



## Legislation Details (With Text)

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2/10/2020	1	Community Growth & Infrastructure Standing Committee	approved	

**TAMRMS#: B09**

**..title**

### Transportation Network Speed Study

Presented by: Dean Schick, Manager of Transportation, Engineering Services Department

### RECOMMENDATION(S)

That Community Growth & Infrastructure Standing Committee recommend to Council that:

- 1) The "Transportation Network Speed Limit Review" report, provided as an attachment to the February 10, 2020 agenda report entitled "Transportation Network Speed Study", be received as information.
- 2) \$20,000 be approved from the Stabilization Fund to enable Administration to hire a consultant to conduct focus groups with residents to gather feedback on the Transportation Network Speed Limit Review recommendations and potential Traffic Bylaw amendment.
- 3) Administration draft and present amendments of Traffic Bylaw 18/2005 to the Community Growth & Infrastructure Committee in June, for consideration of recommending First Reading and to set a non-statutory public hearing for the Traffic Bylaw update in July 2020.

### PURPOSE OF REPORT

Administration has completed a detailed review of current posted speed limits throughout the City's transportation network which has resulted in recommendations for changes. This report provides an overview of the process and results of the speed review with final recommendations. The output of the Committee meeting will inform Administration on advancing any amendments to the Traffic Bylaw and requested public engagement.

## **ALIGNMENT TO COUNCIL STRATEGIC PRIORITY**

Strategic Priority #3: Building a Transportation Network: Integrated transportation systems.

- Administration Activity 3.6: Develop the Transportation Safety Plan and recommend implementation of initiatives to minimize risk of injury or fatality on City roadways.

## **ALIGNMENT TO SERVICE DELIVERY**

N/A

## **ALIGNMENT TO COUNCIL (OR COMMITTEE) DIRECTION OR MANDATORY STATUTORY PROVISION**

N/A

## **BACKGROUND AND DISCUSSION**

The City formally adopted a Transportation Safety Plan, with supplemental Implementation Plan, in October 2018. The Plan itself provides an overview of the current state of traffic safety within the community, developed principles of how safety will be targeted for improvement, and set the City's mission to "Vision Zero" - where no serious injuries or fatalities occur as a result of motor vehicle collisions on our roadways. As such, the priority of reducing and seeking actions to eliminate these severe collisions are targeted in the short-term, with an emphasis on setting the foundation for evidence-based decision making through strong data collection, reporting and analysis and targeting opportunities of safe system design and operations to address common network risks that may influence probability of a severe incident occurring.

The priority focus areas for the implementation of the Plan were derived from collision data and the objective of achieving Vision Zero. Short-term targets involved:

- 1) Network collision screening, reporting and prioritization: It is critical the city continue to move forward with an evidence-based approach that delivers strategies resulting in highest benefit to safety while being financially responsible.
- 2) Network Speed screening and mitigation measures: As speed is a direct influence on resulting severity of motor vehicle collisions, a key preliminary action will surround data collection, analysis and interpretation of vehicle speeds and influence on collision occurrence or risk. Evaluations are proposed of the City's arterial network and local network, inclusive of school and playground zones. Results of the investigation will be combined with context of industry practice in relation to posting speeds and operational considerations and may be used for recommendations of amendments moving forward. Addressing validated areas of speed and collision issues will also be targeted through various strategies identified in the Plan.
- 3) Targeted collision reduction: Strategies focused on reducing motor vehicle incidents involving:
  - a. Rear end collisions
  - b. Right angle collisions
  - c. Left turn across path collisions
  - d. Young Drivers

The actions completed for delivery of the "Transportation Network Speed Limit Review" and

recommendations stemming from the results of the detailed study align directly to the target area #2 above. To highlight the work completed, the following summary provides an overview of the process followed to review the current posted speeds of the City.

- 1) **Best / Current Practices Review:** Current practices review of comparable communities regarding current speed limit setting practices.
- 2) **Background Information Review:** Comprehensive review of existing St. Albert studies, reports and documents related to speed limits.
- 3) **Transportation Association of Canada (TAC) - Canadian Guidelines for Establishing Posted Speed Limits (CGEPSL):** An overview of the CGEPSL and then application of the Guidelines to the City's transportation network to evaluate road segments based on criteria and factors and rankings of the Guidelines.
- 4) **Local Roadway Review:** Separate review of local roadways and recommendations made based on the review. Note the CGEPSL guide does not apply to local roadways (as per the guide) and the entire local road network was not reviewed, but a sample size was investigated.
- 5) **Playground and School Zone Review:** A review of the current Playground Zone and School Zones and recommendations based on the Alberta Transportation Guidelines for Playground and School Zone Area and Zones
- 6) **Safe Systems Review:** Application of safe systems and recommendations for setting speed limits based on the safe system approach.
- 7) **Preliminary Speed Limit Recommendations:** Recommendations for speed limits based on interpreting combined results from the above subject areas.
- 8) **Stakeholder Review:** Following development of any recommendations resulting from the above completed actions; share recommendations and seek impact or influence on stakeholder service delivery.
- 9) **Final Speed Limit Recommendations:** Recommendations based on interpreting combined results of the above subject areas and feedback from stakeholders.

The attachment to this Agenda Report, the "Transportation Network Speed Limit Review" report, provides full information on the process as well as the results of the review. In summary of the results, recommendations of changes to the Traffic Bylaw include the following:

- 1) Reducing all neighbourhood roadways (collector roads and local roads) to 40 km/hr from the existing 50 km/hr.
- 2) Increase of speed limits for the following arterial road segments - with "start" and "end" of segments and recommended change in speed:
  - a. Sir Winston Churchill Avenue - Riel Drive to Levassuer Road: from 50 to 60 km/h
  - b. Bellerose Drive - Evergreen Drive to City limits: from 50 to 60 km/h
  - c. Sir Winston Churchill Avenue - north-east of Poirier Avenue to City Limits: from 50 to 60

km/h

- d. Sturgeon Road - Beacon Crescent (S) to Boudreau Road: from 50 to 60 km/h
  - i. Note - Maintain the reduced speed warning sign along the curve of the road in the vicinity of Bishop Street
  - ii. Note - Due to accesses and multiple intersections on the segment from St Albert Trail to Beacon Crescent (S), it is recommended to remain at 50 km/h.
- e. Dawson Road - Giroux Road to McKenney Avenue: from 50 to 60 km/h
- f. Meadowview Drive - West of Ray Gibbon Drive: from 60 to 70 km/h

3) Removal of existing short 30 km/hr zones at the following locations:

- a. Sturgeon Road: Burns Street to Burnham Avenue
- b. Mission Avenue: Between St Vital Avenue and Malmo Avenue
- c. Grosvenor Boulevard: Gaylord Place to south of Grenfell Avenue
- d. Grenfell Avenue: Gatewood Avenue to Greenwich Crescent
- e. Meadowview Drive: Mission Avenue to 150 m west of Mission Avenue

4) Playground and School Zones

- a. Change from School Zone to Playground Zones at Elementary Schools
- b. Apply a time of day for playground zones, 8 AM - 8 PM, this would apply every day of the year.
- c. Removal of three playground zones, with no playground equipment (only park space)

The proposed amendments above are highlighted in the map attached to this agenda report.

With the above proposed amendments to the Traffic Bylaw, there are further recommendations for action, prior to implementation of speed changes, that address safety or operations in both scenarios of increasing or decreasing speed limits:

- a) Along arterial road segments of proposed increased speed limits, pedestrian crossings should be improved to be equipped and operational with pedestrian warning systems.
  - i) These improvements should be in place prior to any change in posted speed.
  - ii) Estimated value of improving these crossings is \$270,000.
- b) Apply Playground Areas - warning signs with tab signs encouraging the proposed reduced neighbourhood speed of 40 km/h (not a change in the actual speed limit - just reposted with the warning sign)
  - i) Estimated value of this recommendation is \$20,000.

In addition to the above, Administration anticipates detailed network monitoring of road segments that had been recommended for speed reduction within the report; however, which are not being recommended to be enacted until completion of planned roadway improvements and further network monitoring for operational and safety considerations are performed. Segments recommended for this further review and deferral of changes until investigation of roadway improvements are completed are:

- 1) Boudreau Road / Giroux Road in vicinity of the St. Albert Trail corridor; Liberton Drive to Inglewood Drive:
  - a. Intersection improvements were started, and the intersection redesign completed in 2019, with final paving activity of the intersection to be completed in 2020.
- 2) Villeneuve Road: Commercial area access points to St. Albert Trail

- a. Intersection and corridor access improvements are planned for completion with Phase 1 construction of the North St. Albert Trail Improvements anticipated for construction in 2020 / 2021.
- 3) Hebert Road, from Arlington Drive to St. Albert Trail
  - a. Arterial intersection improvements are anticipated for construction; however, no detailed schedule completed.
  - b. Congestion and safety prioritization in the area of the Hebert Road and St. Albert Trail intersection may result in the expedition of work to the area.

Considerations / comments on potential negative influences from the above recommendations of Bylaw amendments:

1) Reduced neighbourhood speeds resulting in increased travel time:

- a. Reduced speeds are recommended to the collector / local road network only, which typically represent shorter durations for commuters / passenger vehicles.
  - i. An offset in travel time may occur with proposed increases of posted speed limits to the arterial network.
- b. Travel time comparison:
  - i.

Scenario	Travel Time
Traveling 2 km at 50 km/h	2 minutes 24 seconds
Traveling 2 km at 40 km/h	3 minutes
Travel time variance (40 km/h subtract 50 km/h)	36 seconds

ii. Examples of substantial neighbourhood travel distances, from a residence in a community to an arterial roadway (noting that alternative and shorter distances would be available):

1. Erin Ridge community; Eastcott Drive to Bellerose Drive at Erin Ridge Drive via the route of Erin Ridge Drive = 2.63 km.
2. Oakmont community; Otter Crescent to Bellerose Drive at Oak Vista Drive, via the route of Oakridge Drive South = 1.6 km
3. Kingswood community; Kingsford Crescent to Poirier Avenue at Keillor Drive, via the route of Kingswood Boulevard to Keillor Drive = 1.8 km
4. Lacombe Park community; Lamartine Crescent to Giroux Road at Larson Avenue, via a route of Larose Drive (eastbound) to Larson Avenue to Giroux = 1.9 km

- 2) Extended Playground Zone Hours; not required with seasonal changes and shorter days:
  - a. Current / existing playground zone times follow Provincial guidelines and are 8:30 am to 1 hour after sunset.
  - b. Playground hours would be longer in the summer months under current / Provincial time applications compared to the recommended 8 pm; however, recorded volumes of vehicles and park space users are lower after 8 pm resulting in less conflict.
  - c. In winter months, the time period of 8 am to 8 pm results in:
    - i. 0.5-hour extension in the am

ii. Approximate 3-hour extension in the evening hours

1. Based from the 2019 shortest day of the year, to which the sunset at 4:13 pm.
- d. Playground zone locations are also locations to which winter activities occur and are supported; skating rinks, tobogganing hills, all season trails; this results in activity (albeit potentially lower than summer volumes).
- e. With seasonal changes - roadway condition changes and reduced natural lighting; the safe system application of reduced speeds (maintaining the lower playground zone speed) aligns to influencing driver behavior to the actual conditions; although volumes may be lower at some sites, reduced speeds support the conditions.

3) Increased arterial speed limits and pedestrian safety:

- a. In recognition of the conflict of road users and competing priorities of vehicles and pedestrians for safety and efficiency; improvements to pedestrian crossings are recommended to be implemented prior to any increase in speed limits.
- b. Improving the visibility and warning systems at pedestrian crossings, increases driver awareness of the crossing locations and awareness when a pedestrian is crossing the roadway.

In terms of time lines associated with actual implementation of changes, pending presentation of recommendations to Council, completion of public engagement (if desired by Council or the Committee), and final Council support of amendments to the Traffic Bylaw, Administration would not anticipate completion of city-wide field application of changes until late 2020 or early 2021 in acknowledgement of:

- 1) Council presentation of the amended Traffic Bylaw occurs in July 2020.
- 2) Pending results of presentation; should Council approve Traffic Bylaw Amendments in July 2020:
  - a. Pedestrian crossing improvement funding is approved, and work is initiated in July and completed by October 2020 on arterial roadway crossings.
    - i. Note, Alternative #3 would provide opportunity to initiate and complete pedestrian crossing improvements earlier.
  - b. Public communications occur for a minimum of 2 months (July - September 2020)
  - c. Field changes begin in September; minimum requirement of 4 months to perform city wide changes. (Completed by end of January 2021).

In terms of estimated costs to implement the recommendations of speed changes, the following is considered:

- 1) Speed signage changes in the field = \$55,000
- 2) Playground / School Zone sign changes = \$20,000
- 3) Pedestrian crossing improvements (warning flashers and road markings) on arterial segments of increased speed = \$270,000
- 4) Public Notifications of Speed Changes = \$20,000

Total estimated costs of implementing recommended speed changes = \$365,000.

- It would be recommended that \$200,000 of the Speed on Green Reserve Funds be

used towards these improvements; and the remaining funds of \$165,000 from the municipal reserve.

- Final costs will be relevant to actual approved Bylaw changes and necessary infrastructure to support changes in the field.

## STAKEHOLDER COMMUNICATIONS OR ENGAGEMENT

As a preliminary step in the project, comparable municipalities were contacted to find out relative information on triggers and processes followed for performing speed reviews, current practice and speed settings, and any planned changes or influence on speeds. Fourteen (14) Canadian municipalities were contacted and an online survey performed to capture current state and practices - with all information of responses within the report.

Following the completion of the current practice review, applying the Transportation Association of Canada Guidelines for Posted Speeds, performing site investigations and applying a Safe System review, the results of the study and recommendations were shared through an internal stakeholder workshop in November 2019 and with a follow up survey of the City with representatives from various departments including: Transit, Municipal Enforcement, RCMP, Public Works, Strategic Services / Communication, Parks and Recreation and Engineering. The following were comments provided by the shown stakeholders on the impacts of applying the recommendations of speed changes (note - stakeholder feedback is also shared within the speed report documents, Section 9.3 of the report):

- Municipal Enforcement & RCMP
  - There is no direct impact to enforcement service levels or funding.
  - However, there is a potential indirect (and unknown) impact to operations in that community expectations may increase to focus more time and effort in areas where new reduce speeds have been established.
  - A second indirect impact may involve public perceptions of enforcement related to any roadway segment that has been reduced in posted speed. For example - “cash cow” or conspiracy theories that reducing speeds was orchestrated as a result of reduced fine revenues.
    - Making the full report of the speed review public should provide response to such opinions and provide the background and results as to why recommendations of speed changes were made outside of enforcement recommendations.
- Transit
  - Feedback from November 2019

Any influence to travel times can significantly influence Transit services and it is anticipated that two key routes (with bi-directional / two directional service) would be impacted to the extent that current approved service levels would not be achievable if neighbourhood speeds were reduced to 40 km/hr.

  - If current standards of level of service and neighbourhood coverage is maintained, then each of the two routes would be required to have an additional transit bus deployed (resulting in an estimated impact of \$961,000 per year of operational fees).
  - Alternatively, if standards of level of service are modified, the reduced speeds



may be not be a negative influence on Transit services.

Update (January 2020):

- On January 20, 2020, Council approved motion CB-20-011; “That Administration implement the transit service level revisions, effective September 2020, as presented at the January 13, 2020 Community Growth & Infrastructure Standing Committee meeting.”

The results of this motion and approved service level change allow Transit to accommodate the recommended Traffic Bylaw amendments, with no operational costs associated.

- Parks and Recreation
  - Concern around extending playground zone hours at school sites, particularly at sites adjacent to arterial roadways.
  - Concern around removal of three existing playground zone sites; however, the influence of reduced neighbourhood speeds may address concerns.
  - Department suggested implementing recommended speed changes in stages.
- Public Works
  - No anticipated impacts to service levels and support provided to all recommendations.

It is important to note that the completion of work of the Transportation Network Speed Review was not inclusive of any resident or public engagement; the recommendations within the report stem directly from engineering practice and site-specific reviews, with integration of safety and operational considerations.

As identified within the “Recommendations”, Administration is recommending that \$20,000 be approved to fund public engagement work to obtain resident feedback on the proposed amendments. This feedback would be incorporated into the report package and presented to Council with proposed amendments to the Traffic Bylaw.

In addition, pending the Committee’s and Council’s approval of amendments to the Traffic Bylaw, it is recommended that an additional \$20,000 be approved to fund resident notifications prior to field changes. Actions may be inclusive of written media advertising, civic facility advertising, variable message sign rental and application.

## **IMPLICATIONS OF RECOMMENDATION(S)**

### **Financial:**

The immediate recommendations for Administration require \$20,000 for completion of public engagement on the proposed Traffic Bylaw amendments; unless “Alternative 3” is requested (please see details in Alternatives).

### **Legal / Risk:**



None at this time.

Program or Service:

None at this time.

Organizational:

None at this time.

## **ALTERNATIVES AND IMPLICATIONS CONSIDERED**

If Council does not wish to support the recommendation(s), the following alternatives could be considered:

Alternative 1. The Committee may receive the information and report package and direct Administration to not draft any further reporting or recommendations to amend the Traffic Bylaw as related to the Transportation Network Speed Study report. If this alternative is chosen, only recommendation 1 should be moved.

Alternative 2. The Committee may receive the information and report package and direct Administration to draft specific amendments only, with clear direction of requested amendments, to the Traffic Bylaw as related to the Transportation Network Speed Study report. No Proposed wording as direction would have to be made specific.

Alternative 3. The Committee may recommend to Council to receive the information and report package, direct Administration to draft all amendments, or specific amendments, to the Traffic Bylaw and to approve \$290,000 to complete public engagement, recommended pedestrian crossing improvements to the arterial roadway segments recommended for increased speed limits, prior to the Traffic Bylaw amendments being presented to Council, and \$95,000 for required public notification and field signage installation, conditional on passage of the bylaw.

Proposed wording would be:

That Community Growth & Infrastructure Standing Committee recommend to Council that:

- 1) The "Transportation Network Speed Limit Review" report, provided as an attachment to the February 10, 2020 agenda report entitled "Transportation Network Speed Study", as information.
- 2) \$20,000 be approved from the Stabilization Fund to enable Administration to hire a consultant to conduct focus groups with residents to gather feedback on the Transportation Network Speed Limit Review recommendations and potential Traffic Bylaw amendments.
- 3) Administration draft and present amendments of Traffic Bylaw 18/2005 to the Community Growth & Infrastructure Committee in June, for consideration of recommending First Reading and to set a non-statutory public hearing for the Traffic Bylaw update in July 2020.
- 4) \$270,000 be approved to implement pedestrian crossing improvements to the arterial roadway segments recommended for increased speed limits with \$200,000 being funded from the Speed on Green Reserve Funds and \$70,000 being funded from the Capital Reserve.

- 5) Conditional on passage of Traffic Bylaw 18/2005, an additional \$95,000 be approved from the Capital Reserve to perform advance warning notifications to the public and for the installation of speed/playground/school zone signage

Report Date: February 10, 2020

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Committee/Department: Engineering Services Department

Deputy Chief Administrative Officer: Kerry Hilts

Chief Administrative Officer: Kevin Scoble