

Industrial Street Watermain Replacement

LEA was retained by the City of Toronto to provide preliminary and detailed design, approvals and permits, contract documentation, tender documents, contract administration and site supervision for the replacement of an existing 150 mm diameter ductile iron watermain in Industrial Street with a 150 mm diameter replacement PVC watermain.

Because of the age of the existing watermain it was necessary for it to be replaced. The watermain ran down most of the length of Industrial Street from Laird Drive to Commercial Road. There are **two** watermains in Industrial Street, one is a 300 mm diameter watermain beneath the north boulevard while the 150 mm diameter main which required replacement was almost underneath the north curb and approximately 2 metres south of the 300 mm watermain. Although the new watermain was a replacement of the same size, it was determined that - because the original watermain had never received MOE approval - this replacement main required a submission to MOE and approval. Under the Transfer of Review policy of the Ministry of the Environment, the City of Toronto prepared its review and made a recommendation to MOE.

Industrial Road is 9 metres wide from curb face to curb face and contains an existing storm sewer near the centre of the roadway and, at different locations along parts of the roadway, a combined sewer on the south side underneath the south curb, another combined sewer 3 metres in from the south curb and a further combined sewer which has been abandoned under the roadway.



There is also a sanitary sewer in Industrial Street.

Because the existing watermain was underneath the north curb, and because it was necessary to maintain water service to the adjacent commercial properties during construction, LEA suggested leaving the existing watermain in place and proposed two alternative alignments for the new PVC watermain. In view of the locations of all the other existing services in the roadway (as mentioned above), the number of feasible options for the alignment of the replacement watermain was limited.

Alternative one would see the new watermain at a location approximately 1½ metres south of the existing watermain which is under the north curb. This would put the replacement main 1½ metres into the traveled lane of the roadway. The second alternative was to locate the new watermain on the south side 1½ metres north of the

curb, beneath the traveled lane. The City elected to have the design done according to Alternative 2 and LEA prepared the design drawings and tender documents accordingly.

PROJECT SUMMARY

Client: City of
City of Toronto
Works & Operations Services

Location:
Toronto, Ontario, Canada

Services Provided:
**Preliminary and detailed
Design, contract documents &
construction supervision**