

CONTRACT FOR ENGINEERING SERVICES

THIS AGREEMENT made and effective as of the 22nd day of April, 2003, 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 GSE Associates, Inc., 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 PROJECT NO. P000303 PARISHWIDE TELEMTRY PHASE III as described in Ordinance No. 03-4-18 which is attached hereto and made a part hereof.

1.0 GENERAL

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.

2.0 CHARACTER AND EXTENT OF BASIC SERVICES OF THE ENGINEER

2.1 General

2.1.1 Engineer shall provide for 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 will include but will 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.

2.1.2 In general, the Project consists of the Design and Construction Management of the following major elements all to be determined in the Conceptual Design Report Phase of the Project:

This project includes the installation of local monitoring and control system (LCMS) additions at various existing pump stations, radio communications system between the existing and central monitoring systems, and an LMCS data interface to selected drainage pump stations. Stations where upgrades will occur include Cousin's Canal, Eighty Arpent, Destrehan I, and Destrehan II Pump Stations. Stations where full installations will occur include Lakewood, Willowdale I, and Diane Pump Stations.

2.1.3 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.

2.1.4 Engineer shall obtain from Owner authorization to proceed in writing for each phase of the Project.

2.1.5 Engineer shall provide minutes of all meetings with St. Charles Parish to include but not limited to meetings regarding any phase of the Project, Pre-Bid Conferences, Progress Meetings, Technical review Committee Meetings, etc.

- 2.2 Conceptual Design Report Phase**
- 2.2.1** Reviewing available data and consulting with the Owner to clarify and define the Owner's requirements for the Project.
 - 2.2.2** Conducting a Pre-Design Meeting Workshop with the Owner.
 - 2.2.3** 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.
 - 2.2.4** Identifying and analyzing requirements of governmental authorities having jurisdiction to approve the design of the Project, and participating in consultations with such authorities.
 - 2.2.5** Providing analyses of the Owner's needs, planning surveys and comparative evaluations of prospective site plans and solutions.
 - 2.2.6** Preparing a comprehensive Pre-Engineering Report presenting selected solutions to the Owner with the Engineer's findings and recommendations. A preliminary cost estimate for the recommended alternative at each site shall be included. The Report will contain schematic layouts, sketches, conceptual design criteria with appropriate exhibits to indicate clearly the considerations involved (including applicable requirements of governmental authorities having jurisdiction), and the Engineer's conceptual opinion of probable costs for the Project. Twelve (12) copies of the Report shall be provided to the Owner.
 - 2.2.7** Meeting with the Owner and presenting findings of the Conceptual Design Report Phase.
 - 2.2.8** The Conceptual Design Report Phase shall be completed and Engineer's documentation and opinion of costs submitted to Owner within 30 calendar days following written authorization from Owner to Engineer to proceed with that phase of the Project.
- 2.3 Design Memorandum Phase**
- 2.3.1** The Design Memorandum or Preliminary Engineering Design Report will summarize the process and design criteria established in the Pre-Engineering Phase. The document will be used in the development of final design plans and specifications and will serve as a guide by designers and other interested parties. Twelve (12) copies of the Report shall be provided to the Owner.
 - 2.3.2** The Design Memorandum will consist minimally of the following sections:
 - Site Development
 - Design Criteria
 - Preliminary Drawings
 - Preliminary Probable Construction Cost Estimate
 - Specification Index
 - Instrumentation & Control Philosophy
 - Power Requirements
 - 2.3.3** The Design Memorandum Phase will be completed and Engineer's documentation and opinion of costs submitted to the Owner within 30 calendar days following written authorization from Owner to Engineer to proceed with that phase of the project.

2.4 Design Phase

- 2.4.1 Prepare for incorporation into Contract Documents final drawings based on the accepted preliminary design documents to show the general scope, extent, and character of the work to be furnished and performed by Contract (hereinafter called "Drawings") and Specifications which will be prepared in conformance with the sixteen division format of the Construction Specifications Institute.
- 2.4.2 Preparing and furnishing to the Owner a revised opinion of probable total project costs based on the final Drawings and Specifications.
- 2.4.3 Furnishing the necessary engineering data required to apply for regulatory permits from local, state or federal authorities. This is distinguished from and does not include detailed applications and supporting documents for government grant-in-aid or planning grants that would be furnished as additional services.
- 2.4.4 Preparing basic documents related to St. Charles Parish's Standardized Construction Contract for review and approval by the Owner (and the Owner's legal and other advisors). These may include contract agreement forms, general conditions and supplementary conditions, invitations to bid, instructions to bidders, insurance and bonding requirements, and preparation of other contract related documents.
- 2.4.5 Furnishing to the Owner twelve (12) copies of the above documents, Drawings and Specifications, and other contract documents and present and review them in person with Owner.
- 2.4.6 The Design Phase Services shall be completed and Engineer's documentation and opinion of costs submitted to the Owner within 60 calendar days following written authorization from Owner to Engineer to proceed with that phase of the project.

2.5 Bidding Phase

- 2.5.1 Produce Contract Documents (specifications and 24" by 36" drawings) for each Project for bidding purposes. The cost of reproducing the Contract Documents shall be paid for by the Owner.
- 2.5.2 Assist Owner as necessary in advertising for and obtaining bids for construction, materials, equipment and services; and maintain a record of prospective bidders to whom Bidding Documents have been issued, attend Pre-Bid Conferences and receive and process fees for Bidding Documents. Distribute Bidding Documents to potential bidders.
- 2.5.3 Issue addenda as appropriate to interpret, clarify or expand the Bidding Documents.
- 2.5.4 Consult with and advise Owner as to the acceptability of subcontractors, suppliers and other persons and organizations proposed by the prime contractor (herein called "Contractor") for those portions of the work as to which such acceptability is required by the Bidding Documents.
- 2.5.5 Consult with Owner and confirm in writing the acceptability of substitute materials and equipment proposed by Contractor when substitution prior to the award is required by the Bidding Documents.
- 2.5.6 Attend the Bid Opening, prepare Bid Tabulation Sheets and assist Owner in evaluating bids or proposals,

recommend in writing contract award, and assemble contract documents for execution. In addition, Engineer shall collect all documents as listed in Exhibit A, attached hereto and made a part hereof, for presentation and execution.

2.6 Construction Phase

During the Construction Phase

2.6.1 General Administration of Construction Contract. Engineer shall consult with and advise Owner and act as Owner's representative as provided in Articles 1 through 17, inclusive, of the Standard General Conditions of the Construction Contract No. _____

~~(DELETED 2/02)~~ of the Engineer's Joint Contract Documents Committee. The extent and limitations of the duties, responsibilities and authority of Engineer as assigned in said Standard General Conditions shall not be modified, except as Engineer may otherwise agree in writing. All of Owner's instructions to Contractor will be issued through Engineer who will have authority to act on behalf of Owner to the extent provided in said Standard General Conditions except as otherwise provided in writing.

2.6.2 Visits to Site and Observation of Construction. In connection with observations of the work of Contractor while it is in progress.

2.6.2.1 Engineer shall make visits to the site once per month minimum, or more frequent visits as deemed necessary by Owner and/or progress of work during the construction periods to observe as an experienced and qualified design professional the progress and quality of the various aspects of Contractor's work. Based on information obtained during such visits and on such observations, Engineer shall endeavor to determine in general if such work is proceeding in accordance with the Contract Documents and Engineer shall keep Owner informed of the progress of the work.

2.6.2.2 The purpose of Engineer's visits to (and representation by Resident Project Representative at) the site will be to enable Engineer to better carry out the duties and responsibilities assigned to and undertaken by Engineer during the Construction Phase, and, in addition, by exercise of Engineer's efforts as an experienced and qualified design professional, to provide for Owner a greater degree of confidence that the completed work of Contractor will conform generally to the Contract Documents and that the integrity of the design concept as reflected in the Contract Documents has been implemented and preserved by Contractor. On the other hand, Engineer shall not, during such visits or as a result of such observations of Contractor's work in progress, supervise, direct or have control over Contractor's work nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences or procedures of construction selected by Contractor, for safety precautions and programs

incident to the work of Contractor or for any failure of Contractor to comply with laws, rules, regulations, ordinances, codes or orders applicable to Contractor furnishing and performing their work except as provided in 2.6.3. Accordingly, Engineer can neither guarantee the performance of the construction contracts by Contractor nor assume responsibility for Contractor's failure to furnish and perform their work in accordance with the Contract Documents.

- 2.6.3 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.
- 2.6.4 Interpretations and Clarifications. Engineer shall issue necessary interpretations and clarifications of the Contract Documents.
- 2.6.5 Shop Drawings. Engineer shall review and approve (or take other appropriate action in respect of) Shop Drawings (as that term is defined in the aforesaid Standard General Conditions), samples and other data which Contractor is required to submit, but only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Such reviews and approvals or other action shall not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs incident thereto except as provided in 2.6.3.
- 2.6.6 Substitutes. Engineer shall evaluate and determine the acceptability of substitute materials and equipment proposed by Contractor and make a recommendation to Owner for his approval.
- 2.6.7 Inspections and Tests. Engineer shall have authority, as Owner's representative, to require special inspection or testing of the work, and shall receive and review all certificates of inspections, testing and approvals required by laws, rules, regulations, ordinances, codes, orders or the Contract Documents (but only to determine generally that their content complies with the requirements of, and the results certified indicate compliance with, the Contract Documents).
- 2.6.8 Dispute between Owner and Contractor. Engineer shall act as initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the work thereunder and make recommendations on all claims of Owner and Contractor relating to the acceptability of the work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the work.
- 2.6.9 Applications for Payment. Based on Engineer's on-site observations as an experienced and qualified design professional, on information provided by the Resident Project Representative and on review of applications for payment and the accompanying data and schedules:
 - 2.6.9.1 Engineer shall determine the amounts owed to Contractor and recommend in writing payments to Contractor in such amounts. Such recommendations of payment will constitute a

representation to Owner based on such observations and review, that the work has progressed to the point indicated, and that, to the best of Engineer's knowledge, information and belief, the quality of such work is generally in accordance with the Contract Documents (subject to an evaluation of such work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents and to any other qualifications stated in the recommendation). In the case of unit price work, Engineer's recommendations of payment will include final determination of quantities and classifications of such work (subject to any subsequent adjustments allowed by the Contract Documents).

2.6.9.2 By recommending any payment Engineer will not thereby be deemed to have represented that exhaustive, continuous or detailed reviews or examinations have been made by Engineer to check the quality or quantity of Contractor's work as it is furnished and performed beyond the responsibilities specifically assigned to Engineer in this Agreement and the Contract Documents. Engineer's review of Contractor's work for the purposes of recommending payments will not impose on Engineer responsibility to supervise, direct or control such work or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto or Contractor compliance with laws, rules, regulations, ordinances, codes or orders applicable to their furnishing and performing the work. It will also not impose responsibility on Engineer to make any examination to ascertain how or for what purposes any Contractor has used the moneys paid on account of the Contract Price, or to determine that title to any of the work, materials or equipment has passed to Owner free and clear of any lien, claims, security interests or encumbrances, or that there may not be other matters at issue between Owner and Contractor that might affect the amount that should be paid except as provided in, but not limited to paragraph 2.6.3.

2.6.10 Construction Closeout Document. Engineer shall receive and review maintenance and operating instructions, tests and approvals which are to be assembled by Contractor in accordance with the Contract Documents (but such review will only be to determine that their content complies with the requirements of, and in the case of certificates of inspection, tests and approvals the results certified indicate compliance with, the Contract Documents); and shall transmit them to Owner with written comments.

2.6.11 Inspection. Engineer shall conduct an inspection to determine if the work is substantially complete and a final inspection to determine if the completed work is acceptable. If the completed work is acceptable, the Engineer shall recommend in writing, final payment of Contract and shall give written notice to Owner and the

- Contractor that the work is acceptable (subject to any conditions therein expressed).
- 2.6.12 Pre-Construction Conference.** Engineer shall assist Owner in conducting a Pre-Construction Conference with Contractor for the project to discuss construction-related matters.
- 2.6.13** Owner shall select independent material testing labs. Engineer shall review testing results and based on these results, recommend to Owner the acceptability of material provided by the Contractor and used in the Project.
- 2.6.14 Limitation of Responsibilities.** Engineer shall not be responsible for the acts or omissions of any Contractor, or of any subcontractor or supplier, or any of the Contractor's or Sub-Contractor's or supplier's agents or employees or any other persons (except Engineer's own employees and agents) at the site or otherwise furnishing or performing any of the Contractor's work; however, nothing contained in paragraphs 2.6.1 through 2.6.12 inclusive, shall be construed to release Engineer from liability for failure to properly perform duties and responsibilities assumed by Engineer in the Contract Documents, inclusive of but not limited to 2.6.3.
- 2.6.15 Work Directive Changes and Change Orders.** To be provided as appropriate to construct the project and in accordance with State and Local Laws.
- 2.7 Close-out and Operational Phase**
During this Phase, Engineer shall:
- 2.7.1** Provide start-up services for the new facility.
- 2.7.2** Prepare training materials and provide three (3) full days of training for Owner's staff to operate and maintain the new facility. The program consists of classroom training and hands-on training using the installed equipment.
- 2.7.3** Assemble three (3) complete sets of equipment manufacturer's operation and maintenance manuals in proper order for Owner's future reference.
- 2.7.4** Assemble 6 complete sets of approved shop drawings in proper order for Owner's future reference.
- 2.7.5** Provide technical consultation and assistance in correcting warranty items.
- 2.7.6** Provide assistance in connection with the refining and adjusting of new equipment or system.
- 2.7.7** Prepare a set of reproducible record prints (Mylars) of Drawings showing those changes made during the construction process, based on the marked-up prints, drawings and other data furnished by Contractor to engineer and which Engineer considers significant. In addition, the project drawings and specifications shall be provided to the Owner on computer disks AutoCAD (Release 2000 or later) and for the specifications on Microsoft Word Version 97 or later.
- 2.7.8** In company with Owner, visit the Project to observe any apparent defects in the completed construction, assist Owner in consultations and discussions with Contractor concerning correction of such deficiencies, and make recommendations as to replacement or correction of defective work.
- 2.7.9** Engineer shall have 45 days from Contractor's Substantial Completion date to complete requirements of Contract sections 2.7.4 and 2.7.7. (ADDED 2/02)

2.8 Resident Engineer and Inspection

- 2.8.1 Engineer shall furnish a full time Resident Project Representative (RPR), assistants and other field staff to assist Engineer in observing performance of the work of Contractor. The RPR(s) shall be subject to approval by the Owner.
- 2.8.2 Through more extensive on-site observations of the work in progress and field checks of materials and equipment by the RPR and assistants, Engineer shall endeavor to provide further protection for Owner against defects and deficiencies in the work of the Contractor.
- 2.8.3 The RPR shall be the Engineer's agent at the site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions. RPR's dealings in matters pertaining to the on-site work shall in general be with Engineer and Contractor keeping Owner advised as necessary. RPR's dealing with subcontractor shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner with the knowledge of and under the direction of Engineer.
- 2.8.4 Duties and Responsibilities of RPR.
- 2.8.4.1 Schedules. Review the progress schedule, schedule of Shop Drawings submittals and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.
- 2.8.4.2 Conferences and Meetings. Attend meetings with Contractor, such as Pre-Construction Conferences, Progress Meetings, Job Conferences and other project related meetings, and prepare and circulate copies of minutes thereof.
- 2.8.4.3 Liaison:
- Serve as Engineer's liaison with Contractor, working principally through Contractor's superintendent and assist in understanding the intent of the Contract Documents; and assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-site operations.
 - Assist in obtaining from Owner additional details or information when required for proper execution of the Work.
- 2.8.4.4 Shop Drawings and Samples:
- Record date of receipt of Shop Drawings and samples.
 - Receive samples which are furnished at the site by Contractor, and notify Engineer of availability of samples for examination.
 - Advise Engineer and Contractor of the commencement of any work requiring a Shop Drawing or sample if the submittal has not been approved by Engineer.
- 2.8.4.5 Review of Work, Rejection of Defective Work, Inspection and Test.
- Conduct on-site observations of the Work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - Report to Engineer and Owner whenever RPR believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged,

or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of work that RPR believes should be corrected or rejected or should be uncovered for observations, or requires special testing, inspection or approval.

- Verify that tests, equipment and systems start-ups and operating and maintenance training are conducted in the presence of appropriate personnel, and that Contractor maintains adequate records thereof; and observe, record and report to Engineer appropriate details relative to the test procedures and start-ups.
- Accompany visiting inspectors representing public agencies having jurisdiction over the Project, record the results of these inspections and report to Engineer.

2.8.4.6 Interpretation of Contract Documents. Report to Engineer and Owner when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by the Engineer.

2.8.4.7 Modifications. Consider and evaluate Contractor suggestions for modifications in Drawing or Specifications and report with RPR's recommendations to Engineer and Owner. Transmit to Contractor decisions as issued by Engineer.

2.8.4.8 Records.

- Maintain at the job site orderly files for correspondence, reports for job conferences, Shop Drawings, and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the contract, Engineer's clarifications and interpretations of the Contract Documents, progress reports and other Project related documents.
- Keep a diary or log book recording Contractor hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures, and send copies to Engineer and Owner.
- Record names, addresses and telephone numbers of all Contractors, subcontractors and major suppliers of materials and equipment.
- Keep pictorial record of progress of project.

2.8.4.9 Reports:

- Furnish Engineer and Owner periodic (daily) reports as required of progress of the work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and sample submittals.

- Consult with Engineer in advance of scheduled major tests, inspections or start of important phases of the work.
 - Draft proposed Change Orders and Work Directive Changes, obtaining backup material from Contractor and recommend to Engineer Change Orders, Work Directive Changes and Field Orders in accordance with State and Local Laws.
 - Report immediately to Engineer and Owner upon the occurrence of any accident.
- 2.8.4.10 Payment Requests.** Review applications for payment with Contractor for compliance with the established procedure as set forth in the Construction Contract for their submission and forward with recommendations to Engineer 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.
- 2.8.4.11 Certificates, Maintenance and Operations Manuals.** During the course of the work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by contractor are applicable to the times actually installed and in accordance with the Contract Documents, and having this material delivered to Engineer for review and forwarding to Owner prior to final payment for the work.
- 2.8.4.12 Completion.**
- Before Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
 - Conduct final inspection in the company of Engineer, Owner and Contractor and prepare a final list of items to be completed or corrected.
 - Observe that all items on final list have been completed or corrected and make recommendation to Engineer concerning acceptance.
- 2.8.5 Limitation of Authority.**
- 2.8.5.1 Resident Project Representative**
- Shall not authorize any deviation from the Contract Documents or substitution of materials or equipment unless authorized by Engineer.
 - Shall not exceed limitations of Engineer's authority as set forth in the Agreement or the Contract Documents.
 - Shall not undertake any of the responsibilities of Contractor, Sub-Contractor or Contractor's superintendent.
 - Shall not advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.

- Shall not advise on, issue directions regarding or assume control over safety precautions and programs in connection with the work.
- Shall not accept Shop Drawing or sample submittals from anyone other than Contractor.
- Shall not authorize Owner to occupy the project in whole or in part.
- Shall not participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by Engineer.

3.0 SERVICES OF THE OWNER

- 3.1 Provide full information as to the requirements of the Project.
- 3.2 Assist the Engineer in planning and design services by placing at his disposal all existing plans, maps, field notes, statistics, computations and other data in its possession relative to existing facilities.
- 3.3 Guarantee access to and make all provisions for the Engineer and his subconsultants to enter upon public property as required for performing the services.

4.0 COMPENSATION

- 4.1 For performance of Basic Engineering and Resident Engineering and Inspection as outlined in Section 2, Paragraphs 2.1 through 2.8.5.1 inclusive, required by the Owner, the Owner shall authorize and pay the Engineer as per the following:
 - 4.1.1 Owner shall pay Engineer for the performance of Basic Engineering services as outlined in Section 2, Paragraphs 2.1 through 2.7.8 inclusive, a professional engineering fee based upon a percentage of the construction cost of the project. This fee shall be determined by referring to Curve A on page 19 (Exhibit B) of this Contract, which indicates the rate of compensation for Basic Engineering Services expressed as a percentage of the construction cost. This curve is from American Society of Civil Engineer's Manual No. 45, 1980 Edition.
 - 4.1.1.1 The fee for basic engineering services based on a percentage of the construction costs will have a maximum limitation of 110% of the Engineer's opinion of probable construction cost submitted with the final Drawings and Specifications referred to in Section 2, Paragraph 2.4.2 of this Contract. The fee for basic engineering services based on a percentage of the construction cost will have a minimum limitation of 90% of the Engineer's opinion of probable construction cost submitted with the final Drawings and Specifications referred to in Section 2, Paragraph 2.4.2 of this Contract.
 - 4.1.1.2 An estimated construction cost based on the Engineer's conceptual opinion of probable cost for the project shall initially be used for the determination of interim fees until the more detailed Engineer's revised opinion of probable total project costs based on the final Drawings and Specifications referred to in Section 2, Paragraph 2.4.2 of this Contract is available.
 - 4.1.1.3 Payment for basic engineering services 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 for the following phases:

- For performing services outlined in Section 2.2, Conceptual Design Report Phase, Paragraphs 2.2.1 through 2.2.8 inclusive, Owner agrees to pay Engineer as follows:
 - Ten percent (10%) of the total basic engineering services fee. Said fee shall be payable in partial payments on a monthly basis.
- For performing services outlined in Section 2.3 Design Memorandum Phase, Paragraphs 2.3.1 through 2.3.3 inclusive, Section 2.4 Design Phase, Paragraphs 2.4.1 through 2.4.6 inclusive, Owner agrees to pay Engineer as follows:
 - Sixty percent (60%) of the total basic engineering service fee. Said fee shall be payable in partial payments on a monthly basis.
- For performing services outlined in Sections 2.5 Bidding Phase, Paragraphs 2.5.1 through 2.5.6 inclusive and Section 2.6 Construction Phase, Paragraphs 2.6.1 through 2.6.15 inclusive, and Section 2.7, Close-out and Operational Phase, Paragraphs 2.7.1 through 2.7.8 inclusive, the Owner agrees to pay Engineer as follows:
 - Thirty percent (30%) of the total basic engineering service fee. Said fee shall be payable in partial payments on a monthly basis.

4.1.1.4 If the Project, or any portion thereof, is not constructed for any reason, the final fee for basic engineering services shall be based upon the estimated construction cost or the last revision thereto agreed upon by both Engineer and Owner.

4.1.2 Owner shall pay Engineer for the performance of Resident Engineering and Inspection as outlined in Section 2, Paragraphs 2.8 through 2.8.5.1 inclusive, at monthly intervals of the basis of Exhibit C on page(s) 20 and 21 of this Contract.

4.2 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 or Resident Engineering and Inspection Services, the Owner shall pay Engineer in accordance with Paragraph 4.2.1 through 4.2.3, based on monthly invoices submitted by the Engineer, within sixty (60) days of receipt of Engineer's invoice.

4.2.1 For Additional 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 on the basis of Exhibit C on page(s) 20 and 21 of this Contract plus documented direct nonsalary expenses at cost. The following documentation shall be required for payment to Engineer and shall be attached to the monthly invoice.

- A copy of the Owner's written authorization to perform the service.
 - Timesheets for all hours invoiced.
 - Invoice copies, logs or other substantiation of nonsalary expenses.
- 4.2.2 For Additional 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 Section 10, Paragraph 10.4 and Section 11, Paragraph 11.4 of this Contract. The following documentation shall be required for payment to Engineer and shall be attached to the monthly invoice.
- 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.
 - Evidence that the subcontractor and/or subconsultant is insured as required by Section 10, Paragraph 10.4 of this Contract.
- 4.2.3 For *Additional Engineering* described in Section 5, Paragraph 5.1.1, Owner shall pay Engineer for the fee negotiated at the time the work is assigned by the method stipulated in the contract amendment.

5.0 CHARACTER AND EXTENT OF ADDITIONAL ENGINEERING

5.1 The Owner reserves the right to request Engineer to provide Additional Engineering and/or Additional Services described in Section 5, Paragraphs 5.1.1 through 5.1.2.11 inclusive. It is mutually understood that the Owner reserves the right to allow the QBS Board to reevaluate any/all interested Engineering Firms concerning Additional Engineering or Additional Services as described in Section 5.0. The Owner shall issue written authorization to the Engineer to provide Additional Engineering and/or Additional Services prior to the performance of any Additional Engineering and/or Additional Services as described in Section 5, Paragraph 5.1 through 5.1.2.11 inclusive.

5.1.1 Additional Engineering. Provide Basic Design and Construction Engineering Services for a NEGOTIATED FEE. The fee for Basic Engineering Services related to the design and construction for the PROJECT shall be negotiated at the time the work is assigned and this Contract shall be amended to include that work in accordance with Section 4.0 of this Contract.

5.1.2 Additional Services. Furnish or obtain from others Additional Services of the following types. The fee for Additional Services shall be authorized at the time the work is assigned in accordance with Section 4.2 of this contract.

5.1.2.1 Providing necessary design topographic surveying for the Project to obtain existing grading, locations and dimensions of existing structures, and elevation of critical elements.

5.1.2.2 Furnish survey personnel to lay out and stake out for construction, giving line locations and grade stakes at the required intervals.

5.1.2.3 Prepare to and serve as an expert witness for the Owner in any litigation.

- 5.1.2.4 Furnish one or more full time Resident Inspectors who will direct his and/or their efforts toward providing assurance for the owner that the completed project will conform to the requirements of the Contract Documents. This shall not be construed as the actual direction of construction work being performed by the Contractor, nor make the engineers responsible for construction techniques, sequences or procedures or the safety precautions incident thereto. A written resume will be submitted to the Owner for each Resident Inspector assigned to the Project. The Owner retains the right to disapprove the use of any Resident Inspector the owner feels is, for any reason, not qualified.
- 5.1.2.5 Act as the Owner's representative in coordination of and be present during negotiations between Owner and other Governmental Bodies, Utility Companies, Transportation Companies, etc. (Prepare necessary data for such activities and review and make recommendations on data submitted by such agencies.)
- 5.1.2.6 Services resulting from significant changes in the general scope, extent or character of the Project or its design including, but not limited to, changes in size, complexity, Owner's schedule, character of construction or method of financing; and revising previously accepted studies, reports, design documents or Contract Documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes or orders enacted subsequent to the preparation of such studies, reports or documents or are due to any other causes beyond Engineer's control as approved by Owner.
- 5.1.2.7 Providing renderings or models for Owner's use.
- 5.1.2.8 Preparing documents in addition to those furnished under Design Engineering and Construction Services for alternate bids requested by Owner for Contractor's work which is not executed or documents for out-of-sequence work.
- 5.1.2.9 Providing any type of property surveys or related engineering services needed for the transfer of interests in real property.
- 5.1.2.10 Assistance in connection with re-bidding or renegotiating contracts for construction, materials, equipment or services.
- 5.1.2.11 Provide technical consultation and advice on the completed project after the initial thirty (30) day start-up period.

6.0 OWNERSHIP OF DOCUMENTS,

- 6.1 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 anytime during the Project and, shall be delivered to the Owner prior to termination or final completion of the Contract.
- 6.2 Engineer may retain a set of documents for its files.

- 6.3 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.
- 6.4 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.

7.0 TERMINATION.

- 7.1 This Agreement may be terminated by either party upon ten (10) days written notice in the event of substantial failure to perform in accordance with the terms hereof by the other party through no fault of the terminating party.
- 7.2 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.
- 7.3 The Engineer shall, as soon as practicable after receipt of notice of termination, submit a statement showing in detail the services performed under this Agreement to the date of termination.
- 7.4 The Owner shall then pay the Engineer promptly that portion of the prescribed fee which the services actually performed under this Agreement bear to the total services called for under the fee as have been previously made.
- 7.5 Failure to meet delivery dates stated in Contract sections 2.2.8, 2.3.3, and 2.7.9 are considered substantial failures. (ADDED 2/02)

8.0 COMPLIANCE WITH LAWS AND ORDINANCE.

- 8.1 The Engineer hereby agrees to comply with all Federal, State and Local Laws and Ordinances applicable to the work or services under this Contract.

9.0 SUCCESSORS AND ASSIGNS

- 9.1 Owner and Engineer each bind himself, his successors, executors, administrators and assigns to the other party to this Agreement, and to the successors, executors, administrators and assigns of each other party in respect to all covenants of this Agreement.

10.0 INSURANCE

- 10.1 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 amount of \$500,000.00 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 amount of \$250,000.00 for each accident and not less than \$1,000,000.00 aggregate.
- 10.2 The Engineer shall also secure and maintain at his expense professional liability insurance in the sum of \$500,000.00.
- 10.3 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.

- 10.4 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.
- 10.5 St Charles Parish shall be named as an additional insured on general liability insurance policies.
- 10.6 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.

11.0 GENERAL.

- 11.1 The Engineer shall indemnify and save harmless the Owner 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 reason of any negligent act by the Engineer, its agent, servants or employees, while engaged upon or in connection with the services required or performed hereunder.
- 11.2 While in the performance of services or carrying out other obligations under this Agreement, the Engineer shall be acting in the capacity of the independent contractors and not as employees of the Owner. The Owner shall not be obligated to any person, firm or corporation for any obligations of the Engineer arising from the performance of their services under this Agreement. The Engineer shall be authorized to represent the Owner with respect to services being performed, dealing with other agencies and administrations in order to perform the services under this Contract.
- 11.3 The Engineer warrants that he has not employed or retained any company or person other than a bona-fide employee working solely for the consultant, to solicit or secure this Contract, and that they have not paid or agreed to pay any company or person other than bona-fide employees working solely for the consultant, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, the Owner shall have the right to annul this Contract without liability.
- 11.4 This Agreement being for the personal services of the Engineer shall not be assigned or subcontracted in whole or in part by the Engineer as to the services to be performed hereunder without the written consent of the Owner.
- 11.5 Should either party to this Agreement have to file suit in order to enforce the provisions of hereof, the losing party hereby agrees to pay the attorney's fees of the prevailing party.
- 11.6 No member of the Governing Body of the Owner and no other officer, employee or agent of the Owner who exercises any functions or responsibilities in connection with the planning and carrying out to the Program, shall have any personal financial interest, direct or indirect, in this Contract, and the Engineer shall take appropriate steps to assure compliance.
- 11.7 No member of the Governing Body of the locality and no other public official of such locality, who exercises any functions or responsibilities in connection with the planning and carrying out of the Program, shall have any personal financial interest, direct or indirect, in this Contract, and the Engineer shall take appropriate steps to assure compliance.
- 11.8 The Engineer covenants that he presently has no interest and shall not acquire interest, direct or indirect, in the project area or

any parcels therein or any other interest which would conflict in any manner or degree with the performance of his services hereunder. The Engineer further covenants that in the performance of this Contract no person having any such interest shall be employed.

12.0 ACCESS TO SITE.

12.1 Owner shall be fully responsible for obtaining the necessary access authorizations to allow Engineer, its agents, subcontractors and representatives, to have access to all areas of public and private property as required by Engineer in order to perform its services under this Agreement.

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 in 13.1 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 13.1 and 13.2 in no way limits the Engineer's obligations expressed elsewhere in this Contract.

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 J. Just
Valerie Berthelot
Jenny O'Shona
Anthony Whaley

ST. CHARLES PARISH

Albert D. Regier
Arthur A. St. Laurent

ENGINEER
GSE ASSOCIATES, INC.

EXHIBIT A

DOCUMENTS REQUIRED TO BE COLLECTED BY ENGINEER

Advertisement for Bids

Addendum(s)(if applicable)

Completed Bid Form

Original Bid Bond

Undated, Executed, Original Signature Page

Correct Amount of Contract \$

Original Undated Performance Bond

Original Power of Attorney (For Performance Bond)

Original Undated Payment Bond

Original Power of Attorney (For Payment Bond)

**Original Current Corporate Resolution Authorizing Execution of
Contract**

Original Notarized Affidavit Pursuant to LA-LRS 38:2224

Original Workmen's Compensation Certificate of Insurance

Original Liability Certificate of Insurance

Notice To Proceed Form

Change Order Form

General Conditions and Specifications as approved by Parish Attorney

EXHIBIT B

CONSULTING ENGINEERING

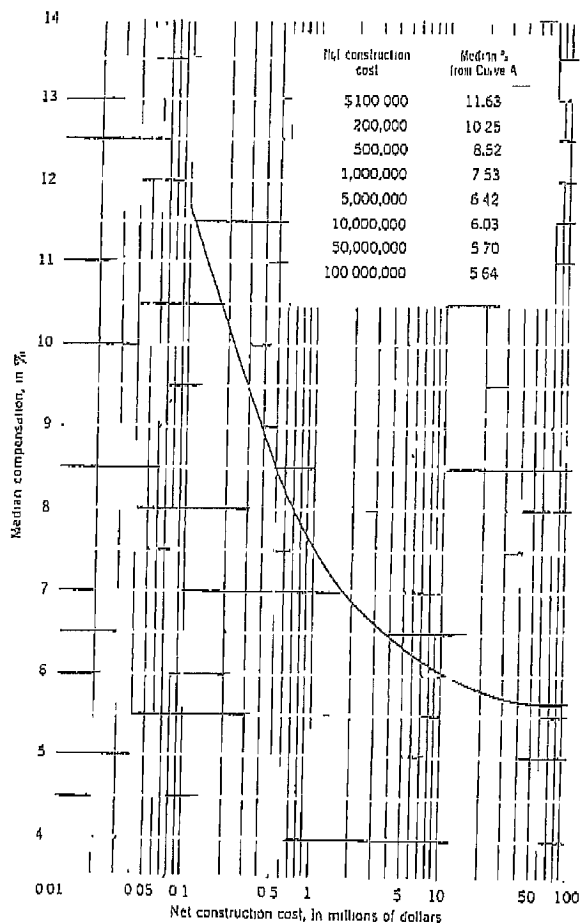


FIG.1—CURVE A, MEDIAN COMPENSATION FOR BASIC SERVICES EXPRESSED AS A PERCENTAGE OF NET CONSTRUCTION COST FOR PROJECTS OF ABOVE-AVERAGE COMPLEXITY (1980)

EXHIBIT C

1/23/03

ENGINEERS

ARCHITECTS

PLANNERS

SURVEYORS

GSE Associates, Inc.

Current Rate Schedule - 2003

HOUMA

991 Grand Caillou Road
Houma, Louisiana 70363-5705
Phone (985) 876-6380
Fax (985) 876-0621
Email. houma@gulf-south.com

METAIRIE

2315 North Woodlawn Ave., Suite 201
Metairie, Louisiana 70001 - 7402
Phone (504) 454-1710
Fax (504) 454-1781
Email metairie@gulf-south.com

Note: The hourly rates set forth herein are effective for the calendar year 2003 and subject to an annual adjustment thereafter.

Office Personnel

Engineer IX	\$125.00 / Hr.
Engineer VIII	\$115.00 / Hr.
Engineer VIII	\$99.00 / Hr.
Engineer VII	\$95.00 / Hr.
Engineer VI	\$93.00 / Hr.
Engineer V	\$87.50 / Hr.
Engineer III	\$69.00 / Hr.
Engineer III	\$63.00 / Hr.
Engineer I	\$60.00 / Hr.
Sr. Architect	\$95.00 / Hr.
Sr. Engineering Technician	\$87.50 / Hr.
Engineering Technician IV	\$83.00 / Hr.
Engineering Technician III	\$68.25 / Hr.
Engineering Technician II	\$59.10 / Hr.
Sr. Draftsman/CADD Operator III	\$56.00 / Hr.
Draftsman/CADD Operator II	\$50.00 / Hr.
Draftsman/CADD Operator I	\$45.00 / Hr.
Clerical	\$36.00 / Hr.

Environmental Services

Sr. Environmental Engineer	\$115.00 / Hr.
Environmental Engineer	\$93.00 / Hr.
Environmental Technician	\$63.00 / Hr.

Project Representation Services

Sr. Project Representative	\$83.00 / Hr.
Project Representative III	\$50.00 / Hr.
Project Representative II	\$45.00 / Hr.

EXHIBIT C (Continued)

Survey Personnel:

Registered Land Surveyor	\$65.00 / Hr.
Survey Technician	\$48.50 / Hr.
4 - Man Survey Party (with Standard Equipment & Vehicle)	\$133.00 / Hr.
3 - Man Survey Party (with Standard Equipment & Vehicle)	\$115.00 / Hr.
2 - Man Survey Party (with Standard Equipment & Vehicle)	\$90.00 / Hr.
Party Chief	\$45.75 / Hr.
Instrumentman	\$36.60 / Hr.
Rodman / Chainman	\$33.00 / Hr.

Other Services:

Right-of-Way/Permit Agent	\$63.00 / Hr.
Computer Analyst	\$65.00 / Hr.

Reimbursable Expenses:

Copy Costs	(In-House Published Prices)
Reproduction Costs	(In-House Published Prices)
Computer System (CAD & Calculations)	\$10.00 / Hr.
Mileage	\$0.360 / Mi.
Per Diem (Overmght)	\$25.00 / Day
Survey Supplies & Equipment	(In-House Published Prices)
Project Representative Field Vehicle	\$4.00 / Hr.
Survey Vehicle	\$6.00 / Hr
GPS Equipment (per station)	\$325.00 / day
Radios for GPS	\$55.00 / day
Electronic Total Station w/ Data Collector	\$9.50 / Hr.
Outside Equipment Rental	Actual Costs Plus 10%
Outside Purchases	Actual Costs Plus 10%
Overtime Hours	Invoiced @ 125% of Billing Rate

Subconsultant Services:

Subconsultant	Actual Costs Plus 10%
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Firm Principals:

Occasionally the Principals (Owners or Directors) of the firm become directly involved in a project. In those instances they will be billed at a billing rate of \$125.00 / Hr. for Principal I and \$110.00 / Hr. for Principal II.