

**SOUND TRANSIT
STAFF REPORT**

MOTION NO. M2008-114

**Contract Amendment for Design Services During Construction
for the Beacon Hill Tunnel & Station**

Meeting:	Date:	Type of Action:	Staff Contact:	Phone:
Finance Committee	11/20/08	Discussion/Possible Action to Recommend Board Approval	Ahmad Fazel, Link Executive Director	(206) 398-5389
Board	12/11/08	Action	Joe Gildner, Initial Segment Project Director John Sleavin, Link Civil Engineering Manager	(206) 689-3350 (206) 398-5150

Contract/Agreement Type:	✓	Requested Action:	✓
Competitive Procurement	✓	Execute New Contract/Agreement	
Sole Source		Amend Existing Contract/Agreement	✓
Interlocal Agreement		Contingency Funds (Budget) Required	
Purchase/Sale Agreement		Budget Amendment Required	

PROJECT NAME

Central Link Light Rail Initial Segment

PROPOSED ACTION

Authorizes the chief executive officer to increase the contingency for the contract with Hatch Mott MacDonald/Jacobs Joint Venture to provide civil engineering design services during construction for the Central Link Light Rail Initial Segment - Beacon Hill Tunnel project in the amount of \$479,760 for a new total authorized contract amount not to exceed \$22,268,243.

KEY FEATURES of PROPOSED ACTION

- The purpose of this action is to increase the contingency for civil engineering design services during construction (DSDC) for the Beacon Hill tunnel and station.
- Additional contingency is required because during the extended course of the construction of the Beacon Hill Tunnel project it has been determined that the present level of design effort engaged on the project also needs to be extended to address the continuing contract submittals, change requests, and related design issues. Hatch Mott MacDonald/Jacobs (HMM/J) will also assist in the closeout of the contract documents including review of as-builts.
- Design services during construction include, but are not limited to: reviewing submittals; responding to requests for information from the contractor; preparing design modifications as required by existing conditions; and providing design change management.
- Design services during construction will continue to be provided by HMM/J 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.

BUDGET IMPACT SUMMARY

Current Project Phase: Construction
Projected Completion Date: 2009

Action Outside of Adopted Budget:	✓	Comments on Checked Items
This Project		
This Phase		
This Task	✓	The proposed action requires funding from unallocated contingency in the final design phase of Initial Segment project.
Budget Amendment Required		

Key Financial Indicators:	✓	Comments on Checked Items
Contingency Funds Required		
Funding required from other parties		

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 Lifetime Capital Budget for the Central Link Light Rail Initial Segment is \$2.07 billion. Within that amount, \$9,576,648 has been set aside for design services during construction for the Beacon Hill Tunnel (C710) segment in the final design phase. The proposed action would increase commitments for this budget line item by \$479,760, and result in a shortfall of \$479,519, which would be funded from final design phase unallocated contingency.

Within the final design phase, \$722,017 has been set aside for unallocated contingency. Of this amount \$702,017 remains unutilized. Should the proposed action be approved, that amount would be reduced by \$479,519, leaving a remaining balance of \$22,498.

The proposed action is consistent with the current adopted 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/Jacobs Joint Venture (increase contingency to provide civil engineering design services during construction (DSDC), including SEM oversight, for the Beacon Hill Tunnel (C710) segment of the Central Link Initial Segment project)

(Year of Expenditure \$000)

Initial Segment	Adopted 2008 Budget (A)	Committed To Date (B)	This Action (C)	Total Committed & Action (D)	Uncommitted (Shortfall) (E)
Agency Administration	193,274	169,925		169,925	23,349
Preliminary Engineering	33,310	33,310		33,310	(0)
Final Design	147,213	146,422	480	146,902	311
Right of Way	208,396	203,544		203,544	4,852
Construction	1,191,768	1,146,419		1,146,419	45,349
Construction Services	100,317	98,798		98,798	1,519
Third Party Agreements	63,414	63,406		63,406	8
Vehicles	132,307	131,799		131,799	508
Total Current Budget	2,070,000	1,993,624	480	1,994,104	75,896

Final Design Phase Detail

DSDC C710	9,577	9,576	480	10,056	(480)
Other Final Design	136,914	136,826		136,826	89
Final Design Unallocated Contingency	722	20		20	702
Total Phase	147,213	146,422	480	146,902	311

Contract Amount	Board Approvals to Date (F)	Current Approved Contract Value (G)	Proposed Action (H)	Proposed Total for Board Approval (I)	Proposed Contract Value (J)
Contract Amount	20,877	21,788	-	20,877	21,788
Contingency	912	-	480	1,392	480
Total Contract - Initial Segment	21,788	21,788	480	22,268	22,268
Percent Contingency	4%	0%	100%	7%	2%

(B) COMMITTED TO DATE amounts are from Agency WBS Report as of September 2008 + approved and pending board actions not recorded as of 9/30/08, or submitted after that date.

Budget Shortfall Task Level	\$Shortfall (K)	Potential Resources (L)	Source (M)
DSDC C710	480	702	Unallocated contingency in the final design phase

SMALL BUSINESS PARTICIPATION

Prime Consultant/Contractor

HMM/J is the prime civil facilities design consultant for the Beacon Hill Tunnel contract. During construction, the need to engage the designer of record is driven by the scope of a change or review, and the timeliness of the response required. The actual small business utilization will vary depending on these needs. To date, actual small business utilization is 7.26%.

It is intended that DSDC services for elements of the work that were designed by small businesses would be directed to these subconsultant designers. However, as this subconsultant effort is focused on the relatively limited civil engineering surface and utility works, and given that the majority of the design support services for this contract are required in the specialist field of tunnel engineering (including the very specialized field of sequential excavation mining [SEM]), it is estimated that small business participation during the construction phase of the design contract would be in the order of 5%.

The small business goal for this contract was originally established at 13% and re-established at 8.96%. Performance to date on this contract has achieved 7.26% small business participation. The small business participation estimate for HMM/J's design services during construction and SEM services is 5%, which reflects the expected greater utilization of prime consultant staff and highly specialized services from non-DBE consultants during this phase. The resulting small business participation for the overall contract is estimated to be 8.0% at completion.

Utilization Breakdown Table

The following small business subconsultants may be utilized for this contract amendment:

RoseWater Engineering WBE/DBE
Garry Struthers Assoc MBE/DBE

EEO Commitment

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

PROJECT DESCRIPTION and BACKGROUND for PROPOSED ACTION

The Beacon Hill Tunnel project includes construction of an approximately one-mile-long, twin tube tunnel beneath Beacon Hill, including a deep mined tunnel station. Vertical circulation to the tunnel station will be provided through an access shaft with four high-speed elevators and stairways. A secondary shaft will be provided for emergency egress. A station headhouse will provide access to elevators and stairways. East of the tunnel, the alignment continues on an elevated guideway, including an aerial station near McClellan Street. The aerial Mount Baker Station is fully enclosed and includes a new urban plaza. The alignment descends to grade in the median of MLK Jr. Way South just north of South Walden Street. Construction of the Beacon Hill Tunnel project is currently over 90% complete.

A contract with HMM/J was executed on August 1, 2000 (Motion No. M2000-55) for final design of the civil facilities for the Beacon Hill Tunnel. The scope included design of a limited portion of the shaft and tunnel structures for the Beacon Hill Station to be constructed with the running tunnels in the initial construction phase.

The design program authorized by the Board in February 2002 (Motion No. M2002-09) included assistance during construction. The outline scope stated that this task was to provide for review of the contractor's submittals and for the provision of field representatives specifically to monitor and provide engineering oversight services for all aspects of the SEM mining construction. The Board authorized an amendment to HMM/J's contract to budget for these design services during construction in May 2004 and June 2006 (Motion Nos. M2004-51 and M2006-46, respectively). This proposed amendment to the HMM/J contract will increase the contingency for these required services and assistance in the closeout of the contract documents including review of as-builts.

PRIOR BOARD/COMMITTEE ACTIONS

Motion/Resolution Number & Date	Summary of Action
M2006-46 06/08/06	Authorized CEO to execute a contract amendment with Hatch Mott MacDonald/Jacobs Joint Venture to provide civil engineering design services during construction, including engineering oversight services for the sequential excavation work, for the Central Link Light Rail Initial Segment - Beacon Hill Tunnel, in the amount of \$3,120,000, for a new total authorized contract amount not to exceed \$21,788,763.
M2004-51 05/27/04	Authorized CEO to execute a contract amendment with Hatch Mott MacDonald/Jacobs Joint Venture to provide civil engineering design services during construction, including engineering oversight services for the sequential excavation work for the Beacon Hill Tunnel in the Central Link Light Rail Initial Segment Project in the amount of \$5,580,000 with no contingency for a new total authorized contract amount not to exceed \$18,668,763.
R2004-05 04/22/04	Amended the Adopted 2004 Budget by transferring the surplus lifetime capital budget of \$8 million from the Administration Phase and \$12 million from the Construction Phase of the Central Link Light Rail Initial Segment Project to the Final Design Phase of the project.

Motion/Resolution Number & Date	Summary of Action
M2003-102 10/09/03	Authorized the CEO to execute a contract amendment with the Hatch Mott MacDonald/Jacobs Joint Venture to provide additional civil engineering final design services for the Beacon Hill Tunnel in the amount of \$975,000, with a 10% contingency of \$97,500, for a total of \$1,072,500, and for a new total contract amount not to exceed \$13,088,763
M2002-98 09/12/02	Executed a contract amendment with the Hatch Mott MacDonald/Sverdrup Joint Venture to provide additional civil engineering final design services for the Beacon Hill Station in the amount of \$2,571,701 for a new total authorized contract amount not to exceed \$12,016,263.
M2002-09 02/14/02	Executed a contract amendment with Hatch Mott MacDonald/Sverdrup (HMM/S) Joint Venture to provide additional Civil Engineering Final Design Services in the amount of \$3,355,269 plus a contingency of \$287,293 for a total of \$3,642,562 and for a new total authorized contract amount not to exceed \$9,444,562
M2000-55 07/13/00	Executed a contract with Hatch Mott MacDonald/Sverdrup for civil engineering final design services associated with construction of the Beacon Hill tunnel segment for the Central Link Light Rail project for a contract amount of \$5,275,000 with a 10% contingency of \$527,000 for a total authorized amount not to exceed \$5,802,000.

CONSEQUENCES OF DELAY

A delay in Finance Committee action at the December 4, 2008 meeting could likely be accommodated without adversely impacting design services during construction activities. A significant delay in Board action could result in delayed responses to the contractors' submittals and requests for information, which could delay the construction schedule.

PUBLIC INVOLVEMENT

Not applicable to this action.

ENVIRONMENTAL COMPLIANCE

Jl 10/31/08

LEGAL REVIEW

LA 11/13/08

SOUND TRANSIT

MOTION NO. M2008-114

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to increase the contingency for the contract with Hatch Mott MacDonald/Jacobs Joint Venture to provide civil engineering design services during construction for the Beacon Hill Tunnel in the Central Link Light Rail Initial Segment Project in the amount of \$479,760 for a new total authorized contract amount not to exceed \$22,268,243.

Background:

The Beacon Hill Tunnel project includes construction of an approximately one-mile-long, twin tube tunnel beneath Beacon Hill, including a deep mined tunnel station. Vertical circulation to the tunnel station will be provided through an access shaft with four high-speed elevators and stairways. A secondary shaft will be provided for emergency egress. A station headhouse will provide access to elevators and stairways. East of the tunnel, the alignment continues on an elevated guideway, including an aerial station near McClellan Street. The aerial Mount Baker Station is fully enclosed and includes a new urban plaza. The alignment descends to grade in the median of MLK Jr. Way South just north of South Walden Street. Construction of the Beacon Hill Tunnel project is currently over 90% complete.

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Motion:

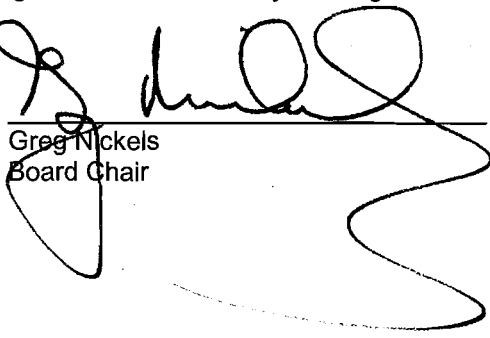
It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the chief executive officer is authorized to increase the contingency for the contract with Hatch Mott MacDonald/Jacobs Joint Venture to provide civil engineering design services during construction for the Beacon Hill Tunnel in the Central Link Light Rail Initial Segment Project in the amount of \$479,760 for a new total authorized contract amount not to exceed \$22,268,243.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on December 11, 2008.

ATTEST:



Marcia Walker
Board Administrator



Greg Nickels
Board Chair