



PTH 75



A Strategy for Enhanced Flood Protection



February 3, 2011

PTH 75 is a Major International Transportation Route

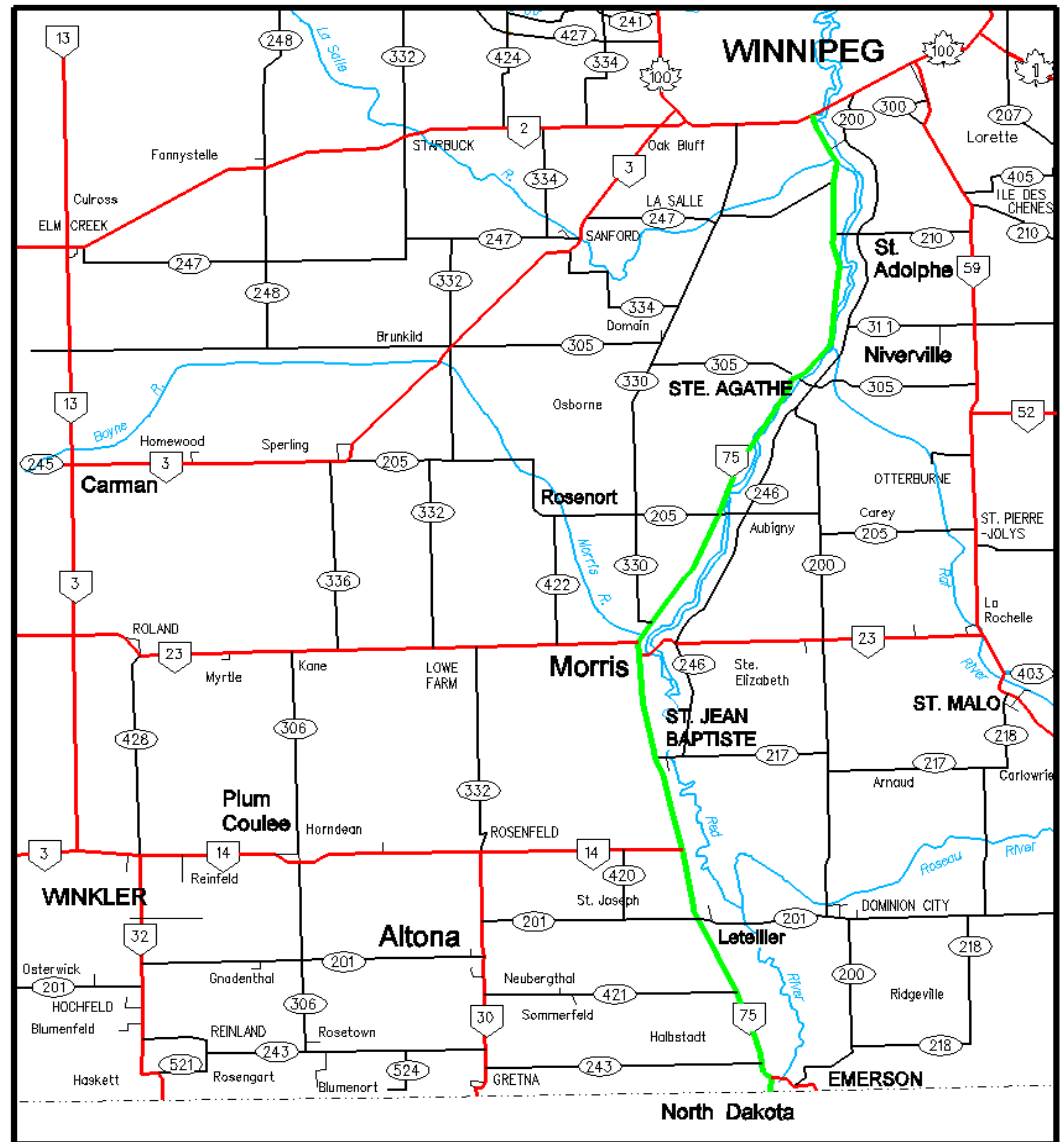
- Connects Manitoba and Winnipeg to the Emerson Port-of-Entry and the American Interstate System.
- The Emerson Port is one of three primary commercial ports in Western Canada.
- An estimated \$16 billion in truck trade crosses the border at Emerson each year.
- Now the 4th largest trade crossing in Canada.





- CentrePort Canada is being developed to take advantage of this major connector to the Interstate system.
- CentrePort Canada will maintain and expand Manitoba's position as a Transportation hub.
- Jobs and economic growth will flow from the Province's advantageous location.

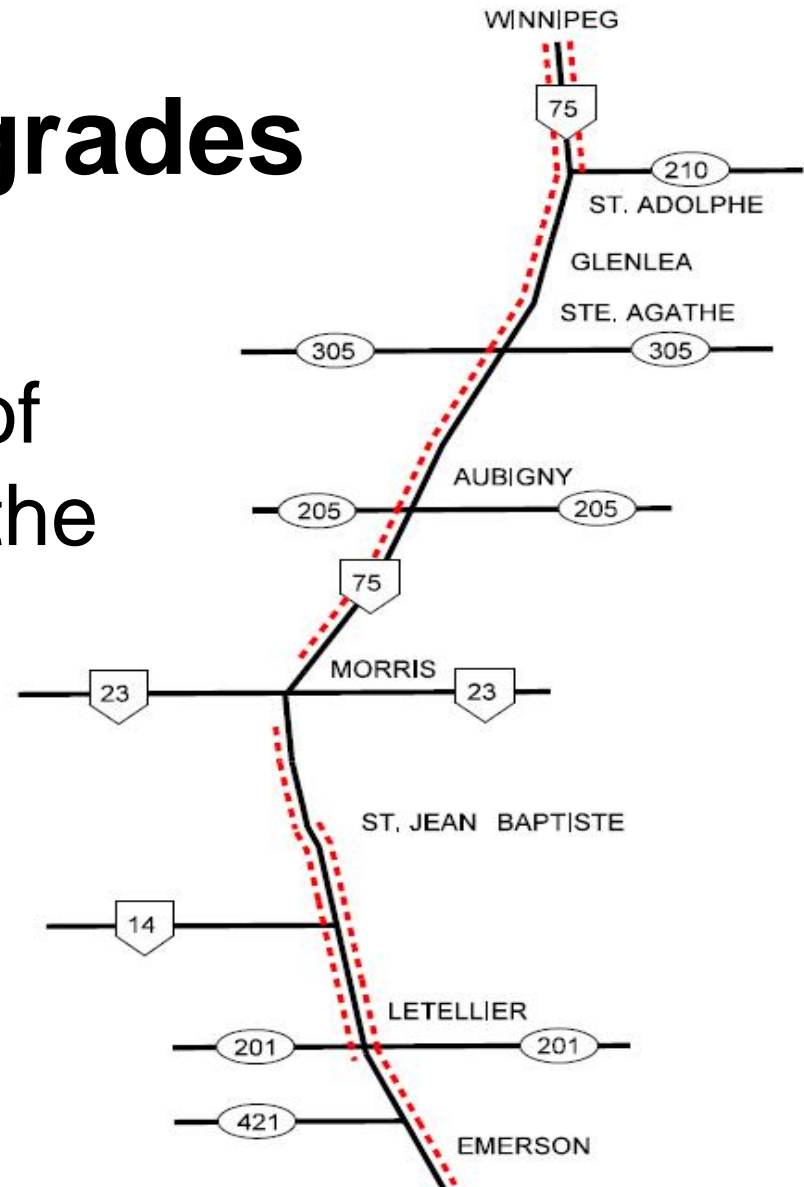
PTH 75 is a vital transportation link serving the Red River Valley communities



PTH 75 Completed Upgrades

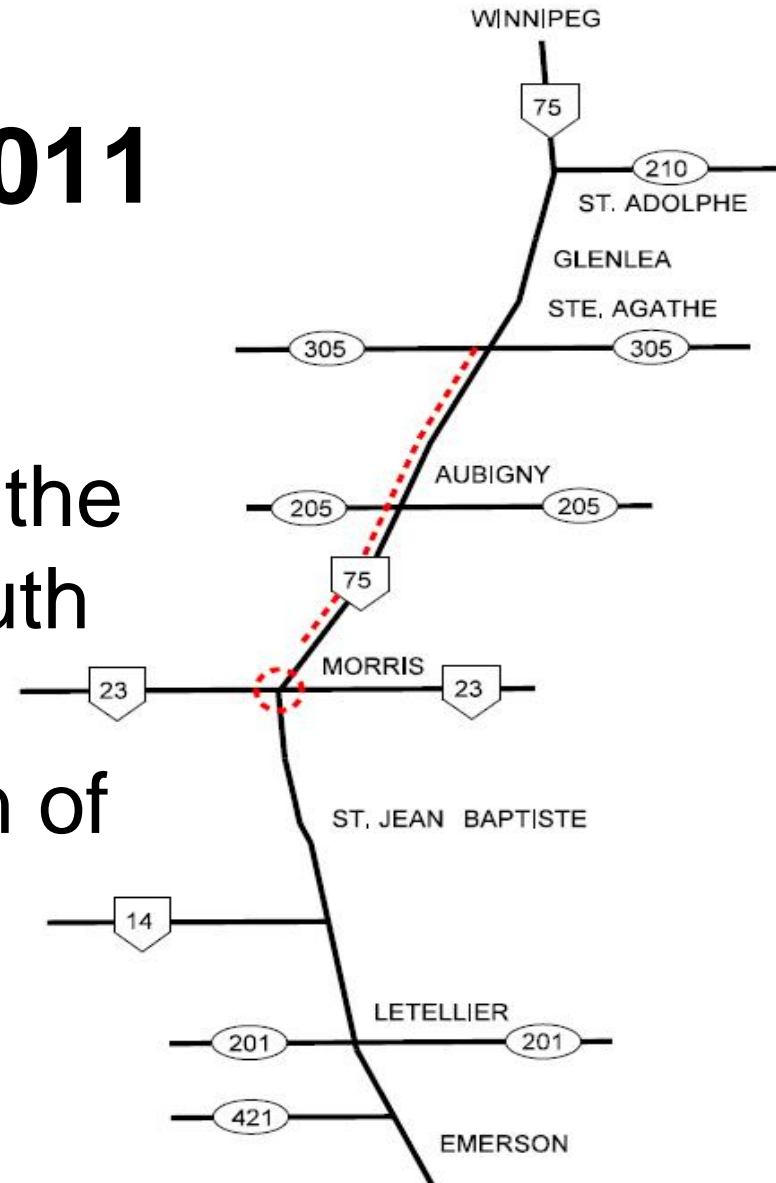
The Province is working towards the rehabilitation of PTH 75 from Winnipeg to the Emerson border crossing.

77 km have been completed and another 27.5 km are under construction with a total expenditure to date of \$98.9 million.



PTH 75 Planned for 2011

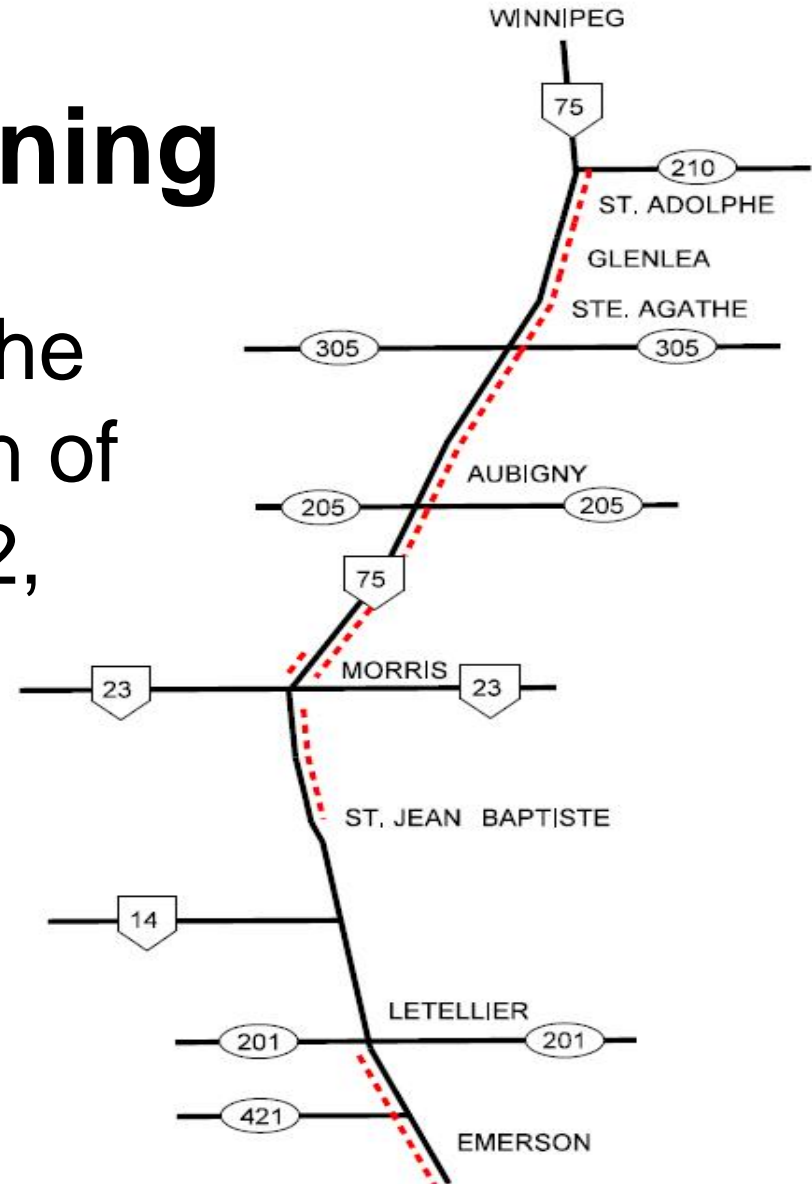
Finish the rehabilitation of the 27.5 km section of the South Bound lanes and start the reconstruction of the Town of Morris main street



PTH 75

What's Remaining

In addition to completing the reconstruction of the Town of Morris Main Street in 2012, there will still be 69 km of surface to be addressed.

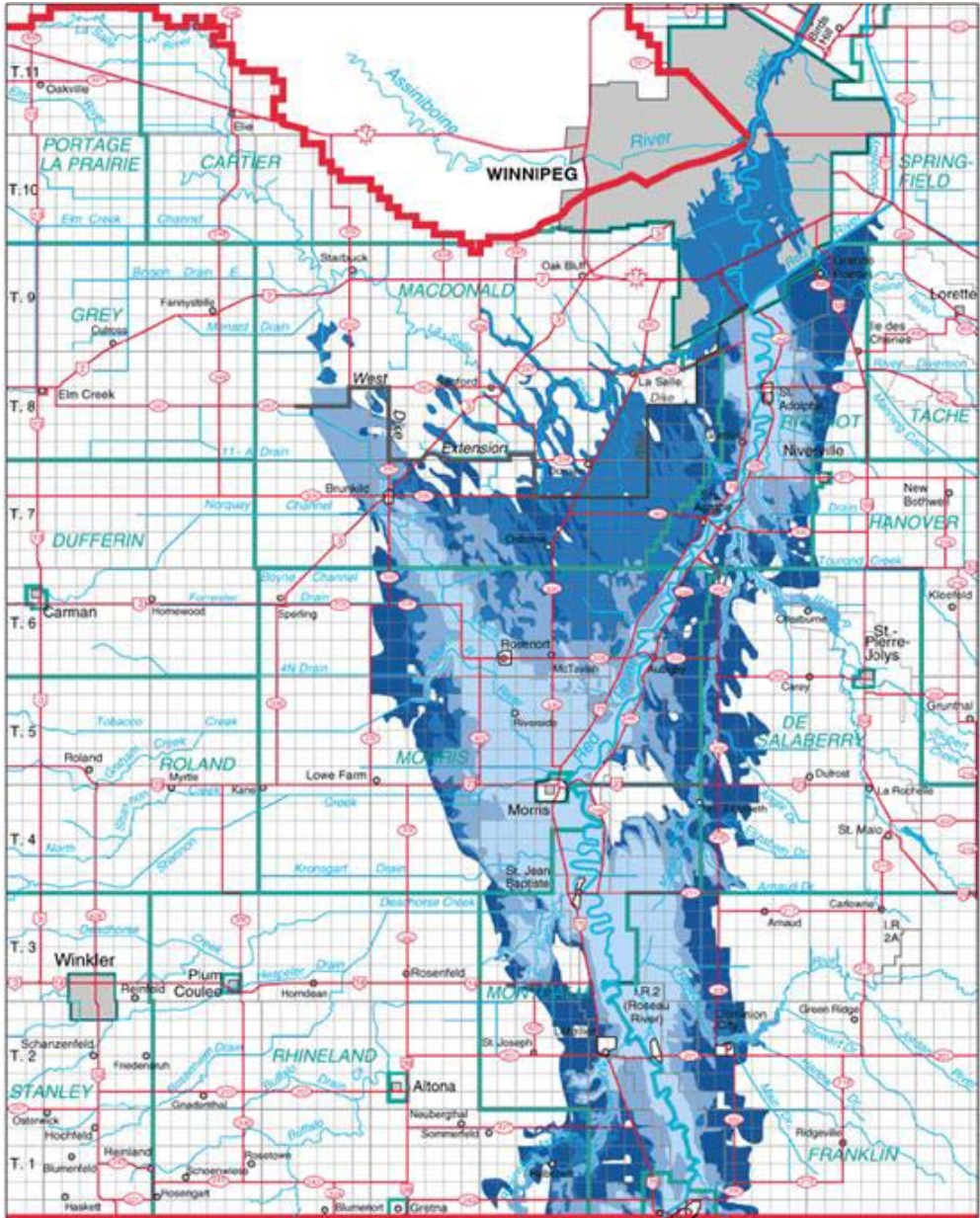
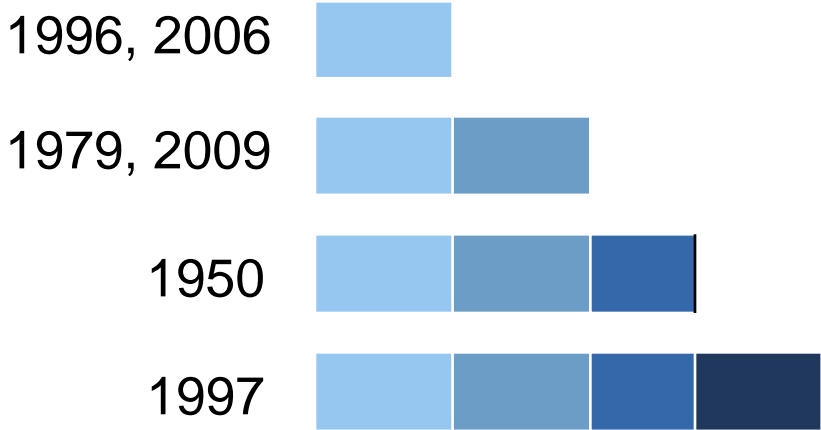


FUTURE PROJECTS:

- Raising the Northbound Lanes
 - St. Jean to Morris (11km)
 - Morris to Aubigny (11km), including new bridge
- Surface Improvements
 - Concrete rehabilitation from Letellier to Emerson (17km)
 - Reconstruction from Aubigny to Ste. Agathe (16km)
 - Reconstruction from Ste. Agathe to St. Adolphe (11km)
- St. Norbert Bypass
- Morris Bypass

Red River Flooding

Flooding has closed PTH 75 in the past.



Year	Number of Days PTH 75 Closed
1996	14
1997	44
1999	Almost closed
2000	Almost closed
2005	Almost closed
2006	18
2009	38
2010	Almost closed
2011	??????????





Past closures and near closures have been a tremendous inconvenience, stress and cost to the people and businesses of the Red River Valley, Winnipeg and Manitoba.

CONCLUSION:

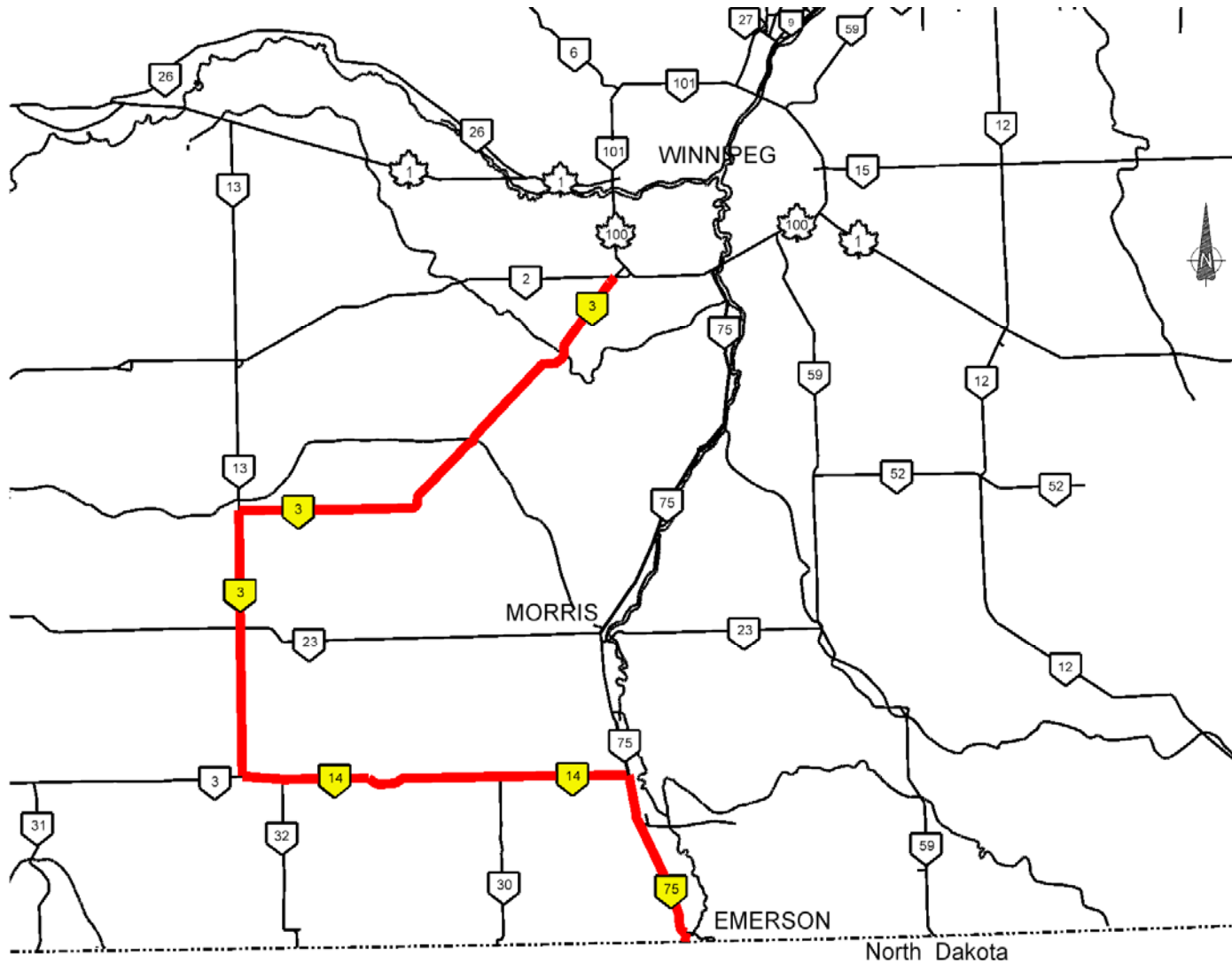
Action is required to reduce disruption to traffic on PTH 75 as a result of Red River flooding.

Choosing an Appropriate Flood Route

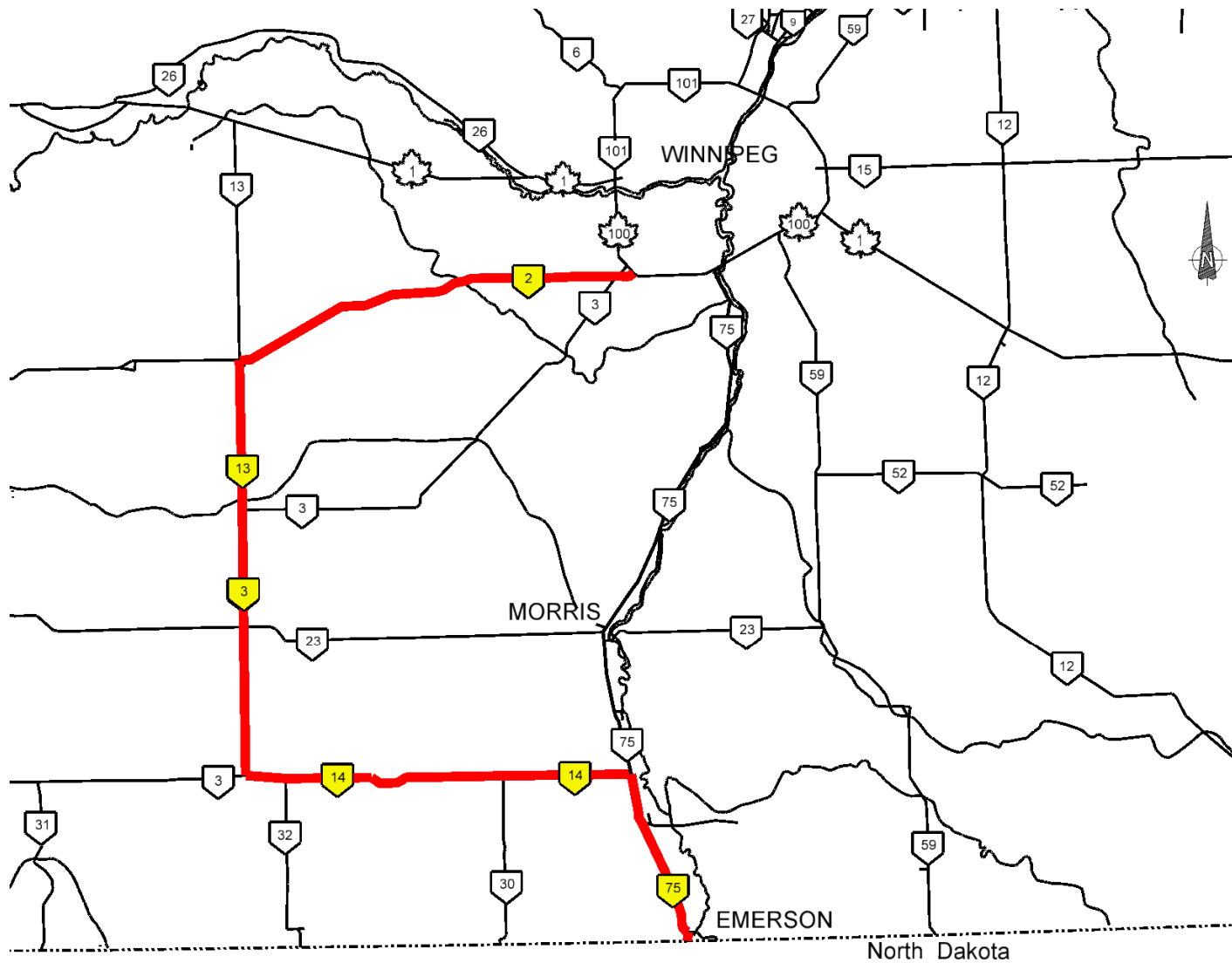
There are advantages to keeping traffic on PTH 75, such as:

- PTH 75 is a 4 lane RTAC route built to safely handle trucks and the large volume of traffic.
- It is a strategically important route to the US interstate highway network.
- The main access to the towns in the valley have been built to connect to PTH 75.

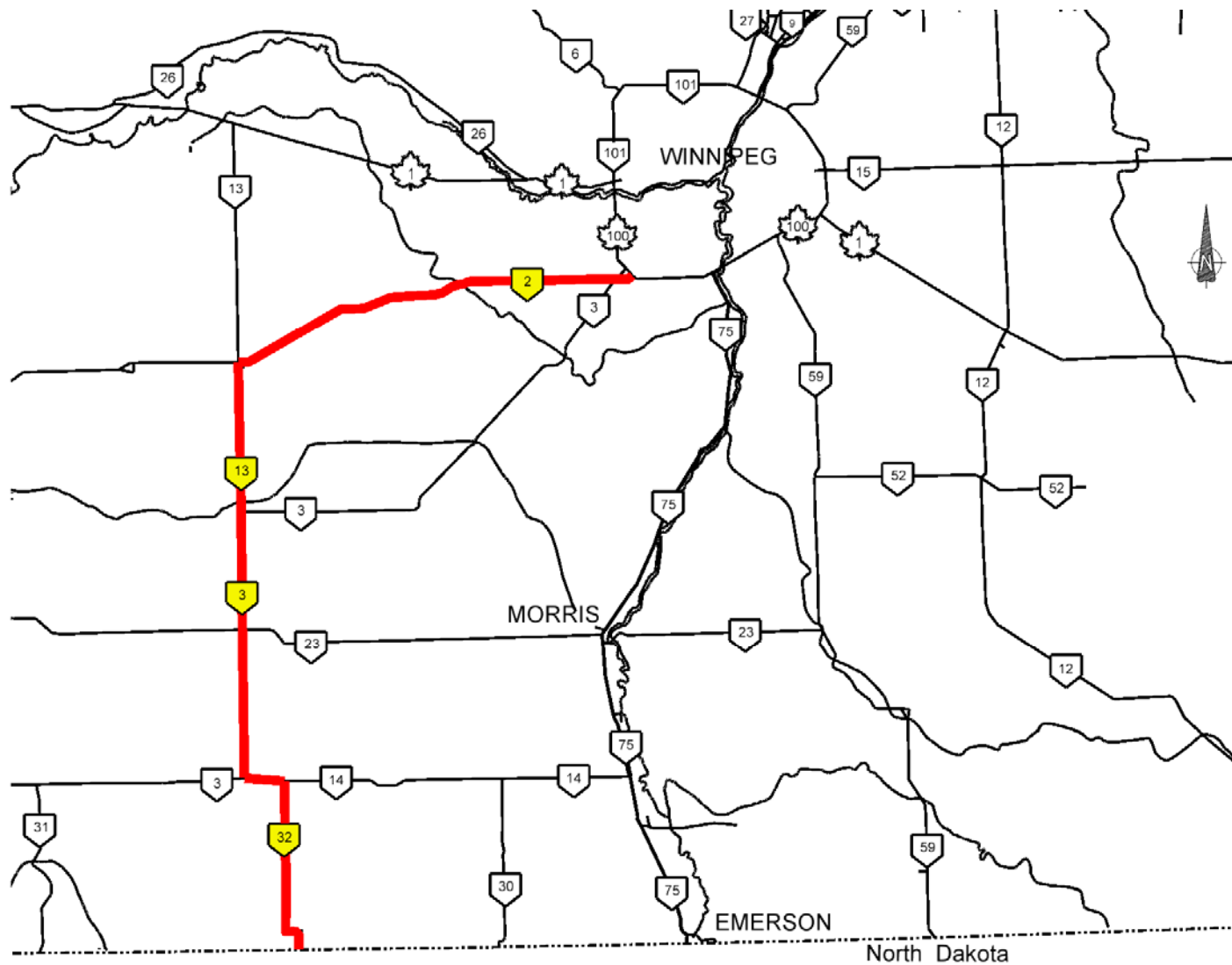
Current Detour Routes: Stage 1



Current Detour Routes: Stage 2



Current Detour Routes: Stage 3



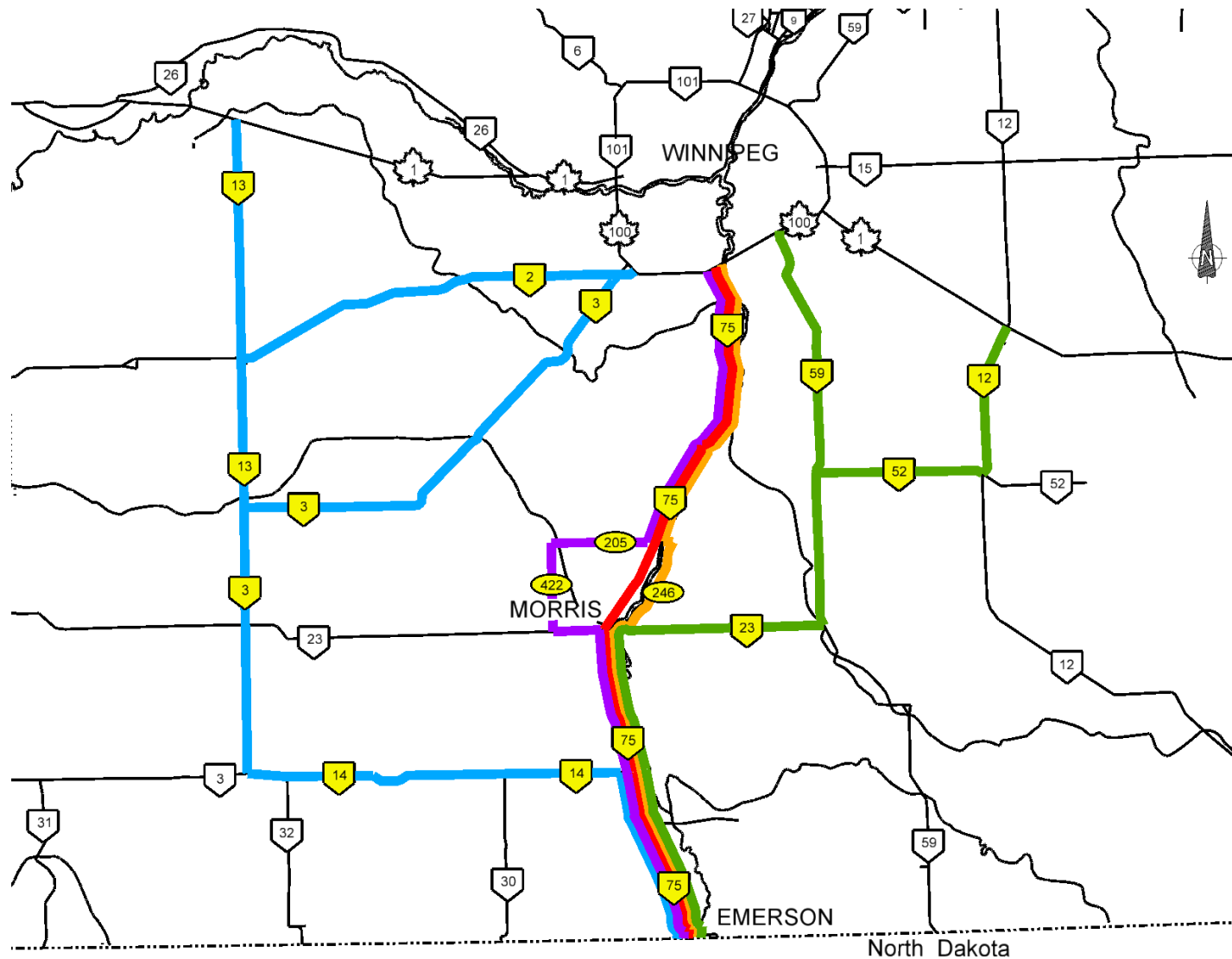
ALTERNATE ROUTES:

- To adequately serve the valley, two alternate routes would be needed – one on the east side of the flooded area and one on the west.
- The province examined 34 possible routes to serve as detours between Winnipeg and Emerson.
- Travel distances would be longer on any detour.

ALTERNATE ROUTES:

- Five routes were studied in more detail.
- Further improvements to PTH 75 would still be required to address existing surface deficiencies.
- Preliminary cost estimates for upgrading detour routes to I-29 levels are greater than the added cost to improve PTH 75's flood protection to I-29 levels.

The Five Detour Routes Studied:



Morris Bypass Considerations:

- In the future, when conditions warrant, the Province plans to construct a bypass around the Town of Morris.
- The Morris Bypass could provide increased flood protection. However, constructing the bypass complete with increased flood protection is extremely costly.
- The Department plans to defer the construction of the bypass at this time.

CONCLUSION:

Increasing the flood protection for PTH 75, by raising the road surface on its existing location, would best meet the Province's goals.

Choosing a Level of Flood Protection

The selection can be simplified by considering the following three options:

- Greater than the flooding thresholds of I-29
- Less than the flooding thresholds of I-29
- Similar to the flooding thresholds of I-29

Greater than the flooding thresholds of I-29

Considerations:

- I-29 was impacted by the 2006 flood. Traffic drove through flood water.
- In 2009, due to water on the travel surface, parts of I-29 were closed to light vehicle traffic.
- For floods larger than 2009, I-29 would be closed to all traffic.
- The United States does not plan to raise I-29 to increase its flood protection.
- Emerson Port-of-Entry

Emerson Port-of-Entry:

- The Emerson Port-of-Entry remained open during the 2009 flood.
- For any flood larger than 2009, the Emerson Port would close.
- When the port at Emerson closes, traffic would be redirected to the ports at Winkler and Sprague.



Emerson Port-of-Entry in 2009



CONCLUSION:

- Providing flood protection for PTH 75 greater than I-29 does not benefit cross-border traffic, because I-29 and the Port-of-Entry are closed.

Less than the flooding thresholds of I-29

Considerations:

- Detour routes would be required to bring traffic back to the Emerson Port-of-Entry.
- The cost to upgrade the proposed detour routes is estimated to be greater than the cost to upgrade PTH 75 to a similar level as I-29.
- Significant expenditures would still be required to reconstruct the existing surface on PTH 75.

CONCLUSION:

The flood threshold of PTH 75 should be comparable to I-29.

How can the new flood threshold be achieved?

- With the exception of the St. Jean Baptiste to Aubigny area, PTH 75 currently provides a level of flood protection equal to or greater than I-29.
- The Province has prepared a conceptual proposal for the area requiring attention.

What would be required between St. Jean Baptiste and Morris to provide the desired level of flood protection?

- Raise the northbound lanes from St. Jean Baptiste to Morris.
- Construct a higher bridge over the Plum River.
- Extend the Morris Dike to the south, to allow room to separate the Dike and the C.N. Rail line, so that each can be closed independently of one another.

**What would be required between
Morris and Aubigny to provide the
desired level of flood protection?**

MORRIS RIVER ISSUES:

- Raising PTH 75 north of Morris would require the structure over the Morris River to be replaced.
- A new structure would need to address the issue of slope stability.

MORRIS RIVER ISSUES:

- The recent St. Adolphe bridge failure is a dramatic example of the importance of slope stability and why it is a significant factor in the design of new structures.



Solutions to the Morris River issue?

- The Province has considered two solutions, so far:
 - A new higher bridge at the existing location.
 - Relocating the bridge and river to the north.

A New Bridge at the Existing Location:

- A new higher structure over the Morris River at the current location would have a significant negative impact to the Town of Morris.
- A higher structure at the current location is constrained by the adjacent dike and cemetery, which makes it difficult to construct stable slopes at this location.

Relocating the Bridge and Morris River to the North:

- Relocating the Morris River to the north of the golf course.
- Extending the Morris Dike to the north, to allow PTH 75 to climb above the 2009 flood elevation without impacting the Town.
- By moving away from the existing dike and cemetery, it becomes much easier to construct stable slopes at the new bridge site.

NEXT STEPS:

- Determine the feasibility of raising PTH 75
 - identify the impacts of raising PTH 75
 - study the potential relocation of the Morris River
 - conduct a Hydraulic Impact Assessment
- Develop appropriate strategies and cost estimates to address the impacts.

STEPS TO IMPLEMENTATION:

- Determine environmental impacts
- Develop appropriate strategies
- Conduct public consultation
- Obtain environmental approvals
- Complete the design
- Purchase land
- Proceed to construction



Questions?

