

**Agenda – Standing Policy Committee on Infrastructure Renewal and Public Works –  
July 5, 2022**

**REPORTS**

**Item No. 11                      Pedestrian Study – Pembina Highway at Victoria General Hospital  
(Waverley West Ward)**

**WINNIPEG PUBLIC SERVICE RECOMMENDATION:**

1.        That a pedestrian half signal be approved on Pembina Highway at the intersection with the entrance to the Victoria General Hospital (110 metres south of Dartmouth Drive).
2.        That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

# ADMINISTRATIVE REPORT

**Title:** Pedestrian Study – Pembina Highway at Victoria General Hospital

**Critical Path:** Standing Policy Committee on Infrastructure Renewal and Public Works

## AUTHORIZATION

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

## EXECUTIVE SUMMARY

A pedestrian crossing control study was completed for Pembina Highway in the vicinity of the Victoria General Hospital. A previous study evaluated the intersection of Pembina Highway and Dartmouth Drive and noted that the majority of the pedestrian crossing demand is transit-based. Winnipeg Transit was consulted and two crossing location options on Pembina Highway were reviewed.

The Public Service recommends that a pedestrian half signal be constructed at the Victoria General Hospital access (110 metres south of Dartmouth Drive) and that the nearby transit stops be relocated to this location. These modifications are illustrated in Attachment A: T-3608 Pembina Highway and Victoria General Hospital. Winnipeg Transit is supportive of this recommendation.

## RECOMMENDATIONS

1. That a pedestrian half signal be approved on Pembina Highway at the intersection with the entrance to the Victoria General Hospital (110 metres south of Dartmouth Drive).
2. 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 November 7, 2016, the Standing Policy Committee on Infrastructure Renewal and Public Works directed the Winnipeg Public Service to add the pedestrian crossing control device at the intersection of Pembina Highway and Dartmouth Drive to their Pedestrian Crossing Control Priority List, and complete in the future when the budget is available.

As the City's Traffic Authority, the Standing Policy Committee on Infrastructure Renewal and Public Works must approve the installation of traffic control signals and activated pedestrian crossing control treatments.

## IMPLICATIONS OF THE RECOMMENDATIONS

The capital cost for the installation of a pedestrian half signal on Pembina Highway at the intersection with the entrance to the Victoria General Hospital (110 metres south of Dartmouth Drive) is \$175,000 (Class 4 estimate) and will be funded by the 2022 Traffic Engineering Improvements Program budget.

The combined estimated annual maintenance and operating cost of \$5,000 associated with the signal will be funded by the Public Works Department Transportation Division Operating Budget.

## HISTORY/DISCUSSION

At the November 7, 2016, meeting of the Standing Policy Committee on Infrastructure Renewal and Public Works, through the report *Intersection of Pembina Highway and Dartmouth Drive*, the Public Service was directed to add the location of Pembina Highway and Dartmouth Drive to the Pedestrian Crossing Control Priority List.

### PEDESTRIAN CROSSING CONTROL EVALUATION

In recommending the installation of new or upgraded pedestrian crossing control, the Winnipeg Public Service follows the guidance provided in the Transportation Association of Canada (2018) *Pedestrian Crossing Control Guide* (the Guide). The Guide presents a set of principles to guide professionals during the decision-making process associated with the provision of pedestrian crossing control.

#### **Preliminary Assessment**

The assessment for a treatment system need is based on factors that include pedestrian volume at the crossing location, vehicular traffic volume, proximity to other traffic control devices, and route connectivity requirements. The City considers that the warrant is fulfilled when the following criteria from the Guide are met.

1. Average hourly pedestrian volume is at least 100 Equivalent Adult Units (EAUs) over a 7-hour count period within a single day; this is equivalent to an hourly average of 15 EAUs. Pedestrian volumes are converted to EAUs to account for pedestrian age and physical ability (see guide for details).
2. Average Daily Traffic (ADT) is greater or equal to 1,500 vehicles per day.
3. The proposed crossing location is at a minimum distance from the nearest form of traffic control, typically between 100 metres and 200 metres for a particular location. This may vary based on a location's individual traffic characteristics and engineering judgment.

The ADT volume is met as traffic volumes greatly exceed 1,500 vehicles per day. The nearest controlled crossing is approximately 200 metres to the north at the signalized intersection with Markham Road. A historical pedestrian count from 2016 shows that there was an average of 12 crossings per hour which does not meet the warrant of 15 EAUs. However, in addition to the pedestrian crossing volume warrants, the Guide also discusses the need for crossing control based on latent demand, system connectivity and considerations for linking land uses. The Victoria General Hospital is a major pedestrian trip generator that creates a demand for

pedestrian crossing immediately at this location to provide access to transit. Based on the above, although pedestrian volume warrants are not met, there is a basis for a controlled crossing to provide system connectivity.

### **Treatment Selection**

When pedestrian crossing control is warranted, the guide's "Decision Support Tool – Treatment Selection Matrix" recommends a treatment type based on the following factors: Average Daily Traffic (ADT) volumes, speed limit, and roadway cross section.

On this section of Pembina Highway, the ADT is 41,500 (based on the 2019 Traffic Flow Map), the posted speed limit is 60 km/h, and there is a six-lane divided cross-section. Based on these characteristics, the TAC Guide recommends a form of traffic signal controlled crossing. The Public Service recommends a pedestrian half signal.

### **CROSSING CONTROL LOCATION OPTIONS**

The previously-mentioned 2016 report *Intersection of Pembina Highway and Dartmouth Drive* noted that the majority of the pedestrian crossing demand is transit-based. Winnipeg Transit was consulted and two crossing location options were assessed. Figure 1 illustrates the study area and the crossing location options.

- Option 1 - Pembina Highway at Dartmouth Drive
- Option 2 – Pembina Highway at Victoria General Hospital (VGH) access (110 metres south of Dartmouth Drive).



**Figure 1: Study Area**

The following was considered in assessing these locations:

- A pedestrian half signal at the VGH access location is more desirable than a pedestrian half signal at Dartmouth Drive as there are fewer conflicting vehicle movements. Vehicles exiting Dartmouth Drive can turn both southbound and northbound onto Pembina Highway while vehicles exiting the VGH access must turn northbound.
- A pedestrian half signal at the VGH access location would better align with stop spacing guidelines described in the Winnipeg Transit Master Plan. For the VGH access location, southbound stops 60117 and 60118 would be amalgamated to a single southbound stop at the VGH access. Northbound stop 60120 would be relocated to the VGH access. This would provide stop spacing of approximately 300 metres between the stops pair at Markham Road and the new stops at VGH access. This would locate all stop pairs along this stretch of Pembina Highway at controlled pedestrian crossing locations.
- The pedestrian walking distance from the proposed relocated southbound stop to the primary Hospital entry doors is approximately the same as the walking distance from the existing southbound stop at Dartmouth Drive.

The Public Service recommends that a pedestrian half signal be constructed at the Victoria General Hospital access (110 metres south of Dartmouth Drive) and that the nearby transit

stops be relocated to this location. These modifications are illustrated in Attachment A: T-3608 Pembina Highway and Victoria General Hospital. Transit is supportive of this recommendation.

**FINANCIAL IMPACT****Financial Impact Statement**Date: **May 26, 2022**Project Name: **First Year of Program 2022****Pedestrian Study – Pembina Highway at Victoria General Hospital**

|  | <u>2022</u>       | <u>2023</u>     | <u>2024</u>     | <u>2025</u>     | <u>2026</u>     |
|--|-------------------|-----------------|-----------------|-----------------|-----------------|
| <b>Capital</b>   |                   |                 |                 |                 |                 |
| Capital Expenditures Required  | \$ 183,750        | \$ -            | \$ -            | \$ -            | \$ -            |
| Less: Existing Budgeted Costs  | 183,750           | -               | -               | -               | -               |
| Additional Capital Budget Required   | <u>\$ -</u>       | <u>\$ -</u>     | <u>\$ -</u>     | <u>\$ -</u>     | <u>\$ -</u>     |
| <b>Funding Sources:</b>  |                   |                 |                 |                 |                 |
| Debt - Internal  | \$ -              | \$ -            | \$ -            | \$ -            | \$ -            |
| Debt - External  | -                 | -               | -               | -               | -               |
| Grants (Enter Description Here)  | -                 | -               | -               | -               | -               |
| Reserves, Equity, Surplus  | -                 | -               | -               | -               | -               |
| Other - Enter Description Here   | -                 | -               | -               | -               | -               |
| Total Funding  | <u>\$ -</u>       | <u>\$ -</u>     | <u>\$ -</u>     | <u>\$ -</u>     | <u>\$ -</u>     |
| Total Additional Capital Budget Required   | <u>\$ -</u>       |                 |                 |                 |                 |
| Total Additional Debt Required   | <u>\$ -</u>       |                 |                 |                 |                 |
| <b>Current Expenditures/Revenues</b>   |                   |                 |                 |                 |                 |
| Direct Costs   | \$ -              | \$ 5,000        | \$ 5,100        | \$ 5,202        | \$ 5,306        |
| Less: Incremental Revenue/Recovery   | 8,750             | -               | -               | -               | -               |
| Net Cost/(Benefit)   | <u>\$ (8,750)</u> | <u>\$ 5,000</u> | <u>\$ 5,100</u> | <u>\$ 5,202</u> | <u>\$ 5,306</u> |
| Less: Existing Budget Amounts  | (8,750)           | 5,000           | 5,100           | 5,202           | 5,306           |
| Net Budget Adjustment Required   | <u>\$ -</u>       | <u>\$ -</u>     | <u>\$ -</u>     | <u>\$ -</u>     | <u>\$ -</u>     |
| <b>Additional Comments:</b> The total estimated capital cost of \$183,750 (inclusive of overheads) is the class 4 estimate to install a pedestrian half signal at Pembina Highway at Dartmouth Drive, and includes interest and overheads to be funded by the 2022 Traffic Engineering Improvement Program, (Project #1831000122). Incremental Revenue/Recovery represents Corporate Interest overheads to be recovered. |                   |                 |                 |                 |                 |

*J Ruby, 2022-05-26*

J Ruby CPA, CA

Manager of Finance and Administration

## CONSULTATION

This Report has been prepared in consultation with: N/A

## OURWINNIPEG POLICY ALIGNMENT

### **OurWinnipeg (2010)**

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 Transit Master Plan (2021)**

The recommendations within this report are in accordance with Network Goals: 1. Enhance Customer Experience, 2. Increase Ridership, 4. Complement Land-Use Development, 5. Improve Multi-modal Mobility, 6. Ensure Transit is Inclusive, 7. Continuously Innovate, 8. Empower Healthy Communities, 9. Balance Investment with Affordability

## WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

The recommendations within this report are in accordance with the Winnipeg Climate Action Plan as per Directions 3.1 Increase Use and Efficiency of Public Transit Systems. Relevant actions include: Improve active transportation connectivity to transit services by installing sidewalks and cycling routes to link stops with the surrounding community, and provide bike racks at stops and on buses

This report is in accordance with the Winnipeg Climate Action Plan as per Directions 3.4 Increase Active Transportation Rates. Relevant actions include: Prioritize capital investments in active transportation to establish connected and integrated corridors for walking and cycling.

## WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

N/A



**SUBMITTED BY**

Department: Public Works  
Division: Transportation  
Prepared by: Keenan Patmore, M.Sc., P.Eng., Regional Traffic Engineer  
Date: May 26, 2022

Attachments: T-3608 Pembina Highway and Victoria General Hospital

Appendix A: T-3608 Pembina Highway and Victoria General Hospital (Sheet1)

