

RESOLUTION NO. _____

A RESOLUTION AUTHORIZING THE ADMINISTRATOR OF THE DEPARTMENT OF PUBLIC WORKS TO ENTER INTO AN AGREEMENT WITH BROWN AND CALDWELL FOR PROFESSIONAL SERVICES RELATIVE TO CONTRACT NO. W-12-014-101, CMOM-PUMP STATION OPERATIONS AND PREVENTATIVE MAINTENANCE PLAN, FOR AN AMOUNT NOT TO EXCEED TWO HUNDRED EIGHTEEN THOUSAND ONE HUNDRED TWENTY-FIVE DOLLARS (\$218,125.00).

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 Brown and Caldwell for professional services relative to Contract No. W-12-014-101, CMOM-Pump Station Operations and Preventative Maintenance Plan, for an amount not to exceed \$218,125.00.

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 # _____

Citywide _____

A Council Action is requested for the Administrator of the Department of Public Works to enter into an agreement with Brown and Caldwell, for professional services, relative to Contract No. W-12-014-101, CMOM - Pump Station Operations and Preventative Maintenance Plan, in an amount not to exceed \$218,125.00.

Name of Vendor/Contractor/Grant, etc. **Brown and Caldwell**

New Contract/Project? (Yes or No) No

Total project cost \$ 218,125.00

Funds Budgeted? (YES or NO) Yes

Total City of Chattanooga Portion \$ 218,125.00

Provide Fund 6011

City Amount Funded \$ 218,125.00

Provide Cost Center K37104

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.

Amount(s)

Grantor(s)

\$ _____

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

Brown and Caldwell,

hereinafter called Engineer.

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

Professional Services for Pump Station Operations and Preventive Maintenance Programs 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.

MMc



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 to the extent 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,



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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.



- 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: **Brown and Caldwell, Tazio Qubeck**
501 Great Circle Road, Suite 150
Phone: 615-250-1281, Fax: 615-256-8332, tqubeck@brwnaald.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.



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
Brown and Caldwell, Senior Vice President, Date Administrator of Public Works Date

Director of Purchasing Date

Reviewed by City Attorney Office _____
Initial Date



ATTACHMENT A

Owner: City of Chattanooga, Tennessee

Engineer: **Brown and Caldwell**
Project Number & Name: **W-12-014-101**
Pump Station Operations and Preventive Maintenance Programs for
Waste Resources Division

SCOPE OF SERVICES

1. BASIC SERVICES

The project is specifically defined as:

The preparation of a Pump Station Operations Program and a Pump Station Preventive Maintenance Program for the City of Chattanooga, Department of Public Works, Waste Resources Division (WRD) that will establish a program for operations during routine and emergency conditions, as well as establishing a preventive maintenance program. These Programs will be developed for the 72 Pump Stations (PSs) and 8 Combined Sewer Overflow Treatment Facilities (CSOTFs). This program will be based on standard operating procedures that will be developed for three different types of PSs, and one type of CSOTF. Individual programs for each PS and CSOTF are not being developed as a part of this program.

The Engineer agrees to provide the following services:

Scope of Work

The work will be divided into the following tasks:

Task 1 –Gather Project Information and Project Management

This task will consist of compiling and reviewing existing condition, operations and maintenance data, and coordinating with City Staff and the PM. The equipment criticality ranking developed during the Equipment Maintenance and Reliability Improvement Program (EMRIP) and the asset information contained in the CMMS will serve as an inventory of pump station assets, and their relative criticality. In addition, this task will include limited effort for field visits required to conduct interviews with City Staff, and observe current relevant operations. An allowance of 80 hours is included to visit a very limited number of PSs or CSOTFs. BC will not visit stations scheduled for a major overhaul in Appendix C of the CD. Additionally, meetings with City Staff and PM will be performed as part of the site visit allowance. Budget for additional meetings are not included. Information that will be utilized includes the following:

- Guidelines on format for the Capacity, Management, Operations and Maintenance (CMOM) documents prepared as part of this work
- Previous CMOM report developed for PSs and CSOTFs
- Existing inventory and condition data for the PSs and CSOTFs
- WRD developed PS and CSOTF Inventory Binder
- Information on work being done by others including the Supervisory Control and Data Acquisition (SCADA) study and the generator implementation program
- Most Recent PS and CSOTF Inventory from CityWorks the Computerized Maintenance Management System (CMMS)



- Preventive Maintenance Routines for PSs and CSOTFs from CityWorks the CMMS
- Equipment Criticality Ranking
- Jump Start Equipment Survey developed as part of the EMRIP

This task includes a 20 hour allowance for public relations support. It is assumed that meetings with the PM will be coordinated with site visits to minimize added effort for program management. It is also assumed that while the overall project duration will be 9 months excluding EPA review duration, BC will inactivate the project during this review duration to reduce project management effort.

This scope does not include a comprehensive condition assessment effort for any PSs or CSOTFs. It is assumed that wet wells will not be entered during the site visits. No confined space entry will be performed by BC personnel. It is also assumed that BC personnel will not operate any of the facilities including valves, gates, motors, etc., and that City Staff will be available to ventilate the work space and operate as needed to confirm equipment function.

It is assumed that the inventory will be wholly derived from compiling existing information.

Deliverables

- Project Management Plan which includes a Quality Assurance/Quality Control (QA/QC) Plan
- Field Work Safety Plan
- Monthly Invoices and Status Report
- Prepare, track and maintain project schedule
- Development of Condition Assessment forms.
- An inventory of pump stations and CSOTFs constructed from available data.

Task 2 – Prepare CMOM Documents to Define a PS Operations Program

The PS operations program will consist of two parts: the routine operations, and the emergency PS operations. This task is the development and/or documentation of the operations program with operational information provided for major groupings of facilities: CSOTFs, custom PSs, duplex PSs, and package PSs.

Routine PS Operations

This task consists of the development and/or documenting the current operational activities. The routine PS and CSOTF operations program will consist of:

- Document current procedures for reading and recording information appropriate to each PS and CSOTF including, as applicable, pump run-time meter readings, start counters, amperage readings, checking and resetting conditions, wet well set points, grease accumulations, and any other information that is necessary for the proper operation of each PS and CSOTF
- Document current inspection routes and schedules
- Develop provisions for needs determination
- Document method for establishing priorities for which operational decisions shall be made and scheduled using equipment criticality ranking that is based on likelihood and consequence of failure
- Include standard forms and records to document the execution of routine operations
- Develop and document existing performance measures to identify successful implementation of routine operations
- Document method for managing information



- Develop procedure for rotating lead, lag, and backup pumps or equipment

Emergency PS Operations

The existing Emergency PS Operations component shall be documented to necessitate emergency operations in the event of PS or CSOTF failure. BC will coordinate with the team developing the Emergency Response Plan to prevent duplication of effort and to maintain consistency. This program shall provide guidance to facilitate a timely response to atypical situations in the Interceptor Sewer System through the use of written standard emergency operating procedures for each type of PS and CSOTF and shall include the following:

- Emergency contact information
- Location(s) and type(s) of auxiliary power including portable or fixed emergency generators applicable to each PS and CSOTF
- Guidance for initiating auxiliary power with portable or fixed generators based on information provided by others
- Location(s) of portable pumping equipment
- Guidance for installing portable pumps during high flow
- Applicable contingency plans, as well as known or suspected surface failure points in the collection system (home addresses, manhole asset IDs, etc.) in the event of a failure
- Standard forms, records, and performance measures, and a method for information management
- A summary of planned SCADA upgrades provided by others
- Utilize equipment criticality ranking as a system-wide prioritization of facilities so that repair and operational resources are directed to the most critical areas first

Task 3 – Prepare CMOM Documents to Define a PS Preventive Maintenance Program

This task consists of describing and summarizing the PS Preventive Maintenance Program. The preventive maintenance program will be included as a section for PM's overall binder. The document which will be created will include the following components:

- An electrical maintenance component which shall provide guidance to managers and field personnel responsible for electrical maintenance so that preventive maintenance on PS and CSOTF electrical components are performed on a routine basis. This component shall include meter calibration schedules (by meter type) for meters used to record data collected at or from a PS or CSOTF.
- A mechanical maintenance component that shall provide guidance to managers and field personnel responsible for mechanical maintenance so that that preventive maintenance on PS or CSOTF mechanical components are performed on a routine basis.
- A physical maintenance component that shall provide guidance to managers and field personnel responsible for physical maintenance (pipes, walls, inverts, covers, etc.) so that preventive maintenance on PS or CSOTF physical components is performed on a routine basis.
- A PS and CSOTF repair component that shall serve as a reactive maintenance system to repair PSs and CSOTFs that are currently in a state of disrepair but are still cost-effective to service. This component shall provide for the identification, prioritization, scheduling, and repair of PSs on a timely basis once a PS or critical PS component has deteriorated beyond the scope of the preventive maintenance programs. This component shall include the following:
 - Guidance outlining when a PS, critical PS component or CSOTF is to be placed in the program;
 - A process for identifying a prioritized inventory of PSs and CSOTFs in need of repair;



- A process for documenting an ongoing inventory of completed repairs. No independent field verification of the completed work is included in this scope;
- A work schedule for repairs; and
- Standard forms, records, and performance measures, and a method for information management.

Task 4 – Prepare Final Draft of Programs

This task includes the assembly and QA/QC review of the documents, submittal of the rough draft and final draft versions, and obtaining and incorporating WRD, PM, and Environmental Protection Agency (EPA) comments. Two documents will be submitted as required by the CD:

- PS Operations Program, and
- PS Preventive Maintenance Program

It is understood that these documents will be submitted to the EPA in accordance with the Consent Decree. The submittal and review will be accomplished in a four-step fashion:

- **Rough Draft:** A rough draft of the documents will be submitted for WRD and PM review.
- WRD and PM written comments will be received and reviewed prior to an on-site meeting to discuss. It is assumed that WRD and PM comments will be received within 14 calendar days of receipt of the draft document. One meeting will be held to discuss the rough drafts of the Operations and the Preventive Maintenance Programs. BC has assumed no additional field verification activities will be required and comments do not require substantial changes to the documents.
- **Final Draft:** BC will incorporate the comments and submit final draft documents to WRD and the PM.
- **Final Documents:** WRD and the PM will submit the documents to EPA for review and comment. The extent and nature of EPA comments is beyond the control of the Engineer. WRD, the PM, and BC will review EPA comments when received and agree on measures needed to incorporate EPA comments. BC has assumed that incorporating EPA comments will not require any additional site visits and can be completed within 30 days. BC has budgeted 40 hours as an allowance to incorporate EPA comments. Efforts beyond this allowance will be considered as additional services. Final documents will be provided to WRD and the PM once EPA comments have been incorporated.

Deliverables

- Five Hard Copies and One Electronic Copy of the Rough Draft Operations and Preventive Maintenance Program Documents
- Five Hard Copies and One Electronic Copy of the Final Draft Operations and Preventive Maintenance Program Documents (Incorporating WRD and PM Comments)
- Five Hard Copies and One Electronic Copy of the Final Operations and Preventive Maintenance Program Documents (Incorporating EPA Comments)

Project Assumptions

In addition to allowances and assumptions provided in the text above, we have assumed the following:

- No permits or approvals from local, federal or state regulatory agencies will be required
- No reports or certifications will be required by the EPA or State regulations other than those specifically called out in the Scope of Services above



- CD standards such as Standard Operating Procedures, safety program goals, and formatting requirements for deliverables will be received from the City in a timely manner such that the project schedule will not be impacted
- Draft invoices submitted to the PM will be reviewed and comments returned (if any) within one week of submittal to BC so that submittal to the client and receipt of payment from WRD is not unduly delayed
- This project does not include implementation of the operations and preventive maintenance programs
- Deliverables will not include facility drawings or schematics

2. SUPPLEMENTAL SERVICES

This task will be reserved for any additional scope requested by WRD or the PM during the course of the project. Written authorization from WRD will be required based on an agreed upon scope and fee.

Task 5 – Additional Services

3. REIMBURSABLE EXPENSES

Project specific reimbursable expenses and charges shall include the following:

- Subconsultants
- Travel expenses for BC personnel not residing in Chattanooga to conduct field visits and attend workshops and progress meetings



ATTACHMENT B

Owner: City of Chattanooga, Tennessee

Engineer: **Brown and Caldwell**
Project Number & Name: **W-12-014-101**
Pump Station Operations and Preventive Maintenance Programs for the Waste Resources Division

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, **compensation shall be made based on billing rates and expenses with a not to exceed limit of \$218,125**. Payments shall be made monthly in amounts which are consistent with the amount of engineering services provided, as determined by the Engineer.

Task 1 – Gather Project Information and Project Management	\$95,525
Task 2 - Prepare CMOM Documents to Define a PS Operations Program	\$38,780
Task 3 – Prepare CMOM Documents to Define a PS Preventive Maintenance Program	\$39,190
Task 4 – Prepare Final Draft of Programs	\$24,630

Subtotal **\$198,125**

- 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. The total budget allowance for supplemental services is:

Task 5 – Additional Services	\$20,000.
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Subtotal **\$20,000**

Grand Total **\$218,125**

- 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: **Brown and Caldwell**
Project Number & Name: **W-12-014-101**
**Pump Station Operations and Preventive Maintenance Programs for
the 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 PS 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.



ATTACHMENT D

Owner: Owner of Chattanooga, Tennessee

Engineer: **Brown and Caldwell**

Project Number & Name: **W-12-014-101**

**Pump Station Operations and Preventive Maintenance Programs for
the 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) so 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 maintain 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.

[All necessary items as Supplemental]



ATTACHMENT E

Owner: Owner of Chattanooga, Tennessee

Engineer: **Brown and Caldwell**

Project Number & Name: **W-12-014-101**

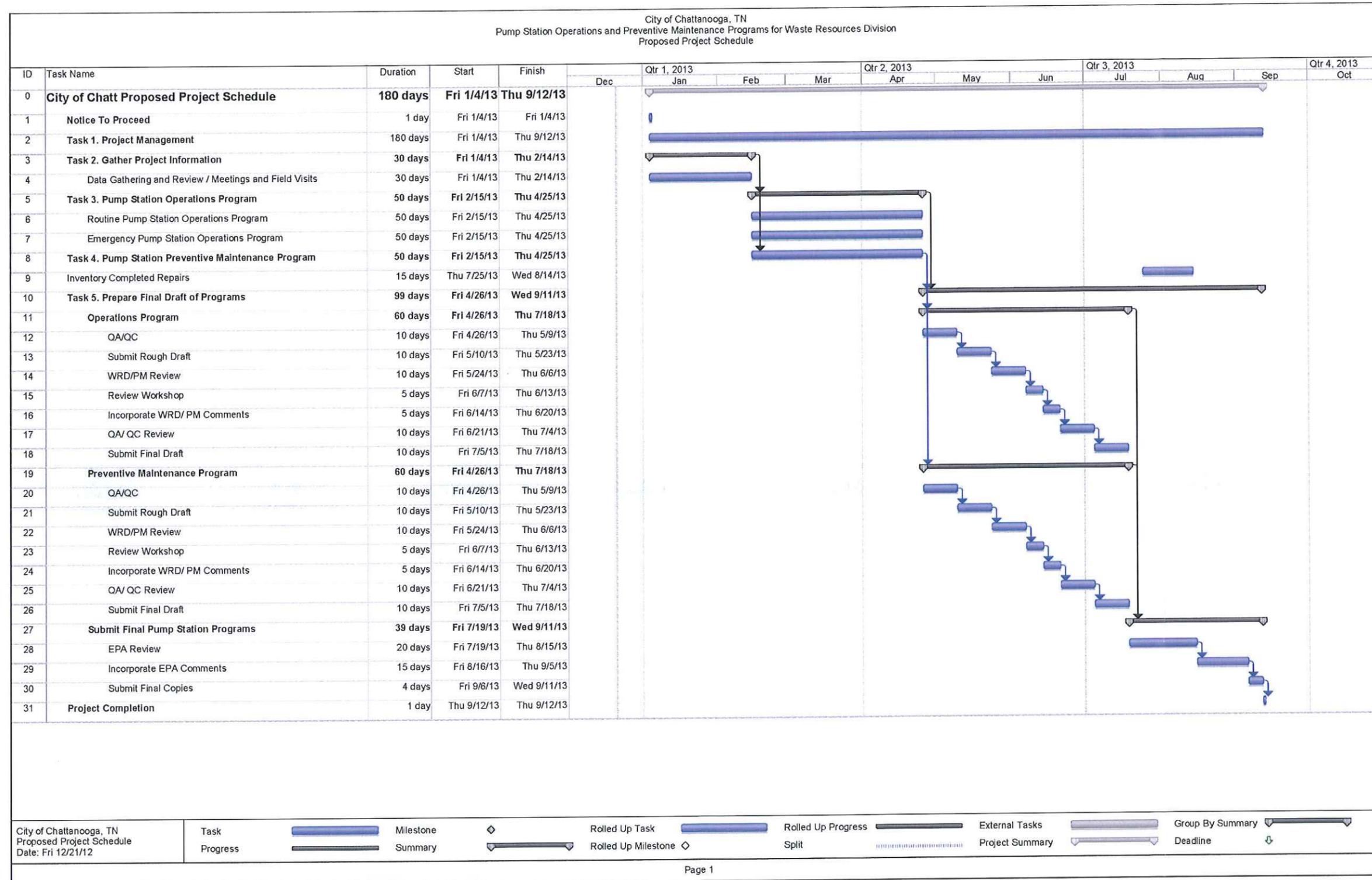
**Pump Station Operations and Preventive Maintenance Programs for
the Waste Resources Division**

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





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ATTACHMENT F

Owner: Owner of Chattanooga, Tennessee

Engineer: Brown and Caldwell
Project Number & Name: W-12-014-101
Pump Station Operations and Preventive Maintenance Programs for
the Waste Resources Division

RATE SCHEDULE



Brown and Caldwell Schedule of Hourly Billing Rates

Level	Engineering	Technical/Scientific	Administrative	Hourly Rate
A			Office/Support Services I	\$55
B	Drafter Trainee	Field Service Technician I	Word Processor I Office/Support Services II	\$60
C	Assistant Drafter	Field Service Technician II	Word Processor II Office/Support Services III	\$65
D	Drafter Engineering Aide Inspection Aide	Field Service Technician III	Accountant I Word Processor III Office/Support Services IV	\$80
E	Engineer I Senior Drafter Senior Illustrator Inspector I	Geologist/Hydrogeologist I Scientist I Senior Field Service Technician	Accountant II Word Processor IV	\$85
F	Engineer II Inspector II Lead Drafter Lead Illustrator	Geologist/Hydrogeologist II Scientist II	Accountant III Area Business Operations Mgr Technical Writer Word Processing Supervisor	\$110
G	Engineer III Inspector III Senior Designer Supervising Drafter Supervising Illustrator	Geologist/Hydrogeologist III Scientist III	Accountant IV Administrative Manager	\$130
H	Senior Engineer Principal Designer Senior Construction Engineer Senior Engineer	Senior Geologist/Hydrogeologist Senior Scientist	Senior Technical Writer	\$145
I	Principal Engineer Principal Construction Engineer Supervising Designer Supervising Engineer	Principal Geologist/Hydrogeologist Principal Scientist	Corp.Contract Administrator	\$165
J	Supervising Constr. Engineer Supervising Engineer	Supervising Scientist Supervising Geologist/Hydrogeologist	Assistant Controller	\$185
K	Managing Engineer	Managing Geologist/Hydrogeologist Managing Scientist	Area Bus Ops Mgr IV	\$200



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L	Chief Engineer Executive Engineer	Chief Scientist Chief Geologist/Hydrogeologist	Corp Marketing Comm. Mgr.	\$205
M	Vice President			\$235
N	Senior Vice President			\$240
O	President/Executive Vice President			\$245
P	Chief Executive Officer			\$250

Other Direct Costs		
Identification	Unit	Rate
Personal Automobiles	Mile	\$55*
Subcontractors		Cost plus 10%
Other Outside Services		Cost plus 10%
Rental Equipment, and Direct Project Expenses		10%

Effective January 1 through December 31, 2013
Hourly billing rates for professional labor are revised annually to reflect actual change in pay rates.

*Mileage Rate will be adjusted to federal mileage reimbursement rate during time of travel.



ATTACHMENT G

STANDARD INVOICE

Indicates MANDATORY Item

CONSULTANT LETTERHEAD

INVOICE

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

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

Must be Sequential Number

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	Work	Percent	Amount	Previous	This
		Fee Basis		to Date	Billed	Billed	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.