

About the Study

- » Master Plan for future improvements
 - Safety for all people
 - Sight Distance
 - Crossings
 - Pedestrian/Bicycle Obstacles
 - Streams and Drainage
 - Lighting
- » Autos, Bikes, Pedestrians



Guiding Principles

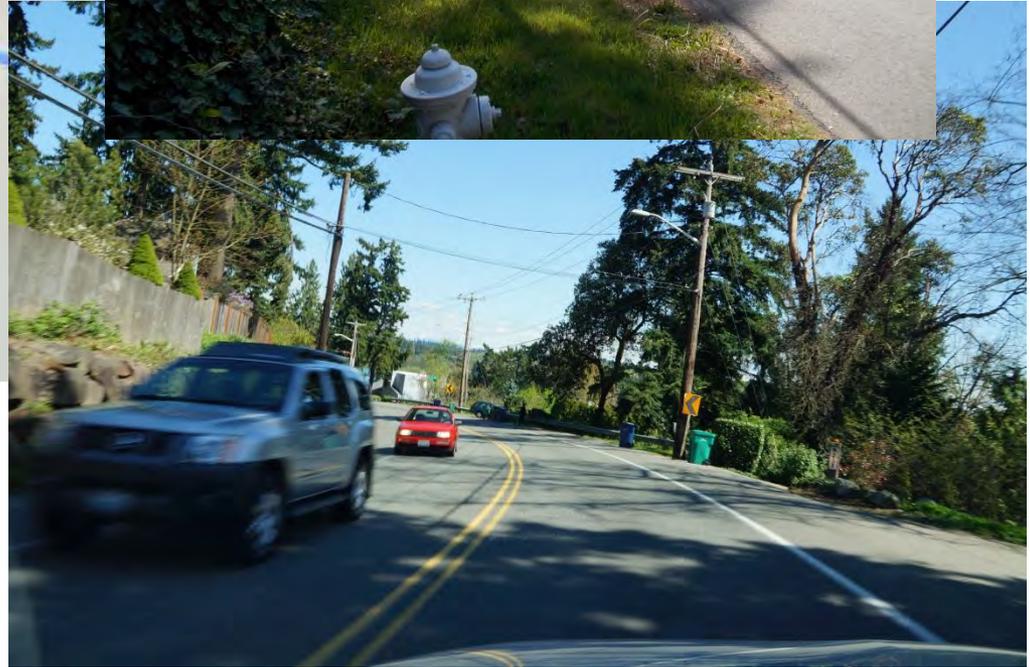
1. Address safety for all modes
2. Maintain corridor unique identity
3. Respect neighborhood values
4. Protect natural environment
5. Provide realistic and fundable improvements



JUANITA DRIVE Master Plan Corridor Study



Poor Sight Distance





Many Curves and Fast Traffic

- » 85th Percentile Speed exceeds 40 mph
- » Using that design criterion, several curves do not meet standards
- » Curves meet standards using a design speed of 35 mph (i.e. speed limit)

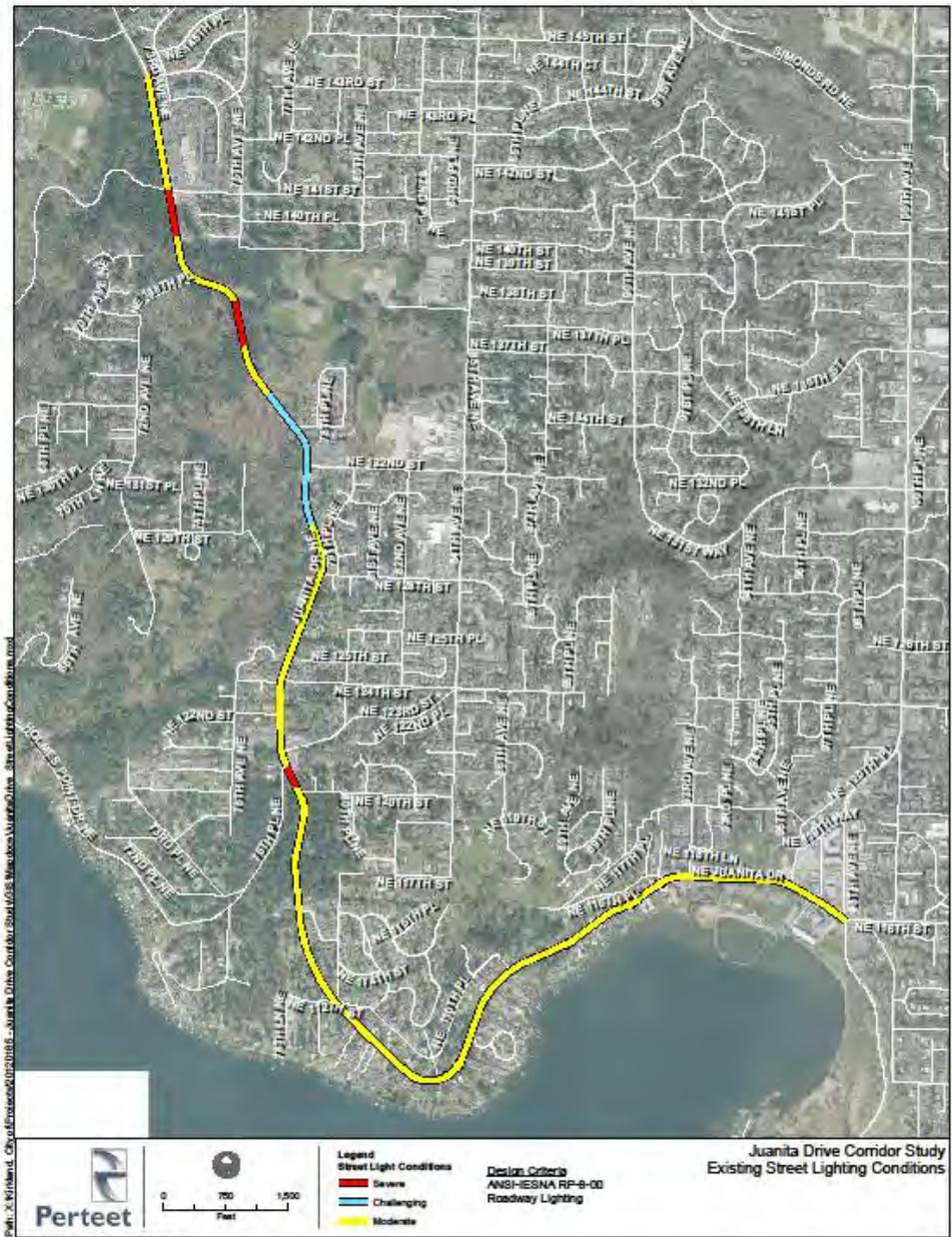
Lighting is Substandard

- » Light Levels are Low
- » Lighting is not where you need it



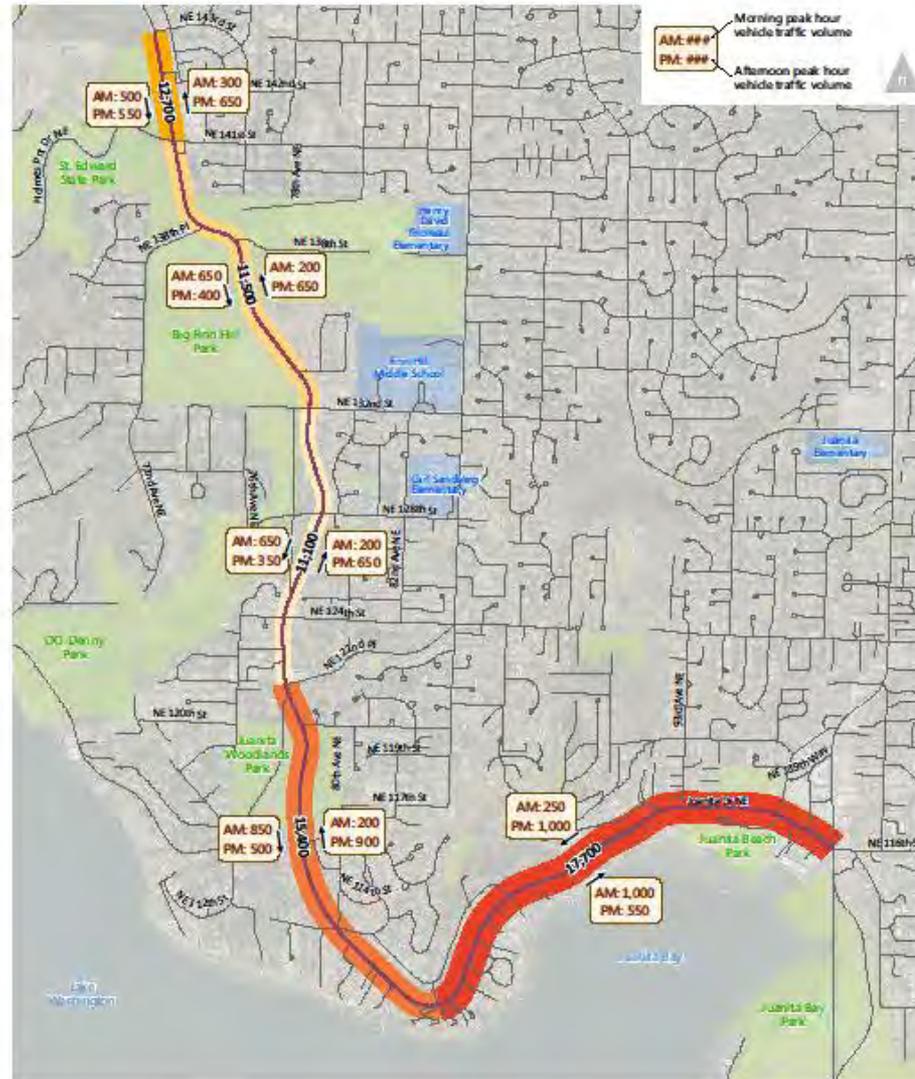
JUANITA DRIVE Master Plan

Lighting Conditions



JUANITA DRIVE

Traffic Volumes



DRAFT (May 22, 2013)

Daily Weekday Average Traffic Volume

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FEIR + PEERS

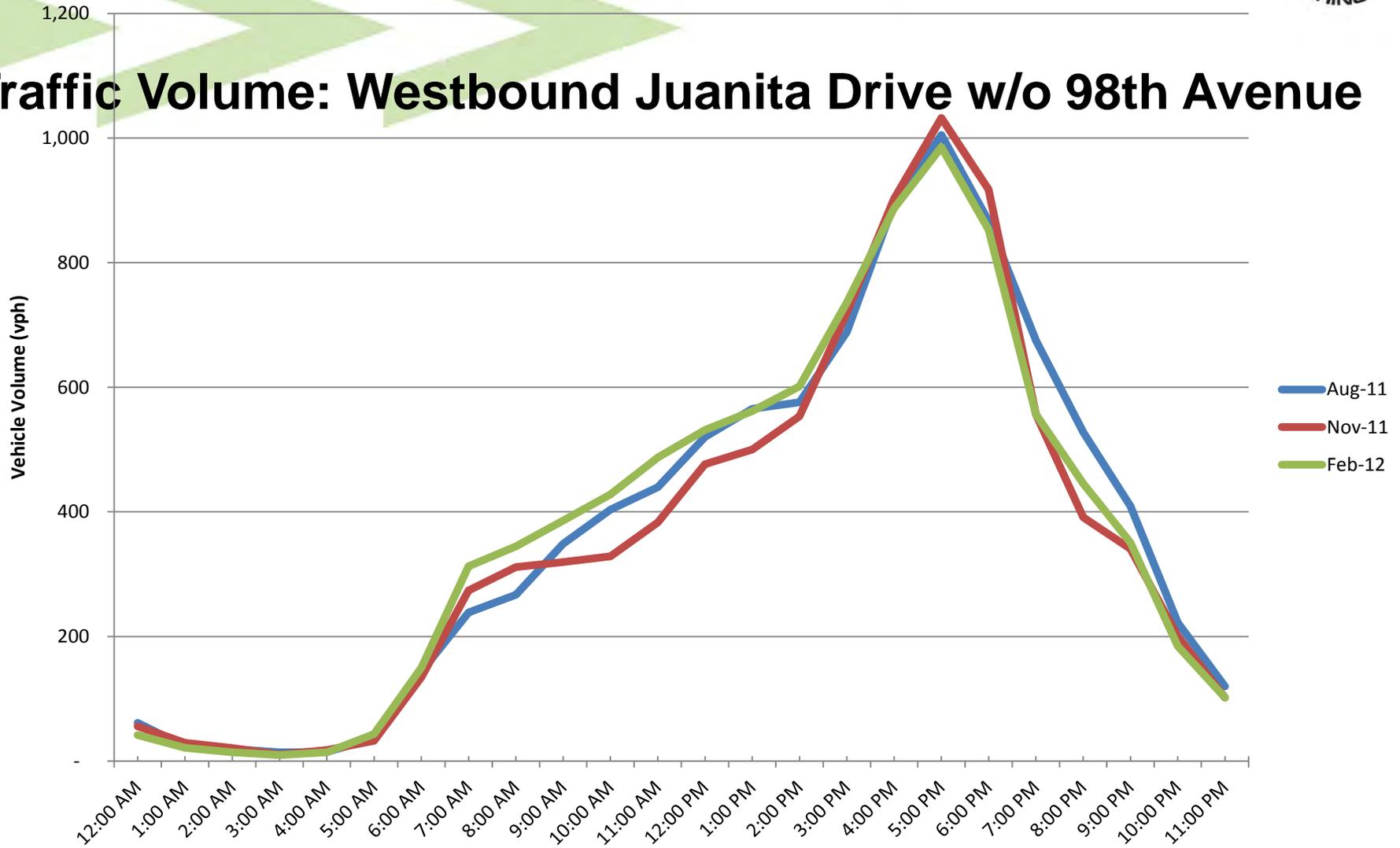
SR 520 Tolling Effects

- » Juanita Drive peak volumes increased right after tolling, but changes on 100th Ave were larger
- » One year later, in 2013, volumes were back down to 2011 levels on Juanita Drive- still higher on 100th Ave
- » Travel time changes were minimal on Juanita Drive

JUANITA DRIVE Master Plan Corridor Study



Traffic Volume: Westbound Juanita Drive w/o 98th Avenue



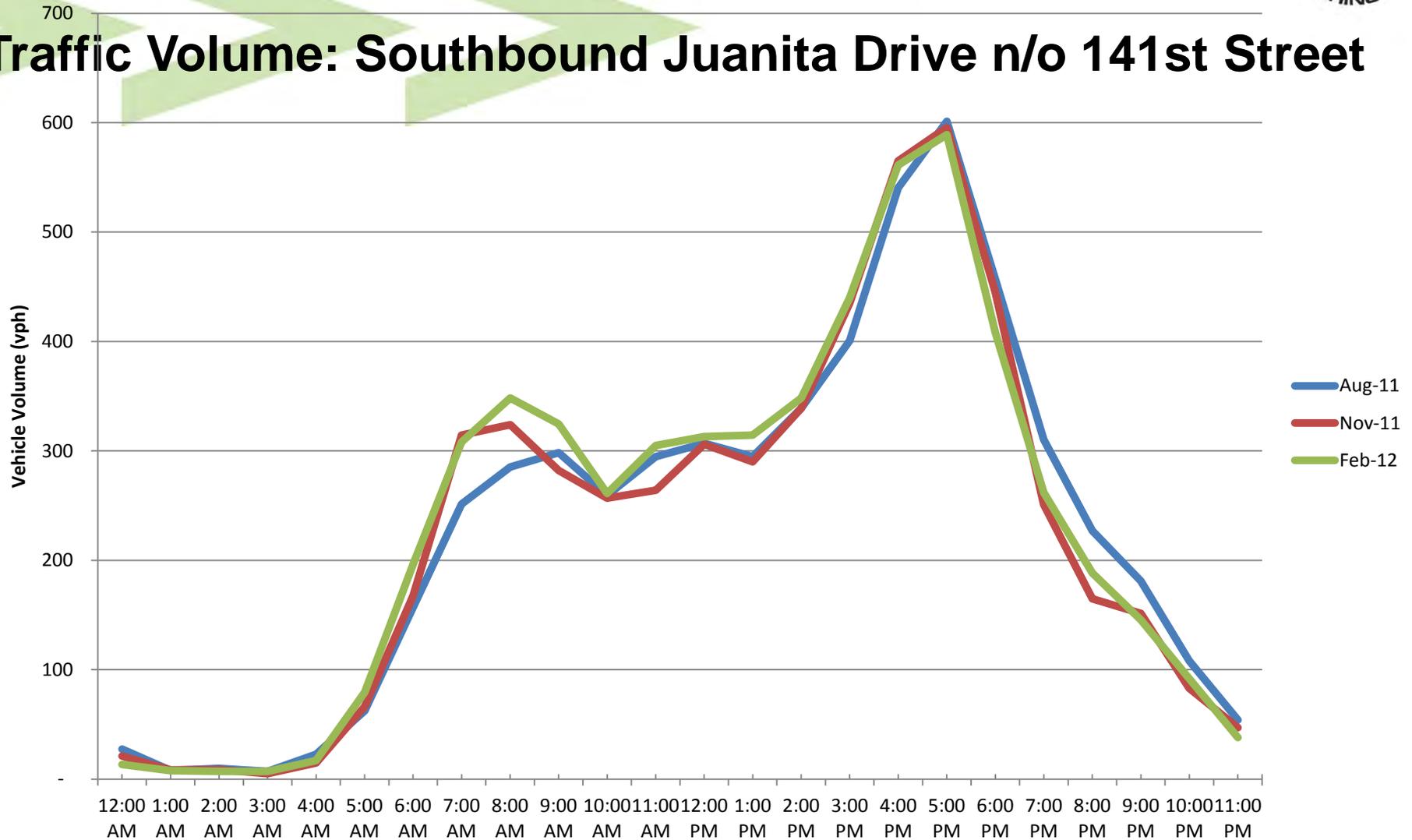
Source: City of Kirkland

Traffic Counts Collected August 9-11, 2011, November 17-19, 2011, and February 9-11, 2012

JUANITA DRIVE Master Plan Corridor Study



Traffic Volume: Southbound Juanita Drive n/o 141st Street



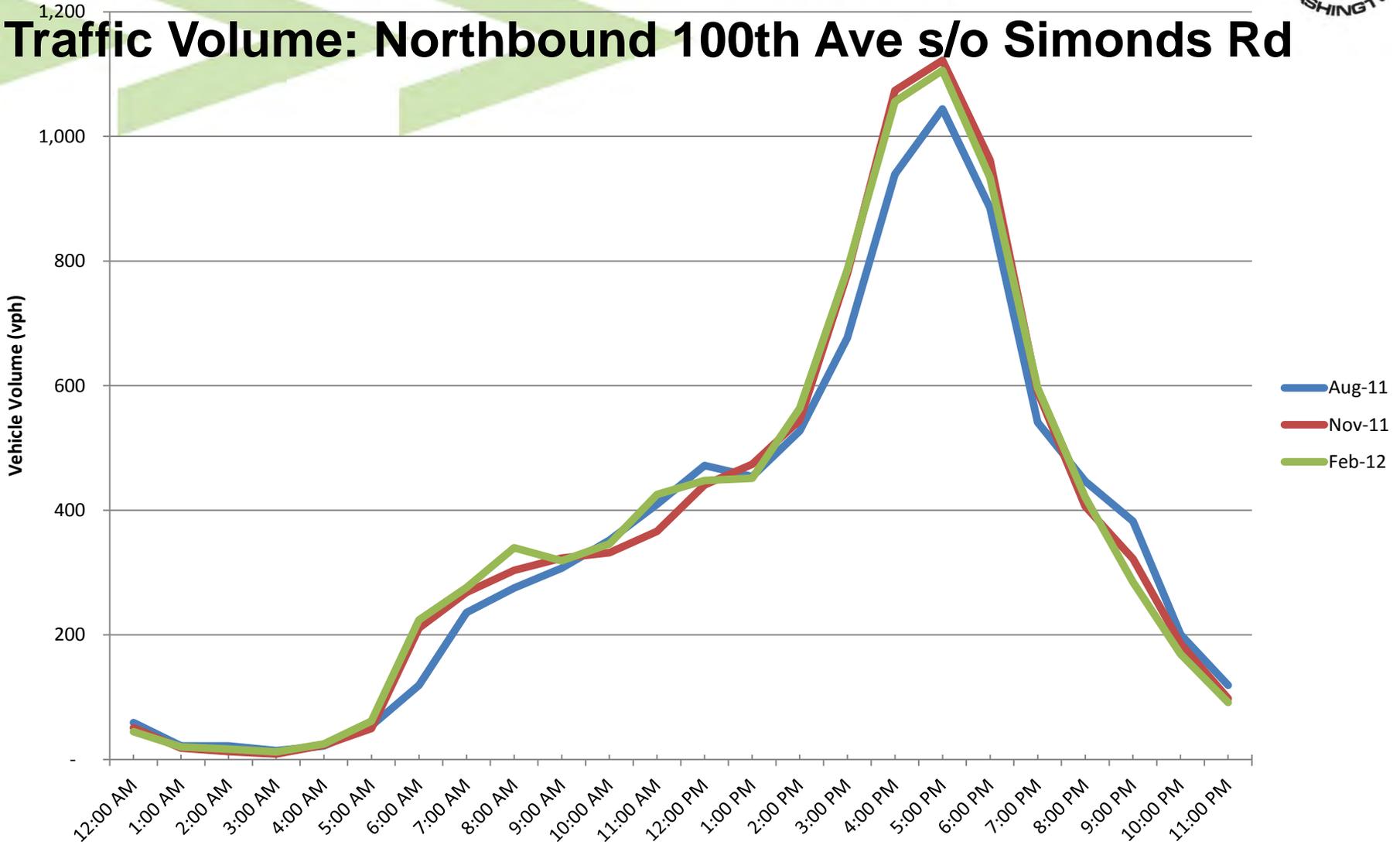
Source: City of Kirkland

Traffic Counts Collected August 9-11, 2011, November 17-19, 2011, and February 9-11, 2012

JUANITA DRIVE Master Plan Corridor Study



Traffic Volume: Northbound 100th Ave s/o Simonds Rd



Source: City of Kirkland

Traffic Counts Collected August 9-11, 2011, November 17-19, 2011, and February 9-11, 2012



Growth in Study Area (2010-2030)

» Land Use

- Households +500-900 (+5-10%)- throughout area
- Employment +200-400 (+15-30%)- mostly along 100th Ave

» Traffic Growth on Juanita Drive

- Peak volumes +15-20% demand increase
- Constrained by capacity at either end of corridor
 - +5-10% more likely



Traffic Level of Service – Hot Spots

» Existing

- **AM: 97th and 98th Ave LOS E/F (rolling queue)**
- **PM: 98th Ave LOS E; Holmes Pt. Drive LOS C (500-800 foot rolling queue)**

» Future

- **Same locations as existing**
- **Somewhat more traffic congestion at 97th/98th Ave; LOS D conditions at Holmes Pt. Drive with long queues**

JUANITA DRIVE Master Plan Corridor Study



Traffic Level of Service





Developing Alternatives

Consider:

- » Corridor Profile
- » Stakeholder Input
- » Best Practices
- » Recognize Constraints

A Start:

- » Basic Cross-Section
- » Tool-box
- » Initial Corridor Concepts

JUANITA I



DRAFT (June 12, 2013)

Juanita Drive Corridor Study Corridor Cross Section Widths

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Juanita Drive Cross Sections

Existing

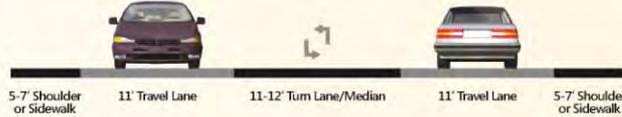
Typical Section

2-Lane
Total Width: 34' - 38'



3-Lane

3-Lane with/without sidewalks
Total Width: 45' - 47'



Juanita Village

3-Lane with Sidewalks
Total Width: 54'



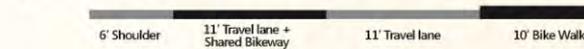
Concepts

2-Lane with walkway/bike lanes.
Total Width: 38'



Minimum

Option 1



Option 2

2-Lane with walkway/
buffered bike lanes
Total Width: 41'



2-Lane with
multipurpose pathway
(with/without buffer)
Total Width: 49'
(51' with bike buffer)

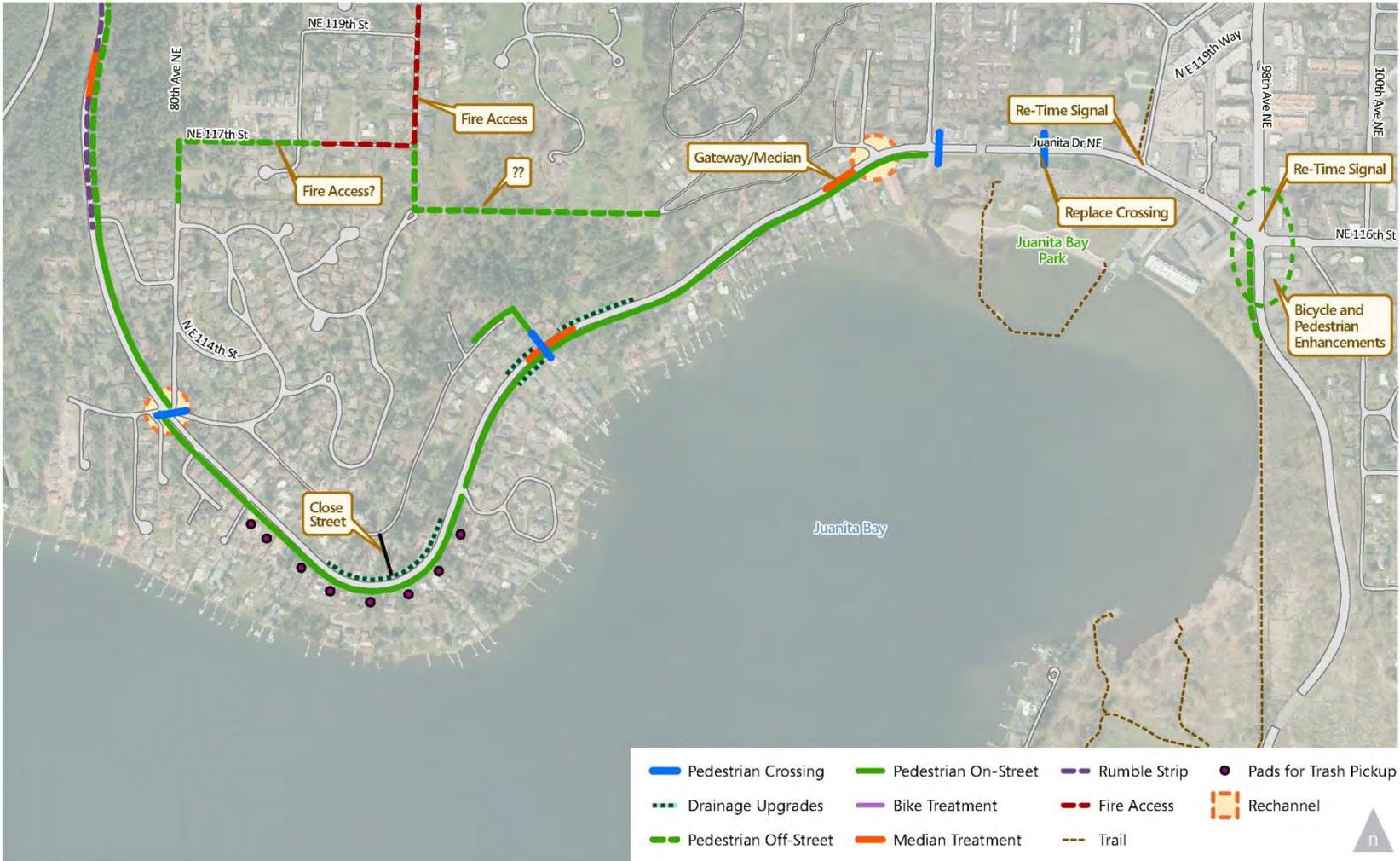


3-Lanes with walkway/
bike lanes
(with/without buffer)
Total Width: 50' - 51'
(52' - 53' with bike buffer)



Traffic Calming Toolbox

- » Actions to slow traffic and improve safety
- » Appropriate for a Minor Arterial such as Juanita Drive
- » See handout for details



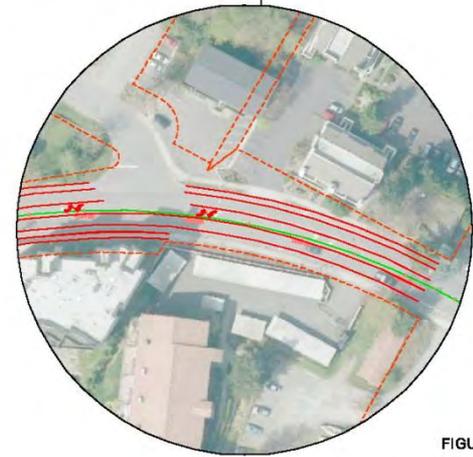
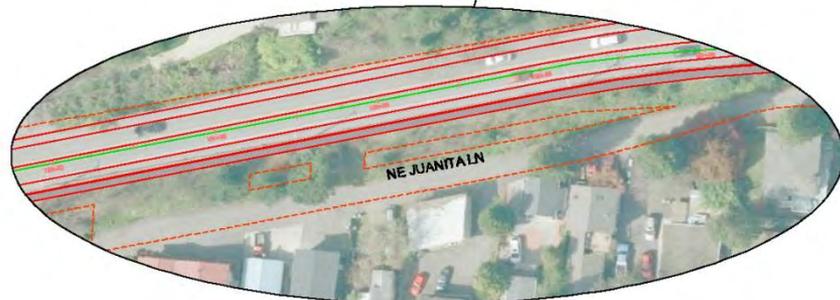
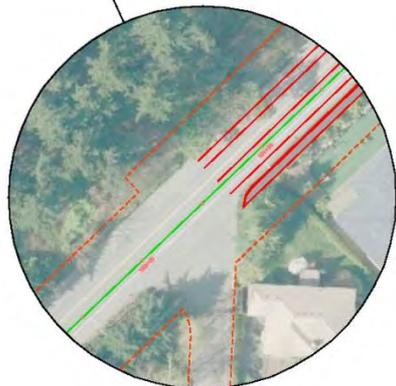
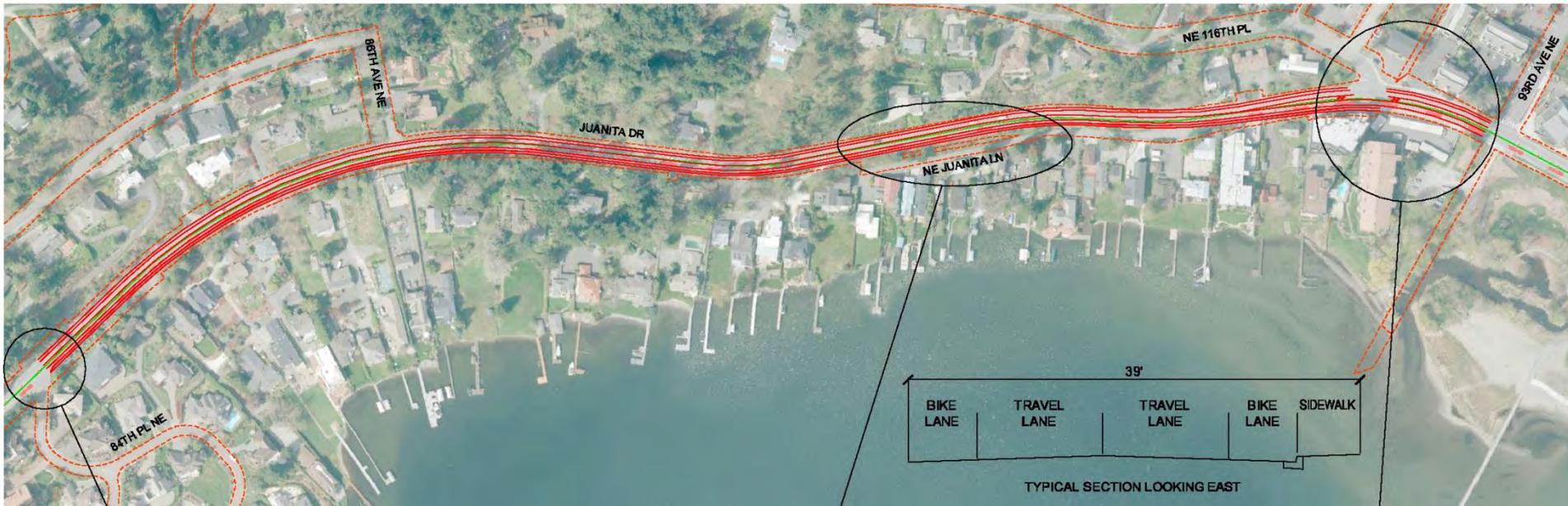
DRAFT CONCEPTS (July 22, 2013)

**Juanita Drive Corridor Study
100th Ave NE to NE 119th St**

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JUANITA DRIVE Master Plan Corridor Study



**JUANITA DRIVE
WIDENING BETWEEN 93RD AVE NE AND 84TH PL NE**



FIGURE 1

JUANITA DRIVE Master Plan Corridor Study



Gateway Treatments



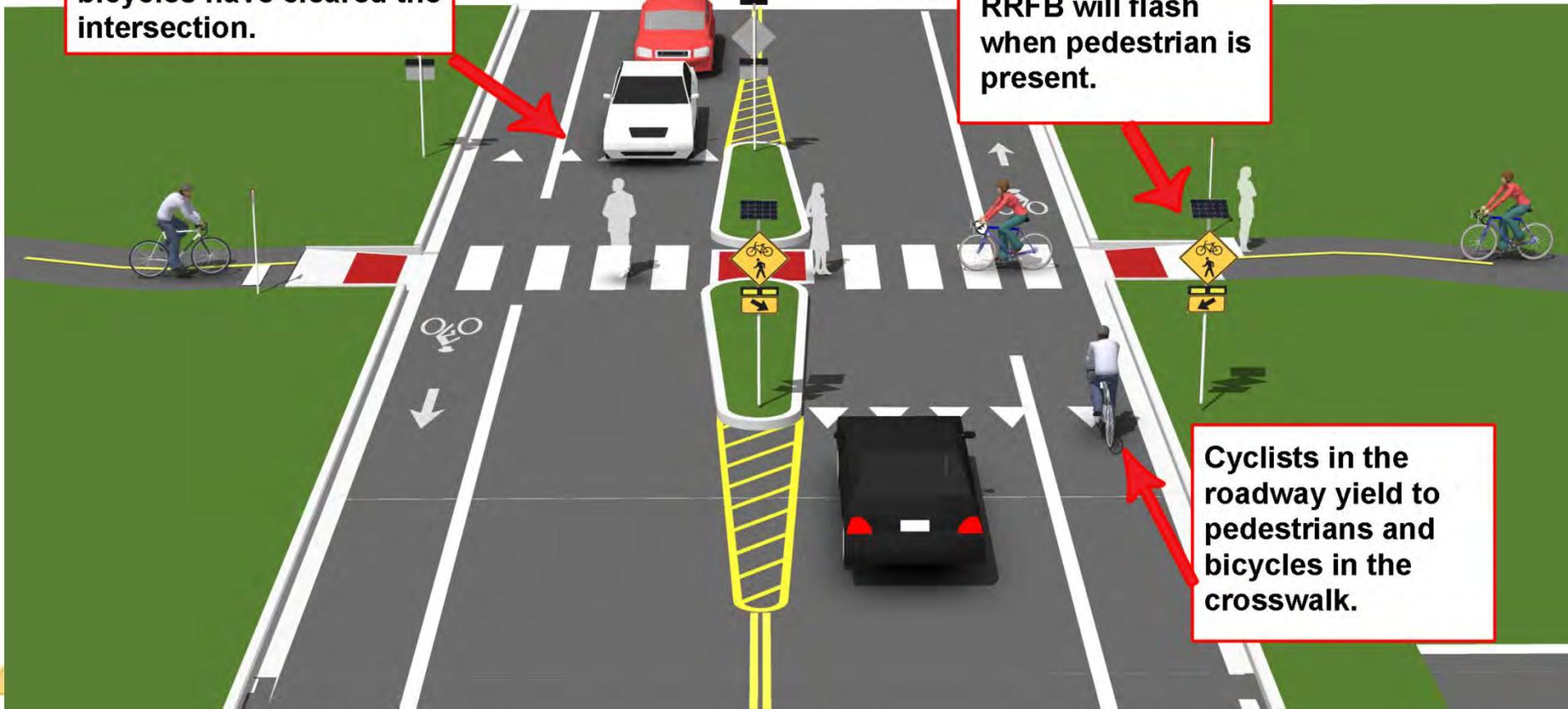
Source: Jon Pascal

Rapid Rectangular Flashing Beacon

Motorists stop behind the advance yield markings until pedestrians and bicycles have cleared the intersection.

RRFB will flash when pedestrian is present.

Cyclists in the roadway yield to pedestrians and bicycles in the crosswalk.



JUANITA DRIVE Master Plan Corridor Study



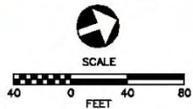
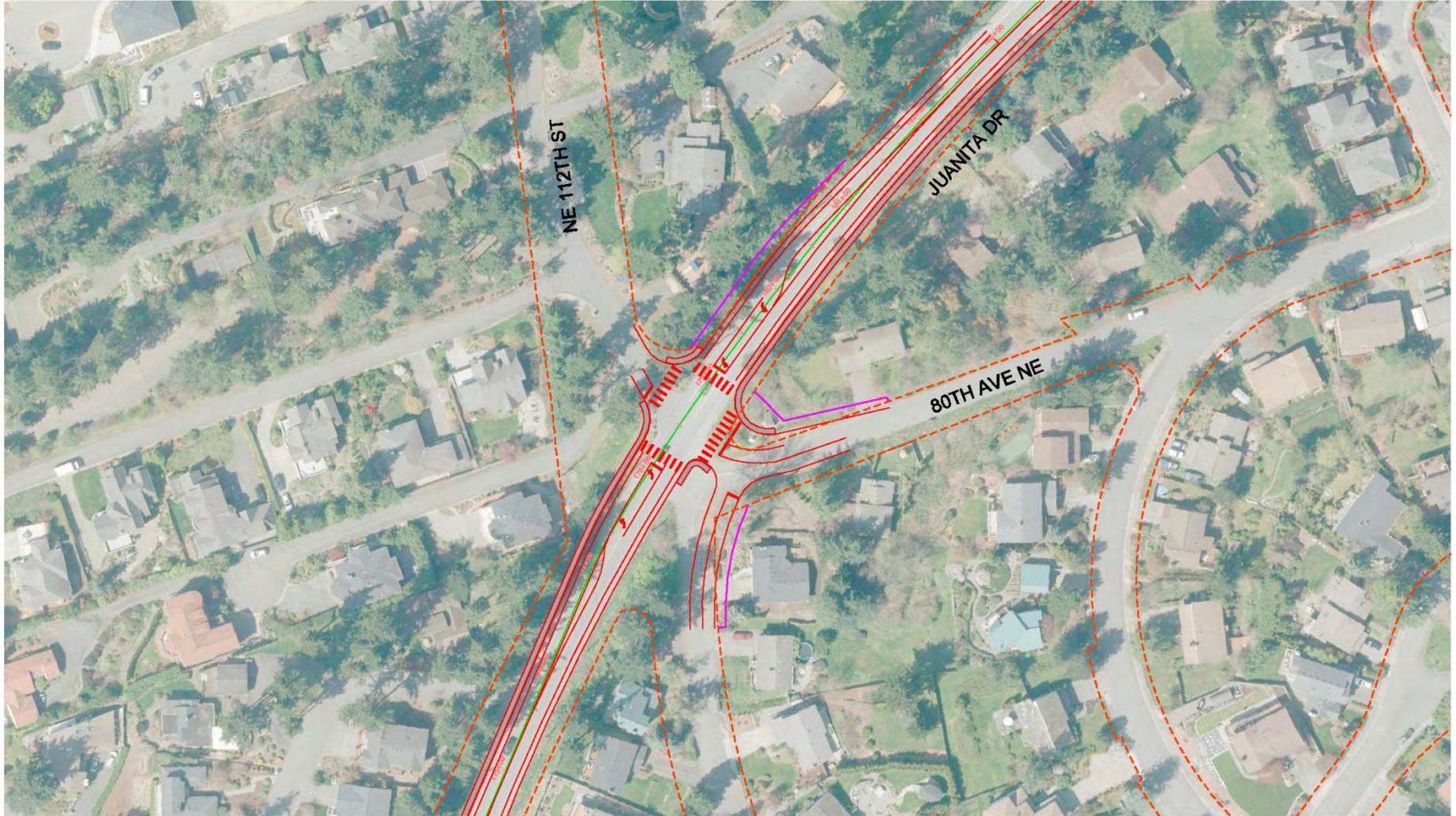


JUANITA DRIVE Master Plan Corridor Study



Center Line Rumble Strips





JUANITA DRIVE
NE 112TH ST/80TH AVE NE INTERSECTION REALIGNMENT

FIGURE
2

JUANITA I

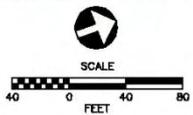


DRAFT CONCEPTS (July 22, 2013)

Juanita Drive Corridor Study NE 117th St to NE 132nd St

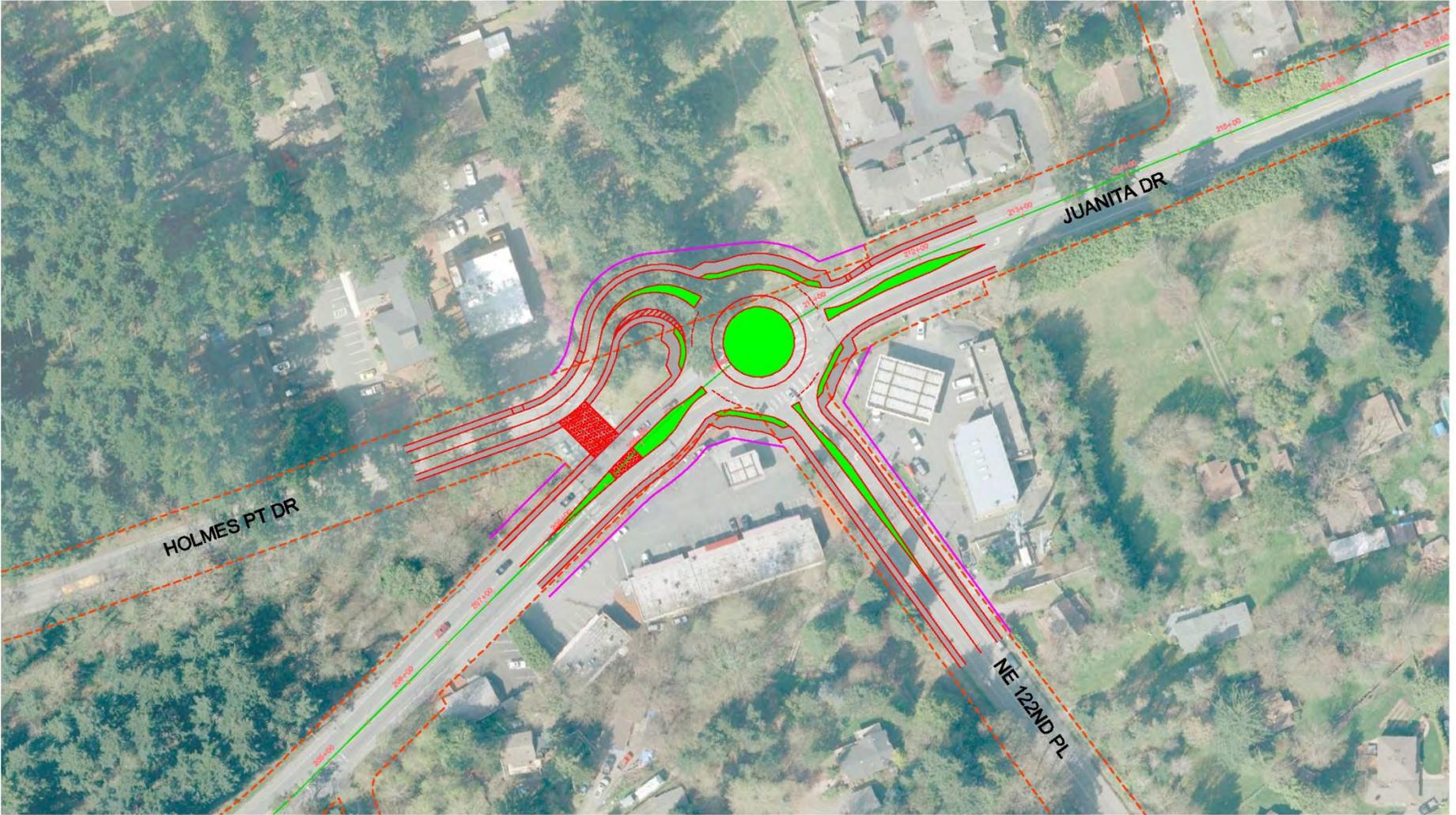
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JUANITA DRIVE
NE 122ND PL INTERSECTION REALIGNMENT

FIGURE
3



JUANITA DRIVE
NE 122ND PL SINGLE ROUNDABOUT

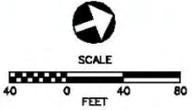
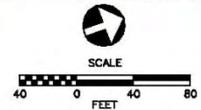


FIGURE
4



JUANITA DRIVE
NE 122ND PL DUAL ROUNDABOUT

FIGURE
5



Traffic Level of Service – Holmes Pt. Drive

- » **Consolidated Intersection/Roundabout**
 - LOS B/C in AM and PM
 - Substantially shorter queues
 - Roundabout has slightly better operations



JUANITA DRIVE
NE 128TH ST WIDENING

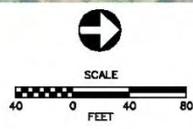
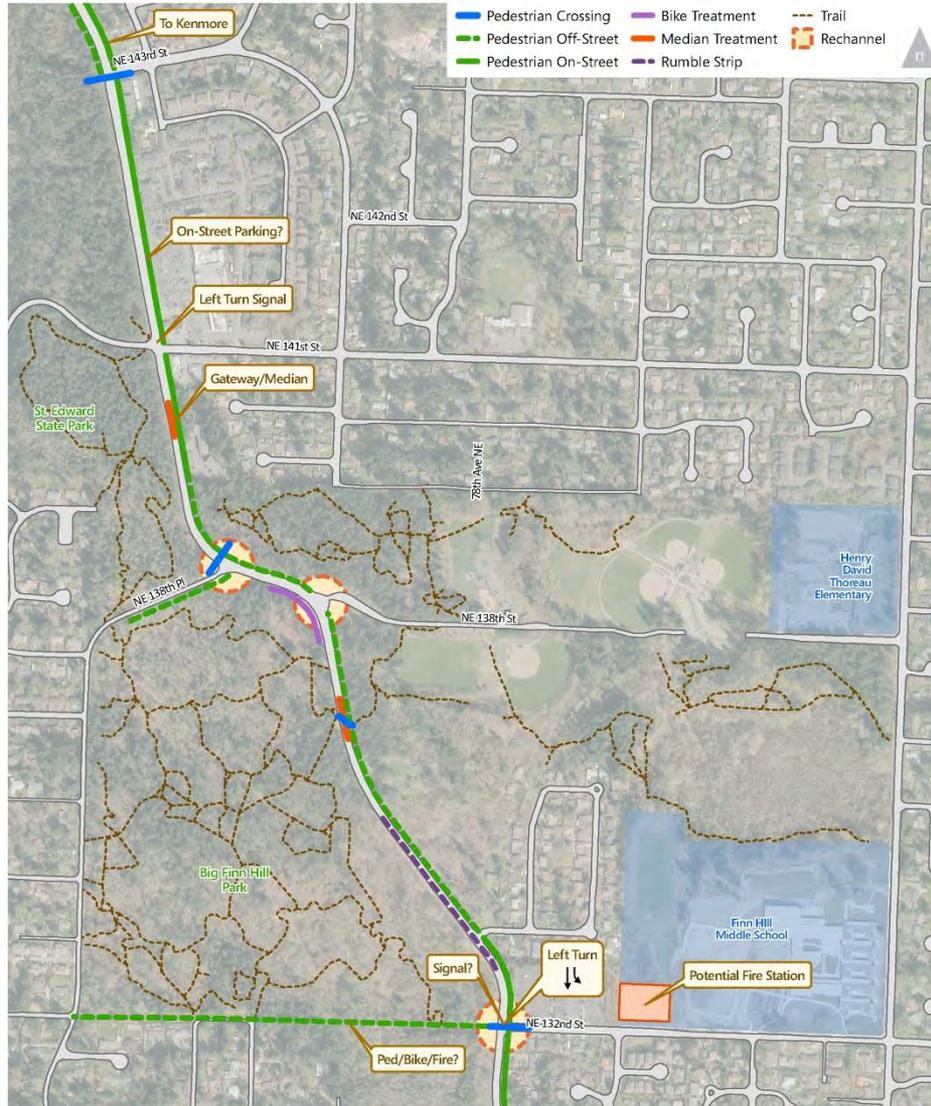


FIGURE
6

JUANITA I

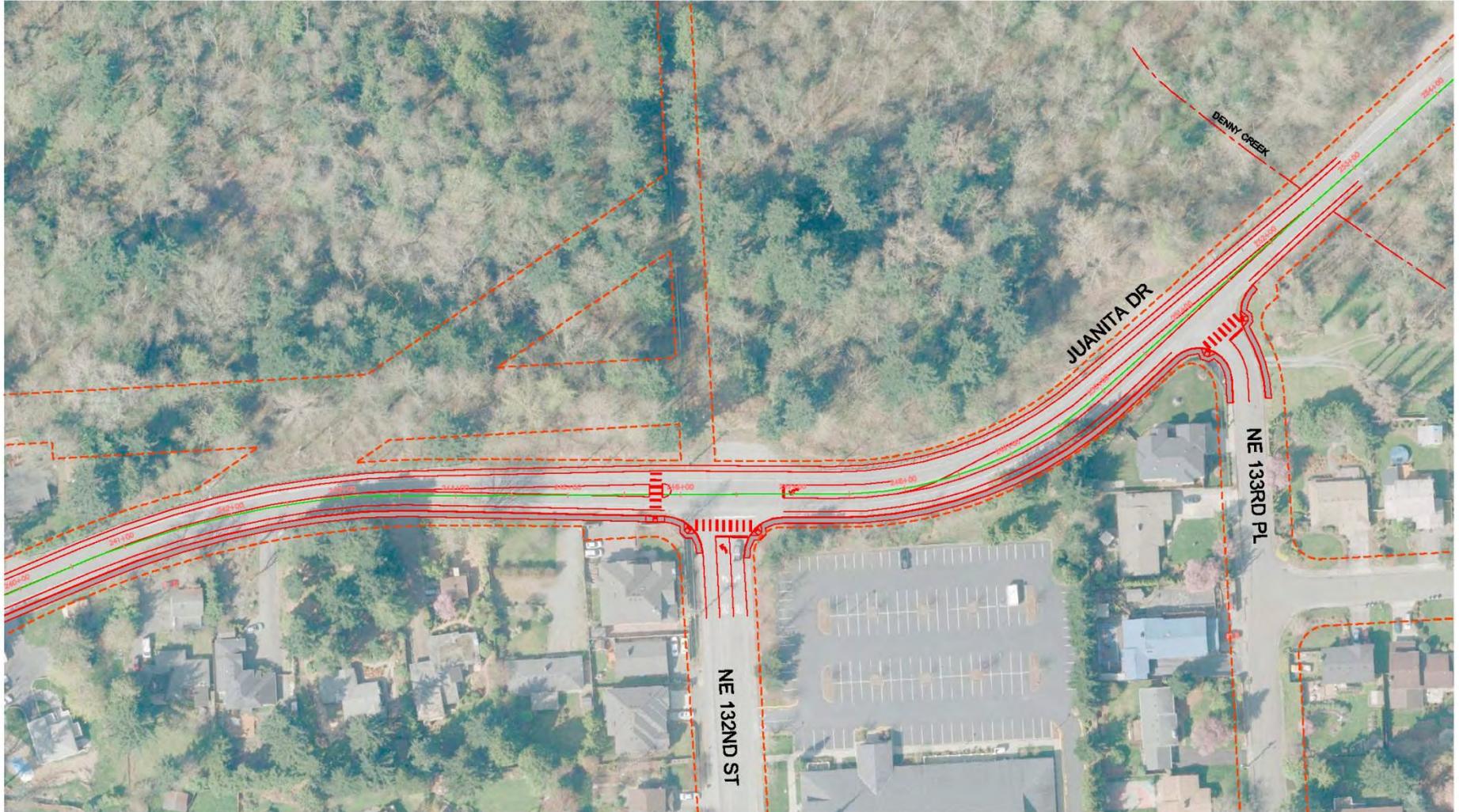


DRAFT CONCEPTS (July 22, 2013)

Juanita Drive Corridor Study NE 132nd St to NE 143rd St

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JUANITA DRIVE
NE 132ND ST WIDENING

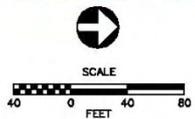
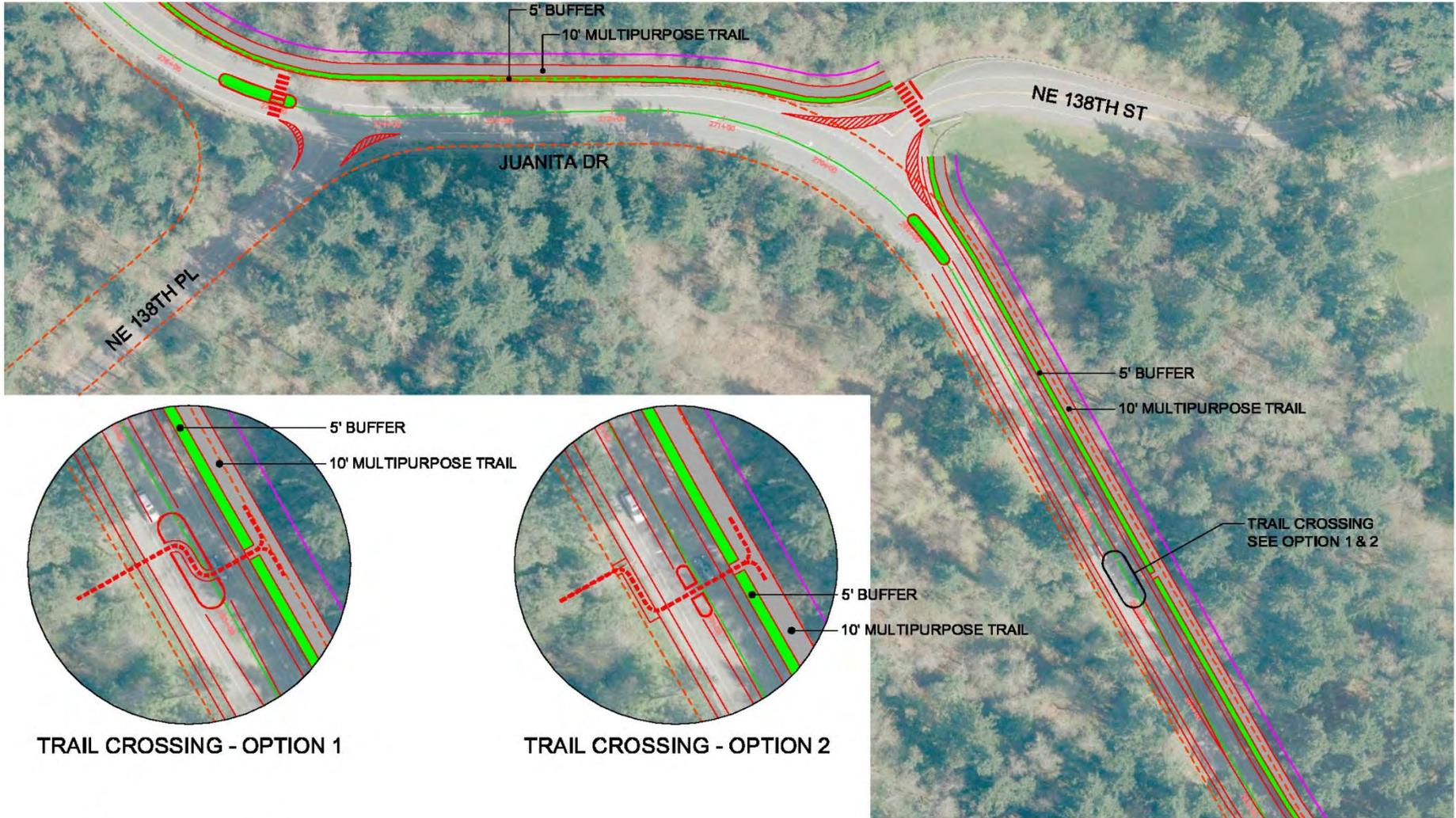


FIGURE
7

JUANITA DRIVE Master Plan Corridor Study



JUANITA DRIVE
BIG FINN HILL RE-CHANNELIZATION

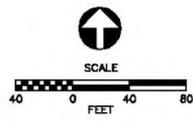
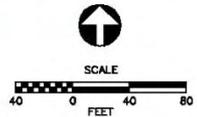
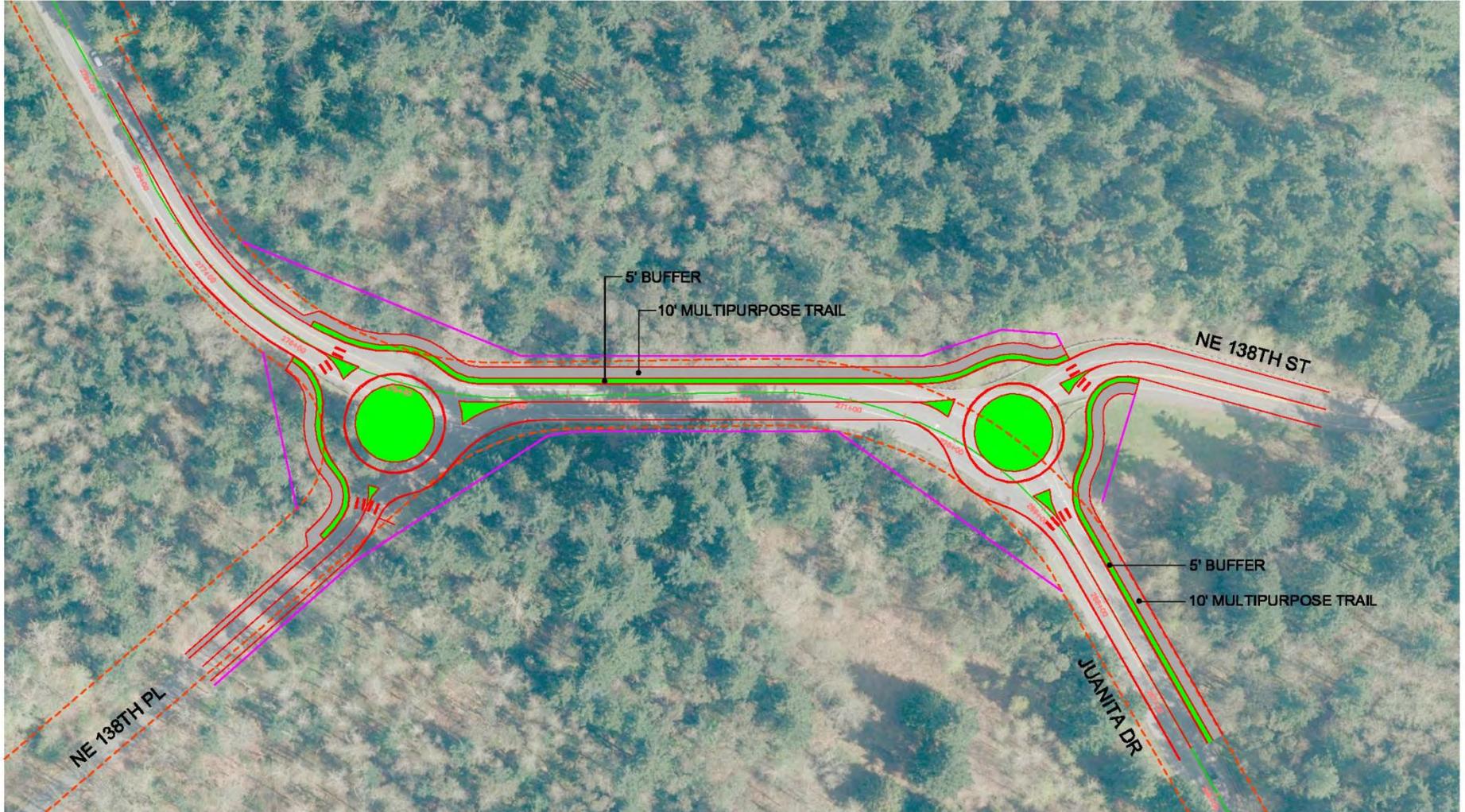


FIGURE
8



JUANITA DRIVE
BIG FINN HILL ROUNDABOUTS

FIGURE
9

JUANITA DRIVE Master Plan Corridor Study



Schedule



-  Advisory Committee
-  City Council
-  Workshop/Open House
-  Neighborhood Briefings
-  Transportation Commission

Provide feedback on the City's website

- » Search “Juanita Drive Corridor Study” at www.kirklandwa.gov
- » Provide your comments on CIP interactive map!

