Agenda – Executive Policy Committee – April 20, 2022

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – April 6, 2022

Item No. 4 Warranted Projects within the Traffic Engineering Improvement Program

STANDING COMMITTEE RECOMMENDATION:

On April 6, 2022, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service, as amended, and submitted the following to Council:

1. That the report of the Winnipeg Public Service be received as information.

2. That the Road Renewal Reserve be used to fund the warrented but unfunded Traffic Engineering Improvement Program projects listed in Appendix B.

3. That the Winnipeg Public Service be directed to complete the installation of the warrented but unfunded Traffic Engineering Improvement Program projects listed in Appendix B as soon as possible.

4. 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 – April 20, 2022

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – April 6, 2022

DECISION MAKING HISTORY:

STANDING COMMITTEE RECOMMENDATION:

On April 6, 2022, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service, with the following amendments:

- Add the following new Recommendations:

    "2. That the Road Renewal Reserve be used to fund the warrented but unfunded Traffic Engineering Improvement Program projects listed in Appendix B.

    3. That the Winnipeg Public Service be directed to complete the installation of the warrented but unfunded Traffice Engineering Improvement Program projects listed in Appendix B as soon as possible.

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

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

On March 8, 2022, the Standing Policy Committee on Infrastructure Renewal and Public Works granted a further extension of time of 60 days for the Winnipeg Public Service to report back on the matter.

On January 13, 2022, the Standing Policy Committee on Infrastructure Renewal and Public Works granted a further extension of time of 60 days meeting for the Winnipeg Public Service to report back on the matter.

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

On November 5, 2021, the Standing Policy Committee on Infrastructure Renewal and Public Works granted an extension of time of 60 days for the Winnipeg Public Service to report back on the matter.

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – April 6, 2022

DECISION MAKING HISTORY (continued):

STANDING COMMITTEE RECOMMENDATION (continued):

On September 15, 2021, the Standing Policy Committee on Infrastructure Renewal and Public Works passed the following motion:

BE IT RESOLVED that the Winnipeg Public Service be directed to report back to the Standing Policy Committee on Infrastructure Renewal and Public Works in 60 days with a listing of the following within the Traffic Engineering Improvement Program:

1. Projects that are warranted and fully funded

2. Projects that are warranted and unfunded

ADMINISTRATIVE REPORT

Title: Warranted Projects within the Traffic Engineering Improvement Program

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

The Traffic Engineering Improvement Program (TEIP) is an ongoing capital program with a very broad scope. Funding is used to implement many different projects including new traffic signals, pedestrian crossing improvements, advanced warning flashers, roadside safety improvements, traffic calming, traffic sign upgrades, railway crossing compliance/improvements, research studies, and operational reviews.

Each year, a portion of that year's funding is proactively planned for transportation engineering improvements while some of the funding is reserved to implement on an as-needed basis as high priority or safety-related new projects arise throughout the year.

A list of the warranted projects that are planned to be implemented total $2,275,000 using funding from the 2022 budget and are included in Attachment A. New budget allocations for 2022 include:

- $1,000,000 (of the estimated total cost of $2,775,000) in 2022 for the installation of warranted pedestrian crossing control at various locations (as detailed in the September 2021 SPC-IRPW Report).
- $145,000 (of the estimated total cost of $1,650,000) in 2022 to upgrade existing pedestrian corridors with low-mounted flashing lights to meet current internal design guidelines.

A list of the warranted projects that do not have funding identified or are expected to be implemented using funding from 2023 or later budgets is included in Attachment B. The total estimated cost of the unfunded projects to be funded by the 2023 or later budgets (including the unfunded portions of the previously reported pedestrian crossing improvements, and pedestrian corridor low mounted flashing lights) is estimated at $7,886,070.

It is also critical to note that TEIP funding is not the only limiting factor to completing additional projects. Many projects on the unfunded list exist at a conceptual design level. Only locations that are prioritized for construction each year have additional work completed including further site review, detailed design, consultation (in some cases), traffic signal timing coordination, and then construction. In addition to the consideration of available budget to construct these projects, there is also a lack of human resources to design and coordinate them. Current staffing levels within the Public Works Department would not be able to accommodate the design and construction of all of these projects in an immediate timeframe.

RECOMMENDATIONS

1. That this report be received as information.

REASON FOR THE REPORT

On September 15, 2021 the Standing Policy Committee on Infrastructure Renewal and Public Works directed the Winnipeg Public Service to report back in 60 days with a listing of the following within the Traffic Engineering Improvement Program:

- Projects that are warranted and fully funded
- Projects that are warranted and unfunded

Subsequent extensions of time were granted by the SPC-IRPW for the Public Service to report back.

IMPLICATIONS OF THE RECOMMENDATIONS

As this report is for information purposes only, there are no implications.

HISTORY/DISCUSSION

INTRODUCTION AND BACKGROUND

The Traffic Engineering Improvement Program (TEIP) is an ongoing capital program with a very broad scope. Funding is used to implement many different projects including new traffic signals, pedestrian crossing improvements, advanced warning flashers, roadside safety improvements, traffic calming, traffic sign upgrades, railway crossing compliance/improvements, research studies, and operational reviews.

The 2022 Adopted Budget and the 5-year forecasted budget are summarized in Table 1.

Budget ($000's)	2022	2023	2024	2025	2026	2027
2022 Budget	$2,460	$1,264	$1,200	$1,374	$1,402	$3,294

Table 1 - 2022 Adopted Budget and 5-year budget forecast for TEIP

The 2022 Budget includes the following budget allocations:

- $1,000,000 (of the estimated total cost of $2,775,000) in 2022 for the installation of warranted pedestrian crossing control at various locations (as detailed in the September 2021 SPC-IRPW Report *"Unfunded Pedestrian Crossing Control Treatments for Traffic*
- *Engineering Improvement Program Budget"*).
- Additional funding in 2022, 2023, 2025, and 2026 of $580,000, with an additional $1,070,000 forecasted in 2027, to upgrade existing pedestrian corridors with low-mounted flashing lights to meet current internal design guidelines.

Each year, a portion of that year's funding is proactively planned for transportation engineering improvements while some of the funding is reserved to implement on an as-needed basis as high priority or safety-related new projects arise throughout the year. Without this reserved

funding, any new project that came up during the year would have to be held until the following year when it could be prioritized.

The TEIP budget is often used as a catchall for any improvement to the transportation network outside of another capital project. The projects may range in cost from $5,000 for installing a new left turn signal phase to over $400,000 for installing a new railway crossing warning system.

Many of the improvements funded by the TEIP are responses to 311 service requests by citizens, requests from Councillors, or direction from SPC-IRPW. The budget required to implement all of the requests each year is larger than the funding available, which means that projects are often carried over to future years.

Historically, the majority of TEIP spending has been in a reaction to a specific concern for improved infrastructure at an isolated intersection. Unfunded projects with city-wide implications or large scope and budget requirements are often excluded from the TEIP because they could not reasonably be funded without using the majority of the funding. These projects are submitted to the Public Works Capital Budget prioritization process for future funding considerations.

WARRANTED AND FUNDED PROJECTS

At the July 7, 2021, meeting of SPC-IRPW, the Public Service presented a report titled "*Update on the Traffic Engineering Improvement Program*." This report outlined the planned work to be completed with funds that were already secured in 2021 or earlier budgets.

Subsequently, the 2022 Budget was adopted and several new projects can now be funded. A list of the warranted projects that are planned to be implemented using funding from 2022 is included in Attachment A. Planning and design for many of these projects has already begun.

Approximately $185,000 of the 2022 budget is temporarily reserved as a contingency for cost overruns or to fund high priority or safety-related projects that arise throughout the year.

WARRANTED AND UNFUNDED PROJECTS

For the purpose of this report, projects that do not have funding identified or are expected to be implemented using funding from 2023 or later budgets are included as "unfunded" projects. As new projects are identified, the prioritization could change and this approach ensures all projects that do not have funding secured are included in this report.

A list of the unfunded warranted projects is included in Attachment B. These projects are confirmed to be within the scope of TEIP but in many cases the estimated costs are preliminary opinions of cost. The total estimated cost of the unfunded projects to be funded by the 2023 or later budgets (including the unfunded portions of the previously reported pedestrian crossing improvements, and pedestrian corridor low mounted flashing lights) is estimated at $7,886,070.

The designs for unfunded projects that are listed for future implementation are at various different stages of completion. Some of these projects are at an early stage where the need for the project has been confirmed but the design/scoping/costing work has not been initiated. These tasks are very time-consuming and are planned to be completed as the project comes closer to fruition. Attachment B includes all projects that have enough definition to confirm they

fit the scope of TEIP and could be pursued in a reasonable timeframe if additional funding was available.

It is also critical to note that TEIP funding is not the only limiting factor to completing additional projects. Many projects on the unfunded list exist at a conceptual design level. Only locations that are prioritized for construction each year have additional work completed including further site review, detailed design, consultation (in some cases), traffic signal timing coordination, and then construction. In addition to the consideration of available budget to construct these projects, there is also a lack of human resources to design and coordinate them. Current staffing levels within the Public Works Department would not be able to accommodate the design and construction of all of these projects in an immediate timeframe.

FUTURE COMMITMENTS

There are several major projects that are still in progress that will likely result in recommendations for follow up projects – some of which would be within the scope of the TEIP. These projects are not included within Attachment B because the recommendations are not finalized at the time of writing this report. Over the course of the next 6-12 months, the recommendations from these projects will be finalized:

Traffic Calming – In addition to the 15 traffic calming projects that are unfunded (listed in Attachment B), there are regularly new requests for traffic calming that are undergoing the engineering assessment to determine if a traffic calming solution is the correct treatment. It is reasonable to expect that several of these projects will be warranted and require funding.

Transportation Master Plan – The Transportation Master Plan will identify new goals, targets and pilot projects. If another funding source is not identified, the TEIP budget may be used to make progress on action items that fit the scope of the program.

Road Safety Strategic Action Plan – The Road Safety Strategic Action Plan will identify several actions to review policies, develop new guidelines and standalone projects. If another funding source is not identified, the TEIP budget may be used to make progress on action items that fit the scope of the program.

Historically, the TEIP budget has been used to construct minor geometric improvements at intersections when it is clear that a road renewal project will not be undertaken in the near future. Whenever possible, large-scale intersection improvements should be scheduled to be included as part of a future road renewal project. Typically, the cost of a major intersection improvement project is much higher than if the same improvement was combined with a larger road renewal project. The general absence of intersection improvements in Attachment A should not be interpreted to mean that there are no intersections that need improvements, only that intersection improvements are generally addressed outside of the TEIP and are instead referred to future road renewal projects.

FINANCIAL IMPACT

Financial Impact Statement **Date:** March 9, 2022

Project Name: **First Year of Program** **2022**

Warranted Projects within the Traffic Engineering Improvement Program

	2022	2023	2024	2025	2026
Capital					
Capital Expenditures Required	$ 2,460,000	$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs	2,460,000	-	-	-	-
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	$ -	$ -	$ -	$ -	$ -
Less: Incremental Revenue/Recovery	117,143	-	-	-	-
Net Cost/(Benefit)	$ (117,143)	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts	(117,143)	-	-	-	-
Net Budget Adjustment Required	$ 0	$ -	$ -	$ -	$ -

Additional Comments: Capital Costs represent estimated cost for planned expenditures in the 2022 TEIP program 1831000122 as per Appendix A, and include estimated departmental overhead and corporate interest charges of $117,143. Incremental Revenue/Recovery represent estimated Departmental overheads and Corporate Interest charges.

"signed by J. Ruby, CPA, CA"

J. Ruby CPA, CA

Manager of Finance and Administration

CONSULTATION

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

OURWINNIPEG POLICY ALIGNMENT

N/A

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

N/A

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

N/A

SUBMITTED BY

Department: Public Works
Division: Transportation
Prepared by: G. Blatz, P.Eng., Traffic Management Engineer
Date: March 9, 2022

Attachments:

Appendix A: 2022 Traffic Engineering Improvement Program - Funded Projects

Appendix B: Traffic Engineering Improvement Program - Unfunded Projects