SR 167 Master Plan

A planning and environmental linkage study

Equity Advisory Committee #6 Mar. 3, 2023

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Today's Agenda

Objectives:

- Review feedback on refined scenarios
- Review recommendation process
- Introduce draft recommendation and analysis
- Provide community engagement update
- Review next steps

Agenda:

- Welcome and introductions
- Developing the recommendation
- Recommendation
- Recommendation analysis
- Discussion
- Next steps
- Adjourn



SR 167 Master Plan Schedule

Phase 1: Study planning Oct – Nov 2021 Phase 2: Existing and future conditions

Dec 2021 – Feb 2022 Phase 3: Develop and screen strategies Jan – April 2022 Phase 4: Develop and evaluate multimodal scenarios

Apr – Jan 2022

Phase 5: Final report

Nov 2022 – Jun 2023 Implementation Plan

Community and partner engagement

Listening Sessions: Study Area, Vision & Goals

Equity Advisory Committee Meetings

Open House Co-Creation Community Workshops Open House



Partner meeting schedule

Meeting 1 November

- Review and discuss committee roles and responsibilities
- Draft purpose and need
- Study area approach
- Draft evaluation criteria

Meeting 2 January/February

- Final purpose and need
- Final evaluation framework
- Initial project list

Meeting 3 March

- Review existing conditions
- Define scenario development
- Community engagement update

Meeting 4 June

- Review and discuss scenario analysis
- Community engagement update

Meeting 5 November

- Present refined scenarios
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Meeting 6 February/March

- Provide recommended solution
- Community engagement update

Meeting 7 May

- Review plan highlights
- Executive Summary
- Next steps



What did we hear?



Engagement by the numbers...















Feedback that informed the recommendation

- Importance of transit access and support for more frequent and longer transit service hours
- Concerns about cost of toll lane access and support for the low-income toll program
- Need for reliable truck access and mobility on SR 167; support for second express toll lane and interchange improvements
- Maximizing the benefits of managed capacity on SR 167; support for increasing the weight limit in ETLs
- Concern about growth in traffic congestion on SR 167 and diversion to city streets;
 support for more managed capacity on SR 167
- Supportive of targeted arterial investments, so long as they do not encourage regional traffic diversion
- Importance of addressing bottlenecks; support for interchange improvements and auxiliary lanes at SR 18, SR 410/512, and SR 516

Feedback that informed the recommendation

- Support for BRT on SR 167, but with investments in access to transit throughout the study area
- Concerns about the actual implementation of more transit services in the study area, but supportive of expanded transit service
- Importance for equitable access to SR 167 capacity; support for low-income toll program and concerns about HOV policy
- Supportive of expanded transit options in the study area
- Importance of speed and reliability improvements; support for ETLs, direct access ramps, and arterial transit priority
- Highlight the priority of enhancing existing service area before adding new service (one agency)
- Aligned with Master Plan goals of reduced VMT per capita and regional goals of increased land use density supported by enhanced transit service
- Plan to continue to expand innovative on-demand transit services, consistent with Master Plan
- Importance of filling gaps in regional trail network



Recap: 3 Refined Scenarios



Recap: What We Learned From 3 Refined Scenarios

- Scenario A rates higher with respect to the equity and multimodal goal (active and transit)
- Scenario B rates higher with respect to the mobility and economic vitality goal
- Scenario C performs better than Baseline on all goals, but only has marginal freight benefits
- Coordination with the SR 512/I-405/Puget Sound Gateway programs is critical
- Scale and cost of the three scenarios are similar

Developing the Recommended Scenario



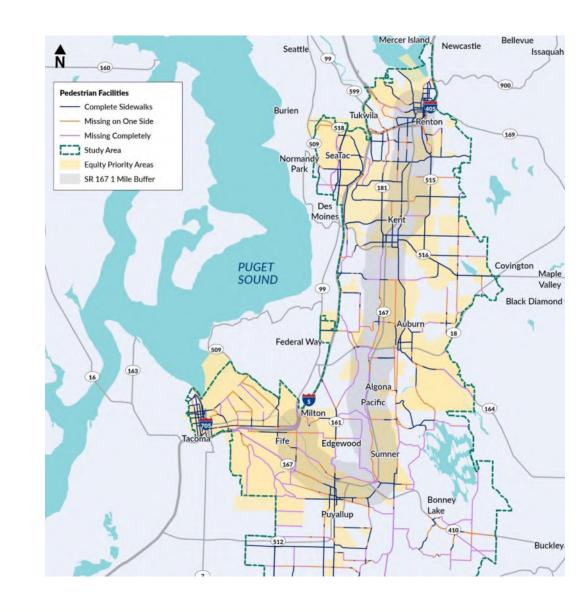
Start with Scenario B

- Good results from modeling
- Strong overall support from stakeholders
- Areas for refinement:
 - Equity
 - Transit access and utilization
 - Complete streets on key corridors
 - Arterial bottlenecks



Enhancements to Equity

- Gap: Scenario A provides stronger benefits to equity populations
 - Number of jobs within 45-60 minutes
 - Population within a half-mile of frequent/all-day transit or ondemand transit
 - Number of midday and evening bus seats per hour
- Action: Include the seven transit routes from Scenario A to the Recommended Scenario



Enhancements to Multimodal Access

- Gap: Scenario A resulted in higher transit boardings – due to more coverage coupled with underlying time
- Action: Include the seven transit routes from Scenario A to the Recommended Scenario



Enhancements to Complete Streets on Key Arterials

- Gap: Scenario A included complete street improvements on key arterials; based on GIS data and supported by comments
- Action: Include the complete streets improvements as noted below



East Valley Highway

- Add curb, gutter, sidewalk and turn lane where needed
- Add multipurpose path to east side (on a portion of the road)



West Valley Highway

- Add curb, gutter, sidewalk, turn lane where needed, and bicycle facilities
- Improve access to adjacent freight facilities



SR 161/Meridian Ave

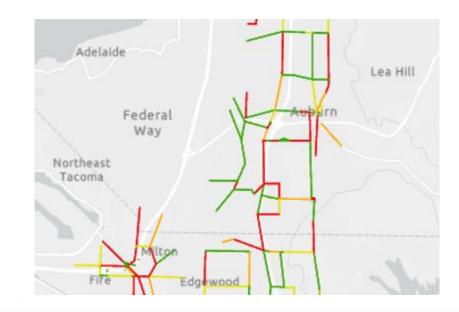
 Add low-stress pedestrian and bicycle facilities and BAT lane

Addressing an Arterial Bottleneck

 Gap: Comments from Auburn about degraded complete street operations with proposed Ellingson Road interchange at SR 167; confirmed with GIS data and regional modeling

 Action: Include a new project to replace the BNSF bridge and build a complete street improvement with improved freight access under the

BNSF tracks

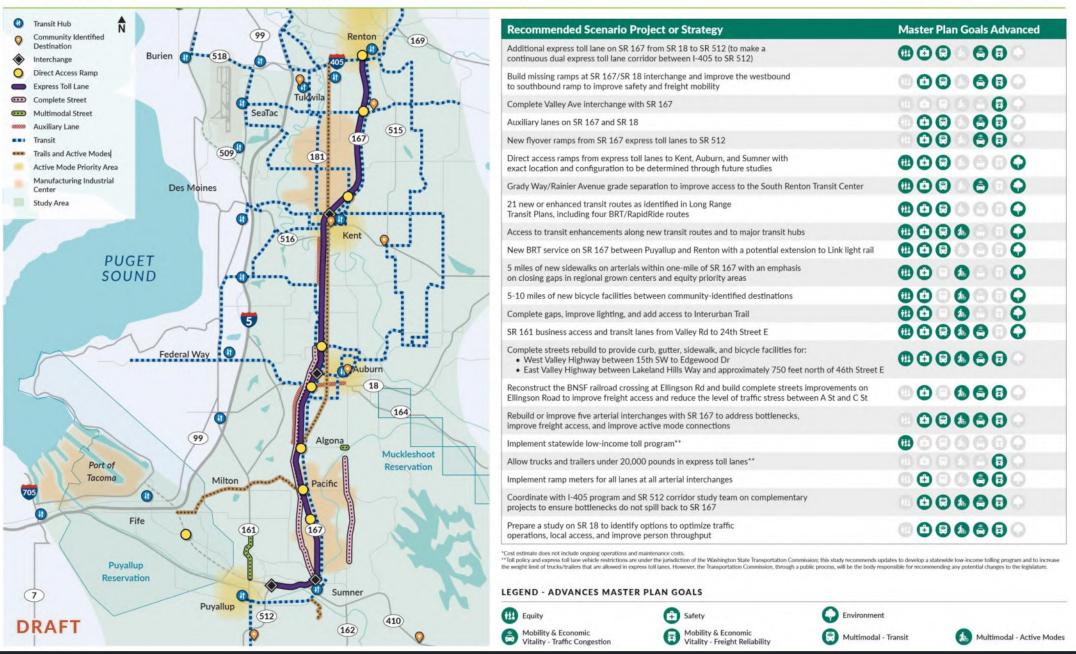




Recommended Scenario







Recommended Scenario Analysis



Master Plan Goals: Analysis Results

Compare Recommended Scenario to three Refined Scenarios

- Equity
- Environment
- Safety
- Multimodal Active Modes
- Multimodal Transit
- Mobility and Economic Vitality Traffic Congestion
- Mobility and Economic Vitality Freight Reliability
- Practical Solutions and State of Good Repair



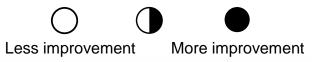
Recommended Scenario Findings

- Largest equity benefit based on expanding transit coverage and the times of the day that transit operates
- Prioritize sidewalk gap closures on denser equity priority areas within one-mile of SR 167

Summary Table of Scenario Ratings with Respect to Equity Performance Metrics

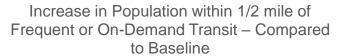
Metric	Recommended Scenario	Scenario A	Scenario B	Scenario C
Jobs within 45 minutes of transit (midday and evenings)				
Sidewalk system completeness within equity priority areas				

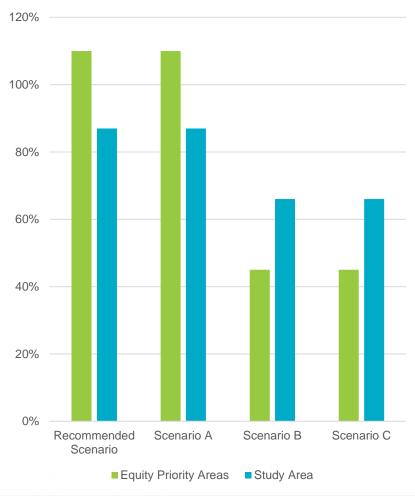
Legend - Performance relative to baseline:



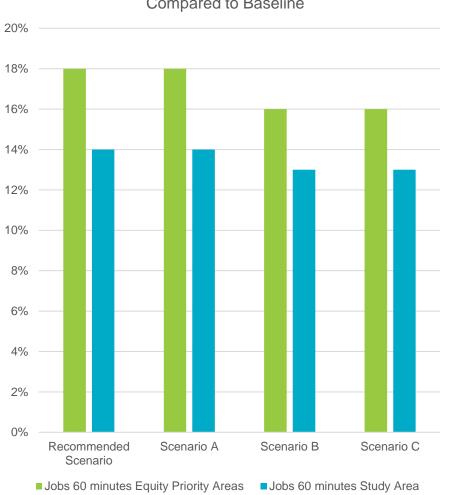


Equity Analysis Summary

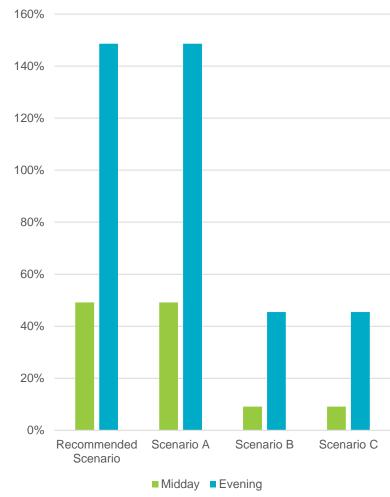




Increase in Jobs Accessible Within 45 Minutes on Transit (includes transfer and wait time) – Compared to Baseline



Increase in Bus Service Within Study Area - Compared to Baseline





Environmental Analysis Summary

Recommended Scenario Findings

- Overall environmental effects are similar to Scenario A and B
- Lower VMT per capita than existing conditions (25% lower in 2050)
- Potential to address existing environmental issues on SR 167

Summary Table of Scenarios Ratings – Potential for Environmental Impacts Requiring Mitigation

Metric	Recommended Scenario	Scenario A	Scenario B	Scenario C
Projects on SR 167				
Projects not on SR 167				

Legend - Performance relative to other scenarios:







Less Impact



Safety Analysis Summary

Recommended Scenario Findings

- Substantial number of projects in areas with a history of crashes
- Reduced speed differential on SR 167
- Investments in active mode project improvements and complete streets

Summary Table of Scenario Ratings with Respect to Safety Performance Metrics

Metric	Recommended Scenario	Scenario A	Scenario B	Scenario C
Investments in areas with high speed differential				
Investments in areas with history of active mode crashes				

Legend - Performance relative to baseline:





More improvement



Multimodal – Active Analysis Summary

Recommended Scenario Findings

- Scenario A included more system completeness overall; not where demand was highest
- Biggest benefits came from complete streets improvements across SR 167
- Strong support for sidewalk improvements within regional growth centers and for access to transit
- Connections to community-identified destinations on bicycles

Summary Table of Scenario Ratings with Respect to Multimodal – Active Performance Metrics

Metric	Recommended Scenario	Scenario A	Scenario B	Scenario C
Sidewalks and crossings in growth centers and to transit				
Bicycle facilities between community destinations				

Legend - Performance relative to baseline:







Multimodal – Transit Analysis Summary

Recommended Scenario Findings

- Land use patterns support expanded transit service
- BRT service on SR 167 performs well and has strong community support
- Transit ridership can be increased with more coverage and longer service hours

Summary Table of Scenario Ratings with Respect to Multimodal – Active Performance Metrics

Metric	Recommended Scenario	Scenario A	Scenario B	Scenario C
Daily Transit Boardings				
Transit Travel Time between Transit Hubs				
Daily Boardings on SR 167 Bus Service				

Legend - Performance relative to baseline:



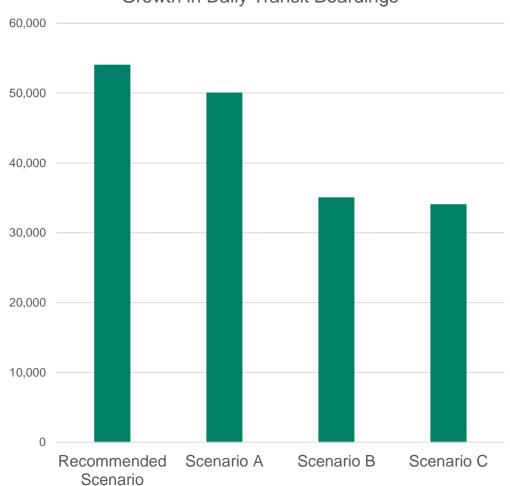






Selected Multimodal – Transit Analysis Results





Origin/ Destination Pair	Baseline	Recommended Scenario
Puyallup to S. Renton	75-85 mins	55-65 mins (-27%)
Green River CC to FWTC	65-75 mins	40-50 mins (-35%)
Kent East Hill to Kent-Des Moines Link Station	35-45 mins	30-40 mins (-24%)



Mobility & Economic Vitality – Traffic Congestion

Recommended Scenario Findings

- Dual ETL system is the best way to increase person throughput and manage VMT growth
- Dual ETLs provide benefits to transit, freight, and private vehicle travel
- Coordination with I-405 program and SR 512 has yielded additional refinements to corridor operations

Summary Table of Scenario Ratings with Respect to Mobility and Economic Vitality

Metric	Recommended Scenario	Scenario A	Scenario B	Scenario C
Person throughput in GP and ETLs				
Reliable travel times on ETLs even with growth in traffic over time				
Vehicle hours of delay on arterials				

Northbound Travel SR 167 General Purpose Lanes

Projected AM Peak Period*







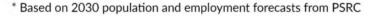








Northbound Trave



Northbound Travel SR 167 Express Toll Lanes

Projected AM Peak Period*















Puyallup 512

Bonney

Sumner

Southbound Travel SR 167 General Purpose Lanes

Projected PM Peak Period*













Southbound Travel SR 167 Express Toll Lanes

Projected PM Peak Period*







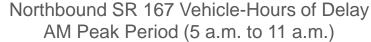


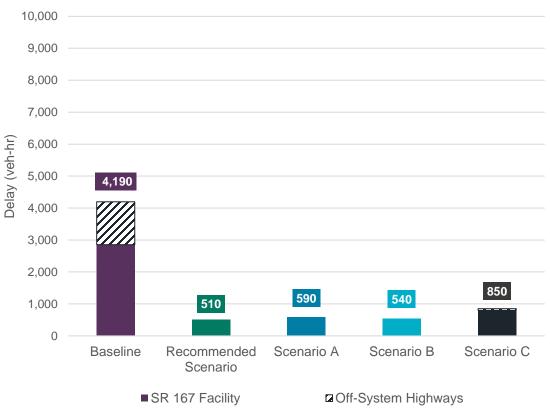




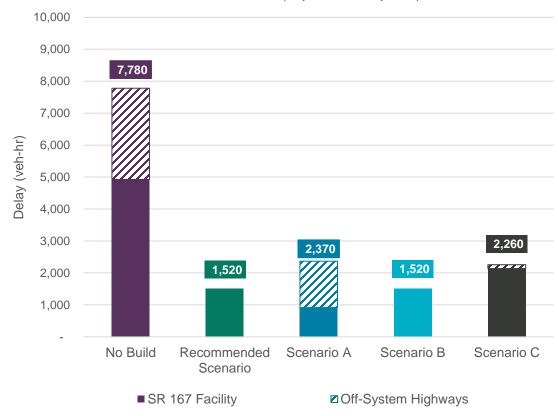


SR 167 Facility and Arterial Peak Period Vehicle Delay





Southbound SR 167 Vehicle-Hours of Delay PM Peak Period (2 p.m. to 8 p.m.)



Recommended Scenario reduces peak period arterial vehicle delay by 10% compared to Baseline





Mobility & Economic Vitality – Freight Reliability

Recommended Scenario Findings

- Enhancements to operations identified for Recommended Scenario also benefit freight
- Recommendation to allow medium-duty trucks (box truck size) in ETLs
- Improved truck throughput and travel time reliability for all scenarios

Summary Table of Scenario Ratings with Respect to Freight Reliability

Metric	Recommended Scenario	Scenario A	Scenario B	Scenario C
Freight throughput on SR 167				
Travel time reliability for freight				
Local freight access improvements at interchanges				



SR 167 Speed Ranges

Summary Table of 3-hr Speed Ranges by Facility and Mode

	Northbound AM (6 – 9 a.m.)			Southbound PM (3 – 6 p.m.)		
Scenario	ETL	GP	Heavy Truck	ETL	GP	Heavy Truck
Baseline	45-50	20-25	20-25	25-40	5-20	5-20
Recommended	>55	55-60	55-60	>55	25-35	25-35
Scenario A	>55	35-60	35-60	>55	30-50	30-50
Scenario B	>55	35-60	35-60	>55	25-35	25-35
Scenario C	>55	35-60	35-60	50-55	20-35	25-40

Key Highlights

- All scenarios improve speeds for all modes compared with the Baseline
- ETL speeds are higher than GP speeds
- ETL single lane section in Scenario C remains a constraint
- Truck speeds are 5-10 mph faster than GP speeds in Scenario C south of SR 18





Practical Solutions and State of Good Repair

Recommended Scenario Findings

- All scenarios are feasible to implement and maintain
- Increase resiliency of the regional transportation system
- Multimodal
- Multi-agency

Summary Table of Scenario Ratings with Respect to Practical Solutions and State of Good Repair

Metric	Recommended Scenario	Scenario A	Scenario B	Scenario C
Estimated Planning- level Capital Costs	\$5.5-\$6.0 Billion	\$5.0-\$5.5 Billion	\$5.5-\$6.0 Billion	\$4.5-\$5.0 Billion



Key Findings Summary

- Data informed: Recommended Scenario advances Master Plan Goals better than any of the Refined Scenarios
- Partner and Community refined: Key projects and strategies have been vetted, discussed, and refined based on partner interviews and mapped back to community feedback

Considerations for Funding

- Coalitions are critical
- Funding from multiple fronts
 - WSDOT
 - Transit agencies
 - Local agencies
- New federal funding opportunities
 - Equity
 - Resiliency
 - Climate
 - Safety

Discussion

Clarifying questions
Initial reactions



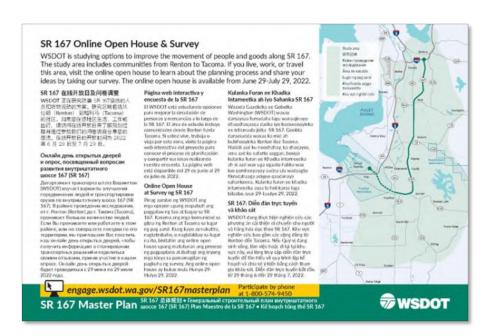
Next Steps



Online Open House #2

Objectives:

- Share what we heard and how proposed solutions map back the key themes
- Share the draft recommendation and benefits
- Proposed dates: March 15 April 15
- Notifications:
 - Postcard mailer focused on equity priority areas
 - Print and online advertising
 - Social media
 - News release
 - Blog story



SR 167 Master Plan PEL Study

FHWA Concurrence #1 and #2

- Purpose and Need
- Existing Conditions

FHWA Concurrence #3

Scenario
 Screening

FHWA Concurrence #4

 SR 167 PEL Study

SR 167 PEL Study

- 1. Introduction and Purpose and Need
- 2. Agency and Public Coordination
- 3. Scenario Evaluation Summary
- 4. Final Study Recommendations
- 5. Environmental Resource Considerations
- 6. Next Steps

Attachments

- A. PEL Questionnaire
- B. Existing and Future Baseline Conditions Report
- C. Scenario Development and Evaluation Report
- D. Final Recommendations Report
- E. Coordination and Public Participation Summary
- F. Partner Support



Partner meeting schedule

Meeting 1 November

- Review and discuss committee roles and responsibilities
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Meeting 2 January/February

- Final purpose and need
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Meeting 7 May

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Next Steps

- Engagement
 - Planning for online open house this spring
- EAC Meeting #6: March 3
- PAC Meeting #6: March 14
- TAC Meeting #7: May 3 (tentative)
- EAC Meeting #7: May 12 (tentative)
- PAC Meeting #7: May 23 (tentative)
- SR 167 Master Plan Next Steps:
 - Partner briefings
 - Document partner support for recommendation
 - Develop SR 167 Master Plan PEL Report
- SR 167 Implementation Plan (unfunded)

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