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

File #: 2018-0020, **File Type:** Contract

Agenda Number: 19.

2nd REVISED
EXECUTIVE MANAGEMENT COMMITTEE
JUNE 20, 2018

SUBJECT: METRO'S PHOTO ENFORCEMENT PROGRAM

ACTION: EXERCISE THE FIRST TWO-YEAR OPTION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to negotiate and execute necessary modifications to Contract No. PS68103079 with Conduent State and Local Solutions, Inc. (Conduent), formerly Xerox State and Local Solutions, for Metro's Red Light Photo Enforcement (RLPE) installation and maintenance services and return to the Board no later than January 2019 with a recommendation to immediately reprocure if Conduent fails to substantially mitigate its SBE underpayments, or to recommend awarding the balance of the first two-year option if Conduent materially remediates its first four years of SBE payment shortfall. The 6-month period of contract performance between July 1, 2018 and December 31, 2018 shall not exceed $1,051,836, increasing the total contract value from $14,118,098 to $15,169,934.

~~AUTHORIZE the Chief Executive Officer to execute Modification No. 2 to Contract No. PS68103079 with Conduent State and Local Solutions, Inc. (Conduent), formerly Xerox State and Local Solutions, for Metro's Photo Enforcement installation and maintenance services, to exercise the first two-year option in the amount of $4,207,344, increasing the total contract value from $14,118,098 to $18,325,442, and extending the contract term from July 1, 2018 to June 30, 2020.~~

~~**MOTION BY DUPONT-WALKER** to amend staff's recommendation and propose a six-month extension for this contract and re-evaluate Conduent's performance in six-months on meeting the SBE commitment.~~

ISSUE

In November 2013, the Board approved award of Contract No. PS68103079 for a period of eight years, inclusive of two, two-year options, starting July 1, 2014. The four-year base contract expires June 30, 2018.

At the June 21, 2018 Executive Committee Meeting (EMC), staff originally recommended exercising the first two-year option. However, Director Dupont-Walker introduced a motion to amend staff's recommendation and propose a six month extension for this contract instead, and re-evaluate

Conduent's performance in six months on meeting the SBE commitment. If Conduent fails to demonstrate their ability to improve or meet the SBE participation, the direction is to re-procure this contract.

Based on the Director's motion, staff has revised the report. Staff will return to the Board, formally, at the first full Board meeting (January 2019) after the 6 month SBE remediation demonstration period has ended with a recommendation to either begin an immediate reprocurement if Conduent fails to meet its aggressive SBE underpayment remediation plan, or if they have made significant improvements, to recommend extending the balance of the first two-year option.

~~To continue providing the necessary Red Light Photo Enforcement services, a contract modification is required to exercise the first two-year option extending the period of performance through June 30, 2020.~~

DISCUSSION

Past history and Original Legislation

Beginning in 1992, Metro tested an automated rail crossing enforcement system that photographically recorded violations for a period of 18 months and issued citations to motorists who violated the traffic laws. The results of this pilot program found that grade crossing violations were reduced significantly along a portion of the Metro Blue Line (MBL) because of enforcement citations serving as a deterrent. Based on the results of the demonstration project, Metro sponsored the Rail Traffic Safety Enforcement Act (RTSEA) of 1994 (California Vehicle Code Section 21362.5) that authorized the establishment of an "automated rail crossing enforcement system." The legislature found that the RTSEA was necessary due to the expansion of rail transit systems throughout the state. Studies showed that most rail-related traffic accidents were caused by motorists ignoring crossing gates or traffic signals.

In 1995, the year following the adoption of Metro's sponsored statute, the California legislature added Vehicle Code (VEH) Sections 21455.5 and 210 at the request of various California cities and counties. VEH Section 21455.5 is much more detailed than the RTSEA and allows any government agency to install "Automated Enforcement Systems" at all places where a driver is required to respond to an official traffic control signal: a standard red, yellow and green light signal. In addition, the public agency desiring to install such a system is required to work directly with a local law enforcement agency, which is responsible for issuing the notices of violation. Metro works directly with the Los Angeles Sheriff's Department (LASD) on its Red Light Photo Enforcement (RLPE) program.

In addition, VEH Section 210 adopted a definition of "Automated Enforcement System" which subsumed the existing rail and rail transit systems that were approved under the RTSEA. Although VEH Section 21362.5 has never been repealed, 21455.5 essentially absorbed the RTSEA. Therefore, LACMTA's automated rail crossing enforcement system became subject to the rules and requirements of VEH Section 21455.5.

The purpose of installing automated enforcement systems in most cities and counties is multi-

faceted: to reduce traffic collisions between 3rd party vehicles, to free peace officers to conduct other patrol duties and to offset the operational cost of the systems. Metro is slightly different because our objectives are to reduce collisions with our vehicles directly, the costs of litigation, employee injuries, damage to our real property and vehicles, reputation damage, disruption to our passengers, and the opportunity costs of Metro employees and first responders who manage the incident and post-incident activities. Our ultimate goal is to reduce dangerous driving behaviors and resulting collisions through deterrence and through the elimination of recidivism via installation of an automated enforcement system thereby identifying those drivers that violate the law and issuing tickets to those violators. Metro couples this enforcement activity with a rigorous public awareness campaign and continuous engineering improvement program at grade crossings.

In 1994, Metro initiated modifications to the California Vehicle Code under State Senate Bill 1802, making citations for violations recorded by photo enforcement equipment subject to the same procedures as citations written by police officers for other moving violations. The provisions enacted under Senate Bill 1802 have since been extended for red light running violations at signalized intersections.

Success of Metro Blue Line Vehicle Collision Reduction Efforts

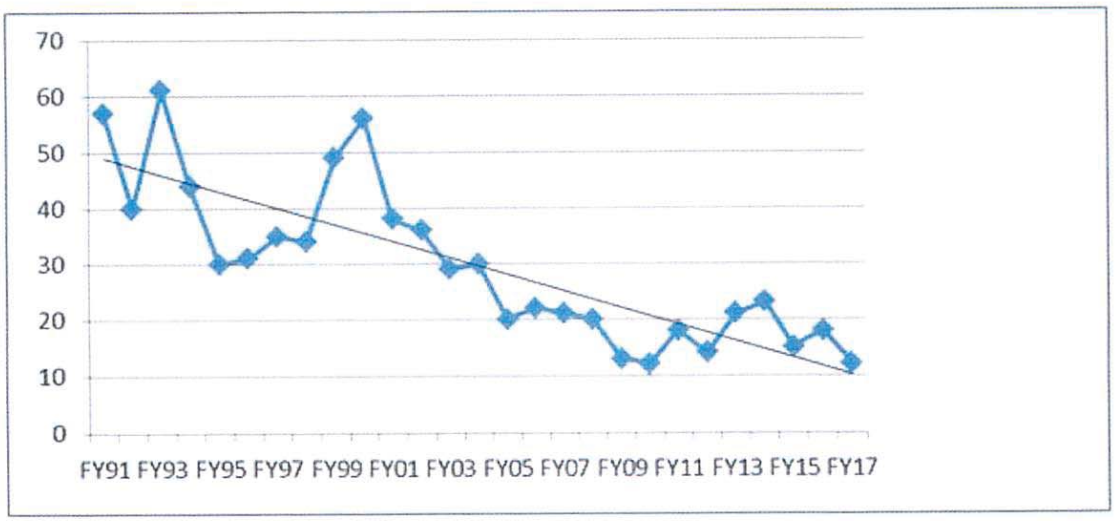
Metro's photo enforcement program began as a public safety response to collision frequency on the MBL, which upon opening had an immediate reputation as one of the most unsafe light rail systems in the United States, particularly for vehicular collisions. On the Blue line, many initiatives were undertaken, concurrently, to address collision root causes across three specific areas: engineering, education and enforcement.

Engineering improvements since opening have included four quadrant gating, active train signage for pedestrians and motorists, median fencing on Long Beach Boulevard, and median islands to prevent crossing gate violations. Improvements in our safety education measures included the creation of the APTA award winning Safety Ambassador Program, our School Education Program and ramped up and ongoing public outreach. Enforcement improvements included the installation of photo enforcement cameras and increased fines for violations.

Collectively, these measures have largely been effective. The number of vehicular collisions on the MBL peaked in Metro's fiscal year 1993 at 61 collisions. For the fiscal year concluded in 2017, the number of vehicle collisions on the MBL fell to just 12, a more than 80% decline. This reduction in the aggregate number of vehicular collisions on the MBL is despite the addition of significantly more frequent service on the MBL since 1993, as well as substantially more vehicles crossing our rights-of-way driven by population growth. A graphical depiction of the MBL vehicular collision trend is shown below (Figure 1).

Figure 1

MBL Gated and Non-gated Intersection Accidents



Red Light Photo Enforcement as a Deterrent

Although we cannot say with certainty exactly how many vehicle/train collisions have been reduced as a result solely because of our red light photo enforcement, we can say that collectively, our own data as well as peer reviewed academic literature support the hypothesis that RLPE is an effective collision reduction intervention.

Specifically, peer reviewed research regarding the effectiveness of photo enforcement shows significant beneficial effects, particularly in reducing side impact (right angle) collisions, which in our case is a train versus vehicle collision. A 2010 meta-analysis of many photo enforcement studies compiled by the Texas Transportation Institute titled "Effectiveness of Red Light Cameras" concluded with the following comments:

> Conclusions
>
> The findings described above are the results of many different evaluations performed on differing data of differing sample sizes for differing types of intersections using different evaluation methods. However, the trends are quite clear and undeniable even if the numerical values may not be fully certain.
>
> If installed at locations with significant red light running crashes and/or violations, over a group of intersections, red light cameras:
>
> - Substantially reduce red light violation rates;
> - Reduce crashes that result from red light running;

- Usually reduce right-angle collisions;
- May result in an increase in rear-end collisions;
- May or may not reduce total crashes, but rarely result in a substantial increase; and
- Usually reduce crash severity by virtue of reducing the more severe right-angle crashes while sometimes increasing the less severe rear-end collisions.

Red light cameras are to aid enforcement and should not be considered a substitute for proper traffic engineering of signalized intersections. If a signalized intersection has been analyzed and all reasonably practical measures have been taken to help drivers see the signals, and if red light running still persists, increased enforcement by red light cameras or other means will likely be effective.

One key measure of the effectiveness of RLPE is a reduction in unsafe behaviors measured by the number of recorded red light violations. An adjunct measure is the reduction in the number of collisions due to red light violations. As shown in Figure 2, there was an approximately 10% reduction in violations between 2014 and 2015. In 2016, we upgraded the photo enforcement cameras to a digital system, which enhanced our capability to capture violations. Therefore, in 2016, the number of violations captured increased by about 60% to 129,495. The effectiveness is further demonstrated when in 2017 the number of violations dropped by 18% compared to the previous year. Again, these reductions occurred despite increased vehicular population increases. Another key measure of program effectiveness is violator recidivism, or the number of repeat and perhaps habitual offenders. The program is most effective in deterring motorists from committing repeat violations as shown below in Figure 2. Only 1 in 500 violations is a repeat offender indicating the vast majority of motorists modify their driving habits.

Figure 2

Year	Violations	Multi-Offenders	Repeat Offender %
2014	88,488	242	0.3%
2015	80,357	141	0.2%
2016*	129,495	152	0.1%
2017	106,584	28	0.1%
Total:	404,924	563	0.1%

* The increase in the number of violations is due to an upgrade to the Camera system that provides for better enforcement and violation detection

The most significant data series indicative of the success of the RLPE photo enforcement program is the collision reduction that has been experienced on the MBL in street running locations with photo enforcement cameras. Figure 3 below, shows the collective collision rate for 6 intersections with photo enforcement cameras on the MBL, with both pre- and post RLPE camera installation. Before camera installation, the collision rate at these intersections was .64 collisions per month while after

installation the rate fell to .33 collisions per month, a 52% reduction. While we cannot attribute all of the collision reduction only to the RLPE program because signage and educational programs have been improved, the RLPE program was the most significant intervention at these locations. Further, this collision reduction occurred despite increased vehicular volume at these intersections over the last 25+ years since the MBL has been in operation.

Figure 3

6 MBL Street Run Crossings Since Opening

	Collisions	Months	Rate
Before RLPE	108	168	0.64286
After RLPE	54	162	0.33333

Collision Reduction: 52%*

DETERMINATION OF SAFETY IMPACT

Approval of this item will result in enhancing the safety of the general public, and Metro's patrons and employees.

FINANCIAL IMPACT

In the first four years of this contract, revenues covered most of the consultant O&M cost. Violations are paid to the County Superior Court who, in turn, distributes the revenues to Metro's Enterprise fund.

Metro currently pays $1,702 per month per camera for maintenance and citation processing. There are 103 cameras in operation, with an annualized cost at $2,103,672. Additionally, we fund three LASD Photo Enforcement Officers/Law Enforcement Technicians that issue citations and represent the program in Court across the county on behalf of Metro. The annual burdened rate for the three Officers is $341,343. Metro's annual administrative cost is approximately $55,000. This brings the total annual cost of operating the program to $2,500,015.

Based on court records, and a review of Accounts Receivable records, Metro received an average annual amount of $2,109,099 from the RLPE citations over the FY13-FY17 period. Staff verified the amounts received for a random 3 months period with Metro's accounting department and confirmed the average annual receipt of $2,109,099. Therefore, the net average annual operating cost to Metro for this program is $390,916.

This $390,916 annual expense is more than offset through even a very small reduction in collision rates. We have undertaken a review of the direct and indirect costs of vehicular collisions to Metro.

We calculated three year averages for the direct costs of liability claims associated with vehicular collisions, the cost of employee injuries related to vehicular collisions, the cost of repair for damaged equipment and a very rough estimate of the opportunity cost of bus bridging, additional overtime, direct Metro incident response, investigation, regulatory reporting and others. Combined, these rough order of magnitude costs, for a typical accident are approximately $100,000 and represent only those costs, direct and indirect borne by Metro. These costs do not include delay costs of our passengers or third-parties, reputational damage to Metro, or the cost of third-party first responders. Nor do these costs include the very large cost of medical treatment, pain/suffering and lost wages incurred by those injured for which Metro is not legally liable.

In order to cover the remaining annual direct costs of the RLPE program ($390,916), roughly four typical vehicular collisions per year would need to be prevented annually. From FY15 through FY17, Metro averaged 31 vehicular collisions per year on the Expo, Blue and Gold Lines. The RLPE program would need a roughly 13% collision reduction effect to cover these costs. We believe that the RLPE program provides at least this level of collision reduction effect based on our own MBL experience cited earlier which suggests that the RLPE program would possibly reduce collision rates by as much as 50%.

Impact to Budget

The funding for this action is included in the FY19 budget in cost center 6810, Corporate Safety, under projects 300022 - Rail Operations - Blue Line, 300055 - Gold Line, 300066 - Expo Line, and 301012 - Metro Orange Line in account 50316 (Serv. Prof. and Tech. Services). In FY18, an estimated $2.1 million will be expensed for the Photo Enforcement Program.

ALTERNATIVES CONSIDERED

Do Not Exercise the Option and Initiate a New Procurement

Given Conduent's underperformance to its DBE commitment, staff gave consideration to recommending Board authorization to extend the current contract to allow for a new procurement rather than exercising the option. Staff does not recommend this approach because it would not result in Conduent meeting its DBE commitment and staff, inadvertently, had not been monitoring attainment during the base contract. Once staff notified Conduent of the deficiency, they immediately submitted a recovery plan. Specifically, Conduent has agreed to remedy the current DBE non-compliance by increasing their DBE commitment to approximately 38% on a going forward basis. This level of DBE participation would put Conduent in compliance with the overall contract goal of 23.40% at the end of the second option period.

In addition, Metro does not own the existing infrastructure including cameras and poles. Industry-wide, cameras and systems are proprietary. The existing cameras and infrastructure have not exhausted their useful life. The early replacement of cameras and poles could impose significant additional costs.

Discontinue Photo Enforcement

Staff strongly recommends the Board not take this action as it will result in:

- Increase in unsafe driving habits;
- Increase in accidents;
- Increase in claims and litigation costs; and
- Interruption in operations resulting in inefficient levels of service to the public.

NEXT STEPS

Upon Board approval, staff will execute ~~a Contract Modification~~ necessary modifications with Conduent under the current Contract No. PS68103079, consistent with the motion introduced at the Executive Management Committee. ~~exercising the first two-year option, effective July 1, 2018, for Metro's Photo Enforcement services.~~

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - Contract Modification/Change Order Log
Attachment C - DEOD Summary

Prepared by: Abdul Zohbi, Systems Safety Manager, Corporate Safety, (213) 922-2114

Reviewed by: Greg Kildare, Chief Risk, Safety and Asset Management Officer, (213) 922-4971
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051

Phillip A. Washington
Chief Executive Officer