

OPEN HOUSE

Welcome to the **Columbia-Lombard Mobility Corridor Plan** Open House

The **Portland Bureau of Transportation** has spent the last year looking for ways to make the **Columbia and Lombard** corridors **safer and more accessible** to more people.

Welcome! Feel free to take your time, ask questions, browse our posters, and engage with planners at your own pace.

TONIGHT, YOU'LL BE ABLE TO

- **Learn about the Columbia-Lombard Mobility Plan Project**
- **Learn about the transportation issues** in the corridor and ideas about how to address them
- **Share feedback, concerns, or ideas for project refinement** with PBOT planners.

1 COLUMBIA-LOMBARD OVERVIEW

PROJECT GOAL

Develop projects and strategies to **improve safety, connectivity/access for people walking and biking, and freight reliability** both along and across these corridors.

PLAN OUTCOMES

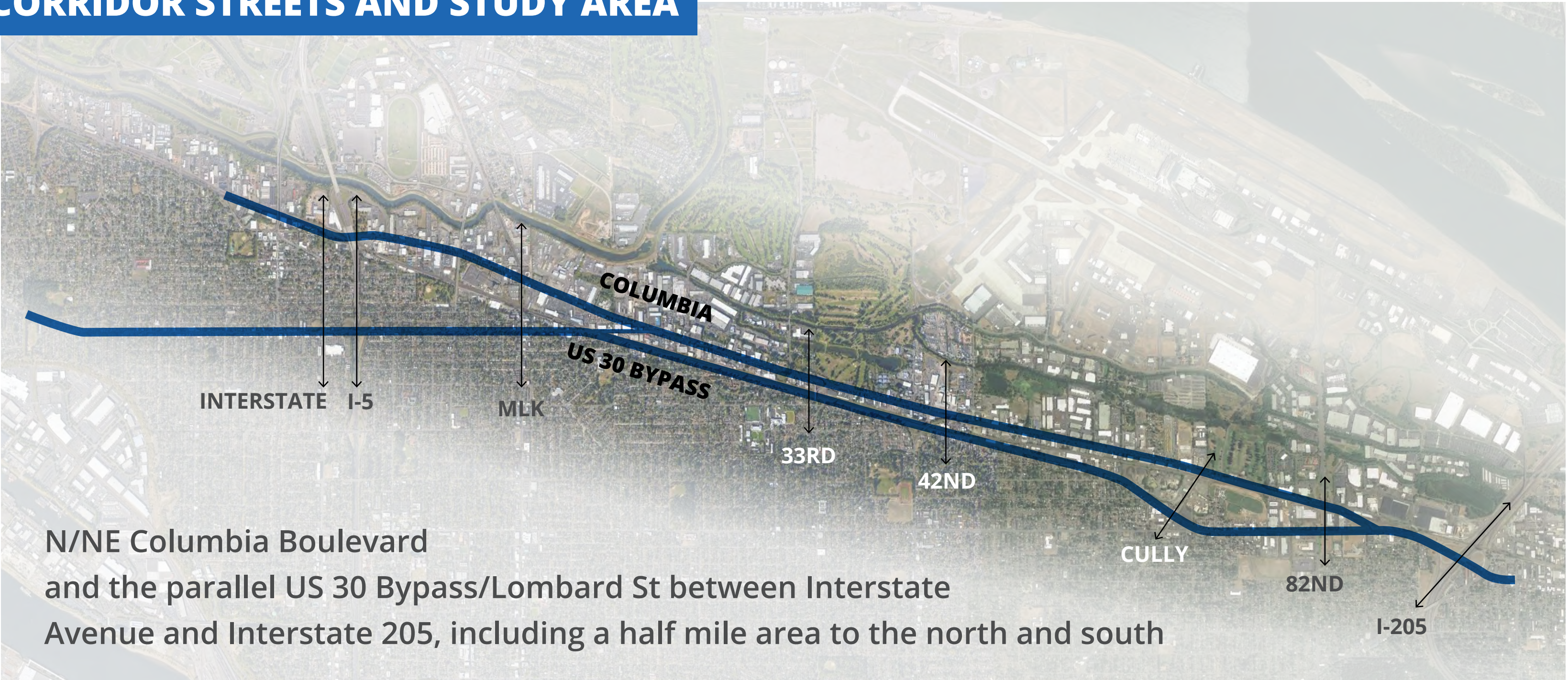
A prioritized list

of walking, biking, transit, and freight projects to guide future investment

Some complex projects taken further into design for a **better understanding of cost and feasibility**

An implementation plan and funding strategy to accelerate the construction of improvements

CORRIDOR STREETS AND STUDY AREA



PROJECT NEED



Unsafe conditions
due to a lack of separation between modes, high travel speeds, and a confusing, chaotic environment



Limited access
due to gaps in the pedestrian, bike, and transit networks, including crossing gaps and connections



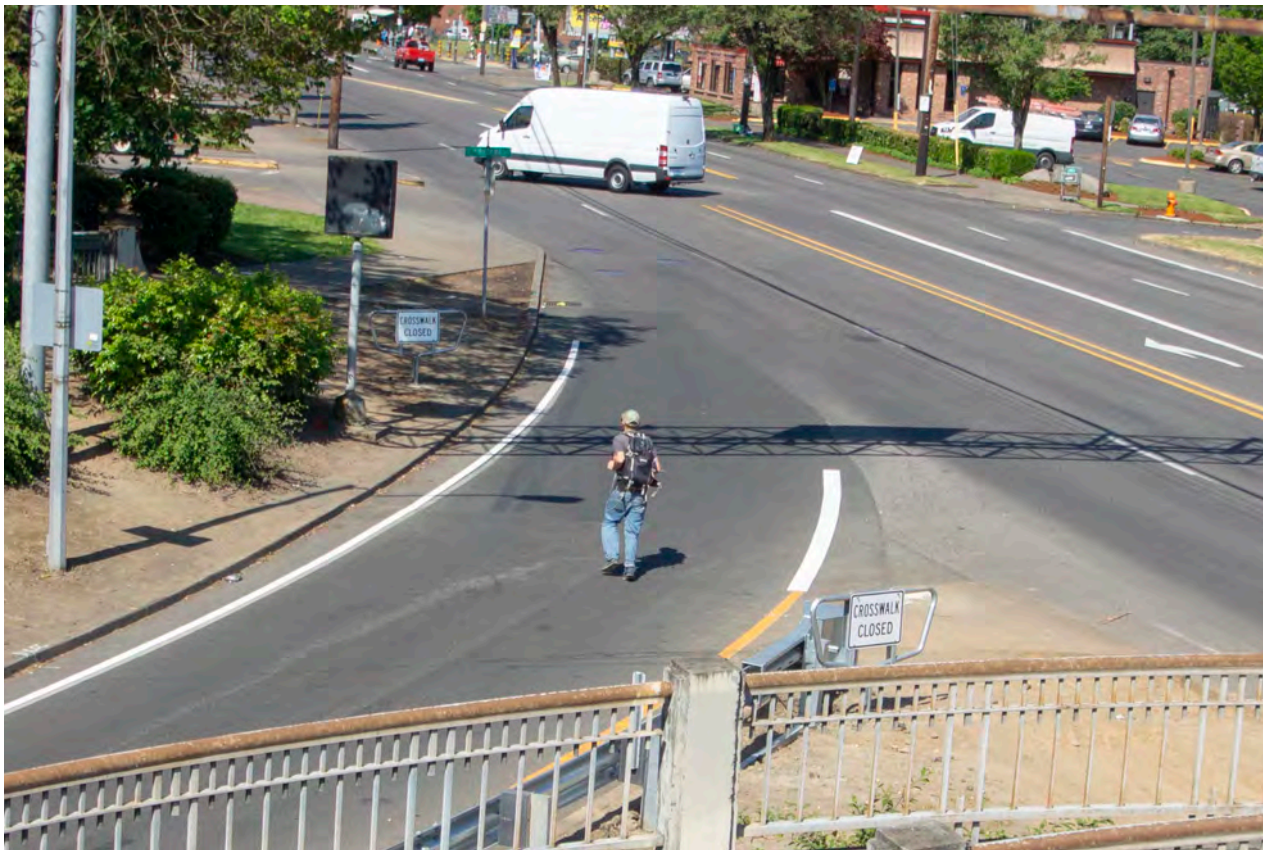
Constraints to freight
mobility and access due to at-grade railroad crossings, substandard overcrossings, and increased congestion



Unclear priorities
and uncertainty about how future projects should be prioritized and what they cost

WHAT WE'VE HEARD

GENERAL THEMES



Need for **better safety** on the corridor

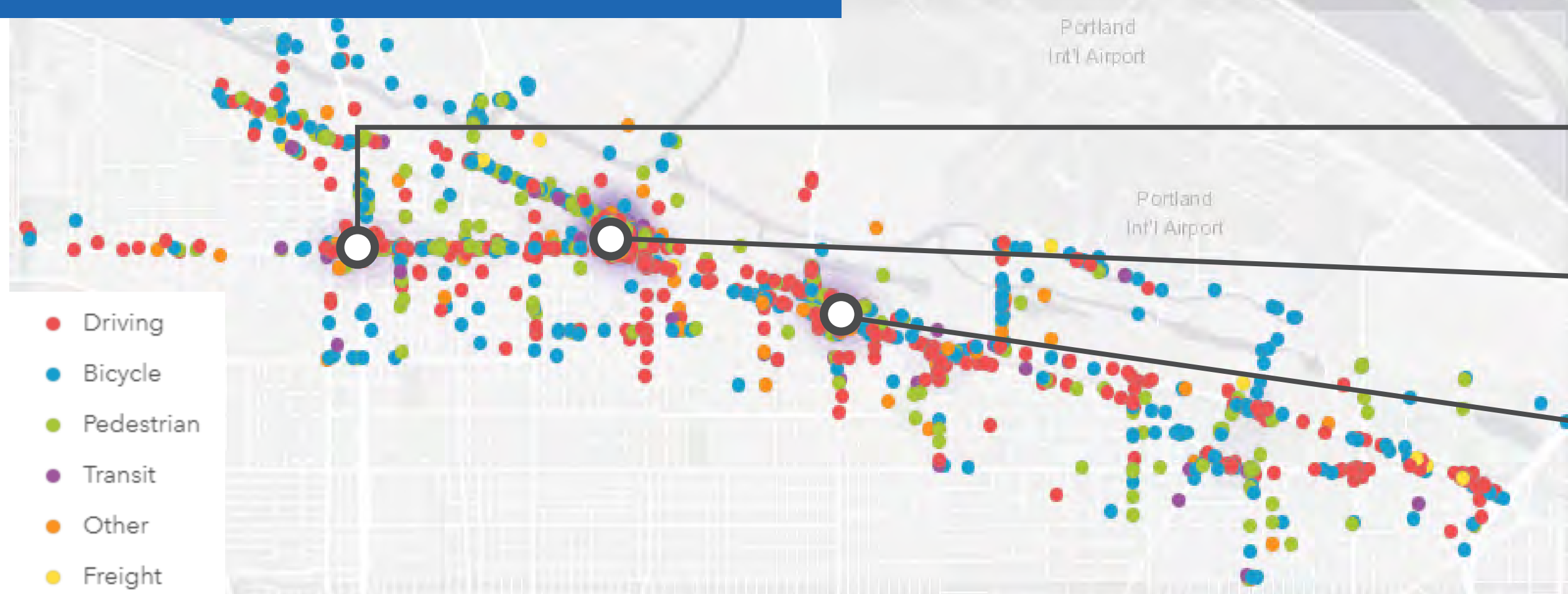


Improved conditions for those traveling by bicycle, walking, or transit



A **clearer separation** of travel modes

LOCATION OF SURVEY COMMENTS



MOST COMMENTED LOCATIONS

- Lombard between I-5 and Interstate
- NE 11th Avenue & Columbia/Lombard
- NE 33rd Avenue interchange

PUBLIC INVOLVEMENT MILESTONES

Community Advisory Committee established - comprised of business interests, neighbors and community advocates - that meets regularly

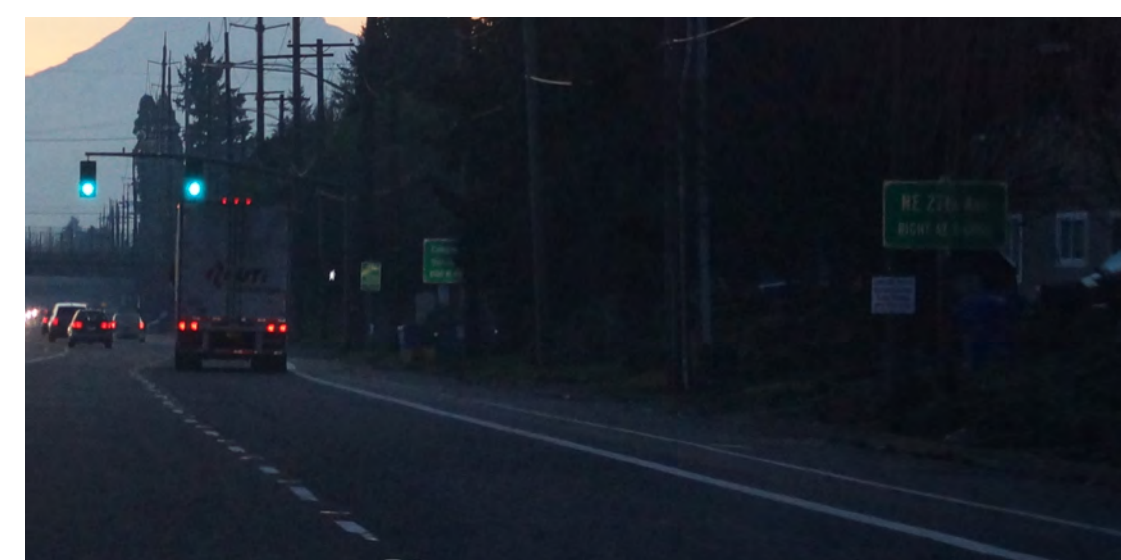
Door-to-door canvassing at residences and businesses
May 2019

Online survey with 750 respondents and 1,500 comments
May/June 2019

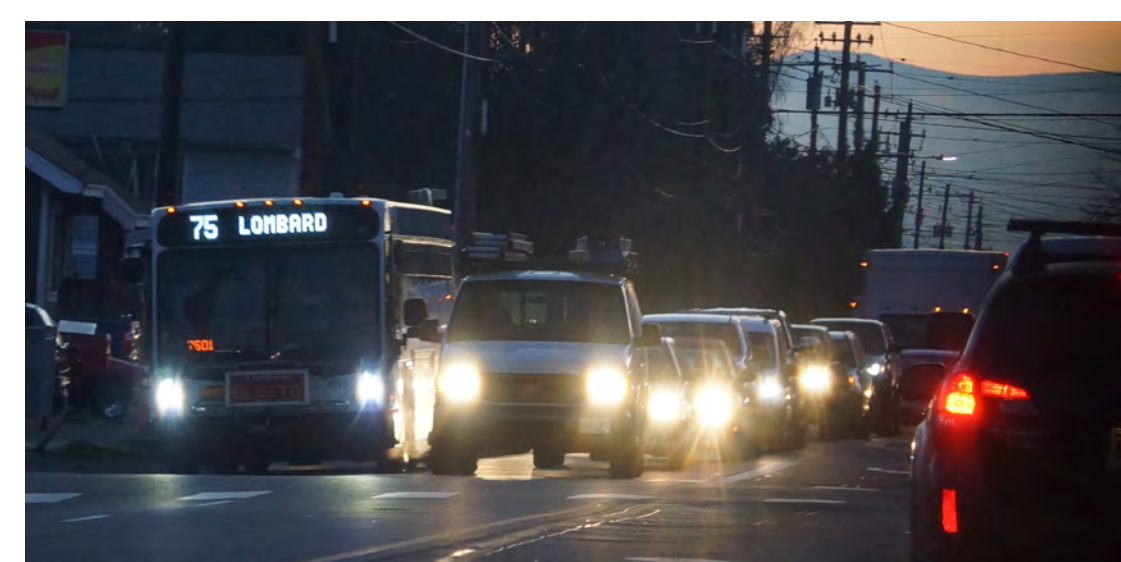
Tabling and presentations at community meetings and events
May - August 2019

Open house!
Today

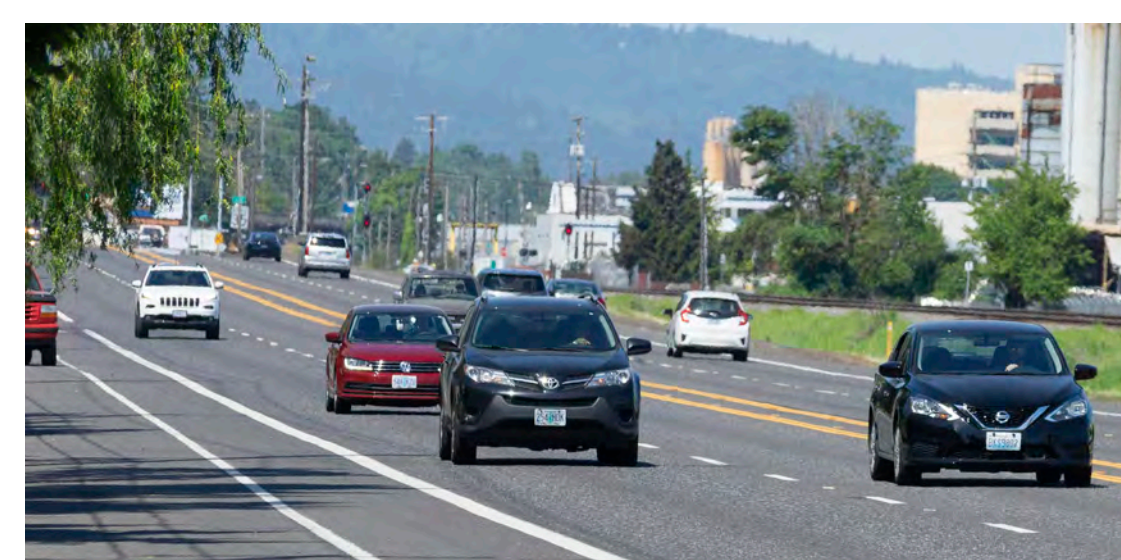
MOST COMMON REQUESTS



Improve lighting



Improve transit service

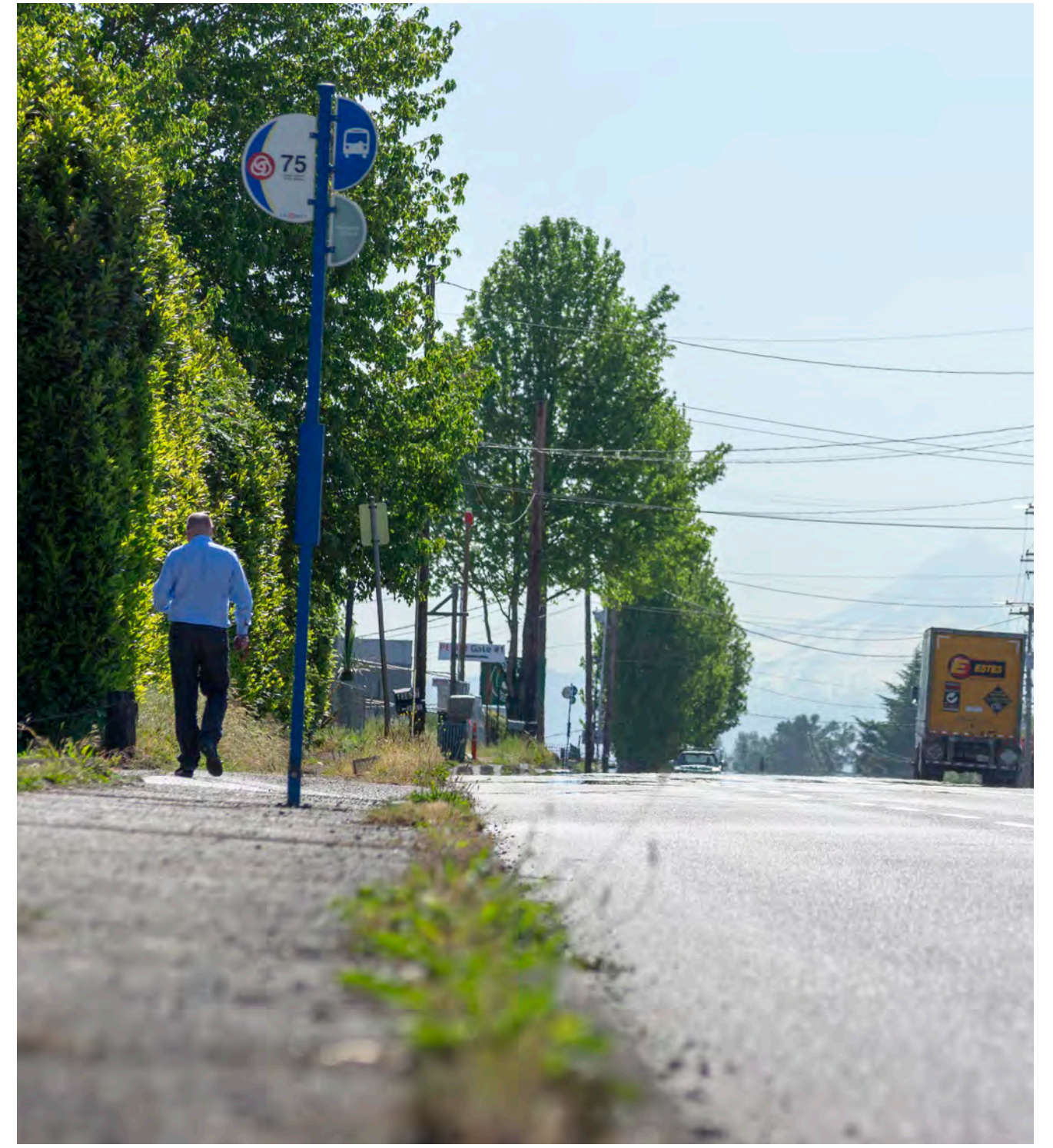


Slow speeds



Build/improve sidewalks

3 WHAT WE'VE LEARNED



GENERAL FINDINGS

Safety overview

- **10 people died** on this stretch of Columbia and Lombard and **27 were seriously injured** (between 2012 and 2016)
- The most frequent crash types were **rear-end collisions** and **collisions during turning movements**

Freight overview

- Columbia and Lombard are **important routes for freight**, serving over 140 businesses and providing access to PDX and regional distribution centers
- **Trucks make up 20% of traffic** on Columbia and 10% of traffic on Lombard
- **Unreliability from non-recurring congestion** impacts freight efficiency with high economic costs

Pedestrian and bike overview

- **Demand is highest along Lombard St** toward the west end of the study area
- There is **significant demand to travel across the corridors** to access jobs, services, and recreational opportunities
- The pedestrian and bicycle networks are **disconnected and uncomfortable**

IDENTIFIED NEEDS

Safety needs

- **Creating greater separation between travel modes**
- Providing **more crossing opportunities** and signalized intersections
- Managing **excessive speeds**
- **Limiting turn conflicts** at unsignalized intersections with side streets and driveways

Freight needs

- **Addressing height constraints** at I-5 and NE 60th Ave to allow Columbia Blvd to serve as the over-dimensional freight route
- **Separating travel modes** without impeding freight
- Improving **reliability**, especially trips to and from PDX
- **Finding solutions for unsafe loading** and unloading happening in the roadway

Pedestrian and bicyclist needs

- More **frequent, higher quality crossings** of the corridor
- Sidewalks to **close gaps in the pedestrian network**
- **Low-stress bike facilities** that are part of a connected, intuitive network
- **Less conflicts and predictability** between those walking/biking and other travel modes



PROJECT APPROACH AND DEVELOPMENT

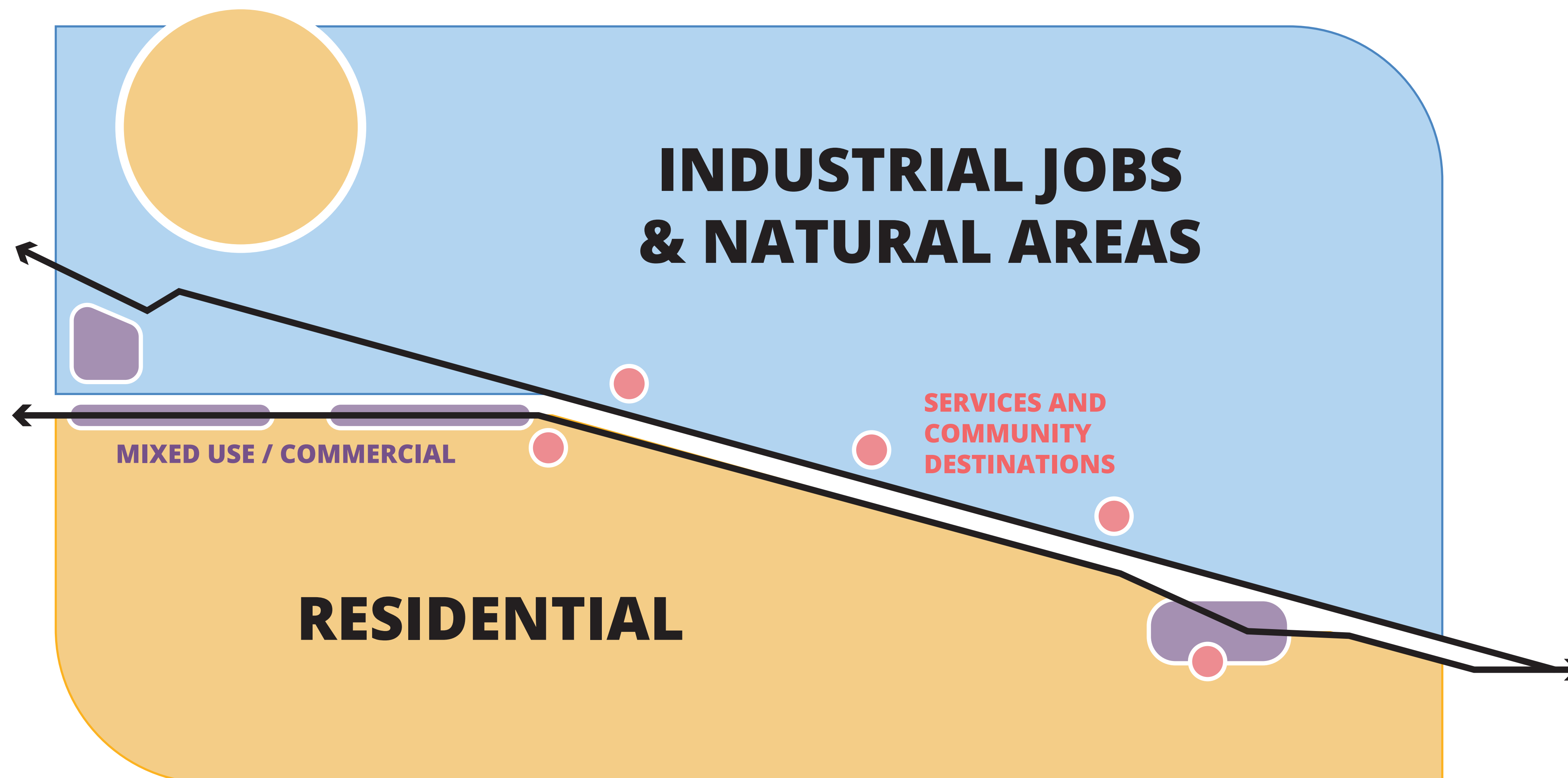
The Columbia corridor serves as the spine of one of the state's key industrial areas, and is critical for freight pick-up and delivery. **Reliable, predictable travel times are important** to keep this corridor and region economically competitive. However, there are also **several key community institutions** along the street, like the Oregon Humane Society and NAYA.

The Lombard corridor (designated as U.S. Highway 30 Bypass route) serves as a **parallel east-west route** between St. Johns and Troutdale. The western end and sections of Killingsworth (Cully-82nd) are residential and/or mixed use with destinations close to the street. The mid-section of the corridor is bounded by residential neighborhoods to the south and the railroad to the north.

General project recommendations

- **Improve north-south connectivity**, specifically for those walking and biking, to access jobs and recreation opportunities
- **Manage speeds and improve reliability** using speed cameras and feedback signs, variable message signs, and additional traffic signals
- **Fill pedestrian sidewalk and crossing gaps**
- Provide **low-stress east-west bicycle routes**
- **Improve predictability**

CORRIDOR CONCEPTUAL MAP



The Columbia and Lombard corridors being studied cover almost **6 miles with a variety of land use and activity contexts**.

To address the unique characteristics, **the project recommendations have been broken up into six different corridor segments**. Additionally, there are stations with recommendations specific to improving conditions for people **walking and biking**, and for **freight movement**.

At each station, we want to know if the recommendations address the needs for the corridor and whether anything is missing.

FUNDED PROJECTS

There are many projects in the area that have funding and will be built soon. Highlights include:

- A redesigned crossing of Lombard St connecting NE 42nd and NE 47th Avenues
- A redesign of N Lombard St between Woolsey and Delaware Ave

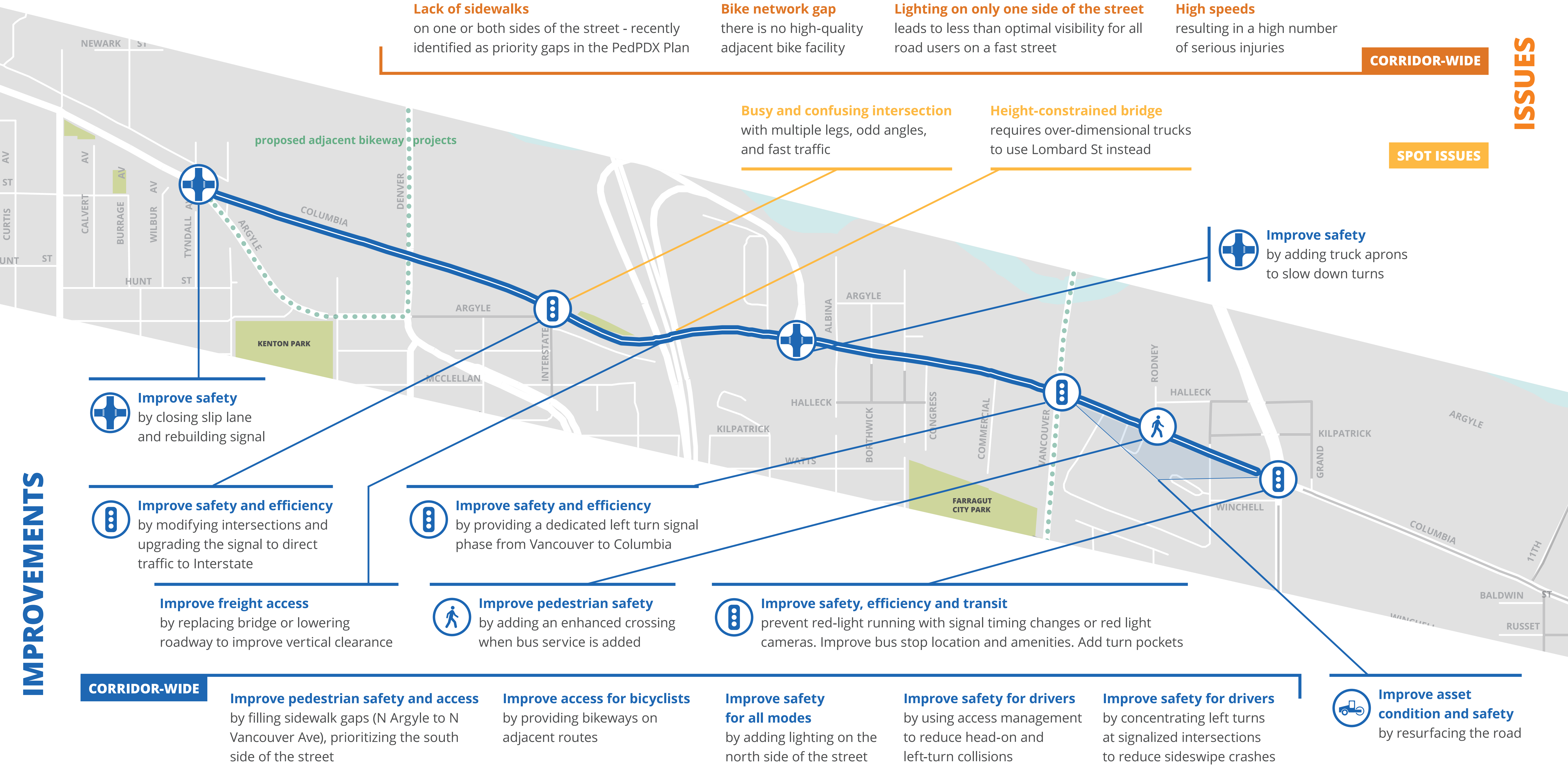


- Resurfacing parts of Columbia Blvd and 33rd Ave
- One new segment of the Columbia Slough Multiuse Trail
- Series of Neighborhood Greenways in Cully Neighborhood
- A reconstructed NE 47th Avenue that includes sidewalks and protected bike lanes

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COLUMBIA N ARGYLE to MLK BLVD

GOAL Reduce the high rate of serious crashes for people driving, provide comfortable pedestrian and bicycle routes, and ensure freight can move safely and efficiently in this multi-functional area



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LOMBARD N DELAWARE AVE to NE 11TH AVE

GOAL Address high crash rates in this busy, mixed use area

ISSUES

CORRIDOR-WIDE

High number of Vision Zero crashes
involving bicycles and pedestrians, including a fatal crash at N
Peninsular and serious crashes at Delaware, Denver, and Interstate

Lack of dedicated left turn lanes
on Lombard can cause unexpected back-ups

Long distances between safe pedestrian crossings
Many driveways and conflict points

SPOT ISSUES

N Interstate & Lombard
Heavy congestion and conflicts
between different road users

Fred Meyer, Freeway ramps
Lack of sidewalks, multiple driveways and
slip ramps leads to confusion and conflict

IMPROVEMENTS

Improve bicycle and pedestrian safety
by extending the road diet and bike
lanes from Delaware to Denver Ave or
the Fenwick-Concord Greenway.

Improve safety
by providing a bus bay on the
south side of Lombard. Add a
Leading Pedestrian Interval and
restrict right on red lights.

Improve safety
by adding left turn lanes
and adding Leading
Pedestrian Intervals

Improve crossing safety
by adding signals or
enhanced crossings.
(several locations)

Rebuild signal
to improve clarity and
safety
(several locations)

Improve safety and efficiency
by upgrading the existing signal with
protected left turns in all directions
and a slip lane redesign. Move bus
stop to far side.

Improve crossing safety and conflict
(short-term) Provide an at grade accessible pedestrian crossing of southbound I-5 ramp.
(Long-term) Add sidewalks on north side of overpass with enhanced crossings of I-5
ramps. Exploring the conversion of the cloverleaf highway ramps to a more pedestrian
friendly design with signalized intersections.

Improve safety
by addressing confusing railroad crossing

CORRIDOR-WIDE

Improve comfort and asset condition
by improving pavement condition



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COLUMBIA MLK BLVD to NE 60TH AVE

GOAL improve multimodal access to key destinations while maintaining reliable freight service

- Gaps in sidewalk network**
means reduced and safety access for pedestrians
- Lack of pedestrian crossing opportunities**
results in diminished access and safety for pedestrians on the corridor
- Lack of north-south connectivity**
means everyone has to travel far to cross the corridor, which disadvantages people walking and biking and forces all users on just a few crossings, creating potentially dangerous modal conflicts

CORRIDOR-WIDE

SPOT ISSUES

ISSUES


Lack of transit service (MLK - 21st Ave)
means a subset of destinations on the corridor are inaccessible to people who rely on transit

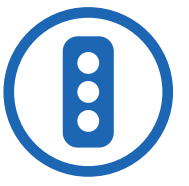
Confusing intersections
with odd angles and no signals to clarify things

High rate of dangerous crashes
at merge points with many recorded serious/fatal and sideswipe crashes


IMPROVEMENTS


- **Improve safety**
by addressing confusing railroad crossing
- **Improve safety and accessibility**
by adding a signal and adding a safe biking and walking route to cross the corridors

**Improve driver safety**
by reconfiguring intersection to compensate for odd angles

**Improve safety**
by upgrading signal to modern standards

Improve safety, access, mobility, and wayfinding for all modes
by redesigning the ramps, interchange, and surrounding intersections at NE 33rd Ave

**Improve pedestrian access**
to NAYA by adding an elevated crossing over the corridor

**Improve safety**
by upgrading signal

- CORRIDOR-WIDE**

Improve pedestrian safety and access
by filling sidewalk gaps, improving the condition of current sidewalks, and providing crossings at 1/4 mile intervals

Improve pedestrian safety
by adding lighting on the north side of the street

Improve transit accessibility
by expanding Line 11 service on Columbia as identified by TriMet. Co-locate bus stops and new enhanced crossings throughout corridor to provide consistent crossing spacing

Improve safety for drivers
by using access management to reduce head-on and left-turn collisions

Improve safety for drivers
by concentrating left turns at signalized intersections to reduce sideswipe crashes

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LOMBARD NE 11TH AVE to CULLY BLVD

GOAL Reduce serious and fatal crashes resulting from high-speeds and entering/exiting the corridor

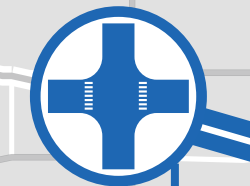
- High motor vehicle speeds
creating the potential for
more serious crashes
- Limited sight distance at
unsignalized intersections
leads to having to make turns
on and off of Lombard under
risky circumstances
- High rate of head-on and
left turn crashes
as a result of lack of separation between
drivers in opposite directions and high
numbers of unsignalized intersections
- Lack of physical
protection for bike lanes
combined with high-speed traffic
makes for an uncomfortable
biking experience

CORRIDOR-WIDE

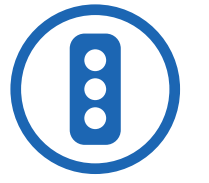
ISSUES

SPOT ISSUES

IMPROVEMENTS



Improve safety
by reconfiguring intersection
to compensate for odd angles



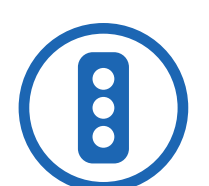
Improve safety
by upgrading signal
to modern standards



Improve safety and wayfinding
by reconfiguring 33rd Ave
interchange and surrounding
intersections



Improve safety and wayfinding
by reconfiguring 42nd Ave
ramps and nearby intersections



Improve safety
by upgrading signal
to modern standards

CORRIDOR-WIDE

- Improve safety for bicyclists
by adding separation to existing bike lanes to
increase the distance between bicyclists and fast-
moving traffic. Add green conflict striping through
intersections.
- Improve safety for all users
by adding lighting to
meet current guidelines
for safe lighting levels
- Improve safety for drivers
by improving geometry
of angled intersections
with local streets
- Improve safety for drivers
by concentrating left turns
at signalized intersections
to reduce sideswipe crashes
- Improve safety for drivers
by using access
management to reduce
head-on and
left-turn collisions
- Improve safety and asset
management
by addressing the identified
paving needs between MLK
and Ne 60th Ave

COLUMBIA NE 60TH AVE *to* KILLINGSWORTH

GOAL Improve bicycle and pedestrian connectivity, pedestrian safety/comfort, and travel time predictability as the road moves through the Cully neighborhood

Lack of lighting on south end of corridor
creates lower levels of visibility on a high crash corridor

Lack of sidewalks on south side of corridor
Sidewalk gaps on the north side of the corridor

Congestion east of NE 60th
Roadway narrows from two lanes eastbound to one

Lack of east-west low stress bicycle route

CORRIDOR-WIDE

SPOT ISSUES

ISSUES

Congested intersections

Offset streets and poor bicycle and pedestrian crossing opportunities

Improve safety
by upgrading signal to modern standards (multiple locations)

(Funded) Improve safety
by building new signals to clarify and coordinate traffic movements while restriping the street to expand intersection capacity

Improve freight reliability
through Intelligent Transportation Systems and restriping street to increase capacity

CORRIDOR-WIDE

Improve driver safety

by using access management to prevent head-on and left-turn collisions

Improve driver safety

by concentrating left turns at signalized intersections

Improve driver safety

by improving safety features at signalized intersections

Improve safety for all

by adding lighting to meet current guidelines

Improve safety and access to transit

by adding enhanced crossings at new bus stops if bus service is added in this segment

PORTLAND HWY CULLY BLVD to I-205

GOAL Improve pedestrian safety and crossing opportunities while improving safety and predictability for people driving and biking

High motor vehicle speeds

creating the potential for more serious crashes

Traffic congestion

in the eastbound direction due to backups on I-205

Bicycle network gaps

many places where there are no bicycle lanes or the existing facilities are substandard

CORRIDOR-WIDE

ISSUES

SPOT ISSUES

Traffic congestion

approaching the intersection of Killingsworth and Portland Hwy

Poor road conditions

near Killingsworth and 82nd Ave

IMPROVEMENTS

Improve safety

by constructing new or upgraded signals to manage heavy turning conflicts and pedestrians crossing a wide street

Improve pavement condition

Improve safety and accessibility

by improving the signal, bike lane width, and ramp access points

Improve bicycle safety

by including green conflict striping at intersections in this stretch

Improve bicycle safety

by realigning I-205 northbound offramp to address bike lane conflict point

Improve safety and accessibility

by improving the I-205 path connection across Killingsworth

CORRIDOR-WIDE

Improve safety for drivers

by using access management to reduce head-on and left-turn collisions

Improve safety for all users

by adding lighting to meet current guidelines for safe lighting levels

Improve safety for bicyclists

by improving the comfort and separation from traffic of existing bike lanes

Improve safety for drivers

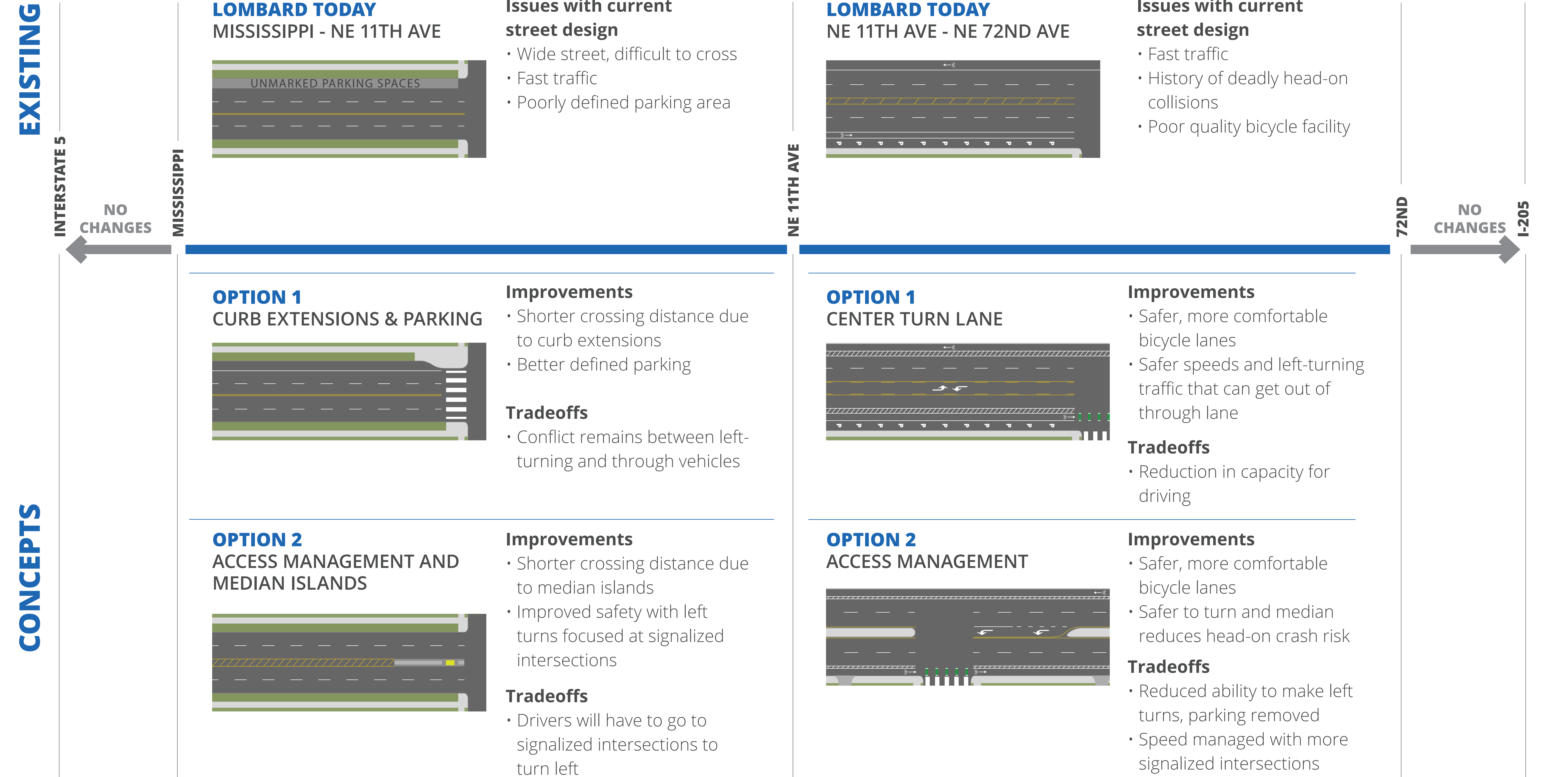
by concentrating left turns at signalized intersections to reduce sideswipe crashes

Improve safety for all

by making all signals in the corridor safer

12a

LOMBARD CROSS SECTION OPTIONS



12b

COLUMBIA CROSS SECTION OPTIONS

In addition to making spot improvements, we have the opportunity to rethink how the lanes are organized along Columbia Blvd to help the corridor work safely and more efficiently

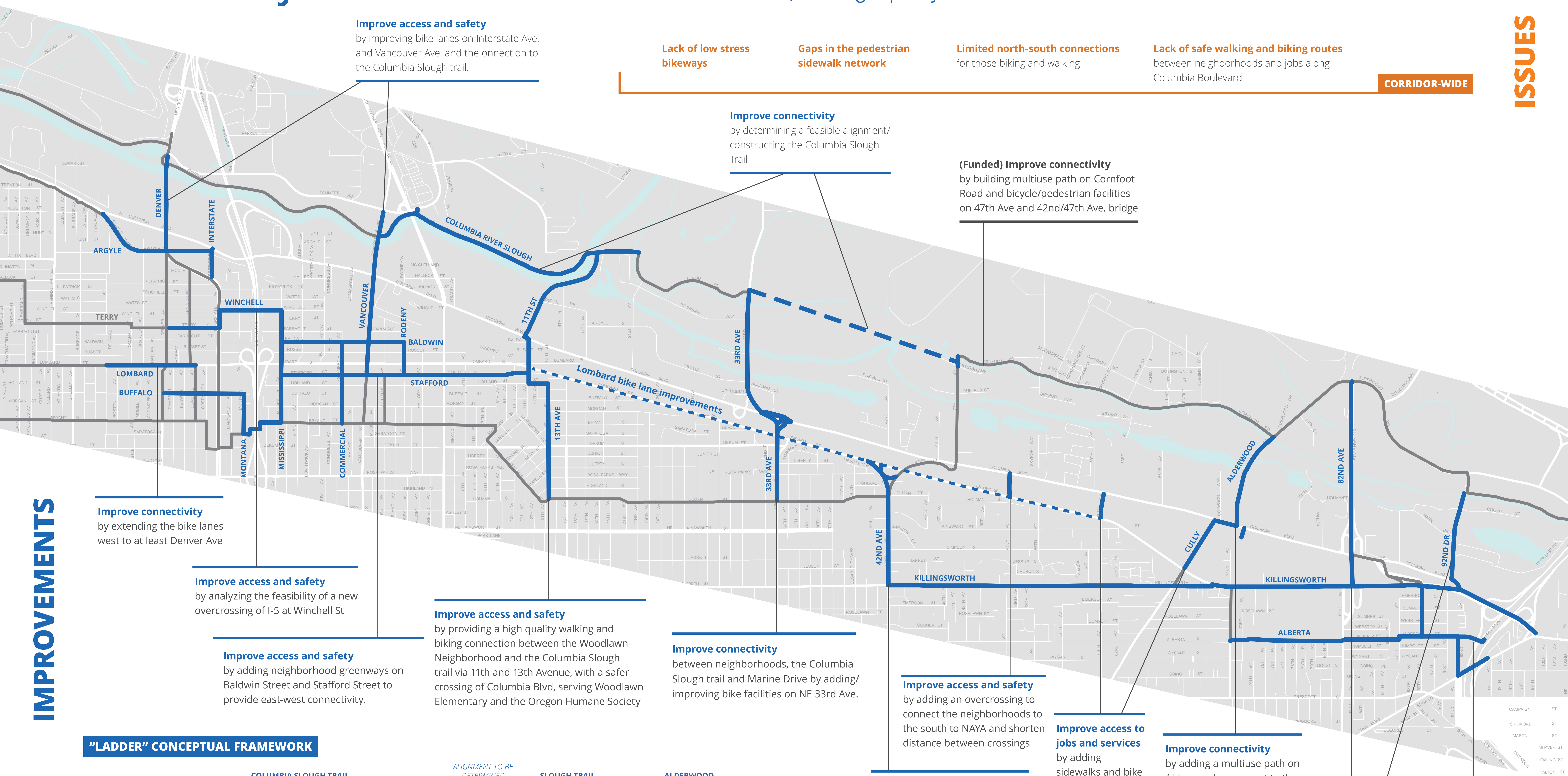
EXISTING

CONCEPTS

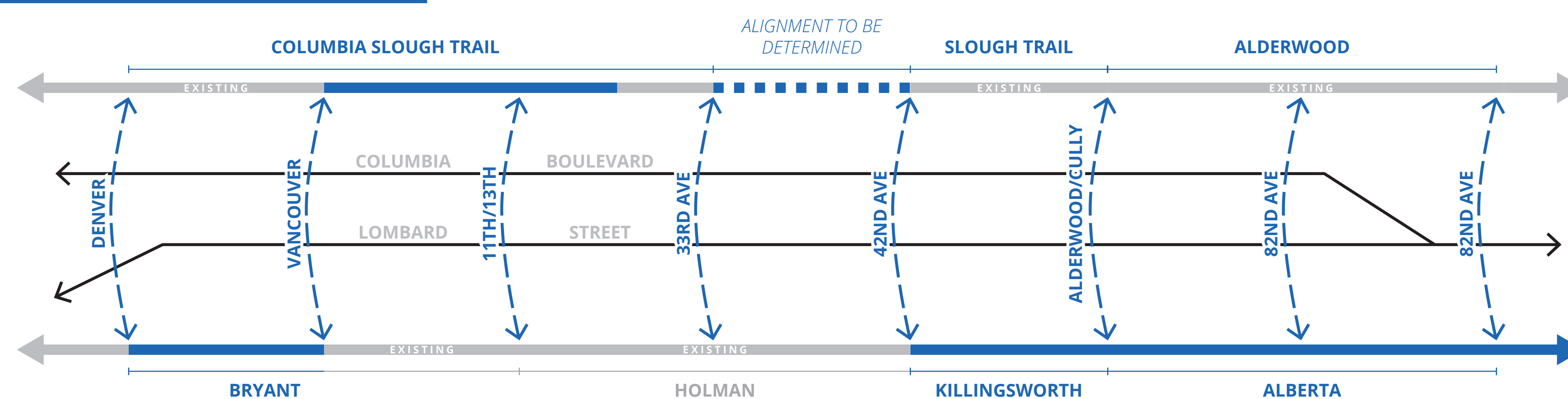


BUILDING THE LADDER ACCESS TO JOBS AND RECREATION

Providing a connected system of low-stress bikeways and paths to the north and south of the corridors, with high-quality north to south connections between them



"LADDER" CONCEPTUAL FRAMEWORK



IMPROVING FREIGHT MOBILITY, RELIABILITY, AND ACCESS

What are Intelligent Transportation Systems?

Intelligent Transportation Systems (ITS) are a suite of cameras, smart signals, sensors, and messaging boards that work together to improve travel time and freight reliability, maximizing the use of the roads we have today. One example of ITS we are exploring on the corridor is called **truck signal priority**: smart traffic signals detect a truck approaching the intersection and can **hold the light green light a few seconds longer to help the truck get through the intersection.**

ISSUES

IMPROVEMENTS

Remove over-dimensional pinch point

by raising UPRR bridge or lowering roadway to provide sufficient vertical clearance

Improve freight district circulation

by fixing pavement, curbs, sidewalks, and stormwater systems

Improve traffic flow, efficiency, and wayfinding

by adding Variable Message Signs, bluetooth readers, traffic cameras, dilemma zone detection, freight signal priority, transit signal priority, and other improvements

Improve safety and wayfinding

by redesigning interchange at NE 33rd Ave

Improve asset management

by repaving Cornfoot Road

Improve reliability, reduce idling, and improve safety

by redesigning Columbia Blvd

Improve safety and efficiency

Add turn pockets to improve traffic flow. Prevent red-light running with signal timing changes or red light cameras.

Vertical clearance too low for over-dimensional freight requiring over-dimensional vehicles to use Lombard St to travel through the area

Poor pavement quality on local freight district streets

Congested intersections

Congested stretch of roadway

PEDESTRIAN NEEDS

SIDEWALK GAPS AND ACCESS TO TRANSIT

PedPDX Pedestrian Master Plan sidewalk gap top priorities

Fill sidewalk gaps and explore opportunities for improved crossings and lighting, specifically near transit stop locations



There are many places along Columbia and Lombard where sidewalks on one or both sides do not exist. Even where there are sidewalks, they are often in poor or unmaintained condition.

Improve north-south connections across the corridors

Construct multiuse path along NE 82nd Avenue

Build sidewalks on both sides of the street and improve crossings of the highway on-ramps

Fill sidewalk gaps at high-priority locations and explore opportunities for improved crossings and lighting

Sidewalk infill, curb extensions, and pedestrian crossings

Sidewalk infill project - construction estimated to begin summer 2020

Map legend

- NEW
- EXISTING OR FUTURE
- Signal
- Pedestrian crossing
- PedPDX priority sidewalk gap
- Bus stop

COLUMBIA LOMBARD PLAN TIMELINE

- **Open house (Today)**
Share initial project concepts with community members and gather feedback on changes and priorities
- **Refine project proposals (Spring 2020)**
Make changes based on community feedback
- **Prioritize and bundle projects (Spring 2020)**
Package projects together to be competitive to receive funding using community feedback
- **Develop draft Columbia Lombard Plan (Summer 2020)**
Including findings from planning effort and project implementation plan
- **City Council Plan adoption (Fall 2020)**

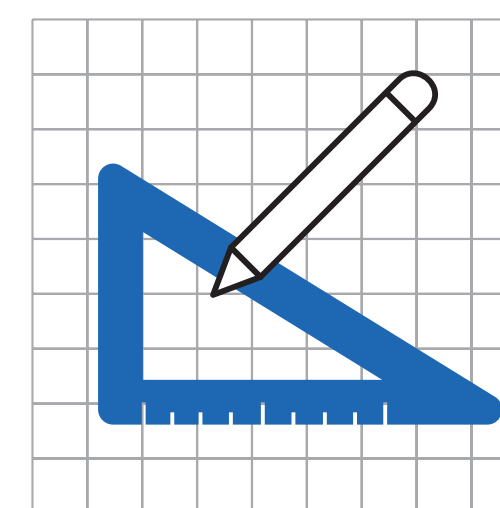
THE TYPICAL LIFE OF A PROJECT

**Conception of a project - Timeline: 1-2 years**

A need is identified and a project idea is generated to address the need. The current Columbia Lombard Mobility Corridor planning process is working to develop and prioritize these projects and identify potential funding sources.

**Secure funding for project - Timeline: 1-20 years**

Depending on the size, complexity, and cost of a project finding funding can take an uncertain amount of time. Generally, the more expensive the project, the longer finding funding for it takes. Money can come through grants, System Development Charges, gas taxes, and other federal, state and local sources.

**Development and design project - Timeline: 1-2 years**

Depending on the complexity of the project and how developed the project design was before it received funding, this can be a short or more extended phase of the life of a project

**Project construction - Timeline: 1-2 years**

Most projects can be built within 1 to 2 years, depending on their scale and complexity

WHAT SHOULD OUR PRIORITIES BE?

The next phase of the planning process will bundle and prioritize projects, then develop a funding and implementation plan. The projects will be evaluated and prioritized based on how they will improve safety, access, and connectivity, and address the overall goals of advancing equity and reducing carbon emissions. Funding and feasibility, as well as public support, will also be considered as projects are grouped and prioritized.

In general, which corridor-wide issues do you think are most important to address? Please choose three (3).

INCREASING STREET LIGHTING



MANAGING SPEED



IMPROVING BIKE NETWORK



FILLING SIDEWALK GAPS



MANAGING ACCESS FROM MINOR STREETS/DRIVEWAYS



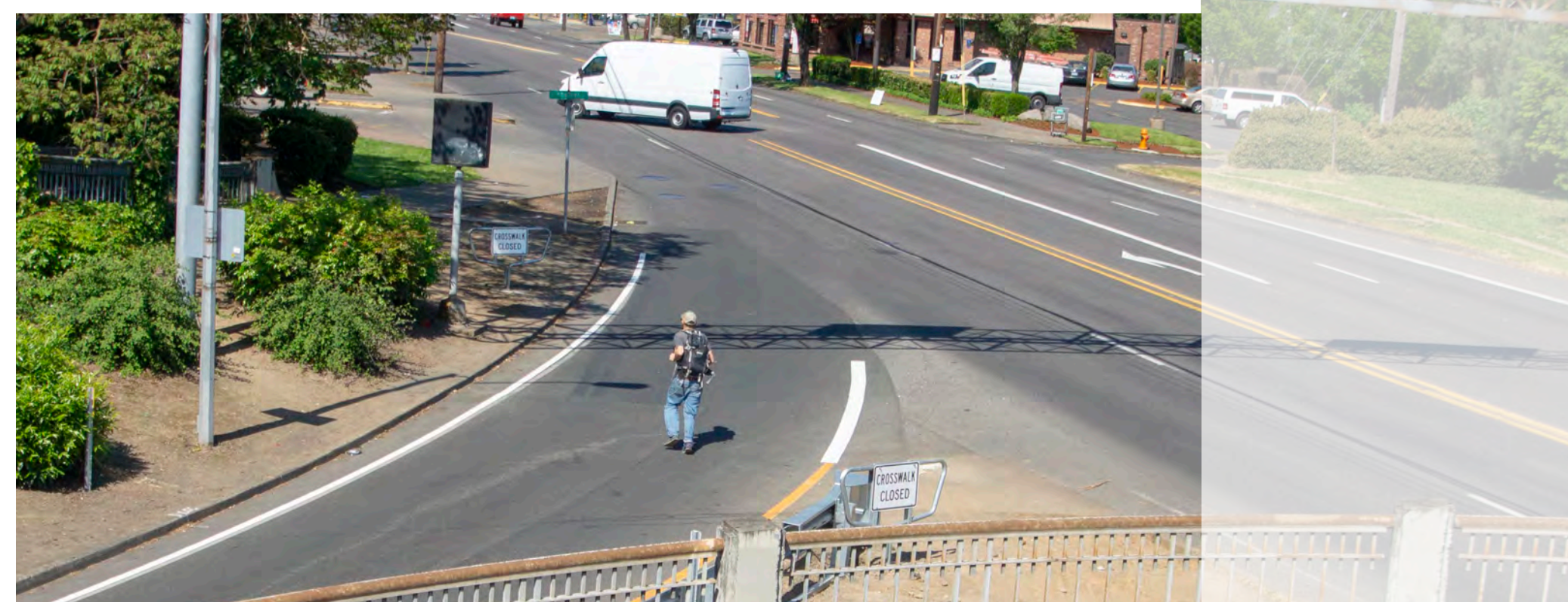
IMPROVING WAYFINDING/DIRECTIONAL SIGNAGE



IMPROVING ACCESS ACROSS CORRIDORS



ADDING PEDESTRIAN CROSSING OPPORTUNITIES



IMPROVING FREIGHT ACCESS AND RELIABILITY

