

Interim Report on the
SEATTLE CENTRAL LINK
LIGHT RAIL PROJECT

Federal Transit Administration

Report Number: IN-2001-051

Date Issued: April 4, 2001



**U.S. Department of
Transportation**

Office of the Secretary
of Transportation

Office of Inspector General

Memorandum

Subject: **ACTION:** Interim Report on the Seattle Central
Link Light Rail Project
IN-2001-051

Date: April 4, 2001

From: Kenneth M. Mead

Reply to
Attn of:

Inspector General

To: The Secretary

The purpose of this report is to present interim findings on outstanding issues that we have identified during the course of our review of the Seattle Central Link Light Rail Project (Project). We are providing our findings so the Department can resolve the outstanding issues before Federal funding decisions are made.

In response to a request from the Chairman, Subcommittee on Transportation and Related Agencies, House Committee on Appropriations, we are reviewing the Project. The Central Puget Sound Regional Transit Authority (Sound Transit) plans to construct the Project in two segments and estimates it will cost \$4.164 billion including financing costs. The original estimate for the Project was \$2.5 billion, just 7 months ago. The Ten-Year Regional Transit Plan, which was approved by voters, described the Project as 23.5 miles and containing three segments—a 7.4-mile University Link (Segment 1), a 12.6-mile Airport Link (Segment 2), and a 3.5-mile Northgate Link (Segment 3). The plan stated that the third segment would only be built if funds are available.

The Federal Transit Administration (FTA) awarded a \$500 million full funding grant agreement (grant agreement) for the first segment January 19, 2001. Segment 1 is currently the most expensive transit project in the United States with a full funding grant agreement. Sound Transit estimates that Segment 1 will cost \$2.6 billion (about \$1 billion more than the original baseline estimate of \$1.674 billion).

According to Sound Transit's Acting Executive Director, the Sound Transit district consists of the urbanized portions of three counties¹ and is home to 3 million people, just over half of the state's population of 5.8 million. Over the last few years, the Sound Transit district has been consistently ranked among the three most congested metropolitan areas in the nation. The Project is intended to provide an alternative to traffic congestion by adding new exclusive right-of-way where it is needed most—in areas where existing roads and bus services are already congested at peak travel times.

The objectives of our review are to determine the reasonableness of the current cost and schedule estimates, and the sufficiency of funding for the Project. In particular, we are looking at factors that caused the recent \$1 billion cost growth in Segment 1 and identifying emerging issues that might impact the Project. In addition, we are reviewing the potential impact of project costs on other proposed regional transportation projects.

Results in Brief

Although our review of the Project is not complete, we have concluded that a number of outstanding or unresolved issues exist and warrant prompt action by FTA and Sound Transit. Several of these issues should have been settled prior to executing the grant agreement and others before submitting the grant agreement to Congress for review. The Senate Report accompanying the Fiscal Year 2000 Department of Transportation Appropriations Bill cautioned FTA against rushing towards signing grant agreements and suggested that Project cost estimates in particular be scrutinized. We are raising these issues now to enable the Secretary of Transportation to take the actions necessary to resolve or otherwise address these matters. We are recommending that funds and funding decisions for the Project be held in abeyance until the Secretary determines that FTA has resolved these issues and Congress has had time to review the grant agreement.

Specifically, our concerns fall into three areas:

- *First*, FTA did not perform satisfactory due diligence in the grant application review process. FTA and Sound Transit need to explain why they advanced the grant approval process in September 2000 despite information that the Project's cost and schedule were changing significantly, and concluded the process in January 2001, as the earlier indications came to fruition. Both FTA and Sound Transit had information that the \$1.674 billion cost estimate and revenue

¹ King, Pierce, and Snohomish.

operation date of June 2007 contained in the grant agreement submitted to the Congress in September 2000, were materially understated and consideration of the grant agreement should have been suspended or withdrawn. Specifically:

- ◆ Sound Transit knew in July 2000 that the tunnel bids on Segment 1 were substantially over the amount budgeted because it had received cost proposals for the tunnel contract that were substantially higher than their engineer's estimate. However, Sound Transit hoped to develop cost savings that would lower the tunnel bid.
- ◆ The Project Management Oversight Consultant's (PMOC) August 2000 report stated that unplanned mitigation for noise vibrations at the University of Washington could increase the cost of Segment 1. This mitigation would require mining a deeper tunnel under the University of Washington's physics building to avoid disturbing laboratory experiments, and would probably cost more than what was budgeted for this work. FTA's PMOC did not estimate the dollar amount of that increase.
- ◆ In November 2000, FTA knew that Sound Transit was considering options that constituted Project scope changes and that Sound Transit was waiting for the grant agreement to be awarded before making any changes to the Project. Sound Transit knew that scope changes, such as tunnel alignment changes², could require a revision to the grant agreement, during which time it could lose the opportunity for Federal funding under the Transportation Equity Act for the 21st Century.

On January 18, 2001, the former Secretary of Transportation notified the Congress that the grant agreement for Segment 1 would be revised to reflect a cost estimate of \$2.602 billion (a \$1 billion increase) and a new revenue operation date of November 2009 (a delay of about two and a half years). On January 19, 2001, the former Secretary of Transportation approved the grant agreement for Segment 1.

- *Second*, FTA's December review of the Project, including its examination of the new \$2.602 billion estimate, was not thorough enough to serve as a predicate for approval of the Project on January 19, 2001. FTA needs to address several items that could significantly impact the Project's cost, schedule, and scope. Specifically:

² These proposed changes included, for example, (1) abandoning plans for a tunnel under Portage Bay and (2) changing the tunnel alignment to avoid Capitol Hill by looping west to the Seattle Center and Space Needle, then north crossing Portage Bay either via a high bridge or tunnel.

- ◆ *Existing agreements have to be revised.* Two major agreements that were previously signed—property for a station location on the University of Washington’s campus and the transfer of use of the Downtown Seattle Transit Bus Tunnel—have to be revised because of the change in the Project’s schedule. The change to the bus tunnel agreement alone could increase Project costs by \$60 million.
- ◆ *Design refinements have not been finalized.* There are 12 design refinements/value engineering options that have not been finalized that could materially impact the Project’s cost and schedule. The 12 options include alignment changes, ventilation and maintenance base facilities, and deep tunnel elevators that could also require an amended grant agreement. The Sound Transit Board will decide on seven of the options between the months of July and September 2001. The Board has not determined when decisions on the remaining five will be made.
- ◆ *Contracting method for the new tunnel is uncertain.* Sound Transit is reconsidering whether to use a design-build contract for constructing its primary tunnel rather than a traditional design-bid-build contract. This decision is important because Sound Transit’s representation that it intended to use a design-build contract allowed the grant agreement to be considered for approval in September 2000. If a design-bid-build approach were used, the tunnel would have to have been farther along in the design stage for the grant agreement to be considered for approval.
- *Third, changes to the Project’s scope, cost and schedule estimates have resulted in opposition to, and confusion about, the Project.* Critics have raised two major questions about the Project. First, which version of the Project will taxpayers receive? Second, how will Sound Transit’s decision to move buses out of the downtown Seattle bus tunnel impact downtown Seattle traffic?

FTA and Sound Transit need to clarify the Project’s scope and, on that basis, clearly define the Federal Government’s commitment. The Project endorsed by the voters included completing a 20-mile system (Segments 1 and 2) from North East 47th Street to South 200th Street and local funding was secured on that basis. The grant agreement approved on January 19, 2001 funded only a 7.4-mile segment of the Project (Segment 1). Moreover, as costs increased for Segment 1, much of the local funding previously intended for Segment 2 was committed to the 7.4-mile Segment 1. Only Segment 1 is covered by the grant agreement, *not the entire alignment that comprises the Project.*

Sound Transit plans to ask the Federal Government for an additional \$931 million to construct Segment 2. This request would bring the Federal portion of the Project's cost to \$1.4 billion. If additional Federal funding is not approved, this could jeopardize Segment 2's chances for completion unless additional local funds are provided. If FTA and Sound Transit intend to finance Segment 2 as well, they should be up front about this and ensure the Project is justified and approved on that basis and that adequate Federal and local financing sources are identified.

Sound Transit's decision to close the Downtown Seattle Transit Tunnel (bus tunnel) to bus operations has also resulted in local opposition. Bus volume in downtown Seattle will grow by about 29 percent when the bus tunnel is no longer available for bus operations. Currently, 468 buses operate in the downtown area during the peak hours. Sound Transit estimates that 136 buses now operating in the bus tunnel during the afternoon peak hour will also operate in the downtown Seattle traffic, after it takes over the bus tunnel.

Recommendations

Until FTA and Sound Transit complete the following tasks, we recommend that the Secretary hold funds and funding decisions for the Project in abeyance. The Secretary should direct the Acting Administrator of FTA to ensure that the following actions are taken and appropriately completed, and certify to that effect:

1. Sound Transit identifies and discloses all issues that could materially impact the Project's costs, schedule and scope, including alignments, design refinements, contracting methods, and local agreements.
2. FTA and its PMOC validate that the estimated cost to complete the project is accurate and complete and includes an assessment of all factors that could substantially increase project and operational/maintenance costs.
3. FTA and its Financial Management Oversight Contractor validate that funding sources are sufficient to complete Segment 1, and assesses the impact on Segment 2 of Sound Transit's use of \$2.1 billion of the Project's local funding for Segment 1.
4. Congress has 60 days to review the Project's grant agreement after the Secretary determines that FTA and Sound Transit have resolved, or otherwise satisfactorily addressed, the issues raised in this report.

Background

Sound Transit's Board consists of 18 members. The State Transportation Department Secretary serves on the Board. The other 17 members are local elected officials, who are appointed by the County Executive in each of the three counties—King, Pierce, and Snohomish—within the Sound Transit District. The local elected officials include mayors, city council members, county executives and county council members. One Board member, per 145,000 people living within a county, represents each county.

On May 31, 1996, Sound Transit adopted a proposal to build the first phase of a high-capacity transit system to provide the region with alternatives to meet its travel needs—the Ten-Year Regional Transit System Plan. On November 5, 1996, voters within the three-county Sound Transit District approved an increase in taxes (a 4/10 of one percent increase in local sales tax and a 3/10 of one percent increase in the local motor vehicle excise tax) to fund the local share of the plan.

In September 2000, Sound Transit estimated that the Project would cost \$2.5 billion. Then, in December 2000, Sound Transit released a revised estimate, indicating that the Project would cost \$3.6 billion, and completion would be delayed about two and a half years. The Project's current estimate, including financing costs and the Project reserve, is \$4.164 billion.

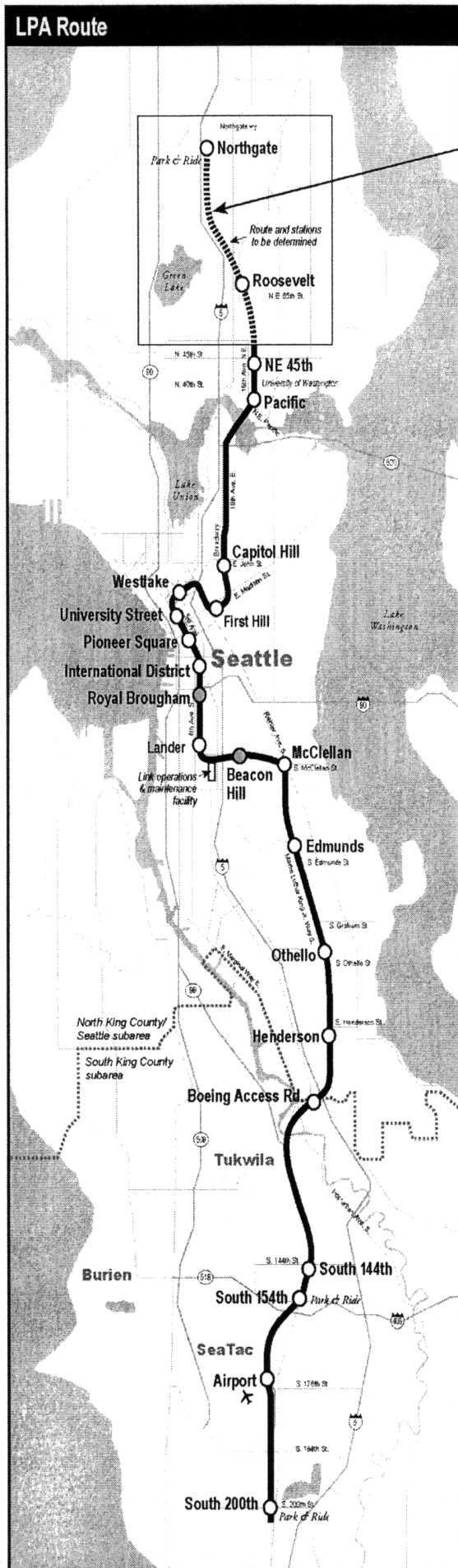
The former Secretary of Transportation approved a grant agreement for Segment 1 of the Project on January 19, 2001. Under this agreement, FTA made a commitment to provide \$500 million towards the \$2.6 billion cost estimate to construct Segment 1 of the Project from North East 47th Street to South Forest Street in Seattle. Segment 1 includes construction of a tunnel from North 47th Street to downtown Seattle and the conversion of an existing downtown bus tunnel in the downtown business district. Sound Transit plans to request additional Federal funding through another grant agreement for Segment 2 of the Project. The following maps show the entire 23.5-mile Project and Segment 1 (University Link).

Map of the 23.5-mile Project and Segment 1

Segment 3
3.5 miles

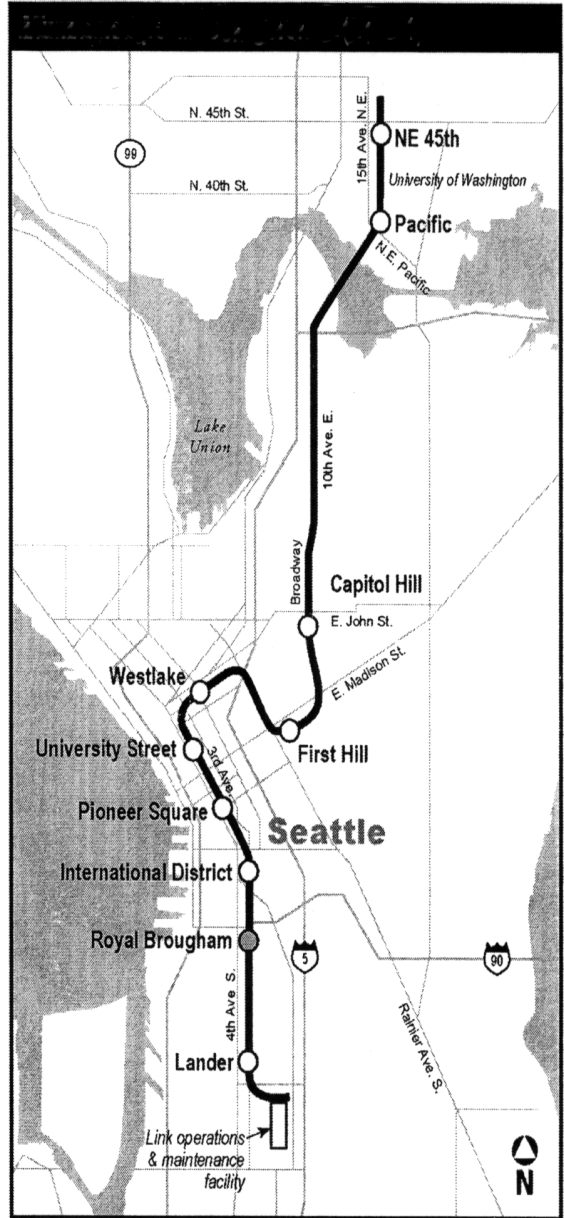
Segment 1
7.4 miles

Segment 2
12.6 miles



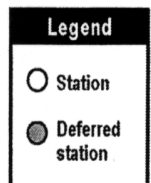
Northgate extension

Segment 1 (7.4 miles)



Segment 1 extends approximately 7.4 miles from NE 47th Street to South Forest Street in Seattle, WA

Source: Sound Transit



Areas of Concern

Sound Transit and FTA advanced the grant approval process in September 2000 despite information that the Project's cost and schedule were changing significantly, and concluded the process in January 2001, as the earlier indications came to fruition.

The Federal Transit Act (49 U.S.C. 5309) requires that Congress review all projects eligible for a grant agreement. On September 8, 2000, FTA sent a package containing the proposed grant agreement for Sound Transit to Congress for a 60-day comment period as required by law. The cost estimate for Segment 1 was \$1.674 billion and the revenue operation date was June 23, 2007. The grant agreement that was signed on January 19, 2001 for Segment 1 included a cost estimate of \$2.602 billion and a November 9, 2009 revenue operation date. The project description for Segment 1 remained unchanged.

FTA does not have criteria for processing a grant agreement where a revision to the baseline cost estimate and the baseline schedule are made after the 60-day congressional review but prior to FTA approval. However, the Conference Committee Report 106-940 for Fiscal Year (FY) 2001 appropriations provides guidance that Congress wants to be informed of material changes in grant agreements. Specifically, the report:

directs FTA to inform the House and Senate Committees on Appropriations before approving scope changes in any grant agreement. Correspondence relating to scope changes shall include any budget revisions or program changes that materially alter the project as originally stipulated in the full funding grant agreement and shall include any proposed change in rail car procurements.

In this case, while the scope of the Project and the Federal commitment remained unchanged, the budget and the schedule *changes were significant*. The draft agreement given to Congress for a 60-day review period materially understated cost, and did not meet the intent of this review period.

Sound Transit and FTA had information before September 8, 2000, that Project costs for Segment 1 were rising. In July 2000, Sound Transit received tunnel bids for Segment 1 that were substantially over the estimated amount. During August 2000, numerous newspaper articles asserted that cost proposals for the tunnel contract were higher than the Project's budget for the tunnel. In addition, FTA's Project Management Oversight Consultant's (PMOC) August 2000 report mentioned the Project might experience cost increases.

In September 2000, news accounts continued to mention higher than budgeted tunnel bids and other cost increases for the Project. On September 6, 2000, FTA asked Sound Transit for clarification of reports related to cost increases on the Project. Sound Transit stated on September 7, 2000, that the Project was about \$200 million over budget. While admitting that the budget for the entire project had increased by \$200 million, Sound Transit's response also disclosed that the bids for the tunnel contract on Segment 1 were above the amount budgeted, but did not indicate by how much. Nevertheless, FTA sent the draft of the proposed grant agreement to Congress on September 8, 2000, without mentioning the potential cost increase information on the tunnel.

In October 2000, Sound Transit's Board of Directors requested an independent review of the agency's financial capability to build the tunnel. The review was to focus on (1) the agency's financial capability to build the tunnel if costs were significantly greater than anticipated, and (2) the technical feasibility of the tunnel. Local newspapers published frequent articles on the projected cost of the tunnel.

The 60-day congressional review period ended on November 7, 2000. The PMOC, in a November 2000 monthly report to FTA, stated that Project costs might be over budget and suggested a review of selected cost elements including right-of-way, third party agreements, and the design-build tunnel.

FTA knew that Sound Transit was considering various options to reduce costs, some of which included scope changes. In a November 20, 2000 memorandum, the FTA Region 10 Administrator stated that Sound Transit expressed a preference to avoid major changes in the scope of the Project. Sound Transit, aware that scope changes could require that the grant agreement be revised, did not want to lose its opportunity for Federal funding.

On December 27, 2000, the FTA Region 10 Administrator recommended to the Acting FTA Administrator that the grant agreement with Sound Transit for a \$500 million Federal contribution for Segment 1 be revised to reflect new cost and schedule estimates. On January 11, 2001, the Chairman of the Subcommittee on Transportation and Related Agencies, House Appropriations Committee sent a letter to the former Secretary of Transportation asking him to defer entering into a grant agreement for Segment 1 of the Project until February 12, 2001. The Chairman wanted time to understand the grant agreement and allow time for review by the incoming Administration.

On January 18, 2001, the former Secretary wrote the Chairman informing him of the revisions made to the draft grant agreement for the Project. The former

Secretary stated that (1) total project costs for Segment 1 were revised from \$1.674 billion to \$2.602 billion; (2) the revenue operation date had been extended from June 23, 2007 to November 9, 2009; (3) there was no change to the scope of work; and (4) there was no change to the Federal contractual commitment of \$500 million in new starts funds. The former Secretary assured the Chairman that the Project was highly recommended.

On January 19, 2001, the former Secretary signed the grant agreement for the Project. By this time, the political appointees had left FTA and the Associate Administrator for Budget and Programs was serving as the Acting Administrator. The Acting Administrator told us he declined to sign the grant because of Chairman Rogers' request for time to review the agreement.

FTA did not perform a sufficiently thorough evaluation of the grant agreement and there were and are unresolved items that could materially impact the Project's cost, schedule, and scope.

FTA's December 2000 review of the Project, including its examination of the revised \$2.6 billion estimate, was not thorough enough to serve as a predicate for approval of the Project on January 19, 2001. FTA did not adequately evaluate the revised estimate, and needs to address several items that could significantly impact the Project's cost, schedule, and scope.

The \$2.6 billion cost estimate for Segment 1 does not reflect cost changes that may result from (1) revisions to two previously signed local agreements resulting from the delayed Project schedule, (2) 12 pending decisions on design refinements/value engineering options and alignments, or (3) decisions on a contracting approach for the Project's major tunneling contract.

Revise Local Agreements

Sound Transit's extension of the revenue operation date from 2006 to 2009 will require it to amend two major local agreements. Sound Transit negotiated two major local agreements with the City of Seattle and King County (for a downtown bus tunnel), and with the University of Washington (for station locations on University property) before signing the revised grant agreement on January 19, 2001.

Sound Transit will have to revise the downtown bus tunnel agreement to reflect the new revenue service date, tunnel transfer date, and payment schedule. King County expected that Sound Transit would take over the tunnel in 2004 (tunnel

transfer date) and did not include any funding in its budget for operating and maintenance of the tunnel from 2004 to 2007, the period that Sound Transit said there would be a schedule delay. A recent staff report prepared for the Metropolitan King County Council estimates that changes to the bus tunnel agreement could add up to \$60 million to the Project. We were not provided an estimate for the cost of the station locations on the University of Washington property. However, that agreement will also have to be amended to reflect the new revenue operation date.

Design Refinements/Value Engineering Options Not Finalized

Table 1 identifies 12 design refinements that could impact the Project’s cost and schedule. The design refinements should have been addressed prior to execution of the grant agreement. The Sound Transit Board will decide on seven of the refinements between the months of July and September 2001. It is unknown when the Board will decide on the remaining five. The design refinements could require an amended grant agreement, if approved by Sound Transit’s Board. The 12 refinements include ventilation and maintenance base facilities, and elevators in deep tunnel stations that could require an amended grant agreement. We plan to follow up on the Board decisions and their impact on the Project cost and scope in the coming months.

Table 1. Design Refinements Being Considered

Description	Board Decision Date
Convention Place Station Alignment	July, 2001
Capitol Hill Station & Crossover (Nagle Place)	August, 2001
First Hill Station Refinement	August, 2001
NE 45 th Station Refinement	August, 2001
Pacific Station & Crossover	August, 2001
SR-520 Ventilation Facility Refinements	September, 2001
Deferral of Maintenance Base Facilities	September, 2001
Refine Tunnel Alignment.	Not known
Eliminate Conveyor & Barging System at Pacific	Not known
Deferral of Elevators in Deep Tunnel Stations	Not known
Review of Deep Tunnel Fire/Life Safety Enhancements	Not known
Review of Station Architectural Finishes	Not known

Source: Sound Transit’s Central Link Board Briefing Book January 2001 and 6-month work plan.

Undecided Contracting Approach

Sound Transit is also considering whether to change the primary tunnel contract from a design-build contract to traditional design-bid-build contracts. Sound Transit officials indicated they plan to award the construction contract later this year. They also stated that the more conventional approach of contracting,

design-bid-build, could reduce the cost of the tunnel segment. In addition, Sound Transit officials stated that the 2009 revenue operation date would not change if Sound Transit's Board decided to alter the tunnel's contract method.

This decision is important because Sound Transit's representation that it intended to use a design-build contract allowed the grant agreement to be considered for approval earlier in the design stage than if the design-bid-build approach were used. Sound Transit considered changing methods prior to signing the grant agreement, but wanted to avoid changes that would require the grant agreement to be revised.

Changes to the Project have resulted in increased local opposition.

Changes to the Project, including its cost estimates and schedule, have resulted in mounting opposition to, and confusion about, the proposed system. Sound Transit's announcement in December 2000 that the cost estimate for Segment 1 would increase by almost \$1 billion guaranteed public criticism from local opposition and media. Critics have raised two major questions about the Project. First, which version of the Project will taxpayers receive? Second, how will Sound Transit's decision to move buses out of the downtown Seattle bus tunnel impact downtown Seattle traffic?

Segment 1 Will Require Funds Intended For Segment 2

Voters who approved the original ballot measure in November 1996 may see Sound Transit construct only Segment 1, unless the Federal government commits to an additional \$931 million for Segment 2. The proposed grant agreement, first submitted in May 2000, reported a \$1.674 billion budget for Segment 1. However, the grant agreement approved on January 19, 2001, reported a \$2.602 billion budget for this segment, an increase of \$928.6 million over the original cost estimate.

Table 2 shows that cost estimates increased significantly for tunnel construction and station finishes, right of way, soft costs³, and finance costs. These estimates increased for four reasons. First, bid proposals for tunnel construction and station finishes came in higher than Sound Transit expected. Second, right of way costs escalated. Third, the administrative costs estimates increased. Fourth, the agency

³ Soft costs include cost such as project start-up, contracted final design, contracted construction management, other contracted services, intergovernmental agreements, project management, and other miscellaneous items.

also increased contingencies within the various project cost elements to cover potential risks.

Table 2				
Change in Cost Estimate				
(in millions)				
Cost Elements	Original Grant Agreement	Revised Grant Agreement	Difference	Percent Change
Construction, Station Finishes, PE/EIS	\$753.81	\$1,152.77	\$398.96	52.93
LRT Vehicles	\$158.79	\$158.91	\$0.12	.08
Signals, Communications, Radios	\$75.35	\$98.77	\$23.42	31.08
Fare Collection	\$6.07	\$6.67	\$0.60	9.88
O&P Facility, Maintenance Equipment & Shop	\$63.92	\$77.52	\$13.60	21.28
Non-Revenue Vehicles	\$2.69	\$3.61	\$0.92	34.20
Right of Way	\$107.76	\$187.27	\$79.51	73.78
Soft Costs	\$251.57	\$564.78	\$313.21	124.50
Financing Costs	\$99.00	\$195.00	\$96.00	96.97
Subtotal	\$1,518.96	\$2,445.30	\$926.34	60.99
Project Reserves	\$155.04	\$157.30	\$2.26	1.46
Total	\$1,674.00	\$2,602.60	\$928.60	55.47

Source: Baseline cost estimates from the full funding grant agreements—original and revised versions.

From the outset, Sound Transit’s financial plans to construct Segment 1 and Segment 2 have included Federal funding expectations, and the approved FTA grant agreement addresses those expectations, in part, by providing \$500 million for Segment 1. However, Sound Transit revised its Federal funding projection for Segment 2, following the increase in Segment 1’s cost estimate. Since the agency expects to use local funds previously planned for Segment 2 on Segment 1, it plans to apply for an enlarged Federal funding request for Segment 2.

Sound Transit originally expected to request \$441 million in Federal funds (28 percent) for Segment 2 but now plans to request \$931 million (60 percent) of the total \$1.562 billion cost estimate. If Sound Transit does not receive the expected \$931 million in Federal funding for Segment 2, the agency will have to alter its financial plan and secure other funding to construct this segment. However, since a final cost estimate for Segment 1 has not been determined, it is not yet known if additional local funding will be shifted from Segment 2 to Segment 1.

Only Segment 1 has local funding committed and a Federal funding grant agreement. Sound Transit makes the assumption that at least 60 percent of funding for Segment 2 will come from Federal sources; not taking into account that Segment 1 has not reached a final cost figure and may need even more of Segment 2 local funding. Unless the Federal government commits to an additional \$931 million (which is almost double the commitment for Segment 1), *the reality is Sound Transit may only be able to fund one segment—Segment 1.*

Closing The Tunnel To Buses Will Increase Traffic Congestion

Sound Transit's decision to close the Downtown Seattle Transit Tunnel (bus tunnel) to bus operations has also resulted in local opposition. Prior to February 1999, the plan was to have buses and light rail in the bus tunnel. Rails currently exist in the bus tunnel, but the rails will have to be removed by Sound Transit when it takes over the bus tunnel because they do not meet the minimum safety requirements for light rail operations. The Downtown Seattle Association and other groups now oppose Sound Transit's plans because it plans to limit use of the bus tunnel to light rail vehicles only and will require Sound Transit and other transit agencies to use surface streets for buses that formerly operated in the bus tunnel.

Bus volume in downtown Seattle will grow by about 29 percent when the bus tunnel is no longer available for bus operations. Currently, 468 buses operate in the downtown area during the peak hours. Sound Transit estimates that 136 buses now operating in the bus tunnel during the afternoon peak hour will also operate in the downtown Seattle traffic, after it takes over the bus tunnel.

Recommendations

1. Until FTA and Sound Transit complete the following tasks, we recommend that the Secretary hold funds and funding decisions for the Project in abeyance. The Secretary should direct the Acting Administrator of FTA to ensure that the following actions are taken and appropriately completed, and certify to that effect:
 1. Sound Transit identifies and discloses all issues that could materially impact the Project's costs, schedule and scope, including alignments, design refinements, contracting methods, and local agreements.
 2. FTA and its PMOC validate that the estimated cost to complete the project is accurate and complete and includes an assessment of all factors that could substantially increase project and operational/maintenance costs.

3. FTA and its Financial Management Oversight Contractor validate that funding sources are sufficient to complete Segment 1, and assesses the impact on Segment 2 of Sound Transit's use of \$2.1 billion of the Project's local funding for Segment 1.
4. Congress has 60 days to review the Project's grant agreement after the Secretary determines that FTA and Sound Transit have resolved, or otherwise satisfactorily addressed, the issues raised in this report.

Action Required

In accordance with Department of Transportation Order 8000.1C, we would appreciate receiving your written comments within 30 days. If you concur with our findings and recommendations, please indicate for each recommendation the specific action taken or planned and the target dates for completion of these actions. If you do not concur, please provide your rationale. Furthermore, you may provide alternative courses of action that you believe would resolve the issues presented in this report.

If I can answer any questions or be of further assistance, please feel free to contact me at (202) 366-1959, or Todd J. Zinser, Acting Deputy Inspector General, at (202) 366-6767.

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