Agenda – Executive Policy Committee – September 17, 2024

Report – Standing Policy Committee on Public Works – September 12, 2024

Moved by Councillor

That Rule 10(3) of The Procedure By-law No. 50/2007 be suspended in order that the following item, which was received less than four business days preceding the committee meeting, be considered by Committee.

Item No. 5 Traffic Study on Wilkes Avenue (Charleswood-Tuxedo-Westwood Ward)

STANDING COMMITTEE RECOMMENDATION:

On September 12, 2024, the Standing Policy Committee on Public Works concurred in the recommendation of the Assiniboia Community Committee, as amended, and recommended to Council:

1. That it be received as information that the Public Service intends to initiate a new consultant-led design study for low-cost traffic signal installation.

2. That the speed limit on Wilkes Avenue between the western boundary of the City of Winnipeg (centerline of P.T.H. No. 100) and 100 metres west of the western boundary of Fairmont Road be reduced from 90 km/h to 80 km/h

3. That the speed limit on Wilkes Avenue and the continuous section of Sterling Lyon Parkway between 100 metres west of the western boundary of Fairmont Road to the western boundary of Kenaston Boulevard be reduced to 70 km/h.

4. That the Speed Limit By-Law No. 63/2019 be amended in accordance with Recommendation 2 and 3 of this report, as per the attached draft amending By-law (Appendix A).

5. That passing be prohibited along Wilkes Avenue from Shaftesbury Boulevard to the western boundary of the City of Winnipeg (centerline of P.T.H. No. 100).

6. That the Winnipeg Public Service be directed to report back to the Standing Policy Committee on Public Works in March 2025, with the scope and budget for a study on the installation of a temporary road connecting Ridgewood Avenue to Wilkes Avenue, between Oakdale Drive and Haney Street, including a controlled intersection at Wilkes Avenue, in anticipation of the extension of the William Clement Parkway and in order to facilitate the closure of both Elmhurst Road and Fairmont Road, at Wilkes Avenue, with the following consideration:

STANDING COMMITTEE RECOMMENDATION (continued):

A. That the temporary road does not include a grade separated crossing at Wilkes Avenue.

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

Agenda – Executive Policy Committee – September 17, 2024

Report – Standing Policy Committee on Public Works – September 12, 2024

DECISION MAKING HISTORY:

STANDING COMMITTEE RECOMMENDATION:

On September 12, 2024, the Standing Policy Committee on Public Works concurred in the recommendation of the Assiniboia Community Committee, with the following amendment:

- Add the following new Recommendation 6 and renumber the remaining accordingly:

    "6. That the Winnipeg Public Service be directed to report back to the Standing Policy Committee on Public Works in March 2025, with the scope and budget for a study on the installation of a temporary road connecting Ridgewood Avenue to Wilkes Avenue, between Oakdale Drive and Haney Street, including a controlled intersection at Wilkes Avenue, in anticipation of the extension of the William Clement Parkway and in order to facilitate the closure of both Elmhurst Road and Fairmont Road, at Wilkes Avenue, with the following consideration:

        A. That the temporary road does not include a grade separated crossing at Wilkes Avenue."

and submitted the matter to the Executive Policy Committee and Council.

David Grant submitted a communication in opposition to the matter.

COMMUNITY COMMITTEE RECOMMENDATION:

On September 4, 2024, the Assiniboia Committee concurred in the recommendation of the Winnipeg Public Service with the following amendments:

- Delete Recommendations 2 and 3 in their entirety and replace with the following:

    "2. That the speed limit on Wilkes Avenue between the western boundary of the City of Winnipeg (centerline of P.T.H. No. 100) and 100 metres west of the western boundary of Fairmont Road be reduced from 90 km/h to 80 km/h.

    3. That the speed limit on Wilkes Avenue and the continuous section of Sterling Lyon Parkway between 100 metres west of the western boundary of Fairmont Road to the western boundary of Kenaston Boulevard be reduced to 70 km/h."

Report – Standing Policy Committee on Public Works – September 12, 2024

DECISION MAKING HISTORY (continued):

COMMUNITY COMMITTEE RECOMMENDATION (continued):

- Add the following new Recommendation 5 and renumber the remaining accordingly:

    "5. That passing be prohibited along Wilkes Avenue from Shaftesbury Boulevard to the western boundary of the City of Winnipeg (centerline of P.T.H. No. 100)."

and forwarded the matter to the Standing Policy Committee on Public Works.

David Grant submitted a communication with respect to the matter.

STANDING COMMITTEE RECOMMENDATION:

On January 9, 2024, the Standing Policy Committee on Public Works concurred in the recommendation of the Assiniboia Community Committee, with the following amendment:

- Delete the words "120 days" and replace with "180 days"

COMMUNITY COMMITTEE RECOMMENDATION:

On January 4, 2024, the Assiniboia Community Committee passed the following motion:

WHEREAS motorist speeds on Wilkes Avenue have been a concern of the community for several years;

AND WHEREAS a 2021 report from the Winnipeg Public Service proposing intersection improvements at Wilkes Avenue and Elmhurst Road was referred to the Capital Budget in 2021 but has not yet been funded;

AND WHEREAS, continuous development in the Charleswood-Tuxedo-Westwood Ward have increased traffic volumes along Wilkes Avenue;

AND WHEREAS "Actions for Reduced Speeds" is a focus area of the Council-approved Road Safety Strategic Action Plan;

AND WHEREAS in the last five years of reported collisions, there have been over 50 collisions at the intersection of Elmhurst Road and Wilkes Avenue;

Report – Standing Policy Committee on Public Works – September 12, 2024

DECISION MAKING HISTORY (continued):

COMMUNITY COMMITTEE RECOMMENDATION (continued):

THEREFORE BE IT RESOLVED, that the Standing Policy Committee on Public Works be requested to direct the Winnipeg Public Service to conduct a traffic study on Wilkes Avenue in the vicinity of Elmhurst Road with a focus on safety improvements, reducing motorist speeds and a review of speed limits in the area, and report back to the Assiniboia Community Committee in up to 120 days.

David Grant submitted a communication with respect to the matter.

ADMINISTRATIVE REPORT

Title: Traffic Study on Wilkes Avenue

Critical Path: Assiniboia Community Committee - Standing Policy Committee on Public Works - Executive Policy Committee - Council

AUTHORIZATION

Author	Department Head	CFO	CAO
D. Patman, P.Eng.	J. Berezowsky		

EXECUTIVE SUMMARY

The Public Service was directed to study Wilkes Avenue near Elmhurst Road as it relates to potential safety improvements, speed reductions, and a review of speed limits in the area.

The study identified two key issues:

- There is a high number of rear-end collisions between southbound motorists
- There is a high number of collisions between southbound left-turns with westbound through motorists

A traffic signal would eliminate most of the risk from these two collision types.

A previous administrative report recommended a traffic signal at this location, but only once the roadway was otherwise improved to meet design standards. It was at that time noted the improvements would require property acquisitions and significant budget. The roadwork improvements were referred to the budget review process and remain unfunded.

In the interim, the Public Service intends to undertake a new consultant-led study to investigate low-cost roadwork modifications to accommodate a new traffic signal. It is expected the study will either identify an acceptable low-cost solution or confirm that only the substantial roadwork improvements would accommodate a new traffic signal. The scope of work and cost estimate for this study have not yet been initialized.

As an immediate measure to reduce the collision risk, two speed limit reductions are recommended on Wilkes Avenue.

In addition, some other concepts were brainstormed/brought up by the public to mitigate traffic issues along Wilkes Avenue; these are noted in an addendum to the report.

RECOMMENDATIONS

1. That it be received as information that the Public Service intends to initiate a new consultant-led design study for low-cost traffic signal installation.

2. That the speed limit on Wilkes Avenue between the western boundary of the City of Winnipeg (centerline of P.T.H. No. 100) and 500 metres west of the western boundary of Liberty Street be decreased from 90 km/h to 80 km/h.

3. That the speed limit on Wilkes Avenue between 500 metres west of the western boundary of Liberty Street and 300 metres east of the eastern boundary of Elmhurst Road be decreased from 80 km/h to 70 km/h.

4. That the Speed Limit By-Law No. 63/2019 be amended in accordance with Recommendation 2 and 3 of this report, as per the attached draft amending By-law (Appendix A).

5. 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 9, 2024, the Standing Policy Committee on Public Works concurred in the recommendation of the Assiniboia Community Committee and directed the Winnipeg Public Service to conduct a traffic study on Wilkes Avenue in the vicinity of Elmhurst Road with a focus on safety improvements, reducing motorist speeds and a review of speed limits in the area, and report back to the Assiniboia Community Committee in up to 180 days.

The recommendations of this report will require an amendment to the Speed Limit By-law No. 63/2019 and must be approved by Council.

IMPLICATIONS OF THE RECOMMENDATIONS

A consultant-led design study to investigate low-cost roadwork modifications at the Wilkes Avenue and Elmhurst Road intersection that could accommodate a new traffic signal will be initiated using funds from the Road Safety Improvement Program budget. The scope of work and cost estimate for this study have not yet been initialized.

Adoption of the recommendation for the speed limit change on Wilkes Avenue will require an amendment to Speed Limit By-law 63/2019 (as per Appendix A) be approved by Council. Appropriate speed limit signage will need to be changed. The estimated total cost to change the speed limit signage is $2,800 and will be funded by Transportation division operating budget.

HISTORY/DISCUSSION

BACKGROUND

On December 13, 2017, Council concurred in the recommendations of the report titled *Wilkes Avenue Alignment to William R. Clement Parkway Extension* and adopted the following:

1. That the October 31, 2017, recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works regarding the Wilkes Avenue Alignment to William R. Clement Parkway Extension be received as information.

2. That all existing planning, land use documents, by-laws, permitting processes and transportation plans that are consistent with the area shall remain in place regarding development and transportation of the South Wilkes Area.

3. That the William R. Clement Parkway as configured in the Transportation Master Plan be allowed to continue, but such extension and any planning and design of a future roadway for the east/west connection of the William R. Clement Parkway extension project must follow and be included in the Precinct Plan for the South Wilkes area.

4. **That the City will not approve or engage any major capital infrastructure planning in these areas until a new Precinct Plan is adopted by Council.**

On October 1, 2019, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendations of the report titled *Traffic Study – Wilkes Avenue and Elmhurst Road* and received the report as information. The report stated that a traffic signal at Wilkes Avenue and Elmhurst Road is warranted but cannot be adopted due to the following conditions:

1. On December 13, 2017, Council adopted that the city will not approve or engage any major capital infrastructure planning within the Wilkes Avenue to William R. Clement Parkway Extension area until a new Precinct Plan is adopted by Council and that Council through the OurWinnipeg review shall rank the prioritization of the South Wilkes Precinct as part of the OurWinnipeg and Complete Communities review. At the time of this report, these were both outstanding.

2. The needed geometric changes to this intersection, both horizontally and vertically, have been investigated at a preliminary level (limited in part due to the December 13, 2017 Council restrictions on further study in the area). A class 5 cost estimate indicated that this project would cost $2.5 million plus real estate acquisition and moving Hydro transmission lines and possibly Hydro towers.

3. The installation of a signal at Wilkes Avenue and Elmhurst Road would likely increase the traffic volume on Elmhurst Road. The increased volume would likely trigger the need for traffic calming measures for Elmhurst Road as well as a possible signal at Elmhurst Road and Grant Avenue, expanding the scope of this project.

On June 24, 2021, Council concurred in the recommendations of the report titled *Major Capital Infrastructure Planning in the South Wilkes Area* and adopted the following:

That the decision dated December 13, 2017 with respect to Recommendation 4 the Report of the Standing Policy Committee on Infrastructure Renewal and Public Works dated October 31, 2017, **be rescinded**:

“Recommendation 4. That the City will not approve or engage any major capital infrastructure planning in these areas until a new Precinct Plan is adopted by Council.”

On November 5, 2021, Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Assiniboia Community Committee and referred the construction of a controlled intersection at Elmhurst Road and Wilkes Avenue to the 2022 Budget Review Process. The project did not receive any funding dedicated in 2022 or subsequent budgets.
On February 27, 2024, the Area Councillor hosted a community forum on Wilkes Avenue safety attended by the public and members of the Public Service. The event was well-attended and topics discussed included lowering speed limits, new traffic signals, and turn restrictions.

The Draft Transportation Master Plan (not yet approved by Council) includes an extension of the William R. Clement Parkway southerly from its current terminus at Grant Avenue to Wilkes Avenue. There is no funding currently assigned for this extension and it is identified as a medium-term timeline of need (2037-2050) in the Draft Transportation Master Plan.

CURRENT TRAFFIC CHARACTERISTICS

Wilkes Avenue in the vicinity of Elmhurst Road is a two-lane, undivided roadway, a regional street, and a full-time truck route (Route 145) (see Figure 1). The Average Weekday Daily Traffic (AWDT) volume on this section of Wilkes Avenue is approximately 10,900 west of Elmhurst Road and 13,900 vehicles east of Elmhurst Road. The speed limit on this section of Wilkes Avenue is 80 km/h.



Figure 1: Study Area

Elmhurst Road is a two-lane undivided roadway and a non-regional collector street. The daily traffic volume is approximately 3,300 (based on expansion of a 6-hr count from 2024). The default speed limit is 50 km/h.

The intersection is two-way stop controlled (southbound on Elmhurst Road and northbound on the private approach); Wilkes Avenue traffic has the right-of-way and does not stop. When traveling westbound there is a short section of paved shoulder which functions as a de-facto deceleration lane for westbound right turning traffic. Eastbound through traffic has been observed bypassing queued traffic on the gravel shoulder.

The CN Railway runs parallel approximately 15 metres north of the Wilkes Avenue right-of-way and crosses Elmhurst Road. This railway has approximately 30 trains per day which block traffic turning onto and off of Elmhurst Road. When a train is blocking the crossing there are often westbound right turning vehicles queued beyond the length of the de-facto deceleration lane.

Peak hour turning volumes (counted January 2024) are provided in Appendix B. The peak hour turning volumes show high volume of through traffic on Wilkes Avenue. They also show higher volumes of southbound left and westbound right movements, representing a pattern of connecting Charleswood and Kenaston Boulevard (Route 90).

COLLISION ANALYSIS

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 and traffic volumes. Sites

are categorized from LOSS I (the safest) to LOSS IV (the least safe). The Wilkes Avenue and Elmhurst Road intersection is categorized as LOSS IV which indicates a high potential for collision reduction.

During the 2015-2022 reporting period (the most recent eight-year reporting period for which MPI collision data is available), there were a total of 89 reported collisions (59 involving property damage only, 30 resulting in a non-fatal injury, and no fatal collisions) at the intersection. Table 1 provides a summary of collisions for all intersections along this segment of Wilkes Avenue. The Wilkes Avenue and Elmhurst Road intersection is the only intersection with LOSS IV. Although the safety risk to an individual user is high (LOSS IV) at the Wilkes Avenue and Elmhurst intersection, the total collisions at the intersection are much lower compared to the adjacent higher volume intersection at Wilkes Avenue and Shaftesbury Boulevard.

Table 1: Collision Frequency at Wilkes Avenue Intersections

	Number of Collisions (2015-2022)					
Intersection	**Property damage**	**Injury**	**Fatal**	**Total**		**LOSS[1]**
Wilkes Ave and Charleswood Rd	37	4	1	42		II
Wilkes Ave and Community Row	15	2	0	17		II
Wilkes Ave and Harstone Rd	17	2	0	19		II
Wilkes Ave and Fairmont Rd	20	2	0	22		II
Wilkes Ave and Elmhurst Rd	**59**	**30**	**0**	**89**		**IV**
Wilkes Ave and Shaftesbury Blvd	205	48	0	253		III
	1 – *Level of safety service (LOSS)* assesses the collision history of a site compared to predicted collision history from other sites with similar characteristics and traffic volumes. Sites are categorized from LOSS I (the safest) to LOSS IV (the least safe).					

Table 2 provides a summary of collisions by configuration type. Below is a further breakdown of the collision configurations.

Table 2: Collision Frequency by Collision Configuration Type (Wilkes Avenue and Elmhurst Road, 2015-2022)

	Property Damage	Non-Fatal Injury	Fatal	Total
Rear End	27	15	0	42
Intersection or left turn	14	13	0	27
Fixed Object	1	0	0	1
Right Turn	0	1	0	1
Unknown	17	1	0	18

- Rear-end collisions were the most common collision configuration representing 47% (42 of 89) of the total collisions and 50% (15 of 30 of injury collisions). The directional distribution was:
    - **24 southbound;**
    - 5 westbound;

    - 5 eastbound; and
    - 8 unknown.
- Intersection or left turns were the second most common configuration representing 30% (27 of 89) of the total collisions and 43% (13 of 30 of injury collisions). The directional distribution was:
    - **16 southbound left turn with westbound through**
    - 2 southbound left turn with eastbound through
    - 3 eastbound left turn with westbound through
    - 6 other or unknown

KEY RISK ISSUES AND COUNTERMEASURES

Based on the collision analysis and a review of the site conditions there are two key issues at the intersection.

1. There is a high number of southbound rear end collisions (24 collisions during a seven-year period). The steep downward gradient on the southbound approach results in poor sightlines of other stopped vehicles and difficulty to brake. Potential countermeasures for this include the following:

    a. Restrict the southbound movement by prohibiting southbound traffic on Elmhurst Road south of the CN Rail tracks or greatly reduce the volume with turn restrictions at the Ridgewood Avenue and Elmhurst Road intersection. The long term plan for William R. Clement Parkway is to extend it southerly and connect to Wilkes Avenue; at that time the connection between Elmhurst Road and Wilkes Avenue could be removed. Removing the Elmhurst Road connection prior to William R. Clement Parkway extension being completed would result in increased traffic on parallel streets such as Fairmont Road and Shaftesbury Boulevard. This countermeasure is not recommended at this time.

    b. Install a traffic signal at the intersection so that southbound traffic stops near side of the railway tracks and only proceeds across the railway tracks and onto Wilkes Avenue with a green light. This would eliminate the potential conflict except for instances when motorists disobey the traffic signal (red light running). Further discussion on a new traffic signal is provided later in this report.
2. There is a high volume of collisions between southbound left-turns with westbound through vehicles (16 collisions during a seven-year period). When there are westbound right turning vehicles, it is difficult for southbound left-turning motorists to see westbound through vehicles. Potential countermeasures for this include the following:

    a. Restrict the southbound left movement at the intersection or greatly reduce the volume with turn restrictions at the Ridgewood Avenue and Elmhurst Road intersection. This would need to be implemented with physical treatments as signage alone would likely not be well respected. The long term plan for William R. Clement Parkway is to extend it southerly and connect to Wilkes Avenue; at

that time the connection between Elmhurst Road and Wilkes Avenue could be removed. Removing the Elmhurst Road connection prior to William R. Clement Parkway extension being completed would result in increased traffic on parallel streets such as Fairmont Road and Shaftesbury Boulevard. This countermeasure is not recommended at this time.

b. Install a traffic signal at the intersection so that traffic stops near side of the railway tracks and only proceeds across the railway tracks on a green light. This would eliminate the potential conflict except for instances when motorists disobey the traffic signal (red light running). Further discussion on a new traffic signal is provided later in this report.

c. Reduce the posted speed limit on Wilkes Avenue. This would reduce the potential of a collision occurring and reduce the severity of collisions that do occur. Further discussion on the speed limit review is provided later in this report.

The following minor signage modifications will be completed in fall 2024:

- Relocate the information signage at the north east corner of the Wilkes Avenue and Elmhurst Road intersection that is impacting sightlines for southbound left-turning motorists.
- Install new Passing Prohibited signs on Wilkes Avenue from Liberty Street to Loudoun Road.

SPEED LIMIT REVIEW PROCESS

In recommending appropriate speed limits, the Public Service follows the guidance from *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 study provides a speed limit recommendation based on the operating speed, target speed, and collision history. A summary of the City's speed limit review process is in Appendix C.

This report assesses the speed limit on the segment of Wilkes Avenue from the western boundary of the City of Winnipeg (centerline of P.T.H. No. 100) to Shaftesbury Boulevard (Figure 2). The speed limit on the western portion of this segment is currently 90 km/h and transitions to 80 km/h approximately 700 metres west of Elmhurst Road. This section has a rural cross-section with gravel shoulders and narrow ditches. Most of this segment has open fields adjacent to the roadway and no built-up development. There is a small area near Elmhurst Road with a higher density of access points.

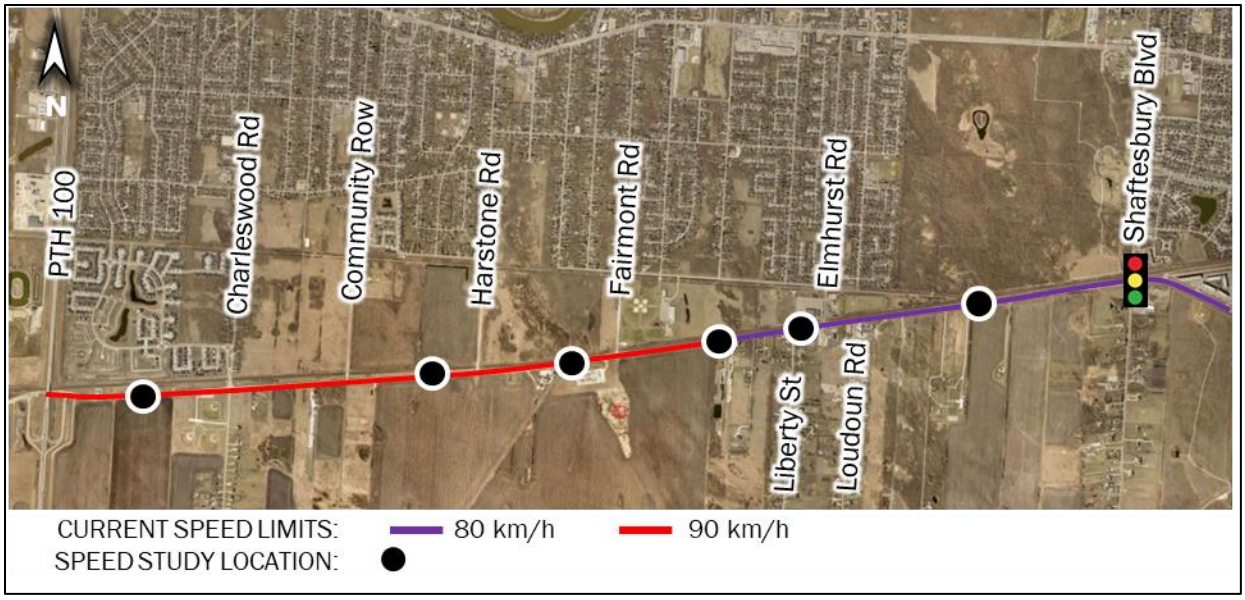


Figure 2: Speed Limit Review Study Area

Additional assessment of speed limits on Wilkes Avenue and Sterling Lyon Parkway could be completed in the future.

Vehicle Operating Speed Characteristics

Speed data collected on Wilkes Avenue is summarized in Table 3.

Table 3: Vehicle Operating Speed Data on Wilkes Avenue

Location	50th percentile speed	85th percentile speed	15 km/h pace	% in pace
West of Charleswood Rd	80	83	70 – 84	97%
West of Harstone Rd	80	83	70 – 84	99%
West of Fairmont Rd	80	83	70 – 84	99%
West of Liberty St	82	88	76 – 91	79%
West of Elmhurst Rd	78	87	72 – 87	55%
West of Shaftesbury Blvd	81	88	76 – 91	79%

The 50th and 85th percentile speeds throughout the corridor are very consistent and generally support a posted speed limit of 80 km/h. The speed study just west of the Elmhurst Road intersection showed the smallest percent of vehicles travelling within the pace (55%) as this location has the most chance for motorists accelerating or decelerating after accessing Wilkes Avenue.

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 segment of Wilkes Avenue is 80 km/h.

There are not many similar roadways to this section of Wilkes Avenue, rural cross-section with high speed, within the City of Winnipeg. The most similar roadway is Dugald Road between Plessis Road and the eastern boundary of the City of Winnipeg. This section of Dugald Road has a posted speed limit of 70 km/h where there is a higher proportion of driveways and roadside development and transitions to a posted speed limit of 80 km/h east of McFadden Avenue where there is less built-up development.

Collision History

Table 4 provides a summary of the most recent eight years of available intersection collision claims data from Manitoba Public Insurance. The table shows that there is a higher volume of injury collisions where speed on Wilkes Avenue may have been a factor at the Wilkes Avenue intersections with Elmhurst Road and Shaftesbury Boulevard. Shaftesbury Boulevard has much higher total traffic volumes and total collisions. The Elmhurst intersection stands out as having a higher number of injury collisions where speed on Wilkes Avenue may have been a factor.

Table 4: Wilkes Avenue Intersection Collisions (2015-2022)

Intersection with Wilkes Avenue	Collision Severity			Collisions involving pedestrians or cyclists	Injury or fatal collisions where speed on Wilkes Ave may have been a factor[1]
	Property Damage Only	***Injury***	***Fatality***		
Charleswood Rd	37	4	1	0	3
Community Row	15	2	0	0	1
Harstone Rd	17	2	0	0	0
Fairmont Rd	20	2	0	0	2
Elmhurst Rd	**59**	**30**	**0**	**0**	**18**
Shaftesbury Blvd	205	48	0	0	19

[1] As per NCHRP Report 317:

- rear-end collisions on the roadway being assessed – drivers not anticipating a queue
- run-off-road collisions – drivers avoiding conflicts in the roadway proper
- angle collisions – drivers accepting gaps that are too small

SUMMARY AND RECOMMENDATIONS

Two key risk factors were identified:

1. There is a high number of rear-end collisions between southbound motorists. The steep downward gradient on the southbound approach results in poor sightlines of other stopped vehicles and difficulty to brake.

2. There is a high volume of collisions between southbound left-turns with westbound through vehicles. When there are westbound right-turning vehicles, it is difficult for southbound left-turning motorists to see westbound through vehicles.

The 2019 Administrative Report titled *Traffic Study – Wilkes Avenue and Elmhurst Road* identified that a traffic signal was warranted but recommended it should only be installed if substantial roadwork improvements were completed to meet design standards. The roadwork improvements required property acquisitions and had significant cost. The roadwork improvements were deferred to the budget review process but have not received funding.

Without completing the substantial roadwork improvements identified in the 2019 Administrative Report, there are several challenges with installing a traffic signal here. The Public Service will initiate a new consultant-led design study to investigate low-cost roadwork modifications that could accommodate a new traffic signal. Further study will investigate the below points and may identify an acceptable low-cost solution or that only the substantial roadwork improvements are recommended to accommodate a new traffic signal. A low-cost solution is challenging for the following reasons:

- Significant ditch grading work and replacing culverts may be required so that traffic signal poles can be placed within required distances.
- Property constraints, overhead Hydro lines, and guy wires limit design flexibility.
- Geometric design modifications may have impacts to adjacent properties due to the narrow ditches and narrow right-of-way.
- Due to the proximity of the CN Railway tracks, interconnection with the rail crossing signals would be required (a similar system is in place at Shaftesbury Boulevard to the north of Wilkes Avenue).
- The Wilkes Avenue water feeder main, an important piece of City infrastructure, runs parallel to Wilkes Avenue and adds complexity to the design and construction of any necessary changes.
- The installation of a traffic signal at Wilkes Avenue and Elmhurst Road may increase the traffic volume on Elmhurst Road and trigger the need for traffic calming measures for Elmhurst Road or surrounding streets.

The following minor signage modifications will be completed in spring 2024:

- Relocate the information signage at the north east corner of the Wilkes Avenue and Elmhurst Road intersection that is impacting sightlines for southbound left-turning motorists.
- Install new Passing Prohibited signs on Wilkes Avenue from Liberty Street to Loudoun Road.

The operating speed data and target speed assessment support an 80 km/h speed limit on Wilkes Avenue. The collision history at the Elmhurst Road intersection supports reducing the speed limit as this is a countermeasure that can be implemented in the short-term. The Public Service recommends the following speed limit changes on Wilkes Avenue:

- That the speed limit on Wilkes Avenue between the western boundary of the City of Winnipeg (centerline of P.T.H. No. 100) and 500 metres west of Liberty Street be decreased from 90 km/h to 80 km/h.
- That the speed limit on Wilkes Avenue between 500 metres west of Liberty Street and 300 metres east of Elmhurst Road be decreased from 80 km/h to 70 km/h.

The recommended speed limit changes are illustrated in Figure 3 and a draft amending By-law is attached as Appendix A. The estimated total costs to change the speed limit signage is $2,800 and will be funded by the Transportation Division operating budget. These speed limits should be reviewed again in the future if traffic signalization and geometric changes are implemented at the Wilkes Avenue and Elmhurst Road intersection.

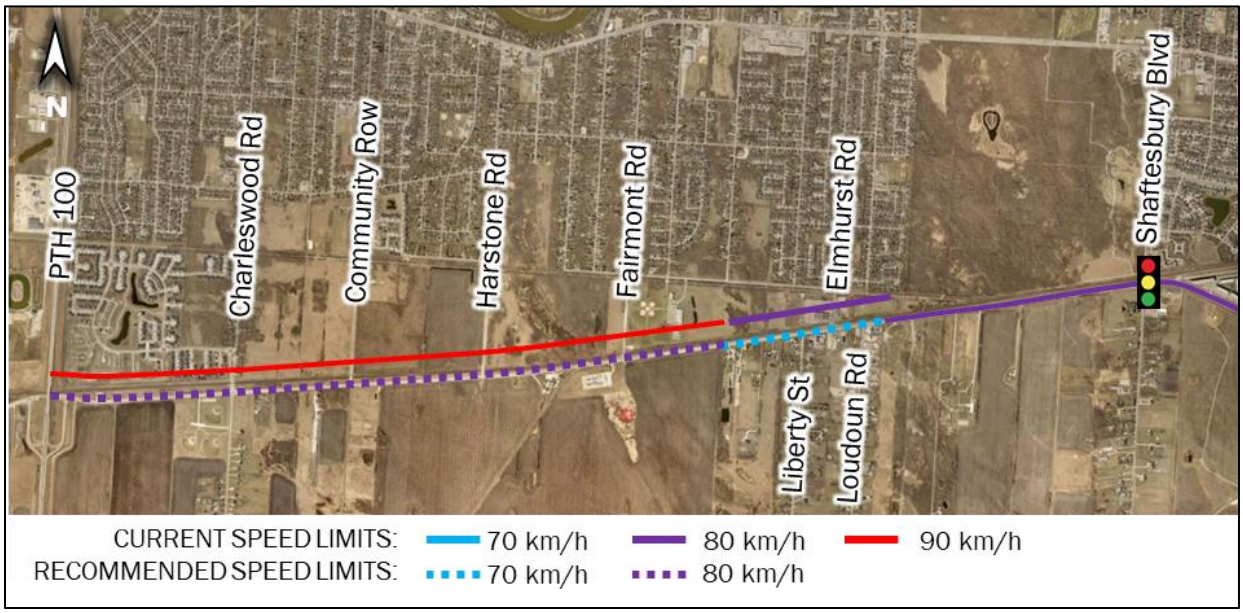


Figure 3: Recommended Speed Limits

ADDENDUM: ADDITIONAL MEASURES UPDATE (SUMMER 2024)

A draft of this report was shared with the area Councillor. During the process of developing this report, the area Councillor indicated they were concerned that not enough was being done to mitigate issues in the short term.

The Public Service could not implement changes to speed limits along Wilkes Avenue in the interim as speed limit changes require a bylaw change to be made in tandem with any changes. This report outlines the issues regarding the future signalization of Wilkes Avenue and Elmhurst Road.

Note that there is another traffic signal planned on Wilkes Avenue, farther west at Charleswood Road. This location's signal is developer-funded and needs to be scheduled for completion by the Traffic Signals branch. The current assessment indicates that it is close to being warranted, with a score just below the typical rating for construction. Because of the need to connect the signal to the rail crossing, this adds complexity to the installation. Staff have begun the process of having the Charleswood Road signal implemented in 2025.

Staff are also looking at a potential elimination of passing on Wilkes Avenue, by making the Wilkes Avenue corridor a no-passing zone; this will take some time to complete.

A meeting was held with the public in Charleswood in Spring 2024, at which a number of ideas were discussed, including some raised by members of the public. These were assessed by the Public Service but have turned out to be non-viable.

- **Temporary Traffic Signals** (using signal trailers) There are unresolved issues related to the placement of the trailer in the right-of-way, the need for a permanent power supply and how to interconnect a temporary signal to a rail crossing, that prevent this idea from going ahead.
- **Four-way Stop Signs** – the concept of installing all-way stop signs was proposed at two locations along Wilkes Avenue to slow down traffic. Public Service staff are not supportive of all-way stops being introduced, as they would not meet the threshold established by the warrant. If the public start to feel when driving in the area that the stops are unnecessary, oftentimes drivers will start to run through them, which contributes to reduced compliance at other stop signs and introduces a new safety risk.
- **Further Speed Limit Reductions** - 85th percentile speed near Elmhurst Road is 87 km/h. As noted above, the Public Service recommends lowering the speed limit to 70 km/h, but arbitrarily lowering the speed further with signage (as opposed to signage plus traffic calming measures / modification to the road design) is not recommended, as compliance can become a problem. There are compliance issues on the similar-to-Wilkes Avenue corridor of Dugald Road in eastern Winnipeg where there is a segment that is set at 50 km/h near some residences.
- **Closures of Access Points** - The most frequent collision type noted was SB rear end collisions and SBL with WBT. Closure of access points would not address this, and would create new issues of increased traffic on the remaining access points.

FINANCIAL IMPACT

Financial Impact Statement **Date:** August 16, 2024

Project Name: **First Year of Program** **2024**

Traffic Study on Wilkes Avenue

	2024	2025	2026	2027	2028
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	$ 2,800				
Less: Incremental Revenue/Recovery					
Net Cost/(Benefit)	$ 2,800	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts	2,800				
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: Direct costs represent the estimated cost to change the speed limit signage as recommended in the report. There are sufficient funds in the Public Works - Transportation Division 2024 operating budget for this expenditure. The scope of work and cost estimate for the consultant-led design study referenced in recommendation #1 have not been determined at this time and as such are not reflected in the FIS. The intention is to fund the study through the Road Safety Improvement Program capital budget.

A. Fischer CPA,CA 2024-08-16

for J. Ruby CPA, CA
Manager of Finance & Administration

CONSULTATION

This Report has been prepared in consultation with: Legal Services

OURWINNIPEG POLICY ALIGNMENT

OurWinnipeg 2045
This report is in accordance with OurWinnipeg2045 as per:

Goal: Good Health and Well-Being

- ***Policy 4.10 Transportation Safety:*** Design, construct, maintain, and regulate an integrated and sustainable transportation system and related infrastructure that optimize safe, connected, and reliable mobility, and minimize severe injuries and fatalities for all road users.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

Consideration was given as to whether this report connects to the Winnipeg Climate Action Plan (CAP), and it was determined that the CAP is not applicable to this specific report.

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

Consideration was given as to whether this report connects to the Winnipeg Poverty Reduction Strategy (PRS) and its Goals and Objectives, and it was determined that the PRS is not applicable to this specific report.

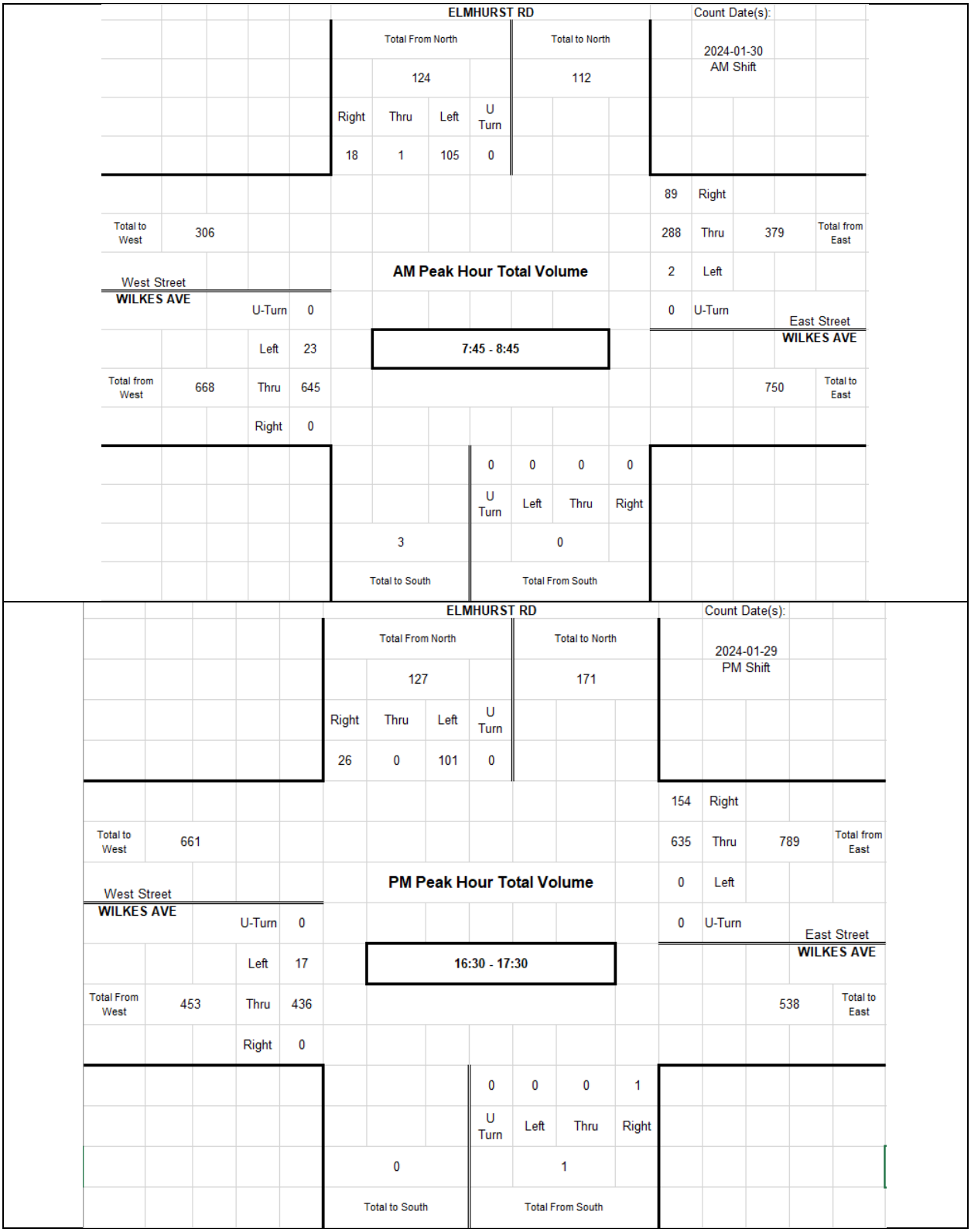
SUBMITTED BY

Department: Public Works
Division: Transportation
Prepared by: Keenan Patmore, M.Sc., P.Eng., Regional Traffic Engineer
David Patman, P.Eng. – Manager, PWD-Transportation
Date: August 20, 2024

Attachments:

Appendix A – Draft By-law Amendment
Appendix B – Traffic Counts
Appendix C – Speed Limit Review Process

APPENDIX B - PEAK HOUR TRAFFIC COUNTS (JANUARY 2024)



APPENDIX C - SPEED LIMIT REVIEW PROCESS

The Winnipeg Public Service has adopted 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.

Operating Speed

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 50 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.

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 following factors can influence target speed:

- pedestrian exposure
- cyclist exposure
- stakeholder input
- roadside environment
- roadside hazards
- average lane width
- presence of a median
- horizontal and vertical alignment
- roadway surface type
- number of intersections with public roads
- number of private access driveways
- on-street parking

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.

Collision History

A collision history review can identify sections of roadway that are performing 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. A closer analysis of the collision types, locations, time of day, weather conditions and other factors is useful for understanding the role of speed, if any, in the collisions. National Cooperative Highway Research Program (NCHRP) Report 613 describes the following collision patterns where inappropriate speed is more likely to be a contributing factor:

- rear-end collisions – drivers not anticipating the location of the back of a queue
- run-off-road collisions – drivers avoiding conflicts in the roadway proper
- angle collisions – drivers accepting gaps that are too small

Analysis of the collision data is necessary to determine if these patterns could also be attributed to other factors, such as driver inattention or impairment, geometric conditions (alignment or sight distance) or other conditions that do not meet a driver's expectations.