DENNY SUBSTATION









PROJECT TEAM

CLIENT: Seattle City Light

PROJECT MANAGEMENT: Power Engineers

ARCHITECT: NBBJ

LANDSCAPE ARCHITECT: HBB

CIVIL: KPFF

STRUCTURAL: KPFF

MEP: Notkin and Tres West

SEATTLE CITY COUNCIL

STREET VACATION AND MASTER USE PERMIT (MUP) WAIVERS PRESENTATION

DATE: JULY 28, 2015

ADDRESS: 1250 DENNY WAY

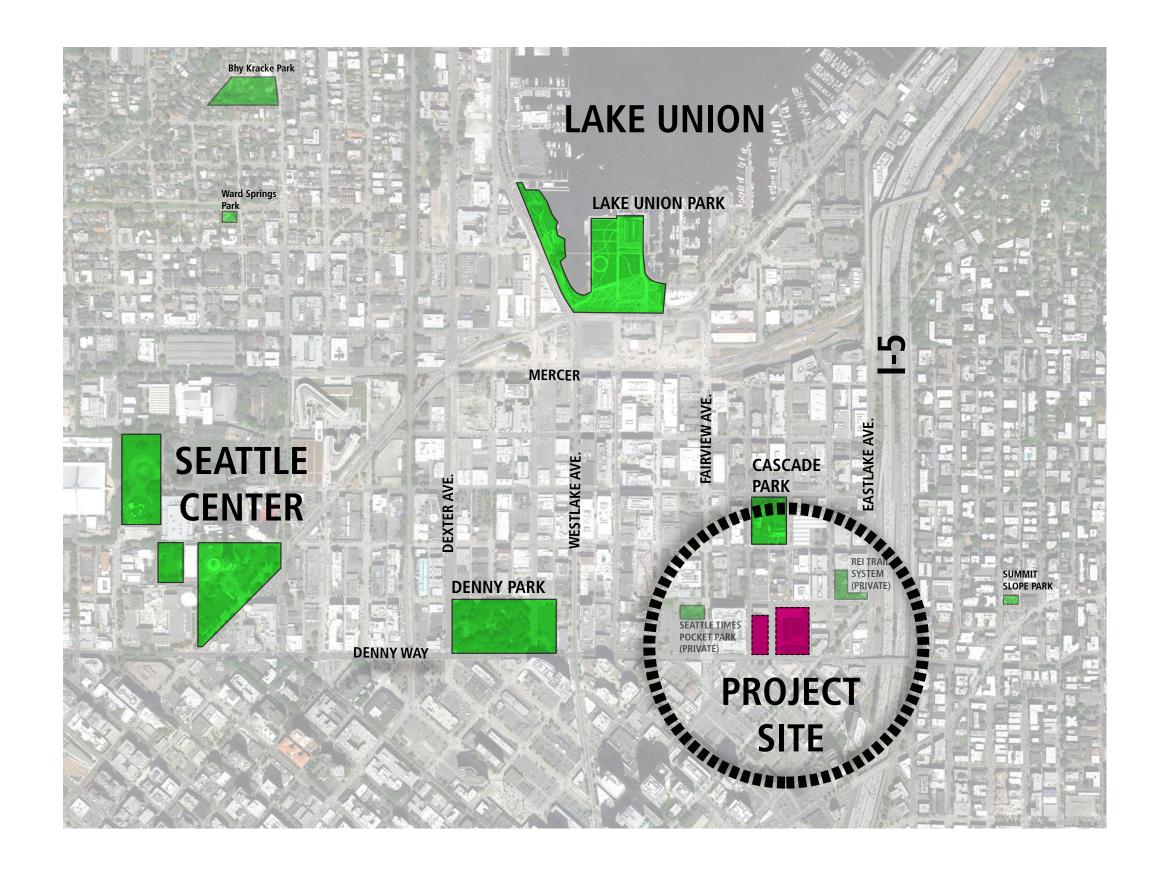
DPD PROJECT #: 6454048

CONTENTS

LOCATION	4
LEGISLATIVE BACKGROUND	5
PUBLIC PROCESS	6
URBAN DESIGN GUIDING PRINCIPLES	7
9 BLOCK AREA - STREET GRIDS	8
MASSING STUDIES	9
RESPONSE TO PUBLIC COMMENTS	10
PROJECT OVERVIEW	11
PROPOSED CIRCULATION AT SITE EDGES	12
PEDESTRIAN STREET VIEW	13-15
ART INTEGRATION	16-17
PUBLIC BENEFITS	18-30
WAIVERS FOR DEVELOPMENT STANDARD	31-36
APPENDIX	37



PROJECT BACKGROUND



PROJECT TIMELINE

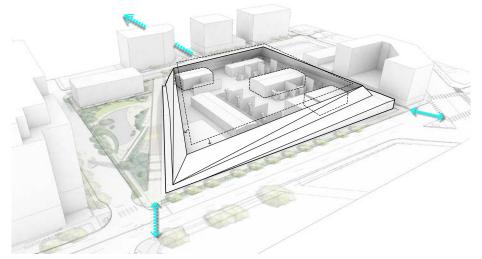
- **2003 City Council passes Resolution 30610** affirming the City of Seattle's commitment to making the South Lake Union area the region's most competitive location for biotech research and manufacturing, and other innovative entrepreneurial high-tech industries.
- **2004 City Light initiates site selection** for future substation to "provide for a stable and reliable supply of electrical power to South Lake Union" per the 2004 Comprehensive Plan.
- **2004 -** The site of the future South Lake Union Substation is identified and a Project Proposal is developed by City Light to include in the 2008 budget.
- **2007 The budgets are approved by City Council** with a spending proviso until the Mayor and City Light present resolution to network rates.
- **2009 City Light secures ownership of the (3) parcels** for the future South Lake Union Substation centered at the former Greyhound Maintenance Facility site at 1250 Denny Way.
- **2010** City Light initiates design of Environmental Cleanup of the former Greyhound Maintenance Facility site at 1250 Denny Way.
- The Load Study Report from consultant **Quanta Technology** LLC recommends a new Network Distribution System and Substation for the North Downtown Urban Centers (NODO) area.
- 2012 Spending Proviso is lifted. The project initiates the SEPA/EIS process, environmental remediation at the site, and preliminary design of a new substation and network.
- The project is renamed as the Denny Substation & Denny Network project. Public Scoping and Public Outreach begin for both the DRAFT EIS and Preliminary Design. **Seattle Design Commission approves 30% Design Concept** in November.
- **2014 DRAFT EIS** is published in March. **Seattle Design Commission approves 60% Design concept** in April.
- **2015 FINAL EIS** is published in January 2015. **Seattle Design Commission approves 90% Design concept** in February.



Project Site with Greyhound Building



Proposal from Quanta's Report - North Downtown Load Study 2011



Final Design Response

CITY COUNCIL AND DESIGN COMMISSION

Seattle Design Commission

11/7/2012, 6/6/2013, 11/7/2013, 11/6/2014, 2/19/2015

Seattle City Council Briefing

12/3/2012, 6/25/2013, 8/1/2013, 10/27/2014

Seattle City Council Energy and Environment Committee Briefing 6/12/2013

PUBLIC MEETINGS (OPEN HOUSES)

Open House and Environmental Scoping Meeting #1 10/22/2012

Open House and Environmental Scoping Meeting #2 10/24/2012

Open House and Environmental Scoping Meeting #3 10/25/2012

Design Open House

10/9/2013

Open Space Open House

3/31/2014

City Light Draft EIS Open House and Hearing

4/16/2014

Design Open House

11/20/2014

Noise Variance Hearing 2/23/2015

BRIEFINGS AND PRESENTATIONS

South Lake Union Community Council Policy and Planning Committee 9/18/2012

South Lake Union Chamber of Commerce 10/11/2012

Mirabella Retirement Community 10/20/2012, 11/27/2012

Seattle Cancer Care Alliance 10/30/2012

 $\begin{array}{c} \textbf{Cascade Neighborhood Council} \\ 11/7/2012 \end{array}$

Capitol Hill Housing Group

11/9/2012, 4/25/2013, 5/13/2013, 5/29/2013, 1/26/2015

Plymouth Housing Group

11/13/2012, 7/25/2013, 1/14/2014, 12/3/2014

Denny Triangle Neighborhood Association 11/27/2012, 10/22/2013

South Lake Union Community Council 12/4/2012, 8/6/2013, 3/3/2015

Downtown District Council 12/13/2012

Cascade Area Business Network 7/12/2013

South Lake Union Chamber of Commerce and Community Council Board 8/14/2013

Seattle American Institute of Architects 10/23/2013

Vulcan

10/31/2013

Chinatown International District Business Improvement Area

1/28/2014, 4/1/2014

South Downtown Business Improvement Area 3/6/2014

COMMUNITY FORUMS

Community Forum Meeting #1 -Mirabella 8/1/2013

Community Forum Meeting #2 - Mirabella 11/20/2013

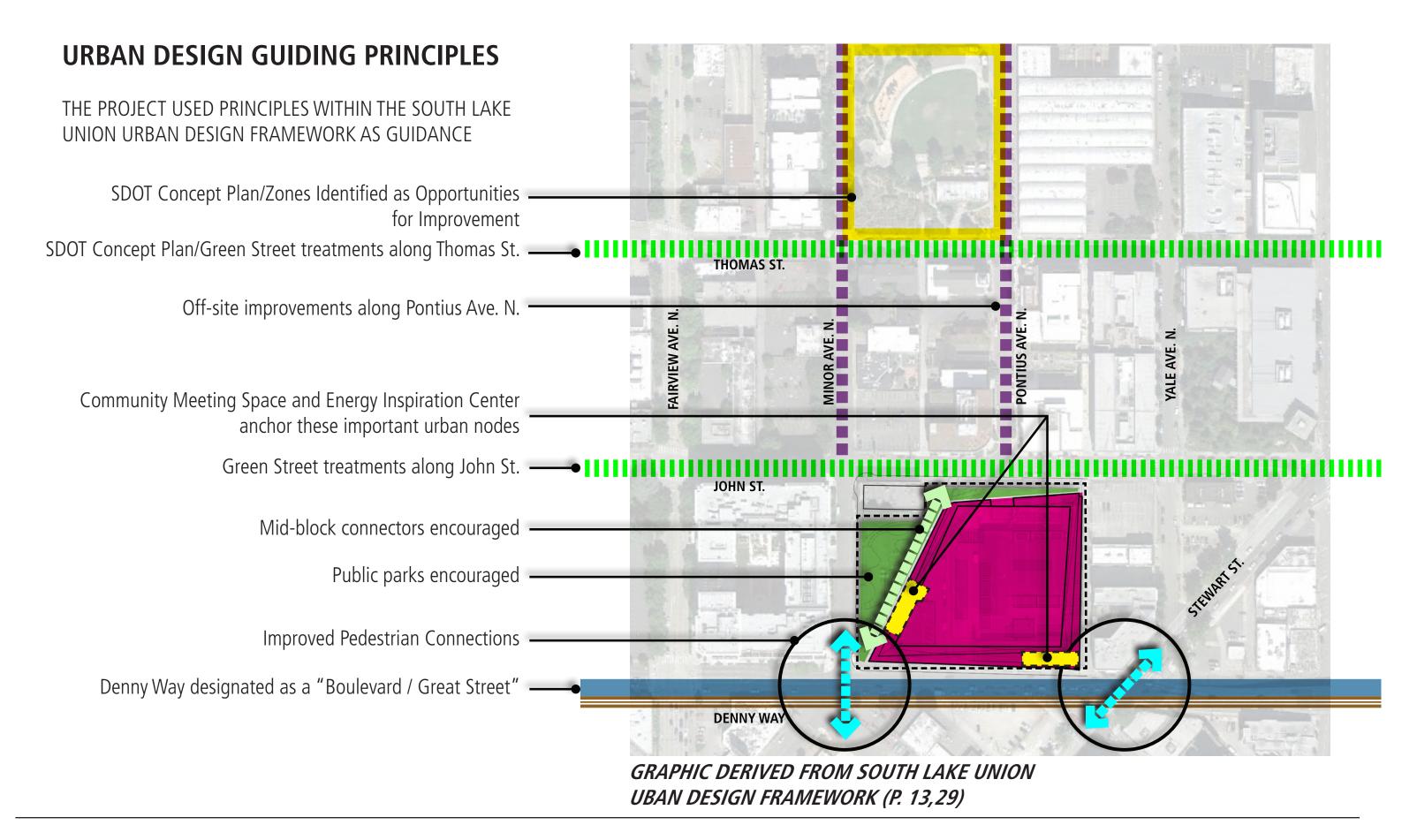
Community Forum Meeting #3 - Mirabella 2/28/2014

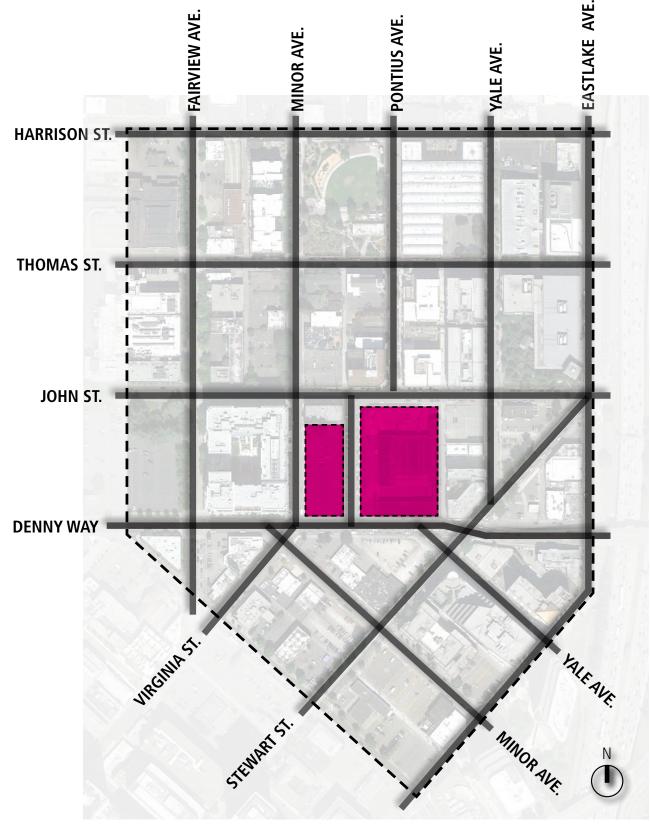
Community Forum Meeting #4 - Mirabella 10/29/2014

Community Forum Meeting #5 – Mirabella 7/21/2015

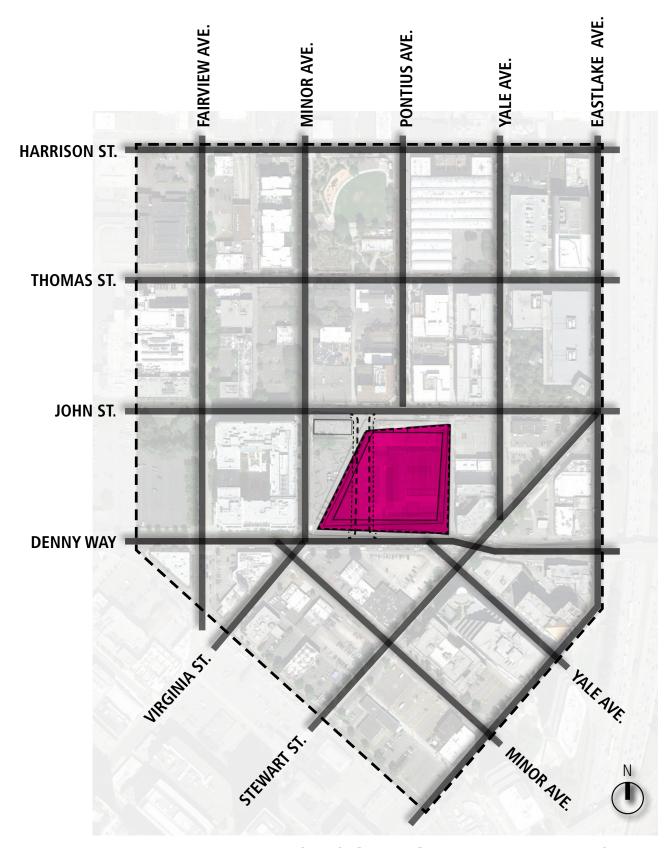
THROUGHOUT THE LIFE OF THE PROJECT

- Over 400 people have attended a Denny open house meeting, briefing or presentation
- Over 25,000 unique page views of the project website
- Close to 60,000 project postcards have been mailed
- The project Facebook page has close to 900 followers
- 20 property owners and managers were given briefings related to construction





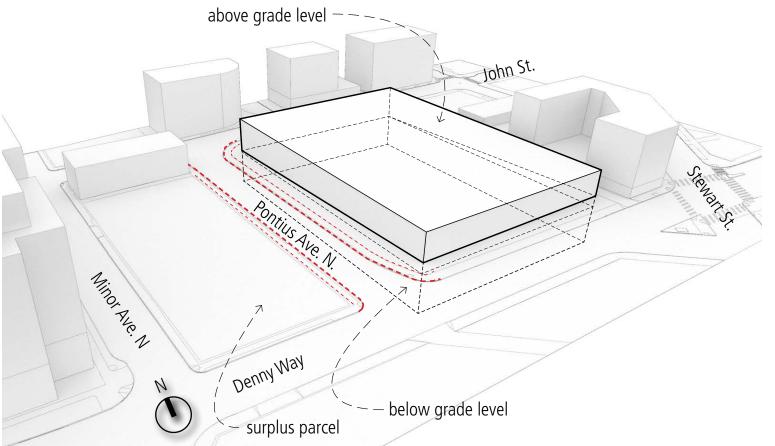
EXISTING STREET NETWORK



PROPOSED STREET NETWORK

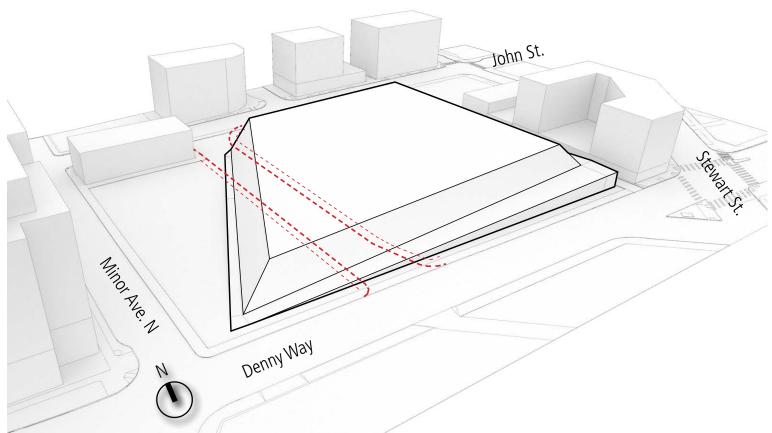
NO STREET VACATION OPTION

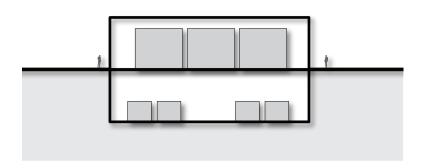
- Limited opportunity for prominent urban amenities
- Above and below grade substation requires complex operation and design
- Parcel at Denny Way and Minor Ave. N. will be surplused

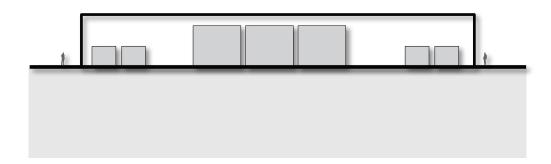


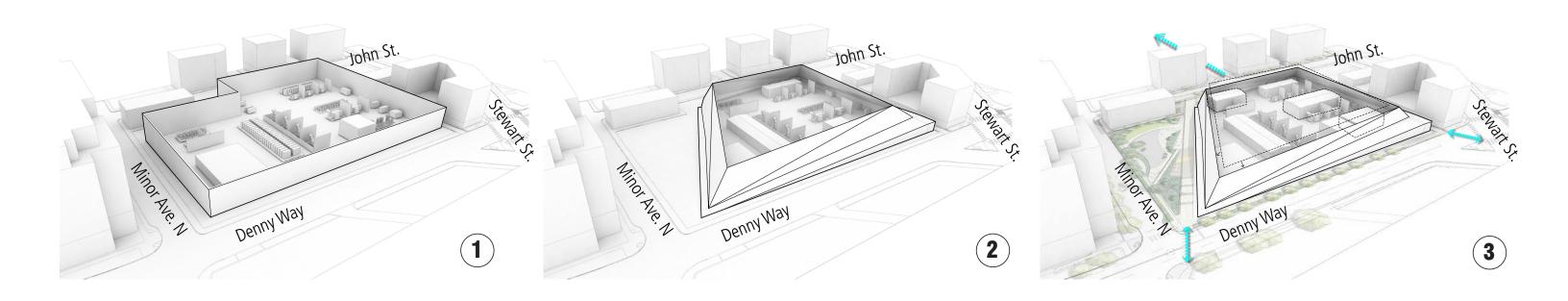
STREET VACATION OPTION

- Affords opportunities for public amenities and open space
- Creates through block connection
- Single level, at grade design provides ease of maintenance and better safety









IDEAL OPERATIONAL DESIGN

- Efficient layout for internal yard operations
- Minimal public open space at edges
- Exposed GIS equipment
- Has greater proximity impact to Brewster, Mirabella, and Colwell properties

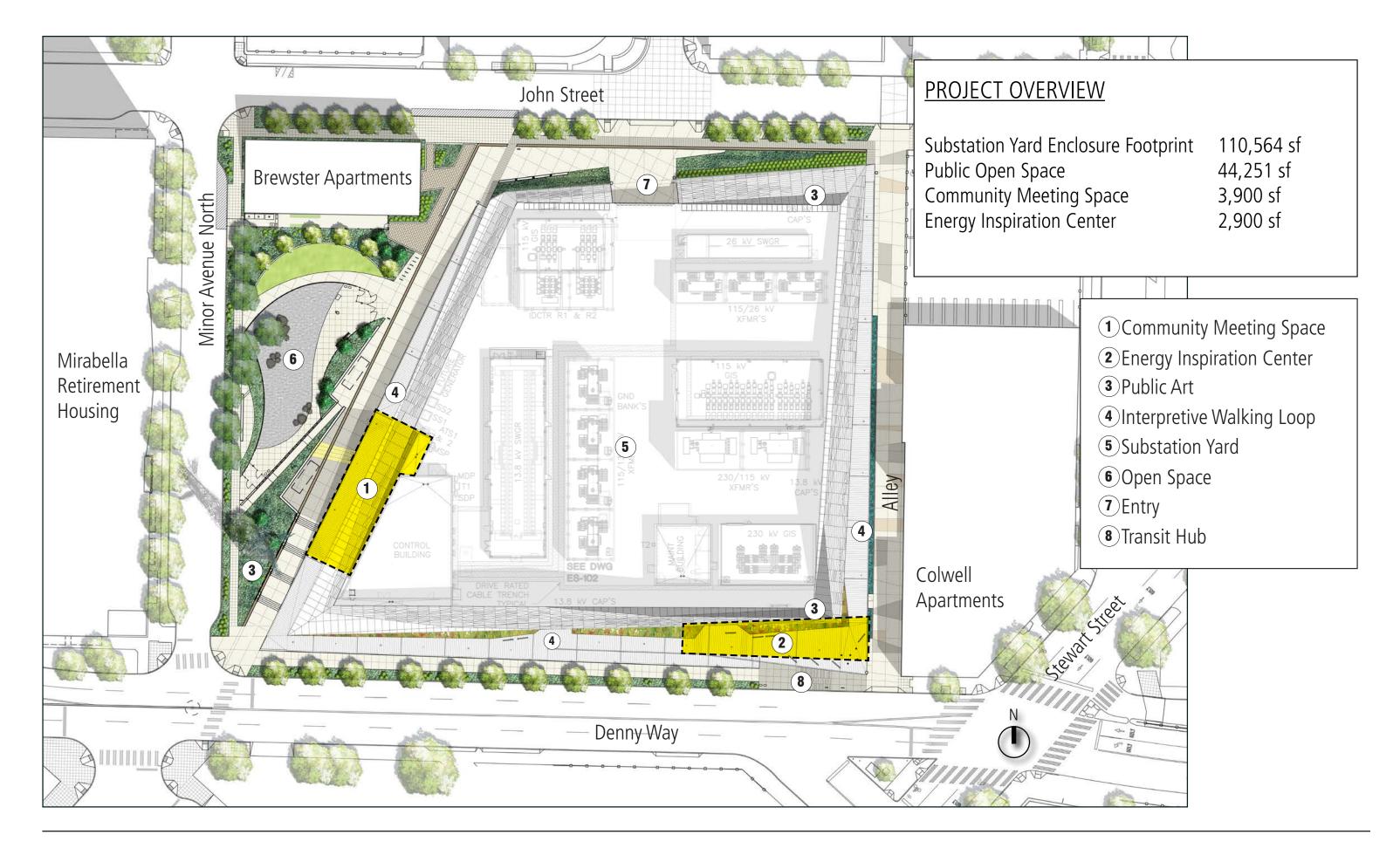
DESIGN RESPONSE TO PUBLIC, DESIGN COMMISSION, AND AGENCY COMMENT

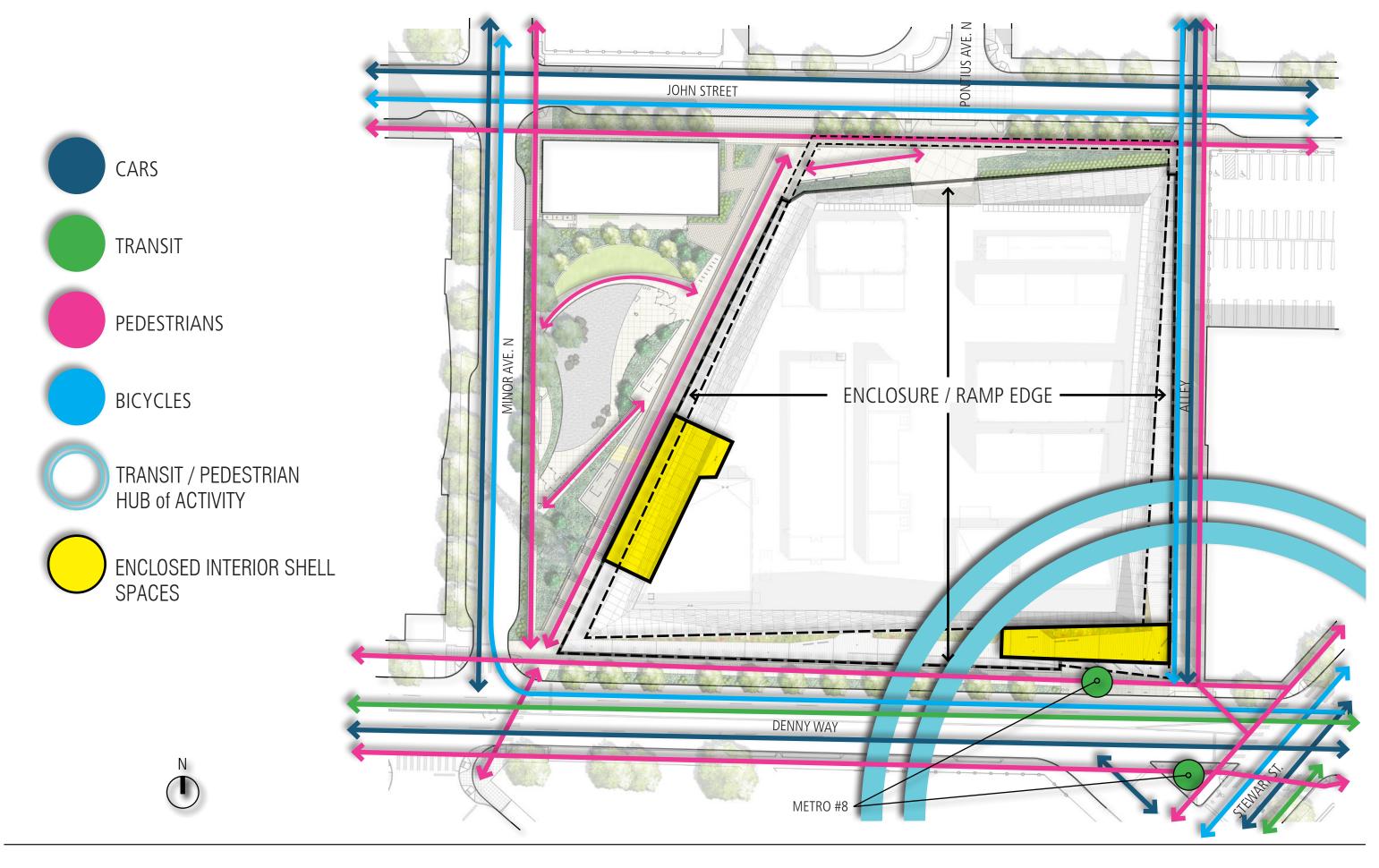
- Reduced footprint to allow for more public open space
- Angled walls to reduce bulk and scale at the pedestrian level
- Exposed GIS equipment

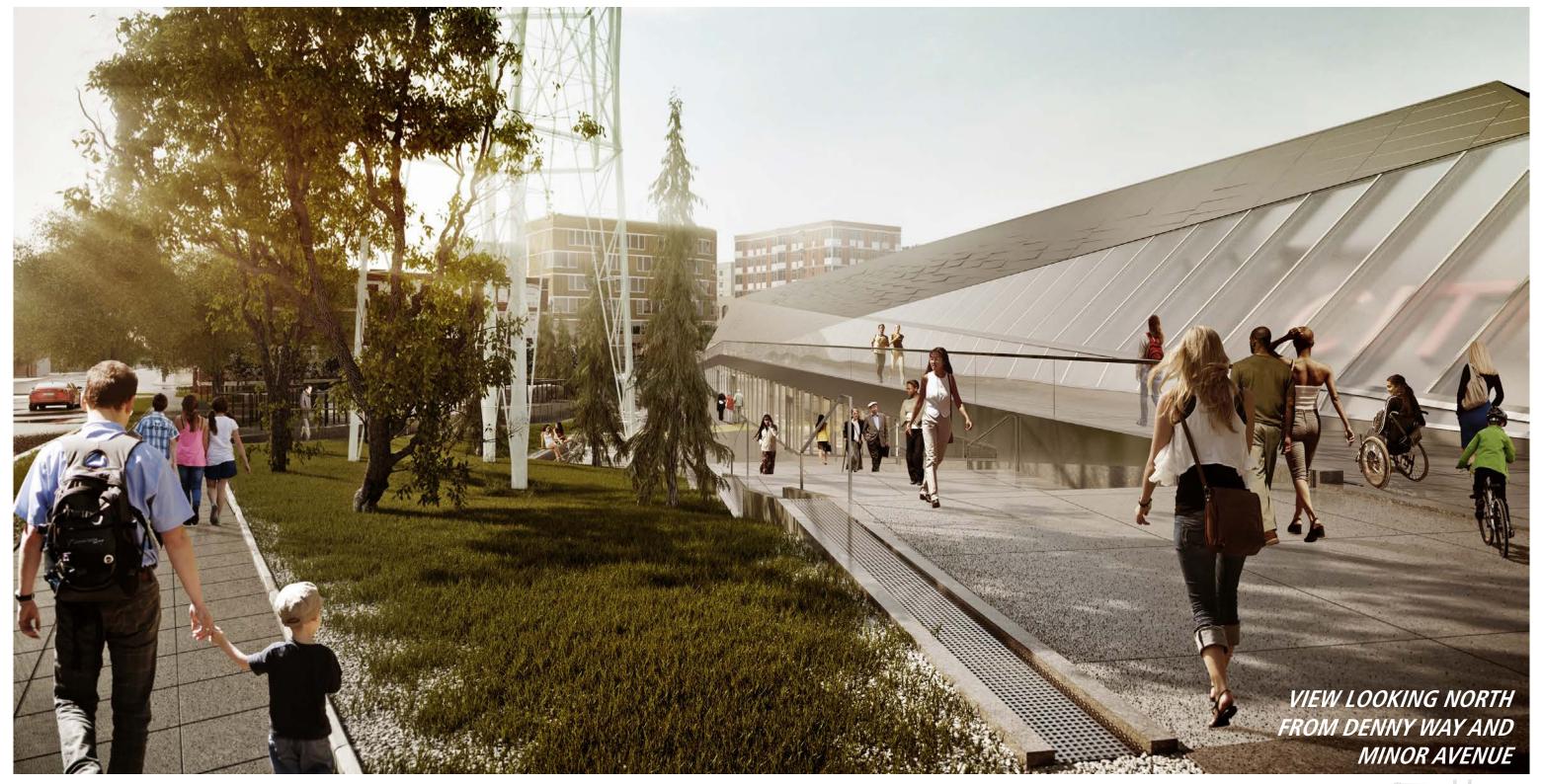
FINAL DESIGN RESPONSE

- Public open spaces program with off leash area, event zones, seating areas, and community meeting space
- Walls lowered 5'-0" to reduce bulk and scale
- Pedestrian crossings at Denny Way
- Pontius Ave. N. off-site street improvements
- GIS equipment housed inside enclosures
- Elevated interpretive walking loop allows for Community Meeting Space and Energy Inspiration Center

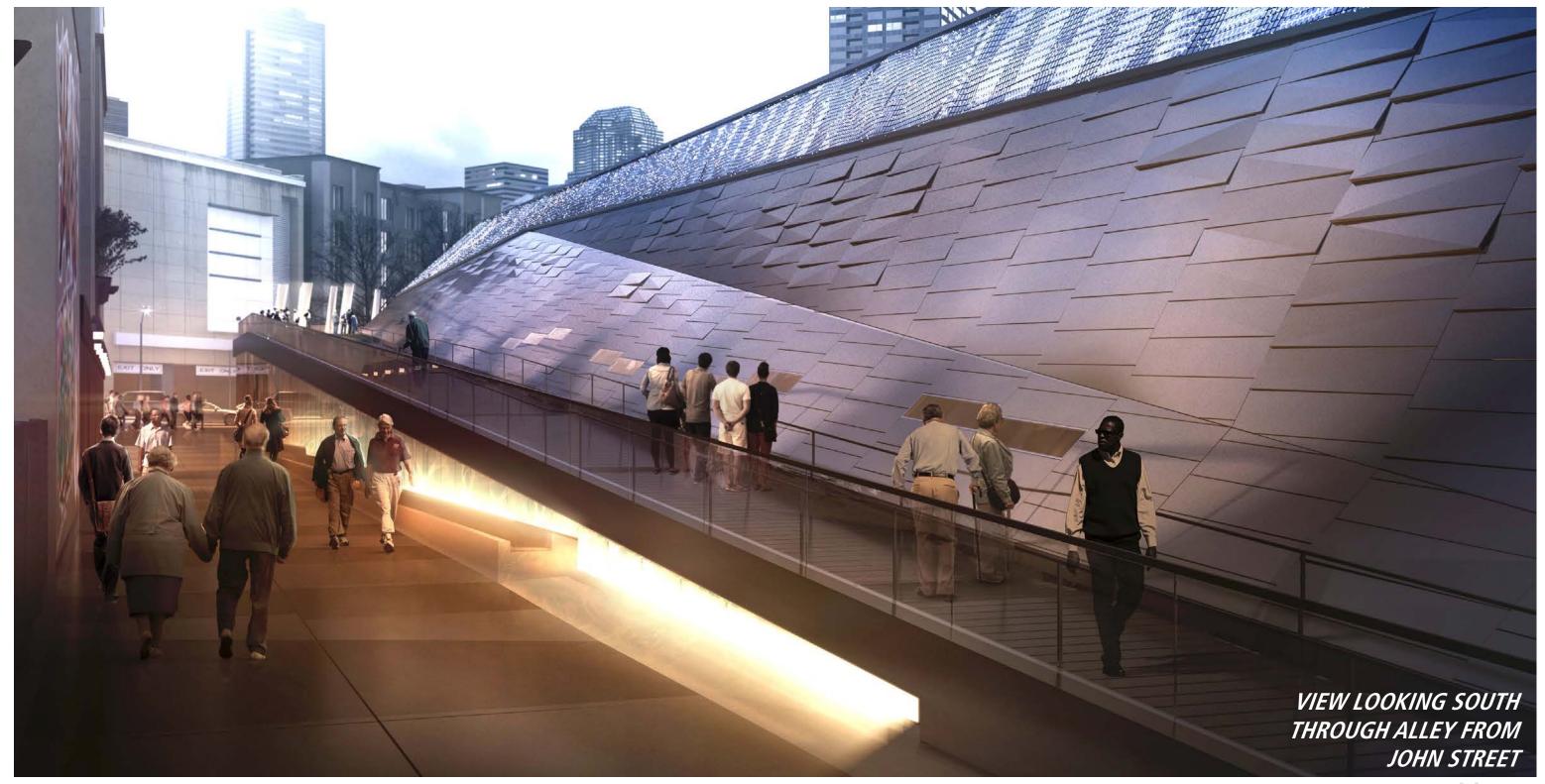
2012 2013 2015





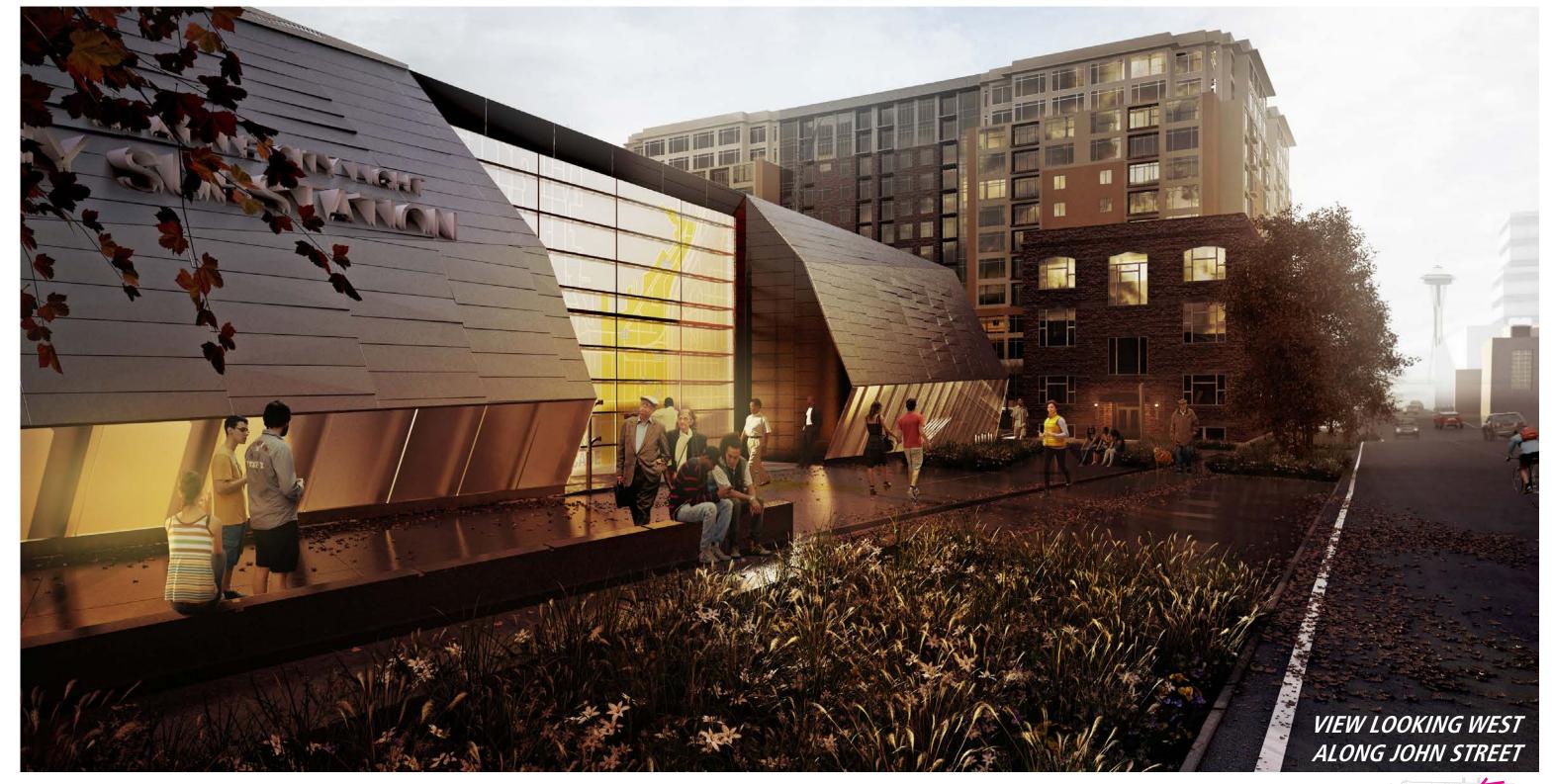








VIEW KEY



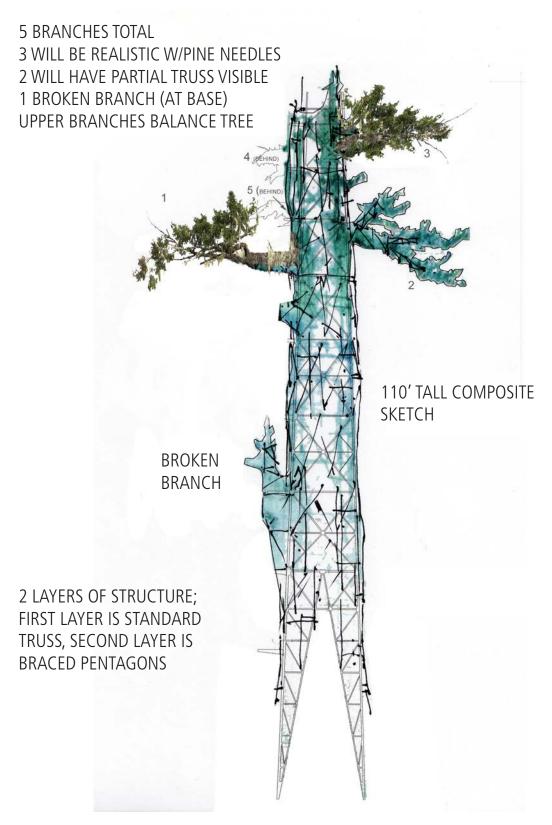








ARTIST'S MAQUETTE MODEL



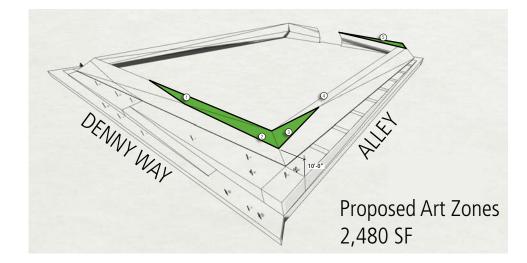
LEAD PENCIL "TRANSFOREST"

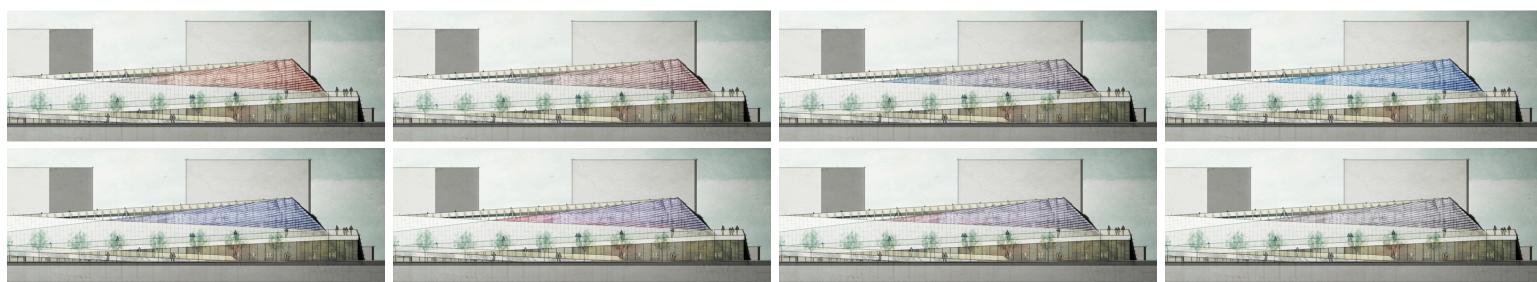
- Evokes the actual diameter of the largest old growth trees that once populated our Puget Sound landscape
- Constructivist lattice-work that references the structures of our power grid and the immense reordering of the landscape statewide to generate and transmit electricity for urban needs



NED KAHN "SWITCHWALL"

Art is integrated into the screenwall enclosure at the southeast and northeast corner (2,480 SF). The "switchwall" consists of a series of switches that move when the wind blows to turn on different colored lights, creating a moving pattern that changes with shifting wind currents.





Moving pattern changes with the shifting wind currents

PUBLIC BENEFITS

1 - Public Open Space and Community Meeting Space	23,500 SF open space including, 6,000 SF Off leash area & 1,540 SF event zone / spillout space. 3,900 SF Community Meeting Space	
2 - Occupied Use to Activate Street Edge	2,900 sf	\$2,900,000
3 - Denny Street Crossings	2 crossings	\$200,000
4 - Off-site Street Improvements	Curb: 869 LF; Sidewalk: 778 SY; Trees (new): 13	\$250,000
5 - Bus Shelter / Transit Hub	566 SF overhang, 3 lean rails, 1 bench, 3 bike racks, 2 receptacles	\$130,000
6 - Alley Improvements	9,350 SF alley paving enhancements, 220 LF of bioretention planter, 3 speaker locations, 250 lf of safety lighting	
7 - Implementation of the Intent of the "Denny Streetscape Plan"	Sidewalk 5'0" wider & Planting 9" wider than minimum required. 47.5% increase over minimum development requirement	
8 - John Street Green Street Enhancements	Sidewalk 4'0" wider & Planting 2'4" wider than minimum required. 53.4% increase over minimum development requirement	
9 - Interpretive Walking Loop	15,250 SF interpretive walking loop; 7 sitting rails; 10 viewing portals; 1,400 SF of landscaping	

TOTAL = \$10,660,00

1: PUBLIC OPEN SPACE AND COMMUNITY MEETING SPACE

- Open spaces along Minor Avenue, and John Street (23,500 SF)
- Off Leash Area (6,000 SF included in above)
- Event Zone / Spill out Space adjacent to Community Meeting Space (1,540 SF included in above)
- Community Meeting Space adjacent to open spaces on Minor (3,900 SF)

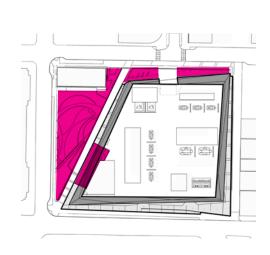
• Street Furniture (250 LF seat wall, 7 bike racks, 2 benches, 4 receptacles, 1 water fountain)



COMMUNITY HALL



GALLERY SPACE



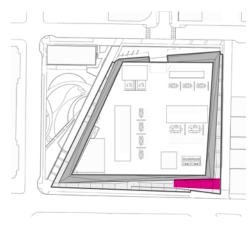


VIEW OF OPEN SPACE ON MINOR AVENUE

2: OCCUPIED USE TO ACTIVATE STREET EDGE

- Currently programmed as the Energy Inspiration Center (2,900 sf)
- Exhibit Hall (1,460 sf of occupiable space): Provides an interactive pedestrian element, activity zones for learning, displays of current high tech and low tech solutions to sustainable design
- Immersive Theater (240 sf of occupiable space): Communicates "THE FUTURE OF POWER" to all audiences in a rich and inspiring way
- Office: 1 person office with desk and storage
- Pantry: Small kitchen with fridge, sink, microwave, and storage
- Support: 2 toilets, water fountain, janitors closet, utility room, storage

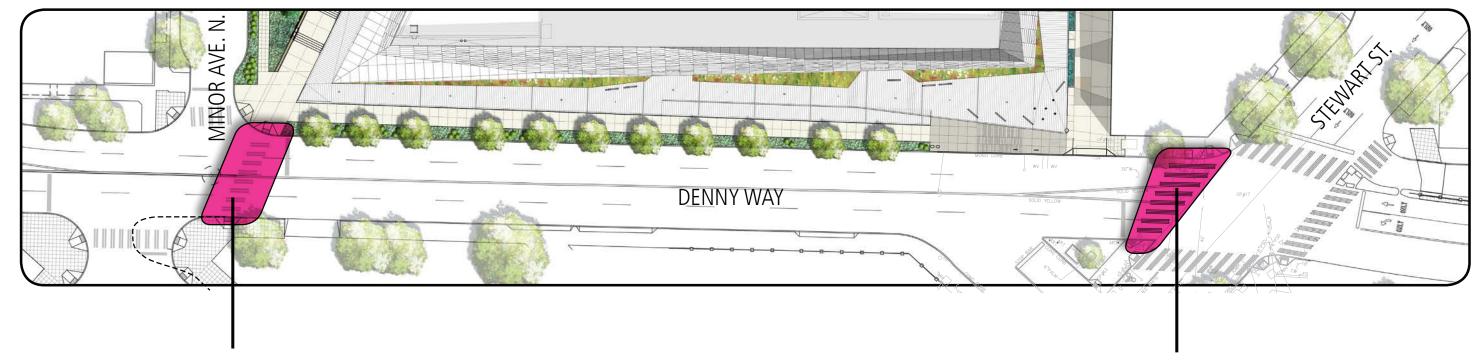






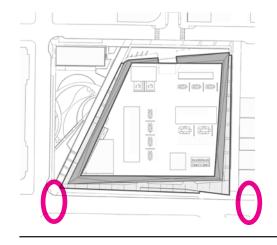


3: DENNY STREET CROSSINGS



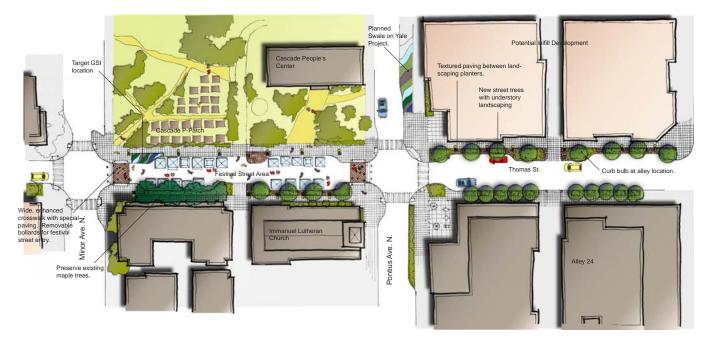
Denny & Minor Signalized Pedestrian Crossing

Denny & Stewart Pedestrian Crossing

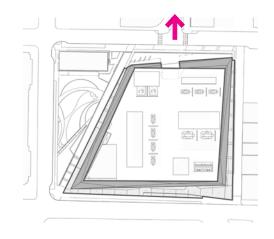


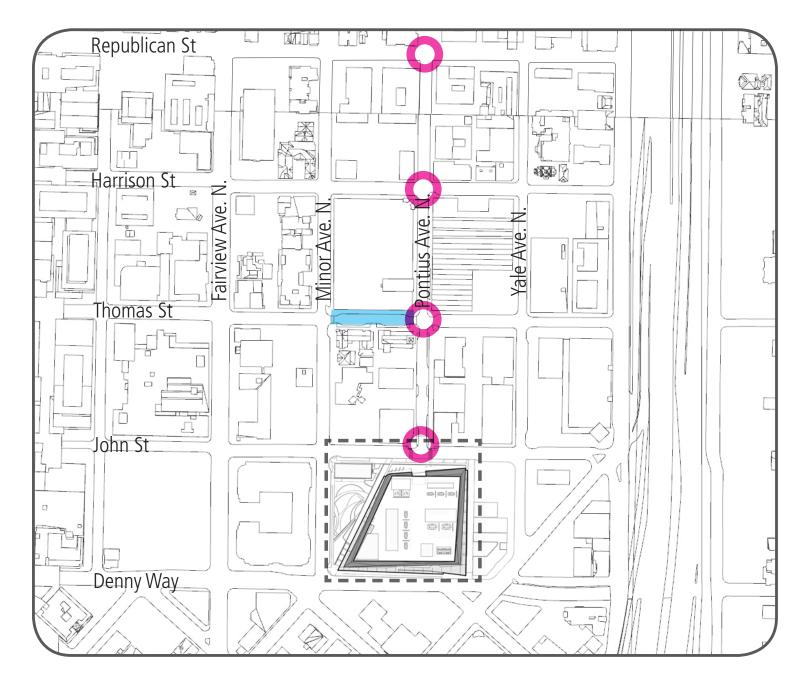
4: OFF-SITE STREET IMPROVEMENTS

In collaboration with SDOT, streetscape enhancements along Pontius Avenue between John and Republican, and along Thomas Street between Yale and Minor. These improvements include curb bulbs, treated pavement crossings, planter strips and trees, a rain garden, and additional pedestrian lighting.



SDOT's Thomas Green Street Concept Plan





- SCL Street Improvement Area (Public Benefit)
- SDOT Street Improvement Area

DENNY NETWORK

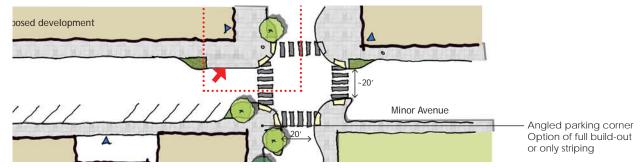
ADDITIONAL SURFACE IMPROVEMENTS & CONSTRUCTION MITIGATION

SDOT'S STREET CONCEPT PLANS WILL BE USED AS A DESIGN GUIDELINE

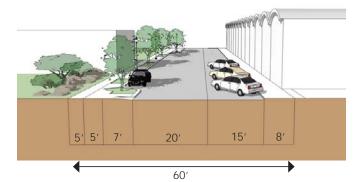
SDOT's Street Concept Plan - Examples



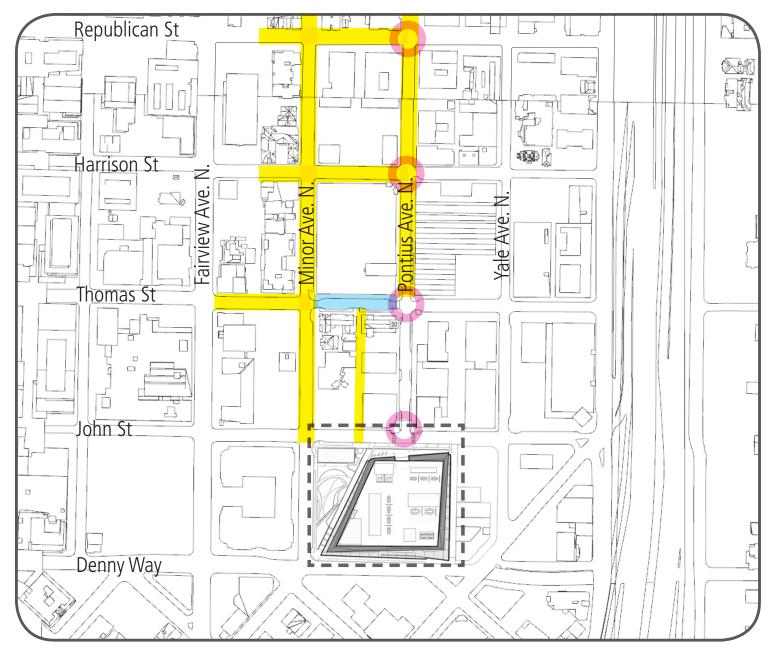
Pontius Ave. N.



Minor Ave. N. and Thomas St.



Pontius Ave. N.

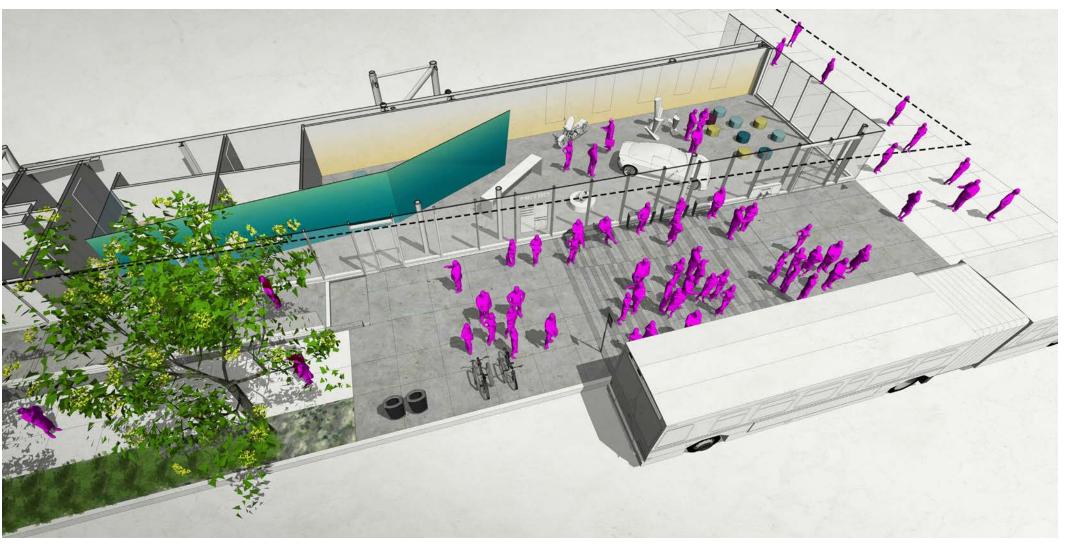


- Zones Identified as Opportunities for Improvements
- SCL Street Improvement Area (Public Benefit)
- SDOT Street Improvement Area

5: BUS SHELTER / TRANSIT HUB

- Integrated building overhang for bus shelter
- Passenger waiting "lean rail" (3)
- Passenger seating (1 bench)
- Bike rack (3)
- Receptacles (2)
- Transit tracker





IMAGES ARE REPRESENTATIVE EXAMPLES









RECEPTACLES

BICYCLE PARKING

LEAN RAILS

SEATING

6: ALLEY IMPROVEMENTS

- Paving Enhancements
- Bio-retention Planter
- Micro sound environments
- Safety Lighting

Alley Treatment

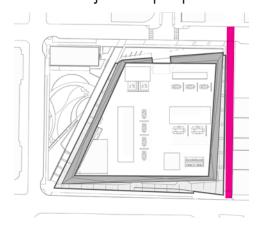
The paving treatment in the alley will match that of Alley 24 to the north and create a more pedestrian friendly environment. Concrete paving with a medium broom finish will alternate between three colors; standard grey, charcoal grey, and beige. The paving treatment will continue through John Street to provide a visual connection to Alley 24.

Bio-retention Plantings Adjacent to Alley

Rainwater from the adjacent public alley, along with the adjacent elevated ramp runoff, is proposed to be directed to the bioretention planter, which will provide water quality treatment.

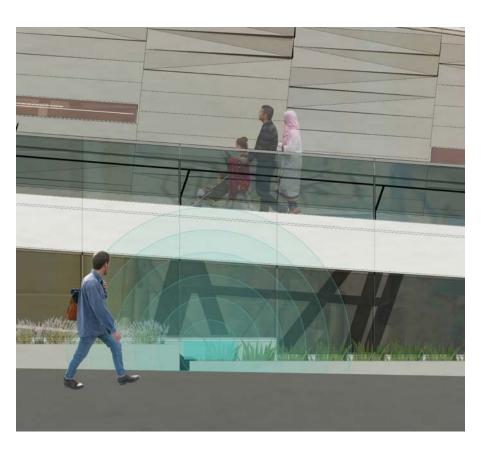
Micro Sound Environments

Programmable sound experiences at pedestrian level, no impact to adjacent properties.

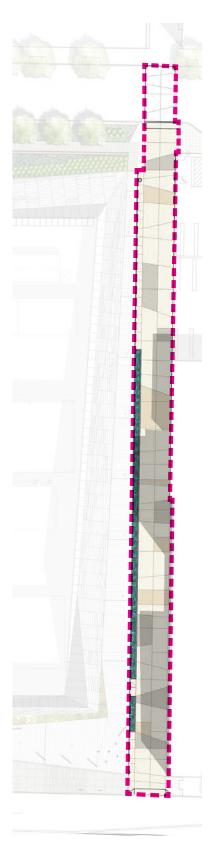




Bio-Retention Planter



Micro Sound Environments



Paving Enhancements and Bio-Retention Planter

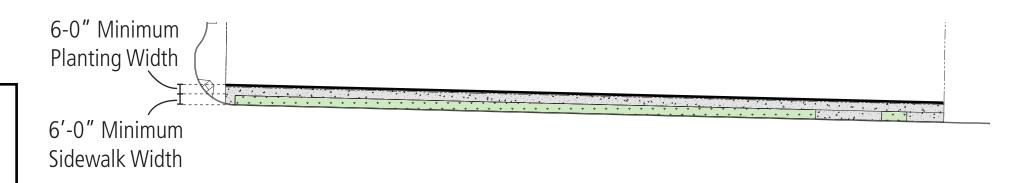
7: IMPLEMENTATION OF INTENT OF DENNY STREETSCAPE PLAN

QUANTITIES OF IMPROVEMENTS BEYOND MINIMUM DEVELOPMENT REQUIREMENTS

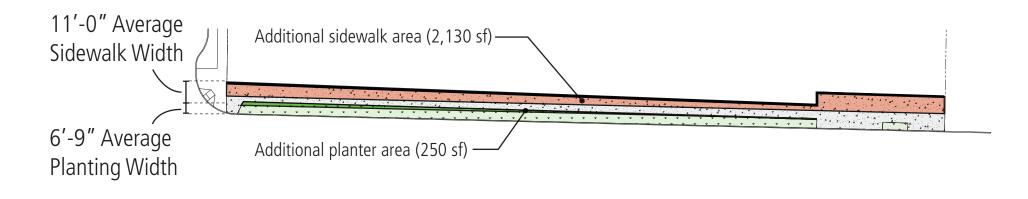
Sidewalk is **5'-0"** wider than minimum required Planting area is **9"** wider than minimum required

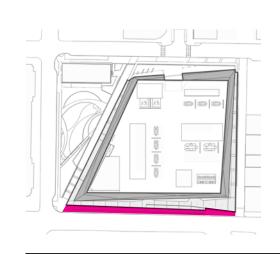
47.5% Increased sidewalk and planting area over minimum development requirement

MINIMUM SIDEWALK AND PLANTING DEVELOPMENT REQUIREMENTS



AREA PROVIDED BEYOND MINIMUM SIDEWALK AND PLANTING DEVELOPMENT REQUIREMENTS





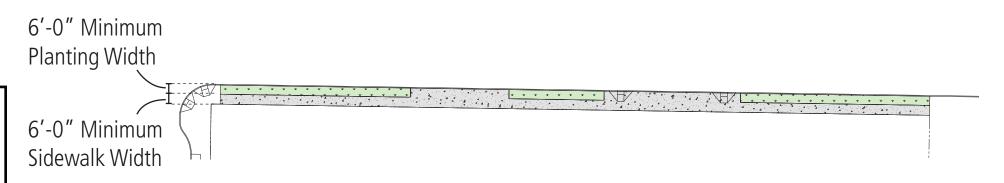
8: JOHN STREET GREEN STREET ENHANCEMENTS

QUANTITIES OF IMPROVEMENTS BEYOND MINIMUM DEVELOPMENT REQUIREMENTS

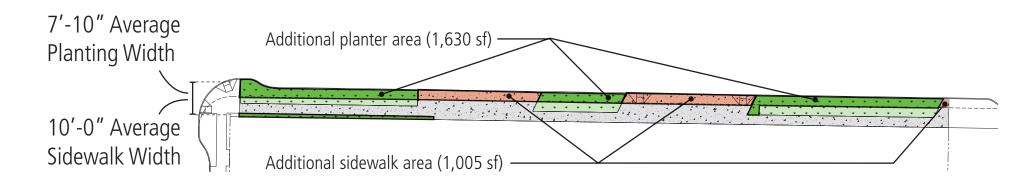
Sidewalk is **4'-0"** wider than minimum required Planting area is **2'-4"** wider than minimum required

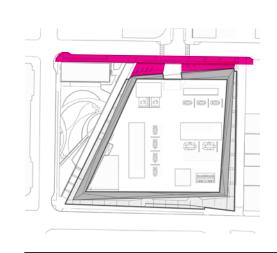
53.4% Increased sidewalk and planting area over minimum development requirement

MINIMUM SIDEWALK AND PLANTING DEVELOPMENT REQUIREMENTS



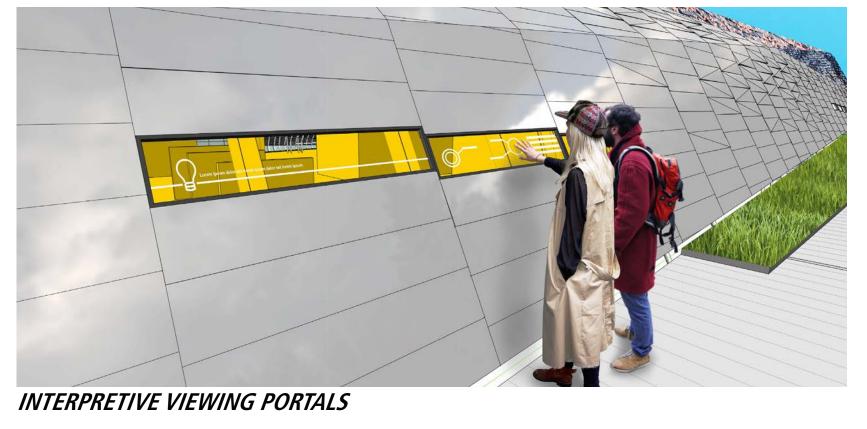
AREA PROVIDED BEYOND MINIMUM SIDEWALK AND PLANTING DEVELOPMENT REQUIREMENTS





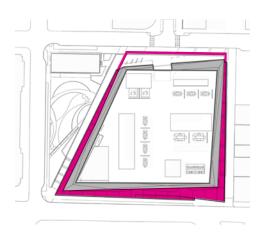
9: INTERPRETIVE WALKING LOOP

- 1/4 mile walking loop
- Seating elements at SE corner
- Landscaping
- Interpretive viewing portals and informational graphics
- Interpretive components integrated into walkway experience





SE CORNER OF INTERPRETIVE WALKING LOOP



WAIVERS

Per SMC 23.76.064B, The Council may waive applicable development standards for City facilities

1 MINIMUM FACADE HEIGHT

(SMC 23.48.014-A.2)

Seeking waiver for a segment of the Denny Way Facade that is below 25'

Why

- To acknowledge the important urban grid intersection of the Cascade, Capitol Hill, and Downtown neighborhoods and also the axial relationship to Virginia St.
- The lower height at the corner helps to maintain light and open space and welcome pedestrian activity into the site.

Design Action

- The average facade height is 27' to meet the intent.

ZONE OF FACADE BELOW 25'-0" AVERAGE HEIGHT OF 27' FACADE COMPLIES WITH INTENT DENNY WAY ELEVATION

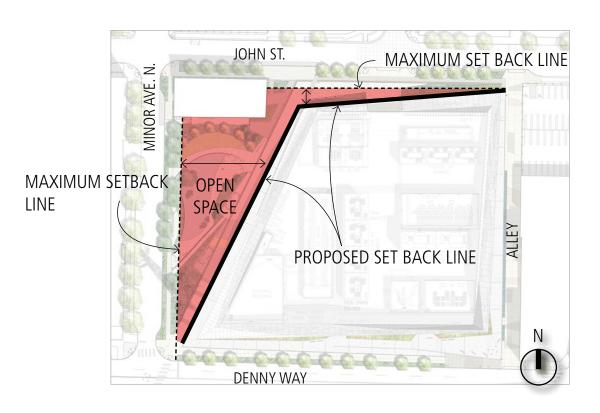
² MINIMUM SETBACK

(SMC 23.48.014-A.3 and SMC 23.48.014 B)

Seeking waiver to exceed the 12'-0" maximum setback from Minor Ave. N. and John Street.

Why/Design Action

- The increased setback distance allows the project to provide public open space and a through block connection
- The increased setback on John St. also has a functional requirement to allow for the turning radius of large vehicles requiring access to the substation



3 TRANSPARENCY (SMC 23.48.014-D.1)

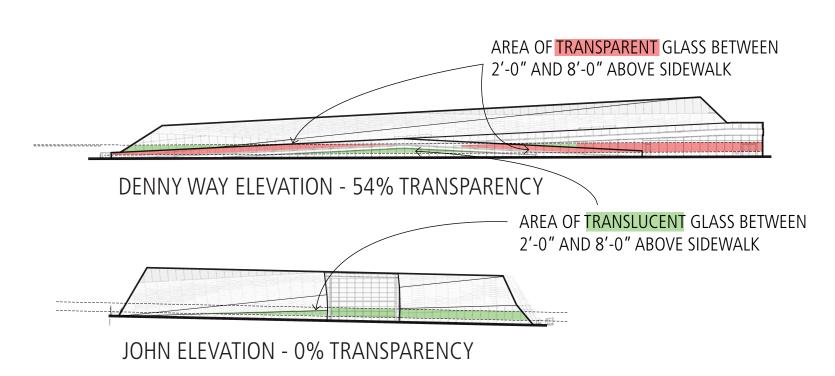
Seeking waiver from the 60% facade transparency requirement on Denny Way and John St.

Why

- Due to (NERC) Federal regulatory requirements for substations, visual access within the substation must be limited.

Design Action

To compensate, translucent glazing has been provided in place of transparent glazing on Denny Way and John St. facades. This allows for dynamic passage of light and a controlled sense of space beyond.



4 BLANK FACADE (AREAS WITHOUT TRANSPARENCY) (SMC 23.48.014-D.2 and SMC 23.48.014-D.2)

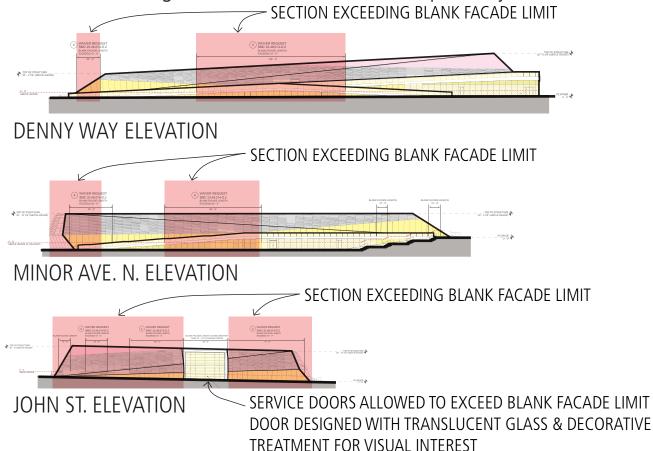
Seeking waiver from the blank facade limits on Denny Way, Minor Ave. N. and John St.

Why

- Due to (NERC) Federal regulatory requirements for substations, visual access within the substation must be limited. Because the project can only provide limited transparency, it exceeds the blank facade requirement.

Design Action

- Translucent glazing has been provided on Denny Way, Minor Avenue and John Street to meet the intent of transparency blank facade requirements by allowing transmission of light and a controlled sense of space beyond.



5 GREEN FACTOR

(SMC 23.48.024-A.2)

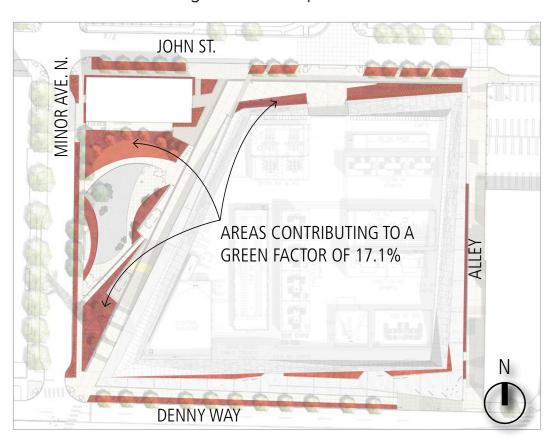
Seeking Waiver from 30% green factor

Why

- Because the substation is located on a brownfield redevelopment site, storm water infiltration is not allowed.
- Landscaping and green roofs are not allowed within the substation, which occupies the majority of the site.

Design Action

- Outside of the substation perimeter, the project implements sustainable features such as bio-retention cells, increased soil depth for infiltration, and native and drought tolerant species.

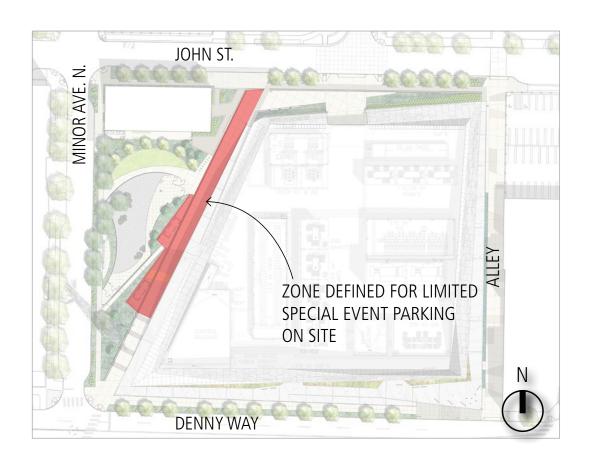


6 ALLOW LIMITED ACCESSORY SURFACE PARKING (SMC 23.48.034-C.3)

Seeking waiver to allow accessory surface parking on site

Why/Design Action

- An area is designated for limited special event parking on site
- The zone is developed as a public benefit that will encourage and enliven an active urban open space. Possible short term parking by permit could include food trucks, bookmobile, and vendor vehicles.



7 SERVICE ENTRANCE LOCATION

(SMC 23.48.034-D.1)

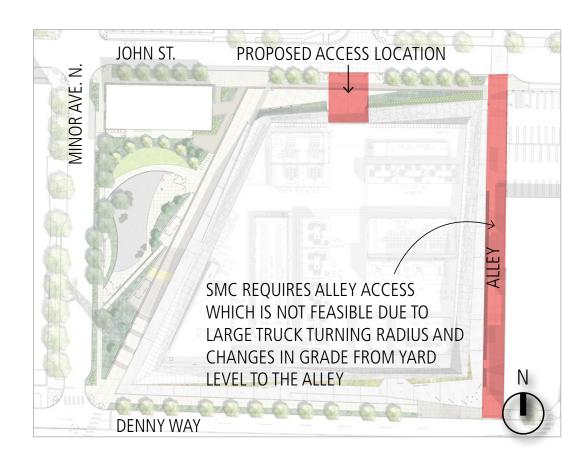
Seeking waiver to provide the service entrance along John Street.

Why

- The width of the alley is not adequate for large vehicle access.
- The finished grade of the substation and alley are at different levels and would require a larger substation development footprint. This would result in less public open space and a more complex operational arrangment.

Design Action

- The service door will be treated with special glazing and artistic environmental graphics.





APPENDIX WAIVERS FOR DEVELOPMENT STANDARD

	Request	Standard	Proposal	Rationale
1	Allow waiver of Mini- mum Façade Height	Per SMC 23.48.014-A.2 On Class 2 Pedestrian Streets, as shown on Map B, all facades shall have a minimum height of twenty-five (25) feet.	Southwest corner of enclosure wall is less than 25' high. From Adjacent grade. It is proposed to accept an average of 27' average façade height.	The east corner of the facade along Denny Way is below 25' due to the unique geometry of the project. The average facade height of the Denny Way facade is 27' to meet the intent of the requirement. The portion that drops below 25' is important to the architectural response to unique urban condition and project type. The site is located at a key node joining the Downtown, Capitol Hill and Cascade neighborhoods. The location is an intersection of the two major urban grids in Seattle and is a distinctive point of transition both in character and geometry for the neighborhoods. One of the opportunities of the project is to leverage the sense of open space and maximize the amenity of access to light and air. The segment along Denny that is lower has purposeful intent to acknowledge the axial relationship to Virginia Street as well as the intent to help welcome and draw pedestrian activity to the open space developed as part of the project and to maximize the amount of light that is available to the open space.
2	Allow waiver of Permit- ted Setbacks	Per SMC 23.48.014-A.3: Street-level Setback. Except on Class 1 Pedestrian Streets, as shown on Map B, structures may be set back up to twelve (12) feet from the property line subject to the following (Exhibit 23.48.014 B).	The setback along John Street exceeds 12', with a minimum setback of 11'-0" and an average setback of 22'-0". The setback along Minor Avenue exceeds 12', with a minimum setback of 16'-0" and an average setback of 84'-5".	The increase in setback from John Street and Minor Avenue is due to substation program requirements and public open space provision for the architectural design, which has been developed as a response feature for public benefit and urban merit. Public open space is being provided on both John Street and Minor Avenue to create community connection and use. The substation also has a functional requirement to be setback from John Street to allow for large service vehicle access and clearance requirements.
3	Allow waiver of Façade Transparency Require- ments	Per SMC 23.48.014-D.1 Denny Way; Class 2 Pedestrian Street require- ment 60% transparency. John Street; Green Street facade transparency is requirement 60% transparency.	Denny Way transparency is 54% transparency. John Street 0% Transparency.	Due to (NERC) Federal regulatory requirements for substations, visual access within the substation must be limited. As intent to meet the transparency requirements, translucent glazing has been provided to allow transmission of light and to create facade variations both in daytime and nighttime conditions. The changing geometrical planes of the facades are proposed to meet the intent of the requirement to create interesting variation and engaging authentic street level facade experiences that do not rely on false or kitsch storefront mimicry.
4	Allow waiver of Blank Façade Limits	Per SMC 23.48.014-D.2 SMC 23.48.014-D.3 Minor Ave. has a 30' blank façade limit. Denny Way has a 15' blank facade limit. John Street has a 40% maximum blank façade and 15' blank facade limit requirement.	1) Minor Ave. has two segments which exceed the 30' blank façade limit. 2) Denny Way has 2 segments which exceed the 15' blank facade limit. 3) John Street has a total blank facade of 100%, which exceeds the 15' blank facade limit.	Due to (NERC) Federal regulatory requirements for substations, visual access within the substation must be limited. As intent to meet the transparency requirements, translucent glazing has been provided to allow transmission of light and to create facade variations both in daytime and nighttime conditions. The changing geometrical planes of the facades are proposed to meet the intent of the requirement to create interesting variation and engaging authentic street level facade experiences that do not rely on false or kitsch storefront mimicry.
5	Allow waiver from Green Factor	Per SMC 23.48.024-A.2 (SMC 23.86.019) Landscaping that achieves a Green Factor score of .30 or greater, pursuant to Section 23.86.019, is required for any lot with development containing more than 4,000 square feet of nonresidential uses.	Green Factor Score of .171	It is not feasible to meet the 0.3 green factor points for the area of the site due to programmatic infrastructure requirements that do not allow landscaping within the substation yard and brownfield redevelopment restrictions preventing on-site storm water infiltration. Given the limitations the project has strived to implement sustainable features as much as possible. The site includes bio-retention cells to collect storm water runoff from the alley. Additionally, a runnel collects storm water runoff from the open space, John Street streetscape, and elevated walkway. Planting soil depth has been increased to a minimum of 24" in tree, shrub, ground cover, and lawn areas which will increase infiltration and reduce storm water runoff. This will also provide a healthier growing environment for plants and reduce the overall amount of water needed for irrigation. Due to clearance requirements from underground utilities, tree planting is limited, but trees are provided wherever possible. The space above the substation needs to remain open, precluding a green roof, however, plantings similar to a green roof have been provided on the elevated walkway. Streetscape improvements include a continuous planting strip on all three sides of the site. Of the 37,671 sf of available open space inside the right-of-way, 100% is publicly accessible and 30% is planted with trees, shrubs, and groundcovers.
6	Allow Limited Accessory Surface Parking	Per SMC 23.48.034-C.3 Accessory surface parking is prohibited unless separated from all street lot lines by another use within a structure.	Allowance for limited parking in a multi-use event zone, for vehicles such as, food trucks, book-mobile, and potential SCL service vehicle parking in the event of a utility emergency.	Allow limited on-site special event vehicle parking in areas that are separated from the sidewalk. This solution is intended to allow for a variety of events to be programmed on site. The zone is developed as a public benefit for activity that will encourage and enliven active urban space. The space allows the capability of flexible programmed use that includes limited authorized vehicle parking on site.
7	Allow Waiver of Parking and Loading Access	Per SMC 23.48.034-D.1 - Access to parking and loading shall be from the alley when the lot abuts an alley if it would not create a significant safety hazard.	A service entrance into the substation is provided along John Street rather than the alley.	Service access along John Street is in response to the unique requirements of a substation for at grade large equipment transport. Alley access does not allow for the required turning radius of large transport vehicles. In addition changes in grade from the alley to the substation yard grade make vehicle entry to the substation infeasible. The John street Facade and service entry door are receiving special aesthetic treatments to minimize the appearance that there is a vehicle service entrance. The service door will be treated with special glazing as well as artistic environmental graphic installations to make the door a visual feature that will provide interest and add to the rich neighborhood context proposed on John St.