

**AMENDMENT NUMBER 1 TO
AGREEMENT FOR PROFESSIONAL SERVICES
BETWEEN
NTH CONSULTANTS, LTD.
AND
THE CITY OF ANN ARBOR**

The City of Ann Arbor, a Michigan municipal corporation, with offices at 301 E. Huron St. Ann Arbor, Michigan 48107-8647 ("City") and NTH Consultants, Ltd. having its offices at 41780 Six Mile Road, Northville, MI 48168 ("Contractor") agree to amend the professional services agreement for the project Barton Dam Piezometer Installation and Slope Stability Analysis executed by the parties dated as follows:

- 1) Article III, SERVICES, is amended to read as follows:
 - A. The Contractor agrees to provide Professional Geotechnical Engineering Services type of service ("Services") in connection with the Project as described in Exhibit A, and as amended for additional tasks by Amendment Number 1 (Exhibit A-1). The City retains the right to make changes to the quantities of service within the general scope of the Agreement at any time by a written order. If the changes add to or deduct from the extent of the services, the contract sum shall be adjusted accordingly. All such changes shall be executed under the conditions of the original Agreement.
 - B. Quality of Services under this Agreement shall be of the level of quality performed by persons regularly rendering this type of service. Determination of acceptable quality shall be made solely by the Contract Administrator.
 - C. The Contractor shall perform its Services for the Project in compliance with all statutory, regulatory and contractual requirements now or hereafter in effect as may be applicable to the rights and obligations set forth in the Agreement.
 - D. The Contractor may rely upon the accuracy of reports and surveys provided to it by the City (if any) except when defects should have been apparent to a reasonably competent professional or when it has actual notice of any defects in the reports and surveys

2) Article V, COMPENSATION OF CONTRACTOR is amended to read as follows:

- A. The Contractor shall be paid in the manner set forth in Exhibit B, and as amended for additional tasks by Amendment Number 1 (Exhibit B-1). The total fee to be paid to the Contractor for the Services shall not exceed \$234,800.00. The original contract amount was \$189,400.00 with contingency for change orders to be approved by the City Administrator for \$19,000.00. The Amendment No.1 amount is \$26,400.00. Payment shall be made monthly, unless another payment term is specified in Exhibit B, following receipt of invoices submitted by the Contractor, and approved by the Contract Administrator.
- B. The Contractor will be compensated for Services performed in addition to the Services described in Section III, only when the scope of and compensation for those additional Services have received prior written approval of the Contract Administrator.
- C. The Contractor shall keep complete records of work performed (e.g. tasks performed/hours allocated) so that the City may verify invoices submitted by the Contractor. Such records shall be made available to the City upon request and submitted in summary form with each invoice.

All terms, conditions, and provisions of the original agreement between the parties executed March 14th, 2017, unless specifically amended above, are to apply to this amendment and are made a part of this amendment as though expressly rewritten, incorporated, and included herein.

This amendment to the agreement between the parties shall be binding on the heirs, successors and assigns of the parties.

Dated this 21st day of August, 2017.

For Contractor

By _____

Its:

For City of Ann Arbor

By _____
Christopher Taylor, Mayor

By _____
Jacqueline Beaudry, City Clerk

Approved as to form and content

Stephen K. Postema, City Attorney

Approved as to substance

By _____
Howard S. Lazarus, City Administrator

Craig Hupy, Public Services Area Administrator

EXHIBIT A-1 SCOPE OF SERVICES

On the basis of our observations in the field as well as our discussions and the result of the initial field exploration efforts we have developed the scope of work presented below to identify the services that have been performed by our staff as well as those anticipated to aid you in resolving this issue:

- Review closed circuit television (CCTV) tapes of inspection of the existing downstream weep holes in the west (right) retaining wall to evaluate if any of them are the source of the ground loss.
- Evaluate diver inspection reports of the spillway and retaining walls to determine if there is evidence of any soil migration on these structures.
- Review inspection tapes from the closed circuit camera survey of the existing raw water intake conveyance pipe to determine its condition and the likelihood that this is the source of the ground loss. We understand this video inspection is in the planning stages by the City of Ann Arbor and may occur in late July 2017.
- Based on data obtained and our review, mutually identify additional inspection efforts required to evaluate the source of the ground loss. This will include items such as:
 - Additional dynamic cone penetrometer (DCP) tests
 - Dye testing of new DCP probe locations
- Throughout the investigation and evaluation process prepare communications, generally in the form of short technical memorandum associated with each investigation step, for the City of Ann Arbor's submission to FERC to keep them apprised of the results of the ongoing investigation and evaluation of the ground conditions.
- As needed, meet with the WTP senior utilities engineer and other members of the City staff to review findings and discuss remedial options.

EXHIBIT B-1 COMPENSATION

Based on the scope of work identified in Exhibit A, as well as our efforts to date to assist with the sinkhole evaluation, we have estimated the charges for the scope of work identified herein, our charges for services for the additional scope items are presented below:

1. Additional DCP Testing and Evaluation of Field Data	\$4,850.00
2. Weep Exploration and Evaluation of Field Data	\$4,950.00
3. Dye Testing and Evaluation of Field Data	\$1,850.00
4. Explore Interface of West Retaining Wall and Foundation	\$4,000.00
5. Review and Evaluation of CCTV and Diver Inspection Data	\$1,000.00
6. FERC Coordination, Preparation of Interim and Final Technical Memorandums, Meetings w/ the City of Ann Arbor and Project Administration	\$9,750.00
Total Estimated Charges	\$26,400.00

For the activity identified above as, Explore Interface of West Retaining Wall and Foundation, we have planned for the City of Ann Arbor to provide a diver under their existing contract.