



# **Corporate** NO: R013

# **Report** COUNCIL DATE: January 24, 2000

## **REGULAR COUNCIL**

**TO: Mayor & Council**    **DATE: January 14, 2000**

**FROM: Manager, Land Development & Transportation**  
**Engineering Department**    **FILE: 1500-001**  
**6394-5051-00**

**SUBJECT: Traffic Signal Installation - 99 Avenue & 120 Street**

## **RECOMMENDATION**

It is recommended that:

1. This report be received for information.
2. Council consider rescinding motion RES. R99-1926, Regular Council, July 19, 1999, to install a traffic signal at the intersection of 99 Avenue and 120 Street.
3. That the intersection upgrading proceed in the year 2000 and the improvements be monitored for future traffic signal installation.

## **INTENT**

The intent of this report is to brief Council on a recommended approach to upgrading the intersection of 99 Avenue and 120 Street including future signal installation.

## **BACKGROUND**

In response to a citizen request to Council in July 1999, Council instructed staff to install a traffic signal at the intersection of 99 Avenue and 120 Street prior to the end of the year 2000.

## **DISCUSSION**

In response to this request, a traffic count and review of traffic signal installation warrants, a review of the traffic accident history at this location and a site check were conducted. The signal installation warrants (a national evaluation system used consistently to evaluate and prioritize the need for signaling intersections in Surrey) were only 46% satisfied at this location. The accident data do not indicate a trend of accidents correctable by signal installation. The site review indicates that sight lines at the intersection, for drivers attempting to access 120 Street from the west leg of 99 Avenue and vice versa, are limited by the horizontal and vertical curvature of 120 Street to the north. It is postulated that the traffic difficulties and safety concerns relate more to the sight line issue than the actual traffic volumes/need for a signal.

Presently there are nine other traffic signal and two pedestrian signal locations within the City which meet or exceed our installation warrant criteria. Five of these locations have been tentatively budgeted for the 2000 capital program. The signal at 99 Avenue / 120 Street will require interconnection with the rail crossing signal at this intersection and is thus expected to be in the range of \$300,000 to \$400,000 (double that of a standard signal). In addition to the installation of a signal, geometric improvements to the intersection would also be required.

Considering the above, it is recommended that we proceed with the geometric improvements at the intersection and at the same time make provisions (preducting) for signal installation. It is anticipated that these improvements will address the sight line problems. However, should these changes not rectify the situation, preducting of the intersection will facilitate future installation of signals.

Improvements to 120 Street from 96 Avenue to 103 Avenue have been identified as Surrey's top priority for MRN capital improvements at an estimated project cost of \$10 million which will be cost-shared with TransLink. It is currently planned that the first phase of construction will include the improvement of the 99 Avenue intersection and widening/sight line improvements north of 99 Avenue. The remaining sections will be upgraded in the future as budget and cost-sharing provisions permit.

## **CONCLUSION**

Considering the following factors:

- a) Signal warrant criteria not met.
- b) Numerous other locations in the City meeting warrant criteria and exceeding warrants at this location.
- c) Budget constraints and the high cost of signal installation at this location.
- d) Poor signal sight lines under existing conditions.
- e) Planned upgrading of this intersection to be implemented.

It is recommended that the intersection improvements be implemented, including preducting of signals, and that they be monitored to evaluate the need for a signal.

Jamie Umpleby, P.Eng.

Manager, Land Development & Transportation

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