Promoting Sustainable Transportation in the Coburg Corridor

Fall 2019
LTD

Alison Grover • Marc Schlossberg

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UNIVERSITY OF OREGON
SCI Sustainable Cities Institute
SCYP Sustainable City Year Program

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Promoting Sustainable Transportation in the Coburg Corridor

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COLLEGE OF DESIGN

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Acknowledgments

The author wishes to acknowledge and thank Lane Transit District (LTD) and the City of Eugene for making this project possible. We are grateful to all city staff, LTD staff, and community members who came to our fall term final review to provide feedback on our projects. We would also like to thank the following LTD staff for their assistance and contributions that were instrumental to the completion of this report.

Jennifer Zankowski, Senior Development Planner
Tom Schwetz, Director of Planning and Development

Contents

About SCI

The Sustainable Cities Institute (SCI) is an applied think tank focusing on sustainability and cities through applied research, teaching, and community partnerships. We work across disciplines that match the complexity of cities to address sustainability challenges, from regional planning to building design and from enhancing engagement of diverse communities to understanding the impacts on municipal budgets from disruptive technologies and many issues in between.

SCI focuses on sustainability-based research and teaching opportunities through two primary efforts:

1. Our Sustainable City Year Program (SCYP), a massively scaled university-community partnership program that matches the resources of the University with one Oregon community each year to help advance that community's sustainability goals; and

2. Our Urbanism Next Center, which focuses on how autonomous vehicles, e-commerce, and the sharing economy will impact the form and function of cities.

In all cases, we share our expertise and experiences with scholars, policymakers, community leaders, and project partners. We further extend our impact via an annual Expert-in-Residence Program, SCI China visiting scholars program, study abroad course on redesigning cities for people on bicycle, and through our co-leadership of the Educational Partnerships for Innovation in Communities Network (EPIC-N), which is transferring SCYP to universities and communities across the globe. Our work connects student passion, faculty experience, and community needs to produce innovative, tangible solutions for the creation of a sustainable society.

About SCYP

The Sustainable City Year Program (SCYP) is a year-long partnership between SCI and a partner in Oregon, in which students and faculty in courses from across the university collaborate with a public entity on sustainability and livability projects. SCYP faculty and students work in collaboration with staff from the partner agency through a variety of studio projects and service-learning courses to provide students with real-world projects to investigate. Students bring energy, enthusiasm, and innovative approaches to difficult, persistent problems. SCYP's primary value derives from collaborations that result in on-the-ground impact and expanded conversations for a community ready to transition to a more sustainable and livable future.

About Lane Transit District

LTD provides more than 10 million trips per year on its buses and EmX Bus Rapid Transit line in Lane County, Oregon. Encompassing the Eugene-Springfield metro area, LTD is a special district of the state of Oregon and led by a seven-member board of directors appointed by Oregon's Governor.

LTD also operates RideSource, a paratransit service for people with disabilities, and numerous transportation options programs to promote sustainable travel county wide, and Point2Point, an initiative that provides community members with the necessary information and resources to assist them in identifying opportunities to drive less by discovering transportation choices that meet their individual lifestyles.

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Executive Summary

As part of the Sustainable City Year Program (SCYP) at the University of Oregon, this fall 2019 course asked students to come up with creative ways to implement a variety of mobility hubs in a specific area in Eugene, Oregon. With Lane Transit District (LTD) as our community partner, students proposed mobility hubs along Coburg Road. Coburg Road is one of five key corridors identified in Moving Ahead, a transportation plan put forth by the city of Eugene, LTD, and other regional partners. Along with Highway 99, River Road, Martin Luther King Jr. Boulevard, and 30th Avenue, Coburg Road is the focus of transportation improvements such as compact urban development, densification, increased frequency bus lines, and enhanced pedestrian corridors.

A mobility hub is an area where multiple forms of transportation are concentrated to facilitate convenience, efficiency, and to increase multi-modal transportation among travelers. Mobility hubs typically incorporate sustainable modes of transportation such as pedestrian access, transit hubs, and bicycle infrastructure. They also provide all the necessities to make these trips possible, including secure bicycle parking, parking spaces for park and ride, electric vehicle charging stations, bikeshare and scooter share stations, and covered seating for people between trips.

The overarching goal of a mobility hub is to reduce reliance on personal vehicles. This benefits the environment by improving air quality, conserving resources, reducing the emission of greenhouse gases present in car exhaust, reducing congestion by limiting the number of vehicles on the road, and increasing equity by enabling carless households to thrive. A mobility hub on Coburg Road has the potential to function not only as a transportation connection, but also as a welcoming, social space for people to meet up and relax.

Teams proposed seven mobility hubs at different locations along Coburg Road ranging from Oakway Center to Crescent Avenue.

Introduction

The goal of these projects is similar to the goal of mobility hubs in general. Each team aimed to decrease the number of cars on the road; decrease emissions via a reduction in traffic congestion; increase safety for pedestrians, cyclists, and transit riders; and stimulate human-scale development along Coburg Road.

Regarding pedestrian infrastructure, Dr. Mariela Alfonzo, urban design researcher, describes a five-step hierarchy of walking needs, starting with feasibility and continuing up with accessibility, safety, comfort, and pleasurability. Many teams addressed these factors by widening sidewalks, separating pedestrians from fast-moving traffic, keeping surfaces level, and increasing the frequency of crosswalks.

Regarding bicycle infrastructure, if more people are to be encouraged to bike, protected bicycle lanes are an excellent approach. Protected bicycle lanes target a demographic of cyclists that are "interested, yet concerned," a term used by Roger Geller to describe one of the four types of cyclists (see Figure I-1). This is the recommended demographic to target if the city of Eugene wants to increase the presence of cyclists, as they represent 60% of the population that the City could reasonably accommodate using improved bicycle infrastructure.

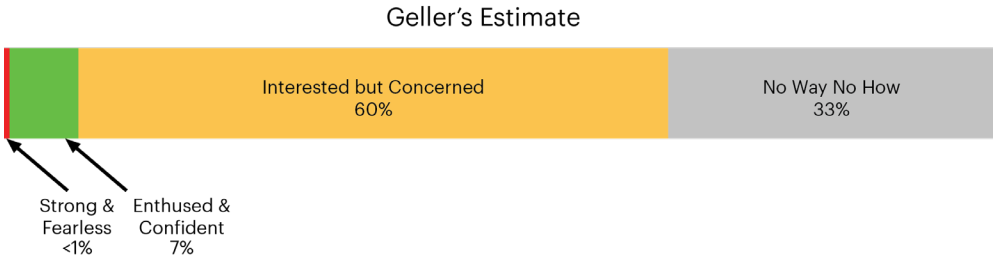

FIG. I-1
The Four Types of Cyclists
The "Interested but Concerned" demographic holds the most potential for future cyclists, as these people are not currently on the road, but could be encouraged with sufficient bicycle infrastructure.
Roger Geller, Bicycle Coordinator at the city of Portland

Often, the "perception of safety is more important than the actuality of safety," according to Jeffrey Tumlin. Flexible bollards are commonly used as physical barriers to separate bicycle lanes from faster vehicular traffic. They will not physically stop a car from entering the bike lane, but cyclists' increased perception of safety from the three-dimensional presence of a flexible bollard is enough to increase cyclists onto the road.

In many cases, students addressed the bicycle lane more broadly as a micromobility lane. Our definition of micromobility includes electric scooters, electric bicycles, and other forms of slow-moving personal transportation. The cities of Portland, Oregon and Santa Monica, California conducted studies in 2018 and 2019, respectively, on average trip distances for electric scooters and electric bicycles. Reports show that average electric scooter and bicycle trip distances are around 1.25 miles and 2.5 miles, respectively. When siting mobility hubs, student teams took into account destinations within 1.25- and 2.5-mile radius, and many planned to implement hubs for e-scooters and e-bikes.

Students thought about a mobility hub for Coburg Road in context of the following recent transportation initiatives:

- Transit Tomorrow (2019) is a transportation plan by LTD that calls for more frequent transit service along fewer routes in Eugene. As the City moves ahead with this plan, higher density areas will see increased bus frequency while some lower density areas will lose bus lines altogether. LTD's decision to increase frequency will benefit Eugene's overall transportation, but there are always drawbacks to change. In our design proposals outlined in this report, many teams opted to increase bike and pedestrian infrastructure in places where bus lines will be removed.
- Vision Zero Eugene aims to reduce the number of transportation-related fatalities and severe injuries to zero. Ameliorating safety in the community is also the goal of all proposed mobility hubs. Calming traffic and providing wider pedestrian and bicycle spaces are popular methods of increasing safety for sustainable transportation users.
- Envision Eugene names seven pillars of community values including planning for climate change, promoting energy resilience, and promoting compact urban development and efficient transportation options.

Eugene also aims to reduce community-wide fossil fuel use by 50% of 2010 levels by the year 2030, a tenet outlined by the Climate Recovery Ordinance and adopted by Eugene's City Council in 2013. In order to achieve these goals, the city of Eugene plans to offer high quality public transit, create walkable "20-Minute Neighborhoods", and triple the percentage of trips made on foot, bike, and transit in the next 20 years.

The following sections outline seven student projects conceptualizing a mobility hub for Eugene along Coburg Road. The projects are ordered based on their location on Coburg Road from south to north. Each project was completed by teams of three to four students and provides recommendations for pedestrian, bicycle, and transit opportunities in addition to siting a mobility hub. The project descriptions are composed of the following subsections:

WHY?

This section addresses the importance of the project and the reason for proposing a redesign of the area. These are the current site conditions that make it a viable option for renovation. These conditions may include high vehicular speeds, lack of crosswalks, or documented injuries or fatalities at the proposed intersection.

PROJECT GOALS

This section outlines the goals of the project and addresses which of the current conditions the student designers plan on responding to through design intervention. Goals may include increased pedestrian safety, increased comfort levels for transit riders, or increased mobility for multi-modal travelers.

PROJECT SUMMARY

This section summarizes how the student designers responded to the existing conditions in order to achieve their transportation mobility goals. It addresses specific design decisions students made, such as adding raised crosswalks, converting an intersection into a roundabout, or painting the bicycle lane green. The Project Summary outlines the full scope of the project, whether it focuses on pedestrian comfort at a particular crossing or addresses economic, aesthetic, and mobility issues across multiple intersections. The projects vary in size and scope.

PEDESTRIAN RECOMMENDATIONS

This section summarizes how pedestrians will benefit from the proposed mobility hub and street redesign. Benefits can include increased distance between pedestrians and traffic lanes, additional places to sit, and decreased crosswalk distances.

BICYCLE AND MICROMOBILITY RECOMMENDATIONS

This section addresses how cyclists, potential cyclists, electric scooter riders, electric bike riders, and other micromobility users will be affected by the design intervention. Benefits can include safer and more secure bicycle parking, electric scooter charging stations, and increased bike lane width.

TRANSIT RECOMMENDATIONS

This section outlines how transit riders will benefit from the project proposal. Solutions range from adding covered seating for riders to clustering bicycle parking and Park and Ride facilities at the mobility hub.

ADDITIONAL

This section provides an overview of additional components that could make the mobility hub even more successful. These extra components could include space for food trucks, a café area, space for gathering and holding events, and space for retail development to stimulate the area economically. These additions would turn the mobility hub into a destination rather than a space to pass through.

FIG. I-2
Vicinity Map

Project 1: Coburg Connect

Location: Oakway Center
By Laura Van Houten, Dylan Cuatt, and Carter Grant

WHY?

The Oakway Center is a highly trafficked shopping Center in the Ferry Street Bridge area. In its current state, it is more accessible to motor vehicles than to pedestrians, cyclists, or transit users. Bicycle lanes are inconsistent and minimal where they do exist. Crosswalks and transit stops are few and far between, and the entire area feels like it was designed with drivers in mind. Long crosswalks spanning multiple lanes of traffic are daunting for pedestrians (Figure 1-1).

PROJECT GOALS

Students' goals with this mobility hub are to create an efficient, safe, and sustainable place where Eugene's transportation networks intersect. They aim to create a "multi-mobile" network of transportation that actively reduces car trips, connects to existing Eugene bicycle paths, and meet the pillars of Envision Eugene.

PROJECT SUMMARY

With clarity and safety in mind, this mobility hub would increase mobility for people coming to and going from the Oakway Shopping Center area. The area is not currently oriented towards sustainable transportation but has the potential to be drastically transformed. We have identified three significant corridors through which a majority of visitors come and go. On the north side, people come from the adjacent residential area using Coburg Road and Oakway Road. From the south, people use Coburg Road and may be coming from Downtown Eugene or the University of Oregon area. From the east, people use Oakmont Way and may be coming from additional residential neighborhoods. Connecting the north, south, and eastern parts of this area via the Oakway Center will increase connectivity for Eugene as a whole.

FIG. 1-1
An extended crosswalk over five lanes of traffic on Coburg Road near the Oakway Center.

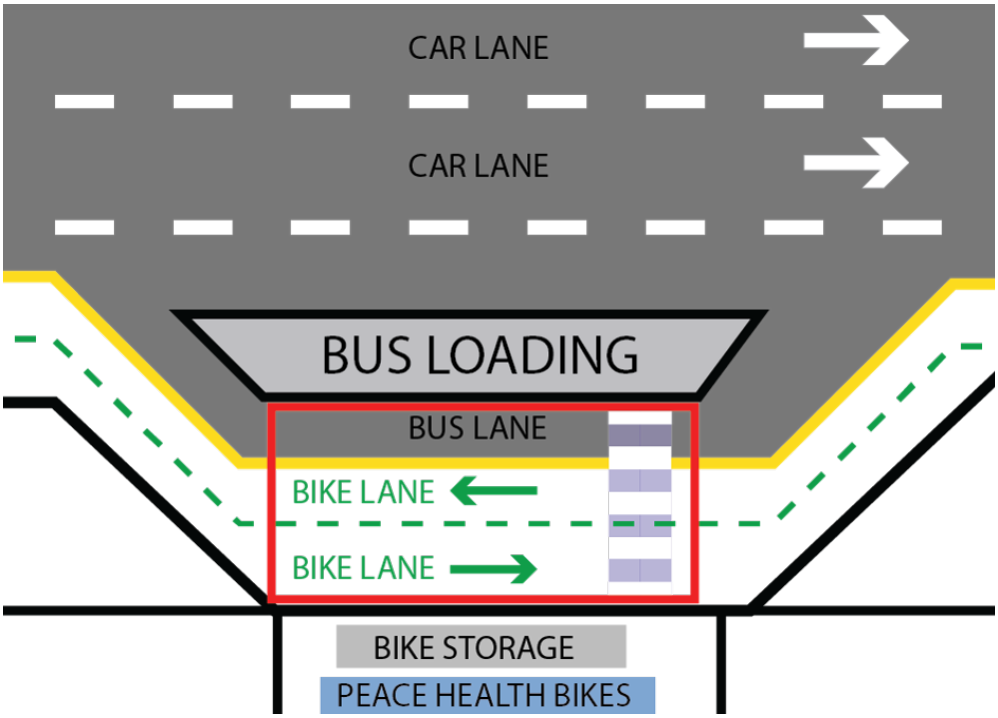

FIG. 1-2
Overhead view of improved sustainable transportation design along Coburg Road at the Oakway Center.

PEDESTRIAN RECOMMENDATIONS

We recommend adding a raised crosswalk (see red outline, Figure 1-2) connecting to a floating bus stop which would direct transit users safely to their stop without any level changes. Accessibility is extremely important for this mobility hub because people with limited mobility are more reliant on transit than other members of Eugene.

BICYCLE AND MICROMOBILITY RECOMMENDATIONS

We suggest incorporating a bidirectional green painted cycle track along Coburg Road at Oakway Road (see Figure 1-2). This would increase visibility of the bike lane for cyclists and drivers alike. The bike lane would hug the western edge of Coburg Road, in between floating transit stops and the sidewalk. Putting the bike lanes next to each other creates a wider, safer bicycle conduit for people with personal bikes, bikeshare bikes, e-scooters, e-bikes, and other forms of micromobility. We also suggest incorporating bikeshare hubs into the mobility hub.

The area currently lacks an important connection to the existing network of bicycle paths to the south, namely the path along the Willamette River and the Ruth Bascom bike path. Creating stronger visual cues to cyclists and drivers of the connections between the cycle track and the Ruth Bascom bike path are essential to increasing connectivity in Eugene.

TRANSIT RECOMMENDATIONS

We recommend remodeling the transit station on Coburg Road at the Oakway Center to include a floating transit stop. This would improve transit times and user experience by eliminating the bus's need to merge into and out of traffic. Additionally, the floating, raised transit stop would provide an extra buffer between the bi-directional cycle track and vehicular traffic.

Project 2: Oakway Center Mobility Hub

Location: Oakway Center
By Austin Wiens, Hannah McCurdy, and Andrew Anderson

WHY?

The Oakway Center has many pedestrian-friendly routes between stores, but sustainable transportation to and from the shopping center is generally lacking and represents an opportunity for improvement. In its current state, pedestrians, cyclists, and transit riders must navigate a potentially unsafe and uninviting transit environment.

PROJECT GOALS

Our goal is to address the lack of sustainable transportation options to and from the Oakway Center by making pedestrians, cyclists, and other multimodal transportation riders feel safer. To address this, we suggest building a multimodal mobility hub that clusters different forms of transportation. We targeted four areas around the Oakway Center for design interventions promoting multimodal, sustainable transportation (see Figure 2-1).

FIG. 2-1
Four areas targeted for redesign along Coburg Road at the Oakway Center.

PROJECT SUMMARY

We propose reclaiming part of the Oakway Center's large parking lot as a bus boarding area, a crosswalk, a rideshare pick-up and drop-off, and a bikeshare station. We also propose improvements to bicycle infrastructure along Coburg Road and Oakway Road. This mobility hub would be located on the west side of Coburg Road, just north of the intersection of Coburg Road and Oakway Road.

PEDESTRIAN RECOMMENDATIONS

Pedestrians would have improved access to the rest of the shopping center with increased crosswalk frequency. We suggest putting a crosswalk at the proposed mobility hub on Coburg Road, just north of the intersection of Coburg Road and Oakway Road.

BICYCLE AND MICROMOBILITY RECOMMENDATIONS

We recommend painting the bike lane green and installing bike bollards along the length of Coburg Road in order to increase cyclists' visibility and safety (see Figure 2-2). Along Oakway Road, we suggest repurposing two lanes of current vehicular traffic for bicycle use (see Figure 2-3). With one lane of extra space on each side of Oakway Road, we suggest installing a vegetated median between bicycle and motor vehicle travel lanes (Figure 2-3). We propose incorporating a protected turn connecting the proposed bicycle lanes on Coburg Road and Oakway Road. On Oakmont Way, we suggest installing a lower-cost green painted bike lane with bike bollards as physical separation (see Figure 2-4).

FIG. 2-2
Overhead view of a redesigned Coburg Road, which includes a protected bike lane, new bus stops, and additional crosswalks.

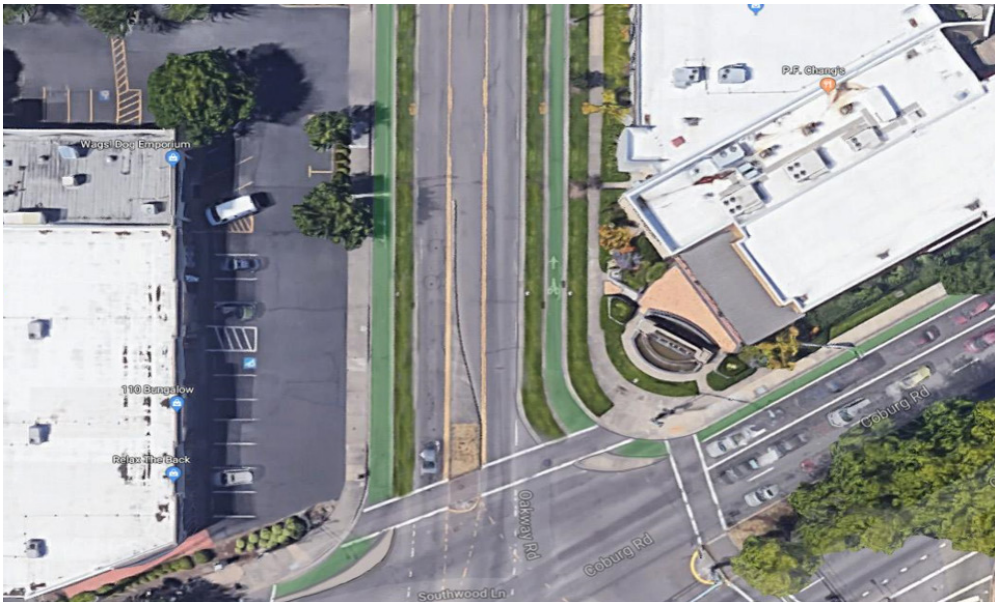

FIG. 2-3
Redesign of Oakway Road at the southern end of the Oakway Center, replacing a car lane with a bike lane and vegetated median.

FIG. 2-4
Bollard-protected bike lanes on each side of Oakmont Way.

TRANSIT

Moving the bus stop away from moving traffic and into the parking lot area would be safer for transit riders while reducing stress for non-drivers by being further from high-speed vehicles. Additionally, the path from the transit stop to the stores would be clearly identifiable with a continuous sidewalk.

ADDITIONAL

It is essential that this mobility hub include a covered waiting area because of the frequency of precipitation in the winter and the unrelenting sun in the summer. Waiting for transit or rideshare should feel comfortable and having appropriate shelter would ease the stress of potential new riders (see Figure 2-5).

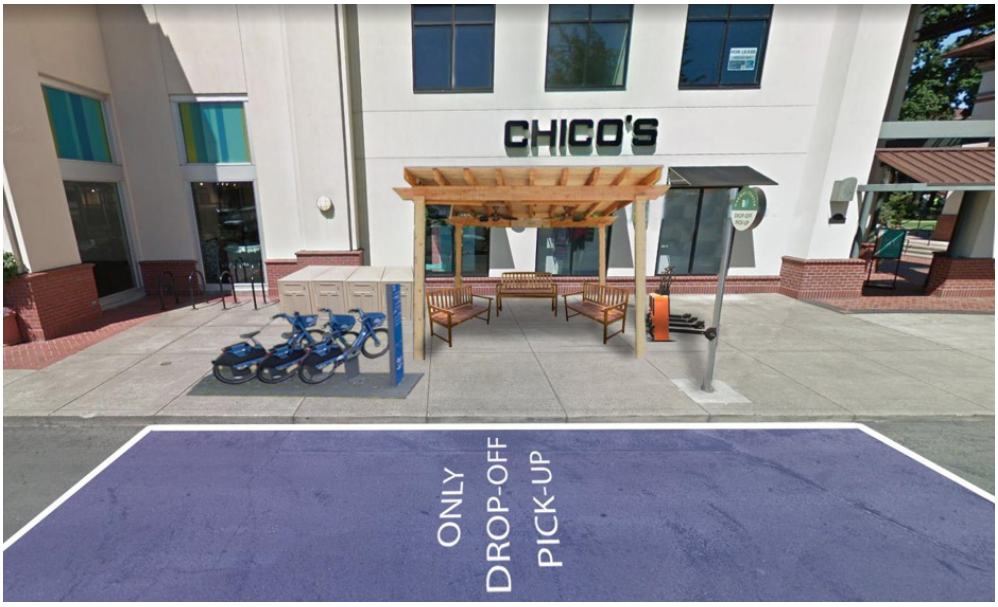

FIG. 2-5
Covered seating example at a designated drop-off and pickup rideshare location.

Project 3: The Harlow Hub

Location: Coburg Road and Harlow Road
By Molly Rillstone, Sophie Domengeaux, Stephen Mack, and Brady Hilgenberg

WHY?

There are many issues to address at the intersection of Coburg Road and Harlow Road. Motor vehicles frequently exceed the posted speed limit of 35 miles per hour, buses wait in traffic behind personal vehicles, and the minimal bike lane disappears for a critical segment on Harlow Road. All of these issues can be addressed with a right-of-way redesign.

PROJECT GOALS

The goals of this project are to increase safety for pedestrians and cyclists in the area, especially because this intersection is surrounded by residential streets. Families with young children should feel safe and empowered to use sustainable transportation methods to navigate the area.

PROJECT SUMMARY

We recommend repurposing a strip of land adjacent to the intersection at Coburg Road and Harlow Road for a mobility hub (see Figure 3-1). Pulling people off the street and into the safety of a mobility hub will likely increase the sense of safety for pedestrians, cyclists, and transit riders alike. We also propose adding a protected cycle track, a floating EmX station, a dedicated bus lane, and higher visibility crosswalks to Coburg Road and Harlow Road.

FIG. 3-1
Current view of suggested mobility hub site.

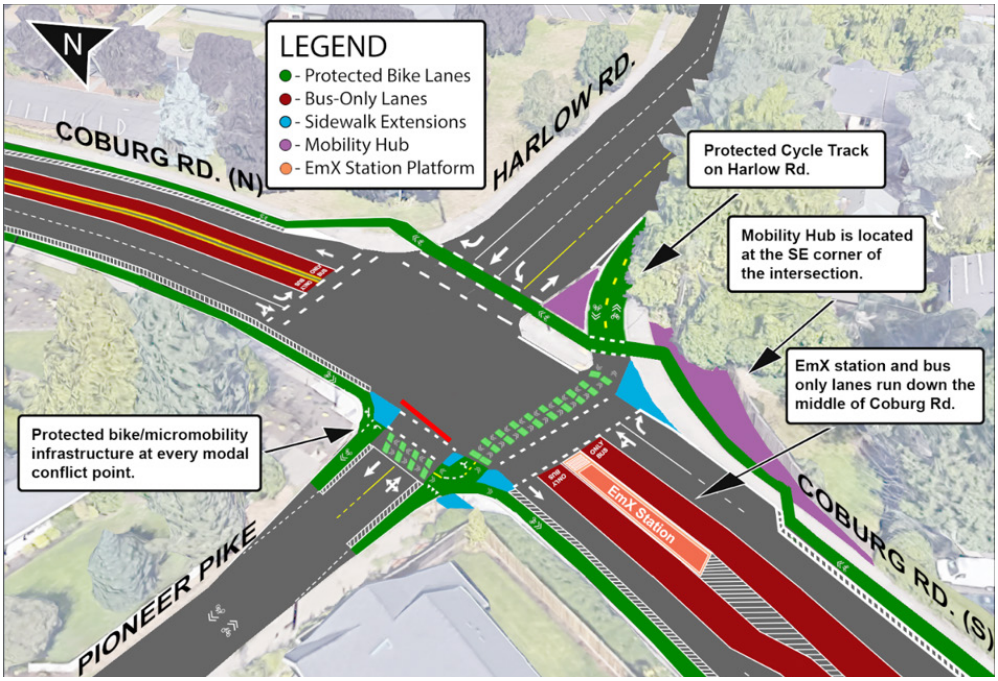

FIG. 3-2
Proposed protected cycle track, floating EmX station, dedicated bus lane, and high-visibility crosswalks.

FIG. 3-3
Before and after images of the proposed mobility hub showing a more efficiently used space.

PEDESTRIAN RECOMMENDATIONS

Pedestrians benefit from this mobility hub due to its increased shelter, sidewalks separated from the lanes of high-speed traffic, and high visibility crosswalks. The design aims to make pedestrians and cyclists feel safer within the intersection by designating space visually, including painted street crossings and covered waiting areas.

BICYCLE AND MICROMOBILITY RECOMMENDATIONS

In this proposal, we suggest including a bidirectional cycle track, bikeshare stations, rebranding the bike lane as a "micro lane," and bringing the bike lane up onto the curb where possible. Green paint on the asphalt and protective barriers at the edge of the bike lanes make cyclists more visible to motor vehicle traffic and potentially safer.

TRANSIT RECOMMENDATIONS

For transit riders, we suggest instituting dedicated bus lanes along the length of Coburg Road. Each stop could utilize covered waiting areas, as weather in Eugene can reach varying extremes between hot and cold.

ADDITIONAL

A mobility hub can be so much more than just a place to catch the bus. It can include other elements such as bike-share, electric scooter-share, a lending library, a cafe, electric vehicle charging stations, and rideshare pickup locations.

Project 4: Co-Low Mobility Hub

Location: Coburg Road and Harlow Road
By Eric Burdette, Victor Garcia, and Alison Grover

WHY?

The intersection of Coburg Road and Harlow Road feels unsafe for pedestrians and cyclists in its current state (see Figures 4-1 and 4-2A-B). Lane Council of Governments (LCOG) reports show that there have been numerous crashes and incidents at the intersection of Coburg Road and Harlow Road, ranking this intersection as 18th most dangerous in 2012 (LCOG 2012). There are many pedestrian hazards on Coburg Road, including narrow sidewalks, obstacles, and a lack of crosswalks. In our site analysis, we did not encounter cyclists. The bike lane is narrow and feels dangerous due to the speed of adjacent vehicles. Additionally, there are a multitude of important destinations within a 1.25-mile radius of this site. People traveling on bikes, e-bikes, and e-scooters would be able to access the Gateway Mall in Springfield to the east and Alton Baker Park to the south (see Figure 4-6).

FIG. 4-1
Illustration of pedestrian hazards along Coburg Road.

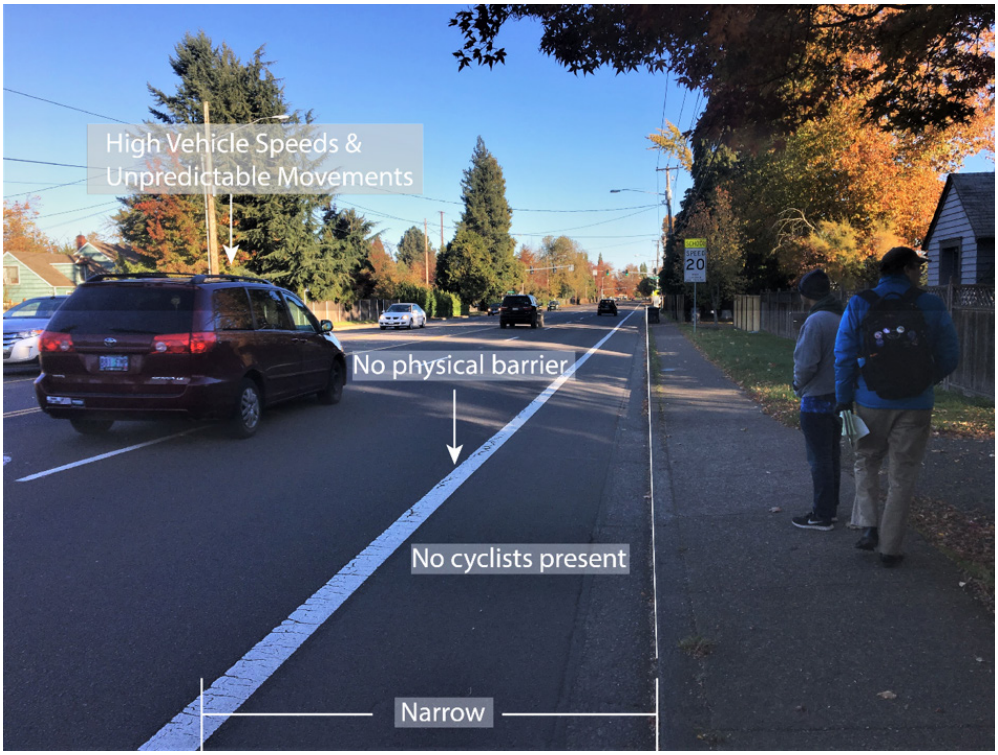

FIG. 4-2A
Existing conditions for cyclists include a narrow bike lane adjacent to high-speed traffic.

PROJECT GOALS

With this mobility hub, we aim to increase safety for all modes of transportation; increase the numbers of cyclists, pedestrians, and micro-mobility riders on Coburg and Harlow Road; and create equitable transportation options for the greater Eugene community. Improvements such as increasing sidewalk width, decreasing crosswalk distance, decreasing number of motor vehicle lanes, and decreasing speed of drivers can increase safety for carless travelers (see Figure 4-2B).

FIG. 4-2B
Illustration of bicycle and bus lanes, replacing existing car lanes.

PROJECT SUMMARY

At the intersection of Coburg Road and Harlow Road, we propose utilizing the parking lot at the Westminster Presbyterian Church as a mobility hub and bus stop (see Figure 4-3). The church parking lot is already designated as a Park and Ride; using it for a bus loading station and mobility hub would not be a drastic change. We also propose turning the intersection into a roundabout and removing traffic signals to keep vehicles moving but at a slower pace. We suggest instituting a dedicated bus lane in each direction on Coburg Road as well as a bidirectional cycle track down the middle of Coburg Road. We also suggest adding a barrier between bikes and cars to improve rider safety and feelings of safety (see Figure 4-4).

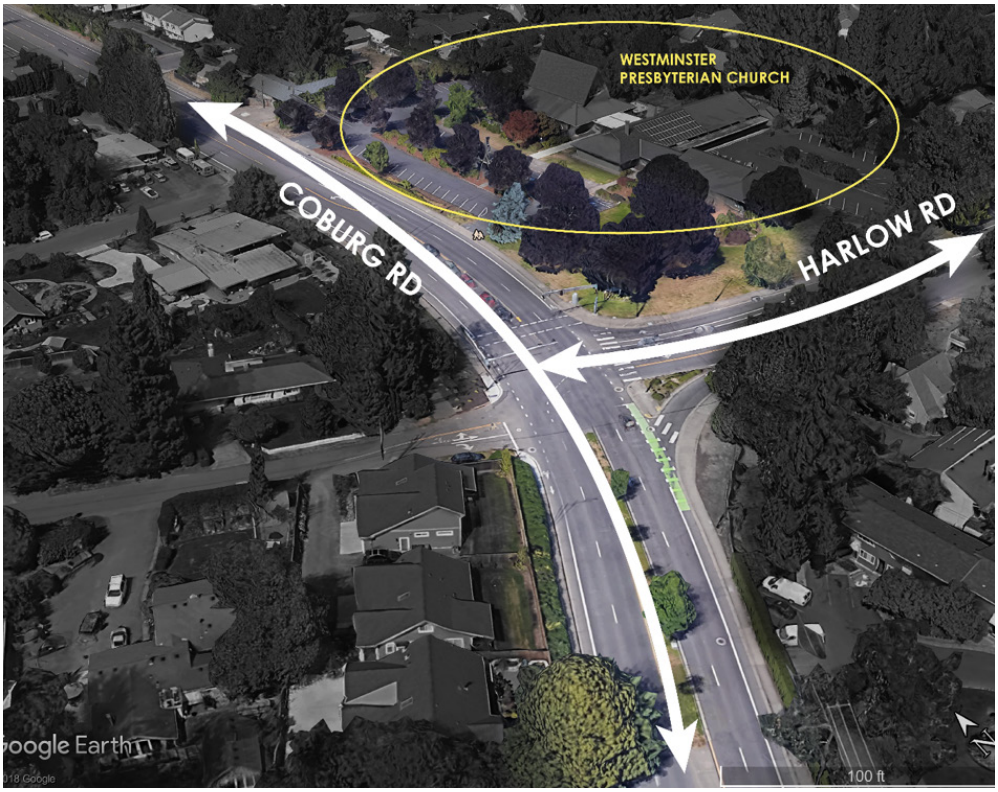

FIG. 4-3
Suggested site for a Coburg Road mobility hub.

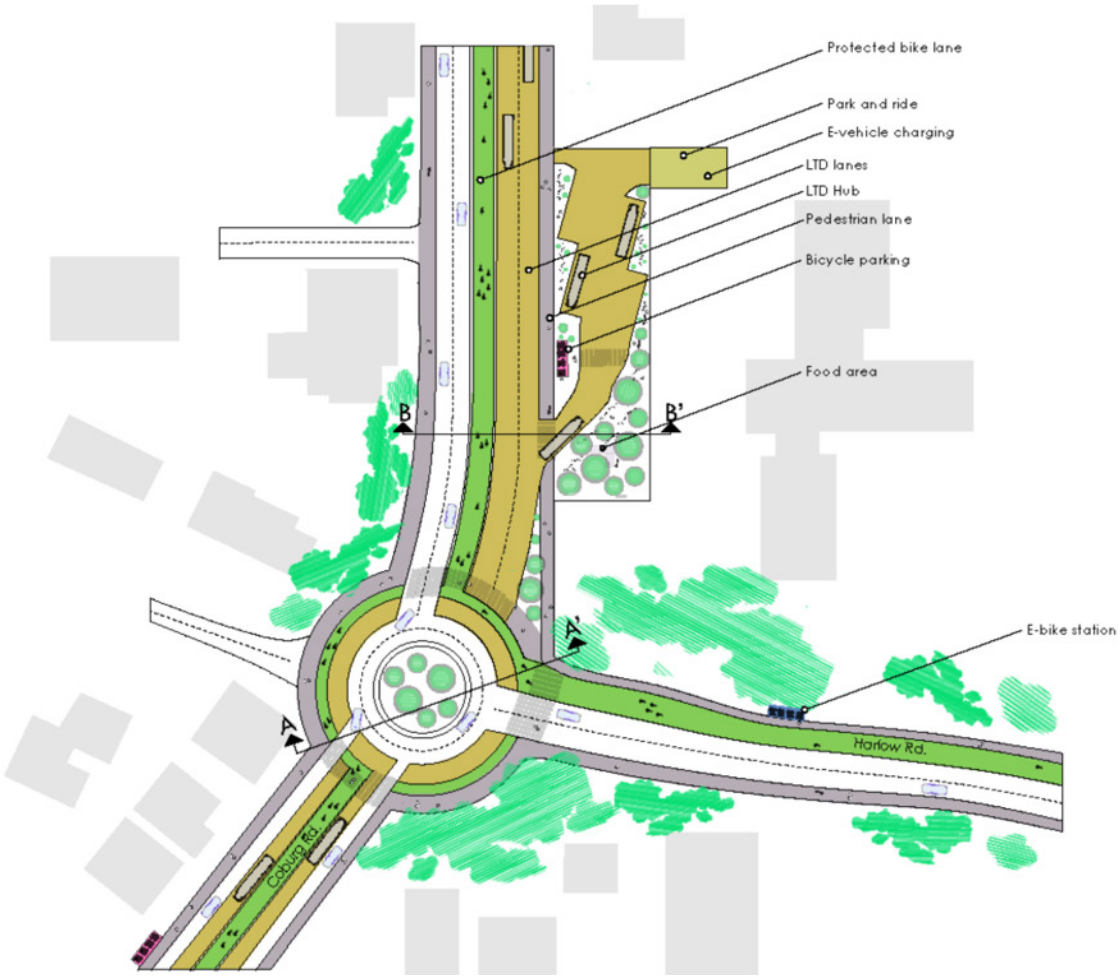

FIG. 4-4
Plan of the proposal illustrating changes for pedestrians, cyclists, and transit riders.

PEDESTRIAN RECOMMENDATIONS

Pedestrians will benefit from the decreased crosswalk distance in this scenario. Making the vehicular lanes of traffic narrower and reducing traffic flow to a single lane in some areas makes crossing the street more direct for pedestrians.

BICYCLE AND MICROMOBILITY RECOMMENDATIONS

For cyclists and other micromobility riders like e-scooters, e-bikes, or bike-share bicycles, we suggest installing a bidirectional cycle track with bike-share stations located on the property of the Westminster Presbyterian Church. The cycle track will include a physical barrier between bicycles and motor vehicles. A precedent in Boston, MA shows the potential of cycle tracks between traffic lanes (see Figure 4-5). and illustrates the cycle track's adaptability to pedestrian and motor vehicle crossings. Studies have shown that even the perception of safety can result in increased numbers of cyclists on the road. Therefore, we expect these safety improvements to invite new cyclists to the road.

FIG. 4-5
A precedent on Causeway Street in Boston, MA, in which a bidirectional cycle track was installed in the middle of the road.

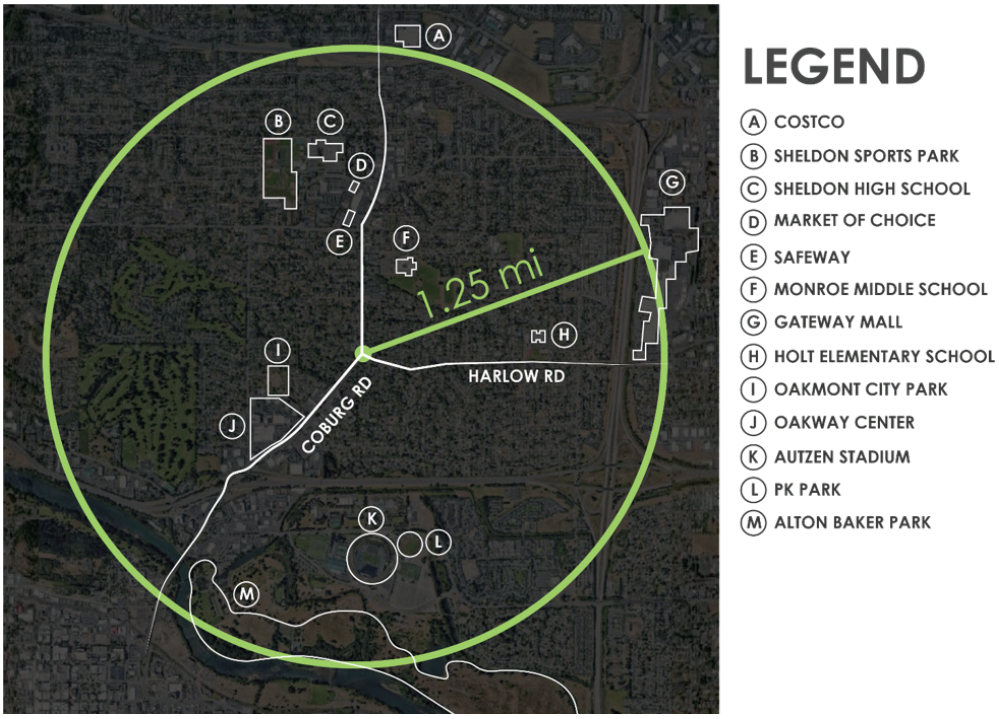

FIG. 4-6
Illustration showing the multitude of destinations within 1.25-miles of the proposed mobility hub.

TRANSIT

In this scenario, transit riders will board and disembark the bus in the parking lot of the Westminster Presbyterian Church. Repurposing this paved area for a bus stop makes for a larger, safer place for people to access the bus. We propose clustering covered waiting areas, scooter and bikeshare parking, electric vehicle charging stations, and rideshare pick-up and drop-off locations next to the bus stops. Arranging important transportation connections next to each other creates a seamless experience for people taking advantage of the multimodal transportation network. This project also incorporates a dedicated bus lane in each direction along Coburg Road so that buses will be on time regardless of traffic. Providing a public transportation system that is fast and reliable will encourage more people to ride the bus. These values are at the core of Eugene's future transportation initiatives, such as LTD's Transit Tomorrow.

ADDITIONAL

This mobility hub could include elements that make it a destination rather than just a transportation hub. A café, a food truck, or a lending library would encourage people to linger rather than pass through. Also, creating paths that connect neighborhoods to the mobility hub more directly would make the mobility hub more convenient to access (see Figure 4-7).

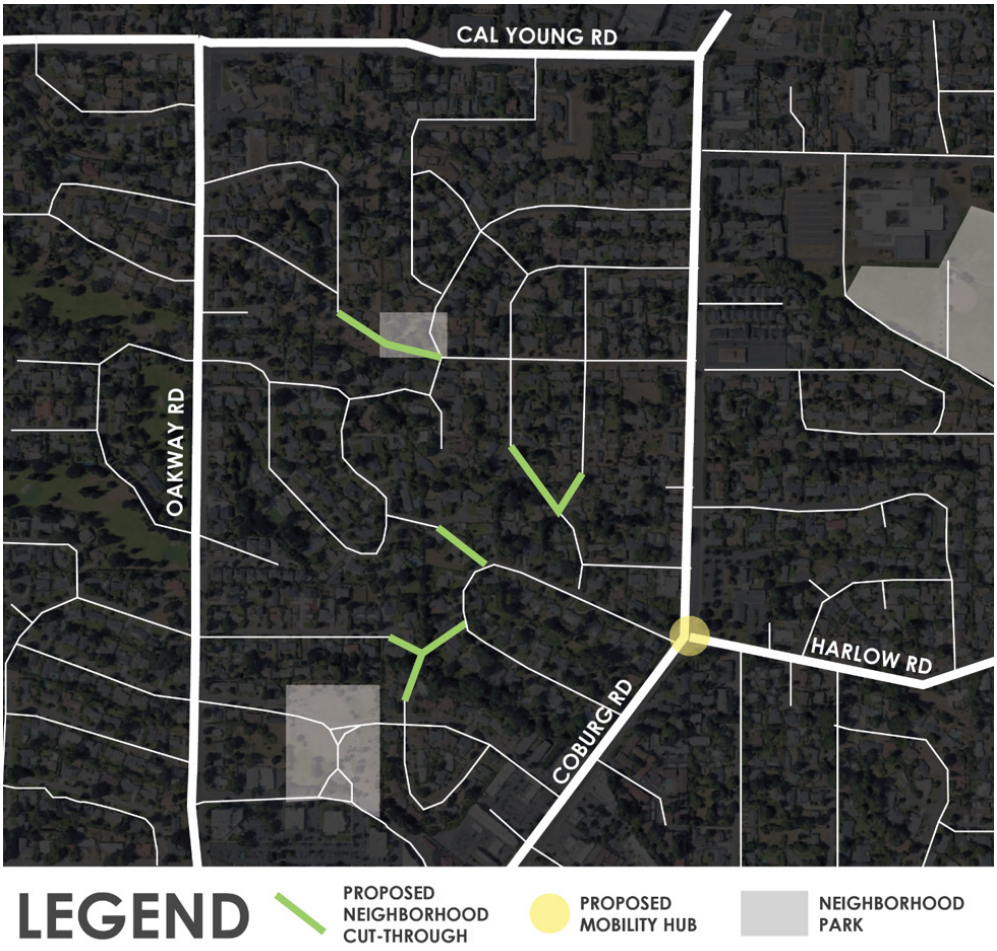

FIG. 4-7
Potential future paths (highlighted in green) could better connect dead-end streets to the proposed mobility hub location.

Project 5: Enhancing Mobility Around Eugene

Location: Coburg Road and Willakenzie Road
By Maddy Reznick, Adam Faris, and J. Tribolet

WHY?

We propose a micromobility hub for Coburg Road at its intersection with Willakenzie Road for a number of reasons. This mobility hub is a reaction to Moving Ahead, an LTD-proposed plan that increases pedestrian and transit convenience and safety but lacks adequate bicycle improvements. On Coburg Road, however, this mobility hub addresses the current barriers that many cyclists and potential cyclists face in their decision to use bicycle infrastructure over other modes of transportation. Only a strip of paint separates cyclists from fast-moving car traffic. Addressing cyclists' impediments is particularly important because LTD's Moving Ahead plan cuts transit service to many places in favor of increasing its frequency and concentration in the most densely populated areas. Additionally, the current road is very wide and used almost exclusively by motor vehicles, presenting an opportunity to better utilize the right-of-way through sustainable transportation options. The intersection of Coburg Road and Willakenzie Road is also ideal because of the variety of shops and restaurants it has to offer sustainable transportation users.

PROJECT GOALS

The goal of this project is to create vibrant, human-scale community at the proposed intersection. In order to achieve this, we suggest a mobility hub to connect the gaps in transportation service by increasing bicycle infrastructure where needed. Additionally, the mobility hub would increase pedestrian and transit access to create a multimodal hub of transportation options. This would encourage more trips by bike and more multimodal trips using a combination of transit, pedestrian, and bike options. We aim to solve the last-mile connections with micromobility and ride-share access.

PROJECT SUMMARY

At the intersection of Coburg Road and Willakenzie Road, there is an underutilization of space (see Figure 5-1). In the same vein as LTD's proposal to increase pedestrian safety on this transportation corridor, we propose narrowing surplus space dedicated to motor vehicles to make room for other, more sustainable modes of transportation. There is space in the adjacent parking lot (see Figure 5-4) to move the bike lane away from car traffic. There is also space on the road to incorporate a dedicated bus lane, which carries up to 35 times as many passengers as a single occupancy car. Dedicated bus lanes mean transit can be faster, more reliable, and possibly more frequent. Adding a protected bicycle lane through the former parking lot increases safety and ridership among cyclists. With enough space to ride side-by-side, cycling can be a joyous social activity rather than a burden.

FIG. 5-1
Current landscape on Coburg Road, showing an expanse of sparsely populated pavement.

This location is ideal because of its proximity to shops, residential areas, restaurants, and multiple schools (see Figure 5-2).

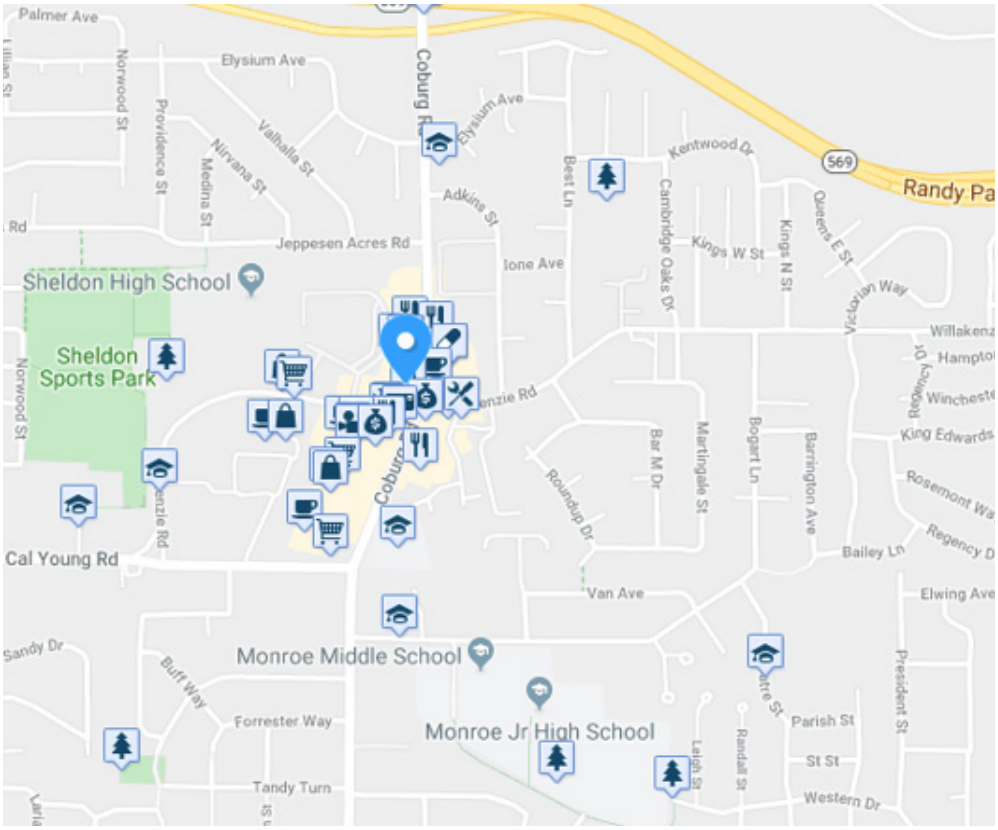

FIG. 5-2
Map showing the hotspot of shops, restaurants, schools, and parks near the proposed mobility hub.

At our proposed intersection, we suggest a number of improvements to achieve our project goals including improved bus stops, bikeshare hubs, bicycle parking, protected bike lanes, scooter share parking, and rideshare pick-up and drop-off locations (see Figure 5-3).

FIG. 5-3
Improvements to bicycle, pedestrian, and bus transportation options can occur on all corners of this intersection.

Zooming in, we propose altering a median and parking lot on the southwest corner of the intersection and repurposing this underused space for pedestrian, cyclist, and transit use (see Figures 5-4 and 5-5).

FIG. 5-4
The existing bike lane provides only paint as protection from high-speed car traffic.

FIG. 5-5
Illustration showing a dedicated bus lane and a wider bicycle lane as part of the proposed mobility hub.

PEDESTRIAN RECOMMENDATIONS

For pedestrians, the location of this mobility hub is ideal because of the many destinations available within a 20-minute walk (see Figure 5-6A and 5-6B). This area includes a lot of residential property, which means that residents could walk to the mobility hub to catch the bus, use bike-share or scooter-share, use ride-share, or meet up with a carpool.

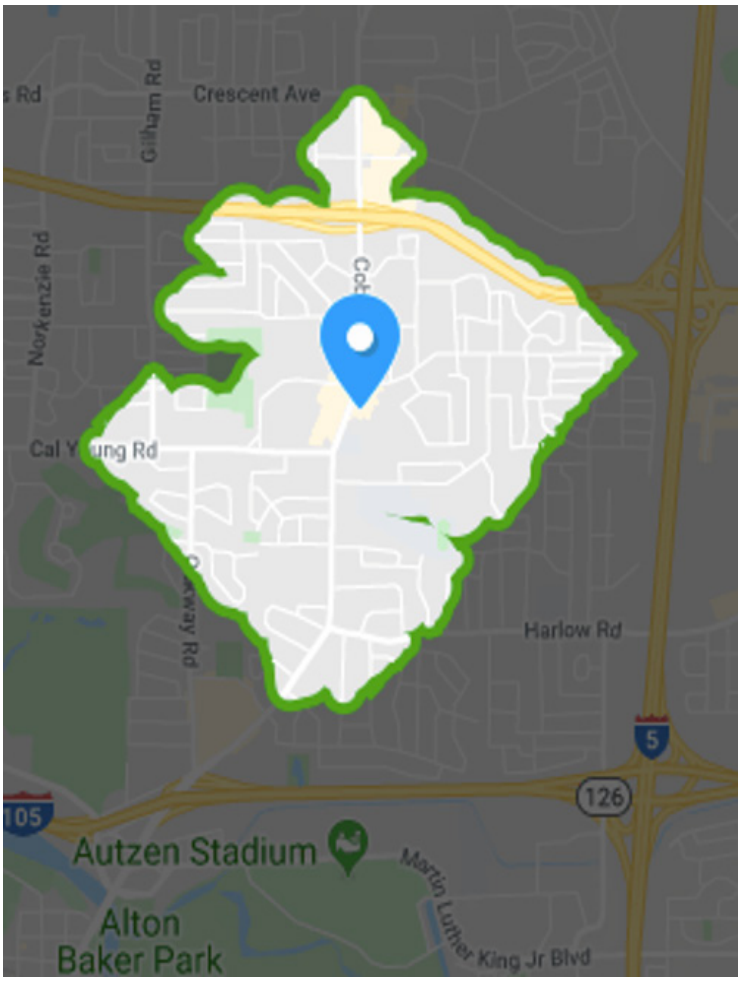

FIG. 5-6A
Destinations within a 20-minute walk (one mile) of the mobility hub (walkscore.com).

BICYCLE AND MICROMOBILITY RECOMMENDATIONS

Proposed bicycle improvements to this intersection include adding lockable parking for micromobility devices and instituting a wider and separated micromobility lane on land reclaimed from vast parking lots. In this vision of the intersection, biking could be used as the main form of transportation or as a supplement to transit or ride-share as travelers engage in multimodal trips.

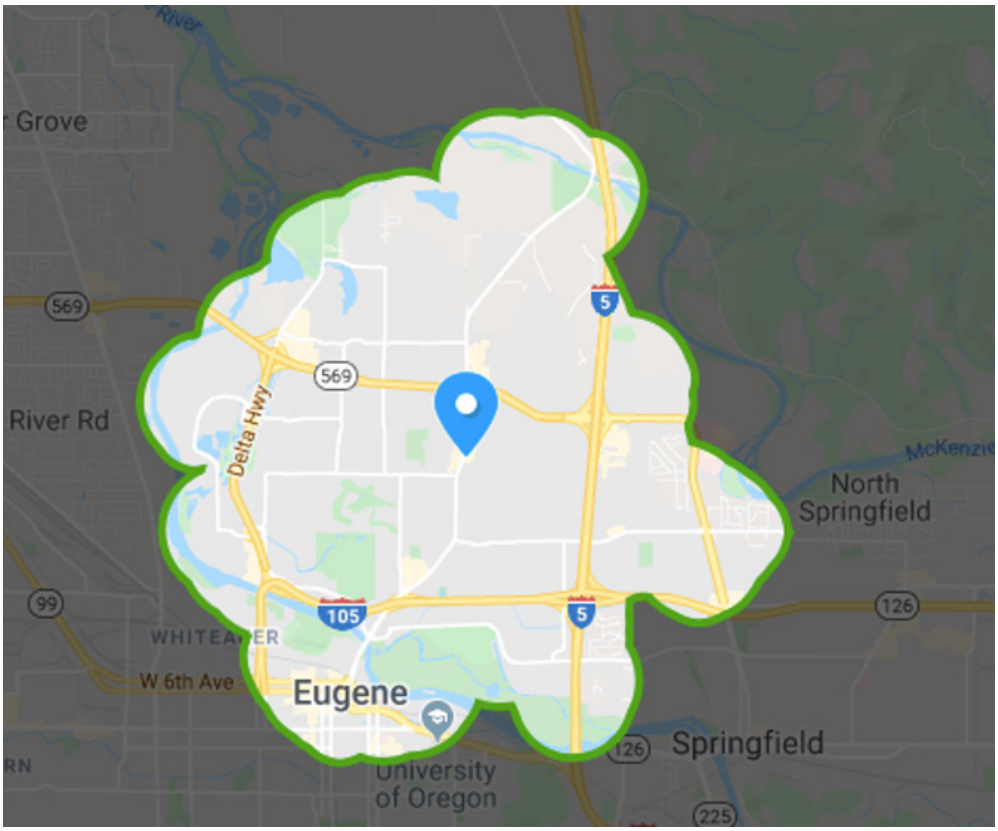

FIG. 5-6B
Cyclists traveling for 20 minutes or less can access Springfield, downtown Eugene, and the McKenzie River (walkscore.com).

TRANSIT

For this mobility hub, we recommend improving bus stops by adding covered seating as weather conditions in Eugene are unpredictable and may affect a potential rider's decision to use transit. Any reduction in stress involved in using transit will encourage higher ridership.

Another important aspect of this plan is the designated bus corridor in our plan. Frequency and reliability are factors in the decision to use transit, and a bus-only lane would increase LTD's ability to function quickly and punctually.

ADDITIONAL

We propose incorporating designated pick-up and drop-off locations for people using ride-share. The ability to carpool conveniently is important and can decrease the number of personal vehicles driving and parking on the road, opening up that space for use by more sustainable transportation modes.

Project 6: The Future of Student Mobility

Location: Coburg Road and Sheldon High School
By Anna Pearl Johnson, Zach Lingo, and Emily Boyd

WHY?

Sheldon High School is a high school in the Ferry Street Bridge area in close proximity to Coburg Road, a main transportation corridor and the target of future plans by LTD that include a possible EmX line and pedestrian improvements. In keeping with LTD's ideas outlined in "Moving Ahead", students believe it is important to target the nearby high school for multimodal transportation improvements because of the number of people moving to and from Sheldon High School throughout the day and because of the younger population that it serves.

PROJECT GOALS

The three main goals of this project are to prioritize safety, to increase visibility of sustainable transportation methods, and to provide access to sustainable transportation methods for high school students and Sheldon High School community.

PROJECT SUMMARY

This group's project has three stages of implementation that correlate with three levels of implementation costs. The Copper redesign, the cheapest option, includes visibility and safety essentials such as speed bumps, light fixtures, stop signs, widened crosswalks, and designated parking spaces for ride-share pick-up and drop-off as well as park and ride (see Figure 6-1). These would function to calm traffic and heighten drivers' awareness of the school zone.

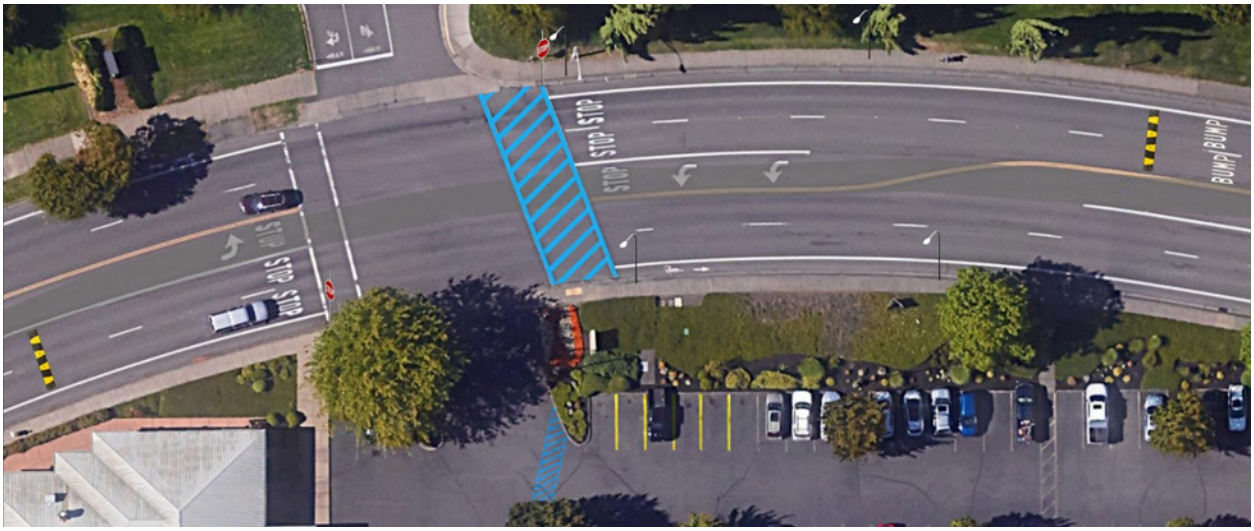

FIG. 6-1
Illustration of the Copper plan, showing a wider crosswalk, speed bumps, and streetlights.

With increased investment, the Silver redesign builds on improvements of the Copper plan with the addition of a multi-purpose pedestrian and cycling path on an underutilized median (see Figure 6-2). Repurposing this median as a welcome space and refuge for walkers rebrands the intersection as a safe pedestrian zone.

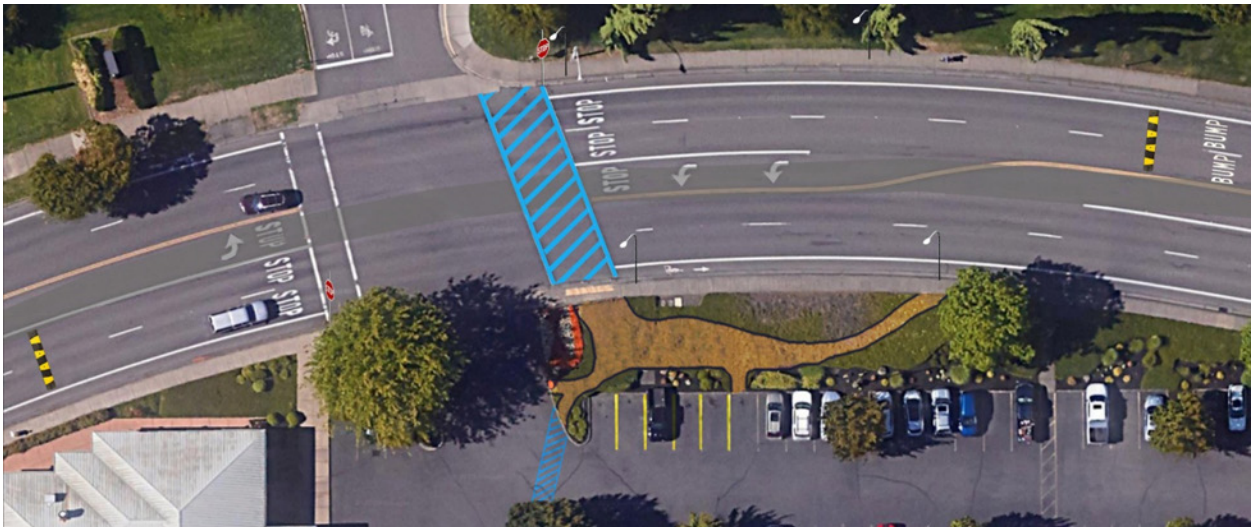

FIG. 6-2
Silver level improvements require more investment and include repurposing a median for pedestrian use.

The Gold plan is this group's most comprehensive plan and builds from the Copper and Silver redesigns by adding bikeshare and e-scooter hubs, covered waiting stations, and space for food trucks in the parking lot (see Figure 6-3). Making use of this median as a hub for mobility, socializing, and resting, this hub creates a destination for people while connecting to nearby transit and locations of interest.

FIG. 6-3
Illustration of the Gold plan, showing bikeshare and e-scooter share stations, covered seating, and food trucks.

PEDESTRIAN RECOMMENDATIONS

Wide crosswalks will help people feel safer when crossing the street to get to Sheldon High School and increase pedestrian safety, visibility, and access. With the median repurposed as a refuge, the space across from the high school begins to feel more oriented towards and supportive of sustainable transportation. Speed bumps on the road will discourage vehicles from speeding and increased light fixtures will make the environment feel safer at night. This is especially important in the winter when it may be dark before students leave school.

BICYCLE AND MICROMOBILITY RECOMMENDATIONS

People using micromobility will benefit from bike-share and e-scooter share hubs situated right across from school, making their commutes less stressful and more convenient. In addition, reduced vehicle speeds due to crosswalk visibility, speed bumps, and light fixtures will also increase safety for bikers and scooter riders.

TRANSIT RECOMMENDATIONS

Covered waiting areas will benefit people waiting for rides and provide a social space to convene at the end of a long school day.

ADDITIONAL

We suggest designating space in the existing parking lot for a food truck hub, which would serve as a social space where high school students can eat lunch and meet up after school.

Project 7: Improving Mobility and Connectivity on Coburg Road

Location: Costco on Coburg Road
By Marelie Vorster, Brian Cooper, Eric Montes, Rachel Hess

WHY?

This project increases safety and promotes sustainable transportation in line with goals for Envision Eugene and Vision Zero by increasing pedestrian and cyclist safety in a motor vehicle-dominated area. The intersections of Coburg Road with Chad Drive and Crescent Avenue are important because of their proximity to Crescent Village, a nearby residential development that incorporates pedestrian walking areas and mixed-use development. To increase bicycle ridership, the redesign must increase bicycle safety from high-speed motor vehicles on Coburg Road.

PROJECT GOALS

The goals of this project include providing a safe space for travelers to access sustainable transportation options; creating a destination for people to walk, shop, and socialize; and making the area more accessible to households without cars.

PROJECT SUMMARY

In order achieve these goals, this group proposes to repurpose the Shopko parking lot, located east of Coburg Road between Chad Drive and Crescent Avenue, as a mobility hub (see Figure 7-1). This mobility hub will be comprehensive and consist of a network of carless streets, a plaza for event space, an alteration of existing traffic flows, redesigned transit stops, and redesigned intersections at Coburg Road's intersection with Chad Drive and Crescent Avenue.

FIG. 7-1
Mobility hub located north of Chad Drive on an underutilized parking lot.

Zooming in, the mobility hub will feature a network of carless streets, residential infill, retail businesses, and a brick plaza as a community gathering space. The streets leave space for a square on the west side, adjacent to a bike-share station (Figure 7-2). Creating a destination for social events and shopping, this mobility hub goes beyond the simplest jobs of connecting people to transportation options. This location, within walking distance from Crescent Village, could stimulate this area as a hotspot for bike and pedestrian-centered activity.

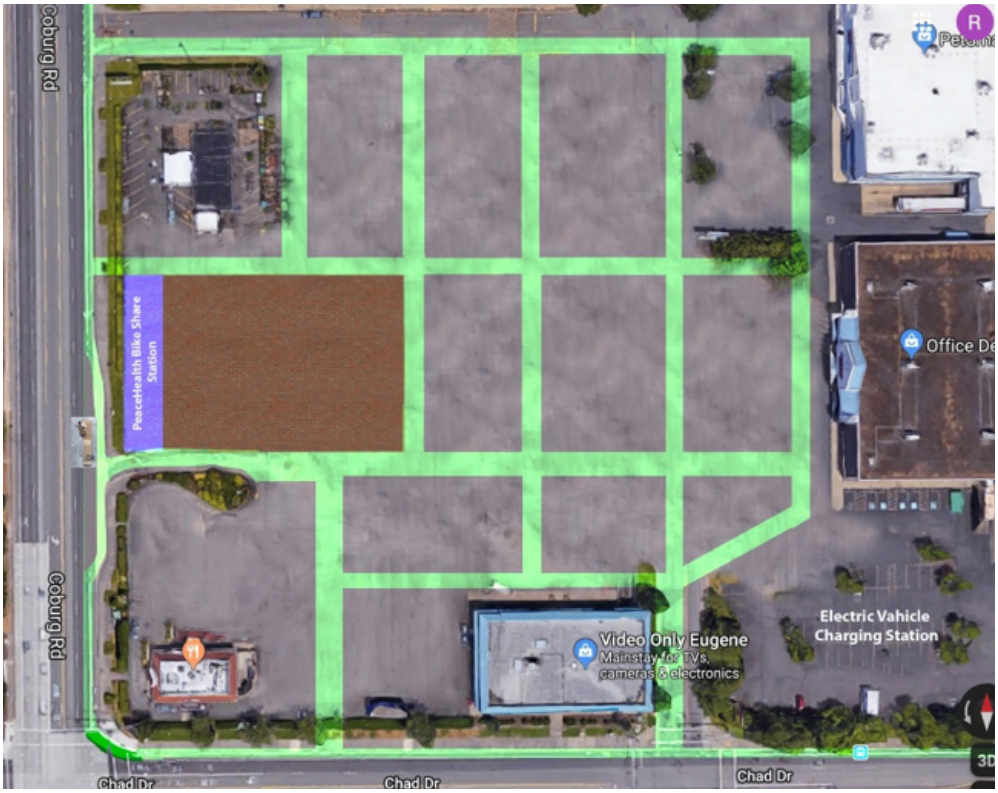

FIG. 7-2
Green lines represent narrow, carless streets, with retail businesses as infill between streets.

This design includes protected bike lanes and a dedicated bus lane in each direction (see Figure 7-3). These would increase accessibility in the area.

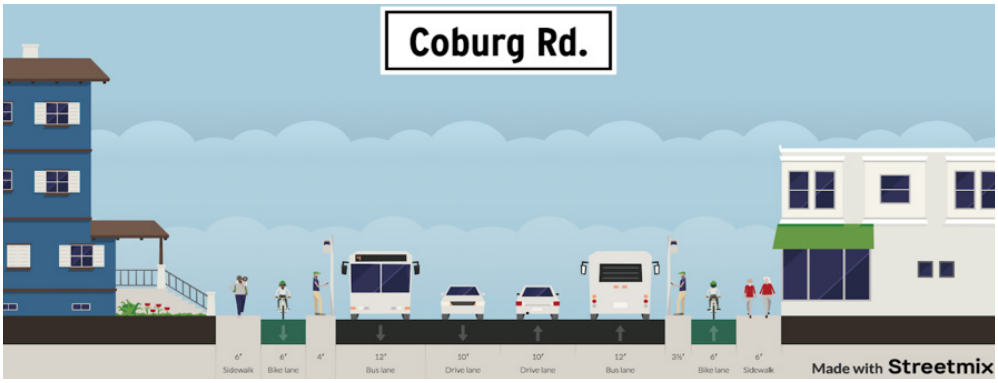

FIG. 7-3
Protected bike lanes and designated bus lanes along Coburg Road.

PEDESTRIAN RECOMMENDATIONS

There are many residential areas surrounding Coburg Road. As a result, our vision for future pedestrian activity in the area includes people choosing to walk to the grocery store rather than drive. We also envision more retail and other businesses oriented towards shoppers traveling on foot. To accomplish these goals, this project would create a vibrant and accessible destination for pedestrians in the network of carless streets proposed for the current Shopko parking lot (see Figure 7-2). Additionally, pedestrians would benefit from increased crosswalk frequency along Coburg Road (see Figures 7-4 and 7-6) and separation from motor vehicle traffic (see Figure 7-3). Adding a protected bike lane to Coburg Road increases pedestrian distance from motor vehicle travel, improving pedestrian safety. Adding more streetlights would make pedestrians feel safer when walking at night, especially in the winter when it gets dark early.

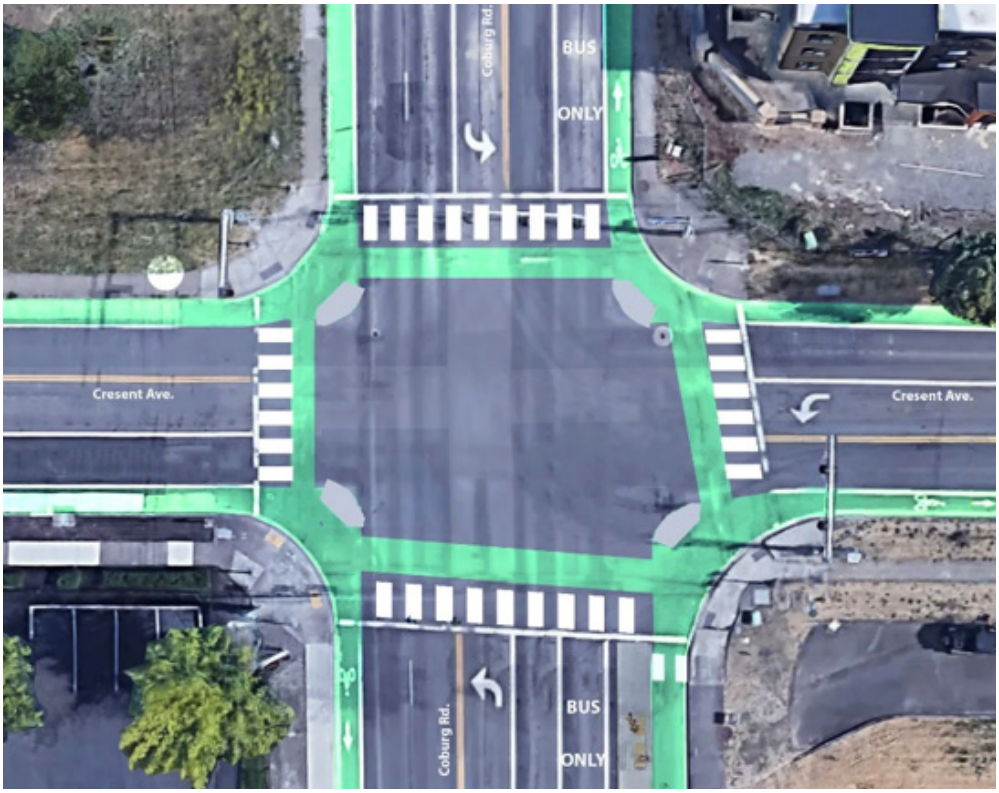

FIG. 7-4
The redesign crosswalks improve visibility, with cyclists benefitting from protected turns on all four corners.

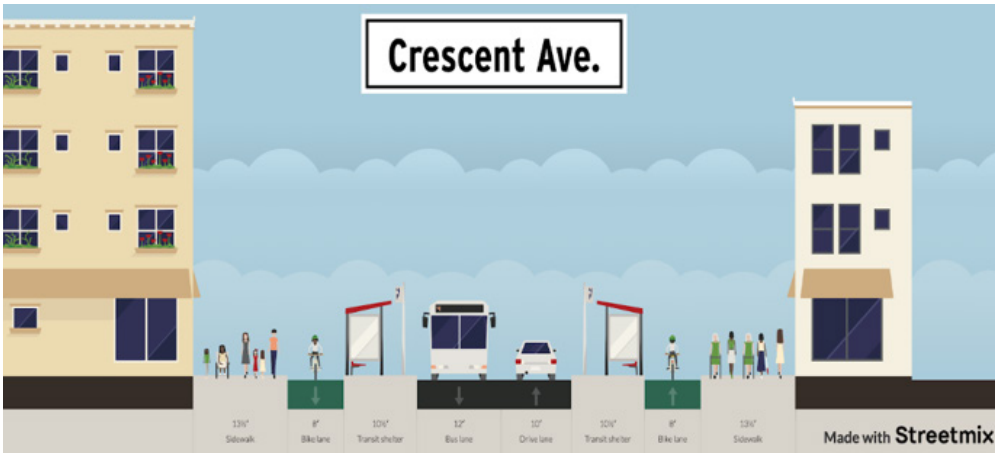

FIG. 7-5
Redesign of traffic lanes on Crescent Avenue at Coburg Road.

BICYCLE AND MICROMOBILITY RECOMMENDATIONS

We propose implementing dedicated bike lanes to transport people into and out of the mobility hub along Coburg Road. The network of carless streets within the mobility hub on the site of the Shopko parking lot invites bikers to travel safely, separated from high-speed cars. A bike-share station would be located on the Coburg Road side of the mobility hub, providing a convenient entry point for cyclists. We also recommend bike signals at the intersection between Coburg Road and Chad Drive to minimize conflict for cyclists navigating among cars and trucks. Each corner of the intersections would include a protected turn lane for cyclists. Green paint on the bike lanes adds visibility and clarity, which is needed at such a busy intersection.

FIG. 7-6
Protected bike lanes on Chad Drive and Coburg Road, with green representing bike lanes.

FIG. 7-7
Photo from Allen Street, New York City, illustrating how protected bike lanes and transit stops could be integrated.
Photo by Chris Brunn.

To address the main conflict zones near Costco for cyclists and cars, we propose changes to traffic flow (see Figures 7-8 and 7-9). Because Costco is such a big attraction in the area, cars may become backed up at the intersection of Coburg Road and Chad Drive and cut off cyclists when they turn into Costco's parking lot. We recommend closing this mid-block entrance to Costco to reduce the conflict between bikes and cars.

FIG. 7-8
The red box shows the entrance to Costco to be removed due to conflict with the bike lane.

To accommodate this loss of accessibility for cars and Costco shoppers, we propose adding an entrance directly into the Costco parking lot from the Randy Pape Beltline (see Figure 7-9). Drivers would be able to enter or exit the parking lot on the south side rather than on the west side. Cars could access the parking lot without crossing a bike lane.

FIG. 7-9
The yellow circle shows a proposed entrance to the Costco parking lot.

TRANSIT RECOMMENDATIONS

We propose a dedicated bus lane in each direction along Coburg Road, a high-frequency bus line running in the lane, and floating bus stops along the route (see Figure 7-10). Being able to rely on transit schedules is important for many riders and improvements to existing bus stops would allow buses to travel more efficiently. In addition, adding amenities such as seating, shelter, and lighting to these floating transit islands improve comfort and experience for transit riders. Creating high quality transit stops like the one pictured below could encourage more people to choose transit over personal vehicles. In this proposed redesign, a floating bus stop would mean that buses would not block the bike lane when they stop to pick up passengers, allowing both buses and bicycles to move more freely.

FIG. 7-10
A floating bus stop does not block the bike lane.

ADDITIONAL

This mobility hub would also act as a hub for social events, food trucks, and gathering, as well as acting as an economic hub with space for retail businesses and restaurants within the network of carless streets. Creating a lively space where pedestrianism is a benefit rather than an alternative is a strategy that can reduce our reliance on personal vehicles.

Conclusion

When it comes to increasing the number of people using sustainable transportation, increasing safety and making riders and walkers feel more comfortable is essential. This can be achieved through methods mentioned in student projects, including sheltering people from the elements, creating social space, separating lanes of traffic based on speed, and making crossings and lane designations visible to all travelers.

People may choose to use sustainable transportation on their own, but they will be more likely to adopt a new method of transportation if encouraged by the extra qualities of a mobility hub. These extra qualities lie beyond the necessities of transportation. Creating a welcoming, social space where people can meet up with friends, host events, and rest their legs is great encouragement.

As Coburg Road densifies as a transportation corridor, distances between residences, economic centers, and recreation spots will decrease, making walking, cycling, scootering, and transit trips even more desirable. A mobility hub can facilitate the movements of community members in comprehensive and inclusive way in order to achieve the goals that Eugene and LTD has set for itself in the coming years.

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