

COOPERATIVE AGREEMENT BY AND BETWEEN THE CITIES OF  
HUNTINGTON BEACH, GARDEN GROVE AND WESTMINSTER FOR THE  
VALLEY VIEW STREET/BOLSA CHICA STREET CORRIDOR TRAFFIC  
SIGNAL SYNCHRONIZATION PROJECT

This Cooperative Agreement ("Agreement") is made and entered into this 14<sup>th</sup> day of September 2022, by and between the CITY OF HUNTINGTON BEACH, the CITY OF GARDEN GROVE and the CITY OF WESTMINSTER.

- A. The City of Huntington Beach, with cooperation from the Cities of Garden Grove and Westminster, applied for a grant from the Orange County Transportation Authority ("OCTA") Measure M2 Regional Traffic Signal Synchronization Program ("RTSSP"), aimed to coordinate traffic signals across multiple jurisdictions to enhance the countywide traffic flow and reduce congestion.
- B. The Valley View Street/Bolsa Chica Street Corridor Traffic Signal Synchronization Project was selected by OCTA as one of the RTSSP Projects to be funded in OCTA Fiscal Year 2020-2021. A two-year project delay was received from OCTA, with a revised project funding Fiscal Year of 2022-2023. The project will include timing implementation and improvements at traffic signals along Valley View Street/Bolsa Chica Street, from Chapman Avenue in Garden Grove to Warner Avenue in Huntington Beach, as listed in the Project Application attached hereto as Exhibit B and incorporated herein by this reference.
- C. The total budget for the project is \$1,871,410. Of this budget, 80% (\$1,497,120) is funded by the OCTA Regional Traffic Signal Synchronization Program and 20% (\$374,280) is local agencies matching funds. The breakdown is shown in Exhibit A attached hereto and incorporated herein by this reference.
- D. Huntington Beach, Garden Grove and Westminster agree to provide twenty percent (20%) matching funds for the total project cost. Matching funds can be a combination of cash and in-kind match as defined by the RTSSP grant.
- E. OCTA and Huntington Beach have entered into a Master Funding Agreement "Cooperative Agreement No. C-1-2765" defining the terms and conditions for approved Measure M2 projects that will be implemented by Huntington Beach.
- F. Huntington Beach agrees to serve as the lead agency to oversee the design and implementation of the project.
- G. Huntington Beach, Garden Grove and Westminster desire to enter into this Cooperative Agreement to demonstrate their commitment to implement the project and improve inter-jurisdiction traffic signal synchronization on Valley View Street/Bolsa Chica Street.
- H. This Cooperative Agreement defines the specific terms, conditions and funding responsibilities between Huntington Beach, Garden Grove and Westminster for the implementation of the project.

NOW THEREFORE, it is mutually understood and agreed by and between HUNTINGTON BEACH, GARDEN GROVE AND WESTMINSTER:

I. SCOPE:

This Agreement specifies the roles and responsibilities of the cities as they pertain to the subjects and projects addressed herein. The project is specifically detailed in the Project Application attached hereto as Exhibit B and incorporated herein by this reference. All of the cities agreed that each will cooperate and coordinate with the other in all activities covered by this Agreement and any other supplemental agreements that may be required to facilitate purposes thereof.

II. MUTUAL RESPONSIBILITIES:

Huntington Beach, Garden Grove and Westminster mutually agree to:

- a. Designate a lead staff to act as the liaison for the project. The liaison and any other project personnel, if necessary, will attend and participate in all related project meetings.
- b. Participate, cooperate and coordinate with contractors, consultants, vendors and staff in good faith using reasonable efforts to resolve any unforeseen issues and disputes arising out of the project to the extent practicable with respect to the performance of the project.
- c. Maintain project related traffic signals and telecommunications equipment with high priority during the project, and be responsible for repair of their own signal control systems in each of their respective jurisdictions.
- d. Provide on-site support for signal control systems, timing plans, detection systems and related equipment during construction, installation and integration, and be available to change or make adjustments to timing plans when necessitated by the project.
- e. Document in-kind match or dollar match funding as identified in the project application, and provide verification of such expenditures as part of any review or audit process, which may include payroll records, contracts and purchase orders.
- f. Monitor and operate the project traffic signals and improvements within its jurisdiction for a period of two (2) years following the completion of the Primary Implementation Phase of the project, as required by the program funding.
- g. Coordinate the inclusion of other improvements and in-kind services, where necessary, that the owning agency requires for the implementation of the project, but are not included in the project application. The owning agency shall be responsible for the inclusion of such elements within reason and at its own costs.



- h. Unused project funds for improvements from one City can be used by another City (with matching fund responsibility) upon mutual consent of the involved parties.

### III. RESPONSIBILITIES OF HUNTINGTON BEACH:

Huntington Beach agrees to the following responsibilities:

- a. Huntington Beach shall serve as lead agency for design and traffic signal timing implementation and shall provide oversight by establishing milestones and overseeing the project development to ensure that all standards and requirements set forth by the agreement is adhered to.
- b. Huntington Beach shall be responsible for completing the project in accordance with the funding guidelines and any and all other OCTA requirements related to these funding programs. Huntington Beach shall maintain coordination with all participating agencies throughout the duration of the project.
- c. Huntington Beach shall provide staff, consultants, and contractors deemed necessary and appropriate to manage, administer, coordinate, and oversee engineering design and timing implementation of the project.
- d. Huntington Beach shall coordinate the work effort of the Project, provide the day-to-day management of the consultant and manage all consultant administration. Huntington Beach shall review the consultant's invoices and pay them accordingly after ensuring that the work has been adequately performed by the consultant.
- e. Huntington Beach shall provide its share of matching fund as shown in Exhibit A attached hereto and incorporated herein by this reference. The final amount may vary and will be based on the 20% of actual cost of implementing all timing, improvements and maintenance, as identified in the project application.
- f. Upon issuance of a Notice to Proceed to the Consultant, Huntington Beach can issue invoices to Garden Grove and Westminster for up to 80% of the cash match amount identified in Exhibit A. The remaining cash match amount will be invoiced after completion of the Primary Implementation Phase of the project.
- g. Huntington Beach shall comply with all of the terms and conditions of the Cooperative Agreement with OCTA, including the Project Reporting and Audit Requirements contained therein.

### IV. RESPONSIBILITIES OF GARDEN GROVE:

Garden Grove agrees to the following responsibilities:

- a. Garden Grove shall provide its share of matching funds as shown in Exhibit A. The final amount may vary and will be based on the 20% of actual cost of the implementing all timing, improvements and maintenance, as identified in the project application.
- b. Garden Grove shall be responsible for construction contracting, construction administration and construction inspection for all improvements within its jurisdiction. Costs of such inspection services shall be part of the in-kind labor services provided within the matching fund. No additional compensation from the project is provided for providing inspection services.
- c. Garden Grove shall waive all costs and fees related to any and all permits, if such permits are required to perform any project related work in its jurisdiction.

V. RESPONSIBILITIES OF WESTMINSTER:

Westminster agrees to the following responsibilities:

- a. Westminster shall provide its share of matching funds as shown in Exhibit A. The final amount may vary and will be based on the 20% of actual cost of implementing all timing, improvements and maintenance, as identified in the project application.
- b. Westminster shall be responsible for construction contracting, construction administration and construction inspection for all improvements within its jurisdiction. Costs of such inspection services shall be part of the in-kind labor services provided within the matching fund. No additional compensation from the project is provided for providing inspection services.
- c. Westminster shall waive all costs and fees related to any and all permits, if such permits are required to perform any project related work in its jurisdiction.

VI. COMPLETE AGREEMENT

- a. This Agreement, including any attachments incorporated herein and made applicable by reference, constitutes the complete and exclusive statement of the terms and conditions of this Agreement between HUNTINGTON BEACH, GARDEN GROVE AND WESTMINSTER and it supersedes all prior representations, understandings and communications between the parties. The invalidity in whole or in part of any term or condition of this Agreement shall not affect the validity of other term(s) or condition(s) of this Agreement. The above referenced Recitals are true and correct and are incorporated by reference herein.
- b. Any modifications of this Agreement shall only be by amendment upon written mutual consent of all cities. All modifications, amendments, changes and revision of this Agreement in whole or in part, and from time to time, shall be binding upon the cities so long as the same shall be in writing and executed by each agency.
- c. A party's failure to insist on any instance(s) of any other party's performance of any term(s) or condition(s) of this Agreement shall not be construed as a waiver of the non-enforcing party's right to such performance or to future performance of such

term(s) or condition(s), and the non-performing party's obligations in respect thereto shall continue in full force and effect. Changes to any portion of this Agreement shall not be binding upon either party except when specifically confirmed in writing by way of a written amendment to this Agreement between the parties and issued in accordance with the provisions of this Agreement.

VII. INSURANCE AND INDEMNIFICATION

- a. Each City shall jointly and severally indemnify, defend and hold harmless every other City, its officers, directors, employees and agents from and against any and all claims for any loss or damages, bodily injuries, damage to, or loss of property caused by the negligent acts, omissions or willful misconduct by the City, its officers, directors, employees, or agents in connection with or arising out of the performance of this Agreement.
- b. Each City shall maintain adequate levels of insurance, or self-insurance to assure full indemnification of every other City.

VIII. ADDITIONAL PROVISIONS

- a. Term of Agreement: This Agreement shall continue in full force and effect until December 31, 2026. This Agreement may be extended at the mutual consent of all parties in writing.
- b. HUNTINGTON BEACH, GARDEN GROVE and WESTMINSTER hereto affirm that they are authorized to execute this Agreement on behalf of said parties and that, by so executing this Agreement, the parties hereto are formally bound to the provisions of this Agreement.
- c. Severability: If any term, provision, covenant or condition of this Agreement is held to be invalid, void or otherwise unenforceable to any extent, by any court of competent jurisdiction, the remainder of this Agreement shall not be affected thereby, and each term, provision, covenant or condition of this Agreement shall be valid and enforceable to the fullest extent permitted by law.
- d. Counterparts of Agreement: This Agreement may be executed and delivered in any number of counterparts, each of which, when executed and delivered shall be deemed an original and all of which together shall constitute the same agreement. Facsimile and electronic signatures will be permitted.
- e. In the event that the project costs exceed the estimates submitted in the Project Application as prepared, all parties agree to meet and determine project revisions to meet the budget, or a revised funding proposal by the Cities that shall be documented and submitted in writing as a revision to the Agreement.
- f. The parties shall comply with all applicable Federal, State and local laws, statutes, ordinances and regulations of any governmental agency having jurisdiction over the project.

- g. Force Majeure: Any party shall be excused from performing its obligations under this Agreement during the time and to the extent that it is prevented from performing by any unforeseeable cause beyond its control, including but not limited to, any incident of fire; flood; acts of God; commandeering of material products, plants or facilities by the Federal, State or local government; national fuel shortage; or, a material act or omission by the other party; when satisfactory evidence of such cause is presented to the other parties, and provided further that such non-performance is unforeseeable beyond the control and is not due to the fault or negligence of the party not performing.
- h. Assignment: Neither this Agreement, nor any of the parties' rights, obligations or duties hereunder may be assigned in whole or in part by any party without the prior written consent of all the other parties in their sole and absolute discretion. Any such attempt at assignment shall be deemed void and of no force and effect. Consent to one assignment shall not be deemed consent to any subsequent assignment, nor the waiver of any rights to, consent to such subsequent assignment.
- i. Obligations to Comply with Law: Nothing herein shall be deemed nor construed to authorize or require any party to issue bonds, notes or other evidences of indebtedness under the terms, in amounts, or for purposes other than as authorized by local, State or Federal law.
- j. Governing Law: The laws of the State of California and applicable local and Federal laws, regulations and guidelines shall govern this Agreement.
- k. Litigation fees: Should litigation arise out of this Agreement for the performance thereof, the court shall award costs and expenses, including attorney's fees, to the prevailing party.
- l. Notices: Any notices, requests or demands made between the parties pursuant to this Agreement are to be directed to:

City of Huntington Beach  
Public Works/Engineering  
Attn: William Janusz, Principal Civil Engineer  
2000 Main Street  
Huntington Beach, CA 92648  
(714) 374-1628

City of Garden Grove  
Public Works Department  
Attn: Dai Vu, City Traffic Engineer  
11222 Acacia Parkway  
Garden Grove, CA 92842

(714) 741-5189

City of Westminster  
Public Works Department  
Attn: Jake Ngo, Public Works Director/City Engineer  
8200 Westminster Blvd.,  
Westminster, CA 92683  
(714) 554-3462

IX. DELEGATED AUTHORITY

The actions required to be taken by the Cities in the implementation of this Agreement are delegated to its Mayor, City Manager or equivalent designee.

[SIGNATURES ON SUBSEQUENT PAGES]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written:

CITY OF WESTMINSTER:



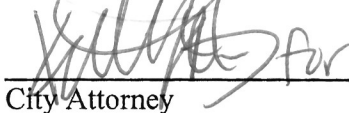
Mayor

ATTEST:



City Clerk, Interim

APPROVED AS TO FORM:



City Attorney

EXHIBIT A

Valley View Street / Bolsa Chica Street TSSP

Project Funds Breakdown

AGENCY	PROJECT FUNDS BY AGENCY *	M2 GRANT (80%)	LOCAL MATCH (20%)		
			TOTAL MATCH **	MATCH TYPE	
				CASH	IN-KIND
HUNTINGTON BEACH	\$654,000.00	\$523,200.00	\$134,311.58	\$131,165.58	\$3,146.00
GARDEN GROVE	\$567,300.00	\$453,840.00	\$115,654.74	\$32,494.74	\$83,160.00
WESTMINSTER	\$597,600.00	\$478,080.00	\$122,153.68	\$122,153.68	\$0.00
CALTRANS	\$41,700.00	\$33,360.00	\$0.00	\$0.00	\$0.00
TOTAL	\$1,860,600.00	\$1,488,480.00	\$372,120.00	\$285,814.00	\$86,306.00

\* Unused project funds from one Agency can be transferred to another agency with mutual consent.

\*\* Total match amount may vary; the final match amount will be based on the actual project implementation costs, to be determined at the Primary Implementation Phase of this project.



EXHIBIT B  
PROJECT APPLICATION  
3/19/2020

EXHIBIT B



# CITY OF HUNTINGTON BEACH

## Public Works Department

Tom Herbel, PE  
Acting Director of Public Works

March 19, 2020

Mr. Alfonso Hernandez  
Orange County Transportation Authority  
600 S. Main Street  
Orange, CA 92863

**Subject: Revised Application for Regional Traffic Signal Synchronization Program  
Funds Under the Comprehensive Transportation Funding Program  
Valley View Street / Bolsa Chica Street from Chapman Avenue to Warner  
Avenue**

Dear Mr. Hernandez:

The City of Huntington Beach, in conjunction with the Cities of Garden Grove and Westminster, is submitting the enclosed revised application for funding consideration for the Valley View Street / Bolsa Chica Street corridor under the Regional Traffic Signal Synchronization Program of the Comprehensive Transportation Funding Program. The application is for operational and infrastructure improvements along Valley View Street / Bolsa Chica Street from Chapman Avenue to Warner Avenue.

Enclosed is a printout of the revised supplemental application. This application has been revised based upon your comments dated March 18, 2020.

We appreciate your consideration of our application. If there are any questions, please contact me at (714) 374-1628.

Sincerely,

William F. Janusz, P.E.  
Principal Civil Engineer

Enclosures

C: Dai Vu, City Traffic Engineer, Garden Grove  
Bill (Hoa) Pham, Civil Engineering Associate, Westminster

**FY 2020 Call for Projects**  
**Regional Traffic Signal Synchronization Program**

**Project P**

**Supplemental Application**

**VALLEY VIEW STREET / BOLSA CHICA STREET**

**10/24/2019 - RESUBMITTED 3/19/2020**

**Project Overview**

Length of Corridor (mi): 5.35

Number of signals: 22

Total Project Cost: \$1,860,600.00

M2 funds requested: \$1,488,480.00

Total Match: \$372,120.00

*Cash Match:* \$285,814.00

*In-kind Match:* \$86,306.00

Participating agencies: Cities of Garden Grove,  
Westminster and Huntington Beach  
and Caltrans

**Applicant Agency:** City of Huntington Beach

**Contact Name:** William F. Janusz

**Contact Number:** 714-374-1628

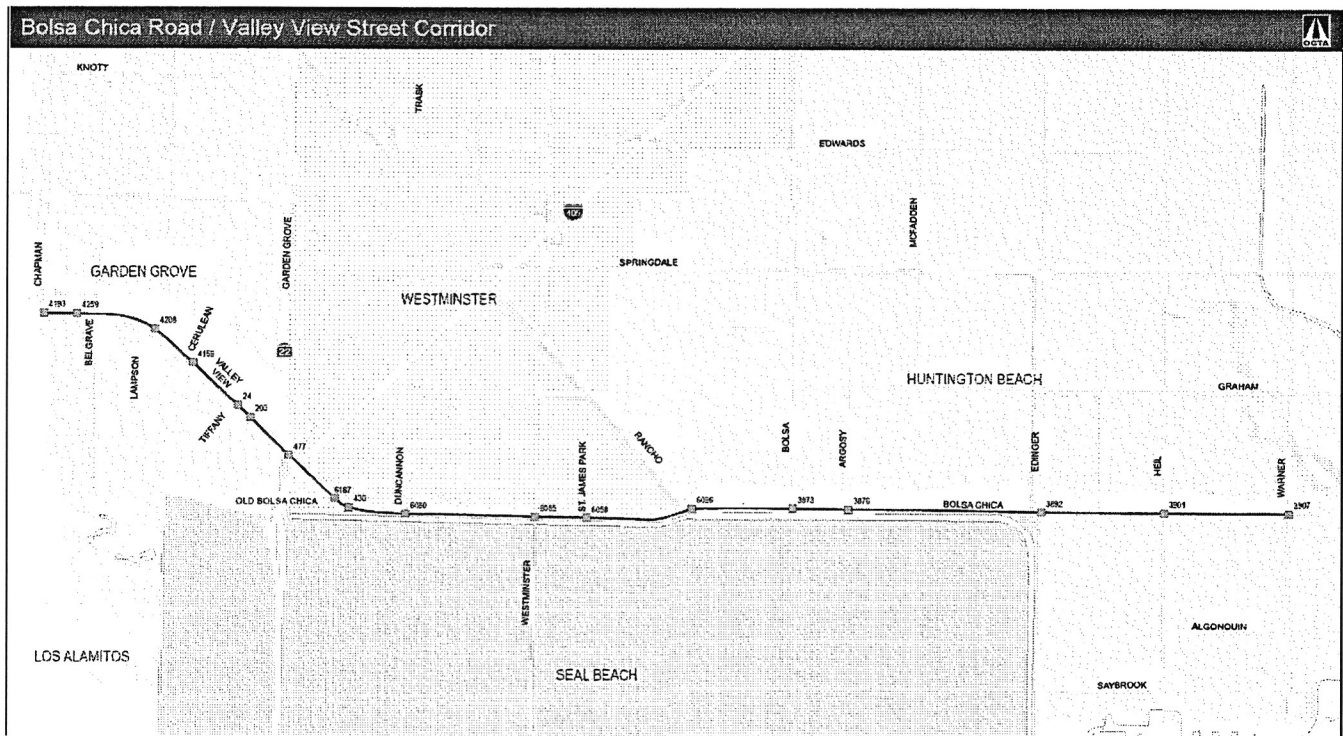
**Contact Email:** [wianusz@surfcity-hb.org](mailto:wianusz@surfcity-hb.org)

## Project P Regional Traffic Signal Synchronization Program Application Checklist

Project P Application Checklist		Page
<b>RTSSP Online Application – submitted through OCFundTracker</b>		
1. Vehicle Miles Traveled		
2. Benefic Cost Ratio		
3. Project Characteristics		
4. Transportation Significance		
5. Maintenance of Effort		
6. Project Scale		
7. Number of Jurisdictions		
8. Current Project Readiness		
9. Funding Over-Match		
10. Cabinet photos, equipment specifications, as-built drawings, cabinet drawings, etc. (if		
<b>Section 1: Key Technical Information</b>		
a. Project Corridor Limits		1
b. Designation of the corridor to synchronize: Signal Synchronization Network corridor or Master Plan of Arterial Highways corridor		1
c. Project start date and end date, including any commitment to operate signal synchronization beyond the three year grant period		1
d. Signalized intersections that are part of the project		1
e. Traffic Forum members		1
<b>Section 2: Lead agency</b>		2
<b>Section 3: Resolutions of support from the project's Traffic Forum members</b>		3
<b>Section 4: Preliminary plans for the proposed project by task (detail below)</b>		
The plans shall include details about both phases of the project: <u>Primary Implementation (PI)</u> and the <u>Ongoing Maintenance and Operations (O &amp; M)</u> . The plan should be organized using the following setup.		
Primary Implementation shall include details about the following:		
Task 1: Project Administration (required)		
Task 2: Data Collection (required)		
Task 3: Field Review and Plans Specifications and Estimates (required)		
Task 4: Corridor "Before" Study (required)		
Task 5: Signal Timing Optimization and Implementation (required)		
Task 6: Corridor "After" Study (required)		
Task 7: Synchronization System Construction (required)		
Task 8: Project Report (required)		
Task 9: On-going Operations and Maintenance (required)		
Ongoing Maintenance and Operations (O&M) will begin after the <u>Primary Implementation</u> of the project is completed. It shall include details about the following:		
a. Monitoring and improving optimized signal timing (required)		
b. Communications and detection support (optional)		
c. O&M Final Memorandum (required)		
<b>Section 5: Funding Needs/Costs for Proposed Project by Task</b>		Pg. 12
a. Table I: Summary of Improvements		Pg. 13
b. Table II: Detailed Improvement Breakdown		Pg. 14-16
<b>Section 6: Project schedule for the 3 year grant period by task</b>		Pg. 17
<b>Section 7: Matching funds</b>		Pg. 18
<b>Section 8: Environmental clearances and other permits</b>		Pg. 19
<b>Section 9: Calculations used to develop selection criteria inputs</b>		Pg. 19-20
<b>Section 10: Any additional information deemed relevant by the applicant</b>		Pg. 21-22
<b>Appendices</b>		Pg. 23

## SECTION 1: KEY TECHNICAL INFORMATION

- a. The proposed project will synchronize Valley View Street / Bolsa Chica Street from Chapman Avenue to Warner Avenue. The project includes (22) signals over approximately (5) miles. **Figure 1** shows a map of the project area.



**Figure 1:** Signalized intersection and proposed project limits.

- b. Designation of the corridor to synchronize:

- ☐ Master Plan of Arterial Highways Corridor  
☒ Signal Synchronization Network Corridor

- c. Project Start Date: 7/1/2020 Project End Date: 6/30/2023

All agencies commit to operate signal synchronization **BEYOND** the three year grant period for:

- ☒ Zero Years ☐ One Year ☐ Two Years ☐ Three Years ☐ Other

- d. Signalized intersections that are part of the project:

### City of Garden Grove

1. Valley View Street @ Chapman Avenue
2. Valley View Street @ Cinema Main Driveway
3. Valley View Street @ Belgrave Avenue
4. Valley View Street @ Lampson Avenue
5. Valley View Street @ Cerulean Avenue

### CALTRANS

6. Valley View Street @ Tiffany Avenue
7. Valley View Street @ WB SR 22 Ramps
8. Valley View Street @ Garden Grove Boulevard

### City of Westminster

9. Bolsa Chica Street @ Old Bolsa Chica Road
10. Bolsa Chica Street @ Duncannon Avenue

11. Bolsa Chica Street @ Westminster Blvd
12. Bolsa Chica Street @ St James Park
13. Bolsa Chica Street @ Churchill Avenue
14. Bolsa Chica Street @ Rancho Road

### City of Huntington Beach

15. Bolsa Chica Street @ Bolsa Avenue
16. Bolsa Chica Street @ Argosy Avenue
17. Bolsa Chica Street @ McFadden Avenue
18. Bolsa Chica Street @ Robinwood Drive
19. Bolsa Chica Street @ Edinger Avenue
20. Bolsa Chica Street @ Heil Avenue
21. Bolsa Chica Street @ Pearce Drive
22. Bolsa Chica Street @ Warner Avenue

- e. Traffic Forum members: Garden Grove, CALTRANS, Westminster and Huntington Beach

## SECTION 2: LEAD AGENCY

☒ City of Huntington Beach will be the lead agency

☐ County of Orange will be the lead agency

Please note OCTA will not be leading projects for this Call for Projects.

### Explain why this project is regionally significant:

Bolsa Chica Street / Valley View Street is a major north-south arterial in western Orange County. The segment encompassing this proposed project provides a primary access route between Interstate 405 and State Route 22 with the beach communities to the south and the cities of Garden Grove, Cypress and Buena Park to the north. Average daily traffic volumes near the freeways exceed 50,000 vehicles per day.

### **SECTION 3: RESOLUTIONS OF SUPPORT**

Attached are resolutions of support from the Cities of Huntington Beach, Garden Grove and Westminster which were approved by their City Councils on December 16, 2019, November 26, 2019 and January 15, 2020 respectively. A letter of support is included for Caltrans, who will not be a part of any cooperative agreement.



RESOLUTION NO. 2019-74

A RESOLUTION OF THE CITY COUNCIL OF THE  
CITY OF HUNTINGTON BEACH APPROVING THE SUBMITTAL  
OF AN IMPROVEMENT PROJECT TO THE ORANGE COUNTY  
TRANSPORTATION AUTHORITY FOR FUNDING UNDER  
THE COMPREHENSIVE TRANSPORTATION FUNDING PROGRAM

WHEREAS, the Orange County Transportation Authority intends to allocate funds for transportation improvements within the incorporated cities and the County; and

The Measure M2 Regional Traffic Signal Synchronization Program targets over 2,000 signalized intersections across Orange County to maintain traffic signal synchronization, improve traffic flow, and reduce congestion across jurisdictions; and

The City of Huntington Beach has been declared by the Orange County Transportation Authority to meet the eligibility requirements to receive revenues as part of Measure M2; and

The City of Huntington Beach must include all projects funded by Net Revenues in the seven-year Capital Improvement Program as part of the Renewed Measure M Ordinance eligibility requirement; and

The City of Huntington Beach authorizes a formal amendment to the seven-year Capital Improvement Program to add projects approved for funding upon approval from the Orange County Transportation Authority Board of Directors; and

The City of Huntington Beach has currently adopted a Local Signal Synchronization Plan consistent with the Regional Traffic Signal Synchronization Master Plan as a key component of local agencies' efforts to synchronize traffic signals across local agencies' boundaries; and

The City Council of the City of Huntington Beach desires to implement the multi-jurisdictional signal synchronization listed herein; and

The City's Circulation Element is consistent with the County of Orange Master Plan of Arterial Highways; and

The City of Huntington Beach will provide matching funds for the project as required by the Orange County Comprehensive Transportation Program Procedures Manual; and

The City of Huntington Beach will not use Renewed Measure M funds to supplant Developer Fees or other commitments,

Resolution No. 2019-74

NOW, THEREFORE, the City Council of the City of Huntington Beach does hereby resolve as follows:

The City Council of the City of Huntington Beach hereby requests the Orange County Transportation Authority to allocate funds in the amounts specified in the City's application for the Comprehensive Transportation Funding Program. Said funds shall be matched by funds from the City as required and shall be used as supplemental funding to aid the City in signal synchronization along the following streets:

Bolsa Chica Street

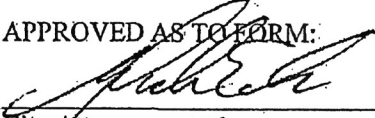
PASSED AND ADOPTED by the City Council of the City of Huntington Beach at a regular meeting thereof held on the 16th day of December, 2019.

REVIEWED AND APPROVED:

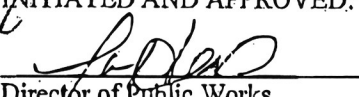
  
City Manager

  
Mayor

APPROVED AS TO FORM:

  
City Attorney

INITIATED AND APPROVED:

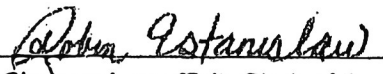
  
Director of Public Works

Res. No. 2019-74

STATE OF CALIFORNIA  
COUNTY OF ORANGE ) ss:  
CITY OF HUNTINGTON BEACH )

I, ROBIN ESTANISLAU, the duly elected, qualified City Clerk of the City of Huntington Beach, and ex-officio Clerk of the City Council of said City, do hereby certify that the whole number of members of the City Council of the City of Huntington Beach is seven; that the foregoing resolution was passed and adopted by the affirmative vote of at least a majority of all the members of said City Council at a **Regular** meeting thereof held on **December 16, 2019** by the following vote:

**AYES:** Brenden, Carr, Semeta, Peterson, Delgleize, Hardy  
**NOES:** None  
**ABSENT:** Posey  
**RECUSE:** None

  
\_\_\_\_\_  
City Clerk and ex-officio Clerk of the  
City Council of the City of  
Huntington Beach, California

**GARDEN GROVE CITY COUNCIL**

**RESOLUTION NO. 9595-19**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GARDEN GROVE  
APPROVING THE SUBMITTAL OF VALLEY VIEW STREET/BOLSA CHICA STREET  
TRAFFIC SIGNAL SYNCHRONIZATION IMPROVEMENT PROJECT TO THE ORANGE  
COUNTY TRANSPORTATION AUTHORITY FOR FUNDING UNDER THE COMPETITIVE  
MEASURE M2 REGIONAL TRAFFIC SIGNAL SYNCHRONIZATION PROGRAM**

WHEREAS, the City of Garden Grove desires to implement transportation improvements listed below;

WHEREAS, the Measure M2 Regional Traffic Signal Synchronization Program targets over 2000 signalized intersections across Orange County to maintain traffic signal synchronization, improve traffic flow, and reduce congestion across jurisdictions;

WHEREAS, the City of Garden Grove has been declared by the Orange County Transportation Authority to meet the eligibility requirements to receive revenues as part of Measure M2;

WHEREAS, the City must include all projects funded by Net Revenues in the seven-year Capital Improvements Program as part of the Renewed Measure M Ordinance eligibility requirement;

WHEREAS, the City authorizes a formal amendment to the seven-year Capital Improvement program to add projects approved for funding upon approval from the Orange County Transportation Authority;

WHEREAS, the City of Garden Grove has a currently adopted a Local Signal Synchronization Plan consistent with the Regional Traffic Signal Synchronization Master Plan as a key component of local agencies' efforts to synchronizing traffic signals across local agencies' boundaries;

WHEREAS, the City of Garden Grove will provide matching funds for each project as required by the Orange County Comprehensive Transportation Funding Programs Procedures Manual;

WHEREAS, the City of Garden Grove will not use Measure M funds to supplant Developer Fees or other commitments; and

WHEREAS, the City of Garden Grove desires to implement multi-jurisdictional signal synchronization listed below.

NOW THEREFORE BE IT RESOLVED, that the City Council of the City of Garden Grove does hereby request the Orange County Transportation Authority allocate funds in the amounts specified in the City's application to said City from the

**Garden Grove City Council  
Resolution No. 9595-19  
Page 2**

Regional Traffic Signal Synchronization Program. Said funds, if approved, shall be matched by funds from said City as required, and shall be used as supplemental funding to aid the City if signal synchronization along the following street:

### 1. Valley View Street/Bolsa Chica Street

Adopted this 26<sup>th</sup> day of November 2019.

**ATTEST:**

/s/ STEVEN R. JONES  
MAYOR

/s/ TERESA POMEROY, CMC  
CITY CLERK

STATE OF CALIFORNIA     )  
COUNTY OF ORANGE     ) SS:  
CITY OF GARDEN GROVE   )

I, TERESA POMEROY, City Clerk of the City of Garden Grove, do hereby certify that the foregoing Resolution was duly adopted by the City Council of the City of Garden Grove, California, at a meeting held on November 26, 2019, by the following vote:

AYES: COUNCIL MEMBERS: (7) BRIETIGAM, O'NEILL, NGUYEN T., BUI  
KLOPFENSTEIN, NGUYEN K., JONES

NOES: COUNCIL MEMBERS: (0) NONE

ABSENT: COUNCIL MEMBERS: (0) NONE

/s/ TERESA POMEROY, CMC  
CITY CLERK

**RESOLUTION NO. 4977**

**A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF  
THE CITY OF WESTMINSTER APPROVING THE  
SUBMITTAL OF VALLEY VIEW STREET/BOLSA CHICA  
STREET TRAFFIC SIGNAL SYNCHRONIZATION  
IMPROVEMENT PROJECT TO THE ORANGE COUNTY  
TRANSPORTATION AUTHORITY FOR FUNDING UNDER  
THE COMPETITIVE MEASURE M2 REGIONAL  
TRANSPORTATION SIGNAL SYNCHRONIZATION  
PROGRAM**

WHEREAS, the City of Westminster desires to implement transportation improvements listed below; and

WHEREAS, the Measure M2 Regional Traffic Signal Synchronization Program targets over 2000 signalized intersections across Orange County to maintain traffic signal synchronization, improve traffic flow, and reduce congestion across jurisdictions; and

WHEREAS, the City of Westminster has been declared by the Orange County Transportation Authority to meet the eligibility requirements to receive revenues as part of Measure M2; and

WHEREAS, the City must include all projects funded by Net Revenues in the seven-year Capital Improvements Program as part of the Renewed Measure M Ordinance eligibility requirement; and

WHEREAS, the City authorizes a formal amendment to the seven-year Capital Improvement program to add projects approved for funding upon approval from the Orange County Transportation Authority; and

WHEREAS, the City of Westminster has a currently adopted a Local Signal Synchronization Plan consistent with the Regional Traffic Signal Synchronization Master Plan as a key component of local agencies' efforts to synchronizing traffic signals across local agencies' boundaries; and

WHEREAS, the City of Westminster will provide matching funds for each project as required by the Orange County Comprehensive Transportation Funding Programs Procedures Manual; and

WHEREAS, the City of Westminster will not use Measure M funds to supplant Developer Fees or other commitments; and

WHEREAS, the City of Westminster desires to implement multi-jurisdictional signal synchronization listed below.

NOW, THEREFORE, BE IT RESOLVED THAT, the Mayor of City Council of the City of Westminster hereby requests the Orange County Transportation Authority allocate funds in the amounts specified in the City's application to said City from the Regional Transportation Signal Synchronization Program. Said funds, if approved, shall be matched by funds from said City as required, and shall be used to supplement funding to aid the implementation of signal synchronization along the following street:

1. Valley View Street/Bolsa Chica Street

PASSED, APPROVED, and ADOPTED this 15<sup>th</sup> day of January 2020, by the following vote:

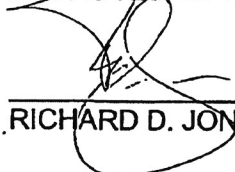
AYES:	COUNCIL MEMBERS:	TA, HO, CONTRERAS, DO, NGUYEN
NOES:	COUNCIL MEMBERS:	NONE
ABSENT:	COUNCIL MEMBERS:	NONE

  
\_\_\_\_\_  
TRI TA, MAYOR

ATTEST:

  
\_\_\_\_\_  
CHRISTINE CORDON, CITY CLERK

APPROVED AS TO FORM:

  
\_\_\_\_\_  
RICHARD D. JONES, CITY ATTORNEY

STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) ss.  
CITY OF WESTMINSTER )

I, CHRISTINE CORDON, hereby certify that I am the duly appointed City Clerk of the City of Westminster and that the foregoing resolution was duly adopted at a regular meeting of the City Council of the City of Westminster held on the 15<sup>th</sup> day of January 2020.

  
\_\_\_\_\_  
Christine Cordon, City Clerk



## DEPARTMENT OF TRANSPORTATION

DISTRICT 12

1750 EAST 4TH STREET, SUITE 100

SANTA ANA CA 92705

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Serious drought.  
Help save water!

December 19, 2019

William F. Janusz, P.E., PTOE  
Principal Civil Engineer  
City of Huntington Beach  
2000 Main Street, P.O. Box 190  
Huntington Beach, CA 92648

Subject: Letter of Support for the Regional Traffic Signal Synchronization Application – Valley View Street/Bolsa Chica Street Corridor

Dear Mr. Janusz:

The Orange County Transportation Authority recently issued the 2020 Comprehensive Transportation Funding Program Call for Projects for Regional Traffic Signal Synchronization Program to coordinate traffic signals across jurisdictional boundaries in the County.

The State of California Department of Transportation (Caltrans) is in support of the City of Huntington Beach's submittal of the CTFP application to OCTA for signal synchronization on Valley View Street/Bolsa Chica Street between the intersection of Chapman Avenue in Garden Grove to Warner Avenue in Huntington Beach with three Caltrans traffic signals in between – Valley View Street and Tiffany Avenue, Valley View Street at the WB SR-22 Ramps, and Bolsa Chica Street and Garden Grove Boulevard (EB SR-22 Ramps).

If you have any questions or require additional information, please contact Mr. Denny Ngo at (949) 936-3512 or by email at [Denny.Ngo@dot.ca.gov](mailto:Denny.Ngo@dot.ca.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Shivinderjit Singh", is written over the "Sincerely," line.

Shivinderjit Singh, MS, PE, PMP  
Branch Chief, Electrical Systems  
ITS, New Technology, TMS Support & Traffic Signals  
Division of Traffic Operations and Maintenance  
TMC, District 12, Caltrans,

## SECTION 4: PRELIMINARY PLANS FOR THE PROJECT

### Primary Implementation (PI)

The Primary Implementation phase will last approximately one year and include the following elements:

#### Task 1: Project Administration

*The City of Huntington Beach will lead and administer the project on a daily basis using a consulting engineering firm (hereafter referred to as PROJECT CONSULTANT) to optimize signal synchronization timing along the Valley View Street / Bolsa Chica Street corridor. Other participants in the project are the Cities of Garden Grove and Westminster along with Caltrans (the project team). The City of Huntington Beach staff shall perform normal day to day project administration duties. Local agency staff will perform local project administration duties. Project budget shall include time and funding for agency outreach, development and execution of cooperative agreements and administering both in-kind and cash matches. As Caltrans is not a financial participant in this project, work at the three Caltrans intersections will be limited to coordination timing efforts. At the conclusion of the timing efforts, these timings will be provided to Caltrans who will decide whether or not to implement the timing. No cooperative agreements will be executed between Caltrans and the local agencies.*

*PROJECT CONSULTANT selection will conform with the City of Huntington Beach's procedures for consultant selection for professional services contracts. This includes publishing a Request for Proposals (RFP) on the City's website, ranking the proposals utilizing City staff and representatives from Westminster and Garden Grove, conducting interviews, negotiating with the top ranked firm and finally recommending one firm for contract award to the Huntington Beach City Council.*

*The engineering design consultant (DESIGN CONSULTANT) for the design of improvements will be under a separate contract from the engineering firm undertaking the coordination analysis (PROJECT CONSULTANT). Each agency will contract separately with an engineering consultant for the design of improvements and separately contract with a construction contractor to construct the improvements.*

#### Task 2: Data Collection

*The PROJECT CONSULTANT will collect data necessary to thoroughly understand existing traffic conditions in the study area and be able to develop optimal time-of-day traffic signal coordination plans, if applicable. This includes 24-hour counts along the corridor in the AM, Midday and PM periods along with midday on a weekend. Travel time analyses will also be performed for both the before and after project condition.*

#### Task 3: Field Review and Plans Specifications, and Estimates

*Each agency will contract separately with a DESIGN CONSULTANT to design the improvements for this project within their jurisdiction. This includes fiber optic communications, installation of CCTV cameras, changeout of some of the existing controllers and other controller modifications. Each city's DESIGN CONSULTANT will review the geometric layout, existing traffic signal equipment, and signal synchronization related infrastructure to identify any deficiencies for each intersection and within the city.*

*Improvement plans and specifications will be prepared separately for each city and each City will be responsible for procuring a construction contractor. With permission of the local AGENCIES, the DESIGN CONSULTANTS shall inspect the interior of each traffic control cabinet, inspect the telemetry systems and determine their respective condition and make recommendations for equipment upgrades. The following is a summary of the proposed improvements. See Attachment B for more details and cost estimates.*

*City of Huntington Beach - The City of Huntington Beach will be installing approximately one and one-half mile of fiber optic cable in existing conduit from Rancho Road to Edinger Avenue. This will replace the existing twisted pair copper interconnect cable. The existing 170 controllers will be changed out to 2070 ATC controllers. The fiber optic cable will connect to a fiber optic hub which will be constructed at the intersection of Bolsa Chica Street and Edinger Avenue under the Edinger Avenue TSSP project which is being administered by OCTA (fiber optic cable will be installed from Edinger Avenue to Warner Avenue as part of the Edinger Avenue TSSP project). New CCTV cameras will be installed at four locations within the city (the budget includes three additional licenses for the City's Avigilon video software). Although the existing conduit is currently serviceable for the twisted pair cable, an allowance is included in the budget for pull box replacement and conduit installation should the existing conduit and pullboxes be found to be unable to accommodate the fiber optic cable.*

*City of Garden Grove - Work in the City of Garden Grove consists primarily of replacing the existing controllers and cabinets along with rewiring the intersections. There is also the installation of APS pedestrian push buttons and CCTV cameras at some locations. The traffic signals on Valley View Street in Garden Grove have old individual signal wires in old conduits. The conduits are currently full and cannot accommodate any additional wiring for additional equipment such as video detection cameras. To increase available capacity, it is proposed to replace the individual traffic signal conductors with traffic signal conductor cable. The new conductor cable will provide the capacity to accommodate the additional equipment proposed for this intersection. Similar rewiring was included in the Brookhurst Street TSSP project. The City is also proposing the replacement of existing pull boxes as part of the rewiring effort. Considering the age and condition of the pull boxes, they will likely not be serviceable after the rewiring activity. Upgrades will also be made to the City's Traffic Management center including the addition of Layer III switches, uninterruptible power supply and video management software.*

*City of Westminster - Work within the City of Westminster will consist primarily of rewiring intersections along with the installation of CCTV Cameras, video detection systems, battery back-up systems and ethernet switches. The need for rewiring the intersections is related to the age and reliability of the existing conductors.*

#### **Task 4: Corridor "Before" Study**

*The PROJECT CONSULTANT will conduct "before" floating car travel runs prior to timing implementation. The PROJECT CONSULTANT will conduct a 'Before' field study report representative of the times and days for which synchronization plans will be developed. The report shall identify Measures of Effectiveness (MOE) to evaluate the effects of the synchronization plans. MOE's will likely include traffic flow, travel time, average speed, number of stops per mile, number of intersections traversed on green vs. stopped by red (Greens per Red) (note: Average Speed, Stops per Mile, and Greens per Red are the new OCTA MOE, Corridor Synchronization Performance Index (CSPI)), fuel consumption reduction, pollution reduction, and other pertinent items.*

#### Task 5: Signal Timing Optimization and Implementation

*Synchronization will be inter-jurisdictional in nature. All existing traffic patterns, flows, and conditions will be taken into account. Synchronized timing will be developed for the AM Peak, PM Peak, Mid-day Peak and Weekend Peak. Special generators such as schools and businesses along with cross street traffic will be considered as part of the project. Timing plans will be developed that assist traffic in getting to its destination without regard to physical or jurisdictional boundaries. Implementation will include the system integration (including graphics) with the Huntington Beach Transparency system.*

#### Task 6: Corridor "After" Study

*The PROJECT CONSULTANT will conduct "after" floating car travel runs after timing implementation. The Consultant will conduct an 'After' field study representative of the times and days for which synchronization plans will be developed. The 'After' study must be conducted in the same manner and contain the same MOE's as the 'Before' study in order to evaluate the improvements of the synchronization plans. MOE's should be compiled for the optimized corridor using the floating car method.*

#### Task 7: Synchronization System Construction

*Each agency will issue separate construction contracts for work within their jurisdiction. The City of Huntington Beach will utilize the DESIGN CONSULTANT prepared plans and specifications to advertise the project for sealed contractor bids utilizing the City of Huntington Beach's adopted procedures for bidding public works construction projects. The Cities of Westminster and Garden Grove will issue construction contracts in compliance with their individual city's practices and policies.*

*The DESIGN CONSULTANTS' contracts will include construction support and communications implementation. The DESIGN CONSULTANTS and construction contractors will be overseen by the individual agency staff. Construction inspection will be the responsibility of each individual agency. All installations and upgrades will be per the owning agencies' standards. Details of equipment upgrades are tabulated in Tables I and II.*

*The cooperative agreements between the cities will include language to ensure conformance with the schedule set by OCTA.*

#### Task 8: Primary Implementation Project Report

The PROJECT CONSULTANT will develop a before and after study for the project. This report will be completed after the Primary Implementation is completed and will include the following:

- Introduction/project description: a summary of the project including the purpose, background, and objectives of the project.
- Data collection: a summary of the data collected as part of the effort including the traffic counts, phasing, lane configurations, etc.
- Traffic signal systems improvements: a summary of the implemented traffic signal systems improvements by city.
- Signal timing optimization: a summary of the development and implementation of updated signal timing including the models, selected cycle lengths, intersection groupings, etc.

- Results: the study will contain directional morning, mid-day, evening, and weekend peak periods using travel times, average speeds, green lights to red lights, stops per mile, and the derived corridor synchronization performance index (CSPI) metric. This information shall be collected both before and after any signal timing changes have been made. Additional details based on the Final Report Template will also be included.
- Benefits to cost analysis: project benefits resulting from signal synchronization will be evaluated based on the before and after study results. Savings will be calculated for travel time, fuel consumptions, vehicle maintenance, Greenhouse Gas (GHG) reduction, and a final benefit cost ratio.
- Future signal corridor improvements: recommendations for system and equipment enhancements to improve traffic flow and signal synchronization will be provided.
- Conclusion: a summary of the before and after study and its findings.

#### Task 9: On-going Maintenance & Operations

*The PROJECT CONSULTANT will provide "on-call" signal timing support services for a period of two years or 24 months following the completion of the primary implementation tasks (Tasks 5 through 8), to address any future adjustments that may be needed during this period. Depending on the nature of the adjustment, the PROJECT CONSULTANT may accomplish the fine-tuning adjustments remotely from the office through the traffic management systems. During this 24-month period the PROJECT CONSULTANT will be prepared to review any project intersection requested within (24) hours of written notice, including observing and fine-tuning the signal timing. The PROJECT CONSULTANT will also assist with resolving detection issues along the corridor.*

The PROJECT CONSULTANT will drive the length of the project arterial during all designated corridor synchronization timing plan hours of operation on a monthly basis in order to verify that the synchronization timing is working as designed, and complete any necessary adjustments. Monthly driving times will consist of a full 12-hour weekday and a 4-hour Saturday. All drives shall be documented. A copy, limited to jurisdictional boundaries, shall also be sent to each agency.

At the end of the 2-year O&M phase, the PROJECT CONSULTANT shall prepare a memorandum to summarize the O&M phase. It should, at the minimum, include when travel runs were conducted, issues and solutions throughout the phase, and recommendations for future improvements.

## SECTION 5: FUNDING NEEDS / COSTS FOR PROPOSED PROJECT BY TASK

### Primary Implementation

The Primary Implementation will last one year and include the following elements (See Table I and Table II).

**INSTRUCTIONS:** Be sure to carefully review improvements that may need engineering design or development of specifications prior to construction. For example, the interconnect conduit installation, new service locations, or cabinet foundations. Include this cost in your estimate. Costs associated with Caltrans fees, SCE fees, and/or special inspection requirements should also be included. Even though Caltrans is not a participant, costs associated with Tasks 2, 4, 5, and 6 shall also be included for Caltrans intersections.

Project Tasks	Cost / Int	Total Cost	Match	
			Cash	In-Kind
Task 1: Project Administration (a)	\$ 2,340.91	\$ 51,500.00	\$ 7,154	\$ 3,146
Task 2: Data Collection	\$ 850.00	\$ 18,700.00	\$ 3,740	\$ -
Task 3: Field Review and Plans Specifications, and Estimates	\$ -	\$ 137,300.00	\$ 27,460	\$ -
Task 4: Corridor "Before" Study	\$ 500.00	\$ 11,000.00	\$ 2,200	\$ -
Task 5: Signal Timing Optimization and Implementation	\$ 4,650.00	\$ 102,300.00	\$ 20,460	\$ -
Task 6: Corridor "After" Study	\$ 500.00	\$ 11,000.00	\$ 2,200	\$ -
Task 7: Synchronization System Construction (See Table II)	-	\$ 1,465,000.00	\$ 209,840	\$ 83,160
Task 8: Primary Implementation Project Report	\$ 500.00	\$ 11,000.00	\$ 2,200	\$ -
Task 9: Ongoing Operations & Maintenance (See Task 9 Details)	\$ 2,400.00	\$ 52,800.00	\$ 10,560	\$ -
<b>Total Project Cost:</b>		<b>\$ 1,860,600.00</b>	<b>\$ 285,814</b>	<b>\$ 86,306</b>

(a) Project Administration is \$2,000 per local agency intersection and \$4,500 per Caltrans intersection.

### Ongoing Operations & Maintenance

Ongoing Operations and Maintenance will last two years and include the following elements. (See Task 9 Details):

#### Task 9 Details:

Task	Description of Work	Unit Price / Intersection	# of signals	Cost
Project Administration	Day to day administrative duties during O&M			included
Monitoring and improving optimized signal timing	Drive monthly and improve timing parameters along 22 signals for 24 months after signal timing and implemented along Valley View / Bolsa Chica from Chapman to Warner	\$1,680.00	22	\$36,960
Communications and detection support	Monitor, maintain, and repair communication and detection along for 22 signals for 24 months after signal timing is implemented along Valley View / Bolsa Chica from Chapman to Warner (@ \$30/signal/month)	\$720.00	22	\$15,840
OMM Memorandum	A memorandum to summarize the O&M phase, including details on when travel runs were conducted; issues and solutions throughout the phase; and recommendations for future improvements.			included
<b>Proposed Ongoing Operations &amp; Maintenance:</b>				<b>\$52,800</b>

### Total Project Cost (Including PI and O&M for a total of 3 years):

	Total
<i>Total M2 Request:</i>	<b>\$1,488,480.00</b>
<i>Total Agency Match:</i>	<b>\$372,120.00</b>
<b>Total Project Cost:</b>	<b>\$1,860,600.00</b>



TABLE I: SUMMARY OF IMPROVEMENTS

Location	Agency	Project Intersections at:	INTERSECTION					CONTROLLERS		CONTROLLER CABINET					COMMUNICATION UPGRADE								ADVANCED TRAFFIC MANAGEMENT SYSTEM (ATMS)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
			EVP (all directions)	Video Detection System	UPS	GPS	ADA Pushbutton Assembly	Pedestrian Countdown Heads	New Controller	SDLC Cable	New Cabinet with New Foundation	New Cabinet (Reuse existing foundation)	System Detector (DLC)	Advance Detection Loop with New Conduit	Bluetooth Travel Time Unit	CCTV Camera	6E Pullbox and Splice Enclosure	Fiber in New Conduit	Fiber in Existing Conduit	Fiber Distribution Unit (FDU)	Fiber Switch/Ethernet Switch	Patch Panel and Fiber Splicing	Coil Modem	Transparency Integration + System Graphics	Level III Switches/RPS	HVAC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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TABLE II: DETAILED IMPROVEMENTS BREAKDOWN

Item No.	Valley View St / Bolsa Chica St	Item Description	Unit	Qty	Labor to Install	Equipment Cost	Total	Cash Match	In-Kind Match	Agency
1	TMC	TMC Upgrade	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	Garden Grove
1	TMC	Layer III Switches	LS	1	\$ 5,000.00	\$ 30,000.00	\$ 35,000.00	\$ 7,000.00	\$ -	Garden Grove
1	TMC	UPS	LS	1	\$ 2,000.00	\$ 13,000.00	\$ 15,000.00	\$ 3,000.00	\$ -	Garden Grove
1	TMC	-	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	Garden Grove
1	TMC	Video Management Software	LS	1	\$ 2,000.00	\$ 10,000.00	\$ 12,000.00	\$ 2,400.00	\$ -	Garden Grove
2		Furnish & install controller	EA	1	\$ 1,000.00	\$ 5,000.00	\$ 6,000.00	\$ 1,200.00	\$ -	Garden Grove
3	Chapman Avenue	Rewire intersection (replace pullboxes)	LS	1	\$ 12,000.00	\$ 10,000.00	\$ 22,000.00	\$ 4,400.00	\$ -	Garden Grove
4		Furnish & install CCTV Camera	EA	1	\$ 3,000.00	\$ 7,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Garden Grove
5		Furnish & install APS PPB	LS	1	\$ 4,000.00	\$ 6,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Garden Grove
6		Install City furnished cabinet, foundation and service	LS	1	\$ 24,000.00	\$ -	\$ 24,000.00	\$ 4,800.00	\$ -	Garden Grove
7	Cinema Main Driveway	Furnish & install controller	EA	1	\$ 1,000.00	\$ 5,000.00	\$ 6,000.00	\$ 1,200.00	\$ -	Garden Grove
8		Rewire intersection (replace pullboxes)	LS	1	\$ 12,000.00	\$ 10,000.00	\$ 22,000.00	\$ 4,400.00	\$ -	Garden Grove
9		Furnish & install APS PPB	LS	1	\$ 4,000.00	\$ 6,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Garden Grove
10		Install City furnished cabinet, foundation and service	LS	1	\$ 24,000.00	\$ -	\$ 24,000.00	\$ 4,800.00	\$ -	Garden Grove
11		Furnish & install controller	EA	1	\$ 1,000.00	\$ 5,000.00	\$ 6,000.00	\$ 1,200.00	\$ -	Garden Grove
12	Belgrave Avenue	Rewire intersection (replace pullboxes)	LS	1	\$ 12,000.00	\$ 10,000.00	\$ 22,000.00	\$ 4,400.00	\$ -	Garden Grove
13		Furnish & install APS PPB	LS	1	\$ 4,000.00	\$ 6,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Garden Grove
14		Install City furnished cabinet and foundation	LS	1	\$ 20,000.00	\$ -	\$ 20,000.00	\$ 4,000.00	\$ -	Garden Grove
15		Furnish & install controller	EA	1	\$ 1,000.00	\$ 5,000.00	\$ 6,000.00	\$ 1,200.00	\$ -	Garden Grove
16	Lampson Avenue	Rewire intersection (replace pullboxes)	LS	1	\$ 12,000.00	\$ 10,000.00	\$ 22,000.00	\$ 4,400.00	\$ -	Garden Grove
17		Furnish & install CCTV Camera	EA	1	\$ 3,000.00	\$ 7,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Garden Grove
17		Furnish & install APS PPB	LS	1	\$ 4,000.00	\$ 6,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Garden Grove
18		Furnish & install Ethernet Switch	EA	1	\$ 1,000.00	\$ 3,000.00	\$ 4,000.00	\$ 800.00	\$ -	Garden Grove
19		Install City furnished cabinet and foundation	LS	1	\$ 20,000.00	\$ -	\$ 20,000.00	\$ 4,000.00	\$ -	Garden Grove
20		Furnish & install controller	EA	1	\$ 1,000.00	\$ 5,000.00	\$ 6,000.00	\$ 1,200.00	\$ -	Garden Grove
21	Cerulean Avenue	Rewire intersection (replace pullboxes)	LS	1	\$ 12,000.00	\$ 10,000.00	\$ 22,000.00	\$ 4,400.00	\$ -	Garden Grove
22		Furnish & install CCTV Camera	EA	1	\$ 3,000.00	\$ 7,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Garden Grove
22		Furnish & install APS PPB	LS	1	\$ 4,000.00	\$ 6,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Garden Grove
23		Furnish & install Ethernet Switch	EA	1	\$ 1,000.00	\$ 3,000.00	\$ 4,000.00	\$ 800.00	\$ -	Garden Grove
24		-	EA	1	\$ -	\$ -	\$ -	\$ -	\$ -	CALTRANS
25	Tiffany Avenue	-	EA	1	\$ -	\$ -	\$ -	\$ -	\$ -	CALTRANS
26		-	EA	1	\$ -	\$ -	\$ -	\$ -	\$ -	CALTRANS
27	SR-22 WB Ramps	-	EA	1	\$ -	\$ -	\$ -	\$ -	\$ -	CALTRANS
28		-	EA	1	\$ -	\$ -	\$ -	\$ -	\$ -	CALTRANS
29	Garden Grove Boulevard	-	EA	1	\$ -	\$ -	\$ -	\$ -	\$ -	CALTRANS
30		-	EA	1	\$ -	\$ -	\$ -	\$ -	\$ -	CALTRANS
31		-	EA	1	\$ -	\$ -	\$ -	\$ -	\$ -	CALTRANS
32		Furnish & install 2070 ATC controller unit	EA	1	\$ 1,000.00	\$ 5,000.00	\$ 6,000.00	\$ 1,200.00	\$ -	Westminster
33	Old Bolea Chica Road	Furnish & install CCTV Camera	LS	1	\$ 2,000.00	\$ 10,000.00	\$ 12,000.00	\$ 2,400.00	\$ -	Westminster
34		Furnish & install Battery Back-up System	EA	1	\$ 2,000.00	\$ 8,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Westminster
35		Furnish & install Ethernet Switch	EA	1	\$ 1,000.00	\$ 2,000.00	\$ 3,000.00	\$ 600.00	\$ -	Westminster
36		Furnish & install Video Detection - Iteris Vantage EdgeConnect	LS	1	\$ 3,000.00	\$ 22,000.00	\$ 25,000.00	\$ 5,000.00	\$ -	Westminster
37		Furnish & install 2070 ATC controller unit	EA	1	\$ 1,000.00	\$ 5,000.00	\$ 6,000.00	\$ 1,200.00	\$ -	Westminster
38		Furnish & install CCTV Camera	LS	1	\$ 2,000.00	\$ 10,000.00	\$ 12,000.00	\$ 2,400.00	\$ -	Westminster
39	Duncannon Avenue	Furnish & install Battery Back-up System	EA	1	\$ 2,000.00	\$ 8,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Westminster
40		Furnish & install Ethernet Switch	EA	1	\$ 1,000.00	\$ 2,000.00	\$ 3,000.00	\$ 600.00	\$ -	Westminster
41		Rewire intersection (existing conduit at capacity)	LS	1	\$ 20,000.00	\$ 2,000.00	\$ 22,000.00	\$ 4,400.00	\$ -	Westminster
42		Furnish & install Video Detection - Iteris Vantage EdgeConnect	LS	1	\$ 3,000.00	\$ 22,000.00	\$ 25,000.00	\$ 5,000.00	\$ -	Westminster
43		Furnish & install 2070 ATC controller unit	EA	1	\$ 1,000.00	\$ 5,000.00	\$ 6,000.00	\$ 1,200.00	\$ -	Westminster
43		Furnish & install CCTV Camera	LS	1	\$ 2,000.00	\$ 10,000.00	\$ 12,000.00	\$ 2,400.00	\$ -	Westminster
44	Westminster Blvd	Furnish & install Hub Ethernet Switch	EA	1	\$ 4,000.00	\$ 26,000.00	\$ 30,000.00	\$ 6,000.00	\$ -	Westminster
45		Furnish & install Ethernet Switch	EA	1	\$ 1,000.00	\$ 2,000.00	\$ 3,000.00	\$ 600.00	\$ -	Westminster

46		Install New Conduit (Intersection Crossings)	EA	1	\$ 12,000.00	\$ 2,000.00	\$ 14,000.00	\$ 2,800.00	\$ -	Westminster
47		Furnish & install Video Detection - Iteris Vantage EdgeConnect	LS	1	\$ 3,000.00	\$ 22,000.00	\$ 25,000.00	\$ 5,000.00	\$ -	Westminster
48		Furnish & install 2070 ATC controller unit	EA	1	\$ 1,000.00	\$ 5,000.00	\$ 6,000.00	\$ 1,200.00	\$ -	Westminster
49		Furnish & install CCTV Camera	LS	1	\$ 2,000.00	\$ 10,000.00	\$ 12,000.00	\$ 2,400.00	\$ -	Westminster
50		Furnish & install Battery Back-up System	EA	1	\$ 2,000.00	\$ 8,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Westminster
51		Furnish & install Ethernet Switch	EA	1	\$ 1,000.00	\$ 2,000.00	\$ 3,000.00	\$ 600.00	\$ -	Westminster
52		Furnish & install Video Detection - Iteris Vantage EdgeConnect	LS	1	\$ 3,000.00	\$ 22,000.00	\$ 25,000.00	\$ 5,000.00	\$ -	Westminster
53		Furnish & install 2070 ATC controller unit	EA	1	\$ 1,000.00	\$ 5,000.00	\$ 6,000.00	\$ 1,200.00	\$ -	Westminster
54		Furnish & install CCTV Camera	LS	1	\$ 2,000.00	\$ 10,000.00	\$ 12,000.00	\$ 2,400.00	\$ -	Westminster
55		Furnish & install Battery Back-up System	EA	1	\$ 2,000.00	\$ 8,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Westminster
56		Furnish & install Ethernet Switch	EA	1	\$ 1,000.00	\$ 2,000.00	\$ 3,000.00	\$ 600.00	\$ -	Westminster
57		Furnish & install Video Detection - Iteris Vantage EdgeConnect	LS	1	\$ 3,000.00	\$ 22,000.00	\$ 25,000.00	\$ 5,000.00	\$ -	Westminster
58		Furnish & install 2070 ATC controller unit	EA	1	\$ 1,000.00	\$ 5,000.00	\$ 6,000.00	\$ 1,200.00	\$ -	Westminster
59		Furnish & install CCTV Camera	LS	1	\$ 2,000.00	\$ 10,000.00	\$ 12,000.00	\$ 2,400.00	\$ -	Westminster
60		Furnish & install Battery Back-up System	EA	1	\$ 8,000.00	\$ 2,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Westminster
61		Furnish & install Ethernet Switch	EA	1	\$ 1,000.00	\$ 2,000.00	\$ 3,000.00	\$ 600.00	\$ -	Westminster
62		Furnish & install Video Detection - Iteris Vantage EdgeConnect	LS	1	\$ 3,000.00	\$ 22,000.00	\$ 25,000.00	\$ 5,000.00	\$ -	Westminster
63		Furnish & install 2070 ATC controller unit	EA	1	\$ 2,000.00	\$ 6,000.00	\$ 8,000.00	\$ 1,600.00	\$ -	Huntington Beach
64		Furnish & install CCTV Camera	EA	1	\$ 2,000.00	\$ 10,000.00	\$ 12,000.00	\$ 2,400.00	\$ -	Huntington Beach
65		Furnish & install Fiber Distribution Unit, Splice Enclosure, and SMFO-6 Drop Cable + splicing	EA	1	\$ 2,000.00	\$ 8,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Huntington Beach
66		Pull 100' 96 SMFO cable in pullbox adjacent to Controller Cabinet	LS	1	\$ 700.00	\$ 300.00	\$ 1,000.00	\$ 200.00	\$ -	Huntington Beach
67		Furnish & install 96 SMFO cable (Rancho to Bolsa)	LF	2650	\$ 18,550.00	\$ 3.00	\$ 26,500.00	\$ 5,300.00	\$ -	Huntington Beach
68		Furnish & install pullboxes (#6E) (Rancho to Bolsa)	EA	1	\$ 2,500.00	\$ 1,500.00	\$ 4,000.00	\$ 800.00	\$ -	Huntington Beach
69		Furnish & install pullboxes (#6) (Rancho to Bolsa)	EA	6	\$ 9,000.00	\$ 1,500.00	\$ 18,000.00	\$ 3,600.00	\$ -	Huntington Beach
70		Furnish & install 2" conduit as replacement (Rancho to Bolsa)	LF	200	\$ 10,000.00	\$ 5.00	\$ 11,000.00	\$ 2,200.00	\$ -	Huntington Beach
71		Furnish & install 2070 ATC controller unit	EA	1	\$ 2,000.00	\$ 6,000.00	\$ 8,000.00	\$ 1,600.00	\$ -	Huntington Beach
72		Furnish & install Fiber Distribution Unit, Splice Enclosure, and SMFO-6 Drop Cable + splicing	LS	1	\$ 2,000.00	\$ 8,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Huntington Beach
73		Furnish & install 96 SMFO cable (Bolsa to Argosy)	LF	1600	\$ 11,200.00	\$ 3.00	\$ 16,000.00	\$ 3,200.00	\$ -	Huntington Beach
74		Furnish & install pullboxes (#6E) (Bolsa to Argosy)	EA	1	\$ 2,500.00	\$ 1,500.00	\$ 4,000.00	\$ 800.00	\$ -	Huntington Beach
75		Furnish & install pullboxes (#6) (Bolsa to Argosy)	EA	4	\$ 6,000.00	\$ 1,500.00	\$ 12,000.00	\$ 2,400.00	\$ -	Huntington Beach
76		Furnish & install 2" conduit as replacement (Bolsa to Argosy)	LF	200	\$ 10,000.00	\$ 5.00	\$ 11,000.00	\$ 2,200.00	\$ -	Huntington Beach
77		Furnish & install 2070 ATC controller unit	EA	1	\$ 2,000.00	\$ 6,000.00	\$ 8,000.00	\$ 1,600.00	\$ -	Huntington Beach
78		Furnish & install CCTV Camera	EA	1	\$ 2,000.00	\$ 10,000.00	\$ 12,000.00	\$ 2,400.00	\$ -	Huntington Beach
79		Furnish & install Fiber Distribution Unit, Splice Enclosure, and SMFO-6 Drop Cable + splicing	LS	1	\$ 2,000.00	\$ 8,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Huntington Beach
80		Furnish & install 96 SMFO cable (Argosy to McFadden)	LF	1900	\$ 13,300.00	\$ 3.00	\$ 19,000.00	\$ 3,800.00	\$ -	Huntington Beach
81		Furnish & install pullboxes (#6E) (Argosy to McFadden)	EA	1	\$ 1,500.00	\$ 2,500.00	\$ 4,000.00	\$ 800.00	\$ -	Huntington Beach
82		Furnish & install pullboxes (#6) (Argosy to McFadden)	EA	4	\$ 6,000.00	\$ 1,500.00	\$ 12,000.00	\$ 2,400.00	\$ -	Huntington Beach
83		Furnish & install 2" conduit as replacement (Argosy to McFadden)	LF	200	\$ 10,000.00	\$ 5.00	\$ 11,000.00	\$ 2,200.00	\$ -	Huntington Beach

84		Furnish & install 2070 ATC controller unit	EA	1	\$ 6,000.00	\$ 2,000.00	\$ 8,000.00	\$ 1,600.00	\$ -	Huntington Beach
85		Furnish & install Fiber Distribution Unit, Splice Enclosure, and SMFO-6 Drop Cable + splicing	LS	1	\$ 8,000.00	\$ 2,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Huntington Beach
86		Furnish & install 96 SMFO cable (McFadden to Robinwood)	LF	2200	\$ 15,400.00	\$ 3.00	\$ 22,000.00	\$ 4,400.00	\$ -	Huntington Beach
87		Furnish & install pullboxes (#6E) (McFadden to Robinwood)	EA	1	\$ 1,500.00	\$ 2,500.00	\$ 4,000.00	\$ 800.00	\$ -	Huntington Beach
88		Furnish & install pullboxes (#6) (McFadden to Robinwood)	EA	5	\$ 7,500.00	\$ 1,500.00	\$ 15,000.00	\$ 3,000.00	\$ -	Huntington Beach
89		Furnish & install 2" conduit as replacement (McFadden to Robinwood)	LF	200	\$ 10,000.00	\$ 5.00	\$ 11,000.00	\$ 2,200.00	\$ -	Huntington Beach

90		Furnish & install 2070 ATC controller unit	EA	1	\$ 2,000.00	\$ 6,000.00	\$ 8,000.00	\$ 1,600.00	\$ -	Huntington Beach
91		Furnish & install CCTV Camera	EA	1	\$ 2,000.00	\$ 10,000.00	\$ 12,000.00	\$ 2,400.00	\$ -	Huntington Beach
92		Furnish and install 96 SMFO cable into Hub Cabinet (Hub installed with Edinger TSSP Project)	LS	1	\$ 700.00	\$ 300.00	\$ 1,000.00	\$ 200.00	\$ -	Huntington Beach
93	Edinger Avenue	Furnish & install 96 SMFO cable (Robinwood to Edinger)	LF	1000	\$ 7,000.00	\$ 3.00	\$ 10,000.00	\$ 2,000.00	\$ -	Huntington Beach
94		Furnish & install pullboxes (#6E) (Robinwood to Edinger)	EA	1	\$ 1,500.00	\$ 2,500.00	\$ 4,000.00	\$ 800.00	\$ -	Huntington Beach
95		Furnish & install pullboxes (#6) (Robinwood to Edinger)	EA	2	\$ 3,000.00	\$ 1,500.00	\$ 6,000.00	\$ 1,200.00	\$ -	Huntington Beach
96		Furnish & install 2" conduit as replacement (Robinwood to Edinger)	LF	100	\$ 5,000.00	\$ 5.00	\$ 5,500.00	\$ 1,100.00	\$ -	Huntington Beach
97	Heil Avenue	Furnish & install 2070 ATC controller unit	LS	1	\$ 2,000.00	\$ 6,000.00	\$ 8,000.00	\$ 1,600.00	\$ -	Huntington Beach
98		Furnish & install CCTV Camera	EA	1	\$ 2,000.00	\$ 10,000.00	\$ 12,000.00	\$ 2,400.00	\$ -	Huntington Beach
99	Pearce Drive	Furnish & install 2070 ATC controller unit	EA	1	\$ 2,000.00	\$ 6,000.00	\$ 8,000.00	\$ 1,600.00	\$ -	Huntington Beach
		Furnish & install Fiber Distribution Unit, Splice Enclosure, and SMFO-6 Drop Cable + splicing	LS	1	\$ 2,000.00	\$ 8,000.00	\$ 10,000.00	\$ 2,000.00	\$ -	Huntington Beach
100	Warner Avenue	Furnish & install 2070 ATC controller unit	EA	1	\$ 2,000.00	\$ 6,000.00	\$ 8,000.00	\$ 1,600.00	\$ -	Huntington Beach
101		Furnish & install CCTV Camera	EA	1	\$ 2,000.00	\$ 10,000.00	\$ 12,000.00	\$ 2,400.00	\$ -	Huntington Beach
					Subtotal:	\$ 1,172,000.00	\$ 1,172,000.00	\$ 234,400.00	\$ -	
					Contingency (10%):	\$ 117,200.00	\$ 117,200.00	\$ 23,440.00	\$ -	
					Construction Management (15%):	\$ 175,800.00	\$ 175,800.00	\$ 35,160.00	\$ -	
					<b>SYSTEM IMPROVEMENT TOTAL:</b>	<b>\$ 1,465,000.00</b>	<b>\$ 1,465,000.00</b>	<b>\$ 293,000.00</b>	<b>\$ -</b>	

## SECTION 6: PROJECT SCHEDULE BY TASK

**Project start date:** July 1, 2020

**Project end date:** June 30, 2023

### Primary Implementation

Task	Starting Date	Ending Date
Task 1: Project Administration	July 1, 2020	June 30, 2021
Task 2: Data Collection	July 1, 2020	December 31, 2020
Task 3: Field Review and Plans Specifications, and Estimates	July 1, 2020	January 31, 2021
Task 4: Corridor "Before" Study	January 12, 2021	January 19, 2021
Task 5: Signal Timing Optimization and Implementation	August 1, 2020	May 18, 2021
Task 6: Corridor "After" Study	May 5, 2021	May 18, 2021
Task 7: Synchronization System Construction	July 1, 2020	May 31, 2021
Task 8: Primary Implementation Project Report	July 1, 2020	June 9, 2021
Task 9: Ongoing Operations & Maintenance	July 1, 2021	June 30, 2023

### Ongoing Monitoring and Maintenance

Task	Starting Date	Ending Date
a. Monitoring and improving optimized signal timing	July 1, 2021	June 30, 2023
b. Communications and detection support	July 1, 2021	June 30, 2023
c. OMM Memo	July 1, 2021	June 30, 2023

## SECTION 7: DETAILED LOCAL MATCH COMMITMENT

Input Only

Auto-Fill

## PART 1: AGENCY TOTAL MATCH SUMMARY

Agency	CASH		IN-KIND		TOTAL MATCH	
	PI	OMM	PI	OMM	PI	OMM
City of Garden Grove	\$27,900.00	\$2,400.00	\$83,160.00	\$0.00	\$111,060.00	\$2,400.00
	\$30,300.00		\$83,160.00		\$113,460.00	
CALTRANS	\$6,900.00	\$1,440.00	\$0.00	\$0.00	\$6,900.00	\$1,440.00
	\$8,340.00		\$0.00		\$8,340.00	
City of Westminster	\$116,640.00	\$2,880.00	\$0.00	\$0.00	\$116,640.00	\$2,880.00
	\$119,520.00		\$0.00		\$119,520.00	
City of Huntington Beach	\$123,814.00	\$3,840.00	\$3,146.00	\$0.00	\$126,960.00	\$3,840.00
	\$127,654.00		\$3,146.00		\$130,800.00	
TOTAL MATCH	\$275,254.00	\$10,560.00	\$86,306.00	\$0.00	\$361,560.00	\$10,560.00
	\$285,814.00		\$86,306.00		\$372,120.00	

## PART 2: MATCH BREAKDOWN (CASH vs IN-KIND SERVICES)

## A. Cash Match

Agency	Funding Source	Amount of Cash Contribution
City of Garden Grove	Local Funds	\$30,300.00
CALTRANS	TO BE COVERED BY LOCAL AGENCIES	\$8,340.00
City of Westminster	Local Funds	\$119,520.00
City of Huntington Beach	Local Funds	\$127,654.00
TOTAL CASH MATCH:		\$285,814.00

## B. In-Kind Services

## i. Specific Improvements (List items and Cost):

Agency	Description	Expenditure
City of Garden Grove	Traffic Signal Controller cabinets (4@\$20,790 ea)	\$83,160.00
CALTRANS	N/A	\$0.00
City of Westminster	N/A	\$0.00
City of Huntington Beach	N/A	\$0.00
Total Specific Improvements (i):		\$83,160.00

## ii. Staffing Commitment:

Agency	Staff Position	Type of Service to Project	No. of Hours	Fully Burdened Hourly Rate	Total*
City of Garden Grove			0		\$0.00
Total for City of Garden Grove:					\$0.00
CALTRANS			0		\$0.00
Total for City of CALTRANS:					\$0.00
City of Westminster			0		\$0.00
Total for City of Westminster:					\$0.00
City of Huntington Beach	Principal Civil Engineer	Project Administration	25	\$125.85	\$3,146.25
Total for City of Huntington Beach:					\$3,146.25
Total Staffing Commitment (ii):					\$3,146.25
TOTAL IN-KIND MATCH* (i + ii):					\$86,306.25

\*Total amount is the required participation by the identified agency. The number of hours and hourly rate will be based on each agency's actual fully burdened billing rates, which must collectively equal the same value of the assigned "Total" dollars. Each agency will be responsible for keeping detailed records of hours worked and description of work. An accounting record of personnel, hours at fully burdened rate is expected to be included with the final submittal. Records will be subject to auditing.



**SECTION 8: ENVIRONMENTAL CLEARANCE AND OTHER PERMITS**

Environmental clearance and other permits (if needed) will be obtained for this project.

**SECTION 9: SELECTION CRITERIA CALCULATIONS****Vehicle Miles Traveled (VMT):**

<b>Segment</b>	<b>ADTs</b>	<b>Distance</b>	<b>VMT</b>
Chapman Ave to Cinema Main Driveway	48,330	0.13	6,481
Cinema Main Driveway to Belgrave Ave	48,330	0.08	3,881
Belgrave Ave to Lampson Ave	53,440	0.25	13,320
Lampson Ave to Cerulean Ave	47,311	0.21	10,036
Cerulean Ave to Tiffany Ave	49,986	0.25	12,553
Tiffany Ave to SR 22 WB Ramps	54,000	0.07	3,723
Garden Grove FWY Exit to Garden Grove Blvd	54,000	0.22	12,048
Garden Grove Blvd to Old Bolsa Chica Rd	44,000	0.32	14,217
Old Bolsa Chica Rd to Duncannon Ave	42,659	0.23	9,905
Duncannon Ave to Westminster Blvd	42,659	0.53	22,493
Westminster Blvd to St James Park	45,410	0.21	9,374
St James Park to Churchill Ave	45,410	0.27	12,453
Churchill Ave to Rancho Rd	45,410	0.16	7,087
Rancho Rd to Bolsa Ave	45,163	0.41	18,527
Bolsa Ave to Argosy Ave	37,935	0.23	8,650
Argosy Ave to McFadden Ave	37,935	0.27	10,389
McFadden Ave to Robinwood Ave	33,262	0.35	11,742
Robinwood Ave to Edinger Ave	33,262	0.15	4,964
Edinger Ave to Heil Ave	28,785	0.50	14,393
Heil Ave to Pearce Dr	21,804	0.25	5,468
Pearce Dr to Warner Ave	21,804	0.25	5,468
<b>Total Project VMT:</b>		<b>5.35</b>	<b>217,171</b>

Source: 2019 City of Huntington Beach, City of Garden Grove and City of Westminster ADT Counts

Calculations and Estimated Points	
Criteria (Max Points)	Estimated Points
1. Vehicle Miles Traveled (VMT) (20 points) <u>VMT = 217,171 (See VMT Table)</u>	15
2. Cost Benefit Ratio: (15 points) <u>Calculation for Total Project Cost / VMT = \$1,860,600/217,171 = 8.6</u>	8
3. Project Characteristics: (10 points) <u>New or upgraded detection (1); Intersection/field modernization (2); new or upgraded communication systems(2); Bicycle/Ped detection (2); TMC/TOC and motorist information (1)</u>	8
4. Transportation Significance (10 points) <u>Signal Synchronization Network</u>	5
5. Maintenance of Effort: (5 points) <u>0 years beyond 3 year grant period</u>	0
6. Project Scale: (10 points) a. <u>Number of signals = 22</u> b. <u>Number of signals being synchronized / Total number of corridor signals= 22/46=47.8%</u>	2
7. Number of Jurisdictions: (20 points) <u>4 Jurisdictions</u>	16
8. Current Project Readiness (5 points) Project start date: <u>July 1, 2020</u>	5
9. Funding Match: (5 points) <u>\$374,280 / \$1,871,400 = 20%= 20%</u>	0
<b>Total Points</b>	<b>59</b>

## SECTION 10: DETAILED BREAKDOWN OF COSTS BY AGENCIES

### City of Garden Grove

Number of Signals: 5

Project Tasks (Garden Grove)	Total Cost	Match	
		Cash	In-Kind
Task 1: Project Administration	\$ 10,000	\$ 2,000	\$ -
Task 2: Data Collection	\$ 4,250	\$ 850	\$ -
Task 3: Field Review and Plans Specifications, and Estimates	\$ 37,800	\$ 7,560	\$ -
Task 4: Corridor "Before" Study	\$ 2,500	\$ 500	\$ -
Task 5: Signal Timing Optimization and Implementation	\$ 23,250	\$ 4,650	\$ -
Task 6: Corridor "After" Study	\$ 2,500	\$ 500	\$ -
Task 7: Synchronization System Construction (See Table II)	\$ 472,500	\$ 11,340	\$ 83,160
Task 8: Primary Implementation Project Report	\$ 2,500	\$ 500	\$ -
Task 9: Ongoing Operations & Maintenance (See Task 9 Details)	\$ 12,000	\$ 2,400	\$ -
<b>Total Project Cost:</b>	<b>\$ 567,300</b>	<b>\$ 30,300</b>	<b>\$ 83,160</b>

### Caltrans

Number of Signals: 3

Project Tasks (Caltrans)	Total Cost	Match	
		Cash	In-Kind
Task 1: Project Administration	\$ 13,500	\$ 2,700	\$ -
Task 2: Data Collection	\$ 2,550	\$ 510	\$ -
Task 3: Field Review and Plans Specifications, and Estimates	\$ -	\$ -	\$ -
Task 4: Corridor "Before" Study	\$ 1,500	\$ 300	\$ -
Task 5: Signal Timing Optimization and Implementation	\$ 13,950	\$ 2,790	\$ -
Task 6: Corridor "After" Study	\$ 1,500	\$ 300	\$ -
Task 7: Synchronization System Construction (See Table II)	\$ -	\$ -	\$ -
Task 8: Primary Implementation Project Report	\$ 1,500	\$ 300	\$ -
Task 9: Ongoing Operations & Maintenance (See Task 9 Details)	\$ 7,200	\$ 1,440	\$ -
<b>Total Project Cost:</b>	<b>\$ 41,700</b>	<b>\$ 8,340</b>	<b>\$ -</b>

### City of Westminster

Number of Signals: 6

Project Tasks (Westminster)	Total Cost	Match	
		Cash	In-Kind
Task 1: Project Administration	\$ 12,000	\$ 2,400	\$ -
Task 2: Data Collection	\$ 5,100	\$ 1,020	\$ -
Task 3: Field Review and Plans Specifications, and Estimates	\$ 39,200	\$ 7,840	\$ -
Task 4: Corridor "Before" Study	\$ 3,000	\$ 600	\$ -
Task 5: Signal Timing Optimization and Implementation	\$ 27,900	\$ 5,580	\$ -
Task 6: Corridor "After" Study	\$ 3,000	\$ 600	\$ -
Task 7: Synchronization System Construction (See Table II)	\$ 490,000	\$ 98,000	\$ -
Task 8: Primary Implementation Project Report	\$ 3,000	\$ 600	\$ -
Task 9: Ongoing Operations & Maintenance (See Task 9 Details)	\$ 14,400	\$ 2,880	\$ -
<b>Total Project Cost:</b>	<b>\$ 597,600</b>	<b>\$ 119,520</b>	<b>\$ -</b>



**City of Huntington Beach**

Number of Signals: 8

<b>Project Tasks (Huntington Beach)</b>	<b>Total Cost</b>	<b>Match</b>	
		<b>Cash</b>	<b>In-Kind</b>
Task 1: Project Administration	\$ 16,000	\$ 54	\$ 3,146
Task 2: Data Collection	\$ 6,800	\$ 1,360	\$ -
Task 3: Field Review and Plans Specifications, and Estimates	\$ 60,300	\$ 12,060	\$ -
Task 4: Corridor "Before" Study	\$ 4,000	\$ 800	\$ -
Task 5: Signal Timing Optimization and Implementation	\$ 37,200	\$ 7,440	\$ -
Task 6: Corridor "After" Study	\$ 4,000	\$ 800	\$ -
Task 7: Synchronization System Construction (See Table II)	\$ 502,500	\$ 100,500	\$ -
Task 8: Primary Implementation Project Report	\$ 4,000	\$ 800	\$ -
Task 9: Ongoing Operations & Maintenance (See Task 9 Details)	\$ 19,200	\$ 3,840	\$ -
<b>Total Project Cost:</b>	<b>\$ 654,000</b>	<b>\$ 127,654</b>	<b>\$ 3,146</b>
<b>Grand Total Project Cost</b>			
	<b>\$ 1,860,600</b>	<b>\$ 285,814</b>	<b>\$ 86,306</b>
<b>Total Match</b>			
	<b>\$ 372,120</b>		
<b>M2 Grant Total</b>			
	<b>\$ 1,488,480</b>		

**Project Summary**

X All guidelines were met for this project.

Not all qualifications were met. An explanation of why the guidelines were not met for this project is provided below.

**LIST OF CONTACTS**

<b>Agency</b>	<b>Phone</b>	<b>Email</b>	<b>Street Address</b>
City of Garden Grove Dai Vu, P.E. City Traffic Engineer	(714) 741-5189	<a href="mailto:daiv@ggcity.org">daiv@ggcity.org</a>	City of Garden Grove 11222 Acacia Parkway Garden Grove, CA 92840
CALTRANS Denny Ngo Transportation Engineer	(949) 936-3512	<a href="mailto:Denny.Ngo@dot.ca.gov">Denny.Ngo@dot.ca.gov</a>	Caltrans 1750 E. 4th Street, Suite 100 Santa Ana, CA 92705
City of Westminster Bill (Hoa) Pham Civil Engineering Associate	(714) 548-3457	<a href="mailto:bpham@westminster-ca.gov">bpham@westminster-ca.gov</a>	City of Westminster 8200 Westminster Boulevard Westminster, CA 92683
City of Huntington Beach William F. Janusz, P.E. Principal Civil Engineer	(714) 374-1628	<a href="mailto:Wianusz@surfcity-hb.org">Wianusz@surfcity-hb.org</a>	City of Huntington Beach 2000 Main St, P.O. Box 190 Huntington Beach, CA 92648

# BUDGET SPREADSHEET

Corridor: BOLSA CHICA / VALLEY VIEW  
AGENCY COST SUMMARY

Agency		No. Signal	PRIMARY IMPLEMENTATION					ONGOING MAINT & OPERATION					Total Project Cost
			Cost	M2 Grant	Match	Match Type		Cost	M2 Grant	Match	Match Type		
						Cash	In-kind				Cash	In-kind	
1	GARDEN GROVE	5	\$555,300	\$444,240	\$111,060	\$27,900	\$83,160	\$12,000	\$9,600	\$2,400	\$2,400	\$0	\$567,300
2	CALTRANS	3	\$34,500	\$27,600	\$6,900	\$6,900	\$0	\$7,200	\$5,760	\$1,440	\$1,440	\$0	\$41,700
3	WESTMINSTER	6	\$583,200	\$466,560	\$116,640	\$116,640	\$0	\$14,400	\$11,520	\$2,880	\$2,880	\$0	\$597,600
4	HUNTINGTON BEACH	8	\$634,800	\$507,840	\$126,960	\$123,814	\$3,146	\$19,200	\$15,360	\$3,840	\$3,840	\$0	\$654,000
Total		22	\$1,807,800	\$1,446,240	\$361,560	\$275,254	\$86,306	\$52,800	\$42,240	\$10,560	\$10,560	\$0	\$1,860,600
				\$1,446,240							\$42,240		\$1,488,480
				\$86,306						\$0			\$86,306
					\$275,254					\$10,560			\$285,814
					\$1,807,800					\$52,800			\$1,860,600

TOTAL TASKS SUMMARY

Phase	Tasks	Costs	M2 Grant	Local Match (20%)			
				Total Match	Match Type		In-kind
					Cash	In-kind	
Primary Implement	Project Administration (inc Caltrans fee)	\$51,500	\$41,200	\$10,300	\$7,154	\$3,146	
	Develop & Implement	\$132,000	\$105,600	\$26,400	\$26,400	\$0	
	Before & After Study	\$22,000	\$17,600	\$4,400	\$4,400	\$0	
	Sub-Total	\$205,500	\$164,400	\$41,100	\$37,954	\$3,146	
	Design	\$137,300	\$109,840	\$27,460	\$27,460	\$0	
	System Improvements	\$1,172,000	\$937,600	\$234,400	\$151,240	\$83,160	
	Contingency	\$117,200	\$93,760	\$23,440	\$23,440	\$0	
	Construction Engineering	\$175,800	\$140,640	\$35,160	\$35,160	\$0	
	Sub-Total	\$1,602,300	\$1,281,840	\$320,460	\$237,300	\$83,160	
	Phase Total	\$1,807,800	\$1,446,240	\$361,560	\$275,254	\$86,306	
On-going Maint & Operation	Ongoing Maintenance - Monitoring	\$36,960	\$29,568	\$7,392	\$7,392	\$0	
	Ongoing Maintenance - Comm & Det Support	\$15,840	\$12,672	\$3,168	\$3,168	\$0	
	Phase Total	\$52,800	\$42,240	\$10,560	\$10,560	\$0	
	Project Total	\$1,860,600	\$1,488,480	\$372,120	\$285,814	\$86,306	

TOTAL AGENCY MATCH SUMMARY

Agency	Project Cost by Agency	M2 Grant (80%)	Local Match (20%)			
			Total Match	Match Type		In-kind
				Cash	In-kind	
1	GARDEN GROVE	\$567,300	\$453,840	\$113,460	\$30,300	\$83,160
2	CALTRANS	\$41,700	\$33,360	\$8,340	\$8,340	\$0
3	WESTMINSTER	\$597,600	\$478,080	\$119,520	\$119,520	\$0
4	HUNTINGTON BEACH	\$654,000	\$523,200	\$130,800	\$127,654	\$3,146
Total		\$1,860,600	\$1,488,480	\$372,120	\$285,814	\$86,306

CALTRANS MATCH DISTRIBUTED TO EACH AGENCY

GARDEN GROVE	\$2,194.74
WESTMINSTER	\$2,633.68
HUNTINGTON BEACH	\$3,511.58
	\$8,340.00

TOTAL MATCH

	\$115,654.74
	\$122,153.68
	\$134,311.58
	\$372,120.00

Corridor: VALLEY VIEW ST  
Agency: GARDEN GROVE

Agency	No. of Signal	Agency	Intersection	Project Administration	Signal Timing		System Improvements				Project Cost					
					Develop & Implement	Before & After Study	Ongoing Maintenance *	Intersection/Field System Upgrade	Communication Upgrade	Detection Upgrade	TMC Upgrade	Improvements Total	Design	Impr & Design Total	Match (20%)	Cash
GARDEN GROVE	1	GARDEN GROVE	VALLEY VIEW ST - CHAPMAN AVE	\$2,000	\$6,000	\$1,000	\$2,400	\$48,000	\$0	\$0	\$48,000	\$4,800	\$52,800	\$10,560	\$0	\$10,560
	1	GARDEN GROVE	VALLEY VIEW ST - CINEMA MAIN DWY	\$2,000	\$6,000	\$1,000	\$2,400	\$82,000	\$0	\$0	\$82,000	\$6,200	\$88,200	\$17,640	\$0	\$17,640
	1	GARDEN GROVE	VALLEY VIEW ST - BELGRAVE AVE	\$2,000	\$6,000	\$1,000	\$2,400	\$82,000	\$0	\$0	\$82,000	\$6,200	\$88,200	\$17,640	\$0	\$17,640
	1	GARDEN GROVE	VALLEY VIEW ST - LAMPSON AVE	\$2,000	\$6,000	\$1,000	\$2,400	\$98,000	\$4,000	\$0	\$92,000	\$7,200	\$105,200	\$21,040	\$0	\$21,040
	1	GARDEN GROVE	VALLEY VIEW ST - CERULEAN AVE	\$2,000	\$6,000	\$1,000	\$2,400	\$98,000	\$4,000	\$0	\$92,000	\$7,200	\$105,200	\$21,040	\$0	\$21,040
		GARDEN GROVE	TMC								\$62,000	\$6,200	\$68,200	\$13,640	\$0	\$13,640
		GARDEN GROVE	Total	\$10,000	\$30,000	\$5,000	\$12,000	\$308,000	\$8,000	\$0	\$316,000	\$37,800	\$415,800	\$83,160	\$0	\$83,160
										Subtotal	\$376,000	\$37,800	\$413,800	\$83,160	\$0	\$83,160
										10% Contingency			\$37,800	\$7,560	\$0	\$0
										15% Construction Engineering			\$56,700	\$11,340	\$0	\$0
									Total	\$472,500		\$472,500	\$102,060	\$19,900	\$83,160	

COSTS SUMMARY

Phase	Tasks	Costs	M2 Grant	Local Match (20%)			Total Match	Fund Source
				Cash	In-kind	Measure M		
Primary Implement	Project Administration	\$10,000	\$8,000	\$2,000		Measure M		
	Develop & Implement	\$30,000	\$24,000	\$6,000		Measure M		
	Before & After Study	\$5,000	\$4,000	\$1,000		Measure M		
	Design	\$37,800	\$30,240	\$7,560	\$0	Measure M		
	System Improvements	\$378,000	\$302,400	\$75,600	\$63,160	Measure M		
	Contingency	\$37,800	\$30,240	\$7,560	\$0	Measure M		
	Construction Engineering	\$56,700	\$45,360	\$11,340	\$0	Measure M		
Phase Total		\$555,300	\$444,240	\$111,060	\$63,160			
Ongoing Maint & Oper	Ongoing Maintenance - Monitoring	\$6,400	\$6,720	\$1,680		Measure M		
	Ongoing Maintenance - Comm & Del Support	\$3,600	\$2,880	\$720		Measure M		
	Phase Total	\$12,000	\$9,600	\$2,400	\$0			
Total		\$567,300	\$453,840	\$113,460	\$63,160			

Staffing Commitment For In-kind Match

Agency	Staff Position	Type of Service	No. of Hours*	Hourly Rate*	Amount
GARDEN GROVE					\$0
					\$0
					\$0
					\$0
Total					\$0

\* Estimated, subject to change

Total error

Corridor: VALLEY VIEW ST  
Agency: CALTRANS

No. of Signal	Agency	Intersection	Project Administration (inc Caltrans)	Signal Timing			Project Cost							
				Develop & Implement	Before & After Study	Ongoing Maintenance *	Intersection/Field System Upgrade	Communication Upgrade	Detection Upgrade	Improvements Total	Design	Impr & Design Total	Match (20%)	In-kind
1	CALTRANS	VALLEY VIEW ST / TIFFANY AVE	\$4,500	\$6,000	\$1,000	\$2,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1	CALTRANS	VALLEY VIEW ST / ISR 22 WB RAMPS	\$4,500	\$6,000	\$1,000	\$2,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1	CALTRANS	VALLEY VIEW ST / GARDEN GROVE BLVD	\$4,500	\$6,000	\$1,000	\$2,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3		Total	\$13,500	\$18,000	\$3,000	\$7,200	\$0	Subtotal	\$0	\$0	\$0	\$0	\$0	\$0
								10% Contingency	\$0	\$0	\$0	\$0	\$0	\$0
								15% Construction Engineering	\$0	\$0	\$0	\$0	\$0	\$0
								Total	\$0	\$0	\$0	\$0	\$0	\$0
								Ongoing Maintenance per signal per month:	\$70					
								Ongoing Comm & Det Support per signal per month:	\$30					

COSTS SUMMARY

Phase	Tasks	Costs	M2 Grant	Local Match (20%)		
				Total Match	Cash	In-kind
Primary Implement	Project Administration	\$13,500	\$10,800	\$2,700	\$2,700	
	Develop & Implement	\$18,000	\$14,400	\$3,600	\$3,600	
	Before & After Study	\$3,000	\$2,400	\$600	\$600	
	Design	\$0	\$0	\$0	\$0	
	System Improvements	\$0	\$0	\$0	\$0	
	Contingency	\$0	\$0	\$0	\$0	
	Construction Engineering	\$0	\$0	\$0	\$0	
Ongoing Maint & Oper	Phase Total	\$34,500	\$27,600	\$6,900	\$6,900	\$0
	Ongoing Maintenance - Monitoring	\$5,040	\$4,032	\$1,008	\$1,008	
	Ongoing Maintenance - Comm & Det Support	\$2,160	\$1,728	\$432	\$432	\$0
	Phase Total	\$7,200	\$5,760	\$1,440	\$1,440	\$0
	Total	\$41,700	\$33,360	\$8,340	\$8,340	\$0

Staffing Commitment For In-kind Match

Agency	Staff Position	Type of Service	No. of Hours*	Hourly Rate*	Amount
CALTRANS					\$0
					\$0
					\$0
					\$0
Total					\$0

\* Estimated, subject to change

Corridor: BOLSA CHICA ST  
Agency: WESTMINSTER

No. of Signal	Agency	Intersection	Project Cost									
			Project Administration		Signal Timing		System Improvements		Improvements		Design	
			Develop & Implement	Before & After Study	Ongoing Maintenance *	Intersection/Field System Upgrade	Communication Upgrade	Detection Upgrade	Total	Design	Design Total	Match (20%)
1	WESTMINSTER	BOLSA CHICA ST / OLD BOLSA CHICA RD	\$2,000	\$6,000	\$2,400	\$31,000	\$0	\$25,000	\$56,000	\$5,600	\$61,600	\$12,320
1	WESTMINSTER	BOLSA CHICA ST / DUNCANNON AVE	\$2,000	\$6,000	\$2,400	\$33,000	\$0	\$25,000	\$78,000	\$7,800	\$85,800	\$17,160
1	WESTMINSTER	BOLSA CHICA ST / WESTMINSTER BLVD	\$2,000	\$6,000	\$2,400	\$85,000	\$0	\$25,000	\$90,000	\$9,000	\$99,000	\$19,800
1	WESTMINSTER	BOLSA CHICA ST / ST JAMES PARK	\$2,000	\$6,000	\$2,400	\$31,000	\$0	\$25,000	\$56,000	\$5,600	\$61,600	\$12,320
1	WESTMINSTER	BOLSA CHICA ST / CHURCHILL AVE	\$2,000	\$6,000	\$2,400	\$31,000	\$0	\$25,000	\$56,000	\$5,600	\$61,600	\$12,320
1	WESTMINSTER	BOLSA CHICA ST / RANCHO RD	\$2,000	\$6,000	\$2,400	\$31,000	\$0	\$25,000	\$56,000	\$5,600	\$61,600	\$12,320
6		Total	\$12,000	\$36,000	\$14,400	\$242,000	\$0	\$150,000	\$392,000	\$39,200	\$431,200	\$86,240
			Subtotal									
			10% Contingency						\$39,200		\$7,840	\$11,760
			15% Construction Engineering						\$58,800		\$11,760	\$105,840
			Total						\$490,000		\$105,840	\$0

\* Ongoing Maintenance per signal per month: \$70  
Ongoing Comm & Det Support per signal per month: \$30

COSTS SUMMARY

Phase	Tasks	Costs	M2 Grant	Local Match (20%)			Fund Source
				Total Match	Cash	In-kind	
Primary Implement	Project Administration	\$12,000	\$9,600	\$2,400	\$2,400		
	Develop & Implement Before & After Study	\$36,000	\$28,800	\$7,200	\$7,200		
	Design	\$6,000	\$4,800	\$1,200	\$1,200		
	System Improvements	\$39,200	\$31,360	\$7,840	\$7,840	\$0	
	Contingency	\$39,200	\$31,360	\$7,840	\$7,840	\$0	
	Construction Engineering	\$58,800	\$47,040	\$11,760	\$11,760	\$0	
Ongoing Maint & Oper	Phase Total	\$583,200	\$466,560	\$116,640	\$116,640	\$0	
	Ongoing Maintenance - Monitoring	\$10,080	\$8,064	\$2,016	\$2,016		
	Ongoing Maintenance - Comm & Det Support	\$4,320	\$3,456	\$864	\$864	\$0	
	Phase Total	\$14,400	\$11,520	\$2,880	\$2,880	\$0	
Total		\$597,600	\$478,080	\$119,520	\$119,520	\$0	

Staffing Commitment For In-kind Match

Agency	Staff Position	Type of Service	No. of Hours*	Hourly Rate*	Amount
WESTMINSTER					\$0
					\$0
					\$0
					\$0
Total					\$0

\* Estimated, subject to change

Corridor:  
Agency:

BOLSA CHICA ST  
HUNTINGTON BEACH

No. of Signal	Agency	Intersection	Project Administration	Signal Timing		Ongoing Maintenance *	System Improvements				Project Cost			
				Develop & Implement	Before & After Study		Intersection/Field System Upgrade	Communication Upgrade	Detection Upgrade	Improvements Total	Design	Impr & Design Total	Match (20%)	In-kind
1	HUNTINGTON BEACH	BOLSA CHICA ST	\$2,000	\$6,000	\$1,000	\$2,400	\$20,000	\$70,500	\$0	\$90,500	\$13,575	\$104,075	\$20,815	\$0
1	HUNTINGTON BEACH	BOLSA CHICA ST	\$2,000	\$6,000	\$1,000	\$2,400	\$8,000	\$53,000	\$0	\$61,000	\$9,150	\$70,150	\$14,030	\$0
1	HUNTINGTON BEACH	BOLSA CHICA ST	\$2,000	\$6,000	\$1,000	\$2,400	\$20,000	\$56,000	\$0	\$76,000	\$11,400	\$87,400	\$17,480	\$0
1	HUNTINGTON BEACH	BOLSA CHICA ST	\$2,000	\$6,000	\$1,000	\$2,400	\$8,000	\$92,000	\$0	\$100,000	\$10,500	\$110,500	\$18,100	\$0
1	HUNTINGTON BEACH	BOLSA CHICA ST	\$2,000	\$6,000	\$1,000	\$2,400	\$20,000	\$26,500	\$0	\$46,500	\$6,975	\$53,475	\$10,895	\$0
1	HUNTINGTON BEACH	BOLSA CHICA ST	\$2,000	\$6,000	\$1,000	\$2,400	\$20,000	\$0	\$0	\$20,000	\$3,000	\$23,000	\$4,600	\$0
1	HUNTINGTON BEACH	BOLSA CHICA ST	\$2,000	\$6,000	\$1,000	\$2,400	\$8,000	\$10,000	\$0	\$18,000	\$2,700	\$20,700	\$4,140	\$0
1	HUNTINGTON BEACH	BOLSA CHICA ST	\$2,000	\$6,000	\$1,000	\$2,400	\$20,000	\$0	\$0	\$20,000	\$3,000	\$23,000	\$4,600	\$0
8	Total		\$16,000	\$48,000	\$8,000	\$19,200	\$124,000	\$278,000	\$0	\$402,000	\$60,300	\$462,300	\$92,460	\$0
			Subtotal											
			10% Contingency											
			\$30											
			15% Construction Engineering											
			\$502,500											
			Total											
			\$112,560											

\* Ongoing Maintenance per signal per month: \$70  
Ongoing Comm & Det Support per signal per month: \$30

COSTS SUMMARY

Phase	Tasks	Costs	M2 Grant	Local Match (20%)		
				Total Match	Cash	In-kind
Primary Implement	Project Administration	\$16,000	\$12,800	\$3,200	\$54	\$3,146
	Develop & Implement	\$48,000	\$38,400	\$9,600	\$9,600	\$0
	Before & After Study	\$8,000	\$6,400	\$1,600	\$1,600	\$0
	Design	\$60,300	\$48,240	\$12,060	\$12,060	\$0
	System Improvements	\$402,000	\$321,600	\$80,400	\$80,400	\$0
	Contingency	\$40,200	\$32,160	\$8,040	\$8,040	\$0
	Construction Engineering	\$60,300	\$48,240	\$12,060	\$12,060	\$0
Ongoing Maint & Oper	Phase Total	\$634,300	\$507,840	\$126,960	\$123,814	\$3,146
	Ongoing Maintenance - Monitoring	\$13,440	\$10,752	\$2,688	\$2,688	\$0
	Ongoing Maintenance - Comm & Det Support	\$5,760	\$4,608	\$1,152	\$1,152	\$0
	Phase Total	\$19,200	\$15,360	\$3,840	\$3,840	\$0
	Total	\$654,000	\$523,200	\$130,800	\$127,654	\$3,146

Staffing Commitment For In-kind Match

Agency	Staff Position	Type of Service	No. of Hours*	Hourly Rate*	Amount
HUNTINGTON BEACH	Principal Civil Engineer	Project Administration	25.00	\$125.85	\$3,146
					\$0
					\$0
Total					\$3,146

\* Estimated, subject to change

## CORRIDOR: BOLSA CHICA ST | VALLEY VIEW ST

No	Agency	Intersection	ADT	Distance (mile)	VMT	Number of Intersections	\$ Qualified	Cabinet Pictures
1	GARDEN GROVE	VALLEY VIEW ST	CHAPMAN AVE	0.00	0			✓
2	GARDEN GROVE	VALLEY VIEW ST	CINEMA MAIN DWY	0.13	6481			✓
3	GARDEN GROVE	VALLEY VIEW ST	BELGRAVE AVE	0.08	3881			✓
4	GARDEN GROVE	VALLEY VIEW ST	LAMPSON AVE	0.25	13320			✓
5	GARDEN GROVE	VALLEY VIEW ST	CERULEAN AVE	0.21	10036	5	\$ 375,000	✓
6	CALTRANS	VALLEY VIEW ST	TIFFANY AVE	0.25	12553			✓
7	CALTRANS	VALLEY VIEW ST	SR 22 WB RAMPS	0.07	3723			✓
8	CALTRANS	VALLEY VIEW ST	GARDEN GROVE BLVD	0.22	12048	3	\$ 225,000	✓
9	WESTMINSTER	BOLSA CHICA ST	OLD BOLSA CHICA RD	0.32	14217			✓
10	WESTMINSTER	BOLSA CHICA ST	DUNCANNON AVE	0.23	9905			✓
11	WESTMINSTER	BOLSA CHICA ST	WESTMINSTER BLVD	0.53	22493			✓
12	WESTMINSTER	BOLSA CHICA ST	ST JAMES PARK	0.21	9374			✓
13	WESTMINSTER	BOLSA CHICA ST	CHURCHILL AVE	0.27	12453			✓
14	WESTMINSTER	BOLSA CHICA ST	RANCHO RD	0.16	7087	6	\$ 450,000	✓
15	HUNTINGTON BEACH	BOLSA CHICA ST	BOLSA AVE	0.41	18527			✓
16	HUNTINGTON BEACH	BOLSA CHICA ST	ARGOSY AVE	0.23	8650			✓
17	HUNTINGTON BEACH	BOLSA CHICA ST	MCFADDEN AVE	0.27	10389			✓
18	HUNTINGTON BEACH	BOLSA CHICA ST	ROBINWOOD DR	0.35	11742			✓
19	HUNTINGTON BEACH	BOLSA CHICA ST	EDINGER AVE	0.15	4964			✓
20	HUNTINGTON BEACH	BOLSA CHICA ST	HEIL AVE	0.50	14383			✓
21	HUNTINGTON BEACH	BOLSA CHICA ST	PEARCE DR	0.25	21804			✓
22	HUNTINGTON BEACH	BOLSA CHICA ST	WARNER AVE	0.25	5488	8	\$ 600,000	✓
Caltrans: 20% match is the responsibility of local agencies.			Total	5.35	217171	22	\$ 1,650,000	✓



Corridor: VALLEY VIEW ST  
Agency: GARDEN GROVE

Category	Description	Unit	Quantity	Unit Cost	Amount	Sub-total	Intersection Total	
Intersection:	CHAPMAN AVE							
Intersection/Field System Upgrade		EA	1	\$ 6,000.00	\$ 6,000.00	\$48,000	\$48,000	
	Controller	EA	1	\$ 6,000.00	\$ 6,000.00			
	Rewire Intersection (Replace Pullboxes)	LS	1	\$ 22,000.00	\$ 22,000.00			
	CCTV	EA	1	\$ 10,000.00	\$ 10,000.00			
	APS PPB	LS	1	\$ 10,000.00	\$ 10,000.00			
Communication Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
					\$ -			
Detection Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
					\$ -			
Intersection:	CINEMA MAIN DWY							
Intersection/Field System Upgrade	Install City Furnished Cabinet, Foundation and Service	LS	1	\$ 24,000.00	\$ 24,000.00	\$62,000	\$62,000	
	Controller	EA	1	\$ 6,000.00	\$ 6,000.00			
	Rewire Intersection (including Pullboxes)	LS	1	\$ 22,000.00	\$ 22,000.00			
	APS PPB	LS	1	\$ 10,000.00	\$ 10,000.00			
Communication Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
					\$ -			
Detection Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
					\$ -			
Intersection:	BELGRAVE AVE							
Intersection/Field System Upgrade	Install City Furnished Cabinet, Foundation and Service	LS	1	\$ 24,000.00	\$ 24,000.00	\$62,000	\$62,000	
	Controller	EA	1	\$ 6,000.00	\$ 6,000.00			
	Rewire Intersection (including Pullboxes)	LS	1	\$ 22,000.00	\$ 22,000.00			
	APS PPB	LS	1	\$ 10,000.00	\$ 10,000.00			
Communication Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
					\$ -			
Detection Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
					\$ -			
Intersection:	LAMPSON AVE							
Intersection/Field System Upgrade	Install City Furnished Cabinet and Foundation	LS	1	\$ 20,000.00	\$ 20,000.00	\$68,000	\$72,000	
	Controller	EA	1	\$ 6,000.00	\$ 6,000.00			
	Rewire Intersection (including Pullboxes)	LS	1	\$ 22,000.00	\$ 22,000.00			
	CCTV	EA	1	\$ 10,000.00	\$ 10,000.00			
	APS PPB	LS	1	\$ 10,000.00	\$ 10,000.00			
Communication Upgrade	Ethernet Switch	EA	1	\$ 4,000.00	\$ 4,000.00	\$4,000		
					\$ -			
					\$ -			
					\$ -			
Detection Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
					\$ -			
Intersection:	CERULEAN AVE							
Intersection/Field System Upgrade	Install City Furnished Cabinet and Foundation	LS	1	\$ 20,000.00	\$ 20,000.00	\$68,000	\$72,000	
	Controller	EA	1	\$ 6,000.00	\$ 6,000.00			
	Rewire Intersection (including Pullboxes)	LS	1	\$ 22,000.00	\$ 22,000.00			
	CCTV	EA	1	\$ 10,000.00	\$ 10,000.00			
	APS PPB	EA	1	\$ 10,000.00	\$ 10,000.00			
Communication Upgrade	Ethernet Switch	EA	1	\$ 4,000.00	\$ 4,000.00	\$4,000		
					\$ -			
					\$ -			
					\$ -			
Detection Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
					\$ -			
Intersection:	TMC							
Intersection/Field System Upgrade	UPS	LS	1	\$ 15,000.00	\$ 15,000.00	\$27,000		
	Video Management Software	LS	1	\$ 12,000.00	\$ 12,000.00			

Communication Upgrade	Layer III Switches	LS	1	\$ 35,000.00	\$ 35,000.00	\$35,000	\$62,000
		LS			\$ -		
Detection Upgrade		LS			\$ -	\$0	
					\$ -		
Total							\$378,000

Corridor: VALLEY VIEW ST  
Agency: CALTRANS

Category	Description	Unit	Quantity	Unit Cost	Amount	Sub-total	Intersection Total
Intersection:	SR 22 WB RAMPS						\$0
Intersection/Field System Upgrade					\$0	\$0	
					\$0		
					\$0		
					\$0		
Communication Upgrade					\$0	\$0	
					\$0		
					\$0		
					\$0		
Detection Upgrade					\$0	\$0	
					\$0		
					\$0		
Intersection:	GARDEN GROVE BLVD						\$0
Intersection/Field System Upgrade					\$0	\$0	
					\$0		
					\$0		
					\$0		
Communication Upgrade					\$0	\$0	
					\$0		
					\$0		
					\$0		
Detection Upgrade					\$0	\$0	
					\$0		
					\$0		
Intersection:	TIFFANY AVE						\$0
Intersection/Field System Upgrade					\$0	\$0	
					\$0		
					\$0		
					\$0		
Communication Upgrade					\$0	\$0	
					\$0		
					\$0		
					\$0		
Detection Upgrade					\$0	\$0	
					\$0		
					\$0		
Total					\$0		

Corridor: BOLSA CHICA ST  
Agency: WESTMINSTER

Category	Description	Unit	Quantity	Unit Cost	Amount	Sub-total	Intersection Total
Intersection: OLD BOLSA CHICA RD							
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 6,000.00	\$ 6,000.00	\$31,000	\$56,000
	CCTV CAMERA	LS	1	\$ 12,000.00	\$ 12,000.00		
	Battery Back-up System	EA	1	\$ 10,000.00	\$ 10,000.00		
	Ethernet Switch	EA	1	\$ 3,000.00	\$ 3,000.00		
Communication Upgrade					\$ -	\$0	
					\$ -		
					\$ -		
Detection Upgrade	Video Detection - Iteris Vantage EdgeConnect	LS	1	\$ 25,000.00	\$ 25,000.00	\$25,000	
					\$ -		
					\$ -		
Intersection: DUNCANNON AVE							
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 6,000.00	\$ 6,000.00	\$53,000	\$78,000
	CCTV CAMERA	LS	1	\$ 12,000.00	\$ 12,000.00		
	Battery Back-up System	EA	1	\$ 10,000.00	\$ 10,000.00		
	Ethernet Switch	EA	1	\$ 3,000.00	\$ 3,000.00		
	Rewire Intersection (Existing conduit at capacity & can't handle additional cable(s))	LS	1	\$ 22,000.00	\$ 22,000.00		
Communication Upgrade					\$ -	\$0	
					\$ -		
					\$ -		
Detection Upgrade	Video Detection - Iteris Vantage EdgeConnect	LS	1	\$ 25,000.00	\$ 25,000.00	\$25,000	
					\$ -		
					\$ -		
Intersection: WESTMINSTER BLVD							
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 6,000.00	\$6,000	\$65,000	\$90,000
	CCTV CAMERA	LS	1	\$ 12,000.00	\$12,000		
	Install New Conduit (Intersection Crossings)	LS	1	\$ 30,000.00	\$30,000		
	Ethernet Switch	EA	1	\$ 3,000.00	\$3,000		
	Hub Ethernet Switch	EA	1	\$ 14,000.00	\$14,000		
Communication Upgrade						\$0	
Detection Upgrade	Video Detection - Iteris Vantage EdgeConnect	LS	1	\$ 25,000.00	\$25,000	\$25,000	
Intersection: ST JAMES PARK							
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 6,000.00	\$6,000	\$31,000	\$56,000
	CCTV CAMERA	LS	1	\$ 12,000.00	\$12,000		
	Battery Back-up System	EA	1	\$ 10,000.00	\$10,000		
	Ethernet Switch	EA	1	\$ 3,000.00	\$3,000		
Communication Upgrade						\$0	
Detection Upgrade	Video Detection - Iteris Vantage EdgeConnect	LS	1	\$ 25,000.00	\$25,000	\$25,000	
Intersection: CHURCHILL AVE							
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 6,000.00	\$6,000	\$31,000	\$56,000
	CCTV CAMERA	LS	1	\$ 12,000.00	\$12,000		
	Battery Back-up System	EA	1	\$ 10,000.00	\$10,000		
	Ethernet Switch	EA	1	\$ 3,000.00	\$3,000		
Communication Upgrade						\$0	
Detection Upgrade	Video Detection - Iteris Vantage EdgeConnect	LS	1	\$ 25,000.00	\$25,000	\$25,000	
Intersection: RANCHO RD							
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 6,000.00	\$6,000	\$31,000	\$56,000
	CCTV CAMERA	LS	1	\$ 12,000.00	\$12,000		
	Battery Back-up System	EA	1	\$ 10,000.00	\$10,000		
	Ethernet Switch	EA	1	\$ 3,000.00	\$3,000		
Communication Upgrade						\$0	
Detection Upgrade	Video Detection - Iteris Vantage EdgeConnect	LS	1	\$ 25,000.00	\$25,000	\$25,000	
Total				\$392,000			

Corridor: BOLSA CHICA ST  
Agency: HUNTINGTON BEACH

Category	Description	Unit	Quantity	Unit Cost	Amount	Sub-total	Intersection Total
Intersection: BOLSA AVE							
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 8,000.00	\$ 8,000.00	\$20,000	\$90,500
	CCTV CAMERA (including license)	EA	1	\$ 12,000.00	\$ 12,000.00		
					\$ -		
					\$ -		
Communication Upgrade	Fiber Distribtuion Unit, Splice Enclosure, and SMFO-6 Drop Cable + splicing	EA	1	\$ 10,000.00	\$ 10,000.00	\$70,500	
	Pull 100' 96 SMFO cable in pullbox adjacent to Rancho Controller Cabinet	LS	1	\$ 1,000.00	\$ 1,000.00		
	Install 96 SMFO cable (Rancho to Bolsa)	LF	2650	\$ 10.00	\$ 26,500.00		
	Pullboxes (#6E) (Rancho to Bolsa)	EA	1	\$ 4,000.00	\$ 4,000.00		
	Pullboxes (#6) (Rancho to Bolsa)	EA	6	\$ 3,000.00	\$ 18,000.00		
	Replace 2" Conduit (Rancho to Bolsa)	LF	200	\$ 55.00	\$ 11,000.00		
Detection Upgrade					\$ -	\$0	
					\$ -		
					\$ -		
Intersection: ARGOSY AVE							
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 8,000.00	\$ 8,000.00	\$8,000	\$61,000
					\$ -		
					\$ -		
					\$ -		
Communication Upgrade	Fiber Distribtuion Unit, Splice Enclosure, and SMFO-6 Drop Cable + splicing	LS	1	\$ 10,000.00	\$ 10,000.00	\$53,000	
	Install 96 SMFO cable (Bolsa to Argosy)	LF	1600	\$ 10.00	\$ 16,000.00		
	Pullboxes (#6E) (Bolsa to Argosy)	EA	1	\$ 4,000.00	\$ 4,000.00		
	Pullboxes (#6) (Bolsa to Argosy)	EA	4	\$ 3,000.00	\$ 12,000.00		
	Replace 2" Conduit (Bolsa to Argosy)	LF	200	\$ 55.00	\$ 11,000.00		
					\$ -		
Detection Upgrade					\$ -	\$0	
					\$ -		
					\$ -		
Intersection: MCFADDEN AVE							
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 8,000.00	\$ 8,000.00	\$20,000	\$76,000
	CCTV CAMERA (including license)	EA	1	\$ 12,000.00	\$ 12,000.00		
					\$ -		
					\$ -		
Communication Upgrade	Fiber Distribtuion Unit, Splice Enclosure, and SMFO-6 Drop Cable + splicing	LS	1	\$ 10,000.00	\$ 10,000.00	\$56,000	
	Install 96 SMFO cable (Argosy to McFadden)	LF	1900	\$ 10.00	\$ 19,000.00		
	Pullboxes (#6E) (Argosy to McFadden)	EA	1	\$ 4,000.00	\$ 4,000.00		
	Pullboxes (#6) (Argosy to McFadden)	EA	4	\$ 3,000.00	\$ 12,000.00		
	Replace 2" Conduit (Argosy to McFadden)	LF	200	\$ 55.00	\$ 11,000.00		
					\$ -		
Detection Upgrade					\$ -	\$0	
					\$ -		
					\$ -		
Intersection: ROBINWOOD DR							
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 8,000.00	\$ 8,000.00	\$8,000	\$70,000
					\$ -		
					\$ -		
					\$ -		
Communication Upgrade	Fiber Distribtuion Unit, Splice Enclosure, and SMFO-6 Drop Cable + splicing	LS	1	\$ 10,000.00	\$ 10,000.00	\$62,000	
	Install 96 SMFO cable (McFadden to Robinwood)	LF	2200	\$ 10.00	\$ 22,000.00		
	Pullboxes (#6E) (McFadden to Robinwood)	EA	1	\$ 4,000.00	\$ 4,000.00		
	Pullboxes (#6) (McFadden to Robinwood)	EA	5	\$ 3,000.00	\$ 15,000.00		
	Replace 2" Conduit (McFadden to Robinwood)	LF	200	\$ 55.00	\$ 11,000.00		
					\$ -		
Detection Upgrade					\$ -	\$0	
					\$ -		
					\$ -		
Intersection: EDINGER AVE							
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 8,000.00	\$ 8,000.00	\$20,000	\$46,500
	CCTV CAMERA (including license)	EA	1	\$ 12,000.00	\$ 12,000.00		
					\$ -		
					\$ -		
	Install 96 SMFO cable into Hub Cabinet (Hub installed with Edinger TSSP Project)	LS	1	\$ 1,000.00	\$ 1,000.00	\$26,500	
	Install 96 SMFO cable (Robinwood to Edinger)	LF	1000	\$ 10.00	\$ 10,000.00		
	Pullboxes (#6E) (Robinwood to Edinger)	EA	1	\$ 4,000.00	\$ 4,000.00		
	Pullboxes (#6) (Robinwood to Edinger)	EA	2	\$ 3,000.00	\$ 6,000.00		
	Replace 2" Conduit (Robinwood to Edinger)	LF	100	\$ 55.00	\$ 5,500.00		
					\$ -		
Detection Upgrade					\$ -	\$0	
					\$ -		
					\$ -		

Intersection:	HEIL AVE						\$20,000	\$20,000
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 8,000.00	\$ 8,000.00	\$20,000		
	CCTV CAMERA (including license)	EA	1	\$ 12,000.00	\$ 12,000.00			
					\$ -			
Communication Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
					\$ -			
Detection Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
Intersection:	PEARCE DR						\$18,000	\$18,000
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 8,000.00	\$ 8,000.00	\$8,000		
					\$ -			
					\$ -			
Communication Upgrade	Fiber Distribtuion Unit, Splice Enclosure, and SMFO-6 Drop Cable + splicing	LS	1	\$ 10,000.00	\$ 10,000.00	\$10,000		
					\$ -			
					\$ -			
					\$ -			
Detection Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
Intersection:	WARNER AVE						\$20,000	\$20,000
Intersection/Field System Upgrade	2070 ATC Controller	EA	1	\$ 8,000.00	\$ 8,000.00	\$20,000		
	CCTV CAMERA	EA	1	\$ 12,000.00	\$ 12,000.00			
					\$ -			
Communication Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
					\$ -			
Detection Upgrade					\$ -	\$0		
					\$ -			
					\$ -			
Total							\$402,000	