

**SOUND TRANSIT  
STAFF REPORT**

**MOTION NO. M2008-04**

**Contract Amendment for Additional Civil Engineering Design Services for  
Central Link Initial Segment and Airport Link**

<b>Meeting:</b>	<b>Date:</b>	<b>Type of Action:</b>	<b>Staff Contact:</b>	<b>Phone:</b>
Finance Committee	1/17/08	Discussion/Possible Action to Recommend Board Approval Action	Ahmad Fazel, Link Executive Director	(206) 398-5389
Board	1/24/08		Ron Lewis, Airport Link Project Director	(206) 689-4905
			<b>Rod Kempkes, Airport Link Design Manager</b>	(206) 398-5374

<b>Contract/Agreement Type:</b>	<input checked="" type="checkbox"/>	<b>Requested Action:</b>	<input checked="" type="checkbox"/>
Competitive Procurement	<input checked="" type="checkbox"/>	Execute New Contract/Agreement	
Sole Source		Amend Existing Contract/Agreement	<input checked="" type="checkbox"/>
Agreement with Other Jurisdiction(s)		Budget Amendment	
Real Estate		Property Acquisition	

**PROJECT NAME**

Central Link Initial Segment and Airport Link

**PROPOSED ACTION**

Authorizes the chief executive officer to execute a contract amendment with Hatch Mott MacDonald to provide additional design support services during construction and additional civil and architectural design services in an amount not to exceed \$2,120,000 for a new total authorized contract amount not to exceed \$31,951,305, which includes reimbursable costs to Sound Transit from third parties for betterment work in the amount of \$6,399.

**KEY FEATURES of PROPOSED ACTION**

- Under this proposed amendment, Hatch Mott MacDonald (HMM) will provide additional services for a total amount not to exceed \$2,120,000, which includes:
  - 1) Design support during construction of the Tukwila Freeway Route (C755) contract under the Initial Segment in an amount not to exceed \$20,000. Review of shop drawings and other submittals are now substantially complete and this amendment will provide a modest allowance to cover issues which may arise during the final phases of construction and closeout of the contract.
  - 2) Design support during construction of the C410, C420, and C430R contracts, the C433 station finishes package, and other Airport Link design packages in an amount not to exceed \$1,900,000. During the course of construction, staff determined that the present level of the design support services is insufficient to address the quantity of submittals and requests for information from the contractor, and the accelerated

review and response to select submittals for the SeaTac/Airport Station and other remaining Airport Link construction.

3) Civil and architectural design under the Airport Link project in an amount not to exceed \$200,000. During the course of completion of the civil and architectural redesign of the SeaTac/Airport Link Station, refinements to the redesign schedule and value engineering studies to further reduce the overall cost while maintaining the station's functionality impacted the efficiency of the design team's effort. This additional funding will be used to complete a set of contract documents reflecting final design refinements and constructability reviews. The remaining final design work will be completed in the first quarter of 2008.

- Design services during construction include, but are not limited to: reviewing submittals; responding to requests for information from the contractor; preparing design modifications required by differing field conditions; providing design change management; and coordination with third parties.
- Design services during construction will be provided by HMM on an on-call basis as determined necessary by Sound Transit staff. Services to be provided will be negotiated by staff and will be consistent with the project scope of work contained in the contract.
- Sound Transit's share of this contract will be \$31,944,906 out of the not to exceed contract amount of \$31,951,305. The remaining capacity under the contract total is for betterments.

**BUDGET IMPACT SUMMARY**

Current Project Phase: Construction  
 Projected Completion Date: 2009

Action Outside of Adopted Budget:	✓	Comments on Checked Items
This Project		
This Phase	✓	Proposed action requires funding from surplus budget within other phases of the Airport Link project
This Task	✓	Proposed action requires funding from unallocated contingency within the final design phase of the Initial Segment project
Budget Amendment Required		

Key Financial Indicators:	✓	Comments on Checked Items
Contingency Funds Required		
Funding required from other parties (other than what is in financial plan)		

Not checked = action is assumed in current Board-adopted budget. No budget action or adjustment to financial plan required.

**BUDGET and FINANCIAL PLAN DISCUSSION**

The Adopted 2008 Budget for the Initial Segment is \$2.07 million. Within that amount:

- \$3,948,217 has been set aside for Design Support during Construction (DSDC) for construction contract C755 Tukwila Freeway Route within the final design phase. Since this budget line item is fully committed, approval of the proposed action would result in a

budget shortfall of \$20,000, which would be funded from final design unallocated contingency.

- Within the final design phase, \$722,017 has been set aside for unallocated contingency. Should the proposed action be approved, that amount would be reduced by \$20,000, leaving a remaining balance of \$702,017.

The Adopted 2008 Budget for Airport Link is \$243.6 million. Within that amount:

- \$9,316,951 has been set aside for Sound Transit's share of Civil Final Design in the final design phase. When added to current commitments of \$9,363,667, the proposed action would increase this amount by up to \$200,000 to a revised total commitment not to exceed \$9,563,667, and result in a budget shortfall of \$246,716, which would be funded from unallocated contingency within the final design phase and surplus budget from other phases of the Airport Link project.
- \$1,793,282 has been set aside for DSDC Civil in the final design phase. When added to current commitments of \$1,515,060, the proposed action would increase this amount by up to \$1,900,000 to a revised total commitment of \$3,415,060, and result in a budget shortfall of \$1,621,778, which would be funded from surplus budget from other phases of the Airport Link project.
- Within the final design phase, \$57,701 has been set aside for unallocated contingency. Should the proposed action be approved, that amount would be reduced by \$57,701, leaving no remaining balance.

The current authorized not to exceed value for the Hatch Mott MacDonald contract includes betterment work for which Sound Transit was reimbursed by third parties in the amount of \$6,399. Sound Transit's share of this contract will be \$31,944,906.

The proposed action requires funding from surplus budget in other phases of the Airport Link project, which includes the project contingency of \$6.0 million. A budget amendment to the project is in process, and is expected to be submitted for board consideration in the near future. It is otherwise consistent with the Adopted 2008 Budget, and is affordable within the agency's long-term financial plan and subarea financial capacity. The action will have no new revenue impact on Sound Transit.

## BUDGET TABLE

**Action Item:** Hatch Mott MacDonald (provide additional design support services during construction for the Initial Segment project; and civil and architectural design, and design support services during construction for the Airport Link project)

(Year of Expenditure \$000)

<b>Initial Segment</b>		Adopted 2008 Budget (A)	Committed To Date (B)	This Action (C)	Total Committed & Action (D)	Uncommitted (Shortfall) (E)
1	Agency Administration	193,274	147,034		147,034	46,240
2	Preliminary Engineering	33,310	33,310		33,310	-
3	Final Design	147,213	146,491	20	146,511	702
4	Right of Way	208,396	204,426		204,426	3,970
5	Construction	1,191,768	1,152,337		1,152,337	39,431
6	Construction Services	100,317	96,977		96,977	3,341
7	Third Party Agreements	63,414	62,543		62,543	871
8	Vehicles	132,307	131,799		131,799	508
9	<b>Total Current Budget</b>	<b>2,070,000</b>	<b>1,974,917</b>	<b>20</b>	<b>1,974,937</b>	<b>95,063</b>
<b>Final Design Phase Detail</b>						
10	DSDC C755	3,948	3,948	20	3,968	(20)
11	Other Final Design	142,543	142,543		142,543	-
12	Final Design Unallocated Contingency	722	-		-	722
13	<b>Total Phase</b>	<b>147,213</b>	<b>146,491</b>	<b>20</b>	<b>146,511</b>	<b>702</b>
<b>Budget Shortfall</b>						
<b>Task Level</b>		<b>\$Shortfall (K)</b>	<b>Potential Resources (L)</b>		<b>Source (M)</b>	
14	DSDC C755	20	722		Unallocated contingency within the final design phase	
<b>Airport Link</b>						
<b>Airport Link</b>		Adopted 2008 Budget (A)	Committed To Date (B)	This Action (C)	Total Committed & Action (D)	Uncommitted (Shortfall) (E)
15	Agency Administration	5,000	2,809		2,809	2,191
16	Preliminary Engineering	4,693	4,693		4,693	0
17	Final Design	14,785	14,070	2,100	16,170	(1,386)
18	Right of Way	20,000	17,639		17,639	2,361
19	Construction	163,522	144,136		144,136	19,386
20	Construction Services	11,500	9,217		9,217	2,283
21	Third Party Agreements	2,600	1,853		1,853	747
22	Vehicles	15,500	14,587		14,587	913
23	Contingency	6,000	-		-	6,000
24	<b>Total Current Budget</b>	<b>243,600</b>	<b>209,005</b>	<b>2,100</b>	<b>211,105</b>	<b>32,495</b>
<b>Final Design Phase Detail</b>						
25	Civil Final Design	9,317	9,364	200	9,564	(247)
26	DSDC Civil	1,793	1,515	1,900	3,415	(1,622)
27	Other Final Design	3,617	3,192		3,192	425
28	Final Design Unallocated Contingency	58	-		-	58
29	<b>Total Phase</b>	<b>14,785</b>	<b>14,070</b>	<b>2,100</b>	<b>16,170</b>	<b>(1,386)</b>
<b>Budget Shortfall</b>						
<b>Task Level</b>		<b>\$Shortfall (K)</b>	<b>Potential Resources (L)</b>		<b>Source (M)</b>	
30	Civil Final Design	247			Unallocated contingency within the final design phase, and surplus budget from other phases within the Airport Link project	
31	DSDC Civil	1,622				
32	<b>Total Budget Shortfall</b>	<b>1,868</b>	<b>32,495</b>			
<b>Contract Amount</b>						
<b>Contract Amount</b>		Board Approvals to Date (F)	Current Approved Contract Value (G)	Proposed Action (H)	Proposed Total for Board Approval (I)	Proposed Contract Value (J)
33	Contract Amount	27,577	29,785	2,120	29,697	31,905
34	Contingency	2,254	47	-	2,254	47
35	<b>Total Contract</b>	<b>29,831</b>	<b>29,831</b>	<b>2,120</b>	<b>31,951</b>	<b>31,951</b>
36	Percent Contingency	8%	0%	0%	8%	0%
37	Less Betterments	6	6	-	6	6
38	<b>Total Sound Transit Share</b>	<b>29,825</b>	<b>29,825</b>	<b>2,120</b>	<b>31,945</b>	<b>31,945</b>

(B) COMMITTED TO DATE amounts are from Agency WBS Report as of November 2007 + approved and pending board actions not recorded as of 11/30/07, or submitted after that date.

## **SMALL BUSINESS PARTICIPATION**

### **Prime Consultant/Contractor**

HMM is the prime consultant for this contract. The actual Small Business participation achieved will vary depending on the needs of the redesign effort and cannot, at this time, be confirmed. However, consistent with the actions of HMM through final design, HMM is committed to distributing the work to the subconsultant designer of record as necessary to provide the services as required.

The Small Business participation goal established for this contract was 20%. Performance to date has achieved 44.43% Small Business participation for the Central Link Initial Segment and Airport Link final design services.

The following M/W/DBE and Small Business subconsultants may be utilized for this contract amendment:

Rosewater Engineering	WBE/DBE
CTS Engineers	Small Business
Anil Verma Associates	MBE/DBE
Pac Rim	MBE/DBE
Civil Tech	MBE/DBE
Anthony Steadman	Small Business
Bright Engineering	MBE/DBE
Duane Hartman	Small Business
Nakano	MBE/DBE
Radiance	WBE/DBE
C3MG	WBE/DBE
IBT	Small Business
Karen Kiest	WBE/DBE

### **EEO Commitment**

HMM workforce demographics are 18.7% women and 20.7% minorities.

## **PROJECT DESCRIPTION and BACKGROUND for PROPOSED ACTION**

Under this amendment, Hatch Mott MacDonald (HMM) will provide 1) additional design support services during construction for the C755 contract under the Initial Segment, 2) additional design support services during construction for the C410, C420, and C430R contracts, C433 station finishes package, and other Airport Link design packages, and 3) additional civil and architectural design services under the Airport Link project.

### **1) C755 Design Support**

Midway through construction of the C755 line segment and taking into consideration Link's experience with the design services requirements on other line segments under construction at the time, the Board authorized an amendment to HMM's contract to increase the budget for design services during construction in June 2006. Construction of the C755 segment is nearing completion and HMM's reviews of shop drawings and other submittals for the C755 contract are

now substantially complete. This proposed amendment to the HMM contract will increase the budget for these required design services to support completion and provide a modest allowance to cover issues which may arise during the final phases of construction and closeout of the contract.

## 2) C410 / C420 / C430R / C433 Design Support

With the completion of the final design on the C410 and C420 contracts under Airport Link and taking into consideration Link's experience with the design services requirements on other line segments currently under construction, the Board authorized an amendment to HMM's contract to budget for Airport Link design services during construction in March 2005. During the course of completion of the civil and architectural redesign of the SeaTac/Airport Link Station, refinements to the redesign schedule and value engineering studies to further reduce the overall cost, while maintaining the station's functionality, impacted the efficiency of the design team's effort. This additional funding will be used to complete a set of contract documents reflecting final design refinements and constructability reviews. The remaining final design work will be completed in the first quarter of 2008. This proposed amendment to the HMM contract will increase the budget for these required design services to support completion of remaining construction contract work under the Airport Link project.

## 3) Civil and Architectural Redesign of SeaTac/Airport Station

The SeaTac/Airport Link Station is the last major construction element for the Airport Link project. After final design of the SeaTac/Airport Link Station and Trackwork (Contract C430) was completed by HMM, Sound Transit advertised the C430 contract package in December 2006. At that time, the scope of the C430 Contract included the SeaTac/Airport Link Station, two pedestrian bridges (one Sound Transit and one Port of Seattle), the International Boulevard Plaza, and 5,900-feet of light rail trackwork. On March 6, 2007, Sound Transit received a single bid of \$95,305,250 from Mowat Construction (Mowat) for the C430 contract. Sound Transit's engineer's estimate was \$51,844,172. After completing a review of the single bid received relative to the engineer's estimate, staff recommended that the C430 contract be converted to a negotiated procurement with a reduced scope that initially includes the station structural concrete, guideway, and trackwork; then proceed to redesign the remainder of the station elements, including the station interior, ground plane, windscreens, and roof; the International Boulevard Plaza, and pedestrian bridges to reduce cost.

In July 2007, the ST Board authorized a contract amendment with Hatch Mott MacDonald to provide additional civil and architectural design services for the redesign and repackaging of the SeaTac/Airport Station for the Airport Link project in the amount of \$949,239, with a contingency in the amount of \$46,716, totaling \$995,955 for a new total authorized contract amount not to exceed \$29,831,305. The additional final design services to be provided under this amendment were to prepare the plans, specifications, and estimates as necessary for the recommended redesign and repackaging plan to move forward with construction of the SeaTac/Airport Link Station. To maintain the project schedule of completing the Airport Link project by December 2009, it was anticipated that the additional final design and repackaging work would be completed by October 2007.

Also in July 2007, the Sound Transit Board authorized a contract with Mowat Construction Company for the construction of selected elements of the SeaTac/Airport Station and trackwork for an amount not to exceed \$35,800,000. The contract included the construction of the reinforced concrete structural elements of the SeaTac/Airport Station and 5,900-feet of light rail

trackwork. The construction of the SeaTac/Airport Station needed to begin by the third quarter of 2007 in order to help ensure that the station will be complete and operational by the end of 2009.

Collaborative efforts with Mowat and the Sound Transit design team in reviewing the concepts for the “station finishes” elements of the redesigned SeaTac/Airport Station during the months of September and October 2007, have identified areas where significant cost savings can be achieved. The analysis of these value engineering benefits has extended the completion date for the final redesign plans by approximately four months. This delay along with the added value engineering effort has increased the estimated final cost of the redesign and repackaging work. Simplification of the construction details through this value engineering has reduced construction durations so as not to impact the overall completion date of December 2009.

### Prior Board/Committee Actions on this Project

Motion/Resolution Number and Date	Summary of Action
M2007-80 07/26/07	Authorized the chief executive officer to execute a contract amendment with Hatch Mott MacDonald to provide additional civil and architectural design services for the redesign and repackaging of the SeaTac/Airport Station for the Airport Link project in the amount of \$949,239, with a contingency in the amount of \$46,716, totaling \$995,955 for a new total authorized contract amount not to exceed \$29,831,305.
M2006-47 6/08/06	Executed a contract amendment with Hatch Mott MacDonald to (1) provide additional civil engineering design services during construction of the Central Link Light Rail Initial Segment - Tukwila section, in the amount of \$1,100,000; and (2) executed an option for civil engineering design services during construction of the Airport Link project in the amount of \$1,800,000, for a new total authorized contract amount not to exceed \$28,835,350.
M2005-37 4/14/05	Executed a sole source contract amendment with Hatch Mott MacDonald (HMM) in the amount of \$9,077,591 and a 10% contingency in the amount of \$907,759, for a revised total authorized contract amount not to exceed \$25,935,350, to provide preliminary engineering and architectural design services for the Airport Link preferred alternative between South 154 <sup>th</sup> Street in the City of Tukwila and the proposed Airport light rail station near South 176 <sup>th</sup> Street in the City of SeaTac and to provide final design services for the Airport Link project to be selected for construction by the Sound Transit Board.
M2005-15 3/10/05	Ratified and approved the contract for civil engineering design services with Hatch Mott MacDonald and authorizes the Chief Executive Officer to execute a contract amendment to the contract to provide additional civil engineering design services during construction for Central Link Light Rail Initial Segment project from South Boeing Access Road to South 154 <sup>th</sup> Street in the amount of \$1,650,000 for a new total authorized amount not to exceed \$15,950,000.
M2002-45 4/25/02	Executed a contract with AMEC-Hatch Mott MacDonald Joint Venture for civil engineering final design services associated with construction of the S. Boeing Access Road to S. 154 <sup>th</sup> Street segment for the Central Link Light Rail project for a contract amount of \$13,000,000 with a 10% contingency of \$1,300,000 for a total authorized amount not to exceed \$14,300,000.

### **CONSEQUENCES of DELAY**

A delay beyond January 2008 will delay completion of the final construction documents for the SeaTac Airport Station package and potentially delay the opening of the Airport Link extension of Central Link.

### **PUBLIC INVOLVEMENT**

The redesign of the SeaTac/Airport Station maintains the overall imagery and functionality of the previous design, reduces the cost of certain station elements, and simplifies the constructability of the station. The redesign was presented to the SeaTac City Council and the Port of Seattle's Roadway Visual Review Committee in December 2007, and was favorably received.

### **ENVIRONMENTAL COMPLIANCE**

JI, 01/09/08

### **LEGAL REVIEW**

JW 1/11/08