



SACOG Board of Directors

April 12, 2012

Approve Connect Card Contract Amendment

Issue: The Connect Card Governance Committee, representing a Consortium of transit operators and SACOG, is recommending that SACOG amend the Innovations in Transportation (INIT) vendor contract by adding \$103,000.

Recommendation: The Transportation Committee recommends that the Board amend the INIT contract to add 185 wireless radio technology (WiFi) light rail station smart card validation devices at a cost of \$103,000.

Committee Action/Discussion: The Connect Card is a regional, electronic transit fare system. The system will allow for seamless transfers between transit systems, and it will provide a powerful new tool to increase transit ridership across the region. A Consortium has been formed between six different transit operators (Sacramento Regional Transit, Yolo County Transit District, Yuba-Sutter Transit, Elk Grove Transit, El Dorado Transit, and Folsom Stage Lines) and SACOG to implement Connect Card. INIT is the primary vendor for implementing the smart card system. The Connect Card is expected to roll out in the summer/fall of 2013.

INIT is under contract to design, build, and deploy the Connect Card. The current fixed price contract with INIT, signed in July 2011, is in the amount \$8,064,915. As the selected vendor, INIT is obligated to deliver the negotiated Technical Specification, which defines delivery of a fully functional smart card system in full revenue service. Included in system hardware are smart media validators (PROXstation2) that will be installed at all light rail stations.

Enhancing the functionality of the PROXstation2 units with WiFi will significantly mitigate project risk now and in the future. The alternative to WiFi is trenching in platform areas and installing Ethernet cabling. Unanticipated challenges often manifest themselves during underground construction, sometimes with high associated costs. Of particular concern is the original light rail line because of the complex urban environment and the expedited construction techniques of the time. WiFi communications at the light rail stations will largely avoid these risks. Sacramento Regional Transit (RT) is performing the preparatory construction and engineering work on the light rail platforms.

The use of WiFi will be less expensive on a per unit, station-by-station basis with the currently known construction parameters. The latest engineering analysis estimates that the project will recover 91 percent of the investment immediately during the course of light rail preparation work. Future savings are very likely, since RT wishes to procure additional validators as resources allow. With development costs sunk into the initial purchase, the additional per unit costs of the WiFi capable PROXstation2 will be negligible and will provide great flexibility in engineering design.

Funds for the contract amendment will come from project budget contingency. Attached is a summary budget of the INIT contract and a comparative engineering costs analysis for PROXstation2.

Approved by:

Mike McKeever
Chief Operating Officer

MM:RM:gg
Attachments

Key Staff: Kirk Trost, Chief Operating Officer/General Counsel, (916) 340-6210
Matt Carpenter, Director of Transportation Services, (916) 340-6276
Jim Brown, Principal Program Expert, (916) 340-6221
Robert McCrary, Senior Planner, (916) 340-6228

Connect Transit Card

Light Rail Station Classification

By type/location of construction and number of platforms

	LR Station	Number of Platforms	Station Type
1	16TH STREET	2	B
2	ST. ROSE OF LIMA PARK	2	A
3	7TH / 8TH & CAPITOL	2	A
4	8TH & O STREETS	2	A
5	7TH & I / 8TH & K	2	A
6	ARCHIVES PLAZA	2	A
7	13TH STREET	2	A
8	SAC VALLEY	1	C
9	MEADOWVIEW	2	A
10	WATT / I-80	1	C
11	MATHER FIELD / MILLS	2	A
12	FLORIN	2	B
13	ARDEN / DEL PASO	2	A
14	WATT / MANLOVE	2	B
15	POWER INN ROAD	2	B
16	MARCONI / ARCADE	2	B
17	SUNRISE	2	B
18	ROSEVILLE RD	1	C
19	BUTTERFIELD	2	B
20	CITY COLLEGE	2	B
21	29TH STREET	2	B
22	IRON POINT	1	C
23	HIST FOLSOM	1	C
24	65TH STREET	2	B
25	CORDOVA TOWN CTR	2	B
26	GLENN	1	C
27	HAZEL	1	C
28	SWANSTON	2	B
29	47TH AVE	2	B
30	WATT I-80 WEST	1	C
31	ALKALI FLAT	1	C
32	BROADWAY	2	C
33	ZINFANDEL	2	B
34	CATHEDRAL SQUARE	2	A
35	COLLEGE GREENS	2	B
36	4TH/WAYNE HULTGREN	2	C
37	23RD STREET	2	B
38	FRUITRIDGE	1	C
39	12TH & I STREETS	1	C
40	STARFIRE	2	C
41	ROYAL OAKS	2	A
42	TIBER	2	C
43	39TH STREET	2	B
44	GLOBE	1	C
45	59TH STREET	2	B
46	48TH STREET	2	B

Light Rail Platform Preparatory Construction & Engineering
Comparison of Communications Options

		Option 1 Communications Hard-Wired				Option 2 WiFi Communications					
		Price/Unit	Unit Type	Units	Total	Price/Unit	Unit Type	Units	Total		
13th Street A	Conduit	\$2.06	LF	80	\$164.80	CAT-5	\$5.20	LF	0	\$0.00	
	CAT-5	\$5.20	LF	245	\$1,274.00	Wi-Fi Hub	\$1,500	EA	2	\$3,000	
	Saw Cut	\$1.67	LF	80	\$133.60	Wi-Fi Tap	\$556.00	EA	4	\$2,224	
	Trenching/Compacting	\$8.12	LF	80	\$649.60						
	Paving	\$3.15	SF	120	\$378.00						
	IDF**	\$2,500.00	EA	2	\$5,000.00						
Sub-Total					\$7,600.00	Sub-Total					\$5,224.00
29th Street B	Conduit	\$2.06	LF	40	\$82.40	CAT-5	\$5.20	LF	0	\$0.00	
	CAT-5	\$5.20	LF	195	\$1,014.00	Wi-Fi Hub	\$1,500	EA	2	\$3,000	
	Saw Cut	\$1.67	LF	40	\$66.80	Wi-Fi Tap	\$556.00	EA	4	\$2,224	
	Trenching/Compacting	\$8.12	LF	40	\$324.80						
	Paving	\$3.15	SF	52.5	\$165.38						
	IDF**	\$2,500.00	EA	2	\$5,000.00						
Sub-Total					\$6,653.38	Sub-Total					\$5,224.00
Butterfield B	Conduit	\$2.06	LF	80	\$164.80	CAT-5	\$5.20	LF	0	\$0.00	
	CAT-5	\$5.20	LF	375	\$1,950.00	Wi-Fi Hub	\$1,500	EA	2	\$3,000	
	Saw Cut	\$1.67	LF	35	\$58.45	Wi-Fi Tap	\$556.00	EA	4	\$2,224	
	Trenching/Compacting	\$8.12	LF	80	\$649.60						
	Paving	\$3.15	SF	52.5	\$165.38						
	IDF**	\$2,500.00	EA	2	\$5,000.00						
Sub-Total					\$7,988.23	Sub-Total					\$5,224.00
Sunrise B	Conduit	\$2.06	LF	110	\$226.60	CAT-5	\$5.20	LF	0	\$0.00	
	CAT-5	\$5.20	LF	290	\$1,508.00	Wi-Fi Hub	\$1,500	EA	2	\$3,000	
	Saw Cut	\$1.67	LF	40	\$66.80	Wi-Fi Tap*	\$556.00	EA	4	\$2,224	
	Trenching/Compacting	\$8.12	LF	55	\$446.60						
	Paving	\$3.15	SF	60	\$189.00						
	IDF**	\$2,500.00	EA	2	\$5,000.00						
Sub-Total					\$7,437.00	Sub-Total					\$5,224.00
Iron Point C	Conduit	\$2.06	LF	15	\$30.90	CAT-5	\$5.20	LF	0	\$0.00	
	CAT-5	\$5.20	LF	225	\$1,170.00	Wi-Fi Hub	\$1,500	EA	1	\$1,500	
	Trenching/Compacting	\$8.12	LF	15	\$121.80	Wi-Fi Tap*	\$556.00	EA	2	\$1,112	
	IDF**	\$2,500.00	EA	1	\$2,500.00						
Sub-Total					\$3,822.70	Sub-Total					\$2,612.00
Glenn C	Conduit	\$2.06	LF	20	\$41.20	CAT-5	\$5.20	LF	0	\$0.00	
	CAT-5	\$5.20	LF	170	\$884.00	Wi-Fi Hub	\$1,500	EA	1	\$1,500	
	Trenching/Compacting	\$8.12	LF	20	\$162.40	Wi-Fi Tap*	\$556.00	EA	2	\$1,112	
	IDF**	\$2,500.00	EA	1	\$2,500.00						
Sub-Total					\$3,587.60	Sub-Total					\$2,612.00
Meadowview A	Conduit	\$2.06	LF	40	\$82.40	CAT-5	\$5.20	LF	0	\$0.00	
	CAT-5	\$5.20	LF	400	\$2,080.00	Wi-Fi Hub	\$1,500	EA	2	\$3,000	
	Trenching/Compacting	\$8.12	LF	40	\$324.80	Wi-Fi Tap*	\$556.00	EA	6	\$3,336	
	IDF**	\$2,500.00	EA	2	\$5,000.00						
Sub-Total					\$7,487.20	Sub-Total					\$6,336.00

Station Classification	Stns	Opt 1 unit	Opt 1 Total	Opt 2 unit	Opt 2 total
A (Initial System)	11	\$ 6,653	\$ 73,187	\$ 5,780	\$ 63,580
B (Later Phase Const, 2 Platforms)	19	\$ 7,675	\$ 145,826	\$ 5,224	\$ 99,256
C (Later Phase Const, 1 Platform)	16	\$ 4,966	\$ 79,453	\$ 2,612	\$ 41,792
			\$298,467***		\$204,628***

* Wi-Fi Tap costs included INIT Wi-Fi addition (as bid) spread across 185 total units @ \$556 each

** Intermediate Distribution Frame (Ethernet)

*** The difference between Option 1 and Option 2 is \$93,839 which is 91.1% of the \$103,000 cost to put WiFi in station devices

Connect Transit Card

Summary Budget: Innovations in Transportation (INIT)

April 4, 2012

Category	Description	Amount
Bus Systems	On-board systems & depot comms for six bus fleets	\$ 1,878,844
Light Rail System	Platform hardware devices & hand held readers	\$ 1,128,501
Regional Service Cntr	Central system computing & communications	\$ 487,223
Customer Services	Customer/retail svc terminals, phone system, website	\$ 616,281
Support Systems	Test environment, encryption, & other special equip.	\$ 137,214
Fare Media	Smart card media	\$ 643,400
Fixed Costs	Engineering, factory testing, training, & mgt costs	\$ 1,946,058
Spare Parts	Equivalent to a 10% spare ratio for hardware	\$ 94,715
Software Support	Software engineering design, testing, and support	\$ 153,960
Option 1	Rear door validators for RT bus fleet	\$ 533,546
Option 7	Additional two year extended guarrantee	\$ 445,173
Total		\$ 8,064,915