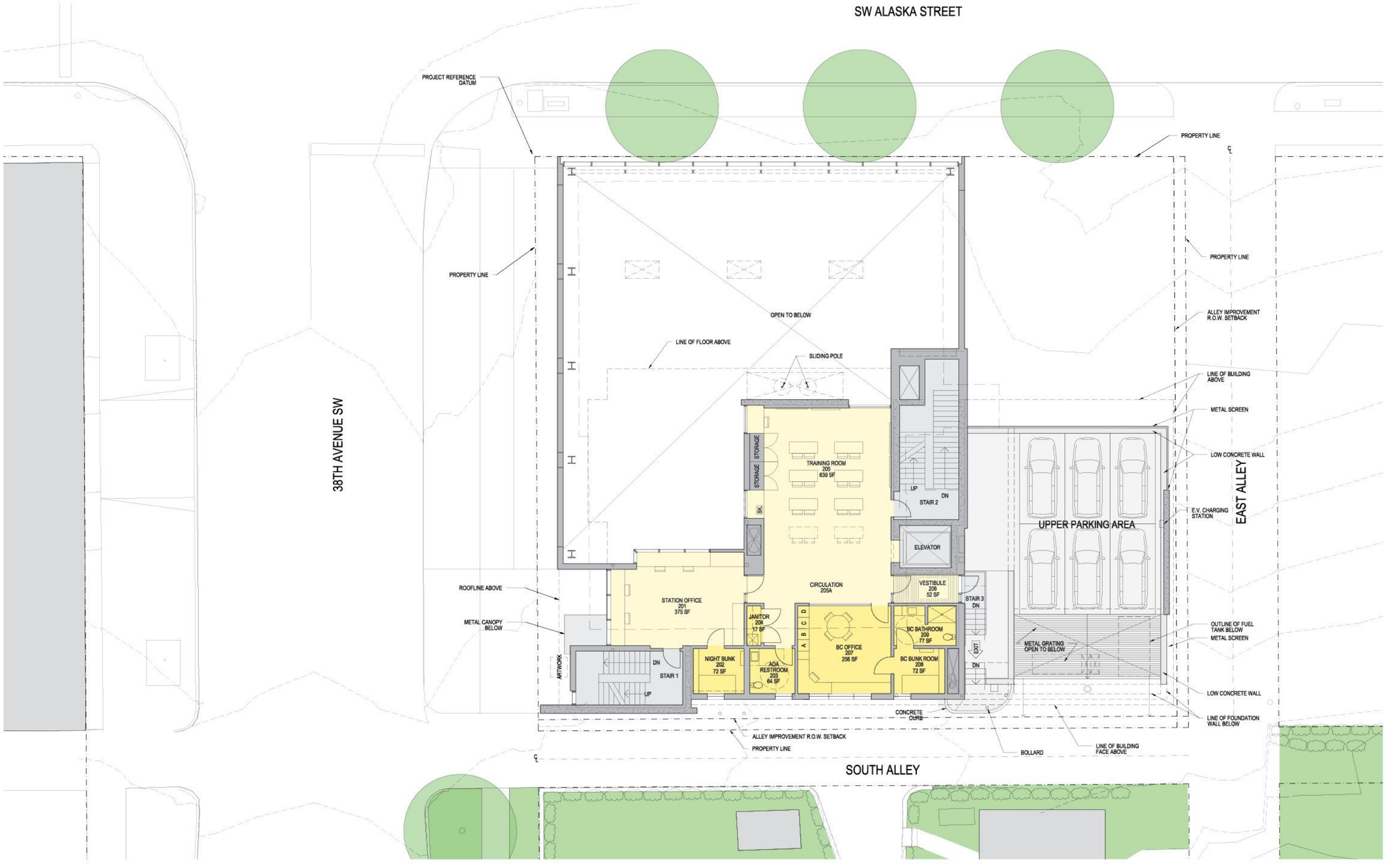
0 10 20



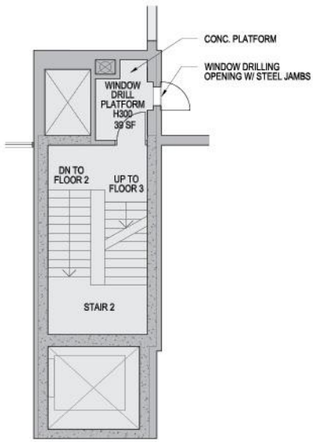
ENTRY AREA LANDSCAPE DESIGN


SW ALASKA STREET
CONC. SITE WALL
PROPERTY LINE
PROPERTY LINE
BOLLARD, TYP.
PRIVATE HYDRANT
PROPERTY LINE
BOLLARD, TYP.
TILLERED AERIAL (SINGLE AXLE)
APPARATUS BAY NORTH
103N
2787 SF
LENGTH OF TANDEM AXLE
OUTLINE OF EXISTING BUILDING TO BE DEMOLISHED
REAR APRON
FINISH FLOOR = 269.00'
LINE OF SKYLIGHT ABOVE, TYP.
ENGINE
384"L x 110"W x 114"H
32'-0"L x 9'-2" x 9'-6"H
LINE OF OPENING ABOVE
SLIDING POLE W/ LANDING MAT
PROPERTY LINE
ALLEY IMPROVEMENT R.O.W. DEDICATION
FRONT RAMP
SK.
HOSE TOWER H100
26 SF.
EXIT
UP
MEDIC UNIT
228"L x 113"W x 105"H
19'-0"L x 9'-5" x 8'-9"H
EXTENDED MEDIC UNIT 21'-0"L
CONC. SITE WALL
LINE OF PARKING STRUCTURE ABOVE
REF.
MAINTENANCE
104
148 SF
SK.
HALLWAY
110
ADA
LOWER PARKING AREA
38TH AVENUE SW
APPARATUS BAY SOUTH
103S
930 SF
ICE
CLEANING ALCOVE
DN
STAIR 2
EXIT
BATTALION CHIEF
192"L x 108"W x 86"H
16'-0"L x 9'-0" x 7'-2"H
HALLWAY
105
EAST ALLEY
LINE OF FLOOR ABOVE
SHOWER
106A
28 SF
EQUIP. CLEANING
106
55 SF
SK.
SPRINKLER RISER
HALLWAY
109
ELEVATOR
TRENCH DRAIN
SK.
DISPLAY
FDC
PEDESTAL PAVERS
BUNKER GEAR STORAGE
107
515 SF
TRASH
REC.
REC.
LINE OF CANOPY ABV.
ENTRY PLAZA
ENTRY VESTIBULE
101
312 SF
SCBA ROOM
108
103 SF
COMPR.
FUEL TANK BELOW
CONC. SITE WALL
YW
/C
YW
/C
TRASH RECEIVING
119 SF
OPEN TO BELOW
FLAG POLE
UTILITY VAULT
SLOPE
ARTWORK ABOVE
DN
STAIR 1
UP
ADA RESTROOM
102
52 SF
BUNKER GEAR CLEANING
107A
93 SF
EXTRACT.
GENERATOR BELOW
HYDRANT
GAS METER LOCATION
BOLLARD, TYP.
ALLEY IMPROVEMENT R.O.W. DEDICATION
PROPERTY LINE
SOUTH ALLEY
N
0'
4'
8'
16'

FLOOR 1


SW ALASKA STREET
PROJECT REFERENCE DATUM
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
38TH AVENUE SW
OPEN TO BELOW
LINE OF FLOOR ABOVE
SLIDING POLE
ALLEY IMPROVEMENT R.O.W. SETBACK
LINE OF BUILDING ABOVE
METAL SCREEN
LOW CONCRETE WALL
EAST ALLEY
E.V. CHARGING STATION
UPPER PARKING AREA
TRAINING ROOM 205 639 SF
STORAGE
STORAGE
SK
UP
DN
STAIR 2
ELEVATOR
CIRCULATION 205A
VESTIBULE 206 52 SF
STAIR 3 DN
ROOFLINE ABOVE
METAL CANOPY BELOW
STATION OFFICE 201 375 SF
JANITOR 206 17 SF
A B C D
BC OFFICE 207 256 SF
BC BATHROOM 209 77 SF
EXIT
DN
METAL GRATING OPEN TO BELOW
OUTLINE OF FUEL TANK BELOW
METAL SCREEN
ARTWORK
DN
STAIR 1
UP
NIGHT BUNK 202 72 SF
ADA RESTROOM 203 64 SF
BC BUNK ROOM 208 72 SF
LOW CONCRETE WALL
CONCRETE CURB
LINE OF FOUNDATION WALL BELOW
ALLEY IMPROVEMENT R.O.W. SETBACK
PROPERTY LINE
BOLLARD
LINE OF BUILDING FACE ABOVE
SOUTH ALLEY
N
0’ 4’ 8’ 16’

FLOOR 2



N

0’ 4’ 8’ 16’

FLOOR 3

3 Third Floor Roof

Karl Foerester Grass

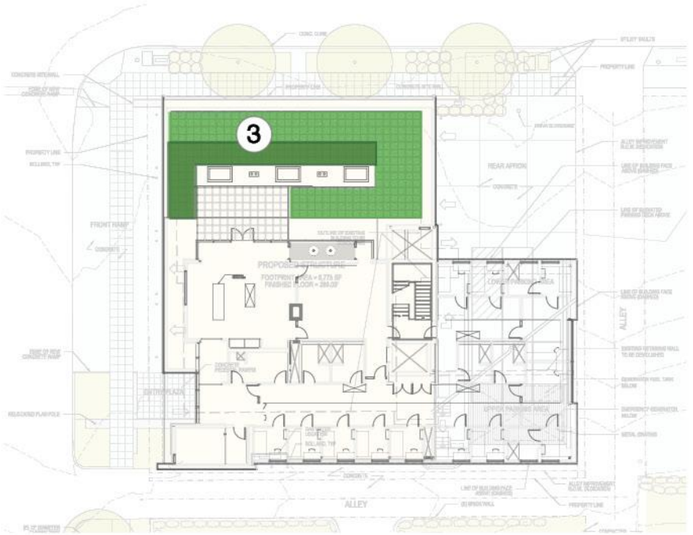
Sedum

4 Roof

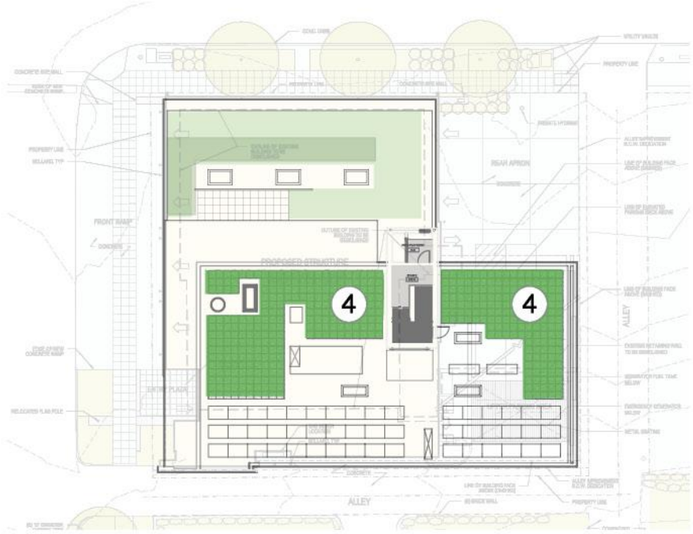
Sedum

Sedum

Sedum



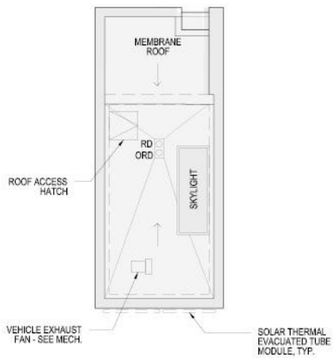
Third Floor

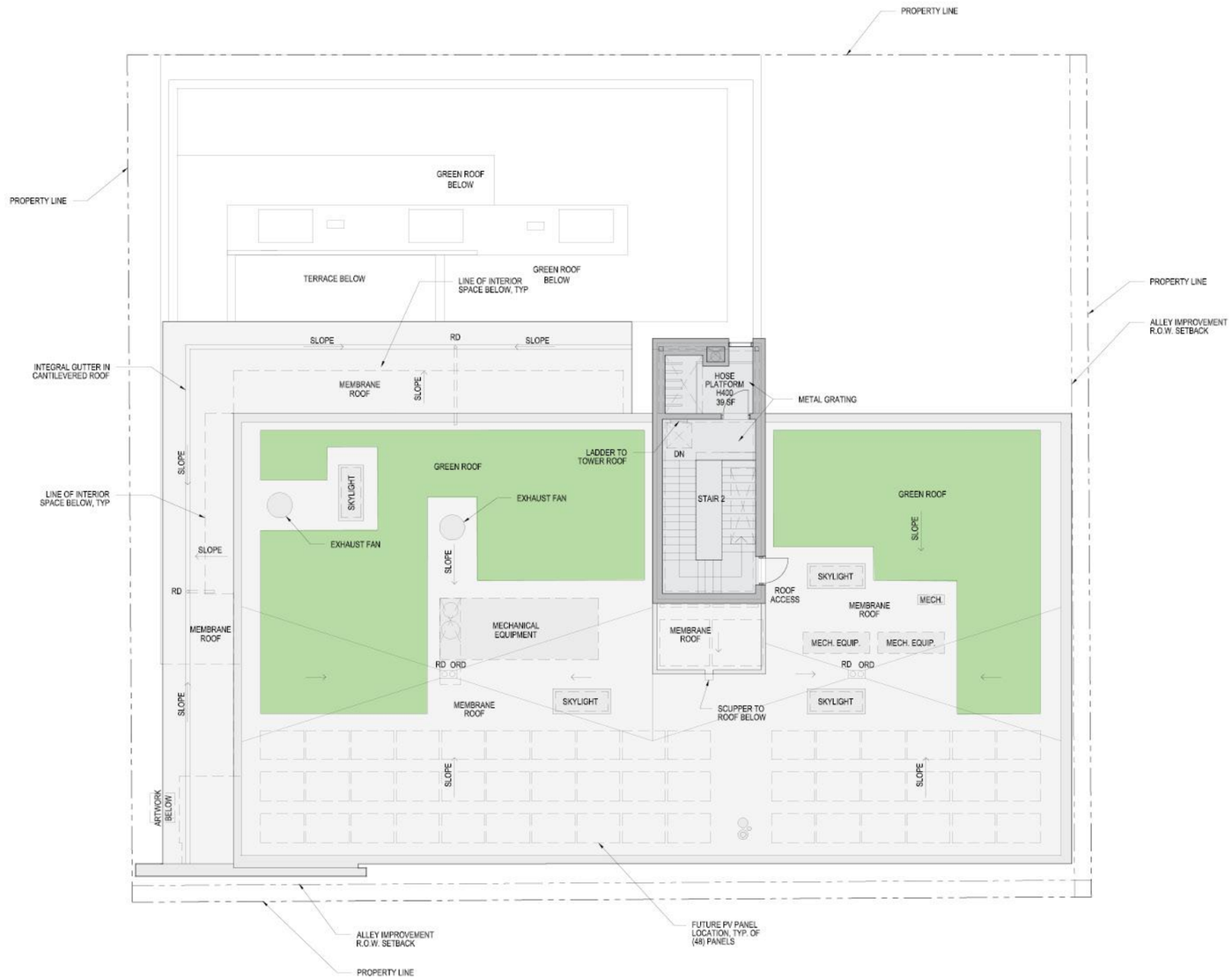


Roof

0 10 20

PLANTING

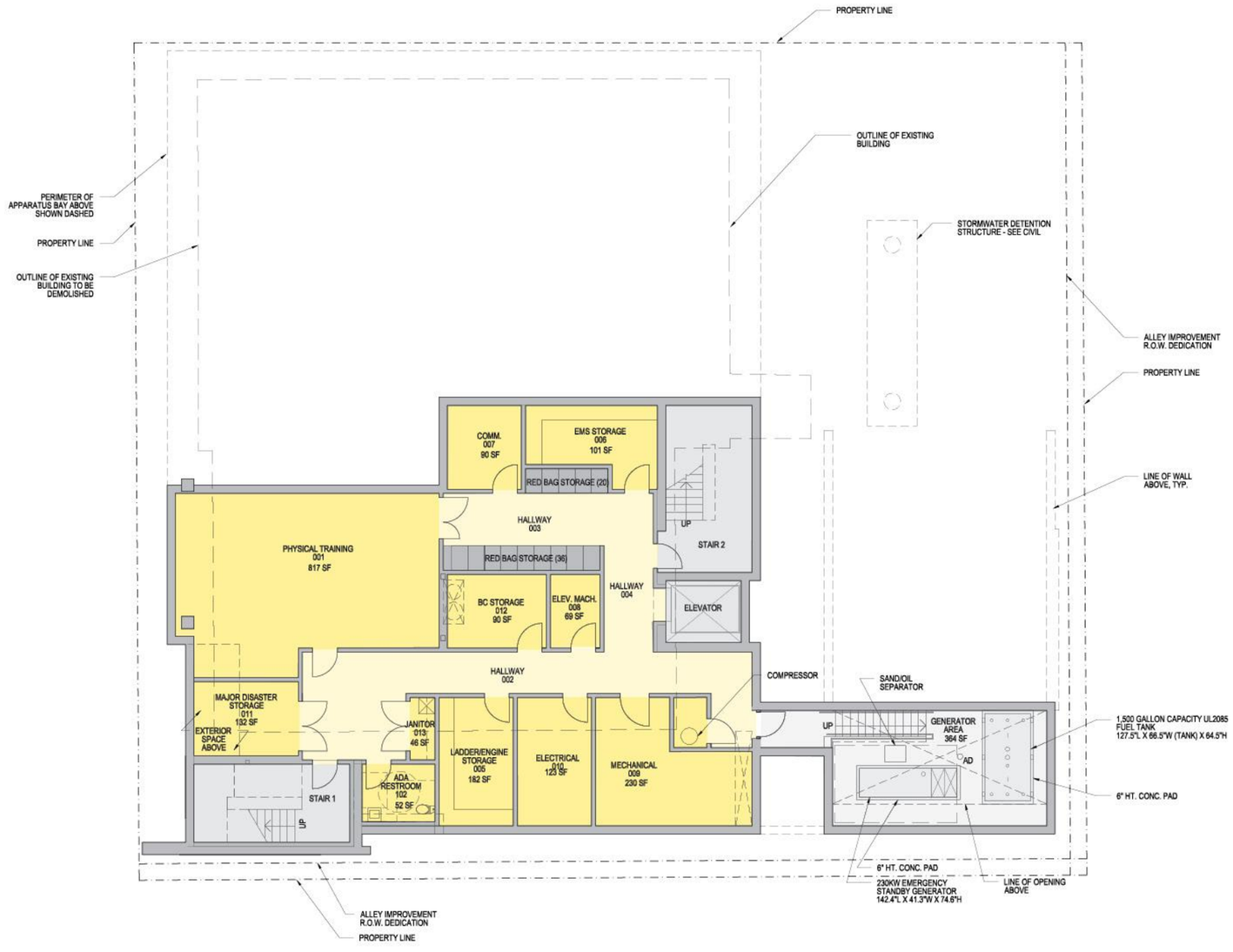




N

0' 4' 8' 16'

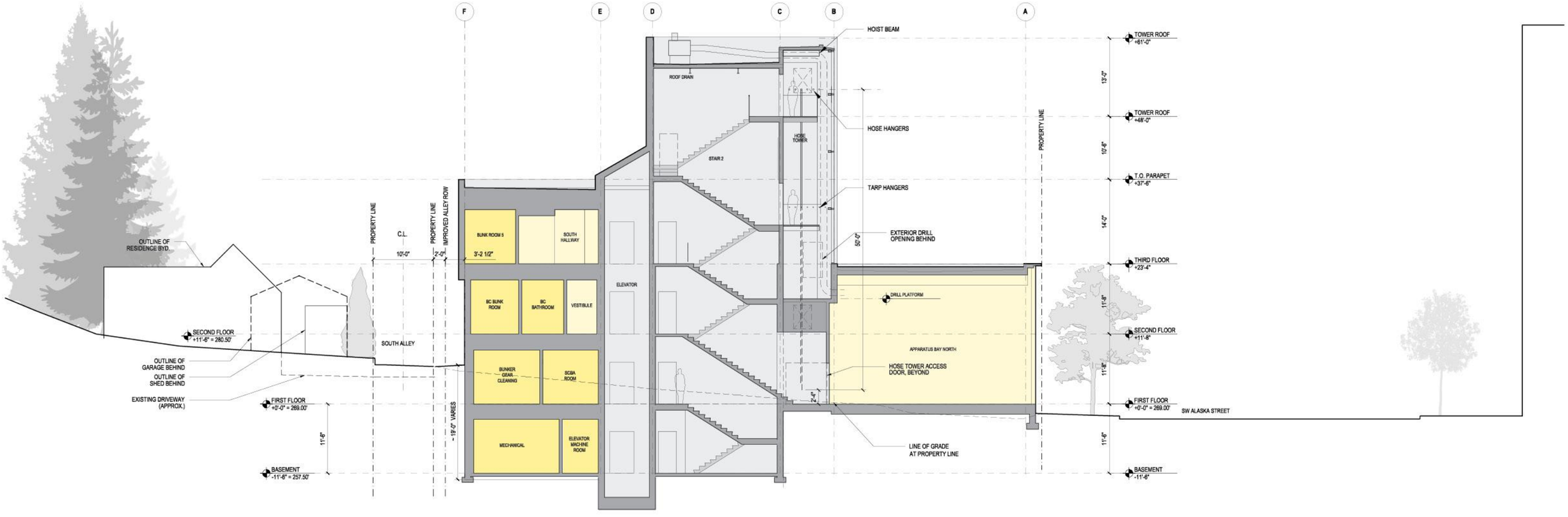
ROOF PLAN



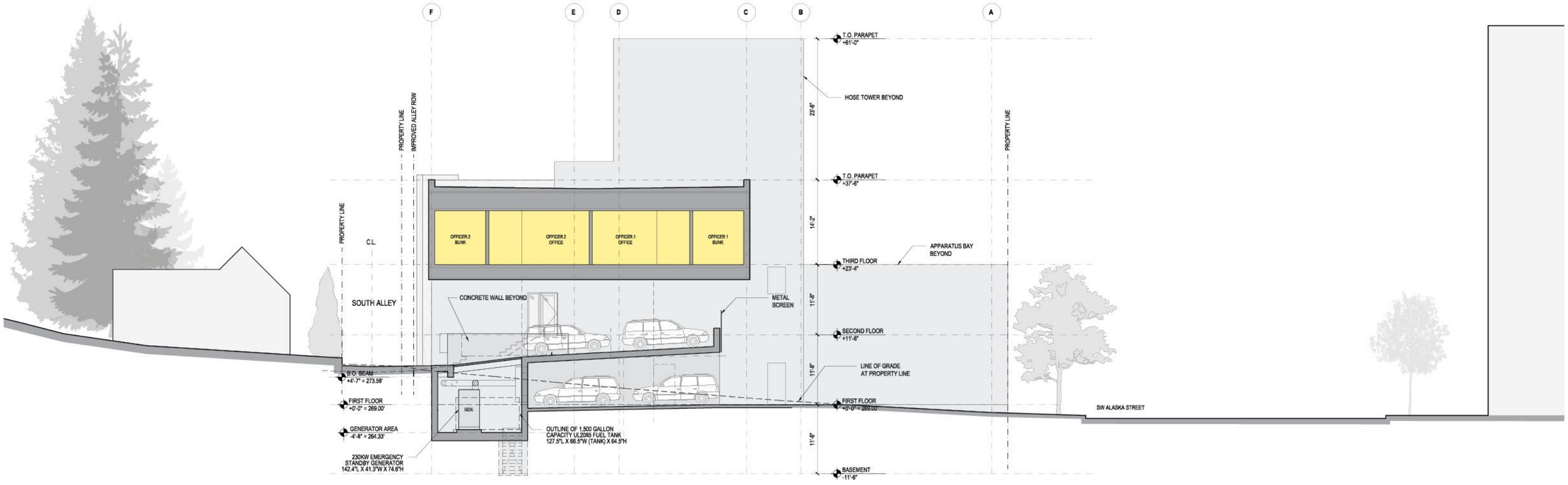
N

0' 4' 8' 16'

BASEMENT



SECTION THROUGH HOSE TOWER LOOKING WEST



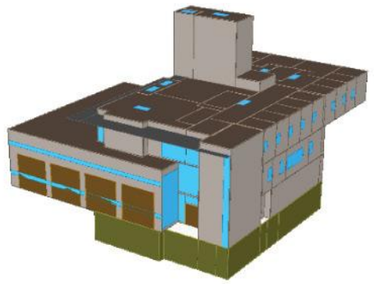
SECTION THROUGH PARKING LOOKING WEST

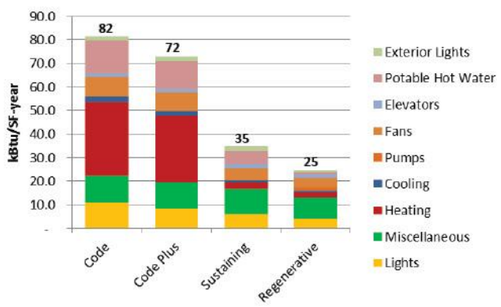
AERIAL VIEW FROM NORTHEAST

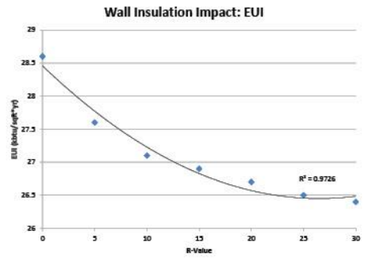
AERIAL VIEW FROM NORTHWEST

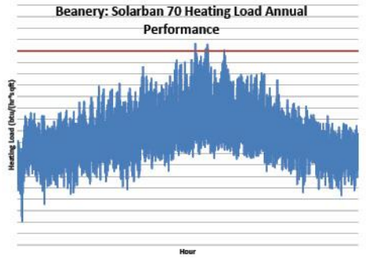
AERIAL VIEW FROM SOUTHEAST

ENERGY ANALYSIS

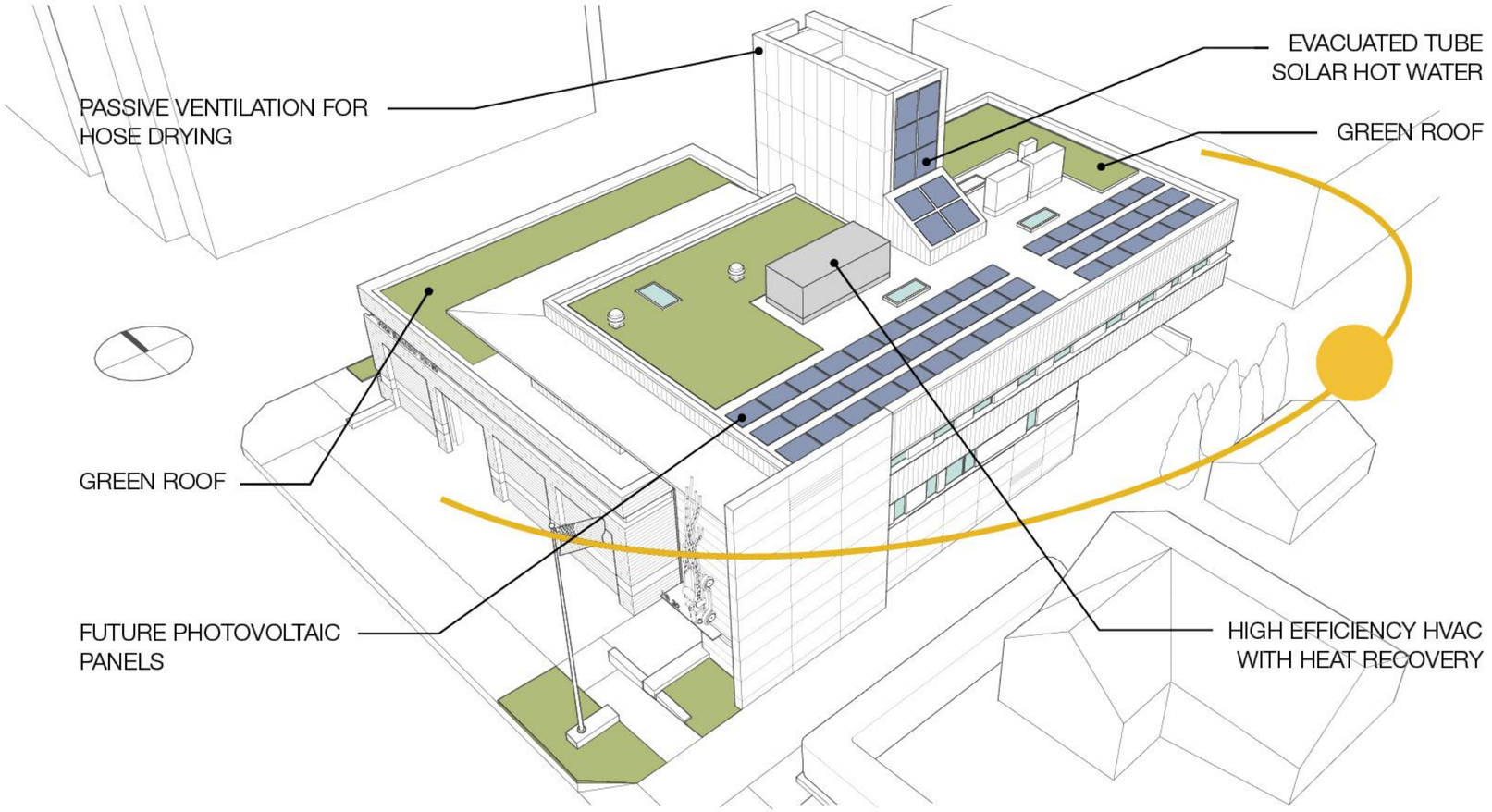








BUILDING SYSTEMS



LEED

Required Certification:	Gold	60-79 Points
Target Certification:	Platinum	80+ Points
Anticipated LEED Credits:		79-86 Points

SUSTAINABILITY STRATEGIES

ENERGY

- Highly insulated building envelope
- High performance glazing
- Passive ventilation for hose drying
- Thermal mass
- Daylighting of occupied spaces
- Lighting and power outlet controls
- High efficiency HVAC system with energy recovery
- High efficiency appliances
- Solar thermal domestic water heating
- Ready for future photovoltaic energy production

WATER

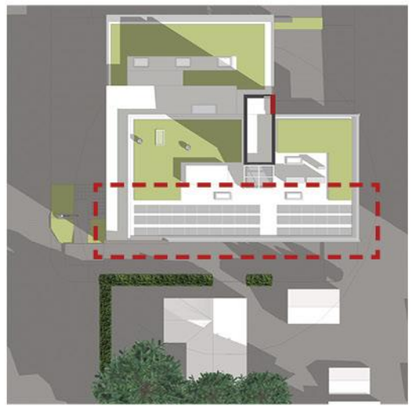
- Low-flow plumbing fixtures
- Drought-tolerant, native vegetation

SITE AND NEIGHBORHOOD

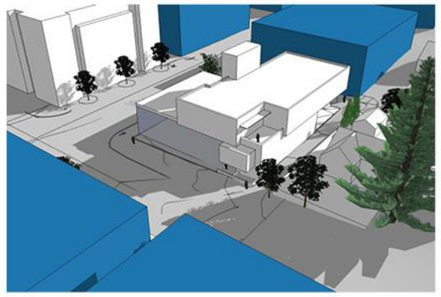
- Green roofs
- Street trees and low planting
- Electric car charging station

MATERIALS

- Durable, low-maintenance materials
- Low-VOC finishes
- Sustainably harvested wood products
- Red list material awareness
- Construction material reuse

	JUNE 21 (SUMMER SOLSTICE)	MARCH/SEPTEMBER 21 (EQUINOX)	FEBRUARY/OCTOBER 21	DECEMBER 21 (WINTER SOLSTICE)
MORNING: 9 AM				
NOON: 12 PM				
AFTERNOON: 3 PM				

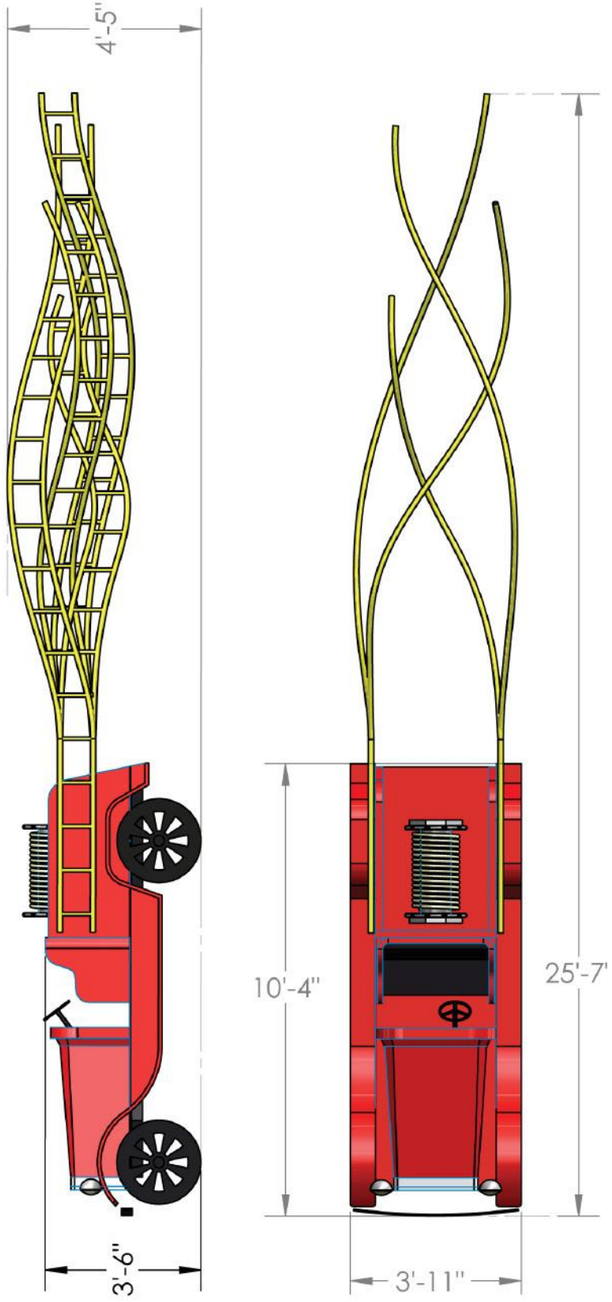
PREVIOUS STUDIES (3 PM, MARCH)



PRE-DESIGN STUDY

SCHEMATIC DESIGN STUDY

ROOFTOP PV ARRAY SOLAR EXPOSURE STUDIES



SEAN ORLANDO

ENGINEERED ARTWORKS

"Engine 32 1/2"
West Seattle Fire Station 32
Public Art Concept

PUBLIC ART INSTALLATION

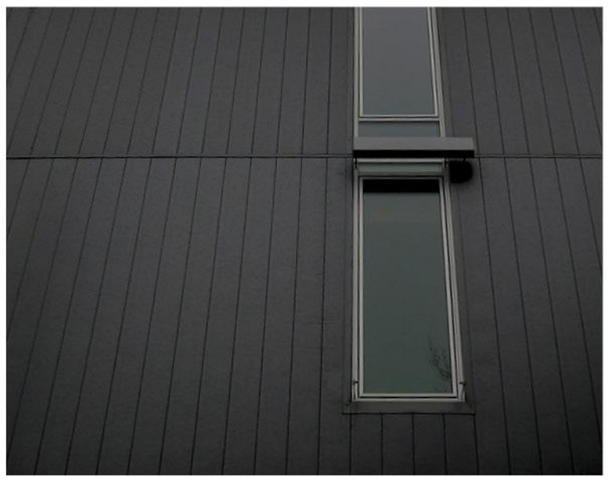
VIEW OF PUBLIC ENTRY LOOKING EAST

VIEW ALONG SW ALASKA ST LOOKING WEST

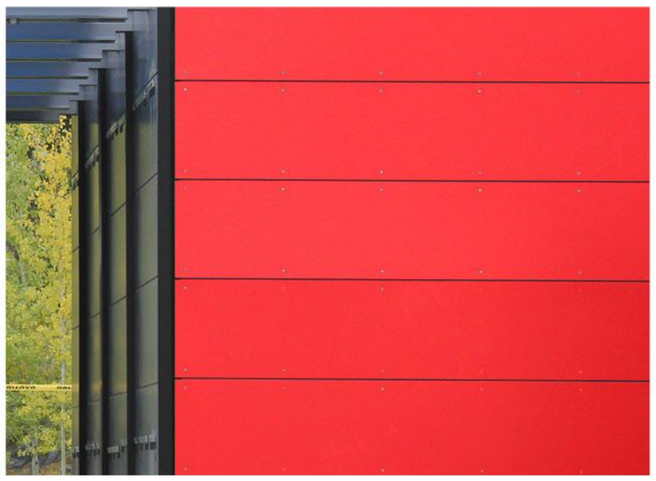

FIRE STATION 32

Type 1 - Pre-Finished Shingled Metal Cladding

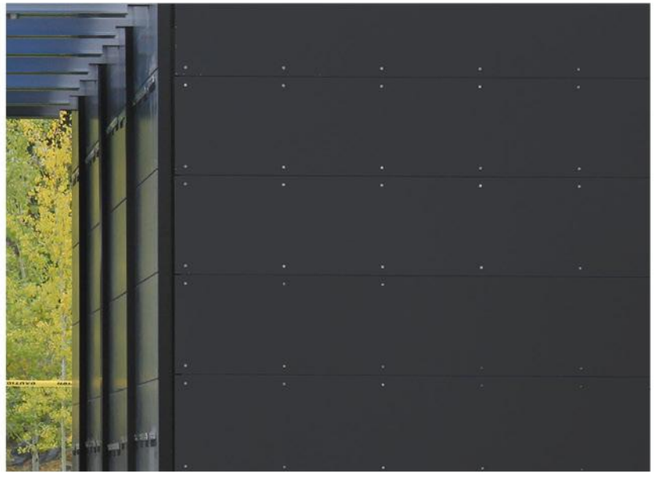
Type 2A - Flush Face Metal Panel System with Micro Ribs



Type 2B - Flush Face Metal Panel System with Smooth Face

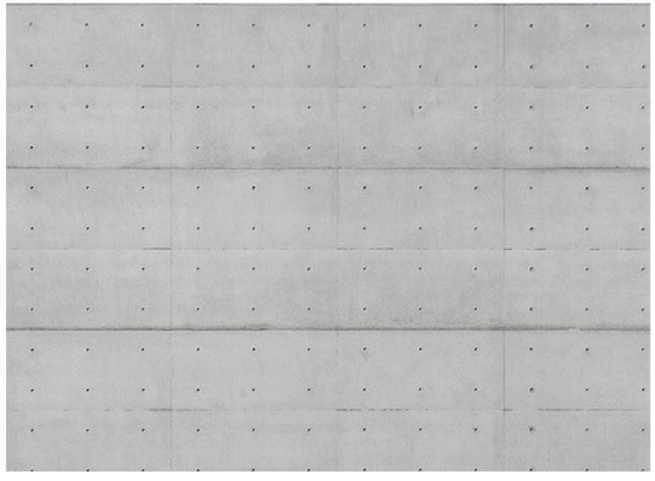


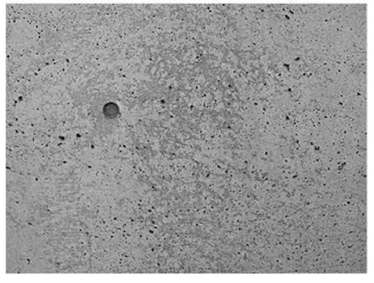
Type 3A - Pre-Finished Aluminum Plate Cladding with Exposed Fasteners



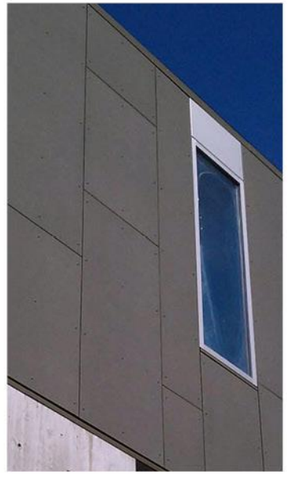
Type 3B - Pre-Finished Aluminum Plate Cladding with Exposed Fasteners

Overhead Doors

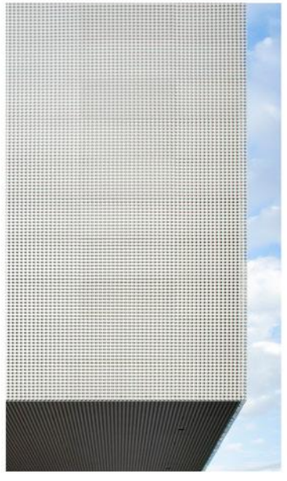


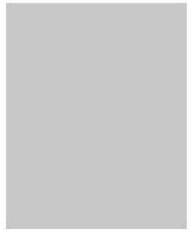


Cast in Place Concrete

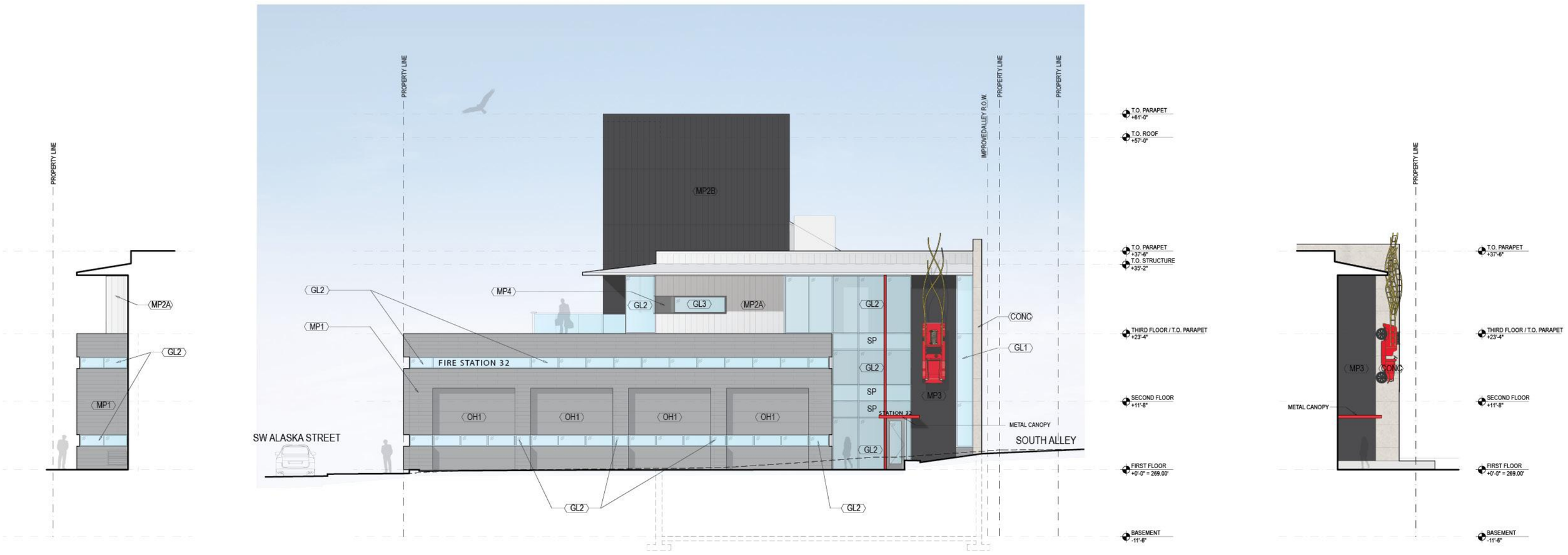


Fiber Reinforced Cement Panel
with Integral Color

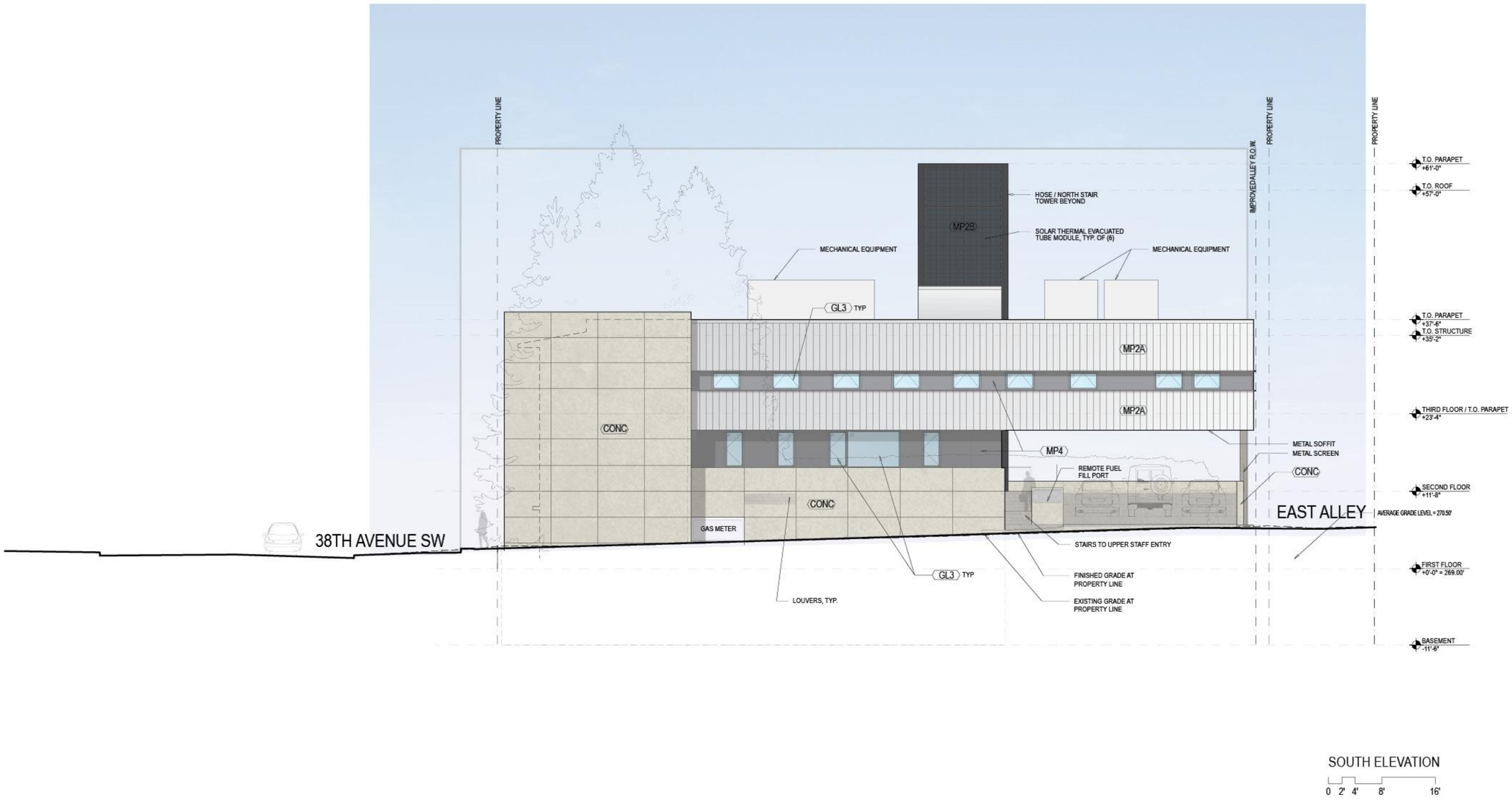




Metal Screen



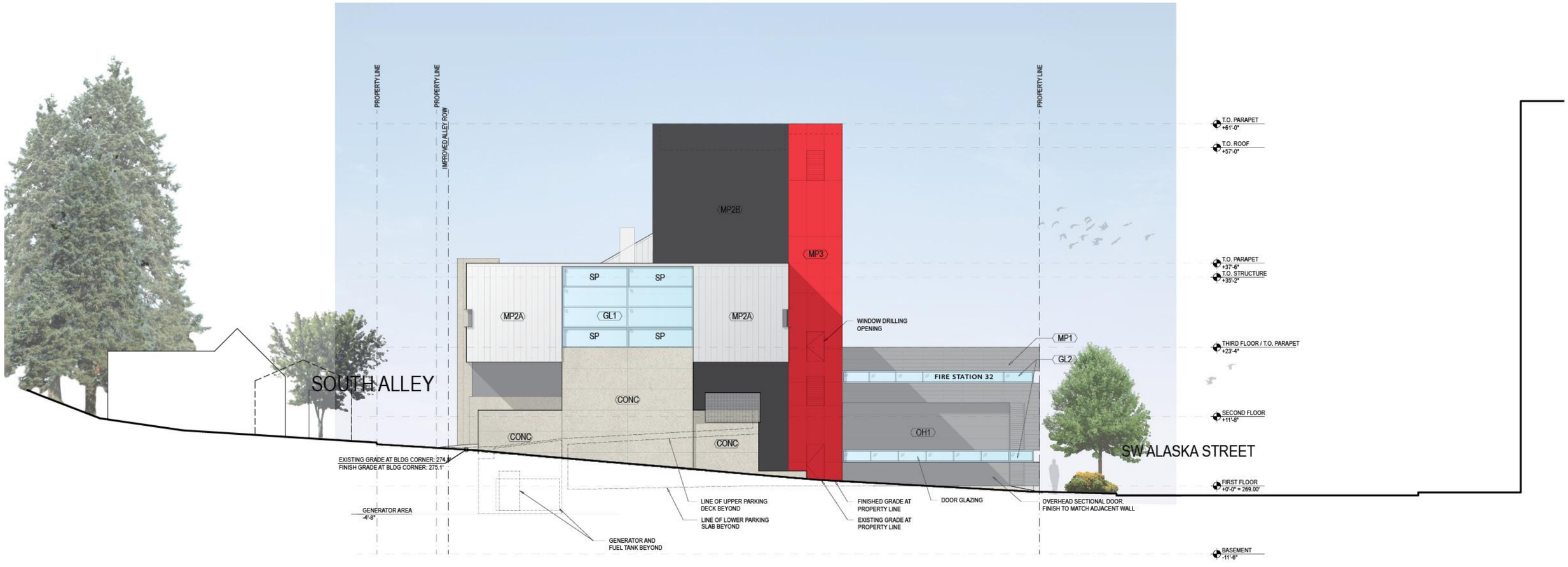
WEST ELEVATION



SOUTH ELEVATION

0 2' 4' 8' 16'

SOUTH ELEVATION



EAST ELEVATION

NORTH ELEVATION

CONCEPT RENDERING

STATION ILLUMINATED AT NIGHT


FIRE STATION 32