

To: A&F Committee

Date: March 3, 2015

From: J. Scott Mitchell
Director of Maintenance

Reviewed by:

SUBJECT: Authorization for the General Manager to direct WAVE Inc. to Proceed with Inductive Charging Infrastructure Engineering for Walnut Creek and Concord Facilities for Support of the Electric Trolley Project

BACKGROUND: The County Connection Board of Directors has authorized the purchase of four (4) electric trolleys for the Walnut Creek Trolley project. This project will require in-route charging infrastructure in Walnut Creek and at the Concord facility.

SUMMARY OF ISSUES: The trolleys are being designed by Gillig with integration and drivetrain provided by BAE Systems. County Connection staff did extensive research on various in-route charging systems for this project. County Connection staff believes that an inductive charging system provided by WAVE Inc. is the best option for this project.

WAVE uses a 50 kw in-ground inductive charger. This will be installed in Walnut Creek. This system provides a wireless power transfer solution. It is fast charging and efficient. It uses an in-ground primary charging pad which provides for minimal infrastructure at the site with no moving parts, making it a very low maintenance system. Using in-route charging allows the vehicle to use smaller batteries and reduces the weight of the vehicle without losing range.

WAVE installed this system at the University of Utah in early 2014. Monterey-Salinas Transit is using WAVE for their electric trolley project. There are plans to use this system in Long Beach, California and McAllen, Texas.

WAVE is an American company and meets all Federal Transit Administration (FTA) Buy America guidelines.

WAVE will work with County Connection to understand the infrastructure requirements for the initial primary in-ground charger. WAVE and County Connection will establish a schedule for infrastructure development (i.e., utility hookup, permitting, etc.) needed to meet the deployment schedule for the Gillig trolleys.

FINANCIAL: Cost not to exceed \$1,015,000.

RECOMMENDATIONS: Contingent on approval from the FTA, the A&F Committee recommend that the Board of Directors at its March 19, 2015 meeting, adopt a resolution authorizing the General Manager to release a purchase order to WAVE Inc. for the purchase of the WAVE system.