

**SOUND TRANSIT
STAFF REPORT**

MOTION NO. M2004-38

**Interagency Project Agreement with Pierce Transit
for Transit Signal Priority**

Meeting:	Date:	Type of Action:	Staff Contact:	Phone:
Finance Committee	4/15/04	Discussion/Possible Action	Sheila Dezarn, Program Manager of Policy and Planning Nick Marquardt, Research and Technology Project Manager	(206) 398-5071 (206) 698-4903

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

✓ *applicable to proposed transaction*

OBJECTIVE OF ACTION

To enter into an Interagency Project Agreement with Pierce Transit and to provide funding for the analysis, design, installation, equipment procurement, and testing of Transit Signal Priority improvements in the downtown Tacoma area.

ACTION

Authorize the Chief Executive Officer to execute an Interagency Project Agreement with Pierce Transit to manage implementation of the Downtown Tacoma Transit Corridor Technology Project, in the amount of \$600,000.

KEY FEATURES

- Follows the Sound Transit Board's policy direction for the Research and Technology Program's corridor-level technology initiative, which includes Transit Signal Priority (TSP) improvements.
- Pierce Transit will provide overall project management. Scope of work includes management and oversight of the analysis, design, installation, equipment procurement, and testing of TSP improvements.
- TSP improvements will improve the speed and reliability for multiple Regional Express routes by mitigating signal delay through the implementation of TSP at a series of intersections within the downtown Tacoma area, resulting in an estimated 30% decrease in signal delays.
- TSP improvements will include signal controller upgrades, timing and coordination modifications, TSP deployment, striping, and channelization improvements along the route corridors of Commerce Street, Pacific Avenue, and Puyallup Avenue.

- The TSP project will assess the impact of Tacoma Link operations and recommend strategies to improve bus operations within the shared operating corridors of downtown Tacoma.

BUDGET IMPACT SUMMARY

There is no action outside of the board-adopted budget; there are no contingency funds required because sound transit's contribution is capped at \$600,000. No subarea impacts or funding is required from other parties other than what is already assumed in the financial plan.

BUDGET DISCUSSION

The adopted capital budget for Research and Technology Fund is \$10,318,000. The lifetime budget identified for transit signal prioritization is \$1,122,000. With approval of this action, the budget remaining for this activity will be \$522,000.

REVENUE, SUBAREA, AND FINANCIAL PLAN IMPACTS

The proposed action is consistent with the Adopted 2004 Budget and is affordable within Sound Transit's current long-term financial plan and the subarea financial capacity. The action will have no new revenue impacts on Sound Transit.

BUDGET TABLE

Summary for Board Action (Year of Expenditure \$000)

Action Item: Downtown Tacoma Transit Signal Priority Project

<u>410 Research and Technology</u> <u>(page 209)</u>	Current Board Adopted Budget (A)	Committed To Date (B)	This Action (C)	Total Committed & Action (D)	Uncommitted (Shortfall) (E)
1 Agency Administration				-	-
2 Preliminary Engineering	10,318	1,774	600	2,374	7,944
3 Total Current Budget	10,318	1,774	600	2,374	7,944

Phase Budget Detail

4 Transit Signal Priority	1,122		600	600	522
7 Other	9,196	1,774	-	1,774	7,422
8 Total Phase	10,318	1,774	600	2,374	7,944

Contract Budget	Current Approved Contract Value (F)	Spent to Date (G)	Proposed Action (H)	Proposed Total Contract Value (I)
12 Pierce Transit	0	0	600	600
13 Contingency	0	0	-	-
14 Total	0	0	600	600
15 Percent Contingency			0%	0%

M/W/DBE – Small Business Participation

Not applicable to this action.

HISTORY OF PROJECT

Prior Board or Committee Actions and Relevant Board Policies

Motion or Resolution Number	Summary of Action	Date of Action
M2002-101	Regional and Sound Transit Technology Plan identified the need for the Research and Technology Program to fund Transit Signal Priority (TSP) improvements and to work with local agency partners to develop and implement TSP systems.	9/05/02

Transit Signal Priority

Transit Signal Priority invokes several concepts on how to provide an advantage to a bus over general-purpose traffic. There are many techniques to advance a bus through traffic such as queue jumps, HOV/Transit lanes, optimization of signal timings, and special access treatments. Transit Signal Priority refers to the concept of detecting a bus in the flow of traffic and providing more “green time” for the transit vehicle as it travels within the general traffic stream. Additional green time refers to a host of control strategies that are employed at the intersection traffic controller level once the bus is detected and is authorized for priority treatment. In the downtown Tacoma area, there are three corridors identified through preliminary analysis where this concept can be applied to the benefit of current transit operations.

Project Background

Transit access and general purpose access (serving transit patrons) to transit stations and facilities is critical for the success and continued development of the regional transit system and of the downtown Tacoma and the Tacoma Dome areas. Some investments have already been made, including a limited deployment of new traffic signal controller technology, TSP equipment at some existing intersections, and TSP equipment on Pierce and Sound Transit buses. Additional investment is needed to capitalize on existing projects and to fully utilize the capabilities of technologies that are currently or soon to be deployed in the study area.

A comprehensive evaluation of the traffic operations for both transit and general-purpose traffic is needed to optimize and design a coordinated system of transit access and circulation improvements within the Tacoma Dome and downtown areas. Deployment of additional field equipment and improvements to the existing street and signal system are needed to improve transit access and circulation to key transit facilities and destinations in the study area and to improve express transit access to/from I-5.

Benefits of TSP and the Project

Transit signal priority is a tool to both improve schedule reliability and to reduce trip time. Implementation for downtown Tacoma will focus on the Pacific Avenue, Puyallup and Commerce Street Corridors and will include study, design, and implementation tasks. These two corridors provide the primary transit routes to and from downtown Tacoma and are utilized by Pierce Transit and Sound Transit Express routes. The scope of the project will evaluate technology improvements and alternatives to improve transit access and traffic flow in and out of downtown Tacoma on Pacific Avenue, Puyallup Avenue, and Commerce Street. The

objective is to better utilize and build upon the TSP technologies and investments currently deployed by Pierce Transit.

Research and Technology Program Background/Relationship

The Research and Technology Fund was included in Sound Move to explore new technologies that could be, where practical, incorporated into the implementation of existing services and/or to provide the Board with the information that could be used in developing future programs and projects. Per Sound Move, Sound Transit will “evaluate...innovative ways to provide transit service, reduce dependency on single occupancy vehicles, improve public transportation’s cost effectiveness, and better respond to customer needs.”

In 2002, the Sound Transit Board adopted a Transit Technology Plan to assess and identify an array of technological advancements to existing rail and bus transit service. This Plan established initiatives that are designed to improve customer service, customer safety and security, and operations through technology investments. This particular project is a component to one of the Sound Transit initiatives, “the Corridor Transit Technology Initiative,” which includes a set of related ITS (Intelligent Transportation Systems) projects that provide advanced transit technology applications for bus and commuter rail operations in select corridors. Transit Signal Priority is a component to this initiative and is a proven and beneficial application of ITS technology to improve localized operating conditions along Sound Transit service corridors.

Partnerships

There are multiple agency funding partnerships and grants involved in this project. The overall budget for the project is approximately \$725,000. Pierce Transit is actively seeking funding from the Federal Department of Transportation and the Washington State Transportation Improvement Board in the form of Congestion Management Air Quality (CMAQ), Transportation Improvement Board (TIB). Local matching funds are from the City of Tacoma and Sound Transit. Pierce Transit will provide overall project management and in-kind services in the amount of \$25,000.

CONSEQUENCES OF DELAY

There are no significant risks should the Finance Committee delay action on the proposed contract for implementation of the TSP system within downtown Tacoma.

PUBLIC INVOLVEMENT

The Pierce Transit Board of Directors is expected to approve the funding Interagency Project Agreement in April 2004.

LEGAL REVIEW

BN 4/2/04

SOUND TRANSIT

MOTION NO. M2004-38

A motion of the Finance Committee of the Central Puget Sound Regional Transit Authority authorizing the Chief Executive Officer to execute an Interagency Project Agreement with Pierce Transit to manage implementation of the Downtown Tacoma Transit Corridor Technology Project, in the amount of \$600,000.

Background:

The Research and Technology Fund was included in Sound Move to explore new technologies that could be, where practical, incorporated into the implementation of existing services and/or to provide the Board with the information that could be used in developing future programs and projects. Per Sound Move, Sound Transit will "evaluate...innovative ways to provide transit service, reduce dependency on single occupancy vehicles, improve public transportation's cost effectiveness, and better respond to customer needs."

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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 an Interagency Project Agreement with Pierce Transit to manage implementation of the Downtown Tacoma Transit Corridor Technology Project, in the amount of \$600,000.

APPROVED by the Finance Committee of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on April 15, 2004.



Kevin R. Phelps
Finance Committee Chair

ATTEST:



Marcia Walker
Board Administrator