

## STAFF REPORT

### SOUND TRANSIT MOTION NO. M2001-32

#### Authorization of an Increase in the Puyallup Commuter Rail Station Contingency for Construction Contract No. RTA/CR68-99 with Lugo Construction Company, Inc.

Meeting:	Date:	Type of Action:	Staff Contact:	Phone:
Finance Committee	4/5/01	Discussion/Possible Action to Recommend Board Approval Action	Paul Price, Director	(206) 398-5111
Board	4/12/01		Bob Sundin, Construction Program Manager	(206) 398-5118
			Kim Brackett, Project Manager	(206) 398-5415

#### **PROPOSED ACTION**

The proposed action would authorize an increase in the original contract amount of \$3,693,235 for construction of the Sounder Commuter Rail Station in Puyallup (Contract No. RTA/CR68-99) with Lugo Construction Company, Inc by adding \$2,000,000 to the existing contingency of \$335,749 for a new total authorized contract amount not to exceed \$5,693,235. The budget for the Puyallup station is hereby increased by \$2,000,000. A transfer from the operating budget of the 2001 Adopted Budget for Commuter Rail to the construction line item of the Puyallup station to cover the increased contingency fund is authorized by this action.

#### **KEY FEATURES**

##### **Highlights of Proposed Action**

- ◆ Authorizes an increase in the original contract amount of \$3,693,235 for construction of the Sounder Commuter Rail Station in Puyallup (Contract No. RTA/CR68-99) with Lugo Construction Company, Inc by adding \$2,000,000 to the existing contingency of \$335,749 for a new total authorized contract amount not to exceed \$5,693,235. The budget for the Puyallup station is hereby increased by \$2,000,000. A transfer from the operating budget of the 2001 Adopted Budget for Commuter Rail to the construction line item of the Puyallup station to cover the increased contingency fund is authorized by this action.
- ◆ The major change issue at the Puyallup Station was the need to remove unsuitable soils before building the station. It was required the soils be removed and suitable material imported and compacted for foundations under platforms, parking lots, and structures.
- ◆ Approval of this motion will create a line-item shortfall for the Puyallup Station project. This shortfall is covered in the Cost-to-Complete discussion before the Board, where cost savings are identified in the operating budget for transfer to capital projects. The overall Sounder-approved 2001 Budget will not be exceeded. Specific line items in the capital budget will be adjusted upon Board approval of a budget amendment following the Cost-to-Complete discussion to reconcile specific budget line items.

#### **DISCUSSION**

Sounder Commuter Rail service was initiated at the Puyallup Station February 5, 2001, with limited completion of the northbound platform. The estimated completion date for the station is

May 2001. Additional funds are needed to complete the work on the Puyallup Commuter Rail Station. Delays to the start of construction, an inordinate amount of unforeseen conditions, and changes required by Burlington Northern Santa Fe (BNSF) and local jurisdictions have caused the need for additional funding to complete the work.

The original contract contingency amount has been committed through issued change orders. Over 70 change issues have been identified on the Puyallup contract. Using the contingency funds authorized at the time of project award, 11 change issues have been formalized as contract change orders totaling \$335,058. A total of 59 change issues remain outstanding. The increase of contingency funds will allow staff to execute change orders for work required to complete the construction of the Puyallup Commuter Rail Station.

<b>Table 1 – Description of Anticipated and Unanticipated Changes</b>		
<b>Category</b>	<b>Description</b>	<b>Cost</b>
<b>1</b>	<b>Anticipated changes (covered by 10% contract contingency)</b>	
	Design coordination	\$90,000
	Project Labor Agreement (PLA) – related prevailing wage costs	\$90,000
	Start up of service – February 5, 2001	\$25,000
	Utility Coordination	\$10,000
	Sound Transit requested scope changes	\$30,000
	Subtotal	<b>\$245,000</b>
<b>2</b>	<b>Unanticipated changes (require additional contingency)</b>	
	Cannery Station – property requirements	\$99,000
	City of Puyallup – required changes	\$257,000
	Burlington Northern Santa Fe Railway requirements	\$98,000
	Environmental remediation	\$136,000
	Unforeseen conditions/unsuitable soils	\$1,164,000
	Subtotal	<b>\$1,754,000</b>
<b>3</b>	<b>Reserve contingency (required to complete the project)</b>	<b>\$336,749</b>
	<b>Total of contingency required for changes on contract</b>	<b>\$2,335,749</b>

## **Background**

The change orders in Category 1 are of the type and magnitude that were anticipated to be funded from the original 10% contingency. All of the changes were necessary to carry out the work anticipated in the original design and in accordance with negotiated labor agreements and requirements for station operation.

- *Design coordination:* (\$90,000) – To adjust the design to meet the desired installed condition, 15 changes were implemented. Changes include installation of fiber optic cable for TVM machines, addition of galvanizing for C channel supports at the platform, reconnection of a storm drain system found to be still in operation, additional conduit for the communications building, change from aluminum to granite for the tactile platform strip, and several changes requiring minor work to resolve discrepancies in the contract documents.

- *Project Labor Agreement: (\$90,000)* - The PLA specifies adjustments to the prevailing wages for employees working on the contract are to occur twice a year to coincide with Washington State prevailing wage rate changes. The contractors are reimbursed for the increases based on the actual hours worked by each employee working on the contract. In addition, fringe benefits paid into union programs for non-represented employees that also receive benefits from their employer are reimbursed through contract change order. The contractor must provide documentation of the amount of dual benefits paid for each employee.
- *Startup of service: (\$25,000)* - To open the station on February 5, 2001, additional work was required to provide temporary barriers, fencing, and barricades to separate the ongoing construction operations from the portions of the station open to the public. Additional work was performed to provide extra cleanup and temporary measures to accommodate the station opening.
- *Utility Coordination: (\$10,000)* - Three changes were required to coordinate with utility providers, including removal of sidewalk for relocation of a Puget Sound Electric (PSE) pole, adjustments to the MCI and AT&T vault covers in order to match the new platform finish grade, and additional electrical cable to extend to the PSE station power drop.
- *Sound Transit requested scope changes: (\$30,000)* - Sound Transit requested the contractor implement changes to coordinate improvements with adjacent property owners and to implement minor revisions to the contract documents. Changes include modifications to the bike locker specifications, additional site fencing adjacent to the Vancouver Door property, modifications to the parking area at the Uniland property and painting of an exterior Uniland building wall that faces the station.

Change orders in Category 2 are changes resulting from third party influences unknown at the time of bid and change orders due to unforeseen site conditions. These changes are described more completely as follows:

- *Cannery Station Property: Purchase and sale agreement: (\$99,000)* - Sound Transit entered into an agreement with Jerry Johannes to purchase portions of this property for the Commuter Rail Station development. Two items of work with an estimated value of \$100,000 are required to comply with the agreement. Both items were not included in the original contract bid documents due to the lack of information with respect to the scope of improvements at the time of bid. Sound Transit did not secure the property agreement with Jerry Johannes until just before bids were opened on the station. The purchase and sale agreement took a considerable amount of time with one of the final issues being the provision for utility installation by Sound Transit and demolition of abandoned refrigeration piping. Design and pricing for the work has now been accomplished and is included as part of a change order.
- *City of Puyallup Requirements: (\$257,000)* – The following changes resulted from the City of Puyallup requirements not known until after contract award. The late issuance of a building permit created the majority of modifications.
  - Multiple changes to the drawings were required as a result of the permit review process. These changes ranged from modifications to the storm drainage system, extension of the new water main to create a looped system, widening of

the driveway access to accommodate fire access, and adjustments in the street pavement limits.

- Change from aluminum poles to cast iron. The City of Puyallup would not accept the less costly aluminum poles.
  - Installation of a new fire hydrant at Second and Stewart.
  - Connection to the six inch water main at Third and Main Street.
  - Lower an existing City waterline to provide 42 inches of cover.
  - Increase fire rating of gateway column at the east side of the station.
  - Increase the structural rating of a utility vault to accommodate traffic loading.
  - Install revised drainage gutters at parking lot entrances.
  - Reschedule work due to delays in the building permit process.
- *Burlington Northern Santa Fe Railway Requirements: (\$98,000)* - Several changes are a direct result of BNSF requirements. These changes had to be implemented prior to operation of the station.
    - Installation of electrical conduit across Meridian Street through the use of open trench methods versus the planned pipe jacking method to avoid conflict with a utility line. BNSF required the electrical conduit for future fiber optic installation.
    - A more expensive forming system was used to construct the cantilever section of the platform to accommodate BNSF operations and maintenance requirements.
  - *Environmental Remediation: (\$136,000)* - Prior to demolishing buildings, previously unknown contamination in the form of asbestos and lead were identified. Following the building demolitions, work operations began to remove site contamination and to prepare the site for utility and parking lot construction. Within the excavations, previously unidentified fuel storage tanks were found - together with concrete foundations from abandoned structures and more petroleum contaminated soils. The following is a summary of the extra work.
    - Removal and disposal of lead contaminated demolition and debris at the Pozzi building.
    - Additional asbestos removal prior to building demolitions.
    - Removal of an oil water sump at the Pozzi building.
    - Removal of previously unidentified bunker oil tanks.
    - Removal of previously unidentified diesel fuel tank at the Vancouver Door property.
    - Removal of previously unidentified diesel fuel tank at the Johannes and Nealy properties.
    - Removal of previously unidentified fuel storage tanks at the south parking lot
    - Additional site erosion controls for petroleum contaminated soils removal operations.
    - Removal of buried concrete slabs and foundations, with the largest being 20 feet by 20 feet by 5 feet in thickness.
    - Abandoned artesian wells (closure required by the Washington State Department of Environment).
    - Delay costs resulting from underground obstacles.
  - *Unforeseen conditions/Unsuitable soils: (\$1,164,000)* - Unsuitable soil conditions were found at the Puyallup site requiring over-excavation of native soils with replacement of gravel base. The magnitude of the soil over-excavation and replacement totaled 13,000 cubic yards greater than anticipated in the bid documents. The native soils at Puyallup

are soft silty soils that provide poor foundation support. To construct the parking lots on a stable foundation, soft soils were excavated and replaced with gravel base material that could meet specified compaction requirements. If the soils were not replaced the pavement would fail in a short period of time due to ground settlement. Over five acres of property required over-excavation of soft soils. In addition to the unsuitable soils found under the parking areas, approximately five thousand cubic yards of frozen ground was found beneath the demolished cold storage facility. This soil had to be removed before construction of the new parking lot. If the soils had been left to thaw, settlement would occur under the new pavement causing failure.

Category 3 is the unidentified contingency required to finish the project. The majority of the contingency will be reserved for resolution of the changes in the unforeseen conditions category. Monies not expended will be transferred back into the budget for reauthorization on other project elements.

**BUDGET**

Budget for this agreement is included in the construction phase budget of the Puyallup Commuter Rail Station, as shown on page 98 of the agency’s 2001 Proposed Budget, approved by Resolution No. R2000-17 on December 14, 2000. Table 2 below presents the current budget as it relates to the forecast and the impact of this action:

**Table 2 - Puyallup Station Construction Budget and Commitments**

Total Project Budget	Budget for Construction Phase (A)	Obligations -to-Date <sup>1</sup> (B)	Total Amount Requested (C)	Shortfall* or Surplus (D) (D)=(A-B-C)
\$ 12,400,000	\$ 5,123,000	\$ 4,863,620	\$ 2,000,000	(\$1,740,620)
*Amount of Shortfall	Funding Sources / Potential Revenues			
\$1,740,620	This shortfall is covered in detail in the Cost-to-Complete Discussion. Some line items in the Puyallup budget may be exceeded with this action, but the <u>overall</u> Sounder-approved 2001 Capital Budget will not be exceeded. Specific line items in the capital budget will be adjusted with a budget amendment following the Cost-to-Complete discussion to reconcile specific budget line items.			

<sup>1</sup> Includes expenditures through February 28, 2001, of \$3,804,930 and commitments of \$1,058,690. This *does not* include \$334,794 requested in pending motion for contract amendment for construction management services.

Table 3 provides the specific details for this contract of the original value and contingency and how this additional requested contingency amount impacts the total contract.

**Table 3 - Lugo Construction Agreement for Construction of the Puyallup Station**

Current Contract Value Not to Exceed (Includes 10% Contingency) <sup>1</sup> (A)	Proposed Action Cost for Amendment (Addition to Contingency) (B)	Proposed Total Contract Value - Not to Exceed (C) = (A+B)
\$ 3,693,235	\$ 2,000,000	\$ 5,693,235

<sup>1</sup> See Motion No. M2000-23, 4/22/00.

## **ALTERNATIVES**

Three options were available to Sound Transit when the unforeseen conditions were encountered including:

- Perform the work under change order to Lugo Construction.
- Delay the contract awaiting better weather conditions.
- Terminate the contract and re-bid.

The following is our analysis of the cost and impact of each alternative:

- **Perform work under change order** - Work performed under change order is achieved at a premium over competitively bid work. Staff's estimate of the premium is in the range of 5%. To perform the work through change order, approximately \$100,000 would be spent over a similar competitively bid scope of work. The schedule benefit for proceeding on a change order basis includes the opportunity to open the station for service much earlier than other alternatives. The time impact is estimated to be six to eight months. Other costs are also avoided by performance of the work via change order including avoidance of cost for design, management, and administration to re-bid uncompleted work, storage costs for owner supplied materials, and BNSF support cost including management and flagging charges.
- **Delay the Contract** - The cost of delaying the work six to eight months to achieve better weather conditions is estimated at an amount ranging from \$750,000 to \$900,000. This amount assumes the contract would remain in place and would not be terminated for convenience. Contractor costs for delay would include costs for labor and material escalation, rescheduling of the work, field, and home office overhead. These costs also include protection of the site during the non-working winter months. It is assumed that some savings would have been realized to perform the work in dry weather, however there was risk associated with eliminating the sub-grade stabilization work in order to achieve these savings.
- **Terminate and Rebid** - An alternative to delaying the contract is to terminate for convenience and re-bid the project. The cost to terminate would include payment for all work accomplished to date, cost to restock materials or purchase stored materials from the contractor and payment for demobilization. The estimate for termination and rebid totals \$700,000. Staff estimated the cost beyond the value of completed work to be approximately \$300,000. During the winter months there would be ongoing site maintenance estimated at \$100,000. Re-design work would be necessary to define the amount of work yet to complete and to perform additional investigations to redesign the work. Staff estimates that \$50,000 would have been spent on additional site investigations, \$100,000 for design of a new bid package, and \$150,000 in administrative costs.

The least costly - and most beneficial alternative to start Sounder Service was to proceed with the change order alternative with Lugo Construction.

### **CONSEQUENCES OF DELAY**

Delay in this action will have an impact on the contract because the existing contingency funds are depleted. Without the capability to issue changes and resolve change order pricing in a timely manner with the contractor, there will be delays to the Puyallup Commuter Rail Station completion schedule. This station is currently scheduled for completion in May 2001.

### **REGIONAL PARTNERSHIP AND COOPERATION**

Sound Transit has coordinated closely with the City of Puyallup in the development of the Puyallup Commuter Rail Station.

### **PUBLIC INVOLVEMENT**

There has been limited but ongoing public involvement with the station construction process. Sound Transit has provided community outreach and information on station construction operations through neighborhood briefing handouts, signage, and the Sound Transit website.

### **LEGAL REVIEW**

MBL 3/22/01

## SOUND TRANSIT

### MOTION NO. M2001-32

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing an increase in the original contract amount of \$3,693,235 for construction of the Sounder Commuter Rail Station in Puyallup (Contract No. RTA/CR68-99) with Lugo Construction Company, Inc by adding \$2,000,000 to the existing contingency of \$335,749 for a new total authorized contract amount not to exceed \$5,693,235. The budget for the Puyallup station is hereby increased by \$2,000,000. A transfer from the operating budget of the 2001 Adopted Budget for Commuter Rail to the construction line item of the Puyallup station to cover the increased contingency fund is authorized by this action.

#### Background:

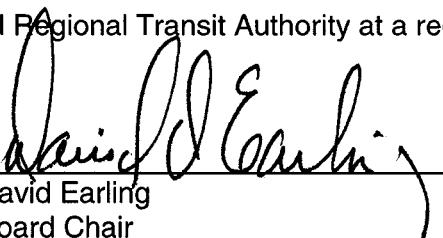
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Over 70 individual change issues have been identified on the contract with the majority of the changes falling into two major cost categories. In addition, a third category has been identified to reserve contingency that will be needed to cover potential upcoming change issues. The proposed action allows future change orders of the contract with Lugo Construction, Inc. to complete the Puyallup Commuter Rail Station. A total of 59 change issues remain outstanding. It is estimated the outstanding changes, when completed, and the reserve contingency will amount to the requested \$2,000,000 in additional contract contingency funds.

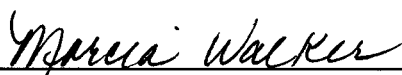
#### Motion:

It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority to authorize an increase in the original contract amount of \$3,693,235 for construction of the Sounder Commuter Rail Station in Puyallup (Contract No. RTA/CR68-99) with Lugo Construction Company, Inc by adding \$2,000,000 to the existing contingency of \$335,749 for a new total authorized contract amount not to exceed \$5,693,235. The budget for the Puyallup station is hereby increased by \$2,000,000. A transfer from the operating budget of the 2001 Adopted Budget for Commuter Rail to the construction line item of the Puyallup station to cover the increased contingency fund is authorized by this action.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on the 12th day of April 2001.

  
David Earling  
Board Chair

ATTEST:

  
Marcia Walker  
Board Administrator