Puget Sound Gateway Program

SR 167 and SR 509 Completion Projects

Executive Committee Meeting
December 6, 2018

CRAIG J. STONE, PE	GATEWAY PROGRAM ADMINISTRATOR
KARL WESTBY	TRAFFIC LEAD, GATEWAY
BRENT BAKER	TOLLING AND FINANCE, GATEWAY
TOM SLIMAK, PE	SR 167 ASSISTANT PROJECT ENGINEER
DAN HOLMQUIST, PE	SR 509 ASSISTANT PROJECT ENGINEER

Agenda

- Program-level updates
  - Construction and Implementation Plan
  - MOU/ Interlocal Agreements
  - Tolling/ Toll Scenarios
  - Schedule acceleration
- Project updates
  - SR 167
  - SR 509
- Next steps

Construction and Implementation Plan

Develop outline and major topic areas

- Feb – March 2018

Define updated preferred scenario

- March 28 & April 5, 2018

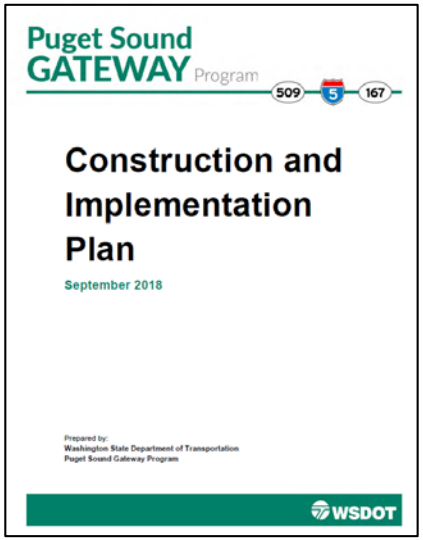
Identify delivery packages, expenditure and sequencing plans

- April - June 2018

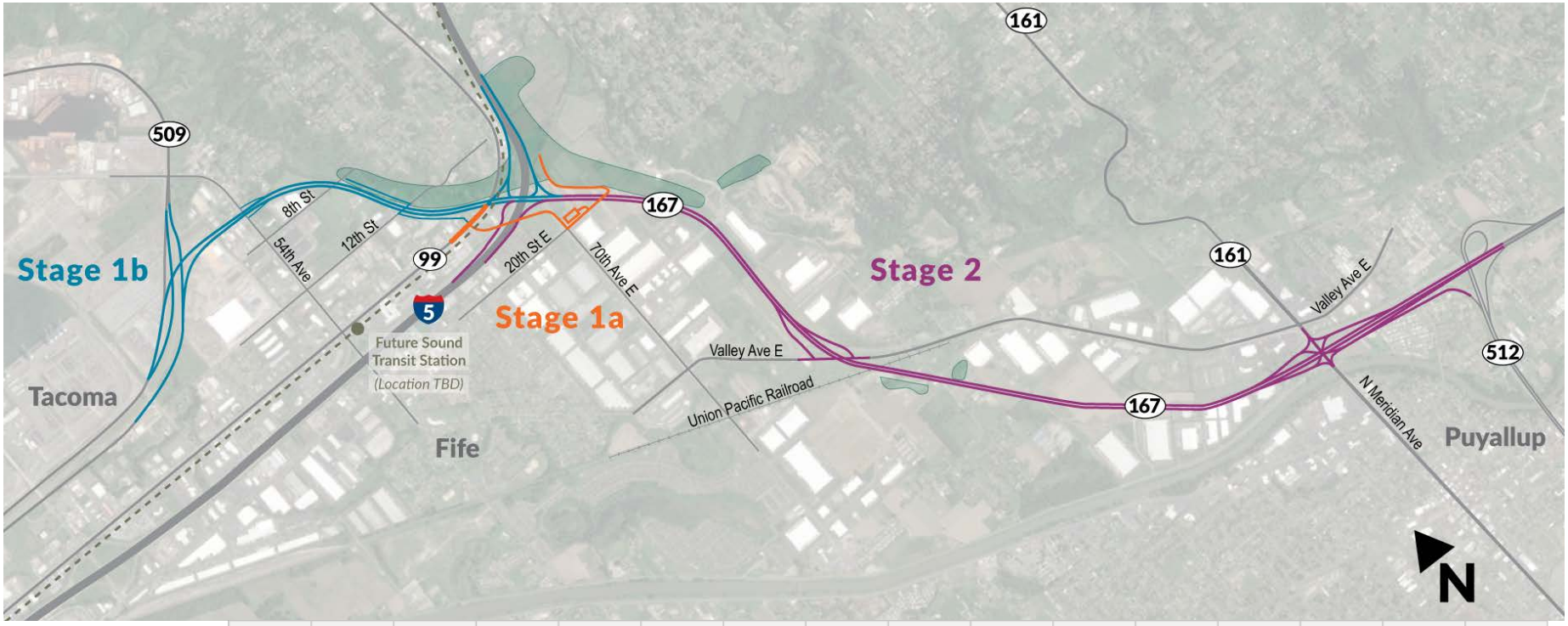
Submit Construction & Implementation Plan

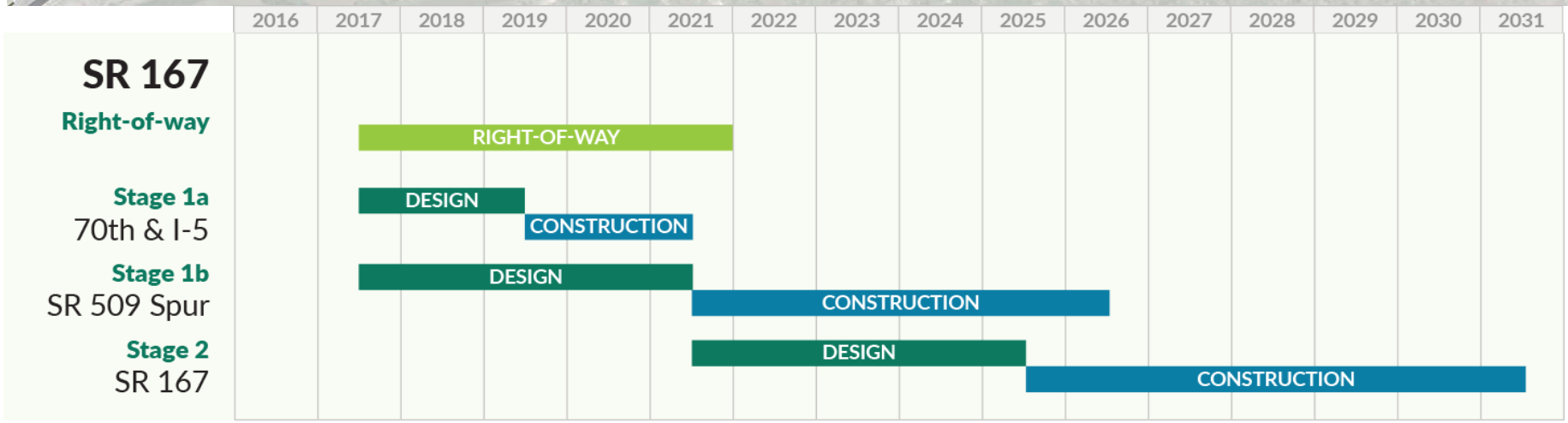
- September 2018

Delivered on Sept. 28, 2018

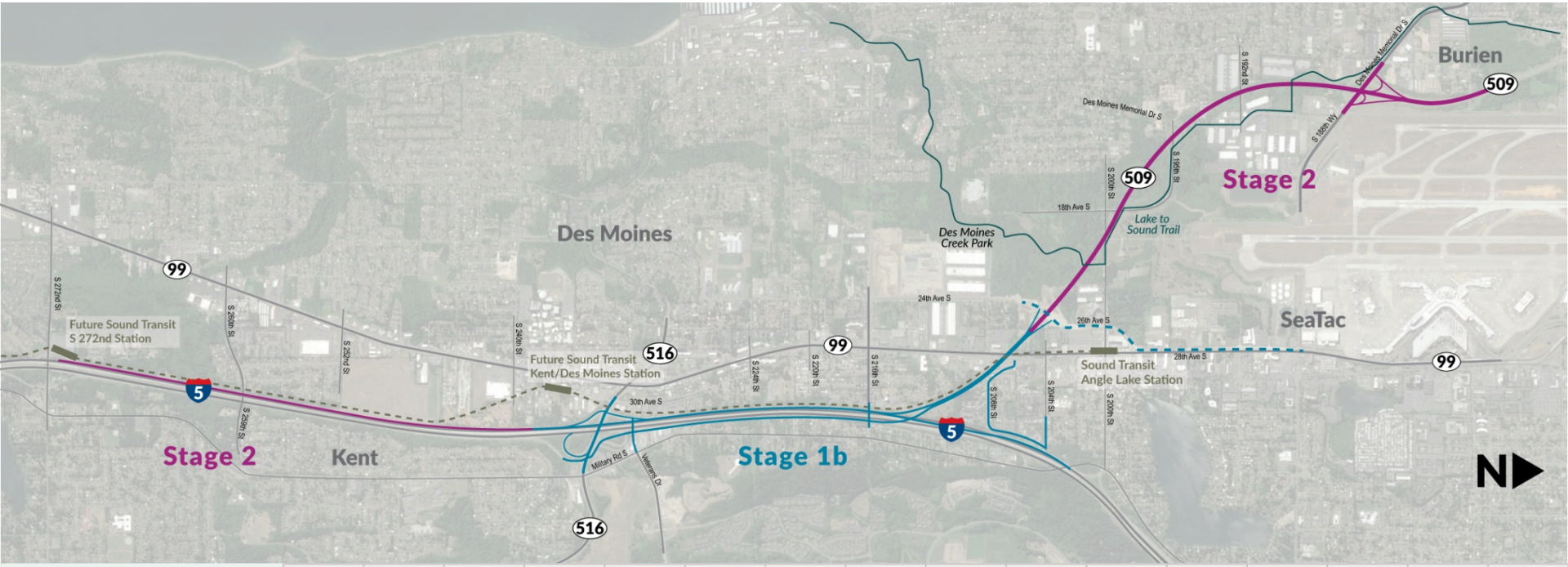


SR 167 Construction Stages – $1,016 Million





SR 509 Construction Stages – $968 Million



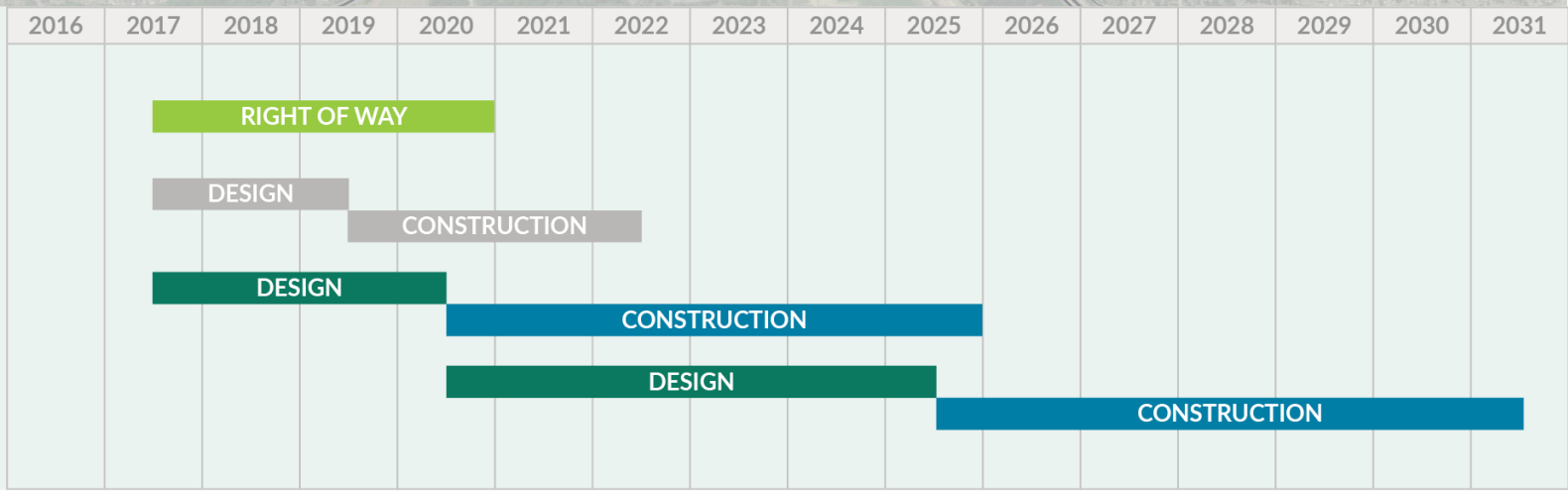
SR 509

Right of way

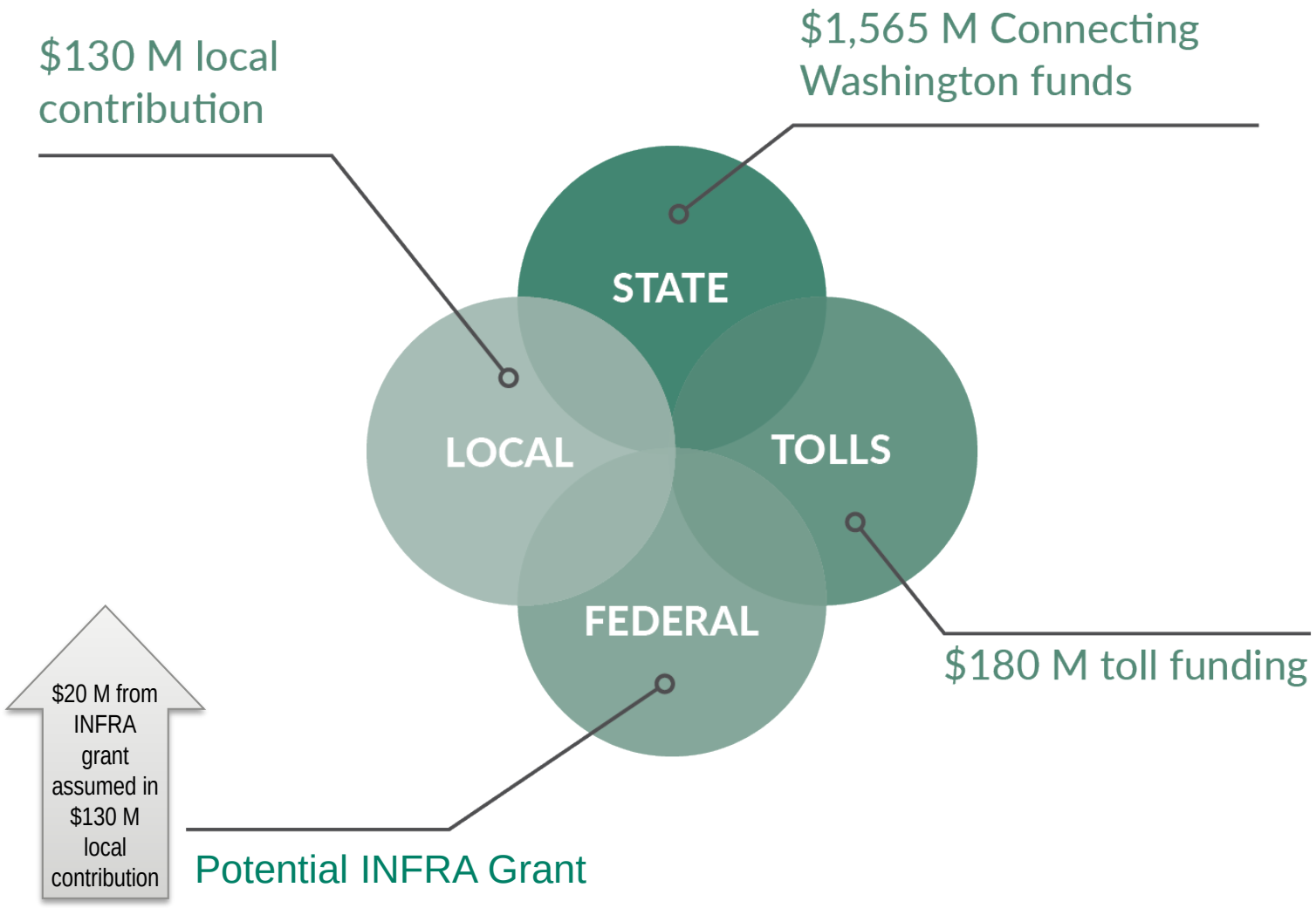
Stage 1a
SR 99 (Sound Transit)

Stage 1b
I-5 to 28th/24th

Stage 2
28th/24th to S 188th



Gateway Funding Spheres



Local Contributions

MOU Development Process

Concur on goals, partnership principles and responsibilities

- October 4, 2017

Approach to Benefit Framework and Partner Roles

- December 13, 2017

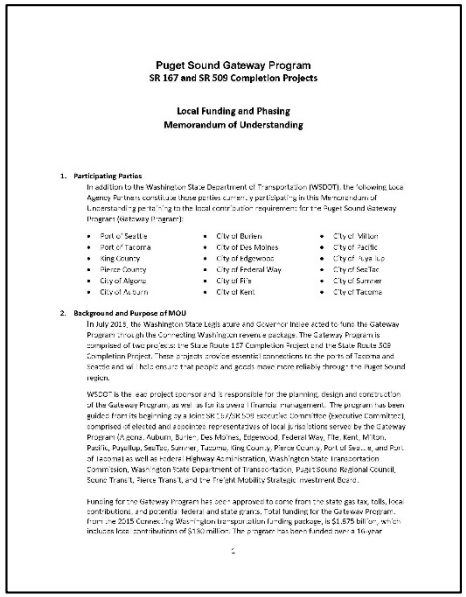
Partner Concurrence on MOU

- January-March 2018

Ratify MOU

- April – June 2018

Delivered on June 28, 2018



Puget Sound Gateway Program
SR 167 and SR 509 Completion Projects

Local Funding and Phasing
Memorandum of Understanding

1. **Participating Parties**

In addition to the Washington State Department of Transportation (WSDOT), the following Local Agency Partners constitute those parties currently participating in this Memorandum of Understanding pertaining to the local contribution requirement for the Puget Sound Gateway Program (Gateway Program):

- Port of Seattle
- Port of Tacoma
- King County
- Pierce County
- City of Algona
- City of Auburn
- City of Burien
- City of Des Moines
- City of Edgewood
- City of Federal Way
- City of Fife
- City of Kent
- City of Milton
- City of Pacific
- City of Puyallup
- City of SeaTac
- City of Sumner
- City of Tacoma

2. **Background and Purpose of MOU**

In July 2015, the Washington State Legislature and Governor Inslee acted to fund the Gateway Program through the Connecting Washington revenue package. The Gateway Program is comprised of two projects: the State Route 167 Completion Project and the State Route 509 Completion Project. These projects provide essential connections to the ports of Tacoma and Seattle and will help ensure that people and goods move more reliably through the Puget Sound region.

WSDOT is the lead project sponsor and is responsible for the planning, design and construction of the Gateway Program, as well as for its overall financial management. The program has been guided from its beginning by a joint SR 167/SR 509 executive committee (executive committee), comprised of elected and appointed representatives of local jurisdictions served by the Gateway Program (Algona, Auburn, Burien, Des Moines, Edgewood, Federal Way, Fife, Kent, Milton, Pacific, Puyallup, SeaTac, Sumner, Tacoma, King County, Pierce County, Port of Seattle, and Port of Tacoma) as well as federal Highway Administration, Washington State Transportation Commission, Washington State Department of Transportation, Puget Sound Regional Council, Sound Transit, Pierce Transit, and the Freight Mobility Strategic Investment Board.

Funding for the Gateway Program has been approved to come from the state gas tax, tolls, local contributions, and potential federal and state grants. Total funding for the Gateway Program, from the 2015 Connecting Washington transportation funding package, is $1.875 billion, which includes local contributions of $180 million. The program has been funded over a 16-year

MOU – Accomplished ✓

Stephen P. Metruck
Executive Director
Port of Seattle

John Wolfe
Chief Executive Officer
Port of Tacoma

Dow Constantine
County Executive
King County

Bruce Dammeier
County Executive
Pierce County

David E. Hill
Mayor
City of Algona

Nancy Backus
Mayor
City of Auburn

Brian Wilson
City Manager
City of Burien

Michael Matthias
City Manager
City of Des Moines

Daryl Eidinger
Mayor
City of Edgewood

Jim Ferrell
Mayor
City of Federal Way

Hyun Kim
City Manager
City of Fife

Dana Ralph
Mayor
City of Kent

Shanna Styron-Sherrell
Mayor
City of Milton

Leanne Guier
Mayor
City of Pacific

Kevin Yamamoto
City Manager
City of Puyallup

Joseph Scorcio
City Manager
City of SeaTac

William L. Pugh
Mayor
City of Sumner

Elizabeth A. Pauli
City Manager
City of Tacoma

Roger Millar
Secretary of Transportation
Washington State Department of Transportation

Partner Commitments – *Direct Contributions*

Partner Agency	Amount
City of Fife	$1,600,000
City of Tacoma	$2,000,000
City of Kent	$2,000,000
City of SeaTac	$4,000,000
City of Puyallup	$2,000,000
City of Des Moines	$500,000
City of Edgewood	$500,000
City of Sumner	$500,000
Pierce County	$2,000,000
King County	$1,000,000
Port of Seattle	$30,000,000
Port of Tacoma	$30,000,000
TOTAL	**$76,100,000**

Grants

Stage 1 Grant Assumptions	App Year	Planned	Obtained
Federal INFRA (local share)	2019	$20,000,000	
Interurban Trail	2017	$1,400,000	$1,400,000
FMSIB 70th Ave E	2018	$5,000,000	$5,000,000
FMSIB Port of Tacoma Spur	2020	$5,000,000	
PSRC Veterans Extension	2018	$4,500,000	$4,000,000
PSRC Port of Tacoma Spur	2018	$4,500,000	$4,000,000
TIB 70th Avenue E	2018	~~$5,000,000~~	
TIB Veterans Extension	2019	$5,000,000	
SUBTOTAL		$45,400,000	$14,400,000
Stage 2 Grant Assumptions			
SR167/Valley Avenue	2022	$3,000,000	
SR167/Meridian Avenue	2022	$3,000,000	
SR 167 Stage 2	2022	$4,000,000	
SR 509 Stage 2	2022	$4,000,000	
SUBTOTAL		$14,000,000	
Total Grants		**$59,400,000**	**$14,400,000**
+ Direct Local Contributions		**$76,100,000**	
STRATEGY TOTAL		**$135,500,000**	

Interlocal Agreement Timeline

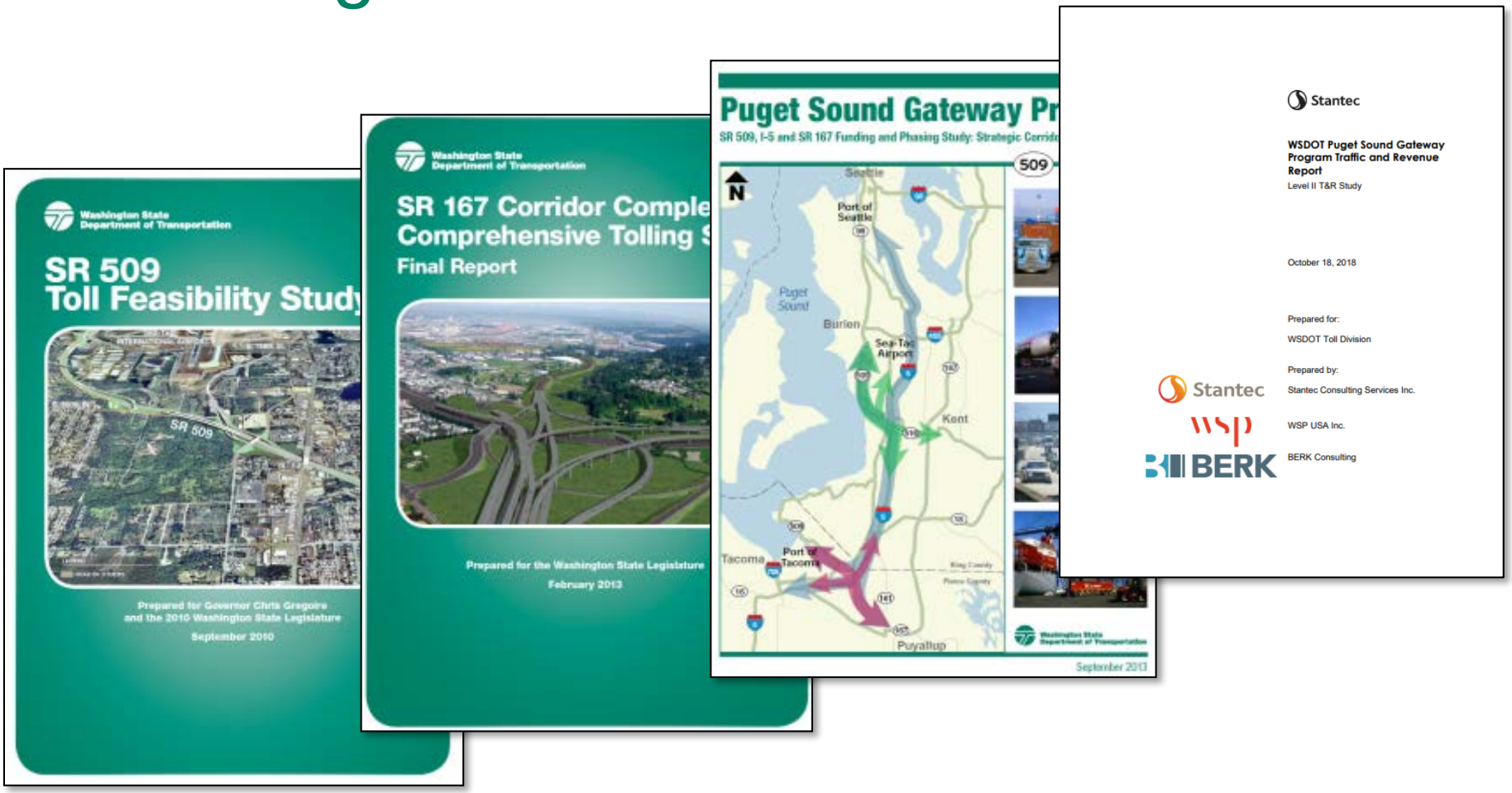
Construction Stage	ILA Deadline	ILAs Needed
SR 167 Stage 1A	End of 2018	• Fife • Port of Tacoma • Tacoma
SR 509 Stage 1B	End of 2019	• Des Moines • Kent • King County • Port of Seattle • SeaTac ✓
SR 167 Stage 1B	End of 2020	• Edgewood • Fife • Port of Tacoma • Tacoma
SR 509 Stage 2	End of 2024	• SeaTac
SR 167 Stage 2	End of 2024	• Pierce County • Puyallup • Sumner

Local Permits

- Land Use/Essential Public Facilities
- Critical Area Ordinance
- Shoreline Substantial Development/Conditional Use
- Landscaping/Tree Removal
- Grading
- Noise Variance/Extended Hours

Steering Committee Discussion: Should the Program pay for permit fees and/or design review?

Tolling


Washington State Department of Transportation
SR 509
Toll Feasibility Study
Prepared for Governor Chris Gregoire and the 2010 Washington State Legislature
September 2010
Washington State Department of Transportation
SR 167 Corridor Comple
Comprehensive Tolling S
Final Report
Prepared for the Washington State Legislature
February 2013
Puget Sound Gateway Pr
SR 509, I-5 and SR 167 Funding and Phasing Study: Strategic Corrid
509
N
Seattle
Port of Seattle
Puget Sound
Burien
Sea-Tac Airport
Kent
Tacoma
Port of Tacoma
Puyallup
September 2013
Stantec
WSDOT Puget Sound Gateway Program Traffic and Revenue Report
Level II T&R Study
October 18, 2018
Prepared for:
WSDOT Toll Division
Prepared by:
Stantec Consulting Services Inc.
WSP USA Inc.
BERK Consulting

Tolling Roles and Responsibilities in Washington State

Washington State Legislature

- Authorizes toll facilities
- Determines how toll revenue is spent

Transportation Commission

- Sets toll rates and exemptions

WSDOT

- Plans, builds and operates toll facilities

Office of State Treasurer

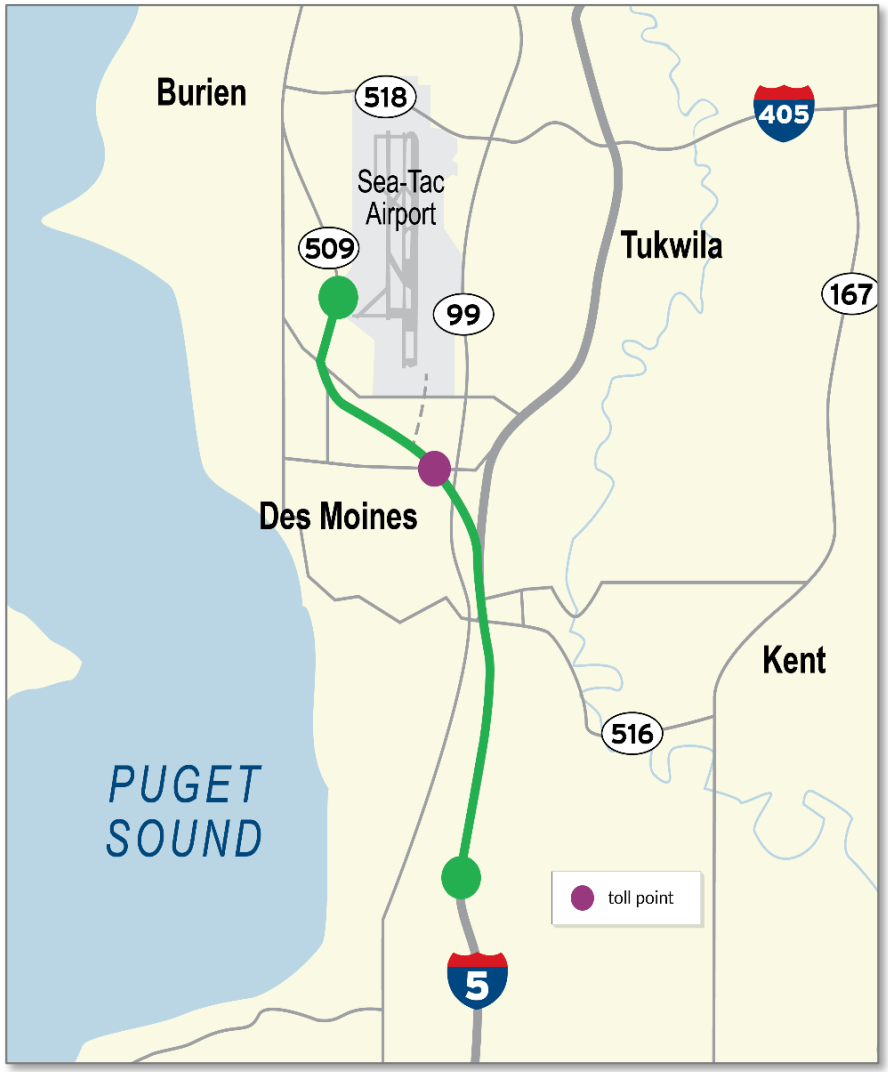
- Arranges financing and issues debt

Agency Request for Toll Authorization

- One omnibus bill for I-405/SR 167 Corridor and Puget Sound Gateway
- Toll authority for Gateway Program:
  - SR 167 between North Meridian Avenue in Puyallup and I-5 in Fife
  - SR 509 Spur between I-5 in Fife and SR 509 in Tacoma
  - SR 509 between South 188th Street and I-5 in SeaTac
- Toll rates will be variable by time of day to maintain travel time, speed and reliability
- Toll rates may adjust to reflect inflation
- Toll revenue will go into a Puget Sound Gateway facility account in the state treasury
- Surplus property revenues go to the account, including existing SR 509 R/W in SeaTac and Des Moines

Gateway Toll Points

SR 509



SR 167 & SR 509 Spur

Toll Policy Test Scenarios

	Scenario		SR 509	SR 167	SR 509 Spur*
Tolled	1	Base Condition	All vehicles tolled based on number of axles		
	2	Commercial Trucks Equal	All vehicles tolled at the same rate (no axle multipliers)		
	3	SR 509 Spur: Commercial Trucks Free	All vehicles tolled based on number of axles		3+ axle vehicles free
	4	Commercial Trucks Free	2 axle vehicles tolled | 3+ axle vehicles free		
	5	SR 509 Spur: Free	All vehicles tolled based on number of axles		All vehicles free
	6	HOV 2+ Free	Vehicles with 2+ occupants free with Good To Go! | all other vehicles tolled based on number of axles		
No Toll	7	Non-Tolled: Managed by Vehicle Class	Single occupant 2-axle vehicles prohibited | all HOVs with Good To Go! & vehicles with 3+ axles free		
	8	Non-Tolled	All vehicles toll free		

* Also known as Port of Tacoma Spur

Traffic Performance by Scenario**

- Percentage changes in total traffic relative to Base Condition
- Lower tolls for some vehicles generally yield higher traffic volumes

Scenario		*SR 509*	*SR 167*	*Port of Tacoma Spur*	*Traffic Percentage Difference** *SR 509*	*SR 167*	*Port of Tacoma Spur*
1	**Base Condition**	All vehicles tolled based on number of axles			**Base Condition = 100%**		
2	**Commercial Trucks Equal**	All vehicles tolled at the same rate (no axle multipliers)			**+ 0.3%**	**+ 0.2%**	**+ 0.5%**
3	**Port of Tacoma Spur: Commercial Trucks Free**	All vehicles tolled based on number of axles		3+ axle vehicles free	N/A	**+ 2%**	**+ 14%**
4	**Commercial Trucks Free**	2 axle vehicles tolled | 3+ axle vehicles free			**+ 7%**	**+ 7%**	**+ 17%**
5	**Port of Tacoma Spur: Free**	All vehicles tolled based on number of axles		All vehicles free	N/A	**+ 0.8%**	**+ 64%**
6	**HOV 2+ Free**	Vehicles with 2+ occupants free with Good To Go! | all other vehicles tolled based on number of axles			**+ 17%**	**+ 11%**	**+ 12%**
7	**Non-Tolled: Managed by Vehicle Class**	Single occupant 2-axle vehicles prohibited | all HOVs with Good To Go! & vehicles with 3+ axles free			**– 34%**	**– 52%**	**– 37%**
8	**Non-Tolled**	All vehicles toll free			**+ 103%**	**+ 77%**	**+ 93%**

Source: Stantec * Average of results from FY 2025 and FY 2045, excludes FY 2025 ramp-up adjustments

** As presented at July Executive Committee

Gross Toll Revenue Performance by Scenario**

- Percentage changes in total gross toll revenue relative to Base Condition
- Lower tolls for some vehicles generally yield lower gross toll revenues

Scenario		*SR 509*	*SR 167*	*Port of Tacoma Spur*	*Gross Revenue Percentage Difference**			
					SR 509	*SR 167*	*Port of Tacoma Spur*	*Gateway Total*
1	**Base Condition**	All vehicles tolled based on number of axles			**Base Condition = 100%**			
2	**Commercial Trucks Equal**	All vehicles tolled at the same rate (no axle multipliers)			**– 3%**	**– 2%**	**– 7%**	**– 3%**
3	**Port of Tacoma Spur: Commercial Trucks Free**	All vehicles tolled based on number of axles		3+ axle vehicles free	N/A	**+ 2%**	**– 19%**	**– 1%**
4	**Commercial Trucks Free**	2 axle vehicles tolled | 3+ axle vehicles free			**– 16%**	**– 8%**	**– 18%**	**– 13%**
5	**Port of Tacoma Spur: Free**	All vehicles tolled based on number of axles		All vehicles free	N/A	**+ 2%**	**– 100%**	**– 11%**
6	**HOV 2+ Free**	Vehicles with 2+ occupants free with Good To Go! | all other vehicles tolled based on number of axles			**– 18%**	**– 25%**	**– 6%**	**– 20%**
7	**Non-Tolled: Managed by Vehicle Class**	Single occupant 2-axle vehicles prohibited | all HOVs with Good To Go! & vehicles with 3+ axles free			Not Applicable			
8	**Non-Tolled**	All vehicles toll free			Not Applicable			

Source: Stantec * Average of results from FY 2025 and FY 2045, excludes FY 2025 ramp-up adjustments

** As presented at July Executive Committee

Toll Policy Scenarios to Carry Forward

	Scenario		Compliance / Enforcement	$180M Funding Capacity	System Policy Consistency	Freight Supportive	Facility Performance	Adjacent Facility Impacts	
Tolled	1	Base Condition	4	5	5	3	5	3	✓
	2	Commercial Trucks Equal	4	5	3	4	5	3	✓
	3	SR 509 Spur: Comm'l Trucks Free	1	5	2	4	5	4	
	4	Commercial Trucks Free	1	5	1	5	5	4	
	5	SR 509 Spur: Free	4	5	5	4	4	4	✓
	6	HOV 2+ Free	3	3	2	2	3	3	
No Toll	7	Non-Tolled: Managed by Vehicle Class	1	1	1	5	3	2	
	8	Non-Tolled	5	1	1	3	1	3	✓

Legend: *Better* 5 4 3 2 1 *Worse*

✓ *Selected for further analysis at July 11, 2018 Executive Committee*

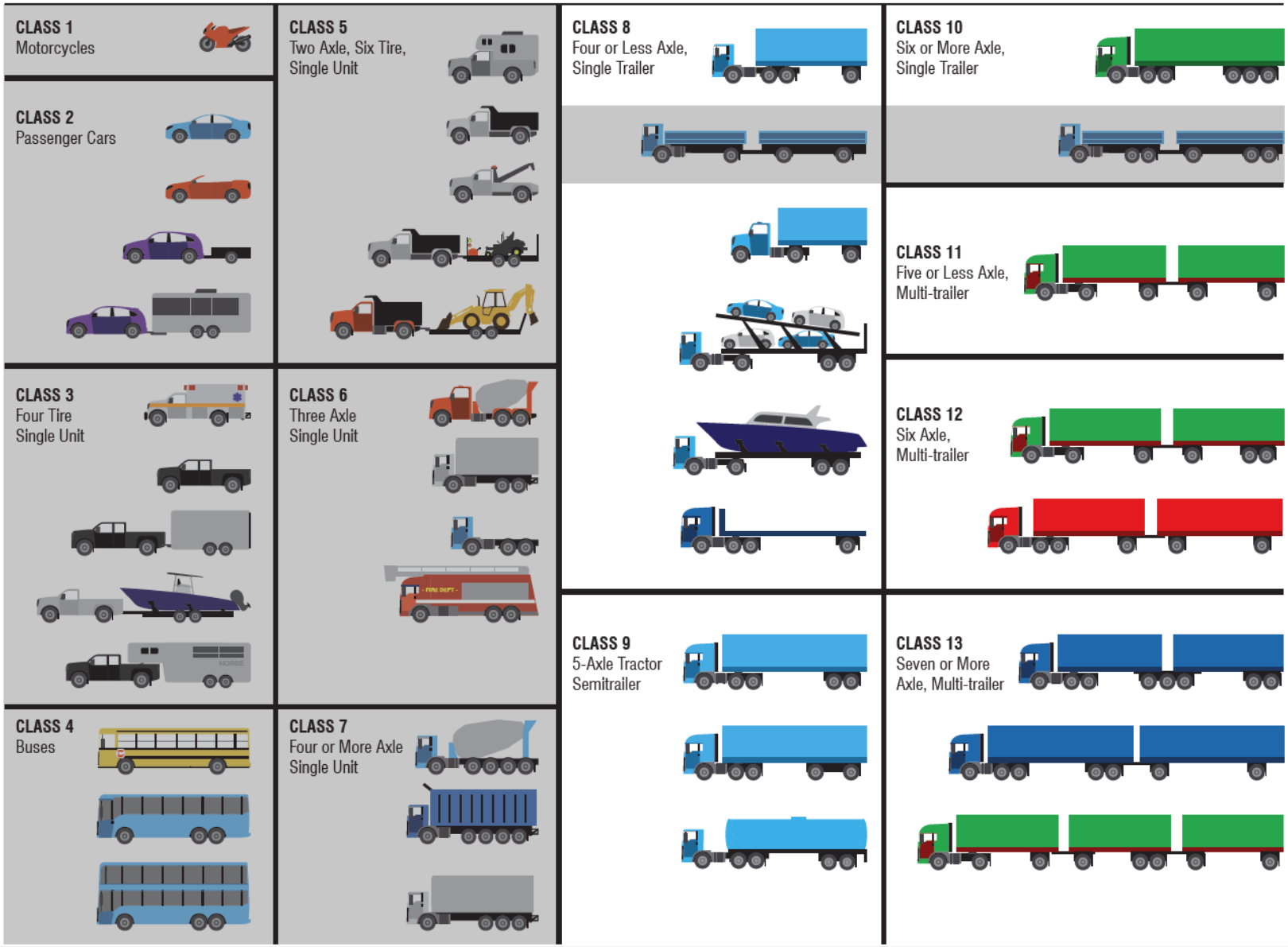
National Trends on Truck Tolls / Exemptions

- No examples of toll facilities where commercial trucks are toll-free
- Industry trends run counter to offering truck toll exemptions
  - Rhode Island has implemented truck-only tolls at 12 locations to fund bridge and structure replacement
  - In October 2018, Indiana implemented a 35% toll increase for trucks on the Indiana Toll Road (I-90 / I-80) with no changes in auto tolls
  - Governor-elect of Connecticut supports truck-only tolls for repairing infrastructure
  - Georgia, Virginia, West Virginia, Missouri, Illinois and Ohio have all studied truck-only toll lanes or toll facilities
  - TxDOT offered a temporary truck toll discount where trucks on SH 130 (sections 5 & 6) paid the same as a car as a measure to initially attract trucks to this facility; discount expired after one year on 3/30/2014

Rhode Island Truck-only Toll Classifications

GREY SHADING - NON TOLLED VEHICLES

WHITE SHADING - TOLLED VEHICLES

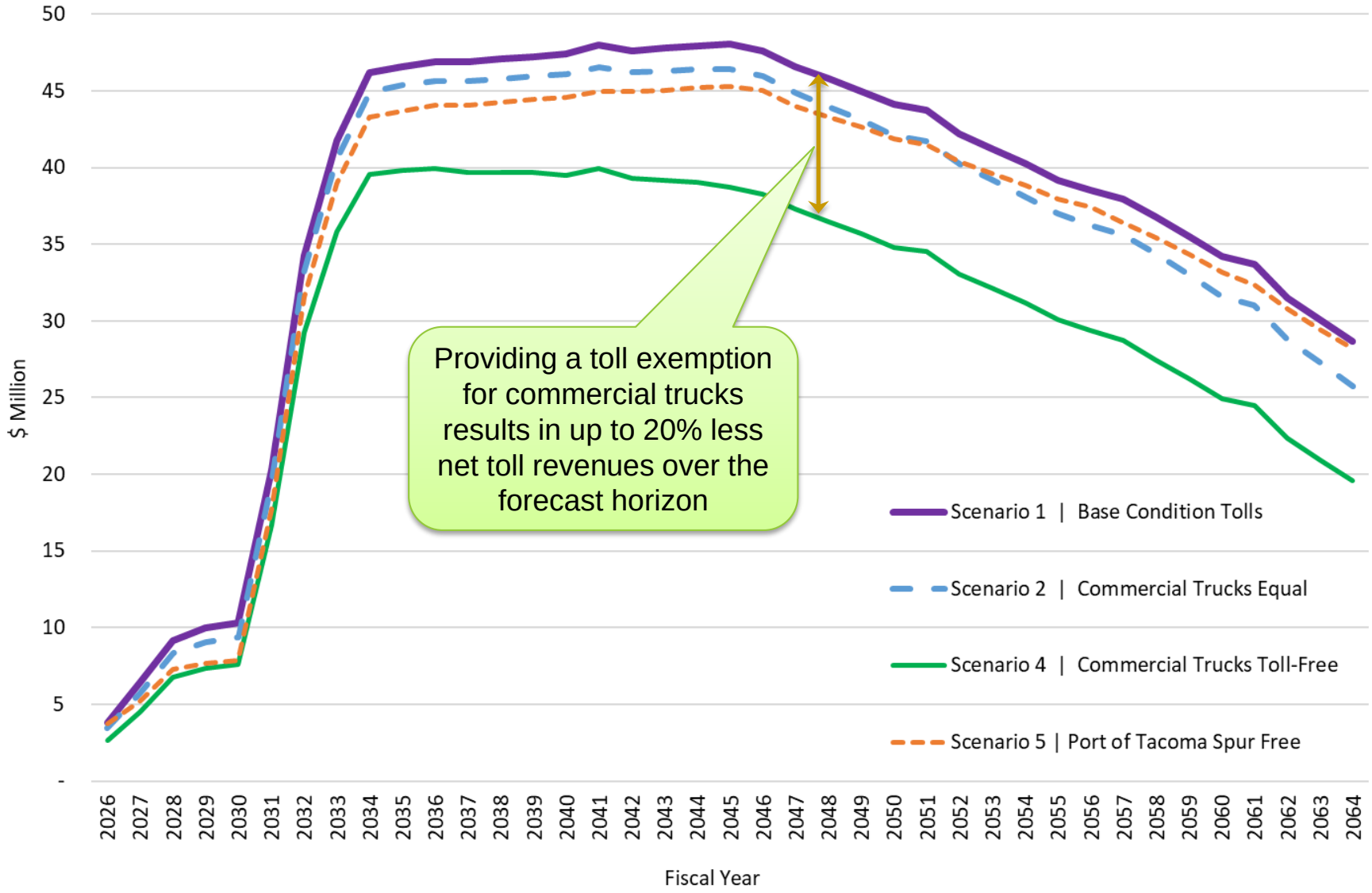


Findings for Gateway Toll Scenario 4

- A truck toll exemption lowers the toll-paying traffic by 11% relative to Scenario 1
  - Total traffic including toll-free trucks is 7% higher than Scenario 1
- Potential gross toll revenue is 15% less than Scenario 1
  - Revenue decrease exceeds percentage drop in toll traffic because trucks pay an axle multiple of the auto toll
  - Revenue decrease is likely *understated* due to conservative assumptions regarding average number of axles by class
    - Medium trucks — assumed average of 2.11 axles per truck
    - Large (tractor-trailer) trucks — assumed average of 4.17 axles per truck
- Net toll revenue is 20% less than Scenario 1
  - Equates to a 20% smaller toll capital funding contribution

Net Revenue Comparison | Toll Scenarios 1, 2, 4 & 5

Gateway Funding Constrained Baseline Schedule



Freight Supportive Criteria - Scenario 5

Does the scenario support the freight objectives of the corridors?
No, in comparison to scenarios 1 and 2, Scenario 5 does not support the freight objectives for the corridor.

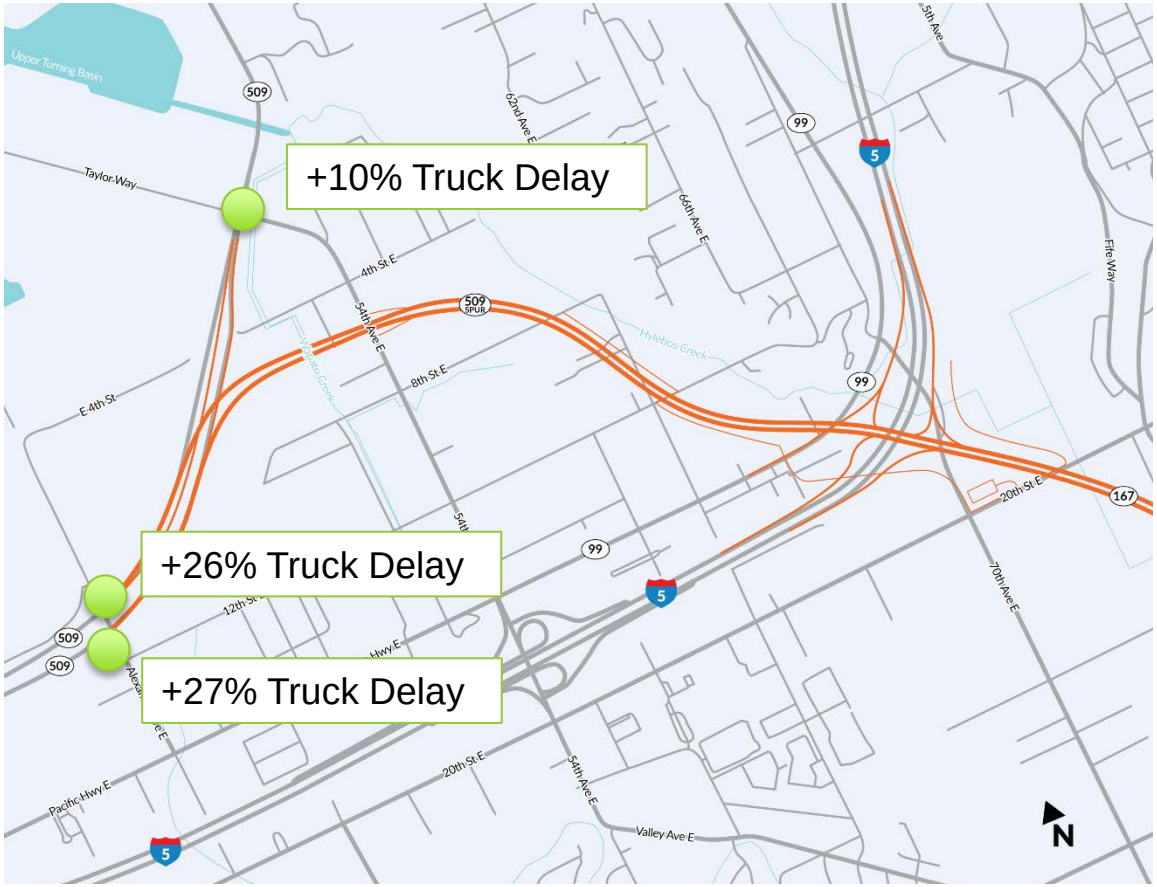
2030 Traffic Daily Volume Change: Scenario 5 vs. Scenarios 1 and 2

Compared to Scenarios 1 and 2, Scenario 5 (SR 509 Spur Free) results in the following:

- Increased delay for freight trips
- 10,800 additional daily trips on the 509 Spur
- Daily, it attracts 2.5 passenger trips for every freight trip
- During peak truck periods, it attracts 4 passenger trips for every freight trip

Facility Performance Criteria - Scenario 5

Does the scenario effectively manage demand / prevent congestion?
No, Scenario 5 does not manage demand or prevent congestion as well as scenarios 1 and 2.



2045 Traffic PM Peak Conditions: Scenario 5 vs. Scenarios 1 and 2

Compared to Scenarios 1 and 2, Scenario 5 (SR 509 Spur Free) results in the following:

- Increased vehicle and truck use west of I-5
- Increased overall congestion at key study intersections
- 10-27% increase in truck delay at key freight intersections
- 21% increase tideflats area total vehicle hours of delay (2045 PM peak period)
- Potential for additional congestion west of I-5 associated with future regional transportation improvements

Adjacent Facility Criteria - Scenario 5

Does the scenario impact other facilities, including I-5?
Yes, compared to scenarios 1 and 2, Scenario 5 impacts other facilities, including I-5.

2045 Traffic PM Peak Volumes: Scenario 5 vs. Scenarios 1 and 2

Compared to Scenarios 1 and 2, Scenario 5 (SR 509 Spur Free) results in the following:

- Increased pressure on I-5
- Attracts 100-400 additional peak hour trips at interchange area
- FHWA approval concerns
- Removal of traffic management tool and inability to manage unforeseen traffic conditions or growth

Conclusion

Do Scenarios 4 and 5 meet the essential need for the project?

- Scenario 4 results in up to 20% less toll revenue. Scenarios 1,2, and 5 produce similar toll revenues and meet funding requirements.
- Scenario 5 reduces the ability for freight to move reliably through the project area compared to Scenarios 1 and 2.
- WSDOT recommends screening out Scenario 5, maintain Scenario 4 as screened out per the prior Executive Committee meeting, and continue forward with Scenarios 1 and 2.
- Scenarios 1 and 2 have similar performance and WSTC will evaluate these scenarios through their rate-setting process.

Schedule Acceleration Analysis

Delivered on Sept. 28, 2018

Determine cost inputs, CEVP and CCI

- Nov 2017 – Apr 2018

Travel demand and toll funding analysis

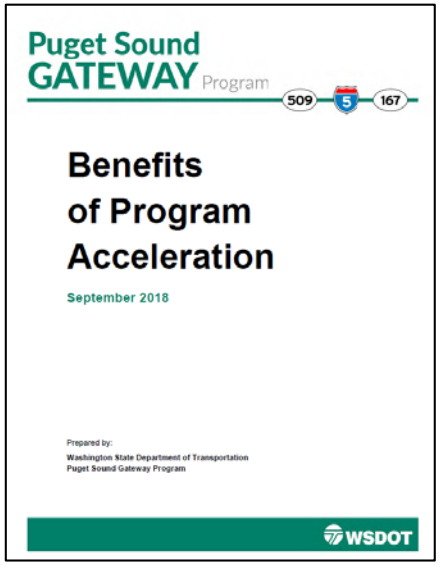
- Dec 2017 – May 2018

Determine funding and phasing opportunities and constraints

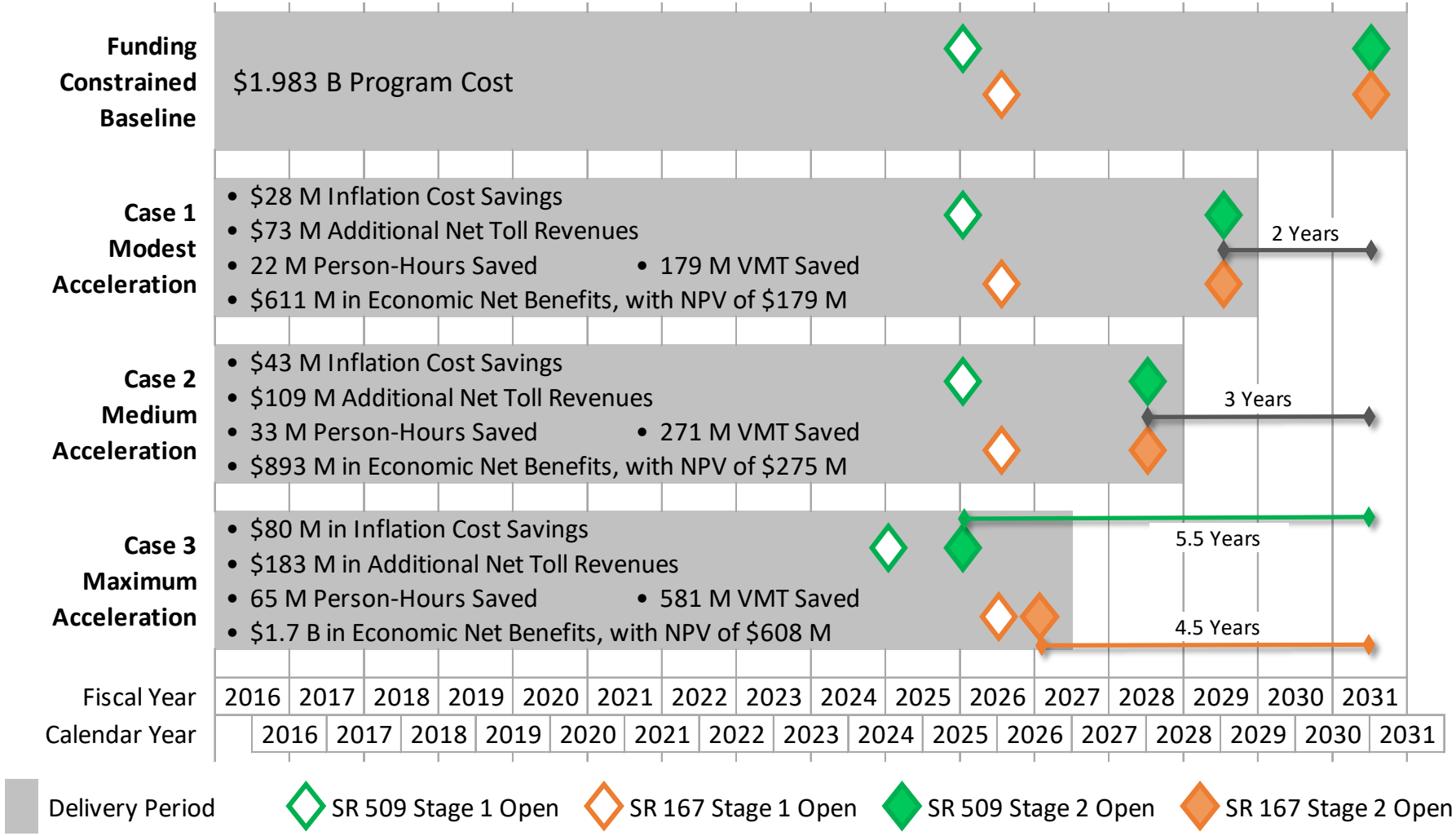
- March - June 2018

Issue report identifying acceleration benefits

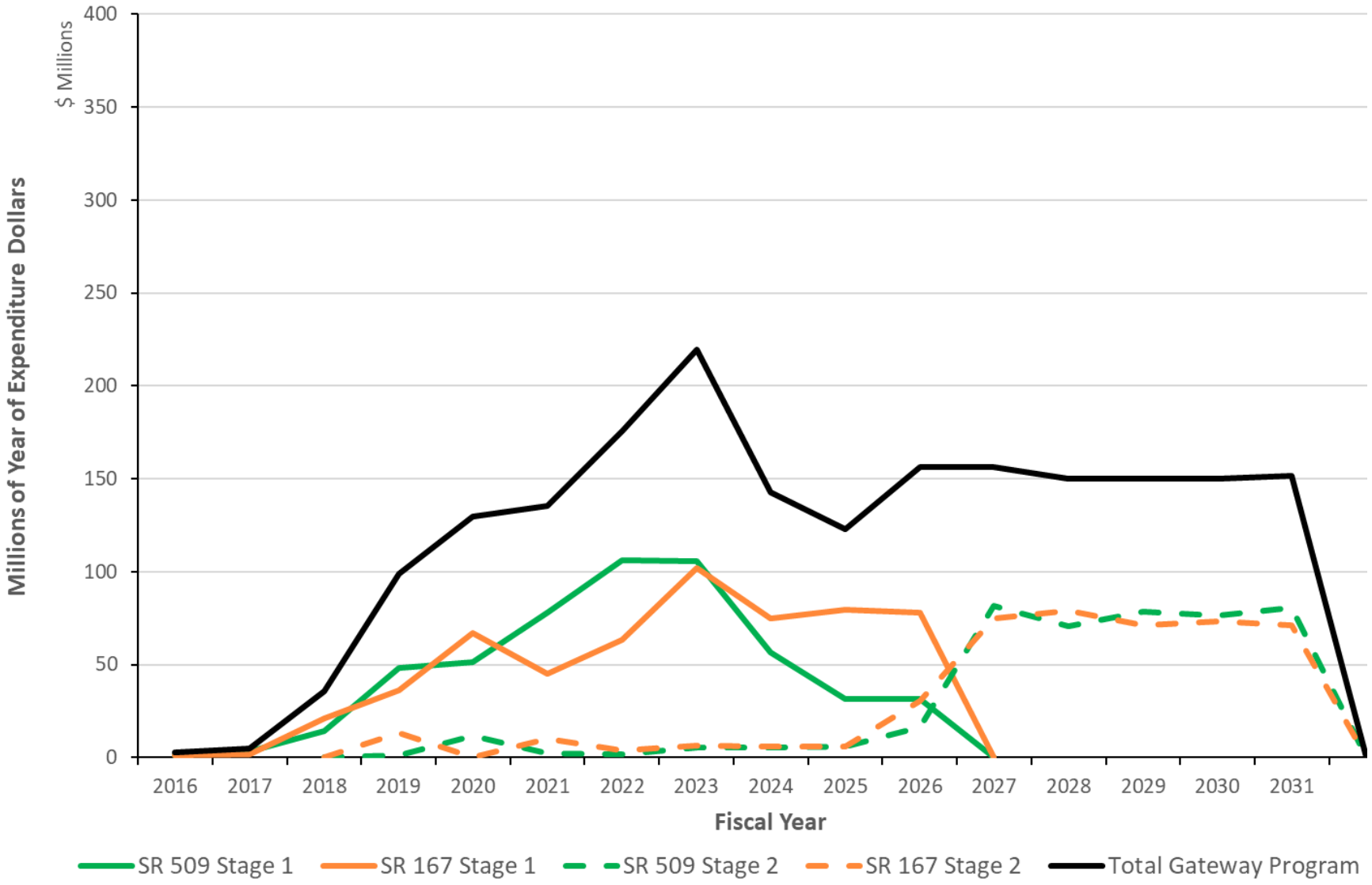
- September 2018



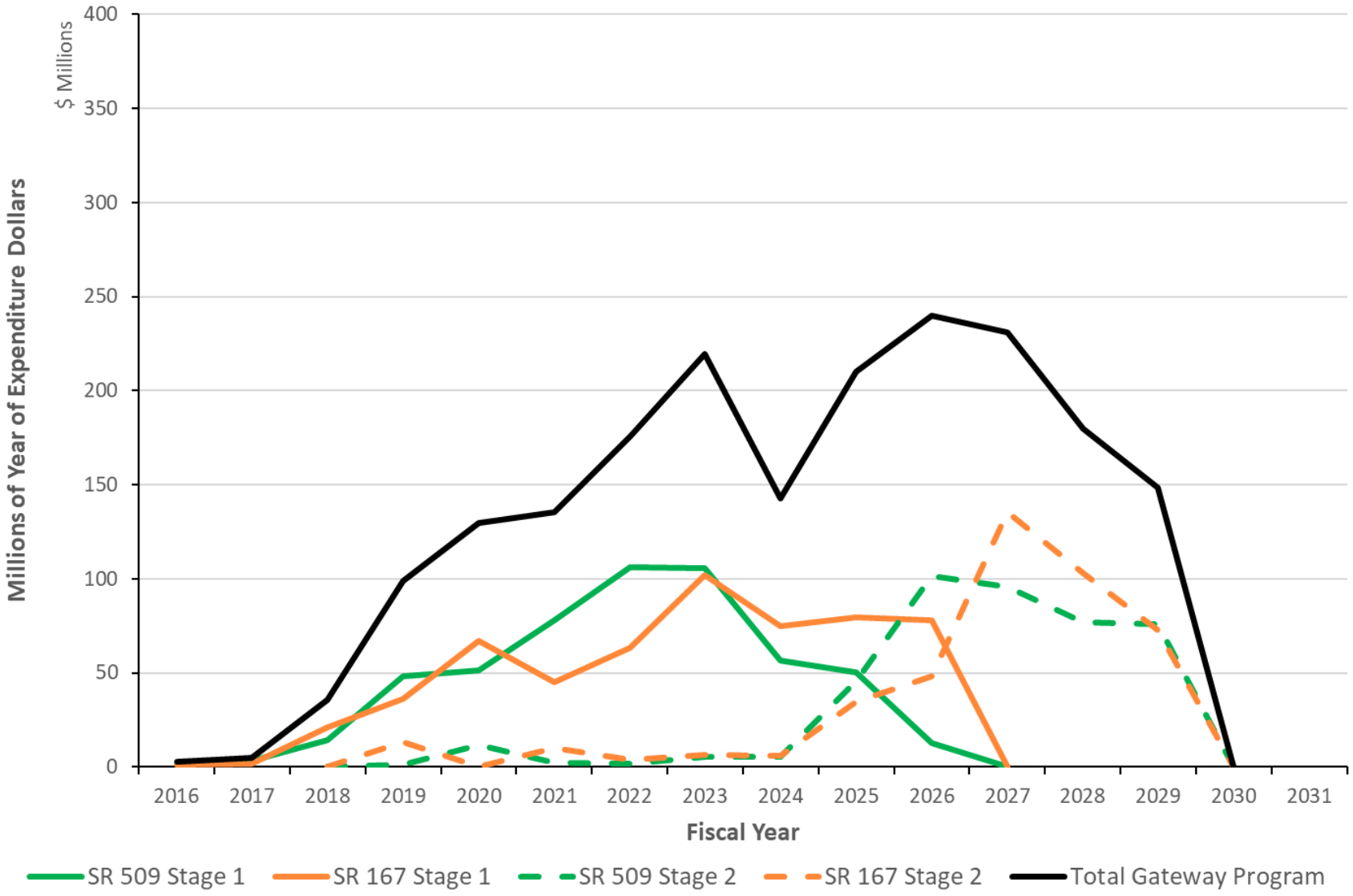
Schedule Acceleration Benefits Summary



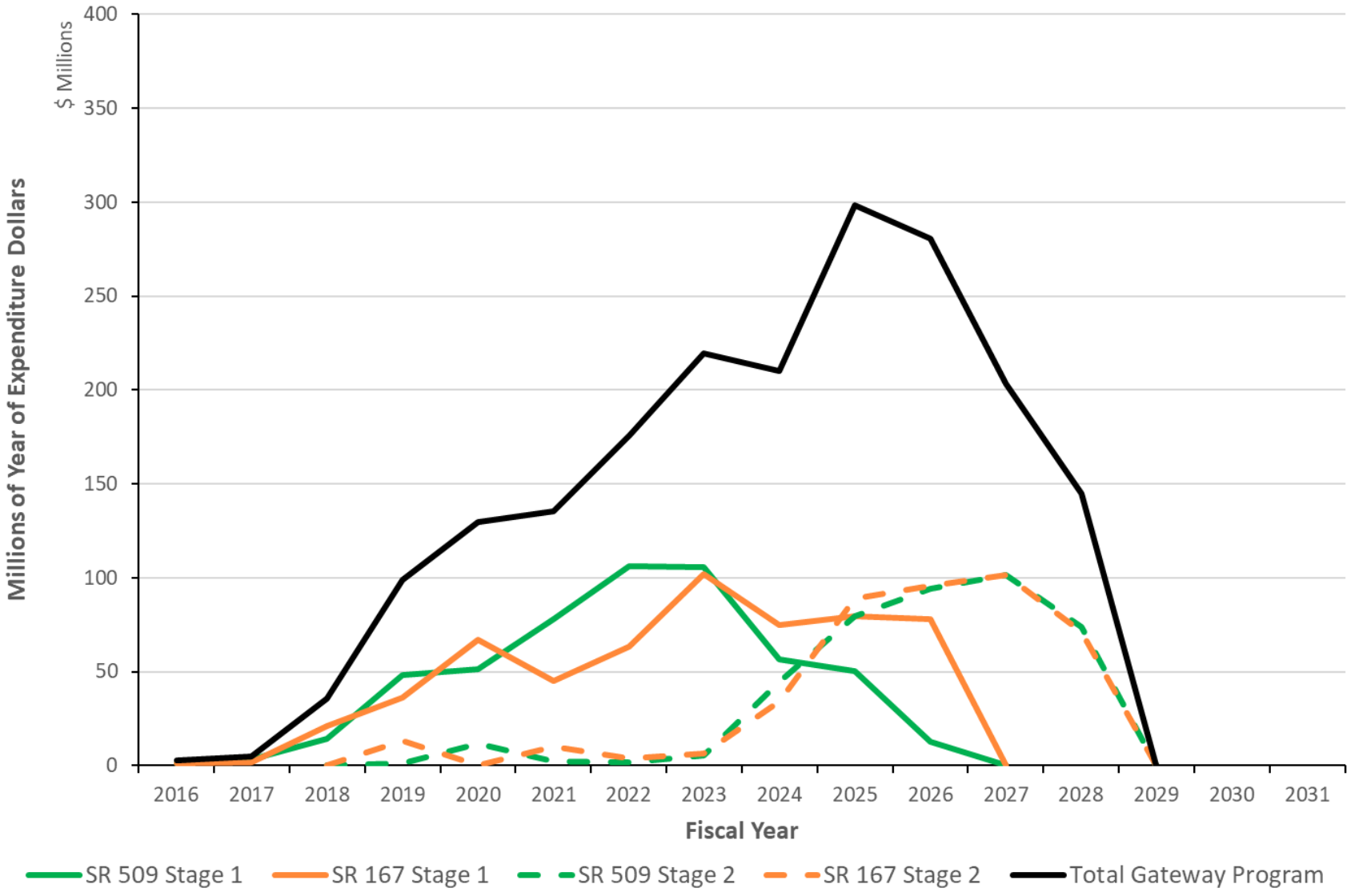
Funding Constrained Baseline Expenditures by Project & Stage



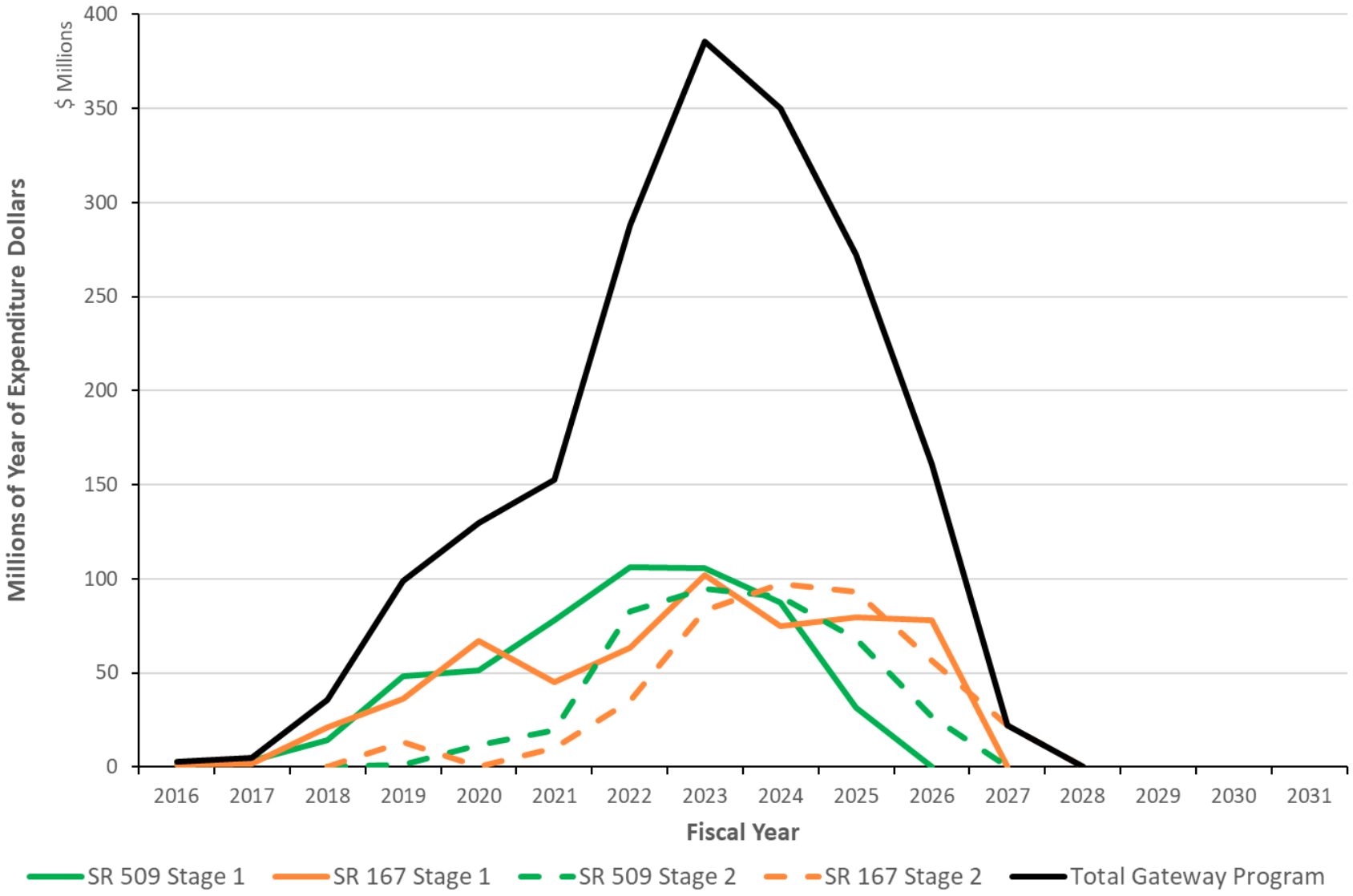
Acceleration Case #1: Modest Acceleration Expenditures by Project & Stage



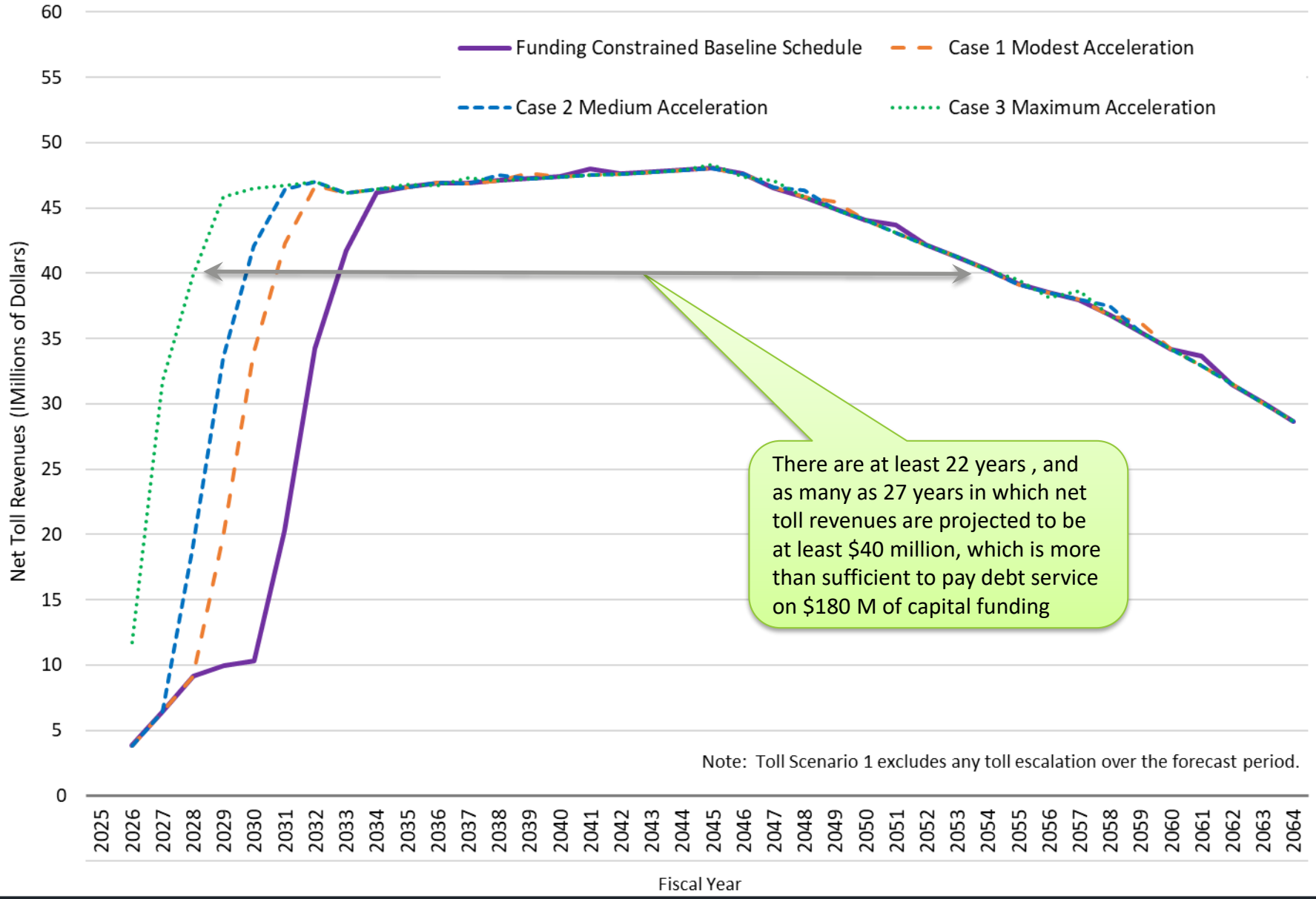
Acceleration Case #2: Medium Acceleration Expenditures by Project & Stage



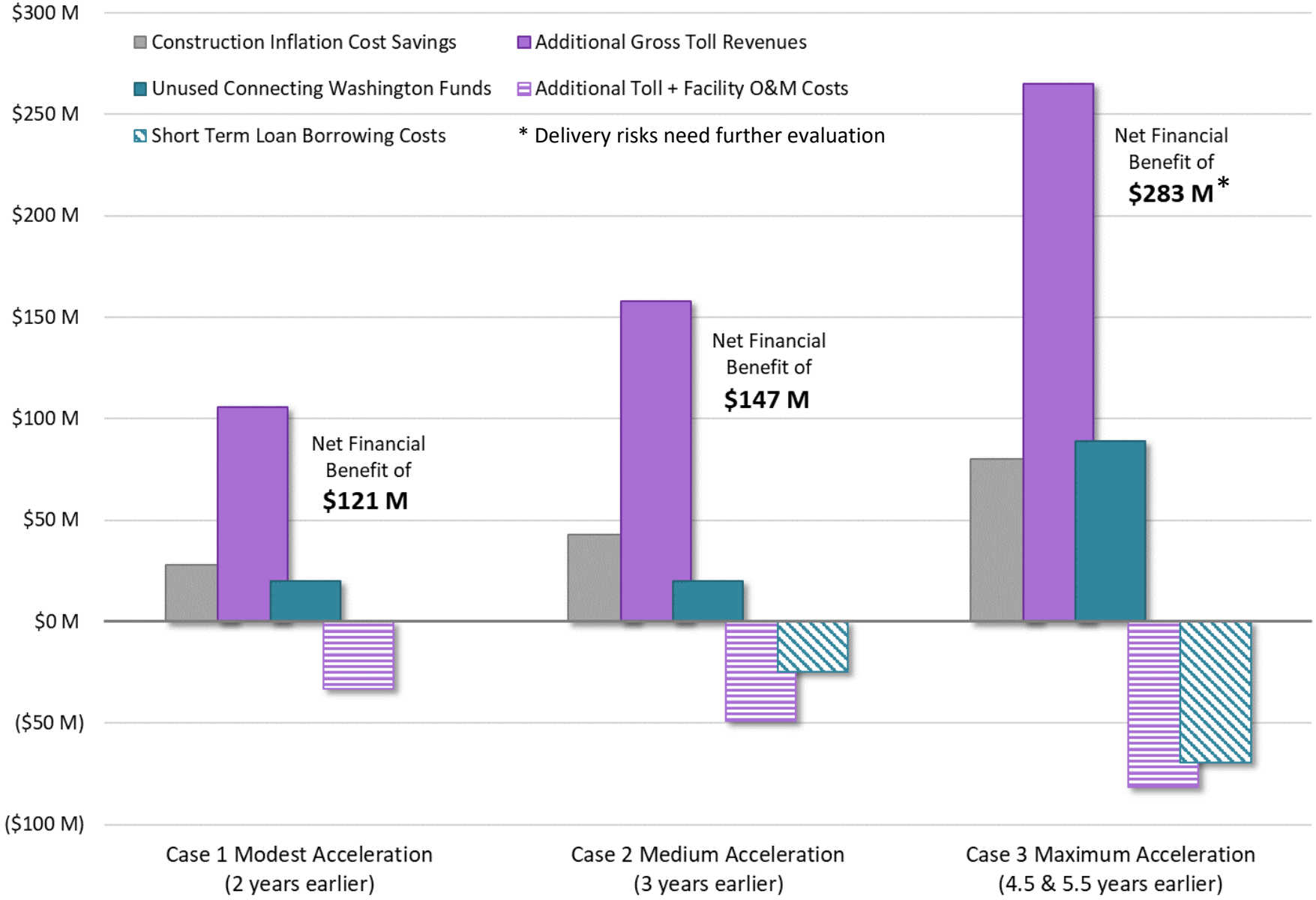
Acceleration Case #3: Maximum Acceleration Expenditures by Project & Stage



Net Toll Revenue *(Scenario 1)*

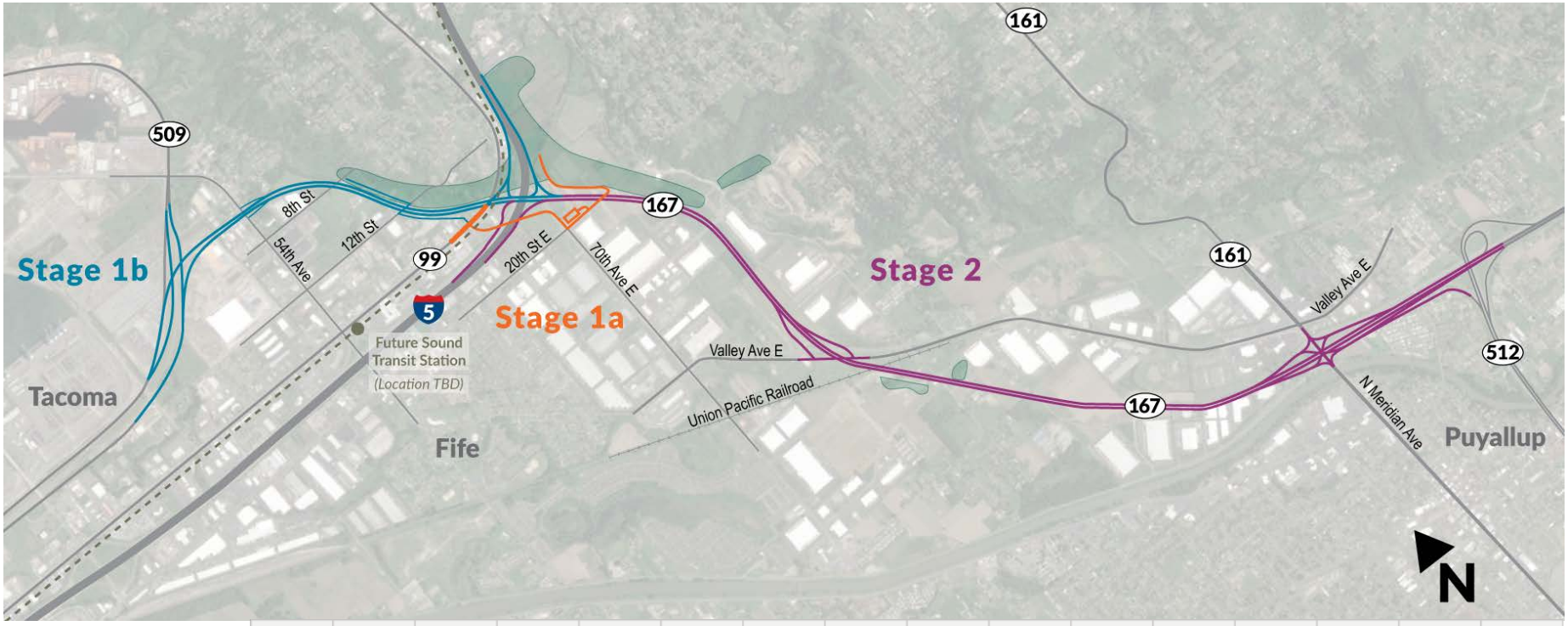


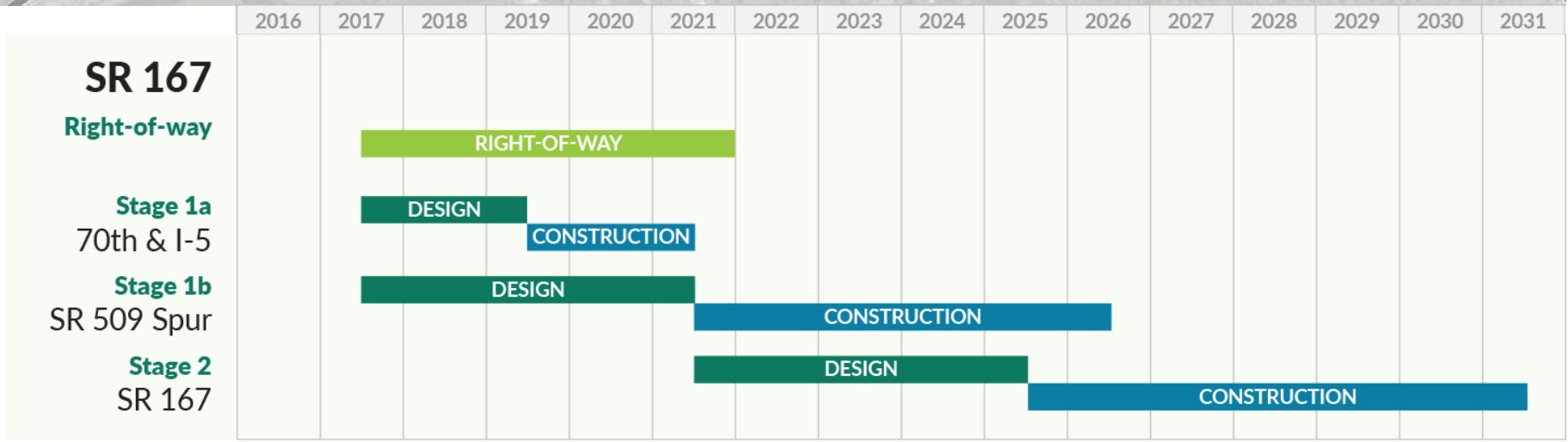
Financial Benefits of Program Acceleration



SR 167 Update

SR 167 Construction Stages – $1,016 Million



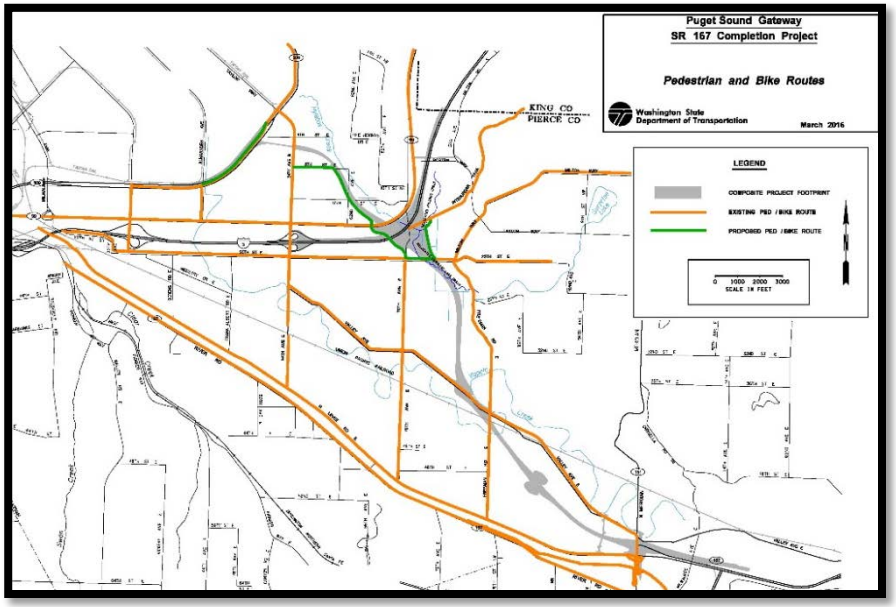


Stage 1a: A Closer Look

- Reconstruct 70th Avenue E. over I-5; includes a shared-use path
- Widen SR 99 for left turn channelization, bike lanes, drainage, planter strips, sidewalk, and a new traffic signal
- Add a waterline from 20th St. to SR 99
- Construct a new trailhead parking facility and a section of new trail for the Interurban Trail

SR 167 Bicycle/Pedestrian Connections

- Established subcommittee to engage on non-motorized project elements
- Ensure interested citizens and organizations:
  - Are informed about concepts for non-motorized use
  - Can provide input on those concepts
  - Can help shape those concepts into more refined designs
- Meeting 3-4 times between January and July 2019



Tacoma to Puyallup Regional Trail Connection

- WSDOT is participating in Cohort group that will:
  - Investigate the feasibility of a non-motorized transportation facility to connect Tacoma to Puyallup
  - Consider concept alignments
    - River Road
    - Levee Road
    - SR 167
  - Identify environmental clearance requirements
  - Build cross jurisdictional buy-in on the route and design

SR 167 Accomplishments

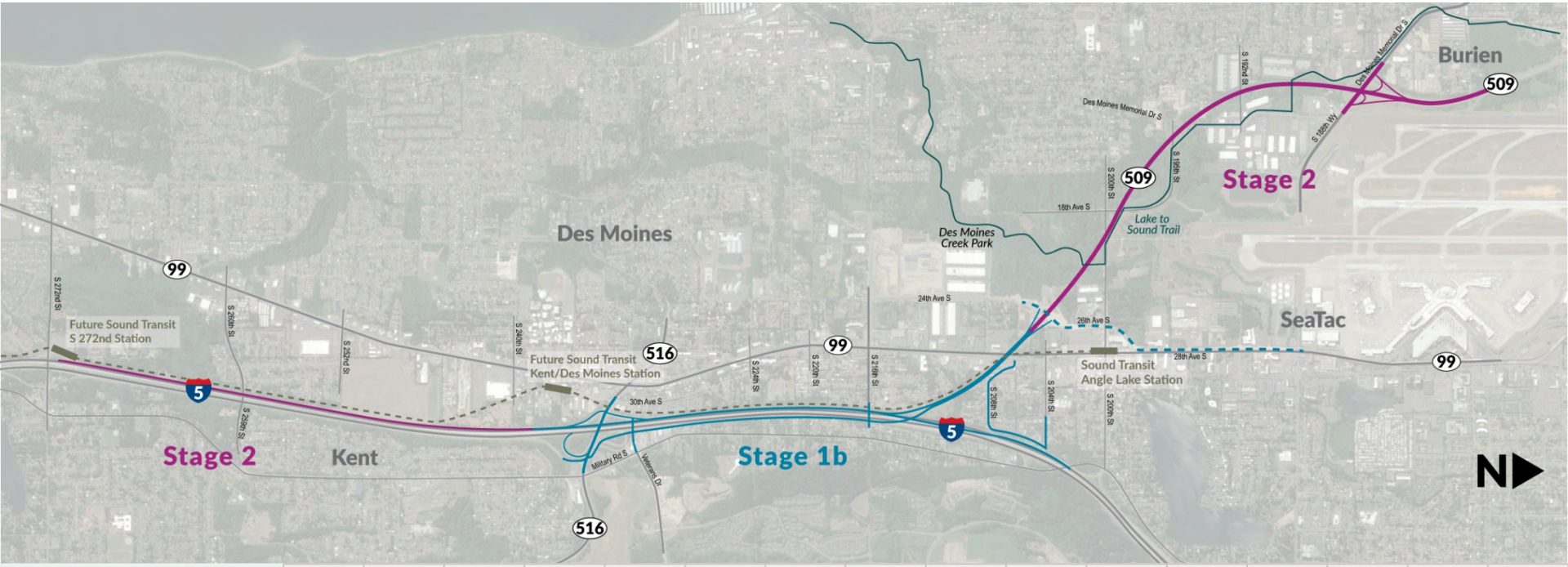
- FHWA completed legal sufficiency review of NEPA Re-Evaluation
- Issued Stage 1a Request for Qualifications
- Held Stage 1a Submitters Meeting
- Issued permit to Olson Brothers for stockpiling surplus fill
- Sent Access Report to local jurisdictions
- Continue to acquire right of way, over 80% by area
- Participated in summer outreach activities

Next Steps

- Complete NEPA Re-Evaluation December 2018
- Obtain environmental permits prior to construction
- Prepare Interlocal Agreements with Fife, Tacoma, and Port of Tacoma
- Complete a project video with 3D visualizations
- Hold Limited Access Hearing in March 2019
- Issue Request for Proposals February 28, 2019
- Issue Notice to Proceed to Design-Builder July 2019
- Continue right-of-way acquisition process
- Continue design for Stage 1b, including Riparian Restoration Program

SR 509 Update

SR 509 Construction Stages – $968 Million



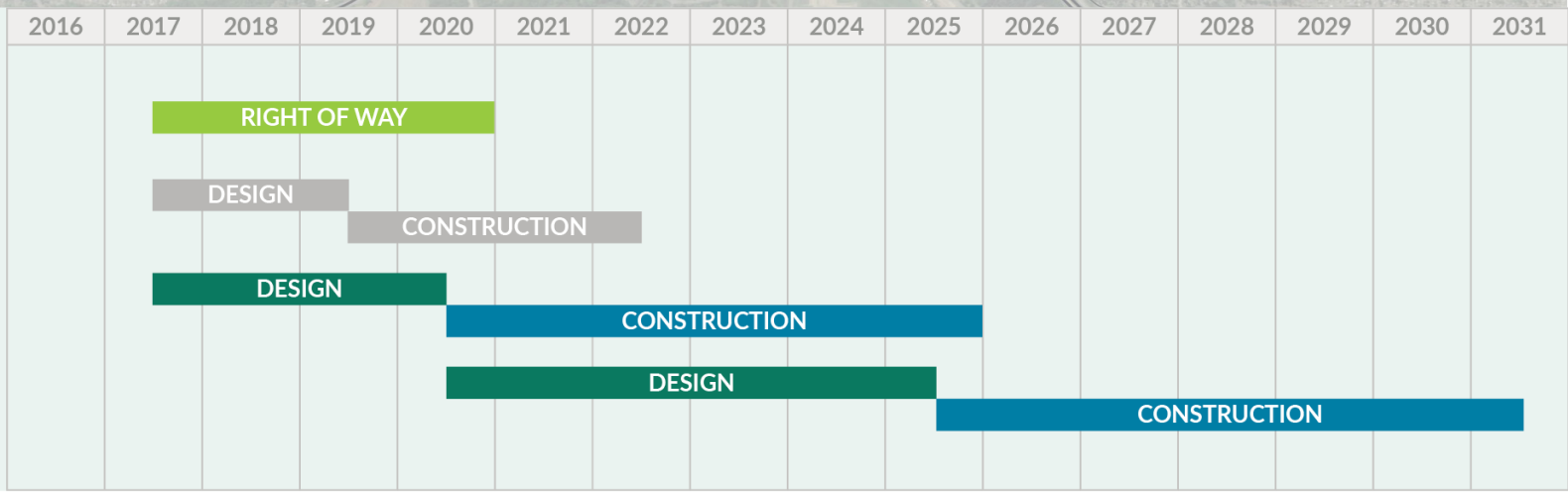
SR 509

Right of way

Stage 1a
SR 99 (Sound Transit)

Stage 1b
I-5 to 28th/24th

Stage 2
28th/24th to S 188th



SR 509 Accomplishments

- Completed Land Exchange Agreement with Sound Transit
- Finalized Lake to Sound Trail Funding Agreement with King County
- Obtained funding ILA with City of SeaTac
- Provided SR 509 plans to Sound Transit/FWLE contract
- Posted SR 509 Plans to WSDOT website
- Completed Phase 1 – 30% design
- Participated in summer outreach activities

SR 509 Next Steps

- Continue right of way acquisition
- Support Sound Transit during FWLE Final Design
- Continue coordination with King County for Lake to Sound Trail design
- Obtain design parameters/design approval
- Complete Fire and Life Safety Analysis for the tunnels
- Develop Stage 1b Conceptual Plans and RFQ/RFP
- Obtain environmental permits for Stage 1b
- Complete IJR update
- Complete project video with 3D visualizations
- Complete Stage 1b ILAs with local jurisdictions
- Finalize Construction Agreement with Sound Transit

Program Next Steps

- Re-apply for INFRA grant
- Toll authorization needed from Legislature

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