

PROFESSIONAL CONSULTANT SERVICES AGREEMENT
DESIGN SERVICES INC. DBA BENYA BURNETT CONSULTANCY
for City-wide Street Light LED Conversion Program

THIS PROFESSIONAL CONSULTANT SERVICES AGREEMENT ("Agreement") is made and entered into this _____ day of _____, 20____ ("Effective Date"), by and between the CITY OF RIVERSIDE ("City"), a California charter city and municipal corporation and DESIGN SERVICES, INC. DBA BENYA BURNETT CONSULTANCY, a Tennessee corporation authorized to do business in California ("Consultant").

1. **Scope of Services.** City agrees to retain and does hereby retain Consultant and Consultant agrees to provide the services more particularly described in Exhibit "A," "Scope of Services" ("Services"), attached hereto and incorporated herein by reference, in conjunction with City-wide Street Light LED Conversion Program ("Project").

2. **Term.** This Agreement shall be effective on the date first written above and shall remain in effect for three years, unless otherwise terminated pursuant to the provisions herein.

3. **Compensation/Payment.** Consultant shall perform the Services under this Agreement for the total sum not to exceed Eight Hundred Fifty Five Thousand Two Hundred and Ninety Dollars (\$855,290.00) payable in accordance with the terms set forth in Exhibit "B." Said payment shall be made in accordance with City's usual accounting procedures upon receipt and approval of an itemized invoice setting forth the services performed. The invoices shall be delivered to City at the address set forth in Section 4 hereof.

4. **Notices.** Any notices required to be given, hereunder shall be in writing and shall be personally served or given by mail. Any notice given by mail shall be deemed given when deposited in the United States Mail, certified and postage prepaid, addressed to the party to be served as follows:

To City

Riverside Public Utilities
City of Riverside
Attn: Public Utilities General Manager
3750 University Avenue, Third Floor
Riverside, CA 92501-3335

To Consultant

Design Services Inc. dba Benya Burnett
Consultancy
Attn: James Benya, PE, FIES, FIALD
501 Fillmore Court
Davis, CA 95616-3034

5. **Prevailing Wage.** If applicable, Consultant and all subcontractors are required to pay the general prevailing wage rates of per diem wages and overtime and holiday wages determined by the Director of the Department of Industrial Relations under Section 1720 et seq. of the California Labor Code and implemented by Resolution No. 13346 of the City Council of the City of Riverside. The Director's determination is available on-line at www.dir.ca.gov/dlsr/DPreWageDetermination.htm and is referred to and made a part hereof; the wage rates therein ascertained, determined, and specified are referred to and made a part hereof as though fully set forth herein.

6. **Contract Administration.** A designee of the City will be appointed in writing by the City Manager or Department Director to administer this Agreement on behalf of City and shall be referred to herein as Contract Administrator.

7. **Standard of Performance.** While performing the Services, Consultant shall exercise the reasonable professional care and skill customarily exercised by reputable members of Consultant's profession practicing in the Metropolitan Southern California Area, and shall use reasonable diligence and best judgment while exercising its professional skill and expertise.

8. **Personnel.** Consultant shall furnish all personnel necessary to perform the Services and shall be responsible for their performance and compensation. Consultant recognizes that the qualifications and experience of the personnel to be used are vital to professional and timely completion of the Services. The key personnel listed in Exhibit "C" attached hereto and incorporated herein by this reference and assigned to perform portions of the Services shall remain assigned through completion of the Services, unless otherwise mutually agreed by the parties in writing, or caused by hardship or resignation in which case substitutes shall be subject to City approval.

9. **Assignment and Subcontracting.** Neither party shall assign any right, interest, or obligation in or under this Agreement to any other entity without prior written consent of the other party. In any event, no assignment shall be made unless the assignee expressly assumes the obligations of assignor under this Agreement, in a writing satisfactory to the parties. Consultant acknowledges that any assignment may, at the City's sole discretion, require City Manager and/or City Council approval. Consultant shall not subcontract any portion of the work required by this Agreement without prior written approval by the responsible City Contract Administrator. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement, including without limitation, the insurance obligations set forth in Section 12. The Consultant acknowledges and agrees that the City is an intended beneficiary of any work performed by any subcontractor for purposes of establishing a duty of care between any subcontractor and the City.

10. **Independent Contractor.** In the performance of this Agreement, Consultant, and Consultant's employees, subcontractors and agents, shall act in an independent capacity as independent contractors, and not as officers or employees of the City of Riverside. Consultant acknowledges and agrees that the City has no obligation to pay or withhold state or federal taxes or to provide workers' compensation or unemployment insurance to Consultant, or to Consultant's employees, subcontractors and agents. Consultant, as an independent contractor, shall be responsible for any and all taxes that apply to Consultant as an employer.

11. Indemnification.

11.1 Design Professional Defined. For purposes of this Agreement, "Design Professional" includes the following:

- A. An individual licensed as an architect pursuant to Chapter 3 (commencing with Section 5500) of Division 3 of the Business and Professions Code, and a business entity offering architectural services in accordance with that chapter.
- B. An individual licensed as a landscape architect pursuant to Chapter 3.5 (commencing with Section 5615) of Division 3 of the Business and Professions Code, and a business entity offering landscape architectural services in accordance with that chapter.
- C. An individual registered as a professional engineer pursuant to Chapter 7 (commencing with Section 6700) of Division 3 of the Business and Professions Code, and a business entity offering professional engineering services in accordance with that chapter.
- D. An individual licensed as a professional land surveyor pursuant to Chapter 15 (commencing with Section 8700) of Division 3 of the Business and Professions Code, and a business entity offering professional land surveying services in accordance with that chapter.

11.2 Defense Obligation For Design Professional Liability. Consultant agrees, at its cost and expense, to promptly defend the City, and the City's employees, officers, managers, agents and council members (collectively the "Parties to be Defended") from and against any and all claims, allegations, lawsuits, arbitration proceedings, administrative proceedings, regulatory proceedings, or other legal proceedings to the extent the same arise out of, pertain to, or relate to the negligence, recklessness or willful misconduct of Consultant, or anyone employed by or working under the Consultant or for services rendered to the Consultant in the performance of the Agreement, notwithstanding that the City may have benefited from its work or services and whether or not caused in part by the negligence of an Indemnified Party. Consultant agrees to provide this defense immediately upon written notice from the City, and with well qualified, adequately insured and experienced legal counsel acceptable to City. This obligation to defend as set forth herein is binding on the successors, assigns and heirs of Consultant and shall survive the termination of Consultant's Services under this Agreement.

11.3 Indemnity For Design Professional Liability. When the law establishes a professional standard of care for Consultant's services, to the fullest extent permitted by law, Consultant shall indemnify, protect and hold harmless the City and the City's employees, officers, managers, agents, and Council Members ("Indemnified Parties") from and against any and all claim for damage, charge, lawsuit, action, judicial, administrative, regulatory or arbitration proceeding, damage, cost, expense (including counsel and expert fees), judgment, civil fines and penalties, liabilities or losses of any kind or nature whatsoever to the extent the same arise out of, pertain to, or relate to the negligence, recklessness or willful misconduct of Consultant, or anyone

employed by or working under the Consultant or for services rendered to the Consultant in the performance of the Agreement, notwithstanding that the City may have benefited from its work or services and whether or not caused in part by the negligence of an Indemnified Party.

11.4 Defense Obligation For Other Than Design Professional Liability.

Consultant agrees, at its cost and expense, to promptly defend the City, and the City's employees, officers, managers, agents and council members (collectively the "Parties to be Defended") from and against any and all claims, allegations, lawsuits, arbitration proceedings, administrative proceedings, regulatory proceedings, or other legal proceedings which arise out of, or relate to, or are in any way connected with: 1) the Services, work, activities, operations, or duties of the Consultant, or of anyone employed by or working under the Consultant, or 2) any breach of the Agreement by the Consultant. This duty to defend shall apply whether or not such claims, allegations, lawsuits or proceedings have merit or are meritless, or which involve claims or allegations that any or all of the Parties to be Defended were actively, passively, or concurrently negligent, or which otherwise assert that the Parties to be Defended are responsible, in whole or in part, for any loss, damage or injury. Consultant agrees to provide this defense immediately upon written notice from the City, and with well qualified, adequately insured and experienced legal counsel acceptable to City. This obligation to defend as set forth herein is binding on the successors, assigns and heirs of Consultant and shall survive the termination of Consultant's Services under this Agreement.

11.5 Indemnity For Other Than Design Professional Liability. Except as to the sole negligence or willful misconduct of the City, Consultant agrees to indemnify, protect and hold harmless the Indemnified Parties from and against any claim for damage, charge, lawsuit, action, judicial, administrative, regulatory or arbitration proceeding, damage, cost, expense (including counsel and expert fees), judgment, civil fine and penalties, liabilities or losses of any kind or nature whatsoever whether actual, threatened or alleged, which arise out of, pertain to, or relate to, or are a consequence of, or are attributable to, or are in any manner connected with the performance of the Services, work, activities, operations or duties of the Consultant, or anyone employed by or working under the Consultant or for services rendered to Consultant in the performance of this Agreement, notwithstanding that the City may have benefited from its work or services. This indemnification provision shall apply to any acts, omissions, negligence, recklessness, or willful misconduct, whether active or passive, on the part of the Consultant or anyone employed or working under the Consultant.

12. Insurance.

12.1 General Provisions. Prior to the City's execution of this Agreement, Consultant shall provide satisfactory evidence of, and shall thereafter maintain during the term of this Agreement, such insurance policies and coverages in the types, limits, forms and ratings required herein. The rating and required insurance policies and coverages may be modified in writing by the City's Risk Manager or City Attorney, or a designee, unless such modification is prohibited by law.

12.1.1 Limitations. These minimum amounts of coverage shall not constitute any limitation or cap on Consultant's indemnification obligations under Section 11 hereof.

12.1.2 Ratings. Any insurance policy or coverage provided by Consultant or subcontractors as required by this Agreement shall be deemed inadequate and a material breach of this Agreement, unless such policy or coverage is issued by insurance companies authorized to transact insurance business in the State of California with a policy holder's rating of A or higher and a Financial Class of VII or higher.

12.1.3 Cancellation. The policies shall not be canceled unless thirty (30) days prior written notification of intended cancellation has been given to City by certified or registered mail, postage prepaid.

12.1.4 Adequacy. The City, its officers, employees and agents make no representation that the types or limits of insurance specified to be carried by Consultant pursuant to this Agreement are adequate to protect Consultant. If Consultant believes that any required insurance coverage is inadequate, Consultant will obtain such additional insurance coverage as Consultant deems adequate, at Consultant's sole expense.

12.2 Workers' Compensation Insurance. By executing this Agreement, Consultant certifies that Consultant is aware of and will comply with Section 3700 of the Labor Code of the State of California requiring every employer to be insured against liability for workers' compensation, or to undertake self-insurance before commencing any of the work. Consultant shall carry the insurance or provide for self-insurance required by California law to protect said Consultant from claims under the Workers' Compensation Act. Prior to City's execution of this Agreement, Consultant shall file with City either 1) a certificate of insurance showing that such insurance is in effect, or that Consultant is self-insured for such coverage, or 2) a certified statement that Consultant has no employees, and acknowledging that if Consultant does employ any person, the necessary certificate of insurance will immediately be filed with City. Any certificate filed with City shall provide that City will be given ten (10) days prior written notice before modification or cancellation thereof.

12.3 Commercial General Liability and Automobile Insurance. Prior to City's execution of this Agreement, Consultant shall obtain, and shall thereafter maintain during the term of this Agreement, commercial general liability insurance and automobile liability insurance as required to insure Consultant against damages for personal injury, including accidental death, as well as from claims for property damage, which may arise from or which may concern operations by anyone directly or indirectly employed by, connected with, or acting for or on behalf of Consultant. The City, and its officers, employees and agents, shall be named as additional insureds under the Consultant's insurance policies.

12.3.1 Consultant's commercial general liability insurance policy shall cover both bodily injury (including death) and property damage (including, but not limited to, premises operations liability, products-completed operations liability, independent contractor's liability, personal injury liability, and contractual liability) in an amount not less than \$1,000,000 per occurrence and a general aggregate limit in the amount of not less than \$2,000,000.

12.3.2 Consultant's automobile liability policy shall cover both bodily injury and property damage in an amount not less than \$1,000,000 per occurrence and an aggregate

limit of not less than \$1,000,000. All of Consultant's automobile and/or commercial general liability insurance policies shall cover all vehicles used in connection with Consultant's performance of this Agreement, which vehicles shall include, but are not limited to, Consultant owned vehicles, Consultant leased vehicles, Consultant's employee vehicles, non-Consultant owned vehicles and hired vehicles.

12.3.3 Prior to City's execution of this Agreement, copies of insurance policies or original certificates along with additional insured endorsements acceptable to the City evidencing the coverage required by this Agreement, for both commercial general and automobile liability insurance, shall be filed with City and shall include the City and its officers, employees and agents, as additional insureds. Said policies shall be in the usual form of commercial general and automobile liability insurance policies, but shall include the following provisions:

It is agreed that the City of Riverside, and its officers, employees and agents, are added as additional insureds under this policy, solely for work done by and on behalf of the named insured for the City of Riverside.

12.3.4 The insurance policy or policies shall also comply with the following provisions:

- a. The policy shall be endorsed to waive any right of subrogation against the City and its sub-consultants, employees, officers and agents for services performed under this Agreement.
- b. If the policy is written on a claims made basis, the certificate should so specify and the policy must continue in force for one year after completion of the services. The retroactive date of coverage must also be listed.
- c. The policy shall specify that the insurance provided by Consultant will be considered primary and not contributory to any other insurance available to the City and Endorsement No. CG 20010413 shall be provided to the City.

12.4 **Errors and Omissions Insurance.** Prior to City's execution of this Agreement, Consultant shall obtain, and shall thereafter maintain during the term of this Agreement, errors and omissions professional liability insurance in the minimum amount of \$1,000,000 to protect the City from claims resulting from the Consultant's activities.

12.5 **Subcontractors' Insurance.** Consultant shall require all of its subcontractors to carry insurance, in an amount sufficient to cover the risk of injury, damage or loss that may be caused by the subcontractors' scope of work and activities provided in furtherance of this Agreement, including, but without limitation, the following coverages: Workers Compensation, Commercial General Liability, Errors and Omissions, and Automobile liability. Upon City's request, Consultant shall provide City with satisfactory evidence that Subcontractors have obtained insurance policies and coverages required by this section.

13. **Business Tax.** Consultant understands that the Services performed under this Agreement constitutes doing business in the City of Riverside, and Consultant agrees that Consultant will register for and pay a business tax pursuant to Chapter 5.04 of the Riverside Municipal Code and keep such tax certificate current during the term of this Agreement.

14. **Time of Essence.** Time is of the essence for each and every provision of this Agreement.

15. **City's Right to Employ Other Consultants.** City reserves the right to employ other Consultants in connection with the Project. If the City is required to employ another consultant to complete Consultant's work, due to the failure of the Consultant to perform, or due to the breach of any of the provisions of this Agreement, the City reserves the right to seek reimbursement from Consultant.

16. **Accounting Records.** Consultant shall maintain complete and accurate records with respect to costs incurred under this Agreement. All such records shall be clearly identifiable. Consultant shall allow a representative of City during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of three (3) years from the date of final payment under this Agreement.

17. **Confidentiality.** All ideas, memoranda, specifications, plans, procedures, drawings, descriptions, computer program data, input record data, written information, and other materials either created by or provided to Consultant in connection with the performance of this Agreement shall be held confidential by Consultant, except as otherwise directed by City's Contract Administrator. Nothing furnished to Consultant which is otherwise known to the Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use City's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production, website, or other similar medium without the prior written consent of the City.

18. **Ownership of Documents.** All reports, maps, drawings and other contract deliverables prepared under this Agreement by Consultant shall be and remain the property of City. Consultant shall not release to others information furnished by City without prior express written approval of City.

19. **Copyrights.** Consultant agrees that any work prepared for City which is eligible for copyright protection in the United States or elsewhere shall be a work made for hire. If any such work is deemed for any reason not to be a work made for hire, Consultant assigns all right, title and interest in the copyright in such work, and all extensions and renewals thereof, to City, and agrees to provide all assistance reasonably requested by City in the establishment, preservation and enforcement of its copyright in such work, such assistance to be provided at City's expense but without any additional compensation to Consultant. Consultant agrees to waive all moral rights relating to the work developed or produced, including without limitation any and all rights

of identification of authorship and any and all rights of approval, restriction or limitation on use or subsequent modifications.

20. **Conflict of Interest.** Consultant, for itself and on behalf of the individuals listed in Exhibit "C", represents and warrants that by the execution of this Agreement, they have no interest, present or contemplated, in the Project affected by the above-described Services. Consultant further warrants that neither Consultant, nor the individuals listed in Exhibit "C" have any real property, business interests or income interests that will be affected by this project or, alternatively, that Consultant will file with the City an affidavit disclosing any such interest.

21. **Solicitation.** Consultant warrants that Consultant has not employed or retained any person or agency to solicit or secure this Agreement, nor has it entered into any agreement or understanding for a commission, percentage, brokerage, or contingent fee to be paid to secure this Agreement. For breach of this warranty, City shall have the right to terminate this Agreement without liability and pay Consultant only for the value of work Consultant has actually performed, or, in its sole discretion, to deduct from the Agreement price or otherwise recover from Consultant the full amount of such commission, percentage, brokerage or commission fee. The remedies specified in this section shall be in addition to and not in lieu of those remedies otherwise specified in this Agreement.

22. **General Compliance With Laws.** Consultant shall keep fully informed of federal, state and local laws and ordinances and regulations which in any manner affect those employed by Consultant, or in any way affect the performance of services by Consultant pursuant to this Agreement. Consultant shall at all times observe and comply with all such laws, ordinances and regulations, and shall be solely responsible for any failure to comply with all applicable laws, ordinances and regulations. Consultant represents and warrants that Consultant has obtained all necessary licenses to perform the Scope of Services and that such licenses are in good standing. Consultant further represents and warrants that the services provided herein shall conform to all ordinances, policies and practices of the City of Riverside.

23. **Waiver.** No action or failure to act by the City shall constitute a waiver of any right or duty afforded City under this Agreement, nor shall any such action or failure to act constitute approval of or acquiescence in any breach thereunder, except as may be specifically, provided in this Agreement or as may be otherwise agreed in writing.

24. **Amendments.** This Agreement may be modified or amended only by a written agreement and/or change order executed by the Consultant and City.

25. **Termination.** City, by notifying Consultant in writing, shall have the right to terminate any or all of Consultant's services and work covered by this Agreement at any time. In the event of such termination, Consultant may submit Consultant's final written statement of the amount of Consultant's services as of the date of such termination based upon the ratio that the work completed bears to the total work required to make the report complete, subject to the City's rights under Sections 15 and 26 hereof. In ascertaining the work actually rendered through the termination date, City shall consider completed work, work in progress and complete and incomplete reports and other documents only after delivered to City.

25.1 Other than as stated below, City shall give Consultant thirty (30) days prior written notice prior to termination.

25.2 City may terminate this Agreement upon fifteen (15) days written notice to Consultant, in the event:

25.2.1 Consultant substantially fails to perform or materially breaches the Agreement; or

25.2.2 City decides to abandon or postpone the Project.

26. **Offsets.** Consultant acknowledges and agrees that with respect to any business tax or penalties thereon, utility charges, invoiced fee or other debt which Consultant owes or may owe to the City, City reserves the right to withhold and offset said amounts from payments or refunds or reimbursements owed by City to Consultant. Notice of such withholding and offset, shall promptly be given to Consultant by City in writing. In the event of a dispute as to the amount owed or whether such amount is owed to the City, City will hold such disputed amount until either the appropriate appeal process has been completed or until the dispute has been resolved.

27. **Successors and Assigns.** This Agreement shall be binding upon City and its successors and assigns, and upon Consultant and its permitted successors and assigns, and shall not be assigned by Consultant, either in whole or in part, except as otherwise provided in paragraph 9 of this Agreement.

28. **Venue.** Any action at law or in equity brought by either of the parties hereto for the purpose of enforcing a right or rights provided for by this Agreement shall be tried in a court of competent jurisdiction in the County of Riverside, State of California, and the parties hereby waive all provisions of law providing for a change of venue in such proceedings to any other county. In the event either party hereto shall bring suit to enforce any term of this Agreement or to recover any damages for and on account of the breach of any term or condition of this Agreement, it is mutually agreed that each party will bear their own attorney's fees and costs.

29. **Nondiscrimination.** During Consultant's performance of this Agreement, Consultant shall not discriminate on the grounds of race, religious creed, color, national origin, ancestry, age, physical disability, mental disability, medical condition, including the medical condition of Acquired Immune Deficiency Syndrome (AIDS) or any condition related thereto, marital status, sex, genetic information, gender, gender identity, gender expression, or sexual orientation, in the selection and retention of employees and subcontractors and the procurement of materials and equipment, except as provided in Section 12940 of the California Government Code. Further, Consultant agrees to conform to the requirements of the Americans with Disabilities Act in the performance of this Agreement.

30. **Severability.** Each provision, term, condition, covenant and/or restriction, in whole and in part, of this Agreement shall be considered severable. In the event any provision, term, condition, covenant and/or restriction, in whole and/or in part, of this Agreement is declared invalid, unconstitutional, or void for any reason, such provision or part thereof shall be severed from this Agreement and shall not affect any other provision, term, condition, covenant and/or

restriction of this Agreement, and the remainder of the Agreement shall continue in full force and effect.

31. **Authority.** The individuals executing this Agreement and the instruments referenced herein on behalf of Consultant each represent and warrant that they have the legal power, right and actual authority to bind Consultant to the terms and conditions hereof and thereof.

32. **Entire Agreement.** This Agreement constitutes the final, complete, and exclusive statement of the terms of the agreement between the parties pertaining to the subject matter of this Agreement, and supersedes all prior and contemporaneous understandings or agreements of the parties. Neither party has been induced to enter into this Agreement by and neither party is relying on, any representation or warranty outside those expressly set forth in this Agreement.

33. **Interpretation.** City and Consultant acknowledge and agree that this Agreement is the product of mutual arms-length negotiations and accordingly, the rule of construction, which provides that the ambiguities in a document shall be construed against the drafter of that document, shall have no application to the interpretation and enforcement of this Agreement.

33.1 Titles and captions are for convenience of reference only and do not define, describe or limit the scope or the intent of the Agreement or any of its terms. Reference to section numbers, are to sections in the Agreement unless expressly stated otherwise.

33.2 This Agreement shall be governed by and construed in accordance with the laws of the State of California in effect at the time of the execution of this Agreement.

33.3 In the event of a conflict between the body of this Agreement and Exhibit "A" - Scope of Services hereto, the terms contained in Exhibit "A" shall be controlling.

34. **Exhibits.** The following exhibits attached hereto are incorporated herein to this Agreement by this reference:

Exhibit "A" - Scope of Services
Exhibit "B" - Compensation
Exhibit "C" - Key Personnel

IN WITNESS WHEREOF, City and Consultant have caused this Agreement to be duly executed the day and year first above written.

CITY OF RIVERSIDE, a California
charter city and municipal corporation
a California corporation

By: _____
City Manager

Attest: _____
City Clerk

DESIGN SERVICES, INC. DBA BENYA
BURNETT CONSULTANCY
a Tennessee corporation authorized to do business
in California

By: _____
[Printed Name] DEBORAH BURNETT
[Title] president

By: _____
[Printed Name] James Benya
[Title] Secretary

Approved as to Form:

By: Susan Wilson
Assistant City Attorney

EXHIBIT "A"
SCOPE OF SERVICES

Introduction

This proposal is offered in response to City of Riverside RFP 1569 for the City-Wide Street Lighting Conversion Program. **This update includes the results of a meeting with RPU and other key personnel in Riverside on April 19, exchanges between us and RPU team leaders involving scope of project, and our revised schedule and services portions of this document based on those meetings and clarifications.**

The City of Riverside (The City) is pursuing an ambitious program to upgrade its streetlights to the new LED technology, paving the way for its Smart City plans. Design Services, Inc. (DSI) has carefully reviewed the City's RFP and developed this proposal to address all key requirements. We are currently providing the master lighting design for sixteen (16) jurisdictions within the Western Riverside Council of Government, which The City is an active member. As a result we are rapidly becoming familiar with existing lighting standards created to mitigate light pollution adversely impacting the Mt. Palomar Observatory. As professional lighting engineers, we welcome the opportunity to assist The City achieve its goals, while assuring its lighting design harmonizes with WRCOG regional lighting design, helping build a stronger region led by The City of Riverside.

Significant Project Issues

Our work plan is built around the following potentially significant issues. We have made reasonable allocations for the necessary time to work out these issues with City staff and other concerned parties.

1. The City's current Lighting Standards are not consistent with the new IES RP-8-14. We assume the need for completely new Standards for the City.
 2. Some of the existing lighting may not meet either the City's current standards or IES RP-8-14 and this cannot be easily resolved by changing the luminaires to LED. We assume a completely new Design Manual for most of the lighting and we will have to resolve the problems this will likely raise.
 3. The City's Standards and Manual should also address IES Publication DG-21-15, Design Guide for Residential Street Lighting .
 4. **The impact of Cultural and Heritage concerns is significant. We expect to encounter both technical and cultural/historic design challenges** that may complicate conversions to LED lighting and the addition of control networking devices, especially sensors.
 5. Most cities expect a cost effective solution that permits the energy savings and low cost of the LED lighting stem to rapidly amortize the investment, turning the project into a net revenue opportunity. **This is true with conventional cobrahead street lights, but decorative lighting used in cultural or heritage applications may not experience similar results.**
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Work Plan

Team

The DSI Team will be led by DSI serving as Prime Consultant, Project Manager and Project Engineer. DSI will be supported by seven (7) subconsultants, each of whom have worked recently together on similar projects, including the WRCOG progra . Team members have been chosen based on subject matter expertise, experience, capabilities and prior working together. The Team Members, their Principals, and their Roles are shown in Table 1.

Roles

The Project Manager, James Benya, PE will oversee the work, manage intertask schedules and coordination, and serve as the single point of contact for administrative aspects of the Project. He will also serve as the Task Leader for Tasks 1 and 4.

There will be a Task Leader, in some cases a co-Task Leader, Significant Contributors, and Consultants for each of the five Tasks. From a planning and management perspective, Task Leaders will be fully responsible for the work of their Task including day to day scheduling, activities, deliverables, and related duties. See **Table 2**. The Task Leader has been chosen because of his/her position as a subject matter expert (SME) for a significant aspect(s) of the Task. If there is a co-Task Leader, he/she is an SME in an area of relevance and will share management duties with the Leader. Significant Contributors and Consultants are also SME's and are expected to contribute an aspect of expertise necessary to meet the Task requirements, with greater effort and input from Significant Contributors.

According to our estimates, about half of the project involves studies, reports and public process, and half involves designing lighting and controls projects and seeing them through to completion. **We expect that about 45% of the project's work will occur in 2016, 50% in 2017, and the balance in 2018.** The following pages contain our response to the RFP's requirements. We have budgeted the necessary time to resolve these issues with City staff and other concerned parties.

We will engage a team member solely responsible for creating a project schedule in MS Project and maintaining it throughout the course of our work, including the implementation phase. We will provide monthly reports on project progress.

Project Schedule

Summary of Activities

For reasons that will be described in detail below, the project will be divided into two significant phases:

- 1) During the first twelve months, the majority of the professional work will be completed, including most of Tasks 1, 3, 4 and 5. In addition, the planning portion of Task 2 and the first bid package will be completed.
- 2) For the remainder of the Project, the work will consist almost exclusively of Tasks 2 and 5. Task 2, which will consist of four lighting bid packages and the Smart network bid package. This will continue until January 2019, with the issuing of bid packages, bid evaluations and construction phase work. Task 5 will continue through all bid packages and fixture installations until January 2019 as well.

Critical Scheduling Considerations

This project has two overarching issues that our team is prepared to address.

1. The Program first and foremost requires changes to City Lighting Standards and to the Public Utilities rate structure. Our experience indicates that public process can often take months or even years. It is imperative that the appropriate City Council adoptions take place in 2016 or very early 2017, to assure that the implementation phases are not delayed.
2. Most LED replacement projects amortize the cost with energy savings. This requires a project to produce significant energy savings with a modest investment. For this reason, most LED projects do not undertake to do any of the following:
 - a. Move any light poles
 - b. Add any light poles
 - c. Improve lighting performance, particularly to meet IES RP-8-14, AASHTO GL-6 or other recommended practices.

We have been and are currently involved in aiding communities develop lighting regulations of various kinds and in helping them develop and assess modern City standards relative to the practical realities of street lighting economics. We expect to tackle these issues as soon as we begin work, to ensure that unforeseen conflicts don't prevent the project from proceeding on schedule or adding any unnecessary project costs.

Schedule Planning

See **Figure 1 in Appendix A**. This graphic represents our proposed preliminary schedule to meet the preferred completion dates requested in the RFP.

Task 1

Task 1 is a research and development project that consists of work on the City Street Lighting Standards, the creation of a new Design Manual, and a survey of the special districts. Between the changes brought on by LED's and the changes contained in IES RP-8-14, we assume that the Standards and Manual will be rewritten, and the survey will required detailed GIS definition by photograph, light source and watts. Deliverables include three major reports which will guide the City's adoption of essentially new lighting standards for the future.

Figure 1 underscores the importance of Task One's research, meetings and major decisions being completed and ready for public process by summer 2016. We expect significant interaction with RPU, the City Engineer and other City Staff as the conversion of City Standards to meet IES RP-8-14 is a significant undertaking, requiring a lot of meetings and compromises as well as technical work. We expect the Public Process including review and approval by RPU, City Engineer and ultimately, City Council adoption will, along with ongoing research and updates, comprise the latter half of the year.

Task 2

Task 2 is an engineering project consists of developing the master lighting retrofit plan, developing budgets, recommending specific lighting applications and then, developing a series of bid packages throughout 2017 and into 2018, in order to complete all work by 2019. Deliverables include two significant reports and four bid-build sets of drawings and specifications that will primarily involve lighting retrofits but will also include civil engineering construction. Work includes construction administration activities throughout the actual construction. The overall design Plan, budgeting and system review (Tasks 2a, 2b and 2c) must also be fairly complete by mid-summer 2016 for the actual engineering to proceed in the fall of 2016.

The most critical schedule planning interaction is with Task 1. Engineering cannot proceed too fast until Task 1 is significantly complete and approved. The ensuing public process in Task 2 must be relatively short in order to permit time to develop the plans and specifications for the first bid package.

Our team includes the services of a Civil Engineer for the purposes of developing project-specific traffic planning specifications. We have assumed that there will be no pole relocations or similar changes requiring civil engineering plans.

Task 3

Task 3 is a research report that involves work on the Public Utility's rates and financing aspects of the project, including proposing revisions to the Municipal Code, Rules and Rates, and studying and recommending financing options. Deliverables will include eight (8) significant reports.

Under Tasks 3a through 3g, inclusive, the Work must move forward and become reasonably sure of the outcome by late summer such that the first LED lighting project can be started in early 2017. We are presently unsure of the urgency of Task 3h, the study of financing alternatives, but we have conservatively assumed that the City will want the report on financing options by mid-summer 2016. For this reason, in Task 2 we will generate budget information as quickly as possible. This also places pressure on Task 1 because unlike cobrahead street lights, decorative street lights on numerous varieties require more detailed information early in the project in order to estimate correctly.

Task 3h will consider all possible ways by which the city can finance the project, including the extent to which grants, rebates and other incentives can reduce the design costs and first costs. In addition to the ordinary financial models and sources, we intend to look into every energy efficiency incentive available to the City.

Task 4

Task 4 is a complex task concerning "Smart" street lighting control and energy management systems. In the research phase, the team will research and evaluate marketplace options, present them with recommendations, and hold a workshop to enable City staff to quickly grasp the breadth and magnitude of the technology and potential it offers to the City. The team will then help the City decide how to proceed. Deliverables include educational materials and a critical report to RPU, City Engineer, City Council, City Staff, and the community, including the cost and benefits of each candidate system. Because of the rapid changes in this technology, it is best to begin the research work as late as possible and finish it as fast as possible; however, a decision by City Council on whether to employ a particular system or technology will be needed at least several weeks before the final owner's review of the first bid package, to prevent adding the technology as a change order. It may be prudent to delay the first bid package until a decision is reached.

Task 5

Once a choice is made in Task 4, the team is responsible for developing engineering bid documents for the selected system, helping bid the work, and providing construction administration throughout the course of the installation. This task involves specifying a design-build Smart street lighting control and energy management system, plus other network features such as audible alerts, cameras, etc. that are chosen from options presented under Task 4. Once procured the system will be implemented on a schedule that offers the city the

**PROFESSIONAL SERVICES FOR CITY-WIDE STREET LIGHT LED
CONVERSION PROGRAM DEVELOPMENT**

greatest advantages for its needs. We expect to consider when the system is actually procured to take advantage of the best possible technology; as a minimum, provisions for it can be made with every LED conversion bid package such that a late-as-practical installation may occur. Due to the paradox of wanting to obtain a system that is as state of the art as possible while planning for it months or years in advance, we expect to maintain vigilance on the evolution of this technology and advise the City at the best possible time to take action. That said, it is likely that the RFP, which we will prepare, will be issued about the same time as the first LED conversion contract, enabling all conversions to be controlled and their features realized as the lighting systems come on line.

Because we anticipate a large number of different luminaire and pole types, we have included compatibility studies and evaluations as part of specifying luminaires or luminaire conversion kits as part of Task 2.

Task 6

We added Task 6 to address the specific jobs of project setup, monthly data entry, and monthly reporting using MS Project. It includes purchasing 2 MS Project 2013 seats specifically for this purpose.

Special Notes on Smart Lighting

The City has a potentially bright future beyond simply converting to LEDs. With the advent of commercially available adaptive controlled lighting, cities have a new tool to control the adverse impact of night sky light trespass while saving energy and extending the life of lighting systems and reducing their maintenance. In addition, it is likely that a system will be selected that forms the network for a number of “smart” activities, ranging from traffic management to video surveillance, big data collection and might even serve as a revenue source if leased to telecom companies. The latest systems not only remotely monitor and dim streetlights, but also, provide a platform of metered, distributed power and 2-way communications, bringing the mobile Internet of Things (IoT) to the City atop streetlights. Opportunities for cities include integration of AMI water meters, traffic signaling, Wi-Fi, Li-Fi and revenue generating 4G LTE small cells.

In **Task 4**, we will investigate this option for the City, helping determine economic as well as technical viability. We will present an up-to-the-minute evaluation of options in a workshop format so that all interested parties will have the same database. Should this study indicate overall feasibility and desirability, we will take direction and develop plans to adopt the selected system in **Task 5**.

Our qualifications through team member Southern Contracting are exceptionally strong. The benefit to Riverside is Southern’s deep domain knowledge, including current projects working with major lighting controls companies, including GE and Acuity, to develop the next generation platforms. They have been a national market leader in the development of streetlight networks as a core smart city asset through the deployment of adaptive controls. Recently completed projects include four streetlight networks for the cities of San Diego, Oceanside, Chula Vista and Carlsbad, involving more than 11,000 lights. Southern has also been a strong policy advocate as well, assisting SDG&E and the San Diego cities to perform the research that has led to the first utility-grade metered streetlight rate which is now slated to go into effect in 2016.

Appendix A – Project Schedules

Expected Due Dates

- Done Issue RFP 1569 for Professional Services – 12/2015
 Expect Award Professional Services Contract and Notice to Proceed – 8/2016
 ① Issue first RFP for Street Light LED Conversion Services – 3/2017
 ② Award first Street Light LED Conversion Services Contract and Notice to Proceed – 5/2017
 ③ New Rates for LED Street Lights go into effect – 1/2017
 ④ Education Sessions for SMART Street Light Control Systems – 5/2017

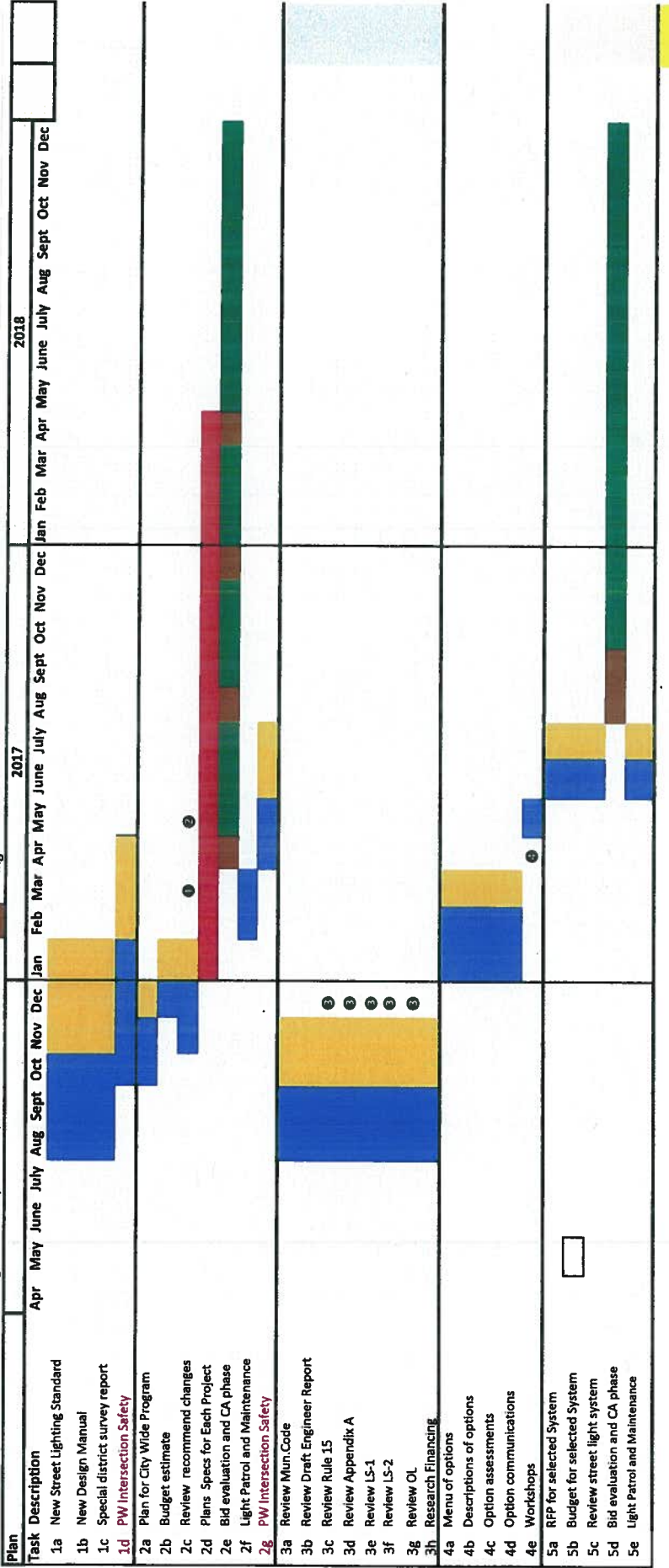
Key

- No Specific Activity
 Research, meetings and preliminary public process
 Engineering, production
 Bid Evaluation and CA
 Deliverable completion, public process, review and delivery
 Bidding

Figure 1

Conceptual Project Work Plan

BENYA BURNETT TEAM PROPOSAL



Activities in red are optional

REV 5/22/16 James Benya

FOR REVISED RFP SUBMITTAL

Appendix B – Database Quality

We assume that the City's database is sufficiently accurate for the needs of the project. However, the spatial and tabular accuracy is unknown. We have previously encountered similar data which seemed comprehensive and accurate, but flaws became apparent upon detailed field audit.

The design team is interested in leveraging this data in the most effective way possible. As an indicator of the overall accuracy of the data, we have included a detailed survey of approximately 50 poles and luminaires in each of the 24 "Special districts" in which a total of about 1200 lights will be audited. Should we find significant and/or consistent errors in the City database, the City/RPU will have the option of fixing the database before the project proceeds further.

EXHIBIT "B"
COMPENSATION

Price

Based on the work plan by phase and by personnel shown in detail in Appendix B, we offer to provide the services required by RFP 1569 for the following Contract Amounts.

We are pleased to offer our services on an hourly fee basis with a guaranteed not-to-exceed price for our services throughout the course of the project. We reserve the right to adjust fees among Tasks and among team members with the understanding that the NOT TO EXCEED FEE cannot be exceeded unless changed by a mutually agreed-upon Change Order.

Professional Fees

Task 1	Based on 740 hours	Estimated fee \$137,850.00
Task 2	Based on 1384 hours	Estimated fee \$236,520.00
Task 3	Based on 656 hours	Estimated fee \$133,360.00
Task 4	Based on 554 hours	Estimated fee \$108,200.00
Task 5	Based on 400 hours	Estimated fee \$ 79,350.00
Task 6	Based on 280 hours	Estimated fee \$ 51,160.00
TOTAL		NOT TO EXCEED FEE \$746,440.00

Expense Reimbursements

Costs and Expenses	65 person trips	Estimated \$ 58,850.00
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Options

1d	Public Works Street Lighting Conversion study	Estimated fee \$19,400 plus \$5,400 in expenses
1da	Demonstration Street Lighting Project for review	Estimated fee \$24,000 plus \$3,600 in expenses
2ca	Demonstration projects not in special districts	Estimated fee \$22,000 plus \$3,600 in expenses
2cb	Festival of Lights Master Planning	Estimated fee \$23,100 plus \$5,400 in expenses
2d	Public Works Street Light Conversion plans	Estimated fee \$21,950 plus \$3,600 in expenses
4e1	Written Report of Task 4	Estimated fee \$8,000

Conditions, Assumptions and Exemptions

Assumptions

- a) **No** poles removed, relocated or repaired and requiring civil engineering plans.
- b) ***For the majority of the project, specifications will consist of a tabular listing of GIS coordinates and specifications for the change-out at each coordinate. When plans are required for field installation, they will be indicated on City-supplied plans in AutoCAD. City/RPU is responsible for printing, printing costs, and print distribution.***
- c) Structural engineering not included.
- d) Repairs, renovations or modifications to lighting power sources not included. We will specify new wiring in existing poles from the handhole on to the luminaire.
- e) Public process is limited to appearance at a maximum of (6) City Council work sessions and (12) Council meetings for readings and/or adoption.
- f) Except for construction phase duties, a maximum of fifty (50) man-trips to Riverside.
- g) For construction phase duties for LED replacement lighting, five construction contracts occurring between January 2017 and January 2019 with a total of fifteen (15) man trips to Riverside.
- h) Civil Engineer will not provide observation of the work.
- i) Electrical engineer will provide 2 observations of the work per bid package including a rough-in level review and a punchlist review of the completed project.
- j) Determination of scope, type of surveillance and other non-lighting control functions, and engineering is not included. Task 5 bid documents are for a design-build consultant.
- k) Reports required under Section 4.5.2 are understood to be of professional engineering quality, with a minimum of background information and making clear recommendations suitable for Staff and City Council discussion. Reports are not expected to exceed 5000 words in length.
- l) Although we recommend mockups and demonstration projects, they are not part of the RFP. We have therefore not included the costs of organizing, designing or administering mockups and demonstrations.
- m) The City will export its Oracle database for use by Evri, whose GIS database has been modified to address controllability functions to match the requirements of Task 5.
- n) We have included a one time expense for AriGIS to audit the location and photograph approximately 50 luminaires in each of 24 districts. Otherwise, we will not accept responsibility for database accuracy unless we are retained to perform a systemwide audit. See Appendix A for a further explanation.

Conditions

1. Fee estimates are by subtask and represent the scope of services. Month-by month hours are estimates only. Actual time by month may vary.
-

PROFESSIONAL SERVICES FOR CITY-WIDE STREET LIGHT LED
CONVERSION PROGRAM DEVELOPMENT

2. We reserve the right to reallocate hours among tasks and subtasks as long as the estimated maximum fee is not exceeded.
3. Cost of mailing, printing, reproduction, and similar expenses for plans and specifications, handouts at conferences, etc. will be paid by the City directly.
4. It is understood that our schedule will be significantly affected by City decisions and the adoption of several key documents. We will advise the impact of any such impacts as they occur and expect reasonable schedule adjustments.

Exceptions

- See individual tasks in the Master Plan (Appendix C). In general, our exceptions are limited to clarifications on key issues that have mostly been addressed in correspondence or discussion with RPU team leaders.

Sub task	Scope	Deliverables	Exceptions	Assumptions	Limitations	Public Process	Person Meetings In Riverside	Firm	Class	Staff Hours	Billing Rate	Fee	Major Expenses	Precursors	Successors	FEE	TRIPS	TRAVEL COST
TASK 1																		
											740 Hours		\$18,000		\$137,850		10	
1a	Review existing RPU street lighting standards and specifications to identify revisions needed to substitute LED lamps, luminaires and related accessories for existing non-LED styles and obsolete LED styles.	New and revised street lighting standard and specification documents		This effort does NOT include the special districts undertaken in 1c, below, except to include the results of the task and decisions of the Special Districts and RPU.		Assumes (1) webinar to interested parties to (1) presentation to RPU Board and (1) presentation to City Council	2	BBC	P	96	\$200	\$19,200		Notice to Proceed	2a	\$35,070	3	\$2,700
								MEI	P	23	\$200	\$4,600						
								Evri	T	23	\$100	\$2,300						
								Poster	P	6	\$175	\$1,050						
								Rick	S	0	\$175	\$0						
1b	Develop a Design Manual section for LED Street Light Design based on ANSI/IES RP-08-14, existing RPU street light design practice and industry best practices.	New and revised Design Manual section documents for LED Street Light Design.	Will include IES DG-21-15 and when necessary, AASHTO GL-6 and IES RP-8-05. There are no other established industry best practices.	This effort does NOT include the special districts undertaken in 1c, below, except to include the results of the task and decisions of the Special Districts and RPU.		Assumes (1) webinar to interested parties to (1) presentation to RPU Board and (1) presentation to City Council	2	BBC	P	96	\$200	\$19,200		1a	2a	\$35,070	3	\$2,700
								MEI	P	23	\$200	\$4,600						
								Evri	T	23	\$100	\$2,300						
								Poster	P	6	\$175	\$1,050						
								Southern	S	10	\$200	\$2,000						
1c	Survey each of the street light standards and fixtures currently deployed in each of the 25 Historical Districts, Potential Historical Districts, Neighborhood Conservation Areas and Potential Neighborhood Conservation Areas.	Survey report showing street light styles and types currently installed in each Historical District or Neighborhood Conservation area.	Relevant aspects of tasks 1a and 1b unique to Special Districts will be addressed in this scope	Survey to include approx. 50 luminaires in each of 24 Special Districts and will include confirming GPS location, pole and luminaire type, watts if readable from exterior, visual assessment of pole and luminaire, and photo.	Up to 10 separate groups of Special Districts having similar if not identical needs. Wood Streets not in project. When necessary, similar administrative review applications will be submitted for up to 24 individual Districts	Assumes (10) webinars, (1) presentation to RPU Board and (1) presentation to City Council	2	BBC	P	96	\$200	\$19,200	\$18,000	Notice to Proceed	2a	\$67,710	4	\$3,600
								MEI	P	2	\$200	\$400						
								Evri	T	2	\$100	\$200						
								Poster	P	34	\$175	\$5,950						
								Southern	S	216	\$185	\$39,960						

Sub task	Scope	Deliverables	Exceptions	Assumptions	Limitations	Public Process	Person Meetings in Riverside	Firm	Class	Staff Hours	Billing Rate	Fee	Major Expenses	Precursors	Successors	FEE	TRIPS	TRAVEL COST
TASK 1: OPTIONS																		
											272 Hours		\$43,400					
1d	OPTION: Review existing Public Works Intersection Safety lighting standards and specifications to identify revisions needed to substitute LED lamps, luminaires and related accessories for existing non-LED styles and obsolete LED styles at approximately 330 intersections comprising some 1,320 luminaires.	OPTION: Report summarizing findings with cost estimate to permit RPU/City to evaluate. Includes software-generated isocandle plots of up to 20 intersections.	Review will identify all reasonably similar intersections, develop up to 20 prototypical intersections and will base the report on these findings.			Assumes (1) webinar to interested parties to (1) presentation to RPU Board and (1) presentation to City Council	4	BBC MEI Evri Southern	P P T P S	28 20 60 8 12	\$200 \$200 \$100 \$175 \$200	\$5,600 \$4,000 \$6,000 \$1,400 \$2,400		Notice to Proceed	2g	\$19,400	6	\$5,400
1dA	OPTION: Design demonstration test projects for each recommended intersection lighting type, for installation by Public Works. Field review and lighting measurements.	OPTION: Plans and specification for Intersection Lighting demonstration. Field report indicating light levels before and after.	Assumes up to 10 intersections. Drawings in Public Works Format.	Brief field report confirming performance versus expected	None		4	BBC MEI	P P T	48 48 48	Not Selected							

TASK 2																		
											1348 Hours		\$236,520					
2a	Develop a City-Wide Street Light LED Conversion Program, including cost estimates, scheduling and stages needed to complete the conversion within two years.	City-Wide Street Light LED Conversion Program including MS Project schedule, estimated costs, stages and districts/neighborhoods, and related information.	All activities concurrent. All estimates are "budgetary class only" and they shall not be expected to be unreasonably accurate.	The program will provide a complete program including special districts. Establishes project schedule		Assumes (1) webinar to interested parties to (1) presentation to RPU Board and (1) presentation to City Council	2	BBC MEI Poster Evri Southern	P T P P S	40 60 60 32 24	\$200 \$200 \$100 \$185 \$200	\$8,000 \$12,000 \$6,000 \$2,220 \$5,600 \$4,800		2b and 2c	2c	\$38,620	2	\$1,800
2c	Review the RPU Street Light system and recommend stages or phases for LED conversion by area, neighborhood, or lighting type.		All planning will assume January 2019 completion unless otherwise directed by RPU at start of project.				2	BBC MEI Evri Southern	P P P S	28 28 12 8	\$200 \$200 \$175 \$200	\$5,600 \$5,600 \$2,100 \$1,600		2a	2c	\$14,900	4	\$3,600

Sub task	Scope	Deliverables	Exceptions	Assumptions	Limitations	Public Process	Person Meetings In Riverside	Firm	Class	Staff Hours	Billing Rate	Fee	Major Expenses	Precursors	Successors	FEE	TRIPS	TRAVEL COST
2b	Provide a budgetary class cost estimate for the project on an annual basis, including consulting, material and construction costs based on the approved project schedule.	Monthly budgetary cost estimates and progress reports	All activities concurrent. All estimates are "budgetary class only" and they shall not be expected to be unreasonably accurate.	Microsoft Project will be updated monthly to include consulting team cost projections, actual fees, and actual expenses and project timelines, project cost projections, and actual project costs	MS Project file deliverable for schedule and MS Excel deliverable for costs; written report not to exceed 1000 words in MS Word.	None	2	BBC	P	48	\$200	\$9,600						
								MEI	P	60	\$200	\$12,000		2a, 2c	2d	\$29,200	2	\$1,800
								Evri	P	16	\$175	\$2,800						
								Southern	S	24	\$200	\$4,800						
2d	Prepare Plans and Specifications for each LED conversion stage or phase.	Plans and specifications for each construction contract. Note bid evaluation and technical support has been included in Task 2e.	No civil engineering work required; Rick reviews traffic planning only	Data on pole locations and type of retrofit will be provided along with specifications suitable for competitive bidding among manufacturers. Bid documents will be GIS based.	Four contracts. City/RPU to provide all non-technical documents and sections. City/RPU will manage the bidding process. Rick provides specifications for traffic management only.	Assumes (4) prebid meetings and support for bidders requests for information.	6	BBC	P	56	\$200	\$11,200						
								MEI	P	208	\$200	\$41,600						
								Rick	T	208	\$100	\$20,800						
								Evri	S	128	\$175	\$22,400		2b and City/RPU approval	City bid (external)	\$106,500	7	\$6,300
2e	Provide bid evaluation and technical support as Owner's Engineer for construction phase projects.	Written opinion of bids, response to RFIs, observations of the work, written objections to payment requests (if any)	Schedule and costs updated under Task 6	2 observations of the work per contract and written report; field work by MEI principal; no CA by Civil Engineer	No projects extend beyond January 1 2019; traffic management not supported during construction	None	8	BBC	P	42	\$200	\$8,400						
								MEI	P	130	\$200	\$26,000						
								Evri	P	8	\$175	\$1,400						
								Rick	S	12	\$175	\$2,100		2d and direction of City/RPU	Completion	\$40,300	8	\$7,200
								Southern	S	12	\$200	\$2,400						

Detailed Project Plan and Estimated Fees

Design Services, Inc.

Riverside RPU 1569

Sub task	Scope	Deliverables	Exceptions	Assumptions	Limitations	Public Process	PERSON Meetings in Riverside	Firm	Class	Staff Hours	Billing Rate	Fee	Major Expenses	Precursors	Successors	FEE	TRIPS	TRAVEL COST
2f	Recommend how to integrate ongoing street light patrol and maintenance activities into the City-wide Street Light LED Conversion Program to improve cost effectiveness.	Report recommending incorporation of street light patrol and maintenance activities into the City-wide Street Light LED Conversion project.		Written report up to 2500 words.	Based solely on data provided by the City/RPU.	None	1	BBC	P	16	\$200	\$3,200		2a, 2b, 2c	None	\$7,000	1	\$900
								MEI	P	6	\$200	\$1,200						
								Evvari	P	8	\$175	\$1,400						
								Southern	S	6	\$200	\$1,200						

TASK 2 OPTIONS																		
394 Hours																		
2cA	OPTION: Design demonstration test projects for each recommended street lighting replacement that is not in a Special District or intersection	Plans and specifications for test installations in Public Works format		Assumes up to 10 different luminaires and three at each demonstration. Drawings in Public Works Format.	Procurement and installation by Public Works	None	4	BBC	P	40		Not Selected						
2cB	OPTION: Develop a master plan for the Festival of Lights, including integration of exhibits, lighting control system requirements to coordinate public and private lighting, and expansion plans for coming years	Master plan for lighting of the Festival in the downtown area	Scope not well defined - proposed hours are to get the work underway and determine the extent of the proposed master plan.	Work starts fall of 2016 for implementation in 2017.	Hourly not to exceed fee; we will establish a fixed fee once the scope is determined.	Assumes (1) webinar to interested parties (1) presentation to RPU Board and (1) presentation to City Council	2	BBC	P	60								
2g	OPTION: Develop an LED Conversion Program for Public Works Intersection Safety Lighting using the general outline of sections a) through f) of 4.3.2 above for review and approval by the City Engineer or designated staff.	Option: Public Works Intersection Safety Light LED Conversion Program	Assume project independent of City Wide LED Conversion Project	Deliverable drawings in design-build format similar to City Wide LED Conversion Project; Rick provides traffic engineering; no construction phase activities	Extra charge for delivering plans in Public Works format	None	2	BBC	P	12	\$200	\$2,400	To be determined			\$21,950	4	\$3,600
								MEI	P	36	\$200	\$7,200						
								Evvari	P	36	\$100	\$3,600						
								Rick	S	10	\$175	\$1,750						
										40	\$175	\$7,000						

Detailed Project Plan and Estimated Fees

Design Services, Inc.

Riverside RPU 1569

Sub task	Scope	Deliverables	Exceptions	Assumptions	Limitations	Public Process	PERSON Meetings in Riverside	Firm	Class	Staff Hours	Billing Rate	Fee	Major Expenses	Precursors	Successors	FEE	TRIPS	TRAVEL COST
TASK 3																		
										656	\$133,860		\$133,860		16		\$14,400	
3a	Review the Riverside Municipal Code sections applicable to street light systems and recommend revisions, if necessary, for implementation of the City-Wide Street Light LED Conversion Project.	Recommended revisions to the Riverside Municipal Code, if necessary, to implement the City-Wide Street Light LED Conversion Project.		Assumes all activities are undertaken concurrently and project related meetings and deliverables are combined	Assumes (1) draft revisions, draft review by RPU and City, and Final Report with specific revisions	Assumes (1) webinar to interested parties (1) presentation to RPU Board and (1) presentation to City Council in 2017 only	2	BBC	P	16	\$200	\$3,200		Notice to Proceed		\$12,080	2	\$1,800
								UCM	P	48	\$185	\$8,880			May be required for City bid (external) after 2d			
3b	Review the annual draft Engineer's Report for Street Light Assessment District No. 1 and provide recommended revisions to incorporate the results of the City-Wide Street Light LED Conversion Project completed during the Report Period.	Recommended revisions to the annual Engineer's Report for Street Light Assessment District No. 1, if necessary to implement the City-Wide Street Light LED Conversion Project.			Includes (1) draft revisions, draft review by RPU and City, and Final Report with specific revisions in each 2017, 2018 and 2019			BBC	P	72	\$200	\$14,400		Notice to Proceed		\$23,280	2	\$1,800
								UCM	P	48	\$185	\$8,880						

Detailed Project Plan and Estimated Fees

Design Services, Inc.

Riverside RPU 1569

Sub task	Scope	Deliverables	Exceptions	Assumptions	Limitations	Public Process	Person Meetings In Riverside	Firm	Class	Staff Hours	Billing Rate	Fee	Major Expenses	Precursors	Successors	FEE	TRIPS	TRAVEL COST
3c	Review Electric Rule 15 and recommend revisions, if necessary, for implementation of the City-wide Street Light LED Conversion Project.	Recommended revision to Electric Rule 15, if necessary, for implementation of the Project.						BBC	P	16	\$200	\$3,200		Notice to Proceed		\$12,080	1	\$900
3d	Review Appendix A to the Electric Rules and recommend revisions, if necessary, for implementation of the City-wide Street Light LED Conversion Program.	Recommended revisions to Appendix A to the Electric Rules, if necessary, for implementation of the Project.						UCM	P	48	\$185	\$8,880		Notice to Proceed		\$12,080	1	\$900
3e	Review Electric Rate Schedule LS-1 STREET LIGHTING SERVICE, DEPARTMENT FINANCED and recommend revisions, if necessary, for implementation of the City-wide Street Light LED Conversion Project.	Recommended revisions to Schedule LS-1, STREET LIGHTING SERVICE, DEPARTMENT FINANCED, if necessary, for implementation of the Project.		Assumes all activities are undertaken concurrently and project related meetings and deliverables are combined	Includes (1) draft report, draft review by RPU and City, final draft report, draft review by RPU and City, and Final Report with specific revisions	Assumes (1) webinar to interested parties (1) presentation to RPU Board and (1) presentation to City Council	4	BBC	P	14	\$200	\$2,800		Notice to Proceed		\$11,680	1	\$900
3f	Review Electric Rate Schedule LS-2 STREET LIGHTING SERVICE, CUSTOMER FINANCED, and recommend revisions, if necessary, for implementation of the City-wide Street Light LED Conversion Project.	Recommended revisions to Schedule LS-2, STREET LIGHTING SERVICE, CUSTOMER FINANCED, if necessary, for implementation of the Project.						BBC	P	14	\$200	\$2,800		Notice to Proceed		\$11,680	1	\$900
3g	Review Electric Rate Schedule OL OUTDOOR LIGHTING, and recommend revisions, if necessary for implementation of the City-wide Street Light LED Conversion Project.	Recommended revisions to Schedule OL, OUTDOOR LIGHTING, if necessary, for implementation of the City-wide Street Light LED Conversion Project.						BBC	P	14	\$200	\$2,800		Notice to Proceed		\$11,680	2	\$1,800

Sub task	Scope	Deliverables	Exceptions	Assumptions	Limitations	Public Process	PERSON Meetings In Riverside	Firm	Class	Staff Hours	Billing Rate	Fee	Major Expenses	Precursors	Successors	FEE	TRIPS	TRAVEL COST
3h	Research availability and recommend innovative financing options for consideration by RPU, including energy grants, bonds, third party attachment fees or other methods for reducing the overall project cost.	Written report of up to 5000 words with references		Contacts will be made to possible funding sources by phone, but the work will be limited to determining whether the project is eligible and the likely benefits. Will not include negotiations or applications.	Includes (1) draft report, draft review by RPU and City, final draft report, draft review by RPU and City, and Final Report with specific revisions	Assumes (1) webinar to interested parties (1) presentation to RPU Board and (1) presentation to City Council	4	BBC	P	14	\$200	\$2,800		Notice to Proceed	None	\$38,800	6	\$5,400
								MFE	P	144	\$250	\$35,000						

Sub task	Scope	Deliverables	Exceptions	Assumptions	Limitations	Public Process	Person Meetings In Riverside	Firm	Class	Staff Hours	Billing Rate	Fee	Major Expenses	Precursors	Successors	FEE	TRIPS	TRAVEL COST		
TASK 4																				
554																				
\$108,200																				
\$0																				
4a	Develop a menu of available smart street lighting control and energy management system options for consideration by Stakeholders, the Board of Public Utilities and City Council for possible inclusion in the City-Wide Street Light LED Conversion Program.	Smart street lighting control, energy management, and attachment options report		Assumes all activities are undertaken concurrently and project related meetings and deliverables are combined. Report not to exceed 10,000 words.	Limited to street lighting energy management and control, maintenance reporting, and street light operations only.	None	8	BBC	P	56	\$200	\$11,200		Notice to Proceed		\$26,600	1	\$900		
								MEI	P	36	\$200	\$7,200								
								Evair	P	24	\$175	\$4,200								
								Southern	S	20	\$200	\$4,000								
								BBC	P	36	\$200	\$7,200								
4b	Provide a short description of each option.							MEI	P	26	\$200	\$5,200		4a	4e	\$20,600	1	\$900		
								Evair	P	24	\$175	\$4,200								
								Southern	S	20	\$200	\$4,000								
								BBC	P	48	\$200	\$9,600								
								MEI	P	36	\$200	\$7,200								
4c	Smart Street Lighting Control and Energy Management System options should include the following--as a minimum--of specific lighting energy, maintenance and operational functions.							Evair	P	16	\$175	\$2,800				\$23,600	1	\$900		
								Southern	S	20	\$200	\$4,000								
								BBC	P	48	\$200	\$9,600								
								MEI	P	8	\$200	\$1,600								
								Evair	P	20	\$175	\$3,500								
4d	Street Light Attachment options should include the following--as a minimum--various attachment options including but not limited to, third party uses, electronic meter reading, distributed automation, audible monitoring, video monitoring, smart signals, and environmental monitoring.				Includes non street lighting options that are practical, on the market now, or reasonably able to be developed by calendar end 2017.			Southern	S	8	\$200	\$1,600		4a		\$16,300	1	\$900		
								BBC	P	48	\$200	\$9,600								
								MEI	P	8	\$200	\$1,600								
								Evair	P	20	\$175	\$3,500								
								Southern	S	8	\$200	\$1,600								

Sub task	Scope	Deliverables	Exceptions	Assumptions	Limitations	Public Process	PERSON Meetings in Riverside	Firm	Class	Staff Hours	Billing Rate	Fee	Major Expenses	Precursors	Successors	FEE	TRIPS	TRAVEL COST
4e	Conduct Educational Workshops with Stakeholders on Available Smart Street Lighting Control and Energy Management System features, costs and benefits. Facilitate presentations to the Board of Public Utilities and/or City Council to determine which options should be implemented.	Available Smart Street Lighting Control and Energy Management System Features Educational Workshop Report and Presentation		Presentation contents approved by City/RPU.	Costs will be based on experience and/or representations of manufacturers or products.	One in-person public workshop and (1) webinar to remain available on line. Poll site set up to retrieve comments, input and preferences. (1) RPU Board and (1) City Council presentation	2	BBC	P	48	\$200	\$9,600		4a, 4b, 4c, 4d and direction of City/RPU	4e1, 5a	\$21,100	4	\$3,600
								MEI	P	32	\$200	\$6,400						
								Evri	P	20	\$175	\$3,500						
								Southern	S	8	\$200	\$1,600						

TASK 4 OPTIONS

TASK 4 OPTIONS										40	\$8,000				\$8,000				0	\$0
4e1	Report summarizing workshop input	Written report up to 5000 words	Report does not provide in depth presentation or discussion of technologies or products	Assumes (1) webinar to interested parties (1) presentation to RPU Board and (1) presentation to City Council	0	BBC	P	40	Not Selected											

Sub task	Scope	Deliverables	Exceptions	Assumptions	Limitations	Public Process	Meetings In Riverside	Firm	Class	Staff Hours	Billing Rate	Fee	Major Expenses	Precursors	Successors	FEE	TRIPS	TRAVEL COST
TASK 5																		
										400	\$79,350		\$79,350		\$79,350		7	\$6,300
5a	Develop an RFP for the selected Smart Street Light Control System and attachment options, including cost estimates, scheduling and stages needed to complete the smart control system within two years.	Technical specifications and draft Requests for Proposal for selected options	All activities concurrent. All estimates are "budgetary class only" and they shall not be expected to be unreasonably accurate.	The selected options will be provided by RPU. This is a design build RFP in which all engineering and construction are included. City to provide all legal language and manage the RFP process and making selections.	City will administer RFP process. Cost estimates will be based on experience, information provided by vendors and contractors, and a reasonable allowance for engineering and does not include internal costs to RPU/City	Assumes (1) webinar, (1) presentation to RPU Board, (1) presentation to City Council and (1) prebid meeting	4	BBC	P	72	\$200	\$14,400		4e, 4e1, and Notice to Proceed	External to city for bid	\$24,000	2	\$1,800
5b	Provide a budgetary class cost estimate for the project on an annual basis, including consulting, material and construction costs based on the approved project schedule.	Written opinion of project annual cost						MEI	P	36	\$200	\$7,200		5a	5a	\$22,100	1	\$900
5c	Review the RPU Street Light system and recommend stages or phases for Smart Street Light Control System by area, neighborhood, or lighting type.	Written report recommending phasing of Smart Light Control System		Based on RPU selections				Evairi	P	12	\$175	\$2,100						
								Southern	S	16	\$200	\$3,200						
								BBC	P	16	\$200	\$3,200						
								MEI	P	8	\$200	\$1,600						
								Evairi	P	8	\$175	\$1,400		5a	5a	\$14,200	1	\$900
								Southern	S	40	\$200	\$8,000						
5d	Provide bid evaluation and technical support as Owner's Engineer for Smart Street Light Control System.	Written opinion of bids, response to RFI's and owner questions	No civil engineering work required	No job site visits	No projects extend beyond January 1 2019	None	2	BBC	P	16	\$200	\$3,200						
								MEI	P	16	\$200	\$3,200		5a and direction of City/RPU	End of project	\$14,000	1	\$900
								Evairi	P	0	\$175	\$0						
								Southern	S	38	\$200	\$7,600						
5e	Recommend how to integrate ongoing street light patrol and maintenance activities into the Smart Street Light Control System to improve cost effectiveness.	Modified report from 2f including impact and role of the Smart Street Light Control System		Modifies the report from 2f and includes only the activities of street light patrol and maintenance. Selected non-lighting options not included.	Written report not to exceed 1000 words in addition to original report	None	2	BBC	P	6	\$200	\$1,200						
								MEI	P	6	\$200	\$1,200						
								Evairi	P	6	\$175	\$1,050		2f	None	\$5,050	2	\$1,800
								Southern	S	8	\$200	\$1,600						

Sub task	Scope	Deliverables	Exceptions	Assumptions	Limitations	Public Process	Meetings in Riverside	Firm	Class	Staff Hours	Billing Rate	Fee	Major Expenses	Precursors	Successors	FEE	TRIPS	TRAVEL COST
TASK 6																		
6a	Project Administration	Monthly invoicing in RPU format		We will use MS Project 2013	MS2013 file update deliverable		0	BBC	P	68	\$200	\$13,600	\$250			\$51,160	0	
6b	Scheduling and Reporting	Monthly budgetary cost estimates and progress reports						Neils	T	212	\$105	\$22,260		Notice to proceed	End of project	\$51,160		
GRAND TOTALS BASE																		
GRAND TOTALS OPTIONS																		
										3978			\$18,500			\$746,440	65	\$58,500
										706			\$0			\$41,350 - 10 - \$9,000		
										Staff Hours			Major Expenses			FEE	TRIPS	COST

Selected Options

EXHIBIT "C"

KEY PERSONNEL

Team and Key Personnel

Benya Burnett Consultancy (39.1% of Project Work)

Benya Burnett is a professional lighting design and illuminating engineering firm based in Davis, CA. The firm is internationally known for expertise in lighting with significant emphasis on energy efficiency, the environment, and dark sky protection. It is also the only firm in the world to have won the two Edison Awards and two Edison Awards of Excellence for Exterior Lighting of Historic Structures and four Edison Awards for Environmental Design.

About 20-23% of the total Work on this project involves research, technical writing, technical certification, public process, and educational support. Of particular benefit to the Riverside Program, Benya Burnett offers over 40 years of expert work in the development of codes, standards and standards of practice for government agencies, industry standards, and for private Clients. They provide *pro bono* service to the California Coastal Commission and the International Dark Sky Association. In addition, Benya Burnett is among the most prolific and capable educators and public speakers in lighting, having provided over 500 speaking engagements lecturer throughout the US and Europe. They will present 3 programs at LightFair International in San Diego, 2016.

Key Personnel

James R Benya, PE, FIES, FIALD

Role: Project Manager and Project Engineer; Task Leader for Tasks 1 and 4

Benya is among the most seasoned and skilled lighting designers and illuminating engineers. He is the winner of over 200 national and international lighting design awards, and was honored as a Fellow of the Illuminating Engineering Society, as a Fellow of the International Association of Lighting Designers, and has served as an adjunct professor at 5 universities, lecturer at 31 universities and colleges, and public speaker throughout North America and Europe. He has written 3 books, been the author of over 50 handbooks and design guides, was the developer of the federal FEMP LIGHTS program, and remains popular as a lighting expert, public speaker, writer and consultant.

Benya has the unique background of also having served as a Project Manager for the Smith Group for major projects including Atlanta Airport, and as having been the CEO and Principal for three lighting firms over 25 years. Because of the significant involvement in all facets of the project, Benya will also serve as co-Project Manager

Deborah Burnett, ASID

Role: Project Administrator

Burnett is also an accomplished lighting expert, pre-eminent in the field of light and health. Burnett founded Design Services, Inc. (DSI) in 1985 and acquired Benya Lighting Design in 2013. As CEO and President of DSI, she will handle project administration including invoicing and insurance.

Monrad Engineering, Inc. (30.3% of Project Work)

Monrad Engineering, Inc. was founded 1983 and is located in Tucson AZ. The firm has provided professional engineering services for over 3,000 projects of a diverse and challenging nature including street lighting, traffic signalization, pathway lighting, landscape lighting, recreational, water works, and municipal buildings. Monrad Engineering, Inc. holds ADOT and Tucson DBE/SBE status.

Key Personnel

Christian K. Monrad, PE

Role: Co-Project Engineer and Task Leader, Task 2

Chris Monrad is an electrical and illuminating engineer with over 32 years of experience in design and construction for a variety of transportation and aviation lighting related projects. His expertise includes master planning, concept and design phase coordination of project specific requirements. Clientele includes the University of Arizona, Pima Community College, Marana Airport, Tucson Airport Authority, City of Tucson, Pima County, and numerous other cities. He is involved with several technical and professional societies, including 20 years of service on the Board of Directors of the International Dark Sky Association (IDA). At the August 2015 International Astronomical Union triennial conference he presented a paper titled Advanced Strategies for Outdoor LED Lighting Applications and Technologies to Curtail Regional Light Pollution Effects. Monrad was recently retained as subject matter expert (SME) for the City of Tucson Roadway LED relighting project, and the City of Flagstaff Lighting Modernization.

Southern Contracting (9.9% of Project Work)

Southern Contracting is a leading electrical / energy design-build consultant serving California. Headquartered in San Marcos, Southern was founded in 1963. Southern is a subchapter-S corporation, maintaining bonding capacity in excess of \$50 million. Southern has built its reputation as a municipal and utility consultant serving the Southern California and Arizona markets. Key features and benefits Southern brings to the table include:

- A preferred consultant with San Diego gas and Electric for over 20 years, building substations, converting 5kV lighting circuits to 120V service, while maintaining SDG&E's existing LS-1 streetlights for the past ten years.
-

PROFESSIONAL SERVICES FOR CITY-WIDE STREET LIGHT LED
CONVERSION PROGRAM DEVELOPMENT

- Maintain a full utility underground division, owning our own yellow iron (and bucket trucks), unique among electrical consultants.
- Southern possesses General A and Electrical C-10 license.
- Experience using the true-GIS-based mapping / management tool employed by Evari.

Southern has been involved with local municipalities converted to HPS, then LPS streetlights for over 30 years. In 2009, Southern were awarded one of the first city-wide energy efficient LED streetlight conversion projects for the City of Chula Vista in the United States. Originally the city wanted to convert to the then streetlight state-of-technology induction luminaires. However, due to the emergence and promise of the new LED streetlights, the City elected to convert to LEDs. The benefit of this early experience, and subsequent track record of auditing, designing and installing LED streetlights, will provide the team with the depth of experience necessary to understand, design and implement our proposed comprehensive program.

Key Personnel

Mr. James Filanc, LEED AP

Role: Subject Matter Expert, Emphasis on Tasks 4 and 5

Mr. Filanc has more than 30 years of design-build experience, working on energy projects around the world. Mr. Filanc is the chief architect of Southern's streetlight market segment, and is a nationally recognize Subject Matter Expert on LED streetlight design and conversion as well as adaptive controls technologies. He designed and implemented Southern's auditing process. He successfully led the development and execution of all of Southern's relevant streetlight design-build projects, including the Oceanside Citywide LED Streetlight Replacement. Mr. Filanc also organized the Adaptive Controls Test Bed between San Diego, Chula Vista, San Diego Gas and Electric, and the California Lighting Technology Center.

Jim also serves as Southern's specialist for advanced technologies, and he will serve as SME for research project under Task 4.

Evair GIS Consulting (8.5% of Project Work)

Evair has developed a unique real-time GIS/GPS workflow system supporting the execution of the phase streetlighting projects and now provides services throughout the nation. Their proprietary system allows for rapid recording and auditing of street lighting inventories, and has been updated to including linking enabling GIS based controls for the latest lighting control and management systems.

Key Personnel

Mr. Ari Isaak

Role: GIS Administrator

Mr. Isaack has more than 13 years of experience as a GIS / GPS coordinator, including work for the Port of San Diego where he pioneered the implementation of GIS systems. He is trained and certified in the use of the ESRI technology platform, the same platform utilized by the regional SanGIS mapping system. He is the founder and principal at Evari GIS and was the GIS coordinator on Southern's Citywide Streetlight Replacement Project for the City of San Diego, replacing more than 34,000 HPS and LPS lights. His innovative design and deployment of the ESRI platform is now standard operating practice for Southern Contracting and received rave reviews from the City of San Diego. He has set up the ESRI platform for San Diego, Oceanside and San Marcos, as well as numerous other cities throughout the United States.

Rick Engineering (5.4% of Project Work)

Rick Engineering Company was founded in 1955 in San Diego, California. Today, it serves the Southwestern United States through San Diego, Riverside, Orange, Sacramento, San Luis Obispo, and Bakersfield offices in California, and our Phoenix and Tucson offices in Arizona. They provide full scope of planning, design, and engineering services support millions of dollars of public and private sector projects performed for hundreds of clients each year. The strength of the company is based upon a large, comprehensive, trained staff capable of producing superior complex work product in a timely fashion. In nearly six decades of service throughout the West, they have forged strong relationships with public and private clients, regulators, and owners who have come to value their expertise, seasoned professional judgment, and innovation, led by principals actively engaged in project development.

Key Personnel

Paul Iezzi, PE

Project Civil Engineer

Paul Iezzi is currently President and Principal Engineer of the Tucson office of Rick Engineering Company. He directs all administrative matters of the firm in Tucson and manages public and private sector projects. Mr. Iezzi's varied engineering background includes engineering design and plan preparation and processing for large-scale residential, mixed-use and commercial and industrial projects. His significant public works endeavors include state and federal highways and regional infrastructure improvements. Mr. Iezzi has overseen completed projects in Arizona, California, Nevada and New Mexico.

Utility Cost Management LLC (2.8% of Project Work)

Utility Cost Management LLC primary business is representing utility customers. They professionally reduce clients' electricity, gas, water, sewer and solid waste expenses by identifying and implementing cost-effective savings solutions. Since 1991, UCM has used this approach to reduce utility costs for approximately 1,800 business, government and institutional clients by more than \$140 million.

However, in the process they have developed expertise in analyzing, applying and critiquing utility rates. This expertise is relatively unique outside of the major utilities and their legal representatives. UCM will help RPU establish reasonable and understandable rates for the benefit of RPU and customers alike.

Key Personnel

Michael Kerkorian

Role: Task 3 Leader

In 1991, Michael Kerkorian founded Utility Cost Management LLC (UCM). Today, Michael serves as UCM's Managing Member and is responsible for the firm's efforts to reduce clients' costs through the informed application of utility rates and regulations. While he has continued to work in all facets of UCM's business, he has developed a special expertise in electricity rate and tariff issues.

Michael has analyzed utility charges for thousands of facilities across the United States. He has successfully argued numerous rate and tariff issues on behalf of clients, and has directly supervised the payment of more than \$50 million dollars in utility refunds. He has been responsible for initiating rate changes to utility accounts that have reduced clients' ongoing costs by more than \$150 million.

Michael has testified before the California Public Utilities Commission (CPUC) in more than fifteen proceedings, and has also testified on utility-related issues in California Superior Court. He has represented various parties in the CPUC's "General Rate Case" process, requiring him to analyze utility company costs to evaluate requested utility rate increases. Michael also led a team that was selected by the CPUC to investigate, and report on, the billing practices of an electric service provider with more than 100,000 customers.

Michael has initiated and been involved in many CPUC proceedings that have resulted in important changes to rates, rules, and policies affecting California's agricultural, multifamily, low-income, governmental, and commercial customers. Michael's involvement has included working with utility personnel to draft new tariff language that clearly articulates the revised regulations. These changes frequently have had far-reaching impacts benefitting thousands of utility customers.

Poster Frost Mirto (2.3% of Project Work)

Poster Frost Mirto is an architectural firm in Tucson with which Mr. Benya and Mr. Monrad have both worked. For the potentially significant issues regarding historic and cultural lighting, Mr. Corky Poster has been added to the team.

Key Personnel

Corky Poster, AIA, AICP

Role: Architectural historian and Subject Matter Expert

Corky Poster is a Registered Architect in the State of Arizona since 1976, and a Certified Planner (AICP) since 1990. Mr. Poster's education includes a Bachelor of Arts degree in Architectural Sciences (Magna cum laude) from Harvard College (1969) and a Master of Architecture degree from the Harvard University Graduate School of Design (1973). He has practiced architecture, planning, and urban design in Tucson since 1973. He is one of three principals at Poster Frost Mirto. After 28 years at The University of Arizona, Mr. Poster is now a Distinguished Professor Emeritus at the College of Architecture, Planning, and Landscape Architecture (CAPLA) and the former Director of the Drachman Institute. He was Acting Dean of CAPLA in 2002 and 2003.

Muni-Fed Consulting (1.7% of Project Work)

Among many energy services, Muni-Fed offers expertise in the financing of long-term infrastructure, industrial projects and public services based upon a non-recourse or limited recourse financial structure where project debt and equity used to finance the project are paid back from the cashflow generated by the project. For most LED projects, project financing is a loan structure that relies primarily on the project's cash flow for repayment, with the project's assets, rights, and interests held as secondary security or collateral. Project finance is especially attractive to the private sector because they can fund major projects off balance sheet.

Muni-Fed Energy utilizes a broad variety of finance partners like Property Assessed Clean Energy (PACE). They are an integral part of the current WRCOG LED project team that includes Southern, Benya Burnett, and Monrad.

Key Personnel

Phil Bowman

Role: Subtask 3h Subject Matter Expert

Mr. Bowman is co-founder of Muni-Fed Energy, Inc. He is responsible for the strategic, legal, financial and operational direction of the company. Mr. Bowman led the development of a financial modeling tool for use in determining the acquisition pricing structure in the WRCOG program and has already developed a preliminary financial pro-forma for each WRCOG city.
