



**WORK ORDER NO. 1
Webb County
Laredo, Texas
Project No. 17238060**

This WORK ORDER is made by and between **Webb County of Laredo, Texas** hereinafter referred to as "Client," and **GARVER, LLC**, hereinafter referred to as "GARVER", in accordance with the provisions of the MASTER AGREEMENT FOR PROFESSIONAL SERVICES executed on February ____, 2018.

Under this Work Order, the Client intends to assess the existing Webb County Wastewater Treatment Plant and provide an operational evaluation and improvements recommendation report.

GARVER will provide professional services related to these improvements as described herein.

SECTION 1 - SCOPE OF SERVICES

Wastewater Treatment Plant Evaluation

GARVER will conduct an evaluation of Webb County's 1.5 MGD Wastewater Treatment Plant. This evaluation will be broken up into the following seven tasks:

1. Kick-Off Meeting
2. Historical Data Review
3. Flow/Load Projections
4. Field Investigation and Existing System Assessment
5. Operator Interviews
6. Alternatives Evaluation
7. Conceptual Workshop

Upon the completion of the evaluation, Garver will write a Technical Memorandum proposing recommendations to improve operations and treatment throughout the plant for the Client as part of Task 6. The scope for all of these tasks are provided in Appendix A.

Additional Services (Extra Work)

For work not described above in Section 1 – Scope of Services, Additional Services will be as directed by the Client in writing for an additional fee as agreed upon by the Client and GARVER. A comprehensive list of additional services Garver can provide is available in Appendix A.



SECTION 2 – PAYMENT

For the work described under SECTION 1 - SCOPE OF SERVICES, the Client will pay GARVER on a lump sum basis. The Client represents that funding sources are in place with the available funds necessary to pay GARVER.

The table below presents a summary of the fee amounts and fee types for this contract.

WORK DESCRIPTION	FEE AMOUNT	FEE TYPE
Kick-Off Meeting	\$3,556.00	LUMP SUM
Historical Data Review	\$6,770.00	LUMP SUM
Flow/Load Projections	\$25,327.00	LUMP SUM
Field Investigation and Existing System Assessment	\$19,693.00	LUMP SUM
Operator Interviews	\$3,862.00	LUMP SUM
Alternatives Evaluation	\$30,814.00	LUMP SUM
Conceptual Workshop	\$5,617.00	LUMP SUM
TOTAL FEE	\$95,639.00	LUMP SUM

The lump sum amount to be paid under this agreement is \$95,639.00. For informational purposes, a breakdown of GARVER's estimated costs is included in the MSA Appendix B with approximate current hourly rates for each employee classification.

The Client will pay GARVER on a monthly basis, based upon statements submitted by GARVER to the Client indicating the estimated proportion of the work accomplished. Payments not received within 60 days of invoice date will be subject to a one percent monthly simple interest charge.

Additional Services (Extra Work). For work not described or included in Section 1 – Scope of Services but requested by the Client in writing, the Client will pay GARVER, for time spent on the project, at the rates shown in the MSA Appendix B for each classification of GARVER's personnel (may include contract staff classified at GARVER's discretion) plus reimbursable expenses including but not limited to printing, courier service, reproduction, and travel.

SECTION 3 – APPENDICES AND EXHIBITS

- 3.1 The following Appendices and/or Exhibits are attached to and made a part of this Agreement:
- 3.1.1 Appendix A - Scope of Services
 - 3.1.2 Appendix B - Fee Summary

This Agreement may be executed in two (2) or more counterparts each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.



Approval and acceptance of this Work Order, including attachments listed in SECTION 3 – APPENDICES AND EXHIBITS, shall incorporate this document as part of the Agreement. Garver is authorized to begin performance upon receipt of a copy of this Work Order signed by the Client. The effective date of this Work Order shall be the last date written below.

Webb County
1000 Houston St.
Laredo, TX 78040

GARVER, LLC
1906 E Tyler Ave # D
Harlingen, TX 78550

By: _____
Signature

By: _____
Signature

Name: _____
Printed Name

Name: _____
Printed Name

Title: _____

Title: _____

Date: _____

Date: _____

Attest: _____

Attest: _____

APPENDIX A

SCOPE OF SERVICES

General

GARVER will conduct an evaluation of Webb County's Regional Wastewater Treatment Plant (WWTP) in Rio Bravo, Texas. The Regional WWTP has a permitted capacity of 1.5 MGD and peak flow of 2.8 MGD. Once the evaluation is completed, Garver will write a Technical Memorandum (TM) proposing recommendations to improve operations and treatment throughout the plant. The evaluation will be broken up into the following seven tasks:

1. Kick-Off Meeting
2. Historical Data Review
3. Flow/Load Projections
4. Field Investigation and Existing System Assessment
5. Operator Interviews
6. Alternatives Evaluation
7. Conceptual Workshop

Major elements of the Technical Memorandum will include the following facility or process evaluations:

- Hydraulic capacity of the existing plant
- Headworks
- Plant lift station
- SBRs
- Chlorine contact basins
- Sludge press
- Sludge drying beds
- Backup power
- SCADA system

TCEQ regulations will be utilized for determining the treatment capacity of each process. Expansion or construction of new processes will be considered for any process not capable of meeting the projected necessary design flow over a 20 year planning horizon.. Special considerations will be made for current and future flow demands and treatment optimization.

Task 1: Kick-Off Meeting

Garver will coordinate with the Client to schedule a conference call for a Kick-Off meeting. This Kick-Off Meeting will serve as an opportunity for Garver and the Client to discuss the project scope, project objectives, and schedule. The meeting will also address WWTP-specific issues and goals prior to the site visits.

Task 2: Historical Data Review

GARVER will collect from the Client and review relevant information including:

- As-built drawings of each facility
- Previous applicable studies and reports
- Process data and daily monitoring reports for a three year period
- Equipment maintenance records and Operations and Maintenance (O&M) manuals

Task 3: Flow/Load Projections

This sub task will evaluate existing flow rates and compare to existing sewer service population within

the WWTP's current service area. TWDB population projections will be used to determine population planning numbers for build out. Full build-out of the service area will be evaluated and compared to the design capacity of the facility.

The existing wastewater will be characterized by the Client under the direction of GARVER. These sample parameters will be utilized in projecting future loading rates for processes. This is anticipated to include four weeks of samples, with four sample locations (Raw, SBR Effluent, Chlorine Contact Effluent, and any return flow capture possible), with the analysis of each sample including BOD, Soluble BOD, TSS, NH₃, Total Phosphorous, and Soluble Phosphorous. The Client will conduct all sampling, analysis, and pay for lab fees.

Using the sampling analysis data and the flow projections, Garver will develop loading projections for the planning horizon. These loading projections will determine the actual needed capacity of the facility.

GARVER will deliver a memorandum documenting the findings of the flow and load projections. Deliverable will be PDF documents sent electronically.

Task 4: Field Investigation and Existing System Assessment

GARVER will evaluate the existing wastewater treatment facilities at the WWTP site, including existing liquid process treatment units, solids handling, and hydraulic capacity. The assessments will be based on at-grade visual observations and record drawings of the existing processes.

The assessments will determine feasibility of existing tankage to be reused and make visual observation of a structures ability to continue service over the planning horizon. The deliverable for this task will be a chapter in the overall alternatives evaluation.

Task 5: Operator Interviews

Garver will conduct operator interviews will all plant operators, mechanics and maintenance staff that are responsible for the WWTP. Interview findings will serve as a basis for operational and infrastructure improvements recommendations. Garver will utilize this knowledge to understand current limitations of the facility, major maintenance challenges that need rehabilitation, current process challenges, and other pertinent facility information.

The findings of this task will be delivered as a chapter in the overall alternatives evaluation.

Task 6: Alternatives Evaluation

GARVER will conduct a conceptual evaluation of one biological process alternative to optimize the WWTP's performance. Detailed evaluation will include development of design parameters (e.g., equipment sizing criteria), assessment of rehabilitation requirements for integration of the alternative to the existing treatment system, evaluation of hydraulic impacts, site layouts and evaluation of phasing of the proposed process alternatives. Strengths and limitations of the alternative will be identified. Work under this task will consider the requirements for the various engineering disciplines that will be involved in the design of facilities (i.e., civil, electrical, instrumentation, mechanical, structural, etc.).

An estimate of probable construction cost will be developed for the alternative.

The following deliverables will be submitted to the Client:

1. Three (3) bound copies of the draft TM for review and comment by the Client
2. Three (3) bound copies of the final TM incorporating draft review comments
3. PDF file of the Report

Task 7: Conceptual Workshop

GARVER will conduct a webinar based Conceptual Workshop with the Client to present the results of the alternative evaluation and establish the approach and expectations for design and implementation of the project. Client comments will be documented and incorporated into the draft TM.

Extra Work

The following items are not included under this agreement but will be considered as extra work:

- Detailed design
- Redesign for the Client's convenience or due to changed conditions after previous alternate direction and/or approval.
- Deliverables in addition to those listed herein.
- Construction engineering services
- Public Outreach
- Impact Fee Determination
- Emergency Response Planning
- Hazard Mitigation Planning
- Water Quality Analysis
- Funding Assistance
- Evaluation of condition or structural integrity of facilities (pumps, lift stations, storage tanks, etc.)
- Survey of any kind
- Operations Support Services
- Warranty Assistance Services
- Geotechnical Services
- Utility Location Services
- Coatings Analysis
- Operational Audit/Optimization
- Environmental Handling and Documentation, including wetlands identification or mitigation plans or other work related to environmentally or historically (culturally) significant items

Extra Work will be as directed by the Client in writing for an additional fee as agreed upon by the Client and Garver.

Schedule

Garver shall begin work under this Agreement within ten (10) days of a Notice to Proceed and shall complete the work in accordance with the schedule below:

<u>Task Description</u>	<u>Calendar Days</u>
1. Kick-Off Meeting	14 days from Notice to Proceed
2. Historical Data Review	28 days from Client providing data
3. Flow/Load Projections	21 days from completion of Task 2
4. Field Investigation and Existing System Assessment	21 days following completion of Tasks 2 & 3
5. Operator Interviews	16 days from Notice to Proceed
6. Alternatives Evaluation	21 days from completion of Tasks 2 - 5
7. Conceptual Workshop	28 days from completion of Task 6

APPENDIX B

**Webb County
Wastewater Treatment Plant Assessment**

FEE SUMMARY

Task	Estimated Fees
1. Kick-Off Meeting	\$3,556.00
2. Historical Data Review	\$6,770.00
3. Flow/Load Projections	\$25,327.00
4. Field Investigation and Existing System Assessment	\$19,693.00
5. Operator Interviews	\$3,862.00
6. Alternatives Evaluation	\$30,814.00
7. Conceptual Workshop	\$5,617.00
Total	\$95,639.00