

Council Meeting of
July 22, 2008

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

Members of the Council:

SUBJECT: Public Works – Approve an Amendment to Consulting Services Agreement C2007-185 for additional Geotechnical services for the North Torrance Water Main Replacement Project (CIP No. I-73). Expenditure: \$15,450.

RECOMMENDATION

Recommendation of the Public Works Director that City Council approve an Amendment in the amount of \$15,450 to Consulting Services Agreement C2007-185 with Geo-Environmental, Inc. to perform Geotechnical services for the North Torrance Water Main Replacement Project (CIP No. I-73), for a revised not to exceed amount of \$45,405.

Funding

Funding is available from CIP No. I-73.

BACKGROUND/ANALYSIS

On November 6, 2007 the City Council awarded a Public Works Agreement to Robert G. Castongia, General Engineering Contractors (Castongia) and a Consulting Services Agreement to Geo-Environmental, Inc. for the North Torrance Water Main Replacement Project, CIP No. I-73. This project includes replacing water mains in the neighborhood bounded by Artesia Boulevard to the south, Crenshaw Boulevard to the west, Van Ness Avenue to the east and the Dominguez Channel to the north. The project also includes recycled water retrofits for Del Amo medians, east of Crenshaw Boulevard, a recycled water lateral for the Kobata Nursery and water main relocations for the Torrance Boulevard Storm Drain Improvements.

The construction specifications allowed 120 working days (six months) for the contractor to finish construction ahead of the Torrance Boulevard Storm Drain Improvements. After the award of the contract, Castongia submitted a construction schedule with 200 working days (ten months) to properly phase the work. After a review of Castongia's detailed construction schedule it was apparent that 120 working days was not reasonable for this project and that the schedule should have been for

200 working days for the overall project with 120 working days allowed for the work on Torrance Boulevard. The City staff agreed to the 200 working days under the condition that the water main relocation work required for the Torrance Storm Drain Improvements be completed within 120 working days. That work is to be completed by the end of July 2008.

The Consulting Services Agreement with Geo-Environmental, Inc. was for a not to exceed amount of \$29,955. This contract was to provide soils compaction tests for 120 working days. The proposed addendum is to increase that contract amount by \$15,450 for a not to exceed \$45,405 to provide soils compaction tests for the full 200 working days.

Castongia and Geo-Environmental have done numerous Public Works projects in Torrance and staff has been very happy with their work.

Respectfully submitted,

ROBERT J. BESTE
Public Works Director



By John Dettle
Engineering Manager

CONCUR:



Robert J. Beste
Public Works Director



LeRoy J. Jackson
City Manager

Attachments: A. Amendment to Consulting Services Agreement C2007-185
B. Consulting Services Agreement C2007-185

AMENDMENT TO AGREEMENT C2007-185

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

RECITALS:

- A. CITY and CONSULTANT entered into an Agreement on November 6, 2007, whereby CONSULTANT agreed to provide Geotechnical consulting services for the North Torrance Water Main Replacement Project.
- B. The CITY and CONSULTANT agree to increase CONSULTANT's Fee from \$29,955.00 to \$45,405.00 for additional Geotechnical services.

AGREEMENT:

- 1. Paragraph 3. A entitled "COMPENSATION" is amended to read in its entirety as follows:

2. TERM

For services rendered pursuant to this Agreement, CONSULTANT will be paid in accordance with the Unit Costs in the Compensation Schedule attached as Exhibit B, 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 \$45,405.00 ("Agreement Sum"), unless otherwise approved in writing by CITY.

2. In all other respects, the Agreement dated November 6, 2007, between CITY and CONSULTANT is ratified and reaffirmed and is in full force and effect.

CITY OF TORRANCE,
a Municipal Corporation

GEO-ENVIRONMENTAL, INC.
a California Corporation

Frank Scotto, Mayor

By:

Farhat H. Siddiqi
Principal Engineer

ATTEST:

Sue Herbers, City Clerk

APPROVED AS TO FORM:

John L. FELLOWS III
City Attorney

By:_____

CONSULTING SERVICES AGREEMENT

This CONSULTING SERVICES AGREEMENT ("Agreement") is made and entered into as of November 6, 2007 (the "Effective Date"), by and between the CITY OF TORRANCE, a municipal corporation ("CITY"), and Geo-Environmental, Inc., a California Corporation ("CONSULTANT").

RECITALS:

- A. CITY wishes to retain the services of an experienced and qualified CONSULTANT to perform geotechnical observation and material testing services during construction of the I-73 Water Main Replacement Project.
- B. CONSULTANT represents that it is qualified to perform those services.

AGREEMENT:

1. **SERVICES TO BE PERFORMED BY CONSULTANT**

CONSULTANT will provide the services listed in the Scope of Services attached as Exhibit A. CONSULTANT warrants that all work and services set forth in the Scope of Services will be performed in a competent, professional and satisfactory manner.

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 6, 2008.

3. **COMPENSATION**

- A. CONSULTANT's Fee.

For services rendered pursuant to this Agreement, CONSULTANT will be paid in accordance with the Compensation Schedule attached as Exhibit B, 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 \$29,955.00 ("Agreement Sum"), unless otherwise first approved in writing by 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 the fees described in Paragraph 3.A. above, according to the Compensation Schedule. Payment will be due within 30 days after the date of the monthly invoice.

4. **TERMINATION OF AGREEMENT**

- A. Termination by CITY for Convenience.

C2007-185

COPY

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 written 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 control, 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 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 CITY for any losses, costs, liabilities, or damages suffered by CITY, and all amounts for which CITY may be liable to third parties, by reason of CONSULTANT's negligent acts or omissions or willful misconduct 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, 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 CITY to exercise the right to deduct or to withhold will not, however, affect the obligations of CONSULTANT to insure, indemnify, and protect CITY as elsewhere provided in this Agreement.

7. **CITY REPRESENTATIVE**

Robert J. Beste, Public Works Director, is designated as the "City Representative," authorized to act in its behalf with respect to the work and services specified in this Agreement and to make all decisions in connection with this Agreement. Whenever approval, directions, or other actions are required by 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:

Farhat H. Siddiqi, Principal Engineer

9. **INDEPENDENT CONTRACTOR**

The CONSULTANT is, and at all times will remain as to CITY, a wholly independent contractor. Neither 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 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 CITY of that fact and may not proceed except at CONSULTANT's risk until written instructions are received from 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 CITY, except those losses or damages as may be caused by 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 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 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 however the same may be caused and regardless of the responsibility for negligence. The obligation to indemnify, defend and hold harmless includes, but is not limited to, any liability or expense, including defense costs and legal fees, arising from the negligent acts or omissions, or willful misconduct of CONSULTANT, its officers, employees, agents, 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 CITY OFFICERS AND EMPLOYEES**

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

17. INSURANCE

- A. CONSULTANT must maintain at its sole expense the following insurance, which will be full coverage not subject to self insurance provisions:
1. Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:
 - a. Primary Bodily Injury with limits of at least \$500,000 per person, \$1,000,000 per occurrence; and
 - b. Primary Property Damage of at least \$250,000 per occurrence; or
 - c. Combined single limits of \$1,000,000 per occurrence.
 2. General Liability including coverage for premises, products and completed operations, independent contractors/vendors, personal injury and contractual obligations with combined single limits of coverage of at least \$1,000,000 per occurrence.
 3. Professional liability insurance with limits of at least \$1,000,000 per occurrence.
 4. Workers' Compensation with limits as required by the State of California and Employers Liability with limits of at least \$1,000,000.
- B. The insurance provided by CONSULTANT will be primary and non-contributory
- C. CITY, the City Council and each member thereof, members of boards and commissions, every officer, agent, official, employee and volunteer must be named as additional insured under the automobile and general liability policies.
- D. CONSULTANT must provide certificates of insurance and/or endorsements to the City Clerk of the City of Torrance before the commencement of work.
- E. Each insurance policy required by this Paragraph must contain a provision that no termination, cancellation or change of coverage can be made without thirty days notice to CITY.

18. SUFFICIENCY OF INSURERS AND SURETIES

Insurance or bonds 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 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 CITY, the CONSULTANT agrees that the minimum limits of any insurance policies or performance bonds required by this Agreement may be changed accordingly

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 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.

6. Addresses for purpose of giving notice are as follows:

CONSULTANT: Geo-Environmental, Inc.
2691 Richter Avenue
Suite 127
Irvine, CA. 92606
Fax: (949) 263-8338

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 CITY or CONSULTANT without the prior written consent of the other.

22. **INTEGRATION; AMENDMENT**

This Agreement represents the entire understanding of 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 provided for 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;

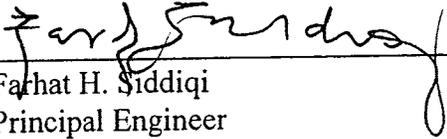
and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which the CONSULTANT is bound.

CITY OF TORRANCE
a Municipal Corporation

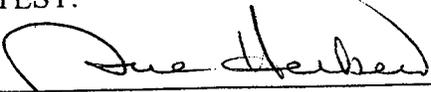
Geo-Environmental, Inc.
A California Corporation



Frank Scotto, Mayor

By: 
Fahat H. Siddiqi
Principal Engineer

ATTEST:



Sue Herbers
City Clerk

APPROVED AS TO FORM:
JOHN L. FELLOWS III
City Attorney

By: 

Attachments: Exhibit A Scope of Services
 Exhibit B Compensation Schedule

Revised: 1/30/01

EXHIBIT A
SCOPE OF SERVICES



GEO-ENVIRONMENTAL, INC.

Caltrans Certified
DBE Firm

October 15, 2007

RECEIVED

OCT 16 2007

Public Works Department

Jeffrey D. Kidd, P.E.
City of Torrance
Public Works Department
20500 Madrona Avenue
Torrance, California 90503-3690

**Subject: Geotechnical Observation and Material Testing Services
Water Main Replacement and Alley Reconstruction Project
City of Torrance, Los Angeles County, California**

GEI Proposal No. 07-157

Dear Mr. Kidd:

In response to your request, Geo-Environmental, Inc. (GEI) has prepared this proposal to perform geotechnical observation and material testing services for the construction of water mains and street improvements on various streets and alleys in the City of Torrance, County of Los Angeles, California. The scope of our services and our understanding of the project requirements are briefly discussed below.

1.0 PROJECT UNDERSTANDING

The City of Torrance (City) is in the process of replacing water mains and reconstructing associated streets/alleys. The selected geotechnical consultant is expected to provide testing and inspection services for the placement of water mains and associated laterals, the backfilling of the trench excavations, and compaction testing of the street/alley subgrade, aggregate base (AB), and asphalt concrete (AC). The geotechnical consultant will perform all pertinent tests on materials in the laboratory for the verification for the required compaction level of all street/alley components. The field personnel of the selected geotechnical firm will also perform inspection and testing of curbs and gutters, and wherever else concrete is poured for the rehabilitation of the streets/alleys. This will require the performance of slump tests in the field, as well as collection of concrete cylinders for testing in the laboratory for verification of the project's specifications for the required seven (7), 14, and 28-day concrete strength.

2.0 SCOPE OF CONSULTING ENGINEERING SERVICES

2.1 Field Observations and Soils Testing

- 2.1.1 **Evaluation of excavation:** GEI's engineering technician will inspect and evaluate the excavation of trenches to ensure that the excavations for the proposed water mains and pavement sections have exposed competent material at the bottoms for the placement of the utilities following the placement of the approved bedding material. If excavations result in exposure of saturated, incompetent material at the bottom, proper remediation measures will be recommended. The sides of the excavation will be inspected for any seeping water.
- 2.1.2 **Evaluation of earth material to be used as fill:** GEI's engineering technician will collect samples of the proposed fill material and deliver them to the soils laboratory. Appropriate soil tests will be performed to determine the appropriate placement method of the fill material and whether the fill material meets project specifications.
- 2.1.3 **Evaluation of compaction procedures:** GEI's engineering technician will evaluate the compaction procedure for the backfill of trench excavations to ensure that the project specifications have been followed (appropriate thickness of lift, proper compaction method, etc.). Similar evaluations will be performed for the subgrade and AB for pavement sections.
- 2.1.4 **Testing of compaction, moisture content, etc.:** GEI's engineering technician will conduct compaction tests by Sand Cone Test Method (ASTM D1556) and Nuclear Method (ASTM D 2922-01) to determine the relative compaction of the fill material. At least one (1) compaction test will be conducted every 100 lineal feet of trench and at 6-inch to 8-inch average intervals in backfill. Sufficient tests will be performed within the subgrade of the pavement sections, as well as in the AB to verify compliance related to the relative compaction requirements of these materials contained in the project specifications. The density of the AC (as well as the temperature) will be checked at the time of its placement during the construction of pavement sections.
- 2.1.5 **Concrete testing and inspection:** GEI's engineering technician will inspect the pouring of concrete on forms (types, size, quality, and strength) to ensure construction is according to design. The inspector will observe surfaces where the concrete is to be placed, the design mix, the hauling time from the batch plant to the job site, the segregation or loss of ingredients, the equipment used in conveying and depositing concrete, the collection of concrete cylinders, the slump, the temperature, and all other properties of the concrete per the City's standards. Concrete specimens will be tested for seven (7), 14, and 28-day compressive strengths.

Water Main Replacement and Alley Reconstruction Project
 GEI Proposal No. 07-157
 October 15, 2007
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- 2.1.6 ***Asphalt testing and inspection:*** GEI's engineering technician will inspect the placement of AC for the pavement to ensure that construction is proceeding according to design. The inspector will observe surfaces where AC is to be placed, the design mix, the hauling time from the batch plant to the job site, the segregation or loss of ingredients, the equipment used in conveying and depositing, and all other properties of AC per ASTM/CALTRANS standards/specifications.

During the progress of our work, our field technician will prepare daily field reports. A copy of these reports will be submitted to the Inspector from the City on a daily basis. The report will include a written summary of the day's activities, a summary of all field-testing performed, and a listing of outstanding failing tests which have not been reworked/retested. In addition, the location of all field density tests taken during the project will be plotted on a set of plans that is maintained by the field technicians. The Contractor will be asked not to place any backfill material that does not meet project specifications.

The testing time and the associated fees can be minimized by proficient and timely work by the Contractor and by coordination among the Project Superintendent, the City Inspector, and GEI engineers and technicians. When a larger number of tests are scheduled at a time, greater efficiency can be achieved, resulting in lower overall fees. **However, GEI's testing and inspection duration is totally dependent on the progress of work by the Contractor.**

The inspections, observations, and testing will be provided after the pregrade meeting and the commencement of construction activities, and will continue until all components associated with the construction have been achieved in accordance with the project specifications. GEI's technicians will be present at the site on all days when the geotechnical observations, inspections, and testing are needed, and will spend an appropriate amount of time in the field commensurate with the testing requirements. The technician will also attend all construction meetings held at either the site or the City's office, depending on the nature of such meetings.

2.2 Laboratory Testing

The following tests will be conducted in the materials laboratory to determine the engineering characteristics of the soils, concrete, and asphalt:

- 2.2.1. *Modified Proctor Tests to Determine Max. Dry Density & Optimum Moisture Content:*
- i. Modified Proctor (ASTM D1557-00 Methods A & B)
 - ii. Base Modified Proctor (ASTM D1557-00 Method C)
- 2.2.2. *Soil Classification:*
- i. Grain Size Distribution (ASTM D422)

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- ii. Atterberg Limits (ASTM D4318-D84)
- iii. Sand Equivalent (ASTM D2419)

2.2.3. *Asphalt Testing:*

- i. Maximum Density Test (CT 304)

2.2.4. *Concrete Testing:*

- i. Compressive Strength of Specimens

2.3 Technical Management

GEI's Project Engineer will attend all construction meetings. After consulting with the Principal Engineer, he will provide guidance and recommendations to the field staff. The Senior Engineering Technician will implement all of the decisions made during the construction meetings. The field compaction procedures will be evaluated and recommendations will be made where appropriate.

2.4 Report Preparation

At the completion of our services, GEI will prepare a report that will summarize all of the work performed on the project. The report will include our observations during construction, results of our field and laboratory testing, and a conclusion as to the project's compliance with the contract plans and specifications. Three (3) wet-signed copies of the report will be provided.

2.5 Associated Fees

GEI will provide its geotechnical observation and material testing services for the above referenced project on a time and material basis in accordance with the estimated fee as presented in Table 1 (Fee Estimate). GEI's Engineering Technician will be provided on an on-call basis (with at least 24 hours notice, four (4) hour minimum charge per day).

Water Main Replacement and Alley Reconstruction Project
GEI Proposal No. 07-157
October 15, 2007
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3.0 CLOSURE

We greatly appreciate the opportunity to propose our professional services to the City of Torrance. If you have any questions regarding this proposal, please do not hesitate to contact the undersigned at (949) 263-8334, extension 22, or Mr. Jamal R. Siddiqi at extension 24.

Very truly yours,

Geo-Environmental, Inc.



Farhat H. Siddiqi, Ph.D., P.E.
Principal Engineer

*Attachments: Table 1 (Fee Estimate)
Schedule of Charges*

EXHIBIT B
COMPENSATION SCHEDULE

Type Information



GEO-ENVIRONMENTAL, INC.

Caltrans Certified
DBE Firm

**TABLE NO. 1
FEE ESTIMATE**

**Geotechnical Observation and Material Testing Services
Water Main Replacement and Alley Reconstruction Project
City of Torrance, Los Angeles County, California
GEI Proposal No. 07-157**

October 15, 2007

<u>A. Field Observation and Testing:</u>	<u>Unit (hrs)</u>	<u>Unit Cost</u>		
Inspection of Excavations and Performance of Field Density Tests:				
Caltrans Certified Engineering Technician	160	\$65.00	\$10,400.00	
*Vehicle and Equipment (Nuclear Gauge)	20	\$100.00	\$2,000.00	
				\$12,400.00
Performance of AC Field Density Tests:				
Caltrans Certified Engineering Technician	40	\$65.00	\$2,600.00	
*Vehicle and Equipment (Nuclear Gauge)	5	\$100.00	\$500.00	
				\$3,100.00
Performance of Concrete Cylinder Tests:				
Caltrans Certified Engineering Technician	8	\$65.00	\$520.00	
*Vehicle and Equipment (Slump & Temperature)	2	\$100.00	\$200.00	
				\$720.00
 <u>B. Materials Testing in Caltrans Certified Laboratory:</u>				
1. Modified Proctor Test (ASTM D1557 A&B)	20	\$135.00	\$2,700.00	
2. Base Modified Proctor Test (ASTM D1557C)	10	\$150.00	\$1,500.00	
3. Atterberg Limits Test (ASTM D4318)	15	\$95.00	\$1,425.00	
4. Grain Size Distribution Test (ASTM D422)	15	\$80.00	\$1,200.00	
5. Sand Equivalent Test (ASTM D2419)	20	\$80.00	\$1,600.00	
6. Asphalt Concrete Max Density Test (CT304)	10	\$135.00	\$1,350.00	
7. **Compressive Strength Tests (CT521)	20	\$25.00	\$500.00	
				\$10,275.00
 <u>C. Review of Plans/Drawings/Technical Management/Meetings with the City:</u>				
Staff Engineer	16	\$80.00	\$1,280.00	
				\$1,280.00
 <u>D. Report Preparation:</u>				
Principal Engineer	4	\$175.00	\$700.00	
Staff Engineer	8	\$80.00	\$640.00	
Word Processing	6	\$45.00	\$270.00	
Draftsman	6	\$70.00	\$420.00	
Report Reproduction	1	\$150.00	\$150.00	
				\$2,180.00
 * Unit per day				
 ** Five (5) sets of cylinders, therefore a total of 20 tests				
<u>SUMMARY OF COST ESTIMATE</u>				
A. Field Observation and Testing:			\$16,220.00	
B. Laboratory Testing:			\$10,275.00	
C. Review of Plans/Drawings/Technical Management/Meetings:			\$1,280.00	
D. Report Preparation:			\$2,180.00	
			GRAND TOTAL:	\$29,955.00



GEO-ENVIRONMENTAL, INC.

Caltrans Certified
DBE Firm**Schedule of Charges***Effective January 1, 2007*

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2007 FEE SCHEDULE**Engineering Services**

Staff Engineer & Geologist.....	\$ 80.00	Per Hour
Project Engineer & Geologist.....	\$ 100.00	Per Hour
Senior Engineer & Geologist.....	\$ 115.00	Per Hour
Senior Environmental-Engineer.....	\$ 115.00	Per Hour
Associate Engineer & Geologist.....	\$ 125.00	Per Hour
Principal Engineer & Geologist.....	\$ 175.00	Per Hour

Technical Services

Clerical.....	\$ 40.00	Per Hour
Technical Word Processor.....	\$ 45.00	Per Hour
Drafter / CAD Operator.....	\$ 70.00	Per Hour
Field Technician.....	\$ 50.00	Per Hour
Senior Field Technician.....	\$ 65.00	Per Hour
Caltrans Certified Technician.....	\$ 75.00	Per Hour
Batch Plant Inspector.....	\$ 95.00	Per Hour

Litigation Support

Principal Engineer (Engineering Analysis).....	\$ 200.00	Per Hour
Principal Engineer (Depositions, Hearings, Arbitration, Trials).....	\$ 300.00	Per Hour

Terms

Billings are payable upon presentation and are past due 30 days from invoice date. A finance charge of 1.5 percent per month, or the maximum allowed by law, will be charged on past due accounts.

Geo-Environmental, Inc. makes no warranty, either expressed or implied, as to its findings, recommendations, specifications, or professional advice except that they are prepared and issued in accordance with generally accepted professional practice in the county where the project is located.

Geo-Environmental, Inc. reserves the right to revise its Schedule of Charges with changes in its practice

2691 Richter Avenue Suite 127 Irvine, CA 92606 ■ (949) 263-8334 ■ (949) 263-8338 fax

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