



WEBB COUNTY PROFESSIONAL SERVICES CONTRACT

CHANGE ORDER/AMENDMENT

Change Order No.: Amendment 1
To: Porras Nance Engineering
304 E. Calton
Laredo, Texas 78041

Contract No. RFP- 2014-008
Date: November 29, 2018

Project Name: Webb County Hwy 59 Colonias – Hydrologic & Hydraulic Analysis and Master Drainage Plan.

Under our Professional Services Contract dated: January 12, 2015
Commissioners Court Agenda: January 12, 2015 Item 30

\*\*\*\*\*

You hereby are authorized and directed to make the following change(s) in accordance with terms and conditions of the Contract:

(DESCRIPTION OF THE CHANGE)

FOR THE Additive (Deductive) Sum of: Eighty-Five Thousand Dollars and no/100's (85,000.00).

Table with 2 columns: Description and Amount. Rows include Original Agreement Amount (\$332,160.00), Sum of Previous Changes (\$0.00), This Change Order Add (Deduct) (\$85,000.00), and Present Agreement Amount (\$417,160.00).

The time for completion shall be (increased/decreased) by 12 months (365) calendar days due to this Change Order. Accordingly, the Contract Time was 13 months of surveying, modeling and report services and was subject to the Approval of a Letter of Map Revision by FEMA including federal rules regarding public feedback periods. Your acceptance of this Change Order shall constitute an amendment to our professional services contract and will be performed subject to all the same terms and conditions in our professional services contract indicated above, as fully as if the same were repeated in this acceptance.

The charge order to the professional services contract shall constitute a full and final settlement of any and all claims arising out of or related to the change set forth herein, including claims for impact and delay costs. With such consideration stated herein the description of additional services to be performed by Porras Nance Engineering are attached hereto as Exhibit A and are incorporated into the professional services contract.

By:
Honorable Tano Tijerina
Webb County Judge

By: [Signature]
Wayne Nance, PE, RPLS
Owner
Porras Nance Engineering

Date:

Date: 12.3.18

# EXHIBIT

A

October 19, 2018

Rhonda Tiffin, CFM, Director  
 Webb County Planning Department  
 1110 Washington Street, Suite 302  
 Laredo, Texas 78040

Ref: **Webb County Hwy 59 Colonias  
 Hydrologic & Hydraulic Analyses and Master Drainage Plan  
 Engineering Services Amendment #1**

Ms. Tiffin,

At your request, we are pleased to provide the following amended services proposal for engineering services on the above referenced project. This amendment involves developing construction plans for a multi-box culvert with headwalls, aprons and downstream grading, as shown in the attached figure. The construction plans will include roughly 2,400 feet of roadway reconstruction and raising of RR 7150 G. New roadway plans will also be developed for the proposed bypass routes from Sal se Puedes to RR 7150 G and Sal se Puedes to RR 7132 G, also shown on the attached figure. In accordance with County criteria, the culvert will be designed to convey the 25-year storm without roadway overflow. All roadway improvements will be designed for a standard county section with roadside ditches. Five (5) sets of preliminary plans will be submitted to the County for review and comment. The same amount of final, sealed plan sets will be delivered after incorporation of all comments. Technical specifications will reference City of Laredo standards.

We will conduct topographic surveys of the drainage and roadway improvement areas described above after the County coordinates owner permission to access each tract. The existing roadway right-of-way and property line boundaries will be retraced based solely on found monuments and fence lines. However, services for the right-of-way and easement acquisition surveys that will be inherently required for this project are not included in this proposal.

We understand that these improvements will be constructed as joint effort between the County and a federal labor assistance program. The plans will include standard bid items to determine construction quantities, but detailed breakdowns that require separation of the cost of labor, materials, equipment, etc. are not included in this proposal. One set of construction stakes and associated cut sheets will be provided for all improvements. Construction administration will be limited to monthly pay application review, periodic spot inspections, and project close out with record drawings. Construction observation will be performed by County inspectors. Services for public bidding are not anticipated or included with this proposal.

We proposed to provide the services described above as follows:

<u>Task Description - Base</u>	<u>Fee</u>
1. Topographic Survey and Preliminary Design Plans	\$25,000
2. Final Culvert and Roadway Design Plans	\$40,000
3. Construction Administration, Staking, Close Out	\$20,000
<b>Total Base Engineering Fee, Not to Exceed</b>	<b>\$85,000.00</b>

This fee does not include the preparation of any permits, environmental surveys, existing utility adjustments, geotechnical (soil) investigations, pavement designs, construction materials testing, or for any service not specifically described above.

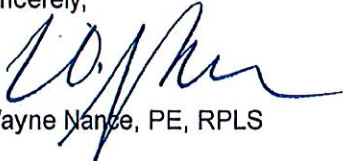
Porras Nance Engineering (PNE) shall not at any time supervise, direct, or have control over any contractor's work, nor shall PNE have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, for safety precautions and programs incident to a contractor's work progress, nor for any failure of any contractor to comply with laws and regulations applicable to contractor's work. PNE neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform its work in accordance with the contract between the County and such contractor.

PNE shall not be responsible for the acts or omissions of any contractor, subcontractor, or supplier, or of any contractor's agents or employees or other persons (except PNE's own employees) at the Project site or otherwise furnishing or performing any of the construction work; or for any decision made on interpretations or clarifications of the construction contract given by the County without consultation and advise of PNE.

We expect to have the topographic survey and preliminary design plans complete within 2 months of receiving written permission to access all improvement areas. Final design plans should be complete within 2 months of receiving County plan comments.

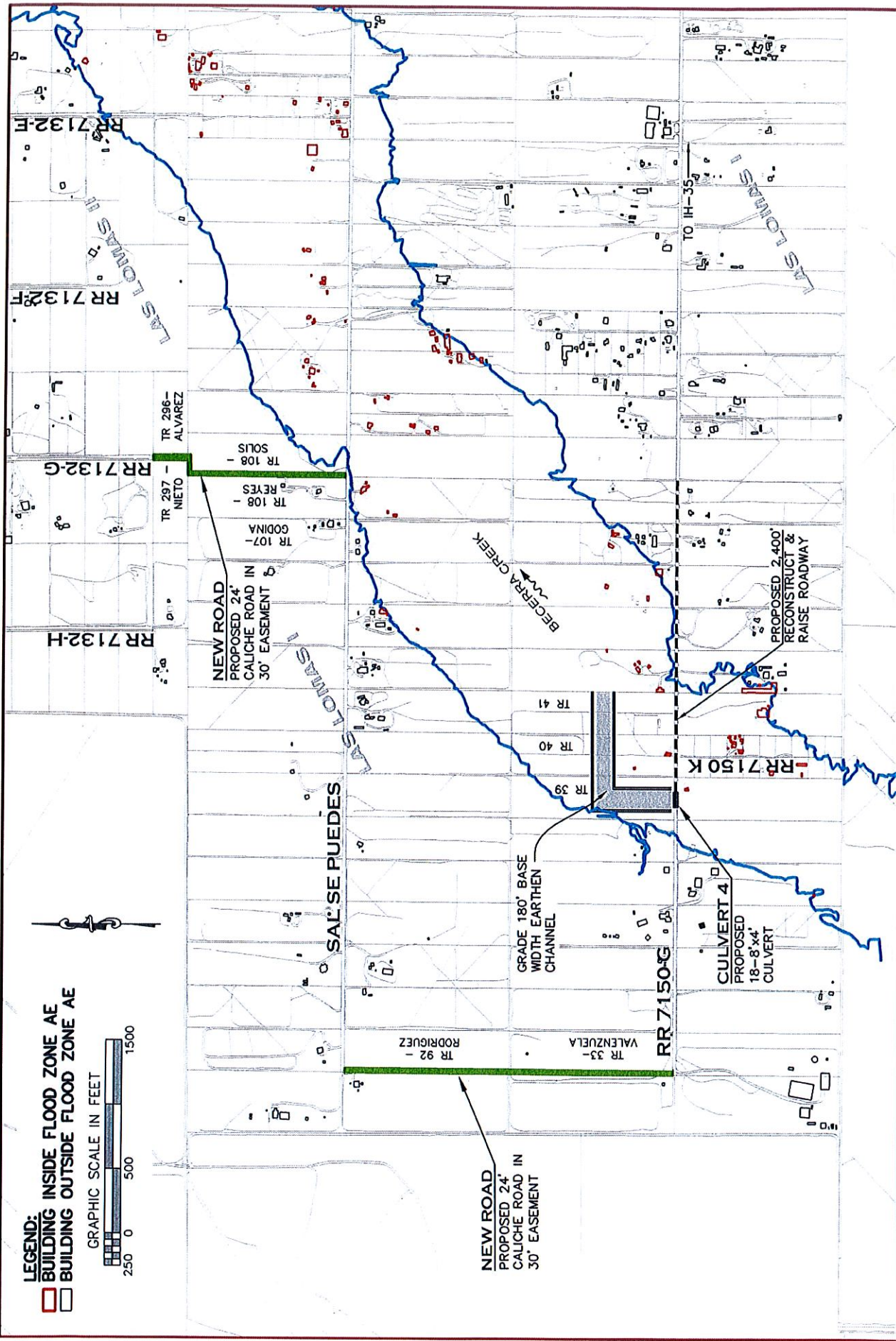
We appreciate the opportunity to provide this proposal. Please call us if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'W. Nance', written over a printed name.

Wayne Nance, PE, RPLS

**LEGEND:**  
 ■ BUILDING INSIDE FLOOD ZONE AE  
 □ BUILDING OUTSIDE FLOOD ZONE AE



**PORRAS NANCE ENGINEERING**  
 TEXAS REGISTERED ENGINEERING FIRM F-6205

Webb County  
 Highway 59 Colonias  
 H&H Analysis

**LAS LOMAS I & II - RECOMMENDED CULVERT & ACCESS IMPROVEMENTS**

**PROFESSIONAL SERVICES CONTRACT**

STATE OF TEXAS

**Agenda date: January 12, 2015**

COUNTY OF WEBB

**Webb County Hwy 59 Colonias - Hydrologic & Hydraulic Analyses and Master Drainage Plan**  
**Contract to provide professional engineering and surveying services to prepare a detailed Hydrologic and Hydraulic (H&H) study on the sections of the Becerro Creek that traverse the local Colonias.**

This Contract made and entered into in Webb County, Texas, between Webb County, a Subdivision of the State of Texas, hereinafter termed "County", and

**Porras Nance Engineering**  
**304 E. Calton**  
**Laredo, Texas 78041**  
**Phone: (956) 724-3097**  
**Fax: (956) 724-9208**

Engineer(s) duly licensed, and practicing under the laws of the State of Texas, hereinafter termed "Consultant," said Contract being executed by the Commissioners Court of Webb County, Texas and by said Consultant for engineering services hereinafter set forth in connection with the above designated project for the Webb County.

- I. The Consultant shall NOT commence work on this proposed Project until he has been thoroughly briefed on the scope of this Project and has been notified in writing to proceed.

The Consultant, in consideration for the compensation herein provided, shall render the following professional services contract necessary for the development of the Project to final completion, per **Attachment "B"** Production Schedule including designs, reports, and special and general conditions or instructions, as acceptable to the County Engineer, or his duly authorized representative, subject to other provisions of this Contract.

The Consultant shall be represented by a registered professional engineer licensed to practice in the State of Texas at any review meetings where specifically requested by the County, which may include but not limited to scope of services meetings, staff review meetings, and meetings for acceptance of the project, and for permits subject to the approval of municipal, State, and federal agencies, where applicable. All Engineering Reports submitted for review shall bear the seal of a registered professional engineer, as required.

**II. Basic Services:**

The Consultant shall perform his obligations and Basic Services necessary for the development of the project as described, but not limited to, in **Attachment "A," Scope of Services**. The Scope of Services provides a description of all tasks required to perform the project and is based on the understanding of

the County's desires and objectives for this project.

**III. Personnel:**

The Consultant represents that it has, or will secure at its own expense, all personnel required to perform the services for which it is responsible under this contract. Such personnel will not be employees of the County.

**IV. Period of Performance:**

**Contract time is approximately Thirteen (13) months for the Surveying, Modeling, and Report Services.** Due to the uncertainties of weather dependent surveys, federal (FEMA) turnaround, and public feedback periods this schedule is only an estimate and remains subject to revision. If upon review of the work, corrections, modifications and/or alterations are required of the Consultant, these items shall be completed by the Consultant before the work is approved. Calendar days shall be charged for this period when changes are being made. However, if circumstances dictate, the County may authorize extensions of the time should there be delays due to reasons beyond the control of the Consultant. Such time extensions shall be equivalent to the amounts of delays incurred. Review time by the Owner or other reviewing entities will not be charged against Consultant's contract time.

In the performance of the various phases of this contract the Consultant shall contact the various utility coordinators for request of the most current available utility records, and the County and other governmental entities for particular or peculiar problems which may arise.

If the Consultant fails to furnish the completed work as herein required, and within the time specified, the Consultant by the execution of this contract acknowledges that the County will sustain damages and Consultant hereby agrees to forfeit to the County, an amount determined by the following schedule for each day beyond the required day of completion and acceptance, not as a penalty but as a liquidated damage.

PROJECT COST			AMOUNT OF LIQUIDATED DAMAGES	
	UP	to	500,000	50.00
\$	500,000	to	1,000,000	100.00
	1,000,001	to	2,000,000	150.00
	2,000,001	to	3,000,000	200.00
	3,000,001	to	4,000,000	250.00
	4,000,001	to	5,000,000	300.00
		over	5,000,000	350.00

The Consultant further acknowledges the said amount is fixed and agreed upon by and between the Consultant and the County because of the impracticality extreme difficulty of fixing and ascertaining the actual damages the County would in such event sustain, and said amount is agreed to be the amount of damages which the County would sustain and shall be retained by the County.

The Consultant shall not be liable or responsible for, and those shall be excluded from the computation of the aforesaid period of time, any delays due to strikes, riots, acts of God, national emergency, acts of the public enemy, governmental restrictions, laws, or regulations, or any other causes beyond the Consultant's reasonable control. Within thirty (30) days from the occurrence of any event for which time for performance by Consultant should be significantly extended under this provision, Consultant may give written notice thereof to the County stating the reason for such extension and the actual or estimated time thereof.

This contract shall remain in force for a period which may reasonably be required for the completion of the project, including any extra work and required extensions thereto, unless discontinued as provided for elsewhere in this contract. The Consultant shall furnish upon completion of the work herein described in the "Scope of Services" ten (10) sets of final report copies for distribution by the Webb County.

#### **V. Compensation and Payment:**

The County shall pay Consultant for the performance of services as out-lined in this Contract, a fee computed on the basis of an hourly billing rate for all of the Consultant's personnel engaged on the work, plus reimbursable expenses. The hourly billing rates shall be in accordance with billing schedule in **Exhibit I**. Reimbursable expenses shall include costs for travel, subsistence, telephone, reproduction of reports and exhibits, computer time charges, and miscellaneous expenses directly related to the project.

An amount of **Three Hundred Thirty Two Thousand One Hundred Sixty Dollars and no cents (\$332,160.00)** will not be exceeded without written authorization by the Owner. Said fee will include payroll costs and direct non-labor expenses. See Attachment "C" for compensation. Monthly billings on duly certified work, which is work certified for payment to employer and principles, and expense evidenced by invoices for work performed during the preceding four week accounting period will be submitted to the Owner during the course of the project. Compensation for additional services which may be required of the Consultant shall be paid as a lump sum amount agreed to through re-negotiation if the Scope of Services described in the original contract is changed. See Attachment "D" Compensation for Additional Professional Services.

Once a month, the Consultant shall submit to the County a Partial Request for Payment filled out and signed by the Consultant covering the work completed as of the date of the Partial Request for Payment, and accompanied by such supporting documentation as is required by the Contract documents. The final payment shall be made by the County to the Consultant upon submission of all final project documentation and deliverables.

#### **VI. Additional Services:**

All work performed by Consultant, which is either described in this paragraph or not included in the "Scope of Services" shall constitute additional services. These shall include:

- a. Travel and subsistence to points other than Consultant's or County offices and project site.



- b. Copies of final reports, studies, drawings and other data in excess of sets required in Basic services.
- c. Other services not otherwise included in this contract or not customarily furnished in accordance with generally accepted engineering practice.

THE CONSULTANT SHALL NOT PERFORM ANY WORK WHICH CONSTITUTES ADDITIONAL SERVICES UNTIL HE HAS RECEIVED WRITTEN AUTHORIZATION FROM THE COUNTY.

## **VII Change Orders**

Change orders necessitated by unforeseen conditions or circumstances unknown to the Consultant will be paid by the Webb County. Any change orders necessitated by neglect or mistake by consultant in plans and specifications to be paid by the consultant.

## **VIII. Termination and/or Suspension of Work:**

### **A. Right of Either Party to Terminate:**

This Contract may be terminated by either party for substantial failure by the other party to perform (through no fault of the terminating party) in accordance with the terms of this Contract. The terminating party must issue a signed, written notice of termination (citing this paragraph) to the other party which shall take effect on the tenth day following receipt of said notice.

### **B. Right of County to Terminate:**

Webb County reserves the right to terminate this Contract for reasons other than substantial failure by the Consultant to perform by issuing a signed, written notice of termination (citing this paragraph) which shall take effect on the twentieth day following receipt of said notice or, after receipt of said notice and upon the scheduled completion date of the performance phase in which the Consultant is then currently working, whichever effective termination date occurs first.

### **C. Right of County to Suspend Giving Rise to Right of Consultant to Terminate:**

The Webb County reserves the right to suspend this Contract at the end of any Phase for any reason by issuing a signed, written notice of suspension (citing this paragraph) which shall take effect on the tenth day following receipt of said notice by the Consultant. The suspension notice will outline the reasons for the suspension and the anticipated duration of the suspension but will in no way guarantee the total number of days suspended. Equitable adjustments to the terms of the contract will be addressed in the event the duration of the suspension exceeds 90 days.

The Consultant is hereby given the right to terminate this Agreement in the event that the County suspends this Contract. Consultant may exercise this right to terminate by issuing a signed, written notice of termination (citing this paragraph) to the County at any time after the effective suspension date. This termination shall be effective immediately upon receipt of said notice by the County.

D. Procedures Consultant to follow upon receipt of Notice of Termination if issued by the County:

Upon receipt of a notice of termination and prior to the effective date of the termination, the Consultant shall, unless the notice otherwise directs, immediately begin the phase-out and discontinue all services in connection with the performance of this Contract and shall proceed to promptly cancel all existing orders and contracts insofar as such orders and contracts are chargeable to this Contract. Within thirty (30) days after receipt of the notice of termination, the Consultant shall submit a statement, showing in detail the services performed under this Contract prior to the effective date of termination.

Copies of all completed or partially completed specifications and reproducible of all completed or partially completed design and plans prepared under this Contract prior to the effective date of termination shall be delivered to the County as a pre-condition to final payment. These documents shall be subject to the restrictions and conditions set forth in VII above.

Upon the above conditions having been met, the County shall promptly pay the Consultant that proportion of the prescribed fee which the services actually performed under this Contract bear to the total services called for under this Contract less previous payments of the fee.

Failure by the Consultant to comply with the submittal of the statement and documents as required above shall constitute a waiver by the Consultant of any and all rights or claims to collect monies that Consultant may rightfully be entitled to for services performed under this Contract.

E. Procedures Consultant to follow upon receipt of Notice of Suspension if issued by the County:

1. Upon receipt of a notice of suspension and prior to the effective date of the suspension, the Consultant shall, unless the notice otherwise directs, immediately begin to phase-out and discontinue all services in connection with the performance of this Contract and shall proceed to promptly cancel all existing orders and contract insofar as such orders and contracts are chargeable to this Contract.

Consultant shall prepare a statement showing in detail the services performed under this Contract prior to the effective date of suspension.

Copies of all completed or partially completed designs, plans and specifications prepared under this Contract prior to the effective date of suspension shall be prepared for possible delivery to the County but shall be retained by the Consultant until such time as Consultant may exercise the right to terminate. During the period of suspension, Consultant shall have the option to at any time submit the above referenced statement to the County for prompt payment of that proportion of the prescribed fee which the services actually performed under this Contract bear to the total services called for under this Contract, less previous payments of the fee.

2. In the event that Consultant exercises his right to terminate at any time after the effective

suspension date, within thirty (30) days after **receipt** by the County of Consultant's notice of termination Consultant shall submit (if he has not previously done so) the above referenced statement showing in detail the services performed under this Contract prior to the effective date of suspension.

Additionally, the above referenced copies of documents shall be delivered to the County as a pre-condition to final payment.

Upon the above condition being met, the County shall promptly pay the Consultant that proportion of the prescribed fee which the services actually performed under this Contract bear to the total services called for under this Contract, less previous payments of the fee.

Failure by the Consultant to comply with the submittal of the statement and documents as required above shall constitute a waiver by the Consultant of any and all rights or claims to collect monies that Consultant may rightfully be entitled to for services performed under this Contract.

#### **IX. Consultant's Insurance and Warranty:**

**Insurance:** The Consultant shall procure and maintain insurance for protection from claims and workman's compensation acts, claims for damages because of bodily injury including personal injury, sickness or disease or death of any and all employees or of any person other than such employees, and from claims or damages because of injury to or destruction of property including loss of use resulting therefrom.

The Consultant warrants that he has not employed or retained any company or person other than a bona fide employee working solely for the Consultant to solicit or secure this contract, and that he has not for the purpose of soliciting or securing this contract paid or agreed to pay any company or person, other than a bona fide employee working solely for the Consultant, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this contract. For breach of this warranty, the County shall have the right to terminate this contract under the provisions of VII above.

#### **X. Changes in Scope of Services:**

The County, may, from time to time, request changes in the Scope of Services to be performed by the Consultant hereunder and if such changes are agreed to by the Consultant, they shall be included as **written amendments** to this contract.

#### **XI. Subletting or Assigning of Contract:**

The "County" does not allow, permit, negotiate, authorize nor approve any assignment of contract proceeds between the "County", the "Consultant", and/or with a bank, lending institution or any type of financial institution either before, during or after a contract award.

The "County" agrees to pay the "Consultant" for specified services as stated in the agreed contract. The "County" does not agree to pay any additional party either jointly or separately for the contract.

#### **XII. Consultant's Responsibility & Liability:**

Acceptance and approval of the final model and report by the County Engineer shall not constitute nor be deemed a release of the responsibility and liability of the Consultant for the accuracy and competency of his hydraulic analysis, or other documents and work performed under this contract. No approval or acceptance by or in behalf of the County shall be deemed to be an assumption of such responsibility by the County for any defect, error, or omission in the said model and report or other documents as prepared by the Consultant.

The Consultant further agrees to perform any model revisions required as a result of the Consultant's development of the hydraulic study which are a result of consultant's negligence.

Model revisions or updates required or occasioned after completion and acceptance by Owner of the Report Phase, for the convenience of the County shall be paid for as provided and prescribed hereinafter under Additional Services of the Consultant.

#### **XIII. Indemnification:**

Consultant shall and does hereby agree to indemnify and hold harmless the County from any and all damages, loss or liability of any kind, whatsoever, by reason, of injury to third person occasioned by any negligent act, error, or omission of Consultant, its officers, agents, employees, or other persons for whom Consultant is legally liable, in rendering or failing to render professional services with regard to the performance of this Contract. The Consultant will at own cost and expense defend and protect the County against any and all such claims and demands. The Consultant's liability to the County under this provision shall in no event exceed the amount of the total compensation received by the Consultant for services hereunder.

#### **XIV. Severability:**

If for any reason, any one or more paragraphs of this contract are held invalid, such judgment shall not affect, impair, or invalidate the remaining paragraphs of the contract but be confined in its operations the specific section, sentences, clauses, or parts of this contract held invalid and invalidity of any section, sentence, clause or parts of this contract in any one or more instance, shall not affect or prejudice in any way the validity of this contract in any other instance.

#### **XV. Interest of Consultant:**

The Consultant agrees that it has no interests, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this contract.

#### **XVI. Owner of Documents:**

All documents including the original drawings, estimates, specifications, field notes, reports, maps, hydraulic model files, and data will remain the property of the Consultant as instruments of service. However, it is to be understood that the County shall have free access to all such information with the right to make and retain copies of drawings and all other documents including field notes and data. Any re-use without specific written verification or adaptation by Consultant will be at County's sole risk and without liability or legal exposure to Consultant. Any such verification or adaptation may entitle Consultant to further compensation at rates to be agreed upon by the County and Consultant.

**XVII. Equal Employment Opportunity/Minority Business Enterprise:**

The Consultant agrees not to engage in employment practices which have the effect of discriminating against any employee or applicant for employment and will take affirmative steps to ensure that applicants and employees are treated during employment without regard to their race, color, religion, national, origin, sex, age, handicap, or political belief or affiliation. Specifically, the Consultant agrees to abide by all applicable provisions of the Non-discrimination Clause as contained in the Webb County's current Affirmation Action Plan. In the event non-compliance occurs, the Consultant, upon written notifications by the County will commence compliance procedures within thirty (30) days.

**XVIII. Political Interests in this Contract:**

No employee of the County shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom; provided, however, that this provision shall not be constructed to extend to this contract if made with a corporation for its general benefit.

**XIX. Entire Contract:**

This Contract represents the entire and integrated Contract between the County and the Consultant and supersedes all prior negotiations, representations, or Contracts, either oral or written. This Contract may be amended only by written instrument signed by both the County and Consultant.

IN WITNESS WHEREOF, the Webb County has lawfully caused those presents to be executed by the hand of the Judge of said County, and the official seal of said County to be hereunto affixed and this instrument to be attested by the County Clerk, and this Consultant, acting by the hand of Thelma Porrás Nance

Thereunto authorized Principal, Porrás Nance Engineering does now sign, executed and deliver this document.

DONE AT LAREDO, TEXAS, on this 12<sup>th</sup> day of January, 2015.

ATTEST:

[Signature]  
Wayne Nance, Owner

Consultant

[Signature]  
Authorized Signature  
**Thelma Porrás Nance, Principal**  
**Porrás Nance Engineering**

APPROVED AS TO FORM:

[Signature]  
**Marco A. Montemayor,**  
**County Attorney**  
Date: \_\_\_\_\_

[Signature]  
**Luis Perez-Garcia III, P.E.**  
**County Engineer**  
Date: 1/16/15

ATTEST:

[Signature]  
**Margie R. Ibarra,**  
**County Clerk**  
Date: \_\_\_\_\_

WEBB COUNTY

[Signature]  
**Honorable Tano Tijerina**  
**County Judge**  
Date: \_\_\_\_\_



**SCOPE OF SERVICES  
ATTACHMENT "A"**

**Project: Webb County Hwy 59 Colonias (RFQ 2014-088)  
Hydrologic & Hydraulic Analyses and Master Drainage Plan**

The Consultant shall provide engineering and surveying services to prepare a detailed Hydrologic and Hydraulic (H&H) study on the sections of the Becerro Creek that traverse the colonias in this area. The attached aerial map exhibit identifies the proposed H&H study limits.

An aerial mapping subcontractor will be used to survey the drainage area in accordance with the FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners, Appendix A: Guidance for Aerial Mapping and Surveying*. Digital Analytical Aerial Triangulation methods will be used to develop aerial topographic files with two foot (2') elevation contours and six inch (6") pixel resolution.

Prior to conducting the aerial photogrammetry 35 aerial targets will be set on the ground using GPS survey techniques to serve as aerial mapping benchmarks. Each target will be tied to the Texas State Plane Coordinate System (4205 South Zone, NAD 83, NAVD 88) using applicable GPS survey techniques. Culverts and other underground drainage structures that cannot be compiled with the aerial mapping will also be tied by field surveys.

Using elevation data taken from the aerial mapping and County contour maps, runoff volumes from the contributing drainage areas will be calculated using HEC-HMS software for the 10, 25, 50, 100 & 500 year return storm interval. These values will be validated against runoff volumes calculated with alternate hydrological methods, including SCS TR-55 and TxDOT Regional Regression Equations. All drainage basin characteristics, including soil CN values, runoff velocity, and runoff attenuation through existing ponds will be considered in the hydrologic model.

The hydraulic analysis will be performed using HEC-RAS software in accordance with current FEMA policy, *FP 204-078-1 (Rev 1)*. The aerial mapping files will be used to develop detailed cross sections at strategically selected locations throughout the existing flood plain reaches. Channel roughness (n-values) along each cross section will be determined from site visits and aerial photographs. Culverts will be analyzed based on field survey data. This information will be incorporated into the hydraulic model to develop flood plain boundaries and base flood elevations (BFE) along the study limits outlined in the attached exhibit for each design storm interval. This output will be compared and calibrated against Ordinary High Water Marks (OHWM) where available. The central floodway will be delineated along the channels using the appropriate method recommended by current FEMA policy.

After reviewing H&H results with County staff and incorporating their feedback, the maps, BFEs, cross sections, profiles, GIS export line work, and all HEC model files will be formally submitted to FEMA for their review and approval as a Letter of Map Revision (LOMR).

The resulting H&H models will be amended to include runoff from the ultimate (future-post) development condition for the project area. The impact to the flood plain will be compared to existing values. County Staff and Officials will be advised of alternate solutions available to remediate that impact and return flood levels to existing, or otherwise desirable levels, especially in populated areas.

Potential improvements include channel excavation or lining, culvert upgrades, floodplain land purchases, regional detention basins, etc. The improvements selected by the County will be assimilated into the future model to verify effectiveness.

The process and findings outlined above will be described in detail in a comprehensive Master Drainage Plan. This report will include maps, tables, hydraulic profiles, cross sections, recommended improvements, and related construction cost estimates. The report will also provide guidance on potential environmental permitting issues that are typically involved with disturbing riverine systems, wetlands, and other jurisdictional waters based on available maps and resources for these areas. However, services for EPA permits and/or detailed environmental surveys should be conducted during subsequent construction plan development phases and are specifically not included in the scope of this contract.



ATTACHMENT "B"  
PRODUCTION SCHEDULE

Project: **Webb County Hwy 59 Colonias (RFQ 2014-088)**  
**Hydrologic & Hydraulic Analyses and Master Drainage Plan**

The Consultant agrees to complete the various phases of work under this contract in accordance with the schedule set forth as follows:

1. **SURVEYS & AERIAL MAPPING**

The Consultant shall commence work upon written authorization from the COUNTY to proceed with this phase of work to collect system data and surveys in:

\_\_\_\_\_ 120 \_\_\_\_\_ CALENDAR DAYS

2. **HYDRAULIC MODEL DEVELOPMENT**

The Consultant shall commence work upon written authorization from the COUNTY to proceed with this phase of work to develop working models of the existing system:

\_\_\_\_\_ 150 \_\_\_\_\_ CALENDAR DAYS

3. **ENGINEERING REPORT**

The Consultant shall commence work upon written authorization from the COUNTY to proceed with this phase of work to develop working models of the existing system:

\_\_\_\_\_ 120 \_\_\_\_\_ CALENDAR DAYS

The total calendar days authorized for this Agreement from the date of authorization by the COUNTY to proceed is: (1) + (2) + (3) \_\_\_\_\_

Not included within the calendar days for completion shall be the number days expiring from the date of submittal to the COUNTY of the review documents to the date the review is completed and comments returned to the Consultant. The above schedule does not include FEMA review time, public advertising and feedback periods, or any other delays that prohibit the Consultant from proceeding with the scoped services.

ATTACHMENT "C"  
COMPENSATION FOR PROFESSIONAL SERVICES RELATED  
TO BASIC CONTRACT

**Project: Webb County Hwy 59 Colonias (RFQ 2014-088)  
Hydrologic & Hydraulic Analyses and Master Drainage Plan**

<u>Task Description</u>	<u>Fee</u>
1. Ground Survey (Set 35 GPS field panels for aerial control)	\$21,875
2. Culvert Surveys and Benchmark Ties to Existing Control	\$ 5,485
3. Aerial Survey at 1" = 100' (2' elevation contours)(6" Pixels)	\$59,800
4. Hydrologic Analysis	\$50,000
5. Hydraulic Analysis with Floodway Delineation	\$130,000
6. Master Plan and Report	\$40,000
7. FEMA Submittal (LOMR)	\$25,000
<b>Total Base Engineering, Surveying &amp; Mapping Services Fee</b>	<b>\$332,160.00</b>

The budget figures listed do not include LOMR application fees, which are typically not applicable to public entities such as the County.

- A. The Consultant may upon written authorization from the County Engineer, request partial payments for work performed for the various phases upon the furnishing of satisfactory evidence and breakdown of actual time spent in the partial completion of the work.
- B. The Consultant shall be compensated on the basis described in Section V for basic services included in this Agreement. For additional services, compensation shall be negotiated in accordance with Attachment "D."
- C. The final payment to be made by the County to the Consultant will be payable upon submission of working digital model files.

ATTACHMENT "D"  
COMPENSATION FOR ADDITIONAL PROFESSIONAL SERVICES

**Project: Webb County Hwy 59 Colonias (RFQ 2014-088)  
Hydrologic & Hydraulic Analyses and Master Drainage Plan**

The fee described in Section V of this contract for this project shall provide compensation to the Consultant for all services called for under this Agreement to be performed by him or under his direction except the services as set forth below. These additional services and the compensation to be paid by the County to the Consultant for their performance when authorized in writing by the County Engineer are set forth as follows:

1. Assistance to the County as an expert witness in any litigation with third parties, arising from the development or construction of the project including the preparation of engineering data and reports. The Basis of Compensation for the following Additional Services shall be:
  - A. Negotiated hourly rate for testimony of principles.
  - B. Salary cost times a multiplier of 2.5 for services other than testimony of principles.
  - C. Reimbursement for non-labor expense and subcontract expense at invoice cost plus a 10% service charge. The basis of compensation for the following additional services shall be based on an amount renegotiated (fixed fee) through an agreement with the County.
2. Restaking all destroyed hubs and checking alignment of existing hubs. Elevations of all hubs shall be re-established. Restaking shall be done as required, and a cut sheet based on such restake shall be prepared.
3. Preparation of all applications and supporting documents for governmental grants, loans or advances in connection with the Project; preparation or review of environmental assessments and impact statements; review and evaluation of the effect on the design requirements of the Project of any such statements and documents prepared by others; and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.
4. Revising previously accepted studies, reports, design documents, or Contract Documents when such revisions are due to causes beyond Consultant's control.

ATTACHMENT "D" CONTINUED  
COMPENSATION FOR ADDITIONAL PROFESSIONAL SERVICES

5. Preparing documents for alternate bids requested by the County.
6. Investigations involving detailed consideration of operations, maintenance and overhead expenses.
7. Providing value engineering during the course of design.
8. Preparation of feasibility studies not required in the base contract.
9. Cash flow and economic evaluations, rate schedules and appraisals.
10. Detailed quantity surveys of material, equipment and labor.
11. Audits or inventories required in connection with construction performed by the County.
12. Services after the award of each contract in evaluating substitutions not specified in an " or equal" proposed by the Contractor(s) as authorized by the County.
13. Making revisions to Drawings and Specifications occasioned by substitutions.
14. Services during out-of-town travel required of Consultant.
15. Additional services during construction made necessary by
  - (1) work damaged by fire or other cause during construction,
  - (2) a significant amount of defective or neglected work of contractor(s).
  - (3) acceleration of the progress schedule required by the County involving services beyond normal working hours, and (4) default by contractor(s).
16. Preparation of operating and maintenance manuals.
17. Additional or extensive assistance after initial start-up in the utilization of any equipment or system (such as post initial startup testing, adjusting and balancing).
18. Training personnel for operation and maintenance
19. Services after the completion of the Construction Phase, such as inspections during any guarantee period and reporting observed discrepancies under guarantee called for in any contract for the Project.
20. Actual performance of test borings and other soil or foundation in-vestigations and related analysis.
21. Detailed mill, shop and/or laboratory inspection of materials or equipment.
22. Additional copies of reports, drawings, and specifications over the number specified in the base contract.
23. Providing renderings for County use.
24. Surveying services other than those required for the successful completion of the design of the project.

**HOURLY RATE**

**Project: Webb County Hwy 59 Colonias (RFQ 2014-088)  
Hydrologic & Hydraulic Analyses and Master Drainage Plan**

Principal	\$ <u>200.00</u>
Licensed Engineer	\$ <u>150.00</u>
Design Engineer	\$ <u>125.00</u>
Planner	\$ <u>N/A</u>
Registered Surveyor	\$ <u>150.00</u>
Senior Draftsman	\$ <u>75.00</u>
Draftsman	\$ <u>50.00</u>
Engineering Technician	\$ <u>95.00</u>
Design Technician	\$ <u>75.00</u>
Secretary	\$ <u>50.00</u>
Administrative Assistant	\$ <u>45.00</u>
Field Party (2-man)	\$ <u>130.00</u>
Field Party (3-man)	\$ <u>155.00</u>
Field Party (GPS)	\$ <u>145.00</u>
Project Representative	\$ <u>N/A</u>
Project Coordinator	\$ <u>N/A</u>

