CAPSTONE REPORT

URBAN DESIGN

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School of Urban Studies
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Side of Tioga Library Building. Photo courtesy of Elizabeth Metcalf.

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URBAN DESIGN CAPSTONE

Critiquing UWT masterplan

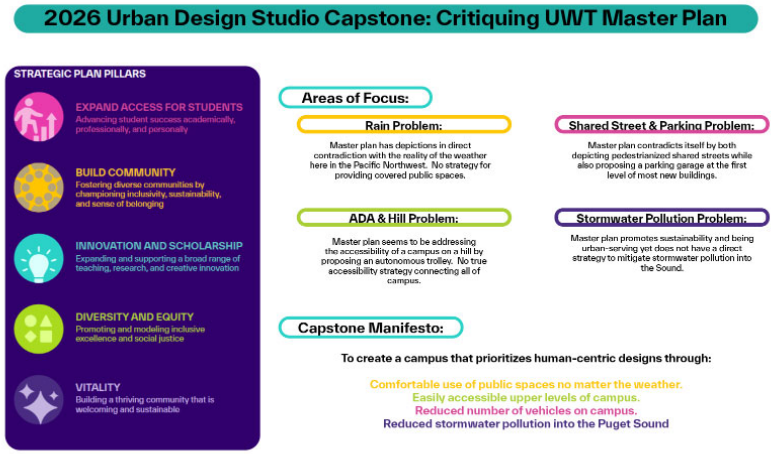
During this school year, we were prompted to analyze the UWT 2025 Campus Master Plan to determine the most important factors when creating our later projects. This analysis later shaped our talking points for our community engagement strategy with classroom visits and pop up events.

Focus Points

Through our analysis, we landed on four main focus points for our designs of South 19th Street and Jefferson Avenue. Those points being creating additional weather protection in open areas, reducing parking and vehicular usage on campus, increasing accessibility moving towards the development of the West side of campus, and promoting the development of increased green stormwater infrastructure. Though we gained four focus points, our main priority for research through community engagement was the parking problem.

Capstone Manifesto

With our analysis and research, we decided to further develop our focus points into ways the design with the students of campus in mind. Our main goal moving through the rest of the year with our designs was to design spaces throughout the campus that prioritizes human-centric designs. This not only focuses on the human experience of students and staff, but also works to create a more sustainable footprint from the campus itself.

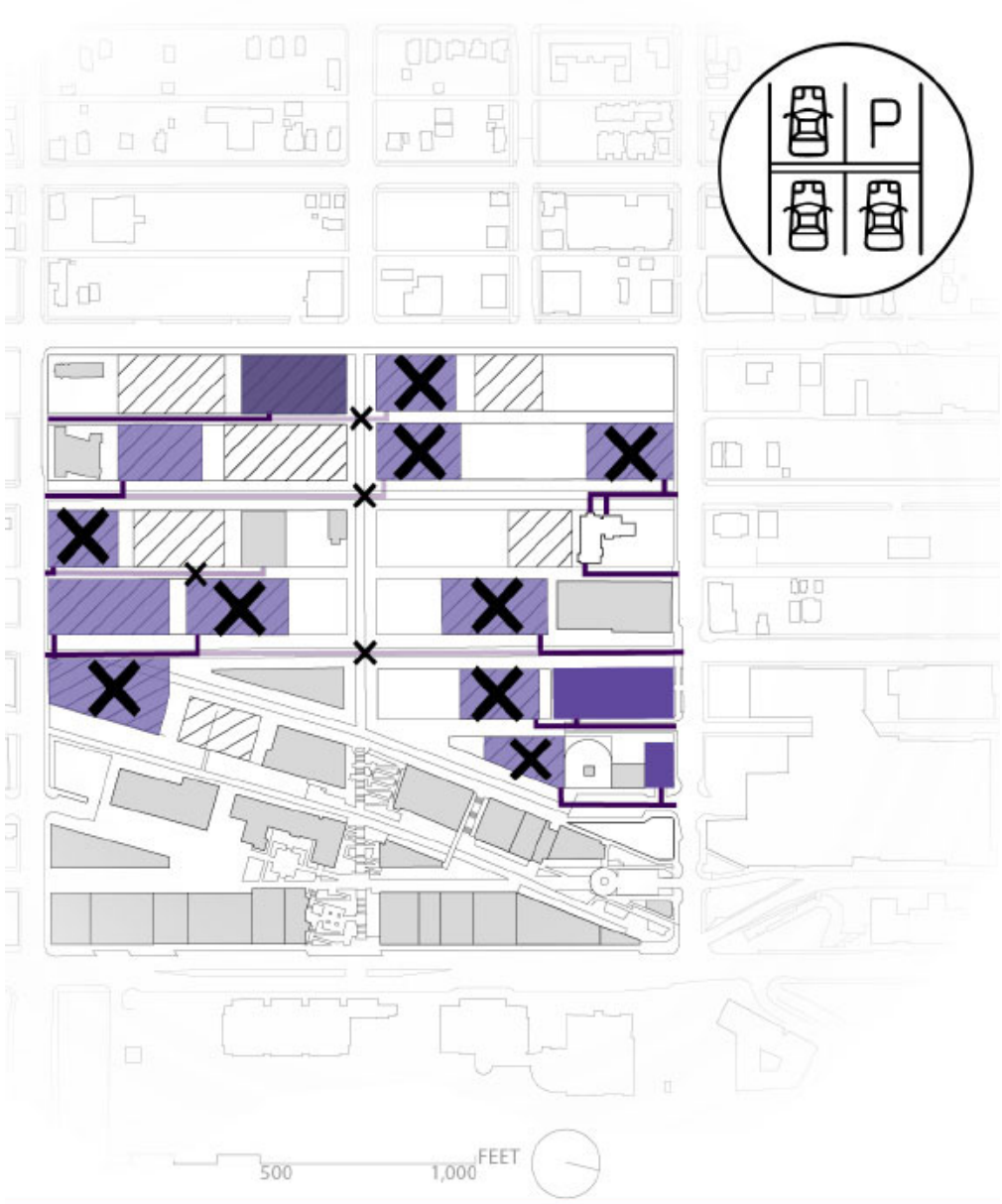


Capstone design manifesto and focuses. Photo courtesy of Samantha Eilert.

UWT Parking Strategy

The Issues Found

Starting our Capstone project off strongly, we did our analysis of multiple issues we found in the masterplan. Here, we had highlighted which of their proposed building footprints were also proposed to have parking within the first two floors of said buildings. After some thought, Ariana Orozco Perez and I decided that this much parking for a school working towards a student first goal was too much and wanted to focus on some alternatives.



UWT Spring 2025 Masterplan future building and parking development. Photo courtesy of Ariana Orozco Perez.

Nearby public parking structures, surface lots, and vacant lots for opportunity. Photo courtesy of Ariana Orozco Perez.

UWT Parking Strategy

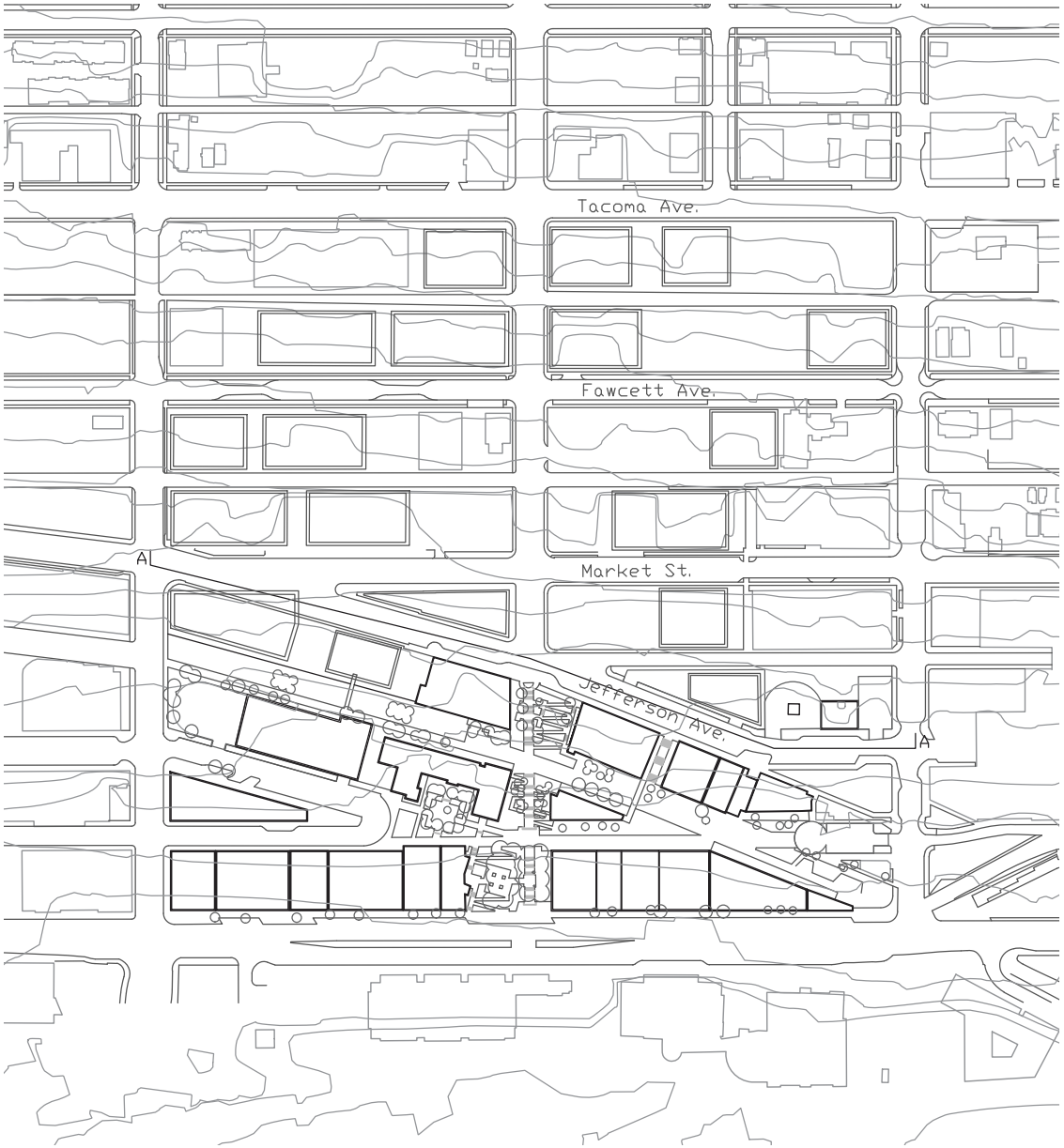
Off-site parking

Based off of our previous research and analysis of the master plan, Ariana and I wanted to work on highlighting nearby off-campus parking. This would in turn be one of our best possibilities of tackling the cars on campus and parking issues. Nearby parking structures, surface lots, and vacant lots could be used as a substitution for most if not all of the parking lots on campus if drivers were spread out to the surrounding areas.

UWT Parking Strategy

How does it compare?

This map highlights not only the existing buildings of UW Tacoma campus with the thicker black lines, but also the buildings proposed in the 2025 master plan and how they may be integrated into the surrounding area. As the UW Tacoma master plan goes into development and phasing, the integration will play a big part with the inclusion of the Hilltop neighborhood.



Site plan highlighting the existing UWT campus and future development spaces. Photo courtesy of Bryden Punsalan.

Community engagement was especially important for us with this project because we wanted to ensure we were designing with the opinions and ideals of our fellow students in mind. This in turn also shaped our community engagement strategy and efforts.

With the primary goal of our engagement strategy being to gain as many responses through our efforts as possible, we created multiple response gaining chances.

Those being:

- In-class surveys
- Flyers with QR codes
- Talking to students in passing
- Events in the Commons
- Tabling at the YMCA

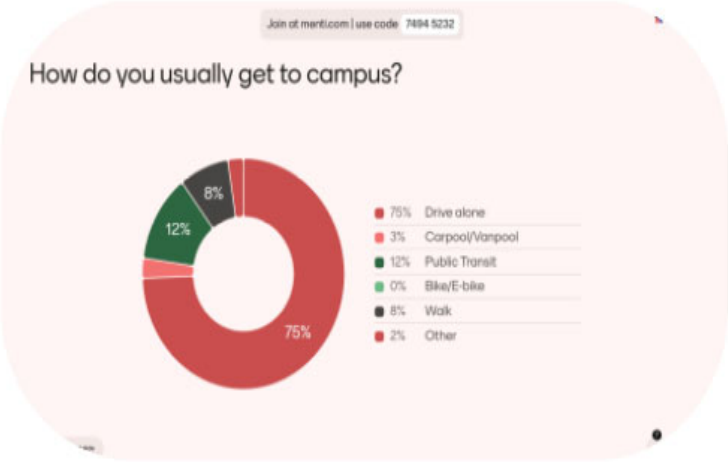
After we completed our community engagement, we totaled up our results and moved onto our group projects.

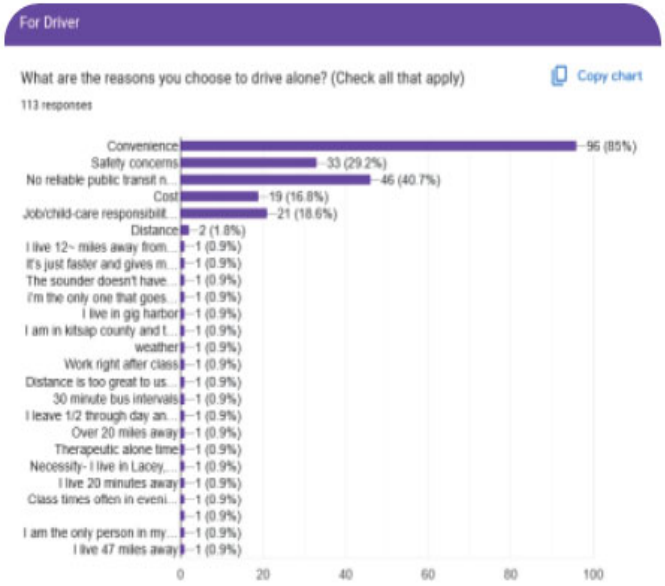
Urban Design Capstone students at their tabling event in the UWT Commons during Winter quarter 2026. Photo courtesy of Dr. Bara Safarova

Community Engagement: Strategy & Process

Class Survey & Online Survey

- Rapid Class Survey:
  - collection of basic information
  - acts as promotion for larger survey and event where we talk to people
- Online Survey:
  - Based on CRT
  - more detailed insights on motivations for mode of transportation

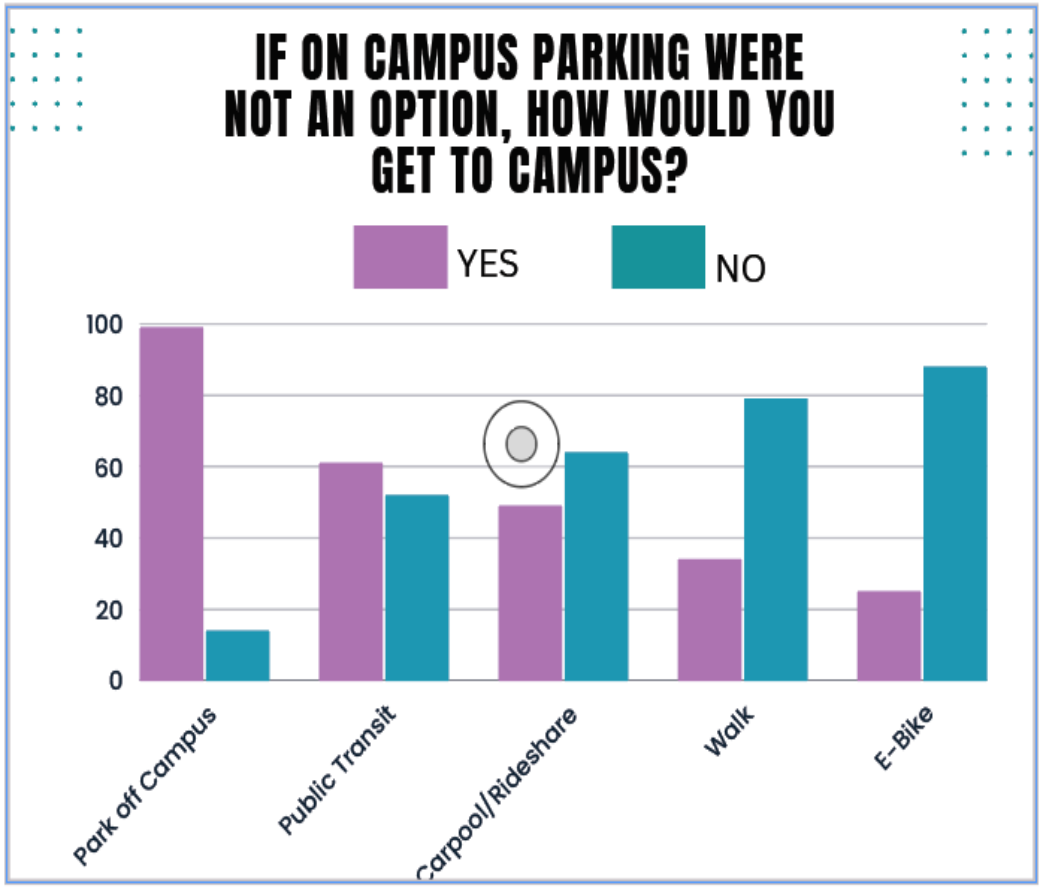




Different flyers used throughout our community engagement efforts. Photo courtesy to Laurence Applen and Ariana Orozco Perez.

Community Engagement: Results

Misc. Results



Community Engagement: Results

Surprising Results

Though a majority of respondents said no to considering E-Biking as an option, we were still surprised to see that a significant enough portion were interested to where it could be worth doing a trial run.

19th STREET CORRIDOR CONCEPTUAL PLAN

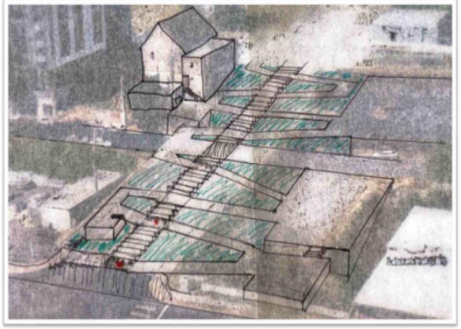
Civil Engineering Team: Dennis Quiocho, Isaiah Beidalah, & Benjamin Butler
Urban Studies Team: Laurence Applen, Ariana Perez, Bryden Punsalan, & Zachariah Manalese
Industry Advisor: Brian Wang | **Faculty Advisor**: Dr. Nara Almedia & Bára Šafářová
School of Engineering and Technology (SET) | Civil Engineering
School of Urban Studies

SET CIVIL ENGINEERING

BACKGROUND

South 19th Street at UW Tacoma has steep grades, limited accessible routes, and weather-related safety concerns. Our team developed a pedestrianized corridor with stairs and ramps to improve safety, campus mobility, and accessibility where feasible.

INITIAL SKETCHES



GOALS

- Improve pedestrian safety
- Enhance accessibility
- Improve campus connectivity
- Create efficient circulation
- Develop a practical design

CHALLENGES

- Steep terrain
- Limited accessibility
- Weather safety concerns
- High pedestrian traffic
- Existing corridor constraints

COST ESTIMATE

ITEM	COST
EARTHWORK	
Roadway Excavation Including Haul	$260,911
Structural Fill / Gravel	$22,095
Retaining Wall Excavation	$15,450
Footer / Footing Excavation	$29,887
Imported Structural Fill / Gravel	$22,095
Earthwork Subtotal:	$350,438
Earthwork Contingency (20%)	$70,088
Total Earthwork Cost:	$420,526
CONSTRUCTION / MATERIALS	
C6 Sidewalk Concrete Removal	$42,000
C12 Roadway Concrete Removal	$63,000
Retaining Walls (WSDOT D2)	$695,000
Handrails / Railings	$405,000
ADA Ramp Construction	$540,000
Stair Construction	$875,000
Drainage Improvements	$750,000
Lighting (Additional)	$300,000
Landscaping / Restoration	$500,000
Construction Subtotal:	$4,170,000
Construction / Materials Contingency (20%)	$834,000
Total Construction / Materials Cost:	$5,004,000
SOFT COST	
R4 (5% Project Allocation)	$250,200
R5 (10% Project Allocation)	$500,400
R3 (10% Project Allocation)	$500,400
Mobilization (10% Project Allocation)	$500,400
Design / Documentation	$150,000
Soft Cost Subtotal:	$1,901,400
TOTAL PROJECT COST:	**$7,325,926**

EVALUATION MATRIX

Objective	Metric	Existing	Alt A	Alt B	Alt C
Develop a complete corridor that safely accommodates walking, biking, transit, and driving	Pedestrian/vehicle conflict reduction	🔴	🟡	🟢	🟢
	Winter safety (surface, drainage, maintenance)	🔴	🟡	🟢	🟡
	Bike separation level (shared vs. protected)	🔴	🔴	🟢	🟢
	Campus bike network connectivity	🔴	🟡	🟢	🟢
	Crossing safety (visibility & distance)	🔴	🔴	🟢	🟢
	Safe, accessible transit stops	🟡	🟢	🟢	🟢
	Emergency vehicle access	🟢	🟡	🟡	🟢
Improve accessibility for all users (including ADA)	Running & cross-slope compliance	🔴	🟡	🟢	🟡
	Illumination at crossings and paths	🟡	🟡	🟢	🟢
	Curb ramps	🔴	🟡	🟢	🟢
	Boarding gap/ramp compliance	🟡	🟢	🟢	🟢
	Building entrance accessibility	🟡	🟡	🟢	🟢
Support efficient movement up/down the hill (mobility & operations)	Walk time & directness	🔴	🟡	🟢	🟢
	Pedestrian capacity (clear width)	🔴	🟡	🟢	🟢
	Slope comfort & speed management	🔴	🟡	🟢	🟢
	Reliability (stop placement, priority, conflicts)	🟡	🟢	🔴	🟢
	Vehicle integration (drop-off/loading without conflict)	🟢	🟡	🔴	🟢
	Pedestrian assist speed & response time	🔴	🟡	🟢	🟡
	Annual maintenance interventions	🟢	🔴	🟡	🟡
Cost effective	Implementation & ongoing maintenance cost	🟢	🔴	🟢	🟡

🟢 High - Strong Performance 🟡 Medium - Acceptable 🔴 Low - Poor Performance

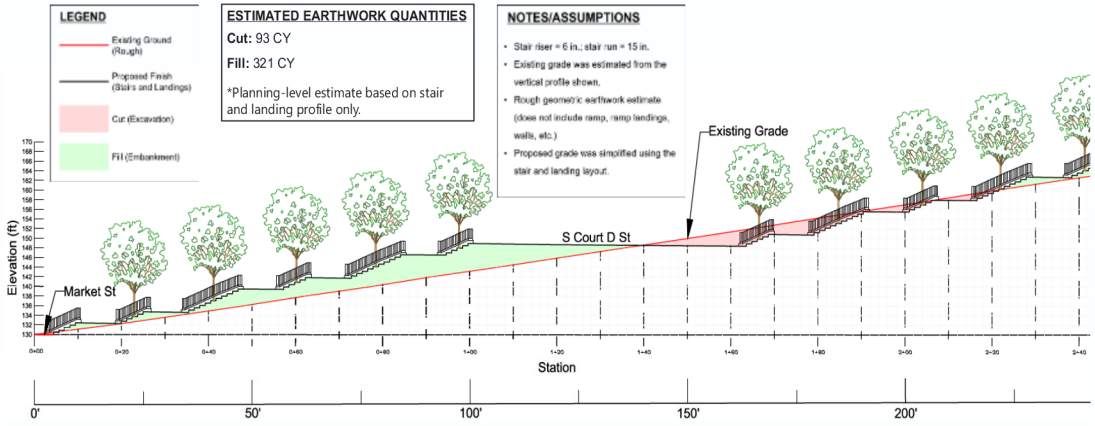
Alternatives	Total 🟢
Existing Corridor	4
Alt A - Trolley	3
Alt B - Pedestrianize	16
Alt C - Multimodal	15

Final Selection: Alt B - Pedestrianize

Why it wins:

- Improves pedestrian safety and ADA accessibility.
- Provides switchback ramps that may support bike-walk movement.
- Avoids trolley construction, operations, and reliability risks.
- Creates a more pedestrian-focused campus corridor.

EARTHWORK



COLLABORATIVE DESIGN PROCESS

The Urban Design Engineering (UDE) and Civil Engineering (CE) teams worked collaboratively throughout the project, refining corridor concepts through shared feedback, iterative design reviews, and combined planning and engineering analysis to develop the final conceptual plan.

ACKNOWLEDGEMENTS

We thank our industry advisor, Brian Wang, for his guidance, feedback, and support throughout this project. We also want to give special thanks to our very own Professor Nara Almeida from Civil Engineering and Professor Bara Safarova from Urban Studies for their collaboration and input on campus mobility and planning considerations.

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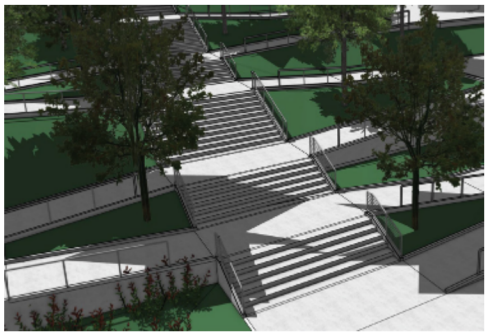
SET CIVIL ENGINEERING

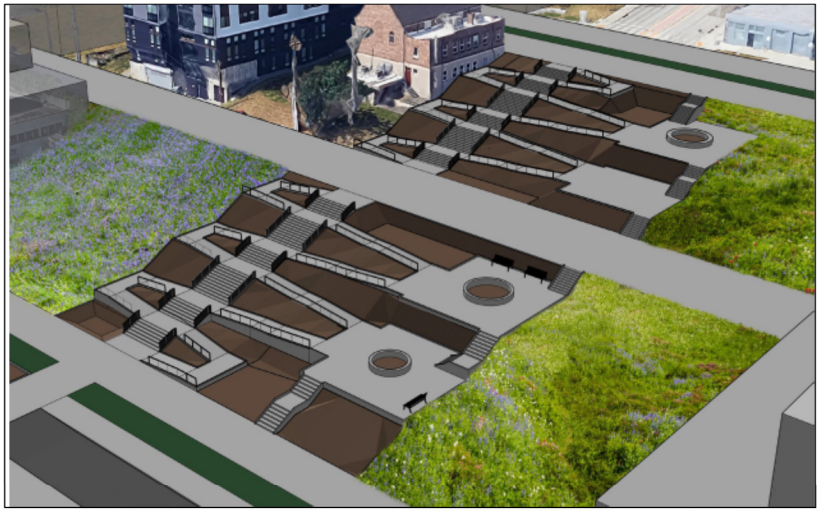
Existing Corridor

Proposed Design

Proposed Design



Proposed Design



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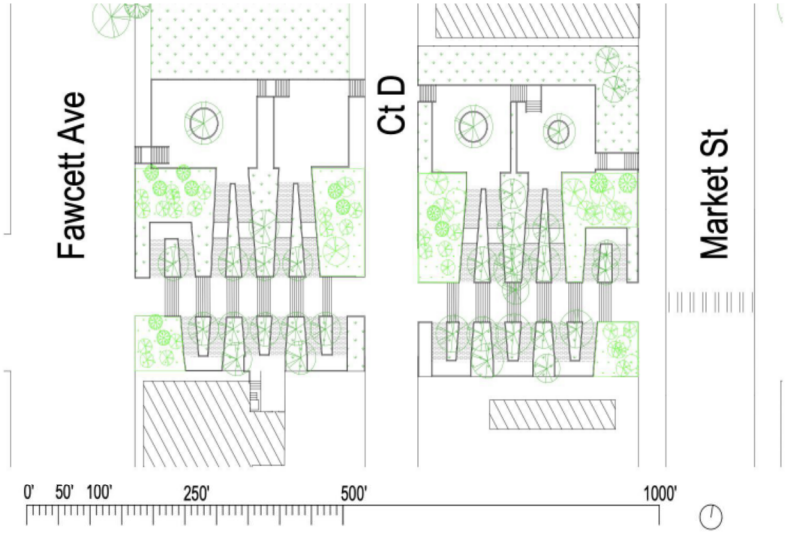


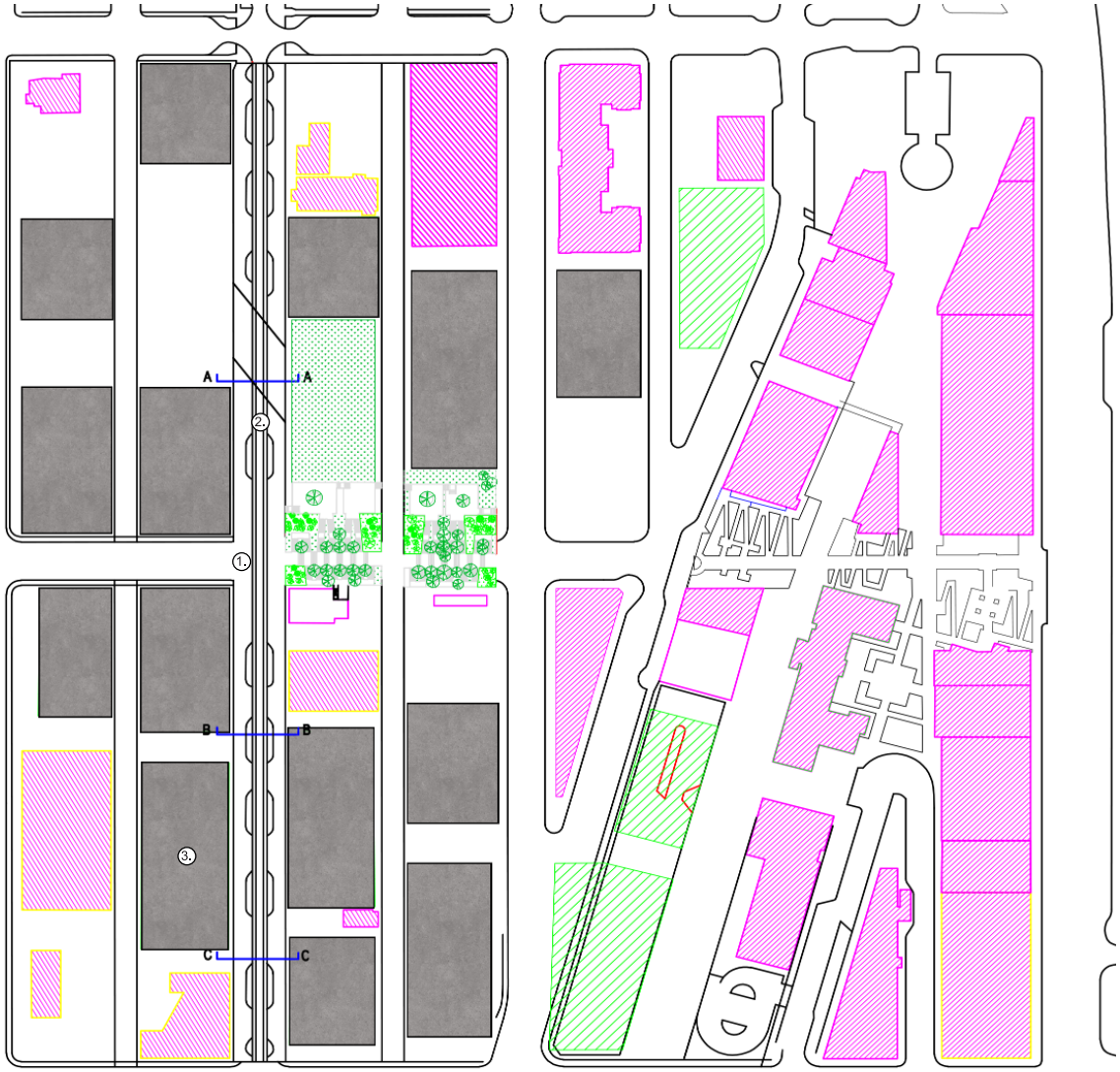
Bryden Punsalan

Urban Design Approach

University of Washington: A Campus of Connectivity

My design focus originally was to create an extension of the campus while still promoting the development of the South 19th Street trolley, but as the development of the projects continued, my focus shifted to the development of Fawcett Avenue. With these focuses changing, I wanted to prioritize pedestrian safety and activation of Fawcett to avoid creating an edge just as Jefferson Avenue had created. To simplify that, I wanted the full campus to feel connected throughout the boundary.

Proposed Site Plan



1. 43rd Street (Seattle U-District)
- Photo by Guy Oron

2. Utrecht Science Park
- Photo by DCE

3. UW Seattle U Bike Program
- Screenshot from U Bike home page

Bryden Punsalan

Street Sections

Section A - Stitch

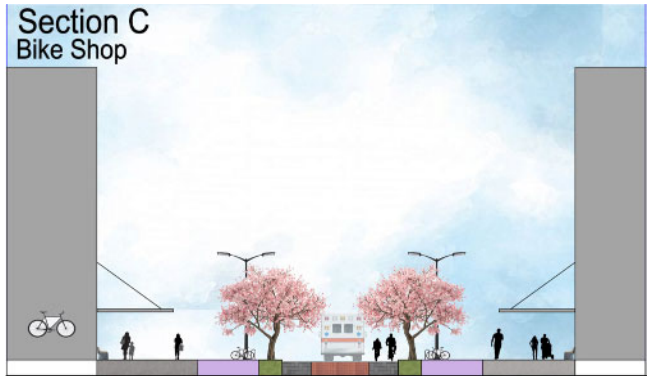
- Connection between green spaces
- Extending the campus boundaries
- Usage of pavers for additional GSI

Section B - Activate

- More student activities
- Activation of the upper half of campus
- Usage of weather protection

Section C - Bike Shop

- Potential base for an e-bike library system
- Focus on bike promotion
- Less activity spaces to avoid issues with nearby living spaces



Screenshots depicting existing conditions throughout Fawcett Avenue. Photo courtesy of Google Maps.