

CITY OF VANCOUVER

ADMINISTRATIVE REPORT



Report Date: May 4, 2007
Author: David Rawsthorne
Phone No.: 604.873.7343
RTS No.: 5751
VanRIMS No.: 13-1400-30
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TO: Standing Committee on City Services and Budgets
FROM: General Manager of Engineering Services
SUBJECT: Blenheim Street Traffic Calming Plan - Update

RECOMMENDATION

THAT the Blenheim Street Traffic Calming Plan be modified at the intersection of Blenheim Street and West 39th Avenue as shown in Figure 1.

COUNCIL POLICY

In 2006, Council approved the reclassification of Blenheim Street as a Neighbourhood Collector and approved a plan for repaving the street between West 16th Avenue and Southwest Marine Drive and for implementing traffic calming measures.

In early 2007, Council approved a toolkit for traffic calming on Neighbourhood Collector streets.

PURPOSE

This report addresses a number of issues which remained unresolved when Council approved a plan to repave and traffic calm Blenheim Street between West 16th Avenue and Southwest Marine Drive.

BACKGROUND

In February 2006, Council approved a plan for the reconstruction of Blenheim Street. The approved plan, based on input from local residents and other stakeholders, was an evolution of a plan presented to the surrounding neighbourhood in 2005, but with modifications to reflect input from local residents. At that time, three design issues remained unresolved: the treatment of the intersection of Blenheim Street and West King Edward Avenue, the extent of sidewalk construction between Quesnel Drive and West 20th Avenue, and the extent of curb construction to be funded by Local Improvement. Staff were to report back to Council regarding these matters.

DISCUSSION

The three unresolved design issues, and one which has arisen since, are discussed individually below. An update on traffic monitoring is also provided.

Blenheim and West King Edward Intersection

During the public consultation with local residents, staff heard concerns about speeding in the school zone on Blenheim Street between West 24th and West King Edward, adjacent to Lord Kitchener Elementary School. The plan approved by Council in 2006 included the addition of corner bulges on Blenheim at West 24th and the introduction of a reduced 30 km/h speed limit in this block.

When staff reported to Council in 2006, they had not concluded their assessment of a roundabout as an alternative to the existing semi-actuated signal at the intersection of Blenheim Street and West King Edward Avenue. Lord Kitchener Elementary School is sited on the northwest corner of this intersection. There are transit stops on both sides of King Edward near Blenheim.

Roundabouts are traffic control devices which can be used in place of traffic signals where space permits. There is currently only one in Vancouver, at the entrance to Stanley Park. Roundabouts share a number of characteristics with traffic circles, which are used throughout Vancouver at local street intersections. Both these measures reduce vehicle speeds through intersections and reduce the number of potential points of conflict within in intersections. A 1996 ICBC study found that traffic circles reduced collision rates by over 80%.

City and ICBC engineering staff assessed the merits of a roundabout at this location based on experience with roundabouts in North America, Europe and Australia, and on the collision history of the existing intersection. They concluded that a roundabout at this location could be expected to provide a number of benefits, including:

- reduced frequency and severity of vehicular collisions,
- reduced traffic speeds adjacent the Lord Kitchener School property (on Blenheim Street and on West King Edward Avenue),
- improved safety for most pedestrians,
- reduced delays, possibly resulting in reduced shortcutting on adjacent streets, and,
- increased intersection capacity and consequently reduced vehicle travel times on Blenheim Street.

Also expected would be a number of costs, including:

- reduced cyclist safety,
- reduced legibility for a number of vulnerable road users including visually impaired pedestrians and possibly school children, and,
- reduced vehicle travel times on Blenheim, possibly attracting traffic to this street.

Public consultation related to the Blenheim Street project revealed a great deal of uncertainty and concern about the proposal for a roundabout, particularly from parents of school aged children. Vancouver School Board staff echoed these concerns.

Removal of the existing traffic signal and construction of a roundabout has been estimated to cost between \$600,000 and \$800,000. Cost sharing from ICBC could offset this cost by approximately \$100,000. While staff believe that a roundabout would provide safety benefits for some road users, they believe funding would be better directed to other projects which could provide even greater safety benefits. Other measures proposed on Blenheim Street will address the concerns about speeding noted above.

The 30 km/h speed limits in the two school zones on Blenheim Street (24th to King Edward and 41st to 43rd) have been implemented. Staff will continue to monitor traffic speeds in these school zones.

Sidewalk, Quesnel Drive to West 20th Avenue

Staff investigated the viability of building a missing section of sidewalk on the west side of Blenheim between Quesnel Drive and West 20th Avenue. The topography in this location is steep and the construction of a sidewalk would require extensive retaining walls. Staff assessed pedestrian desire lines in this area and concluded that building this complete sidewalk would provide limited additional pedestrian amenity and would come at a cost of approximately \$200,000. There is a pedestrian path through a small park on the West 19th alignment between Quadra and Blenheim Streets. Construction of a sidewalk on Blenheim between this path and Quesnel Street is included in the work to be done on Blenheim Street. Building a sidewalk between the path and 20th is not recommended at this time.

Curb Construction through Local Improvement

Most of Blenheim Street between Quesnel Drive (West 19th Ave.) and West 40th Avenue has a 6m wide strip pavement and 1.5m wide gravel shoulders. The plan approved by Council did not include widening of the pavement or the addition of new curb except where needed to install traffic calming measures.

In the spring of 2006, staff wrote to owners of all properties adjoining Blenheim Street on those blocks without curbs. Those property owners were asked whether they wished to have curbs built and whether they were willing to contribute to the cost. On nearly all blocks, fewer than half the property owners supported such changes. Three blocks received unanimous or near-unanimous support. These sections were then subject to Local Improvement ballots. The proposed changes were approved at a Court of Revision in November 2006. New curbs will be built and the parking lane paved on the west side of Blenheim Street between 41st and 43rd. Between 38th and Mayfair, new curbs will be built and the planted boulevard widened into the existing gravel parking lane.

Blenheim and West 39th Intersection

The traffic calming plan approved in 2006 included a pedestrian refuge median at the marked school crossing at Blenheim Street and West 39th Avenue. The intent of this measure was to reduce the time pedestrians spent in the intersection, and thus the potential conflict between vehicles and pedestrians, and to discourage speeding on Blenheim Street. Subsequently, detailed design has revealed concerns with this concept. The unusual street configuration at this location requires that a median be narrower and shorter than similar refuge medians elsewhere in the City. Placing required signs on such a small median may create a view obstruction which could obscure drivers' views of pedestrians.

Staff have developed an alternative treatment for this school crossing which would reduce the existing crossing distance from the current 11m to 6.6m, as shown in the Figure 1. This will provide a significant reduction in the time pedestrians will spend in the roadway, as well as create a block-long narrowing of Blenheim Street which will temper vehicle speeds. This treatment will have the added advantage of clarifying the existing parking regulations at the three tee intersections.

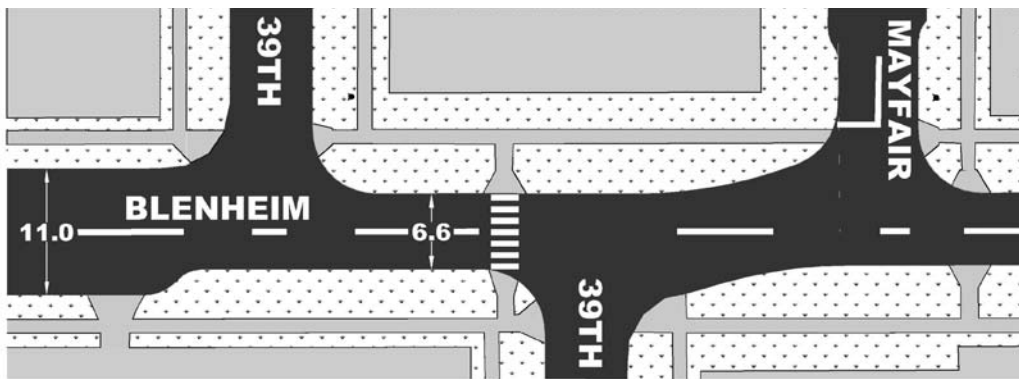


Figure 1: Proposed school crossing, Blenheim at West 39th

Staff recommend revising the Blenheim Street Traffic Calming plan to include this treatment at West 39th Avenue. The amount and type of construction is not substantially different from that included in the plan approved in 2006 and will not affect the budget.

Staff have reviewed this revised option with members of the Blenheim Neighbourhood Group. They have expressed a preference for the pedestrian refuge median as proposed in 2006.

Traffic Monitoring

In the fall of 2006, staff completed traffic studies at approximately 90 locations in the neighbourhood surrounding Blenheim Street. Traffic counts were completed on local streets parallel to and crossing Blenheim as well as on Blenheim Street itself. These counts allow staff to determine the number, speed and type of vehicles on these streets. This data will be used to assess the traffic effects of the measures to be built on Blenheim Street.

ENVIRONMENTAL IMPLICATIONS

The changes to the Blenheim Street plan described in this report have no new environmental implications. The traffic calming and pedestrian improvements included in the previously approved plan, as well as the Balaclava Bike Route approved as part of the same program, will provide enhanced opportunities for sustainable transportation modes.

FINANCIAL IMPLICATIONS

When Council approved the Blenheim Street plan in February 2006, staff provided a preliminary cost estimate of \$4 million, but detailed cost estimating had not been completed. Of the \$4 million, \$2 million was for reconstruction of existing pavement and \$2 million was for traffic calming measures.

The changes to the design at the Blenheim and West 39th intersection as recommended in this report will not affect the scope of work and the preliminary cost estimates approved by Council.

Staff concluded that the costs to construct a roundabout at King Edward and Blenheim and a sidewalk between Quesnel Drive and West 20th Avenue would outweigh the benefits they would provide and could increase the project cost by \$700,000 to \$900,000. Therefore, they are not recommended.

Staff will update the detailed project cost estimates based on the final design approved by Council and will report back with these estimates and with a request for approval to award a contract for road construction.

CONCLUSION

This report recommends maintaining the intersection of Blenheim Street and West King Edward Avenue in its current signalized configuration. It further recommends changes to the design of improvements to the school crossing at Blenheim Street and West 39th Avenue.

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