

**SOUND TRANSIT  
STAFF REPORT**

**MOTION NO. M2003-76**

**Contract amendment for Beacon Hill Test Shaft**

<b>Meeting:</b>	<b>Date:</b>	<b>Type of Action:</b>	<b>Staff Contact:</b>	<b>Phone:</b>
Finance Committee	7/17/03	Discussion/Possible Action to Recommend Board Approval	Ahmad Fazel, Link Director <b>Joe Gildner, Link Deputy Director</b>	(206) 398-5389 (206) 689-3350

<b>Contract/Agreement Type:</b>	<b>✓</b>	<b>Requested Action:</b>	<b>✓</b>
Competitive Procurement	3	Execute New Contract/Agreement	
Sole Source		Amend Existing Contract/Agreement	3
Interlocal Agreement		Contingency Funds Required	
Purchase/Sale Agreement		Budget Amendment Required	

*3Applicable to proposed transaction.*

**OBJECTIVE OF ACTION**

To expand and complete the exploratory test shaft program as part of the final design for the Beacon Hill Tunnel and Station.

**ACTION**

Authorize the Chief Executive Officer to execute a contract amendment with Frank Coluccio Construction Company to provide additional exploratory construction services for the test shaft as may be necessary for the Beacon Hill tunnel final design program, in an amount not to exceed \$370,000 for a new total authorized contract amount not to exceed \$2,400,000.

**KEY FEATURES**

- Authorizes use of uncommitted funds within the test shaft budget for additional special dewatering systems required to enable the excavation of the test shaft to proceed through multiple perched watertables to its full depth of 150 feet. It will allow the contractor to complete the major objectives within the scope of the exploratory testing program.
- This request is within the budgeted amount for the exploratory test shaft program.

**BUDGET IMPACT SUMMARY**

There are no budget impacts for this action.

**BUDGET DISCUSSION**

The action considered by this motion will authorize the addition of \$370,000 from uncommitted funds within the test shaft budget to the approved contingency for the contract with Frank Coluccio Construction Company to construct the test shaft at the Beacon Hill station site, yielding a total potential expenditure amount not to exceed \$2,400,000.

The total adopted capital budget for the Initial Segment is \$2.07 billion. Within that budget, \$2,400,000 has been set aside in the final design phase for the construction of the Beacon Hill exploratory test shaft program. Approval of the proposed action will reduce the remaining balance for this budget item to \$0.

## **REVENUE, SUBAREA, AND FINANCIAL PLAN IMPACTS**

The proposed action is covered by the current Board-adopted budget, and is affordable within the agency's current long-term financial plan and subarea financial capacity. The action will have no new revenue impacts on Sound Transit.

## **SUMMARY FOR BOARD ACTION**

**Action Item: Coluccio (Add to contingency for contract for construction of the test shaft at the Beacon Hill Station Site)**

(Year of Expenditure \$000)

Initial Segment	Current Board Adopted Budget (A)	Committed To Date (B)	This Action (C)	Total Committed & Action (D)	Uncommitted (Shortfall) (E)
1 Agency Administration	226,780	108,358		108,358	118,422
2 Preliminary Engineering	35,000	33,920		33,920	1,080
3 Final Design	123,000	101,204	370	101,574	21,426
4 Right of Way	233,016	181,820		181,820	51,196
5 Construction	1,172,633	6,574		6,574	1,166,059
6 Construction Services	82,464	3,107		3,107	79,357
7 Third Party Agreements	58,800	14,330		14,330	44,470
8 Vehicles	138,307	-		-	138,307
9 Contingency				-	-
10 <b>Total Current Budget</b>	<b>2,070,000</b>	<b>449,314</b>	<b>370</b>	<b>449,684</b>	<b>1,620,316</b>
<b>Phase Budget Detail</b>					
11 Beacon Hill Test Shaft	2,400	2,030	370	2,400	-
12 Beacon Hill Tunnel	12,100	12,016	-	12,016	84
13 Other Segments	108,500	87,158	-	87,158	21,342
14 <b>Total Phase</b>	<b>123,000</b>	<b>101,204</b>	<b>370</b>	<b>101,574</b>	<b>21,426</b>
<b>Contract Budget</b>					
	Current Approved Contract Value (F)	Spent to Date (G)	Proposed Action (H)	Proposed Total Contract Value (I)	
15 Contract Amount	1,762	167	0	1,762	
16 Contingency	268	0	370	638	
17 <b>Total</b>	<b>2,030</b>	<b>167</b>	<b>370</b>	<b>2,400</b>	
18 Percent Contingency	15%	0%	100%	36%	

(B) Committed to Date and (G) Spent to Date amounts are from the Link Program Cost Summary Report (HQ Reports) for May 2003

## **M/W/DBE – SMALL BUSINESS PARTICIPATION**

The small business goal for this construction contract is 5%.

### **Prime Consultant/Contractor**

Frank Coluccio Construction Company Inc. committed to a small business participation plan of 25.45%. The anticipated additional work is expected to include work to be performed by small businesses proportional to the participation plan of 25%.

### Utilization Breakdown Table

<b>Subcontractor</b>	<b>Business Type</b>	<b>% of Work</b>	<b>Dollar Value</b>
Advanced Electric & Alarm Systems	Electrical	1.04	\$25,000
Crux Subsurface	Core Drilling and Dewatering Well Installation	7.65 (est.)	\$183,600 (est.) – including extra \$150K for dewater.
Hot Mix Pavers, Inc.	Asphalt	0.17	\$4,000
LRL Construction Co., Inc.	Shotcrete	14.54	\$348,925
Quality Fence Builders, Inc.	Fencing	0.12	\$2,945
Salinas Construction, Inc.	Concrete	0.13	\$3,150
TLC Trucking, Inc.	Trucking	1.41	\$33,750
Total		25.06	\$601,370

Note: % based on revised contract value of \$2,400,000

### EEO Commitment

Frank Coluccio Construction Company has committed to a workforce demographics goal of 12% women and 21% people of color.

### Apprentice Utilization Commitment

Frank Coluccio Construction Company is committed to a goal of hiring apprentices for 20% of all labor hours.

### HISTORY OF PROJECT

In March 2002, the geotechnical exploration for final design at the Beacon Hill station location identified soils at tunnel depth that could potentially provide adverse tunneling conditions. As a result, Sound Transit's independent Tunnel Peer Review Team recommended that (as an element of the final design program) an exploratory test shaft be excavated down to platform level at the location of the future station entrance shaft to better examine these soils and their anticipated behavior during tunneling. The exploratory shaft and associated testing program would allow the tunneling risks to be better evaluated and the design to be modified appropriately as required. Also, the tunnel contractors bidding on the construction would be able to inspect the ground at tunnel depths and thus be better informed regarding the tunneling risks as they prepare their estimates. This would result in increased confidence in submitting competitive bids.

On September 12, 2002, the Board authorized the Executive Director to direct the tunnel final designer to design the test shaft facility and the testing program. On January 30, 2003, the Board authorized a contract with Frank Coluccio Construction Company, Inc., to provide construction services for the exploratory test shaft.

Construction work on the exploratory test shaft started in mid-April 2003. The contractor and the staff team have worked cooperatively making steady progress in the field. To date, the shaft has been excavated to a depth of approximately 100 feet. As expected, the exploratory program has yielded a significant amount of data regarding the nature and behavior of the subsurface conditions. Furthermore, the exploratory program has provided valuable information to better evaluate our design parameters.

Of equal importance, the exploratory test shaft has revealed additional information on the variable nature of the soil deposits. In particular, the test shaft has demonstrated both the lateral and vertical variability of the inter-layered water-bearing granular deposits, which have proven more challenging to effectively de-water in the sequence of construction. This discovery is important during design because it provides greater insights for bidders as they evaluate more effective means and methods for construction of the subway station.

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

<b>Motion or Resolution Number</b>	<b>Summary of Action</b>	<b>Date of Action</b>
M2003-13	Execute a contract with Frank Coluccio Construction Company, Inc., to provide construction services for an exploratory test shaft as part of the Beacon Hill Final Design Program, in the amount of \$1,761,882 with a 15% contingency of \$268,118, for a total authorized amount not to exceed \$2,030,000.	1/30/03
M2002-98	Execute a contract amendment with the Hatch Mott MacDonald/ Sverdrup Joint Venture to provide additional civil engineering final design services for Beacon Hill Station in the amount of \$2,571,701 for a new total authorized contract amount not to exceed \$12,016,263.	9/12/02
M2002-09	Execute a contract amendment with Hatch Mott MacDonald/Sverdrup 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.	2/14/02

**CONSEQUENCES OF DELAY**

A significant delay in the approval of the use of these uncommitted funds within the test shaft budget will result in the contractor demobilizing before the test shaft program is complete. This will reduce the overall benefit of the exploratory test program for final design.

**REGIONAL PARTNERSHIP AND COOPERATION**

Not applicable to this action.

**PUBLIC INVOLVEMENT**

Not applicable to this action.

**LEGAL REVIEW**

MB 7/2/03

## **SOUND TRANSIT**

### **MOTION NO. M2003-76**

A motion of the Finance Committee of the Central Puget Sound Regional Transit Authority authorizing the Chief Executive Officer to execute a contract amendment with Frank Coluccio Construction Company to provide additional exploratory construction services for the test shaft as may be necessary for the Beacon Hill tunnel final design program, in an amount not to exceed \$370,000 for a new total authorized contract amount not to exceed \$2,400,000.

#### **Background:**

In March 2002, the geotechnical exploration for final design at the Beacon Hill station location identified soils at tunnel depth that could potentially provide adverse tunneling conditions. As a result, Sound Transit's independent Tunnel Peer Review Team recommended that (as an element of the final design program) an exploratory test shaft be excavated down to platform level at the location of the future station entrance shaft to better examine these soils and their anticipated behavior during tunneling. The exploratory shaft and associated testing program would allow the tunneling risks to be better evaluated and the design to be modified appropriately as required. Also, the tunnel contractors bidding on the construction would be able to inspect the ground at tunnel depths and thus be better informed regarding the tunneling risks as they prepare their estimates. This would result in increased confidence in submitting competitive bids.

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Of equal importance, the exploratory test shaft has revealed additional information on the variable nature of the soil deposits. In particular, the test shaft has demonstrated both the lateral and vertical variability of the inter-layered water-bearing granular deposits, which have proven more challenging to effectively de-water in the sequence of construction. This discovery is important during design because it provides greater insights for bidders as they evaluate more effective means and methods for construction of the subway station.

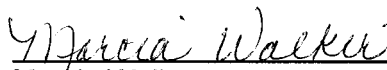
**Motion:**

It is hereby moved by the Finance Committee of the Central Puget Sound Regional Transit Authority that the Chief Executive Officer is authorized to execute a contract amendment with Frank Coluccio Construction Company to provide additional exploratory construction services for the test shaft as may be necessary for the Beacon Hill tunnel final design program, in an amount not to exceed \$370,000 for a new total authorized contract amount not to exceed \$2,400,000.

APPROVED by the Finance Committee of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on July 17, 2003.

  
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Kevin Phelps  
Finance Committee Chair

ATTEST:

  
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Marcia Walker  
Board Administrator