

# NB & Maine Shared International Bridges & Madawaska-Edmundston International Bridge Replacement Project



Presentation to EBTC Annual Border Workshop

Fredericton, NB

October 2, 2019



## Overview:

- **Background: New Brunswick and Maine's International border crossings and bridges**
- **Madawaska-Edmundston International Bridge replacement project**

# New Brunswick & Maine's International Border Crossings (Ports of Entry)



➤ New Brunswick and Maine share 17 international land border crossings, including 10 that are **International bridges**.

# New Brunswick's International Border Crossings (Ports of Entry)

- New Brunswick is **export dependent** with foreign and inter-provincial **exports** together **representing over 70% of New Brunswick's GDP**, the highest among the provinces in Canada. Over 80% of Atlantic Canada's exports go to the U.S.
- In 2018, **approximately \$6 B (US \$'s)** worth of goods transited via surface trade (**80% truck & 20% rail**) through New Brunswick and Maine's border crossings.
- The two **most significant commercial border crossings** between NB and Maine are **Woodstock-Houlton and St. Stephen-Calais**.



# New Brunswick & Maine's International Bridges

	New Brunswick-Maine International Bridges (Border Crossings)		
	Canada	United States	Year Built
1	Campobello	Lubec	1962
2	St. Stephen (Ferry Point)	Calais	1957
3	St. Stephen	Calais (Milltown)	1967
4	St. Stephen	Calais (3rd Bridge)	2009
5	St. Croix	Vanceboro	1997
6	Forest City	Forest City	1928
7	Fosterville	Orient	1982
8	St. Leonard	Van Buren	1972
9	Edmundston	Madawaska	1921
10	Clair	Fort Kent	2014

# New Brunswick and Maine's International Bridges

- New Brunswick and Maine **share joint (50/50) ownership** of each of the **10 bridges**.
- Maintenance work is performed by district crews on their respective half of the structure
- Cooperation between Maine & NB – very good;
  - Discuss issues regularly
  - Share inspection data
- Major replacement/rehabilitation work is tendered and **cost shared with Maine** (traditionally on a **50/50 basis for the design & construction** of new structure and demolition of old)

# Summary: International Bridges = Challenges

- Project Delays

- Project concept development & agreement 4 owners
- DOT's are responsible for bridge only.
- Requires alignment of budgets from multiple owners at once to take on significant project.
- Stakeholder interests influencing project
- Multiple regulatory agencies and approvals
- Legal/regulatory difficulties working at the international boundary

- Result

- Bridge condition nearly unmanageable at the end
- Too close for comfort
- Maine & NB agree – need to manage timeframe to replacement to suit our responsibilities to the public.

# Madawaska/Edmundston International Bridge and Border Crossing



## *Feasibility and Planning Study*

- Began in January 2017 & completed in June 2018

# Federal, State, and Provincial Agencies



Canada Border  
Services Agency    Agence des services  
frontaliers du Canada

➤ Canada Border Services Agency (CBSA)



Public Services and  
Procurement Canada    Services publics et  
Approvisionnement Canada

➤ Public Services and Procurement Canada (PSPC)



U.S. Customs and  
Border Protection

➤ U.S. Customs and Border Protection (CBP)

➤ U.S. General Services Administration (GSA)



➤ New Brunswick Department of Transportation and  
Infrastructure (NBDTI)



➤ Maine Department of Transportation (MaineDOT)



**MaineDOT**

# Project Rationale:

The proposed project is needed because;

- 1) the existing International Bridge is **nearing the end of its useful life** (current condition has resulted in a 5 ton weight restriction posting),
- 2) the **existing Madawaska US Land Port of Entry facility is substandard**, inhibiting the US agencies (Homeland Security & CBP) assigned to the Port from adequately fulfilling their respective missions. (Note: US General Services Agency had acquired parcel of land from Twin Rivers Paper in 2009)
- 3) the bridge supports the operation of **Twin Rivers Paper** in Edmundston and Madawaska

# Existing International Bridge

- Opened 98 years ago in 1921 – design life exceeded & functionally obsolete
- 4 steel truss spans – 942 feet (287 m) long
- Estimated **average annual daily traffic using bridge is 3,000 vehicles per day, of which 35 are commercial trucks**
- Bridge condition has deteriorated – has been **weight restricted to 5 T (light trucks only)** versus 43.5 T previously. (Urgent repairs were made)





# Existing International Bridge

## ➤ Many deficiencies

- Substandard geometry – roadway width & clearance
- Foundations susceptible to undermining
- Piers cracked and deteriorated
- Significant steel corrosion
- Bridge capacity insufficient



# Madawaska Land Port of Entry Facility

## ➤ Facility & Operational Deficiencies

- Built in 1959
- No room for expansion  
– lacks office and inspection areas
- Changing mission & operational needs
- Does not meet the Architectural Barriers Act
- Subject of prior study



## ➤ Site Deficiencies



# Edmundston Port of Entry Facility

- Constructed in 1992
- Meets long-term needs (CBSA)
- No planned investments



# Basic Key Facts

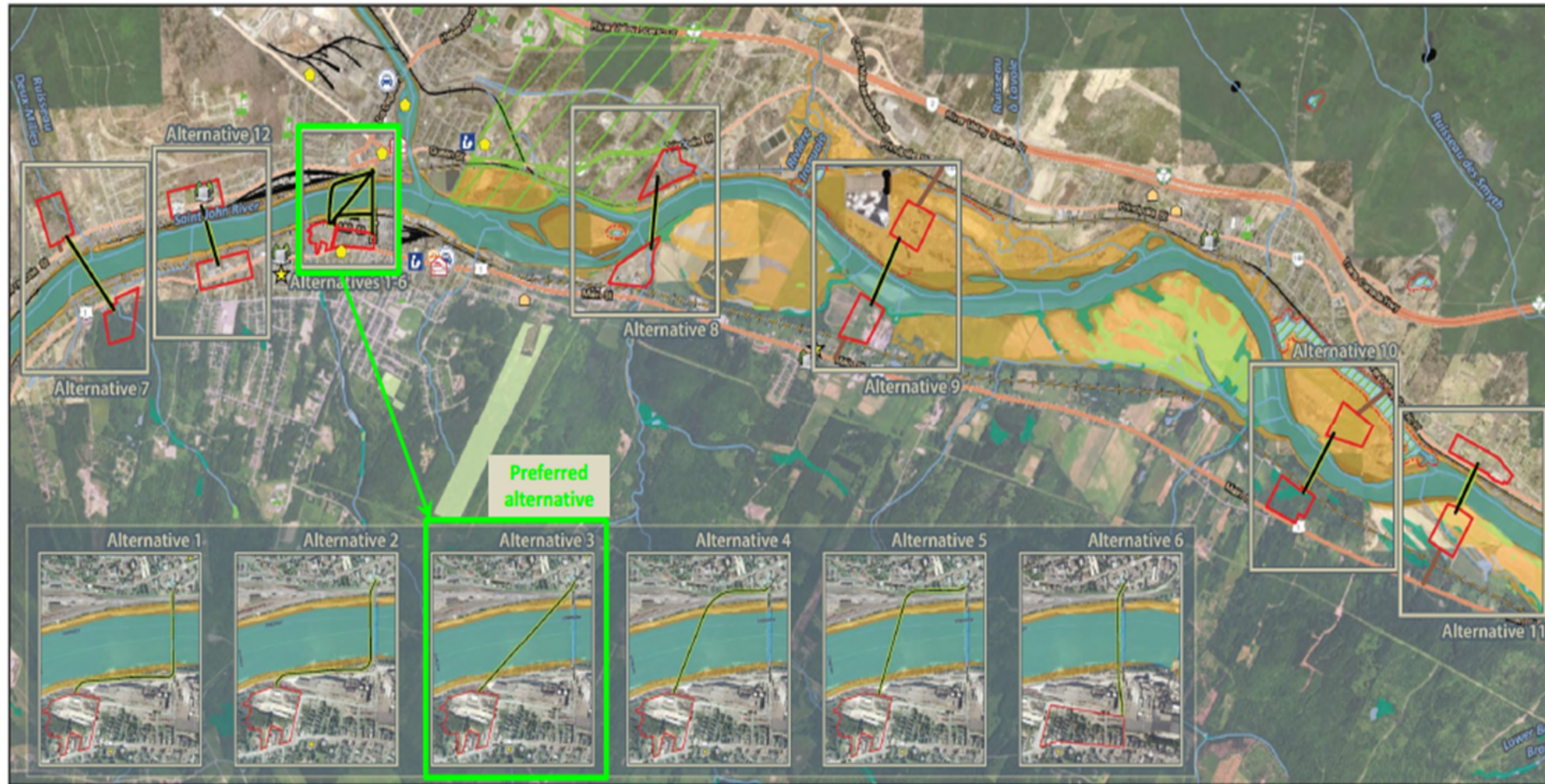
- Bridge replacement includes existing bridge removal
- Rehabilitating existing bridge was evaluated
- New bridge – 2 lanes, shoulders, and sidewalk (request by local communities and stakeholders for recreational – snowmobile, ATV & bike lanes)
- Madawaska LPOE will be replaced
- Edmundston POE – constructed 1992, meets long-term needs, minor property alterations required to address new alignment
- Twin Rivers Paper operation and utility lines are an issue
- New crossing designed to last 75 years

# Consultation

- Town of Madawaska
- Twin Rivers Paper Company
- Maine Northern Railways
- City of Edmundston
- Edmundston Chamber of Commerce
- Downtown Edmundston Group
- CN Railway
- New Brunswick First Nations Engagement
- Public Information Sessions



# 12+ Crossing Locations Evaluated



# Out of Downtown Locations

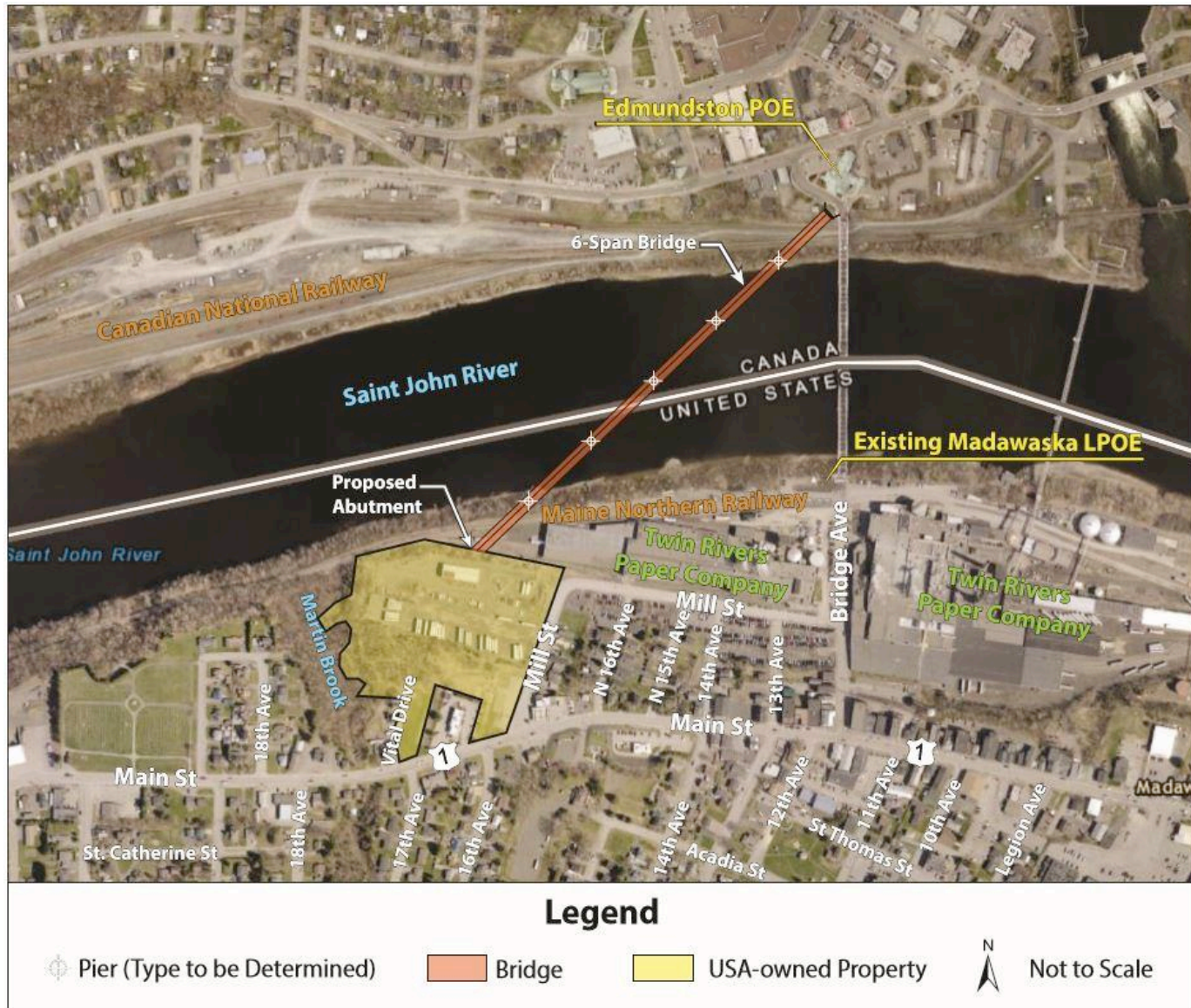
- Evaluation of locations was completed
- Cost, impact and schedule is unacceptable;
  - Significant community & social impacts – existing bridge removed from downtown
  - Edmundston POE – meets long-term needs
  - Madawaska POE – US agencies acquired downtown property in 2009
  - Significant floodplain & wetland impacts
  - New highway alignments required
  - Adds years to schedule (bridge posted and may be closed)
  - Weight restriction – need to accelerate replacement



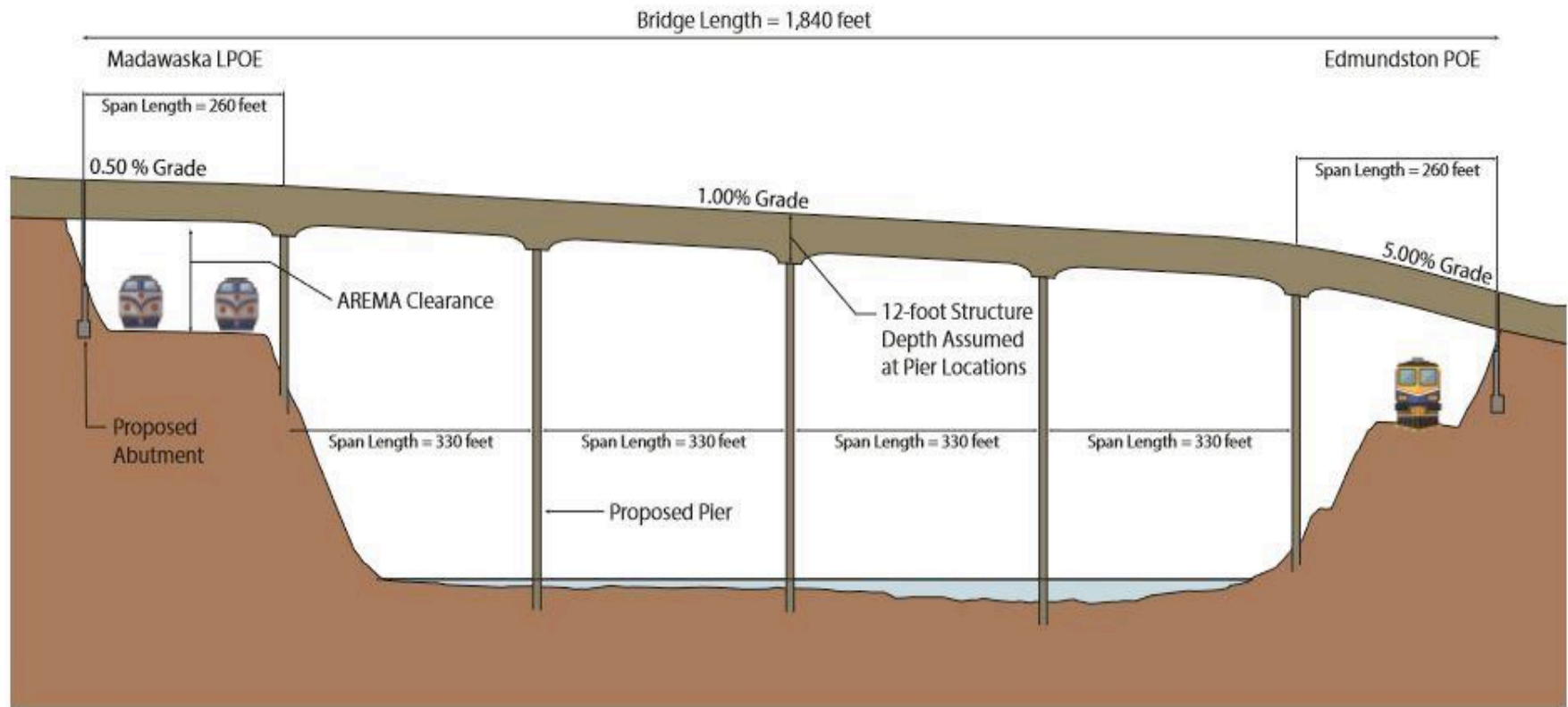
## **Downtown Location**

- Given current constraints, preferred by Federal, State, and Provincial agencies
- Maintains direct connection and cohesion between City and Town
- Overall Cost – lower than out of downtown locations
- Schedule – delivered quicker than out of downtown locations
- Twin Rivers Paper Company Operations – Careful planning, design, and construction required

# Proposed Replacement Bridge



# Proposed Replacement Bridge



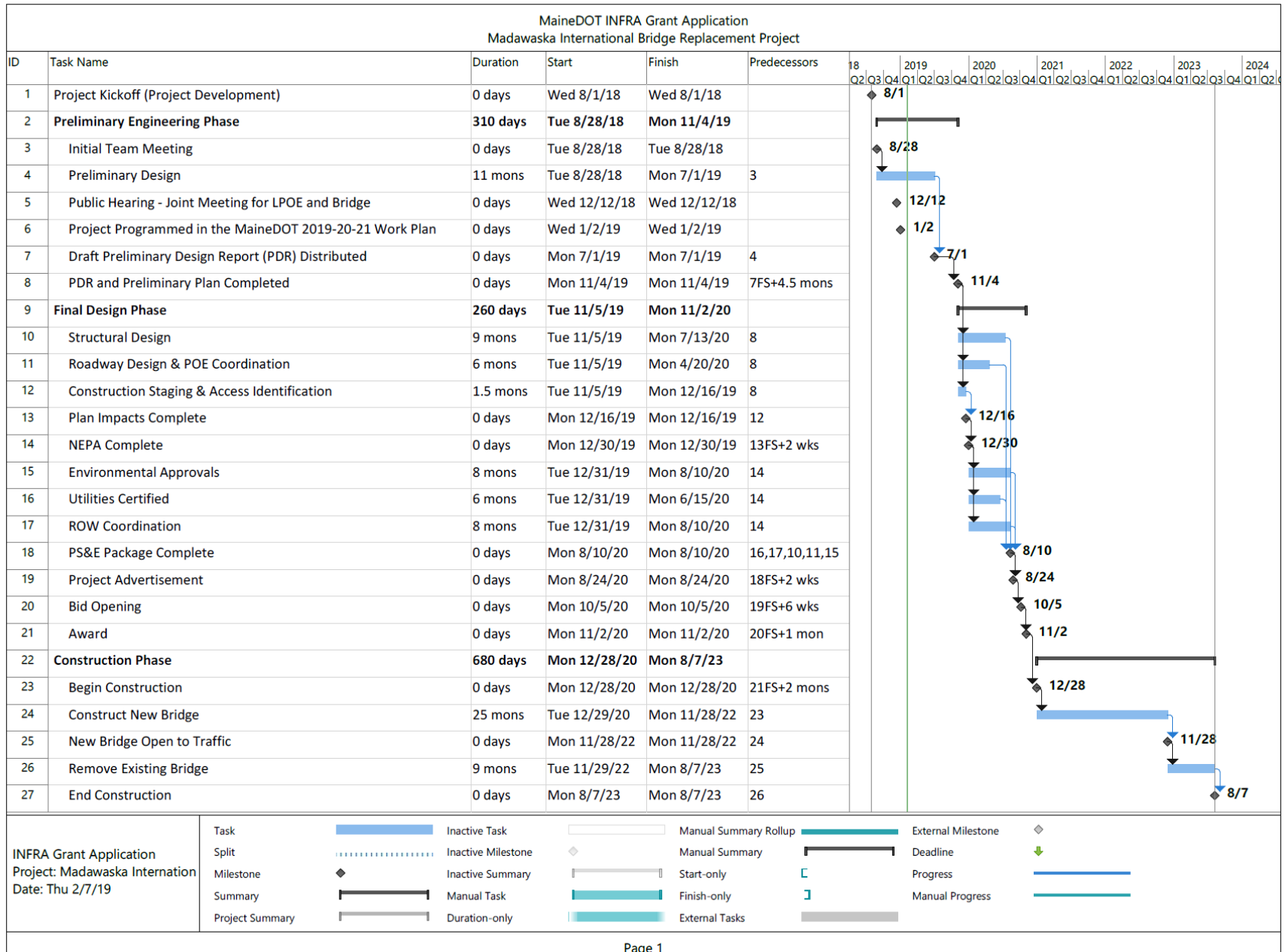
# Project Challenges

- **Total Estimated Cost of Proposed Replacement Structure** is 2-3 times what a traditional replacement would be including;
  - Preliminary Engineering (PE) – feasibility study, preliminary design/planning & final design
  - Construction & Demolition/Decommissioning
- **Local Communities (Edmundston & Madawaska) Priorities**
  - As per their Joint Resolution signed January 2018;
    - Replacement bridge be located in downtown (support business districts)
    - Replacement bridge designed to accommodate recreational vehicles (snowmobiles & ATVs) and bikes (support local tourism)
    - Replacement bridge design incorporate aesthetic qualities that acknowledge culture and history of Acadian region
    - Reduce heavy truck traffic within downtown cores
- **Twin Rivers Paper Mill** (employs approximately 800 workers from local communities)
  - Operational continuity – local trucking between pulp & paper operations
  - Operational continuity – slurry and utility lines on old bridge

# Timelines - Proposed Replacement Bridge

- Feasibility and Planning Study completed in June 2018 – identified the proposed downtown alternative
- International Bridge targeted timelines:
  - Preliminary Design completion – November 2019
  - Final Design completion – by November 2020
  - Construction begins – late December 2020, pending permitting & approvals
  - New bridge open – end of 2023 construction season, best case
- New Madawaska (US) LPOE targeted timelines:
  - To open with the bridge

# Preliminary Project Gantt Chart:





# Current Project Status

- Undergoing bridge planning and preliminary engineering review (12 to 14 months began Fall 2018) based on proposed alternative
- US - LPOE facility design
- Federal, State, and Provincial agencies meet regularly to provide updates on developments, progress, and next steps
- Maine DOT and NBDTI examined options to reduce cost shared bridge design and construction. Maine DOT pursued defraying the bridge cost with a US federal highway INFRA administration grant.
- MeDOT applied for a \$36 M USD Federal INFRA grant in March 2019 and on July 22, 2019 the US Federal INFRA Grant request was approved.
- Pre-qualification of contractors has been completed.
- A thorough bridge safety inspection was completed in July 2019.
- Currently in the process of drafting a joint cooperative agreement between Maine DOT and NBDTI to cost share on the final design costs for the replacement structure. With a target of having agreement approved by late Fall 2019. Final Design is anticipated to take 12 months to complete.



# Thank You

