

# Camas Transportation Corridors Study

Presented to City of Camas – Planning Commission



# Project Team

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- Steve Wall, City of Camas
- Phil Bourquin, City of Camas
- Greg Jellison, PE – Principal in Charge (HDJ)
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- Julie Sosnovske, PE – Traffic Engineer (DKS)
- Dustin Day – Natural Resources (BergerABAM)

# Scope of Study

- 6<sup>th</sup> Avenue / Everett St. Corridor
  - Provide recommendations to accommodate multi-modal travel within the corridor
  - Provide recommended intersection configurations
  - Identify options for replacing bridge at Lacamas Lake / Round Lake
- Lacamas North Shore Area
  - Identify preferred location for arterial corridor
  - Identify preferred intersection control for corridor
  - Identify potential access points along corridor

# 6<sup>th</sup> Avenue / Everett Street (SR 500) Study

- Study area extends from 6<sup>th</sup> / Norwood Roundabout, through downtown to SR 500, then north to the City Limits.
- Study area broken into six segments of similar nature and mobility issues

# 6<sup>th</sup> Avenue / Everett Street (SR 500) Study

- Segment 1- NW 6th Avenue (SR 14 to NE Adams Street)
- Segment 2 – NE 6th Avenue (NE Adams Street to NE Garfield Street)
- Segment 3 – NE Garfield Street (SR 500)/NE 14th Avenue (NE 6th Avenue to NE Everett Street)
- Segment 4 – NE Everett Street (NE 14th Avenue to NE 23rd Avenue)
- Segment 5 – NE Everett Street (NE 23rd Avenue to NW Lake Road)
- Segment 6 – NE Everett Street (NW Lake Road to NE 3rd Street)

# 6<sup>th</sup> Ave. / Everett St. – Existing Conditions

- Traffic Data from 2012 Camas TIF Update
- Traffic Data collected at 7 study intersections
- Identified existing multi-modal features
- Utilized collected and TIF data to create Existing Conditions Model

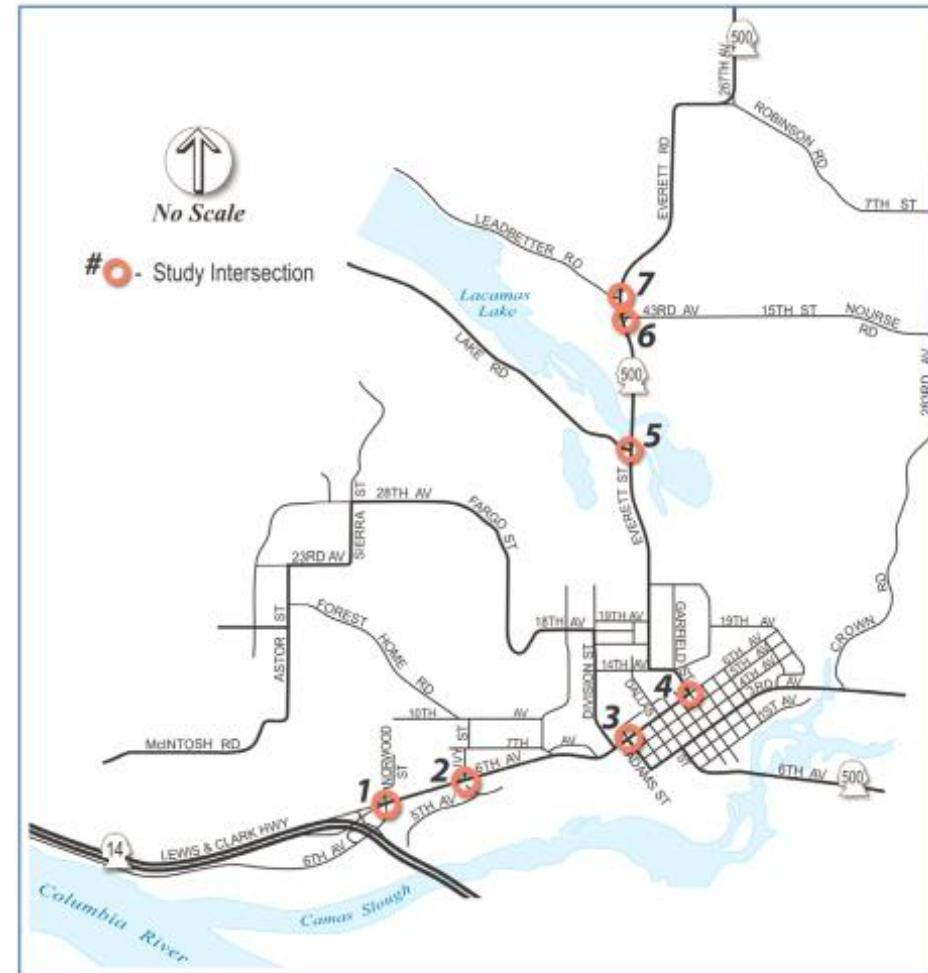


Figure 1: Study Area

Courtesy DKS

# 6<sup>th</sup> Ave. / Everett St. – Existing Conditions

- Identified Intersection Operations
  - All intersection operate below capacity except for Everett Street / Lake Road
- Collected 3-year crash history
  - Crash rates below 1.0 Crash / MEV at intersections
  - Crash rates near or above County Avg 138.7/100MV
  - Many accidents related to rear end / excessive speed
- Collected parking data for downtown area
  - Highest usage during the work day
  - Most locations 50% to 80% occupied

# 6<sup>th</sup> Ave. / Everett St. – Future Conditions

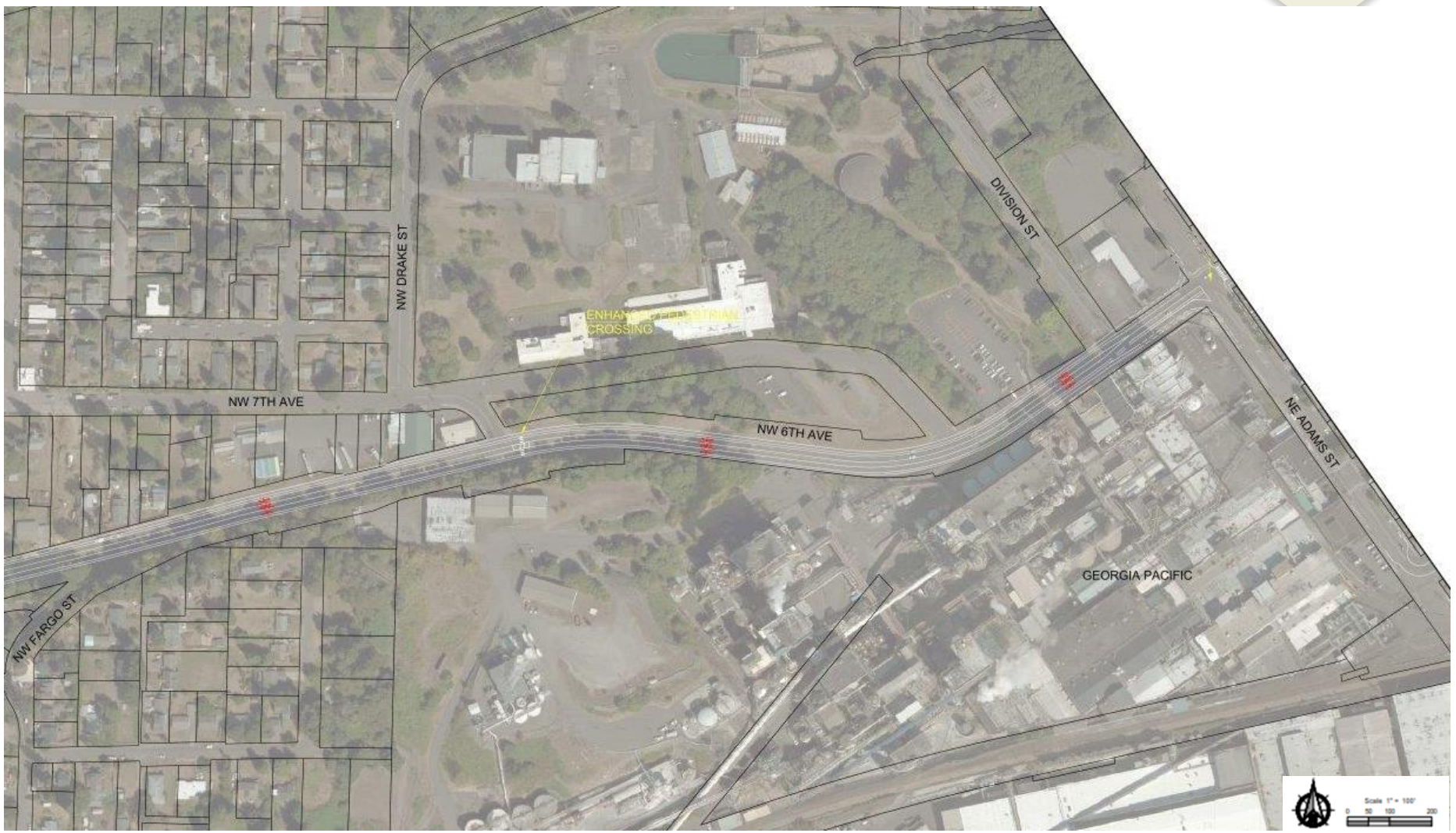
- Forecasted to Year 2035
- Most study intersections over capacity in current configuration
- Recommendations made for each segment and study intersections to maintain capacity



# NW 6<sup>th</sup> Ave – Norwood to Adams (Part 1)



# NW 6<sup>th</sup> Ave – Norwood to Adams (Part 2)

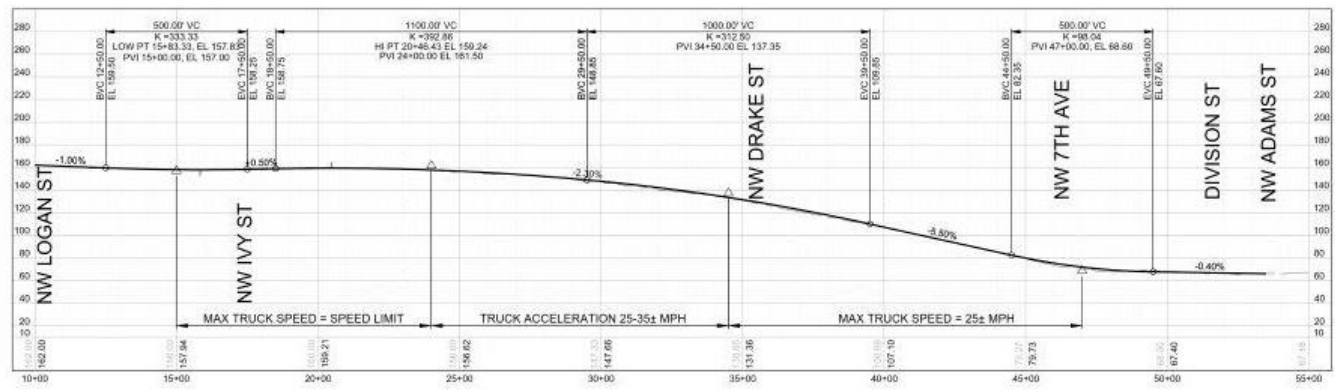


# NW 6<sup>th</sup> Ave – Norwood to Adams

## Recommendations

- Add enhanced pedestrian crossings at Ivy St. and Drake St.
- ‘Road Diet’ is feasible for this segment
  - Additional studies may need to review gap availability for side street turn movements
  - Review uphill truck speed coming from downtown

# NW 6<sup>th</sup> Ave – Road Diet – Truck Speeds



# NW 6<sup>th</sup> Ave – Adams to Garfield



# NW 6<sup>th</sup> Ave – Adams to Garfield

## Recommendations

- 6<sup>th</sup> / Adams – Add pedestrian enhancements
  - Future single lane roundabout
- 6<sup>th</sup> / Dallas – Maintain current stop control
  - Review capacity as development occurs
  - May be impacted if 3<sup>rd</sup> Street reconfigured
- 6<sup>th</sup> / Garfield – Maintain current stop control
  - Review need for signal as development occurs
- Add bike lanes along segment
- Keep on-street parking / Add curb extensions at intersections

# NE Garfield Street / NE 14<sup>th</sup> Avenue



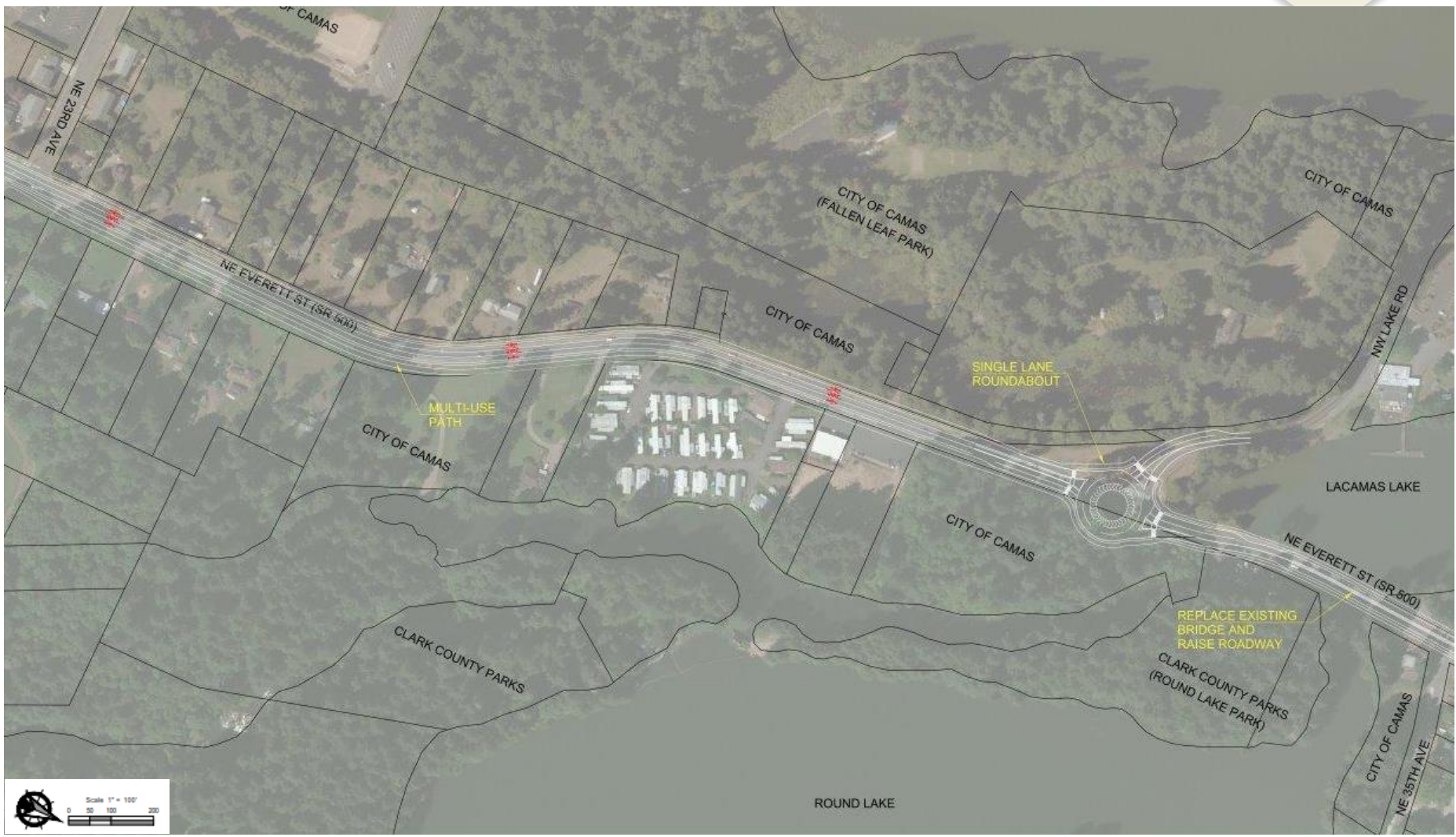
# NE Garfield Street / NE 14<sup>th</sup> Avenue

## Recommendations

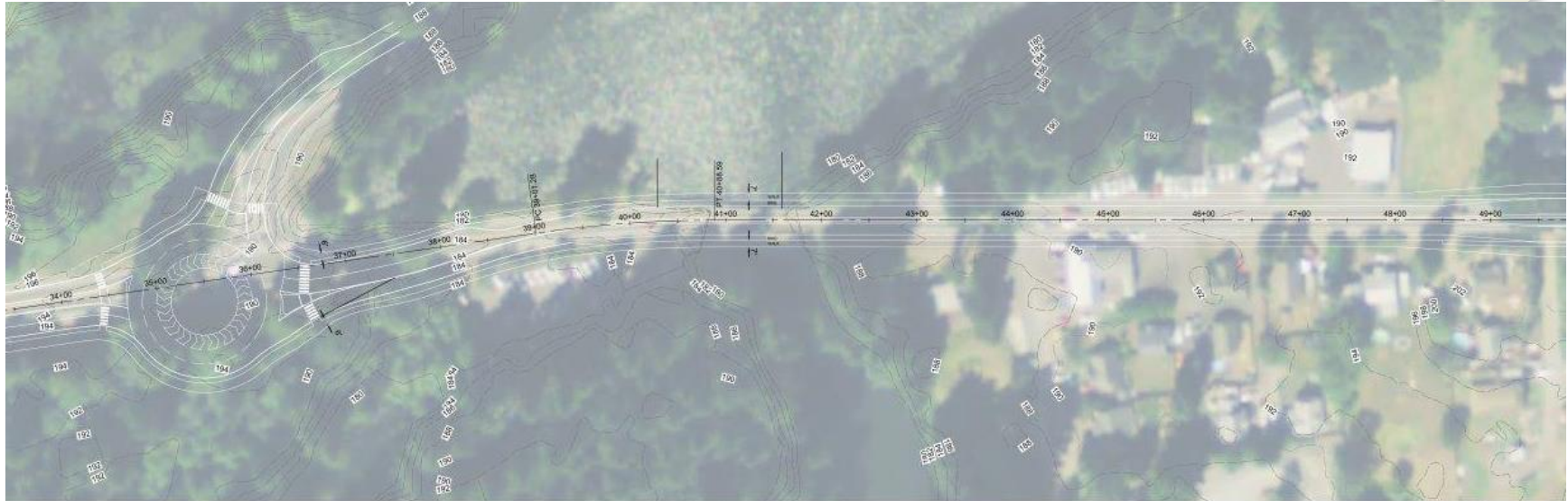
- Maintain Striping performed by WSDOT
- Reconfigure Garfield / Ione Intersection
- Close South and West legs of 14<sup>th</sup> Street / Everett St. Intersection per TIF Study
- Maintain existing pedestrian crossings
  - Consider Enhanced Crossings as traffic increases



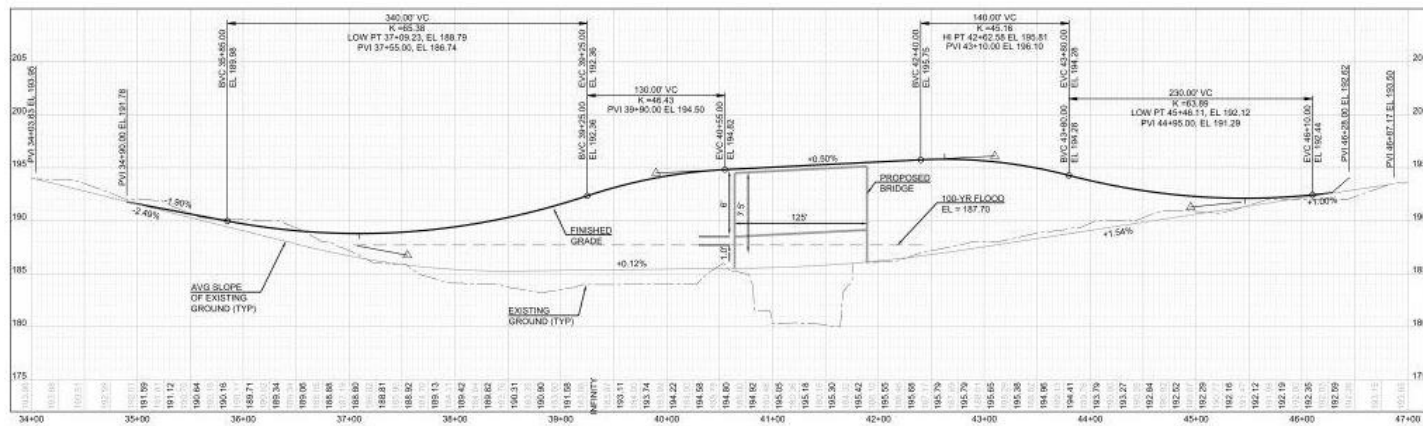
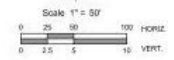
# Everett St. - NE 23<sup>rd</sup> Avenue to Lake Road



# Everett St. – Bridge Replacement



DESIGN SPEED=40MPH Kc=44  
 POSTED SPEED=35MPH Ks=64



FEMA 100-YR FLOOD EL 191.0  
 ADJUST TO CITY DATUM -3.3  
 AS SHOWN ON PROFILE EL 187.7  
 BOTTOM OF BRIDGE EL 188.7

# Everett St. - NE 23<sup>rd</sup> Avenue to Lake Road

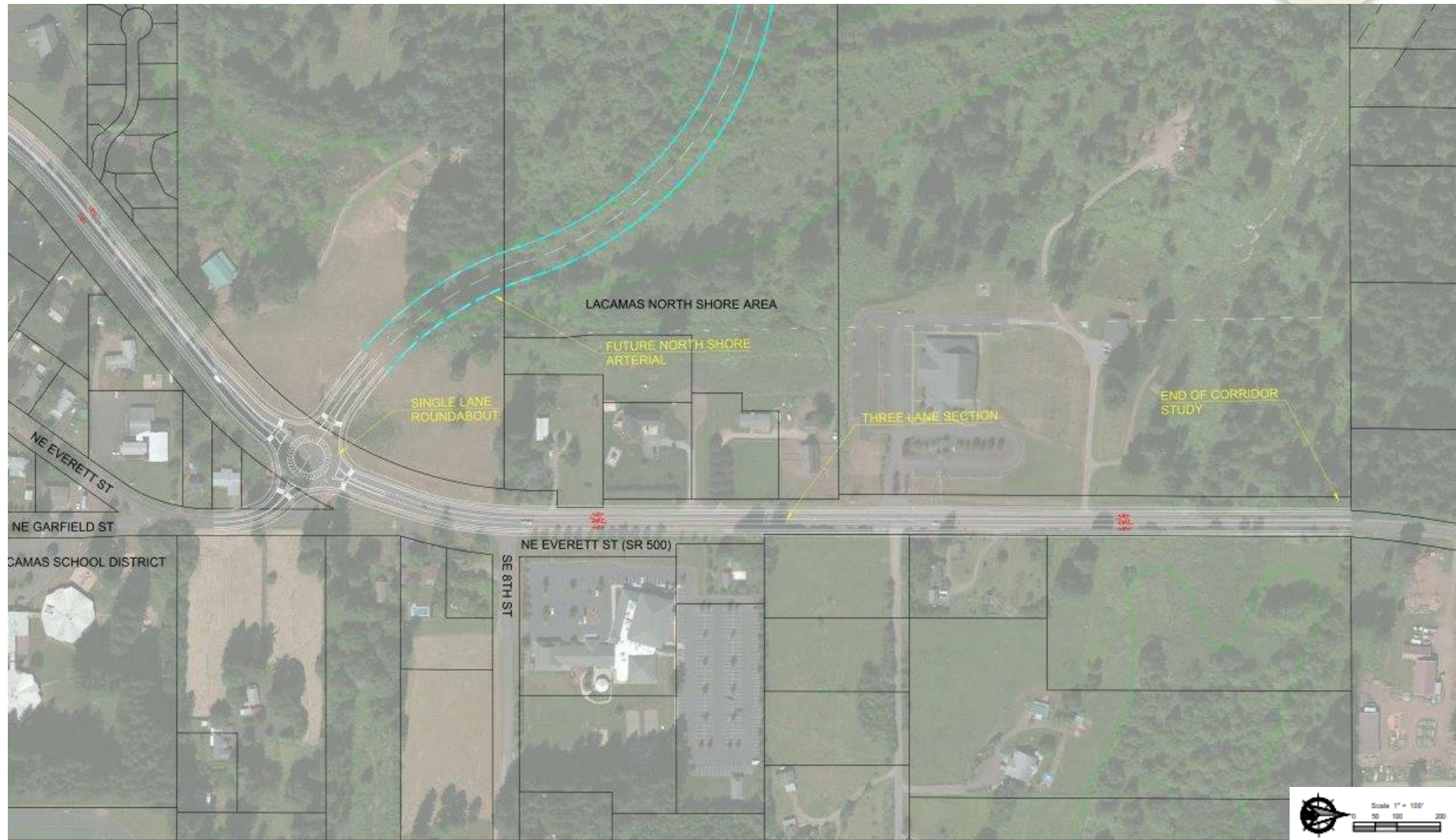
## Recommendations

- Ultimate roadway section should include center left turn lane, bike lanes, sidewalks on both sides
- Consider implementing 12' multi-use path on east side to connect to Round Lake Park
- Everett St. / Lake Rd. Intersection will need improvements before 2035
  - Consider Single-Lane Roundabout
  - Volumes balanced on each leg
- Bridge will need to be replaced
  - Raise road grade to avoid overtopping in 100-year flood

# NE Everett St. – NW Lake Road to City Limit



# NE Everett St. – NW Lake Road to City Limit

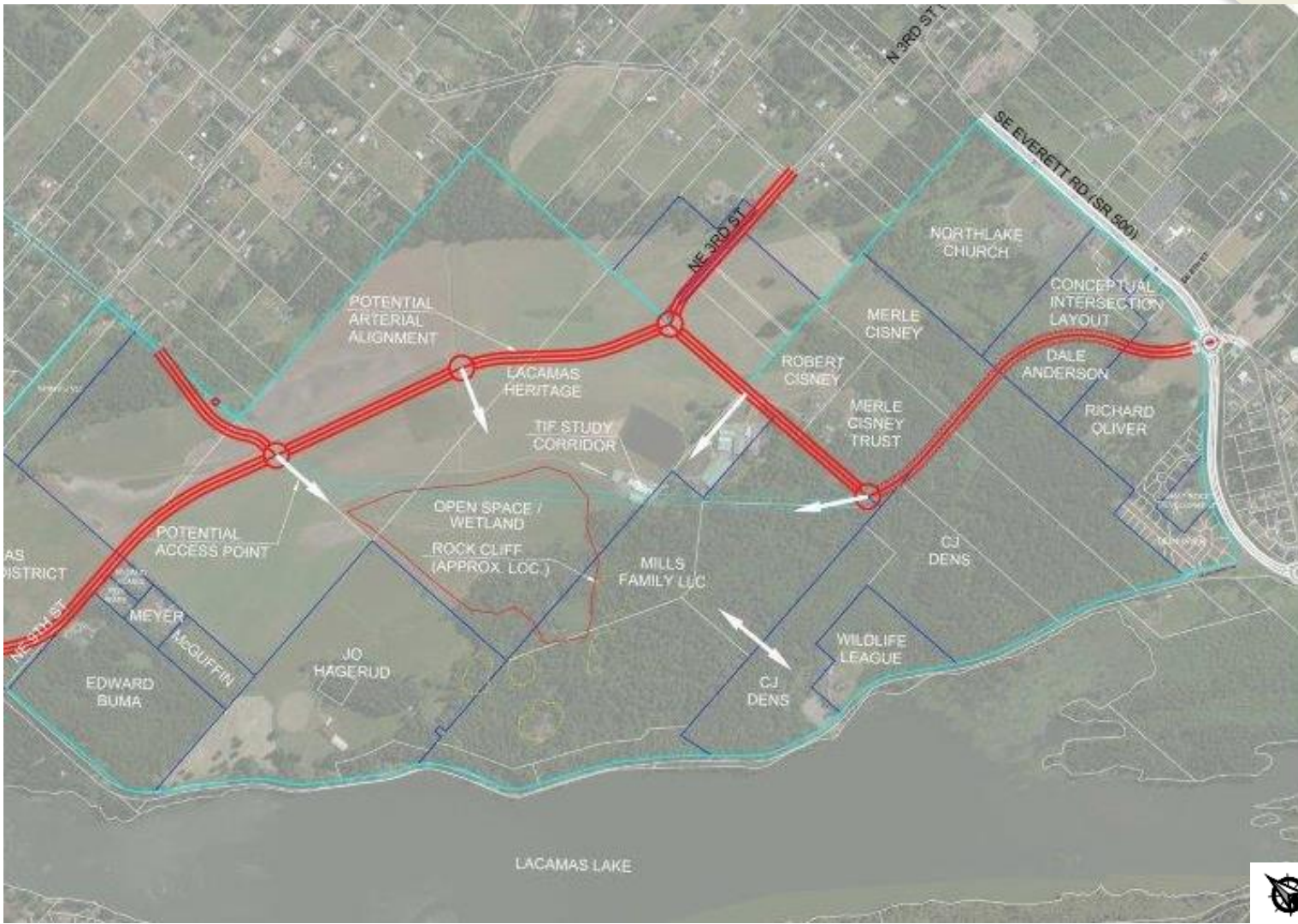


# Everett St. - NW Lake Road to City Limit

## Recommendations

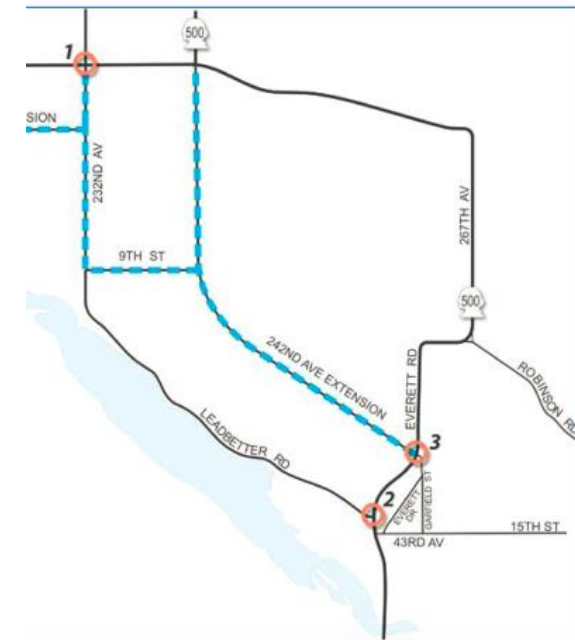
- Ultimate roadway section should include center left turn lane, bike lanes, sidewalks on both sides
- Consider single-lane roundabouts at these intersections:
  - NE 38<sup>th</sup> Avenue
  - NE 43<sup>rd</sup> Avenue
  - Everett Drive / Lacamas North Shore Area access
- Roundabout could allow for continuous median with right-in / right-out only along corridor

# Lacamas North Shore Area



# Lacamas North Shore – Existing Conditions

- Undeveloped area north of Lacamas Lake
- Utilized 2012 Camas TIF Study
- No new counts – road network not existing
- Studied following intersections
  - NE 232nd Ave / NE 28th ST.
  - Leadbetter Rd / NE Everett St.
  - NE Everett Dr. / NE Everett St.



al/Collector Roadway Network



# Lacamas North Shore Area

- All Study Intersections currently operate below capacity
- Improvements will be needed at connections to existing roadway network by build-out
- NW Ingle Road / NE 28<sup>th</sup> Street
  - SB Right Turn Lane
  - Second EB Left Turn Lane
  - Second NB Receiving Lane on Ingle Road
- NW 242<sup>nd</sup> Ave / NE 28<sup>th</sup> St
  - SB Left Turn Lane

# Lacamas North Shore Area

- Arterial should have three lane section with center left turn lane, bike lanes, and sidewalks on both sides
- Consider using single lane roundabouts at internal intersections to accommodate a variety of land uses
- Consider limited access (median) between roundabouts
- NE 9<sup>th</sup> Street / NE 232<sup>nd</sup> Ave is likely initial connection to the west.

# Camas Corridors Study

- Planning Commission Comments

# Camas Corridors Study - Next Steps

- Planning Commission Comments
- Present to City Council
- Continue Discussion on Each Section
- Develop Transportation Capital Improvements Projects
  - Consider Schedule, Budget, Development Priorities