

MOTION NO. M2015-51

**Contract for Software Development and System Integration Services**

MEETING:	DATE:	TYPE OF ACTION:	STAFF CONTACT:
Operations and Administration Committee	06/04/2015	Final Action	Brian McCartan, Executive Director Finance and Information Technology Michael Berman, Research & Technology Program Manager <b>Evelyn Echeverria, Senior IT Project Manager</b>

PROPOSED ACTION

Authorizes the chief executive officer to execute a contract amendment with Cambridge Systematics to provide software development and system integration services for Phase 2 of the Open Transit Data project (previously called the Regional Data Services project) within the Research and Technology Program in the amount of \$759,593, for a new total authorized contract amount not to exceed \$1,703,375.

KEY FEATURES SUMMARY

- Sound Transit’s Research and Technology program includes a project to develop a regional data system called the Open Transit Data project (previously the Regional Data Services project). This project will expand and automate collection and publication of regional transit data by compiling accurate and reliable data from Sound Transit’s partner agencies and internal Sound Transit sources.
- Data compiled by the Open Transit Data (OTD) project will be used for Sound Transit website applications, including the OneBusAway application, an improved Trip Planner, and real-time information at stations through digital signage. The data will also be provided to third-party developers for use in creating mobile applications to benefit transit riders.
- As part of Phase 1 of this project, Cambridge built the Regional Data Services data engine which collects and analyzes data. Phase 1 also included support of real-time information at transit stations through digital signage.
- The Phase 2 scope of work includes:
  - Collection of additional data for Sounder, Seattle Streetcar, Washington State Ferries, and other potential sources to be provided to the public;
  - A developer portal to (a) support application developers in accessing data used to provide tools for riders and (b) provide a communications channel between developers and the transit agencies.
  - Include improved reporting and data analytics;
  - Provide tools for quality assurance and enhanced error-checking.
- The previous funding was contemplated for 5 years; 2 years for development and 3 for operation and maintenance. Because the features to be developed in Phase 2 were not clearly defined at the time of contracting, we anticipated the need to add additional funding for development. This addition is still within the original budget approved for OTD for 2.5 million.

BACKGROUND

The Research and Technology Program was created to assess and implement new transit technologies to improve the Agency’s operational effectiveness and efficiency. This program focuses on system-wide security and safety technology, real-time service information and

passenger communications, and deployment of applications to better manage operations. The Phase 1 of the program focuses on developing and deploying Transit Rider Technologies to improve the customer experience. In 2012, the Board approved a \$9 million Phase 1 of the program, focusing on deployment of improved information systems for transit riders.

Phase 1 of the Research and Technology includes the Open Transit Data project (previously the Regional Data Services project).

The project was planned in two phases, with the overall goal of providing better, more accurate, more comprehensive data to the public through application development and agency resources. Underlying data processing tools were built in Phase 1, while at the same time assessing the best features to add in Phase 2. Phase 1 also included support for real-time information at transit stations through digital signage. A developer portal was originally included as part of Phase 1. Due to internal resource limitations and changing project priorities, the work to develop the portal did not begin during Phase 1 as originally planned. The vendor did additional during phase 1 to make the underlying systems more robust.

Under the first phase, Cambridge Systematics built the Regional Data Services data engine which collects and analyzes data from King County Metro, Pierce County. Phase 2 will add more data sources including the Washington State Ferries, Seattle Streetcar, Sounder and others, as available, to enhance the existing data set. In addition, Phase 2 will engage the developer community by providing a developer portal that will encourage them to use the transit data for develop new applications and provide them a way to communicate with the transit agency about data quality issues. Finally, phase 2 will improve reporting and data analytics.

Because the features to be developed in Phase 2 were not clearly defined at the time of contracting, we anticipated the need to add additional funding. The overall OTD budget, as laid out in the original Research & Technology plan was approximately \$2.5 million; this addition for Phase 2 is within that budget.

## FISCAL INFORMATION

This action executes a contract amendment with Cambridge Systematics to provide software development and system integration services for Phase 2 of the Open Transit Data project for a total not exceeding \$1,703,375.

This action is within the adopted budget and sufficient monies remain after approval of this action to fund the remaining work in the Research & Technology Program as contained in the current cost estimates.

Phase 26 - Research and Technology	Adopted 2015 TIP	Board Approvals	This Action	Board Approved Plus Action	Uncommitted / (Shortfall)
<b>OPERATING COSTS</b>					
Current Projects		626		626	-626
Future Projects					
Phase 1 Projects	1,150	649		649	501
Program Administration	2,403	703		703	1,700
<b>CAPITAL COSTS</b>					
Current Projects	3,453	1,548		1,548	1,906
Future Projects					
Phase 1 Projects	7,650	2,462	760	3,221	4,429
<b>TOTAL CURRENT BUDGET</b>	<b>14,656</b>	<b>5,987</b>	<b>760</b>	<b>4,769</b>	<b>6,334</b>

#### SUB PROJECT DETAIL

##### Regional Data System

Regional Data System	2,870	951	760	1,711	1,159
Other Phase 1 projects	4,780	1,511		1,511	3,269
<b>Total Sub Project Budget</b>	<b>7,650</b>	<b>2,462</b>	<b>760</b>	<b>3,221</b>	<b>4,429</b>

#### CONTRACT DETAIL

##### Cambridge Systematics

	Board Approvals to Date	Current Approved Contract Status	Proposed Action	Proposed Total for Board Approval
Contract Amount	821	821	760	1,580
Contingency Amount	123	123		123
<b>Total Not to Exceed Value</b>	<b>944</b>	<b>944</b>	<b>760</b>	<b>1,703</b>
Percent Contingency	15%	15%	0%	8%

#### Notes:

Amounts are expressed in Year of Expenditure \$000s.

Board Approvals = Expenditures up to Apr 2015 + Committed To-Date

Project budget located on page 94 of 210 of the Adopted 2015 Transit Improvement Plan (TIP)

## SMALL BUSINESS/DBE PARTICIPATION

### Participation by Small Businesses and Disadvantaged Business Enterprises (DBEs)

Sound Transit determined that Small Business and DBE subcontracting opportunities are infeasible or improbable based upon the work described in this contract, so Small Business/DBE goals were not established or required.

## PUBLIC INVOLVEMENT

Not applicable to this action.

## TIME CONSTRAINTS

The OTD project is the foundation for other projects identified in the Board-approved Research & Technology strategic plan. Delays in the OTD project will delay each of these projects accordingly.

## PRIOR BOARD/COMMITTEE ACTIONS

Motion No. M2013-101: Authorized the chief executive officer to execute a three-year contract with two one-year options to extend with Cambridge Systematics for software development and system integration services for the Regional Data Services project within the Research and Technology Program in the amount of \$820,680 with a 15% contingency of \$123,102, for a total authorized contract amount not to exceed \$943,782.

Motion No. M2012-45: Approved Phase 1 of the ST2 Research and Technology Program to implement improved transit customer rider technologies.

## ENVIRONMENTAL REVIEW

JI 5/22/2015

## LEGAL REVIEW

LA 29 May 15

## **MOTION NO. M2015-51**

A motion of the Operations and Administration Committee of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to execute a contract amendment with Cambridge Systematics to provide software development and system integration services for Phase 2 of the Open Transit Data project (previously called the Regional Data Services project) within the Research and Technology Program in the amount of \$759,593, for a new total authorized contract amount not to exceed \$1,703,375.

### **BACKGROUND:**

The Research and Technology Program was created to assess and implement new transit technologies to improve the Agency's operational effectiveness and efficiency. This program focuses on system-wide security and safety technology, real-time service information and passenger communications, and deployment of applications to better manage operations. The Phase 1 of the program focuses on developing and deploying Transit Rider Technologies to improve the customer experience. In 2012, the Board approved a \$9 million Phase 1 of the program, focusing on deployment of improved information systems for transit riders.

Phase 1 of the Research and Technology includes the Open Transit Data project (previously the Regional Data Services project).

The project was planned in two phases, with the overall goal of providing better, more accurate, more comprehensive data to the public through application development and agency resources. Underlying data processing tools were built in Phase 1, while at the same time assessing the best features to add in Phase 2. Phase 1 also included support for real-time information at transit stations through digital signage. A developer portal was originally included as part of Phase 1. Due to internal resource limitations and changing project priorities, the work to develop the portal did not begin during Phase 1 as originally planned. The vendor did additional during phase 1 to make the underlying systems more robust.

Under the first phase, Cambridge Systematics built the Regional Data Services data engine which collects and analyzes data from King County Metro, Pierce County. Phase 2 will add more data sources including the Washington State Ferries, Seattle Streetcar, Sounder and others, as available, to enhance the existing data set. In addition, Phase 2 will engage the developer community by providing a developer portal that will encourage them to use the transit data for develop new applications and provide them a way to communicate with the transit agency about data quality issues. Finally, phase 2 will improve reporting and data analytics.

Because the features to be developed in Phase 2 were not clearly defined at the time of contracting, we anticipated the need to add additional funding. The overall OTD budget, as laid out in the original Research & Technology plan was approximately \$2.5 million; this addition for Phase 2 is within that budget.

**MOTION:**

It is hereby moved by the Operations and Administration Committee of the Central Puget Sound Regional Transit Authority that the chief executive officer to execute a contract amendment with Cambridge Systematics to provide software development and system integration services for Phase 2 of the Open Transit Data project (previously called the Regional Data Services project) within the Research and Technology Program in the amount of \$759,593, for a new total authorized contract amount not to exceed \$1,703,375.

APPROVED by the Operations and Administration Committee of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on June 4, 2015.

  
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Paul Roberts  
Operations and Administration Committee Chair

ATTEST:

  
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Kathryn Flores  
Board Administrator