



City of Bellevue

# Main Street Bike Lane Project

Franz Loewenherz | Principal Transportation Planner

Transportation Commission

July 11, 2019



# Feedback Requested

Staff seeks Transportation Commission direction to incorporate rapid-build bicycle facilities on Main Street between 108<sup>th</sup> Avenue Northeast and Bellevue Way.

# AGENDA



May 13 Council Direction



May 23 Transportation Commission Request



Main Street – Policy Context



Main Street – Project Alternatives



Transmittal Letter



## **City Council Direction (5/13)**

Council directed the Transportation Commission to evaluate a potential Main Street bike lane project; followed by an update to Council.



# **Transportation Commission (5/23)**

# Commission Meeting Topics (5/23)

1. Main Street & 108<sup>th</sup> Avenue NE alternatives.
2. Main Street & Bellevue Way operations.
3. NE 2nd Street as an alternative east-west bicycle connection.
4. WSDOT's I-405 Bellevue to Renton project.
5. Main Street bike lane project assessment.
6. Lane repurposing for bicycle mobility.
7. New vulnerable user/safe passing law.



## **Commission Request (5/23)**

Were the City to repurpose travel lanes for bicycle lane purposes would it be required to reimburse Washington State for any constitutional trust funds it might have received when it originally constructed Main Street?

# Use of road funds for bicycle lanes

## **RCW 35.75.060. Use of street and road funds for bicycle paths, lanes, routes and improvements authorized—Standards.**

Any city or town may use any funds available for street or road construction, maintenance, or improvement for building, improving, and maintaining bicycle paths, lanes, roadways, and routes, and for improvements to make existing streets and roads more suitable and safe for bicycle traffic: PROVIDED, That any such paths, lanes, roadways, routes, or streets for which any such street or road funds are expended shall be suitable for bicycle transportation purposes and not solely for recreation purposes. Bicycle facilities constructed or modified after December 31, 2012, shall meet or exceed the standards adopted by the design standards committee under RCW **35.78.030**.





# **Commission Request (5/23)**

Transportation Commission requested staff seek feedback from the business community on the Main Street bike lane project.

# Business Community Outreach

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- June 5 – Bellevue Downtown Association
- July 11 – Bellevue Chamber of Commerce



# **Policy & Project Context**

Chair Wu requested (7/1) that staff provide additional policy and project context associated with Main Street bike lane project.

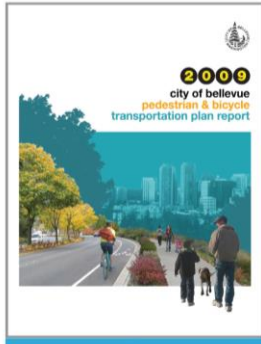


# **Main Street - Policy Context**

# Timeline

PLANNING

2/17/2009



2/9/2015



4/28/2016



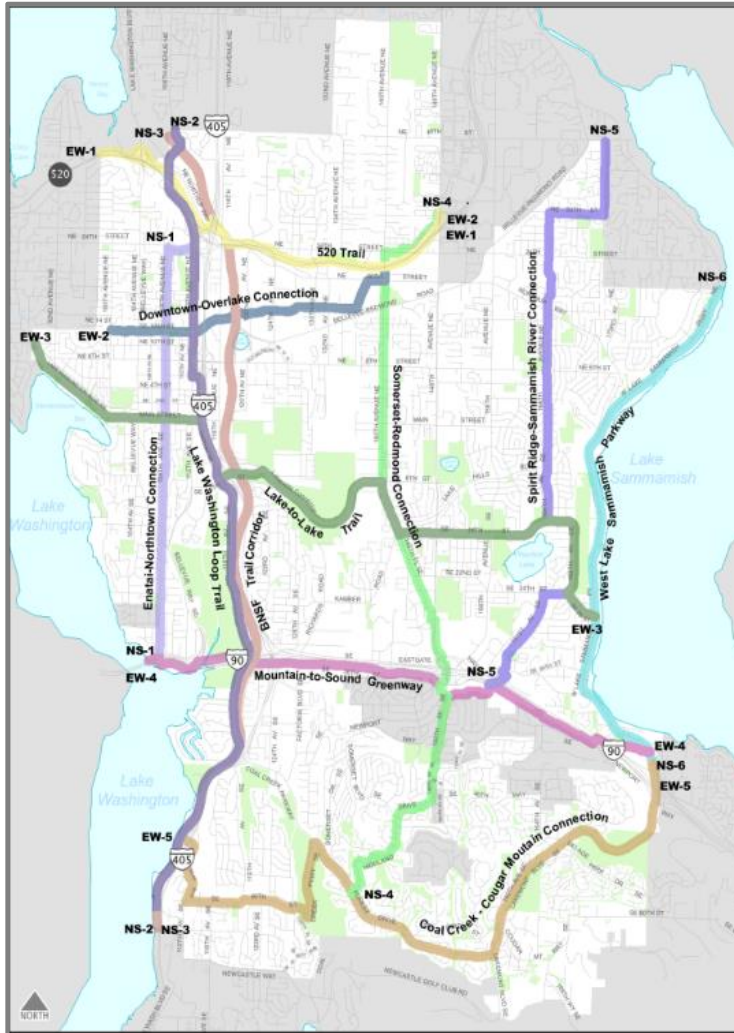
11/8/2016



IMPLEMENTATION

- **During 2017 and early 2018** – Staff worked with the Transportation Commission, BDA, and broader community in a discussion about how to make downtown a comfortable, safe, attractive place for people to bike.
- **January 11, 2018** – The Transportation Commission voted to proceed with implementing a demonstration bikeway project on 108th Avenue NE.
- **February 5, 2018** – The City Council voiced support for implementing the downtown demonstration bikeway project on 108th Avenue NE and conducting a study to assess outcomes.
- **April 12, 2018** – The Transportation Commission endorsed an assessment framework.
- **July 31, 2018** – A celebration marked the opening of the 108th Avenue NE bikeway.
- **March 28, 2019** – The Transportation Commission voted to retain the 108th Avenue NE bikeway with refinements to the design per community feedback. Received a briefing on Main Street bike lane alternatives.
- **May 10, 2019** – BDA letter/position re: 108th Avenue NE Demonstration Bikeway.
- **May 13, 2019** – The City Council directed the Transportation Commission to evaluate alternatives to fill the gap in the existing bike lanes on Main Street between Bellevue Way and 108th Avenue NE.

# 2009 Pedestrian & Bicycle Plan



- **2014 Target:** “Within 5 years, implement at least one completed and connected east-west and north-south bicycle route through Downtown Bellevue.” – Policy PB-2
- **Main Street:** Component of the Lake-to-Lake Trail, a bicycle priority corridor.

# 2015 Implementation Principles

## Bellevue City Council

Claudia Balducci  
Mayor

Kevin Wallace  
Deputy Mayor

John Chelminiak  
Councilmember

Conrad Lee  
Councilmember

Jennifer Robertson  
Councilmember

Lynne Robinson  
Councilmember

John Stokes  
Councilmember

## PBII Program Principles

To guide the Transportation Commission in its oversight of the PBII, the Bellevue City Council approved the following set of **Program Principles**:

*The City Council envisions an accessible, well-connected network of pedestrian and bicycle facilities for Bellevue that (i) enhances livability, (ii) supports economic vitality, and (iii) serves the mobility needs of people of all ages and abilities. The Council developed the following set of Program Principles to direct the Pedestrian & Bicycle Implementation Initiative, a complement of action-oriented efforts that advance non-motorized facility designs and programs identified by the 2009 Pedestrian and Bicycle Transportation Plan to meet or exceed the City's 2019 targets and position the City to realize its long-term vision for a walkable and bikeable Bellevue.*

1. Continue to aspire to the vision established by the 2009 Pedestrian and Bicycle Transportation Plan, pursue its goals, which should not be diluted, and monitor its established measures of effectiveness.
2. Undertake an action-oriented initiative that advances projects and programs to help realize the City's vision.
3. Provide a safe pedestrian and bicycle environment, which is a prerequisite to making non-motorized travel a viable, attractive option in Bellevue.
4. Advance the implementation of Bellevue's planned Bicycle Priority Corridors to facilitate continuous bicycle travel along a connected grid of safe facilities throughout the city and the region.
5. Research pedestrian and bicycle count technologies to improve the City's data driven decision-making.
6. Determine where pedestrian and bicycle investments can improve the connectivity of the multi-modal transportation system.
7. Coordinate with other efforts underway in Bellevue related to pedestrian and bicycle issues.
8. Identify partnership opportunities to advance the implementation of non-motorized projects and programs.
9. Engage community stakeholders in setting the priorities for investment in non-motorized facilities.
10. Refine existing metrics to track plan progress and engage other departments as needed to foster a One City commitment to active transportation.

“Advance the implementation of Bellevue’s planned Bicycle Priority Corridors to facilitate continuous bicycle travel along a connected grid of safe facilities throughout the city and the region.”

- City Council (February 2015)

# 2016 Rapid Implementation Program

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- **Connected**, prioritizing a network that “fills the gaps” in lieu of piece-meal implementation
- **Protected**, promoting physically separated facilities to minimize conflicts between roadway users where possible
- **Rapid**, leveraging early-win opportunities that can quickly advance project delivery



# Vision Zero

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- “The life, safety and health of residents, employees and visitors to Bellevue is the City Council’s highest priority.” – Res. 9035 (2015)
- “Strive to provide separation between motorized vehicles, pedestrians, and bicyclists, as feasible, reasonable and appropriate to the context, while maintaining adopted level-of-service standards for all modes.” – Comprehensive Plan (TR-116.1)

# Complete Streets

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“The City of Bellevue will, to the maximum extent practical, implement Complete Streets [which] provide appropriate facilities to meet the mobility needs of people of all ages and abilities who are walking, bicycling, riding transit, driving, and transporting goods.” (BCC 14.60.191)

# Mode Share Targets – Comprehensive Plan

Figure TR-3. Commute Trip Non-Drive-Alone Mode Share Targets

Worker population	2012 Existing	2035 Target
Citywide Residents	35%	45%
Citywide Workers	26%	40%
Downtown** Workers	29%	65%

*\*Includes public transportation, private commuter buses, carpool, walk, bicycle, and work at home.*

*\*\*Downtown is Bellevue's Regional Growth Center and Mobility Management Area # 3.*

# Environmental Stewardship Initiative

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- Improve transportation access and the proportion of non-drive-alone travel in Downtown Bellevue.
- Explore alternatives to current concurrency methodology to include multimodal aspects of the transportation system.
- Increase accessibility of pedestrian and bike travel routes according to the City's Ped-Bike Plan.
- Market, recognize, and promote cycling to increase bicycle ridership and pedestrian travel in the community.

# 2014 Economic Development Plan

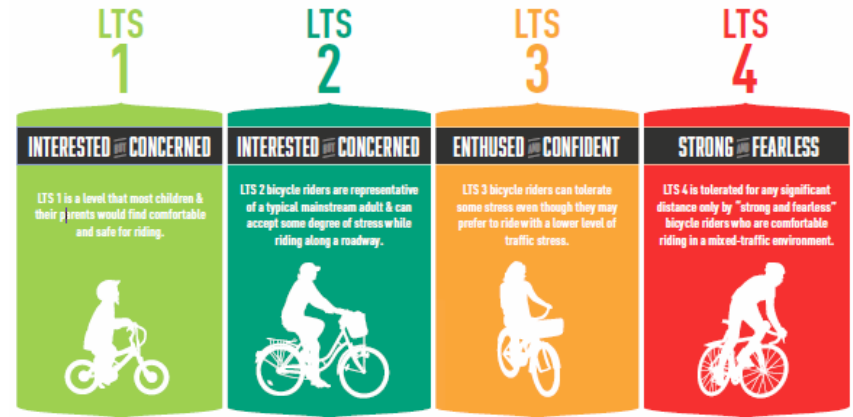
## Foundational Strategies:

- A.3. Cultivate a multi-modal transportation system that will ease congestion by increasing capacity and enhancing connectivity (roads, transit, rail, biking, and pedestrian corridors)
- F.1. Complete Meydenbauer Bay Park with a strong linkage to Downtown and the Wilburton District, including the Eastside Rail Corridor

# Bicycle Level of Service

“Recommended bicycle metrics and guidelines are based largely on the rider experience, not the number of riders who use a facility... The quality of the experience for a person riding a bicycle is largely determined by the speed and volume of traffic on the street, coupled with the type of bicycle facility.”

– MMLOS Report (2017)



Roadway Characteristics | Bicycle Facility Components: Guideline to Achieve Intended Level of Service/Level of Traffic Stress

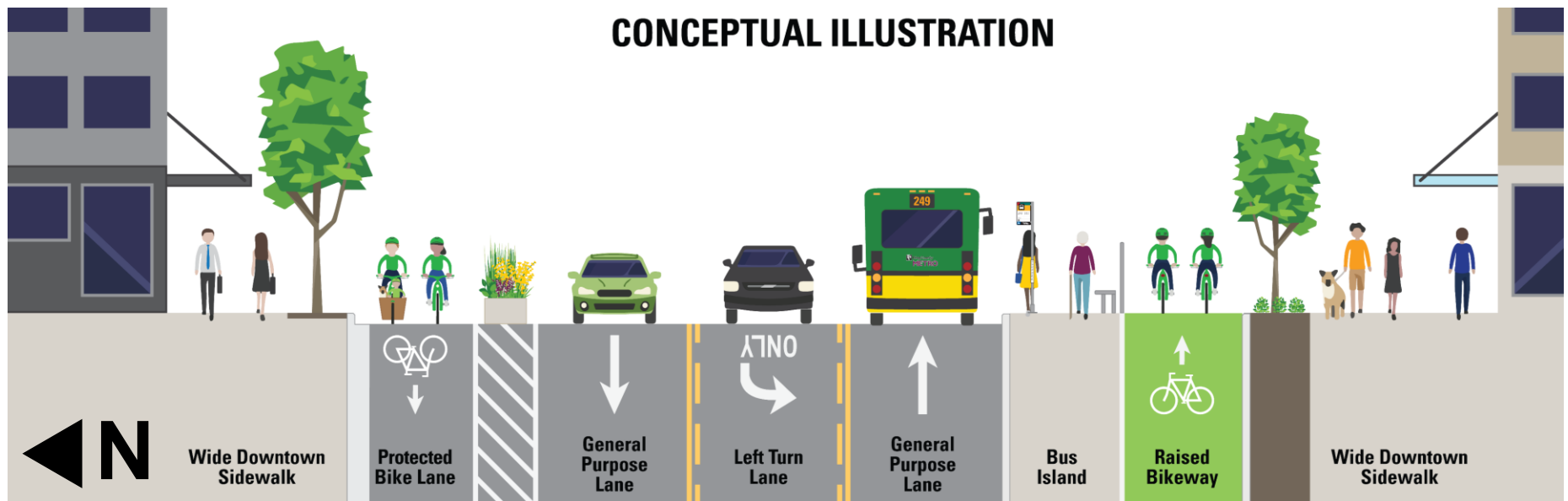
Speed Limit (MPH)	Arterial Traffic Volume	No Marking	Sharrow Lane Marking	Striped Bike Lane	Buffered Bike Lane (Horizontal)	Protected Bike Lane (Vertical)	Physically Separated Bikeway
</= 25	<3k	1	1	1	1	1	1
	3-7k	3	2	2	2	1	1
	>/=7k	3	3	2	2	1	1
30	<15k	3	3	2	2	1	1
	15-25k	4	4	3	3	3	1
	>/=25k	4	4	3	3	3	1
35	<25k	4	4	3	3	3	1
	>/=25k	4	4	4	3	3	1
>35	Any	4	4	4	4	3	1

# Corridor Vision

## Target: LTS 1 – *Bicycle Priority Corridors in Downtown*

A high level of bicycle mobility for all ages and abilities is expected within areas where the City has the vision, intent and policy to promote a high-density, mixed use urban environment.

CONCEPTUAL ILLUSTRATION

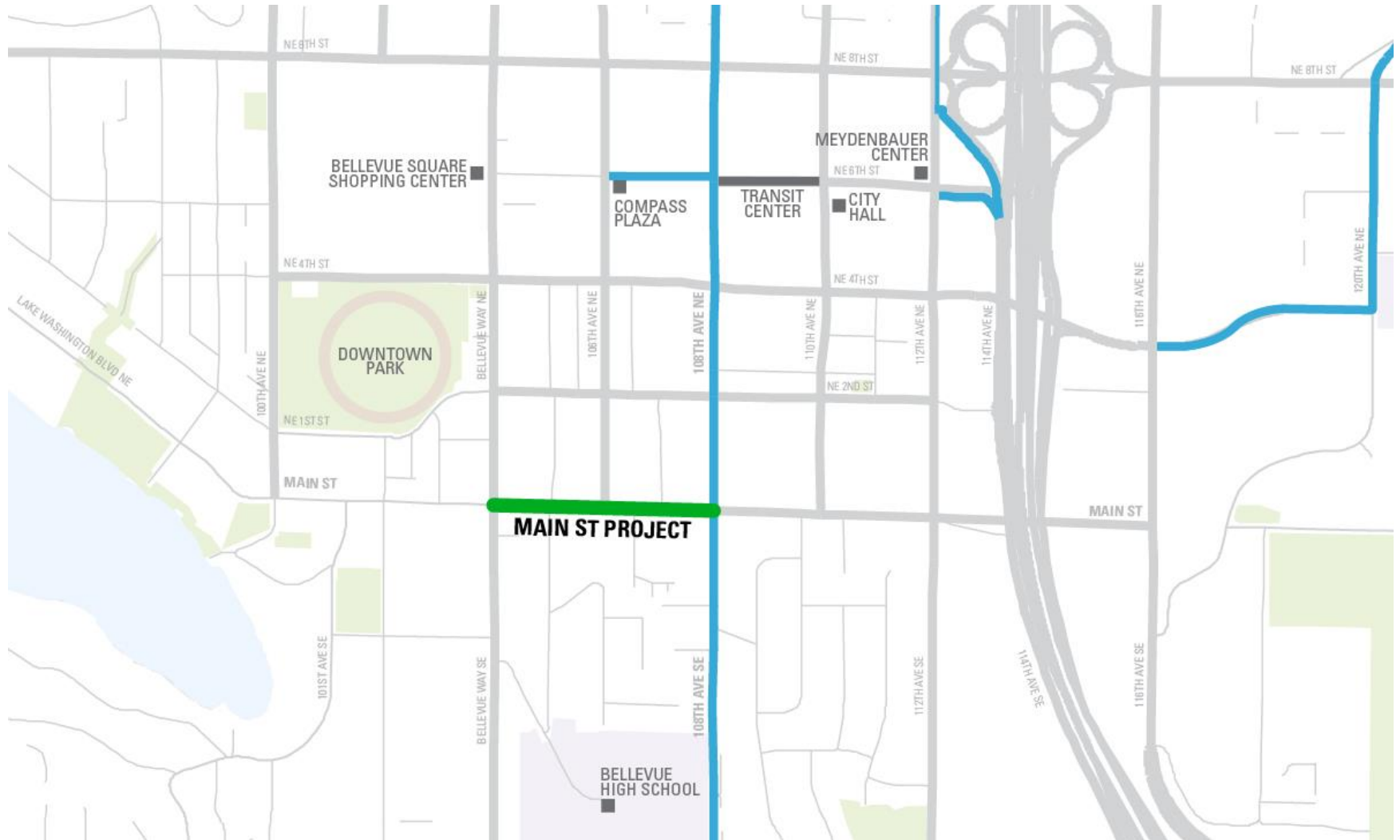




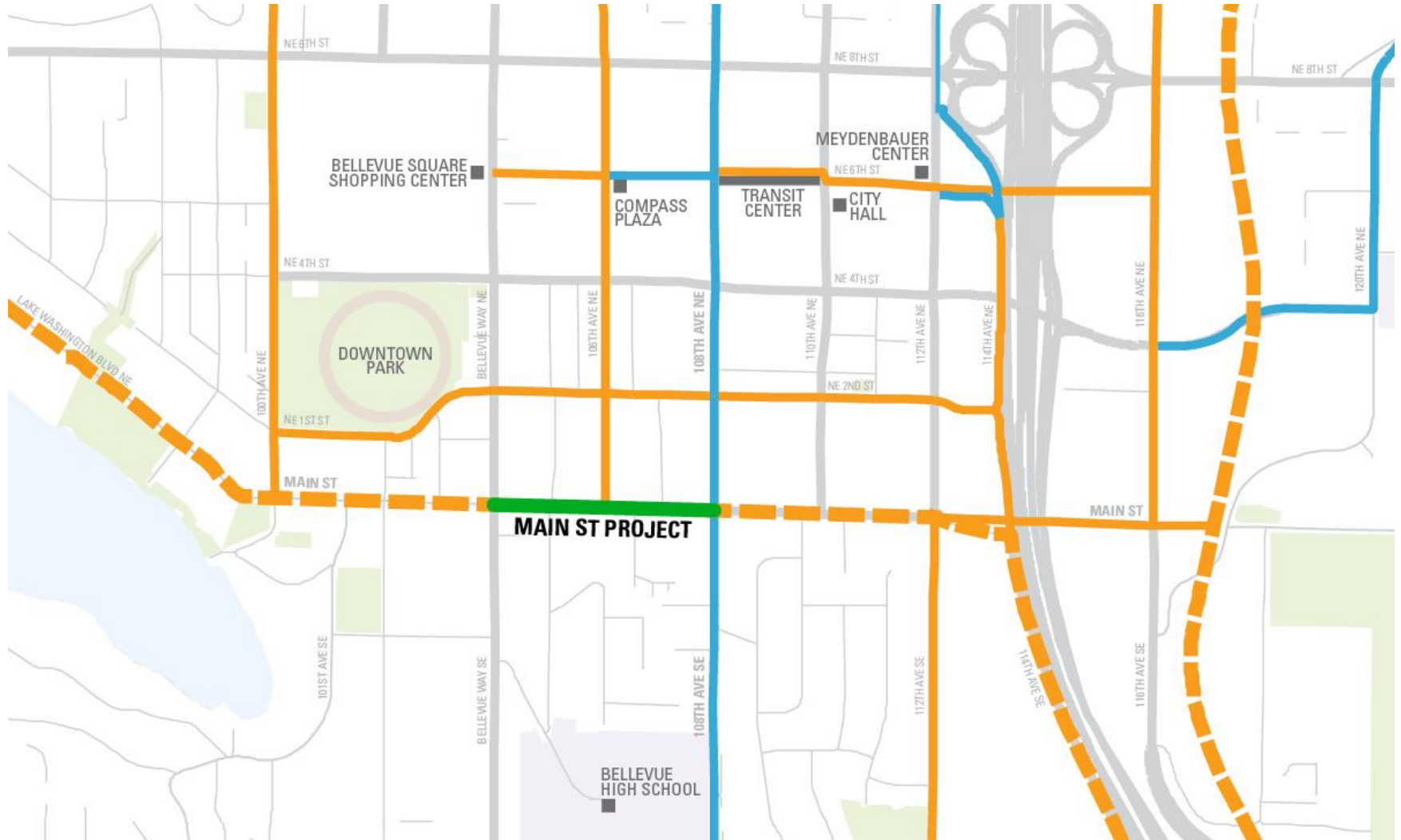
# **Main Street - Project Context**



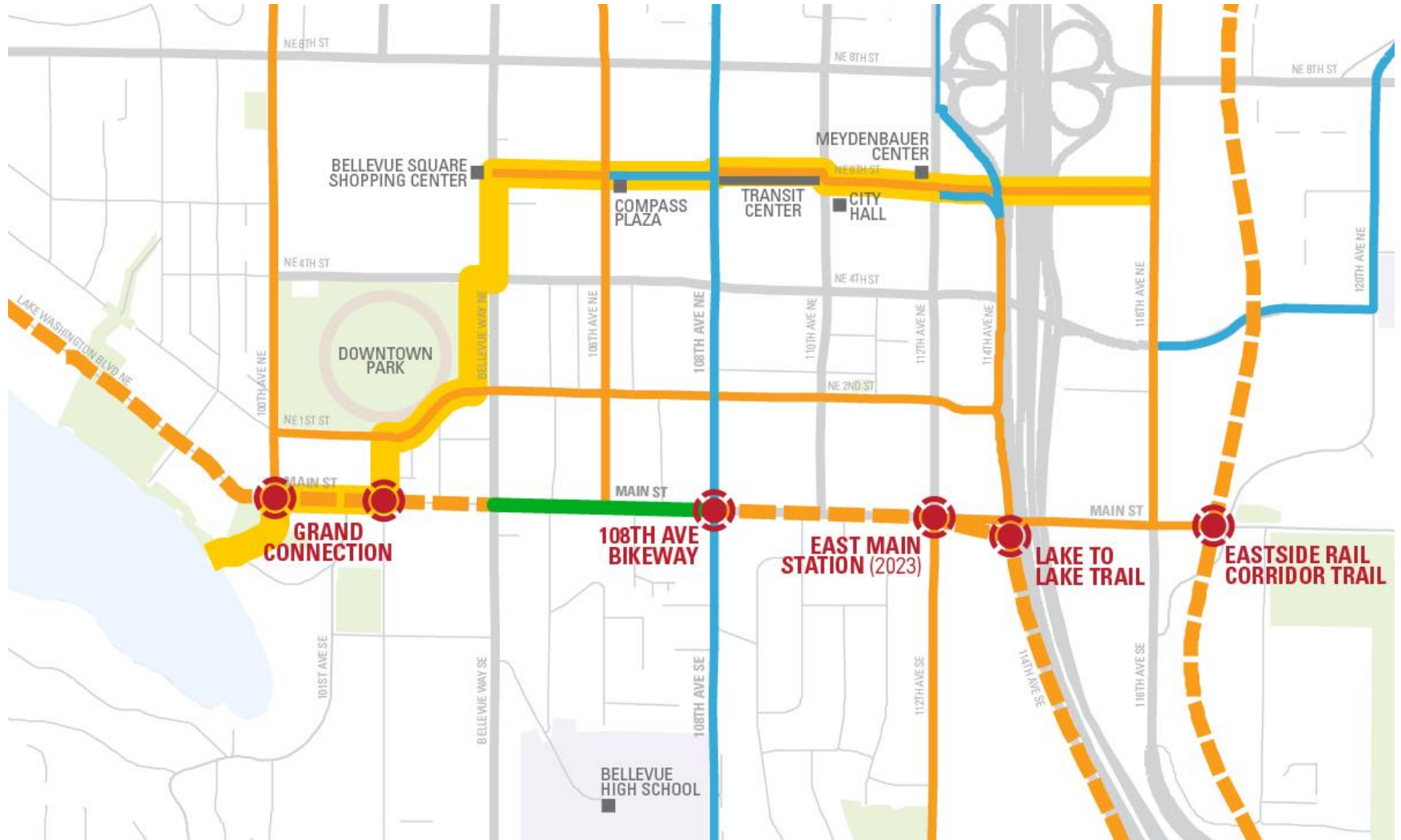
# Project Context



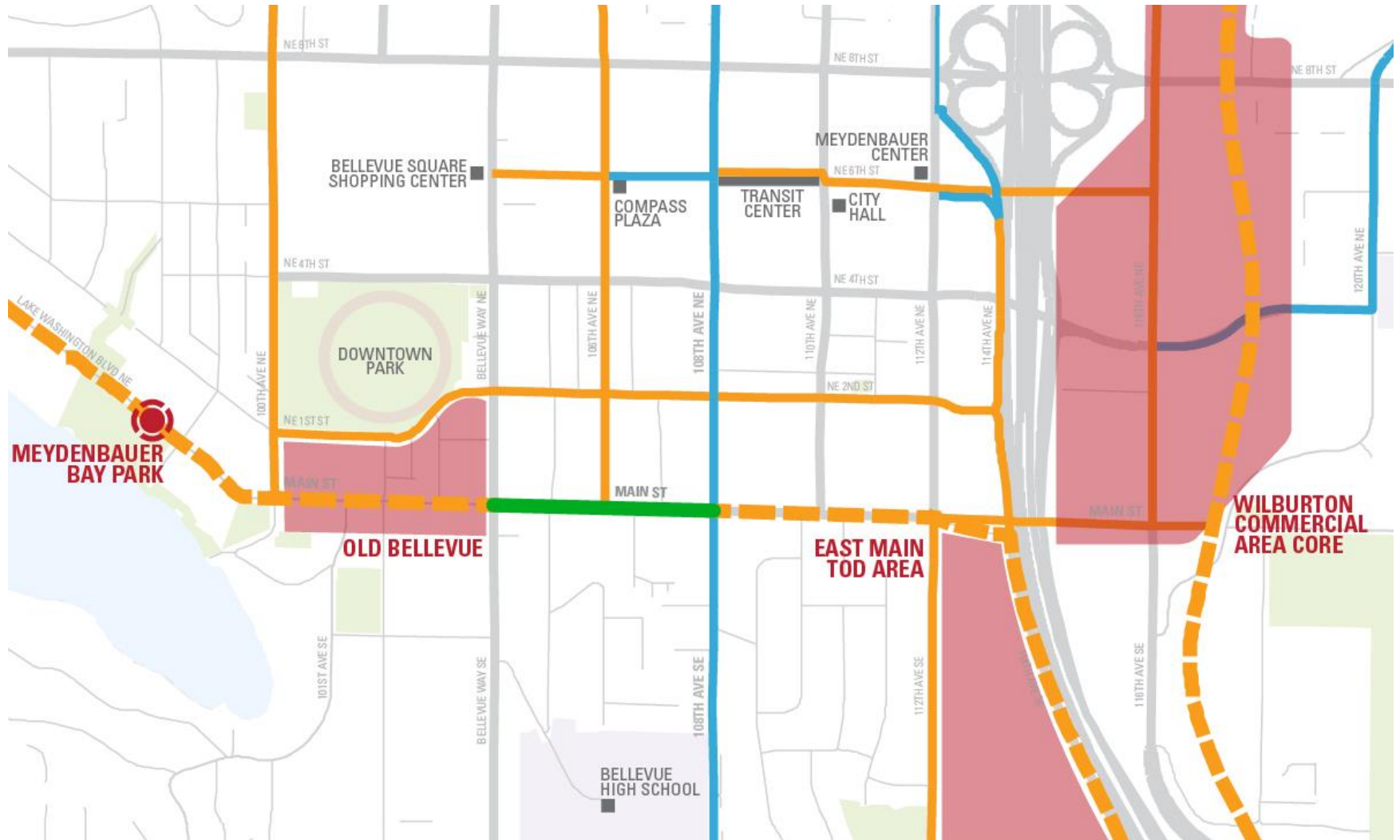
# Project Context



# Project Context



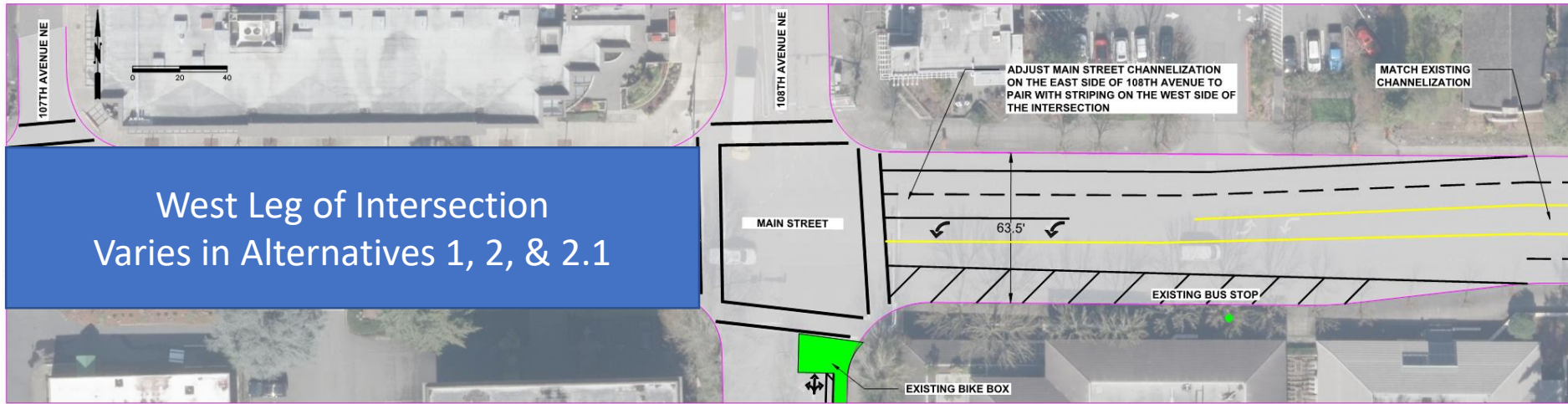
# Project Context





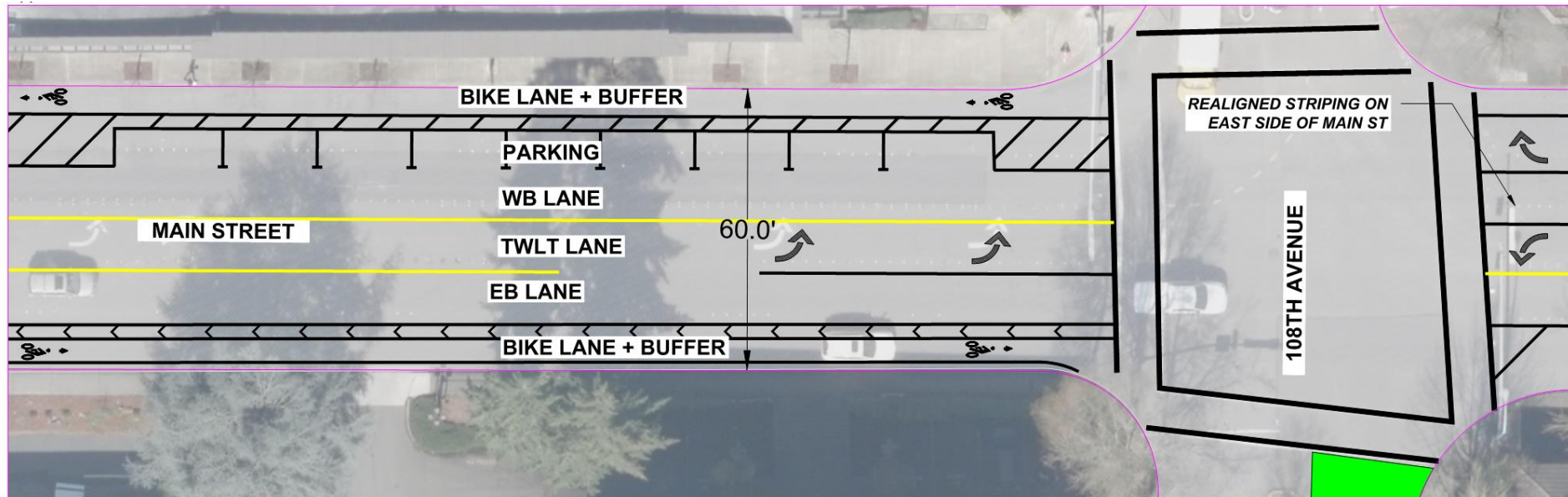
# **Main Street – Project Alternatives**

# Alternatives Development

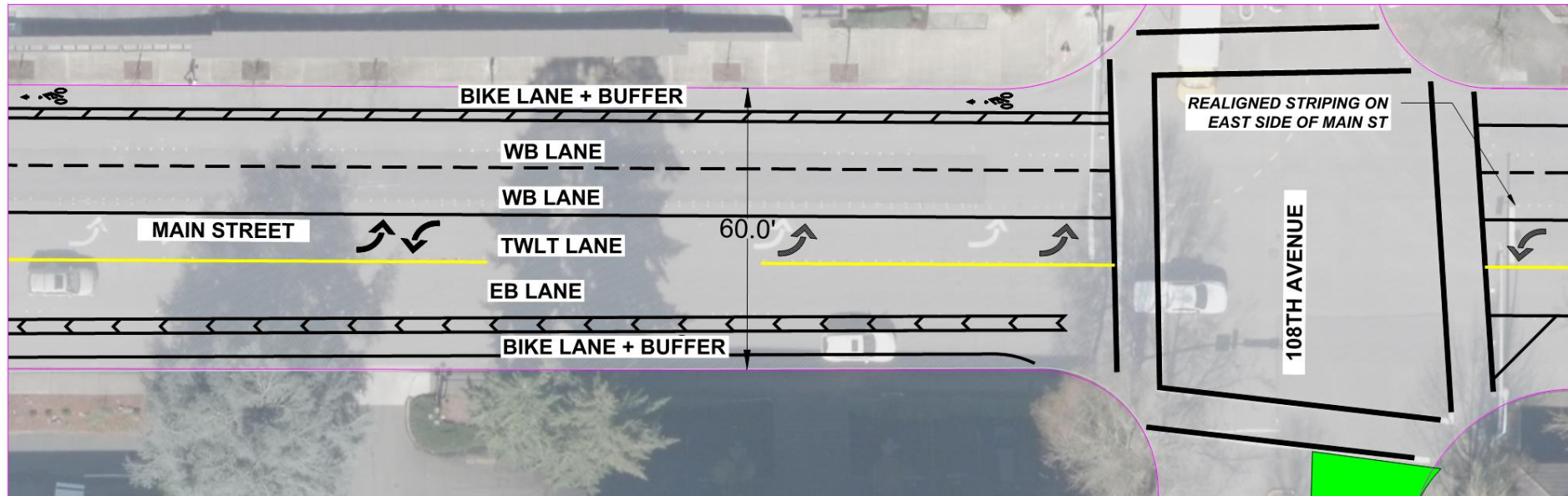




# Alt 1 – Buffered Both

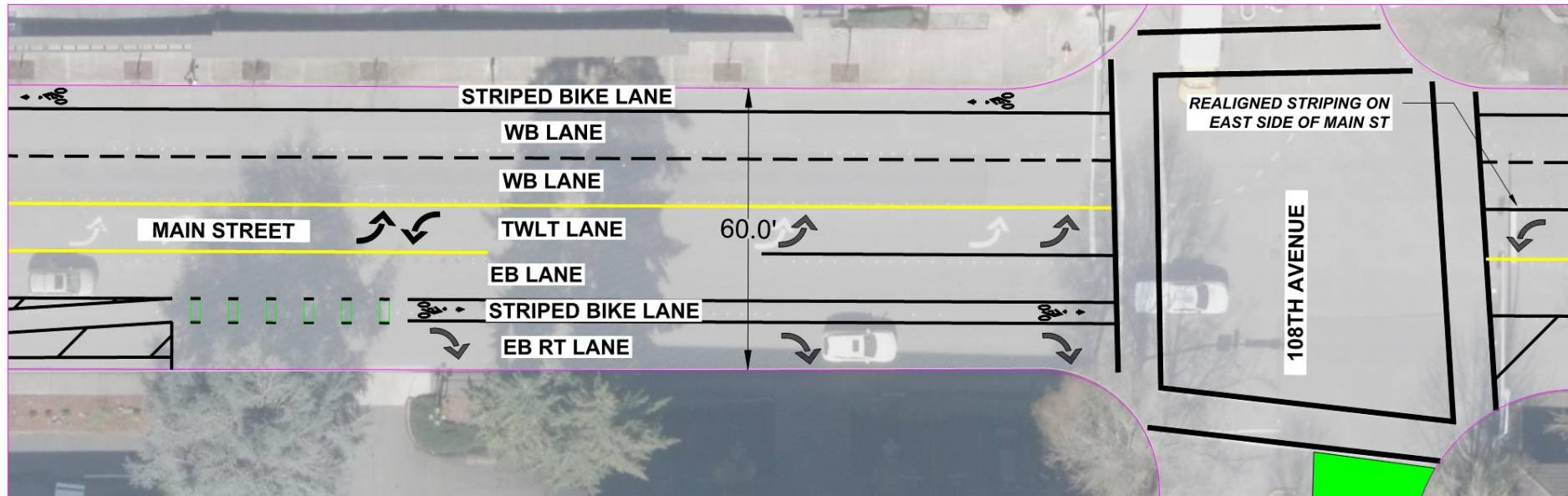


# Alt 2 – Buffered EB





# Alt 2.1 – Buffered EB, with RT Pocket



**\*\*\*STAFF RECOMMENDED ALTERNATIVE\*\*\***

# Travel Time Changes (PM Peak)

Direction	Existing	Alternative 1	Alternative 2	Alternative 2.1
Eastbound (Bellevue Way - 108th)	2.3 mins 138 seconds	+0.1 min +6 seconds	No Change	-0.1 min -6 seconds
Westbound (108th - Bellevue Way)	1.7 mins 102 seconds	+0.9 min +54 seconds	No Change	No Change

1. Cycle length and signal timing splits were kept the same across alternatives.
2. Existing conditions include EB bike lane from Bellevue Way to 105th Ave NE.

# Level of Service Changes (PM Peak)

Intersection	Existing	Alternative 1	Alternative 2	Alternative 2.1
Bellevue Way/Main St	54.6 sec	+0.4 sec	-2.8 sec	-2.8 sec
106th/Main St	21.7 sec	+18.0 sec	-0.7 sec	-2.0 sec
108th/Main St	17.6 sec	+17.9 sec	+6.9 sec	+4.9 sec

1. Cycle length and signal timing splits were kept the same across alternatives.
2. Existing conditions include EB bike lane from Bellevue Way to 105th Ave NE.

# Monitoring

- Bluetooth travel time collection hardware installed (June 6) at 100<sup>th</sup> Ave NE; Bellevue Way; 106<sup>th</sup> Ave NE; and 108<sup>th</sup> Avenue NE on Main Street.
- Assess congestion using traffic cameras and then adjust traffic signals.
- Explore bicycle count approaches (either manual or permanent).
- Collaborate with King County Metro Transit to assess impacts to Route 249.
- Use video intelligence equipment for road safety assessment (i.e., close calls).
- Police collision reports.



# Feedback Requested

Staff seeks Transportation Commission direction to incorporate rapid-build bicycle facilities on Main Street between 108<sup>th</sup> Avenue Northeast and Bellevue Way.

# Transmittal Letter



## Transportation Commission

# TRANSMITTAL

August 5, 2019

RE: Main Street Bike Lane Project

Honorable Mayor Chelminiak and City Councilmembers:

Transportation Commission members are honored by your trust and confidence in selecting us to oversee the implementation of the 2009 Pedestrian and Bicycle Transportation Plan. In this capacity, we have been guided by Council's direction as we collaborate with staff and the community to "advance the implementation of Bellevue's planned Bicycle Priority Corridors to facilitate continuous bicycle travel along a connected grid of safe facilities throughout the city and the region."

The Commission reviewed relevant policies, planning context/development trends, community input, and mobility data analysis during three meetings including March 28, May 13, and July 11. Our review and discussions indicate that Alternative 2.1 serves as a reasonable interim facility in providing a continuous east-west connection on Main Street to the 108<sup>th</sup> Avenue bikeway. At our July 11 meeting, with a vote of 4 in favor and 1 opposed, the Commission approved the implementation of bicycle facilities as follows:

- In the eastbound direction, Alternative 2.1 extends the eastbound buffered bike lane on Main Street from 105th Avenue NE to 107th Avenue NE by repurposing one eastbound travel lane. At 107th Avenue NE, the eastbound buffered bike lane begins tapering away from the curb, becoming a striped bike lane (no buffer) for about 200 feet between the eastbound travel lane and a new right turn lane being added for eastbound-to-southbound turns onto 108th Avenue NE.
- In the westbound direction, Alternative 2.1 extends the existing striped bike lane on Main Street from 106th Avenue NE to 108th Avenue NE. Alternative 2.1 maintains two westbound travel lanes.

Alternative 2.1 will also include modifications to the east leg of the intersection of Main Street and 108th Avenue NE to ensure safe lane alignment through the intersection. This may include repurposing approximately 250 feet of the eastbound curb lane east of 108th Avenue NE to reinforce the lane revisions on the west leg.

Specific items that we discussed include:

- How existing policy, project, and development context shape the role of the Main Street segment and how the Main Street bike facilities align with the planning and development context including the East Main TOD, Grand Connection, Eastside Rail Corridor Trail, Wilburton Commercial Area visioning process, Downtown development, transit circulation, and I-405 access projects.
- Detailed analysis on the existing Main Street bike lanes and the neutral impacts to traffic operations at the Bellevue Way intersection.
- Modified proposal to reduce projected vehicle delay experienced at the 108<sup>th</sup> Avenue NE intersection.

Attachment A

- Assessment of NE 2<sup>nd</sup> Street as an alternative east-west bicycle connection through Downtown as compared to Main Street.
- The timing of this project does not seem to interfere with other relevant projects such as WSDOT's I-405 Bellevue to Renton project.
- Bellevue staff will conduct a limited before-and-after assessment of the Main Street bike lane project.
- The implications of the new Vulnerable user/Safe passing legislation on vehicle capacity.
- The city is legally allowed to repurpose travel lanes for bicycle lane purposes without being required to reimburse Washington State for any constitutional trust funds it might have received when it originally constructed Main Street.

Commissioners voting in favor of the Main Street bike lanes determined that: [REDACTED]  
Commissioners voting against the Main Street bike lane determined that: [REDACTED]

In the final analysis, the Main Street bike lane project is a modest improvement relative to the ultimate vision for the corridor (both in scale and length). In the future, people riding bicycles on Main Street will benefit from an off-street path in the eastbound direction and a separated bike lane in the westbound direction. As such, today's Main Street bike lane project should be regarded as an interim quick-build bicycle facility that delivers improved safety and connectivity in the near-term – per Council direction through the Bicycle Rapid Implementation Program and more recently at the briefing on May 13 - while larger scale land use and transportation projects gradually come to fruition. Over time there will be opportunities for both the public sector (in the form of capital projects) and the private sector (in the form of conditions of development approval) to improve/upgrade the Main Street bike lane – enhancing the facility to promote Downtown Bellevue's high-density, mixed use urban environment.

Sincerely,

Lei Wu  
Chair, Transportation Commission