



## CITY OF GLENDALE, CALIFORNIA REPORT TO THE CITY COUNCIL

### AGENDA ITEM

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Report: Glendale Regional Arterial Traffic Performance Measurement System Project and On-Call Fiber Optic Testing, Design, Installation, and Maintenance Services

1. Motion authorizing a Construction Contract to Elecnor Belco Electric, Inc., in the amount of \$342,300, approving a 10% reserve for contingency in the amount of \$34,230, rejecting all other bids; and authorizing the City Manager or his designee to execute the contract.
2. Motion authorizing a construction contract for a “not-to-exceed” amount of \$500,000 for the On-Call Fiber Optic Testing, Design, Installation, and Maintenance Services to Elecnor Belco Electric, Inc., rejecting all other bids, and authorizing the City Manager or his designee to execute the contract.
3. Resolution of Appropriation to appropriate funds for the On-Call Fiber Optic Testing, Design, Installation, and Maintenance Services.

### COUNCIL ACTION

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**Item Type:** Consent Calendar

**Approved for**         June 29, 2021         **calendar**

### ADMINISTRATIVE ACTION

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**Submitted by:**

Yazdan T. Emrani, P.E., Director of Public Works

**Prepared by:**

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**Reviewed by:**

Edward G. Hitti, P.E., Assistant Director of Public Works/City Engineer

Michele Flynn, Director of Finance

Michael J. Garcia, City Attorney

**Approved by:**

Roubik R. Golanian, P.E., City Manager

## **RECOMMENDATION**

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Staff respectfully recommends that the City Council approve the following:

1. Motion authorizing a Construction Contract to Elecnor Belco Electric, Inc., in the amount of \$342,300, approving a 10% reserve for contingency in the amount of \$34,230, rejecting all other bids; and authorizing the City Manager or his designee to execute the contract.
2. Motion authorizing a construction contract for a “not-to-exceed” amount of \$500,000 for the On-Call Fiber Optic Testing, Design, Installation, and Maintenance Services to Elecnor Belco Electric, Inc., rejecting all other bids, and authorizing the City Manager or his designee to execute the contract.
3. Resolution of Appropriation to appropriate \$500,000 from State Gas Tax Mandates, State Gas Tax Fund, Account No. 24219-4020-NON-0000 to Construction, Gas Tax Fund, Public Works Department, Projects; On-Call Fiber Optic Services, Construction, Gas Tax Fund, Account No. 52100-4020-PWD-0020-P0000-T0000-F0000-0000-0000; PWD00565AN-CONSTRUCT-4020.

## **BACKGROUND/ANALYSIS**

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On April 27, 2021, the City Council adopted the plans and specifications for the Glendale Regional Arterial Traffic Performance Measurement System Project and On-Call Fiber Optic Testing, Design, Installation, and Maintenance Services, and authorized the City Clerk to advertise for bids.

To ensure competitive bids, the City advertised the project on the following plans holders’ web sites:

1. Bid America
2. The Blue Book
3. Construction Bid Board
4. Construct Connect
5. Direct Connection
6. PlanIT Reprographics
7. Dodge Data & Analytics

These plan holders’ websites publish invitations to bid on the construction projects and distribute the information to their extensive network of contractor and construction industry contacts.

The project was also advertised in a local newspaper, the Glendale News-Press, prior to bid opening. Plans and Specifications were also posted on eBidboard, which is a web enabled data service to the public sector, for the dissemination of the building and construction project bids to their large number of member contractors, and was also posted on the City’s website.

### **Regional Arterial Traffic Performance Measurement System Project**

On May 26, 2021, the City received four bids as follows for the Regional Arterial Traffic Performance Measurement System Project:

<u>CONTRACTOR</u>	<u>BID AMOUNT</u>
1. Elecnor Belco Electric, Inc. (Chino)	\$ 342,300.00
2. DBX, Inc. (Temecula)	\$ 348,617.00
3. Crosstown Electrical and Data, Inc. (Irwindale)	\$ 380,845.00
4. Ferreira Construction Co. Inc. (Rancho Cucamonga)	\$ 452,426.00

Upon review of the bid documents, Staff finds the bid of Elecnor Belco Electric Inc. to be the lowest responsive bid from a responsible bidder. The bid of Elecnor Belco Electric Inc. in the amount of \$342,300 is 2.2% below the Engineer's estimate of \$350,000.

In addition, Staff recommends a reserve for contingencies in the amount of \$34,230 or 10% of the lowest bid amount. The contingency is based on previous experience and is commensurate with the nature of the project. This will allow us to account for any incidental work, unforeseen field conditions that could be encountered during construction, underground utilities issues that could arise because of the nature of the project, and any resulting field modifications that may be necessary, including repairing additional traffic signal infrastructure at the project locations.

Furthermore, staff has budgeted for FY 2020-21 approximately 5% of the construction amount, or \$17,115, for staff who will provide construction management and engineering support services such as project management, project engineering, and construction inspection.

The State of California Contractor's State License Board website confirms that the licenses of Elecnor Belco Electric, Inc. and their subcontractors are current, active and in good standing. Additionally, Staff contacted the references provided by Elecnor Belco Electric, Inc. and found they had satisfactorily completed the projects. Elecnor Belco Electric, Inc. had also worked with the City of Glendale on the North Verdugo Road Traffic Signal Improvements and Dilemma Zone Detection Project, Rectangular Rapid Flashing Beacons (RRFB) At Various Locations Project, Traffic Signal Installations and Modifications at Various Locations and Broadway-Brazil Grade Separation Project, the Oceanview Rehabilitation Project, and the Construction of Bicycle Facilities and Citywide Bikeway and Pedestrian Improvements Project, and satisfactorily completed these projects.

The City of Glendale is bordered by the cities of Burbank, Pasadena, Los Angeles, and La Canada Flintridge and has a population of over 200,000. The City is located northeast of Los Angeles in the foothills of the San Gabriel Mountains and is traversed by the Ventura (134), Golden State (5) Glendale (2) and Foothill (210) freeways.

The City spans over an area of 32 square miles and has a total of 369 miles of paved roadway. In recent years, Glendale has experienced a significant increase in traffic volumes and congestion, which has resulted in travel delays and congestion to the existing roadways.

The purpose of this project is to implement an arterial performance measurement system in the Glendale Traffic Management Center (GTMC) that will be used to evaluate, improve, and optimize traffic performance on arterial streets. The system will extract information from real-time intelligent transportation systems, such as vehicle sensors and traffic signal systems, save it permanently in a data warehouse, and present this information in various forms to managers, traffic engineers, planners, and researchers. With a performance measurement system, the City traffic engineers can make operational decisions, such as signal timing adjustments, based on knowledge of the current and historical states of the arterial network.

### **Existing Traffic Signal Network**

The City has approximately 240 signalized intersections of which approximately 200 are monitored by the GTMC. The City relies on the GTMC to monitor and adjust signal timing. The communication between the GTMC and field devices are a combination of stranded copper interconnect cables and single mode fiber optic cables in underground conduits. The fiber communication system is based on a Gigabit Ethernet structure and also includes a network based computer system that controls the Central Traffic Signal and Closed Circuit Television (CCTV) systems. The majority of the City's signalized intersections operate with 2070-ATC controllers with McCain 2033 program.

Currently, the City is in the process of developing a traffic signal synchronization model using TrafficWare's Synchro software. The Synchro model will be incorporated into the arterial traffic performance measurement system to allow for necessary operation timing adjustments.

Once the model is developed, specific improvements need to be made within the controller cabinets at existing signalized intersections for the model to be deployable.

The specific improvements consists of:

- 1) Communications Improvements (48 intersections);
- 2) System Detector Improvements (18 intersections); and
- 3) Media Convertor Improvements (15 intersections).

The scope of work for the specific improvements are the following:

- 1) Communications Improvements include a cloud based hosted data service that allows for the retrieval of real-time traffic data information;
- 2) System Detector Improvements include new video detector cameras installed on the traffic signals that are capable of collecting real-time traffic data information, including associated video processors, brackets, and cables that support the video detector cameras; and
- 3) Media Convertor Improvements include communications module installations to allow the recording, processing, and forwarding of the real-time traffic data information collected from video detectors installed on the traffic signals with the GTMC.

The project limits are entirely within the City at 48 existing signalized intersections as shown in Exhibit 1 – Project Map for Proposed Improvement Locations.

**Measure R**

Measure R is a half-cent sales tax for Los Angeles County that finances new transportation projects and programs. In November 2008, Measure R was approved by two-thirds majority, committing a projected \$40 billion to traffic relief and transportation upgrades throughout the County over its 30 years life span. The City’s share of Measure R funds for Highway Operational Improvements is approximately \$98.5 million.

The City is required to execute a Funding Agreement (FA) for each of our Measure R funded projects. The FA must be executed in the first year that funds are available and prior to starting any work on the project. They include a general description of the project, the specific work elements to be completed, and the source of all funds. The Glendale Regional Arterial Traffic Performance Measurement System is included in Los Angeles County Metro Board’s approved project list in the amount of \$142,000. Staff has completed the design phase of the project, and construction is anticipated to begin four months after advertisement.

**2013 Call for Projects Funds**

City staff was able to secure funds from the 2013 Call for Project funds to fund a majority of the Glendale Regional Arterial Traffic Performance Measurement System. Metro obligated funds for the design, construction, construction contingency and construction engineering in the amount of \$531,000. As part of this obligation, the City will need to utilize \$142,000 of Measure R Regional Return funds for the required local matching component. The City will construct the project and then invoice Metro for reimbursement. Metro has issued a Funding Agreement authorizing the City to proceed with the design, construction, and construction management phase of the project.

**On-Call Fiber Optic Testing, Design, Installation, and Maintenance Services**

On May 19, 2021, the City received three bids for the On-Call Fiber Optic Testing, Design, Installation, and Maintenance Services. Upon review of the bid documents, additional information was requested of all three bidders in order to determine the lowest responsive and responsible Bidder meeting all requirements set forth in the subject project Bidding Documents.

On May 25, 2021, the City received the preliminary schedule of values for Time and Materials for Labor Costs from all three bidders to determine the Bid Amount difference from the Standard Rate based on the latest published prevailing wage determination at the time of bid opening:

<u>CONTRACTOR</u>	<u>BID AMOUNT</u>
1. Elecnor Belco Electric, Inc. (Chino)	+5% Labor & Material
2. Crosstown Electrical and Data, Inc. (Irwindale)	+13% Labor & Material
3. VCI Utility Services (Rancho Cucamonga)	+170% Labor & Material

Upon review of the bid documents, Staff finds the bid of Elecnor Belco Electric Inc. to be the lowest responsive bid from a responsible bidder.

The State of California Contractor's State License Board website confirms that the licenses of Elecnor Belco Electric, Inc. and their subcontractors are current, active and in good standing. Additionally, Staff contacted the references provided by Elecnor Belco Electric, Inc. and found they had satisfactorily completed the projects. Elecnor Belco Electric, Inc. has worked with the City of Glendale on multiple construction projects, and most recently, on the Fiber Optic Communication Design and Testing Services Project, and satisfactorily completed these projects.

The master communication link between the GTMC and signalized intersections and CCTV systems are through field devices that pass communication through a combination of mainly single mode fiber optic cables and a few remaining stranded copper interconnect cables in underground conduits. As a matter of practice, stranded copper interconnect cables are upgraded to single mode fiber optic cables via capital improvement projects that overlap in the same area.

Although the City has minimal resources to maintain and perform minor repairs to damaged fiber optic infrastructures, we are not staffed and equipped to handle emergency or critical repairs in a timely manner to maintain constant communication throughout our traffic signal network. The majority of the fiber optic infrastructure repairs are handled through current construction contracts via change orders and field change directives, which often carry unanticipated construction markups and higher costs.

This project will provide an on-call contract for a not to-exceed amount of \$500,000 for a period of three years from the contract certification date by the City Manager to keep our fiber optic infrastructure functioning and up to date through as-needed testing, design, installation, and maintenance services.

### **Environmental Review**

These projects are Categorically Exempt under the provisions of the California Environmental Quality Act as a Class 1 Exemption pursuant to the California Code of Regulations, Title 14, Section 15301.

### **Anticipated Project Schedule**

The construction of the Regional Arterial Traffic Performance Measurement System Project is anticipated to begin in August 2021 and be completed by October 2021.

The construction of the On-Call Fiber Optic Testing, Design, and Implementation Services is expected to last up to 3 years or up to the not-to-exceed amount.

### **FISCAL IMPACT**

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#### **Regional Arterial Traffic Performance Measurement System Project**

The total estimated costs for implementing the Regional Arterial Traffic Performance Measurement System Project are as follows:

Construction Bid Price	\$ 342,300.00
10% Construction Contingency	\$ 34,230.00
5% Construction Management	\$ 17,115.00
<b>Total Cost</b>	<b>\$ 393,645.00</b>

Funding for this project in the amount of \$393,645.00 has been budgeted and is available in the following accounts and amounts:

<b>Account Description</b>	<b>Account Number</b>	<b>Amount</b>
Construction, Measure R Regional Return Fund, Public Works Department, Projects; Regional Arterial Traffic PMS, Budget, Measure R Regional Return Fund	52100-2550-PWD-0020; G52161-BUDGET-0000-2550	\$ 52,776.00
Construction, CIP Reimbursement Fund, Public Works Department, Projects; Regional Arterial Traffic PMS, Budget, CIP Reimbursement Fund	52100-4090-PWD-0020; G52161-BUDGET-0000-4090	\$ 190,170.00
Construction, Measure R Regional Return Fund, Public Works Department, Projects; I-5 N Mitigation Project Management, Budget, Measure R Regional Return Fund	52100-2550-PWD-0020; G52040-BUDGET-0000-2550	\$ 35,820.98
Construction, Gas Tax Fund, Public Works Department, Projects; Street Resurfacing Program, Budget, Regional Arterial Traffic Performance Management System Project, Gas Tax Fund	52100-4020-PWD-0020; 51500-BUDGET-RATPMS-4020	\$ 114,878.02
<b>TOTAL</b>		<b>\$ 393,645.00</b>

**On-Call Fiber Optic Testing, Design, Installation, and Maintenance Services**

To fund this project, it is requested that \$500,000 be derived from a new appropriation as follows:

- a. Appropriate \$500,000 from State Gas Tax Mandates, State Gas Tax Fund, Public Works Department Account No. 24219-4020-PWD-0000 to Construction, Gas Tax Fund, Public Works Department, Projects; On-Call Fiber Optic Services, Construction, Gas Tax Fund, Account No. 52100-4020-PWD-0020-P0000-T0000-F0000-0000-0000; PWD00565AN-CONSTRUCT-4020

## **ALTERNATIVES**

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The alternatives relating to the proposed resolution are as follows:

**Alternative 1: Approve the attached Motions and Resolution.** This project will significantly improve traffic operations by allowing direct control of the intersections to optimize timing and reduce delay. Furthermore, the City can hire a contractor to perform fiber optic repair on an “as-needed” basis in a timely manner without compromising City infrastructure.

**Alternative 2: Do not approve attached Motions and Resolution.** The subject intersection operations will not be optimized and the fiber optic infrastructure will be maintained at marked up costs by current construction contracts via contract change orders.

**Alternative 3:** The City Council may consider any other alternative not proposed by staff.

## **EXHIBITS**

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Exhibit 1: Project Map for Proposed Improvement Locations Regional Arterial Traffic Performance Measurement System