

REPORT

Engineering Services

To: Mayor Cote and Members of Council **Date:** December 13, 2021

From: Lisa Leblanc
Director of Engineering Services **File:** 09.1860.10.05
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Item #: 2021-629

Subject: Signalized Intersection Policy

RECOMMENDATION

THAT Council endorse the Signalized Intersection Policy, as presented in this report.

PURPOSE

To seek Council's endorsement of the Signalized Intersection Policy, which sets out principles and implementation approach for both new and current signalized intersection design that is consistent with the Master Transportation Plan priorities of walking, cycling, and transit.

BACKGROUND

The City of New Westminster currently does not have a working policy for signalized intersection features such as infrastructure layouts, road user priorities, signal phasing best practices, and implementation strategy. As such, some of the City's signalized intersections may be inconsistent with the City's Master Transportation Plan and its prioritization of walking, cycling, and transit, along with road safety and accessibility.

To ensure that the City's traffic signals and any potential future changes are aligned with the City's transportation goals, the attached Signalized Intersection Policy provides principles and guidelines.

Although the bulk of this policy is intended to apply to intersections with full and pedestrian-activated (half) signals, elements of the policy also apply to intersections with signalized warning systems (special crosswalks and rectangular rapid flashing beacons).

EXISTING POLICY AND PRACTICE

The City of New Westminster does not have an existing documented policy for signalized intersections. As such, when items related to the modification or construction of such intersections arise staff typically apply current documented best professional practices. This approach could result in intersections that adequately *accommodate* but not necessarily *prioritize* modes such as walking, cycling, and transit, and thus can be inconsistent with the City's Master Transportation Plan.

The prioritization of walking, cycling, and transit, as it relates to signalized intersections, is addressed in the following Master Transportation Plan goals:

- Goal 1.2: Address barriers to walking, cycling, transit and ride share within the community;
- Goal 1.3: Provide support systems – policies, facilities, services and programs – to encourage opportunities for walking, cycling, and using transit;
- Goal 2.1: Promote active and healthy living by encouraging walking and cycling for commuter or recreational purposes;
- Goal 3.2: Promote modes of transportation and programming that support mobility for children and youth;
- Goal 3.3: Serve transportation needs for persons of all abilities.

As well, there are applicable Policies and Actions described in the Master Transportation Plan that are as follows:

- Policy 1A – Enhance the Pedestrian Network - specifically 1A2 (prioritization of sidewalk improvements in areas with vulnerable road users);
- Policy 1C – Improve Pedestrian Safety and Accessibility – specifically 1C.2 (pedestrian-scale street lighting and transition to white light sources to support pedestrian visibility), 1C.4 (obstruction-free areas for pedestrians), 1C.7 (designs that recognize pedestrian needs), and 1C.11 (pedestrian improvements as part of all street capital projects and significant developments as opportunity arises);
- Policy 2B – Provide Safe and Comfortable Bicycle Facilities – specifically 2B.2 (prioritization of cyclist movements on primary routes); and,
- Policy 3C – Implement Priority Treatments – specifically 3C.3 (partnering with TransLink to strategically implement transit priority measures).

DISCUSSION

Multiple discussions with the Sustainable Transportation Advisory Committee (STAC) and the Sustainable Transportation Task Force (STTF) have been completed to provide information and seek guidance and direction throughout the development of this Signalized Intersection Policy. The resulting Policy is shown in Attachment 1, which consists of the following six fundamental principles:

1. Traffic signals must be designed such that pedestrian safety is ensured, and such that pedestrian comfort and convenience are optimized (with possible delays to other road users, including people on bicycles and buses).
2. Traffic signals must not present any barriers to accessibility.
3. Consideration for the comfort and convenience of people on bicycles and using other non-automobile modes is important, second only to considerations for people on foot and/or using mobility aids.
4. Careful consideration must be given to ensure that bus reliability is not significantly compromised.
5. Changes to existing signalized intersections should be focused on enhancing or improving current infrastructure, instead of on removing existing features.
6. With limited resources, priority will be given to the intersections with the highest number of pedestrians, and especially our most vulnerable pedestrians (seniors, children, people with disabilities), including:
 - near schools and Walking Routes to School;
 - near services for seniors and vulnerable populations;
 - along Greenways / Multi-Use Paths / designated bicycle routes where there are expected high pedestrian and bicycle volumes
 - in commercial areas;
 - near Royal Columbian Hospital and surrounding area, as well as other medical service providers where appropriate; and,
 - around SkyTrain stations.

FINANCIAL IMPLICATIONS

Implementation of and adherence to the Signalized Intersection Policy will result in future City expenditures to ensure that the City’s existing and planned traffic signals develop in a manner that is consistent with the policy. Capital investment required to achieve the objectives of the policy will either be reflected in planned traffic signal and intersection construction/maintenance budgets, or added to future capital plans.

INTERDEPARTMENTAL LIAISON

Additional interdepartmental input was provided by Electrical Utility staff.

OPTIONS

The following options are presented for Council’s consideration:

1. That Council endorse the Signalized Intersection Policy, as presented in this report.
2. That Council provide staff with alternative direction.

Staff recommends Option 1.

CONCLUSION

The Signalized Intersection Policy is consistent with the priorities of the Master Transportation Plan. The Policy explicitly prioritizes people walking, wheeling, cycling, and using transit, while also reinforcing the need for the safety of all users of intersections. By defining key principles to guide City staff with desirable traffic signal features, and determining how and where these measures should be implemented, this Policy determines the City's direction to prioritize sustainable transportation modes for both new and current signalized intersection design.

ATTACHMENTS

Attachment 1 – Signalized Intersection Policy

APPROVALS

This report was prepared by:
Kanny Chow, Transportation Engineer

This report was reviewed by:
Mike Anderson, Acting Manager of Transportation

This report was approved by:
Lisa Leblanc, Director of Engineering
Lisa Spitale, Chief Administrative Officer