



Bay Area Infrastructure Financing Authority  
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## ***Memorandum***

TO: BAIFA

DATE: December 9, 2015

FR: Executive Director

W. I. 6840

RE: Backhaul Communications Network

- i. BAIFA Resolution No. 9, Revised – Express Lane Program Expenditure Plan
- ii. Backhaul Communications Network for CC-680 Southern Segment Express Lanes Contract Award: Aegis ITS, Inc. (\$5,429,929 plus a contingency of \$830,643)

Staff seeks Authority approval to amend the Express Lanes Expenditure Plan based on updates to the backhaul communications network (Backhaul) for the CC-680 Southern Segment Express Lanes (CC-680S). Staff also seeks approval for the Executive Director or his designee to award a contract to construct, operate and maintain the Backhaul for CC-680S to Aegis ITS, Inc., in an amount not to exceed \$5,429,929 plus a contingency of \$830,643. Staff seeks approval to award to the second lowest bidder should the Aegis ITS, Inc. bid be found not responsive or not responsible.

### **Background**

The Backhaul is a planned metropolitan area data network that will be used to send traffic and toll data between the MTC express lanes on I-680, I-880, and I-80 and the toll system host and toll operation data centers at the Benicia-Martinez Toll Plaza, Caltrans District 4, and MTC office. The Backhaul has also been designed to accommodate future use by traffic management systems operated by Caltrans, Metropolitan Transportation Commission, and Bay Area Toll Authority.

An Invitation For Bid (IFB) for the Backhaul construction in the I-680 and I-880 corridors was advertised in May 2015 with a bid opening in July 2015. Staff cancelled the IFB when the bids came in 40% higher than engineer's estimate. Following bid analysis and industry outreach, staff revised the IFB to clarify the technical specifications, increase competition and reduce uncertainty associated with I-880 construction schedule. In October 2015 staff readvertised the IFB excluding the I-880 corridor improvements and received bids in-line with the engineer's estimate. The revised scope of the Backhaul for CC-680S contract includes construction, operations and maintenance of the fiber optic infrastructure on I-680 (see Attachment A) and connections to the San Francisco and Oakland express lanes data centers. The readvertisement will likely delay the projected Fall 2016 opening of CC-680S into early 2017. Staff will revise the projected opening date once the contractor is on-board.

### **Expenditure Plan Modifications**

The total cost for the Backhaul for CC-680S exceeds the original budget, requiring Program Contingency and revision to the Express Lane Expenditure Plan, BAIFA Resolution No. 9, approved in June 2015. The increase reflects higher contract costs due to: 1) the high market demand for fiber optic electricians, 2) the requirement for third shift night work, and 3) the accelerated schedule.

Because staff is still reviewing bid responsiveness and responsibility, staff recommends BAIFA revise the expenditure plan based on the second lowest of the bids received. Staff recommends shifting \$4,076,743 from Program Contingency to the CC-680 Southern Segment line item in the Expenditure Plan. In addition to group all Backhaul for CC-680S contract costs in a single line item, staff recommends shifting \$2,633,023 originally in the Centralized Toll System line item to the CC-680 Southern Segment line item. The two adjustments increase the CC-680S project budget by a total of \$6,709,766. As shown in Attachment B, there is a net zero adjustment to overall express lanes

program funds. Staff is revising Backhaul estimates for the ALA-880, CC-680 Northern Segment, and SOL-80 corridors based on factors affecting CC-680S and anticipate an increase of six million dollars to be addressed in a future the Expenditure Plan revision following more advanced design.

#### **Backhaul for CC-680S Contractor Selection Process**

The revised IFB was issued on October 21, 2015. BAIFA staff held a bidders' conference on November 2 and completed small business and disadvantaged business enterprises outreach efforts. On December 2, 2015, three bids were received and opened at a public bid opening. Per the IFB, award, if made, is to the lowest responsible and responsive bidder factoring in the Small Business Enterprise (SBE) Bid Preference.

For bid comparison purposes, BAIFA's SBE Bid Preference grants a five percent discount to the total bid amount when certified SBE Prime Contractors perform at least forty percent of the work or when at least forty percent of the work is subcontracted to certified SBE firms. The use of a SBE Bid Preference does not alter the total amount of the bid submitted by a bidder or the contract executed. As set forth below, the five percent discount is applied to the Total Bid Amount (A) resulting in the SBE Bid Preference Amount (B), from which the Bid Rank (C) is determined.

<b>Bidder</b>	<b>Location</b>	<b>Total Bid Amount (A)</b>	<b>SBE Bid Preference</b>	<b>SBE Bid Pref. Amount (B)</b>	<b>Bid Rank (C)</b>
Aegis ITS, Inc.	San Jose, CA	\$5,429,929	N	\$5,429,929	1
Tennyson Electric, Inc.	Livermore, CA	\$6,279,986	Y	\$5,965,987	2
Rosendin Electric, Inc.	San Jose, CA	\$8,427,217	N	\$8,427,217	3

Staff is requesting a contingency based on 10% of the total bid amount, to cover unknown project costs not included in the scope of work, plus \$287,650 for supplemental work items, which are not included in the scope of work, but may be needed. The total contingency is \$830,643 for the lowest bid and \$915,649 for the second lowest bid. Attachment C includes a summary of Aegis ITS, Inc., and its project team's small business and disadvantaged business enterprise status.

#### **Recommendation**

Staff recommends that the Authority amend the Express Lanes Expenditure Plan (BAIFA Resolution No. 9) based on updates to the Backhaul for CC-680S. Staff also recommends that, pending staff's review of bid responsiveness and responsibility, the Authority:

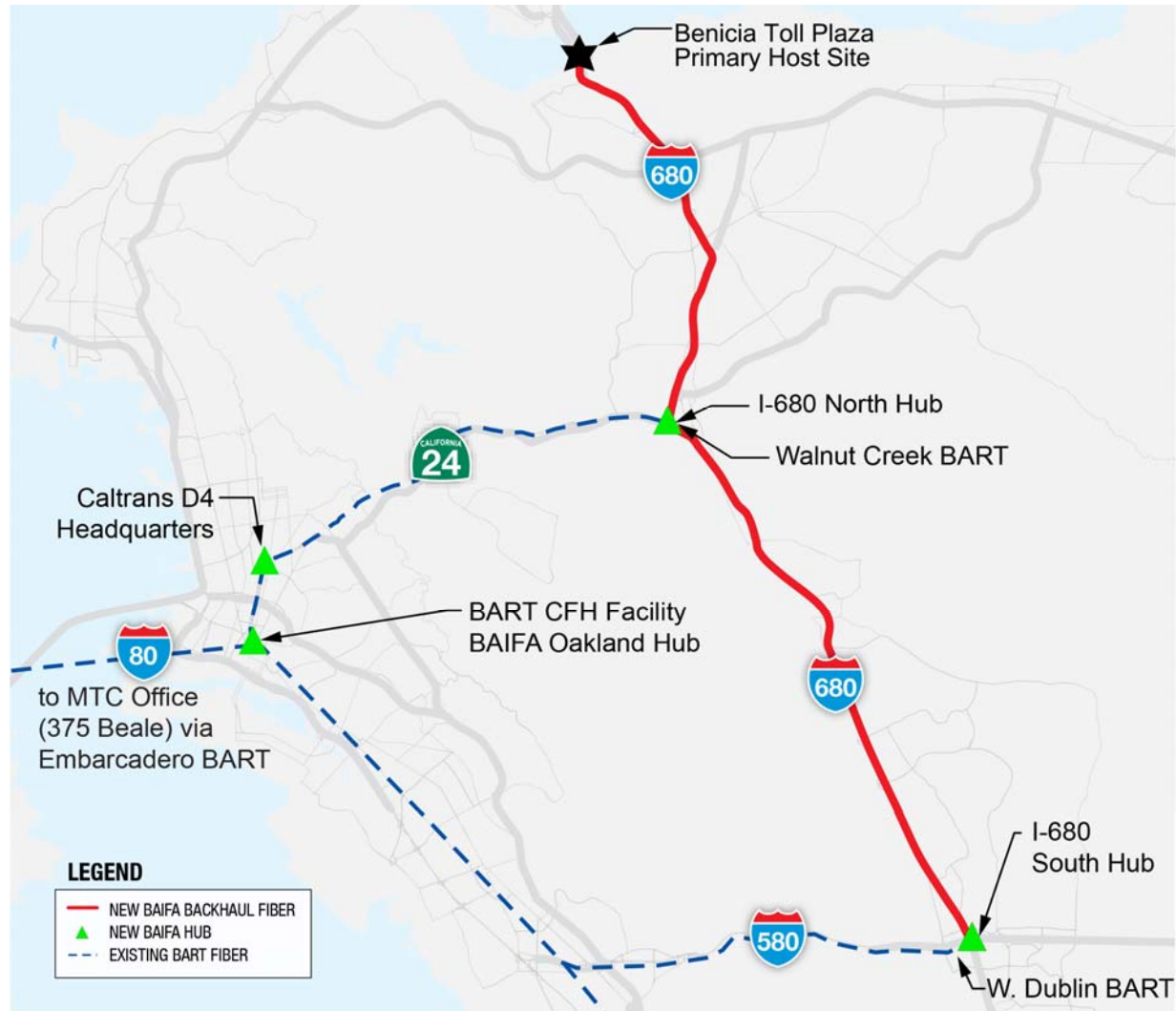
- i. Authorize the Executive Director or his designee to award a contract to Aegis ITS, Inc., to construct, operate and maintain the Backhaul for CC-680S in an amount of \$5,429,429 and establish a contingency in the amount of \$830,643 to be used at the Executive Director or his designee's discretion for changes not included in the scope of work; or
- ii. Authorize the Executive Director or his designee to award a contract to Tennyson Electric, Inc., to construct, operate and maintain the Backhaul for CC-680S in an amount of \$6,279,986 and establish a contingency in the amount of \$915,649 to be used at the Executive Director or his designee's discretion for changes not included in the scope of work should staff determine that the bid from Aegis ITS, Inc., is not responsive or Aegis ITS, Inc. is not responsible.

  
Steve Heminger

SH: md  
Attachments

## Attachment A

### BACKHAUL FOR CC-680S MAP



## Attachment B

### RECOMMENDED REVISIONS TO EXPRESS LANES PROGRAM EXPENDITURE PLAN

Escalated dollars (rounded to 000s)

Costs include project capital and support as well as program policy, management and coordination

Line No.		Expenditure Plan Approved, June 2015				Proposed Adjustment to Cost and to BATA Express Lane Funds	Revised Expenditure Plan, December 2015 changes highlighted in yellow			
		Cost	Regional Measure 2 (allocated)	BATA Express Lanes Funds	Unmet Funding Need		Cost	Regional Measure 2 (allocated)	BATA Express Lane Funds	Unmet Funding Need
	Conversions and Gap Closure Opportunity Projects (1)									
	<b>Near-Term Conversions</b>									
1	ALA-880	77,779		77,779	0.0		77,779		77,779	0.0
2	CC-680 Southern Segment	48,939		48,939	0.0	6,710	55,649		55,649	0.0
3	CC-680 Northern Segment - Southbound Conversion	36,099	3,812	32,288	0.0		36,099	3,812	32,288	0.0
4	SOL-80 West	43,941	6,504	2,852	34,585		43,941	6,504	2,852	34,585
5	Centralized Toll System Costs	36,207		36,207	0.0	-2,633	33,574		33,574	0.0
6	Program Costs: Planning, Coordination & Management	28,437		28,437	0.0		28,437		28,437	0.0
7	Program Contingency	50,000		40,000	10,000	-4,077	50,000		35,923	14,077
8	Capitalized Start-up O&M	16,000		16,000	0.0		16,000		16,000	0.0
	<b>Gap Closure Opportunity Projects</b>									
9	CC-680 Northern Segment - Southbound HOV Completion (2)	19,000		19,000	0.0		19,000		19,000	0.0
10	CC-680 Northbound Express Lane Completion (North Main Street to SR-242)	57,287			57,287		57,287		0.0	57,287
11	SOL-80 East (3)	135,484	8,696	16,114	110,674		135,484	8,696	16,114	110,674
	<b>Future Conversions</b>									
12	ALA/CC-80 and Westbound approaches to the Bay, San Mateo & Dumbarton Bridges	110,884	5,000	692	105,191		110,884	5,000	692	105,191
13	CC-680 Northern Segment - Northbound Conversion	14,575	1,511		13,064		14,575	1,511		13,064
14	Centralized & Program Costs & Start Up O&M - Gap Closures & Future Conversions	TBD					TBD			
	<b>TOTAL</b>	<b>674,632</b>	<b>25,522</b>	<b>318,309</b>	<b>330,801</b>	<b>0</b>	<b>678,709</b>	<b>25,522</b>	<b>318,309</b>	<b>334,878</b>

Notes (1) Other Gap Closure and Extension projects not shown: ALA-880 extension northbound from Lewelling to Hegenberger;

SOL-80 gap closure from Carquinez Bridge to Red Top Road; SOL-80 extension east of I-505; SOL-680 gap closure

(2) Cost shown is BAIFA's contribution toward shortfall. Total project cost is \$85M. Other funds include Measure J (\$37M), RM2 (\$13M), STIP (\$16M)

(3) Environmental funded with RM2

**Attachment C**

	Firm Name	Role on Project	DBE* Firm			SBE** Firm		
			Yes	If Yes, List #	No	Yes	If Yes, List #	No
Prime Contractor	Aegis ITS, Inc.	General Contractor			X			X
Subcontractor	Team-EES	Subcontractor			X	X	1677900	
Subcontractor	M & M Hansen Communications Contracting	Subcontractor			X			X
Subcontractor	Statewide Construction Sweeping, Inc.	Subcontractor			X			X
Subcontractor	Statewide Traffic Safety & Signs	Subcontractor			X			X
Subcontractor	SSP Data Inc.	Subcontractor			X	X	56663	

\*Denotes certification by the California Unified Certification Program (CUCP).

\*\*Denotes certification by the State of California.

Date: June 24, 2015  
W.I.: 6840  
Referred by: BAIFA  
Revised: 12/16/15-BAIFA

ABSTRACT

BAIFA Resolution No. 9, Revised

This resolution establishes an expenditure plan for the Express Lane Program funds in the BATA Capital Budget.

This resolution was revised on December 16, 2015 to shift funds from line items for Program Contingency and Centralized Toll System Costs to the line item for CC-680 Southern Segment in order to fully fund the Backhaul for the CC-680 Southern Segment express lane.

Discussion of this item can be found in the Executive Director's Memoranda to the Authority dated June 17, 2015 and December 9, 2015.

Date: June 24, 2015  
W.I.: 6840  
Referred by: BAIFA

RE: Express Lane Program Expenditure Plan

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY  
RESOLUTION NO. 9

WHEREAS, the Metropolitan Transportation Commission ("MTC") and the Bay Area Toll Authority ("BATA") have executed a joint exercise of powers agreement dated as of August 1, 2006, as amended, which creates and establishes the Bay Area Infrastructure Financing Authority ("BAIFA"); and

WHEREAS, the Metropolitan Transportation Commission ("MTC") has requested that the Bay Area Infrastructure Financing Authority ("BAIFA") assist MTC in the development, financing, and operation of high-occupancy toll lanes in MTC's jurisdiction; and

WHEREAS, the BATA Capital Budget and Long-Range Plan includes funding for Express Lanes projects; and

WHEREAS, BAIFA wishes to establish an Express Lane Program Expenditure Plan to direct such funding to Express Lanes projects on the I-80, I-680 and I-80 corridors in Alameda, Contra Costa, and Solano Counties, now; therefore, be it

RESOLVED, that BAIFA directs the available funding as shown in the Express Lane Program Expenditure Plan in Attachment A to implement express lanes on the I-80, I-680 and I-880 corridors in Alameda County, Contra Costa County and Solano County.

BAY AREA INFRASTRUCTURE FINANCING  
AUTHORITY



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Dave Cortese, Chair

The above resolution was entered into by  
the Bay Area Infrastructure Financing Authority  
at a regular meeting of the Authority held in  
Oakland, June 24, 2015.

Date: June 24, 2015  
W.I.: 6840  
Referred by: BAIFA  
Revised: 12/16/15-BAIFA

Attachment A  
BAIFA Resolution No. 9  
Page 1 of 1

## Express Lane Program Expenditure Plan

*Escalated dollars (000s)*

*Costs include project capital and support as well as program policy, management and coordination*

Line No.	Conversions and Gap Closure Opportunity Projects (1)	Cost	Regional Measure 2 (allocated)	BATA Express Lanes Funds	Unmet Funding Need
	<b>Near-Term Conversions</b>				
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2	CC-680 Southern Segment	55,649		55,649	
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	<b>Future Conversions</b>				
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14	Centralized & Program Costs & Start Up O&M - Gap Closures & Future Conversions	TBD			
	<b>TOTAL</b>	<b>678,709</b>	<b>25,522</b>	<b>318,309</b>	<b>334,878</b>

Notes (1) Other Gap Closure and Extension projects not shown: ALA-880 extension northbound from Lewelling to Hegenberger;  
SOL-80 gap closure from Carquinez Bridge to Red Top Road; SOL-80 extension east of I-505; SOL-680 gap closure  
(2) Cost shown is BAIFA's contribution toward shortfall. Total project cost is \$85M. Other funds include Measure J (\$37M), RM2 (\$13M), STIP (\$16M)  
(3) Environmental funded with RM2



REQUEST FOR AUTHORITY APPROVAL  
Summary of Proposed Contract

Work Item No.: 6840

Contractor: Aegis ITS, Inc. or Tennyson Electric, Inc.

Work Project Title: Backhaul Communications Network for Express Lanes CC-680 Southern Segment

Purpose of Project: Construction, implementation, operations and maintenance of express lanes backhaul communications network

Brief Scope of Work: Construction, implementation, operations, and maintenance of civil infrastructure and logical network for the Express Lanes Backhaul Communications Network in support of the MTC Express Lanes CC-680 Southern Segment.

Project Cost Not to Exceed: 

- \$5,429,929 plus a contingency of \$830,643 if Aegis ITS, Inc. is awarded the contract or
- \$6,279,986 plus a contingency of \$915,649 if Tennyson Electric, Inc. is awarded the contract

Funding Source: BATA Express Lanes Capital Project Budget

Fiscal Impact: Funding is included in the Express Lanes Capital Project Budget, as adopted in the FY 2015-16 Toll Bridge Program Operating and Capital Budget (BATA Resolution No. 115, Revised).

Motion by Committee: As described above and in the Executive Director's Memorandum dated December 9, 2015, that the Executive Director or his designee is authorized to:

- Award a contract to Aegis ITS, Inc., to construct, operate and maintain the Backhaul for CC-680S in an amount of \$5,429,429 and establish a contingency in the amount of \$830,643 to be used at the Executive Director or his designee's discretion for changes not included in the scope of work; or
- Award a contract to Tennyson Electric, Inc., to construct, operate and maintain the Backhaul for CC-680S in an amount of \$6,279,986 and establish a contingency in the amount of \$915,649 to be used at the Executive Director or his designee's discretion for changes not included in the scope of work, should staff determine that the bid from Aegis ITS, Inc. is not responsive or that Aegis ITS, Inc. is not responsible.

Further in the event of an award to Aegis ITS, Inc. that the Chief Financial Officer is directed to set aside funds in the amount of \$5,429,429 for such contract and \$830,643 for the contingency; or in the event of an award to Tennyson Electric, Inc., that the Chief Financial Officer is directed to set aside funds in the amount of \$6,279,986 for such contract and \$915,649 for the contingency.

BAIFA:

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Dave Cortese, Chair

Approved: Date: December 16, 2015