

Council Meeting of
July 18, 2006

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

Members of the Council:

SUBJECT: Award of Consulting Services Agreement to Plotnik & Associates for Design Services for the Torrance Boulevard Rehabilitation, T-43/44 and Torrance Boulevard Storm Drains, I-96

Expenditure: \$335,170

RECOMMENDATION

The Public Works Director recommends that the City Council:

1. Award a Consulting Services Agreement in the amount of \$335,170 to Plotnik & Associates of Rancho Dominguez, California to perform design services for the Torrance Boulevard Rehabilitation (Sartori Avenue to west City limit), T-43/44 and Torrance Boulevard Storm Drains, I-96; and
2. Authorize the Mayor to execute and City Clerk to attest to said Agreement.

Funding

Funding is available from T-43/44 Bond Proceeds and from I-96 General funds.

BACKGROUND

The Torrance Boulevard Storm Drains, I-96 ("I-96 Project") and the Torrance Boulevard Rehabilitation (Sartori Avenue to west City limit), T-43/44 ("T-43/44 Project") are both included in the City's adopted FY 2007-11 Capital Budget. The I-96 Project will provide for the extension of three existing storm drains in Torrance Boulevard: 1) West of Henrietta Street; 2) Madrona Avenue to Maple Avenue; and 3) Elm Avenue to Crenshaw Boulevard to more efficiently collect surface runoff, as well as reduce flooding during peak rainfalls. The T-43/44 Project will provide for the repair of damaged curbs, gutters, sidewalks; installation of ADA-compliant curb ramps; pavement reconstruction and overlay of Torrance Boulevard; and intersection capacity enhancements at Torrance Boulevard/Maple Avenue. The enhancements will provide a second eastbound left-turn lane on Torrance Boulevard at Maple Avenue and a second northbound through-lane on Maple Avenue at the intersection. The design and construction of both the I-96 and T-43/44 projects will be combined for cost effectiveness, efficiency with project/construction management efforts and to minimize

construction impacts to residents and commuters. The total combined project budget is approximately \$4.8 million (\$3.9M for street repairs; \$903,000 for storm drains) and includes a \$466,000 grant from Los Angeles County Metropolitan Transportation Authority to cover costs associated with the intersection capacity enhancements.

ANALYSIS

Due to the size of the project and required specialized technical expertise for the I-96 and T-43/44 Projects, contract design services are needed. Engineering staff will perform project and construction management and administration.

Staff issued a Request for Proposals in April 2006 to six engineering firms. Only Plotnik & Associates and Moffatt & Nichol responded. Both firms are qualified to perform the work; however, Plotnik & Associates proposed the lowest price.

Plotnik & Associates has successfully performed design services for other local public agencies. Their references have been checked and found to be in order. Plotnik proposes to perform design services in the amount of \$335,170 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 2007. Construction then would follow, pending the completion of construction of the Sepulveda Boulevard Rehabilitation (Hawthorne to west City limit). It is desired to avoid simultaneous construction of these two east-west arterials.

Respectfully submitted,

ROBERT J. BESTE
Public Works Director

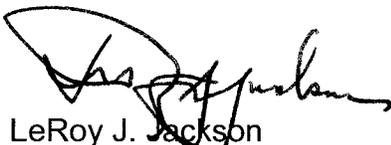


By: Craig Bilezerian
Project Manager

CONCUR:



 Robert J. Beste
Public Works Director



LeRoy J. Jackson
City Manager

Attachment A: Consulting Services Agreement- Plotnik & Associates

CONSULTING SERVICES AGREEMENT

This CONSULTING SERVICES AGREEMENT (“Agreement”) is made and entered into as of July 18, 2006 (the “Effective Date”), by and between the CITY OF TORRANCE, a municipal corporation (“CITY”), and Plotnik & Associates, 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 Torrance Boulevard Rehabilitation (Sartori Ave. to West City Limit) T-43/44 and Torrance Boulevard Storm Drains, I-K.
- B. In order to obtain the desired services, the CITY has circulated its Request for Proposal (the “RFP”) for Torrance Boulevard Rehabilitation (Sartori Ave. to West City Limit) T-43/44.
- 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. SERVICES TO BE PERFORMED BY CONSULTANT

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. TERM

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, 2007.

3. COMPENSATION

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 \$335,170 (“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 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:

Zvi Plotnik- President
Paulo Calcagnotto- Secretary

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 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: Plotnik & Associates
 18710 S. Wilmington Ave
 Suite 203
 Rancho Dominguez, CA 90220
 Fax: (310) 605-6658

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

Plotnik & Associates
a California Corporation

Frank Scotto, Mayor

By: _____
Zvi Plonik, 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..: 1/30/01

EXHIBIT A
REQUEST FOR PROPOSALS

[To be attached]

**CITY OF TORRANCE, CA – PUBLIC WORKS DEPARTMENT
REQUEST FOR PROPOSALS**

TORRANCE BLVD REHABILITATION (SARTORI AVE TO WEST CITY LIMIT), T-43/44

Project Description

The City of Torrance is requesting Proposals from pre-selected, qualified engineering design firms for the design of the Torrance Boulevard Rehabilitation (Sartori Avenue to west City limit). Torrance Boulevard is an arterial street carrying approximately 27,000 to 37,000 vehicles per day. It varies between having 4 and 6 travel lanes throughout the project limits which measures approximately 17,900 feet long. The condition of the street is deteriorated and has become a significant maintenance problem. Improvements will consist of edge reconstruction, pavement milling and overlay with minimal localized pavement reconstruction and repairs to displaced concrete curb, gutter and sidewalks, and cross-gutters. Pavement reconstruction and concrete improvements will be minimized in order to maximize pavement overlay area. Asphalt rubber hot mix (ARHM) overlay will be considered as an option. The City also has secured a grant from METRO to provide for traffic capacity enhancements at the intersection with Maple Avenue (add eastbound left turn lane on Torrance Blvd and additional northbound through-lane on Maple Ave).

Project Schedule: Design: June 2006 to May 2007; Construction: June 2007 to April 2008.

Project Budget: \$3.9 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. Please note that the traffic capacity enhancements at Maple Avenue will be funded with a grant from METRO. All related design work shall be a separate task and all related construction bid items must be itemized separately. 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.

Sample 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

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

City of Torrance Public Works Dept., 20500 Madrona Ave, Torrance, CA 90503; ATTN: Mr. Craig Bilezerian. You may contact Mr. Bilezerian for questions at (310) 618-3054. Submittals must be received by 5:00 p.m. on Friday May 5, 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 Torrance Blvd 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 7 (NAD 27) feet and shift the coordinates to reduce the numeric values by -4,100,000 in the Easting (X) direction and -4,000,000 in the Northing (Y) direction. 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 50 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. In the area of widening (Maple Ave intersection), obtain topographic information beyond the right-of-way to properly design transitions to the widened elevations.
 - 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, bus pads, 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. In the area where widening is proposed, the topographic survey will extend 20 ft beyond the right-of-way.
 - 2.4 Provide 0.5 ft contours.
 - 2.5 Approximately 35 centerline monuments are within the construction area. Consultant shall tie out all centerline monuments 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
- 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 \$15,000 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 \$15,000. From the utility research and utility potholing, Consultant will compile and incorporate utility information on the roadway Base Sheets. Conflicts with existing utilities will be identified for resolution with the conflicting utility. (Note: This item may be deleted by the City if determined not needed for construction)

D. Utility Coordination

Consultant will coordinate with the utility agencies throughout the design phase. 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, 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 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 calculate an individual traffic index (TI) for each of two separate locations within the project limits, 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 block. 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" sheets, unless otherwise required for utility agencies. Type may either be blue-line ammonia or blacklined bond paper. 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, Caltrans, 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, bus pads, 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:

- Arlington Ave
- Maple Ave
- Anza Avenue

Grids will be shown at 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 Torrance Blvd and intersecting side streets should be designed in accordance with MUTCD 2003 California Supplement.

Construction also will require traffic control on Hawthorne Blvd, a north-south state highway. A separate sheet(s) will be required to show the closure of each northbound and southbound left-turn lane and any traffic control to safely delineate northbound and southbound traffic through the right-turn lanes into the construction zone. This sheet(s) shall include a signature line for Caltrans District 7, its permit number and include both standard and metric units for dimensions.

Note: Prior to beginning work on these plans, consultant shall meet with the City to discuss and determine 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 of Crenshaw Boulevard, Madrona Avenue, Hawthorne Boulevard, Anza Avenue and Palos Verdes Boulevard to minimize the potential of traffic capacity reductions.

Sign and Pavement Delineation Plans will be prepared for Torrance 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 Maple Avenue traffic signal. Consultant will field verify existing conditions (i.e. traffic signal poles, hardware, mast arm and pole-mounted signage, interconnect cable and control equipment).

Anticipated improvements include: provide dual eastbound left-turn lanes on Torrance Blvd; an additional northbound through-lane on Maple Ave; and widening for a westbound right-turn lane on Torrance Blvd. The proposed pavement delineation shall be shown on the traffic signal plans.

Consultant shall prepare a traffic signal modification plan according to the anticipated improvements and 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% submittals. 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 include a 5% contingency.

Note: The budget (design and construction) for this project is \$3.9 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 (Word 2000) and prepare the Special Provisions portion of the Construction Specifications and Contract Documents suitable for bidding and awarding of the Contract. These special provisions will be incorporated into the City's standard construction document package. Consultant will prepare the Bid schedule.

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

The 100% submittal will include two (2) complete sets of: all plans, specifications/special provisions and quantities/cost estimate for final review. Minimal corrections may not be needed, but should be expected. Plans shall be on 24" x 36" sheets. Type may either be blue-line ammonia or blacklined bond paper.

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 and a quantities/cost estimate. The consultant will also 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 meeting on Traffic Control & Staging Plans, Consultant will prepare and submit, on behalf of the City, a Standard Encroachment permit application with applicable plans to Caltrans District 7, 100 South Main St., Suite 100, Los Angeles, CA for review and approval. The City should be exempt from a permit application fee. Caltrans processing of City permits is assigned to Mr. Benny Diwa (213) 897-0352. The Consultant should include an optional task and fee to prepare a PEER report for work in the vicinity of Hawthorne Blvd.

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 copies of any completed plans, specifications, estimate and an updated project schedule for submittal.

H. Bid and Construction Support

Consultant will provide a fixed \$4,000 allowance for bid and construction support. Compensation will be based only on actual effort and cost, but may not exceed \$4,000.

I. Survey Monument Preservation and Restoration

Approximately 35 centerline monuments are within the construction area. Consultant shall tie out 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 \$3,000 allowance for reimbursable expenses. Compensation will be based only on actual costs (or cost plus 7% markup for outsourced work), but may not exceed \$3,000. 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 title block.
5. Pavement Evaluation Report
6. City will provide samples of various sheets from a recent street improvement project.
7. CEQA Documentation that has already been completed.

EXHIBIT B
PROPOSAL
[To be attached]

PROPOSAL 06-691

CITY OF TORRANCE

**TORRANCE BLVD. REHABILITATION
(SARTORI AVE. TO WEST CITY LIMIT)
T-43/44**

**Prepared By
Plotnik & Associates
May 2006**





Plotnik & Associates

May 4, 2006

City of Torrance
Department of Public Works
20500 Madrona Ave.
Torrance, California 90503

Attention: Mr. Craig Bilezerian, P.E.

Subject: Proposal for Torrance Boulevard Rehabilitation

Dear Mr. Bilezerian:

Plotnik and Associates (P&A) is pleased to submit this proposal in response to your Request for Proposal (RFP). Our Project Team has extensive experience in roadway design projects for local agencies. Our Project Team includes Willdan Associates (Traffic), Rosell Surveying (Surveying), and LAN Engineering Corporation (QA/QC and Technical Support). These are firms that we have hand-selected for this assignment and firms that we have worked with on similar projects.

The P&A Team offers the City the following strengths for this project:

- A senior level team of professionals adept at working on arterial roadway projects (Principal In-Charge – **25 years**; Project Engineer – **20 years**; QA/QC - **25 years**; Traffic Engineer – **9 years**; Surveyor - **20 years**).
- A Project Team that has gone through an extensive research effort to understand the project, including **field reviews**, review of **record drawings**, review of the **traffic report**, and several **clarifications/discussions with City Staff**.
- A Project Team that is in **close geographic proximity** to the City of Torrance, and a Team that is committed to paying attention to details, to **client satisfaction**, and to **client responsiveness**.
- A Project Team that is committed to working with the City to identify viable alternatives that **meet the City's budget constraints**. Several specific alternative ideas are discussed in the scope of work section of the proposal.

The P&A Team has a successful history of working together and solving roadway design issues. In one of our recent roadway design projects, 2 miles of Imperial Highway Improvements (City of Downey), we dealt with many of the same issues involved in this project – roadway rehabilitation/reconstruction improvements, a concrete roadway, and narrow traveled way widths. Our proposed project team is comprised of the same key individuals that successfully completed these two recent design projects.



Plotnik & Associates

We appreciate the opportunity to submit this proposal and look forward to demonstrating our capabilities to the City.

Sincerely,

Plotnik & Associates
Zvi Plotnik, P.E.
R.C.E. 29604



Plotnik & Associates

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INTRODUCTION TO FIRM OF PLOTNIK & ASSOCIATES

Plotnik & Associates (P&A), a California Corporation, has been providing engineering services for projects in the Southern California area since our inception in 1999. We strive to provide a high quality, comprehensive and cost effective product for our clients.

P&A is a multi-disciplined professional organization that specializes in providing engineering and construction management services. P&A currently has a nine person staff, which can provide immediate responsive and effective service to the City of Torrance. The scope of services offered by P&A includes all facets of planning, design, and construction management.

The technical staff of P&A is comprised of recognized experts in civil engineering, planning, design, construction, operations and management. Our staff works hard to provide a sense of teamwork with our clients. Every assignment is managed by principals of the firm to ensure that the project receives appropriate attention. All work is thoroughly reviewed by senior company officers prior to any milestone submittal or issuance of project documents.

All correspondence from the City of Torrance relating this proposal should be directed to:

Zvi Plotnik, P.E.
Plotnik & Associates
18710 S. Wilmington Avenue, Ste. 203
Rancho Dominguez, CA 90220
Tel: 310-605-6657

OVERVIEW OF P&A

Civil Engineering Services

P&A can provide public works services encompassing infrastructure capacity studies, utility master plans, roadway design, drainage projects and highway alignment studies. Our firm is also able to provide engineering design and construction management services for highways, pipelines and storm drains.

Roadway Planning and Design

P&A has extensive experience in all aspects of roadway and highway improvements, from conceptual planning studies through final construction documents. P&A staff can begin a project at the inception of a totally new facility or from the design phase of improvements to an existing street. Our roadway planning experience encompasses projects ranging from local roadway realignment studies to arterial roadway extensions. P&A's design experience includes the preparation of complete plans, specifications and cost estimates for projects varying from alley improvements to freeway interchanges.

Through the use of in-house AutoCAD and computer systems, we can easily convert the preliminary design to final construction drawings. Complete plans, specifications and cost estimates are always given to our clients on diskette for future revisions or updates.



Plotnik & Associates

RELEVANT EXPERIENCE:

PLOTNIK & ASSOCIATES

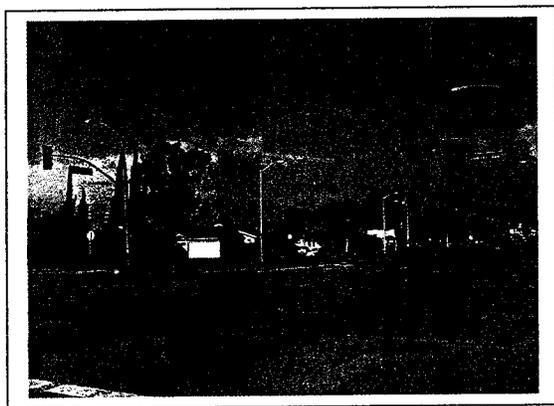
Civil Engineer

Imperial Highway, Downey

Client: City of Downey

Contact: Anthony La, 562-904-7102

P&A was the design engineer on this project that involved roadway improvements along Imperial Highway between Paramount Blvd and Bellflower Blvd. Some elements of the projects that complicated the design included utility conflicts beneath the median, and large traffic volume and turning movements at major intersections requiring significant traffic control measures. P&A prepared a 40-scale aerial topographic base map for use during preliminary and final design; performed utility research; provided additional ground survey; prepared 50% and 90% submittals for street improvement, traffic control, and signing striping plans; prepared cost estimates and technical specifications for each submittal.



Imperial Highway, Downey

Chino Street Improvements, Chino

Client: Carson Companies

Contact: Matt Vanderhorst, 310-687-5010

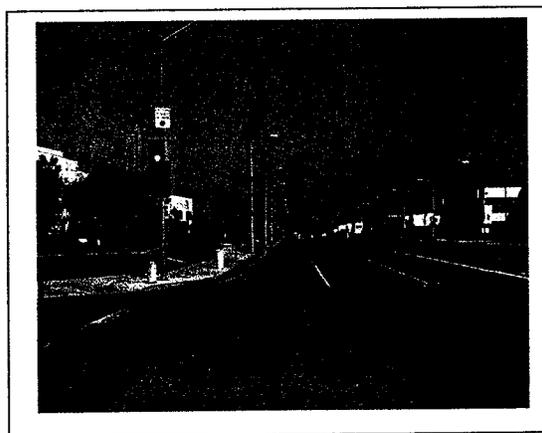
P&A prepared the final plans for the widening of portions of Kimball Avenue, Bickmore Avenue, Fern Avenue, Euclid Street, Cypress Avenue, & San Antonio Street in the City of Chino. The design included, widening, asphalt paving, signal installation, street lighting, signing & striping, traffic control plans, utility construction, and sewer, storm drain plans. P&A was also the construction engineer on this project.

Wilmington Avenue Widening, Carson

Client: Dominguez Properties

Contact: Matt Vanderhorst, 310-687-5010

P&A prepared the final plans for the widening of Wilmington Avenue between Victoria Street and Glenn Curtiss Street. The design included landscaping and irrigation, three signals, traffic control plans, utility realignment and storm drain plans. P&A was the construction engineer on this difficult project. This project was difficult because the original pavement was old concrete that had to be overlaid, utilities had to be relocated due to bad records, and potholes had to be drilled to verify depth and location.



Wilmington Avenue, Carson



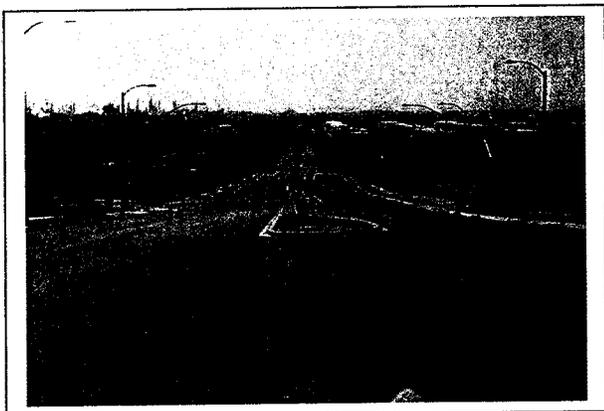
Plotnik & Associates

Central Avenue, Carson

Client: Dominguez Properties

Contact: Jerry Weeks, 310-952-6429

P&A prepared the plans and supervised the construction of this new arterial highway. The new roadway included new streetlights, new sidewalks, a concrete bike trail and new landscaping and irrigation. The street corners included new entry monument signs.



Central Avenue, Carson

University Drive, Carson

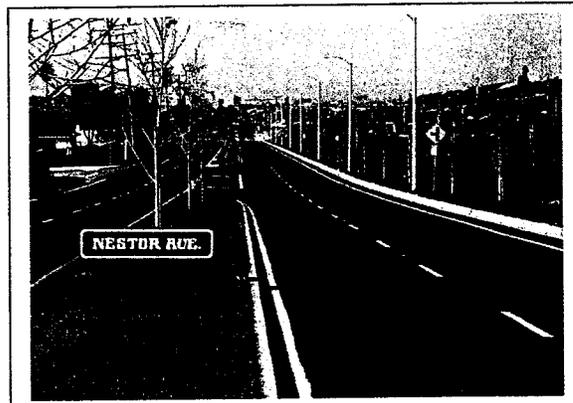
Client: Dominguez Properties

Contact: Jerry Weeks, 310-952-6429

P&A has prepared the plans and supervised the construction for this buffer roadway.

The plans included: street light plan, new medians, landscaping and irrigation and a new signal plan. The landscape had to provide a transition from a residential neighborhood to an industrial park.

Included as part of the special features were ornate gateway monuments and a specialized signage program.



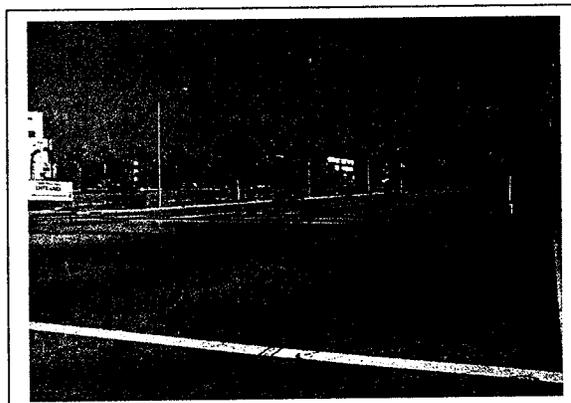
University Drive, Carson

WILLDAN

Traffic Engineers

Plotnik & Associates, City of Downey Imperial Highway

Willdan provided professional traffic engineering design for the preparations of traffic control, signing, striping, and loop replacement plans for the median installation project in the City of Downey on Imperial Highway from Paramount Boulevard to Bellflower Boulevard, including specification and construction cost estimates.



Imperial Highway, Downey



Plotnik & Associates

City of Rosemead San Gabriel Blvd median project

Client: City of Rosemead
Contact: Andy Lazzaretto, 626-569-2101

Willdan provided professional traffic engineering design services for the preparation of plans, specifications, and estimates (PS&E) for installation of a raised median island and overlay on San Gabriel Blvd. The design included, street lighting, signing & striping and loop replacement plans to accommodate proposed improvements.

City of Lakewood, Traffic signal Modification for Candlewood Street at Clark Avenue

Client: City of Lakewood
Contact: Ms. Lisa Rapp, Director of Public Works, (562) 866-9771

Willdan provided professional traffic engineering design services for the preparation of a traffic signal modification plan at Candlewood Street and Clark Avenue. The modification consisted of the addition of dual left-turn lanes and protected left-turn phasing for northbound and southbound traffic as well as utility coordination and signing and striping modifications.

City of San Marino, Huntington Drive Overlay 2005

Client: City of San Marino
CONTACT: Mr. John Alderson, Parks & Public Works Director (626) 300-0791
Willdan provided professional traffic engineering design services for the preparation of signing, striping and loop replacement plans for pavement rehabilitation project.

Other features of the scope of work included utility coordination, and preparation of bid documents for resurfacing of portions of Huntington Drive and the reconstruction of one alley. The project design also included the installation of a street light conduit on Huntington Drive.

City of Paramount, Somerset Blvd Overlay

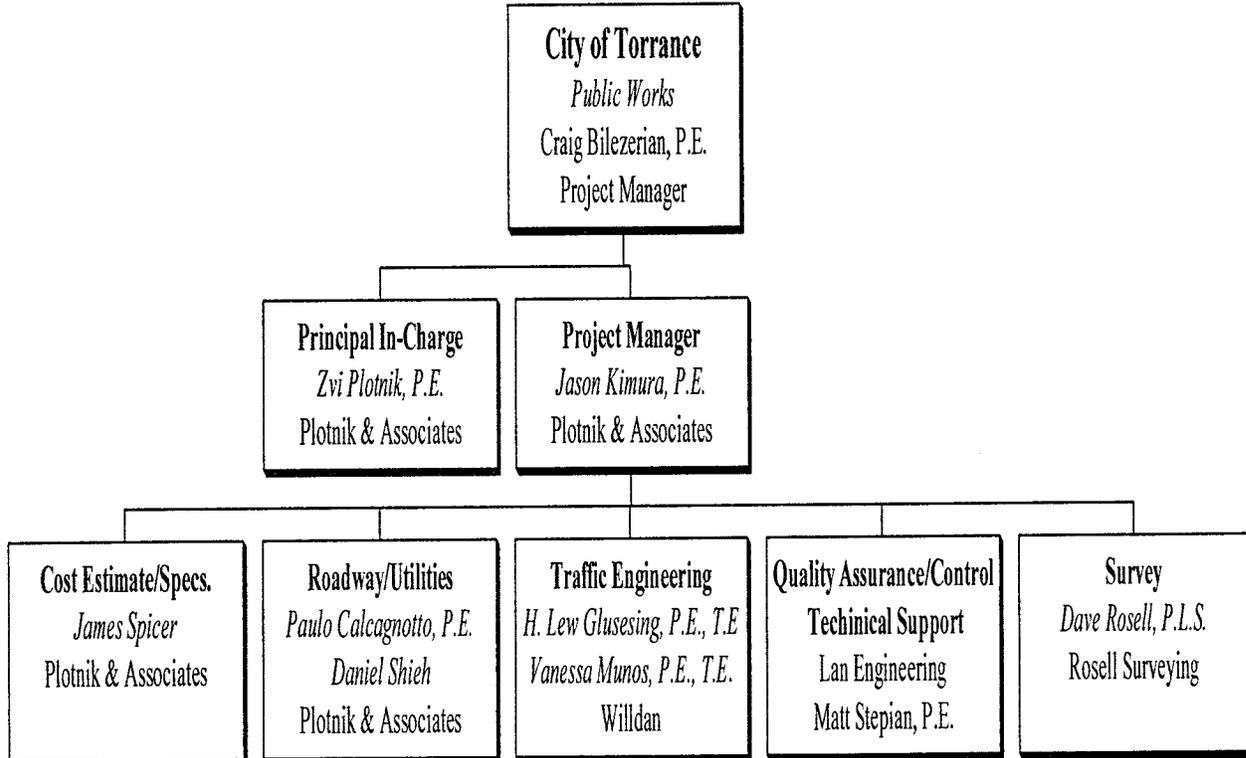
Client: City of Paramount
Contact: Mr. Steve Myrter, P.E., Director of Utilities and Infrastructure, (562) 220-2157

Willdan provided professional traffic engineering design services for the preparation of signing and striping and traffic signal modification plans including specification and construction cost estimate for a pavement rehabilitation project. Project consisted of resurfacing Somerset Blvd from Orange Avenue to Lakewood Blvd and modifying six traffic signals by installing vehicle detection cameras instead of inductive loop detection.



Plotnik & Associates

City of Torrance Torrance Boulevard Rehabilitation (Sartori Avenue to West City Limit)





Plotnik & Associates

The P&A Project Team provides the City with an experienced Project Team. The personnel assembled have a long history of successfully working together on numerous other similar projects and are recognized leaders in their respective fields. As a result, they function as a coordinated team rather than separate, independent consultants.

ZVI PLOTNIK, P.E., PLOTNIK & ASSOCIATES

Role: Principal In-Charge

Mr. Plotnik has over 25 years experience working on public works projects throughout Southern California. Having served as Project Manager on a large number of roadway design projects, Mr. Plotnik possesses the expertise necessary to orchestrate detail-oriented projects. He will serve as the day-to-day contact with the City ensuring that the project runs smoothly, on time, and within budget.

As Project Manager, Mr. Plotnik has been responsible for the development of street plans and associated improvements for the Dominguez Technology Center including Central Avenue, Wilmington Avenue, Victoria Street, and Caltrans SR1 in the Cities of Carson and Compton. The Central Avenue Street Improvement Project involved the preparation of plans and supervision of construction for this new arterial highway. The new roadway included new streetlights, medians, new sidewalks, a concrete bike trail and new landscaping and irrigation. He has also recently completed design for construction of improvements in Torrance and Crenshaw Boulevards in the City of Torrance, and Artesia Boulevard in the City of Gardena.

JASON KIMURA, P.E., PLOTNIK & ASSOCIATES

Role: Project Manager

Mr. Kimura has over 18 years of experience in the field of civil engineering. He has an extensive background in design and plan preparation for various public works, industrial and commercial development projects including street improvements, grading, and drainage. His experience includes: Torrance Boulevard, City of Torrance – Realignment of approximately one mile of roadway improvements in the City of Torrance. Mr. Kimura's responsibilities included design, utility coordination, railroad crossing design and coordination with PUC and UPRR; Redondo Beach Resurfacing Projects, City of Redondo Beach – This project involved the rehabilitation of approximately two miles of residential streets. Second Street & Santa Fe Avenue, Los Angeles – Street widening and improvement for new office building in downtown Los Angeles. Mr. Kimura's responsibilities included street design, utility and agency coordination for the aforementioned projects.

He will be responsible for roadway design and utility coordination for the Torrance Boulevard Rehabilitation Project.



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JAMES SPICER, PLOTNIK & ASSOCIATES

Role: Cost Estimate/Specifications

Mr. Spicer has 8 years of design experience in civil engineering. He has served as the Project Engineer on various public works projects for several cities and public agencies. His expertise includes design, specification writing, and cost estimate preparation involving street improvement projects, water distribution system, and pump design. Mr. Spicer was the project engineer for the campus-wide retrofit for the irrigation system at the Los Angeles Air Force Base. His responsibilities included the design, preparation of recycled water retrofit plans, and detailed cost estimate for the irrigation system as well as several new dual plumbed buildings. Mr. Spicer was also responsible for the preparation of the contract documents and specifications as part of the Encina Wastewater Authority's Phase V Expansion at the Encina Water Pollution control facility. Mr. Spicer has also written specifications and prepared cost estimates for a variety of public works projects for cities, clients, and public agencies.

PAULO CALCAGNOTTO, P.E., PLOTNIK & ASSOCIATES

Role: Roadway

Mr. Calcagnotto has over 20 years of experience in civil engineering and has managed and designed several street improvement projects. His experience includes: Imperial Highway Median Project, City of Downey – Median and parkway improvements for 3.5 miles along Imperial Highway. Project included street improvements, signing and striping, traffic control, cost estimates and technical specifications. City of Chino – Street improvements for Kimball Ave., Bickmore Ave., San Antonio Ave., Fern Ave., and Euclid Ave. The project included street widening, asphalt overlay, signing & striping, and utility construction for several miles of streets in the City of Chino. 91 Freeway – Widening of Eastbound on-ramps at Wilmington and Central Avenue for Caltrans in the City of Carson.

DANIEL SHIEH, PLOTNIK & ASSOCIATES

Role: Utilities

Mr. Shieh has over 12 years design experience in civil engineering. He has served as the Project Engineer on various public works projects for several cities and public agencies. His expertise includes design and coordination involving street improvement projects, public infrastructure, and water distribution system design. Mr. Shieh was most recently the project engineer for the Fern Avenue and Bickmore Avenue Street Improvement project package for the City of Chino. His responsibilities included the design and preparation of construction plans for the new construction of Fern Avenue. Mr. Shieh served as the Project Engineer for the roadway widening for Bickmore Avenue in the City of Chino, and the Old Temescal Road and Cecilia Drive street improvements in the City of Corona. He will be responsible for roadway design and utility coordination.



Plotnik & Associates

H. LEW GLUESING, P.E., T.E., WILLDAN

Role: Traffic Engineering

Mr. H. Lew Gluesing, P.E., T.E. supervises 9 engineers and technicians, providing traffic engineering services throughout California and in support of the firm's Arizona and Nevada offices. In this role, Mr. Gluesing will provide overall direction on the project and, provide technical assistance when and as needed. Mr. Gluesing has 39 years of experience in traffic and transportation engineering, including state highway, neighborhood traffic management, traffic circulation, impact and parking studies, design and operations, municipal engineering, and operational analyses. To date, Mr. Gluesing has supervised the completion of more than 5,000 projects, for a variety of larger and smaller-scaled projects. He has personally designed more than 700 new and modified traffic signal installations, as well as two traffic signal master computer systems, employing various interconnect and communication facilities.

VANESSA MUNOZ, P.E., T.E., WILLDAN

Role: Traffic Engineering

Ms. Vanessa Muñoz, P.E., T.E is a Supervising Engineer at Willdan. She will supervise the daily operation of the traffic engineering design for the project. She will be responsible for signing, striping, traffic control and traffic signal modification plans, specification and construction cost estimate. Ms. Muñoz has over 9 years of design experience. Her area of expertise includes traffic signal design and modification, signing and striping, and street construction cost estimate. She has designed over 200 signalized intersections for local cities, outside agencies, and Caltrans projects, and has managed a variety of projects covering street improvements and traffic design.

MATT STEPIEN, P.E., LAN ENGINEERING

Role: Quality Assurance/Control/Technical Support

Mr. Stepien has over 24 years experience working on public works projects throughout Southern California. His recent project experience includes the following: Anaheim Boulevard/Ball Road Intersection Improvements for the City of Anaheim; Avenue R Roadway Rehabilitation and Widening for the City of Palmdale; Lakewood Boulevard Improvements (4 miles) for the City of Downey; Rancho Viejo Street Rehabilitation for the City of San Juan Capistrano; Maryland Avenue Reconstruction Project for the City of Glendale; Pier Avenue Reconstruction Project for the City of Hermosa Beach; Paseo Adelanto Extension for the City of San Juan Capistrano; Arbor Vitae Street Widening for the City of Inglewood; and the reconstruction of over 7 miles of arterial roads in unincorporated Los Angeles County.



Plotnik & Associates

DAVE ROSELL, P.L.S., ROSELL SURVEYING

Role: Surveyor

Mr. Rosell is a licensed land surveyor in the State of California, with over 20 years of survey experience. He has extensive experience with construction staking, boundary surveys, right-of-way engineering, and as-builts. His most recent related projects include: right-of-way of surveying over 60 miles of railroad in the Los Angeles basin for the Metro Rail Project, control verification for the Redline Subway System between the City of Hollywood and the City of North Hollywood; and topographic and right-of-way surveying for the Alameda Corridor Project in Los Angeles, CA. Mr. Rosell will be responsible for all surveying operations associated with the project.

ZVI PLOTNIK
Principal & Project Manager

EDUCATION

UCLA
B.S. – Civil Engineering

West Coast University
M.S. – Management Science

EXPERIENCE

Mr. Plotnik has over 25 years of professional experience in a wide range of Street Improvement Projects. The diverse scale, complexity and type of project experience has provided Mr. Plotnik with expertise in a variety of projects including new street constructions, street widening, street rehabilitation, freeway improvements, and freeway on-ramps.

RESPONSIBILITIES

As Principal and Project Manager, Mr. Plotnik is responsible for directing the day-to-day engineering and administrative functions of the firm, including supervision of the technical workforce and implementation of on-time, on-budget completion of projects. Mr. Plotnik's expertise is civil engineering, land surveying, and land planning.

SELECTED PROJECT EXPERIENCE

Mr. Plotnik was responsible for the development of plans and construction supervision of the following street improvement projects:

- Central Avenue – Construction of street pavement, medians, concrete curb & gutter, concrete sidewalks, signing & striping, signal installation, monument signs, utility constructions & relocation, between University Drive and Victoria Street in the City of Carson.
- Victoria Street – Widening of Victoria Street between Central Avenue and Wilmington Avenue in the City of Carson. The project included asphalt overlay, and intersection grid design at Wilmington Avenue.
- Wilmington Avenue – Widening of Wilmington Avenue between Victoria Street and University Drive. The project included the overlay of a 40-foot concrete section; and a geofab material was used to deflect possible cracking.
- Dominguez Technology Center – Project consisting of design for several miles of asphalt paving, concrete curb and gutter, concrete sidewalks, and construction management.

**REGISTRATION/
LICENSING**

California, R.C.E. 29604
Nevada, R.C.E. 16153

**MEMBERSHIP IN
ORGANIZATIONS**

American Society of Civil Engineers
California Land Surveyors Association

JASON E. KIMURA, P.E.
Project Manager

EDUCATION

Colorado State University
B.S. – Civil Engineering

AREAS OF EXPERTISE

- Street & Highway Design
- Drainage Design
- Storm Drain System Design
- Utility Design
- SWPPP/NPDES Compliance

RESPONSIBILITIES

As Project Engineer, Mr. Kimura is responsible for the design and plan preparation for roadway improvements and public works. He has an extensive background in the design of street improvements, grading, drainage, storm drain, street right-of-way maps and exhibits. His responsibilities also include supervision of engineering aids and CAD technologies.

EXPERIENCE

Mr. Kimura has over 20 years of experience in the field of civil engineering. His experience includes:

- Torrance Boulevard, City of Torrance – Realignment of approximately one mile of roadway improvements in the City of Torrance. Responsible for design, utility coordination, railroad crossing design and coordination with PUC and Union Pacific Railroad.
- Redondo Beach Resurfacing Projects, City of Redondo Beach – Rehabilitation of approximately two miles of residential streets. Responsible for street design, utility and agency coordination.
- Second Street & Santa Fe Avenue, Los Angeles – Street widening and improvement for new office building in downtown Los Angeles. Responsible for street design, utility and agency coordination.
- Chino South Industrial Park, City of Chino – Design of approximately one mile of roadway improvements in conjunction with an 80 acre industrial development.
- Bell Elementary School, Middle School & Primary Center (City of Bell) – Site design for 15 acre elementary school, middle school and primary center and design of approximately ½ mile of new streets and street widening for L.A.U.S.D.

**REGISTRATION/
LICENSING**

California, R.C.E. 42389

PAULO CALCAGNOTTO, P.E.
Principal & Project Manager

EDUCATION

Pontifical Catholic University Brazil
B.S. Civil Engineering

California State University, Long Beach
Certificate Program

AREAS OF EXPERTISE

- Street & Highway Design
- Topographic Surveys
- Construction Staking & Layout
- As-Built Surveys
- Utility Design

RESPONSIBILITIES

As Principal and Project Manager, Mr. Calcagnotto is primarily responsible for the planning, design and coordination of roadway projects. He has managed and designed projects involving preparation of street improvement plans, rough and precise grading plans, roadway rehabilitation projects, storm drain, specifications and legal description writing, computer calculations, and surveying coordination.

EXPERIENCE

Mr. Calcagnotto has over 20 years of experience in civil engineering. His experience includes:

- Imperial Highway Median Project, City of Downey – Median and parkway improvements for 3.5 miles along Imperial Highway. Project included street improvements, signing and striping, traffic control, cost estimates and technical specifications.
- City of Chino – Street improvements for Kimball Ave., Bickmore Ave., San Antonio Ave., Fern Ave., and Euclid Ave. The project included street widening, asphalt overlay, signing & striping, and utility construction for several miles of streets in the City of Chino.
- Central Avenue – Construction of street pavement, medians, concrete curb & gutter, concrete sidewalks, signing & striping, signal installation, monument signs, utility constructions & relocation, between University Drive and Victoria Street in the City of Carson.
- Victoria Street – Widening of Victoria Street between Central Avenue and Wilmington Avenue in the City of Carson. The project included asphalt overlay, and intersection grid design at Wilmington Avenue.
- Wilmington Avenue – Widening of Wilmington Avenue between Victoria Street and University Drive. The project included the overlay of a 40-foot concrete section; a geofab material was used to deflect possible cracking.
- 91 Freeway – Widening of Eastbound on-ramps at Wilmington and Central Avenue for Caltrans in the City of Carson.

**REGISTRATION/
LICENSING**

California, R.C.E. 69005
Registered Civil Engineer, Brazil No. 50289 (1983)

**MEMBERSHIP IN
ORGANIZATIONS**

American Society of Civil Engineers
American Congress on Surveying and Mapping

DANIEL T. SHIEH

Project Engineer

EDUCATION

California State Polytechnic University, Pomona
B.S. Civil Engineering

AREAS OF EXPERTISE

- Street & Highway Design
- Street Widening Design
- Street Reconstruction & Resurfacing

RESPONSIBILITIES

As Project Engineer, Mr. Shieh is primarily responsible for the design and coordination of street widening and rehabilitations, utilities, and cost estimates and specifications.

EXPERIENCE

Mr. Shieh has over ten years of experience in civil engineering. His experiences include:

- Imperial Highway Median Project, City of Downey – Design of median and parkway improvements for 3.5 miles along Imperial Highway. Project included street improvements, signing and striping, traffic control, cost estimates and technical specifications.
- Design of roadway improvement plans for Bickmore Avenue in the City of Chino.
- Design street improvement plans for Old Temescal Road and Cecilia Circle in the City of Corona.
- Design of street improvement plans for street widening on Bickmore Avenue, and Euclid Avenue in the City of Chino.
- Design plans for pavement resurfacing for various school sites for Los Angeles Unified School District:
 - Western Elementary
 - Tom Bradley Elementary
 - Fairburn Elementary
 - Crenshaw High School

MEMBERSHIP IN ORGANIZATIONS

American Society of Civil Engineers

JAMES SPICER

Project Engineer

EDUCATION

Loyola Marymount University
B.S. Civil Engineering
M.S. Candidate Environmental Water Resources

RESPONSIBILITIES

As Project Engineer, Mr. Spicer is primarily responsible for the design and coordination of major roadway projects. He has managed and designed projects involving preparation of street improvement plans, precise grading plans, drain, utility plans, cost estimates and specifications.

EXPERIENCE

Mr. Spicer has 8 years of professional experience in a wide range of roadway projects including public works, water & wastewater treatment, and industrial developments. More specifically, his experiences include:

- Design site roads and widening of existing streets in the Dominguez Technology Center.
- Design for street improvement plans for Earl Street in the City of Torrance.
- Design and specifications for centrifugal wastewater pumps for Santa Margarita Water District (Ladera Lift Station, Las Flores Lift Station)
- Los Angeles Southwest College – Design Public Roads.
- Los Angeles Air Force Base – Design, Construction Management, and report preparation for roadway utilities
- Design roads and utilities for three industrial buildings for Rancho Cucamonga Distribution Center II.
- Design plans for pavement resurfacing for various commercial and industrial sites in Los Angeles County.
- Various public works projects for many cities and public agencies. Projects included street widening, street lighting and utility coordination

REGISTRATION/ LICENSING

California, R.C.E. in progress
Engineer-in-Training Certification, California

MEMBERSHIP IN ORGANIZATIONS

American Society of Civil Engineers
California Water Environmental Association

DAVID T. ROSELL, P.L.S*Surveyor***POSITION**

President \ CEO, Rosell Surveying & Mapping, Inc.

EDUCATION

Ft. Steilacoom College, Steilacoom, WA - Math preparatory focus
 Metropolitan University, Denver, CO – Survey CAD Certification
 Numerous seminars throughout the years including:
 Least Square Adjustments, Public Land Survey, Legal Descriptions, Right-of-ways,
 California Map Act, and RTK/GPS.

RESPONSIBILITIES

As Owner and Operator of Rosell Surveying & Mapping, Inc. Mr. Rosell is responsible for all the surveying operations associated with the firm. He is an expert in boundary, topography, right-of-way engineering, pipeline layout, as-builts, construction staking and ALTA's. He has extensive experience and training in the use of GPS and RTK for topography, construction staking, as-builts and geodetic control networks.

EXPERIENCE

Mr. Rosell has over 27 years of surveying experience and has been a licensed professional for more than 20 years. His experience includes:

- Surveyed over 50 square miles for the preliminary mapping of the new Denver Airport
- Instrumental in surveying over 60 miles of railroad right of ways in the Los Angeles basin for the Metro Rail Project.
- Checking and tying-in of control using GPS for the Redline Subway System between Hollywood and North Hollywood, CA
- Topography and right-of-way work for the Alameda Corridor in Los Angeles, CA
- Pipeline staking and as-builts for The Gas Company, including legal description and plat preparation for right-of-way acquisitions
- Various right-of-way and topography surveys for Metropolitan Water District's Inland Feeder Project
- ALTA Surveys:
 200 acre and 130 acre ALTA and topography, City of Rancho Cucamonga, CA
 242 acre ALTA and topography, City of Grand Terrace, CA
 330 acre ALTA and topography, City of Fontana, CA
- Design survey and construction staking for 50 acre business development in the City of Carson, CA
- Right-of-way and topography survey of four miles of Compton Creek, Compton CA
- Locate 120 mile long Questar Southern Trails Pipeline
- Hundreds of single family, multi-family and commercial projects throughout Orange, Los Angeles, Riverside, and San Bernardino Counties. Including preliminary boundary and topography, record maps, and construction staking.

**REGISTRATION/
LICENSING**

Licensed Land Surveyor
 California- LS6281, Exp. 9/30/06
 Colorado- LS23055, Exp. 1/31/07

AFFILIATIONS

ACSM, CELSOC, CLSA, CSPE, NSPS, PLSC

Leading the **Traffic Engineering** section for the project will be **Mr. H. Lew Gluesing, P.E., T.E.** Mr. Gluesing supervises 9 engineers and technicians, providing traffic engineering services throughout California and in support of our Arizona and Nevada offices. In this role, Mr. Gluesing will provide overall direction on the project, provide technical assistance when and as needed. Mr. Gluesing has 39 years of experience in traffic and transportation engineering, including state highway, neighborhood traffic management, traffic circulation, impact and parking studies, design and operations, municipal engineering, and operational analyses. To date, Mr. Gluesing has supervised the completion of more than 5,000 projects, for a variety of larger and smaller-scaled projects. He has personally designed more than 700 new and modified traffic signal installations, as well as two traffic signal master computer systems, employing various interconnect and communication facilities.

Ms. Vanessa Muñoz, P.E., T.E is a **Supervising Engineer** at Willdan. She will supervise the daily operation of the traffic engineering design for the project. She will be responsible for signing, striping, traffic control and traffic signal modification plans, specification and construction cost estimate. Ms. Muñoz has over 9 years of design experience. Her area of expertise includes traffic signals design and modification, signing and striping, and street lighting. She has designed over 200 signalized intersections for local cities, outside agencies, and Caltrans projects, and has managed a variety of projects covering street improvements and traffic design.

PROJECT: *City of Rosemead San Gabriel Blvd median project*
CLIENT: *CITY OF ROSEMEAD, 8838 East Valley Boulevard, Rosemead, CA 91770*
CONTACT: *Andy Lazzaretto. City Manager, (626) 569-2101*

Willdan provided professional traffic engineering design services for the preparation of plans, specifications, and estimates (PS&E) for installation of a raised median islands and overlay on San Gabriel Blvd. Design included, street lighting, signing, striping and loop replacement plans to accommodate proposed improvements.

PROJECT: *City of Lakewood, Traffic signal Modification for Candlewood Street at Clark Avenue*
CLIENT: *CITY OF LAKEWOOD, 5050 Clark Avenue, Lakewood, CA 90712*
CONTACT: *Ms. Lisa Rapp, Director of Public Works, (562) 866-9771*

Willdan provided professional traffic engineering design services for the preparation of a traffic signal modification plan at Candlewood Street and Clark Avenue. The modification consisted of the addition of dual left-turn lanes and protected left-turn phasing for northbound and southbound traffic as well as utility coordination and signing and striping modifications.

PROJECT: *City of San Marino, Huntington Drive Overlay 2005*
CLIENTS: *CITY OF SAN MARINO, 2200 Huntington Drive San Marino, CA 91108-2691*
CONTACT: *Mr. John Alderson, Parks & Public Works Director (626) 300-0791*

Willdan provided professional traffic engineering design services for the preparation of signing, striping and loop replacement plans for a pavement rehabilitation Project. Other scope of work included utility coordination, and preparation of bid documents for resurfacing of portions of Huntington Drive and the reconstruction of one alley. The project design also included the installation of a street light conduit on Huntington Drive.

PROJECT: *City of Paramount, Somerset Blvd Overlay*
CLIENT: *CITY OF PARAMOUNT, 16400 Colorado Avenue, Paramount, CA 90723-5012*
CONTACT: *Mr. Steve Myrter, P.E., Director of Utilities and Infrastructure, (562) 220-2157*

Willdan provided professional traffic engineering design services for the preparation of signing and striping and traffic signal modifications plans including specification and construction cost estimate for a pavement rehabilitation project. Project consisted in resurfacing Somerset Blvd from Orange Avenue to Lakewood Blvd and modifying six traffic signals by installing vehicle detection cameras instead of inductive loop detection.

Herbert L. Gluesing, Jr., P.E., T.E.
Vice President

Education

1980, B.S., Civil Engineering,
 California State University,
 Long Beach, California

Registration/Certification

Registered Civil Engineer,
 California, No. 45729, 1990

Registered Traffic Engineer,
 California, No. 1683, 1993

Registered Civil Engineer,
 Nevada, No. 10857, 1994

Affiliations

American Society of
 Civil Engineers

Institute of Transportation
 Engineers

Orange County Traffic
 Engineering Council

City Traffic Engineers

American Public Works
 Association

39 Years Experience

Mr. Herbert L. Gluesing, as a Vice President at Willdan, supervises 10 engineers and technicians providing traffic engineering services throughout California and in support of our Arizona and Nevada offices. Mr. Gluesing has 39 years of experience in traffic and transportation engineering, including neighborhood traffic management, traffic circulation, impact and parking studies, design and operations, municipal engineering, and operational analyses. To date, Mr. Gluesing has supervised the completion of more than 5,000 projects, for a variety of larger and smaller-scaled projects. He has personally designed more than 700 new and modified traffic signal installations, as well as two traffic signal master computer systems, employing various interconnect and communication facilities. Currently, Mr. Gluesing serves as City Traffic Engineer for the Cities of Norwalk, Paramount, Hawaiian Gardens, and Maywood.

Prior to joining the Willdan team, he served 12 years with Herman Kimmel and Associates and 12 years with the Cities of Newport Beach and Fullerton.

Specific project experience includes:

Traffic Control Design

City of Paramount, All America City Way Modifications - Mr. Gluesing, Traffic Engineer, prepared design plans for the widening of All America City Way east of Paramount Boulevard accommodating a proposed development. The project included adding one lane to All America City Way, traffic signal modifications, and landscaping along Paramount Boulevard and All America City Way.

City of Alhambra, Fremont Avenue Underground Utility District - As Project Manager, Mr. Gluesing supervised preparation of plans, specifications, and cost estimates to provide traffic control on Fremont Avenue during the installation of Edison transmission and distribution lines. Traffic was detoured in several locations to provide the work area required for construction. Detailed traffic handling plans were also developed for Fremont Avenue and the detour routes to facilitate the high volume of traffic displaced by construction.

City of Bell Gardens, Florence Avenue Storm Drain Improvements - As Project Director, Mr. Gluesing supervised the preparation of plans, specifications, and cost estimates to provide stage construction and traffic control plans for the installation of storm drain main within Florence Avenue. Special considerations for local traffic were provided in addition to the design of temporary signals to accommodate closing half the roadway.

City of Burbank, Buena Vista Street - As Project Director, Mr. Gluesing supervised the design of a traffic control plan for the State Route 134 off-ramp. This project required detouring traffic for construction of ramp widening. Pedestrian detours were also required within the construction area.

Traffic Signal Design

City of Bell Gardens, Gage Avenue Traffic Signals - As Project Manager, Mr. Gluesing supervised preparation of plans, specifications, and cost estimates for the design of six traffic signal and signing and striping modifications along Gage Avenue in the City of Bell Gardens. The traffic signal modifications included reusing existing controllers salvaged from Florence Avenue and upgrade of existing equipment. Upon completion of the project, each intersection was retimed to incorporate them into the existing coordinated system along Gage Avenue. The project was funded in part using Air Quality Management District (AQMD) funds and required written justification to support reduction of pollutants and improved air quality.

MTDB, Commercial Street Traffic Signals - As Project Manager, Mr. Gluesing supervised preparation of plans, specifications, and cost estimates for installation of eight new traffic signals along Commercial Street in the City of San Diego for the Metropolitan Transit Development Board (MTDB). The traffic signals were designed to accommodate the existing railroad tracks located along the centerline of Commercial Street and included special railroad preemption operation to facilitate trolley and railroad operations. Special consideration was also required for the design of traffic signal mast arms located over spur tracks and at loading docks, as well as for emergency vehicle operation. Special Model 170 software was developed by Bi-Trans to accommodate the required operations.

MTDB, East Urban Trolley Line Traffic Signals - As Project Manager, Mr. Gluesing supervised preparation of plans and specifications for numerous railroad crossings along the MTDB East Urban Trolley Line through the Cities of San Diego, Lemon Grove, and La Mesa. Special design considerations were given to each signal location in order to properly facilitate railroad preemption and trolley operations. The project also included signing and striping modifications, and design of a special trolley signal indication that required review and approval by the Public Utilities Commission for use on the rail line. Along Spring Street in the City of La Mesa, the design also required special considerations for existing traffic signal coordination and emergency vehicle preemption.

Beach Boulevard Superstreet Project, 405 Freeway to Ellis Avenue - As Project Traffic Engineer, Mr. Gluesing supervised preparation of plans, specifications, and cost estimates for traffic signals, signing, striping, interconnect, and street lighting as part of a countywide project to improve traffic flow on Beach Boulevard. The plans, prepared to Caltrans' standards and specifications, were reviewed by Caltrans District 12, City of Huntington Beach, and the Orange County Transportation Authority.

Signing and Striping

Plotnik & Associates, City of Downey Imperial Highway Median Project - Mr. Gluesing was the Project Director of this project which involved the preparation of traffic control, signing, striping and loop replacement plans for the median installation project in the City of Downey on Imperial Highway from Paramount Boulevard to Bellflower Boulevard, including specification and construction cost estimate.

City of La Canada Flintridge, La Canada Boulevard School Loading Bay – Mr. Gluesing was the Project Director of this project which involved the preparation of plans, specifications, and estimate (PS&E) for the 200' long expansion of an existing student loading bay on La Canada Boulevard near La Canada Elementary School. The project also included research to obtain utility and existing conditions that may have affected design.

City of Paramount, Rosecrans Avenue Street Resurfacing – Mr. Gluesing oversaw the preparation of signing and striping plans for this project which involved preparation of plans and specifications and provided construction engineering and labor compliance for the street resurfacing of Rosecrans Avenue from Garfield Avenue to Century Boulevard including crosswalk replacement at Downey Avenue.

City of Paramount, Street Improvements FY 2006 – Mr. Gluesing oversaw the preparation of signing and striping plans for the construction of a traffic calming circle for this project which involved preparation of plans and specifications and the provision of construction engineering for street improvements including street resurfacing on various streets and the application of emulsion slurry seal on various streets.

City of Paramount, Local Street Resurfacing FY 2006 – Mr. Gluesing oversaw the preparation of signing and striping plans for this project which involved the preparation of plans and specifications and the provision of construction engineering and Community Development Block Grant (CDBG) labor compliance for the street resurfacing of Petrol and Exeter Streets from Texaco to Garfield Avenue.

Parking Lots

City of Paramount, Civic Center Campus Improvements – Mr. Gluesing provided traffic engineering services for this project which involved engineering design and construction observation for a parking lot and landscape improvements at the Civic Center Campus.

Vanessa Muñoz, P.E., T.E.
Supervising Engineer

Education
1997, B.S, Civil Engineering,
Cal Poly Pomona

Registration
2006, California, 2341, Traffic
2005, California, 67583, Civil
2000, Doppler Traffic Operator

9 Years Experience

Ms. Vanessa Muñoz is a Supervising Engineer at Willdan. Her area of expertise includes traffic signals design and modification. She has designed over 300 signalized intersections for client cities, outside agencies, and Caltrans projects. Ms. Muñoz in the past has worked on a variety of projects preparing plans, specifications, and engineering estimates (PS&E) as a designer and project manager including interconnect, signing and striping, traffic control plans, parking lot design, flashing beacons, in-pavement flashing light systems and lighting design plans. Other areas of experience include engineering and traffic survey, warrant analysis, and intersection capacity utilization. Ms. Muñoz has over 9 years of design experience and is responsible for transportation planning and traffic engineering.

Specific Project Experience

Plotnik & Associates, City of Downey Imperial Highway Median Project
- Ms. Muñoz was the Senior Engineer of this project which involved the preparation of traffic control, signing, striping and loop replacement plans for the median installation project in the City of Downey on Imperial Highway from Paramount Boulevard to Bellflower Boulevard, including specification and construction cost estimate.

City of Hawaiian Gardens, Safe-Route-to-School Improvements, Cycle 5
- Ms. Muñoz provided traffic design engineering services for the Safe Route to School Improvements Cycle 5 at Fedde Middle School near the vicinity of Elaine Avenue at 214th and 215th Streets including sidewalk and street repairs, curb ramp installation, drop-off repairs, speed hump installation, restriping of crosswalks, upgrade of signs, and flashing beacon installation.

City of Arcadia, Baldwin Avenue - Landscape Median - As Senior Design Engineer, Ms. Muñoz lead and supervised fieldwork, plans, specification, and cost estimate for the development of traffic signal, interconnect, street lighting, traffic control, and signing, striping, and loop replacement plans on Baldwin Avenue between Duarte Road and Naomi Street.

City of Fontana, South Highland Avenue Widening - As Project Manager, Ms. Muñoz supervised and developed PS&E for the design of two traffic signal modifications on Citrus Avenue/South Highland Avenue and Sierra Avenue/South Highland Avenue, as well as traffic control, street lighting, and signing and striping design plans on South Highland Avenue. The project involved the widening of South Highland Avenue between Citrus Avenue and Sierra Avenue requiring right-of-way document, street improvement plans, utility relocation, and coordination between Caltrans and consultant that were designing adjacent projects.

City of Fontana, Alder/Randall and Alder/Merrill Improvements - Ms. Muñoz was the Project Manager for this project which involved preparation of street and traffic signal improvement plans, and engineering construction estimate for the location of Alder Avenue/Merrill Avenue and Alder Avenue/Randall Avenue. Services rendered consisted of preparation of plans for traffic signal, storm drain, street, and signing and striping plans.

Other services included utility coordination, topographic survey, legal description with plat, potholing, and assistance during advertisement and bidding. Project consisted of widening the intersection to ultimate improvement for the traffic signal installation.

City of Fontana, Jurupa Avenue at Banana Avenue - As Project Manager, Ms. Muñoz supervised and prepared PS&E for the design of a traffic signal at the intersection of Jurupa Avenue and Banana Avenue. The purpose of the project was to install a new signal at the intersection and design the ultimate street improvement required for such installation, as well as modification of existing storm drain improvements. Acquisition of right-of-way for the northeast corner, topographic survey preparation, construction staking, and utility coordination were part of the design process.

City of Maywood, Slauson Avenue Median - As Senior Design Engineer, Ms. Muñoz developed PS&E for the design of concept and construction of landscape median, traffic signal upgrade, and signing and striping plans on Slauson Avenue from east city limit to west city limit. The project also included parkway trees, rubberized asphalt-concrete overlay, concrete intersection, banner poles and the installation of video detection and pedestrian countdown head at the intersection of Slauson Avenue and Atlantic Boulevard. This was an ISTEAF funded project.

City of Burbank, Pinnacle Project - As Senior Design Engineer, Ms. Muñoz led the design team on field checks, research and design. The project consisted in designing four new traffic signals, one signal interconnect, and the restriping of two major streets. One of the challenges of the project was foreseeing future improvement and accounting for this in the present design, such as street widening, street closures, and the opening of the office building.

City of Paramount, Alondra Boulevard - As Senior Design Engineer, Ms. Muñoz, developed PS&E for traffic signals, signing, striping, loop replacement, and lighting for the City of Paramount. Ms. Muñoz coordinated with the civil, landscape, and utility coordination team, as well as lead the fieldwork and research. Project consisted in upgrading existing traffic signals, as well as designing protected left-turn phasing. It also included the design of a new traffic signal for the development of a Home Depot store. Signing and striping design were developed to accommodate the design of a median from Hunsaker Boulevard to the Los Angeles River limits, as well as the overlaying of the project limits. Lighting design consisted of evaluating existing lighting and developing a design that would meet the IES standards.

City of Santa Clarita, Sierra Highway - As Project Manager, Ms. Muñoz attended meetings with City officials, lead fieldwork, performed research, and developed PS&E for two traffic signals and one interconnect plan that would interconnect the new signal at American Beauty Drive with the existing traffic signal at Soledad Canyon Road on Sierra Highway. Design consisted of protected left-turn phasing, locating equipment at ultimate location, upgrading handicap ramps to meet ADA standards, and potholing the recommended pole locations for future use. Striping modifications were made to meet new signalized intersections.



City of Torrance Torrance Boulevard Rehabilitation

Section 4-Scope of Work

Key Issues

- **Budget Sensitivity**
- **Roadway Design Experience**
- **Creative Solutions**
- **Attention to Detail**
- **Construction Costs**
- **Utility Coordination**
- **Client Commitment**

Based on our review of the Request for Proposal, discussions with City staff, field reviews and our extensive previous experience on similar design projects, we have identified the following key issues, which must be carefully taken care of during the course of the project.

Budget Sensitivity

We are strongly committed to adherence to the City's budget. One of the first tasks that we would propose is to develop a preliminary cost estimate for the pavement rehabilitation, to determine the extent of any budget shortfalls. Since maximizing the amount of pavement overlay is a major goal of the City, it is essential to get a handle on the extent of the budget shortfalls as early in the process as possible. Based on the extent of the shortfall, P&A will work closely with the City to develop a prioritization strategy for the various improvements.

Roadway Design Experience

Extensive knowledge of roadway design criteria and procedures are strengths of the P&A Team. With a *Project Team that averages over 20 years of local roadway design experience*, P&A provides the City with a veteran team that is well educated to the potential pitfalls in rehabilitating and reconstructing roadways. Having completed the design of numerous miles of roadway rehabilitation and reconstruction, the P&A Team members are battle-tested veterans in roadway design.

Creative Solutions

Given the anticipated budget constraints for the project, creativity will be an important part of the project design. In reviewing the pavement report, we preliminarily feel that the T.I issue needs to be closely reviewed. The report indicates that the T.I used for the report appears to be noticeably higher than the existing conditions warrant, and based on our experience with Torrance Boulevard, we tend to agree. In addition to the review of the T.I. it may be necessary to reduce the design life of the pavement design and develop other pavement rehabilitation alternatives and/or investigate using recycled pavement for the total reconstruction areas. Some creativity will also be needed to accommodate the proposed additional eastbound left turn lane at Maple Avenue and the additional through lane on Maple Avenue without widening the roadway.

Attention to Details

Paying attention to the details, whether it is designing curb ramps, ensuring reasonable roadway cross slopes, or verifying potential existing utility conflicts, will be an important part of the project. The experience of the P&A Project Team, both in the industry, as well as working together as a project team, combined with our proven QA/QC procedures, help to assure the City that the details of the project design are being closely scrutinized and double-checked.



City of Torrance Torrance Boulevard Rehabilitation

Section 4-Scope of Work

Construction Costs

One of the elements of the design of a project that P&A always pays special attention to is the preparation of realistic construction estimates. This will be even more important than usual due to the strict budget constraints on this project, which will be further exacerbated by the rising cost of asphalt pavement. Our construction cost estimates are based on contractor bids for similar recent construction projects, supplemented by direct discussion with construction personnel and contractors. Additionally, we always prepare a preliminary cost estimate at the 60 percent design level to get an early idea of whether the project is within the construction budget or if adjustments need to be made. Cost estimates are, in turn, updated at the 90 percent and 100 percent level.

Utility Coordination

The total reconstruction of the roadway pavement can often result in impacts to existing shallow utilities, especially in older roadway systems. It is essential to conduct a thorough utility research, supplemented by follow-up with the various utility companies (including potholing when necessary) throughout the design phase of the project. Maintaining good records, familiarity with the utility company personnel, and being persistent with follow-up procedures, are essential to identifying potential problems before construction begins and coordinating relocations when applicable.

Client Commitment

P&A strongly believes in serving our Clients with exceptional quality and cost-effective service by providing exceptionally qualified staff that has extensive experience in the specific project involved. The commitment to serve our Client's needs guides our professional endeavors and has earned P&A a strong reputation in Southern California - a reputation that has led to *90% of P&A's revenues resulting from repeat Clients.*

Close Proximity

We believe that our location which is in close proximity to the City of Torrance (20 minute drive) will be a valuable tool in helping facilitate the effective communication about the project. It is very likely that an urgent request can receive immediate attention.

Big Company Services/Small Company Service

As reflected in the Project Team resumes, the P&A Team personnel have extensive experience. Through the experience of our employees, and our focus on local projects, P&A provides the City a wide range of expertise commensurate with much larger firms. However, the company culture as passed on by the owners, is one of *client commitment and client satisfaction.* As such, we have a small company attitude towards providing personalized service to every client.

Design and Construction Cost Savings

P&A has developed a reputation for cost savings – in developing a scope of work that is commensurate with the project needs, as well as in providing designs that provide cost-effective design solutions. On the following pages we have identified preliminary discussions regarding potential design options that take into account vertical design constraints and budget constraints. Likewise, during the design process, we are generally able to provide cost-effective solutions that meet the project goals, but that can further help to reduce the construction costs.



City of Torrance Torrance Boulevard Rehabilitation

Section 4-Scope of Work

Having the design expertise and knowing the option available for construction can realize much of the cost savings.

The following specific tasks will be required to complete the Project, as defined in the City's RFP. In P&A's attempt to provide the most thorough and pertinent scope of work, and demonstrate our commitment to understanding the specific project issues, we have: 1) undertaken several field reviews; 2) reviewed the pavement report; 3) reviewed key record design drawings; and 4) preliminarily reviewed the ability to accommodate additional lanes at the Maple Avenue intersection without widening the street.

PRELIMINARY DESIGN

Research and Review

A thorough search of the available records will be conducted to acquire relevant data to assist in the design of the project. The information accumulated will include as-built drawings, utility information, horizontal and vertical control data, and other pertinent data. P&A will prepare a table summarizing the data obtained and provide a copy to the City and utility agencies.

Site Evaluation

The Project Team will review the project in the field and take photographs of potential problem areas or items that need special attention, including the condition of the existing concrete improvements. The photographs will be filed in photo albums with a written description of each picture. The albums serve as a constant reference during design and are invaluable when discussing issues at meetings. The existing pavement condition will also be reviewed to attempt to visually identify areas that need total reconstruction. As a part of the field review, all of the existing surface topographical features per the survey data will also be verified.

PRELIMINARY SURVEYS, STUDIES, AND COORDINATION

Design Topographic Survey

The P&A Project Team will provide both a new aerial topographic survey and the necessary ground survey information, which will establish the horizontal and vertical control required to design the project, including topographical features and cross-section data. Cross-sections will be taken at 50-foot intervals, from right-of-way to right-of-way line for the length of the project, and will include the following information: right-of-way lines, back-of-walk, top of curb, edge of pavement, pavement delineation, and finish surface at street centerline. The topographic survey data will also include centerline stationing, centerline monuments, and any other survey monuments within the project limits; 0.5-foot contours will be generated from the survey data.

Utility Research and Coordination

Information will be collected from all of the utility companies and added to the base maps. A minimum of two utility notices is anticipated. Coordination with the utilities will continue throughout the design of the project. A copy of the utility file will be provided to the City.

Utility Potholing

Although potholing of existing utilities is not generally anticipated due to the relatively minor extent of pavement reconstruction, as requested in the RFP, we have included an allowance in case this task is required. Any proposed pothole locations will be carefully chosen to provide detailed vertical and horizontal information for critical utilities that could potentially be impacted by the project.



City of Torrance Torrance Boulevard Rehabilitation

Section 4-Scope of Work

Base Sheet Preparation

P&A will prepare base sheets utilizing the survey data and the collected utility information. The sheets will be prepared at 40-scale and will be used as the basis for all of the project drawings. Right of way data will be based on record information collected or Assessor's Parcel Maps.

Pavement Evaluation Review

The existing pavement report will be reviewed and analyzed. A value engineering analysis will be performed to compare the construction costs and design lives for three alternatives. The analysis will also include the results of the T.I calculations from below, plus anticipated further discussion with LaBelle Marvin. A letter report will be prepared providing recommendations on which alternative should be used. Upon receipt of concurrence from the City, the recommendations will be incorporated in the roadway design.

Traffic Index Calculations

The P&A Team will calculate a TI for two locations within the project limits. The calculations will be based on a 20-year growth factor and will utilize the L.A. County and State of California methods.

PLANS AND PROFILES

Title Sheet, Details, and Typical Sections

A title sheet, typical sections and details will be prepared as necessary for the project.

Roadway Plans and Profiles

Street improvement plans (40-scale) will be prepared on the base sheets. The street improvements will consist of two parts: 1) street reconstruction areas, including damaged concrete improvements; and 2) street rehabilitation.

For both the rehabilitation and the reconstruction areas, the use of cross-sections will be critical to assure that reasonable cross-falls are maintained for the new roadway surface. Based on the proposed pavement rehabilitation strategy for each reach of roadway in conjunction with the cross-section data, the proposed roadway crossfall will be evaluated to ensure that they are within an acceptable range.

P&A will review all existing curb ramps through the project reach, and identify which of the existing ramps do not meet current standards. The following represents our initial concepts for portions of the roadway.

Torrance Boulevard Rehabilitation

It is our understanding that none of the 3 alternatives developed in conjunction with the pavement report are within the construction budget for the project, plus the cost of asphalt pavement continues to rise. Additionally, although there are relatively few curb ramps that appear to be in compliance with current ADA standards, we understand that ramp reconstruction will not be a priority on this project. As noted in the pavement report, the outside lanes in particular are currently under-designed, likely reflecting the conversion of previous parking lanes to drive lanes. Even the proposed Alternative B provides some marginal improvements, including crossfalls in excess of 6% and reinforcement of the roadway within budget limitations. Budget augmentations would be required in a relatively short time to address conditions that may arise.



City of Torrance Torrance Boulevard Rehabilitation

Section 4-Scope of Work



We propose to work closely with the City to provide realistic recommendations that are within the project budget, but which provide pavement rehabilitation benefits. The primary areas that we would preliminarily focus our attention on are the design T.I., and the pavement crossfall. The T.I. needs to be indicative of the pavement design life. It appears unlikely that a 20-year design life can be accommodated, due to budget constraints and existing steep crossfalls in many areas that become steeper with every overlay.

The steep existing crossfalls would suggest that a total pavement reconstruction will be required sooner rather than later because the crossfalls cannot continue to increase much further. Give these issues, it would seem practical to reduce the pavement design life. A reduction in the pavement design life would allow for a corresponding reduction in the design T.I. Every reduction in the T.I. of 0.5 would reduce the amount of pavement overlay required by approximately 1-inch. Preliminarily, we estimate that the T.I. used in the pavement report may be as much as 1.0-1.5 higher than existing conditions.

Alternative B includes the reconstruction of a large amount of the outside lanes. Our concern is that we do not construct permanent outside lanes at a relatively steep crossfall that will “lock-in” the future vertical alignment of the cross-section. Since the interior, adjacent pavement is being overlaid, the cross-fall for the exterior lanes is being set much greater than preferred. Since the cross-fall range is going to be excessive anyway, we would ask the City and the geotech to consider another option – the rehabilitation, not reconstruction, of the majority of the outside lanes. In 5-10 years, when the pavement is again in need of repair, the consideration should be given to a total reconstruction of the entire roadway, including the lowering of the centerline, to allow for more desirable crossfalls. Other options would be considered based on input from the City.

Torrance Boulevard Dual Lefts at Maple Avenue

Based on our review of the existing roadway plans for this portion of the project, we believe that we can provide the additional left turn lane without widening the roadway. Although the bike lanes will be compromised, the additional lane can be accommodated. Appropriate lane transitions will have to be designed east and west of the intersection to shift the westbound and eastbound through lanes northerly and southerly respectively.



City of Torrance Torrance Boulevard Rehabilitation

Section 4-Scope of Work



- Additional Northbound Through Lane on Maple Avenue
Based on our review of the existing roadway plans for this portion of the project, we believe that we can provide the additional through lane without widening the roadway. Obviously, the existing on-street parking on the east side of the street will have to be eliminated in conjunction with the additional lane.

Torrance Boulevard Rehabilitation

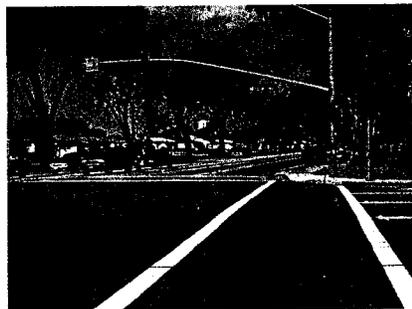
Intersection Grid Details
Grid details will be prepared using the topographic survey data at the following intersections: Arlington Ave., Maple Ave., and Anza Ave. The grids will be shown at 10-foot spacing and show both existing and proposed elevations.

Torrance Boulevard Rehabilitation

Traffic Control and Staging Plans
Detailed construction traffic control plans will be prepared for Torrance Boulevard. We understand the City will be constructing the project in stages and the work within each stage will be within the vicinity of the intersections of Crenshaw Boulevard, Madrona Avenue, Hawthorne Boulevard, Anza Avenue and Palos Verdes Boulevard. The traffic control plans will consist of 8 sheets, one for construction notes, details and cross sections, the rest will include lane closures and construction staging. The City will prepare the plans for the N/B and S/B left turn lane closures on Hawthorne Boulevard. Plans will be prepared at 40-scale.

Torrance Boulevard Rehabilitation

Traffic Signal Modification Plans
A traffic signal modification plan will be prepared for Torrance Boulevard and Maple Avenue. We understand the City would like to add dual left turn lane for the eastbound direction within existing improvements. This information will be reflected on the modification plan. The modification plan will be prepared at 20-scale and will include the conductor schedule, pole schedule, phase diagram, and pole placement details.





City of Torrance Torrance Boulevard Rehabilitation

Section 4-Scope of Work

The anticipated number of sheets for the project is as follows:

Type of Plan	No. of Sheets (Torrance Blvd.)	No. of Sheets (Maple Ave.)
Title	1	1
Typical Sections	1	0
Details	1	0
Roadway Rehabilitation	20	1
Intersection Grids	2	1
Traffic Signal Mod	0	1
Signing and Striping	8	1
Traffic Control/Staging	8	1
TOTAL	41	6

Quantity Calculations and Cost Estimates

Plans and cost estimates will be prepared and submitted to the City for review at the 60 and 90 percent levels. Based on feedback from the review and continual input from the City staff, final construction plans will be prepared.

Project Specifications

Special provisions will be prepared based on the Standard Specifications for Public Works Construction and the City's boilerplate, supplemented with Caltrans specifications. P&A will also provide the City with a diskette of our cost estimate spreadsheet, which can be added to by the City in preparing a bid summary after the Contractor's bids are received.

Project Management and Meetings

Regularly scheduled meetings are a key to keeping projects on schedule, avoiding pitfalls, and keeping the lines of communication open with the City so that surprises do not occur during the final stages of the project. In addition to the project kick-off meeting, we have assumed one status meeting per month on the average.

QA/QC

The Project Management task is directed at the organization, planning, and control of the project team. Activities include scheduling and monitoring of the project team, cost control, and an active quality control program.

Quality Control will be an ongoing task throughout the duration of the project. The initial effort will be in the development of a project specific checklist that will establish specific tasks that need to be accomplished; the estimated completion date; and a signature block for the Project Manager to sign that the task has been completed and reviewed. The Quality Control Officer for the project ensures that the Project Manager addresses all checklist items.

In addition to the Quality Control by the Project Manager, a Quality Control committee, comprised of at least two registered engineers that are not involved in the project, will review the plans. The review committee will do a technical evaluation of the plans, cost estimate, and the project specifications. The review comments are transmitted to the Project Manager during a subsequent meeting.



City of Torrance Torrance Boulevard Rehabilitation

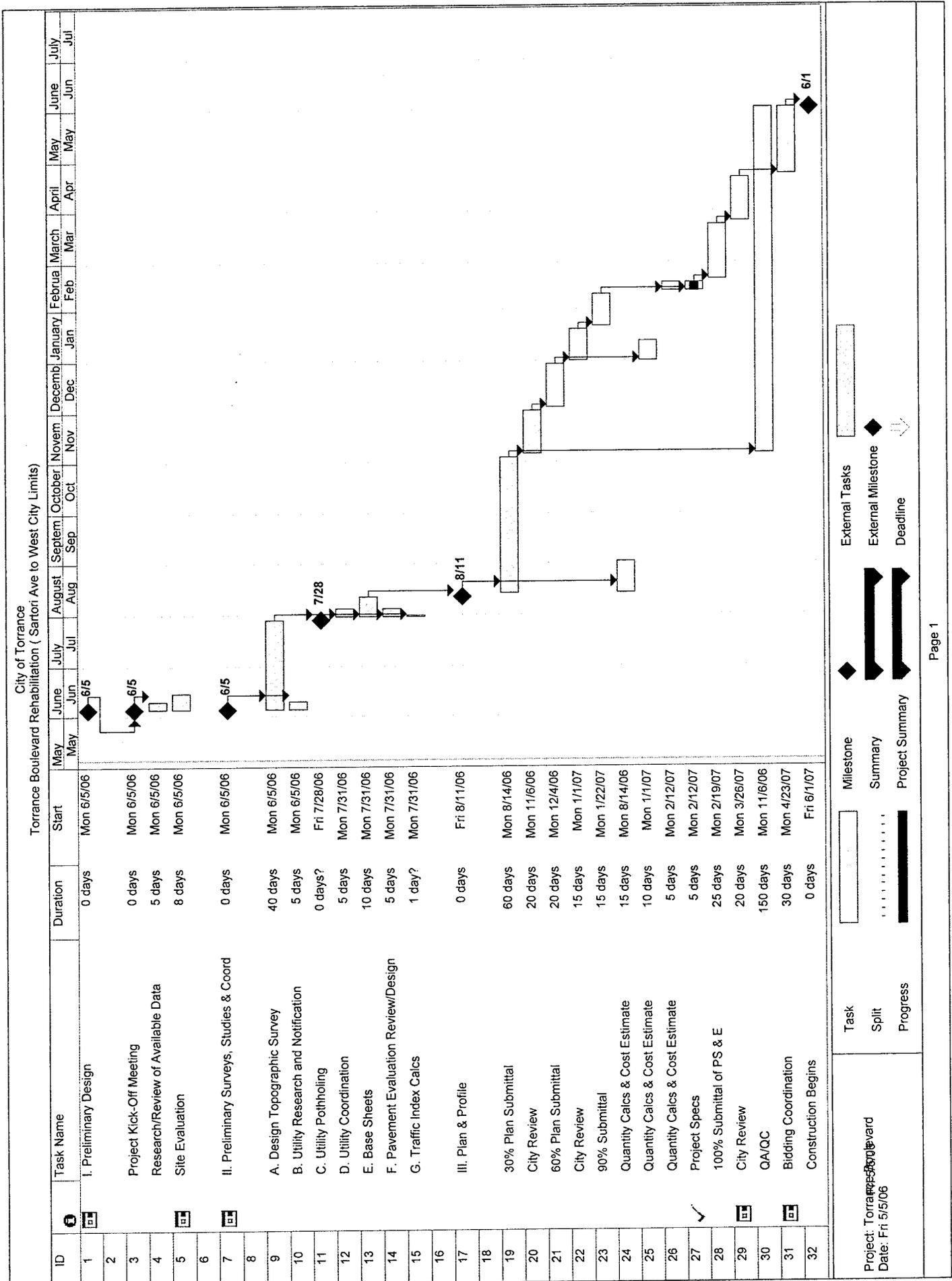
Section 4-Scope of Work

Bid and Construction Support

The P&A Team will provide ongoing support as necessary during the bid/construction phase by answering questions/clarifications from the Contractor and attending the pre-bid meeting. Record drawings will be provided to the City after the completion of construction.

Survey Monument Preservation and Restoration

All centerline monuments will be tied out prior to construction and corner records will be filed with the County of Los Angeles and City of Torrance. Any monuments disturbed or removed during construction will be re-established upon completion of construction activity.



MANHOUR AND FEE ESTIMATE

City of Torrance

Torrance Boulevard Rehabilitation (Sartori Ave to West City Limit)

I. Preliminary Design	Project Manager		Project Engineer		Cadd Tech		Survey Crew		Survey Support		Administrative Clerical		Consultant Cost		Total Hours		Total		
	\$		\$		\$		\$		\$				\$				\$		
TASK																			
Project Kick-Off Meeting	4		6								1				11.0	\$	1,340.00		
Research/Review of Available Data	4		20		35						1				60.0	\$	5,820.00		
Site Evaluation	8		40		35						2				85.0	\$	8,840.00		
Subtotal	16		66		70						4				156.0	\$	16,000.00		
II. Preliminary Surveys, Studies & Coord																			
TASK																			
A. Design Topographic survey	8		8		115		35								166.0	\$	28,580.00		
B. Utility Research and Notification	2		8		20									\$ 13,500.00	30.0	\$	2,840.00		
C. Utility Potholing															-	\$	13,500.00		
D. Utility Coordination	2		8		20										30.0	\$	2,840.00		
E. Base Sheets	10		12		24										46.0	\$	4,760.00		
F. Pavement Evaluation Review/Design	8		8												16.0	\$	2,080.00		
G. Traffic Index Calculation	2		8											\$ 1,150.00	10.0	\$	2,390.00		
Subtotal	32		52		64		115		35				\$ 14,650.00	298.0	\$	56,990.00			
III. Plans & Profile																			
TASK																			
A. 30%, 60% & 90% Plan Submittal	8		80		240								\$ 39,850.00	328.0	\$	69,770.00			
B. Quantity Calculation and Cost Estimate	6		16		20									42.0	\$	4,360.00			
C. Project Specifications	8		16								8			32.0	\$	3,520.00			
D. 100% Submittal of PS&E	4		16		8									28.0	\$	3,120.00			
E. Final Submittal	4		8		8									20.0	\$	2,160.00			
F. Project Management & Meetings	8		8											16.0	\$	2,080.00			
G. QA/QC	16															\$	2,240.00		
H. Survey Monuments Preservation & Restoration					15		10						\$ 1,200.00	25.0	\$	4,000.00			
I. Reimbursable Expenses													\$ 2,760.00	-	\$	1,200.00			
J. STPL Coordination													\$ 41,050.00	507.0	\$	2,760.00			
Subtotal	54		144		276		15		10			8	\$ 41,050.00	507.0	\$	95,210.00			
GRAND TOTAL	102		262		410		130		45		12		\$ 55,700.00	961.0	\$	168,200.00			

MANHOUR AND FEE ESTIMATE
 City of Torrance
 Maple Street

TASK	Project Manager		Project Engineer		Cadd Tech		Survey Crew		Survey Support		Office Support		Consultant Cost		Total Hours		Total		
	\$		\$		\$		\$		\$		\$		\$				\$		
I. Preliminary Design																			
Project Kick-Off Meeting	0.5		1													1.5	\$	190.00	
Research/Review of Available Data			2		2											4.0	\$	400.00	
Site Evaluation	1		2													3.0	\$	380.00	
Subtotal	2		5		2											8.5	\$	970.00	
II. Preliminary Surveys, Studies & Coord																			
TASK																			
A. Design Topographic survey			4				23		21					\$ 1,000.00		48.0	\$	8,180.00	
B. Utility Research and Notification			2		14									\$ 1,500.00		16.0	\$	1,360.00	
C. Utility Potholing																		\$ 1,500.00	
D. Utility Coordination			8		16											24.0	\$	2,240.00	
E. Base Sheets			8		20											28.0	\$	2,560.00	
Subtotal	-		22		50		23		21					\$ 2,500.00			\$	15,840.00	
III. Plans & Profile																			
TASK																			
A. 30%, 60% & 90% Plan Submittal	24		96		115									\$ 7,500.00		235.0	\$	31,580.00	
B. Quantity Calculation and Cost Estimate	8		24		87											119.0	\$	10,960.00	
C. Project Specifications			8							13						21.0	\$	1,740.00	
D. 100% Submittal of PS&E	16		80		80					16						192.0	\$	19,200.00	
E. Final Submittal	16		80		80											176.0	\$	18,240.00	
F. Project Management & Meetings	16		24													40.0	\$	5,120.00	
G. Survey Monuments Preservation & Restoration							15		20					\$ 2,350.00		35.0	\$	5,000.00	
H. Reimbursable Expenses	80		312		362		15		20					\$ 9,850.00		818.0	\$	94,190.00	
Subtotal	82		339		414		38		41							827	\$	111,000.00	
GRAND TOTAL																			

MANHOUR AND FEE ESTIMATE

City of Torrance

Torrance Blvd W/O Henrietta n/s-Storm Drain

Storm Drain Fee									
	Project Manager	Project Engineer	Cadd Tech	Survey Crew	Survey Support	Office Support	Consultant Cost	Total Hours	Total
	\$ 140.00	\$ 120.00	\$ 80.00	\$ 200.00	\$ 100.00	\$ 60.00			
I. Preliminary Surveys, Studies & Coord									
TASK									
A. Design Topographic survey		2		4	2			8.0	\$ 1,240.00
B. Utility Research and Notification		2	4					6.0	\$ 560.00
C. Utility Potholing							\$ 250.00		\$ 250.00
D. Utility Coordination		2	4					6.0	\$ 560.00
E. Base Sheets		2	4					6.0	\$ 560.00
Subtotal	-	8	12	4	2		\$ 250.00		\$ 3,170.00
II. Plans & Profile									
TASK									
A. 30%, 60% & 90% Plan Submittal	2	8	4				\$ 750.00	14.0	\$ 2,310.00
B. Quantity Calculation and Cost Estimate	2	2	4					8.0	\$ 840.00
C. Project Specifications		2				4		6.0	\$ 480.00
D. 100% Submittal of PS&E	2	4	8			4		18.0	\$ 1,640.00
E. Final Submittal	2	4	2					8.0	\$ 920.00
F. Project Management & Meetings	2	4					\$ 250.00	6.0	\$ 760.00
G. Reimbursable Expenses							\$ 1,000.00	-	\$ 250.00
Subtotal	10	24	18	-	-	8	\$ 1,000.00	60.0	\$ 7,200.00
GRAND TOTAL	10	32	30	4	2	8	\$ 1,250.00		\$ 10,370.00

MANHOUR AND FEE ESTIMATE
City of Torrance
Torrance Blvd Madrona To Maple-Storm Drain

Storm Drain Fee		Project Manager	Project Engineer	Cadd Tech	Survey Crew	Survey Support	Office Support	Consultant Cost	Total Hours	Total
		\$	\$	\$	\$	\$	\$	\$		\$
I. Preliminary Surveys, Studies & Coord										
TASK										
A. Design Topographic survey			2		16	2			20.0	\$ 3,640.00
B. Utility Research and Notification			2	8					10.0	\$ 880.00
C. Utility Potholing								\$ 1,500.00		\$ 1,500.00
D. Utility Coordination			2	8					10.0	\$ 880.00
E. Base Sheets			2	8					10.0	\$ 880.00
Subtotal		-	8	24	16	2		\$ 1,500.00		\$ 7,780.00
II. Plans & Profile										
TASK										
A. 30%, 60% & 90% Plan Submittal		2	48	24				\$ 5,000.00	74.0	\$ 12,960.00
B. Quantity Calculation and Cost Estimate		2	4	8					14.0	\$ 1,400.00
C. Project Specifications			4				2		6.0	\$ 600.00
D. 100% Submittal of PS&E		2	8	16			2		28.0	\$ 2,640.00
E. Final Submittal		2	4	4					10.0	\$ 1,080.00
F. Project Management & Meetings		2	8						10.0	\$ 1,240.00
G. Reimbursable Expenses								\$ 750.00	-	\$ 750.00
Subtotal		10	76	52	-	-	4	\$ 5,750.00	142.0	\$ 20,670.00
GRAND TOTAL		10	84	76	16	2	4	\$ 7,250.00		\$ 28,450.00

MANHOUR AND FEE ESTIMATE

City of Torrance

Torrance Blvd Crenshaw to Elm-Storm Drain

Storm Drain Fee		Project Manager	Project Engineer	Cadd Tech	Survey Crew	Survey Support	Office Support	Consultant Cost	Total Hours	Total
	\$	140.00	\$ 120.00	\$ 80.00	\$ 200.00	\$ 100.00	\$ 60.00			
I. Preliminary Surveys, Studies & Coord										
TASK										
A. Design Topographic survey			2		8	2			12.0	\$ 2,040.00
B. Utility Research and Notification			2	8					10.0	\$ 880.00
C. Utility Potholing								\$ 750.00		\$ 750.00
D. Utility Coordination			2	4					6.0	\$ 560.00
E. Base Sheets			2	4					6.0	\$ 560.00
			8	16	8	2		\$ 750.00		\$ 4,790.00
Subtotal										
II. Plans & Profile										
TASK										
A. 30%, 60% & 90% Plan Submittal		2	24	8				\$ 1,500.00	34.0	\$ 5,300.00
B. Quantity Calculation and Cost Estimate		2	4	8					14.0	\$ 1,400.00
C. Project Specifications			4				4		8.0	\$ 720.00
D. 100% Submittal of PS&E		2	8	8			4		22.0	\$ 2,120.00
E. Final Submittal		2	4	4					10.0	\$ 1,080.00
F. Project Management & Meetings		2	8						10.0	\$ 1,240.00
G. Reimbursable Expenses								\$ 500.00	-	\$ 500.00
			10	52	28	-	8	\$ 2,000.00	98.0	\$ 12,360.00
Subtotal										
GRAND TOTAL										
		10	60	44	8	2	8	\$ 2,750.00		\$ 17,150.00