

**THE CORPORATION OF THE TOWN OF NEW TECUMSETH**

**CORPORATE POLICY**

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**Policy Title:** Gravel Roads Upgrade Policy

**Policy No. :** ID-001-2019

**Name of Dept:** Infrastructure and Development Division

**Approval Date:** April 1, 2019

**Motion No.:** 2019-89

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**1. POLICY STATEMENT:**

1.1 The Town of New Tecumseth (hereafter the “Town”), is committed to promoting public safety and providing adequate transportation network for its residents. The Town’s Official Plan identifies that all infrastructure, including roads, meet the needs of present and future residents and businesses in an efficient, environmentally-sensitive, cost effective and timely manner. By establishing a streamlined process by which Gravel Roads are identified as priority and upgraded, the Town is fulfilling an important part of this goal.

**2. PURPOSE:**

2.1 The purpose of this Policy is to enable the Town staff in providing a consistent process in identifying the Gravel Roads which need to be upgraded and contribute to the continuous improvement of operations.

**3. SCOPE:**

3.1 This Policy applies to all Gravel Roads assumed and maintained under the jurisdiction of the Town of New Tecumseth.

3.2 It is a resource which can be referred to and utilized as guiding principles to:

- Providing a proactive and streamlined approach to identifying Gravel Roads which need to be upgraded;
- Improving delivery of services; and
- Adopting procedures to maximize the available funds for the betterment of the Town and its residents.

#### 4. DEFINITIONS:

**Average Annual Daily Traffic (AADT)** means the average twenty-four hour, two way traffic taken over a minimum of three-day period under normal conditions.

**Gravel Road(s)** means a road surface that is not paved or surface treated.

**Paved Surface(s)** means a surface with a wearing layer or layers of asphalt, concrete or asphalt emulsion.

**Platform Surface Width** means the horizontal distance measured from top of ditch slope on one side of the road to the top of ditch slope on the opposite side.

**Policy** means this Gravel Roads Upgrade Policy.

**Priority Index (PI)** means the classification determined by the considerations under Section 5.2. The index classifies upgrading Gravel Roads as high, medium or low priority.

**Highway Classification** means the class based on speed limit and average daily traffic counts, in accordance with the Minimum Maintenance Standards for Municipal Highways (239/02), as amended under the *Municipal Act, 2001*, as amended.

**Roadway** means the roadway as defined in subsection 1 (1) of the *Highway Traffic Act, 1990*, as amended.

#### 5. POLICY:

5.1. The Town may upgrade Gravel Road based on the following considerations:

- a) Priority - Where the Gravel Road has been allotted as high priority, as determined in accordance with Section 5.2 of this Policy.
- b) Financial - Where an analysis of the capital costs, operational costs and the life cycle cost indicate a savings to the Town or where there is a significant saving to the Town by combining/splitting the upgrading of adjacent Roadways.
- c) Condition, Structure and Drainage – Where the Roadway has been determined to have sufficient structure and adequate drainage to support the increased traffic flow.
- d) Platform Surface Width – Where the Roadway meets the minimum Surface Platform Width standards for Paved Roads in accordance with the Ministry of Transportation Ontario's Geometric Design Standards.

- e) Horizontal and Vertical Alignment – Where the existing horizontal and vertical alignment of Roadway is compatible with the posted speed limit.
- f) Traffic – Where the Gravel Road meets the minimum vehicular volume of 150 AADT and the functional Highway Classification of the Roadway based on its use and purpose. Appendix A shows a map of all Town Gravel Roads and their respective AADT value.
- g) Truck volume – Where the Roadway is experiencing high truck volumes. Truck volumes typically range from a low of 3% on low volume residential streets to a high of 15% or more on arterials and collector roads.
- h) Risk Management - Where the non-standard conditions of the Roadway is correctable by upgrading to a surface treated road or paved surface and upgrading is determined to reduce liability issues.
- i) Operational benefits – Where there is a benefit by the reduction of operational and seasonal maintenance activities.
- j) Where the Roadway is included in a capital improvement plan.
- k) Where high number of concerns and complaints from the members of public.

5.2. Gravel Roads are identified and prioritized using the calculation below.

- a) The following the formula to calculate the Priority Index

$$PI = TF + FC + MF + DW$$

Where,

PI = Priority Index

TF = Traffic Factor

FC = Functional Classification Factor (Add 2 points for school route)

MF= Maintenance Factor (Add 5 points for Roadways requiring additional maintenance)

DW = Driveway Factor

- b) The Priority Index determines priority classification.

Priority Index (PI)	
0-9	Low
10-19	Medium
20 and over	High

c) The Traffic Factor is determined by AADT.

AADT Range	Traffic Factor (TF)
0-60	0
61-100	2
101-200	4
201-300	6
301-400	8
401 and over	10

d) The Function Classification Factor (FC) is determined by average number of trucks.

Classification	Average Truck Criteria	FC Points Rating	Average Heavy Truck Criteria	FC Points Rating
Heavy Truck Traffic	20 or more	3	10 or more	3
Moderate Truck Traffic	10-19	2	6-9	2
Light Truck Traffic	5-9	1	3-5	1
Very Light Truck Traffic	0-4	0	0-2	0

e) Each Gravel Road rated by the Department of Public Works as requiring additional maintenance is given an additional 5 points. Additional maintenance is any work that exceeds the following routine maintenance:

Routine Maintenance	Frequency
Regrade & reshape roads	once every spring and every fall
Dust suppressant	once a year
Winter maintenance grading	Twice a season
New gravel addition	Once every three years

f) The Driveway Factor (DW) is determined by the number of commercial or residential driveways abutting the subject Roadway.

Number of driveways	Driveway Factor (DW)
0-3	0
4-6	2
7-9	4
10 and over	6

- g) Despite given a priority rating under this section of the Policy, not all Gravel Roads will be considered for upgrading, unless other conditions as determined in accordance with Section 5.1 of this Policy are considered.

5.3 All Gravel Roads within the Town shall be reviewed and prioritized concurrently with the Town’s Road Needs Study update.

5.4. The Town will review options of costs and life cycle of each upgrade. The following are alternate surface improvements to upgrading Gravel Roads and their respective life cycle:

Type of Treatment	Life cycle
Surface Treatment	Approximately 5-7years
Asphalt Paving	Approximately 7-10years

5.5. Upgrading Gravel Roads shall be subject to funding availability.

**6 IMPLEMENTATION:**

6.1. The Director of Public Works is responsible for ensuring the application and the implementation of this Policy.

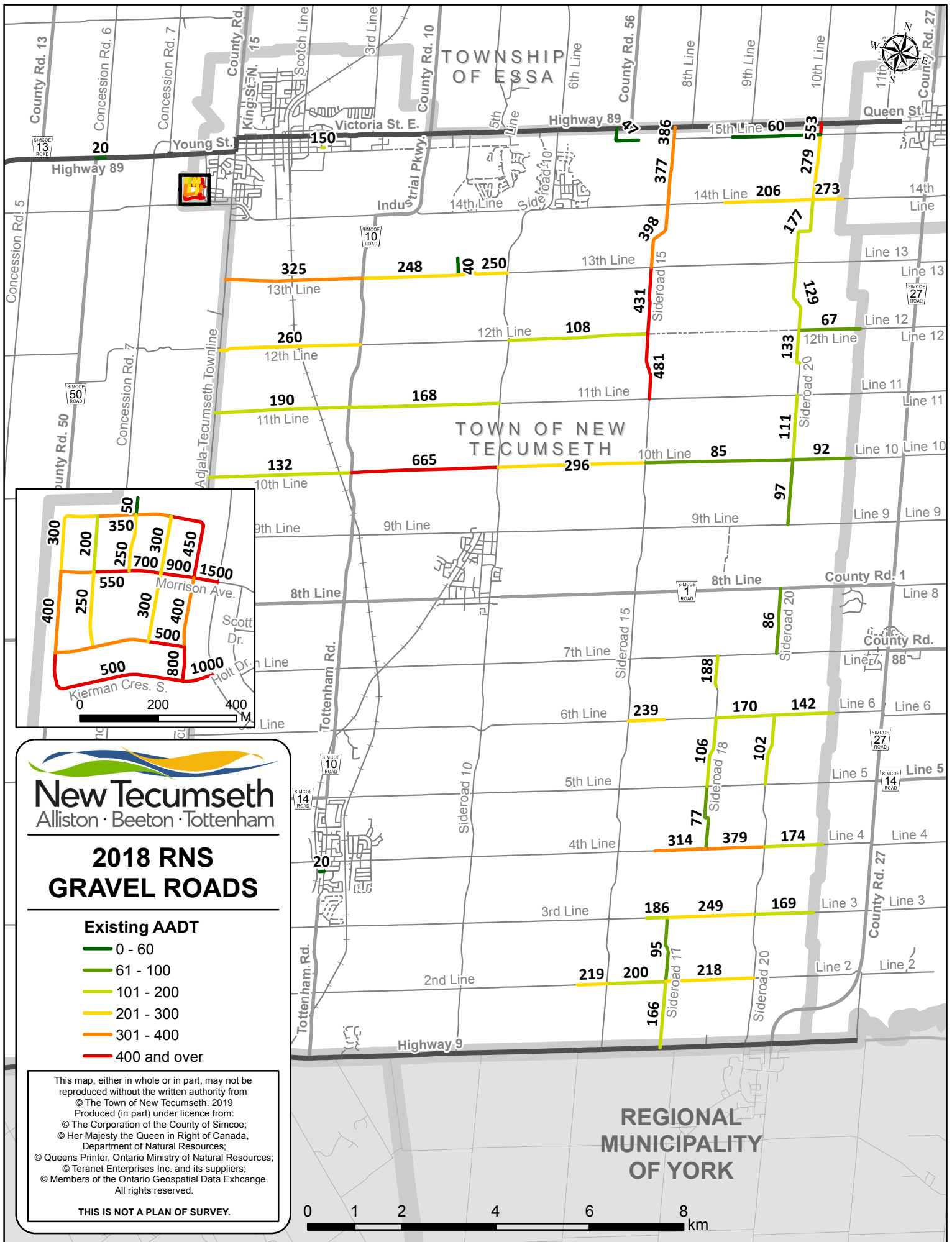
6.2. The General Manager, Infrastructure and Development is authorized to make routine updates and revisions to this Policy as required.

**APPENDICES**

Appendix A - Town Gravel Roads and AADT

**RELATED DOCUMENTS:**

- Minimum Maintenance Standards for Municipal Highways (239/02), as amended under the *Municipal Act, 2001*, as amended
- *Highway Traffic Act, 1990*, as amended
- Town of New Tecumseth Official Plan, as amended
- Town of New Tecumseth Road Needs Study, as amended



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TOWN OF NEW TECUMSETH

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**New Tecumseth**  
Alliston · Beeton · Tottenham

**2018 RNS  
GRAVEL ROADS**

- Existing AADT**
- 0 - 60
  - 61 - 100
  - 101 - 200
  - 201 - 300
  - 301 - 400
  - 400 and over

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