

# **Interstate 90 Transportation Studies**

This appendix summarizes and compares the East Link Environmental Impact Statement (EIS) transportation analysis of the I-90 corridor across Lake Washington with two previous operational studies of HCT in this corridor. Using Interstate 90 (I-90) as the primary corridor for cross-Lake Washington high-capacity transit (HCT) in the Puget Sound region has been identified and evaluated for the last 40 years. The history of this analysis is summarized in Chapter 2 of this Final EIS and fully documented in the East Corridor High Capacity Transit Mode History report (August 2006). Coupled with this was an understanding, dating back to the 1960s, that rail would be the preferred transit service mode between Seattle and Bellevue. The 1976 I-90 Memorandum Agreement (amended in 2004) was one of the first documents that specified that the I-90 reversible center roadway be designed for and permanently committed to future transit use, including the potential to convert all or part of the transit roadway to fixed guideway. In the 1980s, the current Metropolitan Planning Organization (Puget Sound Council of Governments [PSCOG]) conducted various studies that recommended rail service on I-90. In 1996, with voter approval of Sound Move and with the formation of Sound Transit, the Long Range Vision (1996) identified the development of HCT across I-90 with future rail. Concurrently, the Trans-Lake Washington Study (Washington State Department of Transportation [WSDOT] and Sound Transit) analyzed HCT and found rail to be a viable option. Most recently, in July 2005, the Sound Transit Board identified light rail as the preferred mode across I-90 serving the East Corridor, and in July 2008, included the East Link Light Rail Project in the ST2 Program. Most recently, the East Link project received a finding of engineering and operational acceptability from Federal Highway Administration (FHWA) through the Project's Interchange Justification Report (IJR) process in June 2011. All of these studies have endorsed an objective of placing fixed guideway transit within I-90's center roadway. Implementation of this objective has included three operational analysis studies:

- I-90 Two-Way Transit and HOV Operations EIS (WSDOT, Sound Transit, Federal Highway Administration [FHWA]) This study considered five alternatives and confirmed the need for two-way transit/high-occupancy vehicle (HOV) operations across I-90.
- I-90 Center Roadway Study (WSDOT) This study considered three alternatives and confirmed the utility of the center roadway as an HCT facility with no center roadway access for vehicles.
- East Link Project EIS (Sound Transit) This project considered light rail alternatives on I-90 and potentially confirms the need for light rail transit in the center roadway linking the Eastside and Seattle.

The I-90 Two Way Transit and HOV Operations Project was conducted in the early 2000s with an adopted EIS in 2002. This study recommended an alternative (Alternative R-8A) to put HOV lanes on both the eastbound and westbound roadways between Mercer Island and Seattle. The next study, I-90 Center Roadway study, completed in 2006, evaluated various Alternative R-8A scenarios and a form of HCT on I-90. Lastly, the East Link EIS evaluates a similar set of scenarios as the I-90 Center Roadway study but with different assumed conditions.

With the quickly changing state of the transportation analysis practice, the evolution and use of analytical models, and shifting background assumptions, many elements in each of these three studies are different (see Table H-1 at the end of this appendix). Not only are the measures of effectiveness different but as a result of changing baseline parameters, results are different. Beginning with the first study, evaluation of the SR 520 bridge replacement was ongoing without any published environmental document and therefore no defined set of improvements were assumed. Since then, the two following studies both assumed some form of a new SR 520 facility. Further demonstrating the complexity in comparing the results from these studies, the I-90 Center Roadway Study did not any assume a form of congestion pricing, while the East Link project includes SR 520 tolling general-purpose vehicles and two-person HOV. This is based on the recent SR 520 Draft EIS, which assumes tolling on SR 520; this tolling has been incorporated into East Link's project assumptions.

Between the Center Roadway Study and the East Link Project, not only are the SR 520 tolling strategies different, but also the assumed use of the I-90 HOV lanes and travel demand modeling approaches vary. The East Link Project technically assume for the traffic analysis that Mercer Island residents would be eligible to use the HOV lanes between Seattle and Mercer Island with light rail in the reversible center roadway. Also while the two studies use the Puget Sound Regional Council travel demand model, the Sound Transit East Link project

incorporates the latest PSRC model update available when the analysis began in 2007, and the project's transit usage is derived from Sound Transit's transit ridership model. Review the table (Table H-1) below for a further list of key assumptions and methods between each of these three studies.

#### References

Sound Transit. 1996. Regional Transit Long-Range Vision. Seattle, WA.

Sound Transit. 2006. East Corridor High Capacity Transit Mode Analysis History Report.

Washington State Department of Transportation (WSDOT). 2004. *Amendment to the 1976 I-90 Memorandum Agreement*.

Washington State Department of Transportation (WSDOT) and Sound Transit. 2004. *I-90 Two Way Transit and HOV Operations: Volume I, Final Environmental Impact Statement*. May 21, 2004.

Washington State Department of Transportation (WSDOT). 2006. I-90 Center Roadway Study.

TABLE H-1 Comparison of I-90 studies

	I-90 Two Way Transit and HOV Operations Project	Center Roadway Study	East Link Project	Comments
Analysis Parameters	s			
Demand Model(s)	PSRC, 2001	PSRC, 2005	PSRC, 2006 and Sound Transit Ridership Model	Each study utilized the most recent model versions from the PSRC.
Software Tools	FREQ	VISSIM	VISSIM	
I-90 Study limits	Bellevue Way to I-5 (WB) I-5 to I-405 (EB)	Western terminus to east of I- 405	Western terminus to east of I-405	
Analysis Years	2005/2025	2005/2015/2030	2007/2020/2030	
Analysis Periods	AM and PM Peak Hour	AM and PM Peak Periods	AM and PM Peak Periods	
Project & Traffic As	sumptions			
SR 520	No capacity expansion	6 lane facility	6 lane facility with tolling	
I-405	No capacity expansion	TPA and Nickel Projects	TPA and Nickel Projects	
I-90 HOV Eligibility	2+ persons until 2025 when 3+ persons. Alternative R8A would remain 2+ persons.	2+ persons	2+ persons and Mercer Island residents in Build (light rail) alternative only	For East Link Project, the traffic analysis assumed Mercer Island single occupant vehicles would be able to use the HOV lanes in both directions of I-90 between Seattle and Island Crest Way to demonstrate that it does not affect the results of the East Link analysis and represents a worst case condition. This assumption does not represent approval of SOVs using the outer roadway HOV lanes or the eastbound left-side off-ramp to Island Crest Way. Any changes to the HOV lane eligibility such as tolling or managed lanes or Mercer Island single occupant vehicle use would be addressed in a future analysis, approval and agreement.
Key I-90 Operations	Measures of Effectiveness			
	- Density/Level of Service - Travel Times - Person Throughput - Duration of Congestion	- Travel Time (by modes) - Vehicle Throughput	- Travel Time (by modes) - Person and Vehicle Throughput and Capacity - Density/Level of Service	As these studies have different purposes, the measures of effectiveness changed. Comparable results are documented below.

TABLE H-1 Comparison of I-90 studies

	I-90 Two Way Transit and HOV Operations Project	Center Roadway Study	East Link Project	Comments
Key Results				
2030 AM and PM Hour I-90 Vehicle Throughput (across Lake Washington)	N/A	Non-Exclusive: AM Peak: 12,200 PM Peak: 12,900 Exclusive: AM Peak: 11,100 PM Peak: 11,900	No-Build: AM Peak: 13,900 PM Peak: 14,450 Build: AM Peak: 13,550 PM Peak: 13,550	There is about a 15 percent difference in throughput between the two studies. This is attributed to the different HOV lane assumptions and SR 520 tolling. For comparison purposes, the differences between the Non-Exclusive to Exclusive and No-Build to Build conditions in the two studies are similar.  This measure only compares vehicles because person throughput was not analyzed for the Center Roadway Study. Based on the East Link analysis, person throughput is higher in both AM and PM peak periods with the Build alternative.  Westbound and eastbound throughput is combined in these values.
2030 General- Purpose Travel Times between Seattle and Eastgate (in minutes)	R8A Alternative: AM Peak: 9 / 10 (WB/EB) PM Peak: 12 / 9 (WB/EB)	Non-Exclusive: AM Peak: 35 / 12 (WB/EB) PM Peak: 38 / 10 (WB/EB) Exclusive: AM Peak: 41 / 16 (WB/EB) PM Peak: 38 / 12 (WB/EB)	No-Build: AM Peak: 25 / 21 (WB/EB) PM Peak: 29 / 19 (WB/EB) Build: AM Peak: 22 / 20 (WB/EB) PM Peak: 23 / 17 (WB/EB)	Travel times between the Center Roadway study and East Link vary as assumptions and existing data and software calibration techniques vary.  A factor contributing to travel time differences is the location of the ends points where the travel times are measured from. The largest difference between the two studies is in the eastbound direction where the study limits in East Link are slightly over 1.75 miles longer than in the Center Roadway Study.  It was also assumed that Mercer Island traffic would be eligible to use the HOV lane in the East Link project which would provide some travel time improvements for the general-purpose.  Travel times for the I-90 Two-Way transit and HOV project are for 2025.

MEMORANDUM AGREEMENT

City of Seattle
City of Mercer Island
City of Bellevue
King County
Metro
Washington State Highway Commission

December, 1976

#### MEMORANDUM AGREEMENT

WHEREAS, the cities of Seattle, Mercer Island and
Bellevue; the Municipality of Metropolitan Seattle (hereinafter "Metro"); and King County by and through their respective councils and the Washington State Highway Commission
(hereinafter "the Commission") desire to resolve the disputes
which have surrounded the plans to construct an improved
Interstate 90 (I-90) facility between Interstate 405 (I-405)
and Interstate 5 (I-5); and

WHEREAS, there is a desire to create an environment of cooperation in which agreement is reached among all parties concerned relative to the design of the I-90 facility and related transportation projects; and

WHEREAS, the decisions of the Ninth Circuit Court of Appeals of the United States District Court for the Western District of Washington have required that all alternatives to the proposed highway be studied; and

WHEREAS, all parties hereto state that they have reviewed the proposed highway development and all currently available alternatives to it, including the option of withdrawal and substitution; and

WHEREAS, the I-90 facility from I-405 to I-5, when constructed, must contain all of the social and environmental amenities included in the Commission's previously adopted plans and modifications thereof contained in the Findings and Order of the Board of Review in order to be acceptable to all jurisdictions; and

WHEREAS, the parties believe that construction of the agreed upon I-90 facility will be of definite advantage to all four local jurisdictions because it will provide an excellent transit way between Seattle, Mercer Island and Bellevue; it will eliminate the dangerous three-one reversible lane operation presently employed in that corridor; it will provide improved truck access from the east to Seattle's south industrial/commercial area and port; it will provide improved capacity in the off-peak direction; it will probably provide an improved facility sooner than other approaches; it will provide access to and from I-90 and I-5 south of downtown Seattle eliminating traffic presently going through Beacon Hill residential areas; it will provide many jobs for our citizens during the period of construction; and it will repair the corridor and help knit together the communities now split by U.S. 10 west of the Mount Baker ridge and across Mercer Island; and

WHEREAS, the parties have concluded that withdrawal and substitution is not a desirable option because it would double the local matching monies required and because Mercer Island and Seattle find unacceptable a major highway/transit. I-90 facility without extensive environmental amenities which amenities might not be funded under the withdrawal and substitution alternative; and

WHEREAS, it is in the best interest of the citizens of the Puget Sound area and the State of Washington that this segment of I-90 be completed in an expeditious manner; and WHEREAS, all jurisdictions believe that sufficient public hearings have been held on the project and that no further hearings should be held unless legally required; and

WHEREAS, the parties desire to identify and establish a reasonable assurance of construction of certain priority public transportation facilities which are contained in the 1990 Transportation System Plan for the Central Puget Sound Region and which serve to ensure that I-90 functions as an integral part of the region's transportation system; and

WHEREAS, the parties desire to ensure that these future improvements are consistent with the goals and policies for regional development presently under consideration by the Puget Sound Council of Governments (hereinafter "PSCOG") and the subsequent subregional land use element of the Regional Development Plan for the Central Puget Sound Region;

NOW THEREFORE, in consideration of the mutual and reciprocal benefits accruing to each of the parties hereto, it is hereby agreed as follows:

- The Cities of Seattle, Mercer Island and Bellevue; King County; Metro and the Commission support the construction of a facility which will accommodate no more than eight motor vehicle lanes which are arranged in the following general manner:
  - (a) Three general-purpose motor-vehicle lanes in each direction shall be constructed between the South Bellevue Interchange and I-5. In addition, there will be provision for necessary weaving lanes and possible local access across the East Channel, to be determined in accordance with paragraph 1(e) below.

- (b) The facility shall also contain provision for two lanes designed for and permanently committed to transit use. The eastern and western termini for these lanes shall be designed to facilitate uninterrupted transit and carpool access to downtown Seattle and to downtown Bellevue in accordance with paragraph 3 hereinbelow. The design shall be such as to accommodate the operation of the two transit lanes in either a reversible or in a two-way directional mode.
- (c) The facility shall be designed in a manner which, as much as practicable, minimizes the width of the roadway and the taking of land.
- (d) To the extent practical, the facility shall provide priority by-pass access for local transit to the general purpose motor-vehicle lanes.
- (e) The parties agree that the transit lanes shall operate initially in a two-way directional mode, at no less than 45 mph average speed, with the first priority to transit, the second to carpools, and the third to Mercer Island traffic. In the direction of minor flow, the transit lane shall be restricted to busses. The parties further agree that the initial operation of the East Channel bridge shall consist of only three general purpose auto

lanes in each direction in addition to the transit lanes. In addition, there will be an acceleration lane from the South Bellevue Interchange which will terminate prior to the exit ramp at the East Mercer Interchange. The subsequent mode of operation of the facility shall be based upon existing needs as determined by the Commission in consultation with the affected jurisdictions, pursuant to paragraph 14 of this agreement. That determination will consider efficient transit flow, equitable access for Mercer Island and Bellevue traffic, and traffic-related impacts on Seattle.

- The I-90 facility shall be designed and constructed so that conversion of all or part of the transit roadway to fixed guideway is possible.
- 3. The parties recognize that the planning, design and construction of efficient access at the eastern terminus and western terminus of this facility will enhance the operation of I-90 as a regional transportation facility. Therefore, the Commission, jointly with Seattle, Mercer Island, Bellevue, King County, and Metro, as their respective interests and responsibilities may dictate, shall immediately upon execution of this agreement undertake the development of the necessary plans and designs for, and shall further proceed, with

the required public hearings and the preparation of the necessary environmental impact statements in order to obtain maximum eligibility for Federal Interstate funding for the construction of the following projects:

- (a) Transit access from I-90 to downtown Seattle:
- (b) Transit access from I-90 to I-405 and to the Bellevue central business district;
- (c) Transit and general-purpose access from I-90 to the King County Stadium area; and
- (d) Transit and general-purpose access from I-90 to arterials serving the north Duwamish industrial/commercial area and the Seattle waterfront;
- (e) Transit access from I-90 transit lanes to I-5;
  For any of the above projects or portions thereof which are not eligible for Federal Interstate funding, the Cities, the County and Metro with full support of the Commission, shall seek any available funding for such projects and shall make reasonable effort to complete the construction thereof prior to the completion of I-90.
- 4. The parties further agree, except as otherwise provided in this agreement, that the modified design of the facility will preserve and incorporate all of the provisions for community amenities and for reducing adverse environmental impacts as contained in limited access plans adopted by the State Highway Commission for
  - (a) the segment of I-90 from the West Shore of Mercer Island to the East Channel Bridge and for

- the segment from I-5 to the West Shore of Mercer Island (modified by the Findings and Order of the Board of Review dated March 26, 1973, and the Stipulation to Resolve Certain Issues incorporated therein, including but not limited to the provisions for a full lid tying affected Seattle neighborhoods together. The lid shall be constructed to permit park and/or two-story residential or business construction (not industrial uses) to take place on top of the highway between the Mt. Baker tunnel and 23rd Avenue South. Additional loads may be acceptable following specific agreement between the Commission and the City of Seattle. The Commission agrees to fund the landscaping of the lid and the maintenance thereof except as may be agreed to by other parties.
- 5. The parties agree that the design of the entire facility shall include the following additional features:
  - (a) a transit station permitting transfer of transit passengers at Empire Way South or 23rd Avenue South as more particularly set forth in the Findings and Order of the Board of Review.
  - (b) a direct Highway connection for Rainier Valley to and from the east.
  - (c) the Commission's plan for preserving access between Seattle communities over adjacent local city streets shall include improvements of South Norman Street between 20th Avenue South and 23rd Avenue South to provide access to the Judkins neighborhood,

- this being done in lieu of the development of South Judkins Street as provided in the Commission's adopted plan as modified by the Findings and Order of the Board of Review.
- (d) a continuous park/pedestrian link between Judkins Park and the lid over I-90 west of the Mt. Baker Ridge Tunnel.
- 6. The Commission agrees to participate jointly with the City of Seattle in an I-90 corridor area planning study for the purpose of designing alternative means of redeveloping areas adjacent to the I-90 project in Seattle. The extent of such study shall be defined and agreed to by Seattle and the Commission, and to the extent that the study relates to the effects of the I-90 facility in the corridor, it shall be funded by the Commission.
- 7. At the option of the local jurisdictions to be exercised within a reasonable time, the Commission shall transfer to the appropriate jurisdiction fee title of all state-purchased lands acquired for the I-90 project but which are outside the finally determined right-of-way lines of I-90 to the fullest extent and at the lowest cost legally possible.
- 8. The parties hereto agree that they will proceed under established legal processes, including regional trans-portation planning procedures of PSCOG and consistent with the approved Regional Development Plan of PSCOG, to determine those projects which are of highest priority in the Transportation System Plan and the Transportation

Improvement Program as the Plan and Program apply to the King County subregion. The parties hereby agree that projects (a) through (g) listed below are of highest priority and shall so indicate in the process of establishing the King County Subregional Transportation Improvement Program, the Regional 1990 Transportation System Plan, and Metro's Comprehensive Public Transportation Plan. The Commission and Metro shall work with the local jurisdictions in undertaking location and design studies for these projects at the earliest possible date commensurate with state, regional, metropolita: and local planning and priority programming practices. Projects to be considered through these processes shall include, but not be limited to, the following regional components of PSCOG 1990 Transportation Plan:

- (a) Transit/carpool lanes and/or Surveilance Control and Driver Information Systems (SC&DI) on I-5 from I-405 at Tukwila to the King County Snohomish County line:
- (b) The park-and-ride lots and flyer stops contained in the approved 1980 Plan as may be modified by Metro:
- (c) Provision for a busway or exclusive transit/carpool lane(s) as a part of the SR 99 and SR 509 corridor including a crossing of the First Avenue South Bridge, consistent with Metro's transition planning for this corridor;

- (d) Provision for a busway or exclusive transit/carpool lane(s) and/or SC&DI as a part of SR 520 from I-5 to I-405;
- (e) Redesign, in a manner acceptable to the City of Seattle, of the lanes where SR 520 meets I-5 and at the Mercer Street egress from I-5 in order to improve transit flow and reduce the congestion on I-5 between Mercer Street and Roanoke Street;
- (f) Provision for a busway or exclusive transit/carpool lane(s) and/or SC&DI as a part of I-405 from Bothell to Renton
- through Bellevue which shall also include provision for a freeway flyer stop and a park-and-ride facility on I-405 between Main Street and N.E. 8th in Bellevue and provision for I-405 access improvements to the Bellevue central business district as determined by the Joint State Legislative/Highway Commission and City of Bellevue I-405 Access
- 9. The parties agree that the I-90 facility should be operated in such a manner as to encourage growth and development in the presently urbanized areas of King County rather than in undeveloped areas. Therefore, the Commission shall conduct a study in coordination with the parties to this agreement to determine the feasibility and means of metering and controlling local access to I-90 east of Bellevue during peak hours.

- 10. Seattle, Bellevue, Mercer Island, King County and Metro agree that dedicated public transit rights-of-way through downtown Seattle and through downtown Bellevue are compatible with the public transportation plans of this area and are desirable to be implemented in conjunction with the completion of the I-90 facility.
- impact statement, another review team comprised of representatives chosen by each of the parties to this agreement shall be established to further monitor and advise the Commission on the development of the design and the implementation of the entire I-90 facility and the I-90 transit access provisions listed in paragraph 3 above. In addition, review teams including elected officials and citizens from Seattle, Bellevue, Mercer Island and King County may be established to further monitor and advise the Commission upon the implementation and design of the I-90 facility.
- 12. Upon execution of this agreement, the Commission becomes responsible for the design and construction of the facilities described in this agreement that can be funded with federal interstate funds as well as any other facilities referred to in this agreement for which the Commission, by law, has the sole responsibility; and the several parties to this agreement become responsible for the design and construction of the remaining facilities referred to in this agreement; provided that all such undertakings are subject to available funding and legal and procedural requirements. Seattle,

- Bellevue, Mercer Island, King County and the Commission agree to process any permits required for construction of the agreed upon facilities in a timely and expeditious manner, as provided by law.
- by the Commission is tentative pending review of (1)
  the final environmental impact statement to be filed in
  connection with the project and (2) the hearing record
  being prepared in connection with the corridor-design
  hearing held in January and February 1976. It is also
  understood that the parties have reached this agreement
  under the assumption and on the condition that the
  funding for the project, in accordance with the modified design of said project as referred to in paragraphs 1, 2 and 4 and those eligible portions under
  paragraph 3 which will qualify for Federal Aid Interstate monies, is approved prior to the initiation of
  construction and shall be funded from federal and state
  funds, except as agreed to by the affected jurisdiction(s).
- 14. This agreement represents substantial accommodations by the parties of positions held heretofore. Such accommodations were made in order to achieve a unanimous agreement upon which to proceed with the design and construction of I-90 and related projects. This agreement, therefore, sets forth the express intent of the existing governing bodies that the parties to this agreement understand that their respective governing bodies are limited in the degree to which they can bind their successors with respect to the exercise of govern-

mental powers vested in those governing bodies by law. Accordingly, the Commission will take no action which would result in a major change in either the operation or the capacity of the 1-90 facility without prior consultation with and involvement of the other parties to this agreement, with the intent that concurrence of the parties be a prerequisite to Commission action to the greatest extent possible under law.

Dated this 2/st day of December, 1976

COUNTY OF KING	CITY OF SEATTLE
By: Soft Soft Comment	By Malon I Markon Colone
MUNICIPALITY OF METROPOLITAN	CITY OF MERCER ISLAND
SEATTLE	- 001
By: Clary Donasth.	By: Day Wens
WASHINGTON STATE HIGHWAY	CITY OF BELLEVUE
COMMISSION	
By: Wand Carl	By: J. 7. Vanile

## AMENDMENT To The I-90 MEMORANDUM AGREEMENT

AUGUST, 2004

Central Puget Sound Regional Transit Authority
City of Bellevue
City of Mercer Island
City of Seattle
King County
Washington State Transportation Commission

# August 2004 Amendment to 1976 Memorandum Agreement

WHEREAS, the Cities of Seattle, Mercer Island, and Bellevue; King County; by and through their respective governing bodies and the Washington State Transportation Commission (hereinafter "the Commission") desire to amend the existing Memorandum Agreement (the Agreement) signed by all parties in 1976 to reflect current and future conditions and demands along the Interstate 90 (I-90) corridor between Bellevue and Seattle crossing Lake Washington via Mercer Island (the "I-90 Corridor"), including increased travel growth, changes in travel patterns, and a reduction in transit reliability; and

WHEREAS, there is a desire among the parties and Sound Transit to add Sound Transit as the Regional Transit Authority with responsibility for High Capacity Transit as a signatory to this 2004 Amendment, but not to the underlying 1976 Agreement, given its role in the region generally and the I-90 Corridor specifically; and

WHEREAS, all parties recognize the I-90 facility as a key interstate corridor connecting the East and West Coasts, Eastern and Western Washington, and recognize its importance as a critical link between major urban centers in King County, and the only means of mobility to and from Mercer Island; and

WHEREAS, all parties acknowledge I-90 as a critical transportation link vital to the economy of the region and the state by providing for the movement of people and goods within the region; and

WHEREAS, all parties agree that the current configuration and operation of I-90 between Bellevue, Mercer Island, and Seattle does not address today's demands and expected growth in the region; and a new configuration that helps move more people and goods is imperative to manage congestion on what is the busiest east-west corridor in the region; and

WHEREAS, all parties recognize the importance of the environment and thereby seek to preserve and enhance its quality; and

WHEREAS, all parties agree that the ultimate configuration for I-90 between Bellevue, Mercer Island, and Seattle should be defined as High Capacity Transit in the center roadway and HOV lanes in the outer roadways; and further agree that High Capacity Transit for this purpose is defined as a transit system operating in dedicated right-of-way such as light rail, monorail, or a substantially equivalent system; and

WHEREAS, all parties agree to work cooperatively to secure funding at local, regional, state, and federal levels to fully fund both parts of the ultimate configuration of the "I-90 Corridor" (HOV lanes on the outer roadway and High Capacity Transit in the center roadway); and

WHEREAS, all parties have studied many alternatives as participants on the Steering Committee for Sound Transit and the Washington State Department of Transportation's (WSDOT) I-90 Two-Way Transit and HOV Operations Project (Project), and all parties agree that building HOV lanes on the outer roadways as identified as Alternative R-8A as set forth in the April 25, 2003 Draft Environmental Impact Statement (DEIS) prepared for the project, is an essential first step toward achieving the ultimate configuration; and

WHEREAS, all parties acknowledge that the ultimate configuration is consistent with the region's transportation action plan, Destination 2030, which focuses on integrated multi-modal transportation systems; describing facilities that weave parts of the region together by crossing county or city boundaries or access major regional activity centers as critical to the region's transportation system; and specifically calls for safety, maintenance, and capacity investments on I-90 between I-5 and I-405; and high capacity transit in the "I-90 Corridor" between Seattle and Bellevue; and

WHEREAS, all parties agree that I-90 is an integral piece of the regional bike network, providing the only bicycle-pedestrian path across Lake Washington; that the preferred alternative maintains a ten foot bicycle lane as part of providing optimal multimodal travel in the I-90 corridor for cyclists and pedestrians; and

WHEREAS, the Cities of Bellevue, Mercer Island, and Seattle; King County; Sound Transit, and the Washington State Transportation Commission, as participants of the I-90 Steering Committee, having conducted a thorough evaluation of the performance and benefits of the alternatives, agree that Alternative R-8A has been shown to improve regional mobility by providing reliable and safe two-way transit and high occupancy vehicle operations on I-90 between Bellevue, Mercer Island, and Seattle, and mobility for Mercer Island, while minimizing impacts to the environment, to other users, and to other transportation modes; and is an essential first step toward implementing High Capacity Transit in the I-90 corridor;

NOW THEREFORE BE IT RESOLVED, the parties to this 2004 Amendment agree to the following principles regarding future development of the I-90 Corridor between Seattle and Bellevue:

- 1. Alternative R-8A with High Capacity Transit deployed in the center lanes is the ultimate configuration for I-90 in this segment;
- 2. Construction of R-8A should occur as soon as possible as a first step to the ultimate configuration;
- 3. Upon completion of R-8A, move as quickly as possible to construct High Capacity Transit in the center lanes;
- Commit to the earliest possible conversion of center roadway to two-way High Capacity Transit operation based on outcome of studies and funding approvals.
- 5. Minimize construction impacts to the existing bicycle/pedestrian path, and maintain safe access to the path during construction;

- 6. Maintain the existing width of the bicycle/pedestrian path and to install screen treatments to create a safe barrier between the path users and vehicular traffic; and
- 7. To the extent of any loss of mobility to and from Mercer Island based on the outcome of studies, additional transit facilities and services such as additional bus service, parking available for Mercer Island residents, and other measures shall be identified and satisfactorily addressed by the Commission, in consultation with the affected jurisdictions pursuant to paragraph 14 of the Agreement, prior to the time the center roadway converts to High Capacity Transit.

By July Executive

City of Mercer Island

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City of Seattle

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Washington State

Transportation Commission

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Central Puget Sound Regional Transit Authority

By: John

Its: Chiy Executive Officer



### STATE OF WASHINGTON

December 22, 2006

The Honorable Bryan Cairns, Mayor City of Mercer Island 9611 SE 36<sup>th</sup> Street Mercer Island, WA 98040

Dear Mayor Cairns:

Thank you for your letter of November 13 concerning access for single occupancy vehicles from Mercer Island to the HOV lane on I-90 after conversion of the center roadway to high capacity transit.

The Governor's Office and the Washington State Department of Transportation intend to honor our understanding of the agreement reached by the signatories regarding Mercer Island access to HOV lanes. We have concluded that when the center roadway is converted to high capacity transit, Mercer Island residents should be permitted HOV lane access until the HOV lanes are converted to high occupancy toll (HOT) lanes or another tolling regimen. It is important to emphasize that we do not know how long the lanes would operate as HOV lanes, and it is possible that those lanes may be operated as tolled lanes from the time of or even before the conversion of the center roadway occurs.

We would also note that other issues apart from Mercer Island considerations are involved in HOV lane access for Mercer Island. An equitable outcome must take into account the reasonable expectations of all the users of the corridor, including users of transit and other high occupancy vehicles who must be assured that the lane meets performance standards. In addition, the access and mobility opportunities provided for Mercer Island residents include new high capacity transit uses of the corridor as well as the private passenger vehicle uses.

Thank you again for your letter. Please let us know if you have additional questions or concerns.

Sincerely,

Tom Fitzsimmons, Chief of Staff

Office of the Governor

Doug MacDonald, Secretary Washington State Department of Transportation

Dayler B Mr David



U.S. Department of Transportation

Federal Highway Administration

Washington Division

Suite 501 Evergreen Plaza 711 South Capitol Way Olympia, Washington 98501-1284 (360) 753-9480 (360) 753-9889 (FAX) http://www.fhwa.dot.gov/wadiv

June 22, 2011

HDE-WA/560/WA 624

Ms. Paula J. Hammond Secretary of Transportation Department of Transportation Olympia, Washington

Attention: Barb De Ste Croix

Sound Transit – I-90 East Link Project Final Interchange Justification Report

Dear Ms. Hammond:

This letter is in response to your June 20, 2011, request for a finding of engineering and operational acceptability for the Sound Transit I-90 East Link Interchange Justification Report (IJR). The project, in part, incorporates interchange modifications and closures within the I-90 center roadway to allow Sound Transit's East Link light rail project to use the I-90 reversible express lanes from MP 1.99 to MP 9.44. In addition, part of this project, incorporates comprehensive changes to I-90, including HOV access and lane modifications resulting from the I-90 Two-Way Transit and HOV Operations Project that form the ultimate configuration of I-90 between the cities of Seattle and Bellevue. We have compared the final IJR to previous drafts and find that it satisfies the requirements of the FHWA Interstate Added Access Policy.

Based on an engineering and operations review, the access request is considered acceptable. However; the general purpose left-hand on ramp connecting Island Crest Way to the WB I-90 HOV lane is a safety issue. The AASHTO Greenbook, *A Policy on Geometric Design of Highways and Streets*, discourages the use of left-hand on and off ramps. This access point should be monitored and closed to single occupant vehicles use if significant collision frequency and severity begin to occur. In addition, ramp metering must continue at this location.

If there are no major changes in the design of the proposal, final approval may be given upon the completion of the environmental process. Please submit a request for final IJR approval at the completion of the NEPA process.

Sincerely,

DANIEL M. MATHIS, P.E. Division Administrator

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By: Donald A. Petersen

Division Safety/Design Engineer

Enclosure

cc: Ed Barry, MS TB-85, LeRoy Patterson, MS 47336