

Bridge Maintenance and Inspection Responsibilities

## BRIDGE MAINTENANCE & INSPECTION RESPONSIBILITIES




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## Need for Inspection and Maintenance

- Safety
- Protection of investment
- maximize functional life



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## Legislation

- **Municipal Government Act**
  - Definitions
    - (z) road... includes a bridge forming part of a public road
    - 16 (1) The title to all roads in a municipality, other than a city is vested in the Crown in right of Alberta



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## Municipal Government Act (Continued)

- 18 (1) ...a municipality has the direction, control and management of all roads within the municipality
- 532 (1) Every road... must be kept in a reasonable state of repair by the municipality having regard to
  - (a) character of road...
  - (b) the area it is located
- 532 (2) The municipality is liable for damage caused by... failing to perform its duty...
- 532 (4) A municipality is not liable... unless... loss or damage beyond what is suffered by... all other persons affected by the state of repair.



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## Municipal Government Act (Continued)

- 532 (6) A municipality is liable... only if “it” should have known of the state of repair
- 532 (7) A municipality is not liable... if “it” proves that it took reasonable steps to prevent the disrepair...
- 533 A municipality is not liable for damages caused if it took reasonable steps to prevent...
  - (a) by the presence, absence or type of any wall, fence, guard rail... traffic control device... adjacent... in... on a road.

## Public Highways Development Act

- (4) All provincial highways are subject to direction, control and management of the Minister
- (8) The Minister may make regulations... for
  - (a) design and standards for construction for secondary roads
  - (b) standards for maintenance for secondary roads

## Public Highways Development Act

- (2) ...each highway authority is responsible for costs of construction and maintenance of all highways subject to its control and management
- 19) The Minister has the direction, control and management of
  - (a) roads in improvement districts
  - (b) highways through Indian Reserves...
  - (c) highways in cities if title vested in Crown.
  - ( forestry roads & secondary highways by agreement...)

## Public Highways Development Act (Continued)

- 21 (1) The Minister may enter into an agreement with any... municipality... “to” contribute to the cost of construction and maintenance of any street or road...
- 52 (1) ...the Minister may direct construction or maintenance of a bridge... or enter into an agreement... for
  - (a) paid by Crown
  - (b) Paid by municipality... or other person
  - (c) apportioned between Crown and... other
- whichever the Minister directs.

## Traffic Safety Act

- 15 (1) ...municipality may authorize... placing of traffic control devices
- 16 (1) ...municipality may make by-laws
  - (a) ...restricting weights of vehicles...
  - (p) ...closing or restricting... highway... bridge...

## Department Policies

- Outline methods of operation
- How legislation is implemented

## Legal Liability

- responsibilities defined by
  - legislation
  - policies and procedures
- cannot guarantee accidents will not happen or damage will not occur
- liable - exposed or open to something undesirable such as loss arising from injury or damage to another person or property


## Due Diligence

- Not liable for damages or loss if:
  - work is in keeping with legislation, policies or procedures
  - work in keeping with accepted / prevailing standards
  - actions are “reasonable”


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## Current Maintenance Delivery Process - LRA

- LRA's complete required maintenance activities using either in-house work forces or contracted forces.
- The LRA relies heavily on the accuracy and completeness of the BIM inspection report.
- Quantities shown in the maintenance section of the BIM report form the basis of the scope of work.
- A quality BIM report is expected, and greatly assists the LRA in the delivery of their maintenance program.




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## Current Maintenance Delivery Process - AT

- AT Regional bridge offices currently utilize their respective Highway Maintenance Contractor (HMC) to complete required maintenance activities.
- Maintenance and Rehabilitation work is also delivered through the provincial tender process.
- If utilizing the HMC, a Bridge Maintenance Authorization is generated which details the scope of work and the quantities. This document also forms a part of the contractual agreement between AT and the HMC.
- In either case, contractors submit quotes based on the scope of work and quantities, among other things.




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## Current Maintenance Delivery Process - AT

- Similar to the LRA, AT bridge staff also rely heavily on the accuracy and completeness of the BIM inspection report.
- Quantities shown in the maintenance section of the BIM report form the basis of the scope of work for either the HMC BMA or provincial tender.
- A quality BIM report is expected, and greatly assists AT bridge staff in the delivery of their maintenance program.
- A second trip to the field by AT staff to gather or confirm quantities is not desirable.



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## Current Maintenance Delivery Process - AT

**Government of Alberta** **BRIDGE MAINTENANCE AUTHORIZATION**

File No: 7475  
Date: May 11, 2015  
Auth No: BMA2015-036  
District: 6

Attention: John Doe Construction Superintendent  
Contractor: Anywhere Contractors Ltd.      Program: 50090  
Job No: 0006482      Contract: 0715806

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Highway: 20/06      Legal Land Location: SW SEC 12 TWP 44 R0E 3 W3M  
Stream: Blindman River      Nearest Town: Bluffton


Existing Structure: 2 Span RB (15.20-15.2m)

Quote Date:	Completion Date:	CNCL 15th, 2015	Warranty:	As Contract			
Prepared by:	Name & Title:	Bridge Technologist					
Item No.	Description	Units	Estimated Quantity	Unit Cost	Total Cost	Actual Quantity	Actual Cost
1	Remove and Replace Existing Deck Slabs	L/S	1				
2	Full Depth Repair of Abutment and Pier Diaphragm	sqf	20				
3	Partial Depth Repair of Pier Shaft, Deck Soffit and Fencin	sqf	2.5				
4	Partial Depth Repair of Approach Slab	sqf	20				
5	Approach Road Milling and Paving	L/S	1				
6	Steel Clean and Recoat Steel	sq25	175				
7	Clean and Seal Concrete	sqf	110				
8	Minor Miscellaneous Repairs	L/S	1				
				Total Quote:			Total Cost \$:

Quote Submitted By: \_\_\_\_\_ Name & Title: \_\_\_\_\_ Date: \_\_\_\_\_

Conditions: \_\_\_\_\_

Department Acceptance of Quote		Completion Details	
Approved by:	Date:	Date Completed:	HMC Final inspection by:
Name & Title: <u>Donald Stenlund, Bridge Manager</u>		Date:	AT Final inspection by:
Approved by:	Date:	Date:	Date:
Name & Title: <u>Barndt Wynn, Active Regional Director</u>			



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