



TIME... IT'S THE ONE THING WE CAN NEVER GET BACK.

INSTEAD OF TIME SPENT IN GRIDLOCK, LET'S TRY SOMETHING INNOVATIVE...

MOBILITY21

- An Alternative Concept to the Regional Transportation Plan
 That was Adopted by the Puget Sound Regional Council in 2018
 - Seeks Improved Travel Conditions at Lower Cost
- Private Initial Funding by The Kemper Development Company With the Goal of Improved Regional Travel Conditions
 - Works to Restore the Public's Long-Established Freedom to Travel When, Where and How They Want

A VISION

FOR REGIONAL TRANSPORTATION SOLUTIONS, NOW,

MOBILITY21

Will:

- Reduce Congestion by Adopting Current & Future Automobile Technologies
- Give Puget Sound Drivers More Freedom to Travel When & Where They Choose
- Provide Safer & Greener Mobility
- Save Taxpayers Money Through Lower Costs



OUR CURRENT SITUATION...

GRIDLOCK, FRUSTRATION, LOST TIME & MONEY.

Traffic Will Only Get Worse with Population and Industry Projected Growth:

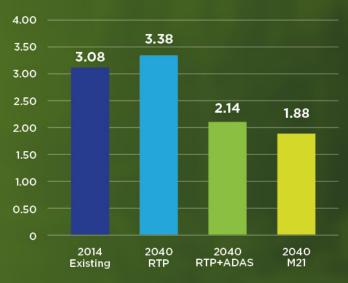
- Third Worst Traffic Congestion in the US
- In 2040, 94% of All Daily Trips Still Use the Roadway Systems
- Costly Light Rail Only Serves 1% of All Daily Trips in 2040

OUR CURRENT SITUATION...

PUGET SOUND REGION COUNCIL'S REGIONAL TRANSPORTATION PLAN (RTP) DOESN'T FIX THE DELAY PROBLEMS.

M21 WOULD REDUCE DELAY EVEN MORE THAN RTP + ADAS

DAILY DELAY PER TRIP (MINUTES)



- The adopted RTP increases delay by 10% compared to 2014
- RTP with ADAS would reduce delay by 31% compared to 2014
- Mobility 21 reduces delay by 40% compared to 2014

OUR CURRENT SITUATION...

GRIDLOCK, FRUSTRATION, LOST TIME & MONEY.

SO, IF RTP'S PLAN DOESN'T FIX THE PROBLEMS, WHAT WILL MOBILITY 21 ACHIEVE?

A TECHNOLOGY AND OVERALL REGIONAL VISION.

PROCESS & DETAILS... "SHOW US HOW."

WORKING TOGETHER, MOBILITY MORKING TOGETHER,

WILL CREATE CHANGE.

A TECHNOLOGY & OVERALL REGIONAL VISION. PROCESS & DETAILS... "SHOW US HOW."

M21 uses 4 main tactics for improvements—Benefitting Drivers, Public Transit, Cyclists & Pedestrians, Results: Less Congestion & 40% Reductions in Delays Per Trip.

TACTICS INCLUDE:

- ADAS / Transportation Technologies
- Additional Lane Miles
- Lane Conversion
- Bring Transit into the 21st Century

THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.

Advanced Driver Assistance Systems (ADAS) and Auto Technology Already Offer Collision-Preventing Features Such as:

- Adaptive Cruise Control: Smooth Following
- Automated Lane Keeping on Freeways
- Blind Spot Monitoring for Safer Lane Changes
- Radar Braking

ADAS Benefits:

- Improved safety, reduced traffic incidents
- By 2040 or Sooner, ADAS Will Help Us Achieve:
 - 50% More Capacity Per Freeway Lane
 - 30% More Capacity Per Arterial Lane

THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.

Growth of ADAS: Improved Technology & Adoption Leads to Fewer Accidents & Congestion

- In 2020, Virtually All New Vehicles Have at Least One ADAS Feature Available
- By 2030, It is Probable that All New Cars and Light Trucks will have ADAS. May become a Federally-Mandated Requirement
- By 2040, 80% or More of All Vehicles on the Highways will have ADAS

THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.

Let's Educate People...

Empower Them to Make Smart Choices—Sooner Than Later.

The Sooner Puget Sound Drivers Adopt These Technologies, the Sooner Traffic Will Improve.

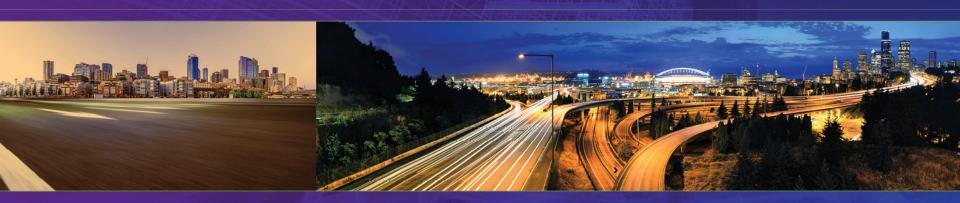
THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.



With Mobility 21, Further Traffic Improvement Will Come Through:

- Limiting Outdated Transportation Models Such as Light & Commuter Rail, Big Buses, Multiple Transfers (This Cuts Cost but Does Little About Traffic)
- Embracing Vanpools and Ride Sharing Technologies,
 Delivering People Where They Want to Go, When They Want to Go
- More State-of-The-Art Transit Buses & More Efficient Routes

THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.



Additional *Mobility 21* Road Improvements Include:

- Converting HOV / HOT / ETL Lanes to General Purpose
- Added, Slightly Narrower Lanes Within Existing Paved Surface in Some Locations
- Additional Ramp Metering
- Actions to Encourage / Permit Transitions to Advanced Technology
- Selective Use of Shoulders for Traffic
- Adding More Lane Miles
 - 266 Additional Freeway Lane-Miles & 94 Additional Arterial Lane-Miles

THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.

Mobility 21 & RTP Costs Per-Trip Compared:

- With Mobility 21, Public Investment Costs Per Transit Trip are Approximately One-Third of the Adopted RTP's
- Highway and Pedestrian / Bike Travel are Bargains Because of Lower Costs and Higher Usage

Public Investment to Serve Each Person-trip from 2019-2049, by Mode



THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.



Elements of Mobility 21 Transit:

- Raise Transit Fares to About 65% Of Operating and Maintenance Costs, For Sustainability
- Focus on Work Trips and Commute Hours (More Than Half of All Transit Trips)
- Retain High-Volume Bus Routes for About 23% of 2040 Bus Riders
- For the Remaining 77%, Provide a Privately Operated Alternative Mobility Service (AMS),
 Similar to Vanpools but with Advanced Technology
- Replace Sounder Commuter Rail with Express Buses
- Limit Link Light Rail to Lines Existing, Under Construction or Covered by a Federal Record of Decision
- Re-Organize Bus Transit Agencies to Reduce Costs and Dominance of the City of Seattle

THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.

Why are Advanced Vanpools Such a Prime Opportunity?

- Vanpools Consume Less Energy than Other Urban Travel Modes
- Both Light Rail and Transit Buses Use More Than 4X as Much Energy as Vanpools, Impacting CO2 Emissions
- Heavy Transit Buses, with More Road Structure Impact, Create Potholes & Traffic Delays, Whereas Vanpools Have Minimum Impact
- Vanpool Fares Nearly Pay Operating Costs
 - LRT & Bus Fares Cover Only 25%-40% of Operating Costs

Operating Cost / Trip vs. Farebox Revenue / Trip, 2017

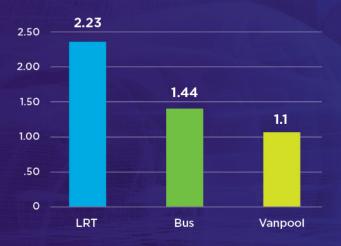
Sound Transit (LRT), King County Metro (Bus & Vanpool)



THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.

Advanced Vanpools, with Rare Transfers, Provide Nearly Direct Origin-to-Destination Service.

Regional Boardings per Trip



THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.



OVER THE NEXT 20 YEARS, MOBILITY 21 CAN
COMPLETELY TRANSFORM PUGET SOUND TRANSIT,
BENEFITTING MILLIONS OF DRIVERS.

THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.

All of the Technology-Based Advances, Plus:

- A 30% Reduction in Total Public Investment Costs (Capital and Operating)
- Serve a 30% Increase in In-Person Trips
- Provide Transit Subsidies to Assist Elderly, Disabled, Students & Low-Income Individuals
- Higher Fees Would Be Charged for Improved Service

M21's Total Cost is 30% Less Than Adopted RTP's Cost



- Highway costs are higher because of the added lane-miles
- Transit costs are lower because:
 - Curtailed light rail expansion
 - Commuter rail replaced with express buses
 - Replaced some bus routes with small vehicle alternative mobility service
- City & County costs not changed
- State Ferry and other not changed

THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.



And, It's Greener. Naturally.

- 80% of Operating Vehicles Will Have ADAS Technology by 2040
- Current Hybrid / Electric Technology and More Efficient Batteries—Better for the Environment
- More Efficient Routes (Highway and Arterial Road Improvements)—Less Time Spent Traveling / Less Gas / Less Emissions
- Ride Sharing / Vanpooling Vanpools Consume Less Energy Than Other Urban Travel Modes

Added Together, Less Cars Idling Equals Fewer Carbon Emissions—Sooner Than Later.

MOBILITY 21 22

THROUGH AUTO TECHNOLOGY COMES IMPROVEMENTS, INNOVATIONS & BENEFITS.

How Do We Pay for It?

- Highways: Flat Tolls on Freeways, Expressways and Urban Arterials, 24/7 (May Require Change in Federal Regulations)
- Ferries: No Change to Adopted RTP
- Transit: Costs, Reduced to 31% of Adopted RTP, Paid from Transit Agency Funds
 Assumes that Resulting Surplus Transit Funds Could Not Be Transferred to Other Modes
- Cities & Counties: No Change to Adopted RTP

Adopted RTP Requires:

- Highway Tolling May Require Change in Federal Regulations
- The Adopted Regional Transportation Plan Requires Additional Revenues, Including:
 - · Carbon Tax on Fuel
 - Paid-Parking Surcharge
 - Transportation Impact Fees
 - Others in RTP Appendix P. Dec. 2017

Several Factors Have Led to Our Gridlock:

- City of Seattle Dominates Transportation Planning, Yet—
- City of Seattle has only 26% of Regional Population, 18% of Jobs
- Transit Spending is Out-of-Balance with Performance
- Government Agencies are Restricting Travel
- Increasing Competition for Street Space
- Restrictions on Truck Mobility

City of Seattle Dominates Transportation Planning—To Its Benefit

OTHER EXAMPLES:

- SR 520 Trans-Lake: Seattle Council Limits Expansion to No More Than 6 Lanes, In Spite of Higher Projected Demand
- I-90 Cross-Lake Center Roadway: Taking of the Center Roadway for Light Rail is to Benefit Seattle, With Little Benefit to the Eastside
- Alaskan Way Viaduct Replacement:
 This is a Regional Corridor. The City of Seattle's Insistence on a Tunnel to Replace the Viaduct Opens Up the Downtown Waterfront,
 But Only Replaces the Viaduct's 6-Lanes with 4

Projected 2040 Trips on Sound Transit Light Rail (In Green)



Note the Dominance of Downtown Seattle and the Corridor to the North—Also note, How Little Cross-Lake Travel is Projected.

City of Seattle has Disproportionate Power

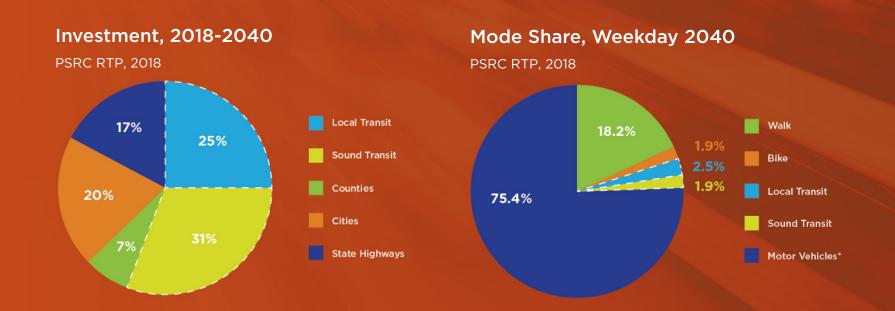
- City of Seattle holds 18% of regional population and 26% of regional jobs
- King County holds 53% of regional population and 65% of regional jobs

Population & Employment by Sub-Area, 2017



Transit Spending is Out-of-Balance.

56% of Public Investment is for Transit Yet Only About 4% of Person-Trips are by Transit.

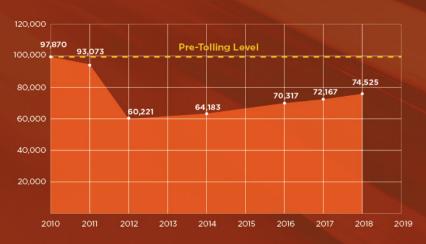


Government Agencies are Restricting Travel

How Restrictions Affected SR-520 Daily Travel:

- Tolls on the New SR-520 Cross-Lake Corridor Reduced Daily Volumes by 40%
- There were no Alternative Routes with Excess Capacity
- Those Volumes are Slowly Recovering, but at this Rate will not Return to Pre-Toll Levels Until 2026— 15 Years After Tolling Started

SR 520. Average Daily Vehicle Volume Permanent Traffic Recorder D10.



General-Purpose Lanes Serve More Volume than Express Toll Lanes.

At 17 Locations in this 14-Mile Corridor, I-405—Bellevue to Lynnwood, *Mobility 21* Compared Volumes in Express Toll Lanes (ETL) to General-Purpose (GP) Lanes.

- Average GP Lane Volumes Exceeded Those in ETL Lanes, AM & PM, in Both Directions
- All-day, GP Lane Volumes were Approximately Double Those of ETL

Average Peak Hour Volumes per Lane, General Purpose & Express Toll Lanes

I-405 Between NE 8th, Bellevue and Lynnwood



All Day Volumes per Lane in Tolled Sections Of I-405, Vehicles, 2016





Increasing Competition for Street Space

In Lieu of Authorities Making Hard Decisions to Finance, Repair and Expand Roadway Systems, there is a Growing Search for Easy Solutions:

- Bike Lanes
- Shared Bikes
- Electric Scooters

In Spite of Advocates, the Effectiveness is not clear—the Downsides:

- Loss of Roadway Capacity
- Traffic Conflicts
- Sidewalks Littered with Left-Behind Bikes and Scooters



Regional Actions are Restricting Truck Mobility, Unnecessarily

Examples Include:

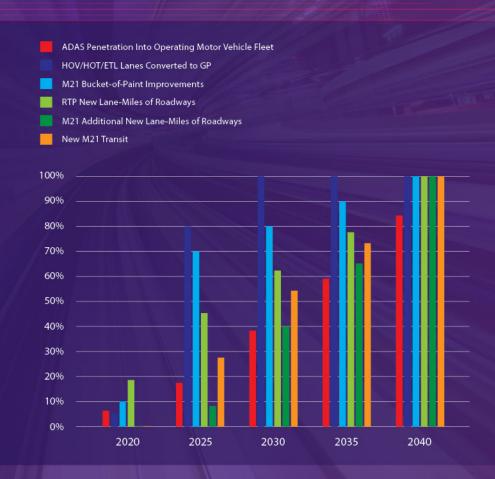
- I-90 Center Roadway Lost to Light Rail
- Reduced Lane Width on I-90 (11 ft.)
- 10 1/2 ft. Lane Width in I-90 Mt. Baker Tunnels
- Express Toll Lanes not Available to Large Trucks
- Express Toll Lanes Reduce Roadway Capacity
- Bike Lanes Adjacent to the Curb Restrict Delivery of Freight (And Uber & Lyft Passengers)
- Port Schedules and Hours are Changing to Deal with Increasing Congestion

A WORKING TIMELINE

SOLUTIONS FOR 2020 AND BEYOND.

The Solutions Begin Now, Fully Realized By 2040.

- Road Improvements
- Added Lane Miles
- Car Technology Enhancements
- HOV / HOT / ETL Lane Conversion
- New Vanpools, Buses & Rideshare



THE BEST TRANSPORTATION SPECIALISTS—

WORKING FOR YOU.

Who is Spearheading *Mobility 21*?

We are Community
Members, Industry Leaders,
And Transportation
Specialists, Working
Together to Create a Better
Puget Sound.

ADVISORY PANEL

Stephen Moore, Heritage Foundation
Wendel Cox, Demographia
Randall O'Toole, CATO Foundation
Alan Pisarski, Transportation Research Consultant
Ronald Utt, Heritage Foundation
Dick Mudge, Compass Transportation & Technology

PLANNING CONTRIBUTORS

Bill Eager, Project Manager
Bob Shull, Modeling & Highways
Robert Tung, Modeling
John Niles, Transit
Linda Cuadra, Manager
Eastside Transportation Association

A COMMUNITY TAKES CHARGE... A SOLUTION FOR ALL.

WE ARE STRONGER TOGETHER. MOBILITY 21.

IT'S ABOUT ALL OF US WORKING TOGETHER TO REDUCE GRIDLOCK,

SAVE MONEY, BE GREENER—AND CREATE MORE TIME

FOR DOING THE THINGS WE LOVE.

A COMMUNITY TAKES CHARGE... A SOLUTION FOR ALL.

THERE IS A PLAN.

MOBILITY 21'S GOAL IS TO FOSTER GREATER AWARENESS ABOUT CURRENT AND FUTURE SOLUTIONS.

A LIFESTYLE-ORIENTED, COMMUNITY WEBSITE

- Build a Comprehensive Website that Shares Exciting News, Projections and Editorials About Car Technology, From the Experts
- Tips for Getting Around with Traffic App Updates, as well as News & Ideas for Vanpooling & Rideshare



A COMMUNITY TAKES CHARGE... A SOLUTION FOR ALL.

SHARING THE VISION...

REAL-TIME SHARING ON SOCIAL MEDIA: NEWSWORTHY TECHNOLOGY POSTS

MEDIA & COMMUNITY TOUCHPOINTS

- Advertising that Points to the Website
 & Community Meetings
- Events that are Meant for Vision Presentations & Idea Sharing
- Partnerships with Rideshare & Way-Finding Apps
- Rally Consumers to Support Transit Improvements to Legislators



A COMMUNITY TAKES CHARGE... A SOLUTION FOR ALL.

SO, HOW CAN I HELP GET PUGET SOUND MOVING?

- Reach Out to Those You Know and Talk About a Plan That Works—M21
- Invite the M21 Team to Present to Business / Community Groups
- Share M21 Website and Content with Your Networks And on Social Media
- Promote M21 with Your Elected Connections and WSDOT / Sound Transit Leadership
- Stay Engaged with The M21 Team for Updates— Sign Up at mobility21now.com

A PRESENTATION BY



MOBILITY21

A 21ST CENTURY VISION FOR REGIONAL TRANSPORTATION SOLUTIONS

MOBILITY21NOW.COM