City of Birmingham
A Walkable Community

MEMORANDUM

Engineering Dept.

DATE: **August 14, 2014**

TO: **Joseph A. Valentine, City Manager**

FROM: **Paul T. O'Meara, City Engineer**

SUBJECT: **Quarton Lake Dredging Project**
Contract #12-12(M)
2014 Plan

In 2012, the City constructed the permanent drying bed area for routine Quarton Lake dredging efforts. The drying bed is located on the north side of Oak St., between Lakepark Dr. and the Rouge River. Also that year, the Engineering Dept. bid out a 5 year annual maintenance contract to have a manageable amount (about 500 cu.yds.) of material dredged each year for a five year period, for an annual cost of about $55,000 (with increases available for inflation).

In 2013, the first round of dredging was conducted. We were very pleased with the results; particularly the lack of disruption the effort caused on the park and its surrounding residents. The northernmost part of the lake was dredged. It is the area of the lake that the river first meets, and where sedimentation will always be most prevalent. By conducting the work in August and September, the drying bed worked efficiently, and the small amount of materials were hauled out in about two work days in September of last year. Since then, the drying bed area has been seeded and been dormant.

Earlier this summer, we requested Hubbell, Roth, & Clark (HRC) to conduct a survey of the lake bottom to determine what the current status of the north end of the lake is. While sedimentation is starting again on the north end, the amount that could be removed in this area presently is minimal. Sedimentation also exists directly downstream (south) of the area that was dredged last year (the area primarily to the west of the fishing pier). As a result, it is recommended that the work begin where it was stopped last year, and work south in the area of the pier until 500 cu. yds. is again retrieved.

Our annual maintenance contractor, Restoration Dredging, is prepared to start work immediately on the 2014 program. They have arranged for a dredge to be shipped to the lake and begin work immediately upon authorization by the City Commission. The value of this year's work is estimated at $51,810.50, and will be charged to account number 101-751.0000-935.0000.

SUGGESTED RESOLUTION

To authorize funding for the 2014 dredging work planned as a part of the Quarton Lake Annual Maintenance Dredging Project, 2013-2017, to Restoration Dredging, Inc., of Bloomfield Hills, MI, in the amount of $51,810.50, charged to account number 101-751.0000-935.0000.

AUTHORIZATION FOR CONTRACT WORK
WORK ORDER NO. 1
CITY OF BIRMINGHAM
HRC Job No. 20140368

OWNER:
City of Birmingham
151 Martin Street
P.O. Box 3001
Birmingham, MI 48012

CONTRACTOR:
Restoration Dredging
837 Foxhall Road
Bloomfield Hills, MI 48304

Work Order No. 1 - 2014 **Date:** August 15, 2014

No.	Item	Estimated Quantities		Unit Price	Work Order Amount
1.	Mobilization	1	LS	$ 2,654.00	$ 2,654.00
2.	Annual Color Audiovideo Route	0	LS	$ 1,799.00	$ -
3.	Traffic Maintenance and Control	1	LS	$ 2,194.00	$ 2,194.00
4.	Street Sweeping	1	LS	$ 634.00	$ 634.00
5.	Silt Fence	180	LF	$ 1.35	$ 243.00
6.	Snow Fence (As Needed)	150	LF	$ 0.36	$ 54.00
7.	Geotextile Catch Basin Inserts	2	EA	$ 123.00	$ 246.00
8.	Floating Turbidity Curtain	200	LF	$ 0.27	$ 54.00
9.	Runoff Control Structure	1	LS	$ 585.00	$ 585.00
10.	Geotextile Filter Bags	1	LS	$ 5,641.00	$ 5,641.00
11.	Area 1 Sediment Removal	500	CY	$ 9.96	$ 4,980.00
12.	Area 2 Sediment Removal, Additional Costs	1	LS	$ 1,585.00	$ 1,585.00
13.	Area 2 Additional Distances From Pier (500 ft Inc)	0	EA	$ 1,585.00	$ -
14.	Area 3 Sediment Removal, Additional Costs	0	LS	$ -	$ -
15.	Sediment Disposal - Landfill	250	CY	$ 46.71	$ 11,677.50
16.	Staging Area Preparation	1	LS	$ 18,520.00	$ 18,520.00
17.	Site Restoration	1	LS	$ 2,743.00	$ 2,743.00
				WORK ORDER TOTAL	$ 51,810.50

Recommended by: James F Bunte **Date:** August 15, 2014
(Hubbell, Roth & Clark, Inc.)

Accepted by:_____ **Date:** _____
(CONTRACTOR)

City of Birmingham
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MEMORANDUM

ENGINEERING DEPARTMENT

DATE: **October 8, 2012**

TO: **Robert J. Bruner, Jr., City Manager**

FROM: **Brendan Cousino, Assistant City Engineer**

SUBJECT: **Quarton Lake Annual Maintenance Dredging Project, 2013-2017**
Contract #12-12(M)
Contract Award

On September 17, 2012, the Engineering Department opened bids on the above referenced project. Attached are the bid results.

Two companies submitted a bid for this project. The low bidder was Restoration Dredging, Inc. of Bloomfield Hills, MI, with their bid of $55,194.50. Restoration Dredging was hired by the City on the 2002 Quarton Lake dredging project, as well as a private streambank restoration project within the City in 2010. We are confident that they are qualified to perform satisfactorily on this contract. The engineer's estimate for this project was $60,000. The second bidder on the project was Inland Lakes Landscaping of Pontiac, MI with a bid of $59,768.00.

Contract #12-12(M) represents the second part of a two part process to begin an annual dredging routine for Quarton Lake. In August the City awarded a contract to D & E Landscaping and Grading to construct a drying bed area located on the north side of Oak St., between Lakepark Dr. and the river. A copy of the staff report on that project is attached, along with a drawing of the drying bed area for your reference. Construction work on the drying bed has started, and it is expected to be completed by the end of October. The drying bed will be accessed by a concrete drive from Oak St. This area will also be screened by extending an existing split rail fence along the Oak St. frontage, and supplementing existing trees with several new evergreens. The drying bed area will be used by the dredging contractor to place the dredged sediment from the lake in geotextile tubes, allow them to dry, and then load the sediment onto trucks and haul offsite for disposal.

Assuming this contract is awarded, our proposed timetable is as follows:

1. October, 2012 – Finish construction work on the drying bed area, allowing the grass to begin to be established prior to winter weather. Install all fencing and landscaping as planned.
2. Spring, 2013 – The new drying bed area will be maintained as it is today, as public park land.
3. July or August, 2013 – The dredging contractor would arrive on site, install plastic sheeting over the reinforced grass pavers, setting up two 30 foot by 60 foot sedimentation bags. A small dredge would be operated on the river and the mouth of the lake, removing an estimated 500 cubic yards of material (as needed).

4. August and September, 2013 – The sediment bags would dry in the hot, summer weather in a relatively short time.
5. September or October, 2013 – The dredging contractor would begin removing the sediment. An excavator would be set up at the west edge of the reinforced grass area, and trucks would be backed up into the loading area, using the new concrete driveway. Once all material is hauled away, the contractor would remove any remaining debris, and install a newly seeded lawn in the damaged area, allowing it to be at least partially stabilized again prior to winter.

The above dredging process will repeat itself each year for the next four years with annual approval by the City Commission.

The bid price for this work is for one year only, and the money for the subsequent years' dredging will be requested in the City's budget on an annual basis. Each year the amount of the contract will need to be approved by the City Commission before the dredging work commences. The contract on this project will allow the City to decide to not proceed with the dredging work in any of the following years (2014-2017) without additional costs. The contract does allow for an adjustment in the unit prices for the following years (2014-2017) based on the rate of inflation. The unit prices for geotextile dewatering bags and hauling the sediment away may be adjusted annually based on the actual cost of the bags from suppliers, and by a portion of the gasoline price as reported by AAA Michigan, since both of those work items are dependent upon potentially volatile oil prices.

The Engineering Dept. recommends the award of the Quarton Lake Annual Maintenance Dredging Project, 2013-2017, Contract #12-12(M), to Restoration Dredging, Inc., of Bloomfield Hills, MI, at a cost of $55,194.50. Funds for this work are budgeted under parks maintenance for the current fiscal year.

SUGGESTED RESOLUTION:

To award Contract #12-12(M), Quarton Lake Annual Maintenance Dredging Project, 2013-2017, to Restoration Dredging, Inc., of Bloomfield Hills, MI, in the amount of $55,194.50, charged to account number 101-751.0000-935.0000.

CITY OF BIRMINGHAM

QUARTON LAKE ANNUAL MAINTENANCE DREDGING PROJECT
CONTRACT #12-12(M)

BID SUMMARY

September 17, 2012 - 2:00 PM

Company Name	Addendum No. 1	5% Bid Security	Bid
RESTORATION DREDGING, INC	X	X	$55,194.50 *
INLAND LAKES LANDSCAPING	X	X	$59,768.00
* Note: Math Error Corrected by Engineering Dept.			