

RESOLUTION NO. \_\_\_\_\_

A RESOLUTION AUTHORIZING THE ADMINISTRATOR OF THE DEPARTMENT OF PUBLIC WORKS TO ENTER INTO AN AGREEMENT WITH HAZEN AND SAWYER, P.C. FOR PROFESSIONAL SERVICES RELATIVE TO CONTRACT NO. W-12-017-101, HYDRAULIC AND PUMP STATION IMPROVEMENTS AT THE MOCCASIN BEND WASTEWATER TREATMENT PLANT, FOR AN AMOUNT NOT TO EXCEED SIX HUNDRED SEVEN THOUSAND NINE HUNDRED THIRTY DOLLARS (\$607,930.00).

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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 Hazen and Sawyer, P.C. for professional services relative to Contract No. W-12-017-101, Hydraulic and Pump Station Improvements at the Moccasin Bend Wastewater Treatment Plant, for an amount not to exceed \$607,930.00.

ADOPTED: \_\_\_\_\_, 2013.

/mms

# City of Chattanooga



## Resolution/Ordinance Request Form

Date Prepared: 12/28/12

Preparer: **Dennis Malone**

Department: **Public Works**

Brief Description of Purpose for Resolution/Ordinance: \_\_\_\_\_

Res./Ord. # \_\_\_\_\_ Council District # 1

A Council Action is requested for the Administrator of the Department of Public Works to enter into an agreement with Hazen and Sawyer, P.C., for professional services, relative to Contract No. W-12-017-101, Hydraulic and Pump Station Improvements MBWWTP, in an amount not to exceed \$607,930.00.

Name of Vendor/Contractor/Grant, etc. **Hazen and Sawyer, P.C.**

New Contract/Project? (Yes or No) No

Total project cost \$ 607,930.00

Funds Budgeted? (YES or NO) Yes

Total City of Chattanooga Portion \$ 607,930.00

Provide Fund 6011

City Amount Funded \$ 607,930.00

Provide Cost Center K37108

New City Funding Required \$ 0

Proposed Funding Source if not budgeted ISS - CD

City's Match Percentage % \_\_\_\_\_

Grant Period (if applicable) \_\_\_\_\_

### List all other funding sources and amount for each contributor.

<u>Amount(s)</u>	<u>Grantor(s)</u>
\$ _____	_____
_____	_____
_____	_____
_____	_____

Agency Grant Number \_\_\_\_\_

CFDA Number if known \_\_\_\_\_

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

Approved by: \_\_\_\_\_

Reviewed by: FINANCE OFFICE

DESIGNATED OFFICIAL/ADMINISTRATOR

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 CD  
Date of Issue 10-16-03  
Rev. 11-14-12

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

Hazen and Sawyer, P.C.,

hereinafter called Engineer.

The Owner wishes to employ the Engineer to perform professional engineering services for

Contract No: W-12-017-101- Hydraulic and Pump Improvements at MBWWTP,

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.

*MWC*



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.



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STANDARD AGREEMENT FOR ENGINEERING SERVICES

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- 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: Hazen and Sawyer – Stephen H. King, P.E., BCEE (Project Manager)  
227 French Landing Drive, Suite 420, Nashville, TN 37228  
(615) 783-1515; (615) 724-0855 (fax); sking@hazenandsawyer.com

Owner: City of Chattanooga  
Department of Public Works  
Engineering Division  
Suite 2100, Development Resource Center  
1250 Market Street  
Chattanooga, TN37402  
(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.



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.



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28. **THIRD PARTY RIGHTS**

Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than Owner and Engineer.

29. **RELATIONSHIP OF PARTIES**

Nothing contained herein shall be construed to hold or to make the Owner a partner, joint venturer, or associate of Engineer, nor shall either party be deemed the agent of the other, it being expressly understood and agreed that the relationship between the parties is and shall at all times remain contractual as provided by the terms and conditions of this Agreement.

30. **NON-DISCLOSURE**

Engineer agrees not to disclose or to permit disclosure of any information designated by the Owner as confidential, except to the engineer's employees and subcontractors who require such information to perform the services specified in this agreement.

31. **NON-DISCRIMINATION**

Engineer agrees to comply with all federal, state, and local non-discrimination laws and regulations. Engineer agrees not to discriminate against any participant in this Agreement on the basis of race, color, religion, sex, age or national origin. Engineer further agrees to comply with all federal, state and local laws regarding treatment and accommodations for individuals with disabilities.

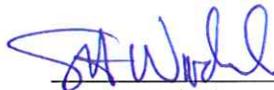
32. **DRUG FREE WORKFORCE**

Engineer certifies that it will provide a drug-free workplace and agrees to comply with the applicable requirements of the Drug-Free Workplace Act of 1988.

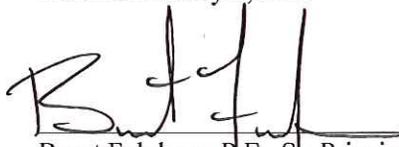
33. **FEDERAL OR STATE FUNDING**

In the event that the Project is funded in whole or in part by Federal or State grants, Engineer agrees to abide by all applicable Federal and State laws, regulations, grant conditions and procedures.

IN WITNESS WHEREOF, Owner and Engineer have executed this Agreement.

 1/2/2013  
\_\_\_\_\_  
Scott Woodard, P.E., Senior Associate      Date  
Hazen and Sawyer, P.C.

\_\_\_\_\_  
Administrator of Public Works      Date

 1/2/13  
\_\_\_\_\_  
Brent Fulghum, P.E., Sr. Principal Engineer      Date  
Hazen and Sawyer, P.C. - Witness

\_\_\_\_\_  
Director of Purchasing      Date

Reviewed by City Attorney Office \_\_\_\_\_  
Initial      Date



**ATTACHMENT A**

Owner: City of Chattanooga, Tennessee

Engineer: Hazen and Sawyer, P.C.

Project Number & Name: W-12-017-101

Hydraulic and Pump Improvements at MBWWTP

**SCOPE OF SERVICES**

**1. BASIC SERVICES**

Basic Services are considered to be Task Items 1 thru 6 of the Specific Scope of Work found in Section 3.2.B of the Scope and Fee Negotiations Packet for said project.

The project is specifically defined as:

The City of Chattanooga, Tennessee (City) operates and maintains the 140 MGD Moccasin Bend Wastewater Treatment Plant (MBWWTP), which provides regional wastewater treatment for Chattanooga and surrounding areas. In order to achieve and maintain regulatory compliance, the City desires to evaluate and upgrade the capacity of the Equalization Pump Station (EQPS) and Influent Pump Station (IPS) located at MBWWTP. The goal of this project will be to relieve any capacity limitations at the pump stations at MBWWTP to maximize the allowable treatment capacity and to evaluate potential upgrades required downstream of the pump stations to accommodate the additional flow. The components of this project will include the following:

1. Evaluation of existing and proposed hydraulic capacity of MBWWTP
2. Development of alternatives for upgrading Influent Pump Station
3. Development of alternatives for upgrading Equalization Pump Station
4. Evaluation of downstream and upstream effects of proposed improvements, including assessment of need for additional secondary clarifiers and or chlorine contact tank modifications.
5. Implementation of recommended pump station upgrade alternatives

The Engineer agrees to provide the following services:

**Task 1 – Data Gathering, Preliminary Design, SRF Facility Plan and Project Management**

Task 1.1 Project Management

Develop and maintain a project specific work plan, i.e., Project Management Procedures Manual, and distribute to project personnel. The Project Management Procedures Manual will be a “working” document, meaning that portions or sections may be revised or updated as the project progresses. The Project Management Manual will include the scope of work, schedule with milestones, deliverable list, budget, staffing plan, and a quality control/quality assurance plan. The schedule will be updated monthly and submitted with the invoices. Engineer will attend project progress meetings through completion of detailed design.

Task 1.2 Evaluation to Increase Pumping Capacity of the IPS

1. Data Collection/Evaluation – Collect and evaluate all relevant pump station data related to the four (4) Morris vertical open shaft driven centrifugal pumps model 3036324V with 30.25” impellers and 450 HP motors. Data to be provided by Owner/PM.



2. Pump Testing – Witness pump testing performed by City forces to review existing pumping conditions (flow and pressure) and develop pump system curves.
3. Evaluate Alternatives to increase flow and long term performance – Evaluate options to increase pumping capacity including a review of the following options/equipment:
  - a. New larger impellers
  - b. New motors
  - c. Additional pumps
  - d. Alternate pump options
  - e. Overhaul of existing electrical equipment
  - f. New flow meter
  - g. Pump seal water system
  - h. Pump pressure monitoring/indication system
  - i. Review of existing valves for long term service

#### Task 1.3 Evaluation to Increase Capacity of the EQPS

1. Data Collection – Collect data related to the four (4) Patterson 30 X 36 SAFV vertical turbine mixed flow pumps with 31” impellers and 300 HP motors.
2. Pump Testing – Witness pump testing performed by City forces to review existing pumping conditions (flow and pressure) and develop pump system curves.
3. Evaluate Alternatives to increase flow and long term performance – Evaluate options to increase pumping capacity including a review of the following options/equipment:
  - a. New larger impellers
  - b. New motors
  - c. Additional pumps
  - d. Alternate pump options
  - e. Overhaul of existing electrical equipment
  - f. New flow meters
  - g. Pump seal water system
  - h. Pump pressure monitoring/indication system
  - i. Review of existing valves for long term service

#### Task 1.4 Evaluation of Existing and Proposed Hydraulic Capacity of the MBWWTP

1. Review Existing Information and Develop Flow Paths and Establish Historical Flows – Engineer will review information provided by Owner for the MBWWTP to be modeled and become familiar with the current processes and structures at the plant. Expected information includes record drawing sets, planning reports, historical data, monthly operating reports (MORs), and other plant data. It is assumed that information will be provided by Owner in electronic format where possible.

Engineer will conduct a one day site visit to the plant during review of the existing information. The purpose of the visit will be to review current operations, develop understanding of treatment processes at the plant, and to identify potential issues that need additional clarification. Locations for structure and water surface survey will also be verified during the site visit.

During the site visit, areas where additional information is needed will also be identified and noted. It is assumed that the Owner will provide Engineer as-built drawings (or best available information) and information on elevation datums at the plant, including previous datum changes that related to previous as-built drawings. A list of required field verification points and additional information request will be made to the Owner after the site visit. Engineer will verify elevations and dimensions as needed through use of a sub-



consultant surveyor (see Hydraulic Profile Model Development, Calibration, and Verification section for additional information).

2. Hydraulic Profile Model Development, Calibration, and Verification – Engineer will use information gathered during site visits, through supplemental data gathering, and through use of as-built drawings of the MBWWTP to develop a hydraulic profile model of the MBWWTP. The hydraulic profile will be developed in HazenPro, a spreadsheet based model designed and used by Engineer. The initial hydraulic profile will be developed and then calibrated with field measurements taken by Engineer during “average flows”. Verification will also be performed during wet weather events through use of data collected by Engineer and observations by MBWWTP operations staff based on water depths and general observations of function during the storm event.

The Engineer will develop a concise protocol for the survey crew. A total of four days of presence on site at the plant is assumed for this scope, including two days for initial dry weather measurements and two days for wet weather verification measurements.

The hydraulic profile model for the MBWWTP will be spreadsheet based. Hydraulic model expectations and limitations are as follows:

- The model will include an input-output file. The model will be valid only for an Engineer and Owner agreed upon acceptable range of input parameters such as flow rate. This prescribed range of acceptable input parameters will be stated on the input/output page of the model. Model calculations may not be solvable when starting input parameters are outside of the prescribed range of allowable values.
  - The model will be customized to represent the existing WWTP unit processes and hydraulic elements. Alternate or new unit processes or hydraulic elements will require revisions to the model.
  - Model will reasonably approximate hydraulics of open channel flow that includes lateral inflow or lateral outflow (such as clarifier effluent launder).
  - Model will accurately account for hydraulics of a submerged sharp crested rectangular weir, but will not accurately account for submerged or overtopped V-notch weirs. Model will also not provide correct results when flumes are more than 70 to 80 percent submerged.
3. Hydraulic Model Report – Engineer will prepare a model report, documenting the development, calibration, and verification of the hydraulic model. The draft report will be presented to the Owner/PM for review. The draft hydraulic model report will be discussed at a meeting established for review of a draft hydraulic model report. Engineer will finalize the report based on comments from the Owner/PM and will provide five hard copies.

The hydraulic model report will have the following sections:

1. Acronyms and Definitions
2. Executive Summary
3. Background and Purpose
4. Existing Facility Summary
5. Historical Data Review
6. Hydraulic Profile Development
7. Hydraulic Profile Calibration
8. Model Application and Limitations

The report will clearly document the conditions of the plant when the model was built. (For example, if tanks in the plant were not in operation at that time the report will clearly



state that.)

The report will be developed to summarize the development, calibration, and verification of the hydraulic model for the plant. CAD drawings of the profiles will be developed as part of this project. A total of five printed copies of the report will be provided along with an electronic version in PDF format.

#### Task 1.5 Preliminary Engineering Report (PER) and Review Meeting

1. SRF Compliant Preliminary Engineering Report – An SRF compliant preliminary engineering report (PER) will be developed and will include observations and preliminary recommendations to increase flow through the IPS, the EQPS and through the plant.

Items to be discussed in the PER include; options for increasing pump flow at the IPS; options for increasing pump flow at the EQPS; existing hydraulic bottle necks and recommendations for increased flow within the plant; recommendations regarding the need for additional secondary clarifiers; recommendation regarding the need to modify and/or expand the existing chlorine contact tanks; recommendations regarding the need to modify other facility structures, conduits or channels to remove/reduce bottlenecks. The PER will include consideration of maintenance, reliability, energy efficiency, and safety. The PER will include conceptual drawings and a planning level cost estimate for recommended improvements.

As required by the SRF Program, the PER will include the following as necessary/applicable:

- Perform present worth analysis and alternatives comparison.
  - Address SRF Green Issues.
  - Perform SRF environmental review and comparison.
  - Address Environmental Justice issues.
  - Assist in conducting public meeting to present alternatives.
  - Submit final PER to TDEC/SRF for review and approval and incorporate TDEC comments into the final document.
  - Attend and present at the SRF public hearing as needed.
2. Review Meeting - A review meeting with the Owner/PM shall be conducted to finalize the preliminary engineering report and the design recommendations, and provide the Engineer with the authorization to proceed with detailed design. Engineer will also coordinate with other on-going relevant projects to ensure all goals associated with on-going projects are being met.

#### **Task 2 – Final Design**

##### Task 2.1 Design of Pumping Station Improvements

1. Plans and Specifications – Engineer will finalize design and selection of equipment. Engineer will prepare construction documents that adequately describe the intended work including all necessary details. The documents shall include all civil, mechanical, structural, electrical, HVAC, and instrumentation design required for a complete pump station upgrade. Drawings will be completed in AutoCAD format and will be 22x34 inch full size and 11x17 inch half size. The design package will include requirements and procedures for modifications while maintaining necessary plant operations.



In addition to selected pump upgrades that will be detailed in the PER, Engineer assumes that design services for the following specific electrical/equipment items will be included in the scope of work for the IPS:

- Replace existing 450 hp motors; 505RPM, vertical type Reliance motors
- Replace existing VFDs; Allen Bradley 1336
- Controls and instrumentation for motors being replaced
- Associated conduit and wiring system
- Evaluate condition and reliability of existing electrical system and make recommendations for upgrade as required, including, but not limited to the following equipment:
  - Pump station service entrance equipment
  - Pump station electrical metering system
  - Pump station power distribution equipment, such as motor control centers, step-down transformers, and distribution panels
  - Integration of pump station into existing plant control and monitoring system
  - Lighting system
- Any electrical code non-compliance issues

In addition to selected pump upgrades that will be detailed in the PER, Engineer assumes that design services for the following specific electrical/equipment items will be included in the scope of work for the EQPS:

- Replace existing 300 hp motors; 490 RPM, vertical type motors
- Replace existing Eaton ac drives; Dynamatic IS 5000+
- Controls and instrumentation for motors being replaced
- Associated conduit and wiring system
- Evaluate condition and reliability of existing electrical system and make recommendations for upgrade as required, including, but not limited to the following equipment:
  - Pump station service entrance equipment
  - Pump station electrical metering system
  - Pump station power distribution equipment, such as motor control centers, step-down transformers, and distribution panels
  - Integration of pump station into existing plant control and monitoring system
  - Lighting system
- Any electrical code non-compliance issues

3. Submittals – Engineer will submit design review submittals at 50% and 90%, and attend project review meetings with the Owner/PM for each of the design review milestones. Engineer will submit 100% for procurement of bid and construction of the project. The general content of each design review submittal shall be as follows:

50% - Plan and elevation views (50% complete) showing pump locations, piping plans, schematic drawings showing improvements; draft technical specifications for major equipment, preliminary opinion of construction cost, and initial schedule of construction.

90% - Content of 50% plus any Owner requested revisions, final adjustments to the design, required design details, complete bid documents, applications for permit for review and signature, an updated opinion of construction cost and an updated construction schedule. Associated regulatory/permitting fees are not included and shall be paid by the Owner.



100% - Complete documents for procurement of bids and construction of the project that reflect all revisions from prior reviews, as well as revisions required during permitting. Engineer will utilize City standard documents as necessary and provide all technical specifications required.

The final design phase scope and effort are based on the following assumptions:

- The scope of work only includes moving pump station improvements forward in detailed design and not recommendations in other areas of the MBWWTP downstream of the pump stations that are identified by the hydraulic modeling task.
- Some alternatives to be evaluated in the PER for the IPS could require structural modifications. However, for scope and fee development Engineer has assumed no structural improvements will be required at the IPS. Some structural improvements are anticipated at the EQPS and have been included.
- Some alternatives to be evaluated in the PER for the EQPS could include HVAC improvements. However, for scope and fee development Engineer has assumed no HVAC improvements will be required at the EQPS. HVAC improvements are anticipated at the IPS and have been included.
- Engineer will develop Standard Operating Procedures (SOPs). The scope of work does not include development of Operation and Maintenance Manuals.

### **Task 3 – Bidding Assistance**

The City's Purchasing Agent will coordinate distribution of plans and specifications to bidders. Engineer will provide twenty (20) full size sets of drawings and specifications will be provided for bidding. Three half size sets of drawings will also be provided. A CD will also be provided with all drawings in PDF format along with all technical specifications in PDF format. Engineer will also perform the following services:

#### Task 3.1 Pre-bid Meeting

Engineer will attend and facilitate a pre-bid meeting and will attend the bid opening and tabulate bids received.

#### Task 3.2 Request for Information

Engineer will respond to contractor questions prior to the bid date and prepare addendum for the Owner/PM for distribution as necessary.

#### Task 3.3 Recommendation for Award

Engineer will evaluate bids and make recommendation for award to the Owner/PM.

### **Task 4 – Construction Phase Services**

Engineer will assist the Owner/PM during the construction phase by performing the following coordination services:

#### Task 4.1 Conformed Documents

Prepare conformed plans and technical specifications based upon addenda changes to the documents during the bid phase. Make and distribute copies of contract documents for Owner and Contractor (5 originals to Owner).

#### Task 4.2 Pre-construction and Monthly Contractor Progress Meetings

Assist in the pre-construction conference and monthly contractor progress meetings as necessary and as



requested including agenda and minute's preparation.

#### Task 4.3 Submittals Review

Engineer will review all construction project submittals for conformance with contract requirements and provide response to the Contractor. Submittals will be tracked using computer-generated spreadsheets and copies of all submittals will be provided to Engineer by the Contractor.

Engineer will respond to Contractor requests for information (RFIs).

Engineer will review all shop drawings for conformance with contract requirements. Shop drawings will be tracked using spreadsheets.

Engineer will review all equipment operation and maintenance manuals for conformance with contract documents.

Engineer will review Contractor claims for extra costs and schedule extensions. Engineer shall make recommendations to the Owner regarding the change order claim for cost and schedule impacts.

#### Task 4.4 Project Start-up, Close-out and Record Drawings

Engineer will witness field start-up and testing of improvements specified in the contract documents.

Engineer will review training materials and coordinate the training provided by the Contractor to the Owner.

Engineer will review substantial completion of the work, generate punch list and participate in project close-out and final inspection.

Engineer will review Contractor record drawings and prepare final as-built drawings from Contractor field mark-ups. Deliverables will include three hard copies (printed on 22-inch x 34-inch bond sheets) of as-built record drawings and one CD/DVD with the updated drawings in CAD and PDF formats.

The construction administration services scope and effort are based on the following assumptions:

- The construction phase effort, including engineering and field observations is based on the planned construction schedule and duration of 12 months.
- The cost for any additional engineering services, which result from extraordinary contractor acceleration, any individual contract time extensions, revisions to contract drawings or specifications, changed conditions, or Owner/contractor initiated substitutions/proposals, will be provided through an amendment to Engineer's contract. Any such amendment must be agreed upon and approved by the Owner before any such work is done by Contractor or Engineer.
- Copies of all submittals will be provided by the contractor.
- All surveying required during construction will be provided by the contractor.

## 2. SUPPLEMENTAL SERVICES

Supplement Services are considered to be Task Items 7 thru 12 of the Specific Scope of Work found in Section 3.2.B of the Fee and Negotiations Packet for said project.



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:

Task 5 Survey Services

Engineer will subcontract surveying services as required to develop hydraulic model and construction documents for improvements to the IPS and EQPS.

Task 6 Resident Project Representative Services

It is anticipated that construction will take approximately three hundred sixty (360) days to complete. The Engineer will perform the following actions during this task:

- Provide a resident project representative to observe performance of the work for contract.
- Review and submit all contractor payment requests.
- Evaluate and recommend to the Owner the disposition of all field related change order requests from the contractor during the project.
- Attend and participate in monthly coordination and progress meetings.

In performing construction observation, the Engineer shall have the right to recommend to the Owner to reject any portion of the Contractor's Work that is not, in the professional judgment of the Engineer, in accordance with the construction documents.

The field observation scope and effort are based on the following assumptions:

- The construction phase effort, including engineering and field observations is based on the planned construction schedule and duration of 12 months.
- The field observations effort is based on thirty-two (32-hour) weeks. Any required overtime is not included.
- The contractor will provide, furnish, equip, and maintain the Engineer's field office, as specified.

Task 7 Additional Services/Assistance

Engineer will provide permitting assistance required due to unforeseen design elements of pump station improvements. Engineer will also provide supplemental field work/data gathering activities necessary for the development and calibration of the facility hydraulic model up to the not-to-exceed Task 7 budget.

3. REIMBURSABLE EXPENSES:

Project specific reimbursable expenses and charges shall include the following:

Non-local travel, subsistence, field equipment, communications, and sub-consultant services are reimbursable at cost plus 10%.



**ATTACHMENT B**

Owner: City of Chattanooga, Tennessee

Engineer: Hazen and Sawyer, P.C.  
Project Number & Name: W-12-017-101  
Hydraulic and Pump Improvements at MBWWTP

**COMPENSATION**

For the services covered by this Agreement, the Owner agrees to pay the Engineer as follows:

- For the Basic Services described in Attachment A, an hourly not-to-exceed fee of \$411,780. Payments shall be made monthly in amounts which are consistent with the amount of engineering services provided, as determined by the Engineer.

Task 1: Data Gathering, Preliminary Design, SRF Facility Plan and Project Mgmt	\$157,560
Task 2: Final Design (PS Improvements)	\$177,500
Task 3: Bidding Assistance	\$18,880
Task 4: Construction Administration Services	\$57,840

Subtotal \$411,780

- Compensation for Supplemental Services shall be made as defined below, when authorized in writing by the Owner. The maximum limit for each item of additional service shall be established individually and specifically agreed to by the Owner as stated below, unless the service is included in a subsequent agreement.

Task 5: Survey Services	\$24,440
Task 6: Resident Project Representative Services	\$162,880
Task 7: Additional Services/Assistance	\$8,830

Subtotal \$196,150

Grand Total \$607,930

- Hourly rates for each classification as defined by the Engineer's rate schedule, see Attachment F. Overtime, when authorized by the Owner, will be billed at 1.5 times the rates listed (non-engineer time only).
- Reimbursable charges will be considered the amount of actual costs of project related expenses or charges times a markup of 10%. 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.
- The entire amount of each statement shall be due and payable 30 days after receipt by the Owner.
- 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.
- Invoices shall be submitted using the Standard Invoice form, Attachment G.



## ATTACHMENT C

Owner: City of Chattanooga, Tennessee

Engineer: Hazen and Sawyer, P.C.

Project Number & Name: TBD

Hydraulic and Pump Improvements at MBWWTP

### 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



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- 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.
  16. The Owner will conduct pump testing in the presence of the Engineer.
  17. The Owner will assist Engineer by opening/closing valves/gates and adjusting flows as requested during the field work phase for the hydraulic modeling effort and pump testing.



## ATTACHMENT D

Owner: Owner of Chattanooga, Tennessee

Engineer: Hazen and Sawyer, P.C.

Project Number & Name: W-12-017-101  
Hydraulic and Pump Improvements at MBWWTP

## 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.



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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.



**ATTACHMENT E**

Owner: Owner of Chattanooga, Tennessee

Engineer: Hazen and Sawyer, P.C.

Project Number & Name: W-12-017-101  
Hydraulic and Pump Improvements at MBWWTP

**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.

Project Procedures Manual	30 Days from project NTP
Preliminary Design	150 Days from project NTP
Detailed Design	210 Days following NTP for Detailed Design (expected 150 days after project NTP)
Bidding Assistance	90 Days after SRF approval to advertise
Construction Phase Services	360 Days from NTP of Construction Contract



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**ATTACHMENT F**

Owner: Owner of Chattanooga, Tennessee

Engineer: Hazen and Sawyer, P.C.

Project Number & Name: TBD  
Hydraulic and Pump Improvements at MBWWTP

**RATE SCHEDULE**

HS Employee Category	Rate (\$/hr)
VP/Project Principal/Quality Control	195
Senior Associate/PM	190
Associate	160
Sr. Principal Engineer	145
Sr. Principal Scientist	130
Sr. Principal Architect	135
Principal Engineer	135
Principal Scientist/MIS	120
Principal Architect	120
Engineer/Ass't Engineer	110
Scientist/MIS Specialist	90
Architect/Ass't Architect	100
Sr.Principal Designer	130
Principal Designer	125
Designer/Technician	100
Drafter	85
Construction Manager	120
Field Coordinator	105
Field Inspector	90
Administrative II	75
Administrative I	50
Intern/Co-Op	60

Sub-consultants - Standard Billing Rates times 10%



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

\*\*\*\*\*  
 INVOICE  
 \*\*\*\*\*

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

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

Invoice Number 5  
Dated 07/07/03

**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	Fee Basis	Percent		Amount Billed	Previous Billed	This Invoice Billed
				Work to Date	Amount			
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		
<b>TOTAL THIS INVOICE</b>								<b>\$10,797.95</b>

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.