

# **ENGINEERING SERVICES**

## **THAMES STREET BRIDGE REPLACEMENT REPORT NO. Eng- 037/09**

### **February 4, 2009**

Approval Date: February 9, 2009

#### **Background:**

When the Town was notified by our Consultant (TSH) that the Thames Street Bridge was structurally deficient it was decided to apply for funding through the MIII program to replace the structure. Funding was approved and TSH moved forward with designing the replacement. TSH completed preliminary design of the structure, completed the required Environmental Assessment, etc. and submitted their preliminary Hydrology Report to the Upper Thames River Conservation Authority for their review. At that time there were problems with the modeling. From the modeling there were problems with flood storage. I set up a meeting at the bridge with UTRCA staff, AECOM (formerly TSH) and myself to discuss the problem and how it might be corrected. When the meeting was completed AECOM set about to re-create new hydrology modeling along with some new ideas for solving the flood storage problem.

After the meeting I received a message from staff at the UTRCA that perhaps another alternative to help solve the problem might be to excavate along the south river bank immediately west of the structure. AECOM proceeded with investigation of this possibility using a new sloped bank, however; this alternative moved the top of the bank too far to the south. I suggested to the consultants that perhaps they should investigate the use of a retaining wall along with the excavation to create storage. Again, AECOM set about to create some alternatives to the hydrology issue using a retaining wall(s). They still were having problems when I suggested that they grade from the existing rivers edge to the toe of the retaining wall and run the model. The retaining wall proposed would go fifty (50) metres westerly from the structure where it would move back to the existing channel. AECOM submitted their most recent Hydrology Report to the Authority showing that this method worked to solve the flood storage problem.

Through conversations that I initiated with Jeff Brick of the UTRCA a meeting was set up to try to finalize the hydrology issues. The meeting was held on January 22<sup>nd</sup>, at that time discussions were held regarding opening the existing EA or creating a new EA for the retaining wall; the possibility of the area becoming a HADD (which could be a Department of Fisheries and Oceans issue); who would be responsible for the maintenance of the retaining wall and a request was made by AECOM for some UTRCA wall information. AECOM noted at the meeting that "It was the opinion here that this was a detail design issue which should be able to be resolved directly with UTRCA and therefore did not require re-opening of the EA or an addendum." Opening the EA process would delay the calling of tenders by a minimum of two months. There could be the possibility of a "bump up" request which would delay the project even further. AECOM had discussed the EA situation with their environmental staff before the meeting and are still of the same opinion, that the EA does not need to be opened nor do we need another EA for the wall. AECOM has stated that with the wall the hydrology is slightly better than it is with the existing structure. With regard to the HADD, AECOM felt that they could mitigate the HADD issues by providing foliage at the base of the wall as a part of the project. I had stated that the Town would look after maintenance of the retaining wall. That we would have the wall inspected as a part of our bi-annual inspections and that we would supply the ITRCA with a copy of that report. The Authority has stated that "A wall would form an integral part of the Ingersoll Flood Control Channel." They also requested that an Operation, Maintenance and Surveillance Manual be set up for the wall monitoring.

Council has been briefed previously on this proposal and was in favour of it. AECOM and I feel confident that this is the best alternative.

**Recommendation:**

That Council pass a resolution stating that based on the opinion of AECOM the Thames Street Bridge Project proceed without an addendum to the EA. Further that Council is satisfied that the Town is in compliance with the MCEA and the Environmental Assessment Act.

Respectfully submitted,

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Director Engineering Services