# Multi-modal Access to Light Rail Stations

City Council Meeting December 12, 2016



### Multi-modal Access to Light Rail Stations

- Trail Along the Rail Feasibility Study
- 147<sup>th</sup> St/148<sup>th</sup> St Non-Motorized Bridge Feasibility Study



#### **Relevant Policies**

- Shoreline Comprehensive Plan's Transit-Oriented Communities
- Guiding Principles for Light Rail Facilities Design
- 145<sup>th</sup> Street Station Subarea Plan



#### **Need for Non-Motorized Access**

- 1. Traffic Mitigation
  - 145<sup>th</sup> St. Station: 25% more traffic
  - 185<sup>th</sup> St. Station: more than double the traffic
- 2. Subarea Population Growth
  - 145<sup>th</sup> St. Station: ~3K to 5K more residents by 2023
  - 185<sup>th</sup> St. Station: ~ 3K to 5K more residents by 2035
- 3. Pedestrian/Bicyclist Transit Ridership
  - 145<sup>th</sup> St. Station: 360 peds and 30 cyclists per peak hr.
  - 185<sup>th</sup> St. Station: 165 peds and 30 cyclists per peak hr.

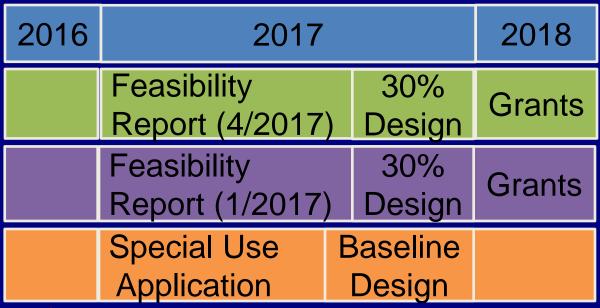
#### Schedule

Trail Along the Rail

147<sup>th</sup>/148<sup>th</sup> Bridge

Sound Transit LLE

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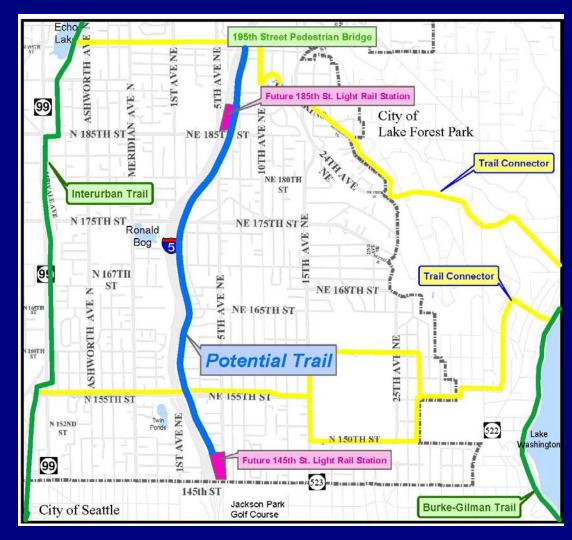




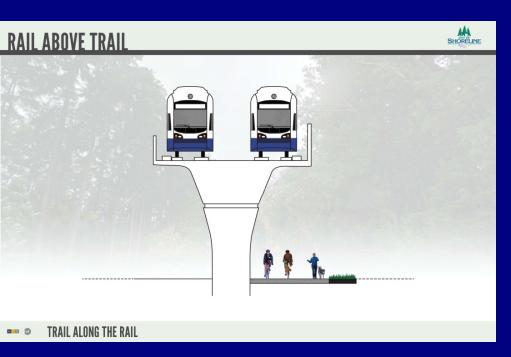
#### **Trail Along the Rail**

- 16' multi-use path
- 2.6 miles
- Ped/bike access to:
  - 145<sup>th</sup> & 185<sup>th</sup> St. Stations
  - 195<sup>th</sup> St. Bridge
  - Ridgecrest Park
  - Shoreline Library
  - Interurban/Burke-Gilman Trail Connectors





#### Trail Along the Rail Typical Sections



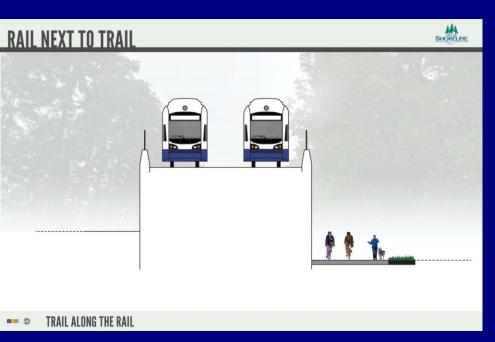




Trail Under Elevated Track

Example
Ohlone Trail under the BART
Berkeley, CA

#### Trail Along the Rail Typical Sections









Example
Ohlone Trail under the BART
Berkeley, CA

### Trail Along the Rail Walkshed

- Expands the 0.5 mile radius walkshed to 155<sup>th</sup> St.
- Approx. 8 min. walk





# **Trail Along the Rail Cost Estimate**

Segment	Cost Estimate
145 <sup>th</sup> St Station Area (w/in ¼ mile)	~\$1,000,000
Trail between Station Areas	~\$5,800,000
185 <sup>th</sup> St Station Area (w/in ¼ mile)	~\$2,200,000
Total:	~\$9,000,000



### **Next Steps**

#### Trail Along the Rail

- Stakeholder/Public Outreach Winter 2017
- Preferred Alignment & Cost Estimate Spring 2017
- 30% Design and Environment Analysis 2017/2018



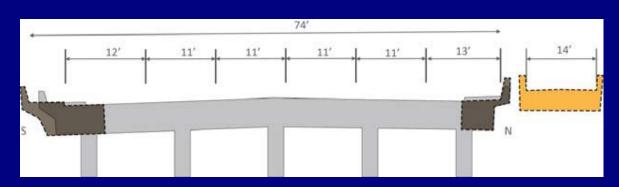
# Non-Motorized Bridge Options

- 147<sup>th</sup> Street Option A
- 147<sup>th</sup> Street Option B
- 148<sup>th</sup> Street
- 149<sup>th</sup> Street





#### 145th St Station Baseline Conditions



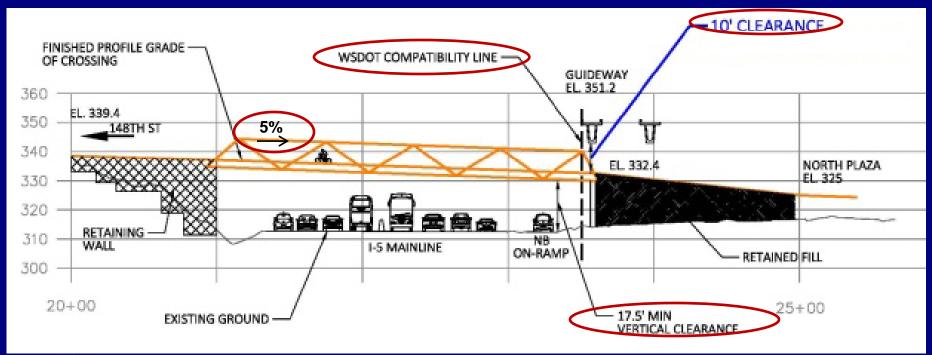
145th St. Retrofit with Ped/Bike Bridge





145<sup>th</sup> St. Interchange Retrofit with Plaza Path Connection

# Non-Motorized Bridge Design Constraints





# Non-Motorized Bridge Options

- 147<sup>th</sup> Street Option A
- 147<sup>th</sup> Street Option B
- 148<sup>th</sup> Street
- 149<sup>th</sup> Street

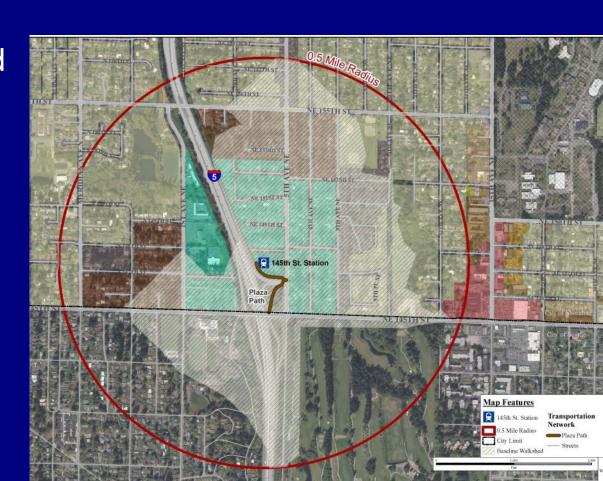




#### **Baseline Walkshed**

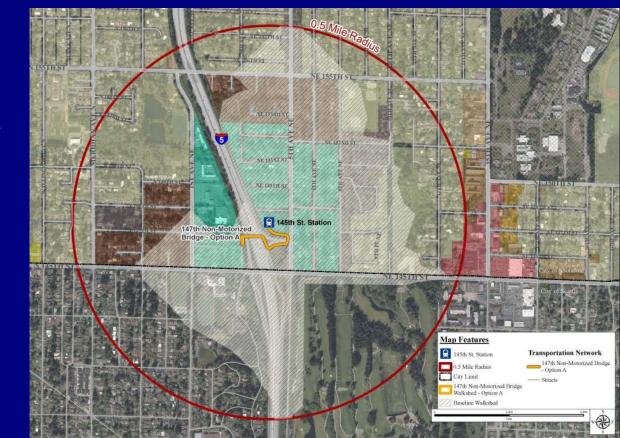
- 0.5 mile radius around 145<sup>th</sup> St. Station
- 145<sup>th</sup> St. Station Subarea Phase 1 Zoning
- 145<sup>th</sup> St. Ped/Bike Bridge
- Plaza Path





# 147th St. Non-Motorized Bridge Option A

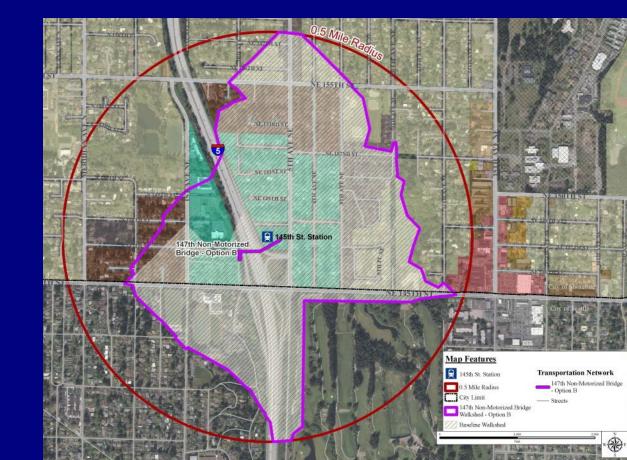
- No change to walkshed
- Approx. 6 min. walk





# 147th St. Non-Motorized Bridge Option B

- Modest increase to walkshed
- Approx. 3 min. walk





# 148th St. Non-Motorized Bridge

- Greatest increase to walkshed
- Approx. 2.5 min. walk





# **Non-Motorized Bridge Cost Estimates**

Option	Cost Estimate
147 <sup>th</sup> Street – Option A	\$17,512,000
147 <sup>th</sup> Street – Option B	\$18,792,000
148 <sup>th</sup> Street	\$12,707,000
149th Street (Note: option found to be	N/A
infeasible)	



### **Analysis**

#### 147<sup>th</sup> Street Option B

- Modest Increase in Walkshed
- Most Expensive
- Space Efficient Connection to Station Garage

#### 148th Street

- Greatest Increase in Walkshed
- Least Expensive
- Site Circulation needs to be resolved



#### **Next Steps**

#### 147th/148th Street Non Motorized Bridge

- Feasibility Study Report Jan 2017
- Advance 147<sup>th</sup> St Option B and 148<sup>th</sup> St for further design study and discussion with WSDOT and Sound Transit
- 30% Design and Environment Analysis 2017



### Resource/Financial Impact

2017 Capital Improvement Projects (CIP) budget includes:

- \$500,000 for 147<sup>th</sup>/148<sup>th</sup> Street Non-motorized Bridge
  - 30% Design and Environmental Analysis
- \$275,000 for Trail Along the Rail 30% Design and Environmental Analysis



### Resource/Financial Impact (continued)

#### Potential Funding Sources

- Sound Transit Multi-Modal Access Improvements
- WA State Recreation & Conservation Office
- WSDOT Pedestrian/Bicycle Program
- STP/CMAQ Regional
- STP/CMAQ Countywide
- Federal Transit Admin FAST New Starts



#### **Discussion**

- No action is required tonight
- Council feedback is requested

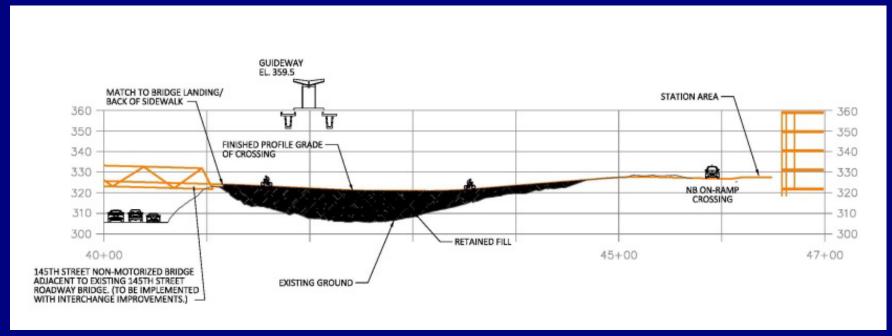




#### **Additional Slides**

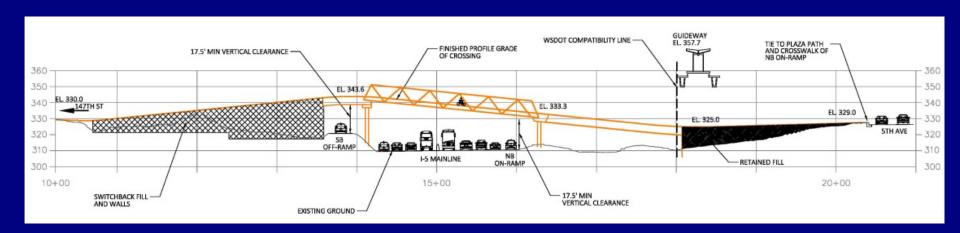


# 145th St. Non-Motorized Bridge & Plaza Path



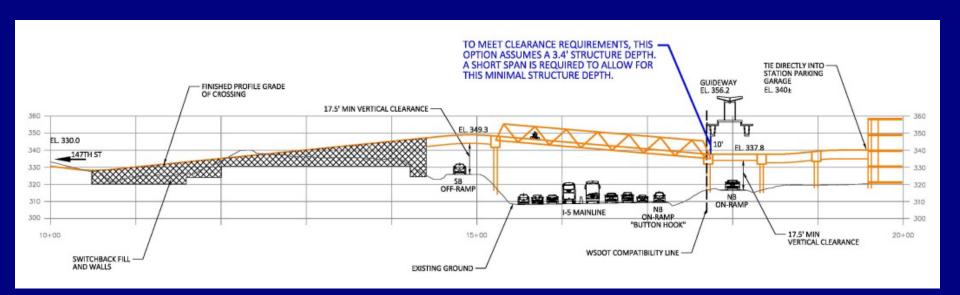


# 147th St. Non-Motorized Bridge Option A



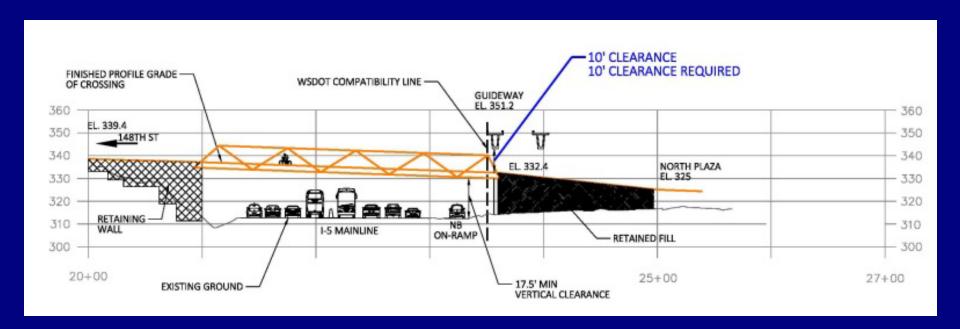


# 147<sup>th</sup> St. Non-Motorized Bridge Option B





# 148th St. Non-Motorized Bridge





### 149th St. Non-Motorized Bridge

