



FMSIB

FREIGHT MOBILITY STRATEGIC INVESTMENT BOARD
2016 ANNUAL REPORT



FREIGHT MOBILITY PROGRESS AND INNOVATIONS IN WASHINGTON STATE

DEAR FRIENDS OF FREIGHT:

Increases in funding and advances in technology are exciting developments for freight mobility in 2016. This year, the Freight Mobility Strategic Investment Board (FMSIB) reached a milestone of **leveraging over \$1 billion** dollars with \$201 million in FMSIB funding. Funding from the State of Washington through the 2015 Connecting Washington transportation package increased the FMSIB budget from \$12 million to \$29 million a biennium and resulted in six new projects in 2016. FMSIB has now completed 54 freight projects.

For the first time, the federal government is providing dedicated federal funding for freight projects. The United States Congress authorized \$305 billion nationwide over fiscal years 2016-2020 through the FAST Act (Fixing America's Surface Transportation Act). The freight funding grant program is called FASTLANE. It has already resulted in home runs for Washington State earning \$45 million for the South Lander Street project in Seattle and \$5 million for the Strander Boulevard project in Tukwila. Both are FMSIB projects.

In addition to direct project awards, under the FAST Act, our state is receiving approximately \$20 million annually to target freight improvements on nearly 1,100 miles of our transportation network. FMSIB's subcommittee, the Washington State Freight Advisory Committee (WAFAC), has provided input on the freight formula funding. The WAFAC recommended a set of projects that were submitted by the Washington State Department of Transportation to the Legislature and Governor for approval.

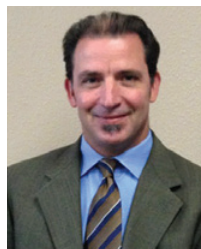
Freight technology continues to improve in the public and private sector. Logistics companies are providing mobile apps that allows carriers to better manage their fleets, assign jobs to drivers, and fine-tune freight delivery times. The NW Seaport Alliance is in the early stages of implementing DrayQ, a drayage truck wait-time awareness program and app that will help keep the supply chain system efficient, safe and productive. FMSIB is continuing to fund Intelligent Transportation Systems (ITS) as part of freight projects to ensure coordinated signal timing, and provide for real time information on freight corridors.

Data driven investment strategies in freight infrastructure are also improving. FMSIB and the Washington Public Ports Association will complete a Marine Cargo Forecast in 2016 that includes rail, truck, and waterway cargo volumes. In addition, the Legislative Joint Transportation Committee will have completed a state-wide planning level analysis that identifies which road-rail intersections are candidates for future improvements.

Although new funding and technology advances continue to increase freight efficiency, fundamental challenges remain in Washington State. More than ever we need to be strategic to keep freight a priority for Washington. Our Canadian neighbors continue to invest in their freight infrastructure and are successfully redirecting our traditional market share of freight to their ports. Our population continues to grow because Washington State has a vibrant economy. A strong economy is resulting in increased traffic volumes on our trade corridors and is also fostering local interest in converting available industrial land to retail, residential, and other purposes.

We need a healthy freight infrastructure to retain jobs and keep our state's products moving. We need continued leadership from our state and local policy makers to ensure our trade corridors are protected for commerce so that our manufacturing and industrial centers remain viable.

Sincerely,



Ashley Probert

Executive Director

\$1:\$6.17

\$6.17 LEVERAGED FOR EACH \$1 IN FMSIB FUNDS SPENT

For over a decade and a half FMSIB has been fostering public-private and inter-governmental agency partnerships to improve freight mobility in the state to benefit the people of Washington.

\$1.24 BILLION VALUE

54 PROJECTS COMPLETED

\$86.4b

THE BUSINESS OF FREIGHT
(source: US Census Bureau)

In Washington State Exports (Declined by 4.6%)

- \$51.1 billion imported (Declined by 2.6%)
- 375,009 jobs supported by exports up by 97,000 since 2009
- 10 billion in agricultural products exported in 2015



HIGH-TONNAGE State Freight Highways, Roads, and Streets
(source: WSDOT)

- 2,433 total state route miles on high tonnage strategic freight corridors (Decreased by 87.2 miles)
- 368 total miles on city streets handling high-tonnage freight (Increased by 18 miles)
- 190 total county road miles carrying four-ten million tons of freight per year
- 81.66 miles of critical urban freight corridors
- 163.31 miles of critical rural freight corridors



TRUCKING
(source: Washington Trucking Associations)

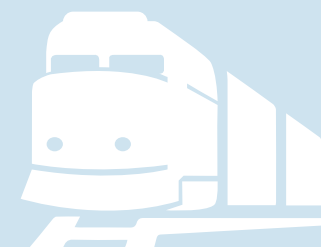
Trucking Jobs in Washington State

- In 2015 there were 16,000 trucking companies in the state, most of them small, locally-owned businesses
- In 2015 the trucking industry provided 140,270 jobs in the state
- Over 80 percent of Washington communities depend exclusively on trucks to move their goods

3,192 Railroad line miles

WASHINGTON STATE RAILROADS
(source: Engine of Prosperity 2014)

- Freight rail contributes at least \$28.5 billion to the Washington State economy
- Freight rail contributions equal 7.5% of state GDP



I-5 at I-90 RANKS #20

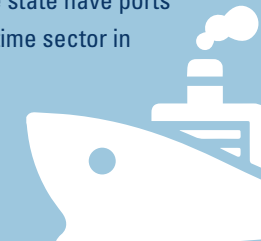
MOST CONGESTED FREIGHT LOCATIONS IN THE UNITED STATES
(source: USDOT, FHA, Office of Freight Management and Operations 2015)

\$30b

MARITIME
(source: Maritime Federation Cluster Study)

Added to State Economy

- 75 ports in the State of Washington
- 33 of 39 counties in the state have ports
- 57,700 jobs in the maritime sector in Washington State



COLUMBIA – SNAKE RIVER SYSTEM
(source: Pacific Northwest Waterways Association)

- Over 46 million tons of international trade in 2012
- At least \$20 billion in cargo value
- 40,000 local jobs are dependent on this trade



HIGHLIGHTS

PROJECTS ACTIVE OR COMPLETED IN 2016:

SPokane Valley SULLIVAN ROAD WEST BRIDGE REPLACEMENT



This project serves a heavily traveled route to I-90 and is adjacent to one of the largest industrial areas in the state. The project is under construction and is scheduled for completion in Fall 2016.

Total project cost: \$15.6M, FMSIB share: \$1.56M

PORT OF VANCOUVER USA, BULK FACILITY TRACK LOCATION



This two-phase project is adding over 70,000 feet of track rail and provides increased capacity for improved freight movement, including the use of unit trains for the port and its tenants. Phase one was completed in 2015 and phase two is scheduled for construction in late 2016.

Total project cost: \$39.5M, FMSIB share: \$3.45M

CITY OF TACOMA, PORT OF TACOMA ROAD REHABILITATION



This project was completed in 2016 and replaced the road with concrete panels that can withstand heavier truck traffic. It also includes ITS infrastructure to facilitate traffic information in anticipation of the Port of Tacoma Road Interchange completion.

Total project cost: \$10.6M, FMSIB share: \$1.0M

CITY OF SEATTLE, DUWAMISH TRUCK MOBILITY IMPROVEMENT PROJECT

The Duwamish area has a number of locations that are problems for truck movement. The city, FMSIB, the Washington Trucking Associations and Port of Seattle identified five small-scale improvements to the city's street system to improve connections between the port, railroad intermodal yards, industrial businesses, and the regional highway system.

Total project cost: \$7.18M, FMSIB share: \$2.38M

CITY OF KENT, SOUTH 228TH STREET GRADE SEPARATION

This corridor improvement involves three segments – each with individual freight benefits. Phase 1 constructed a new extension of South 228th up the hill toward I-5 and will be a connection to the SR 509 extension once SR 509 is completed. Phase 2 eliminated the at-grade crossing of the BNSF mainline. Phase 3 will complete the corridor by eliminating the at-grade crossing of the UP mainline. The 2015 Connecting Washington transportation revenue package provided the last piece of funding and the project is underway.

Phase 3 Total project cost: \$25.0M, FMSIB share: \$4.25M

CITY OF EVERETT, PORT OF EVERETT TO I-5 IMPROVEMENTS

The City is improving the direct access between the Port of Everett and I-5 bypassing the congested downtown Everett area. Three intersections will be changed, which provides better turning radii and improved truck access. The overall project received an additional \$1.5M in Connecting Washington funding for more project elements as part of the new transportation package and project work has begun.

Total project cost: \$4.5M, FMSIB share: \$0.4M

CITY OF SEATAC, CONNECTING 28TH/24TH AVENUE SOUTH



Already under construction, the 28th/24th Avenue South location is where the future SR 509 airport off ramp will touch down when SR 509 is extended. It will improve freight movement to the south side of SeaTac Airport by avoiding surface streets. As part of Connecting Washington, SeaTac secured \$2M in additional funding for bridge construction over the new SR 509 corridor, which will eliminate the need for both the city and the state to reconstruct part of this project when SR 509 is completed, creating a net savings to taxpayers.

Total project cost: \$24.3M, FMSIB share: \$2.5M

CITY OF DES MOINES, SOUTH 216TH STREET SEGMENT 1-A



This project is underway and is part of the same corridor as the 28th/24th Avenue South project. The corridor will serve freight movement to the Port of Seattle and Kent Valley.

Total project cost: \$7.5M, FMSIB share: \$.892M

LOOKING AHEAD: PROJECTS 2017-2021

CITY OF FIFE, PORT OF TACOMA ROAD

This multiphase project will improve the I-5 on-off ramps at Port of Tacoma Road and reduce backups onto the roadway and improve freight mobility to and from the port. Environmental mitigation was completed in 2015 and Phase 1 is anticipated to go to construction in 2017.

Phase 1: Total project cost: \$27.1M, FMSIB share: \$6.7M

Phase 2: Total project cost: \$35.3M, FMSIB share: \$7.5M

PORT OF SEATTLE, EAST MARGINAL WAY TRUCK CROSSOVER AND ARGO YARD TRUCK ROADWAY

This multi-phase project provides direct truck access from Port of Seattle terminals to Union Pacific's Argo Yard. Eliminating a difficult truck-weaving maneuver has improved safety and reduced traffic queuing on SR 99. The direct truck access phase was completed in 2015. The final phase will be upgrading Union Pacific's Argo Yard with electronic gates to improve truck access and is planned for 2017.

Total project cost: \$68.6M, FMSIB share: \$11.7M

CITY OF TACOMA, PUYALLUP RIVER BRIDGE REPLACEMENT

The existing bridge is failing and further disintegration will require weight restricting the bridge. Scheduled for 2017, the new replacement will be structurally sound and the design will accommodate any future improvement of the area below the bridge known as Bullfrog Junction. The City of Tacoma has completed the environmental work and has obligated its right of way funding.

Total project cost: \$38.8M, FMSIB share: \$5M

SPokane County, BIEGLOW GULCH/FORKER ROAD REALIGNMENT

Bigelow Gulch Road is an alternate route to I-90 that connects to the industrial areas of Spokane County, Spokane Valley, and the City of Spokane. The County has divided this corridor into seven projects, each with utility to freight movement. FMSIB is partnering on three of the projects. Project 4A will improve the intersection of Forker Road and Bigelow Gulch where the alignment and pavement will be upgraded. Project 2 will widen and improve Bigelow Gulch and Project 5 will widen and improve the Forker Roadway from the narrow secondary route that currently exists. Project 4A is scheduled to go out to bid in 2017.

Total project cost: \$36.2M, FMSIB share: \$7.7M

CITY OF LACEY, HOGUM BAY ROAD

Hogum Bay Road connects from I-5 to existing industrial and warehouse facilities. Scheduled for construction in 2017, the project will widen the road from two to three lanes and bring the road up to city standards to accommodate freight traffic.

Total project cost: \$8.45M, FMSIB share: \$1.2M

CITY OF KENT, S 212TH ST. BNSF GRADE SEPARATION

An estimated 72 trains per day cross S 212th each day, including the BNSF crossing and UP crossing. However, most of the rail traffic is BNSF. Eliminating this at-grade crossing reduces traffic delays for approximately 29,000 vehicles per day, including nearly 3,500 freight bearing trucks.

Total project cost: \$27M, FMSIB share: \$5M

SPokane Valley, BARKER ROAD BNSF GRADE SEPARATION

This project will eliminate the at-grade crossing of the BNSF mainline with a new grade separation. The project is in an industrially zoned area with significant freight activity, and is expected to increase with the improved access.

Total project cost: \$29.2M, FMSIB share: \$9M


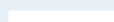
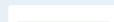
CITY OF TUKWILA, SW 27TH/STRANDER BLVD CONNECTION-PHASE 3

Phase 3 constructs the undercrossing of the UP railroad and completes the 4-lane roadway connection from West Valley Highway to Naches Ave SW. The complete project will construct a grade-separated roadway underneath the Union Pacific and BNSF railways, connecting the existing principal arterial roadway from West Valley Road in Tukwila to Oakesdale Avenue SW in Renton. The City received \$5 million in FASTLANE grants in 2016 highlighting the national importance of this project.

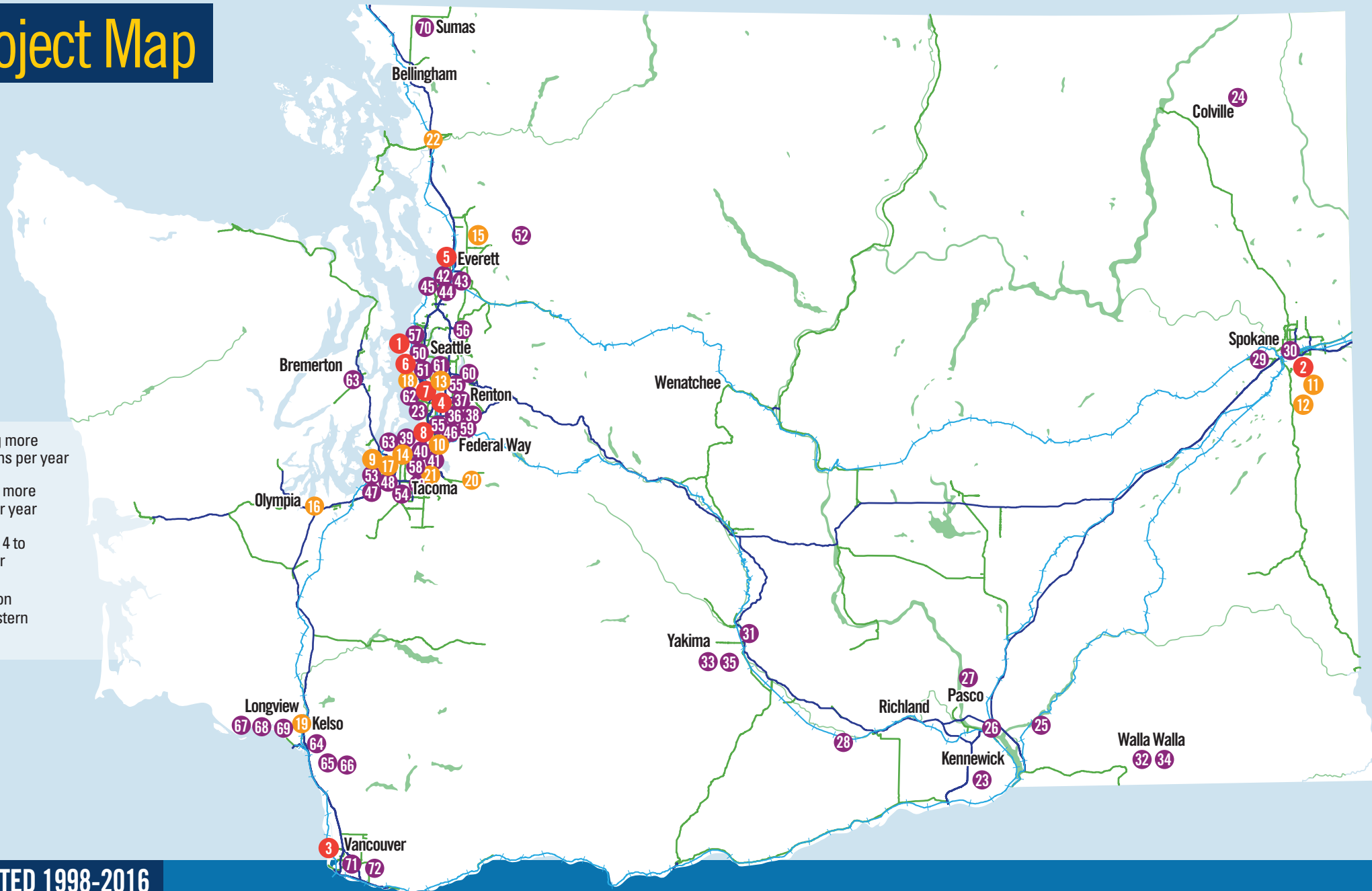
Total project cost: \$38.6M, FMSIB share: \$5M

FMSIB Project Map

FREIGHT CORRIDORS

-  R-1 corridors: carrying more than 5 million gross tons per year
-  T-1 corridors: carrying more than 10 million tons per year
-  T-2 corridors: carrying 4 to 10 million tons per year

FMSIB balances its project selection between Eastern Washington, Western Washington, and Puget Sound.



PROJECTS UNDERWAY IN 2016

- 1 Port of Seattle, East Marginal Way Truck Crossover & Argo Yard Truck Roadway
- 2 Spokane Valley, Sullivan Road West Bridge Replacement
- 3 Port of Vancouver USA, Bulk Facility Track Location
- 4 City of Kent, South 228th Street Grade Separation Phase 3
- 5 City of Everett, Port of Everett to I-5 Improvements
- 6 City of Seattle, Duwamish Truck Mobility Improvements
- 7 City of SeaTac, Connecting 28th and 24th Avenue South
- 8 City of Des Moines, South 216th Street Segment 1-A

PROJECTS SCHEDULED 2017-2021

- 9 City of Tacoma, SR 99 Puyallup River Bridge
- 10 City of Kent, South 212th Street BNSF Grade Separation
- 11 City of Spokane Valley, Barker Road/BNSF Grade Separation
- 12 Spokane County, Bigelow Gulch/Forker Road Realignment
- 13 City of Tukwila, Strander Boulevard/SW 27th to West Valley
- 14 City of Fife, Port of Tacoma Road Interchange
- 15 City of Marysville, SR 529/I-5 Interchange Expansion
- 16 City of Lacey, Hogum Bay Road
- 17 City of Tacoma, Taylor Way Rehabilitation Project
- 18 City of Seattle, South Lander Street Grade Separation
- 19 City of Longview, SR 432-SR 411 Intersection Improvements
- 20 City of Sumner, SR 410 Traffic Avenue/East Main
- 21 City of Fife, I-5/54th Avenue East Interchange Improvement
- 22 Skagit County, Burlington Northern Overpass Replacement

PROJECTS COMPLETED 1998-2016

EASTERN WASHINGTON REGION

- 23 Benton County, Piert Road Extension
- 24 City of Colville, Colville Alternate Truck Route
- 25 City of Kennewick, Columbia Center Boulevard Railroad Crossing
- 26 Port of Pasco, SR 397 Ainsworth Avenue Grade Crossing
- 27 WSDOT-City of Pasco, US 395 Hillsboro Street Interchange
- 28 City of Prosser, Wine Country Road
- 29 City of Spokane, Havana Street/BNSF Grade Separation
- 30 City of Spokane, Freya Avenue Bridge
- 31 City of Union Gap, Valley Mall Boulevard Extension
- 32 City of Walla Walla, Myra Road at the Dalles-Military Rd & US 12/SR 125 Interconnect
- 33 City of Yakima, River Road Improvements
- 34 WSDOT, US 12/124 to SR 730
- 35 City of Yakima, Lincoln Street and MLK BNSF Grade Separation

PUGET SOUND REGION

- 36 City of Des Moines, South 216th Street Segment 1-A
- 37 City of Auburn, 3rd Street SW BNSF Crossing
- 38 City of Auburn, South 277th Street Grade Separations
- 39 City of Auburn, M Street South East Grade Separation
- 40 City of Fife, 70th Avenue and Valley Avenue Widening
- 41 City of Fife, Pacific Highway East/Port of Tacoma Road to Alexander Ave
- 42 City of Everett, I-5/41st Street, Phase 1 Ramp
- 43 City of Everett, East Marine View Drive Widening
- 44 City of Everett, 41st Street Overcrossing/Riverfront Parkway
- 45 Port of Everett, California Street Overcrossing to Port of Everett
- 46 City of Kent, South 228th Street Extension & Grade Separation, Phase 1
- 47 Pierce County, 8th Street East Grade Separation
- 48 Pierce County, Cross Base Highway, Phase 1

- 49 City of Puyallup, Shaw Road
- 50 City of Seattle, Duwamish Intelligent Transportation System (ITS)
- 51 Port of Seattle, SR 518 at Airport Drive Eastbound Lane Addition
- 52 Snohomish County, Granite Falls Alternative Route, Phase 1
- 53 City of Tacoma, D Street Grade Separation
- 54 Port of Tacoma, Lincoln Avenue Grade Separation
- 55 City of Tukwila, 180th Street Grade Separation
- 56 City of Woodinville, SR 202 Corridor Improvement
- 57 WSDOT, SR 519 Intermodal Access Project
- 58 WSDOT, SR 509/Port of Tacoma Road Grade Separation
- 59 WSDOT, SR 18 Weyerhaeuser Way to SR 167 Truck Lane
- 60 City of Renton, SW 27th/Strander Boulevard Connection
- 61 King County, South Park Bridge Replacement
- 62 Port of Seattle, East Marginal Way Truck Crossover

WESTERN WASHINGTON

- 63 City of Bremerton, SR 3/304 Transportation Improvement
- 64 City of Kelso, Allen Street Bridge Replacement
- 65 Port of Kalama, Industrial Park Bridge
- 66 Port of Kalama, Grain Terminal Track Improvements
- 67 City of Longview, SR 432/SR 433 Turn Lane Improvements
- 68 City of Longview, SR 432 Improvements/3rd Avenue Off Ramp Widening
- 69 Port of Longview, Port Alternate Rail Corridor
- 70 WSDOT-City of Sumas, SR 9-SR 546/Nooksack Road Vicinity to SR 547/Cherry Street
- 71 Port of Vancouver USA, Port Rail Access, Phases 1 and 2
- 72 Port of Vancouver USA, Rail Tie-in to Mainline

HIGHLIGHTS

NEW PROJECT AWARDS:

CITY OF SEATTLE, SOUTH LANDER STREET GRADE SEPARATION



The S Lander St Grade Separation will cross over BNSF mainline tracks between 1st Ave S and 4th Ave S and eliminate over 120 daily road-rail crossing conflicts in the heart of the Duwamish Manufacturing/Industrial Center (MIC), including the Port of Seattle, Seattle International Gateway (BNSF) Yards, Argo (UP) Yards and associated businesses. The Duwamish MIC is the largest designated center in the Puget Sound Region and, with the smaller adjacent Tukwila area, currently supports over 75,000 jobs. The city received \$45 million in FASTLANE grants in 2016 highlighting the national importance of this project.

Total project cost: \$140M, FMSIB share: \$8M

CITY OF SUMNER, SR 410 TRAFFIC AVENUE/EAST MAIN

This project increases freight mobility by reconfiguring two intersections and adding travel lanes and multimodal access across SR 410. These intersections and the overpass benefit the Sumner-Pacific Manufacturing Industrial Center and the freight being moved by 3,000+ trucks daily trying to deliver goods to and from the Port of Tacoma and Port of Seattle. This is the first major expansion of this overpass since it was originally built in 1967.

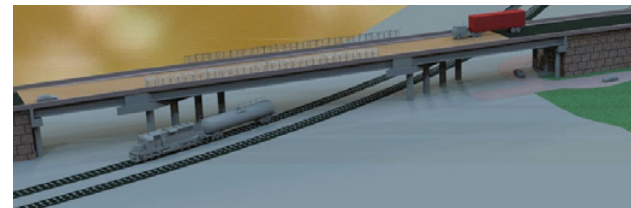
Total project cost: \$18.54M, FMSIB share: \$2.5M

CITY OF TACOMA, TAYLOR WAY REHABILITATION

The project includes replacing failing asphalt pavement with concrete pavement designed to heavy-haul corridor standards; widening and improving channelization on three of the four approaches to the SR 509/Taylor Way intersection; upgrading all street lighting and interconnecting traffic signals; installing a traffic camera system to monitor freight flow/terminal queuing/rail conflicts/security/emergency response; removal of up to four rail crossings and upgrading the remaining seven; improving channelization at E 11th/Alexander Avenue, and the installation of a continuous sidewalk along Taylor Way to separate pedestrians from the roadway.

Total project cost: \$18.6M, FMSIB share: \$2.5M

SKAGIT COUNTY, BURLINGTON NORTHERN OVERPASS REPLACEMENT



Replaces the 1936, 1,183 foot-long timber and steel trestle that carries Old Highway 99 North over the I-5 corridor rail line. The overpass is functionally obsolete and structurally deficient. The new overpass enables BNSF to construct an additional line through this area relieving the congestion point and increasing capacity of the mainline. The roadway will feature 12-foot driving lanes, 8-foot shoulders, and a sidewalk, increasing driver and nonmotorized user safety. Replacement of the overpass ensures no rail/vehicle conflicts and keeps the movement of freight safe, reliable and efficient.

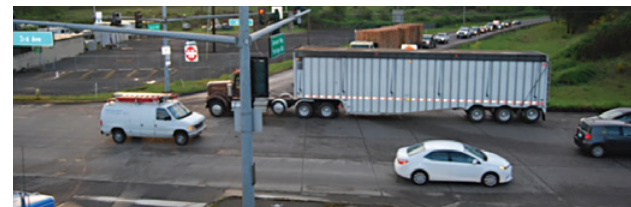
Total project cost: \$19.2M, FMSIB share: \$2M

CITY OF FIFE, I-5/54TH AVENUE E INTERCHANGE IMPROVEMENT-PHASE 1

The I-5/54th Avenue E interchange is a primary access to the Port of Tacoma and the surrounding shipping and warehousing businesses, I-5, 54th Avenue E, and Pacific Highway E (SR 99). The current interchange and the adjacent intersection of Pacific Highway E/54th Avenue E are significantly over capacity and operate at failing conditions. The north half project phase of the interchange provides a second access point for vehicles exiting southbound I-5 at Pacific Highway E/51st Avenue E, and relocates the southbound I-5 on-ramp to 51st Avenue E. Phase 1 significantly improves the operations of the Pacific Highway E/54th Avenue E intersection by reducing intersection volumes by 15 percent, reducing traffic queuing that backs into I-5, and improves the street traffic network to local freight businesses and the Port of Tacoma.

Total project cost: \$23.7M, FMSIB share \$3.0M

CITY OF LONGVIEW, SR 432-SR 411 INTERSECTION IMPROVEMENTS



The SR 432/411 intersection improvement project is a top priority because it addresses the first bottleneck between I-5 and the Port of Longview. Capacity increases, reduced travel times, and reduced truck roll-over collisions will result by constructing a double left turn lane from the westbound SR 432 off-ramp to 3rd Avenue and the reconstruction of the eastbound on-ramp to SR 432. Eliminating this bottleneck keeps this route reliable and reduces truck volumes on city streets that are seeking alternate routes to the Port of Longview.

Total project cost: \$4.2M, FMSIB share: \$2.1M

ABOUT FMSIB

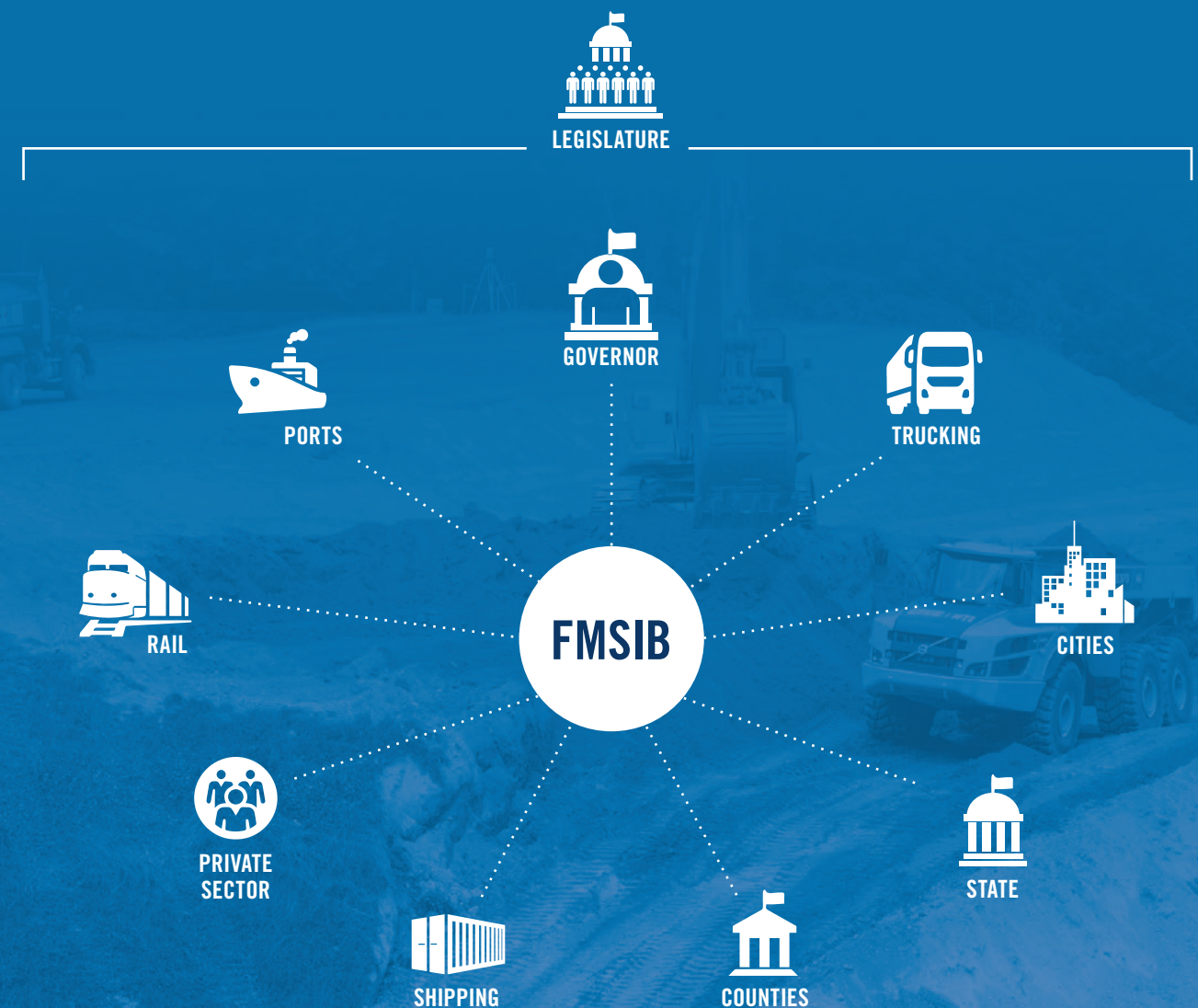
In 1998, the State Legislature had the foresight to create the first comprehensive and strategic freight mobility investment program in the country. They also established the Washington State Freight Mobility Strategic Investment Board (FMSIB) to oversee the program. FMSIB includes representatives from ports, railroads, the marine sector, trucking, cities, counties, the state, and a citizen at large. This representation is key to FMSIB's success in facilitating partnerships to fund and build complex projects.

"It is the policy of the state of Washington that limited public transportation funding and competition between freight and general mobility improvements for the same fund sources require strategic, prioritized freight investments that reduce barriers to freight movement, maximize cost-effectiveness, yield a return on the state's investment, require complementary investments by public and private interests, and solve regional freight mobility problems. State financial assistance for freight mobility projects must leverage other funds from all potential partners and sources, including federal, county, city, port district, and private capital."

FMSIB creates a comprehensive and coordinated state program to facilitate freight movement.

The Board:

- Proposes projects that soften the impact of freight movement on local communities
- Advocates for strategic freight transportation projects that bring economic development and a return on investment to the state
- Focuses on timely construction and operation of projects that support jobs
- Leverages funding from public and private stakeholders
- Creates funding partnerships
- Invests in a freight solution regardless of mode or jurisdiction
- Serves as the de facto freight-project screening agency for state and federal policy makers.



INNOVATIONS

FMSIB WEBSITE AND PROJECT MONITORING

FMSIB is more transparent and efficient in 2016. FMSIB's updated website now features real-time information about projects which can be sorted by many fields to meet the needs of varied users. The new look puts information at your finger-tips, pushing it to the user.

Decision-makers can look at projects by county, region, and legislative district.

Projects can be sorted by year and activity status.

Project summaries and interactive maps provide clear and compelling information for those seeking information about specific projects.

Every project now has a project page with numerous fields for access to detailed project management information such as project costs, cash flow, milestones, and progress reports. On-line quarterly reporting saves project owners staff time with efficient reporting.

For the first time, the public, policy makers, and project partners have easy access to the same information as FMSIB.

The on-line access to quarterly reports facilitates greater accountability.

FMSIB can now measure the original project proposal against actual project delivery helping to inform future project awards.

This new system allows FMSIB to manage more and more projects and allows better fund management with the ability to closely monitor progress and cash flow.

TRANSPARENCY AND ACCOUNTABILITY FEATURES

FREIGHT MOBILITY STRATEGIC INVESTMENT BOARD

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Project Portfolio Quarterly Report Login

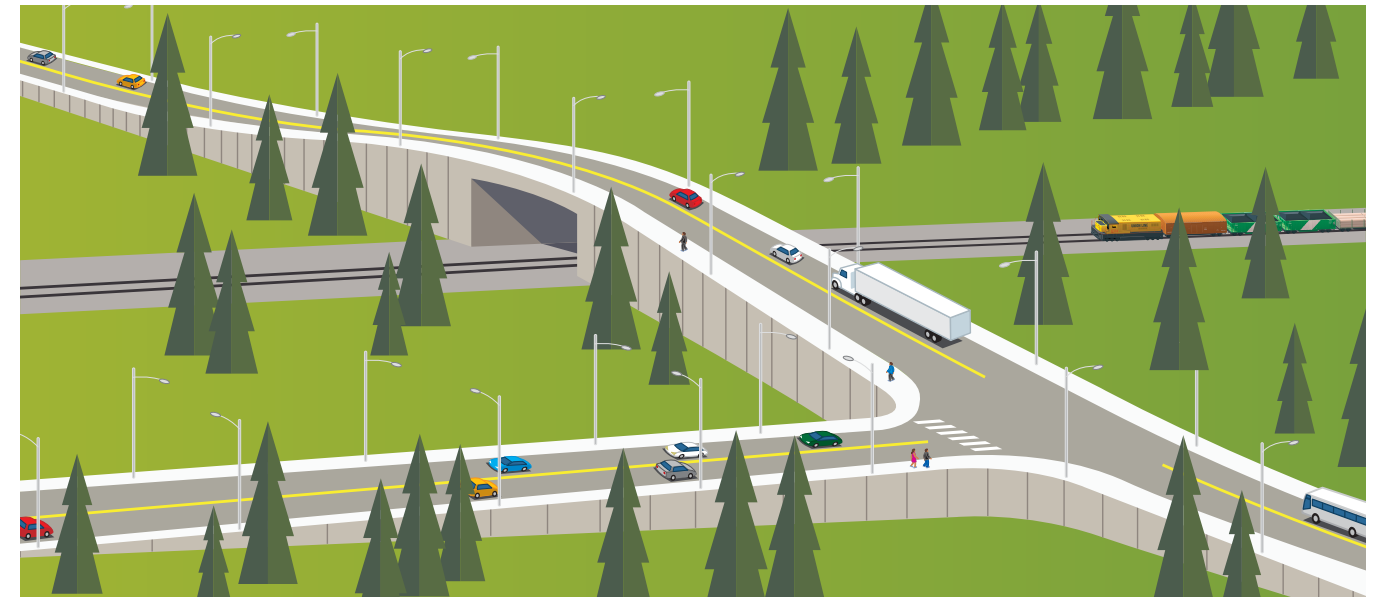
FMSIB Project Portfolio

Status: Active Region: ALL County: ALL Year: ALL Log On: ALL Agency: ALL

Project ID	Project Name	Total Costs	FMSIB Funds	Year Awarded	Region	Status	Type
88-0	Des Moines S. 218th St. Segment 1-A	\$7,458,112	\$892,000	2014	PS	Active	Road
75-0	Everett Port of Everett to I-5	\$4,486,000	\$400,000	2009	PS	Active	Road
64-0	File Port of Tacoma truck off ramp	\$7,500,000	\$2,000,000	2008	PS	Active	Road
64-1	File Port of Tacoma truck off ramp	\$7,500,000	\$2,334,000	2008	PS	Active	Road
64-2	File Port of Tacoma truck off ramp	\$7,500,000	\$4,333,000	2008	PS	Active	Road
76-0	File Port of Tacoma truck off ramp	\$7,500,000	\$7,533,000	2010	PS	Active	Road
89-0	File I-5/44th Avenue E Interchange Improvement Proj	\$23,700,000	\$3,000,000	2016	PS	Active	Road
35-0	Kent S. 228th St Grade Separation	\$25,000,000	\$4,250,000	2004	PS	Active	Rail & Road
99-A	Kent S. 212th St. BNSF Grade Separation	\$27,000,000	\$5,000,000	2004	PS	Active	Rail & Road
68-2	Lacey Hogum Bay Road Truck Route	\$8,450,000	\$1,200,000	2015	W	Active	Road
90-0	Longview SR 430-59411 Intersection Improvements Project	\$4,200,000	\$2,100,000	2016	W	Active	Road
87-0	Marysville SR 5294-5 Interchange Expansion	\$54,000,000	\$5,000,000	2014	PS	Active	Rail & Road
58-0	Port of Seattle E. Marginal Way Truck Crossover	\$7,294,000	\$994,000	2012	PS	Active	Road
73-0	Port of Seattle E. Marginal/Diagonal and Argo	\$8,068,000	\$3,750,000	2009	PS	Active	Rail
85-0	Port of Vancouver Bulk Facility track relocation	\$14,800,000	\$3,869,000	2012	W	Active	Rail
84-0	Sea-Tac Connecting 28th/24th Ave S	\$24,300,000	\$2,500,000	2011	PS	Active	Road
51-1	Seattle Duwamish Spot Improvement	\$2,111,356	\$979,091	2003	PS	Active	Road
51-2	Seattle Duwamish Spot Improvement	\$120,000	\$36,000	2003	PS	Active	Road
51-3	Seattle Duwamish Spot Improvement	\$300,000	\$117,000	2003	PS	Active	Road

City of Kent - Project Information and Updates
S. 228th St Grade Separation (FMSIB Project ID: 35-0)

Project Summary	Project Location	Project Milestones	Cash Flow	Quarterly Update History
Project Name: S. 228th St Grade Separation	Facility Name: S. 228th Street	Contact: Mark Madfai, Design Engineering Supervisor	Phone: 253-856-5321	Email: MMadfai@KentWA.gov
FMSIB Funds: \$4,250,000	Total Costs: \$25,000,000	Project Status: Active	Project Type: Road / Railroad	Region: Puget Sound
Year Awarded: 2004	Log District: 33	Project Description: Phase I of the project extended S. 228th Street up the west hill of Kent from 64th Avenue S. to Military Road and connects the valley with I-5 and the future I-509. This phase includes a new bridge across the Green River and a new bridge crossing the corridor at Riverview Boulevard. Phase I was completed in Fall of 2004. Phase II constructed a railroad grade separation at the Burlington Northern Santa Fe rail lines on S. 228th Street. Phase II was completed in November 2009. Phase III will construct a RR grade separation at the UPR RR on S. 228th Street. This will complete the corridor, and connects the valley with I-5 and the future SR 509.		



EVOLVING FACE OF FREIGHT AND TECHNOLOGY

The transportation tools available to move freight have a rich history. Information technology is proving to be vitally important to 21st century freight transportation.

TRUCKING INNOVATIONS

Several companies are pushing to become the first successful on-demand trucking company. Big-name financiers including Amazon's Jeff Bezos, have decided that there's an opportunity for launching Uber-style on-demand services for freight delivery. Self-driving autonomous trucks are being tested in the United States and around the world. It's likely a trucker will still be in the driver's seat, ready to take control if something goes wrong. Researchers think this change will make the lives of truckers safer and less stressful.

A new automated driving technology called platooning connects trucks using Wi-Fi, sensors, GPS, and cameras with the goal of increasing fuel efficiency. The leading vehicle dictates speed and direction, while the rest automatically steer, speed up and slow down in close convoy.

Mercedes-Benz recently announced plans to build its first-ever heavy-duty electric truck. The Urban eTruck will be able to handle loads of up to 24 tons and travel as much as 124 miles between charges. Tesla Motors CEO Elon Musk wants to add a "Tesla Semi."

The trucking industry continues to improve energy and environmental efficiency even while increasing the number of miles driven. In 2013, combination trucks consumed 95 billion fewer gallons of fuel than passenger vehicles in the U.S. and accounted for just 17 percent of the total highway transportation fuel consumed. Through advancements in engine technology and fuel refinements, new diesel truck engines produce 98 percent fewer particulate matter (PM) and nitrogen oxides (NOx) emissions than a similar engine manufactured prior to 1990. Sulfur emissions from diesel engines have also been reduced by 97 percent since 1999.

RAIL INNOVATIONS

Modern railroads use a variety of "smart" technologies to improve safety and maximize efficiency. Sensors located across the nation's rail networks collect data to show how every train is functioning, and analytics flag excessive wear to critical systems on rolling stock. Emerging technology allows trains to "see" what is around them, including potential obstacles, and to navigate hazards without human intervention.

Rail inspection technology has rapidly enhanced safety in recent decades. Defect detection cars, ultrasound technology, and laser-based inspection systems provide railroads with the tools to identify internal rail flaws which are invisible to the human eye. New technologies are developed and perfected at the Transportation Technology Center, a world-class rail research facility in Pueblo, Colorado. Due in large part to technologies such as these, rail accidents are at record lows.

America's rail networks include thousands of bridges, so railroads are continually innovating bridge inspections. Researchers are developing new monitoring equipment and railroads are starting to use unmanned aerial vehicles (drones) to inspect bridges. Drone technology offers the dual benefit of providing enhanced inspections and improving personal safety for inspectors. It also provides great advantage for inspecting track and structures in remote areas.

Technology developed by the rail industry also benefits first responders and local communities. First responders can receive immediate, real-time data about trains, contents of individual rail cars, cargoes, and locations using apps such as AskRail and SECURETRAK. Applications such as these can be especially useful at expediting communication to first responders during hazmat incidents or other response events.

WSDOT INNOVATIONS

Commercial Vehicle Information Systems and Networks (CVISN) is a system that leverages technologies to improve commercial vehicle operation safety, efficiency and effectiveness. WSDOT has installed CVISN technology at 12 weigh stations in Washington. Using Weigh-in-Motion (WIM), Automatic Vehicle Identification (AVI), and Automated License Plate Readers (ALPR) commercial vehicles are electronically screened on the mainline approximately ½ mile ahead of the weigh station. The trucks weight, size, registration, and safety record are verified and within milliseconds a signal to either bypass the weigh station or report to the weigh station is sent to the vehicle. If a vehicle cannot be identified by a transponder or its license plate "Truck Exit To Weigh Station" is displayed on the changeable message sign.

Traffic Management Centers are in operation 24 hours a day, seven days a week to help clear roads and keep traffic moving safely. Crews keep their eyes on traffic and highways via six Traffic Management Centers located at key locations around the state. Engineers, radio operators and other staff monitor traffic and identify problems using hundreds of cameras located throughout the state on the highway system. They also use data from traffic detectors on the highways to get a real-time picture of traffic conditions.

FMSIB PARTICIPATED IN TWO KEY STUDIES DURING 2016 THAT WILL ENHANCE ACCESS TO DATA FOR DECISION-MAKING

The Study of Road/Rail Conflicts in cities is to be completed in 2016. It identifies three hundred candidate conflicts for further analysis and recommends a corridor-based prioritization process for addressing them. A key outcome of the study is a unified database of crossings that incorporates such data elements as travel delay, safety, and road volumes.

The Washington Public Ports Association and FMSIB partnered on a Marine Cargo Forecast that provides a five-year and long-term analysis of commodity movements through the state and to our ports. The study forecasts the volume of cargo by transportation mode (i.e., truck, trail, and waterways) that will move through the strategic freight transportation corridors in Washington State, and includes estimates by mode of volumes of cargo staying within the state and volumes of cargo passing through the state. It includes an evaluation of landside transportation infrastructure issues, including a modal split analysis by strategic corridor. The forecast also complements the Road-Rail Conflicts Study.

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