

**SOUND TRANSIT
STAFF REPORT**

MOTION NO. M2007-81

**Contingency Increase Downtown Seattle Transit Tunnel Retrofit and Expansion
Construction Contract**

| Meeting: | Date: | Type of Action: | Staff Contact: | Phone: |
|----------|---------|----------------------------|---|--|
| Board | 7/26/07 | Discussion/Possible Action | Ahmad Fazel, Link Executive Director Joe Gildner, Deputy Executive Director Stephanie Kirby – Link Deputy Construction Manager | (206) 398-5389 (206) 689-3350 (206) 370-5503 |

| Contract/Agreement Type: | ✓ | Requested Action: | ✓ |
|--------------------------------------|---|-----------------------------------|---|
| Competitive Procurement | ✓ | Execute New Contract/Agreement | |
| Sole Source | | Amend Existing Contract/Agreement | ✓ |
| Agreement with Other Jurisdiction(s) | | Budget Amendment | |
| Real Estate | | Property Acquisition | |

PROJECT NAME

Central Link Light Rail Initial Segment

PROPOSED ACTION

Authorizes the chief executive officer to increase the contingency for the contract with Balfour Beatty Construction Incorporated for construction of the Downtown Seattle Transit Tunnel Retrofit and Expansion segment of the Central Link light rail Initial Segment project in the amount of \$3,100,000, for a new total authorized contract amount not to exceed \$94,070,000.

KEY FEATURES of PROPOSED ACTION

- Additional funds are required for the following:
 - Interim period operations and maintenance expenses, for elevator and escalator maintenance and security. This interim period covers the period between the end of construction and the beginning of bus revenue service in the Downtown Seattle Transit Tunnel (DSTT).
 - Re-commissioning of existing equipment and existing fire life safety elements required to re-open the tunnel in September 2007. As some equipment is brought back online it has been tested and requires either replacing or refurbishment. For example, three emergency exhaust fans have been found to require bearing replacement.
 - Resolution of outstanding issues.

- Testing of interface elements not covered in the Balfour Beatty contract. Integrated testing of equipment between civil and system contractors has uncovered interface elements that were not covered that need to be corrected.
- Follow-on services work such as final cleaning before opening, additional leakage fixes to key electronics rooms, variable message sign ceiling repairs, etc.
- Additional items requested by King County Metro (KCM) before tunnel opening, such as cleaning and re-commissioning of all breakers in tunnel and painting of Convention Place Station. This work is covered under the cost sharing provisions of the DSTT agreements including the Closure Period Agreement. They are costs that Sound Transit would incur either before or after the opening of the DSTT. KCM and Sound Transit staff believes that this work is better completed before the DSTT is opened.

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 | ✓ | Proposed action requires funding from unallocated contingency within the construction phase |
| Budget Amendment Required | | |

| Key Financial Indicators: | ✓ | Comments on Checked Items |
|--|----------|----------------------------------|
| Contingency Funds Required | | |
| Funding required from other parties (other than what is in financial plan) | | |

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 proposed action would increase the authorized expenditure amount for Balfour Beatty Construction, Inc. by \$3,100,000, including \$732,000 reimbursements from King County Metro to Sound Transit per cost sharing under their Closure Period Agreement. The new total authorized expenditure amount would be \$94,070,000, including reimbursements to Sound Transit by third parties for betterments in the amount of \$8,858,871, although this amount may be as high as \$9,238,948 based on current commitments. The amount of this contract charged to the Initial Segment will not exceed \$85,211,129

The Adopted 2007 Budget for the Central Link Initial Segment is \$2.07 billion. Within that amount, the following amounts have been set aside for Sound Transit’s share of this contract amendment in the construction phase:

- Downtown Tunnels (C510). The proposed action would increase commitments for this budget line item by \$1,520,000 to \$84,048,353, and result in a shortfall of \$698,353, which would be funded from construction phase unallocated contingency.

- Testing and Startup costs. When added to current commitments, the proposed action would increase this amount by \$270,000 to \$14,833,663, and leave a remaining balance of \$2,530,337 for this budget line item.
- Other Miscellaneous Construction in the construction phase. The proposed action would increase commitments for this budget line item by \$578,000 to \$1,258,775, and result in a shortfall of \$258,775, which would be funded from construction phase unallocated contingency.
- Within the construction phase of the Initial Segment, there is currently \$9,182,437 remaining in unallocated contingency. Should the proposed action be approved that amount would be reduced by \$957,128 (\$698,353 + \$258,775, as described above) to \$8,225,309.

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: Balfour Beatty Construction, Inc. (increase the contingency for construction of Downtown Tunnels (C510) in the Central Link Initial Segment)

(Year of Expenditure \$000)

| Initial Segment | Adopted 2007 Budget (A) | Committed To Date (B) | This Action (C) | Total Committed & Action (D) | Uncommitted (Shortfall) (E) |
|-------------------------------|-------------------------------|-----------------------------|--------------------|------------------------------------|--------------------------------|
| 1 Agency Administration | 214,780 | 140,441 | | 140,441 | 74,339 |
| 2 Preliminary Engineering | 33,357 | 33,310 | | 33,310 | 46 |
| 3 Final Design | 147,167 | 146,496 | | 146,496 | 671 |
| 4 Right of Way | 217,516 | 202,948 | | 202,948 | 14,568 |
| 5 Construction | 1,174,572 | 1,135,839 | 2,368 | 1,138,207 | 36,365 |
| 6 Construction Services | 90,037 | 92,403 | | 92,403 | (2,366) |
| 7 Third Party Agreements | 60,264 | 59,566 | | 59,566 | 698 |
| 8 Vehicles | 132,307 | 131,799 | | 131,799 | 508 |
| 9 Total Current Budget | 2,070,000 | 1,942,803 | 2,368 | 1,945,171 | 124,829 |

| Construction Phase Detail | | | | | |
|--------------------------------------|------------------|------------------|--------------|------------------|---------------|
| 10 Downtown Tunnels C510 | 83,350 | 82,528 | 1,520 | 84,048 | (698) |
| 11 Construction Startup (Operations) | 17,364 | 14,564 | 270 | 14,834 | 2,530 |
| 12 Other Miscellaneous Construction | 1,000 | 681 | 578 | 1,259 | (259) |
| 13 Other Construction | 1,030,781 | 1,005,172 | | 1,005,172 | 25,609 |
| 14 Constr Unallocated Contingency | 42,077 | 32,895 | | 32,895 | 9,182 |
| 15 Total Phase | 1,174,572 | 1,135,839 | 2,368 | 1,138,207 | 36,365 |

| 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) |
|-------------------------------------|-----------------------------------|--|------------------------|--|-----------------------------------|
| 16 Contract Amount | 82,700 | 89,065 | - | 82,700 | 89,065 |
| 17 Contingency | 8,270 | 1,905 | 3,100 | 11,370 | 5,005 |
| 18 Total Contract | 90,970 | 90,970 | 3,100 | 94,070 | 94,070 |
| 19 Percent Contingency | 10% | 2% | 0% | 14% | 6% |
| 20 Betterments | 8,127 | 8,507 | 732 | 8,859 | 9,239 |
| 21 Total Sound Transit Share | 82,843 | 82,463 | 2,368 | 85,211 | 84,831 |

(B) COMMITTED TO DATE amounts are from Agency WBS Report as of June 2007 + approved and pending board actions not recorded as of 6/30/07, or submitted after that date.

| Budget Shortfall Task Level | \$ (K) | Potential Resources (L) | Source (M) |
|--|------------|----------------------------|---|
| 22 Downtown Tunnels C510 | 698 | 9,182 | Unallocated contingency within the construction phase |
| 23 Other Miscellaneous Construction | 259 | | |
| 24 Total Budget Shortfall | 957 | | |

SMALL BUSINESS PARTICIPATION

Prime Consultant/Contractor:

Balfour Beatty Construction Inc. is the prime contractor for this contract.

The participation goals established for this contract are 15% Small Business, to be accomplished utilizing M/W/DBE participation of at least 10%. Goal attainment to date is 20.03% Small Business and 7.69% M/W/DBE. BBCI remains committed to utilization the remainder of work to increasing M/W/DBE participation.

Utilization Breakdown Table:

| Subconsultant | Business Type | % of Work | Dollar Value |
|-----------------------------------|----------------------|------------------|----------------------|
| Emerald City Weatherproofers, Inc | MBE/DBE | 0.82% | \$ 726,819 |
| Elcon Corporation | Small Business | 8.52% | \$ 7,587,281 |
| Mobile Electrical Distributors | WBE/DBE | 0.56% | \$ 500,000 |
| Salinas Construction, Inc | MBE/DBE | 0.79% | \$ 700,000 |
| John Wayne Construction Company | MBE/DBE | 0.20% | \$ 181,515 |
| JMR Trucking | MBE/DBE | 0.86% | \$ 769,776 |
| Leewens | WBE/DBE | 0.22% | \$ 197,254 |
| Security Barricade, Inc | WBE/DBE | 0.22% | \$ 198,762 |
| Stephen Enterprises, Inc | MWBE | 0.36% | \$ 319,066 |
| Corona Steel, Inc. | MBE | 0.56% | \$ 498,000 |
| Purcell Painting, Inc. | Small Business | 1.59% | \$ 1,420,179 |
| Rainier Steel, Inc | MBE/DBE | 3.10% | \$ 2,765,110 |
| Reliance Fire Protection | Small Business | 2.10% | \$ 1,868,017 |
| Stripe Rite | Small Business | 0.12% | \$ 106,358 |
| Total | | 20.03% | \$ 17,838,137 |

EEO Commitment

The EEO Goals for this contract are 21% People of Color and 12% Women of the total labor hours worked on the contract. To date, 20.26% of the total work hours have been performed by people of color and 4.51% of the total work hours have been performed by women. With the tight labor market it was difficult to attain women workers, in certain areas such as carpenter and plasterer hours Balfour was able to exceed the goal.

Apprentice Utilization Commitment

Balfour Beatty, Inc. committed to a total utilization level of 11.5% apprentice work hours on this project. Attainment to date is 14.17% apprentice utilization.

PROJECT DESCRIPTION and BACKGROUND for PROPOSED ACTION

In November 2001, the Board selected the Central Link Light Rail Initial Segment to be constructed from downtown Seattle to South 154th Street in Tukwila. Construction of the Downtown Seattle Transit Tunnel (DSTT) retrofit and tunnel expansion, included an 800 foot cut and cover tunnel under Pine Street, new vent shaft, replacement of the existing rail within the DSTT, and upgrade of the fire life safety systems.

In August 2004, Sound Transit identified Balfour Beatty Construction Incorporated as the most responsive and responsible bidder for the DSTT Retrofit and Tunnel Expansion project (C510). Balfour Beatty's baseline schedule showed completion of the tunnel expansion under Pine Street to be completed by October 6, 2006 and the DSTT retrofit to be completed by June 4, 2007. Pine street restoration was not completed until May 15, 2007 and the DSTT was substantially complete by June 4, 2007.

The DSTT retrofit and tunnel expansion project had to address multiple unanticipated challenges during construction. The task of retrofitting the DSTT was significantly more complex than originally thought, generally attributed to various factors that range from inadequate as-builts of the existing mechanical and electrical systems as well as Link's own civil-system interfaces, especially the C803 Communications System. There were delays in both the DSTT and tunnel expansion that needed to be mitigated in order to make intermediate milestones for interfacing with the three systems contractors that all shared the DSTT at the same time with BBCI.

These complexities coupled with the demands of reopening of the DSTT on time resulted in additional costs to the contract such as unforeseen repair/replace equipment reaching end of normal service life, finish repair due to contractor and/or existing damage.

Prior Board/Committee Actions on this Project

| Motion/Resolution Number and Date | Summary of Action |
|--|--|
| M2004-78 8/12/04 | Authorizing the Chief Executive Officer to execute a contract with Balfour Beatty Construction Incorporated for the C510 Contract – Downtown Seattle Transit Tunnel Retrofit and Expansion in the amount of \$82,700,000 with a 10% contingency in the amount of \$8,270,000 for a total authorized contract not to exceed \$90,970,000. |

CONSEQUENCES of DELAY

Current authorized funds are forecasted to be exhausted by August 2007. A delay beyond this date will impact Link's ability for re-opening of the DSTT in September 2007.

PUBLIC INVOLVEMENT

Sound Transit outreach and communications staff continues to keep local and area residents informed about the status of the project and the impact of construction on the neighborhoods.

ENVIRONMENTAL COMPLIANCE

Jl, 07/16/07

LEGAL REVIEW

JW 7/13/07

SOUND TRANSIT

MOTION NO. M2007-81

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 Balfour Beatty Construction Incorporated for construction of the Downtown Seattle Transit Tunnel Retrofit and Expansion segment of the Central Link light rail Initial Segment project in the amount of \$3,100,000, for a new total authorized contract amount not to exceed \$94,070,000.

Background:

In November 2001, the Board selected the Central Link Light Rail Initial Segment to be constructed from downtown Seattle to South 154th Street in Tukwila. Construction of the Downtown Seattle Transit Tunnel (DSTT) retrofit and tunnel expansion, included an 800-foot cut and cover tunnel under Pine Street, new vent shaft, replacement of the existing rail within the DSTT, and upgrade of the fire life safety systems.

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These complexities coupled with the demands of reopening of the DSTT on time resulted in additional costs to the contract such as unforeseen repair/replace equipment reaching end of normal service life, finish repair due to contractor and/or existing damage.

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 Balfour Beatty Construction Incorporated for construction of the Downtown Seattle Transit Tunnel Retrofit and Expansion segment of the Central Link light rail Initial Segment project in the amount of \$3,100,000, for a new total authorized contract amount not to exceed \$94,070,000.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on July 26, 2007.

Connie Marshall
Connie Marshall
Board Vice-Chair

ATTEST:

Marcia Walker
Marcia Walker
Board Administrator