

Design Study for New Structures Over Assiniboine River and Long Lake Drain and Realignments of PTH 26 and PR 248

PHASE 2 ENGAGEMENT
FEBRUARY 2024

Manitoba 

Welcome

- Thank you for participating in the preliminary and functional design study for the new structures over the Assiniboine River and Long Lake Drain and the associated realignment of PTH 26 and PR 248.
- The image at right illustrates the general study area.
- The following slides provide an overview of the study process and objectives.
- The intent of this engagement is to:
 - Provide project updates
 - Offer an opportunity for stakeholders to provide early insight before preferred alignment is selected
 - Share important details regarding the next steps for this project



Project Team

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Manitoba Transportation and Infrastructure (MTI)

Project Owner

Colin Spikula, MTI Project Manager



WSP

Engineering Consultant

Jim Lukashenko, WSP Project Manager



Landmark Planning & Design

Public and Stakeholder Engagement Consultant

Donovan Toews, Engagement Lead

Background

- The objective of the project is to prepare a design concept to replace the aging structures over Assiniboine River and Long Lake Drain and improve the alignments of PTH 26 and PR 248.
- The existing truss bridge over the Assiniboine River was constructed in 1948 and the timber bridge over the Long Lake Drain was constructed in 1928. Both bridges are approaching the end of their services lives and require replacement.
- This study will take approximately 12 to 18 months to complete and will be followed by a more detailed design study for a preferred alternative



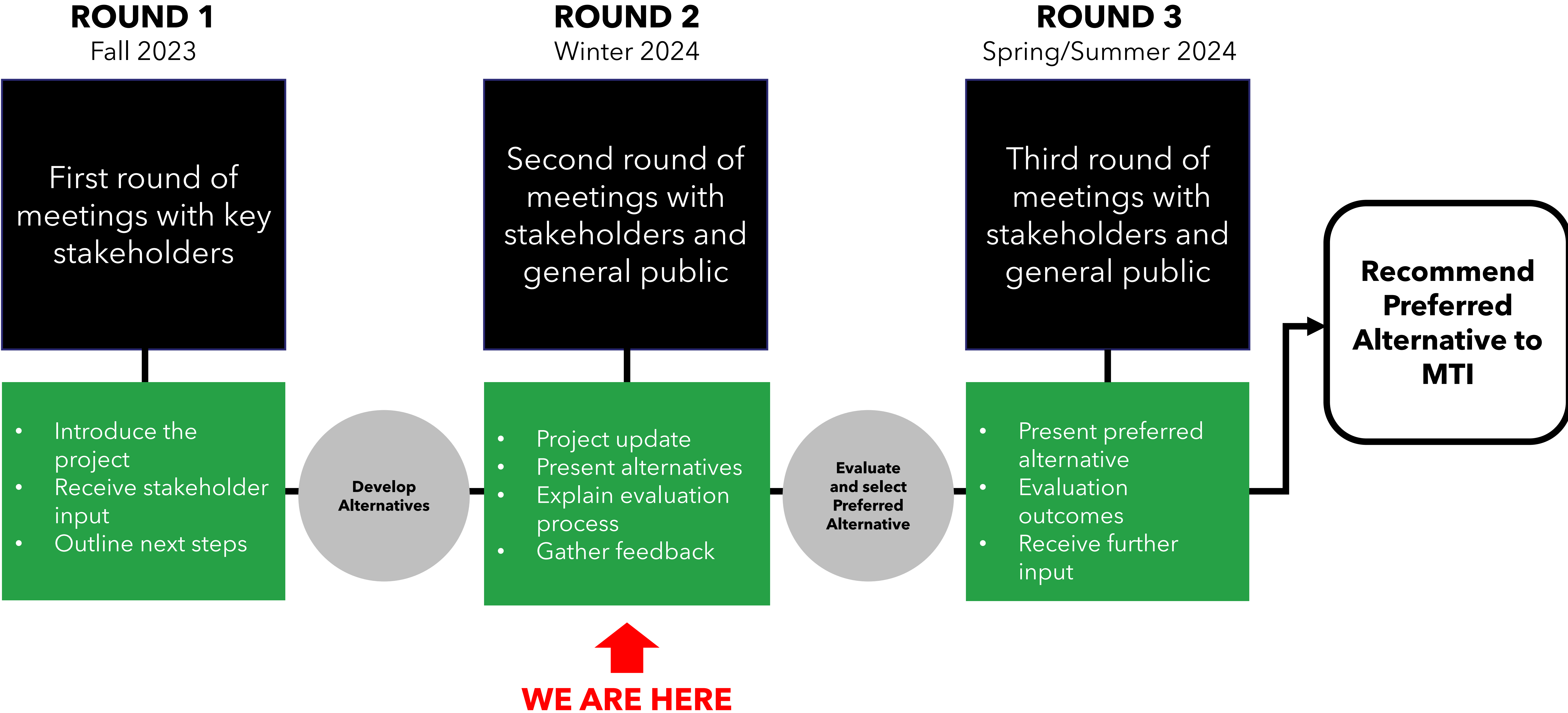
Baie St. Paul Bridge



Long Lake Bridge

Engagement Process

The following diagram illustrates the engagement process:



Stakeholders

There are many people and groups that may be interested in or affected by this project:

- Indigenous Rights Holders
- RM of St. Francois Xavier
- RM of Cartier
- Residents / landowners
- Agricultural operations
- Business owners
- Local school divisions
- Utilities in the vicinity
- Manitoba Trucking Association
- Local Trail or Recreation Groups
- Emergency Services Providers
- Others as identified throughout the engagement process



Study Considerations

The study team needs to consider a number of factors in the design process, including;

- Safety and collision history
- Environmental impacts
- Local land use and access patterns
- Right-of-way requirements
- Active transportation requirement
- Cultural or heritage considerations
- Emergency access
- Wildlife
- Traffic projections
- Water crossings and navigation requirements
- Utilities
- Capital and maintenance costs
- Other factors that others may identify through the engagement process, including stakeholder and Rights Holder perspectives on these and other topics



What We Heard (Stakeholders)

At the first round of Stakeholder Engagement meetings in November - December 2023, some comments were offered by participants including the following. Note that these are comment themes offered by either one or more individuals or groups, and are considered important perspectives for the study team to carefully consider:

- Concern regarding soil conditions
- Concern about agricultural disruption
- Concern about safety in relation to speed limit, visibility, left turns, winter conditions, and truck traffic
- Concern about current structural capacity of the bridges
- Consider flooding risks of any alternative
- Consider Old Baie St. Paul cemetery
- Consider north-south connectivity as the only route between a range of RMs
- Desire to see adequate space for farm equipment crossing movements
- Desire for RTAC connection between PTH6 and Elie
- Concern about land acquisition and value impacts of any alternative
- Consider emergency services and school bus disruption during and after construction
- Questions about construction timeframes
- Questions about costs of any of the alternatives

Study Area Map

This map illustrates the location of the Baie St. Paul Bridge over the Assiniboine River on PR 248 and the Long Lake Drain Bridge on PTH 26



Corridor Alternatives

- There are different corridor alternatives that could be developed to accommodate the new bridge structures and highway alignments.
- Each corridor has advantages and disadvantages that the study team is evaluating. Rights Holder and Stakeholder input supplements technical considerations in the evaluation.
- The next slide illustrates the following corridor alternatives:

PR 248

- 1) Direct Route
- 2) Easterly Route
- 3) River Diversion
- 4) Westerly Route
- 5) Reconfigure Existing Bridge Corridor
 - a) South of Existing
 - b) At Existing Location

PTH 26

- a) Realignment North
- b) Existing Curve Correction Only

Corridor Alternatives

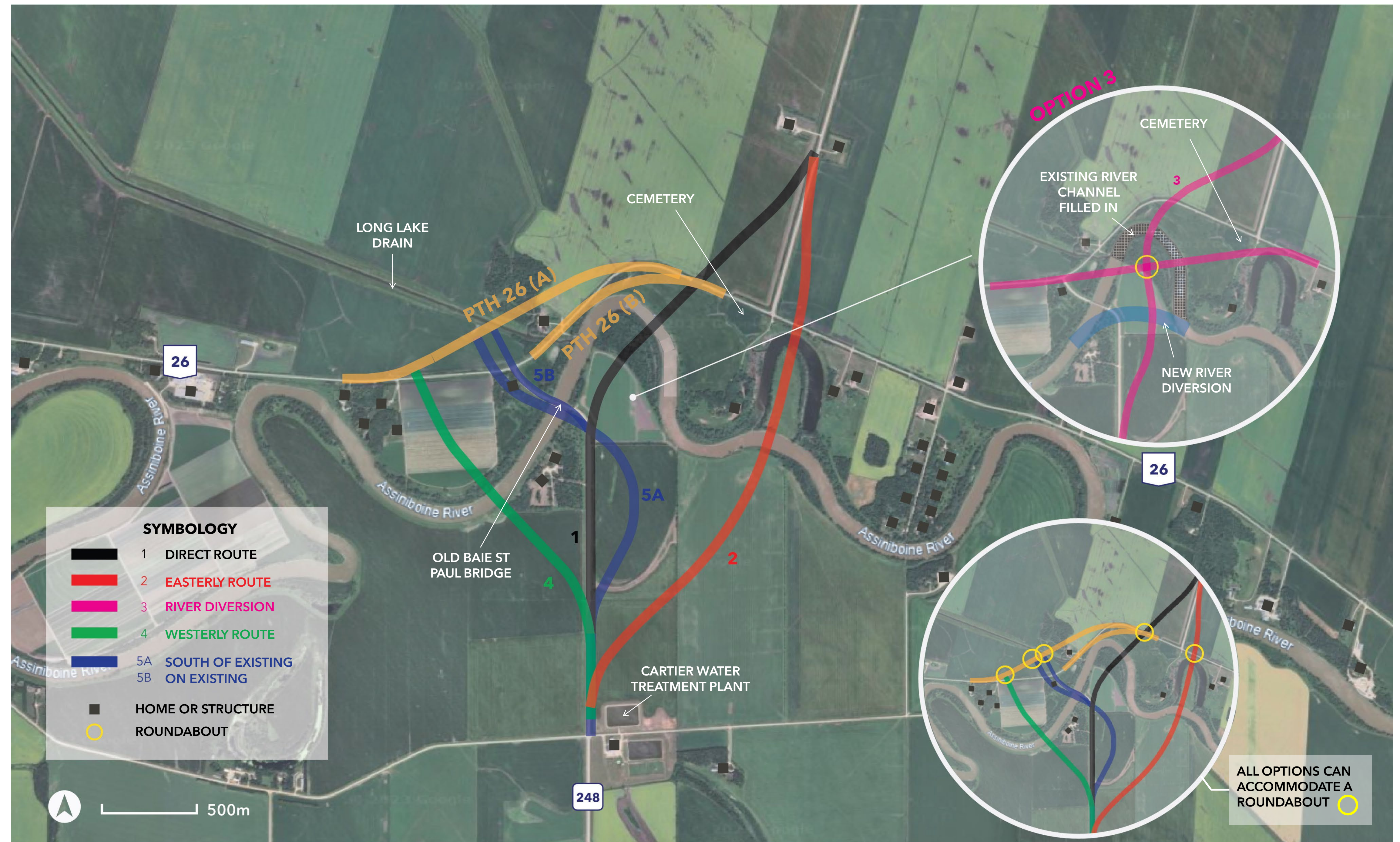
- This slide illustrates possible corridors for evaluation
- Three of the corridors identified would not meet desired highway design standards (Alternatives 4, 5A, and 5B)
- PTH 26 alignment alternatives to be combined with PR 248 alignment alternatives

PR 248

- 1) Direct Route
- 2) Easterly Route
- 3) River Diversion
- 4) Westerly Route
- 5) Reconfigure Existing Bridge Corridor
 - a) South of Existing
 - b) At Existing Location

PTH 26

- a) Realignment North
- b) Existing Curve Correction Only



Alternatives Evaluation Criteria

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- This slide illustrates the many considerations for evaluating alternatives at a high level; all considerations are important
- Other considerations can be added

Social

- Land and property acquisition
- Traffic disruption
- Local access changes
- Agricultural land disruption
- Long-term residential disruption
- Project duration
- Emergency services disruption/response
- School transportation disruption
- Potential environmental impacts
- DFO approval process
- Efficient movement of goods
- Future AT/trails accommodation
- Risk of cemetery disturbance

Engineering

- Safety improvement
- RTAC loading accommodation
- Long Lake Drain accommodation
- Overall route length
- Route continuity/connectivity
- Intersection/curve spacing
- Geometry
- Bridge skew
- Number of bridges
- Bridge constructability
- Geotechnical risk
- Erosion risk
- Overall project simplicity

Alternatives Evaluation Criteria

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The chart on the next slide shows all the corridor alternatives and relative advantages and disadvantages of each:

- Key topics raised as important by rights holders, stakeholders, project team members are included
- If a topic is missing, it can still be added to make sure it is properly considered
- The alternatives that have the most green ratings are more preferred, while the alternatives that have more yellow and red ratings are less preferred
- The selected alternative should be most effective for highway safety and efficiency, but also give consideration to the other topics
- Once all perspectives are properly understood, and sufficient due diligence is undertaken, a preferred alternative can be selected and advanced to a detailed design stage

Alternatives Evaluation Criteria

- This chart illustrates the relative strengths and weaknesses of each corridor alternative
- The chart is a work in progress and further considerations can be added
- Alternatives with more advantages (green) and fewer disadvantages (red) are shown towards the left of the chart
- Alternatives with fewer advantages (green) and more disadvantages (red) are shown towards the right of the chart
- Replacing the bridge only has some advantages but does not meet the intent of the project (see Board 4)
- Alternatives 4 and 5 are routes that do not meet up with highway design standards (red dashed circle)

PR248 & PTH26 Structures Preliminary Corridors Options Evaluation Criteria		Bridge Location and PR 248 Road Alignments						Replace Bridge Only	PTH 26 Alignments	
		Option 1	Option 2	Option 3	Option 4	Option 5			(A) Realignment North	(B) Existing Curve Correction Only
		Direct Route	Easterly Route	River Diversion	Westerly Route	a. South of Existing	b. At Existing Location			
		61	49	52	36	31	31	26	52	35
Engineering	Safety	Best	Best	Best	Lower	Lower	Lower	No improvement		Not as good
	Accommodates RTAC Loading	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
	Accommodates Long Lake Drain									
	Overall Route Length									
	Route Continuity/Connectivity	Best	Best	Best	OK	OK	OK	OK		
	Intersection/curve Spacing								Sub-standard	Sub-standard
	Geometry	Best	OK ⁽¹⁾	OK	OK	OK	OK	Sub-standard		Sub-standard
	Constructability ⁽³⁾	Moderate	Moderate	Very Best	Moderate	Moderate	Moderate	Difficult	Easier	In traffic
	Geotechnical Risk	Some ⁽⁴⁾	More	More	Some	Some	Some	Least		Along shore
	Erosion Risk	Higher	Lower	Moderate	Moderate	Lower	Lower	Lower		Along shore
	Overall Project Simplicity							Simplest		
	Bridge Skew ⁽²⁾	90 degrees	90 degrees	90 degrees	90 degrees	90 degrees	90 degrees	90 degrees	n/a	n/a
	# of Bridges	One	One	One	One	One	One	One	n/a	n/a
	Other ?									
Other ?										
Social	Land and Property Acquisition	Some	Some	Some	Some	Most	Most	Least	More	
	Traffic Disruption	Least	Least	Least	Least	Least	Least	Some		
	Local Access Changes	Least	Some	Some	Some	Some	Some	Some		
	Agricultural Land Disruption	Some	Higher	Higher	Some	Some	Some	Least	Some	None
	Long-term Residential Disruption	Some	Some	Some	More	More	More	Least	One house	No homes
	Project Duration							Shortest		
	Emergency Services Disruption/Response									
	School Transportation Disruption									
	Potential Environmental Impacts	Some	Most	Most	Some	Some	Some	Least		
	DFO Approval Process		More complex	More complex					Through trees	Along waterway
	Efficient Movement of Goods	Best	Best	Best	OK	OK	OK	OK		
	Accommodates Future AT/Trails									
	Risk of Cemetery Disturbance ⁽⁵⁾	Some								
	Other ?									
Other ?										
Project Scope	Accommodates PTH 26 realignment							Does not	n/a	n/a
	Requires Left Turns/Stops for N/S Travel				Yes	Yes	Yes	Yes	n/a	n/a
Cost	Capital Cost	Moderate	Higher	Higher	Moderate	Moderate	Moderate	Lowest	Higher	Lower
	Maintenance Cost									
	Life Cycle Cost									
	TOTAL COST									

Key Questions

- Does the early review of corridors make sense to you? Would you add any considerations for the evaluation?
- What impacts or benefits do you see from your own perspective with these corridors?

Your feedback will help the team continue to identify topics of importance and specific information that can be incorporated into the evaluation process.



Next Steps

- Thank you for participating in this process
- We will review the feedback from today's meeting and work to incorporate it into the study
- We will conduct a series of follow-up engagement meetings in the coming months to share a preferred alignment
- In these meetings we will present preferred structure replacements and roadway re-alignments before refining the conceptual design

Thank You. Questions?

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Thank you for attending tonight's stakeholder meeting.
Your feedback is important to us, so please fill out an online comment sheet at the following link:

<https://www.surveymonkey.com/r/PR248andPTH26R2>

If you have any further questions, please contact:

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