

Public Spaces | Public Life

for the University District—West of 15th

2012 Scan|Design Interdisciplinary Master Studio
University of Washington: College of Built Environments



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Gehl Architects
UW Transportation Services
Dave LaClergue & Lyle Bicknell, Seattle
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Cover Images: Kei-Sing Yiu

University of Washington: College of Built Environments

Foreword

The University District Neighborhood “West of 15th” is poised to undergo rapid and long-term transformation, brought on by burgeoning multi-family housing, an imminent light rail station, an expanded waterfront park along Lake Union, and planned green streets including a “neighborhood greenway.” A diverse group of partners passionate about the quality of their neighborhood have joined together to envision and enact the district’s future, advancing commercial revitalization, exemplary pedestrian and bicycle environments, and an urban design framework to guide development of the public realm.

Taking up the challenge of the district’s imminent transformation, our studio focused on imagining an active, creative, high-performance “West of 15th” district, proposing design solutions for sites within the district with the goal of contributing to a high-functioning, just, and ecologically healthy city. Applying their unique skills, students worked in interdisciplinary teams at three different time and space scales: first, to understand and interpret existing forces and questions, expressed in temporary installations deployed at various sites throughout the district; then, to assess current patterns and imagine the optimum “blue sky” future health of a particular district system; and finally, to explore how the design of a site or street could contribute to the long-term visions of a public realm that is lively, artful, socially responsive and environmentally regenerative.

We were guided by principles, examples and teachings from Gehl Architects and our experiences together in Denmark and Sweden, made possible through the generous sponsorship of the Scan|Design Foundation. During our two-week September tour we walked both Copenhagen and Malmo’s public spaces, sketching their design qualities and analyzing their social performance using Gehl Architects’ methodologies. The group bicycled around these exemplary cities to experience their renewed neighborhoods, innovative architecture, and thriving public spaces. The staff of Gehl Architects, Copenhagen’s bicycle planners, Malmo’s Sustainability experts, COBE Architects and others were our guides, providing insight into the cities’ historical development and contemporary planning issues, elucidating design approaches to successful projects, and sharing personal perspectives. Back in the studio in Seattle, students applied the lessons they learned to our University District project, benefiting from an additional two weeks of expert guidance from Bianca Hermansen of Gehl architects.

We have many people to thank for this remarkable opportunity in teaching and learning. Without the support of the Scan|Design Foundation, we could not have acquired and applied the rich set of images and experiences from Scandinavia or so deeply integrated Gehl’s approach in our design work. We are sincerely grateful for Bianca Hermansen’s generous, clear and insightful teaching and critique, and to her and others at Gehl architects for the fantastic lectures and tours in Copenhagen. Our Scan|Design interns Ashle Fauvre and Peter Cromwell introduced innovative urban analysis methods, aided by Josh Kavanagh and UW Transportation Services’ generous provision of GPS units that we used to track our movement on foot and bicycle. We were additionally fortunate to have Lyle Bicknell serve as our guide both in Copenhagen and in the Seattle studio, contributing his inspired enthusiasm and seasoned urban design expertise to our learning. We are grateful to many people in Seattle who helped us understand the conditions, forces and potentials in the U-District and provided feedback on our work, and especially Dave LaClergue, Kristine Kenney, Rebecca Barnes, Howard Fitzpatrick, Don Shultz, David Amiton, David Graves and Anne Gantt for their presentations and multiple interactions with the studio. We are additionally ever grateful to Jess Michalak for her invaluable assistance throughout the study-tour, studio and production of this document.

We thank you all, and hope that this work be useful in offering thought-provoking, innovative, responsive ideas for transforming the University District into a neighborhood that performs for all.

Nancy Rottle, Associate Professor, Landscape Architecture

Jim Nicholls, Senior Lecturer, Architecture



2012 Scan|Design Public Spaces Public Life Studio

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Immersive Education

Scan|Design Travel Study

Prior to the beginning of autumn quarter twenty-three graduate students from Architecture, Landscape Architecture, and Urban Planning participated in the 2013 Scan I Design Foundation Travel Study Program. The trip focused on the urban planning, architecture, and public spaces of the Øresund region. The subsequent interdisciplinary studio and the mix of students shaped the diversity of the trip itinerary. Through study of the built environment in Copenhagen, Helsingør, and Malmö, students were introduced to ideas and concepts that transcended and united the three disciplines, and encouraged a broader, multi-disciplinary approach to design.

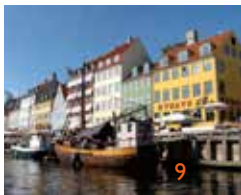
The trip introduced the students to the public space ideas championed by Jan Gehl and Gehl Architects. The principle that design should encourage "life between buildings" to improve people's quality of life and create sustainable and healthy cities was illustrated both in lecture and on the group experience. During the trip, students were afforded the unique opportunity to study with Allison Dutoit, Bianca Hermansen, and Lars Gemzøe, founding and principal members of the internationally acclaimed Gehl Architects office. In addition to more traditional lectures, the Gehl methodology was presented via tours of Copenhagen's public space and bicycle networks, enabling students to experience the breadth and depth of Gehl Architects' work in the Øresund region.

These field studies, lectures, and workshops led by the staff of Gehl Architects were augmented by presentations from city officials, transportation planners, and local architects in both Copenhagen and Malmö. In Copenhagen, students visited the offices of COBE and Public Architects, toured the Royal Danish Playhouse and Tietgenkollegiet, and visited the Carlsberg Brewery redevelopment site. In Malmö the trip included a tour of the sustainable developments at Bo01, Augustenborg, and the Swedish Green Roof Institute, complemented by presentations on the city's history and future development goals.

Students embraced Scandinavian culture during the trip, with authentic Scandinavian meals being a highlight of the experience. In Copenhagen, the students enjoyed a dinner with members of the Scan|Design Fellows and alumni, who introduced them to traditional Smørrebrød among other local favorites. In Malmö, the students used the hostel's kitchen to make a fantastic group dinner.



1. The students play at a waterfront park in Copenhagen.
2. Jordan likes biking!
3. Sketchbook review after public space exercise.
4. Students enjoying the architecture on the tour.
5. Group Photo after a day of guided tours through Norrebro neighborhood.



- 6. Even if the water is cold, the company is wonderful!
- 7. Nancy & Jim teaching on the walking tour of the city.
- 8 & 9. Traditional architecture in Copenhagen, at Nyhavn and along Strøget.
- 10. Bianca lectures the students in front of the Radhuspladsen.
- 11. The students learn about engaging public space first-hand.
- 12. Students toured Tietgenkollegiet, designed by Lundgaard & Tranberg.
- 13. Biking is a huge part of the experience in Copenhagen.



Design Methodology

15 Quality Criteria

During site analysis, students used Gehl Architects' 15 Quality Criteria approach for observing and assessing sites for their pedestrian quality. This approach complemented the project area's quantitative pedestrian analysis, allowing students to understand how people might experience the neighborhood. The students also used these 15 Quality Criteria to evaluate their finished design proposals.

Life | Space | Building

In addition to using the 15 Quality Criteria, in one exercise called "Life|Space|Buildings" students took on different roles: student, artist, business woman, club goer, etc. to establish the required program elements needed to create vital public space that is inviting to all.

Studio Team and Group Work

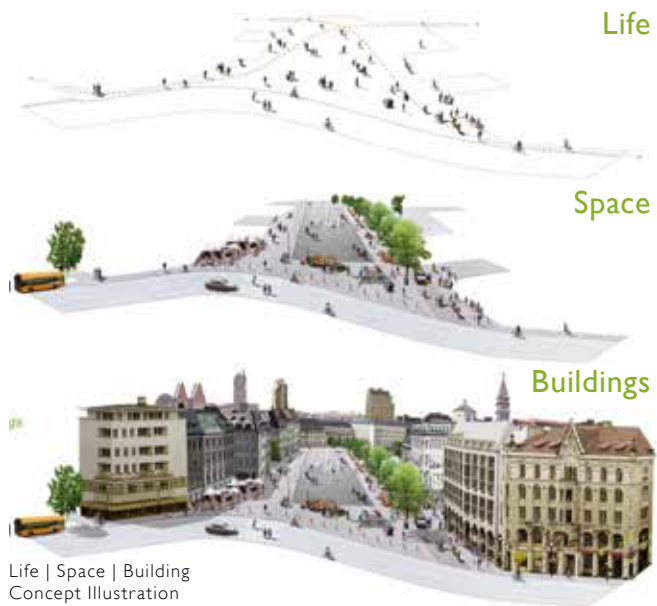
Throughout the quarter the students had the chance to work in various groups to take advantage of the interdisciplinary studio format. The students were divided into small groups for site analysis and the In Sight—In Site Installation in the University District. For the final design project, students were given the choice to work individually or in teams to develop their interventions for the University District. Over the course of the term, students continually refined their design proposals, working between districts and site scales and responding to feedback from guests, peers, faculty, and Bianca Hermansen of Gehl Architects.

Gehl Architects Master Instructors

Students were first introduced to Gehl Architects' working methods while in Copenhagen, through lectures and exercises. Students benefited from an additional two weeks working with Bianca Hermansen in Seattle, prior to midterm and at midterm reviews. Students also benefited from Bianca's experience via Skype lecture. Bianca provided valuable feedback to guide the development of students' designs for improving the University District.

PROTECTION	PROTECTION AGAINST VEHICULAR TRAFFIC <ul style="list-style-type: none">Traffic accidentsPollution, fumes, noiseVisibility	PROTECTION AGAINST CRIME & VIOLENCE <ul style="list-style-type: none">Well litAllow for passive surveillanceOverlap functions in space and time	PROTECTION AGAINST UNPLEASANT SENSORY EXPERIENCES <ul style="list-style-type: none">Wind / DraftRain / SnowCold / HeatPollutionDust, Glare, Noise
	INVITATIONS FOR WALKING <ul style="list-style-type: none">Room for walkingAccessability to key areasInteresting facadesNo obstaclesQuality surfaces	INVITATIONS FOR STANDING AND STAYING <ul style="list-style-type: none">Attractive and functional edgesDefined spots for stayingObjects to lean against or stand next to	INVITATIONS FOR SITTING <ul style="list-style-type: none">Defined zones for sittingMaximize advantagespleasant views, people watchingGood mix of public and café seatingResting opportunities
	INVITATIONS FOR VISUAL CONTACT <ul style="list-style-type: none">Coherent way-findingUnhindered viewsInteresting viewsLighting (when dark) AUDIO & VERBAL CONTACT <ul style="list-style-type: none">Low ambient noise levelPublic seating arrangements conducive to communicating	PLAY, RECREATION & INTERACTION <ul style="list-style-type: none">Allow for physical activity, play, interaction and entertainmentTemporary activities (markets, festivals, exhibitions etc.)Optional activities (resting, meeting, social interaction)Create opportunities for people to interact in the public realm	DAY / EVENING / NIGHT ACTIVITY <ul style="list-style-type: none">24 hour cityVariety of functions throughout the dayLight in the windowsMixed-useLighting in human scale VARYING SEASONAL ACTIVITY <ul style="list-style-type: none">seasonal activities. (skating, christmas markets,)extra protection from unpleasant climatic conditionsLighting
DELIGHT	DIMENSIONED AT HUMAN SCALE <ul style="list-style-type: none">Dimensions of buildings & spaces in observance of the important human dimensions in related to senses, movements, size & behavior	POSITIVE ASPECTS OF CLIMATE <ul style="list-style-type: none">Sun / shadeWarmth / coolnessBreeze / ventilation	AESTHETIC & SENSORY <ul style="list-style-type: none">Quality design, fine detailing, robust materialsViews / vistasRich sensory experiences

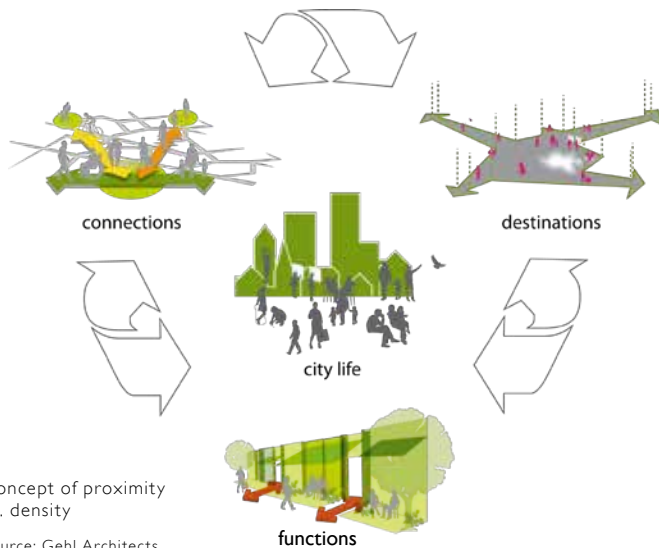
15 Quality Criteria
Source: Gehl Architects



Life | Space | Building
Concept Illustration

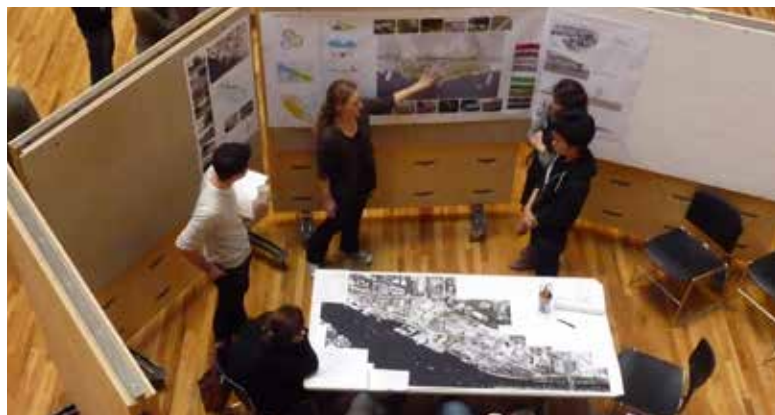
Source: Gehl Architects

PROXIMITY



Concept of proximity
vs. density

Source: Gehl Architects



Mid-Review presentation of
the waterfront group.

Source: Nancy Rottle

Final project reviews with
guest critics and faculty.

Source: Kei-Sing Yiu

Formal reviews included
guest critics in the fields
of architecture, landscape
architecture, and urban
planning

Source: Kei-Sing Yiu



The DOORS

Kevin Bogle, Tory Kovacs, Don Mack, Emily Perchlik, Mike Schwindeller, Erinn Walter

A four foot retaining wall runs along 15th Avenue, separating the western edge of the University of Washington campus from the University District neighborhood to the east.

Today, the university has expanded its holdings and activities west of 15th Avenue. The western portion of campus has several spaces and facilities which have the potential to become neighborhood amenities. These places also present opportunities for students and the larger U-District population to mingle. However, the retaining wall along 15th Avenue acts as an impediment to campus access. The Doors installation speaks to this need to permeate the wall and positively connect the university with the public.

Three bright yellow doors were hung from the retaining wall, directly west of the university's Burke Museum using fabricated metal brackets. These doors stood slightly ajar, inviting curiosity and interaction. Opening the doors revealed posters for Burke Museum events, volunteer

opportunities and a map showing how to walk from the sidewalk to the museum. One of the doors also contained writing materials and a mailbox for leaving messages.

The Doors installation raised awareness of the Burke Museum in a playful and interactive manner. Furthermore, The Doors supported stronger connections between the University of Washington campus and the U-District, inviting people to visit the Burke Museum.





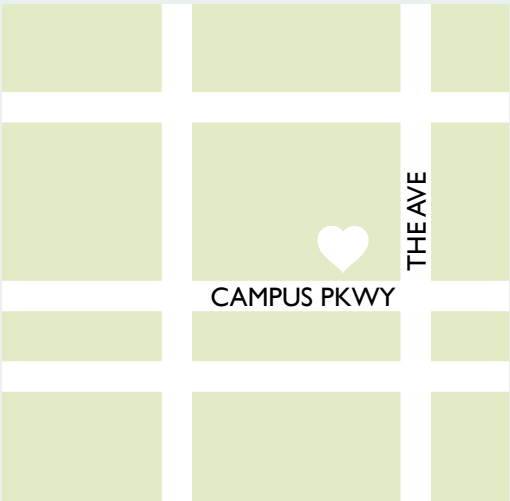
8686 + 8687

Nancy Chan / Andrew Hansen / Hillary Pritchett
/ Malda Takieddine / Hsien-ai Wang

**TODAY WE'D LIKE TO HONOR
TWO LIVES WELL-LIVED.**

Two days before two ailing elms—8786 and 8787, or so their tags named them—were scheduled to depart this life, we assembled an installation to celebrate what they had provided the University District in their many decades on Campus Parkway.

Experts say that when elms mature in such proximity, their roots connect, becoming one. Our installation communicated the beauty in living and dying— connected.



**STREET TREES MATTER
FOR THE ENVIRONMENT.**

"The net cooling effect of a young, healthy tree is equivalent to ten room-size air conditioners operating 20 hours a day."

—Arborday.org

**STREET TREES MATTER FOR YOUR
MIND.**

"... office workers with a view of nature liked their jobs more, enjoyed better health and reported greater life satisfaction."

—American Psychological Association

STREET TREES MATTER FOR THE FUTURE.

"[Seattle] has set up the goal to achieve 30% canopy cover by 2037. According to results from the 2009 satellite assessment of 2007 data, Seattle has about 23% canopy cover."

— City of Seattle Urban Forest Management Plan

**STREET TREES MATTER FOR
SOCIETY.**

"... trees in the public right of way are associated with lower crime rates."

— G. Donovan and J. Prezman, Environment and Behavior Journal

**STREET TREES MATTER
HISTORICALLY.**

"The first major industry to grace the emerald shores of Elliot Bay was logging. From the time of the first colonial activities in 1851, the timber trade proved to be the primary source of growth in this small northwestern town." —Seattle.com





This series of photos depicts all installation components: A glowing, leaf-adorned heart is suspended by fishing line between the two elms. A wooden box conceals speakers playing a soundtrack of trickling water sporadically interrupted by a motion activated recording of a chainsaw's whine. Passersby are encouraged to scan a 'QR code' positioned on the front of the box directing them to our informational website: <http://streettreesaregood.carbonmade.com/projects/4517763>

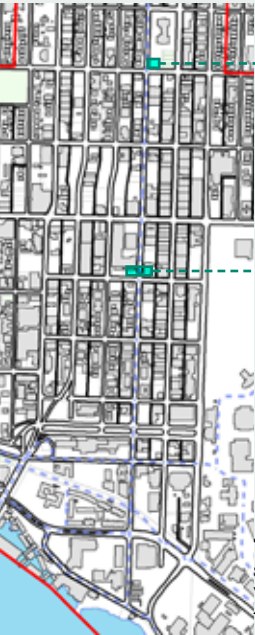
Two days after the start of the installation, a tractor removes it along with the two elms.



Leave Your Mark

Betsy Anderson, Leann Andrews, Yu Ting Lin, Finis Ray, and Angelica Rockquemore

Leave Your Mark was designed to raise awareness about the pedestrian experience in the University District. The neighborhood itself is defined by restrictions: users are continually assaulted with signs telling them what they can and cannot do. To disrupt this culture of restriction and manipulate the streetscape, pedestrians and bicyclists were encouraged to track through giant swatches of washable, biodegradable paint. Two sites were selected: the Saturday Farmer's Market at 50th and University and the future site of the light rail station at Brooklyn and 43rd.



The project study areas are outlined in yellow, indicated in the District Map.





With time, the tracks took on a life of their own: for some they were surprising, for others threatening - as evidenced through the choreographed interventions from local “authorities.” Still, others seemed as if they’d waited their entire lives for the opportunity to leave a mark.



The intervention by local “authorities” only served to create interest in the paint, further reinforce the neighborhood’s culture of restriction, and allow the most daring of people the opportunity to act out in civil disobedience.



Some of the most proactive marks were those left through civil disobedience in the form of literary outcries - expressions of love, art, and truth.

Occupy Space Dance Party!

Brooke Alford, Erica Bush, Natalia Chetvernina,
Diane Walsh, Kei-Sing Yiu

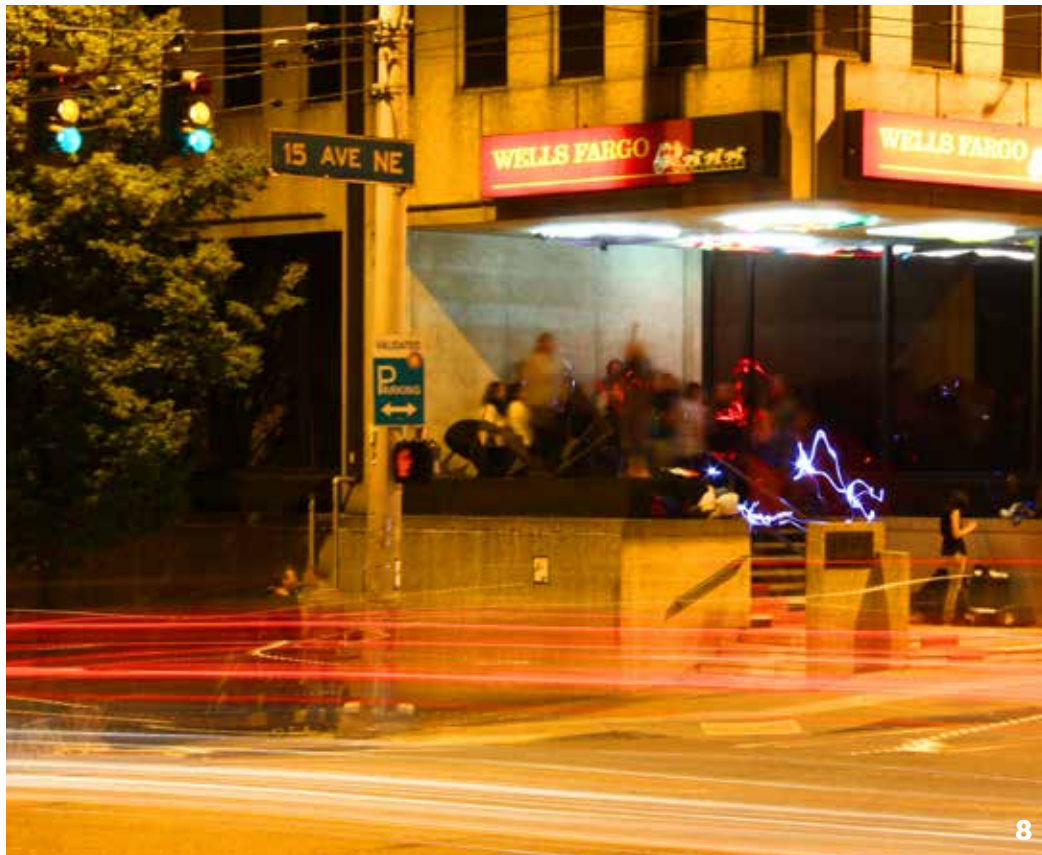
Our design intervention attempted to transform an empty and confounding private space--with stairs leading to a blank wall--into a publicly claimed experiment in the activation of the street. A "red carpet" highlighted the nonsensical design of the space and set the stage for a 15 minute "Occupy Space Dance Party." We distributed lights to the dancers to digitally record the contrast between the dynamic movement of the tightly packed people with the gridded lines created by the cars that typically dominate the intersection. The temporary installation attempted to highlight the need for an enhanced public street life supportive of people rather than cars.



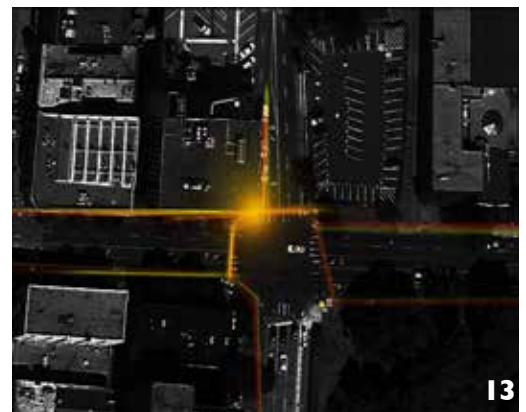
Lights...
carpet...
action!

1. Event announcement
2. The site at night
3. Process.
4. Existing site conditions
- 5-7. Site preparation.





- 8. The main event, tracing the human movement
- 9. The dancers
- 10. The dancers' trace
- 11. Sliding the rail
- 12. After the party's over
- 13. Linear lines of traffic: human traces as the flash mob started



Ping Pong Parkway

Lawrence Chung, Kristina Gallant, VeraEve Giampietro, Shu Kuei Hsu, & Jordan Lewis

This installation is an effort to activate a highly visible yet rarely utilized site along Campus Parkway. While the site is prominent and the design provides an open forum for democratic process (i.e. a speaker's podium), there was no hook, no invitation into the space. Our team installed two ping pong tables, complete with balls and paddles, in an attempt to draw people in and engage them first in a game, and then ultimately with the site's existing features.

Situated among student residences, the median's substantial open space would seem a welcome opportunity for both active and passive recreation. The site, however, is often very loud with bus traffic. It was designed for passive use, but the noise and smells create an unpleasant and even aggressive environment. There is little opportunity for the user to shape or personalize this space – she could hardly carry on a comfortable conversation. The energy, the noise, and the communication all flowed in one direction – at the user. Even the benches were speaking to her, with the noise crowding out any opportunity for her to engage or speak back.



Open plaza yearning for social interactions.



Inspirations from Copenhagen.



Serving the student body.



Paddle chandelier.



Ping pong nest.

Ping pong is thus conceived of as an invitation to converse, through movement and play, with other users and the site, and to personalize it with a game. The installation responds also to the lack of opportunities for outdoor recreation within the University District. Recognizing a commonly-held fear of vandalism or theft of public amenities, the team designed details that encourage stewardship of the site by having designated spots that are understood as incomplete without their accompanying ball or paddle. Each ball has a nest; each paddle, a clip. At the end of a game, the user is invited to contribute to the order and beauty of the space by returning all parts to their proper place.



What do YOU think?



Family fun in the University District.



Ping pong match on a sunny day.

Access and Mobility

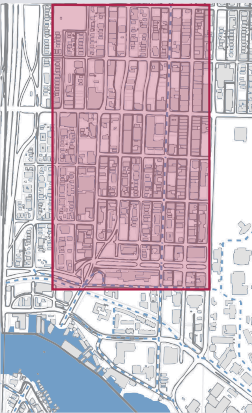
Lawrence Chung, Victoria Kovacs, Jordan Lewis, Mike Schwindeller, and Erinn Walter

The existing conditions for access and mobility in the U-District are a mix of challenges and opportunities. It is a very walkable district with active storefronts lining streets, and it has a well-connected bus service to the rest of the city. However, these infrastructures are just the starting point for an integrated and complete active transportation network. With the introduction of a new light rail station in 2020 on Brooklyn Ave between NE 45th St and NE 43rd St, the district faces a perfect opportunity to transform itself into a truly multi-modal transportation hub.

Our vision enhances the connectivity and the quality of the pedestrian experience within the neighborhood. For instance, we propose a series of mid-block connections between University Way ("the Ave") and Brooklyn Avenue to augment east-west pedestrian flows. We also propose alleyway activation between 15th Ave and Brooklyn Ave to increase the amount of active storefront and public space in the neighborhood. Lastly, we recommend removing street parking, rerouting

buses from the Ave to Brooklyn Ave and 15th Ave, and implementing a new street car line. This scheme improves the pedestrian environment on the Ave by reducing potential pedestrian-vehicle conflict, and introduces the street car as a new mode of transportation.

To improve linkages between the existing active transportation networks, we propose a new bicycle/pedestrian bridge crossing I-5 at 45th St to reach Wallingford, and reconstruction of Brooklyn

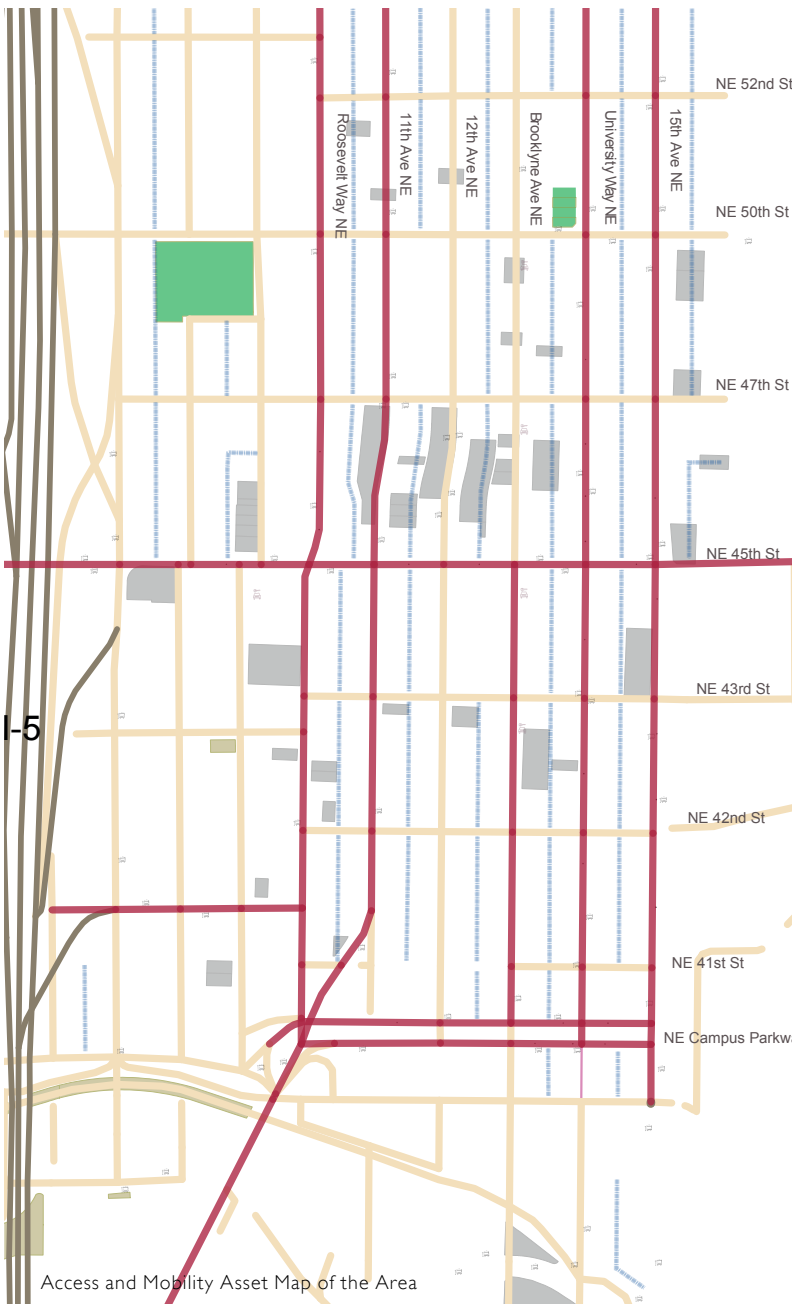


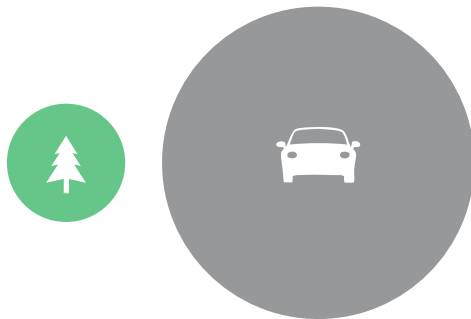
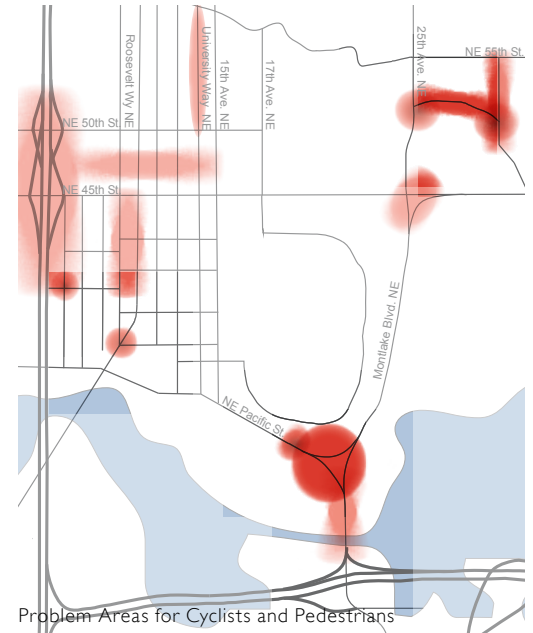
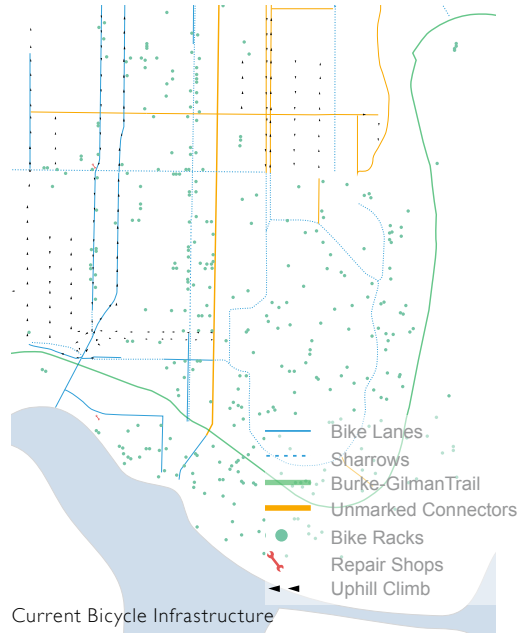
Ave to a complete / green street to provide direct access to the waterfront. Lastly, we propose implementing a bike share program to increase bike ridership in the neighborhood. Our vision will shape the U-District into a high performing multi-modal transportation hub by integrating mass transit, an active transportation network, public space, and ecological infrastructures.

LEGEND

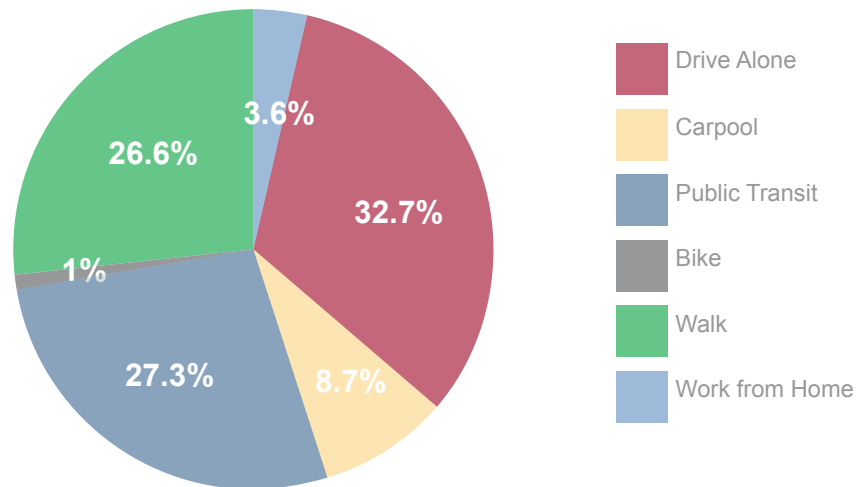
- Freeway
- Major Arterial
- Street
- Alleyway
- Surface Parking Area
- Park
- Bus Stop
- Zip Car Location

SCALE





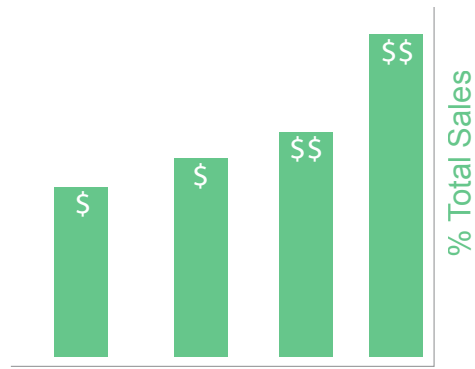
The amount of surface parking in the University District is **three times** that of public parks



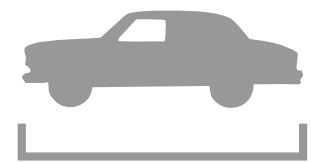
The Means of Transportation for the University District



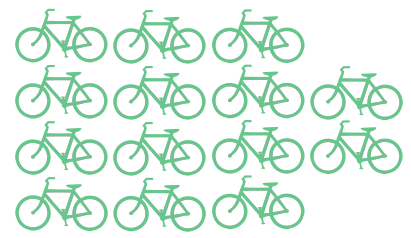
In walkable urban areas, street blocks are generally compact and offer a variety of visual stimuli and activities for a person traveling on foot. The orange dotted line above represents the distance an average person travels in four seconds on foot. As a general rule of thumb, building facades or blocks should provide new visual stimuli (such as shop entrances) every four seconds of foot travel. While the block size in the University District is much longer than urban blocks in Portland, Seattle and Copenhagen, it offers a unique variety of storefronts within each block. As a future strategy, the University District could further enhance walkability by utilizing mid-block connections to decrease block length as well as revitalizing alleyways.




Pedestrians and Cyclists Spend **More Money** than Either Car Drivers or Transit Users

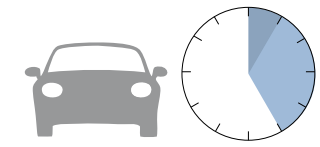


One Parking Space

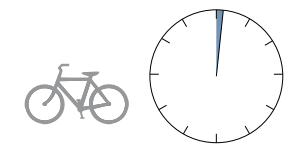


Space for 14 Bicycles

On Average,



It Takes Between **5** and **25** Minutes to Park a Car



It Takes **1** Minute to Park and Lock a Bicycle

Transportation Vision

The goals express the fundamental principles for ensuring ease of access and mobility in the West of 15th district. They were developed with a keen awareness of pedestrian, bicycle, and transit needs. The objectives and strategies provide clear direction for achieving these goals with specific infrastructure and design improvements.

Goals

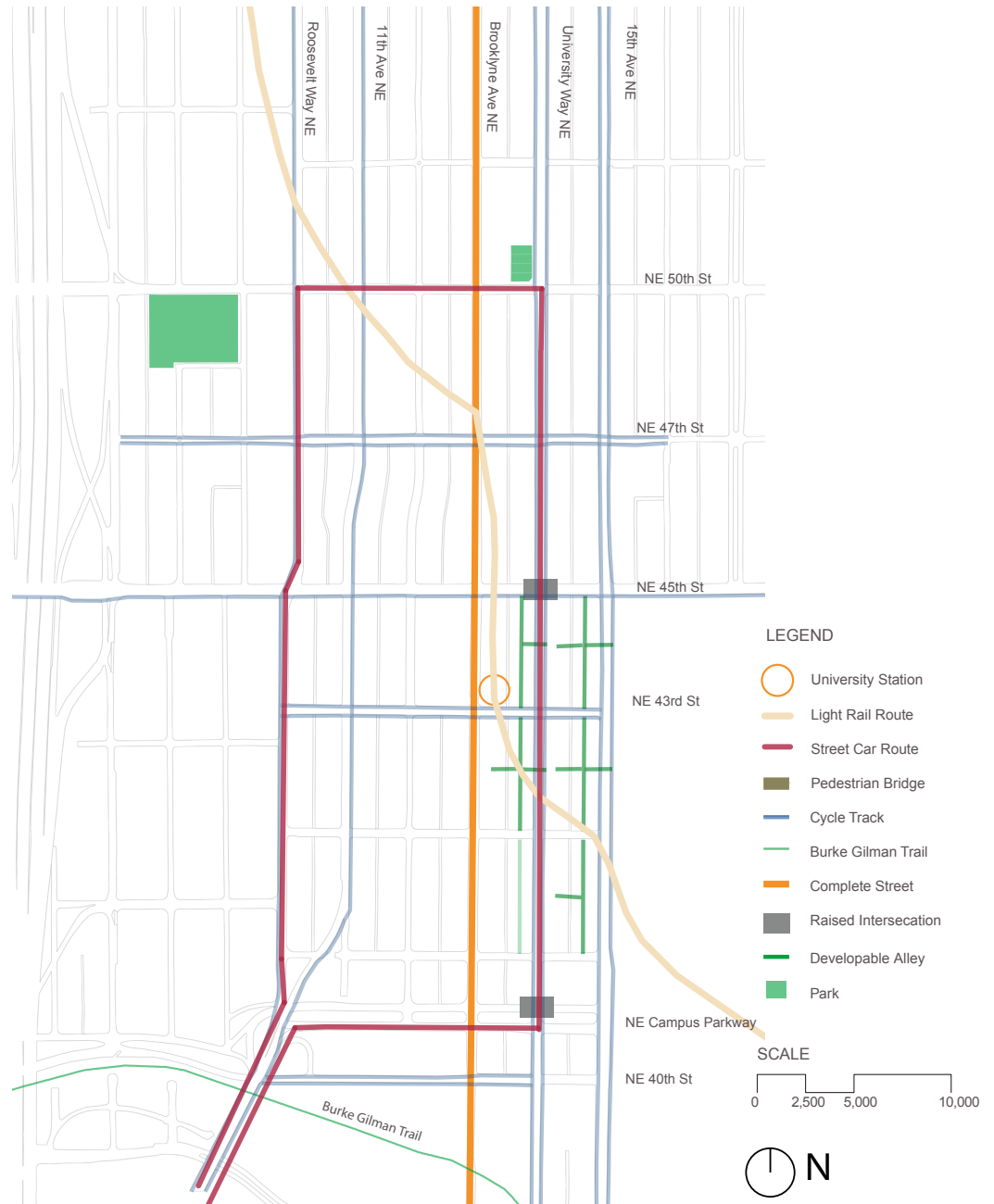
- Establish multi-modal transportation connections
- Improve safety of pedestrian / bicycle environment
- Encourage active transportation
- Encourage an ecologically-sensitive transportation network

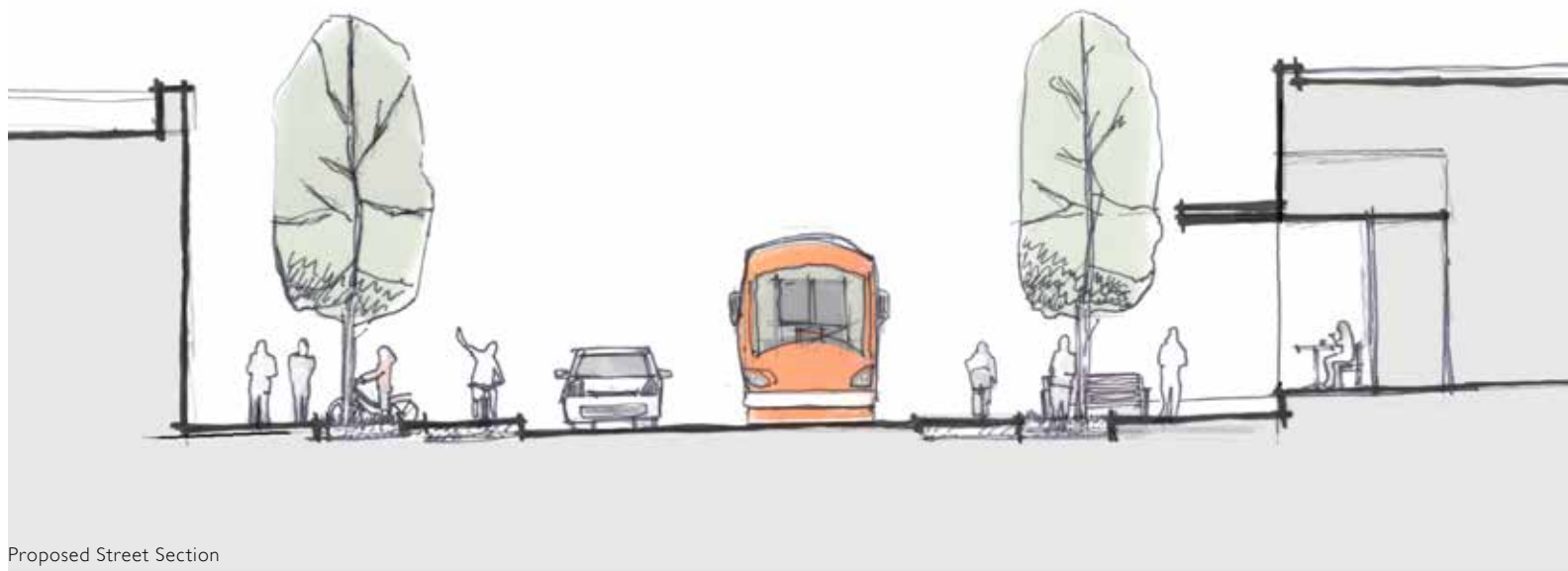
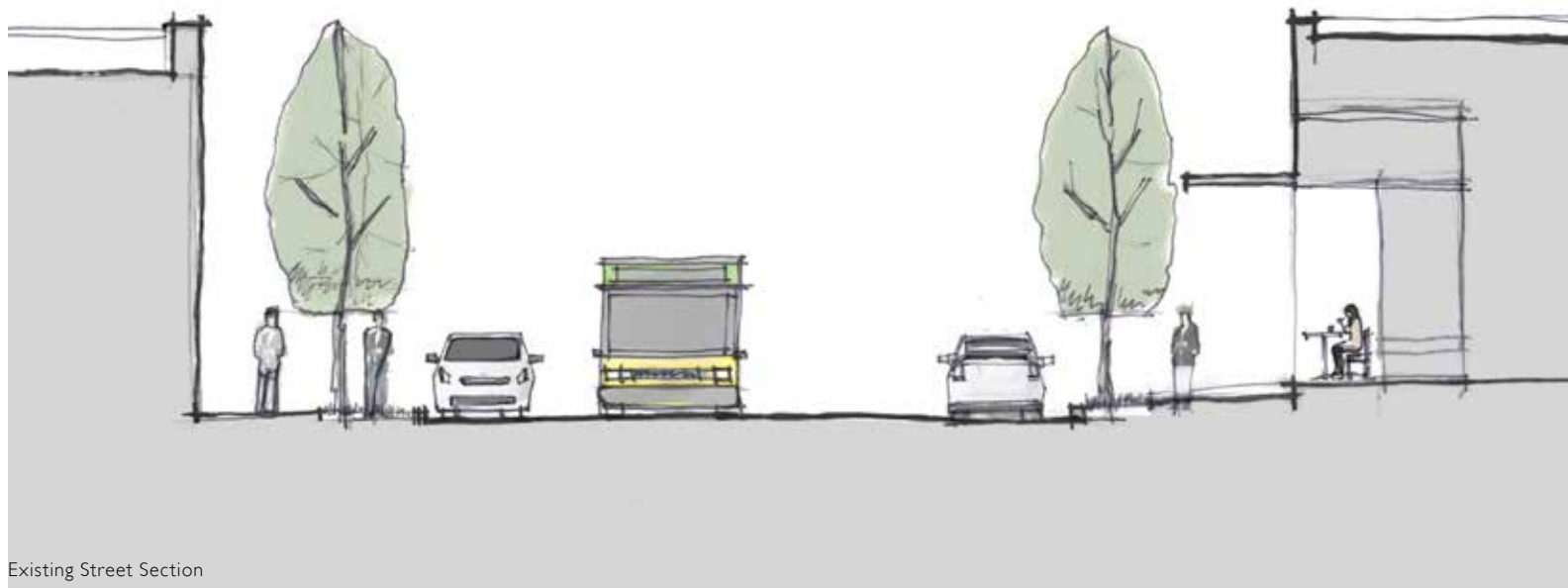
Objectives

- Enhance pedestrian / bicycle environment by improving active transportation infrastructure
- Integrate ecological infrastructure and active transportation
- Decrease bicycle theft
- Decrease collisions between all modes of transportation
- Strengthen public space connections
- Improve access to the waterfront
- Expand transit infrastructure

Strategies

- Bicycle / Pedestrian bridge at 45th St and I-5
- Mid-block connections between The Ave, Brooklyn Ave and alleys
- Complete / green street on Brooklyn Ave
- Add one-way cycle tracks (see map)
- Add a two-way cycle track on south side of 45th St
- Activate Alleys (between 15th Ave and Brooklyn Ave)
- Real time arrival signs at bus / street car stops
- Move bus routes from The Ave to Brooklyn Ave and 15th Ave
- Eliminate parking for cars on The Ave
- Implement Green Wave / Intelligent Transportation Systems (ITS) technology on major car and bike arterials
- Implement bike share program
- Provide locker/shower/repair facilities for cyclists





Transit and Information Hub

Modern facilities and technology are enhancing the experience for transit users, making it more efficient and user friendly.



Bike Station-Long Beach, CA (top) was the first full service bike shop and secure bicycle parking station in the U.S. integrated into a multi-modal hub for light rail, buses, pedestrians, and a local shuttle. Real time transit information like that offered by One Bus Away-Seattle, WA (bottom) or station display boards make taking transit a viable alternative to cars.

Safe Streets for All

The perception of safety is essential to a thriving pedestrian and bicycle environment.



The Portland Mall (top) implemented traffic calming strategies such as textured pavement, speed tables, shared lanes and improved signage to improve the pedestrian environment with ecologically sensitive infrastructure. Copenhagen, Denmark (bottom) is the epitome of perceived and actual bicycle safety. An extensive network of raised, dedicated cycle tracks achieve high levels of safe bicycle commuting.

Public Amenities

Creating public space that is engaging and well networked requires innovative pedestrian focused urban design.



Linden Alley in San Francisco, CA (below) facilitates pedestrian traffic with minor intervention and investment. Establishing city and regional pedestrian infrastructure connections might require a greater investment like the pedestrian/bicycle bridge built in Copenhagen, Denmark (bottom).

COMMUNITY

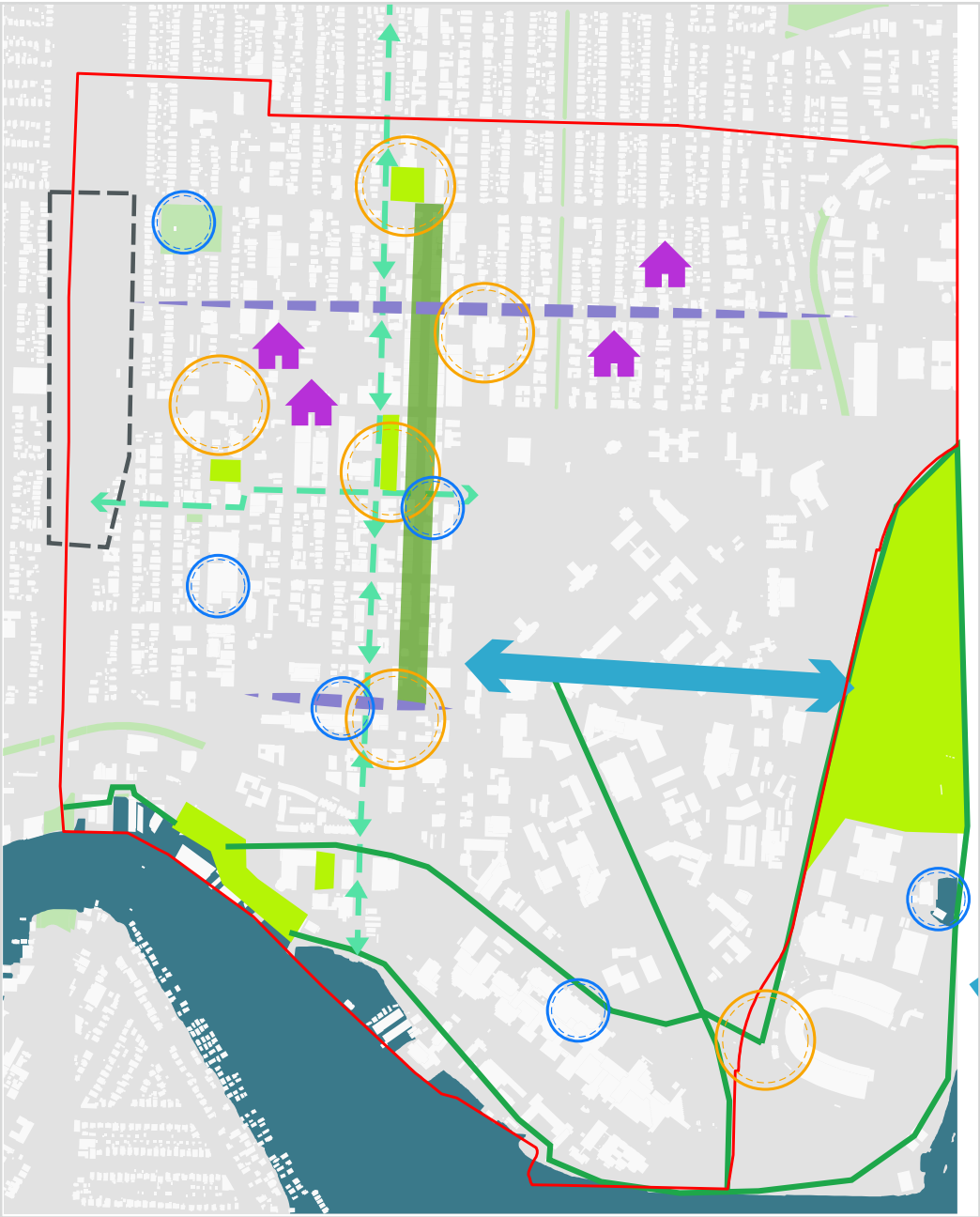
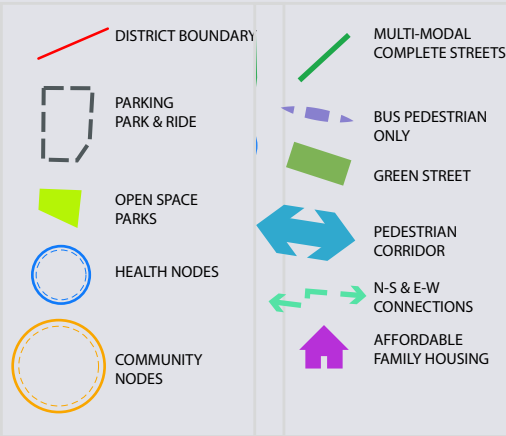
Kevin Bogle, Erica Bush, Natalia Chetvernina
Kristina Gallant, VeraEve Giampietro, Andrew
Hansen, Emily Perchlik, & Finis Ray

COMMUNITY VISION

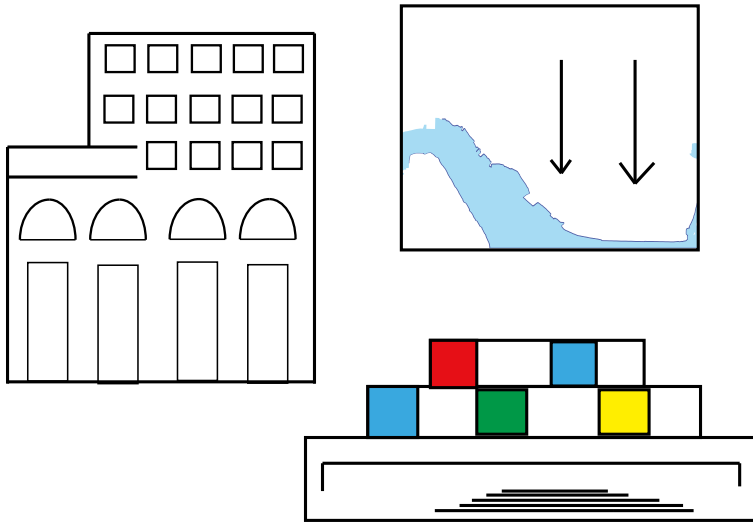
The University District community character is a woven narrative belonging to students, faculty, small business owners, long time homeowners, families, campus staff, homeless youth, and the thousands of people who traverse the area on a daily basis. Combined with a pastiche building fabric and major transit hubs, the area is energetic, dense, and rapidly changing.

There exists a constellation of public services and commercial goods available in the University District, which together meet the needs of a diverse population. Each of the groups represented here experiences the district in a different way, but it is visibly apparent that different members of these groups congregate and then redistribute themselves at regular intervals, interacting in such a variety of environments as churches, bus stops, cafes, and parks.

This team's analysis of all types of amenities, spaces, and services brought forward some behavioral landscape patterns that suggest we might be able to take advantage of existing and emerging activity nodes in the area. Community nodes of slightly different character are shown distributed across the district, and proposed connections between them would help channel and connect all those who dwell here with the services and goods they seek.



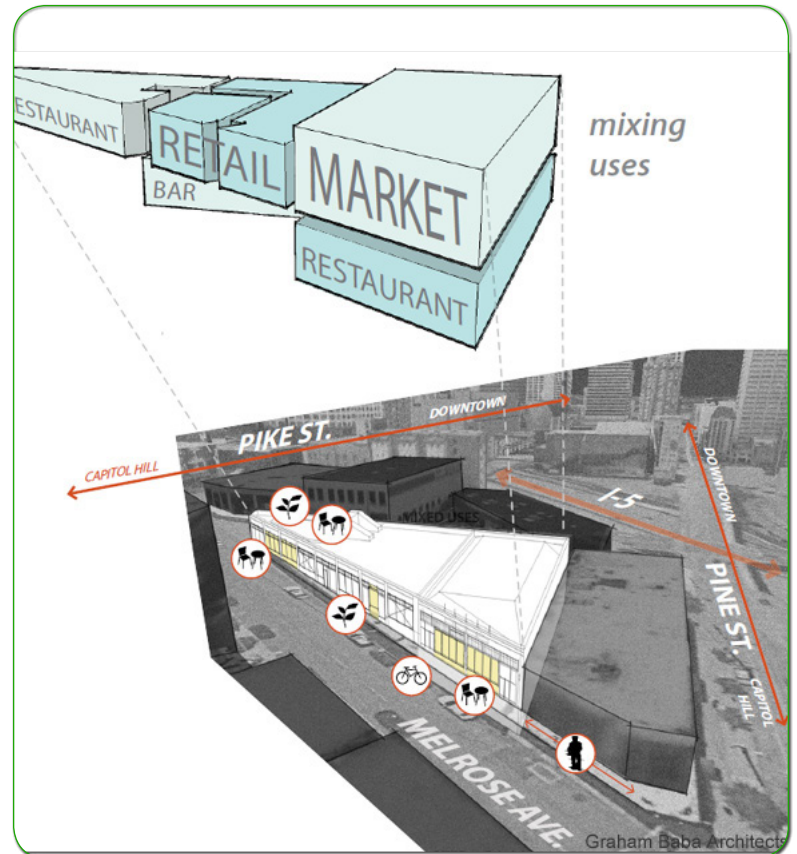
Utilize adaptive reuse strategies to provide growth while retaining the character of the neighborhood. Connect the district to the waterfront and maintain the historical marine industry. Adapt old, monolithic buildings to accommodate for activity and human scale.



ADAPTIVE REUSE

Melrose Market, Seattle

The renovation of the structures stands as an example of responsible adaptive reuse - updating the buildings for modern use while still maintaining the character of the historic buildings and surrounding neighborhood.

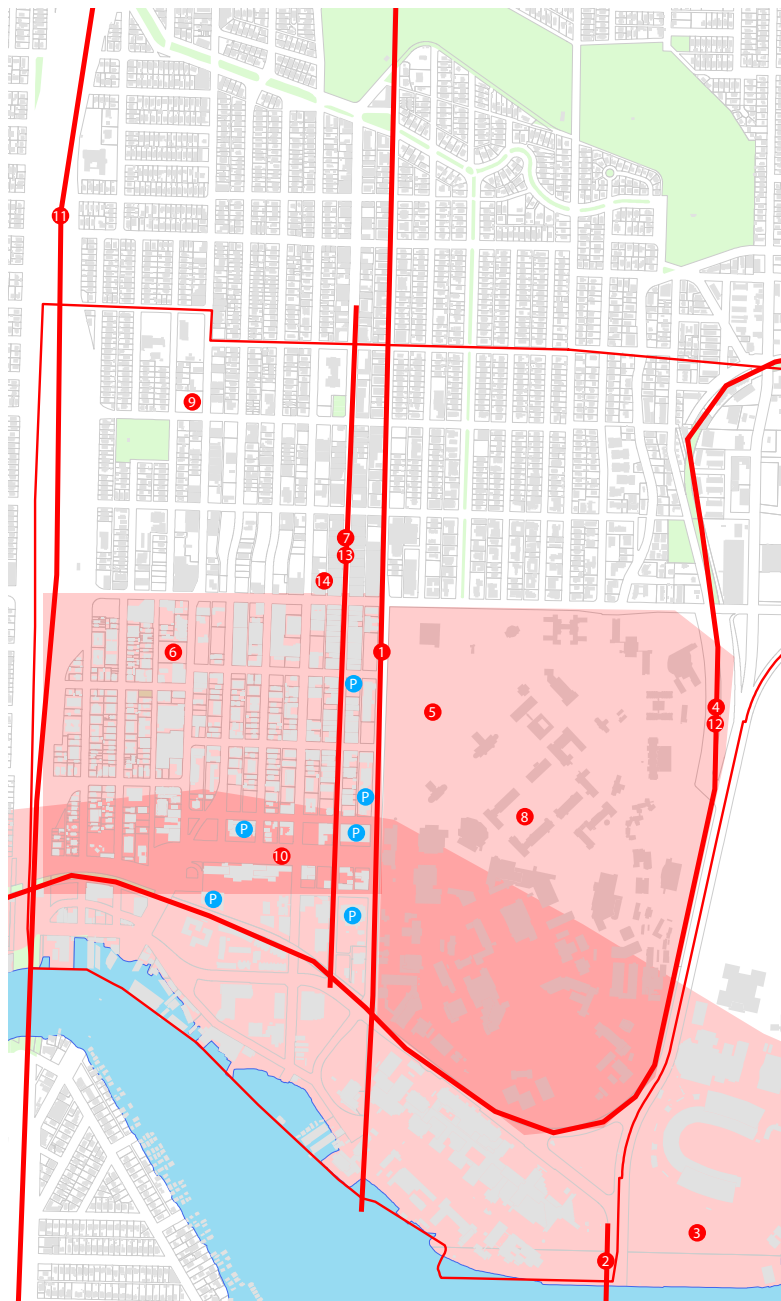


COMMUNITY HISTORY

Seattle and its University District community have together developed a modern form since the first white settlers arrived in the mid-1850s.

- 1 1855 September 8. Surveyors marked a line between sections 16 and 17 of Township 24. That line is preserved as 15th Avenue.
- 2 1883 Isthmus between Portage Bay and Lake Washington's Union Bay was cut through with a narrow canal for the movement of logs.
- 3 1885 Much of the north shore of Lake Union was harvested in the University District. Engineer and future Seattle mayor George Cotterill, when charting the north shore of Lake Union for the construction of the railroad, describes it as "a maze of undergrowth and stumps."
- 4 1885 April 15. Origins of Burke Gilman with the founding of the Seattle, Lake Shore and Eastern Railway.
- 5 1890 Seattle's super-developer James Moore laid out part of the Brownfield farm for a town site. That section of land, east of 15th Avenue, was reserved as a resource for the University.
- 6 1891 Brooklyn development platted.
- 7 1892 David Denny decides to lay tracks for his new electric trolley up Columbus (the future University Way).
- 8 1895 Move of the Territorial University of Washington relocates to current site, what was then called Brooklyn. University of Washington founded at new site, on section 17.
- 9 1910 Seattle Public Library University Branch.
- 10 1949 Realization of Campus Parkway.
- 11 1962 Construction of the I-5 freeway & Ship Canal Bridge.
- 12 1971 Decommissioning of the Railroad and creation of the Burke-Gilman Trail.
- 13 1971 First University Street Fair.
- 14 1993 Establishment of the University District Farmers Market.
- P 2012 Proposal: Restore historic mid-century buildings, such as Condon Hall, Gould, the School of Social Work, U District Post Office, Applied Physics Lab, and Schmitz Hall. Make use of their thermal mass to facilitate greenhouse.

Timeline credit: <http://www.historylink.org/>



Releasing water into the Montlake cut August 1916.

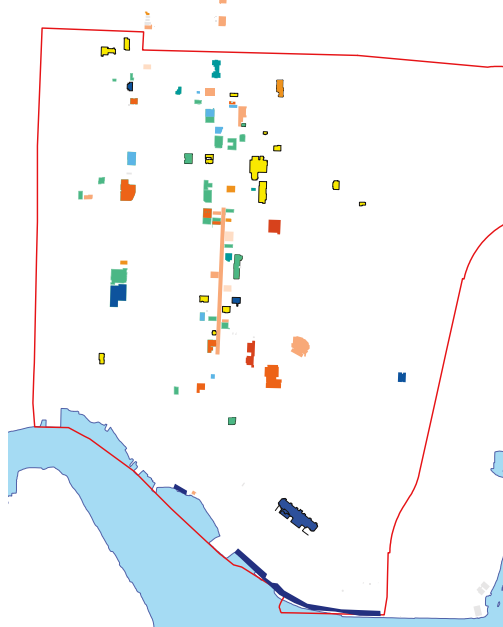
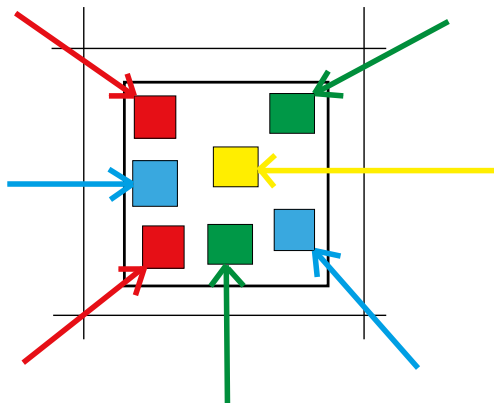


Construction of the University Bridge, 1917.











Construction of I-5 bridge foundations, 1959.





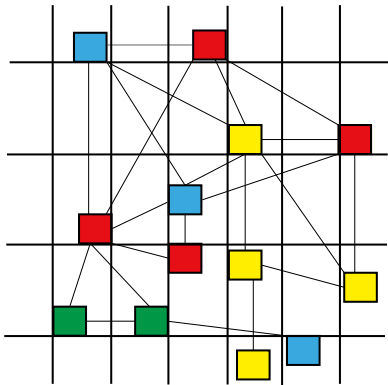
MAP: COMMERCIAL + GATHERING SPACES

 Galleries + Production	 Theaters
 Public Amenities	 Event Venue
 Parks	 Museums
 Community Resources	 Churches

CENTRALITY

The Eastern Market Metro Station in the Capitol Hill neighborhood of Washington, DC, is an applicable precedent. It serves as a transit hub that moves a comparable amount of people to what is predicted for the U-District Link Light Rail station, and connects a dense residential neighborhood to a vibrant commercial corridor reconnecting Capitol Hill to the Anacostia River using historic preservation and the arts as economic development tools and benefiting the broadest possible local community.





CONNECTIONS

Connections within the existing framework of the University District need to be strengthened. As seen on the map below, there is a wide variety of activity in the U District ranging from educational and social services to restaurants and cultural facilities. These resources, however, are scattered throughout the district creating a lack of legibility that isolates individual functions in the area.

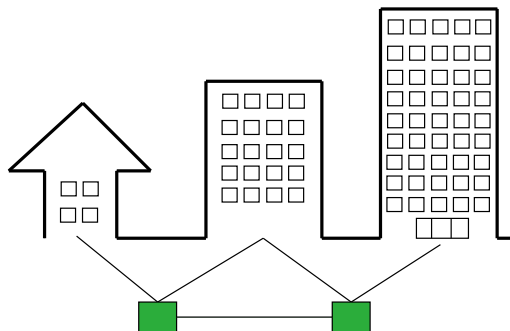
Focusing on strengthening the district's identity and creating stronger links within the physical spaces of the district will link services and the diverse user groups. Facilitating a healthier pedestrian experience as found in Vancouver and Copenhagen, could increase links within service networks and provide connections between different user groups.



MAP: ALL RESOURCES

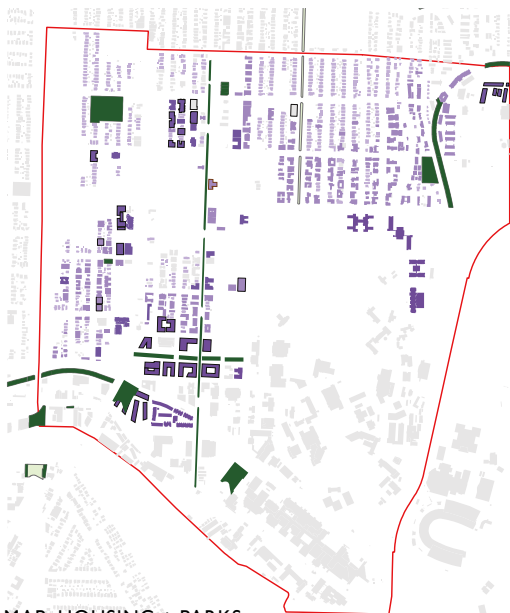
 Housing	 Cultural Amenities
 Social Services	 Businesses
 Parks	 History
 Gathering Spaces	 Open Lots





ENGAGE DIVERSITY

Connect existing housing types and provide larger demographic diversity. Create links between residential areas and parks, open space and cultural amenities. Create housing options for both families, professionals and students.



MAP: HOUSING + PARKS

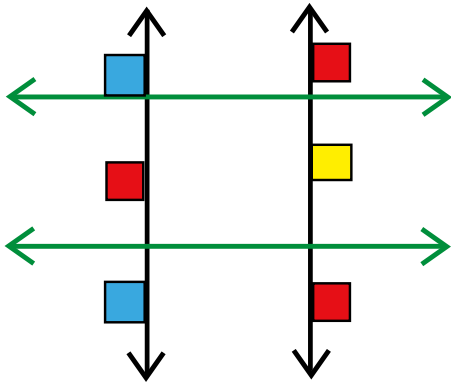


Proposed mixed-use developments such as Curve (above) Avalon Bay (left) are a clear indication of the increasing density of housing being built in the area.



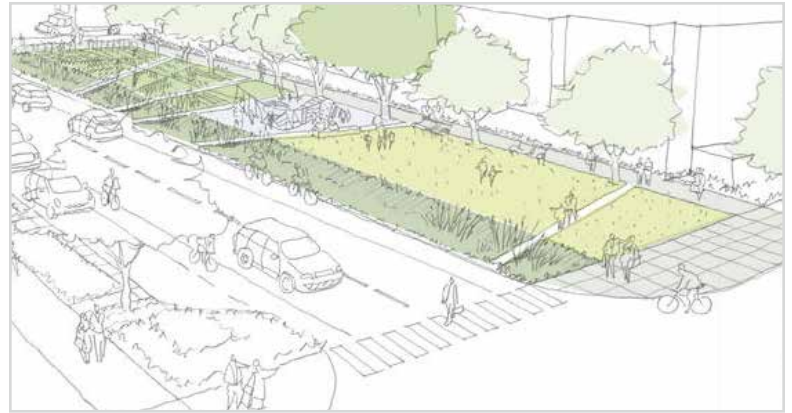
Alternative housing proposals could bring added diversity. The proposal for Raleigh, NC by in Situ Studio and David Hall (below)





14TH AVE NW PARK BOULEVARD

Community members in East Ballard came together to reclaim a large right-of-way to create a new park. In addition to providing new neighborhood open space, this project will enhance storm water, bicycle, and pedestrian infrastructure.



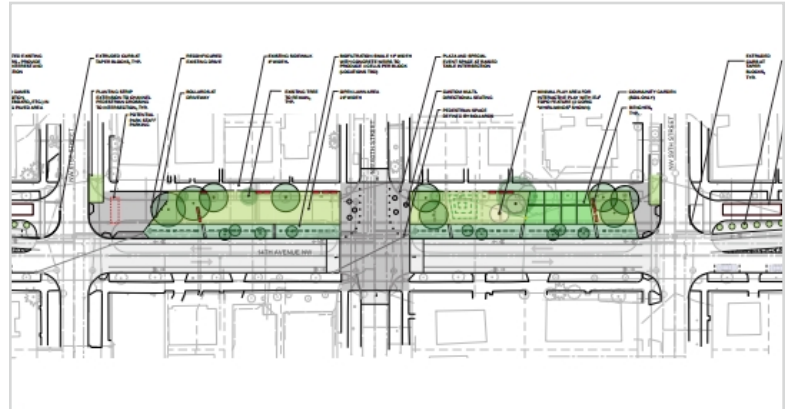
STRENGTHEN AND CONNECT EXISTING NODES

In order to connect commercial strips on University Way and Brooklyn Avenue, links will be provided through a chain of parks and Green Streets. Pedestrian thoroughfares and open spaces will connect to businesses. Small storefronts and building subdivisions will allow for incubator opportunities.



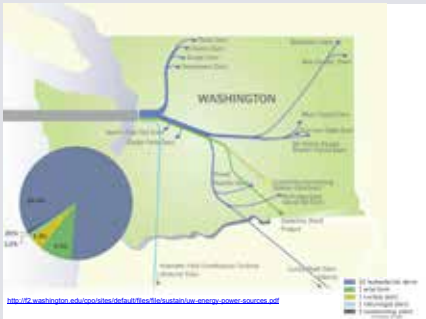
MAP: COMMERCIAL +
GATHERING SPACES

- Retail
- Mixed Use
- Office
- Vacant Lots
- Existing Gathering Spaces
- Potential Gathering Space



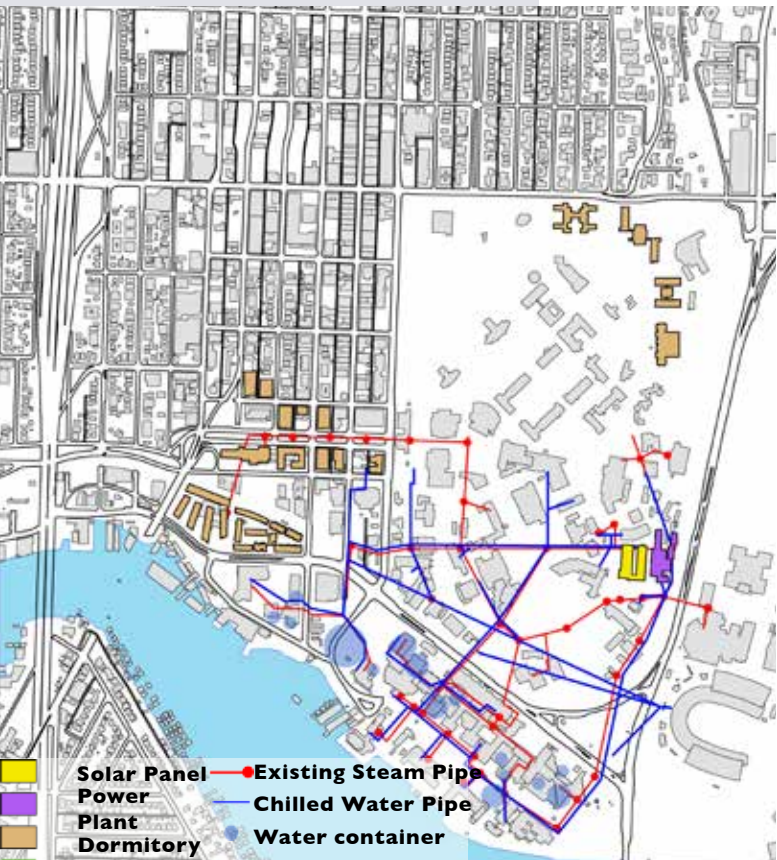
U-District Energy

Yu Ting Lin, Shu Kuei Hsu, Angelica Rockquemore

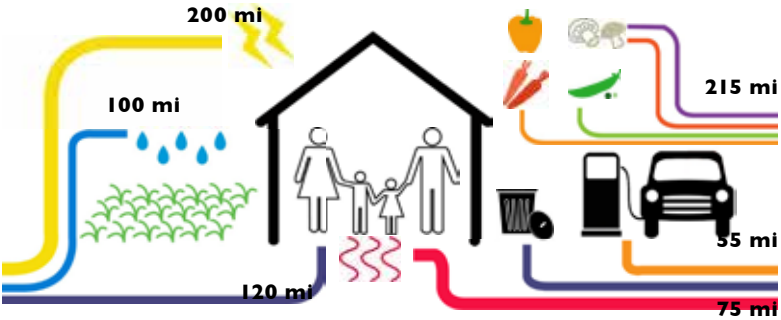


A map showing where the U-District receives energy from.

Everyday, every minute, energy in the U-District is consumed. The heating in campus buildings, the electricity to power computers, the food that we eat; the patterns of energy consumption far outweigh the patterns of energy production. What if we could change this? What if the U-District became an energy producing district, the E-District? Expanding and enhancing on existing energy assets, our vision transforms the U-District into a regenerative, self-sufficient, energy-producing district.

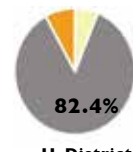
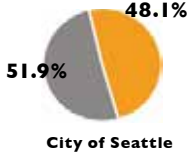
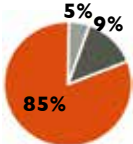
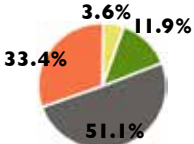


Daily energy consumption patterns and their cost. *for illustrative purposes only



Total : 527 mile/day ; 186,785mile/year

U-District Statistics, at-a-glance



(Right) This graph shows that 51.1% of individuals living in the U-District live alone. (Left) 85% of people that live here are for educational reasons.

(Right) In the City of Seattle, 51.9% live in renter-occupied homes.

(Left) Within the U-District, 82.4% of the housing is renter-occupied.

University District Urban Design Framework Report p.16



With 8 miles of underground tunnels, the UW Power Plant is the main generator of campus wide energy. Providing 174 campus buildings, including the Medical Center, with steam, chilled water for air conditioning and compressed air, the Power plant is a proven energy asset. In one hour, 800,000 pounds of steam, 12,000 tons of cooling and a the capacity to provide emergency power within 10 seconds of an outage.



Sunnyside Neighborhood Project | Portland, OR

A model for community owned and operated district heating and energy

Central Plant | Sacramento, CA

Retrofitted power plant equipped with solar panels, providing heat and electricity.

Eva Center | Lanxmeer, Netherlands

A model for incorporating self-sustaining, decentralized units.

Simon Langton Grammar School | Canterbury, England

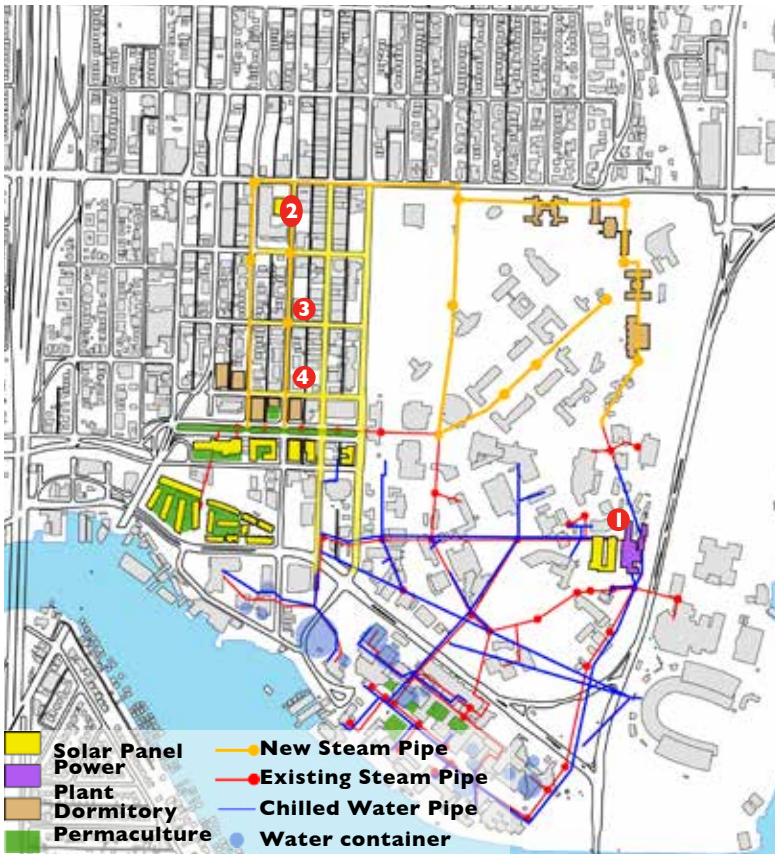
Tiles harness pedestrian power, lower carbon emissions and produce energy.

Ballard Public Library Green Roof | Seattle, WA

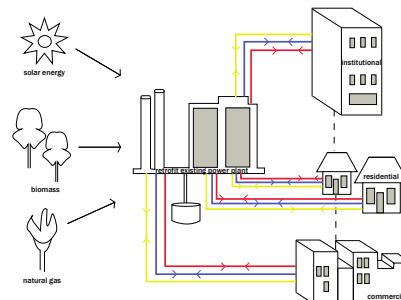
Green roof application that targets energy and water conservation.

High Point | Seattle, WA

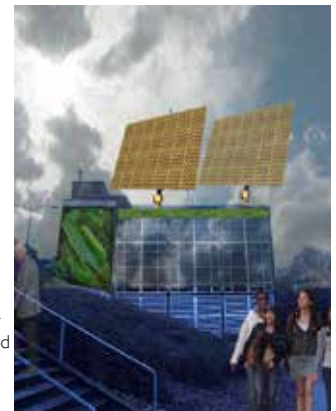
Communities using centralized public spaces to gather and share resources.

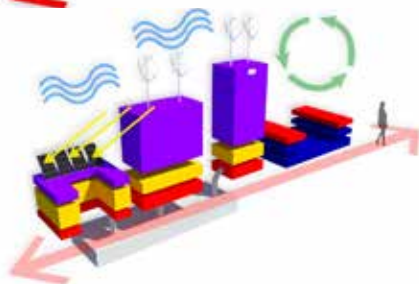
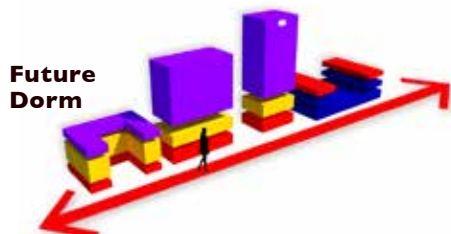
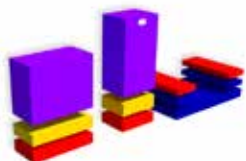
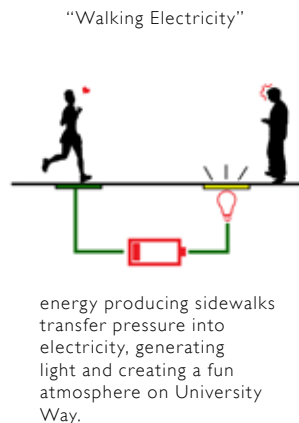
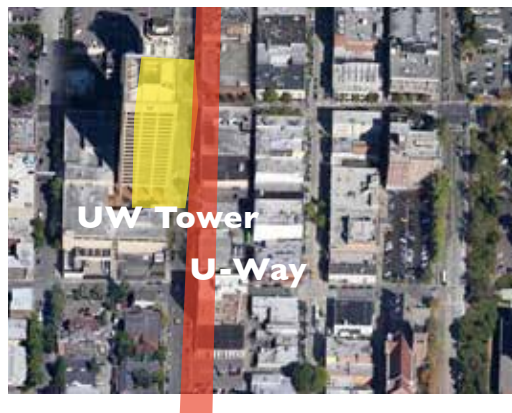


(Left) The map indicates our vision of expanding the network of the Power Plant to provide and produce energy to the west of campus. The three target areas are indicated in the above photos (the Power Plant, UW Tower and Residential dorms). Major additions include retrofitting the Power Plant with solar panels, "energy dorms" or solar panel and permaculture installations and "walking electricity" or energy-producing sidewalks.



(Above) Diagram showing the inputs into the power plant and the outputs of electricity, steam and chilled water. (Right) A rendering of the potential of the power plant to be retrofitted with solar panels and green walls to increase energy efficiency.





Currently, every building has only one use, at night when offices close, the streets become empty.

We envision to provide a variety of usage into the building including: residential dorms and commercial businesses, making buildings multi-functional.

Create diversity of usage in the region, bringing more activity, and more people.

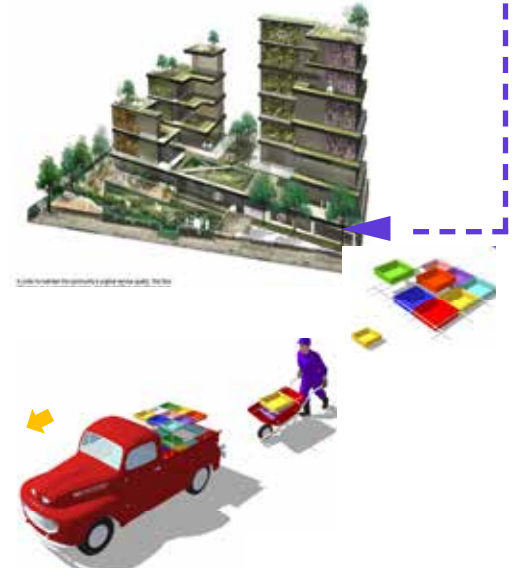
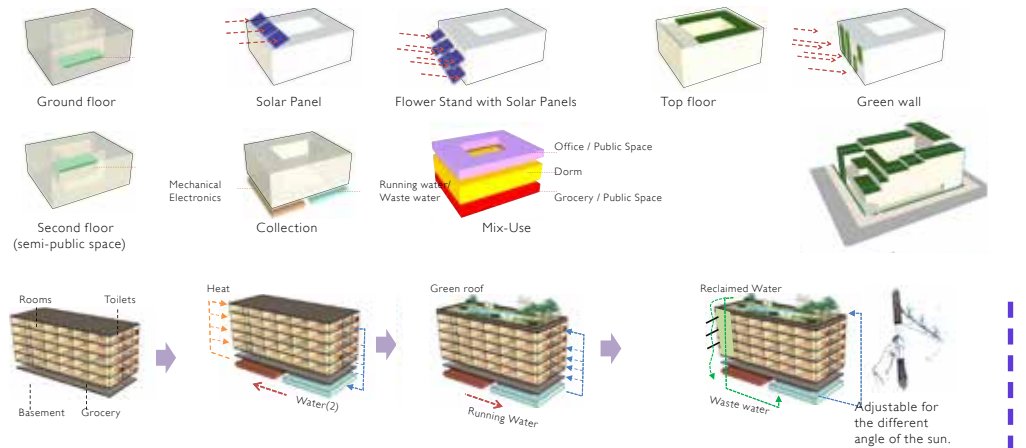
Sharing resources, reducing waste, utilizing central heating and waste system: making an energy efficient, multi-functional system.

Green Wall

Residential

Commercial





(Above) Diagram showing the potential development of the "energy dorms" to be mixed-use, multi-functional and energy efficient. (Right) A rendering of the potential of the dormitories to become self-sufficient energy producers and provide opportunities for food cultivation and gathering. The main targets of the "energy dorms" include every building producing their own food and energy along with recycling water and generating energy for multi-functional uses.

Sources

University of Washington Energy Data
<http://f2.washington.edu/ess/sites/default/files/UW%20Energy%20Future.pdf>
<http://f2.washington.edu/cpo/sites/default/files/file/sustain/uw-energy-power-sources.pdf>

University of Washington Climate Action Plan and Energy Resource Data
http://f2.washington.edu/oess/sites/default/files/file/UW%20Climate%20Action%20Plan%2010_9.pdf
<http://www.washington.edu/facilities/ops/>

CONNECT | PROTECT |
NOURISH

Habitat + Ecosystem
Function

Brooke Alford, Betsy Anderson, Leann
Andrews, Hillary Pritchett, Hsien-Ai Wang, &
Yiu-Tin Lin

A vestige of primeval forest still stood in the Brooklyn
neighborhood when the University of Washington
arrived in 1895. These lowland and riparian forests
offered unparalleled habitat value and delivered
significant ecosystem services to connect, protect, and
nourish indigenous communities. The development of
the University and surrounding city has greatly—but not
completely—depleted these resources.



ANCIENT LOWLAND FOREST
Multi-layered canopy of predominantly
Douglas fir, western red cedar, and
western hemlock, with bigleaf maple and
red alder.



ANCIENT RIPARIAN FOREST
High tree diversity and lush shrub
layer, dominated by western red cedar,
black cottonwood, red alder, Oregon
ash, bigleaf and vine maples, western
hemlock, and Douglas fir.



OTHER CHARACTERISTIC SPECIES
Pacific yew, red elderberry, salal,
Oregon grape, huckleberry,
salmonberry, swordfern (forest
understory) | cattails, willows, spirea,
sedges, skunk cabbage (wetlands) |
many thousands of wildlife species and
thousands of fungus alone!



ancient lowland
forest



ancient wetland
+ riparian forest

University District: Pre-European Settlement



[General Land Office Survey, 1860; U.S. Coast + Geodetic Survey T-sheet, 1902; Google maps, 2012.]

Ecosystem Services Provided by Historic Vegetation

PROTECT

shelter, shade, predators, clean water, safeguard from flood or drought, climate moderation

Services Today

rest

NOURISH

nutrients for plants, fungi, terrestrial + aquatic life

eat

CONNECT

corridors, density, microclimates, nutrient + water flows

commute

U-District Tree Cover Compared with Washington State, 1902



Washington Classification of Lands, 1902
[U.S. Geological Survey]



Campus, 1894 [UW Special Collections]



UW students clearing campus, 1904
[UW Special Collections]

A Pattern of Deforestation, 1895—



Current Habitat Corridors + Connections

Through decades of development, overall habitat for indigenous species has declined in the region, creating increasingly smaller patches of habitat and fewer corridors for many species to travel. This is reflected in the University District as well, where scattered green spaces can only be traversed by certain species. The current canopy cover of the U District was last estimated in 2007 at 21.7%.

Regional Habitat Flow Map



Neighborhood Context Habitat Flow Map



↔ aquatic flows ↔ terrestrial flows

Neighborhood Ecological Corridors + Habitat Flow



— U-district study area — expanded ecological study area
■ existing tree canopy ■ existing naturalized areas

The Species Allocation and Species Movement Maps illustrate the spatial distribution of areas under study that support humans, non-humans, and all locally occurring species. The area west of campus shows a lack of non-human habitat, while the main campus provides the most habitat for all species. The campus also provides the greatest opportunity for interaction between all species.

Species Allocation Map



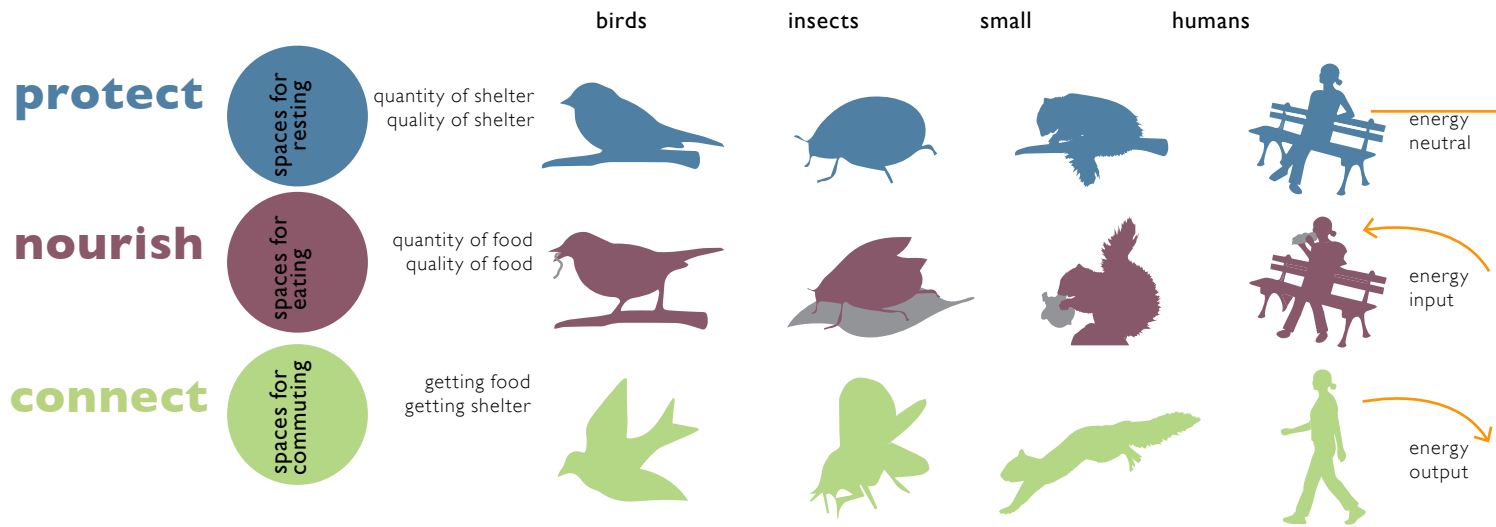
- areas primarily for human species
- areas primarily for remaining species
- areas for all species

Species Movement Map



- areas primarily for human resting
- areas primarily for resting of remaining= species
- primarily human movement
- primarily remaining species movement

Bioenergetics of Animal Life + Habitat in the University District



Scientists often study species in terms of their bioenergetics, or the flow of energy through living organisms and their environment. Organisms, including humans, expend energy searching for food and shelter, gain energy by eating, and conserve energy through safe resting spaces. Healthy organisms have a balanced bioenergetics equation, and healthy ecosystems provide equal places for protection, nourishment, and connections.

Currently the bioenergetics of the University District are unbalanced, providing mostly connections, or spaces for commuting to food and/or shelter. The main campus landscape has a more balanced bioenergetic flow, providing a diversity of energy functions including spaces for protection, nourishment, and connections. With upcoming redevelopment efforts, the University District has the potential to rebalance the bioenergetics equation.



12th Avenue



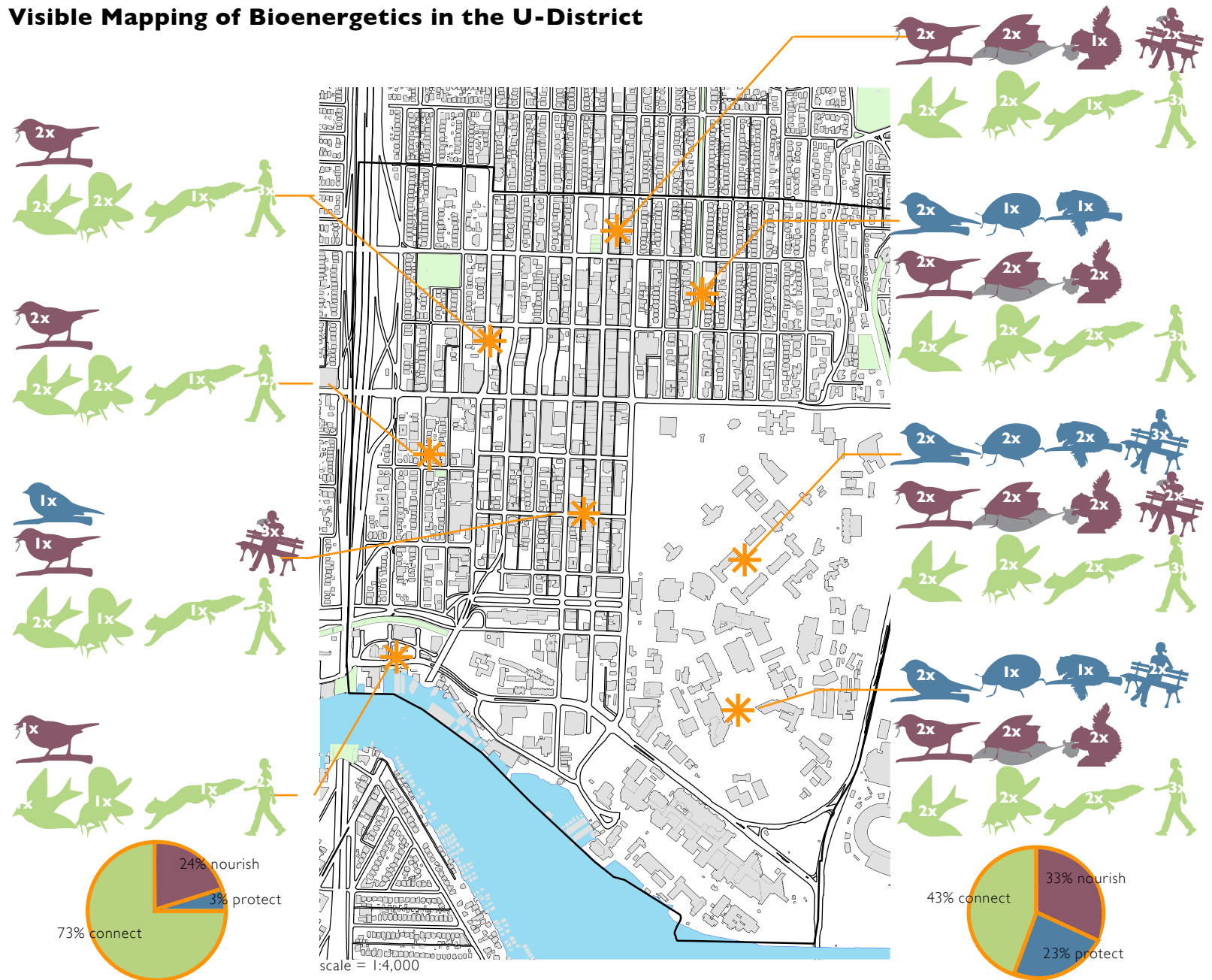
Roosevelt



current bioenergetics

potential future bioenergetics

Visible Mapping of Bioenergetics in the U-District

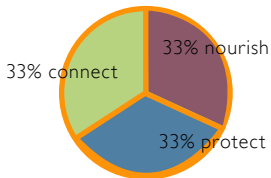


50-year Visioning Strategy for Habitat in the University District

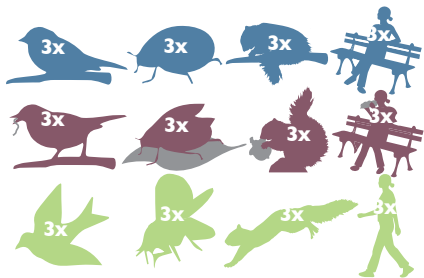
Historic ecosystem function is the inspiration for a future University District that connects, protects, and nourishes all its communities. Interim targets for canopy cover, pervious surfaces, species diversity, and linkages will guide the neighborhood's transition into distinct urban ecotones, serving as a regional model.



the U District is uniquely positioned to achieve these goals



to promote a landscape that provides ample opportunities to rest, eat + commute...



...equally for all urban + non-urban species.

goal: to foster high-functioning diverse habitats

Precedents



Thornton Creek: a degraded stream is daylighted at both residential and commercial segments [flickr.com]



The Pollinator Pathway: a corridor between greenspaces is planted to support pollinators [seattleartmuseum.crg]



The Swale on Yale: approximately 200 gallons of runoff will be filtered, and new public greenspace provided [seattle.gov]



Residential Matrix

- biodiversity microcorridor
- incentive programs for row and backyard biodiversity
- neighborhood gardening groups + block parties
- convert underutilized properties into public resting places



Campus Succession

- utilize existing building envelopes to provide ecosystem services
- maintain orderly frame + historic touch
- convert lawn into diverse plant life
- targets to make recreation areas more sustainable
- connect building + grounds to academic research + projects



Riparian Retrofit

- daylight piped streams where possible
- increase hydro function by restoring groundwater + surface water
- provide riparian buffer + biodiversity programs
- incentives programs for public space + restoration



The Core (Forest)

- convert underutilized properties into public resting places
- aim for elevated + subterranean ecosystem services + habitat creation
- incentive programs between government + commercial + residents for biodiversity
- target future light rail station + proposed greenways for initial habitat rejuvenation efforts



Shoreline

- convert bulkheads to more natural shorelines
- increase hydro function through wetland creation
- convert shoreline row + campus edges into biologically diverse public resting places

Habitat Vision Map: Connect | Protect | Nourish



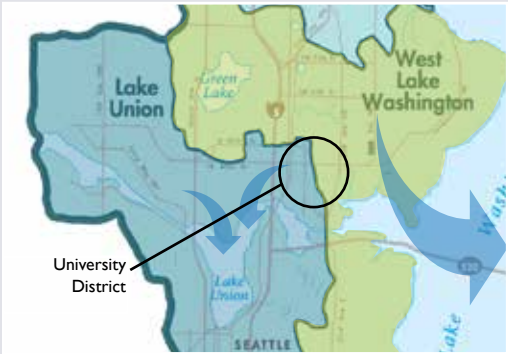
A Pattern of Reforestation 2012—



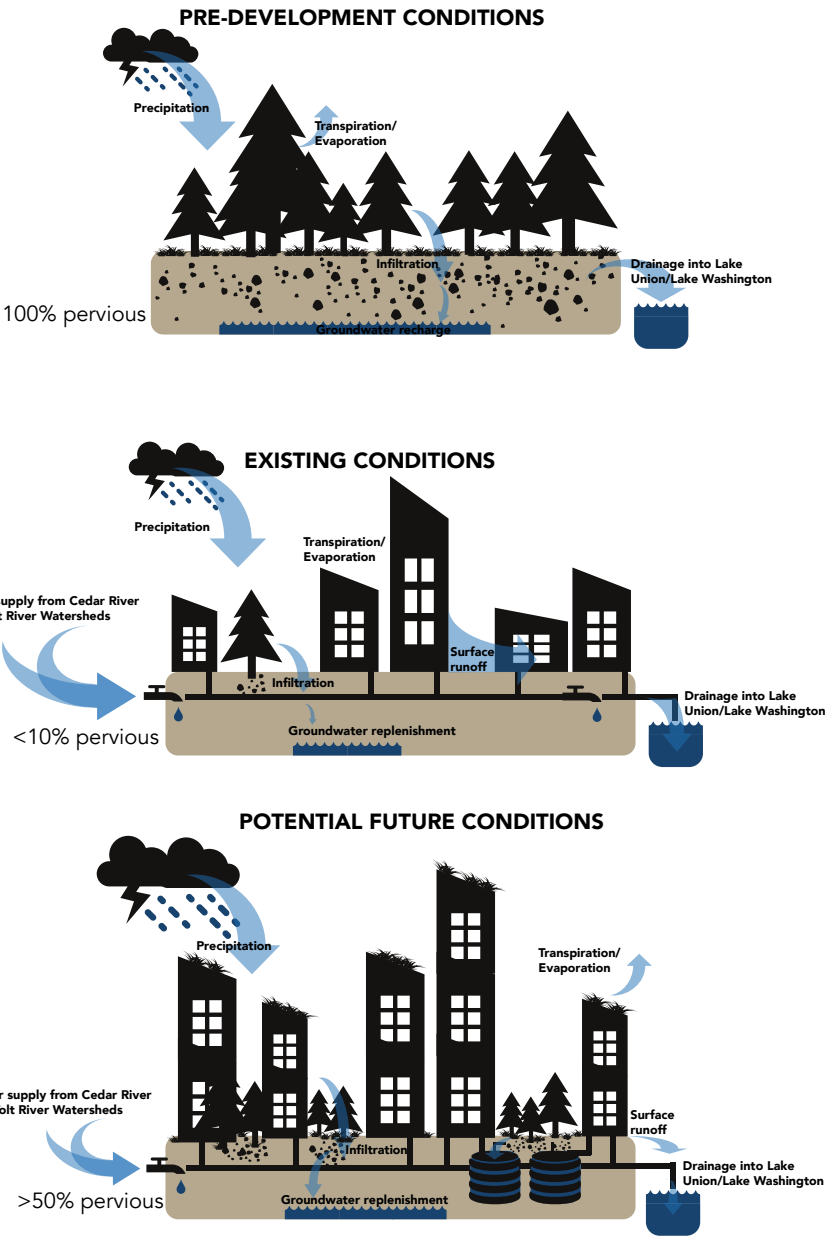
Water

Nancy Chan / Don Mac /
Malda Takieddine / Diane Walsh

Urban development has fundamentally altered the water cycle. Polluted stormwater, lack of infiltration, compromised aquatic habitat, inadequate water reuse, and lack of public awareness constitute the major challenges faced by most urban areas. The U-district spans two catchment basins with significant slopes that drain stormwater runoff into Lake Washington and Lake Union. We envision a future where pervious paving, greenroofs, greenwalls, and greenways capture and filter rainwater, where buildings reuse and store water to ease the demand on imported clean water, where the quality of water entering our waterways supports ecological health, and where people are knowledgeable of their connection to the water system. A socially and environmentally integrated approach to better water management could provide improved public space, healthy habitat, and increased access to a clean water supply.



(Top) Annual Rainfall- U District drainage basins,
(Bottom) Annual Rainfall- U District





COMMON POLLUTANTS



AQUATIC LIFE

Predators



L to R: Yellow Perch, Rainbow Trout, Prickly sculpin, Cutthroat trout

Native Freshwater Species



L to R: bladderstems Eriogonum spp., Bladderworts, Coontail, Typha latifolia

Invasive Freshwater Species



L to R: Eurasian watermilfoil, Parrot feather milfoil, Spartina anglica, Salvia aethiops

Precedents



Ravenna Creek Creek Daylighting

Ravenna Creek in Roosevelt and Ravenna neighborhoods of Seattle. 1.1km daylighted within Cowen and Ravenna Park. Daylighting began in 2006 through a partnership between Seattle Parks and Rec and the Wastewater division of King County Department of Natural Resources.

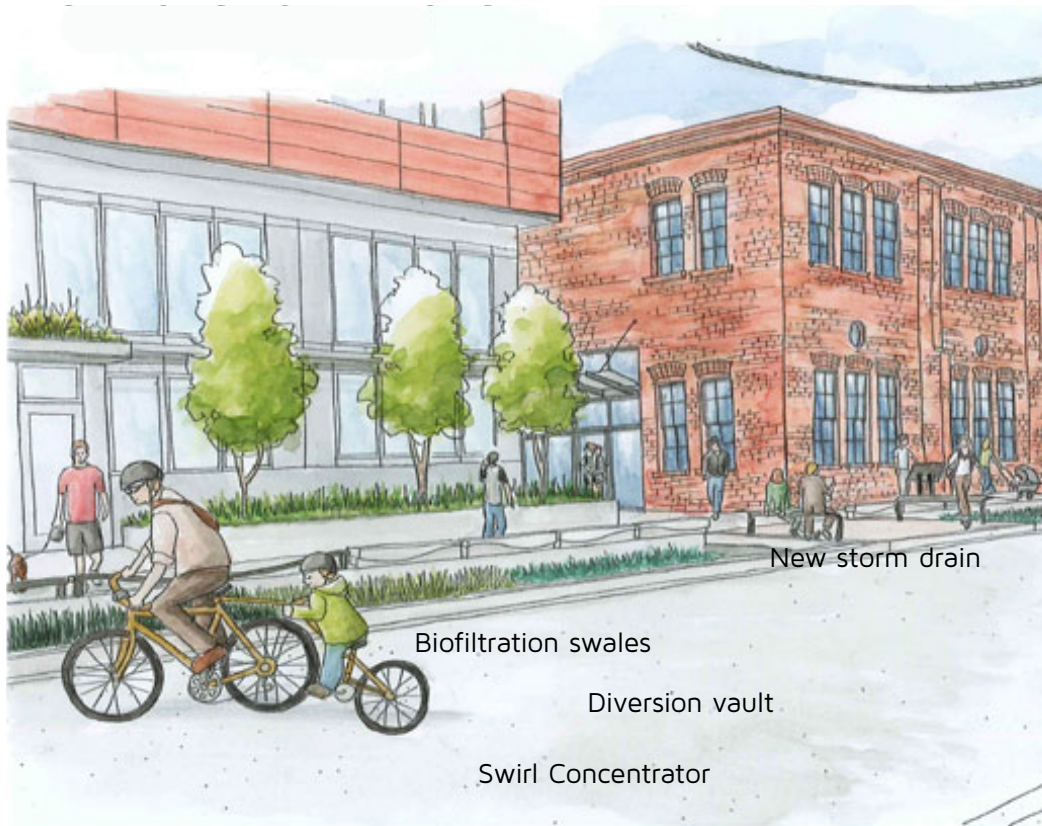
Adam Joseph Lewis Center for Environmental Studies

Oberlin College
William McDonaugh + Partners

- U.S. Dept of Energy “one of the 30 milestone buildings of the 20th Century”
- sustainable landscape : “Living Machine,” lawn with low-mow mix, wetland, orchard, and organic vegetable garden
- water and energy metering
- Zero-Energy Building, Green-Building Challenge

Shanghai Houtan Park Waterfront Rehabilitation

A “regenerative living landscape” developed on a former brownfield site on the Huangpu River waterfront in Shanghai, China. The project was led by designer, Kongjian Yu, of Turenscape and commissioned for the 2010 Shanghai Expo Bureau.



Swale on Yale

Urban Biofiltration swales

An ongoing joint project of the Seattle Public Utilities and neighborhood businesses and property owners to develop four blocks in the Capitol Hill District into an urban stormwater treatment system.



Oyster-tecture

New York City
Scape Studio, Kate Orff

- A vision for an oyster reef and park at the mouth of Gowanus Canal in Brooklyn, small pilot project currently underway
- single oyster can filter 50 gallons of water a day

Water Quality and Quantity Goals

1. Reduce water usage and sewage flow across all sectors
2. Reduce site runoff
3. Re-use stormwater, greywater and blackwater
4. Increase water storage capacity
5. Reduce pollutants entering water bodies
6. Improve aquatic ecosystem health
7. Repair existing infrastructure

Awareness Goals

1. Increase visibility of water usage/ accountability
2. Increase visibility of water cycle and water processes
3. Increase water recreation, fun, engagement

Strategies

Built Environment

- Stormwater Detention and Retention
- Infiltration
- Filtering
- Supplemental and Pretreatment Practices
- Irrigation Systems
- Green Roofs
- Building Water Capture and Reuse

Culture

- Public display water metering
- Expand Seattle Green Factor to entire U District
- Public water savings competitions
- Water-centric art campaigns
- Lake Union/Lake Washington Basin Initiative (LULWAI)
- Public / private partnership strategies

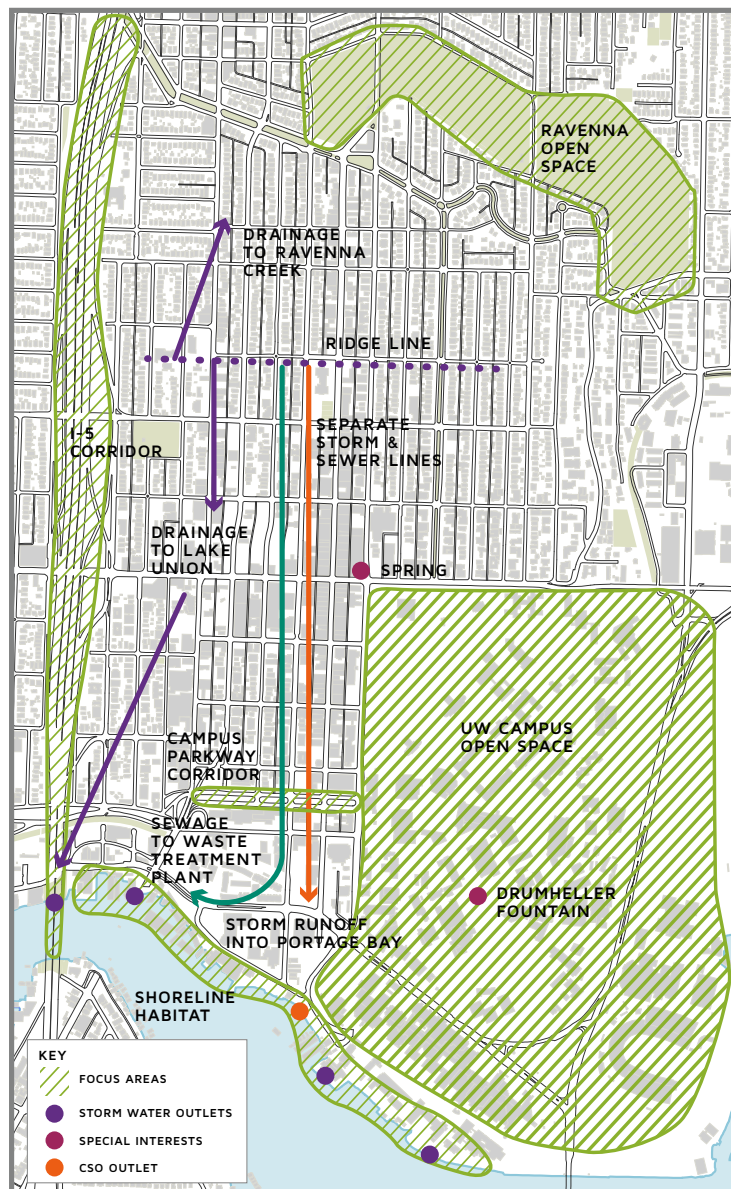
Visioning

Inexpensive First Steps

- tree strips, swales and bioretention cells
- shoreline rehabilitation
- rainwater harvesting
- infrastructure maintenance

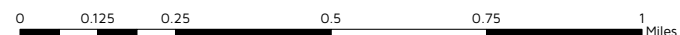
Larger Investments

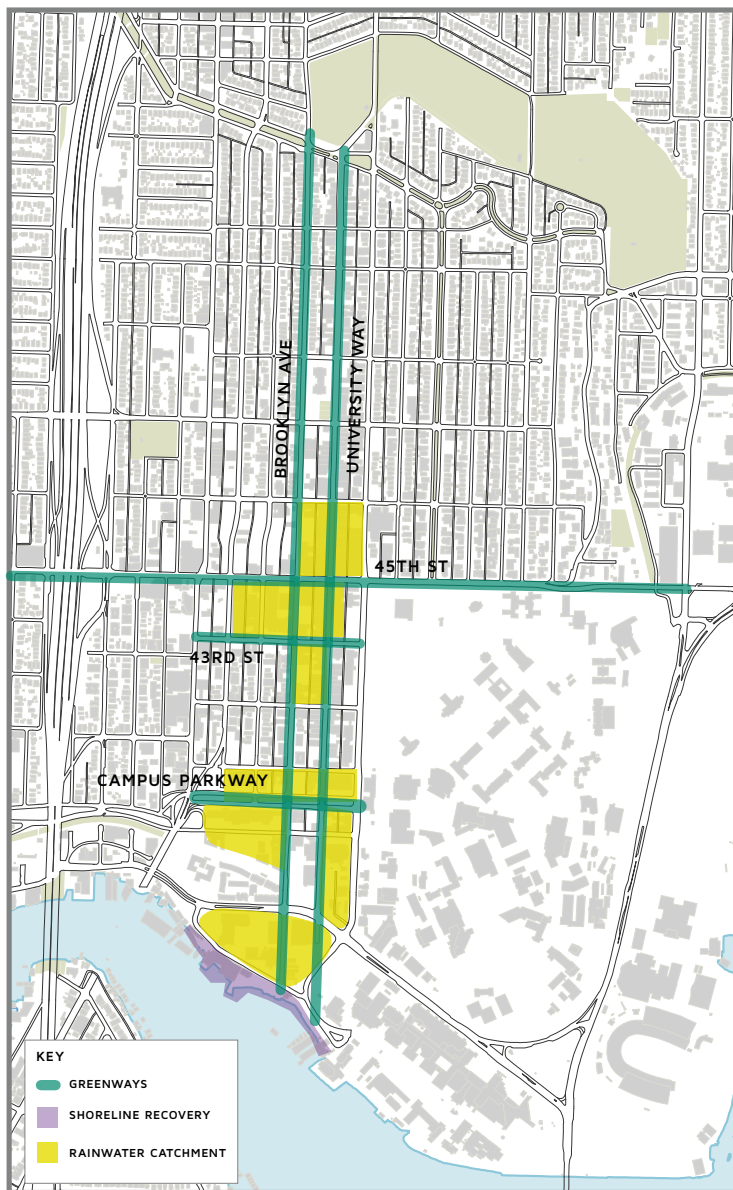
- greenway network
- green roofs and green walls
- daylight Ravenna Creek through University Village
- cisterns and vaults
- greywater systems



Water Analysis

Asset Map of University District





Blue City

University District 2062 Cost-Effective Vision



(Left Image) Inexpensive First Steps; (Right Image) Blue Sky Visioning

SOURCES

http://goodbyepagoda.files.wordpress.com/2011/12/dsc_0656new.jpg
<http://www.centerforlakewashingtonstudies.com/lnsr/pdf/LakeWashington.pdf>
<http://www.ecy.wa.org/lapps/watersheds/aquaticplants/locationsfound.asp>
<http://www.ecy.wa.gov/programs/wq/links/plants.html>
http://www.seattle.gov/parks/_images/parks/Ravenna/creek1.jpg
<http://your.kingcounty.gov/dnrpl/library/archive-documents/wlr/watersheds/cedrLKWA/pdf/cedar-river-lake-washington-map.pdf>
<http://www.kingcounty.gov/environment/watersheds.aspx>
<http://theairspace.net/commentary/oyster-tecture-fights-pollution-in-new-york-with-shellfish/>
<http://www.seattle.gov/util/MyServices/DrainageSewer/Projects/SwaleOnYale/index.htm>
<http://thenounproject.com/noun/road/#icon-No4436>
<http://www.clker.com/clipart-28167.html>
<http://roof.bz/types/shingle-roof/>
http://cmspblog.blogspot.com/2009/03/cmsps-cool-image-of-day_03.html
<http://theatreofinconveniences.wordpress.com/category/environment/>
<http://iconify.it/icon/cloud-rain/>
<http://www.easyvectors.com/browse/other/cuation-acid-corrosive-clip-art>
<http://abetterroofingcompany.com/Hot-Tar-Roofs.html>
<http://www.asla.org/stormwatercasestudies.aspx>

Student Visions

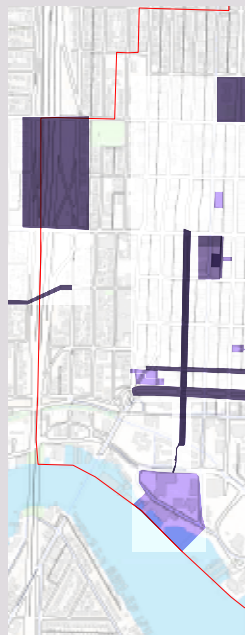
2012 Scan|Design Interdisciplinary Master Studio

The twenty-six students who participated in the interdisciplinary master studio built upon their contextual learning from Copenhagen, personal insight into the University District gained through their In Sight—In Site Installations, and their District Systems Analysis to craft their proposals for the University District. The students, individually or in small teams, chose their sites within the University District, West of 15th Ave.

They presented their initial proposals for their chosen sites at midterm reviews. The students were able to incorporate and address feedback from guest reviewers for their final presentations. Bianca Hermansen, visiting Master Teacher, helped students refine their visual representation skills via in-person and Skype lectures.

A map of their locations is depicted below with the color intensity showing more than one proposal for each site or the intersection of chosen sites.

Students were asked to address the following questions in their individual projects:



- How does it satisfy the 15 quality criteria for good public space?
- How would it achieve ecological objectives of systems such as energy, storm water and habitat?
- How does it address the historic, cultural, and social function of the district?
- How does your design relate to district, the larger city and regional contexts?
- How does the human scale read through your design?
- What design language is helping to develop the concept?

Individual Projects


bg 52

12th Avenue Greenway

Brooke Alford


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12th Avenue Neighborhood Greenway

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Prefabricating Flexibility

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Group Projects



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Kristina Gallant & Finis Ray



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The Green

Erica Bush and Angelica Rockquemore



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Graft

Betsy Anderson, VeraEve Giampietro, & Erinn Walter



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Linking the Link

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Kei Sing Yu & Hsien Ai Wang



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U-District Waterfront Park

Leann Andrews, Shu-Kuei Hsu, Jordan Lewis, & Malda Takieddine



pg 132

University Heights Hub

Nancy Chan & Natalia Chetvernina



pg 140

U Square

Emily Perchlik & Hillary Pritchett

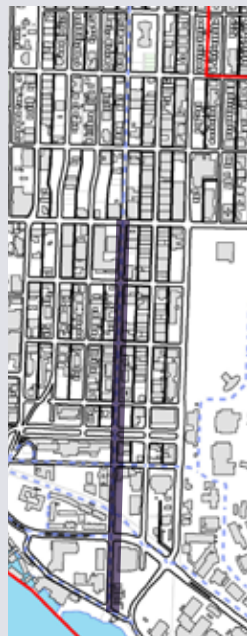
12th Avenue Greenway: Diverse Flows

Brooke Alford

The Community has a vision for 12th Avenue--to be a residential street and thoroughfare, friendly to residents, pedestrians and bicyclists, while accommodating vehicular traffic through the local region. This was the genesis of the Diverse Flows project.

Research of the habitat and ecological conditions of the University District found that the west of campus area to be extremely deficient in tree canopy and wildlife vegetation, and dominated by impervious surfaces. Furthermore, InSight research found a lack of public street life in the area and a lack of spaces for the public to gather despite the high number of private commercial enterprises. Public open space and wildlife habitat were found to be priority needs by our studio teams.

With the coming of the Brooklyn Light Rail Station, some parcels along 12th Avenue are already slotted for redevelopment. It is likely that within the next 10-20 years, the blocks along 12th Avenue, will be redeveloped to current density regulations--particularly those blocks nearest the station. This project looks at what that development pattern might look like and articulates a strategy for integrating habitat and public life into the 12th Ave Greenway in an area that will likely see the most residential redevelopment.



Diverse Flows aims to accommodate and enrich the flows of local residents on bike and on foot, the stormwater flowing south to the water and the wildlife currently lacking suitable habitat.

Ravenna Park



Photo: Autumn Netty

12th Ave: Proposed Neighborhood Greenway

Future Light Rail Station



<http://www.djc.com>

Future Waterfront Park

Existing Shoreline



Photo: Jordan Lewis



Ravenna Park



Photo: Autumn Netty

University Heights



Photos: Natalia Chetvernina

Portage Bay



Photo: Jordan Lewis

Priority Greenway Segment: 45th Street to the Waterfront

Current housing stock in the 41st block of 12th Ave



New Cedar Apts. recently developed in the 41st St block of 12th Ave

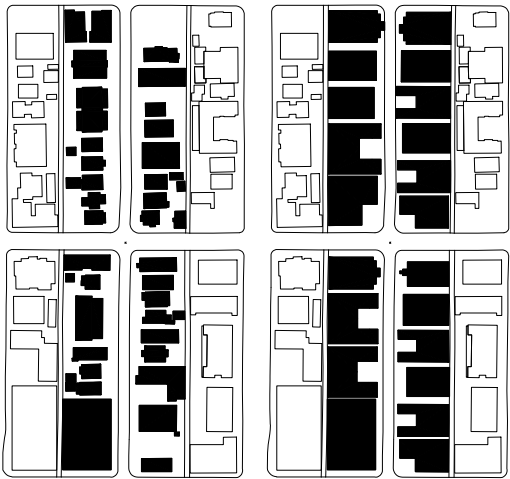


<http://f2.washington.edu>

Current traffic island at the 42nd St intersection of 12th Ave



Changing Development Patterns on 12th Avenue



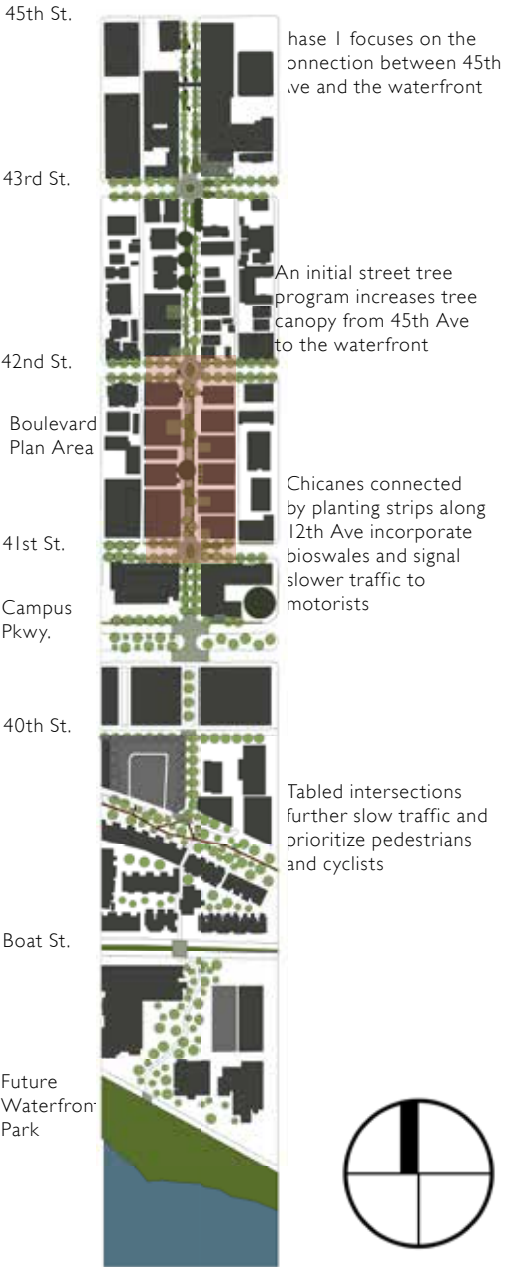
Current Development in 2 blocks of 12th Ave **Future Development in 2 blocks of 12th Ave**

Current, updated zoning code allows buildings to 60ft and reduced open space compared to past regulations. This narrow street will become a tighter valley with a much denser population. This plan proposes developing the street for local residents, bicyclists and pedestrians.

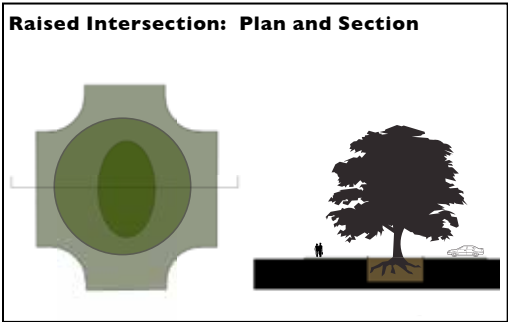
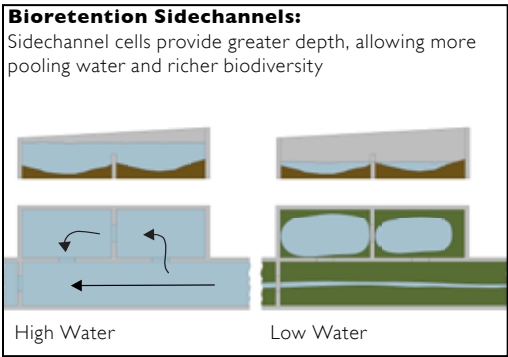
Existing trees to be protected, and emulated on 12th Ave



Proposed Greenway



Plan: A Boulevard Park for Bikes and Pedestrians in the 41st Block of the 12th Ave Greenway



Life on the Edges:

New developments are encouraged to have open space adjacent to sidewalks, adding life to the public realm

Larger parcel buildings have courtyards, providing semi-private space

Smaller parcels needing to maximize space are encouraged to compensate ground level open space with rooftop open space

Mid-sized developments utilize front verandas, stoops, or private patios and balconies as part of the open space plan

Corner developments are incentivized to have maximum corner setbacks with semi-public open space

Green Stormwater Infrastructure and Biodiverse Habitat:

Incorporated rain gardens and bioretention channels collect stormwater from 42nd St and surrounding buildings

Upland habitat gardens are incorporated throughout the public space

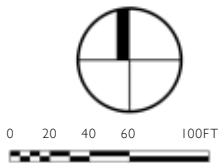
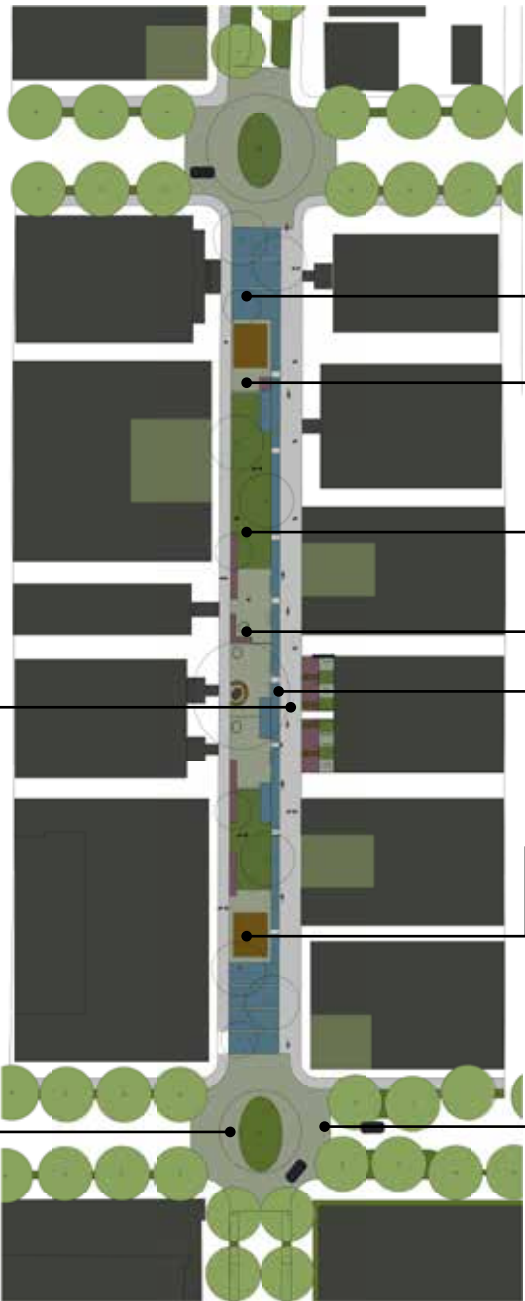
Low-mow grassy areas between paved terraces allow flex space

Terraced gathering areas use permeable pavers and include benches and tables

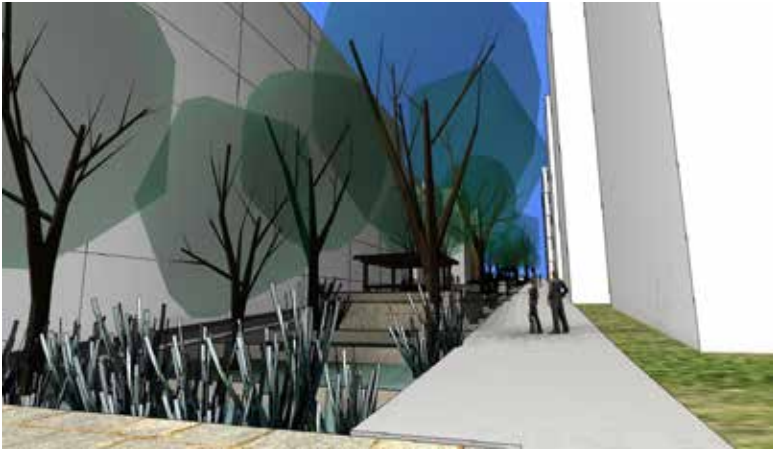
Heritage Sycamore Tree

Picnic shelters provide barbecue spaces

Raised intersections, permeably-paved, provide traffic calming; the planting areas provide tree canopy



Conceptual Perspectives



View from lower (south) raingarden, facing north



View over paved plaza

View from north picnic shelter looking south



View from south end of the plaza looking north



12th Avenue Neighborhood Greenway

Kevin Bogle

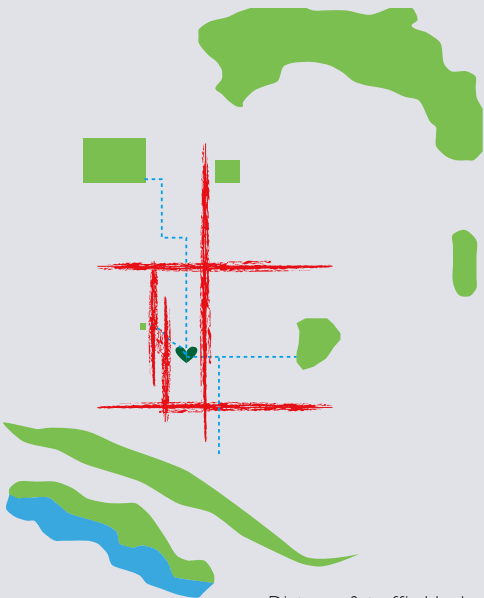
Greenway (n.): A street designed to provide a safe and welcoming bicycling and walking route.

Neighborhood (n.): A district, forming a community within a city.

12th Ave Neighborhood Greenway (concept): A corridor designed to encourage bicycle and pedestrian traffic and facilitate community engagement and dialogue.

A series of elements introduced to slow traffic and prioritize active transport cohabitate with incubator spaces, on-street seating, and gathering areas intended to increase extra-commercial public and green space within the unique four block span at the southern end of the proposed 12th Avenue Greenway.

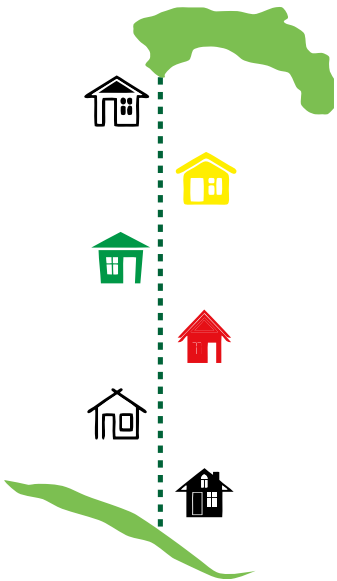
This will benefit residents of the U-District core (where only 37% of working residents own an automobile), and serve the many University District commuters from Ravenna by completing a safer, low-stress bicycling and walking route.



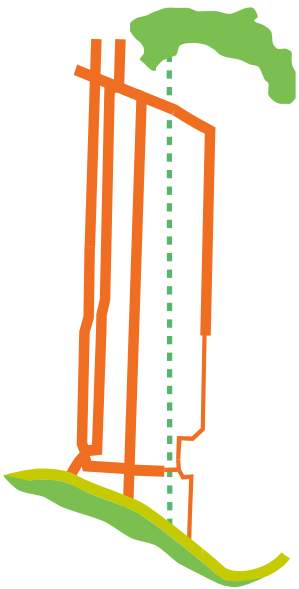
Distance & traffic block
12th Ave from parks



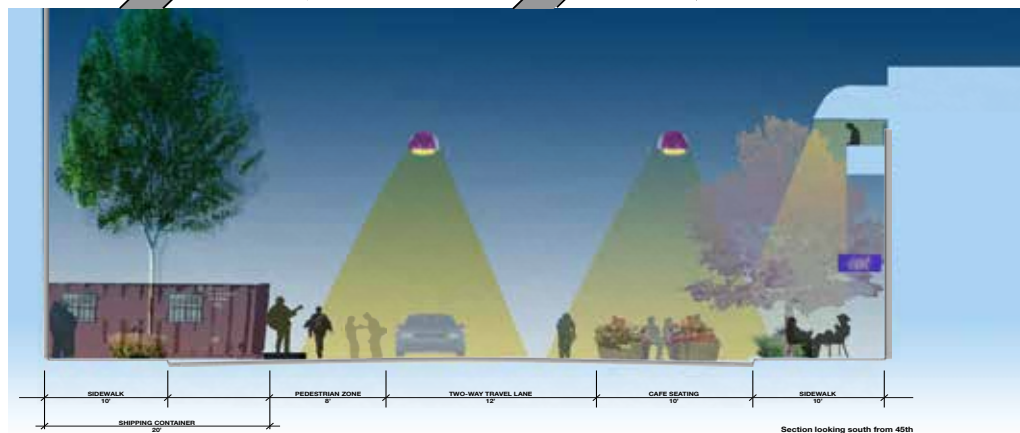
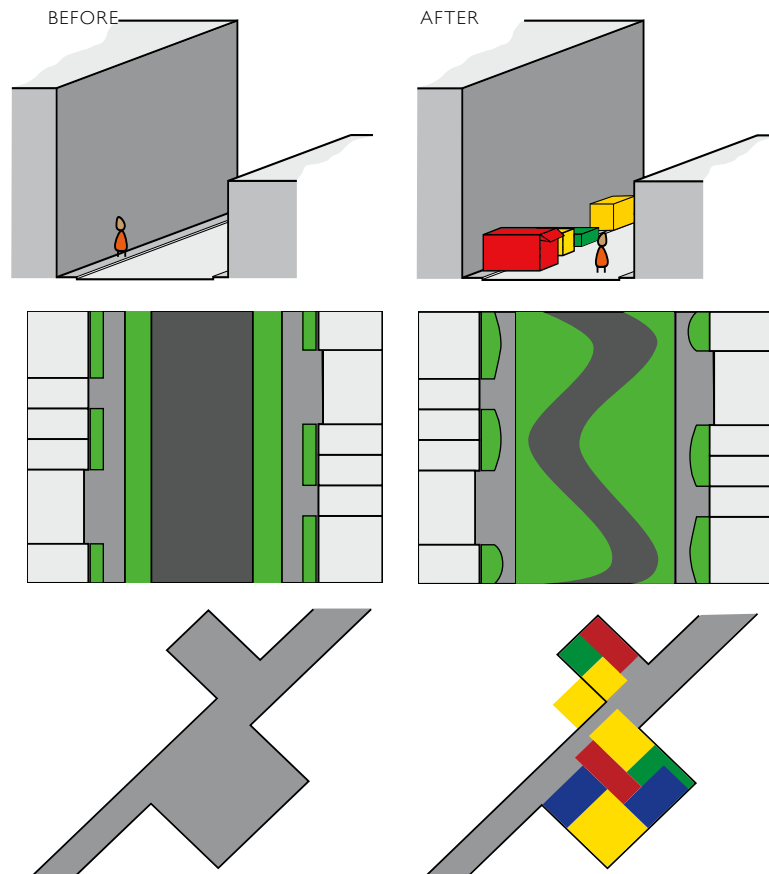
- office/commercial space
- residential
- busy streets
- park space
- 12th Avenue Greenway

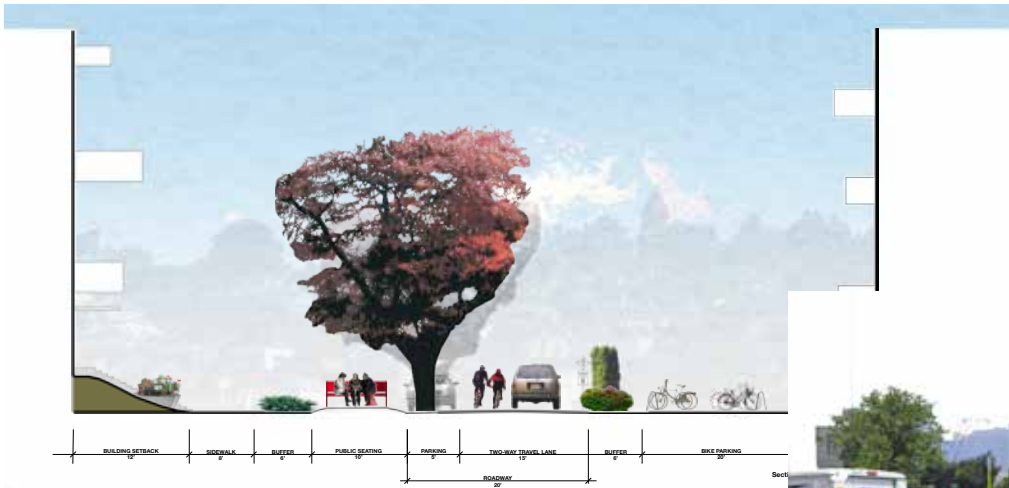


Over a mile with no street oriented retail



Current N/S bike routes on major roads





possibility for intersection of 42nd and 12th
img source: Seattle's Neighborhood Greenways:
neighborhoodgreenwayssea.wordpress.com



From an underutilized street for cars...



To a safe and inviting place for people!



Prefabricating Flexibility

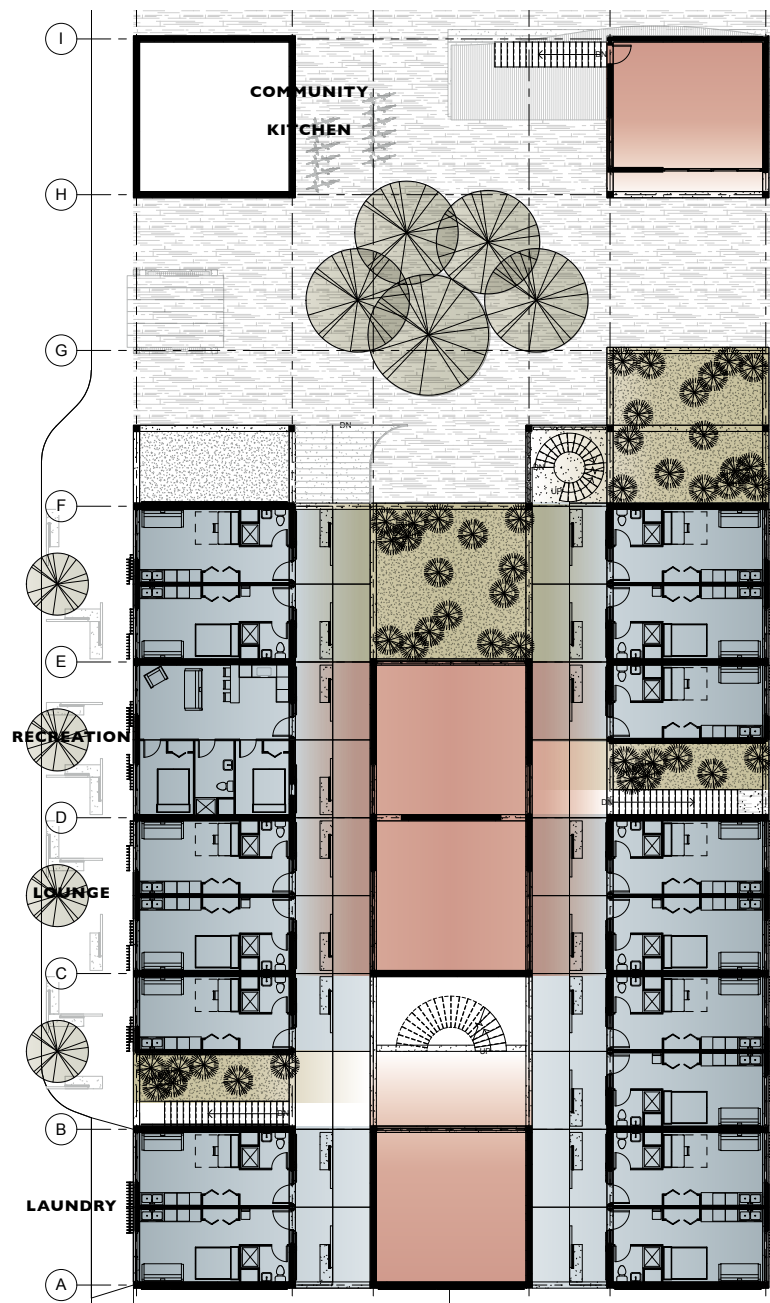
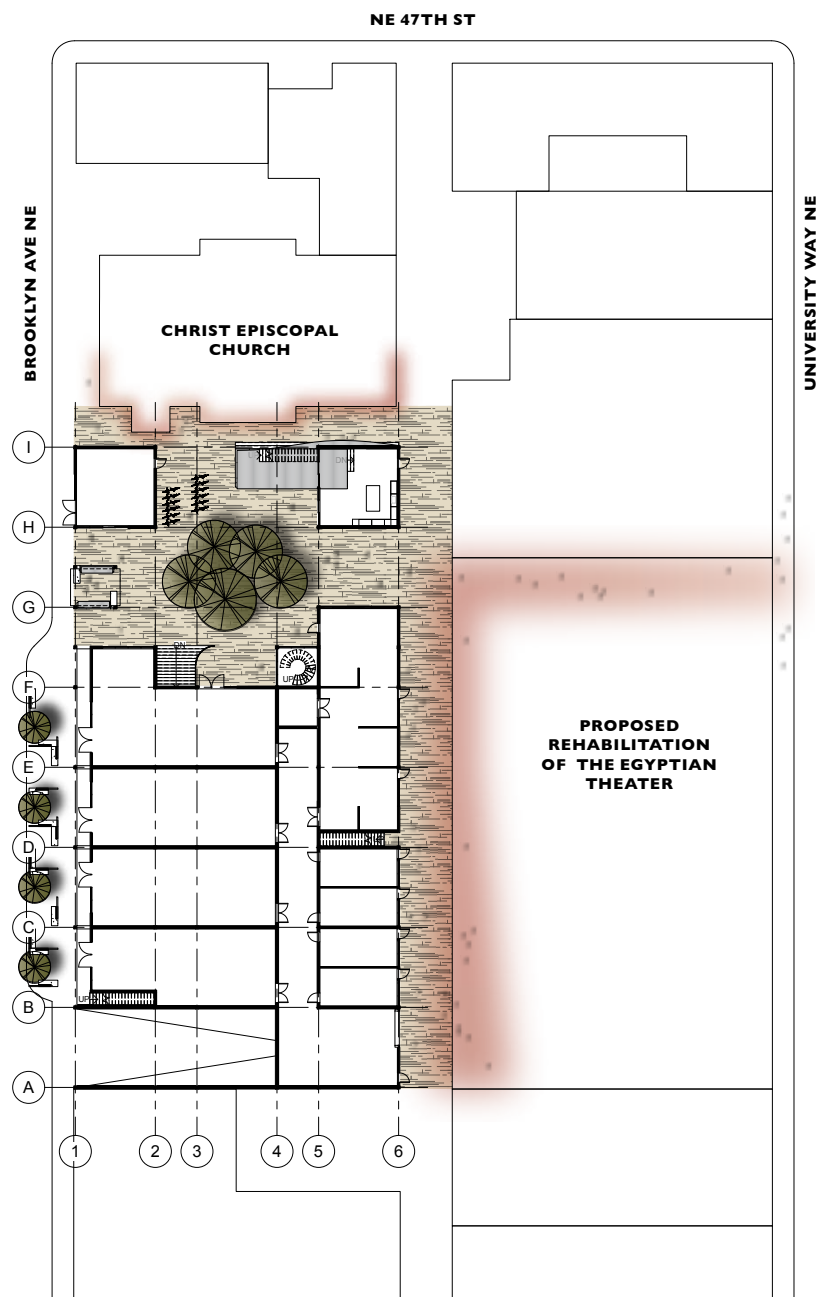
Andrew Hansen

Advances in manufacturing methods and techniques have introduced new levels of quality and efficiency to the building industry. Economical sustainability can be realized without compromising quality. Faster on-site construction, reduced waste, and favorable working conditions are all by-products of recent trends in prefabricated architecture and construction. The proposed mixed-use development utilizes a combination of precast, panelized, and modular elements to provide affordable and flexible housing options to existing and future University District residents.

Small living encourages social, environmental, and economic sustainability by consuming less, traveling shorter distances and engaging in a dense urban environment. The increasing desire to live close to the city's amenities has also brought the demand for lower cost housing options. The smaller living area equates to lower rental rates while also providing closer proximity to highly desirable amenities such as the University of Washington and the upcoming light rail station. As a co-housing community, the residents would enjoy the

benefits of communal living with ample shared amenities and services. Ground level retail, buffered from the street by seating and treescape, will add convenience, safety and activity to the street front. A below ground parking garage would be dedicated primarily to the shared use of zip cars for the residents and community abroad. The public plaza hosts communal buildings, such as the community kitchen and multipurpose space. Tying into the larger cultural community, the plaza would also facilitate a mid-block crossing that would connect through to the lobby of the Egyptian Theater if it were to be rehabilitated. Realizing sustainable living, community comes first.





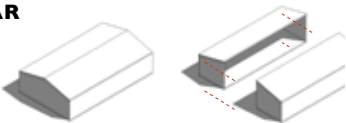
SITE BUILT CONSTRUCTION



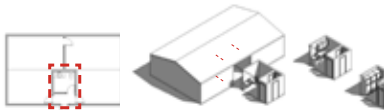
PREFAB CONSTRUCTION



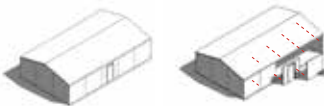
MODULAR



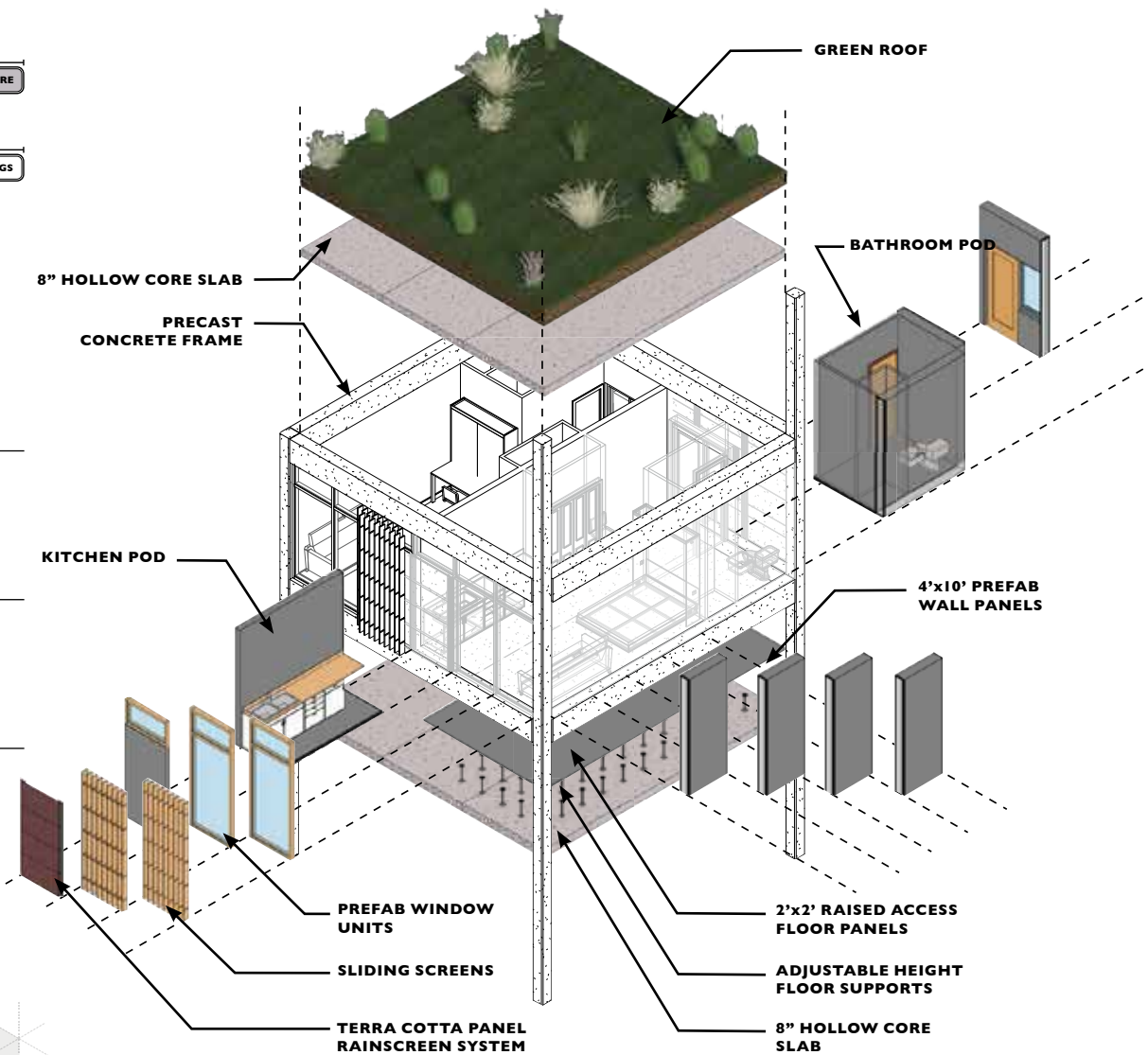
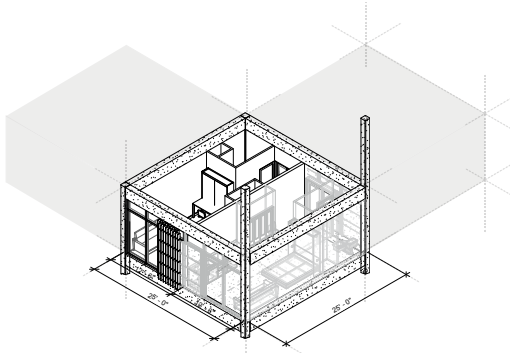
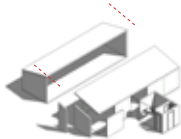
POD



PANELIZED

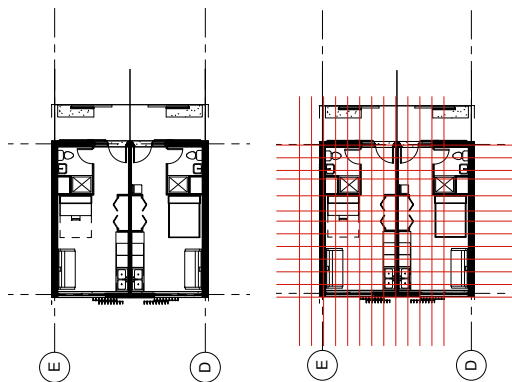


HYBRID

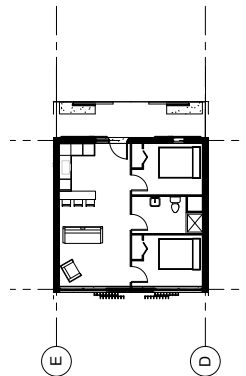


Utilizing a hybrid prefabrication method, each individual residence is composed of a kitchen and bathroom pod and adjustable partition panels. A raised access floor system enhances flexibility and facilitates the installation of partition panels. Hollow core slab sections support the floor and roof. A green roof system adds much needed permeable surface to the area and aids in water retention during heavy rains, thereby easing the load

on the city sewer systems. Sliding screens and a terra cotta rainscreen system finish the cladding on the exterior allowing an adjustable degree of solar control and weather protection. Inherent flexibility within the overall system allows multiple configurations. The precast concrete frame provides added durability.



The tartan grid frame breaks down further into a 2' x 2' interior grid within each unit. Movable sections of wall panels allow the occupant to customize their interior as needed, or join multiple units together. The raised access floor facilitates the relocation of plumbing and electrical lines, allowing greater design possibilities as functional needs change or equipment becomes outdated.



The Oval

Don Mack

Considering the U-District's abundant energy and prosperity, there is a surprising lack of park space in the neighborhood. This lack is particularly apparent on University Way, known as "The Ave", the heart of the U-District.

The first aim of this proposal is to identify an ideal park location along The Ave, a location that will simultaneously meet the goals of the University and the U-District community.

These goals include: making cross-block connections at mid-block, activating alleys, connecting the university's resources to the larger neighborhood, and increasing public open space.

This proposal targets a parcel of modest size, to minimize the budget and maximize the benefits of public space investment.

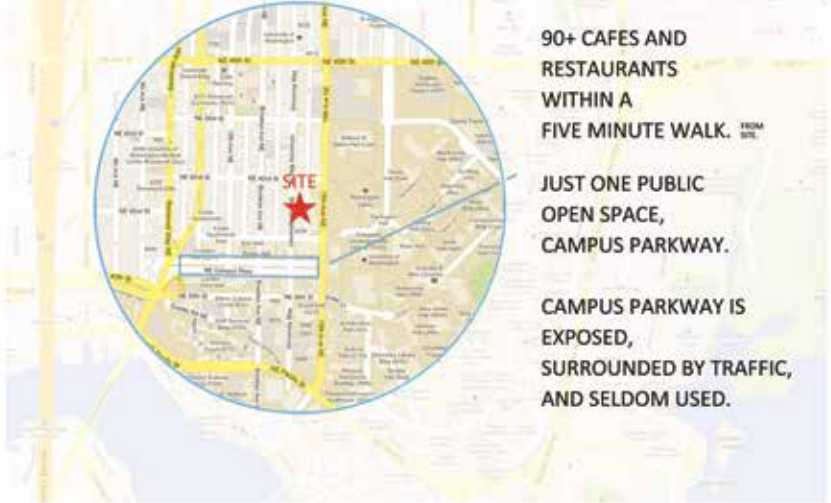
The Oval satisfies these intentions and more. The two greatest strengths of this U-District Site Vision are the analysis that helped identify the site, and the design's

potential to stitch together and amplify the functions of adjacent assets.

Affirming its immediate context, The Oval creates outdoor gathering places that mesh with existing food establishments, makes a cross-block connection at mid-block that carries through to 15th Avenue, and leverages the location of UW's School of Social Work, transforming an existing small storage building into an outreach laboratory for the School of Social Work.

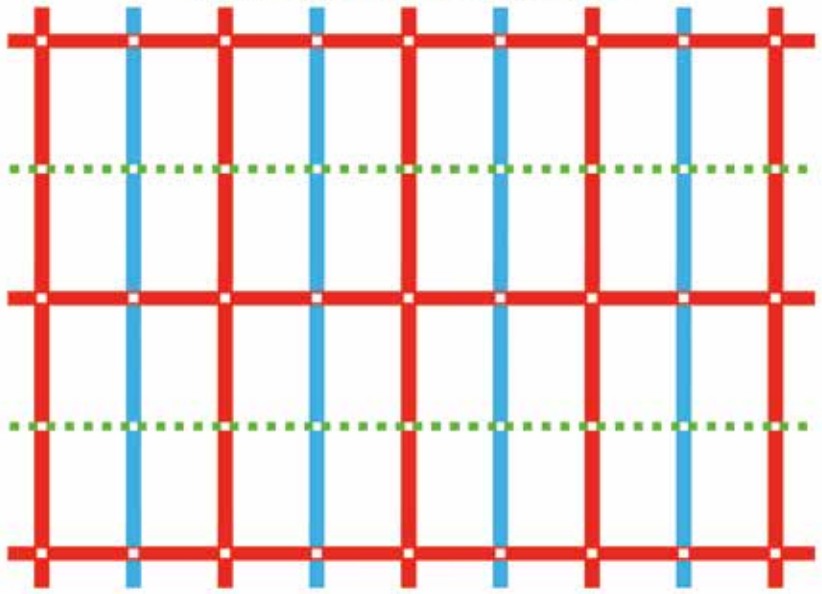


SITE CONTEXT- U DISTRICT



U DISTRICT GOAL-

Create **Mid-Block Connections** between **Streets** and **Alleys**



U DISTRICT GOAL- ACTIVATE ALLEYS



EXISTING EATERIES
WITH OUTDOOR
GATHERING SPACE-

(7 FACING ALLEY,
2 FACING STREET)



SPACE DIRECTLY
ACROSS ALLEY
FROM SITE

(GOOD BOOKEND
ON OTHER SIDE
OF ALLEY)



ALLEY ACTIVATION
OPPORTUNITY!

(ICHIRO TERIYAKI
RESTAURANT
ON SITE)



POCKET PARK
OPPORTUNITY IN
CURRENT
PARKING LOT

(PARCEL ASSESSED
AT \$950,000)

SITE ALLEY BLOCK CONTAINS NEARLY HALF OF ALL OUTDOOR CAFES IN DISTRICT

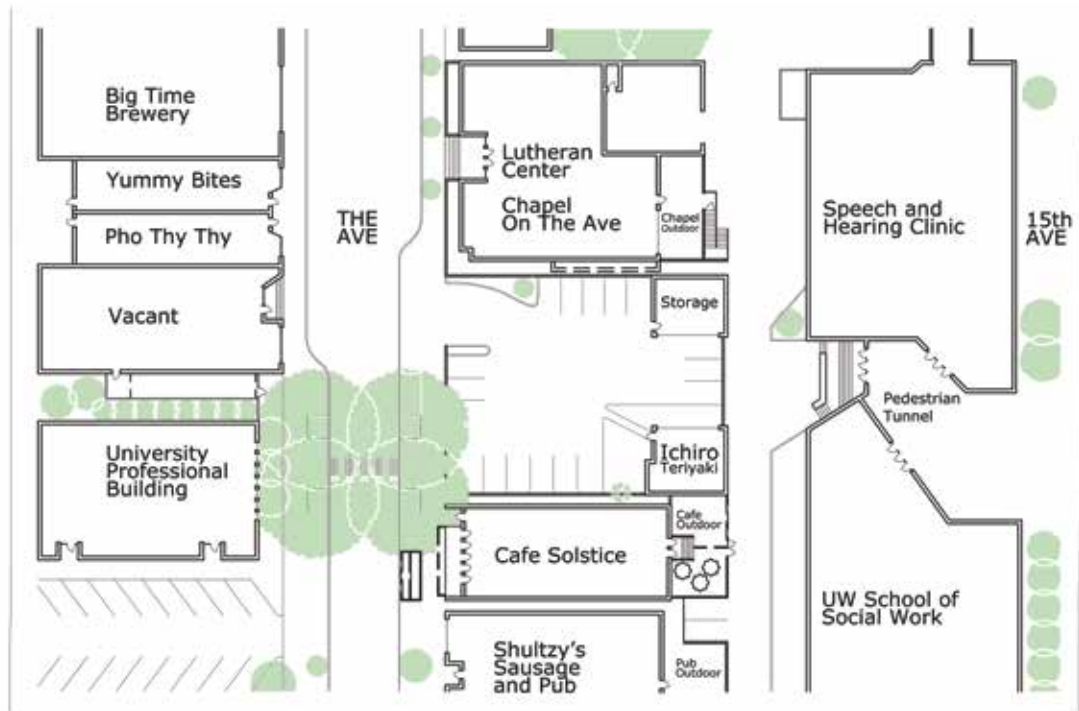
IMMEDIATE SITE CONTEXT

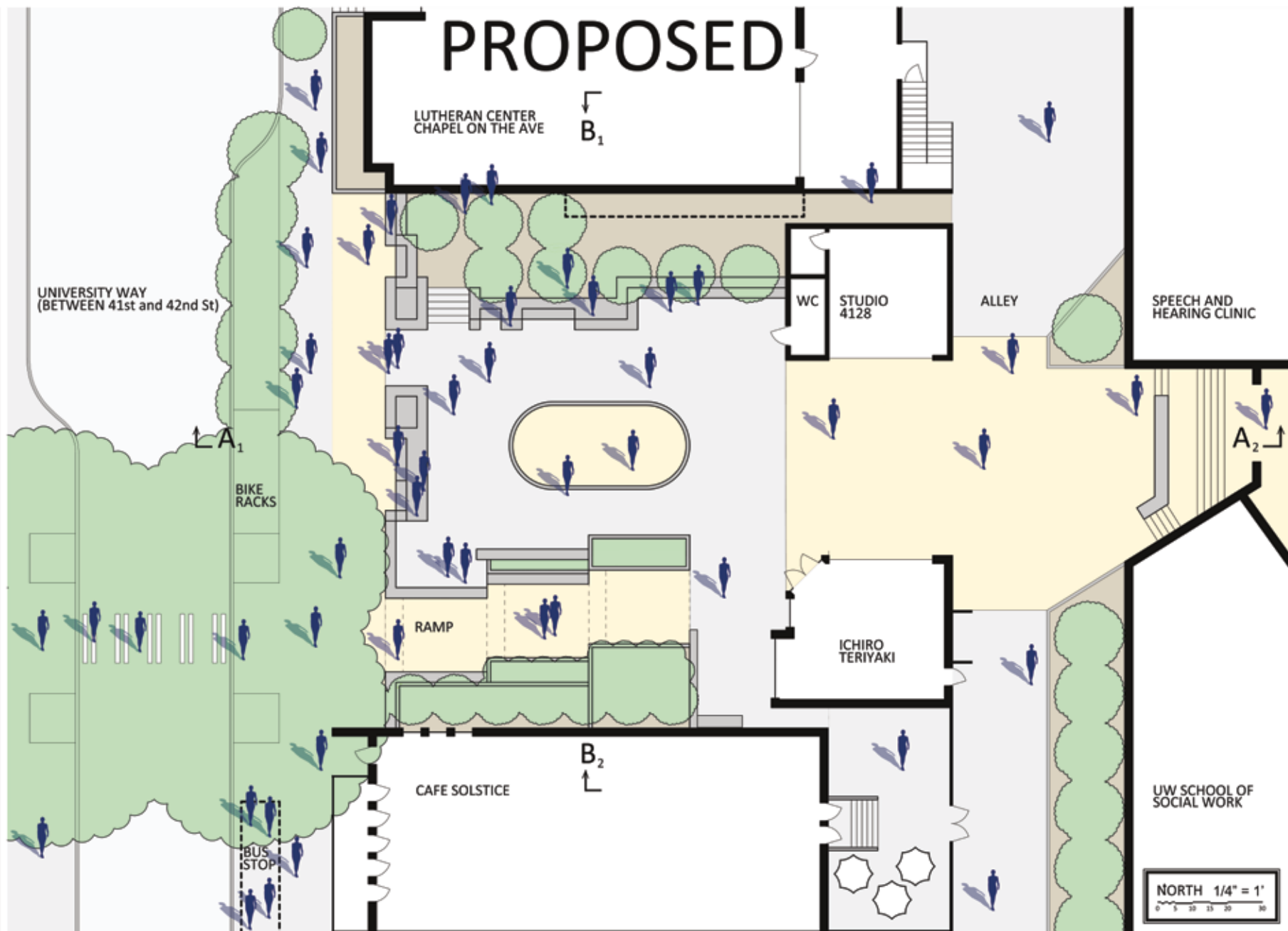


THE WALL...



EXISTING





Pedestrian Priority & Protection at University Light Rail Station

Mike Schwindeller

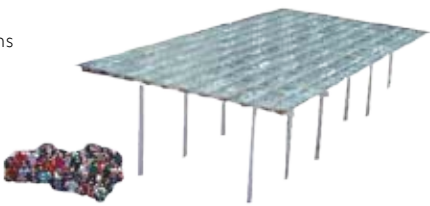
This design establishes a typology for the streetscape and active public space that facilitates interaction and negotiation between divergent populations and forms. The standard hierarchy of sidewalk and street, vehicle and pedestrian, is blurred. Public life is nurtured by prioritizing the protection of people from vehicles and the elements. These are key elements to successful public space promoted by Gehl Architects.

The spaces created go beyond protection. Designed to be open, flexible, and permeable, they are able to accommodate a variety of activities and events. These nodes are situated along a curvilinear spine that breaks the rigid city grid, providing a choice of invitations to congregate and even play in a variety of conditions and situations. The network of glass canopies along the spine function to protect people, mitigate the imposing scale of the block and UW Tower, as well as foster dynamic and passive interaction. Recreation and people watching are primary activities throughout the site.

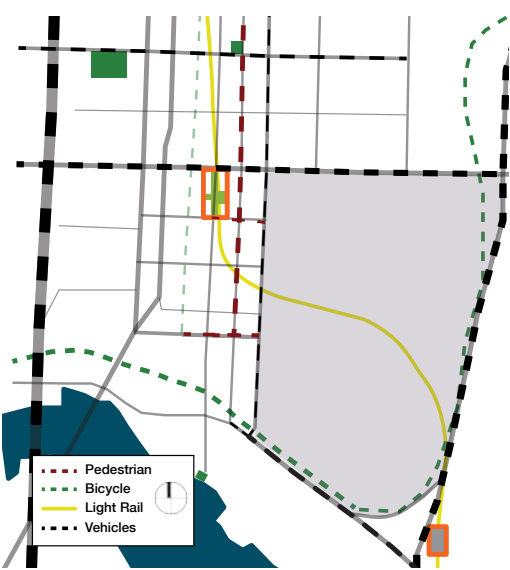
Existing Conditions



Protect Pedestrians
Address Scale
Activate Space



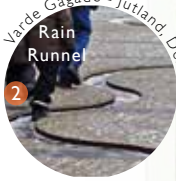
District/ Context Map



Precedent
Director Park - Portland, OR

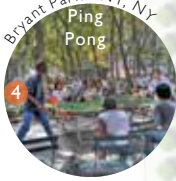


Terraced Bioswale
1 with Weirs & Retention Pond



Retail
Access Ramp

Brooklyn Ave NE



Flat 6" Granite
Cobblestones



Ground Level
Planter Cut Out
with Steel Edge



Performance
Stage

NE 45th Street

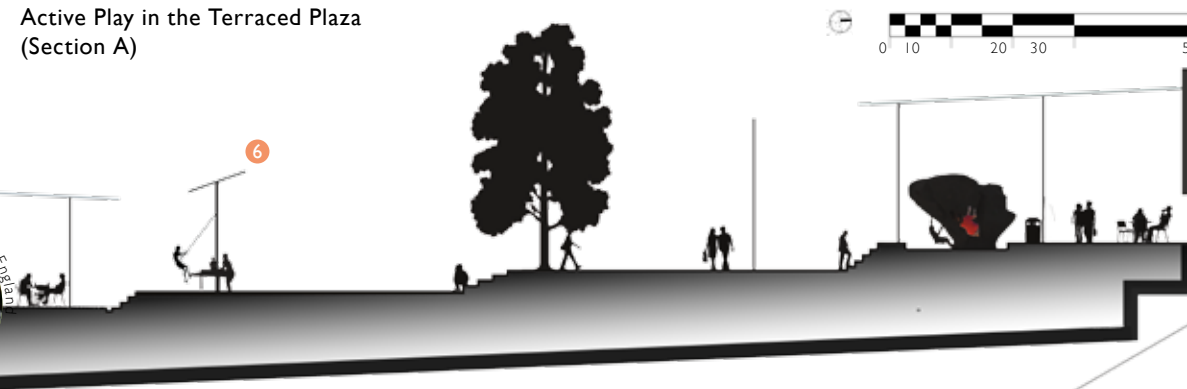


Rooftop
Bar/Terrace



Active Play in the Terraced Plaza
(Section A)

Mid-Block
Connection



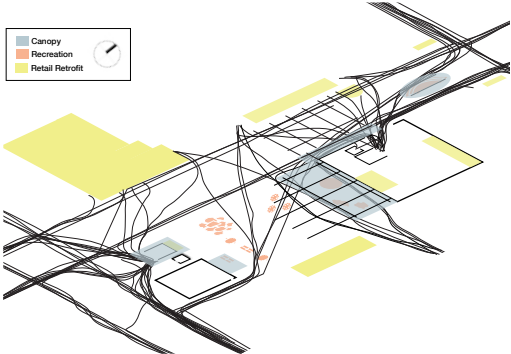
Boulder
Field



Pedestrians and Vehicles Negotiate Space (Section B)



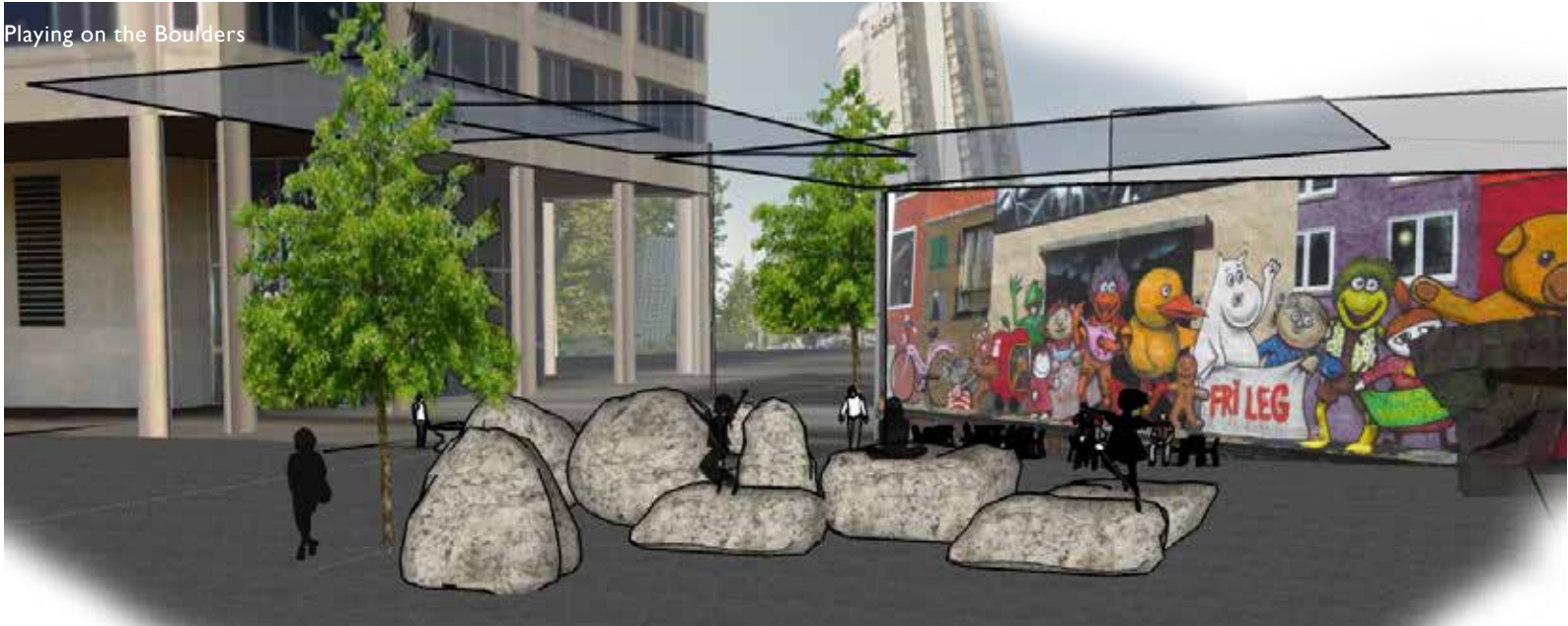
Spatial / Movement Diagram

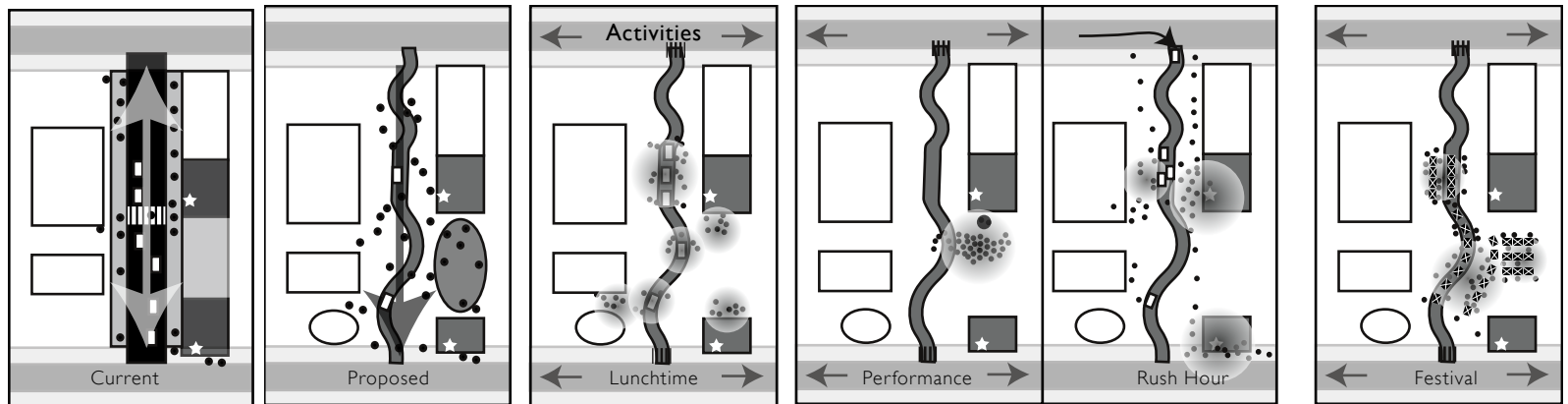


(Left) The streetscape is transformed into public space with slow-moving traffic permitted south bound during rush hour. It can be closed to traffic for lunch and events.

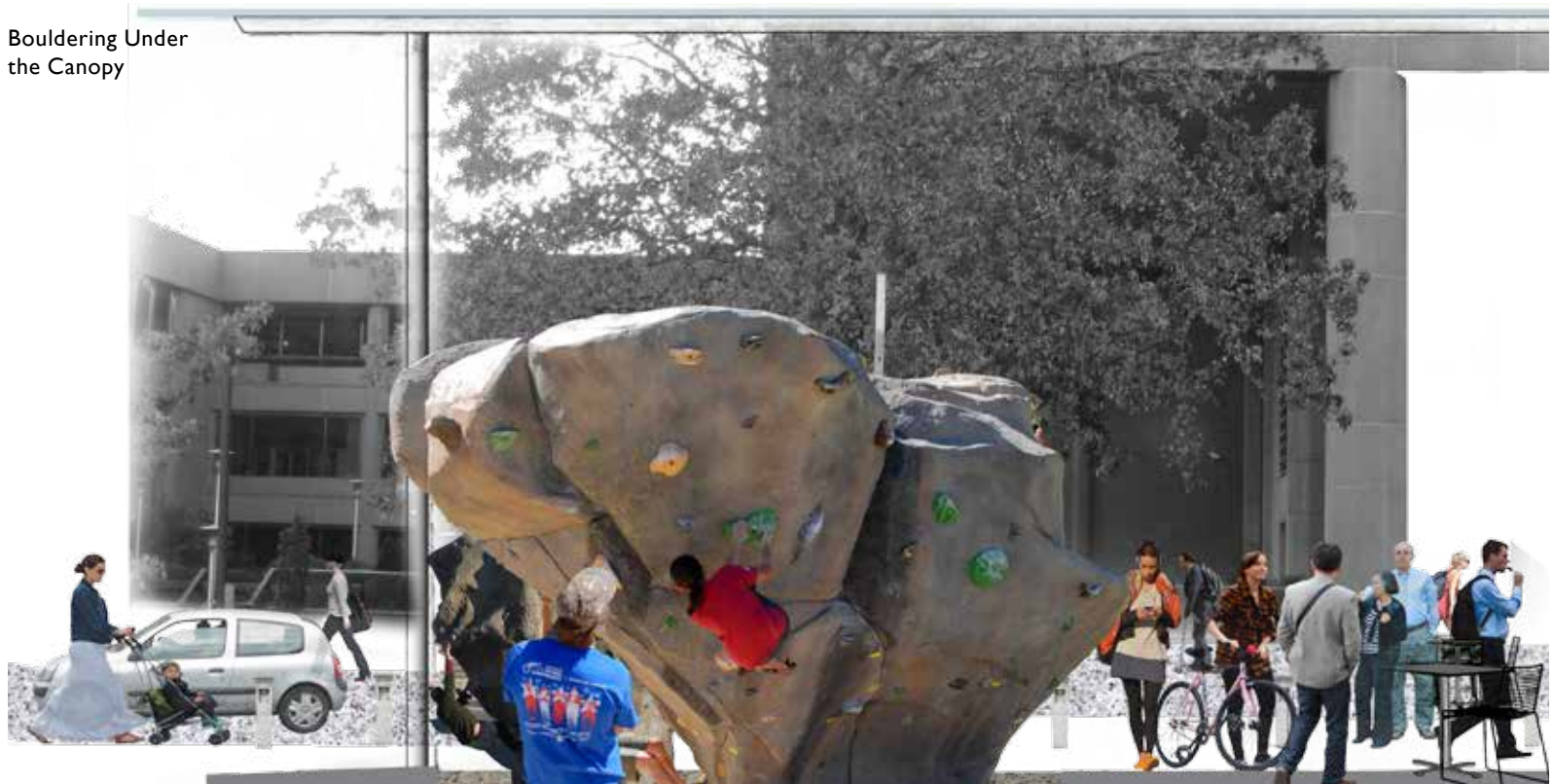
(Below) The scale of the UW Tower is mitigated by the canopies while a diversity of invitations to stay, watch and play activates the space.

Playing on the Boulders





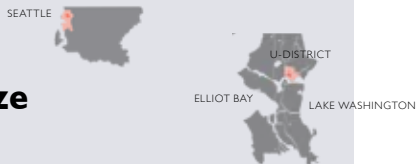
Bouldering Under the Canopy



F&A

Fragmentize and Animate

Yu-Ting Lin



The planned zone is located in U-district, and I focus more about the Condon Hall and the outdoor space around the building, and the environment between NE41ST and the new dorms. Dealing with the edge and the connection between campus and community, indoor and outdoor, trying to create a soft edge and comfort environment for ALL people.

1. Other relative plan

- ☐ Pedestrian
- ☐ Park



2. The role

- ☐ Edge
 - campus - community
 - park - building
 - building - building

- ☐ Centre
 - dorms around

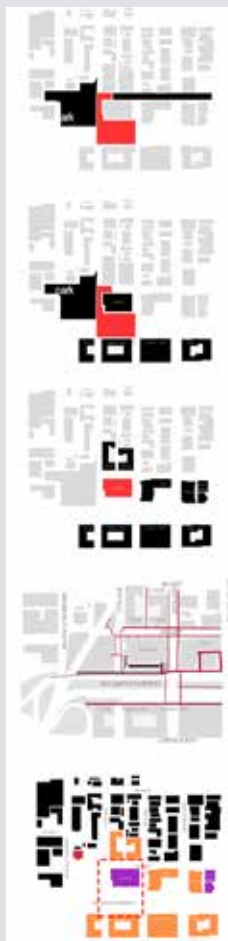
1. Retaining walls

- no connection between Indoors and outdoors
- ☐ View obstruct
- ☐ High retaining walls
- ☐ Unfriendly pedestrian

2. Institution for students and staffs

- no people here at night, in vacation and on the weekends.

- site
- community
- store
- institution
- dorm



What role it should be

- ☐ Good connection
- ☐ Public building for all people
- ☐ Safety - view penetrate
 - lighting
 - more people
- ☐ Human scale



SOFT EDGE

But now...

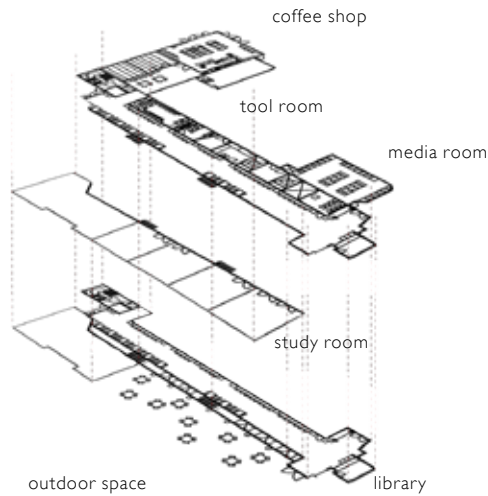
- ☐ Limited by the boundary
- ☐ Building just for students and staffs
- ☐ No Safety - view obstruct
 - lighting is not enough
 - no people
- ☐ Not human scale
 - high retaining walls
 - unfriendly pedestrian



HARD EDGE



Axon



Goal

It is an important area for ALL people, including students, residents, staff, and homeless. ALL the person could use and share this space.

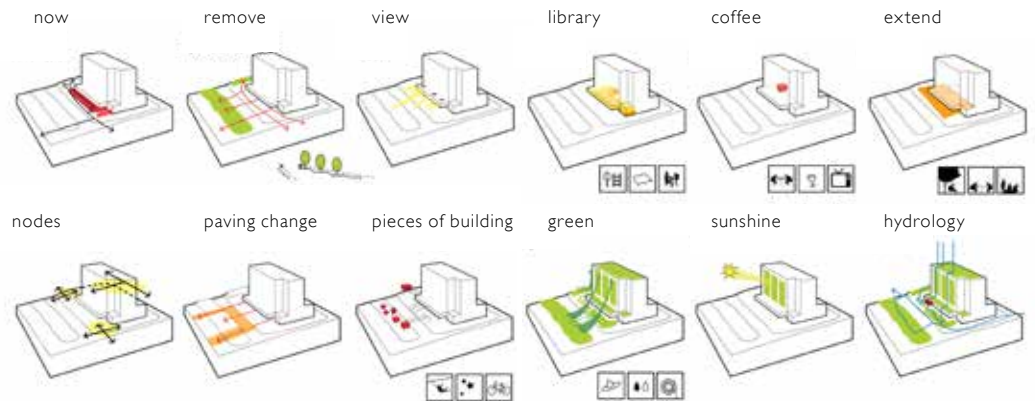
Providing more activities here, including coffee shop, bench area, big plaza, community library...

Proving different kind of spaces, quite space, animated space, private space, open space..

Combine a book library with tools. Library provides a wide variety of tools, training, and sustainable resources for all people.

Permaculture for producing and filtering, it could provide for low-income and homeless. The library provide indoor learning by seeing the process of cultivation and filtering, this place also could be an outdoor learning for people.

Tree house (the pieces of building) not only for people sleeping, relaxing, seeing the stars, it also for creatures be a home. To create an ecotone here.



Site Plan

1. Materials & stuffs (recyclable)building
2. Stair
3. Grass slope
4. Outside reading area
5. Inside reading area
6. Grass
7. Big plaza
8. Bench area
9. Sculpture columns
10. Street side cafe
11. Linear square
12. Bike rental station
13. Outdoor Teaching -filtering sculpture
14. Permaculture
15. Stair
16. Paving change
17. Wheelchair Ramp
18. Shrubs
19. Decks area
20. Path way

F&A

Library :

The community library provide for all people.
Based on the distance to the other libraries and the permaculture.

Combine a book library with tools. Library provides free, community access to a wide variety of tools, training, and sustainable resources.



Tree house : for people and creatures

Before



After

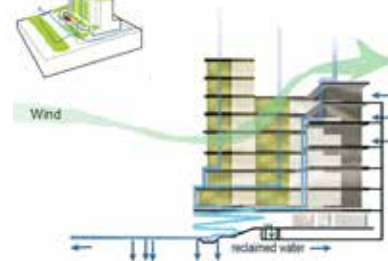
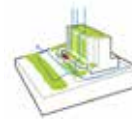




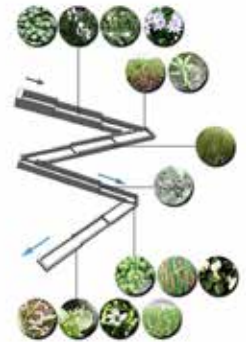
Outdoor Teaching : Filtering Bridge - filtering wastewater

Design 6~7 filtering phases using differences in height. Main wastewater in this area is divided into life wastewater and miscellaneous wastewater for filtering for different plants.

A filtering sculpture with demonstration and educational properties may filter rainwater and part of recycled water. Sculpture material is reinforced glass and different plants are planted, and also use glassily wall, so people on and under the bridge may directly see how the water is filtered.



Collect rainwater from the roof and collect gray water from community to the garden and recycled water treatment system.

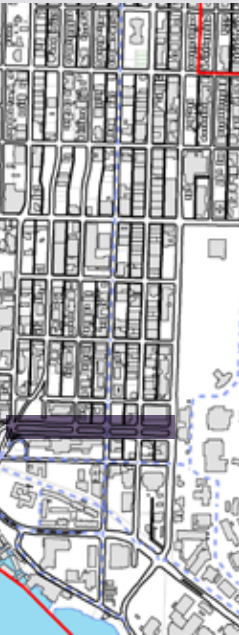


Reinventing Campus Parkway

Kristina Gallant and Finis Ray

Campus Parkway was originally envisioned as a grand entrance to the University. However, its axial orientation is weakened by barriers to the east and west, with large spaces in the middle that feel gaping and lifeless rather than monumental. Our design strives to restore Campus Parkway's glory as entrance to the University while endowing it with a vibrant street life. Toward this end, we propose removing the northern half of Campus Parkway, redirecting all motor traffic to the southern lanes. This will be reinforced by new cycletracks and a streetcar line connecting the neighborhood to downtown Seattle.

We proposed restoring a direct connection to campus by carving stairs out of the face of the Henry Art Gallery and removing the existing pedestrian skybridge. At the new fountain at 15th & Campus Parkway, students will meet before classes to chat, people watch, and catch the occasional sun break. Here, the University and University District begin to blur.



2 COMMERCIAL INCUBATOR SPACES

Small, flexible commercial spaces should be developed in the space of the former medians. These spaces will serve as incubators for new businesses, in partnership with the University and/or community organizations. These buildings have been oriented as to create small defensible spaces outside storefronts, where shop interiors can spill out. In addition to giving shopkeepers flexibility, this will make facades that are more engaging on the pedestrian scale.



CAMPUS PARKWAY PLAN AND PUBLIC LIFE AMENITIES

4 OUTDOOR THEATRE

5 MEETING FOUNTAIN

3

6

5

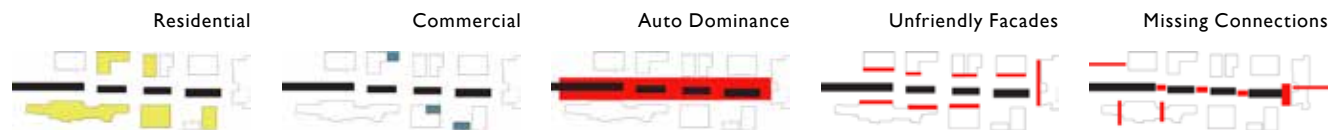
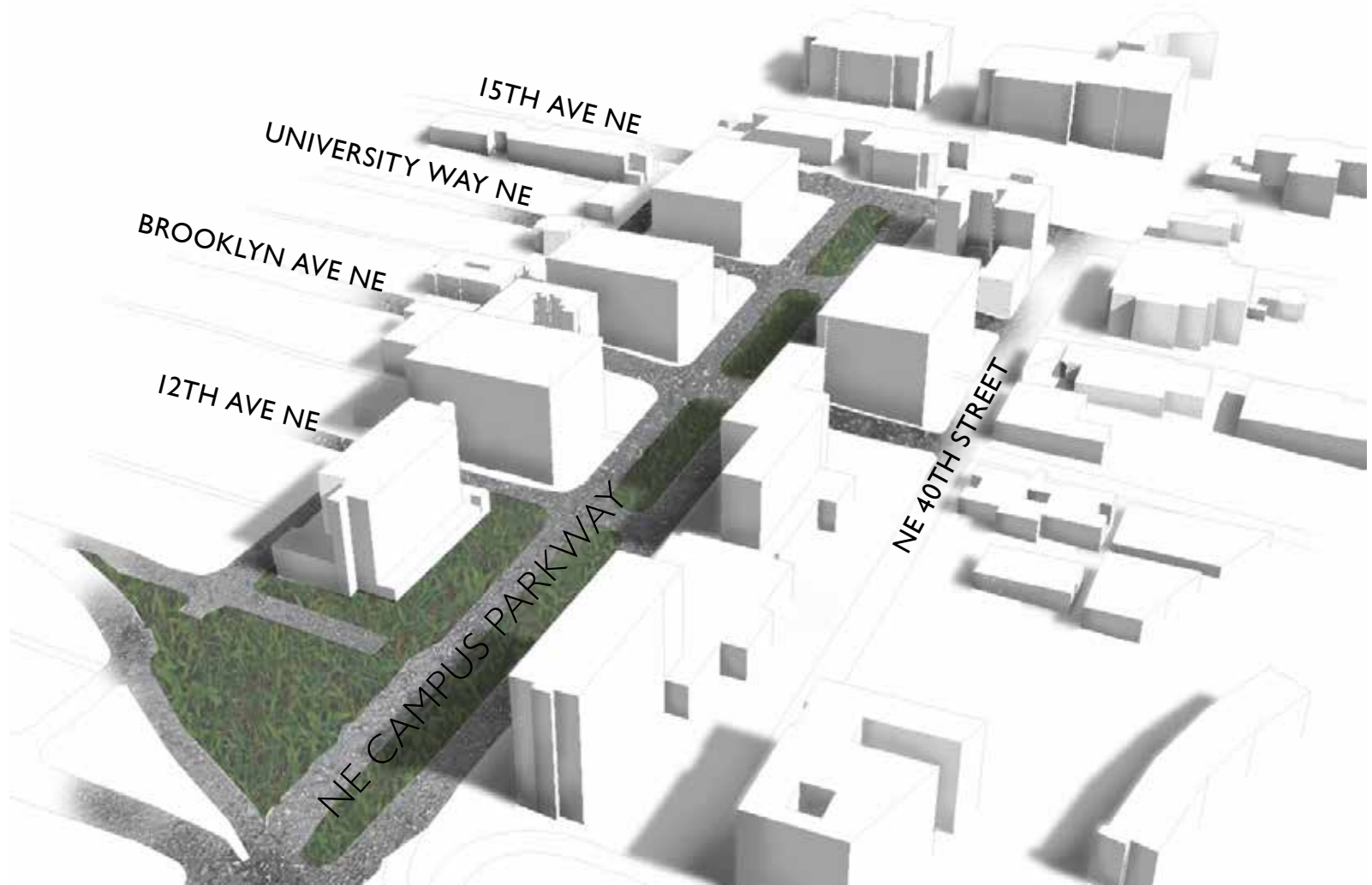
3 BIKE SHARE PROGRAM

6 PING PONG TABLES

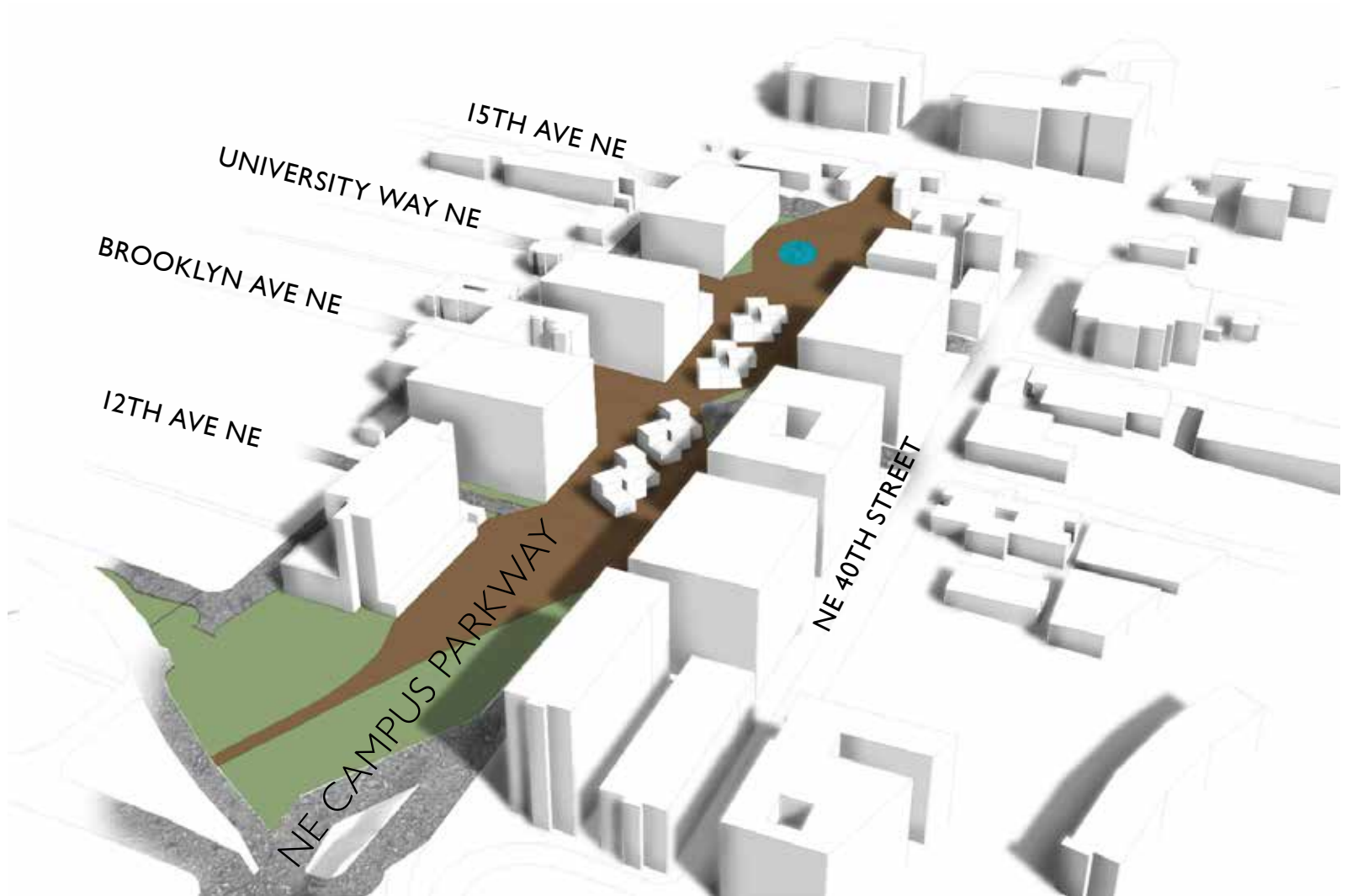
The diagram is a site plan for a campus parkway. It features several building footprints, some of which are white and others grey. A red dotted line runs horizontally across the middle of the plan. Amenities are numbered 3 through 6. A large circular inset at the bottom shows a 3D rendering of a street scene with a red tram, a cyclist, and pedestrians.

Reinventing Campus Parkway

EXISTING CONDITION



PROPOSED REMEDIATION



Residential



Commercial



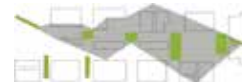
Pedestrian-Scale Streets



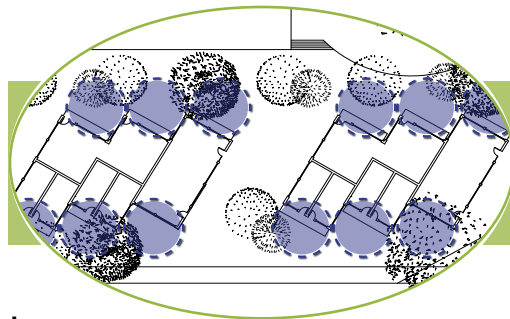
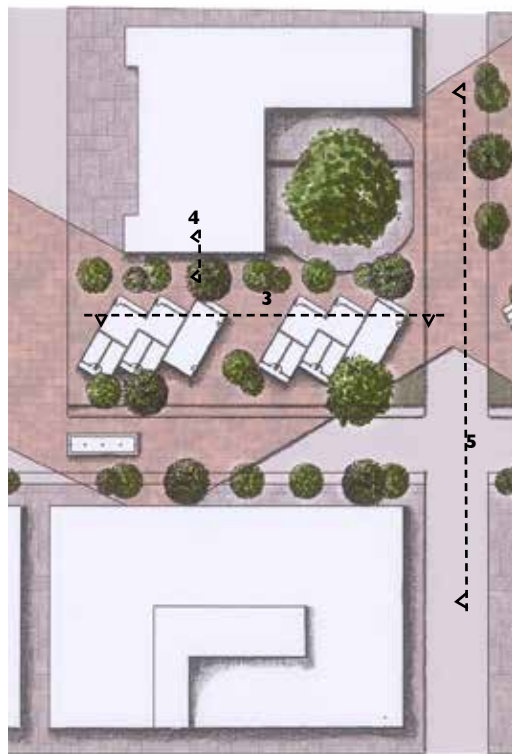
Fine-Grained Facades



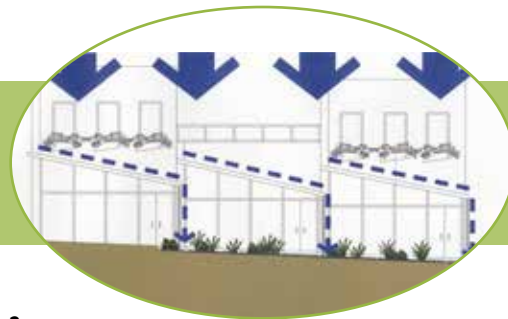
New Connections



REINVENTING CAMPUS PARKWAY CAMPUS PARKWAY & BROOKLYN AVENUE



1



2



3

1. Defensible space diagram

2. Stormwater diagram

3. View of incubator spaces from the north

4. Pedestrian walkway detail

5. View of Elm Hall, incubator spaces, streetcar, and Lander Hall from the east



4



5

REINVENTING CAMPUS PARKWAY CAMPUS PARKWAY & 15TH AVENUE NORTH



1



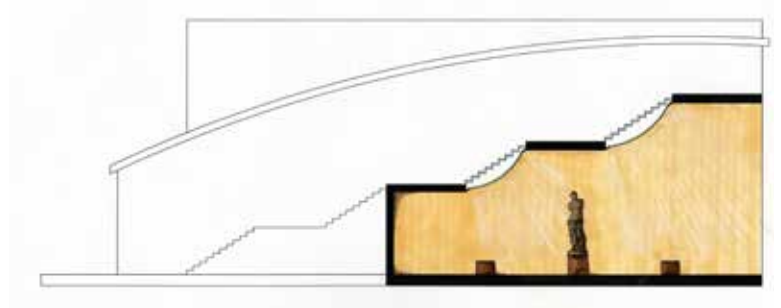
2

1. Section of 15th Avenue facing west

2. Section of 15th Avenue facing north including proposed stair

3. Interior view of Henry Art Gallery, below stairs

3



MEETING FOUNTAIN



PASSIVE SPACE



SPACE ACTIVATION



NIGHTLIFE

The Green

Erica Bush and Angelica Rockquemore

The University District of Seattle is a vibrant community full of rich history, varying activities and over 60,000 students and staff who enter its boundaries on a daily basis. Today the University District is experiencing change at a rapid rate. The University of Washington has created and continues to expand an entirely new residential component of campus, currently housing over 3,000 students. In 2016 the University District welcomes the implementation of two long over-due massive infrastructure projects. The two light-rail stations now underway will drastically increase the district's connection to the rest of Seattle and invites us to rethink and imagine how this community can celebrate this change, and best respond to this investment as a catalyst for a healthier district future moving forward.

With this in mind the inspiration for The Green came to light. The project aims to create a green corridor which will serve as a pedestrian oriented ribbon within the shifting urban fabric of the new West Campus. Serving the new residential population and the surrounding community, The Green creates an inviting outdoor space

in an area impoverished of open green space and public gathering areas. Furthermore the project fills a void for both pedestrian and bicycle movement in and east to west direction, linking Wallingford and Downtown to Campus via a convenient, quiet, enjoyable and safe route.



Reimagining West Campus as an outdoor living space



A closer look into the goals of the district

District Goals

Site Strategies



Foster higher functioning diverse habitat



Install rain gardens and more green space



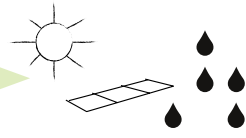
Create stronger pedestrian and bicycle linkages



Create a safer bike route running east to west



Decrease energy consumption patterns



Develop solar energy and rain catchment technology



Increase spaces designed for human scale



Increase permeability, create safe streets



Existing Site Conditions



view looking west



view looking west



view looking east



41st and 15th intersection



41st and "The Ave"

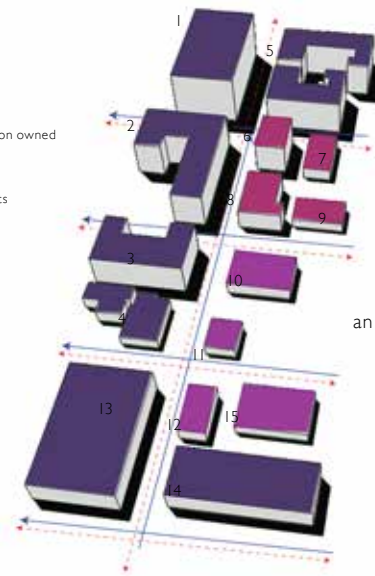


41st and 12th



41st and Brooklyn

- Circulation
- Water
- University of Washington owned
- Private residential units
- Private commercial units



The Green creates
an outdoor living room for
3000 people!

- 1 Condon Hall
- 2 Elm Hall
- 3 Poplar Hall
- 4 Floyd and Delores Jones Playhouse
- 5 Cedar Apartments
- 6 Proposed apartment building
- 7 Del Capri Apartments
- 8 Levere Apartments
- 9 Tye Apartments
- 10 Brooklyn Plaza
- 11 Christian Science Organization
- 12 Wells Fargo Bank
- 13 Schmitz Hall
- 14 Social Work Building
- 15 Commercial restaurants



Focus on building in built environment



Focus on spaces within built environment



Car space as priority



Pedestrian space as priority



Current Condition



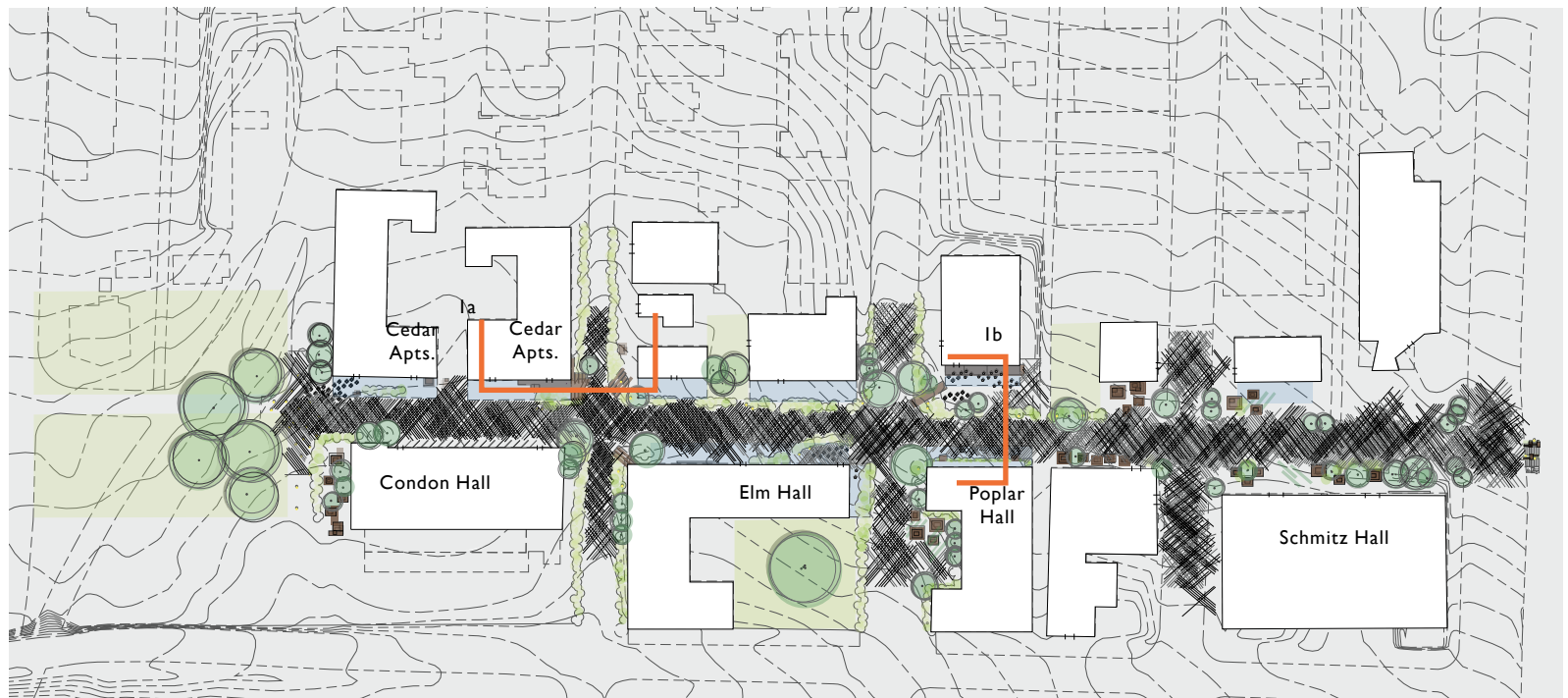
Precedent



Envisioned Intervention



1"=20' N ↑ 11th 12th Brooklyn The Ave 15th



Lighting



Modular furniture



Rain gardens



Street paving

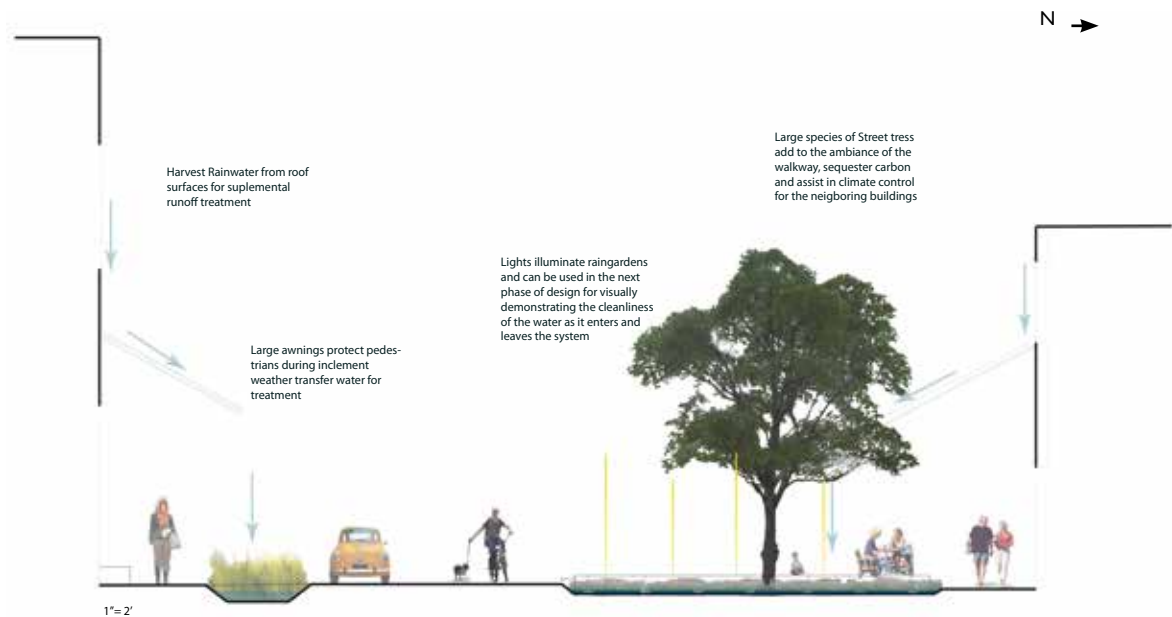
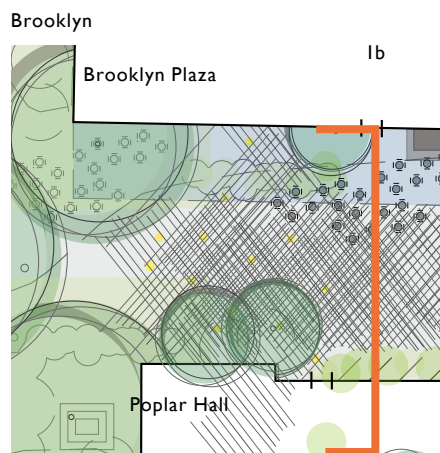
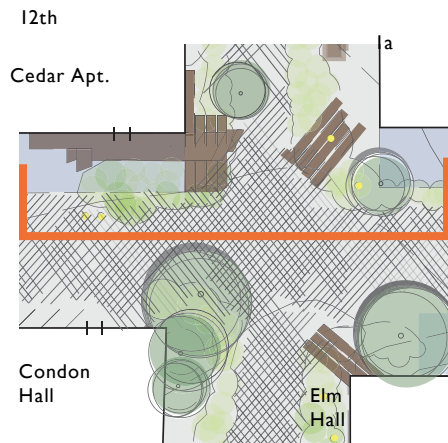


41st as a shared street, with pedestrian priority



Bike ramp at 15th as gateway connection to campus





The Green





GRAFT

Betsy Anderson | VeraEve Giampietro
Erinn Walter

The construction of Interstate 5 in 1962 cut a north-south chasm through the city of Seattle. In some places the opening was as wide as two city blocks. Thriving pedestrian- and commerce-oriented neighborhoods such as Wallingford and the University District lost their fine-grained connection to one another. Houses were demolished or carried away on trucks. The rich urban ecotone of these communities was replaced by an overscaled, car-dominated environment that obstructs physical connections and depletes habitat for human and non-human species alike.

Ironically this site once offered some of the finest habitat on earth: an ancient forest stood here that was among the last areas in the city to be deforested in the settlement boom of the late 19th century. A lid over I-5 and accompanying cycle bridge will restore the complex vibrancy of these lost forest and neighborhood relationships, while illustrating potential synergies between built form, ecosystem function, and community interaction.



5TH AVENUE NE AT 50TH ST.

Existing amenities flank either side of I-5. Residential areas, a playfield, a church, a library, multiple schools—but the network is cut down the core.

5TH AVENUE NE AT 45TH ST.

I-5 dominates this edge. Traffic moves quickly, and an adjacent onramp indicates urgency to drivers and pedestrians alike.

WALLINGFORD

Largely intact, this fine-grained, single-family neighborhood would benefit from a reconnection to the University District and protection from traffic noise and freeway particulates.

I-5 LOOKING SOUTH FROM THE 50TH STREET OVERPASS



I-5 LOOKING SOUTH FROM THE 45TH STREET OVERPASS



7TH AVE. NE AT NE 47TH ST.

Giant swathes of roadway are underused. The adjacent existing fabric is a mix of multifamily and single-family residences. Opportunities exist for joining a new mixed-use corridor to this edge.

7TH AVE. NE AT NE 43RD ST.

Residential-street-turned-offramp creates a major obstruction for cyclists and pedestrians. The future 43rd Street Greenway tees into this street.

I-5, LOOKING SOUTH

Two blocks were removed between Wallingford and the U District when the interstate was constructed in 1962, creating significant physical and experiential barriers for all organisms.



skate park plaza



community center



pedestrian-oriented



night market



bike + pedestrian routes



Wallingford commercial character



recreation for all ages



housing for professionals



food trucks



land bridge



day care

CONNECTIVITY

- Connecting schools with residences
- Car-free routes for bikes + pedestrians
- Repairing habitat corridors
- Sharing amenities across the freeway
- Libraries
- Promoting pedestrian trips
- Festival street
- Coffee + groceries within walking distance

NEW COMMUNITY AMENITIES

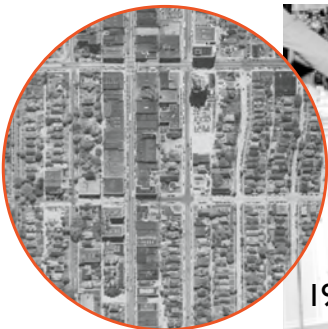
- Hard courts
- Skate park
- Community center
- Public restrooms
- Night market
- Food trucks
- Recreational park/playfield
- Sense of identity

DIVERSE RESIDENTIAL OPTIONS

- Dense, affordable townhomes
- Senior housing
- Student housing
- Faculty housing + daycare
- Green park + ride
- Mixed-rate multifamily housing
- Live/work units
- On-street parking

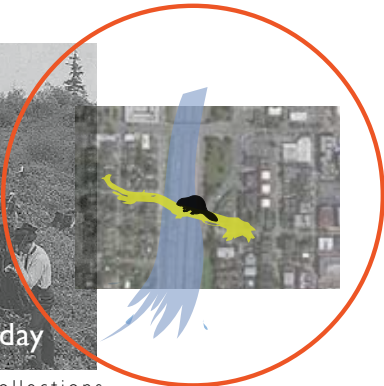
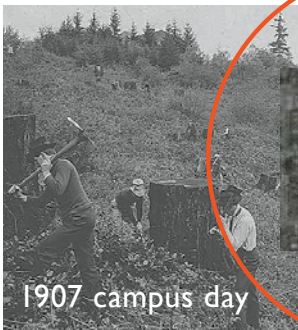
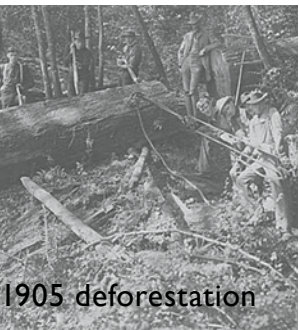
CONNECTIONS
BROKEN

previous built form



images courtesy of Seattle Municipal Archives

previous natural form

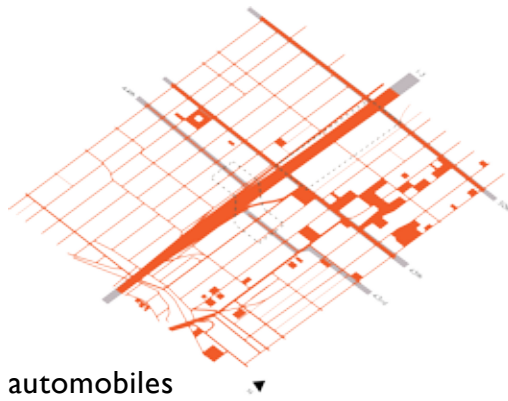


images courtesy of UW Special Collections

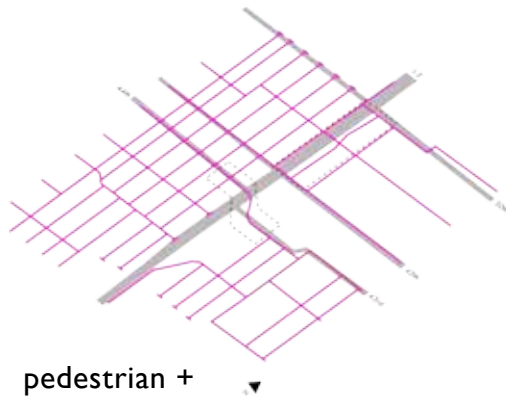
HABITAT
LOST

proposed repairs

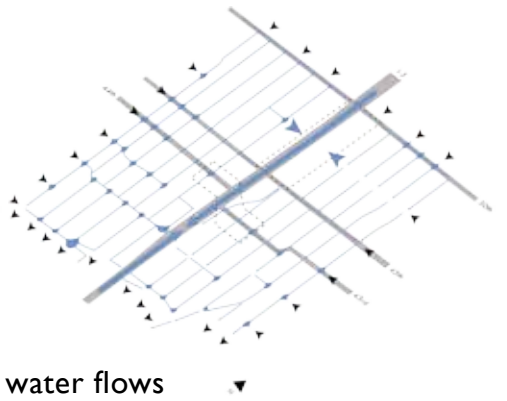
CONNECTIONS



automobiles

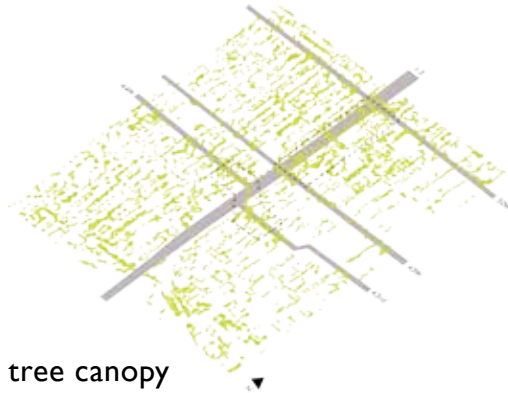


pedestrian +
transit

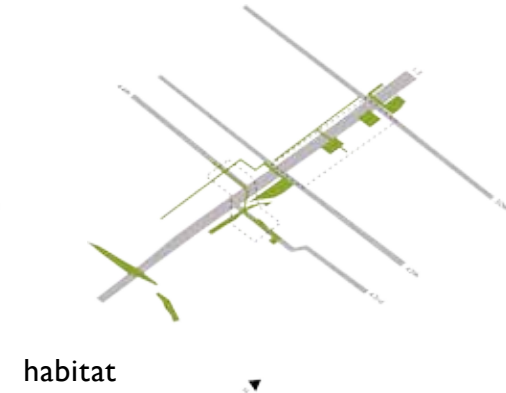


water flows

HABITAT



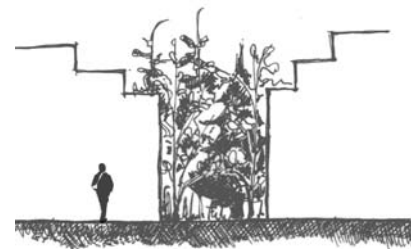
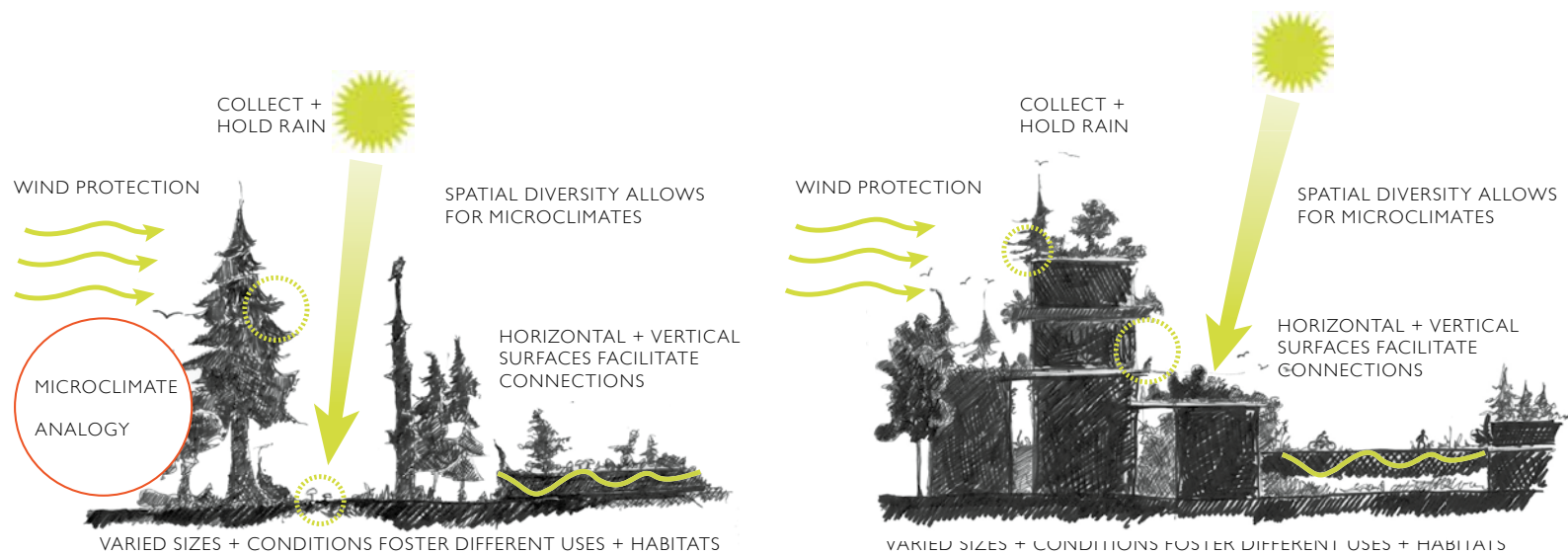
tree canopy



habitat
patches



community
amenities



GRASSCRETE
SUCCESSION

2015

2025

2050
the forest returns . . .





LID
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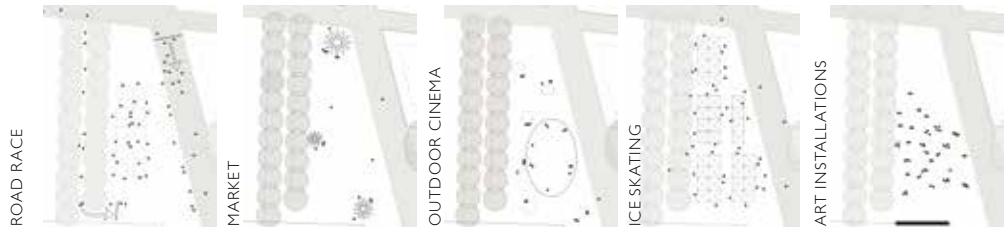
CONCEPT | PLAN + SECTIONS



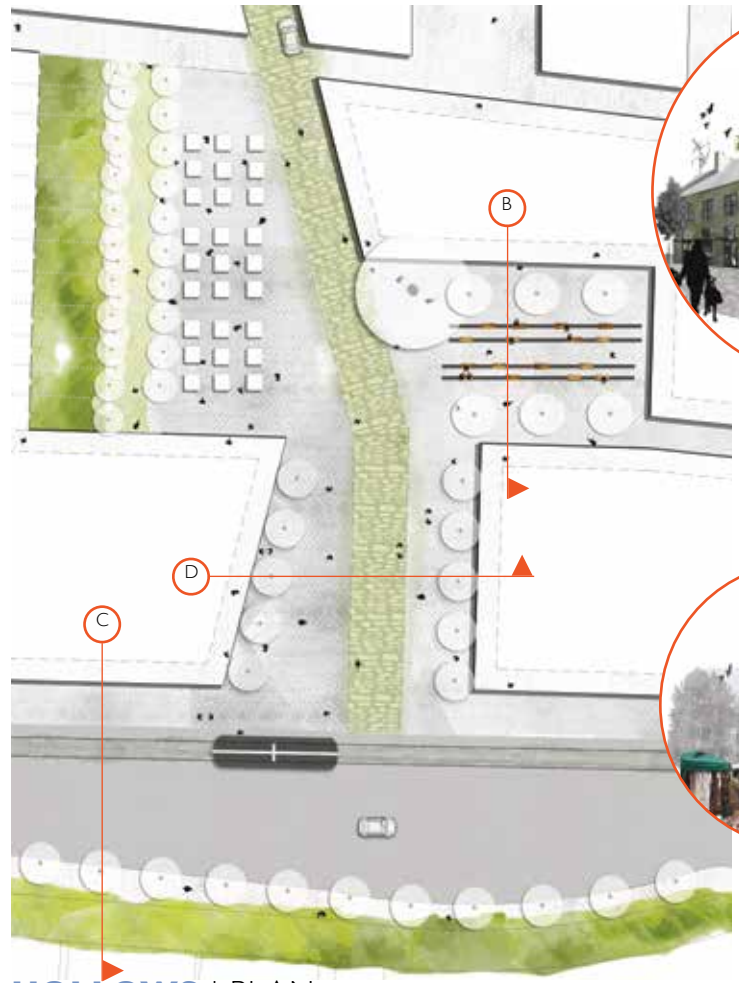
MAKERSPACE PARK | PLAN



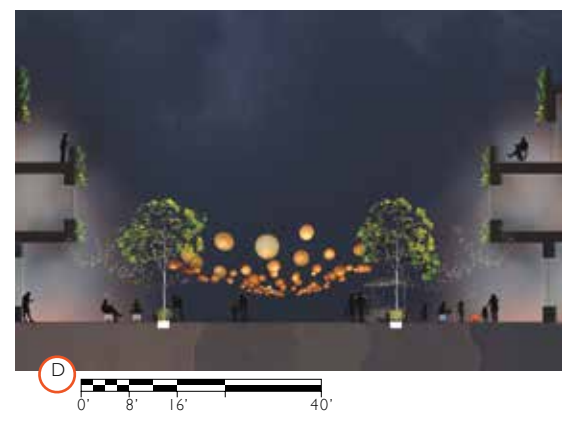
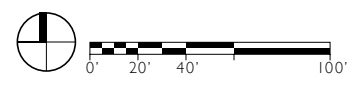
A

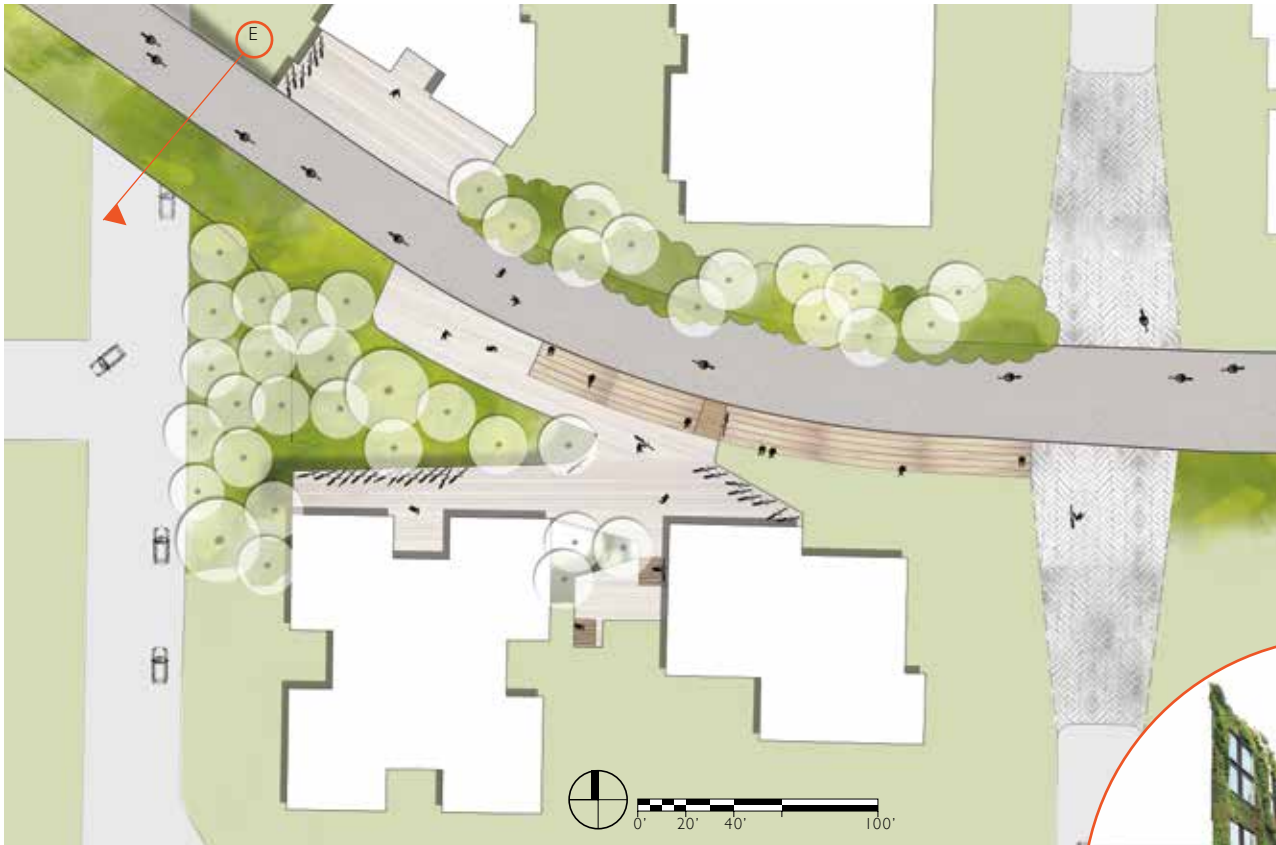


PROGRAMMING OPPORTUNITIES



HOLLOWS | PLAN

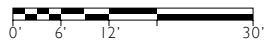




ONRAMP | PLAN



E



Life Between Buildings

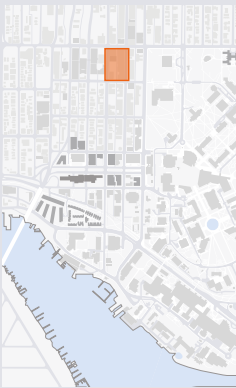
Lawrence Chung - Victoria Kovacs - Diane Walsh

The University District Station, located along Brooklyn Avenue NE between NE 43rd St and NE 45th St is scheduled to begin operation when the Northgate Link Extension opens in 2021. This underground station will not only benefit the University of Washington campus, but will also serve the “Ave” business district and companies, as well as the immediate residential community. In addition to providing an excellent transit linkage to connect the U-District neighborhood to the greater Seattle district area, our group also sees that the physical space of the site itself can be used as an open space for local residents, students, and employees. Our group seeks to achieve these goals by implementing a strategy that focuses on four main interventions.

The first intervention is to reactivate the alleyway located east of the two station surface entrances. By including an alley bar south of the Neptune Theater, creating active storefronts, and installing a canopy that also functions as part of the stormwater treatment facility, we hope to create additional visual stimuli to attract visitors to the area. Our second intervention is to establish a mid-block connection that links the plaza to the University Way NE. The goal is to draw pedestrians from the busy University Way and connect them to the station entrances.

The third intervention is to construct a market structure that serves both local residents and visitors from nearby areas. The structure itself is consisted of a canopy

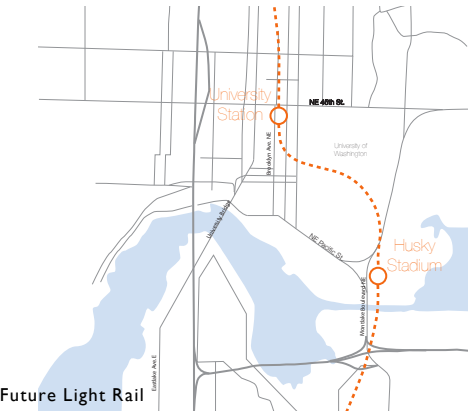
supported by columns with permeable edges that allow easy passage to the plaza. Our last intervention is to focus on the physical space of the plaza. The physical space is divided into various rooms serving different purposes, such as the play room, the dining room, and the shopping galleria, etc. The “rivers” and the “pond” collect excess urban runoff and also serve as a play feature for users in the plaza.



Site Context: The University District

LINKING THE LINK:

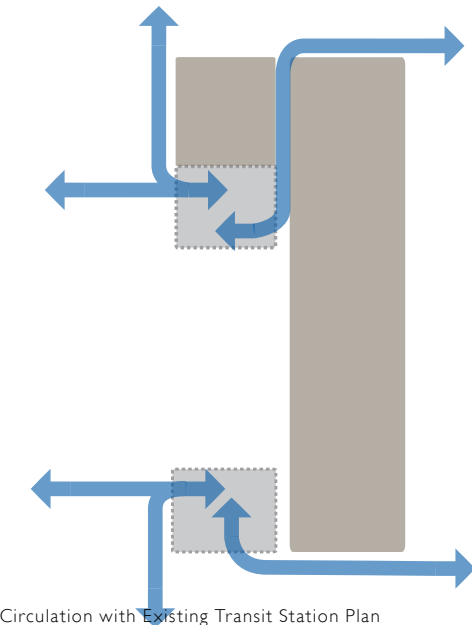
Public Life at the University District Light Rail Station



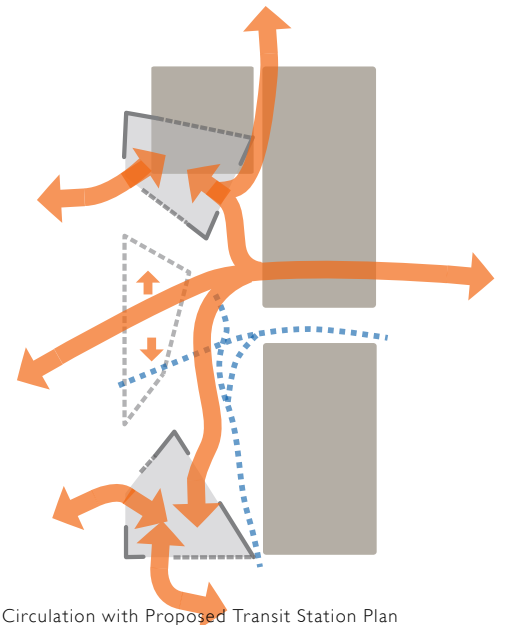
Future Light Rail



Site Plan

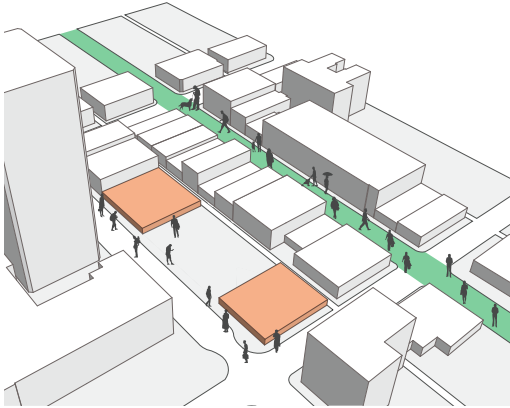


Circulation with Existing Transit Station Plan



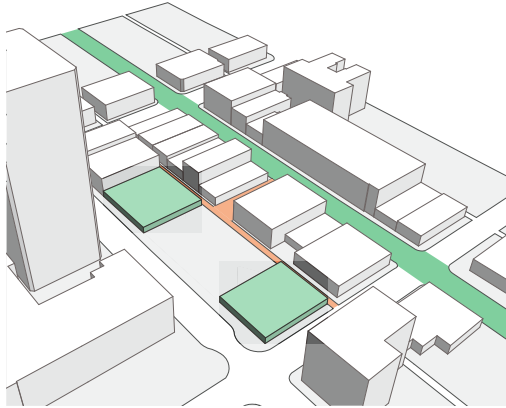
Circulation with Proposed Transit Station Plan

Future Activity with New Light Rail Station



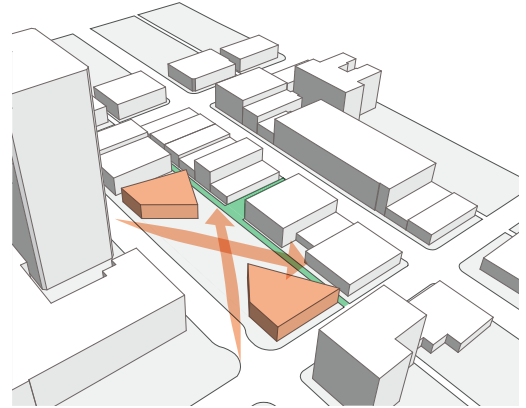
Existing Station Design

Alley Activation and Midblock Connection



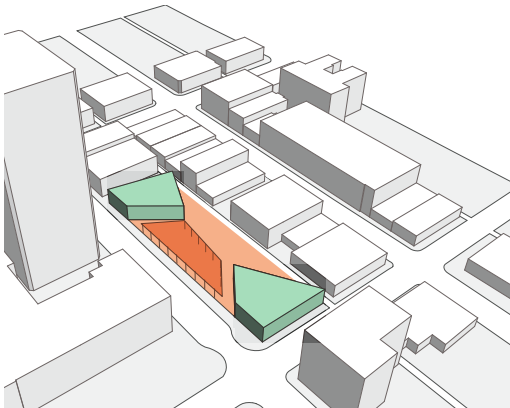
Mid-Block Connection

Accommodating Desired Flow Lines



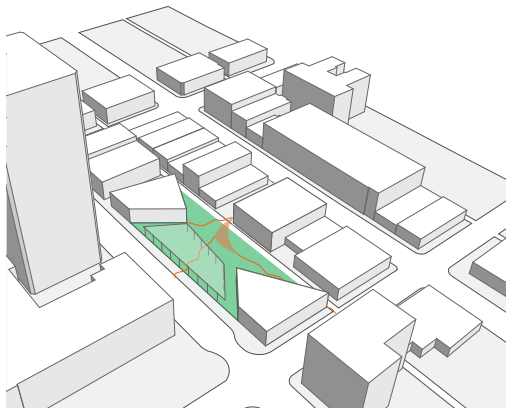
Station Head House Redesign

Bound the Plaza



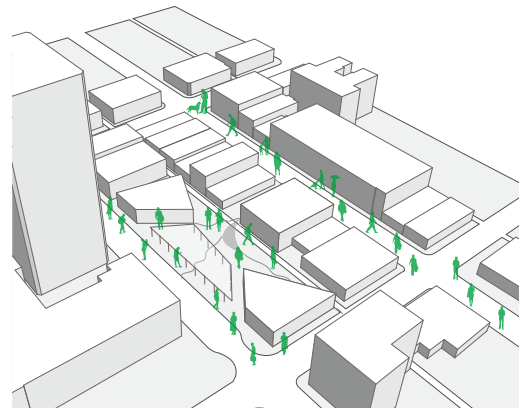
Market Structure and Plaza

Imbuing Identity



Wayfinding and Identity via Water Feature

Connected Public Life



Enhanced Activity, Connectivity, Identity



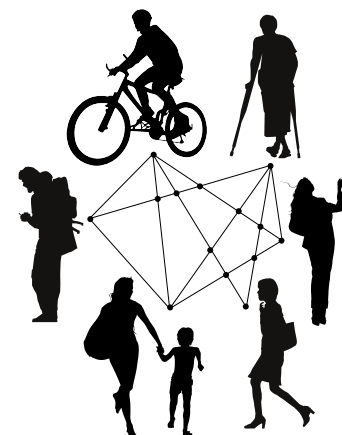
The University Light Rail Station: An opportunity to create active public space, to enhance connectivity, and to better reflect the diverse identity of the University District.

MAIN GOALS:

to ACTIVATE space



to facilitate CONNECTIONS

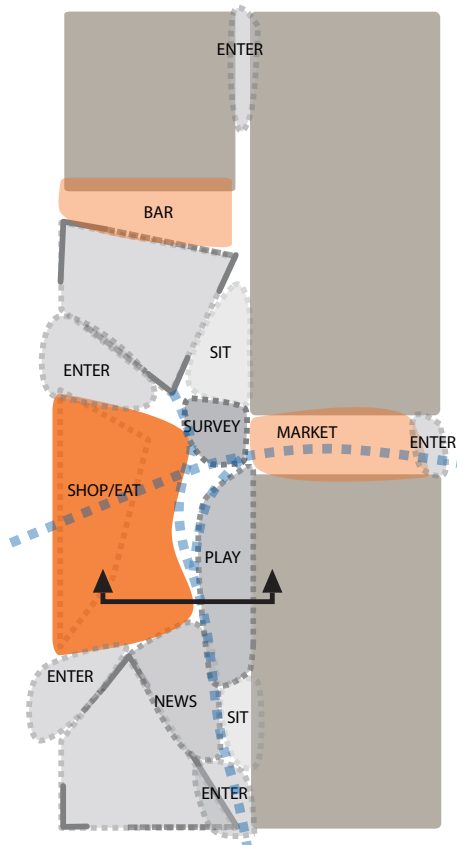


to foster a sense of IDENTITY

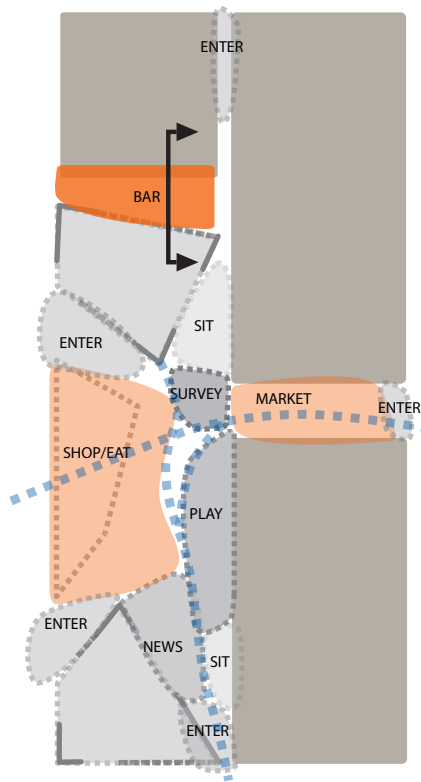
the U



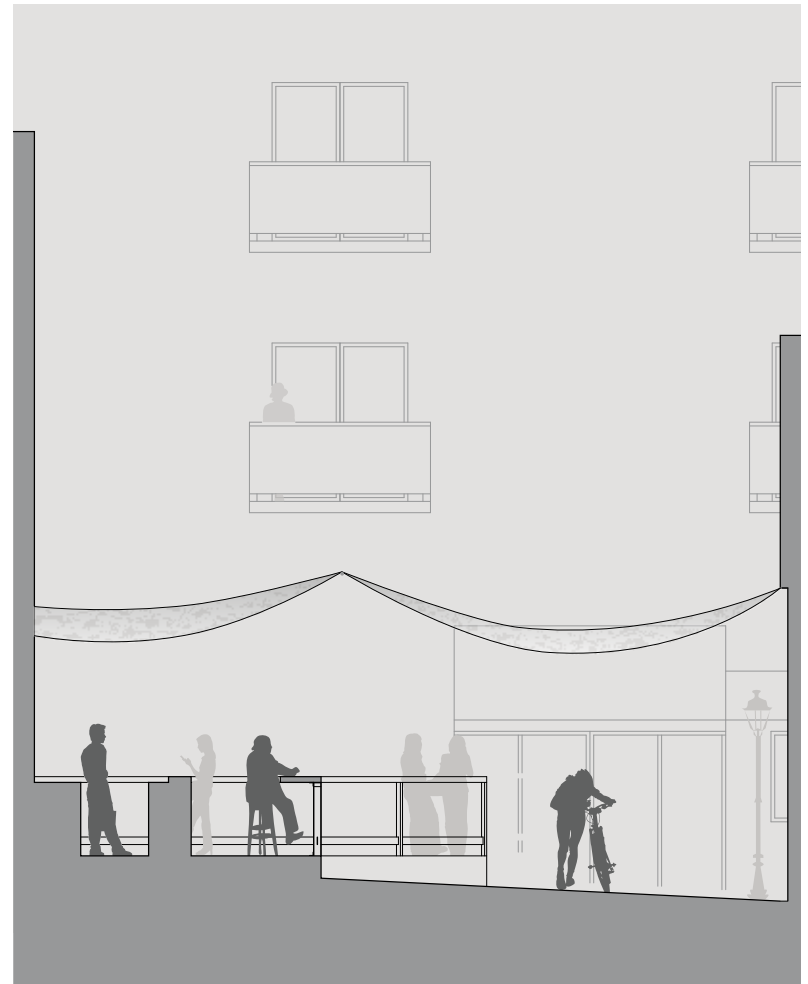
The Plaza and Marketplace: A place to shop, eat, play.



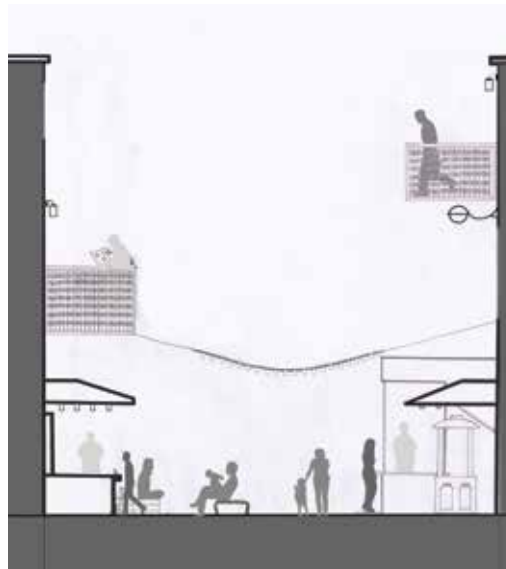
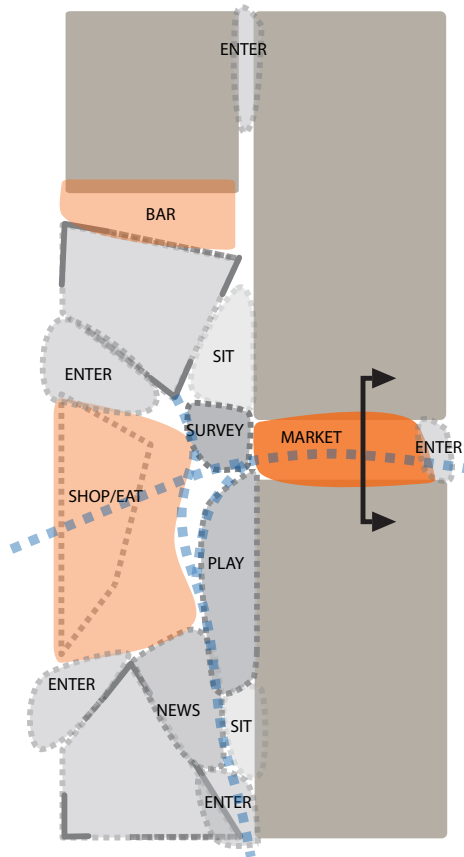
The Off-the-Alley Bar/Cafe: After hours Activation and Connection to Local Establishments



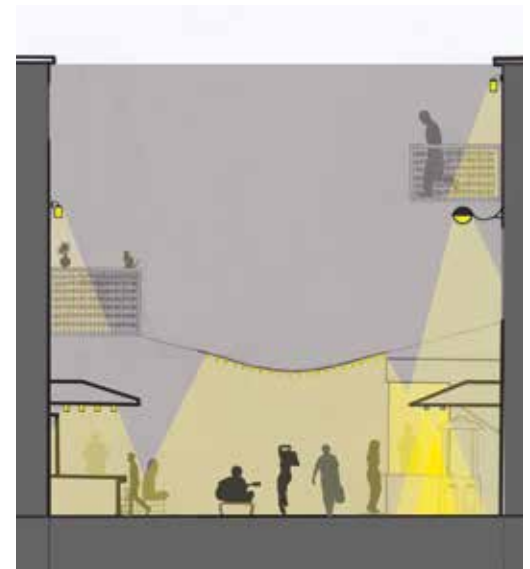
Precedent: Kolstrand building, Ballard, Seattle



Scale 1/8"=1'



Mid-Block Connection (Daytime) Scale 1/16"=1'



Mid-Block Connection (Nighttime) Scale 1/16"=1'



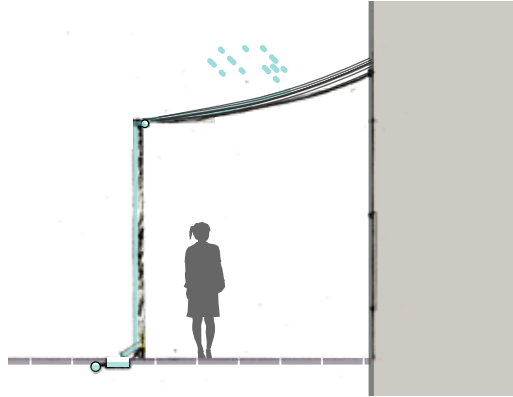
I. Constructed River: Stormwater Collection

I. River



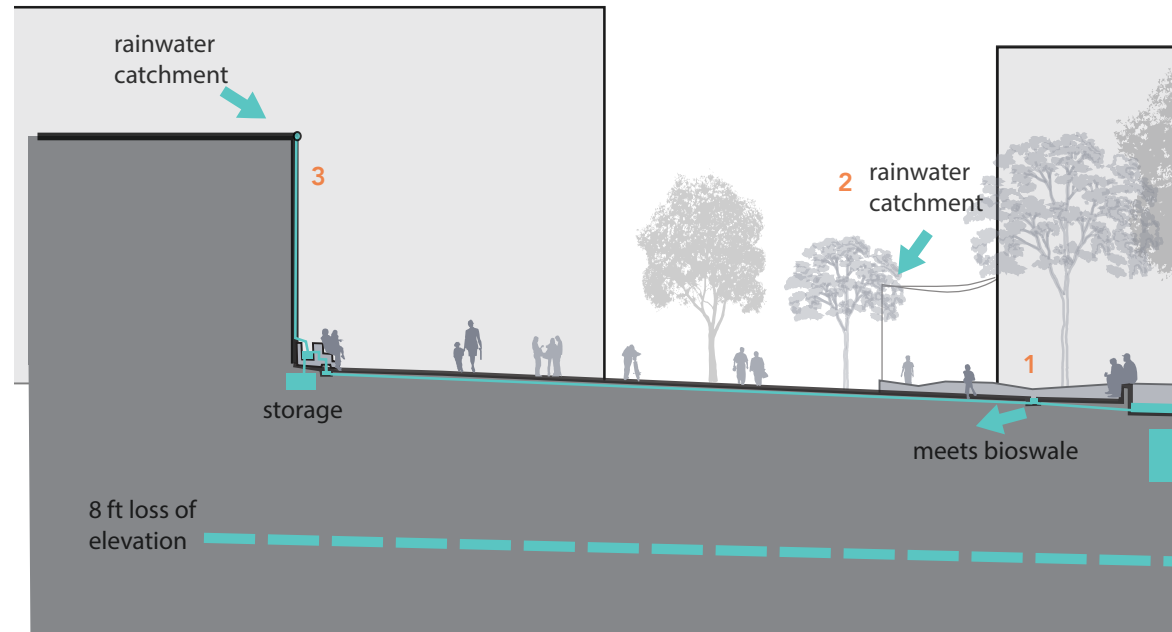
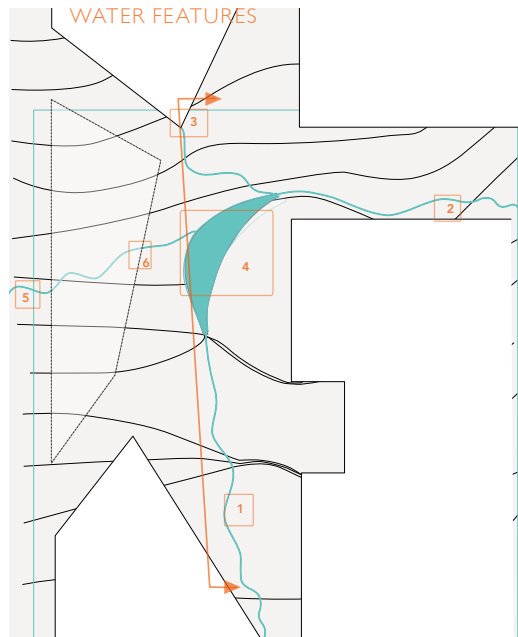
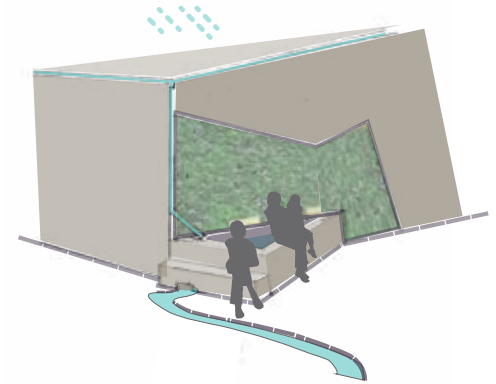
2. Canopy Rainwater Catchment

2. Canopy



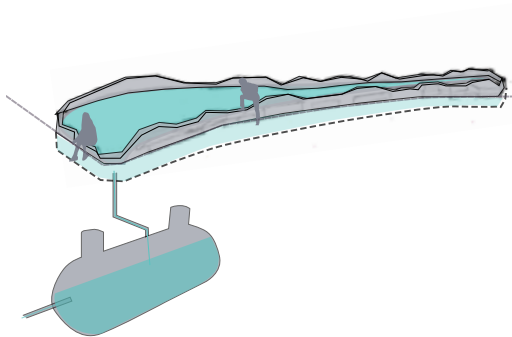
3. Head House Rainwater Catchment, "Source" Spring of the River and Irrigation for Greenwall

3. Greenwall



4. Central Pool and Rainwater Storage

4. Cistern



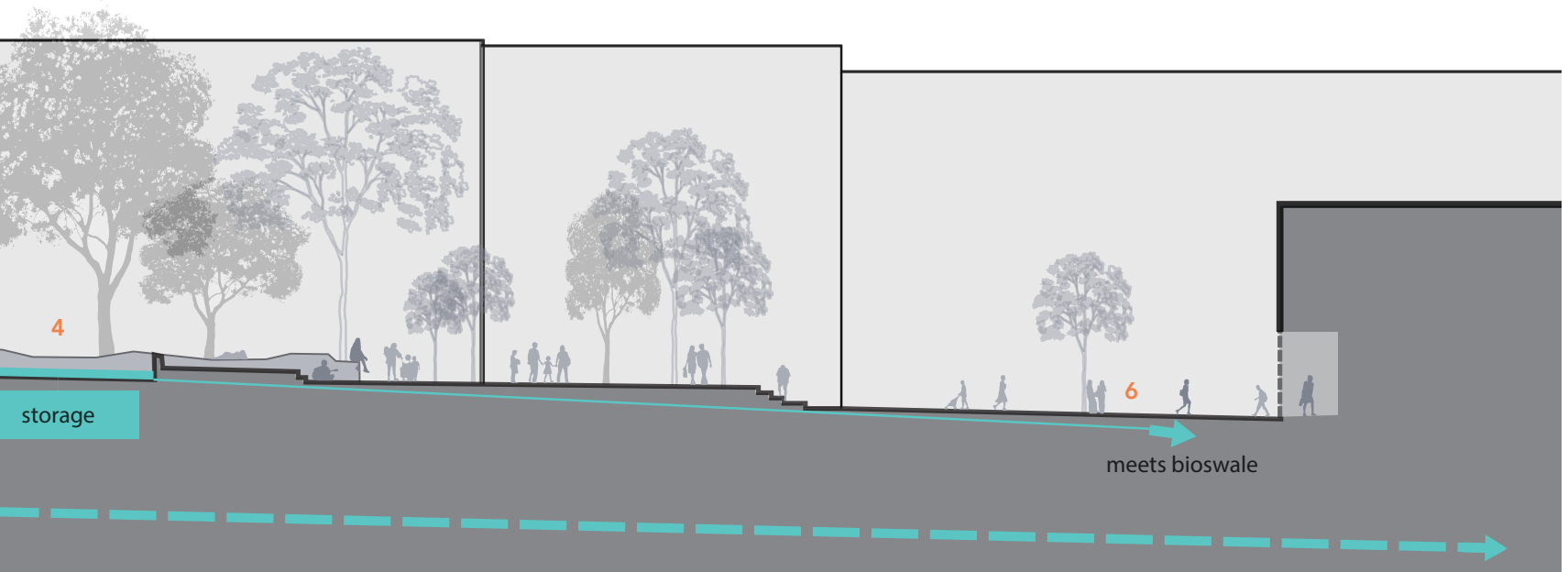
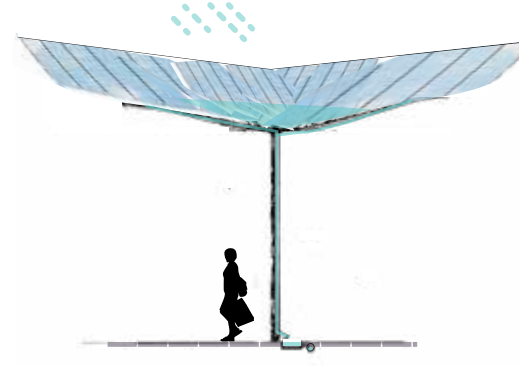
5. River Connections to Greenstreets Bioswales

5. Bioswale



6. Market Structure Rainwater Catchment and Connections to River

5. Market Structure



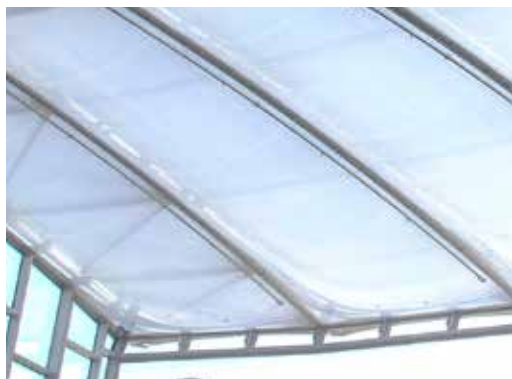
HARDSCAPE PALETTE



Concrete Pavers with Steel Inlay



Corten Steel



ETFE Fabric Canopy

PLANTING PALETTE



Liquidamber styraciflua



Vine maple



Zelkova serrata

LIGHTING PALETTE



Ambient Lighting



Diffuse General Lighting



Accent Lighting

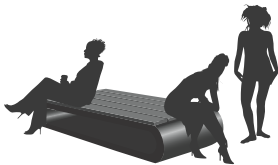
SEATING PALETTE



XL



L



M



S



XS



Night View Employing the Lighting Palette

Stay and Stroll

Kei Sing Yu and Hsien Ai Wang

Site located along the Roosevelt Way NE and 11th Ave. NE. The main goal is to build the accessible connection of a walkable, reliable and enjoyable framework vision for the UW community of the project area.

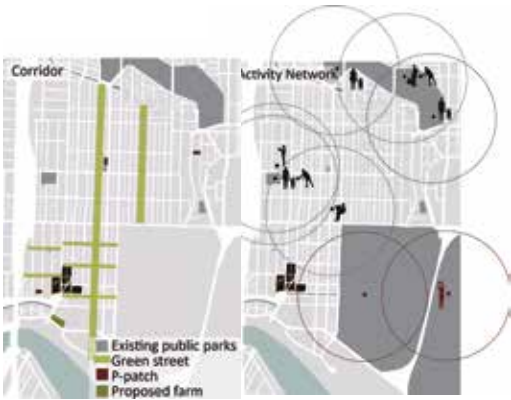
Also, the project aims to find out the possible solution to elevate the human priority and mitigate the traffic issue. And tries to develop the ability and activity to make effective contributions to the urban problems.

Context Analysis

01-CITY

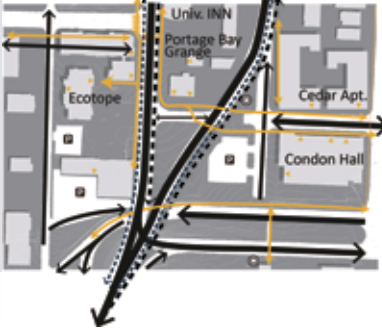


02-DISTRICT



03-SITE

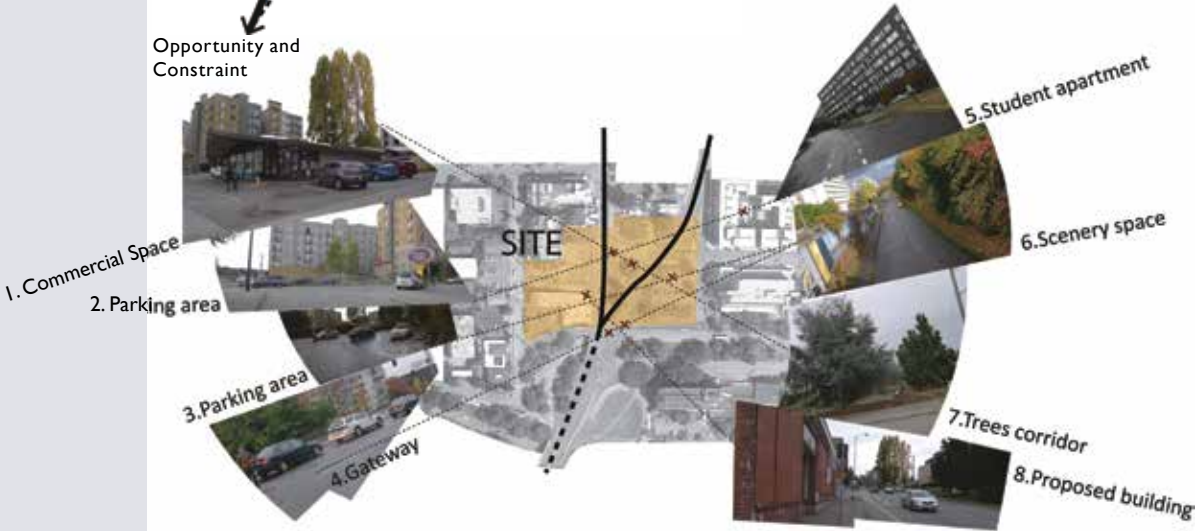
Infrastructure System



Natural System



Opportunity and Constraint



Issue

FOR WHO?

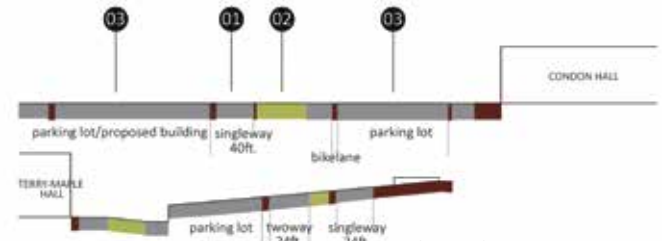
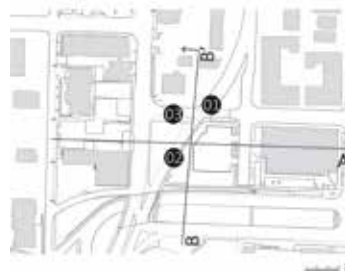
Campus+Community

WHAT'S THIS NEEDS?

Safety

HOW TO ACHIEVE?

Make a walkable, livable way



Spatial Study

only 10%-30% for people/bike

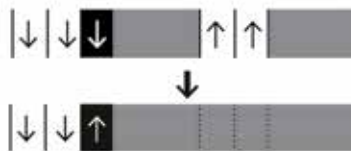
Approach

Parking lots present an opportunity to open up and unify the public space on the site. This project would change parking into a central areas and could open up new spaces for pedestrian walkways and public gathering space.

01_Hard to across



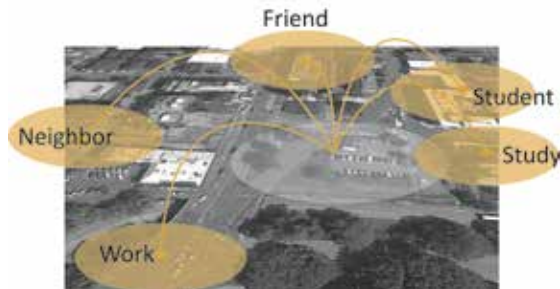
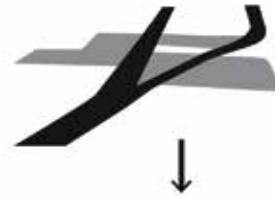
Propose: Change the single to two way



02_Dispersed space



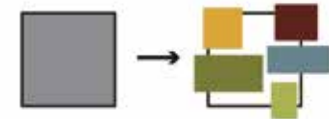
Propose: Integrate spaces



03_Low attraction



Propose: Multifunction+Diverse use



Concept

Attract people to attract
people to protect people to
invite people....

lost people



symptoms



no way for pedestrian

SPATIAL
CONNECTIONS

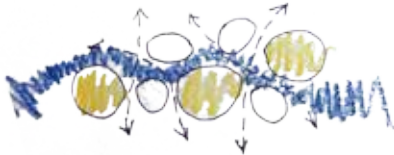
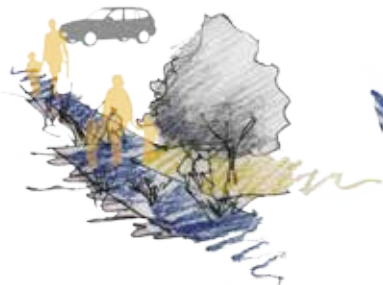


necessary components

define open space

mobility

centralized



Strengthen pedestrian spaces to establish
a safe and attractive atmosphere for
pedestrians will create a lively street life
and encourage people to connect with the
community or campus

METAPHOR
CONNECTIONS

Emotion



Nature



Physical



Program



Charters

Landscape element

Defined open space

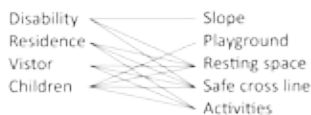
ECOSYSTEMS



CAMPUS



COMMUNITY



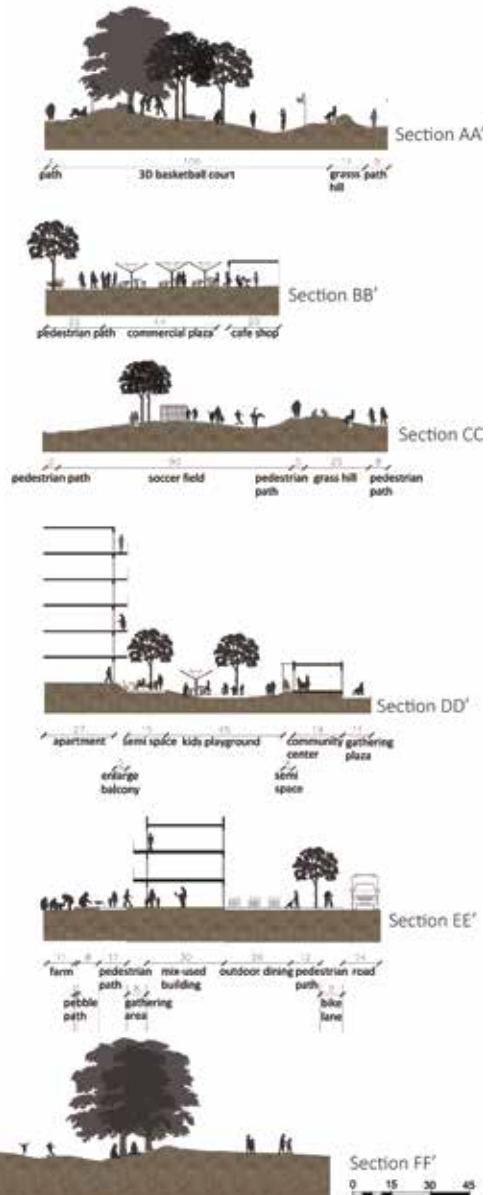
TRAFFIC



Plan

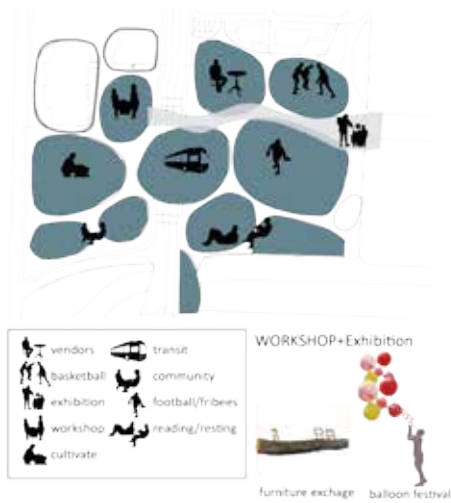


- 01 3-D Basketball court
- 02 Cafe's shop plaza
- 03 Exercise facility
- 04 Soccer field
- 05 Bus transition
- 06 Pedestrian crossing area
- 07 Fountain gathering plaza
- 08 Community center (workshop)
- 09 Kids playground
- 10 Wasting water purification
- 11 Food vendors
- 12 Urban farm
- 13 Mix-used housing
- 14 Quiet space
- 15 View watching

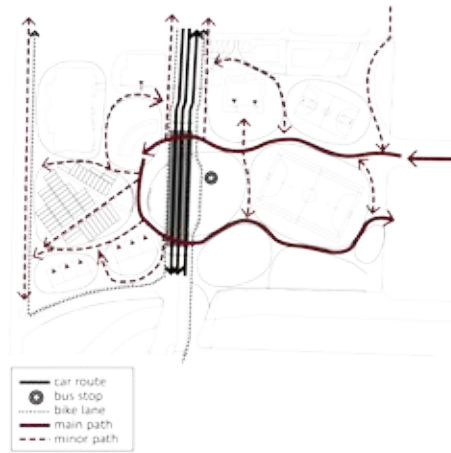


Strategy

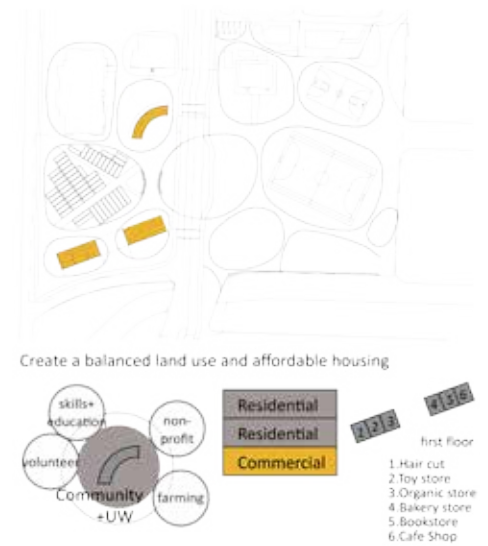
01_Activity System



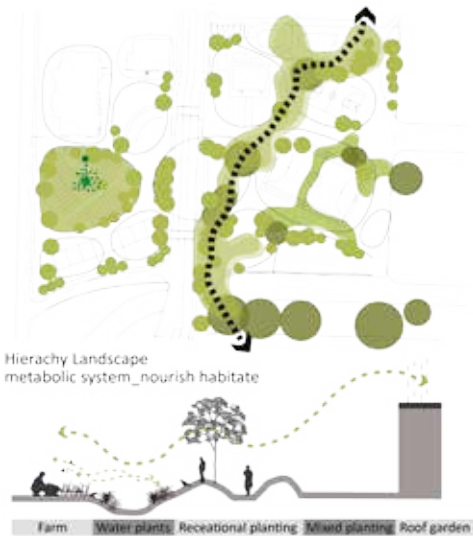
02_Circulation System



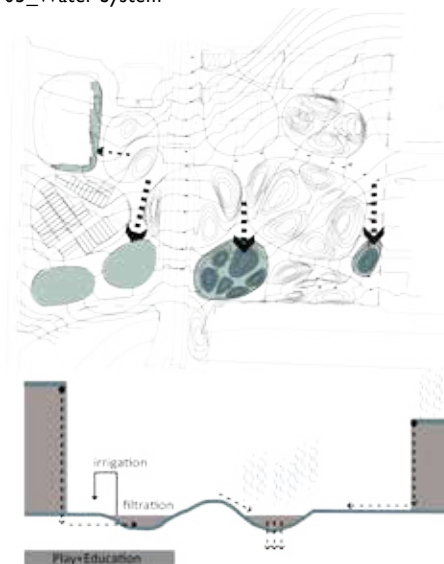
03_Building System



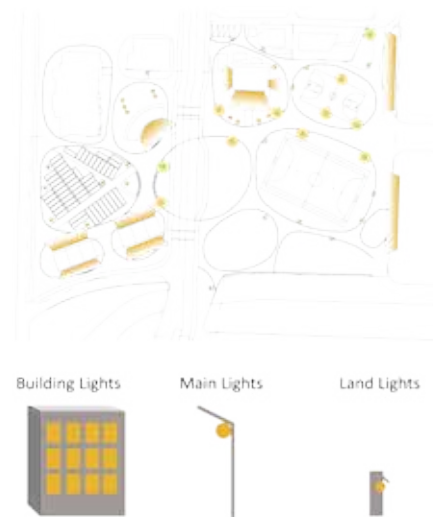
04_Planting System



05_Water System



06_Lighting System





This project aims to change from
an abandoned parking lots to a vital
LIVING SPACE for species

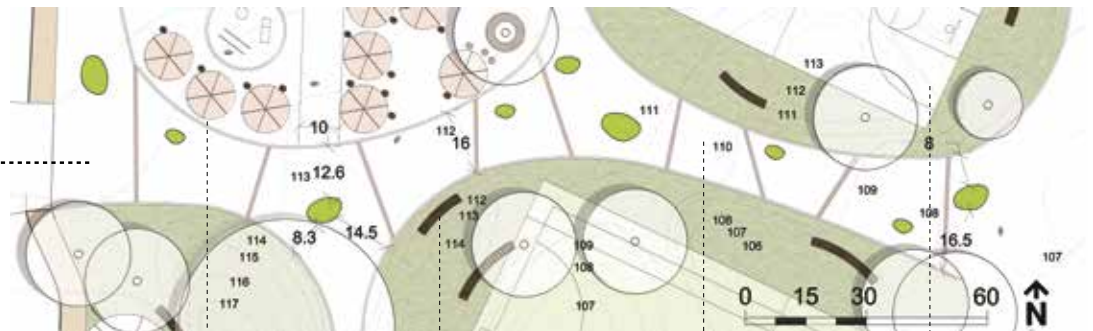
Detail design-Main path

01_Activity System



full view

Objective view to indicate the directly guides you way
Strolling pathway to invite people to stay
Changing plants to connect the environment
Seasonal activities to connect people's emotion



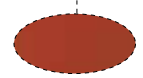
Brick Plaza



Wood Chair



Stone Pavement



PU Court



Spring_Weekday Market



Summer_Balloon Festival

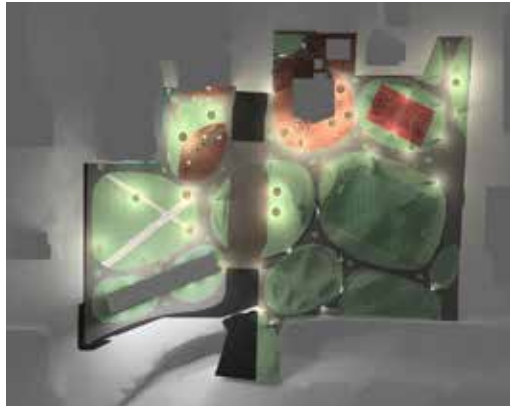
Multifunctional street furniture



Autumn_Furniture Workshop



Winter_Holiday Season



Top view of night



Urban farm



Entrance of main path

University District Waterfront Park

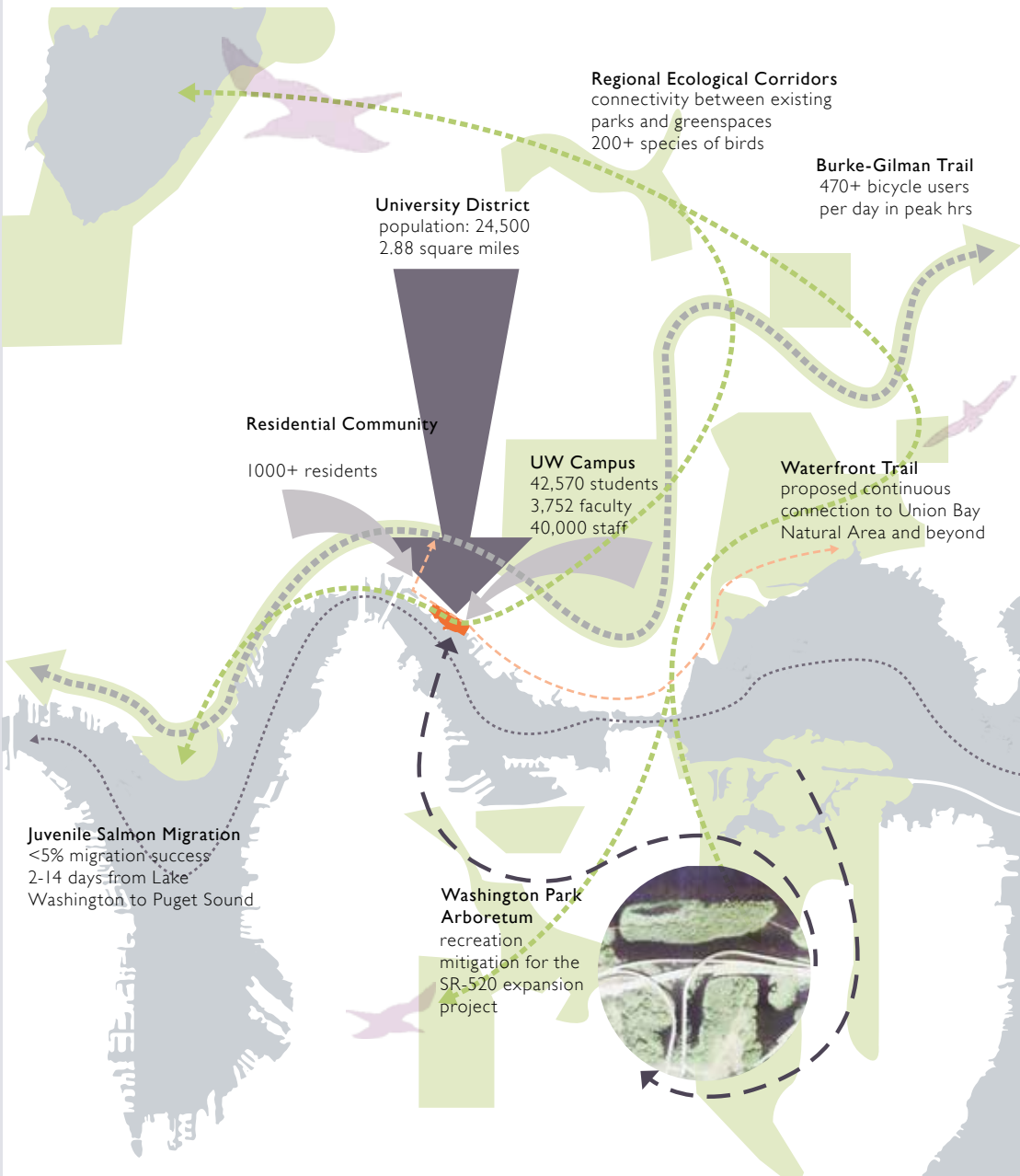
Leann Andrews, Shu-Kuei Hsu, Jordan Lewis,
Malda Takieddine

The University District Waterfront Park is responding to recreation mitigation requirements of the SR-520 Expansion Project as well as a community need for a publicly accessible waterfront as part of the University Ecodistrict Vision.

The design emerges from response to existing site structures and groundforms by salvaging materials and molding the landscape to respond to the diverse human and ecological users of the site. Ecological zones, recreational activities and built infrastructure intrude upon on each other, creating a heightened function and experience. Repurposed site materials extend into the surrounding neighborhood, drawing users to the waterfront. Stormwater treatment strategies and habitat function are integrated into the design to stimulate education and performance. An ecologically sensitive shore edge creates a diversity of experiences welcoming for all species.



The diagram to the right explains the context and connectivity of the park for different users.



Site Strategies

Human Infrastructure

Provide access and transparency to the waterfront. Provide wayfinding and a variety of active and passive spaces. Utilize existing building structures.

Ecology

Restore critical salmon habitat, expand the fisheries building bioswale to the North of the site to treat stormwater on site. Improve shore edges.

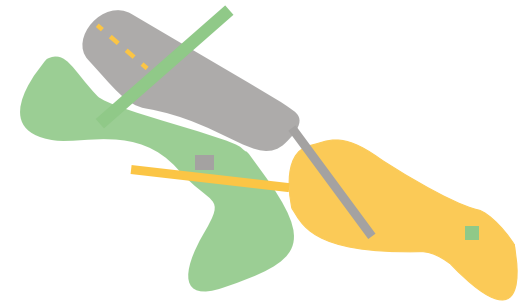
Recreation

Build upon nearby recreation amenities: Agua Verde, Recycled Cycles and the marina. Provide swim access, play areas and temporal programming.

Program Strategies



Concept Diagram



Existing Conditions + Material Reuse



Warehouse Structure



Boat Street



Shed and Warehouse Structure

Material Reuse Diagram



Site Resources



Proposed Re-Use



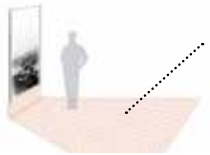
Preserve 10' strip of existing road for bike + pedestrian trail.



Recycle paving materials for use in berms (7000 SF of asphalt, 863 SF of concrete) and fill from wetland creation.



Reuse approximately 10,000 bricks to create wayfinding elements leading to the waterfront site.



Repurpose building materials in the site furniture.



Context Plan

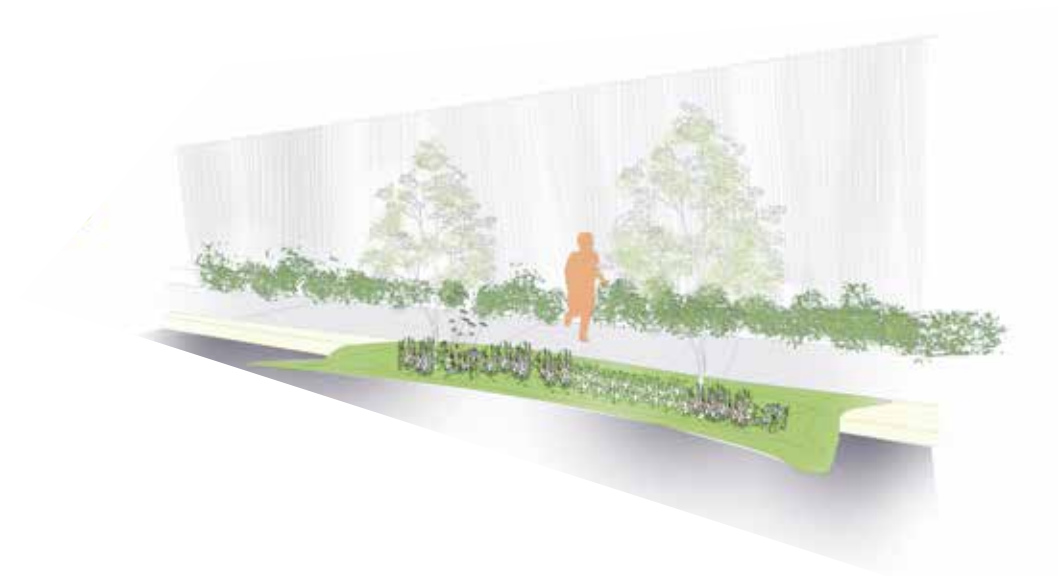


Brooklyn Avenue Streetscape + Wayfinding

Pacific Ave NE



1. Create social + bioretention nodes leading into site



2. Repurpose Bryant Building facade into wayfinding elements and create a historic exhibit about the history of the site.



Street Treatment + Wayfinding Into Site

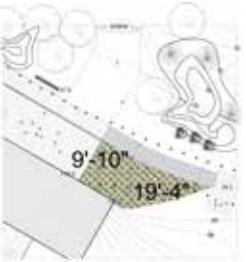


Section A: looking North onto Brooklyn Ave

Existing street conditions
(Boat Street)



Proposed street design
(Boat Street)



Existing Streetscape



Proposed street design
(East Entry)



Existing Streetscape



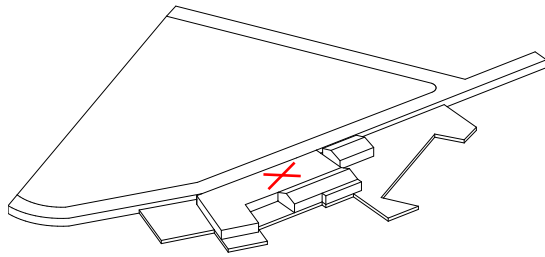
Proposed street design
(West Entry)



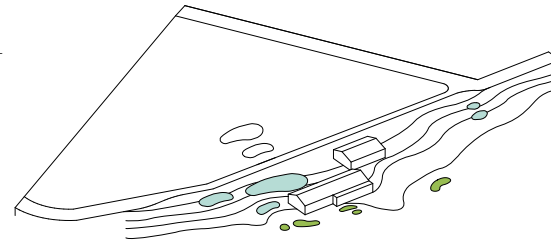
Section B: looking east on Brooklyn Ave



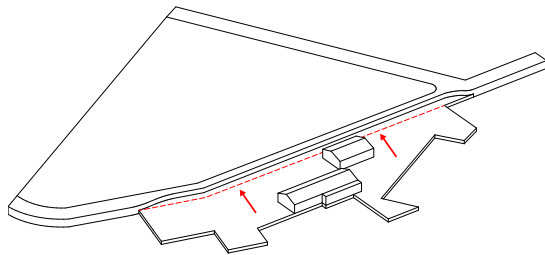
Process + Design Evolution



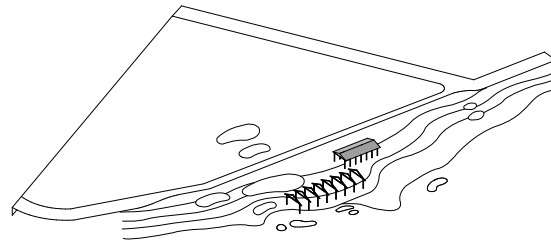
Remove building mass -
Create open space



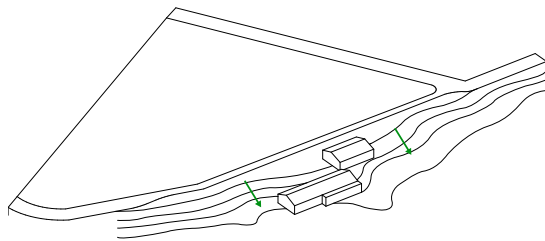
Add habitat spaces and
floating wetland islands



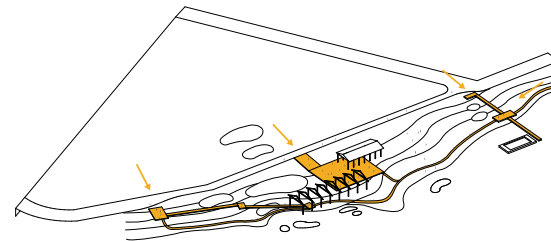
Shrink the road and
remove the retaining
wall



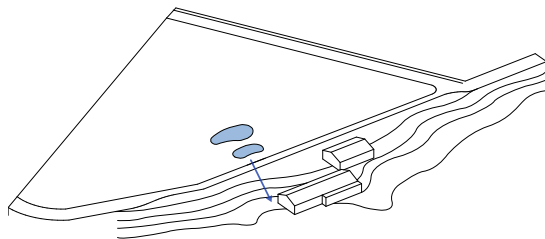
Remove building
cladding to maximize
transparency



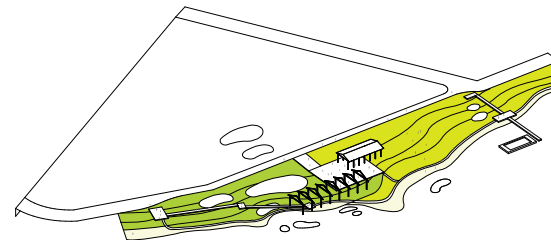
Groundforming for
easy access to the
water



Create 'launchpads'
for people to gather in
response to pedestrian
flows to the site



Connect existing
bioswale to the
waterfront



Provide flexible space
for recreational and
ecological patterns to
emerge

Site Plan



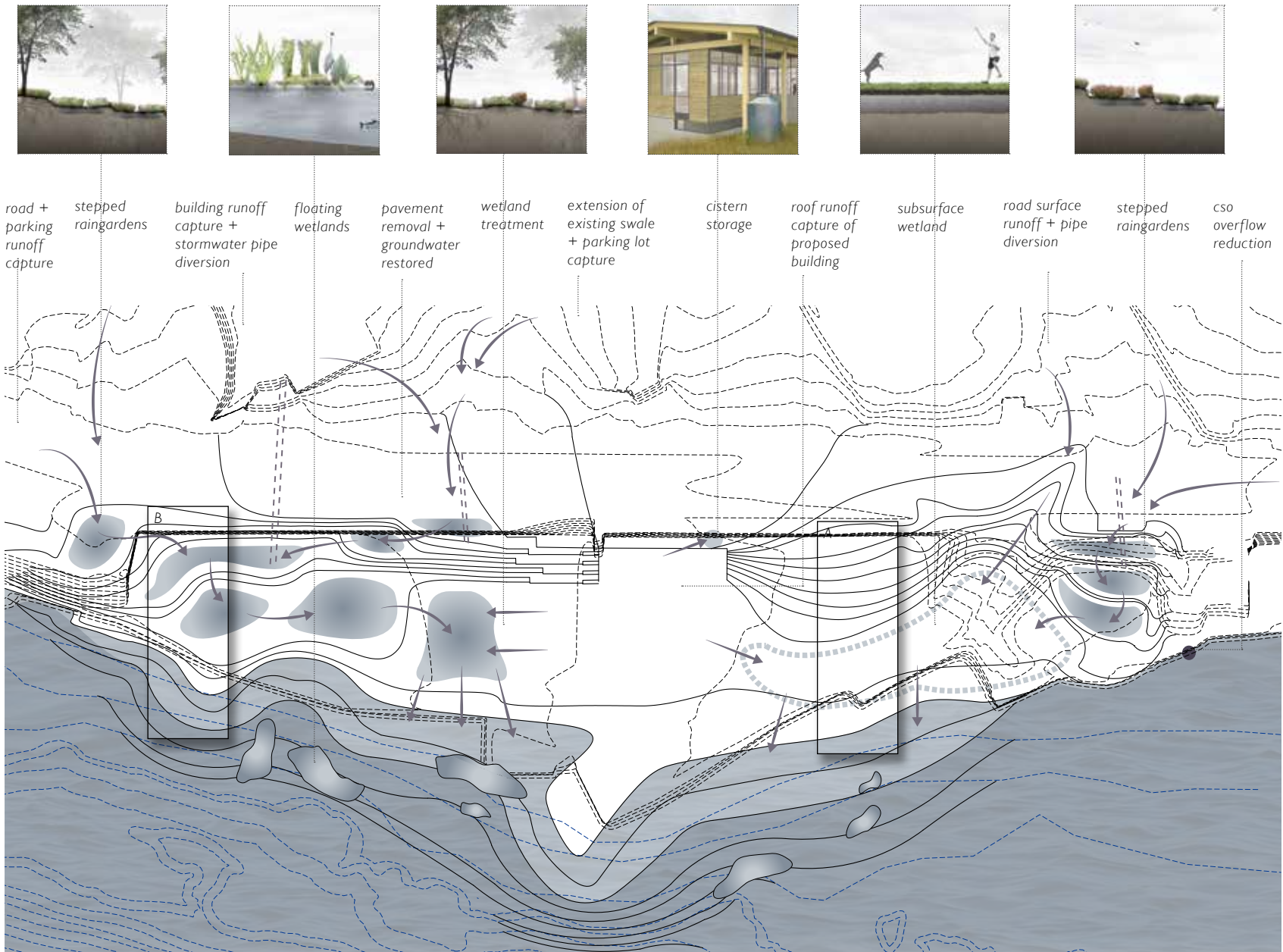
1. Western Pedestrian Entrance + Wayfinding
2. Pedestrian Crosswalk + Festival Activation Space
3. Accessible Crushed Gravel Trail
4. Stepped Raingardens for Stormwater Treatment
5. Habitat Enhancements + Tree Planting
6. Elevated Wetland Boardwalk + Viewing Platform
7. Wetland Pools + Experiential Trail
8. Existing Bioswale

9. Existing Bioswale Extension
10. Floating Habitat Islands
11. Kayak Exploration Area
12. Historic Structure
13. Wetland Play + Recreation
14. Viewing Platform
15. Ping Pong Plaza
16. Amphitheater + Seating

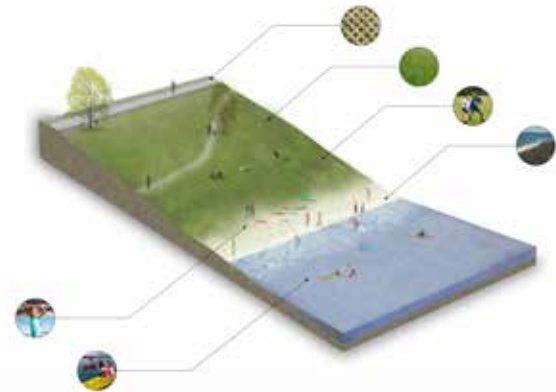
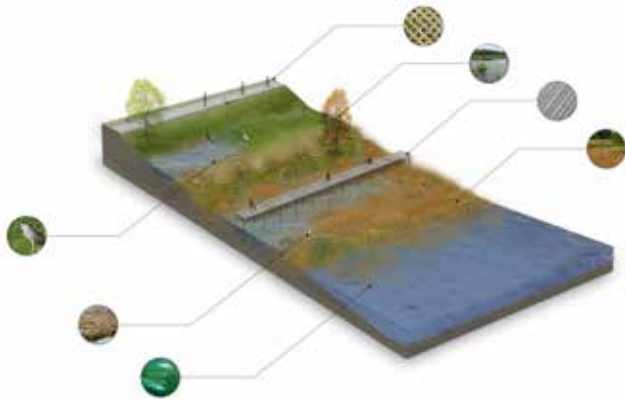
17. Cafe + Wetland Education Center
18. Kayak Storage + Public Restrooms
19. Cafe Seating
20. BBQ + Picnic Area
21. Public Beach + Kayak Launch
22. Swimming Platform
23. Native Grasses Geese Barrier
24. Flexible Recreation Lawn + Subsurface Wetland

25. Children Play Mounds
26. Road Remnant Bike + Ped Trail
27. Viewing Platforms
28. Stepped Raingardens
29. Feet Dangling Deck + Fish Shelf
30. Floating Dock for Public Barge Activities
31. Vehicle Drop Off Area
32. Eastern Entrance + Wayfinding

Eco-Stormwater Strategy



Sections + Perspective View



Building Re-Use/ Facilities Strategy

The building program includes a cafe, public restrooms, kayak storage and a wetland learning center. This new program is inserted into one of the existing timber frame buildings to support and activate the site with diverse users and activities.

SOLAR STRATEGY

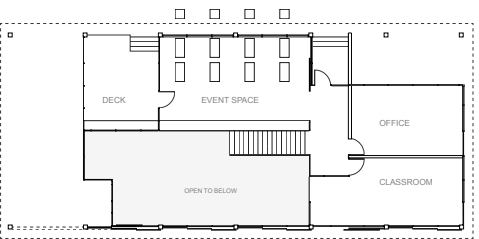
- Solar PV Panels
- Sliding Sun Louvres

BUILDING REUSE

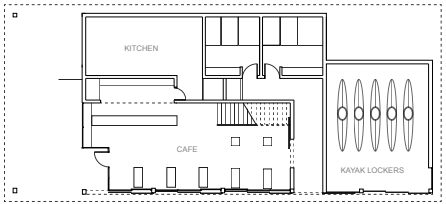
- Preserve Existing Wood Frame Structure

STORMWATER STRATEGY

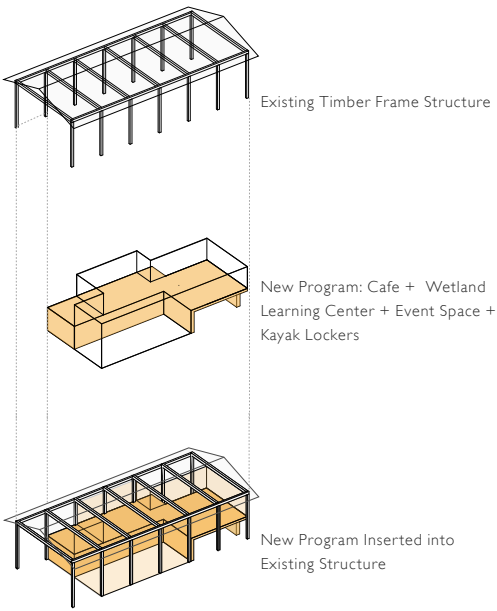
- Harvest Rain Water
- Permeable Surfaces
- Drain to Wetland



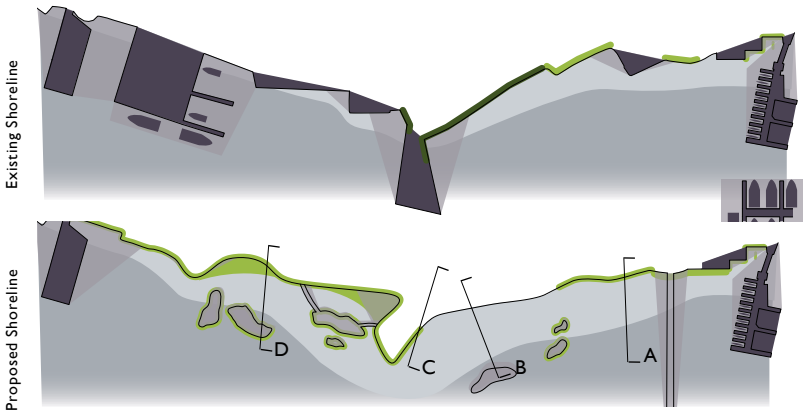
Plan Level 2



Plan Level 1
1/16" = 1' N

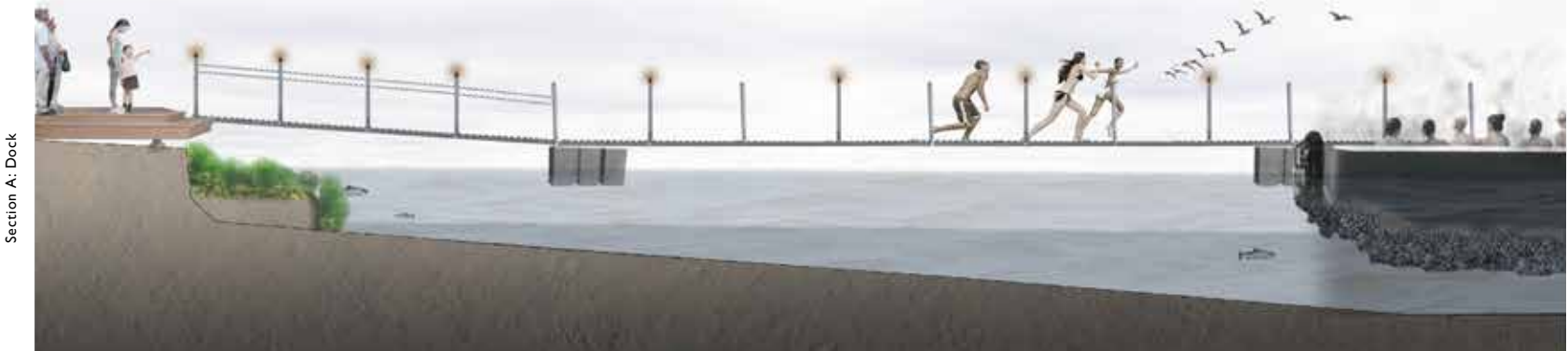






Existing Issues	shade	depth	vegetation
	dense shade creates confusion + vulnerable species predator traps reaction distance for salmon decreases at light levels below 5 lux	vertical hard surfaces difficult for marine invertebrates (salmon food source) to occupy depth above 1 meter is competitive environment for all species	invasive vegetation competes with local vegetation and aquatic food sources
Proposed Solutions	dappled shade helps regulate temperature + provides resilience against climate changing conditions; light permeable overhead structures create shelter from aviary predators	shore edge depth less than 1 meter creates shelter for smaller vulnerable species shallow slopes allow for sediment deposition and aquatic vegetation	shore edge vegetation creates high energy aquatic food, allowing vulnerable species to grow larger and be more competitive against predators

viewing platform aquatic habitat bench light-permeable floating dock lighting for shade reduction + safety swimming barge with water cleansing mussels



public beach kayak shore reduced slope creates shelter for vulnerable species light penetrable swimming platform for education + shelter from birds



Temporal Shore Edge Activation + Experimentation

floating habitat



clear plastic light-penetrable hydroponics



underlit soil-based system



stepped habitat lightweight soil pockets

floating activities



water purifying swimming barge



community festival barge



re-imagined boat graveyard as public amenities

Section C: Lookout



Section D: Wetlands

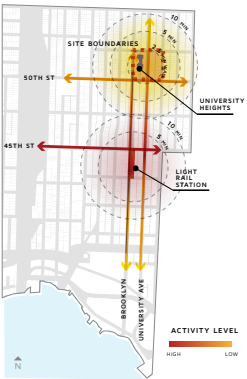
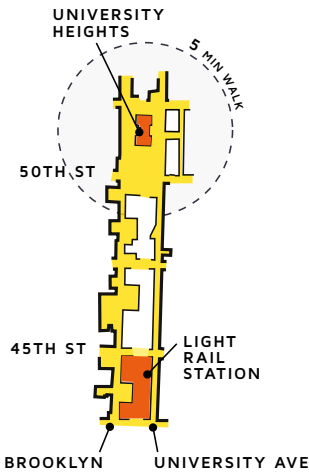
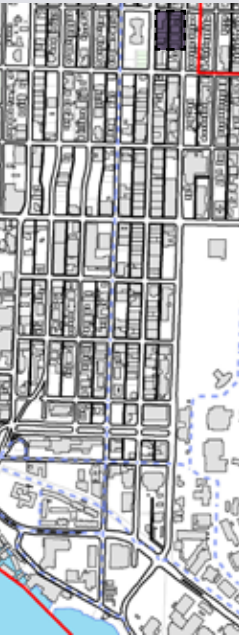


University Heights Hub

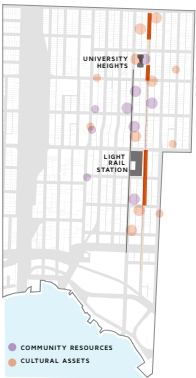
Nancy Chan & Natalia Chetvernina

This project focuses on the block to the east of the University Heights center and the University District farmers market—two important existing cultural assets in the U-District. This concept proposes to strengthen these assets by creating a stronger community node while establishing a robust public space network at various scales. At the block scale, three major conditions were explored: strengthening the sectional relationship of the upper alley to the street, supporting the existing small-scale businesses, and incorporating community education programs at University Heights. The proposed solutions involve re-thinking what the street could be and its edges, configuring a co-housing scheme on the rooftops, and activating the alley with artisan workshops.

We then chose to delve deeper into the design of the transitional zone between the public district scale to the more private neighborhood scale. The area serves not only as a mid-block connection but also as a public space for a community to grow by inviting people to pause, interact and gather. We had fun!



CONTEXT



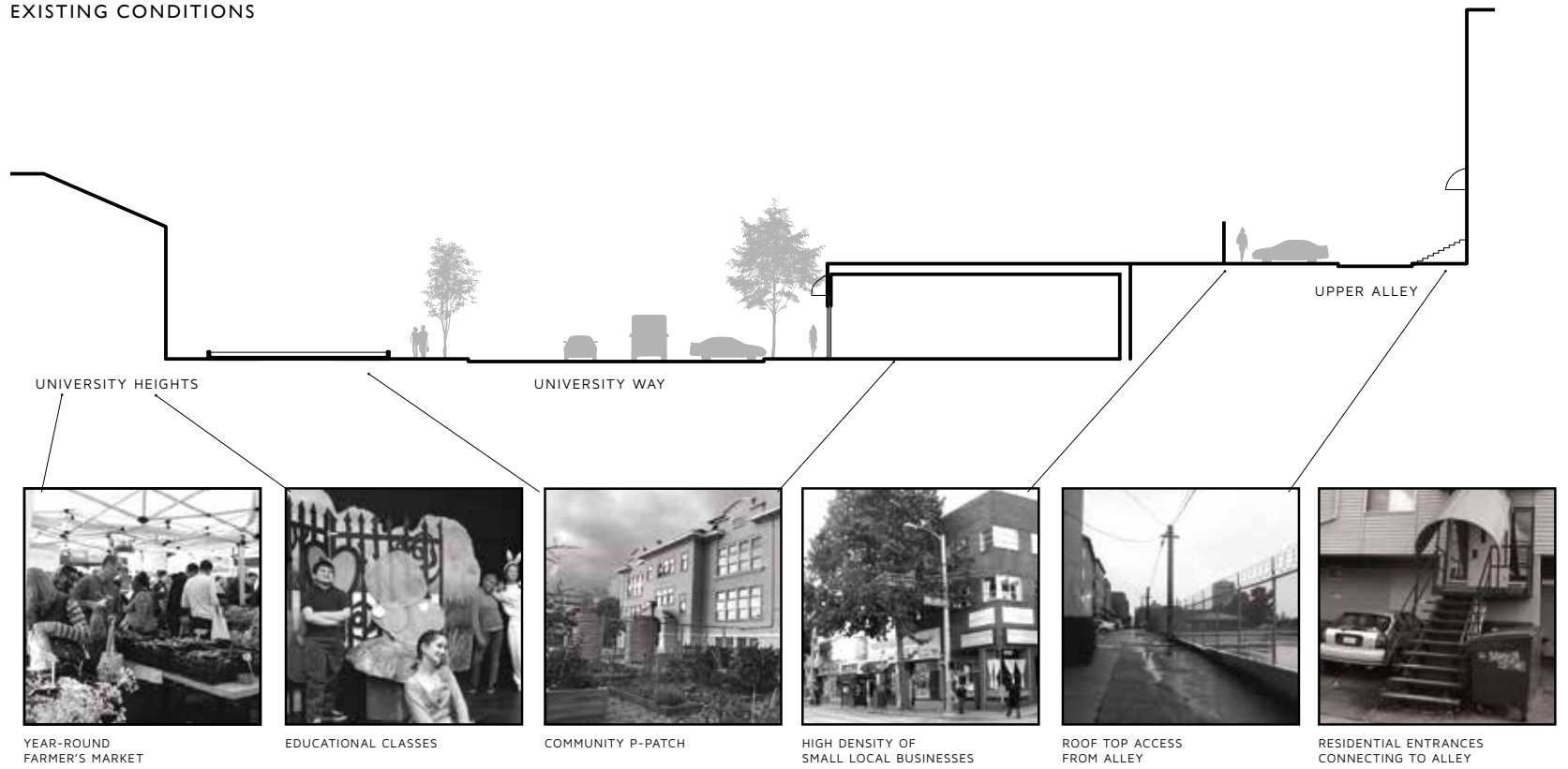
DISPERSED
EXISTING CONDITION



ASSEMBLED = COMMUNITY HUB
PROPOSED
FOOD / CULTURE / EDUCATION

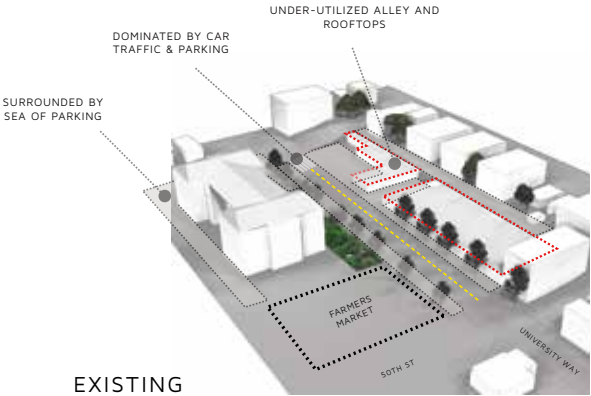


EXISTING CONDITIONS

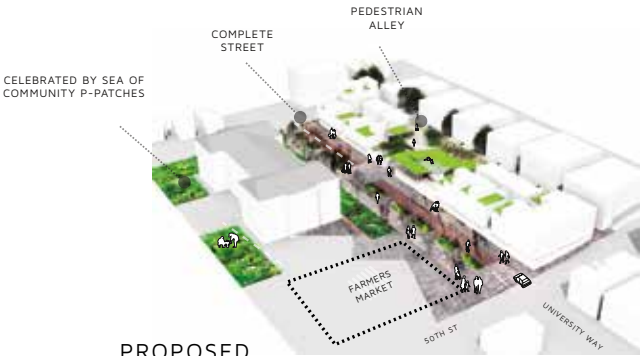




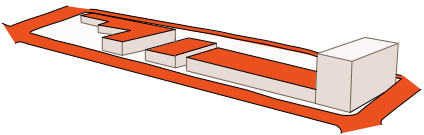
UNIVERSITY WAY BETWEEN 50TH AND 52ND STREET



EXISTING

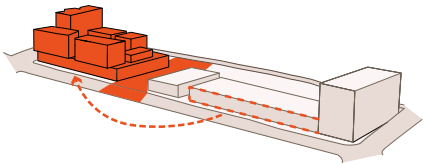


PROPOSED



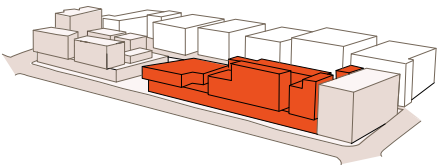
PHASE 0 INTERVENTION

- Temporary interventions to activate rooftops
- Street and alley redevelopment



PHASE 1 CO-HOUSING

- Plaza/stairway connection to alley
- North section of retail and co-housing units
- Existing businesses relocate to North section of block



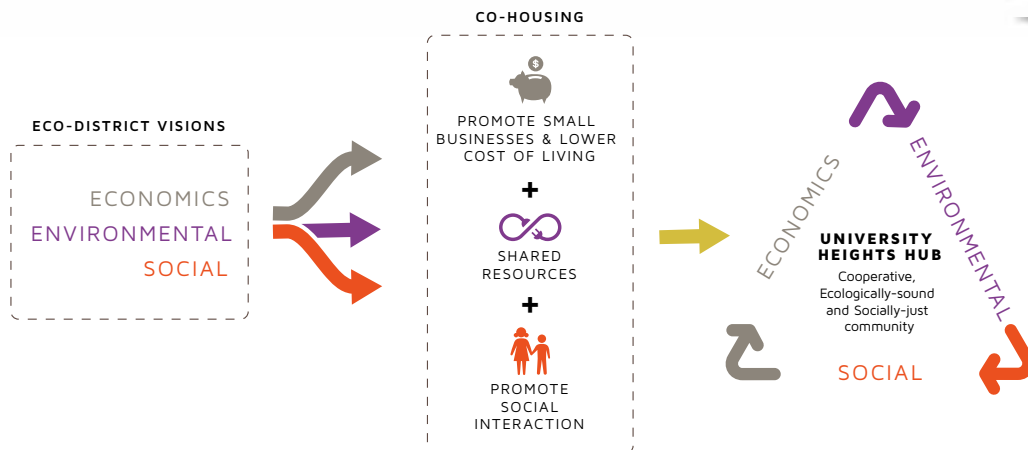
PHASE 2 CO-HOUSING EXPANDED

- South section of retail and co-housing units





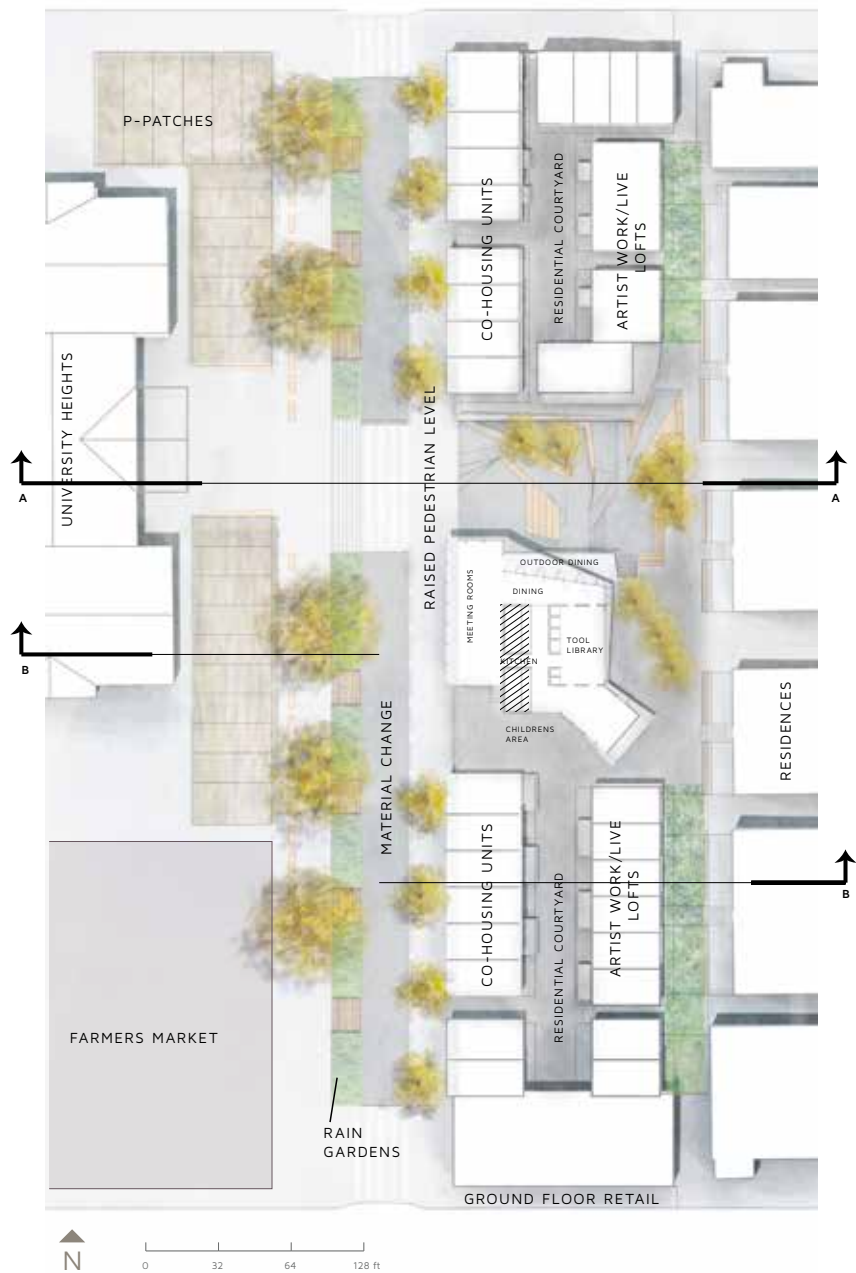
WHY CO-HOUSING?



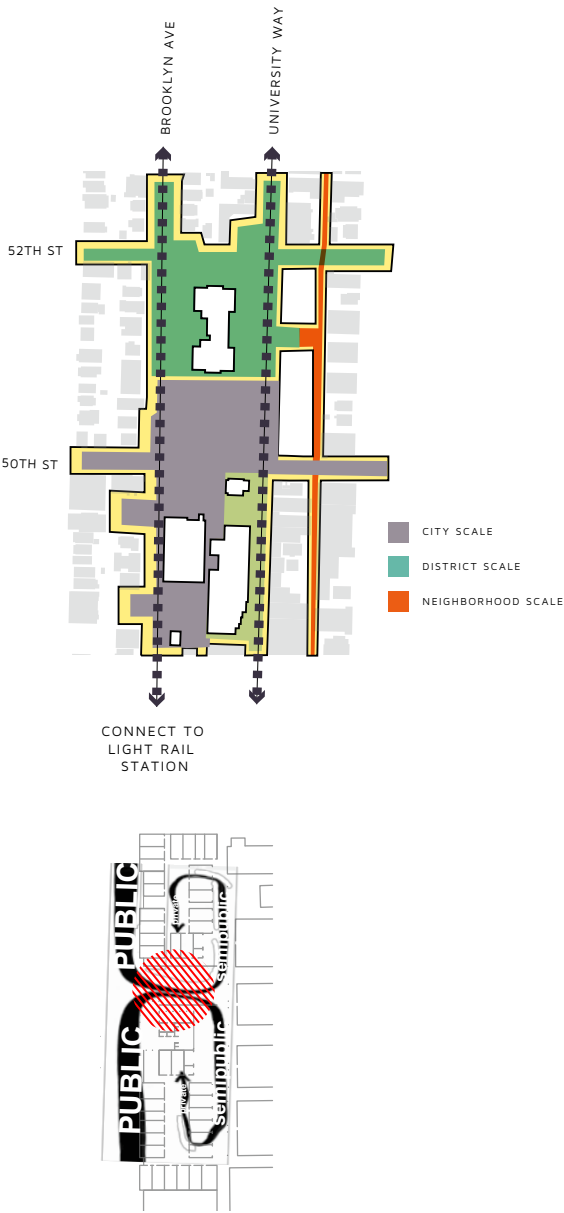
"I know I live in a community because on a Friday night it takes me forty-five minutes and two beers to get to ... my front door."

-Danielle Johnson, "Cohousing Today," SeattlePi News online, Feb 2007 <http://blog.seattlepi.com/greenbuilding/2007/02/06/cohousing-today/>

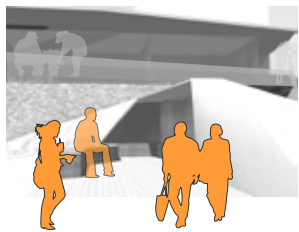
SITE PLAN



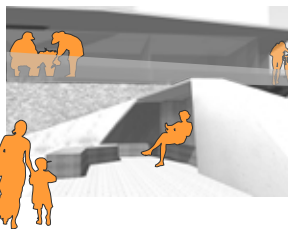
PUBLIC SPACE NETWORK



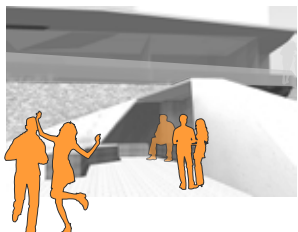
USERS



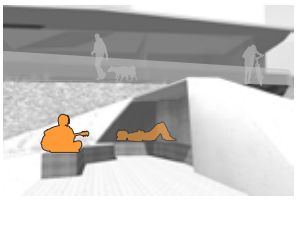
FARMERS MARKET VISITORS



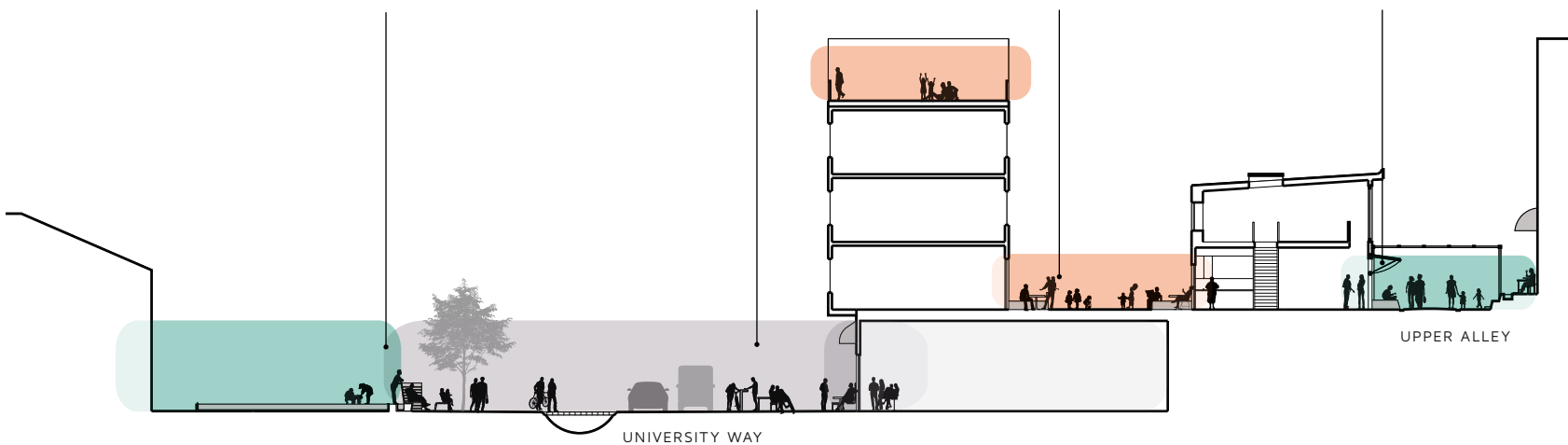
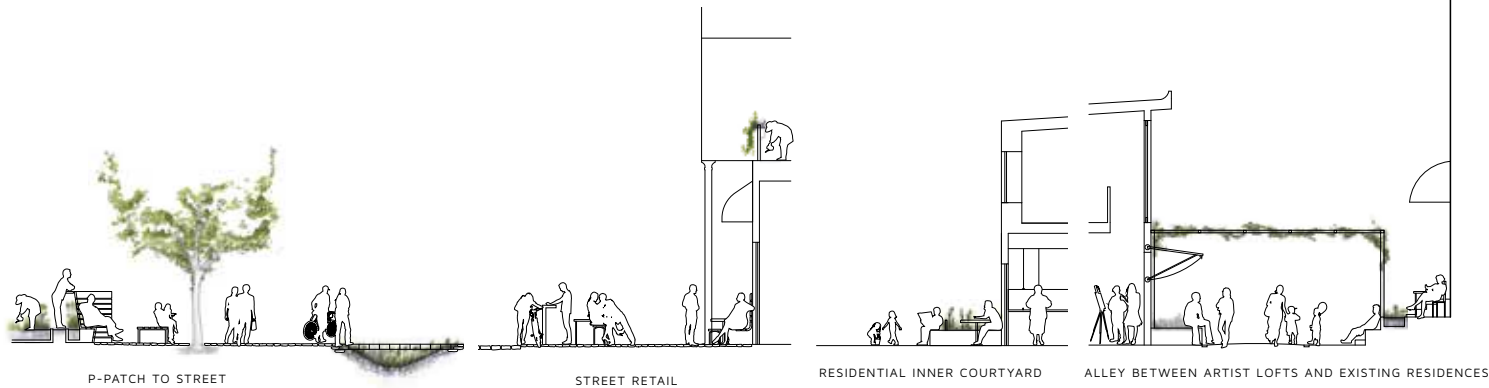
CO-HOUSING RESIDENTS



NIGHTLIFE CROWD

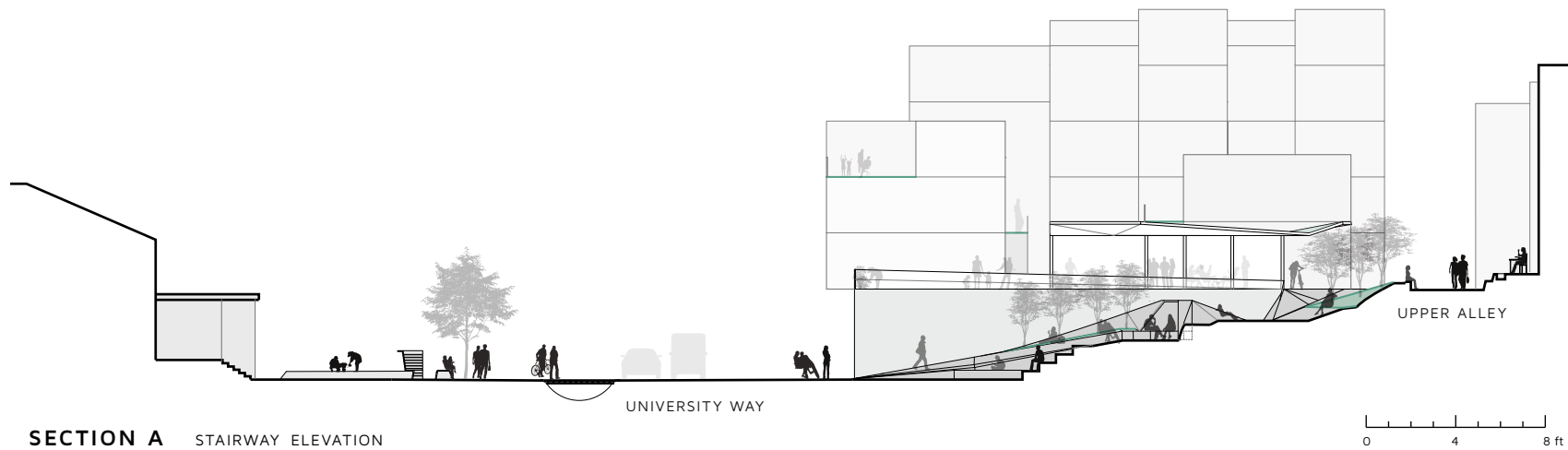
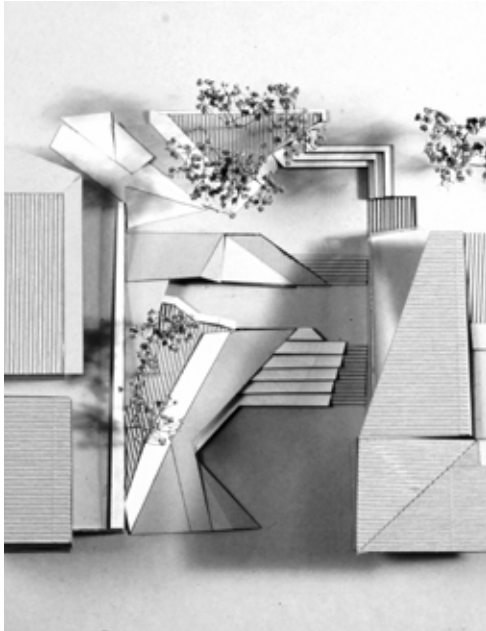


HOMELESS



SECTION B PUBLIC SPACE AT CITY/DISTRICT/NEIGHBORHOOD SCALES

TRANSITION ZONE



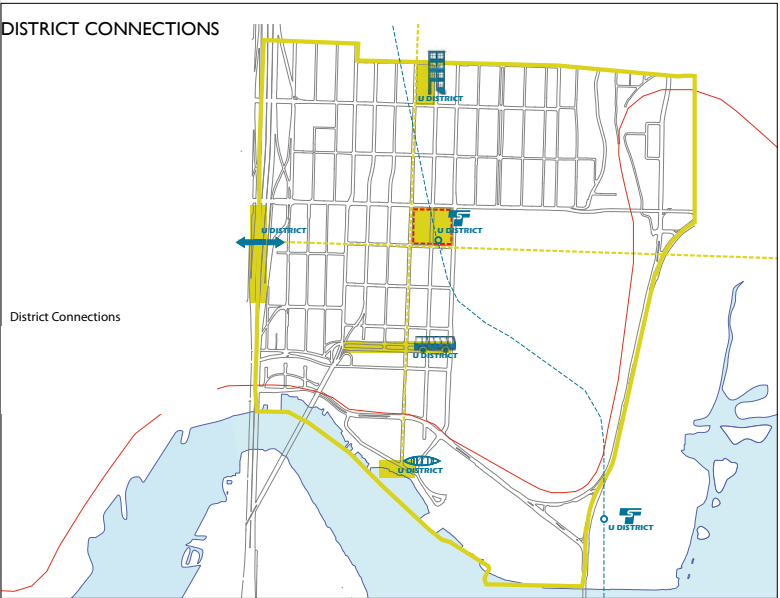
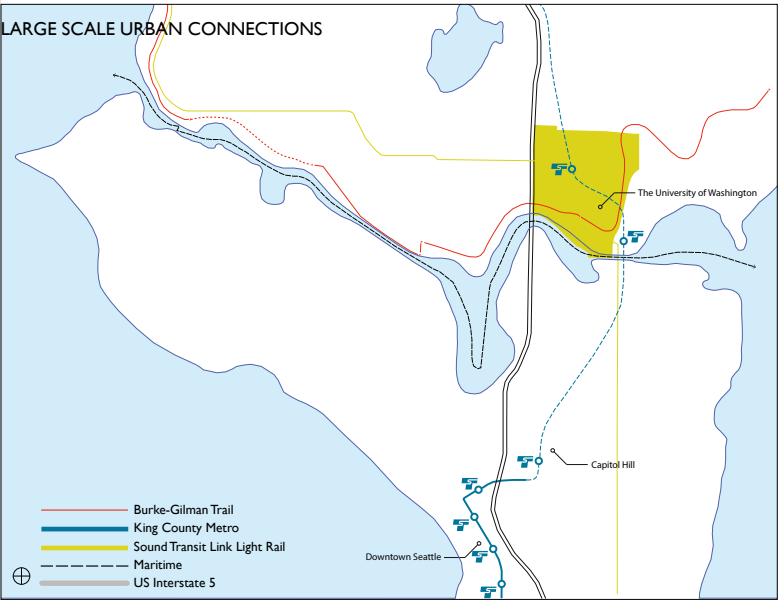
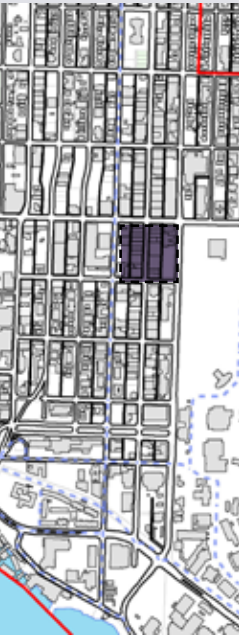


U Square

Emily Perchlik + Hillary Pritchett

The University District's public space is defined solely by the right-of-way. This creates few opportunities for the district's varied users to comfortably appropriate and share the public realm. Conferring both a center and an identity for the district as a link along a larger transit line, U Square satisfies this lack of intersection by accommodating defensible space within the larger public community. An adaptable strategy engages the sum of user-groups, engendering a sense of home, a sense of uniqueness, and a sense of community.

Clarity of materials and spatial organization orient visitors upon entry, facilitating intuitive wayfinding and movement to, from, and within the space. Individual appropriation of shared space augments transit station use by inciting ownership of the unique nodes within the plaza. Community appropriation stimulates pedestrian traffic and allows for larger gatherings and events. By pairing an overall transit system wayfinding scheme with unique station identity, the station will provide a cohesive experience along the rail line while defining the unique identity of the district.



NORTHWEST MATERIALS



TRANSIT STATION
WAYFINDING: POSTS
WITH LIGHTING



SOUTH STATION ENTRY



12TH AVENUE

45TH STREET

PLAZA PLAN

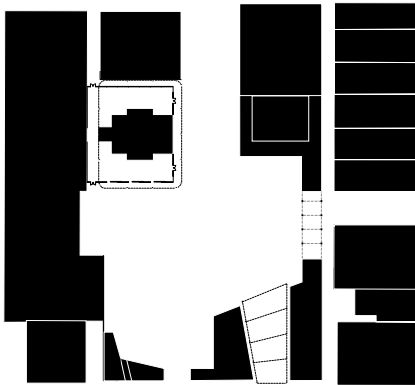


1:60

- 1 UW OFFICES
- 2 BUS STOP
- 3 BIKE PARKING
- 4 ARCADE INFILL
- 5 BIOSWALE
- 6 NORTH STATION ENTRY WITH HOUSING ABOVE
- 7 PLAYSPACE
- 8 NEWSSTAND + CLOCK
- 9 PLAY FOUNTAIN
- 10 DAYLIGHT SEATING
- 11 AMPHITHEATER
- 12 BIKE SHOP + BIKE STORAGE
- 13 LAUNDRY, GAMEROOM + JUICE BAR
- 14 SOUTH STATION ENTRY
- 15 MARKET
- 16 RAISED PEDESTRIAN PAVING

43RD STREET

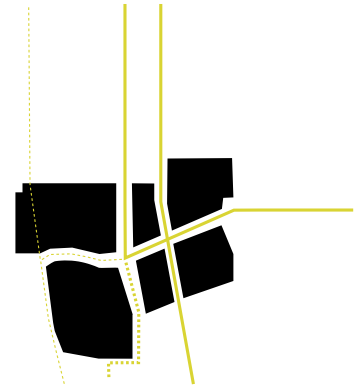
UNIVERSITY WAY NE



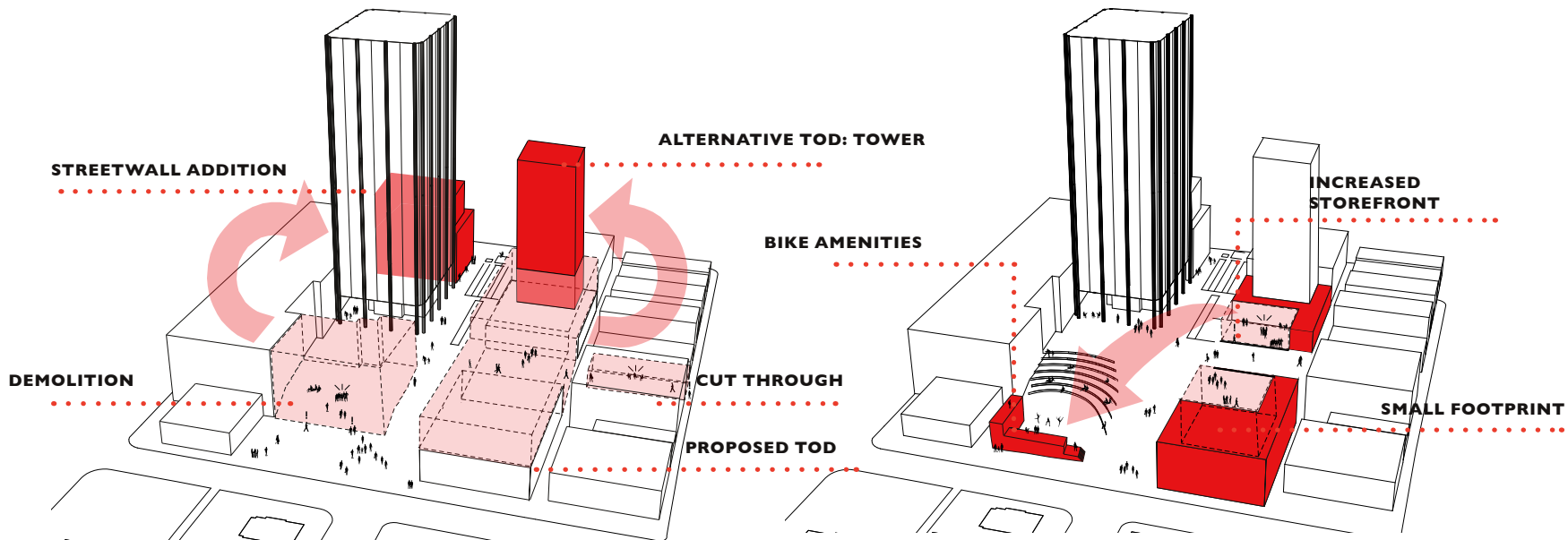
1 NEW URBAN FORM



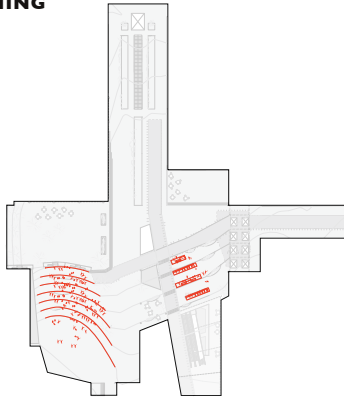
2 PUBLIC SPACE



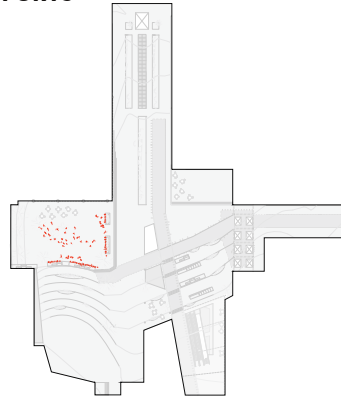
3 DESIRE PATHS + ROOMS



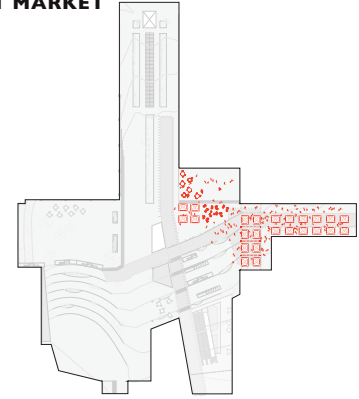
1 SUNBATHING



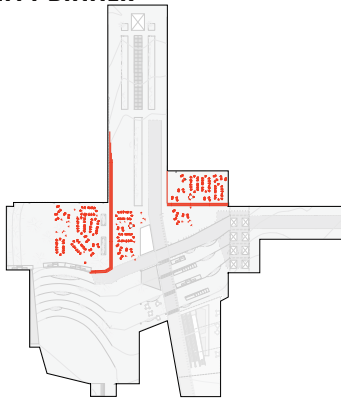
2 URBAN SPORTS



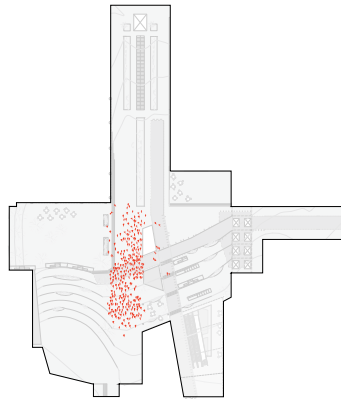
3 STREET MARKET



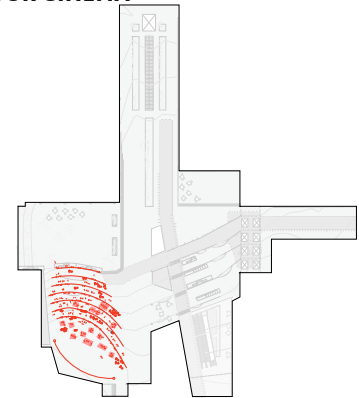
4 COMMUNITY DINNER



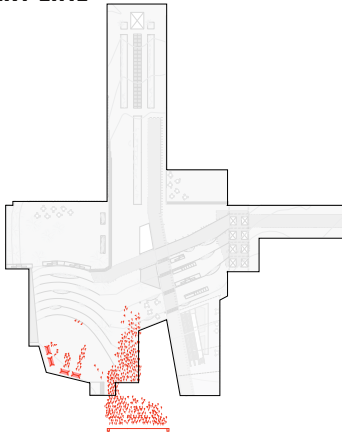
5 PROTEST



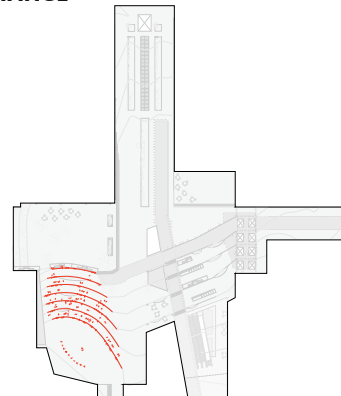
6 OUTDOOR CINEMA



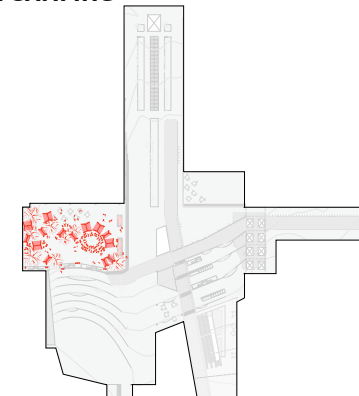
7 RACE START LINE



8 PERFORMANCE



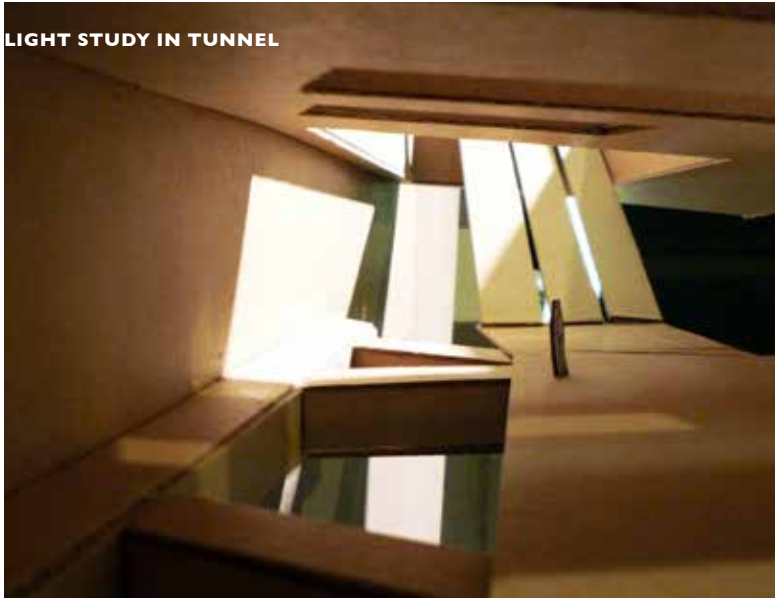
9 URBAN CAMPING



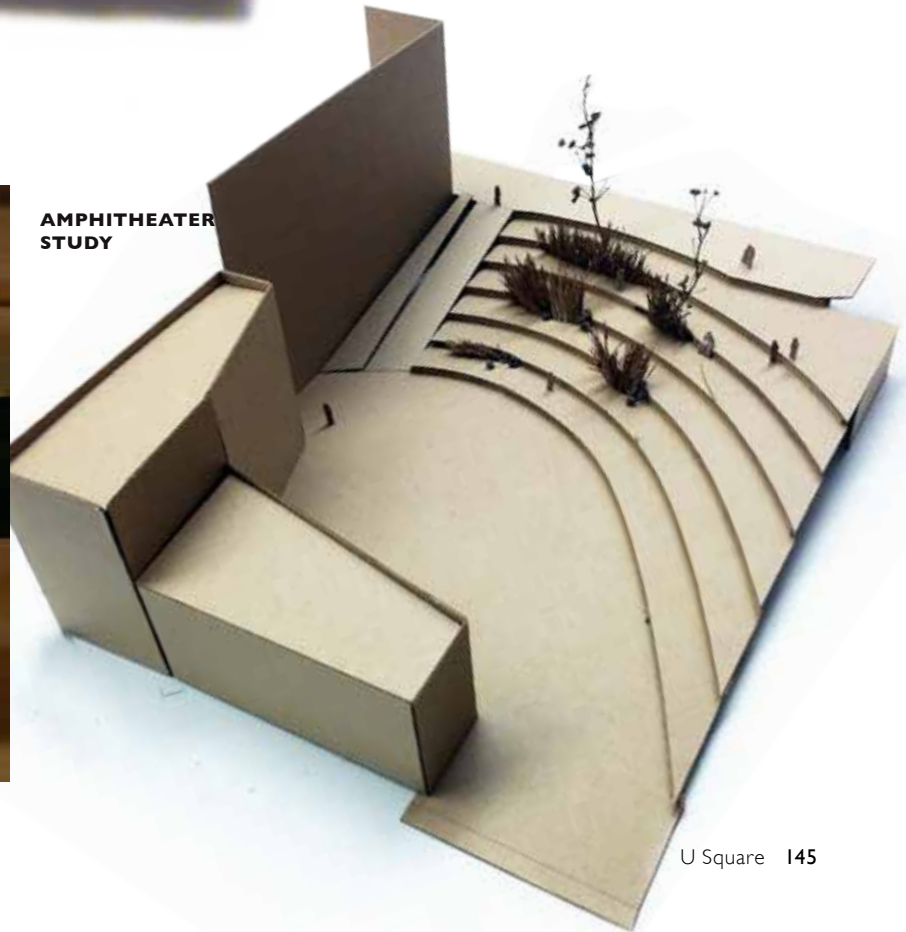
TUNNEL SECTION MODEL

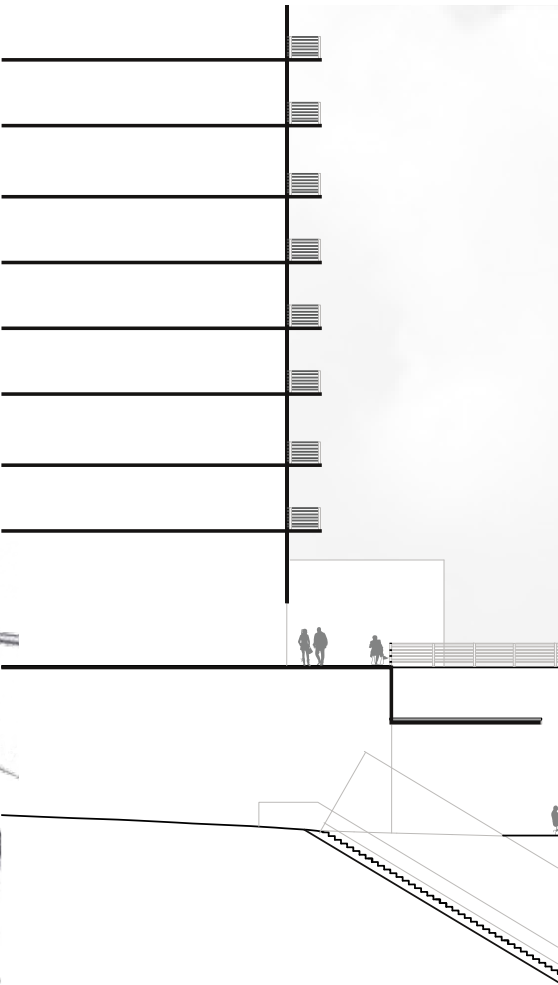


LIGHT STUDY IN TUNNEL



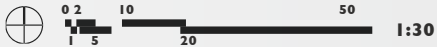
AMPHITHEATER STUDY

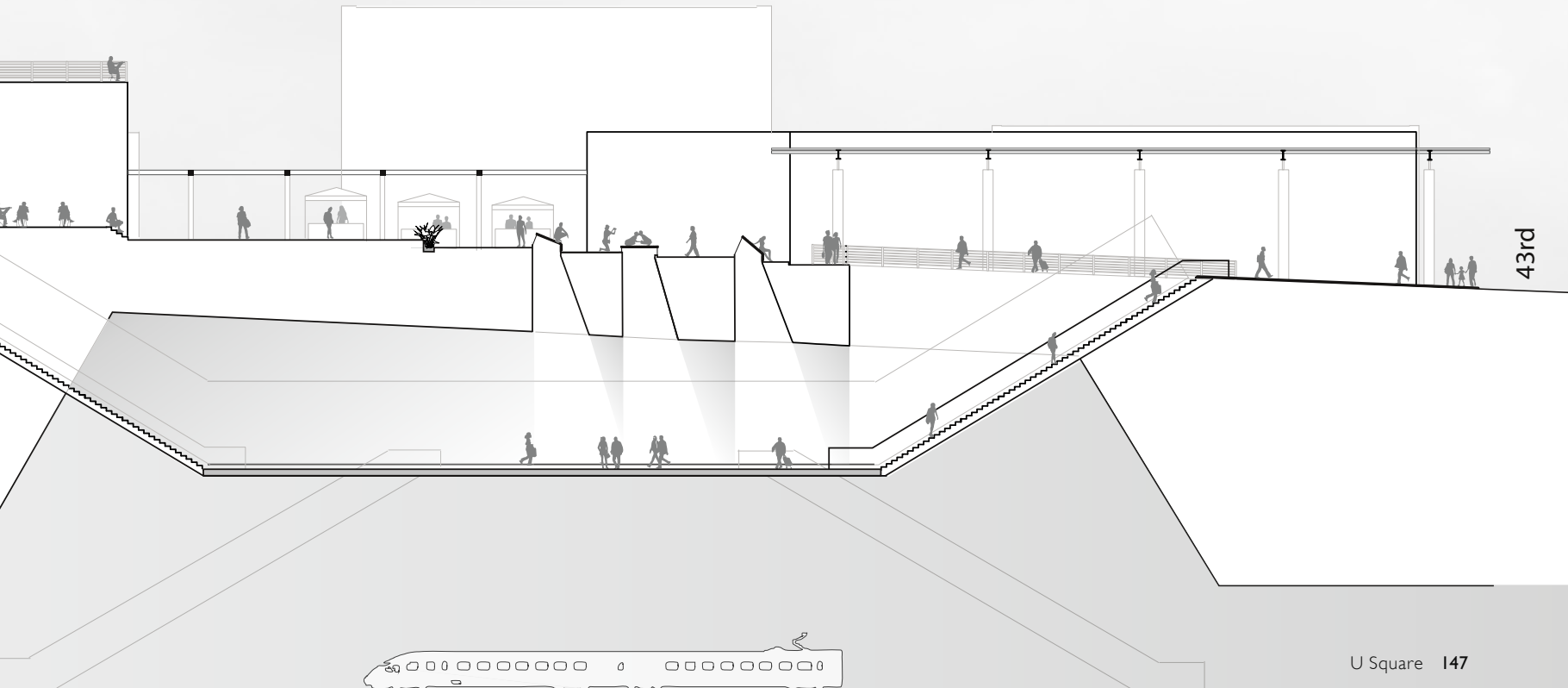
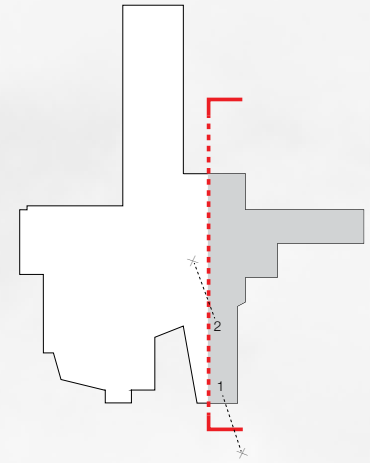
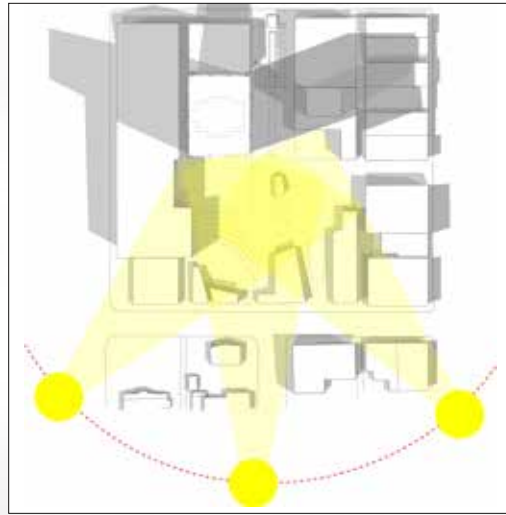
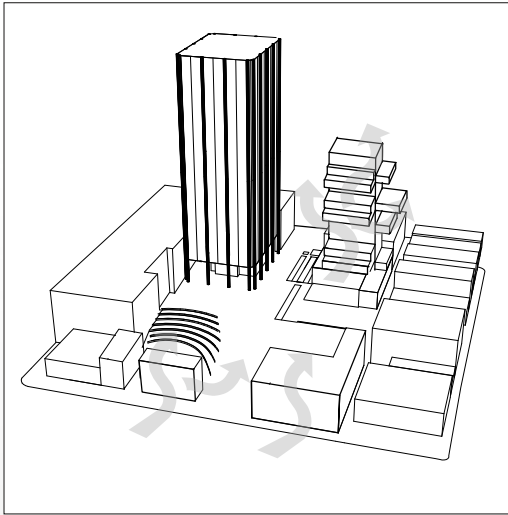


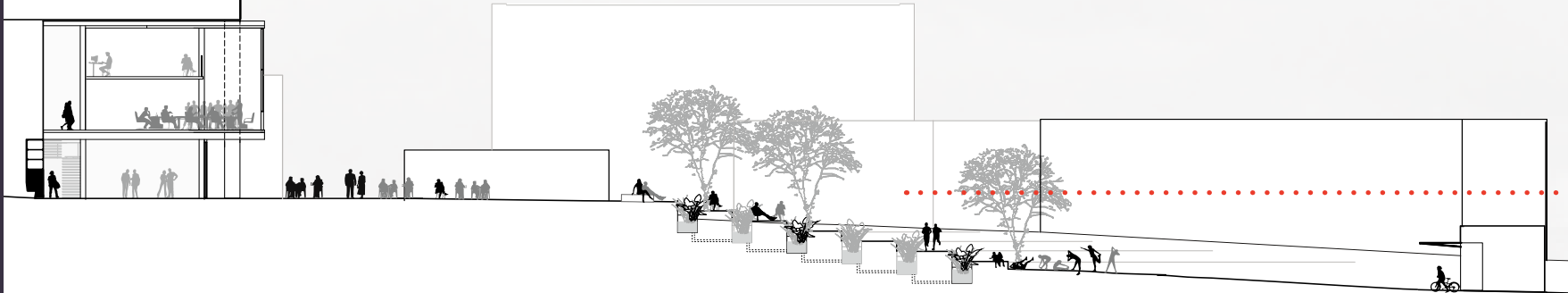
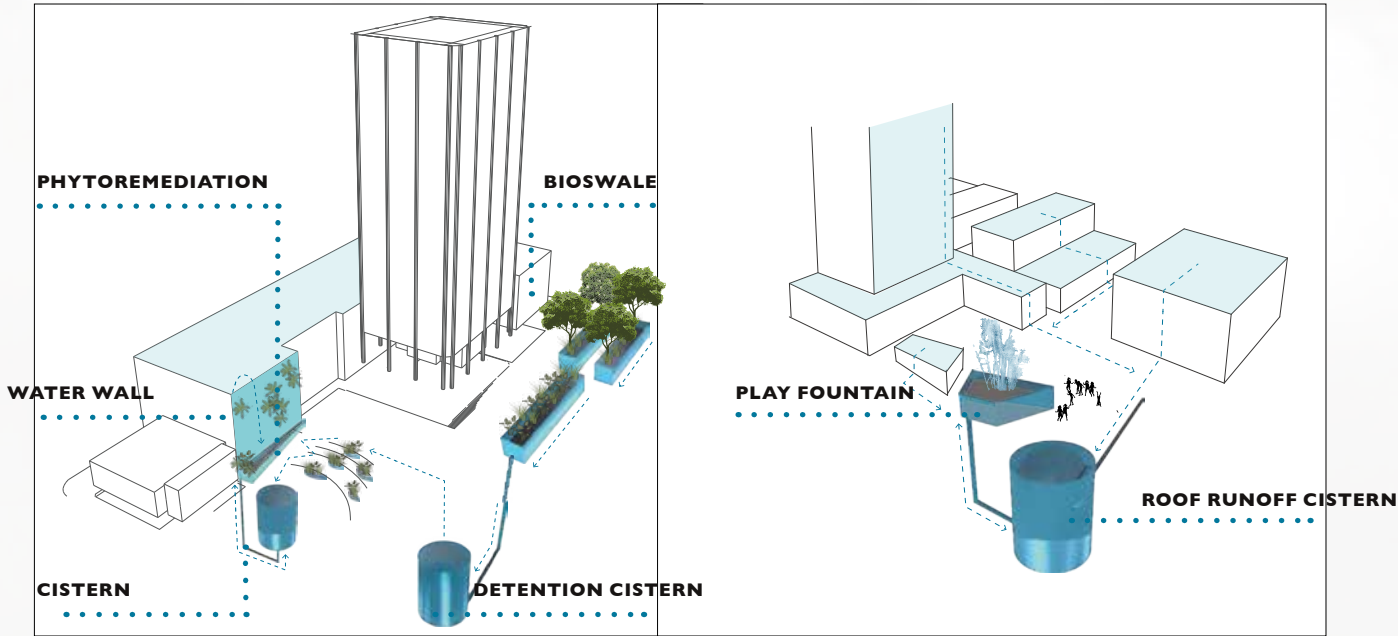


TUNNEL DAYLIGHTING AT UPPER PLATFORM

SECTION A







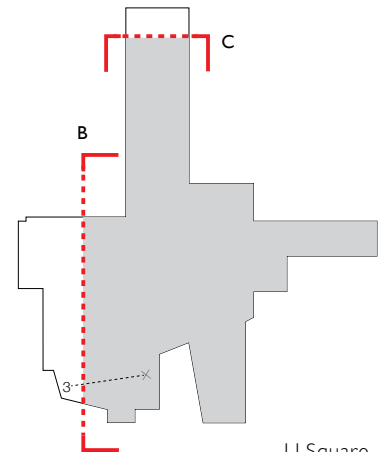
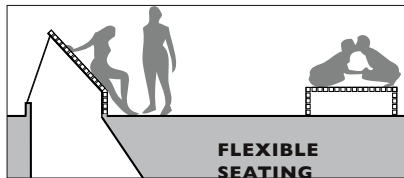
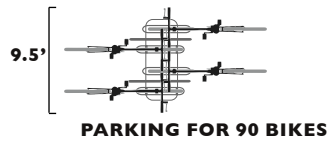
SECTION B

0 2 10 50
5 20

1:30



3 : AMPHITHEATER + BIKE AMENITIES





“The only successful approach to designing great cities for people must have city life and city space as a point of departure. It is the most important—and the most difficult approach, and it cannot be left until later in the process.”

Jan Gehl, *Cities for People*

Whether people are enticed to walk around and stay in city space is very much a question of working carefully with the human dimension and issuing a tempting invitation.

Jan Gehl, *Cities for People*

2012 Scan|Design Interdisciplinary Master Studio

