

# **Board Report**

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Agenda Number: 8.

# AD HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE JANUARY 17, 2018

SUBJECT: METRO EXPRESSLANES OPERATION AND

**MAINTENANCE** 

File #: 2017-0717, File Type: Contract

**ACTION: APPROVE RECOMMENDATIONS** 

## RECOMMENDATION

#### CONSIDER:

- A. AUTHORIZING the Chief Executive Officer (CEO) to exercise Option 4.5, Additional Year of Operation and Maintenance (O&M) - Year 5 (from February 24, 2018 to February 23, 2019), Modification No.76 for Contract No. PS0922102333 with Atkinson Contractors, LP (Atkinson) for Metro ExpressLanes Operation and Maintenance in the amount of \$3,120,000, increasing the total contract price from \$164,257,920 to \$167,377,920;
- B. AUTHORIZING the CEO to execute Contract Modification No.77 for additional O&M Support Costs for Option Year 5 in the amount of \$15,699,569, increasing the total contract price from \$167,377,920 to \$183,077,489;
- C. AUTHORIZING the CEO to negotiate and execute Contract Modification No. 79 for an Occupancy Detection System in the amount not-to-exceed \$11,250,000 increasing the total contract price from \$183,077,489 to \$194,327,489; and
- D. APPROVING an increase in Contract Modification Authority (CMA) for Contract No. PS0922102333, to Atkinson in the amount of \$28,396,228, increasing the total CMA from \$107,354,954 to \$135,751,182, to cover the costs of the recommended Contract Modification above, and any pending and future changes listed in the Contract Modification/Change Order Log (Attachment B).

#### ISSUE

In December 2010, Atkinson was awarded a Design, Build, Operate and Maintain (DBOM) contract for the Metro ExpressLanes project that included activities needed to implement and operate the ExpressLanes through the demonstration period, and if successful, up to five option years could be considered at the appropriate time. The demonstration period was deemed a success and legislation was passed authorizing Metro to operate the I-10 and I-110 ExpressLanes without a sunset date.

The fourth of the five, one-year options was approved by the Board on October 27, 2016. Staff is requesting authorization to proceed with Option Year Five to allow for continued operations of the current system. In addition, staff is recommending amending the current contract to incorporate an occupancy detection system which will improve enforcement of the ExpressLanes.

## **DISCUSSION**

#### Recommendation A: Additional Year of O&M

As Option Year Four expires in February 2018, staff is requesting Board authorization to exercise the fifth of the five, one-year options to continue to operate and maintain the Metro ExpressLanes under the existing contract until February 23, 2019.

# Recommendation B: Additional O&M Support

The recommended funding action is required due to the successful launch of the ExpressLanes and includes many activities driven mainly by customer and non-customer demand: additional account support for new accounts; costs for mailing of customer correspondence and violations; and fees related to the processing of payments.

The base O&M contract for the ExpressLanes includes customer service related activities for up to 100,000 transponders, which was the target for the demonstration period. However, there are currently over 790,000 transponders in circulation exceeding all expectations for the program and requiring more effort related to customer service than originally included in the base contract. The distribution of additional transponders results in establishment of new accounts that require order fulfillment and additional contractor staffing support to service these accounts. Servicing activities include answering calls, handling correspondence, responding to customer inquiries, postage, and processing transactions.

Correspondingly, the success of the Metro ExpressLanes has increased violation processing beyond the original contract numbers, generating additional costs associated with license plate image processing, postage and mailing, phone services, and responding to online inquiries.

In addition, resources will continue to be needed for the maintenance of the tolling equipment and real-time traffic monitoring utilizing "EarthCam" cameras and staffing of the Traffic Management Center for incident management and monitoring of all toll-related systems. The Contract Modification in Recommendation B addresses these additional operational support services required to operate and maintain the ExpressLanes through the balance of O&M Option Year 5.

#### Recommendation C: Occupancy Detection System (ODS) Proof of Concept

As part of an effort to identify and deter scofflaws in the ExpressLanes, a not-to-exceed amount of \$11,250,000 is recommended to expedite the implementation of an Occupancy Detection System

proof of concept at two separate locations - one on each corridor in the most congested direction - that would install the necessary roadside equipment and provide essential integration with the existing back office system.

A demonstration of the ODS was previously provided on the I-110 North, utilizing cameras and an infrared flash to take a photo of the inside of the vehicle to identify the number of occupants. ODS determined the vehicle passenger count and submitted images for manual validation. The images were subsequently manually matched against the transactions posted in the toll system to determine if the declared occupancies by the customers was the same, or different, than the occupancies detected by the ODS.

In addition to providing the equipment and civil work necessary for the roadside equipment installation, this Modification would provide for the software development, deployment and back office system integration required for automated transaction matching between the ODS and the toll system for account posting. This would allow the toll system to appropriately charge or credit customers' accounts based on the ODS's observed occupancy. Essentially, the ODS in combination with the back office improvements would credit or debit customer accounts for those who set their transponder switches incorrectly, to significantly increase the accuracy of all tolls assessed to customers.

Two locations have been selected based on physical installation requirements as well as congestion levels: a single lane location on the I-10 and a dual lane location on I-110. The 30% engineering design has been completed along with the Concept of Operations and Scope of Work. Once negotiated and executed, this Modification will enable the 100% design to be completed, new permanent gantries to be built for the cameras, toll system upgrades to be developed and deployed, and ongoing ODS maintenance to be performed.

## Recommendation D: Additional CMA

The additional CMA request of \$28,396,228, when combined with previous Board Approved CMA remaining, will be used to authorize Recommendations A, B and C-(O&M) Option Year Five, Additional O&M Support Costs, an Occupancy Detection System-as well as additional pending Modifications.

The request for authorization to increase the CMA will serve as a management tool for staff to issue contract modifications to compensate the contractor for additional costs that may be incurred for the completion of the ODS, or any pending modifications.

To ensure there is no interruption in O&M services and implement the ODS as expeditiously as possible, staff requests authority be granted to the CEO to execute a Contract Modification for Option Year 5, the additional O&M support costs for Option Year 5, and the Occupancy Detection System.

## **DETERMINATION OF SAFETY IMPACT**

Approval of these recommendations will improve safety for Metro ExpressLanes patrons.

File #: 2017-0717, File Type: Contract Agenda Number: 8.

# FINANCIAL IMPACT

Funding for this Modification is included in the FY18 budget for cost center 2220. Because this is a multi-year program, the cost center manager and Executive Officer, Congestion Reduction will be responsible for budgeting the remaining CMA in future years.

# Impact to Budget

The funding for this action will come from toll revenues generated from the Metro ExpressLanes operations. No other funds were considered for this activity.

# **ALTERNATIVES CONSIDERED**

The Board may decline to approve the recommended actions. This is not recommended as staff cannot immediately re-procure and transition to a new contractor to operate and maintain the ExpressLanes and ensure uninterrupted operations. In terms of ODS, Staff has pursued the most advanced and system-compatible technology to assist in detecting vehicle occupancy levels to improve ExpressLanes performance and the customer experience.

## **NEXT STEPS**

Staff is currently working on the re-procurement of ExpressLanes O&M services since the current contract will expire in 2019. Upon Board approval of the Recommendations, staff will take the necessary steps to notify the Contractor that Metro will exercise Option Year Five for O&M, and execute required Contract Modifications for O&M Years 5 and for ODS deployment.

## <u>ATTACHMENTS</u>

A. Procurement Summary

B. Contract Modification Authority Summary

C. DEOD Summary

Prepared by: Joe O'Donnell, Director, Contract Administration, (213) 922-7231

Tim Lew, Sr. Mgr, Transportation Planning, (213) 418-3134

Kathy McCune, DEO (213) 418-3138

Shahrzad Amiri, Executive Officer, (213) 922-3061

Reviewed by: Debra Avila, Chief V/CM Officer, (213) 418-3051

Stephanie Wiggins, Deputy CEO, (213) 922-1023

Phillip A. Washington Chief Executive Officer

#### PROCUREMENT SUMMARY

## METRO EXPRESSLANES OPERATIONS AND MAINTENANCE

1.	Contract Number: PS092210233					
2.	Contractor: Atkinson Contractors, LP					
3.	Mod. Work Description: Exercise Option 4.5: Additional Year of O&M - Year 5;					
			on Year 5; Occupancy Detection :			
4.		<b>ription</b> : Design, E	Build, Operate and Maintain the M	letro		
	ExpressLanes					
5.	The following data is		December 6, 2017			
6.	Contract Completion	Status:				
		10/04/40		0.7.70		
	Bids/Proposals	8/31/10	% Completion \$s:	85.7%		
	Due:	40/40/40	0.0	000/		
	Contract Awarded:	12/16/10	% Completion time:	98%		
	NTP:	01/11/11	Original Contract	990		
	0.1.1	Days:	4.000			
	Original Complete	09/28/13	Change Order	1,609		
	Date: Current Est.	Days:	0			
		02/23/18	Suspended Days:	U		
	Complete Date:		Total Revised Days:	2,599		
7.	Financial Status:		Total Neviseu Days.	2,000		
١.	Contract Award:			\$72,363,702		
	Total Contract Modif	ications		\$91,894,218		
	ψο 1,00 1,2 10					
	Approved: Current Contract Val	ue:		\$164,257,920		
				+ - , - ,-		
	Contract Administrat	or:	Telephone Number:			
	Joe O'Donnell		213-922-7231			
8.	Project Manager:		Telephone Number:			
	Shahrzad Amiri		213-922-3061			

# A. Contract Action Summary

This Board Action is to approve:

- Contract Modification No. 76 issued in support of Option 4.5: Operations and Maintenance of the ExpressLanes Year 5;
- Contract Modification No. 77, issued in support of Additional O&M Support Costs for Option Year 5; and
- Contract Modification No. 79 for an Occupancy Detection System.

These Contract Modifications will be processed in accordance with Metro's Acquisition Policy and the contract type is a firm fixed priced price.

On December 16, 2010, Contract No. PS0922102333 was awarded to Atkinson Contractors, LP in the amount of \$72,363,702, to Design, Build, Operate and Maintain the Metro ExpressLanes Project.

Attachment B shows that 72 Contract Modifications/change orders have been issued to date to add and/or delete work, and 9 Contract Modifications are currently pending or in negotiations.

The proposed Contract Modifications are for \$30,069,569, and will be used to Exercise Option 4.5 – Option Year 5; additional O&M Support Costs for Option Year 5; and an Occupancy Detection System.

# B. Cost/Price Analysis

The recommended price for Contract Modification No. 76 was a bid rate for Option Year 5. A market survey was performed that confirmed the Option price is fair and reasonable.

The recommended price for Contract Modification No. 77 has been determined to be fair and reasonable based upon an independent cost estimate, cost analysis, technical evaluation, fact finding, and negotiations. An audit of Option Year 3 rates was conducted and found no issues. Contractor has agreed to maintain all Option Year 3 rates for Option Year 5, except those that were increased due to collective bargaining agreements, therefore it was determined that an audit of this year's costs was not necessary.

The amount shown for Contract Modification No. 79, is a not-to-exceed amount for an Occupancy Detection System. The final value for this Modification will be evaluated based upon an independent cost estimate, audit, cost analysis, technical evaluation, fact finding, and negotiations to determine that it is fair and reasonable.

Mod No.	Changes	Proposal amount	Metro ICE	Negotiated or NTE amount
76	O&M – Option Year 5	\$3,120,000	N/A*	\$3,120,000
77	Additional O&M Support Costs for Option Year 5	\$15,699,569	\$15,586,542	\$15,699,569
79	Occupancy Detection System	\$11,250,000	\$TBD	\$TBD

<sup>\*</sup> Mod. No. 76 price was a bid rate. Mod. No. 77 pricing is based OY3 rates with affected rates escalated per 2017 collective bargaining agreements. Pricing for Mod No. 79 is an estimated NTE amount.

# CONTRACT MODIFICATION AUTHORITY (CMA) SUMMARY

# METRO EXPRESSLANES OPERATIONS AND MAINTENANCE

1 2 3 4 5	Initial Award Exercise Options 1 and 2 Admin Modification of Audit Requirements	(Approved or Pending) Approved	(A)	Mods	• •	
1 2 3 4 5	Exercise Options 1 and 2	Approved			Board Approved CMA (C)	
2 3 4 5			\$72,363,702		\$7,236,370	
3 4 5	Admin Modification of Audit Requirements	Approved		\$4,250,000		
4 5		Approved		\$0		
5	Install Fiber Cables & Splice Vaults on I-110	Approved		\$470,487		
-	Toll System Digital Visual Aids	Approved		\$65,100		
6	Modification to Field Office	Approved		\$3,228		
U	Drainage Improvements on I-110 (Const.)	Approved		\$1,867,000	\$1,867,000	
7	Exercise Option 3	Approved		\$2,475,000	. , ,	
	Board Approved CMA Increase (1/12)	Approved		<del>+</del> =, :: =,===	\$11,592,445	
	Construction of Divider Wall	Approved		\$821	ψ,σσ <u>=</u> ,σ	
-	Drainage Improvement on I-110 (Design)	Approved		\$234,440		
	Harbor Gateway Transit Center	Approved		\$0		
	Retail Transponder Sales	Approved		\$347,854		
12	Differing Site Condition – CIDH Pile Install.	Approved		\$384,768		
	Modified Striping for Toll Lanes	Approved		\$607,964		
	Audible and Visible Warning System	Approved		\$316,334		
15	Adams Blvd/Flower St. OCS (Construction)	Approved		\$80,061		
16	DSC - CIDH Piles Along I-10 Fwy	Approved		\$78,448		
	Retail Packaging for Add'l Transponders	Approved		\$337,500		
	Additional Design Support	Approved		\$137,879		
19	Rehabilitation of I-10 Shoulder	Approved		\$633,414		
20	Perforated Steel Pipe	Approved		\$160,276		
	Temporary Customer Service Center	Approved		\$193,383		
	Closure of Patsaouras Plaza Ramps	Approved		\$69,524		
	Modify Conflicting Expo Signs	Approved		\$25,508		
_	Metro's TAP Interface Program	Approved		\$25,734		
	I-10 Traffic Loops	Approved		\$126,598		
	Additional Traffic Monitoring Support	Approved		\$957,186		
	Additional Video Cameras	Approved		\$726,288		
	Adams Blvd/Flower St. OCS (Design)	Approved		\$59,331		
	Mobile Van Retail Unit/Extended Hours	Approved		\$50,000		
-	Additional Barrier Markers	Approved		\$39,128		
	Toll System Software Modifications for	7.0010100		ΨΟΟ,120		
31	Grace Period	Approved		\$9,724		
_	Release of Additional Transponders	Approved		\$450,000		
	Mailing Costs	Approved		\$450,000		
	Additional Account Support	Approved		\$1,000,000	\$1,000,000	
	Contract Milestone Revision	Approved		\$2,749,778	\$2,749,778	
	Board Approved CMA Increase (9/13)	Approved		Ψ2,143,110	\$2,749,778	
	Reduction of Provisional Sum Line Items	Approved		(\$2,147,709)	Ψ2,000,000	
		Approved		(φ∠, 141,109)		
	Add'l Transponders Option 3 and Retail	Approved		<b>\$450.075</b>		
	Packaging Additional Contaminated Material	Approved		\$459,375 \$150,000		
	Additional Mailing Costs	Approved Approved		\$1,000,000	\$1,000,000	

	Additional Static and Digital Messaging			
41	Signs	Approved	\$432,463	
41	Permanent. Redundant Fiber Comm	Approved	\$432,403	
42	Network	Approved	\$341,738	
43	Digital Messaging Sign at Santa Anita	Approved	\$481,827	
CO12	Additional Computer Programming	Approved	\$250,000	
CO12	Credit Card Transaction Costs	Approved	\$270,000	
N/A	Board Approved CMA Increase (2/14)	Approved	\$270,000	\$10,228,862.00
IN/A	Exercise Option 4.1, Add'l Year of O&M –	Approved		\$10,220,002.00
44	Year 1	Approved	\$3,024,000	
	I cal I	Approved	\$3,024,000	
45	Additional Account Support for Option Year 1	Approved	\$2,900,000	
	Add'l Transponders Option 3 and Retail	7.6610100	φ2,000,000	
46	Packaging	Approved	\$1,350,000	
47	Additional Mailing Costs - Option Year 1	Approved	\$1,700,000	
48	Interface Configuration Document	Approved	\$35,924	
49	Additional TMO Labor - Option Year 1	Approved	\$445,000	
	Additional Marketing Support – Option Year	7.6610100	<b>\$110,000</b>	
50	1	Approved	\$304,399	
- 00	Additional Credit Card Transaction Fees –	пррготса	ΨΟΟ-1,500	
52	Option Year 1	Approved	\$300,000	
- 02	Additional Violations Processing Beyond	пррготос	\$000,000	
53	Base Contract	Approved	\$750,000	
54	Additional Transponders – Option Year 1	Approved	\$432,000	
N/A	Board Approved CMA Increase (10/14)	Approved	\$ 18 <u>2</u> ,888	\$22,925,488.00
	Exercise Option 4.2, Add'l Year of O&M –	11		+ ,,
55	Year 2	Approved	\$3,048,000	
	Additional O&M Support Costs for Option	7.66.0.00	\$ \$70.10,000	
56	Year 2	Approved	\$6,717,874	
	Additional Transponders and Retail		. , ,	
57	Packaging	Approved	\$4,999,986	
	Replacement of Pavement Stencils and			
60	Striping and New Delineators on I-10/I-110	Approved	\$1,708,334	
	Add Funds for Additional Violation			
62	Processing and Violation Credit Card Fees	Approved	\$605,000	
N/A	Board Approved CMA Increase (12/15)	Approved		\$17,203,063.00
	Exercise Option 4.3, Add'l Year of O&M –			
63	Year 3	Approved	\$3,072,000	
	Additional O&M Support Costs for Option			
64	Year 3	Approved	\$10,383,408	
	Preliminary Design for Additional Toll Sites,			
66	Signage, Improvements	Approved	\$157,043	
	Additional Funding for Operations Support			
67	Costs	Approved	\$900,000	
68	Marketing Data Analysis	Approved	\$90,470	
69	Earthcam Permanent Locations	Approved	\$250,622	
70	New CHP Beacon Light System - Design	Approved	\$78,444	
N/A	Board Approved CMA Increase (10/16)	Approved		\$29,216,913
	Exercise Option 4.4, Add'l Year of O&M –			
71	Year 4	Approved	\$3,096,000	
CO15	Additional Transponders	Approved	\$3,240,000	
CO16.3	Additional Transponders	Approved	\$12,199,824	
0047	Additional O&M Support Costs for Option	A		
CO17	Year 4	Approved	\$12,636,000	
0040	DMS 290 Pull Box Mitigation and Replace	A		
CO18	Sensys Repeaters Occupancy Detection System (ODS) 30%	Approved	\$74,440	
CO40	Design	Approxed	#4F 000	
CO19	Design	Approved	\$15,000	

		Sub	total (Approved)	\$95,134,218	\$107,354,954
	Replacement and Additional Static Message				
	and Dynamic Message Signs for I-10/I-110				
58	and I-105	In-Process		\$2,650,000	
59	New Toll Gantries - Construction	In-Process		\$2,500,000	
74	Replace UPS Batteries - Furnish Only	In-Process		\$251,395	
	-	Subt	otal (In-Process)	\$5,401,395	
	Exercise Option 4.5, Add'l Year of O&M –				
76	Year 5	Reco	mmended	\$3,120,000	
	Additional O&M Support Costs for Option				
77	Year 5	Reco	mmended	\$15,699,569	
	Occupancy Detection System - Final Design				
79	and Construction	Recommended		\$11,250,000	
	-	Subtotal	(Recommended)	\$30,069,569	
	New CHP Beacon Light System -				
TBD	Construction	Pending		\$986,000	
	Maintenance of Additional Tolling Equipment				
TBD	and DMS	Pending		\$260,000	
TBD	Potential Changes (Contingency)	Pending		\$3,900,000	
		Sı	ibtotal (Pending)	\$5,146,000	

Subtotal - Approved Modifications		\$95,134,218	
Subtotal - In-Process Modifications		\$5,401,395	
Subtotal - Recommended Modifications		\$30,069,569	
Subtotal - Pending Changes/Modifications		\$5,146,000	
Total Modifications and Pending Changes		\$135,751,182	
Total Contract Value (including Approved, In-Process,			
Recommended and Pending Modifications)	\$208,114,884		
Board Approved CMA (C)			\$107,354,954
Requested CMA – Total Modifications and Pending			
Changes (\$135,751,182 minus Board Approved CMA,			
\$107,354,954)			\$28,396,228

31.82%

#### **DEOD SUMMARY**

#### METRO EXPRESSLANES OPERATIONS AND MAINTENANCE

## A. Small Business Participation

This Contract is funded, in whole or in part, by the Federal Highway Administration funds and falls under the Caltrans Underutilized Disadvantaged Business Enterprise (UDBE) program requirements. At the time of award, Atkinson made a 20.3% UDBE commitment for Operations and Maintenance. Atkinson is exceeding their commitment with a current total UDBE participation of 31.82%.

Small Business Commitment		UDBE 20.30%	Small Business Participation	UDBE 31.82%
UDBE Subco		entractors	% Committed	% Participation
1.	G&C Equipment		20.30%	30.07%
2.	Noble Insight		Added	1.75%

20.30%

# B. Living Wage and Service Contract Worker Retention Policy Applicability

**Total Commitment** 

The Living Wage and Service Contract Worker Retention Policy is not applicable to this Contract.

# C. Prevailing Wage Applicability

Prevailing Wage requirements are applicable to this project. DEOD will continue to monitor contractors' compliance with the State of California Department of Industrial Relations (DIR), California Labor Code, and, if federally funded, the U S Department of Labor (DOL) Davis Bacon and Related Acts (DBRA).

# D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.

# METRO EXPRESSLANES OPERATIONS AND MAINTENANCE CONTRACT MODIFICATIONS – OPTION YEAR 5

Ad Hoc Congestion, Highways and Roads Committee JANUARY 17, 2018



# Recommendation

# • Authorize:

- Option Year 5 of 5 one-year options for \$3,120,000
- O & M Support Costs of \$15,699,569
- Contract Modification Authority for pending and future recommendations totaling \$28,396,228

# Authorize additional modifications:

 Negotiate an Occupancy Detection System for a not-to-exceed amount of \$11,250,000



# System Operations & Maintenance

- Atkinson is the prime contractor with Conduent responsible for operations and maintenance of the ExpressLanes
  - Current Option Year 4 contract expires Feb 2018
  - Requesting approval for Option Year 5 to extend contract to Feb 2019
- Operations and Maintenance Account Support Includes
  - Customer Service
  - Account Management
  - Transponder Distribution
  - Violation Processing
  - Roadside Equipment Maintenance



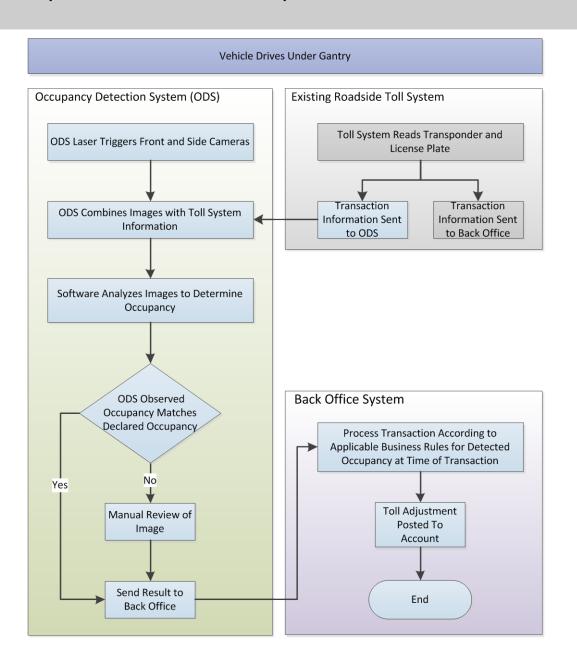
# **Occupancy Detection System**

# Implementation of a Proof of Concept

- System of cameras which count humans in vehicles via automated and manual review.
- Design, Installation, Testing, Operations
  - New gantries & Roadside equipment (Atkinson, AECOM, Conduent)
  - Integration into Back Office Toll System (Conduent)
- Efforts to Expedite Timeline
  - Approve work as part of a contract modification
  - 30% Design Complete. 100% Design in Progress



# **Occupancy Detection System – Process Flow**





# Occupancy Detection System – Layout

