

MEMORANDUM

August 29, 2013

TO: Board of Mayor and Aldermen

FROM: Eric Stuckey, City Administrator
David Parker, City Engineer/CIP Executive
Paul Holzen, Director of Engineering
Ben Worley, Right of Way Agent/Project Manager

SUBJECT: Consideration of Amendment No. 4 to the Professional Services Agreement (PSA) with CDM Smith (COF Contract No. 2011-0037) for the Jackson Lake Dredging Improvements Project in an Amount Not to Exceed \$26,600.

Purpose

The purpose of this memorandum is to bring forward to the Board of Mayor and Aldermen (BOMA) a proposal from CDM Smith for a Bathymetric Survey and construction closeout of the Jackson Lake Dredging Improvements Project.

Background

BOMA approved the PSA for the above referenced project with CDM Smith on March 22, 2011 in an amount of \$63,000 to perform construction administration services. Amendment number 1, in the amount of \$15,500, was approved on April 24, 2012 due to the extended length of the construction Project. Amendment number 1 also included an operational review of the project to be performed by an independent dredging expert to evaluate the project progress and claims made by the contractor. Amendment number 2 in the amount of \$5,000 was approved on September 11, 2012. Amendment No. 2 was to allow for additional general services by CDM Smith to assist the City of Franklin as needed due to the extended length of the construction project. The scope of services included attending progress meetings, reviewing final bathymetric survey, and contract closeout. Amendment number 3, in the amount of \$12,500, was approved on June 25, 2013 to allow for a bathymetric survey to be performed as well as close out construction. The scope of services includes performing final bathymetric survey to ensure accuracy of contractor's survey and contract closeout.

Amendment No. 4 is a result of a major discrepancy between the Contractors survey and the City's final bathymetric survey that was completed in June of 2013. City staff has asked CDM Smith to provide an additional scope of services to coordinate a third-party geotechnical analysis of the sediment remaining in the on-site geotubes, as well as the supporting calculations, to determine the ultimate sediment removal from the lake.

Financial Impact

Amendment No. 4 to the Professional Services Agreement with CDM Smith (COF Contract No. 2011-0037) at a not-to-exceed cost of \$26,600. The New Contract total becomes \$122,600.

Recommendation



HISTORIC
FRANKLIN
TENNESSEE

MEMORANDUM

After review of the proposal from CDM Smith, staff recommends approval of Amendment No. 4 to the PSA with CDM Smith (COF Contract No. 2011-0037) in an amount not-to-exceed \$26,600.00.

**AMENDMENT NO. 4 TO
PROFESSIONAL SERVICES AGREEMENT
FOR JACKSON LAKE DREDGING IMPROVEMENTS
COF Contract No. 2011-0037**

THIS AMENDMENT is made and entered into on this the ____ day of _____, 2013, by and between the **City of Franklin, Tennessee** ("City") and **CDM Smith** ("Consultant").

WITNESSETH:

WHEREAS, the City and the Consultant entered into a Professional Services Agreement ("Agreement") entitled Jackson Lake Dredging Improvements (COF Contract No 2011-0037) ("Project"), dated the 22nd day of March, 2011; and

WHEREAS, said agreement stipulated that the Consultant would be paid a not to exceed fee of Sixty Three Thousand and No/100 Dollars (\$63,000.00) for CA services and assumed a 240 calendar days construction project; and

WHEREAS, the BOMA approved Amendment No 1 on April 24, 2012, in the not to exceed total amount of Fifteen Thousand and Five Hundred and No/100 Dollars (\$15,500.00) due to the extended length of the construction project; and

WHEREAS, the BOMA approved Amendment No 2 on September 11, 2012, in the not to exceed total amount of Five Thousand and No/100 Dollars (\$5,000.00) due to the extended length of the construction project; and

WHEREAS, the BOMA approved Amendment No 3 on June 25, 2012, in the not to exceed total amount of Twelve Thousand Five Hundred and No/100 Dollars (\$12,500.00) due to the extended length of the construction project and to conduct a final bathometric survey; and

WHEREAS, the City has negotiated with the Consultant an additional fee for on-going general services during construction as described in Attachment A in an amount not to exceed Twenty Six Thousand Six Hundred and No/100 Dollars (\$26,600.00) for a third-party geotechnical analysis of the on-site geotubes to determine the ultimate sediment removal from the lake.

NOW, THEREFORE, in consideration of these premises and the mutual promises contained herein, it is agreed by and between the parties as follows:

1. The foregoing recitals are incorporated by reference as if fully stated herein.
2. Consultant's Responsibilities and Duties. Consultant agrees to perform Operational Review and On-going General Services as provided for in Exhibit A, and the Professional Services Agreement Approved by BOMA dated March 22, 2011.
3. City's Responsibilities and Duties. City shall pay Consultant in an amount not to exceed **Twenty Six Thousand Six Hundred and No/100 Dollars (\$26,600.00)** as described in Attachment A under Compensation for the work under this agreement.
4. Waiver. Neither party's failure nor delay to exercise any of its rights or powers under this Amendment will constitute or be deemed a waiver or forfeiture of those rights or powers. For a waiver of a right or power to be effective, it must be in writing signed by the waiving party. An effective waiver of a right or power shall not be construed as either (a) a future or continuing waiver of that same right or power, or (b) the waiver of any other right or power.
5. Severability. If any term or provision of the Amendment is held to be illegal or unenforceable, the validity or enforceability of the remainder of the Amendment will not be affected.
6. Precedence. In the event of conflict between this Amendment and the provisions of the previous Agreement(s), or any other contract, agreement or other document to which this Amendment may accompany or incorporate by reference, the provisions of this Amendment will, to the extent of such conflict (or to the extent the Agreement is silent), take precedence unless such document expressly states that it is amending this Amendment.
7. Entire Agreement. The Amendment between the parties supersedes any prior or contemporaneous communications, representations or agreements between the parties, whether oral or written, regarding the subject matter of the entire Amendment. The terms and conditions of this Amendment may not be changed except by an amendment expressly referencing this Amendment by section number and signed by an authorized representative of each party.
8. Additions/Modifications. If seeking any addition or modification to the Amendment, the parties agree to reference the specific paragraph number sought to be changed on any future document or purchase order issued in furtherance of the Amendment, however, an omission of the reference to same shall not affect its applicability. In no event shall either party be bound by any terms contained in any purchase order, acknowledgement, or other writings unless: (a) such purchase order, acknowledgement, or other writings specifically refer to the

Amendment or to the specific clause they are intended to modify; (b) clearly indicate the intention of both parties to override and modify the Amendment; and (c) such purchase order, acknowledgement, or other writings are signed, with specific material clauses separately initialed, by authorized representatives of both parties.

9. Breach. Upon deliberate breach of the Amendment by either party, the non-breaching party shall be entitled to terminate the Amendment without notice, with all of the remedies it would have in the event of termination, and may also have such other remedies as it may be entitled to in law or in equity.

10. Survival. This Amendment shall survive the completion of or any termination of the original contract, revised contract, or agreement or other document to which it may accompany or incorporate by reference.

All other provisions of the Agreement dated March 22, 2011, Amendment No 1 dated April 24, 2012, Amendment No 2 dated September 11, 2012 and Amendment No 3 dated June 25, 2013 are unchanged and remain in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment.

CITY OF FRANKLIN, TENNESSEE

CDM Smith

By: _____
Dr. Ken Moore
Mayor
Date: _____

By: _____
Print: _____
Title: _____
Date: _____

Attest:

Eric S. Stuckey
City Administrator
Date: _____

Approved as to form:

Shauna R. Billingsley, City Attorney



Six Corporate Centre
830 Crescent Centre Drive, Suite 400
Franklin, Tennessee 37067
tel: 615 807-7800
fax: 617 452-8000

Attachment A
COF 2011-0037
Amendment 4
PG 1 of 4

August 23, 2013

Mr. Paul Holzen, P.E.
City of Franklin
Engineering Department
City Hall
109 3rd Avenue South
Franklin, TN 37064

Subject: Jackson Lake Dredging Improvements
Letter Amendment - Determination of Sediment Removal

Dear Paul:

CDM Smith, Inc. (CDM Smith) is pleased to submit this proposed amendment to perform the necessary analysis to determine the sediment removal from Jackson Lake.

Background

The City of Franklin authorized CDM Smith to provide engineering services and limited construction services relating to the design and execution of a dredging and dewatering operation at the Jackson Lake subdivision off Mallory Station Road. The project includes hydraulic dredging of sediments in Jackson Lake, dewatering of the sediments using an adjacent property, and disposal of dry sediment. In support of these activities, the City of Franklin has asked CDM Smith to provide an additional scope of services to coordinate a third-party geotechnical analysis of the sediment remaining in the on-site geotubes as well as the supporting calculations to determine the ultimate sediment removal from the lake.

Scope of Services

CDM Smith proposes the following tasks required to perform the engineering evaluation of the sediment removal from Jackson Lake.

Task 1: Project Coordination

CDM Smith will perform standard project management/coordination for this project. Coordination will include procurement of a qualified, geotechnical firm to perform the required geotechnical investigations as well as management/oversight of the work performed in the field. Other project coordination includes communications with City staff for kickoff meetings, scheduling and invoicing.



Paul Holzen, P.E.
August 23 2013

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Task 2: Determination of Volume of Dewatered Material

CDM Smith will review the survey information provided by Century Construction on August 14, 2013 and conduct a site investigation to determine the height of each geotube (13) at the dewatering site. The height will be checked at several locations across the bag and averaged for the entire bag. The average height of the bag will be used to import into a spreadsheet model or similar to determine the volume of dewatered material in each of the 13 geotubes. In addition, CDM Smith will capture the volume of material that was mechanically removed from Jackson Lake and stored in a pile at the dewatering site. This sum of these two figures will represent the total volume of dewatered material from Jackson Lake.

Task 3: Geotechnical Investigation

CDM Smith will solicit the services of a local geotechnical engineering firm to perform an evaluation of the soil properties of the dewatered material in the geotubes and the sediment pile. As per the recommendation of experts in the dredging field, CDM Smith will direct the geotechnical firm to capture 8 soil samples for each 200 foot long geotube (6 tubes x 8 samples = 48 samples) and 4 soil samples for every 100 foot long geotube (7 tubes x 4 samples = 28 samples) in order to gather a statistically significant sample of measurements for each tube (76 total samples). The measurements will be captured using a split spoon tube to minimize soil disturbance. Lab analysis will be performed on each sample to determine, at a minimum, the specific gravity and percent solids. The samples for each tube will be averaged to determine the average specific gravity and average percent solids in each tube. Four soil samples will also be required to determine the same soil parameters for the stockpile of dewatered material onsite, bringing the total to 80 samples.

Task 4: Engineering Evaluation

CDM Smith will compile the information from Task 2 and 3 to perform the necessary calculations in order to determine the percent of shrinkage from the in-situ material and the dewatered material. These calculations will allow CDM Smith to provide the City with an estimate of the amount of in-situ material removed from Jackson Lake. CDM Smith will document the procedures and methods from Task 2-4 in a technical memorandum, including a comparison of this method of calculating the in-situ material with other previous survey results. CDM Smith will solicit the services of a dredging expert to review and confirm the results of the evaluation.

Schedule

Task 2 will be completed within 10 business days of the notice to proceed. The geotechnical investigation in Task 3 will be completed within four-weeks of the notice to proceed. Upon



Paul Holzen, P.E.
August 23 2013

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receipt of the labwork from Task 3, CDM Smith will complete the Engineering Evaluation in Task 4 within 10 business days.

Compensation

The level of effort and associated costs for each task are summarized in the table below. A breakdown of cost per tasks is included as an attachment for additional information.

Tasks	Description	Cost
1	Project Coordination	\$1,500
2	Determine Volume of Dewatered Material	\$1,900
3	Geotechnical Investigation (subconsultant fee)	\$18,400
4	Engineering Evaluation	\$4,800
Not-To-Exceed Total Cost		\$26,600

The project will be billed on a per hour basis for the tasks completed with a total not-to-exceed upper limit of \$26,600. This includes a cost of \$18,400 for the geotechnical investigation and associated labwork (see attached estimate). Billing will be performed monthly.

On behalf of the entire CDM Smith team, I want to express our appreciation for the opportunity to continue working with the City of Franklin on this important construction project. If you have any questions about this proposal, or any aspect of the on-going project, please do not hesitate to contact Dave Mason (615) 807-7815 or myself at (615) 320-3161.

Sincerely,

Zack A. Daniel, P.E.
Client Service Manager
CDM Smith, Inc.

CC: Ben Worley (City of Franklin)
Caleb Sanders (CDM Smith)

GEOTEK

Geotek Engineering Company, Inc. • 2909 Elizabeth Street • Nashville, Tennessee 37211-2302
(615) 833-3800 • Fax (615) 833-4097

Attachment A
COF 2011-0037
Amendment 4
PG 4 of 4

MEMORANDUM

TO: Caleb Sanders / CDM Smith
FROM: Rami Mishu, P.E.
DATE: August 23, 2013
SUBJ: Geo-tube Sampling, Jackson Lane, Franklin, Tennessee

COST PROPOSAL

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Cost</u>	<u>Sub-Total Amount</u>
Mobilization	1	\$ 800.00/ea	\$ 800.00
Drill Crew & Equipment	3 days	2,200.00/day	6,600.00
Geologist	3 days	1,000.00/day	3,000.00
Disposable Sample Liners	80	20.00/ea	1,600.00
Specific Gravity	80	40.00/ea	3,200.00
Natural Moisture Content	80	10.00/ea	800.00
Unit Weight	80	10.00/ea	800.00
Lab Manager	5 hrs	80.00/hr	400.00
Support Staff	5 hrs	60.00/hr	300.00
Project Manager	6 hrs	150.00/hr	900.00

ESTIMATED GRAND TOTAL COST = \$18,400.00