

**SOUND TRANSIT
STAFF REPORT**

MOTION NO. M2004-72

**Amend Contract with Shannon & Wilson, Inc.
to provide Geotechnical Support During Construction**

Meeting:	Date:	Type of Action:	Staff Contact:	Phone:
Finance Committee	7/15/04	Discussion/Possible Action to Recommend Board	Ahmad Fazel, Link Director	(206) 398-5389
Board	7/22/04	Approval Action	Samer Tamimi, Link Construction Manager Richard Sage, Link Deputy Construction Manager	(206) 398-5125 (206) 398-5226

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

✓ *Applicable to proposed transaction.*

ACTION

Authorize the Chief Executive Officer to execute a contract amendment with Shannon & Wilson, Inc. for scheduled and on-call geotechnical assistance during construction of the Beacon Hill Tunnel and Station and the Retrofit of the Downtown Seattle Transit Tunnel for the Central Link Light Rail Initial Segment, in the amount of \$2,400,000 with a 4% contingency of \$100,000 for a new total authorized contract amount not to exceed \$13,578,581.

KEY FEATURES

This amendment:

- Will provide scheduled and on-call geotechnical support during construction in the Beacon Hill Tunnel and Station (C710) and Retrofit of the Downtown Seattle Transit Tunnel (C510) which were covered in geotechnical reports previously prepared by Shannon & Wilson, Inc.
- Extends the term of the contract to cover construction of these segments through December 2008.
- Is within the scope of the original contract.

BUDGET IMPACT SUMMARY

Project Description: Central Link Initial Segment

Current Status: Final Design/Construction

Projected Completion Date: 2009

Outside of Adopted Budget:	Y/N	Y	Requires Comment
This Line of Business	N		
This Project	N		
This Phase	N		
This Task	Y		Requires transfer from surplus funds within the Construction Services phase
Budget amendment required	N		
Key Financial Indicators:	Y/N	Y	Requires Comment
Contingency funds required	N		
Subarea impacts	N		
Funding required from other parties other than what is already assumed in financial plan	N		

N = Action is assumed in current Board-adopted budget. Requires no budget action or adjustment to financial plan

BUDGET DISCUSSION

This action would authorize execution of a contract amendment in the amount of \$2,400,000 plus a contingency of \$100,000 for a total of \$2,500,000 with Shannon & Wilson, Inc. to provide geotechnical support services during construction for Contracts C710 and C510 in the Central Link Light Rail Initial Segment, for a revised total authorized expenditure not to exceed \$13,578,581. The total remaining contingency balance for this contract (Proposed Contract Value) will be \$758,399.

The Adopted 2004 Budget for the Central Link Light Rail Initial Segment is \$2.07 billion. Within that budget, \$950,000 was set aside in the construction services phase for Geotechnical Services for Tunnels (C710 and C510). The proposed action would create a line item budget variance in the amount of \$1,550,000 that will require a transfer from surplus funds available within the construction services phase.

REVENUE, SUBAREA, AND FINANCIAL PLAN IMPACTS

The proposed action is consistent with the current board adopted budget, and is affordable within the agency's current long-term financial plan and sub-area financial capacity. The action will have no new revenue impact on Sound Transit.

BUDGET TABLE

Action Item: Shannon & Wilson, Inc. (Provide geotechnical support during construction for C710 Beacon Hill and Station and C510 Retrofit of the Downtown Seattle Transit Tunnel in the Initial Segment.)

(Year of Expenditure \$000)

Initial Segment	Amended FY2004 Budget (A)	Committed To Date (B)	This Action (C)	Total Committed & Action (D)	Uncommitted (Shortfall) (E)
1 Agency Administration	218,780	109,804		109,804	108,976
2 Preliminary Engineering	35,000	33,644		33,644	1,356
3 Final Design	143,523	137,956		137,956	5,568
4 Right of Way	233,016	152,837		152,837	80,179
5 Construction	1,159,837	578,028		578,028	581,809
6 Construction Services	82,737	63,669	2,500	66,169	16,568
7 Third Party Agreements	58,800	52,469		52,469	6,331
8 Vehicles	138,307	131,799		131,799	6,508
9 Contingency				-	-
10 Total Current Budget	2,070,000	1,260,205	2,500	1,262,705	807,295

Phase Budget Detail

11 Geotech Tunnels	950	-	2,500	2,500	(1,550)
13 Other Construction Services	81,136	63,669		63,669	17,466
14 CS Unallocated Contingency	651	-		-	651
15 Total Phase	82,737	63,669	2,500	66,169	16,568

(A) AMENDED 2004 BUDGET reflects Board Resolution R2004-05 for Initial Segment phase budget transfer, adopted by the ST Board on 4/22/04.

(B) Committed to Date amounts are from the Link Program Cost Summary Report (HQ Reports) for May 2004 + Board motions not yet included in the report as follows:

	Final Design	Construction	Construct Svcs	Third Parties	Vehicles
Commitments through April 2004	116,894	277,539	30,072	52,469	131,799
Other Board motions	21,062	300,489	33,597	-	-
Total phase commitments	137,956	578,028	63,669	52,469	131,799

Contract Budget	Board Approvals to Date (F)	Current Approved Contract Value (G)	Proposed Action (H)	Proposed Total for Board Approval (I)	Proposed Contract Value (J)
16 Contract Amount	10,092	10,420	2,400	12,492	12,820
17 Contingency	986	658	100	1,086	758
18 Total	11,079	11,079	2,500	13,579	13,579
19 Percent Contingency	10%	6%	4%	9%	6%

Task Level	\$ (K)	Potential Resources (L)	Source (M)
20 Geotech Tunnels	1,550	17,466	Surplus funds within the construction services phase

M/W/DBE – SMALL BUSINESS PARTICIPATION

Prime Consultant/Contractor

Shannon & Wilson, Inc., as the prime consultant, agreed to a 25% M/W/DBE and Small Business participation goal. Shannon & Wilson, Inc. met or exceeded this goal during the original contract and early amendments to the contract when they completed the geotechnical reports. The contract's current performance is 23.94%.

For this amendment, Sound Transit will be working primarily with Shannon & Wilson, Inc., and there will be little opportunity for subcontracting. Shannon and Wilson, Inc., will have 10%

M/W/DBE and Small Business participation for this amendment. M/W/DBE and Small Business participation is projected to be 21.21% at the close of the contract.

Utilization Breakdown Table

Subconsultant	Business Type	% of Work	Dollar Value
Yonemitsu Geological Services	M/DBE	10.00%	\$240,000.00
Total		10.00%	\$240,000.00

EEO Commitment

Shannon & Wilson’s workforce demographics are 35% women and 12% minority.

HISTORY OF PROJECT

A procurement procedure was carried out in 1999 for the geotechnical investigation work for four Link design packages. Four leading geotechnical consultants were selected for the work, and two firms received contracts. A contract with Shannon & Wilson, Inc. was originally executed in early 1999 to provide geotechnical services and reports for the design of the Central Link project, including the Beacon Hill tunnel and station.

The contract was subsequently modified to include geotechnical work for the Northgate segment, Beacon Hill exploratory test shaft, and the Pine Street Stub Tunnel.

Shannon & Wilson, Inc. has completed the geotechnical investigation and reports for the Central Link project. The final civil design of the Beacon Hill Tunnel and Station and the Pine Street Stub Tunnel segments has been completed. Sound Transit has received bids for and awarded the contract for C710, and has received bids for the C510 contract.

The geotechnical investigation carried out by Shannon & Wilson, Inc. indicated difficult geological conditions in much of the Beacon Hill and downtown Seattle areas. Due to the complexity of the geological conditions, the need to respond to unanticipated ground conditions is expected during construction. This would require the interaction of the designer, the geotechnical engineer, and the contractor. The objective is to facilitate changes based on actual ground conditions that may result in more cost-effective construction.

Shannon & Wilson, Inc.’s input and recommendations are required during the construction period. The requested action would extend this contract through 2008.

**Prior Board or Committee Actions
and Relevant Board Policies**

Motion or Resolution Number	Summary of Action	Date of Action
M2003-101	Contract amendment with Shannon & Wilson, Inc., to provide additional geotechnical engineering services for the Beacon Hill Tunnel in the amount of \$251,800, with a 10% contingency of \$25,180, for a total of \$276,980, and for a new total authorized contract amount not to exceed \$11,078,581.	10/9/03
M2002-136	Amendment with Shannon & Wilson, Inc., to provide geotechnical services necessary for final design of the Link Pine Street Stub Tunnel in the amount of \$200,000, with a 10% contingency of \$20,000, for a total of \$220,000, and a new total authorized contract amount not to exceed \$10,801,601.	12/12/02

M2000-107	Amendment to contract RTA/LR 106-98F with Shannon & Wilson, Inc., for geotechnical engineering services of the Central Link light rail project. The action extends the contract period to June 30, 2001 and establishes a contract amendment amount of \$1,093,250 and a 10% contingency of \$109,325 for a total contract amendment amount not to exceed \$1,202,575 and for a total contract amount not to exceed \$10,581,601.	10/26/00
M2000-46	Amendment to contract with Shannon & Wilson, Inc., to proceed with additional professional geotechnical engineering boring, lab work and reports for the north corridor in the amount of \$192,931 plus a 10% contingency of \$19,293 for a total amendment not to exceed \$212,224, and for a total contract amount not to exceed \$9,379,026.	6/22/00
M2000-40	Contract amendment with Shannon & Wilson, Inc., adding a 10% contingency of \$131,790 to a previously approved contract amendment of \$1,317,898 for a total authorized amount not to exceed \$1,449,688 for geotechnical engineering services on the Central Link Light Rail project.	5/18/00
M2000-19	Contract amendment to Contract No. RTA/LR 106-98B for geotechnical engineering services with Shannon & Wilson, Inc., and to proceed with professional geotechnical engineering work on the Northgate segment in an amount of \$1,317,898, with a 20 percent contingency of \$260,000 for a total amount not to exceed \$1,577,898.	2/24/00
M99-17	Contract with Shannon & Wilson, Inc. for geotechnical engineering services for design support on the Central Link Light Rail Project in an amount not to exceed \$7,736,407, which includes a 10% contingency.	3/25/99

CONSEQUENCES OF DELAY

The contract for C710 has been awarded and Notice to Proceed issued. The contractor has begun mobilization and is expected to begin submission of documents, which will require review by the geotechnical consultant, Shannon & Wilson, Inc. The contract for C510 is expected to be awarded this summer, followed by mobilization of the contractor and submission of documents which will require review by the geotechnical consultant.

Evaluations of the contractor's means and construction methods are equally valuable and could result in saving in costs and time of construction.

A delay in the approval of this amendment would impact the review process of critical submittals and have an impact on the progress of construction.

REGIONAL PARTNERSHIP AND COOPERATION

Not applicable for this action.

PUBLIC INVOLVEMENT

Not applicable for this action.

LEGAL REVIEW

JW 7/2/04

SOUND TRANSIT

MOTION NO. M2004-72

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the Chief Executive Officer to execute a contract amendment with Shannon & Wilson, Inc. for scheduled and on-call geotechnical assistance during construction of the Beacon Hill Tunnel and Station and the Retrofit of the Downtown Seattle Transit Tunnel for the Central Link Light Rail Initial Segment, in the amount of \$2,400,000 with a 4% contingency of \$100,000 for a new total authorized contract amount not to exceed \$13,578,581.

Background:

A procurement procedure was carried out in 1999 for the geotechnical investigation work for four Link design packages. Four leading geotechnical consultants were selected for the work, and two firms received contracts. A contract with Shannon & Wilson, Inc. was originally executed in early 1999 to provide geotechnical services and reports for the design of the Central Link project, including the Beacon Hill tunnel and station.

The contract was subsequently modified to include geotechnical work for the Northgate segment, Beacon Hill exploratory test shaft, and the Pine Street Stub Tunnel.

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The geotechnical investigation carried out by Shannon & Wilson, Inc. indicated difficult geological conditions in much of the Beacon Hill and downtown Seattle areas. Due to the complexity of the geological conditions, the need to respond to unanticipated ground conditions is expected during construction. This would require the interaction of the designer, the geotechnical engineer, and the contractor. The objective is to facilitate changes based on actual ground conditions that may result in more cost-effective construction.

Shannon & Wilson, Inc.'s input and recommendations are required during the construction period. The requested action would extend this contract through 2008.

Motion:

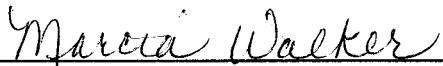
It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the Chief Executive Officer is authorized to execute a contract amendment with Shannon & Wilson, Inc. for scheduled and on-call geotechnical assistance during construction of the Beacon Hill Tunnel and Station and the Retrofit of the Downtown Seattle Transit Tunnel for the Central Link Light Rail Initial Segment, in the amount of \$2,400,000 with a 4% contingency of \$100,000 for a new total authorized contract amount not to exceed \$13,578,581.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on July 22, 2004.



John W. Ladenburg
Board Chair

ATTEST:



Marcia Walker
Board Administrator