



## **CITY OF KIRKLAND**

### **Department of Public Works**

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## **MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Ray Steiger, P.E., Interim Public Works Director  
David Godfrey, P.E., Transportation Engineering Manager

**Date:** January 20, 2011

**Subject:** Washington State Department of Transportation I-405 express toll lanes.

### **RECOMMENDATION**

It is recommended that the Council receive a presentation from WSDOT on express toll lanes on I-405.

### **BACKGROUND**

The Washington State Department of Transportation is contemplating development of express toll lanes on I-405 between north Bellevue and the northern end of I-405 at I-5. Express toll lanes would operate as a pair of lanes, the HOV lane plus the lane adjacent to the HOV lane. HOVs would be able to operate for free in either of the express toll lanes. Other vehicles could use the lanes, but would have to pay a toll to do so. The amount of the toll would vary based on the amount of traffic in the express toll lanes, in order to keep the lane flowing freely. If traffic was slowing, the price would increase and if the lane were lightly used the price could be higher. General information about how express toll lanes work is available on the [WSDOT website](http://www.wsdot.wa.gov).

Earlier this fall, the Secretary of Transportation convened an expert review panel to answer several key questions about phasing, funding and feasibility of the express toll lane concept. A summary of the panel's findings are attached (Attachment A) to this memo. The full report and its appendices are available [on line](#).

An Executive Advisory Group made up primarily of Mayors from cities along the corridor including Kirkland Mayor Joan McBride. That group developed an interest statement in support of Express Toll lanes. The signed interest statement is attached (Attachment B) to this memo.

In order to move forward with express toll lanes, WSDOT needs authorization from the State Legislature. [HB 1382](#), sponsored by Rep. Clibborn, is the House version of such a bill. WSDOT is the lead on this legislation.



**The proposed express toll lane concept is a viable and appropriate strategy for improving mobility on the I-405/SR 167 corridor.**

The ERP found that WSDOT and partnering agencies have a comprehensive understanding of the purpose and need and associated policies, and they have generated a solution that meets these objectives, fitting within the context of the I-405/SR 167 corridor master plan and record of decision. Implementing this ambitious plan given the corridor complexities and scale of investment represents the next steps for WSDOT's Project Team. The ERP workshops and deliberations have helped inform the EAG and Project Team to the challenges that lie ahead. The ERP outlined a series of recommendations that can help assure successful completion of this project and generate the anticipated benefits in a timely manner.

1. Move forward with the funded Phase 1 project. (6 months)
2. Address regional policy for HOV degradation and migration to HOT3+. (6 months)
3. Seek FHWA tolling approval for corridor. (6 months)
4. Continue authorization of tolls on the SR 167 HOT Lanes Pilot Project. (1 year)
5. Continue developing the components comprising a mega project (project management plan, risk management plan, master schedule, phasing plan, and financial plan). Maintain momentum with the legacy Project Team. (1 year)
6. Leverage completed environmental documents by augmenting existing EAs to reflect managed lane/toll scenarios.
7. Address operating policies and design elements that support financing requirements. (1 year)
8. Make the I-405/SR 167 interchange a higher priority by mobilizing critical path items like ROW and value engineering. (2 years)
9. Address the funding gap through financing, user fees and delivery options as part of the financing and phasing plan. (2 years)
10. Complete an investment grade traffic and revenue study. (2 years)

Members of the ERP gained much insight into the conduct and collaborative spirit found among Project Team and EAG members, and sincerely appreciate the opportunity to have shared participation in this landmark endeavor.

**ERP Panelists Include:**

- **Academic and research:**  
**Ginger Goodin, ERP Chair**  
Texas Transportation Institute (TTI) of the Texas A&M University System in Austin, TX
- **Transportation Policy:**  
**Robert Poole**  
Independent national transportation consultant (Los Angeles, CA and Fort Lauderdale, FL)
- **Transportation Planning:**  
**Chuck Fuhs**  
Parsons Brinckerhoff in Houston, TX
- **Express Toll Operations:**  
**Jennifer Tsien**  
PBS&J/Atkins, working with the Florida Turnpike Enterprise in Orlando and Miami on the I-95 Express Lanes
- **Financing:** **Janet Lee**  
of Public Resources Advisory Group in New York, NY

**How do I get more information?**

The complete Expert Review Panel report and all report appendices are on the WSDOT website at: <http://www.wsdot.wa.gov/Tolling/EastsideCorridor/Library.htm>.

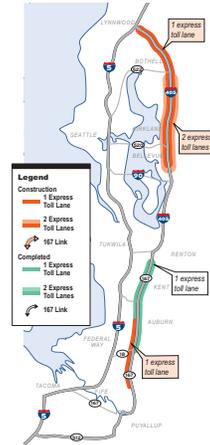
You may also contact:  
Craig Stone  
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Expert Review Panel Chair  
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**Moving forward with Phase 1 as a first step to implementing Option 4 makes sense.**

**Option 4 - Phase 1**



**Option 4 - Phase 2**



**I-405/SR167 Corridor Tolling Study Expert Review Panel Findings FINAL REPORT**

As directed by the Secretary of Transportation, a five-person Expert Review Panel (ERP) reviewed WSDOT's I-405/SR 167 Tolling Study in four general topics: policy, methodology, phasing, and financing. The ERP found that a corridor-wide express toll lanes system will keep the I-405/SR 167 vision moving forward and is a viable implementation strategy for the corridor master plan. The ultimate vision is to improve personal and freight mobility and reduce traffic congestion in a manner that is sustainable, flexible, safe, reliable, and cost-effective. Ideally, there would be financing to implement the entire corridor improvements at once, to realize all the benefits as soon as possible.

**1. POLICY** Is the state's strategic approach to implement express lanes on I-405/SR 167 viable, appropriate and consistent with emerging federal policy and current state and regional policies? **YES**

**The proposed express toll lane concept is a viable and appropriate strategy for improving mobility on the I-405/SR 167 Corridor.**

The ERP members performed a literature review of federal, regional and state tolling, HOV, and livability policies, concluding that the I-405/SR 167 Corridor express toll lanes are aligned with these principles.

**Federal Policy**

The ERP found the Tolling Study to be in line with the FHWA Tolling and Pricing Programs, including the Value Pricing Pilot program and SAFETEA-LU allowances for states to charge tolls on vehicles not meeting the established occupancy requirements to use an HOV lane. The ERP also found the Tolling Study also meets national livability principles.

**Regional Policy - Transportation 2040 Strategies**

The ERP found the Tolling Study meets congestion and mobility, environmental, and funding principles established by the accepted regional transportation plan, *Transportation 2040*.

**State Policy**

**Moving Washington - WSDOT's Strategic Plan to Fight Congestion**

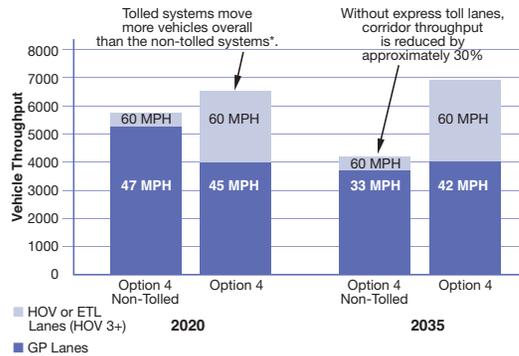
The ERP found the Tolling Study to be in line with the State's congestion relief goals, strategic planning, and policies for tolling and HOV lanes.



**2. METHODOLOGY:** Are the technical analytical measures and results supporting the Eastside Corridor Express Toll Lanes Report valid? Were the right tools applied to the analysis? Are the report results reasonable? Are outcomes reasonable to expect based on industry experience? **YES**

- The state used sound planning and engineering practices consistent with industry standards to analyze the operational performance of I-405/SR 167 corridor express toll lanes.
- The express toll lane proposal provides greater operational benefits than a general-purpose lane alternative with HOV lanes.
- The state will provide more detailed analyses and better definition of specific impacts on transit, freight and local streets through the project-specific environmental analysis that is currently under way.

**Speed and Vehicle Throughput Measures for I-405 NB from SR 167 to NE 8th Street during AM Peak Period**



\* Not only does the tolled investment move more vehicles overall than the non-tolled investment, it moves more vehicles at 60 mph. Comparing options, GP lane speeds do not change very much until you get to 2035, when GP lane speeds slow down to 33 mph with the non-tolled investment. Over time, GP lanes fill up and consequently slow down. Because express toll lanes manage traffic with dynamic tolls, they keep vehicles moving at 60 MPH well into the future.

**3. PHASING:** Is the proposed phasing plan to implement an express toll lane system sensible, and does it provide for logical, usable segments towards a 40+ mile I-405/SR 167 corridor system? **YES**

- Moving forward with Phase 1 as a first step to implementing Option 4 makes sense and provides logical first segments to complement the existing SR 167 HOT lane pilot project.
- A more detailed plan is needed for future phases.
- Do not lose sight of Option 4 as a corridor-wide solution in response to the master plan.

**Phasing Recommendations—  
Move forward with Phase I as a first step to a corridor-wide solution**

Option 4 represents a corridor-wide approach to implementing the master plan vision. To optimize overall corridor performance through successive phases, WSDOT, along with the corridor and agency stakeholders comprising the Executive Advisory Group (EAG), should take a broader, more strategic approach to implementing the balance of improvements in Option 4. To that end, and in parallel with Phase 1 implementation, WSDOT should lead the development of the following recommendations over time:

- Continue exemplary constituent outreach.
- Address regional policy for degradation on existing HOV lanes and migration to HOT3+.
- Reassess delivery opportunities, such as public-private-partnerships.
- Advance the I-405/SR 167 interchange soon after Phase 1.
- Develop a corridor-wide project management plan, risk management plan, and master schedule in keeping with mega project requirements.
- Give some consideration to a role for active traffic management.

**4. FINANCING:** Are the I-405/SR 167 Corridor Tolling Study financial assumptions, methods, and forecasts valid? **YES**

**Phase 1 provides necessary momentum and helps to fill the funding gap for future phases. An investment-grade analysis will be needed to produce a viable financial plan for a corridor-wide solution.**

- The State has available funding for Phase 1, including \$403 million from the 2003 and 2005 gas taxes, and \$67 million of savings within the corridor. Phase 1 toll revenues can be leveraged to meet a portion of the Phase 2 funding gap. The bonding capacity will depend on the risk constraints of the State. To help develop a viable, feasible finance plan, the State's risk constraints with respect to toll revenue bonds need to be determined. Toll revenue bonds, ranging from non-recourse to triple-backed toll revenue bonds, will not alone be sufficient to fill the total funding gap.
- Consideration should be given to funding models used successfully to finance other national mega projects, especially in today's stressed credit markets. Funding mosaics including toll concessions, combinations of toll revenue and availability payments, and partnerships with other funding entities (public and private) have been shown to be viable.
- Operating express toll lanes optimally for both congestion relief and financing needs will require openness to new operational tools and policies. Financing needs may drive different applications of operating policies than would be otherwise considered. WSDOT should consider strategies like photo enforcement of violators, carpool registration and 24/7 operations, etc. to maximize toll revenue and design considerations to minimize revenue leakage.

**Delivery, Phasing and Financing Strategies on Comparable National Express Toll Lane Mega Projects**

Project	Delivery Approach	Phasing	Financing*
I-15, San Diego 20 miles	Conventional design-bid-build	Multiple phases as corridor is extended and widened, opening 2008-2015	Conventional, augmented with local sales tax bonding
I-10, Houston 22 miles	Public-public partnership w/ toll authority	Single phase, opened in 2009	Toll authority contribution of \$250 million on \$2.6 billion
I-495, N Virginia 14 miles	Public-private partnership	Single phase, under construction	30% public match on \$1.3 billion
I-595, Ft Lauderdale 10.5 miles	Public-private partnership	Single phase, under construction	future public availability payments on \$1.7 billion
SH 183/I-820, Ft Worth 13.3 miles	Public-private partnership	Single phase, under construction	32% public match on \$1.8 billion
I-635/I-35E, Dallas, 15 miles	Public-private partnership	Single phase, under construction	22% public match on \$2.2 billion

\* Excluding financing-related costs

**HOT3+ is a practical carpool policy supporting sustainable traffic performance, transit-friendliness, and needed financing/revenue.**

- Phasing into this policy change has immediate and long-term benefits regardless of whether the overall improvements are implemented in incremental steps or as a corridor system.
- Conversion of existing HOV lanes to HOT3+, preferably in sync with Phase 1, provides a tolling experience base for the financial community, reducing the risk in financing the broader system and supporting future financing. It also supports logical phasing with a seamless corridor that limits peak hour bottleneck concerns at transition points.

**First Generation/Second Generation Toll Projects**

*Conceptually, this program is similar to projects implemented and under development in major metropolitan regions across the U.S. The I-405/SR 167 corridor express toll lanes represent both first-generation managed lanes whose primary focus is generally on traffic management, and second-generation managed lanes whose primary focus is generally on financing.*

**I-405/SR 167 Executive Advisory Group**  
**Interest Statement supporting Phase I of Express Toll Lanes on I-405**

**Action is needed in 2011**

As members of the I-405/SR 167 Executive Advisory Committee, we urge the adoption of legislation in 2011 authorizing the use of express toll lanes at the north end of I-405. This corridor is vital to the state's economy and construction of express toll lanes would create jobs, leverage user fees for accelerating corridor improvements, and provide long-term congestion relief. Failing to act in 2011 would indefinitely delay investment in the I-405 and SR 167 corridor and will negatively impact the transportation system, the Region's economy, and the quality of life for those citizens using the corridor.

**Keep the I-405 / SR 167 Corridor Flowing Smoothly to Support Economic Development**

- The combined I-405, SR 167 and SR 512 corridor forms the only north-south alternative to I-5 through Pierce, King and Snohomish counties. Serving 1.1 million trips per day, it is the second most heavily traveled corridor in the state with some areas suffering congestion up to 10 hours daily. In 2009, there were 767,821 jobs in communities along the corridor.
- This congestion slows both commuters and state freight connections accessing major commercial, manufacturing and warehouse facilities. It also hampers business development along the corridor, which continues to create jobs that provide an economic benefit to the Region and State.
- Despite the recent completion of major transportation investments in the corridor, an estimated \$2 billion in additional investment is needed to address remaining critical gaps in the 405 and 167 corridor, to combat mounting congestion and to meet the needs of the region's transportation system and support our economy.

**Find Solutions that Move People and Goods as Efficiently as Possible**

- We support authorization of the first phase of the express toll lanes to reduce congestion and help fund the full corridor improvements.
- When compared to adding only general purpose lanes, express toll lanes can move more people and vehicles through the corridor. That means both the driver in the general purpose lane and the driver choosing to use the express toll lane has a faster, more reliable trip.
- Express toll lanes provide options to people. It means the plumber trying to get to an appointment knows there is an option to get there on time, and it means a parent trying to get to a school play won't miss their child's performance because they were stuck in traffic.
- Express toll lanes also generate funding for remaining improvements in the corridor and enable the state to leverage user fees as a funding source.
- An independent Expert Review Panel recently concluded that WSDOT's express toll lanes analysis was sound and aligned with industry standards in the areas of Policy, Methodology, Phasing, and Financing.

**Key Policy Areas Requiring Additional Analysis**

- The Executive Advisory Group recognizes the decision to move from a 2+ to a 3+ occupancy requirement in this corridor has multiple implications and requires additional work, including more public outreach. However, we are convinced that options exist with express toll lanes and its associated technology that could meet the corridor's performance and revenue needs while providing benefit to two-person carpool users. To this end, WSDOT should conduct the necessary work to assess the revenue, performance and system implications of potential options to find the combination that works best.

- Corridor tolling improves traffic in the corridor, but also on adjacent facilities. Decisions regarding the use of express toll lanes should be accompanied with direction to WSDOT work with cities to minimize impacts and monitor city streets for effects, and recognize the need for geographically equitable decisions that do not disproportionately affect individual communities.
- WSDOT should develop a financial plan regarding express toll lanes to provide decision-makers with the most affordable financing options that will provide toll payers with the greatest benefit for their investment, including analysis of using the State's general credit and public private partnerships.

The I-405/SR 167 corridor needs to be fixed. Moving ahead with express toll lanes would create construction jobs, leverage user fees for accelerating corridor improvements, and provide long-term congestion relief. Taking action in 2011 will benefit the transportation system, the region's economy, and the quality of life for those citizens using the corridor. Our region cannot afford inaction.

In supporting express toll lanes authorization, we also urge the Washington State Department of Transportation to work closely with affected stakeholders and interests on the array of timing questions, financing questions and implementation issues associated with this program.

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Puget Sound Regional Council

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Suzette Cooke  
Mayor of Kent



I-405/SR 167 Direct Connector



**Legend**

- Phase 1 (Funded)
- Phase 2 (unfunded)
- Existing