

**Board Report**

File #: 2019-0451, **File Type:** Motion / Motion Response**Agenda Number:** 6.

**PLANNING AND PROGRAMMING COMMITTEE
JULY 17, 2019****SUBJECT: SOUTH BAY SMART NET PROJECT****ACTION: RECEIVE AND FILE****RECOMMENDATION**

RECEIVE AND FILE status report on Motion 6.1 from the April 25, 2019 Board of Directors meeting regarding the South Bay SMART-Net project.

ISSUE

The Board of Directors authorized the use of up to \$4.4 million in South Bay Measure M Multi-year Subregional Program (MSP) Transportation System Mobility Improvement Program (TSMIP) funds to construct the South Bay SMART-Net project. As a condition of funding, Metro staff was directed by the Chief Executive Officer to work with the South Bay Cities Council of Governments (SBCCOG) to develop a viable list of transportation projects within 60 days that could be implemented in conjunction with the South Bay SMART-Net project. These projects would establish the transportation mobility nexus needed to justify the use of MSP TSMIP funds. Transportation projects that leverage the South Bay SMART-Net project have been identified to show benefit to the transportation system. This report presents Metro staff's efforts in adding transportation projects eligible to receive Measure R and M Highway Subregional funds to the South Bay fiber-optic system.

BACKGROUND

The SBCCOG proposed to construct a fiber-optic broadband infrastructure to connect public services in the South Bay subregion. The project would support enhancement for mobility and accessibility systems and networks that serve South Bay residents through services offered by its municipalities. The goals of the SMART-Net project were identified to be enhanced economic development and business retention; wholesale broadband service within the South Bay cities to government buildings and community organizations; and enabling and supporting for public Wi-Fi and Smart City activities.

SBCCOG requested \$4.4 million in South Bay Measure M MSP TSMIP funds for the SMART-Net project. Under the Measure M Guidelines for Intelligent Transportation Systems (ITS) and Transportation Technology projects, the SMART-Net project would have been eligible for funding if there was a nexus to the transportation system. The initial project description for SMART-Net did not provide a component of "information sharing for highway/arterial and/or transit systems" as stated in

the Measure M Guidelines. This report recommends transportation projects that can utilize the SMART-Net to improve and enhance traffic operations and communications in the South Bay subregion.

DISCUSSION

Metro Highway Program staff worked with the City of Manhattan Beach, Los Angeles County Department of Public Works (LACDPW), Regional Integration of ITS (RIITS), and SBCCOG to identify projects that can utilize the SMART-Net to improve and enhance the transportation system. The following four transportation projects were developed to leverage the South Bay SMART-Net project.

1) **RIITS SMART-Net Integration** - This project will establish a high-speed connection through the South Bay SMART-Net to connect RIITS with the South Bay subregion. RIITS will become more reliable and resilient with the increase in network redundancy, and would enhance data exchange and increase access to transportation-related operational data to South Bay cities. This data sharing will enhance traffic management operations, system performance evaluation, and regional transportation data distribution.

2) **LACDPW Traffic Control System (TCS) and Information Exchange Network (IEN) SMART-Net Integration** - This project will establish a virtual private network (VPN) connection through the South Bay SMART-Net to connect traffic signal control field elements in ten South Bay cities to the County of Los Angeles (County) traffic management center (TMC). In addition, the VPN connection through the South Bay SMART-Net will provide a secondary high-speed connection to the South Bay cities that are part of the IEN. LACDPW will have a more reliable and redundant network to effectively manage traffic operations on major corridors in the South Bay subregion.

3) **Manhattan Beach TCS SMART-Net Integration** - This project will establish a VPN connection through the South Bay SMART-Net to connect traffic signal control field elements in the City of Manhattan Beach to the County's TMC. This VPN connection will create a secondary high-speed network connection that will enhance central monitoring and control of the local traffic signals. Manhattan Beach will have a more reliable and redundant network to effectively manage traffic operations on major corridors in the city.

4) **Signal Phase and Timing (SPaT) Data Sharing SMART-Net Integration** - This project will establish a secured connection through the South Bay SMART-Net to connect the central TCS of a city to a third-party data server. This high-speed connection will have the ability to share SPaT data to vehicles that are equipped to receive the data. This Connected Vehicle application provides information to drivers on the operation of the intersection, and will maintain safe driving speeds on roadways, improve traffic operations at intersections and corridors, and reduce harsh driving maneuvers. Currently, the City of Torrance and LACDPW are working with a third-party data service provider to broadcast SPaT data to passenger vehicles.

These projects can be implemented in conjunction with the construction of the South Bay SMART-Net project. The planning for the VPN connections should commence at least six months prior to the completion and activation of the SMART-Net broadband service. The City of Manhattan Beach, City of Torrance, LACDPW, RIITS, and SBCCOG have provided concurrence and letters of commitment for these projects, which are included in an attachment.

FINANCIAL IMPACT

Since this is a multi-year project, the Project Managers, the Cost Center Manager, and the Senior Executive Officer, Program Management, Highway Program will be responsible for budgeting the costs in current and future years.

Impact to Budget

The source of funds for this project is Measure M MSP TSMIP. This fund source is not eligible for Metro bus and rail operating and capital expenditures.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports the following goals of the Metro Vision 2028 Strategic Plan:

Goal 1: Provide high-quality mobility options that enable people to spend less time traveling. The South Bay subregion can increase the mobility for all users by utilizing the South Bay SMART-Net to enhance traffic signal operations on major arterial corridors in the South Bay subregion.

Goal 4: Transform LA County through regional collaboration by partnering with the Council of Governments and the local jurisdictions to identify needed improvements to improve mobility.

NEXT STEPS

Metro will work with the SBCCOG to execute a Letter of No Prejudice to immediately commence work on the SMART-Net project. Upon Board approval of the Measure M MSP TSMIP South Bay Subregional funding, the SBCCOG will be notified and a Funding Agreement will be executed with funds programmed in FY 2019-20. Staff will continue to work with the SBCCOG and the participating agencies to implement the four projects identified in this report.


ATTACHMENTS

Attachment A - Project Summary Table
Attachment B - Project Fact Sheets
Attachment C - Letters of Commitment

Prepared by: Edward Alegre, Senior Manager, (213) 418-3287
Steven Gota, Deputy Executive Officer, (213) 922-3043
Abdollah Ansari, Senior Executive Officer, (213) 922-4781

Reviewed by:

Richard Clarke, Chief Program Management Officer, (213) 922-7557



Phillip A. Washington
Chief Executive Officer