

TO: GENERAL COMMITTEE

SUBJECT: ADDITIONAL FUNDING FOR CONCRETE REHABILITATION PROJECT AT THE WASTEWATER TREATMENT FACILITY

WARD: ALL

PREPARED BY AND KEY CONTACT: W. REID, P. ENG. *W.R. RE.*
PROJECT ENGINEER - ENVIRONMENTAL (Ext. 5116)

SUBMITTED BY: J. WESTON, M.A.SC., P. ENG., PMP *JM Weston*
DIRECTOR OF ENGINEERING

GENERAL MANAGER APPROVAL: S. NAYLOR, M.E.S., M.C.I.P., R.P.P. *S. Naylor*
GENERAL MANAGER OF INFRASTRUCTURE & GROWTH MANAGEMENT

CHIEF ADMINISTRATIVE OFFICER APPROVAL: C. LADD *C. Ladd*
CHIEF ADMINISTRATIVE OFFICER

RECOMMENDED MOTION

1. That additional funding be provided for the Concrete Rehabilitation Project at the Wastewater Treatment Facility in the amount of \$475,000.00 to be funded from the Wastewater Capital Reserve Fund (12-05-0575).

PURPOSE & BACKGROUND

2. The purpose of this staff report is to seek additional funding in order to award Contract 2014-002T and proceed with the construction phase of this project.
3. The Capital Project Financial Control Policy, requires that funding requirements that exceed the lesser of 10% of the capital projects approved budget or \$250,000 require Council approval.
4. The project consists of cleaning and repair of the concrete surfaces within reactors, troughs and channels at the Wastewater Treatment Facility. The work involves sand blasting for surface cleaning, shotcreting, cementitious waterproofing, chemical resistant coating, embedded reinforced fabric as well as crack repair in process areas known as Aerobic Reactors, Filter Tanks 1 and 2, and Secondary Clarifier 4. This project also involves the replacement of 9 effluent slide gates in UNOX Tanks 1, 2, and 3. Refer to Appendix A for a copy of the siteplan.
5. This project was originally tendered as Contract 2013-077T. The tender closed June 25, 2013 with five (5) bids. However, the low bid of \$1,615,000.00 was significantly over the project budget and the City decided to not award Contract 2013-077T. The project was retendered as Contract 2014-002T with minor scope changes, clearer contract drawings, and also permitted bidders to enter inside one representative process tank for visual inspection which was not previously available for viewing.
6. Tenders for Contract 2014-002T closed on February 25, 2014. Three bids were received and opened on February 25, 2014 at 2:15 p.m. The submitted bids (excluding HST) are:
 - a) BGL Contractors Corp. \$1,494,000.00
 - b) Atlantic Underground Services Ltd. \$1,527,550.00
 - c) XTERRA Construction Inc. \$2,391,084.00

7. All the bids were reviewed and were found to be in good order.
8. The Engineer's Estimate for the work in the tender was \$1,250,000.00.
9. The Engineer's estimate is based on data from the Engineer's own database, RSMeans, vendor and contractor quotations, and the experience of the Engineer's own cost estimators.

ANALYSIS

10. BGL Contractors Corporation is a well known contractor in the general contracting industry and has the resources and experience necessary to complete the work, as they have completed similar projects for other municipalities.
11. The works tendered under Contract 2014-002T are spread over several process areas. As the Wastewater Treatment Facility is an operating facility, it was not possible to allow prospective bidders to enter and inspect each work area. Review of all work locations would have incurred a plant shut down or bypassing of certain process areas which would lead to a significant increase in project costs and possibly impact negatively the effluent limits of the treatment plant.
12. Although the Engineer's estimate was derived using standard estimating practices, it is apparent that current market conditions, and the inability for the bidders to review each work location, resulted in higher than expected pricing.
13. The contract completion date is set such that the Contractor could optimally perform all construction by November 15, 2014.
14. The concrete tanks identified in this project are deteriorating and the recommended repair work is required to eliminate any further deterioration of the concrete and reinforcing bars. Delays to remedial work would lead to an escalation of future repair costs, and possibly a smaller pool of prospective bidders.

ENVIRONMENTAL MATTERS

15. The Wastewater Treatment Facility treats municipal sewage effectively, to ensure the health of Lake Simcoe. Ongoing rehabilitation of infrastructure is required to ensure that the Wastewater Treatment Facility continues to operate effectively.

ALTERNATIVES

16. There is one Alternative available for consideration by General Committee:

Alternative #1

General Committee could choose to not provide additional funding, at this time, and consider additional funding under the next budget cycle.

This alternative is not recommended. If funding were approved for 2015 construction, this would require re-tendering, with the potential of higher pricing in the future. Furthermore this is the second time the work has been tendered and when it was tendered in 2013 the low bid was \$1,615,000.00. If the concrete is left as is further structural deterioration would be experienced.

FINANCIAL

17. Additional funding of \$475,000.00 is required to complete the project. The project is needed because the concrete infrastructure at the wastewater treatment facility requires rehabilitation to ensure the plant continues to operate effectively. This is the second time the project has been tendered and postponing the work to another year may result in higher costs.
18. The additional funding of \$475,000 will be funded from the Wastewater Capital Reserve Fund (12-05-0575). The projected year-end balance in the Wastewater Capital Reserve Fund is a deficit of \$16.8M; however, there are no other eligible funding sources for the work. The strategy to address the deficit in the Wastewater Capital Reserve Fund is to gradually increase the wastewater rate over time.
19. The projected total project cost for Contract 2014-002T, excluding HST, based on the low tender is \$1,725,000.00. This includes construction, staff costs, contract administration, site inspection, material testing, and contingencies as shown in the following table.

PROJECT COSTS - CONTRACT 2014-002T	
Description	Amount
Total Concrete Rehab Works (Div 1 -16)	\$1,234,250.00
Schedule Of Additional Items/Contingency	\$259,750.00
Total Construction	\$1,494,000.00
Staff Costs	\$50,000.00
Construction Administration & Inspection	\$87,000.00
Material Testing	\$50,000.00
Project Contingency	\$44,000.00
TOTAL PROJECT COST	\$1,725,000.00

20. The following table shows the current funding details available as per the approved plan, as well as proposed funding adjustment.

CAPITAL BUDGET FUNDING

Component	Aerobic Reactors	Filter Tanks 1 & 2	Secondary Clarifier 4	UNOX Gates	TOTAL
	14-16-2515-1439	14-16-2515-1441	14-16-2515-1442	14-16-2515-1447	
Sewer Rate	\$600,000	\$300,000	\$250,000	\$100,000	\$1,250,000
TOTAL	\$600,000	\$300,000	\$250,000	\$100,000	\$1,250,000

PROPOSED FUNDING

Component	Aerobic Reactors	Filter Tanks 1 & 2	Secondary Clarifier 4	UNOX Gates	TOTAL
	14-16-2515-1439	14-16-2515-1441	14-16-2515-1442	14-16-2515-1447	
Sewer Rate	\$800,000	\$375,000	\$350,000	\$200,000	\$1,725,000
TOTAL	\$800,000	\$375,000	\$350,000	\$200,000	\$1,725,000

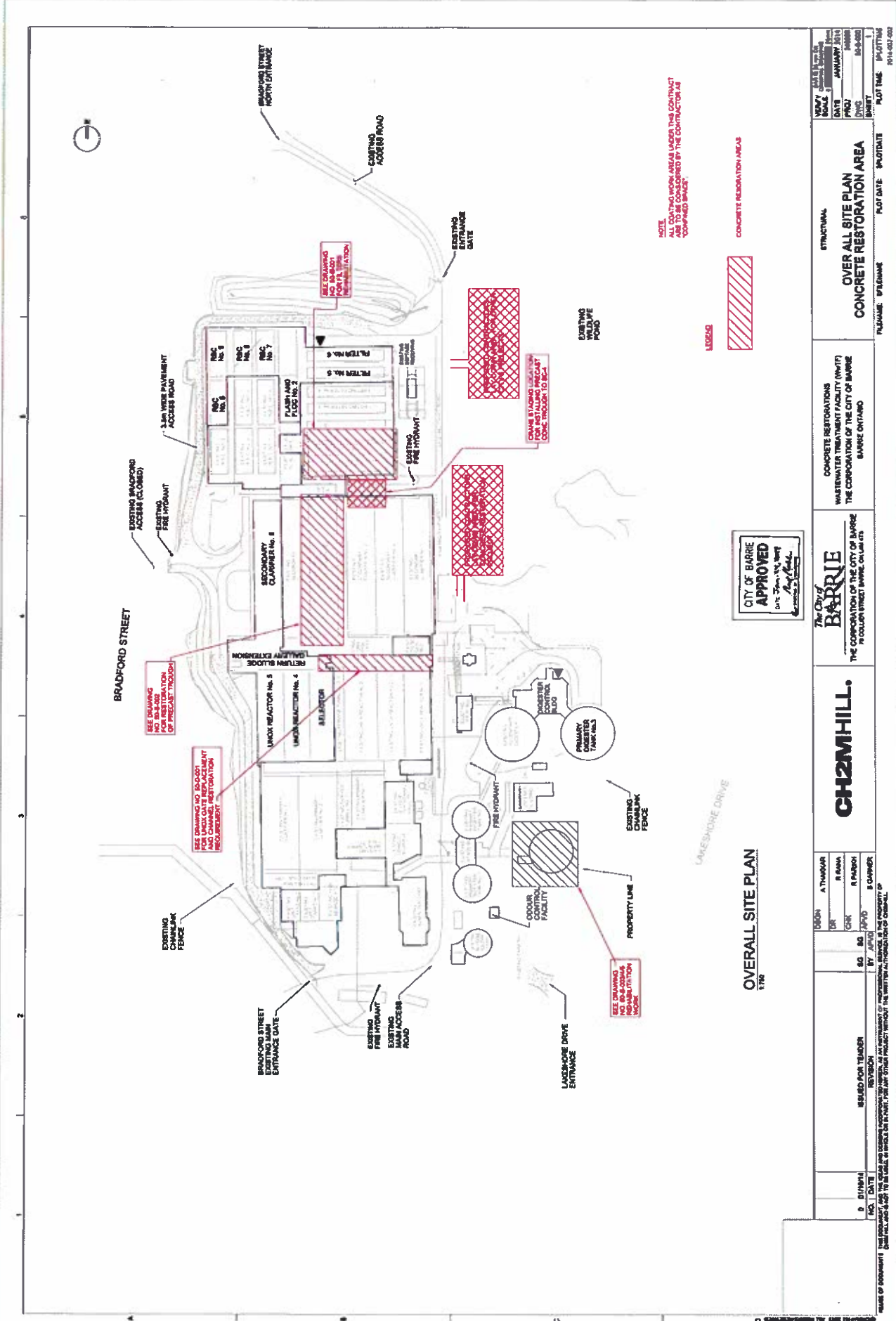
FUNDING ADJUSTMENT

Component	Aerobic Reactors	Filter Tanks 1 & 2	Secondary Clarifier 4	UNOX Gates	TOTAL
	14-16-2515-1439	14-16-2515-1441	14-16-2515-1442	14-16-2515-1447	
Sewer Rate	\$200,000	\$75,000	\$100,000	\$100,000	\$475,000
TOTAL	\$200,000	\$75,000	\$100,000	\$100,000	\$475,000

LINKAGE TO 2010 – 2014 COUNCIL STRATEGIC PLAN

21. The recommendation included in this Staff Report support the following goals identified in the 2010-2014 City Council Strategic Plan:
 - Manage Growth and Protect the Environment
22. The recommendation is part of a larger Infrastructure Renewal Program to prioritize rehabilitation and repair of roads, pipes, and other City assets.

APPENDIX "A"
Contract 2014-002T - Overall Site Plan Concrete Restoration Area



NOTE
 ALL CONCRETE WORK AREAS UNDER THIS CONTRACT TO BE COMPLETED BY THE CONTRACTOR AT THE COMMENCEMENT OF CONSTRUCTION.



NO. 1	DATE	BY	FOR
1	JANUARY 2014	...	...
2	JANUARY 2014	...	...
3	JANUARY 2014	...	...
4	JANUARY 2014	...	...
5	JANUARY 2014	...	...
6	JANUARY 2014	...	...
7	JANUARY 2014	...	...
8	JANUARY 2014	...	...
9	JANUARY 2014	...	...
10	JANUARY 2014	...	...

STRUCTURAL
COVER ALL SITE PLAN
CONCRETE RESTORATION AREA

CONCRETE RESTORATIONS
 WATER TREATMENT FACILITY (WWT)
 THE CORPORATION OF THE CITY OF BARRIE
 BARRIE ONTARIO

CH2MHILL
 The City of BARRIE
 THE CORPORATION OF THE CITY OF BARRIE
 75 COLLEEN STREET BARRIE, ONTARIO

OVERALL SITE PLAN
 1/14/14

DESIGN	A. THAMMAR
DR	R. BARRA
CHK	R. BARRA
APP	S. GARDNER
NO.	2014-002T
BY	...
DATE	...

ISSUED FOR TENDER
 THIS DRAWING IS THE PROPERTY OF CH2MHILL. IT IS TO BE USED ONLY FOR THE PROJECT AND NOT FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CH2MHILL.

DATE OF DOCUMENT: 1/14/14
 DRAWN BY: A. THAMMAR
 CHECKED BY: R. BARRA
 DATE: 1/14/14