

SOUND TRANSIT

MOTION NO. M2000-19

Contract amendment for professional geotechnical engineering services BACKGROUND AND COMMENTS

Meeting:	Date:	Type of Action:	Staff Contact:	Phone:
Finance Committee	2/17/00	Discussion/Possible Action to Recommend Board Approval	Paul Bay Bill Houppermans	398-5134 398-5125
Board	2/24/00	Action	Isam Awad	689-3399

ACTION:

Approval of Motion No. M2000-19 would authorize the Executive Director to execute a contract amendment with the Shannon and Wilson team for professional geotechnical engineering services in an amount of \$1,317,898 and to extend the contract end date to December 31, 2000.

In addition, staff also seeks approval to expend the funds previously authorized in Motion No. M99-17 for Phase II which includes the Northgate segment.

Shannon and Wilson is currently under contract with Sound Transit (Contract No. RTA/LR 106-98B) to provide comprehensive geotechnical engineering services for all of the tunnel segments and subway stations of the locally preferred alternative of the Central Link light rail line, as designated by the Board on November 18, 1999.

BACKGROUND:

In December 1998, Sound Transit staff advertised a Request for Qualifications and Proposals (RFQ/P) for geotechnical engineering services for the Central Link light rail project (RFQ/P No. RTA/LR 106-98). The scope of work for this RFQ/P was divided into five packages along the entire alignment consistent with the staff-recommended locally preferred alternative. The Shannon and Wilson team was awarded Package Number 2 on February 25, 1999. It expired January 31, 2000. The limits of this package are from the northern terminus of the Central Line at NE 45th Street to the Downtown Seattle Transit Tunnel (DSTT) and the Beacon Hill Tunnel.

Under the current contract, the scope of work for the geotechnical engineering is identified as Phase I (NE 45th Street to the DSTT and the Beacon Hill Tunnel) and Phase II (NE 45th Street to the North Portal of the extension to Northgate). The current scope for Phase I will be completed by February 2000. As a condition of contract award, the Board authorized only the Phase I scope of work. The Board stipulated that Phase II activities could only be undertaken with specific Board authorization.

Information developed during completion of preliminary engineering and the environmental review process has resulted in changes to the alignment and station configuration for the Beacon Hill Tunnel, creating the need for additional geotechnical analyses as part of Phase I. In addition, as a result of the decision to use a Design/Build procurement for the North Corridor underground heavy civil work, staff will require geotechnical engineering assistance in the review of the prospective bidder's designs and cost proposals. Therefore, staff seeks Board approval to execute a contract amendment with Shannon and Wilson to perform this additional work.

The original contract with Shannon and Wilson with this amendment would result in the following contract budget:

	Original Amount	Authorized March 1999	Hold for Northgate Work	This Amendment	New Total
Base	\$7,033,097	\$6,051,311	\$ 981,786	\$1,317,898	\$8,350,995
Contingency	\$ 703,310	\$ 600,000	\$ 103,310	TBD	\$ 963,310
Total	\$7,736,407	\$6,651,311	\$1,085,096	\$1,317,898	\$9,054,305

Amount spent through November is \$5,926,043 plus \$412,674 in approved change orders.

The scope of services for this contract amendment includes the following:

- ◆ Additional geotechnical explorations and borings will be undertaken for the Beacon Hill Tunnel. The decision to realign the western half of the tunnel with a new portal location at South Forest Street and a new configuration for the station results in the need to perform additional borings at the new portal, at the station, and along over 2,000 feet of the tunnel alignment. This change was a result of the decision to locate the maintenance base south of South Forest Street instead of north of South Lander Street.
- ◆ Additional engineering studies and reports will be prepared based on the findings of these new geotechnical explorations for the Beacon Hill Tunnel and Station.
- ◆ Based on the decision to proceed with a design/build procurement method for the final design and construction of the heavy civil elements of the North Corridor tunnels and stations (Contract LB 235), staff will require geotechnical engineering assistance in preparing bid documents and assessing responses and submittals from the prospective Design/Build Proposers.

The award of this contract amendment is critical for the completion of the final engineering design program for the Beacon Hill Tunnel alignment and for the design/build procurement documents for the heavy civil underground work in the North Corridor. The geotechnical engineering in this amendment will supplement the work completed to date and allow Sound Transit’s design team to position the tunnels and stations, in the most favorable subsurface geologic conditions along the preferred alignment through Beacon Hill. Likewise, this will provide Sound Transit with more factual information to better define the allocation of risk between Sound Transit and the LB 235 Design/Build Contractor regarding anticipated geotechnical and geological conditions. Finally, this work will provide the necessary data and factual information to assist staff in finalizing the overall budget and the overall schedule for all underground work on the Central Link light rail project.

RELEVANT BOARD POLICIES AND PREVIOUS ACTIONS TAKEN:

- ◆ Adoption of Sound Move, The Ten-Year Regional Transit System Plan (May 31, 1996)
Sound Move calls for light rail service to be implemented ten years after voter approval.
- ◆ Motion No. M99-17, authorizing a contract with Shannon and Wilson Inc., for professional geotechnical engineering services on the Central Link light rail project.
- ◆ Resolution No. R99-33, adoption of the 2000 Budget.
- ◆ Resolution No. R99-34, selecting the alignment and profiles, station locations, and vehicle maintenance base site to be built for the Central Link light rail project on November 18, 1999.

Federal Transit Administration signed the “Record of Decision” (ROD) on the Central Link Light Rail Project Final Environmental Impact Statement (FEIS) on December 31, 1999. This approval documents the completion of the federal environmental process and Sound Transit submitted application for formal federal approval to enter the final design stage on the Central Link light rail project.

EXECUTIVE SUMMARY:

Scope

The scope of services to be provided by the consultant includes the following tasks:

- ◆ Additional geotechnical explorations and borings for the revised Beacon Hill Tunnel and Station.
- ◆ Additional engineering studies and reports will be prepared based on the findings of these new geotechnical explorations for the Beacon Hill Tunnel and Station.
- ◆ Geotechnical engineering assistance in preparing bid documents and assessing design/build team responses and submittals for the LB 235 Design-Build contract for the North Corridor heavy civil work for the tunnels and stations.

M/W/DBE Participation

The original Shannon and Wilson contract committed to an 18 percent Disadvantage Business Enterprise (DBE) participation. On the current contract to date, Shannon & Wilson has achieved a 23.74 percent DBE utilization rate.

Cost

Funding for this Scope of Work is included in *Sound Move* and in the FY’2000 Capital Budget. The budget for completion of these tasks is identified in Sound Transit’s 2000 Budget under Final Design. With the budget developed for the Central Link configuration as adopted by the Board on November 18, 1999, there is sufficient funding to complete the remaining work.

**LINK LIGHT RAIL
Expenditures and Budget**

	2000 Approved Ten-year Budget ²	Life to Date Expenditures and Outstanding Commitments ³	Pending Board and Finance Committee Decisions ⁴	Budget Available	Proposed Board Action
	A	B	C	A-(B+C)	E
Final Design ¹	\$200,620,000	\$ 15,567,067	\$ 34,343,671	\$150,709,263	\$1,317,898

1. All figures for Central Link only
2. Budget figures for Central Link, as developed for configuration adopted by Board action on Nov. 18, 1999
3. Commitments as of January 18, 2000 and expenditures as of November 31, 1999. These figures also include the full commitments for Architectural packages 1-7, Link portion of Signage Plan and Design Build Honorarium (Board Motion 99-70)
4. Includes LTK and PSTC Amendments

ALTERNATIVES:

If the current contract with Shannon and Wilson is not amended, a new procurement process would be required to obtain a firm to perform this needed work.

CONSEQUENCES OF DELAY:

A new procurement process could delay the project for up to six months. A delay of this magnitude would make it difficult to maintain the current final design schedule and consequently cause a delay in the submittal date for the Full Funding Grant Agreement (FFGA) to the Federal Transit Administration (FTA). A delay in the FFGA would result in the loss of one year of federal funding for the project and possibly delay the award of the design/build contract for the north corridor heavy civil tunnel and station work.

LEGAL REVIEW:

MBL 2/7/00.

SOUND TRANSIT

MOTION NO. M2000-19

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the Executive Director to execute a contract amendment to Contract No. RTA/LR 106-98B for geotechnical engineering services with Shannon and Wilson, Inc., and to proceed with professional geotechnical engineering work on the Northgate segment in an amount not to exceed \$1,317,898. The total contract amount is revised to 9,054,305.

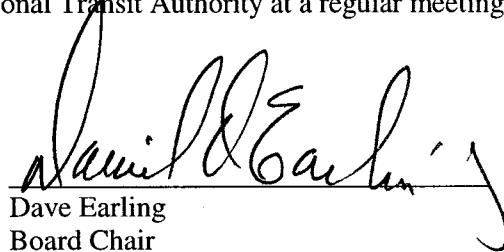
Background:

By Motion No. M99-17, dated March 25, 1999, the Sound Transit Board authorized Contract No. RTA/LR 106-98B with Shannon and Wilson, Inc., for professional geotechnical services for all underground workings for the locally preferred alternative associated with the Central Link Light Rail Project. Specifically, the contract provides geotechnical services for the tunnels and subterranean stations in the North Corridor and the tunnels and deep subterranean station in Beacon Hill. The total amount for this contract was \$7,736,407. However, work was only authorized in the amount of \$6,051,311, plus a contingency of 10 percent. Uses of amounts beyond this were not to be undertaken without specific additional Board authorization. The additional amount was expected to be applied toward work necessary for the Northgate segment. Information developed during completion of preliminary engineering and the environmental review process has resulted in changes to the alignment and station configurations for both the North Corridor and the Beacon Hill Tunnel. As a result, additional geotechnical analysis will be required. Therefore, Board approval to execute a contract amendment with Shannon and Wilson to perform this additional work is requested.

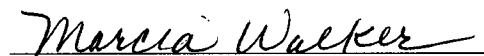
Motion:

It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the Executive Director is authorized to execute a contract amendment to Contract No. RTA/LR 106-98B for geotechnical engineering services with Shannon and Wilson, Inc., and to proceed with professional geotechnical engineering work on the Northgate segment. It is further moved that authorization to use the amounts previously authorized for the Northgate extension be granted. The change order extends the contract end date to December 31, 2000, and increases the amount of the contract by \$1,317,898. The total contract amount is revised to \$9,054,305.

Approved by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof on the 24th day of February, 2000.


Dave Earling
Board Chair

ATTEST:


Marcia Walker
Board Administrator