NORTH TRANSFER STATION CAPITAL PROJECT REVIEW SEATTLE DESIGN COMMISSION

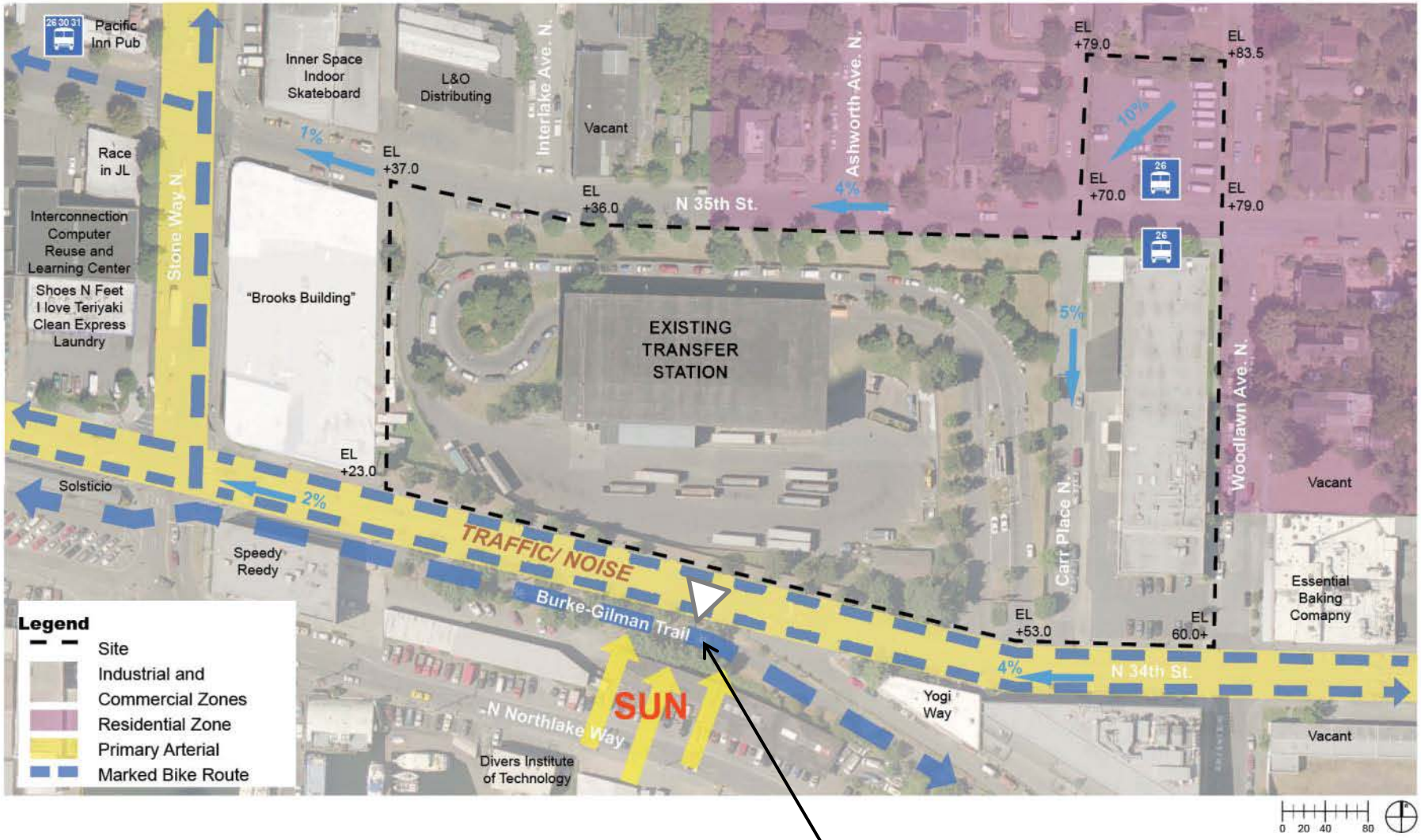
Seattle Public Utilities

November 21, 2013

Design Commission Schedule

September 2006	Solid Waste Transfer Master Plan, Intermodal Facility
October 2007	Master Plan update
December 2010	Review North Transfer alternative design concepts
June 2011	Review North Transfer tentatively selected concept
November 2012	Urban Design Merit, Carr Place N Street Vacation
February 2013	Public Benefit, Carr Place N Street Vacation
October 2013	Seek input on 30% design package
November 2013	**60% design update**
TBD (Early 2014)	90% design update

North Transfer Station: Site Recap



Access to Burke-Gilman Trail

PROJECT REQUIREMENTS

Seattle Public Utilities

North Transfer Station Design Constraints			
Category	**Types of Constraints**	**SDC Interests Impacted**	**Result of Constraint**
EIS Building Codes Regulatory Agencies Reviewing Authorities	Building Code requirements Permit conditions Noise Ordinance limits Agency direction	Available planting palette. Elimination of street trees to open up viewing corridors.	Dept. of Ecology and King County Public Health have directed design to address vector control through plant selection and placement. Through the SIP permitting process, SDOT requires trees along roadways. Viable existing trees are not allowed to be removed, and any non-viable existing trees must be replaced.
Wallingford Community Council Agreement Fremont Neighborhood Council Agreement	Building setbacks Building height limitations Sound wall height and extent Park features and arrangement	Remove or reduce height of north sound wall. Modulate sound wall. Landscaping to match scale of neighborhood.	Height and extent of sound wall stipulated by signed community agreement. Agreements stipulate sound wall setback and minimum buffer area that precludes modulation. Landscaping provisions in park reflect results of two years of developing preferences with the designated community representatives.
Functional and Operational Requirements	Minimum vehicle clearances Damage-resistant and low-maintenance building materials Design for vector control Staff and customer safety Crime Prevention Through Environmental Design (CPTED)	Expanded public space and visitor access/experience at station. Enhanced color, materials, and texture palettes.	Need to separate visitors from working areas, and maintain building security standards. Need unbreakable, un-climbable, washable surfaces that will accept anti-graffiti coating. Park planting and lighting decisions guided by CPTED
Budget	Fixed construction cost budget Estimated cost already in excess of budget	Walls along N34th and N35th are too plain and monolithic. Expanded public space and visitor access/experience at station. Enhanced color, materials, and texture palettes. Artist integration into design.	Budget limits options for enhancement.

Limits Set per Predesign & Neighborhood Agreement

: massing : maximum heights : north edge buffer

: circulation : setbacks : sound wall height and location

DESIGN REVIEW

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Building & Site components

Building & Site – pedestrian access

DESIGN - MATERIALITY

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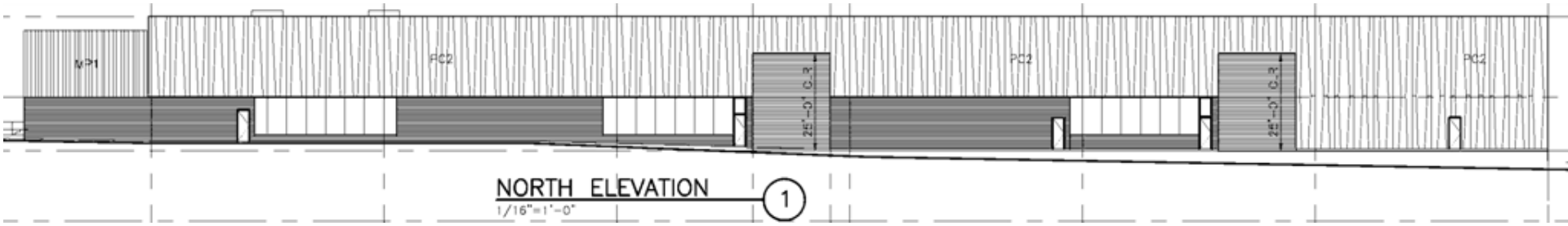
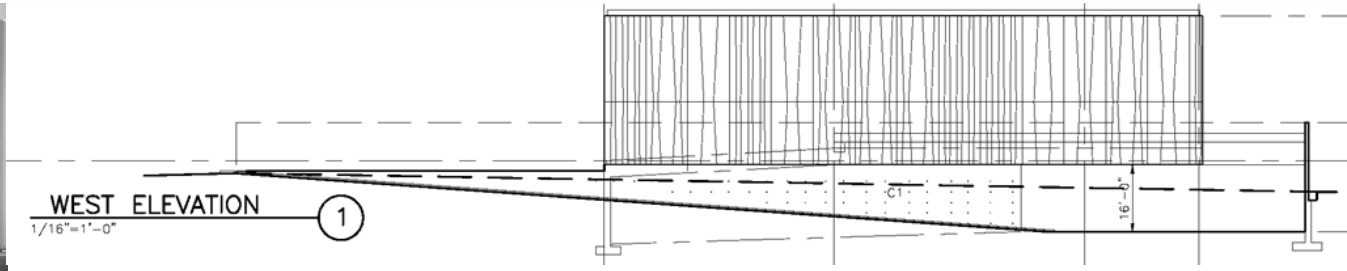
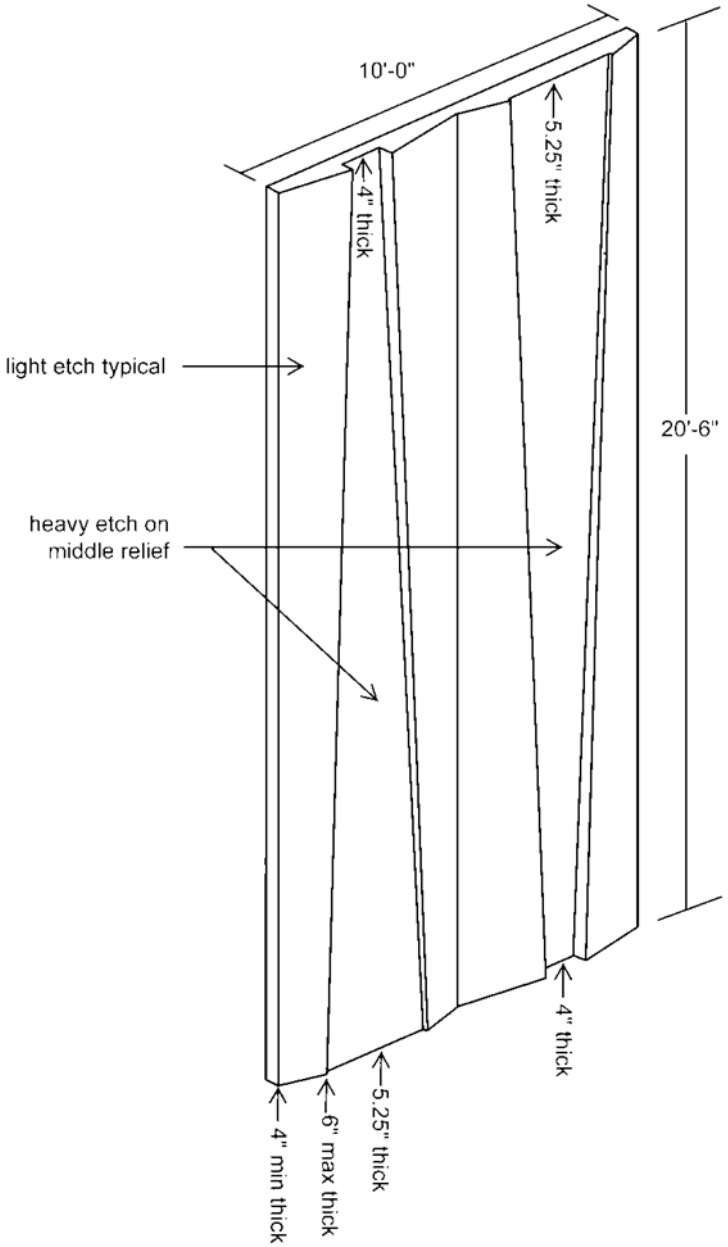
Textures and Patterns

Texture and Patterns

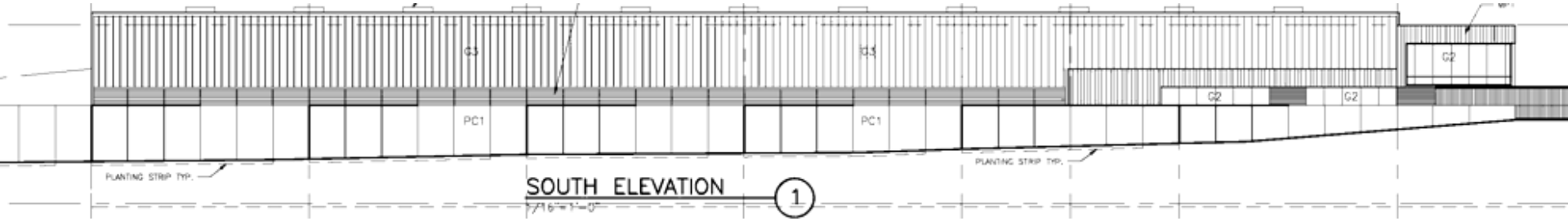


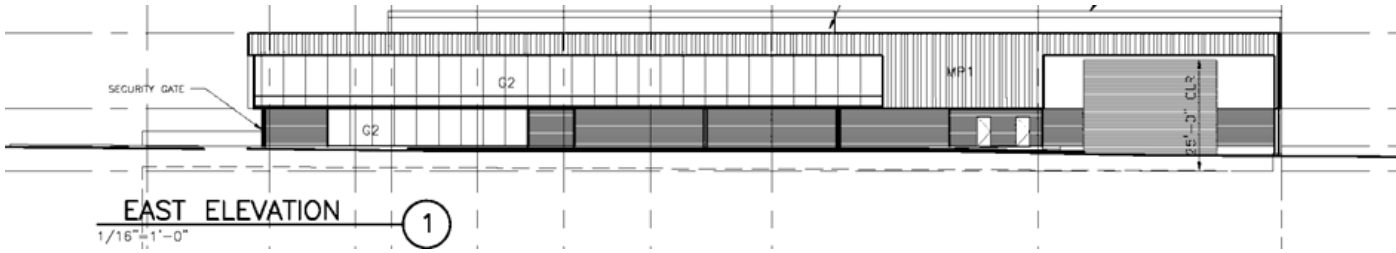


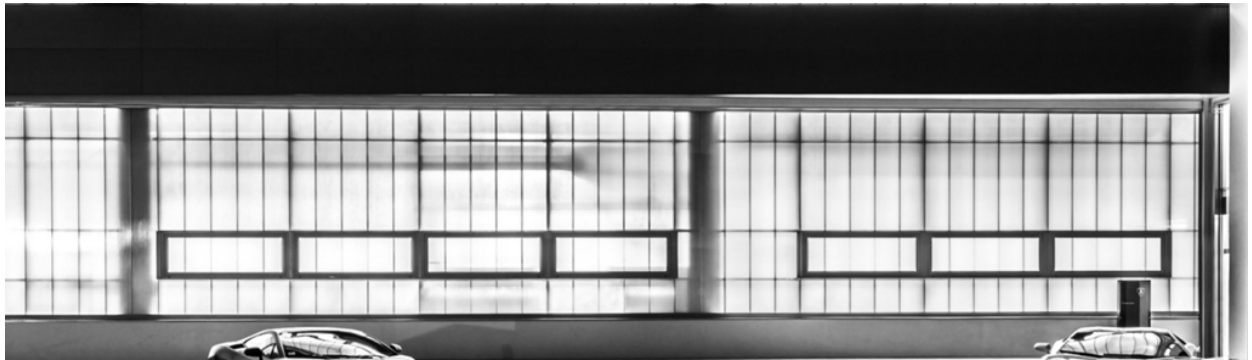
Formed and Etched precast panels



Texture and Pattern
Masonry base, random metal panel, translucent panels







PUBLIC SPACES

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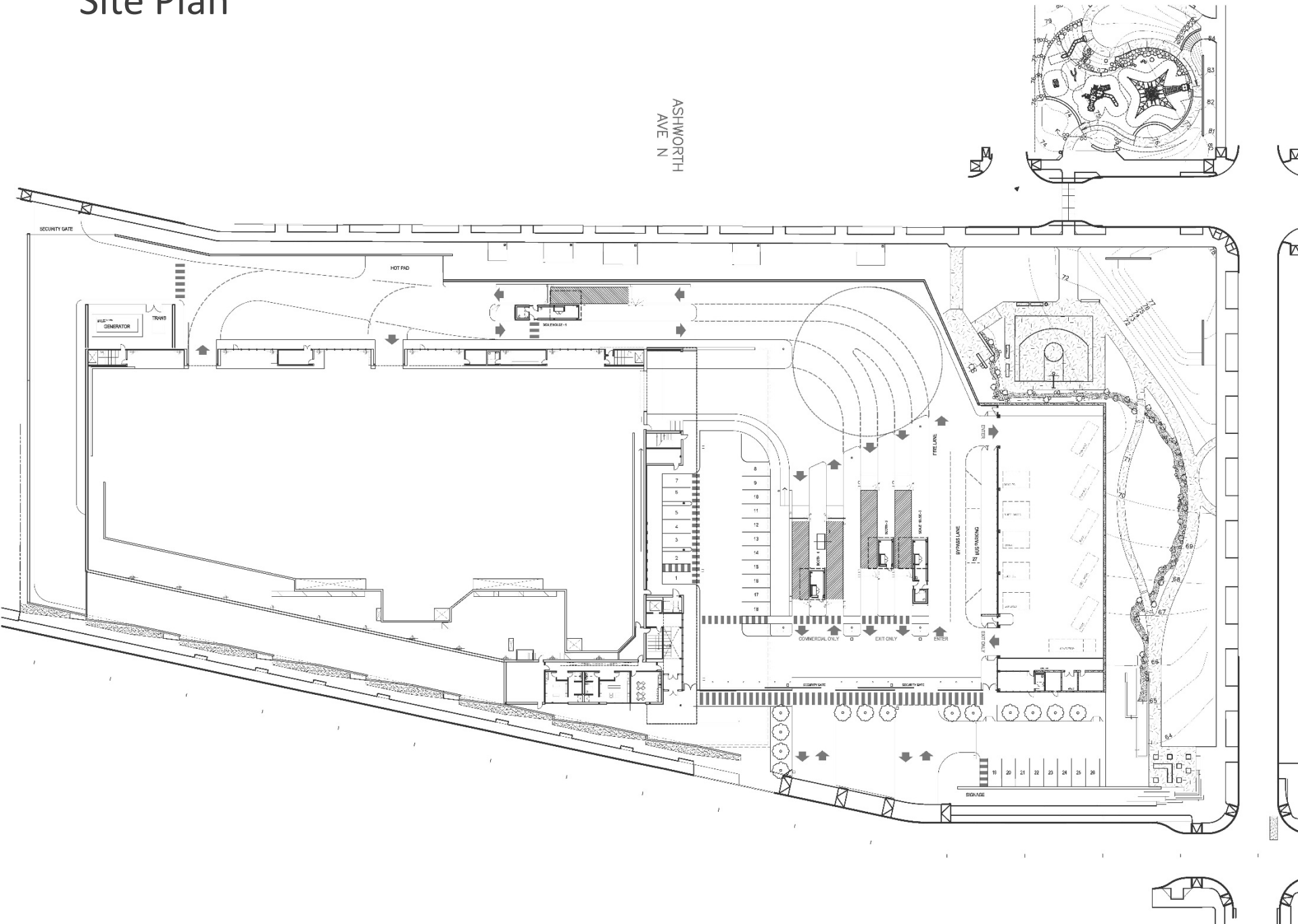
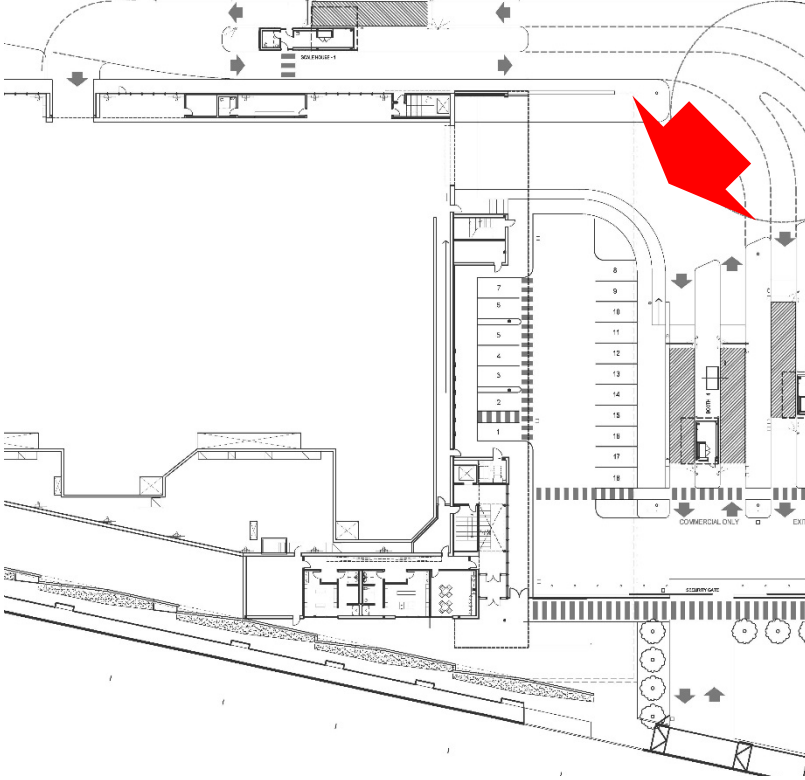
NORTH TRANSFER STATION
SELF HAUL

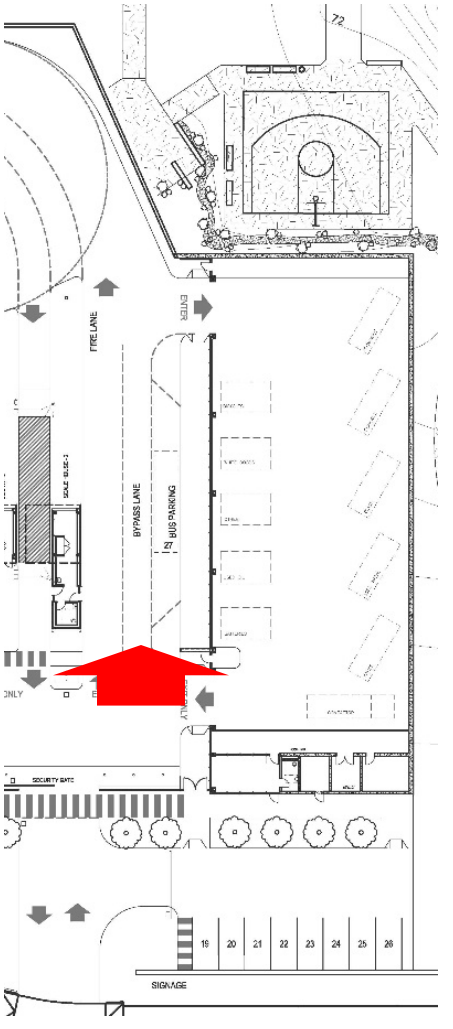
Site Plan


ASHWORTH AVE N
SECURITY GATE
HOT PAD
GENERATOR
TRANS
FIRE LANE
BYPASS LANE
BUS PARKING
COMMERCIAL ONLY
EXIT ONLY
ENTER
SECURITY GATE
SECURITY GATE
SIGNAGE

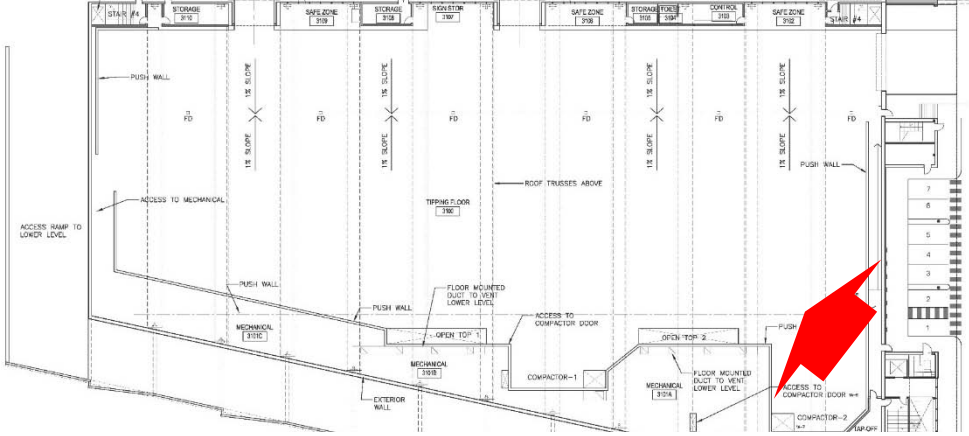
Transfer and administration building



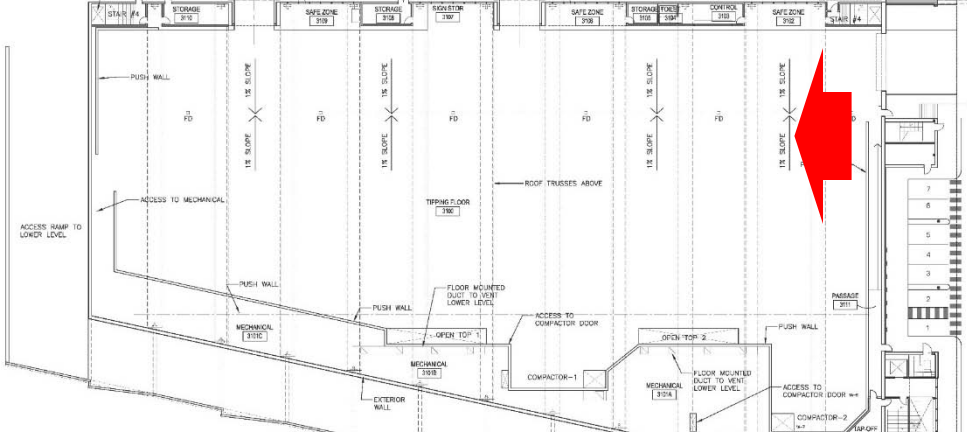
Recycling and reuse building



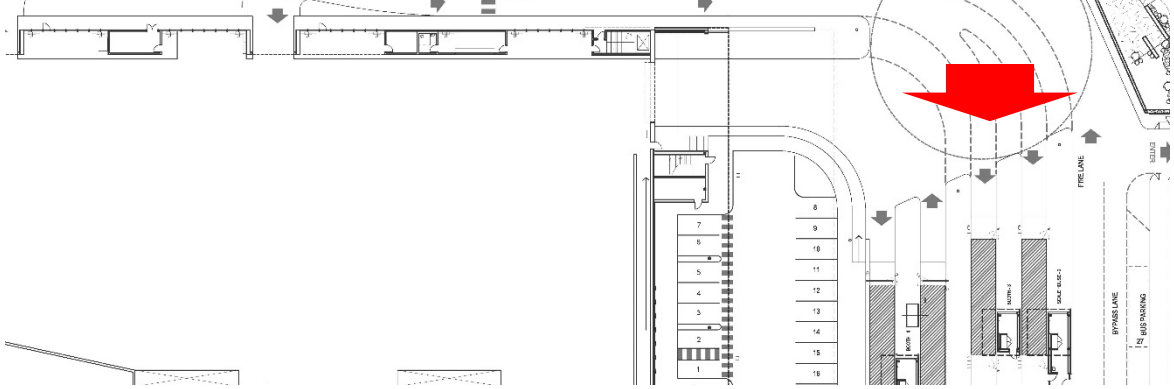
Tipping Floor



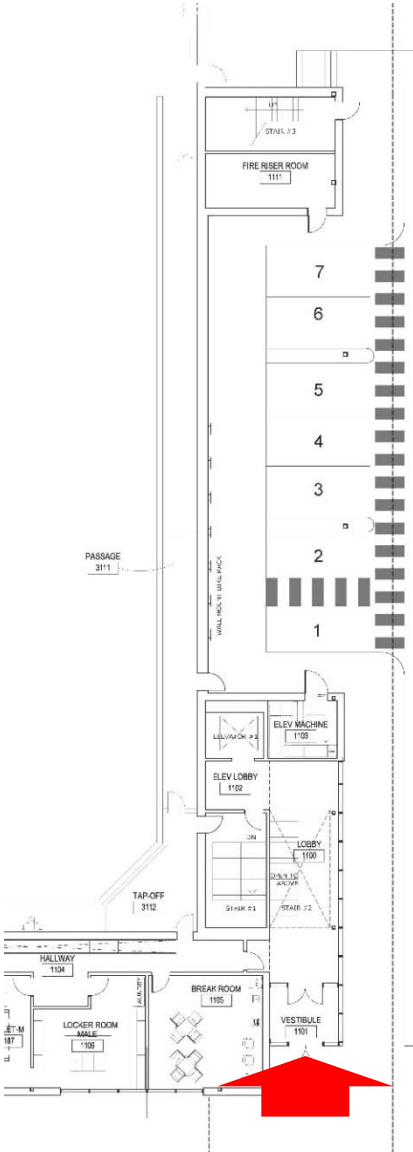
Tipping Floor



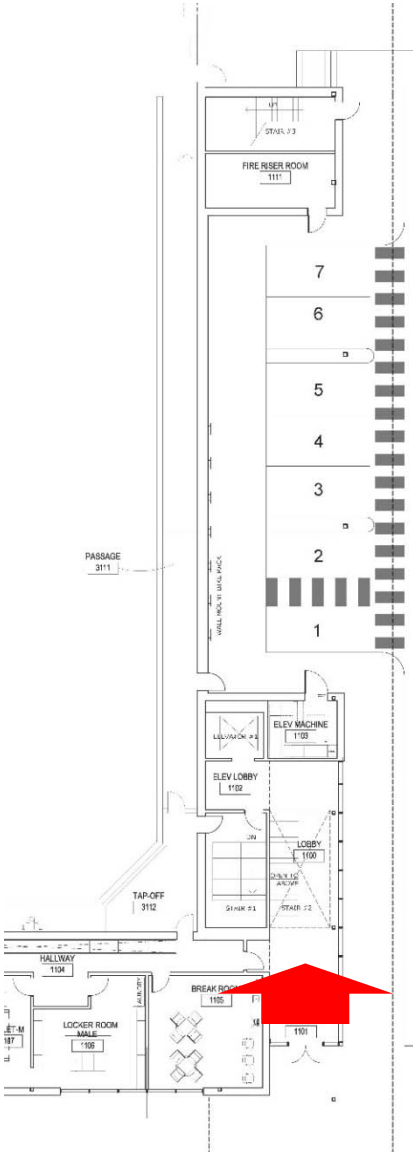
Scale Plaza



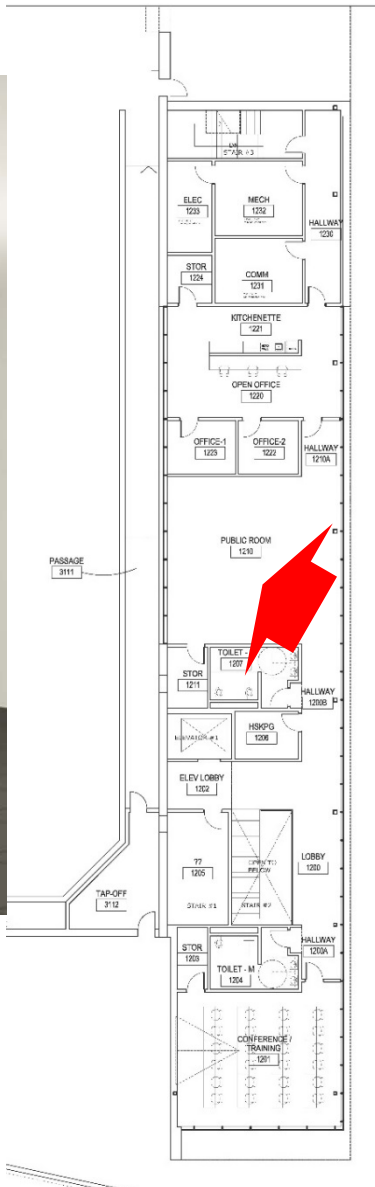
Administration Entry



Administration Lobby



Second level Viewing Room



EDGE CONDITIONS
N. 35th Street Edge

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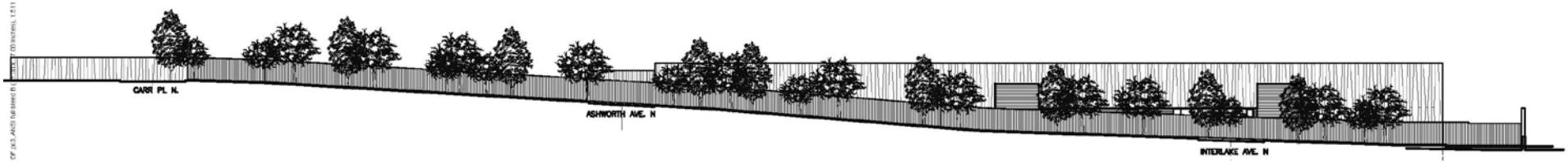
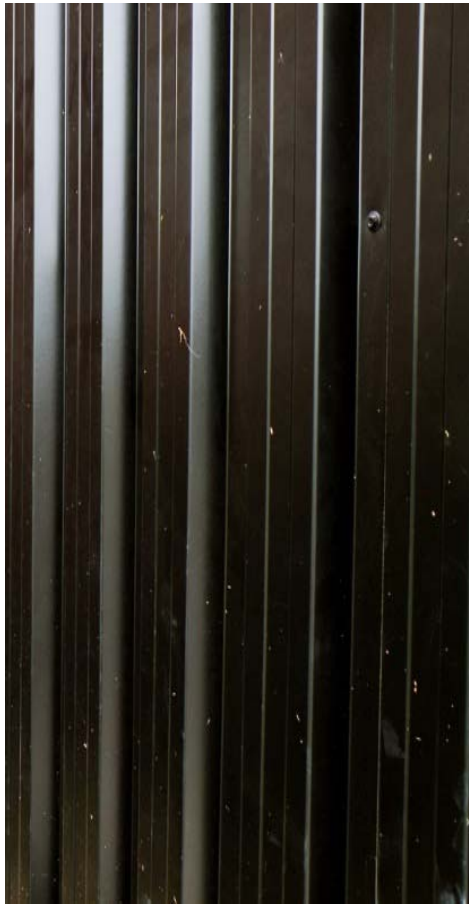
North Wall Edge Conditions

North Wall Edge Conditions





SOUTH WALL & PUBLIC ART
N. 34th Street Edge

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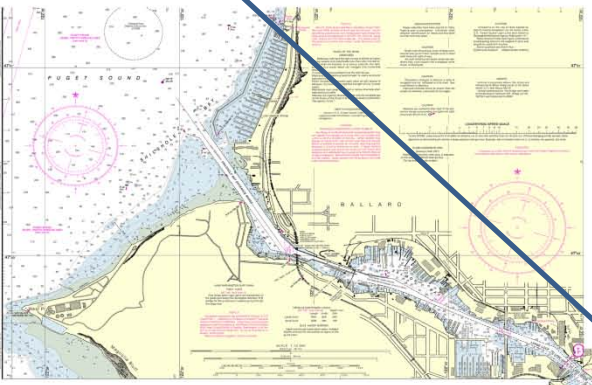
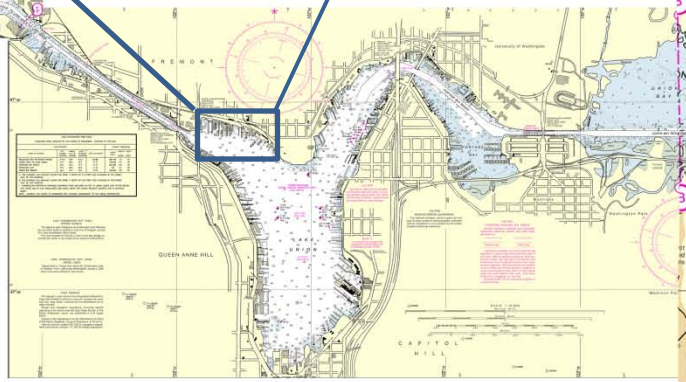
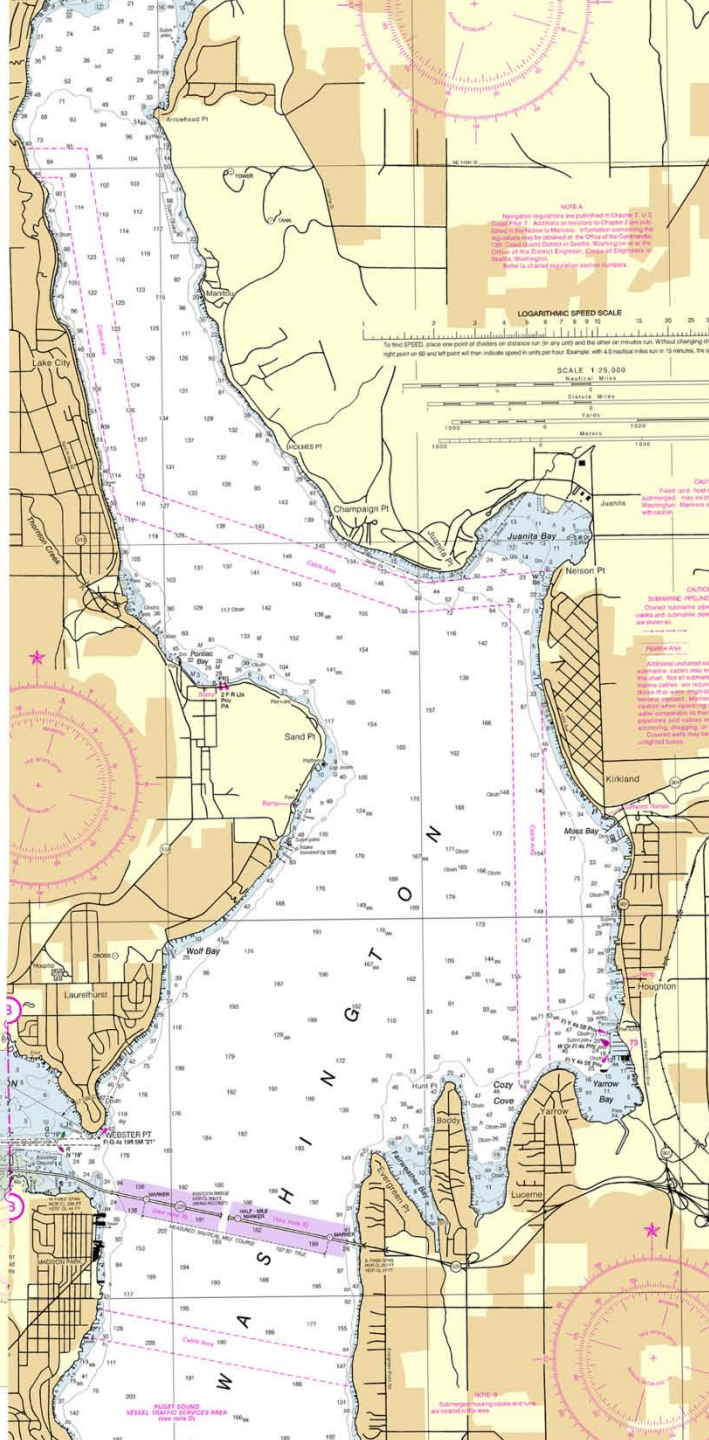
Public Art for North Transfer Station
Seattle Public Utilities
November 19, 2013







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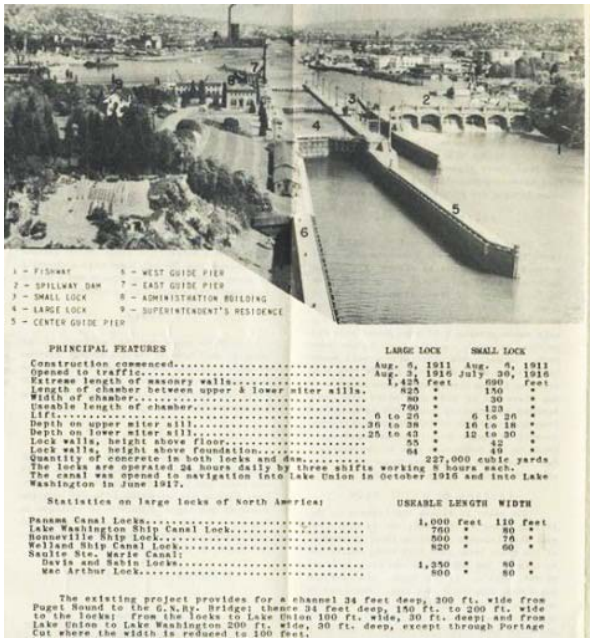
Map of Site and surrounding waterways
Showing existing North Transfer Station's
Proximity to Lake Washington Ship Canal



1 - Fishway
2 - Spillway Dam
3 - Small Lock
4 - Large Lock
5 - Center Guide Pier
6 - West Guide Pier
7 - East Guide Pier
8 - Administration Building
9 - Superintendent's Residence

PRINCIPAL FEATURES

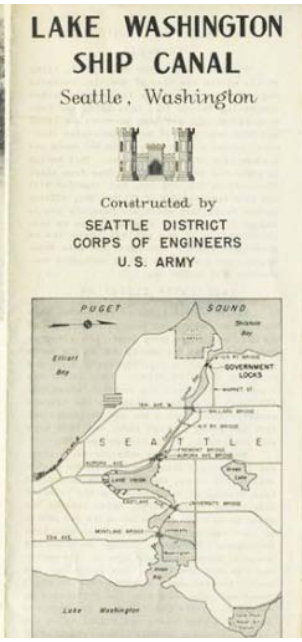
	Large Lock	Small Lock
Construction commenced	Aug. 6, 1911	Aug. 6, 1911
Opened to traffic	Aug. 3, 1916	July 30, 1916
Extreme length of masonry walls	1,425 feet	690 feet
Length of chamber between upper & lower miter sills	825 "	150 "
Width of chamber	80 "	30 "
Useable length of chamber	760 "	123 "
Lift	6 to 26 "	6 to 26 "
Depth on upper miter sill	36 to 38 "	16 to 18 "
Depth on lower miter sill	25 to 43 "	12 to 30 "
Lock walls, height above floor	55 "	42 "
Lock walls, height above foundations	84 "	49 "
Quantity of concrete in both locks and dam	227,000 cubic yards	

The locks are operated 24 hours daily by three shifts working 8 hours each.
The canal was opened to navigation into Lake Union in October 1916 and into Lake Washington in June 1917.

Statistics on large locks of North America:

	Useable Length	Width
Panama Canal Locks	1,000 feet	110 feet
Lake Washington Ship Canal Lock	760 "	80 "
Bonneville Ship Lock	500 "	76 "
Welland Ship Canal Locks	820 "	80 "
Sault Ste. Marie Canal:		
Davis and Sabin Locks	1,350 "	80 "
Mac Arthur Lock	800 "	80 "

The existing project provides for a channel 34 feet deep, 300 ft. wide from Puget Sound to the G.N.Ry. Bridge; thence 34 feet deep, 150 ft. to 200 ft. wide to the locks; from the locks to Lake Union 100 ft. wide, 30 ft. deep; and from Lake Union to Lake Washington 200 ft. wide, 30 ft. deep, except through Portage Cut where the width is reduced to 100 feet.



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Historical images of the Lake Washington Ship Canal

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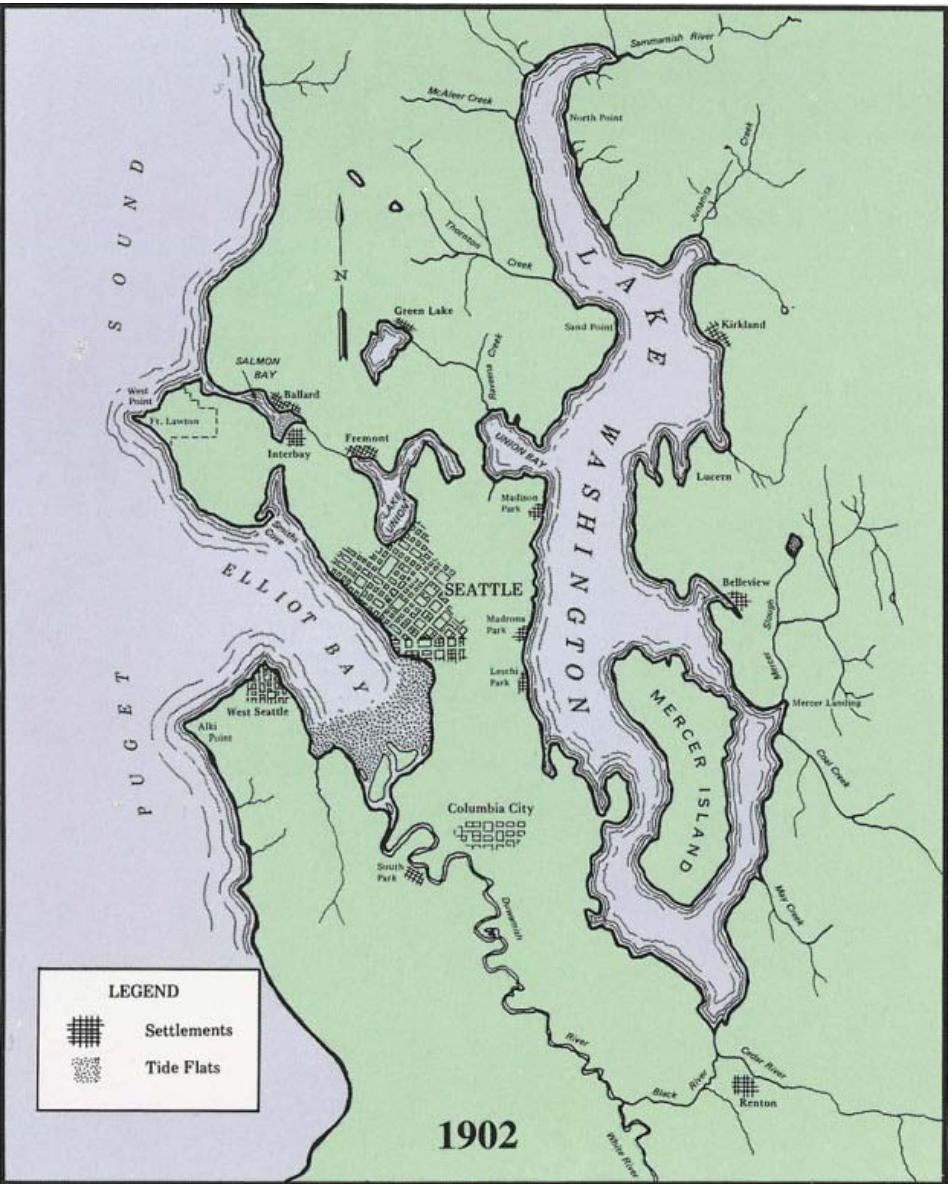
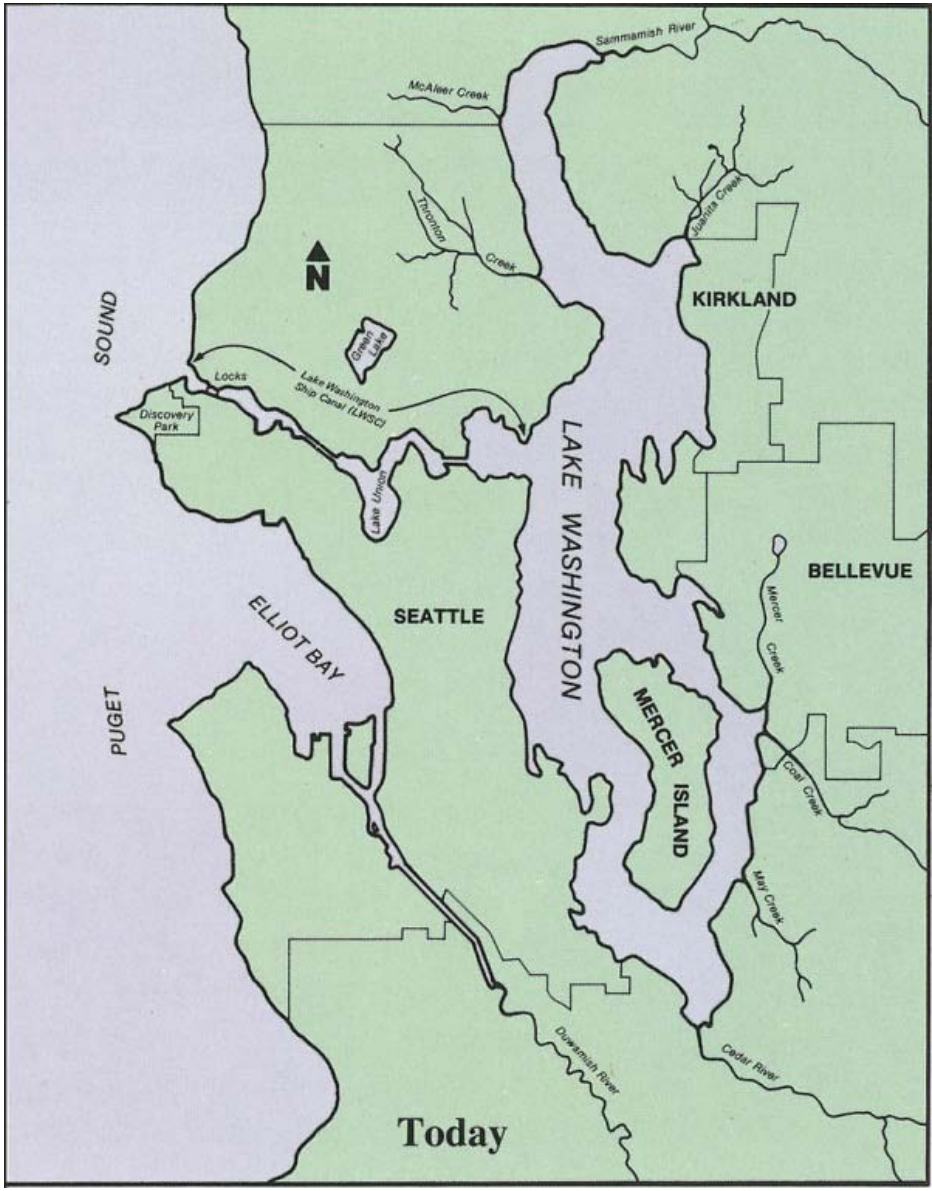
Construction of the Lake Washington Ship Canal began in 1911, Hiram Chittenden Locks opened in 1917





JEAN SHIN | Map of Seattle in 1902 (left)
Map today showing Ship Canal's route connecting Lake Washington and Lake Union to Puget Sound (right)

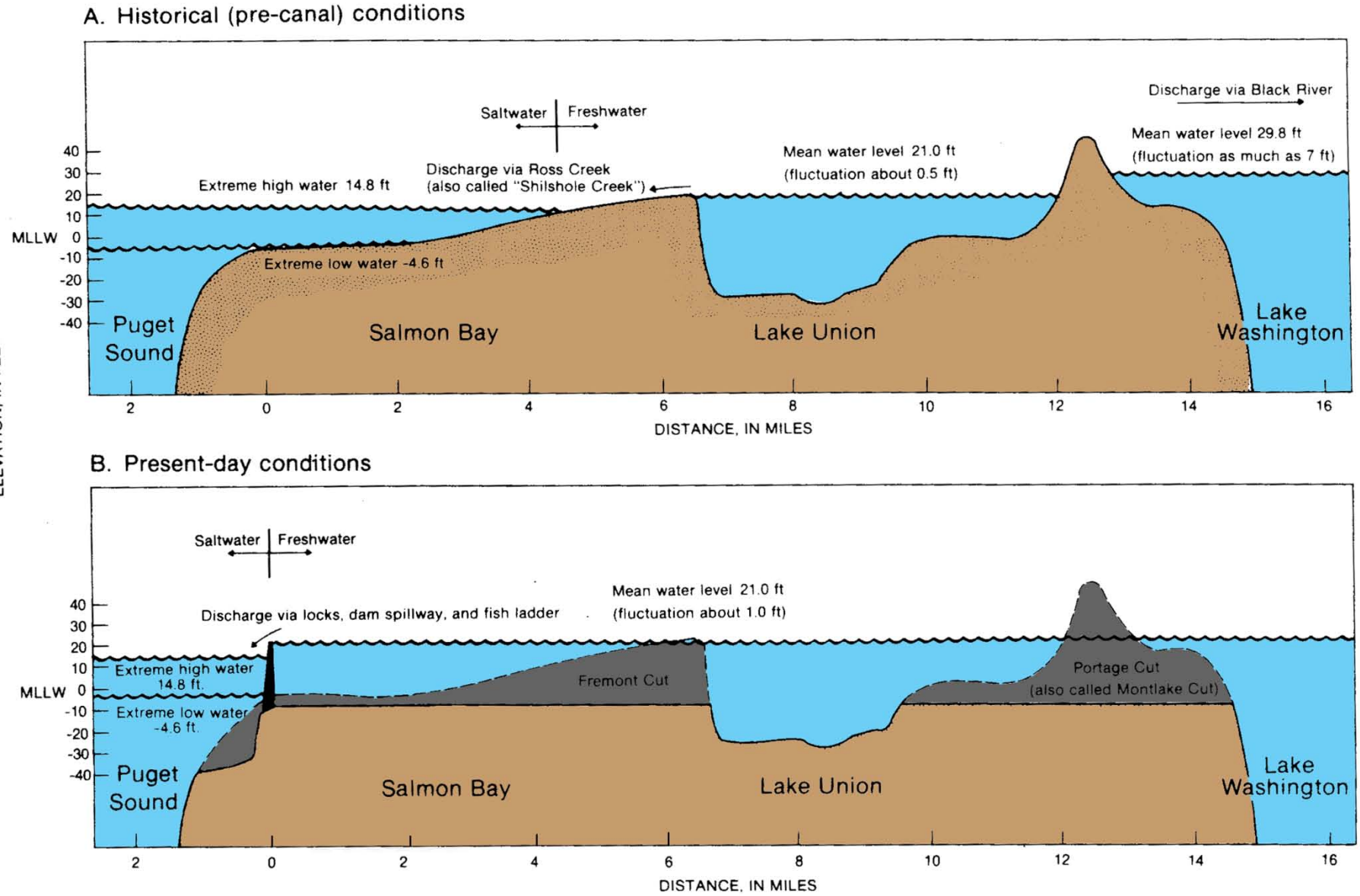
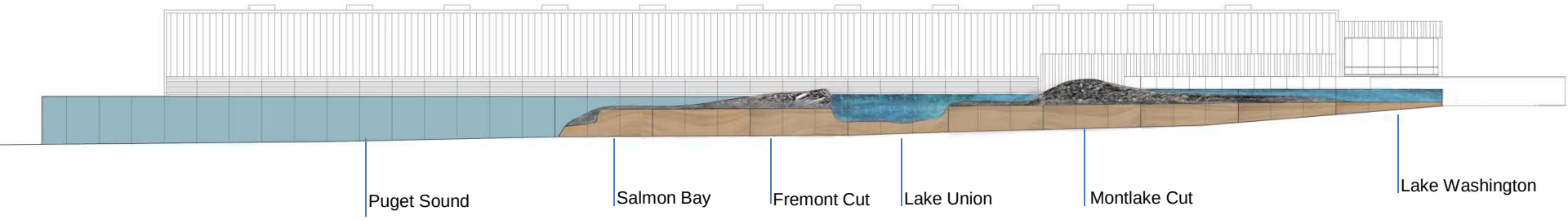


Figure 6. — Schematic sections comparing historical and present-day bottom configuration and elevations along route of the Lake Washington Ship Canal. All water elevations are in feet above or below (–) mean lower low water (MLLW)



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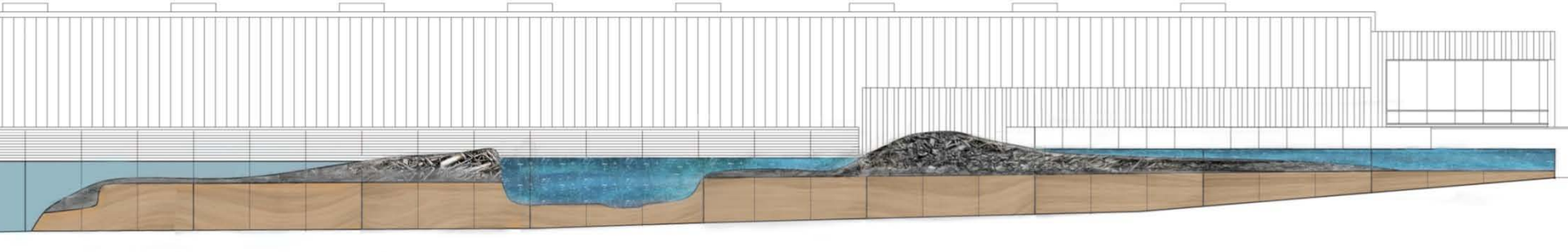
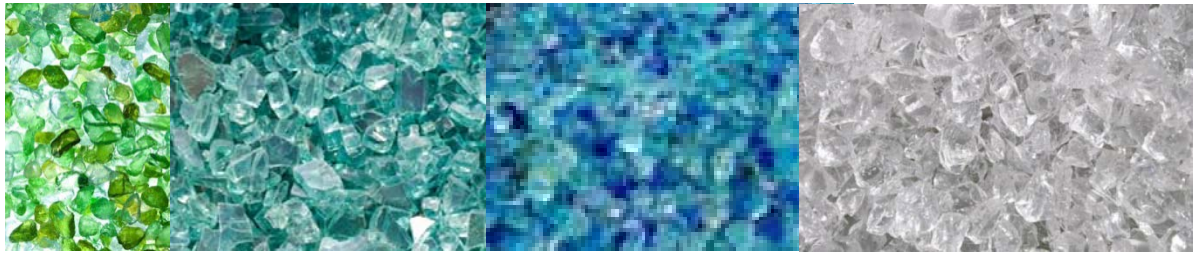
Public Art for North Transfer Station
Seattle Public Utilities
November 19, 2013

Art along 34th Street Wall highlights site's proximity to Seattle's waterways, both natural and man-made landscapes.
Work features dynamic cross section of the historical elevation of Lake Washington Ship Canal route
Seattle's geological changes are transformed into recycled materials collected from the community and speaks to Transfer Station's activities toward zero waste.





3 ELEMENTS AND MATERIALS

Fresh Water: (BLUE)
Tempered glass vitrine
filled with crushed blue & clear recycled glass
[Lake Union and Lake Washington]

Excavated Land (GREY):
Stainless steel objects
collected from Transfer Station and community
[Fremont and Montlake Cut)

Existing Landscape
Exposed aggregate concrete
using former building materials [BEIGE]
using recycled blue glass with integral color
[GREY/BLUE]
Integrated with Architect's wall design

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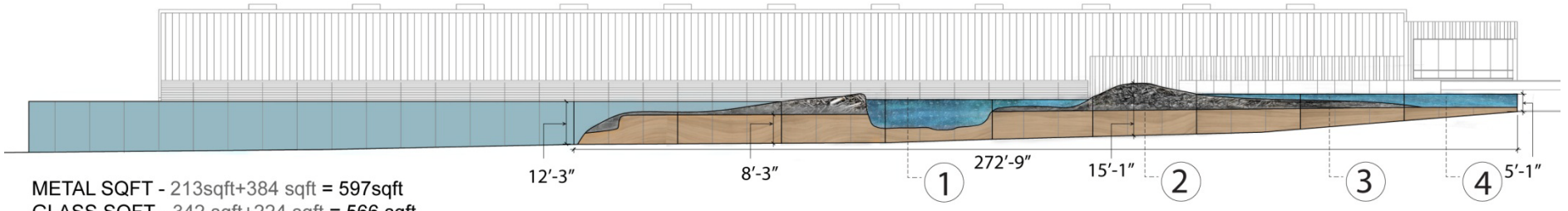
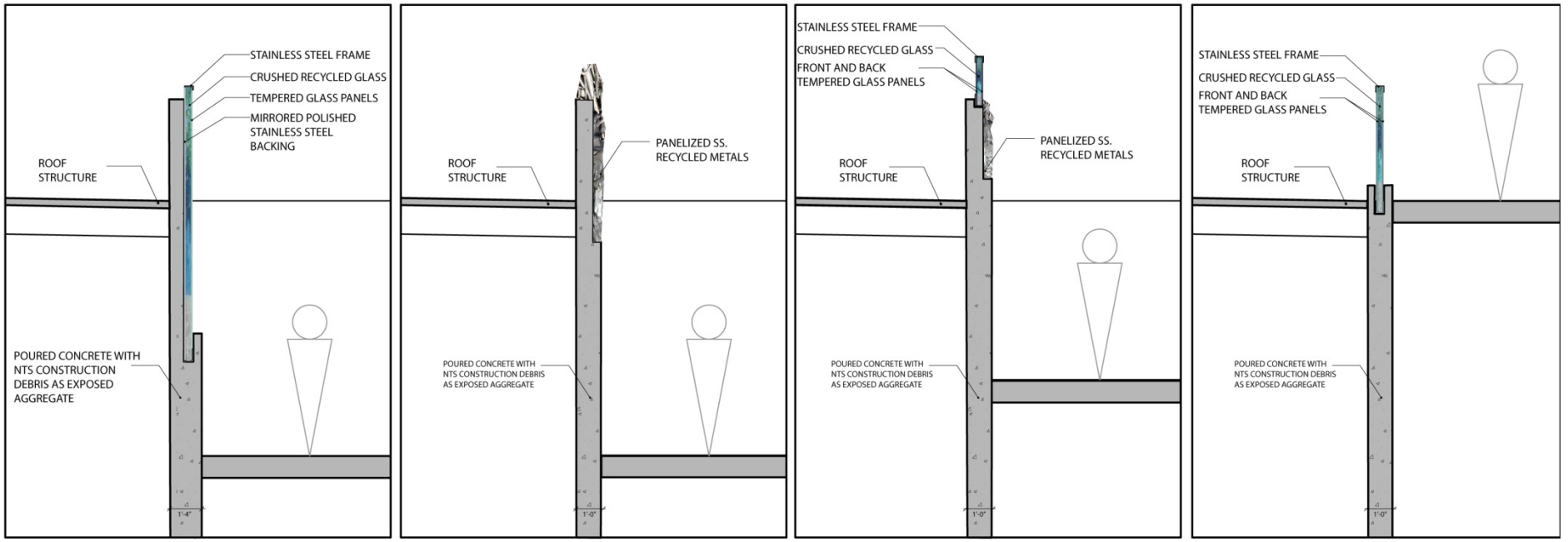


METAL SQFT - 213sqft+384 sqft = 597sqft
GLASS SQFT - 342 sqft+224 sqft = 566 sqft
TOTAL SQFT - 1163 sqft



1 SECTION THROUGH GLASS PANEL + REFLECTIVE BACKING

2 SECTION THROUGH METAL PANEL

3 SECTION THROUGH METAL + GLASS PANEL

4 SECTION THROUGH GLASS PANEL

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Art Elevation with dimensions and square footage
Section Details
Public Art for North Transfer Station
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November 19, 2013

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Zero waste and future sustainability
Site plan with Art location in red
Public Art for North Transfer Station
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November 19, 2013

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Perspective View 1
Art near Entrance Plaza
Public Art for North Transfer Station
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Perspective View 2
Art Along 34th Street Sidewalk
Public Art for North Transfer Station
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Perspective View 3
Art Along 34th Street Sidewalk
Public Art for North Transfer Station
Seattle Public Utilities
November 19, 2013

LANDSCAPE

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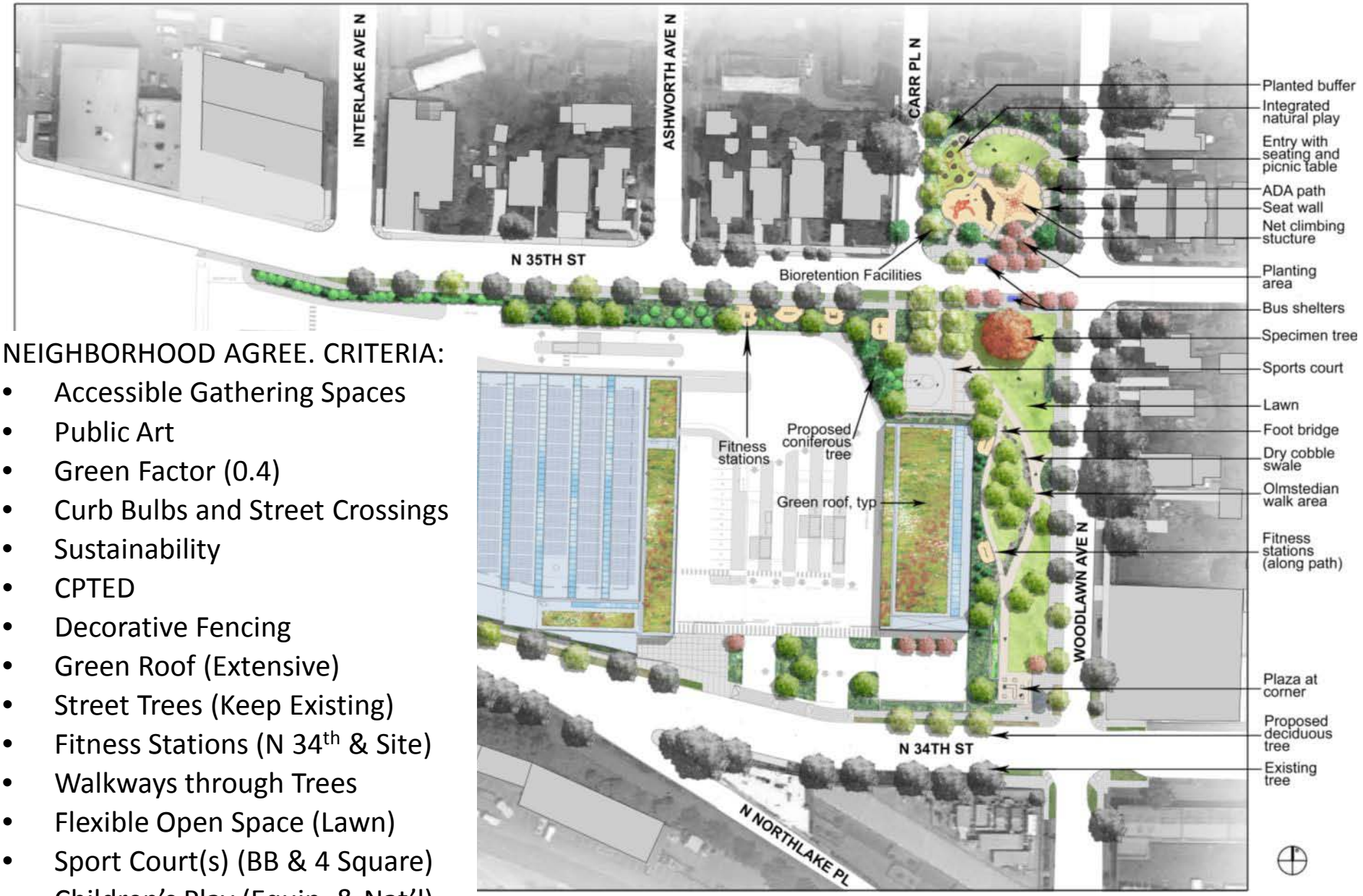
Site Plan: Summary



NEIGHBORHOOD AGREE. CRITERIA:

- Accessible Gathering Spaces
- Public Art
- Green Factor (0.4)
- Curb Bulbs and Street Crossings
- Sustainability
- CPTED
- Decorative Fencing
- Green Roof (Extensive)
- Street Trees (Keep Existing)
- Fitness Stations (N 34th & Site)
- Walkways through Trees
- Flexible Open Space (Lawn)
- Sport Court(s) (BB & 4 Square)
- Children's Play (Equip. & Nat'l)

Site Plan: Revisions

Previous

Current

Planting Design Criteria

Criteria

- FAA Anti-Vector Compliance
- Drought tolerant
- CPTED compliant (Shrub Maximum Ht @ 3 ft)
- Maintenance (Lawn and Shrub Drifts)
- Large specimen tree
- Keep existing street trees & infill where there are gaps.
- Site trees layout in copses

APPROVED AND REJECTED PLANT LIST FOR VECTOR CONTROL

http://www.portseattle.org/Environmental/Water-Wetlands-Wildlife/Pages/Wildlife-Management.aspx

WORKING DRAFT
11/4/2013

Last Revised8/26/03 PCC

October 21, 2008 Approved Plant List for Seattle-Tacoma International Airport (Hardiness Zone = 8 | POS Users: Click Here To Download Recent SEA Landscape Standards

USE COLUMN DROPDOWN ARROWS TO SORT BY ATTRIBUTE. http://www.mobot.org/gardeninghelp/plantfinder/common.asp

(alphabetical) Genus	Species var.	Common Name	Plant Category & Type	Maximum Height (ft)	Maximum Spread	Moisture Regime	Location Permitted
Abelia	grandiflora	Edward Goucher Abelia	Shrub- Evergreen	5	5	Low Water	LLZ
Abies	amabilis	Pacific Silver Fir	Tree - Conifer- Evergreen	40–	N/A	Xeric	Mitigation Sites
Abies	grandis	Fir Grand	Tree - Conifer- Evergreen	40+	N/A	Low Water	Outside AOA & LLZ
Acer	circinatum	Vine Maple	Tree/Shrub	30	20	Low Water	LLZ
Acer	macrophyllum	Bigleaf Maple	Tree- Deciduous	70+	70	Xeric	Outside AOA & LLZ
Agrostis	exurata	Spike Bentgrass	Shrub	3	Dispersal	Low Water	Mitigation Sites
Alnus	rubra	Red Alder	Tree- Deciduous	40+	N/A	Non-Xeric	Mitigation Sites
Alopecurus	geniculatas	Water Foxtail	Ground Cvr - Grass	1	1	Low Water	Mitigation Sites
Anemone	hupehensis	September Charm; Japanese Anemone	Ground Cvr- Deciduous	4	2	Non-Xeric	LLZ
Aster	subspicatus douglasii	Douglas Aster	Ground Cvr	4	Dispersal	Low Water	Mitigation Sites
Beckmannia	syzigachne	Slough Grass	Ground Cvr - Grass	3	Dispersal	Low Water	Mitigation Sites
Bergenia	bressingham ruby	Bressingham Ruby Bergenia	Ground Cvr - Evergreen	1	1	Low Water	Outside AOA & LLZ
Betula	glandulosa	Swamp Birch	Tree- Deciduous	70	N/A	Non-Xeric	Mitigation Sites
Betula	jacquemontii	Jacquemontii Birch	Tree- Deciduous	40–	N/A	Non-Xeric	LLZ
Betula	occidentalis	Red Birch; Water Birch	Tree/Shrub- Deciduous	40+	N/A	Non-Xeric	LLZ
Betula	papyrifera	Paper Birch	Tree- Deciduous	40–	N/A	Non-Xeric	Outside AOA & LLZ
Calamagrostis	canadensis	Canadian Reed; Blue Joint	Ground Cvr	4	Dispersal	Low Water	Mitigation Sites
Calocedrus	decurrens	Incense Cedar	Tree - Conifer- Evergreen	35	12	Xeric	Outside AOA & LLZ
Carex	amplifolia	Maple-leafed Sedge; Big Leaf Sedge	Ground Cvr - Sedge	2	Dispersal	Low Water	Mitigation Sites
Carex	morrowii	Variegata; Variegated Japanese Sedge	Ground Cvr - Sedge	2	3	Xeric	Mitigation Sites
Carex	morrowii	Ice Dance	Ground Cvr - Evergreen	1	1	Non-Xeric	Outside AOA & LLZ
Carex	praticola	Meadow Sedge	Ground Cvr - Sedge	2	Dispersal	Low Water	Mitigation Sites
Carex	stipata	Sawbeak Sedge	Ground Cvr - Sedge	2	Dispersal	Low Water	Mitigation Sites
Ceanothus	gloriosus	Point Reyes Ceanothus	Shrub	2	Creeping	Xeric	LLZ
Ceanothus	prostratus	Mahala Mat	Ground Cvr	<1	Creeping	Xeric	LLZ
Ceanothus	thyrsiflorus	Victoria Ceanothus	Tree/Shrub- Evergreen	9	12	Xeric	LLZ
Cedrus	deodara compacta	Deodar Cedar	Tree - Conifer- Evergreen	40+	25	Xeric	Outside AOA & LLZ
Chamaecyparis	nootkatensis	Nootka Cypress	Tree - Conifer- Evergreen	40–	15	Xeric	Outside AOA & LLZ
Cistus	corbariensis (hybridus)	White Rock Rose	Shrub- Evergreen	5	5	Xeric	LLZ
Cistus	purpureus	Orchid Rock Rose; Purple Rock Rose	Shrub	10	6	Xeric	LLZ
Clematis	armandii	Evergreen Clematis; Armand Clematis	Vine - Climbing - Evergreen	20'	3	Non-Xeric	Outside AOA & LLZ
Clematis	cirrhosa var. balearica	Fern Leaved Clematis	Vine - Climbing - Evergreen	12	3	Non-Xeric	Outside AOA & LLZ
Cornus	nuttallii	Pacific Dogwood	Tree - Deciduous	40+	Dispersal	Xeric	LLZ
Cupressocyparis	leylandii	Leyland Cypress	Tree - Conifer- Evergreen	40+	25	Xeric	LLZ
Cupressus	sempervirens	Italian Cypress; Mediterranen Cypress	Tree-Conifer-Evergreen	40+	5	Xeric	LLZ
Deschampsia	caespitosa	Tufted Hairgrass	Ground Cvr - Grass	2	2	Xeric	Mitigation Sites
Elymus	glaucus (racemosa)	Giant Blue Wild Rye	Ground Cvr - Grass- Herbaceous	5	4	Xeric	LLZ
Epimedium	rubrum	Epimedium	Ground Cvr - Grass- Herbaceous	2	1	Xeric	LLZ
Erica	carnea	Pink Heather; Springwood Pink	Ground Cvr - Woody	1	3	Non-Xeric	LLZ
Escallonia	langleyensis	Apple Blossom Escallonia	Shrub - Evergreen	5	6	Xeric	LLZ
Euonymus	alatus compactus	Winged Euonymus; Dwarf Burning Bush	Shrub - Deciduous	10	8	Xeric	LLZ
Euonymus	fortunei coloratus	Wintercreeper Euonymus	Shrub - Woody- Evergreen	2	3	Xeric	LLZ
Festuca	amethysana ovina glauca	Large Blue Fescue	Ground Cvr - Grass- Evergreen	1	1	Non-Xeric	LLZ
Fraxinus	latifolia	Oregon Ash	Tree - Deciduous	40+	N/A	Xeric	Outside AOA & LLZ
Fraxinus	oxycarpa	Raywood Ash	Tree - Deciduous	40–	>70	Xeric	Outside AOA & LLZ
Genista	pilosa	Vancouver Gold Broom	Shrub - Evergreen	2	3	Xeric	Mitigation Sites
Geranium	macrorrhizum var. ingwersens	Ingwersens cranebill	Ground Cvr - Clumping	1	3	Xeric	Outside AOA & LLZ

Existing Street Trees (Infill per SDOT)

Gingko

Flowering Ash

Globe Maple

Site Trees

Jaquemontii Birch

Skyrocket Juniper

Marilee Crabapple

Shrubs:

Columnar Barberry

Dwarf Japanese Holly

Knock Out Rose

Gold Coast Juniper

Gumbo White Azalea

Nearly Wild Rose

Goshiki Holly Olive

Compact Heavenly Nandina

Groundcovers:

Mix of 10 Sedums for Roof

Siberian Iris

Lavender

Lawn

Layering of the Trees – Elevation 1

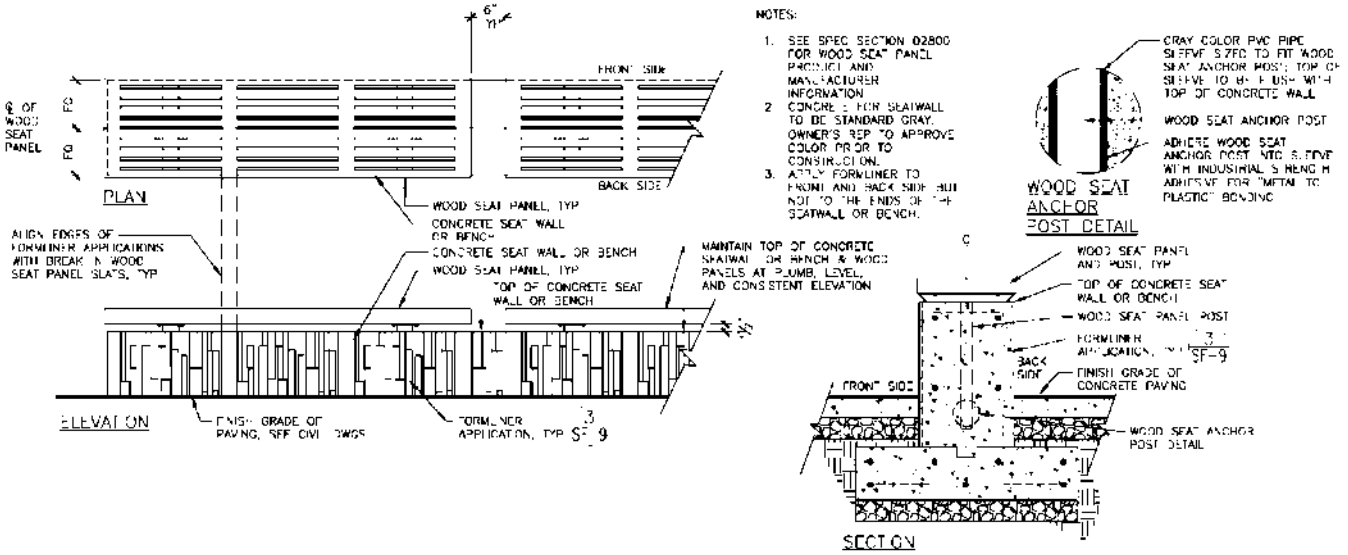
Layering of the Trees – Elevation 2

Layering of the Trees – Elevation 3

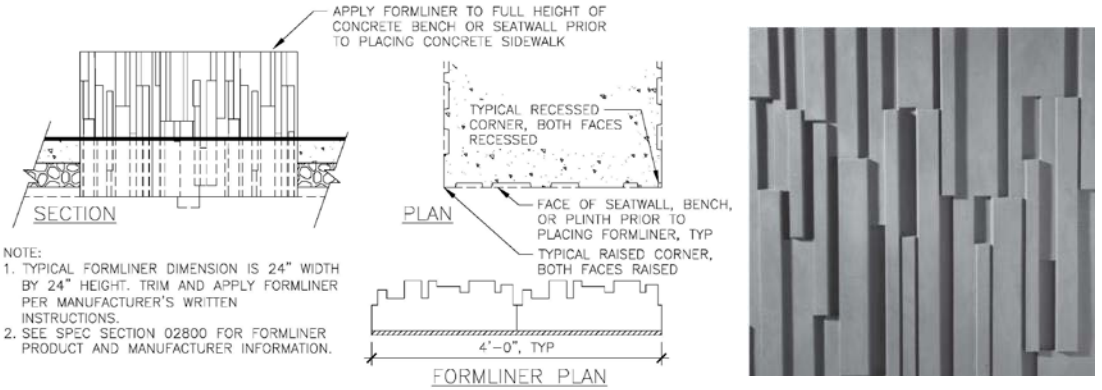
Overhead Lines on Woodlawn

Site Details

1) Seat Wall



2) Concrete Texture



3) Fence