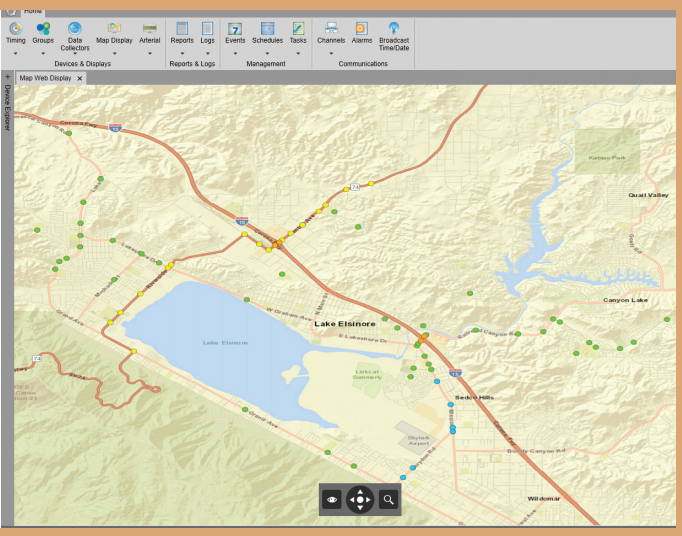
PROPOSAL FOR:

CITY OF LAKE ELSINORE

ENGINEERING ON-CALL TRAFFIC OPERATIONS SERVICES



PREPARED FOR:

CITY OF LAKE ELSINORE
DREAM EXTREME™

STC TRAFFIC, INC

Mailing and Business Address:
5973 Avenida Encinas, Suite 218
Carlsbad, CA 92008
Principal Contact: Jason Stack, President
P: (760) 602-4290

October 7, 2024

STC TRAFFIC

SUBMITTED BY:

October 7, 2024

Nicole McCalmont
Engineering Department/CIP Specialist
City of Lake Elsinore
130 S. Main Street
Lake Elsinore, CA 92530

RE: Request for Proposals for Engineering On-Call Traffic Operations Services

Dear Ms. McCalmont,

STC Traffic, Inc. (STC) is pleased to submit our proposal to provide the City of Lake Elsinore Engineering Department with On-Call Traffic Operations Services. STC is a full-service traffic engineering, transportation planning, and traffic operations consulting firm that specializes in providing municipal on-call services.

The consultant for this project must have extensive experience and knowledge in municipal support services contracts, with specialized skill-practice in traffic operations. Intelligent Transportation Systems (ITS) and traffic signal operations consulting is STC Traffic's forte. I started this firm over 17 years ago with a vision for delivering specialized traffic operations and systems engineering skill and expertise to public agencies in Southern California. Fast forward to today and successful execution of this vision has revealed STC as a regional and statewide leader in traffic systems and operations, serving the needs of municipalities in Riverside County / Inland Empire and the greater San Diego Region. We offer innovation and state-of-the-art practice in traffic systems planning, design, construction, operation, and maintenance.

STC is uniquely and highly qualified to provide these services and bring exceptional advantages to the City of Lake Elsinore. STC has specialty expertise with the City's traffic systems including McCain's Transparity ATMS and 233, 2033, and Omni eX local control software. We work with Econolite products in the NEMA environment and various products in the 170 and 2070 ATC environments. As STC's Principal-in-Charge, I will maintain supervisory involvement. Our Project Manager, Duncan Hughes, TE, is well known to the region and will lead our staff of professionals and be the City's contact on all matters. Our technical staff, anchored by Mr. Adam Lemberg, IMSA III, have dozens of years of unique expertise working on the manufacturer side of these systems and on the user-side operating the same systems for local agencies throughout the Southern California Region.

STC's staff of 27 highly-skilled professionals have grown our practice through a strong reputation for innovation, quality, and work ethic. We will continue to build on our reputation by providing the City of Lake Elsinore with high quality work products, responsive service, and innovative solutions.

The attached proposal includes our understanding, approach, relevant experience, staff qualifications and resumes, references, and required statements.

This proposal is valid for ninety (90) days from the date of this submittal.

I am the contact person and I have the authorization to commit to the contractual terms and conditions of the agreement. I am available to discuss this proposal with you should you have any questions about the information provided. You may reach me at the office (760) 602-4290 or on my cell (714) 315-4640, and via mail at the address below. We are excited and look forward to the opportunity to work with the City of Lake Elsinore.

Sincerely,

Jason Stack, TE, PTOE
President/ Principal-in-Charge
STC Traffic, Inc.

Identification of offeror is as provided below:

Legal Company Name:	STC Traffic, Inc.
Corporate Address:	5973 Avenida Encinas, Suite 218 Carlsbad, CA 92008
Phone Number:	(760) 602-4290
Fax Number:	(760) 670-3445
Contact Person Email:	Jason.Stack@stctraffic.com

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1.0 INTRODUCTION

This proposal presents the advantages STC provides to the City of Lake Elsinore for traffic operations services. We are a uniquely qualified firm. STC's primary service provision is the municipal "on-call" specialty services support contract in Traffic Engineering, Intelligent Transportation Systems, and Traffic Operations. This proposal demonstrates our firm's keen knowledge and qualifications; highlighting our experience, staff, understanding and approach to deliver on-call traffic operations consulting services to the City.

1.1 Project Understanding

This on-call consultant procurement will provide Lake Elsinore the expert traffic operations resources and capacity necessary to deliver high quality service to the community over the next three years, or more. Over the last four years, STC has served as the incumbent for this contract.

The firm selected for this contract will be responsible for assisting the City with a wide variety of traffic engineering and traffic signal operations services. These include review, develop, test, implement and maintain traffic signal timing and coordination plans; traffic signal communications; monitor the City's traffic signal operations; design and develop improvement plans; plan checks, and other general traffic engineering services.

The City of Lake Elsinore is one of the fastest growing cities in California with access to I-15, thousands of homes planned for development, and available commercial and industrial land. The city maintains approximately 190 miles of streets, owns 47 traffic signals and co-own 7 traffic signals with the City of Wildomar. The traffic signals are maintained under contract by the Riverside County Transportation Department. Traffic signals along State Route 74 (SR-74) and on freeway ramps are maintained by Caltrans.

STC currently maintains operations for several agencies in Riverside and San Diego County. We are experts in both the legacy control and communications systems and the migration of these systems to the new ATC platform. STC has designed and implemented Citywide signal system improvement projects in Temecula, Hemet, and Menifee. These include new Traffic Management Centers, wireless and fiber optic communication systems, and modern traffic controllers. Like Lake Elsinore's current Cycle 8 HSIP project, the improvements for the neighboring cities were funded through grant applications.

Agencies depend on STC to manage the signal system and timing with the utmost care and expertise. Many of our agency clients do not have a staff traffic engineer. When we are on the job, STC is in responsible charge for planning, design, and implementation of traffic signal operation. Our agency clients have the highest level of confidence in our work and we execute the work in a rigorous and exacting manner. In our profession there is some latitude in approach to signal timing and coordination; however, all approaches converge around CA-MUTCD compliance and standards of practice.

STC has invested in the software, equipment, and tools necessary to perform our work and to provide the most valuable service possible to the City. Traffic signal operations require a unique combination of expertise in standards, system equipment, programming, and, most importantly, the seasoned, on-the-street know-how required to be competent inside the cabinet in real-time.

The implementation of reliable traffic systems and operations are critical for a growing city. A well-managed and operating traffic signal system builds community confidence that the City can manage growth. Our premier expertise, innovation, and responsiveness will ensure the City's signal system is optimally operated as is, with guidance and recommendations to implement a state-of-the-art system.

1.2 Firm Profile

STC Traffic, Inc. (STC) is a full-service Traffic Engineering, Transportation Planning, and Intelligent Transportation Systems (ITS) consulting firm specializing in municipal on-call services with a proven track record since its inception in 2007.

We employ 27 expert staff who provide state-of-the-art consulting services to public agencies throughout the Southern California region. STC's company philosophy puts strong emphasis on attentive project management, with open lines of communication, a "stand ready" work-ethic, and comprehensive quality assurance and quality control. Our dedication to clients and projects, combined with our high level of field expertise and technological know-how, has allowed us to excel.

STC Traffic Inc

5973 Avenida Encinas, Suite 218
Carlsbad, CA 92008

- California Corporation
- Date of Incorporation: January 26, 2007
- Total Number of Employees: 27
- DIR Number: 1000009329

Small Business Certifications:

- SBE Metro (CUCP) Number: 6454
- SB (Micro) CA DGS Number: 53625

STC offers a range of services in Traffic Engineering, from traditional practice which applies fundamentals in planning and design to specialty practice which applies innovative techniques in systems and operations. STC specializes in complex corridor signal timing and traffic signal system projects. This work is our firm's "bread and butter." We have also executed hundreds of traffic signal modification projects for agencies across Southern California.

The next page shows a list of traffic engineering design, systems, operations, and construction services STC provides in an on-call capacity to our agency clients. These unique skillsets add significant value in our service offering to the City.

TRAFFIC ENGINEERING DESIGN SERVICES

- Traffic Signal Design
- Signing and Striping Design
- Worksite Traffic Control Design
- Street Lighting Design
- Roadway and Intersection Design
- Traffic Detour/Control Plans
- Traffic Study Review
- Street Light Layouts
- Neighborhood Traffic Management Program
- Modern Roundabouts
- Communication Systems Design
- Traffic Calming Design
- Traffic Investigations
- Signal Warrant Analysis
- Traffic Engineering Plan Check
- Communications Conduit Plans
- Alignment Studies
- Signal Coordination
- Traffic Counts/Delay Studies/Speed Zone Analysis

TRAFFIC, OPERATIONS, SYSTEMS AND CONSTRUCTION SERVICES

- Constructability Reviews
- Construction Management
- Electrical Inspection Services
- Maintenance Reviews
- Staff Training
- TMC Operation and Management
- Performance Monitoring
- Traffic Signal Timing and Control Logic
- Railroad Preemption Applications
- System Integration
- System Program Management
- System Master Planning
- System Tests, Verification, Evaluation
- System Troubleshooting
- ITS Technologies
- Communications and Networking

2.0 SCOPE OF WORK APPROACH

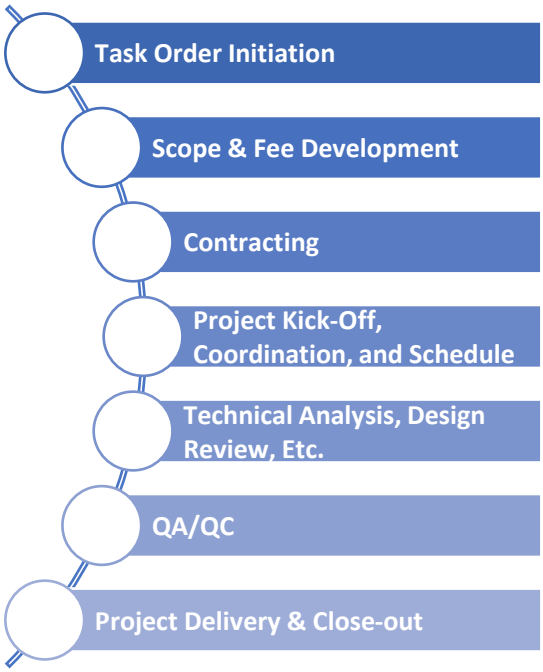
STC's general and technical approach, and project controls will clearly illustrate our ability to accomplish the work. Our proposed approach is detailed below.

2.1 Management Approach

Traffic operations and systems projects are unique and merit a unique approach. This section briefly describes STC's management approach and project controls to assist staff with adhering to scope, schedule, and budget.

Project Initiation: Once City staff alerts STC of a potential task order, STC's project manager Mr. Duncan Hughes will conduct an in-person or over the phone meeting with the key point of contact the City. If necessary, Duncan will meet City staff in the field to review the item on site. This meeting is designed to aid the City in clearly conveying the concerns and issues that should be addressed in the pending task order.

Prepare Scope of Work and Fee Proposal: Duncan Hughes will prepare a detailed scope of work and fee proposal for requested tasks. Duncan will work directly with the City's project manager and other agencies, consultants, and contractors to refine the scope of work. STC realizes that City resources are limited. The purpose of the scoping process is to develop a scope and fee that meets the intent of the project in the most cost-effective manner possible. It will be Duncan's responsibility to track the hours committed to the task and ensure that the established budget is not exceeded.



Contracting: Duncan Hughes will work with the City's contracting department to acquire the appropriate signatures and contract documents for each task. The City's standard contract documents will be used for tasks.

Project Kick-Off, Coordination, And Schedule: Regular communication between Duncan Hughes and the key point of contact at the City will be critical to maintaining the project schedule and to the overall success of the project. Throughout the duration of the contract, Duncan will schedule regular check in meetings with City staff to review all outstanding tasks. Duncan will submit a baseline schedule at the start of the project that will serve as the basis for monitoring and controlling project activities to help decide how to use resources to achieve time and cost goals. The baseline schedule will be reviewed and approved by City staff. The schedule will be developed through Microsoft Project. Duncan will update the schedule through the completion of the task and will furnish a monthly project schedule update to the City with sufficient detail to show the actual versus scheduled progress on tasks and subtasks.

Technical Analysis and Design: Tasks assigned to STC will be completed by staff who are familiar with the City's policies and the applicable standards and guidelines. Through our practice we have developed signal timing guidelines and standard operating procedures that our staff adhere to on all timing projects. As applicable, the guidelines include nuance associated with agency preference. STC will provide professional opinions, recommendations, reports and/or plans for traffic related issues and improvements.

Quality Assurance and Quality Control (QA/QC): Work products delivered to the City will be reviewed by engineers and project managers not directly involved in production or review of the project. Time to review all work products will be built into the project schedule and will be clearly documented and maintained by STC during the project. In addition to formal reviews of work products, Duncan will conduct over the shoulder reviews throughout the life of the task order. This hands-on project management style provides assurance to the City that the work products in process are on-task and are in line with the scope of work and pending deadlines. Plans prepared by STC are reviewed by our in-house Construction Management team for constructability and errors.

Project Tracking and Deliverables: STC will maintain a detailed project spreadsheet of all active task orders, as well as closed task orders and pending task orders. STC's project management team meets weekly to review project progress and outstanding issues. During this time, we will internally coordinate staffing and action items related to the active task orders with the City. This will be Duncan's opportunity to review work being conducted by our project management team and our staff.

STC will control all project documents and will provide deliverables and final file material to the City in both paper and electronic format. STC will maintain project documents and data in an organized, logical fashion and will be able to promptly retrieve and distribute project information. STC will provide progress reports and invoices to the City at the end of each month. Upon completion of a task, STC will provide the final documents, plans and reports to the City for their files.

2.2 Technical Approach

The following are the professional services per our approach and experience in completing similar work.

2.2.1 Application of Standards

At STC, each staff member takes pride in learning and implementing the codes, regulations, and other requirements properly on projects. Our staff are involved in preparing guidelines and agency and regulatory standards around the State. Our design and signal timing projects utilize the standards and regulations contained in the latest edition of CA-MUTCD and Caltrans Standard Plans and Specifications. STC has reviewed traffic studies for cites in the Riverside County in compliance with the Riverside County Traffic Impact Analysis (TIA) Guidelines. We will also use City of Lake Elsinore Traffic Impact Analysis guidelines and Standard Plans to guide our reviews and production.

At STC, we consider ourselves industry leaders and pride ourselves on our knowledge of current best practices and trends in the traffic industry. Many of our staff are not only involved with industry organizations such as the Institute of Transportation Engineers (ITE) and Intelligent Transportation Society of California (ITS CA) but have taken on leadership roles in each of these organizations. We remain active in these organizations and share the latest trends in the industry with our colleagues.

2.2.2 Traffic Operations

The most effective signal system balances the use of advanced technology with the applicable use of traditional modes of operations such as time-of-day coordination. Integrating safe and reliable signal timing solutions demands proven experience in utilizing the advanced features of traffic controller software in challenging applications such as adaptive operations. STC has developed many timing plans for highly specialized operations. STC discernibly understands the system limitations of controller software and thoughtfully utilizes advanced timing parameters and strategies to achieve optimal arterial system and intersection specific performance. Our team of engineers is equipped with the tools and know-how to perform general traffic data collection and advanced performance analysis.

2.2.3 Traffic Signal Timing and Coordination Optimization

Review of Existing Conditions: STC will review the existing traffic conditions based on the existing geometry, traffic volumes and signal timing. Traffic volumes will be collected, or recent traffic volumes will be requested from the City. Existing roadway geometry, phase type and signal timing data will be verified in the field. Data such as number and type of approach lanes, turn pocket length, crosswalk distance, posted speed and lane add/drops will be collected. Traffic volume data will be collected for peak periods on a typical weekday and if necessary, for weekend. Observations will be made in field for any queuing and other operation issues. Signal timing will be uploaded from the controller in the field. Traffic analysis model will be developed using the latest version of Synchro and based on the existing data. Traffic model for each peak hour will be developed and calibrated to reflect the existing conditions.

Traffic Signal Timing Calculations: STC will follow the City's general timing guidelines to calculate the base signal timing parameters. The calculations will be based on field data and measurements and CA-MUTCD standards. STC will organize the field measurements and base signal timing calculations in a tabular format. Some of the base signal timing parameter that will be calculated are as follows: Minimum Green Time, Yellow Change Clearance, Red Clearance, Walk Interval, and Pedestrian Clearance Interval.

Traffic Signal Optimization: STC will use the calibrated existing conditions Synchro model with updated base signal timing parameter to optimize the signal timing. Signal timings for corridors currently operating on coordination plan or proposed to be coordinated will be optimized to develop coordination plans. The traffic counts, field review data, and model will be utilized to determine the optimal signal groupings, cycle lengths, splits, and offsets. STC will develop time of day plans for all the peak period and the existing traffic counts will be analyzed to determine the time of day schedule for the new coordination plans.

Traffic Signal Timing Sheets: STC will prepare traffic signal timing sheets compatible with the existing controller program at each respective intersection. STC understands that the City has a variety of traffic signal controllers in the City with various software programs including: Econolite ASC2, 200, 233, 2033 and McCain Omni software. STC excels at traffic signal timing and can develop timing plans for any of the above-mentioned controller programs. The timing sheets will incorporate the updated basic timing parameters and coordinated time-of-day plans.

Testing, Field Implementation and Fine Tuning: STC has extensive experience in the traffic signal controllers such as Econolite, Type 170 and 2070 and has each of the controllers in house. The proposed signal timing will be bench tested in house prior to implementing in the field. The finalized signal timing plans will then be inputted in the traffic controller at each individual intersection. STC will observe the coordination plans in the field to ensure operations are performing as intended. Adjustments to the signal timing will be made as required to improve the signal operation. Any changes made in the field will be noted. Once timing changes have been made and all comments addressed, STC will provide final timing sheets to the City. STC will update the Synchro model with the final timing plans.

2.2.4 Other Traffic Engineering and Operation Services

The following tasks include design, systems engineering, plan check and maintenance support tasks.

Traffic Engineering Design Services: STC has extensive experience in preparing plans, specifications, and estimates (PS&E) for a variety of traffic improvements including traffic signals, street lighting, signing, and striping, and signal interconnect. We have developed plans that have addressed minor public improvements such as ADA curb ramps, sidewalks, trails, roadway widening, curbs, gutters, drainage facilities and guard rails. Our experience of specifying equipment, assembling bid packages, and implementing and managing construction on similar projects has provided a keen appreciation for the required level of detail to have a successful bid and deployment of the specified facilities.

Communications Systems: STC has a specialty in ITS, Telecommunications and Network Engineering and is well qualified to effectively plan, design, install and integrate related elements and systems. ITS projects also demand technical knowledge of equipment, media, and applications to procure the most suitable and cost-effective technology. STC assesses the needs and prepares the concepts that meet the needs. Our PS&E packages for ITS improvements develop the concepts with fanatical detail and review to ensure constructability and adherence to local and statewide standards. STC has developed large scale master plans and small-scale corridor concepts. We have developed ITS improvements that include virtually all traffic control, data collection, information dissemination, and surveillance elements. We have developed communications systems including fiber optic, wireless (multiple variations), and copper communications utilizing audio, IP, and serial standards. Our deep understanding of ITS standards and Caltrans standards allows us to develop PS&E efficiently and correctly.

We routinely test and research new and innovative ITS products that come to market. STC's hands-on approach to engineering affords us the opportunity to create and develop innovative and advanced techniques. Combining our hands-on approach to ITS design with our expertise in communications, networking, and traffic signal systems, allows us to make sound evaluations and recommendations of ITS systems and products.

Providing Technical Support for Traffic Signal Maintenance: STC provides technical support for traffic signal maintenance for several municipalities throughout Riverside County. STC regularly directs signal maintenance and construction contractors in the field on standard tasks and provides expertise on specialized systems tasks that are typically not covered by electricians. Our services also extend well beyond support and into traffic signal maintenance and asset management including:

- Ensuring contractor-supplied equipment is compatible with existing equipment.
- Generating cost effective, multi-year device replacement plans.
- Performing independent evaluations and audits of the traffic signal maintenance program/ practices to ensure compliance with best practices.
- Assisting with the development, evaluation, and implementation of asset management systems.
- Administering and/or providing related asset inventories.

Plan Check Review: STC is currently conducting plan check services for the Cities of Hemet, Jurupa Valley, Encinitas, Solana Beach, Imperial Beach, La Mesa, Menifee, and more. STC has been providing high quality plan check services to cities from inception. Because our firm provides design and implementation of traffic systems, we can identify issues on the plans that other firms may not identify in the plan check process. Through the plan check process, our team will provide the City with the expertise needed to resolve design issues before the project goes to construction.

Traffic Counts: STC will assist the City in collecting intersection and roadway segment traffic volumes. The day, time and the length of data collection will be discussed with the City. STC has a list of trusted data collection firms, that will be contracted the work. The traffic volumes will be checked for accuracy before submitting to the City. STC assisted the City of Carlsbad in collecting traffic volumes, which is collected annually for monitoring growth as part of the City's Growth Management Program.

3.0 FIRM QUALIFICATIONS

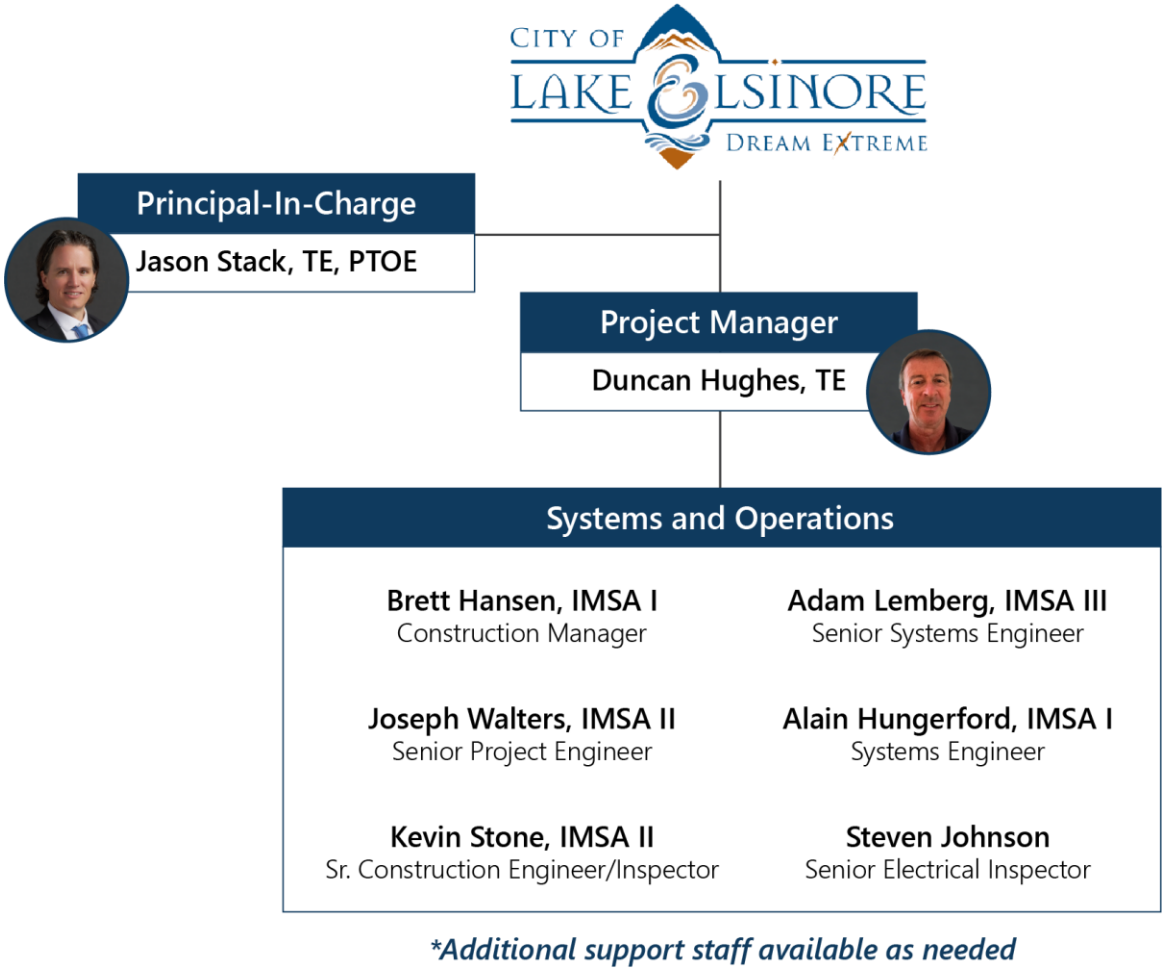
Working in an on-call capacity for numerous Cities in the Riverside County region provides STC unique insight into the inner working of the municipal Traffic Engineering Department. STC has successfully completed representative projects throughout the region that mirror the scope of work for this contract. Our staff has over 100 years of combined traffic signal systems engineering, operations, and maintenance experience. We have worked as municipal employees; as extensions of staff in our role as consultants; we operate and maintain TMC's and systems; we have been foreman for electrical contractors in the business of traffic signal construction and maintenance; we have managed the municipal Public Works Electrical Division; and we have worked for traffic signal system suppliers and manufacturers. It is highly unique to find such a group of experts under the umbrella of a single organization.

Riverside County Agencies with Similar On-Call Contracts	Communications & Networking	Construction Management	Electrical Inspection Services	Maintenance Reviews	Staff Training	TMC Operation & Management	Performance Monitoring	Plan Checks	Traffic Signal Design	Traffic Signal Timing	System Integration	System Master Planning	System Testing & Evaluation	System Troubleshooting	ITS Technologies
Beaumont	✓				✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Hemet	✓		✓	✓	✓			✓	✓	✓	✓		✓	✓	✓
Jurupa Valley	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓	✓	✓
Menifee	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temecula	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓

4.0 PROJECT TEAM

Our qualifications start with our people. STC's staff is the foundation of our organization and has the highest level of expertise possible across the broad range of specialties included in the scope of work. We are comprised of Professional Engineers in Civil Engineering, Traffic Engineering, Traffic Operations Engineers, Certified Signal Technicians (up to IMSA Level III), ITS Systems and Network Engineers, and Public Works Electricians and Inspectors. Our staff has over 100 years of combined traffic signal systems engineering, operations, and maintenance experience.

We have worked as municipal employees; as extensions of staff in our role as consultants; we operate and maintain TMC's and systems; we have been foreman for electrical contractors in traffic signal construction and maintenance; we have managed the municipal Public Works Electrical Division; and we have worked for traffic signal system suppliers and manufacturers. It is highly unique to find such a group of experts under the umbrella of a single organization. These are the professionals and qualifications that Lake Elsinore seeks as a resource to supplement traffic system and operation needs. The organization chart below shows team structure and key staff roles. The following table summarizes team professional licenses, years with STC, overall years of experience and duties for this contract. Resumes are provided at the end of the proposal.



STC models its structure after a municipal Public Works/Engineering Division. The staffing table below identifies key personnel and availability. Staff resumes are included in Appendix A.

STC Personnel/ Licenses	Years	Classification	Areas of Expertise
Duncan Hughes[TE]	39	Senior Principal Manager	Project Management, ITS Planning/Design, Construction Support, Systems & Operations, Signal Timing/Coordination
***Jason Stack**[TE, PTOE]	25	Principal-In-Charge	Project Management, ITS Planning/Design, Construction Support, Systems & Operations, Signal Timing/Coordination
Brett Hansen[IMSA I]	13	Construction Manager	Technical Specifications, ITS Designs, Signal Timing Plans, Construction Support Services, Fiber Communications
Adam Lemberg[IMSA III]	27	Senior Systems Engineer	Coordination Timing Plans Implementation, Traffic Signal & Rail Preemption, Controller Software, Systems & Operations
Alain Hungerford[IMSA I]	13	Systems Engineer	Coordination Timing Plans Implementation, Systems Integration, Controller Software, Information Technology
Kevin Stone[IMSA II]	30	Sr. Construction Engineer	Inspection, Constructing, Installing, Troubleshooting, Repairing, and Maintaining Traffic Signal Systems
Joseph Walters[IMSA II]	13	Project Engineer III	Streetlighting, Traffic Signal Plans, Traffic Control, Signal Timing Plans, ITS Design, Signing & Striping, Plan Review
Steven Johnson	22	Senior Electrical Inspector	Inspection, Constructing, Installing, Troubleshooting, Repairing, and Maintaining Traffic Signal Systems

5.0 CLIENT REFERENCES AND WORK PERFORMED

This section provides a discussion of our work for similar on-call clients for nearby municipalities. Contact information, contract names, and years working with client are listed on the table below.

Client	Contact Information	Contract Names	Years
Jurupa Valley	Octavio Duran Jr, P.E. Former Director of Public Works/ Assistant City Engineer Cell: (408) 612-2321	On-Call Traffic Operations Services	13
Menifee	Bryan Jones, P.E., AICP Assistant City Manager (951) 723-3702 bjones@cityofmenifee.us	On-Call Traffic Engineering and Support Services	9
Temecula	Nick Minicilli, PE, TE Senior Traffic Engineer (951) 693-3917 nick.minicilli@temeculaca.gov	On-Call Traffic Engineering Services	8

MENIFEE ON-CALL TRAFFIC ENGINEERING AND SUPPORT SERVICES

STC has held the On-Call Traffic Engineering and Support contract with the City of Menifee since 2014. The City utilizes STC to augment staff in the Traffic Engineering Division. As extension of staff STC is responsible for completing day-to-day City traffic engineering tasks, including responding to service calls, responsible for inventorying and inspecting all existing traffic signal components. STC researched existing traffic signal as-builts and conducted extensive field investigations to obtain a complete inventory of the traffic signal equipment. The design work includes installation of radios, 2070 controllers, CCTV, UPS, switches, routers, and related communication system elements. With the design plans, specifications, and cost estimates for the project approved by the City, STC prepared all Caltrans E-76 forms for authorization to proceed in accordance with the Local Assistance Procedures Manual. STC will provide construction engineering, integration, and project close-out services. As part of construction engineering, STC will develop and implement new timing sheets due to the new upgraded controllers. The existing 170E controllers are being upgraded to a 2070 ATC controller with Omni software.

During design of the project, STC developed a concept to install a Type 15 street light pole with sectoral antennas at two different high points within the City to provide a more secure and reliable wireless communication design. These high points were on Eastern Water Municipal District (EMWD) property. STC led the design and coordination efforts to get poles installed on EMWD property as a separate task order to avoid the complex Caltrans E-76 right-of-way processing. STC also coordinated with the County of Riverside to obtain the spare Type 15 poles at no cost to the City, which saved out-of-pocket costs. The purpose of using the high points was to reduce the amount of wireless failure points by avoiding a linear bussed point-to-point system and establishing a hub point-to-multipoint system. This design will save the City on future maintenance and troubleshooting costs.

Newport Road & Scott Road Corridors Signal Operations Projects. The City recently commissioned STC with two projects that involved developing coordination timing for the Newport Road and Scott Road corridors. The overall goal of these projects involved reducing congestion along the corridors and improving traffic operations to increase public safety and improve travel times. The projects included coordination with the I-215 Caltrans on- and off-ramps. This involved extensive coordination efforts with the City of Menifee and Caltrans. Data collection work also required coordination with the City, Caltrans, and a count data subconsultant. Technical work included the development of the Synchro models; determining corridor cycle lengths, splits, offsets, and time-of-day for the coordination plans; and bench-testing, field-implementing, and preparing fine-tune adjustments based on field evaluations of the operations. Additionally, STC provided communications integration and inspection services.

Traffic Signal Design Services. STC provided roadway and signal design improvements at the intersection of Murrieta Road and Scott Road. This project involves developing traffic signal design plans, signing, and striping plans, specifications, and cost estimates. Additionally, STC is managing a civil engineering subconsultant to produce roadway design plans, grading plans, and construction erosion control plans. STC is leading all coordination efforts with City staff and utility companies. STC also coordinated with subconsultant efforts for surveying, R/W mapping, and civil design. We also provided traffic engineering design for two new traffic signals McCall Boulevard & Oak Hurst Avenue and Murrieta Road & Park City Avenue. Our engineers developed traffic signal design plans and signage and striping plans, along with providing specifications and cost estimates, coordinating staff efforts, and coordinating with utility companies for as-built information requests and new metered service request.

TEMECULA ON-CALL TRAFFIC ENGINEERING SERVICES

STC began working in the City of Temecula in an on-call basis in 2015 after the City requested traffic signal operations services. In 2018, the City commissioned us for a full on-call traffic engineering contract, under which we provide services such as plan check services, electrical inspection, staff training, grant writing, traffic engineering design plans, traffic signal timing and coordination development, and work with the associated traffic signal control systems. The following project profiles are examples of the work we have executed for the City.

HSIP Cycle 7 Fiber Optic Communication System Upgrade Project. In 2016, STC's HSIP grant development efforts led to the award of $1,208,200 to Temecula for the installation fiber optic communication system upgrades, including approximately two miles of new conduit, over 22,500 linear feet of single mode fiber optic cable, new ATC traffic signal controllers, new CCTV cameras, and other communications-related equipment. The project area includes 41 traffic signals along the Winchester Road, Rancho California Road, and Temecula Parkway corridors. The project will implement new communications and traffic control systems that will modernize the City's traffic signal system and provide infrastructure to traffic signals not currently connected. These systems will provide consistent, reliable, and modern communications and control for more than one-third of the City's traffic signal system on the most critical arterials in Temecula. The systems will enable proactive traffic signal management including coordinated and adaptive traffic signal operations and response to real time traffic conditions.

Ynez Road and La Paz Road Intersection & Signal Design and Operations. Development on Temecula Parkway has necessitated a new traffic signal at Ynez Road and La Paz Road in the existing right-of-way. The project also required pavement widening on La Paz road to accommodate the 3 travel lanes. STC was responsible for design of all aspects of the intersection. STC provided engineering plans for the pavement widening, along with preparing design plans for the new traffic signal and signage and striping plans. STC also prepared an engineer's construction cost estimate. STC was later tasked with providing fiber optic communication design services for the intersection, a pedestrian ramp, and with providing design services during construction of the intersection.

HSIP Cycle 9 Signal Modification Improvements – Permissive Left-Turn to Protected/Permissive Left-Turn. Based on a successful grant application, the City commissioned STC to prepare design plans, specifications, and estimates (PS&E) for implementing protected-left-turn phasing at 5 select intersections in the City. The project supports the Temecula community's transportation safety goals by reducing the number and severity of intersection traffic accidents between permissive left turners and other motorists, bicyclists, or pedestrians. STC is preparing traffic signal modification plans, installation of new traffic signal poles, mast arms, and controller equipment, and installation of ADA compliant pedestrian access.

responding to resident's calls and requests, plan checking, and attending sheriff meetings. STC staff are present at City Hall twice a week and responsible for coordinating project tasks with various departments including traffic signal maintenance, planning, land development, and construction management. Weekly tasks performed by STC staff include traffic engineering design plans, reviewing and responding to citizen requests, and reviewing development traffic impact studies and design plans.

The increasingly vital role we have in implementing Menifee's mobility and transportation goals has led to more diverse services provided to the community. We have written several successful HSIP, SSARP, and ATGP grant applications and have executed most of the ensuing projects, including serving as a key subconsultant for the Menifee Active Transportation Plan, preparing the City's Systemic Safety Analysis Report, and providing traffic signal communications design and operations services for the execution of the HSIP projects. We are in the process of upgrading the City's traffic signal communications and operations infrastructure to cutting edge technology and funded through grants. The following are brief descriptions of our work on signal communications, operations, and other related work in Menifee.

Menifee HSIP Wireless Interconnect System. STC successfully wrote 2 HSIP Cycle 7 grants for the Eastside and Westside Wireless Interconnect System Projects, securing over $1 million in federal funding for installation of a citywide traffic communication. The goal of the HSIP project is to improve safety and efficiency along Menifee's streets through traffic signal timing and coordination, equipment upgrades, and monitoring systems. STC was later awarded the design contract for the citywide traffic communication system project through an RFP process. The final design plans provide communication and signal controller upgrades at all 62 signalized intersections throughout the City. The signals communicate via wireless radios back to City Hall and the system will be managed from the traffic management center (TMC)/emergency operation center (EOC), which was also designed by STC. STC is

Street Lighting Services. STC is working on a variety of street lighting tasks within the City. The City recently shifted to LS3 for their lighting system, which means the City will own and maintain their street lighting system. Because of this, the City has been working with STC to standardize the new street lighting services for the City. Examples of our street lighting tasks include developing the City's Safety

and Street Lighting Guideline manual in order to ensure standardization of street lighting within the City; performing all plan check reviews for street lighting design plans submitted to the City; performing electrical inspections on street lighting systems for the City. STC will also train City maintenance staff in electrical inspections and in the maintenance of the newly installed street light systems.

JURUPA VALLEY ON-CALL TRAFFIC OPERATIONS SERVICES

STC serves as a prime for the City's On-Call Traffic Engineering contract, assisting with traffic operations.

On-Call Operations Services. Our engineers and technicians have developed signal timing plans, coordination timing plans, and communication troubleshooting for the Jurupa Valley community at various locations. STC is conducting preliminary field observations of existing traffic operations and, using Synchro, developing coordination timing plans to implement in the field. STC is also investigating communications issues between signals. We have also coordinated five arterials and retimed or provided new timing for approximately 30 intersections. We have also assisted the City with traffic signal plan reviews and ITS and communication systems planning and design. As part of our work, we have coordinated with adjacent local cities and regional agencies, including the County of Riverside and Caltrans District 8.

Flashing Yellow Signal Timing Operations. STC recently completed special operation timing plans for flashing yellow protective/ permissive left turns at two signalized intersections in the City. The locations include Pyrite Street/Mission Boulevard and Wineville Avenue/Landon Drive. STC developed the timing plans and then programmed and tested the special left-turn operation in the office prior to field implementation. During field implementation, STC was fine-tuned the timing plans to ensure the City was comfortable with the specialized flashing yellow operation.

Limonite Coordination Timing Plans. STC developed signal coordination plans for nine signals along Limonite Avenue in the City of Jurupa Valley, from Sumner Avenue to Wineville Avenue. STC uploaded the existing timing plans from the signals in the field and monitored existing conditions to help determine appropriate coordination timing and time-of-day plans. Synchro was used to develop the timing plans during the design phase. After the plans were finalized, STC implemented the new timing plans into the signal controllers and field verified the coordination to ensure intended operation.

6.0 CONCLUSION

STC's staff have experience executing this exact scope of services and have demonstrated leadership in on-call traffic operation services with neighboring agencies. Our staff is flexible working the hours necessary to make the deadline. We are the "right sized" team to execute this work. The task orders are likely to be in the thousands range. Executing small size contracts on an on-call basis has been our business focus since our inception in 2007. STC will meet the City's needs in responsive and flexible ways and will get to the task at hand quickly and promote efficiency and performance. STC looks forward to working with Lake Elsinore to bring innovative practice and technology to the streets of the City to solve real issues and make a positive impact for the traveling public.

Duncan brings 39 years of experience in the field of traffic systems, 16 years as Senior Traffic Engineer and 6 years as Deputy Director in the Transportation Department of the City of San Diego. Working in the City's Traffic Engineering Division, he was responsible for the design of new traffic signals and interconnect systems, adaptive traffic systems, CMS systems, and traffic operations. As Deputy Director, he managed 65 engineers and oversaw the City's Traffic Operations, Traffic Signals, Transportation Safety and Bicycle programs.

Years of Experience: 39

Education

B.S. Computational Science and Numerical Analysis, England, 1980

Professional Registrations

Professional Engineer (Traffic), CA #1838

Senior Principal Manager

Duncan Hughes TE

Relevant Experience

City of San Diego, City Traffic Management Systems, 2000-2024

Deputy Director. Oversaw implementation of Transparity and adaptive signal systems (SCOOT/InSync) throughout the City, expanding the traffic management system from approximately 200 intersections to over 1,000. Duncan oversaw design, construction management, and integration of fiber optic interconnect systems, controller upgrades, and communication networking equipment that resulted in the expansion of the system to Otay Mesa in the south and Rancho Bernardo in the north, adding over 75% of the traffic signals in the City to the network.

City of San Diego, Management and Optimization of Citywide Signal System, 2005-2024

Deputy Director. Responsible for operation of 1,650 traffic signals, using Synchro for optimization, communication upgrades to high speed ethernet, and implementing 2070 controller upgrades. Duncan also managed the evaluation and selection of 2070 hardware and software to replace legacy 170 controllers.

City of San Diego, I-15 ICM System, 2011-2019

Deputy Director. The ICM project is a multimodal system that integrates real-time monitoring, control, and management of multimodal systems. The project covers a 20-mile section of I-15 north of SR 52 in San Diego to SR 78 in Escondido, including major arterial routes a few miles east and west of I-15 and the transit agencies that operate within the corridor. the ICM system coordinates freeway ramp meters and arterial traffic signals to improve day-to-day conditions or to route traffic around major incidents. Strategies can be implemented automatically or following approval by system operators. The City of San Diego was a key partner in the coordination and deployment of the multi-agency management systems. In addition to integration of existing freeway elements such as cramp meters and cameras, traffic responsive traffic signal systems were deployed along arterials within the project area to allow for efficient alternative routes in the event of freeway congestion.

City of San Diego, South Bay Fiber Optic Interconnect, 2005-2008

Senior Traffic Engineer. Oversaw design and installation of 15 miles of fiber optic cable, linking South Bay to downtown. This project was a public-private partnership involving the Cities of San Diego, Chula Vista, and National City, Caltrans District 11, and a private fiber optic provider. The fiber is used to connect to traffic signals in the South Bay to the City's traffic management center, and also used by the City's Public Utilities Department for remote monitoring and control. Duncan's role included network component installation, integration, and testing of the traffic signal communication components

PRINCIPAL-IN-CHARGE

Jason Stack TE, PTOE

Jason is the founder of STC Traffic and has over 25 years of experience managing transportation planning, traffic engineering, and ITS projects for various agencies throughout the Inland Empire. He is recognized for expertise in highly specialized traffic signal operations, ITS design and integration, and signal timing planning. Jason leads STC's Systems and Operations group for Riverside County on-call contracts and has master planned traffic systems for agencies throughout Southern California, most recently in Temecula.

Years of Experience: 25

Education

B.S. Civil Engineering, University of Massachusetts at Lowell

Professional Registrations

Professional Engineer (Traffic) CA, #2790

Professional Traffic Operations Engineer, USA, #4174

Relevant Experience

City of Lake Elsinore, On-Call Traffic Signal Operations Services, 2021-Present

Principal-In-Charge. STC has provided on-call traffic signal operations support for the I-15 at Railroad Canyon Road and Main Street Interchange projects. Tasks included developing and implementing signal coordination timing plans during and after construction, developing phase based interconnect and operational analysis for new signals, on-site timing adjustments, and support for signal turn-on and troubleshooting. Jason was responsible for coordination with the City, Caltrans, and CPUC, and QA/QC review.

City of Jurupa Valley, On-Call Traffic Engineering Services, 2017-Present

Principal-In-Charge. STC's traffic engineering-related responsibilities have extended to TIA reviews, plan check, responses to signal system issues, development of traffic signal modification plans and signal timing plans, field implementation and communication troubleshooting, review of railroad concept plans/grade crossings, and constructability reviews. Jason leads reviews of traffic signal timing and communications needs for traffic signal modifications and is managing the Citywide Traffic Signal Coordination and Safety Upgrades HSIP project, which includes improved traffic signal interconnect and signal timing, coordination, and operation and upgraded traffic signal heads with retroreflective back plates.

City of Temecula, On-Call Traffic Engineering Services, 2016-Present

Principal-In-Charge. Jason provides senior direction and QA/QC review of STC's work in the City, including traffic signal timing and coordination development and work with the traffic signal control system. He is currently overseeing the development of Temecula's Fiber Optic Communications Master Plan and the complete buildout of the communications system, which will serve the city's Public Works and IT departments and establish the future of Temecula's smart city implementation.

City of Eastvale, On-Call Traffic Engineering Services, 2021-2022

Principal Engineer. STC provided on-call services in support of the Limonite Traffic Signal Synchronization Project, which deployed a communications system and traffic signal improvements for coordinated operations along Limonite Avenue. Jason oversaw development of the Basis of Design to establish the condition of existing traffic signal infrastructure, identify system improvement alternatives for implementing traffic signal synchronization, and present budgetary costs and further steps.

CONSTRUCTION MANAGER

Brett Hansen IMSA I

Brett leads STC's construction engineering and construction management support services. He is well-versed in standard specifications and plans required by government agencies, skilled in field analysis, and has expertise in electrical and communications systems. He supports CIP projects by providing construction support, developing technical specifications and cost estimates for bid packages, and onsite integration support.

Years of Experience: 13

Education

B.S. Civil Engineering (mathematics minor), California State University, Chico, 2011

Certifications

IMSA Level 1 - Traffic Signal Field Technician

Corning Fiber Installation Certified

Relevant Experience

City of Lake Elsinore, On-Call Traffic Signal Operations, 2021-Present
Construction Manager. STC is providing on-call traffic operations for the I-15 at Railroad Canyon Road Project, developing and implementing traffic signal coordination plans for 5 intersections for City and Caltrans review and approval. Brett led coordination with stakeholders and oversaw implementation and fine-tuning of new timing plans.

City of Jurupa Valley, On-Call Traffic Engineering Services, 2020-Present
Construction Manager. Responsibilities include signal timing review, plan reviews, inspection and review of materials submittals for fiber communications, and fiber equipment recommendations. He supports the Citywide Traffic Signal Coordination and Safety Upgrades Project and the Jurupa Road Grade Separation Project.

City of Menifee, On-Call Traffic Engineering Services, 2017-Present
Construction Manager. Supports land developments by conducting field review, plan checks, and constructability reviews. He also supported the citywide traffic signal interconnect projects. STC designed the City's wireless interconnect system, providing communication and signal controller upgrades at all 62 signalized intersections throughout the City. Brett developed the network design, developed the specifications and plans for the bid package, provided construction support and on-site integration support.

City of Eastvale, On-Call Traffic Engineering Services, 2021-2023
Senior Project Engineer. STC provided on-call services to support the Limonite Traffic Signal Synchronization Project. Brett led field reviews that informed the final design recommendations for required communications topology, paths, connectivity, and equipment for installation and operation. He provided details for trenching and options for conduit, along with cost estimates.

City of Hemet, Citywide Traffic Signal Visibility Upgrades, 2023-Present
Construction Manager. The City was awarded an HSIP grant to upgrade existing backplates with retroreflective backplates at 40 signalized intersections throughout the City's major arterials. Brett supports the project by reviewing specifications and responding to contractor RFIs.

SBCTA, Redlands Passenger Rail Project, 2016-2022
Construction Manager. STC was commissioned to evaluate, design, and provide construction support for the 9-mile extension of the Metrolink line in San Bernardino County. Brett was responsible for construction engineering for the project's associated traffic signals, CIS system, and communication duct bank.

Senior Systems Engineer

Adam Lemberg IMSA III

Adam has over 27 years of experience installing, troubleshooting, and maintaining traffic signals and communication networks. Prior to joining STC, Mr. Lemberg worked for McCain, Inc. for 14 years, where he installed many of the advanced traffic management systems in Southern California and the infrastructure necessary for network communications. Adam is a regional expert in traffic signal and ITS systems and technologies, experienced in managing sophisticated intersections and highly recognized for his ability to build communications networks and solve complex electrical and communications problems.

Years of Experience: 27

Certifications

IMSA Level 3 - Traffic Signal Senior Field Technician

Relevant Experience

City of Lake Elsinore, On-Call Traffic Signal Operations, 2021-Present
Senior Systems Engineer. Provides traffic signal turn-on support. The City has retained STC for on-call signal timing support for the I-15 Railroad Canyon Road Interchange Project. Adam was responsible for field observations, signal timing optimization, and implementation and documentation support and continues to provide signal timing testing and review.

City of Eastvale, On-Call Traffic Engineering Services, 2021-2022
Senior Systems Engineer. STC provided on-call services in support of the Limonite Traffic Signal Synchronization Project. STC designed, inspected, and integrated a communications system, central management system, and traffic signal improvements for synchronized operations along Limonite Avenue. The project corridor includes 12 traffic signals: eight operated by Eastvale, two operated by Jurupa Valley, and two at the I-15 ramps operated by Caltrans. Adam was responsible for overseeing the contractor, implementing signal timing and coordination plans, and training City staff on the new systems.

City of Jurupa Valley, On-Call Traffic Operations, 2017--Present
Senior Systems Engineer. Mr. Lemberg has been responsible for programming and implementing traffic signal timing throughout the City, including remote and on-site operations and troubleshooting. Mr. Lemberg programs and tests the signals and systems operation on the bench within STC's systems laboratory to verify functionality prior to field implementation.

City of Menifee, On-Call Traffic Engineering Services, 2015-Present
Senior Systems Engineer. Mr. Lemberg is responsible for providing signal timing, signal operations, and traffic systems services for on-call tasks. Mr. Lemberg developed coordination timing for the Newport Road and Scott Road corridors, which included the I-215 Caltrans on-ramps and off-ramps. He coordinated data collection efforts with the City, Caltrans, and subconsultant count data staff and oversaw the development of the Synchro models; determined the corridor cycle lengths, splits, offsets, and time-of-day for the coordination plans; and bench-tested, field-implemented, and made fine-tune adjustments based on field evaluations of the operations.

Alain has over 13 years of experience in providing support for ATMS/ ITS deployments and continued operation for various agencies throughout North America. Working closely with City Engineers, he provides detailed information to assist in decision making while performing operational improvements. He actively monitors and operates several City TMC's from STC's office, providing support for both Central Systems and controller operations. Alain currently works in an on-call basis for agencies throughout the Inland Empire, providing support for traffic signal operations and signal systems, with specialized expertise in traffic management centers.

Years of Experience: 13

Certifications

IMSA Level 1 - Traffic Signal Field Technician

SYSTEMS ENGINEER

Alain Hungerford IMSA I

Relevant Experience

City of Lake Elsinore, On-Call Traffic Signal Operations, 2021-Present

Systems Engineer. The City has retained STC for on-call signal timing support for the I-15 Railroad Canyon Road Interchange Project, which is replacing the northbound diamond off-ramp with hook-style on- and off-ramps and adding several lanes to increase traffic capacity. Alain is responsible for coordination troubleshooting due to GPS clock issues, on-site timing adjustments for ramp closures, developing and testing additional coordination plans during and post-construction, caltrans coordination, and support for signal turn-on and troubleshooting.

City of Eastvale, On-Call Traffic Engineering Services, 2021-2022

Systems Engineer. STC provided on-call services in support of the Limonite Traffic Signal Synchronization Project, which deplyed a communications system and traffic signal improvements to enable coordinated operations along Limonite Avenue. The project corridor includes eight traffic signals operated by the City and two traffic signals operated by Caltrans for the I-15 northbound and southbound ramps. Alain performed 170 to Omni controller conversions, fine-tuned coordination plans, conducted before/ after performance analysis, and is providing IT transparity support.

City of Jurupa Valley, On-Call Traffic Engineering Services, 2018-Present

Systems Engineer. STC's traffic engineering-related responsibilities have extended to TIA reviews, plan check, responses to signal system issues, development of traffic signal modification plans and signal timing plans, field implementation and communication troubleshooting, review of railroad concept plans/grade crossings, and constructability reviews. Alain has been responsible for Synchro/implementation of signal timing on critical intersections/corridors.

City of Menifee, HSIP Citywide Traffic Signal Communication Upgrades, 2020-2021

Systems Engineer. STC prepared two successful HSIP Cycle 7 grant applications for installation of wireless interconnect systems on the City's East and West side, with related communication upgrades to improve safety and operations via optimized traffic signal coordination. Alain developed and tested controller timing and provided extensive on-site integration support and assisted in the first-time conversion from the outdated 170 controller platform to the ATC platform with McCain's Omni controller software citywide.

Joseph has over 13 years of experience in traffic engineering and lighting design for various public municipal projects. He is experienced in preparing PS&E for federally funded design projects. Joseph is IMSA Level II Certified and is experienced in implementing and integrating various traffic systems and operations including traffic signal timing, traffic signal equipment, street lighting, communications network, and ITS systems.

Years of Experience: 13

Education

B.S. Civil Engineering, San Diego State University, 2008

Certifications

IMSA Level 1 - Roadway Lighting Technician

IMSA Level 2 - Traffic Signal Field Technician

Senior Project Engineer

Joseph Walters IMSA II

Relevant Experience

City of Lake Elsinore, On-Call Traffic Signal Operations, 2021-Present
Senior Project Engineer. Joseph is responsible for the design elements of traffic signal improvement plans. At the intersection of Lake Street and Lake Shore Drive, he was lead design for traffic signal improvements and updated the phasing diagram and conductor schedule.

Riverside County Agencies, On-Call Plan Check Services, 2021-Present
Senior Project Engineer. STC provides plan check services for the Cities of Hemet, Ontario, Colton, Banning, Menifee, and Rialto. Joseph conducts plan checks for traffic signal modifications, street lighting, signing and striping, and traffic control. Joseph verifys designs are to City standards and comply with ADA, CA-MUTCD, and Caltrans standards.

City of Jurupa Valley, On-Call Traffic Engineering Services, 2020-Present
Senior Project Engineer. STC's traffic engineering-related responsibilities have extended to TIA reviews, plan check, responses to signal system issues, development of traffic signal modification plans and signal timing plans, field implementation and communication troubleshooting, review of railroad concept plans/grade crossings, and constructability reviews. Joseph provides plan check reviews and traffic signal modifications, among other engineering tasks.

City of Hemet, On-Call Traffic Engineering Services, 2016-Present
Senior Project Engineer. STC has directly supported the City of Hemet since 2016 with a variety of transportation projects involving traffic signal design, citywide traffic signal timing updates, on-call grant services, preparation of traffic control plans, engineering design for HSIP Cycle 8, and as-needed plan checks for Land Development. Joseph provides plan checks for signing/striping, traffic control, traffic signals and street lighting.

City of Palm Desert, North Sphere Fire Station Offsite Improvements, 2023-Present
Senior Project Engineer. STC is supporting roadway and traffic signal improvements associated with the new fire station. Joseph was responsible for drafting the conceptual design, developing the curb return radius exhibits, and preliminary cost estimates.

City of Fontana, Intersection Improvements at Baseline/Palmetto, 2023-Present
Senior Project Engineer. STC is responsible for traffic signal design and street improvements at the intersection and improvements associated with widening of the north side of Baseline Avenue. Joseph was responsible for field review and as-built research, creating base files for the Basis of Design, development of PS&E, and construction support.

Sr. Construction Engineer/Inspector

Kevin Stone IMSA II

Kevin is a construction engineer/inspector with over 30 years of experience in constructing, installing, troubleshooting, repairing, and maintaining traffic signal systems and electrical systems. Prior to joining STC, Kevin served as the general foreman of maintenance for over 350 traffic signals and four traffic signal technicians in the Cities of Santee, El Cajon, La Mesa, Lemon Grove, Imperial Valley, and Camp Pendleton; served as an electrical foreman for 20 years; and served as lead traffic signal technician for the City of Oceanside with responsibility for on-call service 24/7 for over 160 traffic signals.

Years of Experience: 30

Certifications

IMSA Level 2 - Traffic Signal Field Technician

IMSA Work Zone Safety

Relevant Experience

Riverside County, On-Call Traffic Signal Services, 2000-2015

Signal Contractor. Prior to joining STC, Kevin serviced traffic signals throughout Riverside County. The work included: modifications of existing signals, communications, and inventory; supervising the removal of old equipment and the installation of new equipment; conducting interconnect runs; coordination with municipalities, contractors, and utilities; final inspections and punch list review.

RCTD, Scott Road Interchange at I-215, 2018-2021

Sr. Construction Engineer/Inspector. Kevin was responsible for providing electrical inspections for two City-owned traffic signals for a project that reconfigured freeway on-/off-ramps in a partial cloverleaf design, constructed a new wider overpass bridge, and widened Scott Road. He verified installation of traffic signal equipment in the traffic controller cabinets, provided inspections and punch list reviews of the City-owned modified signal upon construction completion, and provided signal material reviews of contractor submittals.

City of Menifee, On-Call Traffic Engineering Services, 2019-Present

Sr. Construction Engineer/Inspector. Kevin supports task orders issued by the City. Responsibilities include construction inspection for traffic signal and electrical systems, field investigations, field testing and troubleshooting controller issues, and other on-call support.

City of Eastvale, On-Call Traffic Engineering Services, 2021-2022

Sr. Construction Engineer/Inspector. STC provided on-call services in support of the Limonite Traffic Signal Synchronization Project. The corridor includes eight traffic signals operated by the City and two traffic signals operated by Caltrans for the I-15 northbound and southbound ramps. Kevin conducted traffic signal review, resolved issues with conduit runs for fiber at nearly every location, and provided construction inspection during fiber pull and splicing.

SBCTA, West Valley Connector Project, 2023-Present

Sr. Construction Engineer/Inspector.Currently supporting Phase One of the West Valley Connector project, a 19-mile-long BRT corridor that crosses the cities of Pomona, Montclair, Ontario, and Rancho Cucamonga and includes 33 stations at 21 major intersections with associated roadway and communications improvements, premium transit service, TSP, dedicated lanes, and integration with other bus routes. Kevin is conducting constructability reviews along each corridor.

Senior Electrical Inspector

Steven Johnson

Steven brings 22 years of experience in the traffic signal and street lighting industry and specializes in specification, procurement, and installation of electrical equipment. He served 16 years in the field as a foreman/traffic signal field technician where he supervised the installation and modification of hundreds of traffic signals and street lights. For the past 6 years, he worked in sales of electrical equipment, procuring materials for public agency projects throughout Southern California.

Years of Experience: 22

Relevant Experience

Western Riverside Council of Governments, LED Street Lighting Upgrades, 2019

Vendor/Project Manager. RFQ for design and procurement of replacement LED street light fixtures in residential areas in even cities within Western Riverside County. Steven was responsible for design specifications, logistics, and performing field lighting audits, pre- and post-construction.

City of Chula Vista, Traffic Signal Communications Upgrades, 2024

Vendor/Project Manager. The project involved establishing new fiber optic and Ethernet communication systems for 20 signalized intersections along several key corridors. Steven was responsible for materials procurement, field scheduling, and overseeing installation.

County of San Diego, LED Street Lighting Upgrades, 2017

Vendor/Project Manager. County RFQ for design and procurement of 4,000 replacement LED street light fixtures in residential areas through the county. Steven was responsible for design specifications, logistics, and performing field lighting audits, pre- and post-construction.

City of National CIty, 8th Street Revitalization Project, 2016

Foreman/Traffic Signal Technician. City beautification and safety improvement project of the 8th Street corridor from Harbor drive to Highland Ave, which included installation of decorative streetlights, modification of existing traffic signals, installation of new traffic signals, and installation of radio-controlled RRFB pedestrian crosswalks. Steven was responsible for supervising modifications to existing traffic signals, and installation of new traffic signals and street lighting.

City of Chula Vista, 3rd Ave Streetscape Project, 2014

Foreman/Traffic Signal Technician. City beautification project of the 3rd Ave corridor from H St to E St, which included installation of decorative streetlights, modification of existing traffic signals, installation of new traffic signals, and installation of radio-controlled RRFB pedestrian crosswalks. Steven was responsible for supervising modifications to existing traffic signals, and installation of new traffic signals and street lighting.