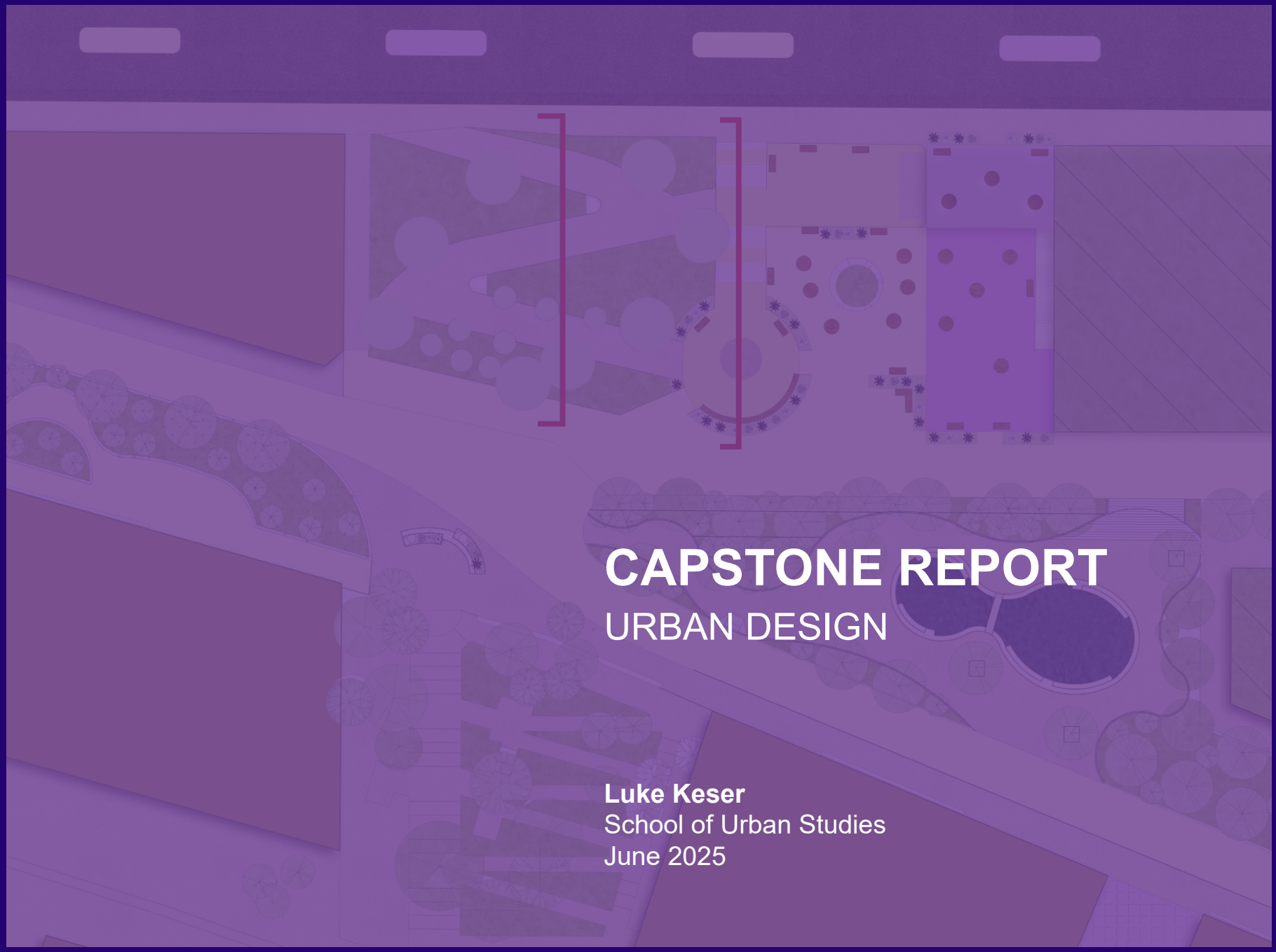


# CAPSTONE REPORT

## URBAN DESIGN

**Luke Keser**
School of Urban Studies
June 2025

UNIVERSITY of WASHINGTON | TACOMA

Community Engagement Event January 2026

Cohort Members crossing the street May 2026

Caption description. Photo courtesy of xxxxxxxxx.

# CONTENTS

# STUDENTS' VISION FOR THE UWT CAMPUS

## URBAN DESIGN CAPSTONE

## Intro

Throughout the 2025-2026 academic school year, the senior Urban Design Cohort consisting of Laurence Applen, Nam Cao, Sam Eilert, Luke Keser, Zachariah Manalese, Ariana Orcozo Perez and Bryden Punsalan worked on an interdisciplinary project to critique the recent University of Washington Tacoma campus master plan and design their own solutions to gaps and problems within it.

### BACKGROUND

In mid 2025, the University of Washington and the Bjarke Ingels group architecture firm released a campus master plan for the UW Tacoma campus, showcasing the schools plan to expand from a commuter college to a full-time university, bringing the campus up to Tacoma avenue and installing new student housing, academic facilities as well as a campus dining hall. This was compiled into a 229 page document which was sent out to students via email. As the first senior cohort to come in after the release of this master plan, it was our task to discover shortcomings and propose our own designs to make a better campus.

### SCOPE

In terms of design scale, our focus was solely on the University Campus, not beyond. We did put focus onto how the campus will connect with the rest of the city of Tacoma but did not design outside of the campus boundaries. Our focus also was primarily on public spaces such as roads, social spaces, pathways, plazas and parks, not on buildings or interiors.

aerial image of the University of Washington Tacoma campus, image courtesy of the University of Washington Tacoma.

## Campus Location

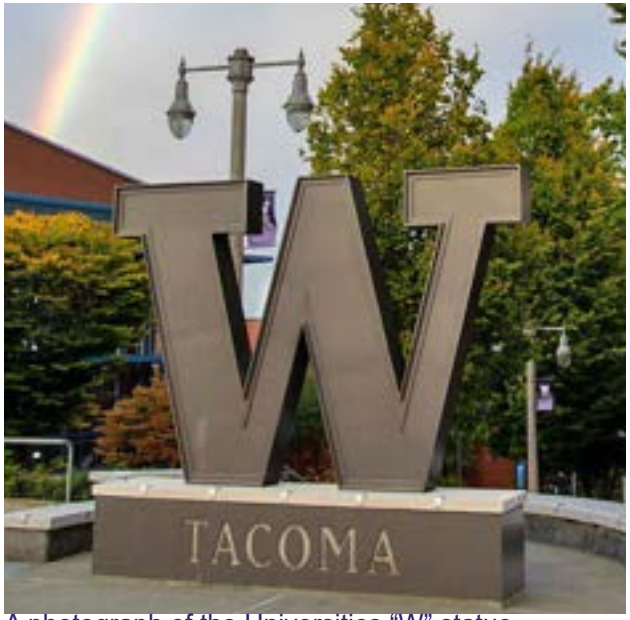
The University of Washington Tacoma campus is located in the heart of Downtown Tacoma, bordered east by Pacific Avenue, West by Tacoma Avenue, North by South 17th Street and South by South 21st Street. The campus has a direct connection to the cities museum district as well as its famous Glass Bridge and Thea Foss Waterway walking trail. The prairie Line trail also runs through the campus, partially connecting it to both the brewery district and further north into downtown.

In the center of campus is South 19th Street which hosts the campuses central staircase currently from Pacific Avenue to Jefferson Avenue.At the jefferson avenue end of the staircase there is the iconic W sculpture which is often used for student graduation images. Jefferson Avenue also serves as the cutoff point for current campus development, as though the college owns much of the property up to Tacoma Ave, developments have not begun for those spaces yet. There are a few campus buildings beyond Jefferson Ave such as the Whitney Church or the campus YMCA however.

Within the currently undeveloped region of campus there are multiple large lots of empty green space as well as several buildings where businesses formerly were such as the Swiss and the Rock Pasta building. Further up the hill toward hilltop there are also newer apartment complexes. On and near the campus there are a few restaurants as well as a student store that sells snacks, however there are no dedicated grocery stores making the campus area a food desert.

Aerial map of downtown Tacoma Showing the boundaries of the UW Tacoma Campus. Aerial image courtesy of Google Earth.

An Image showcasing students walking along the Prairie Line trail on the UW Tacoma Campus. Image courtesy of University of Washington.




A photograph of the Universities “W” statue, courtesy of the University of Washington.

The Central Staircase of the University, running through the middle of campus between pacific Avenue and Jefferson Avenue.

An Image of “The Swiss”, A building on Jefferson Avenue which was formally a bar but now belongs to the University.

A photograph of the Prairie Line trail on the UW Tacoma campus which intersects with the central staircase and serves as a major source of on-campus greenery. Image Courtesy of Place Landscape

When critiquing the campus master plan, our cohort came up with four main issues to focus on. Those issues included the contradiction of the plans stated commitment to makuing a more pedestrian friendly campus while also trying to add 11 more parking structures, the lack of any ADA access plannig for going up and down the slope of the campus, the lack of any outdoor shelter from weather and the lack of Stormwater runoff planning.

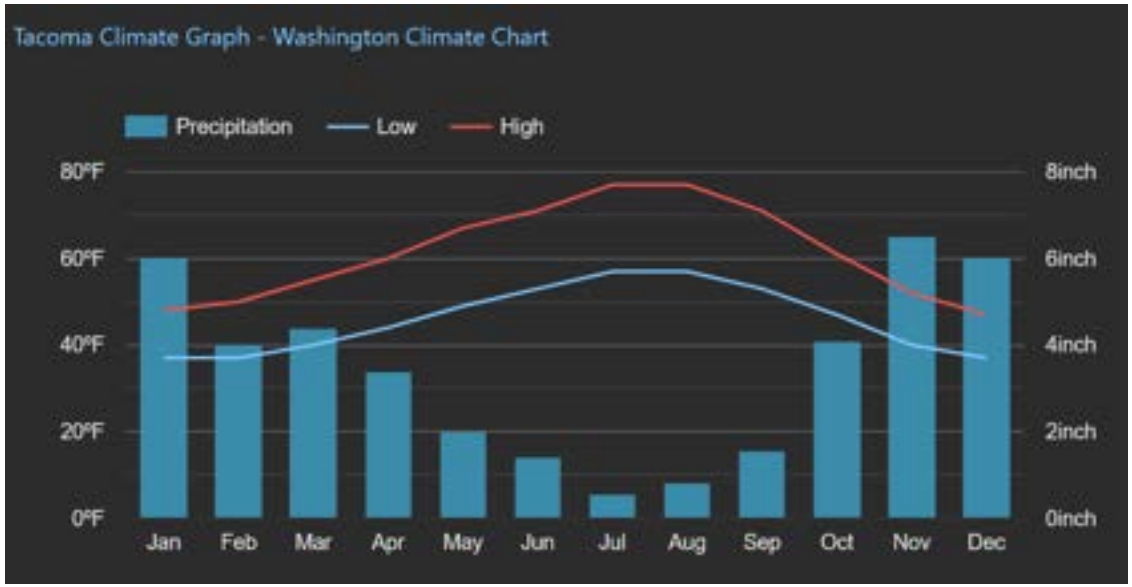
Of these issues I chose to focus on the weather shelter problem, specifically tackling built coverage. The only information I could find on planning for built coverage within the Master plan was in a precedent they used showcasing a glass roof in Director Park in Portland, Oregon. None of their 3D renderings or site plans showcased any built coverage.

My classmate Nam Cao also focused on the weather coverage problem however she took the angle of natural shelter such as tree canopy and focused her research on different tree species that exist in the UW Tacoma region. Throughout this Analysis we combined our efforts to critique the Bjarke Ingels groups master plan and propose a campus with better shelter from the pacific Northwests rainy weather.

photograph of Director Park in Porltand, Oregon. Used as a precident by the Bjarke Ingels Group. Image courtesy of Travel Portland.

We began our process by looking into how often rainfall occurs in Tacoma, Washington. And we discovered that on average there is 150 days of rainfall a year which amounts to about 41 percent of the year. This rainfall also happens to peak in the autumn, winter and early spring which happens to line up with the months that make up a standard academic year, meaning students are on campus most often during the time when rain is most common. This makes it so that shelter from the rain needs to be a consideration for any campus design, as students are unlikely to use any new outdoor spaces if they cant find any cover from rainfall. We see this on the current campus where during rainstorms, students tend to rush inside, leaving outdoor spaces such as the Prairie Line trail much more empty. While I began my research on Built coverage, Nam started hers on tree canopy, reseaching existing tree species on campus and their placements relative to areas of existing soil pollution since certain tree species can also function to filter that pollution.

A tree species map overlayed on a soil contamination map designed by Nam Cao.




An Image Showcasing average precipitation data for Tacoma, Washington throughout the 12 months of the year. Courtesy of US Climate Data.com

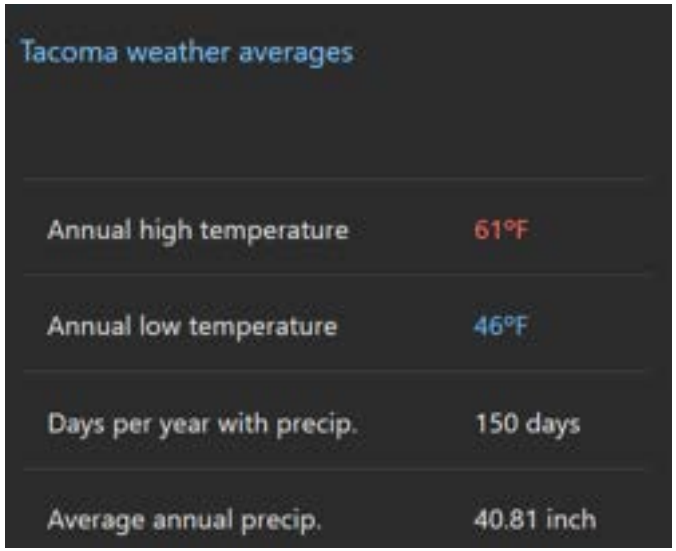



Image showing weather Averages in Tacoma Washington, Courtesy of US Climate Data.com


Chart showing my mapping data of built coverage on the UW Tacoma campus. Created through the Fieldmaps app for ArcGIS. All accompanying images taken by me.

I began my research on built shelters by walking the entire currently developed area of campus and mapping out every outdoor built shelter that I could find using FieldMaps by ArcGIS. Most of the currently existing built shelter is awnings, usually located at the entrances of campus buildings. I took note of four unique cases however which could serve as inspiration for the campus expansion. The biggest success is the large covered walkway that Spans the JOY and West Coast Grocery buildings on campus, which sees frequent student use during the rainier months. Another success I found was the Science building, where the building itself functions as roofed coverage. There was also an interesting case on the back entrance to Pinkerton with a long awning that covers the entire walkway up to the building.

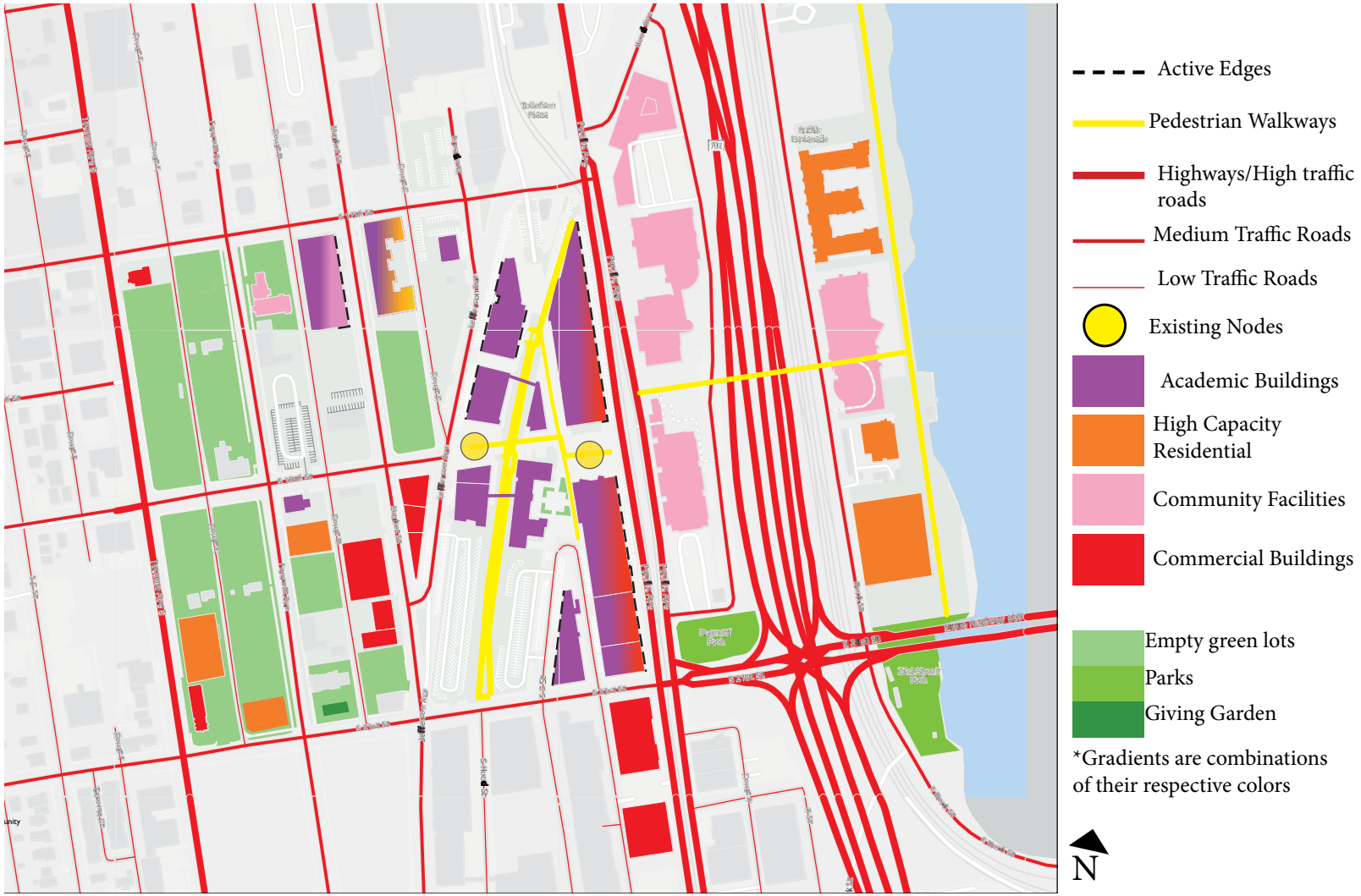
With there being so little built coverage on the campus currently, students rarely want to remain outside during the rainy season of the year, leading to a lack of use for the outdoor spaces along areas such as the prairie line trail. This adds to the feeling that the current outdoor spaces at UW Tacoma feel very transitory, that they exist only to move students and faculty from place to place.

This is why built coverage is vital, especialy in a region like Tacomas that has frequent rainfall. If people arent worried about being rained on, they will be more likely to make use of a given space, which we could use to bring life back to the outdoor student spaces at UWT.

The science building itself functioning as coverage from rainfall. Photo by me.

The covered pathway that runs outside of the JOY and West Coast Grocery buildings. Photo taken by me.


*Site Plan created in collaboration between Nam Cao and I.




When we moved on from our initial critiques and set our sights on the broader campus redesign, we began the process by creating an Urban Form analysis. This analysis serves to showcase land uses as they currently exist as well as the hierarchies of both pedestrian and vehicular pathing. This map shows the immediate lack of development as campus goes west of Jefferson avenue, with there mostly being large green lots that are mostly unused. It also shows how the University feels like an isolated pedestrian zone in the midst of a car-centered city, it is fully bordered by busy streets.

Luke Keser

# Urban Design Approach

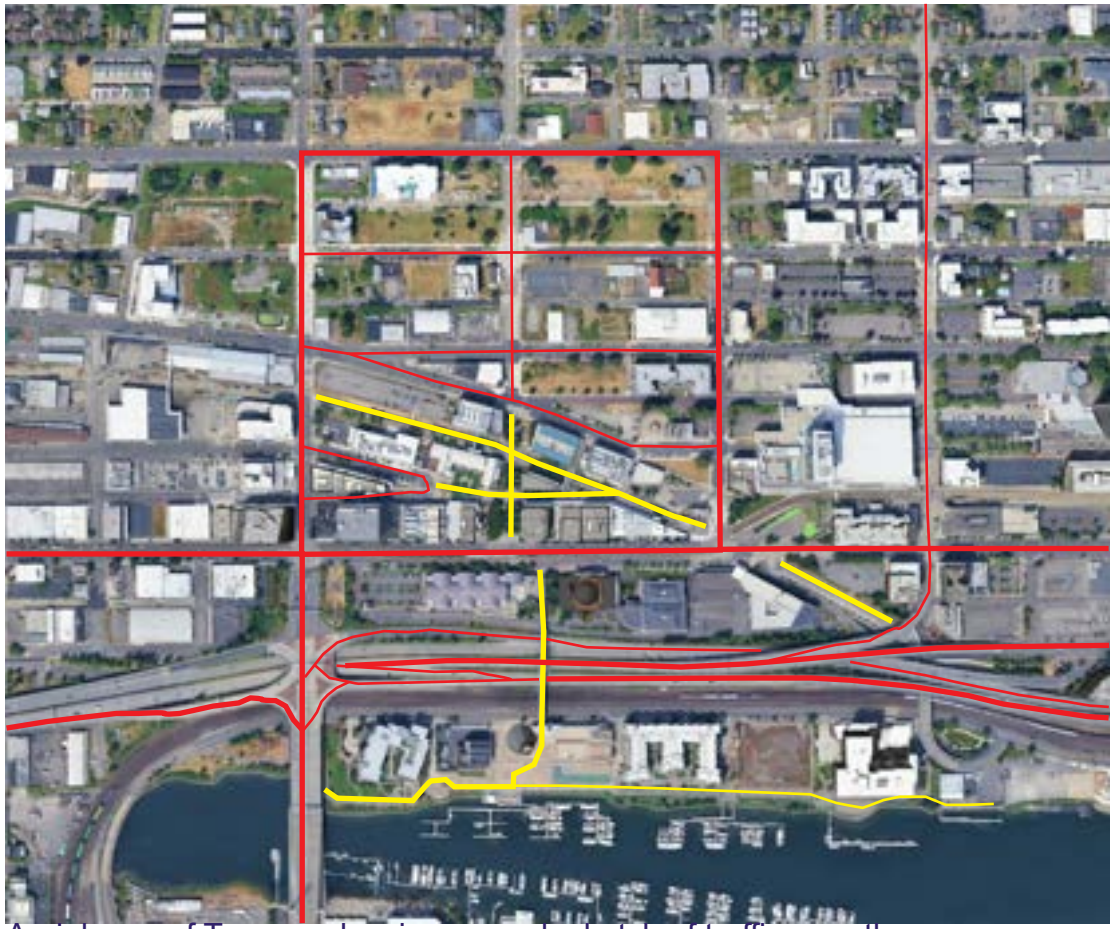
At this stage of the project I was focusing on the broad strokes of the entire campus, trying to highlight our large critiques while also seeking to improve pedestrian flow.

As previously mentioned, when doing my analysis of the campus, I noticed that though the college campus itself has strong pedestrian pathing, it connects to very little. The strongest connection it has is with the museum district via Pacific Avenue where there is large quantities of traffic calming and a generously sized and timed crosswalk. Though this is partially because the pacific avenue entrance to campus also serves as a transit hub for both buses and the link.

Though the prairie line trail runs through campus, its connections to the rest of the trail are not strong. On the northern side of campus the trail crosses Both the Tacoma Link line and pacific avenue requiring 3 crosswalks to continue the trail, and the other end that goes to the brewery district also requires crossing a high traffic street.

Knowing this, my initial focus was on improving pedestrian flow through campus and in/out of campus while also focusing on the four major critiques we made of the master plan.

Aerial map courtesy of Google Earth.



Aerial map of Tacoma showing a rough sketch of traffic near the campus, Pedestrian paths are Yellow, Vehicular roads are red.


While my Urban Form Analysis showed the condition of campus as it currently is, The Urban Design Framework showcases how I believe the campus should be districted in the future. I opted to put new student housing developments near the recent apartment complexes near Tacoma Avenue, then have the new campus facilities move inward from there. One thing I thought the Master Plan did well was its central green-strip design running diagonally down the main campus hill, so I kept that mostly as is, though districting different green spaces for different uses. In terms of pedestrian flow, I opted to pedestrianze every road outside of Market Street since Market will be used for bus re-routing. I also want to continue the central pedestrian path along South 19th Street.

# COMMUNITY ENGAGEMENT PLAN


Community Engagement flyer, designed by Ariana.

As we planned out our community engagement, we came up with a number of strategies. Including launching a wide scale survey which we advertised everywhere we could, tabling at the YMCA with Laurence taking charge, classroom visits where we would run an interactive Mentimeter Survey led by Sam, Collaborating with the student government which I took charge of, going around campus and conversing with multiple students a week each and a larger scale event hosted by us in the Husky Commons on the bottom floor of the Tacoma Paper and Stationary building. We believed that with these strategies we would be able to reach a large number of students and get valuable information and feedback.

While working on our crituques of the UW Tacoma master plan, as a cohort we also began to formulate our plan for a community engagement campiang which would be run in January of 2026. We decided to focus specifically on the campus transit/parking problem since it was the easiest to discuss with fellow students, and because issues related to transportation and parking are some of the most common complaints about the campus, so we would be likely to get more passionate responses. With this being a larger cohort-wide project, Sam Eilert ended up taking lead for the community engagement process, managing who does what, organizing events and consolodating everyones work together.

Community Engagement flyer, designed by Ariana.

# COMMUNITY ENGAGEMENT IN ACTION

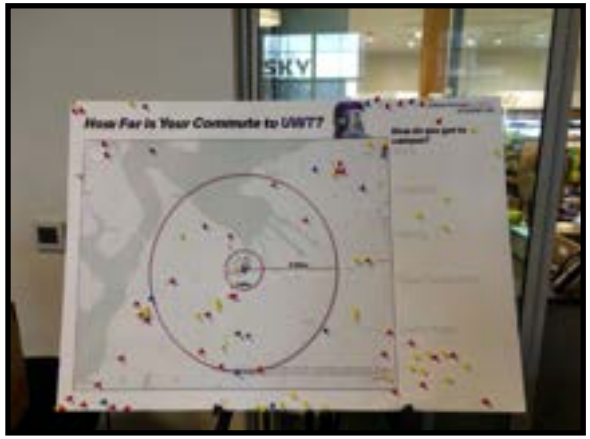
Community engagement images taken by Bara Safarova

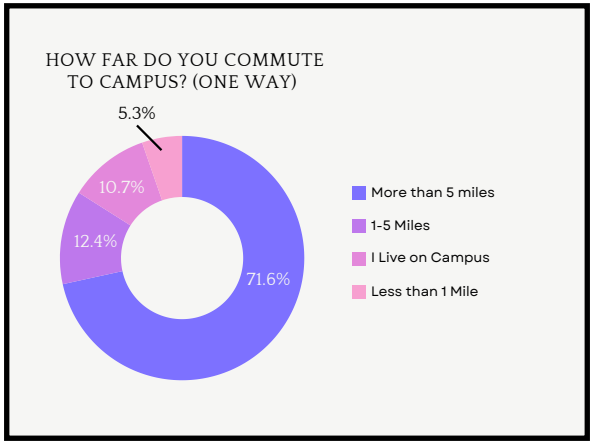
For the first three weeks of Winter quarter, we ran our community engagement campaign. Our initial goal was for each of us to talk to ten students a week and record our conversations, however we quickly realized that recording would not work out so instead opted to take notes. As we talked to students we also handed out flyers with a QR code linking to our larger survey, which we also advertised at our YMCA tabling events. We tabled near the entrance to the campus YMCA and tried to converse/ hand out flyers to students who were entering and exiting.

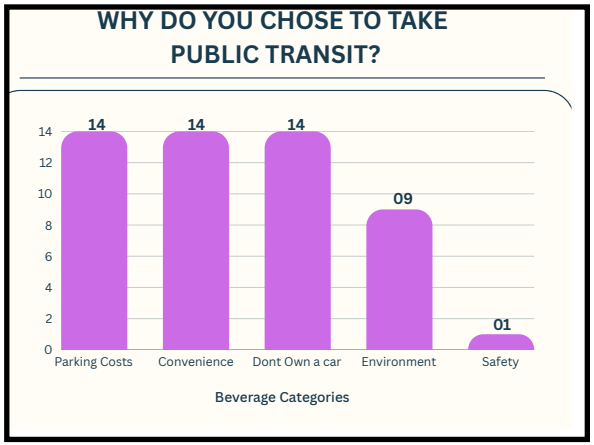
Led by Sam, we also performed a number of classroom visits, each of us doing at least two (Sam lead every single one.) In the classrooms we used a separate Mentimeter survey in order for it to be more interractive, however at the end of the miniature presentation we also linked to our larger scale Survey. With my connections to the campus student government, I set up a meeting with the then student president Rae Watkins and we along with Joe Lawless conversed about our plans for our larger husky commons event. They also set up a meeting for me with the student governments city liaison in order to potentially get city data about how students interface with transportation. They did get us some data but we did not end up using it for our work.

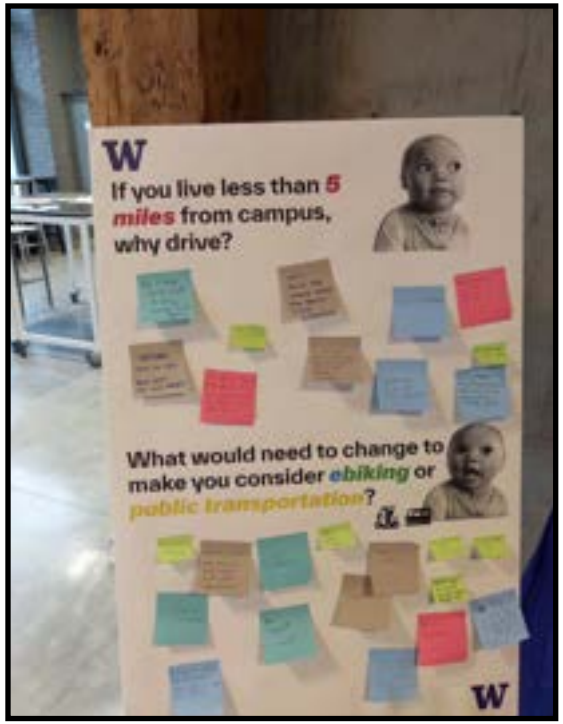
Our community engagement culminated on January 20th where we held our event in the Husky commons, creating several interactive boards that asked students questions about how they get to campus, how far they commute, what might convince drivers to use other transportation options and their general thoughts on parking/transportation on campus. As an extra incentive we also provided free snacks/goodies for participants.

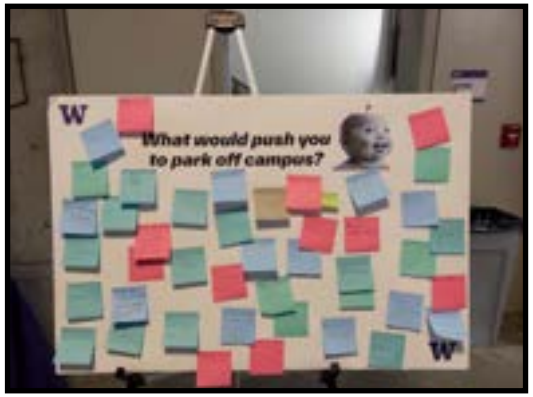
# COMMUNITY ENGAGEMENT RESULTS

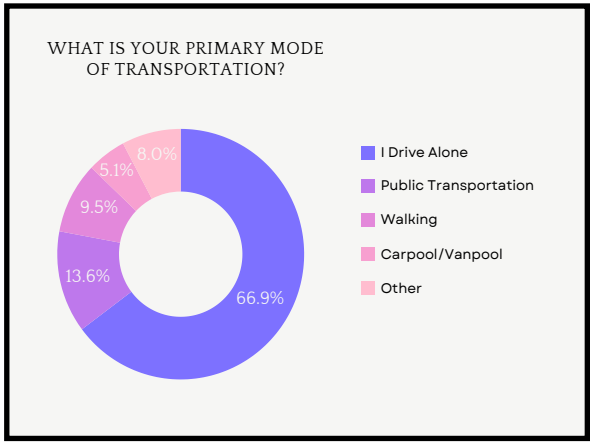


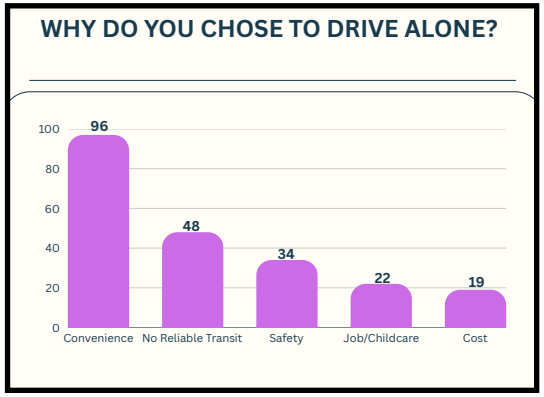



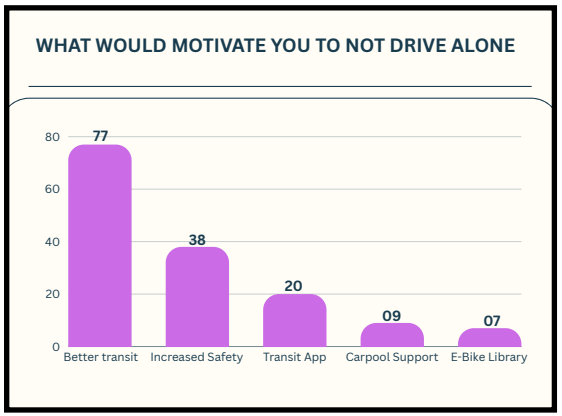

Visual community engagement results, charts made from our survey data usinf Canva. images of our event boards taken by me.

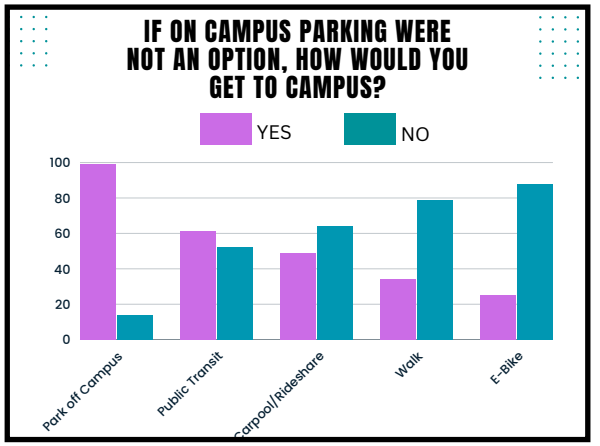
# COMMUNITY ENGAGEMENT RESULTS

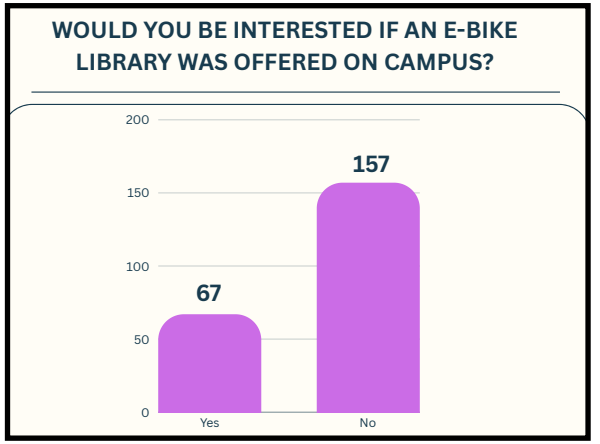
As Our community engagement ended we had reached 169 students through our main survey and 320 through our Mentimeter class visit survey, as well as a number of students through our conversations and Husky Commons event. From there we began to consolidate all of the information we gathered into legible data. Ariana handled the data from our event posters, Zachariah made charts of our Mentimeter data, Bryden read through the student stories and looked for commanality and I made charts of our larger surveys data.

Knowing that UW Tacoma is currently primarily a commuter campus, there were some results we expected, like 67% of respondants saying they primarily drive alone to campus or that 71.6% of respondants live more than five miles away from campus (this is also reflected on the Pin Board where students placed pins to show how far they live from campus.) Also expected was that the most common response for why students chose to drive to campus was just convenience, followed by a lack of transit options. What we did not expect however was that it was students who lived further away from campus were more open to alternative modes of transportation. Several students in conversation said that they would take buses if there were more routes and they came more often. Though the majority of respondants were drivers, we did get a handful of responses from transit users as well as walkers, though every walker we talked to lived near campus.

Another idea we brought up during our engagement campiang was the concept of a campus E-bike library where students could rent out an E-bike for the quarter or school year and use it to transport themselves. Though a majority of respondants said no, we still got 67 who at least had interest, which could make it a valuble subject to do a test-study on.



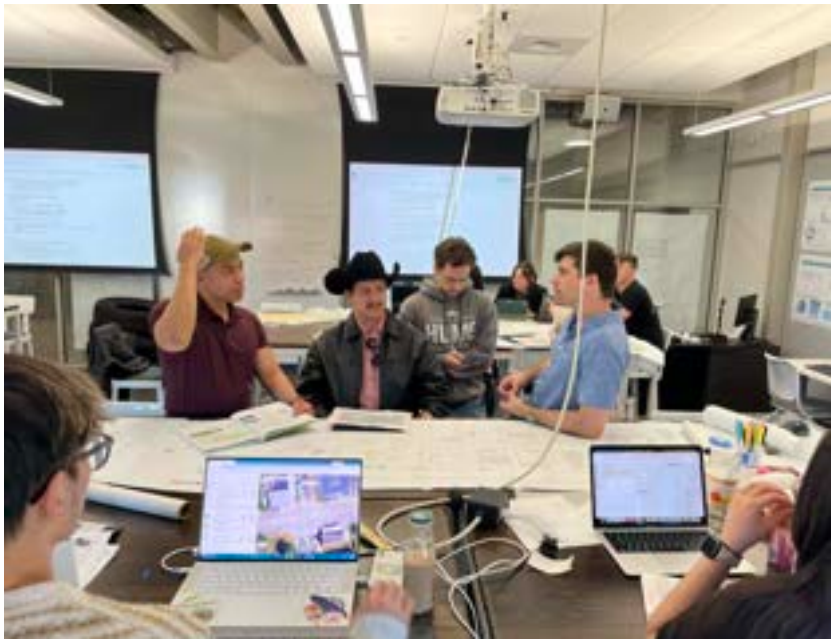
# Capstone Collaboration

After our community engagement and basic drafting of the campus, we were introduced to the Civil Engineering cohort who we would be working with for the remainder of the academic year, combining our design expertise and their technical knowledge. We got split into two different teams of designers/engineers, focusing on a different on-campus street and its relevance to one of our four critiques of the campus master plan.

The first group consisting of Laurence Applen, Bryden Punsalan, Ariana Orcozo Perez and Zachariah Manalese as well as civil engineers Dennis Quiocho, Benjamin Butler and Isaiah Beidalah, who were assigned South 19th Street with a focus on ADA access going up the main slope of the campus.

The Second Group contained myself, Nam Cao and Sam Eilert along with civil engineers Hunter Antanavage, Luci Tolic and Justin Ray. We were assigned Jefferson Avenue with a focus on maximizing Green Stormwater Infrastructure (GSI).

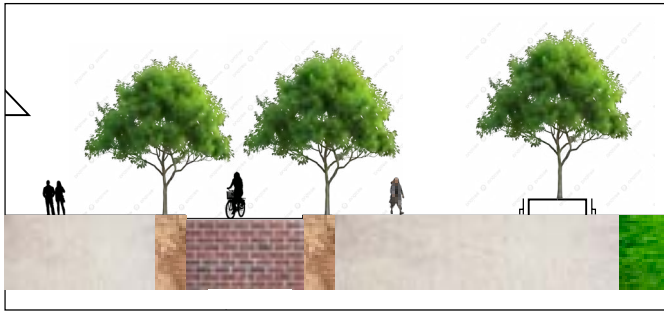
Designers and Civil Engineers working. Images courtesy of Bara Safarova



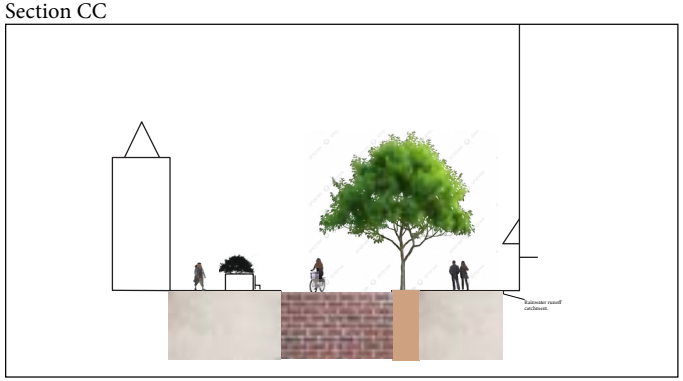
# INITIAL DRAWINGS

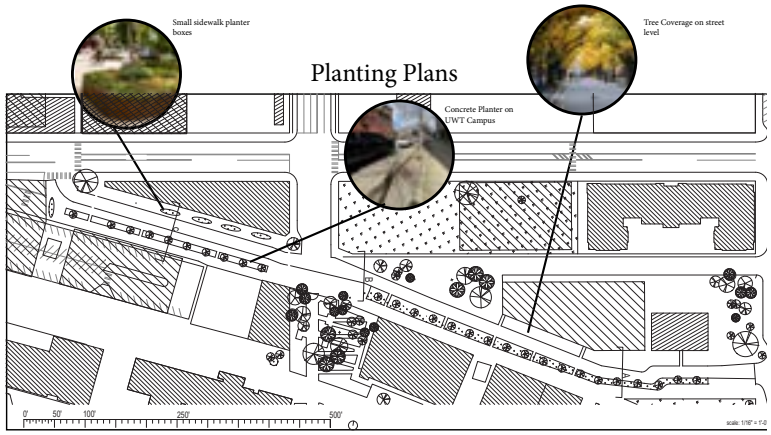
Section AA

Section BB

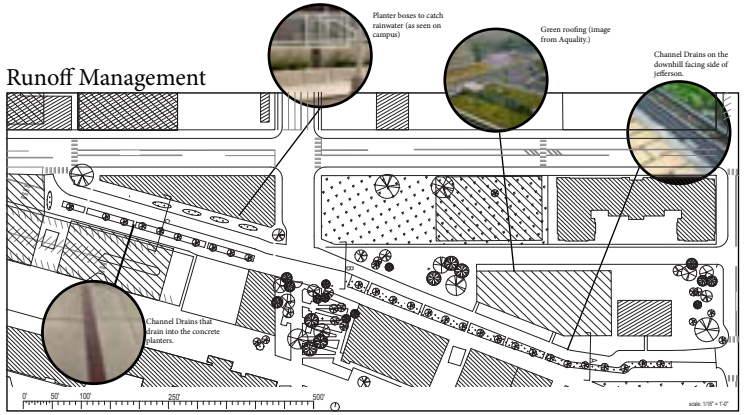


Section CC





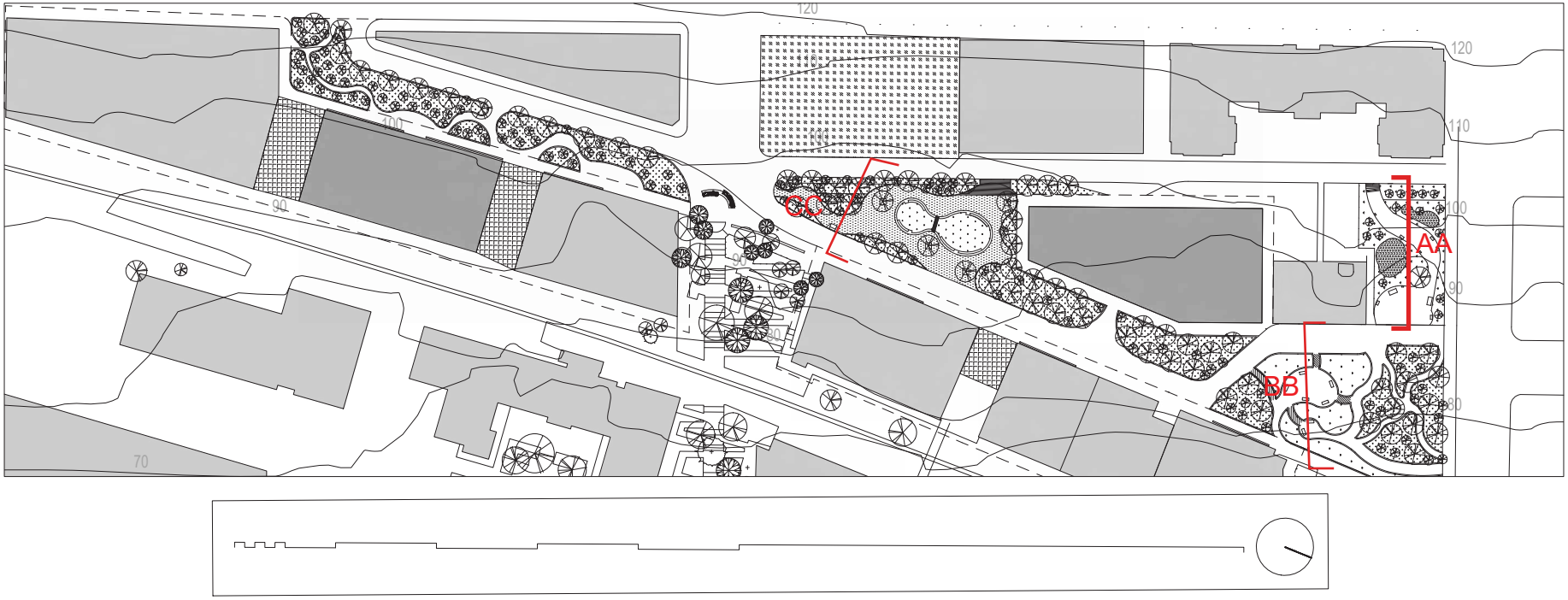

my intent with Jefferson Avenue is to turn it into an "Urban Forest" street, lining the central 20 ft wide path with trees to create a sense of coverage while walking or cycling in the region. This also serves to meet Tacomas plans for forestation. I intend to use a variety of local tree species similar to the mission of our recent micro-forests. I will also impliment planters that serve both as vessels for plants, and as seating.




Since the central 20 ft path will be an impervious surface, I plan on using standard storm drains along the edges of the path to catch falling rainwater. Along the outside of buildings I intend to use either planters/gravel as a way to catch/filter stormwater that comes off of roofs, and I seek to install green roofing on any of the new buildings proposed by the Bjarke Ingels Group.

These initial drawings were meant to show my broader ideas regarding Jefferson Avenue using standard site plans and multiple site cuts at different points of the street. My focus at this time was on creating an Urban Forest and green roofing.

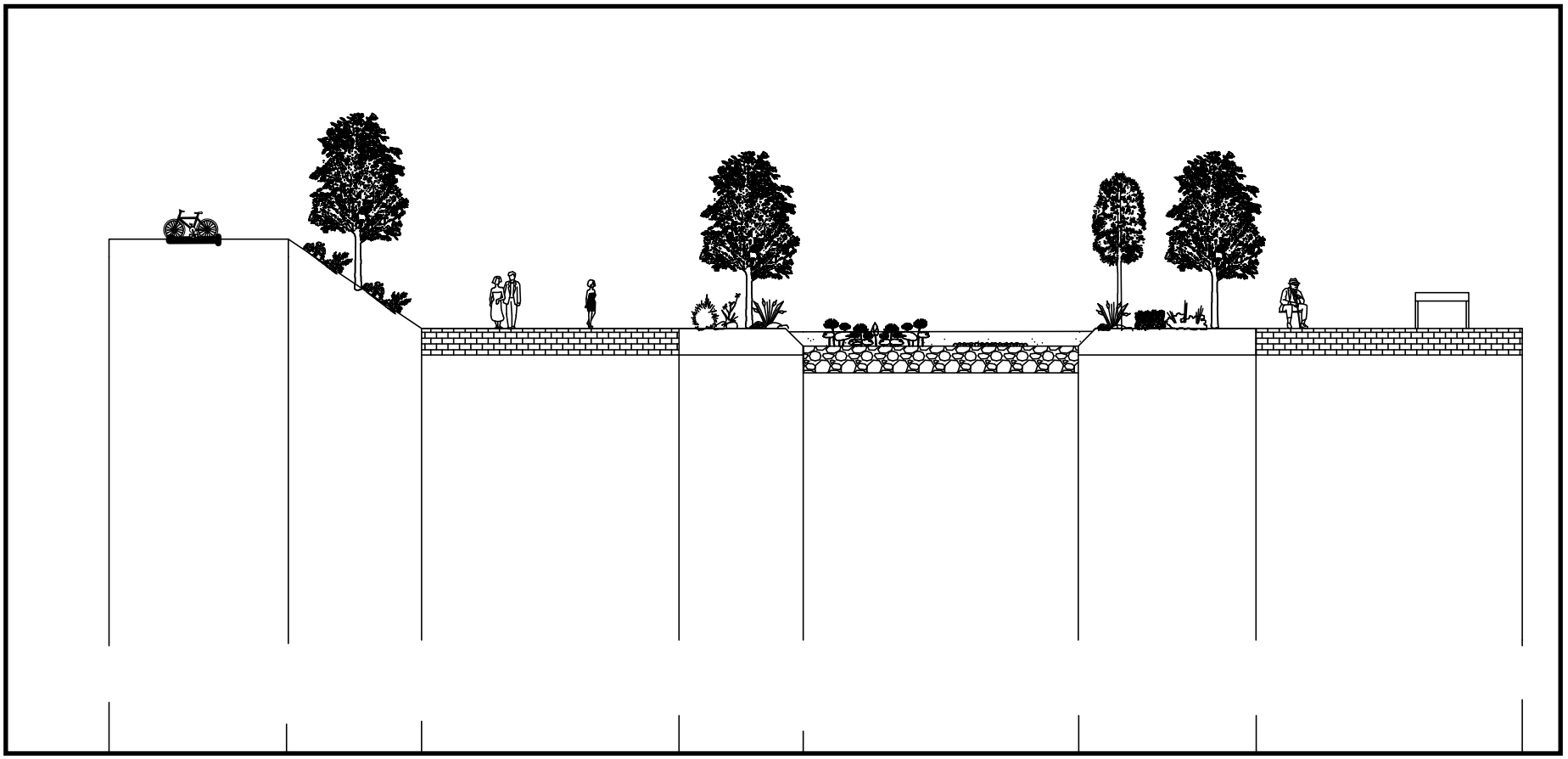
# INTERDISCIPLINARY STREET DESIGN




After our initial induvidual draft designs for Jefferson Avenue all of us reconvened as a group with our Civil Engineers and worked together to come to an agreement on how the street will be designed to meet out GSI goals. Our design team opted to divide and conquer, each tackling different areas of Jefferson Avenue. Sam handled both the North and South ends of the street, designing a small scale wetland in the north and a microforest trail on the south end closer to the Swiss. Nam designed a water feature near the center of Jefferson Ave which functions as a social space. And I worked on the space next to the Pinkerton building, opting to remove the parking lot currently there and replace it with a forested trail that also serves as a GSI education space with signs explaining what GIS is and the role it plays in our day to day urban life.

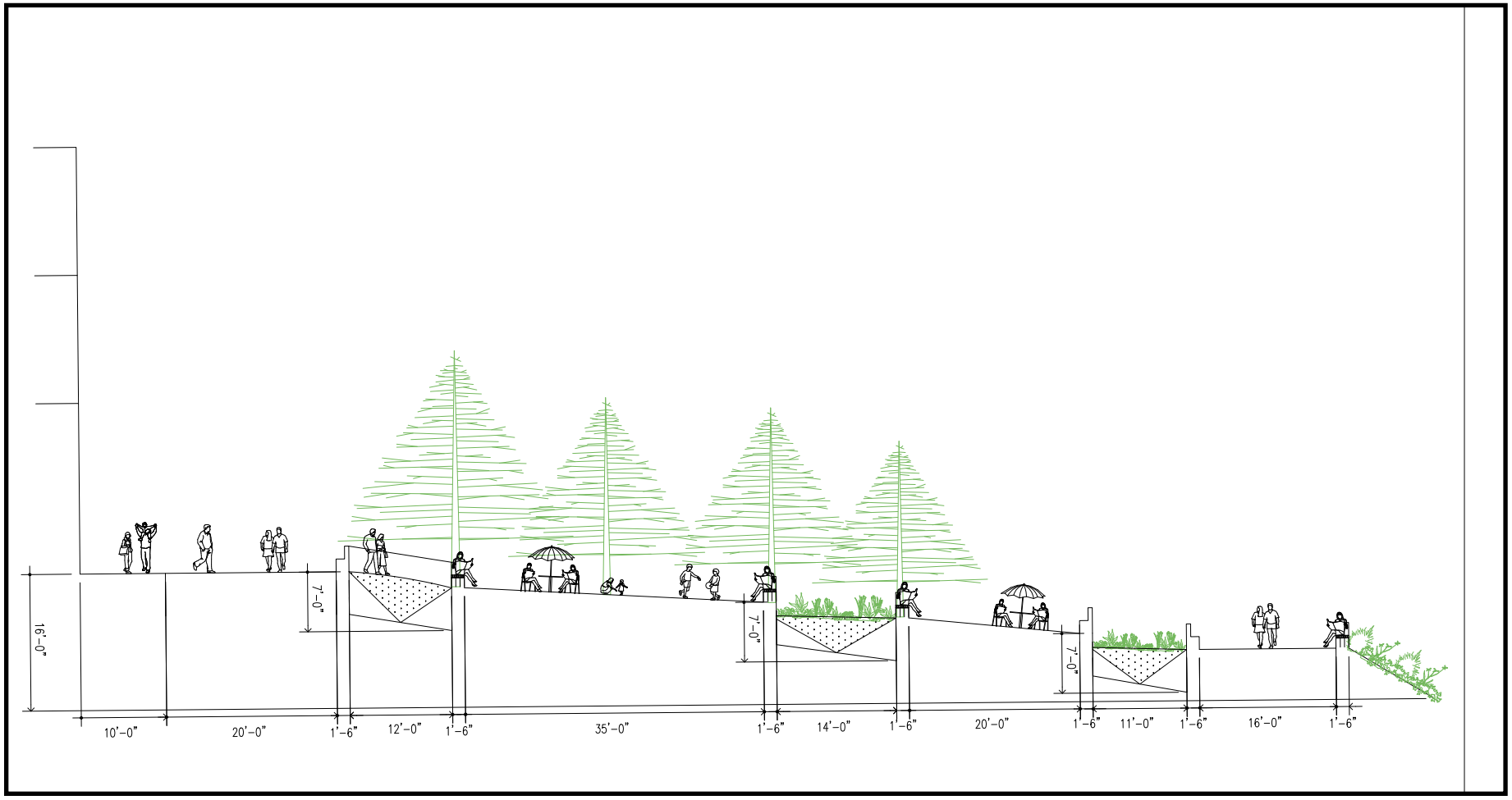
This process also involved a lot of back and forth with the civil engineers, as we showed them our current drafts and they would let us know if our designs were achievable, safe and not harmful to current public utilties such as sewage lines. To partially get around these utilities the engineers introduced us to Stratavault/Silvacell cells which can be used to handle stormwater underground as well as allow tree root systems to safely exist near pipelines and other underground utilities.

# LUKE KESER SITE SECTION AA



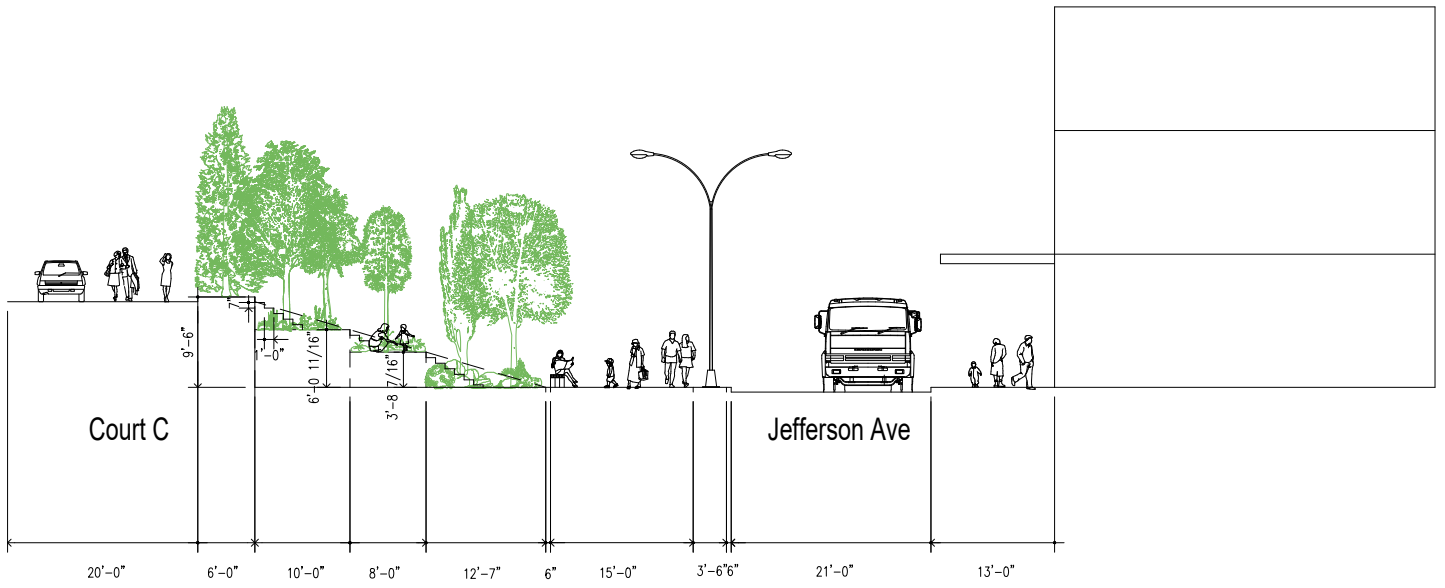
# SAM EILERT SECTION BB

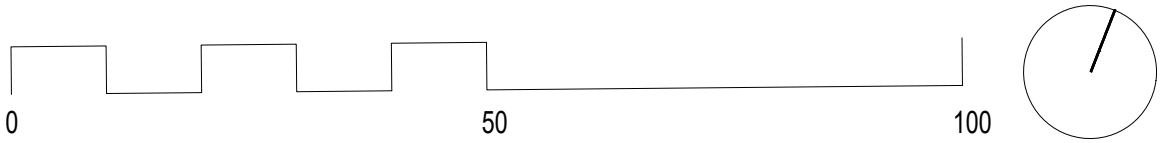
Designed by Sam Eilert



# NAM CAO SECTION CC

Designed by Nam Cao




Scale: 1/16" = 1'0"

Section AA

# JEFFERSON AVE SITE PLAN

Jefferson Ave initial site plan created in collaboration with Nam Cao and Sam Eilert. Rendering by me

Campus Buildings
Campus Buildings with Green Roofing
Glass Roofing
Concrete Pathing
Primary Pedestrian Walkways
Asphault
Greenspace
Tree Coverage
Water Features
N

In collaboration with Urban Designers Sam Eilert and Nam Cao as well as Civil Engineers Luci Tolic, Hunter Antanavage and Justin Ray, we worked this term to redesign and pedestrianize Jefferson Ave with a focus on GSI.

We achieved this with a focus on microforests and wetlands as well as concrete planters for smaller foliage as well as using Silva Cell pavement systems running underneath pathways as a means to allow tree root growth and handle stormwater underground.

# CAMPUS QUAD SITE PLAN

Campus Buildings

Campus Buildings with Green Roofing

Glass Roofing

Concrete Pathing

Primary Pedestrian Walkways (Brick Pavers)

Asphault

Greenspace

Tree Coverage

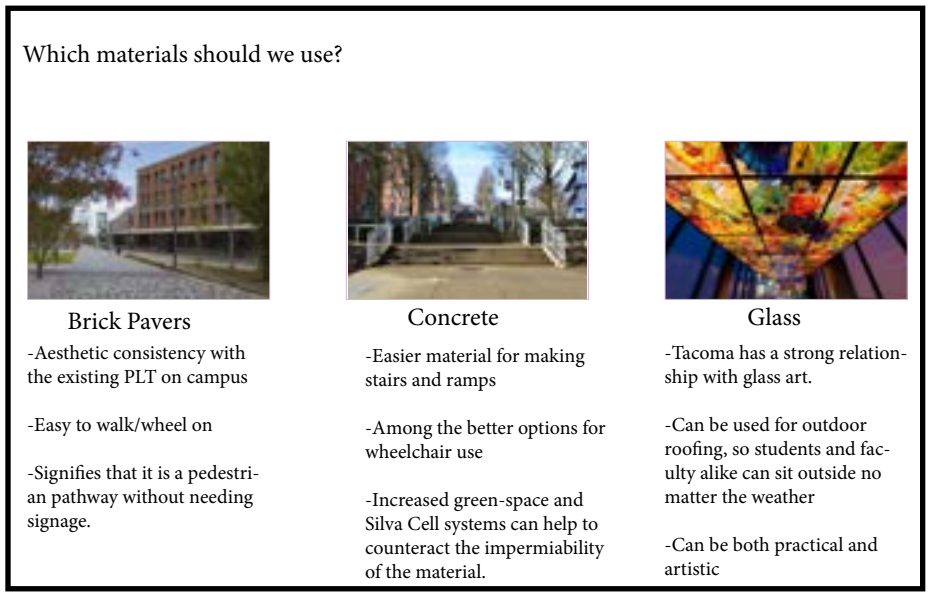
Water Features

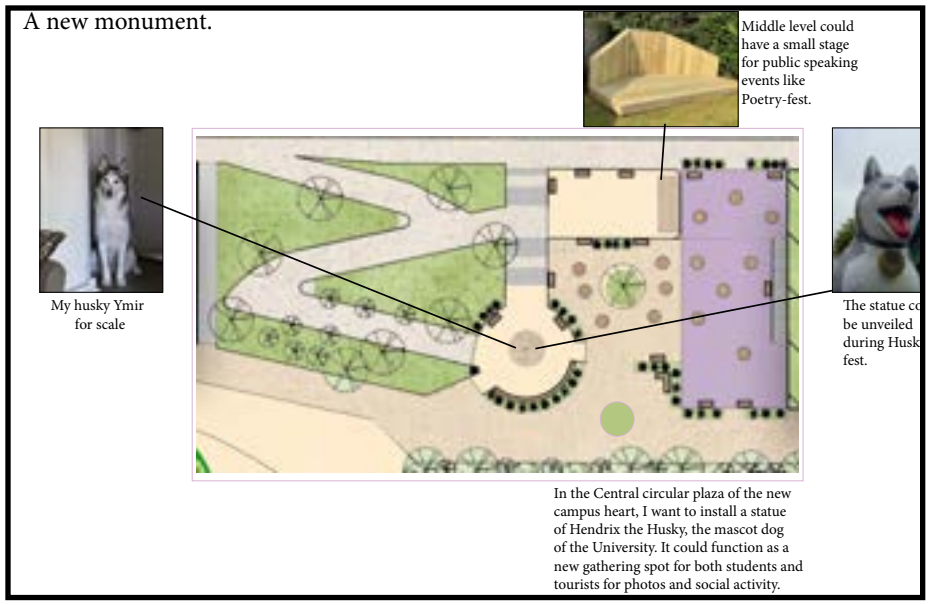
N

With the Main campus quad, I wanted to play with the 20 foot elevation shift by having different sections at different levels, while still maintaining access for all students.

There are three main levels, each with their own social spaces. One at the level of Court C, one around 14 feet up, and finally an area at the top level of market street. As for getting up, there is both a central staircase and a switchback ramp system that is 15 feet wide in order to be more inviting. The student dining building also features a large glass roof that hangs 48 feet above Court C.

# CAMPUS QUAD DESIGN



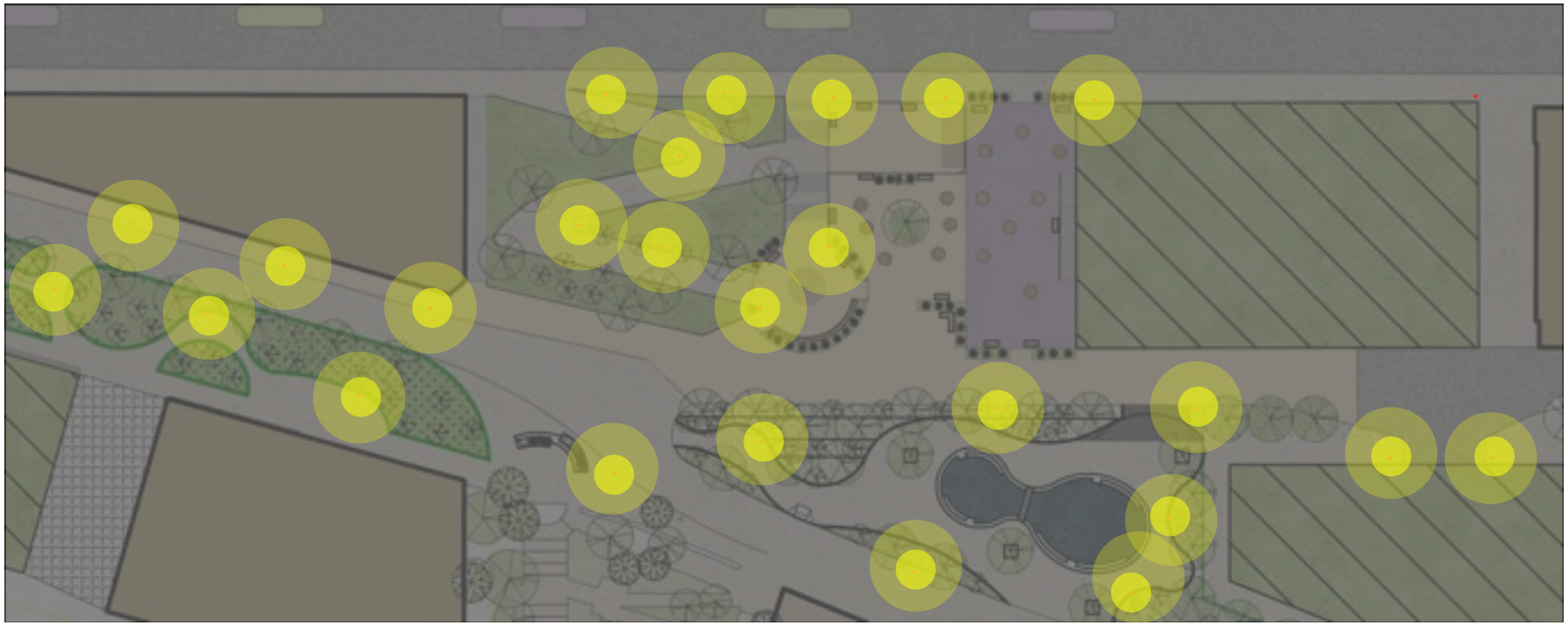




After our collaborative project, we each went to work on our own designs again, creating detailed visual communications of our assigned street as well as another area on campus of our choice. I chose to work on the planned campus quad region which will be between the Swiss and the proposed student dining facility.

My first major challenge was the elevation gain between Court C and Jefferson Avenue, which is approximately 20 feet. I created two main ways of getting up the quad, a central staircase and a ramp which I purposely made much wider than the campuses current ramps so they they feel less cramped.

In terms of social design, I wanted to play with the different levels of elevation and created spaces at three different levels.The top and bottom level both have portions that lie underneath a large glass roof which enters into the dining hall. This glass roof serves as shelter to allow students to eat or hang out outside. In the central circular plaza I want to install a new monument for the campus, with that potntially being a statue of Hendrix the husky. The middle level is much smaller and can serve as both a hang-out spot and a small stage for public speaking for events like Poetry-Fest.

# CAMPUS QUAD DESIGN



Immediate Lighting Cone

Fading Light Cone

Lamp Locations

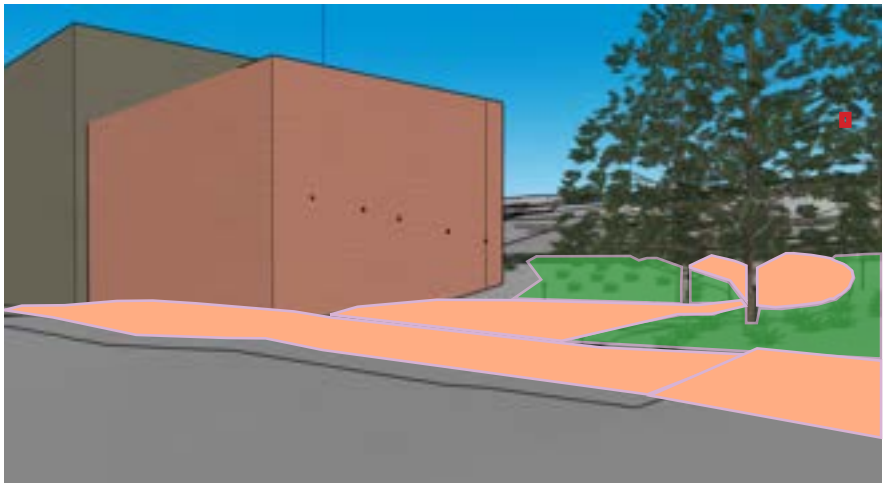
N

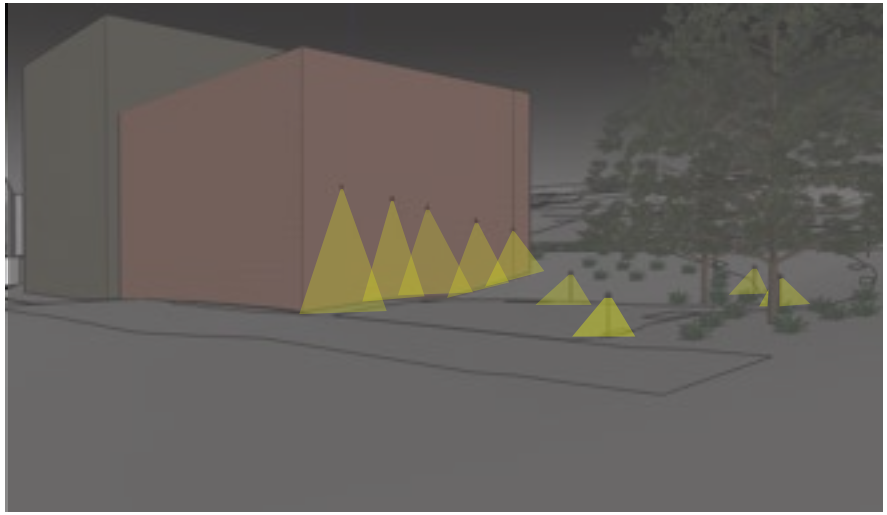
During our community engagement one of the most commen concerns we heard was with lighting, so with the campus development it should be a focus to install much more lighting around campus, especially in the Courts and the new quad region. It will help to increase feelings of safety for students who are on campus after dark.

Along with an increase in lighting we should continue to build more emergency stations as the campus develops so students can always feel secure.

Another focus of my design was lighting. During our community engagement a common worry we heard about the campus was that students did not feel safe walking around on campus after dark, especially on the Courts. So I chose to focus on installing more lighting on campus. I also wanted to emphasize using dark-sky lighting in order to reduce light pollution on campus and set a precedent for the rest of the city.

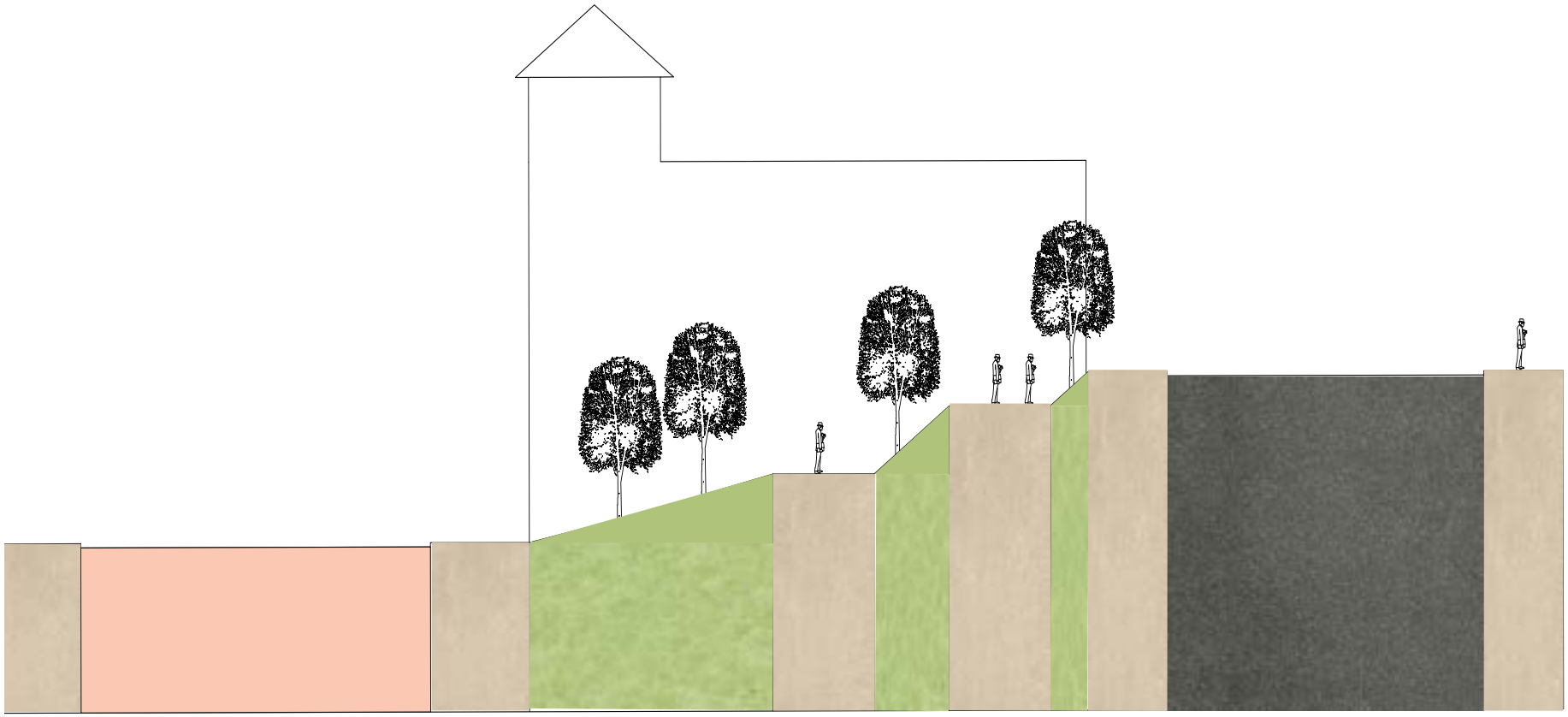
# 3D RENDERINGS





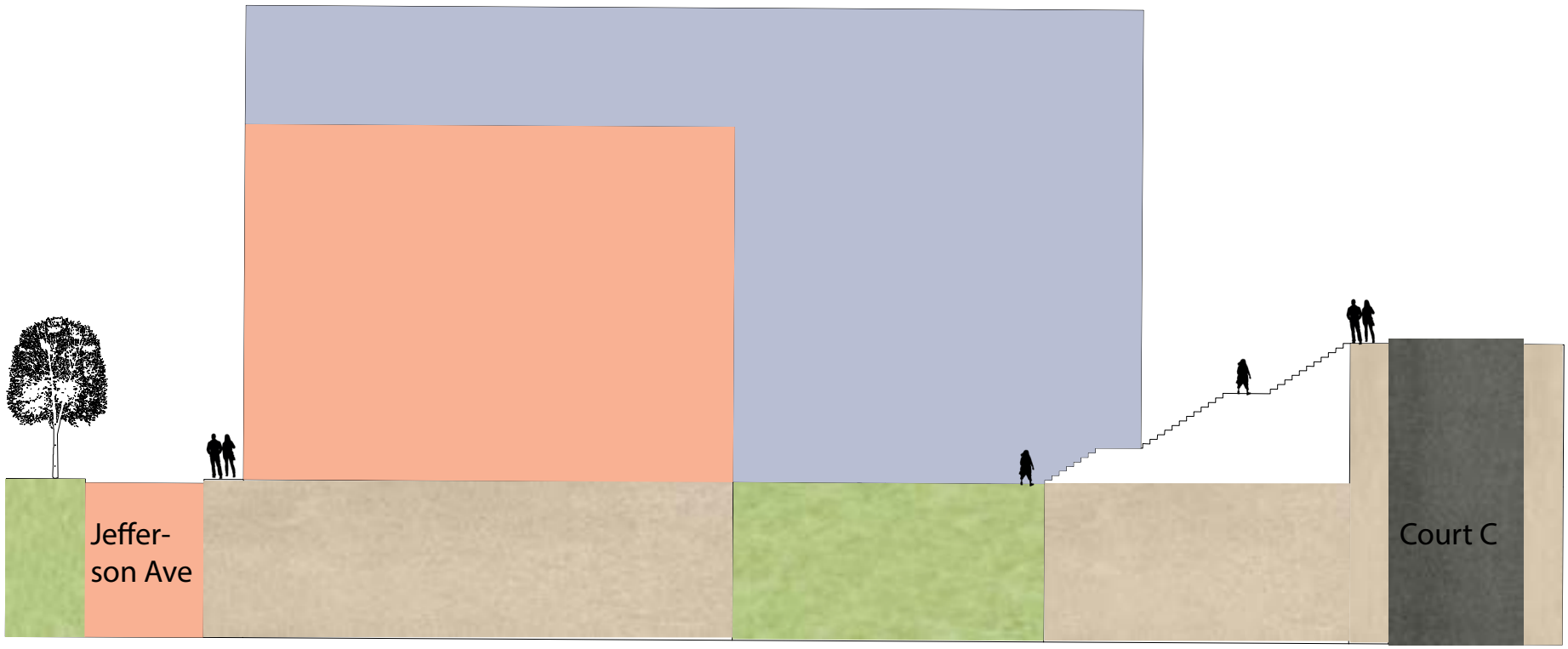
In order to showcase the difference in a space between day and night I chose to create a simple 3D model. I opted to model my pinkerton educational trail, rendering it twice. First in daylight and second at night with simple graphics to showcase the lighting cones of both the street lights and the buildings wall-lights. As mentioned previously, part of my focus is on dark-sky lighting, so all of the lights only aim downward.

# SITE SECTIONS



Knowing that my site was on an incline, I knew I had to make cuts into the site to see how my designs interact with the slope. This Site Cut goes through the center of my proposed ramp system, showing the elevation gain near the swiss and the different levels of pathing and greenery as well as its connections to both Jefferson Avenue and Market Street.

# SITE SECTIONS




This site cut showcases the Pinkerton education park region, primarily as a way to see the elevation change so I could design a staircase to go from Jefferson to Court C.

# CONCLUSION:

Throghout the 2025-2026 academic year I have learned a lot about the Urban Design process through my projects, community engagement program and collaborations with the civil engineering cohort. It challenged me in ways that sharpened my design skills, leading to several maps and renderings that are my proudest work so far. I also greatly appreciated my fellow cohort members and everything they contributed to the process as well. I was very thankful to have my capstone be heavily alligned with a real, ongoing project that has both the school and city involved as it allowed me to see more of the political elements of urban design and how different groups have different priorities.I beleve fully in the designs I created and I am excited to see the future of UW Tacoma as it continues to develop.

~Luke keser