



# **Le Transport à Travers le Bouclier Canadien:**

**législation des ressources en agrégat,  
drainage, et sécurité routière**

# **Transport Across the Canadian Shield:**

**legislating aggregate resources, drainage,  
and road safety**

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# Agenda



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## I. Background

There are ongoing and unique safety concerns related to highway conditions in the north that require knowledge of tools for legislative enforcement;

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## II. Highway Construction & Maintenance

This section examines highway procurement, construction, and maintenance standards;

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## III. Highway Maintenance Standards

Highways are maintained according to standards that regulate potholes, ice, snow, cracks, and other road hazards.

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## IV. Enforcement of Highway Standards

Highway standards are enforced through legislation including the *Highway Traffic Act*, *Aggregate Resources Act*, and *Drainage Act*.

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## V. Aggregate Resources and Drainage Solutions

Highway standards are enforced through legislation including the *Highway Traffic Act*, *Aggregate Resources Act*, and *Drainage Act*.

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## VI. Conclusion

The safety of highways in the north depends on the enforcement and review of legislative standards

# I. Background

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A combination of aging infrastructure, soil erosion, storm drains, and heavy vehicles cause strain to Ontario's highways. Highways in the north have unique attributes that require careful considerations. These unique features include:

- Climate;
- Rock formations;
- Aboriginal land;
- Transport of minerals;
- Drainage



# II. Highway Construction & Maintenance

## Design Build

- Procurement;
- Design Build Operate Maintain;
- Allocation of risk;
- *Competition Act*, R.S.C. 1985, c. C-34;
- *Expropriations Act*, R.S.O. 1990, c. E.26

## Maintain Operate

- Maintenance contract;
- Heavy transportation;
- *Aggregate Resources Act*, R.S.O. 1990, c. A.8;
- *Drainage Act*, R.S.O. 1990, c. D.17 ;

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# Highway Construction: Expropriation

- During the road planning and construction process, the federal and provincial government can expropriate private property to make room for the construction of highways;
- Road widening is facilitated by the acquisition of land from property owners along roadways;
- This is important in the north as rock cuts can deteriorate over time and fall onto the highway causing harm to motorists;
- Expropriate;
- 1520658 Ontario Inc. v. Her Majesty the Queen



# III. Maintenance: Snow, Ice, Potholes & Sinkholes

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A combination of aging infrastructure, freeze thaw cycles, ineffective or overwhelmed storm drains, and heavy vehicles cause strain to Ontario's highways.

In general, Ontario roads have a 10-15 year lifespan.

Water inside concrete expands by around 9 percent when frozen and over time this creates pore pressure on the rock mixture causing cracks.



A decorative graphic consisting of several overlapping diamond and triangular shapes in teal, yellow, and green colors, arranged in a diagonal pattern across the top and right sides of the slide.

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La deterioration de l'état de les rues coute aux Canadiens environs \$3 milliards de dollars par année en moyenne.”

Deteriorating road conditions cost Canadians an average of \$3 billion dollars per year.”

Source: Canadian Automobile Association,  
“Cost of Poor Roads in Canada”, March 30, 2021

# IV. Enforcement of Highway Standards

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## Civil court

- Monetary compensation for damages;
- Ontario Superior Court of Justice;
- *Negligence Act*

## Administrative tribunals

- Administrative decision making to resolve disputes between citizens and between citizens and government;
- Review of government decision in relation to legislation;
- *Local Planning Appeal Tribunals*;
- *Agriculture and Rural Affairs Tribunal*;

## Criminal court

- Criminal Code;
- *Highway Traffic Act*;
- Ontario Court of Justice



# Minimum Highway Pothole Maintenance Standards

Class of highway*	Pothole surface area	Pothole depth	Time
1	600 cm <sup>2</sup>	8 cm	4 days
2	800 cm <sup>2</sup>	8 cm	4 days
3	1000 cm <sup>2</sup>	8 cm	7 days
4	1000 cm <sup>2</sup>	8 cm	14 days
5	1000 cm <sup>2</sup>	8 cm	30 days

*\*Class 1 highways have the highest traffic volume with up to 15,000 vehicles per day and speeds up to 100 km / hour;  
Source: s. 6, Municipal Act, 2001, S.O. 2001, O. Reg. 239 / 02*

# Municipal Liability

## Maintenance

**s. 44** (1) The municipality that has jurisdiction over a highway or bridge shall keep it in a state of repair that is reasonable in the circumstances, including the character and location of the highway or bridge. 2001, c. 25, s. 44 (1).

## Liability

(2) A municipality that defaults in complying with subsection (1) is, subject to the *Negligence Act*, liable for all damages any person sustains because of the default. 2001, c. 25, s. 44 (2).

## Defence

(3) Despite subsection (2), a municipality is not liable for failing to keep a highway or bridge in a reasonable state of repair if,

(a) it did not know and could not reasonably have been expected to have known about the state of repair of the highway or bridge;

(b) it took reasonable steps to prevent the default from arising;  
or;

(c) at the time the cause of action arose, minimum standards established under subsection (4) applied to the highway or bridge and to the alleged default and those standards have been met. 2001, c. 25, s. 44 (3).

## Policy

**s. 450** No proceeding based on negligence in connection with the exercise or non-exercise of a discretionary power or the performance or non-performance of a discretionary function, if the action or inaction results from a policy decision of a municipality or local board made in a good faith exercise of the discretion, shall be commenced against,

- (a) a municipality or local board;
- (b) a member of a municipal council or of a local board; or
- (c) an officer, employee or agent of a municipality or local board. 2001, c. 25, s. 450.

**Source:** *Municipal Act*, 2001, SO 2001 c25

# Enforcement of Highway Standards

## *Aggregate Resources Act, R.S.O. 1990, c. A. 8*

- Provincial legislation that sets minimum standards for the operation of a quarry in Ontario;
- Population increases and other variables can result in rural sprawl and an increase in the number of licenses and quarry mines;
- Approximately 330,000 acres of land in Ontario are zoned for aggregate extraction;
- Offences; operating without a license; false or misleading information;

## *Drainage Act, R.S.O. 1990, c. D. 17*

- Provincial legislation that regulates the flow of water from roads into culverts, ditches, drains, and wells;
- Federal government has jurisdiction over works that extend beyond the borders of one province and are for the “general advantage of Canada”, for example, railways, pipelines;
- Important as the flow of water impacts the moisture content of road infrastructure that can lead to cracks, erosion, ice and potholes;
- Tribunal can order “such things to be done as authorized by the act”, including the quashing of by-laws found to be illegal;
- Ministry of Transportation, engineer reports, environmental appraisal, orders can be appealed by landowners, conservation authority, municipality;;
- Petition of landowners filed with clerk can compel a municipality to repair, but pursuant to section 78, the municipality can make repairs in the absence of a petition;
- Penalty for damage to drainage work includes liability for damages, fines up to \$1,000.00, and work completed can have property tax consequences;
- Appeal to Agriculture, Food, and Rural Affairs Tribunal

# V. Aggregate Resources Act, R.S.O. 1990, c. A. 8

- Section 57 creates an offence for persons operating a quarry without a license;
- The license application helps regulate the impact on the water table, site plans for dust emissions, dust suppressant measures;
- “every person who commits an offence under section 57 is liable on conviction to a fine of not more than \$1,000,000.00 and an additional fine of not more than \$100,000.00 for each day or part of a day that the offence continues.”;
- Regulation 419 / 05 of the *Environmental Protection Act*, regulates ambient air quality standards, reporting;



# V. *Drainage Act*, R.S.O. 1990, c. D. 17

## Riparian rights

- Rights of property owners with frontage on a 'natural water course';
- "a water course is constituted if there is a sufficient, natural, and accustomed flow of water to form and maintain a distinct and defined channel... not essentially that the supply should be continuous"; source?
- If the natural flow of water is diverted through drains, the riparian rights can cease to exist;
- In general, riparian right to make reasonable use of water as it flows over their property; source?

## Maintenance, repair & improvement

- Work completed on a highway can be characterized as an "improvement" or as "maintenance and repair";
- Section 1 defines an "improvement" as "any modification of or addition to a drainage work intended to increase the effectiveness of the system', can have property tax consequences;
- Removal of obstructions, dams, excess soil;

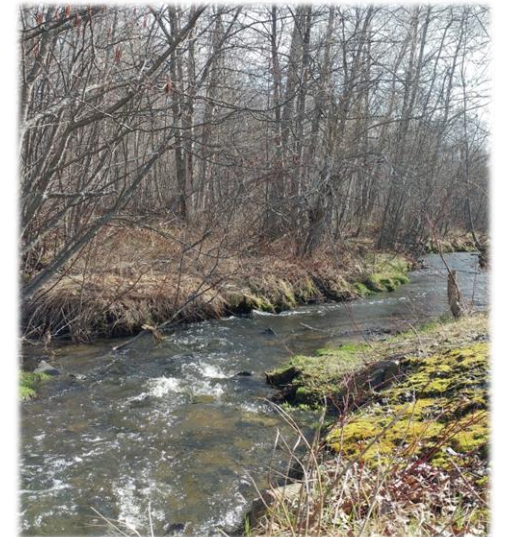
## Enforcement

- Enabling legislation? Weak enforcement mechanisms?;
- Self-enforcement of property owners, practical solutions;
- Facilitate natural flow of water to watersheds, drainage basin.

# V. Drainage Solutions

Maintaining the natural flow of water away from roads to a natural watershed helps protect them. Private property owners can assist by:

- monitoring water on their property to determine whether water damage is a problem;
- conservation easements registered on title can help preserve natural wetlands that assist in the drainage process;
- if a drainage issue is found, property owners can petition a nearby municipality to inspect the property;
- catch basins or French drains can help with water flow but check for utilities before digging







## **VI. Merci, Thanks**

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