West Elizabeth Enhanced Travel Corridor Plan

Stakeholder Committee

Meeting #3
December 2, 2015

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Contact Info:

Amy Lewin
Senior Transportation Planner
alewin@fcgov.com
(970) 416-2040

Emma Belmont
Transit Planner
ebelmont@fcgov.com
(970) 224-6197

Rachel Prelog
FC Moves Intern
rprelog@fcgov.com
(970) 416-4223

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Welcome

Welcome to Stakeholder Meeting #3! Thank you for your continued commitment to the West Elizabeth Enhanced Travel Corridor Plan process. We are currently developing and refining several design approaches that meet the vision for the West Elizabeth Corridor.

This packet provides a summary of the work completed on the West Elizabeth Enhanced Travel Corridor Plan since the second Stakeholder Committee Meeting (September 2015), including the final Vision Statement and materials to be used in today's discussion.

The focus of this meeting will be on preliminary ideas for improvements to the West Elizabeth Corridor. Improvements include several near-term and longer-term approaches, which are packaged thematically to address some of the overarching concerns and desires for the corridor such as improving safety and serving transit demand more efficiently. We would like your feedback on these approaches and the treatments you would like to see carried forward into the Recommended Design.

As a reminder, these packets will also be made available online so others can participate in the process and provide additional input. We highly encourage you to talk with your neighbors, friends, family, and colleagues about their ideas for the future of the West Elizabeth Corridor.

Process & Schedule

Planning Phase	Date	Stakeholder Committee Activities	Public Activities & Events
Phase 1: Project Startup & Corridor Understanding	Mar - July 2015	Stakeholder Committee Selection; Stakeholder Committee Meeting #1 *(July)*	Listening Sessions; Walking Tours; WikiMap; Online Survey
Phase 2: Visioning, Alternatives Development & Alternatives Evaluation	July - Dec 2015	Stakeholder Committee Meeting #2 *(September)* Stakeholder Committee Meeting #3 *(December)*	Visioning Events; Alternatives Open House; Online Survey
Phase 3: Preferred Alternative & Implementation Planning	Dec - Feb 2016	Stakeholder Committee Meeting #4 *(February)*	Recommended Design Workshops; Online Survey Community Presentations/ Listening Sessions
Phase 4: Draft Master Plan & Adoption Process	Feb - July 2016	Stakeholder Committee Meeting #5 *(April)*	Draft Plan Open Houses; Online Survey; Community Presentations/ Listening Sessions

Vision Statement

The vision for the West Elizabeth Enhanced Travel Corridor is to be an easily accessible and reliable multimodal corridor with an emphasis on connectivity to CSU's Foothills Campus on the west and CSU's Main Campus (including MAX stations) on the east. The corridor will be well-integrated and well-connected within the city, with a focus on improving transit, walking and biking. The corridor will foster existing business and future infill and redevelopment to accommodate the growing number and diversity of users in the corridor, which include: students, families and seniors. The network shall:

- **Be unique and adaptable** to the distinctive characteristics of each corridor segment.
- **Be safe and comfortable** for all users.
- **Encourage and prioritize public transportation** and active transportation options.
- **Support the interconnectivity** of all modes.
- **Be a beautiful and vibrant** environment.

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Overview of Draft Design Approaches

The following stations present draft design approaches that explore different concepts and ways of meeting the corridor Vision. Over the next few months we will work towards a Recommended Design for the corridor that may have elements from multiple approaches or even include new ideas.

Traffic Calming Design Approach

Near-term approach to improve safety, comfort, and convenience for transit riders, bicyclists, and pedestrians. This is a lower cost approach that would focus on implementing key priority projects.

Traffic Calming Design Approach

Longer-term approach focused on improving safety for all modes of transportation by reducing vehicular traffic speeds through such elements as roundabouts. This approach also offers high-frequency, efficient transit service oriented towards areas with high existing transit ridership along West Elizabeth and Plum Street.

MAX on West Elizabeth Design Approach

Longer-term approach that introduces MAX-like bus rapid transit (BRT) on West Elizabeth with high-frequency service and high-quality stations, as well as enhanced bicycle and pedestrian facilities.

Near-Term
Lower Cost

Longer-Term
Higher Cost

What if Campus West Redevelops?

Two approaches are presented for the Campus West area that would provide options for a street design that would be compatible with long-term redevelopment. These options explore transit improvements, enhanced pedestrian and bicycle facilities, and the potential for on-street parking.

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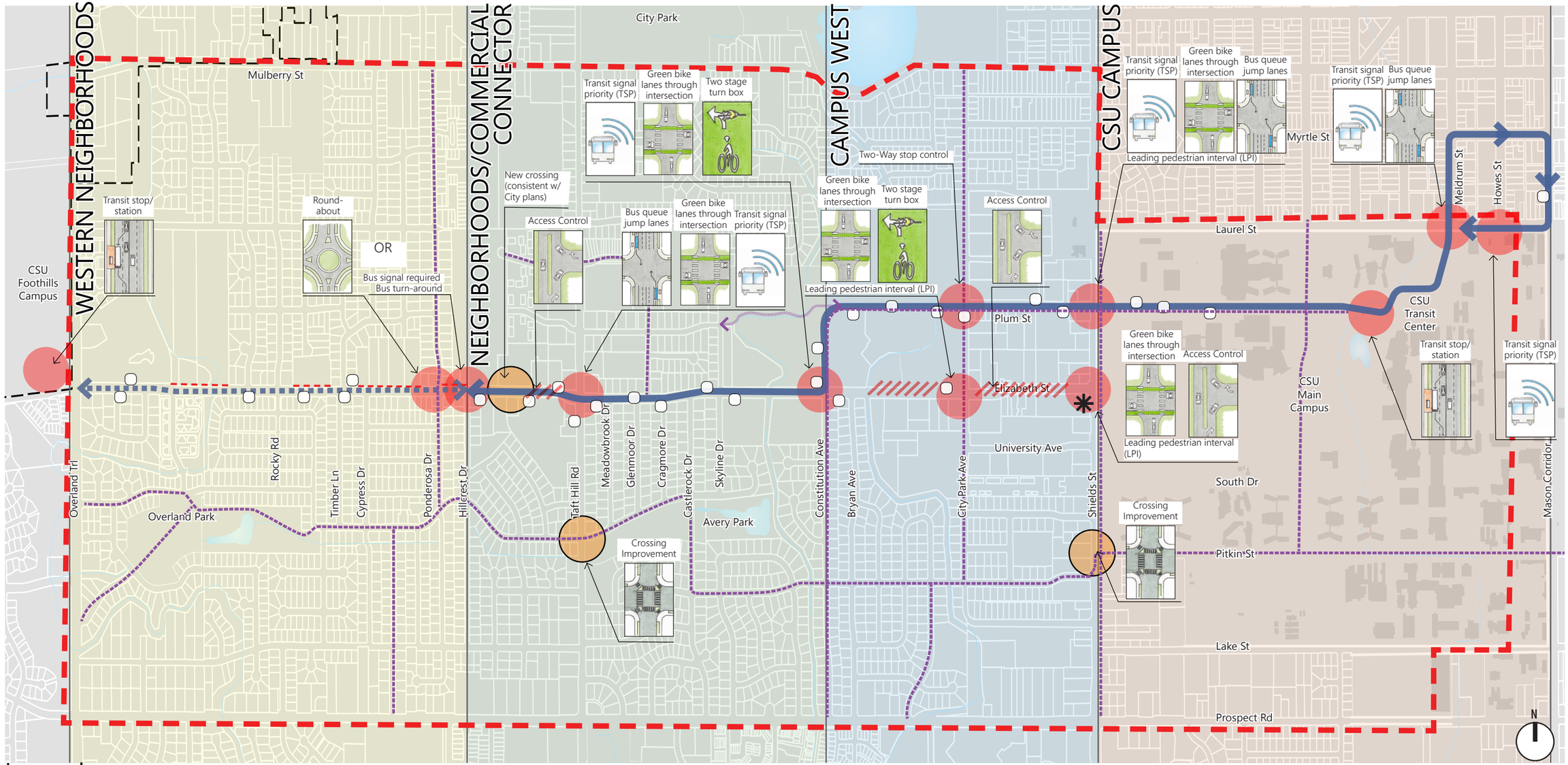


Legend

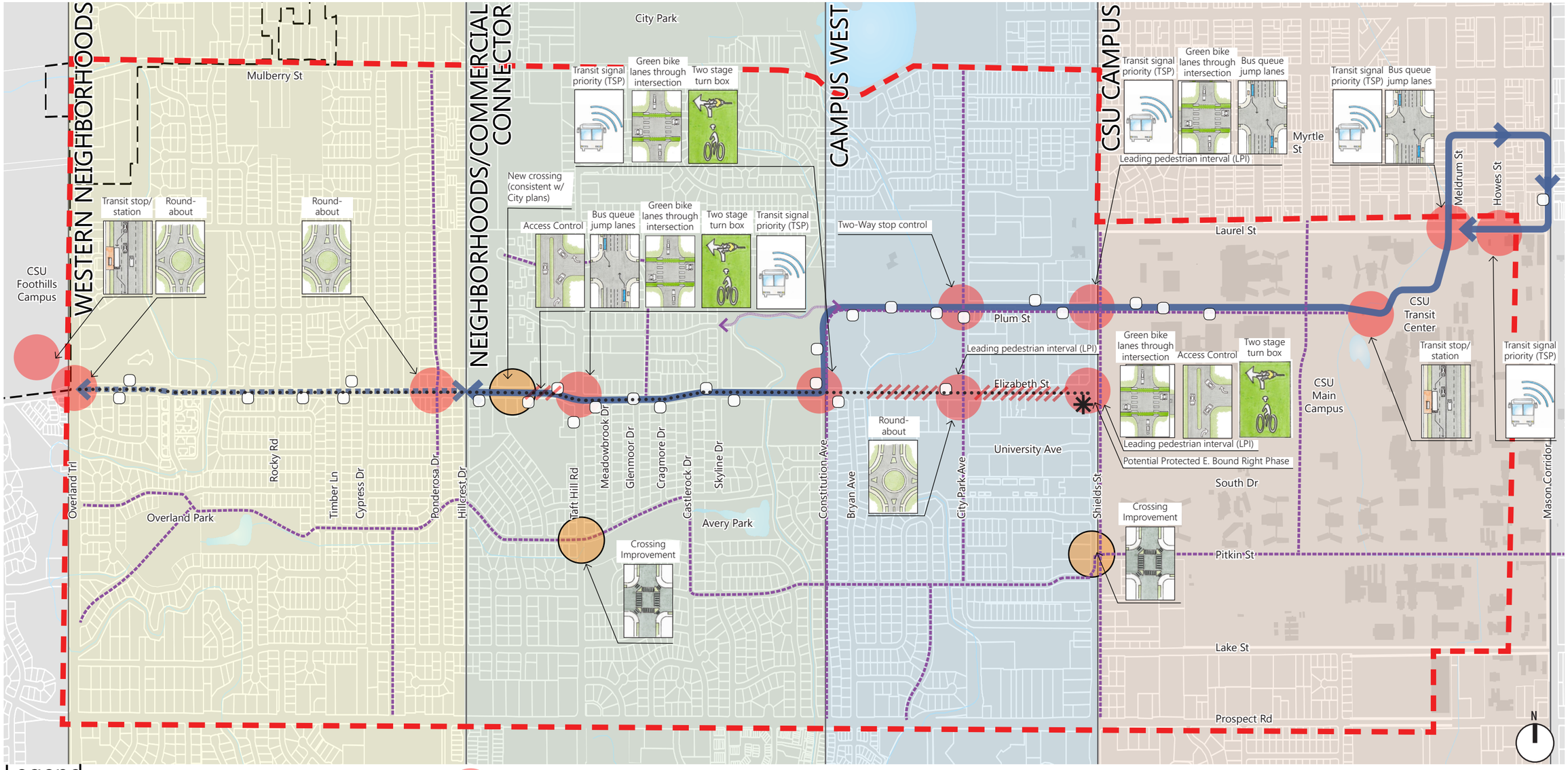
- Lower Frequency Transit Operations
- High Frequency Transit Operations w/ Short route/surge frequency from Constitution Ave. to CSU Transit Center.
- Point Improvements
- Fill in Sidewalk Gaps
- Study Area Boundary
- Currently Funded Intersection Improvements
- Existing Transit Stops
- Bike Route Connecting Skyline Drive to Plum Street
- Low-Stress Bike Network
- Access Control
- Potential Underpass Pending Feasibility Analysis

SUMMARY: Minimal Capital Investment/Emphasis on Transit, Bikes and Ped. Improvements

- Retain existing bike lanes, complete where necessary, add a striped buffer if possible
- Fill in gaps in sidewalks and widen existing sidewalks when there is not sufficient width for ADA standards.

City of Fort Collins

Transportation System Management (TSM) Design Approach
West Elizabeth Enhanced Travel Corridor
Draft 12.2.15



Legend

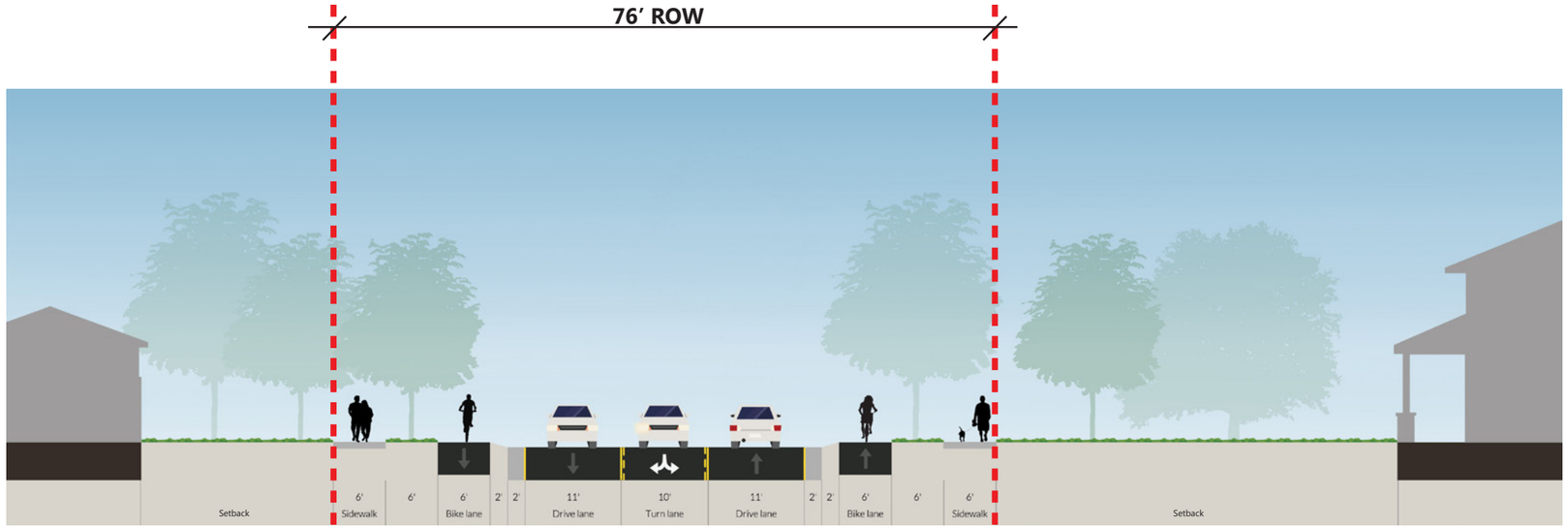
- Lower Frequency Transit Operations
- High Frequency Transit Operations w/ Short route/surge frequency from Constitution Ave. to CSU Transit Center.
- Point Improvements
- Protected Bike Lanes
- Study Area Boundary
- Currently Funded Intersection Improvements
- Existing Transit Stops
- Bike Route Connecting Skyline Drive to Plum Street
- Low-Stress Bike Network
- Access Control
- Potential Underpass Pending Feasibility Analysis

SUMMARY: Focus on Traffic Calming and Pedestrian/Bicycle Safety with efficient Transit operations

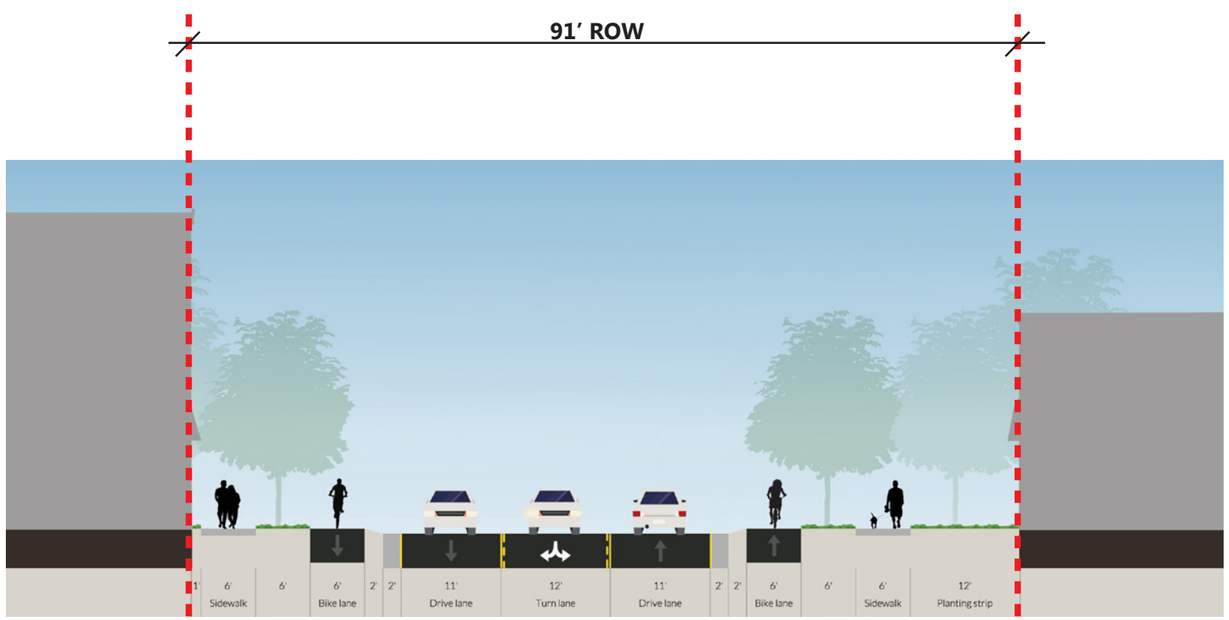
- Overland Trail to Taft Hill Road - 3 Lane cross section w/mix of detached and attached sidewalks (interim where needed)
- Taft Hill Road to City Park Avenue - 3 Lane cross section w/ detached sidewalk and protected bike lanes
- City Park Avenue to Shields Street - 5 Lane cross section w/ attached sidewalk and protected bike lanes

City of Fort Collins

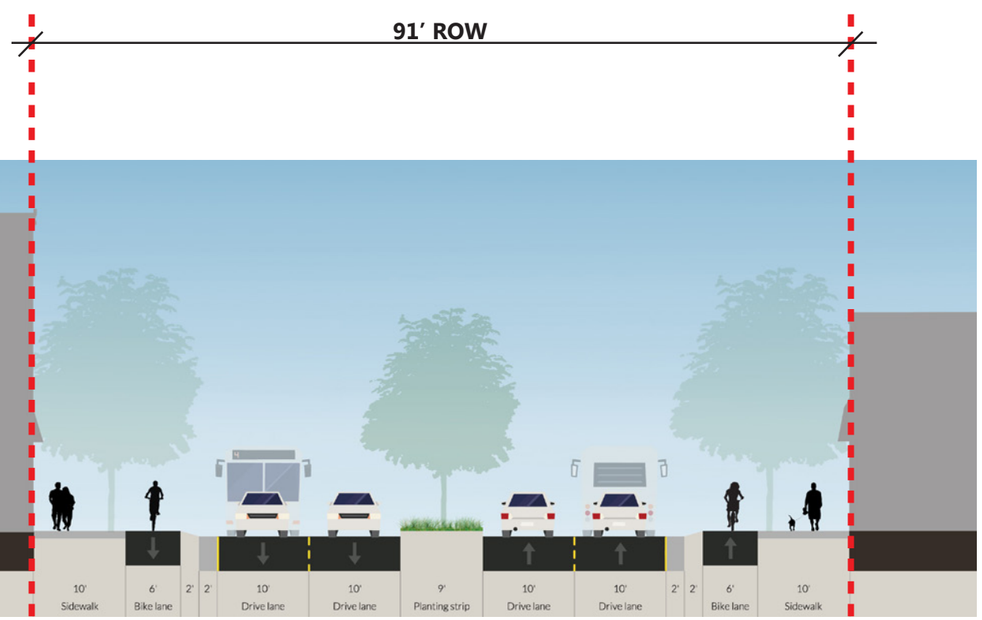
Traffic Calming Design Approach
West Elizabeth Enhanced Travel Corridor
Draft 12.2.15



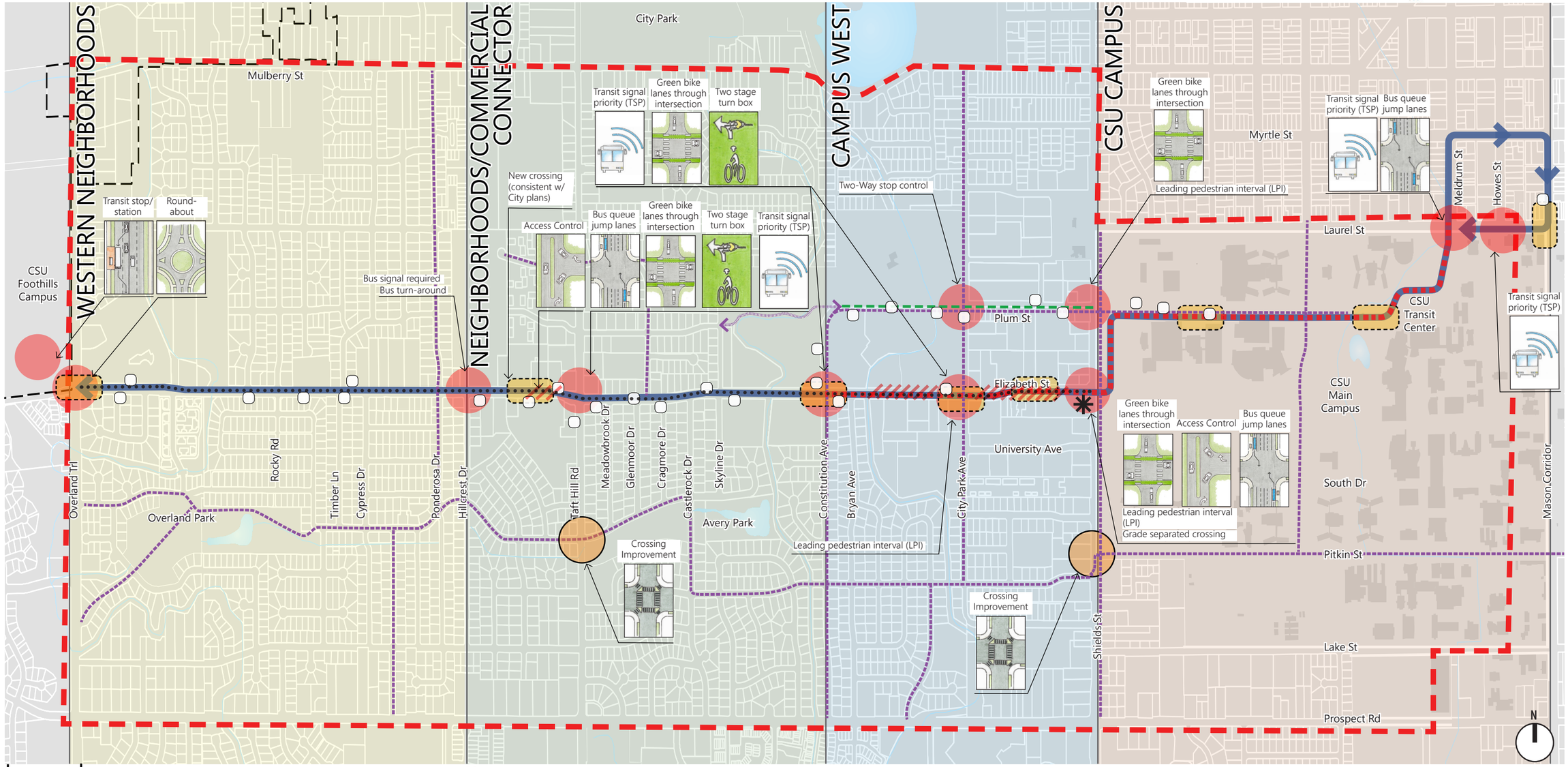
Section A: Overland Trl to Taft Hill Rd
***Interim condition: attached walk as needed**



Section B: Taft Hill Rd to City Park



Section C: City Park to Shields St



Legend

- Lower Frequency Transit Operations
- High Frequency Transit Operations w/ Short route/surge frequency from Constitution Ave. to CSU Transit Center.
- Point Improvements
- Protected Bike Lanes
- Buffered Bike Lanes
- Study Area Boundary
- Currently Funded Intersection Improvements
- Existing Transit Stops
- BRT Stations
- Bike Route Connecting Skyline Drive to Plum Street
- Low-Stress Bike Network
- Access Control
- Potential Underpass Pending Feasibility Analysis

SUMMARY: Focus on introduction of MAX service through corridor and CSU - Bike and Ped improvements throughout

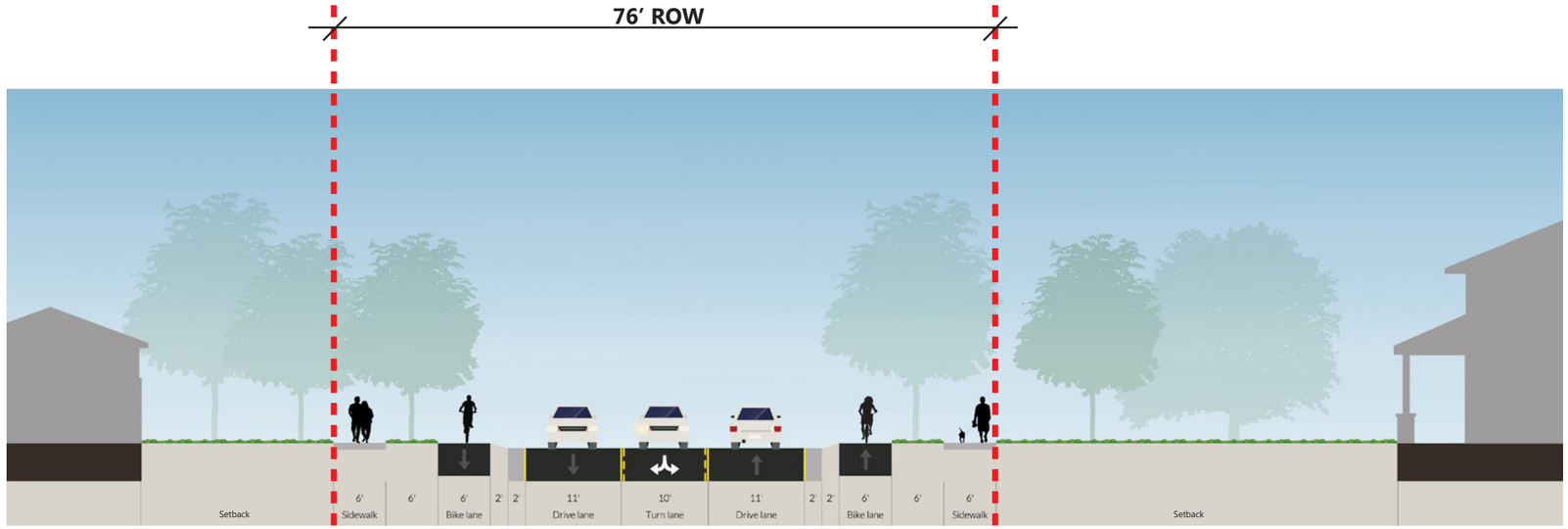
- **Overland Trail to Taft Hill Road - 3 Lane cross section w/ attached sidewalk and raised cycle track**
- **Taft Hill Road to Constitution Avenue - 3 Lane cross section w/ detached sidewalk and raised cycle track**
- **Constitution Avenue to Shields Street - 5 Lane cross section w/ Bus Only lane, attached sidewalk and raised cycle track**

City of Fort Collins

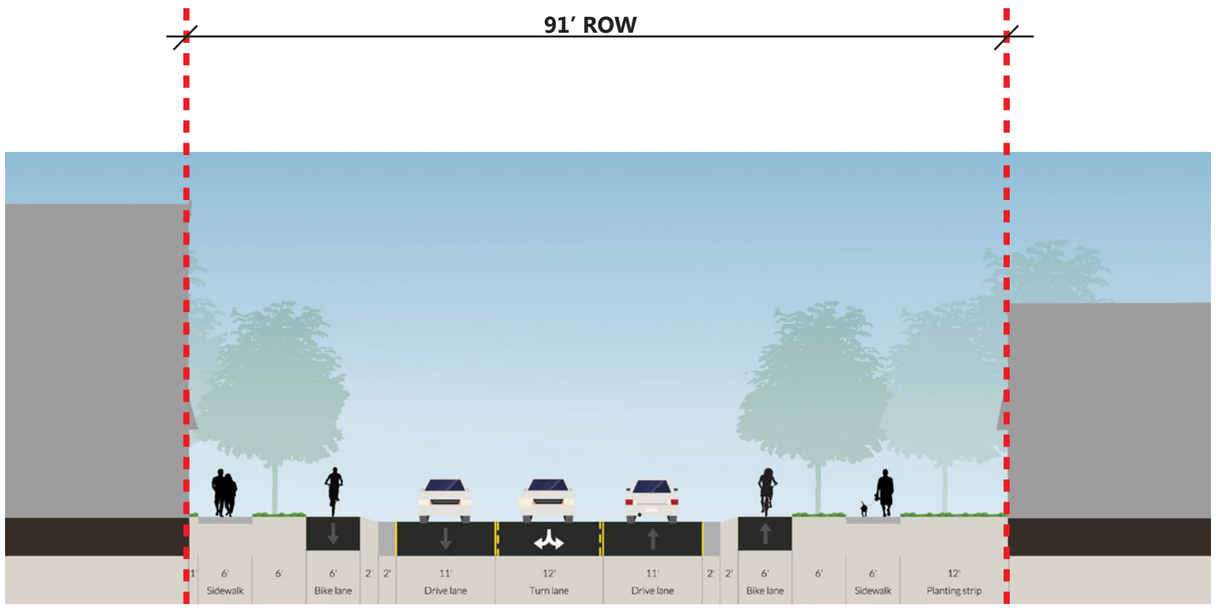
MAX on West Elizabeth Design Approach

West Elizabeth Enhanced Travel Corridor

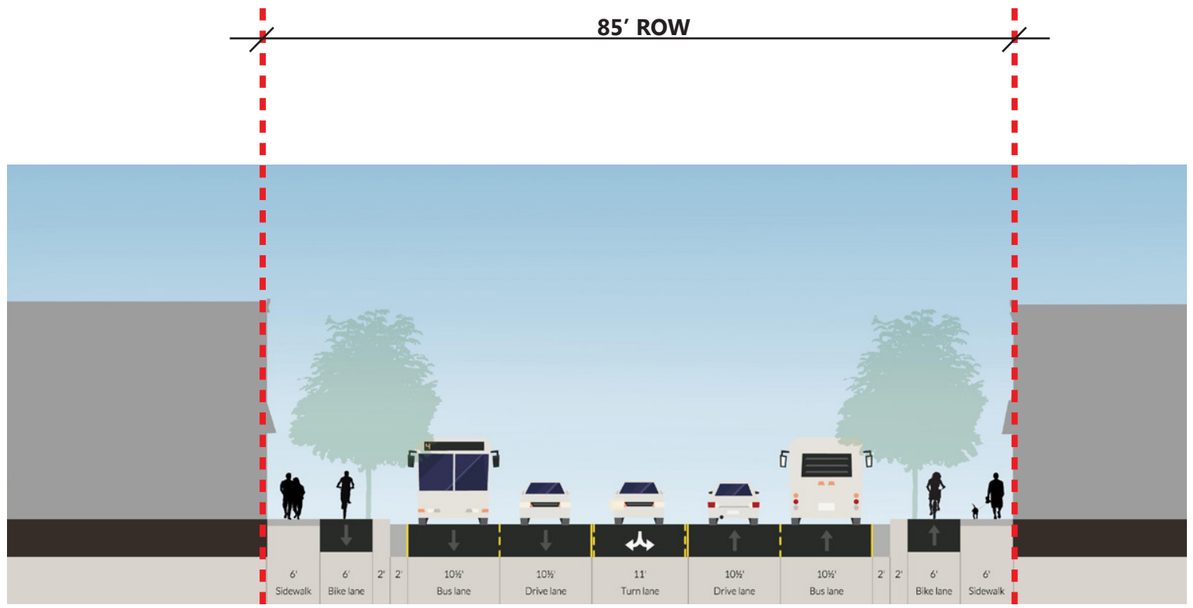
Draft 12.2.15



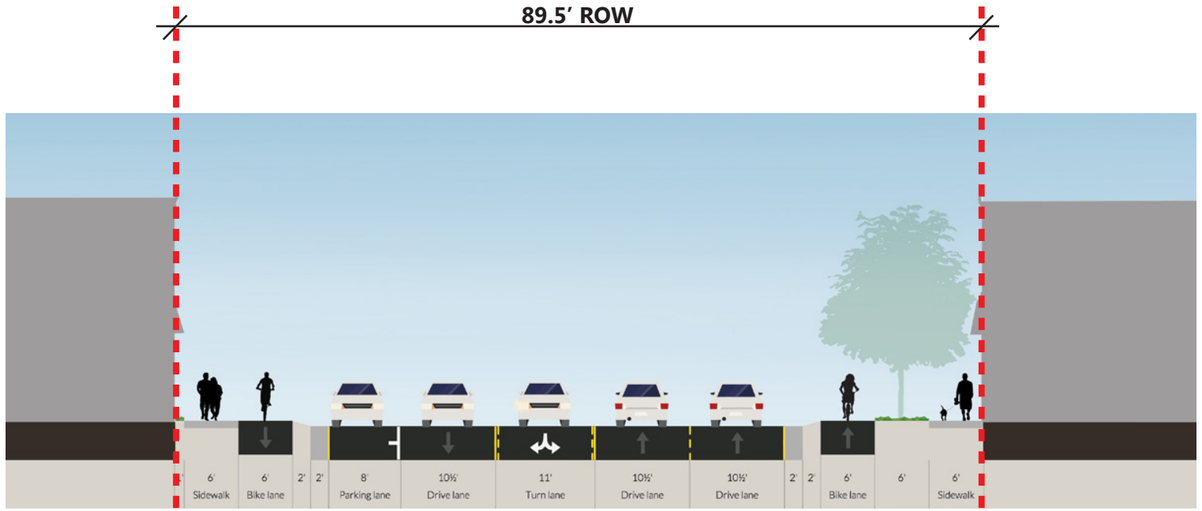
Section A: Overland Trl to Taft Hill Rd
***Interim condition: attached walk as needed**



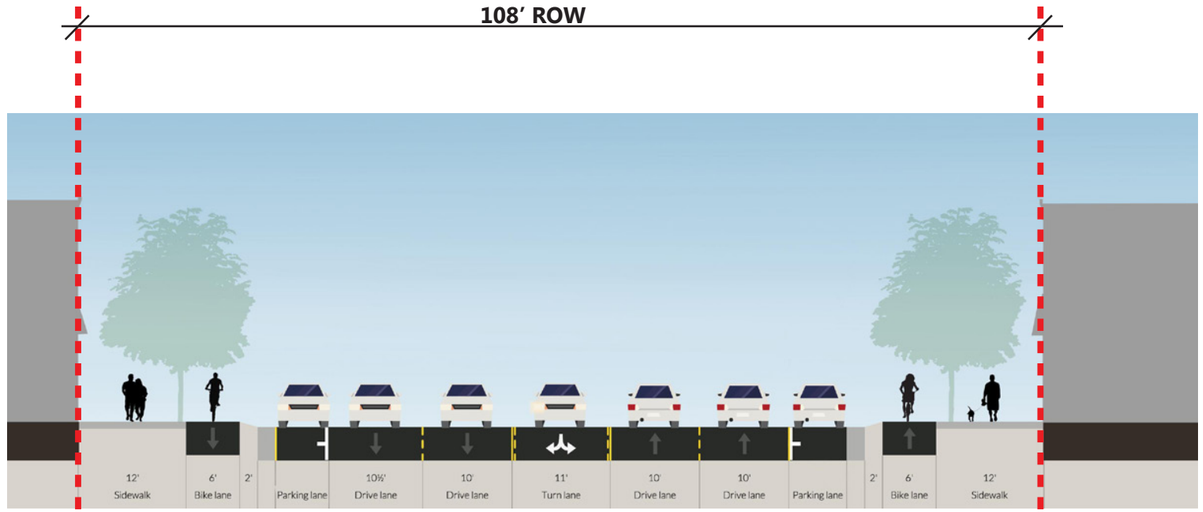
Section B: Taft Hill Rd to Constitution Rd



Section C: Constitution Rd to Shields St



Section C: Constitution Ave to City Park Ave



Section D: City Park Ave to Shields St

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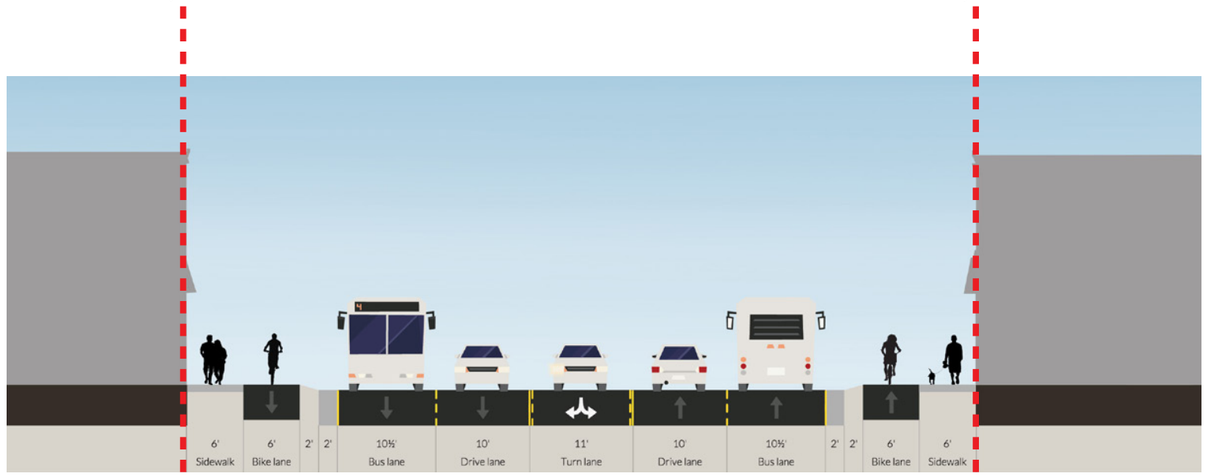
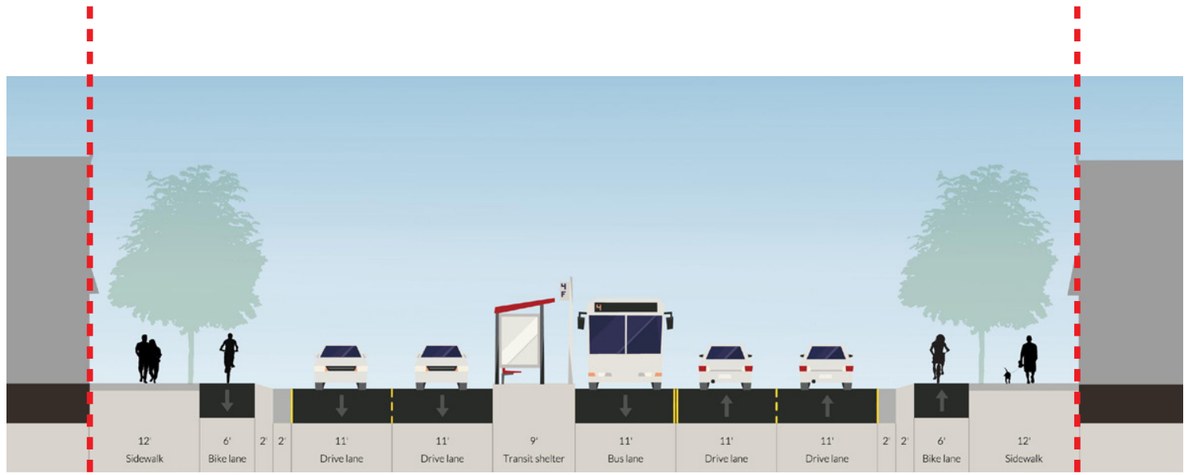
What if Campus West Redevelops? - Option A (with On-Street Parking)

West Elizabeth Enhanced Travel Corridor



Section C: Constitution Ave to City Park Ave



Section D: City Park Ave to Shields St

N

What if Campus West Redevelops? - Option B (with BRT)

West Elizabeth Enhanced Travel Corridor

Summary Comparison Charts

Segments

Design Approach	Mode	Segment							
		CSU Foothills Campus	Overland Trail to Hillcrest Dr.	Hillcrest Dr. to Taft Hill Rd.	Taft Hill Rd. to Constitution Ave.	Constitution Ave. to City Park Ave.	City Park Ave. to Shields St.	Plum Street	CSU Main Campus
Transportation System Management	*Bike*		• Complete bike lanes • Add buffer where feasible	• Complete bike lanes • Add buffer where feasible	• Complete bike lanes • Add buffer where feasible	• Complete bike lanes • Add buffer where feasible	• Complete bike lanes • Add buffer where feasible	Shared bikeway connection to Skyline Dr	
	Drive	Potential Park & Ride		• Access control • Restriping of continuous WB right turn lane			Access control		
	Transit	Transit stop/station	Lower frequency transit	• Higher frequency transit • Bus turnaround or roundabout	Higher frequency transit			Higher frequency transit	Connect to MAX at Laurel Station or transfer at CSU Transit Center
	Walk		Complete sidewalk network to ADA standards if ROW available	Complete sidewalk network to ADA standards, if ROW available	Complete sidewalk network to ADA standards	Complete sidewalk network to ADA standards	Complete sidewalk network to ADA standards		
Traffic Calming	*Bike*		Enhanced bike facility	Enhanced bike facility	Enhanced bike facility	Enhanced bike facility	Enhanced bike facility	• Buffered bike lane • Shared bikeway connection to Skyline Dr	
	Drive	Potential Park & Ride	• Center turn lane/ median • 1 travel lane each dir.	• Center turn lane/ median • 1 travel lane each dir. • Access control	• Center turn lane/ median • 1 travel lane each dir.	• Center turn lane/ median • 1 travel lane each dir.	• 2 travel lanes each dir. • Landscaped median • Access control		
	Transit	Transit stop/station	Lower frequency transit	Higher frequency transit	Higher frequency transit			Higher frequency transit	Connect to MAX at Laurel Station or transfer at CSU Transit Center
	Walk		• Complete sidewalk network to ADA standards • Tree lawn (Interim condition*: attached walk)	• Complete sidewalk network to ADA standards • Tree lawn (Interim condition*: attached walk)	• Complete sidewalk network to ADA standards • Tree lawn (Interim condition*: attached walk)	• Complete sidewalk network to ADA standards • Tree lawn (Interim condition*: attached walk)	Wide sidewalk		
MAX on West Elizabeth	*Bike*		Enhanced bike facility	Enhanced bike facility	Enhanced bike facility	Enhanced bike facility	Enhanced bike facility	• Buffered bike lane • Shared bikeway connection to Skyline Dr	
	Drive	Potential Park & Ride	• Center turn lane/ median • 1 travel lane each dir.	• Center turn lane • 1 travel lane each dir. • Access control	• Center turn lane • 1 travel lane each dir.	• Center turn lane • 1 travel lane each dir.	• Center turn lane • 1 travel lane each dir. • Access control		
	Transit	Transit stop/station	• BRT in shared lane • BRT station	• BRT in shared lane • BRT station	• BRT in shared lane • BRT station	• BRT in dedicated lane • BRT station	• BRT in dedicated lane • BRT station		Connect to MAX at Laurel Station or transfer at CSU Transit Center
	Walk		• Complete sidewalk network to ADA standards • Tree lawn (Interim condition*: attached walk)	• Complete sidewalk network to ADA standards • Tree lawn (Interim condition*: attached walk)	• Complete sidewalk network to ADA standards • Tree lawn (Interim condition*: attached walk)	Complete sidewalk network to ADA standards	Complete sidewalk network to ADA standards		

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*If ROW not available

Intersections

Design Approach	Mode	Intersection										
		W. Elizabeth & Overland	W. Elizabeth & Ponderosa	W. Elizabeth & Hillcrest	W. Elizabeth & Taft Hill	W. Elizabeth & Constitution	W. Elizabeth & City Park	W. Elizabeth & Shields	Plum & City Park	Plum & Shields	Meldrum & Laurel	Howes & Laurel
Transportation System Management	*Bike*				Green bike lanes through int.	• Green bike lanes through int. • Two stage turn queue box	• Green bike lanes through int. • Two stage turn queue box	Green bike lanes through int.		Green bike lanes through int.		
	Drive		Roundabout or bus turnaround just east oi Ponderosa Dr.	Traffic signal for bus turnaround					Two-way stop, N/S direction			
	Transit				• Transit signal priority • Bus queue jump	Transit signal priority				• Transit signal priority • Bus queue jump	• Transit signal priority • Bus queue jump	Transit signal priority
	Walk							Leading pedestrian interval		Leading pedestrian interval		
Traffic Calming	*Bike*				• Green bike lanes through int. • Two stage turn queue box	• Green bike lanes through int. • Two stage turn queue box		• Green bike lanes through int. • Two stage turn queue box		Green bike lanes through int.		
	Drive	Roundabout	Roundabout				Roundabout	Potential protected EB right phase	Two-way stop, N/S direction			
	Transit				• Transit signal priority • Bus queue jump	Transit signal priority				• Transit signal priority • Bus queue jump	• Transit signal priority • Bus queue jump	Transit signal priority
	Walk							Leading pedestrian interval		Leading pedestrian interval		
MAX on West Elizabeth	*Bike*				• Green bike lanes through int. • Two stage turn queue box	• Green bike lanes through int. • Two stage turn queue box	• Green bike lanes through int. • Two stage turn queue box	Green bike lanes through int.		Green bike lanes through int.		
	Drive	Roundabout		Traffic signal for bus turnaround					Two-way stop, N/S direction			
	Transit				• Transit signal priority • Bus queue jump	Transit signal priority	Transit signal priority	• Transit signal priority • Bus queue jump			• Transit signal priority • Bus queue jump	Transit signal priority
	Walk							Leading pedestrian interval		Leading pedestrian interval		

Campus West

Approach	Mode	Segment		Intersection		
		Constitution Ave. to City Park Ave.	City Park Ave. to Shields St.	W. Elizabeth St. & Constitution Ave.	W. Elizabeth St. & City Park Ave.	W. Elizabeth St. & Shields St.
What if Campus West Redevelops? Option A	*Bike*	Enhanced bike facility	Enhanced bike facility	• Green bike lanes through int. • Two stage turn queue box	• Green bike lanes through int. • Two stage turn queue box	• Green bike lanes through int. • Two stage turn queue box
	Drive	• Center turn lane • EB: 1 travel lane, 1 parking lane • WB: 2 travel lanes	• Center turn lane • 2 travel lanes each dir. • 1 parking lane each dir. • Access control			
	Transit		• BRT in shared lane • BRT station	Transit signal priority	Transit signal priority	
	Walk	Complete sidewalk network to ADA standards	Complete sidewalk network to ADA standards			Leading pedestrian interval
What if Campus West Redevelops? Option B	*Bike*	Enhanced bike facility	Enhanced bike facility	• Green bike lanes through int. • Two stage turn queue box	• Green bike lanes through int. • Two stage turn queue box	• Green bike lanes through int. • Two stage turn queue box
	Drive	• Center turn lane • 1 travel lane each dir.	• 2 travel lanes each dir. • Access control			
	Transit	• Side running BRT in dedicated lane • BRT station	• Center running bidirectional BRT • BRT station	Transit signal priority	Transit signal priority	
	Walk	Complete sidewalk network to ADA standards	Wide sidewalk			Leading pedestrian interval

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*If ROW not available

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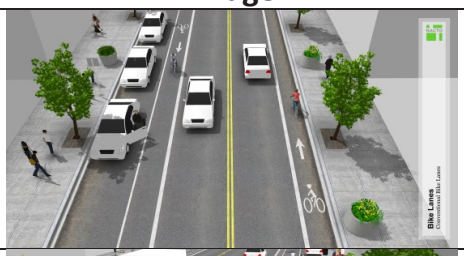
Bicycle Facility Options

Facility		Image
Conventional Bike Lane		
Buffered Bike Lane		
Protected Bike Lane	Vertical separation	
	Concrete curb and/or parking	
	Planters and/or parking	
	Raised with a mountable curb	

Next Steps

Tasks

- Evaluate Corridor Design Approaches
- Develop Recommended Design
- Open House:

  Tomorrow December 3, 6-8 pm

  Westminster Presbyterian Church

  1709 W. Elizabeth St.

Online Survey

Early 2016 (tentative)

Next Stakeholder Meeting

February 2016 (tentative)

Appendix

A. Corridor Understanding Executive Summary

B. Draft Transit Diagrams

A. Corridor Understanding Executive Summary

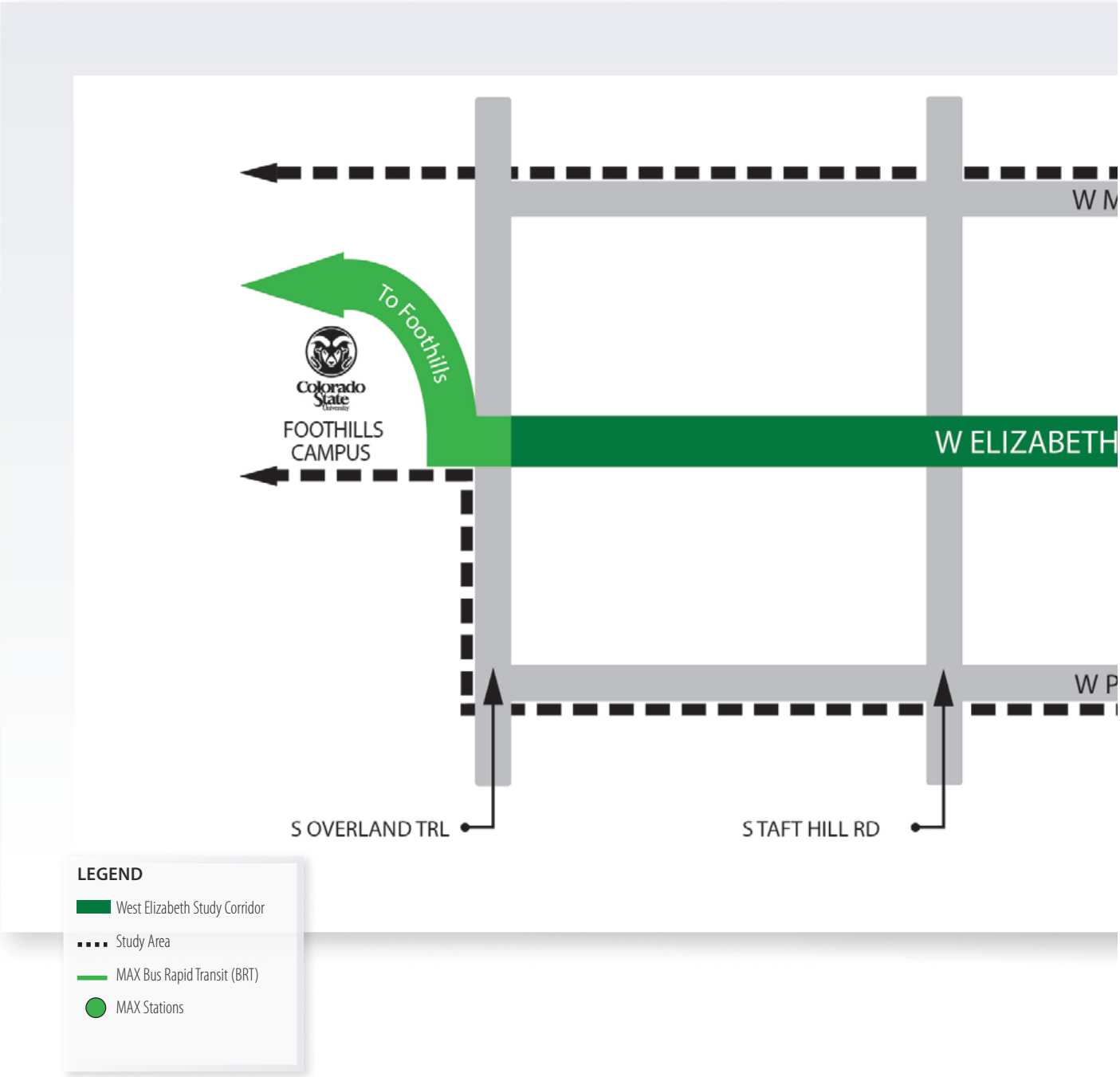
West Elizabeth Enhanced Travel Corridor Plan

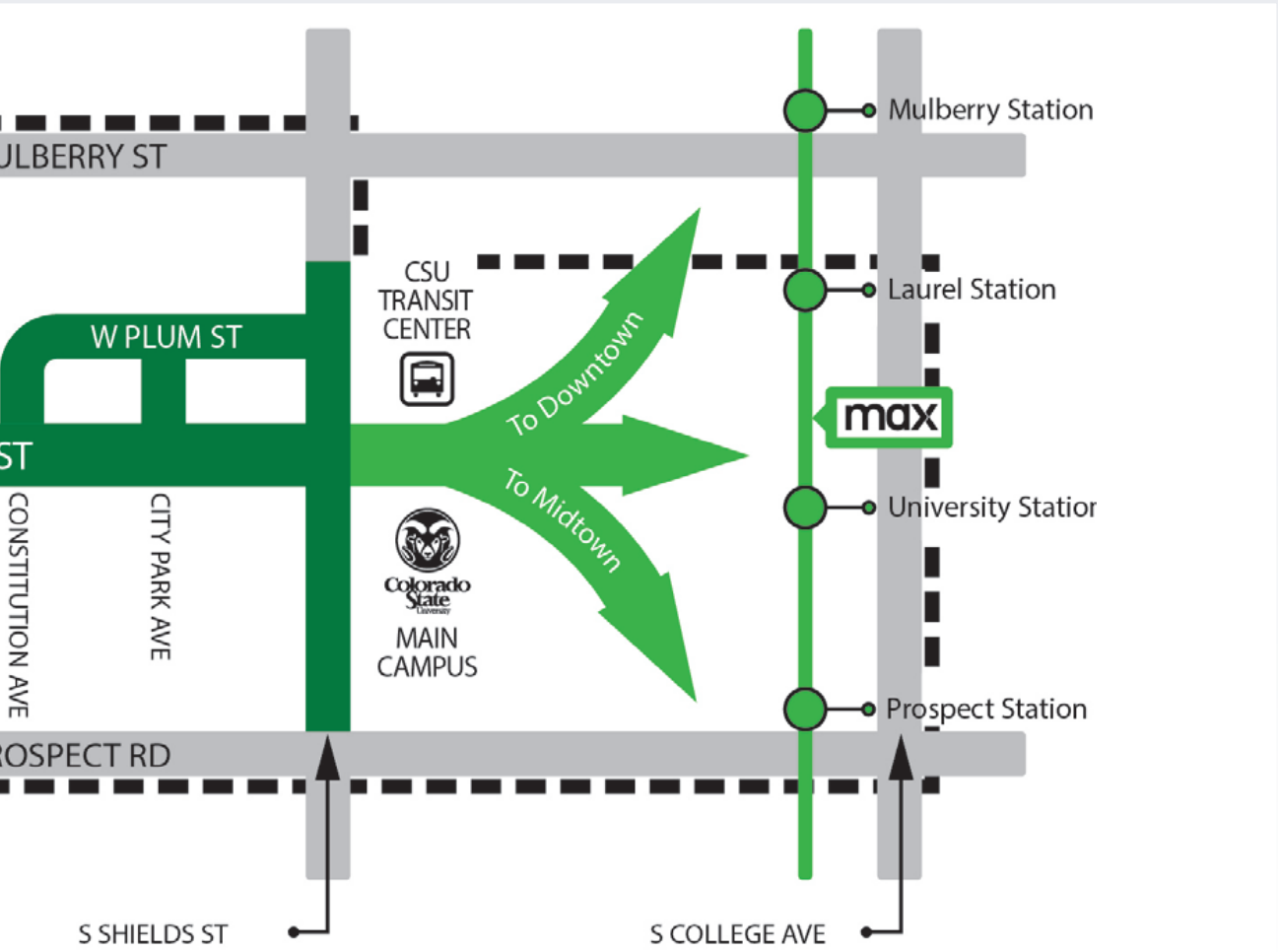
EXECUTIVE SUMMARY

THE WEST ELIZABETH ENHANCED TRAVEL CORRIDOR PLAN WILL PROVIDE A ROADMAP FOR BOTH SHORT-TERM RECOMMENDATIONS AND A LONG-TERM VISION FOR THE CORRIDOR BASED ON AN UNDERSTANDING OF THE TRANSPORTATION AND LAND USE NEEDS OF THE AREA.

ENHANCED TRAVEL CORRIDORS (ETCs) are defined by the City's Transportation Master Plan (TMP) as corridors that emphasize high-frequency transit, bicycling and walking. This Corridor Understanding Report documents the West Elizabeth Corridor's history and context, previous planning that has influenced the corridor, and existing conditions of the corridor's infrastructure and performance for different modes of transportation. Future steps of the West Elizabeth Enhanced Travel Corridor Plan development process will build upon the Corridor Understanding Report: developing a Purpose and Need Statement and Corridor Vision, developing and evaluating alternative improvement scenarios, and developing a preferred alternative, with both near-term and longer-term implementation recommendations.

STUDY AREA

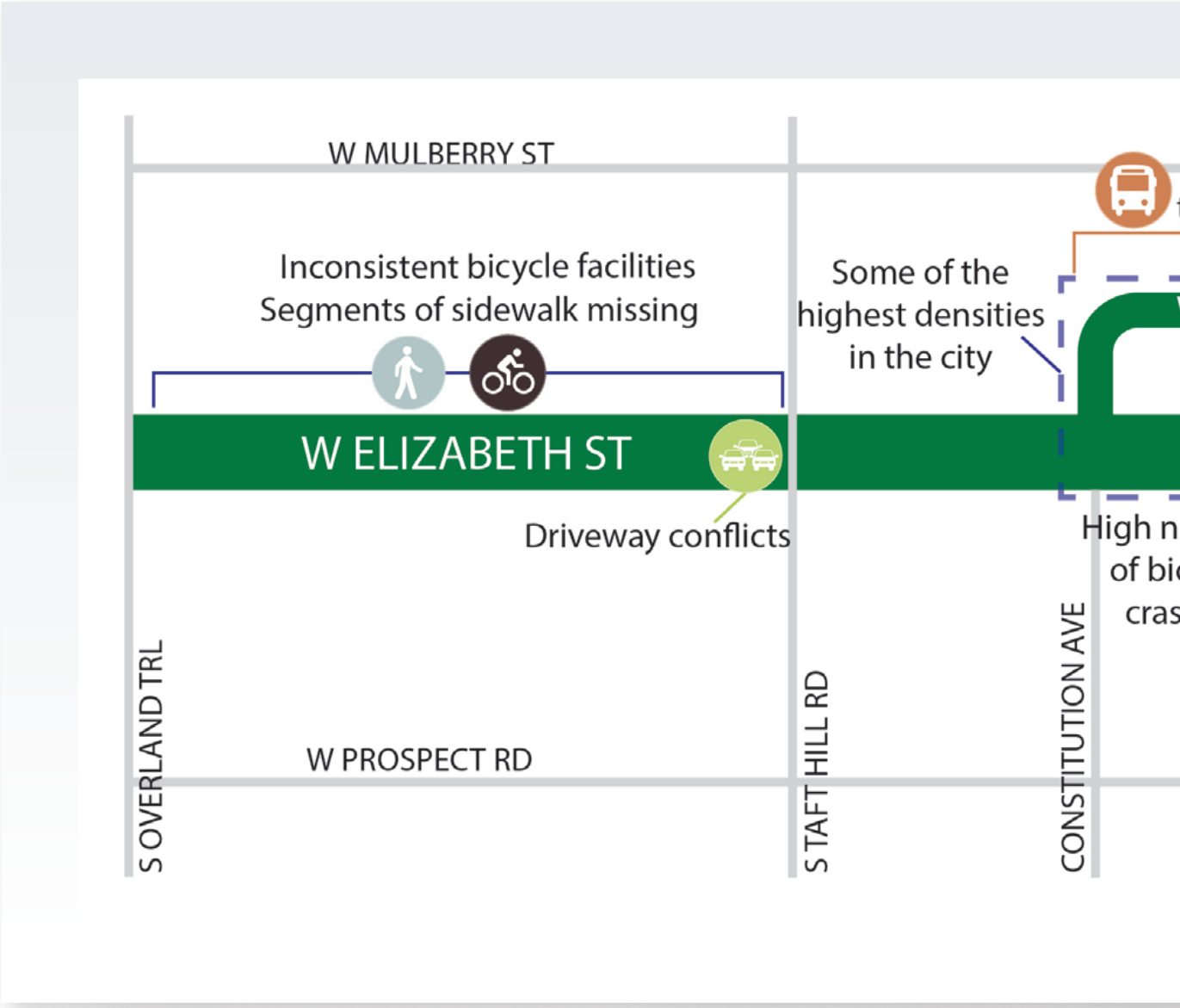

W M
To Foothills
Colorado State University
FOOTHILLS CAMPUS
W ELIZABETH
W P
S OVERLAND TRL
S TAFT HILL RD
LEGEND
West Elizabeth Study Corridor
Study Area
MAX Bus Rapid Transit (BRT)
MAX Stations

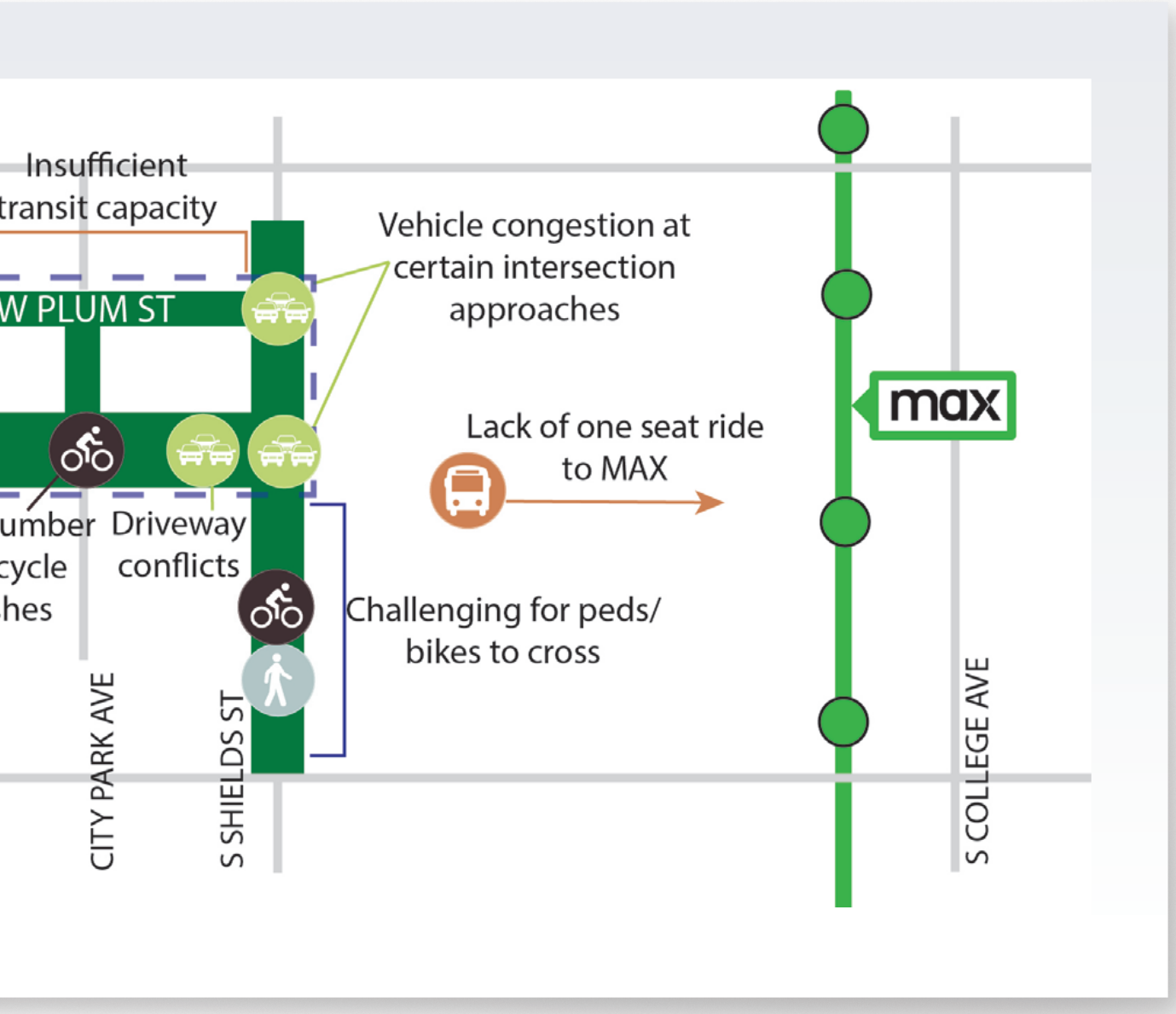


The West Elizabeth ETC focuses on West Elizabeth Street between Overland Trail and Shields Street, as well as segments of Plum Street, Constitution Avenue, and City Park Avenue. The study area also includes the surrounding network, and the plan will look at how this corridor connects with the CSU campuses and the rest of the community.

WEST ELIZABETH CORRIDOR

SUMMARY OF KEY ISSUES




Insufficient
transit capacity
W PLUM ST
Vehicle congestion at
certain intersection
approaches
Lack of one seat ride
to MAX
max
umber
cycle
hes
Driveway
conflicts
Challenging for peds/
bikes to cross
CITY PARK AVE
S SHIELDS ST
S COLLEGE AVE

EXECUTIVE SUMMARY

1»LAND USE

Land use on the West Elizabeth Corridor includes a mix of types and densities of development, including multi-family, single family, as well as commercial parcels near the West Elizabeth Street/Shields Street and West Elizabeth Street/Taft Hill Road intersections. Land use surrounding the Campus West area has **some of the highest densities allowed in the city,** including dense multi-family housing on Plum Street affiliated with Colorado State University. A large proportion of the study area's residents are renters, many of whom are CSU students.

2»RIGHT-OF-WAY

Right-of-way on the corridor **varies from 60 to 100 feet** between Shields Street and Overland Trail.

3»CROSS SECTIONS

West Elizabeth Street's cross section includes **two to four travel lanes** between Shields Street and Overland Trail. Near Shields Street, West Elizabeth Street has four travel lanes (two in each direction) with a two-way left-turn lane. West of Skyline Drive, West Elizabeth Street has two travel lanes with a two-way left-turn lane. West of Kimball Drive, West Elizabeth Street has two travel lanes.

4»TRAVEL DEMAND

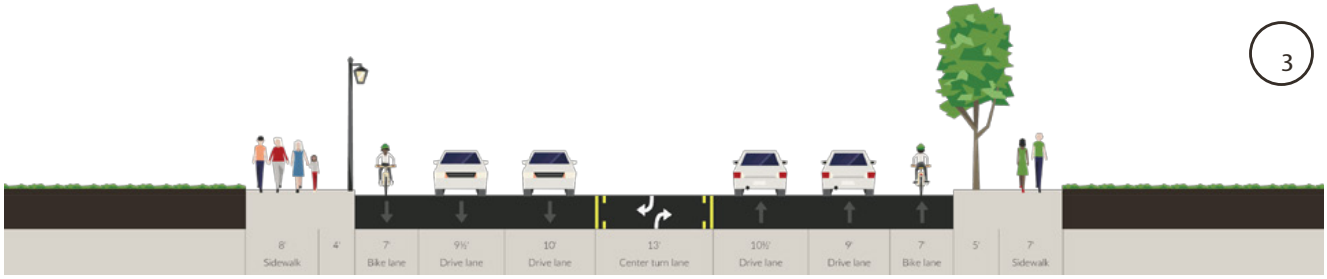
The amount of traffic on West Elizabeth Street generally increases from west to east. Near Timber Lane the Average Daily Traffic (ADT) is 4,400 vehicles per day and near Shields Street the ADT is over 18,000 vehicles per day. West Elizabeth Street also carries a large number of transit passengers, bicyclists and pedestrians. **Transfort routes in the study area have an average weekday ridership of over 10,000 passengers per day.** Over 2,000 bicyclists per day use West Elizabeth Street west of Shields Street and over 100 pedestrian crossings occur during peak hours at Shields Street/West Elizabeth Street, City Park Avenue/West Elizabeth Street and Plum Street/Shields Street intersections. **Furthermore, the Plum Street/Shields Street intersection has the largest number of transit passengers, bicyclists and pedestrians in the study area.**

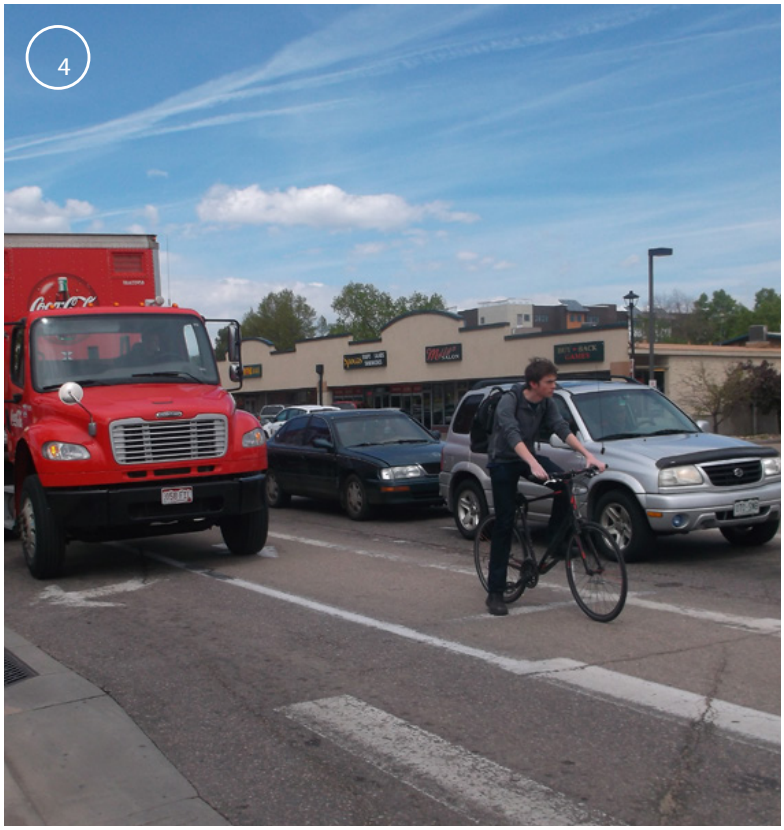
5» VEHICLE OPERATIONS

Analysis shows that most study intersections operate at an acceptable vehicle level of service (LOS), a measure of average vehicle delay, during peak hours. **However, key approaches to certain intersections experience notable congestion:** the northbound left-turn, eastbound left-turn, and eastbound right-turn at the West Elizabeth Street/Shields Street intersection and the eastbound and westbound movements at the Plum Street/Shields Street intersection.


WHICH WAY
Pizza
1


2


3
8' Sidewalk
4'
7' Bike lane
9½' Drive lane
10' Drive lane
13' Center turn lane
10½' Drive lane
9' Drive lane
7' Bike lane
5'
7' Sidewalk


4


5


31
31 VIA PLUM
6

This Corridor Understanding Report documents the West Elizabeth Corridor's history and context, previous planning that has influenced the corridor, and existing conditions of the corridor's infrastructure and performance for different modes of transportation.

6 » TRANSIT

Several Transfort bus routes serve the study area, the majority of which connect to the CSU Transit Center. Route 31, which connects West Elizabeth Street and Plum Street to the CSU Transit Center, runs every 10 minutes. The HORN and MAX also run every 10 minutes. Most other routes operate every 30 minutes. **Transfort ridership in the area is generally high. In fact, ridership is so high on some routes bound for CSU that drivers regularly have to turn away passengers because the buses are full, even with the addition of trailer buses during peak hours.** Top ridership stops in the study area include the CSU Transit Center, stops along Plum Street, Constitution Avenue between Shields Street and West Elizabeth Street, and stops on West Elizabeth Street just west of Taft Hill Road. Some of the study area's routes, including Route 31, Route 32, and Route 2, have a high productivity as measured by weekday passengers per revenue hour and weekday passengers per revenue mile.

7 » PEDESTRIANS

For pedestrians, a variety of sidewalk conditions exist on the corridor. Some sidewalks are attached, some are detached, and **there are many locations where no sidewalk exists or sidewalk width is too narrow for people using mobility devices.** In addition to marked crossings at signalized intersections, there are two midblock crossings on the corridor: one west of Shields Street and another west of Skyline Drive. Pedestrian delay at signalized intersections is relatively high at most study intersections during peak hours. **Significant lengths of West Elizabeth Street have a low pedestrian level of service, a measurement of the quality of the pedestrian environment that accounts for sidewalk presence and width as well as other amenities.**

8 » BICYCLISTS

Bike lanes are provided along the majority of the corridor, but are missing from key segments of West Elizabeth Street, including several segments west of Taft Hill Road. Most of the corridor is sufficiently comfortable for the many residents and college students who currently ride on West Elizabeth Street. However, these segments are generally not comfortable for lower-confidence adults/college students as well as children.


7

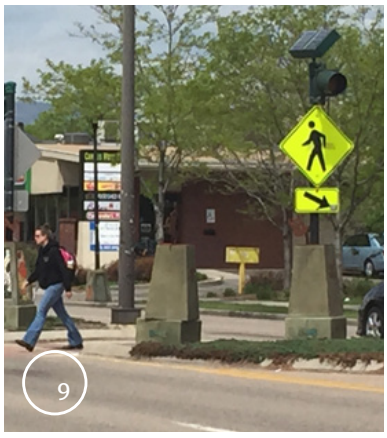
9» SAFETY

The study area has some intersections and roadway segments with a higher than expected number of crashes. For example, **the West Elizabeth Street/Shields Street intersection** has more crashes than expected compared to similar locations, and the **West Elizabeth Street/City Park Avenue intersection** has more bicyclist-vehicle crashes than expected compared to similar locations. **West Elizabeth Street between Shields Street and City Park Avenue** also has more crashes than expected compared to similar locations.

10» DELAY BY MODE

Over half of the users at the intersection of Shields Street and Plum Street are using transit, walking or biking. At this intersection, transit passengers, pedestrians and bicyclists experience a lot of delay, while vehicle drivers and passengers do not experience a lot of delay.

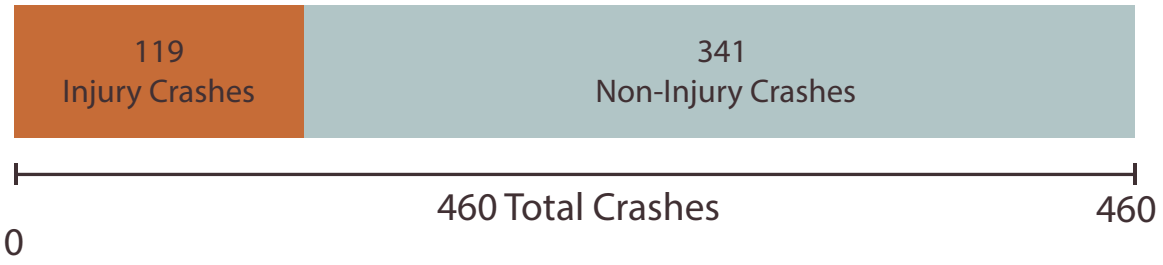

8


9

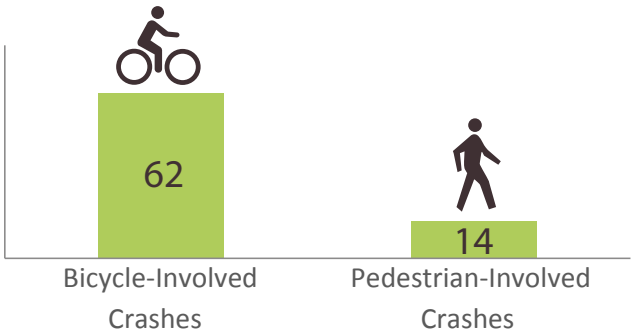

10

WEST ELIZABETH CORRIDOR
EXISTING CONDITIONS HIGHLIGHTS

SAFETY
CRASHES ON WEST ELIZABETH STREET BETWEEN 2010 & 2014



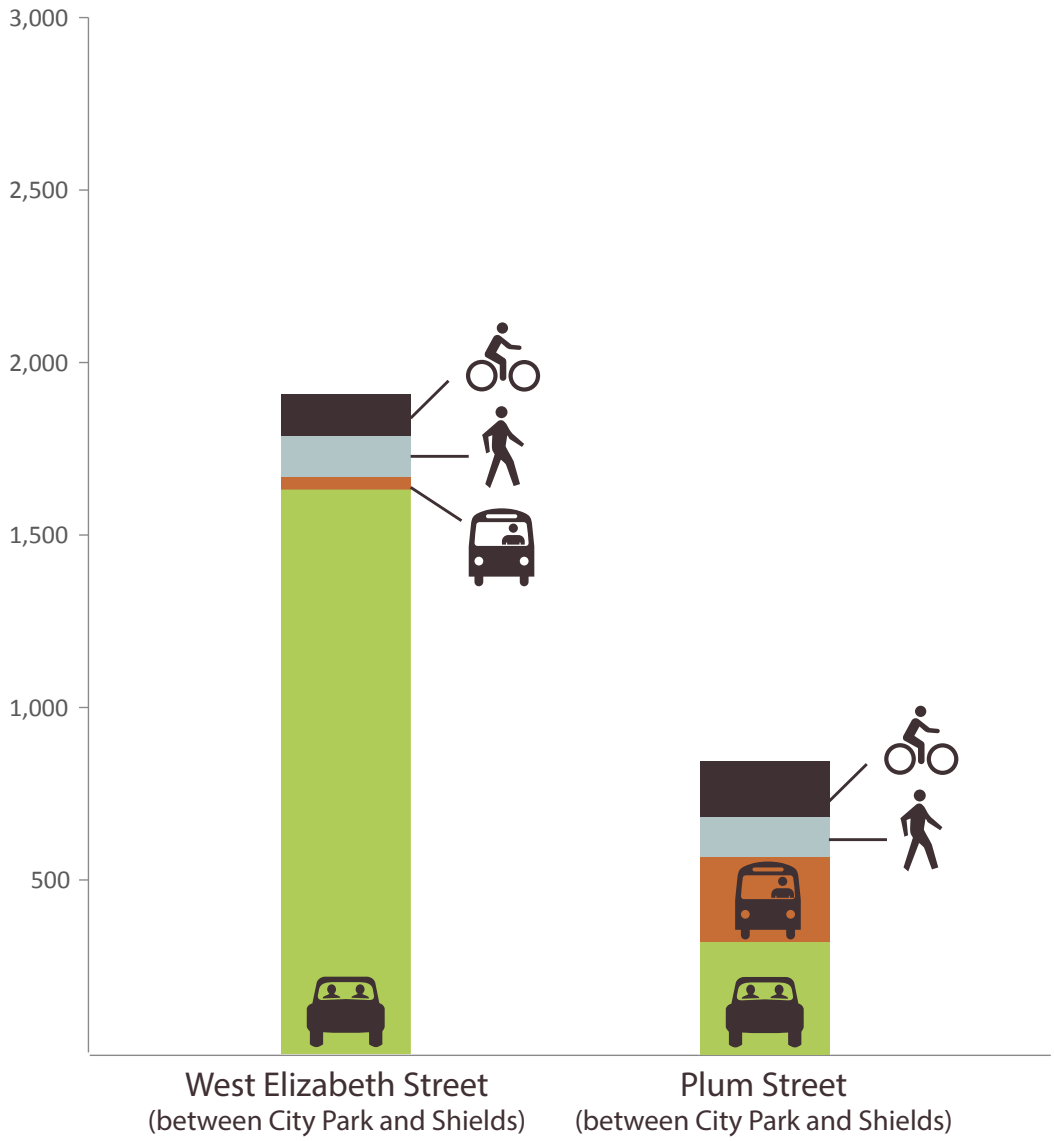
Average of **1 crash** every **4 days**.



Indicates more crashes than expected compared to similar **intersections** within the city

Indicates more crashes than expected compared to similar **segments** within the city

NUMBER OF PEOPLE BY MODE
PM PEAK HOUR
WEST ELIZABETH STREET & PLUM STREET



WEST ELIZABETH CORRIDOR
EXISTING CONDITIONS HIGHLIGHTS

TRANSIT

Over **10,000** riders a day within the study area (9 routes):
Highest ridership in the city

Over **3,700** passengers left behind on Route 31 from January to April 2015. That's equalivalent to over **37** MAX buses or **75** standard Transfort buses.

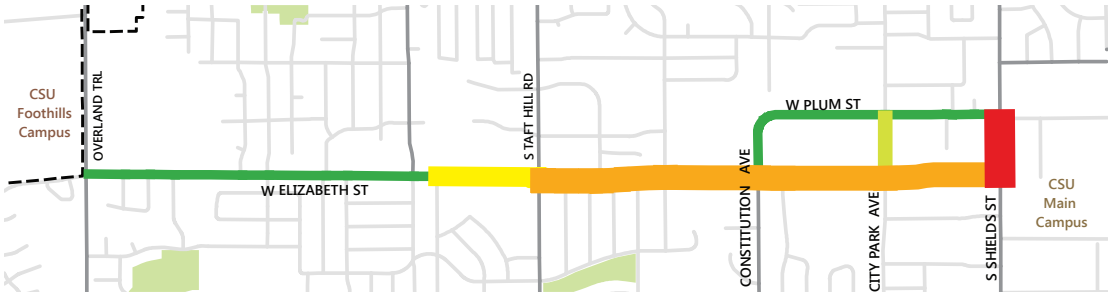
TRANSIT BOARDINGS

Transit boardings from February - April 2015 APC Data

● < 100 ● 100 - 200 ● > 200

DRIVING

AVERAGE DAILY TRAFFIC



Average Daily Traffic (ADT)

< 5,000 | 5,001 - 10,000 | 10,001 - 15,000 | 15,001 - 20,000 | > 20,000

WALKING

36%

of sidewalks in the corridor are non-ADA compliant, of which:

7%

are missing sidewalks.

PEDESTRIAN LEVEL OF COMFORT* CORRIDOR-WIDE

Low Pedestrian Comfort	Medium Pedestrian Comfort	High Pedestrian Comfort
30%	42%	28%

*Pedestrian Level of Comfort is based on a technical analysis of existing data sources

AVERAGE PM PEAK HOUR PEDESTRIAN DELAY

West Elizabeth Street & City Park Avenue

After 30 seconds, research has indicated that pedestrians partake in more risk-taking behavior.

West Elizabeth Street & Shields Street

BICYCLING

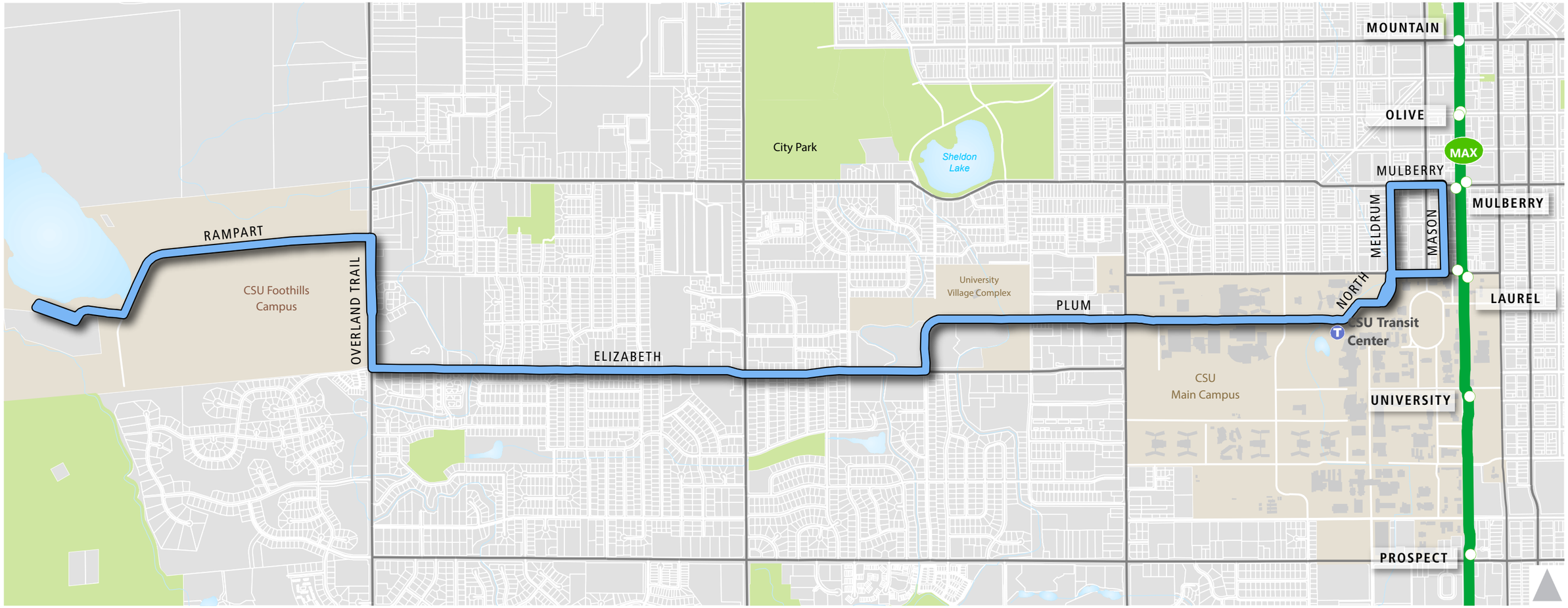
BICYCLIST LEVEL OF COMFORT | CORRIDOR-WIDE

Low Bicyclist Comfort	Medium Bicyclist Comfort	High Bicyclist Comfort
1%	50%	49%

*Bicyclist Level of Comfort is based on a Level of Traffic Stress (LTS) technical analysis of existing data sources

B. Draft Transit Diagrams

Route 33 Long Line Option A

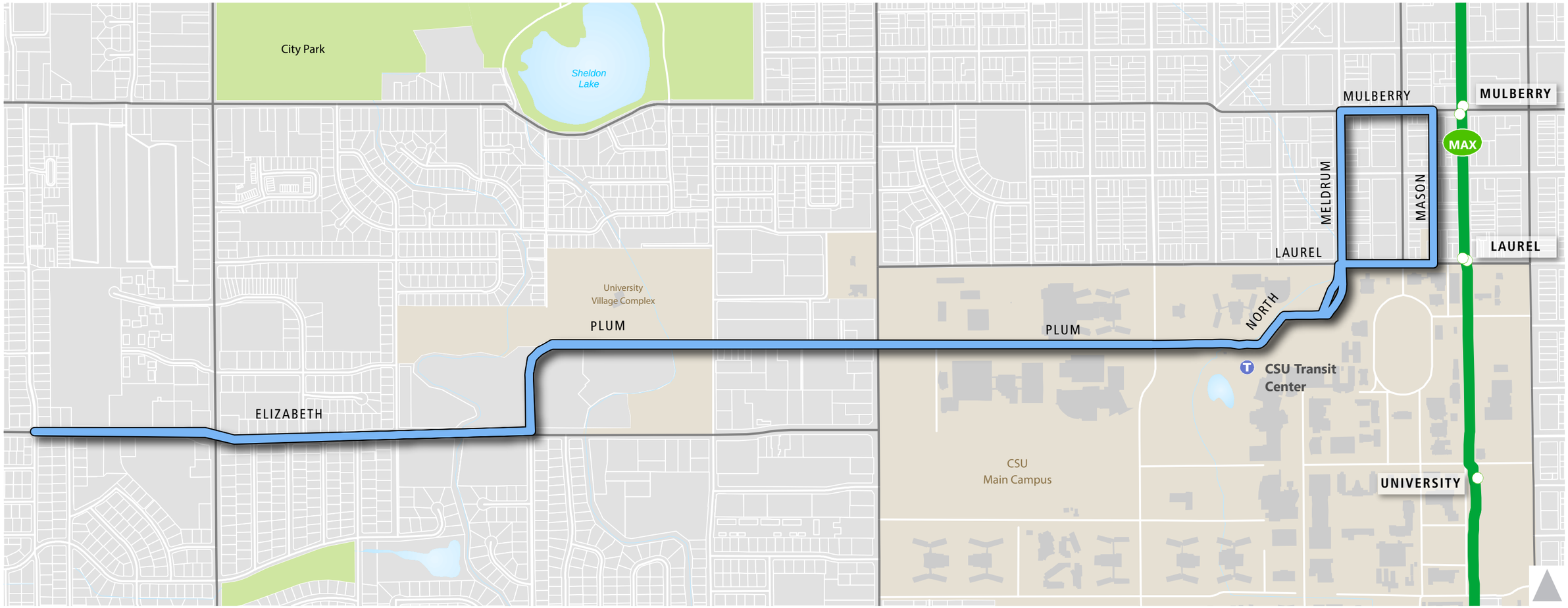


Recommended Alignment

MAX Bus Rapid Transit (BRT)

MAX Stations

Route 33 Option A - Plum Short Term



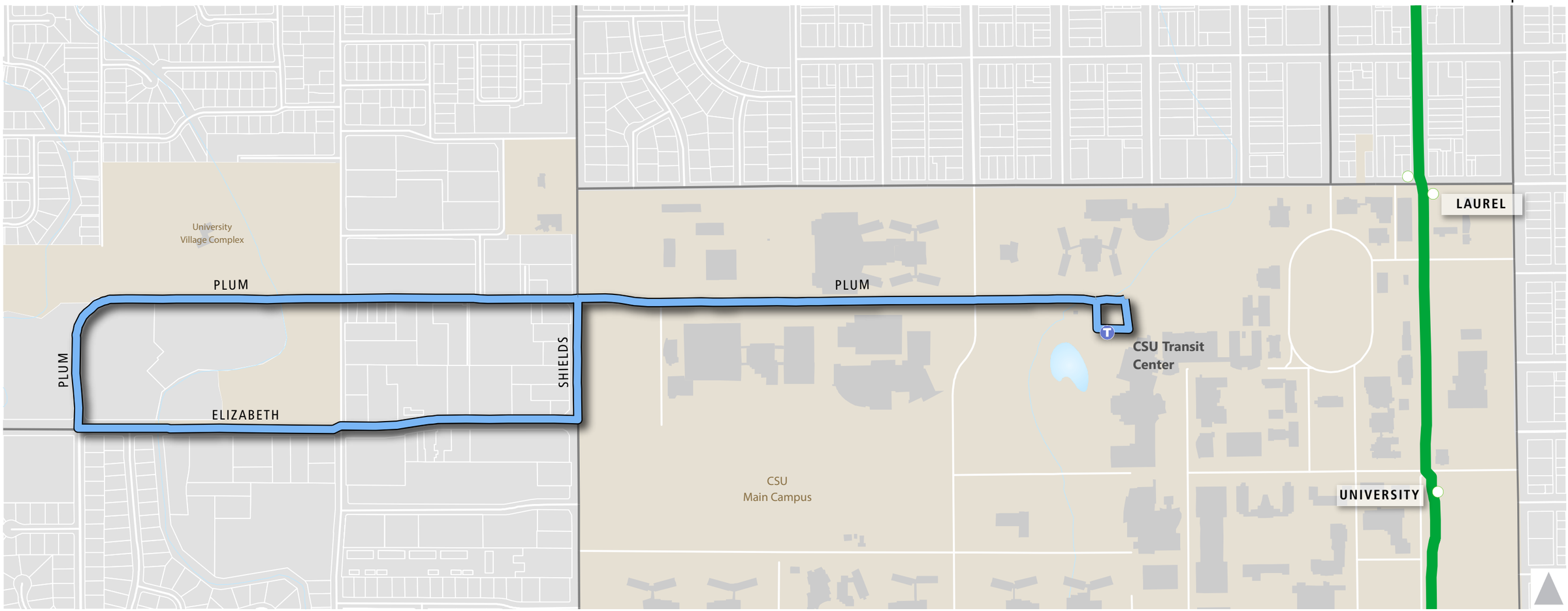
Recommended Alignment

MAX Bus Rapid Transit (BRT)

MAX Stations

Plum Short Term

Proposed

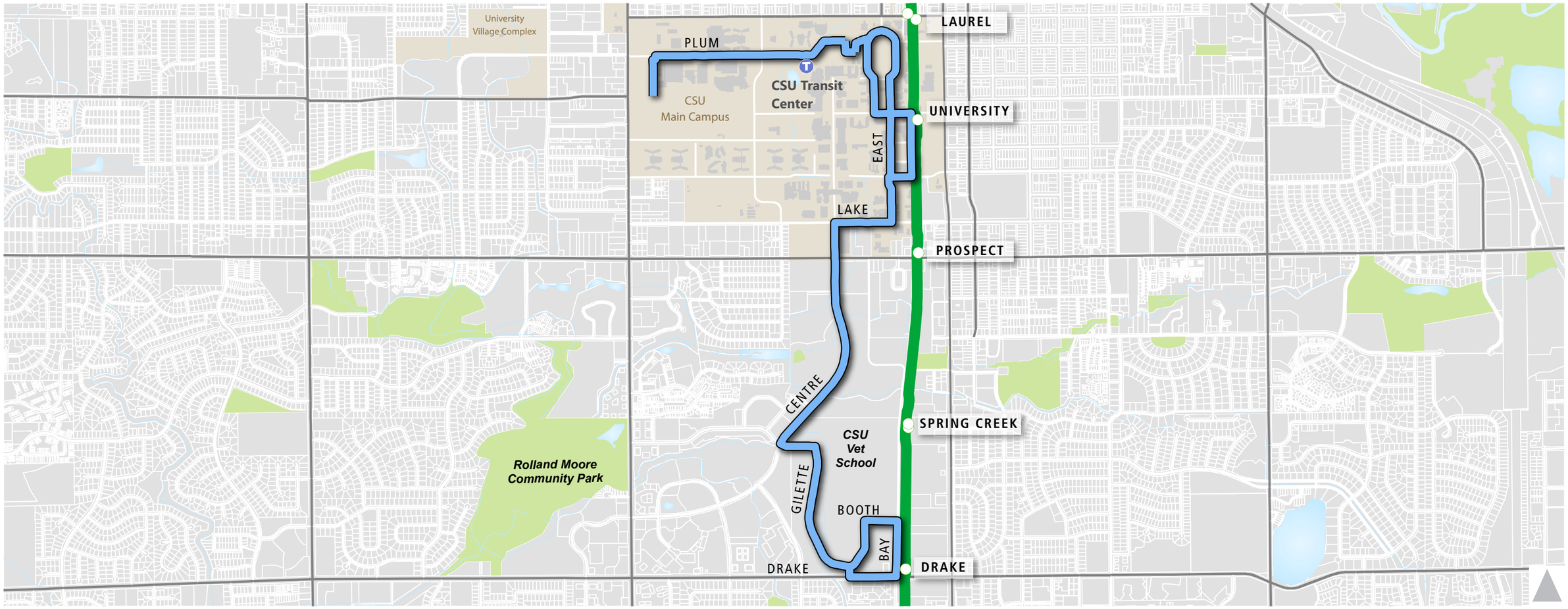


Recommended Alignment

MAX Bus Rapid Transit (BRT)

MAX Stations

HORN

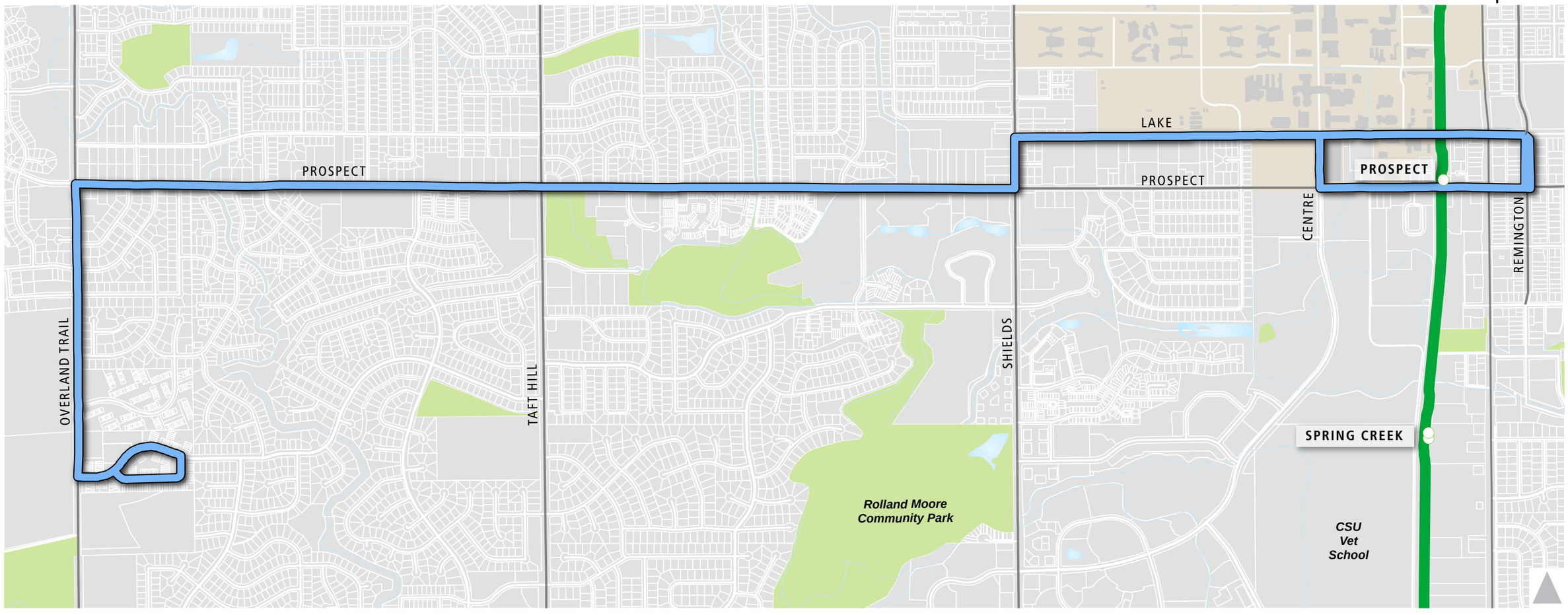


Recommended Alignment

MAX Bus Rapid Transit (BRT)

MAX Stations

Route 2
Proposed



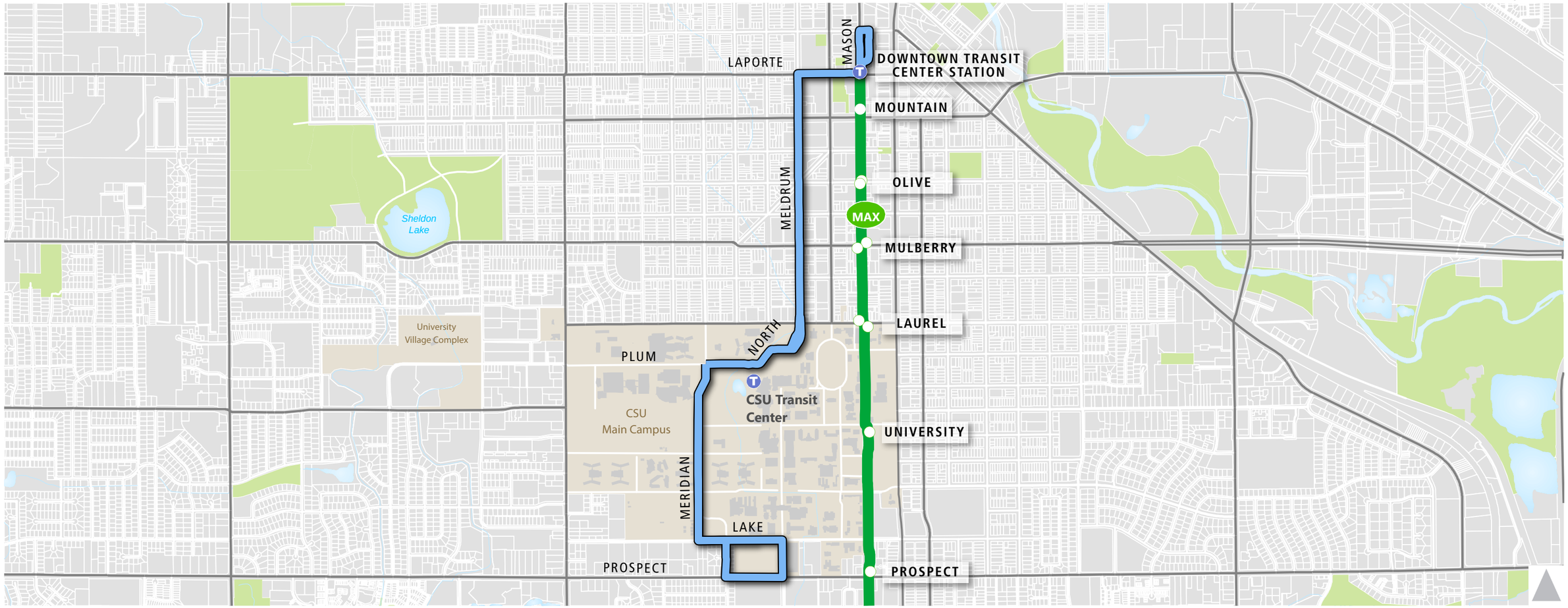
Recommended Alignment

MAX Bus Rapid Transit (BRT)

MAX Stations

Route 10

Proposed



Recommended Alignment

MAX Bus Rapid Transit (BRT)

MAX Stations

Stakeholder Committee Meeting #2

West Elizabeth Enhanced Travel Corridor Plan
September 23, 2015 – 6:00-8:00 pm

Present:
Alison Anson
Madi Book
Rick Callan
Laurel Grimm
Jay Henke
Edward Kendall
Gail McKee
Bonnie Michael
Justie Nicol
Troy Ocheltree
Jean Robbins
Gene Schoonveld
Jordan Sowell
Dave Thompson
Michael Werner

Absent:
Aaron Buckley
Peter Rhoades

Staff & Consultants:
Charles Alexander, Fehr & Peers Associate
Emma Belmont, Transfort Transit Planner
Amy Lewin, FC Moves Senior Transportation Planner
Rachel Prelog, FC Moves Intern
Carly Sieff, Fehr & Peers Transportation Planner

Agenda

6:00-6:10 – Dinner, settle-in
6:10-6:20 – Introductions
6:20-6:40 – Project update/review
6:40-7:00 – Review Draft Vision, Purpose & Need
7:10-7:20 – Review Alternatives Evaluation Criteria
7:20-7:40 – Alternatives Development Activity
7:40-7:50 – Present Concepts for Alternatives
7:50-8:00 – Wrap-up, Next steps

Stakeholder committee members were provided workbooks which served as a tool to help guide participants through the information presented in the agenda above. This included general information relevant to the plan as well as specific activities and information pertinent to the current planning activities.

Meeting Notes

Stakeholder Committee comments in blue
Project team comments/responses in regular font

- Next meeting tentatively in November
- Public Outreach To Date
    - Project Start-up
        - Walking Tours
        - Listening sessions
        - Online tools—surveys and Wikimap
        - Open Streets—on West Elizabeth in June
    - Visioning
        - Focus Groups
        - Open House
        - Online survey
        - Textizen survey
- Corridor Understanding Review
    - Number of people by mode
        - A little more than 25% using transit, walking or biking
    - Anticipated growth
        - Likely to be growth from infill and redevelopment
        - If we don't do anything on the corridor, the PM peak hour volume will increase to over 1,500 vehicles/hour on West Elizabeth and over 20,000/hour on Plum Street and West Elizabeth combined
    - Transit
        - 8,000-10,000 riders a day
        - 3,700 riders left behind between January to April (mostly on Plum Street) due to bused being over capacity
    - Walking
        - 1/5 of sidewalks not ADA compliant
        - 7% of frontage has no sidewalk
        - Almost a minute delay to cross West Elizabeth and Shields Street
    - Driving
        - Many driveway conflicts
        - Queueing spilling back at intersections
        - Travel time along corridor
    - Biking
        - Only half the corridor has a high level of comfort
    - Safety
        - 460 total collisions between 2010-2014
        - ¼ of those resulted in an injury, no fatalities
- Visioning
    - Heard from nearly 700 people and over 2,000 pieces of input
    - ~15 hours of discussion
    - Mailings, online survey, Textizen survey

  - Key themes:
    - Transit should be prioritized, biking and walking are very important also
    - Reliability for all modes is important
    - Safety and comfort is important
  - Survey highlights:
    - Online survey – most use vehicle
    - Textizen – fairly even mode split
    - Online survey – bikes should be the priority for the future
    - Textizen – transit should be the priority for the future
  - Key words heard to describe the existing conditions and desire for future conditions
    - Existing experience: crowded, congested, unsafe and busy
    - Desired future experience: safe, easy, fast and efficient
- Vision, Purpose and Need Review
  - Make sure that all alternatives meet the Vision, Purpose and Need
  - Vision – easily accessible; reliable; multimodal; well integrated and well connected; foster existing businesses; beautiful and vibrant; unique; prioritize and encourage active transportation; safe and comfortable
  - Is the Vision missing anything?
    - Think about speed and efficiency- captured in data but not here
    - Parking- such as park-n-ride
    - How does diverting traffic off of West Elizabeth onto Mulberry and Prospect fit into this?
      - The city would need to provide signals from side streets (e.g., Constitution and Prospect) to provide access to alternative routes
    - What is the difference between 'prioritize' for transit and 'emphasize' for biking and walking and what are the implications?
  - Purpose (how are we going to meet the Vision) – Support anticipated growth to meet travel demands; foster economic vitality; remain fiscally responsible; increase transit capacity, reliability and stop amenities; improve transit connectivity (limit transfers); improve biking and walking infrastructure; maintain vehicular mobility; improve interconnectivity of modes
  - Are there any purposes that aren't identified?
    - What plans does CSU have to connect modes between the CSU Main and Foothills Campus?
      - Assume there won't be a lot of activity between campuses
  - Need (the data supporting what is needed in the corridor) – Growth is expected; transit service is inadequate; pedestrian and bike facilities are unsafe, incomplete and uncomfortable; vehicular mobility, safety and access is concerning; there is a lack of interconnectivity of modes
- Evaluation Criteria – metrics by which we will score proposed alternatives
- Discrete Options Activity – ideas for things you'd like to see considered on the corridor
- Next steps
  - Finalize Vision, Purpose, and Need
  - Rate alternatives based on criteria and bundle various discrete options

Alternatives Brainstorming Activity Results

	Cross Section Option
People Driving	3 travel lanes (example provided)
	On-street parallel parking (example provided)
	One way (Between Shields and City Park)
	2 lanes with median and turn pockets
	Reversible lane during peak periods
	Split phase (Plum/Shields)
	Make on-street parking consistent/better marked
	Striping for turns (Shields/Elizabeth)
	Roundabout/traffic circles (Skyline, City Park, Timber, Azuro)
	Parking structures (park and ride, shared parking, off street lots)
People Taking Transit	Bus Rapid Transit (example provided)
	Mixed traffic bus (example provided)
	One seat ride to MAX/ downtown
	Trolley
	Bus pullouts
	Bus stop amenities
	More connectivity
	Higher frequency
	More consistent headways
	Route that goes straight down Elizabeth (bypasses Plum)
	Service that only goes down Plum
	Center bus lane
	Bus only lanes during peak hour (HOV lanes)
People Biking	Buffered bike lane (example provided)
	Protected bike lane (one way) (example provided)
	Close street to vehicles between Shields and City Park
	Bike share
	Consistent/wider bike lanes
	Grade separated bike lane
	Single pour concrete bike lane and gutter
People Walking	Detached sidewalks with tree lawn (example provided)
	More north/south pedestrian crossings
	Curvy, detached sidewalk that might be shared with bikes
	Urban feel, amenities
	Plazas/ social spaces
Shields Street	Crossing improvements
	Raised bike lane
	Underpass at Shields and Elizabeth
Corridor Identity and Beautification	Street trees (example provided)
	Pedestrian-scale lighting
	Character-specific treatments and signs
	Wayfinding
	Planted median
Other	Education regarding use of center turn lane
	Residential driveway solutions
	Address speeding (west segment)
	Traffic signal to help move traffic off Elizabeth to Prospect via Constitution
	Speed bumps

Group 1 (Emma Belmont facilitator)

- ***Vehicular***
  - One lane each direction with medians limiting turns
  - No on-street parking
- ***Transit***
  - Bus stop amenities
  - Connectivity to regional routes
  - Mixed traffic bus
  - Transit only lanes during peak hours
  - Center boarding transit
- ***Biking***
  - Cycle track
  - Don't count gutter as width of bike facility
  - Single pour concrete gutter and bike lane
  - Wider bike lanes so bikes can pass each other
- ***Pedestrian***
  - More social spaces
  - Campus West version of Downtown—mini plazas
  - Curvy sidewalks that are shared bike/pedestrian space

Group 2 (Rachel Prelog facilitator)

- ***Vehicular***
  - Parking structure—either Park-n-Ride at Foothills campus or at the church (shared parking)
  - Roundabout—Skyline Drive or City Park Avenue
  - Median like the one currently present but reconfigured to be more efficient and provide better access
- ***Transit***
  - Bus pull out at stops
  - Reconfigure route to have shorter more frequent routes—one on Plum Street and one on West Elizabeth
- ***Biking***
  - Buffered bike lanes as opposed to protected bike lanes so bikes can pass one another
  - Close street completely to vehicular traffic
- ***Pedestrian***
  - Detached sidewalks
- ***Shields***
  - Underpass at Shields Street and West Elizabeth
- ***Corridor identification***
  - Well planted medians
  - Enhanced lighting (with character)
  - Wayfinding
  - Public art

Group 3 (Amy Lewin facilitator)

- ***Vehicular***
  - One-way segment on West Elizabeth between City Park Avenue and Shields Street
  - Reversible lane to help with peak hour traffic
  - Education on the center turn lane
  - Address residential driveways and access
  - Traffic circle on Constitution Avenue or Timberline/Azuro
  - Clarify right turning vehicle and pedestrian conflicts
- ***Transit***
  - More consistent headways
  - One seat ride between West Elizabeth and MAX or downtown
  - Park-n-Ride for transit
- ***Biking***
  - Explore buffered bike lanes and protected bike lanes
- ***Pedestrian***
  - Lighting
- ***Other***
  - Parking impacts on the neighborhoods
  - Traffic calming – anything to slow vehicles

Other Questions

- How many vehicles are just passing through versus going to destinations on the corridor?
  - We are working on trying to get that data.
- Do you have boarding data west of Constitution Avenue?
  - Yes, that data is in our Corridor Understanding Report but for the sake of the infographic it wasn't highlighted.
- What is the capacity on standard Transfort bus?
  - Roughly 65 people, standing
- Collisions for Plum and Laurel area?
- Are the pedestrian related collisions at intersections or segments?
  - Both
- Do you have night time multimodal data? It's busy then also.
  - Bike and pedestrian counts are only obtained during the day time
- Do you have data capturing delay caused by people trying to make left turns into a business?
  - Bluetooth data doesn't capture this but it's important anecdotal evidence
- In the infographic are the collisions circles subsets of each other?
  - No, we will consider revising the infographic to make that clear.