

PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT made and effective as of
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 Principal Engineering Inc, a corporation and/or limited liability company acting herein by and through its Contracting Officer, hereinafter called CONSULTANT. Whereas the Owner desires to employ a professional consulting firm to perform consulting work and services for West Bank Water Treatment Plant, E Plant Construction, Parish Project No. WWKS 118 as described in Ordinance No. _____ which is attached hereto and made a part hereof.

1.0 GENERAL TERMS

The Owner agrees to employ the Consultant and the Consultant agrees to perform professional services required for the project described above. Consultant will conform to the requirements of the Owner and to the standards of the agencies participating with the Owner in the Project. The Consultant 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 Consultant by the Owner, including Conceptual, Preliminary Design, Final Design, Bidding Assistance and Construction and Services. The Owner may terminate the Contract by written notification and without cause per Section 11.0 during any phase of the project.

The Consultant shall at all times during this Agreement maintain a valid Louisiana Consulting 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 CONSULTANT to perform all necessary professional services in connection with the project as defined as follows:

West Bank Water Treatment Plant, E Plant Construction
Parish Project No. WWKS 118

2.2 The Project consist of the scope of services and work as defined in Attachment "A" hereto.

- 2.3 Consultant shall perform all scope of services and work in accordance with the Schedule as defined in Attachment “B” hereto unless otherwise mutually agreed upon by the parties in writing.
- 2.4 The Consultant 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 CONSULTANT

- 3.1 Consultant shall provide Owner professional work and 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 Consultant. These services may include but may not be limited to serving as Owner’s professional consulting representative for the Project, providing professional consultation and advice, and furnishing customary civil, surveying, geotechnical, structural, mechanical, electrical, instrumentation and control consulting services and construction consulting and inspection.
- 3.2 Services provided by the Consultant shall be performed in accordance with generally accepted professional consulting practice at the time and the place where the services are rendered.
- 3.3 Consultant shall obtain from Owner authorization to proceed in writing for each phase of the Project.
- 3.4 Consultant shall provide minutes of all meetings with St. Charles Parish regarding any phase of the Project.
- 3.5 Consultant shall provide work and 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 Consultant at project conferences and public hearings.
- 3.6 The Phases of the Project, if applicable, are as defined in Attachment “A”.

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 Consultant 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 Consultant to the specific purpose intended will be at Owner's sole risk and without liability or legal exposure to Consultant or to Consultant'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 Consultant 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 Consultant shall provide, when requested in writing by the Owner, supplementary services not included in the basic work and services.

The compensation to the Consultant for the supplemental services, when performed by the Consultant, 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 Consultant 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 Consultant 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 consulting 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 Consultant 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, Consultant may disapprove of or reject Contractor's work while it is in progress if Consultant 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 Consultant in writing to undertake the services stated in this Agreement, and the Consultant shall commence the services within ten (10) days after receipt of such notification.

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 Consultant shall mutually agree upon the period of time within which services for each part of the Project shall be performed.

The Consultant 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 Owner shall pay Consultant for the performance of work and services as outlined in Attachment "C" to this Agreement.

8.2 Payment for Consultant work and services on projects that do not require construction services, such as feasibility studies or drainage studies, shall be made based upon Consultant'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 consulting work and services shall be negotiated between Owner and Contractor. If the final fee for work and services is not mutually agreed upon, either party may elect in writing to submit the dispute to mediation. If mediation is not mutually agreed upon, written notice will be submitted to the other party of the intent to submit the dispute to the 29th Judicial District Court of St. Charles Parish, State of Louisiana.

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 consulting, the Owner shall pay Consultant based on monthly invoices submitted by the Consultant, within sixty (60) days of receipt of Consultant's invoice.

Consultant shall provide written notice to Owner when no services or work have been performed during a given month.

- 8.5 For Additional Authorized Services provided by the Consultant 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 Consultant based on an agreed upon hourly rate(s) between the Owner and Consultant. 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 Consultant 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 Consultant acquires from subcontractors and/or subconsultants, Owner shall pay Consultant a fixed sum previously agreed upon by Owner and Consultant, 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 Consultant 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 Consultant'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 Supplementary Services described in Section 5, Owner shall pay Consultant for the fee negotiated at the time the work is assigned by the method stipulated in the contract amendment.

9.0 BUDGET LIMITATIONS

The construction budget for this Project shall be determined by the Owner, and the Consultant shall be advised of the budget limitation in writing by the Owner and the Consultant shall indicate his acceptance of same in writing to the Owner. Any subsequent budget revisions shall be confirmed in writing.

If, at the completion of the Preliminary or Design Phase, the Consultant does not concur with the construction budget, he shall so notify the Owner, and the Consultant and Owner

shall mutually agree on a revised construction budget prior to any work on the Design Phase.

If no bid is received within the budget limitation and a redesign of the project is required by the Owner, such redesign shall be accomplished by the Consultant at no additional cost to the Owner, provided, however, if the receipt of bids are, for any reason, delayed beyond a period of six (6) months from the date of the completion of the Design Phase the amount stated as the construction budget shall be adjusted, immediately prior to the time bids are received, by use of a construction cost index acceptable to both parties of this agreement.

10.0 FUNDS

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

11.0 TERMINATION OR SUSPENSION

- 11.1 This Agreement may be terminated for any reason by either party upon thirty (30) days written notice.
- 11.2 The Consultant, 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.
- 11.3 The Consultant 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.
- 11.4 The Owner shall then pay the Consultant promptly that portion of the prescribed fee to which both parties agree.
- 11.5 Consultant 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.
- 11.6 Failure to meet agreed delivery dates or authorized extensions are considered substantial failures and breach of this contractual agreement by Consultant.
- 11.7 This agreement shall automatically terminate upon satisfactory completion of all services and obligations described herein or three (3) years from the date of its execution, whichever event occurs first.

12.0 NON-APPROPRIATION CLAUSE

Notwithstanding any other provision of this AGREEMENT, if the Owner does not receive the sufficient funds to fund this AGREEMENT and other obligations of St. Charles Parish, if funds are de-appropriated, or if the Owner does not receive legal authority to expend funds from the St. Charles Parish Council, then the Owner is not obligated to make payment under this AGREEMENT.

13.0 INSURANCE

- 13.1 The Consultant 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.
- 13.2 The CONSULTANT shall also secure and maintain at his expense professional liability insurance in the unencumbered sum of \$1,000,000.00.
- 13.3 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.
- 13.4 CONSULTANT shall include all subconsultants as insured under its policies or shall furnish separate certificates for each. All coverages for subconsultants shall be subject to all the requirements stated herein.
- 13.5 CONSULTANT shall secure and maintain at its expense Comprehensive Automobile Liability - Bodily Injury Liability \$1,000,000.00 each person: \$1,000,000.00 each occurrence. Property Damage Liability \$1,000,000.00 each occurrence. The Comprehensive Automobile Liability policy must have coverage for loading and unloading and must include owned, hired and leased autos.
- 13.6 St Charles Parish shall be named as an additional insured on general liability insurance policies.
- 13.7 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.
- 13.8 Insurance policies shall be endorsed to provide for a waiver of subrogation in favor of St. Charles Parish for worker's compensation policies. The certificate of insurance shall reference the waiver of subrogation endorsement.

13.9 The Worker's Compensation Policy Territory Coverage must include Louisiana.

14.0 INDEMNIFICATION

Consultant 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 Consultant, its employees, agents, servants or representatives, while engaged upon or in connection with the services required or performed hereunder.

15.0 WARRANTY

15.1 Consultant warrants that it will perform its design services with the degree of skill and to the standard of care required of the consulting profession to meet all Federal, State and Local requirements.

15.2 If Consulting Services for project designed by Consultant does not meet those requirements noted herein above, then to the extent that this occurs as a direct result of Consultant's failure to meet the standard of care in its design services, Consultant will indemnify the Parish for Consultant's share of the costs incurred to bring Consulting Services for project to the limitations mandated.

15.3 The obligations expressed in Section 14 above in no way limit the Consultant's obligations expressed elsewhere in this Contract.

16.0 EXCLUSIVE JURISDICTION AND VENUE

For all claims arising out of or related to this agreement, CONSULTANT 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 Consultant's residence and (b) right of removal to Federal Court based upon diversity of citizenship.

17.0 COMPLIANCE WITH FEDERAL AND STATE LAWS

CONSULTANT further agrees to comply with all federal and state laws.

18.0 CERTIFICATION OF COMPLIANCE WITH LA R.S. 38:2216.1 & 39:1602.2

In accordance with La R.S. 38:2216.1 and 39:1602.2, Contractor agrees that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association based solely on the entity's or association's status as a firearm entity or firearm trade association. Further, Contractor agrees that it will not discriminate against a firearm entity or firearm trade association during the term of the contract based solely on the entity's or association's status as a firearm entity or firearm trade association.

19.0 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.

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

PRINCIPAL ENGINEERING INC

ST. CHARLES PARISH

By: _____

By: _____

Name: Henry I. Difranco, Jr.

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

ATTACHMENT "A"

West Bank Water Treatment Plant, E Plant Construction Parish Project No. WWKS 118

Project Scope:

The existing surface water treatment plant located at 403 Milling Ave, Luling, LA consists of 4 parallel clarifier and filter process trains as follows:

Plant A	1 MGD Capacity
Plant B	2 MGD Capacity
Plant C	3 MGD Capacity
Plant D	3 MGD Capacity

The Mississippi River intake structure pumps raw water to Plants A & B; and to Plants C & D via two separate pipelines. Finished water is stored in manifolded ground storage tanks, which flood underground service pump reservoirs, located under the current C & D control building. Plants C & D are recently rehabilitated, and in good condition.

The project is envisioned to construct a new 4 MGD Plant E on vacant land, consolidate controls for Plants C, D, and E in a new control room / bunk / kitchen / laboratory building, construct centralized chemical feed building, improve existing bulk chlorine storage, construct an additional bank of service pumps, and demolish Plants A & B after Plant E is operational.

CONSULTANT shall perform the scope of services described in the following paragraphs.

CONCEPTUAL PHASE

Upon written authorization from OWNER, CONSULTANT shall prepare and submit a Conceptual Phase Report consisting of the following:

- I. Requirements Confirmation. Confirm required production capacity for normal and contingency scenarios in current and future years, establish long-range plan for plant and site, generate building interior space program, list supporting facility modifications or improvements, list operational requirements and constraints, and seek complete development of Parish needs and objectives. Prioritize requirements into hierarchy.
- II. Existing Conditions. Establish dataset through direct topographic, boundary, and process survey; record drawing assembly, subsurface utility investigation, component condition assessment, geotechnical exploration and analysis, source water analysis, treatment performance review, distribution system characteristic study; daily, monthly, and yearly process instrumentation data review; and other information as applicable. Topographic and boundary survey, and geotechnical investigation are performed as Additional Services.
- III. Basis of Design. Compiled applicable statutes, codes, and regulatory requirements by discipline, governing the project. Report on regulator pre-design coordination. Select

technical standards (AWWA, HI, ACI, etc.) to govern design. Report on preliminary code analysis results. Workshop with Waterworks and define design criteria such as system demand scenarios, structural load cases, etc.

IV. Conceptual Project Definition.

- a. Compare treatment process alternatives for effectiveness, cost, operability, and footprint. Investigate constructed facilities and interview vendors. Recommend process train.
 - b. Devise concept site plan based on approximate unit sizing and Owner's process selection, including structures, piping, electrical, and civil features. Plot conceptual plant HGL and process flow diagram.
 - c. Provide concept building floor plans, process unit drawings, piping layouts, electrical riser diagrams, and equipment/instrument schedules.
 - d. Show concept construction phasing plan.
 - e. Provide conceptual opinion of construction cost.
 - f. Issue anticipated construction drawing set index and specification table of contents.
- V. Conduct kick-off meeting, monthly progress meetings, and review meeting after Report issue. Revise for comment and issue final Conceptual Report. Order any additional data collection required to complete Design.

PART 1 – BASIC SERVICES

A. PRELIMINARY DESIGN PHASE (35% Design Submittal)

Upon written acceptance by OWNER of the Conceptual Report, selection by OWNER of a recommended solution, and upon written authorization from OWNER, CONSULTANT shall:

- a. Prepare Preliminary Design Phase documents consisting of final design criteria, preliminary drawings, and outline specifications. Visit the Site, as needed, to prepare the Preliminary Design Phase documents.
- b. Provide written notice to all utility companies (private and public) about the project and request utility "as-built" information from them.
- c. Advise OWNER if additional reports, data, information, and/or services not already identified in the Conceptual Phase which are necessary and assist OWNER in obtaining such reports, data, information, and/or services.

- d. Based on the information contained in the Preliminary Design Phase documents, prepare a revised opinion of probable Construction Cost.
- e. Obtain and review OWNER's contract documents and OWNER specifications for inclusion within the final contract, plans and specifications. CONSULTANT shall also consult with OWNER in regards to OWNER policies and practices in regard to contract administration and construction management.
- f. Furnish three review copies of the Preliminary Design Phase documents and revised opinion of probable Construction Cost to OWNER as well as submitting electronically to appropriate parties specified by OWNER. CONSULTANT's services under the Preliminary Design Phase will be considered complete on the date when CONSULTANT has delivered to OWNER the final Preliminary Design Phase documents and opinion of probable Construction Cost.

B. FINAL DESIGN PHASE (65%, 95%, and Final Submittals)

Upon written acceptance by OWNER of the final Preliminary Design Phase documents and upon written authorization from OWNER, CONSULTANT shall:

- a. Prepare Final Drawings and Specifications indicating the scope, extent, and character of the Work to be performed and furnished by CONTRACTOR.
- b. These Drawings shall include locations of all utilities affected, with ownership and rights-of-way where required. The existing and ownership of any existing utilities shall be determined by contacting each utility provider in writing to obtain such records as may be available and information from the survey. Coordinate with said utility companies on the adjustment, relocation, or removal of existing utility lines and structures within the project that are in conflict with the proposed improvements.
- c. Visit the Site as needed to assist in preparing the Final Drawings and Specifications.
- d. Prepare necessary applications for permits for submission for approval of local, state, and federal authorities.
- e. Prepare a detailed Final Cost Estimate.
- f. Furnish for review by OWNER three copies of the Final Drawings, Specifications, and Cost Estimate as well as submitting electronically to appropriate parties specified by OWNER. OWNER shall submit to CONSULTANT any comments regarding the furnished items, and any instructions for revisions. CONSULTANT's services under the Final Design Phase will be considered complete on the date when CONSULTANT has delivered to OWNER the Final Drawings, Specifications, and Cost Estimate.

C. BID PHASE

Upon acceptance by OWNER of the Final Drawings, Specifications, the most recent opinion of probable Construction Cost, and upon written authorization by OWNER to proceed, CONSULTANT shall:

- a. Assist OWNER in advertising for and obtaining bids or proposals for the Work, assist OWNER in issuing assembled design, contract, and bidding-related documents to prospective CONTRACTORS, and, where applicable, maintain a record of prospective CONTRACTORS to which documents have been issued, pre-bid conferences, if any, and receive and process CONTRACTOR deposits or charges for the issued documents.
- b. Prepare and issue Addenda as appropriate to clarify, correct, or change the issued documents.
- c. Consult with OWNER as to the qualifications of prospective CONTRACTORS. Consult with OWNER as to the qualifications of Subcontractors, suppliers, and other individuals and entities proposed by prospective CONTRACTORS, for those portions of the Work as to which review of qualifications is required by the issued documents.
- d. If the issued documents require, CONSULTANT shall evaluate and determine the acceptability of "or equals" and substitute materials and equipment proposed by prospective CONTRACTORS.
- e. Attend the bid opening, prepare bid tabulation sheets and recommendation of award to meet OWNER's schedule, and assist OWNER in evaluating bids or proposals, assemble final contracts for the Work for execution by OWNER and CONTRACTOR, and in issuing notices of award of such contracts.
- f. The Bid Phase will be considered complete upon commencement of the Construction Phase.

D. CONSTRUCTION PHASE

Upon successful completion of the Bid Phase and upon written authorization from OWNER, CONSULTANT shall:

- a. Prepare formal contract documents for the execution of the construction contract.
- b. Pre-Construction Conference: Participate in a pre-construction conference prior to commencement of Work at the Site.
- c. Establish construction monuments, project baseline, and benchmarks as necessary.
- d. Coordinate with owners of utilities for relocation of their facilities to clear the site for construction.

- e. Require and review tests of materials necessary for the project.
- f. Verify and approve CONTRACTOR's Applications for Payment and schedules (Progress Schedules, Schedule of Submittals, and Schedule of Values) and submit to the OWNER.
- g. Prepare progress reports for the OWNER when requested and coordinate monthly progress meetings between OWNER, CONTRACTOR, CONSULTANT, and inspector, as necessary throughout the duration of the project.
- h. Review shop drawings and sampled for conformance with the design concept of the project and for compliance with the result required in the Contract Documents. Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by CONTRACTOR.
- i. Prepare all necessary documentation required for construction RFIs (Requests for Information/Interpretation), Change Orders, and Work Change Directives.
- j. Attend Council meetings and other meetings necessary to discuss issues associated with the project.
- k. Record Drawings: The CONSULTANT shall furnish reproducible "RECORD" drawings, based on information provided by the CONTRACTOR, both printed on full size paper as well as electronically via AutoCAD.
- l. Receive from CONTRACTOR, review, and transmit to OWNER maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance required by the Construction Contract Documents
- m. Make visits to the Site at intervals appropriate to the various stages of construction, as CONSULTANT deems necessary, to observe as an experienced and qualified design professional the progress of CONTRACTOR's executed Work.
- n. Perform Substantial Completion walk through, generate Substantial Completion recommendation and accompanying Punch List. Perform final inspection and make a recommendation for acceptance.
- o. The Construction Phase will commence with the execution of the Notice of Intent to Award for the Project and will terminate upon written recommendation by CONSULTANT for final payment to CONTRACTORS.

PART 2 – ADDITIONAL SERVICES

A. SURVEY

CONSULTANT shall obtain a contract with a Licensed Professional Surveyor to complete the work as outlined in the scope of survey work the CONSULTANT developed in the Preliminary Design Phase of the project. The survey's purpose is to locate all existing

features both manmade and natural, above ground and subsurface within the project limits. The survey shall include the following elements:

Topographic Survey:

1. Collect surface features, including pavement, foundation corners & edges (adjacent ground and finished elevations), drainage structure tops and inverts, ditches, spot elevations in open areas and at grade breaks, etc.
2. Collect buried utilities, including markings by utility companies, power poles, water valve boxes (top elevation & operating nut elevations), pipe elevations in vaults and open trenches.
3. Other relevant topographic features.
4. Respond to survey uncovered utilities at later time and add to drawings (give per each mobilization price).
5. Coordinate with Parish personnel to mark and/or state location of other buried piping on the site.

Plant Survey:

1. Collect elevation, diameter, type, and material of all exposed piping and their supports.
2. Elevations and sizes of all clarifier and filter tanks including walls (height, thickness, type), baffle sizes and elevations, weirs (types and sizes), troughs (location, width, depth)
3. Elevations/ locations of all catwalks – include width, grate type, handrail type and height, slabs(foundations), screens – size, type, elevations
4. Location, elevation, sizes, types of all pumps/motors and blowers and connecting piping sizes and elevations
5. At the Mississippi river, survey intake pumps, piping, and structure, as accessible on foot.

Boundary Survey:

1. Provide apparent right of way for adjacent streets and railroad.
2. Provide actual boundaries for the WTP parcel or parcels.

Survey shall be submitted to the Parish both in PDF and CAD format.

Data Collection and Processing:

1. Spatial data collected for projects shall be referenced to the updated NAD83 and NAVD88 reference datums established by NOAA (National Oceanic and Atmospheric Administration). Monumentation shall be set in an area outside the

construction limits so as not to be disturbed during the construction phase. Existing control monumentation located within the vicinity may be used in lieu of setting new monuments. Field observations data must be processed and delivered to the Parish and comply with the specific deliverables requirements defined below.

Project Control:

1. Information on project control monuments that are applicable to the survey/project limits shall be provided by contractors, designers, engineers, or surveyors. This documentation should be labeled or clearly defined as Datum and Control.
2. Monument documentation must include source documentation such as Report of Survey Mark or NGS (National Geodetic Survey) Data Sheet and should remain in its original format as well as retain its original name as provided by the source. Monument maps may be scanned and the electronic scan treated as the source. PDF is the preferred format for scanned monument maps, although jpg and tif files are also acceptable.
3. All existing monuments used in the establishment of the project control network must have documentation as described above.
4. The Surveyor shall acquire the elevation and datum of all bench marks to be used in the survey. The elevation used shall be based on the updated NAD83 and NAVD88 reference datums.

Survey Data Deliverables:

1. A complete survey package as described below must be submitted by assembling all the appropriate electronic information used to conduct the survey. These documents should indicate the following (where applicable) for project control monuments:
 - a. Designation - the “name” of the mark used.
 - b. CORS Identifier - the mark is either a Continuously Operational Reference Station (CORS) or is associated with one.
 - c. PID - Permanent Identifier
 - d. GEOID – Geoid model used (ex. 12B)
 - e. Epoch – ex. 2010
 - f. Latitude/Longitude – X,Y; Northing/Easting; State Plane Louisiana South FIPS1702 (Feet)
 - g. Orthometric Height – Z (Feet)
 - h. Horizontal Datum – ex. coordinates in North American Datum (NAD 1983)

- i. Vertical Datum – ex. North American Vertical Datum (NAVD 88) elevation (if measured)
- j. Horizontal and vertical accuracy
- k. Units
- l. Scale factor

B. GEOTECHNICAL INVESTIGATION

CONSULTANT shall obtain a contract with a Licensed Louisiana Geotechnical firm to complete the work as outlines in the scope of geotechnical work the CONSULTANT developed in the Preliminary Design Phase of the project. The geotechnical investigation purpose is to determine the properties of the soil in the project area. The geotechnical investigation shall include the following elements:

1. (1) one to (2) two undisturbed soil borings located within proximity to the project location
2. The borings are to be classified and analyzed as necessary in accordance with accepted industry practices for foundation design
3. Subsurface exploration data to include soil profile, exploration logs, lab or in-situ test results, and ground water conditions
4. Engineering recommendations for design such as pile depth, sheet pile design, etc. and recommendations to be project specific
5. The boreholes are to be backfilled and road surfaces patched in accordance with DOTD requirements (Purple book or later).

C. PERMITTING

CONSULTANT shall develop permit drawings, applications, supporting information and obtain all permits as required for the project, including, but not limited to, the following:

1. Wetland Delineation, submitting for a Jurisdictional Determination of any wetlands
2. U.S. Army Corps of Engineers (Section 404 permit)
3. LA Wildlife & Fisheries (Scenic Rivers permit)
4. LA Department of Health (LDH)
5. LA Department of Environmental Quality (LDEQ)
6. Cultural Resources

7. Railroad Permitting

CONSULTANT shall also attend permit meetings as necessary and address all questions and comments received from any agency to ensure receipt of all necessary approvals.

D. INDEPENDENT TECHNICAL REVIEW (ITR)

CONSULTANT shall obtain a contract with qualified engineering firm, not engaged in direct design of the project, to perform independent technical quality assurance review of the Preliminary and Final Design deliverables. Scope of review is to confirm that design meets design criteria, operational and regulatory requirements, industry standards, constructability, and cost effectiveness.

E. SUBSURFACE UTILITY INVESTIGATION

CONSULTANT shall obtain a contract for subsurface utility investigation services, consisting of Quality Level D through Quality Level A services across the existing WTP site. Services are inclusive of records study, acoustic, radar, or electromagnetic detection, and limited excavation for physical verification. Deliverable is a CAD file based on survey benchmarks.

F. RESIDENT PROJECT REPRESENTATIVE (RPR)

CONSULTANT shall furnish a Resident Project Representative (“RPR”), at the request of the OWNER to assist CONSULTANT in observing progress and quality of the Work. The RPR may provide full time representation or may provide representation to a lesser degree. RPR is CONSULTANT’s representative at the Site and will act as directed by and under the supervision of CONSULTANT.

The duties and responsibilities of the RPR are as follows:

1. RPR’s dealings in matters pertaining to the Work in general shall be with CONSULTANT and CONTRACTOR. RPR’s dealings with Subcontractors shall only be through or with the full knowledge and approval of CONTRACTOR. RPR shall generally communicate with OWNER only with the knowledge of and under the direction of CONSULTANT.
2. Review the progress schedule, schedule of Shop Drawing and Sample submittals, schedule of values, and other schedules prepared by CONTRACTOR and consult with CONSULTANT concerning acceptability of such schedules.
3. Attend meetings such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings.
4. Comply with Site safety programs.

5. Serve as CONSULTANT's liaison with CONTRACTOR. Assist CONSULTANT in serving as OWNER's liaison with CONTRACTOR when CONTRACTOR's operations affect OWNER's On-Site operations.
6. Report to CONSULTANT whenever RPR believes that any part of the Work is defective under the terms and standards set forth in the Construction Contract Documents and provide recommendations as to whether such Work should be corrected, removed, and replaced, or accepted as provided in the Construction Contract Documents.
7. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate OWNER's personnel, and that CONTRACTOR maintains adequate records thereof. Observe, record, and report to CONSULTANT appropriate details relative to the test procedures and systems start-ups.
8. Prepare a daily report or keep a diary or log book, recording CONTRACTOR's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to CONSULTANT.
9. Immediately inform CONSULTANT of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, possible force majeure or delay events, damage to property by fire or other causes, or the discovery of any potential differing site condition or Constituent of Concern.
10. Review applications for payment with CONTRACTOR for compliance with the established procedure for their submission and forward with recommendations to CONSULTANT, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.
11. Participate in CONSULTANT's and OWNER's visits to the Site regarding Substantial Completion, assist in the determination of Substantial Completion, and prior to the issuance of a Certificate of Substantial Completion submit a punch list of observed items requiring completion or correction.
12. Observe whether all items on the final punch list have been completed or corrected and make recommendations to CONSULTANT concerning acceptance.
13. Resident Project Representative shall not:
 - a. Authorize any deviation from the Construction Contract Documents or substitution of materials or equipment (including "or-equal" items).
 - b. Undertake any of the responsibilities of CONTRACTOR, Subcontractors, or Suppliers.

- c. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of the Work, by CONTRACTOR.
- d. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of OWNER or CONTRACTOR.

ATTACHMENT “B”

West Bank Water Treatment Plant, E Plant Construction
Parish Project No. WWKS 118

Project Schedule:

The CONSULTANT shall complete the following phases of the project within the number of days shown after Notices to Proceed:

	<u>Number of Days to Complete</u>
Conceptual Phase	180
Preliminary Design Phase	270
Final Design Phase	360
Bid Phase	45
Construction Phase	720

Time for Completion

1. If, through no fault of CONSULTANT, such periods of time or dates are changed, or the orderly and continuous progress of CONSULTANT’s services is impaired, or CONSULTANT’s services are delayed or suspended, then the time for completion of CONSULTANT’s services shall be adjusted equitably.
2. If OWNER authorizes changes in the scope, extent, or character of the Project or CONSULTANT’s services, then the time for completion of CONSULTANT’s services shall be adjusted equitably.
3. If CONSULTANT fails, through its own fault, to complete the performance required in this Agreement within the time set forth, as duly adjusted, then OWNER shall be entitled, as its sole remedy, to the recovery of direct damages, if any, resulting from such failure.

ATTACHMENT “C”

West Bank Water Treatment Plant, E Plant Construction
Parish Project No. WWKS 118

Project Compensation:

The overall compensation, as referenced in the Ordinance, is to be \$4,814,099.00, as broken down in the following manner.

OWNER shall pay CONSULTANT a Lump Sum amount of \$125,280.00 for the Conceptual Phase portion of the project. This portion of the Work shall be completed and accepted by the OWNER per Attachment A, prior to commencement of Preliminary Design Phase.

- a. The Lump Sum includes compensation for CONSULTANT’s services and services of CONSULTANT’s SUBCONSULTANTS, if any. Appropriate amounts have been incorporated in the Lump Sum to account for labor costs, overhead, profit, expenses, and CONSULTANT charges.

OWNER shall pay CONSULTANT on a Lump Sum for Basic Services set forth in Attachment A as follows:

- a. The total compensation for basic services as described in Attachment A shall be a lump sum of \$3,814,091.00 based on the following estimated distribution of compensation:

1. Preliminary Design Phase (30%)	\$ 1,144,227.30
2. Final Design Phase (40%)	\$ 1,525,636.40
3. Bid Phase (5%)	\$ 190,704.55
4. Construction Phase (25%)	\$ 953,522.75
- b. CONSULTANT may, with OWNER’s consent, alter the distribution of compensation between individual phases of the Work noted herein to be consistent with services actually rendered, but shall not exceed the total estimated compensation amount unless approved in writing by OWNER.
- c. The amounts billed for CONSULTANT’s services under this Agreement will be based on the cumulative hours charged to the Project during the billing period by each class of CONSULTANT’s employees times Standard Hourly Rates for each applicable billing class, plus CONSULTANT’s SUBCONSULTANT’s charges.
- d. The Standard Hourly Rates charged by CONSULTANT constitute full and complete compensation for CONSULTANT’s services, including labor costs, overhead, and profit; the Standard Hourly Rates do not include CONSULTANT’s SUBCONSULTANT’s charges.

- e. CONSULTANT's Standard Hourly Rates are attached to this Agreement as Attachment C-1.

OWNER shall pay CONSULTANT on a Lump Sum or Not-to-Exceed basis for Additional Services set forth in Attachment A as follows:

- a. Surveying \$ 32,340.00 (lump, actual)
- b. Geotechnical Investigation \$ 12,650.00 (lump, actual x 1.1)
- c. Permitting \$ 35,000.00 (hourly, NTE)
- d. Independent Technical Review \$ 37,950.00 (lump, actual x 1.1)
- e. Subsurface Utility Investigation \$ 49,588.00 (lump, actual x 1.1)

OWNER shall pay CONSULTANT for Resident Project Representative Basic Services as follows:

1. Resident Project Representative Services: For services of CONSULTANT's Resident Project Representative, if requested, as outlined in Part 2.D of Attachment A, a total amount of \$707,200.00 (two inspectors at \$353,600.00 each), at the hourly rate as listed in Attachment C-1.
2. Resident Project Representative Schedule: The total amount set forth above is based on full-time RPR services on an eight-hour workday Monday through Friday over a 720-day construction schedule, by two inspectors.