COUNCIL MEETING OF
September 26, 2006

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

Members of the Council:

SUBJECT: Community Development – Approve time extension of consulting services agreement for citywide traffic study

Expenditure: None

RECOMMENDATION

The Community Development Director recommends that the City Council execute an amendment to the existing Consulting Services Agreement (Contract # C2004-209) with RBF Consulting to extend its service to November 16, 2007 for the citywide traffic study.

Funding

No additional funding requested.

BACKGROUND AND ANALYSIS

On November 23, 2004, the City Council awarded a consulting services agreement in the amount of $430,404 to RBF to conduct the Citywide Traffic Study in conjunction with the General Plan update.

The objective of this study is to provide:

- Citywide comprehensive traffic study and traffic model;
- Evaluate the existing traffic operation;
- Provide support for the update of the Circulation Element of the City's General Plan;
- Forecast the growth related to near-term and long-term development in the City of Torrance and its impact on traffic operation and circulation; and
- Recommend mitigation measures for deficiencies identified in the Study.

As of now the following tasks have been completed:

- Traffic volumes (for holiday and non-holiday – typical weekday and weekend – 24hr and peak hours) have been obtained, analyzed and superimposed into various maps, such as Del Amo Fashion Center traffic

volume maps showing non-holiday and holiday data, weekday and weekend Average Daily Traffic counts (ADT), and peak hour turning movements counts and the corresponding Level-of-Service (LOS);

- The existing traffic volume, intersection geometry and existing right-of-way (ROW) for every intersection have been entered into "Traffix" to run the Traffic Model;
- All the traffic trips generated by the near-term development projects have been entered into Traffix and results have been tabulated;
- A preliminary review of the above deliverables has been completed by staff, Traffic Team and the Traffic Commission. Comments were given back to the consultant;
- Collection of Cut-Thru Traffic at the designated 18 locations has been collected. The data is being analyzed and superimposed onto a City map.

Several components of the RBF Consulting Scope of Work are dependant on the General Plan Update projections. Primary components such as the future condition traffic circulation model, Level-of-Service and suggested improvements are dependant on the long range projections of the proposed General Plan Update. As a companion item to the General Plan Update consultant services agreement amendment, staff is requesting that your Honorable Body concur with the amendment to the RBF Consulting consultant services agreement.

Respectfully submitted,

By _____
TED SEMAAN, Manager
Transportation Planning,
Development Engineering &
Records Division

CONCUR:

_____
JEFFERY W. GIBSON
Community Development Director

_____
LeROY J. JACKSON
City Manager

Attachments: A. Amendment to Agreement
B. Consulting Services Agreement - Contract # C2004-209

Attachment A

AMENDMENT TO AGREEMENT (C2004-209)

This Amendment to Agreement ("Amendment") is made and entered into as of _____, 2006, by and between the CITY OF TORRANCE, a municipal corporation ("CITY"), and RBF Consulting, a California corporation ("CONSULTANT").

RECITALS:

A. CITY and CONSULTANT entered into an Agreement as of November 23, 2004, whereby CONSULTANT agreed to conduct a citywide comprehensive traffic study.

B. The CITY is satisfied with the work performed by CONSULTANT.

C. The CITY and CONSULTANT wish to extend the term of the Agreement through November 16, 2007.

AGREEMENT:

1. Paragraph 2 entitled "**TERM**" is amended to read in its entirety as follows:

   "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 November 16, 2007."

2. In all other respects, the Agreement entered into as of November 23, 2004, between CITY and CONSULTANT are ratified and reaffirmed and are in full force and effect.

CITY OF TORRANCE,
a Municipal Corporation

_____
Frank Scotto, Mayor

ATTEST:

_____
Sue Herbers, City Clerk

APPROVED AS TO FORM:

John L. FELLOWS III
City Attorney

By:_____
Heather K. Whitham
Deputy City Attorney

RBF Consulting,
a California corporation

By: _____
Bob Matson,
Senior Associate

CONSULTING SERVICES AGREEMENT

Attachment B

This CONSULTING SERVICES AGREEMENT ("Agreement") is made and entered into as of November 23, 2004 (the "Effective Date"), by and between the CITY OF TORRANCE, a municipal corporation ("CITY"), and RBF Consulting, a California Corporation ("CONSULTANT").

RECITALS:

A. The CITY wishes to retain the services of an experienced and qualified CONSULTANT to Conduct a citywide comprehensive traffic study.

B. In order to obtain the desired services, the CITY has circulated its Request for Proposal for Insert citywide comprehensive traffic study, RFP No. RFP B2004-38. (the "RFP").

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

AGREEMENT:

1. 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 November 16, 2006.

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 $430,404.00 ("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.

C2004-2009

COPY

4. TERMINATION OF AGREEMENT

A. Termination by CITY for Convenience.

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

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

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

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

B. Termination for Cause.

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

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

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

C. Termination for Breach of Law.

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

5. FORCE MAJEURE

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

6. RETENTION OF FUNDS

CONSULTANT authorizes the CITY to deduct from any amount payable to CONSULTANT (whether or not arising out of this Agreement) any amounts the payment of which may be in dispute or that are necessary to compensate the CITY for any losses, costs, liabilities, or damages suffered by the CITY, and all amounts for which the CITY may be liable to third parties, by reason of CONSULTANT's negligent 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

Ted Semaan 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:

Bob Matson, Senior Associate

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, defend, 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 caused by CONSULTANT. The obligation to indemnify, defend and hold harmless includes, but is not limited to, any liability or expense, including reasonable defense costs and legal fees, arising from the negligent acts or omissions, or willful misconduct of CONSULTANT, its officers, employees, agents, subcontractors or vendors. It is further agreed, CONSULTANT's obligations to indemnify, defend and hold harmless will apply 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 solely 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. In the event of any dispute between CONSULTANT and CITY, as to whether liability arises from the sole negligence of the CITY or its officers, employees, agents, subcontractors or vendors, CONSULTANT will be obligated to pay for CITY's defense until such time as a final judgment has been entered adjudicating the CITY as solely negligent. CONSULTANT will not be entitled in the event of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

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 designated volunteers 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: RBF Consulting
14725 Alton Parkway
Irvine, Ca 92618

Fax: 949-472-3505

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

Dan Walker, Mayor

RBF Consulting

By:
Bob Matson, Senior Associate

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
3031 Torrance Blvd.
Torrance, CA 90503

RFP B2004-38

Request for Proposal for City-wide Comprehensive Traffic Study

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PROPOSAL SUBMITTAL INFORMATION

PLACE: CITY OF TORRANCE
Office of the City Clerk
3031 Torrance Blvd.
Torrance, CA 90503

DEADLINE: 2:00 PM

DATE: Thursday, September 23, 2004

The ***ORIGINAL, PLUS TWO (3) COPIES*** of the PROPOSAL must be submitted in a sealed envelope and marked with the RFP number and title.

PROPOSALS MAY BE MAILED OR HAND DELIVERED. NO FAXED PROPOSALS WILL BE ACCEPTED. LATE PROPOSALS WILL NOT BE ACCEPTED. Proposals will be opened and publicly read aloud at 2:15 P.M. on the same date in the Council Chambers, Torrance City Hall.

All responses must include the following components:

- Proposer's Response (Section III of this document). You must submit your response on the forms provided. (If additional space is required, please attach additional pages.)
- Proposer's Affidavit (Attachment 1)

Any questions regarding this proposal should be directed to:

Ted Semaan,
Community Development Department
(310) 618-5990

During the proposal period, all questions must be posed in writing and mailed, e-mailed or faxed by 2:00 P.M. Thursday September 2, 2004. No verbal responses will be given. Written responses to all substantive questions will be mailed, e-mailed or faxed to all firms that received this RFP.

CITY OF TORRANCE
3031 Torrance Blvd.
Torrance, CA 90503

RFP B2004-38

Request for Proposal for City-Wide Comprehensive Traffic Study

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SECTION I RFP INSTRUCTIONS AND INFORMATION

Notice is hereby given that sealed proposals will be received in the office of the City Clerk, City Hall, 3031 Torrance Boulevard, Torrance, CA, until 2:00 p.m. on Thursday, September 23, 2004 and will be opened and publicly read aloud at 2:15 p.m. on the same date in the Council Chambers, Torrance City Hall. You are invited to be present at the opening of proposals. An original and three copies of each proposal must be submitted in a sealed envelope and clearly marked: "PROPOSAL FOR CITY WIDE COMPREHENSIVE TRAFFIC STUDY RFP B2004-38.

Proposal Form:

The proposal must be made on the form provided for that purpose, enclosed in a sealed envelope, and marked "Proposal for City-wide Comprehensive Traffic Study, RFP B2004-38" and addressed to the City Clerk, City of Torrance, 3031 Torrance CA. 90503. If the proposal is made by an individual, it must be signed by that individual, and an address, telephone (and fax number if available) must be given. If made by a business entity, it must be signed by the person(s) authorized to execute agreements and bind the entity to contracts. A full business address, telephone (and fax number if available) must be given. No telegraphic, fax or telephonic proposal will be considered.

Blank spaces in the proposal form must be filled in, using ink, indelible pencil, or typewriter, and the text of the proposal form must not be changed. No additions to the form may be made. Any unauthorized conditions, limitations, or provisos attached to a proposal will render it informal and may cause its rejection. Alterations by erasure or interlineations must be explained or noted in the proposal form over the signature of the Proposer.

Reservation:

The City reserves the right to revise or amend these specifications prior to the date set for opening proposals. Revisions and amendments, if any, will be announced by an addendum to this RFP. If the revisions require additional time to enable Proposers to respond, the City may postpone the opening date accordingly. In such case, the addendum will include an announcement of the new opening date.

All addenda must be attached to the proposal. Failure to attach any addendum may render the proposal non-responsive and cause it to be rejected.

The City Council reserves the right to reject any and all proposals received, to take all proposals under advisement for a period not to exceed ninety (90) days after the date of the opening, to waive any informality on any proposal, and to be the sole judge of the relative merits of the material and or service

mentioned in the respective proposals received. The City reserves the right to reject any proposal not accompanied with all data or information required.

This Request for Proposal (RFP) does not commit the City to award a contract or to pay any cost incurred in the preparation of a proposal. All responses to this RFP document become the property of the City of Torrance.

Affidavit:

An affidavit form is enclosed. It must be completed signifying that the proposal is genuine and not collusive or made in the interest or on behalf of any person not named in the proposal, that the Proposer has not directly or indirectly induced or solicited any other Proposer to put in a sham proposal or any other person, firm, or corporation to refrain from proposing, and that the Proposer has not in any manner sought by collusion to secure for itself an advantage over any other Proposer. Any proposal submitted without an affidavit or in violation of this requirement will be rejected.

The Contract:

The Proposer to whom the award is made will be required to enter into a written contract with the City of Torrance, in the form attached. A copy of this RFP will be attached to and become a part of the contract.

Standards for Evaluation of Proposals:

The City staff will use the following priorities, as well as pricing, in determining which proposal best meets the needs of the City. The City must be the sole determiner of suitability to the City's needs.

Proposals will be rated according to their completeness and understanding of the City's needs, conformance to the requirements of the technical specifications, prior experience with comparable proposals, financial capabilities, delivery, and cost.

CITY OF TORRANCE
3031 Torrance Blvd.
Torrance, CA 90503

RFP B2004-38.

Request for Proposal for City-wide Comprehensive Traffic Study

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SECTION II TECHNICAL REQUIREMENTS

Introduction:

The following technical requirements describe the request for bids for City-wide comprehensive traffic Study.

This RFP is intended to be as descriptive as possible. However, the consultant may not take advantage of omissions or oversights in this document. Consultant must supply products and services that meet or exceed the requirements of this RPF. In the event of a dispute over performance, the needs of the City of Torrance will govern.

Project Description:

The objective of this study is to provide a city-wide comprehensive traffic study and traffic model, and to update the Circulation Element of the City of Torrance's General Plan. Staff has summarized the general requirements and the scope of work. However, the consultant will work with the staff to further clarify and define different elements of this study.

General Requirements:

The City of Torrance is interested in contracting with a qualified consulting firm or team to city-wide comprehensive traffic study and traffic model, and to update the Circulation Element of the City of Torrance's General Plan. The general data and information needed are:

- Updating average daily traffic information at approximately 200 locations, including weekends;
- Updating intersection turning movements at approximately 200 locations, including weekends;
- Providing intersection level of service LOS, utilizing both HCM and ICU method;
- Analyzing these data and updating related maps and graphs with the new counts , including but not limited to ADT, Turning Movements, Weekend ADT, directional traffic, day time ADT Vs night time ADT; LOS analysis at each intersection identifying critical movements and delay for each movements for the intersections with LOS of D or worse. Map deliverables will include ESRI ArcGIS 9 map layout files and all applicable GIS data layers in a format and coordinate system compatible with the City's GIS.
- Comparison of the existing ADT and intersection LOS with the past ADT and LOS (to 1992,96, and 99);
- Updating requisite Congestion Management Program (CMP) counts at 10 locations (see attachment for specific CMP requirements);
- Incorporate existing traffic distribution from related projects and utilize in calculating a LOS with these trips;

- Once all the new intersection LOS (with approved project) has been calculated, identify physical system improvements to mitigate intersections with the LOS of D or worse. This data shall be both in text and graphic, including but not limited to lane configurations, lane width, physical medians, street capacity, existing ROW, needed ROW, and signal synchronization;
- Identifying City's ITS program and system and updating related maps such as interconnect, Opticom, video camera, location of existing and recommended masters and signal sub-system;
- Identifying the City of Torrance criteria for significance for the purpose of evaluating development impacts;
- Utilizing above data and data from other agencies such as SCAG to create two models for the City of Torrance: 1) Travel Demand Model, and 2) Traffic Impact Model;
- Updating Federal and State legislations and programs;
- Must be available for a pre-job meeting after award of contract;
- Must be available for a minimum of 24 meetings (including City Council, and public meetings);
- Must be able to complete project by October 2005.

In addition to the above tasks, consultant shall provide a separate schedule, scope of work and cost estimate to analyze the "Holiday traffic" and "out side traffic". The data collected shall include but not limited to traffic and turning movements count at key intersections and key driveways to the mall, post office and other location identified by staff.

Work Performed by consultant:

1. Collect one week day, including weekend machine counts on arterial roadways within the City of Torrance. These should be two-way, 24-hour (1 day) counts that can distinguish vehicles by axle type. There would be approximately 200 counting locations. Data should be reported for 15-minute intervals by direction of travel. Data should also be summarized by one-hour, 24-hour, mid-week, and weekends by direction in a flow map format. Consultant will provide the equipment necessary to conduct these counts.
2. Collect one week day, including weekend signalized intersection counts for 15-minute intervals during morning, noon and evening peak periods at 200 locations; sketch intersection approach lanes and signal phasing information; calculate existing levels of service utilizing the Highway Capacity Manual (HCM) ***AND*** the Intersection Capacity Utilization (ICU). *For calculating Level of Service (LOS) at the 10 CMP locations, consultant will just use the requisite ICU methodology as specified by the CMP.
3. A complete inventory of existing, funded, and planned transit services for the relevant study area will be compiled. Data will be collected for each service offered, including the following:

   Fixed Route Service
   - Description of routes: routing, hours of operation, frequency
   - Ridership and service levels,
   - Fare structure

   Paratransit Services
   - Service route maps
   - Schedule of operation
   - Service route description
   - Number of vehicles
   - Ridership characteristics
   - Fare structure

4. Collect the following roadway characteristics: Roadway lane configurations, roadway channalization, roadway right-of-way, and roadway parking data. City will provide the following road information to the consultant: functional classifications, traffic signal locations, posted speed limits, and planned or programmed roadway improvements.
5. Data will also be collected from Caltrans for state facilities including traffic volume data, signalization plans, geometric data, State Transportation Improvement Program (STIP) projects for state highways, and any information on longer range plans that are not included in the TIP,
6. All data collection, analysis, and reporting, including the 10 CMP locations, will be done in accordance with the requirements of the LACMTA guideline for annual highway monitoring in the CMP (see attached Appendix A Guidelines for Biennial Highway Monitoring).
7. Specifically on the CMP counts, should there be a variation of more than 0.08 in the volume-to-capacity calculation over the two-day period of intersection counts, third day counts will be necessary in one of the v/c ratios is greater than 0.09. This is in keeping with the CMP guidelines for annual highway monitoring, and the cost of the contingency should be figured into the total cost of the project.
8. All data must be reported in written form, as well as electronically. Three written copies of the final documentation and report will be required. Data and LOS calculations for the 10 CMP counting stations must be presented separately, in written form (4 copies plus one camera-ready original) and on a diskette. A full-size (24"x36") traffic flow map, three 8"x10" maps, as well as the electronic map shall be provided.
9. All counts, analysis, documentation, reporting, and traffic flow maps must be completed no later than April 20, 2005.
10. In order to set up the two models, please identify the tasks, time-line for each task, and the cost associated for each tasks that are above and beyond the City's scope of work;
11. Assist the City to obtain licenses, and soft wares needed for these models;
12. Provide training and trouble shouting for these two models;
13. The deliverable must be in a format that can be presented to the public, if it is chooses so by the City of Torrance (tables and maps and graphs, etc);
14. Identify tasks with deliverable; time given to City staff to review and comment;
15. Identify materials needed from the City for each tasks (if applicable);
16. Prepare meeting minutes after each meeting;

Additional Services:

The City may request that the consultant perform additional services. These are tasks that are not specifically identified, and will be negotiated at a later time.

Proposal Submittals:

Each proposal must contain:

1. A detailed schedule and work plan showing all tasks and methods for completion.
2. A description of the experience and qualifications of individuals involved in the carrying out of the above tasks. This section should include the designation of a project manager who will be responsible for meeting all requirements and deadlines.
3. A statement of insurance and indemnification. A minimum of $1,000,000 in insurance must be carried by any firm or individuals to conduct this project.
4. An estimate of the number of person-hours and billing rates for each member of the project team.
5. A statement of cost by task, as well as total project cost.
6. A list of references, including names of contacts and phone numbers

CITY OF TORRANCE
3031 Torrance Blvd.
Torrance, CA 90503

RFP B2004-38

Request for Proposal for City-wide Comprehensive Traffic Study

SECTION III PROPOSAL

FAILURE TO COMPLETE ALL ITEMS IN THIS SECTION MAY INVALIDATE PROPOSAL.

In accordance with your "Request for Proposal", the following proposal is submitted to the City of Torrance.

Proposal Submitted By:

RBF Consulting
Name of Company

14725 Alton Parkway
Address

Irvine, CA 92618
City/State/Zip Code

Bob Matson/Senior Associate
Printed Name/Title

949 472-3505 / 949 837-8007
Telephone Number/Fax Number

Form of Business Organization:

Please indicate the following (check one);

Corporation x Partnership _____ Sole Proprietorship _____

Other: _____

Business History:

How long have you been in business under your current name and form of business organization?

3 years

If less than three (3) years and your company was in business under a different name, what was that name?

Robert Bein, William Frost & Associates

Contact for Additional Information:

Please provide the name of the individual at your company to contact for any additional information

Bob Matson
Name

Senior Associate
Title

949 472-3505 / 949 837-8007
Telephone Number/Fax Number

Addenda Received:

Please indicate addenda information you have received regarding this proposal:

Addendum No. ____ Date Received: ____
Addendum No. ____ Date Received: ____
Addendum No. ____ Date Received: ____
Addendum No. ____ Date Received: ____

____ No Addenda received regarding this proposal.

Payment Terms:

Are you proposing any discounts for early payments?

Yes ____ No x

If yes, what are your discounted invoice terms? ____

Delivery:

What is the lead time for delivery ?. "See Schedule" days/weeks

References:

Please supply the names of companies/agencies for whom you recently supplied comparable goods or services as requested in this RFP.

Name of Company/Agency	Address	Person to contact/Telephone No.
City of Beverly Hills	455 N. Rexford Dr. Beverly Hills, CA 90210	David Lightner 310 285-1000

City of Laguna Beach 505 Forest Ave, Laguna Beach 92651 Monica Tuchscher 949 497-0745

Name of Company/Agency Address Person to contact/Telephone No.

City of Camarillo 601 Carmen Avenue Camarillo, CA 93010 Tom Fox 805 388-5355

Name of Company/Agency Address Person to contact/Telephone No.

Costs:

Additional costs (please specify) $ _____

$ _____

Grand Total

$ See fee estimate

Proposer must complete each item with either a check mark to indicate that the item being proposed is exactly as specified, or enter a description in the Proposer's comments column to indicate any deviation from the specifications of the item being proposed.

SERVICE SPECIFICATION COLUMN	PROPOSER'S COMMENTS COLUMN

Submittals: Please indicate that the following are included with your proposal:

Submittal Requirements	Check here if included:

ATTACHMENT 1

STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

PROPOSER'S AFFIDAVIT

Bob Matson being first duly sworn, deposes and says:

1. That he/she is the Senior Associate (Title of Office) of RBF Consulting (Name of Company) hereinafter called "Proposer", who has submitted to the City of Torrance a proposal for City-Wide Comprehensive Traffic Study (Title of RFP);

2. That the proposal is genuine; that all statements of fact in the proposal are true;

3. That the proposal was not made in the interest or behalf of any person, partnership, company, association, organization or corporation not named or disclosed;

4. That the Proposer did not, directly or indirectly, induce solicit or agree with anyone else to submit a false or sham proposal, to refrain from proposing, or to withdraw his proposal, to raise or fix the proposal price of the Proposer or of anyone else, or to raise or fix any overhead, profit or cost element of the Proposer's price or the price of anyone else; and did not attempt to induce action prejudicial to the interest of the City of Torrance, or of any other Proposer, or anyone else interested in the proposed contract;

5. That the Proposer has not in any other manner sought by collusion to secure for itself an advantage over the other Proposer or to induce action prejudicial to the interests of the City of Torrance, or of any other Proposer or of anyone else interested in the proposed contract;

6. That the Proposer has not accepted any proposal from any subcontractor or materialman through any proposal depository, the bylaws, rules or regulations of which prohibit or prevent the Proposer from considering any proposal from any subcontractor or materialman, which is not processed through that proposal depository, or which prevent any subcontractor or materialman from proposing to any contractor who does not use the facilities of or accept proposals from or through such proposal depository;

7. That the Proposer did not, directly or indirectly, submit the Proposer's proposal price or any breakdown thereof, or the contents thereof, or divulge information or data relative thereto, to any corporation, partnership, company, association, organization, proposal depository, or to any member or agent thereof, or to any individual or group of individuals, except to the City of Torrance, or to any person or persons who have a partnership or other financial interest with said Proposer in its business.

8. That the Proposer has not been debarred from participation in any State or Federal works project.

Dated this 22 day of September, 2004.

(Proposer Signature)

Senior Associate
(Title)

STATEMENT OF INSURANCE 7

RBF has general liability insurance in the amount of $4,000,000. RBF's Professional Liability (Errors and Omissions) amounts to $3,000,000. RBF also carries automobile liability, excess liability, worker's compensation and employer's liability. Further information and/or certificates of insurance will be provided by RBF, as requested by the City.

EXHIBIT B

PROPOSAL

[To be attached]

CITY OF TORRANCE CITYWIDE COMPREHENSIVE ANALYSIS

RBF will prepare a comprehensive traffic study to develop an assessment of current and future traffic conditions in the City of Torrance. As part of the comprehensive analysis, RBF will develop a Traffix-based model for the City of Torrance to analyze existing and forecast future year traffic conditions.

The traffic study will analyze and document the existing operation the City roadway circulation system as well as forecast near-term conditions traffic conditions and long-term traffic conditions assuming buildout of the City General Plan. Mitigation measures will be recommended for deficiencies identified in the analysis based on City of Torrance performance criteria.

Existing Traffic Data Collection ($197,230, November 2004 – May 2005)

As part of the analysis, RBF will count up to two hundred (200) study intersections during the following four time periods:

- Weekday a.m. peak period (7:00 a.m. to 9:00 a.m.);
- Weekday mid-day peak period (11:00 a.m. to 1:00 p.m.);
- Weekday p.m. peak period (4:00 p.m. to 6:00 p.m.); and
- Weekend mid-day peak period (11:00 a.m. to 1:00 p.m.).

Citywide intersection count data will be collected on a typical weekday (Tuesday, Wednesday, or Thursday) or on a typical weekend (Saturday, or Sunday) with traffic data collection prohibited during the Winter Holiday season (November 22, 2004 through January 9, 2005). Weather-permitting, RBF expects traffic data collection to occur over an approximate five-month period due to the large study area size as well as the upcoming Holiday season when collection must temporarily stop.

Approximately 40-percent of the studied intersections assumed to be major intersections requiring additional counting staff to collect vehicle movement count data. This scope of work assumes intersection traffic counts will not include vehicle classification.

Additionally, RBF will count up to one-hundred and sixty (160) roadway segments over a 24-hour period on a typical weekday and a typical weekend, using a typical machine data recorder that does not identify vehicle classification information. This scope of work assumes roadway segment traffic data collection including vehicle classification counts at up to forty (40) study segments, assuming the representative sampling methodology for vehicle classification counts. Representative sampling assumes the outside and inside lane (adjacent raised median) of a major arterial is studied using the classification machine data recorder (hose count equipped for axle information) and application of axle percentage information to the lanes not directly studied.

Roadway segment data collection will be prohibited during the Winter Holiday season (November 22, 2004 through January 9, 2005). The precise locations of traffic counts will be identified based on discussions with City of Torrance staff.

During the upcoming Winter Holiday season, intersection and roadway/driveway traffic count data will be collected in the vicinity of the Del Amo Mall. As part of the Winter Holiday season analysis, RBF will count up to thirty-five (35) study intersections during the following three time periods:

- Weekday mid-day peak period (11:00 a.m. to 1:00 p.m.);
- Weekday p.m. peak period (4:00 p.m. to 6:00 p.m.); and
- Weekend mid-day peak period (11:00 a.m. to 1:00 p.m.).

Additionally, as part of the Winter Holiday season analysis, RBF will count up to fifteen (15) roadway/driveway segments over a 24-hour period on a weekday and weekend. This scope of work assumes Winter Holiday season intersection and roadway/driveway segment traffic data collection will not include vehicle classification. The precise locations of traffic counts will be identified based on discussions with City of Torrance staff.

Winter Holiday intersection and roadway count data will be collected on a typical Holiday weekday (Tuesday, Wednesday, or Thursday) and on a typical Holiday weekend (Saturday, or Sunday) during the following three weeks:

- December 6-12;
- December 13-19; and
- December 20-26.

While traffic count data is collected, RBF will visit each study intersection location to identify intersection lane geometry and control type (signal, stop-control, or yield control). The study will identify operations, and phasing at signalized intersections to establish baseline information for inclusion in the intersection analysis. Additionally, study roadway segments will be surveyed to identify the number of roadway lanes, median types (raised median, painted median, continuous left-turn lane, etc.). The analysis will identify posted speed limits and restrictions of on-street parking for each roadway segment included in the traffic study.

Existing Conditions Citywide Traffic Model ($9,550, March 2005 – June 2005)

RBF will prepare a Traffix-based model to analyze existing traffic conditions at the study intersections. The Traffix model allows for detailed analysis of one or multiple intersections using either the Highway Capacity Manual (HCM) methodology or the Intersection Capacity Utilization (ICU) methodology. Intersection analysis will incorporate existing conditions information such as the lane geometry, control type, and traffic volumes.

Existing Conditions Intersection Level of Service Analysis ($5,100, April 2005 – June 2005)

The existing conditions analysis will document the operation of the study intersections using both the HCM and ICU methodologies. Based on City of Torrance established performance criteria, the existing conditions analysis will identify deficient intersection operation for both the HCM and the ICU methodologies; improvements will be recommended based on the HCM methodology to satisfy City performance criteria.

The analysis will document forecast improved existing conditions LOS after application of any recommended improvements. Recommended improvements may include additional lanes, installation of free-right-turn lane, on-street parking restrictions, or traffic signal synchronization. This scope of work assumes the City of Torrance will provide RBF with right-of-way and "as built" plans so RBF can assess the feasibility of recommended improvements. Based on the "as built" plans provided by the City, RBF will prepare conceptual illustrations (not engineering plans) depicting the recommended improvements.

Existing Conditions Roadway ADT Volumes Analysis ($4,900, April 2005 – June 2005)

The existing conditions analysis will document current ADT volumes on the study roadway segments using numerical postings on graphics illustrating the study area. The ADT data will be broken into daytime ADT (6:00 a.m. to 6:00 p.m.) and nighttime ADT data (6:00 p.m. to 6:00 a.m.). The existing conditions analysis will include an evaluation of growth in roadway segment average daily trips (ADT) volumes between existing (2004/2005) volumes and historic volumes provided by City staff for the years 1992, 1996, and 1999.

Intelligent Transportation Systems Evaluation ($4,350, February 2005 – April 2005)

The City of Torrance intelligent transportation systems (ITS) program is utilized to provide an efficient transportation system that will reduce congestion, improve mobility, maximize traffic flow and improve the quality of life in the community. This scope of work assumes City staff will provide RBF with City of Torrance ITS program master plan data as well as County of Los Angeles ITS program master plan data which will be incorporated into one concise document or section of the analysis report.

Near-Term Approved Projects Traffic Conditions ($3,760, April 2005 – June 2005)

The analysis will document traffic conditions for near-term conditions incorporating approved projects information and/or annual trend traffic growth rate factors provided by City staff. This scope of work assumes the near-term analysis will not be prepared for Holiday Season conditions. The traffic impact study will identify the number of daily and peak hour trips forecast to be generated by City of Torrance approved projects for weekday and weekend conditions, using trip generation rates contained in *Trip Generation (Institute of Transportation Engineers, 7th Edition, 2003)*, or other source as directed by the City.

Near-Term Conditions Citywide Traffic Model ($3,190, May 2005 – August 2005)

RBF will incorporate traffic associated with approved projects into a Traffix-based model to analyze near-term traffic conditions at the study intersections. The Traffix model allows for detailed analysis of one or multiple intersections using either the Highway Capacity Manual (HCM) methodology or the Intersection Capacity Utilization (ICU) methodology.

Near-Term Conditions Intersection Level of Service Analysis ($3,200, July 2005 – August 2005)

The near-term conditions analysis will document the operation of the study intersections using both the HCM and ICU methodologies. The near-term conditions analysis will identify deficient intersection operation for both the HCM and the ICU methodologies, and improvements will be recommended based on the HCM methodology to satisfy City of Torrance performance criteria.

The analysis will document forecast improved near-term conditions LOS after application of any recommended improvements. Recommended improvements may include additional lanes, installation of free-right-turn lane, on-street parking restrictions, or traffic signal synchronization. This scope of work assumes the City of Torrance will provide RBF with right-of-way and "as built" plans so RBF can assess the feasibility of recommended improvements. Based on the "as built" plans provided by the City, RBF will prepare conceptual illustrations (not engineering plans) depicting the recommended improvements.

Near-Term Conditions Roadway ADT Volumes Analysis ($1,400, July 2005 – August 2005)

The near-term conditions analysis will document the ADT volumes on the study roadway segments using numerical postings on graphics illustrating the study area.

Long-Term Cumulative Projects Traffic Conditions ($7,300, June 2005 – August 2005)

The analysis will document long-term traffic conditions based on Los Angeles County Congestion Management Program growth projections for the South Bay area, and/or by adding specific traffic growth projections available from Southern California Association of Governments (SCAG) projections for the Torrance area. Additionally, relevant long-range cumulative projects provided by the City of Torrance will be incorporated into the analysis. RBF understands the long-term traffic conditions analysis is tied to the overall General Plan updated and potential corresponding Land Use Element modification. This scope of work assumes the long-term analysis will not be prepared for Holiday Season conditions.

Long-Term Conditions Citywide Traffic Model ($3,190, August 2005 – September 2005)

RBF will incorporate traffic associated with long-range cumulative projects and SCAG long-range growth projections into the Traffix-based model to analyze long-term traffic conditions at the study intersections. The Traffix model allows for detailed analysis of one or multiple intersections using either the Highway Capacity Manual (HCM) methodology or the Intersection Capacity Utilization (ICU) methodology.

Long-Term Conditions Intersection Level of Service Conditions ($3,200, August 2005 – September 2005)

The long-term conditions analysis will document the operation of the study intersections using both the HCM and ICU methodologies. The long-term conditions analysis will identify deficient intersection operation for both the HCM and the ICU methodologies, and improvements will be recommended based on the HCM methodology to satisfy City of Torrance performance criteria.

The analysis will document forecast improved long-term conditions LOS after application of any recommended improvements. Recommended improvements may include additional lanes, installation of free-right-turn lane, on-street parking restrictions, or traffic signal synchronization. This scope of work assumes the City of Torrance will provide RBF with right-of-way and "as built" plans so RBF can assess the feasibility of recommended improvements. Based on the "as built" plans provided by the City, RBF will prepare conceptual illustrations (not engineering plans) depicting the recommended improvements.

Long-Term Conditions Roadway ADT Volumes Conditions ($1,400, August 2005 – September 2005)

The long-term conditions analysis will document the ADT volumes on the study roadway segments using numerical postings on graphics illustrating the study area.

CMP Analysis ($8,250, May 2005 – October 2005)

RBF will prepare an analysis of existing traffic conditions at up to ten (10) CMP study intersections in accordance with the *Guidelines for CMP Transportation Impact Analysis (2002 Congestion Management Program for Los Angeles County, Metropolitan Transportation Authority, June 2002).* The Congestion Management Program (CMP) analysis will be bound separately from other tasks identified in this scope of work for anticipated submittal to the Metropolitan Transportation Authority (MTA).

The CMP analysis will assess the existing traffic conditions during the a.m. peak hour and p.m. peak hour at the CMP study intersections. The analysis will document the existing operation of the CMP study intersections using the ICU analysis methodology, and detailed capacity and clearance information provided in Appendix A.6 of the CMP. The CMP target for intersection level of service (LOS) operation is LOS E or better. This scope of work assumes the City of Torrance will provide RBF with right-of-way and "as built" plans so RBF can assess the feasibility of recommended improvements. Based on the "as built" plans provided by the City, RBF will prepare conceptual illustrations (not engineering plans) depicting the recommended improvements.

If the analysis shows existing conditions deficiencies at the CMP study intersections based on CMP target for intersection LOS operation then improvements will be recommended in accordance CMP performance criteria. The analysis will document forecast improved existing conditions LOS after application of any recommended improvements at the CMP intersections.

Traffix Software Support ($5,580, September 2005 – December 2005)

RBF will provide instruction and support to City of Torrance staff to utilize the Traffix models prepared in this scope of work. RBF will work with City staff to build relationship with software vendor to identify costs associated with licensing, purchase, and maintenance of software on City computers. RBF staff will instruct selected City of Torrance staff at the RBF Center for Excellence for up to a total of thirty-two (32) hours to operate Traffix software. RBF will provide Traffix software troubleshooting support for up to sixteen (16) hours via telephone or email.

GIS Data Incorporation ($35,514, February 2005 – October 2005)

RBF will develop GIS data and maps supporting the traffic study for the City of Torrance. RBF's project approach is based on our extensive experience applying GIS technology to engineering planning, design, maintenance and inventory projects as well as GIS data automation projects. RBF staff will research, review, and examine the City's (and/or other agencies') available transportation source materials that may include as-builts, record drawings, and files. The City will provide RBF with access to records kept within City Hall. A topic of the kick-off meeting will be to identify several intersections that represent the types of data to be encountered across the 200 intersections to be included in the traffic study. The primary objective of this exercise is to create a prototype using the identified data sources and procedures. Another purpose is to provide City staff with a small amount of their data to test the database design and application needs. The pilot data will also demonstrate how the RBF prepared GIS data will be integrated with the City's system.

The City uses ESRI's ArcGIS software. Transportation segments and other system components will be defined in a manner that is compatible with the City's GIS specifications. Attributes will also be added per the City's specifications describing individual facilities. RBF will use the City's existing GIS base map as a foundation to develop new GIS features supporting the traffic study. RBF will meet with City staff to review the GIS database structure, data automation process and map layouts. This discussion allows RBF staff to create GIS data that is compatible with the City's GIS structure.

The automation of the transportation data to the ArcGIS format is accomplished through a well-organized series of steps starting with the transmittal of the existing digital documents from the City to RBF. RBF will log the receipt of the provided source materials. Attributes associated with each feature will also be collected using source documents and field collected information. The resulting transportation features are then processed through our quality control process, which includes both automated and manual checks of each feature. Automated checks will verify the connectivity of street segments and valid attribute values have been entered into the GIS database. RBF's quality control team will perform visual checks of hard copy plots. Transportation features shown on the hard copy plots will be compared to the provided source materials to check for completeness and cartographic presentation.

The automation will be performed utilizing AutoCAD, as a supplement to ESRI's ArcGIS products. AutoCAD will be used to review and perform clean-up needed to transfer the provided CAD linework to GIS features. Feature attributes will be entered into a database as described in the City's database design.

RBF will deliver ESRI coverages and/or shapefiles of the final transportation GIS data. During the project kick-off meeting we will discuss and determine the format of the final delivered GIS data.

Meetings ($18,530, November 2004 – October 2005)

RBF will attend up to thirteen (13) meetings at the City as part of the City-wide comprehensive traffic analysis project.

OPTIONAL TASK

Based on discussions with City staff, the following optional task is offered by RBF:

Identification of Pass-Through Traffic – Optional ($59,040, February 2005 – June 2005)

Pass-through traffic is defined as traffic with no destination within the City of Torrance. Pass-through traffic may enter the city at major arterials and via three interchanges with Interstate 405 (I-405). RBF will prepare a license-plate survey of vehicles entering and exiting the City of Torrance at up to fourteen (14) gateway sites. This scope of work assumes gateway sites are roadway segments at or near the City of Torrance border with adjacent Cities, or I-405 freeway on- and off-ramps. License-plate surveys will be conducted to record entering and exiting vehicular traffic at the gateway sites for the following four time periods:

- *Weekday a.m. peak period (7:00 a.m. to 9:00 a.m.);*
- *Weekday mid-day peak period (11:00 a.m. to 1:00 p.m.);*
- *Weekday p.m. peak period (4:00 p.m. to 6:00 p.m.); and*
- *Weekend mid-day peak period (11:00 a.m. to 1:00 p.m.).*

This scope of work assumes license-plate data will be collected at fourteen locations identified City of Torrance staff: Stationing staff-persons adjacent the roadway segment and recording the last four digits into a dictaphone will comprise the license-plate surveys. Transcribed data results will be post-processed by preparing a spreadsheet to cross-reference license-plate information to identify pass-through traffic that enters and exits the City during the same time period. It should be noted that determination of pass-through traffic is not expected to be conclusive since traffic may also enter and exit the City of Torrance via non-studied local or collector streets. It should be noted that analysis results will have a margin of error and are expected to provide an approximation of City pass-through traffic.

TRAFFIC SCOPE & FEE – TORRANCE CITYWIDE COMPREHENSIVE ANALYSIS

RBF will prepare a comprehensive traffic study to develop an assessment of current and future traffic conditions in the City of Torrance. As part of the comprehensive analysis, RBF will develop a Traffix-based model for the City of Torrance to analyze existing forecast future year traffic conditions.

The City of Torrance is located in the South Bay area of the Los Angeles Basin, and is bordered by the Cities of Redondo Beach, Lawndale, Gardena, Los Angeles, Lomita, Rolling Hills Estates, and Palos Verdes Estates.

Freeway access to the City of Torrance is provided via three interchanges with Interstate 405 (I-405). Caltrans designated State Routes within the City of Torrance include:

- Hawthorne Boulevard (designated SR-107);
- Western Avenue (designated SR-213)
- Artesia Boulevard (designated SR-91); and
- Pacific Coast Highway (designated SR-1).

The traffic study will analyze and document the existing operation the City roadway circulation system as well as forecast near-term conditions traffic conditions and long-term traffic conditions assuming buildout of the City General Plan. Mitigation measures will be recommended for deficiencies identified in the analysis based on City of Torrance performance criteria.

TASK 1 – PROJECT KICKOFF MEETINGS

RBF will meet with Planning Commissioners and/or City staff to finalize scope of work and establish priorities for the City-wide Comprehensive Traffic Study. RBF will prepare a graphic illustrating arterials highways within the City of Torrance and a preliminary list of study intersections and study roadway segments to be analyzed in the study. Coordination with City staff will finalize the study area for both typical and Holiday season traffic conditions analysis.

RBF will attend up to two meetings at the City of Torrance for project kickoff and to begin communication with key personnel to develop action items and exchange of necessary information. RBF will prepare meeting minutes to summarize key points, conclusions and to identify action items.

TASK 2 – EXISTING CONDITIONS

The analysis will document existing traffic conditions incorporating traffic collected over an approximate five-month period, commencing with the upcoming Holiday Season.

TASK 2a. Traffic Data Collection

This scope of work assumes the study area will consist of intersections and roadway segments within the City of Torrance.

Study Intersections

As part of the analysis, RBF will count up to two hundred (200) study intersections during the following four time periods:

- Weekday a.m. peak period (7:00 a.m. to 9:00 a.m.);
- Weekday mid-day peak period (11:00 a.m. to 1:00 p.m.);
- Weekday p.m. peak period (4:00 p.m. to 6:00 p.m.); and
- Weekend mid-day peak period (11:00 a.m. to 1:00 p.m.).

Citywide intersection count data will be collected on a typical weekday (Tuesday, Wednesday, or Thursday) or on a typical weekend (Saturday, or Sunday) with traffic data collection prohibited during the Winter Holiday season (November 22, 2004 through January 9, 2005). Weather-permitting, RBF expects traffic data collection to occur over an approximate five-month period due to the large study area as well as and the upcoming Holiday season when collection must temporarily stop.

This scope of work assumes approximately 40-percent of the studied intersections are major intersections requiring additional counting staff to collect vehicle movement count data. This scope of work assumes intersection traffic counts will not include vehicle classification.

Study Roadway Segments

Additionally, RBF will count up to one-hundred and sixty (160) roadway segments over a 24-hour period on a typical weekday and a typical weekend, using a typical machine data recorder that does not identify vehicle classification information.

This scope of work assumes roadway segment traffic data collection including vehicle classification counts at up to forty (40) study segments, assuming the representative sampling methodology for vehicle classification counts. Representative sampling assumes the outside and inside lane (adjacent raised median) of a major arterial is studied using the classification machine data recorder (hose count equipped for axle information) and application of axle percentage information to the lanes not directly studied.

Roadway segment data collection will be prohibited during the Winter Holiday season (November 22, 2004 through January 9, 2005). The precise locations of traffic counts will be identified based on discussions with City of Torrance staff.

Holiday Traffic Counts

As requested by the City of Torrance, this scope of work includes intersection and roadway/driveway data collection in the vicinity of the Del Amo Mall during the upcoming Winter Holiday season.

As part of the Winter Holiday season analysis, RBF will count up to thirty-five (35) study intersections during the following three time periods:

- Weekday mid-day peak period (11:00 a.m. to 1:00 p.m.);
- Weekday p.m. peak period (4:00 p.m. to 6:00 p.m.); and
- Weekend mid-day peak period (11:00 a.m. to 1:00 p.m.).

Additionally, as part of the Winter Holiday season analysis, RBF will count up to fifteen (15) roadway/driveway segments over a 24-hour period on a weekday and weekend. This scope of work assumes Winter Holiday season intersection and roadway/driveway segment traffic data collection will not include vehicle classification. The precise locations of traffic counts will be identified based on discussions with City of Torrance staff.

Winter Holiday intersection and roadway count data will be collected on a typical Holiday weekday (Tuesday, Wednesday, or Thursday) and on a typical Holiday weekend (Saturday, or Sunday) during the following three weeks:

- December 6-12;
- December 13-19; and
- December 20-26.

If additional counts are required based on City staff direction, counts can be accommodated for a fee in addition to the fee associated with this scope of work.

TASK 2b. Study Area Roadway Characteristics

While traffic count data is collected, RBF will visit each study intersection location to identify intersection lane geometry and control type (signal, stop-control, or yield control). The study will identify operations, and phasing at signalized intersections to establish baseline information for inclusion in the intersection analysis.

Additionally, study roadway segments will be surveyed to identify the number of roadway lanes, median types (raised median, painted median, continuous left-turn lane, etc.). The analysis will identify posted speed limits and restrictions of on-street parking for each roadway segment included in the traffic study.

RBF will prepare graphics showing study roadway segments functional classification, traffic signal locations, posted speed limits, and planned or programmed roadway improvements based on data provided by City staff.

TASK 2c. Existing Conditions Citywide Traffic Model

RBF will prepare a Traffix-based model to analyze existing traffic conditions at the study intersections. The Traffix model allows for detailed analysis of one or multiple intersections using either the Highway Capacity Manual (HCM) methodology or the Intersection Capacity Utilization (ICU) methodology. Intersection analysis will incorporate existing conditions information such as the lane geometry, control type, and traffic volumes.

TASK 2d. Existing Conditions Intersection Level of Service

The existing conditions analysis will document the operation of the study intersections using both the HCM and ICU methodologies; it should be noted that the HCM and ICU methodologies might result in varying level of service (LOS) grades at the same intersection due to variances in the analysis methodology type. Based on City of Torrance established performance criteria, the existing conditions analysis will identify deficient intersection operation for both the HCM and the ICU methodologies; improvements will be recommended based on the HCM methodology to satisfy City performance criteria. The analysis will document forecast improved existing conditions LOS after application of any recommended improvements. Recommended improvements may include additional lanes, installation of free-right-turn lane, on-street parking restrictions, or traffic signal synchronization. This scope of work assumes the City of Torrance will provide RBF with right-of-way and "as built" plans so RBF can assess the feasibility of recommended improvements. Based on the "as built" plans provided by the City, RBF will prepare conceptual illustrations (not engineering plans) depicting the recommended improvements.

TASK 2e. Existing Conditions Roadway ADT Volumes

The existing conditions analysis will document current ADT volumes on the study roadway segments using numerical postings on graphics illustrating the study area. The ADT data will be broken into daytime ADT (6:00 a.m. to 6:00 p.m.) and nighttime ADT data (6:00 p.m. to 6:00 a.m.). The existing conditions analysis will include an evaluation of growth in roadway segment average daily trips (ADT) volumes between existing (2004/2005) volumes and historic volumes provided by City staff for the years 1992, 1996, and 1999.

TASK 2f. Intelligent Transportation Systems Evaluation

The City of Torrance intelligent transportation systems (ITS) program is utilized to provide an efficient transportation system that will reduce congestion, improve mobility, maximize traffic flow and improve the quality of life in the community. Additionally, the ITS program can be used to monitor traffic conditions and provide unobstructed flow of emergency response vehicles. This scope of work assumes City staff will provide RBF with City of Torrance ITS program master plan data as well as County of Los Angeles ITS program master plan data which will be incorporated into one concise document or section of the analysis report.

Additional ITS program tasks identified by City staff can be accommodated for a fee in addition to the fee associated with this scope of work.

TASK 2g. Meetings

RBF will attend up to four meetings to coordinate and prepare report tasks identified as part of Task 2. RBF will prepare meeting minutes to summarize key points, conclusions and to identify action items.

TASK 3 – NEAR-TERM CONDITIONS

The analysis will document traffic conditions for Near-Term Conditions incorporating approved projects information and/or annual trend traffic growth rate factors provided by City staff. This scope of work assumes the near-term analysis will not be prepared for Holiday Season conditions.

Task 3a. Near-Term Approved Projects Traffic

The traffic impact study will identify the number of daily and peak hour trips forecast to be generated by City of Torrance approved projects for weekday and weekend conditions, using trip generation rates contained in *Trip Generation (Institute of Transportation Engineers, 7th Edition, 2003)*, or other source as directed by the City. Assumptions regarding project trip generation will be reviewed and approved by City staff prior to inclusion into the analysis.

The traffic study will utilize forecast trip distribution of approved projects-generated trips provided by City staff from available technical analyses. The analysis will include graphics showing forecast approved projects-generated daily and peak hour trips assignment on the study intersections and roadway segments.

Task 3b. Near-Term Conditions Citywide Traffic Model

RBF will incorporate traffic associated with approved projects into the Traffix-based model to analyze near-term traffic conditions at the study intersections. The Traffix model allows for detailed analysis of one or multiple intersections using either the Highway Capacity Manual (HCM) methodology or the Intersection Capacity Utilization (ICU) methodology.

Task 3c. Near-Term Conditions Intersection Level of Service

The near-term conditions analysis will document the operation of the study intersections using both the HCM and ICU methodologies; it should be noted that the HCM and ICU methodologies might result in varying level of service (LOS) grades at the same intersection due to variances in methodology type. The near-term conditions analysis will identify deficient intersection operation for both the HCM and the ICU methodologies, and improvements will be recommended based on the HCM methodology to satisfy City of Torrance performance criteria. The analysis will document forecast improved near-term conditions LOS after application of any recommended improvements. Recommended improvements may include additional lanes, installation of free-right-turn lane, on-street parking restrictions, or traffic signal synchronization. This scope of work assumes the City of Torrance will provide RBF with right-of-way and "as built" plans so RBF can assess the feasibility of recommended improvements. Based on the "as built" plans provided by the City, RBF will prepare conceptual illustrations (not engineering plans) depicting the recommended improvements.

Task 3d. Near-Term Conditions Roadway ADT Volumes

The near-term conditions analysis will document the ADT volumes on the study roadway segments using numerical postings on graphics illustrating the study area.

TASK 3e. Meetings

RBF will attend up to two meetings to coordinate and prepare report tasks identified as part of Task 3. RBF will prepare meeting minutes to summarize key points, conclusions and to identify action items.

TASK 4 – LONG-TERM CONDITIONS

The analysis will document long-term traffic conditions based on Los Angeles County Congestion Management Program growth projections for the South Bay area, and/or by adding specific traffic growth projections available from Southern California Association of Governments (SCAG) projections for the Torrance area. Additionally, relevant long-range cumulative projects provided by the City of Torrance will be incorporated into the analysis. RBF understands the long-term traffic conditions analysis is tied to the overall General Plan updated and potential corresponding Land Use Element modification. This scope of work assumes the long-term analysis will not be prepared for Holiday Season conditions.

Task 4a. Long-Term Cumulative Projects Traffic

The traffic impact study will identify the number of daily and peak hour trips forecast to be generated by City of Torrance in the long-range horizon year, including relevant cumulative projects and SCAG growth rate projections for weekday and weekend conditions, using trip generation rates contained in *Trip Generation (Institute of Transportation Engineers, 7th Edition, 2003)*, or other source as directed by the City. Assumptions regarding project trip generation will be reviewed and approved by City staff prior to inclusion into the analysis.

The traffic study will utilize forecast trip distribution of long-range cumulative projects-generated trips provided by City staff. The analysis will include graphics showing forecast cumulative projects-generated daily and peak hour trips assignment on the study intersections and roadway segments.

Task 4b. Long-Term Conditions Citywide Traffic Model

RBF will incorporate traffic associated with long-range cumulative projects and SCAG long-range growth projections into the Traffix-based model to analyze long-term traffic conditions at the study intersections. The Traffix model allows for detailed analysis of one or multiple intersections using either the Highway Capacity Manual (HCM) methodology or the Intersection Capacity Utilization (ICU) methodology.

Task 4c. Long-Term Conditions Intersection Level of Service

The long-term conditions analysis will document the operation of the study intersections using both the HCM and ICU methodologies; it should be noted that the HCM and ICU methodologies might result in varying level of service (LOS) grades at the same intersection due to variances in methodology type. The long-term conditions analysis will identify deficient intersection operation for both the HCM and the ICU methodologies, and improvements will be recommended based on the HCM methodology to satisfy City of Torrance performance criteria. The analysis will document forecast improved long-term conditions LOS after application of any recommended improvements. Recommended improvements may include additional lanes, installation of free-right-turn lane, on-street parking restrictions, or traffic signal synchronization. This scope of work assumes the City of Torrance will provide RBF with right-of-way and "as built" plans so RBF can assess the feasibility of recommended improvements. Based on the "as built" plans provided by the City, RBF will prepare conceptual illustrations (not engineering plans) depicting the recommended improvements.

Task 4d. Long-Term Conditions Roadway ADT Volumes

The long-term conditions analysis will document the ADT volumes on the study roadway segments using numerical postings on graphics illustrating the study area.

TASK 4e. Meetings

RBF will attend up to three meetings to coordinate and prepare report tasks identified as part of Task 4. RBF will prepare meeting minutes to summarize key points, conclusions and to identify action items.

TASK 5 – CMP ANALYSIS

RBF will prepare an analysis of existing traffic conditions at up to ten (10) CMP study intersections in accordance with the *Guidelines for CMP Transportation Impact Analysis (2002 Congestion Management Program for Los Angeles County, Metropolitan Transportation Authority, June 2002).* The Congestion Management Program (CMP) analysis will be bound separately from other tasks identified in this scope of work for anticipated submittal to the Metropolitan Transportation Authority (MTA).

TASK 5a. Los Angeles County CMP Traffic Data Collection

This scope of work assumes the CMP analysis study area will include ten (10) CMP intersections to satisfy the Los Angeles County CMP. The precise location of CMP intersections will be identified based on discussions with City of Torrance staff.

This scope of work assumes traffic data is available for the ten CMP study intersections for one day as identified in Task 2a. (*Traffic Data Collection*). The CMP requires three days of traffic data (depending upon consistency of count data) for CMP study intersections; therefore, RBF will count the ten CMP study intersections during the following two time periods for an additional two typical weekdays:

- Weekday a.m. peak period (7:00 a.m. to 9:00 a.m.); and
- Weekday p.m. peak period (4:00 p.m. to 6:00 p.m.).

CMP intersection count data will be collected on a typical weekday (Tuesday, Wednesday, or Thursday) with traffic data collection prohibited during the Winter Holiday season (November 22, 2004 through January 9, 2005). This scope of work assumes CMP intersection counts will not include vehicle classification. Traffic counts will be collected and submitted to MTA by May 31, 2005 for inclusion in the biennial highway monitoring.

TASK 5b. Los Angeles County CMP Existing Conditions Analysis

The purpose of the Los Angeles County CMP is to develop a coordinated approach to managing and decreasing traffic congestion by linking the various transportation, land use and air quality planning programs throughout the County. The program is consistent with that of the Southern California Association of Governments (SCAG). The CMP requires review of significant individual projects, which might on their own impact the CMP transportation system.

The CMP analysis will assess the existing traffic conditions during the a.m. peak hour and p.m. peak hour at the CMP study intersections. The analysis will document the existing operation of the CMP study intersections using the Intersection Capacity Utilization (ICU) analysis methodology, and detailed capacity and clearance information provided in Appendix A.6 of the CMP. The CMP target for intersection level of service (LOS) operation is LOS E or better. This scope of work assumes the City of Torrance will provide RBF with right-of-way and "as built" plans so RBF can assess the feasibility of recommended improvements. Based on the "as built" plans provided by the City, RBF will prepare conceptual illustrations (not engineering plans) depicting the recommended improvements.

If the analysis shows existing conditions deficiencies at the CMP study intersections based on CMP target for intersection LOS operation then improvements will be recommended in accordance CMP performance criteria. The analysis will document forecast improved existing conditions LOS after application of any recommended improvements at the CMP intersections.

RBF understands coordination with Los Angeles County CMP officials is important to identify realistic improvements to achieve acceptable LOS operation for existing conditions. This task includes up to one meeting with City and MTA staff to discuss and identify appropriate improvements to address CMP study intersections existing conditions deficiencies.

TASK 6 – TRAFFIX SOFTWARE SUPPORT

RBF will provide instruction and support to City of Torrance staff to utilize the Traffix models prepared in Tasks 2, 3, and 4 of this scope of work. RBF will work with City staff to build relationship with software vendor to identify costs associated with licensing, purchase, and maintenance of software on City computers. RBF staff will instruct selected City of Torrance staff at the RBF Center for Excellence for up to a total of thirty-two (32) hours to operate Traffix software. Additionally, RBF will provide Traffix software troubleshooting support for up to sixteen (16) hours via telephone or email.

This scope of work does not include the costs associated with purchase and maintenance of Traffix software, at the time of this proposal the cost for purchase of the Traffix 7.7 software is approximately $3,700, and the cost for upgrades is approximately $600.

TASK 7 – GIS DATA INCORPORATION

RBF will develop GIS data and maps supporting the traffic study for the City of Torrance. RBF's project approach is based on our extensive experience applying GIS technology to engineering planning, design, maintenance and inventory projects as well as GIS data automation projects. Our approach includes the following tasks:

- Project Initiation
- Review existing GIS data
- Review transportation source materials
- Conduct a pilot project
- Perform data automation
- Prepare GIS maps
- Prepare GIS data deliverables

TASK 7a. GIS Project Initiation

Kickoff Meeting

A kick-off meeting will be conducted including City staff and key members of the RBF team. The kick-off meeting will review the overall project scope and objectives. RBF will prepare an agenda with the City's Project Manager input and present the general approach to accomplishing the project. Meeting minutes will be provided to the City and RBF's Project manager.

Work Plan

The scope of services may be refined during the procurement process based on additional research, needs and feedback. RBF will prepare a project work plan of the final scope including a detailed approach and schedule. This plan includes a schedule identifying milestones for major tasks and detailed analysis of the sequence of work. The work plan will also identify priorities and submittal dates for deliverables.

Research and Investigation

RBF staff will research, review, and examine the City's (and/or other agencies') available transportation source materials that may include as-builts, record drawings, and files. The City will provide RBF with access to records kept within City Hall.

Pilot Project

RBF recommends that a pilot project be completed prior to Citywide data automation. A topic of the kick-off meeting will be to identify several intersections that represent the types of data to be encountered across the 200 intersections to be included in the traffic study. The primary objective of the pilot project is to create a prototype using the identified data sources and procedures. Another purpose for the pilot project is to provide City staff with a small amount of their data to test the database design and application needs. The pilot data will also demonstrate how the RBF prepared GIS data will be integrated with the City's system.

TASK 7b. GIS Data Automation

GIS Background

The City uses ESRI's ArcGIS software. Transportation segments and other system components will be defined in a manner that is compatible with the City's GIS specifications. Attributes will also be added per the City's specifications describing individual facilities. RBF will use the City's existing GIS base map as a foundation to develop new GIS features supporting the traffic study.

a. Resource Organization & GIS Kickoff

RBF will meet with City staff to review the GIS database structure, data automation process and map layouts. This discussion allows RBF staff to create GIS data that is compatible with the City's GIS structure.

b. Research & Catalog Data Sources

This phase begins with the definition of available project resources for transportation data automation and mapping. RBF has completed many similar projects using GIS and CAD software for data collection, automation and quality control of transportation information. We will work closely with City staff to identify options to enhance automation processes based on the available source information.

The purpose of researching and cataloging data sources is to collect pertinent information that will be needed throughout the course of the project. This process begins by reviewing the available data sources such as existing GIS data, CAD drawings and hard copy transportation related drawings.

c. Data Automation

The automation of the transportation data to the ArcGIS format is accomplished through a well-organized series of steps starting with the transmittal of the existing digital documents from the City to RBF. RBF will log the receipt of the provided source materials.

Each document is used to provide information for the placement of the features in the digital mapping environment. Based on the City's request, RBF will position the transportation features on the GIS map using the provided GIS base map features such as parcels and street centerlines.

Attributes associated with each feature will also be collected using source documents and field collected information. The resulting transportation features are then processed through our quality control process, which includes both automated and manual checks of each feature. Automated checks will verify the connectivity of street segments and valid attribute values have been entered into the GIS database. RBF's quality control team will perform visual checks of hard copy plots. Transportation features shown on the hard copy plots will be compared to the provided source materials to check for completeness and cartographic presentation.

Errors will be highlighted and annotated on the hard copy plots and returned to the data automation team for corrections. Once the corrections have been completed the quality control team will perform a corrections check.

Data automation will be performed based on the following criteria:

- Minimize the risk of data inconsistencies.
- Minimize the data storage requirements.
- Maximize functionality to meet City needs.
- Minimize redundancy to facilitate data entry.
- Maximize flexibility for future GIS applications.
- Maximize versatility to handle new applications.

We anticipate the automation will be performed utilizing AutoCAD, as a supplement to ESRI's ArcGIS products. AutoCAD will be used to review and perform clean-up needed to transfer the provided CAD linework to GIS features. Feature attributes will be entered into a database as described in the City's database design.

1) Data Conversion

The first step in RBF's data automation process involves the preprocessing or "scrubbing" of hard copy source maps and drawings. This step serves as a vital element in the quality control process. It is at this step that every feature on the original drawings is assigned a unique identifying number associated with its entity type and the continuity and connectivity of the overall system is verified. This is prerequisite to building GIS topology or creating street networks.

Problems with City provided data will be documented and resolved using a Problem/Action Form (PAF). We have developed this tool to communicate individual problems to RBF's technical team for evaluation and resolution. Each problem is logged, as is its resolution in a PAF database on the project web site. Problems, which cannot be resolved in-house, are referred to the City's designated staff member. This procedure prevents such occurrences from simply being forgotten and vastly improves the overall quality of the data. Completed Problem Action Reports will be made available to the City if requested.

Once the scrubbing process is complete for a designated area workstations will be used to automate the data. The automation of the transportation features will be accomplished with the best information provided by the City.

Color check plots will be generated to perform quality control tasks. These plots are reviewed using a checklist of conversion requirements. Errors will be marked directly on the plots by the QC technician and corrected by the GIS team.

TASK 7c. GIS Deliverables

RBF will deliver ESRI coverages and/or shapefiles of the final transportation GIS data. During the project kick-off meeting we will discuss and determine the format of the final delivered GIS data.

OPTIONAL TASK 8 – IDENTIFICATION OF PASS-THROUGH TRAFFIC

Pass-through traffic is defined as traffic with no destination within the City of Torrance. Pass-through traffic may enter the city at major arterials and via three interchanges with Interstate 405 (I-405). RBF will prepare a license-plate survey of vehicles entering and exiting the City of Torrance at up to fourteen (14) gateway sites. This scope of work assumes gateway sites are roadway segments at or near the City of Torrance border with adjacent Cities, or I-405 freeway on- and off-ramps. License-plate surveys will be conducted to record entering and exiting vehicular traffic at the gateway sites for the following four time periods:

- *Weekday a.m. peak period (7:00 a.m. to 9:00 a.m.);*
- *Weekday mid-day peak period (11:00 a.m. to 1:00 p.m.);*
- *Weekday p.m. peak period (4:00 p.m. to 6:00 p.m.); and*
- *Weekend mid-day peak period (11:00 a.m. to 1:00 p.m.).*

This scope of work assumes license-plate data will be collected at fourteen locations chosen from the following list of potential gateway sites in the City of Torrance:

1. *Hawthorne Boulevard near northerly City border;*
2. *Hawthorne Boulevard near southerly City border;*
3. *Prairie Avenue near northerly City border;*
4. *Crenshaw Boulevard near northerly City border;*

SCHEDULE OF PERFORMANCE

5

Task Description	2004			2005									
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct
Task 1 – Project Kickoff Meetings													
Task 2 – Existing Conditions (1)													
Task 3 – Near-Term Conditions													
Task 4 – Long-Term Conditions													
Task 5 – CMP Analysis													
Task 6 – Traffix Software Support (2)													
Task 7 – GIS Data Incorporation													
Meeting Attendance													
Optional Task 8 – Identification of Pass-Through Traffic													

(1) = Existing traffic data collection schedule subject to weather conditions.
(2) = Task 6 extends beyond October 2005 and is dependent upon City staff needs.

This schedule of performance assumes authorization to proceed by November 19, 2004.

Schedule of Compensation

Task Description	B.M.	P.M.	C.O.	D.K.	L.K.	T.S.	S.B.	S.R.	A.K.	Total Hours	Proposed Budget
Task 1 – PROJECT KICKOFF MEETINGS	8	10		12	12					42	$3,980
Task 2 – EXISTING CONDITIONS											
Task 2a – Traffic Data Collection											
Study Intersections		16			400	1560				1976	$107,760
Study Roadway Segments		16			160	640				816	$44,960
Holiday Traffic Counts		8			62	250				320	$17,720
Task 2b – Study Area Roadway Characteristics		24		225	120					369	$26,790
Task 2c – Existing Conditions Citywide Traffic Model	8	25		80						113	$9,550
Task 2d – Existing Conditions Intersection Level of Service	4	15	5	20	10					54	$5,100
Task 2e – Existing Conditions Roadway ADT Volumes				35	35					70	$4,900
Task 2f – Intelligent Transportation Systems Evaluation	5	10	12		10					37	$4,350
Task 2g – Meetings	16	20	4							40	$5,200
Task 3 – NEAR-TERM CONDITIONS											
Task 3a – Near-Term Approved Projects Traffic	2	6		40						48	$3,760
Task 3b – Near-Term Conditions Citywide Traffic Model	2	4		20	15					41	$3,190
Task 3c – Near-Term Conditions Intersection Level of Service	3	15	5	5						28	$3,200
Task 3d – Near-Term Conditions Roadway ADT Volumes				10	10					20	$1,400
Task 3e – Meetings	8	10								18	$2,300
Task 4 – LONG-TERM CONDITIONS											
Task 4a – Long-Term Cumulative Projects Traffic	4	10		40	40					94	$7,300
Task 4b – Long-Term Conditions Citywide Traffic Model	2	4		20	15					41	$3,190
Task 4c – Long-Term Conditions Intersection Level of Service	3	15	5	5						28	$3,200
Task 4d – Long-Term Conditions Roadway ADT Volumes				10	10					20	$1,400
Task 4e – Meetings	12	15	4							31	$4,050
Task 5 – CMP ANALYSIS											
Task 5a – Los Angeles County CMP Traffic Data Collection		2			14	54				70	$3,900
Task 5b – Los Angeles County CMP Existing Conditions Analysis	4	5		30	30					69	$5,350
Task 6 – TRAFFIX SOFTWARE SUPPORT	2	48								50	$5,580
Task 7 – GIS DATA INCORPORATION											
Task 7a – GIS Project Initiation	2	4					8	32	4	50	$7,168
Task 7b – GIS Data Automation	2	4					6	28	188	228	$21,862
Task 7c – GIS Deliverables							4	16	64	84	$8,484
5% Contingency											$31,564
Reimbursables											$18,763
SUBTOTAL	87	286	35	552	943	2504	18	76	256	4757	$365,971
Optional Task 8 – IDENTIFICATION OF PASS-THROUGH TRAFFIC	*12*	*30*		*50*	*42*	*950*				*1084*	*$59,040*
5% Contingency											*$2,952*
Reimbursables											*$2,441*
TOTAL HOURS	99	316	35	602	985	3454	18	76	256	5841	
TOTAL											**$430,404**

Note: Reimbursables included in budget fee.

B.M. = Bob Matson ($150/hr)
P.M. = Paul Martin ($110/hr)
C.O. = Carlos Ortiz ($150/hr)
D.K. = Deepak Kaushik ($70/hr)
L.K. = Lindsay Kaufmann ($70/hr)
T.S. = Traffic Data Subconsultant ($50/hr)
S.B. = Steve Bein ($185/hr)
S.R. = Steve Ries ($144/hr)
A.K. = April Kaiser ($85/hr)

RBF

HOURLY RATE SCHEDULE

Effective January, 2004

OFFICE PERSONNEL	$ / Hr.
Senior Principal	$210.00
Principal	185.00
Project Director	164.00
Project Manager	150.00
Structural Engineer	144.00
Electrical Engineer	126.00
Senior Engineer/Senior Planner	122.00
Landscape Architect	116.00
Project Engineer/Project Planner	110.00
Environmental Specialist	106.00
Corrosion Engineer	106.00
Design Engineer/Senior Designer/Mapper	102.00
Designer/Planner	88.00
GIS Analyst	85.00
Graphic Artist	77.00
Environmental Analyst/Staff Planner	76.00
Design Technician	74.00
Assistant Engineer/Planner	70.00
Engineering Aid/Planning Aid	57.00

FIELD PERSONNEL	
2-Person Survey Crew	$196.00
1-Person Survey Crew	138.00
Field Supervisor	130.00

CONSTRUCTION MANAGEMENT PERSONNEL	
Construction Manager	$143.00
Resident Engineer/Project Manager	120.00
Senior Construction Inspector	95.00
Construction Inspector	92.00
Field Office Engineer	86.00
Construction Technician	74.00

OTHER SERVICES AND FEES	
Permit Processor	$90.00
Clerical/Word Processing	50.00
Consultation Relative to Legal Actions	270.00
Vehicle Mileage	0.50/mile

Note:

Blueprinting, reproduction, messenger service and other direct expenses will be charged as an additional cost plus 15%. A Subconsultant Management Fee of fifteen-percent (15%) will be added to the direct cost of all subconsultant services to provide for the cost of administration, subconsultant consultation and insurance.