

Report to/Rapport au :
Transportation Committee
Comité des transports
and Council / et au Conseil

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CAPITAL (17) / CAPITALE (17)

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**SUBJECT: BRONSON AVENUE SAFETY AND OPERATIONAL REVIEW –
HOLMWOOD AVENUE TO BREWER WAY**

**OBJET : EXAMEN OPÉRATIONNEL ET DE LA SÉCURITÉ SUR L'AVENUE
BRONSON – DE L'AVENUE HOLMWOOD À LA VOIE BREWER**

REPORT RECOMMENDATION

That the Transportation Committee receive this report for information.

RECOMMANDATION DU RAPPORT

Que le Comité des transports prenne connaissance du présent rapport.

BACKGROUND

At the 7 November 2012 Transportation Committee meeting, Councillor Chernushenko brought forward a Councillor's report on the reduction of speed limit on Bronson Avenue between Holmwood Avenue and the pedestrian crossing at Brewer Way. This report was referred to staff to bring back a comprehensive In-Service Safety Review in March 2013; recognizing the current high speeds and historic rate of accidents, and efforts to be made to enforce existing limits and safe driving practices in the interim.

Public Works Staff completed a Safety and Operational review of the Bronson Avenue corridor and the report of this study is attached as Document 1. The proposed

countermeasures identified in this report strike a balance between the needs of pedestrians and cyclists travelling through the corridor and the needs of motorists utilizing this roadway as a primary north-south travel route. The plan aims to enhance the safety of pedestrians and cyclists at potential conflict points with motorists while ensuring that the function of Bronson Avenue as an arterial road is maintained at its current state.

DISCUSSION

Bronson Avenue is classified as an arterial roadway within the City's roadway classification system. According to the City's *Transportation Master Plan (2008)*, the primary function of an arterial roadway is to "serve 'through' travel between points not accessed directly from the road itself". Bronson Avenue is a high volume corridor that must retain mobility for all motorised users, including automobiles, transit, and emergency response vehicles.

The section of Bronson under study, between Brewer Way and Holmwood Avenue serves as a transition zone from a higher speed environment (the Airport Parkway) to a moderate speed arterial through a dense urban environment (the Glebe/Dow's Lake communities). Within the study area, Bronson Avenue is bordered on the west side by Carleton University and the Old Ottawa South community to the east. Brewer Park and the National Capital Commission (NCC) pedestrian and cycling pathways are located adjacent to this section of Bronson Avenue. Each of these land uses generates high volumes of pedestrian and cyclist activity in the corridor. A plan of the study area is attached as Document 2.

Operating Speeds

The posted speed limits in the study area range from 50 km/h in the northern section of the study area transitioning to 60 km/h south of the Rideau Canal to 70 km/h south of Sunnyside. Speed surveys were conducted in the corridor to determine the operating speeds along the corridor. The measured 85th percentile speeds ranged between 74-76 km/h along the corridor. The 85th percentile speed is the speed which 85 percent of the traffic is operating at or below.

Traffic Volumes

Traffic volumes are fairly high along the corridor. Two-way Average Annual Daily Traffic (AADT) volumes from 2011, along with turning movement counts from some of the intersections were used in this review. It was determined the northbound/ southbound directional split is 45% and 55%, respectively. AADT volumes ranged from 45,300 vehicles per day on the Canal Bridge to 51,300 vehicles per day between Brewer Way and Sunnyside intersections. The traffic volumes along this corridor are comparable to those on major arterial roadways within the city.

Collision Analysis

The City's Safety Improvement Program prioritizes locations for study based on the frequency of collisions (number of collisions per year) and the collision rate (number of collisions relative to traffic volumes). When compared to other roadway corridors within the City, this section of Bronson Avenue ranks 30th in terms of frequency of collisions and 96th for collision rate based on 2011 data. These numbers do not distinguish Bronson Avenue as a high safety concern for the City.

A detailed collision analysis for a ten year time period between 1 January 2002 and 31 December 2011 was undertaken as part of this review. Over this ten year time period, there was a total of 604 collisions within the study area. Of those collisions, 18 involved cyclists and 14 involved pedestrians. Cycling and pedestrian related collisions were analysed in detail.

The majority of collisions along the corridor are rear-ends. This is typical of signalized intersections.

The study corridor typically has one or two pedestrian collisions per year. The proportion of pedestrians involved in collisions occurring after dark was higher in the study section than city wide. There is a higher representation of collisions involving pedestrians in the Fall and Winter months; and all of them occurred on weekdays.

Within the study section, collisions with cyclists occur between 0 and 3 times per year. The proportion of cycling collisions that occurred in September, in dark conditions or in wet conditions were over-represented when compared to city-wide statistics. The September over-representation could be the result of new students riding to Carleton. While the over-representation of dark and wet conditions could indicate that the student population is more likely to ride during those conditions, than the average Ottawa cyclists.

Public Consultation

In order to gauge the comfort level of the pedestrians and cyclists who use the corridor on a regular basis, there was a public consultation component included in this review. Throughout the process there were regular meetings with an advisory group which included representation from the community associations in the surrounding area, delegates from Carleton University, the ward Councillor and City staff. Feedback was also gathered through the administration of an online and in-field user survey as well as a Public Open House.

The information gathered through the public consultation helped identify areas of concerns to provide guidance during the selection of appropriate countermeasures.

Summary of Issues

The results of the operational review, collision analysis and the public consultation highlighted the following safety issues/concerns along the corridor:

- Wrong-way cycling due to the path connection from the University to Bronson
- Vehicle speeds along the corridor
- Midblock pedestrian crossing between Sunnyside and Brewer Way
- Pedestrian crossing difficulty (motorists not yielding to pedestrians) at a variety of crossing locations (Sunnyside, Colonel By ramps)
- Cyclist collisions over-represented after dark, September, and under wet conditions
- High rear end collision occurrence at Brewer Way in the NB direction

Proposed Countermeasures to Address Issues

The City's Road Safety Group conducted a review of known safety countermeasures to determine which ones might be most suitable to address the identified safety issues. As well, a literature review was conducted to determine if other jurisdictions had tried and/or evaluated any of the potential countermeasures for similar safety concerns. Immediate and proposed future measures were identified.

IMMEDIATE COUNTERMEASURES

Immediate countermeasures included items such as signage and pavement markings; items that could be implemented immediately through Delegated Authority and within existing operating and capital budgets (Cycling Safety Improvement Program). They included pavement marking changes, signage changes, signal modifications such as making traffic signal lights more visible to motorists, the pilot of seasonal measures to separate the cycling lanes from traffic lanes along the corridor and an education campaign partnering Safer Roads Ottawa with Carleton University along with pedestrian and cycling groups to undertake a "Be Safe Be Seen" event on campus in September.

PROPOSED FUTURE COUNTERMEASURES

Proposed future countermeasures are countermeasures that will require geometric changes and where funding is possible through existing Capital Works programs. The proposed modifications include the installation of a Traffic Control Signal in the vicinity of the Colonel By on and off ramps south of the Rideau Canal and the reconfiguration of these ramps. Based on the number of pedestrians and cyclists who travel in this area, this location meets the warrants for a pedestrian signal, therefore funding for the preliminary design will be requested in the 2014 Capital Budget – New Traffic Control Signal Program. The exact location of the signal and the configuration of the ramps will be determined through the preliminary design process. Public consultation will be a key component of this work. It will involve consulting with residents who live in proximity of this location as well as those that live in the southern part of the City to allow for input from commuters who use this road. This consultation will be done by holding open

houses, one in the vicinity of Carleton University and the other at the Hunt Club Riverside Park Community Centre.

Funding for the detailed design and construction will be requested in the 2015 Capital Budget – New Traffic Control Signal Program.

Other future countermeasures were also identified such as modifications to the cross-section, construction of a gateway feature, or raised cycle tracks. These countermeasures require further study, significant funding and extensive geometric changes to the corridor. Funds for these works have not been identified.

Bronson Speed Limit

The proposed short-term measures outlined in this report may reduce the operating speeds of Bronson Avenue within the study area. Public Works will conduct speed surveys at different points along this corridor in May, July and September to determine if the short-term measures have had an impact on the operating speeds.

As per the procedure for setting speed limits within the City as outlined in the City of Ottawa *Speed Zoning Policy* approved by Council in 2009, the recorded operating speeds will be reviewed using the 85th percentile speed method to determine if the existing speed limit is still appropriate for this section of Bronson Avenue.

RURAL IMPLICATIONS

This report does not have any rural implications.

CONSULTATION

As part of the operational and safety review, it was imperative to gauge the sense of security and comfort level of pedestrians and cyclists who use this corridor on a regular basis. Therefore, public consultation was undertaken as part of this review.

IN-FIELD CYCLING AND PEDESTRIAN SURVEY

An in-field survey with pedestrians and cyclists was conducted at three locations on Bronson Avenue to identify safety concerns in the corridor. The survey was completed on Friday 16 November 2012. A brief questionnaire was presented to cyclists or pedestrians who were willing to stop and answer questions for a few minutes. An option to fill out the survey online was also provided. The total number of surveys completed was 668. Document 3 summarizes the results of this survey.

ADVISORY COMMITTEE GROUP

An advisory committee was assembled to provide input on specific safety related issues on Bronson Avenue and to review potential countermeasures to address safety issues. Representatives from the following organizations and associations were present at the meetings:

- Carleton University
- Carleton University Graduate Student Association
- Carleton University (CU) Cycling
- Citizens for Safe Cycling
- Walk Ottawa
- Old Ottawa South Community Association
- Glebe Community Association
- Dows Lake Community Association

PUBLIC OPEN HOUSE

A Public Open House was held at Carleton University on 27 February 2013, between 6:30 p.m. and 8:30 p.m. The purpose of the Open House was to present some of the proposed solutions. Approximately 80 people attended and the feedback from the Open House was generally favourable.

COMMENTS BY THE WARD COUNCILLOR(S)

Bronson Avenue has the difficult task of trying to be many things to many people: a major high-speed artery from the suburbs to downtown; an important link between established neighbourhoods; and increasingly, an obstacle between a major university and the residential areas where many students and staff live. As a high-speed road, it performs none of these roles well. Drivers, pedestrians and cyclists alike must tolerate conditions that are frustrating at best and dangerous at worst. Despite Bronson being the most direct route between many destinations, many people go out of their way to avoid it because the experience is so unpleasant and nerve-wracking. Others engage in unusual and sometimes illegal manoeuvres in order to make their travel experience safer — or at least feel safer.

There are many possible solutions to alleviate this unfortunate situation such as: Reduce the speed of traffic; modify road geometry to improve the awareness of all road users and reduce the dangers at intersections; and add features and facilities that make Bronson's roadway, bike lanes and sidewalks more appealing and safer for everyone. We can do all these things in a way that has minimal, if any, impact on commuters overall travel times during rush hour. We can also do so while implementing the City of Ottawa's own transportation policies meant to explicitly favour transit, walking and cycling. These policies were designed to improve the quality of life in our city and were not, I hope, simply empty gestures.

As Ward Councillor, as the sponsor of this Safety and Operational Review, and as a local resident who regularly drives, cycles and walks on Bronson, I sought to work with our professional staff to develop a set of recommendations that would be satisfactory to all involved. My goal is to make Bronson safer, to encourage more active transportation, to reduce the overall cost to taxpayers of road maintenance and the enforcement of traffic rules.

The recommendations of this report achieve that triple win. All available evidence shows there are no losers from what is being proposed. We have consulted widely during the initial study phase and provided the opportunity for anyone in the region to

comment. Afterwards, we then went through several rounds of in-depth consultations with the most affected community, students and user groups.

I am convinced that we have considered and examined all the options. We have ruled out those with very high costs and no commensurate operational and safety benefits, and found an important balance that does not create unnecessary inconvenience while still achieving significant safety improvements.

This package of recommendations represents an effective, economical and relatively speedy set of modifications that should improve this section of Bronson Avenue for all who travel on it, or live, work or play beside it.

LEGAL IMPLICATIONS

There are no legal impediments to receiving this report.

RISK MANAGEMENT IMPLICATIONS

There are no risk management implications.

FINANCIAL IMPLICATIONS

The report has identified immediate countermeasures that Public Works will address using existing operating and capital budgets authorities.

The proposed future countermeasures recommended in 2014 and 2015 will be submitted to Council in future capital budget submissions for consideration and approval.

ACCESSIBILITY IMPACTS

The installation of the pedestrian signal in the vicinity of the Colonel By ramps will provide an additional accessible crossing for those wishing to cross Bronson Avenue. The crossing will be equipped with audible signals.

TECHNOLOGY IMPLICATIONS

There are no technology implications.

TERM OF COUNCIL PRIORITIES

The outcomes of this report support success indicators TM3 and TM4 of the Traffic and Mobility Priority:

TM3 – Provide infrastructure to promote mobility choices

TM4 – Promote alternative mobility choices.

SUPPORTING DOCUMENTATION

Document 1 – Bronson Avenue Operational and Safety Review Report

Document 2 – Figure 1- Key Plan

Document 3 – Summary of results - Pedestrian and Cycling Survey

DISPOSITION

The short term countermeasure outlined in this report will be installed in the Spring of 2013. Subject to approval of funds in the 2014 Capital Budget under New Traffic Control Signal Program, the installation of a Traffic Control Signal and proposed roadway modifications as outlined in this report under medium-term countermeasures will be constructed in 2014.