

REGION OF OTTAWA-CARLETON
RÉGION D'OTTAWA-CARLETON

REPORT
RAPPORT

Our File/N/Réf. **50 19-99-0001-V**
Your File/V/Réf.

DATE 07 January 2000

TO/DEST. Co-ordinator
 Corporate Services and Economic Development Committee

FROM/EXP. Environment and Transportation Commissioner

SUBJECT/OBJET **HAZELDEAN PUMPING STATION - PHASE III**
 PUMPING STATION EXPANSION AND REHABILITATION -
 CONTRACT NOS. ETL99-2020, ETL99-2021 AND ETL99-2007

DEPARTMENTAL RECOMMENDATIONS

That the Corporate Services and Economic Development Committee and Council approve:

- 1. The award of Contract ETL99-2020 for works associated with the expansion and rehabilitation of the Hazeldean Pumping Station to 1258843 Ontario Ltd. (o/a Phil-Cor Construction), Nepean, in the amount of \$3,377,722;**
- 2. The award of Contract ETL99-2021 for the construction of a 600 mm sewage forcemain for the Hazeldean Pumping Station to Lansco Construction Ltd., Gormley, in the amount of \$2,023,263;**
- 3. A modification to Contract ETL99-2007 for the supply of engineering field services during the construction phase of the expansion and rehabilitation of the Hazeldean Pumping Station to CH2M Gore & Storrie, Ottawa, in the amount of \$681,697, bringing the revised total contract provision to \$1,371,847.**

BACKGROUND

The Hazeldean Pumping Station was commissioned by the Region in 1977 to serve the growing communities of Bridlewood, Glen Cairn and Stittsville. With the commissioning of this new facility, the Glen Cairn Pumping Station, which had served the community of Glen Cairn, was retained as a back-up

facility until 1986 when it was abandoned because of capacity limitations and age. An upgrade to the Hazeldean Pumping Station was conducted in 1992 with the objective of providing additional capacity until the year 2000.

The station conveys flows to the Glen Cairn Trunk Sewer near Hazeldean Road via two forcemains:

- A newer 600 mm forcemain installed as part of the initial station construction which serves as the primary (duty) main;
- A second 400 mm forcemain (i.e., the old Glen Cairn Pumping Station forcemain) which was re-commissioned as part of the 1992 upgrade. This forcemain is currently activated during high inflow conditions to provide additional discharge capacity to the station.

The pumping station currently services a total population of 32,000 people and 930 hectares of developed land which includes a total of 181 hectares of Institutional, Commercial and Industrial (ICI) land uses. The Region's Wastewater Master Plan identified the need to upgrade the capacity of the Hazeldean Pumping Station and Forcemains to meet the requirements of the Regional Official Plan and Development Strategy. Under future development (build-out) conditions, it is anticipated that the station will be required to service a total population of 63,000 people and 329 hectares of ICI over a total developed area of 1,630 hectares.

DISCUSSION

The Hazeldean Pumping Station is currently serving a rapidly growing population, as well as, industrial and commercial expansion. Increased flows have been recorded as approaching the available station capacity, particularly during large snowmelt and/or rainfall events. A number of operational issues are also of concern, more specifically contingency measures in the event of a partial or full station failure. A Capacity Study completed in early 1999 recommended that the pumping station be expanded, a new forcemain be constructed and that the existing pumping station be rehabilitated.

The firm of CH2M Gore and Storrie Limited was subsequently retained to complete the preliminary and detailed design for the pumping station expansion and rehabilitation. During this assignment it was recommended that the project be separated into several work packages in order to expedite the completion of the expansion and rehabilitation of the pumping station. The work was subsequently broken up into three work packages. The first package was for four pieces of equipment that were required to be pre-purchased as they had lengthy delivery times. The pre-purchased equipment included the emergency generator, the submersible sewage pumps, certain specialty valves and the variable frequency drives.

The second package (Contract No. ETL-2020), involves the expansion and rehabilitation of the existing pumping station. This work includes the addition of a new wet well complete with submersible pumps, variable frequency drives and standby emergency power, a new valve chamber as well as a metering chamber and site modifications. Also included are the required structural modifications to the existing pumping station to ensure the integrity of the wet wells is maintained.

A Request for Tender (RFT), No. 00999-90922-T09, was called by the Supply Management Division through the Ottawa Construction Association. The RFT closed on 17 December 1999 and six bidders submitted tenders (excluding GST):

1258843 Ontario Ltd.(o/a Phil-Cor), Nepean	\$2,745,000
Ed. Brunet & Associates Inc., Hull, P.Q.	\$3,107,000
Louis W. Bray Construction Limited, St. Andrews	\$3,270,000
Tesc Contracting Company Limited, Sudbury	\$3,275,000
Doran Contractors Ltd., Ottawa	\$3,423,000
J.C. Sulpher Construction Ltd., Gloucester	\$4,093,000
Departmental Estimate	\$3,120,000

Based on a thorough technical review by the Design Consultant which determined that the tender met the requirements of the specifications and was the lowest responsive bid, staff recommend the contract be awarded to 1258843 Ontario Ltd. (o/a Phil-Cor Construction).

This contract award includes a contract amount of \$2,745,000, G.S.T. in the amount of \$220,972 and a provision for variations in the amount of \$411,750. This provision for variations is higher than normal (15%) as a result of the unusually difficult soil conditions at the site and the complexity of constructing the new facilities while keeping the existing facilities operational. This brings the total requested contract authority to \$3,377,722.

The third package (Contract No. ETL99-2021) is for the construction of a 600 mm sewage forcemain to connect the Pumping Station to the Regional collection system. This new forcemain is required to handle the additional flows from the expanded Pumping Station. This portion of the work was tendered separately from the pumping station work as it involves different trades and skill sets. It was felt that the Region would obtain a better product at a more economical price if the work was tendered in this manner.

A Request for Tender No. 00999-91360-T01 was called by the Supply Management Division through the Ottawa Construction Association. The RFT closed on 20 December 1999 and eight bidders submitted tenders (excluding GST):

Lansco Construction Ltd., Gormley	\$1,719,000.00
Taggart Construction Ltd., Ottawa	\$1,755,884.50
C.A.C.E. 1991 Construction Ltd., Gloucester	\$1,864,888.70
Dufferin Construction Co., Carp	\$1,914,935.00
Ottawa Greenbelt Construction Co. Ltd., Gloucester	\$1,984,965.00
Louis W. Bray Construction Ltd., St. Andrews	\$2,043,473.00
Colautti Construction Ltd., Gloucester	\$2,086,786.00
Vanson Construction Ltd., Gloucester	\$2,261,240.00
Departmental Estimate	\$1,800,000.00

Based on a thorough technical review by the Design Consultant which determined that the tender met the requirements of the specifications and was the lowest responsive bid, staff recommend the contract be awarded to Lansco Construction Ltd.

This contract award includes a contract amount of \$1,719,000, G.S.T. in the amount of \$132,363, and a provision for variations in the amount of \$171,900. This brings the total requested contract authority to \$2,023,263.

In order to ensure that all of the required work is co-ordinated and completed in accordance with the specifications and drawings, the firm of CH2M Gore and Storrie Limited was requested to submit a proposal for contract administration and field services for the Hazeldean Pumping Station Expansion and Rehabilitation. They have provided design and tendering services for this project, therefore to maintain continuity and compliance with design standards, they were the only firm requested to provide a proposal. Contract administrative services to be provided include:

Contract Administration

- a) Verification and approval of contractor's monthly billings, the preparation and justification of change orders, the review and evaluation of contractor's claims;
- b) Review of shop drawings, the review and approval of alternate materials, the review of alternate methods and equipment requested by the contractor;
- c) Review and resolution of contractual disputes arising from conflicting interpretations of the contract documents;
- d) Monitoring of the contractor's work with regards to work schedules;
- e) Securing from authorities the necessary approvals and permits for the project;
- f) Preparation of record drawings, the review/preparation of maintenance and operation manuals, the provision of technical support during the commissioning and warranty periods;
- g) Chairing and minute-taking of regular project co-ordination meetings.

Inspection

- a) Review of the contractor's work to ensure compliance with the requirements of the contract documents;
- b) Surveying and field stakeout for the layout control, and calculation of pay quantities for the work performed;

- c) Calculation and recording of quantities and the preparation of progress and final payment certificates, the compilation of survey notes, daily diaries, records and reports substantiating progress during construction and on completion of work;
- d) Routing testing of compaction of backfill materials and air content and slump measurement of concrete, to verify conformance with the specifications;
- e) Monitoring of a commissioning programme to test the performance of all systems constructed before final approval;
- f) Performing final inspections at the conclusion of the construction contract and the preparation and verification of deficiency reports.

Their proposal has been reviewed and the Department recommends CH2M Gore and Storrie Limited be awarded the contract administration and field services for this project.

Contract authority for this modification consists of engineering fees of \$554,000. plus a 15% contingency of \$83,100. and G.S.T. in the amount of \$44,597, for a total amount of \$681,697. This is an extension to the original Contract ETL 99-2007, bringing the revised total contract provision to \$1,371,847.

CONSULTATION

A Schedule 'B' Environmental Assessment has been completed, with all public consultation required as part of a Schedule 'B' Environmental Assessment having been undertaken.

EXPENDITURE JUSTIFICATION

Ongoing flow monitoring efforts and an assessment of the pumping station condition and performance have identified that operational improvements and capacity increases are required immediately in order to meet current and future demands. This work is required in order to remain in compliance with our Certificate of Approval and to maintain the integrity of the pumping station.

FINANCIAL STATEMENT

	\$
Approved Budget to Date	8,549,755
Total Paid and Committed	<u>(1,951,770)</u>
Balance Available	6,597,985
THIS REQUEST	<u>(6,082,682)</u>

Balance Remaining 515,303

Funds are available in the 2000 Capital Budget, Order No. 900241, Hazeldean Pumping Station and Forcemain, (Reference page 412). Purchase Requisition Nos. 10039157 and 10039158, Purchase Order No. 45003127.

*Approved by
M.J.E. Sheflin, P.Eng.*

SF/jw

SUPPLY MANAGEMENT DIVISION

I concur,

*G. Ford on behalf of
the Finance Commissioner*