

**MOTION NO. M2013-15**

**Contract for Designing, Installing, Testing, and Commissioning a Positive Train Control System**

<b>MEETING:</b>	<b>DATE:</b>	<b>TYPE OF ACTION:</b>	<b>STAFF CONTACT:</b>	<b>PHONE:</b>
Capital Committee	3/14/13	Recommendation to Board	Ahmad Fazel, DECM Executive Director	206-398-5389
Board	3/28/13	Final Action	<b>Eric Beckman, Project Director</b>	206-398-5251

**PROPOSED ACTION**

Authorizes the chief executive officer to execute a contract with Wabtec Corporation to design, install, test, and commission a Positive Train Control system on the Sounder vehicles and on the Sound Transit-owned Tacoma to Lakewood rail segment in the amount of \$34,064,839, with a 10% contingency of \$3,406,484, for a total authorized contract amount not to exceed \$37,471,323.

**KEY FEATURES SUMMARY**

- This contract provides for design and installation of Positive Train Control (PTC) radio equipment along approximately nine miles of the Sound Transit-owned Lakeview Subdivision, and onboard equipment on all locomotives and cab cars.
- This contract scope includes
  - Data collection, surveying, mapping and development of a database for the Lakeview Subdivision.
  - Production of all required Federal Rail Administration (FRA) plans including the PTC Development Plan, PTC Safety Plan and amendments to the PTC Implementation Plan
  - Installation of wayside equipment along the Lakeview Corridor.
  - Installation of all onboard equipment on the Sounder fleet
  - Testing, certification and final FRA approval of the PTC system for certification
  - Training and maintenance support.
- Upon completion, the PTC system will be fully interoperable with BNSF per federally mandated requirements.

**BACKGROUND**

The Rail Safety Improvement Act of 2008 and other federal regulations require all railroads that carry passenger trains and certain toxic materials to be equipped with Positive Train Control (PTC) technology that is tested, commissioned, and certified by December 31, 2015.

The first step in meeting the deadline for implementation was to file a PTC Implementation Plan with the FRA for review and approval. The PTCIP outlines the strategy and approach of the Agency for meeting the objectives and timeline of the legislation. Sound Transit completed this plan in 2010 consistent with the FRA timeline for doing so and has an approved PTCIP on file. This action for moving forward with PTC on Sounder equipment and Sound Transit owned railway is wholly consistent with that Plan.

PTC systems are integrated command, control, communications and information systems for controlling train movements with safety, security, precision and efficiency, issuing movement authorization to train and maintenance-of-way crews and track the location of the trains. They improve railroad safety by reducing the probability of collisions between trains, casualties to roadway workers, damage to equipment, and over speed accidents. They have the capability to stop a train should the locomotive crew be incapacitated. In addition to providing a greater level of safety and security, PTC systems also enable railroad companies to run scheduled operations and provide improved running time, greater schedule reliability, higher asset utilization and greater track capacity.

Sound Transit issued a Request for Proposal to design, install, test, and commission a PTC system for the Sound Transit-owned Lakeview Subdivision of the Sounder commuter rail Tacoma to Lakewood segment. This type of procurement and contracting method was selected based on the following factors: it allows the same team to both design and install the project, it allows price to be a scored component of the selection process, and it minimizes the potential for claims during or after installation by the contractor based on a defective design. A single proposal was received.

Railroads across the country are in the process of procuring PTC systems, and resources, and firms with expertise in the field of design and installing PTC systems are limited. Because PTC technology is relatively new, there are a limited number of resources available with the expertise to perform this work. The design/install services were competitively bid in 2012 but only a single proposal was received. A post bid discussion with contractors who showed interest but did not bid found that they were either too busy to take on additional work or unable to receive sub quotes. Negotiations with the sole bidder were successful in bringing the price within 6% of the revised engineer's estimate of \$32,168,682.

Staff performed a cost analysis of the proposal and determined that the proposal is in-line with similar PTC projects in other parts of the country. Also, staff used an outside party to review the scope of work, clarifications, proposal, and assumptions to identify and make recommendations on issues that could result in future change orders.

Environmental review, as appropriate, will be completed prior to 60 percent design.

## FISCAL IMPACT

The table below displays the proposed design and install contract funded from the Final Design and the Construction phases of the project.

### Project Budget

Positive Train Control	2013 TIP	Board Approvals	This Action	Board Approved Plus Action	Uncommitted/ (Shortfall)
Agency Administration	2,238	277	-	277	1,961
Preliminary Engineering	-	-	-	-	-
Final Design	14,875	1,105	12,490	13,595	1,279
3rd Party	6,378	3,900	-	3,900	2,478
Right of Way	-	-	-	-	-
Construction	27,701	-	24,981	24,981	2,720
Construction Management	1,863	1,703	-	1,703	160
Vehicles	-	-	-	-	-
Contingency	-	-	-	-	-
<b>Total Project Budget</b>	<b>\$ 53,054</b>	<b>\$ 6,985</b>	<b>\$ 37,471</b>	<b>\$ 44,456</b>	<b>\$ 8,599</b>

### Contract Detail

Wabtec Corporation	Board Approvals to Date	Current Approved Contract Status	Proposed Action	Proposed Total for Board Approval
Contract			34,065	34,065
Contingency			3,406	3,406
<b>Total Contract Amount</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 37,471</b>	<b>\$ 37,471</b>
Percent Contingency	0%	0%	10%	10%

#### Notes:

Amounts are expressed in Year of Expenditure \$000.

Board Approvals = Committed to-date + Contingency, and includes pending Board Actions.

Project budget is located on page 111 of 198 of the 2013 Proposed Transit Improvement Plan.

## **EQUAL EMPLOYMENT WORKFORCE PROFILE**

4703 employees; 16% women; 24.7% minorities.

## **APPRENTICE UTILIZATION COMMITMENT**

Apprentice utilization goal: 0%

## **PUBLIC INVOLVEMENT**

Not applicable to this action.

## **TIME CONSTRAINTS**

Federal regulations mandate that PTC be operational on passenger rail systems by December 31, 2015. A one-month delay in Board action could have an impact on the project schedule.

## **PRIOR BOARD/COMMITTEE ACTIONS**

Motion M2012-03: Authorized the chief executive officer to approve a provision in the memorandum of understanding with the BNSF Railway Company to cap Sound Transit's share of costs to install a positive train control system between Everett and Tacoma on BNSF right-of-way in an amount not to exceed \$3,900,000.

## **ENVIRONMENTAL REVIEW**

Jl 3/6/2013

## **LEGAL REVIEW**

JW 3/8/2013

## **MOTION NO. M2013-15**

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to execute a contract with Wabtec Corporation to design, install, test, and commission a Positive Train Control system on the Sounder vehicles and on the Sound Transit-owned Tacoma to Lakewood rail segment in the amount of \$34,064,839, with a 10% contingency of \$3,406,484, for a total authorized contract amount not to exceed \$37,471,323.

### **BACKGROUND:**

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Environmental review, as appropriate, will be completed prior to 60 percent design

**MOTION:**

It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the chief executive officer is authorized to execute a contract with Wabtec Corporation to design, install, test, and commission a Positive Train Control system on the Sounder vehicles and on the Sound Transit-owned Tacoma to Lakewood rail segment in the amount of \$34,064,839, with a 10% contingency of \$3,406,484, for a total authorized contract amount not to exceed \$37,471,323.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on March 28, 2013.



Pat McCarthy  
Board Chair

ATTEST:



Marcia Walker  
Board Administrator