TO: **James L. App, City Manager**

FROM: **Meg Williamson, Interim Public Works Director**

SUBJECT: **On-site Construction Management Services – Resident Engineer and Inspection Oversight – 13th Street Bridge Widening Project**

DATE: **April 20, 2004**

NEEDS: For the City Council to consider approving a construction management service contract (resident engineer and inspection oversight) for the 13th Street Bridge Widening Project.

FACTS:

1. In 1998, the citizens of Paso Robles passed Measure 'D', a $38 million dollar bond measure to fund several much-needed public facilities.

2. On July 18, 2001, the City Council held a public hearing to evaluate and publicly discuss the final design concept. The design concepts the Council focused on met a three-fold standard: congestion relief, public safety, and fiscal responsibility. The Council heard comments, approved URS' conceptual design, and directed staff to prepare construction documents (plans, specifications and estimates) for the project.

3. The approved design calls for widening the bridge to accommodate four travel lanes (two each way), two turn lanes, two bike lanes, and sidewalks on both sides. Beyond the bridge limits, adjacent streets (North and South River Roads, Creston Road, and Union Road) will also be widened to maximize flow at the intersection and relieve traffic congestion.

   The design includes ornamental barriers and lights along the bridge, consistent with downtown design elements and those installed along the Veterans Memorial Bridge. It also includes installation of bike/pedestrian paths adjacent to River Road and underneath the bridge. This would allow bikers/pedestrians to travel south to north outside the travel lanes.

4. In February 2004, the City Council adopted a final budget for the project in the amount of $19.2 million dollars. The final budget included the cost to provide construction management services (resident engineer and inspection oversight).

5. In December 2003, a Request for Proposal was issued to over twenty firms to provide construction management services. Five firms responded with fees ranging from $915,428 to $1,429,485.

6. On March 26, 2004, the five firms who responded to the RFP were invited to appear before a selection committee. One of the five decided not to participate. Therefore, only four firms were interviewed.

ANALYSIS AND CONCLUSION: It is anticipated that two full time staff would be at the job site during the approximately 20-24 month duration of the project. There will be certain times that a third person would be required, depending on the work that is being performed.

The selection committee determined that the team from LAN Engineering has the best technical experience and knowledge to perform construction management services for the City. This same firm is currently working on the County's Salinas River Road Bridge Replacement in San Miguel. Staff also checked with their past clients, and LAN Engineering received excellent recommendations.

Staff has negotiated a final scope of work and fee proposal in the amount of $980,588. (See attached details).

Typical costs for these services are in the range of 10-15% of the construction contract. For the 13th Street Bridge, the construction contract is estimated to be between 10.5 and 11 million dollars. The proposal from LAN Engineering is approximately 9% of the estimated construction contract. As a comparison, the County's Salinas River Bridge Replacement project in San Miguel has a construction contract of 6.0 million dollars, and LAN Engineering's fee is $800,000. The Veterans Memorial Bridge final construction cost was 8.0 million dollars, and the final fee paid for the two contract employees who provided construction oversight was about $700,000 (9% of construction cost).

POLICY REFERENCE: Adopted Capital Improvement Program

FISCAL IMPACT: Costs for these services are included in the adopted budget for this project.

OPTIONS:

a. For the City Council to authorize the City Manager to engage the services of LAN Engineering to provide construction management oversight for the 13th Street Bridge Widening Project for a fee in the amount of $980,588.

b. Amend, modify or reject the above option.

Attachments (1)

1) Scope of work and fee proposal

<u>Report prepared by:</u>
Ditas Esperanza, P.E.
Capital Projects Engineer

TO: James L. App, City Manager

FROM: Meg Williamson, Interim Public Works Director

SUBJECT: On-Site Construction Management Services: Resident Engineer and Inspection
13th Street Bridge Widening Project

DATE: April 20, 2004

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2. On July 18, 2001, the City Council held a public hearing to evaluate and publicly discuss the final design concept. The design concepts the Council focused on met a three-fold standard: congestion relief, public safety, and fiscal responsibility. The Council heard comments, approved URS' conceptual design, and directed staff to prepare construction documents (plans, specifications and estimates) for the project.

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Attachments (1)

1) Scope of work and fee proposal

Report prepared by:
Ditas Esperanza, P.E.
Capital Projects Engineer

13th Street Bridge Widening
and
Roadway and Utility Improvements

City of El Paso de Robles
1000 Spring Street
Paso Robles, CA 93446

Attn.: Ditas Esperanza, PE
Capital Projects Engineer

Submitted By:

LAN Engineering
12 Mauchly, Building L
Irvine, CA 92618

February 13, 2004

February 12, 2004

City of El Paso de Robles
1000 Spring Street
Paso Robles, CA 93446

Attention: Mr. Ditas Esperanza, PE, Capital Projects Engineer

Subject: ***Request for Proposal: Assist City Staff in Providing Construction Management Services 13th Street Bridge Widening and Roadway and Utility Improvements***

Dear Mr. Esperanza:

LAN Construction Services is pleased to submit this proposal for your evaluation for the subject project. Our efforts in preparing for this project have included assembling a team of highly qualified construction professionals that have outstanding track records, relevant experience, and a comprehensive understanding of the project necessary to meet the goals of the 13th Street Bridge Widening and Roadway and Utility Improvements project. We have reviewed the available contract documents (plans and specifications) and visited the project site; through this, we have gained a thorough understanding of what is required for the successful completion of the project.

Our recent extensive bridge widening and roadway improvement project experience, on similar construction projects, gives us a unique perspective for the completion of this project. Along with our ***experience, commitment, flexibility, and responsiveness,*** this will allow us to assist the City of El Paso de Robles in the timely and successful completion of your project.

We are excited about this opportunity and would like to highlight the following unique benefits:

Experience: Since its founding in 1994, LAN has been providing CM Services exclusively in transportation infrastructure projects to public agencies. Within the last have five (5) years, LAN has successfully managed more bridge widening and rehabilitation construction projects in California, than any of our competing colleagues. In addition, our recent experience as Construction Manager on Riverford Road Bridge over the Salinas River for San Luis Obispo County, gives us a unique understanding of what is required to successfully manage the 13th Street Bridge Widening Project.

Commitment: Our commitment to serve our clients' needs, guides our professional endeavors and excellence. We accomplish this commitment through effective project management, the excellence of our staff, and attention to every detail.

Flexibility and Responsiveness: We encourage you to contact our past and current clients to testify to our flexibility and responsiveness to our clients. As we begin a project, we are known for being flexible and responsive to the changing needs of our clients and the changing needs of the projects we manage.

Excellence of Our Staff: Not only are the integrity and commitment of our firm important, but most important are the people we are proposing to manage your project, because we understand the ***"people that will deliver your project."*** Hence, we have assembled a team of construction engineers that have managed some of the most successful bridge, roadway, and grade separation projects in California.

12 L Mauchly
Irvine, CA 92618

(949) 450-2800
Fax (949) 450-2805

References: We are unmatched in the services we provide our clients. As a testament to our claim we encourage the City to contact our past and current clients.

Name	Title	Agency	Telephone
Mr. Shahin Pourvahidi, PE	Contract Manager	Caltrans Office of Structure Construction	916.947.6520 916.227.8500
Mr. Dave O'Halloran, PE	County Construction Engineer	San Luis Obispo County – Department of Public Works	805.781.4387
Mr. John Doherty, PE	Director of Engineering and Construction	Alameda Corridor Transportation Authority	310.233.7480

We have reviewed the City's Agreement for Services of Independent Consultant and take no exceptions to complying with the agreement. In addition, we are familiar with current Caltrans/Federal consultant contract provisions and are prepared to certify that no conflict exists with the provisions of the required services for this project. In addition, the attached Technical Proposal will remain valid for a period of 60 days.

The project team members and their roles are as follows:

Firm/Address	Project Role	e-Mail	Contact
LAN Engineering 12-L Mauchly Irvine, CA 92618	Prime Consultant Construction Management & Inspection	Peter.Lim@ LANengineering.com	Peter Lim, PE, CEO (949) 450-2800
Earth Systems Pacific 4378 Santa Fe Road San Luis Obispo, CA 93401	Subconsultant: Materials Testing	msims@ earthsystems.com	Mike Sims, PE, President (805) 544-3276
Volbrecht Surveys 22375 K Street Santa Margarita, CA 93454	Subconsultant: Construction Survey	alan@ volbrechtsurveys.com	Al Volbrecht, PLS, President (805) 781-9296

We thank you for taking the time to review our proposal and qualifications package, and pledge to you the commitment of our team. If you have any questions regarding this proposal, the undersigned will be your contact person.

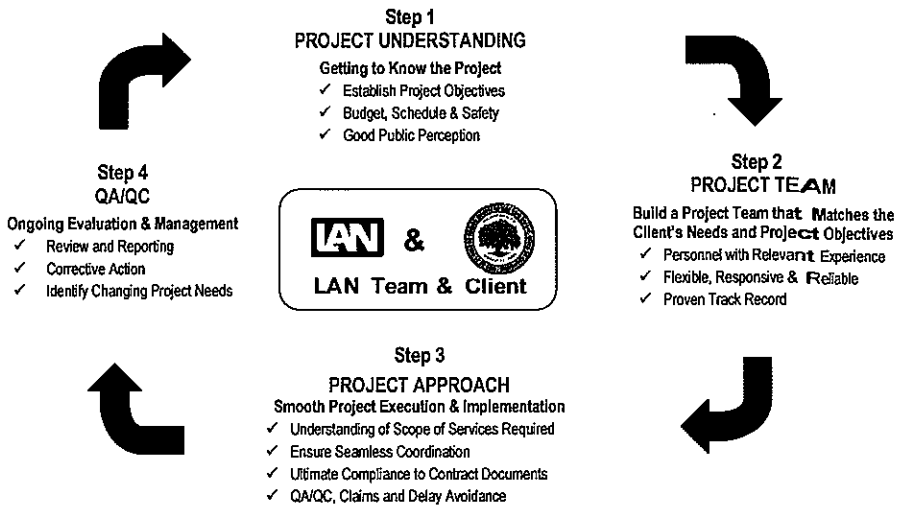
Very truly yours,

Lim And Nascimento Engineering Corporation

Peter Lim, PE
Project Manager
Chief Executive Officer

1. Executive Summary

Lim And Nascimento (hereafter referred to as the LAN team), is pleased to submit this Technical Proposal to the City of El Paso de Robles in response to your Request for Proposal. We have carefully reviewed all of the available information and documents on the 13th Street Bridge Widening project; the type of services required, as related to the key issues; and our team's relevant experience. As a result, we have elected to pursue the Construction Management services for which we feel the LAN team is best qualified.



We strongly believe that LAN's extensive experience with Federal-Aid Projects and Caltrans Local Assistance Program procedures with recent bridge construction over waterway, together with LAN's field engineering, design, and construction experience in bridges, provides our staff unparalleled insight into the type and nature of the construction, and program at large. In addition to our recent in-depth experience in bridge widening construction projects, and Caltrans Local Assistance Program procedures, we are committing to you a Principal of LAN, Peter Lim, P.E., to be the Project Manager. Peter, as Project Manager, has successfully managed numerous roadway and bridge projects for Local Agencies with Caltrans funding and has gained valuable experience in managing grade separation construction projects. Most recently, Peter successfully completed his assignment as Project Manager for the County of San Luis Obispo Bridge Retrofit Construction program, and is currently completing his assignment as Project Manager for the River Road Bridge Replacement over Salinas River for San Luis Obispo County. In addition to Peter, we are also committing, Mr. Jon Mehtlan, P.E., Director of Construction Services for LAN, to serve as alternate PM and QA/QC Officer during the time when Peter is either on vacation or on sick leave. With this commitment from our top management and staffing arrangement, the LAN team can offer the City of El Paso de Robles a cost-effective and uninterrupted management service throughout the contract. As a result, the City of El Paso de Robles will have access to the Principals of LAN at anytime during the course of the project.

In addition to the key management role held by Principals of LAN, we are also committing to the City of El Paso de Robles the best construction personnel within the LAN organization for this project. We are proposing Dean Russu, PE, as the Resident Engineer, with support from Kevin Tran, PE, as the Deputy Resident Engineer and Lead Inspector. These two individuals not only have a proven track record with managing complex and large bridge projects, but also have extensive experience with bridge construction in Central Coast and Caltrans District 5. Their credentials are further illustrated elsewhere in this Technical Proposal. Most recently, Dean Russu, PE and Kevin Tran, PE has successfully completed his assignment as Lead Field Engineer (Structure RE) and Lead Office Lead, respectively for the Crockett Interchange for Caltrans Office of Structure Construction in Caltrans District 4. Also Kevin Tran recently, and successfully, completed his assignment as Structure Representative RE for the I-5 Widening Project for Caltrans District 12, and is currently completing his assignment as Structure Representative for the I-10 Truck Climbing Lane project for San Bernardino association of Governments (SANBAG). Kevin's current Structure Rep assignment will be completed in time for him to be available to work on the 13th Street Bridge Widening project. The project team will also include Chuck Tran, PE, with over 15 years of experience as an "On-Call" Inspector. Chuck has served as Lead Inspector on the Redondo Junction Grade Separation project and on several Caltrans OSC projects throughout the California and has extensive experience in bridge construction in Central Coast.

Why Choose the LAN Team:

- ✓ Our Proposed Resident Engineer, Dean Russu, PE, a local San Luis Obispo County Graduate has the identical bridge construction experience (River Road Bridge Over Salinas River) required for the 13th Street Bridge Widening Project.
- ✓ A "Well-Taught-Out" Plan
- ✓ Proven ability to undertake a project of similar magnitude.
- ✓ Proven Willingness, Responsiveness and Flexibility in meeting Clients' requirements in our previous contracts.
- ✓ Thorough understanding of Caltrans Local Assistance Program Procedures.
- ✓ Unmatched Commitment from the Principals of the Firm.
- ✓ Key Personnel with extensive Bridge Widening construction experience.
- ✓ Project Manager with unique qualifications (both design and construction experience) committed to "Do Whatever It Takes" for the success of this project.
- ✓ LAN's RE and Inspectors are among the very few CM professionals within California that have the capability to perform temporary work (falsework, shoring, and trenching) review, design and approval.
- ✓ As part of LAN's Overhead Payroll – we proposed Jon Mehtlan, PE a 40 year veteran in bridge construction to support the LAN Team.

3. *Project Team: Key Personnel*

The LAN team has the personnel and resources necessary for the successful completion of the 13th Street Bridge Widening project. We have included a pool of over 10 engineers, inspectors and technicians with sufficient duplication to staff for this project and will demonstrate that we have both the number and the depth of experienced staff to be assigned at all required levels.

Another key factor to our organization is the ability of our Project Manager to quickly respond to client's requests for changing project needs. We have ***selected Peter Lim, PE*** as our ***Project Manager;*** City of El Paso de Robles will have the ideal consultant manager for this contract. He has 20 years experience, exclusively in bridge design and construction. His background in bridge design and construction will be invaluable in assisting the City of El Paso de Robles and the design team in performing value engineering and constructability analysis. More importantly, Peter Lim as President of LAN, has proven in previous CM Contracts his *willingness, responsiveness and flexibility* to meet the project changing needs during the course of the contract due to changing project needs. In this regard, Peter is unmatched for his commitment in meeting client's needs and for his quick response time in meeting client's requirements.

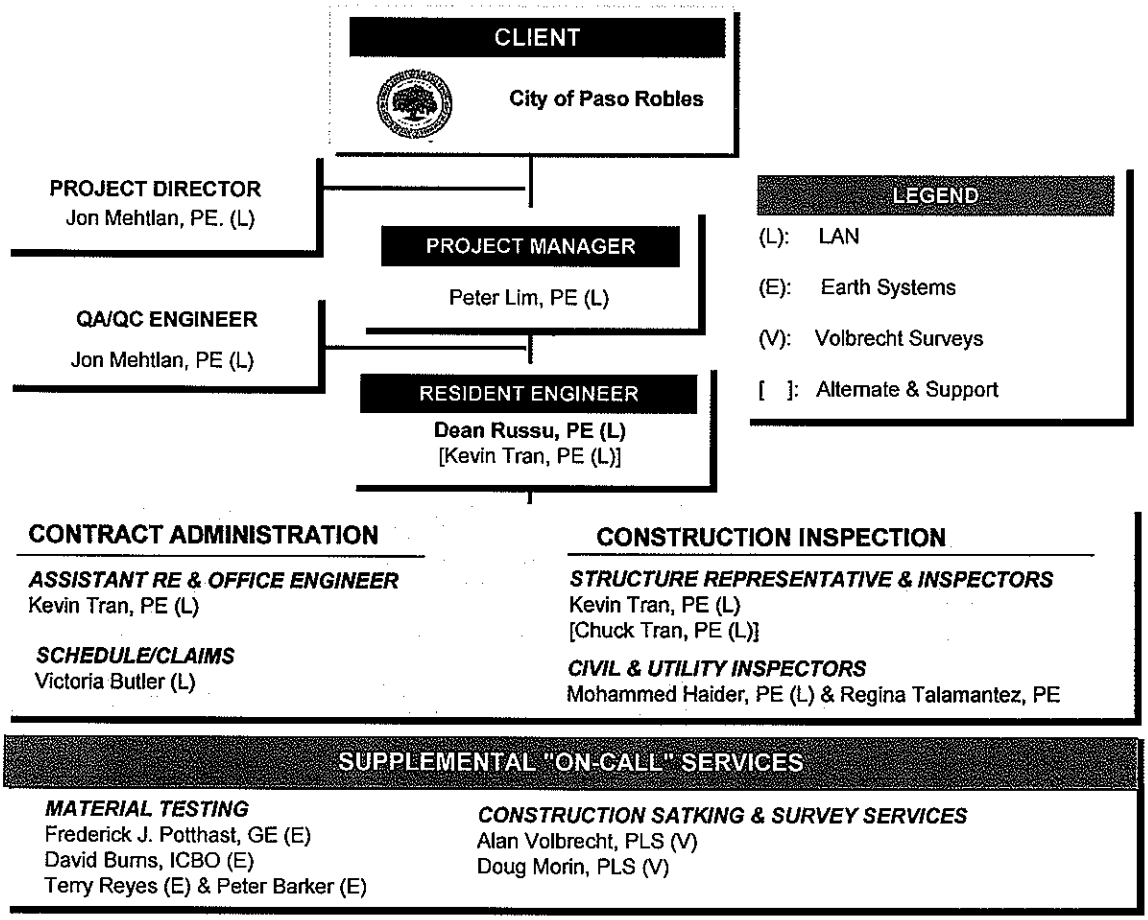
Although the LAN team's overall credentials and commitment are important, the key to any project are the individuals who will actually be performing the work. In this regard we have provided you with two (2) references for each of the proposed key personnel. With this in mind, LAN team has assembled a highly qualified team of engineers with an average of 15 years of construction management and inspection experience who are committed and dedicated to this effort. The proposed key staff members were chosen based on their extensive experience in grade separation construction in urban environments with various funding.

Our strong record of experience in bridge and roadway construction projects allows the project team to offer unparalleled level of experience in the requisite disciplines. The team's professionals have consistently demonstrated their ability in managing bridge/railroad construction projects that involve multi disciplines and multiple agency coordination. The project organization chart shown on the following page, outlines the major assignments of our key personnel. Their direct related bridge widening construction experiences are summarized below.

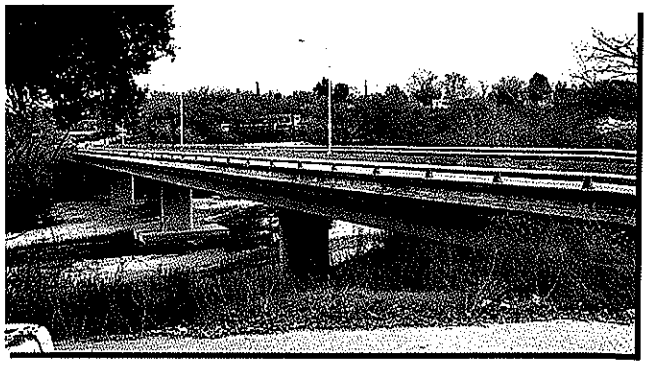
References for Proposed Key Personnel

KEY STAFF/ROLE	REFERENCE NO. 1	REFERENCE NO. 2
Peter Lim, PE Project Manager	Mr. Shahin Pourvahidi, PE *(916) 947-6520* Caltrans Contract Manager Office of Structure Contract Management	Mr. Steve Whipple, PE *(925) 957-2150* Caltrans Area Construction Manager Caltrans Office of Structure Construction
Dean Russu, PE Resident Engineer	Mr. Dave O'Halloran, PE *(805) 781-4387* County Construction Engineer San Luis Obispo County	Mr. Peter Stryker, PE *(510) 262-6837* Caltrans Area Senior Caltrans Office of Structure Construction
Kevin Tran, PE Assistant RE	Mr. Peter Stryker, PE *(661) 262-6387* Caltrans Area Senior Caltrans Office of Structure Construction	Mr. Steve Whipple, PE *(925) 957-2150* Caltrans Area Construction Manager Caltrans Office of Structure Construction
Chuck Tran, PE Lead Inspector	Mr. Brian Boal, PE *(510) 262-6810* Caltrans Area senior Carquinez Suspension Bridge	Mr. Steve Whipple, PE *(925) 957-2150* Caltrans Area Construction Manager Caltrans Office of Structure Construction
Victoria Butler Schedule/Claims	Mr. Dave O'Halloran, PE *(805) 781-4387* County Construction Engineer San Luis Obispo County	Mr. Herald Lantis, PE *(760) 802-7730* Construction Manager San Bernardino Associated Governments
Jon Mehtlan, PE QC Engineer	Ms. Delores Valles, PE *(916) 227-8845* Chief of Construction Caltrans Office of Structure Construction	Mr. Dennis Wilder, PE *(619) 688-6981* Area Construction Manager Caltrans Office of Structure Construction

Project Team Organization Chart



Key Staff/Role	Profile of Key Personnel
Peter Lim, PE Project Manager	✓ Over 20 years experience in both bridge design and construction. ✓ Proven track record in his responsiveness and flexibility to previous clients ✓ Committed to be available for 100%, if required by the City
Dean Russu, PE Resident Engineer	✓ Over 15 years highway/bridge construction management experience ✓ Recent construction experience in bridge widening over waterway ✓ Successful completion of Crockett Interchange project as Structure RE
Kevin Tran, PE ARE & Office Engineer	✓ Over 12 years highway/bridge construction experience with Caltrans ✓ Recent Field Office Lead for the Crockett Interchange ✓ Identical experience to the 13th Street Bridge Widening Project
Jon Mehtlan, PE Project Director	✓ Over 40 years of exclusive bridge construction experience in California ✓ Provide comprehensive and meaningful constructability review and QA
Chuck Tran, PE Lead Inspector	✓ Over 15 years of exclusive structure construction engineering & inspection experience ✓ Recent construction experience in grade separation projects in urban environment
Victoria Butler Schedule/Claims	✓ Over 20 years scheduling and claims experience ✓ Provide Claims, Scheduling and Estimating training to Caltrans District 7



Project Understanding: The LAN Team understands that the City of El Paso de Robles is requesting Technical Proposals to provide "Full" Construction Management Services for the 13th Street Bridge Widening and Roadway and Utilities Improvements Project. It is anticipated that the 13th Street Bridge Widening Project will begin in April 2004 and go through August of 2005. With this begin date in mind, LAN has assembled a team of engineers that have the relevant experience needed, and are available to work on this project. Several of our proposed Construction Engineers have completed their assignment as Resident Engineer and Structure Representative for numerous local agency bridge widening projects that are very similar to the 13th Street Bridge Widening and Roadway and Utilities Improvements Project.

It is imperative that the construction of the 13th Street Bridge Widening project be executed while maintaining continuous traffic operations and pedestrian and local business access and delivery along 13th. Street/Creston Road, which will have an effect on the construction staging and final design. All schedule and budget risk factors will be evaluated to arrive at the means and methods of construction, which will minimize those risks.

Based on our recent and thorough field review, and the contract documents, we have identified the following key features of the 13th Street Bridge Widening and Roadway and Utilities Improvements Project.

Project Limits: The main project involves the widening of the 13th Street Bridge Widening over Salinas River and adjacent roadway improvements.

Civil/Road Work: The project primarily includes the widening of 13th Street and the adjacent Creston Road between SR 101 on the east and Elm Court on the west, and widening adjacent portions of Union Road, realigning of North River Road, and South River Road.

Drainage Structures/Utilities: In addition there are several storm drains, including four 750mm RCP traversing across North River Road, that join into a trapezoidal concrete lined channel. The utility work includes several water lines, sewer lines, and several overhead lines to be relocated and placed underground.

Structure Work: The structure portion of the work includes the widening of the 13th Street Bridge structure. The bridge structure comprise of five (5) spans, with two frames, cast-in-place prestressed concrete box girder structures, supported by pier walls on pile foundation. The bridge length is approximately 150 meters and comprises of five spans, with typical span length of 30 meters. The project also includes a trapezoidal concrete lined channel that runs parallel along North River Road and Union Road. In addition, the bridge is being designed to carry several utility lines, including 400 mm water line, telephone line, two electrical conduits, and a gas line.

5. *Project Understanding & Key Issues*

Key Issues: Having identified the significant features of the 13th Street Bridge Widening Project, we have summarized some of the key issues that shall be considered by the CM Team within the constructability review phase of the project, and issues that we will be aware of during construction. With this in mind, and in addition to our understanding of the Project, the following are critical concerns that need to be carefully considered by the selected CM team. A more detailed discussion is provided in a subsequent section of this Proposal.

KEY ISSUES	PROJECT REQUIREMENTS	LAN TEAM ACTION PLAN
Constructability	Comprehensive review of contract documents to provide the City with a quality set of construction documents that will provide the most cost-effective means for construction. Identify potential challenges and resolutions. Identify different site conditions.	As part of the LAN team, we have assembled a constructability review task force to provide a final review of the contract documents. In addition to helping develop a quality set of contract documents, this task will identify construction challenges and provide a constructable and biddable project, with minimum impacts/delays.
Coordination	Update LAN's current RE Manual to address the permit process with the Regional Water Quality Control Board, CA Department of Fish and Game, Army Corp of Engineers, SLOC Air Quality District, US National Wildlife, Project Designer (URS), utility companies, and other permitting agencies, and Community Outreach procedures.	We will provide a final review of the permits between the City and permitting agencies to ensure that the project is buildable, yet meets all of the environmental requirements. Work schedule in the river bed shall be carefully evaluated and shall be included in the special provisions that are consistent with the approved permits.
Schedule	Imperative that the project is on schedule with no delay, so the City of El Paso de Robles can operate 13th Street Corridor at full capacity.	Mobilize a team that has identical experience and has established working relationships with regional permitting agencies.
Budget	Budget is $12.2 Million.	We will provide a comprehensive Constructability Review assignment to eliminate inconsistencies within the contract documents, which can save construction dollars during construction, and avoid different site condition claims.
Local Community Access	Ensure that access to adjacent property owners is maintained.	Provide team members that are instrumental regarding public information and establish a web-based information system that allows the City Management and the public to know the progress of construction.
Construction Staging Interfaces	Ability of CM staff to identify the work interfaces between construction stages. Eliminate delay claims.	The LAN Constructability Review Team, and the proposed RE, will assure the City that the work performed by the contractor involves clearly defined staging interfaces, especially overlapping staging that may impact the approved Baseline Schedule.

5. *Project Understanding & Key Issues*

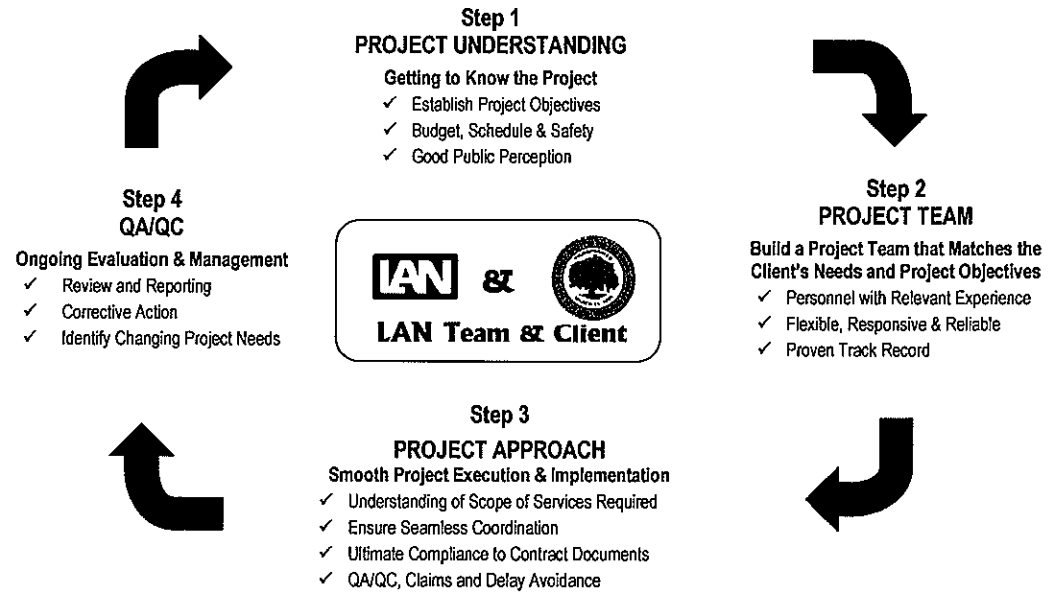
Key Issues	Project Requirements	LAN Team Action Plan
Utility Relations	Maintain construction schedule and avoid any surprises. Ensure no Right-of-Way delay claims.	Provide key personnel with proven track records working with PG&E and private utility owners. Implement an electronic tracking system.
Community Outreach	Achieve a positive public perception of the 13th Street Bridge Widening construction project. Involve the community prior and during construction to mitigate potential negative community response to the project.	Dean Russu, PE, our proposed Resident Engineer, has recent local experience in this regard. He will provide business and community relations in resolving and addressing community concerns. Advise the City on impacted communities.
Piling Operations	Debris such as tree trunk buried deep below the Salinas River bed, often cause delays and costs.	Our proposed RE and inspectors have the experience in implementing schedule recovery plans for encountering different site conditions, such as during piling operation in the Salinas River bed. Their recent experience includes the River Road Bridge over the Salinas River; the Mojave Drive Bridge over the Mojave River; and Market Street Bridge over the Santa Ana River.
Temporary Work *(Falsework Analysis)*	Reduce turnaround time, significantly, in review and approval of temporary work.	Structure Rep and Resident Engineer that can provide on-site review and approval of temporary works.

6. *Project Approach*

LAN is well known for its ability to provide Construction Management Services on Bridge/Roadway projects within the State of California. Our current and previous clients recognize our "hands-on" management style, resources, experience, and construction planning skills. These are all important attributes; but most of all, they appreciate our willingness, flexibility, and responsiveness to changing project needs.

In developing our approach to the 13th Street Bridge Widening project, we began by building a Construction Planning Team comprised of the Project Manager, Peter Lim, PE; Resident Engineer, Dean Russu, PE; and Project Director, Jon Mehtlan, PE. We understand that constructing a sound strategy begins with a plan – an important bridge to the successful completion of any construction project. Our Construction Planning Team will help the City of El Paso de Robles build this plan through a systematic, four-step program designed to help the City achieve its project goals through this process. This four-step process is illustrated in the figure below.

A Proven, Systematic Process For Building A Successful Project



Step 1: Getting to Know the Project

Goal: Develop a Complete Understanding of the Project and its Key Issues

Our Resident Engineer resides in Paso Robles and our Project Manager, Peter Lim, PE, has visited the project site, reviewed the contract plans, and discussed the project with our in-house designers to develop a thorough understanding of the project issues and services required. Our understanding of the project and its key issues is summarized in Section 4 of this proposal. A detailed discussion of the key issues is further discussed in Step 3 – Smooth Project Execution & Implementation (Technical Approach) illustrated later in this section.

Step 2: Build a Project Team that Matches the City's Needs & Project Objectives

Goal: Develop a Sound and Solid Staffing Plan for the Project that is flexible and responsive

With our understanding of the project and its key issues identified in *'Section 5. Project Understanding and Key Issues'* of this proposal, we began building a team that matches the project needs. Our Project Team Members, along with their experience and the Project Team Organization, are provided in *'Section 3 Project team: Key Personnel'* of this proposal.

Technical Approach

Step 3: Smooth Project Execution and Implementation

Goal: Successful Completion of the 13th Street Bridge Widening Project within Schedule, Budget, and with No Injuries

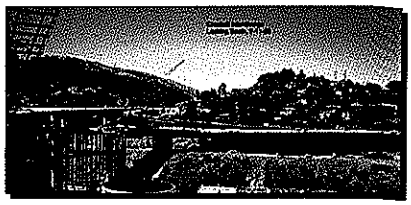
Key Technical Issues:

Utility Relations: Aside from unanticipated different site conditions encountered during foundation construction, utilities are by far the most cause of construction delays in any transportation infrastructure construction projects. This project is no exception; thus, careful and deliberate coordination is a prerequisite for the success of this project. Due to the shear magnitude of utilities within the footprint of the project site, including "cluster" utility lines which cross and are along the 13th Street corridor, it is imperative that a thorough utility search program be implemented to avoid surprises from unforeseen utility interference.

Utility and Permits Tracking System: The LAN CM team will utilize a utility tracking system, which will list each utility, the owner, the owner's contact person, and to-date disposition of any action required of the utility. This tracking system will be continuously updated, in order to keep constant attention on the relocation activities of each utility affected by the construction. In addition to the utility tracking system, we have a similar tracking system for the permits required.

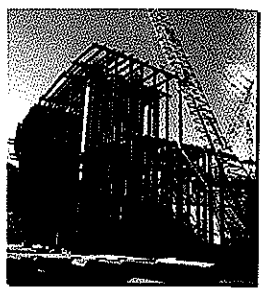
Contract Special Provision: Utility Relocations are often the cause of delays and additional costs. As part of our scope, we will provide constructability review for this project and suggest that the Special Provisions be very clear on this issue. There should be no doubt as to whom, when, and how, the relocation of utilities will be accomplished. A construction schedule, for utility relocation work, should be included in the Special Provisions. If utility work is completed before the contract is awarded to the lowest bidder, the person responsible for the utility relocation contract must certify that the work has been completed. An estimated number of working days have been allotted for the utilities to complete their work. The contractor will need to include these time allotments in its schedule, and coordinate its operations with the utilities. Regular meetings among utility companies, the contractor, and the RE, will help provide the necessary communication to assure effective coordination. LAN will not only manage the coordination of the utility companies to prevent any potential delays, but will also thoroughly document their activities to protect the City from any potential delay claims. LAN knows that during all construction projects, things will change. It is how these changes are effectively managed that keeps the job on schedule.

Utility Coordination: The key to utility coordination is being familiar with the construction activities, planning ahead, and continuously updating the team with the status of the work. Regular, separate utility meetings will be scheduled to coordinate all of the entities involved. All parties need to be aware of what others are doing in order to have successful project coordination and maintain project schedule. Our project inspectors will ensure that the Underground Service Alert is notified by the contractor, in a timely manner, and will monitor any potholing operations necessary to locate and protect existing facilities. Because of our ability to provide effective utility coordination, the Pacific Coast Highway Grade Separation Construction currently being managed by Peter Lim (PM) Peter Ho (RE) and Dean Russu (Assistant RE), is two (2) months ahead of schedule. Our reference to this claim is Mr. John Doherty, PE, Director of Engineering and Construction ***(310.233.7480)*** for ACTA.



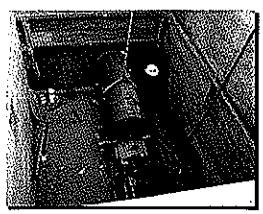
Cast-In-Place Post Tension Concrete Box Girder Structure: LAN is well known for its bridge engineering and construction expertise in cast-in-place post-tension concrete box girder bridges. Most recently, LAN, as Prime Consultant, and under the leadership of Dean Russu and Kevin Tran, has successfully completed our assignment as construction engineer for the Crockett Interchange for Caltrans. Our reference to this claim is the Caltrans Office of Structure Construction, Mr. Peter Stryker, PE, Caltrans Area Senior Bridge Construction Engineer (510.262.6837).

In addition, LAN, as Prime Consultant under the leadership of our proposed Resident Engineer, Dean Russu, PE, is currently providing construction management services for the River Road Bridge Replacement over Salinas River for San Luis Obispo County. Some of the largest concrete bridge projects successfully completed by LAN include: Carquinez Suspension Bridge, New Benicia-Martinez Segmental Bridge, and the I-680/780 Interchange for Caltrans Office of Structure Construction.



Falsework and Temporary Construction Work. Falsework is a critical element of construction of the cast-in-place prestressed concrete box girder structure. Not only are the analysis, review, and approval important, equally as important is the erection and demolition sequence of the falsework that has to be in compliance with project specifications and CalOSHA safety requirements. We recommend that the falsework, and/or any temporary work submittals by the contractor, be reviewed and approved by our proposed Resident Engineer, Dean Russu, PE, and/or Structure Representative, Kevin Tran, PE. In addition to their ability of falsework analysis and design, the field staff will be required to have the capability to perform camber strips calculations and 4-scale plans for this CIP concrete box girder bridge structure. Besides our in-house Trenching and Shoring design computer programs (mentioned earlier); we have also developed several falsework design computer programs that are readily available for use in this project.

LAN is among the very few full-service CM firms with construction engineers having the ability to review and approve falsework and temporary work. Most recently, LAN was retained by the Caltrans Office of Structure Construction (Contract No. 59A0269, Task Order Fee: $1.3 Million) to provide an independent audit of Caltrans Falsework procedures and processes. Under this contract, LAN is responsible for evaluating Caltrans existing falsework procedures, performing independent falsework analysis for bridges statewide, and providing a written report as to the adequacy of the Caltrans falsework procedures. Our ability to perform such an analysis will reduce the review time of contractors' submittals.



Excavation Safety: Open excavations are an obvious hazard associated with foundation construction or open utility trenches. Excavation for footing construction work presents special safety concerns including limited access, limited work area, damp or wet footing, and deep excavations. All LAN Construction Inspectors are trained in excavation safety, and are familiar with the provisions of Article 6 "Excavations" of the Construction Safety Orders, and the provisions for safe access in terms of adequate walkways, rails, ladders, or stairs into and out of the lower levels.

Water Line Installation: For the large diameter water line installation, we will also monitor thrust block locations for proper installation. Excavation and placement of trench bedding and backfill will be monitored, on a full-time basis, and the shoring protection requirements of CalOSHA will be fully adhered to. We will also coordinate tie-ins with the Water District, and will monitor the testing, disinfecting, and proper disposal of chlorinated water.

Storm Water Pollution Prevention Plan (SWPPP): Relations with the Regional Water Quality Control Board (RWQCB) will be especially critical to the success of the project. Erosion control has been a major issue in California over the past five years. The requirements of the RWQCB are strict and enforcement is thorough. LAN staff members have worked successfully with the RWQCB personnel on other projects. We will attempt to include the RWQCB in accepting the contractor's Storm Water Pollution Prevention Plan (SWPPP). This will be a proactive step in alleviating problems when construction starts.

Traffic Control: Our team is experienced with the contract requirements for traffic control; specifically, the WATCH Manual and Caltrans procedures for maintaining traffic and setting up roadway lane closures. Before construction, the contractor's traffic control system will be thoroughly reviewed for compliance with the contract documents. We will work with the contractor in gaining these documents' approval, ensuring the timeliness of submittal review. During construction, we will monitor contractor activities to verify that traffic control requirements are met, including any detours. An important feature to all traffic control is proper public awareness for any scheduled changes. Upon implementation, the system will be assessed for safety, bottlenecks, and overall effectiveness, on a daily and "as-needed" basis. Our traffic control expertise goes beyond our strict enforcement of the contract traffic requirements. Just as important, LAN is also well trained in responding to unexpected or emergency traffic situations. As on all of our projects, we make safety of both the traveling public and the work crew a number one priority.

Construction Staging. Construction staging will be one the most important elements. As a part of our pre-construction document review, our key staff will closely analyze the construction staging plans to identify construction efficiency and traffic safety issues. During construction, LAN staff will regularly coordinate with the contractor to achieve proper construction staging and minimal disruption to the traveling public.

Management Plan

The most successful CM Services contracts are preceded by a sound management approach that identifies the staffing availability within their organization and the appropriate level of experience. Very simply stated, our management approach is committing our best people to this project. The way we achieve this approach is to take-on one major assignment at a time. As in the past, time-after-time, we have successfully maintained this track record with our past clients. Another key factor in our management style is to ensure that there is no turnover among our key staff. That is once a key personnel is assigned to a project, he or she will remain on the project until the project is completed. Among our competing colleagues in the arena of providing Construction Management services contract, LAN staff turnover is the lowest and, as a matter of fact, LAN has not lost a CM staff member in its 10-year history.

Experienced CM Staff. The foremost important aspect of any project is the ability to assemble a team of construction engineers having the relevant experience necessary for successful project completion. We have just such a team for this project. We can say that we probably are the only firm that can provide the City with a structure inspector that has the experience in falsework design, trenching and shoring design, structural steel bolting, rebar and steel welding, post-tensioning, and tie-wall wall construction, resulting in lower CM cost. This will eliminate the City from having multiple structure inspectors for each of the structural elements.

CM Contract - Project Controls and Administration. One of LAN's most important tools in administering and overseeing individual efforts is the APCS (Automated Project Control System), internally developed for managing contract costs. Weekly Progress Reports and Schedule Updates of the consultant contract, as well as the construction contract, will be provided at the meeting. The objective of APCS is to provide accurate invoices and an effective contract management system that gives management timely and auditable data for determining engineering contract cost, and schedule status. The overall goals of Project Control are to achieve: • Accountability • Accuracy in Project Reporting • Responsiveness • Cost-Effective Services.

We believe that LAN has proved to be the most cost-effective CM service firm among all other CM firms working on the recent Alameda Corridor Grade Separation construction projects. Our testament to this claim is that we successfully completed our assignment as CM for the Redondo Junction Grade Separation project with $600,000 under the authorized budget and are currently $750,000 under budget in our CM cost for the PCH Grade Separation project. Our testament to this claim is Mr. John Doherty, PE (310.233.7480); Director of Engineering and Construction of the Alameda Corridor Transportation Authority.

Submittal Turnaround - Construction processes rely on rapid and reliable submittal turnaround. With the diverse parties involved, such as City of El Paso de Robles, and others, lead and review time for submittals is crucial. LAN can provide review of contractor submittal to ensure that all contract requirements are met prior to submitting to the City or designer for final approval. Our success in managing timely submittal review and approval begins with developing a submittal log. This document identifies the nature of the submittal, the party responsible for review and approval of the submittal, and what is the nature of work that will be impacted by each submittal. This submittal log will be maintained electronically using Expedition and can be sorted-out by submittal number, date, and/or submittal type. In addition, we will implement an alarm system in the computer to beep if the submittal is due within three days or a timeframe that our RE feels comfortable with. This submittal log (electronic file) can be assessed by the City Project Manager, Contractor, or Project Designer via the internet.

Labor Compliance: With Assembly Bill No. 1506 enacted, a whole new focus has been put on Labor Compliance Programs related to public works for the Construction Management staff that perform duties as inspectors and material testers requiring the CM firm to pay prevailing wages. This project is no exception. We have an in-house full-time Labor Compliance Officer that can meet the project needs and ensure that the City is in compliance; thus, will not jeopardize any Federal Aid Program funding. We have, in the past, assisted other Local Agencies in developing a customized Labor Compliance Program in their specific District and have submitted the program to the Department of Industry Relations (DIR) for approval, as needed. In addition, our proposed Office Engineer has extensive experience in ensuring that the contractor is in compliance with the latest requirements.

Scope of Services

Upon notification of selection, LAN will begin to mobilize for the project. As LAN mobilizes for the project, three main tasks must be accomplished. First, in consultation with the City, and with a collaborative effort, we will update our existing Resident Engineer's Manual and our existing project controls system, as needed, to conform to City reporting requirements. Concurrently with the institution of project controls, our second major task is to work with URS, the Project Designer, to complete our understanding of the project requirements and constraints, and to begin to build a collaborative problem-solving team. Thirdly, with a collaborative effort from the Project Designer and the City, LAN will develop a complete list of project stakeholder' names, addresses, and contact numbers.

Our Technical Approach for the 13th Street Bridge Widening project was developed to address the key project issues previously identified and also summarized in Section 5 of this proposal. Having identified the key project issues, our approach is to achieve smooth execution and implementation and the following goals:

- ✓ A quality project that meet all the requirements of the contract documents, at every step of the way
- ✓ Assist the Contractor to complete the project in the least amount of time possible
- ✓ Ensure that the project is completed within the specified schedule and the allotted budget
- ✓ Positive public perception for the project and a good project image
- ✓ Foster an atmosphere of trust and fairness among all project participants
- ✓ Be flexible and responsive to the City and any other stakeholders for issue resolution
- ✓ A safely constructed project, with a goal of "No Injury"

Successful delivery of the 13th Street Bridge Widening project begins with providing the City assistance in all three (3) vital phases of the project:

Phase 1 – Pre-Construction

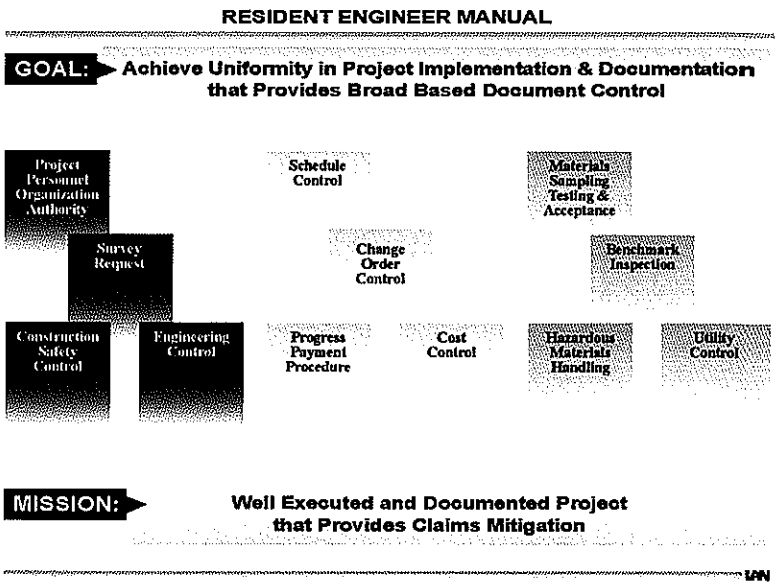
Phase 2 – Construction

Phase 3 - Post-Construction

Phase 1 – Pre-Construction

Leading our effort in the pre-construction phase, will be our Project Manager, Peter Lim, who brings to the project the expertise of managing numerous bridge/roadway construction projects in California. In this phase, we will work with the City of El Paso de Robles, URS, local communities, utility companies, and other public agencies and stakeholders, to establish the lines of communication and relationships that will be essential to our effective management of the project. We will also become familiar with the technical requirements and design criteria upon which the project is based.

Project Kick-Off Meeting: Upon receipt of the notice-to-proceed, LAN will request a meeting with the City to understand the overview of the project from the City's perspective. LAN will request from the City all the pertinent documents of the project such as the latest contract documents, FEMA/Caltrans Cooperative Agreement, and Utilities Cooperative Agreement. This meeting is the first opportunity for the project core team to meet and is also an opportunity for LAN to explain our pro-active, fair, non-confrontational approach to problem solving and team building. In this meeting, we will identify the roles and responsibilities of our proposed project team members, CM contract administrative procedures and reporting formats; identify all project stakeholders and the goals and objectives of each project stakeholders, and review the existing status of the design, schedule, and potential impediments. Having an understanding of the City's view and perspective of the project, we will modify our current Resident Engineer Manual to meet these needs and project objectives.



Resident Engineer's (RE) Manual. In the past, the LAN team has developed a comprehensive Resident Engineer's (RE) Manual for each construction project we managed. The backbone of the LAN RE Manual is based upon the Caltrans Construction Manual and Caltrans Records and Procedures Manual (commonly referred to by Caltrans as the CRAP Manual). This manual has proven to be a valuable tool, which will provide information on procedures and guidelines that will be implemented for the LAN team members assigned to the project. This manual also establishes project specific policies and describes duties for field and administrative personnel and for administering the construction contracts. The Manual is intended to be a living document and will be updated throughout the life of the project. LAN will tailor its existing RE Manual to conform to the City's project objectives. Revisions to this existing RE Manual shall be structured so that it is in conformance with the contract documents and in close consultation with the City of El Paso de Robles, and meets all Federal Funding requirements specified in the State Local Agency Program Procedures Manual. On ACTA's Redondo Junction Project, LAN team members developed the only approved RE Manual. This manual became the catalyst for the standardized RE Manual currently adopted by ACTA and is being utilized for the entire Alameda Corridor construction projects, both in the south and north end projects.

Topics to be included in the Resident Engineer's Manual will include:

- ✓ Project Personnel Organization Authority
- ✓ Filing System and Survey Request
- ✓ Engineering Control and Job-Site Communications
- ✓ Office Administration and Project Administration
- ✓ Schedule and Cost Control and Progress Payment Procedures
- ✓ Change Order Process, Claims Handling Procedures, and Force Account Work
- ✓ Quality Control Guidelines and Source Inspection Guidelines
- ✓ Right-of-Way and Construction Easement and Specialist Services
- ✓ Pre-Construction and Construction Meeting Minutes
- ✓ Submittal Processing, Handling, and Approval
- ✓ Designer and/or CM Responsibilities for Shop Drawing and Temporary Work Review and Approval
- ✓ Material Sampling and Testing Request and Acceptance
- ✓ Construction Safety Control and Safety Training
- ✓ Traffic Control Plans Submittals and Approval Process
- ✓ Hazardous Waste Procedures and Environmental Compliance
- ✓ Procedures of Issuing Non-Conformance Reports and Stop Work Procedures
- ✓ Specific Forms for Daily Reports and Benchmark Inspection
- ✓ Labor Compliance Requirements and General Administrative Forms
- ✓ DBE Reporting Procedures, Prevailing Wage, and Certified Payroll Reporting Procedures

Constructability Analysis and Review: LAN has already begun the constructability review of the contract plans and has identified several conflicting elements. Concurrently with the development of the RE Manual, we will continue to complete our constructability analysis that we have already started. It is a known fact the designers for transportation infrastructure projects have not been involved in the final construction aspect of the project. Thus, it is a prudent investment for the City to engage the selected CM to ensure, as a minimum, that the project is constructable for each controlling operation within its own schedule.

LAN, as Prime Consultant, has successfully completed over 100 bridge construction projects as Construction Manager and over 50 bridge design projects as Project Designer. With this experience behind us, LAN can provide the City with a comprehensive constructability analysis and a practical approach to construction that will ensure the project is constructable and biddable. Our most recent experience, as Construction Manager, includes design oversight of the designer for the Pacific Coast Highway Grade Separation project. We provided the client valuable comments from a construction perspective during the design phase, resulting in LAN being currently two months ahead of schedule.

Upon completion of the final contract documents, and prior to advertising, LAN will perform a final review of the contract documents to make sure that nothing has fallen through the cracks. LAN will provide a comprehensive constructability analysis for features regarding early construction contracts, utilities, hazardous wastes, traffic detour, staging construction, access during construction, as well as design elements. Tasks include review of plans, specifications, technical reports, resident engineer's files, and associated items in order to verify completeness of the contract documents. Crucial elements in the constructability analysis are the consistency between the pay item list and the payment clause specified in the specifications, quantity discrepancies, potential conflicts, constructability and bidability, consistency between plans and specifications and ***resident engineer's pending files*** and associated items in order to verify completeness and consistency throughout the Project.

Upon completion of this task, we will submit to the City our final constructability review comments in a form of a matrix. We will incorporate this constructability review checklist in an electronic format that can be sorted-out by plan sheet number, specifications number or page number, pay item, key elements, etc. We recommend that the City provide these constructability comments to the designer and request a response from the designer during the Project Team Coordination Meeting.

Project Team Coordination Meeting: LAN's approach is to become a pro-active member of the current team; we will assist in establishing a coherent, active team prior to construction of the project. We will request that this meeting be limited to the Project Designers (URS) and the City staff. In this meeting, we will request that the designer (URS) be prepared to present the technical elements of the project, discuss the current status of the design, significant issues that need special attention, response to LAN's Constructability Review Comments, and any potential challenges that may be encountered during construction. It is the starting point for establishing the project roles of the designer and construction manager. Our desire is to have an informal, but structured, meeting to facilitate the transfer of project information.

Due to the shear magnitude of the utilities, we recommend a separate utility and agency meeting be held during this pre-construction phase to discuss construction impacts, property owners' access, construction schedules, and lines of communication. We will develop a matrix that clearly identifies the party responsible for dealing with each utility.

An example of successful coordination on a recent project is the construction of the Pacific Coast Highway Grade Separation Project. We successfully relocated several miles of "high risk" utilities and provided proper coordination to local businesses regarding traffic detours prior to foundation construction. These efforts resulted in an excellent public perception and extremely positive support from the local businesses. With proper utility coordination and local community support, the project is two months ahead of schedule.

The objective of this meeting is to integrate ourselves into the existing team relationships and understand the decision making process. We will begin to revise and finalize our strategy for completion of the design phase, and proceed on the completion of the Construction Management Plan (CMP).

Complete Construction Management Plan (CMP): LAN has already begun gathering available valuable information on the project, and will continue to identify all applicable laws, codes, and regulations that guide and govern the project. At the same time, we intend to meet with the City and other project participants to determine project roles and the relationship between all parties, in order to further unify the team and maintain the focus on completing the project as expeditiously as possible. Once we have met with

all of the project stakeholders, we will report on the current status of the project, recommend any improvements to procedures currently in use, and then meet with City staff to review the funding sources of the project, our findings, and finalize our CMP to meet the established City objectives and project goals.

In the process of developing our CMP, there are a number of components of the CMP that are extremely significant. Among those, is our approach to electronic document control procedures utilizing Expedition Version 9.1 software. In addition to the electronic document control procedures, the next most important element of our CMP is our approach in managing the cost and schedule of the project. The key tool we use to tie cost and schedule together, is the Primavera P3e/c software to ensure that are no activity gets left out.

One recent experience where we customized our standard document control and management procedures to meet the specific needs of the Alameda East Construction Authority (ACE) is the $17 Million Nogales Avenue Shoofly Grading and Nogales Grade Separation projects. We modified our standard operating policies, procedures, and electronic document control system to meet ACE's reporting requirements, which included setting an (web-based) Expedition Version 9.1 that allows ACE access to LAN's Server. Additionally, our Assistant Resident Engineer, Elmo Delos Santos, PE, provided Expedition training to the ACE Project Managers on electronic document control procedures that include navigating through the web; sorting the RCIs, RRCs, CCOs, and submittals; utility issues; photographic documentation; etc. Our reference to this procedure is Mr. Bruce Armstead, PE, (626.962.9292) Project Manager and Construction Manager of the Alameda East Construction Authority.

Upon understanding of the City's needs, we will develop a web-base information and document control system that the City Project Staff can access from their office through the internet. We will implement a web-base Expedition 9.1, so that the City will not be required to buy additional licenses for the software. LAN will be responsible for acquiring and maintaining the software license.

Develop the Master Schedule. One crucial element in our CMP is the development of a Master Schedule for the project. In parallel with the constructability analysis and review task, we will prepare a summary-level master schedule using Primavera P3e/c software that highlights, in broad terms, the entire project. This Master Schedule will be posted through the internet and can be accessed by project team members and the City. Elements in our Master Schedule will include design milestone dates; milestones for each phase of construction controlling operation; materials procurement timetables; utility relocation schedules; review times for submittals; and other potential schedule impacts that will be noted. The master schedule will be used in coordinating work with the contractor, ordering of long lead items, and submittal management. This will provide the City with the information required to fully understand the status of the project at any time, and the potential impact to the overall completion in the event that obstacles develop during construction.

Victoria Butler of our team also brings a wealth of experience in the review of cost-loaded construction schedules, and is prepared to incorporate this information, as well as the information developed in our cost management procedures below, in our monthly reports to the City.

Develop Cost Control Procedures (CM Contract and Construction Contract): As part of our CMP, we will share with the City our current project reporting and cost control procedures. We will propose to the City to use our proven cost control procedures that are and have been utilized in our current and past CM contracts. However, we will meet with the City to review the City's current accounting systems and standards so that we can modify our existing procedures to meet the needs of the City. Our current cost control system is coordinated with our document control procedures and is electronically integrated with the Expedition 9.1 software package. It can be easily modified to address the needs of the City and the reporting requirements of the project participants. The cost control system established will be capable of producing reports incorporating the project budget, expenditures, and variances to-date, and will project the project cost, at completion, and the impacts on the project budget. For the CM contract, the cost control system will allow the LAN team to adjust any facet of the project, including changes in staffing plan and potential changes in equipment needs.

Develop Public Outreach Program Procedures: The next most important elements to project success, after safety, are the public's perception on the project and construction impacts on local businesses and commuters. Our proposed RE, Dean Russu, PE, has the experience in developing public outreach campaigns for construction projects. Mr. Russu's recent experience includes the Pacific Coast Highway Grade Separation and the River Road Bridge Replacement projects. The project team will develop a Business, Commuter, and Residential Resolution Process. Our proposed Public Outreach Program will be adjusted to meet the needs of the City, and is intended to minimize any negative impact from this set of projects on the local community. As a minimum, we will initiate a Public Information Program prior to beginning construction. The Public Information Program will include Town Hall Meetings, Project Newsletters, and news releases to local media. Construction information will be distributed throughout the construction of the project.

We will involve the public prior to, and during, construction to mitigate potential negative community response to the project. This will minimize the amount of complaints directed to the City office or to the City Hall. Critical elements such as dust, noise, and traffic congestion are all potential public relations issues. Good public perception with the surrounding community is important to the success of the project. Construction noise and inconvenience can be disruptive to commuters and residents in the area. LAN field staff will be the first line of defense for preventing negative public impact. We will work with the contractor to address issues and concerns brought forth by the public and property owners.

Within the project limits are property owners and community facilities. Our role, as your CM, will be to minimize impacts to the property owners during construction. This includes implementing adequate noise and dust control measures by the contractor and keeping the community informed of the progress of the work and the construction impacts. LAN has often performed public relations for projects with similar requirements as in this project. We propose to utilize LAN's web-based information dissemination expertise. In addition, we will include some of the measures that we have successfully used in the past:

- ✓ Establishing and posting a project information hotline by publicizing "hotline" numbers
- ✓ Maintaining a log of all phone calls/complaints
- ✓ Face-to-face contact with each property owner

- ✓ Holding community public information meetings
- ✓ Distributing updated construction information flyers through a monthly newsletter
- ✓ Listening to citizen complaints and offering appeasement
- ✓ Working with the contractor to resolve complaints promptly

The purpose of establishing a framework for the development and distribution of project information is twofold. First, our approach will ensure that the City and all elected officials are informed of project developments. Second, our distribution of project information can be tailored to the focus on those businesses and citizens that are truly affected by the project. We believe that a portion of the ultimate success of this project relies on the ability of our front line personnel, working in conjunction with City staff, to know, understand, and effectively communicate with every business owner or resident along the project route. We routinely provide customer service training to all our CM personnel prior to the start of, and during, construction that is used to perform concurrently with their quality assurance role.

Quality Assurance Program (QAP) Procedures: LAN's QAP is a result of our prior experience in numerous complex transportation infrastructure construction projects. We will modify our current QAP to meet additional City requirements and project requirements. This QAP will be incorporated into the CMP and Resident Engineer's Manual, with appropriate quality control procedures and personnel performance requirements. The single most important aspect of our QAP, during the preconstruction phase is to ensure that our proposed field staff (beginning with the RE to the inspectors) thoroughly understand the contract documents and anticipate potential problems and/or delays during construction. This is to ensure that our field personnel know the contract document; then the contractor and LAN are always out ahead, resolving issues and keeping the project on track. Prior to construction, our QAP Officer, Jon Mehtlan, PE, will have a meeting with our field staff to ensure that they have a complete understanding of the project and can hit the ground running from day one. Our QAP will then extend into the construction phase, with periodic visits by Jon Mehtlan.

Attend Pre-Bid Conference and Answer Questions: LAN will support the City in this crucial function of reviewing pre-bid questions and coordinate with designers and the City in preparing answers to potential bidders. These questions and answers will be documented and made available to the contractors. The LAN team strongly believes that well clarified project documents will result in reducing potential claims.

Evaluation of Contractor's Bids (Support): LAN will assist in reviewing the contractor's bid documents for compliance with special contract terms and bid provisions. LAN's staff has many years of experience with most of the contracting community. We will concentrate on identifying any defective bids or unbalanced bid components, and make appropriate recommendations for completing the procurement process as efficiently as possible within the established timeline. This comprehensive review will focus on internal consistency and will eliminate or reduce grounds for claims. The LAN team will assist the City in administering bid openings for the project, reviewing bids, bid bonds, insurance certificates, DBE requirements, and related submittals, and will provide assistance in the selection of qualified bidders. If required, LAN will also provide support to the City on contract approvals and awards for the project.

Contract Award Support: LAN shall assist the City, as requested, with the following tasks:

- ✓ Review of bid for completeness and responsiveness
- ✓ Perform bid analysis
- ✓ Development of contractor payment schedules, and other procedural items
- ✓ Checking Contractor references, licenses, insurance, and sureties
- ✓ Coordination with prospective Contractor for award of construction contract
- ✓ Ensure the bid process is consistent with the procedures outlined by the policies of FEMA for Special Funded Programs and Local Assistance Procedure Manuals

Pre-Construction Condition Documentation: Documenting the site prior to construction is essential. Good and proper documentation can often mitigate disputes between the City, contractor, and other project stakeholders. The LAN team will perform detailed pre-construction project condition documentation. Documentation will include photographic and written records taken by our staff. The photographs taken during the pre-construction survey will be carefully cataloged and maintained in the field office in accordance with the approved RE Manual and City administrative filing system. Our team of construction engineers and inspectors are knowledgeable and aware of the critical pre-condition issues.

Summary: Pre-Construction Services

The Pre-Construction Phase is key to managing a successful project. Our experienced team will hit the ground running and, in fact, is prepared to give 100% commitment to the City. The process of creating a Construction Management Plan (CMP) will set the foundation for all of the activities to be undertaking during the Construction Phase. We will have built relationships with City staff, utilities, and the designer (URS), and will have verified the roles and responsibilities of all parties and stakeholders to the construction process, which will minimize the potential for confusion and delay. Most importantly, our QAP process will ensure that we have a quality project and will keep the project on track.

Step 4: On-Going Evaluation and Management

Goal: Achieve a successful project that is in compliance of contract documents and is completed within schedule and budget.

Phase 2 – Construction Phase

In the construction phase, the front line of our QAP is our experienced engineers and inspectors, who have been trained to not just observe the construction process, but to make sure the processes and procedures employed by the Contractor will result in full compliance with the contract documents. It is our goal, as Construction Manager, to work as a team with the Contractor; to try to prevent him from running into problems and delays; and to make sure that each new construction process starts out in conformance to the project documents. This will ensure that rework is kept to a minimum and that the project stays on schedule and minimizes the issuance of "non-conformance" reports. The key attitude that allows us to work so effectively with the Contractor is that of being in "partnership" with them, with a commitment to get the project completed on time and within budget, as opposed to an attitude of looking for errors and mistakes.

After the bid opening, LAN's RE will immediately work on the pre-construction meeting agenda and gather information required to be distributed to the contractor, including a list of submittals and certificates/licenses. In addition, we will immediately mobilize our field staff and evaluate the need for our CM firm to procure a field office on behalf of the City.

Mobilize Team and Field Project Office: We have not had the opportunity to review the contract special provisions as to whether the City will require that the contractor provide a full-service field office for managing the construction contract. After bid opening, and prior to contract award and depending on the bid cost for the field office, we will make recommendations to the City as to whether to take a credit from the contractor or utilize the City office for managing the contract, or require the LAN team to establish a Resident Engineer's office. LAN has extensive experience in establishing a full-service Field Project Office with high-speed internet access utilizing either DSL or T1 Line. As Construction Manager, our most recent experience included establishing two (2) field offices for the San Bernardino Associated Governments (SANBAG), currently being used for managing the I-10 Widening Project in Yucaipa and SR-210 Projects in San Bernardino.

Submittals' Identification: Concurrently in performing Constructability Analysis (Phase 1), LAN will also identify all submittals required by the contractor, in checklist format, and will provide this information to the City and the contractor during the pre-construction meeting. Submittals will also be maintained in a computer database, sorted by category, technical discipline, date required, CM review time, and level of designer's involvement.

Certificates/Licenses: In addition, we will develop a list of certifications and/or licenses required for each assignment of the consultant and contractor QC personnel, such as a PE License for the Resident Engineer and Structure Representative, CWI certificates for Welding Inspectors, Caltrans (TL-0111) Certificate of Proficiency for Material Testing for Materials Testing Technicians.

- ✓ Communication Protocol (all correspondence is through the Resident Engineer)
- ✓ Site Access, Material Staging Area
- ✓ Filed Office Location and Traffic Control
- ✓ Labor Compliance Reporting
- ✓ Certification of Materials
- ✓ List of Submittals and their Due Dates
- ✓ Contractor Baseline Schedule, Order of Work, and Schedule Updates
- ✓ Permit and Utility Agreements
- ✓ Date and Time of Weekly Meetings
- ✓ Pay Requests and Quality Control Procedures
- ✓ Environmental Conditions
- ✓ Basis for Dispute Resolution in the Field

Any questions or apparent issues that may be present at this time are discussed in order to be resolved prior to the contractor's mobilization. An agenda, action items, and meeting minutes will be prepared.

Construction Contract Administration

Implement Construction Management Plan (CMP) and Quality Assurance Program (QAP): As we mobilize our staff to the project, they will review all pertinent portions of the CMP, and then our Project Manager and Resident Engineer will lead a round-table discussion with our staff and our subconsultants to make sure that everyone understands the requirements, roles, responsibilities, goals, and objectives specific to this project. This discussion will also focus on the QAP requirements, especially how the team will handle non-conforming materials, QA records, records of corrective action taken, and audits of QA records. The CMP is a living document and, as the project progresses, parts of the CMP pertaining to communication and coordination will need to be revised to more effectively deal with the Contractor's specific operations and procedures. These individual changes will be circulated, as necessary changes are made. Once project participants have reviewed the plans, specifications, CMP, and QAP procedures, we will be ready to resume communication with utilities, local agencies, and other affected parties.

Communication: Our basic approach to effective communication will be provided in our CMP, which will have been reviewed and approved by the City prior to the start of construction. A proven communication protocol is that all project communication must be routed through the Resident Engineer. The Resident Engineer is the hub of communication with the contractor, City, Designer, utilities, and other project stakeholders. This approach ensures that the contractor only receives information from a single source. In order to facilitate effective communication among all parties associated with the contract, weekly meetings (day and time of the week established in the pre-construction meeting) will be held to discuss project progress and pending issues.

Weekly Meeting: The RE will coordinate and conduct weekly meetings with the contractor, the City of El Paso de Robles' representative, the Designer, and interested parties. Job progress, project issues, concerns and resolutions, upcoming construction, schedule, safety, team coordination, and third party coordination will be principle topics. Special meetings will be conducted, as necessary. The RE will prepare minutes of the meeting and distribute to respective attendees. On an "as-needed" basis, LAN will arrange an Owner meeting with the City, regulatory agencies, utilities, and others, each week to discuss project issues. This approach of having a separate meeting with the Owner and other agencies, prior to meeting with the contractor, eliminates the potential of open disagreement amongst the team in front of the contractor.

Utility Coordination Meeting: LAN's Resident Engineer will assume primary responsibility for coordinating utility work. Due to the shear magnitude of anticipated utilities, a regular utility meeting schedule will be set up and continue through the construction phase. This will normally occur before the regular weekly meeting, on an "as-needed" basis, until the utility work is complete. In addition to the utility companies and Resident Engineer, the contractor and its subcontractors will be in attendance. Agendas and minutes will be prepared and distributed for all meetings. It is anticipated that a utility coordination meeting will occur every other week and prior to all major relocations. This approach will ensure that we clear the right-of-way for the contractor to perform their work and to eliminate any utility delay impact claims.

Maintain Effective Public Outreach Program: To maintain an effective public outreach program, LAN inspectors and field personnel will contact individual business owners and residents along the alignment, in advance of construction operations, and regularly during the course of construction. Our approach will be to mail a 30-day notice and, if necessary, the posting of a 5-day notice by door hanger prior to construction operations. Each notice will have our phone number and the name of the contact person. All calls will be documented, including date, time, name of caller, address, and specific issue or concern. We will follow-up

each call and provide documentation of the action taken to address the concern or issue. It is our intent to meet, in person, with every citizen who has a repeated concern.

Environmental Issues – (SWPPP). The RE will be required to implement the current SWPPP requirements, and ensure compliance. Tasks including monitoring and making erosion control around the project are a top priority due to the extent of work on this project being in the Salinas River. Our proposed RE, Dean Russu's, recent similar experience on the River Road Project will ensure full environmental and SWPPP compliance. In addition, we will appoint Andy Cheah, PE, to monitor and audit for SWPPP compliance, on a bi-weekly basis, or as necessary, to ensure the project is in compliance with all regulations. Andy's experience in SWPPP is not only as a construction engineer enforcing contractor SWPPP plans, but also as an instructor providing SWPPP training to Caltrans personnel. Just as environmental issues require constant vigilance and observation, the project progress requires the construction management team to be proactive in utility coordination and to be constantly monitoring the schedule, cost, and project documents.

Construction Contract Progress Management:

The LAN team will be responsible for ensuring the Contractors follow their respective schedule and accomplish their work on time. Specific items to ensure the project is being executed smoothly include:

- ✓ Identifying potential schedule slippages and cost overruns, notifying the Contractor, and discussing their recovery plans, and making recommendations to the City regarding corrective action plans.
- ✓ Assisting the Contractor in coordination and issue resolution with the City, Designer, and utilities.
- ✓ Monitoring the status of permits, submittals, shop drawings, material procurement, and delivery.

Review of Contractor's Construction Schedule: Effective schedule management throughout the course of the project provides significant impact in reducing or eliminating exposure to potential claims. The most critical element is establishing a proper baseline schedule by the Contractor, acceptable to all parties, that accurately represents how the Contractor will build the project. The LAN team will review the baseline schedule for compliance with known milestone dates; the City furnished material delivery dates, and critical interface points involving utility shutdown and tie-ins. The LAN team will provide the contractor's monthly schedule to the City and will advise of any schedule delay with recommendations for schedule recovery.

Monitor Construction Schedule: The CPM schedule is a critical tool for schedule management. We will review the updated schedules for slippages, logic revisions, and other changes using Primavera P3e/c. We will work with the contractor to eliminate and/or mitigate the impacts of any delays. In addition to reviewing the contractor's schedule, we will prepare and maintain an "as-built" schedule. The "as-built" schedule is updated daily with the contractor's activities. This schedule is beneficial in negotiating change orders and analyzing time extension requests and for claims analysis purposes.

Upon the review of the contract documents attached with the RFP, except as specified in Caltrans Standard Specifications, we realized that there is not a clause and pay item relating to contractor submitting and updating construction schedule. LAN recommends the specifications contain specific language regarding the format, content, and requirements for the CPM schedule submittal by the contractor. We recommend that a specification clause and a separate pay item that requires the contractor to submit a CPM schedule using Primavera P3e/c be added. We would additionally recommend a mandatory meeting with the Resident Engineer, Contractor, and the City prior to schedule development and submittal. The meeting should cover a

number of items which will improve our ability to manage the project, including requesting that activity codes be included in the schedule; the maximum duration of activities; withholding of payment for failure to submit updates in a timely manner; look ahead schedules to be submitted weekly; revision and recovery schedule requirements; and other schedule requirements that will make the contractor's CPM schedule a useful tool in the management of the project.

In addition to monitoring the project CPM schedule, LAN's Resident Engineer will prepare a weekly status and order of work to the contractor, which provides an evaluation of the progress of the contract, an assessment of the current controlling item of work, and advising the contractor as to the amount of time remaining in the contract. This weekly report is a key ingredient in maintaining project progress, as it establishes a record of the CM team's assessment of current project issues and progress.

Project Issue Management: Our project issue management approach begins in the field, on a daily basis, and is led by our experienced inspectors while they are performing their inspection duties. LAN considers any item that has the potential to result in additional project cost or time impact, as a project issue. Our approach to project issue management is included in our CMP. It provides a tool to identify and track all project documents related to any specific issue within our electronic document control system. The ability to retrieve all project documents related to a specific issue allows the City to have access to the entire record in a timely manner. By tracking issues, the City is always aware of items having a potential to impact the project budget or schedule; thus we are able to fairly evaluate the contractor's concerns before they become a potential claim.

Progress Payments. In order to process the payments for the contract items, the RE and its lead inspectors will continuously inspect the progress of the contract item work and perform quantity calculations for monthly partial payments. Each month, LAN's Engineers will provide accurate calculations for all items of work completed and accepted to allow for progress payment. The quantity of each item will be field measured, if necessary, to prevent overpayment or underpayment. Payments on progress estimates must be traceable to checked source documents that are field-measured or calculated quantities. Upon completion of progress payment verification, LAN's RE will provide the monthly progress payment recommendation to the City for review and approval and payment. We will also log incoming material certifications in the same way as other submittals, and maintain a running total of all materials released by Certificates of Compliance, in order that only materials tested or certified are included for payment.

Project Budget Management: LAN will review the Contractor's progress pay estimate request and schedule of values for reasonableness and ease of monitoring, and will compare this information to the quantity records generated by our inspectors and maintained by the Resident Engineer. In addition, LAN will monitor total project costs, including current and forecasted costs to complete, and advise the City, on a regular basis. Utilizing the cost control procedures detailed in the CMP, we will input the progress payment information into the system and then monitor expenditures. The reports will provide an estimated cost required to complete the project, and report any potential cost impacts to the City. The cost reporting will include the cost of potential changes as we become aware of them; the estimated exposure on potential costs, which cannot be quantified at the time of each report; and potential issues, which we expect to occur, that may have cost impacts. There will also be a section of the cost report that tracks the funds committed by the City to the project, funds expended on the project, funds available to the project, and funds required for project completion. This cost information will then be integrated into the project schedule.

Changes, Claims, and Disputes: The goal of the LAN CM Team, through its RE, is to avoid all unnecessary Contract Change Orders. Change Orders can be generated from a number of sources and reasons, including changes directed by the designer or the owner and field-originated changes arising from unforeseen site conditions. If Change Order is unavoidable, the LAN team will provide estimating and effective cost management by properly monitoring and tracking contract change orders. The RE will evaluate all proposed change orders to determine need, merit, and project impact. The team will provide cost estimates and schedule impacts, and a rationale for approval or rejection, and with the concurrence from the City, the RE will negotiate change orders with the contractor and prepare change order documentation for approval and signature by the City. LAN's RE's have vast knowledge of initiating, reviewing, estimating, and writing complicated contract change orders, including Cost Reduction Incentive Proposals. They have expert knowledge in determining the appropriate types of payment and methods of performing cost analysis to apply to each specific contract change order. The LAN team will be pro-active in its efforts to prevent all foreseeable claims and disputes. The effectiveness of our support to the City in claims avoidance on the bridge widening project, is based on extensive construction experience on projects of similar scope, size, and complexity, as well as our expertise in construction claims analysis and resolution. LAN Construction Engineers comprise of personnel with an average of 15 years of exclusive bridge/highway/grade separation construction experience.

Document Control: The LAN team will adhere to the Electronic Document Control Procedures, as outlined in the approved RE Manual, and processes established by the City of El Paso de Robles. Using Primavera Expedition Version 9.1 software, LAN will maintain a computerized tracking control system for all documents including correspondence, contract drawings, RFIs, RFCs, CCO logs, utility notices, submittals, and reports, as well as, maintaining hard copy and electronic files, as required. LAN team members have played an integral role in the development and refinement of the document control system currently being used on several of our bridge, roadway, and grade separation construction projects. Our goal is to ensure that the status of all contract documents is known at all times and that current revisions of contract documents are distributed to key and appropriate personnel in a timely manner. The LAN team will have no-learning curve in this area and no-surprises. The advantage of utilizing our electronic document control system is that, on a daily basis, the RE at a glance can review items due today, overdue items, and items due in the next week. The RE will also program in the computer to set-off an alarm for overdue items, items due today, and items due for the next weekly meeting.

In addition to tracking on-going project documents, we also utilize the information generated from our electronic document control system to prepare monthly detailed progress reports to the City.

Progress Reports: We will prepare a monthly progress report to a level of detail required by the City. The report will be prepared to a level of detail that ensures the City is aware of outstanding issues and their impacts to the schedule of the project. We anticipate providing reporting in project progress, schedule, and status of budget. The format of each report will be as determined during our kick-off meeting, and modified, as necessary, over the life of the project to meet the needs of the City.

The Project Progress will be reported in terms of contract time and contract cost, as well as outlining work completed last month, work completed this month, and work expected to be completed next month. This information will be reported with charts and text to completely convey the status of the project, and any outstanding issues that require resolution. In addition, we will report on any issues arising from job-site meetings, labor relations issues, disposition of any issues that arose last month, and the status of any items requiring review or approval by external agencies.

The Project Schedule will be reported in specific activities completed, the current controlling operation of work is, the status of long-lead items or material impacts upon the schedule, any changes in sequencing or approach to the work, and the CM team's evaluation of all schedule impacts and issues, and suggestions to recover any schedule delays.

The Project Budget reporting will include the status of any bid items which are materially over- or under-running the original project bid; evaluation of any cost variances or changes in cash flow; a summary of potential impacts not resolved at the time of reporting; and a thorough evaluation of the project cost to complete. In addition, if any, the cost of Force Account work will also be reported in this monthly Progress Report. The Progress Report will also contain the successes in the public information campaign, as well as any impacts or issues arising from utility coordination. Deliberate utility and permitting agencies coordination will eliminate any potential to negatively impact the project schedule and, thereby, project cost, so until the permitting agencies or utilities cease to be a potential issue, they will be tracked, monitored, and reported on continually.

Construction Engineering and Inspection:

Construction Safety Oversight: The Contractor has sole responsibility for compliance with safety requirements on the project, but the CM staff will monitor compliance with the safety program, note the information on Daily Reports, and advise the Contractor and City of observed deficiencies. In addition, we will review the contractor's safety plan for CalOSHA safety requirements. LAN will oversee the contractor's compliance with the 13th Street Bridge Widening safety plan. All of our key team members have received safety orientations provided by Caltrans, and CalOSHA, and have knowledge of, and are familiar with, the Roadway Worker Safety requirements, as well as, The Construction Safety Orders. LAN will also provide safety training as part of our "Lessons Learned Meeting" to all of our construction professionals on a monthly basis.

Key activities that will be performed by our staff include:

- ✓ *Review and monitor compliance of the contract specific safety program developed by the contractor.*
- ✓ *Conduct a weekly tailgate safety meeting.*
- ✓ *Document safety concerns and corrective actions.*
- ✓ *Participate in regular safety meetings.*
- ✓ *Provide regular status updates of safety to the City of El Paso de Robles*
- ✓ *Issue a Stop Notice to contractor, if safety warranted.*
- ✓ *Review and comment on safety related submittals:*
  - *Injury and Illness Prevention Program (IIPP) Debris Handling and Disposal Plan*
  - *Hazard Communication Program (HCP)*
  - *Emergency Action Plan*
  - *Job Hazard Analysis (JHA)*
  - *Incident and Injury Reports*
  - *Monthly Safety Reports*

Quality Assurance Inspection: LAN, as the Prime Consultant, has been involved in over 50 highway/ roadway, and bridge construction projects comprised of over 200 bridges within Southern and Central California. LAN Bridge Construction Engineers/Inspectors bring a wealth of experience to the project. The role of quality control inspection is much more than approving or rejecting work as it is completed. Our approach to quality assurance inspection is where we develop a trust with the contractor, whereby the contractor diligently works with our Resident Engineer and Inspectors, and the rest of the project team to complete every task correctly and expeditiously the first time. Cooperative solutions that are developed during the course of the project improve quality and minimize rework. When we identify problems in the field, the contractor is notified immediately and solutions are developed in association with the designer and City, if necessary, before work progresses. Specific elements of Quality Assurance Inspection include:

- ✓ Identifying actual and potential problems associated with the construction and providing solutions.
- ✓ Provide constant communication and timely notification to the City, and local agency personnel, as required for relevant inspection elements.
- ✓ Provide continuous inspection to ensure that the contractor's work is in compliance with the contract documents and the designer's intent, and maintain weekly video and photographic documentation of project (special, sensitive, potential claim, and milestone work).
- ✓ Review contractor prepared Storm Water Pollution Prevention Plans (SWPPP) and inspect and ensure that the work is in compliance with the approved SWPPP plan.
- ✓ Review contractor QC Welding plans to make sure that they are in compliance with the AWS Code and that the plans are prepared by a Certified Welding Inspector certified by the American Welding Society (AWS).
- ✓ LAN's in-house Certified Welding Inspector will provide source and on-site inspection to make sure that the contractor's work is in compliance with the approved QC Welding Plan.
- ✓ Certify quantity calculations for progress pay estimates and changes.
- ✓ Resolve construction issues by proposing field changes to facilitate construction and avoid delays.
- ✓ Coordinate all design changes and change orders with designers and the City.
- ✓ Maintain comprehensive and updated computerized Change Order Log, including anticipated changes to avoid construction rework in the field.
- ✓ Provide material management to ensure that the materials are in compliance with the Buy America Act.
- ✓ Review of contractor submittals such as material submittals, mix designs, temporary work design, customized construction equipment design, erection girder design, shoring and falsework design, shop-drawings, certificates of compliance, progress payments, and extra work reports.

Post-Tensioning: Significant elements of post tensioning include a working knowledge of Caltrans Prestress Manual, familiarity with jacking gauges, and their calibration curves. Inspection features include profile of the ducts and bearing plates. During concrete placement, care will be taken to avoid damaging the ducts by impacts. LAN will inspect strands for rust and ensure that the ducts are free of water and debris. During the stressing operations, strands will be checked for slippage by painting both ends; the stressing jack will be monitored by a pressure cell.

Ballast and Concrete Batch Plant Inspection: LAN will provide an experienced batch plant inspector to monitor compliance whenever concrete is being produced to ensure that all ballast delivered to the site and concrete pours will meet the contract requirements. The plant inspector will immediately notify any materials that are out of Operating Range or Contract Compliance, to the RE for his action. We recommend that the construction contract documents require the contractor to submit a quality control plan for all batch plant operations. LAN will then institute a QA sampling and testing program to ensure the Contractor's QC plan is effective.

Electrical Inspection: Electrical work, involving street lighting, bridge lighting, traffic signals, illuminated signs, and electrical devices, requires a specialized knowledge. This project will require such inspection and the LAN Team will provide a seasoned electrical inspector as our specialist in signals and lighting. Signal and lighting construction often involves many agreements and requires coordination of activities with outside agencies and utilities. As Resident Engineer, Dean Russu will review the job file given to him at the start of the project, and will be aware of such agreements. The Resident Engineer will obtain a list of equipment and materials from the Contractor of the material he proposes to install. From this list, the Resident Engineer will clearly check the identification of materials by the manufacturer's names, catalog numbers, and appropriate listings to be provided in the lists to permit proper checking for conformance with the contract. Underground work must be inspected while it is actually underway, because such inspection cannot be done, nor can it be checked, when the work is completed. This includes placing conduit, excavating for and pouring signal standard and electrolier bases, and similar items.

Permits. The LAN CM Team, through its Resident Engineer, will review each permit for compliance and will coordinate with the City, designer, and other City consultants to insure that necessary permits are obtained. The RE will assist the City in the coordination, timely processing, and verification of approval for all permits and maintain permits and permit documentation on site.

Material Testing and Support Services. The LAN Team will manage and coordinate material testing and support services, as required. We have assembled a team of experienced and certified inspectors, technicians, and engineers to perform all the necessary materials sampling and testing for the project. Advanced Infrastructure Group (AIG), a key member to the team, will be providing the majority of the material testing and support services and Independent Assurance Testing services required to ensure a quality project. We will also maintain testing summaries, to monitor that unacceptable work, is corrected, with the correction recorded, and not covered up, by the Contractor.

Our testing program includes the provision for qualified plant inspectors for structural steel fabrication, ballast production, concrete batch plants and asphalt concrete production, and that all materials delivered to the project will be inspected and documented in accordance with the project QA program. All testing and sampling activities will be coordinated by the construction manager or the project office engineer, and will verify that work performed and materials furnished are of the quality required to be in compliance with the contract documents.

In addition, we will also provide certified testers that perform field quality assurance testing. They will utilize testing sampling procedures outlined in the Caltrans Standard Testing Methods Volumes 1, 2, and 3, of the sample frequency and location of sampling and testing presented in Chapter VIII of the Caltrans Construction Manual. The technician will attend the weekly staff meeting with the LAN Construction Engineer to stay current with the construction schedule and testing requirements. A daily diary of activities and testing requests, as well as hours worked, will be maintained. Our field testers will report laboratory and

field results on standard forms provided in the approved RE Manual, and will complete and keep current the materials testing log. They will communicate with the inspectors to determine material quantities and testing frequencies, and to advise the independent assurance tester. All results will be presented to the individual ordering the test, as soon as the values are available. Samples of Portland cement concrete for compression testing will be shipped to the laboratory in accordance with provisions of California Test 540. We will review laboratory, shop, and mill test reports of materials and equipment, and coordinate, as required, with the engineer-of-record.

Specialty Inspectors: We have two Certified Welding Inspectors in-house, as well as electrical and mechanical engineers, to provide these services on an "as-needed" basis. These personnel are all experts in their field, certified to perform inspections, and stand ready to perform on-call, as necessary. In addition, we have provided for environmental specialists in the areas of hazardous waste identification and disposition, lead contaminated soil analysis, and industrial safety. These resources are available when called upon.

Timely Coordination of Material Testing and Surveying Services: The RFP did not specifically mention the need for QA and/or QC Surveying and Materials Testing services as part of the CM scope of services. Whether the City of El Paso de Robles or LAN provide Material Testing and Surveying, it is imperative that the CM ensure timely coordination internally or with the City designated surveyors, and work with the Contractor's survey team to implement City policies and procedures for survey staking, disposition of surveying results, providing construction staking needed for construction activities by the Contractor within a reasonable time, and surveying for Quality Assurance and verification. The LAN Team will manage and coordinate surveying support (QC) services, as required. In addition, our proposed team of field engineers has extensive experience in field survey themselves. LAN maintains a complete set of survey equipment that will be provided to our field engineers. Field survey equipment that will be provided to the City at no cost are one total station, one transit, one laser level and one dumpy level, and three lenker rods.

Requests for Information (RFI): A typical RFI and RFC process starts with a request forwarded from the contractor, which LAN will review and determine if the CM team can provide an answer, within the guidelines established by the City. In general terms, if there is no cost and/or schedule impact and no change to the permanent construction, we will answer and process the RFI and/ RFC, and transmit a record of the request to the City. If the RFI or RFC has either cost or schedule impact, or a change in permanent construction, or an answer cannot be made at the project level, we will take the next step and transmit design-related RFI's to the designer and a copy to the City. Upon receipt of an answer from the designer, we will verify that the question asked has been adequately answered, and if not, obtain additional information in order to provide a full and complete answer to the contractor. Then, having obtained a complete answer, we will forward the answered RFI to the contractor.

At each step along the way, the transmittal will be tracked in our electronic document control system, so that no RFIs or RFCs fall through the cracks. Utilizing our electronic document control system developed for the submittals tracking purpose, LAN will ensure that the contractor submittals and RFI's are distributed to the responsible persons. In addition, the review time will be monitored to avoid delay claims to the contract. Pending RFIs and RFCs will be a standing agenda item discussed at each weekly jobsite meetings.

Submittals and Shop Drawings Tracking: Our goal in submittal management is to achieve timely responses from all associated parties. If the contractor requires interpretations of the meaning and intent of the drawings or the specifications, we will assist with the resolution of questions. We recommend to the City that the review and approval of all temporary work (falsework, trenching, and shoring) be done by our Resident Engineer or Structure Representative, rather than transmitting to the designer. This approach will not only reduce the review time, but also the CM cost, since the time of our RE and Structure Representative is already being accounted for in the days' work. If necessary, upon review of the contractor's submittals, we will provide coordination with respective permitting agencies, and utility companies for their respective approvals.

Our approach to properly managing the submittal process (including shop drawings) is to start early and stay ahead of the contractor. We will request that the Contractor provide a list of required submittals for our review, and will check these against our own expected submittal list developed in our constructability analysis. We will also require that submittals, and the appropriate review times, be shown on the Contractor's Baseline Schedule and Schedule Updates. Working with the City, our CM team will develop a distribution list to identify responsible parties for review and acceptance of submittals. In order that all submittals are tracked at every stage of the process, we will use a submittal log in our electronic document control system and manage the shop drawings and sample/submittal process, and will review the status of all submittals during the weekly progress meeting. In order to focus attention on the importance of submittals on the project, reviewing the status of submittals will be a standing agenda item discussed at each weekly jobsite meeting.

On-Going Inspection Reports and Records: Prepare reports to the level of detail and format as outlined in the RE Manual and ensure that they are in conformance with City and FEMA construction records and procedures. These reports will include the following, and many others, as specified in the RE Manual:

- Monthly Reports (Progress Project Reports – Construction Contract Administration)
- Detailed Cost and Schedule Reports
- Resident Engineer Daily Diary
- Inspector's Daily Reports
- Change Orders/Claims Logs
- Submittals, RFIs. and RFCs Logs
- DBE Reporting
- Job Photographs
- Action Items Report (AIR)
- Non-Conformance Report (NCR)
- Safety and Quality Records

Review Traffic Plans (Detours and Closures): The RE will review traffic-detour and street closure plans prepared by the Contractor. We have years of experience in the preparation, review, approval, and implementation of traffic control and detours; we will provide comments and recommendations prior to forwarding them to the City of El Paso de Robles for the plan approval. Based on our previous experience, we anticipate timely approval by the City and will assist in the resolution of any issues delaying traveling public and local business delivery trucks.

On-Going Labor Compliance and DBE Monitoring: Since a portion of the project is Federally funded, proposer documentation of DBE and Labor Compliance is essential in the contract close-out audit by FEMA and for funding reimbursement. The LAN team will support the City by obtaining the certified payrolls from the Prime Contractors and all their subcontractors, and forwarding them to the City. The LAN team will review the Contractor's DBE program and the scope of work for each DBE subcontractor. We will monitor the job progress to ensure that the DBE's are actually performing the work in their scope, and forward the Contractor's DBE compliance reports to the City.

As-Built Drawings: LAN inspectors will check and ensure that the contractor maintains complete and accurate, as-built drawings in accordance with the contract requirements during the construction and at project closeout. We will also track all RFIs and track all design changes and will periodically review the contractor's as-built plans to verify accuracy of the plans and to ensure they are updated as changes occur during the construction phase.

Claim Avoidance and Mitigation: LAN believes our investment in comprehensive constructability analysis and review of the contract documents, prior to advertising for bid, can mitigate a substantial amount of claims that may arise during the course of construction. In addition to diligent constructability analysis, along with our CMP, QAP, electronic document control process, and by our team of highly experienced professional who specialize in managing bridge/roadway construction projects, we can assure the City that construction claims and schedule can be completely minimize or eliminated.

Our team is made up of individuals who, during the last ten (10) years, have dedicated their entire career in managing bridge/roadway projects. In addition, their passion to be Construction Managers, make them want to understand the complete "in and outs" of the project prior to construction, so that we are always a few steps ahead of the contractor and in control of project. With their preparation and passion for the project, they are prepared for mitigating potential issues before they can become issues. More importantly, they pay attention to every detail and aspect of the project, and will ensure that the primary project objectives are met; the project is completed on schedule and within budget; complies with the contract document; and has a positive public perception during construction and after project completion.

Partnering: LAN focuses on teamwork; all participants on the project must assume responsibility for their particular expertise and roles, but must also operate as a team with project goals and objectives as a measure of success. LAN will consult with the City regarding details of a partnering program to establish a working relationship among the contractor, key subcontractors, the Designer, and the City of El Paso de Robles' Project Manager. Our experience in successful partnering on construction projects like the Redondo Junction and Pacific Coast Highway projects and 37 Caltrans Bridge Replacement and Retrofit Construction Projects involving 137 bridges, as well as our other current on-going bridge, roadway, and grade separation construction projects, is proof that this tool is a valuable investment.

Phase 3 – Post-Construction Services

Our approach of post-construction services begin with utilizing our proven, systematic (4-Step) process for building a successful project, beginning with understanding your project, building a team that matches the project needs, implementing our proven CMP and QAP, and continuously providing changes and updates to our CMP and QAP to achieve a broad-based acceptance of the project.

Using our CMP, we have already instituted all of the project implementation procedures we discussed in the previous section of our proposal, which will allow us to achieve project closeout with minimum effort. We begin the process by getting to know your project and creating a vision of what is needed for successful completion and acceptance, and work diligently throughout the project to resolve issues as they come up, to maintain "as-built" records concurrently, and to complete the project documentation as we go. With this approach, we can minimize the amount of time required to close the project out and, thus, minimize the project closeout costs to the City. Our procedures at closeout begin with punch listing of completed work and informing the City that the construction is substantially complete.

Construction Substantially Complete: In this task, LAN will perform the following key activities to ensure that the construction is substantially completed in compliance to the contract documents:

- ✓ If the contractor's work, or a designated portion thereof, is incomplete or noncompliant, LAN will compile a list of incomplete or unsatisfactory items and a schedule for their completion. LAN will conduct final inspections and coordinate the correction and completion of the work.
- ✓ Develop "Punch List" items to be completed.
- ✓ Perform final job walk through with contractor and with the City, Federal Emergency Management Agency (FEMA), and designer (URS) for their input in the process "and to expedite the completion of the project."
- ✓ Assist the City in reimbursement application for portions of the work from any external funding sources

"As-Built" Drawings. Our team will verify that an up-to-date set of as-built drawings is kept from the first day of the construction phase until the completion of the project. This information will be transmitted to the designer for preparation of the final "as-built" record drawings that will ultimately be transferred to the City and other stakeholders, as required.

Contract Closeout: LAN's construction management approach has, and will continue to be, that of active, aggressive, and continuous involvement in all project activities. Contract closeout activities start on day one of the contract. As construction is completed, LAN will continuously maintain the project documents that are consistent with the goals and objectives of the project and to achieve a seamless project acceptance. Our broad-based electronic document control procedures, utilized during the construction phase, will be extremely useful in maintaining project documentation that will meet the City program requirements.

Project closeout documents will include the following:

- ✓ Delivering bound and indexed project documentation
- ✓ Resolution to outstanding contractual issues, changes, claims, and deficiency reports
- ✓ Preparing and indexing materials certificate and manufacturers warranty certificate
- ✓ Providing certification on the completeness and accuracy of the "As-Built" plans
- ✓ Providing a final detailed "As-Built" or actualized schedule
- ✓ Change order summary
- ✓ Assessment of liquidated damages, as applicable
- ✓ Preparing and processing final payment
- ✓ Preparing Final Project Completion Report
- ✓ Providing Final Detail Estimate and "As-Built" Cost
- ✓ Coordinating with the City for project acceptance
- ✓ Final report of DBE utilization
- ✓ Assisting the City of El Paso de Robles in a FEMA Contract Closeout Audit.

Conclusion

The cornerstones of our ability to deliver a successful project are our commitment to high client satisfaction, our construction management approach, and our procedures, which are the basis of our proven reputation. These are our willingness, flexibility and responsiveness, communication skills, safety, accuracy in project reporting, and timeliness in resolving projects issues.

Our proposed team is structured to provide considerable depth and breadth of resources, positive attitude, and innovative problem-solving techniques to manage the most challenging projects with great success. We believe that the key qualities described in this Section of this proposal, will distinguish the winning consultants and their ability to provide the required individuals that have recent bridge and roadway construction experience on a relatively short notice. This requires the team to be flexible, responsive, and with a great depth of expertise in bridge/roadway construction in an urban environment. Therefore, we feel that we have the ability and resources to provide the high quality of service that is demanded in this project. Although the LAN team is comprised of four subconsultants, all the work will be processed by our designated PM, Peter Lim, PE, and/or RE, Dean Russu, PE. Whether performed by LAN personnel or subconsultant personnel, or a combination of both, once a specific assignment is identified, we will provide, with City approval, the team members who are most qualified. All personnel will be screened by our Project Manager and Resident Engineer, prior to their assignment on this project. With this approach, LAN and the number of subconsultants will become **invisible** to the City.

Finally, we believe that our project management expertise and bridge construction over waterway construction experience enables us to successfully complete the 13th Street Bridge Widening project within the schedule established by the City. Moreover, the experiences gained while working on the recent bridge construction project over the Salinas River has given us a thorough understanding of the comprehensive procedures, regulations, and standards set forth by the contract documents. We will have all our key personnel available to focus their attention on the project to ensure completion of a quality professional product within your specified timeframe.

THE LAN TEAM IS IDEALLY SUITED FOR THE 13th STREET BRIDGE WIDENING PROJECT BECAUSE WE HAVE:

- ✓ A Firm (LAN) with both design and construction capabilities.
- ✓ Commitment to be Responsiveness and Flexibility to meet any City requirements.
- ✓ PM, RE, and Lead Construction Engineers have very similar experience required for this project.
- ✓ Construction Engineers have the ability to perform temporary work (falsework, trenching, and shoring) analysis and construction staking.
- ✓ A Detailed, Thought-Out Approach which involves the establishment of strong working relationships with Utility Companies, Designer, and the City of El Paso de Robles.
- ✓ A team that requires no learning curve, no mobilization time, no surprises and provides the most cost-effective CM services.
- ✓ Finally, we have the identical team members that currently are completing their respective assignment for the River Road Bridge Replacement project for San Luis Obispo County.

City of El Paso De Robles

13th Street Bridge Widening Project

FEE PROPOSAL

Classification	Hours	Billing Rate	Labor Dollars
Project Director	0	$175.00	$ -
QA/QC Engineer	0	$175.00	$ -
Project Manager [1]	0	$172.00	$ -
Resident Engineer	3608	$118.00	$ 425,744.00
Structure Rep. Assistant RE	3352	$108.00	$ 362,016.00
"On-Call" Inspectors	1140	$96.00	$ 109,440.00
Scheduler	176	$98.00	$ 17,248.00
Adminstrative Aide	0	$96.00	$ -
			$ -
Other Direct Costs & Equipment			$ 66,140.00
TOTAL FEE PROPOSAL			**$ 980,588.00**

City of El Paso De Robles

13th Street Bridge Widening Project

BUDGET PROPOSAL: PERSONNEL EFFORTS BY HOURS PER MONTH

Classification	Phase 0: Start-Upp	Phase 1: Construtability Anaalysis	Phase 2: Construction																								Phase 3: Post-Construction	Assumed Construction Duration
Year	2004	2004	2004							2005												2006					2006	
Months	0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	13 Months
	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	
Project Director	At No Cost to the City	At No Cost to the City (on LAN's Overhead Payroll)																										0.0
QA/QC Engineer	At No Cost to the City	At No Cost to the City (on LAN's Overhead Payroll)																										0.0
Project Manager (1)	At No Cost to the City																											0
Resident Engineer	At No Cost to the City	80	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168					3608
Structure Rep. ARE	At No Cost to the City	80	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	80						3352
"On-Call" Inspectors	At No Cost to the City		76	76	76	76	76	76				76	76	76	76	76	76	76	76	76								1140
Material Technicains	At No Cost to the City																											0
Surveyor	At No Cost to the City																											0
Scheduler	At No Cost to the City	16	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8						176
Adminstrative Aide	At No Cost to the City																											0
SUB-TOTAL PERSONNEL		176	420	420	420	420	420	420	344	344	344	420	420	420	420	420	420	420	420	420	344	256	168	0	0	0	0	8276

Note: (1): During the Construction Phase, most of PM time and efforts will be on company OH payroll

City of El Paso De Robles

13th Street Bridge Widening Project

COST PROPOSAL: BILLING RATE (SCHEDULE)

Classification			Rate
Project Director [5]			$175.00
QA/QC Engineer [5]			$175.00
Project Manager [1]			$172.00
Resident Engineer			$118.00
Structure Rep. Assistant RE			$108.00
Inspectors [2] [3]			$96.00
Scheduler/Claims [2]			$98.00
Material Technicians [2], [3]			$96.00
Surveyor [2], [3]			$98.00
Adminstrative Aide [4]			$46.00

Notes:

(1): During the Construction Phase, most of PM time and efforts will be on company OH payroll

(2): "On-Call" As-Need Basis

(3): Direct Rate to comply with prevailing wage rate

(4): Adminstrative Aide position not be required

(5): Project Director and QA/QC time will be on company OH payroll

(6): There will no charges for home office support

LIST OF PROPOSALS RECEIVED
FOR
13TH STREET BRIDGE CONSTRUCTION MANAGEMENT OVERSIGHT SERVICES

URS Corporation	$1, 408,900
Tetra Tech Corporation	$ 1,421,148
Penfield and Smith	$ 995,360
Parsons Brinckerhoff	$ 1,429,485