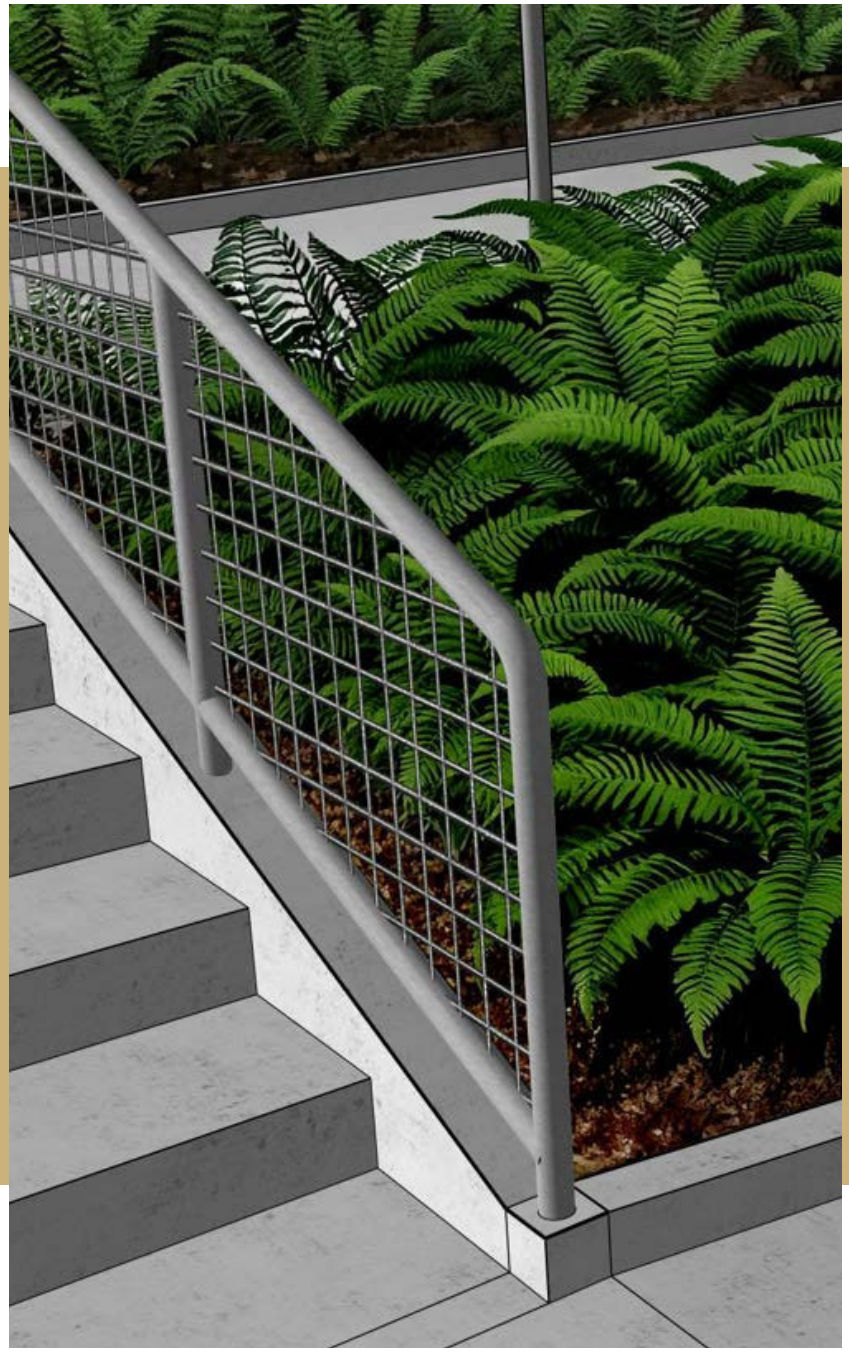
CAPSTONE REPORT

URBAN DESIGN

Laurence Applen
School of Urban Studies
June 2026

UNIVERSITY of WASHINGTON | TACOMA



Rendered stair railing.
By Laurence Applen

CONTENTS

STUDENTS' VISION FOR THE UWT CAMPUS

URBAN DESIGN CAPSTONE

Manifesto

As the University of Washington Tacoma campus continues to develop to accommodate incoming students, staff, and growing degree courses, we would like for the campus to be developed with additional thoughts to certain issues. As our cohort continued to analyze the master plan framework and strategic plan pillars, we decided to focus our attention on issues of public space and weather protection, ADA accessibility, transitioning away from being a commuter school, and green storm water infrastructure. As a cohort, our manifesto, which will act as a guiding light in following quarters, goes as follows.

Scope

This capstone project focused solely within the bounds of the University of Washington Tacoma campus, working to provide solutions to deficits found within the adopted Bjarke Ingels Group 2025 master plan. Our team primarily focused on South 19th between Fawcett Avenue and Market Street, working within the right-of-way and owned campus lots.

Background

In 2025, a master plan for the University of Washington Tacoma authored by international design firm Bjarke Ingels Group (BIG) was adopted. The plan accounts for the projected rise in student enrollment reaching 10,000 full-time equivalent students by 2035, and offers design suggestions for future development patterns. While visually appealing, several elements including pedestrian accessibility, suggested parking spaces, and street design guidelines were identified to be incompatible and lacking concern for evolving preferences in mobility options.

A major parking access road. Photo courtesy of Bjarke Ingels Group.

Who we are

Led by Dr. Bara Šafářová and Dr. Nara Almeida, our teams brought together six or seven students, split evently between civil engineering and urban design. Over the Spring 2026 quarter, we took on two projects in parallel: addressing GSI improvements along Jefferson Avenue, and campus mobility along South 19th Street. Thinking about space, form, and experience, our design visions met technical knowledge as we pressure tested solutions against what was actually buildable. The compressed timeframe demanded regualr feedback sessions, close communication, and creative thinking - this steady exchange between disciplines became the core of how we worked.

We would like to extend a special thanks to Brian Wang and Scott Treber for their experience, guidance, and suggestions during the course of this project.

Brian Wang provides a reality check. Photo coutesy of Bara Šafářová.

Team GSI discusses the finer points. Photo courtesy of Bara Šafářová.

Presentation layouts are finalized. Photo courtesy of Šafářová.

Dr. Nara Almeida
-vInstructor-

Dr. Bára Šafářová
-Instructor-

Hunter Antanavague
-Civil Engineering-

Laurence Applen
-Urban Design-

Isaiah Beidalah
-Civil Engineering-

Benjamin Butler
-Civil Engineering-

Nam Cao
-Urban Design-

Sam Eilert
-Urban Design-

Luke Keser
-Urban Design-

Zachariah Manalese
-Urban Design-

Ariana Orozco Perez
-Urban Design-

Bryden Punsalan
-Urban Design-

Dennis Quiocho
-Civil Engineering-

Justin Ray
-Civil Engineering-

Luci Tolic
-Civil Engineering-

Who We Are:

Defining future designers, from the ground floor up.

The School of Urban Studies at the University of Washington, Tacoma was founded in 2001, growing naturally out of a campus founded only a decade prior in the heart of downtown. Occupying the historic Pinkerton Building, the school offers BA degrees in Urban Studies, Sustainable Urban Development, and Urban Design and graduate degrees in Community Planning and Geospatial Technologies. The school treats the city of Tacoma as a living studio, tying coursework directly into real neighborhoods, public agencies, and working with community partners to provide a rich and rewarding education. Its mission centers on engaged teaching, research that advances knowledge, and action that promotes social justice and equitable development, keeping community and equity at the heart of the design.

Pinkerton Building. Photo courtesy of the University of Washington.

Dr. Nara Almeida
-Instructor-

Dr. Bára Šafářová
-Instructor-

Laurence Applen
-Urban Design-

Isaiah Beidalah
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-Urban Design-

Ariana Orozco Perez
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Bryden Punsalan
-Urban Design-

Dennis Quiocho
-Civil Engineering-

Meet the Team

Led by Dr. Bara Šafářová and Dr. Nara Almeida, our team brought together seven students: four urban designers and three civil engineers. Over the Spring 2026 quarter, we addressed campus mobility along South 19th Street. Thinking about space, form, and experience, our design visions met technical knowledge as we pressure tested solutions against what was actually buildable. The compressed timeframe demanded regular feedback sessions, close communication, and creative thinking - this steady exchange between disciplines became the core of how we worked.

We would like to extend a special thanks to Brian Wang and Scott Treber for their experience, guidance, and suggestions during the course of this project.

Campus Analysis

The majority of the University is not currently built out, and remains largely empty. This map shows the extent of the currently pedestrianized campus, marked in yellow. Much of the land west of Jefferson Avenue is vacant land, split roughly 60/40 unmaintained gravel/parking lots, and non-landscaped but maintained open field. Outlined in dashed grey are approximate future campus building locations in accordance with the Bjarke Ingels Group 2025 master plan. Roads within and surrounding campus are paved asphalt, with ample and easily accessible on-street parking. Beyond the immediate built campus, very little of the area is activated, and pedestrians are rarely seen spending time outdoors with the exception of dog walkers on open fields to the west.

Urban analysis. Image by Laurence Applen.

Campus Landmarks

The Whitney. Photo by Laurence Applen.

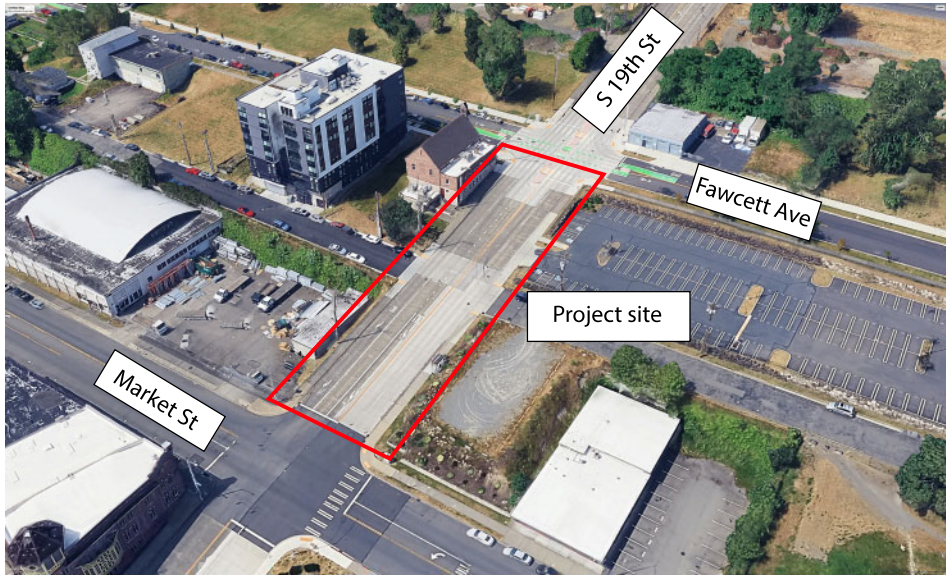
The “W”. Photo by Laurence Applen.

The Grand Staircase. Photo by Laurence Applen.

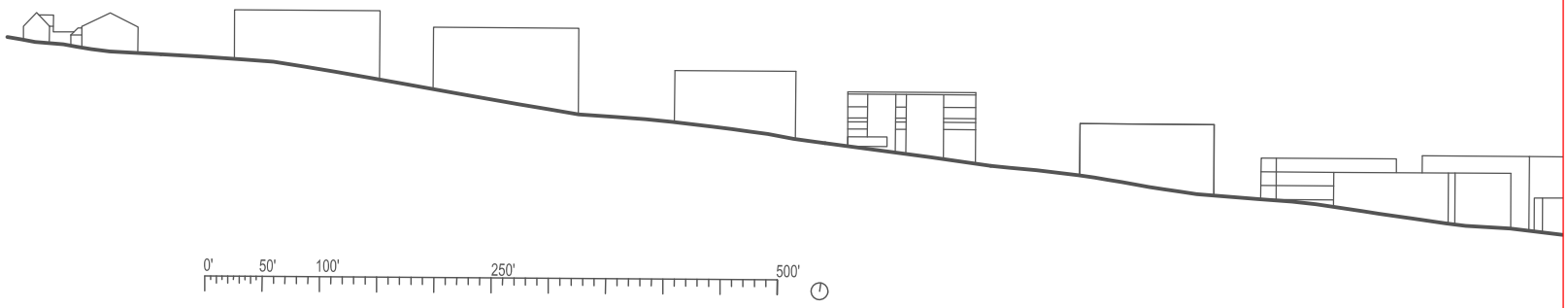
The Prairie Line Trail. Photo by Laurence Applen.

Project Site

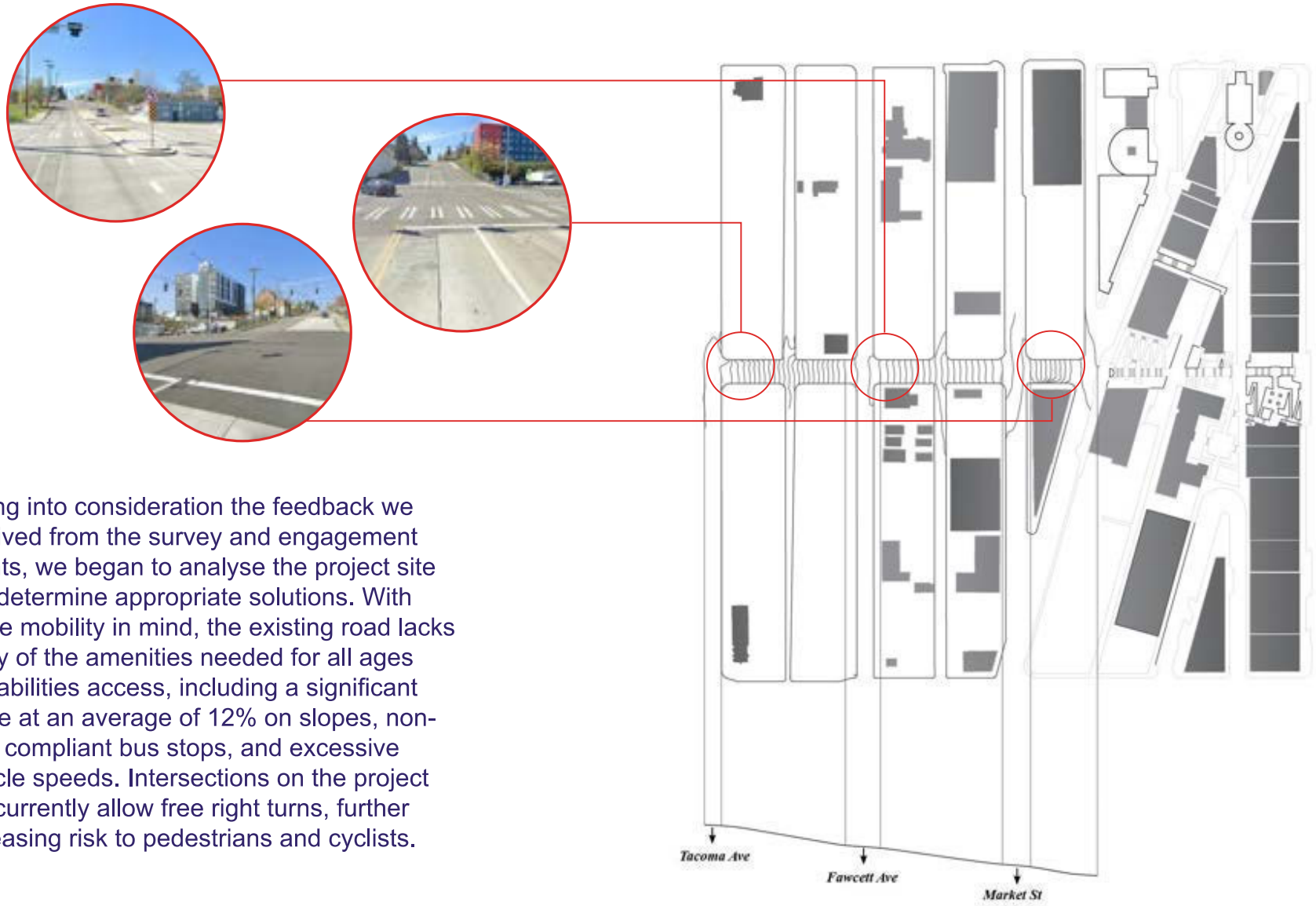
Our project site is the section of South 19th Street, bounded by Fawcett Avenue on the west and Market Street on the East. The width of the project site is contained within the ROW of South 19th Street, and extends to the north an unspecified distance into UWT owned parcels currently containing two parking lots. On the south eastern corner of the intersection of South 19th and Fawcett, the university maintains Whitney Hall hall as an educational space. The site is noted for its steep grade - up to 14% - and is currently served by a bus stop for Route 2 to Bridgeport. The site is five lanes wide including two westbound lanes, and left, straight, and right turn eastbound lanes. The City of Tacoma has recently transferred the property rights for the section of South 19th Street immediately beyond Market Street to the University, which is now blocked for through traffic with plans for future permanent vacation. Market Street is a similar width, and is currently a major through street within campus, providing access for the University YMCA, and connects with South 21st Street to the south. Fawcett Avenue is a 44' wide road labeled as a bicycle boulevard, and contains pedestrian bulb-outs at all intersections within campus and a modal filter along South 19th Street to prevent Fawcett Avenue through traffic from crossing, although it is easily and regularly bypassed by determined drivers.



Aerial and surface views of project site. Photos courtesy of Google Earth.



South 19th Street section. Image by Laurence Applen.



Taking into consideration the feedback we received from the survey and engagement events, we began to analyse the project site and determine appropriate solutions. With active mobility in mind, the existing road lacks many of the amenities needed for all ages and abilities access, including a significant grade at an average of 12% on slopes, non-ADA compliant bus stops, and excessive vehicle speeds. Intersections on the project site currently allow free right turns, further increasing risk to pedestrians and cyclists.

Existing site analysis. Imgage courtesy of Ariana Orozco Perez.

Fawcett Ave and S 19th St intersection. Photo by Laurence Applen.

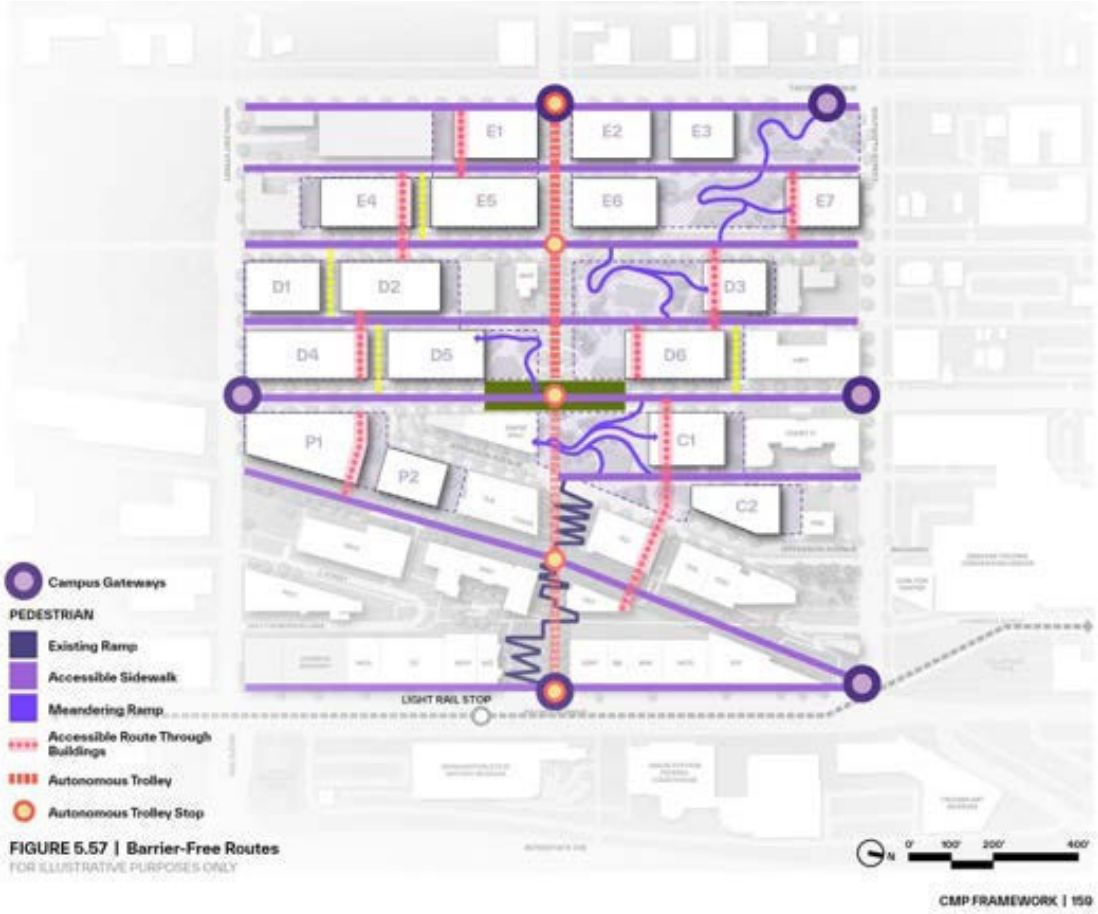
Market St and S 19th St. Photo by Laurence Applen.

Modal filter at Fawcett Ave intersection. Photo by Laurence Applen.

Lower section of S 19th St. Photo by Laurence Applen.

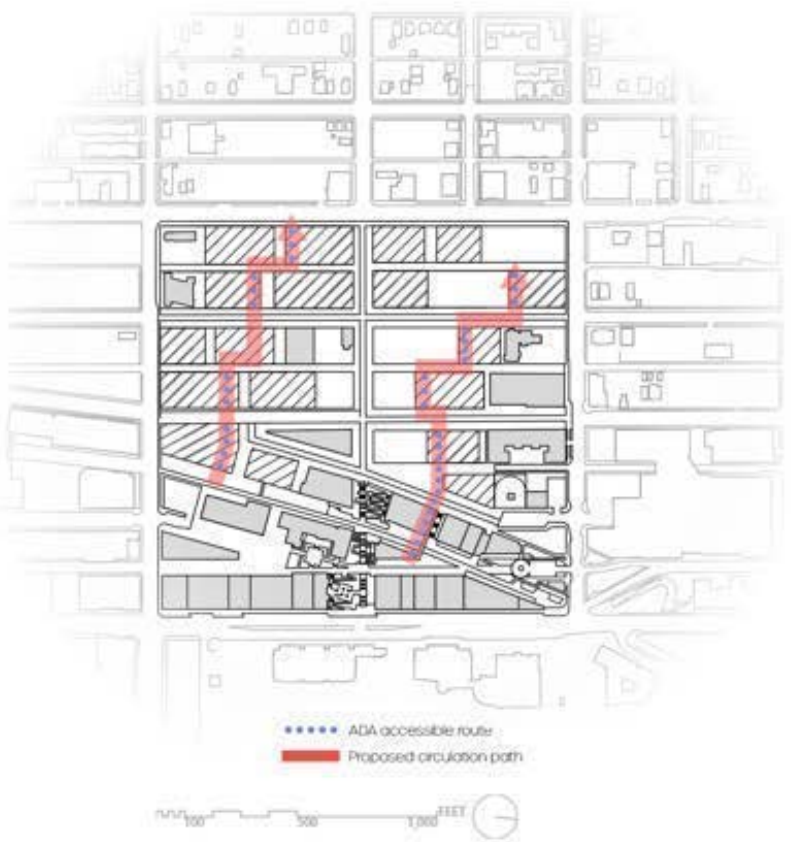
Bjarke Ingels Group Proposal Critique

Accessibility is addressed in the 2025 Bjarke Ingels Group master plan primarily by an autonomous trolley. While only included to foster future conversations, the route is illustrated to run from Pacific Avenue to Tacoma Avenue, a path that would not only be disproportionately short at only one quarter of a mile, but also require the demolition of UW Tacoma's Grand Staircase. Beyond the trolley, ADA access is provided through a disjointed network of interior pathways accessible only to students and during school hours. The University is a public institution, and this plan begins to blur the line between public and private ownership of public facilities. By aligning publicly accessible pathways and exterior elevators, such as the example at Court 17, ADA access is retained without the need for costly transportation infrastructure.



Planned campus ADA routes. Image courtesy of Bjarke Ingels Group.

ADA Accessible Paths



Bjarke Ingels Group

Proposed mobility plan

Planned and proposed ADA mobility routes. Image by Laurence Applen.

Engagement Campaign

During the Autumn quarter of 2025, we began planning a community engagement event in order to better understand student needs. We and coordinated with professors, non-Urban Design students, YMCA and UWT administration in order to secure locations for planned events. We distributed two QR code-linked surveys: one administered during a hosted in-class presentation, and one long-form survey intended to gain a deeper insight into student behaviour patterns.

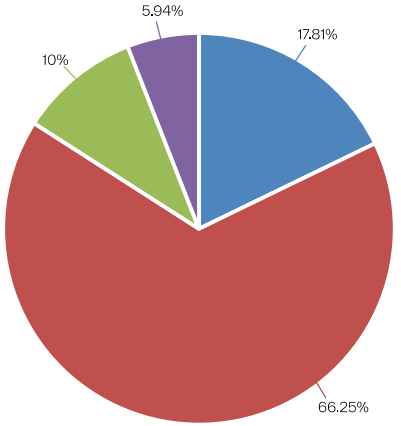
Flyers courtesty of Adriana Orozco Perez. Photo coutesy of Bara Šafářová.

Survey Results

Data received from the collected surveys returned a number of previously assumed conclusions. A large percentage, approximately 72%, of students currently commute in a single occupancy vehicle with an additional but very small 2.5% additional carpooling. Active and public transportation follows normal trends, and combined accounts for approximately 22% with the remaining 3% declining to answer. Many of these students drive from distances greater than 5 miles, which was corroborated by conversations we had during tabling events where we learned roughly one third live in Puyallup. Despite these findings, the data showed something else: there is a large latent demand for active transportation, and if given the chance, one third of students surveyed replied that they would opt to, or would be open to, commute to school on an electric bike if they were available for rent through the University.

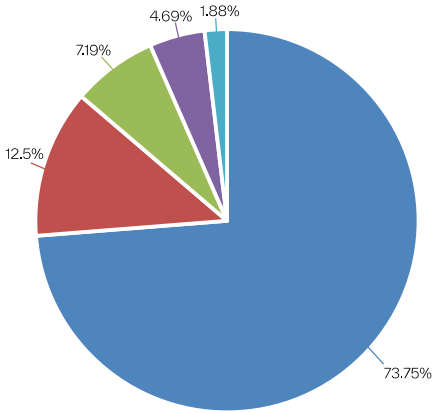
Would You Try Commuting With An E-Bike If The University Offered?

Yes	32
No	212
Maybe	57
No Answer	19
Total	320



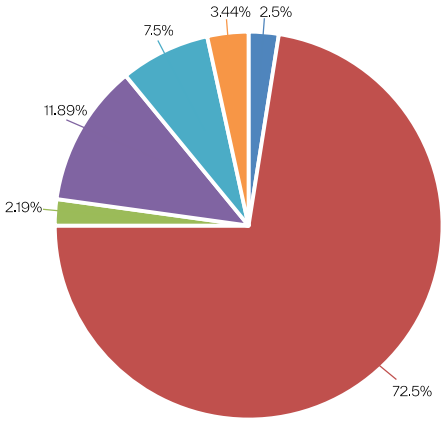
How Far Do You Commute To Campus?

More Than 5 Miles	236
1-5 Miles	40
I Live On Campus	23
Less Than 1 Mile	6
No Answer	15
Total	320



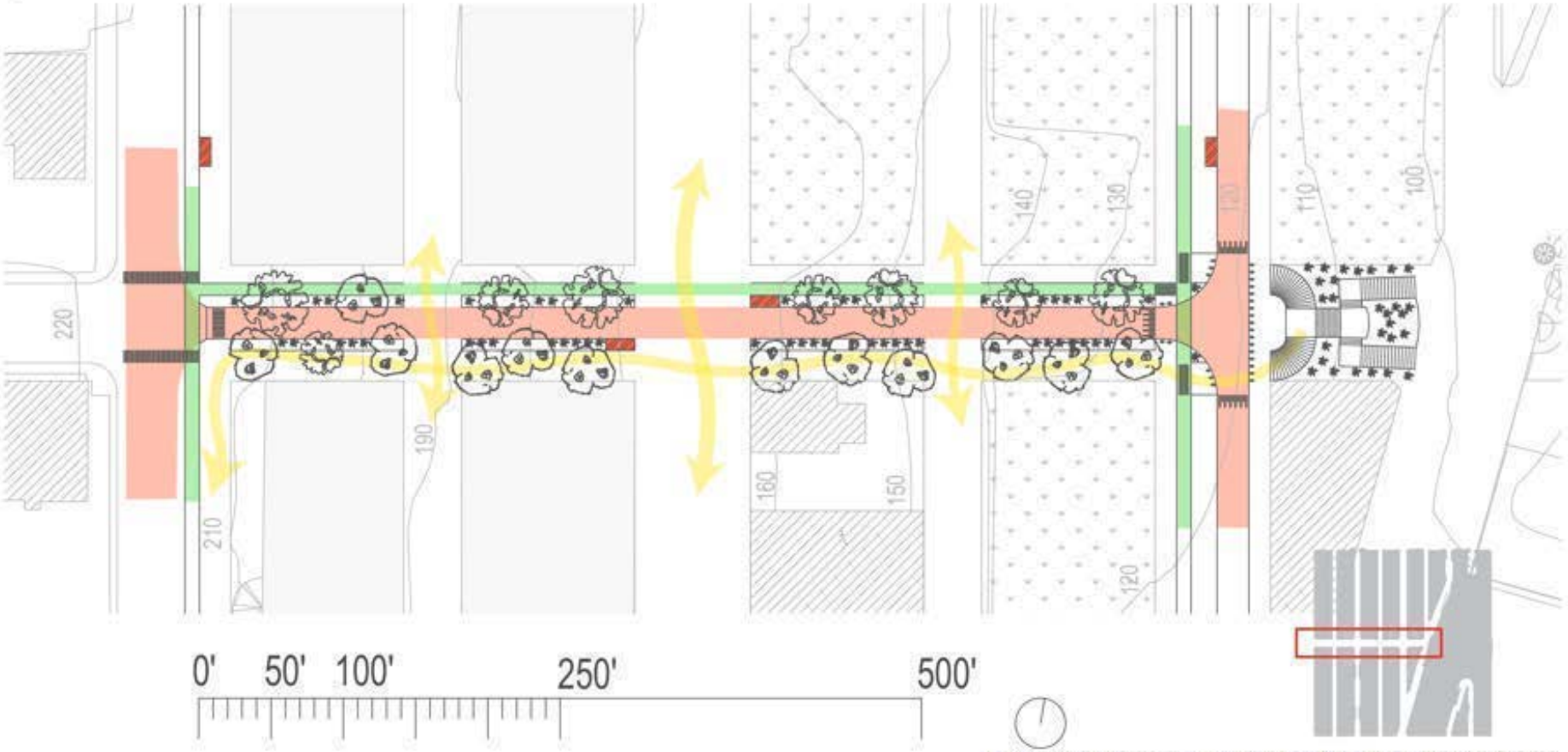
How Do You Usually Get To Campus?

Carpool/Vanpool	8
Drive Alone	232
Public Transit	38
Walk	24
Other	7
No Answer	11
Total	320



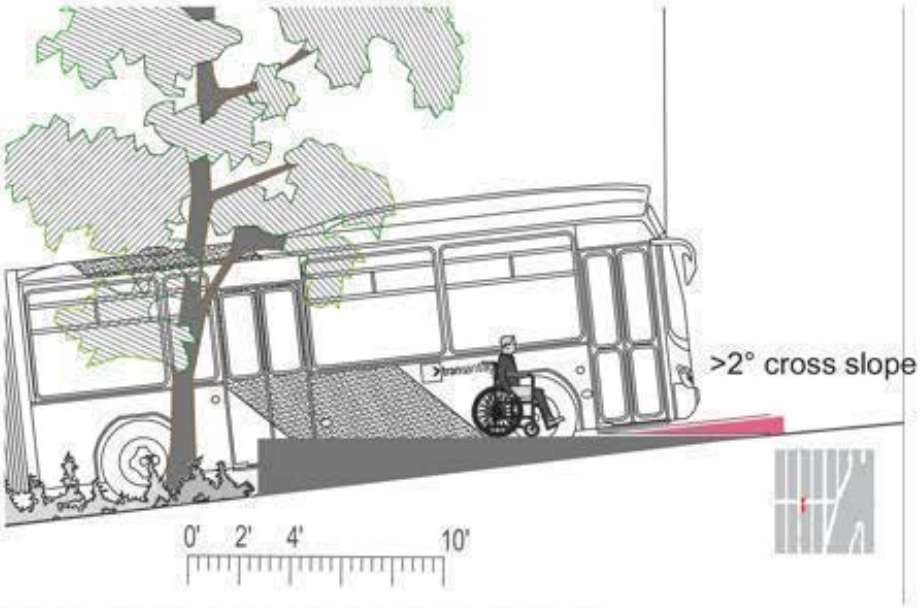
Exploring Options

Three options presented themselves during the planning phase: multi-modal access, transit-only, and pedestrianization. Largely retaining the same road design as the existing design with modifications to limit travel lanes to one in each direction and an additional separated bicycle lane, a multi-modal design offers the cheapest solution, but does not meaningfully address ADA accessibility and fails to adhere to design guidelines within the master plan which call for the center of campus to become a place of gathering and comfort for students. With additional student housing and academic buildings throughout the campus expansion, concerns were also raised regarding pedestrian safety across South 19th Street when the estimated parking traffic is considered. Furthermore, cycling downhill on a separated path of the available size presents numerous collision dangers between not only pedestrians and bicycles, but also between cyclists which is made even more concerning with the weight and speed of modern electric bikes.



Multi-modal street alternative. Image by Laurence Applen.

Working through the logistics of the proposed Bjarke Ingels trolley, it became readily apparent that it was not feasible from both a monetary and logistical viewpoint. Using light rail transit stop times observed on Pacific Avenue, a simple calculator was built that given the size of the vehicle required, the number of stops, and average speed, the total capacity per hour of a trolley along the campus length of South 19th Street would only be able to move about 400 riders per hour. Considering further studies that demonstrated that using elevators already required within future campus buildings would result in very similar total trip times, the large investment needed to install, maintain, and operate a trolley of this size was not feasible. Conversations with city engineers and campus administration shared similar feelings, and cited the routine and expanding lack of funding for existing campus facilities as an additional impediment to its adoption.



Existing slopes are inaccessable to wheeled users.
Image by Laurence Applen.

Campus Trolley Utility Calculator

Trolley Variables		Units	
Average Speed	5	mph	
Number of stops	4	Stop	
Stop Time	30	sec	
Capacity	30	Person	
Route Length	0.2	mi	
Trolley Results		**Units**	**Trolley Calculator Methodology**
Route Time	2.4	min	(Route length/speed) * 60min/hr
Service Interval	4.4	min	Route time + ((stop time(1min/60sec) * # of stops)
Service Frequency	13	Trips/hr	60 min/Service int.
Total Capacity	409	Persons/Hour	Capacity * (1hr/service int.)

Walking Utility Calculator

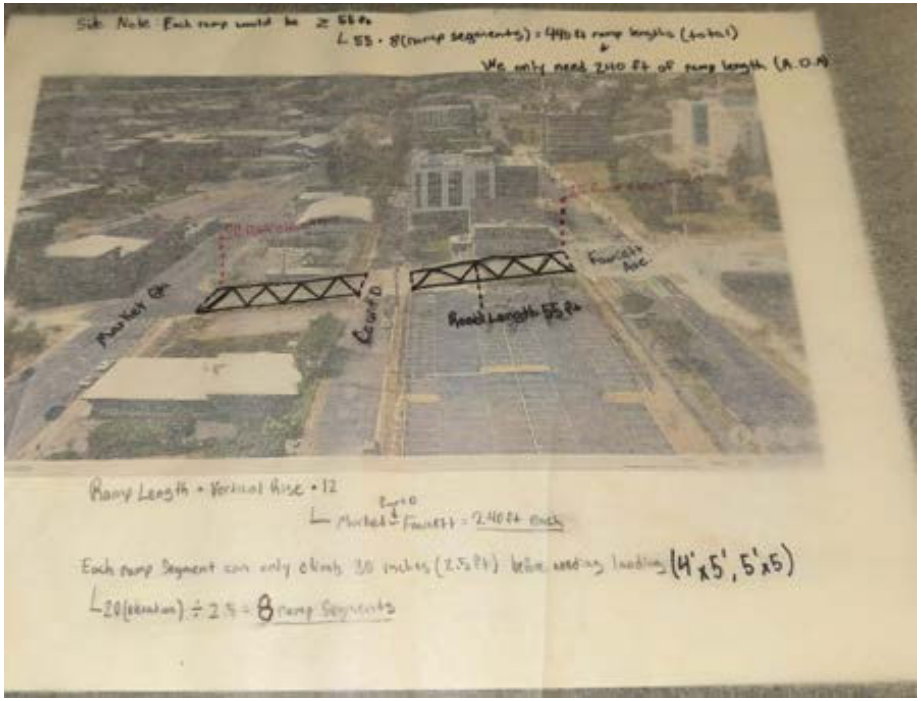
Trolley Variables		Units	
Average Speed	3	mph	
Route Length	0.2	mi	
Elevator Wait	15	Seconds/Floor	
Floors Ascending	8	Floors	
Trolley Results		**Units**	**Trolley Calculator Methodology**
Walking Time	4	min	(Route Length/Average Speed) * 60min/hr
Elevator Time	2	min	(Elevator Wait * Floors Ascending)*1min/60sec
Route Time	6	min	Walking Time + Elevator Time

Trolley and walking calculations. Image by Laurence Applen.

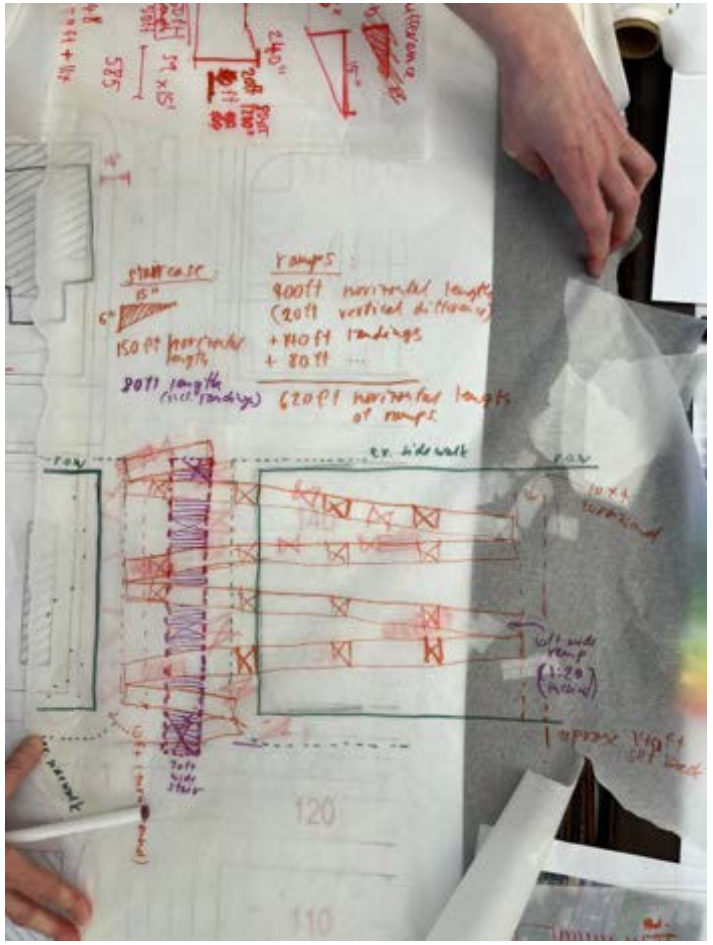
In both cases, ADA accessibility was a major concern. The Bjarke Ingels Group master plan claimed trolleys would be the main ADA pathway through campus, but failed to address the underlying and unavoidable complication: how to load a wheelchair on a slope. In a multi-modal or transit configuration, South 19th Street would retain vehicular cross traffic. Both bus and trolley stops would require the vehicle to be level in order for disabled passengers to board, but all sections of South 19th Street are in excess of 12% with the exception of level intersections. ADA guidelines require the differential slope of a vehicle to a station to be no greater than 2%, an impossibility given the existing terrain.

Preliminary Designs

With alternatives eliminated, pedestrianization presented the only reasonable solution. The site rises 20 feet per half block, for a total elevation gain of 40 feet from Market Street to Fawcett Avenue. Working as a team, our group began drafting design variations that both stayed within and extended beyond the 80 foot right of way. Using existing campus stairs and advice from city engineer Brian Wang, we developed a preliminary design that met ADA requirements, afforded ample GSI and canopy opportunities, and connected both future and existing campus buildings through a series of ramps and stairs that could act as variable travel paths and shortcuts.



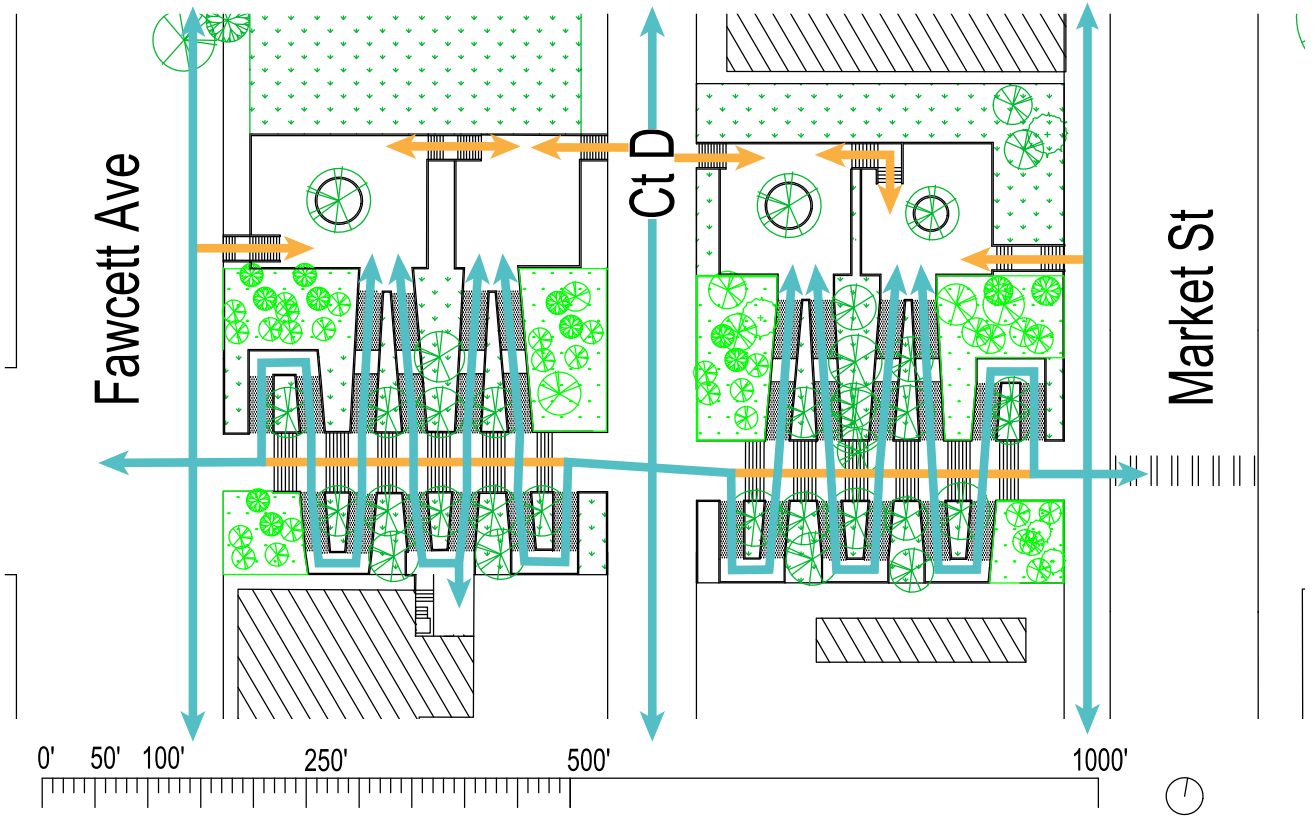
Inital sketch of proposed ramps.
Image courtesy of Ariana Orozco Perez



Calculating ADA-compliant ramp lengths.
Image by Laurence Applen

Movement Pattern Analysis

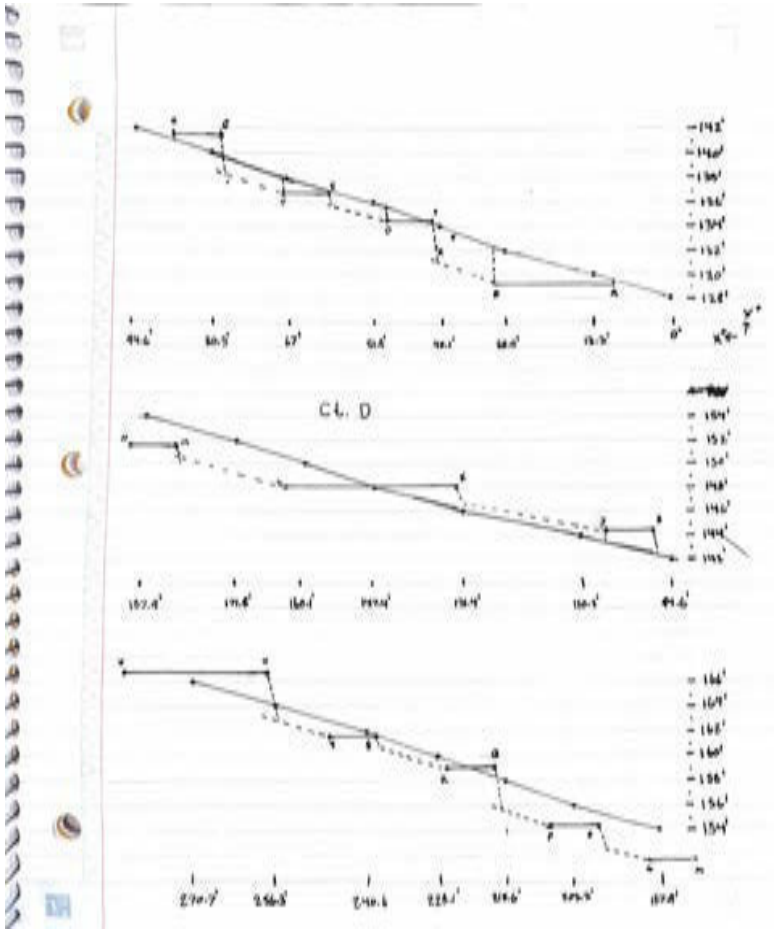
This map demonstrates the proposed pedestrian and ADA accessible travel paths. Through the use of multiple entry and exit points, users are presented with opportunities to travel diagonally across the site and are not limited to a linear path. Access to The Whitney is provided from the staircase at the rear of the building by connecting an existing pavement landing to the ramp's switchback.



Pedestrian circulation proposal. Image courtesy of Brydan Punsalan.

Civil Engineering Calculations

After many rounds of iterative design refinements with civil engineer students Dennis Quiocho, Benjamin Butler, and Isiah Beidalah, their team began the task of calculating and verifying the technical feasibility of our proposal. In order to support the staircase, soil would need to be excavated from the upper portion, and additional soil added to the lower. These earthwork calculations involved cost figures for the demolition and removal of all road surfaces and excess soil on site, structural fill and gravel, poured footings, as well as new soil for grading. Additional cost estimates for materials, labor, and mobilization were calculated, with the total project cost estimated at approximately $7.3 million.



Cut and fill calculations in progress.
Image courtesy of Benjamin Butler.

19th STREET CORRIDOR CONCEPTUAL PLAN

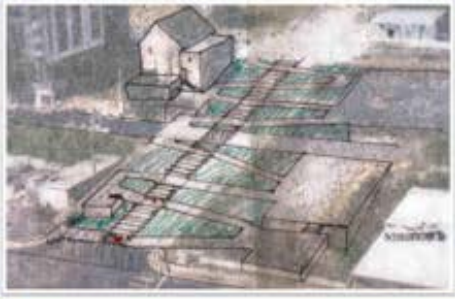
Civil Engineering Team: Dennis Quiocho, Isaiah Beidalah, & Benjamin Butler
Urban Studies Team: Laurence Applen, Ariana Perez, Bryden Punsalan, & Zachariah Manalese
Industry Advisor: Brian Wang | **Faculty Advisor**: Dr. Nara Almedia & Bára Šafářová
School of Engineering and Technology (SET) | Civil Engineering
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	$268,911
Structural Fill / Gravel	$22,095
Retaining Wall Excavation	$15,458
Footer / Footing Excavation	$19,887
Imported Structural Fill / Gravel	$22,095
Earthwork Subtotal:	$350,438
Earthwork Contingency (20%)	$70,088
Total Earthwork Cost:	$420,526
CONSTRUCTION / MATERIALS	
CS Sidewalk Concrete Removal	$42,000
CS2 Roadway Concrete Removal	$63,000
Retaining Walls (WSDOT 02)	$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 (10%)	$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	●	●	●	●
	Demarcation of 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 (stop/offloading without conflict)	●	●	●	●
	Pedestrian travel speed & response time	●	●	●	●
	Annual maintenance interventions	●	●	●	●
Cost effective	Implementation & ongoing maintenance cost	●	●	●	●

● High - Strong Performance ● Medium - Acceptable ● Low - Poor Performance

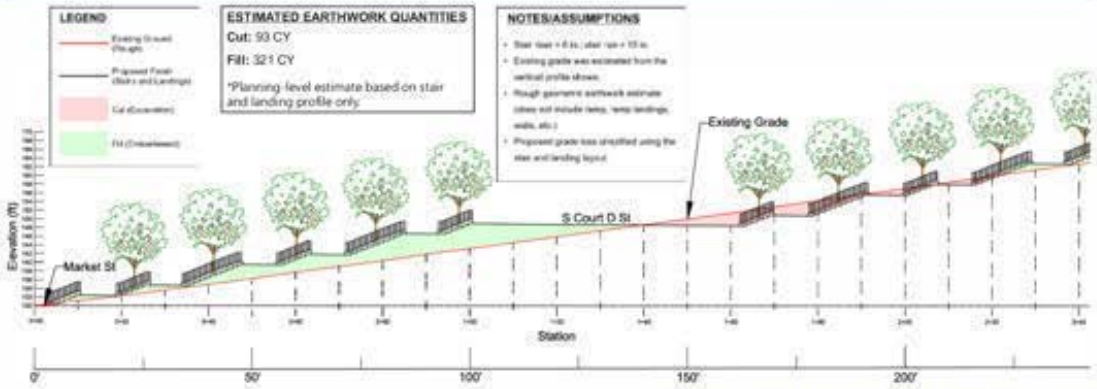
Alternatives	Total ●
Existing Corridor	4
Alt A - Trolley	3
Alt B - Pedestrianize	16
Alt C - Multimodal	15

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.

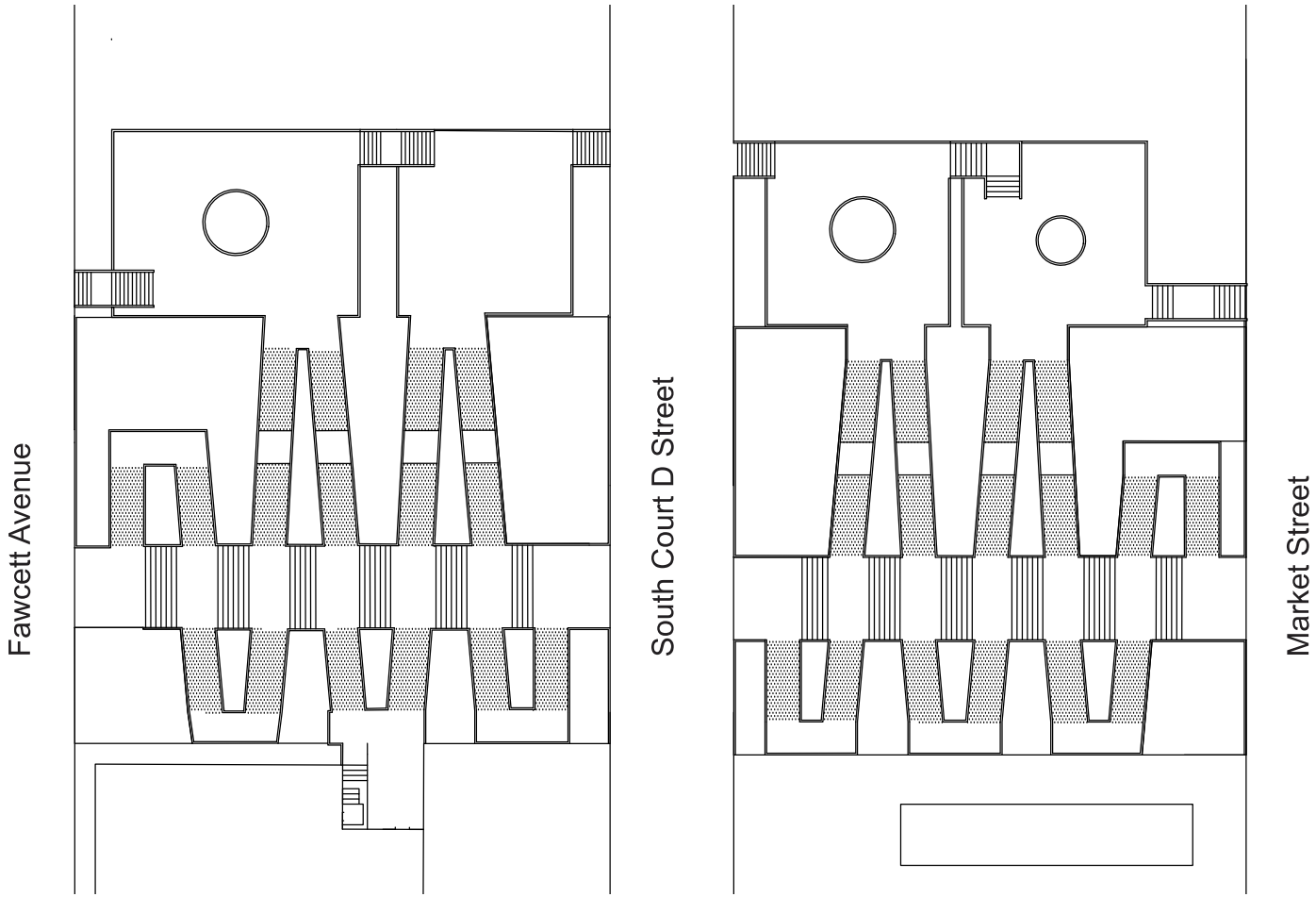
ACKNOWLEDGEMENTS

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.

Civil engineering final report. Image courtesy of Dennis Quiocho, Benjamin Butler, and Isiah Beidalah.

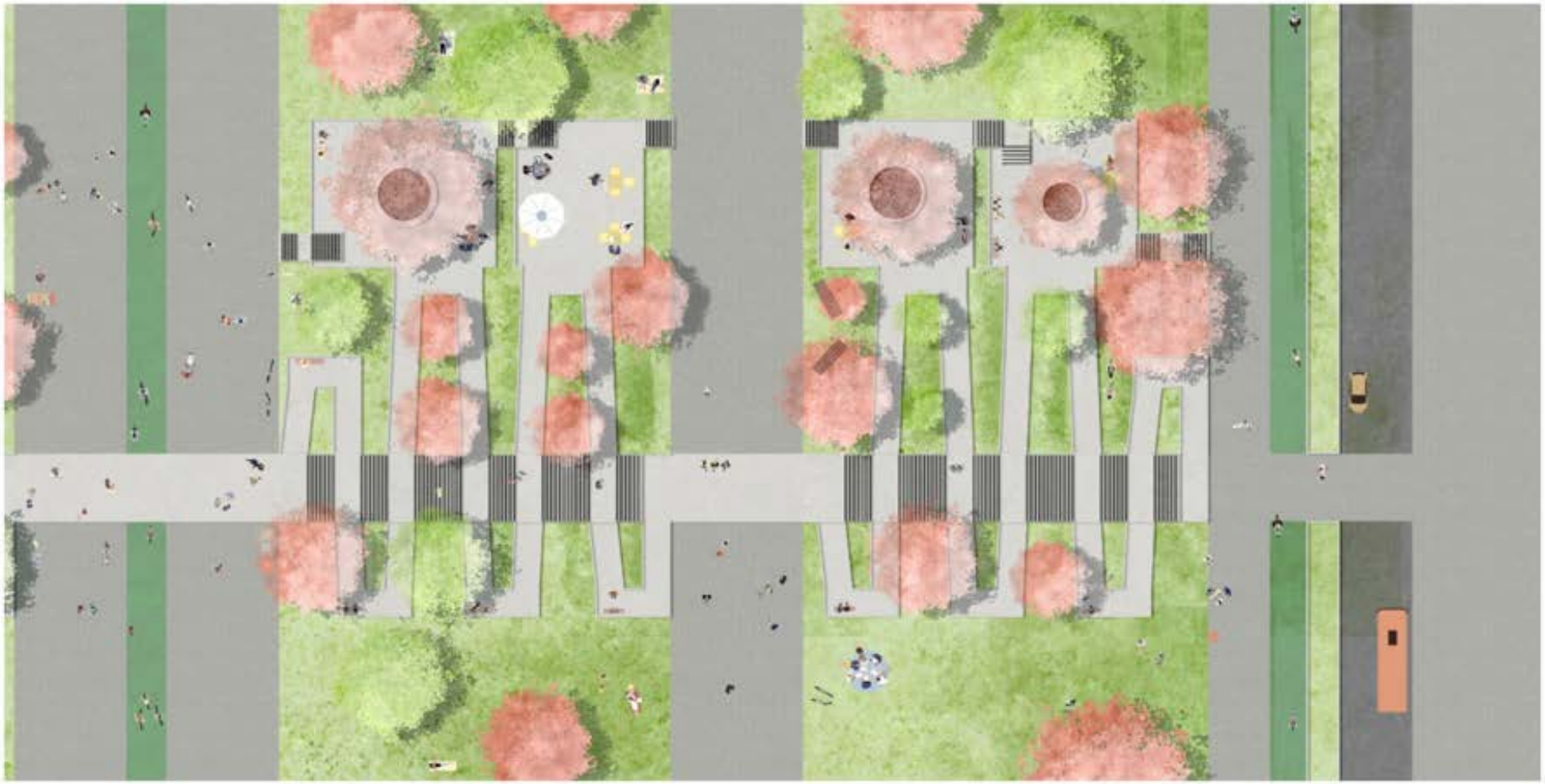
Final Design

Having refined the design, our team set to finalizing the staircase in AutoCAD. Patios were added on the northern side, and short staircases inserted to connect them both between themselves and the adjacent streets. These areas provide a space for programming opportunities, including lounge areas with additional large tree canopy coverage, open plazas for student events, or bench seating for socialization. Land adjacent to the staircase was elected to remain undeveloped, and large maintained green space provides habitat for local wildflowers, pollinator plants, and trees, adding and additional layer to GSI efforts throughout campus.



Final CAD drawing. Image by Zachariah Manalese.

Rendered Proposal



Rendered final proposal. Image by Laurence Applen.

Rendered Site Plan

Rendered 3D model of stairs. Image by Laurence Applen.

Staircase Elements

Modeled after the design language already present on the Grand Staircase, the handrails continue thematic elements that have become part of the campus identity. Slightly industrial, functional, and aesthetically pleasing, large gauge wire mesh keeps plants at bay and out from under the feet of visitors. Planter beds, filling the space between ramps, house a variety of native ferns, wildflowers, and trees. Helping to lower ambient temperatures and raise local air quality, this feature provides and additional green storm water infrastructure opportunity, catching and treating contaminated runoff onsite, allowing water to infiltrate the soil and preventing it from reaching the Puget Sound.

Market Street

The intersection of South 19th and Market is currently five lanes wide in both directions, and serves as a central intersection serving several adjacent parking lots. This in turn makes it a very unattractive place to be as a pedestrian, and the area is rarely populated except for through traffic of all modes. Our design aims to rectify this by recommending a 12' two-way bicycle path at sidewalk grade, two transit-oriented vehicle lanes, and a large GSI planter which allows visitors pulling into the parking garages to exit the travel lane. These elements aim to create a hierarchy along Market in which the most vulnerable users are prioritized by limiting vehicle speeds and accounting for user error, embodying the design philosophy of Vision Zero.

Handrails (top), 19th and Market (bottom). Renders by Laurence Applen.

Evaluating Fawcett Ave

Bicycle facilities are defined by an outcome, not a layer of paint.

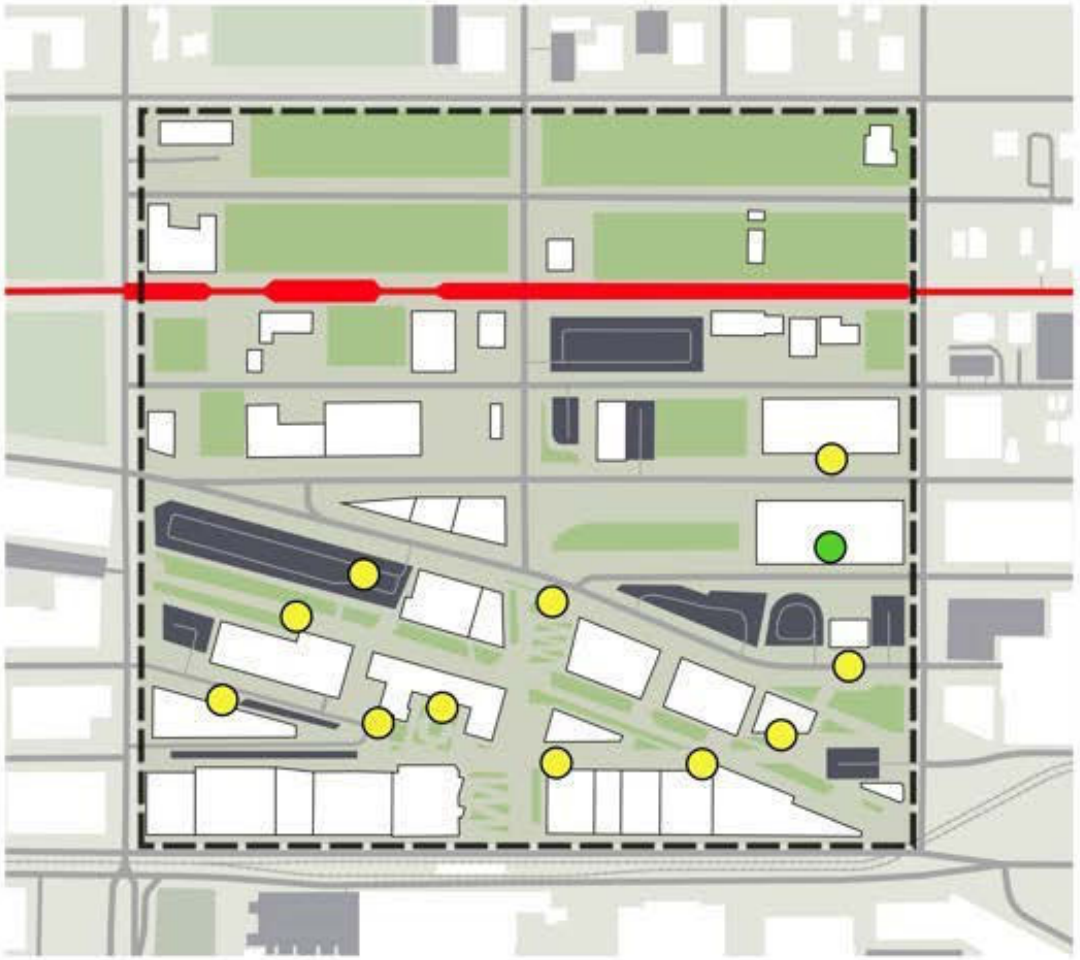
The Fawcett Avenue project is branded as a “bicycle boulevard”, but its on-street bicycle treatment is largely sharrows. Genuine bicycle boulevard guidelines from both NACTO and the FHWA define the facility by outcomes including by measuring traffic volumes and observed speeds that a child or cargo-bike rider can comfortably share the lane, not by paint alone. On Fawcett, two modal filters and pedestrian bulb-outs so some traffic calming, but the corridors’ width still invites speeds that undercut the “all ages and abilities” comfort those guidelines require. The HAWK crossing installed on campus provides no clear instructions to cyclists when the lights have changed - a clear sign the design wasn’t built with cyclists in mind. The project cost roughly $3 million, including about $1 million in state grants plus local Streets Initiative dollars, which largely payed for utilities and resurfacing, leaving the road at its original width while wearing the bicycle boulevard label. The result meets the textbook label of a bicycle boulevard while falling short of the standard.

Laurence Applen

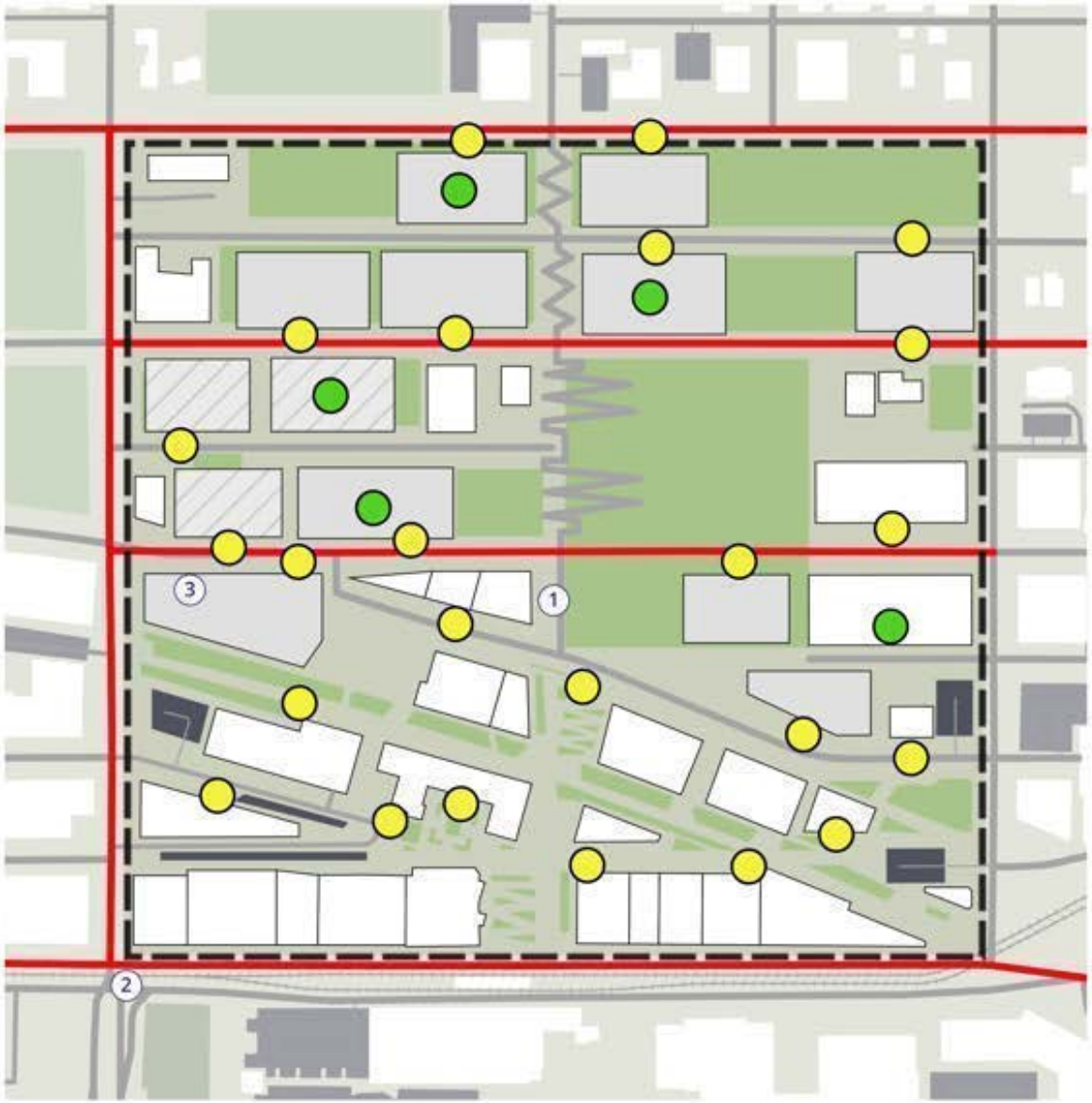
Existing Site Plan

Design proposal focus: protected bicycle lanes, accessible and convenient parking for all users, reduced on-campus vehicle speeds

Fawcett Avenue transects the top third of campus, providing on-street parking in addition to the existing lots and garage. In addition, it is labeled as a bicycle boulevard, and is intended to provide a safe route to campus. Bicycle facilities on campus remain sparse, and many racks are only designed to hold between 4-10 bicycles, and the only covered racks are located within the car garage under student housing at Court 17. The design proposal (opposite) aims to correct this by providing separated bicycle lanes IAW NACTO guidelines, and multiple convenient and sheltered bicycle parking spots.



Proposed Site Plan



- Campus Footprint
- Surface Parking
- Parking Garage
- Existing Campus (Bldgs)
- Campus Expansion (Bldgs)
- Greenspace
- Protected Bicycle Lanes
- Bike Rack
- Bicycle Garage

Image Courtesy of Pedbikeimages.org

Bus Stop
Seattle, WA
- Accessible design
- Floating bus island
- Limited vehicle access

Image Courtesy of SDOT

Thomas and Dexter
Seattle, WA, USA
- Modal filter
- All ages design
- Separated traffic

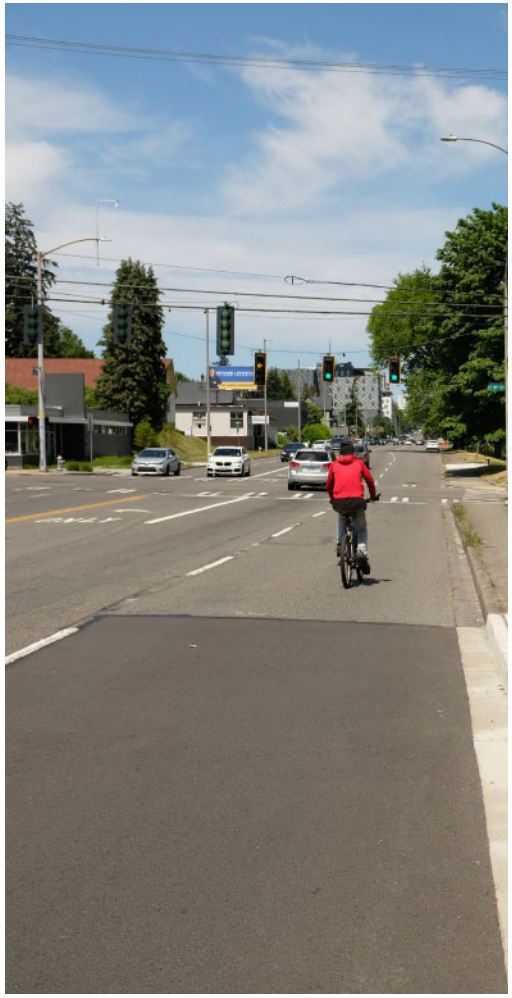
Image Courtesy of Yelp

Timorplein
Amsterdam, NL
- Integrated design
- Convenient location
- Low to no cost

Laurence Applen

South 21st Street and Tacoma Avenue Intersection

When the whole city is a bike network, none of it is safe.

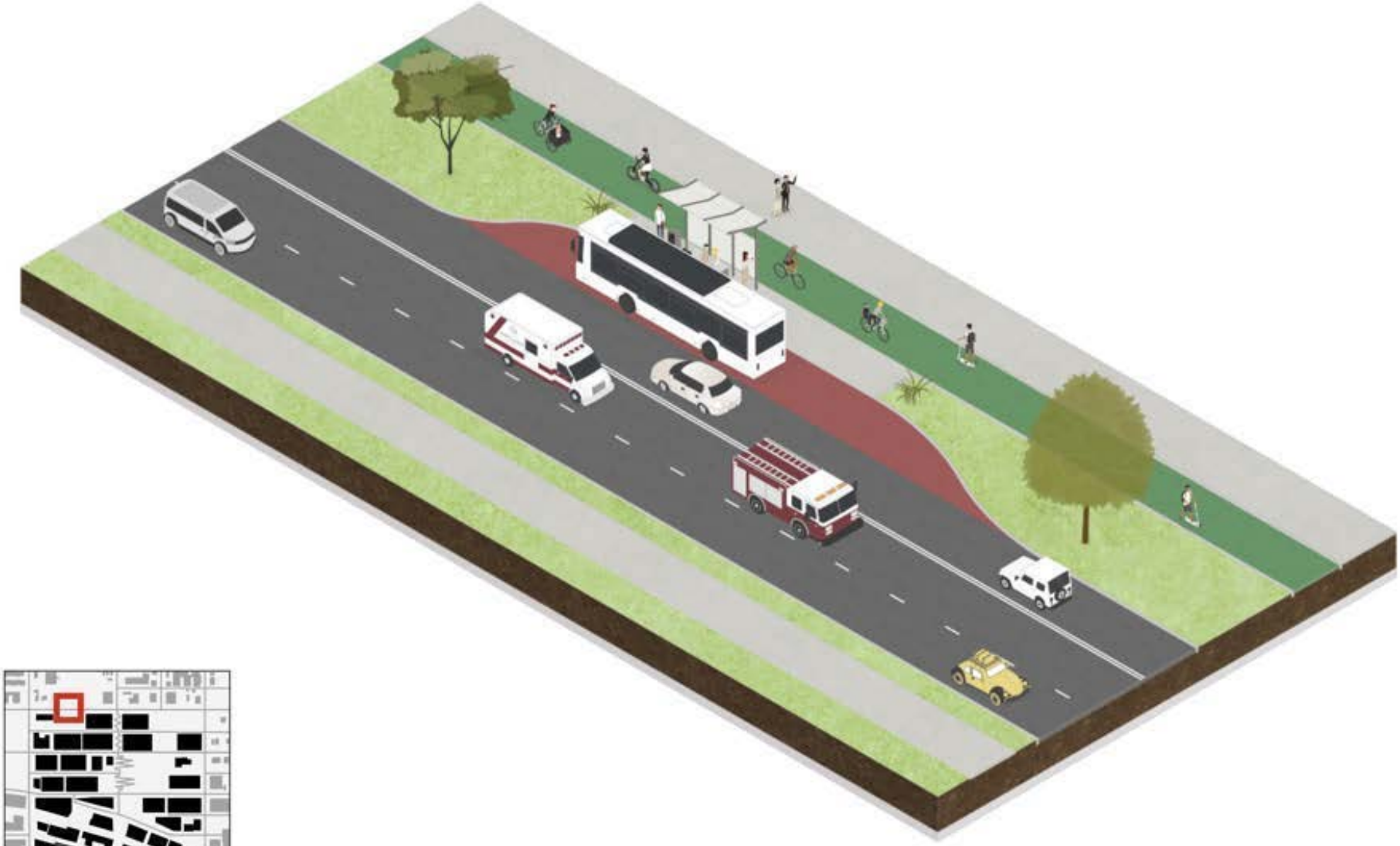


Tacoma Avenue currently sits at over 55 feet, and is six lanes wide when including on-street parking. While the City of Tacoma has iterated multiple times that the entire road network of Tacoma is also a bicycle network, common sense and basic situational awareness are enough to keep all but the bravest (or foolhardy) from taking many of its major routes. During field observations, vehicle speeds along Tacoma Avenue were regularly up to 15 mph above the posted 25 mph limit. According to the USDOT, the fatality rate for being struck by a vehicle traveling 32 mph is approximately 25%, and approximately 50% at 40 mph with an addional 79% serious injury rate, numbers supported by additional figures from non-US governments. The redesigned intersection (opposite) separates vulnerable road users from vehicle, providing a safe, enjoyable space that actively contributes to the safety of all users.

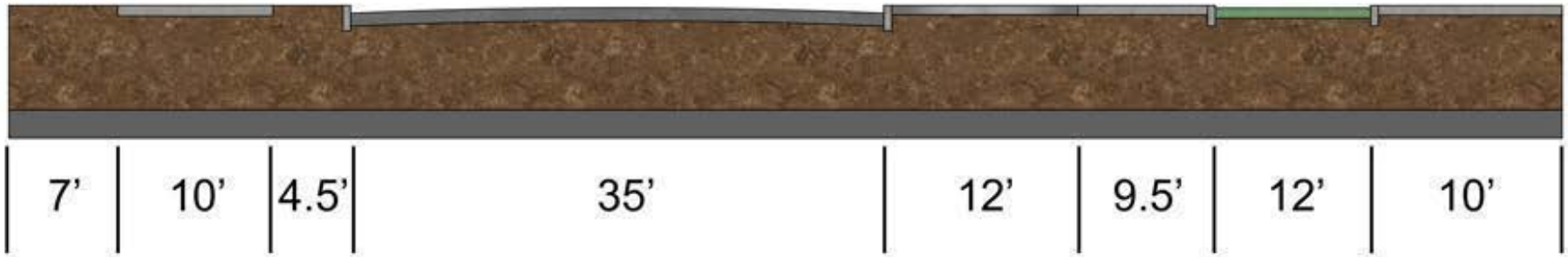
Photos by Laurence Applen
Information and data courtesy of the FHWA:
https://highways.dot.gov/safety/pedestrian-bicyclist/safety-tools/synthesis-methods-estimating-pedestrian-and-bicyclist-8

South 21st Street and Tacoma Avenue - Redesigned

Tacom Avenue - Bus Station

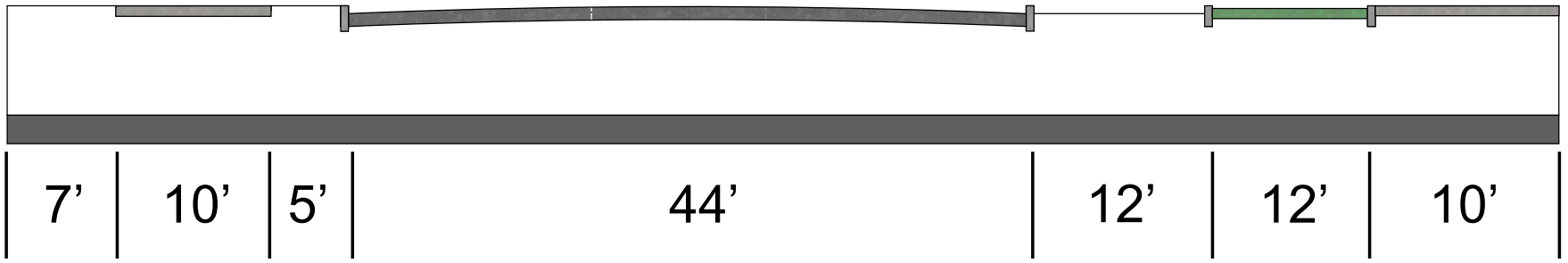


Street Section



Tacoma Avenue - GSI

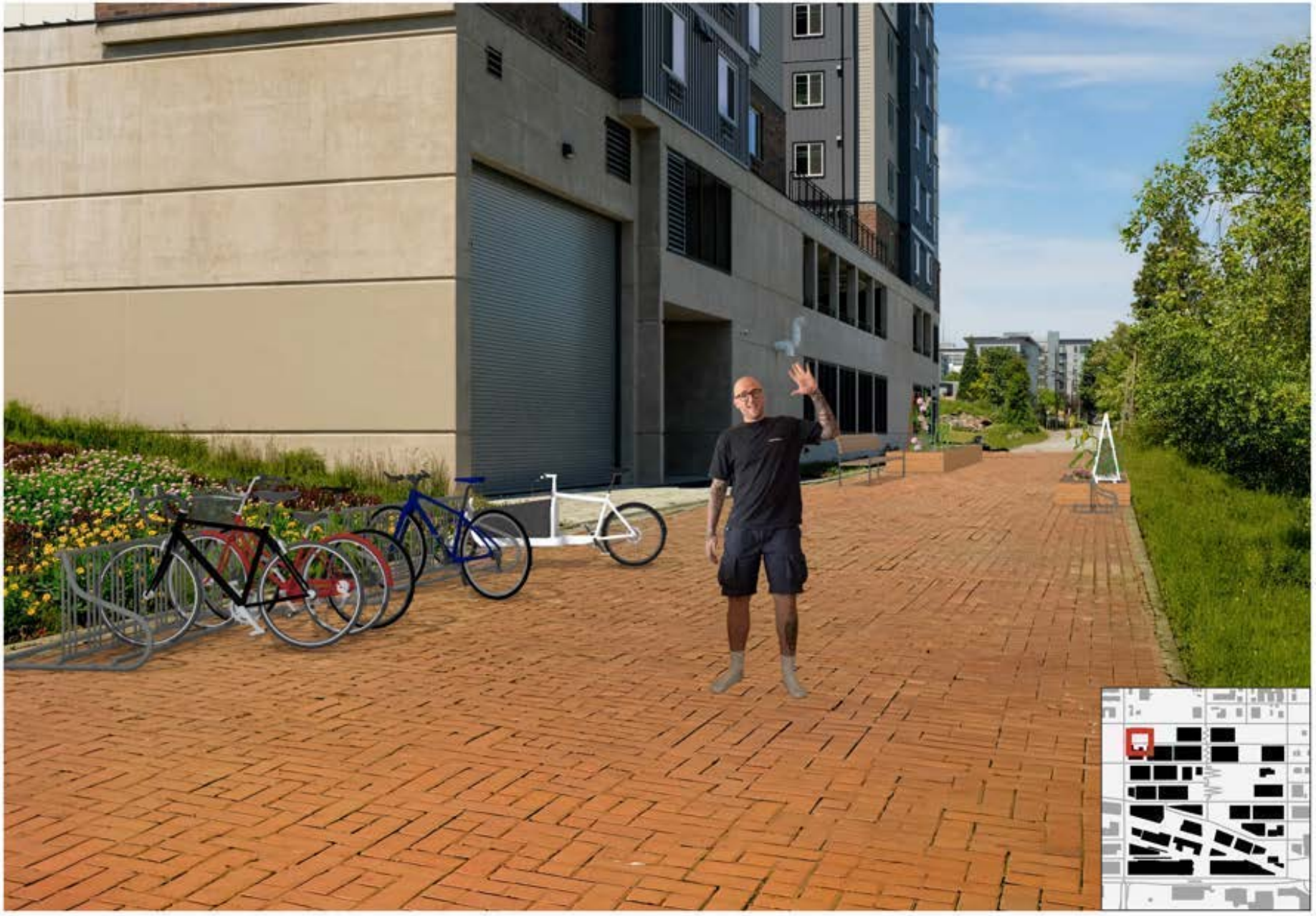
Street Section



Pacific Avenue

South 21st Street

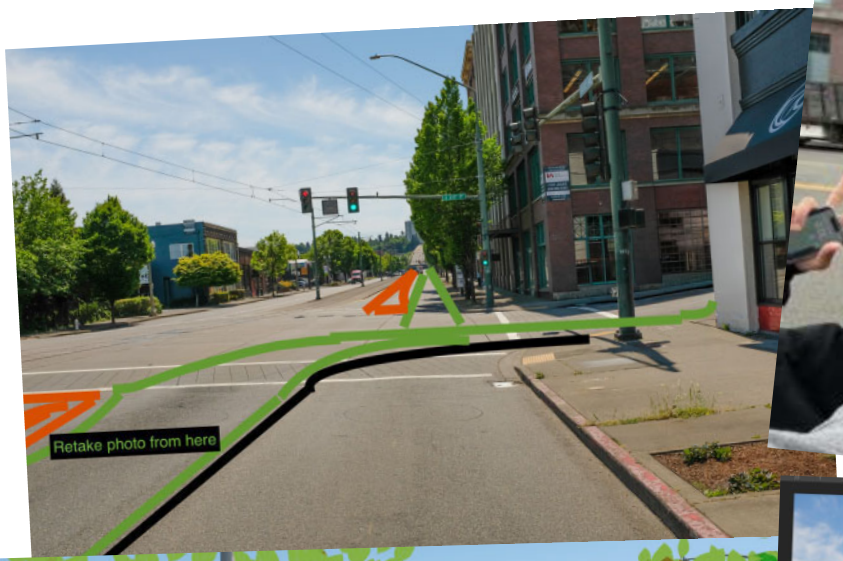
Court E

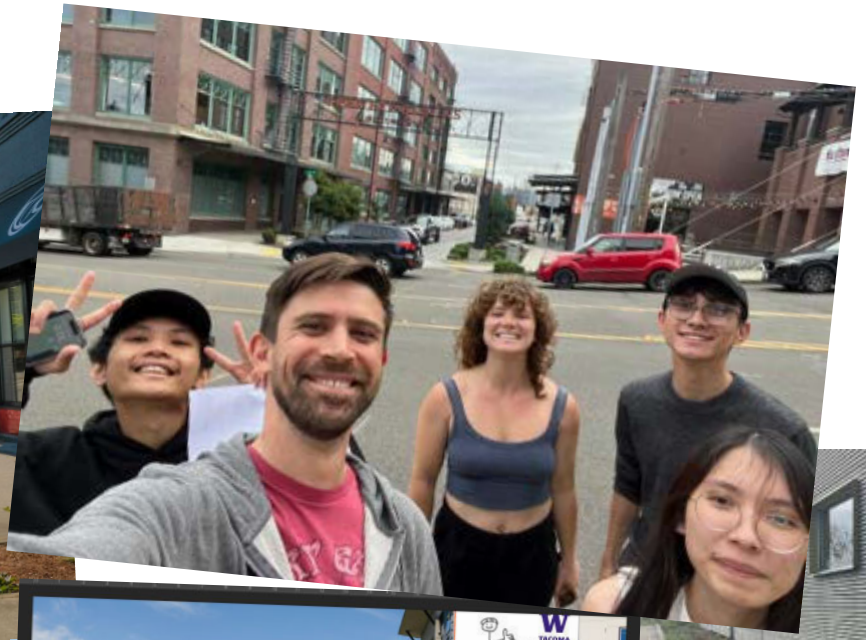


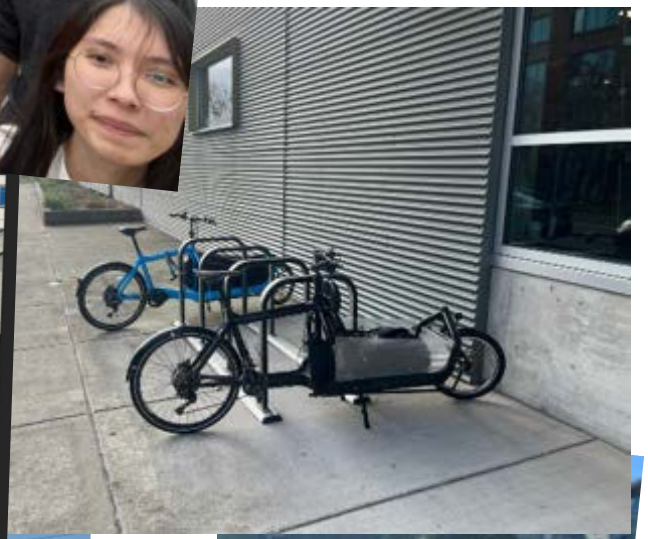
Campus Bike Shop

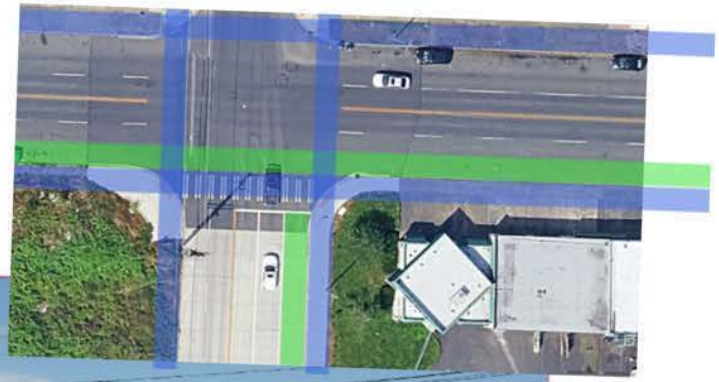
Laurence Applen

Odds and Ends










NO SMOKING


MSM DELI