



POSTPONED MOTIONS: ADMINISTRATIVE BACKGROUNDER

NUMBER: PM 30-2018

REQUESTED BY:	Mayor Cathy Heron
ORIGIN OF REQUEST:	Email
DATE OF REQUEST:	November 20, 2017

AUTHOR:	Gordon Coulman
DEPARTMENT:	Innovation & Technology Services
DATE RESPONSE DUE:	November 22, 2017

MOTION:

That project charter ITSV-009 Municipal Area Network to Core Facilities for \$650,000 be funded and the funding source used shall be the Capital Growth Stabilization Reserve (or another suggested source).

RESPONSE (one page max.):

Administration's Understanding of Intent Motion:

That Council will fund implementation of the currently unfunded fibre optic network as proposed within the capital charter (ITSV-009).

Operational or Organizational Impacts if Motion is Approved:

The 2018 MAN expansion will largely be done by a contractor, so the incremental effect on Administration will mainly be in developing the specification, procurement (small changes from 2017), and managing the contract while the work is performed. This project can be accomplished within existing staff resources.

Without this network, a variety of ad hoc leased and wireless efforts would result in higher long-term costs and lower reliability, hindering the ability of the City to provide mission critical services to residents and utility clients.

Financial Implications of Motions:

If the motion is approved, the fibre optic network expansion will proceed as outlined within the existing capital plan. This project was not recommended for funding in 2018 based on criteria established by SLT however would still be considered in the future as funding allows.. There are sufficient available capital

dollars to support this motion however this will reduce the available capital dollars in 2019 as recommended by Administration.

To ensure Administration maintains the flexibility in assigning funding sources it is recommended the motion be reworded as follows:

"That project charter ITSV-009 Municipal Area Network to Core Facilities for \$650,000 be funded and the funding source used shall be from the available capital budget dollars as determined by Administration."

As described below, passing of this motion will also include a reduction to the base budget as follows: 2018 \$52,056, 2019 & ongoing \$104,112. This is lower than what was indicated in the project charter due to partial year not considered as well as some of the anticipated savings were already build into the 2018 base budget.

If the motion is approved, the 2018 MAN expansion will proceed; cost avoidance will occur as Engineering/Transportation will not have to install, maintain, or replace radio communication devices on existing traffic signals.

At the time of writing (Nov 2017) the 2017 expansion was incomplete but will produce financial savings as the system is connected to City buildings and existing leased telecommunication services are be reduced or eliminated. When the remaining large City facilities are connected, monthly operating cost savings will begin to accrue; notionally during Q3 and Q4 of 2018 as follows:

- Servus Credit Union Place
- Jack Kraft Public Works
- Fire Stations #1 and #3
- Fountain Park Recreation Centre
- St. Albert Place

When complete, gross savings from the above will be \$8676 per month, or \$52,056 for the last six months of 2018. Net savings may be slightly lower as redundant, low-bandwidth connections are added to these facilities to ensure business continuity if the primary connection is broken. Savings may be higher if the buildings are connected earlier in the year.

Stakeholder Consultations:

Extensive stakeholder consultations have already occurred during development of the Smart City master plan and through Administration and Council discussions of community broadband efforts.

Background:

The intent of the MAN project is to ensure that the City has the required high speed and secure data network to support City operations for the next 25 years or more.

Until recently, the City's network requirements were met by a combination of leased copper and fibre lines from a telecommunications provider (telco), and City-owned wireless links. This approach was not effective for the following reasons:

- High lease costs for connections to existing and new facilities
- Lack of redundancy for mission critical services
- Poor reliability of wireless links and short equipment lifecycle
- Difficulty with the City's rolling terrain and extensive tree canopy
- Network congestion due to limited bandwidth on leased connections
- Telco's nearly nonexistent preventative maintenance and provisioning of improved technologies
- Use of disparate technologies and contracts by City departments, lack of coordinated and integrated plan
- Inability to extend the benefits of broadband to the business community

As the MAN implementation progresses, numerous benefits are being realized. Administration is gaining experience all aspects of broadband networking and are future-proofing the City as the foundation for future projects such as the optimization of travel times with Intelligent Transportation Systems (ITS) and improved monitoring and control of the water utility, building automation, security systems, sensors, and many other initiatives that would not be possible without this foundational system.