

2020-0180

**INTRODUCED BY: MATTHEW JEWELL, PARISH PRESIDENT
(DEPARTMENT OF PUBLIC WORKS)**

ORDINANCE NO. 20-7-7

An ordinance to approve and authorize the execution of an engineering services agreement with T. Baker Smith LLC for providing all necessary services for the 2020 West Bank Master Drainage Plan (MDP), Project No. P200602.

WHEREAS, the landscape and development of the West Bank has changed considerably, and a current functioning model is critical in managing impacts on Parish infrastructure; and,

WHEREAS, the St. Charles Parish Council desires to perform a MDP for the West Bank that will improve drainage for the entire West Bank of the Parish; and,

WHEREAS, the attached Agreement between St. Charles Parish and T. Baker Smith LLC describes the details of the proposed services and compensation; and,

WHEREAS, because of the complexity of the project, it will be implemented in the following areas and phases so as to control project timing:

- Ama-Sellers, Hahnville 1 and Hahnville 2
- Luling and Luling I-310
- Des Allemands, Sunset, Paradis, Mimosa/Willowdale
- Killona/Taft.

THE ST. CHARLES PARISH COUNCIL HEREBY ORDAINS:

SECTION I. That the Engineering Services Agreement between St. Charles Parish and T. Baker Smith LLC for services as required by the Department of Public Works is hereby approved and accepted.

SECTION II. That the Parish President is hereby authorized to execute said contract on behalf of the Parish of St. Charles.

The foregoing ordinance having been submitted to a vote, the vote thereon was as follows:

YEAS: BENEDETTO, FONSECA, DARENSBOURG GORDON, CLULEE, DUFRENE,
 FISHER, FISHER-PERRIER

NAYS: GIBBS, BELLOCK

ABSENT: NONE

And the ordinance was declared adopted this 6th day of July, 2020, to become effective five (5) days after publication in the Official Journal.

CHAIRMAN: *[Signature]*

SECRETARY: *[Signature]*

DLVD/PARISH PRESIDENT: July 7, 2020

APPROVED: DISAPPROVED:

PARISH PRESIDENT: *[Signature]*

RETD/SECRETARY: July 8, 2020

AT: 12:47 pm RECD BY: *[Signature]*

ENGINEERING SERVICES AGREEMENT

THIS AGREEMENT made and effective as of the ____ day of _____, 2020 by and between ST. CHARLES PARISH acting herein by and through its President, who is duly authorized to act on behalf of said Parish, hereinafter called the OWNER, and T. Baker Smith, LLC, a corporation acting herein by and through its Contracting Officer, hereinafter called ENGINEER. Whereas the Owner desires to employ a professional consulting engineering firm to perform engineering services for the West Bank Master Drainage Plan project as described in Ordinance No. 20-7-7 which is attached hereto and made a part hereof.

1.0 GENERAL TERMS

The Owner agrees to employ the Engineer and the Engineer agrees to perform professional services required for the project described above. Engineering will conform to the requirements of the Owner and to the standards of the agencies participating with the Owner in the Project. The Engineer will coordinate all work between the Owner and all participating agencies and regulating agencies, if needed. Written authorization to begin different phases of the project will be given to the Engineer by the Owner. The Owner may terminate the Contract by written notification and without cause per Section 10.0 during any phase of the project.

The Engineer shall at all times during this Agreement maintain a valid Louisiana Engineering License and any other applicable licenses necessary for performance of the Project.

All work shall be under the direction of the Owner, and all plans, specifications, etc. shall be submitted to the Owner and all approvals and administration of this contract shall be through the Owner.

2.0 PROJECT

- 2.1 The Owner hereby contracts with the ENGINEER to perform all necessary professional services in connection with the Project as specified in the attached proposal from T. Baker Smith, LLC, last revised June 10, 2020, and all other requirements in this Agreement.
- 2.2 In general, the Project consists of major elements including data gap analysis, hydrologic/hydraulic analysis, watershed report(s) preparation and MDP compilation report.
- 2.3 The Engineer agrees to comply with all Federal, State, and Local Laws and Ordinances applicable to the scope of services and work or in entering any other agreement with any another party to complete the work.

3.0 SERVICES OF ENGINEER

- 3.1 Engineer shall provide Owner professional engineering services in all phases of the Project to which this Agreement applies and as hereinafter provided to properly plan and execute the work on the project(s) assigned to the Engineer. These services may include but may not be limited to serving as Owner's professional engineering representative for the Project, providing professional engineering consultation and advice, and furnishing customary civil, surveying, geotechnical, structural, mechanical, electrical, instrumentation and control engineering services and construction engineering and inspection.
- 3.2 Services provided by the Engineer shall be performed in accordance with generally accepted professional engineering practice at the time and the place where the services are rendered.
- 3.3 Engineer shall obtain from Owner authorization to proceed in writing for each phase of the Project.
- 3.4 Engineer shall provide minutes of all meetings with St. Charles Parish regarding any phase of the Project.
- 3.5 Engineer shall provide basic services to complete the project, including all necessary services described herein or usually implied as a prerequisite for the performance of the services whether or not specifically mentioned in this agreement, including attendance by the Engineer at project conferences and public hearings.
- 3.6 Planning Phase
 - 3.6.1 Conducting a Planning Meeting Workshop with the Owner.
 - 3.6.2 Advising the Owner as to the necessity of providing or obtaining from others additional data or services. These additional services may include photogrammetry, reconnaissance surveys, property surveys, topographical surveys, geotechnical investigations and consultations, compilation of hydrological data, materials engineering, and environmental assessments and impact statements.
 - 3.6.3 Identifying and analyzing requirements of governmental authorities having jurisdiction to approve the design of the Project, and participating in consultations with such authorities.
 - 3.6.4 Preparing a comprehensive Planning Report presenting multiple solutions to the Owner with the Engineer's findings and recommendations. The Report will contain as a minimum:
 - a. Discussion of project background and need.
 - b. Schematic layouts, sketches, or photographs.
 - c. Conceptual design criteria with appropriate exhibits to indicate clearly the considerations involved.
 - d. Any special material specifications including major equipment specifications.
 - e. A preliminary cost estimate for each alternative.
 - f. Engineer's conceptual opinion of probable costs for the selected alternative.

- g. Discussion as to what permits are needed, time to acquire approvals, and potential adjacent landowner authorizations/servitudes that need addressing.
- h. Discussion of the type of additional services that will be needed.
- 3.6.5 Meeting with the Owner and presenting findings of the Planning Report.
- 3.6.6 The Planning Report and Engineer's documentation and opinion of costs, along with the following documents and files, shall be delivered to Owner within 30 calendar days, or as otherwise stated in the written authorization from Owner to Engineer to proceed with Planning Services.
 - a. Two (2) copies of the report for review.
 - b. Once the report has been finalized, submit two (2) copies of the revised report plus one (1) electronic file copy in PDF format.

4.0 OWNERSHIP OF DOCUMENTS

- 4.1 Documents including but not limited to plans, specifications, maps, basic survey notes, sketches, charts, computations and all other data prepared or obtained under the terms of this authorization shall become the property of the Owner and shall be made available for Owner's inspection at any time during the Project and, shall be delivered to the Owner prior to termination or final completion of the Contract.
- 4.2 Engineer may retain a set of documents for its files.
- 4.3 Reuse of Documents. Any reuse of documents or materials without written authorization or adaptation by Engineer to the specific purpose intended will be at Owner's sole risk and without liability or legal exposure to Engineer or to Engineer's independent professional associates, subcontractors, and consultants.
- 4.4 No materials, to include but not limited to reports, maps or other documents produced as a result of this Contract, in whole or in part, shall be available to Engineer for copyright purposes. Any such materials produced as a result of this Contract that might be subject to copyright shall be the property of the Owner and all such rights shall belong to the Owner, and the Owner shall be sole and exclusive entity who may exercise such rights.

5.0 SUPPLEMENTARY SERVICES

The Engineer shall provide, when requested in writing by the Owner, supplementary services not included in the basic services.

The compensation to the Engineer for the supplemental services, when performed by the Engineer, shall be in the form of a lump sum, billable hours, or "not to exceed" hourly rate which is mutually agreeable to the Owner and the Engineer in writing.

Such supplementary services may include the following:

- A. Soil investigations
- B. Laboratory inspection of materials and equipment
- C. Right-of-Way, easement and property acquisition surveys, plats, maps and documents

- D. Any major revisions for which the Engineer is not responsible, that are authorized by the Owner after the completion and approval of either the preliminary or final plans and specifications
- E. Services concerning replacement of any work damaged by fire or other causes during construction
- F. Services made necessary by the default of the contractor in the performance of the construction contract
- G. Services as an expert witness in connection with court proceedings
- H. Traffic Engineering if necessary
- I. Topographic Survey
- J. Preparation of Environmental Assessment documents and/or Environmental Permits
- K. If all or part of the work is to be financed by a Federal or State Grant, the Engineer shall assist the Owner in the preparation of the Grant application and with the Grant Administration, unless otherwise specifically agreed upon previously herein.

6.0 DEFECTIVE WORK

During such visits and on the basis of such observations, Engineer may disapprove of or reject Contractor's work while it is in progress if Engineer believes that such work will not produce a completed Project that conforms generally to the Contract Documents or that it will prejudice the integrity of the design concept of the Project as reflected in the Contract Documents.

7.0 NOTICE TO PROCEED

The Owner shall notify the Engineer in writing to undertake the services stated in this Agreement, and the Engineer shall commence the services within ten (10) days after receipt of such notification. The work necessary for the completion of each individual project/work task shall be completed within a time period agreed upon (in writing) between the Owner and the Engineer, following the notice to proceed.

If the Owner desires to divide the Project into various parts, a Notice to Proceed shall be issued for each part, and the Owner and the Engineer shall mutually agree upon the period of time within which services for each part of the Project shall be performed.

The Engineer will be given time extensions for delays beyond their control or for those caused by tardy approvals of work in progress by various official agencies, but no additional compensation shall be allowed for such delays.

8.0 PAYMENTS

- 8.1 For performance of Basic Engineering, the Owner shall authorize and pay the Engineer a not-to-exceed fee, based on the hourly rates in the Proposal and actual time worked and charges incurred. For the various phases the Engineer shall be paid as follows:

Ama-Sellers, Hahnville 1 and Hahnville 2	\$218,493.35
Luling and Luling I-310	TBD*
Des Allemands, Sunset, Paradis, Mimosa/Willowdale	TBD
Killona/Taft	TBD

* Scope and cost to be negotiated between parties and authorized by mutual written amendment to the contract.

- 8.2 Payment for basic engineering services on projects that do not require construction services, such as feasibility studies or drainage studies, shall be made based upon Engineer's estimate of the proportion of the services actually completed at the time of billing and shall be made in partial payments at monthly intervals.
- 8.3 If the Project, or any portion thereof, is not completed for any reason, the final fee for basic engineering services shall be negotiated between Owner and Engineer.
- 8.4 If authorized in writing by Owner, for the performance of, or for obtaining from others Additional Services which are not considered normal or customary Basic Engineering, the Owner shall pay Engineer based on monthly invoices submitted by the Engineer, within sixty (60) days of receipt of Engineer's invoice.
- 8.5 For Additional Authorized Services provided by the Engineer such as, but not limited to, wetlands permitting, land and right-of-way acquisition, surveying, NPDES and LADEQ permit renewal or acquisition work, etc. Owner shall pay Engineer based on an agreed upon hourly rate(s) between the Owner and Engineer. Payment shall be not-to-exceed based on hourly rates and actual hours worked.
- 8.6 The following documentation shall be required for payment to Engineer and shall be attached to the monthly invoice.
- a. A copy of the Owner's written authorization to perform the service.
 - b. Timesheets for all hours invoiced.
 - c. Invoice copies, logs or other substantiation of non-salary expenses.
- 8.7 For Additional Authorized Services that Engineer acquires from subcontractors and/or subconsultants, Owner shall pay Engineer a fixed sum previously agreed upon by Owner and Engineer, such sum to be established in each case when the scope of the work involved has been determined and before any of the Additional Services are provided. The use of subcontractors and/or subconsultants shall be subject to the provisions set forth in this Agreement. The following documentation shall be required for payment to Engineer and shall be attached to the monthly invoice:
- a. A copy of the Owner's written consent for the subcontractor and/or subconsultant to perform the service stating the Owner's and Engineer's agreed upon fixed sum established for the service performed.
 - b. Evidence that the subcontractor and/or subconsultant is insured as required by this Agreement.

8.8 For *Additional Engineering* described in Section 5, Owner shall pay Engineer for the fee negotiated at the time the work is assigned by the method stipulated in the contract amendment.

9.0 FUNDS

No work shall be authorized until funds are established for each individual task.

10.0 TERMINATION OR SUSPENSION

- 10.1 This Agreement may be terminated for any reason by either party upon thirty (30) days written notice.
- 10.2 The Engineer, upon receipt of such notice, shall immediately discontinue all services in connection with the performance of this Agreement and shall proceed to cancel promptly all existing orders and contracts insofar as such orders or contracts are chargeable to this Agreement.
- 10.3 The Engineer shall, as soon as practicable after receipt of notice of termination, submit a statement showing in detail the services performed and payments received under this Agreement to the date of termination.
- 10.4 The Owner shall then pay the Engineer promptly that portion of the prescribed fee to which both parties agree.
- 10.5 Engineer fully acknowledges that no payment will be made for any work performed or expenses incurred after receipt of the termination by either party unless mutually agreed upon in writing.
- 10.6 Failure to meet agreed delivery dates or authorized extensions are considered substantial failures and breach of this contractual agreement by Engineer.

11.0 INSURANCE

- 11.1 The Engineer shall secure and maintain at his expense such insurance that will protect him and the Owner, from claims under Workmen's Compensation Acts and from claims for bodily injury, death or property damage which may arise from performance of services under this Agreement. Insurance for bodily injury or death shall be in the unencumbered amount of \$1,000,000.00 for one person and not less than \$1,000,000.00 for all injuries and/or deaths resulting from any one occurrence. The insurance for property damage shall be in the unencumbered amount of \$1,000,000.00 for each accident and not less than \$1,000,000.00 aggregate.
- 11.2 The Engineer shall also secure and maintain at his expense professional liability insurance in the unencumbered sum of \$1,000,000.00.
- 11.3 All certificates of insurance SHALL BE FURNISHED TO THE OWNER and shall provide that insurance shall not be cancelled without ten (10) days prior written notice to the Owner. The Owner may examine the policies.
- 11.4 Engineer shall include all subcontractors and/or subconsultants as insured under its policies or shall furnish separate certificates for each. All coverages for subcontractors and/or subconsultants shall be subject to all the requirements stated herein.

- 11.5 St Charles Parish shall be named as an additional insured on general liability insurance policies.
- 11.6 For all purposes under Louisiana law, the principals of this Contract shall be recognized as the statutory employer of all contract employees as provided in LSA-R.S. 23:1061.

12.0 INDEMNIFICATION

Engineer shall indemnify and hold harmless the Owner, its employees, agents and representatives, against any and all claims, demands, suits or judgments for sums of money to any party for loss of life or injury or damages to person or property growing out of, resulting from or by any reason of any negligent act by the Engineer, its employees, agents, servants or representatives, while engaged upon or in connection with the services required or performed hereunder.

13.0 WARRANTY

- 13.1 Engineer warrants that it will perform its design services with the degree of skill and to the standard of care required of the engineering profession to meet all Federal, State and Local requirements.
- 13.2 If Engineering Services for project designed by Engineer does not meet those requirements noted herein above, then to the extent that this occurs as a direct result of Engineer's failure to meet the standard of care in its design services, Engineer will indemnify the Parish for Engineer's share of the costs incurred to bring Engineering Services for project to the limitations mandated.
- 13.3 The obligations expressed in Section 13 above in no way limit the Engineer's obligations expressed elsewhere in this Contract.

14.0 EXCLUSIVE JURISDICTION AND VENUE

For all claims arising out of or related to this agreement, ENGINEER hereby consents and yields to the exclusive jurisdiction and venue of the Twenty-Ninth Judicial District Court for the Parish of St. Charles, State of Louisiana, and expressly waives any (a) pleas of jurisdiction based upon Engineer's residence and (b) right of removal to Federal Court based upon diversity of citizenship.

15.0 OTHER

This Agreement constitutes the entire agreement between the parties. There are no understandings, agreements, or representations, oral or written, not specified within this Agreement. This Agreement may not be modified, supplemented or amended in any manner, except by written agreement signed by both parties.

IN WITNESS WHEREOF, the parties to these presents have hereunto caused these presents to be executed the day, month and year first above mentioned.

WITNESSES:

Richard Champagne

Billy Raymond

WITNESSES:

Ben Pelly

Cara Chausson

ST. CHARLES PARISH

Math Jewell

By: Matthew Jewell
Parish President

7/7/2020
Date:

ENGINEER

Ray Duen
By:

7/15/2020
Date:

**ST. CHARLES PARISH
WEST BANK MASTER DRAINAGE PLAN**

Scope of Services Proposal

Revision 1
June 10, 2020

Prepared for:



**St. Charles Parish
Department of Public Works and Wastewater**

100 River Oaks Drive
Destrehan, LA 70047

Prepared by:



17534 Old Jefferson Hwy., Suite D-1
Prairieville, LA 70769

I. INTRODUCTION

The purpose of this document is to outline the tasks necessary to support the development of a comprehensive Master Drainage Plan (MDP) for the West Bank of St. Charles Parish, Louisiana for the St. Charles Parish Department of Public Works and Wastewater (SCP or Parish). T. Baker Smith, LLC (TBS), has prepared this proposal based upon our understanding of the goals and objectives for this MDP as discussed on 5/21/2020.

In general, the MDP will analyze the existing gravity and forced drainage networks within the West Bank of St. Charles Parish and provide recommendations for improvements to these systems aimed towards mitigating flooding both for the existing conditions and due to future planned development. The West Bank of St. Charles Parish comprises of approximately 21,000 acres of land (excluding marsh/swampland) and consists generally of eleven (11) primary drainage basins, which will be analyzed separately in phases based upon their locations and similarities. The improvements recommended for each basin will be prioritized using multiple factors including implementation time, cost and anticipated benefit to their respective area, which when compiled into the MDP, can be utilized to prepare a comprehensive Capital Improvements Program. The results of each primary basin's analysis will be delivered via several "interim" reports, and once all are completed, these will be compiled into the comprehensive MDP. In addition to specific project improvements, the MDP will also discuss general recommendations for consideration such as modifications to codes and/or ordinances necessary to sustain these drainage systems.

A detailed scope of services has been provided below.

II. SCOPE OF SERVICES

Data Gap Analysis

Prior to starting the Hydrologic and Hydraulic modeling, TBS will gather and review existing information available from the Parish and conduct site visits to determine any additional data that may be required to perform the analysis. The Parish will provide all existing and required survey data required for the analysis to TBS using existing in-house data or new data collected via third party. TBS' effort shall include the following:

- a. Obtain and review existing studies, reports, development plans, land use information, GIS data, and other information made available by the Parish to assist in the model development and analysis.
- b. Site visits conducted by TBS' engineering staff to review the condition of drainage structures and major conveyance channels, basic channel geometry, and overall basin characteristics for each watershed.
- c. Prepare list of supplemental field data and any other additional information needed to support the modeling effort for the Parish. Discuss alternatives and/or assumptions that may be required with Parish based on availability and/or budgetary limitations.
- d. Review of all supplemental data provided by the Parish.

SCP West Bank MDP



Hydrologic and Hydraulic Analysis

TBS will use the data provided by the Parish, publicly available data and supplemental data collected as a result of the data gap analysis to develop a hydrologic and hydraulic model of the watersheds. The modeling will focus on the 4%, 2%, and 1% annual exceedance probability rainfall events (25, 50, and 100-year rainfall events). The model development and analysis will include the following tasks:

- a. Hydrologic Modeling
 - i. Drainage basin(s) will be delineated using publicly available 2017 USGS LiDAR and supplemented with available survey data, as needed.
 - ii. Obtain rainfall data for the selected recurrence intervals from NOAA ATLAS 14 Point Precipitation Frequency Estimates and/or National Weather Service, Technical Paper No. 40.
 - iii. Determine land use, impervious area, soil type and time of concentration for each drainage basin for existing conditions.
 - iv. Development of runoff hydrographs for each drainage basin for the selected recurrence intervals to represent existing conditions.
 - v. Update land use and impervious area to account for future development and revise runoff hydrographs for each drainage basin for the selected recurrence intervals.

- b. Hydraulic Modeling
 - i. Building the model schematic and identifying all major drainage channels, culverts, and other features that are to be included in the model and how they will be represented.
 - ii. Entering the model geometry from the LiDAR and Parish GIS data and supplementing with survey data where necessary.
 - iii. Determining roughness factors for channel, channel overbanks, and culverts.
 - iv. Establish downstream boundary conditions (tailwater) based on publicly available gauge data.
 - v. Depending on the extent of the model domain for the watershed, the existing conditions model results may be calibrated to a known rainfall event. The model results will be validated by reviewing with the Parish, landowners, and other stakeholders and checking against verifiable observed data.
 - vi. Review and establish criteria and objectives with the Parish for the improvements to be evaluated as part of the proposed conditions hydraulic modeling.
 - vii. Development of a proposed conditions hydraulic model that incorporates improvements to channels, culverts, detention, or other drainage related features required to meet the established objectives.
 - viii. Review of the proposed conditions modeling results including the alternatives considered throughout the modeling process with the Parish.
 - ix. Address and incorporate comments received by the Parish on the existing and proposed conditions modeling results.

Watershed Report Preparation

Upon completion of the H&H Analysis, TBS will prepare a report that summarizes the results of the modeling for each watershed. Included in the report will be conceptual level cost estimates, project priority list, and other recommendations for implementing the proposed improvements included in the proposed conditions modeling.

- a. The report will cite the sources of the data used to develop the model, software programs used for the modeling, limitations and assumptions, the methodologies used to develop the model, proposed improvements, estimated cost and project prioritization, and other recommendations or future considerations.
- b. Conceptual level cost estimates will be summarized in the body of the report and any supporting documentation will be included in appendices. The level of detail will be that of a desktop study and costs for features will be approximated on linear foot basis or other high-level unit or measure for a given improvement.
- c. Preliminary environmental considerations such as wetland mitigation and permitting costs will be included in the cost for each improvement, where applicable. Depending on the scope and locations of the improvements, right-of-way and utility relocations may be required. Where information is available and the impacts are apparent, TBS will note as such. It may not be practical to obtain all required information to accurately estimate right-of-way or utility relocation costs and in such cases, it will be noted as such in the cost estimate.
- d. Once costs are estimated, TBS will prepare a prioritized list of improvements, or a combination of improvements, based upon the cost and anticipated benefit of each item. Implementation time may also be factored into the prioritization.
- e. Provide a list of general recommendations and other future considerations that may include suggested modifications to codes or ordinances. These will be general in scope for the interim basin reports until a more detailed discussion can be prepared in the final MDP.

Master Drainage Plan Compilation

TBS will compile the information from the individual watershed reports into an overall Master Drainage Plan for the West Bank of St. Charles Parish. The reports developed for each watershed will have more detail that is required for the body of the Master Drainage Plan report. This task will reduce the data from the individual watersheds down to an executive summary level while keeping the detailed analysis in appendices. As the Parish proceeds with subsequent phases of the MDP, the information from each watershed will be formatted for inclusion in the overall report.

III. DELIVERABLES

Watershed Reports

Individual reports for the primary watersheds/basins will include report body, figures, tables and exhibits. The following will be included in the deliverables:

- 1 bound hard copy (body, figures, exhibits)

SCP West Bank MDP



- Exhibits shall include the following:
 - Existing and Proposed Inundation Maps
 - Proposed Drainage Improvements
- 1 USB storage drive containing the entire report and appendices
- Modeling inputs and results data in GIS format
- Proposed improvements in GIS format

IV. EXCLUSIONS

Items which are excluded from this Scope of Services, but can be provided as an Additional Service, if necessary, based upon a mutually executed amendment to the Agreement include, but are not limited to:

1. Cost for topographic surveying, survey data collection, environmental field work (such as onsite wetland delineation) as a result of the study objectives changing during this scope of services.
2. Detailed design of recommended improvements
3. Any and all environmental permit submittals such as initial permits, wetland permits, after the fact permit submittal, as-build survey/quantity submittal, etc.
4. Any and all mitigation costs and associated fees, beneficial use costs and dredge costs that could be required.
5. Any other agency permitting, fees or associated costs.
6. Coordination or costs associated with pipeline or utility encroachments, LADOTD encroachment/permitting, railroad encroachment costs, design or permitting.

V. PARISH'S RESPONSIBILITY

The Parish shall:

1. Provide T. Baker Smith, LLC with all criteria and full information as to the Parish' requirements for the Project, including all project objectives and any known constraints.
2. Arrange for safe access to and make all provisions for T. Baker Smith, LLC to enter upon public and private property as required to perform the professional services herein.
3. Provide review and approvals of the professional services provided.

VI. COMPENSATION

Compensation for services rendered for this scope of services shall be paid to T. Baker Smith, LLC on a Time & Material basis, monthly, with maximum amounts not to exceed the following:

PHASE	WATERSHEDS	AMOUNT
1	Ama-Sellers, Hahnville 1 & Hahnville 2	\$218,493.35
2	Luling & Luling I-310	\$TBD
3	Des Allemands, Sunset, Paradis, Mimosa/Willowdale	\$TBD
4	Killona, Taft	\$TBD

VII. SCHEDULE

Based on the Scope of Work detailed in Section II, TBS estimates the following schedule to complete the scope of work presented herein. This time does not include additional time for collection of data via third party or circumstances that are out of TBS's control. In order to keep the project team updated on the project's progression, a monthly progress report will be provided to the Parish.

Phase I Tasks	Calendar Days (from NTP or previous task completion)
Data Gap Analysis	30
Hydrologic and Hydraulic Analysis	90
Watershed Report(s) Preparation	40
MDP Compilation	Continuous - Ongoing



T. BAKER SMITH, LLC
A CENTURY OF SOLUTIONS

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985.868.1050 (P) 1.866.357.1050 (TF)
www.tbsmith.com 985.868.5843 (F)

LABOR AND EQUIPMENT FEE SCHEDULE

St. Charles Parish

Effective June 2020

PROFESSIONAL STAFF CLASSIFICATIONS:

	<u>Rate</u>
Professional Engineer II	Per Hour \$ 155.00
Professional Engineer I	Per Hour \$ 125.00
Engineer Intern II	Per Hour \$ 95.00
Engineer Intern I	Per Hour \$ 80.00
Professional Land Surveyor II	Per Hour \$ 155.00
Professional Land Surveyor I	Per Hour \$ 125.00
Surveyor Intern II	Per Hour \$ 95.00
Surveyor Intern I	Per Hour \$ 80.00
Environmental Professional II	Per Hour \$ 155.00
Environmental Professional I	Per Hour \$ 125.00
Environmental Analyst II	Per Hour \$ 95.00
Environmental Analyst I	Per Hour \$ 80.00
Certified Scientific Oyster Diver	Per Day \$1,600.00
Senior Project Manager	Per Hour \$ 195.00
Project Manager	Per Hour \$ 130.00
Senior Project Technician	Per Hour \$ 80.00
Project Technician	Per Hour \$ 70.00
Sr. Planner/Landscape Architect	Per Hour \$ 155.00
Planner/Landscape Architect II	Per Hour \$ 125.00
Planner/Landscape Architect I	Per Hour \$ 75.00
Senior Designer	Per Hour \$ 105.00
Designer	Per Hour \$ 90.00
Geospatial 3D Scanning Data Analyst	Per Hour \$ 100.00
Geospatial 3D Scanning Data Processor	Per Hour \$ 85.00
Clerical	Per Hour \$ 68.00



GIS Project Manager	Per Hour	\$ 145.00
GIS Lead Developer	Per Hour	\$ 130.00
GIS Data Analyst / Manager	Per Hour	\$ 105.00
Senior Pipeline Engineer	Per Hour	\$ 155.00
Pipeline Engineer	Per Hour	\$ 135.00
Pipeline Technician	Per Hour	\$ 110.00
Damage Prevention Inspector	Per Hour	\$ 100.00
Senior Construction Project Manager	Per Hour	\$ 95.00
Construction Project Manager	Per Hour	\$ 88.00
Construction Project Representative	Per Hour	\$ 65.00
Senior Professional	Per Hour	\$ 175.00
Principal In Charge	Per Hour	\$ 235.00

FIELD SURVEY PERSONNEL

Land and Near Shore Survey

Party Chief	Per Hour	\$ 78.00
Instrument Man	Per Hour	\$ 62.00
Survey Aide	Per Hour	\$ 40.00

Field Survey Crew includes the following equipment:

- Mobile Phone with Data transfer plan
- Navigation GPS System
- Scanner / Printer
- 2-way radios
- Tripod(s), bipod(s), tribrach(s), rod(s), range poles
- 100' tape, chain pins, probe rod(s)
- Other equipment, including hard hats, vests, markers, calculators, and first aid kit necessary for the safe and efficient operation of a field survey crew

2 - Person Field Survey Crew	Per Hour	\$ 145.00
3 - Person Field Survey Crew	Per Hour	\$ 182.00
2 - Person Geospatial 3D Scanner Crew	Per Hour	\$ 235.00
3 - Person Geospatial 3D Scanner Crew	Per Hour	\$ 280.00

Geophysical / Hydrographic Personnel

Senior Surveyor	Per Hour	\$ 95.00
Project Surveyor / Data Processor	Per Hour	\$ 88.00
Geophysical Operator	Per Hour	\$ 73.00



Marine Positioning Personnel

Offshore Party Chief	Per Day	\$1,000.00
Project Surveyor	Per Day	\$ 900.00
Electronics Technician	Per Hour	\$ 75.00

OVERTIME:

Overtime for field personnel will be charged for work after ten (10) hours per day, Monday through Friday, weekends and holidays at the regular rate plus 50%. Overtime for professional and technical personnel will be charged for work after nine (9) hours per day, Monday through Friday, weekends and holidays at the regular rate plus 50%. A minimum 8-hour day will be charged for labor and equipment when shut down due to weather, etc., for reasons beyond TBS's control when operating from a headquarters other than our base offices.

Subsistence Expenses

Reasonable expenses shall be applicable charges for professional staff and consultants while conducting Client's business more than 50 miles from the TBS base office.

Subsistence for TBS Field Crew Personnel when on assignment away from base shall be charged @ \$123.00 per work day. (See Federal Per Diem Rates – CONUS) Subsistence for TBS Field Crew personnel when on assignment away from TBS base facility in or near densely populated areas or in response to natural and or man-made disasters shall be negotiated on a project-specific basis.

UNMANNED AERIAL SYSTEM (UAS)

- Lidar (UAV) *Price available based upon specific project specifications*
- Fixed Wing (UAV) *Price available based upon specific project specifications*
- Quad Copter (UAV) *Price available based upon specific project specifications*

SUBSURFACE UTILITY ENGINEERING (SUE)

- Quality Level "A & B" *Price available based upon specific project specifications*
- VacMasters System 4000 Vacuum Excavation Truck w/Crew includes the following equipment:

Equipment

- Mobile Phone with Data transfer plan
- Navigation GPS System
- Scanner / Printer
- Pneumatic Hammer
- Pneumatic Tamper
- Concrete Saw
- Other equipment, including hard hats, vests, markers, calculators, and first aid kit necessary for the safe and efficient operation of a SUE Locating Crew.

ELECTRONIC SURVEY EQUIPMENT

Electronic Metal Detectors	Per Day	\$ 60.00
Electronic Metal Detectors- RD8000	Per Day	\$ 100.00
Digital Level	Per Day	\$ 150.00



Radio Detection PCM+ Long Range	Per Day	\$ 325.00
Pipe Locator w/Generator	Per Day	\$ 500.00
Ground Penetrating Radar	Per Day	\$ 500.00
Gradiometer / Magnetometer	Per Day	\$ 175.00
Conventional Total Station	Per Day	\$ 175.00
DC Total Station	Per Day	\$ 250.00
GPS Survey Receiver	Per Day	\$ 340.00
Differential Global Positioning System (DGPS)	Per Day	\$ 75.00
Environmental Differential Global Positioning System	Per Day	\$ 500.00
Robotic Total Station	Per Day	\$ 800.00
Robotic Laser Scanner	Per Day	\$ 550.00
GPS Total Station (RTK) System	Per Day	\$ 95.00
Data Collector / Field Computer System	Per Day	\$ 1,500.00
3D Laser Scanning System		
Mobile Lidar		

Price available based upon specific project specifications

MARINE TRANSPORTATION EQUIPMENT

14' Skiff with outboard	Per Day	\$ 125.00
16' Vessel with outboard	Per Day	\$ 225.00
Airboat	Per Day	\$ 700.00
Marsh Master / Amphibious Vehicle	Per Day	\$ 525.00
18'-21' Survey Vessel with dual outboards	Per Day	\$ 550.00
24' Survey Vessel with dual outboards	Per Day	\$ 600.00
25' Survey Spud / Pipe Probing Vessel / Barge with dual outboards	Per Day	\$ 725.00

GEOPHYSICAL / HYDROGRAPHIC SURVEY EQUIPMENT

Marine Positioning / Navigation / Data Storage Computer System	Per Day	\$ 350.00
Digital Side Scan Sonar	Per Day	\$ 650.00
Proton Magnetometer	Per Day	\$ 650.00
Digital Sub-Bottom Profiler	Per Day	\$ 650.00
Digital Fathometer	Per Day	\$ 300.00
Digital Fathometer (Dual Frequency)	Per Day	\$ 350.00
Hydrographic Jet Ski	Per Day	\$ 300.00
Echoboot	Per Day	\$ 2,000.00
26' Automated Hydrographic Survey Vessel / System		
28' R2 Sonic Multibeam Survey Vessel / System		

Price available based upon specific project specifications

Price available based upon specific project specifications



Site Clearance Verification (Trawling Method)	Price available based upon specific project specifications
110' Offshore Geophysical Survey Vessel / System	Price available based upon specific project specifications
Tiburon – Autonomous Underwater Vehicle (AUV)	Price available based upon specific project specifications

MARINE POSITIONING EQUIPMENT

Marine Positioning / Navigation / Data Storage Dual Computer System	Per Day	\$ 1,000.00
Tug Tracking System	Per Day	\$ 275.00
MS 1000 Scanning Sonar System	Per Day	\$ 650.00
MS 1171 Scanning Sonar System	Per Day	\$ 750.00
Gyrocompass	Per Day	\$ 150.00
Motion Reference Unit	Per Day	\$ 200.00

ADDITIONAL EQUIPMENT

Vehicle Transportation	Per Hour	\$ 18.00
Utility Vehicle (UTV)	Per Day	\$ 125.00
Water Jet Probe System (3/4")	Per Day	\$ 75.00
Portable Gasoline Hammer / Rod Installation System	Per Day	\$ 150.00
Geo 2000 Smart Pig Tracking Unit	Per Day	\$ 45.00
Environmental Sampling Equipment	Per Day	\$ 200.00
Continuous Recording Water Velocity & Level Meter	Per Day	\$ 400.00
Continuous Recording Salinity, Temperature and Height Meter	Per Day	\$ 350.00
Discrete Recording Water Velocity Meter	Per Day	\$ 225.00
Satellite Hotspot	Per Day	\$ 250.00
Four Gas Monitor	Per Day	\$ 50.00

NOTE: ALL EQUIPMENT RATES INCLUDE FUEL, LUBE, MILEAGE, AND INSURANCE. Equipment charges are for services in support of T. Baker Smith, LLC project-related efforts. Bare equipment leases are not available.



SPECIAL MATERIALS

1" X 2" X 4'	each	\$ 1.00
1" X 1" X 8'	each	\$ 2.10
1" X 2" X 18"	each	\$.90
2" X 2" X 18"	each	\$ 1.30
2" X 2" X 16'	each	\$ 9.20
Flagging	Per Roll	\$ 2.50
Reflector Tape	Per Foot	\$.50
Cane Poles	each	\$ 5.75
3/4" G.I.P.	Per Foot	\$ 1.70
2" G.I.P.	Per Foot	\$ 2.30
2" PVC Pipe	Per Foot	\$ 1.40
3" PVC Pipe	Per Foot	\$ 1.70
T-Post	each	\$ 11.50
Buoys (Up to 50')	each	\$100.00
Concrete Monuments	each	\$ 85.00
Tide Staffs	each	\$115.00
Aerial Targets	each	\$ 74.00
3D Laser Scan BW Targets	each	\$ 4.00
3D Laser Scan Retro Targets	each	\$ 2.30
Stainless Steel Deep Rod Monuments w/ PVC Enclosure-(Prices Available Upon Specific Project Requirements)		

REPROGRAPHICS AND DIGITAL IMAGING

Reproduction charges are for services in support of T. Baker Smith, LLC project-related efforts.

Paper / Drawing Size Printing / Copy	Black & White	Color
LTR / LGL	\$ 0.10	\$ 1.10
11"x17"	\$ 0.25	\$ 2.25
Plotting		
Paper	\$ 1.00 / ft ²	\$ 2.00 / ft ²
Mylar (film)	\$ 2.25 / ft ²	\$ 3.50 / ft ²

Computer System

Per Hour \$ 20.00/hr.

Computer System includes standard hardware and software for Data Collection, Processing, Design and CAD/Mapping as required for the proficient operations of our technical staff.

Client History Information Portal (CHIPS) - On-line Client Specific GIS System
Subscription/Set-Up Fee negotiable based upon specific applications



TERMS AND CONDITIONS

1. Invoices will be due for payment within 30 days of receipt. Any invoice or any portion of any invoice that is not paid on the due date shall be subject to an interest charge. T. Baker Smith, LLC shall have the right to suspend services and withhold deliverables until payment in full, including interest, has been made.
2. If a fee schedule is forwarded, it is confidential and must not be transmitted in whole, or in part to any T. Baker Smith, LLC competitor, company, organization, or person outside the employment of direct control of the Client without the express written consent of T. Baker Smith, LLC. This fee schedule is valid for 2020.
3. Consumables, third-party services, and personnel expenses provided by T. Baker Smith, LLC on the Client's behalf will be invoiced by T. Baker Smith, LLC at cost plus fifteen (15%) percent.
4. Loss or damage to underwater equipment or equipment in the water due to unforeseen underwater hazards while performing such surveys in the aftermath of hurricanes or due to client's negligence (or their subcontractor's negligence) will be charged at replacement cost. Client shall maintain adequate insurance coverage to cover loss of T. Baker Smith, LLC equipment.
5. Emergency Response by T. Baker Smith, LLC for natural and or man-made disasters shall be subject to negotiations of special hazard rates for personnel and equipment.
6. Expert Testimony about the nature or extent of T. Baker Smith, LLC professional services, preparation thereof, and/or standby time shall be charged at the listed rates, (if provided) plus 50%. If a lump sum fee is provided Expert Testimony rates will be discussed and agreed upon prior to starting such services.
7. The Global Positioning (GPS) is the property of (and operated by) the U.S. Department of Defense (DOD). As a result, T. Baker Smith, LLC cannot be held responsible for any positioning degradation or omission of positioning directly attributable to the GPS system.
8. When requested, T. Baker Smith, LLC uses conventional survey methods and electronic locating equipment which may include magnetometers, gradiometers, and others in an effort to locate underground and underwater pipelines and other metal objects in advance of drilling, construction, or abandonment activity. While reasonable efforts are made to locate all pipelines, metal objects or other subsurface obstructions in the surveyed area, the equipment used and the characteristics of pipelines themselves make it impossible to guarantee total success. Accordingly, it is incumbent upon the owners, operators and/or contractors conducting operations including dredging and excavation to conduct their operations with extreme caution and recognize that hazards in addition to those detected and marked by T. Baker Smith, LLC may exist.
9. The standard of care for all professional services performed or furnished by T. Baker Smith, LLC under this Fee schedule will be the care and skill ordinarily used by members of the profession practicing under similar circumstances at the same time and in the same locality. T. Baker Smith, LLC represents that, to the best of its knowledge, ability, and professional judgment that all work will be performed safely and in a good and workmanlike manner; and that T. Baker Smith, LLC has adequate equipment in good working order and fully trained personnel capable of efficiently and safely operating such equipment and performing services for Client.