



Corporate Report

NO: C009

COUNCIL DATE: June 12, 2006

COUNCIL IN COMMITTEE

TO: Mayor & Council

DATE: June 7, 2006

FROM: General Manager, Engineering

FILE: 7903-0444-00

XC: 5400-80 (15600)

SUBJECT: Closure of 156 Street South of 40 Avenue, Rosemary Heights Central NCP

RECOMMENDATION

The Engineering Department recommends that Council:

1. Authorize the permanent closure of 156 Street south of 40 Avenue in accordance with the Rosemary Heights Central NCP but that such physical closure not be implemented until house construction in the subdivision at 156 Street/39A Avenue is substantially complete.

INTENT

To provide Council with background on the status of 156 Street south of 40 Avenue, the results of community consultation, and additional Engineering evaluation.

BACKGROUND

The Rosemary Heights Central NCP was prepared in the mid 1990's. As part of this process, and in response to requests from the existing residents, Council directed that 156 Street, south of 40 Avenue, 36 Avenue just west of 156 Street, and 156 Street between 34 and 36 Avenues, be closed to through traffic. The road layout with the concept of 156 Street being a cul-de-sac was included in the original NCP. (See Figure 1).

The timelines for changes to the 156 Street status are summarized in the following table.

DATE	ACTION	STATUS OF 156 STREET
1996	Original NCP approved	Planned for Closure
1999	Amended NCP approved	Planned for Closure (see Fig. 1)
2003 Early	Council approved 'Stop Up and Close' By-law for 156 St	Planned for Closure
2003 May	Engineering placed concrete barrier	Closed
2003 Summer	Engineering temporarily removed the barrier due to complaints of too much construction traffic on 156A/B Street	Temporarily re-opened
2005 May	Engineering reinstalled concrete barrier with substantial completion of development and the 156A/B traffic calming	Closed
2005 June	Council directed staff to temporarily re-open 156 Street pending further public input and Engineering review based on complaints and a delegation from some residents	Temporarily re-opened

In response to the many complaints along 156A/B Street, the City implemented a very comprehensive traffic calming program along 156A/B Street in the summer of 2004.

Proposed development, Application 7803-0444-00, on the east side of 156 Street and south of 40 Avenue recently received Third Reading. This development application is for suburban residential half-acre gross density, which is in compliance with the NCP. The proposed subdivision layout, based on the NCP, would entail the construction of a cul-de-sac on 156 Street, and hence, physical closure of this street (See layout, in Red on Figure 2). The existing stop up and close By-law #14529 is still valid for this closure.

Engineering Department staff sent a letter to potentially affected residents' on June 22, 2005 seeking input on the possible closure of 156 Street. Summarized traffic study and survey data showing traffic volumes, speeds and shortcutting traffic through the neighborhood were presented at a Public Open House held on February 8, 2006.

DATA COLLECTION AND TYPICAL STREET CHARACTERISTICS

In June 2005, the Engineering Department undertook a comprehensive traffic operations and safety study for both 156 and 156A/B Streets, including driving assessment, speed survey, traffic volumes count, license plate (short-cutting) survey, intersections geometry and physical characteristics survey, and sightlines assessment/measurements. In addition, the staff reviewed all the data collected before commencing the traffic calming implementation along 156A/B, as well as the most recent as-built design drawings showing the streets' vertical profiles, terrain, and road geometry.

As proposed in the Rosemary Heights Central NCP, 156A/B Street is meant to function as a collector road. This intended function is to both collect and distribute traffic between arterials, other collectors and local roads in the area and provide access to fronting properties. Typical characteristics of a residential collector road are:

- traffic volume of 3,000-5,000 vehicles per 24 hours, up to 300-500 vehicles per hour,
- design speed of 60 kilometres per hour (typically posted at 50 km/h),
- passenger and service vehicles traffic,
- possible transit service, and
- bicycle lanes.

As proposed in the Rosemary Heights Central NCP, 156 Street is meant to function as a limited local road. The intended function is to provide access to fronting properties. The main characteristics of a typical limited local road are:

- traffic volumes less than 1,000 vehicles per 24-hours with up to 100 vehicles in the peak hour, and
- design and posted speed of 50 km/h.

DISCUSSION

The implications of the 156 Street closure can be separated into seven distinct categories: interconnectivity, Park considerations, safety, impact to 156 Street residents, impact to 156A/B residents, broader public input, and adherence to the NCP. Each of these categories needs to be considered in the final decision on the 156 Street closure.

1. Interconnectivity

The Engineering Department typically stresses the importance of interconnectivity of roadways. There are definite advantages to a tighter network for access, distribution and emergency response. However, in this case, based on low volumes and relative ease of access via 36 Avenue and 156A/B Street, keeping 156 Street open is not critical for this neighbourhood. Bicycle and pedestrian connectivity is maintained with the closure option.

In relation to “interconnectivity” leaving 156 Street open is marginally better in comparison to closing 156 Street.

2. Safety

Stopping distance is adequate for the posted speed limit of 50 km/h on both roads.

In the period of 2002 to 2004, ICBC recorded the following number of collisions:

- 156 Street / 40 Avenue: 6
- 156B Street / 40 Avenue: 1

Based on this collision history, the probability of being involved in a collision at 156 Street and 40 Avenue is higher than at 156B Street / 40 Avenue.

In relation to “safety” the closure of 156 Street is preferred to leaving it open.

3. Impact to 156 Street Residents

Since being re-opened at 40 Avenue, 156 Street has exhibited the following (full details on all traffic operations data in this report are available in Appendix A):

Volume

- Two- way 24-hour average volume: 538 vehicles per day
- Two-way PM peak hour average volume: 55 vehicles per hour

Speed

- 85th percentile speed: 51 k/hr (85% of drivers traveling at or below the speed)

Shortcutting

- Very little shortcutting - AM Peak: 3 vehicles, PM Peak: 3 vehicles

Clearly closing 156 Street would be preferred by the owners of properties along 156 Street.

4. Impact to 156A/B Street Residents

156A/B Street exhibited the following characteristics with 156 Street closed before implementation of traffic calming:

- Two- way 24-hour average volume: 1,391 vehicles per day, and
- 85th percentile speeds: 62 km/h.

156A/B Street exhibited the following characteristics after traffic calming was installed and 156 Street was opened at 40 Avenue.

Volume

- Two- way 24-hour average volume: 863 vehicles per day
- Two-way PM peak hour average volume: 93 vehicles per hour

Speed

- 85th percentile speed: 39 k/hr (85% of drivers traveling at or below the speed)

Shortcutting

- Very little shortcutting - AM Peak: 3 vehicles, PM Peak: 6 vehicles

Although constructed as a collector road, 156A/B Street currently functions at speeds and volumes similar to a through local road. Even with the closure of 156 Street, the combined average daily traffic along 156B Street would be approximately 1,440 vehicles per day, which is 50 percent below the lower range of a typical collector road (please see Figure A3). Speeding has been virtually eliminated along 156A/B by the successful traffic calming program.

As this road was planned and built to a Collector Road standard and the volumes and speeds will be well below a typical collector road whether or not 156 Street is closed, the Engineering Department considers the closure of 156 Street to have a moderate impact on 156A/B Street. **However, from the perspective of the owners of property along 156A/B Street it would be preferable to leave 156 Street open.**

5. Public Input

This process started as a result of a petition and delegation to Council requesting the City re-open 156 Street to 40 Avenue. Council then directed that 156 Street be temporarily re-opened and staff seek public input prior to a final decision on the issue.

Staff subsequently received a petition and letters to close 156 Street and construct the cul-de-sac, as planned in the Rosemary Heights Central NCP.

In seeking broad public input from the Rosemary Heights Central area residents, staff conducted a public open house on February 8, 2006. The open house was advertised in the local newspapers and invitation letters were sent to the residents directly affected by the status of 156 Street at 40 Avenue. Information display boards were created from all the figures contained in this report.

The following is a synopsis of the results of the Open House:

- 62 people attended
- 94 separate households submitted comment forms
- 63% or 22 of 35 households along 156A/B Street (40 Avenue to 37A Avenue) responded.
- 56% or 9 of 16 households along 156 Street (40 Avenue to 37A Avenue) responded.

Regarding 156 Street Closure:

- From responses from all attendees:
 - 49 households favoured closing 156 Street
 - 45 households favoured leaving 156 Street open
- From responses excluding directly affected households (156 Street and 156A/B Street from 40 Avenue to 37A Avenue):
 - 39 households favoured closing 156 Street
 - 24 households favoured leaving 156 Street open

Frequent comments included:

- Keep roads open to disperse traffic,
- Open 36 Avenue and all cul-de-sacs;
- The City should not betray residents by changing the NCP;
- Close 156 Street as planned;
- Purchased home relying on NCP;
- The City should keep (NCP) promises; and
- Keep the proposed park intact.

Regarding the Park Plans:

- 87 comment sheets submitted
- 84% approved of the plans displayed at the open house
- 2% were unsure or neutral whether the park should proceed
- 14% strongly opposed the development of the proposed park
- Of those opposed to the park plan, the most common reason was that they wanted 156 Street opened and believed that if the Park went ahead, 156 Street would be closed south of 40 Avenue.

While the overall results indicated that the public was generally split on the closure of 156 Street, the general community (excluding owners of properties along 156A/B and 156 Street from 40 Avenue to 37 Avenue) favoured (63%) closure of 156 Street. This includes those who could benefit from access via 156 Street/40 Avenue. **The broader neighbourhood favours the closure of 156 Street**

6. Rosemary Heights Blueways Park

The closure of 156 Street offers some benefit to the park as it increases the area of green space and eliminates a road crossing for trail users. However, as the traffic from the perspective of volumes will be relatively low even with 156 Street open, the overall benefit to the Park from the closure is nominal. (Please see Figure 2)

In relation to the “Park” the closure of 156 Street is preferred.

7. Adherence to the original NCP

NCP's are important documents as they combine sound land use, Engineering Planning and public input into a comprehensive concept plan to guide development in an area. From time to time the City must modify NCP's to reflect new circumstances or to accommodate new goals.

Residents of Morgan Creek predating the NCP approval process may have supported the NCP plan on the basis of road network plans (e.g. closure of 156 Street) and new residents will have purchased homes based on the transportation plans shown in the NCP. The NCP process is intended to provide some level of certainty to individuals considering a purchase within an NCP area.

The NCP favours the closure of 156 Street since that was the decision made during process of preparing the NCP. The NCP has been largely developed with no significant land use changes.

SUMMARY

From the extensive analysis that has been completed, the decision regarding the closure of 156 Street is not “black and white”. Engineering has evaluated the seven key considerations associated with the closure of 156 Street and have noted in the following table those that favour leaving 156 Street open and those favour the closure of 156 Street.

	Issue	Favour leaving 156 Street open	Favour Closing 156 Street
1.	Interconnectivity	X	
2.	Safety		X
3.	Impact to 156 Street Residents		X
4.	Impact to 156A/B Street Residents	X	
5.	Public Input		X
6.	Rosemary Heights Blueways Park		X
7.	Adherence to the original NCP		X
	Total	2	5

Based on the considerations discussed in this report, the Engineering Department has concluded that the advantages of closing of 156 Street outweigh the disadvantages.

CONCLUSION

Based on the above discussion, it is recommended that Council authorize the permanent closure of 156 Street South of 40 Avenue in accordance with the Rosemary Heights Central NCP. In order to minimize the inconvenience to the neighbourhood during local construction it is further recommended that 156 Street not be physically closed until house construction in the adjacent subdivision is substantially complete.

Paul Ham, P. Eng.
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VL/JB/MP/rdd/brb/kd2

Attachments

Appendix A

(includes Figures A1, A2 and A3)