Agenda – Council – June 23, 2022

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – June 9, 2022

Item No. 5 Traffic Study for Speed Limit on Fermor Avenue Between Dunkirk Drive and St. Anne's Road (St. Vital Ward)

STANDING COMMITTEE RECOMMENDATION:

On June 15, 2022, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and submitted the following to Council:

1. That the speed limit on Fermor Avenue between the eastern boundary of Dunkirk Drive and a point 150 metres east of the eastern boundary of St. Mary's Road be reduced from 70 km/h to 60 km/h.

2. That the City Solicitor and Director of Legal Services be instructed to prepare an amendment to Speed Limit By-law No. 63/2019 in accordance with this report and bring same directly to Council for enactment.

3. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – June 9, 2022

DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On June 15, 2022, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On June 9, 2022, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

On January 13, 2022, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Riel Community Committee and directed the Winnipeg Public Service to report back to the Standing Committee in 150 days.

David Grant submitted a communication dated January 12, 2022, with respect to the matter.

COMMUNITY COMMITTEE RECOMMENDATION:

On January 5, 2022, the Riel Community Committee passed the following motion:

WHEREAS Fermor Avenue passes directly in front of the St Vital YMCA-YWCA, Glenlawn Collegiate, St. Vital Memorial Park and St Vital Library;

THEREFORE BE IT RESOLVED that the Standing Policy Committee on Infrastructure Renewal and Public Works be requested to direct the Winnipeg Public Service to report back on the following:

1. Reducing the speed limit on Fermor Avenue between Dunkirk Drive and St. Anne's Road.

2. The installation of appropriate speed limit signage to inform drivers of the changes, as required.

ADMINISTRATIVE REPORT

Title: Speed Limit on Fermor Avenue between Dunkirk Drive and St. Anne's Road

Critical Path: Standing Policy Committee on Infrastructure Renewal and Public Works - Executive Policy Committee - Council

AUTHORIZATION

Author	Department Head	CFO	CAO
D. Patman, P. Eng.	J. Berezowsky	C. Kloepfer	M. Jack

EXECUTIVE SUMMARY

The Public Service was directed to review the existing 70 km/h posted speed limit on Fermor Avenue between Dunkirk Drive and St. Anne's Road. In recommending appropriate speed limits, the Public Service follows the guidance in the Council approved *Technical Guideline A-2b Speed Limit Reviews.*

The Public Service recommends that the speed limit on Fermor Avenue be reduced from 70 km/h to 60 km/h for the segment between Dunkirk Drive and 150 metres east of St. Mary's Road.

The Public Service recommends that there be no change at this time to the existing 70 km/h speed limit on Fermor Avenue between 150 metres east of St. Mary's Road and St. Anne's Road.

RECOMMENDATIONS

1. That the speed limit on Fermor Avenue between the eastern boundary of Dunkirk Drive and a point 150 metres east of the eastern boundary of St. Mary's Road be reduced from 70 km/h to 60 km/h.

2. That the City Solicitor and Director of Legal Services be instructed to prepare an amendment to Speed Limit By-law No. 63/2019 in accordance with this report and bring same directly to Council for enactment.

3. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

On January 13, 2022 the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Riel Community Committee and directed the Winnipeg Public Service to report back in 150 days on the following:

1. Reducing the speed limit on Fermor Avenue between Dunkirk Drive and St. Anne's Road.

2. The installation of appropriate speed limit signage to inform drivers of the changes, as required.

The recommendations require a By-law amendment to the Speed Limit By-law No. 63/2019 and must be approved by Council.

IMPLICATIONS OF THE RECOMMENDATIONS

Adoption of the recommendation for the speed limit change will provide a more appropriate speed limit for the area in front of the Glenlawn Collegiate and St. Vital Library. Schedule A to the Speed Limit By-law 63/2019 will be amended. Subsequently, appropriate speed limit signage will need to be changed. The estimated total costs are $1,600 for signage and will be funded by the Traffic Services operating budget.

HISTORY/DISCUSSION

BACKGROUND INFORMATION

At the March 13, 2014 meeting of the Standing Policy Committee on Infrastructure Renewal and Public Works (SPC-IRPW) the report *Speed Limit Requests – Fermor Avenue* recommended that there be no change to the 70 km/h speed limit on Fermor Avenue between St. Mary's Road and Dunkirk Drive. One of the primary rationales provided was that the minimum length of a speed zone should be no less than 1 kilometre on a limited access facility such as Fermor Avenue and that introducing a short segment with a 60 km/h speed limit would not be desirable.

At the April 6, 2022 meeting of the SPC-IRPW, the report *Speed Limit – St. Vital Bridge, Dunkirk Drive, and Osborne Street* recommended the speed limit on Osborne Street and Dunkirk Drive between Clare Avenue and the projection of Glenview Avenue be reduced from 70 km/h to 60 km/h, and that this speed limit change be implemented as part of the St. Vital Bridge Rehabilitation Project. The report was laid over to the May 4, 2022 meeting of SPC-IRPW and further laid over to the June 9, 2022 meeting.

STUDY AREA

This report assesses the speed limit on Fermor Avenue between Dunkirk Drive and St. Anne's Road. The study area and existing speed limits are illustrated in Figure 1 at the end of this report. Speed Limit By-law 63/2019 currently sets the speed limit on Fermor Avenue as 70 km/h between the eastern boundary of Dunkirk Drive and just east of Lakewood Boulevard / Autumnwood Drive. Fermor Avenue between Dunkirk Drive and St. Anne's Road is a four-lane divided Regional Street, Transit Route, and Full Time Truck Route (Route 135). Fermor Avenue is a limited access facility.

The approximately 680 metre segment of Fermor Avenue between Dunkirk Drive and St. Mary's Road carries an Average Weekday Daily Traffic (AWDT) volume of 21,200 vehicles. On the north side there is a loading bay (used by the daycare, YMCA, and Glenlawn Collegiate), three private approaches (to the YMCA and Glenlawn Collegiate), and a transit bay. On the south side there is one public street (Killarney Street) and a transit bay. All of these intersections are "right turn in, right turn out"; this configuration results in the least number of conflict points

between motorists entering/exiting and other road users. There is one median opening with storage lane on Fermor Avenue between St. Mary's Road and Dunkirk Drive (approximately 200 metres west of Killarney Street) which allows motorists to make a westbound U-turn maneuver only. There is an intersection safety camera installed on westbound Fermor Avenue near-side of St. Mary's Road, and there are no at-grade pedestrian crossings between St. Mary's Road and Dunkirk Drive.

The approximately 600 metre segment between St. Mary's Road and St. Anne's Road carries an AWDT volume of 28,700 vehicles. On the south side there is an access to/from the service road and a transit bay. On the south side there are access points to two public streets (St. David Road and St. Andrew Road) and a transit bay. All of these intersections are "right turn in, right turn out"; this configuration results in the least number of conflict points between motorists entering/exiting and other road users. There are no at-grade pedestrian crossings between St. Mary's Road and St. Anne's Road. The intersection of Fermor Avenue/St. Anne's Road was reconstructed in 2019 and designed for a 70 km/h posted speed limit.

SPEED LIMIT REVIEW PROCESS

In recommending appropriate speed limits, the Public Service follows the guidance in the Council approved *Technical Guideline A-2b Speed Limit Reviews* which adopts the *Manitoba Infrastructure Guide for Setting Posted Speed Limits on Manitoba Roadways* (2019) engineering speed limit study as the framework, with minor modifications, to evaluate and recommend posted speed limits.

An engineering speed limit study can help identify, review, and propose solutions for roadways where the traffic authority has concerns with the current speeds. The engineering speed limit study provides a speed limit recommendation based on the operating speed, target speed, and collision history.

Vehicle Operating Speed Characteristics

The operating speed is the speed at which motorists choose to travel on a given roadway. Speed choice by drivers is based on a variety of factors, including roadway and roadside characteristics, weather, traffic characteristics, vehicle characteristics and the purpose of the trip. The operating speed for a particular road section can be estimated by measuring individual speeds through a spot speed study. The following describes operating speed characteristics:

- ***50th Percentile Speed.*** The 50th percentile speed is the speed at or below 85 percent of the measured speeds in a spot speed study.
- ***85th Percentile Speed.*** The 85th percentile speed is the speed at or below 85 percent of the measured speeds in a spot speed study.
- ***15 km/h pace.*** The 15 km/h pace is the 15 km/h range of speeds that encompasses the greatest percentage of measured speeds in a spot speed study.

Three vehicle operating speed studies were completed in March 2022. Table 1 provides a summary of the observed vehicle speeds.

Table 1: Vehicle Operating Speed Data

Speed study location	50th percentile speed (km/h)	85th percentile speed (km/h)	15 km/h pace
Eastbound – 50 m west of Killarney Street	52	61	46 - 60
Eastbound – 150 m west of St. Mary's Road	56	62	50 - 64

Eastbound – 300 m east of St. Mary's Road	59	63	51 - 65
Westbound – 50 m west of Killarney Street	59	65	55 - 69
Westbound – 150 m west of St. Mary's Road	54	61	50 - 64
Westbound – 300 m east of St. Mary's Road	59	64	55 - 69

At all of the data collection locations, the 85th percentile speeds are in the low to mid 60's and the maximum of the 15 km/h pace is always less than 70 km/h. These speed characteristics support a 60 km/h posted speed limit.

Target Speed
The target speed is the speed at which vehicles should operate on a facility in order to promote the safety and appropriate level of mobility for all road users. The target speed is determined using two approaches, (1) the Transportation Association of Canada Guidelines for Establishing Posted Speed Limits, and (2) comparison with similar classification roadways to promote city-wide consistency and driver expectation.

Based on the TAC methodology, the appropriate target speed for this section of Fermor Avenue is 70 km/h.

Collision History
A collision history review can identify sections of roadway that are performing more poorly from a road safety perspective. A high collision frequency or rate at a location may indicate any number of operational or geometric issues and does not necessarily indicate speed as a primary contributing factor.

The City of Winnipeg network screening results use state-of-the-art road safety methodologies to effectively estimate the safety performance of intersections and to identify higher-risk sites within the regional street network. Network screening results are summarized and reported using level of safety service (LOSS) which assesses the collision history of a site compared to predicted collision history from other sites with similar characteristics. Sites are categorized from LOSS I (the safest) to LOSS IV (the least safe).

The Fermor Avenue and St. Mary's Road intersection is categorized as LOSS III which indicates a moderate to high potential for collision reduction. The Fermor Avenue and St. Anne's Road intersection is also categorized as LOSS III which indicates a moderate to high potential for collision reduction. However, it should be noted that most of the historical collision data from the Fermor Avenue and St. Anne's Road intersection is from prior to it being reconstructed.

DISCUSSION AND SUMMARY

Subsequent to the 2014 speed limit review of this section of Fermor Avenue, the Public Service has submitted a report to SPC-IRPW recommending the speed limit on Dunkirk Drive be reduced from 70 km/h to 60 km/h as part of the St. Vital Bridge Rehabilitation Project. Implementing only a short segment of 60 km/h speed limit was one of the rationales that previously made implementing a 60 km/h speed limit undesirable. However, that concern is no longer valid as Fermor Avenue will connect to the 60 km/h segment on Dunkirk Drive (assuming the recommendations made in the separate report "*Speed Limit – St. Vital Bridge, Dunkirk Drive, and Osborne Street"* are concurred with).

At all of the data collection locations, the 85th percentile speeds are in the low to mid 60's and the maximum of the 15 km/h pace is always less than 70 km/h. These speed characteristics support a 60 km/h posted speed limit.

Based on the TAC methodology, the appropriate target speed for this section of Fermor Avenue is 70 km/h. However, this methodology does not explicitly consider unique circumstances such as the adjacent school, YMCA with daycare, loading requirements, and high volume of pedestrian crossings at the Fermor Avenue and St. Mary's Road intersection.

The Public Service recommends that the speed limit on Fermor Avenue be reduced from 70 km/h to 60 km/h for the segment between Dunkirk Drive and 150 metres east of St. Mary's Road (shown in Figure 1). The Public Service recommends that the speed limit on Fermor Avenue remain at 70 km/h for the segment between 150 metres east of St. Mary's Road and St. Anne's Road. The estimated total costs are $1,600 for signage and will be funded by the Traffic Services operating budget.

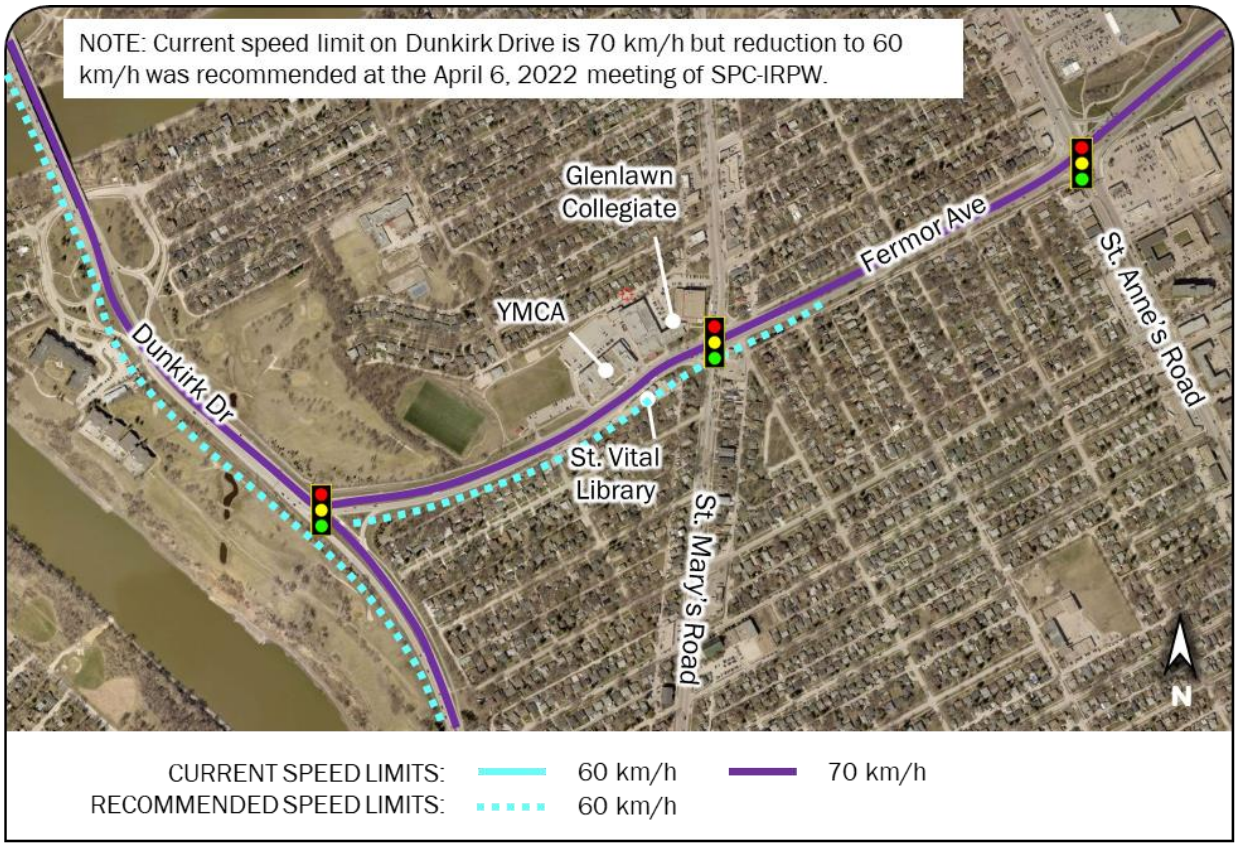

Figure 1: Study Area and Recommended Speed Limits

FINANCIAL IMPACT

Financial Impact Statement

Date: May 11, 2022

Project Name:

First Year of Program

2022

Speed Limit on Fermor Avenue between Dunkirk Drive and St. Anne's Road

	2022	2023	2024	2025	2026
Capital					
Capital Expenditures Required					
Less: Existing Budgeted Costs					
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal					
Debt - External					
Grants (Enter Description Here)					
Reserves, Equity, Surplus					
Other - Enter Description Here					
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ 1,600				
Less: Incremental Revenue/Recovery					
Net Cost/(Benefit)	$ 1,600	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts	1,600				
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: Direct costs are the cost to supply and install speed limit change signage. There is sufficient budget in the Public Works Transportation Division operating budget for these costs.

J. Ruby, 2022-05-11
J. Ruby CPA, CA
Manager of Finance & Administration

CONSULTATION

This Report has been prepared in consultation with:

Legal Services (as to legal issues)

OURWINNIPEG POLICY ALIGNMENT

The Sustainable Transportation Direction Strategy developed as part of OurWinnipeg forms the policy framework for the Transportation Master Plan (TMP). Sustainable Transportation identified a vision and five Key Strategic Goals which are critical to achieving a balanced and sustainable transportation system for Winnipeg. These goals form the basis for the TMP and the directions and strategies contained within it:

1. A transportation system that is dynamically integrated with land use;
2. A transportation system that supports active, accessible and healthy lifestyle options;
3. A safe, efficient and equitable transportation system for people, goods and services;
4. Transportation infrastructure that is well maintained; and
5. A transportation system that is financially sustainable.

The recommendations within this report are consistent with the Key Strategic Goals.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

There is a linkage between making Winnipeg's transportation network safer and more efficient with Key Directions 3.1 "Increase Use and Efficiency of Public Transit Systems", 3.4 "Increase Active Transportation Rates", and 3.5 "Reduce Traffic Congestion".

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

N/A

SUBMITTED BY

Department: Public Works
Division: Transportation
Prepared by: K. Patmore, M.Sc., P.Eng., Regional Traffic Engineer
Date: May 11, 2022