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CENTRALIZED TRAFFIC CONTROL SYSTEM SOFTWARE MAINTENANCE CONTRACT AWARD

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, February 21, 2008, from the Commissioner of Transportation Services:

1. RECOMMENDATION

It is recommended that:

1. Regional Council authorize retaining the consulting firm of Command Engineering to provide centralized traffic control system software maintenance services for a period of five years, at \$37,500 per year (excluding taxes) and adjusted annually to reflect the consumer price index (CPI).
2. The Commissioner of Transportation Services be authorized to execute the contract, subject to the approval of Legal Services as to form and content.

2. PURPOSE

This report is to seek approval to award the contract for Centralized Traffic Control System software maintenance services to Command Engineering. This Regional Council approval is required in accordance with the Region's purchasing by-law.

3. BACKGROUND

In 1994, Delcan Corporation was retained as the Project Manager and System Designer of the Centralized Traffic Control System project. The objective of this project was to improve traffic flow using computerized central control of signal timing. At the time, the project was funded under the Canada/Ontario Infrastructure Works program. Project implementation of the Centralized Traffic Control System software was initiated in 1996. Since then, Command Engineering, a subsidiary of Delcan Corporation, has been retained by the Region to maintain the Centralized Traffic Control System software due to the proprietary vendor specific software used within the system.

At its meeting on May 16, 2002, Regional Council authorized the Commissioner of Transportation and Works to retain the services of Command Engineering for a five-year term. The software maintenance service contract has now expired.

In the meantime, at its meeting December 13, 2007, Regional Council approved an Intelligent Transportation System Strategy, which will require the replacement of the whole traffic control system within the next five years. During the next five years, the existing software still requires maintenance.

4. ANALYSIS AND OPTIONS

The Region's computerized traffic control system contains proprietary vendor specific software. Because of this, Command Engineering, a subsidiary of Delcan Corporation, is required to undertake Centralized Traffic Control System software maintenance. This service provides the technical expertise for a bi-monthly detection and correction of software and/or communication-related dependencies.

It is proposed that Command Engineering continue to provide this service for a period of five years. At which time this legacy system will be replaced by a system which is compatible with the Intelligent Transportation System strategy. This service cost is \$37,500 per year and will be adjusted annually to reflect the consumer price index (CPI).

The contract for the previous term of five years was for \$35,460 annually with no adjustment for inflation. Statistics Canada provides national inflationary data for a similar service of 2.8% per year for the years between 2002 and 2006. The new 2008 contract cost of \$37,500 reflects an average annual increase of 1.2% since 2002.

Typically, computerized traffic control systems contain proprietary vendor specific computer software. The Region's Centralized Traffic Control System is no exception. Once purchased, it is in the owner's best interest financially to retain the services of the specific vendor to maintain the software and provide upgrades and system maintenance as required. In this case, Delcan Corporation and Command Engineering were retained to design, manage, upgrade and maintain the Region's Centralized Traffic Control System. As a result, Command Engineering is the original developers of the software and has maintained the software since inception therefore, having integral detailed software knowledge of the system. There are no other experts who can provide this service so it is unnecessary to obtain submissions from other consultants.

4.1 FUTURE FOR CENTRALIZED TRAFFIC CONTROL SYSTEM

Regional Council recently approved the Intelligent Transportation System (ITS) Strategic Plan. Within our Intelligent Transportation System Strategic Plan, the Centralized Traffic Control System has been identified as a mid-term project for replacement commencing in 2011. As mentioned, the current system has been in place since 1996 with various upgrades and enhancements completed. While functioning well, the system is not National Transportation Communications for ITS Protocol (NTCIP) compliant. The use of this software protocol will facilitate inter-changeability and inter-operability of dissimilar devices, such as traffic controllers and dynamic message signs.

This protocol is better able to be adjusted to deal with changing requirements and therefore more cost effective. In addition, a more responsive traffic control system adjusts to changing traffic patterns and improves the efficiency of the transportation system.

Implementation of this new traffic control system is expected to start in approximately another five years. In the meantime, the existing system requires regularly scheduled software maintenance.

5. FINANCIAL IMPLICATIONS

Costs associated with the Centralized Traffic Control System software maintenance are included within annual operating budgets.

6. LOCAL MUNICIPAL IMPACT

There are no local municipal impacts as a result of this report.

7. CONCLUSION

Command Engineering is a subsidiary of Delcan Corporation and has been conducting software maintenance to the Centralized Traffic Control System since the initial system was deployed in 1996 and enhanced since. It is recommended that the Commissioner of Transportation Services be authorized to engage Command Engineering to provide maintenance to the Centralized Traffic Control System software for a period of five years.

For more information on this report, contact Brian Harrison, Director, Operations, Roads Branch at extension 5205 in the Transportation Services Department.

The Senior Management Group has reviewed this report.