

RESOLUTION NO. _____

A RESOLUTION AUTHORIZING THE ADMINISTRATOR OF THE DEPARTMENT OF PUBLIC WORKS TO ENTER INTO AN AGREEMENT WITH PARSONS BRINCKERHOFF, INC. FOR PROFESSIONAL SERVICES RELATIVE TO CONTRACT NO. W-12-029-101, FRIARS BRANCH BASIN IMPROVEMENTS, FOR AN AMOUNT NOT TO EXCEED ONE MILLION EIGHT HUNDRED TWENTY-SIX THOUSAND EIGHT HUNDRED TWENTY-SIX DOLLARS (\$1,826,826.00).

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CHATTANOOGA, it is hereby authorizing the Administrator of the Department of Public Works to enter into an agreement with Parsons Brinckerhoff, Inc. for professional services relative to Contract No. W-12-029-101, Friars Branch Basin Improvements, for an amount not to exceed \$1,826,826.00.

ADOPTED: _____, 2013.

/ss

City of Chattanooga



Resolution/Ordinance Request Form

Date Prepared: 3/15/13

Preparer: Dennis Malone

Department: Public Works

Brief Description of Purpose for Resolution/Ordinance:

Res./Ord. # _____

Council District # _____

5 & 6

A Council Action is requested for the Administrator of the Department of Public Works to enter into an agreement with Parsons Brinckerhoff, Inc., for professional services, relative to Contract No. W-12-029-101, Friars Branch Basin Improvements, in an amount not to exceed \$1,826,826.00.

Name of Vendor/Contractor/Grant, etc.	<u>Parsons Brinckerhoff, Inc.</u>	New Contract/Project? (Yes or No)	<u>No</u>
Total project cost \$	<u>1,826,826.00</u>	Funds Budgeted? (YES or NO)	<u>Yes</u>
Total City of Chattanooga Portion \$	<u>1,826,826.00</u>	Provide Fund	<u>6011</u>
City Amount Funded \$	<u>1,826,826.00</u>	Provide Cost Center	_____
New City Funding Required \$	<u>0</u>	Proposed Funding Source if not budgeted	<u>ISS - CD</u>
City's Match Percentage %	_____	Grant Period (if applicable)	_____

List all other funding sources and amount for each contributor.

Amount(s)	Grantor(s)
\$ _____	_____
_____	_____
_____	_____

Agency Grant Number _____

CFDA Number if known _____

Other comments: (Include contingency amount, contractor, and other information useful in preparing resolution)

Consent Decree Project - ISS

Approved by: _____

DESIGNATED OFFICIAL/ADMINISTRATOR

Reviewed by: FINANCE OFFICE

Please submit completed form to @budget, City Attorney and City Finance Officer

Revised: 1/26/09



CITY OF CHATTANOOGA
STANDARD AGREEMENT FOR ENGINEERING SERVICES

SOP 2003-9
 Date of Issue 10-16-03
 Rev. 11-13-12

THIS AGREEMENT, is between the City of Chattanooga, Tennessee, a municipal corporation in the state of Tennessee, hereinafter called Owner, and

Parsons Brinckerhoff Inc,

Hereinafter called Engineer.

The Owner wishes to employ the Engineer to perform professional engineering services for
 W-12-029-101-Friar's Branch Basin Improvements for Waste Resources Division,
 hereinafter called Project.

In consideration of the provisions contained in this Agreement, the Owner and Engineer agree to the following:

1. **EFFECTIVE DATE**
 The effective date of this Agreement shall be _____, 20_____.
2. **GOVERNING LAW**
 This Agreement shall be governed by the laws of the State of Tennessee and the codes of the City of Chattanooga.
3. **SERVICES TO BE PERFORMED BY ENGINEER**
 Engineer shall perform the Services described in Attachment A, Scope of Services, in accordance with applicable sections of the City of Chattanooga Design and Construction Standards in effect on the date of this agreement.
4. **COMPENSATION**
 Owner shall pay Engineer in accordance with the Attachment B, Compensation.
5. **OWNER'S RESPONSIBILITIES**
 Owner shall be responsible for all matters described in Attachment C, Owner's Responsibilities.
6. **SUPPLEMENTAL AGREEMENTS**
 The provisions set forth in Attachment D, Supplemental Agreements, shall be incorporated into this Agreement
7. **PROJECT SCHEDULE**
 The provisions set forth in the Attachment E, Project Schedule, shall be incorporated into this Agreement.
8. **RATE SCHEDULE**
 The Engineer shall provide a schedule of standard hourly rates for all employees to be used in the performance of all contracts with a cost-not-to-exceed basis. This schedule shall be incorporated into the agreement as Attachment F.
9. **INVOICING**
 The Engineer will use the format established in Attachment G, Standard Invoice, for all invoices submitted for services on the Project.



10. STANDARD OF CARE

Engineer shall exercise the same degree of care, skill, and diligence in the performance of Services as is ordinarily possessed and exercised by a professional engineer under similar circumstances in the same area of practice. Engineer makes no warranty or guarantee, either expressed or implied, as part of this agreement.

11. INDEMNIFICATION

Engineer hereby agrees to fully indemnify and hold harmless Owner and any of its departments, divisions, agencies, officers, employees and elected officials from all loss, damage, cost, or expenses specifically including attorneys' fees and other expenses of litigation incurred by or on behalf of the Owner and any of its officers, employees or elected officials arising out of Engineer's actual negligent performance of Services under this Agreement, including errors or omissions.

Owner hereby agrees to fully indemnify and hold harmless Engineer and any of its officers, employees, or designated agents from all loss, damage, cost, or expenses specifically including attorneys' fees and other expenses of litigation incurred by or on behalf of the Engineer and any of its officers, employees or designated agents arising out of Owner's negligence to the extent provided by the Tennessee Governmental Tort Liability Act, T.C.A. 29-20-201 et seq.

12. INSURANCE

Engineer shall purchase and maintain during the life of this Agreement, insurance coverage which will satisfactorily insure him against claims and liabilities which arise because of the execution of this Agreement, with the minimum insurance coverages as follows:

- a. Commercial General Liability Insurance, with a limit of \$1,000,000 for each occurrence and \$2,000,000 in the general aggregate.
- b. Automobile Liability Insurance, with a limit of \$1,000,000 for each accident, combined single limit for bodily injury and property damage.
- c.
- d. Worker's Compensation Insurance and Employer's Liability Insurance, in accordance with statutory requirements, with a limit of \$500,000 for each accident.
- e. Professional Liability Insurance, with a limit of \$1,000,000 for each claim and aggregate.

Prior to issuance of the Notice to Proceed by Owner, Engineer shall have on file with Owner certificates of insurance acceptable to Owner. Said certificates of insurance shall be filed with Owner in January of each year or may be submitted with each agreement. Upon completion of all Services, obligations, and duties provided for in this Agreement, or if this Agreement is terminated for any reason, the terms and conditions of this section shall survive.

Notwithstanding any other provision of the Agreement, Owner waives any claim against Engineer and, to the maximum extent permitted by law, agrees to defend, indemnify, and hold Engineer harmless from any claim, liability, and/or defense costs for injury or loss arising from Engineer's discovery of unanticipated hazardous materials or suspected hazardous materials, including, but not limited to, any costs created by delay of the project and any cost associated with possible reduction of the property value.

13. LIMITATIONS OF RESPONSIBILITY

Engineer shall not be responsible for: (1) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project, (2) the failure of



any contractor, subcontractor, vendor, or other Project participant, not under contract to Engineer, to fulfill contractual responsibilities to the Owner or to comply with federal, state or local laws, regulations, and codes; or (3) procuring permits, certificates, and licenses required for any construction unless such responsibilities are specifically assigned to Engineer in Attachment A, Scope of Services.

14. OPINIONS OF COST AND SCHEDULE

Since Engineer has no control over the cost of labor, materials, or equipment furnished by others, or over the resources provided by others to meet Project construction schedules, Engineer's opinion of probable construction costs and of construction schedules shall be made on the basis of experience and qualifications as a professional engineer. Engineer does not guarantee that costs will not vary from Engineer's cost estimates or that actual construction schedules will not vary from Engineer's projected schedules.

15. REUSE OF DOCUMENTS

All documents, including, but not limited to calculations, drawings, specifications, and computer software prepared by Engineer pursuant to the Agreement are instruments of service in respect to the Project. They are not intended or represented to be suitable for reuse by Owner or others on extensions of the Project or on any other project. Any reuse without prior written verification or adaptation by Engineer for the specific purpose intended will be at Owner's sole risk and without liability or legal exposure to Engineer. Any verification or adaptation requested by Owner shall entitle Engineer to compensation at rates to be agreed upon by Owner and Engineer.

16. OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY

Except as otherwise provided herein, engineering documents, calculations, drawings, specifications, and other documents prepared by Engineer as part of the Services shall become and be the sole property of Owner. However, both Owner and Engineer shall have the unrestricted right to their use. Engineer shall retain its rights in its standard drawing details, specifications, databases, computer software, and other proprietary property protected under the copyright laws of the United States. Rights to intellectual property developed, utilized, or modified in the performance of services shall remain the property of Engineer.

17. RECORDS RETENTION AND AUDIT PROVISION

The term "Engineer" is used interchangeably to describe signatories to contracts, grants, and agreements with the City and applies to reflect the relationship with the City (Engineer, Contractor, Licensee, Supplier, Vendor, Consultant, Grant Recipient, etc.).

- a. All records relating in any manner whatsoever to the Project, or any designated portion thereof, which are in the possession of the Engineer or the Engineer's consultants, shall be made available for inspection and copying upon written request to the Owner. Additionally, said records shall be made available, upon request by the Owner, to any state, federal or other regulatory authorities and any such authority may review, inspect and copy such records. Said records include, but are not limited to, all plans, specifications, submittals, correspondence, minutes, memoranda, tape recordings, videos, or other writings or things which document the Project, its design and its construction. Said records expressly include those documents reflecting the time expended by the Engineer and its personnel to perform the obligations of this Agreement and the records of expenses incurred by the Engineer in its performance under said Agreement. The Engineer shall maintain and protect these records for no less than seven (7) years after the completion of the Project, or for any longer period of time as may be required by applicable law, good engineering practice, and upon notice during the pendency of any claims or litigation arising from the Project.



CITY OF CHATTANOOGA
STANDARD AGREEMENT FOR ENGINEERING SERVICES

SOP 2003-9
Date of Issue 10-16-03
Rev. 11-13-12

- b. The Owner or its assign may audit all financial and related records (including digital) associated with the terms of the contract or agreement including timesheets, reimbursable out of pocket expenses, materials, goods, and equipment claimed by the Engineer. The Owner may further audit any of Engineer's records to conduct performance audits (to identify waste and abuse or to determine efficiency and effectiveness of the contract or agreement) or to identify conflicts of interest.
- c. The Engineer shall at all times during the term of the contract or agreement and for a period of seven years after the end of the contract, keep and maintain records of the work performed pursuant to this Contract or Agreement. This shall include proper records of quotations, contracts, correspondence, invoices, vouchers, timesheets, and other documents that support actions taken by the Engineer. Documents shall be maintained by the Engineer, which are necessary to clearly reflect all work and actions taken. All such records shall be maintained in accordance with generally accepted accounting principles. The Engineer shall at its own expense make such records available for inspection and audit (including copies and extracts of records as required) by the Owner at all reasonable times and without prior notice.
- d. The obligations of this Section shall be explicitly included in any subcontracts or agreements formed between the Engineer and any subcontractors or suppliers of goods or services to the extent that those subcontracts or agreements relate to fulfillment of the Engineer's obligations to the Owner.
- e. Costs of any audits conducted under the authority of this section and not addressed elsewhere will be borne by the Owner unless the audit identifies significant findings that would benefit the Owner. The Engineer shall reimburse the Owner for the total costs of an audit that identifies significant findings that would benefit the Owner.
- f. This Section shall not be construed to limit, revoke, or abridge any other rights, powers, or obligations relating to audit which the Owner may have by Federal, State, or Municipal law, whether those rights, powers, or obligations are express or implied.

18. TERMINATION

This Agreement may be terminated by either party upon written notice in the event of substantial failure by the other party to perform in accordance with the terms of this Agreement. The nonperforming party shall have fifteen calendar days from the date of the termination notice to cure or to submit a plan for cure acceptable to the other party. Owner may terminate or suspend performance of this Agreement for Owner's convenience upon written notice to Engineer. If termination or suspension is for Owner's convenience, Owner shall pay Engineer for all Services performed prior to the date of the termination notice. Upon restart, an adjustment acceptable to Owner and Engineer shall be made to Engineer's compensation.

19. DELAY IN PERFORMANCE

Neither Owner nor Engineer shall be considered in default of the Agreement for delays in performance caused by circumstances beyond the reasonable control of the nonconforming party. For purposes of this Agreement, such circumstances include abnormal weather conditions; floods; earthquakes; fire; epidemics; war, riots, or other civil disturbances; sabotage; judicial restraint; discovery of unanticipated hazardous wastes; and inability to procure permits, licenses, or authorizations from any local, state, or federal agency for any of the supplies, materials, accesses, or services required to be provided by either Owner or Engineer under this Agreement. Should such circumstances occur, the nonconforming party shall, within a reasonable time of being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of the



Agreement. If the Engineer is delayed in the performance of the services for more than 365 calendar days, either by the Owner or circumstances beyond his control, an equitable adjustment to the contract amount can be made to compensate for additional costs incurred.

For delays in performance by Engineer, as set forth in Attachment E, Project Schedule, caused by circumstances which are within its control, such delays shall be documented on the Engineer's Project Performance Evaluation form. Said form shall be completed at the conclusion of Project and acknowledged by both Owner and Engineer. Completed form shall be retained by Owner for a period of seven years and reviewed prior to consultant selection for City projects. In the event Engineer is delayed in the performance of Services because of delays caused by Owner, Engineer shall have no claim against Owner for damages or contract adjustment other than an extension of time.

20. HAZARDOUS MATERIALS

Hazardous materials may exist at a site where there is no reason to believe they could or should be present. The Owner and Engineer agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work or termination of services. Owner and Engineer also agree that the discovery of unanticipated hazardous materials may make it necessary for the Engineer to take immediate measures to protect health and safety. Owner agrees to compensate Engineer for any equipment decontamination or other costs incident to the discovery of unanticipated hazardous materials.

Engineer agrees to notify Owner when unanticipated hazardous materials or suspected hazardous materials are encountered. Owner agrees to make any disclosures required by law to the appropriate governing agencies, and agrees to hold Engineer harmless for any and all consequences of disclosures made by Engineer which are required by governing law. In the event the project site is not owned by Owner, the Owner agrees to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials.

21. COMMUNICATIONS

Any communication required by this Agreement shall be made in writing to the address specified below:

Engineer: Parsons Brinckerhoff, Inc, Brad Winkler, Principal in charge
1900 Church Street, Suite 400 Nashville, Tennessee 37203
Phone 615.340.9190, FAX 615.327.8529, Email WinklerBS@pbworld.com

Owner: City of Chattanooga
Department of Public Works
Engineering Division
Suite 2100, Development Resource Center
1250 Market Street
Chattanooga, TN 37402
(423) 643- 6033

Nothing contained in the Article shall be construed to restrict the transmission of routine communications between representatives of Engineer and Owner.

22. WAIVER

A waiver by either Owner or Engineer of any breach of this Agreement shall be in writing. Such a waiver shall not affect the waiving party's rights with respect to any other or further breach.



CITY OF CHATTANOOGA
STANDARD AGREEMENT FOR ENGINEERING SERVICES

SOP 2003-9
Date of Issue 10-16-03
Rev. 11-13-12

23. DISPUTE RESOLUTION

Claims, disputes or other matters in question between the parties to this Agreement arising out of or relating to this Agreement or breach thereof shall be subject to mediation in Chattanooga, Tennessee, in accordance with the following provisions:

- a. The mediation shall be conducted by a mediator mutually acceptable to both parties.
- b. The parties agree to share equally in the expenses of mediations.
- c. Such mediation may include the Engineer or any other person or entity who may be affected by the subject matter of the dispute.
- d. Unless the parties agree otherwise, mediation shall be a condition precedent to the exercise of any legal remedy other than a proceeding seeking an immediate injunction or restraining order to protect the rights of a party pending litigation. Notwithstanding the issuance of an injunction or restraining order or the refusal of a court to issue such an order, the dispute shall continue to be subject to mediation.

24. SEVERABILITY

The invalidity, illegality, or unenforceability of any provision of this Agreement or the occurrence of any event rendering any portion or provision of this Agreement void shall in no way affect the validity or enforceability of any other portion or provision of this Agreement. Any void provision shall be deemed severed from this Agreement, and the balance of this Agreement shall be construed and enforced as if this Agreement did not contain the particular portion or provision held to be void. The parties further agree to amend this Agreement to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken provision. The provisions of this Article shall not prevent this entire Agreement from being void should a provision which is of the essence of this Agreement be determined void.

25. INTEGRATION

This Agreement represents the entire and integrated agreement between Owner and Engineer. All prior and contemporaneous communications, representations, and agreements by Engineer, whether oral or written, relating to the subject matter of this Agreement, as set forth in Attachment D, Supplemental Agreements, are hereby incorporated into and shall become a part of this Agreement.

26. SUCCESSORS AND ASSIGNS

Owner and Engineer each binds itself and its directors, officers, partners, successors, executors, administrators, assigns, and legal representatives to the other party of this Agreement and to the directors, officers, partners, successors, executors, administrators, assigns, and legal representatives of such other party in respect to all provisions of this Agreement.

27. ASSIGNMENT

Neither Owner nor Engineer shall assign any rights or duties under this Agreement without the prior written consent of the other party. Unless otherwise stated in the written consent to an assignment, no assignment will release or discharge the assignor from any obligation under this Agreement. Nothing contained in this Article shall prevent Engineer from employing independent consultants, associates, and subcontractors to assist in the performance of the Services; however, other agreements to the contrary notwithstanding, in the event Engineer employs independent consultants, associates, and subcontractors to assist in performance of the Services, Engineer shall be solely responsible for the negligent performance of the independent consultants, associates, and subcontractors so employed.



ATTACHMENT A

Owner: City of Chattanooga, Tennessee

Engineer: Parsons Brinckerhoff, Inc

Project Number & Name: W-12-029-101

Friar's Branch Basin Improvements for Waste Resources Division

SCOPE OF SERVICES

1. BASIC SERVICES

The project is specifically defined as: Friar's Branch Basin Improvements for Waste Resources Division

Introduction

The following is a summary of services for the Friar's Branch Basin Improvements for the Water Resources Division of the City of Chattanooga (CITY), Tennessee based on the February 2013 Scope of Services documents provided by the CITY, and meetings with the Program Management Team and City Staff on February 19 and March 8, 2013.

Services

We prepared our scope of services based on the work outline provided in the request for Professional Services issued February 15, 2013, and revisions and answers to various questions received after that date. Our approach and assumptions are listed below for each of the tasks. Our services are divided into 2 categories: basic services and supplemental services. Supplemental services will not be completed until we receive written authorization from the CITY. We have revised our project schedule and have provided a draft narrative schedule in Attachment E. A detailed schedule will be provided to the CITY in an Excel/Gantt format after the notice to proceed is received.

The Engineer agrees to provide the following services:

Overview

The basic services will be investigation, evaluation, design and construction services for the Friar's Branch Basin sanitary sewer system.

These basic services will include project management and data gathering;

A sanitary sewer system evaluation survey (SSES), including cleaning, video inspections (CCTV), smoke testing, manhole inspections, selected dye testing and dye tracings, and sonar inspections;

A preliminary engineering study/State Revolving Fund (SRF) Facility Plan including 30 and 60 percent submittals and review;

Construction Document preparation including plans, specifications, quantities summary and opinion of probable costs;



Bidding assistance and evaluation of the bids;

Construction services including construction administration, responding to request for information (RFI's), record drawings, processing pay requests, and preparation of record drawings.

For the purpose of this scope the term CITY means the City of Chattanooga and their project management team, Jacobs (PM).

Task 1 Data Gathering and Project Management

The data gathering phase of the project will include a detailed review of the information provided in the GIS data files, field review and investigations of the site with the GIS data in hand and determining what additional information may be required from the CITY to complete our investigations, SSES and design.

We expect this phase of work to be completed within the first 2 weeks of the SSES/Design phase to allow the SSES contractor to begin work as soon as possible. Additional data may include requests for record drawings, utility drawings or GIS data, easements of record and flow data that the CITY may have.

Data Gathering will be limited to a determination of the data desired and a request to the CITY to provide the data.

Parsons Brinckerhoff, Inc. (Engineer) will prepare a detailed project management plan and a detailed schedule which will be updated monthly based on the work progress. We will also prepare a monthly summary of work completed and anticipated work to be done in the next 60 days. We will prepare our schedule in narrative format and as a Gantt chart.

Our project management plan includes the detailed approach to each phase of the project, the staff that will be involved, project safety plan and any special project issues that need to be addressed during the execution of the project. This will also include our Quality Assurance and Quality Control (QA/QC) program, designed for this project.

All submittals will be reviewed internally by the Engineer following our QA/QC protocol before being released to the CITY.

The Engineer will prepare invoices and progress reports as required by the CITY and PM

Assumptions:

We have assumed that project schedule updates, invoices and summary reports will be submitted electronically via the web sites, and we have allowed for the following meetings in our project program:

- Project Kickoff meeting
- Design phase kickoff meeting
- 60% submittal meeting
- Final CD submittal meeting
- Construction Kickoff meeting, plus....
- 9--Monthly Construction Progress meetings
- 3--General coordination meetings held quarterly during design and construction
- SSES report submittal meeting
- 30% submittal meeting
- 90% submittal meeting
- Bid Phase kickoff meeting



(All meetings are assumed to be in Chattanooga at the Jacob's office or at the CITY's offices and are estimated to be on average 3 hours long; some shorter, some longer)

We have allowed time to prepare special data submittals to the CITY and have estimated this will be required once per 60 days on average.

Task 2 – Sanitary Sewer Evaluation Study (SSES)

During this phase of work our Subcontractor (HydroMax, LLC) will be completing the field aspects of the SSES program per the CITY's specifications, including Cleaning and closed circuit TV Inspection of all lines listed in Attachment A1 except for the 4 and 6 inch lines, approximately 224,000 LF of 8 thru 30 inch lines, and Smoke Testing all lines, including 4 and 6 inch lines, approximately 232,000 LF. Additionally we have assumed a limited number of lines (15%) that will require rough easement inspection and cleaning, 20 (each), dye traces and dye flood tests, 50 reverse CCTV set ups, 30 tap removals; 10,000 feet of by-pass pumping and 6000 feet of Sonar Pipeline inspections.

We will have one person full time to monitor the crews and make sure that the work complies with the CITY's specifications and the Engineer's QAQC program.

We will work with each SSES field crew at the start of the project, to make sure the work is being done in accordance with the project specifications.

We will review the video records each month before the reports are submitted to the city. All reports will be done to NASSCO-PACP standards.

We expect to turn in monthly reports, rather than bi-weekly as stated in the Scope and Fee negotiations documents. We intend to complete the work on a sub basin by sub basin basis, working from the higher elevations to the lower elevations.

We will prepare interim reports on each sub basin as they are completed, to allow Task 3 preliminary Engineering Report/SRF Facility Plan work to proceed on a basin by basin basis.

We expect the field work to take 22 weeks to complete once started, unless weather or other events beyond our control extend the work period.

We will provide inspection services 5 days per week 8 hours per day.

We will prepare a summary report for the SSES field work completed, but expect the CITY will analyze the information and make recommendations as to the lines to be rehabilitated.

We are expecting approximately 50% (or less) of the lines will be included in the design package.

We are allowing 60 days for the CITY to complete their evaluation and prepare their recommendations for the design phase.

Our sub contractor HydroMax's traffic control consists of signs and flashing arrows on their equipment. Since the equipment is moving from each work site in less than an hour, we have not included any additional traffic control.

We have not included any flow isolation since all the lines will be Closed Circuit TV Inspected.

Task 3 – Preliminary Engineering Report / SRF Facility Plan

We will review the prioritization list provided by the CITY in database format and review the CCTV



records, manhole reports and rehabilitation methods to verify that they are constructible.

We will prepare a 30% conceptual submittal for the CITY to review, which will include a GIS level plan sheet showing the location of the proposed rehabilitation work, identifying the type of work to be done on each line, and the Manholes to be rehabilitated or replaced.

We have assumed that we will have a prioritized working package of approximately 50% of the total pipeline evaluated in approximately 60 days from the time the data is submitted to the CITY.

We will conduct a rehabilitation workshop to review the proposed rehabilitation plan with the CITY staff and other stakeholders in the project. The workshop will be held in Chattanooga and will be approximately 4 hours in duration.

The CITY will provide a sample of the SRF documents that will need to be prepared and we will follow the format to prepare the following documents for review by the CITY:
SRF Present worth analysis and alternative comparison, which will include at least the following 3 options:

- A. Do nothing
- B. Traditional Construction approaches to replace the sewer lines
- C. Insitu rehabilitation to repair the sewer lines
- D. Storage

We will prepare an SRF Environmental Review

We will address the SRF Environmental Justice Issues

We will prepare a Preliminary Engineering Report (PER) for review, comment and approval by the CITY.

We will assist the CITY in conducting a public meeting to present the alternatives and the recommended approach.

We will prepare 6 copies of the final reports listed above for the CITY to submit as required.

Task 4 – Finalize Design Drawings and Specifications

Based on the work completed and accepted by the CITY in Task 3, we will prepare construction documents for approximately 50% of the lines evaluated during Task 2, the SSES phase of work.

For the purposes of the Design Documents we have assumed that 5% of the line segments (30 lines) will require replacement by traditional construction methods, ½ in public streets and ½ in easements across private property. We also assumed that 5% of the manholes will require replacement and cannot be rehabilitated, ½ in public streets and ½ in easements on private property.

We will prepare construction documents (plans, specifications, quantity estimates and opinions of probable costs) in accordance with the design standards provided by the CITY.

We will prepare a 60% and 90% submittal for review and comment by the CITY. We will incorporate the comments for each of these submittal phases into the subsequent submittal.



We will prepare a final set of construction documents for review by the CITY and SRF for final comments, and approval for construction. Final comments from the CITY and SRF will be incorporated in the Bid Documents.

We have assumed that 3 hard copies and one electronic copy will be submitted at each of the submittals during this Task.

We have allowed for 3 informal meetings to review progress of the project during this Task
We are allowing 14 days for the CITY's review and we have allowed 30 days for the SRF reviews.

We have estimated approximately 230 sheets will be required for the construction document package.
We have assumed all submittals and bid packages will be issued with 11 X 17 inch plan sheets. This is based on the sample sheet provided and assuming the scale will be the same.

Task 5 - Bid Phase Services

The Engineer will provide 20 copies of the Approved Construction Documents to the CITY, and prepare an advertisement for bid following the format provided by the CITY. We will prepare responses to the Bidders questions and issue addendums as required.

We recommend a pre-bid meeting for this project and have included time to participate in the meeting.

We will participate in the bid opening and prepare a certified bid Tabulation, evaluate the bids and make a recommendation of award to the lowest qualified bidder. We will assist the CITY in submitting MBE/WBE documentation and obtaining approval to award from the SRF. We will prepare 6 copies of the contract documents for execution by the CITY.

Task 6 – Construction Phase Services

The Engineer will provide construction administration during the estimated construction period of approximately 270 calendar days including time for start up and project close out. We expect to attend the pre-construction meeting and monthly progress meetings for 8 months.

We will provide shop drawing review and will provide regular site visits for engineering interpretations and clarifications. We expect that this will be weekly during the first month of work and then once per month after the first month.

We will respond to RFIs and process change orders as required. We will process monthly pay request and the final pay request. We will review the pre-installation post-installation videos for each line segment that is rehabilitated as part of the pay request procedure.

We will complete substantial completion project inspections and prepare the project close out documents based on our field observations and the contractor supplied record drawings. We will complete as-constructed surveys for all new lines and/or manholes per the City of Chattanooga's standard requirements. We have assumed a minimum of 5 locations and a maximum of 15 locations for this survey.



2. SUPPLEMENTAL SERVICES

Any work requested by the Owner that is not included in the Basic Services will be classified as Supplemental Services. Supplemental Services shall include, but are not limited to the following:

(Only completed with written authorization by the CITY)

Introduction

Supplemental Services are considered to be Task 7 thru 9 of the scope of work found in Section 3.2 B of the Fee and Negotiations Packet for the Briar's Branch Basin. Any work not included in the Basic Services will be classified as Supplemental Services. Supplemental Services shall include, but not be limited to the following:

Task 7 – Easements and Permitting as Required

Based on our assumptions stated above we are assuming a minimum of 5 and a maximum of 15 easements with separate property owners will be required. We will prepare easement documents including written easement agreements for the CITY and property owners to execute. We will not provide any appraisal services as to the value of the easement.

We will prepare the following applications for standard construction permits not included in the SRF requirements above:

- Land Disturbance
- Tennessee Department of Environment and Conservation (TDEC)
- Railroad crossing agreements
- Tennessee Aquatic Resource and Alteration Permit (ARAP)
- Other standard construction permits

We have assumed that fees for any permits will be the CITY's responsibility.

Task 8 – Surveying & Mapping as Required

We will prepare site topographic mapping and route surveys for the lines requiring traditional constructions methods to rehabilitate. This will include defining permanent and construction easements, including access easements for line re-construction. We have based our budget on the assumptions listed above for traditional construction requirements. We have assumed a minimum of 5 locations and a maximum of 15 locations will require this work element.

Task 9- Resident Project Representative (RPR) as required

We will provide 1 full time RPR for the duration of the field project; including construction startup and construction close out. The RPR will be under the direction of the Construction Project Manager and will provide the day-to-day observation of the work being completed.

The RPR will cover the observation for all the crews that will be working for both the traditional construction services and the rehabilitation services. His time will be allocated to each work zone as required for the work being completed.



CITY OF CHATTANOOGA
STANDARD AGREEMENT FOR ENGINEERING SERVICES

SOP 2003-9
 Date of Issue 10-16-03
 Rev. 11-13-12

Specific duties will include verification of the lines and manholes being rehabilitated; verification of the manpower and equipment on site; preparing daily reports for records and pay request.

3. REIMBURSABLE EXPENSES:

Project specific reimbursable expenses and charges shall include the following:

Reimbursable expenses shall include all out of town mileage, travel, lodging, meals and associated costs for the work required for this project, including reproduction costs. Local mileage is included in our billing rates.



CITY OF CHATTANOOGA
STANDARD AGREEMENT FOR ENGINEERING SERVICES

SOP 2003-9
Date of Issue 10-16-03
Rev. 11-13-12

4. Reimbursable charges will be considered the amount of actual costs of project related expenses or charges times a markup of 0%. Charges for use of computer equipment or software, local travel, local telephone, project photographs, miscellaneous supplies, and reproduction are not considered reimbursable charges. Allowable project-specific reimbursable expenses shall be outlined in Attachment A.
5. The entire amount of each statement shall be due and payable 30 days after receipt by the Owner.
6. The Engineer shall keep records on the basis of generally accepted accounting practice of costs and expenses which records shall be available for inspection at all reasonable times.
7. Invoices shall be submitted using the Standard Invoice form, Attachment G.



ATTACHMENT C

Owner: City of Chattanooga, Tennessee

Engineer: Parsons Brinckerhoff, Inc

Project Number & Name: W-12-029-101

Friar's Branch Basin Improvements for Waste Resources Division

OWNER'S RESPONSIBILITIES

The Owner will furnish, as required by the work and not at the expense of the Engineer, the following:

1. The Owner will provide the Engineer copies of all current and necessary permits and approvals from all federal, state and local regulatory agencies. These include air quality, water quality, storm water quality, solid waste, special wastes, and other regulatory permits that may be required.
2. The Owner will provide Engineer access to all of available NPDES reports as required.
3. The Owner will coordinate and facilitate meetings or the exchange of information between any other interested parties that may also prospectively participate in the project as required.
4. The Owner will coordinate for the Engineer the acquisition of future population and employment figures from regional planning institutions as required for the project as required.
5. The Owner will provide the Engineer copies of all available sewer reports related to sewer facility planning as required.
6. The Owner will provide access to the system wide hydraulic model outputs as required.
7. The Owner will provide the Engineer the most up-to-date GIS data available for all sewer system components as required.
8. The Owner will provide the Engineer access to all its pump station and CSOTF sites as required.
9. The Owner will provide Engineer access to all available plans and specifications for the facilities as required.
10. The Owner will provide the Engineer with documentation of existing O&M procedures related to the operation of the treatment works that may be relative to the project as required.
11. The Owner will provide the Engineer with documentation of existing standards and procedures related to the sewer system development and expansion as required.
12. The Owner will provide the Engineer with documentation of existing standards and procedures related to the treatment works as required.
13. The Owner will arrange for facilities for the Engineer and attend public information meetings as required. The Owner will prepare and mail invitations for public information meetings as



CITY OF CHATTANOOGA
STANDARD AGREEMENT FOR ENGINEERING SERVICES

SOP 2003-9
 Date of Issue 10-16-03
 Rev. 11-13-12

required. The Owner and the Engineer will conduct monthly project progress meetings as required.

14. The Owner will designate a project representative to be the liaison between the Engineer and the Owner on the project.
15. Owner will make a reasonable effort to evaluate if hazardous materials are on or near the project site, and will inform Engineer of findings relative to the possible presence of such materials.



ATTACHMENT D

Owner: Owner of Chattanooga, Tennessee

Engineer: Parsons Brinckerhoff, Inc

Project Number & Name: W-12-029-101

Friar's Branch Basin Improvements for Waste Resources Division

SUPPLEMENTAL AGREEMENTS

A. Engineers Responsibilities:

1. During Contract negotiation, the Engineer shall describe in detail its overall approach that will be used by its Engineer's Project Team to perform the scope of work described herein for the development of the project for the Owner.
2. The Engineer shall provide all labor, benefits, equipment, materials, fuel, utilities, insurance, out-of-pocket expenses, and other related services required in connection with development of the project.
3. The Engineer shall obtain all necessary permits and approvals from all federal, state, and local regulatory agencies related to development of the project as required. Furnish copies of all required permits and approvals to the Owner.
4. The Engineer shall provide and submit reports and certifications as required by all applicable EPA and/or State regulations of development of the project as required. Furnish a copy of all required reports to the Owner in a timely manner.
5. The Engineer shall coordinate its work with the operating schedule of the Owner as required.
6. The Engineer shall conduct the work for the development of the project in compliance with all applicable federal, state, and local laws, regulations, permits, and approvals.
7. The Engineer shall provide adequate supervision and technical and managerial oversight of the Engineer's employees, subcontractors, and agents
8. The Engineer shall support and utilize the Owner's Standard Operating Procedures developed for the Consent Decree (CD) Program. Specifically, the design of each project shall comply with CADD standards, standardized specifications, or approved design guidelines, cost estimating guidelines, and materials and functional layout and operation of equipment and systems as required.
9. The Engineer shall administer the project to comply with the scheduling goals established by the Program Manager (PM) to ensure that the CD milestones are being met. The Engineer shall timely report project information as prescribed by the PM.
10. The Engineer shall prepare an initial and minimum monthly update to its project schedule; updates can be more frequent or as significant activities change.



11. The Engineer shall prepare, implement and execute a project quality management plan which complies with quality program guidelines and requirements and goals to be established by the PM, and the Engineer's own internal quality procedures/program requirements. The Engineer shall be fully responsible for the quality of their work products and associated quality assurance and quality control activities.
12. The Engineer shall prepare, implement and execute a written project safety management plan which following the Engineer's own internal safety procedures/program requirements and which will also reflect the goals of the safety program to be established by the PM for the CD program project.
13. The Engineer shall provide all documents in a timely manner and format prescribed by the PM to support a document management/imaging repository. All documents shall be maintained in this manner for general and financial record keeping, contract compliance, claims and litigation, warranty issues, and related purposes.
14. The Engineer may assist the PM in reviewing the preliminary project budget and provide recommendations relative to project updates for design, construction contract administration and inspection, contracting costs, and industry appropriate level of contingency as required. The Engineer shall assist the PM in coordinating the program budget with the plan schedule in order to ensure compliance with the CD needs and constraints regarding the overall budget as required. Engineer shall maintain and input pertinent information to account for all costs of the project in a form and manner prescribed by the PM as required.
15. The Engineer shall assist the PM with the preparation of project progress reports as required. Reports shall include, but not be limited to, all reports required to satisfy requirements of the CD.
16. The Engineer may be asked to provide technical support to the CD Public Relations Plan.
17. The Engineer shall utilize the Owner's standardized Division 00 and 01 specifications as in developing project specific specifications- In addition the PM will provide to the Engineer certain technical specifications, details and minimum design guidelines intended to provide consistency across the design deliverables from various Engineers on similar types of work as required.
18. The Engineer shall submit all Requests for Information (RFIs) and change order for their professional services agreement to the PM first for approval.
19. The Engineer shall submit all pay requests/invoices to PM first for approval.
20. Engineer shall identify any and all permits during the first month of project activity from Notice to Proceed (NTP). Likely easements and permanent real estate acquisitions shall be identified with special purpose survey exhibits depicting areas needed based on a schedule to be developed by the Engineer within the first month of project activity from NTP.
21. The PM may conduct monthly progress meetings, value engineering (VE) reviews and constructability review as required and include Owner and PM staff as needed.



CITY OF CHATTANOOGA
STANDARD AGREEMENT FOR ENGINEERING SERVICES

SOP 2003-9
 Date of Issue 10-16-03
 Rev. 11-13-12

B. Owner and Engineer agree that the following communications, representations, and agreements by Engineer relating to the subject matter of the Agreement are hereby incorporated into and shall become a part of the Agreement.

1. The Engineer shall prepare, implement and execute a project quality management plan that will include the following:
 - a. The Engineer shall prepare, implement and execute a written project safety management plan which follows the Engineer's own internal safety procedures program requirements and which will also reflect the goals of the safety program to be established by the PM for the project.
 - b. The Engineer shall provide all documents in a timely manner and format prescribed by the PM to support a document management/imaging repository. All documents shall be maintained in this manner for general and financial record keeping, contract compliance claims and litigation, warranty issues, and related purposes.
 - c. The Engineer may assist the PM in reviewing the preliminary project budget and provide recommendations relative to project options for design, construction contract administration and inspection, contracting costs, and industry appropriate level of contingency as required. The Engineer shall assist the PM in coordinating the program budget with the PM's schedule in order to ensure compliance with the CI needs and commitments regarding the overall budget as required. Payment shall maintain and input payment information to account for all costs of the project in a form and manner prescribed by the PM as required.
 - d. The Engineer shall assist the PM with the preparation of project progress reports as required. Reports shall include, but not be limited to all reports required to satisfy the requirements of the CI.
 - e. The Engineer may be asked to provide technical support to the CI Fabric Relationship Plan.
 - f. The Engineer shall advise the Owner's standards (Division 03 and 07) specifications as well as develop project specific specifications. In addition the PM will provide to the Engineer certain technical specifications, details and minimum design conditions needed to provide complete scope the design deliverables from various Engineers as stated in the work as required.
 - g. The Engineer shall submit all Requests for Information (RFIs) and change orders for their review and approval to the PM first for approval.
 - h. The Engineer shall submit all pay recommendations to PM first for approval.
 - i. The Engineer shall identify and all payments during the first month of project activity from the PM to the Engineer (PM) shall be completed and payment and a close out payment shall be submitted with general request survey exhibits being submitted based on a schedule determined by the Engineer within the first month of project activity from the PM.
 - j. The PM may conduct monthly progress meetings with the Engineer and the PM and shall maintain records as required and include (where applicable) PM staff as needed.



ATTACHMENT E

Owner: Owner of Chattanooga, Tennessee

Engineer: Parsons Brinckerhoff, Inc
Project Number & Name: W-12-029-101
Friar's Branch Basin Improvements for Waste Resources Division

PROJECT SCHEDULE

Owner and Engineer recognize that time is of the essence of the Agreement and that Owner may suffer financial loss if the work is not completed within the times stipulated herein, plus any extensions thereof. Accordingly, Engineer will develop for this Agreement a preliminary schedule based on the schedule requirements specified in the Specific Scope of Work for this project and either provide it below or as Attachment E1.

A detailed schedule (project schedule) will be required as one of the Project Management deliverables as specified in the Specific Scope of Work for this project once the Agreement is executed. The Engineer will produce the project schedule using industry accepted scheduling software approved by the Owner.

It is understood and agreed that the Engineer shall start the performance of Services within 10 days of receipt of a written Notice to Proceed and shall complete the work in accordance with the contract times set forth herein.

Task	Description	Start Date	Finish Date	Duration Days
0	Contract Negotiations	2/15/2013	3/15/2013	28
	City Approval and Contract Issue	3/15/2013	5/1/2013	47
	Notice to Proceed	5/1/2013	5/1/2013	0
1	Data Gathering Project management	5/1/2013	6/30/2013	60
2	SSES	5/1/2013	10/8/2013	160
3	Preliminary Engineering Report/SRF Facility Plan	7/30/2013	11/17/2013	110
4	Finalize Design and Drawings and Specifications	12/17/2013	6/15/2014	180
5	Bidding assistance	7/15/2014	10/13/2014	90
6	Construction Phase	11/12/2014	8/14/2015	275



CITY OF CHATTANOOGA
STANDARD AGREEMENT FOR ENGINEERING SERVICES

SOP 2003-9
Date of Issue 10-16-03
Rev. 11-13-12

7	Easements and Permitting as Required	12/17/2013	6/15/2014	180
8	Survey & Mapping as Required	12/17/2013	6/15/2014	180
9	RPR as required	10/13/2014	7/15/2015	275

The City and Engineer recognize that time is of the essence of this Agreement and that neither may suffer financial loss if the work is not completed within the times stipulated herein. In any event, the Engineer will complete the work as soon as practicable after the time stipulated herein. The City and Engineer will cooperate in the preparation of all necessary permits and other documents required for the project and will provide all necessary information to the Engineer in a timely manner.

A detailed schedule (project schedule) will be required as one of the project management deliverables. The schedule will include all major activities, including but not limited to, design, construction, and testing. The schedule will be subject to change as the project progresses and will be updated as necessary.

The Engineer shall start the performance of services within 10 days of receipt of a written notice to proceed and shall complete the work in accordance with the contract time schedule.

Item	Description	Start Date	Finish Date	Quantity
1	Design Services	12/17/2013	6/15/2014	180
2	Survey & Mapping	12/17/2013	6/15/2014	180
3	RPR	10/13/2014	7/15/2015	275



ATTACHMENT F

Owner: Owner of Chattanooga, Tennessee

Engineer: Parsons Brinckerhoff, Inc
Project Number & Name: W-12-029-101
Friar's Branch Basin Improvements for Waste Resources Division

RATE SCHEDULE

Billing Rates

<u>Title</u>	<u>Rate</u>
Principal-in-charge	\$231
Senior Technical Advisor	\$265
Program Manager	\$190
Project Manager	\$171
Design Manager	\$132
CAD Designer	\$83
Scheduler	\$163
Office Engineer	\$70
Senior Inspector	\$95
Inspector	\$75
Admin.	\$45
Project Administrator	\$62

Direct Expenses at cost
Sub contractors at cost



ATTACHMENT G

STANDARD INVOICE

Indicates MANDATORY item

CONSULTANT LETTERHEAD

ATTN: City Project Manager
REF: Project Name
CODE: Consultant Project Number
PO: City Project Number in format S-02-001-101

Provided by City

TERMS: Net 25 days
DUE: 08/01/03

Must be Sequential Number

INVOICE

Invoice Number 5
Dated 07/07/03

City Project Manager
City Project Manager Title
City of Chattanooga
Engineering Division/DRC
1250 Market Street, Suite 2100
Chattanooga TN 37402

Invoice Must show Billing Period.

For Professional Services from May 31 to June 27, 2003

This Breakdown must list each item of the Contract.

Consultant Project No.	Description	Fee	Percent Work to Date	Amount Billed	Previous Billed	This Invoice Billed
C03009-01	01 - Design	\$51,500.00	LS 55%	\$28,325.00	\$18,540.00	\$9,785.00
	02 - Survey	\$15,700.00	LS 0%	\$0.00	\$0.00	\$0.00
C03009-02	Barton Avenue and Brown Acres Golf Course Design	\$20,000.00	CP 12%	\$2,391.02	\$2,033.00	\$358.02
C03009-03	Permitting/Easement Assistance	\$5,000.00	CP 6%	\$291.08	\$0.00	\$291.08
C03009-04	Bidding/Construction Assistance	\$10,000.00	CP 0%	\$0.00	\$0.00	\$0.00
C03009-05	Misc. As-Requested Services	\$5,000.00	CP 7%	\$363.85	\$0.00	\$363.85
	Total Contract Amount	\$107,200.00		\$31,370.95	\$20,573.00	
	TOTAL THIS INVOICE					\$10,797.95

Must Match Contract Amount

Prior invoices	\$20,573.00
This invoice	\$10,797.95
Payments	-\$20,573.00
Balance on Account	\$10,797.95

NOTE

- There shall be only one invoice per contract per billing period
- Any necessary details should be attached as backup