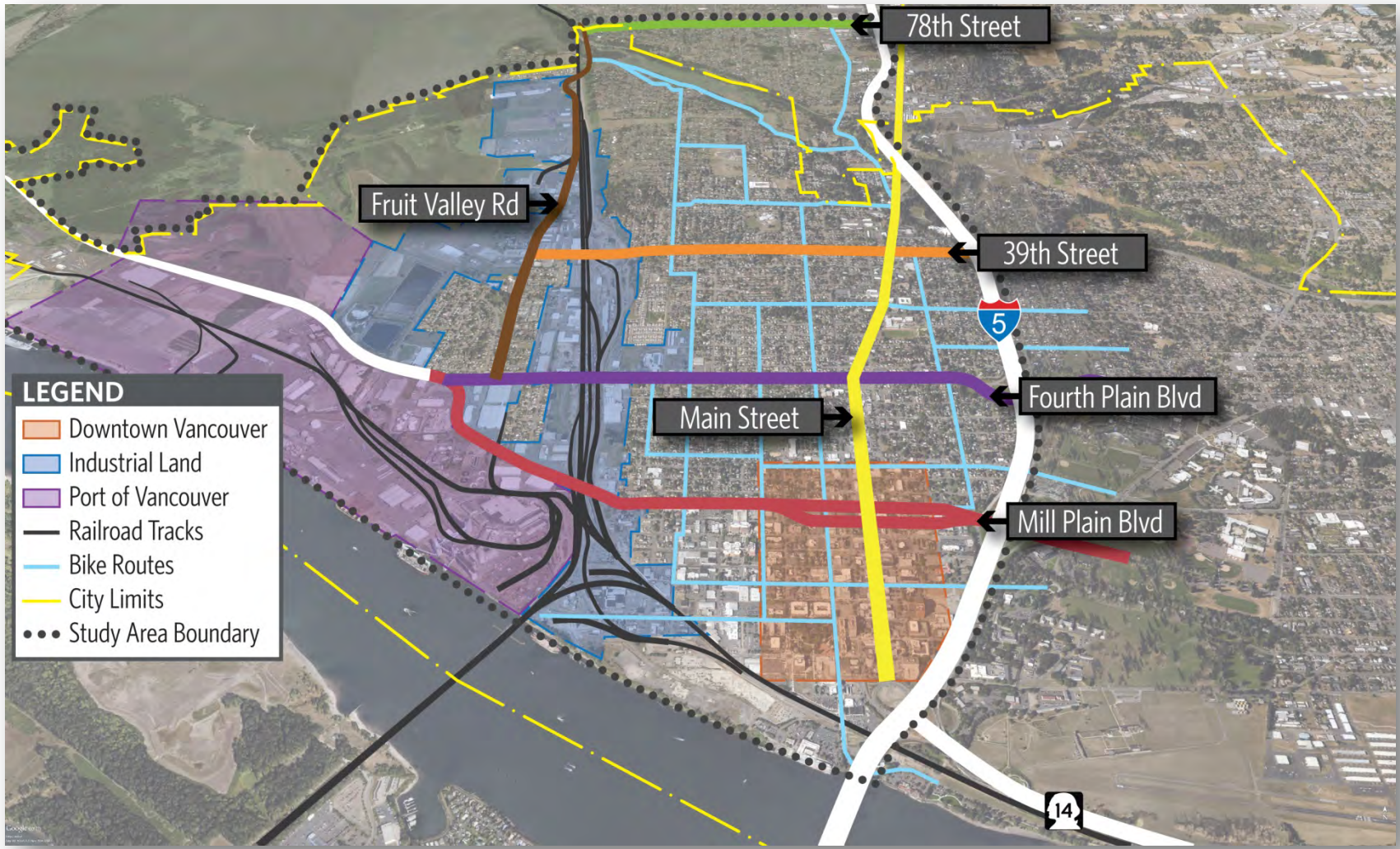


WELCOME & INTRODUCTIONS

Community Forum #1: Existing Conditions



Study Area



Project Priority and Objectives

PRIORITY

Balance neighborhood livability and economic growth

Collaborate with public and stakeholders throughout project

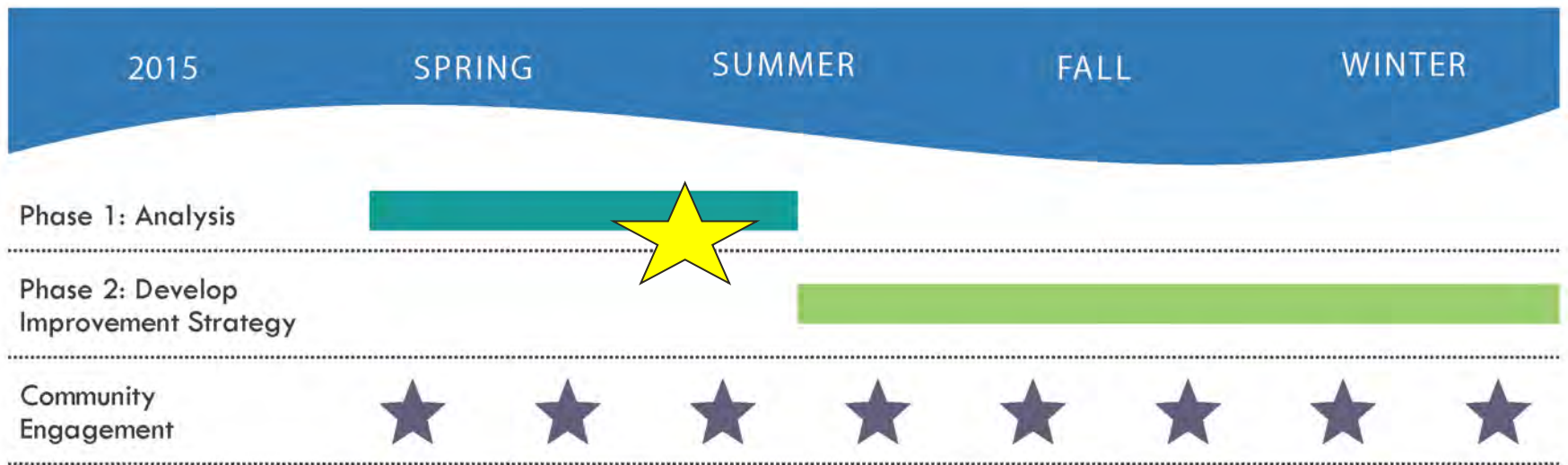
PHASE 1

- Assess the context and future trends for the overall westside street network

PHASE 2

- Develop Network Improvement Ideas and Concepts
- Organize Concepts into Strategies with Long and Short Term Actions
- Deliver Strategic Recommendations Report to City Council

Project Schedule



Key Questions for Phase 1

What are current traffic patterns on westside streets?

How does freight traffic use the westside streets?

Where are the conflicts? What are the causes?

How does I-5 traffic affect westside streets, neighborhoods and industry?

Forum Overview

1. Presentation: The Westside Mobility Story
2. Moderated Panel Discussion

BREAK

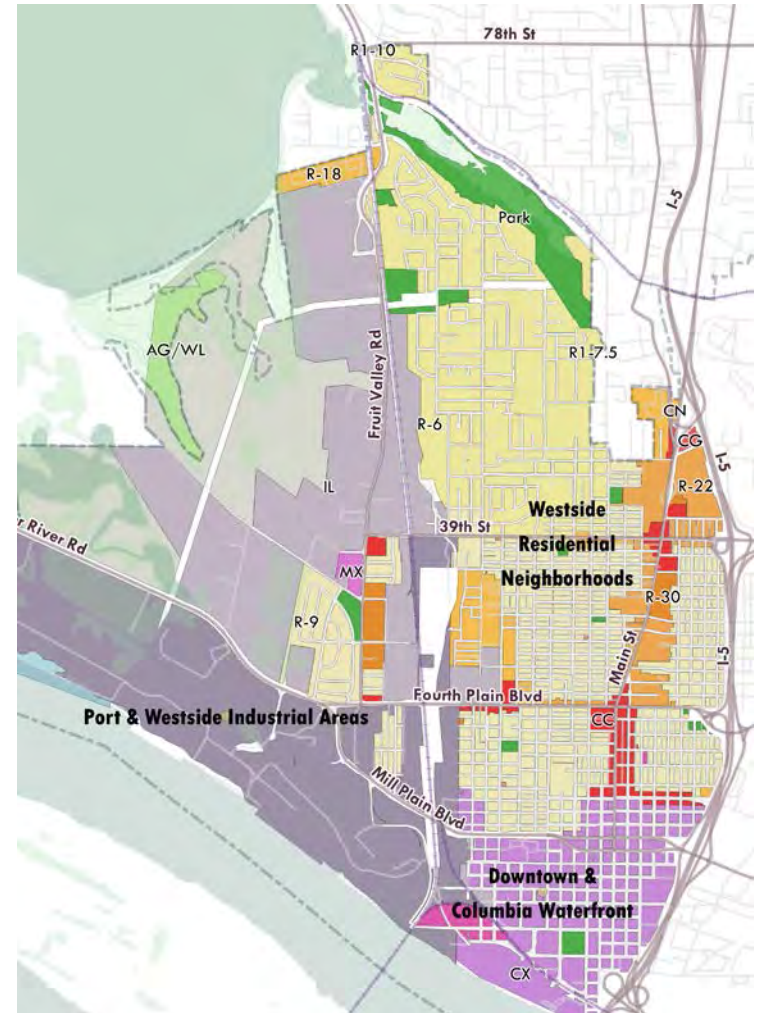
3. Table/Small Group Discussions
4. Table/Small Group Reports
5. Next Steps

The Westside Mobility Story

1. Community Engagement and Context
2. Story of the 8 arterials
3. Street Network Traffic Patterns
4. Conclusions

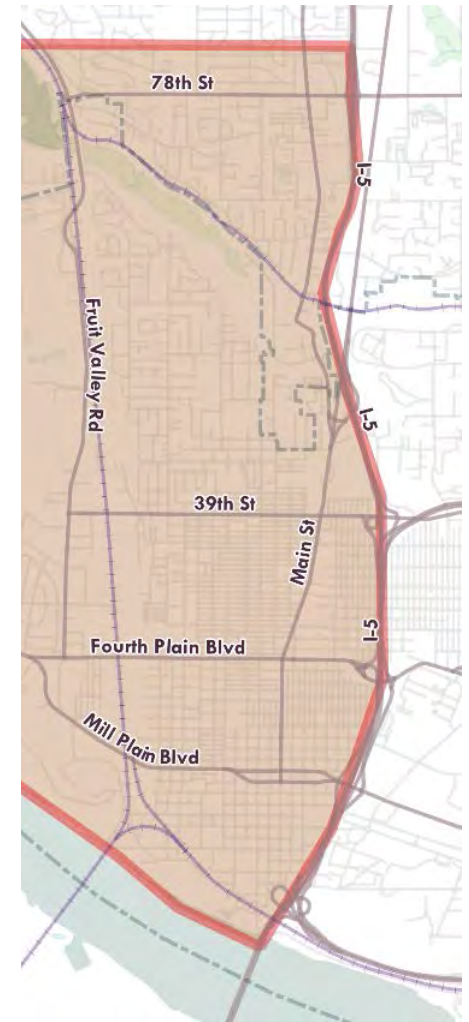
Community Engagement

- Neighborhood Association Meetings (Fall 2014)
- Vancouver Downtown Association
- Port of Vancouver, Industrial Tenants
- Regional Transportation Council
- Public Works, Police, Fire Depts.
- Bike and Pedestrian Stakeholders
- Neighborhood Association Leaders
- Fruit Valley Freight/Truck Drivers
- Vancouver Public Schools



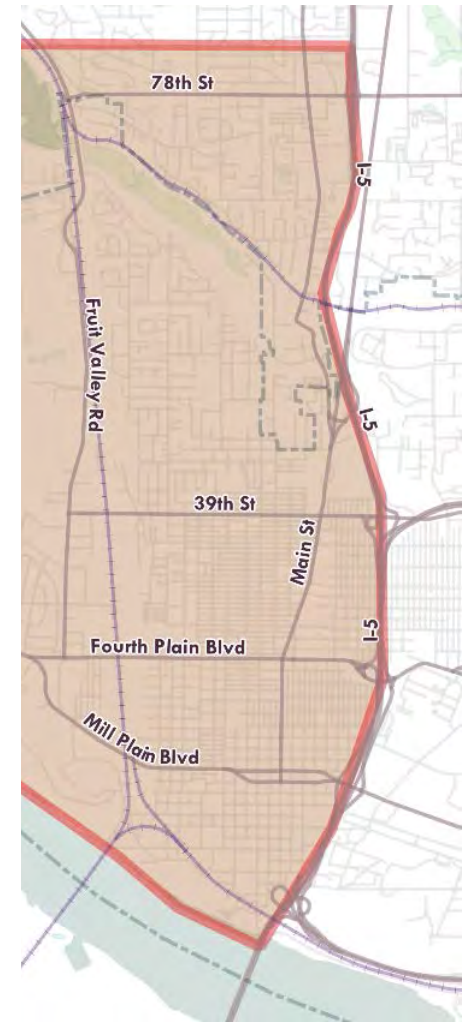
Industry/Business Feedback

- Mill Plain – Generally the first choice for freight
- Fourth Plain – Generally the second choice for freight; Mostly positive views of 2002 road design
- Many local trucks don't use 39th, but some do
- Concerns about Fruit Valley Road congestion, Fruit Valley Elementary school zone
- Not all truck drivers are locally based
- 78th Street: Mainly used for northbound freight
- Interest in NW 31st Avenue – Lakeshore Drive connection
- I-5 Freeway and Interchange problems add to westside transportation challenges



Community/Neighborhood Feedback

- Mill Plain – Recognized as freight route, speed is the issue
- Fourth Plain, 39th St. – volumes and speed for cars and trucks
- Need designated higher quality north/south pedestrian and bike connections
- Mill Plain, Fourth Plain and 39th St. crossings need to be safer for people walking and people biking
- Main Street needs improvements to signals, parking, wayfinding, safety
- Westside neighborhoods proud of their homes, sidewalks, street trees, connection to Main Street/Downtown shops, restaurants, parks and schools
- North/south cut-through traffic is a growing problem
- Sidewalks are needed north of 39th St. and other sidewalks need to be safer



Context: What do we mean by Mobility?

- Everything that moves along public streets in the Westside Vancouver area
- “Everything that moves” include the following:

WALKING

BIKING

AUTOMOBILES

TRANSIT

DELIVERY TRUCKS

ARTICULATED FREIGHT TRUCKS

OVER-DIMENSIONAL LOAD TRUCKS

Context: Vehicle Classification

Articulated Trucks

All articulated vehicles.

Articulated Truck

All multi-unit goods-carrying vehicles with a tractor or straight truck power unit, including goods-carrying rigid trucks pulling trailers.



Relevant FHWA Classes – 8-13: Three or More Axle Trailer or Multi Trailer Trucks

Typical Vehicle Length: 31.19 - 77.59 feet (9.51 - 23.65 m)

Context: Articulated Trucks

EXAMPLE TRUCK CLASSIFICATIONS (ARTICULATED TRUCKS)

Class 8:
Four Axle Tractor Trailer (*Heavy Truck*)



Class 9:
Five Axle Tractor Trailer (*Heavy Truck*)



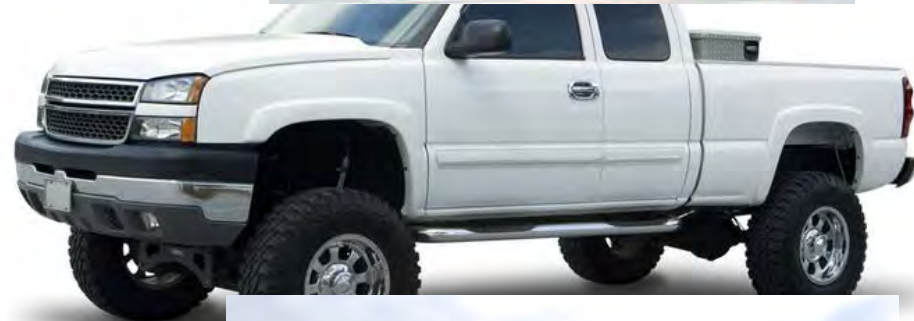
Class 12
Six Axle Truck – Two Trailers (*Heavy Truck*)



Class 13:
Eight Axle Tractor Trailer (*Heavy Truck*)
Over-Dimension Load – Requires Permits



Context: Non-Articulated Trucks



Context: Neighborhoods



Neighborhood
Association
Boundaries

Context: Neighborhoods and Parks



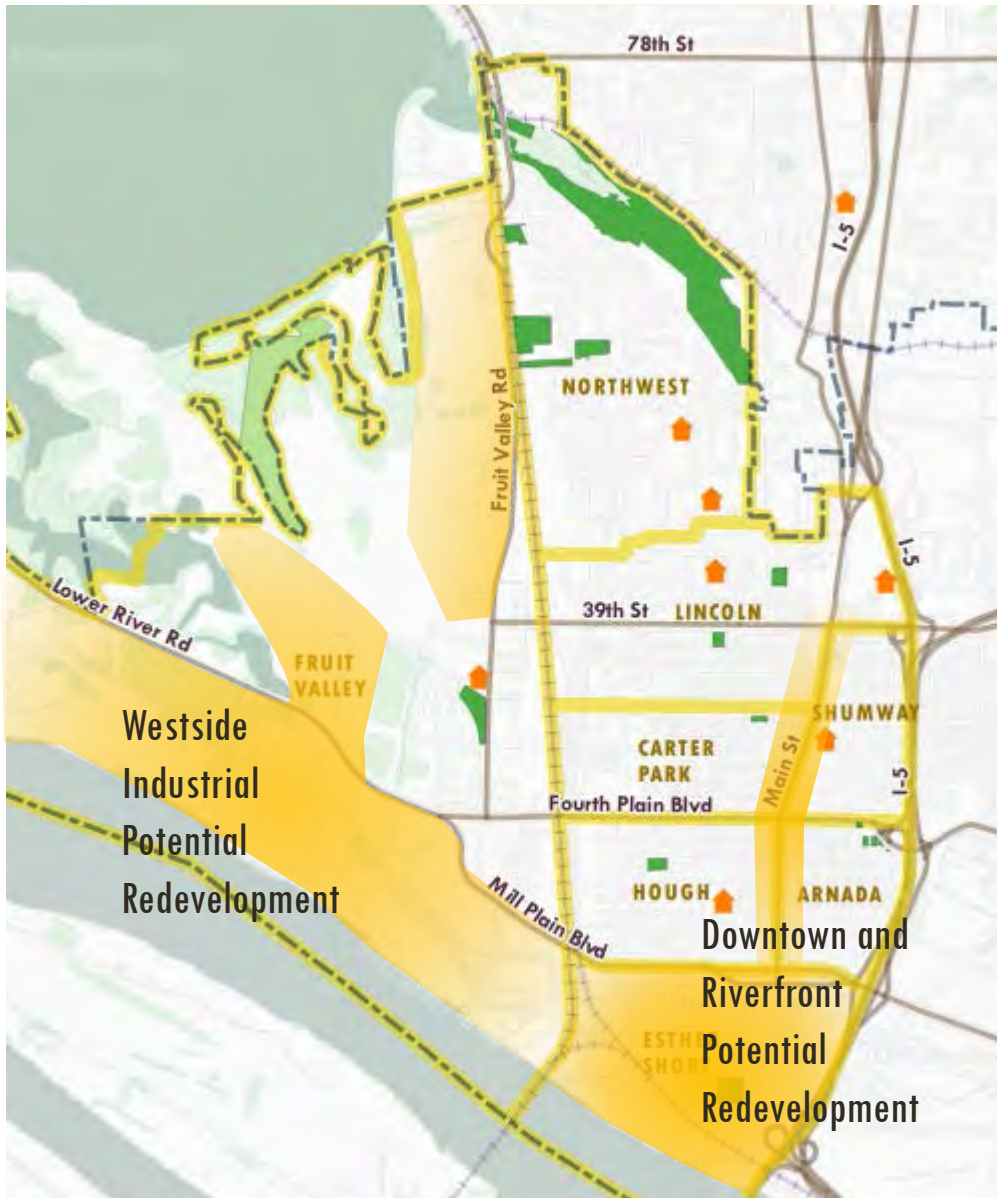
Parks

Context: Neighborhoods, Parks and Schools

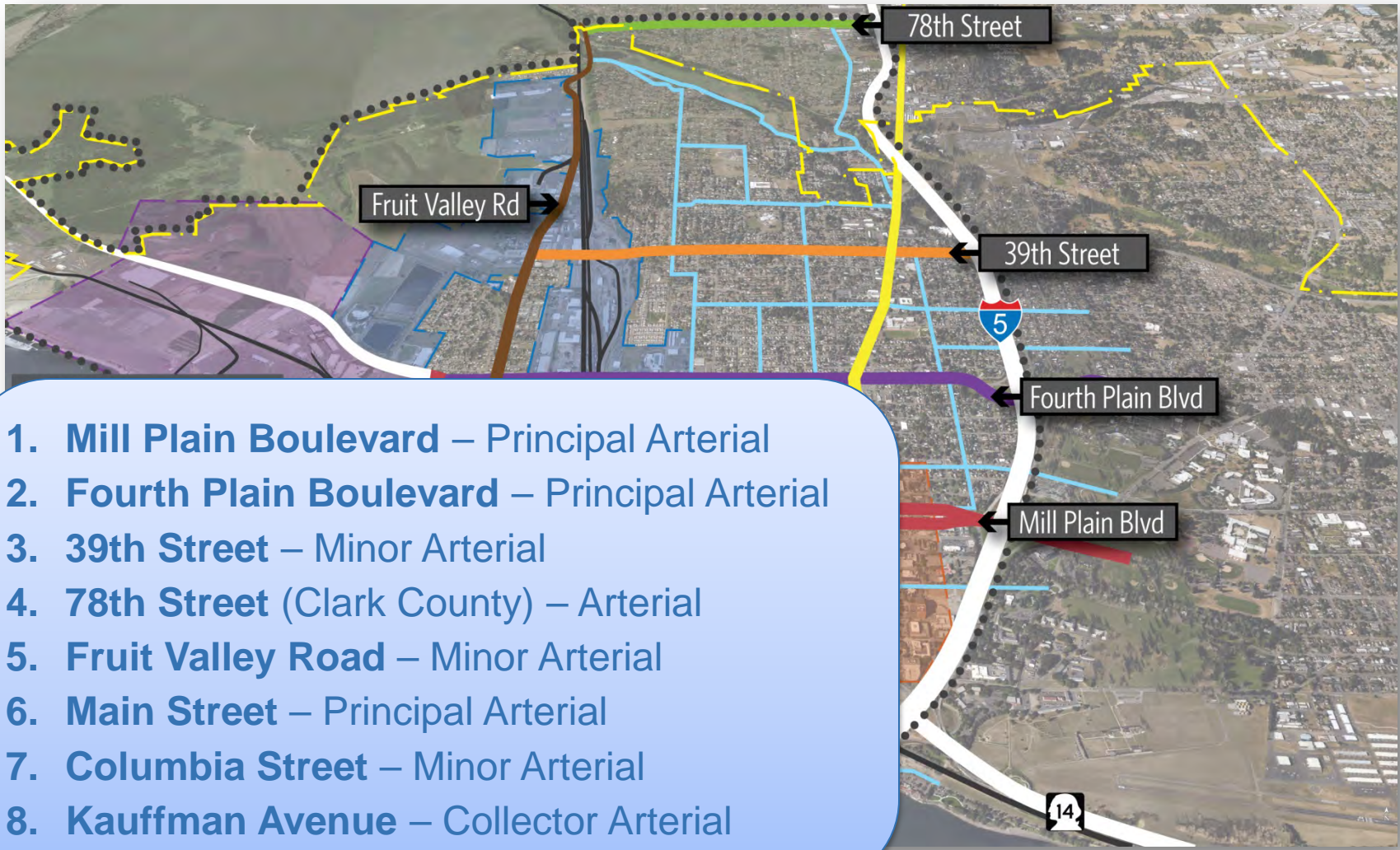


Schools

Context: Potential Redevelopment and Infill



The Story of 8 Arterials



Mill Plain Boulevard

- Built to move people from the Westside industrial and downtown areas to I-5
- Significant investment made to encourage truck travel
- What we found:
 - Majority of trucks use this route
 - More trucks use the road now than ten years ago
 - Fastest route to I-5, most times of day
 - Highest collision rate of any route
 - Sidewalks, bike lanes, limited on-street parking

Mill Plain Boulevard



West of Bridge

- Primarily Industrial
- 5-lane roadway with median and bike lanes
- Bike path on south side, partial sidewalk on north side, street trees
- Signals at Fourth Plain and Thompson/20th, crosswalk in between

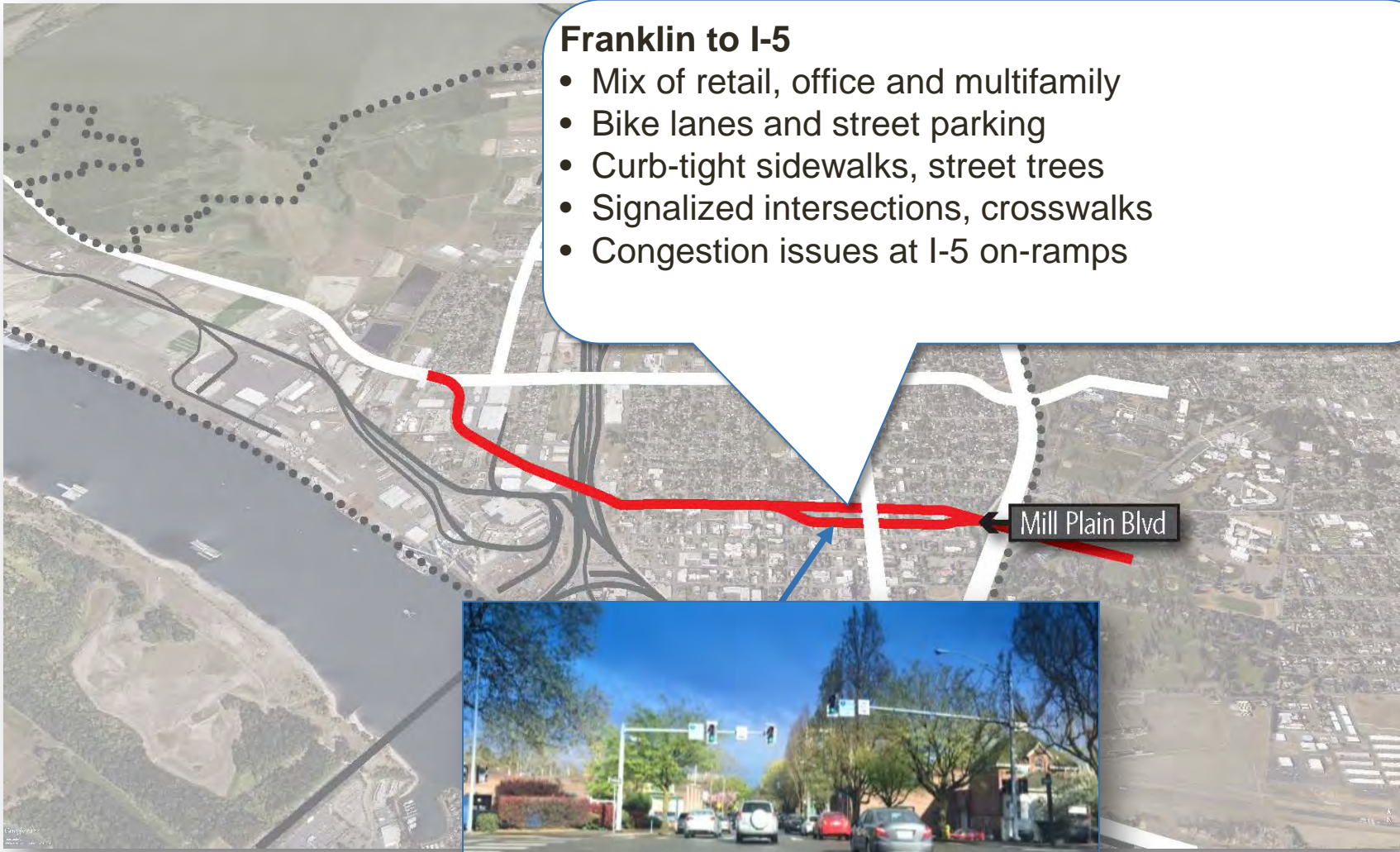
Mill Plain Boulevard



Lincoln to Franklin

- Mix of residential and civic uses
- Bike facilities
- Bike path on south side
- Sidewalk on north side within landscape buffer
- Signalized crossings at Lincoln, Kauffman and Franklin

Mill Plain Boulevard

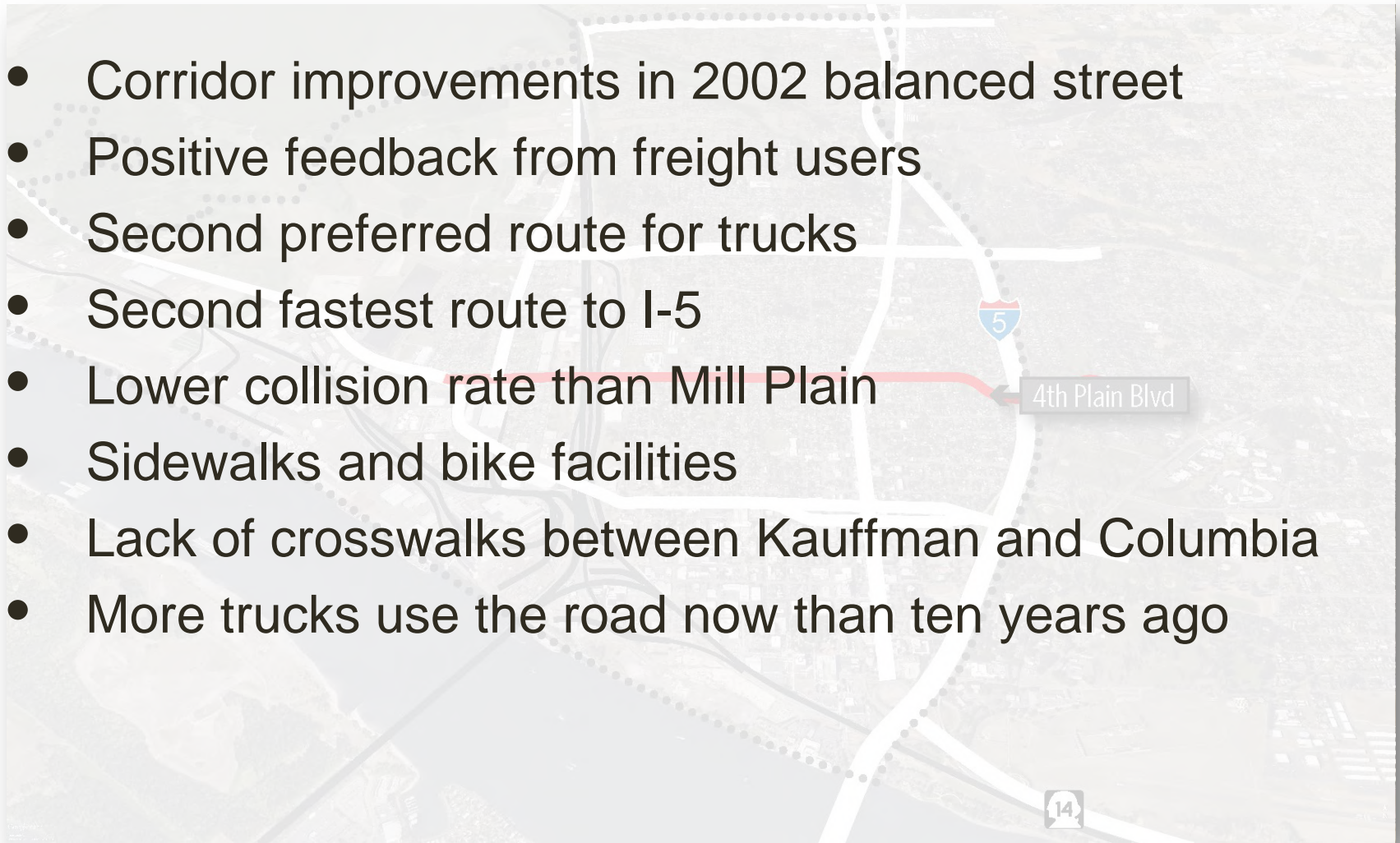


Franklin to I-5

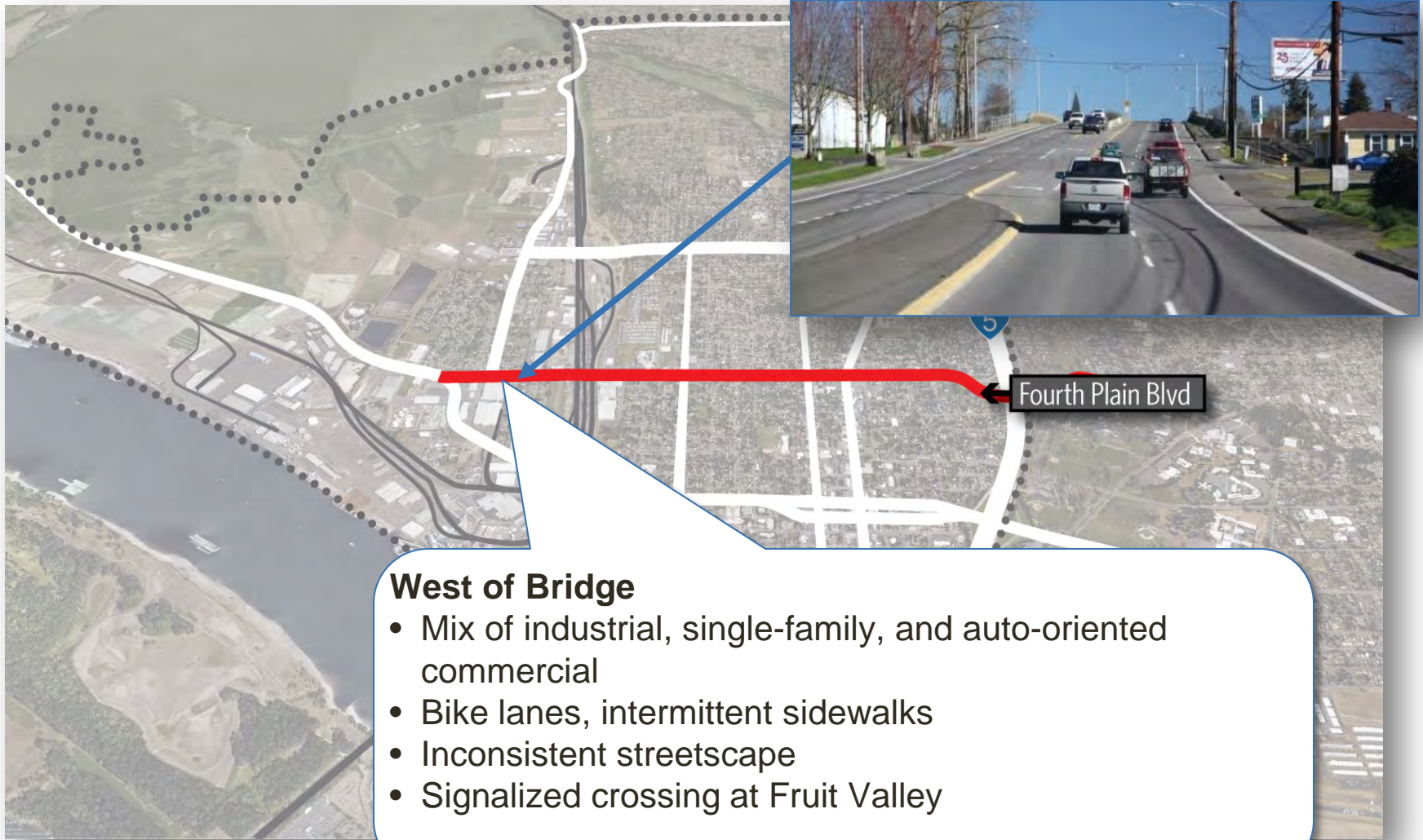
- Mix of retail, office and multifamily
- Bike lanes and street parking
- Curb-tight sidewalks, street trees
- Signalized intersections, crosswalks
- Congestion issues at I-5 on-ramps

Fourth Plain Boulevard

- Corridor improvements in 2002 balanced street
- Positive feedback from freight users
- Second preferred route for trucks
- Second fastest route to I-5
- Lower collision rate than Mill Plain
- Sidewalks and bike facilities
- Lack of crosswalks between Kauffman and Columbia
- More trucks use the road now than ten years ago



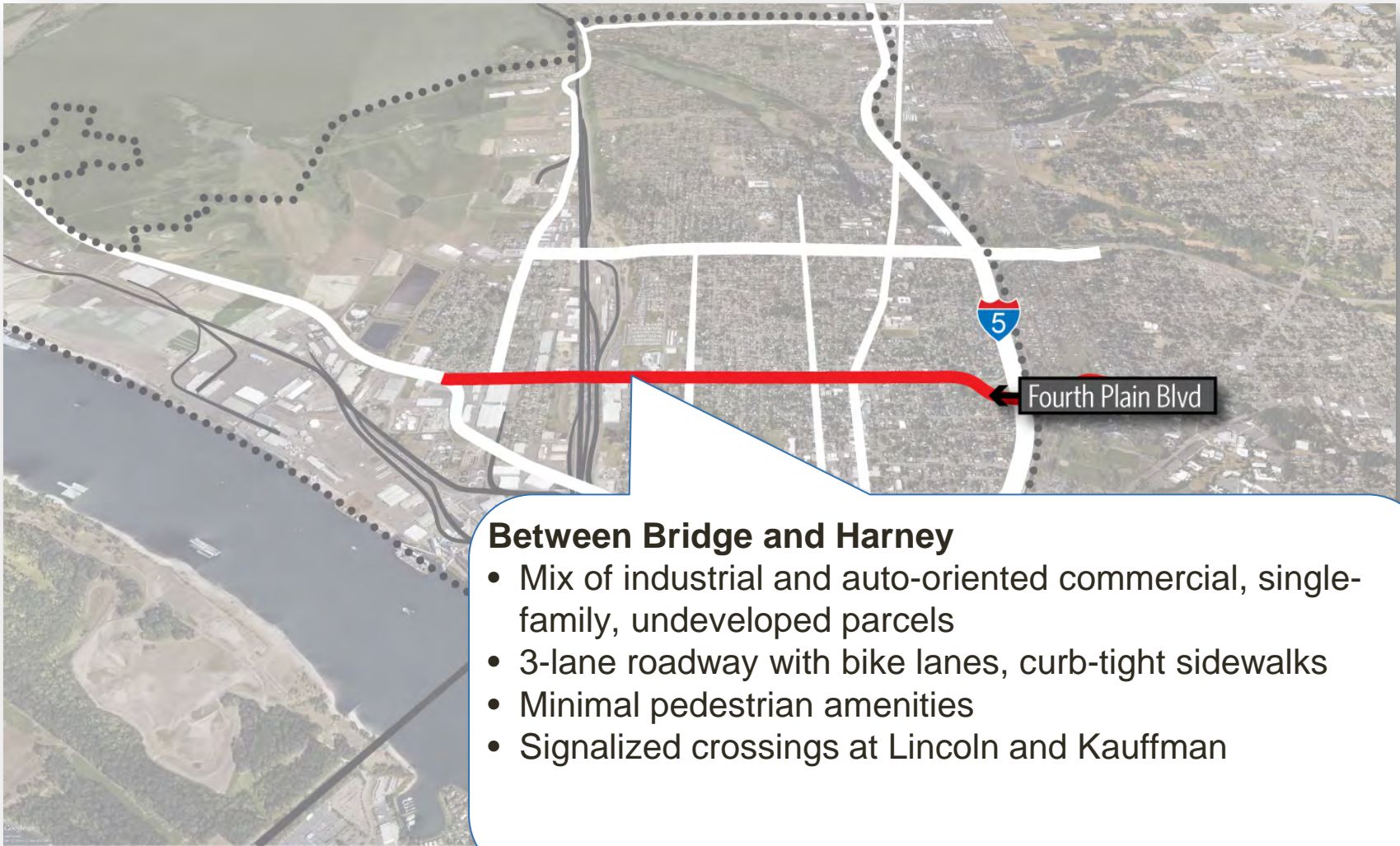
Fourth Plain Boulevard



West of Bridge

- Mix of industrial, single-family, and auto-oriented commercial
- Bike lanes, intermittent sidewalks
- Inconsistent streetscape
- Signalized crossing at Fruit Valley

Fourth Plain Boulevard



Between Bridge and Harney

- Mix of industrial and auto-oriented commercial, single-family, undeveloped parcels
- 3-lane roadway with bike lanes, curb-tight sidewalks
- Minimal pedestrian amenities
- Signalized crossings at Lincoln and Kauffman

Fourth Plain Boulevard



39th Street

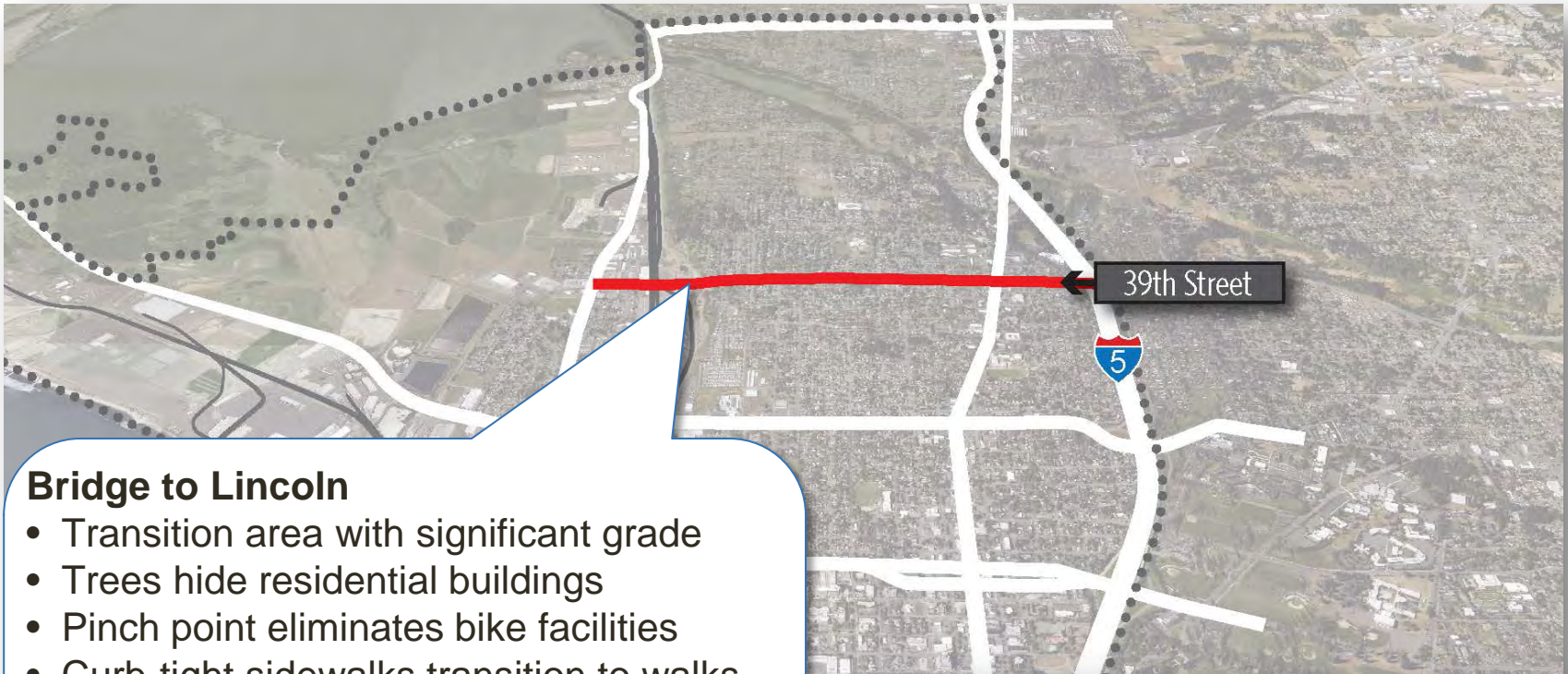
- Freight Rail overpass (2010) removed at-grade crossing
- Grant funded project (2010) implemented streetscape and traffic calming
- Roadway narrow, with on-street parking alternating sides
- Sidewalks, bike lanes, some street trees
- Many freight companies discourage their drivers from using 39th St.
- Lowest truck volumes of four east-west routes studied
- Lowest collision rate of routes (all traffic)
- More trucks use the road now than ten years ago

39th Street



- West of Bridge**
- Industrial, security fences abutting the street
 - Bike facilities
 - Curb-tight sidewalks
 - Signalized pedestrian crossing at Fruit Valley Road

39th Street

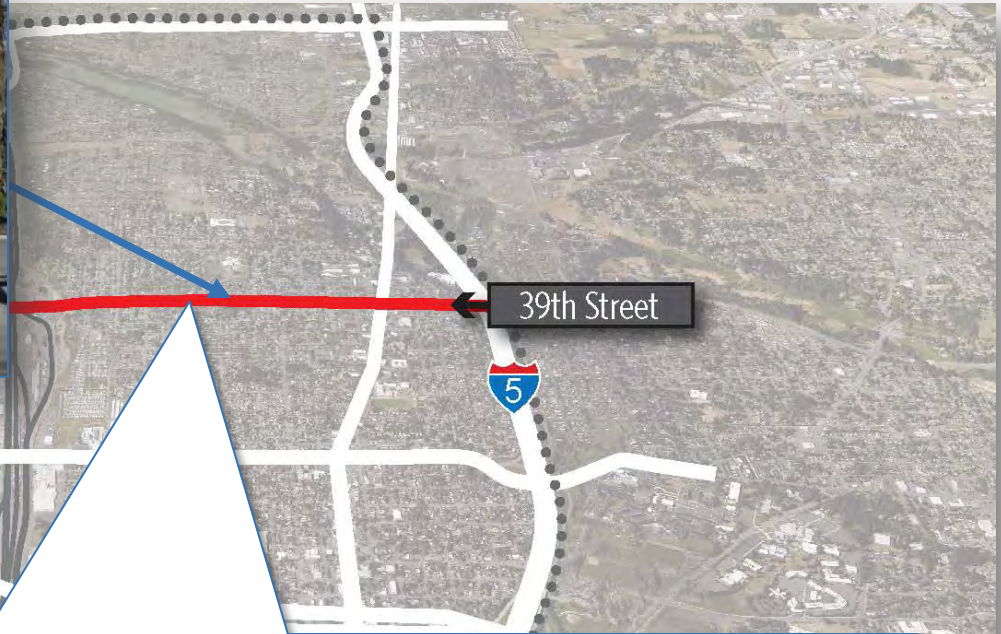


Bridge to Lincoln

- Transition area with significant grade
- Trees hide residential buildings
- Pinch point eliminates bike facilities
- Curb-tight sidewalks transition to walks with landscape strip



39th Street

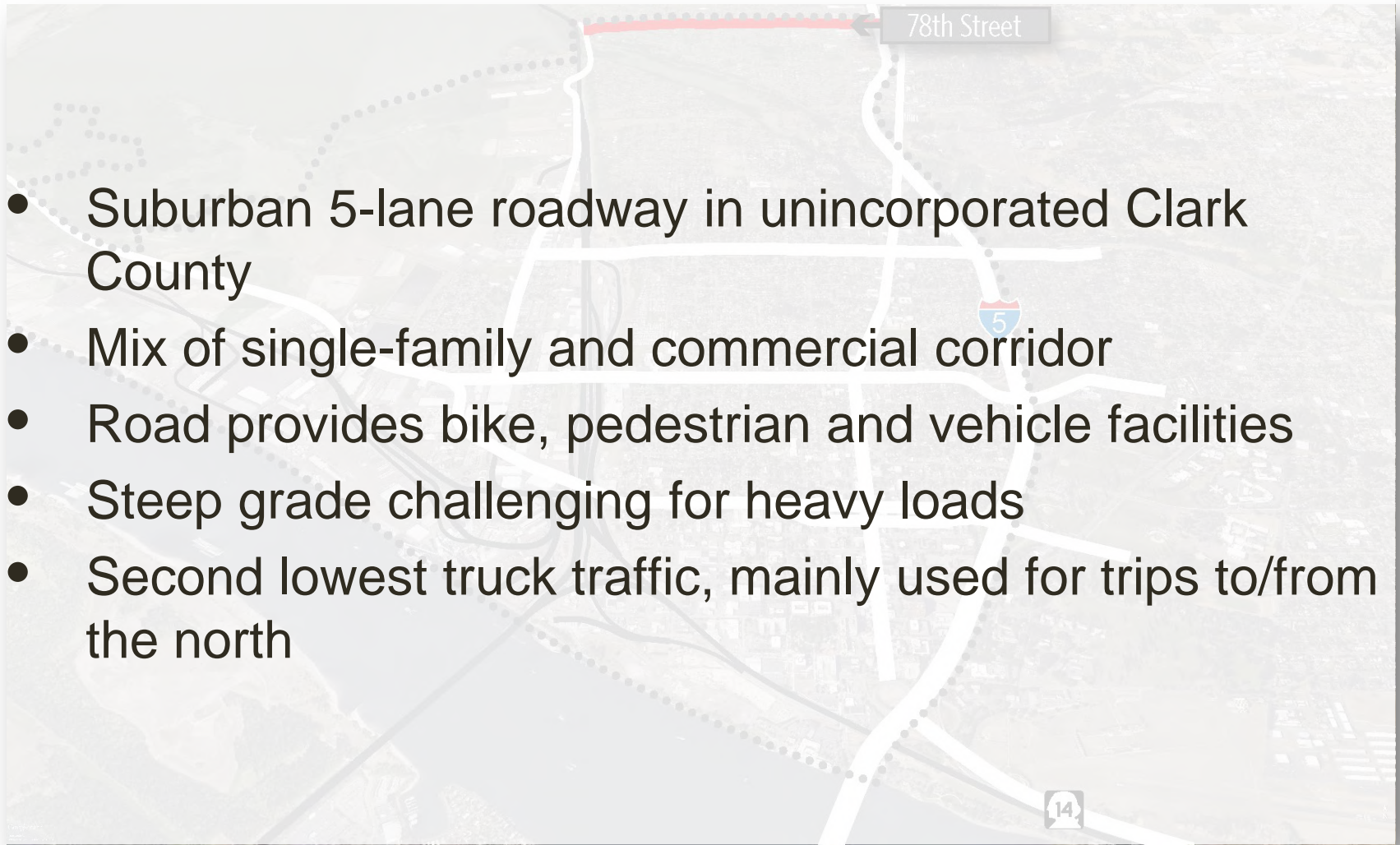


Lincoln to I-5

- Mostly single-family, public schools within two blocks, commercial near Main Street
- Bike facilities, street parking alternates sides
- Narrow landscape strip separates sidewalks from roadway
- Signalized crossings at Columbia, Main, and H St. Marked crosswalks at Kaufman, Daniels, Division, and F St.

78th Street

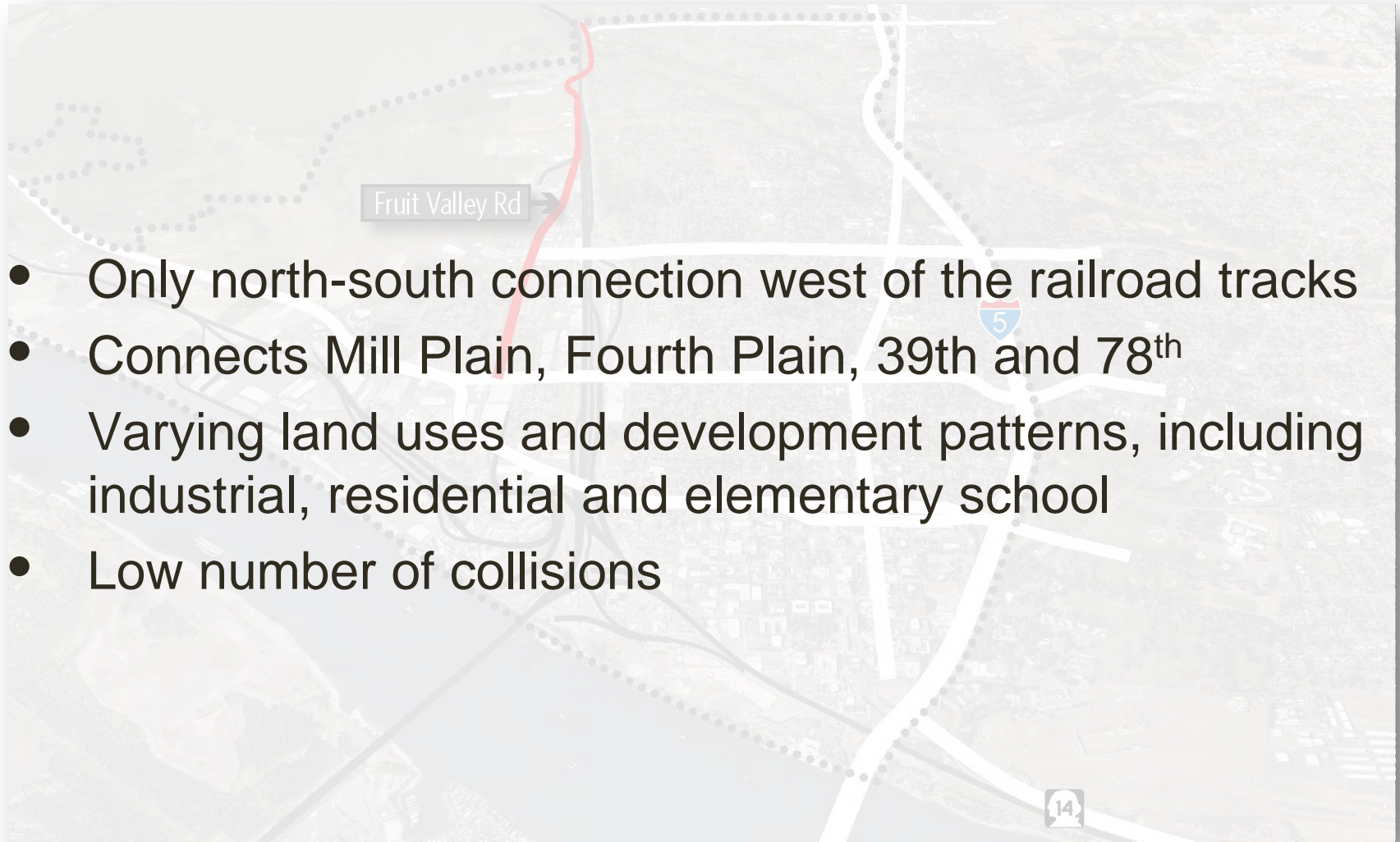
- Suburban 5-lane roadway in unincorporated Clark County
- Mix of single-family and commercial corridor
- Road provides bike, pedestrian and vehicle facilities
- Steep grade challenging for heavy loads
- Second lowest truck traffic, mainly used for trips to/from the north



78th Street



Fruit Valley Road

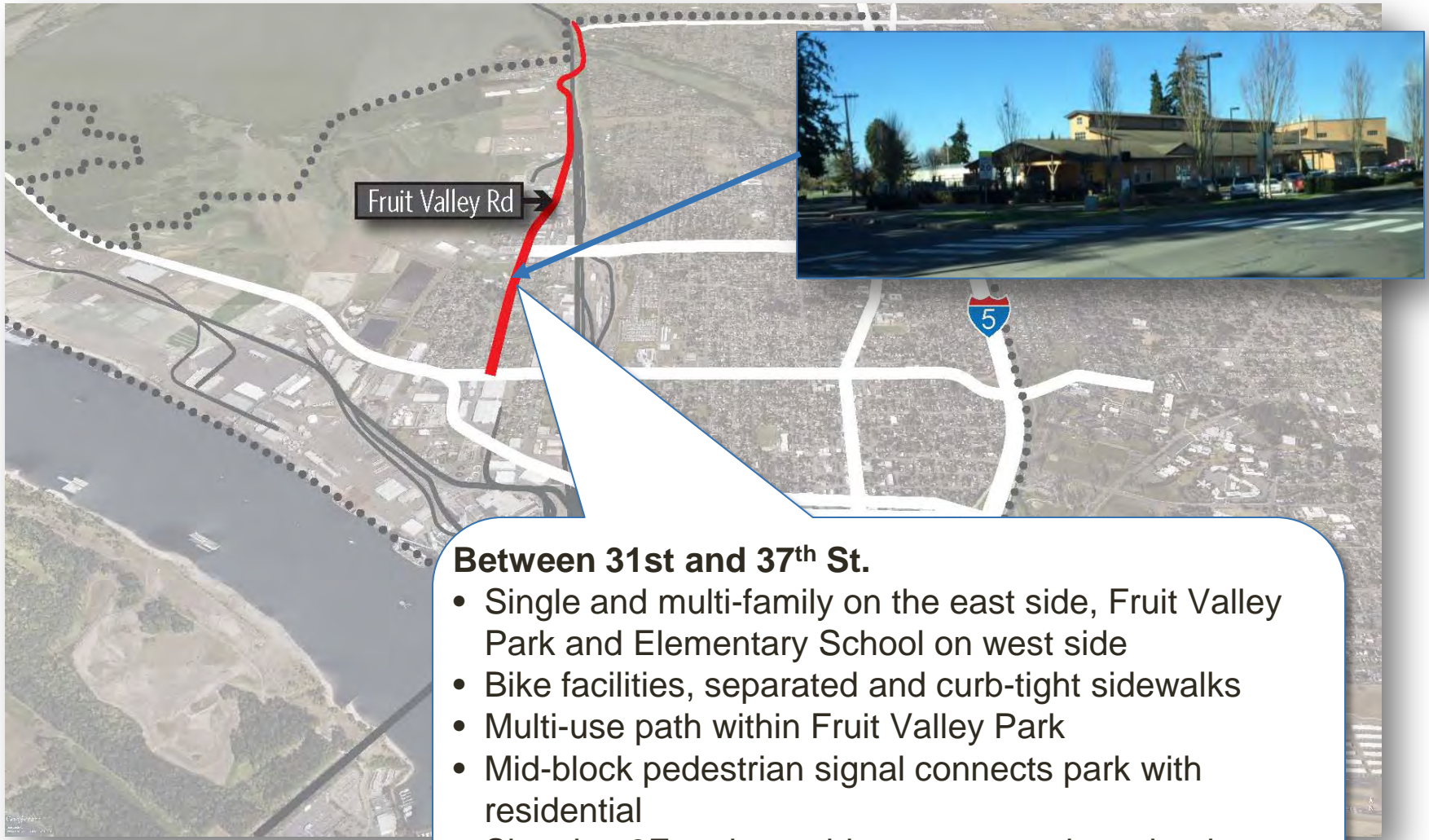


- Only north-south connection west of the railroad tracks
- Connects Mill Plain, Fourth Plain, 39th and 78th
- Varying land uses and development patterns, including industrial, residential and elementary school
- Low number of collisions

Fruit Valley Road



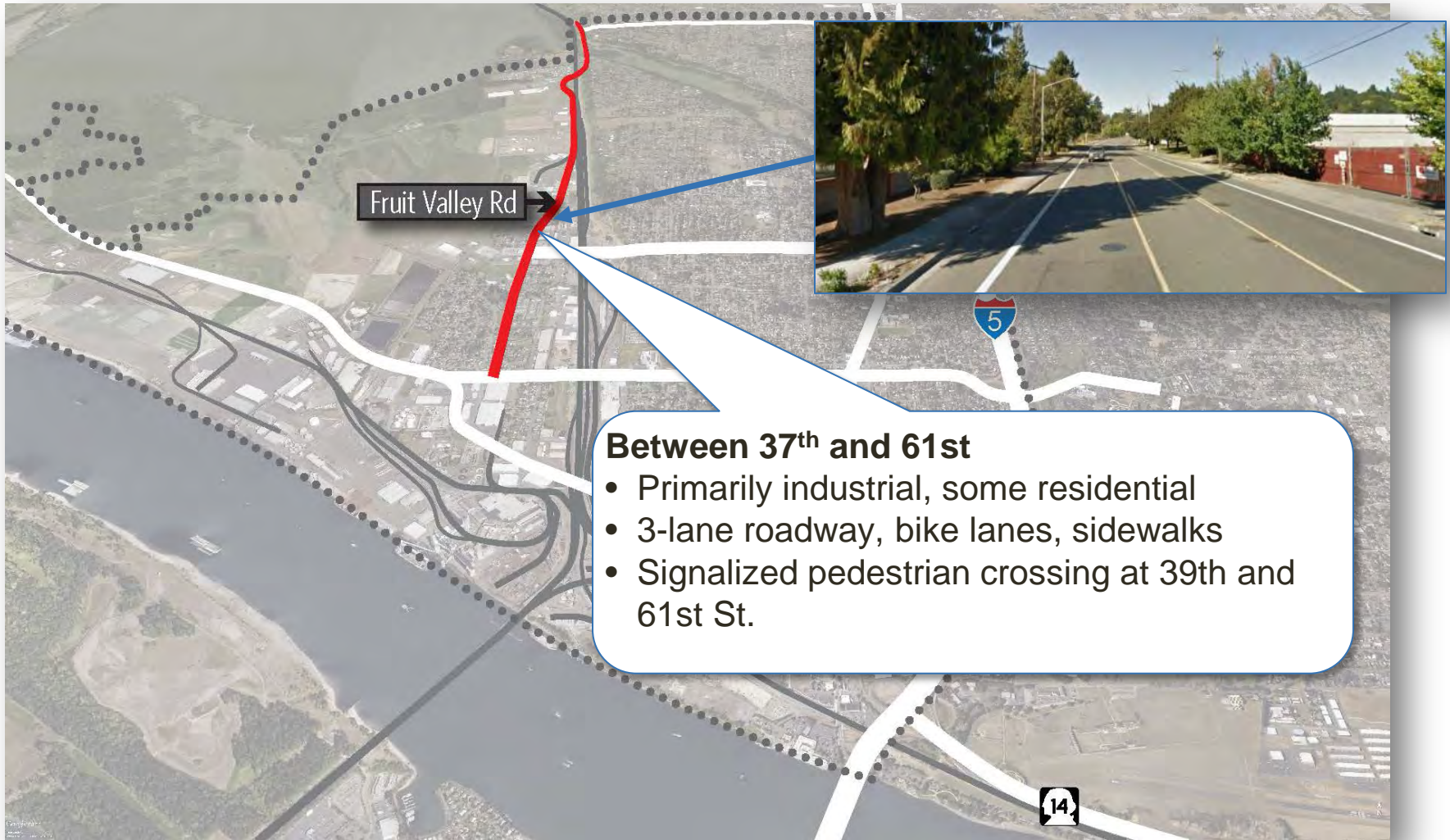
Fruit Valley Road



Between 31st and 37th St.

- Single and multi-family on the east side, Fruit Valley Park and Elementary School on west side
- Bike facilities, separated and curb-tight sidewalks
- Multi-use path within Fruit Valley Park
- Mid-block pedestrian signal connects park with residential
- Signal at 3rd Avenue provides access to the school

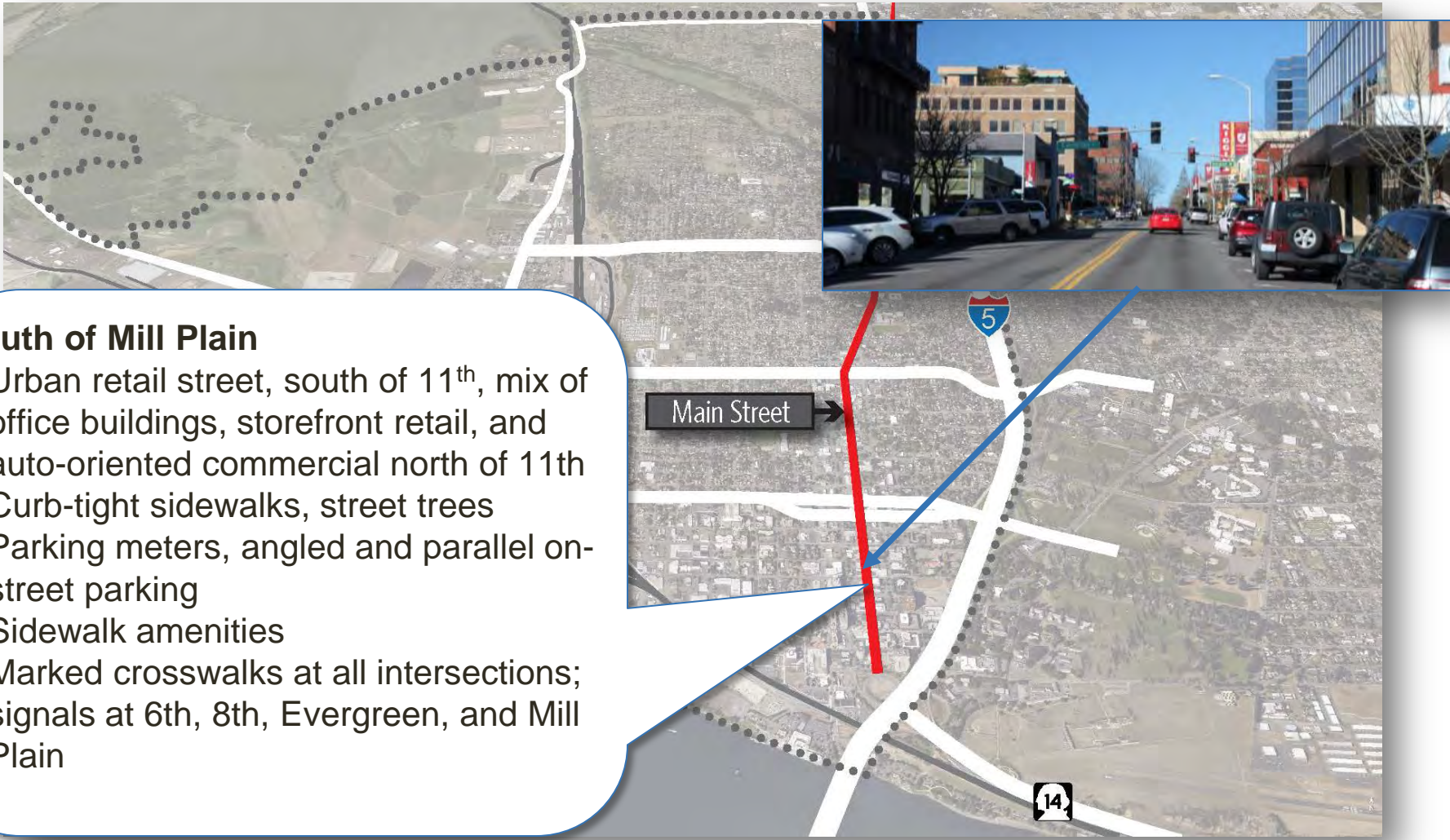
Fruit Valley Road



Main Street

- Historic connection between uptown and downtown, commercial retail corridor
- Diagonal parking problematic for bike facilities
- High collision rate with the highest severity
- Main St. used to avoid I-5 southbound congestion

Main Street



South of Mill Plain

- Urban retail street, south of 11th, mix of office buildings, storefront retail, and auto-oriented commercial north of 11th
- Curb-tight sidewalks, street trees
- Parking meters, angled and parallel on-street parking
- Sidewalk amenities
- Marked crosswalks at all intersections; signals at 6th, 8th, Evergreen, and Mill Plain

Main Street



Main Street



Between 19th and 25th

- Tree-lined urban street with retail, auto-oriented uses and mixed-use/multifamily
- Parallel parking, sidewalk amenities
- Curb extensions at some intersections
- Pedestrian crossings: signal at 22nd, marked crosswalk/speed table at 2Fourth

Main Street

North of Fourth Plain

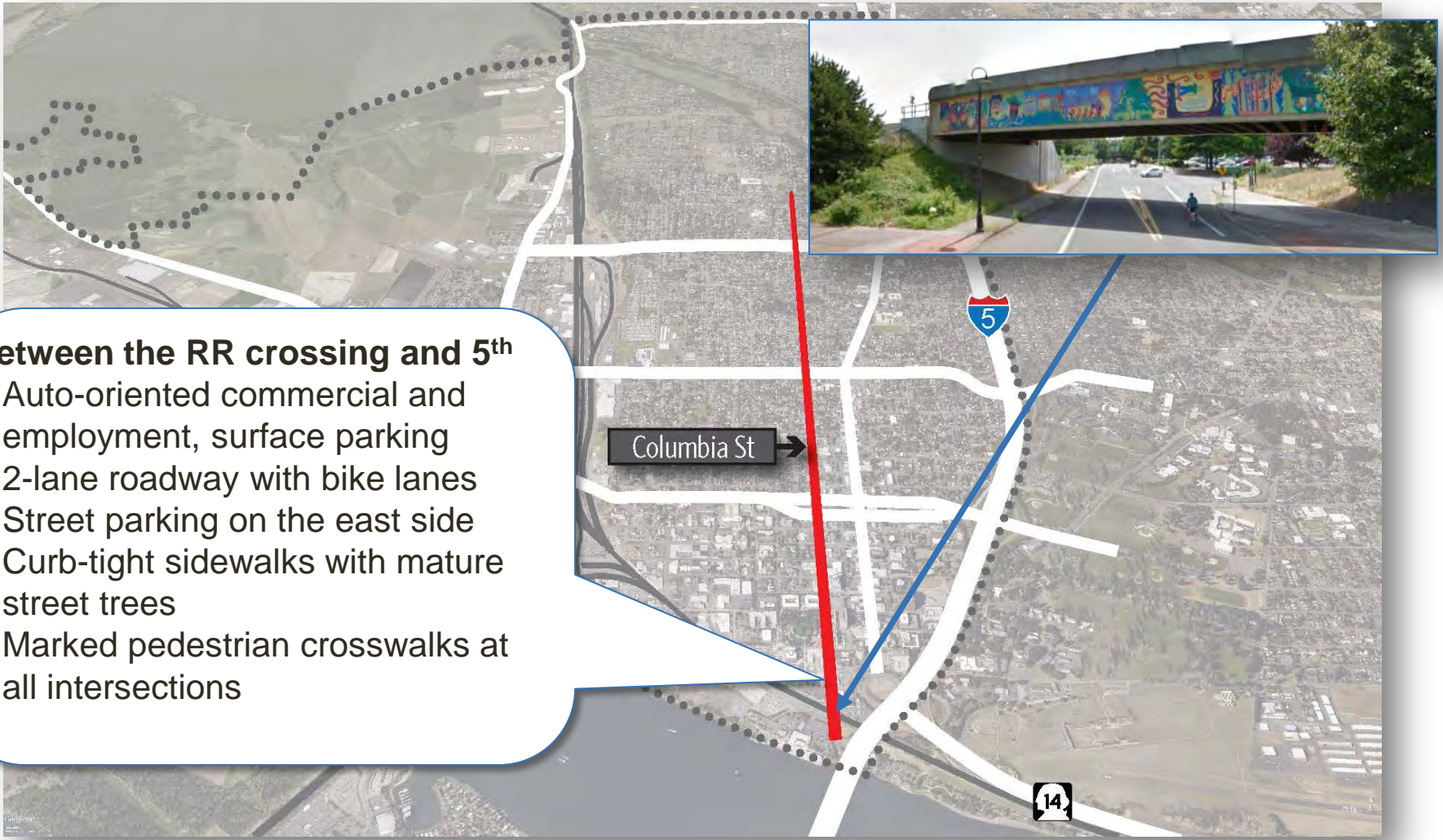
- Suburban road with 3 to 5 lanes
- Auto-oriented commercial, mix of single-family, school, office, medical
- Parking lots in front of bldgs
- Curb-tight sidewalks without amenities
- Pedestrian crossings: signals at Fourth Plain, 33rd, 37th, 39th, 40th, at Kiggins Bowl, and at 45th; marked crosswalks at 27th and 29th



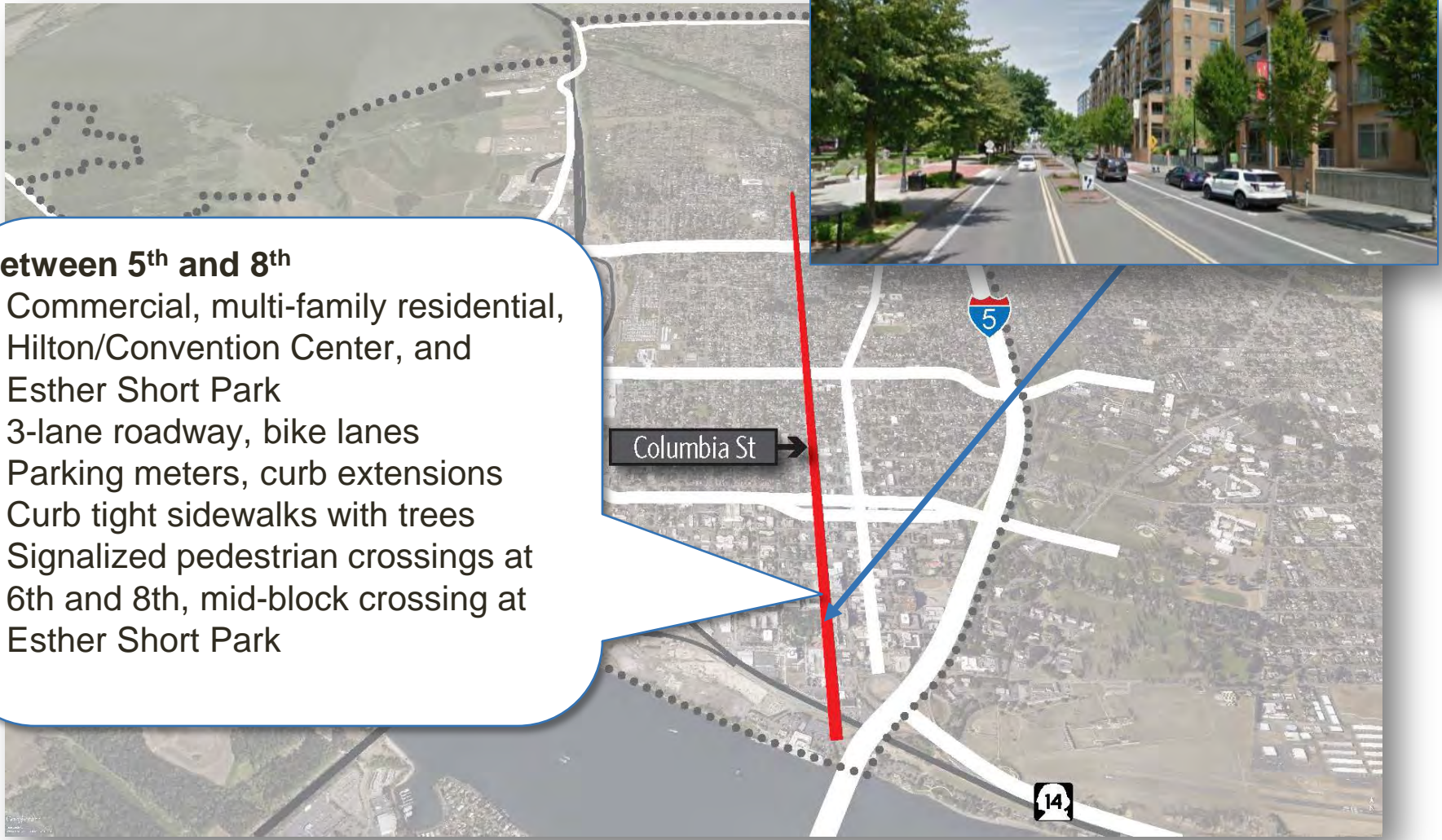
Columbia Street

- Important north-to-south route from Columbia River to northern westside neighborhoods
- Popular north-south bike route with sharrows
- Consistent sidewalks with some ADA upgrades
- Traffic calming North of 21st, crosswalks at Fourth Plain, 33rd and 39th, pedestrian crossings to public schools

Columbia Street



Columbia Street



Between 5th and 8th

- Commercial, multi-family residential, Hilton/Convention Center, and Esther Short Park
- 3-lane roadway, bike lanes
- Parking meters, curb extensions
- Curb tight sidewalks with trees
- Signalized pedestrian crossings at 6th and 8th, mid-block crossing at Esther Short Park

Columbia Street



Between 8th and 12th

- Retail/commercial, mixed use, office, parking lots
- Wider shared travel lanes
- Parking meters
- Curb tight sidewalks with limited landscaping
- Pedestrian crossings: signal at Evergreen and marked crosswalks at all other intersections

Columbia Street



Between 13th and 16th

- Retail, office, parking lots, residential, and auto-oriented commercial
- 2-lane roadway
- Parking meters
- Curb-tight sidewalks, some street trees
- Signalized pedestrian crossings at Mill Plain/15th

Columbia Street

North of 16th

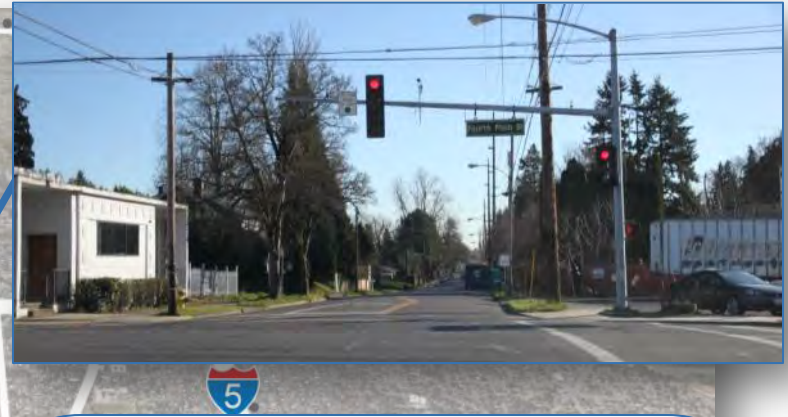
- Neighborhood street, some auto-oriented commercial and institutional uses
- 2-lane shared roadway, sharrows
- Parallel on-street parking
- Sidewalks with planter strips south of 45th
- Pedestrian crosswalks: signals at McLoughlin, Fourth Plain, 33rd, and 39th; marked crosswalks at 20th, 41st, and 4Fourth



Kauffman/Lincoln Avenues

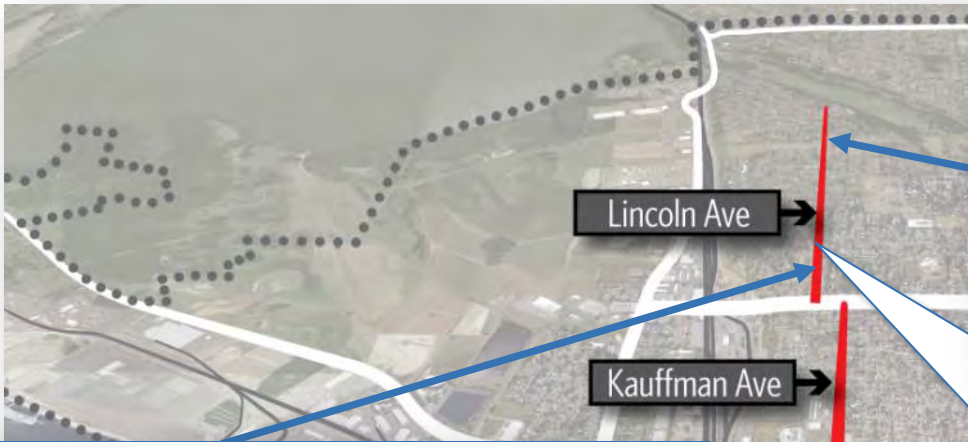
- Kauffman/Lincoln Avenues are important north-to-south roadways on the west side of neighborhoods
- Lincoln lacks sidewalks north of 39th
- Designated bike route
- Collector arterial classification

Kauffman/Lincoln Avenues

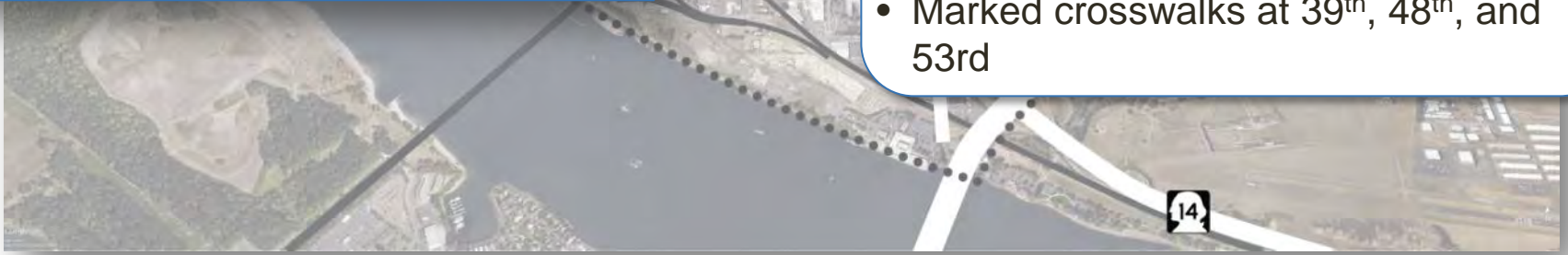


- Institutional, multi-family south of Mill Plain, single-family, multi-family north of Mill Plain, commercial at Fourth Plain
- 2 travel lanes, parallel on-street parking
- Sidewalks with planting strips
- Few street trees
- Signalized pedestrian crossings at Mill Plain and Fourth Plain; marked crosswalks at 1Fourth, McLoughlin, 22nd, and 39th

Kauffman/Lincoln Avenues



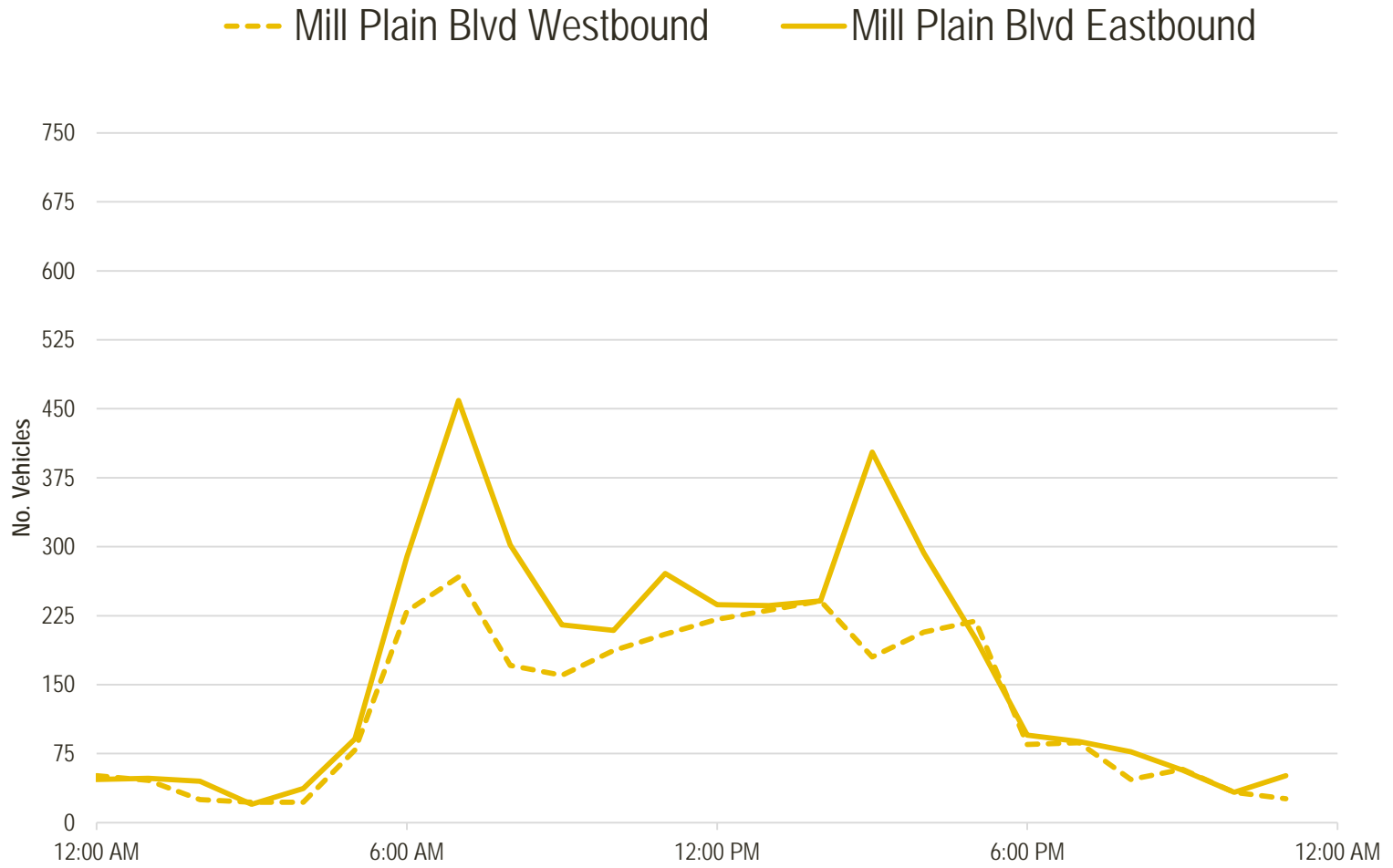
- Single-family
- 2 travel lanes
- Paved shoulders, mostly without curbs and sidewalks
- Marked crosswalks at 39th, 48th, and 53rd



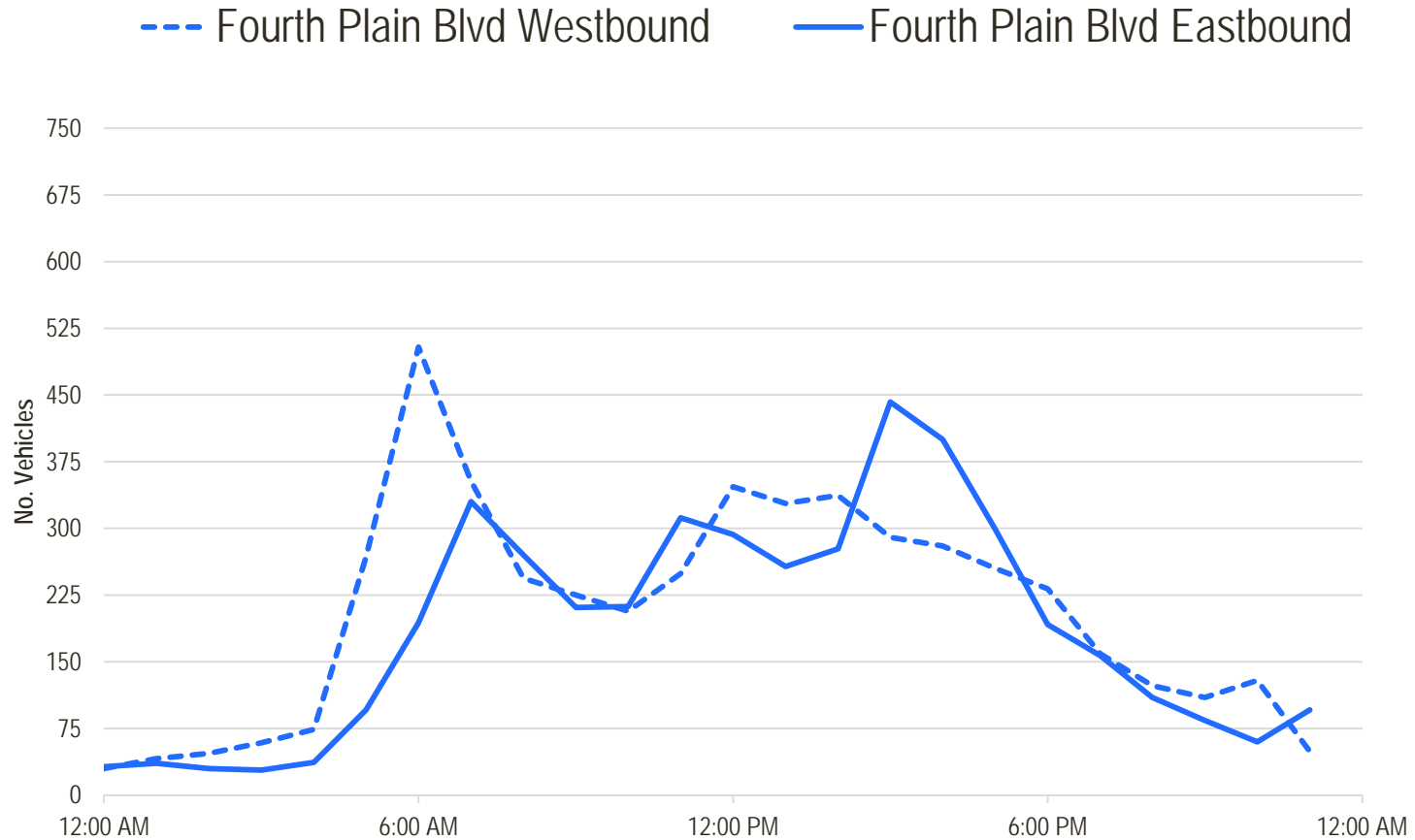
Current Network Traffic Patterns



All-Traffic Patterns – Mill Plain Volumes

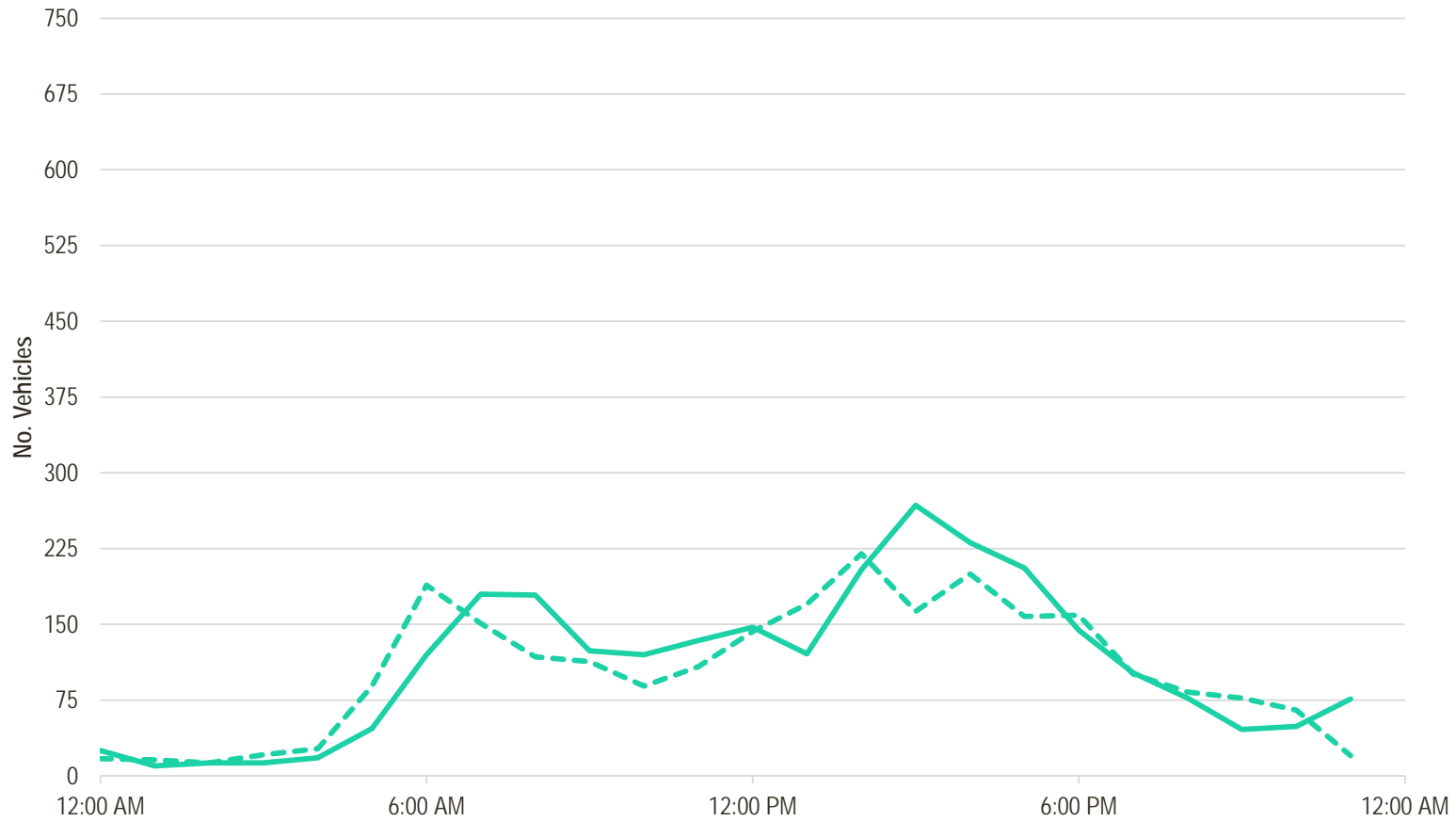


All-Traffic Patterns – Fourth Plain Volumes



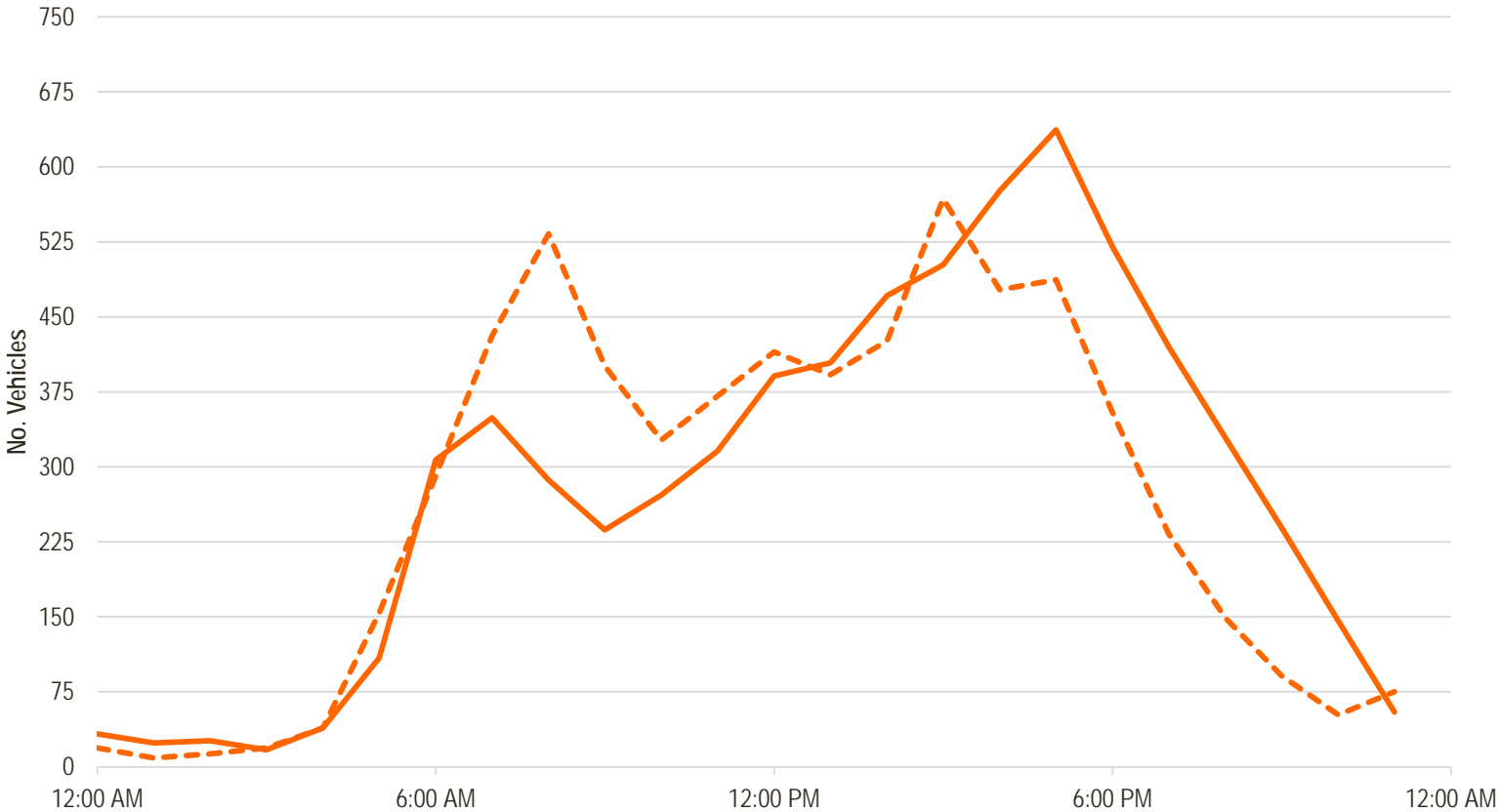
All-Traffic Patterns – 39th Street Volumes

--- 39th Street Westbound — 39th Street Eastbound



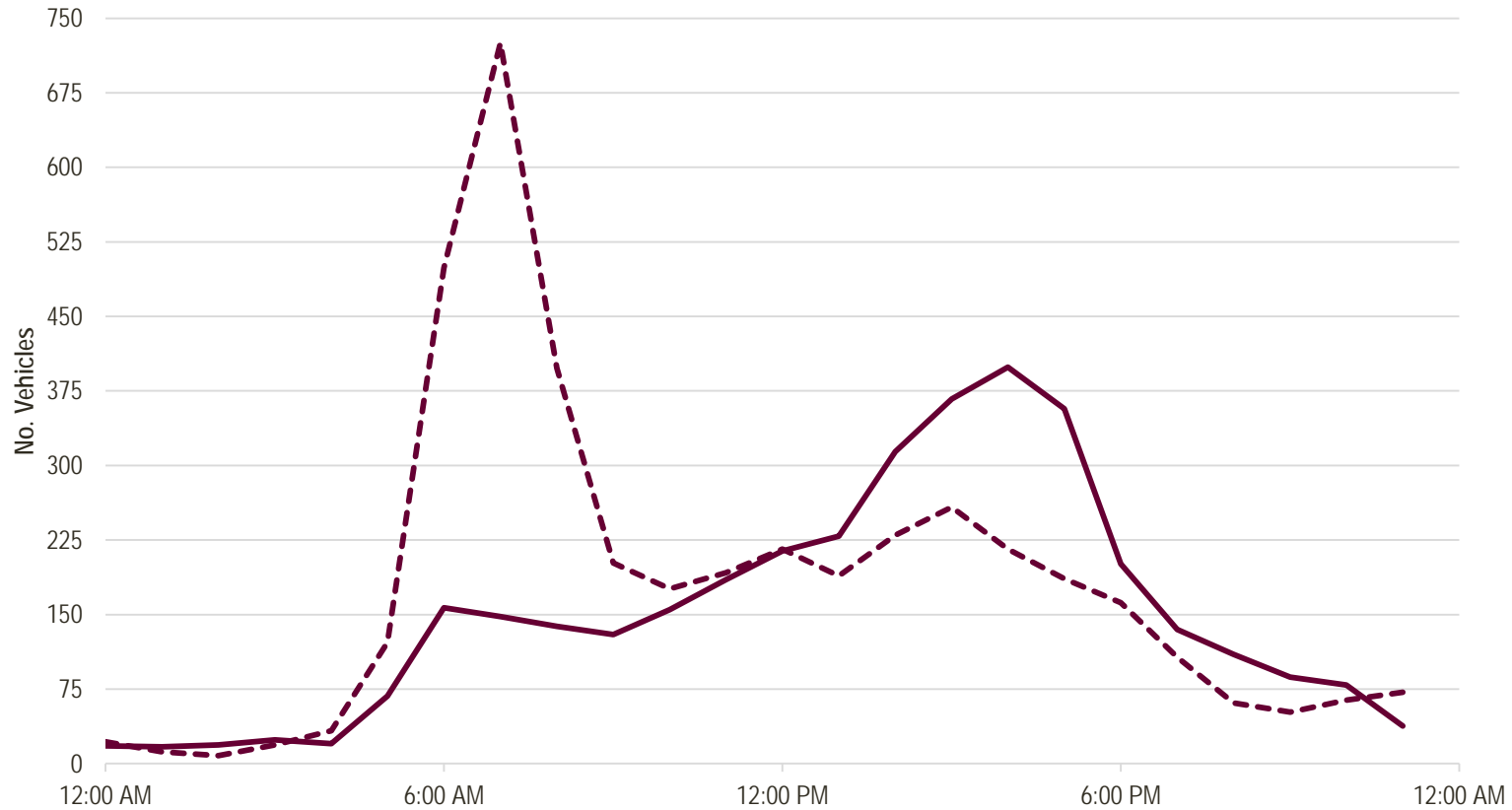
All-Traffic Patterns – 78th St Volumes

--- 78th St Westbound — 78th St Eastbound

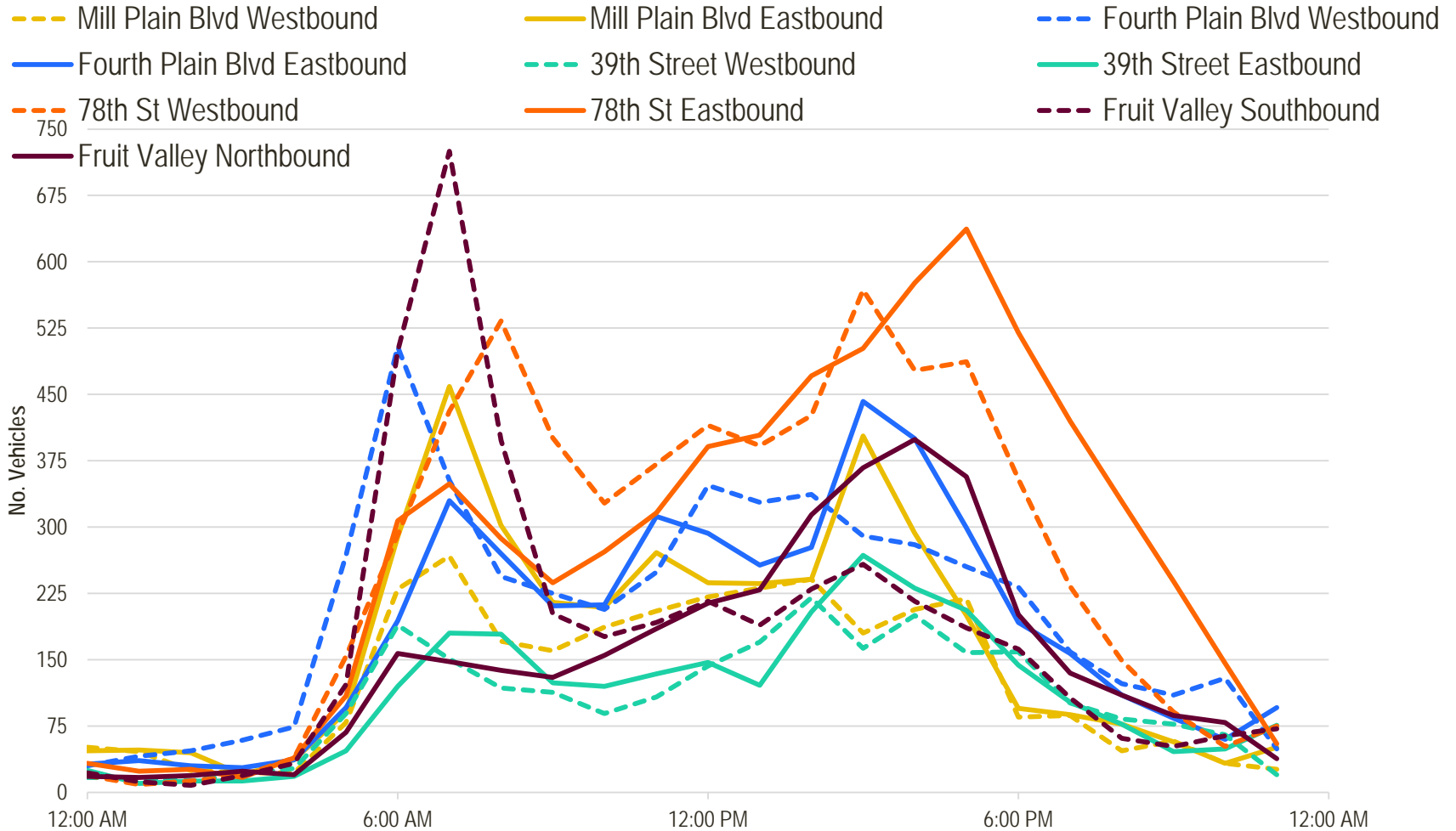


All-Traffic Patterns – Fruit Valley Volumes

--- Fruit Valley Southbound — Fruit Valley Northbound



All-Traffic Patterns – Primary Network Volumes



Daily Traffic



Diversion – I-5 Southbound



Diversion – Local Traffic



Influence of I-5

- I-5 corridor congestion influences east/west route choices for freight
- Impacts felt across study area from interchanges to Fruit Valley area
- Additional traffic volumes, clogged local intersections, and neighborhood cut-through traffic

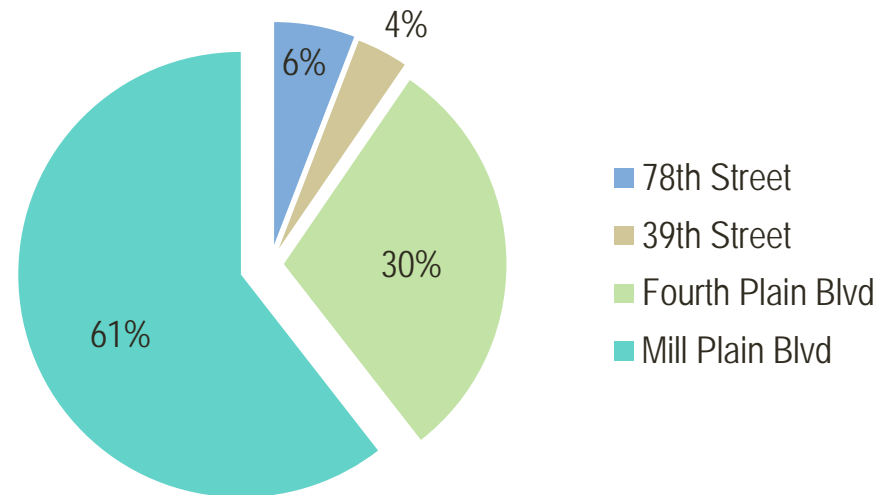


Truck Patterns – Daily Volumes

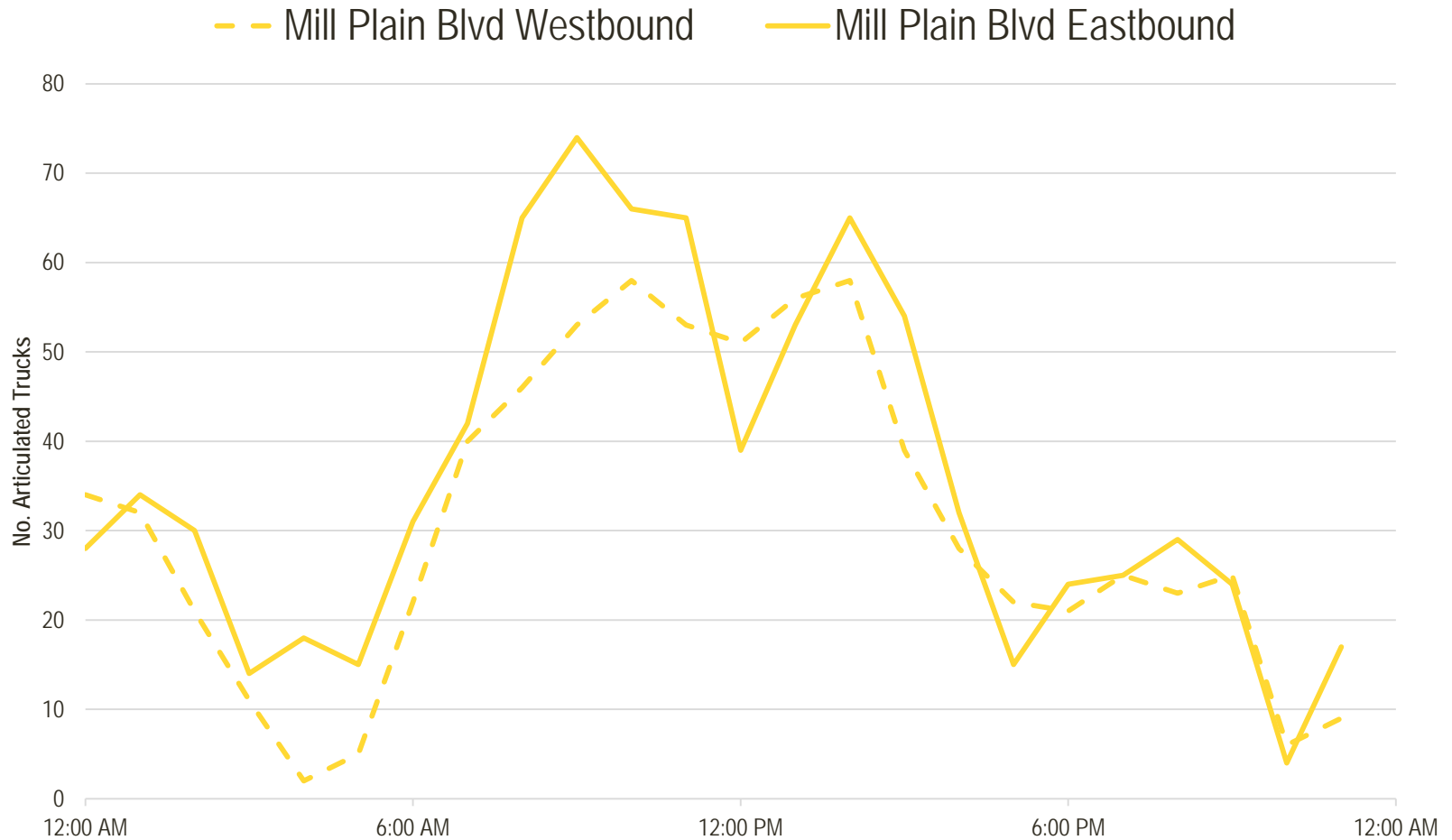
Roadway	Westbound	Eastbound	Total Daily
Mill Plain Boulevard	57%	64%	61%
Fourth Plain Boulevard	35%	25%	30%
78 th Street	5%	7%	6%
39 th Street	4%	4%	4%

Truck Route Preference:

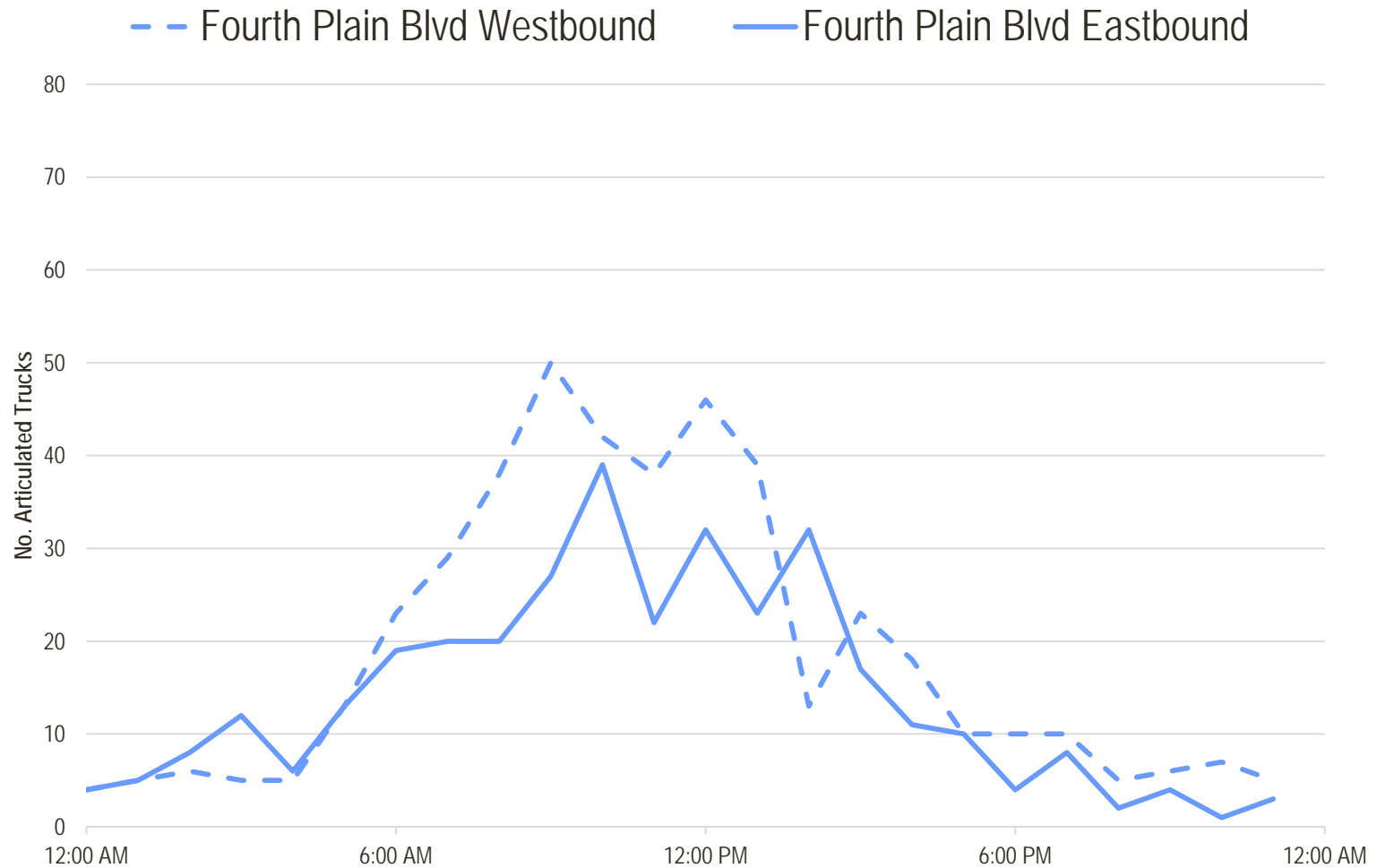
1. Mill Plain Boulevard
2. Fourth Plain Boulevard
3. 78th Street
4. 39th Street



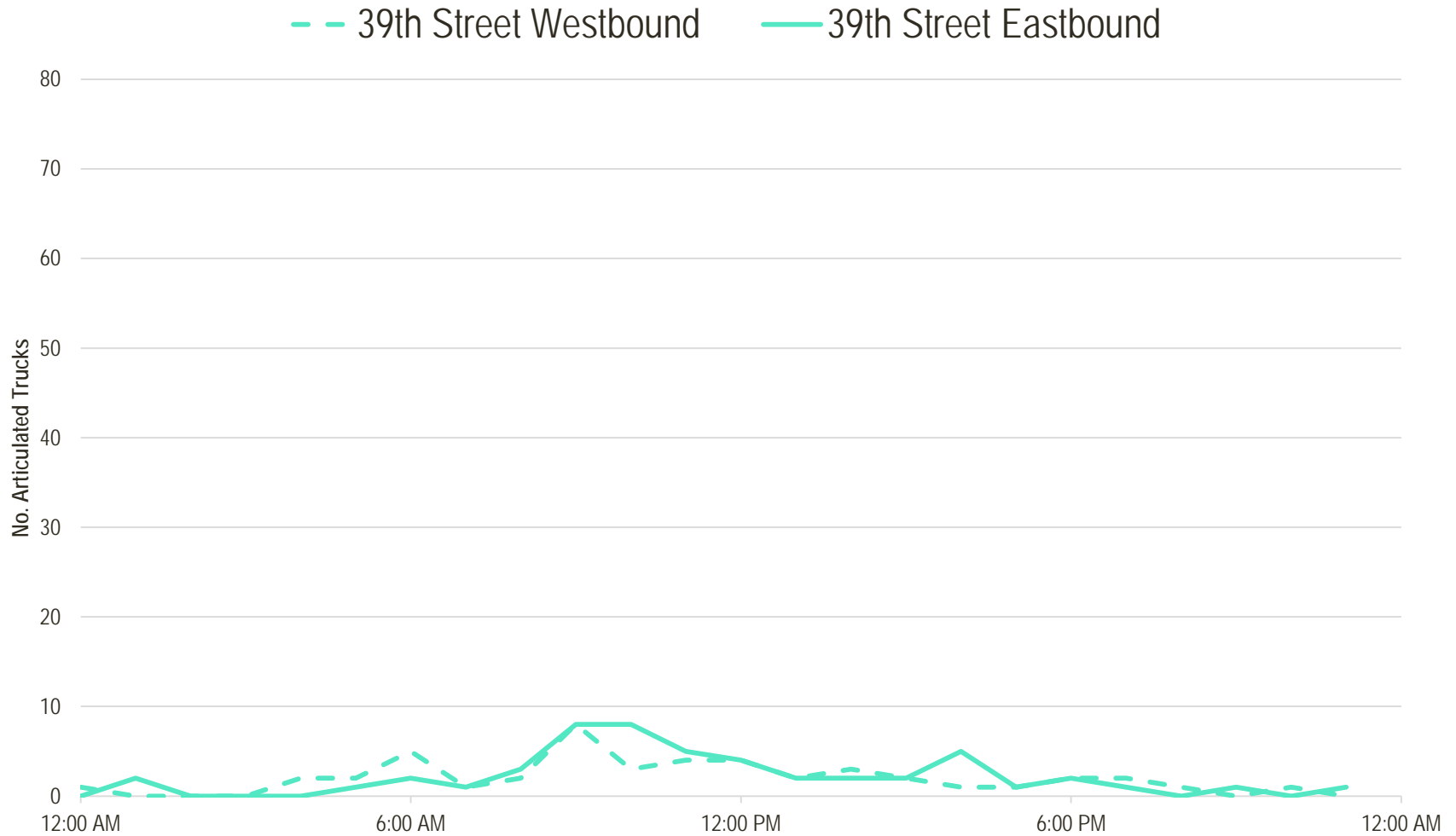
Truck Patterns – Mill Plain Volumes



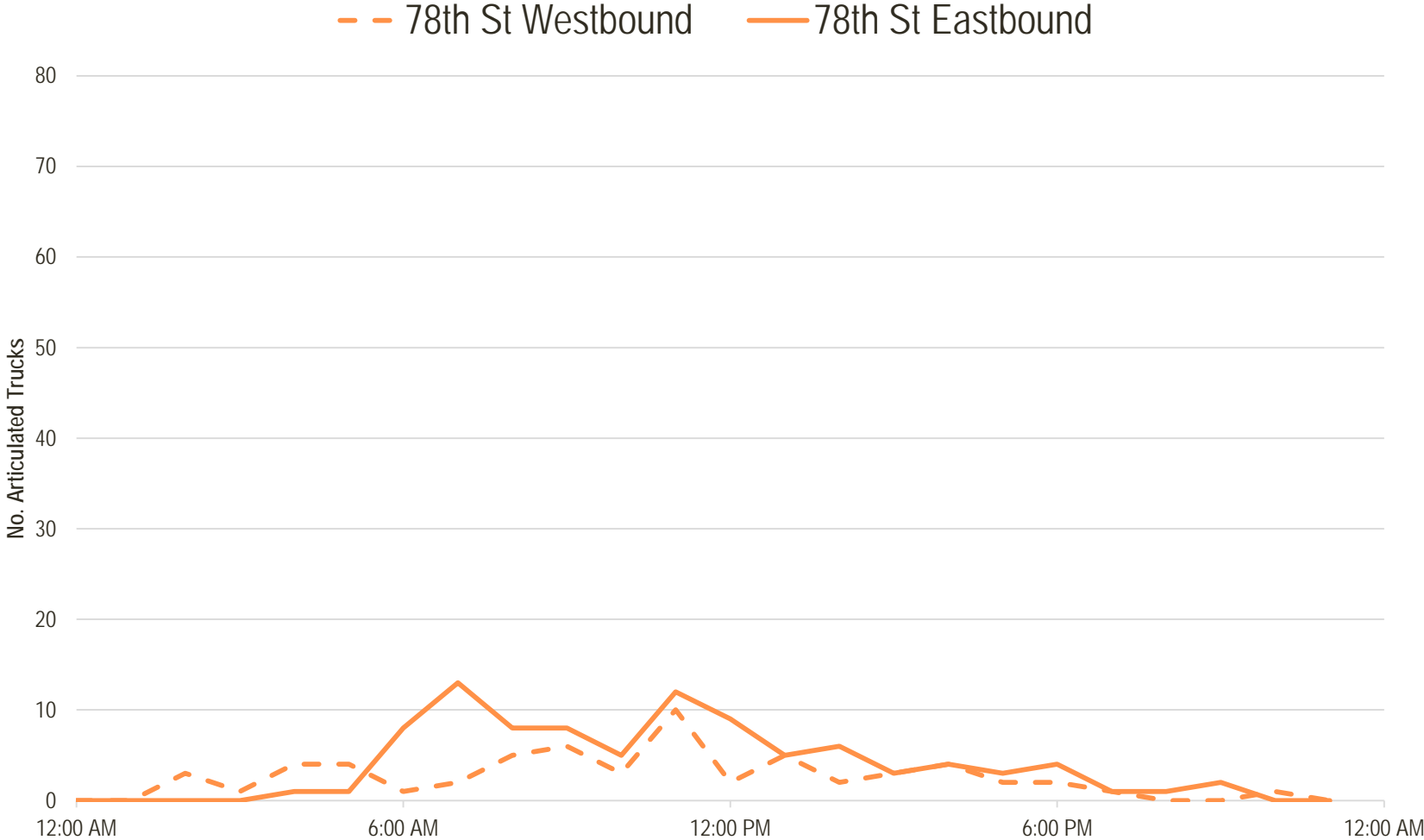
Truck Patterns – Fourth Plain Volumes



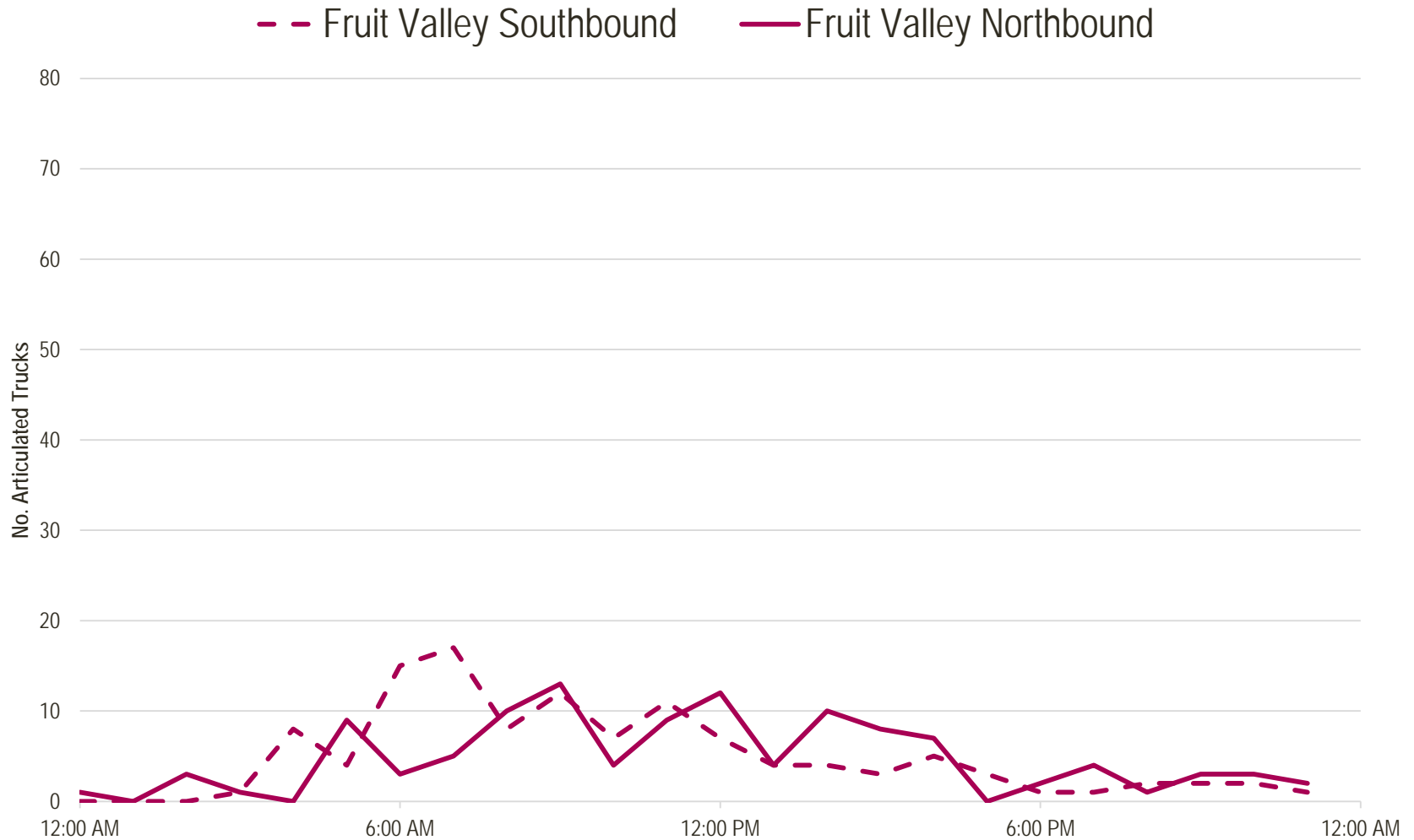
Truck Patterns – 39th Street Volumes



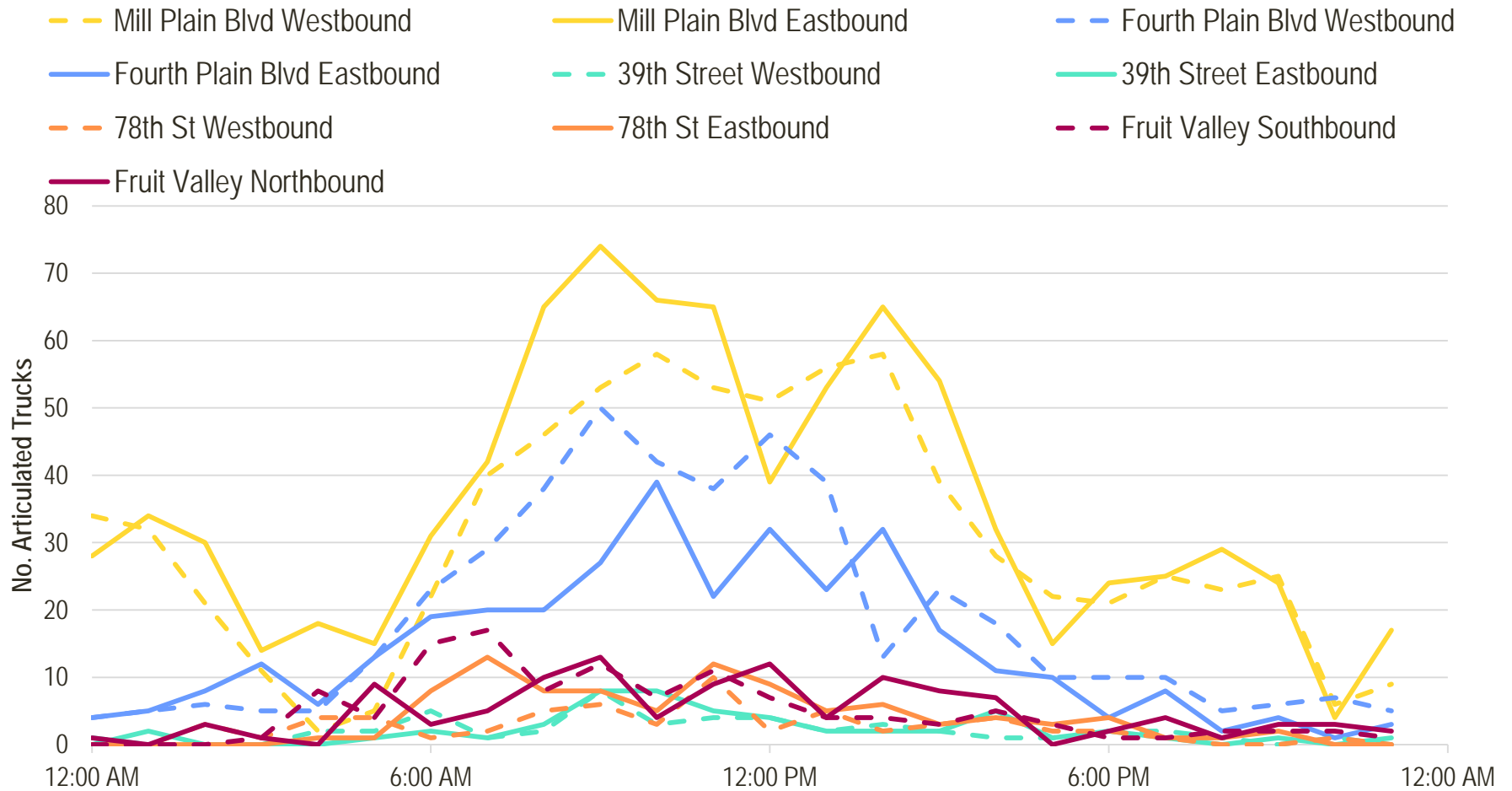
Truck Patterns – 78th Street Volumes



Truck Patterns – Fruit Valley Rd. Volumes



Truck Patterns – Network Volumes



Daily Articulated Trucks



Network Summary – Current Conditions

Roadway	Daily Traffic (vehicles)		Daily Articulated Trucks		Travel Time Mid-day		Travel Time Afternoon		Collision Rate
	EB/ NB	WB/ SB	EB/ NB	WB/ SB	EB/ NB	WB/ SB	EB/ NB	WB/ SB	
Direction									Bi-directional
78 th Street	6,326	6,706	94	61	2	2	2	2	n/a
Fruit Valley Road	4,221	3,609	114	118	9	9	8	12	1.3
39 th Street	2,510	2,654	51	47	2	2	4	4	8.5
Fourth Plain Blvd	4,940	4,470	342	450	3	3	5	4	9.8
Mill Plain Blvd	4,044	3,100	863	740	7	4	5	3	15.0

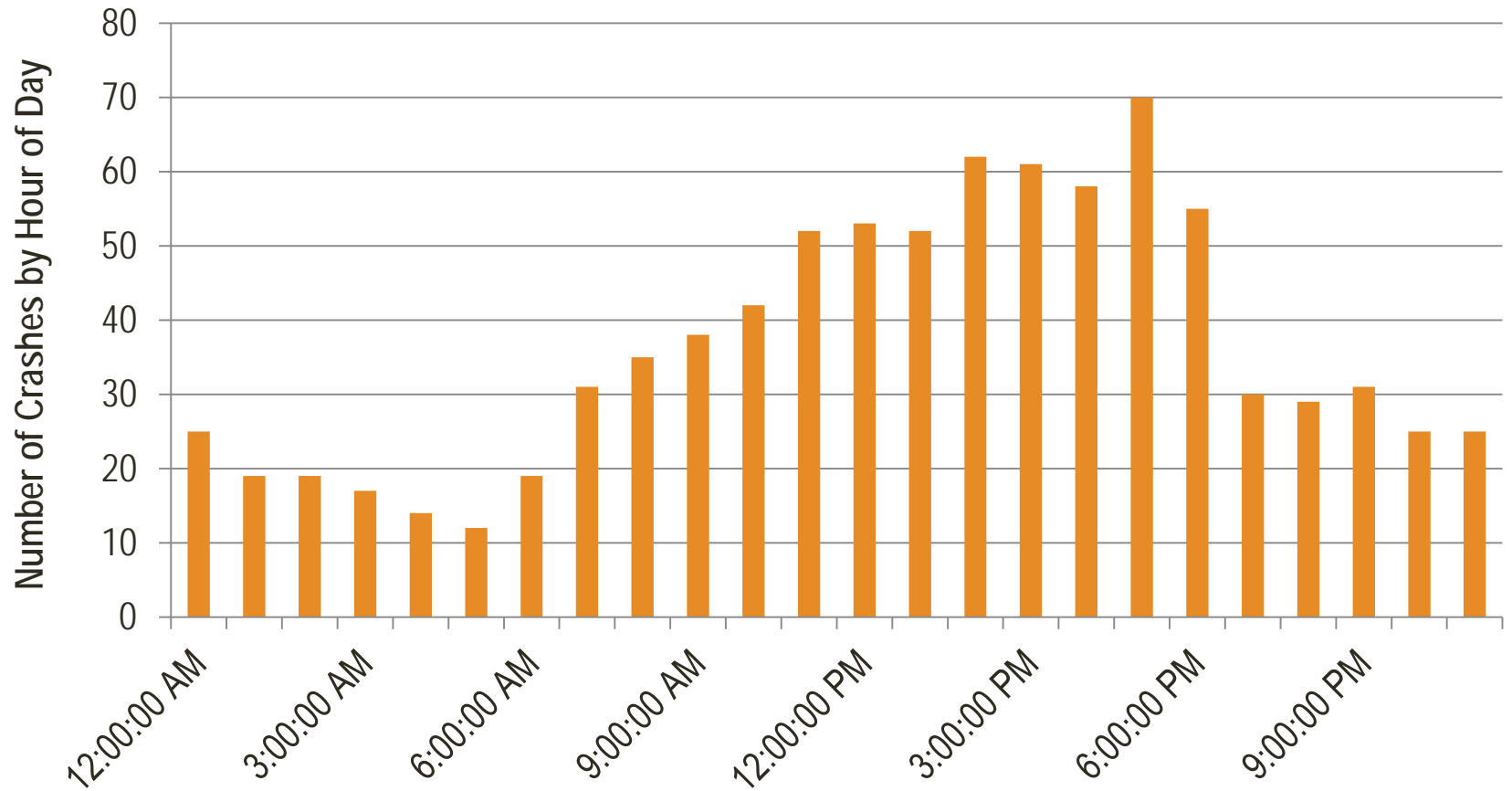
Note: Mid-day = 10:00 a.m. to 2:00 p.m., Afternoon = 4:00 p.m. to 6:00 p.m.

Collision Causes

- Disobeyed Traffic Rules – 26%
- Under the Influence of Drugs or Alcohol – 8%
- Improper Movement – 8%
- Exceeding Safe Speeds/Speed Limit – 7%
- Distracted Driver – 5%
- Followed too Closely – 5%

*Truck Related
Collisions in
Westside
Vancouver = 2.4%*

Crash Trends – Time of Day

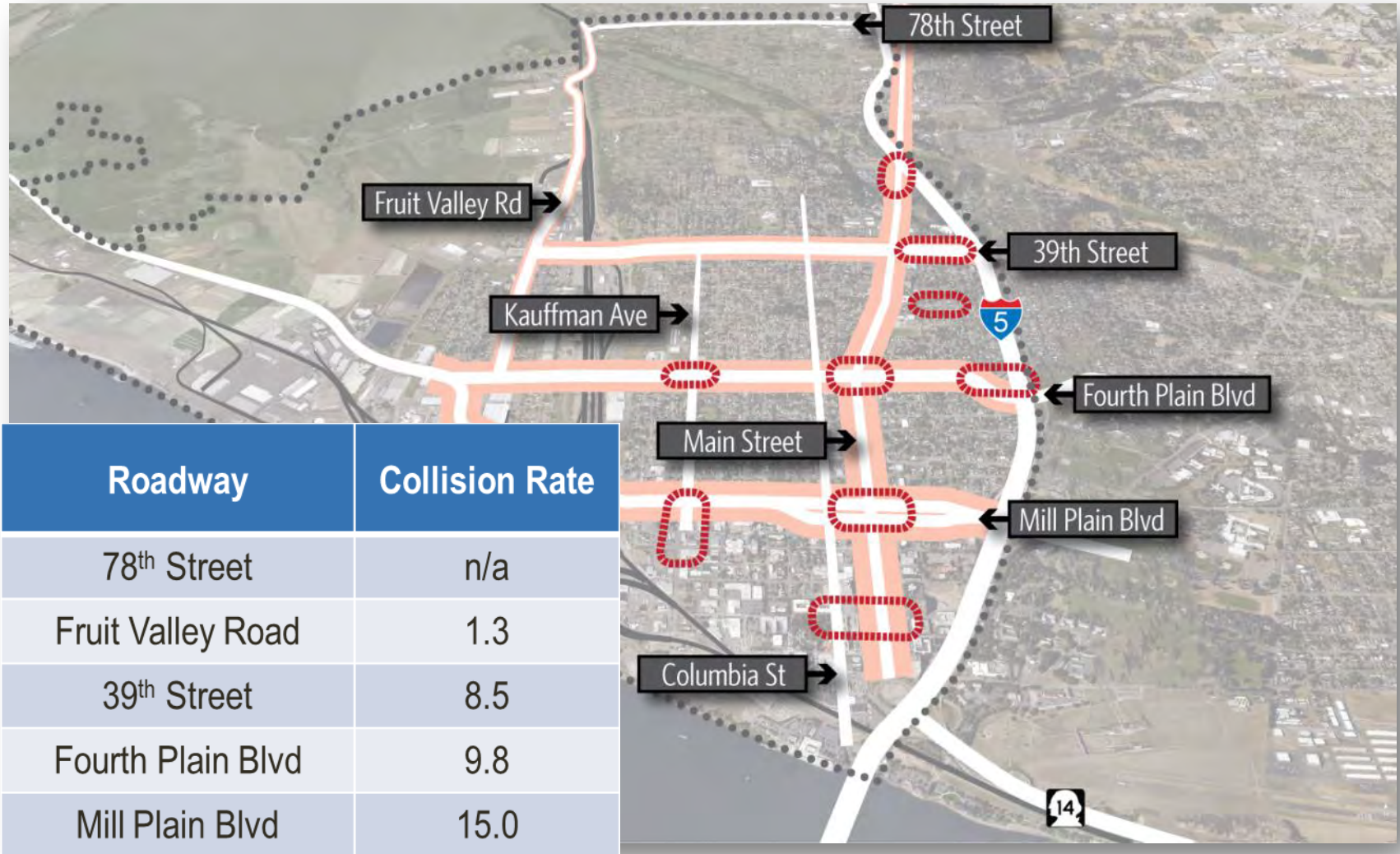


Data source: City of Vancouver Crash Data 2010-2014

Collisions by Time of Day



Key Areas of Conflict based on Collision Data



Conclusions

- Each corridor is defined by different context
- Regional and local travel patterns impact neighborhoods and industry in different ways
- I-5 and interchanges influence westside mobility
- Improvements are needed at all levels across the network
- Future (20-year) traffic projections need to be factored in before potential improvements are identified
- No one size fits all solution to address the impacts – each approach will need to respond to neighborhood context

MODERATED PANEL DISCUSSION

10 MINUTE BREAK

SMALL GROUP DISCUSSIONS AND REPORT BACK

NEXT STEPS



CITY OF
Vancouver
WASHINGTON

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