

To: Operations and Scheduling Committee

Date: 2/15/2012

From: Anne Muzzini, Director of Planning & Marketing

Reviewed by:

SUBJECT: ITS Project Change Order

Background:

In February of 2011 the Board approved funding for an Intelligent Transportation System that included replacement of the radio/ radio control system, replacement of the CAD/AVL system, and a new passenger information system (BusTime). The budget amount approved was \$900,000 with the Clever Devices contract amount specified as not to exceed \$800,000.

In September of 2011 the Board approved an increase in the project cost to purchase routers instead of modems and to fund the additional cost (estimated at \$54,000) with Prop 1B security funds. This upgrade will enable WiFi and live streaming from onboard cameras in the future.

Intelligent Vehicle Network (IVN)

The onboard computers that run the CAD/AVL, radio controller, automatic passenger counting (APC) system, voice announcement, and the new Bus Time system are called the IVN's (Intelligent Vehicle Network). There are 121 IVN's in the fixed route fleet; 57 IVN3's (the newest computer with color control screen) and 64 IVN2's (2002 computers with smaller black and white control screen). The control screens are used by the driver to log on and to enter passenger fare information. The IVN2's will need to be upgraded to run the new software being installed and the cost for this was included in the Clever contract (\$985 each, \$63,040 total).

Summary of Issues

Rather than upgrade the IVN2's, staff now recommends that they be replaced with IVN3's so that the on board computers and the display screens are consistent throughout. The additional cost to the project and to the Clever Devices contract will be \$96,000.

Replacing the IVN2's is recommended because the 2002 computers are 10 years old and despite refurbishing will never be as good as a new IVN3. If we replace the IVN2's the final ITS implementation result in a total upgrade of the onboard computer system. If not, then 64 buses will have 2002 computers and old style monitors.

Staff is confident that the price is reasonable given a May 2011 quote for new IVN3's of \$9,000 apiece. The price given as part of the ITS project is only \$2,485 apiece. (The \$96,000 add-on plus the \$63,040 upgrade cost budgeted equals \$159,040. This divided by 64 units equals \$2,485 each.)

Recommendation:

Staff recommends that the Committee support an increase in the Clever Devices contract in the amount of \$96,000 to replace the IVN2's instead of upgrading them. The change represents an increase of 12% over their contract amount of \$771,874.

Financial Implications:

There are sufficient capital funds for the additional expense and there is no impact on the operating budget. The ITS project accounting is shown below.

ITS Project Summary	
Board Authorization	
Original Project Budget	\$900,000
Increase for Routers	\$54,000
Total	\$954,000
Cost	
Clever Contract (w/o 3rd yr maint)	\$771,874
Routers	\$145,200
Servers spares and other equip	\$36,926
Total Cost	\$954,000
IVN 2 Replacement	\$96,000
Total Cost w/recommendation	\$1,013,074
Funding	
Prop 1 B -PTMISEA - 40Bus Purchase	\$345,518
Prop 1B - TSGP - Security - Routers	\$116,919
TDA - ITS	\$609,900
Total Funding	\$1,072,337