

# NE 15<sup>TH</sup>/16<sup>TH</sup> STREET CORRIDOR

Bellevue City Council  
June 13, 2011



# Tonight's Agenda:

## Present:

- Transportation Commission Recommendations
- Full Corridor Cross-Section Recommendations
- Updated Cost Estimates based on Recommendations
- Regional ( 4 Basins) Stormwater Management approach for Bel-Red

## Receive:

- Council direction on preferred cross-sections

# Unanimous Transportation Commission Recommendations

## On-Street Parking Implementation consistent with staff recommendation:

- Attractive to development interests and supports businesses and merchants
- Creates an interactive streetscape supporting activities and desired environment
- Costs are substantially less than structured public parking facilities
- Benefits offset the associated costs

# Unanimous Transportation Commission Recommendations (cont.)

## Bicycle System Integration consistent with staff recommendation, except between 120<sup>th</sup>/124<sup>th</sup>:

- The Multi-Purpose Path, as proposed (116<sup>th</sup> – 130<sup>th</sup>)
  - Improves connectivity with the broader non-motorized system
  - Provides for potential future regional improvements
  - Is supported by future growth and planned development
- 13' wide travel lanes (120<sup>th</sup> and 124<sup>th</sup>) improves access for cyclist destined to businesses and residential areas, without adding cross-section width (reduced sidewalk width)
- East of 130<sup>th</sup>, Bicycle lanes maximize use of the width required by the Fire Department
- Where coupled with the 10' wide on-street parking, 5' bike lane, and 2' buffer it provides a well defined zone improving safety

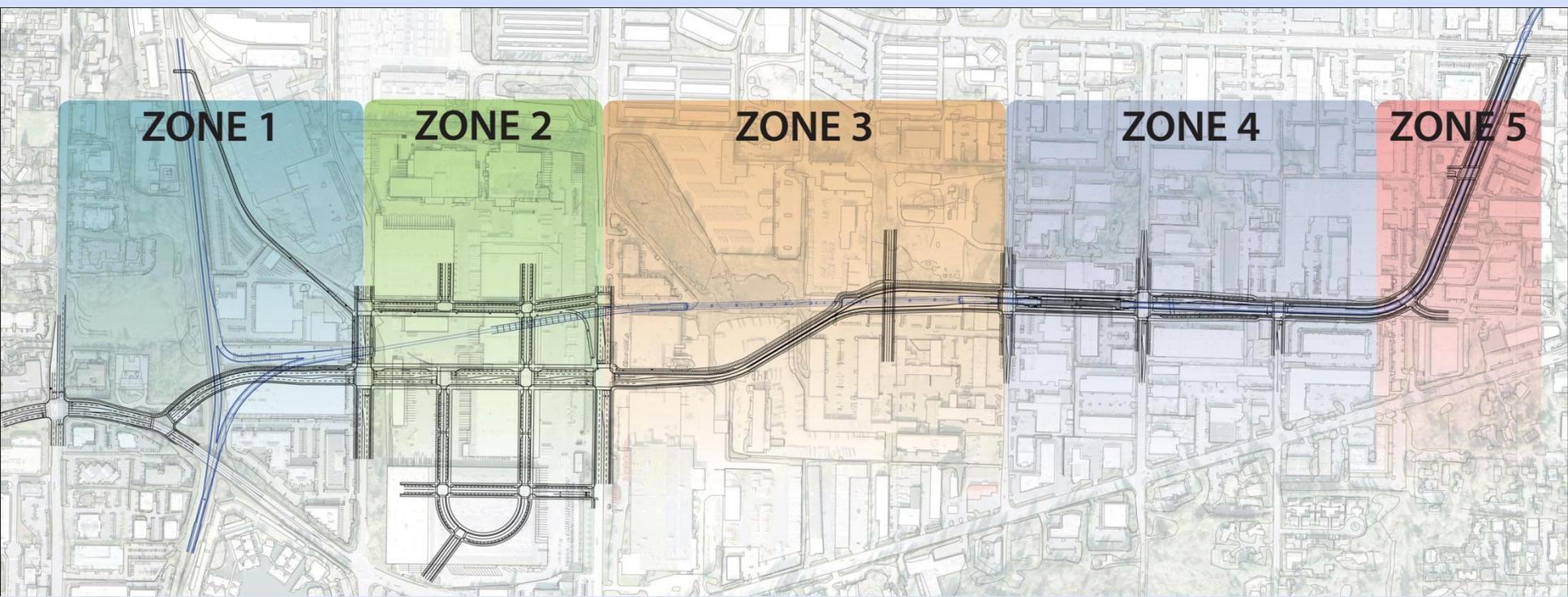
## Unanimous Transportation Commission Recommendations (cont.)

### Westbound NE 16<sup>th</sup> St at-grade crossing of Sound Transit Guide-Way preferred

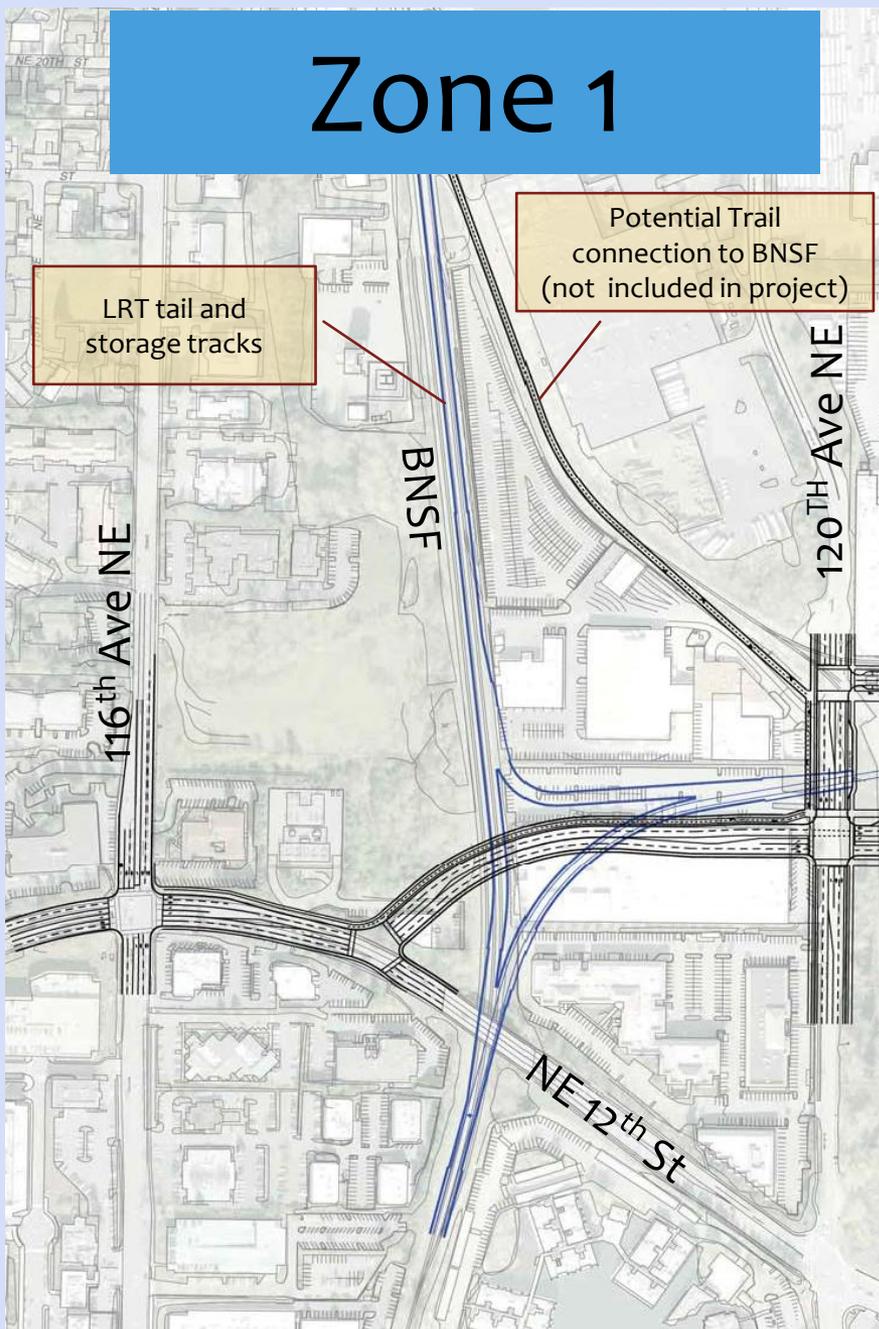
- Allows for the 128<sup>th</sup> Ave NE undercrossing, which significantly improves motorized and non-motorized access and circulation
- Considers that use of the MPP provides for greater use and a better environment for non-motorized travel than sidewalks and shoulder located on the structure

# Corridor Cross Section Recommendations

## 116<sup>th</sup> Ave NE – NE 20<sup>th</sup> Street



# Zone 1



LRT tail and storage tracks

Potential Trail connection to BNSF (not included in project)

116th Ave NE

BNSF

120th Ave NE

NE 12th St

# Zone 1 – 116<sup>th</sup> Ave NE to 120<sup>th</sup> Ave NE (looking east)



	Multi-Purpose Path	Landscape planters	Roadway ↓	Roadway ↓	Roadway ↑	Roadway ↑	Sidewalk
	16'	4'	12'	13'	13'	12'	6'
	76'						

# Zone 1 – 116<sup>th</sup> Ave NE to 120<sup>th</sup> Ave NE:

## Recommendation:

76' Typical Cross-Section

16' Multi-Purpose Pathway – north side

Connects with MPP west of 116<sup>th</sup> crossing at NE 12<sup>th</sup> ST  
(WSDOT I-405 Braid project)

5' Landscape strip on fill approach and 4' planter boxes on bridge (at MPP)

Re-connection of NE 12<sup>th</sup> Street Intersection

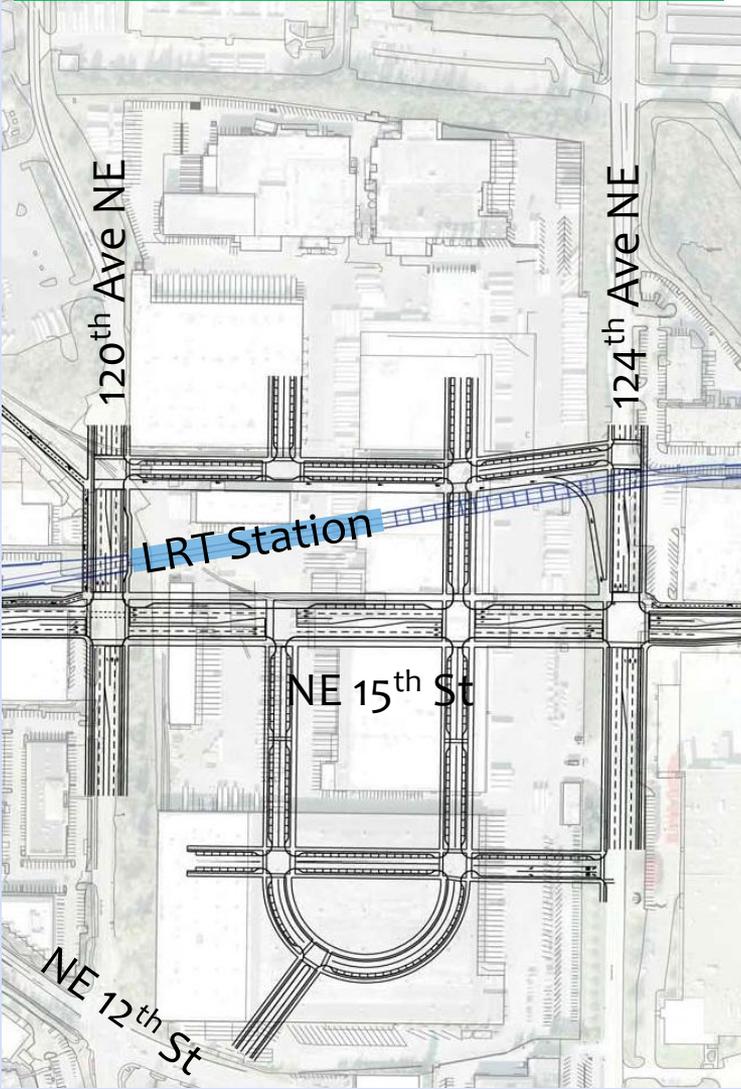
Elevations/setbacks consistent with rail-banking provisions of BNSF corridor

## Estimated Costs (in millions):

Design	\$ 5.0
Right-of-Way	\$34.8*
Construction	\$19.3
Total	\$59.1

\* Includes recently approved acquisition from Children's Hospital. Does not reflect potential sale of remnants or partnership opportunities

# Zone 2



# Zone 2 – 120<sup>th</sup> Ave NE to 124<sup>th</sup> Ave NE

(looking east from 120<sup>th</sup> Ave NE)

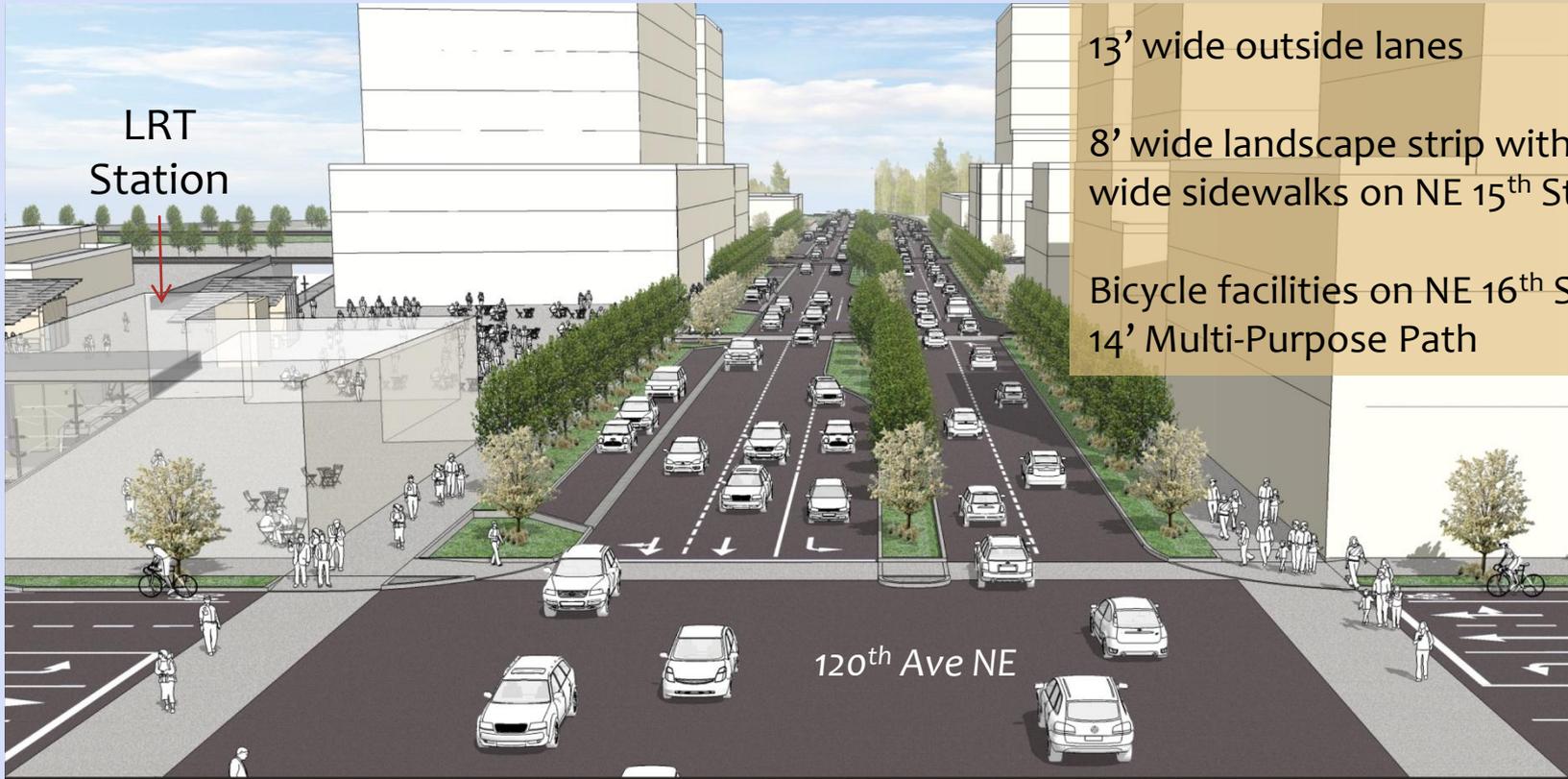
**Transp. Commission Recommendation**

10' wide on-street parking

13' wide outside lanes

8' wide landscape strip with 14' wide sidewalks on NE 15<sup>th</sup> Street

Bicycle facilities on NE 16<sup>th</sup> ST – 14' Multi-Purpose Path

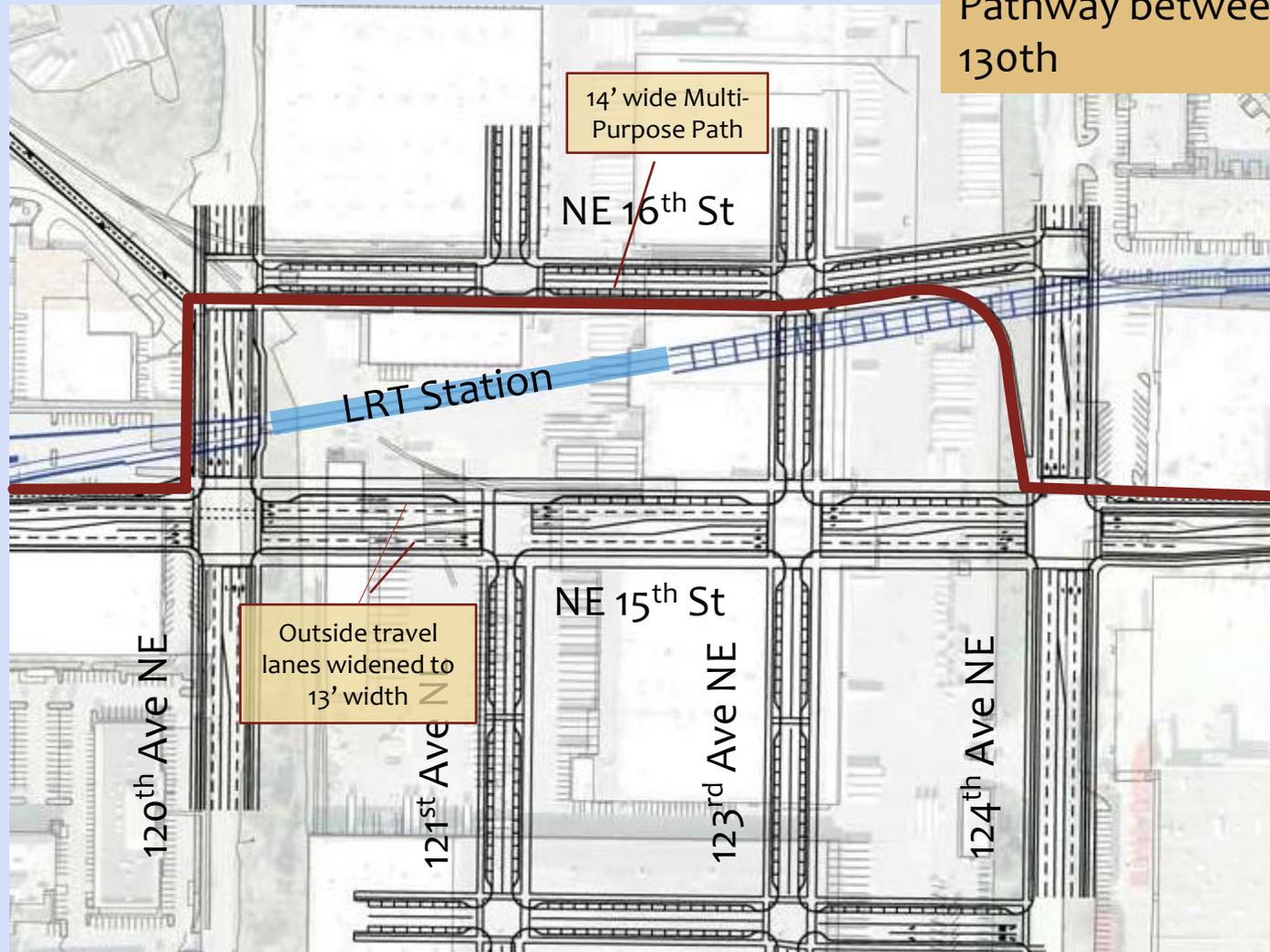


Sidewalk	Landscape	<b>P</b>	Roadway ↓	Roadway ↓	Turn Lane ↘	Landscape Median	Roadway ↑	Roadway ↑	Landscape	Sidewalk
14'	8'	10'	13'	11'	12'	8'	11'	13'	8'	14'
122'										

# Zone 2 – 120<sup>th</sup> Ave NE to 124<sup>th</sup> Ave NE

Transp. Commission Recommendation

Continuous Multi-Purpose Pathway between 112<sup>th</sup> & 130<sup>th</sup>



## Zone 2: 120<sup>th</sup> to 124<sup>th</sup>

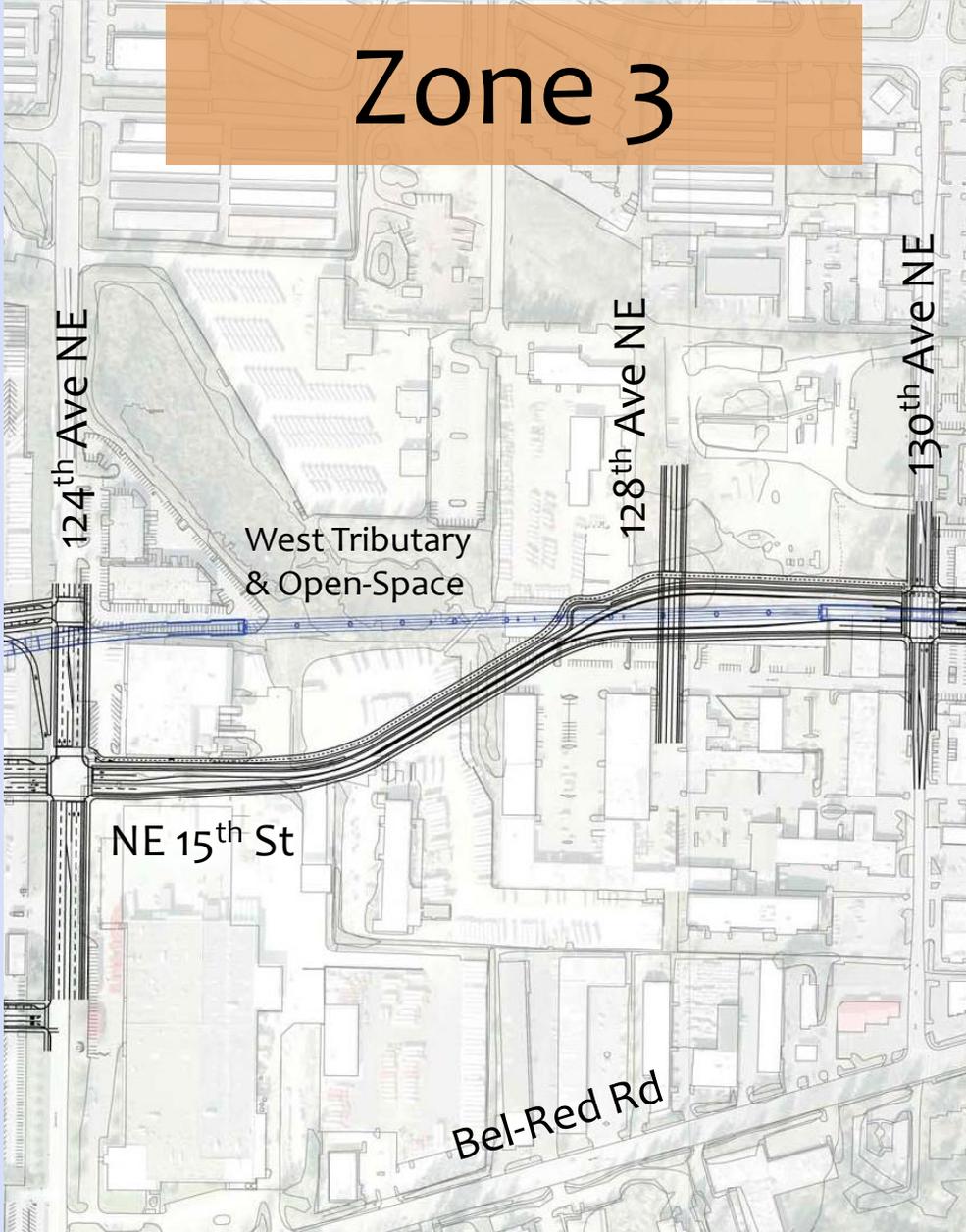
### Recommendation:

- NE 15<sup>th</sup> Street cross-section - 122'
  - Wider sidewalks for non-motorized access
  - Widened landscape strips for Natural Drainage Practices (NDP) & green character
- 14' Multi-Purpose Path (MPP) located on NE 16<sup>th</sup> Street
- Short term on-street parking - north side only
- Drop-off/pick-up zone at plaza – north side only

### Estimated Costs (in millions):

Design	\$ 1.7
Right-of-Way	\$ 7.7
Construction	<u>\$ 6.8</u>
Total	\$16.2

# Zone 3



124<sup>th</sup> Ave NE

West Tributary  
& Open-Space

128<sup>th</sup> Ave NE

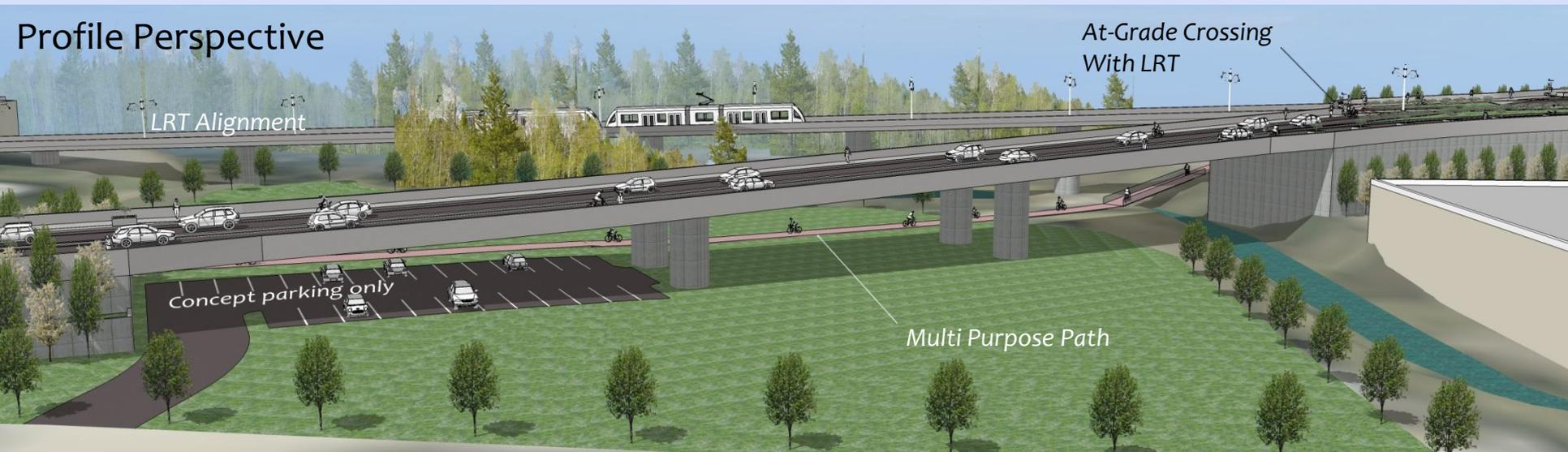
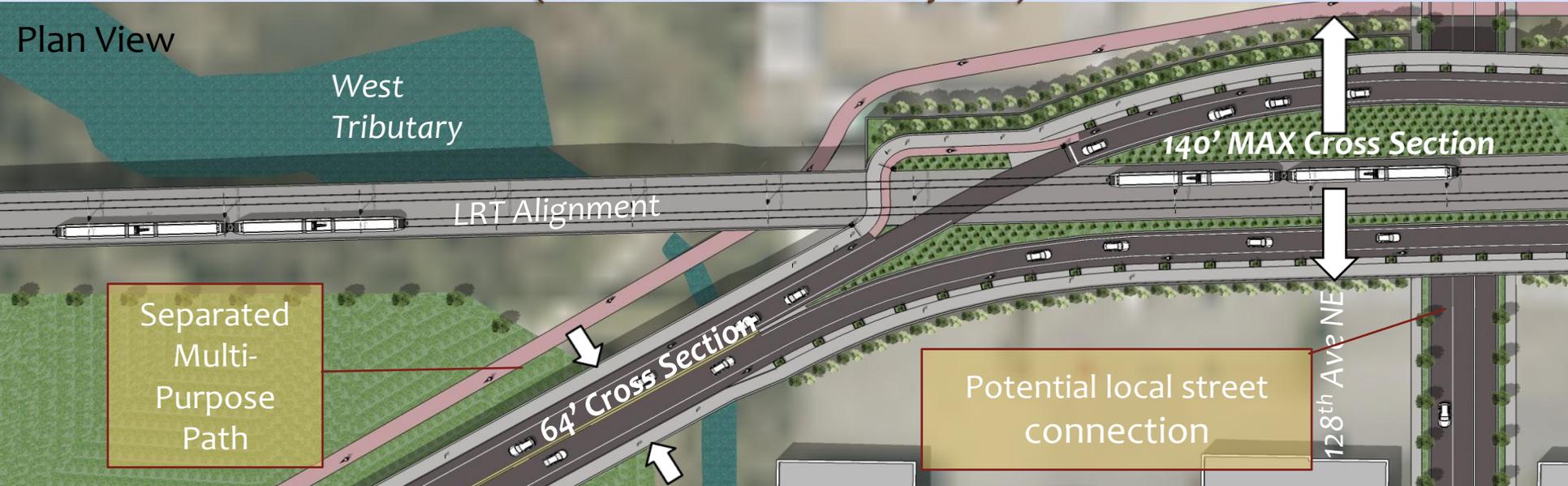
130<sup>th</sup> Ave NE

NE 15<sup>th</sup> St

Bel-Red Rd

# Zone 3 – 124<sup>th</sup> Ave NE to 130<sup>th</sup> Ave NE

(At-Grade in West Tributary area)



# Zone 3: 124<sup>th</sup> to 130<sup>th</sup>

## Recommendation:

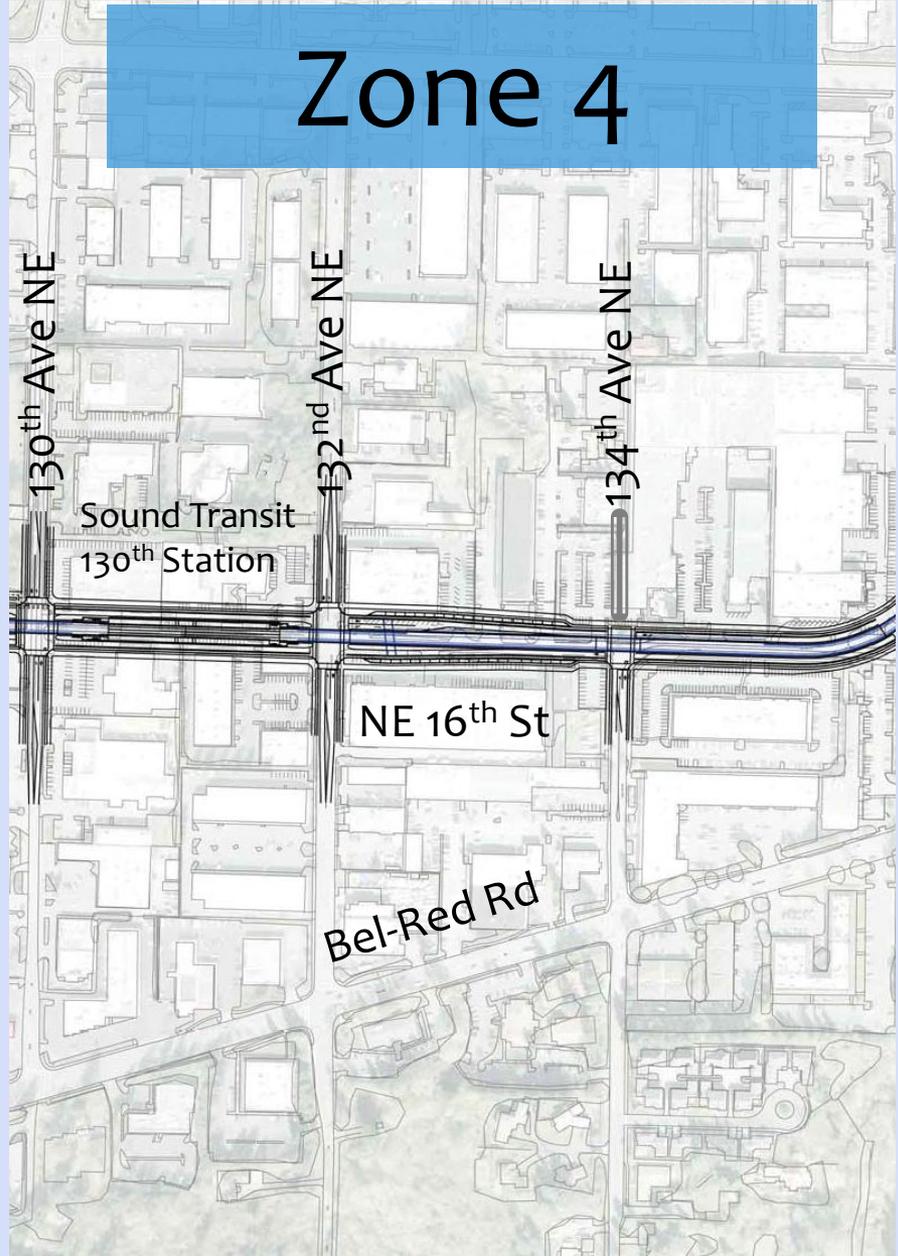
- Westbound lane at-grade crossing of Sound Transit guide-way
- NE 15<sup>th</sup>/16<sup>th</sup> Street minimum cross-section – 64’; maximum – 140’
- Design allows for future 128<sup>th</sup> Ave NE, with improved access & circulation
- Maximizes use of Park/Open-Space

## Estimated Costs (in millions):

Design	\$ 6.5
Right-of-Way*	\$11.6
Construction	<u>\$24.9</u>
Total	\$43.0

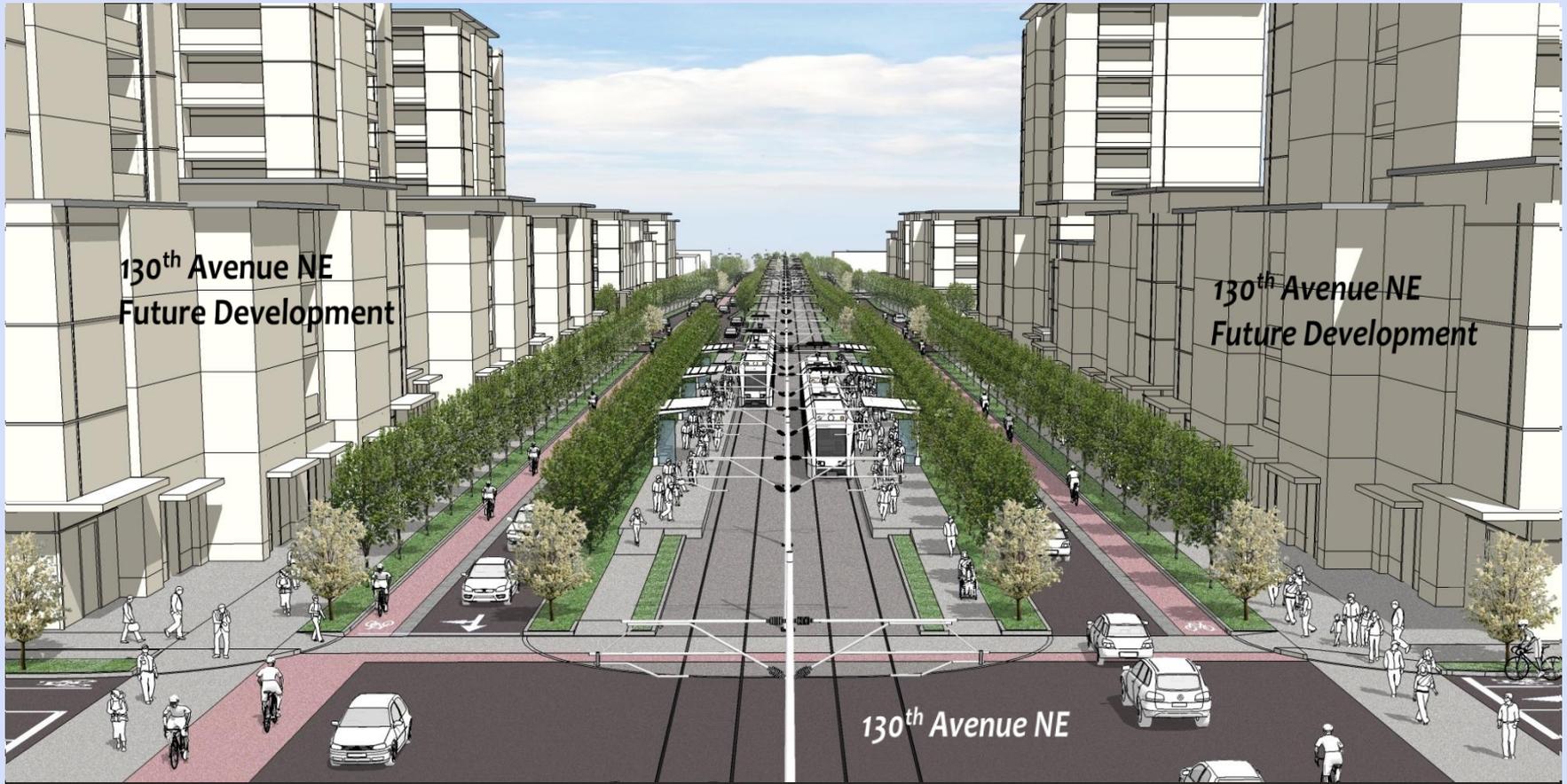
\* Does not reflect potential sale of remnants or partnership opportunities

# Zone 4



# Zone 4 – 130<sup>th</sup> Ave NE to 136<sup>th</sup> PI NE

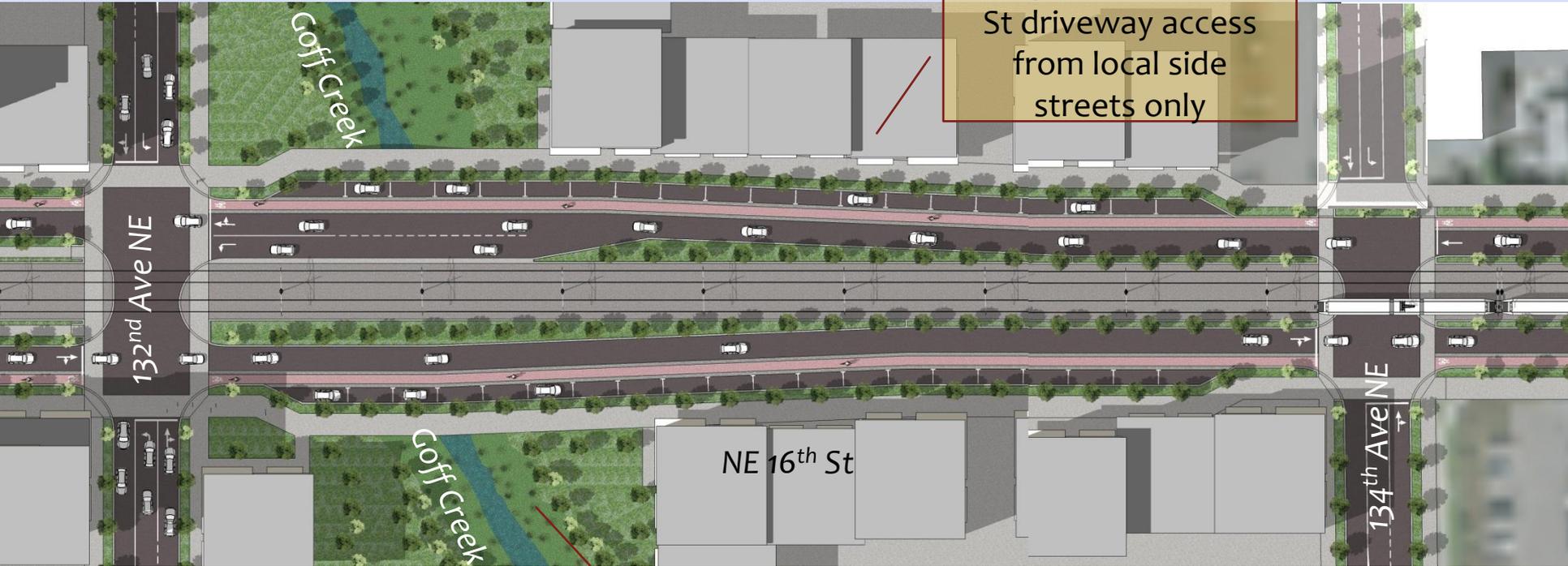
(looking east from 130<sup>th</sup> Ave NE)



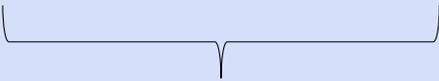
Side-walk	Land-scape	Bike Lane	BUFFER	Roadway ↓	Land-scape	Sound Transit Track ↓      ↑		Land-scape	Roadway ↑	BUFFER	Bike Lane	Land-scape	Side-walk
12'	5.5'	5'	2'	13'	5'	52'		5'	13'	2'	5'	5.5'	12'
137'													

# Zone 4 – 130<sup>th</sup> Ave NE to 136<sup>th</sup> Pl NE

(132<sup>nd</sup> Ave NE to 134<sup>th</sup> Ave NE)  
LRT station to west



Comp. Plan – NE 16th St driveway access from local side streets only



153'



135'

Conceptual stream channel day-lighting/alignment (50' buffers)

137'

115'

# Zone 4 – 130<sup>th</sup> Ave NE to 136<sup>th</sup> PI NE

(looking east from 132<sup>nd</sup> Ave NE)



# Zone 4 – 130<sup>th</sup> Ave NE to 136<sup>th</sup> PI NE

(looking east from 134<sup>th</sup> Ave NE)



Sidewalk	Landscape	Bike Lane	BUFFER	Roadway ↓	Landscape	Sound Transit Track ↓      ↑	Landscape	Roadway ↑	BUFFER	Bike Lane	Landscape	Sidewalk
12'	5.5'	5'	2'	13'	5'	30'	5'	13'	2'	5'	5.5'	12'
115'												

# Zone 4:

## Recommendation:

137' typical section at LRT station – landscaping buffer along LRT and no on-street parking

153' - 135' typical section 132<sup>nd</sup> Ave NE to 134<sup>th</sup> Ave NE – landscape buffering along LRT and on-street parking along both sides

115' typical section 134<sup>th</sup> Ave NE to 136<sup>th</sup> PI NE – transition from landscape buffering to no buffering and no on-street parking

5' Protected bike lanes with 2' buffer within 20' required pavement width

5' Landscape strips

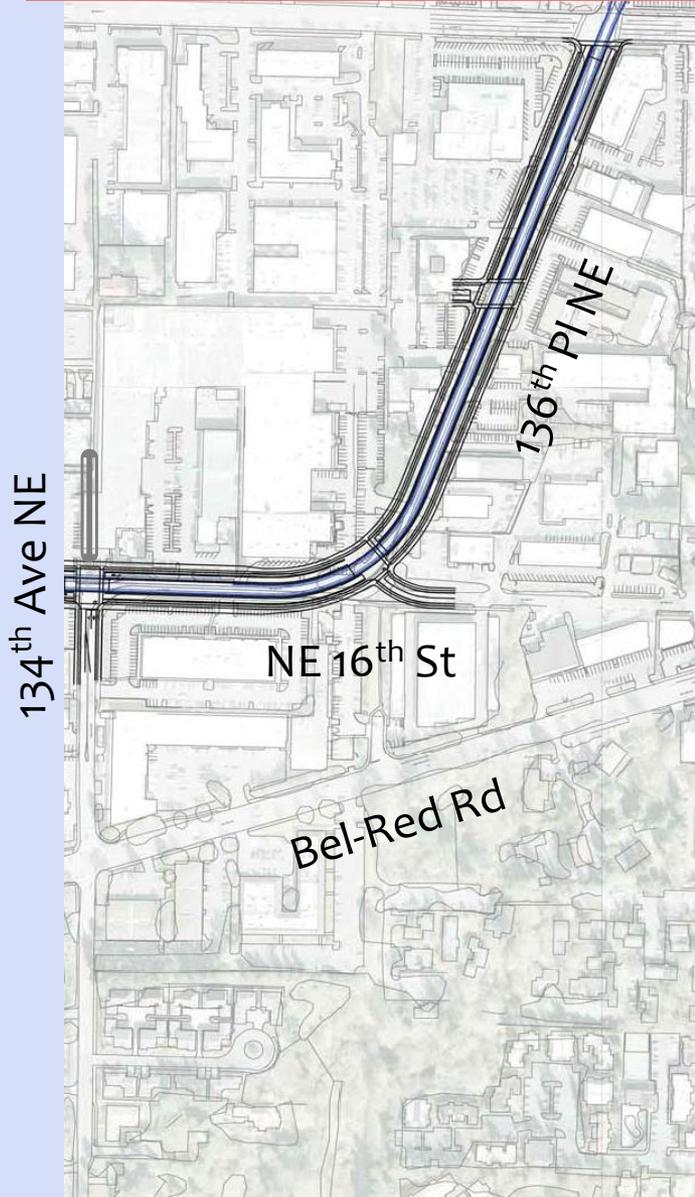
12' Sidewalks

## Estimated Costs (in millions):

Design	\$ 4.0
Right-of-Way*	\$28.7
Construction	<u>\$16.2</u>
Total	\$48.9

\* Does not reflect potential sale of remnants or partnership opportunities

# Zone 5





# Zone 5:

## Recommendation:

97' typical section

No on-street parking

No landscape buffering

2' buffer between travel lane and bike lane

5' bike lanes within 20' pavement width

5' Landscape strips - Reduced Landscape strips where needed to avoid conflicts and significant impacts

8' Sidewalks

## Estimated Costs (in millions):

Design	\$ 2.0
Right-of-Way*	\$ 5.1
Construction	\$ 6.9
Total	\$14.0

\* Does not reflect potential sale of remnants or partnership opportunities

# Conceptual Plan cost estimates (2009\$):

(in millions)

## Segment 1 (116<sup>th</sup> Ave NE – 124<sup>th</sup> Ave NE)

	<u>Zone 1</u>	<u>Zone 2</u>	<u>Total</u>
Design	\$ 5.0	\$ 1.7	\$ 6.7
Right-of-Way*	\$34.8	\$ 7.7	\$42.5
Construction	\$19.3	\$ 6.8	\$26.1
Sub-Total	\$59.1	\$16.2	\$75.3

## Segment 2 (124<sup>th</sup> Ave NE – NE 20<sup>th</sup> St)

	<u>Zone 3</u>	<u>Zone 4</u>	<u>Zone 5</u>	<u>Total</u>
Design	\$ 6.5	\$ 4.0	\$ 2.0	\$ 12.5
Right-of-Way*	\$ 11.6	\$28.7	\$ 5.1	\$ 45.4
Construction	\$24.9	\$ 16.2	\$ 6.9	\$ 48.0
Sub-Total	\$43.0	\$48.9	\$14.0	\$105.9

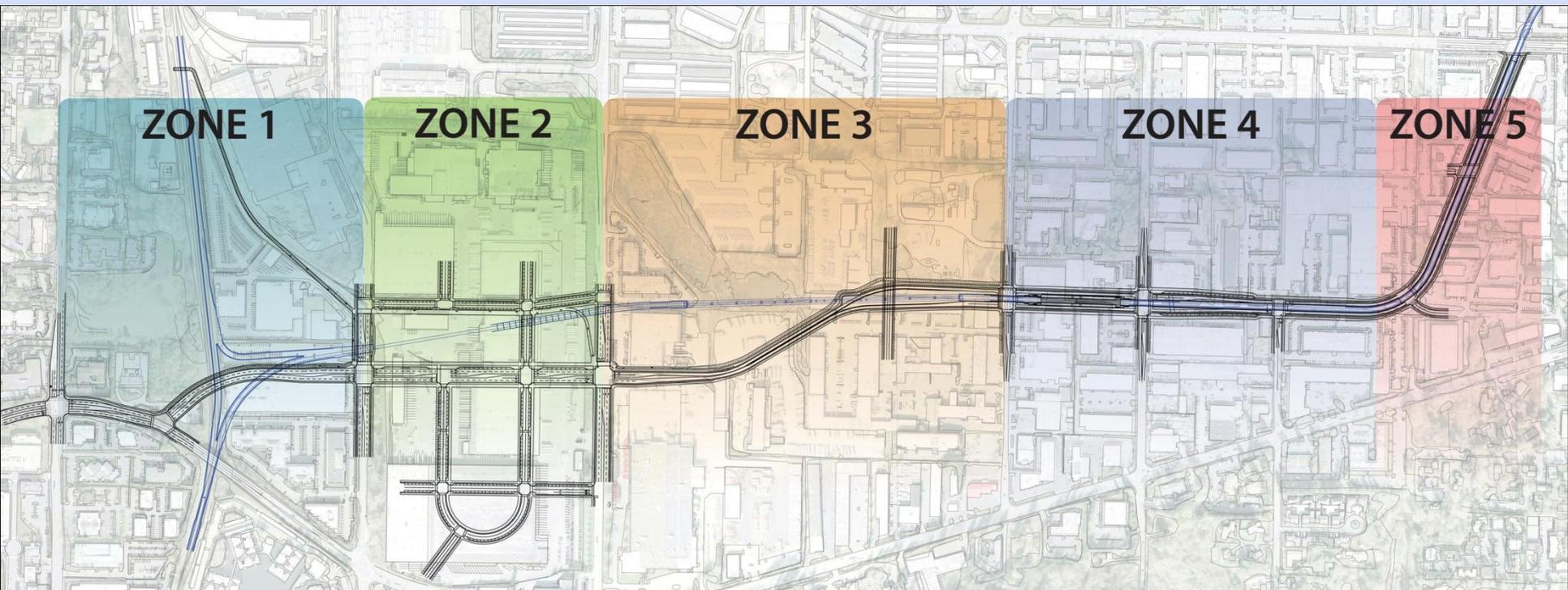
Total      \$181.2

Estimates exclude water and wastewater utilities

Zone 4 & 5 Construction estimate includes embedded track flat work

\*Current estimates from limited appraisal report

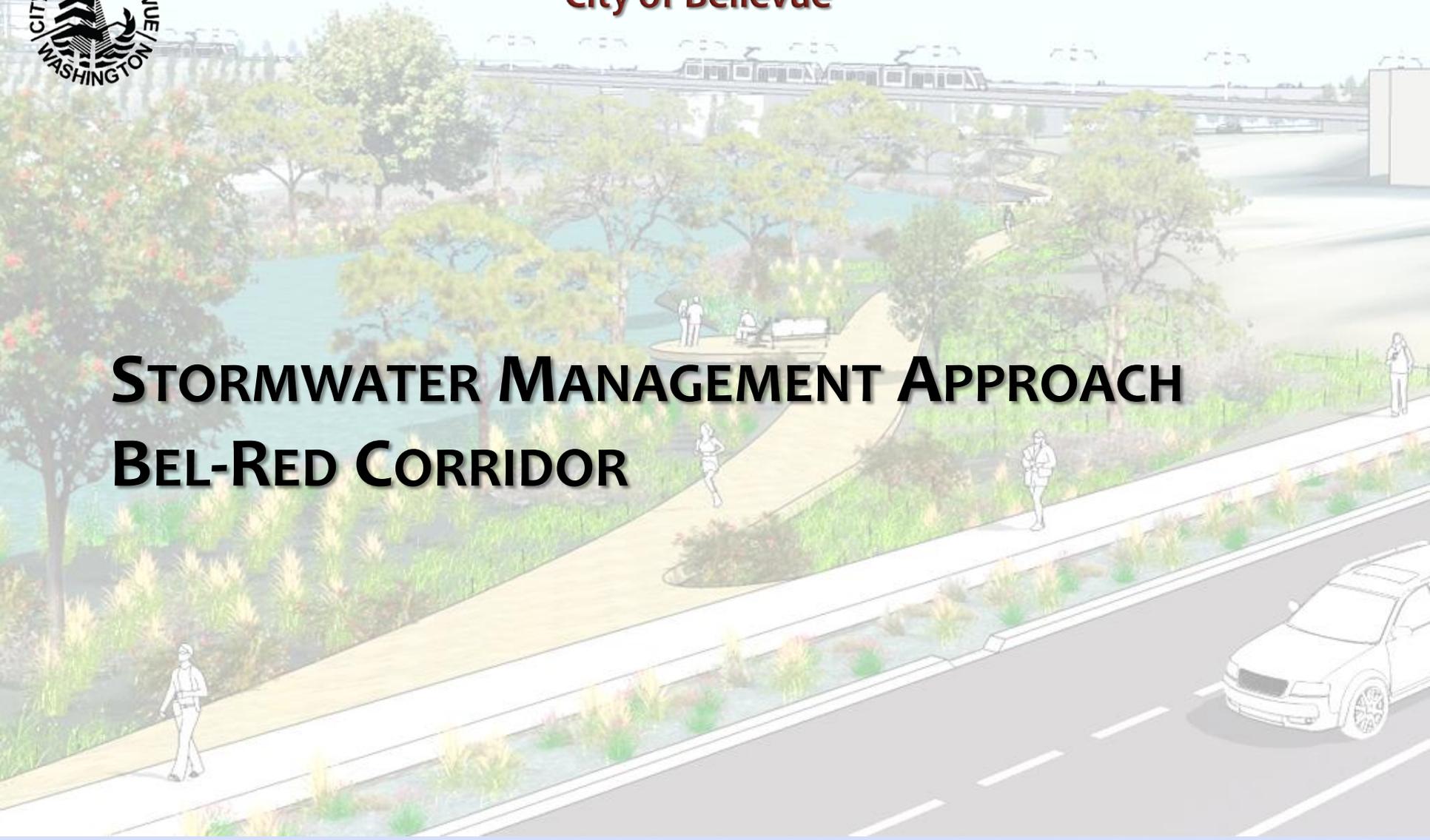
# Discussion & Direction





City of Bellevue

# STORMWATER MANAGEMENT APPROACH BEL-RED CORRIDOR



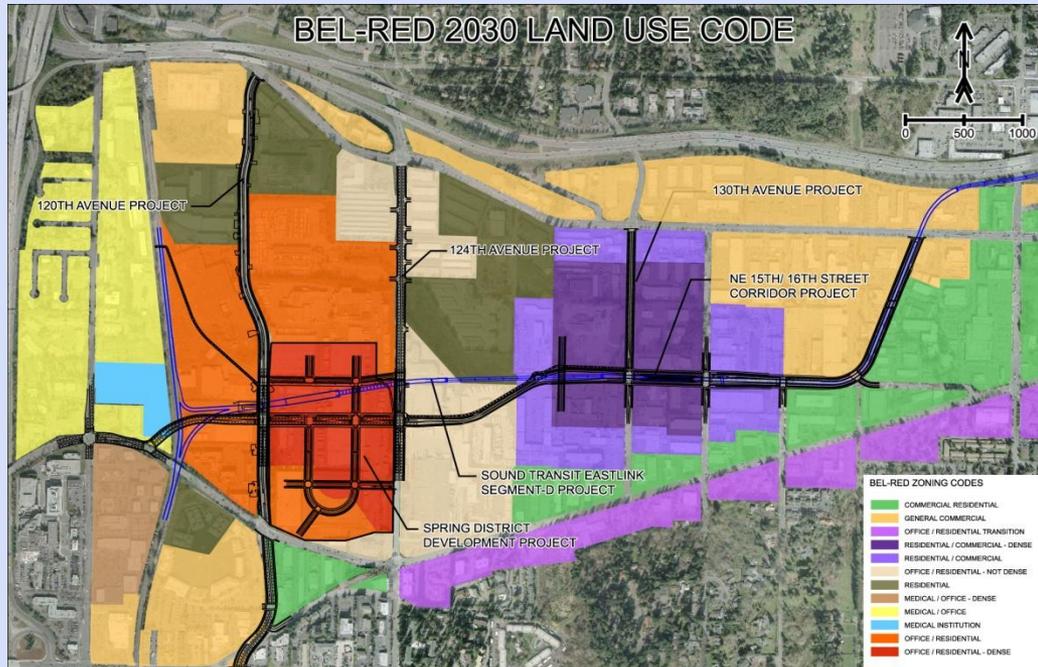
# Stormwater Management Overview



- Goals
- Program framework
- Financial evaluation framework
- Agency coordination
- Implementation
- Next steps



# Bel-Red Vision



- “Develop Bel-Red area as a model of environmental sustainability, realizing opportunities provided by new development to significantly improve current conditions...”

- ✓ S-BR-D2 - Protect and rehabilitate wetlands
- ✓ S-BR-D3 - Encourage Natural Drainage Practices (NDP)
- ✓ S-BR-D4 - Explore stormwater basin planning
- ✓ S-BR-D5 - Consider opportunities for off-site stormwater mitigation



# Stormwater Project Goals

- Provide coordinated approach in Bel-Red Area
  - Stormwater management/banking
  - Wetland mitigation
- Avoid project-by-project, agency-by-agency process
  - Planning
  - Design
  - Construction
  - Long-term monitoring and O&M
- Provide greatest ecological uplift to Bel-Red and downstream areas
  - Sturtevant Creek/Lake Bellevue
  - West Tributary
  - Goff Creek
  - Upper Tributary to Kelsey Creek





# Project Goals (Cont.)



- Successful integration
  - Regional stormwater
  - Wetland mitigation
  - Parks & open space
  - Passive recreation facilities
- Help realize potential of the Bel-Red Revitalization
- Reduce cost to the City and development



# Summary of Program Framework

- Structural
  - Type 1 – NE 15<sup>th</sup>/16<sup>th</sup> Street and Green Streets Corridors
  - Type 2 – Local Street Grid
  - Type 3 – Regional Facilities
- Non-Structural
  - Type 4 – Policies and Incentives

# Type 1: NE 15<sup>th</sup>/16<sup>th</sup> St Corridor & Green Streets

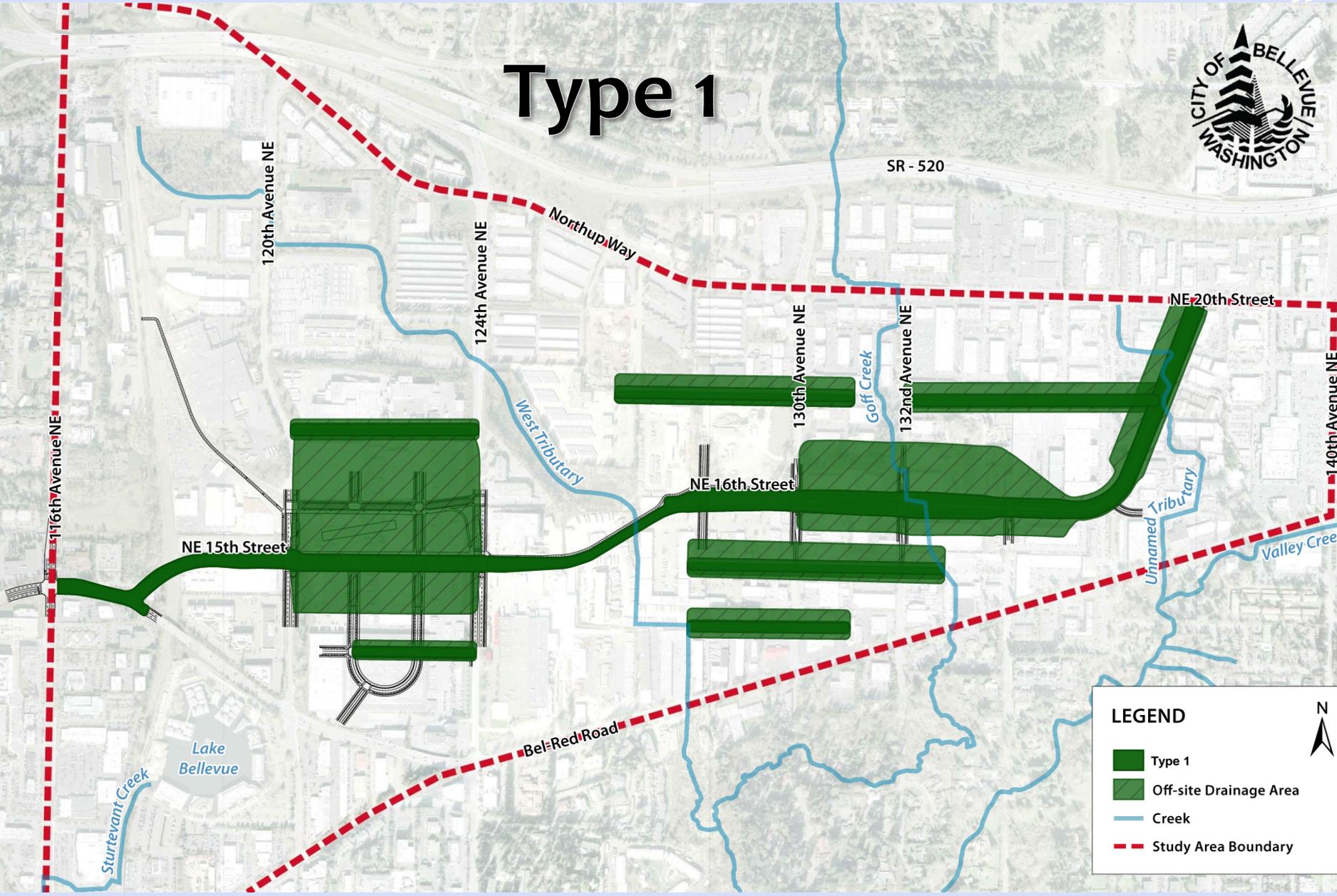


- Elements
  - NE 15<sup>th</sup>/16<sup>th</sup> St roadway
  - “Green Streets”
- Natural Drainage Practices Toolbox
  - Pervious sidewalks, bike lanes, and on-street parking
  - Rain gardens
- Opportunities
  - Manage public and private stormwater in ROW
  - Natural stormwater treatment





# Type 1



**LEGEND**

-  Type 1
-  Off-site Drainage Area
-  Creek
-  Study Area Boundary

N  



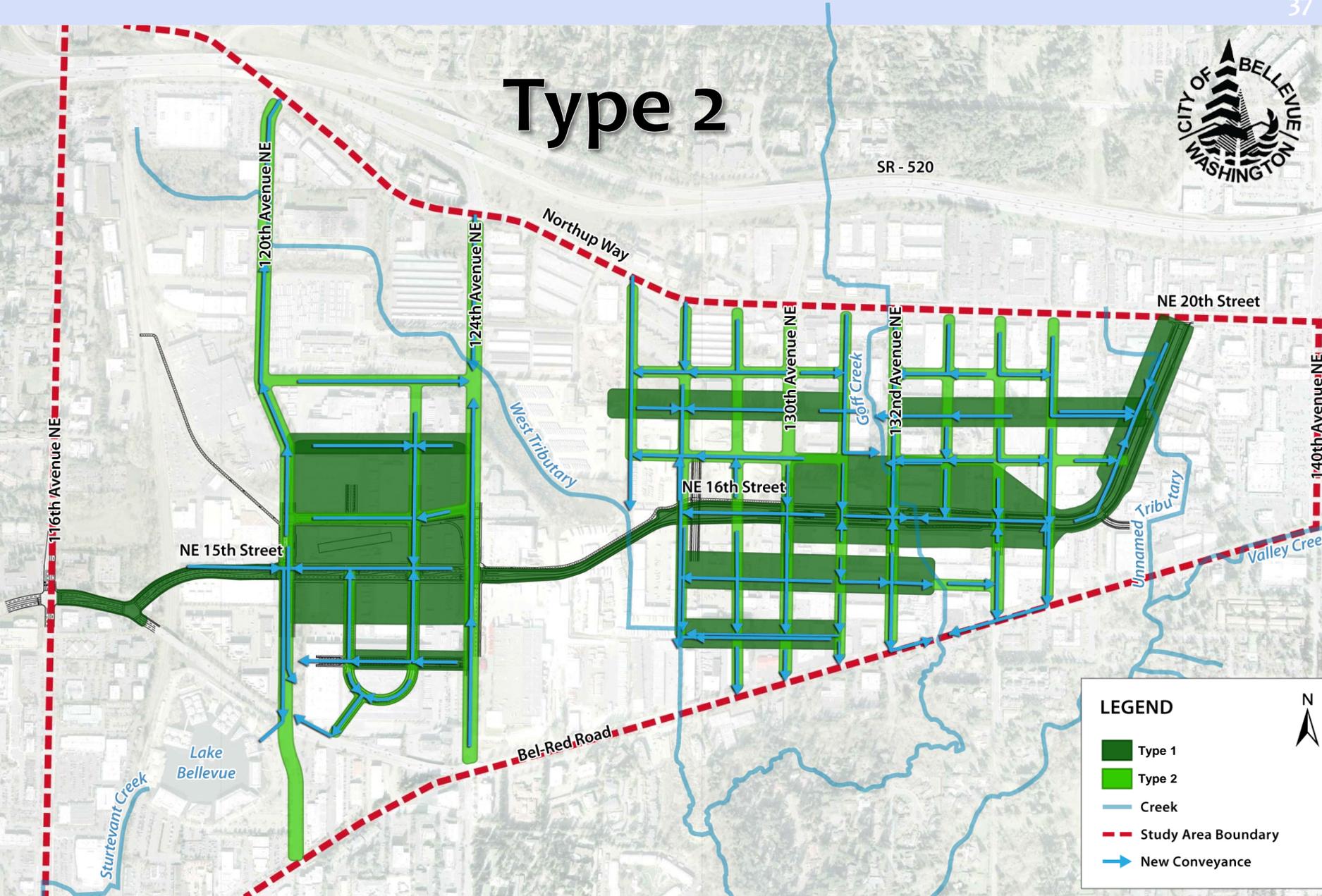

# Type 2: Local Street Grid

- Elements
  - Future transportation grid build-out
  - Right sizing the system
- NDP Toolbox
  - Pervious sidewalks
  - Rain garden planter strips
- Opportunities
  - Manage on-site areas
  - Natural stormwater treatment
  - Regional conveyance system





# Type 2



### LEGEND

- Type 1
- Type 2
- Creek
- Study Area Boundary
- New Conveyance





# Type 3: Regional Facilities

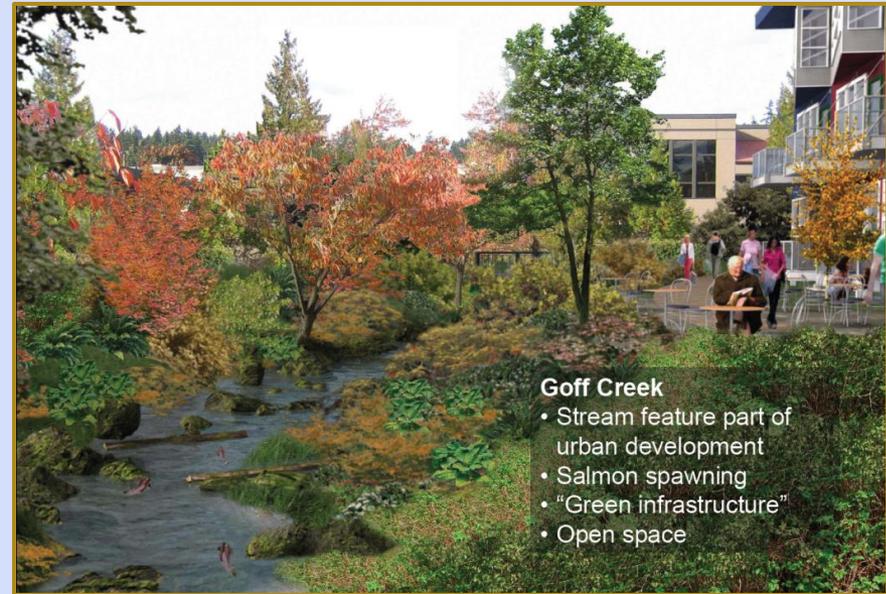


- Elements
  - At least 1 facility in each basin
- NDP/BMP Toolbox
  - Large bioretention facilities
    - Co-located with parks
    - Within restored creek buffers
  - Underground tanks or vaults
  - Phosphorus control BMPs
- Opportunities
  - Manage areas not treated by Type 1 or 2 facilities
  - Integration
    - Regional stormwater
    - Wetlands
    - Parks & open space
    - Passive recreational facilities



# Type 3: Regional Facilities

- Sturtevant Creek/Lake Bellevue
  - Control flooding
  - Regional bioretention in roadway ROW
  - Phosphorous control BMPs
- West Trib
  - Bioretention co-located with parks, stream & wetland improvements
  - Connection with West Tributary Regional Detention project
- Goff Creek
  - Bioretention co-located with parks, stream & wetland improvements
- Upper Tributary to Kelsey Creek
  - Storage pipe beneath streets

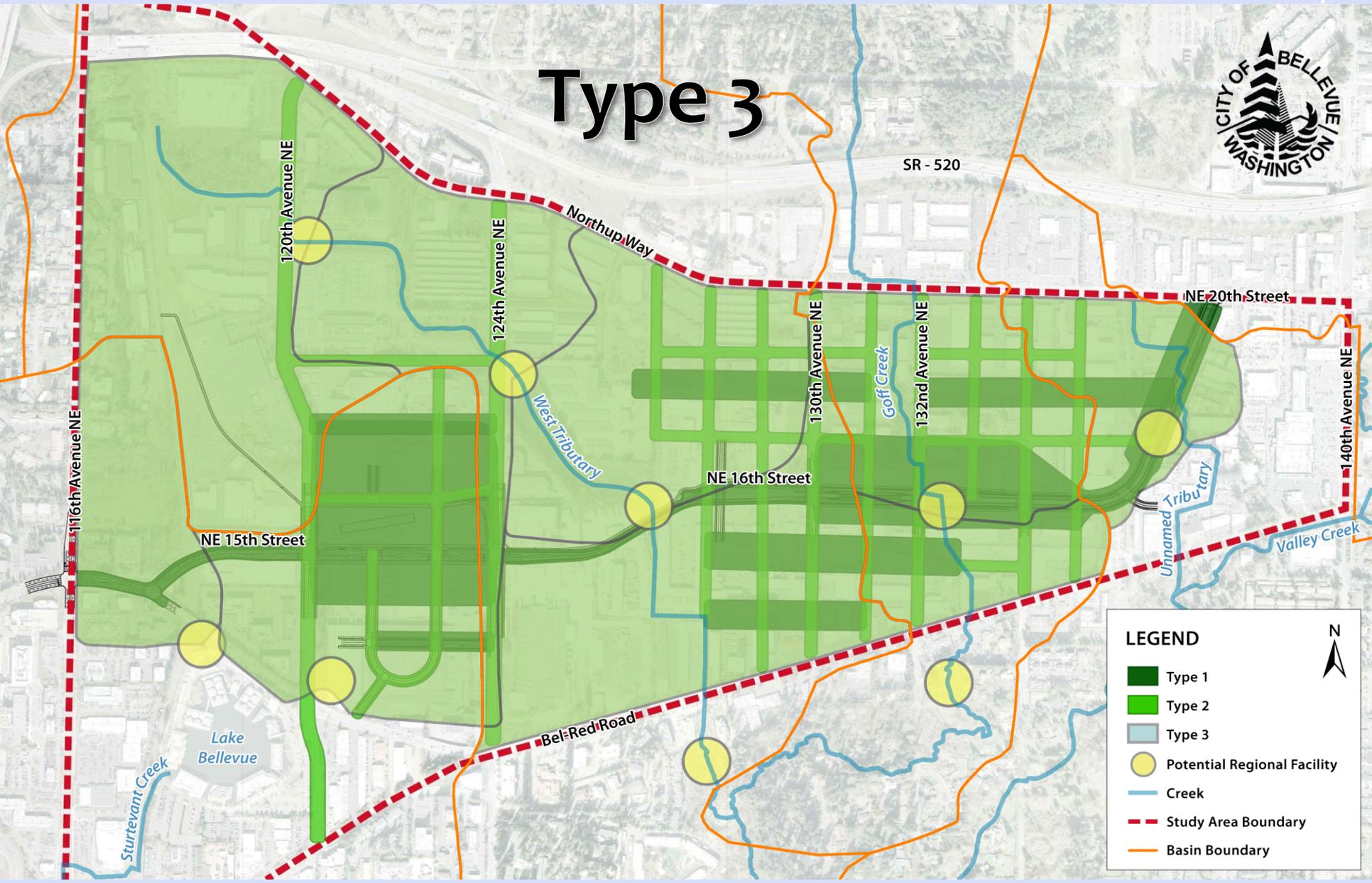


## Goff Creek

- Stream feature part of urban development
- Salmon spawning
- "Green infrastructure"
- Open space



# Type 3



### LEGEND

- Type 1
- Type 2
- Type 3
- Potential Regional Facility
- Creek
- Study Area Boundary
- Basin Boundary





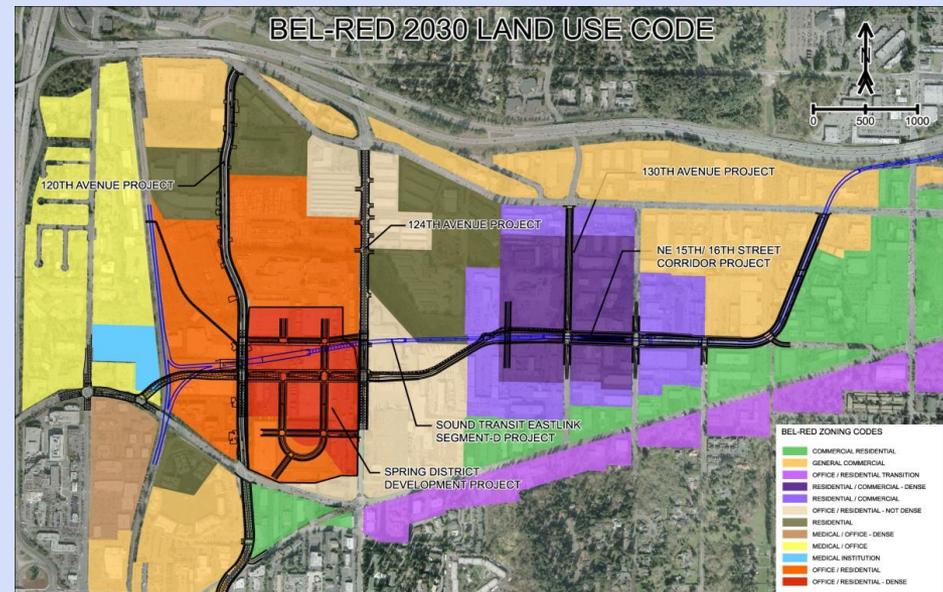
# Program Framework Summary

Type	Component	Regional Stormwater Management	Park Facilities	Open Space	Habitat Creation
1	NE 15 <sup>th</sup> /16 <sup>th</sup> St	<ul style="list-style-type: none"> <li>• NE 15<sup>th</sup>/16<sup>th</sup> St</li> <li>• Sound Transit</li> <li>• Spring District</li> <li>• Private Development</li> </ul>			✓
	Green Streets	<ul style="list-style-type: none"> <li>• Green Streets</li> <li>• Private Development</li> </ul>			✓
2	Street Grid	<ul style="list-style-type: none"> <li>• Street Grid</li> </ul>			✓
3	Sturtevant Basin	<ul style="list-style-type: none"> <li>• Spring District</li> </ul>		✓	✓
	West Trib Basin	<ul style="list-style-type: none"> <li>• Sound Transit</li> <li>• Private Development</li> </ul>	✓	✓	✓
	Goff Creek Basin	<ul style="list-style-type: none"> <li>• Private Development</li> </ul>	✓	✓	✓
	Kelsey Creek Basin	<ul style="list-style-type: none"> <li>• Private Development</li> </ul>			



# Evaluation Framework

- Evaluate 100-year life cycle costs
  - Construction
  - Soft costs
  - O&M
  - Replacement
  
- Use “typical blocks” for comparison
  - Based on 2030 land use
  - Evaluate requirements and costs w/ & w/o regional stormwater





# Potential Funding Sources

- Capital Investment Program/  
Mobility & Infrastructure Initiative
- Fee-in-lieu
- Stormwater utility funding
- LIDs/ULIDs
- City funding for open space
  - REET
  - New Parks Levy
  - Parks mitigation funding
  - Dedication through incentives
- Grants





# Agency Coordination

Washington State  
Dept. of Ecology



WA Department of  
Fish and Wildlife



Corps of Engineers



Sound Transit



WSDOT



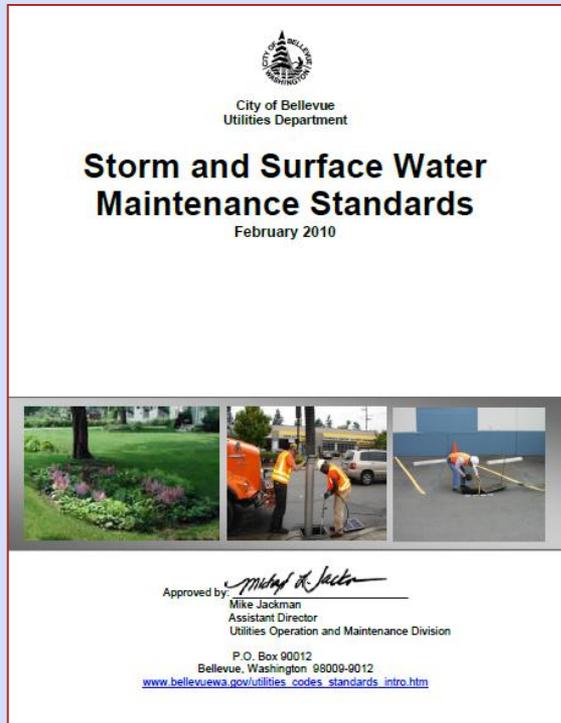
City of Redmond



Tribes



# Implementation Plan



- Policy evaluation
- Program development
- Public involvement
- Agency coordination
- Phasing
- Financing
- Long-term maintenance and monitoring



# Next Steps

- Report back to Council at future Council meetings
- Internal coordination workshops
- Agency coordination
- Conceptual design
- Policy and program evaluation
- Implementation plan
- Documentation

**End of Presentation**