Council Meeting of
April 24, 2007

Honorable Mayor and Members
of the City Council
City Hall
Torrance, California

Members of the Council:

SUBJECT: Award of Consulting Services Agreement to Psomas for Design Services for the Crenshaw Boulevard Rehabilitation, T-22 (182nd Street to 190th Street) and Crenshaw Boulevard Rehabilitation, T-51 (Maricopa Street to Sepulveda Boulevard). Expenditure: $470,394

RECOMMENDATION

The Public Works Director recommends that the City Council Award a Consulting Services Agreement in the amount of $470,394 to Psomas of Costa Mesa, California to perform design services for the Crenshaw Boulevard Rehabilitation, T-22 (182nd Street to 190th Street) and Crenshaw Boulevard Rehabilitation, T-51 (Maricopa Street to Sepulveda Boulevard).

Funding

Funding is available from Projects T-22 ($270,394) and T-51 ($200,000).

BACKGROUND

The Crenshaw Boulevard Rehabilitation (182nd Street to 190th Street), T-22 ("T-22 Project") and the Crenshaw Boulevard Rehabilitation (Maricopa Street to Sepulveda Boulevard), T-51 ("T-51 Project") are included in the adopted FY2005-09 Capital Budget. The T-22 and T-51 Projects will provide for the repair of damaged curbs, gutters, sidewalks; installation of ADA-compliant curb ramps; pavement reconstruction and overlay of two sections of Crenshaw Boulevard; traffic signal upgrades, utility relocation and capacity enhancements at the I405 on-off ramps. It is proposed to add a northbound right-turn lane on Crenshaw Boulevard at 182nd Street and a southbound right-turn lane on Crenshaw Boulevard at the I405 southbound on-ramp. It is preferred to combine the design phase of the two projects for cost effectiveness and to simplify project management. The total combined project budget is approximately $6.2 million and includes $1.4M of federal funds which are available on a reimbursement basis for construction costs.

ANALYSIS

Due to the size of the project and amount of staff hours needed to design the T-22 and T-51 projects, contract design services are required. Engineering staff will perform project and construction management and administration.

Staff issued a Request for Proposals in October 2006 to five engineering firms. Psomas ranked number one based on an evaluation of their project team, similar past experience, project understanding, schedule and cost.

Psomas has successfully performed design services for other public agencies. Their references have been checked and found to be in order. Psomas proposes to perform design services in the amount of $470,394 for this project. The proposed Consulting Services Agreement (Attachment A) will provide the required design services.

It is anticipated that design will be completed in summer 2008. Construction would be scheduled based the completion of construction activity of other arterial streets (Torrance Boulevard Rehabilitation, T-43/44 and 190th Street Rehabilitation, T-49).

Respectfully submitted,

ROBERT J. BESTE
Public Works Director

By: Craig Bilezerian
Project Manager

CONCUR:

Robert J. Beste
Public Works Director

LeRoy J. Jackson
City Manager

City Manager's Note:
Other Requests for Proposals were sent to RBF Consulting, Plotnik, CMB Consulting, and Moffat & Nichol.

Attachment A: Consulting Services Agreement - Psomas

Attachment A

CONSULTING SERVICES AGREEMENT

This CONSULTING SERVICES AGREEMENT ("Agreement") is made and entered into as of _____ (the "Effective Date"), by and between the CITY OF TORRANCE, a municipal corporation ("CITY"), and Psomas, a California Corporation ("CONSULTANT").

RECITALS:

A. The CITY wishes to retain the services of an experienced and qualified CONSULTANT to perform design services for the Crenshaw Boulevard Rehabilitation (182nd St. to 190th St., including the I-405 Freeway On/Off ramps) T-22, and Crenshaw Boulevard Rehabilitation (Maricopa St. to Sepulveda Blvd.) T-51.

B. In order to obtain the desired services, the CITY has circulated its Request for Proposal for Crenshaw Boulevard Rehabilitation (182nd St. to 190th St., including the I-405 Freeway On/Off ramps) T-22, and Crenshaw Boulevard Rehabilitation (Maricopa St. to Sepulveda Blvd) T-51, RFP No. N/A (the "RFP").

C. CONSULTANT has submitted a Proposal (the "Proposal") in response to the RFP. In its Proposal CONSULTANT represents that it is qualified to perform those services requested in the RFP. Based upon its review of all proposals submitted in response to the RFP, the CITY is willing to award the contract to CONSULTANT.

AGREEMENT:

1. <u>SERVICES TO BE PERFORMED BY CONSULTANT</u>

CONSULTANT will provide the services and install those materials listed in CONSULTANT's Proposal submitted in response to the RFP. A copy of the RFP is attached as Exhibit A. A copy of the Proposal is attached as Exhibit B.

2. <u>TERM</u>

Unless earlier terminated in accordance with Paragraph 4 below, this Agreement will continue in full force and effect from the Effective Date through December 31, 2008.

3. <u>COMPENSATION</u>

A. CONSULTANT's Fee.

For services rendered pursuant to this Agreement, CONSULTANT will be paid in accordance with the compensation schedule set forth in the Proposal; provided, however, that in no event will the total amount of money paid the CONSULTANT, for services initially contemplated by this Agreement, exceed the sum of $470,394 ("Agreement Sum"), unless otherwise first approved in writing by the CITY.

B. Schedule of Payment.

Provided that the CONSULTANT is not in default under the terms of this Agreement, upon presentation of an invoice, CONSULTANT will be paid monthly, within 30 days after the date of the monthly invoice.

4. TERMINATION OF AGREEMENT

A. Termination by CITY for Convenience.

1. CITY may, at any time, terminate the Agreement for CITY's convenience and without cause.

2. Upon receipt of written notice from CITY of such termination for CITY's convenience, CONSULTANT will:

   a. cease operations as directed by CITY in the notice;
   b. take actions necessary, or that CITY may direct for the protection and preservation of the work; and
   c. except for work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

3. In case of such termination for CITY's convenience, CONSULTANT will be entitled to receive payment for work executed; and costs incurred by reason of such termination, along with reasonable overhead and profit on the work not executed.

B. Termination for Cause.

1. If either party fails to perform any term, covenant or condition in this Agreement and that failure continues for 15 calendar days after the nondefaulting party gives the defaulting party notice of the failure to perform, this Agreement may be terminated for cause; provided, however, that if during the notice period the defaulting party has promptly commenced and continues diligent efforts to remedy the default, the defaulting party will have such additional time as is reasonably necessary to remedy the default.

2. In the event this Agreement is terminated for cause by the default of the CONSULTANT, the CITY may, at the expense of the CONSULTANT and its surety, complete this Agreement or cause it to be completed. Any check or bond delivered to the CITY in connection with this Agreement, and the money payable thereon, will be forfeited to and remain the property of the CITY. All moneys due the CONSULTANT under the terms of this Agreement will be retained by the CITY, but the retention will not release the CONSULTANT and its surety from liability for the default. Under these circumstances, however, the CONSULTANT and its surety will be credited with the amount of money retained, toward any amount by which the cost of completion exceeds the Agreement Sum and any amount authorized for extra services.

3. Termination for cause will not affect or terminate any of the rights of the CITY as against the CONSULTANT or its surety then existing, or which may thereafter accrue because of the default; this provision is in addition to all other rights and remedies available to the CITY under law.

C. Termination for Breach of Law.

In the event the CONSULTANT or any of its officers, directors, shareholders, employees, agents, subsidiaries or affiliates is convicted (i) of a criminal offense as an incident to obtaining or attempting to obtain a public or private contract or subcontract, or in the performance of a contract or subcontract; (ii) under state or federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or any other offense indicating a lack of business integrity or business honesty which currently, seriously, and directly affects responsibility as a public consultant or contractor; (iii) under state or federal antitrust statutes arising out of the submission of bids or proposals; or (iv) of violation of Paragraph 19 of this Agreement; or for any other cause the City determines to be so serious and compelling as to affect CONSULTANT's responsibility as a public consultant or contractor, including but not limited to, debarment by another governmental agency, then the CITY reserves the unilateral right to terminate this Agreement or to impose such other sanctions (which may include financial sanctions, temporary suspensions or any other condition deemed appropriate short of termination) as it deems proper. The CITY will not take action until CONSULTANT has been given notice and an opportunity to present evidence in mitigation.

5. FORCE MAJEURE

If any party fails to perform its obligations because of strikes, lockouts, labor disputes, embargoes, acts of God, inability to obtain labor or materials or reasonable substitutes for labor or materials, governmental restrictions, governmental regulations, governmental controls, judicial orders, enemy or hostile governmental action, civil commotion, fire or other casualty, or other causes beyond the reasonable control of the party obligated to perform, then that party's performance shall be excused for a period equal to the period of such cause for failure to perform.

6. RETENTION OF FUNDS

CONSULTANT authorizes the CITY to deduct from any amount payable to CONSULTANT (whether or not arising out of this Agreement) any amounts the payment of which may be in dispute or that are necessary to compensate the CITY for any losses, costs, liabilities, or damages suffered by the CITY, and all amounts for which the CITY may be liable to third parties, by reason of CONSULTANT's acts or omissions in performing or failing to perform CONSULTANT's obligations under this Agreement. In the event that any claim is made by a third party, the amount or validity of which is disputed by CONSULTANT, or any indebtedness exists that appears to be the basis for a claim of lien, the CITY may withhold from any payment due, without liability for interest because of the withholding, an amount sufficient to cover the claim. The failure of the CITY to exercise the right to deduct or to withhold will not, however, affect the obligations of CONSULTANT to insure, indemnify, and protect the CITY as elsewhere provided in this Agreement.

7. THE CITY'S REPRESENTATIVE

The Public Works Director is designated as the "City Representative," authorized to act in its behalf with respect to the work and services specified in this Agreement and to make all decisions in connection with this Agreement. Whenever approval, directions, or other actions are required by the CITY under this Agreement, those actions will be taken by the City Representative, unless otherwise stated. The City Manager has the right to designate another City Representative at any time, by providing notice to CONSULTANT.

8. **CONSULTANT REPRESENTATIVE(S)**
The following principal(s) of CONSULTANT are designated as being the principal(s) and representative(s) of CONSULTANT authorized to act in its behalf with respect to the work specified in this Agreement and make all decisions in connection with this Agreement:

Tom Herbel - Vice President

9. **INDEPENDENT CONTRACTOR**
The CONSULTANT is, and at all times will remain as to the CITY, a wholly independent contractor. Neither the CITY nor any of its agents will have control over the conduct of the CONSULTANT or any of the CONSULTANT's employees, except as otherwise set forth in this Agreement. The CONSULTANT may not, at any time or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of the CITY.

10. **BUSINESS LICENSE**
The CONSULTANT must obtain a City business license prior to the start of work under this Agreement, unless CONSULTANT is qualified for an exemption.

11. **OTHER LICENSES AND PERMITS**
CONSULTANT warrants that it has all professional, contracting and other permits and licenses required to undertake the work contemplated by this Agreement.

12. **FAMILIARITY WITH WORK**
By executing this Agreement, CONSULTANT warrants that CONSULTANT (a) has thoroughly investigated and considered the scope of services to be performed, (b) has carefully considered how the services should be performed, and (c) fully understands the facilities, difficulties and restrictions attending performance of the services under this Agreement. If the services involve work upon any site, CONSULTANT warrants that CONSULTANT has or will investigate the site and is or will be fully acquainted with the conditions there existing, prior to commencement of services set forth in this Agreement. Should CONSULTANT discover any latent or unknown conditions that will materially affect the performance of the services set forth in this Agreement, CONSULTANT must immediately inform the CITY of that fact and may not proceed except at CONSULTANT's risk until written instructions are received from the CITY.

13. **CARE OF WORK**
CONSULTANT must adopt reasonable methods during the term of the Agreement to furnish continuous protection to the work, and the equipment, materials, papers, documents, plans, studies and other components to prevent losses or damages, and will be responsible for all damages, to persons or property, until acceptance of the work by the CITY, except those losses or damages as may be caused by the CITY's own negligence.

14. **CONSULTANT'S ACCOUNTING RECORDS; OTHER PROJECT RECORDS**
Records of the CONSULTANT's time pertaining to the project, and records of accounts between the CITY and the CONSULTANT, will be kept on a generally recognized accounting basis. CONSULTANT will also maintain all other records, including without limitation specifications, drawings, progress reports and the like, relating to the project. All records will be available to the CITY during normal working hours. CONSULTANT will maintain these records for three years after final payment.

15. INDEMNIFICATION

CONSULTANT will indemnify, pay for cost of defense, and hold harmless CITY, the City Council, each member thereof, present and future, its officers, agents and employees from and against any and all liability, expenses, including defense costs and legal fees, and claims for damages whatsoever, including, but not limited to, those arising from breach of contract, bodily injury, death, personal injury, property damage, loss of use, or property loss. The obligation to indemnify, pay for cost of defense, and hold harmless includes, but is not limited to, any liability or expense, including defense costs and legal fees, arising from the negligent acts or omissions, or willful misconduct of CONSULTANT, its officers, employees, agents, subconsultants or vendors. It is further agreed, CONSULTANT's obligations to indemnify, defend and hold harmless will apply, but only to the extent covered by CONSULTANT's negligence, even in the event of concurrent negligence on the part of CITY, the City Council, each member thereof, present and future, or its officers, agents and employees, except for liability resulting from the sole negligence or willful misconduct of CITY, its officers, employees or agents. Payment by CITY is not a condition precedent to enforcement of this indemnity.

16. NON-LIABILITY OF THE CITY'S OFFICERS AND EMPLOYEES

No officer or employee of the CITY will be personally liable to CONSULTANT, in the event of any default or breach by the CITY or for any amount that may become due to CONSULTANT.

17. INSURANCE

A. CONSULTANT must maintain at its sole expense the following insurance, which will be full coverage not subject to self insurance provisions:

(1) Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:

(a) Primary Bodily Injury with limits of at least $500,000 per person, $1,000,000 per occurrence; and

(b) Primary Property Damage of at least $250,000 per occurrence; or

(c) Combined single limits of $1,000,000 per occurrence.

(2) General Liability including coverage for premises, products and completed operations, independent contractors/vendors, personal injury and contractual obligations with combined single limits of coverage of at least $1,000,000 per occurrence.

(3) Professional liability insurance with limits of at least $1,000,000 per occurrence.

(4) Workers' Compensation with limits as required by the State of California and Employers Liability with limits of at least $1,000,000.

B. The insurance provided by CONSULTANT will be primary and non-contributory.

C. CITY, the City Council and each member thereof, members of boards and commissions, every officer, agent, official, employee and volunteer must be named as additional insured under the automobile and general liability policies.

D. CONSULTANT must provide certificates of insurance and/or endorsements to the City Clerk of the City of Torrance before the commencement of work.

E. Each insurance policy required by this Paragraph must contain a provision that no termination, cancellation or change of coverage can be made without thirty days notice to CITY.

18. SUFFICIENCY OF INSURERS

Insurance required by this Agreement will be satisfactory only if issued by companies admitted to do business in California, rated "B+" or better in the most recent edition of Best's Key Rating Guide, and only if they are of a financial category Class VII or better, unless these requirements are waived by the Risk Manager of the CITY ("Risk Manager") due to unique circumstances. In the event the Risk Manager determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to the CITY, the CONSULTANT agrees that the minimum limits of any insurance policies and/or performance bond required by this Agreement may be changed accordingly upon receipt of written notice from the Risk Manager; provided that CONSULTANT will have the right to appeal a determination of increased coverage by the Risk Manager to the City Council of the CITY within 10 days of receipt of notice from the Risk Manager.

19. CONFLICT OF INTEREST

A. No officer or employee of the CITY may have any financial interest, direct or indirect, in this Agreement, nor may any officer or employee participate in any decision relating to the Agreement that effects the officer or employee's financial interest or the financial interest of any corporation, partnership or association in which the officer or employee is, directly or indirectly interested, in violation of any law, rule or regulation.

B. No person may offer, give, or agree to give any officer or employee or former officer or employee, nor may any officer or employee solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation or any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any way pertaining to any program requirement, contract or subcontract, or to any solicitation or proposal.

20. NOTICE

A. All notices, requests, demands, or other communications under this Agreement will be in writing. Notice will be sufficiently given for all purposes as follows:

(1) Personal delivery. When personally delivered to the recipient: notice is effective on delivery.

(2) First Class mail. When mailed first class to the last address of the recipient known to the party giving notice: notice is effective three mail delivery days after deposit in an United States Postal Service office or mailbox.

(3) Certified mail. When mailed certified mail, return receipt requested: notice is effective on receipt, if delivery is confirmed by a return receipt.

(4) Overnight delivery. When delivered by an overnight delivery service, charges prepaid or charged to the sender's account: notice is effective on delivery, if delivery is confirmed by the delivery service.

(5) Facsimile transmission. When sent by fax to the last fax number of the recipient known to the party giving notice: notice is effective on receipt. Any notice given by fax will be deemed received on the next business day if it is received after 5:00 p.m. (recipient's time) or on a non-business day.

Addresses for purpose of giving notice are as follows:

CONSULTANT:
Psomas
3187 Red Hill Ave
Suite 250
Costa Mesa, CA 92626
Fax: (714) 545-8883

CITY:
City Clerk
City of Torrance
3031 Torrance Boulevard
Torrance, CA 90509-2970
Fax: (310) 618-2931

B. Any correctly addressed notice that is refused, unclaimed, or undeliverable because of an act or omission of the party to be notified, will be deemed effective as of the first date the notice was refused, unclaimed or deemed undeliverable by the postal authorities, messenger or overnight delivery service.

C. Either party may change its address or fax number by giving the other party notice of the change in any manner permitted by this Agreement.

21. PROHIBITION AGAINST ASSIGNMENT AND SUBCONTRACTING

This Agreement and all exhibits are binding on the heirs, successors, and assigns of the parties. The Agreement may not be assigned or subcontracted by either the CITY or CONSULTANT without the prior written consent of the other.

22. INTEGRATION; AMENDMENT

This Agreement represents the entire understanding of the CITY and CONSULTANT as to those matters contained in it. No prior oral or written understanding will be of any force or effect with respect to the terms of this Agreement. The Agreement may not be modified or altered except in writing signed by both parties.

23. INTERPRETATION

The terms of this Agreement should be construed in accordance with the meaning of the language used and should not be construed for or against either party by reason of the authorship of this Agreement or any other rule of construction that might otherwise apply.

24. SEVERABILITY

If any part of this Agreement is found to be in conflict with applicable laws, that part will be inoperative, null and void insofar as it is in conflict with any applicable laws, but the remainder of the Agreement will remain in full force and effect.

25. TIME OF ESSENCE

Time is of the essence in the performance of this Agreement.

26. GOVERNING LAW; JURISDICTION

This Agreement will be administered and interpreted under the laws of the State of California. Jurisdiction of any litigation arising from the Agreement will be in Los Angeles County, California.

27. COMPLIANCE WITH STATUTES AND REGULATIONS

CONSULTANT will be knowledgeable of and will comply with all applicable federal, state, county and city statutes, rules, regulations, ordinances and orders.

28. WAIVER OF BREACH

No delay or omission in the exercise of any right or remedy by a nondefaulting party on any default will impair the right or remedy or be construed as a waiver. A party's consent or approval of any act by the other party requiring the party's consent or approval will not be deemed to waive or render unnecessary the other party's consent to or approval of any subsequent act. Any waiver by either party of any default must be in writing and will not be a waiver of any other default concerning the same or any other provision of this Agreement.

29. ATTORNEY'S FEES

Except as set forth in Paragraph 15, in any dispute, litigation, arbitration, or other proceeding by which one party either seeks to enforce its rights under this Agreement (whether in contract, tort or both) or seeks a declaration of any rights or obligations under this Agreement, the prevailing party will be awarded reasonable attorney's fees, together with any costs and expenses, to resolve the dispute and to enforce any judgment.

30. EXHIBITS

All exhibits identified in this Agreement are incorporated into the Agreement by this reference.

31. CONSULTANT'S AUTHORITY TO EXECUTE

The person(s) executing this Agreement on behalf of the CONSULTANT warrant that (i) the CONSULTANT is duly organized and existing; (ii) they are duly authorized to execute this Agreement on behalf of the CONSULTANT; (iii) by so executing this Agreement, the CONSULTANT is formally bound to the provisions of this Agreement; and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which the CONSULTANT is bound.

CITY OF TORRANCE,
a Municipal Corporation

_____
Frank Scotto, Mayor

Psomas
a California Corporation

By: _____
Tom Herbel, Vice President

ATTEST:

_____
Sue Herbers, City Clerk

APPROVED AS TO FORM:

JOHN L. FELLOWS III
City Attorney

By: _____

Attachments: Exhibit A: RFP
Exhibit B: Proposal

Revised..: 12/12/2006

EXHIBIT A

REQUEST FOR PROPOSALS

[To be attached]

CRENSHAW BOULEVARD REHABILITATION, T-22/T-51
182ND St to 190TH St, including the I-405 On/Off ramps
and
Maricopa St to Sepulveda Blvd

Project Description

Crenshaw Blvd is a primary north-south arterial route for Torrance and the south bay region. The northern segment from 182nd St to 190th St & the I-405 Freeway On/Off Ramps carries 58,000 vehicles per day and provides primary access to the I-405 Freeway. The northbound I-405 Freeway on/off ramp is congested during peak hours and additional capacity is required. The southern segment from Maricopa St to Sepulveda blvd carries 60,000 vehicles per day. The pavement in the project area is severely deteriorated and requires rehabilitation. This project will provide for the pavement rehabilitation, curb, gutter and sidewalk repairs and capacity enhancements at the freeway on/off ramps. Adding capacity to the freeway ramps and rehabilitating the pavement will reduce traffic delays and improve safety conditions on this arterial.

Project Schedule: Design: January '07 to January '08; Construction: March '08 to March '09.

Project Budget: $6.2 Million

Submittal Requirements

The City has prepared a scope of work (included herein) and is requesting from your firm a proposal of services and a detailed fee estimate for the work. The proposal of services should include the methodology or process for completing each task.

The detailed fee estimate should provide a cost for each element of the project using the format below. The City will evaluate and choose the best qualified consultant on the basis of project understanding, ability to meet the project schedule and cost effectiveness. A submittal must include resumes/qualifications of proposed staff and subconsultants, proposal of services, fee estimate, schedule of firm's fees and excluded services. You also may separately list services and associated costs that are not in the city's scope of work and might be needed to complete the design work. However, do not include them in the fee estimate.

	Project Manager	**Engineer**	**Admin.**	**Consultant**	**Total**
	$100	**$50**	**$40**		
Task					
A	1	1	1		**$190**
B	2	2	2		**$360**
C				**$500**	**$500**
Total					**$1050**

Sample Fee Estimate

Please submit two (2) copies of your proposal and fee estimate information together in a three ring binder to:

City of Torrance Public Works Dept., 20500 Madrona Ave, Torrance, CA 90503; ATTN: Mr. William "Bill" Kamimura. You may contact Bill for questions at (310) 618-3078. Submittals must be received by 4:00 p.m. on Friday November 17, 2006.

PROJECT SCOPE

I. Preliminary Design

A. Project Kick-Off Meeting

Consultant will attend a kick-off meeting at the City and prepare a meeting agenda. The agenda should include:

- Lines of communication between the City, consultant, utility agencies and other agencies involved in the project.
- Discuss the project requirements, scope of work and schedule.

Consultant should prepare and distribute meeting minutes with any action items.

B. Research/Review of Available Data

Consultant will research and obtain all available data as a reference to prepare the preliminary and final PS&E. Data includes, but is not limited to, State, County, City, utility and other records/documents, existing street, storm drain, gas, sewer and water main improvement plans, topographic data maps, record drawings, wet and dry utility plans (to determine size and location), geotechnical reports, survey centerline and private property monument data and other pertinent information. Consultant will prepare a table summarizing the obtained data and submit a copy to the City and utility agencies. The Project Team will review this information prior to beginning surveys and preliminary design.

C. Site Evaluation

Perform a field inspection of Crenshaw Boulevard to:

- Verify record drawings and other data
- Identify areas of structural damage to existing AC pavement needing either localized repair/reconstruction or overlay.
- Identify damaged curb and gutter, cross-gutters, sidewalk/curb ramps and driveways to be replaced.
- Create a photo log of key project areas.

Consultant will schedule a City representative to be present during the inspection(s) of the existing pavement and damaged curb and gutter, cross-gutters, sidewalk/curb ramps and driveways.

II. Preliminary Surveys, Studies & Coordination

A. Design Topographic Survey

Consultant or its subcontractor will perform the Design Topographic survey. The survey shall be in conformance with the State Land Surveyors Act and be performed under the direct supervision of a CA Registered Land Surveyor. Consultant shall use California State Plane Zone 5 (NAD 83) feet. Tasks include:

1 Establish horizontal and vertical survey and construction control for the complete length of the project.

2 Perform topographic survey, as required, and may include, but not be limited to:

2.1 Cross section elevations taken at 25 ft. intervals. The sections will follow this format: property line/right-of-way, back of walk, top of curb, flow line, edge of gutter/pavement, grade breaks and/or quarter points, pavement delineation and legends (striping, STOP bars, etc.), finish surface at the centerline.

2.2 Locate all existing improvements within the street right-of-way (i.e. above ground utilities, manholes, valve covers, utility vaults and covers, signs, trees, utility poles, traffic signal poles, cross gutters, local depressions, catch basins, driveway openings, sidewalks, corner access ramps, parkway drains, etc).

2.3 Reduce data to a form showing centerline stationing, offset from centerline, and elevation.

2.4 Provide 0.5 ft contours.

2.5 Approximately 15 centerline monuments are within the construction area. Consultant shall tie out all centerline monuments and ties prior to construction and identify them in the design survey.

2.6 Identify in the survey any other monuments, including those on tops of curbs, sidewalk or in the parkway.

3 Consultant will sign, date and submit all original survey notes to the City within 15 working days after the completion of the survey.

Consultant shall provide traffic control as required during survey operations. Lane closures shall be in accordance with City of Torrance Standards, available upon request.

B. Utility Research and Notification

Research and obtain available existing utility records within the project limits. Compile a Utility Notification and Response Log in a table format and include dates of notification, persons/utility notified and responses from utility. Copies of this information will be provided to the City. Notifications will include:

- Initial Utility Information Request; Follow-up notifications for various plan submittals
- Prepare to Relocate Notice (if applicable)
- Notice to Relocate (if applicable)

Utilities to be notified will include: Southern California Edison, Pacific Bell Telephone, Verizon, GTE, Southern California Gas, Time Warner Cable, Water, Sewer and Storm Drain districts.

C. Utility Potholing

Consultant will provide a fixed $30,000 allowance for utility potholing. Locations will be based on information received from utility investigations. Consultant will arrange for utilities to be marked prior to the design topographical survey. Pothole locations and depths will be marked on the pavement surface and will show both horizontal location and depth from surface to the utility. Compensation will be based on actual cost plus 7% markup, but may not exceed $20,000. From the utility research and utility potholing, Consultant will compile and incorporate utility information on the roadway and water main Base Sheets. Conflicts with existing utilities will be identified for resolution with the conflicting utility.

D. Utility Coordination

Consultant will coordinate with the utility agencies throughout the design phase and obtain utility "sign-offs". If the proposed improvements interfere with existing utilities, consultant will arrange for potholing by the utility. Otherwise, any needed potholing will be performed under the potholing allowance provided in this scope. If required, Consultant will obtain any permit that is required for construction of the project, from any agency or utility company.

E. Base Sheets

Consultant will prepare Base Sheets utilizing the design topographic survey, utility research data and existing street, storm drain, sewer and water main improvement plans. The Base Sheets will be utilized for the design of the street rehabilitation/overlay, water main installation, traffic signal modifications and signing and striping plans. The base plans will be prepared at a 1"=40' scale.

Consultant shall data process all topography in AutoCAD Version 2000 or latest edition. Linestyles will be conventional. Text annotation will be stored in layers separate from the graphic elements. An AutoCAD file, layering, linestyle and color specification will be provided by the Consultant to the Client, if requested. Locations of any property lines, centerlines or rights of ways shown on the topography shall be shown graphically from specified Datum.

The topographic file shall include the basis of horizontal and vertical control, North arrow, date of survey, Survey Crew Chief and supervising Licensed Land Surveyor review and sign off, notes and details.

F. Pavement Evaluation Review/Design

The City will provide a pavement evaluation/analysis report. Consultant will review the report and discuss the recommended pavement rehabilitation alternatives with the City. This will include the following:

- Assess data and evaluate methods for rehabilitation.
- Prepare value engineering spreadsheets with cost breakdowns for up to 3 alternatives, including comparisons based on projected life.
- Present and discuss recommendations with City.
- After concurrence by the City, the final limits of removal will be shown on the plans.

G. Traffic Index Calculation

Consultant will perform 48-hour classification traffic counts for 3 locations along Crenshaw Blvd (1 between 182nd St and 190th St & 2 between Maricopa St and Sepulveda Blvd). Only Tuesday/Wednesday or Wednesday/Thursday counts are permitted. Consultant will calculate 2 traffic indexes (TI) for each location, each based on a 20-year growth. Consultant shall use both the LA County and State of California methods to calculate a TI.

III. Plans & Profiles

A. 30%, 60% & 90% Plan Submittal

All plan types will be in conformance with City of Torrance format, the latest applicable design/drafting standards and shall incorporate the City of Torrance Title blocks. The Public Works Department Title Block shall be used on all plan sheets.

Consultant will prepare and submit plans to the City and utility agencies at 30%, 60% and 90% completion. Plans shall be on 24" x 36" blacklined bond paper sheets, unless otherwise required for utility agencies. Consultant shall submit two (2) sets of plans to the City for each submittal.

The following is a listing of plan sheets with corresponding scale to be used as determined by the City.

PLAN	SCALE
Title Sheet	Varies
Construction Notes and Details	1" = 10', Varies
Typical Cross Sections	Varies
Roadway Rehabilitation Plan and Profile	1" = 40' H 1" = 4' V
Intersection Grid Details	1" = 10' H Grids at Lane Lines
Traffic Control & Staging Plans	1" = 40' H
Sign and Pavement Delineation Plans	1" = 40' H
Traffic Signal Modification Plans	1" = 20' H

Title Sheet will include project title, vicinity map, general notes, benchmark with basis of coordinates, dig alert information and legend of symbols.

Construction Notes and Details will include a construction note index, list of utility companies with contact name and telephone number, list of standard plans grouped by agency (i.e. APWA, City of Torrance, etc) and construction details. Multiple sheets may be required.

Typical Cross Sections will show right-of-way lines, dimensions between curbs, existing pavement surface and curb/gutter, existing roadbed, proposed improvements and grading/crossfall slope. Pavement cross falls should be kept at 2% optimal; however, cross falls may vary from 1% to 5% as needed for grade and to minimize reconstruction. Construction notes related to proposed improvements shall be included on this sheet. Cross

sections will be discussed with the City at the 30% and 60% submittal to identify potential problems.

Roadway Rehabilitation Plan and Profile will show all existing improvements, as shown on the Base sheets and all existing underground utilities (sewer, water, gas mains and associated laterals, storm drains, catch basins and laterals, manhole and valve covers, meter boxes etc). Proposed work will indicate limits of removals and replacements and cold planing limits, street overlay and rehabilitation areas, adjustment of manholes, vaults and valves to grade. Plans also shall indicate removal/replacement of curbs, gutters, sidewalks, access ramps, driveways, cross gutters, parkway/curb drains and protection of existing facilities. Consultant shall consider and determine the need and location for the preservation of existing control monumentation and the placement of new control monumentation. At a minimum, each sheet shall contain a north arrow, scale, match lines with station and sheet reference, plan and profile construction notes for all improvements on the sheet. Profile shall show existing tops of curb elevations with corresponding station and slope of curb between each grade break. For corner access ramps, provide station and elevation at BCR and ECR and label as "join existing." Elevations also should be provided at quarter points. Dimension the distance between each quarter point and the length of the curve.

Intersection Grid Details will be prepared at the following signalized intersections:

1. 182nd Street
2. Sonoma Street
3. Carson Street
4. Grid Details for 2 additional intersections

Grids will be shown at a 10-foot spacing and show existing and proposed elevations. These plans are primarily for control during paving operations and should show all existing improvements, underground utilities and surface culture on a larger scale. In order to avoid erroneous data, curb/gutter, sidewalk and improvements from other plan sheets should not be duplicated on these sheets.

Traffic Control & Staging Plans for Crenshaw Boulevard and intersecting side streets should be designed in accordance with MUTCD 2003 California Supplement and sample plans (electronic versions available) provided by the City.

Construction will also require traffic control on 182nd St, the northbound and southbound I-405 Freeway on/off ramps, 190th St, Maricopa St, Torrance Blvd, Carson St and Sepulveda Blvd. Sheets with traffic control devices within the Caltrans right-of-way shall include a signature block for Caltrans District 7 and its permit number and include metric units for dimensions.

Note: Prior to beginning work on these plans, consultant shall meet with the City to discuss construction staging, minimum lane requirements, side street and driveway access and plan notes and legend. It is anticipated that the project will be constructed in stages and each stage will require traffic control plans. The work within each stage will be partially restricted in the vicinity of the intersections to minimize the potential of traffic capacity reductions.

For the purposes of this proposal, the Consultant shall expect to prepare a total of 10 sheets for traffic control. One sheet for notes and typical sections; One for construction phasing and eight sheets for traffic control layouts. If fewer of more sheets are required, the compensation for this item will be adjusted accordingly.

Sign and Pavement Delineation Plans will be prepared for Crenshaw Boulevard and intersecting streets within the proposed street improvement limits. The plans shall be segmented to minimize the number of plan sheets.

The plans will be prepared in accordance to City standards and design criteria and Caltrans "Traffic Manual" and Standard Plans and Specifications (latest edition). Plans will provide for at least 200 feet of transition for each leg of the intersecting streets.

Plans will show: all existing signs within the project limits, including those mounted on traffic signals, street light and utility poles; proposed signs; and proposed pavement delineation and pavement legends/arrows within the project limits. Consultant shall include those areas on intersecting side streets that are within the project limits. Centerline stationing shall be shown on the plans

Traffic Signal Modification Plans will be prepared by referencing City record drawings (Consultant to obtain from Community Development Department) of the 2 traffic signals within the project limits. Consultant will field verify existing conditions (i.e. traffic signal poles, hardware, mast arm and pole-mounted signage, interconnect cable and control equipment). The 2 locations are:

- Crenshaw Blvd @ 182nd Street
- Crenshaw Blvd @ I-405 Freeway South – on/off-ramps

Anticipated improvements include: conversion from loop detection to video detection at Crenshaw Boulevard and 182nd Street intersection; installing interconnect conduit along Crenshaw Boulevard from 182nd Street to 190th Street and along 182nd Street from Crenshaw Boulevard to the northbound I-405 Freeway on/off ramp.

Consultant shall prepare a traffic signal modification plan for each signalized intersection according to the anticipated improvements. Each plan shall include a conductor schedule, pole schedule, phase diagram with detection speed, legend and notes and pole placement details for new poles.

B. Quantity Calculations and Cost Estimate

Consultant shall submit preliminary quantities and construction cost estimate at the 60% and 90% submittal. Unit prices will be based upon the most current cost information for a recent, similar project. The final quantity/cost estimate will be based on the final construction plans and submitted with the 100% submittal. Cost estimates shall not include contingency.

Note: The budget (design and construction) for this project is $6 million. The consultant shall compare its estimated construction costs for the 60%, and 90% submittal to the available budget. If the consultant's estimated costs exceed the available budget, the consultant shall inform the City and provide recommendations for costs reduction.

C. Project Specifications

Consultant will use the city's standard "boiler plate" Specifications and Special Provisions (Word 2000) and prepare the entire job-specific Construction Specifications document and Bid schedule suitable for bidding

D. 100% Submittal of Plans & Profiles, Specifications/Special Provisions, Quantities and Cost Estimate

The 100% submittal will include one (1) complete set of all plans; one (1) complete specifications/special provisions document, including Appendices and Standard plans; and quantities/cost estimate for final review. Minimal corrections may not be needed, but should be expected. Plans shall be on 24" x 36" blacklined bond paper sheets.

E. Final Submittal

Upon City approval of the 100% plans/profile submittal, consultant will submit a complete set of stamped/signed (CA Registered Civil Engineer) original plans on mylar, an unbound set of stamped/signed specifications/special provisions, appendices and a quantities/cost estimate. The consultant also will submit an electronic copy of all final AutoCAD drawings (with x-refs and plot configuration files), specifications/special provisions and quantities/cost estimate on a CD-ROM.

F. Caltrans Encroachment Permit Application for Hawthorne Blvd

Following the city's meeting on Traffic Control & Staging Plans, Consultant will prepare, on behalf of the City, a Standard Encroachment permit application with applicable plans, PEER report and specifications for submittal to Caltrans District 7, 100 South Main St., Suite 100, Los Angeles, CA. The City should be exempt from a permit application fee. Caltrans processing of City permits is assigned to Mr. Benny Diwa (213) 897-0352.

G. Project Management & Meetings

Consultant will perform all project management services during the course of the project as required to complete its contract work (i.e. General Project Coordination, Preparation of Schedule, Quality Control, Progress Reporting, Subconsultant Management).

To ensure understanding of the contract objectives and coordination between the team, meetings between the City and Consultant will be held as follows: for each of the submittals (30%, 60% and 90%), traffic control and staging, and two additional meetings, as requested for a total of six meetings. Consultant shall have no more than 2 attendees per meeting. Project objectives, schedule and any other issues will be discussed and resolved or assigned for follow-up.

At the 30%, 60% and 90% meetings, consultant will bring three copies of any completed plans, specifications, estimate and an updated project schedule for submittal. Consultant will submit a one-page progress report to the City with each monthly invoice.

H. Federal Authorization

This project is federally funded for the construction phase. Consultant shall prepare all required documentation on behalf of the City to obtain the Federal authorization (E-76 Form) to advertise for construction bidding. City will submit information to Caltrans.

I. Survey Monument Preservation and Restoration

Approximately 15 centerline monuments are within the construction area. Consultant shall tie out centerline monuments and any impacted centerline ties prior to construction and prepare and file Corner Records with the County of Los Angeles and City of Torrance. After construction is complete, Consultant shall re-establish monuments removed by construction activities and file final Corner Records with the County of Los Angeles and City of Torrance.

J. Reimbursable Expenses

Consultant will provide a fixed $5,000 allowance for reimbursable expenses. Compensation will be based only on actual costs (or cost plus 7% markup for outsourced work), but may not exceed $5,000. This task is intended to budget for reimbursable expenses that are associated only with reprographics of plans and paper documents, postage and mileage when making submittals to the City and other agencies or utility companies. Costs to print documents, produce reprographics, postage, telephone, faxes and mileage for consultant's internal review and/or coordination with satellite offices or subconsultants should be included in the fees for the various tasks.

K. City Responsibilities

1. City will provide access to the site.
2. City will provide an electronic copy of its "boiler plate" specifications.
3. City will provide a copy of its records of centerline monuments/ties.
4. City will provide an electronic copy of the Public Works Department and Community Development Department title blocks.
5. Pavement Evaluation Report
6. City will provide samples of various sheets from a recent street improvement
7. CEQA Documentation

EXHIBIT B

PROPOSAL

[To be attached]

PSOMAS

Information and Engineering Solutions

November 16, 2006

Mr. William "Bill" Kamimura
City of Torrance Public Works Department
20500 Madrona Avenue
Torrance, CA 90503

Subject: CRENSHAW BOULEVARD REHABILITATION, T-22/T-51
182nd St. to 190th St, including the I-405 On/Off Ramps and Maricopa St. to Sepulveda Blvd.

Dear Mr. Kamimura:

Psomas is pleased to submit this statement of qualifications/proposal to provide engineering, surveying and traffic services for the above named project. As you will see, we offer an outstanding project team with the technical qualifications, experience, staff resources, and enthusiasm needed to meet the requirements of the City and ensure project success.

We understand that the focus of this solicitation is to procure the services of a professional engineering firm to provide the needed services for the successful execution of the rehabilitation of Crenshaw Boulevard with operational and/or capacity enhancements. We have carefully developed our work plan and include tasks required to perform preliminary design, and prepare the final PS&E, as well as key support tasks that are vital to successful completion of this project. This work plan, and associated schedule, is included in addition to the requested qualifications information.

The Psomas Team consists of the following subconsultant firms:

- ***Katz Okitsu Associates***- traffic services
- ***Labelle-Marvin*** – advisory pavement engineering

Both Psomas and I, as proposed Project Manager, have previous experience in working with all of our subconsultant partner firms, providing the City of Torrance with a cohesive team that directly translates into cost and time saving for the City. Tom Herbel, our proposed Officer-in-Charge, has experience working with Benny Diwa at Caltrans and will facilitate the expediting of the Caltrans permits and documents. Our QA/QC leader, Dino D'Emilia, has relationships with City staff, affirming the interest of Psomas in providing a quality cost effective plan. The Psomas Team, and indeed the City, will benefit from having these existing positive working relationships in place with City staff and from our understanding of the City's standards, processes, and procedures.

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626

714.751.7373
714.545.8883 Fax
www.psomas.com

Consider why the Psomas Team is the best choice for this assignment:

Experienced Project Manager. I will direct the Psomas Team as Project Manager. I have more than 20 years of experience in civil engineering, public works, and transportation design projects. I have managed such projects for the cities of Riverside, Fontana, Rancho Cucamonga, and Moreno Valley, and OCTA, and have extensive experience in coordinating with cities, counties, agencies, utility owners, and railroads. I will manage your project with little guidance, working as an extension of City staff, which translates directly in conserving the City's time and resources. Understanding multi-discipline issues, I will serve the City by integrating and leading a variety of professionals to undertake the City's proposed project. I believe I have precisely the background and current experience that is needed for your projects.

Quality Assurance/Quality Control (QA/QC). Psomas is dedicated to technical excellence and professional quality, which is implemented through a proactive QA/QC program on our projects. Quality is a company-wide commitment. The lack of design-related change orders on our projects demonstrates the success of our program.

Proven Record. The Psomas Team offers the City an experienced team of professionals with proven records in providing design services for roadway design projects for municipal agencies and in meeting project budget and schedule constraints. Our Team's successful work together on relevant projects will provide the additional benefits of established working relationships and good communications. The Psomas Team will "hit the ground running!"

Local Sensitivity. Much of Psomas' work has been performed for public agencies, and we understand the special concerns of City departments such as yours. We are sensitive to community impacts, and recognize the need for preparing biddable, constructible plan packages.

I believe the Psomas Team provides the right combination of experienced staff, project understanding, and local knowledge to successfully undertake this contract for the City of Torrance. Should you have any questions or require additional information regarding this submittal, please contact me at (714) 751-7373.

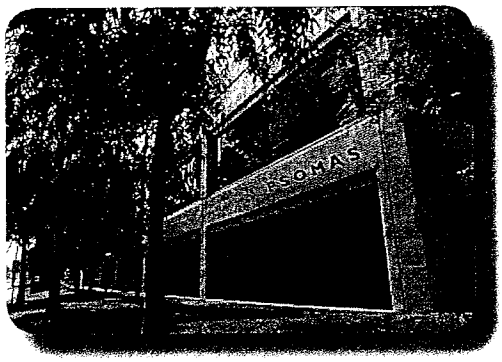
Respectfully submitted,

PSOMAS

Nancy L. Boyer

Nancy Boyer, PE
Project Manager

Firm Profile



Psomas offers services in transportation engineering, construction management, survey and mapping, water and natural resources, geographic information systems, and information services to public agencies.

Ranked nationally among ENR's Top 100 Engineering and Construction Management Firms, Psomas has achieved an award-winning reputation for innovation, creativity, and cutting-edge technical expertise.

The cornerstone of the firm's business approach is focusing on its clients' long-term needs and guiding our strategic growth to meet those needs. Founded in 1946 by George Psomas, the firm has grown into a full-service consulting firm with more than 750 employees. The firm's 60-year history and continued growth in size are indicators of Psomas' organizational stability and strength.

Psomas is a California corporation with offices in key locations throughout the western United States, including Costa Mesa, Los Angeles, Riverside, Roseville, Sacramento, San José, Santa Clarita, Bakersfield, and San Diego, California; Tucson and Phoenix, Arizona; Denver, Colorado; Reno, Nevada; and Salt Lake City, Utah.

Subconsultant

Katz, Okitsu & Associates
Planning and Engineering

Founded in 1987, Katz, Okitsu & Associates (KOA) is one of the leading traffic engineering and transportation planning and design firms in Southern California. KOA provides consulting services to the public and private sectors, and has five offices to serve our California clients. With nearly 90 employees, our staff includes California registered civil and traffic engineers. Katz, Okitsu & Associates has provided engineering services for many of the largest public works and transit planning projects in California. Katz, Okitsu & Associates is a regional firm, based in and working primarily in Southern California.

Project Manager and Team

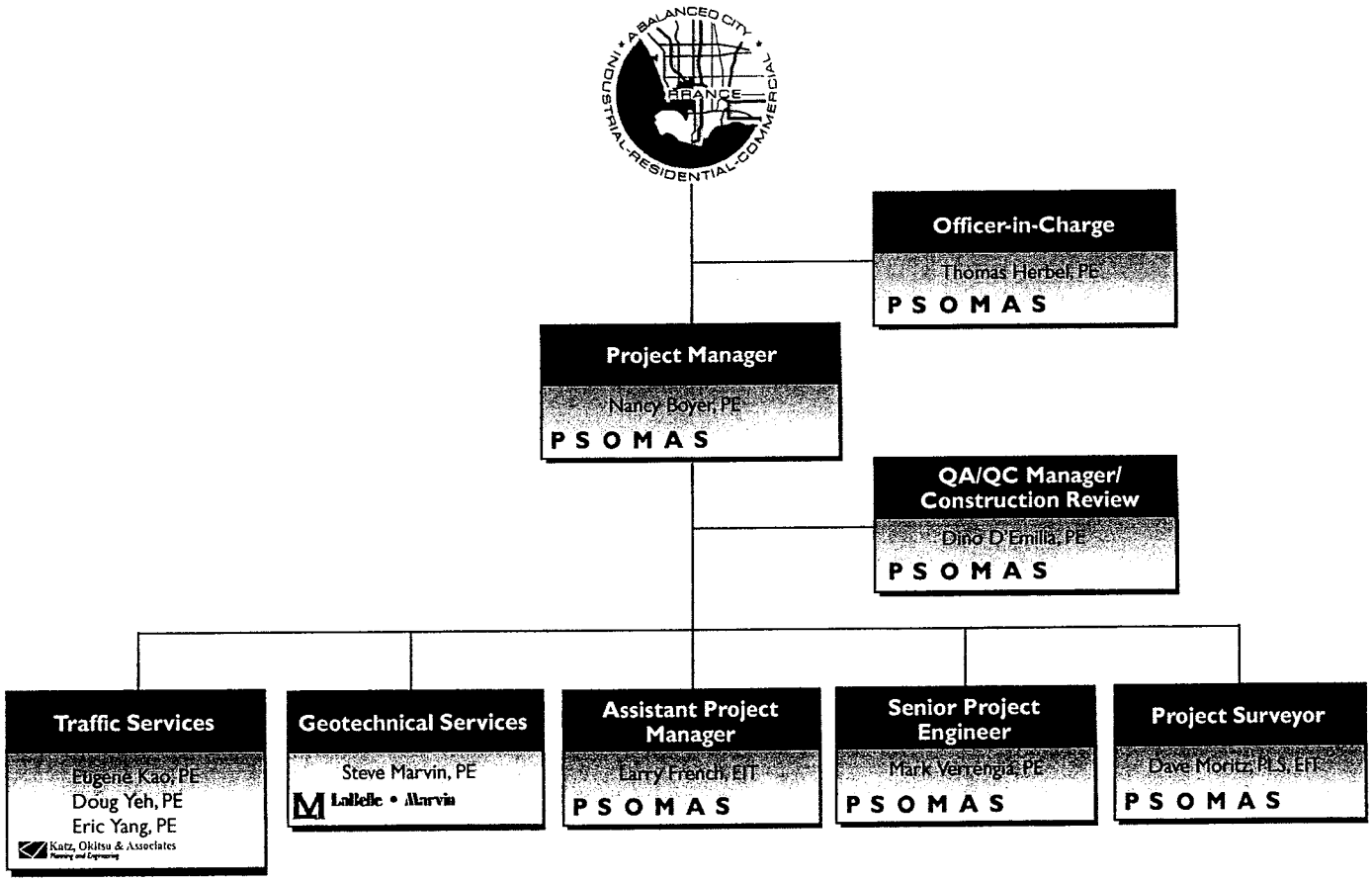
The Psomas Team has been assembled and organized specifically to address the requirements of this contract for Crenshaw Boulevard Rehabilitation Project, T-22/T-51. As prime consultant for this project, Psomas has assembled a team to provide the full range of engineering capabilities and specialty services required for the types of projects described in the City's Request for Proposal. The Psomas Team includes Katz, Okitsu & Associates for traffic engineering services and in an advisory capacity LaBelle-Marvin for geotechnical engineering services.

In assigning personnel for key positions on our team, we have selected individuals who have proven track records in successfully delivering roadway and interchange design projects through the design and construction phases. The result is a team with precisely the expertise needed to solve the particular issues of your project, and the experienced know-how to anticipate your needs and deliver the specific work products that are required, within the project's timeline.

Organization Chart

The organization chart below depicts the key members of the Psomas Team and their respective positions. This team of professionals has been selected based on prior relationships, their reputation for quality and timely services, and their experience on similar projects.

Résumés of all Psomas Team members shown on the organization chart below are included on the following pages.



Nancy Boyer, PE

Project Manager

Education

1986/BS/Engineering/University of Illinois; Urbana, Illinois

Registrations

2005/Professional Engineer/Civil Engineering/CA #C68531

1992/Professional Engineer/IL #62047249

Affiliations

American Society of Civil Engineers

Institute of Transportation Engineers

American Public Works Association

Women's Transportation Seminar

Experience

With Psomas for less than 1 year; with other firms for 20 years.

Ms. Boyer is a Senior Transportation Project Manager and has more than 20 years of experience in civil engineering for a variety of project types, including roadway, highway and freeway facilities, interchanges, municipal streets and roads, commuter rail stations, multi-use trails, and site development projects.

Prior to joining Psomas, Ms. Boyer served as Transportation Group Manager with another A/E firm. Her duties in that position included direct supervision of 12 transportation design professionals and technicians. Her roles and responsibilities include project management, staff utilization and recruitment, project review and oversight, quality control, and inter-office project coordination.

Previously, Ms. Boyer was the owner of a consulting engineering company specializing in transportation engineering, hydraulic studies and designs, traffic reports and studies, residential and commercial subdivisions, and commercial and institutional site design.

Relevant Project Experience

91 Freeway/La Sierra Avenue Interchange Reconstruction, City of Riverside, CA: Project Manager for the PS&E phase of this interchange improvement project for the City of Riverside in cooperation with Caltrans District 8. Project elements included road widening, channel alteration, grade separations, retaining walls, drainage, bike lanes, and landscaping. Coordination with the City, Caltrans, Riverside County Flood Control and Water Conservation District, and BNSF was required. Acted as Deputy PM during the preparation of a combined PSR/PR and PS&E based on four proposed interchange configuration options including an innovative "bow-tie diamond." Ultimately, a standard diamond interchange design was selected.

I-10/Citrus Avenue Interchange PSR and PR, City of Fontana, CA: Project Manager for preparation of a PSR and PR for the Citrus Avenue/I-10 Interchange. Scope of services included preparation of concept design for improvements and alternative concepts for improvements, including geometric approval drawings, traffic analysis, environmental review, structure type selection, utility investigation, preparation of Storm Water Data Report, Mandatory and Advisory Design Exceptions, and drainage. Also involved coordination with Caltrans and UPRR for modification of an existing overhead.

Eastbound SR 91 Additional Auxiliary Lane Between SR 241 and SR 71 Project Study Report, OCTA: The project's primary objective was to provide a PSR for addition of an eastbound auxiliary lane from the SR 241 to the SR 71 interchange to improve operational, safety and congestion conditions. Served as Project Manager for preparation of the PSR, Geometric Approval Drawings, Design Exception Fact Sheet, Traffic Report, Preliminary Environmental Analysis Report (PEAR), and Advanced Planning Studies for the structures along this segment. Required coordination with OCTA, Riverside County Transportation Commission, Caltrans Districts 8 and 12, FHWA, the Counties of Orange and Riverside, SCAG, the cities of Corona and Anaheim, and other local agencies.

Thomas Herbel, PE

Officer-in-Charge

Education

BS/1990/Civil Engineering/California State University, Long Beach

Registration

1995/Civil Engineer/ CA #53300

Affiliations

American Society of Civil Engineers

American Public Works Association

Civil Engineers and Land Surveyors of California

Experience

With Psomas for 8 years; with other firms for 10 years

Mr. Herbel has over 18 years of experience in the planning, design, and project management of public works facilities, as well as entertainment facilities and private developer projects. These projects have included freeways, local streets and highways, water and wastewater facilities, drainage systems, earth retaining structures, site grading improvements, master planning for large development sites, and EIR technical support.

Relevant Project Experience

City of Dana Point FY 2000/01, 2001/02, and 2002/2003 Arterial Highway Rehabilitation Program, CA: Project Manager for engineering services to prepare the plans, specifications, and bidding documents for the rehabilitation of 4.2 miles of arterial highways. Stand-alone bid packages were prepared for each fiscal year project.

City of Alhambra, Annual Residential Street Improvement Project 2003, 2005 and 2006, Alhambra, CA: Project Manager for Psomas' contract engineering services to provide the City with plans, specifications, and construction estimates, and bidding documents for improvements to the City's most heavily traveled arterial highways and residential streets.

Arterial Street Pavement Rehabilitation for Five Federally Funded Projects, Downey, CA: Project Manager for Psomas' contract to provide engineering services for the preparation of plans, specifications, and bidding documents in support of the City's $1.3-million AHRP-funded arterial highway rehabilitation projects.

Cove Area Sewer and Roadway Improvements, Cathedral City, CA: Project Manager for the design of 19 miles of new sewer and roadway through an existing residential neighborhood and the formation of a $38-million dollar assessment district. The project required a major public information program and outreach to form the assessment district and coordination with the residents on the "look" of the new streets. The design included five different roadway sections and the profiling of approximately 1,500 driveways. In addition, the project involved partial right of way acquisition for approximately 58 parcels in support of the new roadways. City of Lake Forest FY 2000/01 Arterial Highway Rehabilitation Program, CA: Project Manager for the rehabilitation of 1.1 miles of Lake Forest Drive from I-5 Freeway to Rockfield Boulevard, and from Trabuco Road to Fern Leaf Drive. The services performed for the City included providing PS&E and AHRP processing to the client, as well as construction administration and inspection services.

2004/05 Pavement Rehabilitation Program, City of Corona, CA: Project Manager to provide engineering services for the preparation of plans, specifications, and bidding documents for the City of Corona's annual residential street rehabilitation project. The project plans included street rehabilitation and street striping plans for approximately eight miles of residential streets. The project was broken into seven stand-alone bid packages.

Dino D'Emilia, PE

QA/QC/ Construction Review

Education

BS/1990/Civil Engineering/California State University, Long Beach

Registration

1997/Registered Civil Engineer/CA #C55453

Affiliations

American Society of Civil Engineers (ASCE)

American Public Works Association (APWA)

Experience

With Psomas for less than one year; with other firms for 18 years

Mr. D'Emilia has over 18 years of experience in managing large-scale construction programs for various public entities with significant success managing multi-million dollar projects during design and construction phases. His responsibilities have included managing capital construction projects ranging from small projects to major projects with construction values up to $300 million. His duties have included hiring consultants for testing, inspection and resident engineering as needed and personally performing these same duties for key projects, while managing schedule, budget and critical issues for all projects. He has provided monthly report and presentations for status of all projects.

Relevant Project Experience

Roadway and Traffic Projects, CA: Provided various tasks at several cities including managing street widenings, pedestrian improvements, and paving projects. Projects valued from $400,000 to $10 million. Duties include consultant selection, contract administration, project management, funding administration (Federal, State and Local), compilation of plans and specifications, and construction management activities.

Hermosa Beach Ardmore Ave. Improvements, CA: As Project Principal, ensured client satisfaction with the preparation of plans, specifications, and cost estimates for street improvements on Ardmore Avenue from Valley to Power Street. Improvements were completed on an expedited basis. Improvements included rehabilitation or reconstruction of existing street pavement, taking into consideration drainage, utility impacts, life-span requirements, and City of Hermosa Beach standards.

Hermosa Beach 21st Street Improvements, CA: As Project Principal, ensured client satisfaction for the preparation of plans, specifications, and cost estimates for rehabilitation and widening of improvements at 21st Street and Ardmore Avenue. Street improvements at this intersection were completed on an expedited basis and included rehabilitation or reconstruction of existing street pavement, taking into consideration drainage, utility impacts, life-span requirements and City of Hermosa Beach standards.

Malibu Zumirez Drive Design and Construction Management, CA: As Project Principal and Construction Manager, ensured client's satisfaction for the completion of Plans, Specifications, and Estimates to realign Zumirez Drive and construct a new traffic signal at the intersection with Pacific Coast Highway (Caltrans). Project elements included new asphalt pavement with decomposed granite and concrete walkways, striping, and relocated utilities. Perfomed the construction management during the construction phase of this project.

Mark Verrengia, PE

Senior Project Engineer

Education

BS/2000/ Civil Engineering/California State Polytechnic University, Pomona

Registration

Civil Engineer/CA # 64342

Affiliations

American Society of Civil Engineers

Experience

With Psomas for 5 years; with other firms for 5 years

Mr. Verrengia has 10 years of experience in analysis, design and construction of public works facilities, private developer projects and entertainment facilities. These projects include storm drain system analysis and design, hydrologic studies, site grading improvements, street widening and pavement rehabilitation projects. Previous experience includes analysis and seismic retrofit of timber-framed structures, as well as surveying and construction for Disney's California Adventure Theme Park.

Relevant Project Experience

City of Dana Point FY 2000/01 and 2001/02 Arterial Highway Rehabilitation Program, CA: Design Engineer for engineering services to prepare the plans, specifications, and bidding documents for the rehabilitation of the designated arterial highways. Two stand-alone bid packages were prepared for each fiscal year project.

City of Lake Forest FY 2000/01 Arterial Highway Rehabilitation Program, CA: Design Engineer for the rehabilitation of 1.1 miles of Lake Forest Drive from I-5 Freeway to Rockfield Boulevard, and from Trabuco Road to Fern Leaf Drive. The services performed for the City included providing PS&E and AHRP processing to the client, as well as construction administration and inspection services.

Pavement Rehabilitation of Arterial Streets for Five Federal Projects, Downey, CA: Design Engineer for Psomas' contract to provide engineering services for the preparation of plans, specifications, and bidding documents in support of the City's AHRP-funded arterial highway rehabilitation projects. Arterials addressed under this contract include Florence Avenue, Paramount Boulevard, Gardendale Street, and Stewart and Gray Roads.

The Arbor on El Toro Road, Traffic and Landscape Improvements, Lake Forest, CA: As Design Engineer for the Psomas-led multi-discipline consultant team, responsibilities in this $27-million project are to provide streetscape and traffic improvements. The roadway will be widened to provide up to nine travel lanes, and intersections improved to reduce congestion and improve traffic flow. Primary responsibilities have been drainage design and utility mapping.

County of Orange Randall Street Storm Drain and Pavement Rehabilitation, CA: Design Engineer for the preparation of construction documents for the Randall Street Storm Drain and Pavement Reconstruction Project. This project involved the replacement of a rural bridge structure, the design of 1,500 feet of new 48-inch storm drain, and the rehabilitation of approximately one mile of rural street.

County of Orange RDMD, On-Call Hydraulic Design Services, BMP Design for Aliso Creek, CA: Design Engineer for Psomas' contract to provide on-call hydraulics and hydrology engineering services. The first task of this assignment involves the complete preliminary design, and development of final construction documents, for the Dairy Fork project, which is within the Aliso Creek Watershed.

Larry French, EIT

Assistant Project Manager

Education

BS/1977/Biological Sciences/ University of California, Irvine

Civil Engineering Coursework, California State University, Long Beach

Registration

1991/Engineer-in-Training/CA

1982/Land-Surveyor-in-Training/CA

Experience

With Psomas for less than 1 year; with other firms for 25 years.

Mr. French is an Assistant Project Manager and has more than 25 years of experience in civil engineering for a variety of project types, including freeway and highway facilities, interchanges, municipal streets and roads, commuter rail stations, commercial and residential site development, multi-use trails, and site development projects.

Prior to joining Psomas, Mr. French served as Senior Design Supervisor with another A/E firm. His duties in that position included preparation of plans, specifications and estimates for numerous design projects, coordination with clients and subconsultants, and oversight and mentoring of junior design staff.

Relevant Project Experience

Lasselle Street Widening, City of Moreno Valley, CA: Assistant Project Manager for widening of Lasselle Street between John F. Kennedy Drive and Alessandro Boulevard. The principal goal of the project is to widen Lasselle from JFK Drive (southerly limit) to Alessandro (northerly limit), including new pavement, curb and gutter, accessible sidewalk, bus turn-outs, drainage facilities and landscaping. Coordination with an adjacent major residential development and the City's implementation of the development agreement conditions is critical. The project will require study and design of additional drainage facilities per Riverside County Flood Control District and Water Conservation District standards. The project also required extensive utility coordination with a very shallow 30-inch-high pressure gas line as the most challenging.

Knott Avenue Pavement Rehabilitation Project, Anaheim, CA: Served as Project Engineer for pavement rehabilitation project. Arterial street pavement was improved based upon recommendations of pavement evaluation subconsultant by a combination of reconstruction, cold milling and resurfacing with reinforcing fabric.

Kraemer Boulevard Pavement Rehabilitation Project, Anaheim, CA: Served as Project Engineer for pavement rehabilitation of arterial streets located in an industrial area with very heavy truck traffic. Pavement was improved based upon recommendations of pavement evaluation subconsultant by a combination of reconstruction, cold milling and resurfacing. Project also included reconstruction of sidewalks and access ramps to comply with current ADA requirements.

Foothill Transportation Corridor, Orange County, CA: Served as Lead Civil Designer for segment of toll road corridor segment between El Toro Road and Santa Margarita Parkway. Design features included mainline tollway, on/off ramps, retaining walls, grading, drainage facilities and local street improvements.

San Joaquin Hills Transportation Corridor, Orange County, CA: Served as Designer for segment of toll road corridor segment between Alicia Parkway and Moulton Parkway. Responsible for geometrics, grading and layout of MSE walls throughout this segment of the corridor.

Dave Moritz, PLS, EIT

Project Surveyor

Education

BS/1993/Civil Engineering/California State Polytechnic University, Pomona

Registration

1997/Land Surveyor/California/# 7388

1991/EIT Certification (XE084371)

Affiliations

California State Land Surveyors Association

City of Azusa Planning Commission, 1993-2001

Experience

With Psomas for 12 years; with other firms for 3 years.

Mr. Moritz has over 15 years of experience in the analysis, design, preparation, and drafting of ALTA surveys, design surveys, right-of-way base mapping, Records of Survey, and legal descriptions. His responsibilities include performing survey research and boundary analysis; preparing project reports, budgets, and scopes; reviewing easements and title reports; and overseeing mapping production. Mr. Moritz is also involved in the coordination and oversight of work among the client, title companies, assistant surveyors and drafting staff, and in-house civil engineers.

Relevant Project Experience

Alameda Corridor Project, CA: Project Surveyor responsible for the design, calculation, and preparation of ALTA surveys, design surveys, right-of-way base mapping, and record-of-survey mapping for the boundary and improvements along this 22-mile rail project. This project is done in both Imperial and metric units.

Oso Parkway Roadway Widening, County of Orange, CA: Project Surveyor involved in providing horizontal and vertical control, aerial photogrammetric mapping, digital terrain modeling (DTM), cadastral and utility research, right-of-way basemapping, utility basemapping, cross-sections, utility location surveys, and legal descriptions for ROW acquisition and easements for this project.

The Arbor on El Toro Road Traffic and Landscape Improvements, City of Lake Forest, CA: Project Surveyor involved in providing horizontal and vertical control, aerial photogrammetric mapping, digital terrain modeling (DTM), cadastral and utility research, right-of-way basemapping, utility basemapping, cross-sections, utility location surveys, and legal descriptions for ROW acquisition and easements for this project. The project's purpose is to design and construct streetscape and traffic improvements, including roadway widening, in the City of Lake Forest downtown.

City of Dana Point - Intersection Surveys: Project Manager responsible for the performance of surveying on a city-wide intersection survey project. 26 intersections were surveyed and tied to the California State Plane Coordinate System for the City's use in performing drainage studies and improvement design. GPS surveying was used to establish survey control, and deliverables were prepared in AutoCAD/LDT format.

City of Dana Point – Calle Verano Emergency Alley Survey: Project Manager responsible for a fast response survey for an alley that required the immediate design and construction of street improvements. This included field surveying and the preparation of a design survey. Deliverables were prepared in AutoCAD/LDT format for use by Psomas engineers.

Riverside County EDA-Thermal Streets Project, Thermal, CA: Project Surveyor involved in providing horizontal and vertical control, aerial photogrammetric mapping, digital terrain modeling (DTM), cadastral and utility research, right-of-way basemapping, utility basemapping, cross-sections, utility location surveys, and legal descriptions for ROW acquisition and easements for this project. The project includes design of street improvements to ultimately widen the right-of-way of existing streets, including construction of curbs, gutters, sidewalks, paving, striping, landscape, median islands, and left-turn pockets.

Katz, Okitsu & Associates
Planning and Engineering

Eugene Kao, PE

Senior Engineer

Education

MS/1986/Civil Engineering, University of Illinois at Champaign-Urbana

BS/1984/Civil Engineering, University of Illinois at Champaign-Urbana

Registration

Professional Engineer (Civil)/CA # 47457

Affiliations

American Society of Civil Engineers

Institute of Transportation Engineers

Experience

Twenty years of experience

Eugene Kao's civil engineering experience includes traffic, land development, roads, and construction projects. He has significant experience in project management and working with the Public Works and Engineering departments of government agencies in Southern California such as Caltrans and the MTA. Before joining Katz, Okitsu & Associates, Mr. Kao was a civil engineer with the Los Angeles County Department of Public Works for 16 years.

Relevant Project Experience

Rolling Hills Road Traffic Engineering, Torrance, CA: Provided traffic engineering services for various locations near Rolling Hills Road in Torrance. Designed new traffic signals and striping improvements at the intersections of Rolling Hills Road/Whiffletree Lane and Rolling Hills Road/Fallenleaf Drive; traffic signal interconnect for all four signals on Rolling Hills Road between Hawthorne Blvd. and Crenshaw Blvd.; and landscaped median islands and striping improvements on Rolling Hills Way between Pacific Coast Highway and Crenshaw Blvd. The median islands were constructed with asphalt extruded curbs. All plans met City of Torrance design requirements and standards.

Lowe's/Skypark Drive Traffic Signals, Signing and Striping, Torrance, CA: Prepared traffic signal and signing and striping plans to comply with City of Torrance conditions of approval. Developers of a new Lowe's Home Improvement store at 2700 Skypark Drive in Torrance were required to install a new traffic signal at the proposed driveway. Across the street from the proposed Lowe's driveway are two existing driveways, one serving a Costco retail store and the other serving as the Skypark Business Center. All three driveways plus the east and west approaches on Skypark Drive had to be included within the proposed intersection, resulting in a five-leg signalized intersection. The design of the required improvements must be in compliance with a conceptual plan provided by the City.

Artesia Blvd. Synchronization of 34 Traffic Signals, Artesia, Bellflower, Cerritos, Compton, La Mirada, Long Beach, CA: Served as Project Manager, for this Los Angeles County Department of Public Works project which involves the synchronization of 34 traffic signals along Artesia Blvd. from Alameda St. to Valley View Ave. Involved in conducting field surveys and providing detailed recommendations for each location. Also supervising the design of the traffic signal modification plans that will be prepared for this project.

Sunset Avenue Grade Separation, Alameda Corridor East, City of Industry, CA: Provided traffic management, traffic detour, and stage construction plans for this San Gabriel Valley project. He also prepared traffic signal, street lighting, and signing and striping plans for the roadway layouts at three locations.

Baldwin Avenue Grade Separation Traffic Engineering, El Monte, CA: The increased number of trains moving goods from the Ports of Los Angeles and Long Beach has resulted in a rise in traffic delays at a number of at-grade crossings in Los Angeles County. The Alameda Corridor East Construction Authority is building a railroad grade separation underpass on Baldwin Avenue at the UPRR tracks in El Monte. Mr. Kao designed traffic signals, signing and striping, street lighting, traffic management plans and traffic control plans for the project.

Katz, Okitsu & Associates
Planning and Engineering

Doug Yeh, PE

Senior Engineer

Education

BS/1988/Optical Engineering, University of La Verne,

Registration

Professional Engineer (Traffic)/CA # 1900

Experience

Eighteen years of experience

Mr. Yeh has extensive experience in the design and analysis of transportation and infrastructure projects. He has served as Project Manager and Team Leader for numerous projects involving design of roadways, traffic signals, work site traffic control, street lighting, signing and striping, and intelligent transportation systems design.

Relevant Project Experience

Hawthorne/Del Amo Boulevard Intersection Capacity Enhancement Project, Torrance, CA: The City of Torrance wanted to widen Del Amo Blvd for an additional lane in each direction, including modification of the State-owned traffic signal system to eliminate split phase operation and modification and extension of an existing storm drain system. Served as Project Manager for this project for this traffic signal modification plan which included a signing and striping plan, and a traffic control plan for the intersection of Hawthorne Blvd and Del Amo Blvd.

190th Street West of Van Ness Avenue Traffic Engineering, Torrance, CA: Served as Project Manager, provided traffic engineering services for roadway improvements at 190th Street and Van Ness Avenue in Torrance. Provided a traffic signal plan for 190th Street and the main Honeywell Building driveway, 800 feet west of Van Ness Avenue; and provided a signing and striping plan on 190th Street from 200 feet east of Van Ness Avenue to Crenshaw Place. Plans conformed to City of Torrance standards.

Centinela Avenue / Arizona Place Roadway Widening, Traffic Signal, Street Lighting, Playa Vista Development, Culver City and Los Angeles, CA: As part of the mitigation of anticipated increases in traffic from the Playa Vista residential and commercial development, the City of Los Angeles and the City of Culver City requested various improvements, including roadway widening on the south side of Centinela Avenue between the Radisson Inn employee parking lot driveway and Arizona Place. The City of Culver City required the upgrade of the two existing signals at Centinela/Radisson Driveway and Centinela/Arizona to ATSAC readiness plan. The City also required the addition of streetlights on the south side of Centinela Avenue.

Playa Vista State Transportation Improvement Program, CA: Prepared PS&E for traffic-related off-site improvements for the Playa Vista Development in Los Angeles for over 11 years. Projects have included coordination with Caltrans and the Cities of Culver City and Los Angeles. Designed street widening on Lincoln Boulevard to provide for eight highway lanes at the Sepulveda Boulevard intersection. Also designed roadway widening on Lincoln Boulevard between Fiji Way and Bali Way. The work included PS&E layout, typical cross sections, construction details, drainage, utility, stage construction, traffic handling, pavement delineation, signage, and highway and signal lighting.

Katz, Okitsu & Associates
Planning and Engineering

Eric Yang, PE

Associate Engineer

Education

BS/2001/Civil Engineering/California State Polytechnic University, Pomona

Basic Traffic Signal Design/2002/ Certificate/UC Berkeley Extension

Advanced Traffic Signal Operation/2005/UC Berkeley Extension

Experience

Six years of experience

Mr. Yang has conducted research and field investigation for numerous projects. He has prepared PS&E for numerous street design, traffic signal, fiber optic interconnect design, flashing beacon, pedestrian-friendly crosswalk, signing and striping, and worksite traffic control design project. Mr. Yang was trained to operate Bi-Tran's QuicNet traffic timing software and received a certificate in the use of MicroStation CADD software.

Relevant Project Experience

Hawthorne/Del Amo Boulevard Intersection Capacity Enhancement Project, Torrance, CA: Served as Project Manager for the widening of Del Amo Boulevard for the City of Torrance. The contract included modification of the State-owned traffic signal system to eliminate split phase operation and the modification and extension of an existing City storm drain system. Provided a traffic signal modification plan, a signing and striping plan, and a traffic control plan for the intersection of Hawthorne Boulevard and Del Amo Boulevard in the City of Torrance, California.

Sepulveda Boulevard and Cabrillo Avenue Traffic Signal Modification Project, Torrance, CA: Served as Project Engineer, attended meetings with the client and the City of Torrance and prepared modification of traffic signal and minor striping and signing design. The modification was required to upgrade traffic signal, include signal pre-emption, and provide left-turn phases for both northbound and southbound traffic along Cabrillo Avenue.

Rolling Hills Road Traffic Engineering Project, Torrance, CA: Served as Project Engineer, for this project which has two locations and involved two new traffic signal designs, interconnect design and modification of striping and signing on Rolling Hills Road and raised median/ landscape design and striping and striping and signing design on Rolling Hills Way. Served as project coordinator to schedule meetings, responded to City's questions and comments and answered club's questions.

McDonald Restaurant, Crenshaw Boulevard/ Skypark Drive and Amsler Street, Torrance, CA: Served as Project Manager and provided traffic signal modification design which involved a video detection system. Assisted Civil Engineer's street improvement design to avoid affecting existing signal equipment

Alhambra Main/5th & 6th: Served as Project Engineer for the design of a new signalized t-leg intersection, and modification of another signalized intersection at 6th Street. Coordinated all issues between the client and the City of Alhambra.

Virginia Park Street Improvements, City of Santa Monica, CA: Project Engineer, for this project which involved the modification of two intersections: Cloverfield Blvd/Pico Blvd. and 22nd Street and Pico Blvd. Assisted in the design of street improvements, signing and striping and design of a pedestrian friendly crosswalk with flashing devices at 22nd Street/Pico Blvd.

Avenue M Courthouse Project, City of Lancaster, CA: Served as Engineering Assistant for the design of more than 2,400 feet of street improvements including new signals, and signing and striping and 6,000 feet of worksite traffic control plans.

Psomas Team Experience

Psomas has performed many projects for cities that are similar in scope to the project for the City of Torrance which demonstrates our familiarity with public contract bidding requirements. We have included references who are able to comment on Psomas' performance as related to the work provided. The following are descriptions of some of these projects.

City of Alhambra — 2003 Annual Street Improvement Project II

Alhambra, CA

Project Dates
2003 to 2004

Client
CITY OF ALHAMBRA
111 South First Street
Alhambra, CA 91801

Contact
Hector Celaya
Project Manager
(626) 570-5083

The City of Alhambra retained Psomas for engineering consultant services to perform surveying, pavement inspection, and design engineering to provide the City with plans, specifications, and construction estimates, and bidding documents for improvements to the City's most heavily traveled arterial highways and residential streets.

Psomas performed a visual inspection of the City, provided a street list, and determined which streets were a candidate for overlay based upon the pavement management system recommendations. In addition, from the visual inspection Psomas was able to determine which streets required further geotechnical investigation to determine the appropriate method of rehabilitation.

The project also involved cost-conscious design to adhere to the project budget. Psomas developed a street priority list with the City and the engineer's preliminary estimate to maximize the quantity of streets the City could overlay while adhering to the project budget. Psomas was able to maintain a tight project schedule that was set due to other priorities in the City.

2004 HUD Residential Street Overlay Project: Psomas prepared the specifications and bid package for the overlay of 14 residential streets.

2004 Various Alley Reconstruction Projects: Psomas provided engineering services and prepared the plans, specifications and bid documents for the reconstruction of three alleys throughout the City.

City of Downey — Pavement Rehabilitation Program (AHRP)

Downey, CA

Project Dates
2002 to 2003

Client
CITY OF DOWNEY
Public Works Department
11111 Brookshire Avenue
P.O. Box 7016
Downey, CA 90241-7016

Contact
Anthony M. La, PE
Principal Engineer

The City of Downey received Arterial Highway Rehabilitation Program (AHRP) grant funding from Caltrans for Fiscal Years 2001/2002. The City contracted Psomas' engineering services to prepare the plans, specifications, and bidding documents for the rehabilitation of the designated arterial highways.

- Florence Avenue—from West City Limits to Tweedy Lane
- Paramount Boulevard—from I-5 Freeway to Telegraph Road
- Gardendale Street—from West City Limit to east of Dakota Avenue
- Stewart and Gray Road—from Old River School Road to Paramount Boulevard
- Paramount Boulevard—from Firestone Boulevard to 7th Street

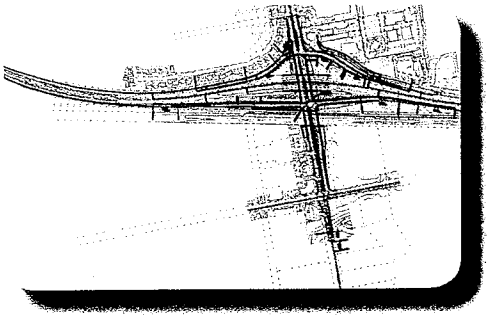
Since the City indicated that funding for the project mandated that authorization to advertise be received July 31, 2002, adherence to the project schedule was critical in order to meet the deadline. Another challenge for the project was to minimize construction impacts to the designated major arterial highways through a "well thought out" traffic control plan. The project also included the removal and replacement of damaged curb, gutter and sidewalk.

SR 91/La Sierra Avenue Interchange Reconstruction Project Report (PR) and PS&E)

Riverside, CA

Project Dates
2001 to 2006

Client/Contact
CITY OF RIVERSIDE
Tom Boyd
Dep. Public Works Director/City Engineer
(951) 826-5575



Ms. Boyer served as Project Manager for preparation of a Project Report and PS&E for improvements to the SR-91/La Sierra Avenue Interchange. The preferred alternative, a standard diamond (shown here), was approved following study of many alternatives including an innovative bow-tie diamond. The $40-million interchange improvement project includes road widening, channel alternation, grade separations, retaining walls, drainage, bike lanes, and landscaping. The project requires coordination with the City of Riverside, Caltrans District 8, Riverside County Flood Control and Water Conservation District, and BNSF Railroad.

Project Performed by Nancy Boyer Prior to Employment with Psomas

Oso Parkway Roadway Widening

Orange County, CA

Project Dates
2003 to 2006

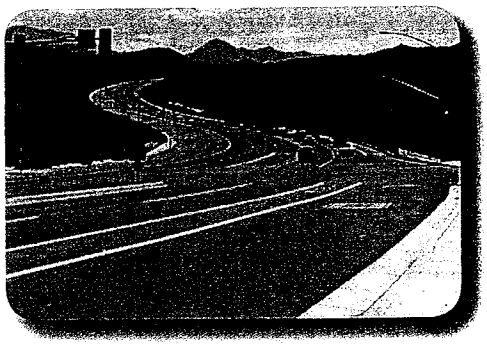
Client
COUNTY OF ORANGE
Resource Development and Management Department
300 North Flower, Room 551
Santa Ana, CA 92703-5000

Contact
Harry Persaud
(714) 834-5282

The County of Orange needed to widen Oso Parkway from Meandering Trail to Solano (two miles) in conjunction with the County's Master Plan of Arterial Highways. This area is currently at the southerly terminus of the Foothill Corridor (SR-241). The widening turned a six-lane facility into an eight-lane facility. Psomas was chosen to provide engineering services because of its modern communications technologies and a reputation for meeting schedules.

Psomas was selected to perform engineering services through a qualification-based selection. This project consisted of the following major features:

- Prepare traffic studies to determine intersection configurations
- Prepare project report
- Prepare environmental documentation
- Widen the roadway to eight lanes
- Coordinate with Caltrans and obtain encroachment permit
- Prepare drainage deficiency study
- Design of drainage structures
- Prepare Storm Water Management Plan



Randall Street Storm Drain and Pavement Reconstruction

Orange County, CA

Project Dates
2001 to 2003

Client
COUNTY OF ORANGE
Resource Development and Management Department
1750 S. Douglass Road
Anaheim, CA 92806

Contact
Denise Weaver
(714) 567-6289

Psomas prepared construction documents for the Randall Street Storm Drain and Pavement Reconstruction Project. This project involved the replacement of a rural bridge structure, the design of 1,500 feet of new 48-inch storm drain, and the reconstruction of approximately one mile of rural street.

Psomas conducted a detailed hydrologic and hydraulic analysis of the contributing tributary drainage areas.

Innovative solutions were required for the replacement of the existing bridge culvert to minimize impacts to surrounding private property. The project also involved an innovative design of a combination underground storm drain system and gunnite swale to convey surface runoff in a rural area. It was of the utmost importance to maintain the "rural" look of the area and the combination drainage system was the selected solution.

The Arbor on El Toro Road Traffic and Landscape Improvements

Lake Forest, CA

Project Dates
2001 to 2006

Client
CITY OF LAKE FOREST
23161 Lake Center Drive
Suite 100
Lake Forest, CA 92630

Contact
Gene Foster
Civil Engineering Associate
(949) 461-3490

Psomas led a multi-discipline consultant team to design streetscape and traffic improvements for this $27-million project in the City of Lake Forest downtown. The purpose of the project was to provide a catalyst for the redevelopment of the downtown core. The roadway was widened to provide up to nine travel lanes, and intersections were improved to reduce congestion and improve traffic flow. Significant right-of-way acquisition was required to construct the project improvements. The Psomas Team provided appraisal and acquisition services for full and partial takes, as well as relocation assistance for both residential and business properties.

Other key components of the project included defining an urban design theme and design of streetscape improvements; traffic signalization and interconnect systems design; drainage design; right-of-way engineering and acquisition services; public information and community involvement services; Caltrans coordination; design of a modified on-ramp; and agency coordination.

Due to the sensitive nature of the project, which is in the Aliso Creek Watershed, Psomas included a storm water runoff management plan (RMP) to address the impacts of the improvements and mitigation for the project.

Services include:

- Right-of-Way Acquisition Services
- Planning
- Survey
- Engineering
- Utility Coordination
- Federal Grant Administration
- Construction Administration
- Public Information Program

Arterial Highway Rehabilitation Program for FY2000/01, FY 2001/02, and FY 2002/03

Dana Point, CA

Project Dates
2001 to 2003

Client
CITY OF DANA POINT
33282 Golden Lantern
Dana Point, CA 92629

Contact
Matt Sinacori,
City Engineer
(949) 248-3574

The City of Dana Point has received Arterial Highway Rehabilitation Program (AHRP) grant funding from the Orange County Transportation Authority for Fiscal Years 2000/2001, 2001/2002, and 2002/2003. The City contracted Psomas' engineering services to prepare the plans, specifications, and bidding documents for the rehabilitation of the designated arterial highways.

Stand-alone bid packages were prepared for each fiscal year project, as follows:

Project 1: FY 2000/2001 (1.4 miles)

- Golden Lantern – Stonehill Drive to Dana Woods
- Stonehill Drive – Golden Lantern to Seaside

Project 2: FY 2001/2002 (1.2 miles)

- Golden Lantern – PCH to Stonehill Drive
- Golden Lantern – Dana Woods to Camino del Avion

Project 3: FY 2002/2003 (1.6 miles)

- Niguel Road – Camino del Avion to Pacific Coast Highway
- Stonehill Drive – Golden Lantern to Niguel Road

Stonehill Drive Streetscape — Arterial Highway Beautification

Dana Point, CA

Project Dates
2003 to 2004

Client
CITY OF DANA POINT
33282 Golden Lantern
Dana Point, CA 92629

Contact
Matt Sinacori
City Engineer
(949) 248-3574

The City contracted Psomas' engineering services to prepare the plans, specifications, and bidding documents for the widening, rehabilitation and street beautification for the entire 3-mile length of Stonehill Drive. The estimated project cost is $3,200,000.

The project involved the design of new raised landscaped medians, rehabilitation of the existing pavement, new curb and gutter to widen portions of the highway, new parkway landscaping, a new signalized intersection and the relocation of existing storm drain facilities to accommodate the widened portions.

City of Lake Forest—Arterial Highway Rehabilitation Program for FY 2000/01

Lake Forest, CA

Project Dates
2000 to 2001

Client
CITY OF LAKE FOREST
23161 Lake Center Drive, Suite 100
Lake Forest, CA 92630

Contact
Gene Foster
Civil Engineering Associate
(949) 461-3490

The City of Lake Forest selected Psomas to perform the City's Arterial Highway Rehabilitation Program (AHRP) for the 2000/2001 fiscal year. Psomas provided plans, specifications, estimates and AHRP processing to the City, as well as construction administration and inspection services. The project involved rehabilitation of 1.1 miles of arterial highway consisting of Lake Forest Drive from I-5 to Rockfield Boulevard, and Lake Forest Drive from Trabuco Road to Fern Leaf Avenue.

During the course of the program, Psomas acted as an extension of City staff to provide turnkey design and construction support services. Psomas staff is experienced in providing these services to multiple cities within Southern California.

Psomas provided the following services to the City of Lake Forest:

- Preparation of plan, specifications and estimates (PS&E) for streets requiring overlay
- Processing of AHRP funding applications
- Bid assistance and contract administration
- Construction inspection services
- Monument restoration

Rolling Hills Road Traffic Engineering

Torrance, CA

Project Dates
2004

Client
CITY OF TORRANCE
3031 Torrance Boulevard, Torrance, CA 90503

Contact
Sepideh Sedadi
(310) 618-5867

Katz, Okitsu & Associates provided traffic engineering services for various locations near Rolling Hills Road in the City of Torrance. The firm designed new traffic signals and striping improvements at the intersections of Rolling Hills Road/Whiffletree Lane and Rolling Hills Road/Fallenleaf Drive; traffic signal interconnect for all four signals on Rolling Hills Road between Hawthorne Boulevard and Crenshaw Boulevard; and landscaped median islands and striping improvements on Rolling Hills Way between Pacific Coast Highway and Crenshaw Boulevard. The median islands were constructed with asphalt extruded curbs. All plans met City of Torrance design requirements and standards.

Honeywell Building,

Torrance, CA

Project Dates
2002

Owner
City of Torrance, 3031 Torrance Boulevard, Torrance, CA 90509-2970

Client
MAR VENTURES
2050 West 190th Street, Torrance, CA 90504

Contact
Bill Messori
(310) 787-4734

Katz, Okitsu & Associates provided traffic engineering services for roadway improvements at 190th Street and Van Ness Avenue in the City of Torrance. The firm provided a traffic signal plan for 190th Street and the main Honeywell Building driveway, 800 feet west of Van Ness Avenue. Katz, Okitsu & Associates also provided a signing and striping plan on 190th Street from 200 feet east of Van Ness Avenue to Crenshaw Place. Plans conformed to City of Torrance standards.

Hawthorne/Del Amo Boulevard Intersection Capacity Enhancement Project

Torrance, CA

Project Dates
2001

Owner
City of Torrance
3031 Torrance Boulevard
Torrance, CA 90509-2970
Sandy Cohen, Associate Engineer
(310) 618-2824

Client
LUNDIN &ASSOCIATES
12377 Lewis Street, Suite 101
Garden Grove, CA 92840

Contact
Surender Dewan, PE
(714) 740-8840

The City of Torrance desired to widen Del Amo Boulevard to obtain an additional lane in each direction. The contract included modification of the state-owned traffic signal system to eliminate split phase operation and the modification and extension of an existing City storm drain system. Katz, Okitsu & Associates provided a traffic signal modification plan, a signing and striping plan, and a traffic control plan for the intersection of Hawthorne Boulevard and Del Amo Boulevard in the City of

Katz, Okitsu & Associates prepared a traffic signal modification plan in order to accommodate street improvements for construction of a McDonalds Restaurant at Crenshaw Boulevard and Skypark Drive/Amsler Street in Torrance, California. Our services included design of a video detection system for vehicles exiting the driveway.

Traffic Signal Design for McDonald's Restaurant at Crenshaw Boulevard/Skypark Drive/Amsler Street

Torrance, CA

Project Dates
2002

Owner
McDonald's Corporation
11682 El Camino Real, Suite 400
San Diego, CA 92130
(858) 509-3398

Client
PEAK SURVEYS, INC.
2488 Towngate Road, Suite D
Westlake Village, CA 91361
(805) 497-0102

Contact
Don Ikeler
(805) 497-0102

Katz, Okitsu & Associates prepared a traffic signal and safety lighting system modification at the Sepulveda Boulevard/Cabrillo Avenue intersection in Torrance. The modification was required to upgrade the traffic signal to provide left turn phases for northbound and southbound traffic along Cabrillo Avenue. The work complied with City of Torrance design requirements.

Traffic Signal Modification, Sepulveda Boulevard and Cabrillo Avenue

Torrance, CA

Project Dates
2005

Owner
City of Torrance
3031 Torrance Blvd
Torrance, CA 90503-5059
Alan Leung, PE
(310) 618-5990

Client
THE OLSON COMPANY
3020 Old Ranch Parkway, Suite 400
Seal Beach, CA 90740

Contact
Matt Patane
(562) 596-4770

Katz, Okitsu & Associates prepared a traffic signal and safety lighting system modification at the Sepulveda Boulevard/Cabrillo Avenue intersection in Torrance. The modification was required to upgrade the traffic signal to provide left turn phases for northbound and southbound traffic along Cabrillo Avenue. The work complied with City of Torrance requirements.

Project Understanding

We understand from discussions with staff, that the purpose of the project is to improve the existing Crenshaw Boulevard addressing the deficiencies evident in the pavement section throughout the reach of the project and to assess and recommend capacity improvements at the ramp intersection for southbound I- 405 at Crenshaw without widening the ramps. Observing the traffic throughout the reach of the project, and most specifically in the area of the ramp intersections, capacity improvements may include additional turn lanes at key locations.The proposed project site along Crenshaw Boulevard is in two segments from Sepulveda on the south, northerly to Maricopa and from 190th Street under I-405 to 182nd Street. There are two major components of this project: the design and implementation of a much needed pavement rehabilitation and the replacement and determination of capacity improvements along Crenshaw. Crenshaw is a fully urbanized arterial with several intersecting arterials along the limits of the project. For most of the project, Crenshaw has three through lanes in each direction with a single or double left turn lane. Throughout the entire reach, there are eleven signalized intersections:

- Sepulveda
- SROC/Park Del Amo
- Plaza Del Amo
- Jefferson
- Carson
- El Dorado
- Torrance
- Maricopa
- 190th Street
- SB 405 Ramps
- 182nd Street

An exclusive right turn is developed at some intersections.

Our efforts will be directed towards the design and approval for the production of construction documents for this project and the ultimate construction of these local and regionally significant improvements. Sensitivity to the construction staging of this project with the provision of access to the businesses, high school, residences, fire station headquarters, parks and other facilities. Psomas has experience with coordinating with Caltrans District 7 and we see this as a key component for this project. The work will be on an existing traveled way and therefore pedestrian, bicycle, and vehicular traffic safety and controls will be critical during the construction phase of the project. Consideration of optimizing traffic control will be an ongoing issue for our design team. The project currently has a sidewalk in most areas, curb and gutter with some sections of street in major disrepair. We have read the Request for Proposal prepared by the City and understand the components as listed in the Scope of Work. The following is presented to supplement what the City has provided in the "Project Scope" and includes a demonstration of Psomas' understanding and approach to the Scope of Work.

Key Issues/Challenges

Psomas has visited the streets and reviewed available project data. Team members have also discussed technical issues with City staff to gain an understanding of the work required. Based on our analysis and experience with similar projects, we have identified key issues and challenges for this project. The table below summaries these issues along with Psomas planned strategies to ensure project success.

Key Issue/Challenge	Psomas Team Solutions
Caltrans Encroachment Permit & Coordination	
Consideration of capacity improvements for the I-405 Southbound ramp improvements will be under the sphere of influence of Caltrans. A Caltrans encroachment permit will be prepared for this project.	Psomas has experience with the staff and the directors at District 7. We have prepared and received approval on Caltrans Encroachment Permits. Psomas will utilize our experience in working with Mr. Benny Diwa.
Construction Staging	
The improvements necessary for the rehabilitation of Crenshaw Boulevard and the operational capacity improvements must be integrated into the public's need for access along this significant arterial during construction. *Service stations and a fire station at Crenshaw and Carson will need to have access during construction.*	This developed corridor has a little bit of everything concerning land use. Diligent attention to the accessibility to the homes, business, schools, and emergency facilities during construction are key elements of the Psomas Team. Discussions with the City and the local users may be facilitated with assistance from staging considerations that will minimize the impacts of the construction along Crenshaw Boulevard for Crenshaw Boulevard, its adjacent homes, facilities and businesses as well as the intersecting traffic.
Utilities	
Several utilities may be affected by the proposed roadway rehabilitation and capacity improvement. Determining which entities, if any, have prior rights and potential relocation costs and construction schedule implications are critical. Many of the utilities are located within the street and may require adjustment to their facilities.	Early, frequent, and meticulous involvement of the utility owners in the planning and design process will avoid critical delays and unanticipated costs in the construction phase. Active follow-up with the utility companies will keep them involved in the process. Sequencing of construction for utility relocation must be developed with concern for continuous access for the businesses and residences within the influence of the improvements.
Budget	
The Capital Budget for any agency is never adequate to fund all of the improvements that the aging infrastructure in our communities warrants. Even with the recent Bond Measures, the allocation of construction funds for priority projects is limited.	As with all publicly funded projects, the intent is to get the most bang for the City's buck. Psomas will work with Labelle-Marvin and the City to review the alternatives presented for the rehabilitation of the pavement and will work with the City to investigate the various methods for realizing the City's goal of improving the travel conditions of Crenshaw Boulevard.

Scope of Services

Critical to the success of any project is the integrated implementation of a team of experienced engineers focused on achieving the project goal of rehabilitation of the pavement and provision of operational improvements in the project limits. Nancy Boyer, our proposed Project Manager, has extensive municipal experience. She has the direct and recent experience to effectively manage and lead the successful completion of the City's project on budget and ahead of schedule. Her understanding of how to direct a multi-discipline team of engineers, surveyors, and technical specialists enables the City staff to effectively move this project through design approval and ultimately, construction. She will be the central point of contact with the City and will be supported by the full financial, technical, and human resources of the firm. Mr. Tom Herbel will be serving as Officer in Charge and will provide direct support for the execution of this contract. Tom's experiences working with District 7 will be utilized in the processing of our encroachment permit. Additionally, Tom will provide internal oversight to the scope execution and schedule. Our integrated schedule, developed by Nancy, demonstrates adherence to project development procedures, illustrates the interdependencies between multiple disciplines and between multiple stakeholders, and signals how important strong management and capable personnel are to project delivery. Key to the Project Approach is the thorough execution of fundamental tasks of our Project Manager, including:

- **Liaison with the City, Caltrans, utility owners, and other agencies** - She will maintain an open channel of communication with the goal of identifying and resolving key issues with the City, Caltrans, utility owners, and other agencies including, but not limited to, design, permitting, and plan-checking. Nancy has recent experience with Caltrans and knows their encroachment permit process. In addition, Psomas has very recent experience with Benny Diwa, this project's Permit Engineer, at Caltrans in processing and encroachment permit with another Agency.
- **Quick and satisfactory resolution of issues** - Nancy will maintain a Log of Outstanding Issues to be Resolved or Action Log in which unresolved issues will be documented. She will achieve timely resolutions of issue, and will publish this log to all appropriate parties every week. All decisions and directions will be documented in a Decision Log that she will review and distribute.
- **Conformance to the project requirements** - She will oversee the design to assure that required mitigation measures are being addressed to City and outside Agency standards.
- **Organization of work tasks, procedures, documentation, and team structure** She will prepare monthly action plans using the approved Work Plan outlining the priority of activities, responsibilities of personnel and project disciplines, and performance time frames to assure that key issues are being resolved and team performance is on schedule.

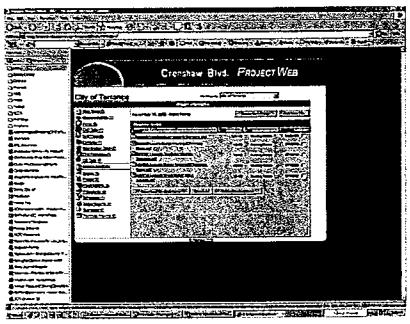
- **Maintenance of the project status** - She will keep current with the team's progress and direction to ensure that objectives are being met on schedule and within budget.
- **Monitoring of the project schedule** - She will use Psomas' Project-At-A-Glance and a customized Microsoft Project program to monitor resources and progress.
- **Creation of savings through cost control measures** - She will use Psomas' cost accounting software and customized summary reports to provide the City with detailed information needed to monitor the project's costs. She will track the project budget using weekly in-house reports generated by Psomas' accounting system.
- **Production of monthly progress status reports** - She will prepare monthly progress status reports that she will present at regularly scheduled project meetings and will be included with the invoice. These reports will include the completion of work to date, an inventory of uncompleted tasks with the status of completion of each task, a review of project milestones, and a summary of expenditures to date.
- **Coordination of disciplines and subconsultants** - She will manage and lead the various disciplines as required to assure that proper coordination and quality control is taking place. She will require and review monthly progress status reports from each subconsultant.

Project Management / Quality Control Plans

Communication between Psomas, the City of Torrance, and Project Team members is vital to this project. Maintaining a schedule for this project requires a dedicated partnership between our collective team. As such, our Project Management Approach will assure strong communication and basis for trust. Nancy Boyer, the Project Manager, has a number of tools to facilitate the successful execution of this project including:

ProjectWeb Online

Psomas' IT department has created ProjectWeb, our very own Project Extranet application designed to be an easy to use, quick, and secure method for sharing data among a team of individuals. Much like other tools you may have used in the past, ProjectWeb's architecture was designed focusing on the need to easily share data with other consultants or clients. Unlike some other tools you may have used, this application does not confuse the situation with often-unused tools designed to manage the design process. Instead, we focus on what needs to be done, getting data from one person to another and recording all transactions. All team members have the ability to access the web page, upload and download files, and see project announcements. The ProjectWeb for this project is shown here.



Project Controls

Psomas will initiate its project controls database for this project at the time we prepare our cost proposal. We will use Psomas' Project-At-A-Glance, a proprietary program, to establish the budget for each of the tasks defined in the final scope of work agreed to by Psomas and the City. Input to the Psomas' Project-At-A-Glance will include man-hours for each work task, billing rates for each personnel category anticipated to participate in the project, and projected completion dates for each task. This information is then exported from Psomas' Project-At-A-Glance to Microsoft Project, thereby creating a resource loaded project schedule, similar to the one included in this proposal. Psomas' Project-At-A-Glance and Schedule will be used from the initial budgeting process through project completion by our Project Manager, Nancy Boyer, to track progress and costs and report them, and to make adjustments when and where necessary. Data can be provided in a variety of graphic formats, including earned value curves, critical path and Gantt charts; and pure logic diagrams.

Quality Control

Quality Management links the project and project management to Psomas' Quality Control Process. Mr. Dino D'Emilia will be responsible for this process as well as a constructability review. This process is integrated into each of the milestones of the project. Psomas has an established Quality Control program that is used on all projects. The reviewer has been integrated into the project team, but sits independently of the project team. Key elements of our Quality Control program for this project are

- Check for completeness
- Check for conformance to City of Torrance, County of Los Angeles and Caltrans Standards
- Check for compliance with contract requirements
- Begin early
- Continue throughout the project

Fundamental to the execution of the project is the adherence to an established QA/QC plan. Dino D'Emilia, with assistance from Tom Herbel, will implement our successful quality program. Psomas prides itself on the quality of work produced and has a reputation for trouble free construction documents and an absence of design related change orders. For our clients, this helps to eliminate construction cost overruns and protracted negotiation over Contractor claims.

This track record is the result of following a well-developed design process with integrated quality control measures which are defined in Psomas' Project Management Manual and technical manuals. These procedures are implemented from initial scoping through City review and approval. An important feature of our team is the Quality Assurance/Quality Control (QA/QC) Program. Senior level engineers with years of demonstrated expertise are specially trained in Psomas' QA/QC program whose responsibility is to:

- review the project scope, schedule, and budget after the kick-off meeting;
- review progress at critical junctures of the project, make technical suggestions, and provide management recommendations, should they see diversions from the original scope, schedule, and budget;
- review deliverables prior to submission; and
- review the overall project to make certain that the Psomas Team's high professional standards are being achieved.

We have identified the following tasks in our Scope of Services.

Project Approach/Scope of Services

Preliminary Design Phase

The purpose of this phase of the project will be to develop and initiate a plan for the improvements along Crenshaw Boulevard for the rehabilitation and replacement of the deficient pavement throughout the project. The focus of this phase will be to collect and assess the existing pavement based upon the current pavement evaluation being performed by Labelle-Marvin for the City, examine traffic operational conditions from Sepulveda to Maricopa Street and from 190th to 182nd Street; and to develop the plan that fulfills the goals of the City's need to improve these segments of Crenshaw Boulevard while implementing a design that will provide cost effectiveness for the City's funds. Psomas accepts the City's scope of work as outlined in the RFP and in the essence of brevity has not repeated it except with the following clarifications and additions.

Project Initiation, Surveys Studies and Coordination

Project Initiation

A kick-off meeting will be held to introduce key personnel within the team/City staff and to review the project goals schedule, procedures, expectations and purpose of project. We will discuss the following aspects of the project within this meeting: pavement improvements, ancillary improvements including sidewalk, potential concerns with consideration of the monitoring well within the project's pavement limits, drainage/grading, traffic staging, accessibility, and general project development. At the conclusion of this meeting, the Conceptual Design Team will affirm all decisions made at this meeting and the design of the project will proceed with the concepts to 60% construction documents. Psomas will monumentize the decisions by providing documentation of the meeting and decisions in the form of a Concept Technical Memorandum.

Survey

Psomas will provide all surveying services. Proposed services ares based on a review of the RFP and high-flight aerial photography. The project limits extend approximately 1.2 miles between Sepulveda Boulevard and Maricopa Street, and 2,700 feet between W. 190th Street and W. 182nd Street. The total length for both reaches is approximately 9,000 feet.

We are providing the following scope and budget for design surveys, surface utility and improvement surveys and record right-of-way mapping. This proposal includes optional cross section intervals of 25 and 50 feet.

Survey mapping will be prepared at a scale 1" = 40' with 0.5-foot contours. Planimetry will be based on a ground survey. Contours will be generated from a digital terrain model (DTM) based on filed located elevations. Mapping will meet and/or exceed National Mapping Accuracy Standards for said scale and contour interval. Surveyed elevations, on hard surfaces, will be shown to 0.01' precision, and will be accurate to 0.10'.

Project Control

GPS and conventional surveys will be used to establish project survey control and tie it into the City of Torrance's horizontal and vertical control network. All horizontal control established for this project will be based on the North American Datum of 1983 (NAD83), and elevations will be based on published City benchmarks and datum. If the City does not have its own vertical control system, Psomas will use Los Angeles County benchmarks (NAVD1988 datum).

Design Survey - Cross Sections and Location of Surface Visible Features

Cross Sections

Cross sections will be surveyed at 25-foot (50-foot optional) intervals along Crenshaw Boulevard between 182nd and 190th Streets, and between Maricopa Street and Sepulveda Boulevard from back of walk to back of walk. Sections between these streets will include: back of walk, top of curb, flowline, lip of gutter, lane striping, and centerline (crown).

Intersecting streets (approximately 20) will be surveyed 25-foot beyond BCR/ECR. Cross sections on these streets will include the same detail as noted above.

Except for quantity, the scope of work for 25-foot and 50-foot intervals is the same. The costs associated with each are detailed in the attached work breakdown structure.

Please note that cross-sections of the street width are limited to the "main traveled corridor" of Crenshaw Boulevard. It does not include the frontage roads on either side of the street, typically along the residential portions of the right-of-way. Where these instances occur, the topographic mapping limits will include the top of curb and one additional shot along the concrete or landscaped median that separates said main travel portion of Crenshaw Boulevard from the frontage road.

Utility and Improvement Survey

Surface visible indications of subsurface utilities and all existing improvement structures will be located within the project limits. These features will include but are not limited to: driveways, curb cuts, walls, valves, vaults, manhole lids, power poles, traffic signals, signs, pull boxes, utility paint marks, etc. This proposal does not include utility detection, potholing, and/or removal of manhole lids or catch basin grates for measurement of invert elevations on any gravity flow devices. The main purpose of this task is to locate the horizontal position of the existing utility or improvement structures for planimetric purposes. However, elevations will be collected for all located improvements. This information will be provided as a CADD point plot and/or ASCII file.

As the fieldwork is completed, the survey data will be reduced, and imported into a CADD drawing database. Field located topographic and utility features will be labeled with their respective description. Field edits will be made to ensure the accuracy and completeness of the drawings. Deliverables shall include a CADD plot of the survey data, and a DTM in LDD format.

Note: Safety is our main priority while conducting field surveys. If we determine during the course of the project that special traffic control is necessary, we will stop all work and notify you immediately. The attached work breakdown structure contains a per-day estimate for traffic control, should we deem it necessary for this project.

Right-of-Way Services

Cadastral Record Data Research

Cadastral research will be conducted at the County of Los Angeles and City of Torrance to obtain copies of any available record maps, including Assessors Maps, Tract Maps, Parcel Maps, Records of Survey and Centerline Ties.

Record Centerline and Right-of-Way Basemap

The existing street centerlines and rights-of-way are the key frame of reference for centerline stationing, plotting existing utilities and establishing a survey control plan.

Psomas will locate key centerline monuments along Crenshaw Boulevard and calculate the record centerline and record right-of-way alignments of the same. The centerline and right-of-way will be established from a combination of found monuments, centerline ties, and record data obtained in Task 103.

The centerline and right-of-way data will be calculated and plotted into a digital basemap file. Streets and rights-of-way will be labeled with name and width, found monumentation and establishment notes. This file will be delivered to the design team in CADD format to be used as a backdrop on the design plans.

Base Map sheet delivery is excluded from this and previous tasks. All survey information will be incorporated into the 30%, 60%, 90% and 100% plan submittals. Information regarding horizontal and vertical datums will be shown accordingly.

Street Centerline Monument Preservation

As noted in the RFP, there are approximately 15 centerline monuments that will be impacted in the proposed construction zone. Therefore, this proposal assumes no more than 17 monuments will be required to be tied out in preparation of future construction.

These tie outs will be made after the areas and the extent of impact are identified on the final construction plans. Psomas will use existing City tie notes to verify the position of the monuments. If no City tie notes exist, ties will be recorded and shown on a standard Corner Record form. If needed, the ties to the centerline monuments will also be tied out for.

Upon completion of the tie outs and/or tie verification, Psomas will submit and file up to 17 Corner Records with the County Surveyor. If more or less monuments require tie out and eventual restoration, we will adjust the budget accordingly.

Street Centerline Monument Restoration

Upon the completion of construction activities, Psomas will reset all destroyed centerline monuments. This proposal assumes no more than the 17 monuments to be reset. Reset monuments may include a lead and brass tag, or a spike and washer depending on the street material. The setting of well monuments is excluded from this effort due to the additional material costs. If well monuments are required to be set in place, we will propose on that effort under separate cover.

Once the monuments have been re-set, After-Condition Corner Records will be submitted to the County and City for filing. Any filing fees will be the responsibility of the City.

Utility Potholing

In concert with the City, Psomas will work with a pothole subconsultant to layout and then locate selected utilities to be potholed. Budget and schedule are fixed based on what the City allows and will included both labor and materials for Psomas survey field and office staff, as well as the subconsultant.

Potholing may take place after the design survey task due to project schedule and base map development.

Data Collection/Field Investigation – Review existing site conditions/elements including surrounding landscape, existing irrigation equipment locations, utilities, etc. Review pertinent site information i.e. topography, utility easement and right-of-ways, and specific and general plan requirements. Psomas will collect and review the record information as listed with the RFP. This task will include a field verification site visit as listed within the City's RFP. The site visit will verify existing utilities and topographical features, noting disparities from the recorded information and

mitigating disparities Psomas will coordinate with Project Team/City staff to review/ evaluate planning requirements and programming. Identification of pavement or curb rehabilitation will be done at this time. Psomas understands that Labelle-Marvin has been investigating the pavement conditions for the City. Psomas has a long standing relationship with Labelle-Marvin and both companies have discussed this project. We have not incorporated a fee, but highlight our relationship with Labelle-Marvin. We have highlighted some relevant project experience where we have worked closely with them for pavement rehabilitation.

Utility Research and Coordination

This task will include the sending of notices to utility agencies in the area as outlined in the RFQ. Psomas has successfully developed an Excel spreadsheet that facilitates the monitoring as indicated within the City's scope. Diligence in contacting the utilities and subsequent follow up will be assisted with the use of the tracking spreadsheet we have internally developed. A number of pipes, wires, and underground utilities traverse the project site and could be affected by the proposed project. The potential disturbance of underground utilities, including petroleum pipelines, during construction would be a significant impact to the local community, as such events could interrupt service, or worse, lead to an explosion or fire. Due to extensive presence of utilities in the existing street section, the meticulous and thorough coordination with these companies will facilitate this important aspect of the rehabilitation of Crenshaw Boulevard. A meticulously detailed utility relocation plan will be prepared which will outline the proposed relocation of all utilities within the project. Often, utility progress is taken for granted by other designers. Having staff experienced in the challenges of utility coordination, our team understands how vital these functions are to project delivery. Utility relocation reviews are often iterative and require persistence to assure plan compatibility. Our team will maintain open dialogue with City personnel and utility owners and assist when necessary to assure project certification and permitting as early as possible.

Base Sheet Preparation

As is typical with all projects and as detailed in the RFP, Psomas will provide AutoCAD base sheets incorporating the data collected during this phase.

Pavement Evaluation Review/Design

As detailed previously and further highlighted in our project experience, Psomas shares a long relationship with Labelle-Marvin and integrates them onto our team when we need expertise. We will be able to rely on our close relationships with the staff of Labelle-Marvin to delineate the pavement removals and treatments that will provide the City with their pavement improvement results.

Traffic Index Calculation

Katz, Okistu & Associates will obtain 48-hour classification traffic counts at the following locations:

- One location on Crenshaw Boulevard between 182nd Street and 190th Street
- Two locations on Crenshaw Boulevard between Maricopa Street and Sepulveda Boulevard

We will confer with the City on the preferred specific locations of the traffic counts. The traffic counts will be taken either during a Tuesday-Wednesday or a Wednesday-Thursday time period.

We will calculate two (2) sets of traffic indexes (TI), Los Angeles County Method and State of California Method, for each of the three locations. Each TI will be based on a 20-year growth in traffic volumes.

Worksite traffic control plans and construction staging plans for the project will be prepared for Crenshaw Boulevard and intersecting side streets, including 182nd Street, the northbound and southbound I-405 Freeway on/off ramps, 190th Street, Maricopa Street, Torrance Boulevard, Carson Street, and Sepulveda Boulevard.

All traffic control plans will be designed in accordance with the MUTCD 2003 California Supplement and any sample plans provided by the City. Plan sheets that include any traffic control devices within Caltrans right-of-way shall include a signature block for Caltrans District 7 and the encroachment permit number. It is our understanding that Caltrans is now reverting back to English units on all new plans submitted to them, but we have the capability to prepare plans in metric units, English units, or dual units, whichever may be required.

Prior to beginning work on these worksite traffic control and staging plans, we will meet with the City to discuss construction staging, minimum lane requirements, side street and driveway access, pedestrian access, and plan notes and legend. We fully understand that the project will be constructed in stages to minimize the impact to traffic, and that each stage will require traffic control plans.

The construction staging plan will provide the proposed staging that satisfies the traffic control requirements of the City and/or Caltrans, as appropriate. This plan will consist of schematic drawings showing the proposed work areas during each phase.

We will prepare worksite traffic control plans at a scale of 1" = 40' showing the area of construction and will utilize work area signs, barricades, barriers, delineators, and temporary striping as necessary to safely route traffic through the construction zones. The plans will be prepared to conform to the general requirements of the City and/or Caltrans (as appropriate), with consideration for the needs of the contractor's construction operations. The traffic control plans will meet all of the design and drafting standards of the City and/or Caltrans.

It is understood that the budget for this task may be adjusted, depending on the number of plan sheets that will actually be needed.

Traffic Signals

Anticipated improvements include: conversion from loop detection to video detection at Crenshaw Boulevard and 182nd Street; installing interconnect conduit along Crenshaw Boulevard from 182nd Street to 190th Street, and along 182nd Street from Crenshaw Boulevard to the northbound I-405 Freeway On/Off Ramps.

Katz, Okitsu & Associates will prepare traffic signal modification plans for the intersection of Crenshaw Boulevard and 182nd Street and the intersection of Crenshaw Boulevard and I-405 Freeway South On/Off Ramps. Our scope of work will include:

- Obtain City record drawings of the traffic signals from the Community Development Department.
- Prepare an intersection base plan at 1"=20' scale for each location, referencing the City's record drawings, as appropriate. The base plan will show centerlines, right-of-way lines, relevant existing or proposed street improvements, utilities of record, and existing traffic controls and improvements.
- Conduct a detailed field review of the traffic signal equipment at the two intersections to verify all existing traffic signal poles, hardware, intersection safety lighting, mast arm and pole-mounted signage, interconnect cables, pullboxes, and control equipment.
- Recommend signal phasing, vehicle detection system and proposed signal equipment. These features will be shown on the drawings to create complete traffic signal plans.
- The traffic signal plans will include the design of an intersection safety lighting system, if needed.
- The drawings will be designed in the format required by the City of Torrance and/or Caltrans, as appropriate, and will include all notes, schedules, and other features required to complete the traffic signal plans.

If needed, we will also prepare separate traffic signal interconnect conduit plans for Crenshaw Boulevard from 182nd Street to 190th Street, and for 182nd Street from Crenshaw Boulevard to the northbound I-405 Freeway On/Off Ramps. The interconnect plans will show the location of the existing traffic signal controller cabinets and the proposed interconnect conduits and pullboxes.

Plans and Profiles

This phase consists of outlining and refining the design concepts and elements as determined the information collected in the previous phase. The deliverables will be the production of 30%, 60% and 90% Plans as presented in the RFP. The City has provided the appropriate tasks for the preparation of these plans including the following sheet lists:

PLAN	SCALE	No. Of Sheets
Title Sheet	Varies	1
Construction Notes and Details	1"=10' and Varies	2
Typical Cross Sections	Varies	4
Survey Control Sheet	1"=100'	2
Roadway Rehabilitation Plan and Profile	1"=40' Horizontal 1"=4' Vertical	10
Intersection Grid Details	1"=1-'H Grids at Lane Lines	5
Traffic Control & Staging Plans	1"=40' Double Stacked	10
Sign & Pavement Delineation Plans	1"=40' Double Stacked	8
Traffic Signal Modification Plans (182nd Street and SB 405 Ramps)	1"=20'Horizontal	4
Design Cross Sections	1"=4' H/ 1"=1' V	30
	TOTAL SHEETS	**76**

Psomas will initiate each plan development milestone by addressing review comments and, conducting a comment review meeting with the City of Torrance and participation as needed from Caltrans or utilities. Psomas believes such communication is critical, for it often clarifies technical issues, resolves misunderstandings, and provides a solid basis for detailed plan development. Our collective team must and will strive to resolve any outstanding issues quickly.

The construction bid documents will be completed for this project. The Pavement Evaluation Report provided by the City will be used as the basis for the project design. The plans will identify and detail roadway and access ramp improvements with associative spandrel, curb and gutter replacement, as required for monolithic sections.

E-76 Authorization

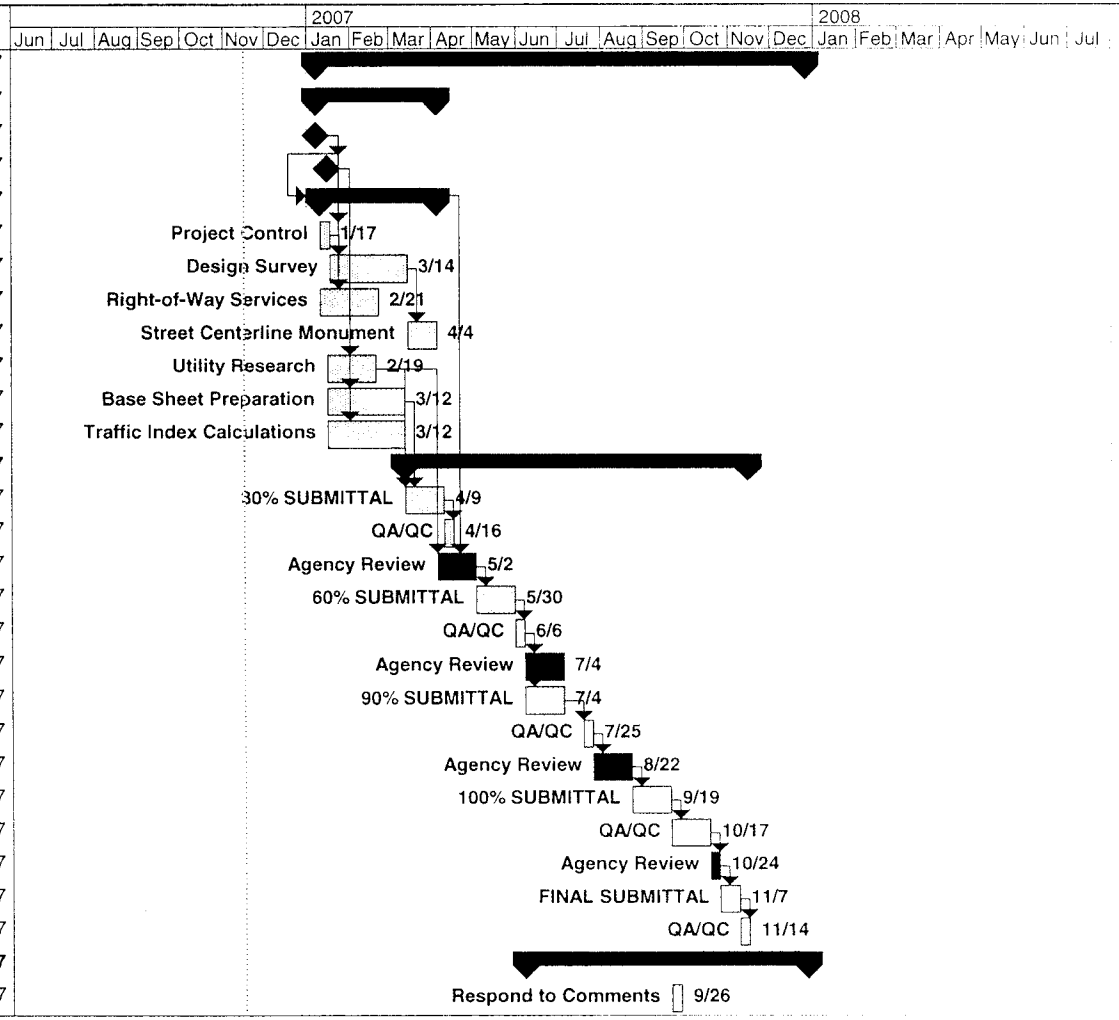
As the plans are completed, and authorized to bid, Psomas will assist in the preparation of the E-76.

CITY OF TORRANCE

CRENSHAW BOULEVARD REHABILITATION

SCHEDULE

ID	Task Name	Duration	Finish
1	**CRENSHAW BLVD**	**253 days**	**Wed 12/26/07**
35	**PRELIMINARY DESIGN PHASE**	**63 days**	**Wed 4/4/07**
3	Notice-to-Proceed	0 days	Mon 1/8/07
4	Project Kick-Off with City	0 days	Mon 1/15/07
5	**SURVEY**	**60 days**	**Wed 4/4/07**
6	Project Control	1 wk	Wed 1/17/07
49	Design Survey	8 wks	Wed 3/14/07
38	Right-of-Way Services	6 wks	Wed 2/21/07
9	Street Centerline Monument	3 wks	Wed 4/4/07
10	Utility Research	5 wks	Mon 2/19/07
11	Base Sheet Preparation	8 wks	Mon 3/12/07
36	Traffic Index Calculations	8 wks	Mon 3/12/07
13	**PLANS & PROFILES**	**177 days**	**Wed 11/14/07**
14	***30% SUBMITTAL***	4 wks	Mon 4/9/07
52	QA/QC	1 wk	Mon 4/16/07
16	Agency Review	4 wks	Wed 5/2/07
17	***60% SUBMITTAL***	4 wks	Wed 5/30/07
18	QA/QC	1 wk	Wed 6/6/07
19	Agency Review	4 wks	Wed 7/4/07
20	***90% SUBMITTAL***	4 wks	Wed 7/4/07
21	QA/QC	5 days	Wed 7/25/07
22	Agency Review	4 wks	Wed 8/22/07
23	***100% SUBMITTAL***	4 wks	Wed 9/19/07
24	QA/QC	4 wks	Wed 10/17/07
25	Agency Review	1 wk	Wed 10/24/07
26	***FINAL SUBMITTAL***	2 wks	Wed 11/7/07
27	QA/QC	5 days	Wed 11/14/07
28	**CALTRANS ENCRCHMNT PERMIT/FUNDING**	**145 days**	**Wed 12/26/07**
43	Respond to Comments	5 days	Wed 9/26/07



PSOMAS

City of Torrance
Crenshaw Boulevard Rehabilitation
FEE SCHEDULE *(REVISED 03/08/07)*

Description Consultant Services	Project Manager	QA/QC Survey Project Manager/QA QC	Project Surveyor Field Supervisor	Project Engineer	2-Person Field Crew	Project Designer	Staff Engineer	Project Assistant	Total Hours	Labor Subtotal	Subconsultant	Total Cost
	$160	$165	$130	$125	$225	$95	$85	$50				
PRELIMINARY DESIGN PHASE												
PROJECT INITIATION	2			4		4		2	**12**	$ 1,300		$ 1,300
SURVEYS										$ -		$ -
Project Control		6	15		16	5	4	2	**48**	$ 7,455		$ 7,455
Cross Section Survey (50' Intervals)		**10**	**16**		**56**	**30**	**5**	**13**	**130**	$ 20,255		$ 20,255
Utility and Improvement Survey		5	10		48	25	8	6	**102**	$ 16,280		$ 16,280
Street Centerline Location and Calculation		3	5		8	40			**56**	$ 6,745		$ 6,745
Street Centerline Preservation (17 Total)		**13**	**21**		**40**	**50**	**8**	**6**	**138**	$ 19,605		$ 19,605
Street Centerline Restorations (17 Total)		**13**	**24**		**58**	**30**	**8**	**4**	**137**	$ 22,045		$ 22,045
Data Collection	6			12		16			**34**	$ 3,980		$ 3,980
Pavement Evaluation Review/Design	2			4					**6**	$ 820		$ 820
Utility Research & Coordination	4			8		8	8		**28**	$ 3,080		$ 3,080
Base Sheet Preparation/Plotting of Utilities	4			20		24			**48**	$ 5,420		$ 5,420
TRAFFIC INDEX CALCULATION	1			2					**3**	$ 410	$ 4,888	$ 5,298
SUBTOTAL	19	50	91	50	226	232	41	33	**742**	$ 107,395	$ 4,888	$ 112,283
PLANS & PROFILES												
FINAL PLANS AND ESTIMATES												$ -
30% SUBMITTAL	2						8		**10**	$ 1,000		$ 1,000
CONCEPTUAL PLANS	16			60		120	24		**220**	$ 23,500		$ 23,500
60% BID PACKAGE										$ -		$ -
TITLE SHEET				6		16			**22**	$ 2,270		$ 2,270
CONSTRUCTION NOTES & DETAILS	4			24		48			**76**	$ 8,200		$ 8,200
TYPICAL SECTIONS	6			24		48			**78**	$ 8,520		$ 8,520
ROADWAY PLAN & PROFILE (10 sheets @ SCALE 1"=40')	40			120		96	40		**296**	$ 33,920		$ 33,920
INTERSECTION GRID DETAILS	8			52		48	24		**132**	$ 14,380		$ 14,380
TRAFFIC CONTROL & STAGING PLANS	8			12					**20**	$ 2,780	$ 20,384	$ 23,164
SIGN AND PAVEMENT DELINEATION PLANS				64			18		**82**	$ 9,530		$ 9,530
TRAFFIC SIGNAL MODIFICATIONS	8			40					**48**		$ 4,160	$ 4,160
CROSS SECTIONS (EVERY 50') TOTAL RECONSTRUCTION ONLY				**60**		**30**	**8**		**98**	$ 11,030		$ 11,030
QUANTITIES AND ESTIMATE OF COST	8			68		60			**136**	$ 15,480		$ 15,480
CONSTRUCTABILITY REVIEW		**10**		**6**		**6**			**22**	$ 2,970		$ 2,970
SPECIFICATIONS				64		8			**72**	$ 8,760		$ 8,760
QA/QC	**2**	**6**		**2**		**2**			**12**	$ 1,750		$ 1,750
90% BID PACKAGE	16			24		100	16		**156**	$ 16,420	$ 40,664	$ 57,084
SPECIFICATIONS	12			44					**56**	$ 7,420		$ 7,420
QA/QC	2	12						16	**30**	$ 3,100		$ 3,100
100% BID PACKAGE	12			40		60	24	8	**144**	$ 15,060	$ 8,528	$ 23,588
SPECIFICATIONS				10					**10**	$ 1,250		$ 1,250
QA/QC	2	8						16	**26**	$ 2,440		$ 2,440
FINAL BID PACKAGE	8			10				2	**20**	$ 2,630	$ 1,150	$ 3,780
QA/QC	2	8					8	4	**22**	$ 2,520		$ 2,520
UTILITY POTHOLING (ALLOWANCE $30,000)										$ -	$ 30,000	$ 30,000
SUBTOTAL	156	44		730		642	170	46	**1788**	$ 194,930	$ 104,886	$ 299,816
CALTRANS ENCROACHMENT PERMIT/FUNDING												
Prepare Permit	1			6		12		4	**23**	$ 2,250		$ 2,250
PEER Report	2			18		6		6	**32**	$ 3,440		$ 3,440
Mandatory Design Exceptions Fact Sheet	**6**			**24**			**8**	**4**	**42**	$ 4,840		$ 4,840
Advisory Design Exception Fact Sheet	**4**			**16**			**6**	**4**	**30**	$ 3,350		$ 3,350
Process Permit	3			12			3	2	**20**	$ 2,335		$ 2,335
ISA & PES	**2**			**2**					**4**	**$ 570**	**$ 9,775**	**$ 10,345**
Respond to Comments	1			4		6		2	**13**	$ 1,330		$ 1,330
Water Pollution Control Plan	1			6		6		2	**15**	$ 1,580		$ 1,580
Federal E-76 Form Preparation and Coordination	4			8		16		6	**34**	$ 3,460		$ 3,460
SUBTOTAL	24			96		46	17	30	**213**	$ 23,155	$ 9,775	$ 32,930
MEETINGS/COORDINATION												
KICK-OFF MEETING	8			8					**16**	$ 2,280	$ -	$ 2,280
MILESTONES (3 MEETINGS) + TRAFFIC CONTROL AND STAGING MTG	16			8				8	**32**	$ 3,960		$ 3,960
PROJECT MANAGEMENT AND PROJECT SCHEDULE	12							2	**14**	$ 2,020	$ -	$ 2,020
OTHER MEETINGS (2 MEETINGS)	8			5				4	**17**	$ 2,105	$ -	$ 2,105
SUBTOTAL	44			21				14	**79**	$ 10,365	$ -	$ 10,365
PROJECT TOTALS	**243**	**94**	**91**	**897**	**226**	**920**	**228**	**123**	**2822**	**$ 335,845**	**$ 119,549**	**$ 455,394**
	9%	3%	3%	32%	8%	33%	8%	4%				
											REIMBURSABLES (fixed)	$ 15,000
Psomas Survey												
Ninyo & Moore												
Katz Okitsu											TOTAL FEE	$ 470,394

PSOMAS