

# Functional Design for PTH 1 and PTH 5 Intersection Improvements

## Project Overview

The Functional Design for PTH 1 and PTH 5 Intersection Improvements ('the project') is located at the intersection of Provincial Trunk Highway 1 (PTH 1) and Provincial Trunk Highway 5 (PTH 5). PTH 1 is part of the National Highway System that facilitates interprovincial trade and travel, while PTH 5 provides a link between the major east-west provincial roadways running through the region. In June of 2023, this intersection was the site of a significant collision that resulted in the loss of 17 lives and impacts to many others. There have been subsequent collisions since this time.

The Government of Manitoba is focused on supporting those affected by the collision and identifying preventative measures to avoid reoccurrence. Manitoba Transportation and Infrastructure (MTI) has engaged WSP and Landmark Planning & Design Inc. (Landmark) to review the study area, illustrated in Figure 1, from an engineering, design, and safety perspective.



Figure 1: Project Study Area

The role of Landmark is to engage potentially impacted Rights Holders, stakeholders, and the general public to communicate project information, listen to individual perspectives and to effectively integrate those perspectives into the option evaluation process.

Feedback from these interactions will be reviewed in a team setting and at key milestones in order to determine how the project may be adjusted (e.g., timing, communication needs, etc.). The feedback garnered at each stage of the project will help inform the design team in the evaluation of alternatives.

## Engagement Overview

### Round 1 Engagement Objectives

Landmark led a comprehensive engagement process for the Round 1 PTH 1 and PTH 5 Functional Design Project meetings in June and July 2024. A series of Rights Holder, stakeholder, and public engagement meetings were key components of the engagement process.

The objective of Round 1 was to identify and meet with potentially impacted Rights Holders and stakeholders, as well as members of the general public to communicate project information and gain feedback, particularly as it related to potential impacts, issues or concerns that the project team should consider while identifying and developing alternatives.

### Round 1 Engagement Meeting Invitations

Prior to the commencement of the engagement program, Landmark held a project initiation meeting with WSP and MTI. At the meeting, the project team confirmed the preliminary list of Rights Holders and stakeholders with potential interests. The following identified Rights Holders and stakeholders were invited to participate in Round 1 engagement meetings.

MTI identified the following Rights Holders:

- Swan Lake First Nation
- The Manitoba Métis Federation (MMF)

The project team identified the following key stakeholders:

- Municipality of North Cypress-Langford
- Town of Carberry
- Impacted families and communities of the June 2023 collision
- Adjacent landowners (including the Manitoba Crop Diversification Centre, Robin's Nest Motel and café, and McCain Foods Limited)
- Carberry North Cypress-Langford Fire & Rescue
- RCMP Carberry Detachment
- RCMP Dauphin Detachment
- Carberry Health Centre
- Carberry & District Chamber of Commerce
- Prairie Mountain Health EMS (Ambulance)

- Carberry Collegiate
- R J Waugh Elementary School
- Manitoba Trucking Association
- Snoman (Snowmobilers of Manitoba) Inc.
- Trails Manitoba
- General public
- Others, as identified

## **Round 1 Engagement Meetings**

### **Interactive Meetings**

Rights Holder and stakeholder meetings were targeted towards a specific Rights Holder or stakeholder group and held either virtually or in-person. At each meeting, there was a presentation from the project team, followed by a Question and Answer (Q&A) period where stakeholders were given an opportunity to ask questions, and share any comments, concerns, or feedback. The following Round 1 stakeholder engagement meetings were held in person or remotely via Microsoft Teams.

#### Round 1 Rights Holder meetings:

- Manitoba Métis Federation - June 25th, 2024, at 9:30 AM (virtual)

#### Round 1 Stakeholder meetings:

- Town of Carberry – June 26th, 2024, at 10:00 AM (virtual)
- Municipality of North Cypress-Langford – June 26th, 2024, at 11:00AM (virtual)
- Key stakeholders (Manitoba Trucking Association, RCMP, and Snoman, Sprucewoods Snowdrifters) – July 15th, 2024, at 1:30 PM (virtual)
- Adjacent Landowners – July 16th, 2024, at 4:00PM (Carberry Community Memorial Hall)

Families of the victims of the June 2023 collision were contacted at an early stage of the project in order to inquire their preferred level of involvement in the project. Landmark worked with an RCMP representative and a representative from the families of victims to establish contact and communicate with the group of families.

### **Public Open House**

The Project Team hosted an Open House style meeting for the general public to attend and learn about the project. At the Open House, there was a storyboard display and project team members from Landmark, MTI, and WSP, were available to answer any questions from attendees. The project team also provided paper copies of a comment sheet for attendees to fill out, as well as a link to an online comment sheet for questions, comments, or concerns.

#### Round 1 Public Open House:

- General Public – July 16th, 2024, at 6:30 (Carberry Community Memorial Hall)

## **Stakeholder Inquiries**

Landmark answered phone and email inquiries and addressed potential concerns from Rights Holders, stakeholders, and the general public throughout the first round of engagement. Correspondences were recorded by Landmark.

## **What We Heard**

### **Interactive Meetings**

At each interactive meeting, Rights Holders and stakeholders were invited to ask questions, and share any comments concerns, or feedback. A feedback summary is outlined below for each of the targeted meetings.

#### Manitoba Métis Federation (MMF) – Rights Holder Meeting

The Manitoba Métis Federation provided insight on their desired participation in the project and internal engagement processes to be held concurrently with the project. The following messages/remarks were provided:

- Emphasis on the importance of Indigenous heritage and conducting a heritage assessment as a part of the project. Request that MMF be involved in any heritage assessments taking place.
- Recommendation to have a citizen meeting with the MMF community if the project is likely to have an impact on Indigenous harvesting or other relevant matters.
- Comments on the internal MMF Resolution Process and the creation of a 'What We Heard' report that would be shared with MTI concerning heritage resources and Traditional Knowledge.
- Concerns about citizen engagement fatigue and desire to combine engagement processes for several MTI projects to mitigate this concern.
- Comments that MMF would create a proposal for engagement and share with the project team.
- Comment that the citizens meeting should occur as a part of the project team's Round 2 engagement process before the option analysis by the project team takes place.
- Request that the project team let the MMF know when the process with the Manitoba Historic Resources Branch is triggered.

#### Municipality of North Cypress-Langford – Stakeholder Meeting

The Municipality of North Cypress-Langford provided insight on current conditions at the PTH 1 and 5 intersection and shared concerns and suggestions to be taken into consideration by the project team. The following messages/remarks were provided:

- Comments that the PTH 1 and 5 intersection is not currently safe for large vehicles.
- Comments that B-train trailers must be considered when evaluating intersection improvement options.
- Comments that school busses must be considered when evaluating intersection improvement options.

- Comment that traffic at the PTH 1 and 5 intersection has increased in the last year.
- Comment that traffic is increased in the Municipality during potato harvest season.
- Suggestion that overpasses are ideal solutions to managing traffic.
- Comment that road maintenance is difficult in the Municipality in winter.
- General concern about the Offset-T intersection type.
- Comments that driver education is needed in the study area.
- Comment noting that the existing short median causes traffic back logs.
- Comment that median widening needs to occur at the PTH 1 and 5 intersection.

#### Town of Carberry – Stakeholder Meeting

The Town of Carberry provided insight on current conditions at the PTH 1 and 5 intersection and shared concerns and suggestions to be taken into consideration by the project team. The following messages/remarks were provided:

- Concerns about traffic congestion and the need to choose an intersection design that keeps traffic flowing as much as possible.
- Comments that a roundabout is a potentially viable option due to continuous traffic flow, the ability to slow down traffic, the reduction of collision points, and the low cost in comparison to an interchange.
- Comment that a roundabout would need to be large in size to accommodate trucks, semis, and long combination vehicles.
- Concern that the PTH 1 and 5 intersection improvement process has been drawn out and a decision needs to be made as soon as possible.
- Comment that there should be speed limit signage on both sides of the PTH 1 and 5 intersection.
- Concern about the R-CUT design due to the volume of truck traffic and level of maneuvers necessary.
- Concern about the widened median option due to the fact that it does not prevent people from making mistakes.
- Comments that the current intersection is confusing for drivers travelling northbound to westbound as a blind spot is created when large vehicles coming westbound stop in the left turn acceleration lane.

#### Key Stakeholders – Stakeholder Meeting

The key stakeholders provided insight on current conditions at the PTH 1 and 5 intersection and shared concerns and suggestions to be taken into consideration by the project team. The following messages/remarks were provided:

- Comment on the R-CUT and the offset T intersection types being a good option for the PTH 1 and 5 intersection.
- Comment that truck traffic is increased during potato harvest season.
- Comment that it would be beneficial to know how many potato trucks are active around the project site area.
- Comment that semi trucks cannot fit in the median of the PTH 1 and 5 intersection.

- Concerns about roundabouts regarding design compatibility with truck turning radiuses, winter maintenance considerations, and reduced speed on PTH 1.
- Concerns about how the service road and adjacent snowmobile trail will be affected.

### Adjacent Landowners – Stakeholder Meeting

Adjacent landowners provided insight on current conditions at the PTH 1 and 5 intersection and how their land or business are affected. Participants shared concerns and suggestions for consideration by the project team. The following comments were provided:

- Concerns about the rumble strips installed in 2018 due to their noise and vibrations.
- Concerns about impacts to pivots and irrigation systems for agricultural land.
- Concerns about school bus drop off and children's safety.
- Concerns about access to fields and yards.
- Suggestion to conduct a traffic study in potato harvest season.
- Suggestion to reduce speed.
- Request to consider semi traffic.
- Request to consider drunk drivers.
- Concern about the narrow PTH 1 and 5 intersection width and sightlines.
- Concern about the R-CUT intersection type with regard to large vehicles doing U-turns.
- Concern about trucks stopping along PTH 1 instead of service roads.
- Comment that more signage and driver education is needed.

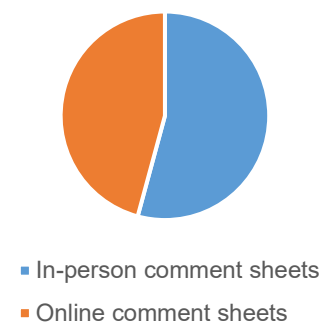
### **General Public – Open House Event**

The in-person Open House event held on July 16th, 2024, at the Carberry Community Memorial Hall in Carberry, Manitoba was attended by 188 people.

A comment sheet was made available to provide additional feedback to the project team both in print format at the in-person event, as well as available online. A total of 83 comment sheets were received:

|                          |    |
|--------------------------|----|
| In-person comment sheets | 45 |
| Online comment sheets    | 38 |
| Total                    | 83 |

Comment Sheet Types



## Question 1: Interest in Project

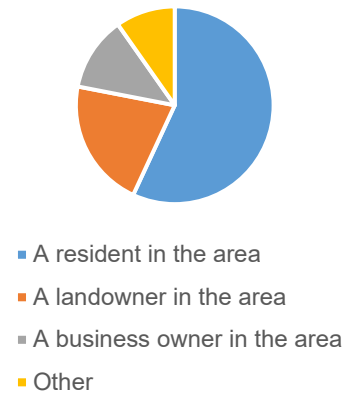
Participants were asked to indicate their interest in the project and provided the following responses<sup>1</sup>:

|                              |    |
|------------------------------|----|
| A resident in the area       | 70 |
| A landowner in the area      | 26 |
| A business owner in the area | 15 |
| Other                        | 12 |

Of the twelve (12) respondents who selected 'Other,' responses included:

- I drive on the highway (7)
- I am a local first responder/firefighter (4)
- I am the Deputy Mayor of Carberry (1)

Interest in the Project



## Question 2: Area of Interest

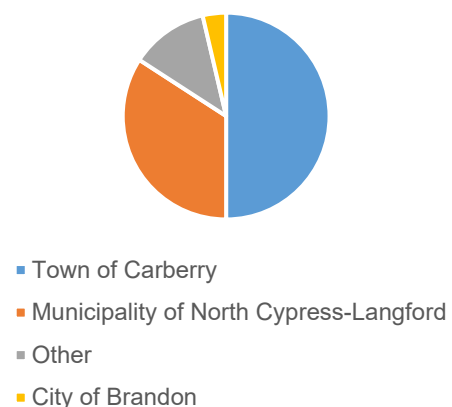
Participants were asked to indicate which area affected by the project they are specifically interested in and provided the following responses<sup>2</sup>:

|  |    |
|--|----|
| Town of Carberry                       | 41 |
| Municipality of North Cypress-Langford | 28 |
| City of Brandon                        | 3  |
| Other                                  | 10 |

Of the ten (10) respondents who selected 'Other', responses included:

- Glenboro (1)
- Austin, MB (1)
- Winnipeg, MB (1)
- RM of Westlake-Gladstone (1)
- Rosedale (1)
- Town of Neepawa (1)
- North of Norfolk (1)
- RM of Elton (1)
- Portage la Prairie, MB (1)
- Dauphin, MB (1)

Area of Interest



<sup>1</sup> Respondents were able to select more than one answer.

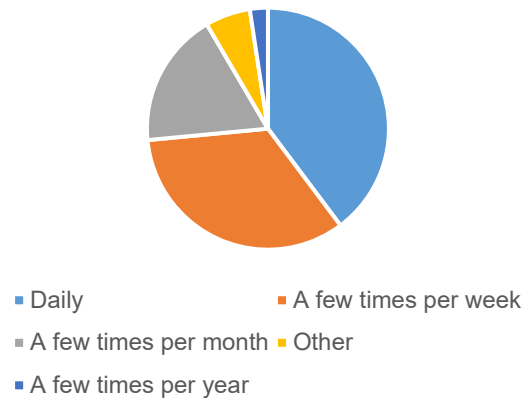
<sup>2</sup> Respondents were able to select more than one answer.

### Question 3: Frequency of Travel

When asked “How often do you travel through the PTH 1 and 5 intersection”, respondents provided the following responses:

|                       |    |
|-----------------------|----|
| Daily                 | 33 |
| A few times per week  | 28 |
| A few times per month | 15 |
| A few times per year  | 2  |
| Other                 | 5  |

Frequency of Travel



### Question 4: Considerations

Participants were asked to provide specific topics for the project team to consider related to the PTH 1 and 5 intersection improvements.

#### *Intersection Types*

A number of respondents provided commentary on the intersection types that were included on the Open House storyboards. Intersection types received the following responses:

#### Overpass

A total of thirty (30) respondents indicated that they would like the project team to consider an overpass for the PTH 1 and 5 intersection. Respondent comments are summarized as follows:

- References to the original overpass design circa 1970.
- Suggestions for a diamond interchange.
- Comments emphasizing the importance of avoiding slowing down or stopping traffic on major highways.
- Comments about overpasses improving safety.

#### Widened Median

A total of nineteen (19) respondents indicated that they would like the project team to consider a widened median at the PTH 1 and 5 intersection. Respondent comments are summarized as follows:

- Comments on the current median being too short and narrow.
- Suggestions that the median must be wide enough to accommodate semis.



- Comments that a median widening would be the safest and least complicated intersection type.

A total of two (2) respondents indicated that they had concerns about a potential widened median at the PTH 1 and 5 intersection. Respondent comments are summarized as follows:

- Comment that median widening would not be the preferred intersection type for the amount of money being spent.
- Concern about safety.

#### Signalized Intersection

A total of thirteen (13) respondents indicated that they would like the project team to consider a signalized intersection at PTH 1 and 5. Respondent comments are summarized as follows:

- Suggestions that a signalized intersection must be combined with a widened median.
- Suggestions that there should be two turning lanes.
- Suggestions that turning lanes must be large enough to accommodate semis.
- Comments that a signalized intersection would be a reasonable and quick option.
- Comments that traffic lights are easy for drivers to understand.

#### Roundabout

A total of five (5) respondents indicated that they would like the project team to consider a roundabout at the PTH 1 and 5 intersection. Respondent comments are summarized as follows:

- Comments that a roundabout would be a reasonable short-term option.
- Comments that the roundabout must be wide enough to maintain standard highway grades, prevent heavy loads from leaning too far, accommodate large vehicles, and prevent livestock trailers from leaning.
- Suggestion to not include a curb to mitigate issues with wide farm equipment and drifting snow.
- Suggestion that the middle of the roundabout could accommodate rest stops and truck parking.

A total of ten (10) respondents indicated that they had concerns about a potential roundabout at the PTH 1 and 5 intersection. Respondent comments are summarized as follows:

- Concerns that drivers would need education to use this intersection type.
- Concerns that roundabouts are outdated.
- Concerns that traffic would slow for large vehicles.
- References to the Portage la Prairie roundabout crashes and incidents.
- Concerns about the difficulty of clearing and maintenance.

## R-CUT Intersection

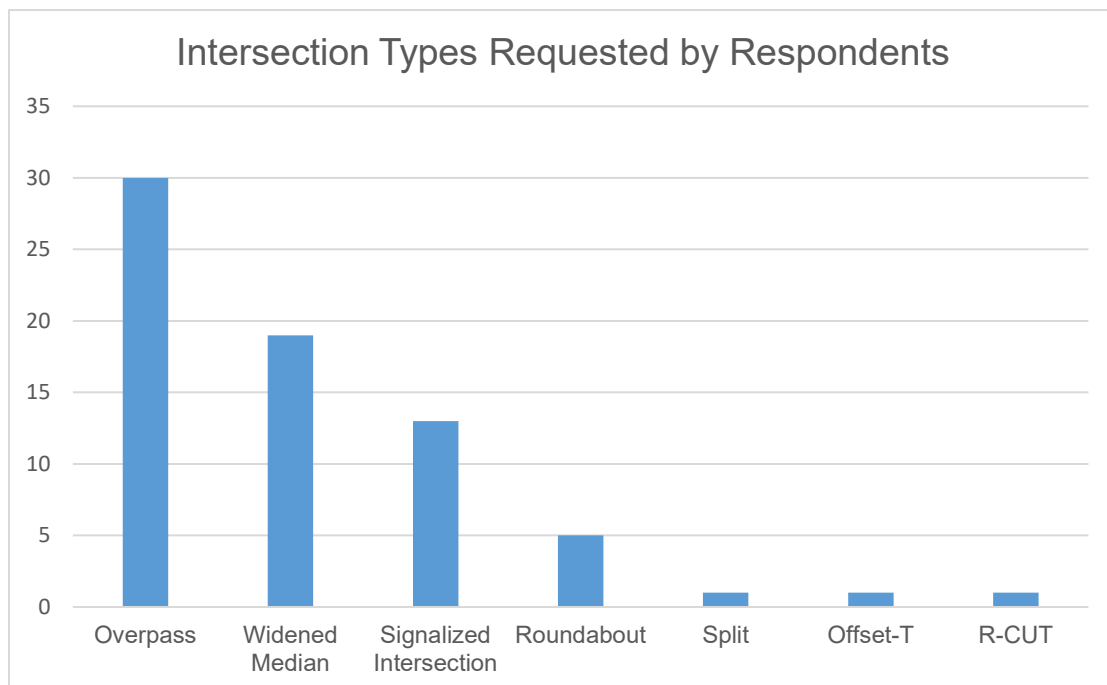
One (1) respondent indicated that they would like the project team to consider an R-CUT intersection at PTH 1 and 5. No further comments were provided.

A total of nineteen (19) respondents indicated that they had concerns about the R-CUT intersection type at PTH 1 and 5. Respondent comments are summarized as follows:

- Concerns that this intersection type would be unsafe.
- Concerns that this intersection type would not be feasible for large vehicles and farm equipment due to lane changes and U-turns.
- Concerns that large vehicles would be too slow.
- Concerns that this intersection type would be unsafe in a snowstorm or fog.
- Concerns about adding extra kilometres in order to turn.
- Concerns about trying this intersection for the first time in Manitoba.
- Request to see more information on the safety of these types of intersections.

Certain intersection types featured in the Open House storyboards garnered less discussion from respondents than others. Respondents provided minimal commentary on the split intersection and offset T intersection types.

The chart below illustrates the number of times respondents indicated that they would like the project team to consider a specific intersection type. An overpass was the most commonly requested intersection type. In contrast, the split, offset-T, and R-CUT intersections were the least requested intersection types.



*Figure 2: Intersection Types Requested by Respondents*

## Question 5: Additional Topics

Participants provided the project team with a variety of additional comments and considerations to include in the project evaluation process:

- Consider a speed limit reduction at PTH 1 and 5 intersection (19)
- Consider movement requirements and traffic flow of large vehicles and agricultural equipment (14)
- Provide driver education for both the existing and future PTH 1 and 5 intersection (13)
- Consider road visibility and safe driving conditions in all seasons (6)
- Record and consider accurate data regarding load weights and seasonal traffic flows (6)
- Consider improvements to the PTH 5 and PR 351 intersection (4)
- Install four way stop signs at the PTH 1 and 5 intersection (4)
- Consider infringements on agricultural land and yards (3)
- Consider the negative effects of rumble strips (3)
- Consider safety for school busses/children (2)
- Maintain access to residences and agricultural land during and after construction (2)
- Create consistent intersection approaches across Manitoba (2)
- Incorporate LED signs for approaching vehicles into the intersection (1)
- Close the PTH 1 and 5 intersection and divert traffic elsewhere (1)

## Next Steps

Feedback gained during Round 1 of the engagement process will be used to evaluate preliminary conceptual design options for the PTH 1 and 5 intersection. The next phase of engagement will be Round 2. The objective of Round 2 will be to update participants on the latest project information and present the drafted option evaluation matrix. Feedback and input gained will be shared with the project team and the options evaluation matrix will be refined at the following options evaluation meeting.

The proposed timeline for the project engagement process is as follows:

- Project Initiation/Background (April/May 2024)
- Round 1 Engagement (July 2024)
- Round 2 Engagement (Fall 2024)
- Round 2B Engagement (Winter 2025)
- Round 3 Engagement (Spring 2025)
- Final Engagement Report (Summer 2025)

## Questions?

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