



# BLAKENEY BRIDGE REPORT #PW-18-2023

Public Works Committee  
May 24, 2023

Sean Derouin, Public Works Manager

# BACKGROUND

## January 25, 2023 Public Works Committee Meeting

**THAT,** Council receive the new information related to the Blakeney Bridge Reconstruction; and

**AND THAT,** Council direct staff to proceed with replacing Blakeney Bridge in 2024 with a 7.3m modular panel bridge,

**AND THAT,** Council direct staff to proceed with an RFP to complete a bridge replacement design alternative report, to be presented to the Public Works Committee in March.

## March 22, 2023 Public Works Committee Meeting

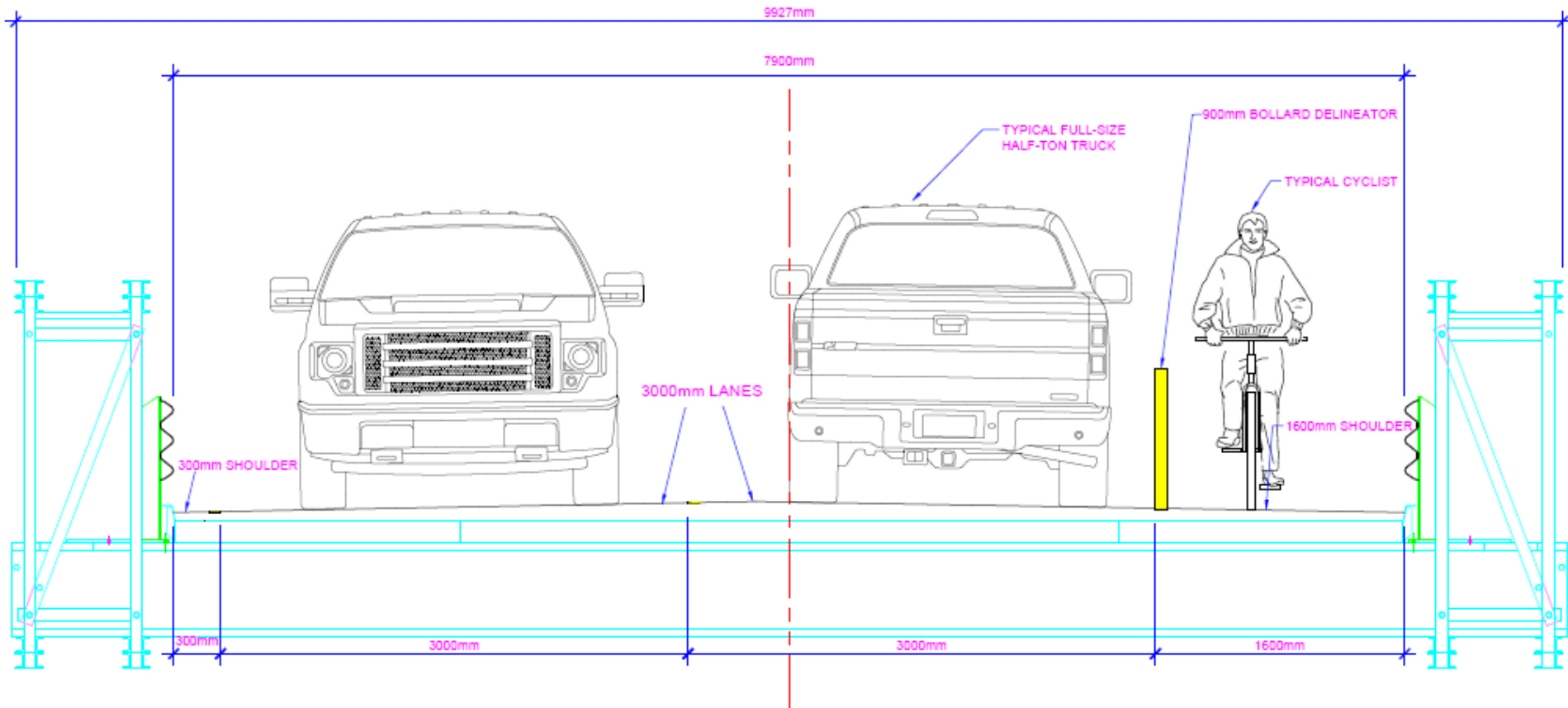
**THAT,** Council direct staff to proceed with replacing Blakeney Bridge with Option B: Two-Lane modular panel bridge with an option of Mississippi Mills of adding a cantilevered pedestrian crossing, with or without the picket railing.

# DISCUSSION

- Mississippi Mills PW presents to their COW on May 23, providing options for pedestrian access (Appendix A):
  1. No pedestrian crossing
  2. Widen Bridge to 26' clear width (7.9m) to accommodate a 1.6m walkway on the bridge deck, separated by flexible delineators in the summer only, ~\$180K
  3. Widen Bridge to 28' clear width (8.5m) to accommodate a 2.0m walkway on the bridge deck, separated by flexible delineators in the summer only, ~\$355K
  4. Cantilevered pedestrian crossing, ~\$477K

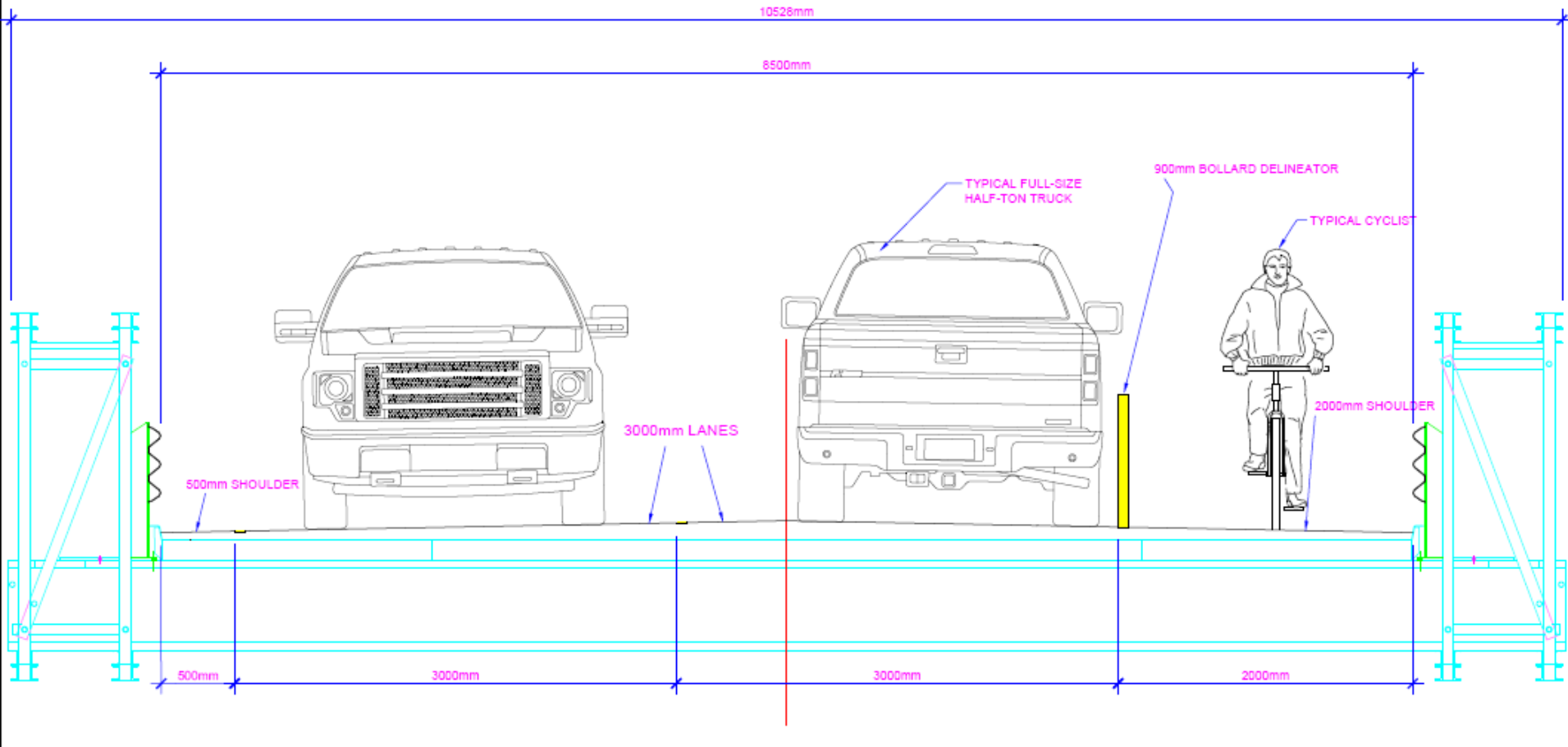
# DISCUSSION

## 7.9m Bridge Option



# DISCUSSION

## 8.5m Bridge Option



# DISCUSSION

- The advantage of a wider bridge allows for snow clearing of the pedestrian lane in the winter, preventing the need to maintain the cantilevered platform separately.
- The disadvantage is there is not a physical barrier provided to protect the pedestrians.
  - The local residents do not support the wider bridge option with flexible bollards.
- The wider bridge options are not standard and require custom fabrication of the extended floor beams + a new design.
  - There is sufficient time to allow for this to be completed prior to required delivery of the structure.

# DISCUSSION

- Results of Mississippi Mills' COW meeting to be discussed at the Public Works Committee Meeting and a recommendation may be made at that time.



# RECOMMENDATION

**THAT,** Report #PW-18-2023 be received as information.





**MINUTES  
FIFTH MEETING OF 2023  
PUBLIC WORKS  
COMMITTEE OF THE WHOLE**

The Public Works Committee of the Whole met in regular session on Wednesday, May 24, 2023 immediately following County Council.

**Members Present:** Chair S. Fournier, Warden P. McLaren and Councillors B. King, C. Lowry, R. Minnille, K. Jennings, J. Carroll, J. Brown, F. Dobbie, R. Rainer, R. Kidd, B. Dowdall, T. Randell, A. Tennant, and J. Matheson.

**Staff/Others Present:** K. Greaves, CAO  
J. Ralph, County Clerk  
M. Beson, Deputy Clerk  
T. McCann, Director of Public Works  
S. Derouin, Public Works Manager  
E. Gallant, Climate and Environmental Coordinator

**Regrets:** Councillor E. McPherson

**PUBLIC WORKS**

**Chair:** Councillor S. Fournier

**1. CALL TO ORDER (Reminder please silence all electronic devices)**

The meeting was called to order at 5:41 p.m.

A quorum was present.

**2. DISCLOSURE OF PECUNIARY INTEREST**

None at this time.

**3. APPROVAL OF MINUTES**

i) April 26, 2023 (Special Meeting)

**MOTION #PW-2023-31**

**MOVED BY:** R. Minnille      **SECONDED BY:** B. King

*THAT, the minutes of the Special Public Works Committee meeting held on April 26, 2023 be approved as circulated.*

**ADOPTED**

April 26, 2023

**MOTION #PW-2023-32**

**MOVED BY:** F. Dobbie      **SECONDED BY:** B. Dowdall

*THAT, the minutes of the Public Works Committee meeting held on April 26, 2023 be approved as circulated.*

**ADOPTED**

**4. ADDITIONS AND APPROVAL OF AGENDA**

May 24, 2023

**MOTION #PW-2023-33**

**MOVED BY:** T. Randell      **SECONDED BY:** J. Matheson

*THAT, the agenda be approved as presented.*

**ADOPTED**

**5. DELEGATIONS (10 MINUTES)**

**6. QUESTIONS OF THE DELEGATION FROM COUNCIL**

**7. PRESENTATIONS**

## 8. COMMUNICATIONS

- i) Road Management Action on Invasive Phragmite  
**Township of the Archipelago**
- ii) Proposed Enbridge Gas Fee for Utility Locates  
**Municipality of Shuniah**

### **MOTION #PW-2023-34**

**MOVED BY:** A. Tennant      **SECONDED BY:** P. McLaren

*THAT, the communications for the **May** Public Works Committee meeting be received as information.*

**ADOPTED**

## 9. CONSENT REPORTS

## 10. DISCUSSION REPORTS

- i) PW-17-2023 Vegetation Management Plan Activities  
**Elizabeth Gallant, Climate Environmental Coordinator**

### **MOTION #PW-2023-35**

**MOVED BY:** K. Jennings      **SECONDED BY:** P. McLaren

*THAT, Report #PW-17-2023 Vegetation Management Plan Activities Update be received as information.*

**ADOPTED**

- ii) PW-18-2023 Blakeney Bridge Report  
**Sean Derouin, Public Works Manager**

Public Works Manager S. Derouin noted that the Mississippi Mills Council indicated that the 7.9 m option was their preferred option at their Committee of the Whole meeting on May 23rd.

He noted that staff is not making a recommendation at this time until the Mississippi Mills Council's decision is final.

**MOTION #PW-2023-36**

**MOVED BY:** T. Randell      **SECONDED BY:** R. Rainer

***THAT,** Report #PW-18-2023 Blakeney Bridge Report be received as information.*

**ADOPTED**

- iii) PW-19-2023 Andrewsville Bridge Report  
**Sean Derouin, Public Works Manager**

Public Works Manager S. Derouin provided an update of the activities related to the Andrewsville geotechnical report.

Council discussed the liability issues related to the dry-stone retaining walls. It was noted that the geotechnical reports would be available at the Public Works meeting in June.

**MOTION #PW-2023-37**

**MOVED BY:** K. Jennings      **SECONDED BY:** C. Lowry

***THAT,** Report #PW-19-2023 Andrewsville Bridge Report be received as information.*

**ADOPTED**

**11. VERBAL REPORTS**

- i) Climate Action Working Group  
**Councillor Toby Randell**

The next meeting is on June 8th at 10am.

**MOTION #PW-2023-38**

**MOVED BY:** F. Dobbie      **SECONDED BY:** R. Minnille

*That the Climate Action Working Group report be received for information.*

**ADOPTED**

**12. DEFERRED REPORTS**

**13. CONFIDENTIAL REPORTS**

**14. NEW/OTHER BUSINESS**

**15. ADJOURNMENT**

The Committee adjourned at 6:26 p.m. on motion by Councillors Jennings, King.

Jasmin Ralph, Clerk

A handwritten signature in black ink, appearing to read 'Kurt Greaves', with a long horizontal line extending to the right.

Kurt Greaves, CAO

**THE CORPORATION OF THE MUNICIPALITY OF MISSISSIPPI MILLS**

**STAFF REPORT**

**DATE:** May 23, 2023  
**TO:** Committee of the Whole  
**FROM:** Cory Smith, Director of Public Works  
**SUBJECT: Blakeney Bridge Renewal – Pedestrian Options**

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**RECOMMENDATION:**

**THAT Council Direct Staff to notify Lanark County to move forward with Option \_\_\_\_\_,**

**AND THAT Council direct Staff to include \$\_\_\_\_\_ in the 2024 Budget for Mississippi Mills share of the additional costs,**

**AND THAT Council direct staff to request Lanark County complete a review of the geometry and make recommendations to the appropriate speed limit for the Blakeney Bridge and its approaches.**

**BACKGROUND:**

In October of 2022 Lanark County Public Works informed Mississippi Mills Public Works that an enhanced inspection of the Blakeney Bridge had been completed and that a load limit reduction was required. They also indicated that they were going to be taking the information regarding the bridge to County Council to attempt to fast track the bridge replacement to 2023. Upon further review temporary repairs were completed and an EA process was initiated with a timeline for construction of 2024. A public Open House was held on December 1, 2023, presenting options for renewal being presented. Public Comments were received as part of the public engagement both on site in writing and subsequently by email. The concerns provided to County Staff were primarily related to concerns for pedestrian safety and concerns for accommodations for agricultural equipment.

In April Lanark County provided additional information to Mississippi Mills Public Works regarding a report taken to County Council in March for the replacement of the Blakeney Bridge. The report presented various options but only 2 were considered. The first option was Option 1A of a two-lane bridge with no pedestrian walkway at a cost of \$3,900,000.00 and Option 2A of a two lane bridge with a cantilevered pedestrian walkway at a cost of \$4,420,000.00 (Cost of the Pedestrian Walkway \$520,000.00). A variance on Option 2A was to go with open railing at a cost savings of \$84,000.00.

Lanark County Public Works stated that the Committee voted to install a two-lane structure with a cantilevered pedestrian walkway if Mississippi Mills was to cover the additional cost of the cantilevered walkway.

**DISCUSSION:**

The village of Blakeney residents have concerns related to traffic and pedestrian safety. These concerns have recently been presented to Council. Staff will be bringing a separate report forward related to the concerns presented. Several residents provided commentary outlining their safety concerns to Lanark County at the time of the public engagement. The agricultural community also provided comments to Lanark County at the time of the public engagement. A summary of concerns is listed below.

<b>Category</b>	<b>Number of concerns</b>
Prefer 2 lane	6
Prefer 1 lane	13
Pedestrian accessibility (including traffic calming)	13
Snowmobile accessibility	1
Agricultural Consideration for width	2

Staff have reviewed the options presented for consideration by Lanark County, as well as the concerns provided by our residents to Lanark County. In addition, traffic and speed information from 2022 and pedestrian and cycling data from 2023 were reviewed. Staff also contacted the OPP for a 5-year review of collision history in the Blakeney area. Staff also reviewed the proposed alignments and asked Lanark County to consider additional options.

In regard to the structure, it is felt a two lane structure can be adequately designed to accommodate the agricultural concerns and the residents concerns for pedestrian safety. Both the pedestrian safety and agricultural concerns need to be reviewed with a lens for future changes and growth.

A pedestrian can cross the current structure in approximately 110 seconds at a moderate walking pace. On the busiest day of traffic in 2022 the shortest average interval between cars crossing the bridge was 85 seconds between the hours of 4:00 pm and 5:00 pm. The overall daily average was 122.6 seconds. The summary below is based on the busiest day recorded in 2022.

<b>Time interval between cars</b>	<b>85 – 110 seconds</b>	<b>111 – 150 seconds</b>	<b>151 – 200 seconds</b>	<b>201 and greater</b>
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Times	7am–8am	8am-9am	6am-7am	12am-1am
	1pm-2pm	9am-10am	8pm-9pm	1am-2am
	2pm-3pm	10am-11am	9pm-10pm	2am-3am
	3pm-4pm	11am-12pm		3am-4am
	4pm-5pm	12pm-1pm		4am-5am
		5pm-6pm		5am-6am
		6pm-7pm		10pm-11pm
		7pm-8pm		11pm-12am

The OPP provided a collision report for the Blakeney area which included Blakeney Road between Martin Street and County Road 29, including portions of Martin St and County Road 29. In review of the accident history in the Blakeney Bridge Area a total of two (2) reportable motor vehicle accidents occurred in the village of Blakeney between January 1, 2018, and December 31, 2022. Both accidents occurred at the intersection of Blakeney and Alexander Street. No reportable Motor vehicle accidents occurred at the Blakeney Bridge. During this same period of time, a total of 22 traffic-related calls to the Overall Blakeney area as described earlier. Of the 22 calls, 11 were traffic complaints, 2 traffic enforcement HTA, 2 Ride related incidents, and 4 eticket incidents, as well as 3 calls to non-reportable accidents. Based on the OPP Review of the area the report provided states “After reviewing the data the writer does not view the “Blakeney Area” as an area of concern based on the available data.

On May 5, 2023, Public Works did a manual count of pedestrian and cycling traffic. The review occurred between the hours of 8:30 am and 4:00 pm. A total of 1 pedestrian and 3 cyclists crossed the bridge during these hours. It should be noted that it is not expected that these numbers would be representative of pedestrian and cycling traffic during peak tourist season. It should also be noted that no data was collected outside of the hours of 8:30am and 4:00pm.

Speed data indicated a prevailing speed of 40 km/h and 48 km/h without traffic calming measures and 33 km/h and 39 km/h after the installation of digital speed display devices. The speed limit in the village is currently 50 km/h. The approach to the bridge is marked with a recommended (Not regulatory) speed of 30 km/h.

The above information does not take into account the anecdotal information of near misses experienced by local residents of Blakeney. These experiences brought forward by the local residents need to be considered in the decision-making process.

Based on the above information, and leaning on the local residents for their experience, and taking into account future growth of our community increasing both traffic and pedestrian levels, adequate safety measures should be considered for the replacement of the structure.

Lanark County Council considered a cantilever pedestrian walkway at a cost of \$520,000.00 if Mississippi Mills was willing to pay for it. Upon further discussion with Lanark County, staff requested Lanark County review additional options including widening the structure and incorporating a pedestrian walkway separated by flexible



bollards. Lanark County provided concept drawings and pricing for these options and provided updated costs to the initial options. Lanark County also circulated the additional options to a local resident in Blakeney who discussed it with other residents and their preferred option remains the cantilevered pedestrian walkway.

Additional information to be considered, the existing road approach to the structure ranges from 6m to 6.5 m wide with the exception of the inside corner leaving the structure heading to Martin St. where the shoulder was paved to prevent erosion. Having a bridge that is wider than the approach road does necessarily facilitate the movement of agriculture equipment unless the approach road is also widened to facilitate accessing the bridge. In other words having a wide bridge without widening the roads does accomplish movement of large equipment.

A pedestrian walkway is required to be a minimum of 1.5m in width to be considered accessible in Ontario. It should also be noted that a cantilevered pedestrian walkway would likely be closed in the winter as winter maintenance would be difficult. A walkway separated by flexible bollards would have the bollards in place during the warm weather higher traffic times and they could be removed during winter months allowing the area to be winter maintained by the passing snowplow. The various arrangements are considered below.

It should also be noted that the geometry of the approaches to the bridge may warrant a lower speed limit in the area of the bridge and approaches. In any case Mississippi Mills should request that Lanark County have their design engineer review the alignment and recommend an appropriate speed limit based on the geometry.

<b>Option</b>	<b>Arrangement</b>	<b>Cost to Mississippi Mills</b>	<b>Comments</b>
1	2-Lane Bridge (7.3m wide) No Pedestrian Accommodations	\$0.00	Based on the information provided and current levels of traffic, there should be adequate accommodations. This

			does not consider future growth. Not supported by local residents.
2	2-Lane Bridge (7.9m Wide) including 0.3m shoulder, 2-3.0m lanes and 1.6m walkway protected by flexible bollards	\$180,000.00	Bollards can be removed for winter maintenance. Provides an accessible walkway, with visible delineation during high traffic seasons. Not supported by local residents
3	2-Lane Bridge (8.5m Wide) including a 0.5m shoulder, 2-3.0m lanes and a 2.0m walkway protected by Flexible Bollards	\$355,000.00	Bollards can be removed for winter maintenance. Provides an accessible walkway, with visible delineation during high traffic seasons. Not Supported by residents.
4	2-Lane Bridge (7.3m Wide), with Cantilevered pedestrian walkway.	\$477,000.00	Likely not winter maintained. Provides Physical barrier between pedestrians and traffic. Preferred option of local residents.

**OPTIONS:**

1. Council selects preferred option and direct staff to provide direction to Lanark County and include the appropriate funding in the 2024 Budget.
2. Council Direct staff to obtain additional information.
3. Council Direct staff to approach Lanark County with preferred option and request they pay for it out of County funds.

**NOTE:** any option selected should include the request for Lanark County to review the geometry of the approaches to the Bridge and provide recommendations on the appropriate speed limit for the approaches and the bridge.

**FINANCIAL IMPLICATIONS:**

All financial implications would be included in the 2024 budget. During the time between the design and construction, both Lanark County and Mississippi Mills Staff could review funding options through grant opportunities.

The effect on the budget was reviewed by the Finance Department and is summarized in the table below;

Option	Effect On Budget
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	<b>2024</b> Not Financed	<b>Annually</b> Financed over 5 Years	<b>Annually</b> Financed over 10 Years	<b>Annually</b> Financed over 15 Years
2 Lane 7.3m Width No Accommodations	\$0.00 0%	\$0.00 0%	\$0.00 0%	\$0.00 0%
2 Lane 7.9M Width 1.6m Protected Walkway	\$180,000.00 0.72%	\$41,575.46 0.17%	\$23,310.82 0.09%	\$17,341.61 0.07%
2 Lane 8.5m Width 2.0m Protected Walkway	\$355,000.00 1.42%	\$81,996.05 0.33%	\$45,974.12 0.18%	\$34,201.51 0.14%
2 Lane 7.3m Width Cantilevered Walkway	\$477,000.00 1.91%	\$110,174.98 0.44%	\$61,773.68 0.27%	\$45,955.27 0.18%

**SUMMARY:**

While all four (4) arrangements would be acceptable based on current traffic levels and speeds. Options 2,3 and 4 all take into account considerations based on future growth and increase in traffic volumes.

Respectfully submitted by,

Reviewed by:

\_\_\_\_\_  
Cory Smith,  
Director Roads & Public Works

\_\_\_\_\_  
Ken T. Kelly,  
Chief Administrative Officer