



HUNSAKER & ASSOCIATES

IRVINE, INC.
INLAND EMPIRE REGION

May 6, 2019

Mr. Remon Habib, PE
City Engineer
CITY OF LAKE ELSINORE
130 South Main Street
Lake Elsinore, CA 92530

Reference: Unapproved Plans for Summerhill Drive

Subject: **Proposal for Professional Civil Engineering Services to provide
Final Engineering for Summerhill Drive Interim Extension**

Dear Mr. Habib:

Per your request and directives, Hunsaker & Associates Irvine, Inc. (H&A) is pleased to present this proposal for professional civil engineering services to prepare final engineering, plan and profile for Summerhill Drive.

As one of the premier multi-disciplined civil engineering companies within Southern California, H&A is celebrating over 43 years of providing distinguished professional services to our clients and is distinctly suited to provide technically accurate and comprehensive civil engineering to develop the desired roadway for Summerhill Drive plan.

H&A has assembled a highly educated and experienced professional team, including specialized subconsultants to provide services for the Summerhill Drive plans. A complete listing of our specialized subconsultants for Professional Engineering services is as follows:

- TJW Engineering, Inc. - Traffic Engineering
- ALTA California Geotechnical, Inc. – Geotechnical Engineer

H&A strictly adheres to our policy of non-discrimination against any employee or employment application because of race, color, religion, sex or national origin. We possess policies of insurance, which meet or exceed Agency Agreement requirements.

Hunsaker & Associates Irvine, Inc. is grateful for the opportunity to submit this Proposal. We look forward to working with the City of Lake Elsinore to ensure this project is engineered in an economical and cost effective manner, in compliance with applicable state law, Agency standards/procedures and policies. Should you have any questions, please do not hesitate to contact me directly at (951) 509-7031.

Sincerely,

HUNSAKER & ASSOCIATES IRVINE, INC.


Paul Huddleston, Jr.
Principal
RCE 58020, Exp. 6/30/20

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PLANNING
ENGINEERING
SURVEYING
GOVERNMENT RELATIONS

IRVINE
LOS ANGELES
PALM DESERT
RIVERSIDE
SAN DIEGO

FOUNDING PARTNERS:

RICHARD HUNSAKER
TOM R. MCGANNON
JOHN A. MICHLER
DOUGLAS G. SNYDER

PRINCIPALS:

DAVID FRATTONE
FRED GRAYLEE
BRADLEY B. HAY
PAUL R. HUDDLESTON, JR.
KAMAL H. KARAM
DOUGLAS L. STALEY
KRIS WEBER
JOSEPH E. WIGHTMAN

2900 Adams Street
Suite A-15
Riverside, California
92504
(951) 352-7200 PH
(951) 352-8269 FX
www.hunsaker.com



Exhibit A

Professional Civil Engineering Services to Provide Final Engineering for Summerhill Drive Interim Extension

SCOPE OF SERVICES

H&A has developed a comprehensive scope of services that is anticipated to evolve Summerhill Drive plan and profile that will be acceptable to the City of Lake Elsinore. The scope of services, subject to your approval and based on the general understandings and assumptions herein, will be as follows:

ENGINEERING

Office Engineering

1. Conduct research of public files for existing and planned infrastructure, survey/ Right-of-Way plat map data, wet and dry utilities, review Client and City provided roadway improvement plans and identifying voids in reference data, etc.
2. Review survey mapping data of record and prepare Roadway Right-of-Way basemap.
3. Develop Roadway typical section.
4. Prepare earthwork analysis for estimating purposes.
5. Prepare 1"=40' minimum scale storm drain improvements facilities plan to accommodate roadway construction and associated grading improvements including hydraulic calculations and pipeline sizing for new storm drain culvert facilities.
6. Prepare detailed Proforma Quantity and Cost Estimate for road plan including grading and new infrastructure improvements, etc. for project preliminary budgeting purposes.
7. Coordinate with ALTA Geotechnical and TJW Engineering.
8. Attend Client requested City staff meetings including providing civil engineering project coordination/steering consultation services to evolve conceptual Roadway widening plans ready for final engineering design commencement (estimate only: 24 hours).
9. Prepare a hydrology study to size of interim culverts.
10. Prepare and process Summerhill Drive street plans including grading(4,200 LF) (5 sheets).
11. Prepare legals and plats for ultimate street right-of-way, including slope easements.
12. Prepare one record of survey to allow monumentation of final street once complete.
13. Field Verify – Field verify tie-in points at Greenwald and Summerhill Dr.
14. Aerial Targets – Set aerial targets for drone flight (includes drone flight).



Exhibit A
Scope of Services, cont.

15. Record of Survey – Plan check fees.
16. Specifications – Prepare one set of specifications.
17. ALTA California Geotechnical to provide soils engineering for roadway.
18. TJW Engineering to prepare interim traffic signal for the intersection of Summerhill Drive and Greenwald Avenue. Includes signing and striping plan.



Exhibit B

Professional Civil Engineering Services to Provide Final Engineering Plan for Summerhill Drive Interim Extension

GENERAL UNDERSTANDINGS AND ASSUMPTIONS

1. Design for landscape items and appurtenances is **not** a part of this proposal.
2. Governmental Agency fees or charges are to be the responsibility of the Client.
3. The Engineer's work **does NOT** include any ecological or environmental CEQA studies work for the Roadway project, City to provide.
4. This proposal **does NOT** include acoustical studies or separate noise wall mitigation plans.
5. Client or City shall be responsible for any Right-of-Way land acquisition/land quitclaim/acquiring new easements etc. work associated with this project.
6. Traffic Engineering included in this proposal is limited to the intersection of Summerhill Drive and Greenwald Avenue.
7. **No** retaining wall structural designs are included in this proposal.
8. **No** hazardous materials are assumed to be encountered within the project limits.
9. The following is a summary of the insurance coverages that Hunsaker & Associates Irvine, Inc. provides and is included in our offer of this proposal:

| | |
|------------------------------|--------------|
| General Liability | \$ 2,000,000 |
| Personal Injury | \$ 1,000,000 |
| Auto Liability..... | \$ 1,000,000 |
| Professional Liability | \$ 2,000,000 |
| Valuable Papers..... | \$ 1,850,000 |

Upon request, we will provide a Certificate of Insurance for the insurance coverages listed above. Should you require additional coverage, the costs that we incur from our insurance carriers will be invoiced at their direct costs and are not included in our fee quoted within this proposal.

10. **Special design issues will be handled on a time and materials basis.** Engineering fees for any substantial scope of work changes, discoveries made upon design planning evolution, additions and/or revisions etc., shall be negotiated and agreed upon by the Client and H&A in conjunction with any special issues work.
11. This proposal does not include costs for street lighting plan.



Exhibit C

Professional Civil Engineering Services to Provide Final Engineering for Summerhill Drive Interim Extension

ENGINEERING FEES

Office Engineering

| | |
|--|-------------------|
| 1. Research. | \$ 3,000 |
| 2. Roadway base map for right-of-way acquisition. | \$ 11,000 |
| 3. Develop Roadway typical sections. | \$ 3,800 |
| 4. Earthwork analysis. | \$ 4,500 |
| 5. Prepare 1"=40' scale storm drain. | \$ 25,000 |
| 6. Proforma budget quantity and cost estimate. | \$ 6,800 |
| 7. Coordinate with consultants. | \$ 5,000 |
| 8. City meetings with staff. | \$ 3,500 |
| 9. Hydrology Study. | \$ 15,000 |
| 10. Plans and Profile including rough grading (5 sheets). | \$ 45,000 |
| 11. Right-of-Way documents. | \$ 15,000 |
| 12. Record of Survey. | \$ 12,000 |
| 13. Field verify – Field verify tie-in points. | \$ 4,000 |
| 14. Aerial Targets – Set aerial targets for drone flight (including drone flight)..... | \$ 7,700 |
| 15. Record of survey - Plan check fees for processing record of survey. | \$ 2,500 |
| 16. Specifications – Prepare one set of specifications..... | \$ 5,000 |
| 17. TJW Engineering traffic signal signing and striping proposal. . | \$ 16,000 |
| 18. ALTA California Geotechnical soils engineering proposal. | <u>\$ 16,900</u> |
| Total Office | \$ 201,700 |



Exhibit C

Engineering Fees, cont.

All billing will be invoiced monthly at the following rates:

| | |
|--------------------------------------|---|
| Principal | \$180/hour |
| Project Manager | \$156/hour |
| Project Engineer/Land Surveyor | \$144/hour |
| General Office Staff..... | \$138/hour |
| 2-Person Survey Crew..... | \$234/hour (<i>used at Engineer's discretion</i>) |
| 3-Person Survey Crew..... | \$286/hour (<i>used at Engineer's discretion</i>) |

These rates will remain in effect until December 31, 2020, at which time they may be changed.

Any incidental expenses such as deliveries, reproductions, etc., are included in this proposal and will be billed at H&A costs plus 15%.

April 23, 2019

Mr. Sean Swanson
HUNSAKER & ASSOCIATES
Three Hughes
Irvine, CA 92618



TJW ENGINEERING, INC.
TRAFFIC ENGINEERING &
TRANSPORTATION PLANNING
CONSULTANTS

**PROPOSAL: Summerhill Drive Roadway Extension Project
Traffic Engineering Plan Design
City of Lake Elsinore**

Dear Mr. Swanson:

TJW Engineering, Inc. (TJW) is pleased to submit this proposed agreement to *Hunsaker & Associates* (Hunsaker) to provide traffic engineering design plans for the proposed Summerhill Drive extension project in the City of Lake Elsinore. The project would require the construction of new roadway connecting Summerhill Drive with Greenwald Avenue to the north, a distance of approximately 4,000-feet. Summerhill Drive would create a signalized t-intersection with Greenwald Avenue.

To support the Hunsaker team and the City, TJW is proposing to prepare a traffic signal plan and signing & striping plans for the project. The scope of work anticipated for this project and proposal is as follows:

Traffic Signal Plan Design:

- *Summerhill Avenue and Greenwald Avenue* – TJW would prepare a traffic signal design plan for this new, project intersection. It is anticipated that the City would require a westbound left turn lane on Greenwald Avenue. On Summerhill Drive, it would be expected that a left turn lane and a right turn lane would be required. TJW would coordinate with Hunsaker on the final lane configuration. The plan would be drawn to meet City of Lake Elsinore standards.

Signing and Striping Plan Design:

- *Summerhill Drive:* TJW would prepare signing and striping plans to accommodate the new roadway, a distance of approximately 4,000-feet. It is anticipated that a 28-foot roadway section will be built. TJW would provide the necessary centerline stripe, edge line striping, and signing for the project.

- *Intersection of Summerhill Drive and Greenwald Avenue:* as discussed in the traffic signal portion of this proposal, it is anticipated that striping will be needed to accommodate anticipated lane configurations at the intersection. TJW would prepare the plans to match the street improvement plans and traffic signal plans.
- *Intersection of Summerhill Drive and Ponte Russo:* TJW would make modifications to the existing striping on Summerhill Drive south of the Ponte Russo intersection to accommodate the new, fourth leg of the intersection.

TJW would coordinate with Hunsaker to prepare the design plans to match the street improvement plans to be submitted as a package to the City for review and approval. The plans would be designed per the standards set forth by the City of Lake Elsinore.

In this proposed agreement, TJW has provided the following items to define the project:

- Scope of Services
- Schedule
- Qualifications
- Professional Fees
- Limitation of Liability
- Certificate of Merit
- Contract Approval

SCOPE OF SERVICES

The following items define the scope of services for this proposal.

1. Review the proposed street improvement plans provided by HUNSAKER.
2. Field review the existing conditions at the project site. TJW would review such things as the existing geometry, sight distance, signing, striping, traffic patterns, existing traffic signal equipment and above ground utilities. The findings would be incorporated into the design.
3. Prepare a **traffic signal design plan** for the *Summerhill Drive and Greenwald Avenue* intersection. The plan would be drawn a scale of 1"=20' and would be designed to match the street improvements for the project. The plans would be designed per the standards set forth by the City of Lake Elsinore.
4. Prepare **signing and striping plans** for the streets of Summerhill Drive, Ponte Russo, and Greenwald Avenue. The plans would be drawn using AutoCAD at a scale of 1"=40'. The plans would be designed per the standards set forth by the City of Lake Elsinore.

5. Coordinate with Hunsaker on the project.
6. Submit the plans in concert with Hunsaker to the City of Lake Elsinore and respond to plan check comments by the agencies. TJW would revise the plans and as necessary.
7. Submit signed and sealed plans to the City for signature to complete the project.

SCHEDULE

TJW anticipates that plan set would be completed in approximately 20 working days in order to submit to HUNSAKER for review/submittal.

TJW can begin working on this project immediately if needed.

QUALIFICATIONS

TJW Engineering, Inc., located in Irvine, California, is a ***Small Business Enterprise (SBE)*** in the State of California that specializes in ***traffic engineering and transportation planning***. TJW provides services to a variety of private and public sector clients including cities, counties, architects, civil engineers, commercial and residential developers, school districts, community associations, and other public agencies including Caltrans.

This project would be led by ***Thomas J. Wheat, P.E., T.E.*** who has over twenty years of project managing and design experience in the traffic engineering profession and has worked extensively in Southern California after coming to California in 2003. Mr. Wheat has prepared and designed hundreds of traffic engineering design plans and transportation studies since opening of TJW Engineering, Inc. in 2010. Mr. Wheat is a Registered Profession Engineer in Civil Engineering and a Registered Traffic Engineer in the State of California.

PROFESSIONAL FEES

TJW Engineering, Inc. is proposing to provide the services stated above for the fixed fee amount as follows:

| | |
|--|-------------------|
| Traffic Signal Plan Design: | \$10,000.00 |
| <u>Signing & Striping Plan Design:</u> | <u>\$6,000.00</u> |
| TOTAL | \$16,000.00 |

The fee includes emailing PDFs of the plans as well as shipping a wet-signed plan set to the team for their processing through the agencies for each plan check. Additional copies would be billed on a time and material (T&M) basis. It is assumed that pick-up, drop-off, and shipping of plans for agencies' review, above what was stated above, are assumed to be performed by others.

If a time and material contract is needed, TJW would provide the client with an estimated budget based on the hourly rates as listed in the attached billing rate document.

LIMITATION OF LIABILITY

The Client agrees to limit the Design Professional's liability to the Client and to all construction Contractors and Subcontractors on the project, due to the Design Professional's negligent acts, errors, or omissions, such that the total aggregate liability of the Design Professional to all those named shall not exceed \$250,000.00 for this project.

CERTIFICATE OF MERIT

The Client shall make no claim for professional negligence, either directly or by way of a cross complaint against the Consultant unless the Client has first provided the Consultant with a written certification executed by an independent consultant currently practicing in the same discipline as the Consultant and licensed in the State of California. This Certification shall:

- (a) Contain the name and license number of the certifier;
- (b) Specify the acts or omissions that the certifier contends are not in conformance with the standard of care for a consultant performing professional services under similar circumstances, and,
- (c) State in detail the basis for the certifier's opinion that such acts or omissions do not conform to the standard of care.

This Certificate shall be provided to the Consultant not less than thirty (30) calendar days prior to the presentation of any claim or the institution of any arbitration or judicial proceeding. This Certificate of Merit clause will take precedence over any existing State law in force at the time of the claim or demand for arbitration.

Mr. Sean Swanson
Summerhill Traffic Eng Proposal
April 23, 2019
Page 5

If you have any questions regarding this proposal or project, please feel free to contact me at Thomas@tjwengineering.com or at (949) 878-3509.

Sincerely,



Thomas J. Wheat, P.E., T.E.
President
TJW Engineering, Inc.

Registered Civil Engineer #69467
Registered Traffic Engineer #2565

CONTRACT APPROVAL

This letter can serve as a Memorandum of Agreement and our authorization to proceed with your signature below.

HUNSAKER & ASSOCIATES, INC.

Approved by: _____
(Signature)

(Print)

Title: _____

Date: _____

TJW ENGINEERING, INC.
STANDARD COMPENSATION SCHEDULE
(Effective October 2018)

| Classification | Hourly Rate |
|---------------------------------|--------------------|
| Principal Traffic Engineer | \$175.00 |
| Traffic Engineering Manager | \$150.00 |
| Transportation Planning Manager | \$150.00 |
| Senior Engineer | \$130.00 |
| Senior Transportation Planner | \$130.00 |
| Project Engineer/Planner | \$90.00 - \$115.00 |
| Asst. Project Engineer | \$70.00 - \$85.00 |
| Senior Technician | \$85.00 |
| Technician | \$65.00 |
| Administrative Aide | \$50.00 |

GENERAL PROVISIONS OF AGREEMENT

1. The above schedule is for straight time. Overtime will be charged at 1.5 times the standard hourly rate. Hourly rates apply to work time as well as travel time and waiting time, which occur at meetings and public hearings.
2. Unless otherwise stated in the contract, project-related travel, reproduction, and supply costs are billed at cost. Mileage will be billed at prevailing standard mileage rate as determined by the IRS. Subcontractors and other project-related expenses will be billed at cost plus 15%
3. Unless otherwise stated in the contract, invoice will be submitted monthly for work in progress or upon completion of work. Invoices are payable within 30 days of the invoice date. Any unpaid invoice after 30 days shall be subject to a service charge of the maximum interest rate allowed by law or two (2) percent per month whichever is less.
4. Client hereby agrees that the balance in a billing statement is correct and binding unless the client notifies the consultant in writing within fifteen (15) days of the date of billing and informs consultant of the alleged incorrect item.
5. All documents produced as a result of this agreement may be used by TJW Engineering (TJW) without consent from the client.
6. TJW makes no warranty as to his findings except that the work is performed using generally accepted methods.
7. Unless otherwise stated in the contract, the client agrees to limit TJW's liability to the client, due to professional negligent acts, errors, or omissions by the consultant, to the consultant's fee.
8. Any controversy or claim arising out of or relating to this contract, or the breach thereof, shall be settled by arbitration in accordance with the rules of the American Arbitration Association, and Judgment upon the award rendered by the arbitration may be entered in any court having jurisdiction thereof.



170 North Maple Street, Suite 108
Corona, CA 92880
www.altageotechnical.com

HUNSAKER and ASSOCIATES, Inc.
Inland Empire Region
2800 Adams St., Suite A-15
Riverside, CA. 92504

April 26, 2019
Proposal No. 1-19-036

Attention: Paul R. Huddleston, Jr. PE, PLS
Principal

Subject: ***PROPOSAL FOR GEOTECHNICAL SERVICES***
Preliminary Geotechnical Investigation & Final Soils Engineering
Summerhill Drive Extension, Tuscany Hills
City of Lake Elsinore, California

References: See Appendix

Dear Mr. Huddleston:

Alta California Geotechnical, Inc. (Alta) is pleased to present this proposal for geotechnical services in support of the extension of proposed Summerhill Drive, in the City of Lake Elsinore, California. Our services will include: 1) a supplemental subsurface work to develop a Preliminary Geotechnical Investigation report; and 2) provide geotechnical reviews of plans for grading and infrastructure improvements .

Alta's proposal is based on your request, review of the site exhibits provided by your office, review of the referenced reports, maps and air photos, online site views using Google Earth and Historical Aerials, our extensive experience with mass graded projects in the City of Lake Elsinore, including Railroad Canyon Road and the Canyon Hills Master Planned Community.

Site Description and Proposed Development

Proposed Summerhill Drive extends approximately 4,100 feet from it's existing intersection with Ponte Russo northward to proposed Greenwald Avenue. Summerhill Drive will be graded through vacant, largely natural terrain with variable topography. Slopes range from nearly flat to as steep as 1:1. The road alignment and the surrounding proposed residential development is underlain by surficial deposits of young topsoils and alluvium, and Mesozoic-

age metasedimentary bedrock. Landsliding and active faulting are not known to occur with the proposed road alignment.

The road alignment and the surrounding proposed residential development is covered by a moderate to sparse growth of weeds. The large drainage just north of the Ponte Russo intersection supports large trees and brush. Shallow groundwater may be present in this drainage.

Proposed fills are deepest in the large drainage, up to 70 feet in height. Deepest cuts are 40+ feet. The grading concept shows 2:1 fill and cutslopes daylighting through the proposed adjacent residential areas on both sides of the alignment. Drainage culverts will be constructed in canyon areas.

Item 1 Preliminary Geotechnical Investigation

The purpose of our proposed Preliminary Geotechnical Report is to discuss the onsite geotechnical conditions with respect to the proposed grading and construction, identify site geotechnical constraints (if any), provide specific preliminary geotechnical recommendations for grading and improvement construction, develop a document suitable for processing at the City of Lake Elsinore, and provide information that can be utilized for value engineering and construction cost estimates.

To provide site-specific geotechnical information and to supplement the existing geotechnical information (Albus-Keefe, 2004), Alta will undertake a limited subsurface investigation. Our work will utilize a rubber-tire backhoe in alluviated areas to obtain in-place moisture-density data for remedial grading recommendations. Alta will also commission a seismic refraction survey to obtain rippability information in deep bedrock cut areas.

Alta proposes the following Scope of Work for the 4,100-foot extension of Summerhill Drive:

- Review of maps, literature and air photos pertinent to the site;
- Perform site geologic mapping;

- Excavate, log and sample twelve (10) to twelve (12) rubber-tire backhoe test pits. Alta will perform in-place moisture/density testing within the test pits, utilizing a Nuclear Gauge, at various intervals in the alluviated drainages to derive remedial grading recommendations;
- Commission a six (6) to seven (7) seismic refraction traverses to provide excavatability information down depths of necessary bedrock undercuts to facilitate utility construction;
- Laboratory testing including: direct shear strength, laboratory maximum dry density and optimum moisture content, expansion index, grain size distribution, and preliminary screening for sulfates, and corrosion potential; R-values
- Preparation of a geologic map, including the work presented in the previous investigation;
- Summarization of existing site conditions, including rippability, and onsite soils engineering characteristics;
- Seismic hazards evaluation;
- Analysis of cut and fill slope stability;
- Develop remedial grading and grading recommendations;
- Estimate remedial grading quantities and shrink/swell parameters;
- Provide code-consistent seismic coefficients for design;
- Provide design recommendations for retaining walls;
- Preparation of a report with exhibits summarizing our findings, conclusions and recommendations specific a Grading Plan. This report will be suitable for processing at the City of Lake Elsinore, engineer's cost estimates and contractor bid purposes.

Item 2: Final Engineering and Plan Reviews

Alta will support Hunsaker and Associates during the final engineering of the Summerhill Drive extension. It is anticipated that the City of Lake Elsinore will require the geotechnical consultant to review the overall rough grading plans and improvements plans prior to issuing a grading permit. Alta's Scope of Services to for our support during final engineering are anticipated to include the following:

- Review of the grading plans with respect to the geotechnical recommendations presented in the Preliminary Geotechnical Report;
- Review of improvement plans, including culverts, storm drains, utilities and retaining walls (if any);
- Preparation of letter-reports with appropriate exhibits summarizing the above mentioned plan reviews;
- Attendance at team meetings.

The estimated costs for provided these services are summarized below. A detailed cost breakdown to provide the above services can be provided upon request.

SUMMARY

| | | |
|----------------|---|---------------------|
| Item 1: | Preliminary Geotechnical Report | |
| | Field Investigation | \$ 9,400.00 |
| | Laboratory Testing | \$ 1,900.00 |
| | Data Analysis and Report Preparation | <u>\$ 2,700.00</u> |
| | Sub Total | \$ 14,000.00 |
| Item 2: | Plan Reviews and Final Engineering | \$ 2,900.00 |
| | TOTAL | \$ 16,900.00 |

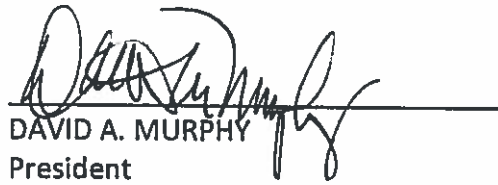
Fees will be billed on a time and materials basis, utilizing the attached **FEE SCHEDULE** but will not exceed the estimated amount unless the scope of the project changes or without your prior authorization. This proposal assumes that no portion of the work undertaken by Alta would be characterized as "Public Works" by the State Department of Industrial Relations and, therefore, would not fall under the current interpretation of the California prevailing wage law.

Alta California Geotechnical, Inc. appreciates the opportunity to present this proposal. We will be happy to meet with you regarding the project at your convenience. Should you have any questions, please contact the undersigned at our Corona or San Diego offices.

Respectfully submitted,
Alta California Geotechnical, Inc.



SCOTT A. GRAY
Vice President
Registered Geotechnical Engineer



DAVID A. MURPHY
President
Certified Engineering Geologist

AUTHORIZED BY:

Title

Date

Distribution: (1) Addressee

Attachment: Fee Schedule

SAG/DAM: dam 1-19-OXX, April 26, 2019 (Geo Services, Summerhill Dr. Extension, Tuscany Hills, Lake Elsinore)

References

Albus-Keefe & Assoc., 2004, Preliminary geotechnical investigation, Tuscan North project, Tentative Tract 31370, City of Lake Elsinore, County of Riverside, California dated February 4, 2004 (J.N. 1243.00).

California Division of Mines and Geology, 1980, Alquist-Priolo Special Studies Zones, official map dated January 1, 1980.

Morton, D.M. and Weber, F.H., 2003, Preliminary geologic map of the Elsinore 7.' Quadrangle, Riverside County, California: U.S. Geologic Survey, Open File Report OF-2003-281, scale 1:24,000.

SERVICE FEE SCHEDULE

HOURLY PERSONNEL

| | |
|---|-----------|
| Project Engineer & Geologist | \$ 140.00 |
| Registered Civil Engineer & Engineering Geologist | \$ 120.00 |
| Civil Engineering & Engineering Geology Associate | \$ 95.00 |
| Senior Soils Technician | \$ 80.00 |
| Soils Technician | \$ 72.00 |
| Soils Technicians (prevailing wage) | \$ 110.00 |
| Deputy Inspection | \$ 78.00 |
| Deputy Inspection (prevailing wage) | \$ 110.00 |
| Laboratory Technician | \$ 70.00 |
| AutoCAD Draftsperson | \$ 80.00 |

LABORATORY

| | | | |
|-------------------------|-----------|-------------------------|----------------|
| Max. Den. / Opt. Moist. | \$ 140.00 | "R"-Value | \$ 275.00 |
| Direct Shear | \$ 140.00 | Concrete Testing | \$ 40.00/Break |
| Moisture & Density | \$ 18.00 | Density - rock or chunk | \$ 70.00 |
| A.S.C.E. Swell Index | \$ 105.00 | Atterberg Limits | \$ 140.00 |
| Consolidation | \$ 140.00 | | |
| Full Gradation | \$ 140.00 | | |
| Hydrometer | \$ 53.00 | | |
| Sieve | \$ 70.00 | | |
| Sand Equivalent | \$ 75.00 | | |
| Specific Gravity | \$ 70.00 | | |

ADDITIONAL CHARGES

| | |
|------------------|--------------|
| Field Vehicles | \$ 9.00 / hr |
| Nuclear Gauge | \$ 6.00 / hr |
| Equipment Rental | quote |
| Reprographics | quote |
| <i>Per Diem</i> | quote |

January, 2019