



STANDARD AGREEMENT

(version 2-20-2018)

This AGREEMENT ("Agreement") is entered by and between **Lockwood, Andrews, & Newnam, Inc.** ("Contractor"), located at **2925 Briarpark Drive, Suite 400, Houston, TX 77042-3720** and **City of League City** ("City"), a municipal corporation, located at 300 W. Walker, League City, Texas 77573 on the date set forth below.

Terms:

1. **Scope of Services:** Contractor will perform the designated services and/or provided the designated products, as set forth in **Exhibit A**, which is attached and incorporated herein, and which can be generally described as **Oaks of Clear Creek Overland Flow and Acquisition Project**. If there is a conflict between the terms of this Agreement and Exhibit A, the terms of this Agreement will prevail.
2. **Term and Termination:** This Agreement shall begin on **June 10, 2019** and shall terminate on **upon completion of project (estimated at 30 months)**. This City reserves the right to terminate this Agreement for convenience upon seven (7) days-notice to the Contractor. Upon such termination, the City shall pay Contractor, at the rate set out in **Exhibit A**, for services satisfactorily performed or products satisfactorily provided up through the date of termination. Notwithstanding any provision in this Agreement to the contrary, the City will not be required to pay or reimburse Contractor for any services performed or for expenses incurred by Contractor after the date of the termination notice that could have been avoided or mitigated by Contractor. This Agreement is eligible for **NA** renewal option(s) with a term of **NA** year.
3. **Compensation:** Contractor shall be paid for the services, as set forth in **Exhibit A**, attached and incorporated for all purposes. In no event shall the total compensation exceed **\$249,976.00** during the term of this Agreement. The City shall pay Contractor in accordance with the Texas Government Code 2251. Contractor must submit invoices for all services, which invoices must include dates of service and details of services provided. Payment for delivery of services rendered shall not be unreasonably withheld or delayed. If the City disapproves any amount submitted for payment by Contractor, the City shall give Contractor specific reasons for disapproval in writing. Upon resolution of any disputed charges, Contractor shall submit an amended invoice covering any remaining charges to the City.
4. **Insurance:** The Contractor **is** required to maintain insurance through the term of this Agreement.

If required by the City, Contractor shall maintain Comprehensive General Liability insurance coverage of \$1,000,000 per occurrence or medical malpractice insurance (whichever applies) throughout the entire term of the Agreement. If at any point during the Agreement, Contractor will enter City property, Contractor shall also maintain the following insurance: (i) Worker's Compensation coverage with statutory limits for the State of Texas, including Employers Liability coverage of \$500,000 per accident; (ii) Commercial Automobile Liability coverage of \$1,000,000 Combined Single Limit; (iii) for engineers and architects only: Professional Liability coverage of \$5,000,000 per occurrence; and (iv) for builders only: Builder's Risk coverage in the amount of the construction cost, including protection against named windstorm and flood. All policies must contain a waiver of subrogation against City. Comprehensive General Liability and Commercial Automobile Liability policies must name the City as Additional Insured. Contractor shall pay all insurance deductibles and deductibles must not exceed \$10,000 unless approved in advance by City.

Contractor shall provide City Certificates of Insurance evidencing these insurance requirements prior to the start of work.

5. **Independent Contractor:** Contractor is an independent contractor and is not an employee, partner, joint venture, or agent of the City. Contractor understands and agrees that he/she will not be entitled to any benefits generally available to City of League City employees. Contractor shall be responsible for all expenses necessary to carry out the services under this Agreement and shall not be reimbursed by the City for such expenses except as otherwise provided in this Agreement.
6. **Intellectual Property:** This Agreement shall be an Agreement for services and the parties intend and consider any work created as a result of this Agreement, including any and all documentation, images, products or results, to be a work for hire under federal copyright law. Ownership of the work shall belong to and remain the exclusive property of the City. The work may be edited at any time within the City's discretion. If the work would not be considered a work-for-hire under applicable law, Contractor hereby assigns, transfers, and conveys any and all rights, title and interest to City of League City, including without limitation all copyrights, patents, rights of reproduction, rights to ownership, and right to secure registrations, renewals, reissues and extensions thereof. As the sole copyright holder of the work, the City maintains and asserts the rights to use, reproduce, make derivative works from, and/or edit the Work in any form of medium, expression or technology now known or hereafter developed, at any time within the City's discretion. Contractor shall not sell, disclose or obtain any other compensation for the services provided herein. If the work is one to which the provisions of 17 U.S.C. § 106A apply, the Contractor hereby waives and appoints the City to assert on the Contractor's behalf the Contractor's moral rights or any equivalent rights regarding the form or extent of any alteration to the work (including, without limitation, removal or destruction) or the making of any derivative works based on the Work, including, without limitation, photographs, drawings or other visual reproductions of the work, in any medium, for the City's purposes.
7. **Confidentiality:** During the course of the work and/or services to be provided under this Agreement, Contractor may come in contact with confidential information of the City. Contractor agrees to treat as confidential the information or knowledge that becomes known to Contractor during performance of this Agreement and not to use, copy, or disclose such information to any third party unless authorized in writing by the City. This provision does not restrict the disclosure of any information that is required to be disclosed under applicable law. Contractor shall promptly notify the City of any misuse or unauthorized disclosure of its confidential information and upon expiration of this Agreement shall return to the City all confidential information in Contractor's possession or control. Contractor shall further comply with all information security policies of the City that may apply and shall not make any press releases, public statements or advertisement referring to the services provided under this Agreement or the engagement of Contractor without the prior written approval of the City.
8. **Warranties and Representations:** Contractor warrants and agrees that Contractor shall perform the Services and conduct all operations in conformity with all applicable federal, state, and local laws, rules, regulations, and ordinances. For any Service performed on premises owned or controlled by the City, Contractor warrants and agrees that Contractor will perform the Services in compliance with all City Rules, including but not limited to, prohibitions related to tobacco use, alcohol, and other drugs.
9. **Licenses/Certifications:** Contractor represents and warrants that it will obtain and maintain in effect, and pay the cost of all licenses, permits or certifications that may be necessary for Contractor's performance of this Agreement. If Contractor is a business entity, Contractor warrants, represents, covenants, and agrees that it is duly organized, validly existing and in good standing under the laws of the state of its incorporation; and is duly authorized and in good standing to conduct business in the State of Texas, that it has all necessary power and has received all necessary approvals to execute and deliver the Agreement and is authorized to execute this Agreement according to its terms on behalf of Contractor.
10. **Performance/Qualifications:** Contractor agrees and represents that Contractor has the personnel, experience, and knowledge necessary to qualify Contractor for the particular duties to be performed under

this Agreement. Contractor warrants that all services performed under this Agreement shall be performed consistent with generally prevailing professional or industry standards.

11. **Conflict of Interest:** Contractor warrants, represents, and agrees that Contractor presently has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with Contractor's performance of the Services hereunder. Contractor further warrants and affirms that no relationship or affiliation exists between Contractor and the City that could be construed as a conflict of interest with regard to this Agreement.
12. **INDEMNIFICATION: CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE CITY, AND EACH OF ITS DIRECTORS, OFFICERS, AGENTS AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, ACTIONS, SUITS, DEMANDS, PROCEEDINGS, COSTS, DAMAGES AND LIABILITIES, INCLUDING WITHOUT LIMITATION ATTORNEYS' FEES AND REASONABLE LITIGATION COSTS, ARISING OUT OF, CONNECTED WITH, OR RESULTING FROM ANY ACTS OR OMISSIONS OF CONTRACTOR OR ANY AGENT, EMPLOYEE, SUBCONTRACTOR, OR SUPPLIER OF CONTRACTOR IN THE EXECUTION OR PERFORMANCE OF THIS CONTRACT, TO THE EXTENT THE CLAIM ARISES FROM NEGLIGENCE, WILLFUL ACT, BREACH OF CONTRACT OR VIOLATION OF LAW.**
13. **Force Majeure:** Neither the City nor Contractor shall be liable for any delay in the performance of this Agreement, nor for any other breach, nor for any loss or damage arising from uncontrollable forces such as fire, theft, storm, war, or any other force majeure that could not have been reasonably avoided by exercise of due diligence.
14. **Notices:** Any notice given under this contract by either party to the other may be affected either by personal delivery in writing or by mail, registered or certified postage prepaid with return receipt requested. Mailed notices shall be addressed to the addresses of the parties as they appear in the contract. Notices delivered personally shall be deemed communicated at the time of actual receipt. Mailed notice shall be deemed communicated three (3) days after mailing.
15. **Texas Family Code Child Support Certification:** Pursuant to Section 231.006, *Texas Family Code*, Contractor certifies that it is not ineligible to receive the award of or payments under the Agreement and acknowledges that the Agreement may be terminated, and payment may be withheld if this certification is inaccurate.
16. **State Auditor:** Contractor understands that acceptance of funds under the Agreement constitutes acceptance of the authority of the Texas State Auditor's Office, or any successor agency (collectively, "Auditor"), to conduct an audit or investigation in connection with those funds. Contractor agrees to cooperate with the Auditor in the conduct of the audit or investigation, including without limitation providing all records requested. Contractor will include this provision in all contracts with permitted subcontractors.
17. **Jurisdiction:** Any disputes under this Agreement shall be brought in a court of competent jurisdiction in Galveston, Texas and governed by Texas law.
18. **Alternative Dispute Resolution:** To the extent that Chapter 2260, Texas Government Code, is applicable to this Contract and is not preempted by other applicable law, the dispute resolution process provided for

in Chapter 2260 and the related rules adopted by the Texas Attorney General Pursuant to Chapter 2260, shall be used by the City and the Contractor to attempt to resolve any claim for breach of contract made by Contractor that cannot be resolved in the ordinary course of business. The Director of Finance of the City shall examine Contractor's claim and any counterclaim and negotiate with Contractor in an effort to resolve such claims. The parties hereto specifically agree that (i) neither the occurrence of an event giving rise to a breach of contract claim nor the pendency of a claim constitute grounds for the suspension of performance by Contractor, (ii) neither the issuance of this Contract by the City nor any other conduct, action or inaction of any representative of the City relating to this contract constitutes or is intended to constitute a waiver of the City's or the state's sovereign immunity to suit; and (iii) the City has not waived its right to seek redress in the courts.

19. **Entire Agreement:** This Agreement contains the entire Agreement between the parties and supersedes all prior agreements, arrangements, and understanding, oral or written between the parties relating to this Agreement. This Agreement may not be modified except by mutual written agreement of the parties executed subsequent to this Agreement.
20. **Eligibility to Receive Payment:** Contractor certifies that, as a matter of State law, it is not ineligible to receive the Agreement and payments pursuant to the Agreement and acknowledges that the Agreement may be terminated, and payment withheld if this representation is inaccurate.
21. **Payment of Debt/Delinquency to State:** Contractor certifies that it is not indebted to the City of League City and is current on all taxes owed to the City of League City. Contractor agrees that any payments owing to Contractor under the Agreement may be applied directly toward any debt or delinquency that Contractor owes the City of League City regardless of when it arises, until such debt or delinquency is paid in full.
22. **Products and Materials Produced in Texas:** If Contractor will provide services under the Agreement, Contractor covenants and agrees that in performing its duties and obligations under the Agreement, it will purchase products and materials produced in Texas when such products and materials are available at a price and delivery time comparable to products and materials produced outside of Texas.
23. **Risk of Loss:** If applicable, all work performed by Contractor pursuant to the Agreement will be at Contractor's exclusive risk until final and complete acceptance of the work by City. In the case of any loss or damage to the work prior to City's acceptance, such loss or damage will be Contractor's responsibility.
24. **Publicity:** Contractor shall not use City's name, logo or likeness in any press release, marketing materials or other public announcement without receiving City's prior written approval.
25. **Legal Construction/Severability:** In the event that any one or more of the provisions contained in this contract shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision, and this contract shall be construed as if such invalid, illegal or unenforceable provisions had never been contained in it. To this end, the provisions of this contract are declared to be severable. The Parties may mutually agree to renegotiate the contract to cure such illegality/invalidity or unconstitutionality if such may be reasonably accomplished.
26. **Limitations:** The Parties are aware that there are constitutional and statutory limitations on the authority of City to enter into certain terms and conditions of the Agreement, including, but not limited to, those terms and conditions relating to liens on City's property; disclaimers and limitations of warranties; disclaimers and limitations of liability for damages; waivers, disclaimers and limitations of legal rights, remedies, requirements and processes; limitations of periods to bring legal action; granting control of litigation or settlement to another party; liability for acts or omissions of third parties; payment of attorneys' fees; dispute resolution; indemnities; and confidentiality (collectively, the "Limitations"), and terms and conditions related to the Limitations will not be binding on City except to the extent authorized by the laws and Constitution of the State of Texas.

27. **Sovereign Immunity:** Except as otherwise provided by Texas law, neither the execution of the Agreement by City nor any other conduct, action or inaction of any City representative relating to the Agreement is a waiver of sovereign immunity by City.
28. **Authority:** Contractor warrants and represents that Contractor has full power and authority to enter into and perform this Agreement and to make the grant of rights contained herein. The person signing on behalf of the City represents that he/she has authority to sign this Agreement on behalf of City.
29. **Non-Waiver:** No covenant or condition of this Agreement may be waived except by written consent of the waiving party. Forbearance or indulgence by one party in any regard whatsoever shall not constitute a waiver of the covenant or condition to be performed by the other party.
30. **Prohibition on Boycotting Israel:** Pursuant to Section 2270.002, Texas Government Code, by executing this Agreement Contractor verifies that Contractor: (1) does not boycott Israel; and (2) will not boycott Israel during the term of this Agreement.
31. **Prohibition Against Business with Iran, Sudan or Foreign Terrorists Organizations:** Contractor warrants, covenants, and represents that Contractor is not engaged in business with Iran, Sudan, or any company identified on the list referenced in Section 2252.152, Texas Government Code.

Executed on this ____ day of _____, _____. *(date to be filled in by City Secretary)*

LOCKWOOD, ANDREWS, & NEWNAM, INC. - "Contractor"

Matt Manges, PE – Senior Associate

CITY OF LEAGUE CITY – "City"

John Baumgartner – City Manager

Attest:

Diana Stapp, City Secretary

Approved as to Form:

Office of the City Attorney

Exhibit A

Scope of Services/Description of Products (44 number of pages, including this page)

Scope of services and fee schedule to the City of League City as noted on attached proposal.



**Lockwood, Andrews
& Newnam, Inc.**
A LEO A DALY COMPANY

May 14, 2019

City of League City
500 W Walker St
League City, Texas 77573

Attention: Christopher Sims, PE

Re: Oaks of Clear Creek Drainage Relief Project

Dear Mr. Sims,

Per your request, Lockwood, Andrews & Newnam, Inc. has prepared a general scope and fee schedule for Improvements to Oaks of Clear Creek. The effort described in Exhibit A will include the proposed scope of services to complete the design. In general, the tasks include a limited analysis, drainage design, limited pavement reconstruction design, utility coordination, public stakeholder coordination, and limited construction support services.

The goal of the Oaks of Clear Creek Project is to improve the functionality of the stormwater system and increase the storm water level of service in the region. Based on previous studies, this project will refine and implement the proposed improvements to the area and reduce the overall flood risk.

Depending on options selected during the analysis portion of the project and options selected, the proposed engineering services will vary as the project extents will differ. For the three alternatives proposed, we propose to complete one of the below engineering service options, for a lump sum amount, as follows:

1. Engineering services for a single buyout and overland/subsurface connections to Bradshaw ditch with associated limited roadway and storm sewer improvements for a total lump sum amount of \$191,751.00.
2. Engineering services for a single or multiple overland flumes and overland/subsurface connections to Bradshaw ditch with associated limited roadway and storm sewer improvements for a total lump sum amount of \$191,751.00.
3. Engineering services for Bradshaw ditch modifications coupled with the improvements associated with options 1 or 2 for a total lump sum amount of \$249,976.00.

City of League City
May 14, 2019
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Exhibit B provides a detailed man hour estimate of the fees associated with the basic services tasks. It is anticipated that the project design can be completed within 12 months of notice-to-proceed. The anticipated construction duration is approximately 6 months.

We are prepared to begin this task immediately and look forward to supporting the City of League City on this important project. Please feel free to contact me at 713-821-0366 or by email at mjmanges@lan-inc.com if you have any additional questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Matt Manges', with a stylized flourish at the end.

Matt Manges, P.E., CFM
Practice Leader, Stormwater

Attachments:
Exhibit A – Scope of Services
Exhibit B – Fee Schedule

Exhibit A

Oaks of Clear Creek Drainage Relief Project

Scope of Services

This proposal is for professional engineering services consisting of drainage analysis and the preparation of Plans, Specifications and Estimates (PS&E) for drainage improvements in Oaks of Clear Creek region. Portions of the existing stormwater system in the project area was deemed as inadequately sized and has been identified as a key improvement component according to a previous H&H study performed by Lockwood, Andrews & Newnam, Inc. (LAN) under a separate contract with the City of League City (the City).

It is anticipated that the total project construction cost will be in the \$1,300,000 to \$1,400,000 range. Previously completed studies in the area estimate Bradshaw Ditch improvements at approximately \$300,000 - \$400,000 while street and stormwater improvements are estimated at approximately \$1,000,000. Construction cost estimates will be refined during the limited analysis portion of this project and refined during detailed design.

The following scope details the procedures that will be followed to provide civil engineering services to provide bid-ready drainage improvement design plans in the project area. The scope of services include the preparation of detailed construction documents in accordance with the City of League City Design Standards, Standard Specifications, and Construction Details.

I. BASIC ENGINEERING SERVICES

A. Field Visit

Visit the project area to field verify all provided survey data. Photographs and field verification of existing geometry, striping, signage and pavement type will be completed during the field visit. Field visit will also be performed to assist in drainage area boundary determination, and to verify the available data collected for the existing storm sewer system. The area will be reviewed to confirm the features shown in the LiDAR available for this project as well.

B. Hydrologic & Hydraulic Analysis

Based on recent flooding complaints from residents and previously completed study efforts, it has been determined that the stormwater conveyance system in portions of Oaks is insufficient. This task will include the refinement of previously developed improvement alternatives to develop final improvement alternatives constructible within available project budgets. Subtasks include:

- Confirm drainage areas to inlet and/or manhole level for both existing and proposed conditions within the project improvement corridor.

- Previously developed dynamic hydraulic models (Infoworks ICM 2D) will be updated to include rainfall based on the recently released NOAA Atlas 14 rainfall depths. The models will be analyzed for 2-, 5-, 10-, 25- and 100-year storm frequencies to determine improvement recommendations necessary to reduce flooding on Deer Ridge Drive and meet City standards.
- Expected improvement alternatives to be analyzed include three (3) options:
 1. Potential for a single buyout and overland/subsurface connection to the ditch with associated limited roadway/storm sewer improvements
 2. Potential for single or multiple overland flumes to provide connections to the ditch with associated limited roadway/storm sewer improvements
 - a. The intent of this improvement would not be a full buyout and would be partial ROW acquisition from multiple properties.
 3. Potential ditch improvements to bring depth upstream from the drop structure at the culverts beneath Bradshaw nursery road coupled with option 1 or 2
- LAN will develop a brief memo summarizing the analysis outcome, procedures, and improvement recommendations, along with associated estimates of construction costs and potential right of way acquisition costs.

C. DRAINAGE DESIGN

1. Existing Conditions Drainage Area Map

An existing conditions drainage area map for the project limits at a scale of 1 inch equals 40 feet will be developed.

2. Proposed Conditions Drainage Area Map

A proposed conditions drainage area map for the project limits at a scale of 1 inch equals 40 feet will be developed.

3. Storm Sewer Lateral Sheets

Storm sewer lateral sheets will be prepared for the purpose of illustrating the profile view of storm sewer components that cannot easily be displayed on the roadway plan and profile sheets.

4. Plan and Profile Sheets – Drainage Ditch

The plan and profile sheets, which will follow the City of League City's drawing requirements, will include existing topography and utilities, proposed improvement footprint in plan view. The profile will include natural ground at the limits of the existing right-of-way and at the centerline of the existing ditch. The plan and profile sheets will indicate the approximate location, size per available data, age of service lines, and capacity of all public utilities and will indicate approximate location and size per available data for private utilities.

5. Cross Section Sheets – Drainage Ditch

Cross sections will be produced along the project ditch at 100 foot intervals. Cross sections will include existing ground and proposed elevations the right-of-way limits.

6. Storm Sewer Standard and Custom Details

The consultant will include relevant standard details. The consultant will develop non-standard or custom details. Additional custom details may include the design of custom equalizing structures for various types of line tie-ins, and outfall structures.

D. ROADWAY AND DRAINAGE PLAN PRODUCTION

1. Cover Sheet

The cover sheet will be prepared in accordance to City of League City drawing requirements. Cover sheet will include area key map and vicinity map to identify project location.

2. Index of Drawings, Legends, and Abbreviations

The index, legends, and abbreviations sheet will be prepared in accordance to City of League City drawing requirements. Index sheet will include a list of all sheets within the planset.

3. Keyed Notes

The keyed notes sheet will be prepared in accordance to City of League City drawing requirements. The keyed notes sheet will include a list of all numbered and keyed notes to be used within the planset.

4. General Notes

General construction notes will be prepared for the project including the City of League City standard notes for roadway, traffic, storm sewer, waterline and sanitary sewer construction.

5. Survey Control Map

Survey subcontractor shall provide survey control map sheets in accordance with the City of League City drawing requirements.

6. Existing and Proposed Typical Sections

Existing and proposed horizontal dimensions, pavement structure makeup and thickness, typical locations of existing buried utilities, right-of-way and easements, sidewalks, shoulders, and drainage ditches will be shown.

7. Overall Site Plan Map

An overall site plan map will be developed to show the major project features, boundaries and limits, as well as any other important information and data beneficial for construction.

8. Plan and Profile Sheets - Drainage and Roadway – Deer Ridge Drive

The plan and profile sheets, which will follow the City of League City's drawing requirements, will include existing topography and utilities, proposed alignment and proposed pavement footprint in plan view. The profile will include natural ground at the limits of the existing right-of-way and at the centerline of the existing roadway. The plan and profile sheets will indicate the approximate location, size per available data, age of service lines, and capacity of all public utilities and will indicate approximate location and size per available data for private utilities. The storm sewer profile will be shown on combined roadway and storm sewer profile sheets.

9. Plan and Profile Sheets - Drainage and Roadway – Turtlewood Drive & Lone Oak Drive

The plan and profile sheets, which will follow the City of League City's drawing requirements, will include existing topography and utilities, proposed alignment and proposed pavement footprint in plan view. The profile will include natural ground at the limits of the existing right-of-way and at the centerline of the existing roadway. The plan and profile sheets will indicate the approximate location, size per available data, age of service lines, and capacity of all public utilities and will indicate approximate location and size per available data for private utilities. The storm sewer profile will be shown on combined roadway and storm sewer profile sheets.

10. Driveway Schedule

A driveway schedule showing the location, size and type of proposed driveways to be reconstructed as part of the project will be developed. Driveways shall typically be reconstructed to the ROW line using standard League City details.

11. Standard and Non-Standard Details

City of League City Construction Details will be included where applicable and edited if necessary to suit the intended use for this project. Additional nonstandard details will be prepared for bidding and construction of the project.

12. Storm Water Pollution Prevention Plan

SWPPP drawings and specifications will be prepared in compliance with the Environmental Protection Agency (EPA) as part of the construction documents.

13. Traffic Control and Detour Plans

Traffic Control Plans will be prepared in accordance with the *Texas Manual on Uniform Traffic*

Control Devices, 2011 Edition.

14. Subsurface Data / Boring Logs

Subsurface data and boring logs will be presented in accordance with City of League City's drawing requirements.

E. PROJECT MANAGEMENT, COORDINATION & DELIVERABLES

1. Project Management and Project Controls

Project management activities are ongoing through the period of the contract and will include items such as participation in the crafting of the Project Management Plan, preparing contract correspondence, transmitting deliverables, preparing invoices, documenting the quality control process, and other project oversight activities.

2. Agency Coordination, Approvals & Signatures

- a. Throughout the project, coordination meetings will be organized as necessary with the City of League City and others as necessary.
- b. It is anticipated that up to four meetings will be required with representatives from the City of League City. The product of this effort will be recommendations for drainage and roadway improvements.
- c. All required signatures will be obtained from governmental agencies and public utilities, which may influence the project design.

3. Stakeholder Coordination & Public Meetings

During the design process, LAN will support the City of League City with Stakeholder Coordination with the residents of the area. Provide support to the City for public meetings, including exhibit and presentation preparation. A total of one public meeting is expected with the residents, and two meetings in front of City Council.

4. Public Utility Conflict Investigation

During the design process, a detailed investigation will be conducted to determine if there are any public utility conflicts and if there is a need to relocate or adjust existing public utilities.

5. Private Utility Coordination

- a. Utility signatures will be obtained from AT&T, Centerpoint Energy Gas and Electric, Texas-New Mexico Power (TNMP), and potentially other companies such as Comcast.
- b. Utility Conflict Resolution

- Utility companies will be notified of all potential conflicts with proposed work. Meetings will be arranged with utility companies and the City of League City in effort to resolve conflicts and relocate private utilities in a timely manner.
- City of League City Preliminary and Final Utility Conflict Notification Letters will be prepared and forwarded to the City of League City Utility Coordinator for distribution.

6. Specifications

- a. Specifications will be prepared in accordance with the City of League City Standard Specifications. Each Standard Specification will be reviewed and supplemented as necessary to suit Project-specific requirements and to meet the design intent of the Project. LAN will prepare additional nonstandard specifications necessary for bidding and construction of the project.
- b. Front-end documents for the project specifications will be prepared by LAN with the assistance from the City of League City.

7. Estimate of Construction Cost and Quantities

Construction quantities and cost estimates will be prepared for each review submittal of the Detailed Design (30%, 60%, 90%, 100% submittals).

8. Quality Assurance / Quality Control

A thorough Quality Assurance/Quality Control (QA/QC) Plan will be implemented to ensure overall project constructability, cost estimate accuracy, and design conformance with industry standards and client-specific requirements and preferences. The LAN QA/QC Plan mandates an extensive review process that will occur at multiple design milestones throughout the duration of the project, and includes the specific procedures to be followed by third-party technical reviewers, itemized review checklists, and guidelines for incorporating reviewer comments. The multi-staged review process will result in the early identification of design concerns and allow the designer ample opportunity to seek resolution and/or clarification from the client.

9. Deliverable Preparation

Provide submittals for interim progress reviews to the City at the 30%, 60%, 90% and final (100% completion) stages.

- a. 30% submittal shall include two (2) sets of 11"x17" legible black-line construction drawings, a list of governing specifications and special provisions, and an estimated construction cost estimate.
- b. 60% submittal shall include two (2) sets of 11"x17" legible black-line construction drawings, a list of governing specifications and special provisions, and a construction

cost estimate.

- c. 90% submittal shall include two (2) sets of 11"x17" legible black-line construction drawings, governing specifications and special provisions book, and a construction cost estimate.
- d. The final (100% completion) submittal to the City will be reviewed prior to preparing the contract documents for the bid advertisement process. The final submittal shall include two (2) sets of 11"x17" and two (2) sets of 22"x34" legible black-line construction drawings, governing specifications and special provisions book, and a final construction cost estimate. All previous comments must be addressed before the bid advertisement process can commence.
- e. Electronic files and drawings will be submitted to the City at the final submittal (2 CDs or DVDs) and at each interim submittal.

11. Bidding Services

LAN will assist City of League City in conducting the pre-bid conference, preparing contract amendments, the tabulation of bids received, and awarding the contract.

12. Limited Construction Phase Services

LAN will assist City of League City in construction phase services including:

- A. Attend the pre-construction meeting with selected contractor prior to construction start date.
- B. Make periodic visits to the site to observe work progress and quality of executed work and to determine in general if work is proceeding in accordance to Contract Documents. In performing this service, design team will not be responsible for the techniques and sequences of construction or the safety precautions incidental thereto and will not be responsible or liable in any degree for the contractor's failure to perform the construction work in accordance with the Contract Documents, except to the extent that the design team fails to exercise the usual degree of care and judgment of an ordinarily prudent engineer in the same or similar circumstances and conditions.
- C. During visits to the construction site, and on the basis of our onsite observations as an experienced and qualified design professional, the design team will keep the City informed of the extent of the progress of the work and advise the City of material and substantial defects and deficiencies in the contractor's work discovered by the design team or otherwise brought to our attention during construction. However, it is agreed that the contractor is solely responsible for the means and methods to be used and the safety of its employees and all other persons on the job site. Assuming a six month construction duration, LAN will allocate approximately 20 hours per month for the duration of the project.

- D. If necessary the design team will assist the City with the review of schedules, submittals, laboratory test results, RFI's, and other data which the Contractor submits. This review is for the benefit of the City and requires only general conformance with the design concept of the Project and general compliance with the information given in the Contract Documents. It does not relieve Contractor of any responsibilities, such as dimensions to be confirmed and correlated at the job site, appropriate safety measures to protect workers and the public, or the necessity of constructing a complete and workable facility in accordance with the construction Contract Documents.
- E. The design team shall assist the City's Construction Management (CM) team as necessary with change order development.
- F. Conduct, in company with the City, a final inspection of the project to determine general conformance of work performed by Contractor with the construction Contract Documents.
- G. Assist the City CM team in issuing a punch list of deficient items to be corrected by Contractor.
- H. Attend monthly job site status update meetings with the City and the Contractor.
- I. Incorporate field changes and information from the Contractor's as-built "red-line" drawings into the Record Drawings.
- J. Coordinate with adjacent stakeholders as necessary.

13. Reimbursable Expenses

Reimbursable expenses such as reproduction and mileage will be billed to the City of League City at cost.

II. ADDITIONAL ENGINEERING SERVICES

The Additional Services are summarized below. The tasks are designated as lump sum (LS), unless noted otherwise.

A. Surveying Services

The proposed topographic survey required for the design effort will be performed by Kuo & Associates, Inc. This work is estimated to be for the lump sum amount of \$36,996.00, not including markup. A detailed proposal for this work is included as Exhibit B. This effort does include surveying of potential easement acquisition to be provided to the City for easement acquisition purposes.

B. Geotechnical Investigation

The proposed geotechnical investigation required for the design effort will be provided by Ninyo & Moore. This work is estimated to be for the lump sum amount of \$12,600.00, not including markup. A detailed proposal for this work is included as Exhibit B.

C. Environmental and Individual USACE Permitting

The proposed USACE permitting that may be required for the project will be provided by Crouch Environmental Services, Inc. This work is estimated to be for the lump sum amount of \$7,500.00, not including markup. A detailed proposal for this work is included as Exhibit B.

D. Wetland Delineation and Permitting

If Wetland Delineation and permitting is required for the project, Crouch Environmental Services, Inc. is proposed to provide this service. This work is estimated to be for the lump sum amount of \$6,700.00, not including markup. A detailed proposal for this work is included as Exhibit B.

E. Water Quality Analysis/Design

Should water quality analysis be required, Crouch Environmental Services, Inc. is proposed to provide this service. This work is estimated to be for the lump sum amount of \$2,500.00, not including markup. A detailed proposal for this work is included as Exhibit B. If a mitigation plan for permitting is necessary, an additional scope of services will be prepared.

F. Environmental Site Assessment

An Environmental Site Assessment (ESA)-Phase I required for the project will be provided by Crouch Environmental Services, Inc. This work is estimated to be for the lump sum amount of \$8,700.00, not including markup. A detailed proposal for this work is included as Exhibit B. If future Pedestrian level survey with shovel testing is required, an additional scope of services will be prepared.

III. SERVICES NOT INCLUDED IN SCOPE OF WORK

City of League City and LAN agree that the following services are beyond the Scope of Services described in the tasks above. However, LAN can provide these services, if needed, upon the City's written request. Any additional amounts paid to LAN as a result of any material change to the Scope of the Project shall be agreed upon in writing by both parties before the services are performed. These additional services include the following:

1. Construction Management Services
2. Construction Inspection Services
3. CCTV Inspection
4. TDLR Inspection
5. FEMA modeling and submittals

EXHIBIT B

Fee Schedule

Oaks of Clear Creek Drainage Relief Project

| | DESCRIPTION OF WORK TASKS | PROJ MGR | SR PROF ENG | PROJECT ENGINEER | GRADUATE ENGINEER | DESIGNER | PROJ ADMIN | TOTAL HOURS | TOTAL LABOR COSTS | Option 1 | Option 2 | Option 3 |
|----|---|---|----------------|---------------------|----------------------|----------|---------------|----------------|----------------------|--------------|--------------|--------------|
| I. | BASIC ENGINEERING SERVICES | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | AField Visits | | | 8 | 8 | | 4 | 20 | \$ 2,200.00 | \$ 2,200.00 | \$ 2,200.00 | \$ 2,200.00 |
| | BHydrologic & Hydraulic Analysis | 2 | 12 | 48 | 72 | | 4 | 138 | \$ 16,810.00 | \$ 16,810.00 | \$ 16,810.00 | \$ 16,810.00 |
| | | | | | | | | | | | | |
| | C | Drainage Design -30%, 60%, 90% and 100% | | | | | | | | | | |
| | 1Existing Conditions Drainage Area Map (1 sheet) | | 2 | 5 | 6 | 12 | | 25 | \$ 2,815.00 | \$ 2,815.00 | \$ 2,815.00 | \$ 2,815.00 |
| | 2Proposed Conditions Drainage Area Map (1 sheet) | | 2 | 5 | 6 | 12 | | 25 | \$ 2,815.00 | \$ 2,815.00 | \$ 2,815.00 | \$ 2,815.00 |
| | 3Storm Sewer Lateral Sheets (2 sheets) | 1 | 2 | 8 | 16 | 24 | | 51 | \$ 5,765.00 | \$ 5,765.00 | \$ 5,765.00 | \$ 5,765.00 |
| | 4Plan and Profile Sheets - Ditch (8 sheets, 1"=20' scale) | 8 | 18 | 32 | 50 | 100 | | 208 | \$ 24,250.00 | | | \$ 24,250.00 |
| | 5Cross Section Sheets - Ditch (4 sheets, Cross sections every 100') | 3 | 6 | 12 | 20 | 32 | | 73 | \$ 8,575.00 | | | \$ 8,575.00 |
| | 6Storm Sewer Standard and Custom Details (2 sheets) | | 2 | 8 | 8 | 16 | | 34 | \$ 3,820.00 | \$ 3,820.00 | \$ 3,820.00 | \$ 3,820.00 |
| | D | Roadway Plan Production -30%, 60%, 90% and 100% | | | | | | | | | | |
| | 1Cover Sheet (1 sheet) | | | 2 | 2 | 4 | | 8 | \$ 880.00 | \$ 880.00 | \$ 880.00 | \$ 880.00 |
| | 2Index of Drawings, Legends and Abbreviations | | | 1 | 4 | 8 | | 13 | \$ 1,385.00 | \$ 1,385.00 | \$ 1,385.00 | \$ 1,385.00 |
| | 3Keyed Notes | | | 1 | 4 | 8 | | 13 | \$ 1,385.00 | \$ 1,385.00 | \$ 1,385.00 | \$ 1,385.00 |
| | 4General Notes (2 sheets) | | | 1 | 4 | 8 | | 13 | \$ 1,385.00 | \$ 1,385.00 | \$ 1,385.00 | \$ 1,385.00 |
| | 5Survey Control Map (refer to survey subcontractor) | | | | | | | 0 | \$ - | | | |
| | 6Existing and Proposed Typical Sections (4 sheets) | | 2 | 8 | 16 | 24 | | 50 | \$ 5,540.00 | \$ 5,540.00 | \$ 5,540.00 | \$ 5,540.00 |
| | 7Overall Site Plan Map (1 sheet) | | | 2 | 4 | 8 | | 14 | \$ 1,510.00 | \$ 1,510.00 | \$ 1,510.00 | \$ 1,510.00 |
| | 8Plan and Profile Sheets - Drainage & Roadway - Deer Ridge Drive (4 sheets, 1"=20' scale) | | 6 | 20 | 36 | 48 | | 110 | \$ 12,340.00 | \$ 12,340.00 | \$ 12,340.00 | \$ 12,340.00 |
| | 9Plan and Profile Sheets - Drainage & Roadway - Turtlewood Drive (1 sheet, 1"=20' scale) | | 1 | 5 | 6 | 12 | | 24 | \$ 2,665.00 | \$ 2,665.00 | \$ 2,665.00 | \$ 2,665.00 |
| | 10Plan and Profile Sheets - Drainage & Roadway - Lone Oak Drive (1 sheet, 1"=20' scale) | | 1 | 5 | 6 | 12 | | 24 | \$ 2,665.00 | \$ 2,665.00 | \$ 2,665.00 | \$ 2,665.00 |
| | 11Driveway Schedule | | 1 | 2 | 2 | 6 | | 11 | \$ 1,230.00 | \$ 1,230.00 | \$ 1,230.00 | \$ 1,230.00 |
| | 12Standard and Non Standard Details (2 sheets) | | 4 | 6 | 6 | 20 | | 36 | \$ 4,040.00 | \$ 4,040.00 | \$ 4,040.00 | \$ 4,040.00 |
| | 13Storm Water Pollution Prevention Plan (4 sheets) | | 2 | 4 | 12 | 24 | | 42 | \$ 4,580.00 | \$ 4,580.00 | \$ 4,580.00 | \$ 4,580.00 |
| | 14Traffic Control and Detour Plans | | 4 | 10 | 12 | 16 | | 42 | \$ 4,830.00 | \$ 4,830.00 | \$ 4,830.00 | \$ 4,830.00 |
| | 15Subsurface Data/Boring Logs Sheets (2 Sheets) | | 1 | 2 | 4 | 8 | | 15 | \$ 1,660.00 | \$ 1,660.00 | \$ 1,660.00 | \$ 1,660.00 |

EXHIBIT B

Fee Schedule

Oaks of Clear Creek Drainage Relief Project

| | DESCRIPTION OF WORK TASKS | PROJ MGR | SR PROF ENG | PROJECT ENGINEER | GRADUATE ENGINEER | DESIGNER | PROJ ADMIN | TOTAL HOURS | TOTAL LABOR COSTS | Option 1 | Option 2 | Option 3 |
|--|--|--------------|----------------|---------------------|----------------------|-------------|---------------|----------------|----------------------|---------------|---------------|---------------|
| I. | BASIC ENGINEERING SERVICES | | | | | | | | | | | |
| | E Project Management, Coordination | | | | | | | | | | | |
| | 1 Project Management and Project Controls | 10 | 30 | 12 | | | | 52 | \$ 8,250.00 | \$ 8,250.00 | \$ 8,250.00 | \$ 8,250.00 |
| | 2 Agency Coordination, Approvals & Coordination | 4 | 4 | 16 | | | | 24 | \$ 3,500.00 | \$ 3,500.00 | \$ 3,500.00 | \$ 3,500.00 |
| | 3 Stakeholder Coordination | 8 | 8 | 24 | 24 | | | 64 | \$ 8,760.00 | \$ 8,760.00 | \$ 8,760.00 | \$ 8,760.00 |
| | 4 Public Utility Conflict Investigation | | 3 | 6 | 10 | | | 19 | \$ 2,350.00 | \$ 2,350.00 | \$ 2,350.00 | \$ 2,350.00 |
| | 5 Private Utility Coordination | | 4 | | 10 | | | 14 | \$ 1,750.00 | \$ 1,750.00 | \$ 1,750.00 | \$ 1,750.00 |
| | 6 Specifications | 1 | 4 | 8 | 24 | | | 37 | \$ 4,585.00 | \$ 4,585.00 | \$ 4,585.00 | \$ 4,585.00 |
| | 7 Estimate of Construction Cost and Quantities (30%, 60%, 90%, 100% submittals) | 2 | 4 | 24 | 24 | | | 54 | \$ 6,810.00 | \$ 6,810.00 | \$ 6,810.00 | \$ 6,810.00 |
| | 8 QA/QC (30%, 60%, 90%, 100% submittals) and Independent Constructability Review | | 16 | 24 | | | | 40 | \$ 5,400.00 | \$ 5,400.00 | \$ 5,400.00 | \$ 5,400.00 |
| | 9 Deliverable Preparation | | | 4 | | 8 | | 12 | \$ 1,300.00 | \$ 1,300.00 | \$ 1,300.00 | \$ 1,300.00 |
| | 11 Bidding Services | | 8 | 12 | | | | 20 | \$ 2,700.00 | \$ 2,700.00 | \$ 2,700.00 | \$ 2,700.00 |
| | 12 Construction Phase Services | | 16 | 40 | 72 | | | 128 | \$ 15,680.00 | \$ 15,680.00 | \$ 15,680.00 | \$ 15,680.00 |
| | TOTAL HOURS | 39 | 163 | 365 | 468 | 410 | 8 | 1453 | | | | |
| | Contract Labor Rate | \$225.00 | \$150.00 | \$125.00 | \$115.00 | \$100.00 | \$70.00 | | | | | |
| | TOTAL LABOR COSTS | \$8,775.00 | \$24,450.00 | \$45,625.00 | \$53,820.00 | \$41,000.00 | \$560.00 | | \$174,230.00 | | | |
| | | | | | | | | | | | | |
| Total LAN Labor | | | | | | | | | \$174,230.00 | | | |
| Total LAN Reimbursable Expenses | | | | | | | | | \$750.00 | \$750.00 | \$750.00 | \$750.00 |
| Total Subconsultants | | | | | | | | | \$74,996.00 | | | |
| Total Contract | | | | | | | | | \$249,976.00 | | | |
| | | | | | | | | | | | | |
| Subs | | Cost | Mark-Up | Total | | | | | | | | |
| Topographic Survey - Deer Ridge (Kuo & Associates) | | \$ 14,438.00 | 0% | \$ 14,438.00 | | | | | | | | |
| Basemap & DTM - Deer Ridge (Kuo & Associates) | | \$ 4,934.00 | 0% | \$ 4,934.00 | | | | | | | | |
| Topographic Survey - Channel (Kuo & Associates) | | \$ 12,238.00 | 0% | \$ 12,238.00 | | | | | | | | |
| Basemap & DTM- Channel (Kuo & Associates) | | \$ 2,386.00 | 0% | \$ 2,386.00 | | | | | | | | |
| Parcel Boundary Survey (Kuo & Associates) | | \$ 3,000.00 | 0% | \$ 3,000.00 | | | | | | | | |
| Geotechnical Investigation (Ninyo & Moore) | | \$ 12,600.00 | 0% | \$ 12,600.00 | | | | | | | | |
| Environmental USACE Permitting (Crouch Environmental) | | \$ 7,500.00 | 0% | \$ 7,500.00 | | | | | | | | |
| Wetland Delineation and Permitting (Crouch Environmental) | | \$ 6,700.00 | 0% | \$ 6,700.00 | | | | | | | | |
| Water Quality Analysis/Design (Crouch Environmental) | | \$ 2,500.00 | 0% | \$ 2,500.00 | | | | | | | | |
| Environmental Site Assessment - Phase I (Crouch Environmental) | | \$ 8,700.00 | 0% | \$ 8,700.00 | | | | | | | | |
| | | | | | | | | | | \$ 191,751.00 | \$ 191,751.00 | \$ 249,976.00 |

EXHIBIT B



KUO
& associates, Inc.
Consulting Engineers
& Surveyors

10300 Westoffice Drive, Ste. 800
Houston, TX 77042
Phone: (713) 975-8769
Fax: (713) 975-0920
Engineering Firm Reg. No. F-4578
Surveying Firm Reg. No. 10075600
www.kuoassociates.com

April 18, 2019

Ricky Gonzalez
Associate – Senior Project Coordinator
Lockwood, Andrews & Newnam, Inc.
2925 Briarpark Drive, Suite 400
Houston, TX 77042

Re: Deer Ridge Road – League City
Topographic Surveying & Basemap Plan & Profile

Dear Mr. Gonzalez:

Kuo & Associates, Inc. is pleased to submit this proposal to perform following items of work for the above referenced project:

- **Item 1 – Topographic Surveying**
- **Item 2 – Basemap Plan and Profile**

Above work items will be performed mainly along Deer Ridge Road and side street for the limits as defined in the table shown below and as well in the attached exhibit:

| Street | From | To | Length (LF) |
|--------------|-------------------------|------------|--------------|
| Deer Ridge | South end | North end | 1,700 |
| Turtle Wood | Shrub Oak | Deer Ridge | 300 |
| Loan Oak | 100' west of Deer Ridge | Deer Ridge | 100 |
| Total | | | 2,100 |

The scope of work and fee will be as follows:

SCOPE OF WORK

Item 1 – Topographic Surveying:

Topographic Survey shall conform to City of League City's all surveying requirements and Category 6, Condition 2 survey of TSPS Manual of Practice, as applicable. According to the requirements, the scope for survey will be including the following tasks:

1. Horizontal and vertical controls will be established and tied to the Texas State Plane Coordinate System, South Central Zone NAD 83 and datum NAVD 88. Survey will be tied to League City survey monument as project benchmark.
2. Cross sections will be surveyed at every 100 feet interval from along the project streets
3. All planimetric features will be surveyed along the road right-of-way for a width 10' beyond the ROW line. Survey will be extended on all sides of street intersections at least to 100'.
4. All visible existing utilities (i.e. manholes, culverts, power poles, etc.) will be located and pipe size and flow line measure downs in the manholes, inlets and water valves (that can be opened) will be obtained. Any Level SUE A & B survey is beyond the scope of this proposal.
5. Texas one-call system will be notified and pipeline companies will be contacted to probe and mark their pipeline (if any) locations to be tied to the survey.

EXHIBIT B

April 18, 2019
Proposal

Page No. 2

6. Attempt will be made to recover and verify sufficient monumentation along the existing roadway to establish estimated right-of-way lines for topographic surveying scope. Task of establishing estimated ROW may involve some limited abstracting and deed research, however, detail boundary category survey is excluded in determination.
7. Plan view drawings will be prepared containing all topographic information and visible utility features in Microstation format.
8. Signed and sealed field books containing notes as well as ASCII files of point numbers, coordinates, and descriptions will be provided.
9. **Tie to TSARP Monument:** nearby TSARP monument will be tied to the survey
10. **Survey Control Map:** A survey control map will be prepared showing swing ties to traverse and baseline points as well as TBM's. The survey control map will be signed and sealed by a Registered Professional Land Surveyor in charge of the project.
11. **Establishing Design Center Line:** Design center line could be established in the field based on coordinates as shown in the survey control map.
12. **Borehole Survey:** Boreholes (geotechnical and environmental) will be located in the field and a table will be prepared including coordinates, stations, elevations of the boreholes besides incorporating the same on the plan drawing

Item 2 – Basemap Plan & Profile:

Scope of work includes CADD services for preparing basemap plan and profile view of existing conditions for the streets as listed in the attached tables

We will be performing the following tasks under the scope:

1. Coordinate with private utility companies and City of League City for record drawings
2. Perform utility research and delineation of underground utility lines from available record drawing and surveyed information
3. Prepare a DTM model of the existing paving corridor
4. Prepare profile for ground lines corresponding to the center line of the streets, center line of the ditch/curb lines, right-of-way lines
5. Prepare profile view of existing utilities from available record and field information for streets

The deliverable will be as Microstation drawing.

FEE AND SCHEDULE:

The fee for the above-described works are estimated as shown itemized in the table below:

| Item | Scope | Tasks | Description | Quantity | Rate | Fee |
|--------|------------------------|-------------|--|-----------------------|-------------|------------|
| Item 1 | Topographic Survey | Task 1 to 8 | Topo Surveying | 2,100 ft ft of street | \$4.50/ft * | \$9,450.00 |
| | | Task 9 | Tie to TSARP | | | \$380.00 |
| | | Task 10 | Survey Control Map | | | \$2,296.00 |
| | | Task 11 | Establish Design Center Line <i>(as necessary)</i> | | | \$1,480.00 |
| | | Task 12 | Survey Boreholes <i>(as necessary)</i> | | | \$832.00 |
| Item 2 | Plan & Profile Drawing | Task 1 to 5 | Basemap Plan and Profile with DTM | | | \$4,934.00 |

* See detail breakdown in the attached pages

EXHIBIT B

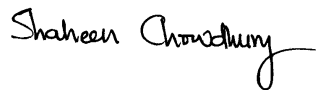
April 18, 2019
Proposal

Page No. 3

We estimate to complete the above work in 4 to 6 weeks upon your authorization to proceed.

We appreciate this opportunity to submit this proposal. If you are in agreement with this proposal, please sign as indicated below. If you need further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Shaheen Chowdhury". The signature is written in a cursive style with a long, sweeping underline.

Shaheen Chowdhury, P.E., R.P.L.S.
President

EXHIBIT B





| | | |
|---|--------------|---------------|
| LEAGUE CITY POST HARVEY ANALYSIS | | |
| PREPARED: DJC | CHECKED: ELO | PREPARED: MJM |
|  Lockwood, Andrews & Newnam, Inc. <small>A LEO A DALY COMPANY</small> | | |
|  | | |
| DATE: MAY 2018 SCALE: AS NOTED | | |
| EXHIBIT 2 | | |

EXHIBIT B



10300 Westoffice Drive, Ste. 800
Houston, TX 77042
Phone: (713) 975-8769
Fax: (713) 975-0920
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Surveying Firm Reg. No. 10075600
www.kuoassociates.com

April 18, 2019

Ricky Gonzalez
Associate – Senior Project Coordinator
Lockwood, Andrews & Newnam, Inc.
2925 Briarpark Drive, Suite 400
Houston, TX 77042

Re: Ditch/Channel Survey – League City
Topographic Surveying & Basemap Plan & Profile

Dear Mr. Gonzalez:

Kuo & Associates, Inc. is pleased to submit this proposal to perform following items of work for the above referenced project:

- **Item 1 – Topographic Surveying**
- **Item 2 – Basemap Plan and Profile**

Above work items will be performed along a 2500 feet long ditch/channel corridor mainly as shown in the attached exhibit.

The scope of work and fee will be as follows:

SCOPE OF WORK

Item 1 – Topographic Surveying:

Topographic Survey shall conform to City of League City's all surveying requirements and Category 6, Condition 2 survey of TSPS Manual of Practice, as applicable. According to the requirements, the scope for survey will be including the following tasks:

1. Horizontal and vertical controls will be established and tied to the Texas State Plane Coordinate System, South Central Zone NAD 83 and datum NAVD 88. Survey will be tied to League City survey monument as project benchmark.
2. Cross sections will be surveyed at every 100 feet interval from along the subject ditch. Cross section will include elevations on ditch flow line, high banks, at estimated ditch ROW lines, water surface, etc.
3. All planimetric features will be surveyed along the channel corridor
4. All visible existing utilities (i.e. manholes, culverts, outfall, power poles, etc.) will be located and pipe size and flow line measure downs in the manholes, inlets and water valves (that can be opened) will be obtained. Any Level SUE A & B survey is beyond the scope of this proposal.
5. Texas one-call system will be notified and pipeline companies will be contacted to probe and mark their pipeline (if any) locations to be tied to the survey.
6. Attempt will be made to recover and verify sufficient monumentation along the existing ditch to establish estimated right-of-way lines for topographic surveying scope. Task of establishing estimated ROW may involve some limited abstracting and deed research, however, detail boundary category survey is excluded in determination.
7. Plan view drawings will be prepared containing all topographic information and visible utility features in Microstation format.
8. Signed and sealed field books containing notes as well as ASCII files of point numbers, coordinates, and descriptions will be provided.
9. **Tie to TSARP Monument:** nearby TSARP monument will be tied to the survey

EXHIBIT B

April 18, 2019
Proposal

Page No. 2

10. **Survey Control Map:** A survey control map will be prepared showing swing ties to traverse and baseline points as well as TBM's. The survey control map will be signed and sealed by a Registered Professional Land Surveyor in charge of the project.
11. **Establishing Design Center Line:** Design center line could be established in the field based on coordinates as shown in the survey control map.
12. **Borehole Survey:** Boreholes (geotechnical and environmental) will be located in the field and a table will be prepared including coordinates, stations, elevations of the boreholes besides incorporating the same on the plan drawing

Item 2 – Basemap Plan & Profile:

Scope of work includes CADD services for preparing basemap plan and profile view of existing conditions for the subject ditch as listed in the attached tables

We will be performing the following tasks under the scope:

1. Coordinate with private utility companies and City of League City for record drawings
2. Perform utility research and delineation of underground utility lines from available record drawing and surveyed information
3. Prepare a DTM model of the existing paving corridor
4. Prepare profile for ground lines corresponding to the flow line, high banks and ROW lines of the subject ditch
5. Prepare profile view of existing utilities from available record and field information for streets

The deliverable will be as Microstation drawing.

FEE AND SCHEDULE:

The fee for the above-described works are estimated as shown itemized in the table below:

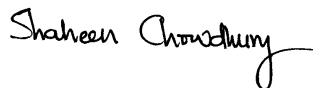
| Item | Scope | Tasks | Description | Quantity | Rate | Fee |
|--------|------------------------|-------------|---|-----------------------|-------------|------------|
| Item 1 | Topographic Survey | Item 1 to 8 | Topo Surveying | 2,500 ft ft of street | \$2.90/ft * | \$7,250.00 |
| | | Item 9 | Tie to TSARP | | | \$380.00 |
| | | Item 10 | Survey Control Map | | | \$2,296.00 |
| | | Item 11 | Establish Design Center Line (as necessary) | | | \$1,480.00 |
| | | Item 12 | Survey Boreholes (as necessary) | | | \$832.00 |
| Item 2 | Plan & Profile Drawing | Task 1 to 5 | Basemap Plan and Profile with DTM | | | \$2,386.00 |

* See detail breakdown in the attached pages

We estimate to complete the above work in 3 to 4 weeks upon your authorization to proceed.

We appreciate this opportunity to submit this proposal. If you are in agreement with this proposal, please sign as indicated below. If you need further information, please do not hesitate to contact me.

Sincerely,



Shaheen Chowdhury, P.E., R.P.L.S.
President

Untitled Map

Write a description for your map.

EXHIBIT B

Legend

Survey: Channel topo (top
banks, flowline) plus City
owned property identification

Culvert/storm sewer
infrastructure from ditch to
Highway 3 outfall

Approximately 2500' total





EXHIBIT B

10300 Westoffice Drive, Ste. 800
Houston, TX 77042
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Fax: (713) 975-0920
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www.kuoassociates.com

April 18, 2019

Ricky Gonzalez
Associate – Senior Project Coordinator
Lockwood, Andrews & Newnam, Inc.
2925 Briarpark Drive, Suite 400
Houston, TX 77042

Re: Parcel Map – Oaks of Clear Creek
Boundary Survey for Parcel Acquisition

Dear Mr. Gonzalez:

Kuo & Associates, Inc. is pleased to submit this proposal to perform boundary surveying services for the above referenced project for preparing survey plats and metes and bound descriptions for a number of properties (residential lots) to be acquired for the above referenced project. The scope of work and fee will be as follows:

SCOPE OF WORK

Boundary survey will be performed for preparing maps and metes and bounds descriptions for acquiring properties for the above referenced project. To our understanding, number of properties to be acquired is still to be determined.

Survey will comply with Category 1A, Condition 2 survey of the latest TSPS Manual survey requirements as applicable/feasible. In conformance, the scope of work will include the following:

- Title research and abstracting
- Locate existing property corners.
- Locate major existing improvements (buildings, paved areas, fence, etc.) within each property
- Prepare a boundary survey plat with metes and bounds description for each property to be acquired
- Set the corners for the property to be acquired

To our understanding your office will be providing Right-of-Entry (ROE) for accessing private properties.

The deliverables will be as follows for each parcel

- Electronic survey files in AutoCAD.
- Title report/Certified City Planning Letter/Abstractor certificate
- Proposed Parcel plat (both hard and electronic copy).
- Proposed Parcel metes and bounds description.
- Closure report on metes and bounds.

FEE & SCHEDULE:

We estimate a lump sum fee of **\$3,000.00 for each property**. Total fees will be determined based on the number of parcels to be acquired.

Details on the level of efforts for a typical property to be acquired are shown in the attached table.

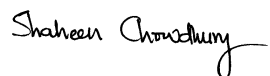
EXHIBIT B

April 18, 2019
Proposal

Schedule for completion is contingent upon number of properties to be acquired and will be determined accordingly.

We appreciate this opportunity to submit this proposal. If you are in agreement with this proposal, please sign as indicated below. If you need further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Shaheen Chowdhury". The signature is written in a cursive style with a long, sweeping underline.

Shaheen Chowdhury, P.E., R.P.L.S.
President
Kuo & Associates, Inc.

EXHIBIT B

April 18, 2019
Proposal

| LEVEL OF EFFORTS FOR A TYPICAL PARCEL | | | | | | | |
|---|-----------------------|------------------|----------------|-----------------|------------------|-----|------------------------|
| Sub Tasks | Principal \$180.00 | RPLS \$130.00 | SIT \$90.00 | CADD \$81.00 | Crew \$145.00 | Hrs | Cost |
| Abstracting | | | | | | | \$250.00 |
| Deed research with sketches | | 1 | 2 | | | 3 | \$310.00 |
| Locate property corners | | | | | 1 | 1 | \$145.00 |
| Survey major topo features within the parcel area | | | | | 6 | 6 | \$870.00 |
| Prepare boundary map | | | 2 | 6 | | 8 | \$666.00 |
| Prepare metes and bounds and mapcheck | | | 1 | | | 1 | \$90.00 |
| Boundary set on the ground | | | | | 2 | 2 | \$290.00 |
| QC/QA | | 3 | | | | 3 | \$390.00 |
| Total Cost | | | | | | | \$3,011.00 |
| | | | | | | | \$3,000.00/Each |

Untitled Map

Write a description for your map.

EXHIBIT B

Legend



EXHIBIT B



Geotechnical & Environmental Sciences Consultants

April 18, 2019
Proposal No. 16-00718

Mr. Matt Manges, PE, CFM
Lockwood Andrews & Newnam
2925 Briarpark Drive, Suite 400
Houston, Texas 77042

Subject: Proposal to Perform Geotechnical Evaluation
Oaks of Clear Creek Roadway and Channel Improvements
Deer Ridge Drive and Turtlewood Drive
League City, Texas

Dear Mr. Manges:

We are pleased to present this proposal to perform a geotechnical evaluation for the subject project. This proposal was prepared based on the information that we received from your office.

SITE AND PROJECT DESCRIPTION

The project consists of improvements to Deer Ridge Drive and Turtlewood Drive in the Oaks of Clear Creek Development in League City, Texas. The improvements will include re-grading and reconstruction of the subject roadways to alleviate poor drainage. We understand storm sewers may be rerouted, or a flume constructed, to outfall into the existing drainage channel to the east of the neighborhood. The area of the improvements will include Deer Ridge Drive from about 250 feet north of Lone Oak Drive to the south end of the street (a distance of about 1,600 feet) and Turtlewood Drive from Deer Ridge Drive west to Shrub Oak Drive (about 300 feet). Based on our conversations with your office, we understand the existing storm sewers are approximately 30 inches in diameter with about 4 feet of cover.

The project will also include improvements to the existing drainage channel that parallels Deer Ridge Drive to the east. The channel improvements, which may include re-grading the channel slopes, will begin at State Highway 3 and will extend south about 1,600 feet to the beginning of an existing culvert, located about 335 feet north of Coleman Boylan Drive. We understand the channel is approximately 5 to 7 feet deep.

SCOPE OF SERVICES

- Review readily available published and in-house geotechnical literature of the site and the general site area including geologic maps.

EXHIBIT B

- Perform a reconnaissance of the project site. We will also contact Texas811 prior to exploration.
- Core the existing pavement section at four boring locations.
- Drill, log, and sample seven exploratory borings using a truck-mounted drilling rig. Four borings will be performed along the project roadways to depths of about 15 feet each below ground surface (bgs) and three borings will be performed along the channel at the top of bank to about 20 feet bgs.
- We will collect geotechnical soil samples continuously through any fill or to a depth of 10 feet for the roadway borings (15 feet for the channel borings) and at 5-foot intervals thereafter. Samples will be taken using conventional split-spoon and/or thin-wall tube sampling techniques for laboratory testing and analysis.
- Perform laboratory testing that will generally consist of moisture content, No. 200 Wash, Atterberg limits, and strength testing.
- Prepare a geotechnical report presenting the results of our evaluation. The report will include a cover letter sealed by a Professional Engineer licensed in the State of Texas. The report will include the following:
 - Description of work scope, laboratory, and field procedures;
 - Maps and boring plans;
 - Boring logs and laboratory test results;
 - Subsurface soil and groundwater conditions;
 - Earthwork considerations;
 - Excavation characteristics of onsite soils;
 - Potential for re-use of onsite soils;
 - Subgrade preparation measures;
 - Utility trench excavation requirements;
 - Pipe bedding and backfill requirements; and
 - Concrete pavement recommendations.

OPTIONAL SCOPE OF SERVICES

If requested, we can perform a slope stability analyses for a critical cross-section of the subject channel. Soil strength parameters will be estimated from soil index properties.

ASSUMPTIONS

- The boring locations are accessible to truck-mounted drilling equipment and site access will be granted.

EXHIBIT B

- Some ground disturbance should be expected as a result of our fieldwork.
- Fieldwork can be accomplished during normal business hours (Monday through Friday, 8:00 AM to 5:00 PM).
- The boreholes can be backfilled with soil cuttings from the drilling activities and pavement patched with like materials.
- Ninyo & Moore will contact Texas811 prior to performing our subsurface evaluation. We will not be responsible for damage to utilities encountered during subsurface exploration that have not been marked out or shown on the plans.
- Ninyo & Moore will not need to obtain any permits or environmental clearance as a part of this project.
- Our field exploration does not include any sampling, testing, or chemical analysis of soil, groundwater, surface water, or other materials for the purpose of evaluating possible environmental hazards or risks. These services can be provided, if requested, as an additional scope of work.

SCHEDULE

We are prepared to initiate this project immediately upon receiving your authorization to proceed. Assuming that there are no delays due to inclement weather or site access restrictions, we anticipate that our fieldwork will be performed within about two weeks after receipt of the notice to proceed. We anticipate issuing a report within about four weeks after fieldwork is completed.

FEE

We propose to perform our services (excluding the slope stability analyses) for a lump sum fee of \$9,800 (Nine Thousand Eight Hundred Dollars). If a slope stability analysis is performed in conjunction with the base scope, the lump sum fee will be an additional \$2,800. Any additional services, not included in the aforementioned scope, will be charged on a time-and-materials basis in accordance with our current Schedule of Fees.

To authorize our services, please provide a Work Authorization in accordance with our Master Agreement. We look forward to working with you.

Respectfully submitted,
NINYO & MOORE



Scott Snow, EIT
Graduate Engineer



Richard Whitt, PE
Senior Engineer

SKS/RJW/JTS/ljs

Distribution: (1) Addressee (via email)



April 26, 2019

Ricky Gonzales
Lockwood, Andrews & Newnam, Inc. (LAN, Inc.)
2925 Briarpark Drive, Suite 400
Houston, Texas 77042

**RE: Environmental Consulting Services Proposal
City of League City**

Dear Mr. Gonzales:

Thank you for allowing Crouch Environmental Services, Inc. (CESI) the privilege of submitting a proposal to LAN, Inc. (herein referred to as the client) to provide environmental consulting services for the proposed storm sewer and roadway construction, new outfall, and possible channel regrading located along Highway 3 and League City Parkway in League City, Galveston County, Texas. The proposed project includes approximately 2,500 feet of easement (Subject Property).

Please find the proposed Scope of Work and Cost Estimate for your review and consideration. Thank you for requesting a proposal from us to assist you with this project. Please call me at (713) 868-1043 or email me at Claire@crouchenvironmental.com if you have any questions. We look forward to working with you on this project.

Sincerely,

Claire Garvin
Director of Environmental Services

Enclosures: Client Provided Project Exhibit
General Terms and Conditions – CESI 2019
Standard Billing Rate Schedule – CESI 2019

Approved and Accepted by:

Signature

Printed Name

Date

EXHIBIT B

Mr. Ricky Gonzales
Environmental Consulting Services Proposal
April 26, 2019
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SCOPE OF WORK

Task 1 - Jurisdictional Delineation and Verification of Waters of the U.S., Including Wetlands

In order to determine if any potentially jurisdictional waters of the U.S., including wetlands (WOUS), exist, on the Subject Property, CESI will delineate the boundaries of all aquatic features and determine their jurisdictional status through records and literature review, intensive field surveys, and coordination with the USACE and the Environmental Protection Agency (EPA). CESI will identify and delineate all potentially jurisdictional and potentially non-jurisdictional WOUS including wetlands within the subject property.

1a. Delineation Fieldwork and Reporting

All wetlands will be delineated in accordance with the procedures mandated in the USACE *1987 Wetland Delineation Manual* (Manual) and November 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain* (Version 2.0). The Ordinary High Water Mark (OHWM) or Mean High Water (MHW) of all waterbodies will be delineated in accordance with standard procedures set forth by the USACE. The delineation will adhere to industry standards utilized on similar projects in similar areas by environmental professionals. All boundaries shall be surveyed with sub-meter Global Positioning System (GPS) technologies that are consistent with the methodologies generally accepted by the USACE. Should the client require a registered survey of the delineated areas to be performed by a licensed surveyor, this survey must be contracted separately under an additional cost proposal.

CESI will compile a draft WOUS Delineation Report. The report will include a discussion of the natural resources found on the Subject Property, including vegetation and soils, along with the results of the field investigation for jurisdictional wetlands and waters. The report will include supporting documents including maps, photographs, forms, and datasheets. A table listing physical characteristics of all waterbodies, including average water depth, length of feature, width and depth of OHWM, width of high bank to high bank, substrate composition, and water flow direction will be included with the report.

It is assumed that lands within the assessment area are not considered "prior converted cropland", which may be subject to provisions of the "Swamp Buster Act", and that coordination with the NRCS is not required. If coordination with the NRCS is required, this can be accomplished at additional cost through a separate cost proposal.

Following client review, CESI will submit the report to USACE for verification and jurisdictional determination.

1b. USACE Field Verification

The USACE and/or EPA will verify the boundaries of those areas delineated that may be within their jurisdiction utilizing the draft WOUS Delineation Report. This verification may be conducted from their offices (desk audit) or performed in the field at the proposed Subject Property. CESI assumes that the verification will consist of a field inspection for this project.

CESI will accompany a USACE representative in the field during verification process. It is assumed that one USACE verification meeting will be required that will last no longer than one eight-hour day. Additional verification meetings can be performed at additional cost through a separate cost proposal.

As a result of the USACE field visit, the USACE may request that changes be made to the delineated boundaries. If changes are required, the revised boundaries would need to be surveyed. This revised information would be provided to the USACE as a revised report or supplemental information and survey. The USACE may request revisions to the report or supplemental information provided. CESI will perform up to two rounds of revision requests by the USACE within this scope of work.

EXHIBIT B

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Task 2 - Listed Threatened and Endangered Species and Habitat Assessment

CESI will perform a field survey to determine the presence or absence of state and federally-listed threatened and endangered (T&E) species and their critical habitat within the proposed Subject Property. As part of this task, CESI will perform the following:

- A TPWD NDD and literature review to determine the state and federally-listed species that potentially occur on or adjacent to the proposed Subject Property
- Review of current species lists for Galveston County available through the USFWS and the TPWD
- An investigation of the proposed Subject Property to determine the presence/absence of listed species and/or their critical habitat
- Preparation of a draft T&E Species Survey Report documenting the results of the investigations

Given the current developed state of the Subject Property, CESI does not anticipate needing to complete a Biological Assessment (BA) or Biological Opinion (BO); however, this will be ultimately determined by USFWS. Should it be determined through coordination with the USFWS that either a BA or BO is required; this work can be performed at additional cost through a separate cost proposal.

Task 3 - Cultural Resource Surveys

To accommodate provisions in the National Historic Preservation Act (NHPA) and various other state and federal laws, and to expedite any potential USACE permits that may be required for the project, CESI assumes that coordination with the Texas Historical Commission (THC) will be required. Coordination involves specific levels of due diligence divided into three, progressively intensive surveys: 1) a screening level survey, 2) a pedestrian level survey and shovel testing, and 3) data research and recovery.

3.a Screening Level Survey and Request for State Historic Preservation Officer Consultation

CESI will coordinate with cultural resources specialists to perform the first and broadest survey, a Screening Level Survey, for protected cultural resources that may be present on the Subject Property. As part of this reporting process, a letter detailing the findings and recommendation will be submitted to the client.

3.b Pedestrian Level Survey and Shovel Testing, If required costing will be provided

Based on the results of the Screening Level Survey, the THC may require that a Pedestrian Level Survey and Shovel Testing be conducted. A report detailing the findings of the survey and any recommendations will be submitted to the client so that THC concurrence may be requested.

Task 4 - Phase I Environmental Site Assessment (ESA)

A Phase I ESA will be performed in accordance with the EPA All Appropriate Inquiry (AAI) rules found in 40 CFR Part 312 and the American Society of Testing and Materials (ASTM) E1527-13 standards.

The Phase I ESA will include the following:

- Inspection of the Subject Property by experienced environmental professionals
- Site photo-documentation
- Review of state and federal environmental databases for the Subject Property and surrounding properties using an updated Environmental Data Resources (EDR) Report
- Review of reasonably available historic topographic maps, aerial photographs, Federal Emergency Management Agency (FEMA) floodplain maps, and other publicly available resource documents
- Interviews with existing landowners, city officials, and/or other individuals who may have knowledge of current and historic activities on the Subject Property

EXHIBIT B

- Identification of habitat areas of potential concern within the Subject Project (i.e. potential wetland areas)
- Identification of any immediate risk to public health, safety, or the environment
- Recommendation of the potential need for additional testing (such as a Phase II ESA) to confirm and evaluate any potential contaminant
- Identification of the presence or likely presence of a recognized environmental condition (REC) that may trigger an environmental liability on, restrict the use of, or affect the marketability or value of the Subject Property

Once fieldwork and file reviews are complete, CESI will prepare one Phase I ESA report that includes a discussion of the results of the historic records review, interviews, and site inspection with recommendations for further investigation, if needed.

This Phase I ESA would not include the following services:

- Chain of title search
- Subsurface investigations for soil and/or groundwater contamination

Task 5 - Pre-Application Meeting with USACE

CESI will request a pre-application meeting with the USACE to introduce the design plans of the projects to the USACE, to share the anticipated impacts, to discuss conceptual mitigation alternatives, and to solicit feedback from the USACE into the design of the project early in the permitting process. CESI will prepare for the meeting by creating graphics and preparing any other visual materials necessary to effectively communicate the proposed project plans to the USACE.

Task 6 – USACE Permitting

Based on the total impacts the proposed project may have on WOUS, USACE permitting may be required. The USACE determines required permitting by acres of impact (see below). Costing for Nationwide Permitting is included and discussed below. If it is determined that a Standard Permit (SP) is required, CESI can provide that cost in a separate proposal.

| USACE PERMIT | ACRES of IMPACT | TIME FRAME |
|--|--|--------------|
| Nationwide Permit with Pre-Construction Notification | <ul style="list-style-type: none">• Up to 0.5 acres on wetlands• Up to 300 feet of stream(s)• Mitigation required if >0.1 acres• Outfall construction below OHWM | 8-10 months |
| Standard Permit | <ul style="list-style-type: none">• >0.5 acres of wetlands• >300 feet of stream(s) | 12-18 months |

In association with Nationwide Permitting, a PCN will include information needed to quantify impacts to WOUS, including wetlands (if applicable). The WOUS Report developed in **Task 1** will be submitted with the PCN, along with permit drawings and exhibits depicting the proposed project (engineering drawings provided by the client). It is also assumed CESI will receive pertinent engineering information from the client including BMPs, cut/fill calculations, detailed design drawings, and associated structures that may require evaluation and permitting and that the client will provide these drawings in GIS or a compatible format that is georeferenced before a draft PCN will be written. CESI will also prepare and submit a Texas Commission on Environmental Quality (TCEQ) Tier I Checklist to obtain TCEQ 401 certification if required.

The PCN will include a brief narrative on potential T&E species issues and cultural resources issues. No issues to this regards are expected as a result of implementation of this project, although language to this regards will need to be included in the PCN.

If it is determined that wetland mitigation is required for the proposed project (i.e., if the project impacts greater than 0.10 acre of wetlands), wetland mitigation credits will need to be purchased. Scope of work to prepare an application for credits and coordination is included in **Task 6a and 6b**.

6a. Ecological Modeling, If required

Once wetland impacts are determined through development of the SP application, CESI will run an ecological modeling to determine the values and functions that will be required to be mitigated for. It is assumed that only one ecological model may be required for completion of this task: riverine herbaceous iHGM model. It is assumed that no streams would be impacted by the proposed project and that the Galveston District Stream Mitigation Tool would not be required to be utilized. If it is determined that the Galveston Stream Tool is required, CESI can submit an additional proposal to conduct this work.

If permittee-responsible mitigation is proposed, CESI will make educated assumptions regarding the values and functions of the proposed mitigation sites and run the appropriate iHGM model for the wetlands proposed to be constructed to determine the functions and values gained by the mitigation project.

The iHGM analysis will calculate the proposed ecological function and value of wetlands (based on certain biological and chemical functions and values) proposed to be impacted by the proposed project and proposed to be constructed as compensatory mitigation. CESI will obtain data for the analysis by incorporating specifications from the proposed mitigation design and from other publically available information including but not limited to aerial photographs, topographic quadrangle maps, FEMA floodplain maps, and other reference materials.

Analysis using iHGM will be conducted by establishing one wetland assessment area (WAA) for each wetland community type. Under this proposal, CESI will assess no more than a total of 12 iHGM data points from within both the proposed impact site and the proposed mitigation site. The iHGM datasheets will be filled out using Microsoft Excel® software.

Based on current requirements by the USACE – Galveston District, the iHGM methodology is appropriate for determining the appropriateness of compensatory mitigation and will satisfy USACE requirements for any mitigation crediting. Should the USACE determine at a later date that a different approach is necessary, this work can be performed at additional cost under a different Scope of Work.

CESI will provide the client with the results of the iHGM analysis in a letter report. This letter report will include a description of the proposed impact and mitigation site, a list of assumptions made for the model, maps depicting the WAA's, iHGM dataforms, and the functional capacity units (FCUs) that the proposed compensatory mitigation site would provide. The functional units impacted versus the functional units proposed to be created by the compensatory mitigation will be evaluated and will be used to determine the acreage of mitigation that will be required to fully compensate for the proposed wetland impacts.

6b. Mitigation Plan, If required

CESI will coordinate with resource agencies to develop a conceptual mitigation plan for wetlands only. If stream-specific mitigation is required, CESI can submit an additional proposal to conduct this work. Once a conceptual mitigation plan is approved by the resource agencies, CESI will compile a Compensatory Mitigation Plan in accordance with the Final Compensatory Mitigation Rule (33 CFR 332) detailing mitigation for proposed impacts to jurisdictional WOUS. The plan will include the 12 necessary components required by the Final Mitigation Rule for permittee-responsible mitigation, including:

- Mitigation purpose and need, goals, and objectives
- Site selection procedure
- Site protection instrument
- Mitigation site baseline information
- Process for determination of credits and proposed mitigation ratio
- Construction and installation plan
- Maintenance plan
- Performance standards and success criteria

EXHIBIT B

- Monitoring requirements
- Long management plans
- Adaptive management plan
- Description of financial assurances

If the method of compensatory mitigation includes purchasing credits from a mitigation bank, the compensatory mitigation plan will only include the following components: baseline information and process for determination of credits and proposed mitigation ratio.

The plan will also include various maps and figures to help illustrate the proposed mitigation plan including:

- Vicinity map
- Plan view
- Cross section view

The Scope of Work for mitigation planning does not include deed restriction and or recordation of conservation easement costs, construction estimation costs, construction costs, vegetation planting costs, and mitigation compliance monitoring costs. Should these services be required, CESI can submit an additional proposal to conduct these work activities.

COST ESTIMATE

The following cost estimate is for the tasks described above in the Scope of Work. Tasks will be billed on a time and materials, not to exceed basis, per the attached rate sheet.

Cost Estimate

| Task | Cost Estimate |
|--|--------------------|
| 1. Jurisdictional Delineation and Verification of Waters of the U.S., Including Wetlands | -- |
| 1a. Delineation Fieldwork and Reporting | \$5,500.00 |
| 1b. USACE Field Verification | \$1,200.00 |
| 2. Listed T&E Species and Habitat Assessment | \$3,000.00 |
| 3. Cultural Resource Surveys | -- |
| 3a. Screening Level Survey | \$1,200.00 |
| 3b. Pedestrian Level Survey with Shovel Testing (If Required) | TBD |
| 4. Phase I ESA | \$4,500.00 |
| 5. Pre-Application Meeting with USACE | \$1,500.00 |
| 6. Clean Water Act Permitting – Nationwide Permit | \$6,000.00 |
| 6a. Ecological Modeling (If Required) | \$2,500.00 |
| 6b. Mitigation Plan (If Required) | TBD |
| GRAND TOTAL | \$25,400.00 |

DELIVERABLES

One electronic copy of each draft report will be provided to the client. Upon review and comment by the client, CESI will make one round of revisions to the draft reports. Up to three hard cover copies of the report will be printed and provided to the client and/or agencies as needed.

EXHIBIT B

Mr. Ricky Gonzales
Environmental Consulting Services Proposal
April 26, 2019
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ASSUMPTIONS

This proposal presents the normal elements of environmental work that are typically required to complete this type of project. No project task will be performed without the prior approval of the client, and only those costs associated with each task will be billed. CESI makes the following assumptions regarding this proposal:

- CESI will be granted right-of-entry to the Subject Property prior to beginning fieldwork, including keys and access codes
- CESI will be provided shapefiles, CAD files, and/or Microstation files of the proposed Subject Property that are georeferenced in a mutually agreeable electronic format prior to commencing fieldwork.
- Should the project limits detailed in this proposal or project design change following the commencement of work by CESI, a change order may be required for any additional work that would be required as a result of the change in project limits and/or project design.

All items not included in this proposal can be performed, if required, through a separate cost proposal.

SCHEDULE

CESI can begin the work outlined within 10 business days of receipt of the Notice to Proceed. CESI will submit draft reports within 15 business days for review and finalization by the client for submittal to the agencies as needed.

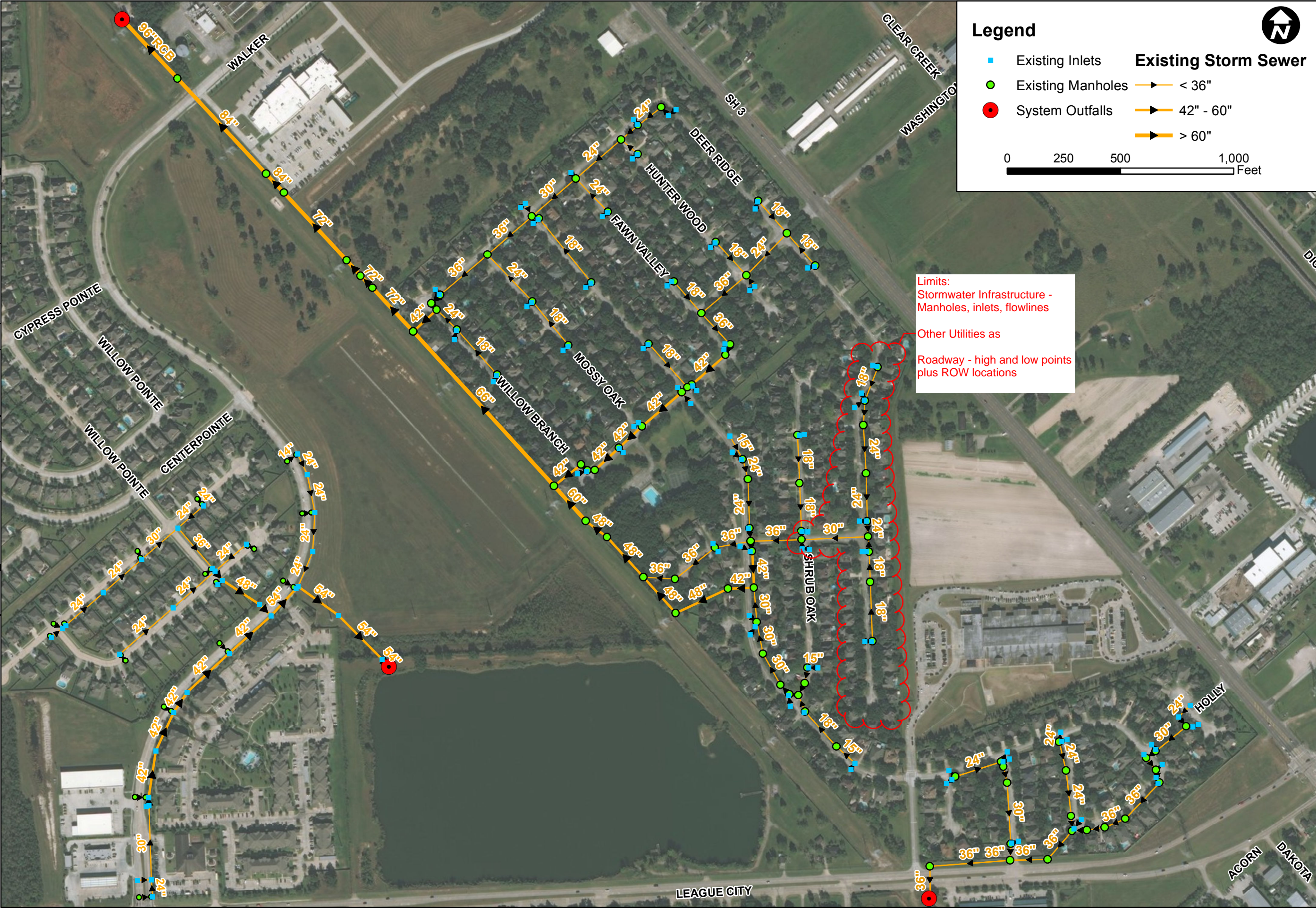
Schedule of project is dependant several factors including, but not limited to completion of the field surveys, receipt of required project specific information for permit applications, permit type required (i.e. Nationwide), USACE review times and availability, and public comment review times and response (if required).



If you approve CESI to proceed with the services outlined in this proposal, please sign and return an executed copy of this entire document to CESI indicating which tasks are initially authorized. Acceptance and signed approval of this proposal indicates acceptance of the attached General Terms and Conditions.

CESI provides this proposal as our recommended approach to meeting the stated project objectives. Our approach is based on many years of experience, and we anticipate that the project objectives will be met. However, CESI cannot and does not guarantee the schedule required for regulatory agency action, approvals, and permitting. Agency requests for additional information, analyses, and studies will require additional costs that would be borne by the Client. Permit requests may be denied, or offered in terms that may not meet Client expectations. CESI's fees are due and payable independent of the success or failure of environmental regulatory permit actions.

Proposed Project Exhibit

EXHIBIT B



| | | |
|---|--------------|---------------|
| LEAGUE CITY POST HARVEY ANALYSIS | | |
| PREPARED: DJC | CHECKED: ELO | PREPARED: MJM |
|  Lockwood, Andrews & Newnam, Inc. <small>A LEO A DALY COMPANY</small> | | |
|  | | |
| DATE: MAY 2018 SCALE: AS NOTED | | |
| EXHIBIT 2 | | |

General Terms and Conditions – CESI 2019

Standard Billing Rate Schedule

Environmental Regulatory Compliance, Communications, and General Consulting Services:

| Title | Hourly Rate* |
|---|--------------|
| Senior Principal | \$225 |
| Managing Principal / President | \$180 |
| Senior Project Manager /Director of Environmental/ Director of Communications | \$140 |
| Project Manager | \$125 |
| Senior Environmental Planner/Scientist | \$125 |
| Environmental Planner/Scientist | \$105 |
| Associate Environmental Planner/Scientist | \$85 |
| Assistant Environmental Planner/Scientist | \$75 |
| Senior Communications Specialist | \$125 |
| Communications Specialist | \$105 |
| Associate Communications Specialist | \$85 |
| Assistant Communications Specialist | \$75 |
| Senior GIS Specialist | \$105 |
| GIS Specialist | \$85 |

**Delivery of expert testimony or depositions will be made at 150% normal rates.*

Direct Costs, Travel, and Equipment

| Item | Unit Price |
|--|------------------------|
| Photo copies (Black and White 8.5x11 / 11x17) | \$0.15 / \$0.20 / ea |
| Photo copies (Color 8.5x11 / 11x17) | \$1.00 / \$1.50 / ea |
| Postage | Standard Postage Rates |
| Vehicle Mileage (or current IRS 2019 Standard Mileage Rates) | \$0.54.5/mile |

Equipment

| | |
|---|------------------|
| Boat and Motor (including trailer), plus direct fuel cost | \$1,400.00 / day |
| ATV (including trailer) | \$200.00 / day |
| Digital Video Camera | \$125.00 / day |
| Global Positioning System (Trimble GeoXT) | \$120.00 / day |

Summary of Terms (see General Terms and Conditions for additional details):

Invoices are payable within 15 days of invoice date unless otherwise approved by CESI. Late payment is subject to a 2 percent per month administrative fee. We reserve the right to require a retainer at our discretion. Subcontractors, expenses, and other direct costs will be charged at actual cost plus a 10 percent administrative burden fee.

EXHIBIT B

CLIENT CONTRACT GENERAL TERMS AND CONDITIONS

DEFINITIONS: "CESI" shall mean Crouch Environmental Services, Inc. and "OWNER" shall mean the client named in the Agreement. "Agreement" shall mean the authorizing document, such as the contract, purchase order, or approved CESI proposal, allowing CESI to proceed with services provided to OWNER.

STANDARD OF CARE: The standard of care applicable to CESI's services will be the degree of skill and diligence normally employed by professionals or consultants performing the same or similar services as CESI provides to OWNER under the Agreement.

ACCESS: The OWNER shall furnish all access to property and rights-of-way for the performance of CESI's services.

ESTIMATES: Estimates of cost of construction, financing, acquisition of real or personal property or rights-of-way shall be made in accordance with generally accepted professional practices and procedures. However, CESI has no control over construction costs, competitive bidding and market conditions, nor costs of financing, acquisition of real or personal property or rights-of-way; and CESI does not guarantee the accuracy of such cost estimates as compared to actual cost or bids.

CONSTRUCTION PHASE: CESI shall not be responsible during the construction phase for the construction means, methods, techniques, sequences or procedures of construction contractors, installers or suppliers, or the safety precautions and programs incident thereto.

PAYMENT and FEES: Payments shall be made within fifteen (15) days by the OWNER to CESI based on invoices submitted by CESI. The OWNER shall make payment, in the event of a paid-when-paid contract, within five (5) days of OWNER receiving payment. The OWNER shall also pay CESI a late payment charge for any payments not made within fifteen (15) days of the date of applicable invoices at the rate of 2.0% per month. Subcontractors, expenses, and other direct costs will be charged at actual cost plus a 10% administrative burden fee.

TIME OF PERFORMANCE: CESI shall commence work upon receipt of written notice to proceed from the OWNER and shall complete the work within the time period set forth in the Agreement, subject to any delays caused by the OWNER, other agencies involved in the work or any other parties or events not under the control of CESI.

SUSPENSION OR TERMINATION: In the event the work is terminated or suspended by the OWNER prior to the completion of the Agreement, CESI shall be paid an equitable amount proportional to the services rendered and expenses incurred through the date of termination or suspension.

LEGAL COST, PERMITS, FEES, ETC.: The OWNER shall furnish or compensate CESI for all legal services and opinions, and for permits, review fees, etc., necessary for the performance of the services to be rendered by CESI. CESI cannot and does not guarantee the schedule required for regulatory agency action, approvals, and permitting. Agency requests for additional information, analyses, and studies will require additional costs that would be borne by the Client. Permit requests may be denied, or offered in terms that may not meet Client expectations. CESI's fees are due and payable independent of the success or failure of environmental regulatory permit actions.

CHANGES: The OWNER may, at any time prior to the completion of the services, direct, in writing, any changes to the services, including but not limited to the revision of the scope of services, time period, or schedule of performance. CESI shall perform such changes to the services as directed by the CLIENT in writing and shall be paid for such services at rates established by the Agreement, or as may be otherwise agreed between the OWNER and CESI. CESI will not be responsible for changes in regulations, codes, statutes, rules, or guidance governing the services provided by CESI that occur during or after the performance of services.

INDEMNIFICATION: Except as stated below, CESI shall indemnify and save harmless the OWNER from claims, losses, lawsuits or expenses caused directly by CESI's sole negligent acts and errors or omissions in the performance of CESI's services hereunder. To the fullest extent permitted by law, with respect to claims, damages, losses and expenses which are related to hazardous materials or substances in the Project, including removal, disposal or cleanup or environmental liability, the OWNER shall indemnify, save harmless and defend CESI from and against all claims, damages, losses or expenses, including attorney's fees, arising out of or resulting from the performance of CESI's services, or claims against CESI arising from work of others or claims arising out of or related to the presence of hazardous materials or substances in the Project.

LIMIT OF LIABILITY: To the fullest extent permitted by law, the OWNER agrees to limit CESI's liability to the OWNER and to all construction contractors or subcontractors on the project for any and all injuries, claims, losses, expenses or damages whatsoever arising out of or in any way related to the Project or this Agreement from any cause or causes including but not limited to CESI's negligent acts, errors, omissions, strict liability, breach of contract, or breach of warranty, such that the total aggregate liability of CESI to all those named shall not exceed the total fee for CESI's services rendered in the project. Under no circumstances shall CESI be liable to the OWNER for any consequential damages, including but not limited to loss of use or rental, loss of profit or cost of any financing, however caused, including CESI's fault or negligence.

COMPLIANCE WITH LAW: CESI shall comply with all applicable provisions of Federal, State and local laws or regulations relating to employment.

SEVERABILITY: If, for any reason, any one or more of the provisions contained in this Agreement are held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision herein, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had not been contained herein.

DEFENSE OF CLAIMS: In the event of a public hearing or arbitration or any other proceeding, formal or informal, relating in any way to the Project, OWNER agrees to compensate CESI for all costs incurred or related to such proceeding, including but not limited to that necessary for preparation, responding to requests by any party, appearance at depositions or trial, or any other matter involving any such hearing or proceeding. Compensation shall be based upon hourly rates mutually agreed to by the parties or, in the absence of agreed-to rates, then the pay provisions under MODIFICATIONS hereinabove shall apply. This provision does not apply to proceedings to which CESI is a party nor to cases where such services are part of the agreed scope of services.

EXHIBIT B

The 10 Steps to Successful Work Product Preparation and Review

CESI assumes that the Owner will comply with the following preparation and review procedure unless specified otherwise in the Agreement.

Step 1. The author prepares the work product (documents, images, figures, etc.) according to the scope of work and the client's directions. The author then takes responsibility for reviewing his/her own work. Each professional is responsible for presenting work product in draft form that, as far as they know, is the final product. The overall goal is to have no comments from reviewers!

Step 2 (Concurrent with Step 3). The author's internal QA/QC review team comprised of two staff reviewers and a principal (not the client) reviews the product and makes comments. This part of the process is iterative, and a detailed review checklist is extremely valuable during this cycle. Reviewer #1 reviews the work product, the author incorporates that reviewer's comments, and passes the work product to reviewer #2. Reviewer #2 reviews the work product and the author incorporates those changes. Finally, the author transmits the work product to a principal for high level review. High level review consists of answering: "What may be missing?", "Was the scope of work fulfilled?", "Is the work product quality (writing, figures, data collection, etc.) in alignment with the company's values?", "Is the product in alignment with the client's wishes and culture?", etc.

Step 3. The author is responsible for incorporating all comments received by internal reviewers. If there is disagreement about a comment during the process, the author is responsible for resolving the conflict with all reviewers. During Steps 2 and 3, communication is vital. It is advisable to have a third person check each comment and make sure that all changes are incorporated into the work product after each internal review cycle.

Step 4. Once all changes requested internally have been incorporated into the work product, thus making the work product "final" as far as the internal process is concerned, the work product is transmitted to the client for the first time. At this time, in the client's eyes, this is a "first draft" work product. The work product will be labeled "DRAFT" for the client's convenience.

Step 5. The client reviews the work product. The client's responsibility is to provide *ALL* comments during this review period. If there are multiple reviewers within the client organization, the client project manager is responsible for consolidating all comments received, resolving any conflicts regarding the comments, and presenting to the author a consolidated list of requested changes.

Step 6. The work product's original author responds to all of the client's comments. This may require changes in the work product or further discussion between the author and the client to resolve conflicts that would make the work product incorrect. The client's preferences and requested changes, as presented in Step 5, should be accepted by the author and incorporated

EXHIBIT B

into the work product as requested unless incorporating the comment would make it misleading or inaccurate. Again, communication is key here.

Step 7. An internal reviewer (typically just one) checks the work product again to make sure all client changes have been incorporated and that the work product, as changed, is correct.

Step 8. The author sends the revised work product to the client. This is called a “final draft” work product, and *no new comments* are provided to the author at this time. The client checks to make sure that requested changes have been made. There may be limited “comments on the comments” if re-writing has been required. However, there should be *no new comments* on the information previously presented.

Step 9. The author incorporates any comments that have inadvertently been missed or misunderstood and issues a “Final” work product.

Step 10. The “Final” work product is transmitted to the client, used in presentation materials, or otherwise accepted by both the author and the client.